BIBLIOGRAPHY FOR THERMAL NEUTRON SCATTERING
(FIFTH EDITION, 1976)

December 1976

M. Sakamoto, J. Chihara, Y. Nakahara
H. Kadotani, T. Sekiya and Y. Gotoh

日本原子力研究所
Japan Atomic Energy Research Institute
この報告書は、日本原子力研究所がJAERI-M レポートとして、不定期に刊行している研究報告書です。入手、複製などのお問合せは、日本原子力研究所技術情報部（茨城県那珂郡東海村）まで、お申しごとください。

JAERI-M reports, issued irregularly, describe the results of research works carried out in JAERI. Inquiries about the availability of reports and their reproduction should be addressed to Division of Technical Information, Japan Atomic Energy Research Institute, Tokai-mura, Naka-gun, Ibaraki-ken, Japan.
JAERI-M 6857

BIBLIOGRAPHY FOR THERMAL NEUTRON SCATTERING (FIFTH EDITION, 1976)

Masanobu SAKAMOTO, Junzo CHIHARA, Yasuaki NAKAHARA, Hiroyuki KADOTANI*, Tamotsu SEKIYA** and Yorio GOTOH.
Japanese Nuclear Data Committee,
Japan Atomic Energy Research Institute.

(Received December 7, 1976)

Summary

It contains bibliographical references to measurements, calculations, reviews and basic studies on thermal neutron scatterings and dynamical properties of condensed matter. About 2,700 documents up to the end of 1975 are covered.

* Century Research Center Co., Ltd, ** Osaka University
熱中性子散乱文献集（第5版、1976）

日本原子力研究所 シグマ研究委員会
坂本正誠・千原順三・中原康明・角谷浩宏
関谷良**指原男

（1976年12月7日受理）

この文献集は熱中性子散乱と、それに関連する凝縮系の動力学的性質についての測定、計算、論説や基礎的研究についての文献を集めたものである。今回は第5版で1975年末までに収集した約2千7百件の文献を含んでいる。収集文献は計算機により物質別に分類されており、熱中性子散乱断面積の評価と、物性の研究に広く役立っている。

*センチュリー・リサーチ・センター, **大阪大学
BIBLIOGRAPHY FOR THERMAL NEUTRON SCATTERING (FIFTH EDITION, 1976)

Japanese Nuclear Data Committee,
Japan Atomic Energy Research Institute.

INTRODUCTION

In the last two decades there has been a rapid expansion in the use of thermal neutron scattering techniques to investigate the properties of solids, liquids and gases. Since about ten years before, we have continued the compilation and publication of the bibliography for thermal neutron scattering, as one of the activities of Japanese Nuclear Data Committee, and published the first edition in 1968. They have provided useful materials for an up-to-date survey of the literatures on the investigations of condensed matters in the use of thermal neutron spectroscopy.

It contains bibliographical references to the literatures not only on the measurements and calculations of thermal neutron scattering cross sections, but also on the basic studies of lattice, fluid and molecular dynamics in so far as they are concerned with thermal neutron
scattering. It covers literatures published on journals, conference proceedings, report series and books. However, as concerns the literatures on the magnetic scattering of thermal neutrons and the structure analysis by the neutron diffraction, the collections are only subsidiary in this bibliography.

This is the fifth edition of the bibliography which contains about twenty seven hundreds literatures, including the literatures in the earlier editions and all additions collected up to the end of 1975. They are ordered and classified by the computer system.

The earlier editions of the bibliography are as follows.
(1) Bibliography for Thermal Neutron Scattering, JAERI-4043 (1968).

ARRANGEMENT

The overall arrangement of the bibliography is divided into two parts indicated by the table of contents.

Part 1. List of Reference Numbers and Key Words:

In this part, every literature is listed under each kind of materials and special items
for which it contains relevant informations. Thus, when any one article reports on a number of materials and items, it is listed for each material and item respectively. The material names are ordered alphabetically in each of five groups which are MONATOMIC ELEMENTS, ALLOYS, INORGANIC COMPOUNDS, ORGANIC COMPOUNDS and ADSORPTIONS AND SOLUTIONS, and the special items are listed in GENERAL ARTICLES. Each entry contains a reference number (70BR15 for example) which identifies the literature in the List of References of Part 2, the names of the first two authors and the key words.

Part 2. List of References:

This is a bibliography of all literatures, ordered by the year of publication and the last name of the first author (the reference number). Each entry contains names of authors, title, reference and key words.

ACKNOWLEDGMENT

The compilers would like to express their thanks to Dr. K. Asai who has revised all of the computer programmes for new FACOM 230-75 system. The compilation was carried out on the FACOM computer at JAERI, we would like to thank the staff for their cooperation.
PART 1. LIST OF REFERENCE NUMBERS AND KEY WORDS, CLASSIFIED BY MATERIAL NAMES

1. GENERAL ARTICLES

1. 1. REVIEW-ARTICLES ................................................ 1
1. 2. NEUTRON-SCATTERING-IN-SOLIDS .............................. 2
1. 3. NEUTRON-SCATTERING-IN-FLUIDS .............................. 4
1. 4. THEORY-OF-SOLIDS .................................................. 7
1. 5. THEORY-OF-FLUIDS ................................................ 10
1. 6. SCATTERING-THEORIES ............................................ 12
1. 7. MAGNETIC-SCATTERING ........................................... 14
1. 8. PHASE-TRANSITION ................................................. 14
1. 9. SCATTERING-BY-DEFECTS ......................................... 15
1. 10. SUPERCONDUCTOR ................................................ 15
1. 11. LIQUID-CRYSTAL ................................................ 15
1. 12. COMPILATIONS .................................................... 15
1. 13. COMPUTER-CODES ............................................... 15
1. 14. MISCELLANEOUS .................................................. 16

2. MONATOMIC ELEMENTS

2. 1. ALUMINIUM ......................................................... AL 17
2. 2. ANTIMONY ......................................................... SB 18
2. 3. ARGON ............................................................ AR 18
2. 4. ARSENIC .......................................................... AS 20
2. 5. BARIUM .......................................................... BA 20
2. 6. BERYLLIUM ....................................................... BE 20
2. 7. BISMUTH .......................................................... BI 21
<table>
<thead>
<tr>
<th><strong>Element</strong></th>
<th><strong>Symbol</strong></th>
<th><strong>Atomic Number</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Neon</td>
<td>Ne</td>
<td>10</td>
</tr>
<tr>
<td>Nickel</td>
<td>Ni</td>
<td>28</td>
</tr>
<tr>
<td>Niobium</td>
<td>Nb</td>
<td>41</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>N</td>
<td>7</td>
</tr>
<tr>
<td>Nitrogen</td>
<td>N2</td>
<td>7</td>
</tr>
<tr>
<td>Oxygen</td>
<td>O</td>
<td>8</td>
</tr>
<tr>
<td>Oxygen</td>
<td>O2</td>
<td>8</td>
</tr>
<tr>
<td>Palladium</td>
<td>Pd</td>
<td>46</td>
</tr>
<tr>
<td>Platinum</td>
<td>Pt</td>
<td>78</td>
</tr>
<tr>
<td>Potassium</td>
<td>K</td>
<td>19</td>
</tr>
<tr>
<td>Rubidium</td>
<td>Rb</td>
<td>37</td>
</tr>
<tr>
<td>Scandium</td>
<td>Sc</td>
<td>21</td>
</tr>
<tr>
<td>Selenium</td>
<td>Se</td>
<td>34</td>
</tr>
<tr>
<td>Silicon</td>
<td>Si</td>
<td>14</td>
</tr>
<tr>
<td>Silver</td>
<td>Ag</td>
<td>47</td>
</tr>
<tr>
<td>Sodium</td>
<td>Na</td>
<td>11</td>
</tr>
<tr>
<td>Strontium</td>
<td>Sr</td>
<td>38</td>
</tr>
<tr>
<td>Sulphur</td>
<td>S</td>
<td>16</td>
</tr>
<tr>
<td>Tantalum</td>
<td>Ta</td>
<td>73</td>
</tr>
<tr>
<td>Technetium</td>
<td>Tc</td>
<td>43</td>
</tr>
<tr>
<td>Tellurium</td>
<td>Te</td>
<td>52</td>
</tr>
<tr>
<td>Terbiun</td>
<td>Tb</td>
<td>65</td>
</tr>
<tr>
<td>Thallium</td>
<td>Tl</td>
<td>81</td>
</tr>
<tr>
<td>Thorium</td>
<td>Th</td>
<td>90</td>
</tr>
<tr>
<td>Tin</td>
<td>Sn</td>
<td>50</td>
</tr>
<tr>
<td>Titanium</td>
<td>Ti</td>
<td>22</td>
</tr>
<tr>
<td>Tungsten</td>
<td>W</td>
<td>74</td>
</tr>
<tr>
<td>Uranium</td>
<td>U</td>
<td>92</td>
</tr>
<tr>
<td>Vanadium</td>
<td>V</td>
<td>23</td>
</tr>
<tr>
<td>Xenon</td>
<td>Xe</td>
<td>54</td>
</tr>
<tr>
<td>Yttrium</td>
<td>Y</td>
<td>39</td>
</tr>
<tr>
<td>Zinc</td>
<td>Zn</td>
<td>30</td>
</tr>
<tr>
<td>Zirconium</td>
<td>Zr</td>
<td>40</td>
</tr>
</tbody>
</table>
3. ALLOYS

<table>
<thead>
<tr>
<th>3.</th>
<th>ALLOY NAME</th>
<th>SYMBOL</th>
<th>NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>ALUMINIUM-THORIUM HYDRIDE</td>
<td>AL-TH-H</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BARIUM HYDRIDE</td>
<td>BA-H</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BARIUM-LITHIUM HYDRIDE</td>
<td>BA-LI-H</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BISMUTH-GALLIUM</td>
<td>BI-GA</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BISMUTH-LEAD</td>
<td>BI-PB</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BISMUTH-LEAD-THALLIUM</td>
<td>BI-PB-TL</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BISMUTH-THALLIUM</td>
<td>BI-TL</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>BISMUTH-ZINC</td>
<td>BI-ZN</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>CALCIUM HYDRIDE</td>
<td>CA-H</td>
<td>47</td>
</tr>
<tr>
<td>3.</td>
<td>CERIUM HYDRIDE</td>
<td>CE-H</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>CESIUM HYDRIDE</td>
<td>CS-H</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>CHROMIUM-IRON</td>
<td>CE-FE</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>CHROMIUM-TUNGSTEN</td>
<td>CR-W</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>COBALT-NICKEL</td>
<td>CO-NI</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-ALUMINIUM</td>
<td>CU-AL</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-ANTIMONY</td>
<td>CU-SB</td>
<td>48</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-BERYLLIUM</td>
<td>CU-BE</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-COBALT</td>
<td>CU-CO</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-GOLD</td>
<td>CU-AU</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-MAGNESIUM</td>
<td>CU-MG</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-NICKEL</td>
<td>CU-NI</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>COPPER-ZINC</td>
<td>CU-ZN</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>ERBIUM-YTTRIUM-ALUMINIUM</td>
<td>ER-Y-AL</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>GERMANIUM-SILICON</td>
<td>GE-SI</td>
<td>49</td>
</tr>
<tr>
<td>3.</td>
<td>GOLD-COPPER-ZINC</td>
<td>AU-CU-ZN</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>HOLMIUM-RHODIUM</td>
<td>HO-RH</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>INDIUM-THALLIUM</td>
<td>IN-TL</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>IRON-ALUMINIUM</td>
<td>FE-AL</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>IRON-MANGANESE</td>
<td>FE-MN</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>IRON-NICKEL-CHROMIUM</td>
<td>FE-NI-CR</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>LANTHANUM HYDRIDE</td>
<td>LA-H</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>LEAD-MAGNESIUM</td>
<td>PB-MG</td>
<td>50</td>
</tr>
<tr>
<td>3.</td>
<td>LEAD-</td>
<td>PB-NA</td>
<td>50</td>
</tr>
<tr>
<td>No.</td>
<td>Element</td>
<td>Symbol</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>--------------------------------</td>
<td>----------</td>
<td></td>
</tr>
<tr>
<td>3. 34</td>
<td>LEAD-THALLIUM</td>
<td>PB-TL</td>
<td></td>
</tr>
<tr>
<td>3. 35</td>
<td>LITHIUM-ALUMINIUM HYDRIDE</td>
<td>LI-AL-H</td>
<td></td>
</tr>
<tr>
<td>3. 36</td>
<td>LITHIUM-LEAD</td>
<td>LI-PB</td>
<td></td>
</tr>
<tr>
<td>3. 37</td>
<td>MAGNESIUM HYDRIDE</td>
<td>MG-H</td>
<td></td>
</tr>
<tr>
<td>3. 38</td>
<td>MANGANESE-COBALT</td>
<td>MN-CO</td>
<td></td>
</tr>
<tr>
<td>3. 39</td>
<td>MAGNESIUM-LEAD</td>
<td>MG-PB</td>
<td></td>
</tr>
<tr>
<td>3. 40</td>
<td>MAGNESIUM-LITHIUM</td>
<td>MG-LI</td>
<td></td>
</tr>
<tr>
<td>3. 41</td>
<td>MAGNESIUM-ZINC</td>
<td>MG-ZN</td>
<td></td>
</tr>
<tr>
<td>3. 42</td>
<td>MANGANESE-PLATINUM</td>
<td>MN-PT</td>
<td></td>
</tr>
<tr>
<td>3. 43</td>
<td>NICKEL-BERYLLIUM</td>
<td>NI-BE</td>
<td></td>
</tr>
<tr>
<td>3. 44</td>
<td>NICKEL-IRON</td>
<td>NI-FE</td>
<td></td>
</tr>
<tr>
<td>3. 45</td>
<td>NICKEL-PALLADIUM</td>
<td>NI-PD</td>
<td></td>
</tr>
<tr>
<td>3. 46</td>
<td>NICKEL-PLATINUM</td>
<td>NI-PT</td>
<td></td>
</tr>
<tr>
<td>3. 47</td>
<td>NIQUINS HYDRIDE</td>
<td>NB-H</td>
<td></td>
</tr>
<tr>
<td>3. 48</td>
<td>NIQUINS-MOLYBDENUM</td>
<td>NB-MO</td>
<td></td>
</tr>
<tr>
<td>3. 49</td>
<td>PALLADIUM HYDRIDE</td>
<td>PD-H</td>
<td></td>
</tr>
<tr>
<td>3. 50</td>
<td>PALLADIUM-IRON</td>
<td>PD-FE</td>
<td></td>
</tr>
<tr>
<td>3. 51</td>
<td>PALLADIUM-MANGANESE</td>
<td>PD-MN</td>
<td></td>
</tr>
<tr>
<td>3. 52</td>
<td>PALLADIUM-MANGANESE-TIN</td>
<td>PD-MN-SN</td>
<td></td>
</tr>
<tr>
<td>3. 53</td>
<td>PALLADIUM-SILVER HYDRIDE</td>
<td>PD-AG-H</td>
<td></td>
</tr>
<tr>
<td>3. 54</td>
<td>SODIUM-ALUMINIUM HYDRIDE</td>
<td>NA-AL-H</td>
<td></td>
</tr>
<tr>
<td>3. 55</td>
<td>SODIUM-POTASSIUM</td>
<td>NA-K</td>
<td></td>
</tr>
<tr>
<td>3. 56</td>
<td>STRONTIUM HYDRIDE</td>
<td>SR-H</td>
<td></td>
</tr>
<tr>
<td>3. 57</td>
<td>STRONTIUM-LITHIUM HYDRIDE</td>
<td>SR-LI-H</td>
<td></td>
</tr>
<tr>
<td>3. 58</td>
<td>TANTALUM HYDRIDE</td>
<td>TA-H</td>
<td></td>
</tr>
<tr>
<td>3. 59</td>
<td>TANTALUM-NIOBIUM</td>
<td>TA-NB</td>
<td></td>
</tr>
<tr>
<td>3. 60</td>
<td>TERBIUM HYDRIDE</td>
<td>TB-H</td>
<td></td>
</tr>
<tr>
<td>3. 61</td>
<td>THORIUM HYDRIDE</td>
<td>TH-H</td>
<td></td>
</tr>
<tr>
<td>3. 62</td>
<td>TITANIUM HYDRIDE</td>
<td>TI-H</td>
<td></td>
</tr>
<tr>
<td>3. 63</td>
<td>TITANIUM-URANIUM</td>
<td>TI-U</td>
<td></td>
</tr>
<tr>
<td>3. 64</td>
<td>TITANIUM-ZIRCONIUM</td>
<td>TI-ZR</td>
<td></td>
</tr>
<tr>
<td>3. 65</td>
<td>URANIUM HYDRIDE</td>
<td>U-H</td>
<td></td>
</tr>
<tr>
<td>3. 66</td>
<td>VANADIUM-BERYLLIUM</td>
<td>V-BE</td>
<td></td>
</tr>
<tr>
<td>3. 67</td>
<td>VANADIUM HYDRIDE</td>
<td>V-H</td>
<td></td>
</tr>
<tr>
<td>3. 68</td>
<td>VANADIUM-NICKEL</td>
<td>V-NI</td>
<td></td>
</tr>
</tbody>
</table>
3. 69. VANADIUM-PLATINUM .................................. V-PT .................................. 55
3. 70. YTTERBIUM HYDRIDE .................................. YB-H .................................. 55
3. 71. YTTRIUM-HOLMIUM .................................. Y-HO .................................. 55
3. 72. YTTRIUM HYDRIDE .................................. Y-H .................................. 55
3. 73. YTTRIUM-TERBIUM .................................. Y-TB .................................. 55
3. 74. YTTRIUM-ZINC .................................. Y-ZN .................................. 56
3. 75. ZIRCONIUM HYDRIDE .................................. ZR-H .................................. 56
3. 76. ZIRCONIUM-NIOBIUM .................................. ZR-NB .................................. 56

4. INORGANIC COMPOUNDS

4. 1. AMMONIA .................................. N.H3 .................................. 57
4. 2. AMMONIA AZIDE .................................. N.H4.N3 .................................. 57
4. 3. AMMONIUM BROMIDE .................................. N.H4.BR .................................. 57
4. 4. AMMONIUM BROMOSTANNATE .......................... (N.H4)2.SN.BR6 ...................... 57
4. 5. AMMONIUM CHLORIDE .................................. N.H4.CL .................................. 58
4. 6. AMMONIUM CHLORIDE-POTASSIUM CHLORIDE .......................... N.H4.CL-K.CL .......................... 58
4. 7. AMMONIUM CHLOROSTANNATE .......................... (N.H4)2.SN.CL6 ...................... 58
4. 8. AMMONIUM CHROMATE .................................. (N.H4)2.CR.O4 ...................... 58
4. 9. AMMONIUM DICHLORATE .......................... (N.H4)2.CR2.O7 ...................... 58
4. 10. AMMONIUM DIHYDROGEN ORTHOARSENATE .......................... N.H4.H2.AS.O4 ...................... 59
4. 12. AMMONIUM DISULFATE .................................. (N.H4)2.S2.O8 ...................... 59
4. 13. AMMONIUM FLUOBERYLLATE .......................... (N.H4)2.BE.F4 ...................... 59
4. 15. AMMONIUM FLUOSILICATE .......................... (N.H4)2.SI.F6 ...................... 59
4. 17. AMMONIUM HEXAFLUOROSULFATE .......................... N.H4.P.F6 ...................... 59
4. 18. AMMONIUM HYDROGEN SULFATE .......................... N.H4.H.S.O4 ...................... 59
4. 19. AMMONIUM IODIDE .................................. N.H4.I .................................. 60
4. 20. AMMONIUM NITRATE .................................. N.H4.N.O3 .................................. 60
4. 21. AMMONIUM PERCHLORATE .......................... N.H4.CL.04 .................................. 60
4. 22. AMMONIUM SULFATE .................................. (N.H4)2.S.O4 ...................... 60
4. 23. AMMONIUM THIOCYANATE .......................... N.H4.C.N.S .................................. 60
<p>| 4. 24. | AMMONIUM TRIHYDROGEN PARAPERIODATE | (N.H₄)₂.H₃.I.0₆ | 60 |
| 4. 25. | ALUMINIUM CHLORIDE | AL.CL₂ | 61 |
| 4. 26. | ALUMINIUM NITRIDE | AL.N | 61 |
| 4. 27. | ALUMINIUM PHOSPHATE | AL.P.0₄ | 61 |
| 4. 28. | ANALCITE | | 61 |
| 4. 29. | APOPHYLLITE | | 61 |
| 4. 30. | BARLUM CHLORIDE | BA.CL₂ | 61 |
| 4. 31. | BARLUM CHLORATE HYDRATE | BA.(CL.0₃)₂.H₂.0 | 61 |
| 4. 32. | BARLUM FLUORIDE | BA.F₂ | 61 |
| 4. 33. | BARLUM OXIDE | BA.0 | 61 |
| 4. 34. | BARLUM TITANATE | BA.TI.0₃ | 62 |
| 4. 35. | BERYLLIUM FLUORIDE | BE.F₂ | 62 |
| 4. 36. | BERYLLIUM OXIDE | BE.0 | 62 |
| 4. 37. | CADMIUM FLUORIDE | CD.F₂ | 62 |
| 4. 38. | CADMIUM SULFIDE | CD.S | 63 |
| 4. 39. | CADMIUM TELLURIDE | CD.TE | 63 |
| 4. 40. | CALCITE | CA.C.0₃ | 63 |
| 4. 41. | CALCIUM FLUORIDE | CA.F₂ | 63 |
| 4. 42. | CALCIUM HYDROXIDE | CA.(O.H)₂ | 63 |
| 4. 43. | CALCIUM OXIDE | CA.0 | 63 |
| 4. 44. | CALCIUM SULFATE DIHYDRATE | CA.S.0₄*2(H₂.0) | 63 |
| 4. 45. | CARBON DIOXIDE | C.0₂ | 64 |
| 4. 46. | CARBON DISULFIDE | C.S₂ | 64 |
| 4. 47. | CARBON OXIDE | C.0 | 64 |
| 4. 48. | CARBON TETRACHLORIDE | C.CL₄ | 64 |
| 4. 49. | CARBON TETRAFLUORIDE | C.F₄ | 64 |
| 4. 50. | CESIUM AZIDE | CS.N₃ | 64 |
| 4. 51. | CESIUM CHLORIDE | CS.CL | 64 |
| 4. 52. | CESIUM BROMIDE | CS.BR | 65 |
| 4. 53. | CESIUM FLUORIDE | CS.F | 65 |
| 4. 54. | CESIUM HYDROGEN BROMIDE | CS.H.BR₂ | 65 |
| 4. 55. | CESIUM HYDROGEN CHLORIDE | CS.H.CL₂ | 65 |
| 4. 56. | CESIUM HYDROXOSULFIDE | CS.S.H | 65 |
| 4. 57. | CESIUM IODIDE | CS.I | 66 |
| 4. 58. | CESIUM LEAD CHLORIDE | CS.PB.CL₃ | 66 |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>Compound</th>
<th>Symbol</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. 59.</td>
<td>Cesium Nickel Fluoride</td>
<td>CS.NI.F3</td>
<td>66</td>
</tr>
<tr>
<td>4. 60.</td>
<td>Cesium Uranium Bromide</td>
<td>CS2.U.BR6</td>
<td>66</td>
</tr>
<tr>
<td>4. 61.</td>
<td>Chabazite</td>
<td>CHABAZITE</td>
<td>66</td>
</tr>
<tr>
<td>4. 62.</td>
<td>Chalcopyrite</td>
<td>CU.FE.S2</td>
<td>66</td>
</tr>
<tr>
<td>4. 63.</td>
<td>Chromium Sesquioxide</td>
<td>CR2.03</td>
<td>66</td>
</tr>
<tr>
<td>4. 64.</td>
<td>Chromium(3) Acid</td>
<td>H.CR.02</td>
<td>66</td>
</tr>
<tr>
<td>4. 65.</td>
<td>Cinnabar</td>
<td>HG.S</td>
<td>66</td>
</tr>
<tr>
<td>4. 66.</td>
<td>Cobalt Hydrogen Carbonyl</td>
<td>H.CO.(C.O)4</td>
<td>67</td>
</tr>
<tr>
<td>4. 67.</td>
<td>Cobalt Fluoride</td>
<td>CO.F2</td>
<td>67</td>
</tr>
<tr>
<td>4. 68.</td>
<td>Cobalt Oxide</td>
<td>CO.O</td>
<td>67</td>
</tr>
<tr>
<td>4. 69.</td>
<td>Cobalt Phosphide</td>
<td>CO.P</td>
<td>67</td>
</tr>
<tr>
<td>4. 70.</td>
<td>Cobalt Phosphide</td>
<td>CO4.P</td>
<td>67</td>
</tr>
<tr>
<td>4. 71.</td>
<td>Cobalt(3) Acid</td>
<td>H.CO.02</td>
<td>67</td>
</tr>
<tr>
<td>4. 72.</td>
<td>Copper Bromide</td>
<td>CU.BR</td>
<td>67</td>
</tr>
<tr>
<td>4. 73.</td>
<td>Copper Chloride Dihydrate</td>
<td>CU.CL2*2(H2.O)</td>
<td>67</td>
</tr>
<tr>
<td>4. 74.</td>
<td>Copper Iodide</td>
<td>CU.I</td>
<td>67</td>
</tr>
<tr>
<td>4. 75.</td>
<td>Copper Sulfate</td>
<td>CU.S.04</td>
<td>68</td>
</tr>
<tr>
<td>4. 76.</td>
<td>Corundum</td>
<td>AL2.03</td>
<td>68</td>
</tr>
<tr>
<td>4. 77.</td>
<td>Cristobalite</td>
<td>SI.02</td>
<td>68</td>
</tr>
<tr>
<td>4. 78.</td>
<td>Cuprite</td>
<td>CU2.0</td>
<td>68</td>
</tr>
<tr>
<td>4. 79.</td>
<td>Cuprous Chloride</td>
<td>CU.CL</td>
<td>68</td>
</tr>
<tr>
<td>4. 80.</td>
<td>Diamminepentachlorodimethylcobalt</td>
<td>(C.H3.N.H3)2.MN.CL4</td>
<td>68</td>
</tr>
<tr>
<td>4. 81.</td>
<td>Dicarbon Hexafluoride</td>
<td>C2.F6</td>
<td>68</td>
</tr>
<tr>
<td>4. 82.</td>
<td>Dysprosium Vanacate</td>
<td>DY.V.04</td>
<td>68</td>
</tr>
<tr>
<td>4. 83.</td>
<td>Dysprosium Antimonide</td>
<td>DY.SB</td>
<td>69</td>
</tr>
<tr>
<td>4. 84.</td>
<td>Erbium Iron Oxide</td>
<td>ER.FE.03</td>
<td>69</td>
</tr>
<tr>
<td>4. 85.</td>
<td>Gadolinium Molybdate</td>
<td>GA.SB</td>
<td>69</td>
</tr>
<tr>
<td>4. 86.</td>
<td>Gallium Antimonide</td>
<td>GA.AS</td>
<td>69</td>
</tr>
<tr>
<td>4. 87.</td>
<td>Gallium Arsenide</td>
<td>GA.P</td>
<td>69</td>
</tr>
<tr>
<td>4. 88.</td>
<td>Gallium Phosphide</td>
<td>GA2.P</td>
<td>69</td>
</tr>
<tr>
<td>4. 89.</td>
<td>Gallium Sesquiselenide</td>
<td>GA2.SE3</td>
<td>69</td>
</tr>
<tr>
<td>4. 90.</td>
<td>Gallium Sesquisulfide</td>
<td>GA2.S3</td>
<td>69</td>
</tr>
<tr>
<td>4. 91.</td>
<td>Germanium Tetrabromide</td>
<td>GE.BR4</td>
<td>69</td>
</tr>
<tr>
<td>4. 92.</td>
<td>Hafnium Carbide</td>
<td>HF.C</td>
<td>70</td>
</tr>
<tr>
<td>4. 93.</td>
<td>Heavy Water</td>
<td>D2.0</td>
<td>70</td>
</tr>
</tbody>
</table>

(13)
<table>
<thead>
<tr>
<th>#</th>
<th>Chemical Compound</th>
<th>Chemical Formula</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. 94.</td>
<td>HEXAMMENCOBALT IODIDE</td>
<td>CO.((\text{N.H}_{3}))6.I2</td>
<td>71</td>
</tr>
<tr>
<td>4. 95.</td>
<td>HEXAMMENMICKEL IODIDE</td>
<td>NI.((\text{N.H}_{3}))6.I2</td>
<td>71</td>
</tr>
<tr>
<td>4. 96.</td>
<td>HOLMIUM ANTIMONIDE</td>
<td>HO.SB</td>
<td>71</td>
</tr>
<tr>
<td>4. 97.</td>
<td>HYDROGEN BROMIDE</td>
<td>H.BR</td>
<td>71</td>
</tr>
<tr>
<td>4. 98.</td>
<td>HYDROGEN CHLORIDE</td>
<td>H.CL</td>
<td>71</td>
</tr>
<tr>
<td>4. 99.</td>
<td>HYDROGEN CYANIDE</td>
<td>H.C.N</td>
<td>72</td>
</tr>
<tr>
<td>4.100.</td>
<td>HYDROGEN FLUORIDE</td>
<td>H.F</td>
<td>72</td>
</tr>
<tr>
<td>4.101.</td>
<td>HYDROGEN SULFIDE</td>
<td>H2.S</td>
<td>72</td>
</tr>
<tr>
<td>4.102.</td>
<td>HYDRONIUM NITRATE</td>
<td>H3.O.N.O3</td>
<td>72</td>
</tr>
<tr>
<td>4.103.</td>
<td>INDIUM ANTIMONIDE</td>
<td>IN2.PB</td>
<td>72</td>
</tr>
<tr>
<td>4.104.</td>
<td>INDIUM PHOSPHIDE</td>
<td>IN2.P</td>
<td>72</td>
</tr>
<tr>
<td>4.105.</td>
<td>INDIUM TELLURIDE</td>
<td>IN2.TE3</td>
<td>72</td>
</tr>
<tr>
<td>4.106.</td>
<td>IRON BROMIDE</td>
<td>FE.BR2</td>
<td>73</td>
</tr>
<tr>
<td>4.107.</td>
<td>IRON CHLORIDE</td>
<td>FE.CL2</td>
<td>73</td>
</tr>
<tr>
<td>4.108.</td>
<td>IRON FLUORIDE</td>
<td>FE.F2</td>
<td>73</td>
</tr>
<tr>
<td>4.109.</td>
<td>IRON HYDROGEN CARBONYL</td>
<td>H2.FE.(C.O)4</td>
<td>73</td>
</tr>
<tr>
<td>4.110.</td>
<td>IRON SESQUIOXIDE</td>
<td>FE2.O3</td>
<td>73</td>
</tr>
<tr>
<td>4.111.</td>
<td>KCP</td>
<td>K2.PT.(C.N)4.BRO.3</td>
<td>73</td>
</tr>
<tr>
<td>4.112.</td>
<td>LANTHANUM ALUMINATE</td>
<td>LA.AL.O3</td>
<td>73</td>
</tr>
<tr>
<td>4.113.</td>
<td>LANTHANUM CHLORIDE</td>
<td>LA.CL3</td>
<td>73</td>
</tr>
<tr>
<td>4.114.</td>
<td>LANTHANUM TRIFLUORIDE</td>
<td>LA.F3</td>
<td>73</td>
</tr>
<tr>
<td>4.115.</td>
<td>LEAD FLUORIDE</td>
<td>PB.F2</td>
<td>74</td>
</tr>
<tr>
<td>4.116.</td>
<td>LEAD METATITANATE</td>
<td>PB.TI.O3</td>
<td>74</td>
</tr>
<tr>
<td>4.117.</td>
<td>LEAD SELENIDE</td>
<td>PB.SE</td>
<td>74</td>
</tr>
<tr>
<td>4.118.</td>
<td>LEAD SULFIDE</td>
<td>PB.S</td>
<td>74</td>
</tr>
<tr>
<td>4.119.</td>
<td>LEAD TELLURIDE</td>
<td>PB.TE</td>
<td>74</td>
</tr>
<tr>
<td>4.120.</td>
<td>LEAD ZIRCONATE</td>
<td>PB.ZR.O3</td>
<td>74</td>
</tr>
<tr>
<td>4.121.</td>
<td>LIGHT WATER</td>
<td>H2.O</td>
<td>74</td>
</tr>
<tr>
<td>4.122.</td>
<td>LITHIUM BROMIDE</td>
<td>LI.BR</td>
<td>77</td>
</tr>
<tr>
<td>4.123.</td>
<td>LITHIUM CHLORIDE</td>
<td>LI.CL</td>
<td>77</td>
</tr>
<tr>
<td>4.124.</td>
<td>LITHIUM FLUORIDE</td>
<td>LI.F</td>
<td>78</td>
</tr>
<tr>
<td>4.125.</td>
<td>LITHIUM HYDRIDE</td>
<td>LI.H</td>
<td>78</td>
</tr>
<tr>
<td>4.126.</td>
<td>LITHIUM HYDROXIDE</td>
<td>LI.O.H</td>
<td>78</td>
</tr>
<tr>
<td>4.127.</td>
<td>LITHIUM IODINE</td>
<td>LI.I</td>
<td>78</td>
</tr>
<tr>
<td>4.128.</td>
<td>LITHIUM NIOBATE</td>
<td>LI.NB.O3</td>
<td>78</td>
</tr>
<tr>
<td>Code</td>
<td>Name</td>
<td>Formula</td>
<td>Value</td>
</tr>
<tr>
<td>------</td>
<td>------------------------------------------</td>
<td>-----------------------</td>
<td>-------</td>
</tr>
<tr>
<td>4.129</td>
<td>LITHIUM SULFATE MONOHYDRATE</td>
<td>Li₂S·0.04H₂O</td>
<td>78</td>
</tr>
<tr>
<td>4.130</td>
<td>LITHIUM SULFATE</td>
<td>Li₂S·0.04H₂O</td>
<td>79</td>
</tr>
<tr>
<td>4.131</td>
<td>LITHIUM YTTRIUM TETRAFLUORIDE</td>
<td>Li₃Y·F₄</td>
<td>79</td>
</tr>
<tr>
<td>4.132</td>
<td>MAGNESIUM FLUORIDE</td>
<td>Mg·F₂</td>
<td>79</td>
</tr>
<tr>
<td>4.133</td>
<td>MAGNESIUM HYDROXIDE</td>
<td>Mg(OH)₂</td>
<td>79</td>
</tr>
<tr>
<td>4.134</td>
<td>MAGNESIUM LEAD</td>
<td>Mg₂·PB</td>
<td>79</td>
</tr>
<tr>
<td>4.135</td>
<td>MAGNESIUM OXIDE</td>
<td>Mg·O</td>
<td>79</td>
</tr>
<tr>
<td>4.136</td>
<td>MAGNESIUM STANIDE</td>
<td>Mg₂·Sn</td>
<td>80</td>
</tr>
<tr>
<td>4.137</td>
<td>MAGNESIUM ZINC2</td>
<td>Mg₂·Zn₂</td>
<td>80</td>
</tr>
<tr>
<td>4.138</td>
<td>MAGNETITE</td>
<td>Fe₃·O₄</td>
<td>80</td>
</tr>
<tr>
<td>4.139</td>
<td>MANGANESE FERRITE</td>
<td>Mn·Fe₂·O₄</td>
<td>80</td>
</tr>
<tr>
<td>4.140</td>
<td>MANGANESE FLUORIDE</td>
<td>Mn·F₂</td>
<td>80</td>
</tr>
<tr>
<td>4.141</td>
<td>MANGANESE HYDROGEN CARBONYL (1)</td>
<td>H₃Mn(CO)₅</td>
<td>80</td>
</tr>
<tr>
<td>4.142</td>
<td>MANGANESE HYDROGEN CARBONYL (2)</td>
<td>H₃Mn₃(CO)₁₂</td>
<td>80</td>
</tr>
<tr>
<td>4.143</td>
<td>MANGANESE MONOXIDE</td>
<td>Mn·O</td>
<td>80</td>
</tr>
<tr>
<td>4.144</td>
<td>MOLYBDENUM DISULFIDE</td>
<td>Mo·S₂</td>
<td>81</td>
</tr>
<tr>
<td>4.145</td>
<td>NICKEL CHLORIDE</td>
<td>Ni·Cl₂</td>
<td>81</td>
</tr>
<tr>
<td>4.146</td>
<td>NICKEL MONOSULFIDE</td>
<td>Ni·S</td>
<td>81</td>
</tr>
<tr>
<td>4.147</td>
<td>NICKEL OXIDE</td>
<td>Ni·O</td>
<td>81</td>
</tr>
<tr>
<td>4.148</td>
<td>NIQUELUM CARBIDE</td>
<td>Nb·C</td>
<td>81</td>
</tr>
<tr>
<td>4.149</td>
<td>NIQUELUM OXIDE</td>
<td>Nb·O₂</td>
<td>81</td>
</tr>
<tr>
<td>4.150</td>
<td>NIQUELUM TIN</td>
<td>Nb₃·Sn</td>
<td>81</td>
</tr>
<tr>
<td>4.151</td>
<td>POTASSIUM ACID FLUORIDE</td>
<td>K·H·F₂</td>
<td>81</td>
</tr>
<tr>
<td>4.152</td>
<td>POTASSIUM AMMONIUM CHLORIDE</td>
<td>K·N·H₄·Cl</td>
<td>82</td>
</tr>
<tr>
<td>4.153</td>
<td>POTASSIUM AZIDE</td>
<td>K·N₃</td>
<td>82</td>
</tr>
<tr>
<td>4.154</td>
<td>POTASSIUM BROMIDE</td>
<td>K·Br</td>
<td>82</td>
</tr>
<tr>
<td>4.155</td>
<td>POTASSIUM CHLORIDE</td>
<td>K·Cl</td>
<td>82</td>
</tr>
<tr>
<td>4.156</td>
<td>POTASSIUM COBALT TRIFLUORIDE</td>
<td>K·Co·F₃</td>
<td>83</td>
</tr>
<tr>
<td>4.157</td>
<td>POTASSIUM (2) COBALT FLUORIDE</td>
<td>K₂·Co·F₄</td>
<td>83</td>
</tr>
<tr>
<td>4.158</td>
<td>POTASSIUM COPPER FLUORIDE</td>
<td>K·Cu·F₃</td>
<td>83</td>
</tr>
<tr>
<td>4.159</td>
<td>POTASSIUM (2) COPPER FLUORIDE</td>
<td>K₂·Cu·F₄</td>
<td>83</td>
</tr>
<tr>
<td>4.160</td>
<td>POTASSIUM (2) MANGANESE FLUORIDE</td>
<td>K₂·Mn·F₄</td>
<td>83</td>
</tr>
<tr>
<td>4.161</td>
<td>POTASSIUM CYANIDE</td>
<td>K·C·N</td>
<td>83</td>
</tr>
<tr>
<td>4.162</td>
<td>POTASSIUM DIHYDROGEN FLUORIDE</td>
<td>K·H₂·F₃</td>
<td>83</td>
</tr>
<tr>
<td>4.163</td>
<td>POTASSIUM DIHYDROGEN PHOSPHATE</td>
<td>K·H₂·P·O₄</td>
<td>83</td>
</tr>
<tr>
<td>Page</td>
<td>Chemical</td>
<td>Formula</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>----------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>4.164</td>
<td>POTASSIUM FERROCYANIDE</td>
<td>K4.FE.(C.N)6</td>
<td></td>
</tr>
<tr>
<td>4.165</td>
<td>POTASSIUM FLUORIDE</td>
<td>K.F</td>
<td></td>
</tr>
<tr>
<td>4.166</td>
<td>POTASSIUM HYDROGEN IRON CARBONYL</td>
<td>K.H.FE.(C.O)4</td>
<td></td>
</tr>
<tr>
<td>4.167</td>
<td>POTASSIUM HYDROGEN TRICHLOROACETATE</td>
<td>K.H.(C.CL3.C.O2)2</td>
<td></td>
</tr>
<tr>
<td>4.168</td>
<td>POTASSIUM IODIDE</td>
<td>K.I</td>
<td></td>
</tr>
<tr>
<td>4.169</td>
<td>POTASSIUM MANGANESE TRIFLUORIDE</td>
<td>K.MN.F3</td>
<td></td>
</tr>
<tr>
<td>4.170</td>
<td>POTASSIUM MONOHYDROGEN PHOSPHATE</td>
<td>K2.H.P.04</td>
<td></td>
</tr>
<tr>
<td>4.171</td>
<td>POTASSIUM NIOBATE</td>
<td>K.NB.03</td>
<td></td>
</tr>
<tr>
<td>4.172</td>
<td>POTASSIUM OXALATE HYDRATE</td>
<td>K2.C2.04*H2.O</td>
<td></td>
</tr>
<tr>
<td>4.173</td>
<td>POTASSIUM PHOSPHATE</td>
<td>K3.P.04</td>
<td></td>
</tr>
<tr>
<td>4.174</td>
<td>POTASSIUM RHENIUM CHLORIDE</td>
<td>K2.RE.CL6</td>
<td></td>
</tr>
<tr>
<td>4.175</td>
<td>POTASSIUM RHENIUM HYDRIDE</td>
<td>K2.RE.H9</td>
<td></td>
</tr>
<tr>
<td>4.176</td>
<td>POTASSIUM TANTALATE</td>
<td>K.TA.03</td>
<td></td>
</tr>
<tr>
<td>4.177</td>
<td>PRASEODYMIUM ALUMINATE</td>
<td>PR.AL.03</td>
<td></td>
</tr>
<tr>
<td>4.178</td>
<td>QUARTZ</td>
<td>SI.02</td>
<td></td>
</tr>
<tr>
<td>4.179</td>
<td>RUBIDIUM AZIDE</td>
<td>RB.N3</td>
<td></td>
</tr>
<tr>
<td>4.180</td>
<td>RUBIDIUM BROMIDE</td>
<td>RB.BR</td>
<td></td>
</tr>
<tr>
<td>4.181</td>
<td>RUBIDIUM CHLORIDE</td>
<td>RB.CL</td>
<td></td>
</tr>
<tr>
<td>4.182</td>
<td>RUBIDIUM FLUOMANGANATE</td>
<td>RB.MN.F3</td>
<td></td>
</tr>
<tr>
<td>4.183</td>
<td>RUBIDIUM FLUORIDE</td>
<td>RB.F</td>
<td></td>
</tr>
<tr>
<td>4.184</td>
<td>RUBIDIUM HYDROSULFIDE</td>
<td>RB.S.H</td>
<td></td>
</tr>
<tr>
<td>4.185</td>
<td>RUBIDIUM IODIDE</td>
<td>RB.I</td>
<td></td>
</tr>
<tr>
<td>4.186</td>
<td>RUTILE</td>
<td>TI.02</td>
<td></td>
</tr>
<tr>
<td>4.187</td>
<td>RUTHENIUM TETROXIDE</td>
<td>RU.04</td>
<td></td>
</tr>
<tr>
<td>4.188</td>
<td>SELENIUM TELLURIDE</td>
<td>SE.TE</td>
<td></td>
</tr>
<tr>
<td>4.189</td>
<td>SILANE</td>
<td>SI.H4</td>
<td></td>
</tr>
<tr>
<td>4.190</td>
<td>SILICA</td>
<td>SI.02</td>
<td></td>
</tr>
<tr>
<td>4.191</td>
<td>SILICON CARBIDE</td>
<td>SI.C</td>
<td></td>
</tr>
<tr>
<td>4.192</td>
<td>SILVER BROMIDE</td>
<td>AG.BR</td>
<td></td>
</tr>
<tr>
<td>4.193</td>
<td>SILVER CHLORIDE</td>
<td>AG.CL</td>
<td></td>
</tr>
<tr>
<td>4.194</td>
<td>SILVER GALLIUM SULFIDE</td>
<td>AG.GA.S2</td>
<td></td>
</tr>
<tr>
<td>4.195</td>
<td>SILVER IODINE</td>
<td>AG.I</td>
<td></td>
</tr>
<tr>
<td>4.196</td>
<td>SODAMIDE</td>
<td>NA.N.H2</td>
<td></td>
</tr>
<tr>
<td>4.197</td>
<td>SODIUM AZIDE</td>
<td>NA.N3</td>
<td></td>
</tr>
<tr>
<td>4.198</td>
<td>SODIUM BROMIDE</td>
<td>NA.BR</td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Compound</td>
<td>Symbol</td>
<td>Atomic Mass</td>
</tr>
<tr>
<td>-------</td>
<td>------------------------------</td>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>4.199</td>
<td>SODIUM CHLORIDE</td>
<td>NA.CL</td>
<td>88</td>
</tr>
<tr>
<td>4.200</td>
<td>SODIUM CYANIDE</td>
<td>NA.CN</td>
<td>89</td>
</tr>
<tr>
<td>4.201</td>
<td>SODIUM DIHYDROGEN FLUORIDE</td>
<td>NA.H2.F3</td>
<td>89</td>
</tr>
<tr>
<td>4.202</td>
<td>SODIUM FLUORIDE</td>
<td>NA.F</td>
<td>89</td>
</tr>
<tr>
<td>4.203</td>
<td>SODIUM HYDROGEN CARBONATE</td>
<td>NA.H.C.03</td>
<td>89</td>
</tr>
<tr>
<td>4.204</td>
<td>SODIUM HYDROGEN FLUORIDE</td>
<td>NA.H.F2</td>
<td>89</td>
</tr>
<tr>
<td>4.205</td>
<td>SODIUM HYDROSULFIDE</td>
<td>NA.S.H</td>
<td>89</td>
</tr>
<tr>
<td>4.206</td>
<td>SODIUM IODIDE</td>
<td>NA.I</td>
<td>89</td>
</tr>
<tr>
<td>4.207</td>
<td>SODIUM NITRATE</td>
<td>NA.N.03</td>
<td>90</td>
</tr>
<tr>
<td>4.208</td>
<td>SODIUM NIOBATE</td>
<td>NA.NB.03</td>
<td>90</td>
</tr>
<tr>
<td>4.209</td>
<td>SODIUM NITRITE</td>
<td>NA.N.02</td>
<td>90</td>
</tr>
<tr>
<td>4.210</td>
<td>SODIUM RHENIUM HYDRIDE</td>
<td>NA2.RE.H9</td>
<td>90</td>
</tr>
<tr>
<td>4.211</td>
<td>STRONTIUM CHLORIDE</td>
<td>SR.CL2</td>
<td>90</td>
</tr>
<tr>
<td>4.212</td>
<td>STRONTIUM FLUORIDE</td>
<td>SR.F2</td>
<td>90</td>
</tr>
<tr>
<td>4.213</td>
<td>STRONTIUM OXIDE</td>
<td>SR.O</td>
<td>90</td>
</tr>
<tr>
<td>4.214</td>
<td>STRONTIUM TITANATE</td>
<td>SR.TI.03</td>
<td>91</td>
</tr>
<tr>
<td>4.215</td>
<td>TANTALUM CARBIDE</td>
<td>TA.C</td>
<td>91</td>
</tr>
<tr>
<td>4.216</td>
<td>TELLURIUM DIOXIDE</td>
<td>TE.02</td>
<td>91</td>
</tr>
<tr>
<td>4.217</td>
<td>TERBIUM VANADATE</td>
<td>TB.V.04</td>
<td>92</td>
</tr>
<tr>
<td>4.218</td>
<td>THALLIUM CHLORIDE</td>
<td>TL.CL</td>
<td>92</td>
</tr>
<tr>
<td>4.219</td>
<td>THALLIUM BROMIDE</td>
<td>TL.BR</td>
<td>92</td>
</tr>
<tr>
<td>4.220</td>
<td>THIOUREA</td>
<td>S.C.(N.H2)2</td>
<td>92</td>
</tr>
<tr>
<td>4.221</td>
<td>THORIUM DIOXIDE</td>
<td>TH.02</td>
<td>92</td>
</tr>
<tr>
<td>4.222</td>
<td>THULIUM IRON OXIDE</td>
<td>TM.FE.03</td>
<td>92</td>
</tr>
<tr>
<td>4.223</td>
<td>TIN DIOXIDE</td>
<td>SN.02</td>
<td>92</td>
</tr>
<tr>
<td>4.224</td>
<td>TIN TELLURIDE</td>
<td>SN.TE</td>
<td>92</td>
</tr>
<tr>
<td>4.225</td>
<td>TITANIUM CARBIDE</td>
<td>TI.C</td>
<td>92</td>
</tr>
<tr>
<td>4.226</td>
<td>TUNGSTATE</td>
<td>CA.W.04</td>
<td>93</td>
</tr>
<tr>
<td>4.227</td>
<td>URANIUM CARBIDE</td>
<td>U.C</td>
<td>93</td>
</tr>
<tr>
<td>4.228</td>
<td>URANIUM DIOXIDE</td>
<td>U.02</td>
<td>93</td>
</tr>
<tr>
<td>4.229</td>
<td>UREA</td>
<td>C.O.(N.H2)2</td>
<td>93</td>
</tr>
<tr>
<td>4.230</td>
<td>VANADIUM CARBIDE</td>
<td>V.C</td>
<td>93</td>
</tr>
<tr>
<td>4.231</td>
<td>VANADIUM OXIDE</td>
<td>V.02</td>
<td>93</td>
</tr>
<tr>
<td>4.232</td>
<td>VANADIUM SILICIDE</td>
<td>V3.SI</td>
<td>93</td>
</tr>
<tr>
<td>4.233</td>
<td>XENON TETROXIDE</td>
<td>XE.04</td>
<td>94</td>
</tr>
</tbody>
</table>
4.234. YTTRIUM VANADATE  Y.V.O4  94
4.235. ZINC OXIDE  ZN.O  94
4.236. ZINC SELENIDE  ZN.SE  94
4.237. ZINC SILICON PHOSPHIDE  ZN.Si.P2  94
4.238. ZINC SULFIDE  ZN.S  94
4.239. ZINC TELLURIDE  ZN.TE  94
4.240. ZIRCONIUM CARBIDE  ZR.C  95

5. ORGANIC COMPOUNDS

5. 1. ACENAPHTHENE  C12.H10  96
5. 2. ACETIC ACID  C2.H4.O2  96
5. 3. ACETONITRILE  C.H3.C.N  96
5. 4. ACETYLENE  C2.H2  96
5. 5. ADAMANTANE  C10.H16  96
5. 6. ALCOHOL  96
5. 7. ANTHRAQUINONE  96
5. 8. ALPHA-AMINO-ISOBUTYRIC-ACID  AAIA  97
5.10. ANNULENE  ANNULENE  97
5.11. ANTHRACENE  C14.H10  97
5.12. BENZENE  C6.H6  97
5.13. BIPHENYL  C12.H10  98
5.14. BIPHYLE  98
5.15. BUTANE  C4.H10  98
5.16. BUTANOANNULENE  BUTANOANNULENE  98
5.18. BUTYRIC ACID  BUTYRIC ACID  99
5.19. CARBOXYLIC ACID  CARBOXYLIC ACID  99
5.20. CHLOROBENZENE  C6.H5.CL  99
5.23. CYANAMIDE  C.H2.N2  99
5.24. CYCLOHEXANE  C6.H12  99

(18)
<table>
<thead>
<tr>
<th></th>
<th>Name</th>
<th>Formula</th>
<th>Molecular Weight</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>5.25</td>
<td>CYCLOHEXANOL</td>
<td>C6H12O</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>5.26</td>
<td>DIACETYL CYCLOHEXANE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.27</td>
<td>DIBROMOBENZENE</td>
<td>C6H4Br2</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.28</td>
<td>DICALCIIUM LEAD PROPIONATE</td>
<td>(C3H5O2)6.Ca2.Pb</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.29</td>
<td>DICALCIUM STRONTIUM PROPIONATE</td>
<td>Ca2Sr(C3H5O2)6</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.30</td>
<td>DICHLOROETHANE</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.31</td>
<td>DICHLOROBENZENE</td>
<td>C6H4Cl2</td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.32</td>
<td>DIMETHYL ACETYLENE</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.33</td>
<td>DIMETHYL BUTANE</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.34</td>
<td>DIMETHYL SULPHONE</td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>5.35</td>
<td>DIMETHYL SULPHOXIDE</td>
<td></td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.36</td>
<td>DNA</td>
<td></td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.37</td>
<td>DODECANE</td>
<td>C12H26</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.38</td>
<td>EICOSANE</td>
<td>C20H42</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.39</td>
<td>ETHANE</td>
<td>C2H6</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.40</td>
<td>ETHANEDIOL</td>
<td></td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.41</td>
<td>ETHANOL</td>
<td>C2H5O</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.42</td>
<td>ETHYL ETHER</td>
<td>(C2H5)2O</td>
<td></td>
<td>101</td>
</tr>
<tr>
<td>5.43</td>
<td>ETHYL CHLORIDE</td>
<td>C2H5Cl</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.44</td>
<td>ETHYLENE</td>
<td>C2H4</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.45</td>
<td>ETHYLENE GLYCOL</td>
<td>C2H6O2</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.46</td>
<td>FLUORINATED CYCLOHEXANE</td>
<td></td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.47</td>
<td>FORMIC ACID</td>
<td>C2H2O2</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.48</td>
<td>GLYCELINE</td>
<td>C3H8O3</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.49</td>
<td>GLYCINE</td>
<td></td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.50</td>
<td>HEPTANE</td>
<td>C7H16</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.51</td>
<td>HEXAMETHYLBENZENE</td>
<td>C12H18</td>
<td></td>
<td>102</td>
</tr>
<tr>
<td>5.52</td>
<td>HEXAMETHYLENETETRAMINE</td>
<td>C6H12N4</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>5.53</td>
<td>HEXANE</td>
<td>C6H14</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>5.54</td>
<td>IODOFORM</td>
<td>C1H13</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>5.55</td>
<td>MALONIC ACID</td>
<td>C3K4O4</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>5.56</td>
<td>MERCAPTAN</td>
<td>C2H6S</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>5.57</td>
<td>METHANE</td>
<td>C2H4</td>
<td></td>
<td>103</td>
</tr>
<tr>
<td>5.58</td>
<td>METHANETELLUROL</td>
<td>C.H4TE</td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>5.59</td>
<td>METHANOL</td>
<td>C.H4O</td>
<td></td>
<td>105</td>
</tr>
<tr>
<td>5. 95.</td>
<td>POLYVINYL CHLORIDE</td>
<td>111</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. 96.</td>
<td>POTASSIUM TRICHLOROACETATE</td>
<td>K.C2.CL3.O2</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>5. 98.</td>
<td>PROPANE</td>
<td>C3.H8</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>5.100.</td>
<td>PROPIONIC ACID</td>
<td>C3.H6.O2</td>
<td>111</td>
<td></td>
</tr>
<tr>
<td>5.102.</td>
<td>PYRENE</td>
<td>C16.H10</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.103.</td>
<td>PYRIDINE</td>
<td>PYRIDINE</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.104.</td>
<td>RESIN</td>
<td></td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.105.</td>
<td>RUBBER</td>
<td></td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.106.</td>
<td>TAURINE</td>
<td>TAURINE</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.107.</td>
<td>TERPHENYL</td>
<td>C18.H14</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.108.</td>
<td>TOLUENE</td>
<td>C7.H8</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.109.</td>
<td>TRICHLOROMETHANE</td>
<td>C.H.CL3</td>
<td>112</td>
<td></td>
</tr>
<tr>
<td>5.110.</td>
<td>TRIFLUOROETHANE</td>
<td>C.H3.C.F3</td>
<td>112</td>
<td></td>
</tr>
</tbody>
</table>

6. ADSORPTIONS AND SOLUTIONS

| 6. 1. | ACETYLENE-CHARCOAL | C2.H2-CHARCOAL | 114 |
| 6. 2. | ALCOHOL-WATER | | 114 |
| 6. 3. | AMMONIA-ZEOLITE | | 114 |
| 6. 4. | AMMONIUM FLUORIDE-WATER | N.H4.F-H2.O | 114 |
| 6. 5. | ARGON-GRAPHITE | AR-GRAPHITE | 114 |
| 6. 6. | CESIUM CHLORIDE-WATER | CS.CL-H2.O | 114 |
| 6. 7. | CHROMIUM CHLORIDE-WATER | CR.CL3-H2.O | 114 |
| 6. 8. | DIETHYL DIETHYLENE GLYCOL-CARBON DISULFIDE | | 114 |
| 6. 9. | ETHYL ETHER-CARBON DISULFIDE | (C2.H5)2.O-C.S2 | 114 |
| 6. 10. | ETHYLENE-CHARCOAL | C2.H4-CHARCOAL | 114 |
| 6. 11. | HYDROGEN-CHARCOAL | H2-CHARCOAL | 115 |
| 6. 12. | HYDROGEN-PLATINUM | H-PT | 115 |
| 6. 15. | LANTHANUM NITRATE-WATER | LA.(N.O3)3-H2.O | 115 |
| 6.16 | LITHIUM CHLORIDE-WATER | LI . CL-H2.O | 115 |
| 6.17 | MAGNESIUM CHLORIDE-WATER | MG . CL2-H2.O | 115 |
| 6.18 | METHANE-CHARCOAL | C.H4-CHARCOAL | 115 |
| 6.19 | METHANE-QUINOL | C.H4-C6.H4.(O.H)2 | 115 |
| 6.22 | NITROGEN-GRAPHITE | N-GRAPHITE | 116 |
| 6.23 | POTASSIUM CHLORIDE-WATER | K.CL-H2.O | 116 |
| 6.25 | WATER-ALUMINA | H2.O-AL.03 | 116 |
| 6.27 | WATER-POTASSIUM FEROXYANIDE TRHYDRATE | | 116 |
| 6.29 | WATER-SILICA | H2.O-SI.02 | 116 |

PART 2. LIST OF REFERENCES, ORDERED BY THE PUBLISHED YEAR AND THE FIRST AUTHOR NAME

117
47-9 - 0-04 BOFFI, CAGLIOTI REVIEW-ARTICLES , LATTICE DYNAMICS/ IONIC CRYSTAL/ METAL/ FERROELECTRIC MATERIAL
47-9B - 0-05 BOFFI, CAGLIOTI REVIEW-ARTICLES , NEUTRON SPECTROSCOPY/ LATTICE DYNAMICS
47-20 - 0-04 PARKS, NELKIN REVIEW-ARTICLES , BOOK/ THEORY/ EXPERIMENT/ NEUTRON SCATTERING/ REACTOR PHYSICS
47-RA - 0-06 RAO REVIEW-ARTICLES , NEUTRON SCATTERING/ IN-FLUIDS/ ATOMIC CORRELATION/ LIQUID
47-SI - 0-04 SINGH, PRAKASH LIV/ G8Y/ K+ C2- , THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION/ ALKALI METAL
47-YE - 0-01 VENKATARAMAN SASTHI THEORY-OF-SOLIDS/ REVIEW-ARTICLES , FORMAL THEORY/ MOLECULAR CRYSTAL/ COMPLEX IONIC CR
47-ZY - 0-01 JAPAN ATOMIC ENERGY RESEARCH INSTITUTE + REVIEW-ARTICLES , DYNAMICS OF SPIN SYSTEM AND POLYMER
47-NA - 0-06 HARRYMAN, REYNOLDS REVIEW-ARTICLES , DENSITY OF STATES/ PHONON/ AROMATIC CRYSTAL
47-MU - 0-02 MUJUMDAR REVIEW-ARTICLES , PROCEEDING OF THE INTERNATIONAL CONFERENCE, RENNES, FRANCE, 1971
47-AL - 0-02 ALLEN REVIEW-ARTICLES , POLYMER CHAIN/ DYNAMICS
47-BA - 0-09 BHAKT, KOTTHE REVIEW-ARTICLES , BOOK/ LATTICE DYNAMICS/ NEUTRON SCATTERING
47-HA - 0-01 HANKE, BILZ THEORY-OF-SOLIDS/ REVIEW-ARTICLES , MICROSCOPIC THEORY/ PHONON/ METAL/ REVIEW
47-JA - 0-03 JACOBS, KROQ REVIEW-ARTICLES , SUMMARY OF THE SYMPOSIUM
47-PA - 0-05 PAVELEY REVIEW-ARTICLES , MOLECULAR CRYSTAL/ DYNAMICS
47-SC - 0-01 SPRINGER REVIEW-ARTICLES , NEUTRON SCATTERING/ ORGANIC MOLECULAR CRYSTAL/ PHONON
47-WH - 0-01 WHITE REVIEW-ARTICLES , NEUTRON SPECTROSCOPY/ SURFACE CHEMISTRY/ CATALYSIS
47-LA - 0-01 LAROSE, VANDEWAL REVIEW-ARTICLES / STRUCTURE ANALYSIS/ MAGNETIC STRUCTURE/ PHONON/ MAGNON/ POLARIZED NEUTR
47-MA - 0-01 NAKAHARA GRAPHITE/ REVIEW-ARTICLES , THEORY/ SCATTERING LAW/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ D
47-PO - 0-02 POWLES REVIEW-ARTICLES , STRUCTURE/ MOLECULAR LIQUID/ EXPERIMENT/ THEORY
47-RE - 0-02 REISSLAND REVIEW-ARTICLES , BOOK
47-WI - 0-01 WILLS REVIEW-ARTICLES , BOOK/ CHEMICAL APPLICATION/ THERMAL NEUTRON SCATTERING
47-BO - 0-01 BOTTGER REVIEW-ARTICLES , NON-CRYSTALLINE SOLIDS/ RAMAN SPECTRA/ NEUTRON SC
47-BL - 0-01 BOETTGER REVIEW-ARTICLES , SCATTERING/ MAGNETIC SCATTERING/ MAGNONS/ EXCITONS/ INORGAN
47-RI - 0-01 RISTE REVIEW-ARTICLES/ PHASE-TRANSITION/ CONFERENCE PROCEEDINGS/ NATO ADVANCED STUDY INSTITUTE
47-SC - 0-03 SCOTT REVIEW-ARTICLES , THEORY/ EXPERIMENT/ SOLID/ STRUCTURAL PHASE TRANSITION/ NEUTRON SCATTERING/ D
47-ZY - 0-01 NEUTRON SCATTERING LABORATORY/ DIVISION

1. 2 NEUTRON-SCATTERING-IN-SOLIDS

- Weinstock - Neutron-scattering-in-solids, Theory/ Solid/ Lattice Dynamics, Inelastic Scattering
- Cassels - Neutron-scattering-in-solids, Theory
- Froeman - Neutron-scattering-in-solids, Theory/ Solid/ Diffraction
- Placzek, Van-Hove - Neutron-scattering-in-solids, Scattering Theory/ Solid/ Lattice Vibrations
- Glazer - Neutron-scattering-in-solids, Scattering Theory/ Solid
- Kothari, Singwi - Neutron-scattering-in-solids, Scattering Theory/ Solid
- Placzek, Van-Hove - Neutron-scattering-in-solids, Theory
- Squires - Neutron-scattering-in-solids, Theory/ Solid/ Dispersion Relation/ Lattice Dynamics, Sigma
- Joelander - Neutron-scattering-in-solids, Scattering Theory/ Solid/ Lattice Vibrations
- Turchin - Neutron-scattering-in-solids, Theory/ Solid
- Buras, Conner - Neutron-scattering-in-solids, Theory/ Neutron Spectroscopy
- Kothari, Singwi - Neutron-scattering-in-solids, Theory/ Solid/ Dispersion Relation/ Lattice Dynamics, Sigma
- Bäum - Neutron-scattering-in-solids, Theory/ Lattice Dynamics/ Scattering Function
- Elliott, Stern - Neutron-scattering-in-solids, Theory/ Solid/ Phonon Life-Time
- Krieger - Neutron-scattering-in-solids, Theory
- Marshall, Stuart - Neutron-scattering-in-solids, Theory/ Sigma, Placzek's Incoherent Approximation
- Caretta - Neutron-scattering-in-solids, Theory/ Scattering Function
- Kekedjian - Neutron-scattering-in-solids, Theory/ Electron-Phonon Interactions
- Kekedjian - Neutron-scattering-in-solids, Theory/ Crystal/ Coherent Scattering, Anharmonicity
- Maradudin, Fein - Neutron-scattering-in-solids, Theory/ Anharmonicity, One Phonon Coherent Scattering/ Phon
1. Neutron-Scattering in Fluids

41-SA-01 SACHS, TELLER Neutron-scattering in fluids/ H2O C,H4 N,H5 H2O ... Scattering theory/ Molecular gases
42-PL-01 PLACZEK, NIBOER Neutron-scattering in fluids/ Hg ... theory/ Sigma(epsilon(1),epsilon(2),theta)/ Solid/ Liquid/ Scattering
43-VANHOVE 01 VANHOVE Neutron-scattering in fluids ... theory...
44-WICK Neutron-scattering in fluids ... Scattering theory/ Molecular dynamics
45-KOTTARI, SINGH Neutron-scattering in fluids/ theory/ Liquid metal/ Quasi-crystalline model
46-ZEIMACH, GLAUBER Neutron-scattering in fluids ... Molecular dynamics/ Scattering theory
47-KRILGER, NELKIN Neutron-scattering in fluids/ H2O ... Scattering theory ... molecular
48-VANHOVE Neutron-scattering in fluids ... Scattering theory/ Liquid/ Gas
49-VINCENT Neutron-scattering in fluids ... theory/ Liquid dynamics/ Convolution approximation
50-DEGennes Neutron-scattering in fluids/ Ar ... Scattering theory/ Liquid dynamics/ Moments method
51-COLLINS Neutron-scattering in fluids/ C ... theory/ Gas/ Molecular rotations/ Scattering theory
52-NEGAINES Neutron-scattering in fluids/ H2O ... Theory/ Molecular dynamics/ Differential and total cross section
53-VINCENT Neutron-scattering in fluids ... Theory
54-CHADDE, ELLIOTT Neutron-scattering in fluids ... Theory/ Liquid dynamics/ Jump diffusion model
55-DEGennes Neutron-scattering in fluids ... Theory/ Normal liquids
56-MORALEZ-AMADO, OSBORN Neutron-scattering in fluids/ PB ... Theory/ Liquid dynamics
57-RAHAM, SINGH Neutron-scattering in fluids/ Methane ... Theory/ Scattering function
58-RAHAM Neutron-scattering in fluids ... Theory/ Molecular dynamics/ C,H4
59-VO-02 COLE Neutron-scattering in fluids ... Theory/ Elastic cross section
60-GELSTAFF Neutron-scattering in fluids ... Theory/ Liquid/ Liquid dynamics
61-GLAUBER Neutron-scattering in fluids ... Theory
62-MCMURRY Neutron-scattering in fluids ... Scattering theory/ Gas/ Scattering function
63-PARKER, TURNER Neutron-scattering in fluids ... Theory/ Liquid/ Scattering law/ Correlation function
64-RAHAM, SINGH Neutron-scattering in fluids ... Theory/ Liquid dynamics
RAHMAN, SINGW I  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..LIQUID DYNAMICS
62-YI-01 YIP, OSBORN  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING THEORY/LIQUID
62-AK-01 AKIEZER  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/LIQUID ..FEMI LIQUID/ZERO-SOUND/SPIN
62-CO-01 COLE  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY
62-OS-01 OSALSKI  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..LIQUID DYNAMICS ..QUASI-CRYSTALLINE MODEL
62-SI-03 SINGW, J. U. j  NEUTRON-SCATTERING-IN-FLUIDS, H2/0/ PB, ..THEORY/LIQUID/FREQUENCY DISTRIBUTION/SCATT
62-EG-01 EGGSTAFF  NEUTRON-SCATTERING-IN-FLUIDS/ ..SCATTERING LAW, MEAN SQUARE DISPLACEMENT/DIFFUSION PARAMETER/L
62-AC-01 FURUKAWA, AHLSTROM  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..DILUTE FLUID
62-NL-01 NELKIN, GHATAK  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING FUNCTION, ..DILUTE FLUID
62-SI-01 SINGW  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..LIQUID DYNAMICS, COHERENT SCATTERING WIDTH FUNCTION/8
62-YI-01 YIP, NELKIN  NEUTRON-SCATTERING-IN-FLUIDS, ..CORRELATION FUNCTION/LIQUID
62-AN-01 ANZIG  NEUTRON-SCATTERING-IN-FLUIDS, ..INCOHERENT APPROXIMATION/SCATTERING THEORY/SCATTERING LAW/GE
62-DE-01 DEGENNES  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/QUASI-ELASTIC/DILUTE POLYMER SOLUTIONS
62-FU-01 FURUKAWA  NEUTRON-SCATTERING-IN-FLUIDS, ..INCOHERENT SCATTERING FUNCTION
62-GI-01 GIAB, FERZIGER  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/LIQUID/MOLECULAR DYNAMICS ..KINETIC MODEL/CORREL
62-NE-01 NELKIN, VAN LEEUWEN  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..KINETIC THEORY
62-RA-01 RAHMAN  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/LIQUID
62-SE-01 SEARS  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..LIQUID/CORRELATION FUNCTION
62-SI-01 SIGMA  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING THEORY/GAS, ..SELF-CORRELATION FUNCTION
62-BA-01 SINGW, ANDERSON  NEUTRON-SCATTERING-IN-FLUIDS, ..KOHN EFFECT
62-TU-03 TURCHIN, TARASOV  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING THEORY, ..ENGLISH TRANSLATION FOR THIS PAPER IS
62-YI-01 YIP, RANAGANATHAN  NEUTRON-SCATTERING-IN-FLUIDS, ..DILUTE GAS/SCATTERING FUNCTION
62-AR-02 ARDENTE, RARDULLI  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/CORRELATION FUNCTION/SCATTERING FUNCTION/MIND
62-AR-02 ARDENTE, RARDULLI  NEUTRON-SCATTERING-IN-FLUIDS, ..MOLECULAR DYNAMICS/LIQUID/LIQUID/THEORY/FREQUENCY DISTRIBUTI
62-AE-02 DESAI, NELKIN  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING THEORY/GAS/CORRELATION FUNCTION/NEUTRON DIFFUS
62-DORF  NEUTRON-SCATTERING-IN-FLUIDS, ..EXPERIMENTS/STRAIN DYNAMICS/MOLECULAR DYNAMICS/DISPERSION REL
62-IV-01 IVANOV  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/MOLECULAR DYNAMICS/QUASI-ELASTIC SCATTERING
62-IV-02 IVANOV  NEUTRON-SCATTERING-IN-FLUIDS, ..GENERAL THEORIES
62-KU-02 KURI, SAUER  NEUTRON-SCATTERING-IN-FLUIDS, ..MOLECULAR DYNAMICS ..LINEAR MOLECULES
62-NA-01 NAKAHARA, TAKAHASHI  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..LIQUID DYNAMICS
62-NA-02 NAKAHARA, TAKAHASHI  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY ..LIQUID DYNAMICS
62-NE-01 NELKIN, YIP  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING LAW
62-PU-01 PUROMIT  NEUTRON-SCATTERING-IN-FLUIDS, ..SCATTERING LAW/ THEOREY/LIQUID/INCOHERENT APPROXIMATION/QUASI
62-RD-01 RAHMAN  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..LIQUID/FREQUENCY DISTRIBUTION/COMPUTER EXPERIMENT/85,95K
62-SE-01 SEARS  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..LIQUID/FREQUENCY DISTRIBUTION/COMPUTER EXPERIMENT/85,95K
62-SE-02 SEARS  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..MOLECULAR ROTATIONS/LIQUID/THEORY/HOMONUC
62-SE-03 SEARS  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..SCATTERING THEORY/LIQUID/THEORY/LAW OF CORRESPONDING STATES
62-SE-03 SINGW, VENKATARAMAN  NEUTRON-SCATTERING-IN-FLUIDS/..THEORY/MOLECULAR DYNAMICS ..DIFFERENTIAL CROSS SECTIO
62-GE-02 VENKATARAMAN  REVIEW/ARTICLES/NEUTRON-SCATTERING-IN-FLUIDS/LIQUID DYNAMICS
62-GE-02 VENKATARAMAN  REVIEW/ARTICLES/NEUTRON-SCATTERING-IN-FLUIDS/LIQUID DYNAMICS
62-DOS-02 DESAI  YIP  NEUTRON-SCATTERING-IN-FLUIDS, ..LIQUID/THEORY/..SUM RULE
62-EG-01 EGGSTAFF  REVIEW/ARTICLES/NEUTRON-SCATTERING-IN-FLUIDS ..SCATTERING FUNCTION/TRANSPORT PROPERTIES
62-FE-01 FEINSTEIN, FEINSTEIN  NEUTRON-SCATTERING-IN-FLUIDS/NA, ..SCATTERING THEORY/GAS/LIQUID
62-FE-01 FEINSTEIN, FEINSTEIN  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/LIQUID DYNAMICS
62-LU-01 LURIE  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..MOLECULAR DYNAMICS/GAS/THEORY/CROSS SECTION EVALUATION
62-LU-01 LURIE  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..MOLECULAR DYNAMICS/GAS/THEORY/CROSS SECTION EVALUATION
62-RA-01 RAHMAN  NEUTRON-SCATTERING-IN-FLUIDS/ ..THEORY
62-ST-02 STECKI  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/LIQUID/SCATTERING FUNCTION ..G(E,T)
62-AG-02 AGRAWAL, DESAI  NEUTRON-SCATTERING-IN-FLUIDS/AR/NA/PB/METHANE ..THEORY/MODEL CALCULATION
62-BU-01 BOTTINET, YIP  NEUTRON-SCATTERING-IN-SOLIDS/NEUTRON-SCATTERING-IN-FLUIDS, ..BUOX/MOLECULAR DYNAMICS/NEUTRO
62-BA-07 BUZANO, RASSETTI  NEUTRON-SCATTERING-IN-FLUIDS, ..THEORY/SCATTERING BY MOLECULE
62-CO-12 COWLEY  NEUTRON-SCATTERING-IN-FLUIDS ..TIME-OF-FLIGHT/COLECTIVE MODE
62-FR-02 FRANZETTI  THEORY-OF-FLUIDS/NEUTRON-SCATTERING-IN-FLUIDS, ..MONATOMIC LIQUIDS/RADIAL DENSITY/SCATTERING
62-GL-03 GLASS, RICE  NEUTRON-SCATTERING-IN-FLUIDS/AR, ..THEORY/LIQUID/CORRELATION FUNCTION/COHERENT-SCATTERING
1. THEORY OF SOLIDS

45-SJ-01 SJOELANDER THEORY OF SOLIDS / THEORY OF SOLID / LATTICE DYNAMICS / SCATTERING CROSS SECTION
46-BA-04 BARRON LEADBETTER THEORY OF SOLIDS / DIVERGENCE / WALLER FACTOR / THEORY
43-CO-02 COCHRAN COWLEY THEORY OF SOLIDS / LATTICE DYNAMICS / THEORY
45-SO-02 SQUIRES THEORY OF SOLIDS / INTERATOMIC FORCE CONSTANTS / DISPERSION RELATION / THEORY OF SOLID / CUBIC CRYSTALS
44-BA-01 BAYN THEORY OF SOLIDS / SCATTERING LAW
45-AK-02 MACASU, OSBORN THEORY OF SOLIDS / SCATTERING THEORIES / DAMPING THEORY / SCATTERING CROSS SECTION / ANHARMONICITY
45-CH-01 CHAMPION, TOUSAIN THEORY OF SOLIDS / DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS
45-CO-01 COCHRAN THEORY OF SOLIDS / DISPERSION RELATION / THEORY / SOLID
45-CO-04 COWLEY COWLEY THEORY OF SOLIDS / ANHARMONICITY / THEORY / ALKALI HALIDES
45-CZ-01 CZACHOR THEORY OF SOLIDS / LATTICE DYNAMICS / DISPERSION RELATION / THEORY / SOLID / HEXAGONAL CLOSED PACK
45-DI-01 DICK THEORY OF SOLIDS / DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS
45-HA-03 HARRISON THEORY OF SOLIDS / DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS
45-JO-01 JOSHI, SHARMA THEORY OF SOLIDS / THEORY / SOLID / LATTICE DYNAMICS
45-KA-01 KAGAN ZHERNOV theory of solids / theory / solid / lattice dynamics
45-LA-03 LAX theory of solids / theory
45-LE-01 LEHMAN, WOLFRAM THEORY OF SOLIDS / DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS
45-MA-03 MARADUDIN THEORY OF SOLIDS / ANHARMONICITY / THEORY / HELMHOLTZ FREE ENERGY
45-PA-04 PATHAK theory of solids / anharmonicity / dispersion relation / theory / green function
45-RO-03 ROSENSTICK theory of solids / dispersion relation / theory / solid / lattice dynamics
45-SI-02 SINGH, MANI theory of solids / dispersion relation / theory / solid / lattice dynamics / alkali metal
45-SR-01 SRIVASTAVA, RAO theory of solids / dispersion relation / theory / solid / lattice dynamics / electron-phonon interaction
45-SU-02 SAKWA, / FUKU theory of solids / pseudopotential
45-BL-01 BLANK, KADEN theory of solids / theory / frequency distribution / lattice dynamics / solid / metal
45-CO-03 COWLEY theory of solids / anharmonicity / phonon dispersion
45-CZ-01 CZACHOR theory of solids / lattice dynamics / theory / solid / dispersion relation / metal
45-DE-02 DETOUR theory of solids / born-von karman model / frequency spectrum / theory / moment method / monte carlo
45-GI-01 GILAT, RABENHEIMER theory of solids / frequency distribution / solid / theory / extrapolation method
45-MA-01 MAHAN theory of solids / theory / electron-phonon interaction
45-MI-01 MINTS theory of solids / solid density / frequency distribution / lattice dynamics / disordered linear chain
45-NU-01 NUSIMOVIC, BIRMAN theory of solids / dispersion relation / born-von karman model / theory / sum rule / wurtzite
45-PA-05 PAYTON theory of solids / harmonic approximation / theory
45-PA-06 PAYTON, VISSCHER theory of solids / lattice dynamics / frequency distribution / theory / disordered harmonic
45-RA-05 RAHBA theory of solids / theory / molecular dynamics
45-SA-04 SAUER theory of solids / molecular dynamics / solid
45-SL-01 SLATER theory of solids / electron band / green function
45-BU-03 BARKER-JR. VERLESER theory of solids / lattice dynamics / theory
45-DE-01 DEPLANTE theory of solids / lattice dynamics / dispersion relation / cubic metals / kohn effect
45-GI-02 GILAT theory of solids / anharmonic crystal / phonon shift and damping / quasi-harmonic approximation
45-LO-01 LORD-JR theory of solids / magnon-phonon coupling
45-MA-01 MARSTON, DICK theory of solids / lattice dynamics / theory
45-MO-01 OVERTON-JR. SCHUCH theory of solids / theory
45-PA-05 PAYTON, DEO theory of solids / solid / lattice dynamics / anharmonic effect
45-PA-06 TAYLOR theory of solids / crystal vibration / imperfect crystals with defects
45-RA-01 RASHEVA theory of solids / theory / solid / lattice dynamics / dispersion relation / metal
45-CH-02 CHEVEAU theory of solids / theory / solid / lattice dynamics / dispersion relation / metal
45-CO-07 COHEN, MARTIN theory of solids / lattice dynamics / force constants
45-DE-03 DELTLOUR theory of solids / frequency distribution / theory / solid / continued fraction / linear chain
1. Theory of Fluids

1.1 Theory of Fluids

1.1.1 Theory of Fluids: Diffusion / Fluctuation Theory

1.1.2 Theory of Fluids: Kinetic Theory / Two Times / Two Bodies

1.1.3 Theory of Fluids: Liquid Dynamics

1.1.4 Theory of Fluids: Theory / Correlation Function / Crystal / Liquid

1.1.5 Theory of Fluids: Liquid / Correlation Function

1.1.6 Theory of Fluids: Theory / Liquid

1.1.7 Auto-correlation Function

1.1.8 Theory of Fluids: Gas / Correlation Function / Theory / Non-Gaussian Correction / Monatomic Gas

1.1.9 Theory of Fluids: Liquid / Self-Diffusion

1.1.10 Theory of Fluids: Statistical Mechanics / Gas / Liquid / Solid / Theory / Liouville Operator

1.1.11 Theory of Fluids: Liquid / Theory / High-Frequency Response

1.1.12 Theory of Fluids: Theory / Liquid / Momentum Auto-Correlation Function

1.1.13 Theory of Fluids: Liquid Dynamics

1.1.14 Theory of Fluids / Ar / Theory / Liquid / Momentum Auto-Correlation Function

1.1.15 Theory of Fluids: Liquid Dynamics

1.1.16 Theory of Fluids: Liquid Metal / Dispersion Curve

1.1.17 Theory of Fluids: Argon / Theory / Liquid / Velocity Auto-Correlation

1.1.18 Theory of Fluids: Correlation Function / Frequency Spectrum / Mass Effect / Alloys

1.1.19 Theory of Fluids: Liquid / Frequency Spectrum / Theory / Itinerant Oscillator-Model

1.1.20 Theory of Fluids: Liquid / Theory / Correlation Function / Fourth-Frequency-Moment / Sum Rule

1.1.21 Theory of Fluids: Liquid / Correlation Function / Argon / Viscosity / Moment Method
1. SCATTERING-THEORIES
1. 7 MAGNETIC-SCATTERING

66-DI-02 DIMITRIJEVIC+ KRASTIKI* MAGNETITE/ MAGNETIC-SCATTERING . . . EXPERIMENT/ DIFFUSE SCATTERING
66-DI-01 GLAUERMAN RUINSKII* MAGNETITE/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION
67-DI-01 DIMITRIJEVIC+ RUINSKII* MAGNETITE/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION
69-DI-01 ALIKAHOV+ DIMITRIJEVIC+ CR2O3/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION RELATION/ ALPHA.CR2O3
70-DI-01 ALIKAHOV+ DIMITRIJEVIC+ FEO3/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION
71-ER-01 JERNO+ SCHEL'TON+ CuO/Cu/ MAGNETIC-SCATTERING/ SCATTERING-BY-DEFFUCTIONS . . . EXPERIMENT/ SMALL ANGLE SCATTERING/ P
73-CH-01 CHAMBAR+ BOYI+ OSKAT-MIGNOD MAGNETIC-SCATTERING/ HO-RH . . . EXPERIMENT/ T-O-F/ CRYSTAL-FIELD-LEVEL
73-IX-01 IHEKAD+ HIRAKA+ K2MnF4/ MAGNETIC-SCATTERING . . . EXPERIMENT/ CRITICAL SCATTERING
73-IX-01 IHEKAD+ HIRAKA+ FEO3/5MNO3/5 CRITICAL MAGNETIC SCATTERING
73-IX-01 HIRAKA+ FEO3/5MNO3/5 CRITICAL MAGNETIC SCATTERING
74-EE-01 BETSUYAKU+ KAMAGUCHI KMF3/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNETIC SCATTERING FUNCTION/ 3.4TN
74-EE-01 GUKSA+ MINKIN.+ MAGNETIC-SCATTERING . . . SMALL ANGLE SCATTERING/ CRITICAL SCATTERING/ MAGNON
74-HE-01 HEER+ FURRER+ ER-Y-AL/ MAGNETIC-SCATTERING . . . INELASTIC NEUTRON SCATTERING/ SUSCEPTIBILITY
74-HE-01 HUTCHING+ REVIEW-ARTICLES/ MAGNETIC-SCATTERING . . . INELASTIC SCATTERING MAGNON/ EXCITONS/ INORGAN
74-EE-01 IHEKAD+ K2MnF4/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION
74-EE-01 KOGHI+ ISHIKAWA+ MnO/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION/ 4.2K TO 110K/ THEORY/ MAGNON
74-SA-01 SACCHETTI+ ISHIKAWA+ MAGNETIC-SCATTERING . . . THEORY
74-EE-01 SHAPOLOVE+ KAMAGUCHI FEO3/5MNO3/5 MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION/ SOFT MODE
74-EE-01 STEINER+ DOREN+ CSF/ MAGNETIC-SCATTERING . . . CONSTANT-Q METHOD/ CORRELATION FUNCTION/ SPIN WAVE
74-EE-01 WAKABAYASHI+ CHINO+ W PF/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION/ ALLOY/ 4.2 K
74-EE-01 BETSUYAKU+ KAMAGUCHI M2/O/ MAGNETIC-SCATTERING . . . THEORY/ SUM-RULE METHOD/ SCATTERING FUNCTION
74-EE-01 BETSUYAKU+ KAMAGUCHI M2/O/ MAGNETIC-SCATTERING . . . EXPERIMENT/ PAIR-CORRELATION FUNCTION
75-DE-01 DEPAERT+ VAN DIJKE+ PD/ MAGNETIC-SCATTERING . . . EXPERIMENT/ GIANT MAGNETIC MOMENT
75-EL-01 ELLIOTT+ KLEPPPAN MAGNETON-SCATTERING/ON-3SOLIDS/ MAGNETIC-SCATTERING . . . DIAMAGNETIC SCATTERING F
75-HE-01 HEIDEMANN CO3P/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNETIC HYPERFINE SPLITTING
75-HE-01 HENSON+ HENSON+ NiFe/ MAGNETIC-SCATTERING . . . STIFFNESS CONSTANT/ SPIN WAVE
75-HE-01 ISHIKAWA+ KAMGHI+ FeNi/ MAGNETIC-SCATTERING . . . EXPERIMENT/ CANTED SPIN STRUCTURE
75-LE-01 LINDGARD+ BIRGENEAU+ NiCl2/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON
75-MO-01 MIKAMI+ WAKABAYASHI+ CO4P/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNON DISPERSION
75-SH-01 SHIONO+ CHIKAZUMI+ MAGNETITE/ MAGNETIC-SCATTERING . . . EXPERIMENT/ CHARGE ORDERING
75-SA-01 STASSIS+ DECKMAN MAGNETIC-SCATTERING . . . EXPERIMENT/ GENERAL THEORY
75-SA-03 TAUB+ PARENTE MAGNETIC-SCATTERING/ HO3R/ BY3R . . . EXPERIMENT/ CRITICAL SCATTERING

1. 8 PHASE-TRANSITION
1. MISCELLANEOUS

- 16 -
2 MONATOMIC ELEMENTS

2.1 ALUMINIUM

56-SO-01 SURES NEUTRON SCATTERING IN SOLIDS/ AL , THEOREY/ LATTICE VIBRATION/ FREQUENCY DISTRIBUTION , ENERGY D
57-CA-01 CARTER, PALEVSKY AL EXPERIMENT/ LATTICE VIBRATION/ DISPERSION RELATION
58-ST-01 BROWN BAKISHI/ BROCKHAGE/ STEWART AL LATTICE DYNAMICS/ DISPERSION RELATION
60-LE-02 LARSSON, DAHLBORG AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION 293-932K
61-LA-02 LARSSON, HOLMRYD AL EXPERIMENT/ SOLID/ DISPERSION RELATION
62-LE-01 LEHAN, WOHLFART CU/ AL/ ZR-H , THEOREY/ LATTICE DYNAMICS/ DISPERSION RELATION
63-50-01 SURES LATTICE DYNAMICS/FREQUENCY SPECTRUM
63-BR-01 BREDOV, KOTOV AL PHONON SPECTRUM/ EXPERIMENT
65-LE-01 LARSSON, DAHLBORG AL EXPERIMENT/ LIQUID/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION
65-SC-01 SCHMID, BRUGGER AL EXPERIMENT/ SCATTERING FUNCTION/ TOF/ FREQUENCY DISTRIBUTION , POLYCRYSTAL/ COH
65-ST-01 STEDMAN, NILSSON AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
65-SI-02 STEDMAN, NILSSON AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION , CRYSTAL SPECTROMETER/ 80K
65-VA-01 YARNELL, WARREN AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
66-AN-01 ANIMALU, BONSIGNORI NA/ K/ AL/ Li/ RB/ CS , THEOREY/ PHONON DISPERSION/ MODEL POTENTIAL
66-BR-03 BRUGGER METHANE/ ETHANE/ AL/ NA/ PB/ AR , THEOREY/ SCATTERING FUNCTION
66-EQ-01 EGELSTAFF, DUFFILL PB/ SN/ Bi/ IN/ AL , EXPERIMENT/ LIQUID/ STRUCTURE FACTOR
66-GI-02 GILAT, NICKLOW AL PHONON DISPERSION/ PHONON SPECTRA
66-HI-02 IJIMA AL THEOREY/ PHONON SPECTRUM/ SCATTERING FUNCTION/ COMERENT
66-SH-01 SHUKLA, DAYAL AL THEOREY/ PHONON DISPERSION/ KREBS MODEL
66-ST-01 STEDMAN, NILSSON AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION , 3-AXIS SPECTROMETER/ 80K/ 300K
67-BJ-02 BJORKMAN, LUNDQUIST AL THEOREY/ LATTICE DYNAMICS
67-CA-01 CARBOTT, DYNESE AL THEOREY/ SUPERCONDUCTING TRANSITION/ PHONON SPECTRA
67-CO-01 COOIKEN AL/ PB/ B/ RB/ SN , SOLID/ LIQUID/ DISPERSION RELATION/ EXPERIMENT
67-CA-01 LAKATOS NEUTRON SCATTERING IN SOLIDS/ AL , LATTICE DYNAMICS/ THEOREY/ FREQUENCY DISTRIBUTION
67-SI-03 STEDMAN, ALMQUIST AL EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION , 800K FOR AL/ 500K FOR PB
68-GR-02 GUMMALL, GUMMALL AL/ Nb/ Pb , FREQUENCY DISTRIBUTION/ THEOREY/ LATTICE DYNAMICS , DEBEY TEMP.
68-SC-06 SCHNEIDER, STOLL NA/ Mg/ Al , THEOREY/ LATTICE DYNAMICS , ELECTRONIC STRUCTURE/ METAL
69-HO-02 HOEGBERG, SANDSTROM AL THEOREY/ PHONON FREQUENCY SHIFT AND DAMPING
69-JH-01 JHONSON, WESTIN AL , THEOREY/ LATTICE DYNAMICS/ DISPERSION CURVE , METAL/ IX-ION/ELECTRON INTERACTION MODEL
69-MA-01 WALLACE AL THEOREY/ PHONON DISPERSION
70-BR-01 BINDER AL EXPERIMENT/ SCATTERING CROSS SECTION
70-BR-01 BRAUN, STEWART AL THEOREY/ STRUCTURE FACTOR
70-CO-06 COULTEARD SODIUM/ POTASSIUM/ ALUMINIUM/ LEAD , THEOREY/ LATTICE VIBRATION/ DISPERSION RELATION , PRESSURE
70-GR-02 GUPTA, TRIPATHI AL DISPERATION RELATION/ LATTICE DYNAMICS , PSEUDOPOTENTIAL/ METAL
70-KO-01 KOELHER, GILLIS AL THEOREY/ ANOMALICITY/ PHONON WIDTHS AND LIFETIMES/ METAL
70-SA-04 SANDSTROM, HOEGBERG AL , THEOREY/ ANOMALICITY/ PHONON WIDTHS AND LIFETIMES/ METAL
70-WA-01 WALLACE AL THEOREY/ LOCAL PSEUDOPOTENTIAL MODEL
71-WE-03 WEMOUTH, STEDMAN AL EXPERIMENT/ LATTICE DYNAMICS/ FERMI SURFACE/ Kohn ANOMALIES
71-GI-03 GILLIS, KOELHER AL THEOREY
71-NO-01 NOLTING THEOREY OF FLUIDS/ AL/ AR , THEOREY/ VAN-HOVE-CORRELATION FUNCTION
71-SC-01 SCHMID, AL THEOREY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION , PSEUDOPOTENTIAL/ OPw METHOD
71-SI-01 SINGH, SHARMA CU/ Ag/ Au/ Al/ Ni/ Na/ Cr/ Fe , THEOREY/ DEBEY-WALLER FACTOR
72-GO-02 GOMF, LAU PB/ Al/ Cu/ Au/ Al/ Ni/ Na/ Cr/ Fe , THEOREY/ PHONON SPECTRA/ COMERENT SCATTERING
72-PR-02 PRASAD, SHIVASTAVA AL THEOREY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ DEBEY TEMPERATURE METAL, T
73-CA-01 KACHHAVA AL THEOREY/ DISPERSION CURVE
2. 2 ANTIMONY

63-AR-01 ARNOLD, NERESON GA/IN SB/AS ,EXPERIMENT, SCATTERING AMPLITUDE
68-EL-01 EL-ELA, SALAMA+ SB ,TOTAL CROSS SECTION
71-SH-02 SHARP, WARMING SB ,EXPERIMENT, PHONON DISPERSION
71-SO-04 SOSNOWSKI, MALISZEWSKI+ SB ,EXPERIMENT, PHONON DISPERSION, 3=NEIGHBOURS MODEL FITTING
71-SO-05 SOSNOWSKI, MALISZEWSKI+ SB ,EXPERIMENT, PHONON DISPERSION, MODEL CALCULATION
71-SO-06 SOSNOWSKI, MALISZEWSKI+ SB ,EXPERIMENT, PHONON DISPERSION
71-WA-06 WASEDA, SUZUKI SB ,EXPERIMENT, LIQUID, STRUCTURE FACTOR
72-SA-03 SOSNOWSKI, CZACHOR+ SB ,EXPERIMENT, PHONON DISPERSION, FIVE-NEIGHBOUR MODEL FITTING
72-SA-04 SOSNOWSKI, CZACHOR+ SB ,EXPERIMENT, PHONON DISPERSION, MODEL FITTING, FREQUENCY SPECTRUM

2. 3 ARGON

47-ME-01 MEHRINGER AR ,MODEL CALCULATION, PHONON-LIKE EXCITATION, DISPERSION CURVE
59-DE-01 DE-GENNES NEUTRON-SCATTERING, IN-FLUIDS, AR ,SCATTERING THEORY, LIQUID DYNAMICS, MOMENTS METHOD
62-GI-01 GINGRICH, TOMPSON ARGON, EXPERIMENT, LIQUID, X-RAY
63-BR-02 BROOKHOUSE, BERGMA+ SN/H2O/AR, NE, EXPERIMENT, LIQUID
64-KA-01 KROO, BORGNOVI+ AR ,EXPERIMENT, LIQUID, SOLID
64-RU-01 RAMAN, KROO, BORGNOVI+ AR ,THEORY, MOLECULAR DYNAMICS, LIQUID DYNAMICS, DIGITAL COMPUTER SIMULATION
65-CH-02 CHEN, EDER+ NEON/ARGON/DEUTERIUM, CARBON TETRAFLUORIDE, EXPERIMENT, LIQUID, SIGMA(THETA,E)
65-DA-01 DASSANACHARYA, RAO AR ,EXPERIMENT, LIQUID, SCATTERING LAW
65-GR-04 GRINDLAY, HOWARD AR ,THEORY, SOLID, LATTICE DYNAMICS
65-KA-01 KROO, BORGNOVI+ AR ,EXPERIMENT, LIQUID, DISPERSION RELATION
65-RA-02 RANDOLPH AR ,EXPERIMENT, SCATTERING LAW, FREQUENCY DISTRIBUTION, LIQUID AND SOLID
65-SE-01 SEAKS NEUTRON-SCATTERING, IN-FLUIDS, AR ,LIQUID, CORRELATION FUNCTION
65-SI-04 SINGGI ARGON, THEORY, LIQUID, SCATTERING LAW, COHERENT SCATTERING, ONE-PHONON APPROXIMATION
66-DE-03 DESAI AR ,THEORY, LIQUID, INTERMEDIATE SCATTERING FUNCTION
66-DE-03 DESAI, NELKIN AR ,THEORY, LIQUID, COLLECTIVE MOTION IN LIQUID
66-ED-01 EDER, CHEN+ AR, NE, EXPERIMENT, H IN LIQUID AH AND NE
66-GU-01 GUPTA, DAYAL AH/KH, THEORY, PHONON SPECTRA, SPECIFIC HEAT
66-PA-03 PASKIN REVIEW, ARTICLES, AR/NA/CE/RB, LIQUID, THEORY, STRUCTURE FACTOR, VELOCITY AUTO-CORRELATION FUNCTION
66-RA-01 RAMAN NEUTRON-SCATTERING, IN-FLUIDS, AR ,LIQUID, FREQUENCY DISTRIBUTION, COMPUTER EXPERIMENT, 85,50K
66-RA-02 RAMAN AR ,FREQUENCY DISTRIBUTION, THEORY, LIQUID, MOLECULAR DYNAMICS, COMPUTER EXPERIMENT
67-BO-01 BOON, RICE AR ,THEORY-OF-FLUIDS, THEOREY, LIQUID, MOMENTUM AUTO-CORRELATION FUNCTION
67-LE-02 LEVI AR ,MOLECULAR DYNAMICS, LIQUID, FREQUENCY DISTRIBUTION, THEORY
67-MI-01 MIKOLAJ, PINGS AR ,LIQUID, EXPERIMENT
67-MI-02 MIKOLAJ, PINGS AR ,EXPERIMENT, LIQUID, RADIAL DISTRIBUTION, 1300C-1100C, X-RAY
67-SC-02 SCHMIDT, MARCH THEORY-OF-FLOWS, AR ,THEORY
67-SI-01 SINGGI, TOSI THEORY-OF-FLUIDS, AR, THEORETICAL, LIQUID, VELOCITY AUTO-CORRELATION
67-SK-02 SKOELD, LARSSON AR ,EXPERIMENT, LIQUID, SCATTERING FUNCTION, FREQUENCY RELATION, 9ADK
67-SK-04 SKOELD AR ,LIQUID, THEORY, SCATTERING FUNCTION, QUASIELASTIC SCATTERING
68-AG-02 AGRAWAL, DESAI* NEUTRON-SCATTERING-IN-FLUIDS/ AR, NA/ PB/ METHANE., THEORY, MODEL CALCULATION
68-AN-01 ANDRIESE AR, THEORY/ LIQUID/ SCATTERING THEORY, 84DK
68-AN-02 ANDRUS, MEYER* AR, LIQUID/ EXPERIMENT
68-AN-03 ANDRUS, MEYER* AR, SCATTERING/ EXPERIMENT, LIQUID, BE FILTER METHOD, 87DK/ 97DK/ 111DK/ 124DK/ 22A
68-AN-04 ANDRUS, MEYER* AR, EXPERIMENT/ FOIL/ QUASI-ELASTIC
68-AN-05 ANDRUS, MEYER* AR, LIQUID/ EXPERIMENT, QUASI-ELASTIC PEAK, TEMPERATURE DEPENDENCE, 87, 97, 111, 126 DEG-K
68-AR-01 ARDETTE, NADELL* AR, NA, THEORY/ LIQUID/ MOLECULAR DYNAMICS, FREQUENCY DISTRIBUTION/ SCATTERING FUNCTION
68-DE-04 DESAI, YIP, AR, LIQUID-SCATTERING FUNCTION, 84DK
68-EG-01 EGGERS, GSAINDER* AR, EXPERIMENT/ PHONON DISPERSION/ SINGLE CRYSTAL
68-FR-01 FRANCIETTI, MAZZA AR, NE, HE, THEORY/ MONATOMIC LIQUID, RADIAL DENSITY AND SCATTERING FUNCTION
68-GL-03 GLASS, RICE NEUTRON-SCATTERING-IN-FLUIDS/ AR, THEORY/ LIQUID/ CORRELATION FUNCTION, COHERENT-SCATTERING
68-HA-09 MARTIN, YIP AR, FREQUENCY DISTRIBUTION, THEORY/ LIQUID, STATISTICAL MECHANICS, FLUCTUATION DISSIPATION T
68-R-01 RICHTER, VOSS AR, NEUTRON-SCATTERING-IN-FLUIDS, THEORETICAL/ LINEARIZED VLASOV-BOLTZMANN EQUATION
68-R-02 RICHTER, VOSS AR, THEORY/ LIQUID, QUASI-ELASTIC SCATTERING, LINEARIZED VLASOV EQUATION
68-SI-01 SINGH, SJOELANDER AR, THEORY/ LIQUID, PAIR DISTRIBUTION FUNCTION, 85.9DK
68-SI-02 SINGH, SJOELANDER* AR, NEUTRON-SCATTERING-IN-FLUIDS/ AR, THEORY/ LIQUID, MOLECULAR DYNAMICS
68-AN-01 ANDRIESE, COMPAGNON* AR, EXPERIMENT/ GAS DYNAMICS
68-PA-01 PAGE, EDELMANN* AR, RB, LIQUID/ STRUCTURE FACTOR
68-SC-01 SCHNEIDER, STOLL* NEUTRON-SCATTERING-IN-FLUIDS/ AR, DISPERSION
69-TA-01 TAHIR-KHULLAR, WU AR, CORRELATION FUNCTION, LIQUID, FREQUENCY DISTRIBUTION, MEAN SQUARE DISPLACEMENT, THEORY
70-AN-01 ANDRIESE AR, INTERMEDIATE SCATTERING FUNCTION, 4A NEUTRONS
70-AN-02 ANDRIESE AR, THEORETICAL MODEL, WHICH IS USEFUL FOR THE INTERPRETATION OF THE GAS DATA
70-BA-02 BARKER, KLEIN AR, THEORETICAL SOLID, LATTICE DYNAMICS, DISPERSION RELATION, ANHARMONICITY
70-BA-04 BARTHEL, COLLINS AR, LATTICE DYNAMICS, EXPERIMENT, DISPERSION CURVE
70-BO-01 BOBETIC, BARKER AR, THEORETICAL SOLID, LATTICE DYNAMICS, ANHARMONICITY, THREE-BODY FORCE, SPECIFIC HEAT, DEBYE TEMPERATURE, THERMAL EXPANSION
70-BR-04 BRUIN, HASMAN AR, INTERMEDIATE SCATTERING FUNCTION, STRUCTURE FACTOR, GAS
70-GL-01 GLYDE NE/ AR/ KR/ XE, THEORETICAL ANHARMONICITY
70-GO-01 GOLDMAN, HORTON* AR, DISPERSION CURVE, LIFETIME, THEORY, SELF-CONSISTENT APPROXIMATION
70-KE-03 KITAGAWA AR, KR, POLYETHYLENE, REVIEW, LATTICE DYNAMICS
70-LA-02 LEECH, REISSLAND NE/ AR/ KR/ XE, THEORETICAL LATTICE DYNAMICS, ANHARMONICITY, THERMODYNAMICAL PROPERTIES
70-LE-03 LEECH, REISSLAND NE/ AR/ KR/ XE, THEORETICAL ANHARMONICITY, SPECIFIC HEAT, DEBYE TEMPERATURE, THERMAL EXPANSION
70-PA-05 PATHAK, SINGH THEOY/OF-FLUIDS/ ARGON, THEORETICAL LIQUID, SCATTERING LAW, GAUSSIAN APPROXIMATION
70-SC-03 SCHNEIDER, BROTZ AR, THEORETICAL DISPERSION
70-2A-01 ZANDVELD, ANDRIESE AR, EXPERIMENT, LIQUID, VELOCITY AUTOCORRELATION FUNCTION, MEAN SQUARE ATOMIC DISPLACEMENT
70-2A-06 BARKER, FISCHER* AR, COMPUTER SIMULATION, MONTE-CARLO, THREE-BODY INTERACTION
70-2A-08 BARKER, HAYWOOD AR, EXPERIMENT, SOLID, PHONON DISPERSION, 4, 40, 77K
70-2A-09 BARKER, HAYWOOD AR, PHONON DISPERSION, EXPERIMENT
71-CH-01 CHATTURVEDI, BAJAL AR, THEORY, SPACE TIME CORRELATION FUNCTION, NON-GAUSSIAN EFFECT
71-CR-01 CHAYETT, FOWLER* AR, THEORETICAL LATTICE DYNAMICS, FREQUENCY DISTRIBUTION FUNCTION, THERMAL EXPANSION, SPECIAL
71-CR-02 CHAYETT, FOWLER* AR, THEORETICAL LATTICE DYNAMICS, FREQUENCY DISTRIBUTION, THERMAL EXPANSION, SPECIAL
71-EG-01 EDELMANN, PAGE AR, RB, AC, CLA, EXPERIMENT, TRIPLET CORRELATION FUNCTION, THEORY
71-GU-01 GUPTA, GUPTA AR, KR, XE, THEORY, PHONON DISPERSION AND SPECTRA, ANHARMONIC POTENTIAL
71-HI-01 HUELER THEOY-OF-SOLIDS, ARGON, KRYPTON, XENON, CAUCHY RELATION
71-JA-01 JAIN, BHANDARI AR, NA, THEORETICAL MEMORY FUNCTION, LIQUID DYNAMICS
71-KE-01 KLEIN, BARKER* THEOY-OF-SOLIDS, AR, 40K, 40DK, 77DK
71-LO-02 LOVESEY THEOY-OF-FLUIDS, AR, TRIPLE PEAK, STRUCTURE
71-NO-01 NOLTING THEOY-OF-FLUIDS, AR, NA, THEORETICAL VAN-HOAVE CORRELATION FUNCTION
71-VA-01 VANN, LEFF AR, EXPERIMENT, LIQUID, SELF-DIFFUSION
71-WA-05 WASEDA, SUZUKI AR, CS, AR, LIQUID, PAIR POTENTIAL, BORN-GREEN EQUATION
72-AN-01 ANDRIESE, LEGRAND AR, EXPERIMENT/ NEUTRON DIFFRACTION
72-BA-06 BARKER, GASKELL AR, THEOY-OF-FLUIDS, CORRELATION FUNCTION
72-DA-01 DUGOIS AR, THEORY, DISPERSION, SCATTERING FUNCTION, LIQUID DYNAMICS

- 19 -
2. 4 ARSENIC

63-AR-01 ARNOLD, NERESON GAV IN/ SB/ AS , EXPERIMENT/ SCATTERING AMPLITUDE

2. 5 BARIUM

73-PR-01 PRASAD, SRIVASTAVA BA/ SR/ CA , THEORY/ SOLID/ DISPERSION RELATION/ LATTICE DYNAMICS, PSEUDOPOTENTIAL

2. 6 BERYLLIUM

51-EG-01 EGEELSTAFF H/ BE/ V/ SE/ MO/ FE , SOLID/ EXPERIMENT/ TRANSMISSION

58-EG-01 EGEELSTAFF BE/ Mg/ SCATTERING-THEORIES , THEORY/ EXPERIMENT/ SOLID/ SIGMA(E, E-PRIME, THETA)/ SIGMA(E) , O

62-BR-04 BRUGGER BE/ BE, 0/ GRAPHITE/ H2, 0/ D2, 0/ METHANE/ PROPANE/ TERPHENYL/ COMPILATIONS , SCATTERING FUNCTION

62-EG-04 EGEELSTAFF H2, 0/ D2, 0/ GRAPHITE/ BE , SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION/ THEORY, EVALUATION

62-EG-05 EGEELSTAFF Mg/ BE/ Pb , THEORY/ SOLID/ SIGMA(E, E-PRIME, THETA), METAL/ LIQUID METAL

62-SC-01 SCHMUNK, BRUGGER* BE , EXPERIMENT/ SOLID/ DISPERSION RELATION

63-SI-01 SINCLAIR BE/ BE, 0 , EXPERIMENT/ SCATTERING LAW/ FREQUENCY DISTRIBUTION/ TOF , 293 DK

64-FU-02 FULLWOOD, CAERTNER* GRAPHITE/ BE/ BEO , COMPILATION/ SCATTERING FUNCTION

64-SC-01 SCHMUNK BE , EXPERIMENT/ SCATTERING LAW/ FREQUENCY DISTRIBUTION , COHERENT SCATTERING LAW/ ROOM TEMP.

64-YO-02 YOUNG, KOPPEL BE/ MG/ ZN , THEORY/ FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS , ROOT SAMPLING METHOD

65-BE-01 BESER, KOPPEL D2, 0/ H2, 0/ POLYETHYLENE/ BE , THEORY/ EXPERIMENT/ SOLID/ CROSS SECTION EVALUATION

65-DE-03 DEWAMES, WOLFRAM* BE/ ZN , THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

- 20 -
65-SC-01 SCHMUNCK, BRUGGER* AL/BE/EXPERIMENT/SCATTERING FUNCTION/TOF/FREQUENCY DISTRIBUTION/..POLYCRYSTAL/COM
65-YO-01 YOUNG, KOPPEL BE/C/H2O/D2O/C-H2F/H2O/..THEORY/SCATTERING FUNCTION/CROSS SECTION EVALUATION
65-YO-04 YOUNG, KOPPEL BE..POLYCRYSTAL/SCATTERING LAW
66-AH-01 AHLERS BE..EXPERIMENT/DEBYE TEMPERATURE/HEAT CAPACITY/FROM 1.4 K TO 30 DK
66-SA-03 SAMM, VENKATARAMAN* BE..THEORY/LATTICE DYNAMICS/Dispersion Relation
66-SR-03 SCHMUNCK BE..THEORY/SOLID/LATTICE DYNAMICS/Dispersion Relation/..TEST OF SUM RULE
66-SR-04 SCHMUNCK BE..EXPERIMENT/Dispersion Relation/(0001), (0110), (1120) DIRECTION/..DATA GIVEN IN GRAPHICA
66-YO-01 YOUNG BE/C/O/SCATTERING FUNCTION/TEORY/LATTICE DYNAMICS/Dispersion Relation/FREQUENCY DIS
67-KO-01 KOPPEL, MARADUDIN BE..Dispersion Relation/TeorY/SOLID/LATTICE DYNAMICS/METAL
67-KO-04 KOPPEL, YOUNG BE..THEORY/SOLID
67-NA-01 NAKAHARA, KATO BE/H2O/H2O Computer Codes..SOLID/..THEORY/LATTICE DYNAMICS/FREQUENCY DISTRIBUTION
68-BR-01 BROVMAN, KAGAN* BE/MG/ZN..THEORY/LATTICE DYNAMICS
68-CZ-01 CZACHOR MG/ZN/BE..THEORY/PHONON DISPERSION
68-GL-01 GLAESER H2O/ZR/H GRAPHITE/DO/BE/O..COMPILATION/SCATTERING FUNCTION/CROSS SECTION EVALUATION
68-GL-02 GLAESER H2O/D2O/ZR/H GRAPHITE/BE/O..SCATTERING FUNCTION/DIFFUSION PARAMETER/COMPILATION
68-JO-01 JOHNSTON BE..THEORY/SOLID/HARMONIC APPROXIMATION/SCATTERING LAW/INCOHERENT APPROXIMATION/FREQUENCY
68-KO-02 KOPPEL, YOUNG BE..LATTICE DYNAMICS/SOLID/..THEORY/Dispersion Relation
68-PA-01 PAGE, HAYWOOD H2O/D2O/H GRAPHITE/BE/O..COMPILATION/LIQUID/SOLID/FREQUENCY DISTRIBUTION AT VAR
69-BO-06 BORGONOVI BE..CALCULATION/COHERENT/..POLYCRYSTAL/..SCATTERING LAW
69-GI-02 GILAT, HIZZI* BE/MG/ZN..THEORY/LATTICE DYNAMICS/Dispersion Curve..METAL/MODEL POTENTIAL CALCULATION
69-JO-01 JOHNSTON BE..THEORY/SOLID/HARMONIC APPROXIMATION/BORN-VON KARMAN MODEL/..SCATTERING LAW/DEBYE-WALLER
69-KO-01 KING, JRD* CUTLER BE..Dispersion Relation/SOLID/..THEORY/LATTICE DYNAMICS..PSEUDOPOTENTIAL/PHONON/META
69-ME-02 METZBOWER BE/MG/ZN..Dispersion Relation/..THEORY/SOLID/..LATTICE DYNAMICS/..NONCENTRAL-FORCE/FIVE FORCE
69-SA-03 SANN, VENKATARAMAN BE..LATTICE DYNAMICS/..THEORY/SOLID/LATTICE DYNAMICS..PSEUDOPOTENTIAL OF THEO
70-BO-04 BORGONOVI, SPREKAV BE..THEORY/COHERENT SCATTERING/..POLYCRYSTAL
70-FR-01 FRAAS, PORTO* BE..EXPERIMENT/RAMAN SCATTERING
70-KI-02 KING, CILCHER BE..LATTICE DYNAMICS/..THEORY/SOLID/Dispersion Relation/..HEXAGONAL CLOSE-PACKED CRYSTAL/P
70-PR-01 PRAKASH, JOSHI BE/MG/ZN..THEORY/LATTICE DYNAMICS/Dispersion Relation..SINGLE-ORTHOGONALIZED-PLANE-WA
70-TH-03 SHARAN, BAJPAL BE/MG/TL..THEORY/LATTICE DYNAMICS/Dispersion Relation/..HEXAGONAL METAL
71-CA-02 BAKSH, FINEGOLD ZN/BE..THEORY/LATTICE DYNAMICS
71-CH-02 KUSHWAHA BE/TL..NON-CENTRAL FORCE MODEL
71-SR-01 SRINIVASAN, RAIO MG/ZN/BE..THEORY/PHONON DISPERSION/ELASTIC CONSTANT/AHARMONICS
71-TH-01 TAPKER, SAKHAR BE..EXPERIMENT/PHONON DISPERSION/MODIFIED AXIAL SYMMETRIC MODEL FITTING
71-TR-03 TROTT, HEALD BE/MG/ZN/..THEORY/PHONON DISPERSION/..SHEAR/..INTERAXIAL LATTICE
73-BO-04 BOSE, TRIPATHI* BE/MG/ZN..THEORY/PHONON DISPERSION/..SPECTRUM/..SPECIFIC HEAT/CENTRAL AND NON
73-KU-04 KUSHWAHA BE/TL/..THEORY/PHONON DISPERSION/SHORT-RANGE-..CHOLESTERIC AND SHELL-LATTICE
73-RA-01 RAJPUT, KUSHWAHA BE/MG/..THEORY/PHONON DISPERSION/..KREB MODEL
73-RO-03 ROY, DASANACHARYA* BE..LATTICE DYNAMICS/..Dispersion Relation
73-UP-02 UPADHYAYA, VERMA BE/MG/M0/TL..THEORY/PHONON DISPERSION/..MODIFIED SHARMA-JOSHI MODEL
73-VA-02 KANDA, KADOTANJ BE..TOTAL CROSS SECTION/..EXPERIMENT
73-MA-05 MAURYA, SRIVASTAVA BE/MG/ZN/..THEORY/PHONON DISPERSION/..HCP METAL/TOYA THEORY
73-UP-01 UPADHYAYA, SINHA BE/MG/Y/..THEORY/..EXPERIMENT/Dispersion Relation/..BHATIA MODEL

2. 7 BISMUTH B1

66-YA-02 YARNELL, WAREH* B1/..EXPERIMENT/..SOLID/LATTICE DYNAMICS/Dispersion Relation
66-EG-01 EGELSTAFF, DUFFILL* PB/SN/B1/ZN/AL/..EXPERIMENT/..LIQUID/..STRUCTURE FACTOR
66-OE-01 OEHME, HICHTER CS/B1/NA/..STRUCTURE FACTOR
66-CC-01 COXING AL/PB/B1/RB/SN/..SOLID/LIQUID/Dispersion Relation/EXPERIMENT
66-SM-01 SMITH B1/..LATTICE DYNAMICS/..Dispersion Relation/..CONST,..METHOD/75D
66-MA-10 MATEESCU, TEUTSCH* N2/B1/..EXPERIMENT/TOF/..SCATTERING FUNCTION/77.40K FOR N2/..360K FOR B1
JABRI-M 6857

68-WO-01 NORTH, ENDERBY, 2N/ TL/ PB/ SN/ BI, EXPERIMENT/ LIQUID/ STATISTICAL MECHANICS, LIQUID METAL, 340DC-1100D
68-SC-01 SLOMOWSKI, BEDNARSKI, Bi, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ CONST-G
68-TD-01 TUNKELO, KUOPPMAMI, Bi, EXPERIMENT/ LIQUID/ SOLID/ DISPERSION RELATION, 280DC FOR LIQUID, 262DC FOR SOL
72-BU-01 BURENKO, VALIEV, Bi, EXPERIMENT/ ELASTIC CONSTANTS/ 300-544DK
72-KA-05 KAMMER, CARDINAL, Bi/ SN, EXPERIMENT/ ELASTIC CONSTANT

2. 8 BORON

B

64-AL-01 ALS-NIELSEN, DIETRICH, ME/ B/ AU, EXPERIMENT/ CROSS SECTION
69-DO-03 DONALDSON, PASELL, Bi/ N/ O, MIRROR REFLECTION/ SCATTERING AMPLITUDE
73-FO-01 FLETCHER, I/ B, THEORY/ DISPERSION FUNCTION, BORN VON KARMA MODEL

2. 9 BROMINE

Br

62-CA-01 CAGLIOTI, RICCI, Br, LIQUID/ EXPERIMENT
63-CA-01 CAGLIOTI, ASCARELLI, Br, LIQUID/ EXPERIMENT
63-CO-07 COOTE, HAYWOOD, Br, SCATTERING LAW/ EXPERIMENT/ LIQUID
64-AN-01 ANTONINI, ASCARELLI, Br, EXPERIMENT/ LIQUID
66-CA-02 CARPENTER, SCHAEFER, Br/ C2,F6, SCATTERING THEORY
73-MI-04 MISAWA, FUKUSHIMA, Br, NEUTRON-SCATTERING-IN-FLUIDS, EXPERIMENT/ LIQUID, 1-G-F
74-NI-02 NIIMURA, Br, ANALYSIS/ LIQUID STRUCTURE FACTOR

2. 10 BROMINE

Br2

67-CA-03 CARPENTER, C2,F6/ Br2, SCATTERING LAW/ CORRELATION FUNCTION/ THEORY, GAS, MOLECULAR DYNAMICS, TORSIONAL

2. 11 CADMIUM

Cd

71-TO-01 TOUSSAINT, Cd, EXPERIMENT/ PHONON DISPERSION/ X-RAY SCATTERING
72-TO-01 TOUSSAINT, CHAMPIER, Cd, X-RAY DIFFUSE SCATTERING, 880K, PHONON DISPERSION, MODEL FITTING, FREQUENCY SPECT

2. 12 CALCIUM

Ca

72-AL-02 GOMPF, LAU, PB/ AL/ Ca, EXPERIMENT/ PHONON SPECTRA/ COHERENT SCATTERING
73-PR-01 PRASAD, SRIVASTAVA, Ba/ Sr/ Ca, THEORY/ SOLID/ DISPERSION RELATION/ LATTICE DYNAMICS, PSEUDOPOTENTIAL
73-SW-01 SAROOP, BOHRA, Ca/ Sr, THEORY/ PHONON DISPERSION/ PHONON DENSITY, DEBYE TEMP, SHARMA-JOSHI MODEL

2. 13 CARBON

C

65-YO-01 YOUNG, KOPPEL, Be/ C/ H2/O, D2/O, C/HE/ H2/ D2, THEORY/ SCATTERING FUNCTION/ CROSS SECTION EVALUATION
66-YO-01 YOUNG, Be/ C, BE/O, SCATTERING FUNCTION/ THEORY/ LATTICE DYNAMICS, DISPERSION RELATION, FREQUENCY DIS
68-NI-01 IIZUMI, AYAO, C, SIGMA (E)
69-CA-04 COLLINS, HAYWOOD, C, COHERENT INELASTIC SCATTERING, CARBON FIBERS

- 22 -
JAERI-M 6857

2. 14 CERIUM

66-PA-03 PASKIN

REVIEW ARTICLES/ AR/ NA/ CE/ RB . . . LIQUID/ THEORY/ STRUCTURE FACTOR/ VELOCITY AUTOCORRELATION FUNCTION

2. 15 CESIUM

66-0E-01 OEHME, RICHTER

CS/ BS/ NA . . . STRUCTURE FACTOR

67-PR-02 PRAKASH, JOSHI

LI/ NA/ K/ RB/ CS . . . DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ SOLID/ LATTICE DYN

70-SI-04 SINGH, PRAKASH

LI/ RB/ K/ CS . . . THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION . . . ALKALI METAL

71-CO-04 COX, MINKIEWICZ

CS . . . EXPERIMENT/ SCATTERING AMPLITUDE

71-KU-04 KUSHWAHA, SINGH

THEORY OF SOLIDS/ CS . . . THEORY/ PHONON DISPERSION

71-WA-05 WASEDA, SUZUKI

CS/ AR . . . THEORY/ LIQUID . . . PAIR POTENTIAL/ BORN-GREEN EQUATION

72-SI-02 SINGH, PRAKASH

LI/ NA/ K/ RB/ CS . . . THEORY/ DISPERSION CURVE

72-SI-03 SINGH, PRAKASH

LI/ NA/ K/ RB/ CS . . . THEORY/ PHONON DISPERSION

2. 16 CHLORINE

75-GH-01 GROUT, LEECH

C, S2/ CL . . . THEORY/ LATTICE DYNAMICS/ SOLID

2. 17 CHROMIUM

65-MO-01 MOELLER, MACKINTOSH

CR . . . EXPERIMENT/ SOLID/ DISPERSION RELATION . . . TRIPLE AXIS SPECTROMETER

67-GI-02 GILAT

CR/ FE . . . THEORY OF SOLIDS . . . THEORY/ PHONON SPECTRA/ BCC METALS

70-RI-01 RICE, HALPERIN

CR . . . THEORY/ LATTICE VIBRATION . . . FERMI SURFACE/ ELECTRON SUSCEPTIBILITY/ EFFECT OF THE KOHN

71-SH-03 SAW, MUHLENSTEIN

CR . . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ KOHN EFFECT/ FREQUENCY SPECTRA

71-SH-04 SAW, MUHLENSTEIN

CR . . . EXPERIMENT/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ KOHN ANOMALY

71-SO-01 SOKOLOFF

CR . . . THEORY

72-HU-01 MUHLENSTEIN, GUERMEN

CR . . . EXPERIMENT/ PHONON DISPERSION/ 300K TO 500K

74-PA-04 PAL

CR . . . THEORY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ DEBYE-WALLER FACTOR/ DISPERSION RELATION

2. 18 COBALT

70-CI-01 CZACHOR

MG/ CO/ Y . . . THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ BORN-VON KARMAN MODEL . . . AXIAL

70-CZ-02 CZACHOR, RAJCA

MG/ CO/ Y . . . CALCULATION/ HEXAGONAL METAL/ FREQUENCY SPECTRA

74-KO-01 KOESTER, KNOPF

CO . . . SCATTERING AMPLITUDE

74-SI-02 SINGH, KUSHWAHA

CO . . . THEORY/ PHONON DISPERSION/ DEBYE TEMP.

2. 19 COPPER

58-TO-01 TOYA

CU . . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

61-CH-01 CRIBIER, JACROT

CU . . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

62-LE-01 LEHMANN, WOFRAM

CU/ AL/ ZR-H . . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

62-SO-01 SOSNOWSKI, KOZUBOWSKY

CU . . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

63-MA-02 MALISIENIUK, SOSNOWSKI

ZN/ CU/ MG . . . EXPERIMENT

64-VI-01 VINTAIKIN, GOMBACHEV

CU . . . DISPERSION RELATION/ SOLID/ EXPERIMENT

65-BI-01 BLEICH, Avenbach

V/ CU . . . THEORY/ MULTIPLE SCATTERING

65-SI-06 SINA, SQUIRES

CU . . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ TOF

- 23 -
2. 22 DIAMOND

64-YO-01 YOUNG, KOPPEL
   H2/ D2 , THEOREY/ MOLECULAR DYNAMICS/ SCATTERING CROSS SECTION , 20, 40K
64-YO-04 YOUNG, KOPPEL
   H2/ D2 , THEOREY/ MOLECULAR DYNAMICS/ LIQUID , SCATTERING CROSS SECTION
70-KL-03 KLUMP, SCHNEPP
   H2/ D2 , FREQUENCY DISTRIBUTION/ THEOREY/ SOLID

2. 23 ERBIUM

73-RA-03 RAO, MENON
   ER , THEOREY/ PHONON DISPERSION/ CEATING METHOD/ THERMAL EXPANSION/ PHONON DENSITIES

2. 24 GADOLINIUM

74-RA-04 RAO, MENON
   GADOLINIUM , DISPERSION CURVE/ THEOREY

2. 25 GALLIUM

63-AR-01 ARNOLD, NERESON
   Ga/ IN/ SB/ AS , EXPERIMENT/ SCATTERING AMPLITUDE
67-RA-06 RAO, DASANNACHARYA
   Ga , EXPERIMENT/ LIQUID/ RADIAL DISTRIBUTION
69-VA-01 WAEBER
   GA , THEOREY/ LATTICE DYNAMICS/ GROUP-THEORETICAL ANALYSIS
69-VA-02 WAEBER
   GA , EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ TRIPLE-AXIS SPECTROMETER , 77DK
70-VA-01 VADOVIC, COLVER
   Ag/ Ga/ Mg/ Na/ Pd/ Sn/ Zn , THEOREY/ SELF-DIFFUSION CONSTANT
72-AN-03 ANTONINI, CORCHIA
   Ga , EXPERIMENT/ LIQUID STRUCTURE/ MULTIPLE SCATTERING
72-AN-05 ANTONINI, CORCHIA
   Ga , DYNAMICS OF LIQUIDS
72-VA-01 WAEBER
   GA , THEOREY/ SOLID/ LATTICE DYNAMICS/ METALL/ ORTHORHOMBIC
73-BR-01 BREBNER, JANDL
   Ga/ Se , EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ INELASTIC NEUTRON SCATTERING
73-LO-01 LOEFFLER
   GALLIUM , EXPERIMENT/ SCATTERING LAW/ LIQUID/ 305, 1253K
73-PA-01 PAGE, SAUNDERS
   Ga , STRUCTURE FACTOR/ LIQUIDS , QUASI-ELASTIC PEAK

2. 26 GERMANIUM

GE
<table>
<thead>
<tr>
<th>Page</th>
<th>Code</th>
<th>Author/Institution</th>
<th>Research Area</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>57-BR-01</td>
<td>BROCKHOUSE, IYENGAR</td>
<td>GE</td>
<td>EXPERIMENT/ PHONON DISPERSION</td>
<td></td>
</tr>
<tr>
<td>58-BR-04</td>
<td>BROCKHOUSE, IYENGAR</td>
<td>GE</td>
<td>EXPERIMENT/ DISPERSION RELATION</td>
<td></td>
</tr>
<tr>
<td>59-BR-02</td>
<td>BROCKHOUSE</td>
<td>GE</td>
<td>EXPERIMENT/ DISPERSION RELATION</td>
<td></td>
</tr>
<tr>
<td>59-BR-03</td>
<td>BROCKHOUSE</td>
<td>GE/ SI</td>
<td>EXPERIMENT/ DISPERSION RELATION</td>
<td></td>
</tr>
<tr>
<td>59-GH-01</td>
<td>GHOSE, PALEVSKY</td>
<td>GE</td>
<td>EXPERIMENT/ DISPERSION RELATION</td>
<td></td>
</tr>
<tr>
<td>63-BR-03</td>
<td>BROCKHOUSE, BECKA</td>
<td>GE</td>
<td>EXPERIMENT/ LATTICE DYNAMICS</td>
<td></td>
</tr>
<tr>
<td>63-BR-04</td>
<td>BROCKHOUSE</td>
<td>GE</td>
<td>EXPERIMENT/ DISPERSION RELATION, TEMPERATURE EFFECTS</td>
<td></td>
</tr>
<tr>
<td>65-DO-04</td>
<td>DOLLING</td>
<td>GE/ SI</td>
<td>EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION</td>
<td></td>
</tr>
<tr>
<td>65-DO-02</td>
<td>POPE</td>
<td>GE</td>
<td>LATTICE DYNAMICS/ SOLID/ THEORY</td>
<td></td>
</tr>
<tr>
<td>66-DO-02</td>
<td>DOLLING, COWLEY</td>
<td>GE/ SI</td>
<td>DIAMOND/ GAAS, COHERENT INELASTIC SCATTERING STUDIES/ PHONON DISPERSION</td>
<td></td>
</tr>
<tr>
<td>71-JE-03</td>
<td>JEX</td>
<td>DIAMOND</td>
<td>GE/ SI</td>
<td>THEORY/ PHONON DISPERSION/ THERMAL PROPERTIES/ ANHARMONIC INTERACTION</td>
</tr>
<tr>
<td>71-NL-03</td>
<td>NILSSON, NELIN</td>
<td>GE</td>
<td>EXPERIMENT/ DISPERSION CURVE/ LATTICE DYNAMICS/ 10DK/ LINE WIDTH</td>
<td></td>
</tr>
<tr>
<td>72-JE-01</td>
<td>JEX</td>
<td>GE/ SI</td>
<td>THEORY/ PHONON/ ANHARMONIC INTERACTION</td>
<td></td>
</tr>
<tr>
<td>72-KR-01</td>
<td>KRESS</td>
<td>GE/ SN</td>
<td>THEORY/ PHONON DISPERSION/ MODIFIED SHELL MODEL</td>
<td></td>
</tr>
<tr>
<td>72-NE-01</td>
<td>NELIN, NILSSON</td>
<td>GE</td>
<td>EXPERIMENT/ CALCULATION/ PHONON DENSITY</td>
<td></td>
</tr>
<tr>
<td>72-NL-03</td>
<td>NILSSON, NELIN</td>
<td>GE/ SI</td>
<td>LATTICE DYNAMICS/ NEUTRON SPECTROSCOPY</td>
<td></td>
</tr>
<tr>
<td>72-PA-03</td>
<td>PANDY, DAYAL</td>
<td>GE</td>
<td>THEORY/ LATTICE/ DYNAMICS/ DISPERSION RELATION</td>
<td></td>
</tr>
<tr>
<td>72-TU-01</td>
<td>TUBINO, RISERI</td>
<td>DIAMOND/ SI/ GE/ Sn</td>
<td>THEORY/ PHONON DISPERSION/ PHONON DENSITY/ VALENCE FORCE POTENTIAL</td>
<td></td>
</tr>
<tr>
<td>73-PA-05</td>
<td>PANDY, DAYAL</td>
<td>SI/ GE</td>
<td>THEORY/ PHONON DISPERSION/ CLARK-GAIS-WALLIS TYPE ANGULAR FORCE MODEL/ FOUR PARAME</td>
<td></td>
</tr>
<tr>
<td>73-TH-01</td>
<td>THORPE</td>
<td>GE/ SI</td>
<td>THEORY/ SOLID/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION, BORN MODEL</td>
<td></td>
</tr>
<tr>
<td>74-AH-02</td>
<td>AXE, KAIN</td>
<td>GE</td>
<td>EXPERIMENT/ FREQUENCY SPECTRA/ AMORPHOUS MATERIAL</td>
<td></td>
</tr>
<tr>
<td>74-NE-01</td>
<td>NELIN</td>
<td>GE</td>
<td>THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION, DEFORMATION DIPOLAR MODEL/ SHELL DIP</td>
<td></td>
</tr>
<tr>
<td>74-NE-02</td>
<td>NELIN, NILSSON</td>
<td>GE</td>
<td>EXPERIMENT/ PHONON DISPERSION/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ CRYSTAL SPECTROMETER</td>
<td></td>
</tr>
<tr>
<td>74-NE-04</td>
<td>NELIN</td>
<td>GE</td>
<td>THEORY/ SOLID/ LATTICE DYNAMICS/ HARMONIC APPROXIMATION/ DISPERSION RELATION, SHELL DIPOL</td>
<td></td>
</tr>
<tr>
<td>74-WE-01</td>
<td>WEIRE, MALBEN</td>
<td>GE</td>
<td>THEORY/ NEUTRON SPECTROMETER/ AMORPHOUS SOLID</td>
<td></td>
</tr>
<tr>
<td>75-AL-01</td>
<td>MALBEN, WEIRE</td>
<td>SI/ GE</td>
<td>EXPERIMENT/ RAMAN, IR SPECTRA/ PHONON SPECTRA/ NUMERICAL CALCULATION/ PREDICTION, THERAM</td>
<td></td>
</tr>
<tr>
<td>75-CH-02</td>
<td>SENG, VETTELIN</td>
<td>GE/ SI</td>
<td>THEORY/ SOLID/ FREQUENCY DISTRIBUTION, AMORPHOUS SOLID/ RIGID ION MODEL</td>
<td></td>
</tr>
</tbody>
</table>

2, 27 GOLD

<table>
<thead>
<tr>
<th>Page</th>
<th>Code</th>
<th>Author/Institution</th>
<th>Research Area</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>64-AL-01</td>
<td>ALS-NEISSLER, DIETRICH</td>
<td>GE/ B/ AU</td>
<td>EXPERIMENT/ CROSS SECTION</td>
<td></td>
</tr>
<tr>
<td>67-GU-01</td>
<td>GUPTA, SHARMA</td>
<td>CU/ AU</td>
<td>LATTICE DYNAMICS/ THEORY</td>
<td></td>
</tr>
<tr>
<td>70-BR-03</td>
<td>BAHRI, BHADARI</td>
<td>CU/ AG/ AU</td>
<td>THEORY/ LATTICE VIBRATION/ DISPERSION RELATION, NON-CENTRAL FORCE MODEL/ EL</td>
<td></td>
</tr>
<tr>
<td>71-SM-01</td>
<td>SINGH, SINGH</td>
<td>CU/ AG/ AU</td>
<td>THEORY/ PHONON DISPERSION/ METAL</td>
<td></td>
</tr>
<tr>
<td>71-SI-01</td>
<td>SINGH, SHARMA</td>
<td>CU/ AG/ AU/ Al/ Ni/ Na/ Cr/ Fe</td>
<td>THEORY/ DERYE-WALLER FACTOR</td>
<td></td>
</tr>
<tr>
<td>73-SW-01</td>
<td>SWAROG, TIWARI</td>
<td>AU</td>
<td>THEORY/ PHONON DISPERSION</td>
<td></td>
</tr>
<tr>
<td>73-LY-01</td>
<td>LYN, SMITH</td>
<td>AU</td>
<td>DISPERSION RELATION, INELASTIC NEUTRON SCATTERING/ FREQUENCY DISTRIBUTION/ EXPERIMENT</td>
<td></td>
</tr>
<tr>
<td>73-SI-01</td>
<td>SINGH, PRAKASH</td>
<td>CU/ AG/ AU</td>
<td>THEORY/ PHONON DISPERSION</td>
<td></td>
</tr>
<tr>
<td>74-CH-01</td>
<td>CHANNA, SPARDHYAY</td>
<td>AU</td>
<td>THEORY/ PHONON DISPERSION/ CURVES</td>
<td></td>
</tr>
<tr>
<td>74-SL-01</td>
<td>SINGH, PRAKASH</td>
<td>AU</td>
<td>DISPERSION CURVES</td>
<td></td>
</tr>
<tr>
<td>75-CL-01</td>
<td>CHO, SHUKLA</td>
<td>CU/ AG/ AU</td>
<td>THEORY/ PHONON DISPERSION/ SPECIFIC HEAT</td>
<td></td>
</tr>
<tr>
<td>75-GO-02</td>
<td>GOPALANAND, MURTY</td>
<td>COPPER/ GOLD/ SILVER</td>
<td>LIQUID NOBLE METAL, STRUCTURE FACTOR</td>
<td></td>
</tr>
<tr>
<td>75-NA-01</td>
<td>NAMCH, TRIPATHI</td>
<td>AU</td>
<td>THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION, PSEUDOPOTENTIAL</td>
<td></td>
</tr>
<tr>
<td>75-TI-01</td>
<td>TIWARI</td>
<td>AU</td>
<td>THEORY/ PHONON DISPERSION/ KEEF MODEL</td>
<td></td>
</tr>
</tbody>
</table>

2, 28 GRAPHITE

<table>
<thead>
<tr>
<th>Page</th>
<th>Code</th>
<th>Author/Institution</th>
<th>Research Area</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>51-KO-01</td>
<td>KOMATSU, NAGAMIYA</td>
<td>GRAPHITE</td>
<td>THEORY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION</td>
<td></td>
</tr>
</tbody>
</table>
70-GO-02 GOLDMAN, HORTON+ HE/ HE ++SELF-CONSISTENT APPROXIMATION/ DISPERSION CURVE/ LIFE TIME/ THEORY
70-HA-02 HARLING HE ++EXPERIMENT/ EXCITATION CURVE
70-HO-01 HONNER HE ++THEORY/ PHONON/ SPECIFIC HEAT
70-KE-03 KERR, PATHAK+ HELIUM /THEORY/ LIQUID/ SCATTERING LAW/ GAUSSIAN APPROXIMATION / LARGEST MOMENTUM TRANSFER / 0
70-KE-03 LAI, SIM+ HE ++DISPERSION CURVE/ THEORY
70-KE-04 LAI, SIM+ HE ++THEORY/ PHONON DISPERSION/ LIQUID
70-MA-04 MARIS, MASSEY HE ++THEORY/ PHONON DISPERSION
70-PI-02 PINES, WOO HE ++THEORY/ STRUCTURE FACTOR/ PHONON DISPERSION/ LIQUID
70-PU-01 PUFF, TENN HE ++THEORY
70-SE-01 SEARS HE ++THEORY / LIQUID
70-WE-04 WERTHAMER HELIUM ++THEORY/ SOLID ++PHONON RELAXATION
70-WO-01 WOODS, COWLEY HE ++SUPERFLUID
71-CO-02 COWLEY, WOODS HE ++EXPERIMENT/ LIQUID/ PHONON DISPERSION
71-GL-01 GILLESSEN, BIEM HE ++THEORY/ PHONON DAMPING/ SOLID HE
71-GL-01 GILDE, KHAHNA HE ++THEORY
71-HA-05 HARLING HE ++DYNAMICS OF LIQUID
71-RE-01 REES, SINHA HE ++EXPERIMENT/ PHONON DISPERSION/ 4.2K/ PHONON DENSITY
71-SP-02 SPICIO HE ++THEORY
71-TR-02 TRAYLOR, STASSI++ HE ++EXPERIMENT/ PHONON DISPERSION/ FCC ME
72-DI-01 DIETRICH, GRAF+ HE ++EXPERIMENT/ LIQUID/ ROTON DISPERSION/ LINE WIDTH
72-DR-02 DROZ HE ++LIQUID DYNAMICS
72-G1-01 GILBERT HE ++FOURIER TRANSFORM OF SCATTERED INTENSITY/ PROBABILITY DENSITY
72-GL-02 GLYDE, KHAHNA HE ++THEORY/ PHONON DISPERSION/ T-MATRIX/ SCH APPROXIMATION
72-HA-05 HAMLIN, LUBAN HE ++THEORY
72-HO-01 HORNER HE/ NE/ AR ++THEORY/ PHONON DISPERSION/ SELF-CONSISTENT TREATMENT
72-HO-02 HORNER THEORY-OF-SOLIDS/ HE/ NE ++QUANTUM CRYSTALS/ PHONON SPECTRUM
72-HO-03 HORNER HE/ NE ++THEORY/ SCATTERING FUNCTION/ SINGLE-PARTICLE EXCITATION/ QUANTUM CRYSTAL
72-KE-01 KERR, PATAAK+ HE ++THEORY
72-KI-02 KITCHENS, SHIRANE+ HE ++EXPERIMENT/ SOLID ME/ SINGLE PARTICLE EXCITATIONS
72-KO-01 KOELER, WERTHAMER HE ++THEORY/ DISPERSION RELATION
72-MO-01 MOOK, SCHERM+ HE ++EXPERIMENT/ HIGH ENERGY NEUTRON SCATTERING
72-OS-01 OSSGOOD, MINKIEWICZ+ HE ++EXPERIMENT/ PHONON DISPERSION
72-RA-06 RAQ, HEONON HELIUM ++DISPERSION RELATION
72-SE-02 SEARS HELIUM ++ANHARMONICITY/ FREQUENCY/ SPECTRUM
72-SO-01 SOLANA, CUI++ HE ++THEORY/ TWO-ROTON RESONANCE/ ROTON DISPERSION/ LINE WIDTH
72-SV-01 SVENSSON, WOODS+ HE ++LIQUID DYNAMICS/ PHONON DISPERSION
72-TA-01 TAKENO, GODA THEORY-OF-FLUIDS/ HE ++THEORY/ PHONON-LIKE EXCITATION/ LIQUID HELIUM
72-TA-02 TAKENO, GODA THEORY-OF-SOLIDS/ HE ++THEORY/ PHONON-LIKE EXCITATION
72-TR-02 TAYLOR, STASSI++ HE ++EXPERIMENT/ PHONON DISPERSION/ FCC HE-4
72-WE-01 WERTHAMER HE ++THEORY
72-WO-01 WOODS, SVENSSON+ HE ++EXPERIMENT/ LIQUID DYNAMICS/ LOW-MOMENTUM-TRANSFER
72-YA-01 YAMADA, ISHIKAWA HE ++THEORY/ PHONON DISPERSION/ LIQUID HELIUM
73-HO-01 HOMMA, NAGA++ HE ++THEORY/ PHONON VELOCITY AND DISPERSION/ BCC SOLID HE
73-JA-01 JACOBSON HE ++SUPERFLUID
73-KE-01 KEBUKAWA, YAMASAKI+ HE ++THEORY/ LIQUID/ PHONON-ROTON DISPERSION
73-KE-02 KEBUKAWA HE ++THEORY/ PHONON VELOCITY/ ROTON MINIMUM/ TEMPERATURE EFFECT/ LIQUID
73-MI-03 MINKIEWICZ, KITCHENS HE ++DISPERSION CURVE
73-NI-05 NISHIYAMA HE ++THEORY/ LIQUID ME/ ROTON DISPERSION AND LEVEL DENSITY
73-WO-01 WOODS, SVENSSON+ HE ++SUPERFLUID/ PRESSURE EFFECT
74-BR-03 BROOKS, DONNELLY THEORY-OF-FLUIDS/ HE ++SECOND SOUND
74-CH-01 GRAF, MINKIEWICZ+ HE ++EXPERIMENT/ INELASTIC NEUTRON SCATTERING/ SOLIDS/ SCATTERING LAW/ DISPERSION RELATION
74-IA-01 IACHELLO, RASSETTI HE ++THEORY/ PHONON DISPERSION
2, 31 HOLMIUM

69-LE-02 LEAKE* MINKIEWICZ H, HO - DISPERsION RELATION/ TRIPLE AXIS SPECTROMETER/ LATTICE DYNAMICS 295K/ PARAMAGN
70-LA-02 LAHTENKORVA MG/ Y/ MO - DISPERSION RELATION/ HARMONIC APPROXIMATION/ THEORY/ SOLID/ LATTICE DYNAMICS...EL
71-NI-01 NICKLOW WAKABAYASHI H, HO - EXPERIMENT/ PHONON DISPERSION CURVES/ FREQUENCY DISTRIBUTION/ SPECIFIC HEAT/ DE
72-ME-05 MENON RAO HO/ Y - THEORY/ PHONON DISPERSION/ HEXAGONAL METAL
73-UP-02 UPADHYAYA, VERMA BE/ MG/ HO/ TL - THEORY/ PHONON DISPERSION/ MODIFIED SHARMA-JOSHI MODEL
75-UP-01 UPADHYAYA, SINHA BE/ MG/ Y/ HO - THEORY/ EXPERIMENT/ DISPERSION RELATION - Bhatia Model

2, 32 HYDROGEN

51-EG-01 EGE, STAFF H/ BE/ V/ SE/ MO/ FE - SOLID/ EXPERIMENT/ TRANSMISSION
51-ME-01 MESSIAH H/ C/H, H - THEORY/ SCATTERING THEORY - ROOM TEMP.
58-BR-01 BRIMBERG H - THEORY/ MOLECULAR DYNAMICS/ SIGMA(E)
63-SC-01 MCREYNOLDS, WHITMORE H - EXPERIMENT/ LIQUID
63-WH-01 WHITMORE, DANNER H - EXPERIMENT/ LIQUID/ SIGMA (E=PRIME, THETA)
64-EC-02 EGE, STAFF, HAYGOOD H - EXPERIMENT/ SOLID/ LIQUID - 12, 15, 18 AND 21DK
65-WH-01 WHITMORE C/H, H - EXPERIMENT/ LIQUID/ MOLECULAR DYNAMICS - NEUTRON SPECTRA/ TOTAL CROSS SECTION
65-HO-05 HORSLEY H - CROSS SECTION EVALUATION - SIGMA TOTAL
65-SC-04 KALIBOFF H - COMPUTER-CODES/ HYDROGEN - THEORY/ LIQUID
65-SE-02 SEARS H - SCATTERING LAW
66-KO-04 KOPEL H2O/ POLYETHYLENE/ ZR=H - CROSS SECTION EVALUATION/ SCATTERING FUNCTION/ THEORY/ LIQUID/ SO
67-WH-01 WHITMORE D2O/ HO/ GRAPHITE - CROSS SECTION EVALUATION/ LIQUID/ SOLID/ EXPERIMENT/ SCATTERING FUNCTION
68-ST-01 STAMENKOVICH H - DOUBLE-POTENTIAL-WELL/ HYDROGEN BOND - SIGMA (THETA=E) - THEORY/ MOLECULAR DYNAMICS
70-OL-01 OLIVI HYDROGEN - MOLECULAR ROTATION/ SIGMA (THETA=E) - DIFFERENTIAL CROSS SECTION
70-SN-04 SCHOTT H - EXPERIMENT
70-SC-06 SCOTT, RIETSCHEL H - EXPERIMENT/ PHONON STATE DENSITY/ QUADRUPOLE INTERACTION CONSTANT
71-MO-02 MOURI, SHAMBROOK H - EXPERIMENT/ PHONON/ SCATTERING LENGTH
71-LE-08 LEFEVRE, CHEN H - EXPERIMENT/ QUASI-ELASTIC SCATTERING/ PRESSURE DEPENDENCE/ KINETIC THEORY ANALYSIS
72-NI-02 NIELSEN, CARNEIRO H - EXPERIMENT/ PHONON PERSPECTIVE/ PARA-H2O AND THERMAL SCATTERING FUNCTION
72-SE-02 SEARS H2O - RUBIDIAN/ HYDROGEN - THEORY/ FLUID/ SCATTERING CROSS SECTION
72-BI-01 BICKERMAN, BIEH HYDROGEN - THEORY/ SOLID ORTHO-HYDROGEN/ PHONON DISPERSION AND SPECTRA - SCATTERING FUNCTION

2, 33 HYDROGEN

37-SC-01 SCHWINGER, TELLER H2 - THEORY/ TOTAL CROSS SECTION
41-SA-01 SACHS*, TELLER NEUTRON-SCATTERING IN FLUIDS/ H2/ CH4/ N/H2/ H2O - SCATTERING THEORY - MOLECULAR GASES
47-HA-01 HAMMERISH, SCHWINGER H2 - THEORY/ GAS/ SCATTERING CROSS SECTION
61-SA-01 SARMA H2 - THEORY/ MOLECULAR DYNAMICS/ LIQUID

- 30 -
<table>
<thead>
<tr>
<th>JAEBI-M 6857</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>63-BA-02 BALLY, TARINA+</td>
<td>H2/ ETHYLENE, EXPERIMENT</td>
</tr>
<tr>
<td>63-WE-01 WEBB</td>
<td>C=H / N=H / H2 / SIGMA (G=PRIME=THETA) / EXPERIMENT/ GAS / ROOM TEMPERATURE</td>
</tr>
<tr>
<td>64-YO-01 YOUNG, KOPPEL</td>
<td>H2/ D2 / THEORY/ MOLECULAR DYNAMICS/ SCATTERING CROSS SECTION / 20, 40K</td>
</tr>
<tr>
<td>65-YO-04 YOUNG, KOPPEL</td>
<td>H2/ D2 / THEORY/ MOLECULAR DYNAMICS/ LIQUID / SCATTERING CROSS SECTION</td>
</tr>
<tr>
<td>66-KO-02 KOPPEL, YOUNG</td>
<td>H2 / THEORY/ MOLECULAR DYNAMICS / DIFFERENTIAL CROSS SECTION / 20, 40K</td>
</tr>
<tr>
<td>67-EG-01 EGELSTAFF, HAYWOOD+</td>
<td>H2 / MOLECULAR DYNAMICS/ SOLID / LIQUID / EXPERIMENT</td>
</tr>
<tr>
<td>67-EG-07 EGELSTAFF, HAYWOOD+</td>
<td>H2 / EXPERIMENT/ MOLECULAR MOTION/ LIQUID / EXPERIMENT</td>
</tr>
<tr>
<td>67-EL-04 ELLIOTT, MARTIN</td>
<td>H2 / MOLECULAR DYNAMICS/ THEORY/ SIGMA (THETA+E)</td>
</tr>
<tr>
<td>70-KL-01 KLEIN, KOHLEHR</td>
<td>H2 / DISPERSION RELATION</td>
</tr>
<tr>
<td>70-KL-03 KLUMP, SCHNEPP+</td>
<td>H2/ D2 / FREQUENCY DISTRIBUTION / THEORY/ SOLID</td>
</tr>
<tr>
<td>70-MI-02 MISENTA, OLIVI</td>
<td>H2 / THEORY / DIFFERENTIAL CROSS SECTION</td>
</tr>
<tr>
<td>71-BI-01 BIEM, MERTENS+</td>
<td>H2 / THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA / SOLID HYDROGEN</td>
</tr>
<tr>
<td>71-NO-02 NOOVLAND+</td>
<td>H2 / THEORY / SOLID</td>
</tr>
<tr>
<td>71-ST-03 STEIN, stockmeier+</td>
<td>H2 / EXPERIMENT / SOLID HYDROGEN / TOF SPECTRA / PHONON DENSITY</td>
</tr>
<tr>
<td>72-JA-01 JACOBI, SCHNEPP</td>
<td>C=O / H2 / N2 / THEORY / LATTICE DYNAMICS / QUADRUPOL / QUADRAPOL POTENTIAL</td>
</tr>
<tr>
<td>72-ST-02 STEIN</td>
<td>H2 / EXPERIMENT / SOLID / LATTICE DYNAMICS / SCATTERING LAW / FREQUENCY DISTRIBUTION</td>
</tr>
<tr>
<td>72-ST-03 STEIN, STILKE+</td>
<td>H2 / LATTICE AND MOLECULAR DYNAMICS</td>
</tr>
<tr>
<td>74-CA-02 CARNEIRO</td>
<td>H2/ N2 / EXPERIMENT/ PHONON LIKE EXCITATION/ LIQUID DYNAMICS</td>
</tr>
<tr>
<td>75-DI-01 DIEM, BIEM</td>
<td>H2 / THEORY / SCATTERING CROSS SECTION / ORTHO-PARA CONVERSION</td>
</tr>
</tbody>
</table>

2. 34 INDIUM

| 63-AR-01 ARNOLD, NERSON | GA/ IN/ SB / AS / EXPERIMENT / SCATTERING AMPLITUDE |
| 72-KU-03 KUMAR, SHARAN | IN / THEORY / PHONON DISPERSION / DEBYE TEMPERATURE |
| 73-GU-01 GUNTON, SAUNDERS | IN/ IN-TL / THEORY / PHONON DISPERSION / MARTENSITIC PHASE CHANGE |
| 73-SH-02 SHARAN, KUMAR | IN / THEORY / PHONON DISPERSION / DEBYE TEMP / ELASTIC CONSTANT |
| 75-RE-01 REISSLAND, ESE | AL/ NA/ MG / IN/ TL / THEORY / PHONON DISPERSION/ PHONON SPECTRA/ MODEL POTENTIAL CALCULATION |

2. 35 IODINE

| 73-FO-01 FOLTER | I/ B / THEORY / DISPERSION FUNCTION/ BORN VON KARMAN MODEL |

2. 36 IRON

| 61-1Y-01 IYENGAR, SATYA-MURTHY+ | FE / EXPERIMENT/ DISPERSION RELATION |
| 62-LO-01 LOW | FE / EXPERIMENT / SOLID / DISPERSION RELATION |
| 66-MA-02 MAHESH, DAYAL | FE/ MO/ W / THEORY / PHONON DISPERSION AND FREQUENCY DISTRIBUTION |
| 67-BE-01 BERGSMA, VAN-DIJK+ | FE / DISPERSION RELATION/ EXPERIMENT/ SOLID/ LATTICE DYNAMICS / CRYSTAL SPECTROMETER / BO |
| 67-BR-01 BROCKHOUSE, ABOU-MELAL+ | FE / LATTICE DYNAMICS / EXPERIMENT / DISPERSION RELATION |
| 67-GI-02 GILAT | CR/ FE/ W / THEORY-OF-SOLIDS / THEORY / PHONON SPECTRA / BCC METALS |
| 67-MI-03 MINKIEWICZ, SHIRANE | FE / EXPERIMENT/ LATTICE DYNAMICS / DISPERSION RELATION / FREQUENCY DISTRIBUTION / ROOM |
| 67-VA-01 VAN-DINGENEN, HAUTECLER | FE / EXPERIMENT/ LATTICE DYNAMICS / DISPERSION RELATION / ROOM TEMPERATURE / TOF MET |
| 70-VA-02 VAN-DIK, BERGSMA | FE/ FE-AL / EXPERIMENT/ LATTICE DYNAMICS / DISPERSION RELATION / FREQUENCY DISTRIBUTION |
| 70-VA-03 VAN-DIJK | FE / AL EXPERIMENT/ LATTICE DYNAMICS / PHONON DISPERSION |
| 72-BA-03 BAJPAI, NEELAKANDAN | FE/ NB/ T/ W / THEORY / PHONON DISPERSION / BCC METAL // MODIFIED AXIALLY SYMMETRIC MODEL |
| 72-BE-01 BENDRIS, TRIPATHI | FE/ MO/ W / THEORY / PHONON DISPERSION / FREQUENCY SPECTRA |
| 73-UP-03 UPADHYAYA, SHARMA+ | FE/ W / MO/ V / NB/ T/ W / LATTICE DYNAMICS / DISPERSION RELATION / TRANSITION METAL / THEORY / |
2, 37 KRYPTON

66-GU-01 GUPTA, DAYAL AK/ KR/ . . THEORY/ PHONON SPECTRA/ SPECIFIC HEAT
67-BR-03 BROWN, HORTON KR . . LATTICE DYNAMICS/ THEORY/ FREQUENCY DISTRIBUTION . . . 73 DK
67-DA-01 DANIELS, SHIRANE+ KR . . EXPERIMENT/ PHONON DISPERSION/ 79 DK
67-HO-03 HOEGBERG, BOHLIN KR . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION
70-GL-01 GLYDE NE/ AR/ KR/ . . THEORY/ ANHARMONICITY
70-K1-03 KITAGAWA AR/ KR/ POLYETHYLENE REVIEW/ LATTICE DYNAMICS
70-LE-02 LEECH, REISSLAND NE/ AR/ KR/ XE . . THEORY/ LATTICE DYNAMICS/ ANHARMONICITY . . . THERMODYNAMICAL PROPERTIES
70-LE-03 LEECH, REISSLAND NE/ AR/ KR/ XE . . THEORY/ LATTICE DYNAMICS/ SPECIFIC HEAT/ DEBYE TEMPERATURE/ THERMAL EXPANS
71-BA-07 BARKER, BOBETIC+ KR . . THEORY/ PHONON DISPERSION/ ELASTIC CONSTANT
71-GU-02 GUPTA, GUPTA AR/ KR/ XE . . THEORY/ PHONON DISPERSION AND SPECTRA/ ANHARMONIC POTENTIAL
71-HU-01 HUELLER THEOY=OF-SOLIDS/ ARGON/ KRYPTON/ XENON . . CAUCHY-RELATION
72-BO-01 BOBETIC, BARKER+ KR . . THEORY/ DEBYE PARAMETER/ THERMAL EXPANSION/ BULK MODULUS
72-TO-02 TOLPYGO, THUITSKYA NE/ AR/ KR . . DISPERSION CURVE
73-PS-01 PETIPET, SKALYO+ KR . . SOLID/ EXPERIMENT/ ELASTIC CONSTANTS/ COLD NEUTRON
73-SA-02 SALZBERG, SHUKLA KR . . THEORY/ PHONON DISPERSION/ PHONON SPECTRUM/ AXIAL SYMMETRIC MODEL
73-W1-02 WINEFIELD, EGELSTAFF KR. THEORY-OF-FLUIDS . . TRIPLET CORRELATION
74-SK-01 SKALYOJR, ENDON+ KR . . PHONON DISPERSION CURVE/ FREQUENCY DISTRIBUTION/ INELASTIC NEUTRON SCATTERING
75-GA-01 GARG, GUPTA NE/ AR/ KR/ XE . . LATTICE DYNAMICS/ ANHARMONICITY/ CENTRAL FORCE MODEL/ DISPERSION RELATION

2, 38 LEAD

54-EQ-01 EGELSTAFF PB . . EXPERIMENT/ LIQUID
55-BR-01 BROOKHOUSE PB . . EXPERIMENT/ LIQUID
59-BR-01 BROOKHOUSE, POPE PB . . EXPERIMENT/ LIQUID
59-PE-01 PELAH+ WHITEMORE+ PB . . EXPERIMENT/ LIQUID/ SOLID/ TOP/ NEUTRON SPECTRUM/ QUASI-ELASTIC PEAK
61-BR-01 BROOKHOUSE, RAO+ PB . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
61-BR-01 BROOKHOUSE, ARASE+ PB . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ PHONON LIFE TIME
61-EQ-01 EGELSTAFF, COCKING+ H2/O, O2/0, PB . . EXPERIMENT/ LIQUID/ SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION
61-PA-01 PALEVSKY H2/O, SN . . EXPERIMENT/ LIQUID . . ROOM TEMP . . 450C FOR H2/O, 460C FOR PB/ 350C FOR SN/ BE=F
61-RA-01 RAHMAN, SINGW+ NEUTRON-SCATTERING-IN-FLUIDS/ PB . . THEORY/ LATTICE DYNAMICS
62-BR-01 BROOKHOUSE, ARASE+ PB . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ CRYSTAL SPECTROMETER/ 100 DK
62-CO-01 COTTER PB . . EXPERIMENT/ LIQUID/ SOLID/ FREQUENCY DISTRIBUTION
62-EQ-03 EGELSTAFF, SCHEFFIELD SCATTERING-THEORIES/ H2/O, PB . . EXPERIMENT/ THEORY/ LIQUID/ DIFFUSION PARAMETER . . ROO
62-EQ-05 EGELSTAFF MG/ BE/ PB . . THEORY/ SOLID/ LIQUID/ SIGMA=+ E=PRIME/ THETA . . METAL/ LIQUID METAL
62-TU-01 TURBENFIELD P/ , LIQUID . . 3400C/ 5200C/ 3200C
63-EG-01 EGELSTAFF PB/ SN . . EXPERIMENT/ SCATTERING FUNCTION/ LIQUID
63-SI-03 SINGW, JOELANDER+ NEUTRON-SCATTERING-IN-FLUIDS/ H2/O, PB . . THEORY/ LIQUID/ FREQUENCY DISTRIBUTION/ SCATT
63-CO-03 COCKING, EGELSTAFF PB/ SN . . EXPERIMENT/ LIQUID/ DISPERSION RELATION
63-DD-01 DONNER, PLESSHE PB . . EXPERIMENT
63-GI-03 GILAT PB . . PHONON FREQUENCY DISTRIBUTION
63-PA-02 PALEVSKY PB/ H2/O, SN . . EXPERIMENT/ LIQUID
65-TO-01 TOYA PB . . THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION
66-BR-05 BRUGGER METHANE/ ETHANE/ AL/ NA/ PB/ AK . . COMPILATION/ SCATTERING FUNCTION
66-EG-01 EGELSTAFF, DUFFILL+ PB/ SN/ BI/ BU/ AL . . EXPERIMENT/ LIQUID/ STRUCTURE FACTOR
66-LE-01 LECHNER, GUINNTER PB . . PHONON DISPERSION/ PRESSURE EFFECT
66-RA-03 RANDOLPH LEAD . . EXPERIMENT/ LIQUID/ SCATTERING FUNCTION . . 3520C
66-RA-04 RANDOLPH, SINGW PB . . SCATTERING LAW/ LIQUID/ CRYSTAL SPECTROMETER/ EXPERIMENT . . COLLECTIVE MOTION
67-CO-01 COCKING AL/ PB/ BI/ RB/ SN . . SOLID/ LIQUID/ DISPERSION RELATION/ EXPERIMENT
67-DO-01 DORNER, PLESSER PB . EXPERIMENT/ LIQUID/ SCATTERING FUNCTION . LIQUID DYNAMICS/ METAL
67-DO-02 DORNER, PLESSER PB . EXPERIMENT/ 3-AXIS SPECTROMETER/ LIQUID/ DISPERSION CURVE
67-DO-03 DORNER, PLESSER PB . EXPERIMENT/ POLYCRYSTAL/ LIQUID/ DISPERSION CURVES
67-NE-03 NELKIN, RANGANATHAN PB . EXPERIMENT/ LIQUID/ SCATTERING LAW/ QUASI-ELASTIC PEAK/ THEORY . VLASOV EQUATION
67-PA-03 RANDOLPH PB . EXPERIMENT/ LIQUID/ DISPERSION RELATION . DOPPLER SHIELDING RELATION
67-RA-04 RANDOLPH, MYERS PB . EXPERIMENT/ LIQUID/ DISPERSION RELATION . 35000C/ COLLECTIVE VIBRATIONAL MODE
67-ST-03 STEDMAN, ALBAMV* AL PB . LIQUID DYNAMICS/ FREQUENCY DISTRIBUTION . 8000K FOR AL/ 3000K FOR PB
67-ST-04 STEDMAN, ALBAMV* PB . LIQUID DYNAMICS/ EXPERIMENT/ DISPERSION RELATION . 8000K/ 3000K
67-SG-01 AGHAWAL, DESAI PB . NEUTRON SCATTERING/ LIQUID/ LIQUID DYNAMICS/ SPECTRAL DENSITY . THEORY/ MODEL CALCULATION
67-CO-03 COCKING PB . EXPERIMENT/ LIQUID/ SCATTERING FUNCTION . 3500C AND BELOW MELTING POINT/ 3500C
67-CO-04 COCKING NA PB . EXPERIMENT/ LIQUID/ LIQUID DYNAMICS
67-CO-05 COCKING PB . THEORY/ LIQUID DYNAMICS
67-CO-06 COCKING EGELSTAFF PB . LIQUID DYNAMICS/ TEMPERATURE DEPENDENCE
67-GR-02 GRIMM, GRIMM PB . LIQUID DYNAMICS/ LIQUID DYNAMICS/ TEMPERATURE DEPENDENCE
67-NO-01 NORTH, EDERBY ZN/ TL/ PB/ SN/ Bi . EXPERIMENT/ LIQUID/ STATISTICAL MECHANICS . LIQUID METAL/ 34000C-11000D
67-NO-03 NORTH, EDERBY PB . TB . STRUCTURE FACTOR
68-RA-03 RANDOLPH PB . LIQUID/ CORRELATION FUNCTION/ SCATTERING LAW/ EXPERIMENT
68-SC-04 SCHMUCK, QUINN PB . LIQUID DYNAMICS/ DISPERION RELATION . THEORY/ SODIAL/ LATTICE DYNAMICS
68-SC-05 SCHMUCK, QUINN PB . THEORY/ LATTICE DYNAMICS/ DISPERION RELATION . LIQUID DYNAMICS/ PSEUDOPOTENTIAL CALCULATION
68-WI-01 WIGNALL, EGELSTAFF PB . EXPERIMENT/ LIQUID/ SCATTERING FUNCTION . 3300-7200K
68-DE-02 DESAI, YIP NA PB . THEORY/ LIQUID/ SCATTERING FUNCTION . LIQUID METAL
68-IC-01 ICHIKAWA, SHIMOJI Ll/ NA/ K/ Mg/ Pb . DIFFUSION PARAMETER/ LIQUID/ THEORY . LIQUID METAL/ FRICTION CONSTANT
68-RO-01 ROSE, MCILHAN* PB . LL/ TL . EXPERIMENT/ SPECTRAL DENSITY . TUNNELING EXPERIMENT
70-CO-07 COULTHARD sodium/ potassium/ aluminum/ lead . THEORY/ LATTICE VIBRATION/ DISPERSION RELATION . PRESSURE
71-FU-01 FURUKAWA HAGI PB . ANHARMONIC EFFECT
71-RO-03 ROY, BROCXMUSE PB/ PB-LL . EXPERIMENT/ FREQUENCY SPECTRUM/ POLYCRYSTALLINE SAMPLES/ TRIPLE AXIIS SPECTROMETER
71-UA-01 BEADOW/ COLVER AS/ CA/ Ga/ Ha/ In/ Zn . THEORY/ SELF-DIFFUSION CONSTANT
71-GR-01 GREENFIELD, WISSER NA/ PB . EXPERIMENT/ STRUCTURAL FACTOR/ X-RAY DIFFRACTION
71-GU-03 GUPTA, TRIPATHI PB . THEORY/ PHONON DISPERSION/ ELASTIC PROPERTIES/ PSEUDOPOTENTIAL
71-GU-04 GUPTA, TRIPATHI PB . THEORY/ PHONON DISPERSION
72-RE-02 REHARI PB . THEORY/ SOLID/ LATTICE DYNAMICS
72-GO-01 GOMPKAR, LALU PB . AL/ CA . EXPERIMENT/ PHONON SPECTRA/ COHERENT SCATTERING
73-CA-01 CAVALIERI, SHUKLA PB . THEORY/ PHONON DISPERSION/ DERY TEMP . DE LAUNAY MODEL
73-KA-02 KACHHAVA PB . THEORY/ PHONON DISPERSION
73-KA-03 KACHHAVA PB . THEORY/ PHONON DISPERSION/ ASCHOFIT MODEL PSEUDOPOTENTIAL
73-PRA-02 PRADASH, SRIVASTAVA PB . THEORY/ PHONON DISPERSION/ MODEL POTENTIAL CALCULATION
74-NO-01 NOVOTNY, HOLDEN PB . NEUTRON DIFFRACTION

2. 39 LITHIUM LI

65-KR-01 KREBS Ll/ Na/ K . THEORY/ SOLID/ DISPERSION RELATION
66-AN-01 ANIMALU, CONSIGNORI NA/ K/ AL/ Li/ RB/ Cs . THEORY/ PHONON DISPERSION/ MODEL POTENTIAL
66-SM-01 SMITH, DOLLING LI . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION . FREQUENCY DISTRIBUTION . 9800K/ Li7
66-IC-01 ICHIKAWA, SHIMOJI Na/ K/ Mg/ Pb . DIFFUSION PARAMETER/ LIQUID/ THEORY . LIQUID METAL/ FRICTION CONSTANT
66-KR-01 KREBS, MDELZL Ll/ Na/ K/ RB/ Cu/ AL/ Pb . FE. N/ PTA . COMPUTER-CODES . PSEUDOPOTENTIAL APPROXIMATION/ FITTING TO
66-PB-02 PRAKASH, JOSHI Ll/ Na/ K/ RB/ Cs . DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY . SOLID/ LATTICE DYN
66-WA-01 WALLACE LI . DISPERSION RELATION/ SOLID/ THEORY . LATTICE DYNAMICS . PSEUDOPOTENTIAL/ PHONON/ GRÜNEISEN
70-GU-01 GUPTA LI . DISPERSION RELATION/ THEORY . SOLID/ LATTICE DYNAMICS . PSEUDOPOTENTIAL/ MEAL
70-PA-03 PAL LI . THERMODYNAMIC/ SHOCK/ JOSHI MODEL
70-PR-02 PRICE, SINGH NA/ K/ Li/ RB . THEORY/ DISPERSION RELATION . PHONON LIFE TIMES DUE TO ELECTRON-PHONON INTEN
70-SI-04 SINGH, PRAKASH LI/ RB/ K/ Cs . THEORY . LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION . ALKALI METAL

- 33 -
GUPTA, TRIPATHI : LI .. THEORY/ PHONON DISPERSION/ ELASTIC CONSTANT/ COMPRESSIBILITY
TRIPATHI, BEHARI : LI/ NA/ K .. CALCULATION/ PHONON DISPERSION/ DEBYE TEMPERATURE
BAJPAL, NEELAKANDAN : LI/ NA/ K .. THEORY/ PHONON DISPERSION/ BCC METAL/ AXIALLY SYMMETRIC MODEL
KAHAVA : LI .. THEORY/ PHONON DISPERSION
KACHHAVA : LI .. THEORY/ PHONON DISPERSION
PRASAD, SRIVASTAVA : LI .. THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ PSEUDOPOTENTIAL
SINGH, PRAKASH : LI/ NA/ K/ RB/ CS .. THEORY/ DISPERSION CURVE
SINGH, PRASAD : LI .. THEORY/ PHONON DISPERSION
SINGH, SRIVASTAVA : LI .. THEORY/ PHONON DISPERSION/ THERMAL EXPANSION/ GREUENEISEN PARAMETER
KUSHWAHA : LI .. THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ PSEUDOPOTENTIAL
ONO : LI .. THEORY/ PHONON DISPERSION/ HARTREE-FOCK Eqs/ HARRISON METHOD
SHARAN, KUMAR : LI .. THEORY/ PHONON DISPERSION
DA-CUNHA-LIMA, BRESBISAN : K/ RB/ LI .. PHONON DISPERSION RELATION/ KREBS MODEL
PRAKASH, PATHAK : K/ RB/ LI .. THEORY/ LATTICE DYNAMICS/ PHONON DISPERSION/ ANGULAR FORCE MODEL
NAND, TRIPATHI : LI .. THEORY/ MODEL POTENTIAL APPROACH

2. 40 MAGNESIUM

EGELSTAFF : BE/ MG/ SCATTERING-THEORIES/ THEORY/ EXPERIMENT/ SOLID/ SIGMA(E, E-PRIME, THETA)/ SIGMA(E) .. 0
COLLINS : MG .. EXPERIMENT/ SOLID/ DISPERSION RELATION
EGELSTAFF : MG/ BE/ PB .. THEORY/ SOLID/ LIQUID/ SIGMA(E, E-PRIME, THETA) .. METAL/ LIQUID METAL
IYENGAR, VENKATARAMAN : MG .. EXPERIMENT/ DISPERSION RELATION
MALISZEWSKI, SOKOLESKE .. ZN/ CZU .. MG .. EXPERIMENT
YO, KOJU .. BE/ MG/ ZN .. THEOR Y/ FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS .. ROOT SAMPLING METHOD
IYENGAR, VENKATARAMAN : MG .. LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION
IYENGAR, VENKATARAMAN : MG .. LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION
IYENGAR, VENKATARAMAN : MG .. LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION
SQUIRES : MG .. PHONON DISPERSION/ EXPERIMENT
SQUIRES : MG .. PHONON DISPERSION
SQUIRES : MG .. PHONON DISPERSION
ROY, VENKATARAMAN : MG .. THEORY/ PHONON DISPERSION/ PSEUDOPOTENTIAL
BROWMAN, KAGAN : BE/ MG/ ZN .. THEORY/ LATTICE DYNAMICS
CZACHOR : MG/ ZN/ BE .. THEORY/ PHONON DISPERSION
PYNN, SQUIRES : MG .. EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ TOF
SCHAIDER, STOLL .. NA/ MG/ AL .. THEORY/ LATTICE DYNAMICS .. ELECTRONIC STRUCTURE/ METAL
WARNER .. CS/ CL .. MG .. GROUP/ THEORY/ LATTICE VIBRATION .. SYMMETRY PROPERTIES/ SPACE GROUP/ IRREDUCIBLE REP
CZACHOR, RIZZI : BE/ MG .. THEORY/ SOLID/ LATTICE DYNAMICS CURVE .. METAL/ MODEL POTENTIAL CALCULATION
METZBOWER : BE/ MG/ ZN .. DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS .. NONCENTRAL-FORCE FIVE FORCE
PINDOR, PYNN : MG .. DISPERSION RELATION/ SOLID/ THEORY/ LATTICE DYNAMICS/ PHONON/ POTENTIAL/ METAL
CZACHOR : MG/ CO/ Y .. THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ BORN-VON KARMAN MODEL .. AXIAL
CZACHOR : RAJCA : MG/ CO/ Y .. CALCULATION/ HEXAGONAL METAL/ FREQUENCY SPECTRA
FLOYD, KLEINMAN : MG .. THEORY/ PHONON DISPERSION/ METAL/ PSEUDOPOTENTIAL
LAUENKORVA : MG/ Y/ HO .. DISPERSION RELATION/ HARMONIC APPROXIMATION/ THEORY/ SOLID/ LATTICE DYNAMICS .. EL
PRASH, JOSHI : BE/ MG/ ZN .. THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION .. SINGLE-ORTHOGONALIZED-PLANE-WA
SHARAN, BAJPAL : BE/ MG/ TL .. THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ HEXAGONAL METAL
RINGVASSAN, RAO : MG/ ZN/ BE .. THEORY/ PHONON DISPERSION/ ELASTIC CONSTANT/ ANHARMONIC
TRIPATHI .. BE/ MG/ ZN .. THEORY/ PHONON DISPERSION AND SPECTRA/ HEXAGONAL LATTICE
BAJPAL : MG/ ZR/ Y/ TL/ HF .. THEORY/ PHONON DISPERSION/ FOURTH NEIGHBOURS MODEL/ HEXAGONAL LATTICE
BAJPAL : MG .. THEORY/ TOP OF LATTICE DYNAMICS/ DISPERSION RELATION
PYNN, SQUIRES : MG .. EXPERIMENT/ PHONON DISPERSION/ PHONON DENSITY/ DEBYE TEMPERATURE
BOSE, TRIPATHI .. BE/ TL .. THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ SPECIFIC HEAT/ CENTRAL AND NON
KUSHWAHA : MG/ BE/ TL .. THEORY/ PHONON DISPERSION/ SHORT-RANGE CLOSED-SHELL AND IONIC INTERACTION
<table>
<thead>
<tr>
<th>JAERI-M 6857</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2.41 MERCURY</strong></td>
</tr>
<tr>
<td>HG</td>
</tr>
<tr>
<td>51-PL-01 PLACZEK, NIJBOER*</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>69-ID-01 CHIKAMA, SHIMOJI</td>
</tr>
<tr>
<td>70-YA-01 VADOVIC, COLIVER</td>
</tr>
<tr>
<td>70-WA-02 WASADA, SUZUKI</td>
</tr>
<tr>
<td>73-FR-01 FRANCHETTI</td>
</tr>
</tbody>
</table>

| **2.42 MOLYBDENUM** |
| MO |
| 51-EG-01 EGGLESTAFF | H/M/Fe/V/Se/MO/FE | SOLID, EXPERIMENT, TRANSMISSION |
| 64-WO-01 WOODS, CHEN | MO | EXPERIMENT, SOLID, DISPERSION RELATION |
| 65-WO-01 WOODS | Nb/TA/TA | EXPERIMENT, LATTICE DYNAMICS, DISPERSION RELATION |
| 66-MA-02 MAHESH, DAYAL | FE/MO/W | THEORY, PHONON DISPERSION AND FREQUENCY RELATION |
| 66-MO-01 ROSENSTOCK, BLANKEN | NA/NB/MO/TA/CO-2/ZN | THEORY, DISPERSION RELATION, FORCE CONSTANTS FOR BORN- | |
| 69-NA-03 WALKER, EGGLESTAFF | MG | EXPERIMENT, LATTICE DYNAMICS, TOLKER, EGGLESTAFF, EFFECT |
| 72-BE-01 BEHARI, TRIPATHI | MO/TA/MO/W | THEORY, PHONON DISPERSION, FREQUENCY SPECTRA |
| 72-BU-07 BUYERS, POWELL | MO | EXPERIMENT, PHONON DISPERSION, Kohn Anomaly, Temperature Effect |
| 75-UP-03 UPADHYAYA, SHARMA+ | FE/Fe/Fe/Fe/Fe/TA | LATTICE DYNAMICS, DISPERSION RELATION, TRANSITION METAL, THEORY |

| **2.43 NEON** |
| NE |
| 65-CH-02 CHEN, EDER* | NEON/ARGON/DEUTERIUM/CARBON TETRAFLUORIDE | EXPERIMENT, LIQUID, SIGMA(THETA) |
| 66-ED-01 EDER, CHEN | AR/NE | EXPERIMENT, H IN LIQUID AR AND NE |
| 67-JA-01 JAEN, KHAN | NE | THEORY, LIQUID, STATISTICAL MECHANICS |
| 68-FR-01 FRANCHETTI, MAZZA | AR/NE/NE | THEORY, MONOTOMIC LIQUID, RADIAL DENSITY AND SCATTERING FUNCTION |
| 69-LE-03 LEAKE, DANIELS* | NE | EXPERIMENT, SOLID, LATTICE DYNAMICS, DISPERSION RELATION, 47K/93K/3-7K/1-5K |
| 70-GL-01 GLYDE, COMIN | NE/AR/KE/KE | THEORY, ANHARMONICITY |
| 70-GO-02 GOLDMAN, HORTON* | NE/KE | SELF-CONSISTENT APPROXIMATION, DISPERSION CURVE, LIFE TIME, THEORY |
| 70-GU-04 GUPTA, GUPTA | NE | THEORY, PHONON DISPERSION AND SPECTRUM, PSEUDOANHARMONIC CENTRAL-FORCE RIGID-ATOM MODEL |
| 70-LE-02 LEACH, REISSLAND | NE/AR/KE/KE | THEORY, LATTICE DYNAMICS, ANHARMONICITY, THERMODYNAMICAL PROPERTIES |
| 70-LE-03 LEACH, REISSLAND | NE/AR/KE | THEORY, ANHARMONICITY, SPECIFIC HEAT, DEBYE TEMPERATURE, THERMAL EXPANSION |
| 71-BE-01 BEHARI, TRIPATHI | NE | THEORY, PHONON DISPERSION, ELASTIC CONSTANT, DEBYE TEMPERATURE, FREQUENCY SPECTRA |
| 72-BO-03 BOHLMAN | NE | THEORY, INELASTIC SCATTERING PROFILE, NUMERICAL CALCULUS, SOLID |
| 72-BU-06 BUYERS, SEARS* | NE | SCATTERING-THEORIES, THEORY, EXPERIMENT, LIQUID DYNAMICS, COLLECTIVE MOTION, SINGLE PA |
| 72-EG-02 EGGLESTAFF, WANG | RB/NE | THEORY, EXPERIMENT, LIQUID, STRUCTURE FACTOR, DENSITY DEPENDENT POTENTIAL |
| 72-HO-02 HORNER | NE/AR | THEORY, PHONON DISPERSION, SELF-CONSISTENT TREATMENT |
| 72-HO-02 HORNER | NE | THEORY, PHONON DISPERSION, SELF-CONSISTENT TREATMENT |
| 72-HO-02 HORNER | NE/AR | THEORY, PHONON DISPERSION, SELF-CONSISTENT TREATMENT |
| 72-HO-03 HORNER | NE | THEORY, SCATTERING FUNCTION, SINGLE-PARTICLE EXCITATION, QUANTUM CRYSTAL |
2.44 NICKEL

N

2.45 NI OB IUM

NB

2.46 NITROGEN

N

--36--
2. 47 NITROGEN

65-VE-02 VERTEBYI, DZYUB+ N2/ O2 , EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID/ SOLIDS
66-TE-01 TETSCH+ MATEESCU+ N2 , EXPERIMENT/ LIQUID DYNAMICS
66-MA-10 MATEESCU, TETSCH+ N2/ B1 , EXPERIMENT/ TOF/ SCATTERING FUNCTION .77,4DK FOR N2/ 560DK FOR B1
72-JA-01 JACOBI+ SCHNEPP C,02/ H2/ N2 , THEORY/ LATTICE DYNAMICS QUADROPL-QUADROPL POTENTIAL
74-CA-02 CARNEIRO N2/ N2 , EXPERIMENT/ PHONON LIKE EXCITATION/ LIQUID DYNAMICS
75-CA-01 CARNEIRO+ MCCTAGE N2 , EXPERIMENT/ SCATTERING CAV/ LIQUID/ 66.4K
75-WK-01 WEIS, KLEIN N2 , COMPUTER SIMULATION/ SCATTERING FUNCTION/ SOLID N2

2. 48 OXYGEN

65-DO-05 DONALDSON, PASSELL+ BY/ N/ O , MIRROR REFLECTION/ SCATTERING AMPLITUDE
68-SU-02 SUMMERFELD, LURIE O , SCATTERING FUNCTION/ EXPERIMENT/ THEORY/ GAS MAGNETIC SCATTERING/ ROOM TEMP.
68-VA-01 VALENTINE O , EXPERIMENT USING 0.02 SINGLE CRYSTAL

2. 49 OXYGEN

65-VE-02 VERTEBYI, DZYUB+ N2/ O2 , EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID/ SOLIDS

2. 50 PALLADIUM

63-MO-01 MOZER, OTONES N1/ PD/ N1-PD , EXPERIMENT/ LATTICE DYNAMICS NEPURITY MODE
68-MI-02 MILLER, BROCKHOUSE PD , EXPERIMENT/ THEORY/ LATTICE DYNAMICS DISPERSION RELATION TRIPLE AXIS SPECTROMET
70-BR-01 BROWN PD , THEORY/ PHONON DISPERSION/ KREBS MODEL
71-BR-04 BROWN PD , CALCULATION/ PHONON DISPERSION 3-PARAMETER MODEL
71-MI-01 MILLER, BROCKHOUSE PD/ CU , EXPERIMENT/ CALCULATION NEUTRON SCATTERING/ DISPERSION CURVE/ FREQUENCY SPECT
71-PA-02 PAL PD , CALCULATION/ PHONON DISPERSION DENSITY DEBYE TEMPERATURE
73-PA-03 PAL, SINGH PD , THEORY/ PHONON DISPERSION FREQUENCY SPECTRUM/ SPECIFIC HEAT/ KREBS MODEL
73-SH-05 SHUKLA, CAVALHEIRO CU/ AG/ AL N1/ PD , THEORY/ PHONON DISPERSION SPECTRA FOURTH NEIGHBOURS FORCE
74-GO-01 GOEL, PANDEY AG/ PD/ PT , PHONON DISPERSION RELATION
75-BE-04 BERTOLO, SHUKLA N1/ PD/ PT , THEORY/ PHONON DISPERSION MODIFIED BHATIA MODEL

2. 51 PLATINUM

68-OH-01 OHLICH, DREXEL PT , EXPERIMENT/ LATTICE DYNAMICS/ TOF/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION
71-KO-01 KONTI PT , THEORY/ ANGULAR FORCE MODEL/ DISPERSION CURVE/ FREQUENCY SPECTRA DEBYE-WALLER FACTOR/ DEB
72-DU-03 DUTTON, BROCKHOUSE PT , EXPERIMENT/ PHONON DISPERSION MODEL FITTING FORCE CONSTANT/ PHONON SPECTRUM/ TE
74-GO-01 GOEL, PANDEY AG/ PD/ PT , PHONON DISPERSION RELATION
75-BE-04 BERTOLO, SHUKLA N1/ PD/ PT , THEORY/ PHONON DISPERSION MODIFIED BHATIA MODEL

- 37 -
2, 52 POTASSIUM

65-KR-01 KREBS LIT NA/ K/. THEOREY/ SOLID/ DISPERSION RELATION
66-AN-01 ANIMALU, BONSIGNORI N/A/ K/ AL/ LIT/ RB/ CS/. THEORY/ PHONON DISPERSION/ MODEL POTENTIAL
66-CO-02 COWLEY, WOODS K/. LATTICE DYNAMICS/ EXPERIMENT/ THEORY/ SOLID/ DISPERSION RELATION/ .90K
66-GU-03 GUPTA, KISHORE K/. THEORY/ PHONON SPHERICITY/ SPECIFIC HEAT
66-HO-01 HO/. THEORY OF SOLIDS/ NA/ K/. DISPERSION RELATION/ THEORY/ LATTICE DYNAMICS
69-BD-01 BOFFEY K/ RB/. DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS/. ELECTRON-PHONON INTERACTION/ EXC
69-BU-03 BUYERS, COWLEY K/. PHONON LIFETIME/ ANHARMONIC EFFECT/ EXPERIMENT/ THEORY/ .90K/ 920K/ 2150K/ 2900K/ NEUTRA
69-IC-01 ICHEII, SHIMJO LIT NA/ K/ MB/ PB/. DIFFUSION PARAMETER/ LIQUID/ THEORY/. LIQUID METAL/ FRICTION CONSTANT
69-KR-01 KREBS, HOLZLE LIT NA/ K/ RB/ CS/. DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ SOLID/ LATTICE DYN
69-PK-02 PRAKASH, JOSHI LIT NA/ K/ RB/ CS/. DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ SOLID/ LATTICE DYN
70-CO-06 COULTHARD SODIUM/ POTASSIUM/ ALUMINIUM/ LEAD/. THEORY/ LATTICE VIBRATION/ DISPERSION RELATION/ PRESSURE
70-KU-05 KUSHWAHA, RAJPUT THEOREY OF SOLIDS/ NA/ K/. PHONON DISPERSION CURVE/ METAL/ BCC
70-PR-02 PRICE, SINGWI LIT NA/ K/. THEORY/ DISPERSION RELATION/. PHONON LIFE TIMES DUE TO ELECTRON-PHONON INTER
70-SI-04 SINGH, PRAKASH LIT NA/ K/ RB/. THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION/. ALKALI METAL
71-TI-03 TRIPATHI, BEHARI LIT NA/ K/. CALCULATION/ PHONON DISPERSION/ DEBYE TEMP.
72-BA-02 BAJRPAI, NEELAKANDAN LIT NA/ K/. THEOREY/ PHONON DISPERSION/ BCC METAL/ AXIAL SYMMETRIC MODEL
72-GR-01 GREENFIELD, WISER LIT NA/ K/. THEORY/ LIQUID/ STRUCTURE FACTOR/ HARD-SPHERE MODEL
72-SI-02 SINGH, PRAKASH LIT NA/ K/ RB/ CS/. THEOREY/ DISPERSION CURVE
72-SI-03 SINGH, PRAKASH LIT NA/ K/ RB/ CS/. THEOREY/ PHONON DISPERSION
73-DU-01 DUESBERY, TAYLOR K/. ANHARMONICITY/ DISPERSION CURVE/ THEORY
74-AI-01 AIKAWA, BANERJEE LIT NA/ K/. EFFECTIVE PAIK POTENTIAL/ RADIAL DISTRIBUTION FUNCTION/ LIQUID
74-DA-01 DA-CUNHA-LIMA, BRESACINI K/ LIT NA/ K/ RB/. PHONON DISPERSION RELATION/ KREBS MODEL
74-HA-02 HASEGAWA, WATABE THEORY OF FLUIDS/ NA/ K/. LIQUID METAL/ ELECTRON THEORY/ STRUCTURE FACTOR/ THERMAL EXPANS
74-PAL-02 PAL, SETH K/. THEOREY/ PHONON DISPERSION/ PHONON SPHERICITY/ SPECIFIC HEAT
74-PR-01 PRAKASH, PATHAK K/ RB/ LIT/. THEOREY/ LATTICE DYNAMICS/ PHONON DISPERSION/ ANGULAR FORCE MODEL
75-GO-01 GOEL, PANDEY LIT NA/ K/. THEOREY/ PHONON DISPERSION/ METAL/ MODIFIED SHARMA-JOSHI MODEL

2, 53 RUBIDIUM

66-AN-01 ANIMALU, BONSIGNORI N/A/ K/ AL/ LIT/ RB/ CS/. THEOREY/ PHONON DISPERSION/ MODEL POTENTIAL
66-PA-03 PASKIN REVIEW ARTICLES/ AR/ NA/ CE/ RB/. LIQUID/ THEORY/ STRUCTURE FACTOR/ VELOCITY AUTOCORRELATION FUNCTION
67-CO-01 COCKING AL/ PB/ BI/ RB/ SN/. SOLID/ LIQUID/ DISPERSION RELATION/ EXPERIMENT
67-CO-01 PRAKASH, BRUCKHERR K/. RB/. EXPERIMENT/ EXPERIMENTAL RELATION/ .120K
68-BO-01 BOFFEY K/ RB/. DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS/. ELECTRON-PHONON INTERACTION/ EXC
69-KR-01 KREBS, HOLZLE LIT NA/ K/ RB/ CS/. DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ SOLID/ LATTICE DYN
70-PA-02 PRAKASH, JOSHI LIT NA/ K/ RB/ CS/. THEOREY/ PHONON LIFE TIMES DUE TO ELECTRON-PHONON INTER
70-SI-04 SINGH, PRAKASH LIT NA/ K/ RB/ CS/. THEOREY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION/. ALKALI METAL
71-EG-01 EGELSTAFF, PACE LIT NA/ K/ RB/. EXPERIMENT/ EXPERIMENT/ LIQUID/ STRUCTURE FACTOR/ DENSITY DEPENDENT POTENTIAL
72-EG-03 EGELSTAFF, PACE LIT NA/ K/ RB/. EXPERIMENT/ LIQUID/ STRUCTURE FACTOR/ DENSITY DEPENDENT POTENTIAL
72-SC-01 SCHMOLLER LIT NA/ K/. SCATTERING LAW/ FLUID STATE/ STRUCTURE FACTOR
72-SI-02 SINGH, PRAKASH LIT NA/ K/ RB/ CS/. THEOREY/ DISPERSION CURVE
72-SI-03 SINGH, PRAKASH LIT NA/ K/ RB/ CS/. THEOREY/ PHONON DISPERSION
2, 54 SCANDIUM

71-WA-01 WAKABAYASHI, SINHA, SC, EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ PHONON DENSITY/ DEBYE TEMPERATURE

73-BG-03 BOSE, GUPTA, SC, THEORY/ PHONON DISPERSION/ FIVE PARAMETER

73-SA-04 RAO, MENON, SC, THEORY/ PHONON DISPERSION/ SECOND ORDER ELASTIC CONSTANT/ KEATING METHOD

74-KA-05 KAUR, KUSHWAHA, SC, THEORY/ PHONON DISPERSION

75-SI-07 SINGH, PRAKASH, SC/ Y, CALCULATION/ PHONON DISPERSION/ HCP METAL

75-SI-09 SINHA, UpADHYAYA, SC/ Y/ ZH, THEORY/ PHONON DISPERSION/ KREB MODEL

2, 55 SELENIUM

51-EG-01 EGELSTAFF, MB/ BE/ V/ SE/ MO/ FE, SOLID/ EXPERIMENT/ TRANSMISSION

67-AK-01 AXMANN, GISSLER, SE/ TE, EXPERIMENT/ TOF/ POLYCRYSTAL

67-GE-02 GEICK, SCHRODER, SE, INFRARED EXPERIMENT/ CALCULATION/ PHONON DISPERSION

67-HE-01 HENNINGER, BUSCHERT, SE, SIGMAMAP/ EY/ CORRELATION FUNCTION/ EXPERIMENT/ LIQUID/ SOLID/ CROSS SECTION E

67-KO-05 KOTOY, OKUNEVA, SE, EXPERIMENT/ FREQUENCY SPECTRA/ AMORPHOUS AND CRYSTAL SE

68-GI-02 GISSLER, AXMANN, SE/ TE, EXPERIMENT/ SOLID/ LIQUID/ TOP/ 3-AXIS SPECTROMETER, 3400°C FOR SE/ 4500°C FOR TE

72-KO-02 KOLLMAR, SE, EXPERIMENT/ VISCOELASTIC SCATTERING/ LIQUID STATE

72-NA-03 NAKAYAMA, OD AJIMA, SE, THEORY/ VALENCE-FORC FIELD/ ELASTIC CONSTANT

73-BR-01 BRENNER, JANDEL, GA/ SE, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ INELASTIC NEUTRONSCATTERING

73-NA-02 NAKAYAMA, OD AJIMA, SE, THEORY/ PHONON DISPERSION/ VALENCE FORC FIELD/ SIX FORC CONSTANTS

74-MA-03 HAMILTON, LASSIER, SE, EXPERIMENT/ DISPERSION RELATION/ INTERATOMIC FORCE CONSTANT, THREE-AXIS SPECTROMETER

74-TE-01 TEUCHERT, GEICK, SE/ TE, THEORY/ PHONON DISPERSION

2, 56 SILICON

59-BR-03 BROCKHOUSE, GE/ SI, EXPERIMENT/ DISPERSION RELATION

61-DO-01 DOLLING, SI, EXPERIMENT/ DISPERSION RELATION

63-DO-01 DOLLING, SI, EXPERIMENT/ DISPERSION RELATION

63-DO-02 DOLLING, SI, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVE/ MODIFIED SHELL MODEL/ ROOM TEMPERATURE

65-DO-04 DOLLING, GE/ SI, EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

65-SL-01 SLATER, W/ SI/ CU, NEUTRON-SCATTERING-IN-SOLIDS, HARMONIC APPROXIMATION/ DEBYE APPROXIMATION

66-DO-02 DOLLING, COWLEY, GE/ SI/ DIAMOND/ GA, AS, COHERENT INELASTIC SCATTERING STUDIES/ PHONON DISPERSION

68-MA-07 MARTIN, SI, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>70-PA-01</td>
<td>PAL</td>
<td>SI, THEORY/ DISPERSION RELATION</td>
</tr>
<tr>
<td>70-SI-06</td>
<td>SINGH, DAVAL</td>
<td>SI, THEORY/ PHONON DISPERSION/ SIX VALENCE FORCE MODEL</td>
</tr>
<tr>
<td>70-SO-01</td>
<td>SOLBIRG</td>
<td>SI, THEORY/ SOLID/ DISPERSION RELATION/ LATTICE DYNAMICS/ FORCE CONSTANTS/ VALENCE FORCE MODEL</td>
</tr>
<tr>
<td>71-JE-03</td>
<td>JEX</td>
<td>DIAMOND / GE / SI, THEORY/ PHONON DISPERSION/ THERMAL PROPERTIES/ ANHARMONIC INTERACTION</td>
</tr>
<tr>
<td>71-SO-02</td>
<td>SOLBIRG-JR</td>
<td>SI, THEORY/ PHONON DISPERSION/ VALENCE FORCE POTENTIAL</td>
</tr>
<tr>
<td>72-JE-03</td>
<td>JEX</td>
<td>GE / SI, THEORY/ PHONON/ ANHARMONIC INTERACTION</td>
</tr>
<tr>
<td>72-NI-03</td>
<td>NILSSON, NELIN</td>
<td>GE / SI, LATTICE DYNAMICS/ NEUTRON SPECTROSCOPY</td>
</tr>
<tr>
<td>72-TU-02</td>
<td>THOMA, ZIMMERMANN</td>
<td>SI, CALCULATION/ SURFACE PHONON</td>
</tr>
<tr>
<td>72-TU-01</td>
<td>TUBINO, PISERI+</td>
<td>DIAMOND / SI / GE / Sn, THEORY/ PHONON DISPERSION/ PHONON DENSITY/ VALENCE FORCE POTENTIAL</td>
</tr>
<tr>
<td>73-PA-05</td>
<td>PANDEY, DAVAL</td>
<td>SI, GE, THEOR/ PHONON DISPERSION CLARK=GAZIS-WALLIS TYPE ANGULAR FORCE MODEL/ FOUR PARAM</td>
</tr>
<tr>
<td>73-TH-01</td>
<td>THORPE</td>
<td>GE/ SI, THEORY/ SOLID/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION, BORN MODEL</td>
</tr>
<tr>
<td>73-JO-02</td>
<td>JOHNSON, MOORE</td>
<td>THEOR/ON SOLIDS/ DIAMOND SI, PHONON DISPERSION/ BOND CHARGE MODEL</td>
</tr>
<tr>
<td>74-NE-06</td>
<td>NESTERENKO, GORBACHEV</td>
<td>SI, PHONON SPECTRUM, EFFECT OF SURFACE/ EXPERIMENT</td>
</tr>
<tr>
<td>75-AL-01</td>
<td>ALBEN, WEAIRE</td>
<td>SI/ GE, EXPERIMENT/ RAMAN, IR SPECTRA/ PHONON SPECTRA/ NUMERICAL CALCULATION/ PREDICTION FD</td>
</tr>
<tr>
<td>75-AL-02</td>
<td>ALTSHULER, VELIKOV</td>
<td>SI/ GA, AS, ZN, S, THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS, PSEUDOPOTENTIAL METH</td>
</tr>
<tr>
<td>75-CH-02</td>
<td>CHEN, VETELINO</td>
<td>GE / SI, THEORY/ SOLID/ FREQUENCY DISTRIBUTION, AMORPHOUS SOLID, RIGID ION MODEL</td>
</tr>
</tbody>
</table>

2. 57 SILVER

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>69-OR-01</td>
<td>DREXEL, GLASER</td>
<td>AG, DISPERSION RELATION/ BORN-VON KARMAN MODEL/ EXPERIMENT, ROOM TEMPERATURE, PSEUDORAND</td>
</tr>
<tr>
<td>69-KA-02</td>
<td>KAMITAKAHARA, BROCKHOUSE</td>
<td>AG, DISPERSION RELATION/ EXPERIMENT, CONSTANT-Q METHOD, ROOM TEMPERATURE</td>
</tr>
<tr>
<td>70-BE-03</td>
<td>BEHARI, TRIPATH</td>
<td>AG, AU, THEORY/ LATTICE VIBRATION, DISPERSION RELATION, NON-CENTRAL FORCE MODEL, EL</td>
</tr>
<tr>
<td>70-SH-04</td>
<td>SHARAN, BAJPA</td>
<td>AG, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATIONS, SPECIFIC HEAT</td>
</tr>
<tr>
<td>70-VA-01</td>
<td>VADOVIC, COLVER</td>
<td>AG/ GA/ HG/ NA/ PB/ SN/ ZN, THEORY/ SELF-DIFFUSION CONSTANT</td>
</tr>
<tr>
<td>71-DR-01</td>
<td>DREXEL</td>
<td>AG, EXPERIMENT/ PHONON DISPERSION</td>
</tr>
<tr>
<td>71-NI-04</td>
<td>NIKULIN, TSAREV</td>
<td>AG, CALCULATION/ PHONON FREQUENCY</td>
</tr>
<tr>
<td>71-SH-01</td>
<td>SHARMA, SINGH</td>
<td>AG, AU, THEORY/ PHONON DISPERSION/ METAL</td>
</tr>
<tr>
<td>71-SI-01</td>
<td>SINGH, SHARMA</td>
<td>AG, AU/ AL/ NA/ CR/ Fe, THEORY/ DEBYE-WALLER FACTOR</td>
</tr>
<tr>
<td>73-SH-05</td>
<td>SPULKA, CAVALHEIRO</td>
<td>AG, EXPERIMENT, PSEUDOPOTENTIAL ANALYSIS/ PHONON DISPERSION</td>
</tr>
<tr>
<td>73-SI-01</td>
<td>SINGH, PRAKASH</td>
<td>AG, AU/ AL, THEORY/ PHONON DISPERSION</td>
</tr>
<tr>
<td>74-GO-01</td>
<td>GOEL, PANDEY</td>
<td>AG/ PD/ PT, PHONON DISPERSION</td>
</tr>
<tr>
<td>74-SO-02</td>
<td>GOEL, PANDEY</td>
<td>AG, THEORY/ LATTICE DYNAMICS, INTERATOMIC FORCE CONSTANT, DISPERSION RELATION, ELECTRO</td>
</tr>
<tr>
<td>75-CL-01</td>
<td>CLOSS, SHUKLA</td>
<td>AG, AU, THEORY/ PHONON DISPERSION/ SPECIFIC HEAT</td>
</tr>
<tr>
<td>75-GO-02</td>
<td>GOPALARAO, MURTHY</td>
<td>COPPER/ GOLD, SILVER, LIQUID NOBLE METAL, STRUCTURE FACTOR</td>
</tr>
</tbody>
</table>

2. 58 SODIUM

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>58-TO-02</td>
<td>TOYA</td>
<td>NA, THEORY/ SOLID/ LATTICE DYNAMICS</td>
</tr>
<tr>
<td>62-CO-01</td>
<td>COCKING, TURBERFIELD</td>
<td>NA, EXPERIMENT/ TOF SPECTRA, 110DC/ 80DC</td>
</tr>
<tr>
<td>62-WO-01</td>
<td>WOODS, BROCKHOUSE</td>
<td>NA, EXPERIMENT/ SOLID/ DISPERSION RELATION</td>
</tr>
<tr>
<td>62-WO-02</td>
<td>WOODS, BROCKHOUSE</td>
<td>NA, EXPERIMENT/ SOLID/ DISPERSION RELATION, 90 DK</td>
</tr>
<tr>
<td>63-CO-01</td>
<td>COCHRAN</td>
<td>NA, THEORY/ SOLID/ DISPERSION RELATION</td>
</tr>
<tr>
<td>63-CO-04</td>
<td>COCKING</td>
<td>NA, EXPERIMENT, LIQUID, DOUBLE DIFFERENTIAL CROSS SECTION</td>
</tr>
<tr>
<td>64-RA-02</td>
<td>RANDOLPH</td>
<td>NA, SCATTERING LAW, STRUCTURE FACTOR, LIQUIDS</td>
</tr>
<tr>
<td>65-RE-01</td>
<td>KRESI</td>
<td>LI/ NA/ K, THEORY/ SOLID/ DISPERSION RELATION</td>
</tr>
<tr>
<td>65-PR-01</td>
<td>PRAKASH, JOSHI</td>
<td>NA, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION</td>
</tr>
<tr>
<td>65-SH-01</td>
<td>SHAM</td>
<td>NA, THEORY/ SOLID/ LATTICE DYNAMICS, DISPERSION RELATION</td>
</tr>
<tr>
<td>65-SI-03</td>
<td>SINGW, FELDMANN</td>
<td>NA, THEORY/ SCATTERING FUNCTION, LIQUID, PHONON IN LIQUID</td>
</tr>
<tr>
<td>66-AN-01</td>
<td>ANIMAL, BONSIGNOR</td>
<td>NA/ AL/ LI/ RB/ CS, THEORY/ PHONON DISPERSION/ MODEL POTENTIAL</td>
</tr>
</tbody>
</table>

- 40 -
<table>
<thead>
<tr>
<th>Page</th>
<th>Reference</th>
<th>Authors</th>
<th>Title</th>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>687</td>
<td>BA-02</td>
<td>Barker, Gaskell</td>
<td>Theory/ Local-Elastic-Modulus Approximation, Lattice Parameter, Compressibility, Cohesion</td>
<td>Enthalpy, Hydromagnetic Approach</td>
</tr>
<tr>
<td>688</td>
<td>MI-06</td>
<td>Mitra</td>
<td>Theory of Fluids/ Na, K, Self-Diffusion Constant</td>
<td>Na, K, Mixture Theory, Fluids, Self-Diffusion Constant</td>
</tr>
<tr>
<td>689</td>
<td>PA-06</td>
<td>Patnaik, Singwi</td>
<td>Theory of Aqueous Solutions/ Collective Motion/ Structure Factor/ Scattering Function</td>
<td>Theory, Lattice, Structure Factor, Scattering Function</td>
</tr>
<tr>
<td>690</td>
<td>SM-09</td>
<td>Shukla, Salzberg</td>
<td>Theory/ Phonon Dispersion/ Bhatia Model</td>
<td>Theory, Phonon, Dispersion, Bhatia Model</td>
</tr>
<tr>
<td>691</td>
<td>AI-01</td>
<td>Aliwadi, Banerjee</td>
<td>Theory of Na, K, Effective Pair Potential/ Radial Distribution Function/ Liquid</td>
<td>Na, K, Theory, Liquid, Radial Distribution</td>
</tr>
<tr>
<td>693</td>
<td>NE-07</td>
<td>Newman</td>
<td>Theory/ Frequency Distribution/ F-G Matrix Method</td>
<td>Theory, Frequency, Distribution, F-G Matrix Method</td>
</tr>
<tr>
<td>694</td>
<td>BA-01</td>
<td>Baren, Gaskell</td>
<td>Theory of Fluids/ Na, K, Liquid Metals/ Damping of Collective Mode/ Long-Range Oscillatory I</td>
<td>Theory, Fluids, Na, K, Liquid Metals, Damping, Collective Mode, Long-Range Oscillatory</td>
</tr>
<tr>
<td>695</td>
<td>GO-01</td>
<td>Goel, Pandey</td>
<td>Theory/ Phonon Dispersion/ Metal/ Modified Sharma-Joshi Model</td>
<td>Theory, Phonon, Dispersion, Metal, Modified Sharma-Joshi</td>
</tr>
<tr>
<td>696</td>
<td>KU-01</td>
<td>Kumar, Tolpadi</td>
<td>Copper/ Sodium/ Dispersion/ Relation</td>
<td>Copper, Sodium, Dispersion, Relation</td>
</tr>
<tr>
<td>697</td>
<td>RE-01</td>
<td>Reissland, Ese</td>
<td>Theory/ Phonon Dispersion/ Phonon Spectra/ Modified Potential Calculation</td>
<td>Theory, Phonon, Dispersion, Spectra, Modified Potential Calculation</td>
</tr>
<tr>
<td>59</td>
<td>PR-01</td>
<td>Prasad, Srivastava</td>
<td>Theory/ Solid/ Dispersion Relation/ Lattice Dynamics/ Pseudopotential</td>
<td>Theory, Solid, Dispersion, Lattice, Pseudopotential</td>
</tr>
<tr>
<td>60</td>
<td>SW-01</td>
<td>Sivaroop, Bohra</td>
<td>Theory/ Phonon Dispersion/ Phonon Density/ Debye Temperature/ Sharma-Joshi Model</td>
<td>Theory, Phonon, Dispersion, Phonon, Density, Debye, Temperature, Sharma-Joshi</td>
</tr>
<tr>
<td>61</td>
<td>PA-04</td>
<td>Pawley, Rinaldi</td>
<td>Theory/ Experiment/ Phonon Dispersion</td>
<td>Theory, Experiment, Phonon, Dispersion</td>
</tr>
<tr>
<td>62</td>
<td>PA-10</td>
<td>Pawley, Mika</td>
<td>Theory/ Pressure Effect/ Lattice Dynamics/ Phonon Dispersion</td>
<td>Theory, Pressure, Effect, Lattice, Dynamics, Phonon, Dispersion</td>
</tr>
<tr>
<td>63</td>
<td>LU-01</td>
<td>Luty, Pawley</td>
<td>Theory/ Phonon Dispersion/ Shell Model</td>
<td>Theory, Phonon, Dispersion, Shell Model</td>
</tr>
<tr>
<td>64</td>
<td>WO-02</td>
<td>Woods</td>
<td>Experiment/ Solid/ Dispersion Relation</td>
<td>Experiment, Solid, Dispersion, Relation</td>
</tr>
<tr>
<td>65</td>
<td>WO-01</td>
<td>Woods</td>
<td>Experiment/ Lattice Dynamics/ Dispersion Relation</td>
<td>Experiment, Lattice, Dynamics, Dispersion, Relation</td>
</tr>
<tr>
<td>66</td>
<td>RO-01</td>
<td>Rosenstock, Blaken</td>
<td>Experiment/ Lattice Dynamics/ Dispersion Relation/ Force Constants for Born-</td>
<td>Experiment, Lattice, Dynamics, Dispersion, Relation, Force, Constants, Born-</td>
</tr>
<tr>
<td>67</td>
<td>BA-05</td>
<td>Bajpai, Neelakandan</td>
<td>Theory/ Phonon Dispersion/ BCC Metal/ Modified Axially Symmetric Model</td>
<td>Theory, Phonon, Dispersion, BCC, Metal, Modified, Axially Symmetric, Model</td>
</tr>
<tr>
<td>68</td>
<td>SM-02</td>
<td>Smith, Wakabayashi</td>
<td>Experiment/ Superconductivity/ Electron-Phonon Interaction</td>
<td>Experiment, Superconductivity, Electron, Phonon, Interaction</td>
</tr>
<tr>
<td>69</td>
<td>MU-01</td>
<td>Mulin</td>
<td>Theory/ Solid/ Lattice Dynamics</td>
<td>Theory, Solid, Lattice, Dynamics</td>
</tr>
<tr>
<td>70</td>
<td>AX-01</td>
<td>Axmann, Gissler</td>
<td>Experiment/ Top/ Polycrystal</td>
<td>Experiment, Top, Polycrystal</td>
</tr>
<tr>
<td>71</td>
<td>GI-02</td>
<td>Gissler, Axmann</td>
<td>Experiment/ Solid/ Liquid/ TOF/ 3-Axis-Spectrometer/ 340DC for SE/ 450DC for TE</td>
<td>Experiment, Solid, Liquid, TOF, 3-Axis-Spectrometer, 340DC for SE, 450DC for TE</td>
</tr>
<tr>
<td>72</td>
<td>ME-02</td>
<td>Monier, Rao</td>
<td>Theory/ Solid/ Lattice Dynamics/ Dispersion Relation</td>
<td>Theory, Solid, Lattice, Dynamics, Dispersion, Relation</td>
</tr>
<tr>
<td>73</td>
<td>CO-04</td>
<td>Cowley</td>
<td>Theory/ Lattice Dynamics/ Dispersion Relation/ Bond Charge Model</td>
<td>Theory, Lattice, Dynamics, Dispersion, Relation, Bond, Charge, Model</td>
</tr>
<tr>
<td>74</td>
<td>TE-01</td>
<td>Teucher, Geick</td>
<td>Theory/ Phonon Dispersion</td>
<td>Theory, Phonon, Dispersion</td>
</tr>
<tr>
<td>75</td>
<td>PO-03</td>
<td>Powell, Martel</td>
<td>Theory/ Lattice Dynamics/ Dispersion Relation/ Frequency Distribution/ Debye Temperature</td>
<td>Theory, Lattice, Dynamics, Dispersion, Relation, Frequency, Distribution, Debye, Temperature</td>
</tr>
</tbody>
</table>
2. 64 TERBIUM

70-HO-02 HOUWANN, NICKLOW  TB  
73-UP-01 UPADHYAYA, VERMA  Y/T  TB  

2. 65 THALLIUM

68-NO-01 NORTH, EDERBY*  ZN/ TL/ TB/ PB/ SN/ BI  
70-SH-03 SHARMA, BAJPAI  BE/ MG/ TL  
71-KU-02 KUSHWAHA  BE/ TL  
71-KU-05 KUSHWAHA, RAJPUT  TL  
71-WO-01 WORLTON, SCHMUNK  TL  
72-BA-01 BAJPAI  MG/ ZR/ Y/ TI/ TL/ HF  
72-ME-03 MENON, RAO  TL  
73-KU-04 KUSHWAHA  MG/ TE  
73-UP-02 UPADHYAYA, VERMA  BE/ MG/ HO/ TL  
75-RE-01 REISSLAND, ESE  AL/ NA/ MG/ IN/ TL  

2. 66 THORIUM

73-RE-01 REESE, SINHA  THORIUM  
75-CA-04 CAVALHEIRO, SHUKLA  RT/ TH  

2. 67 TIN

61-PA-01 PALEVSKY  H2, O/ PB, SN  
63-BR-02 BROCKHOUSE, BERGMA*  SN/ H2, O/ AR/ HE  
63-CA-03 COCKING, GUNER  SN  
63-EG-03 EGGLESTAFF  PB/ SN  
63-MU-01 MUSGRAVE  SN  
63-WO-01 WOLF, LEMAIN  SN  
64-DE-01 DE-WAMES, LEMAIN  SN  
65-BU-01 BORONOVIC, CAGLIOST  SN  
67-BR-03 BROVMAK, KAGAN  SN/ SOLID/ LATTICE DYNAMICS  
67-CA-03 COCKING, EGGLESTAFF  PB/ SN/ PB/ SN/ TL/ DISPERSION RELATION  
67-LO-02 PRICE  SN  
67-MU-01 MUSGRAVE  SN  
65-PA-02 PALEVSKY  H2/O/ SN  
65-RO-04 ROWE, BROCKHOUSE*  SN  
65-SC-02 SCHMUNK, GAUIN  SN  
66-ER-03 BROVMAK, KAGAN  SN  
66-EG-03 EGGLESTAFF, DUFFIELD  PB/ SN/ BI/ ZN/ AL  
67-BR-03 BROVMAK, KAGAN  SN/ ZR/ TL/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ LATTICE DYNAMICS/ BORN-VOB  
67-CO-01 COCKING  AL/ PB/ BI/ R/ SN  
67-CA-04 KAY, RITTER  SN  
67-RE-01 MEYERS  SN  
67-MY-04 MEYERS  SN/ SOLID/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ NUCLEAR STRUCTURE FACILITY  
67-PR-01 PRICE  SN/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ CONDUCTION ELECTRON
2. 68 TITANIUM

65-MO-03 MOE, OTEN+ Ni/ V/ Ti/ Ti-Zn... EXPERIMENT/ SOLID/ FREQUENCY DISTRIBUTION
66-NO-03 NORTH/ ENDERBY+ Pb/ Ti... STRUCTURE FACTOR
70-SN-06 SHARAN, BAJPAI/ Y/ Ti... THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ BUEZY TEMPERATURE
72-BA-01 BAJPAI/ Mg/ Zn/ V/ Ti/ HF... THEORY/ PHONON DISPERSION/ FOURTH NEIGHBOURS MODEL/ HEXAGONAL LATTICE
72-KU-04 KUSHIMA, KUMAR/ Ti/ HF/ Y... THEORY/ PHONON DISPERSION/ H.C.P. TRANSITION METAL
73-RA-02 RAO, MENON/ Ti... THEORY/ PHONON DISPERSION/ SUE CONSTANT/ THERMAL EXPANSION/ KÉATING'S APPROACH

2. 69 TUNGSTEN

64-CH-01 CHEN, BROOKHOUSE... EXPERIMENT/ SOLID/ DISPERSION RELATION
65-PA-01 PAL, SHARMA... THEORY/ PHONON DISPERSION
65-WO-01 WOODS/ Nb/ Ta/ Mo/ W... EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
66-MA-02 MAHESH/ DAVAL/ Fe/ Mo/ W... THEORY/ PHONON DISPERSION AND FREQUENCY DISTRIBUTION
66-RO-01 ROSENSTOCK, BLANKEN/ Na/ Na/ Nb/ Mo/ Ta/ W/ Cu-Zn/ Sn... THEORY/ DISPERSION RELATION... FORCE CONSTANTS FOR BORN-
67-GI-02 GILAT/ Cr/ Fe/ W... THEORY/ OF-SOLIDS... THEORY/ PHONON SPECTRA/ BCC METALS
70-AL-01 ALEXANDROV, KOESTER... EXPERIMENT/ SCATTERING AMPLITUDE/ SMALL ANGLE SCATTERING
70-AL-02 ALEXANDROV, BALAGUROV... W... EXPERIMENT/ DEBYE-WALLER FACTOR
72-BA-03 BAJPAI, NEELAKANDAN/ Fe/ Nb/ Ta/ W... THEORY/ PHONON DISPERSION/ BCC METAL/ MODIFIED AXIAL SYMMETRIC MODEL
72-BE-01 BEHARI, TRIPATHI/ Fe/ Mo/ W/ Nb/ Ta... LATTICE DYNAMICS/ DISPERSION RELATION/ TRANSITION METAL/ THEORY/
75-UP-03 UPADHYAYA, SHARMA... Fe/ W/ Mo/ W/ Nb/ Ta... LATTICE DYNAMICS/ DISPERSION RELATION/ TRANSITION METAL/ THEORY/

2. 70 URANIUM

66-BE-03 BEHARI, MOORE... U/ U1/2/ Th/2... EXPERIMENT/ TOTAL CROSS SECTION/ TUF
66-SI-01 SIMPSON, MOORE... U... EXPERIMENT/ SIGMA(E)... 0.01 eV-100 keV

2. 71 VANIADIM

51-EC-01 EGELSTAFF/ H/ Be/ W/ Se/ Mo... EXPERIMENT/ SOLID/ TRANSMISSION
51-MC-01 MCREYNOLDS, WEISS... V... EXPERIMENT/ TOTAL CROSS SECTION... TOTAL REFLECTION FROM MIRROR SURFACE OF V
58-EI-01 EISENHAUER, PELAH... V... EXPERIMENT/ FREQUENCY DISTRIBUTION
58-ST-01 STEWART, BROOKHOUSE... W/ Mn-Co... EXPERIMENT/ FREQUENCY DISTRIBUTION
61-TU-01 TUBBERFIELD, EGELSTAFF... V... EXPERIMENT/ SOLID/ FREQUENCY DISTRIBUTION
JAERI-M 6857

2.72 XENON

2.73 YTTRIUM
JABRI-M 6887

2. 74 ZINC

2. 75 ZIRCONIUM

2. 76 ZEOLITE
3. ALLOYS

3.1 ALUMINIUM-THORIUM HYDRIDE

61-BE-02 BERGSMAN, GOEDKOOP
PD-H/ AL-TH-H/ CA-H, EXPERIMENT/ FREQUENCY DISTRIBUTION

3.2 BARIUM HYDRIDE

70-MA-02 MÄLAND
YB-H/ CA-H/ SR-H/ BA-H, EXPERIMENT/ FREQUENCY SPECTRUM

3.3 BARIUM-LITHIUM HYDRIDE

69-MA-01 MÄLAND

3.4 BISMUTH-GALLIUM

68-WI-02 WIGNALL, EGELSTAFF
BI-GA/ BI-ZN, CRITICAL PHENOMENA/ BINARY LIQUID METAL
70-EG-02 EGELSTAFF, WIGNALL
BI-GA, CRITICAL PHENOMENA/ BINARY LIQUID METAL
70-EG-03 EGELSTAFF, WIGNALL
BI-GA, EXPERIMENT/ CRITICAL SCATTERING

3.5 BISMUTH-LEAD

68-NG-01 NG, BROCKHOUSE
PB-TL/ BI-TL/ BI-PB/ BI-PB-TL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION, 100DK/
69-SC-03 SCHUMACHER
BI-PB, EXPERIMENT

3.6 BISMUTH-LEAD-TAALIUM

67-NG-01 NG, BROCKHOUSE
BI-PB-TL, EXPERIMENT/ PHONON/ ALLOYS
67-NG-02 NG, BROCKHOUSE
BI-PB-TL, PHONON DISPERSION/ ALLOY SYSTEM
68-NG-01 NG, BROCKHOUSE
PB-TL/ BI-TL/ BI-PB/ BI-PB-TL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION, 100DK/

3.7 BISMUTH-TAALIUM

68-NG-01 NG, BROCKHOUSE
PB-TL/ BI-TL/ BI-PB/ BI-PB-TL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION, 100DK/

3.8 BISMUTH-ZINC

67-EG-03 EGELSTAFF, WIGNALL
BI-ZN, EXPERIMENT/ LIQUID, QUASI-ELASTIC SCATTERING/ CONCENTRATION FLUCTUATION
68-WI-02 WIGNALL, EGELSTAFF
BI-GA/ BI-ZN, CRITICAL PHENOMENA/ BINARY LIQUID METAL

3.9 CALCIUM HYDRIDE

CA-H
3. 10 CERIUM HYDRIDE

67-KA-02 KARIMOV, BROVMAN* TH-H/ U-H CE-H \LATTICE DYNAMICS/ THEORY
67-KA-03 KARIMOV, ZEMLYANOV* CE-H/ TH-H/ U-H \EXPERIMENT/ PHONON SPECTRA
68-KA-03 KARIMOV, BROVMAN* CE-H/ TH-H/ U-H \LATTICE DYNAMICS/ EXPERIMENT/ FREQUENCY DISTRIBUTION \TOF/ 20DC
74-VO-01 VORDERWISCH, HAUTECLER CERIUM HYDRIDE \CE-HL/98
74-VO-02 VORDERWISCH, HAUTECLER CE-H \EXPERIMENT/ PHONON SPECTRA

3. 11 CESIUM HYDRIDE

74-VO-03 VORDERWISCH, HAUTECLER CESIUM HYDRIDE \DENSITY-OF-STATES/ SPECIFIC-HEAT

3. 12 CHROMIUM-IRON

CR-Fe

73-MI-02 MIKKE, JANKOWSKA CR-Fe \EXPERIMENT/ PHONON DISPERSION/ ALLOY

3. 13 CHROMIUM-TUNGSTEN

CR-W

65-MO-02 MOELLER, MACKINTOSH CR-W \DISPERSION RELATION/ EXPERIMENT/ LATTICE DYNAMICS \DISORDERED ALLOY
70-CU-01 CUNNINGHAM, MULLESTEIN CR-W \EXPERIMENT/ IN-BAND PHONON/ MASS EFFECT
72-CO-01 COHEN, GILAT CR-W \THEORY/ PHONON/ ALLOY/ IMPURITY EFFECT/ FORCE-CONSTANT CHANGE
72-KE-02 KESHARWANI, AGRAWAL CR-W \THEORY/ DILUTE ALLOY/ PHONON DISPERSION AND WIDTHS/ MASS AND FORCE-CONSTANT CHA
72-KE-03 KESHARWANI, AGRAWAL CR-W \EXPERIMENT/ PHONON/ ALLOY/ IMPURITY EFFECT

3. 14 COBALT-NICKEL

CO-Ni

74-GA-01 GAMBETTI, MENZINGER CO-Ni \EXPERIMENT/ PHONON DISPERSION/ ALLOY/ FCC
75-ME-01 MENZINGER, SACCHETTI CO-Ni \DISPERSION RELATION/ CO-Ni ALLOY/ TRIPLE-AXIS SPECTROSCOPY/ EXPERIMENT

3. 15 COPPER-ALUMINIUM

CU-AL

68-NI-01 NICKLOW, VIJAYARAGHAVAN CU-AL \EXPERIMENT/ LATTICE VIBRATION \LOCAL MODE
68-NI-02 NICKLOW, VIJAYARAGHAVAN CU-AL \PHONON DISPERSION/ LOCALIZED MODE
74-KA-04 KAPLAN, MOSTOLLER CU-AL/ N/NI/CL-K/CL \CALCULATIONS/ COHERENT-POTENTIAL APPROXIMATION/ PHONON DENSITY OF

3. 16 COPPER-ANTIMONY

CU-Sb

73-KN-01 KNOLL, STEEB CU-Sb \EXPERIMENT/ RADIAL DISTRIBUTION FUNCTION/ 21 ALLOYS
73-KN-02 KNOLL, STEEB CU-Sb \PARTIAL INTERFERENCE FUNCTION/ PAIR CORRELATION FUNCTION

- 48 -
3, 17 COPPER-BERYLLIUM  CU-BE
67-NA-02 NATKANIEC, PARLINSKI+ MG-LI/ CU-BE/ EXPERIMENT/ LOCAL VIBRATION/ NEUTRON SPECTROSCOPY
68-NA-03 NATKANIEC, PARLINSKI+ CU-BE/ CU-MG/ PB-NA/ PB-MG/ EXPERIMENT/ LATTICE DYNAMICS/ ALLOY/ LOCAL VIBRATION

3, 18 COPPER-COBALT  CU-CO
71-ER-01 ERNST, SCHLETTEN+ CU-CO/ MAGNETIC-SCATTERING/ SCATTERING-BY-DEFECTS/ EXPERIMENT/ SMALL ANGLE SCATTERING/ PRO

3, 19 COPPER-GOLD  CU-AU
65-SV-01 SVENSSON, BROCKHOUSE+ CU-AU/ EXPERIMENT/ DISPERSION RELATION/ 3-AXIS-SPECTROMETER/ DISORDERED ALLOYS
67-SV-01 SVENSSON, BROCKHOUSE CU-AU/ LATTICE DYNAMICS/ EXPERIMENT/ CONSTANT-β METHODS/ ROOM TEMP.
71-BR-05 BRUNIVY, TAYLOR CU-AU/ THEORY/ GOLD-IMPURITY EFFECT/ EFFECT OF VOLUME CHANGE ON ALLOYING
71-SV-01 SVENSSON, KAMITAKAHARA CU-AU/ EXPERIMENT/ RESONANT MODEL/ SHIFT AND WIDTH OF PHONON
73-KE-04 KESARAN, AGRAWAL CU-AU/ THEORY/ PHONON DISPERSION/ DILUTE ALLOY/ PHONON WIDTH/ FORCE CONSTANT CHANGE
74-CO-02 COHEN CU-AU/ THEORY/ FREQUENCY DISTRIBUTION/ COHESIVE NEUTRON SCATTERING/ PHONON SELF-ENERGY AND SH
74-NA-02 HALLMAN CU-AU/ EXPERIMENT/ SOLID/ DISPERSION RELATION/ LATTICE DYNAMICS/ BORN-VON KARMAN MODEL/ ALLOY
75-CH-01 OHASHI, OHASHI+ THEORY-OF-SOLIDS/ CU-AU/ DILUTE ALLOY/ PHONON SHIFT AND WIDTH

3, 20 COPPER-MAGNESIUM  CU-MG
68-NA-03 NATKANIEC, PARLINSKI+ CU-BE/ CU-MG/ PB-NA/ PB-MG/ EXPERIMENT/ LATTICE DYNAMICS/ ALLOY/ LOCAL VIBRATION

3, 21 COPPER-NICKEL  CU-NI
68-SA-01 SAKAMOTO, HAMAGUCHI CU-NI/ EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ ALLOYS
69-MO-04 MOZER, PRICE+ CU-NI/ LIQUID/ SOLID/ EXPERIMENT/ NEAR THE MELT

3, 22 COPPER-ZINC  CU-ZN
65-DG-01 DOLLING, GILAT CU-ZN/ EXPERIMENT/ DISPERSION RELATION
65-DG-02 DOLLING, GILAT CU-ZN/ EXPERIMENT/ DISPERSION RELATION/ 296DK/ PHASE TRANSITION
65-SI-02 GILAT, DOLLING CU-ZN/ EXPERIMENT/ DISPERSION RELATION/ LATTICE VIBRATION/ 296DK/ ALLOYS
67-AL-04 ALS-NIELSEN, DIETRICH CU-ZN/ CRITICAL SCATTERING/ ALLOY
69-AL-02 ALS-NIELSEN CU-ZN/ NEUTRON DIFFRACTION SHORT RANGE ORDER PARAMETER
69-NA-01 HALLMAN, BROCKHOUSE N-I/E/ CU-ZN/ DISPERSION RELATION/ CONSTANT-β METHOD/ FREQUENCY DISTRIBUTION/ FCC AL
70-SI-01 GILAT CU-ZN/ THEORY/ FLAT PHONON/ ORDER DISORDER TRANSITION
74-RA-09 RATHMANN, ALS-NIELSEN CU-ZN/ LONG-RANGE ORDER/ NEUTRON DIFFRACTION

3, 23 ERBIUM-YTTRIUM-ALUMINIUM  ER-Y-AL
74-HE-01 HEER, FURRER+ ER-Y-AL/ MAGNETIC-SCATTERING/ INELASTIC NEUTRON SCATTERING/ SUSCEPTIBILITY

3, 24 GERMANIUM-SILICON  GE-SI

- 49 -
JABRI-M 6857

71-WA-02 WAKABAYASHI, NICKLOW+ GE-SI, EXPERIMENT/ LOCAL MODE/ IMPURITY EFFECT
71-WA-03 WAKABAYASHI, NICKLOW+ GE-SI, EXPERIMENT/ IMPURITY EFFECT/ LOCAL MODE/ MASS DEFECT
73-SR-01 SRIVASTAVA, JOSHI GE-SI, SPECTRAL DENSITY FUNCTION/ RAMAN SPECTRA/ THEORY

3, 25 GOLD-COPPER-ZINC

73-MO-03 MORI, YAMADA+ AU-CU-ZN/ PHASE-TRANSITION, EXPERIMENT/ SOFT MODE/ AU-CU-ZN2

3, 26 HOLMIUM-RHODIUM

73-CH-01 CHAMARD-BOIS, ROSSAT-MIGNOD MAGNETIC-SCATTERING/ HO-RH, EXPERIMENT/ T=0-F/ CRYSTAL-FIELD-LEVEL

3, 27 INDIUM-THALLIUM

73-GU-01 GUNTON, SAUNDERS IN/ IN-TL, THEORY/ PHONON DISPERSION/ MARTENSITIC PHASE CHANGE

3, 28 IRON-ALUMINIUM

67-BO-02 BORGONVII, LOGIOUCE+ FE-AL, PHONON DISPERSION/ FE3-AL
68-VA-02 VAN-DIJK, BERGMA FE/FE-AL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION
70-VA-02 VAN-DIJK FE-AL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVES, BORN VON-KARMAN FIT/ 3RD NEIGHBOURS/
70-VA-03 VAN-DIJK FE/FE-AL, EXPERIMENT/ LATTICE DYNAMICS/ PHONON DISPERSION

3, 29 IRON-MANGANESE

73-IS-01 ISHIKAWA, ENDOH+ FE-MN, MAGNETIC-SCATTERING, EXPERIMENT/ FE0.5-MN0.5, CRITICAL MAGNETIC SCATTERING

3, 30 IRON-NICKEL-CHROMIUM

73-IS-01 ISHIKAWA, KOGI+ FE-NI-CR, MAGNETIC-SCATTERING, EXPERIMENT/ CANTED SPIN STRUCTURE

3, 31 LANTHANUM HYDRIDE

71-MA-01 MAELAND, HOLMES LANTHANUM HYDRIDE, EXPERIMENT/ FREQUENCY SPECTRA
71-MA-02 MAELAND, HOLMES LA-H, INELASTIC SCATTERING SPECTRA

3, 32 LEAD-MAGNESIUM

65-CH-03 CHERNOPLEKOV, ZEMLYANOV PB-MG, EXPERIMENT/ IN-BAND MODE/ FREQUENCY SPECTRUM
68-NA-03 NATKANIEC, PARLINSKI+ CU-BE/CU-MG/PB-NA, PB-MG, EXPERIMENT/ LATTICE DYNAMICS/ ALLOY/ LOCAL VIBRATION

3, 33 LEAD-SODIUM

PB-NA

- 50 -
68-NA-03 NATKANIEC, PARLINSKI* CU-BE / CU-MG / PB-NA / PB-MG ..EXPERIMENT / LATTICE DYNAMICS ..ALLOY / LOCAL VIBRATION

3, 34 LEAD-TMALLIUM PB-TL

68-NG-01 NG, BROCKHOUSE PB-TL / BI-TL / BI-PB / BI-PB-TL ..EXPERIMENT / LATTICE DYNAMICS / DISPERSION RELATION ..100K / 69-RO-01 ROWELL, MCMLLAN PB / PB-TL ..EXPERIMENT / SPECTRAL DENSITY ..TUNNELING EXPERIMENT / 70-RO-03 ROY, BROCKHOUSE PB / PB-TL ..EXPERIMENT / FREQUENCY SPECTRA / POLYCRYSTALLINE SAMPLES / TRIPLE AXIS SPECTROMETER

3, 35 LITHIUM-ALUMINIUM HYDRIDE LI-AL-H

73-TE-02 TEMME, WADDINGTON LI-AL-H / NA-AL-H ..EXPERIMENT / PHONON SPECTRA / LI-AL-H4 / NA-AL-H4

3, 36 LITHIUM-LEAD LI-PB

73-RU-01 RUPPERSBERG LI-PB ..EXPERIMENT / LIQUID / CORRELATION FUNCTION

3, 37 MAGNESIUM HYDRIDE MG-H

58-MC-01 MCREYNOLDS, NELKIN* H2O / POLYETHYLENE / ZR-H / MG-H / GRAPHITE ..EXPERIMENT / THEORY / LIQUID / SOLID

3, 38 MANGANESE-COBALT MN-CO

58-ST-01 STEWART, BROCKHOUSE V / MN-CO ..EXPERIMENT / FREQUENCY DISTRIBUTION

3, 39 MAGNESIUM-LEAD MG-PB

65-CH-04 CHERNOVA, ZEMLYANOV MG-PB ..EXPERIMENT / LOCAL MODE / PHONON SPECTRA

3, 40 MAGNESIUM-LITHIUM MG-LI

67-NA-02 NATKANIEC, PARLINSKI* MG-LI / CU-BE ..EXPERIMENT / LOCAL VIBRATION / NEUTRON SPECTROSCOPY

3, 41 MAGNESIUM-ZINC MG-ZN

74-DO-01 DORNER, FELDMANN* MG-ZN ..THEORY / DISPERSION RELATION / CONSTANT-Q METHOD / MG-ZN2

3, 42 MANGANESE-PLATINUM MN-PT

72-AN-02 ANTONINI, MINKIEWICZ MN-PT ..EXPERIMENT / DISPERSION RELATION / MN-PT3 ..SPIN WAVE AND PHONON

3, 43 NICKEL-BERYLLIUM N1-BE
JAEBI-M 6857

66-ZE-01 ZEMLYANOVA, SOMENKOV+ NI-BE **EXPERIMENT/ LOCAL MODE/ PHONON SPECTRA

3. 44 NICKEL-IRON NI-FE

3. 45 NICKEL-PALLADIUM NI-PD

3. 46 NICKEL-PLATINUM NI-PT

3. 47 NIOBium HYDRIDE Nb-H

3. 48 NIOBium-MOLYBDENUM Nb-MO

3. 49 PALLADIUM HYDRIDE PD-H

---

69-MA-01 HALLMAN, BROCKHOUSE + NI-FE/ Cu-Zn + DISPERSION RELATION/ CONSTANT-G METHOD/ FREQUENCY DISTRIBUTION + FCC AL
75-HE-03 HENNION, HENNION+ NI-FE/ MAGNETIC-SCATTERING + STIFFNESS CONSTANT/ SPIN WAVE

62-MO-01 MOZER, OTNES+ NI-PD + EXPERIMENT/ LATTICE VIBRATION + DEFECT MODE/ DISORDERED ALLOYS
63-MO-01 MOZER, OTNES+ NI/PD/ Ni-PD + EXPERIMENT/ LATTICE DYNAMICS + IMPURITY MODE
72-KA-04 KAMITAKAHARA, BROCKHOUSE + Ni-PD + EXPERIMENT/ PHONON DISPERSION/ ALLOY/ MASS EFFECT
74-KA-04 KAMITAKAHARA, BROCKHOUSE + Ni-PD + EXPERIMENT/ PHONON DISPERSION/ WIDTH/ DISORDERED ALLOY/ FCC/ Ni55-PD45
73-KU-01 KUNITOMI, TSUNODA+ NI-PT **EXPERIMENT/ PHONON DISPERSION/ EFFECT OF MASS-DEFECT

65-KL-01 KLEY, PERETTI+ V-H/ Nb-H/ PD-H **EXPERIMENT/ SOLID/ FREQUENCY DISTRIBUTION + 50DC FOR V-H/ 33DC FOR Nb-H+
67-Bl-01 BISCHOFF, BRYANT+ POLYETHYLENE/ H2O/ ZB-H/ Nb-H/ UO2 **EXPERIMENT
68-PD-04 PAN YEATER+ ZR-H/ Nb-H/ Ti-H+ EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION
68-PD-04 PAN YEATER+ ZR-H/ Nb-H/ Ti-H+ EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION
68-VE-02 VERDAN, RUBIN+ V-H/ Nb-H **EXPERIMENT/ LATTICE DYNAMICS + 200DC
69-CH-02 CHERNOPEKOV, ZEMLYANOVA+ V/H/ Nb-H **EXPERIMENT/ PHONON SPECTRA
70-GI-02 GISSLER, ROTHER+ Nb-H **THEORY/ DIFFUSION OF HYDROGEN IN METAL HYDRIDE/ QUASIELASTIC
70-GI-02 GISSLER, ALEFOLD+ Nb-H **IMURITY
70-RU-01 RUBIN, CLAESSEN+ TB-H/ Nb-H **SOLID/ QUASI-ELASTIC PEAK
71-KI-03 KISTNER, RUBIN+ Nb-H **HYDROGEN DIFFUSION
72-AL-01 ALEFOLD, BOHN+ Nb-H **EXPERIMENT/ HYDROGEN DIFFUSION/ QUASI-ELASTIC
72-BL-01 BIRCHALL, ROSS+ Nb-H **EXPERIMENT/ LOCAL MODE/ SINGLE CRYSTAL/ 130C-400C
72-BL-01 BIRCHALL, ROSS+ Nb-H **HYDROGEN MOTION
72-ST-07 STUMP, GISSLER+ Nb-H **EXPERIMENT/ HYDROGEN DIFFUSION/ SINGLE CRYSTAL
72-ST-08 STUMP, GISSLER+ Nb-H **EXPERIMENT/ QUASI-ELASTIC SCATTERING/ DIFFUSION BROADENING/ 225C-256C/ Nb-H0.07
72-GI-02 GISSLER, JAY+ Nb-H **EXPERIMENT/ QUASI-ELASTIC SCATTERING/ INTEGRATED INTENSITY/ ANGULAR DEPENDENCE

---

65-WO-02 WOODS, POWELL+ Nb-MO **EXPERIMENT/ DISPERSION RELATION/ LATTICE DYNAMICS + DISORDERED ALLOYS
68-PD-01 POWELL, MARTEL+ Nb-MO **EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION + ROOM TEMP/ ALLOY/ KOHN EFFECT

61-BE-02 BERGMAN, GOEDKoop+ PD-H/ Al-Th-H/ C-AH **EXPERIMENT/ FREQUENCY DISTRIBUTION
3. 50 PALLADIUM-IRON

70-MA-03 MALISZEWSKI, SOSNOWSKI+ PD-FE **EXPERIMENT/ PHONON DISPERSION CURVE
71-MA-05 MALISZEWSKI, SOSNOWSKI+ PD-FE **EXPERIMENT/ PHONON DISPERSION/ FORCE CONSTANT ANALYSIS
72-ST-06 STIRLING, COWLEY+ PD-FE **LATTICE DYNAMICS/ PHONON DISPERSION/ 80 Dk
75-MA-01 MALISZEWSKI, SOSNOWSKI+ PD-FE **EXPERIMENT/ PHONON DISPERSION

3. 51 PALLADIUM-MANGANESE

75-DE-01 DE-PATER, VAN-DIJK+ PD-MN/ MAGNETIC-SCATTERING **EXPERIMENT/ DIFFUSE SCATTERING/ GIANT MAGNETIC MOMENT

3. 52 PALLADIUM-MANGANESE-TIN

74-IS-01 ISHIKAWA, NODA PD-MN-SN/ MAGNETIC-SCATTERING **EXPERIMENT/ MAGNON DISPERSION

3. 53 PALLADIUM-SILVER HYDRIDE

PD-Ag-H

72-CH-04 CHOWDHURY, ROSS PD-Ag-H **EXPERIMENT/ QUASI-ELASTIC/ DIFFUSION/ 100C-360C
73-CH-06 CHOWDHURY, ROSS PD-H/ PD-Ag-H **EXPERIMENT/ HYDROGEN VIBRATION IN METAL

3. 54 SODIUM-ALUMINIUM HYDRIDE

73-TE-02 TEMME, WADDINGTON LI-AL-H/ NA-AL-H **EXPERIMENT/ PHONON SPECTRA/ LI-AL-H4/ NA-AL-H4

3. 55 SODIUM-POTASSIUM

NA-K

68-EN-01 ENDERBY, NORTH THEORY-OF-FLUIDS/ NA-K **STRUCTURE FACTOR/ ALLOY LIQUID/ PERCUS-YEVICK

3. 56 STRONTIUM HYDRIDE

SR-H

70-MA-02 MAEALAND YB-H/ CA-H/ SR-H/ BA-H **EXPERIMENT/ FREQUENCY SPECTRUM
3. 57 Strontium-Lithium Hydride
   Sr-Li-H

3. 58 Tantalum Hydride
   Ta-H
   72-DE-02 De-Graaf, Rush+ V-H/ Ta-H  . . . Experiment/ Quasielastic/ Hydrogen Diffusion In Metal
   TA-RO-03 Rowe+ Rush+ Ta-H  . . . Experiment/ Quasi-elastic Peak/ TOF

3. 59 Tantalum-Niobium
   Ta-Nb
   68-AL-02 Als-Nielsen  Ta-Nb  . . . Experiment/ Lattice Dynamics  . . . Crystal Spectrometer/ Localized Phonon

3. 60 Terbium Hydride
   Tb-H
   70-RU-01 Rubin+, Claessen  Tb-H/ Nb-H  . . . Solid/ Quasi-elastic Peak

3. 61 Thorium Hydride
   Th-H
   68-KA-03 Karimov+, Brovman+ Ce-H/ Th-H/ U-H  . . . Lattice Dynamics/ Experiment/ Frequency Distribution  . . . TOF/ 20DC

3. 62 Titanium Hydride
   Ti-H
   63-SA-02 Saunderson, Cocking  Ti-H  . . . Experiment/ Scattering Law/ Frequency Distribution
   66-BK-02 Broecker  N.H, Cl/ N.H, Br/ N.H, I/ Zr-H/ Ti-H  . . . SIGMA(E)/ Experiment/ Crystal Spectrometer
   67-PA-04 Pan+, Yeater+ Zr-H/ Nb-H/ Ti-H/ U.C  . . . Experiment/ Lattice Dynamics/ Frequency Distribution

3. 63 Titanium-Uranium
   Ti-U
   67-CH-02 Chernoplekov+, Panova+ Ti-U  . . . Experiment/ Local Mode/ Ti0.95-U0.05

3. 64 Titanium-Zirconium
   Ti-Zr
   63-CH-01 Chernoplekov+, Zemlyanov+ Ti-Zr  . . . Frequency Distribution/ Experiment . . . Alloy
   65-MO-03 Mozer+, Otnes+ Ni/ V/ Ti/ Ti-Zr  . . . Experiment/ Solid/ Frequency Distribution

3. 65 Uranium Hydride
   U-H
3. 66 VANADIUM-BERYLLIUM

66-MO-01 MOZER, OTNES+  V-BE
66-MO-01 MOZER, OTNES+  V-BE/ V-NI/ V-PT  ..EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ ALLOY

3. 67 VANADIUM HYDRIDE

67-KL-01 KLEY, PERETTI+  V-H/ Nb-H/ PD-H  ..EXPERIMENT/ SOLID/ FREQUENCY DISTRIBUTION  ..50DC FOR V-H/ 33DC FOR Nb-H+
67-RU-01 RUBIN, PERETTI+  V/ V-H  ..EXPERIMENT/ SOLID/ ..ROOM TEMP. FOR V/ 150 DC FOR V-H  LOCALIZED MODE IN V DUE TO
67-RU-01 RUSH, FLOTOW  V-H  ..FREQUENCY DISTRIBUTION/ EXPERIMENT
67-VE-02 VERDAN, RUBIN+  V-H/ Nb-H  ..EXPERIMENT/ LATTICE DYNAMICS  ..200DC
67-CH-02 CHERNOPELEV, ZEMLYANOV+  V-H/ Nb-H  ..EXPERIMENT/ PHONON SPECTRA
72-DE-01 DE-GRAAF, RUSH+  V-H  ..EXPERIMENT/ QUASIELASTIC/ DIFFUSION BROADENING
72-DE-02 DE-GRAAF, RUSH+  V-H/ Ta-H  ..EXPERIMENT/ QUASIELASTIC/ HYDROGEN DIFFUSION IN METAL
72-RO-04 ROWE  V-H  ..EXPERIMENT/ PHONON SPECTRA/ 300K, 425K

3. 68 VANADIUM-NICKEL

68-MO-01 MOZER, OTNES+  V-BE/ V-NI/ V-PT  ..EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ ALLOY

3. 69 VANADIUM-PLATINUM

69-MO-01 MOZER, OTNES+  V-BE/ V-NI/ V-PT  ..EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ ALLOY

3. 70 YTTERBIUM HYDRIDE

70-MA-02 MAELAND  Yb-H/ Ca-H/ Sr-H/ Ba-H  ..EXPERIMENT/ FREQUENCY SPECTRUM

3. 71 YTTRIUM-HOLMIUM

71-CA-01 WAKABAYASHI, NICKLOW  Y-TB/ Y-HO/ MAGNETIC-SCATTERING  ..EXPERIMENT/ MAGNON DISPERSION/ ALLOY/ 4.2 DK

3. 72 YTTRIUM HYDRIDE

72-CA-01 WAKABAYASHI, NICKLOW  Y-H/ PA-LYNY/ GRAPHITE/ METHANE/ IR-H/ Y-H/ LA-H  ..EXPERIMENT/ FREQUENCY DISTRIBUTION/ SCATTER
66-RU-03 RUSH, FLOTOW  Y-H/ U-H  ..EXPERIMENT/ HYDROGEN VIBRATION/ OPTICAL BAND SPECTRA

3. 73 YTTRIUM-TERBIUM

73-MO-02 MOSTOLLER, KAPLAN+  Y-TB  ..THEORY/ LATTICE DYNAMICS/ SOLID/ FREQUENCY SPECTRUM  ..COHERENT POTENTIAL APPROXI
74-CA-01 WAKABAYASHI, NICKLOW  Y-TB/ Y-HO/ MAGNETIC-SCATTERING  ..EXPERIMENT/ MAGNON DISPERSION/ ALLOY/ 4.2 DK

- 55 -
3, 74 YTTRIUM-ZINC
Y-ZN
72=PR-05 PREVENDER, SINHA, EXPERIMENT, PHONON DISPERSION/ ALLOY/ MODEL ANALYSIS/ FREQUENCY DISTRIBUTION/ DEB

3, 75 ZIRCONIUM HYDRIDE
Zr-H
57=AN-01 ANDERSON, MCREYNOLDS, ZR-H, EXPERIMENT/ SIGMA (E, E=PRIME, THETA)
58=MC-01 MCREYNOLDS, NELKIN, H2, O, POLYETHYLENE/ ZR-H, Y=H, GRAPHITE, EXPERIMENT/ THEORY/ LIQUID/ SOLID
59=BR-01 BRUGGER, SRA, Zr=H, H2, O, BENZENE/ PARAFFINE/ ALCOHOL, SIGMA (E, E=PRIME, THETA), EXPERIMENT/ LIQUIDS/ TOF
61=W-01 WOODS, BROCKHOUSE, GRAPHITE/ H2, O, D2, O, ZR=H, L/I, N/A, H=H, N/H, CL, EXPERIMENT/ CRYSTAL SPECTROMETER, FRE
62=LE-01 LEHMAN, WOLFRAM, Cu/ Al, ZR=H, THEORY/ LATICE DYNAMICS/ DISPERSION RELATION
64=SP-01 SPRINGER, HOFMeyer, H2, O, D2, O, PHENYL, ZR=H, EXPERIMENT/ LIQUID/ DIFFUSION PARAMETER, AVE=MU
65=BE-02 BEyster, YOUNG, H2, O, D2, O, ZR=H, EXPERIMENT/ DIFFUSION PARAMETER, AVE=MU
65=GL-03 GLAESER, EHRET, C6, H=6, H2, O, ZR=H, SCATTERING LAW, FREQUENCY DISTRIBUTION/ EXPERIMENT/ LIQUID, 20DC FOR
65=HA-04 HARLING, LEONARD, ZR=H, EXPERIMENT/ LATICE DYNAMICS, INCOHERENT/ TOF, 295DK
65=KO-01 KORNICHLER, D2, O, ZR=H, EXPERIMENT/ LIQUID/ DIFFUSION PARAMETER
65=WH-01 WHITEMORE, POLYETHYLENE/ GRAPHITE/ METHANE, ZR=H, Y=H, LAM=H, EXPERIMENT/ FREQUENCY DISTRIBUTION/ SCATTERI
65=WH-03 WHITEMORE, ZR=H, EXPERIMENT, HIGH-ENERGY INCIDENT NEUTRONS
66=AN-03 ANTUNEZ, BEyster, BE, H2, O, D2, O, ZR=H, EXPERIMENT/ THEORY/ SCATTERING FUNCTION/ CROSS SECTION EVALUATI
66=BE-06 BEyster, NEILL, H2, O, D2, O, ZR=H, GRAPHITE, BE=0, NEUTRON SPECTRUM, COMPIATION/ LIQUID, GAS
66=BR-02 B Roecker, N, H=4, CL, N, H=4, Br, N, H=4, ZR=H, Ti=H, SIGMA(E), EXPERIMENT/ CRYSTAL SPECTROMETER
66=IS-01 I SHMAEV, MOSTOVICH, ZR=H, THEORY/ SOLID, NEUTRON SPECTRUM
66=KO-02 KOPPEL, POLYETHYLENE/ ZR=H, H2, O, SCATTERING FUNCTION, SCATTERING CROSS SECTION/ NEUTRON SPECTRUM
66=KO-04 KOPPEL, H2, O, POLYETHYLENE/ ZR=H, M CROSS SECTION EVALUATION, SCATTERING FUNCTION, THEORY, LIQUID, SO
67=BE-03 BEyster, BORGONI+, C6, H=6, ZR=H, EXPERIMENT
67=BI-01 BISCHOFF, BYRANT, POLYETHYLENE, H2, O, ZR=H, Nb=H, U=O2, EXPERIMENT
67=CA-04 CARRANO, ZR=H, ANGULAR DISTRIBUTION, TEMPERATURE EFFECT
67=GL-01 GLAESER, REVIEW=ARTICLES, H2, O, D2, O, GRAPHITE, ZR=H, D2, O, BE=0, INCOHERENT APPROXIMATION, MULTIPLE SCATT
67=PA-04 PAN, YEA+ER, ZR=H, Nb=H, Ti=H, U=, EXPERIMENT, LATICE DYNAMICS/ FREQUENCY DISTRIBUTION
68=BE-03 BEyster, BORGONI+, BIOPHENYL, ZR=H, U=O, LATICE DYNAMICS/ SCATTERING FUNCTION
68=BE-04 BEyster, BORGONI+, C6, H=6, ZR=H, C6, H=6, EXPERIMENT, POLARIZED DYNAMICS
68=GL-02 GLAESER, H2, O, ZR=H, COMPILATION, SCATTERING FUNCTION/ CROSS SECTION EVALUATI
68=GL-08 GLAESER, H2, O, D2, O, GRAPHITE, ZR=H, D2, O, BE=0, COMPARISON/ DIFFUSION PARAMETER/ COMILATION
69=PU-01 PUCHMUT, PAN, M, U=O2, ZR=H, Ti=H, Nb=H, TH=H, SCATTERING FUNCTION, FREQUENCY DISTRIBUTION/ EXPERIMENT
69=SL-01 SLAGGIE, ZR=H, THEORY/ LATICE DYNAMICS, FREQUENCY DISTRIBUTION, ROOT SAMPLING METHOD
69=SL-02 SLAGGIE, H2, O, ZR=H, THEORY/ CROSS SECTION EVALUATION
69=TH-01 THORSON, ZR=H, U=O2, SCATTERING FUNCTION/ EXPERIMENT, SOLID, DIFFERENTIAL SCATTERING CROSS SECTION
69=CA-03 CARRIVEAU, BORGONI+, ZR=H, SIGMA (THETA,E), SOLID, 750DK, ROOMTEMPERATURE
69=SL-02 SLAGGIE, ZR=H, THEORY/ ANHARMONICITY/ FREQUENCY DISTRIBUTION, 300DK/ 800DK
71=CO-01 COUCHY, MARLING, ZR=H, EXPERIMENT/ SOLID, SIGMA(E, E=PRIME, THETA)
71=DA-01 DAY, SINCLAIR, ZR=H, 0, GRAPHITE, O, H=H, NA, H=2, EXPERIMENT/ TOF SPECTRA, PULSED NEUTRON SOURCE
71=DA-02 DAY, SINCLAIR, ZR=H, H2, O, SODAMIDE, ANILINE, EXPERIMENT, MOLECULAR DYNAMICS, LINAC PULSED NEUTRON SOURCE
71=SA-01 SASTAMOINEN, PALMGREN, ZR=H, EXPERIMENT/ SOLID/ CROSS SECTION EVALUATION
72=NA-01 NAKAHARA, KADOTANI, ZR=H, COMPUTER-CODES, THEORY/ SIGMA (E, E=PRIME), SIGMA (E), SIGMA-TRANSATE (E), SOLID

3, 76 ZIRCONIUM-NIOBIUM
Zr-Nb
73=AX-01 AXE, KEATING, ZR-Nb, EXPERIMENT/ CRYSTAL SPECTROMETER, DISPERSION relation, 1238DX
4 INORGANIC COMPOUNDS

1 AMMONIA

N, H, N


6-RE-01 RUSH, TAYLOR* N, H3 / N, H4, IY / N, H4, BR / N, H4, CL / N, H4, F / EXPERIMENT / MOLECULAR DYNAMICS / TOTAL CROSS SECTION

63-JA-02 JANIK, JANIK* C, H4 / N, H3 / H2-S / H2-O / SIGMA(E) / EXPERIMENT / LIQUID

63-JA-03 JANIK, RZANY* N, H3 / EXPERIMENT / TOTAL CROSS SECTION / LIQUID

63-WE-01 WEBB C, H4 / N, H3 / H2 / SIGMA(E) / EXPERIMENT / GAS / ROOM TEMPERATURE

64-CZ-01 CZERLINCZAKIEWICZ C, KOWALSKA N, H3 / GASE / MOLECULAR / EXPERIMENT / SIGMA(E) / E-PRIME

64-VA-01 VAN DINGENEN, NEVEU-VERGNIES ACETYLENE / AMMONIA / METHANE / TOTAL CROSS SECTION / EXPERIMENT / SOLID / LOW

65-ST-07 HARKER* AMMONIA / HYDROGEN SULFIDE / EXPERIMENT / GAS / CROSS SECTION / TOTAL CROSS SECTION / EXPERIMENT / MTR-PHASE-CHOPPER

66-VE-03 VENKATARAMAN, RAO* AMMONIA / METHANE / THEORY / CALCULATION / CROSS SECTION / GAS PHASE

67-OK-01 OKA N, H3 / MOLECULAR DYNAMICS / THEORY / FREQUENCY DISTRIBUTION

67-WE-01 WEBB METHANE / AMMONIA / GAS / EXPERIMENT / NEUTRON SPECTRUM / 20DK


72-DA-02 DASANNACHARYA, THAPER* N, H3 / EXPERIMENT / MOLECULAR LIQUID / 218 K / MODEL ANALYSIS / SIMPLE DIFFUSION / HINDER

72-DO-03 GOYAL, DASANNACHARYA* AMMONIA / EXPERIMENT / PHONON DENSITY

2 AMMONIUM AZIDE

N, H4, N3

66-BO-02 BOUTIN, TREVINO N, H4, N3 / EXPERIMENT / TOF SPECTRA / MOLECULAR DYNAMICS

3 AMMONIUM BROMIDE

N, H4, BR

60-RE-01 RUSH, TAYLOR* N, H3 / N, H4, IY / N, H4, BR / N, H4, CL / N, H4, F / EXPERIMENT / MOLECULAR DYNAMICS / TOTAL CROSS SECTION


63-MI-02 MIKKE, KROM N, H4, CL / N, H4, BR / N, H4, F / N, H4, O3 / LATTICE DYNAMICS / EXPERIMENT / INCORRECT METHOD

63-VE-01 VENKATARAMAN, USHA* N, H4, CL / N, H4, BR / EXPERIMENT


65-VE-01 VENKATARAMAN, DENIZ* N, H4, CL / N, H4, BR / N, H4, IY / (N, H4)2, S, O4 / (N, H4)2, S, O8 / EXPERIMENT / ELASTIC SCATTERING

66-BR-02 BROECKER N, H4, CL / N, H4, BR / N, H4, IY / H, O, H / T, H / SIGMA(E) / EXPERIMENT / CRYSTAL SPECTROMETER

66-VE-01 VENKATARAMAN, DENIZ* N, H4, CL / N, H4, BR / N, H4, IY / (N, H4)2, S, O4 / (N, H4)2, S, O8 / EXPERIMENT / ROTATIONAL MOD

68-LE-03 LEUNG, TAYLOR* N, H4, F / N, H4, CL / N, H4, BR / N, H4, IY / (N, H4)2, S, O4 / (N, H4)2, S, O8 / EXPERIMENT / TO

73-SO-01 AKSLOFF, LOVELUCK N, H4, BR / N, H4, CL / THEORY / ORDER-DISORDER TRANSITION / SIGMA (THETA) / EXPERIMENT / ORIENTATIONAL DYNAMICS

74-SI-01 INOUE, KIYANAGI N, H4, CL / N, H4, BR / N, H4, IY / CALCULATION / SCATTERING FORM FACTOR / ONE-DIMENSIONAL ROTOR

74-LE-01 LIVINGSTON N, H4, BR / EXPERIMENT / NEUTRON SPECTRUM / SCATTERING LAW / QUASI-ELASTIC PEAK / TORSIONAL VIBRATO

74-YA-01 YAMADA, NODA N, H4, BR / EXPERIMENT / SIGMA (THETA) / EXPERIMENT / DISPERSION RELATION / STRUCTURAL PHASE TRANSITION / SPI

4 AMMONIUM BROMOSTANNATE

(N, H4)2, S, H3, H3

66-VE-04 VENKATARAMAN, DENIZ* N, H4, CL / N, H4, BR / N, H4, IY / (N, H4)2, S, H3, H3 / (N, H4)2, S, H3, H3 / EXPERIMENT / ROTATIONAL MOD
4. 5 AMMONIUM CHLORIDE N.H₄.Cl

5 AMMONIUM CHLORIDE-POTASSIUM CHLORIDE N.H₄.Cl-K.Cl

4. 6 AMMONIUM CHLORIDE-KAPLAN MOSTOLLER Cu-Al/ N.H₄.Cl-K.Cl, CALCULATIONS/ COHERENT-POTENTIAL APPROXIMATION/ PHONON DENSITY OF

4. 7 AMMONIUM CHLOROSTANNATE (N.H₄)₂Sn.Cl₆

4. 8 AMMONIUM CHROMATE (N.H₄)₂Cr₂.O₄

4. 9 AMMONIUM DICHLORATE (N.H₄)₂.Cr₂.O₇

- 58 -
4. 10 AMMONIUM DIMYDROGEN ORTHOARSENATE
   N,H4,H2,AS,04
   73-DI-01 DIMIC, OSREDKAR+ N,H4,H2,P.O4/ N,H4,H2,AS,04/ (N,H4)2,H3,1.06 .. EXPERIMENT/ ROTATING CRYSTAL SPECTROMETER/

4. 11 AMMONIUM DIMYDROGEN ORTHOPHOSPHATE
   N,H4,H2,P.O4
   69-ME-01 MEISTER, SKALYU+ N,H4,H2,P.O4 .. EXPERIMENT/ SOLID .. QUASI-ELASTIC NEUTRON SCATTERING / TEMPERATURE DEPENDENCE
   72-AN-04 ANTONINI, SOSNOWSKA* K,H2,P.O4/ N,H4,H2,P.O4 .. ELASTIC SCATTERING/ INTERFERENCE EFFECT/ PARAELECTRIC PHASE
   73-DI-01 DIMIC, OSREDKAR+ N,H4,H2,P.O4/ N,H4,H2,AS,04/ (N,H4)2,H3,1.06 .. EXPERIMENT/ ROTATING CRYSTAL SPECTROMETER/

4. 12 AMMONIUM DISULFATE
   (N,H4)2,S2,08
   62-RU-02 RUSH, SAFFORD* N,H4,P,F6/ (N,H4)2,S2,08/ (N,H4)2,CR,04/ N,H4,S,03,F / DIMETHYLACETYLENE .. EXPERIMENT/ MOLECULAR DYNAMICS /
   63-BR-01 BRAJOVIC, BOUTIN+ N,H4,P,F6/ N,H4,I/ (N,H4)2,S2,08/ N,H4,S,03,F .. EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS /

4. 13 AMMONIUM FLUCOBERYLLATE
   (N,H4)2,BE,F4
   65-RU-02 RUSH, TAYLOR K4,FE,.(C,N)6/ (N,H4)2,S,04/ N,H4,H5,04/ (N,H4)2,BE,F4 .. EXPERIMENT/ MOLECULAR LATTICE DYNAMICS

4. 14 AMMONIUM FLUORIDE
   N,H4,F
   60-RU-01 RUSH, TAYLOR+ N,H3/ N,H4,1/ N,H4,BR/ N,H4,CL/ N,H4,F .. EXPERIMENT/ MOLECULAR DYNAMICS .. TOTAL CROSS SECTION
   62-RU-01 RUSH, TAYLOR+ N,H4,CL/ N,H4,1/ N,H4,F / N,H4,BR/ BENZENE/ TOLUENE/ MESITYLENE/ XYLENE .. EXPERIMENT/ TOTAL CROSS SECTION
   63-MI-02 MIKES, KROH N,H4,CL/ N,H4,BR/ N,H4,F / N,H4,N,03 .. LATTICE DYNAMICS/ EXPERIMENT / INVERTED FILTER METHOD
   65-BA-01 BAJOREK, MAZHUKHINA* N,H4,CL/ N,H4,BR/ N,H4,1/ N,H4,F / N,H4,N,03/ N,H4,C,N,S / (N,H4)2,S,04/ (N,H4)2,S2,08 /
   68-LE-03 LEUNG, TAYLOR+ N,H4,F/ N,H4,CL/ N,H4,BR/ N,H4,1/ (N,H4)2,S,04/ (N,H4)2,CR,07/ N,H4,CL,04 .. EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS

4. 15 AMMONIUM FLUIDOSILICATE
   (N,H4)2,S1,F6
   66-SC-01 SCHLEMPER, HAMILTON (N,H4)2,S1,F6 .. EXPERIMENT/ NEUTRON SPECTROSCOPY

4. 16 AMMONIUM FLUIDOSULFONATE
   N,H4,S,03,F
   62-RU-02 RUSH, SAFFORD+ N,H4,P,F6/ (N,H4)2,S2,08/ (N,H4)2,CR,04/ N,H4,S,03,F / DIMETHYLACETYLENE .. EXPERIMENT/ MOLECULAR DYNAMICS /
   63-BR-01 BRAJOVIC, BOUTIN+ N,H4,P,F6/ N,H4,1/ (N,H4)2,S2,08/ N,H4,S,03,F .. EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS
   63-JA-01 JANIK / C,H4/ N,H4,1/ N,H4,CL/ N,H4,BR/ N,H4,S,03,F / SIGMA(E)/ SIGMA(E+PRIME,THETA) .. EXPERIMENT/ THEORETICAL

4. 17 AMMONIUM HEXAFLUOROPHOSPHATE
   N,H4,P,F6
   62-RU-02 RUSH, SAFFORD+ N,H4,P,F6/ (N,H4)2,S2,08/ (N,H4)2,CR,04/ N,H4,S,03,F / DIMETHYLACETYLENE .. EXPERIMENT/ MOLECULAR DYNAMICS /
   63-BR-01 BRAJOVIC, BOUTIN+ N,H4,P,F6/ N,H4,1/ (N,H4)2,S2,08/ N,H4,S,03,F .. EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS
   64-JA-01 JANIK, JANIK+ C,H4/ C,H3,1 / DIMETHYLACETYLENE/ N,H4,CL,04/ N,H4,P,F6 / H3,0,CL,04 / DIMETHOXYAZOXYBENZENE

4. 18 AMMONIUM HYDROGEN SULFATE
   N,H4,H,5,04

- 59 -
<table>
<thead>
<tr>
<th>65-RU-02</th>
<th>RUSH, TAYLOR</th>
<th>K₄,Fe,(C,N)₆</th>
<th>(N₄H₄)₂,S,0₄</th>
<th>N₄H₄,H,SO₄</th>
<th>(N₄H₄)₂,Be,F₄</th>
<th>EXPERIMENT/ MOLECULAR LATTICE DYNAMICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. A. M.</td>
<td>AMMONIUM IODIDE</td>
<td>N₄H₄,1</td>
<td>N₄H₄,I</td>
<td>N₄H₄,Br</td>
<td>N₄H₄,CL</td>
<td>N₄H₄,F</td>
</tr>
<tr>
<td>4. B. 0</td>
<td>AMMONIUM NITRATE</td>
<td>N₄H₄,N₃</td>
<td>N₄H₄,BR</td>
<td>N₄H₄,F</td>
<td>N₄H₄,N₃</td>
<td>LATTICE DYNAMICS/ EXPERIMENT/ INVERTED FILTER METHOD</td>
</tr>
<tr>
<td>4. C. 0</td>
<td>AMMONIUM PERCHLORATE</td>
<td>N₄H₄,Cl,0₄</td>
<td>K₂H₂,P,0₄</td>
<td>(N₄H₄)₂,Cl,0₄</td>
<td>(N₄H₄)₂,CR₂,0₇</td>
<td>N₄H₄,C,0₄</td>
</tr>
<tr>
<td>4. D. 0</td>
<td>AMMONIUM SULFATE</td>
<td>(N₄H₄)₂,S,0₄</td>
<td>K₄,Fe,(C,N)₆</td>
<td>(N₄H₄)₂,S,0₄</td>
<td>N₄H₄,K,SO₄</td>
<td>(N₄H₄)₂,Be,F₄</td>
</tr>
<tr>
<td>4. E. 0</td>
<td>AMMONIUM THIOCYANATE</td>
<td>N₄H₄,C,NS</td>
<td>K₂,H₂,P,0₄</td>
<td>(N₄H₄)₂,CR₂,0₇</td>
<td>N₄H₄,C,NS</td>
<td>N₄H₄,CL,0₄</td>
</tr>
<tr>
<td>4. F. 0</td>
<td>AMMONIUM TRIHYDROGEN PARAPEROXIDE</td>
<td>(N₄H₄)₂,H₃,1,0₇</td>
<td>K₂,H₂,P,0₄</td>
<td>(N₄H₄)₂,CR₂,0₇</td>
<td>N₄H₄,C,NS</td>
<td>N₄H₄,CL,0₄</td>
</tr>
</tbody>
</table>

4. 25 ALUMINUM CHLORIDE AL Cl3
4. 26 ALUMINUM NITRITE AL.N
67-CO-02 COLLINS, LIGHTOWLERS AL.N . OPTICAL EXPERIMENT

4. 27 ALUMINUM PHOSPHATE AL.P.O4
70-SC-05 SCOTT AL.P.O4 . ANHARMONICITY/ EXPERIMENT/ RAMAN

4. 28 ANALCITE
64-B0-01 BOUTIN, SAFFORD BA,CL2/ CHABAZITE/ ANALCITE/ CU.S.O4/ APOPHYLLITE/ WATER-BERYL . EXPERIMENT/ TOF-SPECTRUM

4. 29 APOPHYLLITE
64-B0-01 BOUTIN, SAFFORD BA,CL2/ CHABAZITE/ ANALCITE/ CU.S.O4/ APOPHYLLITE/ WATER-BERYL . EXPERIMENT/ TOF-SPECTRUM

4. 30 BARIUM CHLORIDE
64-B0-01 BOUTIN, SAFFORD BA,CL2/ CHABAZITE/ ANALCITE/ CU.S.O4/ APOPHYLLITE/ WATER-BERYL . EXPERIMENT/ TOF-SPECTRUM

4. 31 BARIUM CHLORATE HYDRATE

4. 32 BARIUM FLUORIDE
70-DE-03 DENHAM, FIELD+ CA.F2/ SR.F2/ BA.F2/ CO.F2/ PB.F2 . THEORY/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ DISPERSION
70-MU-01 MURRELL, MINKIEWICZ BA.F2 . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVES/ SPECTRAL DENSITY . SHELL MODE
72-KU-01 KUEHNER, WAGNER SR.F2/ BA.F2 . THEORY/ PHONON DISPERSION/ GENERALIZED SHELL MODEL/ VIBRONIC SPECTRA

4. 33 BARIUM OXIDE
71-CA-01 CALTIER, MONTANER Mg.O/ CA.O/ SR.O/ BA.O . THEORY/ PHONON DISPERSION
73-CH-01 CHANG, TOMPSON+ BA.O . EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING/ FREQUENCY SPECTRA/ DEBYE TEMPERATURE
4. 38 CADMIUM SULFIDE

CD,S

65-NU-01 NUSIMOVICI, BINMAN CD,S,..LATTICE DYNAMICS
70-NU-01 NUSIMOVICI, BALKANSKI CD,S,..THEORY/ LATTICE DYNAMICS/ DISPERSION CURVES/ FREQUENCY SPECTRUM..SEMl-IONIC
70-RA-02 RAMASESHAN, VISWANATHAN CD,S,..ANOMALOUS SCATTERING

4. 39 CADMIUM TELLURIDE

CD,Te

73-TA-02 TALWAN, AGRAWAL ZN,Te/CD,Te..CALCULATION/ SECOND-NEIGHBOR-IONIC MODEL
74-RO-04 ROWE, NICKLOW CD,Te,..EXPERIMENT/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION...14PARAMETER SHELL MODEL

4. 40 CALCITE

CA,C,03

69-CO-07 COWLEY CALCITE/ COMUNUM ..THEORY/ LATTICE DYNAMICS
71-PL-03 PLIHAL, SCHACK CA,C,03,..THEORY/ PHONON DISPERSION/ SHELL MODEL
73-CO-05 COWLEY, PANT CA,C,03,..DISPERSION RELATION/ INELASTIC NEUTRON SCATTERING
73-PL-01 PLIHAL CA,C,03,..THEORY/ PHONON DISPERSION/ PHONON DENSITY/ SHELL MODEL

4. 41 CALCIUM FLUORIDE

CA,F,2

69-CH-01 GRIBIER, FARNoux CA,F,2,..EXPERIMENT/ DISPERSION RELATION/ LATTICE DYNAMICS
69-VI-01 VIJAYARAGHAVAN, IYENGAR CA,F,2,..EXPERIMENT/ PHONON DISPERSION
70-DE-03 DENUHM, FIELD CA,F,2/ SR,F,2/ B,F,2/ CD,F,2/ Pb,F,2,..THEORY/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ DISPERSION
70-EL-01 ELCOMBE, PRIOR CA,F,2,..EXPERIMENT/ 3-AXIS SPECTROMETER/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY S
71-EL-01 ELCOMBE, PRIOR CA,F,2,..EXPERIMENT/ PHONON DISPERSION
72-ST-01 STEELE, CHILDS CA,F,2/ SCATTERING-BY-DEFECTS,..DIFFUSE SCATTERING
73-II-01 IIZUMI CA,F,2,..EXPERIMENT/ PHONON WIDTH/ TEMPERATURE EFFECT

4. 42 CALCIUM HYDROXIDE

CA,(O,H)2

63-SA-01 SAFFORD, BRAJovic CA,(O,H)2/ Mg,(O,H)2,..EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS
65-PL-02 PELAH, KREBS CA,(O,H)2/ Mg,(O,H)2/ Li,O,H,..EXPERIMENT/ LATTICE DYNAMICS..TOF
71-BA-02 BAJOREK, JANIK CALCIUM HYDROXIDE,..FREQUENCY DISTRIBUTION

4. 43 CALCIUM OXIDE

CA,O

71-CA-01 CALIER, MONTANER Mg,O/ Ca,O/ Sr,O/ Ba,O,..THEORY/ PHONON DISPERSION
71-SA-02 SAUNDERS, PECKHAM CA,O,..EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING
71-SA-03 SAUNDERS, PECKHAM CA,O,..EXPERIMENT/ DISPERSION CURVE/ NEUTRON SCATTERING/ THEORY/ FREQUENCY SPECTRUM,..T
72-UP-02 UPADHYAYA, SINGH CA,O,..THEORY/ LATTICE/ DYNAMICS/ DISPERSION RELATION
72-UP-04 UPADHYAYA, SINGH CA,O/ Sr,O,..THEORY/ LATTICE DYNAMICS/ THREE-BODY FORCE SHELL MODEL/ PHONON DISPERSION/ D
75-UP-04 UPADHYAYA, SINGH CA,O/ Sr,O,..THEORY/ LATTICE DYNAMICS/ THREE-BODY FORCE SHELL MODEL/ PHONON DISPERSION/ D

4. 44 CALCIUM SULFATE DITHYDRATE

CA,S,O4*2(H2,O)

- 63 -
4. 45 CARBON DIOXIDE


C.O2

4. 46 CARBON DISULFIDE

C.S2

4. 47 CARBON OXIDE

4. 48 CARBON TETRACHLORIDE

C.CL4

4. 49 CARBON TETRAFLUORIDE

C.F4

4. 50 CESIUM AZIDE

CS.N3

4. 51 CESIUM CHLORIDE

CS.CL

52-PO-01 POPE C.H4/ C.F4...MOLECULAR DYNAMICS/ THEORY

53-CH-02 CHEN, EDER+ C.H/ ARGON/ DEUTERIUM/ CARBON TETRAFLUORIDE...EXPERIMENT/ LIQUID/ SIGMA(THETA,E)

54-FO-03 FOUNTIER, SAVOIE+ C.F4...FREQUENCY DISTRIBUTION EXPERIMENT/ LIQUID/ SOLID...70DK/ 125DK/ INFRA-RED/ RAMAN


56-BA-02 BATA, KROO C.O2...EXPERIMENT...NEUTRON SCATTERING...DENSITY FLUCTUATION...CRITICAL POINT

57-BA-04 BATA, KROO C.O2...CRITICAL SCATTERING

58-BA-04 BATA, KROO C.O2/ C.S2...EXPERIMENT...CRITICAL SCATTERING

59-BA-04 BATA, KROO C.O2/ C.S2...EXPERIMENT...CRITICAL SCATTERING

60-WA-02 WALMSLEY C.O2...THEORY...SOLID...LATTICE DYNAMICS...FREQUENCY DISTRIBUTION

61-SU-01 SUZUKI, SCHNEPP C.O2...THEORY...LATTICE DYNAMICS...FREQUENCY DISTRIBUTION FUNCTION...SPECIFIC HEAT

62-JA-01 JACOBI, SCHNEPP C.O2/ H2/ N2...THEORY...LATTICE DYNAMICS...QUADRAPOL-QUADRAPOL POTENTIAL

63-JA-01 JACOBI, SCHNEPP C.O2/ H2/ N2...THEORY...LATTICE DYNAMICS...QUADRAPOL-QUADRAPOL POTENTIAL

64-PO-03 POWELL, DOLLING+ C.O2...EXPERIMENT...PHONON DISPERSION...MODEL CALCULATION

65-BE-02 BERNEY C.O2...NEUTRON SCATTERING SPECTRUM

66-BE-03 BERNEY C.O2...CALCULATION...SOLID

67-BE-03 BERNEY C.O2...CALCULATION...SOLID

68-MI-01 MIKA, DORNER+ C.O...EXPERIMENT...CONST.+9...77.3DK FOR LIQUID...63.1DK FOR SOLID

69-SH-05 SHINDA, ENOKIDOU C.O...THEORY...LATTICE DYNAMICS...FREQUENCY DISTRIBUTION

70-GT-01 GROUT, LEECH+ C.S2/ CL...THEORY...LATTICE DYNAMICS...SOLID
4. 52 Cesium Bromide

CS,BR

4. 53 Cesium Fluoride

CS,F

4. 54 Cesium Hydrogen Bromide

CS,H,BH2

4. 55 Cesium Hydrogen Chloride

CS,H,CL2

4. 56 Cesium Hydrogensulfide

CS,S,H
JAERI-M 6857

4, 57 Cesium Iodide

68-KA-04 KARG, HARDY CS, CL/ CS, BR/ CS, I...THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION
70-VE-03 Vetelino, Mitha* CS, CL/ CS, BR/ CS, I...THEORY/ DISPERSION CURVES...RIGID ION MODEL/ BORN-MAYER FORCE/ GRUNE
71-BU-01 Bucher, Hall CS, I...PHONON DISPERSION
72-AG-01 Agrawal, Ram CS, I...THEORY/ IMPURITY EFFECT/ LATTICE DYNAMICS
72-CR-01 Carabatos, Prevot CS, CL/ CS, BR/ CS, I...THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DIS
72-LA-03 Lal, Verma CS, CL/ CS, BR/ CS, I...CALCULATION/ PHONON DISPERSION/ THREE BODY FORCE SHELL MODEL
73-VE-03 Vetelino, Namjoosh* CS, CL/ CS, BR/ CS, I...THEORY/ PHONON DISPERSION/ MODIFIED-RIGID-ION MODEL

4, 58 Cesium Lead Chloride

73-YA-01 Yamada, Fuji* CS, PB, CL3...EXPERIMENT/ PHASE TRANSITION/ SOFT MODE

4, 59 Cesium Nickel Fluoride

74-ST-02 Steiner, Dornier* CS, Ni, F3...MAGNETIC-SCATTERING...CONSTANT-Q METHOD/ CORRELATION FUNCTION/ SPIN WAVE

4, 60 Cesium Uranium Bromide

71-CH-04 Chadus CS, U, BR6...THEORY/ PHONON DISPERSION
72-CH-03 Chadus CS, U, BR6...THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

4, 61 Chabazite

64-BO-01 Boutin, Safford* Ba, Cl2/ Chabazite/ Analcite/ Cu, S, O4/ Apophyllite/ Water-Beryl...EXPERIMENT/ TOF-SPECTRUM

4, 62 Chalcopyrite

75-QO-02 Povalnoi, Tyuterev Cu, Fe, S2...CALCULATION/ PHONON SPECTRUM/ HARD ION MODEL

4, 63 Chromium Sesquioxide

69-AL-01 Ali Khanyov, Dimitrijevic* Cr2, O3...MAGNETIC-SCATTERING...EXPERIMENT/ MAGNON DISPERSION RELATION/ ALPHA, Cr2, O

4, 64 Chromium (3) Acid

66-RU-02 Rush, Ferraro H, Cr, O...EXPERIMENT/ FREQUENCY DISTRIBUTION/ MOLECULAR CRYSTAL DYNAMICS...TOF/ H, Cr, O2 AND

4, 65 Cinnabar

73-NU-01 Nusimovic, Gorre Mg, S...THEORY/ PHONON DISPERSION/ VELOCITY OF SOUND

- 66 -
4. 66 COBALT HYDROGEN CARBONYL
    72-WH-03 WHITE, WRIGHT
    H₂CO₀(CO)₄/ H₂Fe(CO)₄/ H₂MN₃(CO)₄/ K₂HFe₀(CO)₄/ H₃MN₃(CO)₁₂/ Cs₂HFe₃(CO)₁₁

4. 67 COBALT FLUORIDE
    68-MA-03 MARTEL, COWLEY
    CO₂F₂/ EXPERIMENT/ CONSTANT-G METHOD/ DISPERSION RELATION . . 80DK/ 420K/ RIGID ION MODEL

4. 68 COBALT OXIDE
    68-SA-02 SAKURAI, BUYERS
    CO₂O₀/ LATTICE DYNAMICS/ EXPERIMENT/ DISPERSION RELATION . . 3-AXIS SPECTROMETER/ 425DK/ 11
    72-UP-01 UPADHYAYA, SINGH
    CO₂O₀/ THEORY/ PHONON DISPERSION/ THREE-BODY FORCE SHELL MODEL
    74-UP-01 UPADHYAYA, SINGH
    Mn₂O₄/ CO₂O₀/ Ni₂O₄/ THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS . . THREE-BODY FORCE SHELL

4. 69 COBALT PHOSPHIDE
    75-BL-03 BLETRY, SADOC
    CO₂P₀/ MAGNETIC-SCATTERING . . EXPERIMENT/ PAIR-CORRELATION FUNCTION
    75-HE-01 HEIDEMANN
    CO₂P₀/ MAGNETIC-SCATTERING . . EXPERIMENT/ MAGNETIC HYPERFINE SPLITTING

4. 70 COBALT PHOSPHIDE
    75-MO-02 MOOK, WAKABAYASHI
    CO₂P₀/ MAGNETIC-SCATTERING . . EXPERIMENT/ MAGNON DISPERSION

4. 71 COBALT(3) ACID
    72-GH-02 GHOSH, WADDINGTON
    Na₂H₂, Cs₂H₂, H₂CrO₂/ H₂CO₀₂/ K₂H₃(C₂Cl₃C₂O₂)₂/ EXPERIMENT/ NEUTRON SPECTROSCO

4. 72 COPPER BROMIDE
    73-PK-03 PREVOT, CARABATOS
    Cu₂Br₀/ . . DISPERSION CURVE
    74-PA-06 PANDEY, DAYAL
    Cu₂Br₀/ Cu₁₀/ . . DISPERSION-CURVES

4. 73 COPPER CHLORIDE DIHYDRATE
    69-TH-01 TIMPER, SEQUEIRA
    K₂C₂O₄H₂O/ Ba₂(C₁₈O₃)₂H₂O/ Li₂S₂O₄H₂O/ Ca₂S₂O₄H₂O/ Cu₂Cl₂(H₂O)/ Be₂S₂O₄

4. 74 COPPER IODIDE
    72-ME-02 MESSON, MOUSSA
    Cu₂I₀/ EXPERIMENT/ DISPERSION RELATION/ RIGID ION MODEL/ FREQUENCY DISTRIBUTION/ ELASTIC C
    74-PA-06 PANDEY, DAYAL
    Cu₂Br₀/ Cu₀₁₀/ . . DISPERSION-CURVES
4. 75 COPPER SULFATE  
   64-BO-01 BOUTIN, SAFFORD  
   BA, CL2/ CHABAZITE/ ANALCITE/ CU, S, O4/ APOPHYLLITE/ WATER-BERYL/ EXPERIMENT/ TOF-SPECTRUM

4. 76 CORUNDUM  
   69-CA-03 COWLEY  
   CALCITE/ CORUNDUM/ THEORY/ LATTICE DYNAMICS  
   74-CA-03 CATALIOTTI  
   CORUNDUM/ PHONON-SPECTRUM  
   75-BI-01 BIALAS, STULZ  
   CORUNDUM/ EXPERIMENT/ PHONON DISPERSION/ SAPPHIRE  
   75-KA-03 KAPPUS  
   AL2, O3/ LATTICE DYNAMICS/ RIGID ION/ THEORY  
   75-KA-04 KAPPUS  
   CORUNDUM/ CALCULATION/ PHONON DISPERSION/ RIGID ION MODEL/ SAPPHIRE

4. 77 CRISTOBALITE  
   69-LE-01 LEADBETTER  
   SILICA/ QUARTZ/ CRISTOBALITE/ EXPERIMENT/ COLLECTIVE VIBRATION/ AMORPHOUS SOLID/ TOF/ SILICA/  
   72-LE-02 LEADBETTER, STRINGFELLOW  
   SIL2, O2/ EXPERIMENT/ VITREOUS SILICA/ ALPHA QUARTZ/ PHONON SPECTRA  
   74-ET-01 ETCHEPARE, MERIAN  
   SI, O2/ THEORY/ NORMAL MODE/ COMPARED TO OPTICAL DATA  
   75-BI-02 BILIR, PHILLIPS  
   SI, O2/ EXPERIMENT/ DISPERSION RELATION/ 2DK=20DK/ AMORPHOUS/ SPECIFIC HEAT

4. 78 CUPRITE  
   71-CA-03 CARABTOS, PHEVOT  
   CU2, O/ THEORY/ PHONON DISPERSION/ RIGID ION MODEL/ PHONON SPECTRUM  
   73-DA-01 DAWSON, HARGREAVE  
   CU2, O/ I.R. AND RAMAN EXPERIMENT

4. 79 CUPROUS CHLORIDE  
   71-CA-02 CARABTOS, HENNION  
   CU, CL/ EXPERIMENT/ PHONON DISPERSION CURVES/ ROOM TEMP.  
   74-PA-05 PANDLEY  
   CU, CL/ THEORY/ SOLID/ RIGID ION MODEL  
   75-VA-01 VAJENDY, GILAT  
   CU, CL/ SOLID/ THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS/ BREATHING SHELL MODEL/ RIGI

4. 80 DIAMMINEPENTACHLORODIMETHYLCOBALT  
   (C, H3, N, H)2, MN, CL4  
   75-PB-01 PETZELT  
   (C, H3, N, H)2, MN, CL4/ THEORY/ SOLID/ LATTICE DYNAMICS/ PHASE TRANSITION

4. 81 DICARBON HEXAFLUORIDE  
   C2, F6

4. 82 DYSPROSIUM VANADATE  
   67-CA-03 CARPENTER  
   C2, F6/ BR2/ SCATTERING LAW/ CORRELATION FUNCTION/ THEORY/ GAS/ MOLECULAR DYNAMICS/ TORSIONAL  
   68-CA-02 CARPENTER, SCHAEPER  
   BR/ C2, F6/ SCATTERING THEORY  
   68-CA-03 CARPENTER, LURIE  
   C2, F6/ C, H4/ EXPERIMENT/ GAS/ SCATTERING FUNCTION

4. 82 MELCHE+ SCOTT  
   DY, V, O4/ EXPERIMENT/ ELASTIC CONSTANT/ SOFT MODE/ MEAN FIELD THEORY/ CRITICAL FLUCTUATION

- 68 -
4. 83 Dysprosium Antimonide
75-TA-03 Taub, Parente
Magnetic-scattering/ Ho, SB/ Dy, SB...Experiment/ Critical Scattering

4. 84 Erbium Iron Oxide
74-SH-01 Shapiro, Axe
Magnetic-scattering...Experiment/ Magnon Dispersion/ Soft Mode

4. 85 Gadolinium Molybdate
73-BO-05 Boyer, Hardy
Gadolinium Molybdate/ Phase-Transition...Theory/ Rigid-Ion Model/ Phonon Dispersion/ Frequency

4. 86 Gallium Antimonide
73-FA-01 Farr
Gallium Antimonide...Thesis/ Lattice Dynamics/ Dispersion/ Phonon Spectra/ Debye Temp.
75-FA-01 Farr, Thaylor +
Gallium Antimonide...Lattice Dynamics/ Coherent Inelastic Scattering

4. 87 Gallium Arsenide
63-WA-01 Waugh, Dolling
Gallium Arsenide...Experiment/ Dispersion Relation
65-DO-03 Dolling, Waugh
Gallium Arsenide...Experiment/ Dispersion Relation
66-DO-02 Dolling, Cowley
Gallium Arsenide...Coherent Inelastic Scattering Studies/ Phonon Dispersion
70-KO-03 Korol
Gallium Arsenide...Theory/ Phonon Dispersion
75-AL-02 Altshuler, Vekilov
Gallium Arsenide...Theory/ Dispersion Relation/ Lattice Dynamics...Pseudopotential Method

4. 88 Gallium Phosphide
68-VA-01 Yarnell, Warren
Gallium Phosphide...Experiment/ Lattice Dynamics/ Dispersion Relation
68-VA-02 Yarnell, Warren
Gallium Phosphide...Experiment/ Lattice Dynamics/ Dispersion Relation/ 3-Axis Spectrometer/ Shell Mode
71-BA-05 Banerjee, Varshni
Gallium Phosphide...ZnS, GaP, SiC...Theory/ Phonon Dispersion/ Frequency Spectra/ Debye Temperature

4. 89 Gallium Sesquieelenide
75-FI-03 Finkman, Tauc +
Gallium Sesquieelenide...In2, Te3/ Ga2, Se3...Infrared, Raman Spectra/ Defect Structure/ Dispersion Curves

4. 90 Gallium Sesquisulfide
75-FI-03 Finkman, Tauc +
Gallium Sesquisulfide...In2, Te3/ Ga2, Se3...Infrared, Raman Spectra/ Defect Structure/ Dispersion Curves

4. 91 Germanium Tetrabromide
71-EG-02 Egelstaff, Page +
Germanium Tetrabromide...C, Cl4/ Ge, Br4...Experiment/ Molecular Liquid Dynamics

- 69 -
67-MC-01 MCMURRY  H2.0/ D2.0  .SIGMA(LET=EPRIHE)/ COMPIILATION
67-WM-01 WHITEMORE  D2.0/ H2 GRAPHITE  .CROSS SECTION EVALUATION/ LIQUID SOLID EXPERIMENT/ SCATTERING FUNCTION
68-CL-01 GLAESER  H2.0/ Zr/H GRAPHITE/ D2.0/ BE/ BE,0  .COMPIILATION/ SCATTERING FUNCTION/ CROSS SECTION EVALUATION
68-CL-02 GLAESER  H2.0/ D2.0/ Zr/H GRAPHITE/ BE/ BE,0  .SCATTERING FUNCTION/ DIFFUSION PARAMETER/ COMPIILATION
68-HA-01 HARLING  D2.0  .SCATTERING FUNCTION/ LIQUID FREQUENCY DISTRIBUTION EXPERIMENT ROOM TEMP.
68-HA-02 HARLING  H2.0/ D2.0  .EXPERIMENT/ MOLECULAR DYNAMICS/ FREQUENCY DISTRIBUTION EPITHERMAL NEUTRONS
68-HA-03 HARLING  H2.0/ D2.0  .EXPERIMENT/ TOF DIFFERENTIAL CROSS SECTION SPECTRAL DENSITY 2990K  268DK
68-HA-06 HAYWOOD PACE  H2.0/ D2.0  .EXPERIMENT/ SCATTERING FUNCTION FREQUENCY DISTRIBUTION
68-PA-01 PAGE HAYWOOD  H2.0/ D2.0/ GRAPHITE/ BE/ BE,0  .COMPIILATION/ LIQUID SOLID FREQUENCY DISTRIBUTION AT VARIOUS
68-PA-03 PAGE  H2.0/ D2.0  .EXPERIMENT/ SCATTERING FUNCTION COMPIILATION MIXTURE OF H2.0 AND D2.0 G=0.13EVE
68-PA-05 PARKS PELLARINO  H2.0/ D2.0  .EXPERIMENT/ DIFFUSION PARAMETER
68-WM-02 WHITEMORE  H2.0  .SCATTERING FUNCTION FREQUENCY DISTRIBUTION EXPERIMENT LIQUID .3000K INCIDENT NEUTRO
69-BU-02 BUTLAND CHUDLEY  HEAVY WATER TOTAL CROSS SECTION DIFFUSION COEFFICIENT
71-GH-01 GHEORGHE RAPEANU  D2.0  .SCATTERING LAW COMPUTER CODE
71-GO-02 GOTOH TAKASHI  H2.0/ D2.0  .FREQUENCY DISTRIBUTION SCATTERING LAW
71-PA-01 PAGE PLOWE  D2.0  .NEUTRON DIFFRACTION X-RAY STRUCTURE FACTOR MOLECULAR ORIENTATION
71-RH-02 RENKA  D2.0  .EXPERIMENT ICE HEXAGONAL PHONON DISPERSION
71-RE-03 RENKEN  D2.0  .LATTICE DYNAMICS SOLID THEORY EXPERIMENT BORN-VON KARMAH MODEL DISPERSION RELATION
72-LE-03 LEE JONAS  D2.0  .VISCOITY DENSITY
72-KA-05 NARTEN  H2.0/ D2.0  .PAIR CORRELATION EXPERIMENT
72-PD-04 POWLES MORE  H2.0/ D2.0  .EXPERIMENT STRUCTURE FACTOR H2O-D2O MIXTURE ISOTOPIC SUBSTITUTION
72-PR-04 PRAUS TREVINO  H2.0/ D2.0  .THEORY EXPERIMENT LATTICE DYNAMICS FREQUENCY RELATION DISPERSION RELATION
72-SH-04 SHAWER DEAN  H2.0/ D2.0  .THEORY SOLID LATTICE DYNAMICS FREQUENCY DISTRIBUTION ICE DISORDERED SYSTE

4.94 HEXAMMINEOXALT IODIDE  CO.(NH3)6.12
69-JA-02 JANIK JAKOB  CO.(NH3)6.12/ NI.(NH3)6.12  .EXPERIMENT MOLECULAR DYNAMICS FREQUENCY DISTRIBUTION

4.95 HEXAMMINENICKEL IODIDE  NI.(NH3)6.12
69-JA-02 JANIK JAKOB  CO.(NH3)6.12/ NI.(NH3)6.12  .EXPERIMENT MOLECULAR DYNAMICS FREQUENCY DISTRIBUTION

4.96 HOLMUM ANTIMONIDE  H2O.SB
75-TA-03 TAUB PARENTE MAGNETIC-SCATTERING H2O.SB D2O.SB .EXPERIMENT CRITICAL SCATTERING

4.97 HYDROGEN BROMIDE  H/BR
65-B0-04 BOUTIN SAFFORD  H,F/ H,CL/ H,Br  .EXPERIMENT LATTICE VIBRATION TOF SPECTRUM

4.98 HYDROGEN CHLORIDE  H,Cl
65-B0-04 BOUTIN SAFFORD  H,F/ H,Cl/ H,Br  .EXPERIMENT LATTICE VIBRATION TOF SPECTRUM
68-AG-01 AGRAWAL YIP  C,H4/ H,Cl/ N,H3  .GAS THEORY CORRELATION FUNCTION INCOHERENT INTERMEDIATE SCATTERING FU
68-AG-03 AGRAWAL YIP  H,Cl  .THEORY ROTATIONAL TIME CORRELATION FUNCTION
68-SU-03 SUMMERSFIELD ZWEIFEL  H,CL/ H,F  .SCATTERING THEORY
99 HYDROGEN CYANIDE

4. 99 HYDROGEN CYANIDE

72-RA-01 RAE H.C.N. \textit{CALCULATION/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ PHASE CHANGE/ SOFT PHONON}
75-DI-02 DIERICH, MACKENZIE \textit{H.C.N. EXPERIMENT/ PHASE TRANSITION/ PHONON SOFTENING}

4. 100 HYDROGEN FLUORIDE

65-BO-04 BOUTIN, SAFFORD H.F/ H.CL/ H.BR \textit{EXPERIMENT/ LATTICE VIBRATION/ TOF SPECTRUM}
67-KL-05 KITTELBERGER, HORNIG H.F. \textit{EXPERIMENT/ LATTICE DYNAMICS/ INFRARED EXPERIMENT}
68-00-01 O'REILLY C.CLO/ C.H, CLO/ C6, H3, CL \textit{H.F/ MECHANISM/ MOLECULAR ROTATIONS/ LIQUID}
68-SU-03 SUMMEL, ZWEIFEL H.CL/ H.F. \textit{SCATTERING THEORY}
69-AX-02 AXMANN, BIEM H.F. \textit{EXPERIMENT/ CALCULATION/ LATTICE DYNAMICS/ DISPERSION CURVE/ FREQUENCY SPECTRA}
69-RH-02 RING, EGELSTAFF H.F. \textit{SCATTERING FUNCTION}

4. 101 HYDROGEN SULFIDE

63-JA-02 JANIK, JANIK C.H4/ N.H3/ H2, S/ H2, O \textit{SIGMA(E)/ EXPERIMENT/ LIQUID}
63-RZ-01 RZANY, SCIESINSKI H2.S \textit{EXPERIMENT/ TOTAL CROSS SECTION}
65-ST-07 STRONG, HARKER AMMONIA/ HYDROGEN SULFIDE \textit{EXPERIMENT/ GAS/ CROSS SECTION EVALUATION/ MTR-PHASE-CHOPPER}

4. 102 HYDRONIUM NITRATE


4. 103 INDUM ANT MONIDE

71-PR-05 PRICE, ROWE* SN/ IN, SB \textit{EXPERIMENT/ PHONON DISPERSION CURVE/ 90DK FOR SN/ 300DK FOR IN, SB}
71-PR-05 PRICE, ROWE SN/ IN, SB \textit{EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL CALCULATION}
72-TA-03 TALWAR, AGHAWAL IN, SE/ IN, SB \textit{EXPERIMENT/ PHONON DISPERSION}

4. 104 INDUM PHOSPHIDE

75-BX-02 BORCHEG, ALFLE* IN, P \textit{SOLID/ EXPERIMENT/ DISPERSION RELATION}

4. 105 INDUM TELLURIDE

IN2, TE3
75-F1-03  FINKMAN, TAUC*  IN2, TE3/ GA2, SE3/ GA2, S3/ IRINFRARED, RAMAN SPECTRA/ DEFECT STRUCTURE/ DISPERSION CURVES

4,106  IRON BROMIDE  FE:BR2

75-YE-01  YELON, VETTIER  FE, BR2/ EXPERIMENT/ THEORY/ MAGNETIC SCATTERING/ SPIN WAVE SPECTRUM/ ANISOTROPY FIELD/ 20K

4,107  IRON CHLORIDE  FE, CL2

74-VE-01  YELON, SCHERM  FE, CL2/ EXPERIMENT/ PHONON DISPERSION

4,108  IRON FLUORIDE  FE, F2

72-LO-01  LOVESEY  FE, F2/ THEORY

72-RA-03  RAINFORD, HOUMANN*  FE, F2/ EXPERIMENT/ PHONON AND MAGNON DISPERSION/ MAGNON-PHONON INTERACTION

4,109  IRON HYDROGEN CARBONYL  H, CO, (C, O)4


4,110  IRON SESQUIOXIDE  F2, O3

70-AL-03  ALIKHANOV, DIMITRIJEVIC*  F2, O3, MAGNETIC-SCATTERING/ EXPERIMENT/ MAGNON DISPERSION

70-SA-03  SAMUELSEN, SHIRANE  F2, O3/ EXPERIMENT/ SPIN WAVE DISPERSION/ 240, 290DK/ PARAMETER FITTING/ MAGNON DENSITY

4,111  KCP  K2, PT, (C, N)4, BR0, 3

75-LY-01  LYNN, IIZUMI*  KCP/ EXPERIMENT/ SOLID/ KUHN EFFECT/ DISPERSION RELATION/ TRIPLE AXIS TECHNIQUE/ ONE-DIME

4,112  LANTHANUM ALUMINATE  LA, AL, O3

69-AX-01  AXE, SHIRANE  LA, AL, O3/ EXPERIMENT/ PHONON DISPERSION/ PHASE TRANSITION/ PHONON INSTABILITY

4,113  LANTHANUM CHLORIDE  LA, CL3

65-CA-01  CASPERS, MURPHY*  LA, CL3/ LATTICE DYNAMICS


4,114  LANTHANUM THIFLUORIDE  LA, F3

68-RA-07  RAST, CASPERS*  LA, F3/ EXPERIMENT/ 4, 2DK/ 77DK/ 373DK/ INFRARED REFLECTION/ KRAMERS-KRONIG METHOD

- 73 -
4.115 LEAD FLUORIDE
PB.F2
70-DE-03 DENHAM, FIELD+ CA.F2/ SR.F2/ BA.F2/ CO.F2/ PB.F2 ..THEORY/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ DISPERSION

4.116 LEAD METATITANATE
PB.TI.03
66-SO-01 SOLOVEV, KUKHTO+ SR.TI.03/ BA.TI.03/ PB.TI.03 ..EXPERIMENT/ LATTICE VIBRATION ..POLYCRYSTAL/ ROOM TEMP/ 47
70-SH-07 SHIRANE, AKI+ PB.TI.03 ..EXPERIMENT/ DISPERSION RELATION/ FERROELECTRICITY

4.117 LEAD SELENIDE
PB.SE
74-BO-01 BURKHARD, GEICK+ PB.SE ..EXPERIMENT ..KRAMEK=KONIG ANALYSIS/ PHONON=PLASMON INTERACTION

4.118 LEAD SULFIDE
PB.S
67-EL-02 ELCOMBE PB.S ..EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVE/ MODEL FITTING/ FREQUENCY SPECTRUM

4.119 LEAD TELLURIDE
PB.TE
66-CO-01 COCHRAN, COWLEY+ PB.TE ..EXPERIMENT/ MODEL CALCULATION/ PHONON DISPERSION/ FREQUENCY SPECTRA/ SPECIFIC HEA
72-AL-04 ALPENIN, PICANT+ PB.TE ..EXPERIMENT/ DISPERSION RELATION/ SOFT PHONON/ CURIE LAW/ TEMPERATURE CHANGE

4.120 LEAD TIRCONATE
PB.ZR.03
70-ZE-01 ZEIN, ZINENKO+ SR.TI.03/ PB.ZR.03 ..THEORY/ LATTICE DYNAMICS/ FERROELECTRICITY/ PHASE TRANSITION

4.121 LIGHT WATER
H2.O
40-DA-01 DARLING, DENNISON H2.O ..THEORY/ MOLECULAR DYNAMICS
41-SA-01 SCHACH+ TELLER NEUTRON-SCATTERING-IN-FLUIDS/ H2/ C.H4/ N.H3/ H2.O ..SCATTERING THEORY ..MOLECULAR GASES
54-FO-01 FORSLIND H2.O ..THEORY/ SOLID/ BORN=VON KARMA MODEL/ CENTRAL FORCE MODEL/ DISPERSION RELATION/ HARMONIC
55-JA-01 JACOBI+ NEITZEN+ GRAPHITE/ H2.O/ D2.O ..EXPERIMENT/ LIQUID/ SOLID
57-KR-01 KRIEGER, NELKIN NEUTRON-SCATTERING-IN-FLUIDS/ C.H2/ H2.O ..SCATTERING THEORY ..MOLECULE
58-BR-02 BROCKHUSE H2.O/ D2.O ..EXPERIMENT
58-MC-01 MCREYNOLDS, NELKIN+ H2.O/ POLYETHYLENE/ ZR=H/ Mg=H/ GRAPHITE ..EXPERIMENT/ THEORY/ LIQUID/ SOLID
59-BR-04 BROCKHUSE H2.O/ D2.O ..SCATTERING LAW/ EXPERIMENT ..QUASI ELASTIC SCATTERING/ ICE+ 60C, 24.50C, 42DC, 60D
59-MU-01 HUGHES, PALEVSKY+ H2.O ..LIQUID/ EXPERIMENT ..BE-FILTER-TOF
60-CH-01 CRIBIER, JACOBI H2.O ..EXPERIMENT/ LIQUID/ DISPERSION RELATION/ DIFFUSION PARAMETER
60-HU-01 HUGHES, PALEVSKY+ H2.O ..SIGMA (E,PRIME,THETA)
60-KH-01 KUHBSDANDRI, RAMAN H2.O ..THEORY/ ELASTIC SCATTERING CROSS SECTION ..RIGID ASYMMETRIC ROTOR MODEL
60-LA-01 LARSSON, HOLMRYD H2.O/ D2.O ..EXPERIMENT/ FREQUENCY DISTRIBUTION ..LIQUID DYNAMICS
60-NE-02 NELKIN NEUTRON-SCATTERING-IN-FLUIDS/ H2.O ..THEORY/ MOLECULAR DYNAMICS ..DIFFERENTIAL AND TOTAL CROSS
60-SI-01 SINGER, SJOLANDER H2.O ..THEORY/ MOLECULAR DYNAMICS ..LIQUID DYNAMICS/ QUASI-CRYSTALLINE MODEL
61-BR-03 BRUGGER ZR=H/ H2.O/ BENZENE/ PARAFFINE/ ALCOHOL ..SIGMA (E,PRIME,THETA)/ EXPERIMENT/ LIQUIDS/ TOF
61-CH-02 CRIBIER, JACOBI H2.O ..EXPERIMENT ..QUASI ELASTIC SCATTERING/ 270C, 430C
61-EG-01 EGELESTAFF, COCKING+ H2.O/ D2.O/ PB ..EXPERIMENT/ LIQUID/ SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION

- 74 -
68-KI-01 KIROUAC, MOORE H2O, SCATTERING FUNCTION, EXPERIMENT, 300K
68-NA-01 NAKAHARA H2O, FREQUENCY DISTRIBUTION, THEORY, SOLID, LATTICE DYNAMICS
68-NE-01 NEIL, ROUSEL JR H2O, EXPERIMENT, LIQUID, TOTAL CROSS SECTION, 230C, LINAC
68-PG-01 PAGE, HAYWOOD H2O, D2O, GRAPHITE, BE, B2O, COMPOSITION, LIQUID, SOLID, FREQUENCY DISTRIBUTION, AT VARIOUS TEMPERATURES
68-PA-03 PAGE, HAYWOOD H2O, D2O, EXPERIMENT, SCATTERING FUNCTION, COMPOSITION, MIXTURE OF H2O AND D2O, 0-0.15 EV
68-PA-03 PARKS, PELLARIN H2O, D2O, EXPERIMENT, DIFFUSION PARAMETER
68-PR-01 PRASK, BOUTIN H2O, SOLID, EXPERIMENT, THEORY, FREQUENCY DISTRIBUTION, COLD NEUTRON TOF, 150K
68-RO-01 ROSS, ZIABO BENZENE, H2O, SCATTERING FUNCTION, FREQUENCY DISTRIBUTION, EXPERIMENT, LIQUID, D2O, FOR BE AND D2O
68-SA-03 SAMOSVAT, SAYASOV H2O, EXPERIMENT, MOLECULAR DYNAMICS, TOF, RESONANT DETECTOR METHOD
68-SL-02 SLAGGIE H2O, DEUTERON, CROSS SECTION, EVALUATION
68-TR-02 TREVINO, PRASK H2O, MOLALITY, THEORY, LATTICE DYNAMICS, HARMONIC SOLIDS
68-ES-01 ESCH, YEATER H2O, EXPERIMENT, DOUBLE DIFFERENTIAL SCATTERING CROSS SECTION, 27.170, 270C, LINAC TOF
68-FI-01 FISCHER BENZENE, CYCLOHEXANE, CYCLOHEXANOL, PYRIDINE, H2O, HEXANE, METHANOL, ETHANOL, ACETONE, ACETIC
68-HA-04 HARIYASAN, GOVINDARAJAN H2O, THEORY, PHONON SPECTRA, ICE
68-HA-09 HARLING H2O, SCATTERING LAW, FREQUENCY DISTRIBUTION
68-KO-01 KOSALY, VALKO H2O, THEORETICAL, CROSS SECTION EVALUATION
68-PH-03 PRASK, BOUTIN, H2O, IONIC DISSOCIATION VIBRATION, MOLECULAR VIBRATION
68-RE-02 REICHLE, MAIER H2O, CALCULATION, SINGLE DIFFERENTIAL CROSS SECTION
68-RE-02 RENKER H2O, PHONON DISPERSION, D2O
68-SA-02 SAFFORD, LEUNG H2O, IONIC SOLVENT, EXPERIMENT, TOF SPECTRUM, ION-WATER INTERACTION
68-SH-04 SHAVER, DEAN H2O, THEORY, LATTICE DYNAMICS, FREQUENCY SPECTRA
70-BA-05 BATES, LIPPINCOTT H2O, MOLECULAR VIBRATIONS
70-BU-03 BUTLAND, CHUDELEY H2O, INTEGRAL DATA, NEUTRON DIFFUSION COEFFICIENT, TOTAL SIGMA, EFFECTIVE WIDTH MODEL
70-CL-01 CLIFFORD H2O, SCATTERING LAW, LIQUID
71-SI-02 BISCHOFF, MOORE H2O, MULTIPLE SCATTERING, THEORY, SIGMAE, E-PRIME CLUSTER
71-SA-01 DAVIES, SINCLAIR ZR, H2O, G5, H7, N, NA, H2, EXPERIMENT, TOF SPECTRA, PULSED NEUTRON SOURCE
71-DA-02 DAY, SINCLAIR ZR, H2O, SODAMIDE, ANILINE, EXPERIMENT, MOLECULAR DYNAMICS, LINAC PULSED NEUTRON SOURCE
71-ES-01 ESCH, YEATER H2O, DIFFERENTIAL CROSS SECTION, 27.170, 270C, LINAC
71-GO-02 GOTOH, TAKASHI H2O, D2O, FREQUENCY DISTRIBUTION, SCATTERING LAW
71-RA-01 RAHMAN, STILLINGER H2O, COMPUTER SIMULATION, CORRELATION FUNCTION, SELF-DIFFUSION, FREQUENCY SPECTRA
72-BU-03 BUTLAND, CHUDELEY H2O, SCATTERING MODEL, CALCULATION, INTEGRAL PARAMETER
72-CH-01 CHAY, FRANK H2O, THEORY, FLUIDS, CORRELATION FUNCTION
72-NA-05 NARTEN H2O, D2O, CORRELATION FUNCTION
72-PO-04 POWLES, DORE H2O, D2O, SCATTERING-THEORIES, STRUCTURE FACTORS, H2O-D2O MIXTURE, ISOTOPIC SUBSTITUTION
72-PR-04 PRASK, TREVINO H2O, D2O, THEORETICAL, LATTICE DYNAMICS, FREQUENCY RELATION, DISPERSION RELATION
72-SM-04 SHAVER, DEAN H2O, D2O, THEORY, SOLID, LATTICE DYNAMICS, FREQUENCY DISTRIBUTION, ICE, DISORDERED SYSTEM
73-HE-01 HERDADE, VINHAS POLYETHYLENE, H2O, EXPERIMENT, SOLID, LIQUID, TOF, SIGMA (E)
74-DE-01 DENLEY, RICE H2O, THEORY, LIQUID, WATER, FREQUENCY SPECTRA
74-ST-03 STILLINGER, RAHMAN H2O, LIQUID, WATER, CORRELATION FUNCTION, MOLECULAR DYNAMICS, COMPUTER EXPERIMENT
74-WA-02 WATTS LIGHT WATER, THEORY, FLUIDS, RADIATION DISTRIBUTION, FUNCTION, MONTE-CARLO

4,122 LITHIUM BROMIDE
L2, Br

73-MI-05 MITRA, SINGH L1, H, NA, Li, F, Li, CL, Li, Br, K, F, K, Cl, K, Br, K, Li, Rb, I, THEORETICAL, LATTICE DYNAMICS, FORCE
74-RA-08 RASTOGI, HAWARKAR L1, BR, L1, I, Li, CL, LATTICE DYNAMICS, THEORY
74-SI-03 SINGH L1, H, Li, Br, Li, I, DISPERSE, CURVES, DENSITY, STATES

4,123 LITHIUM CHLORIDE
L1, Cl
4.124 LITHIUM FLUORIDE

4.125 LITHIUM HYDRIDE

4.126 LITHIUM HYDROXIDE

4.127 LITHIUM IODINE

4.128 LITHIUM NIOBATE

4.129 LITHIUM SULFATE MONOHYDRATE
JAERI-M 6857

71-JA-02 JANIK, JANIK* L12,S,04*H2,O. INELASTIC SCATTERING SPECTRA/ H2,O IN CRYSTAL
72-M1-01 MIXULI, JANIK* L12,R,04*H2,O. EXPERIMENT/ FREQUENCY SPECTRUM

4.130 LITHIUM SULFATE L12,SO4,H2,O

4.131 LITHIUM YTTRIUM TETRAFLUORIDE LI,Y,F4
70-M1-01 MILLER, RAST* L12,Y,F4. EXPERIMENT. RAMAN SCATTERING

4.132 MAGNESIUM FLUORIDE Mg,F2
68-KA-02 KAHN, THOTIN* MG,F2. EXPERIMENT/ 3-AXIS SPECTROMETER/ LATTICE DYNAMICS/ DISPERSION RELATION
70-KA-04 KATZ, YAK MG,F2. THEORY/ LATTICE DYNAMICS
74-AL-01 ALMAIRAC, BENOIT MG,F2. PHONON DISPERSION/ EXPERIMENT/ SHELL MODEL CALCULATION

4.133 MAGNESIUM HYDROXIDE Mg(OH)2
63-SA-01 SAFFORD, BRAJOCIC* MG(OH)2/ CA.(OH)2. EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS
65-PE-02 PELAH, KREBS* CA.(OH)2/ Mg(OH)2/ Li1,O,H. EXPERIMENT/ LATTICE DYNAMICS. TOF

4.134 MAGNESIUM LEAD Mg2,PB
72-WA-02 WAKABAYASHI, AHMAD* Mg2,PB. EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ FREQUENCY SPECTRA

4.135 MAGNESIUM OXIDE Mg,O
65-PE-01 PECKHAM MG,O. LATTICE DYNAMICS
67-BU-01 BUCKLAND, SAUNDERSON MG,O. EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION. TRIPLE AXIS SPECTROMETER
67-MA-02 MARTIN MG,O. SOLID/ EXPERIMENT. DEFECT SCATTERING. SCATTERING THEORY
67-PE-01 PECKHAM MG,O. LATTICE DYNAMICS/ EXPERIMENT/ THEORY/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION. ROOM
67-RI-01 RIEDEL, HÖRL MG,O. EXPERIMENT/ SOLID/ LATTICE DYNAMICS. SURFACE VIBRATION
67-VE-05 VERMA, DAYAL MG,O. THEORY/ PHONON DISPERSION. COMBINED DENSITY-OF-STATES
68-BO-03 BORGONI, CARRIVEAU MG,O. EXPERIMENT/ ANGULAR DISTRIBUTION/ SHELL MODEL CALCULATION
68-MA-08 MARTIN MG,O. EXPERIMENT/ THEORY. SOLID. DEFECT SCATTERING
68-RI-04 RIEDEL, HÖRL MG,O. EXPERIMENT/ PHONON SPECTRA/ SURFACE MODE
70-SA-01 SABINE, SVENSON MG,O. EXPERIMENT/ TOTAL SCATTERING SIGMA. DEFECT CLUSTER SCATTERING
70-SA-03 SANGER, PECKHAM* MG,O. EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVES. BREATHING SHELL MODEL. FREQUEN
71-CA-01 CALTIER, MONTANER MG,O/ CA,0/ SR,0/ BAg. THEORY/ PHONON DISPERSION
71-G1-02 GILLIS MG,O. THEORY/ LATTICE VIBRATION
72-GE-01 GENZEL, MARTIN MG,O. THEORY/ FREQUENCY SPECTRA. RIGID ION MODEL. SMALL CRYSTAL
72-SI-06 SINGH, UPADHYAYA MG,O. THEORY. SHELL MODEL. PHONON DISPERSION. SPECIFIC HEAT
73-SA-03 SANGER, PECKHAM MG,O/ NA,CL/ Li,F/ KI. INTERIORIC FORCE. PHONON DISPERSION. DEFORMABLE SHELL MODEL
73-VE-03 VERMA, AGARWAL MG,O. LATTICE DYNAMICS/ DISPERSION RELATION/ THEORY

- 79 -
4.136 MAGNESIUM STANIDE
MG2,SN
70-BE-04 BERGMA MG2,SN/ZN,S, EXPERIMENT/TRIPEL AXIS SPECTROMETER/PHONON DISPERSION RELATION
70-KE-01 KEARNEY, WORLTON MG2,SN, EXPERIMENT/LATTICE DYNAMICS/DISPERSION CURVES, ROOM TEMP. 3-AXIS SPECTROMETER
70-KE-02 KEARNEY, WORLTON MG2,SN, THEORY/LATTICE DYNAMICS/GROUP THEORETICAL TECHNIQUES

4.137 MAGNESIUM,ZINC
MG2,ZN2
72-ES-01 ESCHRING, URWANK MG2,ZN2, THEORY/EXPERIMENT/MODEL-POTENTIAL/PHONON DISPERSION/FREQUENCY DISTRIBUTION
72-ES-02 ESCHRING, FELDMANN MG2,ZN2, CALCULATION/MODEL POTENTIAL THEOREY/EXPERIMENT/PHONON DENSITY
72-ES-03 ESCHRING, URWANK MG2,ZN2, THEORY/PHONON SPECTRA, A,B2 TYPE INTERMETALLIC COMPOUNDS
73-ES-01 ESCHRING, FELDMANN MG2,ZN2, EXPERIMENT/PHONON DENSITY/COHERENT SCATTERER/POWDER SAMPLE

4.138 MAGNETITE
FE3,04
66-DI-02 DIMITRIJEVIC, KRASNIK MG2,ZN2/MAGNETITE/MAGNETIC-SCATTERING, EXPERIMENT/DIFFUSE SCATTERING
67-DI-01 DIMITRIJEVIC, KRASNIK MG2,ZN2/MAGNETITE/MAGNETIC-SCATTERING, EXPERIMENT/MAGNON DISPERSION
74-SA-03 SAMUELS, STEINSVOLL MG2,ZN2/MAGNETITE, EXPERIMENT/INELASTIC NEUTRON SCATTERING/DISPERSION RELATION, SPINEL S
75-FU-01 FUJII, SHIRANE MG2,ZN2/MAGNETITE/PHASE-TRANSITION, EXPERIMENT, 1230K TRANSITION/Critical SCATTERING/VERWEY OR
75-SH-01 SHIRANE, CHIKAZUMI MG2,ZN2/MAGNETITE/MAGNETIC-SCATTERING, EXPERIMENT/CHARGE ORDERING

4.139 MANGANESE FERRITE
MN,FE2,04
74-SC-01 SCHEERLINCK, WEGENER MN,FE2,04, DISPERSION CURVES
74-WE-02 WEGENER, SCHEERING MN,FE2,04, EXPERIMENT/TOF/DISPERSION RELATION, SPIN WAVE SPECTRUM

4.140 MANGANESE FLUORIDE
MN,F2
74-CN-01 CRAN, SANGSTER MN,F2, EXPERIMENT/LATTICE DYNAMICS/DISPERSION RELATION/FREQUENCY DISTRIBUTION, SHELL MODEL

4.141 MANGANESE HYDROGEN CARBONYL (1)
H, MN,(C,O)5
4.142 MANGANESE HYDROGEN CARBONYL (2)
H, MN3,(C,O)12
4.143 MANGANESE MONOXIDE
MN,O
69-HA-06 HAYWOOD, COLLINS MN,O, EXPERIMENT/LATTICE DYNAMICS/DISPERSION RELATION, RIGID-ION AND SHELL
70-UP-01 UPADHYANA, SINGH MN,O, THEORY/DISPERSION RELATIONS
71-HA-07 HAYWOOD, COLLINS MN,O, EXPERIMENT/PHONON DISPERSION/SHELL MODEL FITTING

- 80 -
4.144 MOLYBDENUM DISULFIDE
71-BR-04 BROMLY MO.S2 THEORY/ PHONON DISPERSION
75-WA-01 WAKABAYASHI, SMITH+ MO.S2 EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING

4.145 NICKEL CHLORIDE
75-L1-01 LINDGARD, BIRGENEAU+ NI.CL2 MAGNETIC-SCATTERING EXPERIMENT/ MAGNON

4.146 NICKEL MONOSULFIDE
72-BR-02 BRIGGS, DUFFILL+ NI.S EXPERIMENT/ PHONON AND MAGNON DISPERSION

4.147 NICKEL OXIDE
74-UP-01 UPADHYAYA, SINGH MN.O CO.O, NI.O THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS/ THREE-BODY FORCE SHELL

4.148 NIOBIUM CARBIDE
71-SM-01 SMITH, GLAESER TA.C, HF.C, NB.C EXPERIMENT/ PHONON DISPERSION/ SUPERCONDUCTIVITY
72-MO-02 MOSTOLLER U.C, HF.C, TA.C, NB.C EXPERIMENT/ PHONON DISPERSION/ PSEUDOPOTENTIAL APPROACH
72-SM-02 SMITH, WAKABAYASHI+ NB.C, ZR.C, TC, ZR.Y EXPERIMENT/ SUPERCONDUCTIVITY/ ELECTRON-PHONON INTERACTION

4.149 NIOBIUM OXIDE
74-SH-02 SHAPIRO, AXE+ NB.O2 PHASE-TRANSITION, CRITICAL SCATTERING DUE TO SOFT MODE

4.150 NIOBIUM TIN
73-SH-06 SHIRANE, AXE NB3.SN EXPERIMENT/ PHONON DISPERSION/ SOFT PHONON/ PHASE TRANSITION
72-SH-02 SHAM NB3.SN THEORY-OF-SOLIDS, THEORY-OF-LATTICE DYNAMICS
73-AX-01 AXE, SHAPIRO+ NB3.SN, SN, Ti, 03 EXPERIMENT/ PHASE TRANSITION/ SOFT MODE
73-AX-02 AXE, SHIRANE NB3.SN, SUPERSOFT, ACoustic PHONON DISPERSION/ TEMPERATURE CHANGE/ CUBIC-TETRAGONAL PHASE
73-ME-01 MEIER NB3.SN, SR, Ti, 03 THEORY-OF-SOLIDS, THEORY-ANHARMONICITY, SINGULAR WIDTH GAMMA, QUASI-PARTICLE

4.151 POTASSIUM ACID FLUORIDE
72-UP-03 UPADHYAYA, SINGH MN.O THEORY/ PHONON DISPERSION
74-KO-02 KONGI, ISHIKAWA+ MN.O MAGNETIC-SCATTERING EXPERIMENT/ MAGNON DISPERSION/ 4.2K TO 1170K THEORY MAGNON
74-SH-03 SHARMA MN.O DISPERSION-CURVES THEORY DEFORMATION-DIPOLE-MODEL
74-UP-01 UPADHYAYA, SINGH MN.O CO.O, NI.O THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS, THREE-BODY FORCE SHELL
4.152 POTASSIUM AMMONIUM CHLORIDE
K, NH4, CL

4.153 POTASSIUM AZIDE
K, N3

4.154 POTASSIUM BRUHIDE
K, BR

4.155 POTASSIUM CHLORIDE
K, CL
<table>
<thead>
<tr>
<th>Document Page</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.156</td>
<td>POTASSIUM COBALT TRIFLUORIDE K₂COF₃</td>
</tr>
<tr>
<td>71-BU-03</td>
<td>BUYERS, HOLDEN* K₂COF₃**THEORY/MAGNON DISPERSION/PHONON-MAGNON INTERACTION</td>
</tr>
<tr>
<td>71-HO-01</td>
<td>HOLDEN, BUYERS* K₂COF₃**EXPERIMENT/PHONON DISPERSION/MAGNON DISPERSION</td>
</tr>
<tr>
<td>4.157</td>
<td>POTASSIUM(2) COBALT FLUORIDE K₂COF₄</td>
</tr>
<tr>
<td>74-IK-01</td>
<td>IKEDA K₂COF₄/ K₂CF₄/ K₃C₂F₆/ K₂MNF₄/ MAGNETIC-SCATTERING**EXPERIMENT/CRTICAL SCATTERING</td>
</tr>
<tr>
<td>4.158</td>
<td>POTASSIUM COPPER FLUORIDE K₃CuF₃</td>
</tr>
<tr>
<td>74-IK-01</td>
<td>IKEDA K₂COF₄/ K₂CF₄/ K₃C₂F₆/ K₂MNF₄/ MAGNETIC-SCATTERING**EXPERIMENT/CRTICAL SCATTERING</td>
</tr>
<tr>
<td>4.159</td>
<td>POTASSIUM(2) COPPER FLUORIDE K₂CuF₄</td>
</tr>
<tr>
<td>74-IK-01</td>
<td>IKEDA K₂COF₄/ K₂CF₄/ K₃C₂F₆/ K₂MNF₄/ MAGNETIC-SCATTERING**EXPERIMENT/CRTICAL SCATTERING</td>
</tr>
<tr>
<td>4.160</td>
<td>POTASSIUM(2) MANGANESE FLUORIDE K₂MNF₄</td>
</tr>
<tr>
<td>73-IK-01</td>
<td>IKEDA, HIRAKAWA K₂MNF₄/ MAGNETIC-SCATTERING**EXPERIMENT/CRTICAL SCATTERING</td>
</tr>
<tr>
<td>74-IK-01</td>
<td>IKEDA K₂COF₄/ K₂CF₄/ K₃C₂F₆/ K₂MNF₄/ MAGNETIC-SCATTERING**EXPERIMENT/CRTICAL SCATTERING</td>
</tr>
<tr>
<td>4.161</td>
<td>POTASSIUM CYANIDE KCN</td>
</tr>
<tr>
<td>75-RO-02</td>
<td>ROWE, RUSH* KCN/NA.C.N**EXPERIMENT/PHONON DISPERSION</td>
</tr>
<tr>
<td>4.162</td>
<td>POTASSIUM DIHYDROGEN FLUORIDE KH₂F₃</td>
</tr>
<tr>
<td>63-BO-02</td>
<td>BOUTIN, SAFFORD HF/KH₂F₂/KH₂F₃/NA.H₂F₃**EXPERIMENT/TOF SPECTRA/MOLECULAR DYNAMICS</td>
</tr>
<tr>
<td>4.163</td>
<td>POTASSIUM DIHYDROGEN PHOSPHATE KH₂PO₄</td>
</tr>
<tr>
<td>61-RU-01</td>
<td>RUSH, TAYLOR* KH₂PO₄/(NHF)₂,CR₂O₄/(NHF)₂,CR₂O₇/NH₄,CNS/NH₄,CL,0₄**EXPERIMENT/MOLECULAR DYN</td>
</tr>
<tr>
<td>63-PA-01</td>
<td>PALEVSKY, OTNES* KH₂PO₄**EXPERIMENT/TOF</td>
</tr>
<tr>
<td>65-IM-01</td>
<td>IMRY, PELAH* KH₂PO₄/K₂H₃PO₄/K₃P₄**EXPERIMENT/LATTICE DYNAMICS/TOF</td>
</tr>
<tr>
<td>65-PE-03</td>
<td>PELAH, WIENER* KH₂PO₄/K₂H₃PO₄/K₃P₄**EXPERIMENT/LATTICE DYNAMICS/TOF</td>
</tr>
<tr>
<td>67-BL-02</td>
<td>BLINC, DIMIC* KH₂PO₄**MOLECULAR DYNAMICS/SOLID/EXPERIMENT</td>
</tr>
<tr>
<td>67-TH-01</td>
<td>THAPER, ROY* KH₂PO₄**EXPERIMENT/FREQUENCY SPECTRA</td>
</tr>
<tr>
<td>68-BU-05</td>
<td>BUYERS, COWLEY* KH₂PO₄<strong>EXPERIMENT/QUASIELASTIC SCATTERING</strong>345C -49,6DC</td>
</tr>
<tr>
<td>68-CO-13</td>
<td>COWLEY, SVENSSON* KBR/SR/T.I.03/KH₂PO₄**ELASTIC CONSTANT/SOUND VELOCITY/ANHARMONICITY</td>
</tr>
<tr>
<td>68-SC-01</td>
<td>SCHENK, WIENER* KH₂PO₄**EXPERIMENT/LATTICE DYNAMICS/PHASE TRANSITION</td>
</tr>
<tr>
<td>68-SK-02</td>
<td>SCHENK, WIENER* KH₂PO₄**EXPERIMENT/TOF/SINGLE CRYSTAL AS A FUNCTION OF TEMPERATURE/PHASE TRANSITION</td>
</tr>
<tr>
<td>68-SH-02</td>
<td>SHENK, WIENER* KH₂PO₄**INCOHERENT SCATTERING SPECTRA/PHASE TRANSITION/LATTICE VIBRATION</td>
</tr>
<tr>
<td>68-ST-03</td>
<td>STEINMAN, SUMMERFIELD KH₂PO₄**INCOHERENT SCATTERING</td>
</tr>
<tr>
<td>69-CO-01</td>
<td>COCHRAN NEUTRON-SCATTERING-IN-SOLIDS/BA,TT.O3/KH₂PO₄/NA.N.O2**THEORY/DIELECTRIC/CRTICAL SCATT</td>
</tr>
</tbody>
</table>
4.164 POTASSIUM FERROCYANIDE
K4,Fe(CN)6

65-RU-02 RUSH, TAYLOR
K4,Fe,(C,N)6/(N,H)2,S,O4/N,M4,H5,S,O4/(N,M)2,BE,F4/EXPERIMENT/MOLECULAR LATTICE DYNAMICS

4.165 POTASSIUM FLUORIDE
K,F

70-BU-02 BUEHRER
K,F/EXPERIMENT/PHONON DISPERSION/ELEVEN PARAMETER FITTING/FREQUENCY SPECTRUM

4.166 POTASSIUM HYDROGEN IRON CARBONYL
K,M.FE,(C.O)4

72-WH-03 WHITE, WRIGHT

4.167 POTASSIUM HYDROGEN TRICHLOROACETATE
K,M.(C.CL3,C.O)2

72-GH-02 GHOSH, WADDINGTON

4.168 POTASSIUM IODIDE
K,1

65-MI-01 MIKKE, DOBRZYNISKI
N,M4,H1/K,1/EXPERIMENT/FREQUENCY SPECTRA/SOLID SOLUTION

66-DU-01 DOLLING, COWLEY
K,1/EXPERIMENT/DISPERSION RELATIONS/LATTICE DYNAMICS

67-IV-01 IVERONOV, PARANTOPOPOU
K,CL/K,K1/LATTICE DYNAMICS/DISPERSION RELATION/PHASE TRANSITION/X-RAY EXPERIMENT

69-SA-03 SAFFORD, LEUNG
H2,O/LE,CL3/CS1/CS,CL/K,1/K,BR/KA,CL/EXPERIMENT/TOF SPECTRA/INTERMOLECULAR

69-SI-01 SINGH, VERMA
K,1/PHONON DISPERSION

73-BA-03 BASU, SENGUPTA
NA,CL/NA,BR/X,1/K,CL/K,BR/THEORY/DEFORMABLE SHELL MODEL/PHONON DISPERSION/FREQUENCY

73-SA-03 SANGSTER
MG,OF/NA,CL/LI,OF/K,1/THERMIONIC FORCE/PHONON DISPERSION/DEFORMABLE SHELL MODEL

4.169 POTASSIUM MANGANESE TRIFLUORIDE
K,MN,F3

69-MI-02 MIKKE, DOBRZYNISKI
K,MN,F3/EXPERIMENT/DISPERSION RELATION/THERMAL DEPENDENCE

70-SH-09 SHIRANE, MIKIEWICZ
K,MN,F3/PHONON DISPERSION/PHASE TRANSITION

72-GE-02 GESI, AXE
K,MN,F3/EXPERIMENTS/PHONON/RELATION/CURIE-WIESS LAW/DAMPING PARAMETER/DI

72-GE-03 GESI
K,MN,F3/EXPERIMENT/PHASE TRANSITION

73-SH-03 SHAPIRO, AXE
SR,TI,03/K,MN,F3/EXPERIMENT/PHASE TRANSITION

73-SH-04 SHAPIRO, AXE
SR,TI,03/K,MN,F3/PHASE TRANSITION/REVIEWS/SOFT MODE/PHASE CHANGE

74-BE-02 BETSUYAKU, HAMAGUCHI
K,MN,F3/MAGNETIC SCATTERING/EXPERIMENT/MAGNETIC SCATTERING FUNCTION/3.4TN

74-SH-04 SHIRANE
SR,TI,03/K,MN,F3/K,TA,03/PHASE TRANSITION/REVIEW/SOFT MODE/PHASE CHANGE

75-BE-03 BETSUYAKU
K,MN,F3/MAGNETIC SCATTERING/THEORY/SUM-MULC MOMENT METHOD/SCATTERING FUNCTION

4.170 POTASSIUM MONOHYDROGEN PHOSPHATE
K2,H,P04

-84-
65-1M-01 IMRY, PELAH+ K,H2,P,04/ K2,H,P,04/ K3,P,04 . EXPERIMENT/ LATTICE DYNAMICS . TOF
65-PE-03 PELAH, WIENER+ K,H2,P,04/ K2,H,P,04/ K3,P,04 . EXPERIMENT/ LATTICE DYNAMICS . TOF

4.171 POTASSIUM NIOBIATE K,NB,03
74-CU-01 CURRAT, COMES+ K,NB,03/ PHASE-TRANSITION . EXPERIMENT/ PHONON DISPERSION/ SOFT MODE
74-2A-01 ZACCAI, HEWAT K,NB,03/ K,Ta,03 . X-RAY AND NEUTRON DIFFRACTION/ DIFFUSE STREAK/ PHONON DISPERSION

4.172 POTASSIUM OXALATE HYDRATE K2,C2,O4*H2,O
69-TH-01 THAPEN, SEQUEIRA+ K2,C2,O4*H2,O/ BA,(CL,03)2*H2,O/ LI2,S,04*H2,O/ CA,S,04*2(H2,O)/ CU,CL2*2(H2,O)/ BE,S,04
70-TH-01 THAPEN, DASANNACHARYA+ BA,(CL,03)2*H2,O/ K2,C2,O4*H2,O . EXPERIMENT/ HYDRATES/ LIBRATION OF H2,O IN HYDRATE

4.173 POTASSIUM PHOSPHATE K3,P,04
65-1M-01 IMRY, PELAH+ K,H2,P,04/ K2,H,P,04/ K3,P,04 . EXPERIMENT/ LATTICE DYNAMICS . TOF
65-PE-03 PELAH, WIENER+ K,H2,P,04/ K2,H,P,04/ K3,P,04 . EXPERIMENT/ LATTICE DYNAMICS . TOF

4.174 POTASSIUM RHENIUM CHLORIDE K2,RE,CL6
74-DU-01 DUROCHER, DARAIN K2,RE,CL6 . DENSITY-OF-STATES/ CALCULATION

4.175 POTASSIUM RHENIUM HYDRIDE K2,RE,M9
72-WH-02 WHITE, WRIGHT K2,RE,M9/ NA2,RE,M9 . EXPERIMENT/ N-SPECTROSCOPY/ MOLECULAR VIBRATION

4.176 POTASSIUM TANTALATE K,Ta,03
67-SH-01 SHIRANE, NATHANS+ K,Ta,03 . EXPERIMENT/ PHASE TRANSITION/ SOFT MODE/ LATTICE DYNAMICS
70-Ax-02 AXE, HARADA+ K,Ta,03 . PHONON DISPERSION/ CRITICAL PHENOMENA
70-HA-01 HARADA, AXE+ K,Ta,03/ SR,TI,03/ RB,MN,F3 . EXPERIMENT/ INELASTIC STRUCTURE FACTOR/ PHONON EIGENVECTOR/ FERR
72-CO-03 COMES, SHIRANE K,Ta,03 . EXPERIMENT/ PHONON DISPERSION/ ANISOTROPY
74-SH-01 SHIRANE SR,TI,03/ K,MN,F3/ K,Ta,03 . PHASE-TRANSITION . REVIEW/ SOFT MODE/ PHASE CHANGE
74-ZA-01 ZACCAI, HEWAT K,Nb,03/ K,Ta,03 . X-RAY AND NEUTRON DIFFRACTION/ DIFFUSE STREAK/ PHONON DISPERSION

4.177 PRASEODYMIUM ALUMINATE PR,AL,03
74-BI-02 BIRGENEAU, KJEMS+ PR,AL,03 . JAHN-TELLER/ STRUCTURAL-PHASE-TRANSITION

4.178 QUARTZ S1,02
67-EL-01 ELCOMBE QUARTZ . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
69-LE-01 LEADBETTER SILICA/ QUARTZ/ CRISTOBALITE . EXPERIMENT/ COLLECTIVE VIBRATION/ AMORPHOUS SOLID . TOF/ SILICA/
4.179 RUBIDIUM AZIDE


4.180 RUBIDIUM BROMIDE

68-BU-04 BUYERS, COWLEY K, BR / RB, BR . . . EXPERIMENT / LATTICE DYNAMICS . . . MIXED CRYSTAL
71-RO-02 ROLANDSON, RAUNI O RB, BR . . . EXPERIMENT / PHONON DISPERSION / SHELL MODEL FITTING / ELASTIC CONSTANT / DI ELECTRIC
72-LA-02 LAL, VERMA RB, F / RB, CL / RB, BR / RB, I . . . THEORY / PHONON DISPERSION / SHELL MODEL
73-PR-02 PRICE, COLEY RB, BR . . . EXPERIMENT / COMPUTER SIMULATION / LIQUID / 986 DK

4.181 RUBIDIUM CHLORIDE

69-RA-04 RAUNIO NA, CL / K, CL / RB, CL . . . EXPERIMENT / PHONON WIDTH / 80 - 300 DK
70-RA-07 RAUNIO, ROLANDSON NA, CL / K, CL / RB, CL / RB, F . . . SHELL MODEL FITTING / FREQUENCY SPECTRUM / DEBYE TEMPERATURE
70-RA-08 RAUNIO, ROLANDSON RB, CL / RB, F . . . EXPERIMENT / CONSTRUCT / LATTICE DYNAMICS / DISPERSION RELATION . . . 800X / DEFORM
70-RA-09 RAUNIO, ROLANDSON NA, CL / K, CL / RB, CL / RB, F . . . THEORY / DISPERSION CURVES / SHELL MODEL
72-LA-02 LAL, VERMA RB, F / RB, CL / RB, BR / RB, I . . . THEORY / PHONON DISPERSION / SHELL MODEL
72-PA-02 PANDAY, DAYAL RB, CL . . . THEORY / PHONON DISPERSION / SHELL MODEL

4.182 RUBIDIUM FLUOMANGANATE


4.183 RUBIDIUM FLUORIDE

70-RA-07 RAUNIO, ROLANDSON NA, CL / K, CL / RB, CL / RB, F . . . SHELL MODEL FITTING / FREQUENCY SPECTRUM / DEBYE TEMPERATURE
70-RA-08 RAUNIO, ROLANDSON RB, CL / RB, F . . . EXPERIMENT / CONSTRUCT / LATTICE DYNAMICS / DISPERSION RELATION . . . 800X / DEFORM
70-RA-09 RAUNIO, ROLANDSON RAUNIO / RB, CL / RB, F . . . THEORY / DISPERSION CURVES / SHELL MODEL
72-LA-02 LAL, VERMA RB, F / RB, CL / RB, BR / RB, I . . . THEORY / PHONON DISPERSION / SHELL MODEL
75-JA-01 JAIN, SRIVASTAVA RB, F . . . THEORY / PHONON DISPERSION
75-SN-01 SNEH, DAYAL NA, F / RB, F . . . THEORY / PHONON DISPERSION / SIMPLE SHELL MODEL

4.184 RUBIDIUM HYDROSULFIDE

73-RO-02 ROWE, LIVINGSTON* CS, S, H / RB, S, H . . . EXPERIMENT / QUASI-ELASTIC PEAK / MOLECULAR ROTATIONS / MEAN SQUARE DISPLA

4.185 RUBIDIUM IODIDE

60-SA-01 SAUNDERS R B, I . . . EXPERIMENT / LATTICE DYNAMICS
65-HA-02 HARDY, KARO RB, I . . . DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS
66-SA-05 SAUNDERS RB, I . . . EXPERIMENT / PHONON FREQUENCY / PRESSURE EFFECT
70-RA-10 RAUNIO, ROLANDSON RB, I . . . EXPERIMENT / PHONON DISPERSION / SHELL MODEL FITTING
4,186 RUTILE
70-KA-03 KATIGAR RUTILE ...THEORY/ LATTICE DYNAMICS ...MULTIPLIER GROUP APPROACH
70-TH-01 TAYLOR TI.O2 ...EXPERIMENT/ DISPERSION RELATION/ RIGID ION MODEL/ SHELL MODEL/ FREQUENCY SPECTRUM/ DIEL
71-KA-01 KATIGAR TI.O2 ...EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ SHELL MODEL
71-TH-01 TRAYLOR, SMITH TI.O2 ...EXPERIMENT/ DISPERSION CURVE/ NEUTRON SCATTERING/ THEORY/ FREQUENCY SPECTRUM ...TEMP

4,187 RUTHENIUM TETROXIDE
72-MC-01 MCDOWELL, ASPREY RU.O4 ...EXPERIMENT ...INFRARED AND RAMAN SPECTRA/ VAPOR AND LIQUID PHASE/ ANHARMONICITY/

4,188 SELENIUM TELLURIDE
69-GI-03 GILLIS SE.TE ...THEORY/ SOLID

4,189 SILANE
72-HA-04 HAUTECLER, VORDERWISCH SI.H4 ...EXPERIMENT/ TOF SPECTRA/ GAS AND LIQUID STATE

4,190 SILICA
69-LE-01 LEADBETTER SILICA/ QUARTZ/ CRISTOBALITE ...EXPERIMENT/ COLLECTIVE VIBRATION/ AMORPHOUS SOLID ...TOF/ SILICA/

4,191 SILICON CARBIDE
69-HO-01 HODGES SI.C ...THEORY/ SOLID/ LATTICE DYNAMICS
69-VE-01 VETELINO, MITRA SI.C ...LATTICE DYNAMICS/ SOLID/ THEORY/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION
71-BA-03 BANERJEE, VARSHNI ZN.S/ GA.P/ SI.C ...THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ DEBYE TEMPERATURE
74-PA-04 PANDEY SI.C/ ZN.S ...THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION ...POLYTYPE/ FORCE CONSTANT MODEL

4,192 SILVER BROMIDE
72-FI-01 FISCHER, BILZ AG.CL/ AG.BR ...THEORY/ PHONON DISPERSION/ PHONON DENSITY/ SHELL MODEL
72-HA-06 HAWKESON, LOWNETES AG.BR ...THEORY/ PHONON DISPERSION/ STATE DENSITY/ DEFORMATION DIPOLE MODEL
74-KA-03 KANZAKI, SAKURAGI AG.BR ...DISPERSION CURVES ...(111)-DIRECTION
75-BU-02 BUEHREK AG.BR ...EXPERIMENT/ PHONON DISPERSION/ 80 AND 295K/ 12-PARAMETER MODEL FITTING/ FREQUENCY DISTRIBUTION
75-VO-01 VON-DER-OSTEN, DORNER AG.BR ...DISPERSION RELATION

4,193 SILVER CHLORIDE
AG.CL

- 87 -
4.194 SILVER GALLIUM SULFIDE

AG, Ga, S2

4.195 SILVER IODINE

AG, I

4.196 SODAMIDE

NA, N, H2

4.197 SODIUM AZIDE

NA, N3

4.198 SODIUM BROMIDE

NA, Br

4.199 SODIUM CHLORIDE

NA, Cl
70-SC-02 SCHMUNK, WINNER  NA, CL, PHONON DISPERSION
70-SI-05 SINGH, VERMA  NA, F, NA, BR, NA, CL, NA, I, THEORY, SOLID, LATTICE DYNAMICS, DISPERSION RELATION, MODIFIED SHE
71-NA-02 NAMJOSHI, MITRA  THEORY, OF, SOLIDS, NA, F, NA, CL, LATTICE DYNAMICS, DISPERSION RELATION, RIGID ION MODEL
73-BA-03 BASHI, SENGUPTA  NA, F, NA, BR, K, I, K, Cl, K, Br, THEORY, DEFORTABLE SHELL MODEL, PHONON DISPERSION, FREQUENCY
73-SA-03 SANGSTER  MG, O, NA, CL, LI, F, K, I, INTERIONIC FORCE, PHONON DISPERSION, DEFORTABLE SHELL MODEL
74-AB-01 ABRAHAMS, PARMELEE*  NA, CL, SCATTERING THEORY, MOLTEN SALTS
74-LE-01 LANTERME, TURK*  NA, CL, THEORY, FUSED SALTS, RADIAL DISTRIBUTION FUNCTION

4,200 SODIUM CYANIDE  NA, C, N
75-RO-02 ROE, RUSH*  K, C, N, NA, C, N, EXPERIMENT, PHONON DISPERSION

4,201 SODIUM DIHYDROGEN FLUORIDE  NA, H, F, 3

4,202 SODIUM FLUORIDE  NA, F
67-BU-02 BUYERS  NA, F, EXPERIMENT, PHONON DISPERSION, MODEL CALCULATION
68-ME-01 MELVIN, PIRIE*  NA, F, NA, CL, NA, BR, NA, I, THEORY, LATTICE DYNAMICS, DISPERSION CURVE, SHELL MODEL, IONIC
69-HA-03 HARDY, HARDY  NA, F, LATTICE DYNAMICS, THEORY, EXPERIMENT, RAMAN SPECTRUM, 3000X
69-KA-03 KARO, HARDY  NA, F, THEORY, LATTICE DYNAMICS, DISPERSION RELATION, FREQUENCY SPECTRA, RIGID ION MODEL, DEF
70-RE-02 REID, SMITH  NA, F, NA, CL, NA, BR, NA, I, K, CL, K, SH, THEORY, SOLID, DEBYE-WALLER FACTOR, SHELL MODEL, ROOT
70-SI-03 SINGH, VERMA  NA, F, NA, BR, NA, CL, NA, I, THEORY, SOLID, LATTICE DYNAMICS, DISPERSION RELATION, MODIFIED SHE
71-NA-02 NAMJOSHI, MITRA  THEORY, OF, SOLIDS, NA, F, NA, CL, LATTICE DYNAMICS, DISPERSION RELATION, RIGID ION MODEL
74-GH-01 GHOSE, BASHI*  NA, F, DISPERSION, CURVES, DENSITY, OF, STATES, THEORY
75-SN-01 SNEM, DAYAL  NA, F, NA, F, THEORY, PHONON DISPERSION, SIMPLE SHELL MODEL

4,203 SODIUM HYDROGEN CARBONATE  NA, H, C, O

4,204 SODIUM HYDROGEN FLUORIDE  NA, H, F
72-RU-01 RUSH, SCHROEDER  K, H, F, 2, NA, H, F, 2, NEUTRON SPECTROSCOPY, RAMAN INFRARED SPECTROSCOPY
73-SM-02 SMITH, TEMME*  NA, H, F, 2, K, H, F, 2, CS, H, Cl, 2, CS, H, Br, 2, EXPERIMENT, FREQUENCY SPECTRA, TOF SPECTRA

4,205 SODIUM HYDROSULFIDE  NA, S, H
73-RU-02 RUSH, GRAFF*  NA, S, H, CS, S, H, THEORY, EXPERIMENT, QUASI, ELASTIC PEAK, SIGMA (THETA, E), SHE, ION LIBRATI

4,206 SODIUM IODIDE  NA, I
60-WO-01 WOODS, COCHRAN*  NA, I, EXPERIMENT, DISPERSION RELATION

- 89 -
63-CO-03 COCHRAN, COWLEY+ K, BR/ NA, I,, THEOREY/ PHONON DISPERSION
63-RD-02 WOODS, BROCKHOUSE* K, BR/ NA, I,, EXPERIMENT/ DISPERSION RELATION/ LATTICE DYNAMICS,, 90D
66-CO-03 COWLEY, COWLEY K, BR/ NA, I,, THEORY/ OF/ SOLIDS,, THEOREY/ ANHARMONICITY/ PHONON DISPERSION
68-BU-06 BUNN, SMITH K, CL/ K, BR/ NA, I/ NA, CL/ NA, BR/ NA, F,, THEOREY/ DEBYE-WALLER FACTOR,, TEMPERATURE DEPENDENCE
68-ME-01 MELVIN, PRIEST NA, F/ NA, CL/ NA, BR/ NA, I,, THEOREY/ LATTICE DYNAMICS/ DISPERSION CURVE,, SHELL MODEL/ IONIC
68-9U-01 GUNTHER, VUKOVICH+ NA, I,, EXPERIMENT/ LATTICE DYNAMICS,, PRESSURE EFFECTS/ 3000 AM
70-KU-01 KUCHEN, TOSHEVICH NA, I,, THEOREY/ SOLID/ FREQUENCY DISTRIBUTION
70-SI-05 SINGH, VERMA NA, F/ NA, BR/ NA, CL/ NA, I,, THEOREY/ SOLID/ LATTICE DYNAMICS,, DISPERSION RELATION,, MODIFIED SHELL MODEL
73-BI-03 BILZ, BUCHANAN+ NA, I,, THEOREY/ OVERLAP POLARIZATION,, SHELL MODEL

4.207 SODIUM NITRATE

70-RA-03 RAOG, TREVENO+ NA, N, O3,, THEOREY/ GROUP- THEORETICAL ANALYSIS/ LATTICE DYNAMICS
70-SA-02 SAKURAI, COWLEY+ NA, N, O3,, EXPERIMENT/ J-AXIS SPECTROMETER,, DISPERSION RELATION
71-LO-01 LOGAN, TREVENO+ NA, N, O3,, EXPERIMENT/ PHONON DISPERSION
73-PL-02 PLIHAL NA, N, O3,, THEOREY/ PHONON DISPERSION,, PHONON DENSITY,, SPECIFIC HEAT

4.208 SODIUM NIOBATE

72-AH-02 AHTEE, GLAZER+ NA, NB, O3,, THEOREY/ PHASE TRANSITION,, SOFT PHONON

4.209 SODIUM NITRITE

69-CO-01 COCHRAN NEUTRON SCATTERING IN SOLIDS/ BA, TI, O3, K, H2, P, O4/ NA, N, O2,, THEOREY/ DlELECTRIC,, CRITICAL SCATT
70-DQ-04 DOLLING, SAKUAI+ NA, N, O2,, PHONON DISPERSION
75-BO-01 BOMILLA, RUTT NA, N, O2,, RAMAN SPECTRA,, ANGULAR DISPERSION,, INTERNAL PHONON

4.210 SODIUM RHENIUM HYDRIDE

72-WH-02 WHITE, WRIGHT K, RE, H9/ NA, RE, H9,, EXPERIMENT/ N-SPECTROSCOPY,, MOLECULAR VIBRATION

4.211 STRONTIUM CHLORIDE

73-DE-01 DENHAM, MORSE+ SR, CL2,, INFRA-RED,, RAMAN SPECTRA,, PHONON DISPERSION,, FREQUENCY SPECTRA, CALCULATION

4.212 STRONTIUM FLUORIDE

70-DE-03 DENHAM, FIELD+ CA, F2/ SR, F2/ BA, B2/ CO, F2/ Pb, F2,, THEOREY/ LATTICE DYNAMICS,, FREQUENCY SPECTRA,, DISPERSION
71-MA-04 MAIN, BARNEA SR, F2,, ANHARMONIC EFFECT
72-EL-01 ELCOMBE SR, F2,, EXPERIMENT/ PHONON DISPERSION,, SHELL MODEL FITTING,, STATE DENSITY
72-KU-01 KUEHNER, WAGNER SR, F2/ BA, F2,, THEOREY/ PHONON DISPERSION,, GENERALIZED SHELL MODEL,, VIBRATIONAL SPECTRA

4.213 STRONTIUM OXIDE

SR, 0
4.214 STRONTIUM TITANATE

SR. T1.03

62-CO-05 COWLEY SR.TI.03, EXPERIMENT/ DISPERSION RELATION
63-CO-05 COWLEY SR.TI.03, DISPERSION RELATION/ EXPERIMENT/ LATTICE DYNAMICS, TEMPERATURE DEPENDENCE
64-CO-02 COWLEY SR.TI.03, DISPERSION RELATION/ EXPERIMENT/ LATTICE DYNAMICS
65-SO-01 SOLOVEV, KUKHTA SR.TI.03/ BA.TI.03/ PB.TI.03, EXPERIMENT/ LATTICE VIBRATION, POLYCRYSTAL/ room temp. 47
66-CO-11 COWLEY, BUYERS+ KB.RY SR.TI.03, THEORY/ EXPERIMENT/ LATTICE DYNAMICS, ELASTIC CONSTANT, NEUTRON MEASUREMENT
68-CO-13 COWLEY, SVENSSON+ KB.RY SR.TI.03, K.H2.P.04, ELASTIC CONSTANT, SOUND VELOCITY, ANHARMONICITY
69-FL-01 FLEURY, SCOTT+ SR.TI.03, RAMAN SPECTROSCOPY
69-CO-09 COWLEY, BUYERS+ SR.TI.03, PHASE TRANSITION/ LATTICE VIBRATION
69-MO-01 MONTGOMERY ZN.S, DIAMOND/ SR.TI.03, GROUP THEORY/ LATTICE VIBRATION, SYMMETRY PROPERTIES
69-Sh-06 SHIRANE, YAMADA SR.TI.03, EXPERIMENT/ LATTICE DYNAMICS, PHASE TRANSITION, SOFT PHONON MODE
69-YA-01 YAMADA, SHIRANE SR.TI.03, EXPERIMENT, CONSTITUTIVE RELATION, TEMPERATURE DEPENDENCE, 4.5DK-300DK
70-HA-01 HARA, AXE SR.TI.03/ RB.MV.F.3, EXPERIMENT, INELASTIC STRUCTURE FACTOR, PHONON EIGENVECTOR, FERRIMAGNETISM
70-ZE-01 ZEIN, ZINEK+ SR.TI.03/ PB.ZR.03, THEORY/ LATTICE DYNAMICS, FERROELECTRICITY, PHASE TRANSITION
71-IS-01 ISHIKAWA, TAKAGI SR.TI.03, EXPERIMENT/ CALCULATION, FORCE CONST.
71-OT-01 OTNES, RISTE SR.TI.03, EXPERIMENT, SOFT PHONON, CURIE-WEISS LAW, PHASE TRANSITION
71-RI-01 RISTE, SAMUELSEN SR.TI.03, PHASE TRANSITION, CRITICAL SCATTERING, SOFT PHONON, CENTRAL PEAK
71-EH-01 ENZ SR.TI.03, PHASE TRANSITION, CENTRAL PEAK, 4-90K, PHASE TRANSITION
71-RI-02 IIZUMI, GESI SR.TI.03, EXPERIMENT/ PHONON DISPERSION
72-YA-02 IIZUMI, GESI SR.TI.03, EXPERIMENT/ PHONON DISPERSION
72-SH-03 SHAPIRO, AXE SR.TI.03, KNN, F3, EXPERIMENT, CRITICAL SCATTERING, PHASE TRANSITION
72-SI-01 SILBERGLITT SR.TI.03, THEOHY, SOFT MODE
72-ST-03 STIRLING SR.TI.03, EXPERIMENT, PHONON DISPERSION, VARIOUS MODEL FITTING, FREQUENCY DISTRIBUTION, SPECIFIC HEAT
73-AB-01 AXE, SHAPIRO SR.TI.03, PHASE TRANSITION, THEORY, ANHARMONIC MODEL, PHONON FREQUENCY, LINE WIDTH
73-IJ-02 IIZUMI, GESI SR.TI.03, PHONON DISPERSION
73-ME-01 MEIER SR.TI.03, EXPERIMENT, PHONON-OF-SOLID, THEORY, ANHARMONICITY, SINGULAR WIDTH GAMMA, QUASI-PARTICULAR
74-Sh-01 SHIRANE SR.TI.03, KNN, F3, KTA.O3, PHASE TRANSITION, REVIEW, SOFT MODE, PHASE CHANGE

4.215 TANTALUM CARBIDE

TA.C

70-SM-01 SMITH, GLAESER TA.C, HF.C, EXPERIMENT, DISPERSION RELATION
71-SM-01 SMITH, GLAESER TA.C, HF.C, NB.C, EXPERIMENT, PHONON DISPERSION, SUPERCONDUCTIVITY
72-MO-01 MOSTOLLER UC.C, HF.C, TA.C, NB.C, THEORY, PHONON DISPERSION, PSEUDOPOTENTIAL APPROACH
73-SM-03 SMITH TA.C, PHONON DISPERSION, THEORY, LATTICE DYNAMICS, SOLID, DISPERSION RELATION, FREQUENCY
73-WX-02 WEBER TC.C, 1RC, V.C, NB.C, TC.C, U.C, THEORY, LATTICE DYNAMICS, SOLID, DISPERSION RELATION
74-VE-01 VERMA, GUPTA TA.C, HF.C, THEORY, DISPERSION RELATION, SOLID, THREE-BODY-FORCE SHELL MODEL, LONG-RANGE

4.216 TELLURIUM DIOXIDE

TE.O2

75-MC-03 MCWHAN, BIRGENEAU+ TE.O2, PHONON DISPERSION, PRESSURE EFFECT, PHASE TRANSITION

- 91 -
4.217 TERTIUM VANADATE
75-HU-01 HUTCHINGS, SCHEM+ TB.V.04
75-HU-01 HUTCHINGS, SCHEM+ TB.V.04 INELASTIC NEUTRON SCATTERING/ JAHN-TELLER PHASE TRANSITION

4.218 THALLOUS CHLORIDE
69-KA-01 KAMAL, MENDIRATTA TL.CL THEOLOGY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ SPECIFIC HEAT

4.219 THALLOUS BROMIDE
67-CO-03 COWLEY, OKAZAKI TL.BR EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION
67-9K-01 SRINIVASAN, LAKSHMI+ TL.BR THEORE/ PHONON DISPERSION/ SHELL-MODEL
67-9K-02 SRINIVASAN, LAKSHMI+ TL.BR THEORE/ GUGENFELSEN PARAMETER/ SHELL MODEL

4.220 THIOUREA
75-MC-01 MCKENZIE THIOUREA SOLID/ EXPERIMENT/ TRIPLE-AXIS-SPECTROMETER/ DISPERSION RELATION/ DEUTERATED THIOUREA
75-MC-02 MCKENZIE THIOUREA EXPERIMENT/ TRIPLE-AXIS-SPECTROMETER/ SOLID/ DEUTERATED THIOUREA ANTIFERROELECTRIC T

4.221 THORIUM DIOXIDE
66-BE-03 BESHA U/ U.O2 TH.O2 EXPERIMENT/ TOTAL CROSS SECTION/ TOF

4.222 THULIUM IRON OXIDE
74-SH-01 SHAPIRO, AXE TM.FE.03ER.FE.03 MAGNETIC-SCATTERING/ EXPERIMENT/ MAGNON DISPERSION/ SOFT MODE

4.223 TIN DIOXIDE
67-BR-02 BROVMAN, KAGAN SN.O2 DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ LATTICE DYNAMICS/ BORN-VON
71-KA-02 KATYAN, DAWSON SN.O2 EXPERIMENT/ INFRARED/ RAMAN/ OPTICAL FREQUENCY/ DIELECTRIC CONSTANT/ THEORY/ DISP

4.224 TIN TELLURIDE
66-PA-04 PAWLEY, COCHRAN SN.TE EXPERIMENT/ PHONON DISPERSION/ TEMPERATURE DEPENDENCE
69-C0-06 COWLEY, DAKBY SN.TE EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION 100XK
70-LE-04 LEFKOWITZ, SHIELDS SN.TE EXPERIMENT/ SN0.94,GE0.05,TE PHONON DISPERSION

4.225 TITANIUM CARBIDE
73-WE-01 WEBER Ti.C/ ZR.C/ HF.C THEOREY/ SOLID/ FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS SUPERCONDUCTOR/ ST
73-WE-02 WEBER Ti.C/ ZR.C/ V.C/ NB.C/ TA.C/ U.C THEOREY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION/ FREQ
4.226 TUNGSTATE  CA.W.04
72-ST-04 STEINMAN, KING  CA.W.04 . . . EXPERIMENT/ PHONON DISPERSION/ RIGID-ION/ SHELL MODEL CALCULATION

4.227 URANIUM CARBIDE U.C
68-BQ-02 BORGONOVI, CARRIVEAU  U.C  . . . SOLID/ SIGMA (E)/ ROOM TEMPERATURE
68-LA-01 LAJEUNESSE, MOORE  U.C  . . . THEORY/ EXPERIMENT/ CROSS SECTION/ FREQUENCY DISTRIBUTION
68-SL-03 SLAGGIE  U.C  . . . THEORY/ SOLID/ LATTICE DYNAMICS/ CENTRAL-FORCE MODELS/ BORN-MO KARMAN MODEL/ FREQUENCY DISTRIBUTION
72-MO-02 MOSTOLLER  U.C/ HF-C/ TA-C/ NAB-C  . . . THEORY/ PHONON DISPERSION/ PSEUDOPOTENTIAL APPROACH

4.228 URANIUM DIOXIDE U.O
63-TN-02 THORSON, HAYWOOD  U.O  . . . EXPERIMENT/ SOLID/ SCATTERING LAW/ FREQUENCY DISTRIBUTION/ TOF  . . . 22 OC
65-DD-01 DOLLING, COWLEY  U.O  . . . EXPERIMENT/ THEORY/ DISPERSION RELATION  . . . 2Y6DK  . . . 7-PARAMETER RIGID ION MODEL/ TRIP
65-WO-04 WOODS, DOLLING  U.O  . . . CRYSTAL DYNAMICS/ DISPERSION RELATION/ EXPERIMENT
66-AD-01 ADKINS, PERISHAN  U.O  . . . THEORY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ RESONANCE LINE SHAPES
66-BE-03 BESAI  U/ U.O  . . . EXPERIMENT/ TOTAL CROSS SECTION/ TOF
67-BI-01 BISCHOFF, BRYANT  POLYETHYLENE/ H2O/ ZR-H/ NB-H/ U.O  . . . EXPERIMENT
68-BE-03 BEYSTER, BORGONOVI  BIPHENYL/ ZR-H/ U.O  . . . LATTICE DYNAMICS/ SCATTERING FUNCTION
68-TH-01 THORSON  ZR-H/ U.O  . . . SCATTERING FUNCTION/ EXPERIMENT/ SOLID/ DIFFERENTIAL SCATTERING CROSS SECTION

4.229 UREA C.O.(N)=2
67-RU-03 RUSH  UREA  . . . INELASTIC SCATTERING SPECTRA
68-TR-03 TREVINO  UREA  . . . THEORY/ SOLID
71-NC-01 MCKENZIE, PAYOR  UREA  . . . THEORY/ PHONON DISPERSION
73-LE-02 LEFEVBRE  UREA  . . . PHONON DISPERSION/ X-RAY EXPERIMENT
73-LE-01 LEFEVBRE, MORE  UREA  . . . EXPERIMENT/ SOLID/ COHERENT SCATTERING/ DISPERSION RELATION/ DEUTERATED UREA

4.230 VANADIUM CARBIDE V.C
73-WE-02 WEBER  Ti-C/ Zr-C/ V.C/ Nb-C/ Ta-C/ U.C  . . . THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION/ FREQUENCY

4.231 VANADIUM OXIDE V.O
72-HE-01 HEARN  V.O  . . . THEORY/ METAL-NONMETAL PHASE TRANSITION/ SOFT PHONON

4.232 VANADIUM SILICIDE V3.S1
71-DI-01 DIETERICH, SCHUSTER  V3.S1  . . . THEORY/ PHONON DISPERSION/ SOFT PHONON
71-SH-05 SHIRANE, NASS  V3.S1  . . . EXPERIMENT/ PHONON DISPERSION/ TEMPERATURE DEPENDENCE
<table>
<thead>
<tr>
<th>4.233</th>
<th>XENON TETROXIDE</th>
<th>XE, O4</th>
</tr>
</thead>
<tbody>
<tr>
<td>72-NC-02</td>
<td>McDowell, Asprey</td>
<td>XE, O4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.234</th>
<th>YTTIRIUM VANADE</th>
<th>Y, V, O4</th>
</tr>
</thead>
<tbody>
<tr>
<td>68-M1-03</td>
<td>Miller, Caspers</td>
<td>Y, V, O4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.235</th>
<th>ZINC OXIDE</th>
<th>Z, N, 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>70-0E-01</td>
<td>Hewat</td>
<td>Z, N, 0</td>
</tr>
<tr>
<td>70-0E-01</td>
<td>Wegener, Hautecler</td>
<td>Z, N, 0</td>
</tr>
<tr>
<td>74-TH-01</td>
<td>Thomma, Dörner</td>
<td>Z, N, 0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.236</th>
<th>ZINC Selenide</th>
<th>Z, N, SE</th>
</tr>
</thead>
<tbody>
<tr>
<td>71-HE-01</td>
<td>Menon, Moussa</td>
<td>Z, N, SE</td>
</tr>
<tr>
<td>71-HE-01</td>
<td>Kunc, Balkanski</td>
<td>Z, N, SE</td>
</tr>
<tr>
<td>72-IR-01</td>
<td>Iron, Lacombe</td>
<td>Z, N, SE</td>
</tr>
<tr>
<td>72-TH-03</td>
<td>Talwar, Agrawal</td>
<td>Z, N, SE/ N, SB</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.237</th>
<th>ZINC SILICON PHOSPHIDE</th>
<th>Z, N, S, P, 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>75-PO-01</td>
<td>Poplavnov, Tynteriev</td>
<td>Z, N, S, P, 2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.238</th>
<th>ZINC SULFIDE</th>
<th>Z, N, S</th>
</tr>
</thead>
<tbody>
<tr>
<td>69-0E-01</td>
<td>Feldkamp, Venkataraman</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>69-0E-01</td>
<td>Montgomery</td>
<td>Z, N, S/ DIAMOND/ SR-T1-03</td>
</tr>
<tr>
<td>69-0E-02</td>
<td>Vetello, Mitra</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>70-0E-04</td>
<td>Bergsma</td>
<td>MGS2-SN, Z, N, S</td>
</tr>
<tr>
<td>70-0E-05</td>
<td>Bergsma</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>70-0E-05</td>
<td>Kunc, Balkanski</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>70-0E-06</td>
<td>Kunc, Balkanski</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>71-0A-02</td>
<td>Banerjee, Varshni</td>
<td>Z, N, S/ Ga, P/ S, C</td>
</tr>
<tr>
<td>71-0E-01</td>
<td>Feldkamp, Steinman</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>74-AL-02</td>
<td>Altshuler, Vekilov</td>
<td>THEORY OF SOLIDS, Z, N, S</td>
</tr>
<tr>
<td>74-PA-04</td>
<td>Randic, Balkanski</td>
<td>Z, N, S</td>
</tr>
<tr>
<td>74-VA-01</td>
<td>Vagelatos, Wehe</td>
<td>Z, N, S/ Z, P, T</td>
</tr>
<tr>
<td>75-AL-02</td>
<td>Altshuler, Vekilov</td>
<td>Z, N, S/ Ga, As, Z, N, S</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4.239</th>
<th>ZINC TELLURIDE</th>
<th>Z, N, TE</th>
</tr>
</thead>
<tbody>
<tr>
<td>70-VE-02</td>
<td>Vetello, Mitra</td>
<td>Z, N, TE</td>
</tr>
<tr>
<td>Code</td>
<td>Author(s)</td>
<td>Keywords</td>
</tr>
<tr>
<td>-------</td>
<td>----------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td>73-TA-02</td>
<td>Talwar, Aghawal</td>
<td>ZnTe, CdTe, Calculation/Second-Neighbor-Ionic Model</td>
</tr>
<tr>
<td>74-VA-01</td>
<td>Vagelators, Weihe</td>
<td>Zn,Si, ZnTe, Phonon Dispersion/Frequency Distribution/Inelastic Neutron Scattering</td>
</tr>
<tr>
<td>4,240</td>
<td>Zirconium Carbide</td>
<td>Zr,C</td>
</tr>
<tr>
<td>72-SM-02</td>
<td>Smith, Wakabayashi</td>
<td>Nb,C, Zr,C, Tc, Zr, Y, Experiment/Superconductivity/Electron-Phonon Interaction</td>
</tr>
<tr>
<td>73-WE-01</td>
<td>Weber</td>
<td>Ti,C, Zr,C, HF.C, Theory/Solid/Frequency Distribution/Lattice Dynamics/Superconductor/St</td>
</tr>
</tbody>
</table>
5 ORGANIC COMPOUNDS

5. 1 ACENAPHTHENE

C12H10

70-LU-01 LUTE, JANIK+ ACENAPHTHENE ...EXPERIMENT/ THEORY/ FREQUENCY SPECTRUM/ LATTICE DYNAMICS

5. 2 ACETIC ACID

C2H4O2

65-GO-01 GOLIKOV, ZHOKHOSKJA+ C2H4O2/ HzO/ C2H4O2/ C6H6 ...EXPERIMENT/ LIQUID/ SOLID
67-AL-01 ALDRED, EDEN+ ACETIC ACID/ ALCOHOL ...MOLECULAR DYNAMICS/ LIQUID/ EXPERIMENT
67-AL-02 ALDRED, EDEN+ ACETIC ACID/ METHANOL ...EXPERIMENT/ TOF SPECTRUM/ QUASI-ELASTIC PEAK WIDTH
67-AL-03 ALDRED, EDEN+ ACETIC ACID/ METHANOL ...EXPERIMENT/ SUBSTITUTION OF DEUTERIUM AND FLUORINE
70-CO-03 COLLINS, HAYWOOD FORMIC ACID/ ACETIC ACID/ PHOSPHONIC ACID/ URAIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC

5. 3 ACETONITRILE

C3H3CN

71-ZE-01 ZEIDLER ACETONITRILE ...QUASI-ELASTIC SCATTERING/ LIQUID

5. 4 ACETYLENE

C2H2

64-VA-01 VAN-DINGENEN, NEVEDE-MEYERGNIERS ACETYLENE/ AMMONIA/ METHANE ...TOTAL CROSS SECTION/ EXPERIMENT/ SOLID ...LON
67-VE-03 VERDAN METHANE/ ACETYLENE/ ETHYLENE ...EXPERIMENT/ ADSORBED MOLECULES

5. 5 ADAMANTANE

C10H16

67-ST-05 STOCKMEYER, STILLER ADAMANTANE ...EXPERIMENT/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS/ SOLID/ FREQUENCY DISTR
68-CM-01 CHEN, DVORAK HEXAMETHYLENETETRAMINE/ ADAMANTANE/ N.H4.CL ...THEORY/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS/ D
68-ST-04 STOCKMEYER, STILLER ADAMANTANE ...PHONON SPECTRUM/ FITTED BY CALCULATIONS
69-ST-02 STOCKMEYER, MOSSFELD+ ADAMANTANE ...THEORY/ MOLECULAR DYNAMICS/ SCATTERING FUNCTION ...COMPUTER CALCULATION
70-TH-01 THOMAS ADAMANTANE/ HEXAMETHYLENETETRAMINE ...EXPERIMENT/ FREQUENCY SPECTRA/ 200-800 CM-1

5. 6 ALCOHOL

61-BR-03 BRUGGER ZR-H2O/ BENZENE/ PARAFFINE/ ALCOHOL ...SIGMA (E=E+PRIME+THETA)/ EXPERIMENT/ LIQUIDS/ TOF
63-SA-03 SAUNDERTON, RAINNEY ALCOHOL ...LIQUID AND GAS/ EXPERIMENT
66-0A-01 LARON, BERGSTEDT ALCOHOL/ PENTANE ...THEORY/ LIQUID/ MOLECULAR DYNAMICS/ NEUTRON SPECTRA/ DIFFERENTIAL CROS
66-0A-02 LARSON, AMAKA+ ALCOHOL/ PENTANE ...THEORY/ LIQUID/ MOLECULAR DYNAMICS/ DIFFERENTIAL CROSS SECTION ...I
67-AL-04 ALDRED, EDEN+ ACETIC ACID/ ALCOHOL ...MOLECULAR DYNAMICS/ LIQUID/ EXPERIMENT
68-SA-04 SAMPSON, CARPENTER ALCOHOL/ MERCAPTAN ...EXPERIMENT/ MOLECULAR DYNAMICS

5. 7 ANTHRAQUINONE

ANTHRAQUINONE

75-MI-01 MIYAZAKI, ITO ANTHRAQUINONE ...EXPERIMENT/ NEUTRON SCATTERING SPECTRA/ PHONON DENSITY CALCULATION
5. 8 ALPHA-AMINO-ISOBUTYRIC-ACID AAIA
72-DA-04 DAVIDOVIC, RAKOTHEVIC** TAURINE/ALPHA-AMINO-ISOBUTYRIC-ACID...EXPERIMENT/VIBRATIONAL SPECTRUM

5. 9 ANILINE C6.H7.N
71-DA-02 DAY, SINCLAIR Z=H H2.O SODAMIDE/ANILINE...EXPERIMENT/MOLECULAR DYNAMICS/LINAC PULSED NEUTRON SOURCE

5. 10 ANNULEN ANNULEN
73-F1-03 FILIPPINI, GRAMACCIOI+ NAPHTHALENE/ANTHRACENE/PHENANTRACENE/PAIRENE/ANNULEN...THEORY/LATTICE DYNAMIC

5. 11 ANTHRACENE C14.H10
67-PA-06 PAWLEY NAPHTHALENE/ANTHRACENE...THEORY/PHONON DISPERSION/FREQUENCY SPECTRA/DEBYE TEMP./DEBYE-WALL
67-PA-07 PAWLEY NAPHTHALENE/ANTHRACENE...THEORY/PHONON DISPERSION/PHONON SPECTRUM/EXP. FORCE
70-LU-02 LUTZ, HAEGL ANTHRACENE...THEORY/EXPERIMENT/SOLID...COHESION INELASTIC NEUTRON SCATTERING/PHONON DISPERS
70-LU-03 LUTZ ANTHRACENE...EXPERIMENT/LATTICE DYNAMICS/DISPERSION CURVE/FREQUENCY SPECTRUM
73-F1-01 FILIPPINI, GRAMACCIOI+ NAPHTHALENE/ANTHRACENE/PHENANTRACENE/PAIRENE/ANNULEN...THEORY/LATTICE DYNAMIC
73-GN-03 GRAMACCIOI, SIMONETTA+ ANTHRACENE/NAPHTHALENE/BUTANOANNULENE...THEORY/AROMATIC HYDROCARBON/VIBRATION
74-PA-10 PAWLEY, MIKA NAPHTHALENE/ANTHRACENE/SULPHUR...THEORY/PRESSURE EFFECT/LATTICE DYNAMICS/PHONON DISPERS

5. 12 BENZENE C6.H6
61-BR-03 BRUGGER ZR=H H2.O BZENENE/PARAFFINE/ALCOHOL...SIGMA(EE+PHI+THETA)/EXPERIMENT/LIQUIDS/TOF
62-BO-01 BOFFI, MOLINARI+ BZENENE...THEORY/MOLECULAR DYNAMICS/FREQUENCY DISTRIBUTION/SCATTERING CROSS SECTION/
62-ZE-01 ZEMLYANOV, CHERNOPLEKOV POLYETHYLENE/BZENENE/BIPHENYL...EXPERIMENT/MOLECULAR DYNAMICS
63-BO-01 BOFFI, MOLINARI+ C6.H6 SIGMA(E)...SCATTERING LAW/FREQUENCY DISTRIBUTION/THEORY/GAS/MOLECULAR DYNAMICS
63-ZE-02 ZEMLYANOV, CHERNOPLEKOV BENZENE/BIPHENYL...INELASTIC SCATTERING SPECTRA
64-GL-01 GLAESER, BECRUS+ BENZENE/BIPHENYL/BIPHENYL...EXPERIMENT/SOLID/LIQUID...2ND MOMENT OF ENERGY TRANSFER
65-GL-02 GLAESER, BENZENE/BIPHENYL/BIPHENYL...EXPERIMENT/MOLECULAR DYNAMICS/SCATTERING LAW/SIGMA(EE+PHI+THETA)
65-BO-01 GOLIKOV, ZHUKOVSKJA+ H2.O/ C6.H6...SIGMA(E)...EXPERIMENT/LIQUID/SOLID
65-HO-01 HOFMEYER BENZENE/BIPHENYL/TERPHENYL...EXPERIMENT...217C=150DC 10X23M DATA END IN GTMIN RNTN
65-ZE-02 ZEMLYANOV, CHERNOPLEKOV C6.H6 SIGMA(EE+PHI+THETA)...EXPERIMENT/LIQUID...290 DC
66-AN-02 ANTONINI, PAOLETTI+ BENZENE/BIPHENYL...EXPERIMENT/SOLID/LIQUID/SSIGMA(E)
66-BO-01 BOFFI, MARSICO+ BENZENE...SIGMA-TRANSFORM/E)...SIGMA(E)...THEORY/GAS/LIQUID/DIFFUSION PARAM
66-SL-02 SCHMIDT, SAD BENZENE/BIPHENYL/TERPHENYL/CYCLOHEXANE...EXPERIMENT
67-GE-01 GEL, KROPP BENZENE...MOLAR DYNAMICS/HANAN SPECTRUM
67-NE-02 NEILL BENZENE...SIGMA(E)...EXPERIMENT
67-RU-01 RUSH BENZENE...MOLAR DYNAMICS/LIQUID/SOLID/EXPERIMENT/NEUTRON SPECTRUM/FREQUENCY SPECTRUM
68-AR-02 ARDENTE, CUNIBERTI+ BIPHENYL/BENZENE...CROSS SECTION EVALUATION/MOLECULAR DYNAMICS/GAS/THEORY
5. 13 BIPHENYL

62-GE-01 ZEMLYANOV, CHERNOPELOKOV POLYETHYLENE/ BENZENE/ BIPHENYL ,EXPERIMENT/ MOLECULAR DYNAMICS
63-GI-01 GLASER BIPHENYL ,EXPERIMENT/ SCATTERING LAW/ MIXTURE OF BIPHENYL AND BIPHEXYLOXIDE
63-ZE-01 ZEMLYANOV, CHERNOPELOKOV BENZENE/ BIPHENYL, POLYETHYLENE, INELASTIC SCATTERING SPECTRA
64-GL-01 GLASER, BECRUTS BIPHENYL/ BIPHENYL, BIPHENYL/ BIPHENYL, EXPERIMENT/ SOLID/ LIQUID, 2ND MOMENT OF ENERGY TRANSFER
64-MO-01 MOSTOVY, DIBAREV H2O/BIPHENYL, FREQUENCY SPECTRUM, EXPERIMENT
65-GL-01 GLASER BIPHENYL/ BIPHENYL, EXPERIMENT/ MOLECULAR DYNAMICS/ SCATTERING LAW/ ANNEALING (E+PRIME, TH
65-HD-01 HOPFNER BIPHENYL/ BIPHENYL, EXPERIMENT, 20DC-150DC, 10X10X10 DATA END IN GMIN RTN)
65-AK-01 ANTONI; PAOLETTI BIPHENYL/ BIPHENYL, EXPERIMENT/ SOLID/ LIQUID/ SIGMA(E)
66-SC-02 SCHMIDT, SAAD BIPHENYL/ BIPHENYL, EXPERIMENT
67-NE-01 NEILL, ANTEZ BIPHENYL, EXPERIMENT
68-AN-02 KORDON, KUHNS BIPHENYL/ BENZENE, CROSS SECTION EVALUATION/ MOLECULAR DYNAMICS/ GAS/ THEORY
68-GE-01 GLASER, BOWEN, BOWGONOV BIPHENYL/ BIPHENYL, EXPERIMENT/ SCATTERING FUNCTION
69-SP-02 SPREVAK, KOPPEL BIPHENYL, THEORY/ SCATTERING LAW/ SIGMA(E)/ LIQUID

5. 14 BIPHENE

64-GL-01 GLASER, BECRUTS BIPHENYL/ BIPHENYL, EXPERIMENT/ SOLID/ LIQUID, 2ND MOMENT OF ENERGY TRANSFER
65-GL-02 GLASER BIPHENYL, EXPERIMENT/ MOLECULAR DYNAMICS/ SCATTERING LAW/ ANNEALING (E+PRIME, TH

5. 15 BUTANE

C4H10

68-HO-03 HOYLAND C4H10, EXPERIMENT/ MOLECULAR DYNAMICS

5. 16 BUTANOANNULENE

BUTANOANNULENE

73-GN-01 GRAMACCIOLI; SIMONETTA ANTHRACENE, NAPHTHALENE, BUTANOANNULENE, THEORY/ AROMATIC HYDROCARBON, VIBRATION
5. 17 BUTANOL C₄H₁₀O
70-BA-03 BATA, JOVIC C₄H₁₀O EXPERIMENT/ LIQUID-GAS PHASE
72-RO-01 RODRIGUES, VINHAS+ METHANOL/ ETHANOL/ PROPANOL/ BUTANOL/ ETHANEDIOIL/ PROPYANETRIOL EXPERIMENT/ TOTAL SIGM
74-AM-01 AMARAL, FULFARO+ BUTANOL EXPERIMENT/ TRANSMISSION/ MOLECULAR DYNAMICS
75-AM-01 AMARAL, FULFARO+ BUTANOL EXPERIMENT/ TOTAL CROSS SECTION/ TEMPERATURE EFFECT

5. 18 BUTYRIC ACID
72-DA-05 DAVIDOVIC, RATKOVIC+ TAURINE/ BUTYRIC ACID EXPERIMENT/ INELASTIC NEUTRON SCATTERING/ INCOHERENT

5. 19 CARBOXYLIC ACID
71-LU-02 LURIE, DANNER CARBOXYLIC ACID VIBRATIONAL SPECTRA/ LIQUID DYNAMICS/ DISPERSION RELATION

5. 20 CHLOROBENZENE C₆H₅CL
68-O-01 ORREILLY C₆Cl₄/ C₆H₅CL/ H,F/H,Cl/N,H₃/H₂O EXPERIMENT/ CORRELATION FUNCTION/ MOLECULAR ROTATIONS/ LIQUID REYNOLDS, WHITE CHLOROBENZENE
69-RF-04 REYNOLDS, WHITE CHLOROBENZENE

5. 21 CHLOROETHANE C₂H₅CL
71-BR-01 BRIER, HIGGINS+ CHLOROETHANE THEORY/ EXPERIMENT/ LIQUID/ TIME-OF-FLIGHT TECHNIQUES

5. 22 CHLORONAPHTHALENE C₁₀H₇CL
68-EI-01 EISENTHAL, DOWLEY+ CHLORONAPHTHALENE EXPERIMENT/ LIQUID EXPERIMENT/ TWO-PHONON SPECTRUM

5. 23 CYANAMIDE C₂H₃N₂
68-DU-01 DURIG, WALKER+ CYANAMIDE FREQUENCY DISTRIBUTION EXPERIMENT/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS

5. 24 CYCLOHEXANE C₆H₁₂
63-BE-01 BECKA CYCLOHEXANE/ DIMETHYLBUTANE/ DIAZOBICYCLOOCTANE EXPERIMENT/ TOF
65-BR-04 BRUGGER, STRONG+ CYCLOHEXANE EXPERIMENT
65-DE-02 DE-GRAAF CYCLOHEXANE INELASTIC SCATTERING SPECTRA/ LIQUID AND SOLID
66-SC-02 SCHMIDT, SAAD BENZENE/ DIPHENYL/ TERPHENYL/ CYCLOHEXANE EXPERIMENT
68-TA-03 TARINA CYCLOHEXANE EXPERIMENT/ SIGNATURE/ DIFFERENTIAL CROSS SECTION SOLID-LIQUID TRANSITION EXPERIMENT
69-DE-01 DE-GRAAF CYCLOHEXANE LIQUID/ SOLID EXPERTIMENT/ TIME OF FLIGHT HINDERED ROTATION RIGID MOLECULE
69-FI-01 FISCHER BENZENE/ CYCLOHEXANE/ CYCLOHEXANOL/ PYRIDINE H₂O/ HEXANE METHANOL/ ETHANOL/ ACETONE ACETIC
70-DI-01 DIAONESCU, NAHORNIAK+ METHANOL CYCLOHEXANE INELASTIC SCATTERING SPECTRA
70-PI-01 PICKETT, STRAUSS CYCLOHEXANE EXPERIMENT/ THEORY/ MOLECULAR VIBRATION/ INTERATOMIC FORCE CONSTANT FG-MET
<table>
<thead>
<tr>
<th>Document Number</th>
<th>Title</th>
<th>Authors</th>
<th>References</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>JABRI-M 6857</td>
<td>CYCLOHEXANOL</td>
<td>C6,H12,0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-25</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>69-FI-01</td>
<td>FISCHER</td>
<td>BENZENE/ CYCLOHEXANE/ CYCLOHEXANOL/ PYRIDINE/ H2.O/ HEXANE/ METHANOL/ ETHANOL/ ACETONE/ ACETIC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>70-DE-02</td>
<td>DE-MUL, BERGMAN</td>
<td>CYCLOHEXANOL - EXPERIMENT/ TOF/ LIQUID/ QUASI-ELASTIC PEAK - JUMP-DIFFUSION/ INCOHERENT NE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72-DE-04</td>
<td>DE-MUL</td>
<td>CYCLOHEXANOL - CRYSTAL/ MOLECULAR ROTATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-26</td>
<td>DIAZOBICYCLOOCTANE</td>
<td>C6,H12,0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>63-BE-01</td>
<td>BECKA</td>
<td>CYCLOHEXANE/ DIMETHYL BUTANE/ DIAZOBICYCLOOCTANE - EXPERIMENT/ TOF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-27</td>
<td>DIBROMOBENZENE</td>
<td>C6,H12,Br2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72-RE-02</td>
<td>REYNOLDS, KJEMS</td>
<td>C6,H12,Cl2/ C6,H12,Br2 - NEUTRON SPECTRUM/ THEORY/ EXPERIMENT/ INELASTIC NEUTRON SCATTERING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-28</td>
<td>DICALCMIUM LEAD PROPIONATE</td>
<td>(C3,H5,02)6,CA2,PH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72-OJ-01</td>
<td>QUILICHINI, POULET</td>
<td>DICALCMIUM LEAD PROPIONATE - EXPERIMENT/ FREQUENCY DISTRIBUTION FUNCTION - PHASE TRANSIT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>75-DI-03</td>
<td>DIMC+ OSREDAR</td>
<td>DICALCMIUM LEAD PROPIONATE - EXPERIMENT/ SOLID/ LIQUID/ ROTATING CRYSTAL SPECTROMETER/ DEBY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-29</td>
<td>DICALCMIUM STRONTIUM PROPIONATE</td>
<td>CA2,SR,(C3,H5,02)6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>73-VA-01</td>
<td>VAN-TRICHT, DE-MUL</td>
<td>DICALCMIUM STRONTIUM PROPIONATE - EXPERIMENT/ VIBRATION SPECTRA/ PARA-ELECTRIC PHASE TR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-30</td>
<td>DICHLOROETHANE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>73-02-01</td>
<td>OZORA, ITO</td>
<td>DICHLOROETHANE - EXPERIMENT/ FREQUENCY SPECTRUM/ PHASE TRANSITION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-31</td>
<td>DICHLOROBENZENE</td>
<td>C6,H12,Cl2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72-RE-02</td>
<td>REYNOLDS, KJEMS</td>
<td>C6,H12,Cl2/ C6,H12,Br2 - NEUTRON SPECTRUM/ THEORY/ EXPERIMENT/ INELASTIC NEUTRON SCATTERING</td>
<td></td>
<td></td>
</tr>
<tr>
<td>72-RE-03</td>
<td>REYNOLDS, KJEMS</td>
<td>C6,H12,Cl2 - EXPERIMENT/ PHONON DISPERSION/ TRICLINIC PHASE/ 295K TO 90K</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74-RE-01</td>
<td>REYNOLDS, KJEMS</td>
<td>DICHLOROBENZENE - EXPERIMENT/ CALCULATION/ PHONON DISPERSION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-32</td>
<td>DIMETHYLACETYLENE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>62-RU-02</td>
<td>RUSH, SAFFORD</td>
<td>N,H4,P,F6/ (N,H4)2,52,08/ (N,H4)2,CH,04/ N,H4,S,03,F/ DIMETHYLAETYLENE - EXPERIMENT/ MOLEC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-33</td>
<td>DIMETHYL BUTANE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>63-BE-01</td>
<td>BECKA</td>
<td>CYCLOHEXANE/ DIMETHYL BUTANE/ DIAZOBICYCLOOCTANE - EXPERIMENT/ TOF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5-34</td>
<td>DIMETHYLSULPHONEN</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
69-SA-01 SAFFORD, SCHaffer+ DIMETHYLSULPHOXIDE/ DIMETHYLSULPHON E SIGMA (E-E-PRIME, THETA)/ EXPERIMENT/ LIQUID DIMETHYLSULPHOXIDE/ DIMETHYLSULPHONE, EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS/ SEL

5, 35 DIMETHYLSULPHOXIDE

69-SA-01 SAFFORD, SCHaffer+ DIMETHYLSULPHOXIDE/ DIMETHYLSULPHON E SIGMA (E-E-PRIME, THETA)/ EXPERIMENT/ LIQUID DIMETHYLSULPHOXIDE/ DIMETHYLSULPHONE, EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS/ SEL

5, 36 DNA

74-FU-02 FULFARO, WALDER+ DNA, EXPERIMENT/ TOTAL CROSS SECTION/ WATER IN DNA AND DNA

5, 37 DODECAN E

C12.H26

70-EG-01 EGELSTAFF, HARRIS PENTANE/ HEPTANE/ DODECANE, EXPERIMENT/ QUASI-ELASTIC/ DIFFUSION CONSTANT

5, 38 EICOSANE

C20.H42

72-BA-07 BARNES NONADECAN E/ EICOSANE, EXPERIMENT/ WEASI-ELASTIC PEAK/ ROTATIONAL DIFFUSION/ PLASTIC CRYSTAL

5, 39 ETHANE

C2.H6

65-SA-01 GANNON, MCMURR Y C.H4/ C2.H6, COMPUTER-CODES, THEORY/ MOLECULAR DYNAMICS/ SCATTERING FUNCTION

65-ST-03 STRAKER, C2.H6 SCATTERING LAW

65-ST-06 STRAHEN, KING+ ETHANE, EXPERIMENT/ PHESSURIZED ETHANE

66-BR-03 BRUGGER METHANE/ ETHANE/ AL/ NA/ PB/ AR, COMPI LATION/ SCATTERING FUNCTION

67-RU-02 RUSH METHYLCHLOROFORM/ PENTANE/ ETHANE, COLD-NEUTRON/ FREQUENCY SPECTRUM

67-ST-06 STRONG, BRUGGER ETHANE, MOLECULAR DYNAMICS/ GAS, EXPERIMENT/ FREQUENCY DISTRIBUTION/ ROOM TEMPERATURE

68-BU-02 BULAVIN, VORONEL ETHANE, EXPERIMENT/ QUASI-ELASTIC/ LIQUID/ GAS

75-OL-01 OLSSON, LARSSON ETHANE, EXPERIMENT/ ROTATIONAL-DIFFUSIVE MOTION

5, 40 ETHANEDIOL

72-RO-01 RODRIGUES, VINHAS+ METHANOL/ ETHANOL/ PROPA NOL/ BUTANOL/ ETHANEDIOL/ PROPA NTRIOL, EXPERIMENT/ TOTAL SIGM

5, 41 ETHANOL

C2.H5.O

72-RO-01 RODRIGUES, VINHAS+ METHANOL/ ETHANOL/ PROPA NOL/ BUTANOL/ ETHANEDIOL/ PROPA NTRIOL, EXPERIMENT/ TOTAL SIGM

5, 42 ETHYL ETHER

(C2.H5)2.O

65-BA-03 BATA, KOSZOR+ ETHYL ETHER, INELASTIC SCATTERING SPECTRA
5. 43 ETHYL CHLORIDE
C2,H5,CL
70-ST-02 STRONG, BRUGGER
ETHYL CHLORIDE ..EXPERIMENT/ FREQUENCY DISTRIBUTION/ LIQUID/ SOLID

5. 44 ETHYLENE
C2,H4
63-BA-02 BALLY, TARINA
ETHYLENE ..EXPERIMENT
65-BA-02 BALLY, TODIREANU
ETHYLENE ..EXPERIMENT/ SCATTERING LAW ..GAS Target/ TRIPLE-AXIS SPECTROMETER
67-BA-02 BALLY, TODIREANU
METANE/ ETHYLENE ..GAS/ EXPERIMENT
67-VE-03 VERDAN
METANE/ ACETYLENE/ ETHYLENE ..EXPERIMENT/ ADSORBED MOLECULES

5. 45 ETHYLENE GLYCOL
C2,H6,02
65-GO-01 GOLIKOV, ZHOKHORSKA
C2,H6,02/ H2,O/ C2,H4,02/ C6,H6 ..EXPERIMENT/ LIQUID/ SOLID

5. 46 FLUORINATED CYCLOHEXANE
C,H2,02
72-LE-01 LEADBETTER, LITCHINSKY
FLUORINATED CYCLOHEXANE ..EXPERIMENT/ MOLECULAR ROTATION/ QUASI-ELASTIC SCATTERING

5. 47 FORMIC ACID
C,H2,02
61-HE-02 HEINLOTH
H2,O/ C6,H6/ C,H2,02 ..SIGMA((),/ EXPERIMENT/ GAS/ LIQUID/ SOLID/ KRIEGER-NELKIN MODEL ..TRANSMI
70-CO-03 COLLINS, HAYWOOD
FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC

5. 48 GLYCINE
C,H8,03
63-LA-01 LARSSON, DAHLBORG
D2,O/ GLYCINE/ H2,O ..EXPERIMENT/ LIQUID/ FREQUENCY DISTRIBUTION/ TOF ..278, 295, 368
63-RA-02 RAPEANU
GLYCINE ..EXPERIMENT/ QUASI-ELASTIC SCATTERING
64-LA-01 LARSSON, DAHLBORG
H2,O/ D2,O/ PENTANE/ GLYCINE ..EXPERIMENT/ LIQUID/ FREQUENCY DISTRIBUTION
68-RA-06 RAPEANU
GLYCINE ..EXPERIMENT/ QUASI-ELASTIC SCATTERING
70-BI-02 BIRK
GLYCINE ..EXPERIMENT/ QUASI-ELASTIC SCATTERING/ DIFFUSION CONSTANT

5. 49 GLYCINE
C7,H16
70-GU-05 GUPTA, SINGH
GLYCINE ..EXPERIMENT/ FREQUENCY SPECTRUM

5. 50 HEPTANE
C7,H16
70-EG-01 EGELSTAFF, HARRIS
PENTANE/ HEPTANE/ DODECANE ..EXPERIMENT/ QUASI-ELASTIC/ DIFFUSION CONSTANT
73-LO-02 LOGAN, DANNER
PENTANE/ HEXANE/ HEPTANE/ OCTANE ..EXPERIMENT/ INCOHERENT/ T-O-P SPECTRA/ PHONON DISPERSION

5. 51 HEXAMETHYLBENZENE
C12,H18

- 102 -
52. HEXAMETHYLENETETRAMINE

C₆H₁₂N₄

52-BE-01 BECKA
- HEXAMETHYLENETETRAMINE . EXPERIMENT/ NEUTRON SPECTROMETRY . 300K/ 300K/ 64-CO-01 COCHRAN+ PAWLEY
- HEXAMETHYLENETETRAMINE . THEORY/ LATTICE DYNAMICS/ DISPERSION . FREQUENCY DISTRIBUTION . X-
68-CH-01 CHEN, Dvorak
- HEXAMETHYLENETETRAMINE/ ADAMANTANE/ N, H₄, CL . THEORY/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS/ D
68-PO-02 POWELL
- HEXAMETHYLENETETRAMINE . EXPERIMENT/ CONST. X . DISPERSION CURVES/ FREQUENCY DISTRIBUTION . 2900
66-PA-03 PAWLEY
- C₆H₁₂N₄ . THEORY/ MODEL FITTING/ LATTICE DYNAMICS
70-DO-03 DOLLING, POWELL
- HEXAMETHYLENETETRAMINE . EXPERIMENT/ PHONON DISPERSION/ DHMT/ MODEL FITTING/ PHONON DENSITY
70-PO-01 POLLING, POWELL
- HEXAMETHYLENETETRAMINE . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION . MODEL FITTING
73-RA-01 RAJZIKA+ HEP
- HEXAMETHYLENETETRAMINE . THEORY/ LATTICE DYNAMICS
71-MC-02 MCMLLON, HOGAN
- HEXAMETHYLENETETRAMINE . THEORY/ LATTICE DYNAMICS/ DISPERSION CURVE/ SOLID/ MOLECULAR CRYSTALS
73-DO-01 DOLLING, PAWLEY
- HEXAMETHYLENETETRAMINE . THEORY/ PHONON DISPERSION/ AS MODEL TENSOR FORCE MODEL
73-TH-01 THOMAS
- ADAMANTANE/ HEXAMETHYLENETETRAMINE . EXPERIMENT/ FREQUENCY SPECTRA/ 200-800 CM⁻¹

53. HEXANE

C₆H₁₄

73-LD-02 LOGAN, DANNER
- PENTANE/ HEXANE/ HEPTANE/ OCTANE . EXPERIMENT/ INCOHERENT . T=0 F SPECTRA/ PHONON DISPERSION

54. IOODFORM

C₃H₁₃

73-NE-01 NETO+ OEHLE
- IOODFORM . THEORY/ EXPERIMENT/ DISPERSION RELATION/ LATTICE VIBRATION . F.G-MATRIX METHOD

55. MALONIC ACID

C₃H₄O₄

70-CO-03 COLLINS, HAYWOOD
- FORMIC ACID/ ACETIC ACID/ PROPIONIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCHIC ACID/ MONOC

56. MERCAPTA1N

C₂H₆S

68-SE-04 SAMPSON, CARPENTER
- ALCOHOL/ MERCAPTA1N . EXPERIMENT/ MOLECULAR DYNAMICS

57. METHANE

C₄H₄

42-SA-01 SACHS, TELLER
- NEUTRON-SCATTERING/ IN=FLUIDS/ H₂/ C₄H₄/ N₃H₃/ H₂O . SCATTERING THEORY . MOLECULAR GASES
49-ME-01 MELKONIAN
- C₄H₄ . SIGMA(E) . EXPERIMENT
51-ME-01 MESSIAH
- H/ C₄H₄ . THEORY/ SCATTERING THEORY . ROOM TEMP.
57-PO-01 PAPPE
- C₄H₄/ C₄F₄ . MOLECULAR DYNAMICS/ THEORY
56-ZE-02 ZEMACH, GLAUBER
- METHANE . SIGMA(THETA)(E) . THEORY/ GAS
61-GR-01 GRIFFIN
- C₄H₄ . THEORY/ MOLECULAR DYNAMICS/ GAS/ DIFFERENTIAL CROSS SECTION
61-RA-01 RAMN
- NEUTRON-SCATTERING/ IN=FLUIDS/ METHANE . THEORY/ SCATTERING FUNCTION
61-RA-04 RANDOLPH, BRUGGER
- METHANE . GAS/ SCATTERING LAW/ EXPERIMENT/ TOF/ MOLECULAR DYNAMICS . ROOM TEMP.
62-BR-02 BRUGGER
- METHANE/ H₂O/ D₂O/ PROPALE . THEORY/ EXPERIMENT/ SCATTERING FUNCTION
62-GR-01 GRIFFIN
- METHANE . GAS/ EXPERIMENT/ CALCULATION
68-JA-02 JANIK C.H₄, H₂O/ N₂/ H₂/ L₂/ S-04/ H₂O/ H₂O/ N₂/ H₂/ L₂/ S-04/ C.H₃/1, EXPERIMENT/ GAS/ LIQUID/ SOLID/ MOLECULAR
68-SK-01 SKOLEO METHANE, SCATTERING FUNCTION/ SOLID/ MOLECULAR DYNAMICS/ THEORY/ 22/1D/ ORIENTATIONAL JUMP D
69-FU-01 FULINSKI JANIK METHANE, THEORY/ MOLECULAR INTERACTION
69-JA-02 JANIK/ OTNES METHANE, EXPERIMENT/ SPECTRUM AGAINST WAVELENGTH/ SOLID
69-JA-04 JANIK/ OTNES C.H₄, EXPERIMENT/ TOF SPECTRA
70-BA-01 BANSAL, KOTHARI METHANE, THEORY/ SOLID/ LATTICE VIBRATION/ FREQUENCY DISTRIBUTION
70-KA-02 KAPULLA, GLAESER C.H₄, EXPERIMENT
71-HA-02 HAM, NAKAMURA NEUTRON SCATTERING IN FLUIDS/ METHANE, THEORY/ MOLECULE/ GAS/ ROTATIONAL CORRELATION/ CROSS
71-PR-02 PRESS, DORNER C.H₄, EXPERIMENT/ SOLID/ C.D₂/ PHONON DISPERSION
71-PR-03 PRESS C.H₄, EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ MOLECULAR VIBRATIONS
71-RA-03 RAO, DASANACHARYA METHANE, MULTIPLE SCATTERING/ CALCULATION/ CORRECTION
71-TI-01 TIITTA, TUNKOLO METHANE, LIQUID/ MULTIPLE SCATTERING
72-HU-01 HULLER/ PRESS C.H₄, CRITICAL SCATTERING/ C.D₂
72-IN-01 INOUE, OTOMO METHANE, NEUTRON SPECTRA
72-KA-07 KAPULLA C.H₄, EXPERIMENT/ SOLID/ ROTATING CRYSTAL SPECTROMETER/ SIGMA (E, E'-PRIME, THETA)
72-KA-08 KAPULLA, GLAESER METHANE, EXPERIMENT/ SOLID METHANE/ SMALL ENERGY PEAKS
72-TI-01 TIITTA, TUNKOLO METHANE, MULTIPLE SCATTERING
72-WA-03 WASIUTYNSKI, LUTY C.H₄, THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION, SP
73-HA-01 HAM, MIYAGI METHANE, THEORY/ NUCLEAR SPIN CORRELATION EFFECT/ ZEMACH-GLAUBER APPROXIMATION
74-OL-01 OLSSON, LARSSON C.H₄, AR, NEUTRON SCATTERING/ DIFFUSION CONSTANT
74-RA-03 RAO, MURTHY METHANE, EXPERIMENT/ X-RAY/ STRUCTURE FACTOR/ DIRECT CORRELATION FUNCTION
75-KA-01 KAHN C.H₄, INELASTIC NEUTRON SCATTERING/ LOW TEMPERATURE/ EXPERIMENT

5. 58 METHANETELUROL
C.H₄, TE

72-SI-09 SINK, HARVEY C.H₄, TE, EXPERIMENT/ INFRARED AND RAMAN SPECTRA

5. 59 METHANOL
C.H₄, O

67-AL-02 ALRED, EDEN ACETIC ACID/ METHANOL, EXPERIMENT/ TOF SPECTRUM/ QUASI-ELASTIC PEAK WIDTH
67-AL-03 ALRED, EDEN ACETIC ACID/ METHANOL, EXPERIMENT/ SUBSTITUTION OF DEUTERIUM AND FLUORIDE
69-SA-06 SAMPSON, CARPENTER METHANOL/ METHYLHETCAPAN, INELASTIC SCATTERING SPECTRA
70-DI-01 DIACONESCU, NAHMIAK METHANOL/ CYCLOHEXANE, INELASTIC SCATTERING SPECTRA
71-DE-02 DEMPSTER, ZERBI METHANOL, THEORY/ EXPERIMENT/ LATTICE DYNAMICS
72-KO-01 RODRIGUEZ, VINHAS METHANOL/ ETHANOL/ PROPAHOL/ BUTANOL/ ETHANEDIOIL/ PROPAHETRIOIL, EXPERIMENT/ TOTAL SIGM
72-KO-02 RODRIGUEZ, DDAMARRAL METHANOL, EXPERIMENT/ QUASIELASTIC SCATTERING/ MOLECULAR MOTION/ DIFFUSION

5. 60 METHOXYBENZYLIDENE-BUTYLANILINE
MBBA

72-DI-02 DIMIC, BARBIC MBBA, LIQUID-CRYSTAL, INCOHERENT QUASIELASTIC SCATTERING/ DIFFUSION CONSTANT

5. 61 METHYL FLUORIDE
C.H₃,F

74-HA-01 MALM, DANNER C.H₃,F, C.H₃,F, , TIME-FLIGHT- SPECTRA

5. 62 METHYL IODIDE
C.H₃, I
JAERI-M 6857

66-BA-01 BAJOREK, JANIK METHYL IOIDE...MOLECULAR DYNAMICS/ EXPERIMENT

5, 63 METHYL CHLORIDE C,H3,CL

5, 64 METHYLCHLOROFRO METHYLCHLOROFRO
67-RU-02 RUSH METHYLCHLOROFRO/ PENTANE/ ETHANE...COLD-NEUTRON/ FREQUENCY SPECTRUM

5, 65 METHYLMERCAPTAN C,H3,S,H
69-SA-06 SAMSON, CARPENTER METHANOL/ METHYLMERCAPTAN...INELASTIC SCATTERING SPECTRA

5, 66 METHYLENE C,H2
57-KR-01 KRIEGER, NELKIN NEUTRON-SCATTERING-IN-FLUIDS/ C,H2/ H2,O...SCATTERING THEORY...MOLECULE
65-YO-01 YOUNG, KOPPEL D/E C/H2:O/ D2:O C,H2/H2: O2...THEORY/ SCATTERING FUNCTION/ CROSS SECTION EVALUATION
67-BE-03 BEYSER, BORGONOVI C,H2/ C,H4/ ...EXPERIMENT/ CROSS SECTION EVALUATION
68-BE-04 BEYSER, BORGONOVI C,H2/ Zn,H4 C,H6...EXPERIMENT/ MOLECULAR DYNAMICS
68-HG-02 HERDADE METHYLENE...EXPERIMENT/ SIGMA(E)...METHYL GROUPS IN ORGANIC COMPOUNDS

5, 67 METHYLENE CHLORIDE C,H2,CL2
72-BR-01 BRIER, HIGGINS C,H2,CL2...EXPERIMENT/ MOLECULAR LIQUID/ TOF SPECTRA/ MODEL ANALYSIS

5, 68 METHYLZINC BOROHYDRIDE C,H3ZN,B,H4
73-NI-01 NIABL, COOK C,H3ZN,B,H4...EXPERIMENT/ SOLID/ LATTICE VIBRATION... F,G-MATRIX METHOD/ INFRARED AND Raman S

5, 69 NAPHTHALENE C10,H8
67-PA-06 PAWLEY NAPHTHALENE/ ANTHRACENE...THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ DEBYE TEMP./ DEBYE-WALL
67-PA-07 PAWLEY NAPHTHALENE/ ANTHRACENE...THEORY/ PHONON DISPERSION/ PHONON SPECTRUM/ 6-EXP FORCE
69-PA-04 PAWLEY, YEATS NAPHTHALENE...EXPERIMENT/ PHONON DISPERSION/ DEUTERATED SAMPLE
70-PA-07 PAWLEY, CYVIN NAPHTHALENE...THEORY/ DISPERSION RELATION/ MOLECULAR DYNAMICS/ SOLID
71-PA-03 PAWLEY, REYNOLDS NAPHTHALENE...THEORY/ POLYCRYSTAL/ LATTICE DYNAMICS
73-FI-01 MELIN, GRAMACCIOLI NAPHTHALENE/ ANTHRACENE/ PHENANTHRENE/ PYRENE/ ANNULENE...THEORY/ LATTICE DYNAMICS
73-GR-01 GRAMACCIOLI, SIMONETTA NAPHTHALENE/ ANTHRACENE/ BUTYRANNULENE...THEORY/ AROMATIC HYDROCARBON/ VIBRATION
74-PA-10 PAWLEY, MIKA NAPHTHALENE/ ANTHRACENE/ SULPHUR...THEORY/ PRESSURE EFFECT/ LATTICE DYNAMICS/ PHONON DISPERSI

5, 70 NONADECANE C19,H40
5. 71 NYLON
65-SA-01 SAFFORD, LOSACCO NYLON [EXPERIMENT/ TOF SPECTRA/ FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS

5. 72 OCTANE
C8H18

5. 73 OXALIC ACID
C2H2O4

5. 74 PARAFFINE

5. 75 PENTANE
C5H12

5. 76 PENTANOL
C5H12O

5. 77 PHENANTHRENE
C14H10
5. 86 POLYETHYLENEOXIDE
   67-TR-01 TREVINO, BOUTIN POLYETHYLENE/ POLYETHYLENEOXIDE/ POLYACRYLONITRILE/ POLYOXOMETHYLENE ...REVIEW/ TOF SPECTRA

5. 87 POLYETHYLENE TEREPHTHALATE
   75-BE-01 BERGMANS, GROENINCKX POLYETHYLENE TEREPHTHALATE ...EXPERIMENT/ PHONON SPECTRUM/ EFFECT OF CRYSTALLINITY

5. 88 POLYGLUTAMIC ACID
   66-BO-03 BOUTIN, WHITTEMORE POLYGLUTAMIC ACID ...EXPERIMENT/ FREQUENCY SPECTRUM/ MOLECULAR DYNAMICS
   66-WH-03 WHITTEMORE POLYPEPTIDE/ POLYGLUTAMIC ACID ...EXPERIMENT/ TOF/ FREQUENCY DISTRIBUTION

5. 89 POLYGLYCINE
   63-FU-01 FUKUSHIMA, IDEGUCHI POLYGLYCINE ...THEORY/ NORMAL VIBRATION
   68-GU-01 GUPTA, TREVINO POLYGLYCINE ...FREQUENCY DISTRIBUTION/ THEORY/ LATTICE DYNAMICS
   72-SI-02 SINGH, GUPTA POLYGLYCINE ...THEORY/ DISPERSION CURVE/ PHONON SPECTRA
   72-FA-01 FANCONI POLYGLYCINE ...THEORY/ DISPERSION RELATION ...2-DIMENSIONAL LATTICE VIBRATION

5. 90 POLYOXOMETHYLENE
   66-KI-04 KITAGAWA, MIYAZAWA POLYOXOMETHYLENE ...THEORY/ FREQUENCY DISTRIBUTION/ SOLID ...SPECIFIC HEAT
   66-TR-02 TREVINO, BOUTIN POLYOXOMETHYLENE ...EXPERIMENT/ FREQUENCY SPECTRA/ LATTICE DYNAMICS
   67-TR-02 TREVINO, BOUTIN POLYOXOMETHYLENE ...THEORY/ FREQUENCY DISTRIBUTION/ PHONON SPECTRA
   72-BO-02 BOERIO, CORNELL POLYOXOMETHYLENE ...THEORY/ DISPERSION CURVE/ FREQUENCY SPECTRA/ RAMAN EXPERIMENT
   74-SA-02 SAKAMOTO, MASAKI POLYOXOMETHYLENE ...EXPERIMENT/ ORIENTED CRYSTAL/ FREQUENCY SPECTRUM

5. 91 POLYPEPTIDE
   68-WH-03 WHITTEMORE POLYPEPTIDE/ POLYGLUTAMIC ACID ...EXPERIMENT/ TOF/ FREQUENCY DISTRIBUTION

5. 92 POLYPROPYLENE
   POLYPROPYLENE

- 110 -
5. 93 POLYETHYLENE
TEFLON

93-LA-02 LAGARDE, PRASK
TEFLON . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVE
73-P1-01 PISERI, POWELL
TEFLON . . EXPERIMENT/ CALCULATION/ PHONON DISPERSION
73-SA-01 SAKAMOTO, IZUMI
POLYPROPYLENE . . EXPERIMENT/ PHONON DISPERSION/ PHASE TRANSITION

5. 94 POLYTRIFLUOROACETALDEHYDE
68-LO-02 LONGSTER, WHITE
POLYACETALDEHYDE/ POLYTRIFLUOROACETALDEHYDE . . EXPERIMENT/ TOF/ NEUTRON SPECTRUM . . ROOM TEM

5. 95 POLYVINYL CHLORIDE
68-LY-02 LYNCH JR, SUMMERFIELD
POLYVINYL CHLORIDE . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRI

5. 96 POTASSIUM TRICHLOROACETATE
70-CO-02 COLLINS, HAYWOOD
K, C2, Cl3, O2

5. 97 POTASSIUM TRIFLUOROACETATE
70-CO-02 COLLINS, HAYWOOD
K, C2, F3, O2

5. 98 PROPANE
70-BR-02 BRUGGER
C3, H8
C3, H8, 0

5. 99 PROPANOIC ACID
70-CO-03 COLLINS, HAYWOOD
FORMIC ACID/ ACETIC ACID/ PROPANOIC ACID/ OXALIC ACID/ MALONIC ACID/ SUCCINIC ACID/ MONOC
<table>
<thead>
<tr>
<th>Page</th>
<th>Reference</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.101</td>
<td>C4H4N2</td>
<td>Pyrazine</td>
</tr>
<tr>
<td>5.102</td>
<td>C16H10</td>
<td>Pyrene</td>
</tr>
<tr>
<td>5.103</td>
<td>Pyridine</td>
<td>Naphthalene, Anthracene, Phenanthrene, Pyrene, Annulene, Theory, Lattice Dynamic</td>
</tr>
<tr>
<td>5.104</td>
<td>Resin</td>
<td>Benzene, Cyclohexane, Cyclohexanol, Pyridine, H2O, Hexane, Methanol, Ethanol, Acetone, Acetic</td>
</tr>
<tr>
<td>5.105</td>
<td>Rubber</td>
<td>Resin, Experiment, Neutron Diffusion Parameter</td>
</tr>
<tr>
<td>5.106</td>
<td>Taurine</td>
<td>Taurine, Alpha-Amino-Isobutyric-Acid, Experiment, Vibrational Spectrum</td>
</tr>
<tr>
<td>5.107</td>
<td>Terphenyl</td>
<td>Tercphenyl, Scattering Law, Experiment, Solid, Liquid, 23DC, 207DC</td>
</tr>
<tr>
<td>5.108</td>
<td>Toluene</td>
<td>C7H8</td>
</tr>
<tr>
<td>5.109</td>
<td>Trichloromethane</td>
<td>C3H3Cl3</td>
</tr>
<tr>
<td>5.110</td>
<td>Trifluoroethane</td>
<td>C3H3F3</td>
</tr>
</tbody>
</table>
6. 1 ACETYLENE-CHARCOAL
67-VE-04 VERDAN H2-CHARCOAL/ C,H4-CHARCOAL/ C2,H2-CHARCOAL , EXPERIMENT/ FREQUENCY SPECTRA/ ADS

6. 2 ALCOHOL-WATER
70-FR-02 FRANKS, RAVENHILL+ ALCOHOL=WATER , EXPERIMENT/ NEUTRON SPECTROSCOPY , DIFFUSION OF WATER IN AQUEOUS SOLUTION

6. 3 AMMONIA-ZEOLITE
66-DO-06 DOWNES, WHITE+ METHANOL-QUINOL/ METHYL CYANIDE-QUINOL/ METHANOL-QUINOL/ WATER-QUINOL/ AMMONIA-ZEOLITE , EXP

6. 4 AMMONIUM FLUORIDE-WATER
65-ST-04 STILLER H,F-H2,O/ N,H4,F-H2,O , EXPERIMENT/ SOLUTION/ BE-FILTER DETECTOR SPECTRUM

6. 5 ARGON-GRAFITE
75-TA-02 TAUB, PASSELL+ ARGON-GRAFITE , EXPERIMENT/ AR-FILM/ ADSORBED ON GRAPHITE/ SDK

6. 6 CESIUM CHLORIDE-WATER

6. 7 CHROMIUM CHLORIDE-WATER
70-LE-06 LEUNG, SANBORN+ LA,(N,O3)3-H2,O/ CR,CL3-H2,O/ LA,CL3-H2,O , EXPERIMENT/ H2,O MOTION IN SOLUTION AND GLASS

6. 8 DIETHYL DIETHYLENE GLYCOL-CARBON DISULFIDE
71-DE-03 DENIZ, JANIK+ ETHYL ETHER-CARBON DISULFIDE/ DIETHYL DIETHYLENE GLYCOL-CARBON DISULFIDE , THEORY/ EXPERIMENT

6. 9 ETHYL ETHER-CARBON DISULFIDE
71-DE-03 DENIZ, JANIK+ ETHYL ETHER-CARBON DISULFIDE/ DIETHYL DIETHYLENE GLYCOL-CARBON DISULFIDE , THEORY/ EXPERIMENT

6. 10 ETHYLENE-CHARCOAL
67-VE-04 C2,H4-CHARCOAL

- 114 -
6. 11 HYDROGEN-CHARCOAL
67-VE-04 VERDAN
H₂=CHARCOAL/ C,H₄=CHARCOAL/ C₂,H₄=CHARCOAL/ C₂,H₂=CHARCOAL . . . EXPERIMENT/ FREQUENCY SPECTRA/ ADS

6. 12 HYDROGEN-PLATINUM
75-AS-01 ASADA+ TOYA+
H₂=PT . . INELASTIC NEUTRON SCATTERING EXPERIMENT/ HYDROGEN ADSORBED ON PLATINUM

6. 13 HYDROGEN FLUORIDE-WATER
65-ST-04 STILLER
H,F=H₂,O
6, F=H₂,O/ N,H₄,F=H₂,O . . EXPERIMENT/ SOLUTION/ BE-FILTER DETECTOR SPECTRUM

6. 14 LANTHANUM CHLORIDE-WATER
70-LE-06 LEUNG+ SANBORN+
LA,(N,O₃)₃=H₂,O/ CR,Cl₃=H₂,O/ LA,Cl₃=H₂,O . . EXPERIMENT/ H₂,O MOTION IN SOLUTION AND GLASS

6. 15 LANTHANUM NITRATE-WATER
70-LE-06 LEUNG, SANBORN+
LA,(N,O₃)₃=H₂,O

6. 16 LITHIUM CHLORIDE-WATER
70-LE-05 LEUNG, SAFFORD
Li,Cl=H₂,O
70-LE-05 LEUNG, SAFFORD
Li,Cl=H₂,O/ Mg,Cl₂=H₂,O/ Cs,Cl=H₂,O/ K,Cl=H₂,O/ Na,Cl=H₂,O/ LA,(N,O₃)₃=H₂,O . . EXPERIMENT/

6. 17 MAGNESIUM CHLORIDE-WATER
70-LE-05 LEUNG, SAFFORD
Mg,Cl₂=H₂,O

6. 18 METHANE-CHARCOAL
67-VE-04 VERDAN
C,H₄=CHARCOAL/ H₂=CHARCOAL/ C,H₄=CHARCOAL/ C₂,H₄=CHARCOAL/ C₂,H₂=CHARCOAL . . . EXPERIMENT/ FREQUENCY SPECTRA/ ADS

6. 19 METHANE-QUINOL
66-DO-06 DOWNES+ WHITE+
C,H₄=C₆,H₄,(O,H)₂
66-DO-06 DOWNES+ WHITE+
METHANE-QUINOL/ METHYL CYANIDE-QUINOL/ METHANOL-QUINOL/ WATER-QUINOL/ AMMONIA-ZEOLITE . . EXP

6. 20 METHANOL-QUINOL
66-DO-06 DOWNES+ WHITE+
C,H₄,O=C₆,H₄,(O,H)₂
66-DO-06 DOWNES+ WHITE+
METHANE-QUINOL/ METHYL CYANIDE-QUINOL/ METHANOL-QUINOL/ WATER-QUINOL/ AMMONIA-ZEOLITE . . EXP
6. 21 Methyl Cyanide-Quinol
66-00-06 Downes, White+ C,H3,C,N=C6,H4,(O,H)
Methane-Quinol/ Methyl Cyanide-Quinol/ Methanol-Quinol/ Water-Quinol/ Ammonia-Zeolite EXP

6. 22 Nitrogen-Graphite
74-KJ-01 Kjemps, Passell+ N-Graphite, Experiment/ Neutron Diffraction/ Nitrogen Adsorbed

6. 23 Potassium Chloride-Water
70-LE-05 Leung, Safford K,Cl=H2,O
Li,Cl=H2,O/ Mg,Cl2=H2,O/ Cs,Cl=H2,O/ K,Cl=H2,O/ Na,Cl=H2,O/ La,(N,03)=H2,O/ Experiment/

6. 24 Sodium Chloride-Water
70-LE-05 Leung, Safford Na,Cl=H2,O
Li,Cl=H2,O/ Mg,Cl2=H2,O/ Cs,Cl=H2,O/ K,Cl=H2,O/ Na,Cl=H2,O/ La,(N,03)=H2,O/ Experiment/

6. 25 Water-Alumina
64-BO-02 Boutin, Prask H2,O/ Water-Silica/ Water-Alumina/ Al,Cl3 Experiment/ Molecular Dynamics/ H2,O Vapor Adsorbed

6. 26 Water-Beryl
65-BO-06 Boutin, Prask+ Water-Beryl, Experiment/ TOF Spectra/ Adsorbed Water

6. 27 Water-Potassium Ferrocyanide Trihydrate
66-RU-05 Rush, Leung+ Water-Potassium Ferrocyanide Trihydrate, Experiment/ Molecular Motion/ Ferroelectric Transit

6. 28 Water-Quinol
66-DO-06 Downes, White+ H2,O=C6,H4,(O,H)2
Methane-Quinol/ Methyl Cyanide-Quinol/ Methanol-Quinol/ Water-Quinol/ Ammonia-Zeolite EXP

6. 29 Water-Silica
64-BO-02 Boutin, Prask H2,O=Si,02
H2,O/ Water-Silica/ Water-Alumina/ Al,Cl3 Experiment/ Molecular Dynamics/ H2,O Vapor Adsorbed
PART 2

LIST OF REFERENCES

ORDERED BY THE PUBLISHED YEAR AND THE FIRST AUTHOR NAME
37-SC-01 SCHWINGER, J./ TELLER, E.
THE SCATTERING OF NEUTRONS BY ORTHO-AND PARAHYDROGEN
PHYS. REV., V. 52, P. 286-P. 295 (1937)

H2, ... THEOREY/ TOTAL CROSS SECTION

40-DA-01 DARLING, B. T./ DENNISON, D. M.
THE WATER VAPOR MOLECULE
PHYS. REV., V. 57, P. 128-P. 139 (1940)
H2O, ... THEOREY/ MOLECULAR DYNAMICS

41-SA-01 SACHS, R. G./ TELLER, E.
THE SCATTERING OF SLOW NEUTRONS BY MOLECULAR GASES
PHYS. REV., V. 60, P. 18-P. 27 (1941)
NEUTRON-SCATTERING-IN-FLUIDS/ H2/ C,H4/ N,H3/ H2O, ... SCATTERING THEORY/ MOLECULAR GASES

44-WE-01 WEINSTOCK, R.
INELASTIC SCATTERING OF SLOW NEUTRONS
PHYS. REV., V. 65, P. 1-P. 20 (1944)
NEUTRON-SCATTERING-IN-SOLIDS ... THEOREY/ SOLID/ LATTICE DYNAMICS, ... INELASTIC SCATTERING

47-HA-01 HAMMERISH, M./ SCHWINGER, J.
NEUTRON SCATTERING IN ORTHO-AND PARAHYDROGEN
PHYS. REV., V. 71, P. 678-P. 680 (1947)
H2, ... THEOREY/ GAS/ SCATTERING CROSS SECTION

47-ME-01 MEHRINGER, W.
MODEL CALCULATION OF DISPERSSION OF PHONON-LIKE EXCITATIONS IN LIQUID ARGON
PHYS. LETT., A, V. 49, P. 27-P. 28 (1947)
ARGON, ... MODEL CALCULATION/ PHONON-LIKE EXCITATION/ DISPERSION CURVE

49-ME-01 MELKONIAN, E.
SLOW NEUTRON VELOCITY SPECTROMETER STUDIES OF O2, N2, AR, H2O, AND SEVEN HYDROCARBONS
PHYS. REV., V. 76, P. 1750 (1949)
C,H4, ... SIGMA(E)/ EXPERIMENT

50-CAS-01 CASSELS, J. M.
THE SCATTERING OF NEUTRONS BY CRYSTALS PROGRESS IN NUCLEAR PHYSICS, V. 1, P. 185-P. 215 (1950)
NEUTRON-SCATTERING-IN-SOLIDS ... THEOREY

50-FR-01 FROEMAN, P. O.
ON NEUTRON DIFFRACTION PHENOMENA ACCORDING TO THE KINEMATICAL THEORY, 2.
ARK, FYS., V. 4, P. 191-P. 202 (1950)
NEUTRON-SCATTERING-IN-SOLIDS ... THEOREY/ SOLID/ NEUTRON DIFFRACTION

50-WA-01 WALLER, I./ FROEMANN, P. O.
ON NEUTRON DIFFRACTION PHENOMENA ACCORDING TO THE KINEMATICAL THEORY, I.
ARK, FYS., V. 4, P. 183-P. 189 (1950)
NEUTRON-SCATTERING-IN-SOLIDS ... THEOREY/ SOLID/ NEUTRON DIFFRACTION

51-EG-01 EGELESTAFF, P. A.
INELASTIC SCATTERING OF COLD NEUTRONS
NATURE, V. 168, P. 390 (1951)
H/ BE/ V/ SE/ MO/ FE ... SOLID/ EXPERIMENT/ TRANSMISSION

51-KO-01 KOMATSU, K./ NAGAMIYA, T.
THEORY OF THE SPECIFIC HEAT OF GRAPHITE
J, PHYS, SOC. JAP., V. 6, P. 436-P. 444 (1951)
GRAPHITE ... THEOREY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION

51-MC-01 CREYNOLDS, A. W./ WEISS, R. J.
COHERENT NEUTRON SCATTERING CROSS SECTION OF V,51
PHYS, REV., V. 83, P. 171-P. 172 (1951)
V, ... EXPERIMENT/ TOTAL CROSS SECTION ... TOTAL REFLECTION FROM MIRROR SURFACE OF V

51-ME-01 MESSIAH, A. M. L.
SCATTERING OF SLOW NEUTRONS BY H2 AND C,H4
PHYS, REV., V. 84, P. 204 (1951)
H2, C,H4, ... THEOREY/ SCATTERING THEORY ... ROOM TEMPERATURE

51-PL-01 PLACZEK, G./ NIJBOER, B. R. A./ VAN-HOVE, L.
EFFECT OF SHORT WAVELENGTH INTERFERENCE ON NEUTRON SCATTERING BY DENSE SYSTEMS OF HEAVY NUCLEI
PHYS, REV., V. 82, P. 392 (1951)
NEUTRON-SCATTERING-IN-FLUIDS/ H2O ... THEOREY/ SIGMA(E), ... SIGMA(E) ... SOLID/ LIQUID/ SCATTERING THEORY/ SIGMA(E) ... FCC-LATTICE/ MCP-LATTICE

52-PL-01 PLACZEK, G.
THE SCATTERING OF NEUTRONS BY SYSTEMS OF HEAVY NUCLEI
PHYS, REV., V. 86, P. 377-P. 388 (1952)
SCATTERING-THEORIES ... TOTAL AND DIFFERENTIAL CROSS SECTION

52-PO-01 POPE, N. K.
THE THEORY OF NEUTRON DIFFRACTION BY GASES, 1
CAN. J, PHYS., V. 30, P. 597 (1952)
C,H4/ C,F4 ... THEOREY/ MOLECULAR DYNAMICS/ THEOREY

53-KR-01 KRAMHANSL, J./ BROOKS, H.
THE LATTICE VIBRATION SPECIFIC HEAT OF GRAPHITE
56-KO-01 KOThARII, L.S./ SINGHl, K.S./ VISwANATHAN, S., SCATTERING OF COLD NEUTRONS IN LIQUID METALS AND THE EN TROPY OF DISORDER. PHYS. MAG., V.1, P.560-P.567 (1956)
NEUTRON-SCATTERING-IN-FLUIDS / THEORIES / LIQUID METAL / NU CLIceneeS / CRYSTALLINE MODEL

NEUTRON-SCATTERING-IN-SOLIDS / AL / THEORIES / LATTICE VIBRATION / FREQUENCY DISTRIBUTION / ENERGY DISTRIBUTION OF NEUTRONS COMERENTLY SCATTERED IN A ONE PHONON PROCESS

GRAPHITE / THEORIES / LATTICE DYNAMICS / FREQUENCY DISTRIBUTION

56-ZE-01 ZEMACH, A.C./ GLAUBER, R.J., DYNAMICS OF NEUTRON SCATTERING BY MOLECULES. PHYS. REV., V.101, P.118-P.129 (1956)
NEUTRON-SCATTERING-IN-FLUIDS / MOLECULAR DYNAMICS / SCATTERING THEORY

56-ZE-02 ZEMACH, A.C./ GLAUBER, R.J., NEUTRON DIFFRACTION BY GASES. PHYS. REV., V.101, P.129-P.136 (1956)
METHANE / SIGMA (THETA=0) / THEORY / GAS

Zr-H / EXPERIMENT / SIGMA (E=PRIME+THETA)

GERMANIUM / EXPERIMENT / PHONON DISPERSION

57-CA-01 CARTER, R.S./ PALEVSKY, M./ HUGHES, D.J., INELASTIC SCATTERING OF SLOW NEUTRONS BY LATTICE VIBRATIONS IN ALUMINUM. PHYS. REV., V.106, P.1168 (1957)
AL / EXPERIMENT / LATTICE VIBRATION / DISPERSION RELATION

HE / THEORIES / SCATTERING BY ROTON

HE / LIQUID / EXPERIMENT / SIGMA(E) / SIGMA(E+THETA) / LIQUID HELIUM

NEUTRON-SCATTERING-IN-FLUIDS / C, H2 / H2O / SCATTERING THEORY / MOLECULE

HE / EXPERIMENT / ROTON

57-SE-01 SJOLANDER, A., ON TWO-PHONON PROCESSES IN NEUTRON DIFFRACTION AGAINST CRYSTALS. RH, FYS., V.13, P.215-P.228 (1957)
NEUTRON-SCATTERING-IN-SOLIDS / SCATTERING THEORY / SOLID S/ LATTICE VIBRATION

NEUTRON-SCATTERING-IN-SOLIDS / SCATTERING THEORY / SOLID S/ LATTICE VIBRATION

58-BA-01 BRIMBERG, S., ON THE SCATTERING OF SLOW NEUTRONS BY HYDROGEN MOLECULE S. PROC. 2ND, INTERN. CONF. PEACEFUL USES ATOMIC ENER GY, GENEVA, V.15, P.79-P.98 (1958)
H / THEORY / MOLECULAR DYNAMICS / SIGMA(E)

58-BA-02 BROCKHOUSE, B.N., STRUCTURAL DYNAMICS OF WATER BY NEUTRON SPECTROMETRY. NUOVO CIM., V.9, P.45 (1958)
H2O / D2O / EXPERIMENT

58-BA-03 BROCKHOUSE, B.N./ STEWART, A.T., NORMAL MODES OF ALUMINUM BY NEUTRON SPECTROMETRY.
58-BR-04 B. N. BROCKHOUSE / I. YENGERT/ P. K.
NORMAL MODES OF GEHMANNIUM BY NEUTRON SPECTROMETRY
Phys. Rev., V. 111, p. 147 (1958)
GE / EXPE/RIMENT/ DISPERSION RELATION

58-EG-01 EGELSTAFF/ P. A.
INELASTIC SCATTERING OF COLD NEUTRON BY CRYSTALS, PART I
AEER-N/40=1141, AEER-N/40=115 (1958)
BE/ Hg SCATTERING-THEORIES, THEORY/ EXPERIMENT/ SOLID
S/ SI04, E/PHI, T/THETA, SI04(0), ONE-PHONON CROSS
SECTION, TWO-PHONON CROSS SECTION, COHERENT CROSS SECT
ION

58-EI-01 EISENHAUER/ C. M./ PELAH/ L. H./ HUGHES/ D. J./ PALEVSK
Y/ H.
MEASUREMENT OF LATTICE VIBRATIONS IN VANADIUM BY NEUTRO
N SCATTERING
V / EXPERIMENT/ FREQUENCY DISTRIBUTION

58-HE-01 HENSHAW/ D. G.
ENERGY-MOMENTUM RELATION IN LIQUID HELIUM BY INELASTIC
SCATTERING OF NEUTRONS
HE / EXPERIMENT/ LIQUID/ DISPERSION RELATION

58-MA-01 MAZO/ R. M./ ZEMACH/ A. C.
DIFFRACTION OF NEUTRONS BY IMPERFECT GASES
Phys. Rev., V. 110, p. 156 (1958)
SCATTERING-THEORIES, THEORY/ SCATTERING CROSS SECTION
IMPERFECT GAS/ ELASTIC AND INELASTIC SCATTERING

58-MC-01 MCREYNOLDS/ A. W./ NELKIN/ M. S./ ROSENBLETH/ M. N.
NEUTRON THERMALIZATION BY CHEMICALLY-BOUND HYDROGEN AND
CARBON
PROCEEDING OF THE INTERNATIONAL CONFERENCE ON THE
PEACEFUL USES OF ATOMIC ENERGY, UNITED NATION, GEN
EVA, V. 15, p. 297 (1958)
H2/ O/ POLYETHYLENE/ ZRI-H/ MG-H/ GRAPHITE / EXPERIMENT/
THEORY/ LIQUID/ SOLID

58-PA-01 PALEVSKY/ H./ OTNES/ K./ LARSSON/ K. E.
EXCITATION OF ROTONS IN HELIUM-2 BY COLD NEUTRONS
HE / EXPERIMENT/ ROTON/ DISPERSION RELATION

58-SJ-01 SJÖLÄNDER/ A.
MULTI-PHONON PROCESS IN SLOW NEUTRON SCATTERING BY CRYST
ALS
Ark. Fys., V. 14, p. 315-P. 371 (1958)
THEORY/SOLIDS, THEORY/ SOLID/ LATTICE DYNAMICS, SC
ATTERING CROSS SECTION

58-ST-01 STEWART/ A. T./ BROCKHOUSE/ B. N.
VIBRATION SPECTRA OF VANADIUM AND A MN-CO ALLOY BY NEUT
RON SPECTROSCOPY
V/ MN-CO, EXPERIMENT/ FREQUENCY DISTRIBUTION

58-TO-01 TOYA/ T.
NORMAL VIBRATIONS OF COPPER
CU / THEORY/ LATTICE DYNAMICS / DISPERSION RELATION

58-TO-02 TOYA/ T.
NORMAL VIBRATIONS OF CALCIUM
J. Res. Inst. Catalysis, Hokkaido Univ., V. 4, P. 18
3 (1958)
NA / THEORY/ SOLID/ LATTICE DYNAMICS

58-VA-01 VAN-MOHE/ L.
A REMARK ON THE TIME-DEPENDENT PAIR DISTRIBUTION
Physica, V. 24, P. 404-P. 408 (1958)
NEUTRON-SCATTERING-IN-FLUIDS, SCATTERING THEORY/ LIQU
ID/ GAS

58-VI-01 VINEYARD/ G. H.
SCATTERING OF SLOW NEUTRON BY A LIQUID
NEUTRON-SCATTERING-IN-FLUIDS, SCATTERING THEORY/ LIQU
ID DYNAMICS, CONVOLUTION APPROXIMATION

ENERGY VS MOMENTUM RELATION FOR THE EXCITATIONS IN LIQU
ID HELIUM
HE / EXPERIMENT/ ROTON/ DISPERION CURVE/ LIQUID...140
K

59-BR-01 BROCKHOUSE/ B. N./ POPE/ N. K.
TIME-DEPENDENT PAIR CORRELATIONS IN LIQUID LEAD
PB / EXPERIMENT/ LIQUID

59-BR-02 BROCKHOUSE/ B. N.
LATTICE VIBRATIONS OF SEMICONDUCTORS BY NEUTRON SPECTRO
METRY
GE / EXPERIMENT/ DISPERSION RELATION
59-BR-03 BROCKHOUSE, B.N.
LATTICE VIBRATIONS IN SILICON AND GERMANIUM
PHYS. REV., LETT., V.2., P.236 (1959)
GE/ SI EXPERIMENT/ DISPERSION RELATION

59-BR-04 BROCKHOUSE, B.N.
DIFFUSIVE MOTIONS IN LIQUIDS AND NEUTRON SCATTERING
PHYS. REV., LETT., V.2., P.287 (1959)
H2O D 0, SCATTERING LAW/ EXPERIMENT, QUASI ELASTIC SCATTERING/ ICE, 6DC, 24.5DC, 42DC, 60DC/ DIFFUSION BROADENING

59-BU-01 BURAS, B./ O'CONNOR, D.
THE NEUTRON-PHONON INTERACTION IN SOLIDS
NUCLEONIKA, V.4, P.119-P.140 (1959)
NEUTRON-SCATTERING IN SOLIDS REVIEW/ NEUTRON SPECTRUM COPY

59-DE-01 DEGENNES, P.G.
LIQUID DYNAMICS AND INELASTIC SCATTERING OF NEUTRONS PHYSICA, V.25, P.829-P.839 (1959)
NEUTRON-SCATTERING IN FLUIDS/ AR SCATTERING THEORY/ LIQUID DYNAMICS/ MOMENTS METHOD

59-EG-01 EGGOLD, A.A.
SOLID AND LIQUID STATE RESEARCH WITH COLD NEUTRONS
BRIT. J. APPL. PHYS., V.10, P.1-P.9 (1959)
REVIEW ARTICLES NEUTRON SPECTROSCOPY

59-GH-01 GHOSE, A./ PALEVSKY, H./ HUGHES, D.J./ PELAH, I./ EISENHAEUER, C.M.
LATTICE VIBRATIONS IN GERMANIUM BY SCATTERING OF COLD NEUTRONS
PHYS. REV., V.113, P.49 (1959)
GE EXPERIMENT/ DISPERSION RELATION

59-HU-01 HUGHES, D.J./ PALEVSKY, H./ KLEY, W./ TUNKELD, E.
ATOMIC MOTIONS IN WATER BY SCATTERING OF COLD NEUTRONS
PHYS. REV., LETT., V.3., P.29-P.33 (1959)
H2O LIQUID/ EXPERIMENT, ALPHA FILTER TOF

59-KO-01 KOTMARI, L.S./ SINGWAI, K.S.
INTERACTION OF THERMAL NEUTRONS WITH SOLIDS
PHYS. REV., LETT., V.3., P.109 (1959)
NEUTRON SCATTERING IN SOLIDS THEORY/ SOLID/ DISPERSION RELATION/ LATTICE DYNAMICS/ SIGMA(E+PRIME)/ FREQUENCY CORRELATION FUNCTION/ SCATTERING THEORY

SELF-DIFFUSION IN LIQUIDS, PARAFFIN HYDROCARBONS
PHYS. FLUIDS, V.2, P.87 (1959)
PARAFFINE DIFFUSION PARAMETER/ EXPERIMENT/ LIQUID

59-PE-01 PELAH, I./ WHITEMORE, W.L./ MC-REYNOLDS, A.W.
ENERGY DISTRIBUTION OF NEUTRONS SCATTERED BY LIQUID LEAD
PHYS. REV., V.113, P.767-P.768 (1959)
P35, EXPERIMENT/ LIQUID/ SOLID/ TOT/ NEUTRON SPECTRUM/ QUASI-ELASTIC PEAK

59-SW-01 SWALIN, R.A.
ON THE THEORY OF SELF-DIFFUSION IN LIQUID METALS
ACTA META., V.7, P.736-P.740 (1959)
THEORY OF FLUIDS DIFFUSION FLUCTUATION THEORY

59-VG-01 VOLKIN, H.C.
SLOW NEUTRON SCATTERING BY ROTATORS
PHYS. REV., V.113, P.866-P.874 (1959)
NEUTRON SCATTERING IN FLUIDS THEORY/ GAS/ MOLECULAR ROTATIONS SCATTERING THEORY

EXCITATIONS IN LIQUID HELIUM, NEUTRON SCATTERING MEASUREMENTS
PHYS. REV., V.113, P.1379-P.1386 (1959)
HE EXPERIMENT/ LIQUID/ ROTON EXCITATION/ DISPERSION RELATION TOF

60-CO-01 COMEN, M.
RELATION BETWEEN INELASTIC NEUTRON SCATTERING AND THERMODYNAMIC FUNCTIONS OF LIQUID HELIUM
PHYS. REV., V.118, P.27-P.41 (1960)
HE THEORY/ LIQUID

60-CO-02 COMEN, M.
RELATION BETWEEN INELASTIC NEUTRON SCATTERING AND THERMODYNAMIC FUNCTIONS OF LIQUID HELIUM
PHYS. REV., V.118, P.27-P.41 (1960)
HE THEORY NEUTRON SCATTERING THERMODYNAMICS

60-CR-01 CRIJBER, D./ JACROT, B.
QUASI-ELASTIC SCATTERING OF COLD NEUTRONS BY WATER AND SELF-DIFFUSION COEFFICIENT OF THE LIQUIDS (IN FRENCH)
J. PHYS., PARIS, V.21, P.69-P.71 (1960)
H2O EXPERIMENT/ LIQUID/ DISPERSION RELATION/ DIFFUSION PARAMETER

60-EG-01 EGGOLD, A.A.
THE MEASUREMENT OF THE SCATTERING LAW FOR A MODERATOR
AREN-R-3593 (1960)
REVIEW ARTICLES EXPERIMENTAL ARRANGEMENTS AND METHOD.
SCATTERING LAW MEASUREMENTS

60-SC-01 SCOFIELD, P., SPACE-TIME CORRELATION FUNCTION FOR SLOW NEUTRON SCATTERING PHYS. REV., V.119, P.239-P, 240 (1960) SCATTERING THEORIES, SCATTERING THEORY


60-SA-01 SAUNDERTON, D.H., PRESSURE DEPENDENCE OF THE TA(100) ZONE-BOUNDARY PHONON FREQUENCY IN RUBIDIUM TETRIOXIDE PHYS. REV., V.17, P,530 (1960) RB, I, EXPERIMENT, LATTICE DYNAMICS

60-SC-01 SCOFIELD, P., SPACE-TIME CORRELATION FUNCTION FOR SLOW NEUTRON SCATTERING PHYS. REV., V.119, P.239-P, 240 (1960) SCATTERING THEORIES, SCATTERING THEORY


60-SA-01 SAUNDERTON, D.H., PRESSURE DEPENDENCE OF THE TA(100) ZONE-BOUNDARY PHONON FREQUENCY IN RUBIDIUM TETRIOXIDE PHYS. REV., V.17, P,530 (1960) RB, I, EXPERIMENT, LATTICE DYNAMICS
61-BE-02 BERGMA, J./ GOEDKOOP, J.A.,
INELASTIC NEUTRON SCATTERING EXPERIMENTS ON A FEW METAL HYDRIDES
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.301 (1961)
PD=// AL=TH=H/ CA=M . .EXPERIMENT/ FREQUENCY DISTRIBUTION

61-BR-01 BROCKHUSE, B.N./ RAO, K.R./ WOODS, A.D.B.,
IMAGE OF THE FermI SURFACE IN THE LATTICE VIBRATIONS OF LEAD
PHYS. REV., LETT., V.7, P.93 (1961)
PB . .EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

61-BR-02 BROCKHUSE, B.N./ ARASE, T./ CAGLIOTI, G./ SAKAMOTO
D. M./ SINCLAIR, R.N.,
CRYSTAL DYNAMICS OF LEAD
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.239-P.248 (1961)
PB . .EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ PHONON LIFE TiME

61-BR-03 BRUGGER, H.M.,
SLOW NEUTRON INELASTIC SCATTERING MEASUREMENTS AT MTR
INELASTIC SCATTERING OF NEUTRON IN SOLIDS AND LIQUIDS, IAEA, P.277 (1961)
ZR=H/ H2O/ BENZENE/ PARAFFINE/ ALCOHOL ,SIGMA (E, DEF)
PB . .EXPERIMENT/ LIQUIDS/ TOF

61-CH-01 CHUDLEY, C.T./ ELLIOTT, R.J.,
NEUTRON SCATTERING FROM A LIQUID ON A JUMP DIFFUSION MODEL
PROC. PHYS. SOC., LONDON, V.77, P.353-P.361 (1961)
NEUTRON-SCATTERING-IN-LIQUIDS ,.THEORY ,LIQUID DYNAMICS /
JUMP DIFFUSION MODEL

61-CL-01 CLAYTON, G.T./ HEATON, L.,
NEUTRON DIFFRACTION STUDY OF KRYPTON IN THE LIQUID STATE
PHYS. REV., V.121, P.609-P.653 (1961)

61-CR-01 CRIEBIER, D./ JACROT, B./ SAINT-JAMES, D.,
NEUTRON SCATTERING BY PHONON IN A SINGLE CRYSTAL (IN ENGLISH)
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.549 (1961)

61-CR-02 CRIEBIER, D./ JACROT, B.,
QUASI-ELASTIC SCATTERING OF COLD NEUTRONS BY WATER AND SELF-DIFFUSION COEFFICIENT OF THE LIQUIDS (IN FRENCH)
INELASTIC SCATTERING OF NEUTRON IN SOLIDS AND LIQUIDS, IAEA, P.347 (1961)
H2O ,.EXPERIMENT/ QUASI ELASTIC SCATTERING/ 27DC/ 430C

61-DE-01 DE-GENNES, P.G.,
NEUTRON SCATTERING BY 'NORMAL' LIQUIDS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.239-P.249 (1961)
NEUTRON SCATTERING-IN-LIQUIDS ,.THEORY/ NORMAL LIQUIDS

61-DD-01 DOLLING, G.
PHONON DISPERSION RELATIONS FOR A SILICON SINGLE CRYSTAL
INELASTIC SCATTERING OF NEUTRON IN SOLIDS AND LIQUIDS, IAEA, P.363 (1961)
PB ,.EXPERIMENT/ DISPERSION RELATION

61-EG-01 EGELSTAFF, P.A./ COCKING, S.J./ ROYSTON, R.,
The Thermal Neutron Scattering Law For Light And Heavy Water
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.569 (1961)
H2O/ D2O/ PB ,.EXPERIMENT/ LIQUID/ SCATTERING FUNCTION /
FREQUENCY DISTRIBUTION

61-EG-02 EGELSTAFF, P.A./ COCKING, S.J.,
The Phonon Frequency Distribution In Graphite At Several Temperatures
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, P.569 (1961)
GRAPHITE ,.EXPERIMENT/ SCATTERING LAW/ FREQUENCY SPECTRUM ,240DC/ 3360DC/ 425DC/ 610DC/ TOF

61-EG-03 EGELSTAFF, P.A.,
The Treatment Of Thermal Neutron Scattering Law Data
AERE-R-3622 (1961)
SCATTERING-THEORIES ,.SCATTERING THEORY ,DATA TREATMENT

61-EG-04 EGELSTAFF, P.A.,
The Theory Of The Thermal-Neutron Scattering Law
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.25-P.38 (1961)
SCATTERING-THEORIES ,.SCATTERING THEORY/ SCATTERING FUNCTION
61-EL-01 ELLIOTT, R.J./ STERN, H.
LINE WIDTHS IN NEUTRON-PHONON AND NEUTRON-MAGNON SCATTERING
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 61-P.74 (1961)
NEUTRON-SCATTERING IN SOLIDS: THEORY/ SOLID: PHONON LIFETIME

61-GI-01 GISSLER, W./ REINSCHE, C./ SPRINGER, T.
INVESTIGATION OF NEUTRON SCATTERING CROSS-SECTION FOR H+ AND ICE NEAR THE BRAGG CUT-OFF WAVELENGTH (IN GERMANY)
Z. KRISTALLOGR. V.116, P.328-344 (1961)
D2.0/ EXPERIMENT/ THEORY/ SIGMA(E), 40K/ 77K

61-GI-01 GRIFFING, G.W.
INFLUENCE OF THE ROTATIONAL LEVELS ON THE SCATTERING OF SLOW-NEUTRONS BY GASEOUS METHANE
PHYS. REV. V. 124, P. 1489 (1961)
C6H6: THEORY/ MOLECULAR DYNAMICS/ GAS DIFFERENTIAL CROSS SECTION

61-HE-01 HEINLOTH, K./ SPRINGER, T.
THE MEASUREMENT OF THE TOTAL CROSS-SECTION OF H2O BETWEEN 150 AND 2000CC WITH VERY SLOW NEUTRONS
INELASTIC SCATTERING OF NEUTRON IN SOLIDS AND LIQUIDS. IAEA, P. 323 (1961)
H2O: SIGMA(E)/ EXPERIMENT: -1500CC+2000CC

61-HE-02 HEINLOTH, K.
Z. PHYS. V. 163, P. 218 (1961)
H2O/ C6H6/ C6H2O2: SIGMA(E)/ EXPERIMENT/ GAS/ LIQUID/ SOLID/ KRIGER-NELKIN MODEL/ TRANSMISSION

61-HE-03 HENSLOW, D.G./ WOODS, A.D.B.
MODES OF ATOMIC MOTIONS IN LIQUID HELIUM BY INELASTIC SCATTERING OF NEUTRONS
PHYS. REV. V. 121, P. 1266-1274 (1961)
HE: EXPERIMENT/ LIQUID/ DISPERSION RELATION: 1.78-4.2 10K

61-HO-01 HONECK, H.C.
GAKER
BNL 5826 (1961)
COMPUTER-CODES

61-IY-01 IYENGAR, P.K./ SATYA-MURTHY, N.S./ DASANNACHARYA, B.A.
INELASTIC SCATTERING OF NEUTRONS FROM IRON INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 555 (1961)

61-IE-01 IYENGAR, P.K./ SATYA-MURTHY, N.S./ DASANNACHARYA, B.A.
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 555 (1961)

61-EL-01 KRIEGER, T.J.
INFLUENCE OF ERODING BEHAVIOR ON THE SCATTERING OF SLOW NEUTRONS BY HARMONIC OSCILLATOR
PHYS. REV., V. 121, P. 1388-1390 (1961)
NEUTRON-SCATTERING IN SOLIDS: THEORY

61-AR-01 LASTON, K.E./ HOMMY, S./ OTNES, K.
COLD NEUTRON SCATTERING EXPERIMENTS ON LIGHT AND HEAVY WATER INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 329 (1961)
H2O/ D2O: EXPERIMENT

61-AR-02 LASTON, K.E./ HOMMY, S./ DAHLBORG, V.
MEASUREMENTS OF THE TEMPERATURE DEPENDENCE OF THE PHONONS IN ALUMINUM INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, V. 1, P. 87 (1961)
AL: EXPERIMENT/ SOLID/ DISPERSION RELATION

61-MA-01 MARSHALL, W./ STUART, R.
THE SCATTERING OF NEUTRONS FROM POLYCRYSTALLINE MATERIALS INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 75-256 (1961)
NEUTRON-SCATTERING IN SOLIDS: THEORY/ SIGMA(E)/ PLACE EK'S INCOHERENT APPROXIMATION

61-MC-01 MCLATCHIE, R.C.F./ HEARD, C./ EGELETTA, P.A./ SCHOFIELD, P.
EXAMPLES OF THE THERMAL NEUTRON SCATTERING LAW AERE-R-2847 (1961)
SCATTERING-THEORIES/ SCATTERING LAW/ DEBYE APPROXIMATION ON SOLID/ LIQUID/ THEORY

61-M1-01 MØKK, K.
THE SCATTERING OF SLOW NEUTRONS BY LIGHT AND HEAVY WATER INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 351-356 (1961)
H2O/ D2O: EXPERIMENT

61-MO-01 MORALES-AMADO, A./ OSBORN, R.K.
SLOW NEUTRON SCATTERING BY NORMAL LIQUIDS ACCORDING TO THE SMEARED POTENTIAL MODEL INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, P. 251-256 (1961)
NEUTRON-SCATTERING IN FLUIDS: THEORY

61-NE-01 NELKIN, M.
SLOW-NEUTRON INELASTIC SCATTERING AND NEUTRON THERMALIZATION
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.3-P.24 (1961)
REVIEW-ARTICLES

61-PA-01 PALEVSKY, H.
A STUDY OF THE DIFFUSIVE MOTIONS OF LIQUIDS BY MEANS OF COLD-NEUTRON SCATTERING EXPERIMENTS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.265 (1961)
H2O, PB, SN, EXPERIMENT, LIQUID, ROOM TEMPERATURE, 452°C FOR Pb, 350°C FOR SN, BE-FILTER METHOD, GASEOUS ELASTIC SCATTERING

61-PA-02 PALEVSKY, H.
COLD-NEUTRON SCATTERING EXPERIMENTS WITH LIQUID HELIUM
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.223 (1961)
HE, EXPERIMENT, LIQUID, DISPERSION RELATION

61-PA-03 PARKS, D.E.
RELATION OF CRYSTAL SYMMETRY IN GRAPHITE TO LATTICE VIBRATIONS ON THEIR INTERACTION WITH SLOW NEUTRONS
GA-2129 (1961)
GRAPHITE, LATTICE DYNAMICS

61-PA-04 PARKS, D.E.
THE CALCULATION OF THERMAL-NEUTRON SCATTERING KERNELS IN GRAPHITE
GA-2488 (1961)
GRAPHITE, THEORY, SCATTERING KERNELS

61-PE-01 PELAH, J./ LEEKOW, I.
INELASTIC NEUTRON SPECTRA FROM FERRO-ELECTRIC AND PARA-ELECTRIC BaTiO3 INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.601 (1961)
BaTiO3, FERROELECTRICITY, PARAELECTRICITY, EXPERIMENT

61-RA-01 RAHMAN, A./ SINGHI, K.S./ SJOELANDER, A.
DYNAMICS OF ATOMIC MOTIONS IN LIQUIDS AND COLD NEUTRON SCATTERING
PHYS. REV., V.122, P.9-P.12 (1961)
NEUTRON-SCATTERING-IN-LIQUIDS/PB, THEORY, LIQUID DYNAMICS

61-RA-02 RAHMAN, A.
SCATTERING OF SLOW NEUTRONS BY MOLECULES
NEUTRON-SCATTERING-IN-LIQUIDS, METHANE, THEORY, SCATTERING FUNCTION

61-RA-03 RAHMAN, A.
SCATTERING OF SLOW NEUTRONS BY MOLECULES
NEUTRON-SCATTERING-IN-LIQUIDS, THEORIES, MOLECULAR DYNAMICS

61-RA-04 RANDOLPH, P.D./ BRUGGER, R.M./ STRONG, K.A./ SCHMU KNR, R.E.
INELASTIC SCATTERING OF SLOW NEUTRONS FROM METHANE
PHYS. REV., V.124, P.460-P.469 (1961)
METHANE, GASEOUS SCATTERING LAW, EXPERIMENT, TOF, MOLECULAR DYNAMICS, ROOM TEMPERATURE

61-RI-01 RICE, S.A./ ALLNATT, A.R.
ON THE KINETIC THEORY OF DENSE FLUIDS, 1, SINGLET DISTRIBUTION FUNCTION FOR RIGID SPHERES WITH AN ATTRACTIVE POTENTIAL
J. CHEM. PHYS., V.34, P.2144-P.2155 (1961)
THEORY-OF-FLUIDS, LIQUID DYNAMICS

PROTON SCATTERING IN SOLIDS BY SLOW NEUTRON SCATTERING CROSS SECTIONS
K.H2P.04/ (N,H2)2.CR.04/ (N,H4)2.CR.07/ (N,H4).C.N.S/ (N,H4).CL.04/ EXPERIMENT, MOLECULAR DYNAMICS, TOTAL CROSS SECTION, NEUTRON WAVELENGTH

61-SA-01 SARMA, G.
SCATTERING OF SLOW NEUTRONS BY LIQUID HYDROGEN (IN FRENCH)
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.397-P.408 (1961)
H2, THEORY, MOLECULAR DYNAMICS, LIQUID

61-SC-01 SCALETAR, R.
THE EFFECT OF CRYSTAL ANHARMONICITIES ON NEUTRON SCATTERING
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.101-P.107 (1961)
NEUTRON-SCATTERING-IN-SOLIDS, THEORIES, SCATTERING FUNCTION

61-SC-02 SCHOFIELD, P.
SOME PROPERTIES OF THE SPACE-TIME CORRELATION FUNCTION
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P.39-P.50 (1961)
SCATTERING-THEORIES, SCATTERING THEORY, SPACE-TIME CORRELATION FUNCTION
61-SP-01 SPRIEGER, T.
SCATTERING OF SLOW NEUTRON IN WATER, ICE AND WATER VAPOR
Nukleonik, V. 3, p. 110 (1961)
H2O, THEORY/EXPERIMENT/SOLID/LIQUID/GAS/SIGMA(THETA)/FREQUENCY SPECTRUM

61-SP-02 SPRIEGER, T./WIEDMAN, W.
INVESTIGATIONS OF THE SCATTERING CROSS SECTION IN ICE
OR VERY SLOW NEUTRONS AT 40K
H2O, EXPERIMENT/SIGMA(THETA)/ICE

61-ST-01 STILLER, H./DANNEN, H.
QUASI-ELASTIC AND INELASTIC SCATTERING OF COLD NEUTRONS
FROM WATER
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 363-P. 373 (1961)
H2O, EXPERIMENT/SIGMA(THETA)/E

61-TU-01 TURBERFIELD, K.C./EGELSTAFF, P.A.
THE PHONON FREQUENCY DISTRIBUTION IN VANADIUM AT SEVERAL TEMPERATURES
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 581 (1961)
V, EXPERIMENT/SOLID/FREQUENCY SPECTRUM

61-TU-02 TURNER, R.E.
THE QUASI-CLASSICAL APPROXIMATION FOR NEUTRON SCATTERING
PHYSICA, V. 27, P. 260-P. 264 (1961)
SCATTERING THEORIES, THEORY/

61-WH-01 WHITTEMORE, W.L./MCREYNOLDS, A.M.
INELASTIC SCATTERING OF THERMAL NEUTRONS PRODUCED BY AN ELECTRON ACCELERATOR
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P. 511-P. 529 (1961)
H2O, D2O, EXPERIMENT/

61-WO-01 WOODS, A.D.B./BROCKHOUSE, B.N./SAKAMOTO, M./SINCLAIR, R.N.
ENERGY DISTRIBUTIONS OF NEUTRON SCATTERED FROM GRAPHITE
LIGHT AND HEAVY WATER, ICE, ZIRCONIUM HYDROXIDE, LITHIUM HYDROXIDE, SODIUM HYDROXIDE AND AMMONIUM CHLORIDE BY THE BERYLLIUM DETECTOR METHOD
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, P. 487 (1961)
GRAPHITE, H2O, D2O, ZR/H, LI/H, NA/H, NH4, CL, EXPERIMENT/CRYSTAL SPECTROMETER/FREQUENCY DISTRIBUTION

62-AA-01 AAMOT, P./CASE, K.H./ROSENAU, M./ZWEIFEL, P.
QUASI-CLASSICAL TREATMENT OF NEUTRON SCATTERING
PHYS. REV., V. 132, P. 1165-P. 1167 (1962)
SCATTERING THEORIES, SCATTERING THEORY

62-BE-01 BECK, L.H.
FREQUENCY DISTRIBUTION OF HEXAMETHYLENETETRAMINE CRISTALS
HEXAMETHYLENETETRAMINE, EXPERIMENT/NEUTRON SPECTROMETRY, D00K/300K/

62-BQ-01 BOFFI, V.C./MOLINARI, V.C./PAKAS, D.E.
SLOW NEUTRON SCATTERING AND THERMALIZATION BY BENZENE AND OTHER POLYVINYLS
BNL-719 (C-32), V. 1, P. 69 (1962)
BENZENE, THEORY/MOLECULAR DYNAMICS/FREQUENCY DISTRIBUTION, SCATTERING CROSS SECTION/NEUTRON SPECTRUM

CRYSTAL DYNAMICS OF LEAD I. DISPERSION CURVES AT 100K
PHYS. REV., V. 128, P. 1899 (1962)
PB, EXPERIMENT/LATTICE DYNAMICS/DISPERSION RELATION, CRYSTAL SPECTROMETER/100K

62-BR-02 BRUGGER, R.M.
EXPERIMENTAL INFORMATION FOR THERMALIZATION PROBLEMS
BNL-719 (C-32), V. 1, P. 1 (1962)
METHANE, H2O, D2O, PROPANE, THEORY/EXPERIMENT/SCATTERING FUNCTION

62-BR-03 BRUGGER, R.M.
SCATTERING OF SLOW NEUTRONS BY SOLID AND LIQUID TERPHENYL
PHYS. REV., V. 132, P. 29 (1962)
TERPHENYL, SCATTERING LAW, EXPERIMENT/SOLID/LIQUID, 230C, 207C

62-BR-04 BRUGGER, R.M.
COMPILATION OF REDUCED SLOW NEUTRON PARTIAL DIFFERENTIAL SCATTERING CROSS SECTIONS
BNL-719 (C-32), V. 1, P. 3 (1962)
BE, B2O, GRAPHITE, H2O, D2O, METHANE, PROPANE, TERPHENYL, COMPILATIONS, SCATTERING FUNCTION/SIGMA(E-PRI-ME+THETA)

62-CA-01 CAGLIOTI, G./RICCI, P.F.
THE STRUCTURE OF LIQUID BROMINE
NUOVO CIM., V. 24, P. 103 (1962)
ON THE EVALUATION OF THE THERMAL NEUTRON SCATTERING LAW
NUCL. SCI. ENG., V.12, P.260 (1962)
SCATTERING-THEORIES / H2O / PB / EXPERIMENT / THEORY / LIQUID / DIFFUSION PARAMETER / ROOM TEMPERATURE FOR H2O / MELTING POINT FOR PB

62-E6-04 EGELSTAFF, P.A.,
THE SCATTERING OF THERMAL NEUTRONS BY MODERATORS
NUCL. SCI. ENG., V.12, P.250-P.259 (1962)
H2O / D2O / GRAPHITE / BE / SCATTERING FUNCTION / FREQUENCY DISTRIBUTION / THEORY / EVALUATION

62-E6-05 EGELSTAFF, P.A.,
THE SCATTERING OF COLD NEUTRONS BY METALS
AERE-R-4101 (1962)
MG / BE / PB / THEORY / SOLID / LIQUID / SIGMA(E, E-PRIME, T, HETA) / METAL LIQUID METAL

62-DE-01 FERZIGER, J.H., LEONARD, A.,
MULTIPLE SCATTERING OF NEUTRONS IN THE STATIC APPROXIMATION
PHYS. REV., V.128, P.2168-P.2179 (1962)
SCATTERING-THEORIES / THEORY / DIFFRACTION

62-FU-01 FURUKAWA, K.,
THE RADIAL DISTRIBUTION CURVES OF LIQUIDS BY DIFFRACTION METHODS
REVIEW-ARTICLES / LIQUID / EXPERIMENT / NEUTRON SCATTERING / RADIAL DISTRIBUTION / X-RAY SCATTERING / POLYATOMIC LIQUIDS / ELECTRONS-COMPUTING / LIQUID METAL / VAN DER WAALS LIQUIDS

62-G1-01 GINGRICH, N.S., TOMPSON, C.W.,
ATOMIC DISTRIBUTION IN LIQUID ARGON NEAR THE TRIPLE POINT
J. CHEM. PHYS., V.36, P.2398-P.2400 (1962)
ARGON / EXPERIMENT / LIQUID / X-RAY

62-G6-01 GLAUBER, R.J.,
SCATTERING OF NEUTRONS BY STATISTICAL MEDIA
LECTURES IN THEORETICAL PHYSICS (ED. BY BRITTON, W.E. ET AL.), V.4, P.571-P.615 (1962)
NEUTRON-SCATTERING-IN-FLUIDS / THEORY

62-GO-01 GOESSMAN, G.,
CALCULATION OF THE TOTAL CROSS SECTION FOR THE SCATTERING OF SUBTHERMAL NEUTRONS IN WATER AND ICE BY A CRYSTAL MODEL (IN GERMANY)
NUKLEONIKA, V.4, P.110 (1962)
H2O / THEORY / CROSS SECTION EVALUATION
62-GO-02 GOLDMAN, D.T./ FEDERIGHI, F.D.
CALCULATION OF THERMAL NEUTRON FLUX SPECTRA IN AN INFINI-
TE POLYETHYLENE MODERATED MEDIUM WITH VARYING AMOUNTS O
OF ABSORPTION
BNL-719 (C-32), P.1, P.100 (1962)
POLYETHYLENE, SCATTERING THEORY, NEUTRON SPECTRUM, FRE-
QUENCY DISTRIBUTION

62-GR-01 GRIFFING, G.W.
INFLUENCE OF INTERFERENCE SCATTERING ON THE SCATTERING
OF SLOW NEUTRONS BY GASEOUS METHANE
PHYS. REV., V.127, P.1179-P.1181 (1962)
METHANE, GAS, EXPERIMENT, CALCULATION

62-HA-01 HAYWOOD, B.C./ THORSON, I.M.
THE SCATTERING LAW FOR LIGHT AND HEAVY WATER AT 20DC AN
D 150DC
BNL-719 (C-32), P.1, P.26 (1962)
D2O,H2O, EXPERIMENT, SCATTERING FUNCTION, FREQUENCY
DISTRIBUTION, 20DC, 150DC

62-HO-01 HONKANLA, B.C.
AN INCOHERENT TERMAL SCATTERING MODEL FOR HEAVY WATER
TRANS., AM. NUCL. SOC., V.5, P.47-P.48 (1962)
D2O, SIGMA, CALCULATION

62-KO-01 KOKKEDEE, J.J.
INFLUENCE OF ELECTRON-PHONON INTERACTION ON THE SCATTER
ING OF NEUTRONS BY CONDUCTING CRYSTALS
PHYSICA, V.28, P.893-P.907 (1962)
NEUTRON-SCATTERING IN SOLIDS, THEORY, ELECTRON-PHONON
INTERACTIONS

62-KO-02 KOKKEDEE, J.J.
ANHARMONIC EFFECTS IN THE COHERENT SCATTERING OF NEUTRO
NS BY CRYSTALS
PHYSICA, V.28, P.374-P.408 (1962)
NEUTRON-SCATTERING IN SOLIDS, THEORY, CRYSTAL, COHERENT
SCATTERING, ANHARMONICITY

62-KO-03 KOSALY, G./ TURNER, R.E.
QUASI-CLASSICAL APPROXIMATION IN NEUTRON SCATTERING
PHYS. LETT., V.2, P.266-P.268 (1962)
SCATTERING, THEORIES, QUASI-CLASSICAL APPROXIMATION

62-KO-04 KOTHARI, L.S.
THERMAL NEUTRON SCATTERING IN GRAPHITE
BNL-719 (C-32), P.1, P.117 (1962)
GRAPHITE, DIFFUSION PARAMETER

62-LA-01 LARSSON, K.E./ DAHLBORG, U.
SOME VIBRATIONAL PROPERTIES OF SOLID AND LIQUID H2O AN
D D2O DERIVED FROM EXPERIMENTAL CROSS-SECTION MEASUREM
ENTS
J. NUCL. ENERGY, V.16, P.81-P.89 (1962)
H2O, D2O, EXPERIMENT, LIQUID DYNAMICS, 10DC TO 90DC

62-LA-02 LARSSON, K.E./ SINGH, K.S.
COLD NEUTRON SCATTERING AND DIFFUSIVE MOTIONS IN HYDROG
EN BOND LIQUIDS
PHYS. LETT., V.3, P.145 (1962)
H2O, LIQUID, DIFFUSIVE MOTION, THEORY

62-LE-01 LEHMANN, G.W./ WOLFRAH, T./ DE-VAANES, R.E.
AXIALLY SYMMETRIC MODEL FOR LATTICE DYNAMICS OF METALS
WITH APPLICATION TO Cu, Al AND Zn-H2
PHYS. REV., V.128, P.1593 (1962)
Cu, Al, Zn-H, THEORY, LATTICE DYNAMICS, DISPERSION REL
ATION

62-LI-01 LIN, T.P./ KOENIG, J.L.
A METHOD FOR THE COMPLETE VIBRATIONAL ANALYSIS OF THE I
SOLATED POLYETHYLENE CHAIN
J. MOL. SPECTROSC., V.9, P.228 (1962)
POLYETHYLENE, THEORY, SOLID, MOLECULAR DYNAMICS

62-LI-02 LINDENMETER, C.W.
COMPARISON OF NELKIN'S WATER KERNEL WITH EXPERIMENTS
NW-7522 (1962)
H2O, THEORY, CROSS SECTION EVALUATION

62-LO-01 LOW, G.G.E.
SOME MEASUREMENTS OF PHONON DISPERSION RELATIONS IN IRO
N
PROC. PHYS. SOC., LONDON, V.79, P.479 (1962)
FE, EXPERIMENT, SOLID, DISPERSION RELATION

62-MA-01 MACDOUGALL, J.D.
APPLICATION OF SCATTERING LAW DATA TO THE CALCULATION O
F THERMAL NEUTRON SPECTRA
BNL-719 (C-32), V.1, P.121 (1962)
GRAPHITE, THEORY, NEUTRON SPECTRUM, SCATTERING FUNCTION
CROSS SECTION EVALUATION

62-MA-02 MCLAUCHLIN, R.C.F.
LEAP, AN IBM-7090 FORTRAN II CODE FOR THE EVALUATION OF
THE THERMAL NEUTRON SCATTERING LAW
HARWELL INTERNAL REPORT (1962)
COMPUTER-CODES

62-MA-03 MARADUDIN, A.A./ FEIN, A.E.
SCATTERING OF NEUTRONS BY ANHARMONIC CRYSTAL
PHYS. REV., V.128, P.2589-P.2608 (1962)
NEUTRON-SCATTERING-IN-SOLIDS ... THEOR Y-ANHARMONICITY ... ON E PHONON COHERENT SCATTERING/ PHONON PEAK WIDTH AND SHI FT/ CUBIC CRYSTAL

62-MC-01 McMurry, H.L./ Gannon, L.J./ Hestir, W.A.
EVALUATION OF TECHNIQUES FOR COMPUTING DIFFERENTIAL SCA TTERING CROSS SECTION
BNL-719 (C-32), V.1, P.172 (1962)
NEUTRON-SCATTERING-IN-SOLIDS ... THEORY/ GAS/ DIFFERENTIAL CROSS SECT ION

62-MC-02 McMurry, H.L.
CALCULATION OF DIFFERENTIAL SCATTERING CROSS SECTIONS FOR SLOW NEUTRONS
BNL-719 (C-32), V.1, P.144 (1962)
NEUTRON-SCATTERING-IN-FLUIDS ... THEORY/ GAS/ DIFFERENTIAL CROSS SECTION

62-MC-03 McMurry, H.L.
DIFFERENTIAL SCATTERING CROSS SECTIONS OF MODERATORS IN THE SHORT COLLISION TIME APPROXIMATION PART I, THEORETICAL
IDO-16749 (1962)
SCATTERING-THEORIES ... THEORY/ MOLECULAR ROTATIONS/ MOLECULAR VIBRATIONS/ SIGMA/E+PRIME/THETA/ MOLECULAR DYNAMICS

62-MO-01 Mozer, B./ Otnes, K./ Myers, V.M.
MEASUREMENTS OF A SIMPLE DEFECT MODE OF VIBRATION
PHYS, REV., LETT., V.8, P.278 (1962)
N1-PD ... EXPERIMENT/ LATTICE VIBRATION ... DEFECT MODE/ DI SORDERED ALLOYS

62-NE-01 Nemethy, G./ Schraga, H.A.
STRUCTURE OF WATER AND HYDROPHOBIC BONDING IN PROTEINS I: A MODEL FOR THE THERMODYNAMIC PROPERTIES OF LIQUID WATER
J. CHEM. PHYS., V.36, P.3382-P.3400 (1962)
H2-O ... THEORY ... MOLECULAR DYNAMICS ... LIQUID DYNAMICS

62-PA-01 Parks, D.E./ Beyster, J.R./ Wikner, N.F.
THERMAL NEUTRON SPECTRA IN GRAPHITE
NUCL, SCI. ENG., V.13, P.306 (1962)
GRAPHITE ... EXPERIMENT/ NEUTRON SPECTRA

62-PA-02 Parry, W.E./ Turner, R.E.
TEMPERATURE-DEPENDENT GREEN FUNCTIONS AND NEUTRON SCATTER ING IN LIQUID HELIUM II
ANN. PHYS., N.Y., V.17, P.301-P.317 (1962)
HE/ NEUTRON-SCATTERING-IN-FLUIDS ... THEORY/ LIQUID/ SCATTERING LAW/ CORRELATION FUNCTION ... LIQUID HELIUM

62-PU-01 Purohit, S.N./ Rajagopal, A.K.
SCATTERING OF THERMAL NEUTRONS IN DOPPLER APPROXIMATION
NUCL, SCI. ENG., V.13, P.250-P.260 (1962)
SCATTERING-THEORIES ... SCATTERING THEORY/ SIGMA(E)

62-PU-02 Purohit, S.N./ Rajagopal, A.K.
SCATTERING OF THERMAL NEUTRONS IN THE DOPPLER APPROXIMATION
BNL-719 (C-32), V.1, P.238 (1962)
SCATTERING-THEORIES ... SCATTERING THEORY

62-PU-03 Purohit, S.N.
NEUTRON THERMALIZATION IN A CRYSTALLINE MEDIUM IN INCOHERENT APPROXIMATION
BNL-719 (C-32), V.1, P.203 (1962)
NEUTRON-SCATTERING-IN-SOLIDS ... THEORY/ NEUTRON SPECTRUM ... CRYSTAL

THEORY OF SLOW NEUTRON SCATTERING BY LIQUIDS I.
PHYS, REV., V.126, P.986-P.996 (1962)
NEUTRON-SCATTERING-IN-FLUIDS ... THEORY ... LIQUID DYNAMICS

STOCHASTIC MODEL OF A LIQUID AND COLD NEUTRON SCATTERING G.
PHYS, REV., V.126, P.997-P.1004 (1962)
NEUTRON-SCATTERING-IN-FLUIDS ... THEORY ... LIQUID DYNAMICS

62-RO-01 Rosenbaum, M./ Zweifel, P.F.
COMPARISON OF CLASSICAL AND QUASI-CLASSICAL CROSS SECTIONS FOR SOME SIMPLE SYSTEMS
BNL-719 (C-32), V.1, P.276 (1962)
H2-O ... THEORY ... DIFFERENTIAL SCATTERING CROSS SECTION ... 293K

ROTATIONAL FREEDOM OF AMMONIUM IONS AND METHYL GROUPS BY CROSS-SECTION MEASUREMENTS WITH SLOW NEUTRONS
J. CHEM. PHYS., V.37, P.234-P.238 (1962)
N-H4-CL/ N-H4.I/ N-H4.F/ N-H4.BR/ BENZENE/ TOLUENE/ MES ITYLENE/ XYLENE ... EXPERIMENT/ TOTAL CROSS SECTION VS. N EURON WAVELENGTH

THE EFFECT OF ROTATIONAL FREEDOM IN SEVERAL AMMONIUM SALTS AND METHYL ACETYLENE ON THE INELASTIC SCATTERING OF SLOW NEUTRONS
NUCL, SCI. ENG., V.14, P.339-P.345 (1962)
N,H₄,P,F₆/ (N,H₄)₂,S₂,O₁₂/ (N,H₄)₂,CR,O₄/ N,H₄,S,O₃,F/O D IMETHYLACETYLENE, EXPERIMENT/MOLECULAR DYNAMICS, CROSSED SECTION VS. NEUTRON WAVELENGTH

62-SA-01 SAKAMOTO, M./ BROCKHOUSE, B.N./ JOHNSON, R.H./ POP E, N.K.
NEUTRON INELASTIC SCATTERING STUDY OF WATER
J. PHYS. SOC. JAP., V.17, Suppl. B2, P.370 (1962)
H₂O, EXPERIMENT/ LIQUID/ SCATTERING FUNCTION, 250°C/ 750°C/ QUASI-ELASTIC SCATTERING/ DIFFUSION BROADENING

62-SC-01 SCHMUNK, R.E./ BRUGGER, R.M./ RANDOLPH, P.D./ STOHNG, K.A.
LATTICE DYNAMICS OF BERYLLIUM
PHYS. REV., V.128, P.362 (1962)
BE, EXPERIMENT/SOLID/ DISPERSION RELATION

62-SC-02 SCHOFIELD, R.P.
THEORETICAL ASPECTS OF THE SCATTERING LAW
BNL-719 (C-32), V.1, P.1 (1962)
H₂O/ GRAPHITE, THEORY/ COMPILATION

62-SO-01 SOSNOWSKI, J./ KOZUBOWSKY, J.
PHONON DISPERSION RELATIONS FOR COPPER SINGLE CRYSTAL I N THE 1003D I NDI ECTION
J. PHYS. CHEM. SOLIDS, V.23, P.1,021 (1962)
CU, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

62-ST-01 STILLER, M./ HAUTECOEUR, S.
ENERGY DISTRIBUTIONS OF COLD NEUTRONS SCATTERED FROM LIQUID METHANE
Z. PHYS., V.166, P.393-P.405 (1962)
METHANE, EXPERIMENT/ MOLECULAR DYNAMICS/ LIQUID

62-ST-02 STRONG, K.A./ MARSHALL, G.D./ BRUGGER, R.M./ RANDOLPH, P.D.
SCATTERING OF SLOW NEUTRONS FROM PROPANE GAS
PHYS. REV., V.125, P.933 (1962)
PROPANE

62-TA-01 TATSUMI, M./ SHIMANOUCHI, T./ MIYAZAWA, T.
NORMAL VIBRATIONS AND FORCE CONSTANTS OF POLYMYTHENE CHAIN
J. MOI. SPECTROSC., V.9, P.261 (1962)
POLYMYTHENE, THEORY/ SOLID/ MOLECULAR DYNAMICS

62-TU-01 TURBERFIELD, K.C.
THE ATOMIC MOTIONS IN LIQUID LEAD
PROC. PHYS. SOC., LONDON, V.80, P.395 (1962)
PB, EXPERIMENT/ LIQUID, 340°C/ 520°C/ 324°C

62-TU-02 TURBERFIELD, K.C./ EGELSTAFF, P.A.
PHONON FREQUENCY IN VANADIUM AT SEVERAL TEMPERATURES
PHYS. REV., V.127, P.1,017 (1962)
V, EXPERIMENT

62-WO-01 WOODS, A.D.B./ BROCKHOUSE, B.N./ MARCH, R.H./ BOWERS, R.
NORMA L VIBRATIONS OF SODIUM
PROC. PHYS. SOC., LONDON, V.79, P.440 (1962)
NA, EXPERIMENT/ SOLID/ DISPERSION RELATION

CRYSTAL DYNAMICS OF SODIUM AT 90 DK
PHYS. REV., V.128, P.1,112 (1962)
NA, EXPERIMENT/ SOLID/ DISPERSION RELATION, 90 DK

62-YI-01 YIP, S./ OSBORN, R.K.
HINDERED ROTATION IN LIQUIDS AND SLOW-NEUTRON SCATTERING
BNL-719 (C-32), V.1, P.289 (1962)
NEUTRON-SCATTERING-IN-FLUIDS, SCATTERING THEORY LIQUID

62-ZE-01 ZEMLYANOVA, M.G./ CHENNIKROKOV, N.A.
INVESTIGATION OF INELASTIC SCATTERING OF SLOW NEUTRONS BY CERTAIN HYDROGEN-CONTAINING SUBSTANCES
BNL-719 (C-32), V.1, P.66 (1962)
POLYMYTHENE/ BENZENE/ BIPHENYL, EXPERIMENT/ MOLECULAR DYNAMICS

63-AK-01 AKMUEZER, A.I./ AKMUEZER, I.A./ POMERANCHUK, I.Y.
ON SCATTERING OF SLOW NEUTRONS IN A FERMI LIQUID
NUCL. PHYS., V.40, P.1,39 (1963)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/ LIQUID, FERMI LIQUID/ ZERO-SOUND/ SPIN

63-AR-01 ARNOLD, G.P./ NEHERSON, N.G.
NEUTRON COHERENT-SCATTERING AMPLITUDES OF GA IN AS AN D SB
PHYS. REV., V.131, P.2,098 (1963)
GA/ IN/ SB, AS, EXPERIMENT/ SCATTERING AMPLITUDE

63-BA-01 BAJORI, A./ SOLIKOV, V.V./ ZHUKOVSKAYA, L./ SHAPIRO, A./ SHUKUTULA, A.
QUASI-ELASTIC SCATTERING OF SLOW NEUTRONS IN WATER INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS
IAEA, V.2, P.383-P.388 (1963)
H₂O

63-BA-02 BALLY, D./ TARINA, V./ TOUJRENEAU, S.
THE SCATTERING OF SLOW NEUTRONS FROM HYDROGEN AND ETHYL ENE
63-BA-03 BARGONOV, G./ CAGLIOTI, G./ ANTAL, J.J.,
A STUDY OF THE CRYSTAL DYNAMICS OF ZINC
PHYS. REV.. V.132, P.683 (1963)
ZN ..EXPERIMENT/ SOLID/ DISPERSION RELATION

63-BA-04 BARRON, T.H.K./ LEADBETTER, A.J./ MORRISON, J.A./ SALTER, L.S.,
THE CALCULATION OF DEBYE-WALLER FACTORS FROM THERMODYNA
MIC DATA
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQ
UIDS, IAEA, V.1, P.49 (1963)
THEORY-OF-SOLIDS ..DEBYE-WALLER FACTORS/ THEORY

63-BE-01 BECKA, L.N.,
NEUTRON INELASTIC SCATTERING STUDIES OF GLOBULAR COMPOUNDS
J. CHEM. PHYS., V.38, P.1685-P.1688 (1963)
CYCLOHEXANE/ DIMETHYLBUTANE/ DIAZOSICLOOCTANE ..EXPERIMENT/ TOF

63-BE-02 BOFFI, V.C./ MOLINARI, V.G./ PARKS, D.E.,
SLOW NEUTRON SCATTERING BY BENZENES
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS,
IAEA, V.1, P.285 (1963)
C6H6 ..SIGMA(E)/ SCATTERING LAW/ FREQUENCY DISTRIBUTION
H/ THEORY/ GAS/ MOLECULAR DYNAMICS

63-BR-01 BRAJIOVIĆ, V./ BOUTIN, H./ SAFFORD, G.J./ PALEVSKY, H.,
A STUDY OF ROTATIONAL FREEDOM IN SEVERAL AMMONIUM SALTS
BY SLOW NEUTRON INELASTIC SCATTERING
J. PHYS. CHEM. SOLIDS, V.24, P.617-628 (1963)
NH4PF6/ NH4<1>/ (NH4)<2>2S08/ NH4S03F ..EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS

63-BR-02 BROCKHOUSE, B.N./ BERGSMAN, J./ DASANNACHARYA, B.A./ PEPPE, N.K.,
INELASTIC DYNAMICS FROM NEUTRON SPECTROMETRY
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V.1, P.189-P.202 (1963)
H2O/Ar/He ..EXPERIMENT/ LIQUID

63-BR-03 BROCKHOUSE, B.N./ BECKA, L.N./ RAO, K.R./ WOODS, A.,
DETERMINATION OF POLARIZATION VECTORS FROM NEUTRON GROUP
P-INTENSITIES
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V.2, P.23 (1963)
GE ..EXPERIMENT/ LATTICE DYNAMICS

63-BR-04 BROCKHOUSE, B.N./ DASANNACHARYA, B.A.,
TEMPERATURE EFFECTS ON LATTICE VIBRATIONS IN GERMANIUM
SOLID STATE COMMUN., V.1, P.205 (1963)
GE ..EXPERIMENT/ DISPERSION RELATION ..TEMPERATURE EFFECTS

63-BU-01 BUTLER, D.,
THE SCATTERING OF SLOW NEUTRONS BY HEAVY WATER 2., INT
MOLECULAR SCATTERING
PROC. PHYS. SOC., LONDON, V.81, P.294-P.299 (1963)
D2O ..LIQUID/ THEORY/ SIGMA (E)

63-BU-02 BUTLER, D.,
THE SCATTERING OF SLOW NEUTRONS BY HEAVY WATER 1., INT
MOLECULAR SCATTERING
PROC. PHYS. SOC., LONDON, V.81, P.276-P.293 (1963)
D2O ..LIQUID/ THEORY/ SCATTERING LAW

63-CA-01 CAGLIOTI, G./ ASCARELLI, P.,
NEUTRON SPECTROSCOPY WORK AT THE CNEN
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS,
IAEA, V.1, P.299 (1963)
BR ..LIQUID/ EXPERIMENT

63-CH-01 CHERNOPEEKOVI, N.A./ ZEMLYANOV, M.G./ BROVMAN, E.G./
CHICHEKIN, A.G.,
A STUDY OF THE INELASTIC SCATTERING OF NEUTRONS IN A TiZr ALLOY
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS,
IAEA, V.2, P.173 (1963)
Ti2Zr ..FREQUENCY DISTRIBUTION/ EXPERIMENT ..ALLOY

63-CO-01 COCHRAN, W.,
LATTICE DYNAMICS OF SODIUM
PROC. ROY. SOC., LONDON, SER. A, V.276, P.508 (1963)
NA ..THEORY/ SOLID/ DISPERSION RELATION

63-CO-02 COCHRAN, W./ COWLEY, R.A.,
DIELECTRIC CONSTANTS AND LATTICE VIBRATION IN IONIC CRYSTALS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS,
IAEA, V.1, P.59 (1963)
THEORY-OF-SOLIDS . . . LATTICE DYNAMICS/ THEORY

63-CO-03 COCHRAN, W. A.; COWLEY, R. A.; BROCKHOUSE, B. N.; WOODS, A. D.
LATTICE DYNAMICS OF ALKALI HALIDE CRYSTALS, III. THEORETICAL
PHYS. REV., V. 131, P. 1030 (1963)
K, B, R/ NA. I . . . THEORY/ PHONON DISPERSION

63-CO-04 COCKING, S. J.;
STUDIES OF LIQUID SODIUM BY INELASTIC SCATTERING OF SLOW NEUTRONS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 4, P. 227 (1963)
NA . . . EXPERIMENT/ LIQUID . . . DOUBLE DIFFERENTIAL CROSS SECTION

63-CO-05 COCKING, S. J.; GUNER, Z.
COMPARATIVE STUDIES OF SLOW NEUTRON SCATTERING BY SOLID AND LIQUID TIN
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 237 (1963)
SN . . . EXPERIMENT/ SOLID/ LIQUID

63-CO-06 COLE, G. A.
SCATTERING OF SMALL-WAVE LENGTH NEUTRONS BY SQUARE-MOULDED POTENTIAL GAS
PHYS. REV., V. 129, P. 1005-1009 (1963)
NEUTRON-SCATTERING-IN-FLUIDS . . . THEORY

63-CO-07 COOTE, G. E.; HAYWOOD, B. C.
SCATTERING OF NEUTRONS BY LIQUID BROMINE
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 249 (1963)
BR . . . SCATTERING LAW/ EXPERIMENT/ LIQUID

63-CO-08 COWLEY, R. A.
THE TEMPERATURE DEPENDANCE OF SOME NORMAL Modes IN STRO-NTIUM TITANATE
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 229 (1963)
SR. T. 03 . . . DISPERATION RELATION/ EXPERIMENT/ LATTICE DYNAMICS . . . TEMPERATURE DEPENDENCE

63-CO-08 CRIQUIER, D.; FARNoux, B.; JACROT, B.
FREQUENCY OF OPTICAL VIBRATIONS IN FLUORITE CA,F2 (IN FRENCH)
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 2, P. 225 (1963)
CA,F2 . . . EXPERIMENT/ DISPERSION RELATION/ LATTICE DYNAMICS

63-DK-01 DE-BAR, R. B.
EVALUATION OF THE VAN HOVE CORRELATION FUNCTIONS FOR CERAMIC PHYS. REV., V. 130, P. 827-832 (1963)
THEORY-OF-FLUIDS . . . THEORY/ CORRELATION FUNCTION/ CRYSTAL LIQUID

63-DO-01 DOLLING, G.
LATTICE VIBRATIONS IN CRYSTALS WITH DIAMOND STRUCTURE
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 2, P. 37 (1963)
S1 . . . EXPERIMENT/ DISPERSION RELATION

63-DO-02 DOLLING, G.
LATTICE VIBRATIONS IN CRYSTALS WITH THE DIAMOND STRUCTURE
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 2, P. 37-47 (1963)
S1 . . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVE/ MO DISPERSED SHAPE MODEL/ ROOM TEMPERATURE

63-EG-01 EGELSTAFF, P. A.; HAYWOOD, B. C.; THORSON, T. M.
THE MOTION OF HYDROGEN IN WATER
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 343-357 (1963)
H2O . . . EXPERIMENT . . . 150 DCX; 250 DCX

63-EG-02 EGELSTAFF, P. A.
PRACTICAL ANALYSIS OF NEUTRON SCATTERING DATA INTO SELF AND INTERFERENCE TERMS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 65 (1963)
SCATTERING-THEORIES . . . SCATTERING LAW/ THEORY . SELF TERM/ INTERFERENCE TERM

63-EG-03 EGELSTAFF, P. A.
INTERPRETATION OF COHERENT NEUTRON SCATTERING BY LIQUID 5
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V. 1, P. 209-212 (1963)
P B/ SN . . . EXPERIMENT/ SCATTERING FUNCTION/ LIQUID

63-EG-04 EGELSTAFF, P. A.; HARRIS, D. M. C.
HIGH ENERGY MODES IN THE FREQUENCY DISTRIBUTION OF GRAPHITE
PHYS. LETT., V. 7, P. 220-220 (1963)
GRAPHITE . . . EXPERIMENT/ FREQUENCY DISTRIBUTION/ . . . HIGH FREQUENCY MODE/ 950 DC

63-EU-01 FUKUSHIMA, K.; IDEGUCHI, Y.; MIYAZAKA, T.
THE NORMAL VIBRATIONS OF POLYGLYCOLINE
BULL. CHEM. SOC. JAP., V. 36, P. 1301-1307 (1963)
POLYGLYCINE . . . THEORY/ NORMAL VIBRATION


BIPHENYL . . . EXPERIMENT/ SCATTERING LAW/ MIXTURE OF BIPHENYL AND BIPHENYLOXYD

63-GI-02 GISSLER, H. INVESTIGATION OF NEUTRON SCATTERING CROSS SECTION NEAR THE BRAGG CUT-OFF WAVELENGTH (IN GERMANY) Z. KRISTALLOGR., v.118, P.149 (1963)

D2.0 . . . THEORY/ EXPERIMENT/ SIGMA(E)/ . . . 40K/ 770K

63-GO-01 GOLDMAN, D.T./ FREDERIGI, F.D. CALCULATION OF THERMAL NEUTRON FLUX SPECTRA IN A POLYETHYLENE MODERATED MEDIUM NUCL. SCI. ENG., v.16, P.165-P.175 (1963)

POLYETHYLENE . . . LIQUID/ THEORY/ SIGMA(E)/ . . . SIGMA(E)/ INElastic NUCLEON SPECTRUM


H2.0/ POLYETHYLENE . . . CROSS SECTION EVALUATION

63-GR-01 GRIFFING, G.M. SCATTERING OF SLOW NEUTRONS BY GASEOUS METHANE INElastic scattering of neutrons in solids and liquid UIDS. IAEA, v.1, P.435 (1963)

C.H4 . . . SIGMA(E)/ SCATTERING FUNCTION/ THEORY/ GAS/ CROSS SECTION


V . . . SCATTERING LAW/ FREQUENCY DISTRIBUTION


INElastic scattering IN SOLIDS . . . ANHARMONICITY/ THEORY

63-HA-03 HAUTECKER, S./ STILLER, H. MOLECULAR MOTIONS IN LIQUID METHANE INElastic scattering of neutrons in solids and liquid UIDS. IAEA, v.1, P.423 (1963)

C.H4 . . . SIGMA(E)/ SIGMA(E)/ . . . EXPERIMENT/ MOLECULAR DYNAMICS


GRAPHITE . . . EXPERIMENT/ FREQUENCY DISTRIBUTION


MG . . . EXPERIMENT/ DISPERSION RELATION


C.H4/ N.H4/ . . . SIGMA(E)/ SIGMA(E)/ EXPERIMENT/ THEORY/ GAS/ LIQUID


N.H3 . . . EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID

63-KA-01 KADANOFF, L.J./ MARTIN, P.C. HYDRODYNAMIC EQUATIONS AND CORRELATION FUNCTIONS OF ANNEALING FLUIDS . . . LIQUID/ CORRELATION FUNCTION

63-KD-01 KOKKEDEE, J.J.J. THEORY OF THE INFLUENCE OF PHONON-PHONON AND ELECTRON-PHONON INTERACTIONS ON THE SCATTERING OF NEUTRONS BY CRYSTALS INElastic scattering IN SOLIDS . . . THEORY . . . PHONON-PHONON
INERTION/ELECTRON-PHONON INTERACTION

63-KO-01 KOTITZ, D.A./ LEONARD-JR, B.R./ SMITH, R.B.
QUASI-ELASTIC SCATTERING BY ROOM TEMPERATURE LIGHT WATER
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.1, P.373-P.382 (1963)
H2O, EXPERIMENT/ LIQUIDS, 220C

63-KO-03 KOTITZ, D.A./ LEONARD-JR, B.R.
THE SCATTERING LAW FOR THE ROOM TEMPERATURE LIGHT WATER
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.1, P.359-P.371 (1963)
H2O, EXPERIMENT/ FREQUENCY DISTRIBUTION

63-LA-01 LARSSON, K.E./ DAMBURG, U.
A STUDY OF THE DIFFUSIVE ATOMIC MOTIONS IN GLYCEROL AND
THE VIBRATORY MOTIONS IN GLYCEROL AND LIQUID HEAVY WATER
BY COLD NEUTRON SCATTERING.
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.1, P.317 (1963)
D2O, GLYCYEL/ H2O, EXPERIMENT/ LIQUID/ FREQUENCY DISTRIBUTION/ TOF
278, 295, 368, 428 AND 572D

63-LI-01 LINDEMEIER, C.W./ MATSUMOTO, D.D./ SKEEN, D.R.
PROGRAM KERNEL MM=2288 (1963)
H2O, POLYETHYLENE/ COMPUTER-CODES, SCATTERING THEORY/
LIQUID/ SIGNAC(E, E-PRIME) INCOHORENT

63-MA-01 MACDOUGALL, J.D.
PIXSE
AEWH=318 (1963)
COMPUTER-CODES, SIGNAC(E, E-PRIME)/ SCATTERING LAW/ GAS/
LIQUID/SOLID/ CROSS SECTION EVALUATION

63-MA-02 MALISZEWSKI, E./ SOSNOWSKI, J./ BLINOWSKI, K./ KOZ
UBOSKI, J./ PADLO, I.
NEUTRON-PHONON INTERACTION STUDIES IN COPPER, ZINC AND
MAGNESIUM SINGLE CRYSTALS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.2, P.87 (1963)
Zn/ Cu/ Mg, EXPERIMENT

63-MA-03 MCREYNOLDS, A.W./ WHITTEMORE, W.L.
DYNAMICS OF LIQUID HYDROGEN BY NEUTRON SCATTERING
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.1, P.263 (1963)
H, EXPERIMENT/ LIQUID

63-MI-01 MICHAELI, E.W./ HARDY, J.R./ SAUNDERSON, D.H.
THE DISTRIBUTION OF HIGHER ENERGY NORMAL MODES IN DIAMOND

63-MI-02 MIKKE, K./ KROH, A.
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.2, P.237 (1963)
N4H4, CL/ N4H4, BR/ N4H4, F/ N4H4, NO3, LATTICE DYNAMICS/
EXPERIMENT, INVERTED FILTER METHOD

63-MI-03 MIYAZAWA, T./ FUKUSHIMA, K./ IDEGUCHI, Y.
FAR INFRARED SPECTRA AND THEIR VIBRATIONAL ASSIGNMENTS
OF ISOTACTIC POLYPROPYLENE
J. POLY. SCI., VOL. B, V.1, P.385-P.387 (1963)
POLYPROPYLENE, EXPERIMENT/ FAR-INFRARED SPECTROMETRY

63-MI-04 MIYAZAWA, T./ IDEGUCHI, Y./ FUKUSHIMA, K.
MOLECULAR VIBRATION AND STRUCTURE OF HIGH POLYMERS. A.
A GENERAL METHOD OF TREATING DEGENERATE NORMAL VIBRATIONS
OF HELICAL POLYMERS AND INFRARED-ACTIVE VIBRATIONS OF
ISOTACTIC POLYPROPYLEEN
J. CHEM. PHYS., V.38, P.2709-P.2720 (1963)
POLYPROPYLENE, THEORY/ FAR-INFRARED SPECTRA/ INFINITE HET
CAL CHAIN POLYMERS/ NORMAL MODE

63-MO-01 MOZER, B./ OTUNES, K.
MEASUREMENTS OF THE VIBRATIONAL FREQUENCY SPECTRUM OF NICKEL-PALLADIUM ALLOYS.
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS.
IAEA, V.2, P.162 (1963)
NI/ PD/ Ni-PD, EXPERIMENT/ LATTICE DYNAMICS, INPURITY MODE

63-MU-01 MUSGRAVE, M.J.P.
ON THE RELATION BETWEEN GRAY AND WHITE TIN.
PROC. ROY. SOC., LONDON, SER. A, V.272, P.503 (1963)
SN, THEORY/ SOLID/ FREQUENCY DISTRIBUTION

63-NA-01 NAKAGAWA, Y./ KOOSA, A.D.B.
LATTICE DYNAMICS OF NIETIUM.
PHYS. REV. LETT., V.11, P.271 (1963)

63-OS-01 OSERFSKI, V.S.
THEORY OF THE QUASI-ELASTIC SCATTERING OF COLD NEUTRONS IN LIQUIDS.
FIZ. TVERD. TELA (SOF., PHYS., SOLID STATE), V.5, P.1082-P.1088 (P.789-P.791) (1963)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/ LIQUID DYNAMICS
63-PA-01 PALEVSKY, M./ OTHNES, K./ WAKUTA, Y.
LOW FREQUENCY HYDROGEN VIBRATIONS IN POTASSIUM DIHYDROGEN EN PHOSPHATE
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, v.2, p.273 (1963)
K, H2, P, O4, EXPERIMENT/ TOF

63-PA-02 PARKER, K.
The Aldermaston Nuclear Data Library As at May 1963
ANNUAL TOPIC REVIEW (1963)
COMPILATIONS/ COMPUTER-CODES

63-PE-01 PELAH, L./ HAAS, R./ KLEY, W./ KREBS, K.H./ PERETT, I., J.
OBSERVATION OF A LOW ENERGY PEAK IN THE PHONON FREQUENCY DISTRIBUTION OF VANADIUM
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, v.2, p.155 (1963)
V, FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS

63-PL-01 PLUMMER, J.P./ SUMMERFIELD, G.C.
VALIDITY OF FERMI APPROXIMATION IN SLOW NEUTRON SCATTERING
PHYS. REV., v.131, p.1153-1154 (1963)
SCATTERING-THETORIES / THEORY

63-RA-01 RAMM, A.
INTERMEDIATE SCATTERING FUNCTION IN SLOW NEUTRON SCATTERING
PHYS. REV., v.130, p.1334-1336 (1963)
SCATTERING-THETORIES / SCATTERING THEORY/ SCATTERING FUNCTION

63-RA-02 RAPPANU, S.
INELASTIC SCATTERING OF COLD NEUTRONS IN C3H5(OH)3 AT VARIOUS TEMPERATURES
REV. ROM. PHYS., v.13, p.913 (1963)
GLYCINE, EXPERIMENT/ QUASIC-ELASTIC SCATTERING

63-RO-01 ROGALSKA, Z.
SLOW NEUTRON SCATTERING BY MOLECULES OF LIQUID METHANE
PHYSICA, v.29, p.491-498 (1963)
METHANE, SIGMA(E)/ EXPERIMENT/ LIQUID, 1560 CE, 0.0057 TO 0.101 EV

63-RO-02 ROGALSKA, Z.
SLOW NEUTRON SCATTERING BY MOLECULES OF LIQUID METHANE
PHYSICA, v.29, p.491-498 (1963)
METHANE, EXPERIMENT/ TOTAL SCATTERING CROSS SECTION VS. NEUTRON ENERGY/ LIQUID STATE

63-RZ-01 HZANY, H./ SCIESINSKI, J.
SCATTERING OF SLOW NEUTRONS BY LIQUID H2, S
PHYSICA, v.29, p.491-498 (1963)
H2, S, EXPERIMENT/ TOTAL CROSS SECTION

63-SA-01 SAFFORD, G./ HRAJCOVIC, V./ BOUTIN, H.
AN INVESTIGATION OF THE ENERGY LEVELS IN ALKALINE EARTH HYDROXIDES BY INELASTIC SCATTERING OF SLOW NEUTRONS
MG(OH)2/ CA(OH)2, EXPERIMENT/ TOF SPECTRA/ MOLECULAR DYNAMICS

63-SA-02 SAUNDERS, D.H./ COCKING, S.J.
STUDIES OF PROTON VIBRATIONS IN GAMMA-TITANIUM HYDRIDE
TIH, EXPERIMENT/ SCATTERING LAW/ FREQUENCY DISTRIBUTION

63-SA-03 SAUNDERS, D.H./ RAINIE, V.S.
INELASTIC SCATTERING OF NEUTRONS BY METHYL-1, ETHYL-2 AND N-AMYL ALCOHOLS
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, v.1, p.43 (1963)
ALCOHOL, LIQUID AND GAS, EXPERIMENT

63-SJ-01 SINCLAIR, R.N.
The Neutron Scattering Law and the Frequency Distribution of the Normal Modes of Beryllium and Beryllium Oxide
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, v.2, p.199-211 (1963)
BE/ BEO, EXPERIMENT/ SCATTERING LAW/ FREQUENCY DISTRIBUTION/ TOF, 293 K

63-SJ-02 SINGW, K.S.
The Mössbauer Effect and Dynamics of Atomic Motions in Condensed Systems
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, v.1, p.3 (1963)
REVIEW-ARTICLES / THEORY / MOESSBAUER EFFECT

63-SJ-03 SINGW, K.S./ JOELANDER, A./ RAMM, A.
FREQUENCY SPECTRUM OF LIQUIDS AND SLOW NEUTRON SCATTERING
INELASTIC SCATTERING OF NEUTRON IN SOLIDS AND LIQUIDS. IAEA, v.1, p.215-223 (1963)
NEUTRON-SCATTERING IN-FLUIDS/ H2O, P, THEORY/ LIQUID / FREQUENCY DISTRIBUTION/ SCATTERING FUNCTION

63-SQ-01 SQUIRES, G.L.
The Frequencies of the Normal Modes of Aluminum
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS. IAEA, V.2, P.25 (1963)
TCHTSERIN, A.G.
A STUDY OF THE PHONON SPECTRUM AND DISPERSION CURVE FOR VANADIUM.
V..DISPERSION RELATION/ FREQUENCY SPECTRUM

64-AN-02 ZEMLYANOVA, M.G.//CHEPNOPLOEV, N.A.
A STUDY OF COLD NEUTRON INELASTIC SCATTERING ON CERTAIN HYDROGENOUS SUBSTANCES.
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V.2, P.297 (1963).
BENZENE/ BIPHENYL/ POLYETHYLENE /INELASTIC SCATTERING SPECTRA

64-AL-01 ALSNIELSEN, J.//DIETRICH, O.W.
SLOW NEUTRON CROSS SECTIONS FOR HE3/ B AND AU.
HE/ B/ AU /EXPERIMENT/ CRUSS SECTON

64-AN-01 ANTONINI, M.//ASCARELLI, P.//CAGLIOSTI, G.
COHERENT INELASTIC SCATTERING OF SLOW NEUTRON BY A POLYATOMIC LIQUID ELEMENT.
PHYS. REV., V.136, P.1280 (1964).
BR /EXPERIMENT/ LIQUID

64-BA-01 BAYME, G.
DIRECT CALCULATION OF ELECTRONIC PROPERTIES OF METALS FROM NEUTRON SCATTERING DATA.
THEORY-OF-SOLIDS /SCATTERING LAW

64-BI-01 BIRGENEAUX, R.J.//CORDES, J.//DOLLING, G.//WOODS, A.B.
NORMAL MODES OF VIBRATIONS IN NICKEL.
N1 /296 DEGREE KELVIN/ EXPERIMENT/ DISPERSION RELATION /3-AXIS SPECTROMETER

64-BI-01 BOULIN, H.//SAFFORD, G.J.//DANNER, H.R.
LOW-FREQUENCY MOTIONS OF H2O MOLECULES IN CRYSTALS.
BA,CL2/ CHABAZITE/ ANALCITE/ Cu,S,04/ APHONYLLITE/ WATER/BERLYL /EXPERIMENT/ TOF-SPECTRUM/ WATER IN CRYSTAL

64-BI-01 BOUTIN, H.//PHASE, M.
STUDY OF WATER VAPOR ADSORBED ON GAMMA-ALUMINA AND SILICA BY SLOW NEUTRON INELASTIC SCATTERING.
SURFACE SC., V.2, P.261-P.266 (1964).
H2O/ WATER-SILICA/ WATER-ALUMINA/ AL,CL3 /EXPERIMENT/ MOLECULAR DYNAMICS /H2O VAPOR ADSORBED

64-BR-01 BROCKHOUSE, B.N.//WOODS, A.D.B.//DOLLING, G.//THOSEN, I.M.
RESEARCH WITH INELASTIC NEUTRON SCATTERING AT THE NHK REACTOR.
REVIEW-ARTICLES /EXPERIMENT/ SOLID/ LIQUID

64-BR-02 BROCKHOUSE, B.N.//HAUTECLER, S.//STILLER, H.
INELASTIC SCATTERING OF SLOW NEUTRONS.
REVIEW-ARTICLES /EXPERIMENT/ LATTICE DYNAMICS /NEUTRON SPECTROSCOPY

64-BR-03 BROCKHOUSE, B.N.
PHONONS AND NEUTRON SCATTERING.
PHONONS AND PHONON INTERACTIONS (ED. BY A.BAK), W. A.BENJAMIN INC., P.221 (1964).
REVIEW-ARTICLES /EXPERIMENT/ LATTICE DYNAMICS /NEUTRON SPECTROSCOPY

64-BR-04 BRUGGER, R.M.
A NEW METHOD OF MEASURING FREQUENCY DISTRIBUTIONS OF CRYSTALS.
AERE-E-2562 (1964).
N1 /EXPERIMENT/ LATTICE DYNAMICS / FREQUENCY DISTRIBUTION

64-BR-05 BRUGGER, R.M.//RAINEY, V.S.//MCMURRY, H.C.
SCATTERING OF SLOW NEUTRONS FROM METHANE GAS.
C,H4 /EXPERIMENT/ MOLECULAR DYNAMICS / SCATTERING FUNCTION

64-CH-01 CHEN, S.H.//BROCKHOUSE, B.N.
LATTICE VIBRATIONS OF TUNGSTEN SOLID STATE COMMUN., V.2, P.73 (1964).
W /EXPERIMENT/ SOLID/ DISPERSION RELATION

64-CO-01 COCHRAN, W.P.//PAWLEY, G.S.
THE THEORY OF DIFFUSE SCATTERING OF X-RAYS BY A MOLECULAR AR CRYSTAL.
HEXAMETHYLENETETRAMINE /THEORY/ LATTICE DYNAMICS / DISPERSION / FREQUENCY DISTRIBUTION / X-RAY SCATTERING

64-CO-02 COWLEY, R.A.
LATTICE DYNAMICS AND PHASE TRANSITIONS OF STRONTIUM TITANATE.
64-CZ-01 CZEKLUNCIKIEWICZ, B./ KOWALSKA, A.
DOUBLE DIFFERENTIAL CROSS SECTION FOR SLOW NEUTRONS SCATTERING ON GASEOUS AMMONIA MOLECULES
ACTA PHYS. POL., V.25, P.141 (1964)
N.3, GASE/ MOLECULE/ EXPERIMENT/ SIGMA(E= E-PRIME)

64-DA-01 DABLISBERG, U./ GROSSMOEG, G./ LARSSON, R.E./ MOELLER, E./ PURICH, S.N./
INVESTIGATIONS INTO THE MODERATING PROPERTIES OF WATER PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON THE PEACEFUL USES OF ATOMIC ENERGY, UNITED NATIONS, GENEVA, V.2, P.336-P.344 (1964)
H2/O/ D2/O

64-DA-02 DANNER, H.R./ SAFFORD, G.J./ BOUTIN, H./ BERGER, M.
STUDY OF LOW-FREQUENCY MOTIONS IN POLYETHYLENE AND THE PARAFFIN HYDROCARBONS BY NEUTRON INELASTIC SCATTERING
J. CHEM. PHYS., V.40, P.1417 (1964)
POLYETHYLENE/ PARAFFINE/ FREQUENCY SPECTRUM/ EXPERIMENT/ SOLID/ MOLECULAR DYNAMICS

64-DA-03 DANNER, H.R./ BOUTIN, H./ SAFFORD, G.J.
LOW-FREQUENCY MOLECULAR VIBRATIONS IN SOLID HEXANE BY NEUTRON INELASTIC SCATTERING
J. CHEM. PHYS., V.41, P.369-P.375 (1964)
POLYETHYLENE/ EXPERIMENT/ FREQUENCY DISTRIBUTION/ TOF/ 125, 178 AND 2930K

64-DE-01 DE-WEAMES, R.E./ LEHMAN, G.W.
RE-EXAMINATION OF THE LATTICE DYNAMICS OF WHITE TIN USING A MODIFIED AXIALLY SYMMETRIC MODEL
PHYS. REV., V.139A, P.170 (1965)
SN/ THEORY/ SOLID/ LATTICE DYNAMICS

64-DO-01 DOLLING, G./ GILAT, G.
ON THE TEMPERATURE DEPENDENCE OF PHONONS IN ALPHA-BrASS SOLID STATE COMMUN., V.2, P.79 (1964)
CU-ZN/ EXPERIMENT/ DISPERSION RELATION

64-DO-02 DORNEN, B./ STILLER, H.
FREQUENCY SPECTRUM IN SOLID METHANE AT 6.50K
PHYS. STATUS SOLIDI, V.5, P.511-P.514 (1964)
METHANE/ EXPERIMENT/ SOLID/ FREQUENCY DISTRIBUTION/ 6.50K/ BE DETECTOR METHOD

64-EG-01 EGELEFFAST, P.A.
THE THERMAL MOTION OF SIMPLE LIQUIDS

AERE-R-4641 (1964)
NEUTRON-SCATTERING IN FLUIDS/ SCATTERING LAW/ MEAN SQUARE DISPLACEMENT/ DIFFUSION PARAMETER/ LIQUID/ THEORY

64-EG-02 EGELEFFAST, P.A./ HAYWOOD, B.C./ WOOD, F.J./ BASTON, A.M.
MOLECULAR MOTIONS IN LIQUID AND SOLID ORTHO-HYDROGEN PHYS. LETT., V.12, P.188-P.189 (1964)
H/ EXPERIMENT/ SOLID/ LIQUID/ 15, 18 AND 210K

64-FU-01 FULINSKI, A.
ON THE STATISTICAL MECHANICAL EVALUATION OF THE SLOW NEUTRON SCATTERING FUNCTION
ACTA PHYS. POL., V.26, P.19 (1964)
NEUTRON-SCATTERING IN FLUIDS/ SCATTERING THEORY

64-FU-02 FULLWOOD, R.R./ CAERTNTER, E.R./ SLOVACEK, R.E.
The Effects of Coherent Scattering on the Thermalization of Neutrons in Beryllium RPI-328-22 (1964)
BE/ NEUTRON SPECTRUM/ EXPERIMENT/ TIME AND BUCKLING D EPENDENT NEUTRON SPECTRUM

64-GL-01 GLAESER, W./ BEURUTS, K.H.
INELASTIC NEUTRON SCATTERING BY SOME HYDROGENOUS MODERATORS
NUCL. SCI. ENG., V.20, P.236-P.238 (1964)
BENZENE/ DIPHENYL/ BIPHENYL/ EXPERIMENT/ SOLID/ LIQUID/ 2ND MOMENT OF ENERGY TRANSFER

64-HA-01 HAYWOOD, B.C.
A COMPILATION OF THE SCATTERING LAW FOR HEAVY WATER AT 220C AND 1500C
AERE-R-4592 (1964)
D2/O/ LIQUID/ EXPERIMENT/ SCATTERING LAW

64-HA-02 HAYWOOD, B.C./ SINCLAIR, R.N.
A COMPILATION OF THE SCATTERING LAW FOR GRAPHITE, BERYLLIUM AND BERYLLIUM OXIDE AT 220C
AERE-R-4732 (1964)
GRAPHITE/ BE/ BE/O/ COMPILATION/ SCATTERING FUNCTION

64-HO-01 HONECK, H.C./ HOUSTON, D.M./ NALIBOFF, Y.D.
MUSE: A COMPUTER CODE FOR MULTIPLE SCATTERING CORRECTIONS
GA-5968 (1964)
COMPUTER-CODES/ MULTIPLE SCATTERING/ THEORY

64-JA-01 JANKA, L./ JANKA, J./ MILLER, J./ PLEEVSKY, H.
STUDY OF MOLECULAR ROTATION IN SOLIDS AND LIQUIDS BY THE INELASTIC SCATTERING OF COLD NEUTRONS J. PHYS. CHEM. SOLIDS, V.25, P.1091-P.1098 (1964)
64-Mt-03 MATEESECV, N., TEUTSM, H., NAHORNIK, V., DIACONESCU, U., P., TIMIS, P., THE TEMPERATURE DEPENDENCE OF NEUTRON INELASTIC SCATTERING IN HEAVY WATER PROC. 3RD INTERN. CONF. PEACEFUL USES ATOMIC ENERG Y; GENEA; V.2; P.403-P.409 (1964) D2O, ЛIQUID, SOLID/ EXPERIMENT/ FREQUENCY DISTRIBUTION N/SIGMA(E/E-PRIME)/THETA/ DIFFUSION PARAMETER —100 DC/260C/730C

64-MC-01 MCMAURY, H.L.; GANNON, L.J., A MACHINE PROGRAM FOR CALCULATING SLOW NEUTRON SCATTERING CROSS SECTIONS WITH APPLICATION TO WATER IDO-10984 (1964) COMPUTER-CODES/ M2,O., THEO/


64-KR-01 KROO, N.; BORGONUV, G.; SKOELDJ, J.; LARSSON, K.E., INELASTIC SCATTERING OF COLD NEUTRONS BY CONDENSED ARGON PHYS. REV. LETT., V.12, P.721 (1964) AR, ..., EXPERIMENT/ LIQUID/ SOLID

64-LA-01 LARSSON, K.E.; DAHLBOG, U., PROTON MOTIONS IN SOME HYDROGENOUS LIQUIDS STUDIED BY COLD NEUTRON SCATTERING PHYSICA, V.30, P.1361-P.1399 (1964) M2O, ..., SCATTERING/ GLYCEROL/ EXPERIMENT/ LIQUID/ FREQUENCY DISTRIBUTION

64-MA-01 MARADUDIN, A.A.; ANBEGAOKAR, P.V., CALCULATION OF THE SCATTERING FUNCTION S(KAPPA, OMEGA) FOR THE INELASTIC SCATTERING OF NEUTRONS BY ANHARMONIC CRYSTALS PHYS. REV., V.135, P.1071 (1964) NEUTRON-SCATTERING-IN-SOLIDS, ANHARMONICITY/ SCATTERING FUNCTION/ SCATTERING LAW/ THEORY/ SOLID/ INELASTIC SCATTERING

64-MT-02 MARTIN, D.G., AN INVESTIGATION INTO THE NUMBER OF NEIGHBOURING ATOMS TO BE INCLUDED IN CALCULATIONS OF THE SLOW NEUTRON SCATTERING CROSS SECTION OF DEFECTS IN SOLIDS AERE-R-4527 (1964) NEUTRON-SCATTERING-IN-SOLIDS, ..., SOLID/ THEORY
64-OT-01 OTNES, K.; MELLON, J.; PALEYSKY, H.
SPECTRA OF SCATTERED COLD NEUTRON FROM GASEOUS LIQUID AND SOLID METHANE
BULL. AMER. PHYS. SOC., V.9, P.421 (1964)
C,HA, EXPERIMENT/ LIQUID

64-PA-01 PAGG, D.I.,
SCATTERING LAW (**) VALUES FOR H2O AT 5500K
CHP=1196 (1964)
H2O, EXPERIMENT/ MOLECULAR DYNAMICS/ SCATTERING FUNCTION
15500K/ 1200 PS

64-PE-01 PERETTI, P.; JOUANNIN, C.
SCATTERING OF SLOW NEUTRONS BY A CRYSTAL WITH POINT DEFECTS
EURL-1020 (1964)
NEUTRON-SCATTERING-IN-SOLIDS, SCATTERING THEORY, POINT DEFECT

64-PE-02 PERETTI, J.; JOUANNIN, C.
SCATTERING OF SLOW NEUTRONS BY A CRYSTAL WITH POINT DEFECTS
NUOVO CIMENTO, V.34, P.293-302 (1964)
NEUTRON-SCATTERING-IN-SOLIDS, SCATTERING FORMULA/ CRYSTAL POINT DEFECT

64-PR-01 PRYOR, A.W.
THE ELECTRICAL CONDUCTIVITY OF BERYLLIUM OXIDE
J. NUCL. MATER., V.14, P.258 (1964)
BE,O, THEORY/ SOLID, ELECTRICAL CONDUCTIVITY

64-PR-02 PRYOR, A.W./ SABINE, T.M.
THERMAL VIBRATIONS IN BE,O
J. NUCL. MATER., V.14, P.275 (1964)
BE,O, EXPERIMENT, NEUTRON DIFFRACTION MEASUREMENTS/ D, EBYE PARAMETER

64-RA-01 RAMMAN, A.
CORRELATIONS IN MOTION OF ATOMS IN LIQUID ARGON
PHYS. REV., V.136A, P.403 (1964)
ARG, THEORY/ MOLECULAR DYNAMICS/ LIQUID DYNAMICS/ DIGITAL COMPUTER SIMULATION

64-RA-02 RANDOLPH, P.D.
SLOW NEUTRON INELASTIC SCATTERING FROM SODIUM
PHYS. REV., V.134A, P.1238 (1964)
NA, SCATTERING LAW/ STRUCTURE FACTOR/ LIQUIDS

64-RU-01 RUSH, J.J.; TAYLOR, T.I.
ROTATIONAL MOTIONS IN HEXAMETHYLBENZENE AND AMMONIUM PERCHLORATE BY CROSS SECTION MEASUREMENTS WITH SLOW NEUTRONS
J. PHYS. CHEM. SOLIDS, V.68, P.233A (1964)
HEXAMETHYLBENZENE/ AMMONIUM PERCHLORATE, EXPERIMENT/ ROTATIONAL MOTION

64-SA-01 SAFFORD, G.J.; DANNE, H.R./ BOUTIN, H.; BERGER, M.
INVESTIGATION OF THE LOW-FREQUENCY MOTIONS IN ISOTACTIC AND ATACTIC POLYPROPYLENE
J. CHEM. PHYS., V.40, P.1426-1432 (1964)
POLYPROPYLENE, EXPERIMENT/ TOF SPECTRA, FREQUENCY SPECTRA/ LATITUDE DYNAMICS

64-SC-01 SCHMUNK, H.E.
SLOW NEUTRON INELASTIC SCATTERING FROM BERYLLIUM POWDER
PHYS. REV., V.136A, P.1303 (1964)
BE, EXPERIMENT/ SCATTERING LAW/ FREQUENCY DISTRIBUTION, COHERENT SCATTERING LAW/ ROOM TEMP.

64-SJ-01 SINGH, K.S.
COHERENT SCATTERING OF SLOW NEUTRONS BY A LIQUID
PHYS. REV., V.136A, P.969-980 (1964)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/ LIQUID DYNAMICS, COHERENT SCATTERING/ WIDTH FUNCTION, QUASI-CRYSTALLINE MODEL

64-SJ-02 SJOLANDER, A.
LECTURES ON PHONONS AND EXTERNAL RADIATION
PHONONS AND PHONON INTERACTIONS (ED. BY A.BAK), W.
A.BENJAMIN INC., P.76-P.101 (1964)
REVIEW/ ARTICLES, SCATTERING THEORY

64-SP-01 SPRINGER, T.; HOFMYER, C.; KORNBIICHLER, S.; LEMMEL, H.D.
ON THE DETERMINATION OF THE DIFFUSION CONSTANTS OF H2O, POLYPHENYLS, ZR-H, AND D2O BY NEUTRON SINGLE SCATTERING EXPERIMENTS
PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON THE PEACEFUL USES OF ATOMIC ENERGY, UNITED NATIONS, GEN. EVN, V.2, P.251 (1964)
H2O, D2O, PHENYL/ ZR-H, EXPERIMENT/ LIQUIDS, DIFFUSION PARAMETER, AVE-MU

64-ST-01 STEHM, J.R.; GOLDBERG, M.D.; MAGURNO, B.A.; WIENER, R.
NEUTRON CROSS SECTIONS
BNL-325 (2ND ED, SUPPL. 2), V.1 (1964)
H/ D, H2O, D2O, HE, L1/ BE, GRAPHITE, N/ O, NE, NA/ M
64-SU-01 SUMMERFIELD, G.C.
ON THE FERMI APPROXIMATION IN THERMAL NEUTRON SCATTERING
ANN. PHYS. N.Y., V.26, P.72-P.80 (1964)
SCATTERING-THOERIES/ FERMI-APPROXIMATION

64-TE-01 TEUTSCHE, M./ MATESEK, N./ NAHRONIAK, V./ DACONES
CU, A./ TIMS, P.
COLD NEUTRON SCATTERING BY LIGHT AND HEAVY WATER
REV. ROUM. PHYS. N.9, P.737 (1964)
H2O, D2O .LIQUID/ EXPERIMENT/ NEUTRON SCATTERING

64-VA-01 VAN-DINGENEN, W./ NEVELE-MEVERGNIES, M.
TOTAL CROSS SECTION FOR SCATTERING OF COLD NEUTRONS BY
PROTONS IN SOME COOLED HYDROGENOUS COMPOUNDS
PHYSICA, V.30, P.237-P.243 (1964)
ACETYLENE/ AMMONIA/ METHANE TOTAL CROSS SECTION/ EXPERIMENT/ SOLID/ LONG WAVE LENGTH/ 300K-40K

64-VE-01 VENKATARAMAN, G./ DENIZ, K.U./ YENGAR, P.K./ VIJAY
YARAHAVAN, V.R./ ROY, A.P.
ANHARMONICITY OF THE TOSSIONAL OSCILLATIONS OF THE AMMONIUM ION IN N.H.4.CL
SOLID STATE COMM. N.2, P.17-P.19 (1964)
N.H.4.CL EXPERIMENT, 300K 228 AND 135OK

64-VI-01 VINTAIKIN, A.Z./ GORBACHEV, U.V./ GRUZIN, P.I.
INVESTIGATION OF THE THERMAL VIBRATIONS OF THE ATOMS IN
COPPER BY NEUTRON SPECTROMETRY
FIZ. TVERD. TELA (SOV. PHYS.-SOLID STATE), V.7 (V.7), P.367-P.377 (P.296-P.299) (1964 (1965))
CU .DISPERSION RELATION/ SOLID/ EXPERIMENT

64-WH-01 WHITTEMORE, W.L.
INELASTIC NEUTRON SCATTERING IN LIQUID METHANE AND LIQUID PARAFIN
NUCL. SCI. ENG., V.18, P.182 (1964)
CH4-H EXPERIMENT/ LIQUID/ MOLECULAR DYNAMICS/ NEUTRON SPECTRA/ TOTAL CROSS SECTION

64-WI-01 WINKER, N.F./ JOANOY, G.D./ PARKS, D.K.
NEUTRON THERMALIZATION IN GRAPHITE
NUCL. SCI. ENG., V.19, P.108-P.129 (1964)
GRAPHITE EXPERIMENT/ LATTICE VIBRATION/ FREQUENCY DISTRIBUTION/ SCATTERING FUNCTION/ NEUTRON SPECTRUM

64-WI-02 WILSON, J.V.
LATTICE VIBRATION FREQUENCY SPECTRUM OF GRAPHITE
ORNL-P.585 (1964)
GRAPHITE THEORY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION

64-WO-01 WOODS, A.D.B./ CHEN, S.H.
LATTICE DYNAMICS OF MOLYBDENUM
SOLID STATE COMM., V.2, P.233 (1964)
MO EXPERIMENT/ SOLID/ DISPERSION RELATION

64-WO-02 WOODS, A.D.B.
LATTICE DYNAMICS OF TANTALUM
PHYS. REV., V.136A, P.781 (1964)
TA EXPERIMENT/ DISPERSION RELATION

64-YA-01 YARNELL, J.L./ WARREN, J.L./ WENZEL, R.G.
LATTICE VIBRATIONS IN DIAMOND
PHYS. REV. LETT., V.13, P.13 (1964)
DIAMOND EXPERIMENT/ DISPERSION RELATION

64-YA-02 YARNELL, J.L./ WARREN, J.L./ WENZEL, R.G./ KOENIG, S.M.
PHONON DISPERSION CURVES IN BISMUTH
IBM J. RES. DEVELOP., V.8, P.234 (1964)
B1 EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

64-YI-01 YIP, S./ NELKIN, M.
APPLICATION OF KINETIC MODEL TO TIME-DEPENDENT DENSITY
CORRELATIONS IN FLUIDS
PHYS. REV., V.135A, P.1241-P.1247 (1964)
NEUTRON SCATTERING IN FLUIDS .CORRELATION FUNCTION/ LIQUID

64-YO-01 YOUNG, J.A./ KOPPEL, J.U.
SLOW NEUTRON SCATTERING BY MOLECULAR HYDROGEN AND DEUTERIUM
PHYS. REV., V.135A, P.603-P.611 (1964)
H2/D2 THEORY/ MOLECULAR DYNAMICS/ SCATTERING CROSS SECTION .20,40K

64-YO-02 YOUNG, J.A./ KOPPEL, J.U.
LATTICE VIBRATIONAL SPECTRA OF BERYLLIUM, MAGNESIUM AND ZINC
PHYS. REV., V.134A, P.1476-P.1479 (1964)
BE/ MG/ ZN THEORY/ FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS .ROOT SAMPLING METHOD

64-YO-03 YOUNG, J.A./ HUFFMAN, D.
EXPERIMENTAL AND THEORETICAL NEUTRON SPECTRA
GA-5319 (1964)
H2O EXPERIMENT/ LIQUID/ NEUTRON SPECTRUM/ THEORY

64-YO-04 YOUNG, J.A./ KOPPEL, J.U.
SLOW NEUTRON SCATTERING BY MOLECULAR HYDROGEN AND DEUTERIUM

JAERI-M 6857

RIUM PHYS. REV., V.135A, p.603-P.611 (1964)
H2/ D2 ..THEORY/ MOLECULAR DYNAMICS/ LIQUID ..SCATTERING G CROSS SECTION

64-ZW-01 ZWANG, R.
INCOHERENT INELASTIC NEUTRON SCATTERING AND SELF-DIFFUSION PHYS. REV. A, v.131, p.50-P.51 (1964)
NEUTRON-SCATTERING-IN-FLUIDS ..INCOHERENT APPROXIMATION/ SCATTERING THEORY/ SCATTERING LAW ..GENERALIZED SELF-DIFFUSION COEFFICIENT/ FLUCTUATION DISSIPATION THEOREM

65-AK-01 AKCASU, A.Z./ OSBORN, P.K.
A STUDY OF INELASTIC NEUTRON SCATTERING BY ANHARMONIC CRYSTALS WITH THE DAMPING THEORY ..INELASTIC SCATTERING OF NEUTRON, IAEA, V.11, p.261 (1965)
NEUTRON-SCATTERING-IN-SOLIDS ..THEORY/ ANHARMONICITY

65-AK-02 AKCASU, A.Z./ OSBORN, P.K.
DAMPING THEORY AND ITS APPLICATION TO NEUTRON SCATTERING BY ANHARMONIC CRYSTALS NUVOLO C.M., v.38, p.175-P.196 (1965)
THEORY-OF-SOLIDS/ SCATTERING-THEORIES ..DAMPING THEORY/ SCATTERING CROSS SECTION/ ANHARMONIC CRYSTAL

65-AR-01 ARMSTRONG, S.B.
THE ENERGY-DEPENDENT TOTAL NEUTRON CROSS SECTION OF POLYETHYLENE NUCI. SCI. ENG., v.23, p.192 (1965)
POLYETHYLENE ..EXPERIMENT/ SOLID

65-BA-01 BAJOXE, A./ MACHEKINA, T.A./ PARLINSKI, K.
N.H4+/N.H4+/N.H4+/N.H4+/N.O3- ..N.H4+/N.H4+/C.NS / (N.H4)+S.O4- / (N.H4)+S.O4- / (N.H4)+S.O4- / (N.H4)+S.O4- / (N.H4)+S.O4- ..EXPERIMENT/ NEUTRON SPECTRUM/ SOLID

65-BA-02 BALLY, D./ TODIREANU, S./ TARINA, V.
INELASTIC SCATTERING OF NEUTRONS IN ETHYLENE ..INELASTIC SCATTERING OF NEUTRONS, IAEA, v.2, p.421-P.429 (1965)
ETHYLENE ..EXPERIMENT/ SCATTERING LAW ..GAS TARGET/ TRIPLE-AXIS SPECTROMETER

65-BA-03 BATA, L./ KOZSO, E./ KROO, N./ PAL, L.
INELASTIC SCATTERING OF COLD NEUTRONS IN ETHER NEAR THE CRITICAL POINT

65-BE-01 BEYSTER, J.R./ KOPPEL, J.U.
INTEGRAL NEUTRON THERMALIZATION GA-6096 (1965)
D2/00/ H2/00/ POLYETHYLENE/ BE ..THEORY/ EXPERIMENT/ LIQUID/ SOLID/ CROSS SECTION EVALUATION

DIFFERENTIAL NEUTRON SCATTERING FROM HYDROGENOUS MODERATORS PULSED NEUTRON RESEARCH, IAEA, v.1, p.407-P.421 (1965)
H2/00/ D2/00/ ZR-H ..EXPERIMENT/ DIFFUSION PARAMETER ..AV/E-MU

65-BL-01 BLECH, I.A./ AVERBACH, B.L.
MULTIPLE SCATTERING OF NEUTRONS IN VANADIUM AND COPPER PHYS. REV., v.137A, p.1113 (1965)
V/ CU ..THEORY/ MULTIPLE SCATTERING

65-BO-01 BORGONOVI, G./ CAGLIOI, G./ ANTONINI, M.
RECENT RESULTS ON THE CRYSTAL PHYSICS OF WHITE TIN INELASTIC SCATTERING OF NEUTRONS, IAEA, v.11, p.117 (1965)
SN ..EXPERIMENT/ CRYSTAL SPECTROMETER/ DISPERSION RELATION ..ROOM TEMPERATURE/ BODY CENTERED TETRAGONAL

65-BO-02 BORST, L.B.
THE DISPERSION RELATION IN LIQUID HELIUM BNL-800 (C-45), P.173 (1965)
HE ..THEORY

65-BO-03 BOUTIN, H./ PRASK, H./ TREVINO, S.F./ DANNER, H.
POLYETHYLENE/ PHASEFRONT FREQUENCY SPECTRUM/ EXPERIMENT/ SOLID

65-BO-04 BOUTIN, H./ SAFFORD, G.J.
H.F./ H.CL/ H.BR ..EXPERIMENT/ LATTICE VIBRATION/ TOT SP ECTRUM
65-BO-05 BOUTIN, H./ PHASK, H./ SAFFORD, G.J.
LOW-FREQUENCY MOTION OF H2O MOLECULES IN BERYL FROM NEUTRON INELASTIC SCATTERING
J. CHEM. PHYS., V.42, P.1469 (1965)
H2O TOF

65-BO-06 BOUTIN, H./ PHASK, H./ SAFFORD, G.J.
LOW-FREQUENCY MOTIONS OF H2O MOLECULES IN BERYL FROM NEUTRON INELASTIC SCATTERING
J. CHEM. PHYS., V.42, P.1469-P.1470 (1965)
WATER-BERYL EXPERIMENT/ TOF SPECTRA/ ABSORBED WATER

65-BR-01 BREDOV, M.M./ KOTOV, B.A./ OKUNIEVA, N.M./ SHAKHBU DAGOV, M.L.
INVESTIGATION OF THE PHONON SPECTRUM OF ALUMINUM FIZ. TVERD. TiLA (SOV. PHYS.-SOLID STATE), V.7 (V. 7), P.1138-P.1145 (P.1413-P.1422) (1965) (1965)
AL PHONON SPECTRUM/ EXPERIMENT

65-BR-02 BRODSKY, M.H./ BURSTEIN, E.
APPLICATION OF THE SHELL MODEL TO THE LATTICE VIBRATION OF LiH
LATTICE DYNAMICS, PERGAMON PRESS, P.175 (1965)
LiH THEORY/ SOLID/ LATTICE DYNAMICS

65-BR-03 BROVMAN, E.G./ KAGAN, Y.
THE VIBRATION SPECTRUM OF THE WHITE TIN LATTICE INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.131 (1965)
Sn SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

65-BR-04 BROMBERG, R.M./ STONG, R.A./ PUGMIRE, R.J./ GRANT, D.M.
OBSERVATION OF THE LEAST-ENERGETIC E(SUB U) VIBRATION OF CYCLOHEXANE
J. CHEM. PHYS., V.50, P.1030 (1965)
CYCLOHEXANE EXPERIMENT

65-CA-01 CASPER, M.H./ MURPHY, R.A./ BUCHANAN, R.A.
LATTICE VIBRATIONS OF LA CL3 LATTICE DYNAMICS (ED. BY WALLIS, R/F.) PERGAMON PRESS, P.109 (1965)
LA CL3 LATTICE DYNAMICS

65-CH-01 CHAMPIER, G./ TOUSSAINT, G.
DYNAMICS OF HEXAGONAL CLOSE PACKED LATTICE, SPECTRA OF VIBRATIONAL FREQUENCIES IN FRENCH
LATTICE DYNAMICS (ED. BY WALLIS, R/F.) PERGAMON PRESS, P.119 (1965)
THEORY-OF-SOLIDS THEORY/ SOLID/ LATTICE DYNAMICS

CO-OPERATIVE MODES OF MOTION IN SIMPLE LIQUIDS
PHYS. REV. LETT., V.19, P.269-P.271 (1965)
NEON/ ARGON/ DEUTERIUM/ CARBON TETRAFLUORIDE EXPERIMENT
LIQUID SPECTRA

65-CH-03 CHERNOPOLSKOV, N.A./ ZEMLYAKOV, M.G.
INVESTIGATION OF THE QUASILOCAL LEVEL IN THE VIBRATION SPECTRUM OF A LATTICE WITH HEAVY IMPURITY ATOMS
PB/ SG EXPERIMENT/ IN- BAND MODE/ FREQUENCY SPECTRUM

65-CH-04 CHERNOPOLSKOV, N.A./ ZEMLYAKOV, M.G.
INVESTIGATION OF THE QUASILOCAL LEVEL IN THE VIBRATION SPECTRUM OF A LATTICE WITH HEAVY IMPURITY ATOMS
MG/ PB EXPERIMENT/ LOCAL MODE/ PHONON SPECTRA

65-CO-01 COCHRAN, W.
INTERPRETATION OF PHONON DISPERSION CURVES
LATTICE DYNAMICS (ED. BY WALLIS, M.F.) PERGAMON PRESS, P.75 (1965)
THEORY-OF-SOLIDS/ DISPERSION RELATION/ THEORY/ SOLID

65-CO-02 COCHRAN, W.
THEORETICAL ASPECTS OF PHONON DISPERSION CURVES FOR METALS INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.3 (1963)
NEUTRON-SCATTERING-IN-SOLIDS DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS/ METAL

65-CO-03 COKING, S.J./ EDELSTAFF, P.A.
FREQUENCY-WAVE NUMBER RELATIONSHIP FOR COOPERATIVE MODES OF MOTION IN LIQUID LEAD AND TIN
PHYS. REV. LETT., V.16, P.130 (1965)
PB SN EXPERIMENT/ LIQUID/ DISPERSION RELATION

65-CO-04 COWLEY, E.R./ COWLEY, R.A.
ANHARMONIC INTERACTIONS IN ALKALI HALIDES I
PROC. ROY. SOC., LONDON, SER. A, V.287, P.1409 (1965)
THEORY-OF-SOLIDS/ ANHARMONICITY/ THEORY/ ALKALI HALIDES

65-CO-05 COWLEY, R.A.
ANHARMONIC EFFECTS AND THE SCATTERING OF NEUTRONS FROM A CRYSTAL INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.297
65-CZ-01 Czachor, A.,
LATTICE DYNAMICS OF THE HEXAGONAL CLOSE-PACKED STRUCTURE.
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.181 (1965)
THEORY OF SOLIDS ..LATTICE DYNAMICS / DISPERSION RELATION / THEORY / SOLID ..HEXAGONAL CLOSED PACKED CRYSTAL

65-DA-01 Dasannacharya, B.A. / Rao, K.R.,
NEUTRON SCATTERING FROM LIQUID ARGON
PHYS. REV., V.137A, P.417 (1965)
AR ..EXPERIMENT / LIQUID / SCATTERING LAW

65-DA-02 Dasannacharya, B.A. / Venkataraman, G. / Usha-Deniiz, K.,
COLD NEUTRON SCATTERING BY METHANE
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.157 (1965)
C,H, ..SIGMA(E,E'-PRIME,THETA) / EXPERIMENT / LIQUID ..E=4.87 MILLI-V / 97.5DK

65-DE-01 De-Genne, P.G.
QUASI-ELASTIC SCATTERING OF NEUTRONS BY DILUTE POLYMER SOLUTIONS, 1. FREE-DRAINING LIMIT
PHYSICS, V.31, P.37-P.45 (1965)
NEUTRON-SCATTERING IN FLUIDS ..THEORY / QUASI-ELASTIC / DILUTE POLYMER SOLUTIONS

65-DE-02 De-Graaf, L.A.
INELASTIC NEUTRON SCATTERING BY SOLID AND LIQUID CYCLOHEXANE
BNL-940(C-45), P.138 (1965)
CYCLOHEXANE ..INELASTIC SCATTERING SPECTRA / LIQUID AND SOLID

65-DE-03 De-Groes, R.E. / Wofram, T. / Lehman, G.W.,
LATTICE DYNAMICS, HEAT CAPACITIES, AND DEBYE-WALLER FOR BE AND ZN USING A MODIFIED AXIALLY SYMMETRIC MODEL
PHYS. REV., V.138A, P.717 (1965)
BE/ ZN ..THEORY / LATTICE DYNAMICS / DISPERSION RELATION

65-DI-01 Dick, B.G.
SHELL AND EXCHANGE CHARGE MODELS OF INTERATOMIC INTERACTIONS IN SOLIDS
LATTICE DYNAMICS (ED. BY WALLIS, R.F.) PREGAMON PRESS, P.159 (1965)
THEORY OF SOLIDS ..DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS

THE CRYSTAL DYNAMICS OF URANIUM DIOXIDE
CAN. J. PHYS., V.43, P.137-P.141 (1965)
U,O, ..EXPERIMENT / THEORY / DISPERSION RELATION ..296OK / 7-PARAMETER RIGID ION MODEL / TRIPLE AXIS SPECTROMETER

65-DO-02 Dilling, G. / Gigat, G.,
THERMAL VIBRATIONS OF BETA-BRASS AND THE ORDER-DISORDER TRANSITION
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.343 (1965)
Cu-Zn ..EXPERIMENT / DISPERSION RELATION ..296OK / PHASE TRANSITION

65-DO-03 Dilling, G. / Wayns, J.L.T.
NORMAL VIBRATIONS IN GALLIUM ARSENIDE
LATTICE DYNAMICS, PREGAMON PRESS, P.19 (1965)
GaAs ..EXPERIMENT / DISPERSION RELATION

65-DO-04 Dilling, G.
INELASTIC NEUTRON SCATTERING FROM DOPED GERMANIUM AND SILICON
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.249 (1965)
Ge/Si ..EXPERIMENT / SOLID / LATTICE DYNAMICS / DISPERSION RELATION

65-DO-05 Donaldson, R.E. / Passell, L. / Bartolini, W. / Grove S. D.
DETERMINATION OF THE COHERENT NEUTRON SCATTERING AMPLITUDES OF BORON, NITROGEN, AND OXYGEN BY MIRROR REFLECTION
PHYS. REV., V.138B, P.1116 (1965)
B/ N/ O ..MIRROR REFLECTION / SCATTERING AMPLITUDE

65-DO-06 Donner, B. / Stillier, H.
LATTICE DYNAMICS OF SOLID METHANE
INELASTIC SCATTERING OF NEUTRONS IN SOLIDS AND LIQUIDS, IAEA, V.2, P.291 (1965)
C,H, ..SIGMA(E,E'-PRIME,THETA) / EXPERIMENT / SOLID / MOLECULAR DYNAMICS

65-DO-07 Donner, B. / Plessor, T. / Stillier, H.
HIGH FREQUENCY WAVES IN LIQUID LEAD
PHYSICA, V.31, P.1537-P.1539 (1965)
PB ..EXPERIMENT

65-EG-01 Egelstaff, P.A.
THERMAL NEUTRON SCATTERING
ACADEMIC PRESS, LONDON AND NEW YORK (1965)
REVIEW ARTICLES ..THEORY / EXPERIMENT ..BOOK
65-EG-02 EGGLESTAFF, P.A.
THE THERMAL MOTION OF SIMPLE LIQUIDS
BRIT. J. APPL. PHYS., V.16, P.1219 (1965)
REVIEW-ARTICLES LIQUID

65-EG-03 EGGLESTAFF, P.A./ SCHOFIELD, P.
STRUCTURE AND THERMAL MOTION OF SIMPLE LIQUIDS. II
CONTEMP. PHYS., V.6, P.453 (1965)
REVIEW-ARTICLES LIQUID THEORY FREQUENCY SPECTRUM CORRELATION FUNCTION SCATTERING LAW

65-EG-04 EGGLESTAFF, P.A./ SCHOFIELD, P.
STRUCTURE AND THERMAL MOTION OF SIMPLE LIQUIDS - 2
CONTEMP. PHYS., V.6, P.453-464 (1965)
REVIEW-ARTICLES LIQUID PHYSICAL PROPERTY TIME DEPENDENT DISTRIBUTION NEUTRON EXPERIMENT

65-EL-01 ELLIOTT, R.J./ MARADUNI, A.A.
THEORY OF NEUTRON SCATTERING BY LATTICE VIBRATIONS IN IMPERFECT CRYSTALS
INELASTIC SCATTERING OF NEUTRONS IAEA, V.1, P.231 (1965)
NEUTRON-SCATTERING IN-SOLIDS THEORY DISPERSION RELATION SOLID LATTICE DYNAMICS IMPERFECT CRYSTAL \neutron SCATTERING

65-FU-01 FULINSKI, A.
STATISTICAL-MECHANICAL THEORY OF INCOHERENT VAN-HOOGVEY SCATTERING FUNCTION FOR THERMODYNAMIC SYSTEMS
ACTA PHYS. POL., V.27, P.245-258 (1965)
NEUTRON-SCATTERING IN-FLUIDS SCATTERING THEORY INCOHERENT SCATTERING FUNCTION

65-GA-01 GANNON, L.G./ McMARR, H.L.
A MACHINE PROGRAM FOR CALCULATING SLOW NEUTRON SCATTERING CROSS SECTION \with EXACT AVERAGING OVER MOLECULAR ORIENTATION
IDO-17087 (1965)
C/H4 C2H6 COMPUTER-CODES THEORY MOLECULAR DYNAMICS SCATTERING FUNCTION

65-GI-01 GIBBS, A.G./ FERZIGER, J.H.
MODELS FOR THE MOTION OF MOLECULE IN A LIQUID AND THEIR APPLICATION TO SLOW-NEUTRON SCATTERING
PHYS. REV., V.138A, P.701 (1965)
NEUTRON-SCATTERING IN-FLUIDS THEORY LIQUID MOLECULAR DYNAMICS KINETIC MODEL CORRELATION FUNCTION

65-GI-02 GILAT, G./ DOLLING, G.
NORMAL VIBRATIONS OF BETA-BrASS PHYS. REV., V.138A, P.1053 (1965)

65-GI-03 GILAT, G.
ROD CONFURMATION EFFECTS IN SINGLEDROP SOLID STATE COMM. V.3, P.101 (1965)
THEORETICAL FRINGE FREQUENCY DISTRIBUTION

65-GL-01 GLAESER, W./ CARVALLO, F./ EHRET, G.
PHONON FREQUENCY DISTRIBUTION OF VANADIUM INELASTIC SCATTERING OF NEUTRONS IAEA, V.1, P.99 (1965)
V EXPERIMENT SOLID FREQUENCY DISTRIBUTION TOF ROTATING CRYSTAL SPECTROMETER ROOM TEMP

65-GL-02 GLAESER, W.
DETERMINATION OF THE SCATTERING LAWS OF SOME ORGANIC SUBSTANCES WITH SLOW NEUTRONS NUKLEONIK, V.7, N.64 (1965)
BENZENE/ BIPHENV/ BIPHENE EXPERIMENT MOLECULAR DYNAMICS SCATTERING LAW SIGMA (E-ENERGY) THEORETICAL FREQUENCY SPECTRUM

65-GL-03 GLAESER, W./ EHRET, G./ MERKEL, A.
RECENT MEASUREMENTS OF THE SCATTERING LAWS OF SOME HYDROGEN MODERATORS INELASTIC SCATTERING OF NEUTRONS IAEA, V.2, P.167 (1965)
C6H6 C2H4 C2H6 GROUP SCATTERING LAW FREQUENCY DISTRIBUTION EXPERIMENT LIQUID 20 DC FOR C6H6 241 DC FOR H2 210 DC FOR ZR-H

65-GL-04 GLASSGOLD, A.E.
LOW TEMPERATURE PROPERTIES OF LIQUID HE (ISO. A=3)
BTL-940 C-455, P.69 (1965)
HE THEORETICAL

65-GO-01 GOLIKOV, V.V./ ZHOKORSKJA, I.Z./ SHAPIRO, F.L./ SOKHINA, A.A./ JANIK, E.
SLOW NEUTRON SCATTERING IN WATER AND SOME ORGANIC SUBSTANCES INELASTIC SCATTERING OF NEUTRONS IAEA, V.2, P.201 (1965)
C2H6 C2H4 C2H6 EXPERIMENT LIQUID SOLID

65-GP-01 GRIFFING, G.W.
OPTIONAL USE OF THE LANGEVIN EQUATION OF BROWNIAN MOTION FOR THE ANALYSIS OF COLD AND SLOW NEUTRON SCATTERING BY LIQUID METHANE J. CHEM. PHYS., V.43, P.2328-2336 (1965)
C4H8 THEORETICAL LIQUID LANGEVIN EQUATION COMPARED WITH
H EXPERIMENT

65-GR-02 GRIFFING, G.W.
APPLICATION OF THE LANGEVIN EQUATION TO THE SCATTERING OF NEUTRONS FROM LIQUID METHANE
BNL-940C (45), p.149 (1965)

METHANE, THEORY/ LIQUID METHANE

65-GR-03 GRIFFING, G.W.
SCATTERING OF SLOW NEUTRONS BY DEUTERATED METHANE
PHYS. REV. A, v.136, p.1053 (1965)

METHANE, GAS DYNAMICS/ C.D.A

65-GR-04 GRUNDLAY, J./ HOWARD, R.
ON THE LATTICE DYNAMICS AND SPECIFIC HEAT OF THE RARE-G AS SOLIDS
LATTICE DYNAMICS, Pergamon Press, p.129 (1965)

AR, THEORY/ SOLID/ LATTICE DYNAMICS

65-HA-01 HAHN, H.
LATTICE VIBRATIONS IN MOLECULAR CRYSTALS AND NEUTRON SCATTERING

NEUTRON-SCATTERING-IN-SOLIDS, THEORY/ MOLECULAR CRYSTALS DYNAMICS/ SCATTERING FUNCTION

65-HA-02 HARDY, J.R./ KARO, A.M.
LATTICE DYNAMICS OF RUBIDIUM IODIDE IN RELATION TO THE NA, CL-CS, CL PHASE TRANSITION
LATTICE DYNAMICS, Pergamon Press, p.195 (1965)

RB1, DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS

65-HA-03 HARKER, Y.D./ BRUGGER, R.M.
SLOW-NEUTRON INELASTIC SCATTERING FROM LOW-TEMPERATURE GAS/ LIQUID METHANE, LIQUID METHANE AND SOLID METHANE
J. CHEM. PHYS., v.42, p.275-284 (1965)

METHANE, SOLID/ LIQUID/ GAS/ SCATTERING LAW/ EXPERIMENT TOF/ MOLECULAR DYNAMICS .1250K/ 990K/ 830K

65-HA-04 HARLING, O.K./ LEONARD-JK, B.R.
A MULTIPLE-PIN NEUTRON SCATTERING STUDY OF HYDROGEN BOUNDING IN ZINC-CONTAINED HYDROXYL
BNL-940C (45), p.96-P.104 (1965)

ZRH, EXPERIMENT/ LATTICE DYNAMICS/ INCOHERENT/ TOF/ 295DK

65-HA-05 HARRISON, W.A.
THEORY OF PHONON DISPERSION IN METAL
LATTICE DYNAMICS (ED. BY WALLIS, R.F) Pergamon Press, p.85 (1965)

THEORY-OF-SOLIDS, DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS

65-HA-06 HAUTELEER, S./ VAN-DINGEN, W.
LATTICE DYNAMICS OF NICKEL AND KREBS'S MODEL
BROOKHAVEN SYMPOSIUM, BNL-970C (45), p.83 (1965)

N10, PHONON DISPERSION

65-HO-01 HOFMEYER, C.H.
DETERMINATION OF THE DIFFUSION CONSTANTS DCE-T, AND DVC-T OF THERMAL NEUTRONS IN H2O, PHENYLENE, ZR=1.199 AND D2O BY MEASUREMENT OF SCATTERING ANGULAR DISTRIBUTION 3, BENZENE, DIPHENYL

0, M-P, TERRNYEL
NUCLEONS, v.7, p.286 (1965)

BENZENE, BIPHENYL/ TERYPHENYL, EXPERIMENT, 210DC-130DC

65-HO-02 MOLAS, A.
NOTE ON DISPERSION CURVE CALCULATIONS IN ZINC
INELASTIC SCATTERING OF NEUTRONS, IAEA, v.1, p.205 (1965)

ZN, LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION

65-HO-03 HONEY, H.C./ NALIBOFF, Y.D.
FLANGE
GA-81284 (1965)

COMPUTER-CODES

65-HO-04 HORSLEY, A.
NEUTRON CROSS SECTIONS OF THE PROTON IN THE ENERGY RANGE 0, 0001EV-200MEV
AWRE-O=23/65 (1965)

H, CROSS SECTION EVALUATION, SIGMA TOTAL

65-HU-01 HULLIN, M.
LATTICE DYNAMICS OF TELLURIUM
LATTICE DYNAMICS, Pergamon Press, p.135 (1965)

TE, THEORY/ SOLID/ LATTICE DYNAMICS

65-I-01 IJIMA, S./ TUKIYAMA, M.
UNCLE: AN IBM-7090 PROGRAM FOR CALCULATING THE SCATTERING KERNS FOR ANISOTROPIC CRYSTAL (IN JAPANESE)
JAERI-1087 (1965)

COMPUTER-CODES

65-IM-01 IMRY, Y./ PELAH, I./ WINTER, E.
PROTON DYNAMICS IN HYDROGEN-BONDED FEKROELECTRICS
J. CHEM. PHYS., v.43, p.2332-P.2340 (1965)

K,H, P.04/ K2,H, P.04/ K3,H, P.04, EXPERIMENT/ LATTICE DYNAMICS/ TOF

65-IV-01 IYENGER, P.K./ VENKATARAMAN, G./ VIJAYARAGHAVAN, P.
LATTICE DYNAMICS OF MAGNESIUM INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.15 (1965)
MG LATTICE DYNAMICS SOLID/ DISPERSION RELATION
65-Y-02 NYENGERE, P.K./VENKATARAMAN, G./VIJAYARAGHAVAN, P.R./ROY, A.P.
DISPERSION RELATIONS FOR PHONONS IN MAGNESIUM LATTICE DYNAMICS (ED. BY WALLIS, R.F.) PERGAMON PRESS, P.223 (1965)
MG DISPERSION RELATION THEORY SOLID/ LATTICE DYNAMICS

65-JA-01 JANIK, J.A.
MOLECULAR DYNAMICS INVESTIGATED BY NEUTRON SCATTERING INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.243 P.278 (1965)
H2O SOLID/ LIQUID/ FREQUENCY DISTRIBUTION/ SIGMA(E, THETA/>

65-JO-01 JOSHI, S.K./SHARMA, K.C.
THE NATURE OF THE PHONON SPECTRUM AND THE ANALYSIS OF LATTICE THERMAL CONDUCTIVITY INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.285 (1965) THEORY OF SOLIDS THEORY SOLID/ LATTICE DYNAMICS

65-KA-01 KAGAN, J.I./ZMLRNOV, A.P.
EFFECT OF ANHARMONICITY ON THE PHONON SPECTRUM NEAR ITS DISCONTINUITY INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.391 (1965) THEORY OF SOLIDS THEORY SOLID/ LATTICE DYNAMICS

65-KI-01 KITAGAWA, T./MIYAZAWA, T.
FREQUENCY DISTRIBUTION OF CRYSTAL VIBRATIONS AND SPECIFIC HEAT OF POLYETHYLENE REP. PROGR. POLYMER PHYS. V.6, P.53-P.56 (1965) POLYETHYLENE THEORY FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS/ MOLECULAR DYNAMICS SPECIFIC HEAT

65-KL-01 KLEY, W./PERETTI, J./RUBIN, R./VERDAN, G.
HYDROGEN MOION IN PRIMARY SOLUTIONS OF HYDROGEN IN SOME TRANSITION ELEMENTS BNL-940C(45), P.105 (1965) V/H NB/H PD/H EXPERIMENT SOLID/ FREQUENCY DISTRIBUTION 50DC FOR V/H 330C FOR NB/H PD-H

65-KO-01 KOPPEL, J.I./YOUNG, J.A.
THE ROLE OF INTERFERENCE SCATTERING IN NEUTRON THERMALIZATION BY HEAVY WATER

NUKLEONIK V.7, P.408-P.415 (1965) D2O LIQUID THEORY SIGMA(E)/ SIGMA(THETA, E)/ SCATTERING LAW NEUTRON SPECTRUM

65-KO-02 KORNBICHLER, S.

65-KR-01 KREBS, K.
DISPERSION CURVES AND LATTICE FREQUENCY DISTRIBUTION OF METALS PHYS. REV. V.138A, P.143-P.147 (1965) LI NA THEORY SOLID/ DISPERSION RELATION

INELASTIC SCATTERING OF COLD NEUTRONS BY CONDENSED ARGON INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.101 (1965) ARG EXPERIMENT LIQUID/ DISPERSION RELATION

65-LA-01 LARSSON, K.E./DAHLBORG, U./JOVIC, D.
COLLECTIVE ATOMIC MOTIONS IN LIQUID ALUMINIUM STUDIED BY COLD NEUTRON SCATTERING INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.117 (1965) AL EXPERIMENT LIQUID/ DISPERSION RELATION FREQUENCY DISTRIBUTION

65-LA-02 LARSSON, K.E.
LIQUID DYNAMICS INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.3 (1965) REVIEW ARTICLES LIQUID/ MOLECULAR DYNAMICS

65-LA-03 LAX, M.
COMMENTS ON THE SHELL MODEL FOR LATTICE VIBRATIONS LATTICE DYNAMICS (ED. BY WALLIS, R.F.) PERGAMON PRESS, P.179 (1965) THEORY OF SOLIDS THEORY

65-LE-01 LEHMANN, G.W./WOLFRA M, T./DE-WAMES, R.E.
STUDIES IN LATTICE DYNAMICS OF METALS USING THE A-5 MODEL LATTICE DYNAMICS PERGAMON PRESS, P.101 (1965) THEORY OF SOLIDS DISPERSION RELATION THEORY SOLID/ LATTICE DYNAMICS
65-LE-02 LEMMEL, H. DETERMINATION OF THE DIFFUSION CONSTANTS (D(E,T)) AND AVERAGE (U(T)) OF THERMAL NEUTRONS IN H_2O, PHENYLENE, ZR=1,92 AND D_2O BY MEASUREMENT OF THE ANGULAR DISTRIBUTION OF SCATTERED NEUTRONS. PKA 1, H_2O (IN GERMANY) NUKLEONIK, V.7, P.266-280 (1965)
H_2O EXPERIMENT LIQUID DISPERSION PARAMETER SIGMA THETA E

65-LO-01 LOMER, W.M. NEUTRON SPECTROSCOPY OF SOLIDS - PART 1 CONTEMP. PHYS., V.7, P.278-293 (1965) REVIEW ARTICLES REVIEW NEUTRON SCATTERING LATTICE DYNAMICS

65-LO-02 Long-Pierce, D. PHONON IN WHITE TIN INELASTIC SCATTERING OF NEUTRONS IAEA, V.1, P.109 (1965) SN EXPERIMENT TOF DISPERSION RELATION ROOM TEMPERATURE BODY CENTERED TETRAHEDRAL

65-MA-01 MAIDHOV, L.V. ASYMPTOTIC FORM OF THE SCATTERING LAW FOR SLOW NEUTRONS AT. ENERG. USSR (SOV. AT. ENERGY) V.19 (V.19), P.667-694 (P.904-P.934) (1965) SCATTERING-THEORIES SCATTERING FUNCTION


65-MA-03 MARADUDIN, A.A. A SIMPLE EXPRESSION FOR THE QUARTIC ANHARMONIC CONTRIBUTION TO THE HELMHOLTZ FREE ENERGY OF A SPECIAL MODEL OF AN FCC CRYSTAL LA-3379-MS (1965) THEORY OF SOLIDS ANHARMONICITY THEORY HELMHOLTZ FREE ENERGY

65-MA-04 MATSUOKA, K./ ARAI, K. MANUAL OF EGELSTAFF-SCHOFIELD MODEL CODE (E.S. CODE) JAERI-1094 (1965) COMPUTER CODES


65-MO-01 MOELLER, H.B./ MACKINTOSH, A.R. INELASTIC SCATTERING OF NEUTRONS IN CHROMIUM INELASTIC SCATTERING OF NEUTRONS IAEA, V.1, P.95 (1965) CR EXPERIMENT SOLID DISPERSION RELATION TRIPLE AXIS SPECTROMETER

65-MO-02 MOELLER, H.B./ MACKINTOSH, A.R. OBSERVATION OF RESONANT LATTICE MODES BY INELASTIC NEUTRON SCATTERING PHYS. REV. LETT., V.15, P.623 (1965) CHW DISPERSION RELATION EXPERIMENT LATTICE DYNAMIC SOLID DISORDERED ALLOY

65-MO-03 MOZER, B./ OTNES, K./ PALEVSKY, H. MEASURED VIBRATIONAL FREQUENCY DISTRIBUTION OF NI, V, TI AND Ti-74 ЗR-33 LATTICE DYNAMICS EDITED BY WALLIS, R.F., Pergamon Press, P.63 (1965) NI V, TI ZR EXPERIMENT SOLID FREQUENCY DISTRIBUTION

65-MU-01 MUSGRAVE, M.J.P. LATTICE DYNAMICAL MODEL FOR GRAY AND WHITE TIN AND THEIR RELEVANCE TO TRANSITIONS AT HIGH PRESSURE LATTICE DYNAMICS Pergamon Press, P.189 (1965) SN THEORY SOLID LATTICE DYNAMICS

65-MY-01 MYERS, W./ DONOVAN, J.L./ KING, J.S. POLYETHYLENE FREQUENCY SPECTRUM FROM WARM-NEUTRON SCATTERING J. CHEM. PHYS., V.42, P.4299 (1965) POLYETHYLENE SIGMA(2,4-PRIME, THETA) FREQUENCY SPECTRUM EXPERIMENT SOLID

65-MY-02 MYERS, W./ SUMMERFIELD, G.C./ KING, J.S. NEUTRON SCATTERING IN STRETCH-ORIENTED POLYETHYLENE BROOKHAVEN SYMPOSIUM BNL-940 (C-45), P.126 (1965) POLYETHYLENE FREQUENCY SPECTRA


65-NA-02 NALBOFF, Y.D. LHIK - AN IBM 7044 PROGRAM TO CALCULATE CROSS SECTIONS AND Kernels FOR LIQUID PARA- AND ORTHO-HYDROGEN GR-9652 (1965)
65-NE-01 NELKIN, M./ VAN-LEEUVEN, J.M.J./ YIP, S.
A KINETIC DESCRIPTION OF THE VAN-HOVÉ CORRELATION FUNCTION
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.35-
P.58 (1965)
NEUTRON-SCATTERING-IN-FLUIDS THEO., KINETIC THEORY

65-NL-01 NUSIMOVIC, M.A./ BIRMAN, J.L.
LATTICE DYNAMICS OF MURZITAS, CD-S
PHYS. REV., V.156, P.925 (1965)
CD-S, LATTICE DYNAMICS

65-OT-01 OTTEWITTE, E.M.
THE EFFECT OF TEMPERATURE, MICROSTRUCTURE OF SINTERED BERYLLIUM OXIDE ON THE SCATTERING CROSS SECTIONS FOR A S NAP REACTOR
NAA-SR-MEMO-11604 (1965)
BE, O: SIGMA(E)/ EXPERIMENTS/ SOLID, 290DK/ 800DK/ 1300 DK/ 1500DK

65-PA-01 PAL, S./ SHARMA, P.K.
DISPERSION OF LATTICE WAVES IN TUNGSTEN
PHYS. LETT., V.19, P.105 (1963)
W, THEORY/ PHONON DISPERSION

65-PA-02 PALEVSKY, H.
A STUDY OF THE DIFFUSIVE MOTIONS OF LIQUIDS BY MEANS OF COLD-NEUTRON SCATTERING EXPERIMENTS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.265 (1965)
Pb/ H2O/ SM, EXPERIMENT/ LIQUID

65-PA-03 PALEVSKY, H.
SLOW NEUTRON STUDIES OF MOLECULAR MOTIONS IN CONDENSED MATTER
BNL-9297 (1965)
REVIEW-ARTICLES, EXPERIMENT/ MOLECULAR DYNAMICS

65-PA-04 PATHAK, K.N.
THEORY OF ANHARMONIC CRYSTALS
PHYS. REV., V.139, P.1569 (1965)
THEORY-OF-SOLIDS, ANHARMONICITY/ DISPERSION RELATION/ THEORY, GREEN FUNCTION

65-PE-01 PECKHAM, G.
PHONON DISPERSION RELATIONS IN MAGNESIUM OXIDE LATTICE DYNAMICS (ED. BY B.F. WALLIS), P.49 (1965)
MgO, LATTICE DYNAMICS

65-PE-02 PELAH, I./ KREBS, K./ IMHY, Y.
INELASTIC NEUTRON SPECTRA AND THE VIBRATIONAL MODES OF THE HYDROGEN LAYER IN ALKALI AND ALKALINE-EARTH HYDROXIDES
J. CHEM. PHYS., V.43, P.1864-P.1869 (1965)
CA(O,HO2/ Mg(OH)2/ LiO,H, EXPERIMENT/ LATTICE DYNAMICS, TOF

65-PE-03 PELAH, I./ WIENER, E./ IMHY, J.
INDICATION OF PROTON TUNNELLING IN K.H2.P.O4 BY COMPARING NEUTRON INELASTIC SCATTERING AND INFRARED MEASUREMENTS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.325-P.331 (1965)

65-PO-01 POPE, N.K./ NATION, R.
THE VAN HOVÉ SCATTERING FUNCTION FOR WATER
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.141-P.146 (1965)
H2O, SCATTERING LAW/ CORRELATION FUNCTION

65-PO-02 POPE, N.K.
THE FORCE CONSTANTS OF GERMANIUM
LATTICE DYNAMICS, PERGAMON PRESS, P.147 (1965)
GE, LATTICE DYNAMICS/ SOLID/ THEORY

65-PR-01 PRAKASH, S./ JOSHI, S.K.
FORCE CONSTANTS OF SODIUM
PHYS. REV., V.140A, P.1754 (1965)
NA, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

65-RA-01 RAHMAN, A.
NORMALIZATION OF DIFFRACTION DATA FROM LIQUIDS
J. CHEM. PHYS., V.42, P.3540 (1965)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/ LIQUID

65-RA-02 RANDOLPH, P.D.
SLOW NEUTRON SCATTERING STUDIES OF LIQUID AND SOLID ARGON
DO-17089 (1965)
AR, EXPERIMENT/ SCATTERING LAW/ FREQUENCY DISTRIBUTION . . . LIQUID AND SOLID

65-RO-01 ROGALSKA, Z.
ROTATIONAL DYNAMICS OF SOLID METHANE MOLECULES BY SLOW NEUTRON CROSS-SECTION MEASUREMENTS
ACTA PHYS. POL., V.27, P.581-P.586 (1965)
METHANE, EXPERIMENT/ SOLID/ LIQUID, TOTAL CROSS SECT.
N, 105DK/ 800K/ 1.5MEV-4.5MEV

65-RO-02 ROSENBAUM, M./ ZWEIFEL, P.F.
QUASICLASSICAL THEORY OF NEUTRON SCATTERING
SCATTERING=THEORIES .. SCATTERING THEORY

65-RO-03 ROSENSTOCK, H.B.
APPLICATION OF A SUM RULE TO THE STUDY OF INTERATOMIC FORCES
LATTICE DYNAMICS, P.203 (1965)
THEORY OF SOLIDS .. DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS

65-RO-04 HOWE, J.M./ BROOKHOUSE, B.N./ SVENSSON, E.C.
LATTICE DYNAMICS OF WITE HIT TIN
SN .. EXPERIMENT / DISPERSION RELATION .. BODY CENTERED TETRAGONAL

65-RU-01 RUBIN, R./ PERETTI, J./ VERDANT, G./ KLEY, W.
INELASTIC SCATTERING OF COLD NEUTRONS BY LOCALIZED MODES IN VANADIUM HYDRID SYSTEM
Phys. Lett., V.14*, P.100-P.102 (1965)
V / V-H .. EXPERIMENT / SOLID / .. ROOM TEMP, FOR V / 100 DC
FOR V-H / LOCALIZED MODE IN V DUE TO H

65-RU-02 RUSH, J.J./ TAYLOR, T.I.
STUDY OF LOW-FREQUENCY MOTIONS IN SEVERAL FerROELECTRIC SALTS BY THE INELASTIC SCATTERING OF COLD NEUTRONS
INELASTIC SCATTERING OF NEUTRONS, V.2, P.333-P.365 (1965)
K4,Fe(CN)6, (N,H)2, S.OA / N, H, S, OA / (N,H)2, BE, F6 .. EXPERIMENT / MOLECULAR LATTICE DYNAMICS / NEUTRON SPECTROSCOPY .. TOF / 298, 177 AND 1250K

65-SA-01 SAFFORD, G.J./ LOSACCO, F.
STUDY OF LOW-FREQUENCY MOTIONS IN NYLON-6
NYLON .. EXPERIMENT / TOF SPECTRA / FREQUENCY DISTRIBUTION / LATTICE DYNAMICS

65-SC-01 SCHMUNK, R.E./ BRUGGER, R.M./ RANDOLPH, P.D.
INTERFERENCE EFFECTS IN SLOW NEUTRON INELASTIC SCATTERING FROM POLYCRYSTALLINE SOLIDS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.379 (1965)
AI/BE .. EXPERIMENT / SCATTERING FUNCTION / TOF / FREQUENCY DISTRIBUTION .. POLYCRYSTAL / COHERENT SCATTERER

65-SC-02 SCHMUNK, R.E./ GAUN, W.K.
DISPERSION RELATIONS OF WHITE TIN
SN .. EXPERIMENT / DISPERSION RELATION .. BODY CENTERED TETRAGONAL CRYSTAL

65-SE-01 SEARS, V.F.
THE ITINERANT OSCILLATOR MODEL OF LIQUIDS
PROC. PHYS. SOC., LONDON, V.86, P.953-P.964 (1965)
NEUTRON-SCATTERING-IN-FLUIDS / AR .. LIQUID / CORRELATION FUNCTION

65-SE-02 SEARS, V.F.
THEORY OF COLD NEUTRON SCATTERING BY HYDROGEN IN LIQUID ARGON
PROC. PHYS. SOC., LONDON, V.86, P.965 (1965)
H .. SCATTERING LAW

65-SH-01 SHAM, L.T.
A CALCULATION OF THE PHONON FREQUENCIES IN SODIUM
NA .. THEORY / SOLID / LATTICE DYNAMICS / Dispersion relation

65-SH-02 SHIMADA, S.
NELKER, A CODE OF SCATTERING KERNEL CALCULATION FORBOUND HYDROGEN (IN JAPANESE)
JAERI-1085 (1965)
COMPUTER CODES

65-SI-01 SIGMA, D.J.
THE SELF-CORRELATION FUNCTION OF REAL GASES
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.59-P.84 (1965)
NEUTRON-SCATTERING-IN-FLUIDS .. SCATTERING THEORY / GAS .. SELF-CORRELATION FUNCTION

65-SI-02 SINGH, R.P./ MANI, K.K./ KELKAR, V.M.
PHONON DISPERSION RELATIONS IN ALKALI METALS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.77 (1965)
THEORY OF SOLIDS .. DISPERSION RELATION / THEORY / SOLID / LATTICE DYNAMICS .. ALKALI METAL

65-SI-03 SINGH, K.S./ FELDMANN, G.
COHERENT SCATTERING OF SLOW NEUTRONS BY LIQUID SODIUM INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.85-P.99 (1965)
NA .. THEORY / SCATTERING FUNCTION / LIQUID .. PHONON IN LIQUID

65-SI-04 SINGH, K.S.
COHERENT SCATTERING OF SLOW NEUTRONS BY LIQUID ARGON
Physica, V.31, P.1257-P.1285 (1965)
ARGON .. THEORY / LIQUID / SCATTERING LAW .. COHERENT SCATTERING / ONE-PHONON APPROXIMATION
65-SI-05 SINGH, K.S.; ANDERSON, L.,
KOHON ANOMALY AND COHOMET SCATTERING OF SLOW NEUTRONS IN LIQUID METALS.
PHYS. LETT., V.15, P.693 (1965)
NEUTRON-SCATTERING-IN-FLUIDS, KOM EFFECT

65-SI-06 SINHA, S.K.; SVARIDES, G.L.,
THE FREQUENCIES OF THE NORMAL MODES OF COPPER LATTICE DYNAMICS, (ED. BY WALLIS, R.F.), P.53 (1965)
CU, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ TOF

65-SJ-01 JOELEANDER, A.; JOHNSON, R.
INTERPRETATION OF SLOW NEUTRON SCATTERING DATA IN METAL INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.61 (1965)
NEUTRON-SCATTERING-IN-SOLIDS, DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS/ METAL/ NEUTRON SCATTERING

65-SJ-01 SLATER, L.S.
THE TEMPERATURE VARIATION OF THE SCATTERING PROPERTIES OF CRYSTALS.
ADVAN. PHYS., V.14, P.1 (1965)
V/ SI/CU/ NEUTRON-SCATTERING-IN-SOLIDS, HARMONIC APPROXIMATION/ DEBYE APPROXIMATION

65-SR-01 SVARIDES, G.L.
MEASUREMENTS OF THE FREQUENCIES OF THE NORMAL MODES OF MAGNESIUM.
BROOKHAVEN SYMPOSIUM, BNL-970 (C=45), P.78 (1965)
MG, PHONON DISPERSION/ EXPERIMENT

65-SR-01 SRINGVANAN, S.; HAO, R.R.
STRAIN DEPENDENCE OF THE FREQUENCIES AND THERMAL EXPANSION OF THE HEXAGONAL CLOSE-PACKED LATTICE INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.325 (1965)
THEORY-OF-SOLIDS, THEORY/ SOLID/ LATTICE DYNAMICS

65-SR-02 SRIVASTAVA, P.L.
A COMPARISON BETWEEN THE ELECTRON-PHONON INTERACTIONS OF TOYA AND BAILYN INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.49 (1965)
THEORY-OF-SOLIDS, DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS/ ELECTRON-PHONON INTERACTION

65-ST-01 STEMDAN, A.T.; NILSSON, G.
OBSERVATIONS ON THE Fermi SURFACE OF ALUMINUM BY NEUTRO N SPECTROMETRY.
PHYS. REV. LETT., V.15, P.634 (1965)
AL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

65-ST-02 STEMDAN, A.T.; NILSSON, G.
PHONON IN ALUMINIUM AT 800K INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.211 (1965)
AL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ CRYSTAL SPECTROMETER/ 800K

65-ST-03 STEELE, W.A.; PECORA, R.
SCATTERING FROM FLUIDS OF NONSPHERICAL MOLECULES, I. X-RAY AND NEUTRONS, II. LIGHT
J. CHEM. PHYS., V.42, P.1863-P.1879 (1965)
SCATTERING-THEORIES, THEORY/ STATISTICAL MECHANICS/ DIFFERENTIAL CROSS SECTION/ CORRELATION FUNCTION, ELASTIC AND INELASTIC SCATTERING

65-ST-04 STILLER, H.
PROTON MOTIONS IN ACID AQUEOUS SOLUTIONS.
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.179-P.189 (1965)

65-ST-05 STRAVER, E.A.
INELASTIC NEUTRON SCATTERING FROM PRESSURIZED ETHANE.
J. CHEM. PHYS., V.43, P.4134 (1965)
C2H6, SCATTERING LAW

INELASTIC SCATTERING OF THERMAL NEUTRONS FORM PRESSURIZED ETHANE.
BNL-940 (C=45), P.142 (1965)
ETHANE, EXPERIMENT/ PRESSURIZED ETHANE

65-ST-07 STRONG, K.A.; MARKER, Y.D.; BRUGGER, R.M.
SCATTERING OF SLOW NEUTRONS FROM AMMONIA AND HYDROGEN SULFIDE.
J. CHEM. PHYS., V.42, P.1568-P.1572 (1965)
AMMONIA, HYDROGEN SULFIDE, EXPERIMENT/ GAS/ CROSS SECTION EVALUATION, MTR-PHASE-CHOPPER

65-SU-01 SUMMERSFIELD, G.C.
DETERMINATION OF THE PHONON SPECTRUM OF POLYETHYLENE BY NEUTRON SCATTERING.
J. CHEM. PHYS., V.43, P.1079-P.1080 (1965)
POLYETHYLENE, THEORY, SCATTERING CROSS SECTION FOR POLYETHYLENE
65-SU-02 SUNAKAWA, S. / FUKUJI, Y.
THE PSEUDOPOTENTIAL FOR THE HARD-CORE INTERACTION
PROGR. THEOR. PHYS., KYOTO, V.34, P.693 (1965)
THEORY-OF-SOLIDS .PSEUDOPOTENTIAL

65-SV-01 SVENSSON, E.C. / BROCKHOUSE, B.N. / ROWE, J.M.
"IN-BAND" MODES OF VIBRATIONS OF A DILUTE DISORDERED ALLOY
SOLID STATE COMMUN., V.3, P.255 (1965)
Cu-Au ++EXPERIMENT/ DISPERSION RELATION ++3-AXIS-SPECTRUM
OMETER/ DISORDERED ALLOYS

65-VA-01 TASEUM, M. / SHIMANDOCHI, T.
CRYSTAL VIBRATIONS AND INTERMOLECULAR FORCES OF POLYMETHYlene CRYSTALS
J. CHEM. PHYS., V.43, P.1245-P.1258 (1965)
POLYETHYLENE ++THEORY/ MOLECULAR DYNAMICS/ DISPERSION RELATION

65-VE-01 TOYI, T.
LATTICE DYNAMICS OF LEAD
LATTICE DYNAMICS, PERGAMON PRESS, P.91 (1965)
PB ++THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

65-TE-01 TOYI, T.
ELECTRON-PHONON INTERACTIONS AND LATTICE DYNAMICS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.25 (1965)
NEUTRON-SCATTERING IN-SOLIDS ++DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS ++ELECTRON-PHONON INTERACTION

65-TU-01 TURCHIN, V.F.
CALCULATION OF DIFFERENTIAL SCATTERING CROSS SECTION OF SLOW NEUTRON BY TIME INTEGRATION (IN RUSSIAN)
AT. ENERG., USSR (SAV, AT. ENERG.), V.19, P.428-P.432 (1965)
H2O ++LIQUID/ SOLID/ SCATTERING LAW/ FREQUENCY DISTRIBUTION

65-TU-02 TURCHIN, V.F.
SLOW NEUTRONS
ISRAEL PROGRAM FOR SCIENTIFIC TRANSLATIONS (1965)
REVIEW-ARTICLES .BOOK

65-TU-03 TURCHIN, V.F. / TARASOV, V.A.
ASYMPTOTIC FORMULAE FOR SLOW NEUTRON SCATTERING BY BOUND ATOMS
AT. ENERG., USSR (SAV, AT. ENERG.), V.18 (V.18), P.118-P.121 (P.146-P.150) (1965) (1965)
NEUTRON-SCATTERING IN-SOLIDS ++SCATTERING THEORY ++ENG

65-VA-01 VAN-LEEUwen, J.M. / YIP, S.
DERIVATION OF KINETIC EQUATIONS FOR SLOW NEUTRON SCATTERING
PHYS. REV., A., V.139, P.1138-P.1151 (1965)
SCATTERING-THEORIES ++THEORY ++KINETIC EQUATIONS/ DENSE GAS

65-VE-01 VENKATARAMAN, G. / DENIZ, K.U. / IYENGAR, P.K. / VIJA YARGHAVAN, P.R. / ROY, A.P.
STUDY OF ELASTIC INCOMERENT SCATTERING BY AMMONIUM SALTS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.2, P.347-P.353 (1965)
VH.NH4.CL/ NH4.BR/ NH4.I/ (NH4)2.SN.C6L/ (NH4)2.SN.BR6 ++EXPERIMENT/ ELASTIC SCATTERING/ ANGULAR DISTRIBUTION

65-VE-02 VERETENNYI, V.P. / DZYUB, I.P. / MAISTRENKO, A.N. / PA SEREK, M.V.
COHERENT EFFECTS DURING THE INTERACTION OF SLOW NEUTRONS WITH LIQUIDS
AT. ENERG., USSR (SAV, AT. ENERG.), V.18 (V.18), P.452-P.455 (P.585-P.589) (1965) (1965)
N2/02 ++EXPERIMENT/ TOTAL CROSS SECTION/ LIQUID/SOLID

65-VA-01 WALLER, I.
THEORETICAL INVESTIGATIONS OF THE INFLUENCE OF ANHARMONICITY AND IMPURITY ON NEUTRON SCATTERING BY CRYSTALS AND ON THE MOESSBAUER EFFECT
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.225 (1965)
NEUTRON-SCATTERING IN-SOLIDS ++ANHARMONICITY/ THEORIES SOLID ++IMPURITY/ NEUTRON/ CRYSTAL/ MOESSBAUER EFFECT

65-VA-02 WARNEN, J.L. / WENZELL, R.G. / YARNELL, J.L.
DISPERSION CURVES FOR PHONONS IN DIAMOND
INELASTIC SCATTERING OF NEUTRONS, IAEA, V.1, P.361 (1965)
DIAMOND ++THEORY/ PHONON DISPERSION

65-VA-03 WARNEN, J.L.
CHARGED BOND CORRECTION TO THE DISPERSION CURVES OF DIAMOND
B.N.L.-9400C-45, P.88 (1965)
DIAMOND ++THEORY/ PHONON DISPERSION

65-WE-01 WEINSTOCK, J.
NONANALYTICITY OF TRANSPORT COEFFICIENTS AND THE COMPLETE DENSITY EXPANSION OF MOMENTUM CORRELATION FUNCTIONS

PHYS. REV., V. 140, P. 460-P. 465 (1965)

THEORY-OF-FLUIDS AUTO-CORRELATION FUNCTION

65-WH-01 WHITEMORE, W.L.
DIFFERENTIAL NEUTRON THERMALIZATION
GA-6893 (1965)
POLYETHYLENE/GRAPHITE/ METHANE/ ZR-H/ Y-H/ LA-H EXPERIMENT/ FREQUENCY DISTRIBUTION/ SCATTERING FUNCTION . . . 300K/ 90K

65-WH-02 WHITEMORE, W.L.
INELASTIC SCATTERING OF NEUTRONS BY REACTOR TYPE GRAPHITE
BNL 940(C-453), P. 94 (1965)

GRAPHITE EXPERIMENT

65-WH-03 WHITEMORE, W.L.
THE NATURE OF HYDROGEN MOTION IN ZR-H DETERMINED FROM AN EXPERIMENTAL NEUTRON STUDY OF LARGE, BOUND ENERGY LEVELS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V. 25, P. 305
P. 315 (1965)
ZR-H, EXPERIMENT, HIGH-ENERGY INCIDENT NEUTRONS

65-WO-01 WOODS, A.D.B.
LATTICE DYNAMICS OF TRANSITION METALS
INELASTIC SCATTERING OF NEUTRONS, IAEA, V. 1, P. 87 (1965)

NIB/TA/ MO/ W, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

65-WO-02 WOODS, A.D.B./ POWELL, B.M.
PHONONS IN DISORDERED NIUBNIUM-MOLYBDENUM ALLOYS
PHYS. REV. LETT., V. 15, P. 778 (1965)

NB-MO, EXPERIMENT/ DISPERSION RELATION/ LATTICE DYNAMICS

65-WO-03 WOODS, A.D.B.
LIQUID HELIUM DISPERSION CURVE AT LARGE MOMENTUM INELASTIC SCATTERING OF NEUTRONS, IAEA, V. 28, P. 191 (1965)

HE EXPERIMENT/ LIQUID/ DISPERSION RELATION

65-WO-04 WOODS, A.D.B./ DULLING, G./ COWLEY, R.A.
The CRYSTAL DYNAMICS OF URANIUM DIOXIDE: INELASTIC SCATTERING OF NEUTRONS, IAEA, V. 1, P. 373 (1965)

U.02 CRYSTAL DYNAMICS/ DISPERSION RELATION/ EXPERIMENT

65-VA-01 YARNELL, J.L./ WARREN, J.L./ KENNIG, S.G.
EXPERIMENTAL DISPERSION CURVES FOR PHONONS IN ALUMINUM LATTICE DYNAMICS, (ED. BY WALLIS, R.F.), P. 57 (1965)

AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION

65-VY-01 YIP, S./ RANGANATHAN, S.
DYNAMIC STRUCTURE FACTOR OF DILUTE GASES IN THE FOKKER-PLANCK APPROXIMATION
PHYS. FLUIDS, V. 5, P. 1956-P. 1963 (1965)

NEUTRON SCATTERING IN FLUIDS, DILUTE GAS, SCATTERING FUNCTION

65-YO-01 YOUNG, J.A./ KOPPEL, J.U.
CALCULATION OF THERMAL SCATTERING KERNELS
GA-8281 (1965)
BE/ C/ H/ D/ O/ C/H/ H/ H2/ D2, EXPERIMENT/ SCATTERING FUNCTION/ CROSS SECTION EVALUATION

65-YO-02 YOUNG, J.A./ KOPPEL, J.U.
PHONON SPECTRUM OF GRAPHITE
J. CHEM. PHYS., V. 42, P. 357-P. 364 (1965)

GRAPHITE, EXPERIMENT, FREQUENCY SPECTRUM/ BORN-VON KARMAN MODEL

65-YO-03 YOUNG, J.A./ KINER, N.F./ PARKS, D.E.
NEUTRON THERMALIZATION IN GRAPHITE 2
NUKLEONIK, V. 7, P. 295-P. 300 (1965)

GRAPHITE, EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ NEUTRON SPECTRUM, SCATTERING KERNEL/ 300K

65-YO-04 YOUNG, J.A./ KOPPEL, J.U.
COHESIVE INELASTIC SCATTERING FROM POLYCRYSTALLINE BERYLLIUM
PHYS. LETT., V. 16, P. 235 (1965)

BE, POLYCRYSTALL/ SCATTERING LAW

65-ZE-01 ZEMLIANOV, M.G./ BROVMAN, E.G./ CHERNOPELOK, N.A./ SHITIKOV, I.L.
STUDY OF DYNAMICS OF LITHIUM HYDRIDE AND DEUTERIDE BY INELASTIC SCATTERING OF COLD NEUTRON
LA-65-38 (1965)

L=H, EXPERIMENT/ BORN-VON KARMAN MODEL, SIGMA(E, E-PRIME, THETA)

65-ZE-02 ZEMLIANOV, M.G./ CHERNOPELOK, U.A./ SHITIKOV, I.L.
COLD NEUTRON SCATTERING BY POLYCRYSTALS INELASTIC SCATTERING OF NEUTRONS, IAEA, V. 2, P. 221

C6-H, EXPERIMENT/ LIQUID, 290K
65-ZE-03 ZEMLYANOVA, M.G./ BROVMAN, E.G./ CHERNOLEKOV, N.A./ SMITIKOV, Y.L.
STUDY OF THE DYNAMICS OF LITHIUM HYDRIDE AND DEUTERIDE IN THE INELASTIC SCATTERING OF COLD NEUTRONS
INELASTIC SCATTERING OF NEUTRONS: IAEA, V.2, P.431 (1965)
L1,H, EXPERIMENT/ CALCULATION/ FREQUENCY DISTRIBUTION

65-ZY-01 JAPANESE NUCLEAR DATA COMMITTEE
SURVEY AND PROBLEMS IN THE STUDY OF THERMAL NEUTRON SCATTERING (IN JAPANESE)
JAERI-REPORT-1086 (1965)
REVIEW-ARTICLES, CROSS SECTION EVALUATION

65-ZY-02 JAPANESE NUCLEAR DATA COMMITTEE
THEORETICAL CALCULATION FOR THERMAL NEUTRON SCATTERING KERNEL
JAERI-1095 (1965)
REVIEW-ARTICLES, EVALUATION/ SCATTERING LAW

66-AD-01 ADGING, F.R./ PERSIANI, P.J./ HWANG, R.N./ KAGANOV, E.J.
THE CHEMICAL BINDING EFFECTS ON THE RESONANCE LINE SHAPES OF URANIUM-238 IN A U.O.2 LATTICE
CONF-660303, P.134 (1966)
U.O.2, THEORY/ LATTICE DYNAMIC/ FREQUENCY DISTRIBUTION/ RESONANCE LINE SHAPES

66-AH-01 AHLERS, K.,
HEAT CAPACITY OF BERYLLIUM BELOW 30DK
PHYS. REV., V.145, P.419 (1966)
BE, EXPERIMENT/ DEBYE TEMPERATURE, HEAT CAPACITY/ KNO M IN 1.4 DK TO 30 DK

66-AN-01 ANIMACU, A.O.E./ BONSIGNORI, F./ BORTOLANI, V.
THE PHONON SPECTRA OF ALKALI METALS AND ALUMINIUM
NUOVO CIMENTO, B, V.44, P.159-P.171 (1966)
NA/ AL/ LI/ Rb/ Cs, THEORY/ PHONON DISPERSION/ MODE L POTENTIAL

66-AN-02 ANTONINI, B./ PAOLETTI, A./ GAMBIETTA, V.
TOTAL NEUTRON CROSS SECTION OF SOME POLYPMENPHYSICA, V.32, P.119-P.126 (1966)
BENZENE/ BIPHENYL, EXPERIMENT/ SOLID/ LIQUID/ SIGMA-L

INTEGRAL NEUTRON THERMALIZATION
GA-7091 (1966)

FUNCTION/ CROSS SECTION EVALUATION

66-AR-01 ARDENTE, V./ NARDELLI, G.F./ REATTO, L.
SLOW-Neutron SCATTERING BY LIQUIDS, A HINDERED-TRANSLATION OR MODEL
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/ CORRELATION FUNCTION/ SCATTERING FUNCTION, HINDERED-TRANSLATOR MODEL

66-AR-02 ARDENTE, A./ NARDELLI, G.F./ REATTO, L.
INCOHERENT SCATTERING OF SLOW NEUTRONS BY LIQUID, A HINDERED-TRANSLATOR MODEL
REACTOR PHYSICS IN THE RESONANCE AND THERMAL REGIONS, MIT PRESS, V.1, P.73 (1966)
NEUTRON-SCATTERING-IN-FLUIDS, MOLECULAR DYNAMICS/ LIQUID/ THEORY/ FREQUENCY DISTRIBUTION

66-BA-01 BAJOREK, A./ JANIK, J.A./ JANIK, J.M./ PARLINSKI, K./ SUKNIK-HRYNKEWICZ, M.
MOLECULAR DYNAMICS STUDY BY THE NEUTRON INELASTIC SCATTERING METHOD.
J. PHYS. LETT., V.24A, P.57 (1966)
METHYL IODIDE, MOLECULAR DYNAMICS, EXPERIMENT

66-BA-02 BATA, L./ KROO, K.
INELASTIC NEUTRON SCATTERING BY DENSITY FLUCTUATIONS IN C.O.2 NEAR THE CRITICAL POINT
PHYS. LETT., V.24A, P.57 (1966)
C.O.2, EXPERIMENT/ NEUTRON SCATTERING/ DENSITY FLUCTUATION/ CRITICAL POINT

66-BE-01 BENTLE, G.G.
ELASTIC CONSTANTS OF SINGLE-CRYSTAL BE.O AT ROOM TEMPERATURE
J. AMER. CERAM. SOC., V.2, P.201 (1966)
BE.O, EXPERIMENT/ LATTICE DYNAMICS

66-BE-02 BERNE, B.J./ BOON, N.P./ RICE, S.A.
ON THE CALCULATION OF AUTOCORRELATION FUNCTIONS OF DYNAMICAL VARIABLES
J. CHEM. PHYS., V.45, P.1088-P.1096 (1966)
MISCELLANEOUS, AUTOCORRELATION FUNCTION

66-BE-03 BESHTALI, S.F.
TOTAL CROSS SECTIONS OF U, U.O.2 AND TH.O.2 FOR THERMAL AND SUBTHERMAL NEUTRONS
AE-222 (1966)
U, U.O.2, TH.O.2, EXPERIMENT/ TOTAL CROSS SECTION/ TOF

66-BE-04 BEVINGTON, P.M./ PETIT, G.A.
MANIAC, A COMPUTER CODE FOR CORRECTING NEUTRON SCATTERING ANGULAR DISTRIBUTIONS
NUCL. INSTRUM. METHODS, V.44, P.341 (1966)
COMPUTER-CODES: CODE/ NEUTRON SCATTERING/ ANGULAR DISTRIBUTION

66-BE-03 BEYSTER, J.R./ CARRIVEAN, G.
DIFFERENTIAL NEUTRON SCATTERING CROSS SECTION MEASUREMENTS
WASH-1068 (EANDC(US)85U), P.62 (1966)
H2O • LIQUID/ THEORY/ EXPERIMENT/ SIGMA(THETA+••••); MULTIPLE SCATTERING CORRECTION

— 155 —
CRYSTAL DYNAMICS OF POTASSIUM: 1. PSEUDOPOTENTIAL ANALYSIS OF PHONON DISPERSION CURVES AT 90K
PHYS. REV., V.150, P.487 (1966)
K. LATTICE DYNAMICS/ EXPERIMENT/DISPERSION RELATION, 90K

ANHARMONIC INTERACTION IN ALKALI HALIDES, II.
K.BR/NA.1/THEORY-OF-SOLIDS/THEORY/ANHARMONICITY/P HONON DISPERSION

66-17-01 CACHORRO, A.
LATTICE VIBRATIONS IN METALS OF A NON-BRAVAIS STRUCTURE
INR-709-11 (1966)
THEORY-OF-SOLIDS/THEORY/SOLID/DISPERSION RELATION/METAL

66-15-00 DÉMETTE, F.W./COTTERILL, R.M.J./DOYAMA, M.
LATTICE DYNAMICS OF COPPER WITH A MORSE POTENTIAL
PHYS. LETT., V.23, P.309 (1966)
CU/THEORY/PHONON DISPERSION

66-15-00 DÉTOUR, J.
A NEW METHOD OF OBTAINING THE FREQUENCY SPECTRUM MOMENT
S OF DISORDERED LATTICES BY A MONTE CARLO PROCESS
PHYSICA, V.32, P.762 (1966)
THEORY-OF-SOLIDS/THEORY/VON KARMAN MODEL/FREQUENCY SPECTRUM/THEORY/MOMENT METHOD/MONTE CARLO METHOD

66-04-00 DESAI, R.C.
ATOMIC MOTIONS IN MONATOMIC FLUIDS
NOU-3326-13 (1966)
AR/THEORY/LIQUID/INTERMEDIATE SCATTERING FUNCTION

66-04-00 DESAI, R.C./NELKIN, M.
ATOMIC MOTIONS IN A RIGID SPHERE GAS AS A PROBLEM IN NEUTRON TRANSPORT
NUCL. SCI. ENG., V.24, P.142-P.152 (1966)
NEUTRON-SCATTERING-IN-FLUIDS/SCATTERING THEORY/GAS/ CORRELATION FUNCTION/NEUTRON DIFFUSION

66-04-00 DESAI, R.C./NELKIN, M.
COLLECTIVE MOTION IN LIQUID ARGON
PHYS. REV. LETT., V.16, P.839-P.841 (1966)
AR/THEORY/LIQUID/COLLECTIVE MOTION IN LIQUID

66-04-00 DESAI, R.C.
NON-GAUSSIAN CORRECTIONS TO VAN HOVE-5 GS(MT) FOR A MONOMATOMIC GAS
J. CHEM. PHYS., V.44, P.77-P.86 (1966)

THEORY-OF-FLUIDS/GAS/CORRELATION FUNCTION/THEORY/ NON-GAUSSIAN CORRECTION/MONOMATOMIC GAS

66-01-00 DIEDERICH, M.E./TRIVISONNO, J.
TEMPERATURE DEPENDENCE OF THE ELASTIC CONSTANTS OF SODIUM J.
PHYS. CHEM. SOLIDS, V.27, P.637 (1966)
NA/EXPERIMENT/SINGLE CRYSTAL/78 DK TO 195 DK/ULTRASONIC PULSE ECHO TECHNIQUE

66-01-00 DIMITRIJEVIC, Z./KRASTOVIC, S./RANAN, J./TODOROVIĆ, J./KANIC, A.
NEUTRON INVESTIGATION OF TEMPERATURE EFFECTS IN THE MAGNETITE PHYS. STATUS SOLIDI, V.13, P.119-P.122 (1966)
MAGNETIT/NEUTRON-SCATTERING/EXPERIMENT/DIFFUSE SCATTERING

66-01-00 DOLLING, G./COWLEY, R.A./SCHITTEL, C.
NORMAL VIBRATIONS OF POTASSIUM IODIDE
PHYS. REV., V.147, P.377 (1966)
K.I./EXPERIMENT/DISPERSION RELATION/LATTICE DYNAMICS

66-01-00 DOLLING, G./COWLEY, R.A.
THE THERMODYNAMIC AND OPTICAL PROPERTIES OF GERMANIUM, SILICON, AND DIAMOND ARSENIDE
PHYS. REV., V.147, P.463 (1966)
GE/SI/DIAMOND/GAAS/COHERENT INELASTIC SCATTERING STUDIES/PHONON DISPERSION

66-01-00 DORNER, B.
MEASUREMENTS OF DISPERSION CURVES IN POLYCRYSTAL AND LIQUID AT 20° (IN GERMANY)
JUL-412-NP (1966)
NEUTRON-SCATTERING-IN-FLUIDS/EXPERIMENT/LATTICE DYNAMICS/MOLECULAR DYNAMICS/DISPERSION RELATION

66-01-00 DORNER, B./STILLER, H.H.
INTERNAL DYNAMICS IN LOW TEMPERATURE PHASE OF MOLECULAR CRYSTAL C,H,4
JUL-476-NP (1966)
C,H,4/EXPERIMENT/FREQUENCY DISTRIBUTION/SOLID/6.50 K/2.70K/INVERSE-FILTER METHOD

66-01-00 DORNER, B./STILLER, H.H.
THE INTERNAL DYNAMICS IN LOW-TEMPERATURE PHASE OF MOLECULAR CRYSTAL C,H,4
PHYS. STATUS SOLIDI, V.18, P.795-P.806 (1966)
C,H,4/EXPERIMENT/6.5, 2.7, 18DK/INVERTED FILTER METHOD

- 156 -
66-DO-06 DOWNES, J.S./ WHITE, J.W./ EGELESTAFF, P.A./ RAINEY, V.
LOCALIZED VIBRATIONS OF TRAPPED MOLECULES
PHYS. REV. LETT., V.17, P.533-P.536 (1966)
METHANOL-QUINOL/ METHYL CYANIDE-QUINOL/ METHYL QUINOL/
WATER-QUINOL/ AMMONIA-ZEOLITE., EXPERIMENT/ TDF SPECTRUM
OF TRAPPED MOLECULES

66-ED-01 EDER, O.J./ CHEN, S.H./ EGELESTAFF, P.A.
MOLECULAR MOTION OF HYDROGEN IN LIQUID ARGON AND NEON
PROC. PHYS. SOC., LONDON, V.89, P.833 (1966)
AH/ NE EXP./ LIQUID AR AND NE

66-EF-01 EFROS, A.L.
THEORY OF THERMAL DIFFUSION OF BROWNIAN PARTICLES
Z. EKSP. TEOR. FIZ. (SOV. PHYS.-JETP), V.50 (V.23), P.809-P.817 (P.536-P.543) (1966 (1966))
THEORY-OF-FLUIDS., THEOMT/ LIQUID., SELF-DIFFUSION

66-EG-01 EGELESTAFF, P.A./ DUFFIL/ C./ RAINEY, V./ ENDERBY, J.E./ NORTH, D.M.
THE STRUCTURE FACTOR FOR LIQUID METALS AT LOW ANGLES
PHYS. LETT., V.22, P.286-P.288 (1966)
PB/ SW/ BI/ LN/ AL EXP./ LIQUID/ STRUCTURE FACTOR

66-EG-02 EGELESTAFF, P.A.
MICROSCOPIC TRANSPORT PHENOMENA IN LIQUIDS
REP. PROGR. PHYS., V.29, P.333-P.371 (1966)
REVIEW-ARTICLES., LIQUID/ CORRELATION FUNCTION/ TRANSPORT PHENOMENA

66-GI-01 GILAT, G./ RABAUNEMER, L.J.
ACURATE NUMERICAL METHOD FOR CALCULATING FREQUENCY DISTRIBUTIONS IN SOLIDS
PHYS. REV., V.144, P.390 (1966)
THEORY-OF-SOLIDS., FREQUENCY DISTRIBUTION/ SOLID THEORETICAL EXPANSION METHOD

66-GI-02 GILAT, G./ NICKLOW, R.M.
NORMAL VIBRATIONS IN ALUMINUM AND DERIVED THERMODYNAMIC PROPERTIES
PHYS. REV., V.143, P.487 (1966)
AL/ PHONON DISPERSION/ PHONON SPECTRA

66-GI-03 GINZBURG, S.L./ MALEEV, S.V.
SLOW NEUTRON SCATTERING IN A SUPERCONDUCTOR
FIZ. TVERDO., TELA (SOV. PHYS.-SOLID STATE), V.8 (V. 8), P.1852-P.1854 (P.2230-P.2235) (1966 (1967))
NEUTRON-SCATTERING-IN-SOLIDS., SCATTERING THEORY., NEUTRON SCATTERING BY CONDUCTION ELECTRON SUPERCONDUCTOR

66-GL-01 GLAUBERMAN, A.E./ KUVINSKI, M.A.
EFFECT OF EXCITONS ON THE SCATTERING OF NEUTRONS BY CRYSTALS
PHYS. STATUS SOLIDI, V.13, P.233-P.238 (1966)
NEUTRON-SCATTERING-IN-SOLIDS., MAGNETIC-SCATTERING., THEORY/ SCATTERING BY EXCITONS

66-GO-01 GOLDBERG, M.O./ MUGHABGHAB, S.F./ POURHUT, S.N./ M.
AGURKO, B.A./ MAY, S.M.
NEUTRON CROSS SECTIONS VOLUME 28, Z=1 TO 60
BNL-325 (2ND ED. SUPPL. 2) (1966)
COMPILATIONS., SIGMA(E)

66-GR-01 GRAAFFSTEIN, A./ HESSLOTT, T./ WARD, E.
THE NEUTRON DIFFUSION PARAMETER OF EPOXYRESIN
INR-731-IAX-2 (1966)
RESIN., EXPERIMENT., NEUTRON DIFFUSION PARAMETER

66-GU-01 GUPTA, N.P./ DAYAL, B.
THEORETICAL PHONON SPECTRA AND HEAT CAPACITIES OF SOLIDIFIED ARGON AND KRYPTON
PHYS. STATUS SOLIDI, V.15, P.469-P.472 (1966)
AH/ KR., THEOMT/ PHONON SPECTRA/ SPECIFIC HEAT

66-GU-02 GUPTA, R.P./ DAYAL, B.
LATTICE DYNAMICS OF ZINC
PHYS. STATUS SOLIDI, V.13, P.519-P.527 (1966)
ZINC., THEOMT/ PHONON DISPERSION/ SIXTH-NEIGHBOUR MODEL

66-GU-03 GUPTA, R.P./ KISHORE, B.
VIBRATIONAL SPECTRUM AND SPECIFIC HEAT OF POTASSIUM ON SHARMA AND JOSHIS'S ELECTRON GMS MODEL
PHYS. STATUS SOLIDI, V.13, P.261-P.264 (1966)
K., THEOMT/ PHONON SPECTRUM/ SPECIFIC HEAT

66-GU-04 GUPTA, R.P./ DAYAL, B.
LATTICE DYNAMICS OF ZINC
PHYS. STATUS SOLIDI, V.13, P.319 (1966)
ZINC., THEOMT/ PHONON DISPERSION/ A TENSOR FORCE MODEL IN CLUIDING UP TO SIXTH-NEIGHBOUR INTERACTION

66-HA-01 HARKER, Y.D.
SOLID METHANE
ASH-1088 (EANDC US), P.171 (1966)
METHANE., SIGMA(E), PRIME(THE), EXPERIMENT/ SOLID., DEX, DX, DXK, DXS, 22DX, E=34.75MV, THERMAL=48.10, E=8 TO 45MV

66-HA-02 HARLING, O.K.
SLOW-NEUTRON WIDTH OF 200MEV VIBRATION LEVEL IN LIQUID H2O
PHYS. LETT., V.22, P.15-P.16 (1966)
H2O, EXPERIMENT/ SIGMA (E, E'-PRIME, THETA)/ LIQUID

66-HA-03 HARLING, O.K., SLOW NEUTRON SCATTERING FROM H2O, WASH-1068 (RANDELUS) 85D, P.152 (1966), H2O, LIQUID/ EXPERIMENT/ SCATTERING LAW, ROOM TEMP.

66-II-01 IJIMA, S., ONE-PHONON COHERENT SCATTERING OF SLOW NEUTRONS FROM POLYCRYSTALLINE ALUMINUM, J. NUCL. SCI. TECHNOl., TOKYO, V.3, P.161-P.164 (1966), AL, CALCULATION/ PHONON SPECTRUM/ SCATTERING FUNCTION/ COHERENT


66-IV-01 IVANOV, G.K., ELASTIC AND QUASI-ELASTIC SCATTERING OF NEUTRONS BY MOL- ECULES, ZH. EKSP. TEOR. FIZ. (SOV. PHYS.-JETP), V.50 (V.23), P.726-P.737 (P.481-P.485) (1966), ZR=H, THEORY/ MOLECULAR DYNAMICS, CS, QUASI-ELASTIC SCATTERING


66-KI-04 KITAGAWA, T./ MIYAZAWA, T., INTERCHAIN POTENTIAL, FREQUENCY DISTRIBUTION AND SPECIFIC HEAT OF POLYETHYLENE CRYSTAL, REP. PROG. POLYM. PHYS., V.9, P.175-P.176 (1966), POLYETHYLENE, THEORY/ FREQUENCY DISTRIBUTION/ SOLID, SPECIFIC HEAT


66-KO-03 KOPPEL, J.J.U./ TRIPLETT, J.R., NALIBOFF, Y.D., GASKET, A UNIFIED CODE FOR THERMAL NEUTRON SCATTERING, COMPUTER-CODES, SCATTERING FUNCTION/ LATTICE DYNAMICS/ MOLECULAR DYNAMICS/ SCATTERING THEORY


66-KO-06 KOSALY, G./ SOLT, G., ON THE MASS TENSOR APPROXIMATION OF SLOW NEUTRON SCATTERING, PHYSICA, V.32, P.16-P.26 (1966), SCATTERING-THEORIES, THEORY, MODIFICATION OF KRIEGER-N ELKIN THEORY
66-KR-01 Krivoglaz, M.A./ Tikhonova, E.A.
THE EFFECT OF GEOMETRICAL DISTORTIONS OF THE CRYSTAL LATTICE ON X-RAY AND THERMAL NEUTRON SCATTERING BY MULTICONTINUITOUS UNORDERED SOLID SOLUTION BNL-TR-104 (1966) NEUTRON-SCATTERING-IN-SOLIDS THEORY

66-KU-01 Kucher, T.I./ Nechiporuk, Y.W.
LATTICE VIBRATION FREQUENCIES OF DIAMOND FIZ. TVERD. TELA (SOV. PHYS.-SOVIET STATE) V.8 (V. 6), P.317-P.320 (P.261-P.262) (1966 (1966)) DIAMOND THEORY/ PHONON DISPERSION

66-KU-02 Kuri, P./ Sauer, P.
NOTE ON CALCULATING ENERGY VALUES OF ROTATIONALLY HINDERED LINEAR MOLECULES Z. PHYS. V.194, P.478-P.481 (1966) NEUTRON-SCATTERING-IN-SOLIDS/MOLECULAR DYNAMICS LINEAR MOLECULES

66-LA-01 Laron, K./ Bergstedt, L.
PROTON MOTIONS IN COMPLEX HYDROGENIC LIQUID 1A CROSS SECTION FOR QUASI-ELASTIC SCATTERING OF SLOW NEUTRONS PHYS. REV., V.151, P.117 (1966) ALCOHOL/PENTANE THEORY LIQUID/MOLECULAR DYNAMICS/NEUTRON SPECTRA DIFFERENTIAL CROSS SECTION


66-LE-01 Lechner, K./ Wittner, G.
PRESSURE-INDUCED PHONON FREQUENCY SHIFTS IN LEAD MEASURED BY INELASTIC NEUTRON SCATTERING PHYS. REV. LETT., V.17, P.1259 (1966) PB PHONON DISPERSION/ PRESSURE EFFECT

66-LO-01 Lomer, W.M.
NEUTRON SPECTROSCOPY OF SOLIDS—PART 2—REVIEW ARTICLES PHYS. REV., V.7, P.401-P.418 (1966) REVIEW/ARTICLES/ MAGNETIC SCATTERING/ SPIN WAVES/ CRITICAL SCATTERING/ DEFECT SCATTERING

66-MA-01 Mahan, G.D.
PHONON-BROADENED OPTICAL SPECTRA, URBACH’S RULE PHYS. REV., V.145, P.602 (1966) THEORY OF SOLID STATE THEORY ELECTRON-PHONON INTERACTION

66-MA-02 Mahesh, P.S./ Dayal, B.
LATTICE DYNAMICS AND SPECIFIC HEATS OF SOME TRANSITION METALS ON KREBS’ S MODEL PHYS. REV., V.143, P.443 (1966) FE/MO/W THEORY PHONON DISPERSION AND FREQUENCY DISTRIBUTION

66-MC-01 McMurtry, H.L./ Russell, G.J./ Brugger, R.M.

66-MC-02 McMurtry, H.L.
MODEL FOR CALCULATING THE SLOW NEUTRON SCATTERING BY LIQUID D2O PHYS. REV., V.102, P.1020 (1966) D2O THEORY LIQUID/MOLECULAR DYNAMICS FREQUENCY SPECTRUM SIGMA(E)/ SIGMA TRANSPORT(E)/ SIGMA(E+E+MOMENTUM TRANSFER)/ SCATTERING LAW 293K/ 423K

66-MC-03 McMurtry, H.L.

66-ME-01 Meers, J.T.
EFFECTS OF NEUTRON DAMAGE ON THE MECHANICAL PROPERTIES OF PYROLYTIC AND SINGLE-CRYSTAL GRAPHITE TID-22733 (1966) GRAPHITE EXPERIMENT/ LATTICE DYNAMICS

66-MI-01 Mint, M.Y.
ENERGY SPECTRUM OF A DISORDERED LINEAR CHAIN ZH. EKSP. TEOR. FIZ. (SOV. PHYS.-JETP), V.50, V.23, P.1130-P.1136 (1966) THEORY-OF-SOLID SPECTRA/ SOLID FREQUENCY DISTRIBUTION LATTICE DYNAMICS DISORDERED LINEAR CHAIN

66-MO-01 Mozer, B./ Ottesen, K./ Thaper, C.

66-MY-01 Myers, W./ Summerfield, G.C./ King, J.S.
NEUTRON SCATTERING IN STRETCH-ORIENTED POLYETHYLENE J. CHEM. PHYS., V.44, P.164-P.167 (1966) POLYETHYLENE MOLECULAR DYNAMICS/ EXPERIMENT SIGMA (E
66-NA-01 NAKAHARA, Y./ TAKAHASHI, H.
ON THE ITINERANT OSCILLATOR MODEL OF LIQUIDS
PROC. PHYS. SOC., LONDON, V.89, P.747 (1966)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY, LIQUID DYNAMICS

66-NA-02 NAKAHARA, Y./ TAKAHASHI, H.
ON THE ITINERANT OSCILLATOR MODEL OF LIQUIDS
JAERI-MEMO-2311 (1966)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY, LIQUID DYNAMICS

66-NE-01 NELKIN, M./ YIP, S.
BRILLOUIN SCATTERING BY GASES AS A TEST OF THE BOLTZMANN EQUATION
PHYS. FLUIDS, V.9, P.380 (1966)
NEUTRON-SCATTERING-IN-FLUIDS, SCATTERING-LAW

66-NI-01 NIBBOER, B.R.A./ HAHMAN, A.
TIME EXPANSION OF CORRELATION FUNCTIONS AND THE THEORY OF SLOW NEUTRON SCATTERING
PHYSICA, V.32, P.415-P.432 (1966)
SCATTERING-THEORIES, SCATTERING FUNCTION, CORRELATION FUNCTION, THEORY

66-NO-01 NOSAL, R.
VALIDITY OF THE CONVOLUTION APPROXIMATION FOR THE VAN Hove-Green Function
PHYS. REV., V.143, P.74 (1966)
SCATTERING-THEORIES, CORRELATION FUNCTION, SCATTERING FUNCTION

66-NU-01 NUSIMOVIC, M./ BIRMAN, J.L.
SUM RULE FOR LATTICE VIBRATION OF WURZITE STRUCTURES
J. PHYS. CHEM. SOLIDS, V.27, P.701 (1966)
THEORY-OF-SOLIDS, DISPERSION RELATION, BORN-VON KARMAN MODEL, THEORY, SUM RULE, WURZITE STRUCTURE

66-OE-01 OEHME, H./ MICHTEN, H.
MEASUREMENTS OF COMPLEMENTARY SCATTERING OF NEUTRONS BY MOLTEN SODIUM, CESIUM AND BISMUTH AT VARIOUS TEMPERATURES
NATURWISSENSCHAFTEN, V.53, P.16 (1966)
CS/ BI, STRUCTURE FACTOR

66-PA-01 PALEVSKII, H.
SLOW NEUTRON STUDIES OF MOLECULAR MOTIONS IN CONDENSED MATTER
J. CHEM. PHYS., V.63, P.157-P.167 (1966)
REVIEW-ARTICLES, FILTER-CHOPPER METHOD, DISPERSION RELATION, FREQUENCY DISTRIBUTION FUNCTION, QUASI-ELASTIC P

66-PA-02 PASKIN, A./ RAIMANN, A.
EFFECT OF A LONG-RANGE OSCILLATORY POTENTIAL ON THE RADIAL DISTRIBUTION FUNCTION AND THE CONSTANT OF SELF-DIFFUSION IN LIQUID NA
PHYS. REV. LETT., V.21, P.300-P.303 (1966)
NA, THEORY, LIQUID, MOLECULAR POTENTIAL, RADIAL DENSITY FUNCTION

66-PA-03 PASKIN, A.
THE DYNAMIC STRUCTURE OF LIQUIDS
BNL-50080(T-475) (1966)
REVIEW-ARTICLES, AR, NA, CE, RB, LIQUID, THEORY, STRUCTURE FACTOR, VELOCITY AUTOCORRELATION FUNCTION, LIQUID METAL

66-PA-04 PAKLEY, G.S./ COCHRAN, W./ COWLEY, R.A./ DOLLING, G.
DIATOMIC FERROELECTRICS
PHYS. REV. LETT., V.17, P.753-P.755 (1966)
SN, TE, EXPERIMENT, PHONON DISPERSION, TEMPERATURE DEPENDENCE

66-PA-05 PAYTON, D.N.
DYNAMICS OF DISORDERED HARMONIC LATTICES
LA-3510 (1966)
THEORY-OF-SOLIDS, HARMONIC APPROXIMATION, THEORY

66-PA-06 PAYTON, D.N./ VISSCHER, W.M.
DYNAMICS OF DISORDERED HARMONIC LATTICES IN ONE, TWO AND THREE DIMENSIONS
LA-3671 (1966)
THEORY-OF-SOLIDS, LATTICE DYNAMICS, FREQUENCY DISTRIBUTION, THEORY, DISORDERED HARMONIC LATTICE

66-PE-01 PELAM, J./ IMRY, J.
A SIMPLIFIED APPROXIMATION OF THE QUASI-ELASTIC SCATTERING OF SLOW NEUTRONS IN WATER
PHYS. LETT., V.21, P.248 (1966)
H2O, THEORY

66-PR-01 PHASK, H.J./ BOUTIN, H.
LOW-FREQUENCY MOTIONS OF H2O MOLECULES IN CRYSTAL 3
J. CHEM. PHYS., V.43, P.3284 (1966)
H2O, EXPERIMENT, MOLECULAR DYNAMICS, DIFFERENTIAL CROSS SECTION, H2O MOLECULES IN CRYSTAL

66-PJ-01 PUCHOHT, S.N.
ANALYSIS OF THE QUASI-ELASTIC SCATTERING OF NEUTRONS IN HYDROGENOUS LIQUIDS
AE-229 (1966)
NEUTRON-SCATTERING-IN-FLUIDS, SCATTERING LAW, THEORY, LIQUID, INCOHERENT APPROXIMATION, QUASI-ELASTIC SCATTERING

66-RA-01 KAHANAN, A.
LIQUID STRUCTURE AND SELF-DIFFUSION
J. CHEM. PHYS., V.45, P.2368 (1966)
NEUTRON-SCATTERING-IN-FLUIDS/AR, LIQUID, FREQUENCY DISTRIBUTION, COMPUTER EXPERIMENT, 85, 50K

66-RA-02 KAHANAN, A.
THE VELOCITY AUTO-CORRELATION FUNCTION IN LIQUIDS FROM A NEW POINT OF VIEW
REACTOR PHYSICS IN THE RESONANCE AND THERMAL REGIONS, MIT PRESS, V.4, P.123 (1966)
AR, FREQUENCY DISTRIBUTION, THEORY, LIQUID, MOLECULES DYNAMICS, COMPUTER EXPERIMENT

66-RA-03 RANDOLPH, P.D.
LIQUID LEAD
WASH-1064 (LANDG-US-85U), P.175 (1966)
LEAD, EXPERIMENT, LIQUID, SCATTERING FUNCTION, 352DC

66-RA-04 RANDOLPH, P.D.; SINGWAI, K.S.
SLOW NEUTRON SCATTERING AND COLLECTIVE MOTIONS IN LIQUID LEAD
PHYS. REV., V.152, P.99 (1966)
PB, SCATTERING LAW, LIQUID, CRYSTAL SPECTROMETER, EXPERIMENT, COLLECTIVE MOTION

66-RA-05 RASBBA, E.I.
THEORY OF VIBRONIC SPECTRA OF MOLECULAR CRYSTALS
ZH, EKSP, TEKMA, FIZ., SOV. PHYS., V.3, P.1,064-P.1,080 (1966)
THEORY, THEORY, MOLECULAR DYNAMICS

66-RO-01 ROSENSTOCK, H.B.; BLANKEN, G.
INTERATOMIC FORCES IN VARIOUS SOLIDS
PHYS. REV., V.149, P.386 (1966)
NA, NH, HO, TA, N+, C=2N, SN, THEORY, DISPERSION RELATION, FORCE CONSTANTS FOR BORN-VON KAHANAN MODEL

66-RU-01 RUSH, J.J.; TAYLOR, T.L.
NEUTRON-SCATTERING STUDY OF HINDERED ROTATIONAL MOTIONS AND PHASE TRANSITIONS IN HEXAMETHYLBENZENE
J. CHEM. PHYS., V.44, P.749 (1966)
HEXAMETHYL BENZENE, EXPERIMENT, SOLID, FREQUENCY DISTRIBUTION, LOW-FREQUENCY MOTION, NEAR 110K, NEAR 38K

66-RU-02 RUSH, J.J.; FERRARO, J.R.
NEUTRON AND INFRARED SPECTRA OF H,C,02 AND D,C,02
J. CHEM. PHYS., V.44, P.2948-P.2948 (1966)
M, CR, 02, EXPERIMENT, FREQUENCY DISTRIBUTION, MOLECULAR CRYSTAL DYNAMICS, TOF, M, CR, 02 AND D, CR, 02

66-RU-03 RUSH, J.J.; FLOTOW, H.E.; CONNOR, D.W.; THAPER, C.
VIBRATION SPECTRA OF YTRIUM AND URANIUM HYDRIDES BY THE INELASTIC SCATTERING OF GOLD NEUTRON
J. CHEM. PHYS., V.45, P.3817-P.3827 (1966)
H, H, U, H, EXPERIMENT, HYDROGEN VIBRATION, OPTICAL BAND SPECTRA

66-RU-04 RUSH, J.J.; LEUNG, P.S.; TAYLOR, T.L.
MOTIONS OF WATER MOLECULES IN POTASSIUM FERROCYNIDE TRHYDRATE, WATER, AND ICE: A NEUTRON SCATTERING STUDY
J. CHEM. PHYS., V.45, P.1312-P.1317 (1966)
H2O, INELASTIC SCATTERING SPECTRA

66-RU-05 RUSH, J.J.; LEUNG, P.S.; TAYLOR, T.L.
MOTIONS OF WATER MOLECULES IN POTASSIUM FERROCYNIDE TRHYDRATE, WATER, AND ICE: A NEUTRON SCATTERING STUDY
J. CHEM. PHYS., V.45, P.1312-P.1317 (1966)
WATER-POTASSIUM FERROCYNIDE TRHYDRATE, EXPERIMENT, MOLECULAR MOTION, ELECTRODE TRANSITION

66-SA-01 SAFFORD, G.J.; KAHANAN, A.W.; SIMON, F.T.
NEUTRON-SCATTERING STUDY OF THE INTERMOLECULAR AND CRYSTALLINE MODES OF POLYETHYLENE
J. CHEM. PHYS., V.45, P.3787 (1966)
POLYETHYLENE, FREQUENCY SPECTRUM, NEUTRON SPECTRUM, EXPERIMENT, LIQUID, NEUTRON SCATTERING

66-SA-02 SAFFORD, G.J.; LOSACCO, F.J.
STUDY OF THE LOW-FREQUENCY OH-2 MOTIONS OF LI0H BY NEUTRON INELASTIC SCATTERING
J. CHEM. PHYS., V.44, P.345-P.348 (1966)
LI0H, EXPERIMENT, TOF SPECTRUM, MOLECULAR DYNAMICS

66-SA-03 SAHM, V.C.; VENKATARAMAN, G.; ROY, A.P.
PHONON DISPERSION RELATIONS IN BERYLLIUM USING THE PSEUDO POTENTIAL APPROACH
PHYS. LETT., V.23, P.633-P.634 (1966)
BE, THEORY, LATTICE DYNAMICS, DISPERSION RELATION

66-SA-04 SAUER, P.
ON HINDERED ROTATION OF LINEAR MOLECULES
Z. PHYS. V.194, P.360-P.372 (1966)
THEORY-OF-SOLIDS, MOLECULAR DYNAMICS, SOLID

66-SA-05 SANDERSON, D.H.
PRESSURE DEPENDENCE OF THE TA(100) ZONE-BOUNDARY PHONON FREQUENCY IN RUBIDIUM IODIDE
PHYS. REV. LETT., V.17, P.530-P.533 (1966)
R8.1 EXPERIMENT/ PHONON FREQUENCY/ PRESSURE EFFECT

66-SC-01 SCHLEMPER, E.O./ HAMILTON, W.C.
TOF/ 293OK/ 173OK/ 123OK
J. CHEM. PHYS., V.43, P.2499-P.2505 (1965)
N.H4+2 SiF6 EXPERIMENT/ NEUTRON SPECTROSCOPY

66-SC-02 SCHMIDT, U./ SAAD, M.
USE OF TOTALLY REFLECTED COLD NEUTRONS FOR MEASUREMENT
OF THE TEMPERATURE DEPENDENCE OF THE (N,P) CROSS SECTIO
N FOR CHEMICALLY BOUND PHOTONS
EANDCE) 66 U (1966)
 BENZENE/ BIPHENYL/ TOLUENPHYL/ CYCLOHEXANE EXPERIMENT

66-SC-03 SCHMUNK, R.E.
BE DISPERSION RELATIONS
WASH-1068/ EANDCE) 85U, P.164 (1966)
 BE THEORY/ SOLID/ DISPERSION RELATION/ TEST OF SUM R
ULE

66-SC-04 SCHMUNK, R.E.
EXTENSION OF DISPERSION-RELATION MEASUREMENTS OF BERYLL
IUM PHYS. REV., V.149, P.450-P.456 (1966)
BE EXPERIMENT/ DISPERSION RELATION/ (0001), (110),
(1120) DIRECTION/ DATA GIVEN IN GRAPHICAL FORM

66-SE-01 SEARS, V.F.
THEORY OF COLD NEUTRON SCATTERING BY HOMONUCLEAR DIATOM
IC LIQUIDS CAN. J. PHYS., V.44, P.1279 (1966)
NEUTRON-SCATTERING-IN-LIQUIDS SCATTERING THEORY/ MOLEC
ULAR ROTATION/ LIQUID/ THEORY HOMONUCLEAR DIATOMIC LI
QUID/ FREE ROTATION

66-SE-02 SEARS, V.F.
THEORY OF COLD NEUTRON SCATTERING BY HOMONUCLEAR DIATOM
IC LIQUIDS, 2 HINDERED ROTATION CAN. J. PHYS., V.44, P.1299 (1966)
NEUTRON-SCATTERING-IN-LIQUIDS SCATTERING THEORY/ MOLEC
ULAR ROTATION/ LIQUID/ THEORY HOMONUCLEAR DIATOMIC LI
QUID/ HINDERED ROTATION

66-SE-03 SEARS, V.F.
THE LAW OF CORRESPONDING STATES AND COLD NEUTRON SCATTE
RING BY LIQUID CAN. J. PHYS., V.44, P.867 (1966)
NEUTRON-SCATTERING-IN-LIQUIDS SCATTERING THEORY/ LIQUID/
THEORY LAW OF CORRESPONDING STATES

66-SH-01 SHUKLA, M.M./ DAYAL, B.
LATTICE VIBRATIONS OF ALUMINIUM ON THE BASIS OF KREBS'S
MODEL
PHYS. STATUS SOLIDI, V.16, P.513-P.516 (1966)
AL THEORY/ PHONON DISPERSION/ KREBS MODEL

66-SI-01 SIMPSON, O.D./ MOORE, M.S./ BERRITH, J.R.
TABULATION OF THE TOTAL NEUTRON CROSS SECTION OF U-232
1N-1015 (1966)
 U EXPERIMENT/ SIGMA(E) .0.01EV-10000EV

66-SI-02 SINMA, S.K.
LATTICE DYNAMICS OF COPPER PHYS. REV., V.143, P.143 (1966)
CU EXPERIMENT/ LATTICE DYNAMICS/ DISPERSS RATION/ TOF
ROOM TEMPERATURE

66-SI-03 SINMA, S.K./ VENKATAKHAMAN, G.
EFFECT OF NUCLEAR SPIN CORRELATIONS ON THE SCATTERING O
F NEUTRONS BY MOLECULES PHYS. REV., V.149, P.1 (1966)
NEUTRON-SCATTERING-IN-FLUIDS METHANE MOLECULAR DYNAM
ICS DIFFERENTIAL CROSS SECTION/ NUCLEAR SPIN CORRELAT
ION SPHERICAL-TOP MOLECULES

66-SK-01 SKOELD, K./ NELIN, G.
NEUTRON STUDY OF THE DIFFUSION OF HYDROGEN IN PALLADIUM
SOLID STATE COMM., V.4, P.303-P.306 (1966)
Pd-H EXPERIMENT/ DIFFUSION BROADNING

66-SL-01 SLATER, J.C.
GREEN'S FUNCTION METHOD IN THE ENERGY-BAND PROBLEM
PHYS. REV., V.145, P.599 (1966)
THEORY-OF-SOLIDS THEORY ELECTRON BAND/ GREEN FUNCTION

66-SO-01 SOLOVYEV, S.P./ KUKHTO, O.L./ CHERNOPELOKOV, N.A./ Z
ETLYANOV, M.G.
SCATTERING OF COLD NEUTRONS BY POLYCRYSTALLINE BARIUM,
STRONTIUM, AND LEAD TITANATES
FIZ. TVERT, TELA (SSU, PHYS.-SOLID STATE), V.8 (V.
8), P.2699-P.2708 (P.2155-P.2162) (1966 (1967))
SH-TI-03 HATI-03 PB-TI-03 EXPERIMENT/ LATTICE VIBR
ATION POLYCRYSTAL ROOM TEMP 470DC AND 520DC FOR PB,
TI-03

66-SP-01 SPARCK, S.D.
XL181: ANL CROSS-SECTION LIBRARY CODE
ANL-7112 (TID=4500) (1966)
COMPUTER-CODES CDC-3600 PROGRAM

66-SR-01 SQUIRES, G.L.
MEASUREMENTS OF THE FREQUENCIES OF THE NORMAL MODES IN
MAGNESIUM
PROG. PHYS. SOC., LONDON. V.88, P.919 (1966)
MG, PHONON DISPERSION

66-ST-01 STEIDMAN, R. / NILSSON, G.
DISPERSION RELATIONS FOR PHONONS IN ALUMINUM AT 80 AND
300DK
PHYS. REV., V.145, P.492 (1966)
AL, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
3-AXIS SPECTROMETER/ 80DK/ 300DK

66-SU-01 SUICH, J. E.
THE SENSITIVITY OF D2O MODERATE REACTOR PARAMETERS TO THE
RMAL NEUTRON SCATTERING LAW
CONF-660303, P.151 (1966)
D2,0, NEUTRON SPECTRUM

66-SU-02 SUNAKAWA, S. / FUKUI, Y. / NISHIGOKI, T.
MULTIPLE SCATTERING OF NEUTRONS AND CORRELATION FUNCTION
PROGR. THEOR. PHYS., KYOTO. V.35, P.228-P.240 (1966)
SCATTERING-THEORIES, DIFFERENTIAL CROSS SECTION/ MULTIPLE
SCATTERING

66-SU-01 SZKATULA, A. / FULINSKI, A.
DYNAMICAL AND THERMODYNAMICAL STRUCTURE OF WATER FROM THE
SCATTERING OF COLD NEUTRONS
INP-501-PS (1966)
H2O, LIQUID/ MOLECULAR DYNAMICS

66-TE-01 TEUTSCH, H. / MATESCU, N. / NAHORNIK, V. / DIACONESCU, A.
COLD NEUTRON SCATTERING BY LIQUID NITROGEN
PHYS. LETT., V.22, P.358 (1966)
N2, EXPERIMENT/ LIQUID DYNAMICS

66-TR-01 TREVINO, S. F.
NEUTRON SCATTERING FROM ORIENTED POLYETHYLENE
J. CHEM. PHYS., V.45, P.757-P.759 (1966)
POLYETHYLENE, EXPERIMENT/ NEUTRON SPECTROSCOPY, TOF
ORIENTED SAMPLE

66-TR-02 TREVINO, S. F. / BOUTIN, H.
LOW-ENERGY VIBRATIONAL MODES OF POLYOXYMETHYLENE BY NEUTRON
SCATTERING
J. CHEM. PHYS., V.45, P.2700-P.2702 (1966)
POLYOXYMETHYLENE, EXPERIMENT/ FREQUENCY SPECTRA/ LATTICE
DYNAMICS

66-VE-01 VENKATARAMAN, G. / DASANNACHARYA, B. A. / RAO, K. R.
COLD NEUTRON SCATTERING FROM LIQUID CD4
PHYS. LETT., V.23, P.226-P.227 (1966)
METHANE, LIQUID/ EXPERIMENT/ MOLECULAR DYNAMICS/ TOF
COHERENT

66-VE-02 VENKATARAMAN, G.
RECENT ADVANCES IN THE STUDY OF ATOMIC MOTIONS IN LIQUIDS
PROCEEDINGS OF THE NUCLEAR PHYSICS AND SOLID STATE
PHYSICS SYMPOSIUM DAE, BOMBAY, P.109-P.126 (1966)
REVIEW-ARTICLES/ NEUTRON-SCATTERING-IN-FLUIDS/ LIQUID
DYNAMICS

66-VE-03 VENKATARAMAN, G. / RAO, K. R. / DASANNACHARYA, B. A. / DAYANIDHI, P. K.
NEUTRON SCATTERING FROM GAS-EXCITED METHANE AND AMMONIA
PROG. PHYS. SOC., LONDON. V.89, P.379-P.383 (1966)
AMMONIA/ METHANE, THEORY/ CALCULATION/ CROSS SECTION
GAS PHASE

66-VE-04 VENKATARAMAN, G. / DENIZ, K. U. / IYENGAR, P. K. / ROY, A. P. / VIJAYARAGHAVAN, P. R.
STUDY OF THE ROTATIONAL BEHAVIOUR OF THE AMMONIUM ION IN SEVERAL SALTS BY NEUTRON SPECTROMETRY
J. PHYS. CHEM. SOLIDS, V.27, P.1103-P.1123 (1966)
N2H4, CL, N, H, BF3, N2H4.I/ (N2H4)2, SN.C6, (N2H4)2, SN.BR
6, EXPERIMENT/ ROTATIONAL MODE/ N2H4 ION

66-VE-01 WEST, R. E. / BRUGGER, R. M. / GRIFFING, G. W.
COHERENT SCATTERING FROM CD4 GAS
WASH-1088 (EANDC (US) 85U), P.171 (1966)
METHANE, SCATTERING LAW/ EXPERIMENT/ THEORY/ GAS, 306
DK/ CD4

66-VE-02 WEST, R. E. / BRUGGER, R. M. / GRIFFING, G. W.
INTRANUCLEAR COHERENT SCATTERING OF NEUTRONS BY CD4 GAS
PHYS. REV., V.146, P.163-P.169 (1966)
C, H4, EXPERIMENT/ SCATTERING FUNCTION/ GAS, MOLECULAR
DYNAMICS, 300DK/ TOF

66-WH-01 WHITEMORE, W. L.
SCATTERING OF NEUTRONS BY POLYETHYLENE (GA-6456, 1966)
NUCL. SCI. ENG., V.24, P.394 (1966)
POLYETHYLENE, EXPERIMENT

66-WH-02 WHITEMORE, W. L.
DIFFERENTIAL NEUTRON THERMALIZATION
GA-7287 (1966)
D2,0, GRAPHITE, EXPERIMENT/ SCATTERING FUNCTION, 24DC
66-W1-01 WILLIAMS, M.M.R.
THE SLOWING DOWN AND THERMALIZATION OF NEUTRONS
NORTH-HOLLAND, AMSTERDAM (1966)
REVIEW-ARTICLES BOOK

66-WO-01 WORDEN, J.R.; PIMPKELL, W.L.; LIKALA, R.C.
SENSITIVITY OF THERMAL REACTOR PARAMETERS TO SCATTERING
MODEL
CONF-660303, P. 146 (1966)
H2,0/ D2,0 = GRAPHITE, NEUTRON SPECTRUM/ SIGMA(E, E-PRIME)

66-YO-01 YOUNG, J.A.
ATOMIC MOTION IN MODERATORS
REACTOR PHYSICS IN THE RESONANCE AND THERMAL REGIONS
NS, MIT PRESS, V. 1, P. 3 (1966)
BE; C/BE;O, SCATTERING FUNCTION/ THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION

66-YO-02 YOUNG, J.A./ KOPPEL, J.U.
PHONON SPECTRUM OF BERYLLIUM OXIDE
GA-6862 (1966)
BE; O, THEORY/ LATTICE DYNAMICS/ DISPERSION CURVE/ FREQUENCY SPECTRUM/ THIS IS A PREPRINT OF A PAPER SUBMITTED FOR PUBLICATION IN NUC. SCI. ENG."

66-ZE-01 ZEMLYANOV, M.G./ SOMENKO, V.A./ CHERNOPLEKOV, N.A.
AN INVESTIGATION OF INELASTIC NEUTRON SCATTERING BY A CRYSTAL DOPED WITH LIGHT IMPURITY ATOMS
ZM, EKSP, TEOR, FIZ. (SOV. PHYS., PHYSICS), V. 52 (V. 25)
# P. 665=P. 669 (P. 436=P. 438) (1966 (1977))
N1-BE; EXPERIMENT/ LOCAL MODE/ PHONON SPECTRA

66-ZW-01 ZWANNIG, R.
APPROXIMATE EIGENFUNCTIONS OF THE LIOUVILLE OPERATOR IN CLASSICAL MANY-BODY SYSTEMS
PHYS. REV., V. 144, P. 170 (1966)
THEORY-OF-FLUIDS/ STATISTICAL MECHANICS/ GAS/ LIQUID/ SOLID/ THEORY, LIOUVILLE OPERATOR

66-ZY-01 JAPANESE NUCLEAR DATA COMMITTEE
HOW TO USE THE UNCLE CODE, SUPPLEMENT TO JAERI-1087
JAERI-MEMO-2354 (1966)
COMPUTER-CODES

66-ZY-02 JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
INELASTIC SCATTERING OF NEUTRONS
JAERI-1113 (1966)
REVIEW-ARTICLES DYNAMICS OF SOLIDS AND LIQUIDS

67-AG-01 AGGARWAL, K.G.

67-AG-02 AGRAWAL, A.K./ YIP, S.
CORRELATION OF INFRARED AND INELASTIC NEUTRON SCATTERING SPECTRA
J. CHEM. PHYS., V. 46, P. 199= P. 200 (1967)
C,H4, THEORY/ LIQUID/ CROSS SECTION EVALUATION

67-AL-01 ALDRED, B.K./ EDEN, R.C./ WHITE, J.W.
NEUTRON SCATTERING SPECTROSCOPY OF LIQUIDS
DISCUSS, FARADAY SOC., V. 43, P. 169 (1967)
ACETIC ACID/ ALCOHOL, MOLECULAR DYNAMICS/ LIQUID/ EXPERIMENT

67-AL-02 ALDRED, B.K./ EDEN, R.C./ WHITE, J.W.
NEUTRON SCATTERING SPECTROSCOPY OF LIQUIDS
DISCUSS, FARADAY SOC., V. 43, P. 169=P. 191 (1967)
ACETIC ACID/ METHANOL, EXPERIMENT/ TOF SPECTRUM/ QUASI-ELASTIC PEAK WIDTH

67-AL-03 ALDRED, B.K./ EDEN, R.C./ WHITE, J.W.
NEUTRON SCATTERING SPECTROSCOPY OF LIQUIDS
DISCUSS, FARADAY SOC., V. 43, P. 169=P. 183 (1967)
ACETIC ACID/ METHANOL, EXPERIMENT/ SUBSTITUTION OF DEUTERIUM AND FLUORINE

67-AL-04 ALS-NIELSEN, J./ DIETRICH, O.W.
LONG RANGE ORDER AND CRITICAL SCATTERING OF NEUTRONS BELOW THE TRANSITION TEMPERATURE IN BETA-BRASS
PHYS. REV., V. 153, P. 717 (1967)
CU-ZN, CRITICAL SCATTERING/ ALLOY

67-AX-01 AXMANN, A./ GISSLER, W.
SLOW NEUTRON SCATTERING BY POLYCRYSTALLINE SELENIUM AND TELLURIUM (IN GERMANY, JUL. 479-479)
PHYS. STATUS SOLIDI, V. 19, P. 721=P. 727 (1967)
SE/ TE, EXPERIMENT/ TOF/ POLYCRYSTAL

67-BA-01 BAJOREK, A./ NATKANIEC, L./ PARLINSKI, K./ SUDNIK- HRV尤KJIEVICZ, M./ JANIK, J.A./ MOLECULAR DYNAMICS IN GASEOUS AND SOLID METHANE STUDIED BY THE INELASTIC NEUTRON SCATTERING METHOD
PHYSICA, V. 141, P. 397 (1967)
METHANE, EXPERIMENT/ GAS/ SOLID/ CRYSTAL SPECTROSCOP"
METHANE/ ETHYLENE ..GAS/ EXPERIMENT

67-BA-03 BARKER,J.R.; VERLESEER,H.W.
LONG WAVE OPTICAL PHONON VIBRATIONS IN MIXED CRYSTALS
SOLID STATE COMMUN. V.5, P.699-P.699 (1967)
THEORY-OF-SOLIDS ..LATTICE DYNAMICS/ THEORY

67-BA-04 BATA, L.; KROO, N.
INELASTIC NEUTRON SCATTERING BY DENSITY FLUCTUATIONS IN
C.02 NEAR THE CRITICAL POINT
PHYS. LETT. V.24A, P.57 (1967)
C.02 ..CRITICAL SCATTERING

67-BE-01 BERGMA,J.; VAM-DJIK; C. TOCCCHETTI, D.
NORMAL VIBRATIONS IN ALPHA-IRON
PHYS. LETT. V.24A, P.270 (1967)
FE ..DISPERSION RELATION/ EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ CRYSTAL SPECTROMETER/ BORN-VON KARMA N MODEL ..M ETAL

67-BE-02 BERGE,J. B.; FRISCH, H.J.
HIGH-FREQUENCY LINEAR RESPONSE OF CLASSICAL FLUIDS TO BROWNIAN OSCILLATORS
PHYS. REV. V.47, P.2477-P.2480 (1967)
THEORY-OF-FLUIDS ..LIQUID / THEORY ..HIGH-FREQUENCY RESPONSE

67-BE-03 BEYSTER, J.R.; BORGONGI, G.M.; CARRIVEAU, G.W.
ANGULAR SCATTERING BY C,H2
GA-3030 (1967)
C,H2/ C6H6/ ZR-H ..EXPERIMENT

67-BE-04 BEYSTER, J.R.; NEIL, J.M.
STATUS OF THERMAL NEUTRON SPECTRA
GA-7092 (CONF-670707-7) (1967)
REVIEW-ARTICLES

EPITHELIAL NEUTRON INELASTIC SCATTERING
WASH-107, P.103 (1967)
POLYETHYLENE/ H2O/ ZR-H/ Nb-H/ U.02 ..EXPERIMENT

67-BI-02 BITTER, M.; GISSELL, W.; SPRINGER, T.
LATTICE DYNAMICS OF SOLID HELIUM AT 2.9K AND 125ATM BY NEUTRON SCATTERING
PHYS. STATUS SOLIDI, V.23K, P.155-P.158 (1967)
HE ..EXPERIMENT/ PHONON DISPERSION

67-BI-03 BITTER, M.; GISSELL, W.; SPRINGER, T.
LATTICE DYNAMICS OF SOLID HELIUM AT 2.9K AND 125ATM BY NEUTRON SCATTERING

PHYS. STATUS SOLIDI, V.23K, P.155-P.158 (1967)
HE ..EXPERIMENT/ PHONON DISPERSION

67-BJ-01 BJØERKMAN, G.; GRIMVALD, G.
POLARIZATION VECTORS FOR LATTICE VIBRATIONS IN SODIUM
PHYS. STATUS SOLIDI, V.19, P.863-P.865 (1967)
NA ..THEORY/ PHONON POLARIZATION/ KREBS MODEL

67-BJ-02 BJØERKMAN, G.; LUNDQVIST, B.L.; SJÖGLANDER, A.
DAMPING OF PHONONS IN ALUMINUM
PHYS. REV., V.159, P.551 (1967)
AL ..THEORY/ LATTICE DYNAMICS

67-BL-01 BLANCHAR, R.; VARSNI, Y.D.
LATTICE DYNAMICS OF DIAMOND
PHYS. REV., V.159, P.599 (1967)
DIAMOND ..LATTICE DYNAMICS/ THEORY/ DISPERSION RELATION ..SHELL MODEL CALCULATION/ DEBYES TEMP.

67-BL-02 BLINC, ; DUMC; V.; PETKOVIĆ, J.; PIRKMAJER, E.
STUDY OF PROTON DYNAMICS IN PARELAELECTRIC K.H2.P.O4 BY W
UASIELASTIC COLD NEUTRON SCATTERING
PHYS. LETT. V.28A, P.8-P.9 (1967)
K,H2,P,O4 ..MOLECULAR DYNAMICS/ SOLID/ EXPERIMENT

67-BO-01 BOON, J.; RICE, S.S.
MEMORY EFFECTS AND THE AUTOCORRELATION FUNCTION OF A DYNAMICAL VARIABLE
J. CHEM. PHYS. V.47, P.2480-P.2490 (1967)
AR ..THEORY-OF-FLUIDS ..LIQUID ..MOONUMENT AUTO-C
ORRELATION FUNCTION

67-BO-02 BORGONGI, G.; LUGWIDICE, G.; TOCCCHETTI, D.
AN ANALYSIS OF LATTICE VIBRATIONS OF ORDERED Fe3Al
J. PHYS. CHEM. SOLIDS, V.28, P.467 (1967)
FE=AL ..PHONON DISPERSION/ FE3AL

67-BO-03 BOYSTER, J.R.; MCNURRY, H.L.
ADJUSTER, A FORCE CONSTANT ADJUSTER PROGRAM TO OBTAIN E
EAST SQUARES FIT TO OBSERVED FREQUENCIES OF MOLECULES A ND CRYSTALS
IN-1148 (1967)
COMPUTER-CODES ..THEORY/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS ..FORTRAN PROGRAM FOR THE IBM 7040

67-BR-01 BROCHHOUSE, B.N.; ABDELHÉLAL, H.E.; HALLMAN, E.D.
LATTICE VIBRATION IN IRON AT 296DK
SOLID STATE COMMUN. V.5, P.211 (1967)
FE ..LATTICE DYNAMICS/ EXPERIMENT/ DISPERSION RELATION

67-BR-02 BRODMAN, E.G.; KAGAN, Y.
ON THE PHONON SPECTRUM OF METALS

- 165 -
67-BR-03 BROWN, J.S./ HORTON, G.K.
MODEL POTENTIALS AND THE DISPERSION LAW IN SOLID KRYPTON
PHYS. REV. LETT., V.25, P.571 (1970)
KR .LATTICE DYNAMICS/ THEORY/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION .73K

67-BR-04 BRUGGER, R.M./ STRONG, K.A.
LATTICE VIBRATIONS OF BEO
J. PHYS. CHEM. SOLIDS, V.28, P.249 (1967)
BE.O .LATTICE DYNAMICS/ EXPERIMENT/ DISPERSION RELATION
N .ROOM TEMPERATURE

67-BU-01 BUCKLAND, R.J./ SAUNDERS, D.H.
LONGITUDINAL OPTIC MODES IN MAGNESIUM OXIDE
AERE-R-5467 (1967)
MG.O .EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
N .TRIPLE AXIS SPECTROMETER

67-BU-02 BUYERS, W.J.L.
LATTICE DYNAMICS OF SODIUM FLUORIDE
PHYS. REV., V.153, P.923-930 (1967)
NA,F .EXPERIMENT/ PHONON DISPERSION/ MODEL CALCULATION

67-CA-01 CAGLIOTI, G./ CONCHIA, M./ HILLI, G.
NEUTRON DIFFRACTION ANALYSIS OF LIQUID ZINC
I NUOVO CIMENTO, B, V.49, P.222-226 (1967)
ZINC .EXPERIMENT/ LIQUID/ RADIAL DISTRIBUTION

67-CA-02 CARBOTTE, J.P./ DYRES, R.C.
CALCULATIONS OF THE SUPERCONDUCTING TRANSITION TEMPERATURE IN ALUMINUM
PHYS. LETT., A, V.25, P.685 (1967)
AL .THEORY/ SUPERCONDUCTING TRANSITION/ PHONON SPECTRA

67-CA-03 CARPENTER, J.M.
ORIENTATION-AVERAGED AMPLITUDE OF THE ONE-QUANTUM TERM IN THE NEUTRON SCATTERING LAW FOR MOLECULAR GASES
J. CHEM. PHYS., V.46, P.465 (1967)
C2,F6/BR2 .SCATTERING LAW/ CORRELATION FUNCTION/ THEORETICAL/ GAS/ MOLECULAR DYNAMICS/ TORSIONAL OSCILLATION

67-CA-04 CARRIVEAU, G.W.
SINGLE DIFFERENTIAL CROSS SECTION OF LIRCONIUM HYDRIDE
GA-8345 (1967)
ZR-H .ANGULAR DISTRIBUTION/ TEMPERATURE EFFECT

67-CH-01 CHEN, S.H.
GROUP-THEORETICAL ANALYSIS OF LATTICE VIBRATIONS IN METALLIC BETA-TIN
PHYS. REV., V.163, P.532 (1967)
SN .GROUP THEORY/ LATTICE VIBRATION .SYMMETRY PROPERTY
IE5

67-CH-02 CHERNOPOLEV, N.A./ PANOV, G.K./ ZEMLYANOV, M.G./ SAMOLOV, B.N./ KUTAISEV, V.I.
INVESTIGATION OF THE QUASI-LOCAL LEVEL IN THE VIBRATION SPECTRUM OF THE TI LATTICE WITH HEAVY IMPURITY ATOMS
PHYS. STATUS SOLIDI, V.20, P.767-770 (1967)
TI-U .EXPERIMENT/ LOCAL MODE/ TI0.95-0.05

67-CL-01 CLENDENIN, W.W.
CALCULATION OF THERMAL NEUTRON SCATTERING CROSS SECTION FOR CRYSTALLINE MATERIALS; THE TOR PROGRAM
LA-3823 (1967)
COMPUTER-CODES .CROSS SECTION EVALUATION/ SOLID/ SCATTERING FUNCTION .FORTRAN LIST

67-CO-01 COKKINGE, J.J.
HIGH FREQUENCY WAVES IN LIQUIDS METALS
ADVANT. PHYS., V.16, P.189 (1967)
AL/PB/BIF/B8/SN .SOLID/ LIQUID/ DISPERSION RELATION
/ EXPERIMENT

LATTICE VIBRATION SPECTRA OF ALUMINUM NITRIDE
PHYS. REV., V.158, P.833 (1967)
AL,N .OPTICAL EXPERIMENT

67-CO-03 COWLEY, E.R./ OKAZAKI, A.
THE LATTICE DYNAMICS OF THALLIUM BROMIDE
PROC. ROY. SOC., SER. A, V.300, P.49 (1967)
TL,Br .EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

67-CU-01 CURTIS, R.L./ GRIMSEY, R.A.
INCITE - A FORTRAN-IV PROGRAM TO GENERATE THERMAL NEUTRON SPECTRA AND MULTIGROUP CONSTANTS USING ARBITRARY SCATTERING KERNELS
IN-1052 (1967)
COMPUTER-CODES .NEUTRON SPECTRUM

67-CU-02 CUSACK, N.E.
THE PHYSICS OF LIQUID METALS
CONTEMP. PHYS., V.8, P.383-396 (1967)
REVIEW-ARTICLES .LIQUID METAL/ PHYSICAL PROPERTIES

- 166 -
67-DA-01 DANIELS, B.B.; SHIRANE, G.; FRAZER, B.C.; UMEBAYAS, M.; LEAKE, J.A.
PHONON-DISPERSION MEASUREMENTS ON A KRYPTON SINGLE CRYSTAL
PHYS. REV. LETT., V.18, P.548-P,550 (1967)
PB, EXPERIMENT/3-AXIS SPECTROMETER/LIQUID/DISPERSION CURVE

67-DO-03 DORNER, B.; PLESSER, T.; STILLER, H.
BRILLOUIN SCATTERING OF NEUTRONS FROM LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.160-P,168 (1967)

67-DA-02 DASANNACHARYA, B.A.; VENKATARAMAN, G.
DYNAMICS OF LIQUID CH4 FROM COLD-NEUTRON SCATTERING
PHYS. REV., V.136, P.43 (1964)
PB, CROSS SECTION EVALUATION/LIQUID/EXPERIMENT/DIFFUSION PARAMETER/FREQUENCY DISTRIBUTION/ROTATING CRISTAL SPECTROMETER/98DK

67-DE-01 DEPLANTE, J.L.
PAIR INTERACTIONS AND PHONON SPECTRUM IN METAL (IN FRENCH)
J. PHYS., PARIS., V.28, P.465 (1967)
THEORY-OF-SOLIDS/LATTICE DYNAMICS/THEORY/DISPERSION RELATION/CUBIC METAL/KONN EFFECT

67-DE-02 DESAI, R.C.; YIP, S.
SUM RULE CRITERION IN COHERENT SLOW NEUTRON SCATTERING IN LIQUIDS
NEUTRON-SCATTERING-IN-FLUIDS/LIQUID/THEORY/SUM RULE

67-DE-03 DEWETE, F.W.; NOSANOW, L.M.; WERTHAMER, N.R.
CALCULATION OF PHONON FREQUENCIES AND THERMODYNAMIC PROPERTIES OF CRYSTALLINE BCC HELIUM
PHYS. REV., V.162, P.824-P.834 (1967)
HE, THEORY/LATTICE VIBRATION/DISPERSION RELATION/FRQQUENCY DISTRIBUTION

67-DI-01 DIMITRIJEVIC, Z.; KRAMAISKI, S.; TODOROVIC, J.; KACIC, A.
NEUTRON INVESTIGATION OF MAGNETIZATION IN MAGNETITES
PHYS. STATUS SOLIDI, V.22, P.55-P.57 (1967)
MAGNETICS/SCATTERING, EXPERIMENT/MAGNON DYNAMICS/FLUIDS

67-DO-01 DORNER, B.; PLESSER, T.; STILLER, H.
BRILLOUIN SCATTERING OF NEUTRONS FROM LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.160-P.168 (1967)

67-DO-02 DORNER, B.; PLESSER, T.; STILLER, H.
BRILLOUIN SCATTERING OF NEUTRONS FROM LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.160-P.168 (1967)

67-EG-01 EGGLESTAFF, P.A.; HAYWOOD, B.C.; EBBX, F.J.
MOLECULAR MOTIONS IN LIQUID AND SOLID HYDROGEN AND DEUTERIUM
PROC. PHYS. SOC., LONDON, V.90, P.681 (1967)
H2, MOLECULAR DYNAMICS/SOLID/LIQUID/EXPERIMENT/POLYCRYSTAL/LIQUID/DISPERSION CURVES

67-EG-02 EGGLESTAFF, P.A.
RADIATION SCATTERING DATA ON LIQUID METALS
ADVAN. PHYS., V.16, P.147 (1967)
REVIEW-ARTICLES/LIQUID

67-EG-03 EGGLESTAFF, P.A.; WIGNALL, G.D.
CRITICAL INELASTIC SCATTERING OF SLOW NEUTRONS FROM A BINARY LIQUID METAL MIXTURE (SI-2N)
AERE-R.5677 (1967)
BI-2N, EXPERIMENT/LIQUID/QUASI-ELASTIC SCATTERING/CONCENTRATION FLUCTUATION

67-EG-04 EGGLESTAFF, P.A.
RADIATION SCATTERING STUDIES OF THE STRUCTURE AND TRANSPORT PROPERTIES OF LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.149-P.159 (1967)
REVIEW-ARTICLES/NEUTRON-SCATTERING-IN-FLUIDS/SCATTERING FUNCTION/TRANSPORT PROPERTIES

67-EG-05 EGGLESTAFF, P.A.
RADIATION SCATTERING STUDIES OF THE STRUCTURE AND TRANSNPORT PROPERTIES OF LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.149-P.159 (1967)
REVIEW-ARTICLES/LIQUID/STRUCTURE/TRANSPORT PROPERTIES/NEUTRON SCATTERING

67-EG-06 EGGLESTAFF, P.A.
RADIATION SCATTERING STUDIES OF THE STRUCTURE AND TRANSPORT PROPERTIES OF LIQUIDS
DISCUSS. FARADAY SOC., V.43, P.149-P.159 (1967)
REVIEW-ARTICLES/THEORETICAL BACKGROUND

67-EG-07 EGGLESTAFF, P.A.; HAYWOOD, B.C.; EBBX, F.J.
MOLECULAR MOTIONS IN LIQUID AND SOLID HYDROGEN AND DEUTERIUM
PROC. PHYS. SOC., LONDON, V.90, P.681 (1967)
H2, EXPERIMENT/ MOLECULAR MOTION/LIQUID AND SOLID
67-EL-01 ELCOMBE, M.M., SOME ASPECTS OF THE LATTICE DYNAMICS OF QUARTZ. 
QUARTZ, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION.
67-HA-02 HAUTECLER, S./ VAN-DINGENEN, M.
LATTICE DYNAMICS OF NICKEL
PHYSICA, V.34, P.257-P.271 (1967)
N1 . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
..ROOM TEMP

67-HA-03 HAYWOOD, B.C.
THE SPECTRAL DENSITY OF HYDROGEN IN WATER
J. NUCL. ENERGY, V.21, P.249-P.262 (1967)
H2O . CROSS SECTION EVALUATION/ LIQUID/ THEORY/ FREQUENCY DISTRIBUTION/ SCATTERING FUNCTION/ SIGMA(E), ..ROOM TEMPERATURE

67-HE-01 HENNINGH, E.H./ BUSCHERT, R.C./ HEATON, L.
ATOMIC RADIAL DISTRIBUTION IN AMORPHOUS SELENIUM BY X-RAY AND NEUTRON DIFFRACTION
J. CHEM. PHYS., V.46, P.586 (1967)
SE ..SIGMA(E),/ CORRELATION FUNCTION/ EXPERIMENT/ LIQUID/ SOLID/ CROSS SECTION EVALUATION ..NEUTRON DIFFRACTION/ RADIAL DISTRIBUTION/ AMORPHOUS SOLID

67-HO-01 HO, P.S./ RUDOFF, A.L.
A QUASI-HARMONIC CALCULATION OF LATTICE DYNAMICS FOR Na PHYS. STATUS SOLIDI, V.23, P.489-P.499 (1967)
NA ..THEORY/ PHONON DISPERSION/ QUASI-HARMONIC MODEL

67-HO-02 HO, P.S./ RUDOFF, A.L.
A QUASI-HARMONIC CALCULATION OF LATTICE DYNAMICS FOR Na PHYS. STATUS SOLIDI, V.23, P.489-P.499 (1967)
NA ..THEORY/ PHONON DISPERSION/ QUASI-HARMONIC CALCULATION

67-HO-03 HUGEBERG, T./ RohlIN, L.
ANHARMONIC EFFECTS ON PHONONS IN SOLID KRYPTON
SOLID STATE COMM., V.5, P.951 (1967)
KR ..THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

67-HU-01 HUTCHINSON, P./ SCHOFIELD, P.
SCAT AND SLAB: TWO COMPUTER CODES FOR THE COMPUTATION THERMAL NEUTRON SCATTERING CROSS-SECTIONS
AERE-R-5536 (1967)
COMPUTER-CODES ..SCATTERING FUNCTION ..INCOHERENT GAUSSIAN APPROXIMATION

67-IB-01 IBARRA, J.R./ SHER, R.
THERMAL NEUTRON SPECTRUM MEASUREMENTS BY FOIL ACTIVATION
NUCL. SCI. ENG., V.29, P.7 (1967)
H2O ..EXPERIMENT/ NEUTRON SPECTRUM ..200 DC

67-IS-01 ISHIKAWA, K.

67-IV-01 IVEROVA, U.J./ PARANTOPOULOS, X./ ZYVAGINA, A.P.
X-RAY DETERMINATION OF DISPERSION CURVES OF THE IONIC CRYSTALS KCl AND KI
K.Cl K.I ..LATTICE DYNAMICS/ DISPERSION RELATION ..X-RAY EXPERIMENT

67-JA-01 JAEN, J.K./ KHAN, A.A.
A QUANTUM APPROXIMATION OF THE RADIAL DISTRIBUTION FUNCTION APPLYING TO FLUID NEON
J. CHEM. PHYS., V.49, P.260 (1967)
NE ..THEORY/ LIQUID/ STATISTICAL MECHANICS

67-JA-02 JARVIS, R.G.
CALCULATIONS OF THE THERMAL SCATTERING LAW FOR SOLIDS AND LIQUIDS
AECL-2705 (1967)
COMPUTER-CODES

67-KA-01 KADOTANI, H./ IIZIMA, S.
ON THE COHERENT SCATTERING OF SLOW NEUTRONS FROM HEAVY WATER
J. NUCL. SCI. TECHNOL., TOKYO, V.4, P.625-P.627 (1967)
D2O ..THEORY/ PHONON SPECTRUM/ SCATTERING FUNCTION ..295-4230

BROADENING OF THE OPTICAL BRANCHES OF THE PHONON SPECTRUM IN METAL HYDRIDES (IN RUSSIAN)
FIZ. TVERD. TELA (SOV. PHYS.-SOLID STATE), V.9, (1966), P.1565-P.1566 (1966)
TH=H/ CE-H ..LATTICE DYNAMICS/ THEORY

FIZ. TVERD. TELA (SOV. PHYS.-SOLID STATE), V.9, (1966), P.1740-P.1743 (1966)
U=H ..THEORY/ PHONON SPECTRA

67-KA-04 KAY, W.J./ RITTER, H.L.
THE COHERENT NEUTRON SCATTERING AMPLITUDES FOR SEVEN ISOMER
OTOPES OF TIN
ACTA CRYSTALLOGR., V.23, P.868 (1967)
SCATTERING AMPLITUDE/ EXPERIMENT

67-KI-01 KIROUAC, G.J.
A COMPARISON OF SCATTERING LAW DATA AND CALCULATION FOR WATER
KAPL-P-3179 (1967)
H2O, LIQUID/ SCATTERING FUNCTION

67-KI-02 KITAGAWA, T./ MIYAZAWA, T.
INELASTIC SCATTERING CROSS SECTION OF NEUTRON BY CRYSTAL VIBRATIONS OF POLYETHYLENE
J. CHEM. PHYS., V.47, P.337-P.338 (1967)
P.337-P.338 (1967)
POLYETHYLENE, THEORY/ FREQUENCY DISTRIBUTION/ SIGMA (E, E-PRIME, THETA)

67-KI-03 KITAGAWA, T./ MIYAZAWA, T.
INELASTIC SCATTERING CROSS SECTION OF NEUTRON BY CRYSTAL VIBRATIONS OF POLYETHYLENE
REPORTS ON PROGRESS IN POLYMER PHYSICS IN JAPAN, V.10, P.185-P.186 (1967)
POLYETHYLENE, THEORY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION/ DIFERENTIAL CROSS SECTION

67-KI-04 KITCHENS, T.A./ MINKIEWICZ, V.J./ LIPSCHULTZ, F.P.
/ SHIRANE, G./ NATHANS, R.
THE PHONON DISPERSION RELATION FOR HCP HE-4 WITH A MOLD VOLUME OF 21.1CM-3
BNL-12596 (1967)
HE, SOLID/ EXPERIMENT/ DISPERSION RELATION/ LATTICE DYNAMICS, THREE CRYSTAL SPECTROMETER/ E0=1-5MEV

67-KI-05 KITTELBERGER, J.S./ HORNIG, D.F.
VIBRATIONAL SPECTRUM OF CRYSTALLINE HF AND D.F
J. CHEM. PHYS., V.46, P.3099 (1967)
HF, EXPERIMENT/ LATTICE DYNAMICS, INFRARED EXPERIMENT

67-KO-01 KOEMLER, T.R.
NEW APPROACH TO LATTICE DYNAMICS APPLIED TO SOLID 3-ME AT 0OK
PHYS. REV. LETT., V.18, P.654 (1967)
HE, THEORY/ LATTICE DYNAMICS

67-KO-02 KOPPEL, J.J./ MAHADUDEE, A.A.
PHONON DISPERSION RELATIONS FOR BERYLLIUM METAL
PHYS. LETT., V.24A, P.244 (1967)
BE, DISPERSION RELATION/ THEORY/ SOLID/ LATTICE DYNAMICS/ METAL

67-KO-03 KOPPEL, J.J./ TRIPPLET, J.R./ NALIBOFF, Y.D.
GASKET, A UNIFIED CODE FOR THERMAL NEUTRON SCATTERING
GA=7417 (REV.) (1967)
COMPUTER-CODES, SCATTERING FUNCTION, DIFFERENTIAL CROSS SECTION

67-KO-04 KOPPEL, J.J./ YOUNG, J.A.
NEUTRON SCATTERING IN BERYLLIUM
GA=8031 (1967)
BE, THEORY/ SOLID

67-KO-05 KOTOV, B.A./ OKUNEVA, N.M./ REGEL, A.R./ SHAKHMUDOV, A.L.
COMPARISON OF SPECTRA OF COLD NEUTRONS SCATTERED BY AMORPHOUS AND CRYSTALLINE SELENIUM
SE, EXPERIMENT/ FREQUENCY SPECTRA/ AMORPHOUS AND CRYSTAL SE

67-KR-01 KREBS, K./ MOELZL, K.
INELASTIC NEUTRON SCATTERING AND LATTICE DYNAMICS OF ME TALS IN QUASI-ION APPROXIMATION
EUR-3621E+PAHR-1 (1967)
NEUTRON-SCATTERING-IN-SOLIDS, LATTICE DYNAMICS/ THEORY/ DISPERSION RELATION/ METAL

67-KU-01 KURKJAARVI, J.
ABOUT A NEXT TERM TO THE CONVOLUTION APPROXIMATION FOR THE TIME DEPENDENT PAIR CORRELATION FUNCTION
PHYSICA, V.35, P.143-P.147 (1967)
SCATTERING-THEORIES, CORRELATION FUNCTION/ THEORY

67-LA-01 LAKATOS, K.
EFFECTS OF IMPURITIES ON LATTICE VIBRATIONS, A MODEL CALCULATION INCLUDING MASS AND FORCE CONSTANT CHANGES, NEUTRON SCATTERING
NYO-2391+45 (1967)
NEUTRON-SCATTERING-IN-SOLIDS/ AL, LATTICE DYNAMICS, THEORY/ FREQUENCY DISTRIBUTION

67-LE-01 LEBOWITZ, J.J./ PERCUS, J.K.
KINETIC EQUATIONS AND DENSITY EXPANSIONS, EXACTLY SOLVABLE ONE-DIMENSIONAL SYSTEM
PHYS. REV., V.155, P.122-P.138 (1967)
THEORY/OF-FLUIDS, LIQUID DYNAMICS

67-LE-02 LEVIN, A.C.
ON THE MOTIONS OF ATOM IN A LIQUID AS A STOCHASTIC PROCESS
PHYSICA, V.36, P.324-P.344 (1967)
AR, MOLECULAR DYNAMICS/ LIQUID/ FREQUENCY DISTRIBUTION/ THEORY
HE, EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

67-LI-02 LITTON, G.M., PROGRAM BRAGG, A FORTRAN IV PROGRAM FOR CALCULATION OF GG CURVES AND FLUX DISTRIBUTIONS. UCRL-17391 (1967)
COMPUTER/CODES

THEORY-OF-SOLIDS/MAGNON-PHONON COUPLING

NEUTRON-SCATTERING-IN-FLUIDS/ MOLECULAR DYNAMICS/ GAS/ THEORY/CROSS SECTION EVALUATION

THEORY-OF-SOLIDS/LATTICE DYNAMICS/THEORY

67-MA-02 MARTIN, D.G., A STUDY OF VERY SMALL DEFECT CLUSTERS IN IRRADIATED MANGANESE OXIDE, USING LONG-WAVELENGTH NEUTRON SCATTERING MEASUREMENTS. AERE-R-5521 (1967)
MGO, SOLID, EXPERIMENT/ DEFECT SCATTERING/ SCATTERING THEORY

NEUTRON-SCATTERING-IN-SOLIDS/THEORY/SOLID/DEFECT SCATTERING

67-MC-01 MCMURRY, H.L., PREPARATION OF H2O AND D2O SLOW NEUTRON SCATTERING KERNELS FOR ENDF USING MK TYPE MODELS. IN-1065 (1967)
H2O, D2O, SIGMA(E-PRIME)/ COMPILATION

DIAMOND/LATTICE DYNAMICS/DISPERSION RELATION/THEORY

SN, EXPERIMENT/ PHONON SPECTRUM

AR, LIQUID, EXPERIMENT

AR, EXPERIMENT/ LIQUID/ RADIAL DISTRIBUTION/-130DC/-110DC/X-RAY

FE, EXPERIMENT/ LATTICE DYNAMICS/DISPERSION RELATION/FREQUENCY DISTRIBUTION/ROOM TEMPERATURE/ALPHA PHASE IRON

POLYETHYLENE, EXPERIMENT/MOLECULAR DYNAMICS/LATTICE DYNAMICS .300DX

67-MO-02 MORLEY, G.L., LATTICE DYNAMICS OF SOLID HELIUM I5-T-206 (1967)
HE, THEORETICAL/LATTICE DYNAMICS/DISPERSION RELATION/FREQUENCY DISTRIBUTION/HCP PHASE/OK/DEBYE TEMPERATURE

67-MY-01 MEYERS, V.W., INELASTIC SCATTERING OF COLD NEUTRONS IN POLYCRYSTALLINE...
67-NA-01 NAKAHARA, Y., KATO, O., FREDER-81, A FORTRAN IV PROGRAM FOR COMPUTATION OF THE FREQUENCY DISTRIBUTIONS OF BERYLLIUM AND ICE BY ROOT SAMPING METHOD JAEI-1146 (1967)
BEH, HW, CHUGA, CODES, SOLID, THEORY, LATTICE DYNAMICS, FREQUENCY DISTRIBUTION

MG-LI, CU-GE, EXPERIMENT, LOCAL VIBRATION, NEUTRON SPECTROSCOPY

67-NE-01 LEWLE, J.M., ANTUNES, M., SPERFVAK, D., NEUTRON THERMALIZATION IN DIPHENYL GAS=050 (1967)
BIPHENYL, EXPERIMENT

67-NE-02 NEILL, J.M., TOTAL CROSS SECTIONS OF REACTOR MODERATOR WASH=1079 (1967)
BENZENE, SIGMA (E), EXPERIMENT

67-NE-03 NELKIN, M., RANGANATHAN, S., COLLISIONLESS SOUND IN CLASSICAL FLUIDS PHYS. REV. V.164, P.222-227 (1967)
LEAD, SCATTERING LAW, QUASI-ELASTIC PEAK, THEORY, VLA, SOV EQUATION

Bi-Pb-TL, EXPERIMENT, PHONON ALLOYS

Bi-Pb-TL, PHONON DISPERSION ALLOY SYSTEM

Cu, LATTICE DYNAMICS, EXPERIMENT, DISPERSION RELATION, FREQUENCY SPECTRUM, 3-AXIS SPECTROMETER, 49 DK, 290 DK

67-NO-01 NOBLE, C., SOLBRIG, J.H., A.W., MCHURRY, H.L., MACS, A PROGRAM FOR COMPUTING THE CRYSTAL DYNAMICAL MATRIX, PHONON DISPERSION RELATIONS, AND STRUCTURE FACTORS FOR NEUTRON INELASTIC SCATTERING IN=1125 (1967)
COMPUTER CODES, LATTICE DYNAMICS, COHERENT SINGLE-PHONON SCATTERING OF NEUTRONS

NEUTRON-SCATTERING-IN-SOLIDS, THEORY, DYNAMICAL THEORY

N=3, MOLECULE DYNAMICS, THEORY, FREQUENCY DISTRIBUTION

THEORY-OF-SOLIDS, THEORY

67-PA-01 PAGE, D.I., SCATTERING LAW (S) = VALUES FOR GRAPHITE AT 13000K AND 8000K AERE-RE-5574 (1967)
GRAPHITE, SCATTERING FUNCTION, EXPERIMENT, HIGH TEMPERATURE

V, EXPERIMENT, SCATTERING LAW, FREQUENCY SPECTRUM

67-PA-03 PALEVSKY, M., LOOKING AT MATTER WITH PARTICLES BNL-50039 (T-402) (1967)
REVIEW ARTICLES, EXPLANATION ON NEUTRON INELASTIC SCATTERING

67-RA-01 Ramanan, A.
COLLECTIVE COORDINATES IN CLASSICAL SYSTEMS
PHYS. REV. LETT., V.19, P.420-P.421 (1967)
NEUTRON-SCATTERING IN FLUIDS -- THEORY

67-RA-02 Ramaseshan, S.; Viswanathan, K.S.
ANOMALOUS NEUTRON SCATTERING BY CRYSTALS AND THE AMPLITUDES OF LATTICE WAVES
ACTA CRYSTALLOGR., Sect. A, V.26, P.364 (1967)
SCATTERING THEORIES -- ANOMALOUS SCATTERING -- POLARIZATION ON VECTOR -- ONE-PHONON SCATTERING

67-RA-03 Randolph, P.D.
SEARCH FOR THE Kohn EFFECT IN LIQUID LEAD
IN-1161, P.1-P.10 (1967)
Pb -- EXPERIMENT -- LIQUID -- DISPERSION RELATION

67-RA-04 Randolph, P.D.; Myers, W.R.
TRANSVERSE COLLECTIVE ATOMIC VIBRATIONS IN LIQUID LEAD
IN-1115, P.1-P.10 (1967)
Pb -- EXPERIMENT -- LIQUID -- DISPERSION RELATION -- 3500C -- COLLECTIVE VIBRATIONAL MODE

67-RA-05 Randolph, P.D.
SLOW NEUTRON INELASTIC SCATTERING FROM LIQUID SODIUM
PHYS. REV., V.134, P.1238 (1967)
Na -- EXPERIMENT -- LIQUID

67-RA-06 Rao, K.R.; Dasannacharya, B.A.; Venkataraman, G.
NEUTRON SCATTERING STUDIES IN LIQUID GALLIUM
Ga -- EXPERIMENT -- LIQUID -- RADIAL DISTRIBUTION

67-RA-07 Rapanneau, S.; Ilescu, N.
QUASI ELASTIC SCATTERING OF SLOW NEUTRON IN PENTANOL
PHYS. LETT., V.26A, P.72 (1967)
Pentanol -- EXPERIMENT -- MOLECULAR DYNAMICS -- ROOM TEMP. -- 3-AXIS SPECTROMETER

67-RA-08 Rao, K.R.; Venkataraman, G.; Dasannacharya, B.A.
COLD NEUTRON SCATTERING BY LIQUID METHANE
CAN. J. PHYSICS, V.45, P.3165-P.3187 (1967)
CH4 -- THEORY -- LIQUID -- COMPARED WITH EXPERIMENT

67-RI-01 Rieder, K.H.; Hoehl, E.M.
SEARCH FOR SURFACE MODES OF LATTICE VIBRATIONS IN MAGNESIUM SILICATE
SGAE-M-12/1967 (1967)
MgO -- EXPERIMENT -- SOLID -- LATTICE DYNAMICS -- SURFACE VI

67-RO-02 ROY, A.P./THAPER, C.L./YENGERI, P.K., LATTICE VIBRATION OF VANADIUM BY INELASTIC SCATTERING OF SLOW NEUTRONS. PHYSICA, V.34, P.384 (1967). V LATTICE DYNAMICS/EXPERIMENT


67-SA-01 SAFFORD, G.J./NAUMANN, A.W., LOW FREQUENCY MOTIONS IN POLYMERS AS MEASURED BY NEUTRON INELASTIC SCATTERING. ADV. POLYMER SCI., V.5, P.1-P.27 (1967). REVIEW ARTICLES/EXPERIMENTAL POLYMER TOP SPE CTRUM FREQUENCY SPECTRUM


67-SK-02 SKOELO, K./ LARSSON, K.E., ATOMIC MOTION IN LIQUID ARGON PHYS. REV. V.161, P.102 (1967) ARGON/ EXPERIMENT/ LIQUID/ SCATTERING FUNCTION/ DISPERSION RELATION, 940K


67-SL-01 SLAGGE, E.L., MULTIPLE SCATTERING IN SLOW NEUTRON DOUBLE DIFFERENTIAL MEASUREMENTS NUCL. SCI. ENG., V.30, P.199 (1967) SCATTERING THEORIES/ THEORY

67-SL-02 SLAGGE, E.L., MULTIPLE SCATTERING IN NEUTRON雙重差分 CROSS SECTION MEASUREMENTS GA-1302 (1967) SCATTERING THEORIES/ THEORY MULTIPLE SCATTERING CORRECTION


67-SM-02 SMITH, R.B., SOME MEASUREMENTS OF THE NEUTRON SCATTERING LAW FOR LIQUID WATER AT 950C BNWL-345 (1967) H2O EXPERIMENT/ SCATTERING FUNCTION, 950C TRIPLE AXIS SPECTROMETER

67-SO-01 SOLT, G., SLOW NEUTRON SCATTERING BY SOLID METHANE PHYSICA, V.37, P.253 (1967) METHANE, MOLECULAR DYNAMICS/ SCATTERING FUNCTION/ SOLID DYNAMICS


DISTRIBUTION .ROOM TEMPERATURE


67-TA-03 TAYLOR, D.W., VIBRATIONAL PROPERTIES OF IMPERFECT CRYSTALS WITH LARGE DEFECT CONCENTRATIONS PHYS. REV., V.156, P.1017 (1967) THEORY-OF-SOLIDS , CRYSTAL VIBRATION/ IMPERFECT CRYSTAL WITH DEFECTS


K,H2,P,O4 , EXPERIMENT/ FREQUENCY SPECTRA


67-TU-01 TUCKER, J.E./ REESE, W., HEAT CAPACITY OF POLYETHYLENE FROM 2.50K TO 300K J. CHEM. PHYS., V.46, P.1388-P.1399 (1967) POLYETHYLENE , EXPERIMENT

67-VA-01 VAN-DINGENEN, W./ LAUTERO, S., DISPERSION RELATIONS FOR PHONONS AND MAGTONS IN ALPHA-FE PHYSICA, V.37, P.603 (1967) Fe , EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION RX ,-room TEMPERATURE/ TOF METHOD


67-VE-02 VERBEL, J.L., LATTICE DYNAMICS OF LITHIUM HYDRIDE LA-3750 (1967) LiH , LATTICE DYNAMICS/ EXPERIMENT/ DISPERSION RELATION RX , CONST.-6/ ROOM TEMP./ Li1-D CRYSTAL


67-VE-05 VERMA, M.P./ DAYAL, B., LATTICE DYNAMICS OF Mg,O Mg,O , THEORY/ PHONON DISPERSION/ COMBINED DENSITY OF STATES

- 176 -
67-V1-01 Vissers, J.D./ Van-den-walt, R.
VLOED: A FORTRAN IV DATA REDUCTION AND FLUX CALCULATION PROGRAM WRITTEN FOR USE ON THE IBM-360 DIGITAL COMPUTER
PEL-148 (1967)

67-VA-01 Wagner, M.
DISPERSION DYNAMICS OF CRYSTAL LATTICES
Z. PHYS. A. V. 204, P. 131-149 (1967)

LATTICE DYNAMICS OF DIAMOND
PHYS. REV., V. 158, P. 805 (1967)

67-WE-01 Webb, F.J.
THE INELASTIC SCATTERING OF COLD NEUTRONS BY METHANE AN AMMAMIA
PROC. PHYS. SOC. LONDON, V. 92, P. 912 (1967)

67-WH-01 Whittemore, W.L.
DIFFERENTIAL NEUTRON THERMALIZATION
GA-7439, (TID-900) (1967)

67-WL-01 Wignall, G.D.
MULTIPLE ELASTIC SCATTERING OF THERMAL NEUTRONS BY POLY-CRYSTALLINE LEAD
AER-3691 (1967)

67-YU-01 Yuen, P.S./ Varhini, V.P.
ANGULAR FORCING IN THE LATTICE DYNAMICS OF FACE-CENTERED CUBIC METALS
PHYS. REV., V. 164, P. 892 (1967)

68-AG-01 Agrawal, A.K./ Yip, S.
ROTATIONAL CORRELATION FUNCTIONS IN NEUTRON SCATTERING BY MOLECULAR GASES
PHYS. REV., V. 171, P. 263-271 (1968)

68-AG-02 Agrawal, A.K./ Desai, R.G./ Yip, S.
ANALYSIS OF NEUTRON SCATTERING EXPERIMENTS ON LIQUIDS NEUTRON INELASTIC SCATTERING, IAEA, V. 1, P. 545-559 (1968)

68-AL-01 Almqvist, C./ Raunig, G./ Stedman, R.
PHONON DISPERSION RELATIONS IN NaCl AT 800K NEUTRON INELASTIC SCATTERING, IAEA, V. 1, P. 295-302 (1968)

68-AU-01 Aundiesse, C.D.
ON THE CONVOLUTION APPROXIMATION IN THE THEORY OF COHERENT NEUTRON SCATTERING FROM LIQUIDS PHYS. LETT., V. 27A, P. 93 (1968)

68-AW-01 Andrus, W.S./ Mueller, H.R./ Palevsky, H.
TEMPERATURE DEPENDENCE OF QUASI-ELASTIC SCATTERING OF COLD NEUTRONS FROM LIQUID ARGON
BNL-12372 (1968)

68-BR-01 Bresler, L.J./ Westrum, E.R./ Schick, D.A.
E-SCATTERING FROM LIQUID ARGON

68-CA-01 Cahan, A.D./ Miller, J.K.
ON THE CORRELATION FUNCTIONS IN NEUTRON SCATTERING BY MOLECULAR GASES
PHYS. REV., V. 171, P. 263-271 (1968)

68-CH-01 Choudhury, G.S./ Mood, M.J.
TEMPERATURE DEPENDENCE OF QUASI-ELASTIC SCATTERING OF COLD NEUTRONS FROM LIQUID ARGON

- 177 -
NEUTRON INELASTIC SCATTERING, IAEA, V1, P.457-P.462 (1968)
AR, EXPERIMENT, TOF, QUASI-ELASTIC

68-AN-05 ANDRUS, W.S./ MEIJER, H.R./ PALEISKY, H.,
INELASTIC SCATTERING OF COLD NEUTRONS FROM LIQUID ARGON
AT ELEVATED TEMPERATURES
PHYS. LETT., A, V.26, P.152-P.153 (1968)
AR, LIQUID, EXPERIMENT, QUASI-ELASTIC PEAK, TEMPERATURE
DEPENDENCE, 87Tm, 111m, W, DEGREE, KELVIN, WIDTH VS. HOMO
NTUM TRANSFER

68-AR-01 ARDENTE, V./ NARDELLI, G.F./ REATTI, L.
SCATTERING OF SLOW NEUTRONS AND MOLECULAR DYNAMICS IN LIQUID STATE (IN ITALIAN)
EUR 4037 (1968)
AR, NA, THEORY, LIQUID, MOLECULAR DYNAMICS, FREQUENCY
DISTRIBUTION, SCATTERING FUNCTION

68-AR-02 ARDENTE, V./ CUNIBERTI, R./ KIND, A./ ROSSI, G.
MOLECULAR MODEL FOR POLYPHENYLS AND ITS USE IN CALCULATING
REACTOR PARAMETERS
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA,
V1, P.467-SWEETING, V31, P.254 (1968)
BIPHENYL, BENZENE, CROSS SECTION EVALUATION, MOLECULAR
DYNAMICS, GAS, THEORY

68-AR-03 ARDENTE, V./ GALLS, G.
HINDERED ROTATIONS EFFECT ON NEUTRON THERMALIZATION
IN LIQUID WATER
NUCLEONIK, V11, P.251 (1968)
H2O, SIGMA, MOLECULAR SPECTRUM, THEORY, MODIFIED NELKIN MODEL

68-BA-01 BAJOREK, A./ NATKANIEC, I./ PARLINSKI, K./ HRNYKE
WICZ, M.S./ JANIK, J.A./
MOLECULAR DYNAMICS IN GASEOUS AND SOLID METHANE STUDIED
BY THE INELASTIC NEUTRON SCATTERING METHOD
INP, 60B, PPS (1968)
C, H, EXPERIMENT, GAS, SOLID, MOLECULAR DYNAMICS, TOF
METHOD, 1BR PULSED REACTORS, DUBNA, 1200K, 80DK

68-BA-02 BAJOREK, A./ JANIK, J.A./ JANIK, J.M./ NATKANIEC,
I./ PARLINSKI, K./
INVESTIGATION OF THE DYNAMICS OF WATER MOLECULES IN CRYSTAL
STALLO-HYDRATES BY NEUTRON INELASTIC SCATTERING
NEUTRON INELASTIC SCATTERING, IAEA, V2, P.143-P.145 (1968)
H2O, EXPERIMENT, MOLECULAR DYNAMICS, WATER IN CRYSTAL
L

68-BA-03 BANK, M.I./ KRIMM, S./

LATTICE-FREQUENCY STUDIES OF CRYSTALLINE AND FOLD STRUCTURE
IN POLYETHYLENE
J. CHEM. PHYS., V39, P.4951-4962 (1968)
POLYETHYLENE, PARAFLNE, FREQUENCY DISTRIBUTION, SOLID
EXPERIMENT, INFRARED ABSORPTION SPECTRUM, 3000-1500 CM

68-BA-04 BATA, L./ KROG, N.
INVESTIGATION OF THE DYNAMICAL PROPERTIES OF LIQUID-GAS
SYSTEMS BY COHERENT COLD NEUTRON SCATTERING NEAR THE CRITICAL POINT
NEUTRON INELASTIC SCATTERING, IAEA, V1, P.615-P.622 (1968)
C02, C52, EXPERIMENT, CRITICAL SCATTERING

68-BE-01 BENDEE, G./ NARDELLI, G.F.
LATTICE DYNAMICS OF IMPERFECT ALKALI HALIDES
J. CHEM. PHYS., V48, P.3242 (1968)
Na, Cl, K, Cl, DISPERSION RELATION, THEORY, LATTICE DYNAMICS

68-BE-02 BEYSTER, J.R.
NEUTRON SCATTERING FROM LIGHT WATER
NUCL. SCI. ENG., V31, P.254 (1968)
H2O, LIQUID, EXPERIMENT

68-BE-03 BEYSTER, J.R./ BORGONI, G.M./ BROUWER, W./ CARRIVEAU, G.W./ GOZANI, T./
INTEGRAL NEUTRON THERMALIZATION
GSM-449 (1968)
BIPHENYL, ZR, UO2, LATTICE DYNAMICS, SCATTERING FUNCTION

68-BE-04 BEYSTER, J.R./ BORGONI, G.M./ CARRIVEAU, G.W.
ANGULAR SCATTERING BY C, H, ZR, H18, and CO2,
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA,
V1, P.493 (1968)
C, H, ZR, H18, CO2, EXPERIMENT, MOLECULAR DYNAMICS

68-BI-01 BISOCH, F./ MOORE, W.E./ YEATER, M.L./
MONTE CARLO MULTIPLE SCATTERING CODE DEVELOPMENT
WASH-1124, P.163 (1968)
COMPUTER-CODES, THEORY, SLAB SAMPLE, TUBLER SAMPLE

68-B0-01 BORGONI, G.
LATTICE DYNAMICS AND NEUTRON SCATTERING OF BE, O
GSM-8758 (1968)
BE, O, THEORY, SOLID, LATTICE DYNAMICS, DISPERSION RELA-
TION, FREQUENCY DISTRIBUTION, RIGID ION MODEL, SHELL MODEL

68-BO-02 BORGONI, G./ CARRIVEAU, G.W.
TOTAL CROSS SECTIONS OF U-232
GA=8782 (1968)
U.C. = SOLID/ 
SIGMA (E) = ROOM TEMPERATURE

68-BR-03 BORGONI, G.M./ CARRIVEAU, G.W.
NEUTRON SCATTERING FROM MgO
PHYS. REV., V.175, P.953-P.958 (1968)
MgO, J. EXPERIMENT/ ANGULAR DISTRIBUTION/ SHELL MODEL CA
LCULATION

68-BR-04 BOUTIN, H./ VIP, S.
MOLECULAR SPECTROSCOPY WITH NEUTRONS
THE MIT PRESS, CAMBRIDGE, MASSACHUSETTS, AND LONDON
N. ENGLAND (1968)
NEUTRON SCATTERING-IN SOLIDS, NEUTRON SCATTERING IN FLU
IDS, BOOK/ MOLECULAR DYNAMICS/ NEUTRON SCATTERING

68-BR-05 BOUTIN, H./ PHASK, H.
APPLICATION OF SLOW NEUTRON SCATTERING TO STUDIES IN CO
LLOID AND SURFACE CHEMISTRY
ADVAN. COLLOID INTERFACE SCI., V.2, P.1-P.38 (1968)
REVIEW/ARTICLES WATER ADSORBED/ WATER IN BIOLOGICAL S
YSTEMS

68-BR-06 BOWMAN, J.C./ KRAMHANSI, J.A.
THE LOW-TEMPERATURE SPECIFIC HEAT OF GRAPHITE
J. PHYS. CHEM. SOLIDS, V.6, P.367-P.379 (1968)
GRAPHITE THEORY/ LATTICE DYNAMICS

68-BR-07 BOYER, J.K./ SOLBRIG-JR, A.W.
MACS J, A PROGRAM FOR COMPUTING CRYSTAL PHONON DISPERSI
ON RELATIONS, STRUCTURE FACTORS FOR NEUTRON INELASTIC S
CATTING AND JACOBIAN MATRICES
IN-1147 (1968)
COMPUTER-CODES LATTICE DYNAMICS Dispersion Relation
, Structure Factor for Coherent Single Phonon Scatterin
G of Neutrons/ FORTRAN IV PROGRAM

68-BR-01 BROHMANN, E.G./ KAGAN, Y./ KOLAS, A.
THEORY OF VIBRATIONAL SPECTRUM IN HEXAGONAL METALS
NEUTRON INELASTIC SCATTERING IAEA, V.1, P.165-P.1
79 (1968)
BE/ Mg/ Zn THEORY/ LATTICE DYNAMICS

68-BR-02 BROWN, R.C./ MARCH, N.H.
ATOMIC TRANSPORT AND ISOTOPIC MASS EFFECTS IN CLASSICAL
LIQUIDS
J. PHYS. CHEM. LIQUIDS, V.1, P.141-P.158 (1968)
THEORY OF FLUIDS CORRELATION FUNCTION/ FREQUENCY SPEC
TRA/ MASS EFFECT/ ALLOYS

68-BR-03 BRUGGER, R.M.
SLOW NEUTRON SCATTERING FROM WATER
NUCL. SCI. ENG., V.33, P.187 (1968)
H2O SCATTERING FUNCTION/ EXPERIMENT/ LIQUID TOF 1
60C

68-BR-04 BRUGGER, R.M./ PLUMMER, J.P.
SLOW NEUTRON SCATTERING FROM WATER
IN-1141 (1968)
H2O EXPERIMENT SCATTERING FUNCTION

R.
LATTICE DYNAMICS OF HCP HE4 BY INELASTIC NEUTRON SCATTE
RING
NEUTRON INELASTIC SCATTERING IAEA, V.1, P.339-P.4
42 (1968)
HE Dispersion Relation 4.20K

68-BU-01 BUHNER, W./ SCHNEIDER, T./ STOLL, E.
PHONON DISPERSION IN COPPLER
HELV. PHYS. ACTA, V.41, P.399 (1968)
Cu PHONON DISPERSION

68-BU-02 BULAVIN, L.A./ VORONEL, A.Y./ OSTANEVICH, Y.M./ S1
MAKINA, A.P./ STRELEKOV, A.N.
SELF-DIFFUSION COEFFICIENT OF ETHANE NEAR THE LIQUID-GA
S TRANSITION POINT
NEUTRON INELASTIC SCATTERING IAEA, V.1, P.525-P.5
33 (1968)
ETHANE EXPERIMENT QUASI-ELASTIC LIQUID GAS

68-BU-03 BURMAN, J.D./ SCIESINSKI, J./ SKOELD, K.
PROTON DYNAMICS IN WATER AND ICE STUDIED BY INELASTIC S
CATTING OF SLOW NEUTRONS
PHYS. REV., V.170, P.808 (1968)
H2O SOLID/ LIQUID EXPERIMENT FREQUENCY DISTRIBUTIO
N COLD NEUTRON TOF/ 273.4DK/ 268.7DK

68-BU-04 BUYERS, W.J.L./ COWLEY, R.A.
NORMAL MODES OF VIBRATION OF MIXED K,BR/KB,CRystALS
NEUTRON INELASTIC SCATTERING IAEA, V.1, P.43-P.46
(1968)
K,BR/ KB EXPERIMENT LATTICE DYNAMICS MIXED Chrys
TAL

68-BU-05 BUYERS, W.J.L./ COWLEY, R.A./ PAUL, G.L./ COCHRAN,
M.
NEUTRON SCATTERING NEAR THE FECHROELECTRIC TRANSITION IN
K.D2.P.04
NEUTRON INELASTIC SCATTERING IAEA, V.1, P.267-P.2
74 (1968)
K,H2,P,O4 , EXPERIMENT/ QUASI-ELASTIC SCATTERING , .340C - 46, 60C

68-BU-06 BUEYER, W.J.L./ SMITH, T.
DEBYE-WALLER FACTORS OF ALKALI HALIDES
J. PHYS. CHEM. SOLIDS, V.29, P.1051-P.1057 (1968)

68-BU-07 BUZANO, C./ RASSETTI, M.
SCATTERING OF SLOW NEUTRON FROM MOLECULES OF THE POINT GROUP C-3V
NUOVO CIMENTO, B, V.57, P.1-P.18 (1968)
NEUTRON-SCATTERING-IN FLUIDS , .THEORY/ SCATTERING BY MONOLECULE

68-BU-08 BUZANO, C./ DEMICHELI, F./ RASSETTI, M.
ROTATION-VIBRATION INTERACTION IN SCATTERING OF SLOW-NEUTRONS BY SPHERICAL-TOP MOLECULES
PHYS. REV., V.167, P.97 (1968)
NEUTRON-SCATTERING-IN SOLIDS , .SCATTERING THEORY/ GAS/ FREQUENCY DISTRIBUTION/ .DIFFERENTIAL CROSS SECTION

68-CA-01 CAGLIOTTI, G./ RIZZI, G./ CUBIOTTI, G.
PHONON-PHONON INTERACTIONS IN ZINC SILicate NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.373-P.377 (1968)
ZN, .EXPERIMENT/ LATTICE DYNAMICS/ ANHARMONIC CONTRIBUTION

68-CA-02 CARPENTER, J.M./ SCHAFFER, R.A.
AMPLITUDE OF THE T0W QUANTUM IN THE SCATTERING LAW FOR MOLECULAR GASES
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.293 (1968)
BR/ C2,F6 , .SCATTERING THEORY

68-CA-03 CARPENTER, J.M./ LURIE, N.A.
COHERENT INELASTIC NEUTRON SCATTERING BY MOLECULAR GASES
S. MEASUREMENTS ON C2,F6 AND ROTATION-VIBRATION COUPLING CALCULATIONS FOR C2,F4
NEUTRON INELASTIC SCATTERING, IAEA, V.2, P.205-P.212 (1968)
C2,F6/C2,H4 , .EXPERIMENT/ GAS/ SCATTERING FUNCTION

68-CA-04 CARVALHO, F.
INELASTIC SCATTERING OF THERMAL NEUTRONS IN GRAPHITE
NUCL. SCI. ENG., V.34, P.224 (1966)
GRAPHITE , .SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION/ EXPERIMENT , .TOP/ 9330K

68-CH-01 CHEN, S.H./ DVORAK, V.
GROUP-THEORETICAL ANALYSIS OF LATTICE VIBRATIONS IN MOLECULAR CRYSTALS
CHEM. PHYS., V.48, P.4060 (1968)
HEXAMETHYLENETETRAMINE/ ADAMANTANE/ N-M4,CL , .THEORY/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS/ DISPERSION RELATION

68-CH-02 CHEVEAU, L.
MODEL FOR LATTICE DYNAMICS IN METALS
PHYS. REV., V.169, P.496 (1968)
THEORY-OF-SOLIDS , .THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ .METAL

68-CH-01 COCHRAH, W.
FOURIER TRANSFORMS AND CORRELATION FUNCTIONS
THEORY OF CONDENSED MATTER, IAEA, P.307-P.324 (1968)
NEUTRON-SCATTERING-IN SOLIDS , .LECTURE NOTE/ CORRELATION FUNCTION

68-CH-02 COCHRAH, W.
A CORRELATION FUNCTION FOR PHONON EIGENVECTORS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.275-P.280 (1968)
NEUTRON-SCATTERING-IN SOLIDS , .THEORY/ CORRELATION FUNCTION

68-CH-03 COCKING, S.J./ EGELESTAFF, P.A.
CO-OPERATIVE MODES OF MOTION IN LIQUID LEAD
J. PHYS., V.1, P.507 (1968)
Pb , .EXPERIMENT/ LIQUID/ SCATTERING FUNCTION , .15DC ABOVE AND BELOW MELTING POINT/ 3500C

68-CH-04 COCKING, S.J.
STUDIES OF THE LIQUID STATE USING THE INELASTIC SCATTERING OF SLOW NEUTRONS
AERE-R5867 (1968)
NAl Pb , .EXPERIMENT/ LIQUID/ LIQUID DYNAMICS

68-CH-05 COCKING, S.J.
A QUASI-PHONON TREATMENT OF COHERENT NEUTRON SCATTERING BY LIQUID LEAD
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.463-P.472 (1968)
Pb , .THEORY/ LIQUID DYNAMICS

68-CH-06 COCKING, S.J./ EGELESTAFF, P.A.
THE TEMPERATURE DEPENDENCE OF CO-OPERATIVE MODES OF MOTION IN LIQUID Pb
J. PHYS., V.1, P.319 (1968)
Pb , .LIQUID DYNAMICS/ TEMPERATURE DEPENDENCE
68-CO-07 COHEN, M.H., MARTIN, R.M., PICK, R.M.,
MICROSCOPIC THEORY OF FORCE CONSTANTS IN SOLIDS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.119-P.1
39 (1968)
THEORY OF SOLIDS LATTICE DYNAMICS, FORCE CONSTANTS

68-CO-08 COLEY, J.W.D., BROCKHOUSE, B.N., CHEN, S.H.
LATTICE DYNAMICS OF RUBIDIUM NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.209-P.2
14 (1968)
RB EXPERIMENT DISPERSION RELATION 120DX

68-CO-09 COWLE, R.A., WOODS, A.D.B.
NEUTRON SCATTERING FROM LIQUID HELIUM AT HIGH ENERGIES
PHYS. REV. LETT., V.21, P.787 (1968)
HE LIQUID EXPERIMENT SCATTERING FUNCTION 10DX/4

68-CO-10 COWLEY, R.A.
NEUTRONS, FREE ELECTRONS AND HIGH MAGNETIC FIELDS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.141-P.1
48 (1968)
NEUTRON-SCATTERING IN SOLIDS THEORY LATTICE DYNAMICS
MAGNETIC FIELD

68-CO-11 COWLEY, R.A, BUYERS, W.J.L., SVENSSON, E.C., PAUL
G.L.
NEUTRON SCATTERING AND ELASTIC CONSTANTS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.281-P.2
88 (1968)
K.B.R SR.T1.0,3 THEORY EXPERIMENT LATTICE DYNAMICS
ELASTIC CONSTANT NEUTRON MEASUREMENT ULTRASONIC MEASUREMENT

68-CO-12 COWLEY, R.A.
A CALCULATION OF THE NEUTRON SCATTERING BY LIQUIDS AS MEASURED WITH THE COLD NEUTRON TIME-OF-FLIGHT TECHNIQUE
AECL-3189, P.0-P.11 (1968)
NEUTRON-SCATTERING IN FLUIDS TIME-OF-FLIGHT COLLECTIVE MODE

68-CO-13 COWLEY, R.A, SVENSSON, E.C., BUYERS, W.J.L.
NEUTRON SCATTERING AND ELASTIC CONSTANTS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.281
81 (1968)
K.B.R SR.T1.0/3 K.M.H P.0/4 ELASTIC CONSTANT SOUND VELOCITY ANHARMONICITY

68-CO-01 GIACHOY, A.
ON THE LATTICE DYNAMICS OF HEXAGONAL STRUCTURE METALS
PHYS. STATUS SOLIDI, V.29, P.423-P.434 (1968)
MG ZNY BE THEORY PHONON DISPERSION

68-DA-01 DAHLBORG, U., FRIBERG, B., LARSSON, K.E., PIRKMAJE
R, E.
NEW RESULTS ON QUASI-ELASTIC SCATTERING FROM SOME HYDROGENOUS LIQUIDS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.581-P.5
97 (1968)
PENTANE PENTAMOL EXPERIMENT QUASI-ELASTIC TEMPERATURE EFFECT

68-DA-02 DAMEL, P.S., SJOELANDER, A., SINGEL, K.S.
ITINERANT OSCILLATOR MODEL OF LIQUIDS
PHYS. REV., V.165, P.277-P.282 (1968)
THEORY OF FLUIDS LIQUID FREQUENCY SPECTRUM THEORY ITINERANT OSCILLATOR MODEL

68-DA-03 DASANNACHARYA, B.A.
MOLECULAR MOTIONS IN LIQUIDS
PROCEEDINGS OF THE NUCLEAR PHYSICS AND SOLID STATE PHYSICS SYMPOSIUM SOLID STATE PHYSICS DAE BOMB.
AY, P.194-P.160 (1968)
REVIEW ARTICLES MOLECULAR LIQUID MOLECULAR MOTION NEUTRON SCATTERING

68-DA-04 DASANNACHARYA, B.A., NAVARRO, O.G.O., IBARRA, H., CH
ATRAMPHOM, S., LEE, G.B.
NEUTRON DIFFUSION BY LIQUID ZINC
PHYS. REV., V.173, P.241-P.248 (1968)
ZN EXPERIMENT LIQUID RADIAL DISTRIBUTION

68-DA-05 DAUBERT, J., JEX, H., ROSBERG, D.
THERMAL NEUTRON SCATTERING BY ICE SINGLE CRYSTAL IN GERMANY
IKF-22 (1968)
H2O SOLID EXPERIMENT SIGMA (E)

68-DE-01 DE-WETTE, F.W., RAHMAN, A.
INELASTIC SCATTERING OF NEUTRONS BY POLYCRYSTALS
PHYS. REV., V.176, P.784 (1968)
NEUTRON-SCATTERING IN SOLIDS FREQUENCY DISTRIBUTION THEOR Y SOLID ONE PHONON COMERNT POLYCRYSTAL INELASTIC SCATTERING CROSS SECTION MONATOMIC FCC CRYSTAL

68-DE-02 DEWIT, G.A., BROCKHOUSE, B.N.
THE LATTICE DYNAMICS OF FERROMAGNETIC AND PARAMAGNETIC NICKEL
J. APPL. PHYS., V.39, P.451 (1968)
Ni EXPERIMENT LATTICE DYNAMICS DISPERSION RELATION 4000C 3000C ROOM TEMP

68-DE-03 DETOUR, J.
THE COMPUTATION OF LATTICE FREQUENCY DISTRIBUTION FUNCTION
68-FR-02 FORSTER, D., MARTIN, P.C., YIP, S.
MOMENT METHOD APPROXIMATION FOR THE VISCOSITY OF SIMPLE LIQUIDS. APPLICATION TO ARGON.
PHYS. REV., V.170, P.160-163 (1968)
THEORY-OF-FLUIDS...LIQUID...CORRELATION FUNCTION...ARGON...VISCOSITY...MOMENT METHOD

68-FR-03 FOURNIER, R.P., SAVOIE, R., BESSITTE, F., CABANA, A.
VIBRATIONAL SPECTRA OF LIQUID AND CRYSTALLINE C,F,4 J. CHEM. PHYS., V.49, P.1159 (1968)
C,F,4... FREQUENCY DISTRIBUTION...EXPERIMENT...LIQUID...SOLID...70DK...128DK...INFRARED RAMAN SPECTRA

68-FR-01 FRANCHETTI, S., MAZZA, A.
ON THE INTERPRETATION OF SOME EXPERIMENTAL RESULTS ON RADIATION SCATTERING AND ATOMIC MOTIONS FOR SOME NOBLE GASES IN THE LIQUID STATE.
NUOVO CIMENT., B, V.55, P.348-361 (1968)
AR, NE, HE...THEORY...MONOTOMIC LIQUID...RADIAL DENSITY...NO SCATTER FUNCTION

68-FR-02 FRANCHETTI, S.
ON A MODEL FOR MONOTOMIC LIQUIDS.
NUOVO CIMENT., B, V.55, P.335-347 (1968)
THEORY-OF-FLUIDS...NEUTRON-SCATTERING-IN-FLUIDS...MONOTOMIC LIQUIDS...RADIAL DENSITY...SCATTERING FUNCTION

68-FU-01 FULINSKI, A., ZGIERSKI, M.
SCATTERING SLOW NEUTRONS BY GASEOUS METHANE AND INTERMOLECULAR INTERACTIONS.
PHYS. LETT., V.27A, P.39 (1968)
METHANE...EXPERIMENT...GAS

68-GE-01 GERBAUX, X., HADNI, A.
LATTICE VIBRATIONS OF PYRAZINE CRYSTAL J. CHEM. PHYS., V.49, P.955 (1968)
PYRAZINE...FREQUENCY DISTRIBUTION...EXPERIMENT...SOLID

68-GI-01 GIBBS, A.G., LINDEMETTER, C.W.
ANALYTICAL EVALUATION OF THE LARGE TIME CONTRIBUTION TO NEUTRON SCATTERING CROSS SECTIONS.
NEUTRON TERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.271 (1968)
H2O...SCATTERING THEORY...LIQUID

68-GI-02 GISSLER, W., AXMANN, A., SPRINGER, T.
INELASTIC NEUTRON SCATTERING ON SOLID AND LIQUID TELLURIUM AND SELENIUM.
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.245-247 (1968)
SE...TE...EXPERIMENT...SOLID...LIQUID...TOF...3-AXIS SPECTROSCOPY...340DC FOR SE...450DC FOR TE

68-GL-01 GLAESER, R.
A REVIEW OF SCATTERING LAW STUDIES FOR MODERATORS.
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.233 (1968)
H2O...Zr-H...GRAPHITE...D2O...BE...BEO...COMPUTATION...SCATTERING FUNCTION...CROSS SECTION EVALUATION

68-GL-02 GLAESER, R.
STUDIES OF INELASTIC SCATTERING OF SLOW NEUTRONS BY MODE RATORS.
NUKLEONIK, V.11, P.282 (1968)
H2O...D2O...Zr-H...GRAPHITE...BE...BEO...SCATTERING FUNCTION...DIFFUSION PARAMETER...COMPUTATION

68-GL-03 GLASS, L., RICE, J.A.
UNIFIED APPROXIMATION FOR THE VELOCITY AUTOCORRELATION FUNCTION AND THE STRUCTURE FUNCTION OF A SIMPLE LIQUID.
PHYS. REV., V.176, P.239-249 (1968)
NEUTRON-SCATTERING-IN-FLUIDS...AR...THEORY...LIQUID...CORRELATION FUNCTION...COHERENT-SCATTERING CROSS SECTION

68-GL-04 GLASS, L., RICE, J.A.
NEW APPROXIMATION FOR THE CALCULATION OF NEUTRON SCATTERING FROM A SIMPLE LIQUID.
PHYS. REV., V.165, P.186-194 (1968)
NEUTRON-SCATTERING-IN-FLUIDS...THEORY...CORRELATION FUNCTION...DIFFERENTIAL SCATTERING CROSS SECTION

68-GL-05 GLASS, L., RICE, J.A.
UNIFIED APPROXIMATION FOR THE VELOCITY AUTOCORRELATION FUNCTION AND THE STRUCTURE FUNCTION OF A SIMPLE LIQUID.
PHYS. REV., V.176, P.239-249 (1968)
THEORY-OF-FLUIDS...LIQUID...CORRELATION FUNCTION...THEORY...NEUTRON SCATTERING...ONE-PARTICLE AND TWO-PARTICLE MOTIONS IN MONOTOMIC LIQUID

68-GR-01 GRANT, D.M., STRONG, K.A., BRUGGER, R.M.
DIRECT OBSERVATION OF METHYL LATTICES IN NEOFNEPTANE.
PHYS. REV., LETT., V.20, P.983 (1968)
PENTANE...EXPERIMENT...LIBRATIONAL MOTION

68-GR-02 GRIMVALD, S., GRIMVALD, G.
X-RAY DEBYE TEMPERATURE FOR AL, NB AND PB.
ACTA CRYSTALLOGRAPHICA, Sect. A, V.24, P.612 (1968)
AL, NB, PB...FREQUENCY DISTRIBUTION...THEORY...LATTICE DYNAMICS...DEBYE TEMPERATURE
68-GR-03 GROSSE, E.P./KISNIVESKY, D.
SPACE-TIME CORRELATION FUNCTIONS FOR THE ENSKOG DENSE GAS THEORY.
PHYS. FLUIDS, V.11, P.1387-P.1394 (1968)
THEORY-OF-FLUIDS, KINETIC EQUATION/HARD SPHERE GAS

68-GU-01 GUPTA, V.D./TREVINS, S./BOUNTE, H.
VIBRATION SPECTRA OF POLYGLYOSINE.
J. CHEM. PHYS., V.48, P.3008 (1968)
POLYGLYOSINE FREQUENCY DISTRIBUTION/THEORY/LATTICE DYNAMICS

68-HA-01 HARLING, O.K.
SLOW-NEUTRON INELASTIC SCATTERING AND DYNAMICS OF HEAVY WATER.
NUCL. SCI. ENG., V.33, P.41-P.50 (1964)
D2O SCATTERING FUNCTION/ LIQUID/FREQUENCY DISTRIBUTION/EXPERIMENT/ROOM TEMP.

68-HA-02 HARLING, O.K.
THE DYNAMICS OF LIQUID H2O AND D2O AND SOLID H2O FROM THE INELASTIC SCATTERING OF EPITHERMAL NEUTRONS.
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.507-P.519 (1968)
D2O/ D2O SCATTERING FUNCTION/MOLECULAR DYNAMICS/FREQUENCY DISTRIBUTION/EPITHERMAL NEUTRONS

68-HA-03 HARLING, O.K.
THE DYNAMICS OF LIQUID H2O AND D2O AND SOLID H2O FROM THE INELASTIC SCATTERING OF EPITHERMAL NEUTRONS.
BNWL-5135 (1968)
H2O/ D2O SCATTERING FUNCTION/TOF/DIFFERENTIAL CROSS SECTION SPECTRAL DENSITY 2900K/2600K

68-HA-04 HARTMANN, W.H.
THEORY OF THE VIBRATIONS OF DILUTE ALLOYS WITH SHORT-RANGE ORDER.
PHYS. REV., V.172, P.677 (1968)
THEORY-OF-SOLIDS, THEORETICAL DYNAMICS/DISPERSION RELATION/ALLOY/IMPURITY EFFECT/DUABLE-TIME GREEN FUNCTION

68-HA-05 HAUTELECH, S./NEVE-DE-MEVERGONIES, M.
APPLICATION OF THE KREBS MODEL TO THE STUDY OF THE LATTICE DYNAMICS OF HEXAGONAL CLOSE-PACKED METALS.
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.91-P.99 (1968)
THEORY-OF-SOLIDS, LATTICE DYNAMICS/METAL/HEXAGONAL STRUCTURE

68-HA-06 HAYWOOD, B.C./PAGE, P.J.
THE SCATTERING LAW FOR HEAVY WATER AT 5400K AND LIGHT WATER AT 5000K.
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.301 (1968)
H2O/D2O EXPERIMENT/SCATTERING FUNCTION/FREQUENCY DISTRIBUTION

68-HA-01 HENRY, B.R./SIEBRAND, M.
ANHARMONICITY IN POLYATOMIC MOLECULES: THE CH-STRETCHING OVERTONE SPECTRUM OF BENZENE.
J. CHEM. PHYS., V.49, P.5369 (1968)
BENZENE FREQUENCY SPECTRUM/THEORY/ LIQUID/MOLECLE DYNAMICS

68-HA-02 HENDRICK, S.B.
SLOW-NEUTRON SCATTERING AND ROTATIONAL FREEDOM OF METHYL GROUPS IN SEVERAL ORGANIC COMPOUNDS.
NEUTRON INELASTIC SCATTERING, IAEA, V.2, P.197-P.204 (1968)
METHYLENE EXPERIMENT/SIGMA/ETHYL GROUPS IN ORGANIC COMPOUNDS

68-HO-01 HOK, P.S.
LATTICE-DYNAMIC CALCULATION FOR ALKALI METALS.
PHYS. REV., V.169, P.523 (1968)
THEORY-OF-SOLIDS, NA/K DISPERSION RELATION/THEORY/LATTICE DYNAMICS

68-HO-02 HOMROD, S.F./NELIN, G.
DIFFUSIVE MOTIONS IN BENZENE AND TOLUENE STUDIED WITH LOW-ENERGY NEUTRONS.
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.475-P.512 (1968)
BENZENE/TOLUENE EXPERIMENT/TOF, DIFFUSIVE MOTION/QUASI-ELASTIC

68-HO-03 HOYLAND, J.H.
INTERNAL ROTATION IN BUTANE.
J. CHEM. PHYS., V.49, P.2563 (1968)
C4H10, THEORETICAL/MOLECULAR DYNAMICS

68-11-01 IIZUMI, M./AYAGI, S.
TOTAL CROSS SECTION OF GLASSY CARBON FROM 0.001 TO 0.1E V.
J. NUCL. SCI. TECHNOL., TOKYO, V.5, P.649 (1968)
C SIGMA

68-11-01 IYENGA, P.K.
INTERATOMIC FORCES IN SOLIDS.
THEORY OF CONDENSED MATTER, IAEA, P.665-P.688 (1968)
THEORY-OF-SOLIDS, LATTICE DYNAMICS, LECTURE NOTE
68-IV-02 IVENGAR, P.K./ VENKATARAMAN, G./ GAMEEL, Y.H./ RAOUl, K.R.
KOHN ANOMALIES IN ZINC
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.195-P.201 (1968)
ZN **EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
**KOHN EFFECT

68-JA-01 JACUT, B.
NEUTRONS AND CRITICAL PHENOMENA
THEORY OF CONDENSED MATTER, IAEA, P.483-P.499 (1968)
NEUTRON-SCATTERING-IN-FLUIDS/ PHASE TRANSITION/ CRITICAL SCATTERING/ LECTURES

68-JA-02 JANIK, J.A.
MOLECULAR DYNAMICS STUDIED BY NEUTRON INELASTIC SCATTERING AND COMPUTING METHOD
INP-600/PS (1968)

68-JA-03 JANIK, J.A.
NEUTRONS AND MOLECULES
THEORY OF CONDENSED MATTER, IAEA, P.577-P.601 (1968)
NEUTRON-SCATTERING-IN-SOLIDS/ NEUTRON-SCATTERING-IN-FLUIDS/ SCATTERING BY MOLECULES/ LECTURES

68-JA-04 JARVI, R.G.
CALCULATION AND THE THERMAL SCATTERING LAW FOR SOLIDS AND LIQUIDS
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.261 (1968)
H2O **SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION/ THEORY

68-JO-01 JOHNSTON, A.S.
TWO PHONON INELASTIC COHERENT THERMAL SCATTERING CROSS SECTION OF BERYLLIUM
WANL-TME=1854 (1968)
BE **THEORY/ SOLID/ HARMONIC APPROXIMATION/ SCATTERING LAW/ INCOHERENT APPROXIMATION/ FREQUENCY DISTRIBUTION/
DEBYE-WALLER FACTOR/ COHERENT CROSS SECTION

68-KA-01 KAGAN, V.I./ BROVMAN, E.G.
THE ROLE OF ELECTRONS IN PHONON SPECTRUM FORMATION IN METALS (IN RUSSIAN)
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.3-P.34 (1968)
THEORY-OF-SOLIDS/ LATTICE DYNAMICS/ METAL/ ELECTRON CONTRIBUTION

68-KA-02 KAHN, R./ THOMIN, J.P./ CHERNOPOLOV, N.A.
STUDY OF THE DYNAMICS OF THE LATTICE OF A MgF2 MONOCRYSTAL BY INELASTIC NEUTRON SCATTERING (IN FRENCH)
NEUTRON INELASTIC SCATTERING, IAEA, V.2, P.289-P.293 (1968)
MGF2 **EXPERIMENT/ 3-AXIS SPECTROMETER/ LATTICE DYNAMICS/ CONTRIBUTION

68-KA-03 KAIROV, I./ BROWMAN, E.G./ ZEMLYANOV, M.G./ SOMENKO, V.A.
BROADENING OF THE OPTICAL BRANCHES OF THE PHONON SPECTRUM IN METAL HYDROGENS
C-H/ H2O/ H2/ U**LATTICE DYNAMICS/ EXPERIMENT/ FREQUENCY DISTRIBUTION/ D/C TOF/ 20DC

68-KA-04 KARO, A.M./ HARDY, J.K.
LATTICE DYNAMICS AND SPECIFIC HEAT DATA OF CS, CL, CS, BR AND CS, I
J. CHEM. PHYS., V.46, P.3173 (1968)
CS, CL, CS, BR/ CS, I **THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ RIGID-ION MODEL/
POLARIZATION DIPOL MODEL/ DEFORMATION DIPOL MODEL

68-KA-05 KERR, W.C.
CORRELATED MOTIONS IN SIMPLE CLASSICAL LIQUIDS
PHYS. REV., V.174, P.316-P.325 (1968)
THEORY-OF-FLUIDS/ LIQUID/ CORRELATION FUNCTION/ THEORY

EPITHERMAL NEUTRON INELASTIC SCATTERING AND SCATTERING LAW FOR H2O, NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.389 (1968)
H2O **SCATTERING FUNCTION/ EXPERIMENT/ 3000K

68-KI-02 KITAGAWA, T./ MIYAZAKI, T.
INTERCHAIN POTENTIAL, FREQUENCY SPECTRUM, SPECIFIC HEAT AND ROOT MEAN SQUARE DISPLACEMENTS IN POLYETHYLENE CRYSTAL
REPORTS ON PROGRESS IN POLYMER PHYSICS IN JAPAN, V.11, P.219-P.222 (1968)
POLYETHYLENE **THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ SPECIFIC HEAT

68-KI-03 KITAGAWA, T./ MIYAZAKI, T.
CROSS-SECTION FOR MULTI-PHONON SCATTERING OF NEUTRONS B
Y CRYSTALLINE POLYETHYLENE
J. POLY. SCI.: PART B, V.4, P.83-P.86 (1968)
POLYETHYLENE: THEORY/ FREQUENCY DISTRIBUTION: ONE, FOUR
THREE-HYDROGEN SCATTERING: 100DK

68-KO-01 KOLHER, T.R.
NEW THEORY OF LATTICE DYNAMICS AT QDK
PHYS. REV., V.165, P.942 (1968)
NEUTRON-SCATTERING-IN-SOLIDS: LATTICE DYNAMICS: THEORY

68-KO-02 KOPPEL, J.K./ YOUNG, J.A.
NEUTRON SCATTERING IN BEYELLIUM
NEUTRON THERMALIZATION AND REACTOR SPECTRA: IAEA,
V.1, P.333 (1968)
BE LATTICE DYNAMICS: SOLID: THEORY/ DISPERSION RELATION

68-KO-03 KOTMARI, L.S./ SINGAL, C.M.
LATTICE DYNAMICS OF MICROCRYSTALLITE
PHYS. REV., V.168, P.752 (1968)
THEORY-OF-SOLIDS: LATTICE DYNAMICS

68-KO-04 KOTMARI, L.S./ GOYAL, I.C.
NEUTRON SCATTERING FROM AN N-DIMENSIONAL LATTICE (N=1,
2, 3)
PHYS. REV., V.168, P.752 (1968)
NEUTRON-SCATTERING-IN-SOLIDS: THEORY/ SOLID: LATTICE DYNAMICS: FREQUENCY DISTRIBUTION

68-KO-05 KOTTOV, B.A./ OKUNEVA, N.M./ PLACHENOVA, E.L.
EXPERIMENTAL DETERMINATION OF THE THERMAL VIBRATION SPECTRUM OF WHITE TIN
FIZ. TVERD. TELA (SOV. PHYS.-SOLID STATE), V.10 (V 10), P.013-P.017 (P.040-P.045) (1968 (1968))
SN EXPERIMENT/ PHONON SPECTRA/ SPECIFIC HEAT

68-LA-01 LAGUNESE, C./ MOORE, W.E./ PURDOM, S.N./ YEATER
URANIUM CAMBIDE SCATTERING LAW
WASH-1124, P.612 (1968)
UC THEORY/ EXPERIMENT/ CROSS SECTION/ FREQUENCY DISTRIBUTION

68-LA-02 LARSSON, K.E.
LIQUID DYNAMICS FROM NEUTRON SCATTERING
NEUTRON INELASTIC SCATTERING: IAEA, V.1, P.397-P.420 (1968)
NEUTRON-SCATTERING-IN-FLUIDS: LIQUID DYNAMICS: REVIEW

68-LA-03 LARSSON, K.E.
ROTATIONAL AND TRANSLATIONAL DIFFUSION IN COMPLEX LIQUID

68-LE-01 LEBOITZ, J.L./ PERCUS, J.K./ SYKES, J.
TIME EVOLUTION OF THE TOTAL DISTRIBUTION FUNCTION OF A ONE-DIMENSIONAL SYSTEM OF HARD RODS
PHYS. REV., V.171, P.224-P.235 (1966)
THEORY-OF-FLUIDS: THEORY/ TIME DEPENDENT DISTRIBUTION FUNCTION/ ONE-DIMENSIONAL SYSTEM

68-LE-02 LEIBFRIED, G.
LATTICE DYNAMICS
THEORY OF CONDENSED MATTER: IAEA, P.175-P.227 (1968)
THEORY OF SOLIDS: LECTURE NOTE

68-LE-03 LEUNG, P.S./ TAYLOR, T.L./ HAVENS-JR, W.W.
STUDIES OF PHASE TRANSITIONS IN AMMONIUM SALTS AND BARRIERS TO ROTATION OF AMMONIUM IONS BY NEUTRON-SCATTERING CROSS SECTIONS AS A FUNCTION OF TEMPERATURE
J. CHEM. PHYS., V.46, P.4912-P.4918 (1966)
N, N', N, N'-tetramethylenediamine (N, N', N, N'-tetramethylenediamine)
CRV-02, P.017 (P.04-04) EXPERIMENT/ TOTAL CROSS SECTION/ MOLECULAR DYNAMICS: TEMPERATURE DEPENDENCE

68-LO-01 LOH, E.
OPTICAL PHONONS IN BE.O CRYSTALS
PHYS. REV., V.166, P.673 (1968)
BE.O LATTICE DYNAMICS/ EXPERIMENT/ INFRA RED REJECTION/ RAMAN SPECTRAL SHIFTS/ SINGLE CRYSTAL

68-LO-02 LONGSTER, G.F./ WHITE, J.W.
VIBRATIONAL ASSIGNMENTS IN POLYMERIC NEUTRON-SCATTERING SPECTRA BY ATOMIC SUBSTITUTION
J. CHEM. PHYS., V.46, P.5271 (1968)
POLYACETALDEHYDE/ POLYTRIFLUOROACETALDEHYDE: EXPERIMENT
TOF NEUTRON SPECTRUM: ROOM TEMPERATURE/ COLD NEUTRON SOURCE

NEUTRON SCATTERING IN NORMAL AND DEUTERATED POLYETHYLENE
J. CHEM. PHYS., V.46, P.512 (1968)
POLYETHYLENE: SOLID/ EXPERIMENT/ THEORY/ FREQUENCY DISTRIBUTION/ LATTICE DYNAMICS/ ROOM TEMPERATURE

68-LY-02 MCNICHOL, J.E./ SUMMERFIELD, G.C.
FREQUENCY DISTRIBUTIONS OF SYNTHETIC POLYVINYLCHLORIDE
NEUTRON INELASTIC SCATTERING: IAEA, V.2, P.167-P.1
73 (1968)
POLYVINYL CHLORIDE, THEORY/ LATTICE DYNAMICS/ DISPERSION ON RELATION/ FREQUENCY DISTRIBUTION

68-MA-01 MANNHEIM, P.D., INFLUENCE OF FORCE-CONSTANT CHANGES ON THE LATTICE DYNAMICS OF CUBIC CRYSTALS WITH POINT DEFECT
PHYS. REV., V.169, P.1011 (1968)
THEORY-OF-SOLIDS, LATTICE DYNAMICS/ THEORY

68-MA-02 MAKAROV, A.A.; VOSKOD, S.H., SYMMETRY PROPERTIES OF THE NORMAL VIBRATIONS OF CRYSTAL
REV. MOD. PHYS., V.40, P.1 (1968)
DIAMOND, GROUP THEORY/ LATTICE VIBRATION/ SYMMETRY PROPERTIES/ SPACE GROUP/ IMPOSSIBLE REPRESENTATION

68-MA-03 MARCH, N.H., THE LIQUID STATE
THEORY OF CONDENSED MATTER, IAEA, P.93-P.174 (1968)
THEORY-OF-FLUIDS, LECTURE NOTE/ SCATTERING FUNCTION

68-MA-04 MARSDEN, R.S.; MCMURRY, H.L., CALCULATED SCATTERING LAR AND THERMAL NEUTRON SPECTRA FROM BENZENE
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.457 (1968)
C6H6, SIGMA (E)/ SIGMA (E-PRIME)/ SCATTERING FUNCTION/ NEUTRON SPECTRUM/ THEORY/ GAS/ MOLECULE DYNAMICS

CAN. J. PHYS., V.46, P.1355-P.1370 (1968)
COF2, EXPERIMENT/ CONSTANT-W METHOD/ DISPERSION RELATION, 800K/ 47 K/ RIGID ION MODEL

68-MA-06 MARTIN, D.G., THE CALCULATION OF DIFFERENTIAL NEUTRON SCATTERING CROSS SECTIONS OF POINT DEFECTS IN A RELAXED LATTICE
AERE-M 3882 (1968)
NEUTRON-SCATTERING-IN-SOLIDS, SCATTERING THEORY/ SCATTERING CROSS SECTION BY INTERSTITIAL ATOM

68-MA-07 MARTIN, R.M., LATTICE VIBRATIONS IN SILICON: MICROSCOPIC DIPOLE MODEL
PHYS. REV. LETT., V.21, P.536 (1968)
SI, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

68-MA-08 MARTIN, D.G., A STUDY OF VERY SMALL DEFECT CLUSTERS IN IRRADIATED MAGNESIUM OXIDE: USING LONG-WAVELENGTH NEUTRON SCATTERING MEASUREMENTS
PROC. PHYS. SOC., LONDON, V.1, P.333 (1968)
MgO, EXPERIMENT/ THEORY/ SOLID, DEFECT SCATTERING

68-MA-09 MARTIN, P.C.; YIP, S., FREQUENCY DEPENDENT FRICITION CONSTANT ANALYSIS OF DIFFUSION IN SIMPLE LIQUIDS
PHYS. REV., V.170, P.151 (1968)
AR/FREQUENCY DISTRIBUTION/THEORY/ LIQUID/ STATISTICAL MECHANICS/ FLUCTUATION-DISSIPATION THEOREMS/ DISPERSION RELATIONS/ SUM RULES

68-MA-09 MATEESCO, M.; TEUTSCH, H.; DIACONESCU, A.; NAHORNII, A., MOLECULAR DYNAMICS IN LIQUID NITROGEN AND LIQUID BISMUTH
INVESTIGATED BY COLD NEUTRON SCATTERING
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.439-P.447 (1968)
N2, B1, EXPERIMENT/ TOF/ SCATTERING FUNCTION, 77, 4K FOR N2/ 560K FOR B1

68-MA-09 MELVIN, J.S.; PIRIE, J.D.; SMITH, T., LATTICE DYNAMICS AND IONIC DEFORMATION IN SOME ALKALI HALIDES
PHYS. REV., V.175, P.1082-P.1090 (1968)
NA, F/ NA, CL/ NA, BK/ NA, THEOREY/ LATTICE DYNAMICS/ DISPERSION CURVE/ SHELL MODEL/ IONIC DEFORMATION

68-MI-01 MIKAI, K.; DUNNER, B.; STILLER, H.H., BRILLOUIN SCATTERING OF NEUTRONS FROM LIQUID C4O
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.599-P.610 (1968)
C4O, EXPERIMENT/ CONSTANT-W, 77, 3K FOR LIQUID/ 63, 1K FOR SOLID

68-MI-02 MILLER, A.P.; BROCKHOUSE, B.N., ANOMALOUS BEHAVIOR OF THE LATTICE VIBRATIONS AND THE ELECTRONIC SPECIFIC HEAT OF PALLADIUM
PHYS. REV., V.180, P.798 (1968)
PD, EXPERIMENT/ THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ TRIPLE AXIS SPECTROMETER, 85K/ 120K/ 295K/ 673K

68-MI-03 MILLER, S.A.; CASEPERS, H.H.; RAAT, M., LATTICE VIBRATIONS OF YTRIUM VANADATE
PHYS. REV., V.180, P.964-P.969 (1968)
YVO4, EXPERIMENT/ LATTICE DYNAMICS, INFRARED AND Raman SPECTROSCOPY

68-MI-04 MINKIELWICZ, V.J.; KITCHENS, T.A.; LIPSHULTZ, F.P.; NATHANS, R.; SHIRANE, G.
68-NE-02 NELKIN, M./ ORTOLEVA, P.J.
COLLECTIVE MODES IN LIQUIDS AND NEUTRON SCATTERING
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.535-P.544 (1968)
NEUTRON-SCATTERING-IN-FLUIDS , THEORY/ LIQUID , KINETIC
THEORY/ COLLECTIVE MODES

68-NE-03 NERBIE, J.L./ WARREN, J.L./ YARNELL, J.L.
LATTICE DYNAMICS OF LITHIUM HYDROXIDE
PHYS, REV, V.168, P.980-P.989 (1968)
LI,H , FREQUENCY DISTRIBUTION/ DISPERSION RELATION/ LATTICE
DYNAMICS/ EXPERIMENT/ ROOM TEMPERATURE/ LI,D

68-NG-01 NG, S.C./ BROCKHOUSE, B.N.
ATOMIC VIBRATIONS IN FACE-CENTERED-CUBIC ALLOYS OF Bi,
PB AND TL
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.253-P.266 (1968)
PB-TL/ Bi-TL/ Bi-PB/ Bi-PB-TL EXPERIMENT/ LATTICE
DYNAMICS/ DISPERSION RELATION/ KUMH ANOMALIES

68-NI-02 NICKLOW, R.M./ VIJAYARAGHAVAN, P.R./ SMITH, H.G./
DOLLING, G./ WILKINSON, M.K.
COHERENT INELASTIC SCATTERING STUDY OF LOCAL AND INBAND
MODES IN Cu(1-X)-Al(X) CRYSTALS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.57-P.58 (1968)
Cu-Al EXPERIMENT/ LATTICE VIBRATION/ LOCAL MODE

68-NL-02 NICKLOW, R.M./ VIJAYARAGHAVAN, P.R./ SMITH, H.G./
WILKINSON, M.K.
OBSERVATION OF LOCALIZED VIBRATIONS IN Cu 4/100, AL BY
COHERENT INELASTIC NEUTRON SCATTERING
PHYS, REV, V.170, P.1295-P.1306 (1968)
C u-Al EXPERIMENT/ LATTICE VIBRATION/ LOCALIZED MODE

68-NL-03 NILSSON, G.
OBSERVATIONS OF THE KUMH EFFECT IN COPPER
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.187-P.190 (1968)
Cu EXPERIMENT/ LATTICE VIBRATION/ DISPERSION RELATION,
KUMH EFFECT

68-NO-01 NORTH, D.M./ ENDERBY, J.E./ EGGLESTAFF, P.A.
THE STRUCTURE FACTOR FOR LIQUID METALS: II - RESULTS FOR
LIQUID ZN, TL, Pb, Sn AND Bi
J, PHYS, V.1, P.1075-P.1087 (1968)
ZN/ TL/ Pb/ Sn/ Bi EXPERIMENT/ LIQUID/ STATISTICAL MECHANICS,
LIQUID METAL/ 300°C-1100°C
JAERI-M 6857

68-NO-02 NORTH, D.M./ ENDERBY, J.E./ EGELESTAFF, P.A.
THE STRUCTURE FACTOR FOR LIQUID METALS I. THE APPLICATION
OF NEUTRON DIFFRACTION TECHNIQUES
J. PHYS., C. LONDON, V.2, P.784-P.794 (1968)
NEUTRON-SCATTERING-IN-FLUIDS, STRUCTURE FACTOR/ LIQUID
NEUTRON DIFFRACTION/ LIQUID METAL

68-NO-03 NORTH, D.M./ ENDERBY, J.E./ EGELESTAFF, P.A.
THE STRUCTURE FACTOR FOR LIQUID METALS II. THE APPLICATION
OF NEUTRON DIFFRACTION TECHNIQUES
J. PHYS., C. LONDON, V.1, P.784 (1968)
PB/ Ti, STRUCTURE FACTOR

68-NO-04 NOSZALI, R.
COLLECTIVE MOTION IN SIMPLE CLASSICAL FLUID
PHYS. REV., V.166, P.81 (1968)
NEUTRON-SCATTERING-IN-FLUIDS, LIQUID/ THEORY

68-O1-01 O'REILLY, D.E.
SELF-DIFFUSION COEFFICIENTS AND ROTATIONAL CORRELATION TIMES IN POLAR LIQUIDS
J. CHEM. PHYS., V.49, P.5916 (1968)

68-OH-01 OHRLICH, R./ DREXEL, K.
LATTICE DYNAMICS OF PLATINUM
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.203-P.204 (1968)
PT, EXPERIMENT/ LATTICE DYNAMICS/ TOF/ FREQUENCY DISTRIBUTION

68-OS-01 OSTHELLER, G.L./ SCHMUNK, R.E./ BRUGGER, R.M./ KEANEY, R.J.
PHONON DISPERSION RELATION OF BERYLLIUM OXIDE
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.315-P.324 (1968)
BE.O, EXPERIMENT/ 3-AXIS SPECTROMETER/ LATTICE DYNAMICS/ S/ DISPERSION RELATION

68-OS-02 OSTHELLER, G.L./ SCHMUNK, R.E./ KEANEY, R.J.
PHONON DISPERSION RELATION OF BERYLLIUM OXIDE
IN=1129 (1968)
BE.O, DISPERSION RELATION/ CRYSTAL SPECTROMETER/ LATTICE DYNAMICS/ EXPERIMENT/ SOLID/ HARMONIC APPROXIMATION/ STRUCTURE FACTOR

68-02-01 OZELTON, M.W./ SMALIN, R.A.
SELF-DIFFUSION IN LIQUID SODIUM AT CONSTANT VOLUME AND PRESSURE
PHIL. MAG., V.18, P.441 (1968)
NA, DIFFUSION COEFFICIENT/ LIQUID

68-PA-01 PAGE, D.I./ HAYWOOD, B.C.
THE HARWELL SCATTERING LAW PROGRAMME, FREQUENCY DISTRIBUTIONS OF MODELATOMS
AERE-R=5778 (1968)
H2O, D2O, GRAPHITE/ A TO B, COMPILED/ LIQUID/ SOLIDS/ FREQUENCY DISTRIBUTION/ AT VARIOUS TEMPERATURES

68-PA-02 PAGE, D.I.
THE PHONON DISTRIBUTION OF GRAPHITE AT HIGH TEMPERATURES
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.325-P.334 (1968)
GRAPHITE, EXPERIMENT/ TOF/ FREQUENCY DISTRIBUTION, 1800K

68-PA-03 PAGE, D.I.
SCATTERING LAW S(\alpha, B, \beta)=VALUES FOR A MIXTURE OF LIGHT WATER AND HEAVY WATER
AERE-R=5832 (1968)
H2O, D2O, EXPERIMENT/ SCATTERING FUNCTION/ COMPILED/ MIXTURE OF H2O AND D2O, 0<\alpha<13\text{EV}, 1-17\text{AT}

68-PA-04 PAHOR, S.
MULTIPLE SCATTERING AND INVERSE ABDI PROBLEM
PHYS. REV., V.176, P.218 (1968)
SCATTERING THEORY/ MULTIPLE SCATTERING CORRECTION

68-PA-05 PARKS, P.B./ PELLARIN, D.J./ PROCHNOW, N.H./ BAUMAN, N.P.
THERMAL NEUTRON DIFFUSION IN LIGHT AND HEAVY WATER
D=1090 (1968)
H2O, D2O, EXPERIMENT/ DIFFUSION PARAMETER

68-PE-01 PERCUS, J.K./ YEIVICK, G.J.
DIRECT CORRELATION FUNCTION IN SPACE AND TIME
PHYS. FLUIDS, V.11, P.2050-P.2052 (1968)
THEORY OF FLUIDS, THEORY/ DIRECT CORRELATION FUNCTION

68-P1-01 PISERI, L./ ZERBI, G.
VIBRATIONAL FREQUENCY SPECTRA OF RANDOMLY FOLDED SIMPLE ZIG-ZAG CHAINS
CHEM. PHYS. LETT., V.2, P.127-P.131 (1968)
POLYETHYLENE, THEORY/ PHONON SPECTRA/ ZIG-ZAG CHAIN

68-PO-01 POWELL, B.M./ MARTEL, P./ WOODS, A.D.B.
LATTICE DYNAMICS OF NIOBlUM-MOLYBDENUM ALLOYS
PHYS. REV., V.171, P.727 (1968)
NB-MO, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
ON ROOM TEMPERATURE ALLOY KORN EFFECT

68-PO-02 POWELL, B.M.
LATTICE DYNAMICS OF HEXAMETHYLENETETRAMINE
NEUTRON INELASTIC SCATTERING. IAEA V.2 P.185-P.1
90 (1968)
HEXAMETHYLENETETRAMINE EXPERIMENT/ CONST.-Q/_DISPERSINO CURVES/ FREQUENCY DISTRIBUTION .296DK

68-PO-03 POWLES, J.G.
NUCLEAR MAGNETIC RESONANCE IN LIQUIDS AND SOLIDS (REV.
NEUTRON INELASTIC SCATTERING IAEA V.1 P.379 (1968)
REVIEWS ARTICLES TO COMPARB NMR WITH THAT OF NEUTRON SCATTERING

68-PR-01 PRASK, H./ BOUTIN, H./ YIP, S.
FREQUENCY SPECTRUM OF HYDROGENOUS MOLECULAR SOLID BY INELASTIC NEUTRON SCATTERING, HEXAGONAL H2O ICE
J. CHEM. PHYS. V.48 P.3367 (1968)
H2O SOLID/ EXPERIMENT/ THEORY/ FREQUENCY DISTRIBUTION
COLD NEUTRON TOF/ 150DDK

68-PU-01 PUROHIT, S.N./ PANS, S.S./ BISOCHOFF, F./ BRYAULT, W.
INELASTIC NEUTRON SCATTERING IN METAL HYDROGENS, UO2 AND U12 AND APPLICATIONS OF THE SCATTERING LAW
NEUTRON THERMALIZATION AND NEUTRON SPECTRA IAEA V.1 P.407 (1968)
UO2 U12 ZR-M/ TM-NB/ TH-H SCATTERING FUNCTION FREQUENCY DISTRIBUTION/ EXPERIMENT

68-PU-01 PUROHIT, S.N.
DISCUSSION OF THE QUASI-ELASTIC SCATTERING OF NEUTRONS IN INCOHERENT LIQUIDS
J. PHYS. CHEM. LIQUIDS V.1 P.13-P.32 (1968)
NEUTRON SCATTERING IN FLUIDS THEORY/ LIQUID/ QUASI ELASTIC/ INCOHERENT

68-PY-01 PYNN, R./ SIVIN, G.L.
MEASUREMENTS OF FREQUENCIES OF NORMAL MODES OF MAGNESIUM
NEUTRON INELASTIC SCATTERING IAEA V.1 P.215-P.22 (1968)
Mg EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ TOF

68-QU-01 QUITTNER, G./ VUKOVICH, S./ ERNST, G.
PRESSURE DEPENDENCE OF THE FREQUENCY OF SOME PHONONS IN SODIUM IODIDE
NEUTRON INELASTIC SCATTERING IAEA V.1 P.376-P.377 (1968)
72 (1968)
NA EXPERIMENT/ LATTICE DYNAMICS/ PRESSURE EFFECTS/ 3000 ATM

68-RA-01 RAMMANN, A.
CURRENT FLUCTUATIONS IN CLASSICAL LIQUIDS
NEUTRON INELASTIC SCATTERING IAEA V.1 P.361-P.572 (1968)
NEUTRON SCATTERING IN FLUIDS THEORY/ MOLECULAR DYNAMICS/ SCATTERING FUNCTION

68-RA-02 RANDOLPH, P.D.
SCATTERING LAW FOR LIQUID SODIUM AT SMALL MOMENTUM TRANSFER
IN-L209 (1968)
NA EXPERIMENT/ TOF/ 150DDK/ SMALL MOMENTUM TRANSFER/ DIFFUSE AND COLLECTIVE EXCITATION

68-RA-03 RANDOLPH, P.D.
INELASTIC SCATTERING IN LIQUID SODIUM AT SMALL MOMENTUM TRANSFER
NEUTRON INELASTIC SCATTERING IAEA V.1 P.449-P.456 (1968)
NA EXPERIMENT/ TOF/ 150DDK/ SMALL MOMENTUM TRANSFER/ DIFFUSE AND COLLECTIVE EXCITATION

68-RA-04 RANDOLPH, P.D.
MASS CURRENT FLUCTUATIONS IN LIQUID LEAD
PHYS. REV. LETT. V.20 P.531-P.533 (1968)
Pb LIQUID CORRELATION FUNCTION SCATTERING LAW EXPERIMENT

68-RA-05 RAO, K.R.
NEUTRON DIFFRACTION FROM LIQUID CARBON TETRACHLORIDE
J. CHEM. PHYS. V.48 P.2375-P.2396 (1968)
C0C4 EXPERIMENT/ LIQUID/ RADIAL DISTRIBUTION

68-RA-06 RAPEANU, S.
QUASI-ELASTIC SCATTERING OF COLD NEUTRONS IN C3H5Cl04W
AT VARIOUS TEMPERATURES
PHYS. LETT. A V.28A P.31 (1968)
GLYCINE EXPERIMENT/ QUASI-ELASTIC SCATTERING

INFRARED DISPERSION AND LATTICE VIBRATIONS OF LA, F3
PHYS. REV. V.171 P.1021 (1968)
LA, F3 EXPERIMENT 420X/ 770X/ 370X/ INFRARED REFLECTANCE CERMERS KRONIG METHOD

68-RG-01 HICHTER, J./ VOGT, K.
NEW MODEL FOR THE CALCULATION OF NEUTRON SCATTERING
68-RA-02 RICHTER, J., Voss, K.,
NEW MODEL FOR THE CALCULATION OF NEUTRON SCATTERING
PHYS. LETT. A, V. 26, p. 376-377 (1968)
THEORY/FLUIDS/ LINEARIZED VS. LASOV BOLTZMANN EQUATION
68-RA-03 RICHTER, J., Voss, K.,
DISPERSION RELATION OF THE VS. LASOV EQUATION (IN GERMANY)
ANN. PHYS. LEIPZIG, V. 26, p. 303-311 (1968)
THEORY/FLUIDS/ LINEARIZED VS. LASOV EQUATION
68-RA-04 RIEDER, K.H., K. EM.,
SEARCH FOR SURFACE MODES OF LATTICE VIBRATIONS IN MAGNE
SIUM OXIDE
PHYS. REV. LETT., V. 20, p. 209-211 (1968)
MG-0, EXPERIMENT/ PHONON SPECTRA/ SURFACE MODE
68-RO-01 ROSS, D.K., SZABO, F.P., SNALAN, Y.,
THE INELASTIC SCATTERING OF NEUTRONS FROM BENZENE AND WATER
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V. 1, p. 477 (1968)
BENZENE/ H2O, SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION/ EXPERIMENT/ LIQUID, 20°C FOR BENZENE/ 230°C C FOR H2O
68-RO-01 RUSZI, J.J., FLINTOW, M.E.,
VIBRATION SPECTRA OF VANADIUM HYDROXIDE IN THREE CRYSTAL
PHASES BY INELASTIC NEUTRON SCATTERING
J. CHEM. PHYS., V. 48, p. 3793 (1968)
VH, FREQUENCY DISTRIBUTION/ EXPERIMENT
68-SA-01 SAKAMOTO, M., HAMAGUCHI, Y.,
LATTICE DYNAMICS OF CuAl-X (X=II-I)
NEUTRON INELASTIC SCATTERING, IAEA, V. 1, p. 181-186 (1968)
CuAl-X, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ ALLOYS
68-SA-02 SAKURAI, J., BUYERS, W.J.L., COWLEY, R.A., DOLLING, G.
CRYSTAL DYNAMICS AND MAGNETIC EXCITATIONS IN CUBALUS
OXIDE
PHYS. REV., V. 167, p. 510 (1968)
CO, LATTICE DYNAMICS/ EXPERIMENT/ DISPERSION RELATION/ 3-AXIS SPECTROMETER/ 425DK/ 110DK
68-SA-03 SAMOSVAT, G.S., SAYASOV, Y.S., CHUBURKOV, V.T.,
SCATTERING OF SLOW NEUTRONS BY WATER MOLECULES
ZM. EKSP. TEOR. FIZ. (SOV. PHYS.-JETP), V. 54, (1968)
H2O, SCATTERING EXPERIMENT/ MOLECULAR DYNAMICS/ TOF, RESONANT DETECTOR METHOD
68-SC-01 SCHENK, C., WIENER, E., WECKERMANN, B., KLEY, W.,
DISAPPEARANCE OF A VIBRATIONAL MODE IN THE FERROELECTRIC
C PHASE TRANSITION OF K.H2.P.O6
PHYS. REV., V. 172, p. 576 (1968)
K.H2.P.O6, EXPERIMENT/ LATTICE DYNAMICS/ PHASE TRANSITION
68-SC-02 SCHENK, C., WIENER, E., WECKERMANN, B., KLEY, W.,
DISAPPEARANCE OF A VIBRATIONAL MODE IN THE FERROELECTRIC
C PHASE TRANSITION OF K.H2.P.O6
PHYS. REV., V. 172, p. 576-578 (1968)
K.H2.P.O6, EXPERIMENT/ TOF, SINGLE CRYSTAL, AS A FUNCTION OF TEMPERATURE/ PHASE TRANSITION
68-SC-03 SCHERMER, R.J., BLUME, M.,
POLARIZATION EFFECTS IN SLOW NEUTRON SCATTERING 3, NUCL
EAR POLARIZATION
PHYS. REV., V. 166, p. 334 (1968)
SCATTERING THEORIES, SOLID/ SCATTERING THEORETICAL
68-SC-04 SCHMUCK, P., QUITTNER, G.,
THREE-BODY FORCES IN THE LATTICE DYNAMICS OF LEAD
SAGE-PH-74/1968
LEAD, DISPERSION RELATION/ THEORETICAL/ SOLID/ LATTICE DYNAMICS
68-SC-05 SCHMUCK, P., QUITTNER, G.,
THREE-BODY FORCES IN THE LATTICE DYNAMICS OF LEAD
PHYS. REV., V. 226, p. 217 (1968)
Pb, THEORETICAL/ LATTICE DYNAMICS/ DISPERSION CURVES, DOPOTENTIAL CALCULATION
68-SC-06 SCHNEIDER, T., STOLL, E.,
LATTICE DYNAMICS AND ELECTRONIC STRUCTURE OF SODIUM, MA
GNESIUM AND ALUMINIUM
NEUTRON INELASTIC SCATTERING, IAEA, V. 1, p. 101-108 (1968)
Na, Mg, Al, THEORETICAL/ LATTICE DYNAMICS/ ELECTRONIC
68-SG-07 Schofield, P.
THE THEORY OF HIGH-FREQUENCY DENSITY FLUCTUATIONS IN LIQUIDS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.573-P.580 (1968)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/SCATTERING FUNCTION

68-SK-01 Shahn, P.N.
DETERMINATION OF THE VELOCITY OF HIGH-FREQUENCY SOUND IN LIQUID ME BY X-RAY SCATTERING
PHYS. REV. LETT., V.20, P.1026-P.1028 (1968)
HE, LIQUID/EXPERIMENT, HE-3/X-RAY SCATTERING/HIGH-FREQUENCY-SOUND VELOCITY

DISAPPEARANCE OF VIBRATIONAL MODE IN FERROELECTRIC PHASE TRANSITION OF K.H2.P.O4
PHYS. REV., V.172, P.576 (1968)
K.H2.P.O4, INCORRECT SCATTERING SPECTRA/PHASE TRANSITION/LATTICE VIBRATION

68-SH-03 Shimizu, H.
DEPENDENCE OF THE TIME-CORRELATION FUNCTIONS OF MOLECULAR RANDOM MOTIONS ON THE INTERMOLECULAR POTENTIAL, J. CHEM. PHYS., V.48, P.2494 (1968)
NEUTRON-SCATTERING-IN-FLUIDS, THEORY/FREQUENCY DISTRIBUTION/CORRELATION FUNCTION/LIQUID/MOLECULAR DYNAMICS/STATISTICAL MECHANICS

68-SI-01 Singwi, K.S.
THEORY OF ATOMIC MOTIONS IN SIMPLE CLASSICAL LIQUIDS
PHYS. REV., V.167, P.152 (1968)
AR, THEORY/LIQUID/PAIR DISTRIBUTION FUNCTION, 85.90 K

68-SI-02 Singwi, K.S., Skoeld, K., Tosi, M.P.
ZERO SOUND IN CLASSICAL LIQUIDS
PHYS. REV. LETT., V.21, P.881 (1968)
NEUTRON-SCATTERING-IN-FLUIDS/AR, THEORY/LIQUID/MOLECULAR DYNAMICS

68-SI-03 Singwi, K.S.
ATOMIC MOTIONS IN LIQUIDS AND NEUTRON SCATTERING
THEORY OF CONDENSED MATTER, IAEA, P.603-P.638 (1968)
NEUTRON-SCATTERING-IN-FLUIDS, LIQUID DYNAMICS/LECTURE NOTE

68-SI-04 Sinha, S.K.

68-SK-01 Skoeld, K.
EFFECTS OF MOLECULAR REORIENTATION IN SOLID METHANE ON THE QUASIELASTIC SCATTERING OF THERMAL NEUTRON J. CHEM. PHYS., V.49, P.2443 (1968)
METHANE, SCATTERING FUNCTION/SOLID/MOLECULAR DYNAMICS/S/THEORY/22.10K/ORIENTATIONAL JUMP DIFFUSION MODEL

68-SL-01 Slaggie, F.L.
CENTRAL FORCE LATTICE DYNAMICAL MODEL FOR ZIRCONIUM HYDRIDE
J. PHYS. CHEM. SOLIDS, V.29, P.923 (1968)
ZR-H, THEORY/LATTICE DYNAMICS/FREQUENCY DISTRIBUTION
ROOT SAMPLING METHOD

68-SL-02 Slaggie, F.L.
MULTIPLE SCATTERING IN NEUTRON DOUBLE DIFFERENTIAL CROSS SECTION MEASUREMENTS
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA, V.1, P.311 (1968)
H2O/ZR-H, THEORY/CROSS SECTION EVALUATION

68-SL-03 Slaggie, F.L.
CENTRAL FORCE LATTICE DYNAMICAL MODEL FOR URANIUM CARBIDE
GA-7875 (1968)
U.C., THEORY/SOLID/LATTICE DYNAMICS/NEUTRON GAS-ENERGY MODEL/FREQUENCY DISTRIBUTION IN PERATOMIC FORCE CONSTANTS/INCOHERENT APPROXIMATION SPECIFIC HEAT

68-SM-01 Smith, M.G., Dolling, G., Nicklow, R.M., VijayaragHAVAN, P.R., Wilkinson, M.K.
PHONON DISPERSION CURVES IN LITHIUM NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.149-P.155 (1968)
L1, EXPERIMENT/LATTICE DYNAMICS/DISPERSION RELATION/FREQUENCY DISTRIBUTION, 98DX/L17/3-AXIS SPECTROMETER

68-SO-01 Sosnowski, J.R., Bednarski, S., Czachor, A.
PHONON DISPERSION RELATIONS IN BISMUTH NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.157-P.162 (1968)
B1, EXPERIMENT/LATTICE DYNAMICS/DISPERSION RELATION/CONSTANT

68-SP-01 Sprevak, C., Koppel, J.U., Young, J.A.
SLOW NEUTRON SCATTERING AND THERMALIZATION BY BENZENE
NEUTRON THERMALIZATION AND REACTOR SPECTRA. IAEA,
V. 1, P. 437 (1968)
BENZENE // THEORIE/ MOLECULAR DYNAMICS/ FREQUENCY DISTRIBUTION/ CROSS SECTION EVALUATION

68-SP-02 SPREVA, D., BORONOVIC, G.M., NEILL, J.M., CARRIVE
AN., G.W.
NEUTRON THERMALIZATION IN BENZENE
NUKLEONIK, V. 11, P. 233 (1968)
BENZENE // SCATTERING FUNCTION// LIQUID// NEUTRON SPECTRUM
// SCATTERING THEORY // ROOM TEMPERATURE

68-ST-01 STAMENOVICH, S.S.
SCATTERING OF SLOW NEUTRONS BY THE PROTONS IN HYDROGEN
BONDS USING THE DOUBLE-POTENTIAL-WELL MODEL
FIZ, TVERD. TELA (SU, PHYS.-SOLID STATE), V. 10, P
673 (1968)
H // DOUBLE-POTENTIAL-WELL// HYDROGEN BOND // SIGMA (THETA
// E) // THEORY/ MOLECULAR DYNAMICS

68-ST-02 STECKI, J., WOJNAR, H.
KINETIC EQUATION FOR THE SELF-CORRELATION FUNCTION G(E:
T) IN THE DILUTE BOLTZMANN GAS
CHEM. PHYS. LETT., V. 2, P. 343-345 (1968)
THEORY//OF//FLUIDS// GAS// THEORETICAL CORRELATION FUNCTION

68-ST-03 STEINMANN, D.K., SUMMERFIELD, G.C.
NEUTRON INCOHERENT SCATTERING FROM KDP
J. PHYS. CHEM. SOLIDS, V. 30, P. 449 (1968)
K.H 2 .P. 04 // INCOHERENT SCATTERING

68-ST-04 STOCKMEYER, R. // STOLLER, H.
PHONONS, TORSIONS, AND ROTATIONAL DIFFUSION IN ADAMANTANE
PHYS. STATUS SOLIDI, V. 27, P. 269-280 (1968)
ADAMANTANE // EXPERIMENT// PHONON SPECTRUM// FITTED BY CALCULATIONS

68-SU-01 SUGAWARA, A., YIP, S., SIMOVICH, L.
KINETIC THEORY ANALYSIS OF LIGHT SCATTERING IN GASES
PHYS. REV., V. 168, P. 121-123 (1968)
SCATTERING-THEORIES // GAS// FREQUENCY SPECTRUM// THEORY
// KINETIC-THEORY

68-SU-02 SUMMERFIELD, G.C., LURIE, N. A.
INELASTIC NEUTRON SCATTERING BY GASEOUS O2
J. CHEM. PHYS., V. 49, P. 890 (1968)
O // SCATTERING FUNCTION// EXPERIMENT// THEORY// GAS// MAGNETIC SCATTERING// ROOM TEMP.

68-SU-03 SUMMERFIELD, G.C. // ZWEIFEL, P.F.
QUASI-CLASSICAL APPROXIMATION FOR SCATTERING FROM MOLECULES
NEUTRON THERMALIZATION AND REACTOR SPECTRA. IAEA,
V. 1, P. 283 (1968)
H. CL/H.F. // SCATTERING THEORY

68-SV-01 SVENSSON, E.C., BUYERS, W.L.
EXPERIMENTAL DIFFERENCE BETWEEN FIRST AND ZERO SOUND IN
K,BR
PHYS. REV., V. 165, P. 1063 (1968)
K, BR // LATTICE DYNAMICS// EXPERIMENT// DISPERSION RELATION
N // 3-AXIS-SPECTROMETER// 950K// 463K

68-SV-01 SYKES, J.
CO-OPTERATIVE MODES OF MOTION IN A SIMPLE MODEL OF A LIQUID
PHYS. LETT., V. 28A, P. 208 (1968)
NEUTRON//SCATTERING-IN-FLUIDS // LIQUID// SCATTERING LAW// DISPERSION RELATION// THEORY

68-TA-01 TAGLIAFERRI, E.
SMALL ANGLE SCATTERING OF SUBTHERMAL NEUTRONS FROM DEFECTED POLYCRYSTALLINE COPPER
PHYS. STATUS SOLIDI, V. 29, P. 259-268 (1968)
CU // SCATTERING-DEFS // EXPERIMENT// SMALL ANGLE SCATTERING// DISLOCATION IN COLD WORKED CRYSTALS

68-TA-02 TALHOUK, S.J., HARRIS, P.M., WHITE, D., ERIKSON, R.A.
SCATTERING OF THERMAL NEUTRONS BY LIQUID SOLUTIONS OF ORTHO AND PARADERIVATIVES
J. CHEM. PHYS., V. 48, P. 1273 (1968)
D // EXPERIMENT// LIQUID// MOLECULAR DYNAMICS // 20DK// NEUTRON DIFFRACTION// RADIAL DISTRIBUTION FUNCTION

68-TA-03 TARINA, V.
STUDY OF THE SOLID-LIQUID TRANSITION IN CYCLOHEXANE BY COLD NEUTRONS
NEUTRON INELASTIC SCATTERING. IAEA, V. 1, P. 501-506 (1968)
CYCLOHEXANE // EXPERIMENT// SIGMA(E) // DIFFERENTIAL CROSS SECTION // SOLID-LIQUID TRANSITION // -20DC-20DC

68-TH-01 THOMSON, I.M.
THE SCATTERING LAW FOR VARIOUS REACTOR MATERIALS
NEUTRON THERMALIZATION AND REACTOR SPECTRA. IAEA,
V. 1, P. 373 (1968)
ZnH 2 // U.02 // SCATTERING FUNCTION// EXPERIMENT// SOLID // DIFFERENTIAL SCATTERING CROSS SECTION

68-TR-01 TREPADO, V., BALLY, D., PARFENOV, V.A., LIFOROV, V.G.
INELASTIC SCATTERING OF THERMAL NEUTRONS BY SOME BENZENE DERIVATIVES. NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.483-P.490 (1968). BENZENE, EXPERIMENT/ MOLECULAR DYNAMICS.


68-VA-01 VALENTINE, T.M., COHERENT NEUTRON SCATTERING LENGTH OF 170 AUREA-R-5770 (1968). O, EXPERIMENT, USING UD-02 SINGLE CRYSTAL.


68-WH-02 WHITTEMORE, W.L., INELASTIC THERMAL-NEUTRON SCATTERING BY LIQUID D2O. NUCL. SCI. ENG., V.33, P.195-P.208 (1968). D2O, SCATTERING FUNCTION/ FREQUENCY DISTRIBUTION/ EXPERIMENT/ LIQUID. 3000K/ INCIDENT NEUTRON ENERGY 0.157-0.646EV.


68-WI-02 IGNALE, G.D. / EGELESTAFF, P.A.,
CRITICAL OPALESCEENCE IN RINARY LIQUID METAL MIXTURES. 1
TEMPERATURE DEPENDENCE
J. PHYS., C, LONDON, V.1, P.319 (1968)

PB, EXPERIMENT / LIQUID / SCATTERING FUNCTION, 336-7260
C

68-WO-01 WOODS, A.D.B. / COWLEY, R.A.,
HIGH ENERGY EXCITATIONS IN LIQUID HELIUM
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.609-P.614 (1968)
HE, EXPERIMENT / LIQUID / TOF / CONST. = 0.1, 1K-4.2K

68-YA-01 YARNELL, J.L. / WARREN, J.L. / WENZEL, R.G. / DEAN, P.
LA TTE DYNAMICS OF GALLIUM PHOSPHIDE
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.301-P.313 (1968)
GA,P, EXPERIMENT / LATTICE DYNAMICS / DISPERSION RELATION
N

68-YA-02 YARNELL, J.L. / WARREN, J.L. / WENZEL, R.G. / DEAN, P.
LA TTE DYNAMICS OF GALLIUM PHOSPHIDE
LA-DC-9228 (1968)
GA,P, EXPERIMENT / LATTICE DYNAMICS / DISPERSION RELATION
N / 3-AXIS SPECTROMETER / SHELL MODEL FIT

68-YO-01 YOUNG, J.A.,
NEUTRON SCATTERING FROM MOLECULAR NITROGEN
NEUTRON THERMALIZATION AND REACTOR SPECTRA, IAEA,
V.1, P.303 (1968)
N, SCATTERING THEORY / MOLECULAR DYNAMICS

68-ZE-01 ZEMLIANOV, M.G. / MIRONOV, S.P. / SYRYKH, G.F.
INVESTIGATION OF ADIMATED STATES IN VANADIUM ALLOYS
NEUTRON INELASTIC SCATTERING, IAEA, V.1, P.79-P.85 (1968)
V, EXPERIMENT / LATTICE DYNAMICS / ALLOY / LOCAL MODE

68-ZE-02 ZERBI, G. / PISERI, L.
DISPERSION CURVES AND FREQUENCY DISTRIBUTION OF ISO TACTIC
POLYPROPYLENE
J. CHEM. PHYS., V.49, P.3840 (1968)
POLYPROPYLENE, FREQUENCY DISTRIBUTION / DIFFERENTIAL
CROSS SECTION / CRYSTAL / THEORY, P.674-P.681 (1968)

68-ZY-01 JAPAN ATOMIC ENERGY RESEARCH INSTITUTE

PROCEEDINGS OF THE SECOND CONFERENCE ON INELASTIC NEUTRONS SCATTERING IN SOLIDS AND LIQUIDS, TOKAI 1967
JAEI-1157 (1968)
REVIEW ARTICLES, DYNAMICS OF SOLIDS AND LIQUIDS

69-AG-01 AGRAWAL, A.K. / YIP, S.
SLOW-NEUTRON SCATTERING BY MOLECULAR LiquIDS
NUCL. SCI. ENG., V.37, P.368 (1969)
NEUTRON-SCATTERING IN FLUIDS, CROSS SECTION EVALUATION / LIQUID / MOLECULAR LIQUID

69-AL-01 ALIKHANOV, R.A. / DIMITRIJEVIC, Z. / KOWALSKA, A. / KASNICKI, S. / KANYI, H.
NEUTRON INVESTIGATION OF THE SPIN SYSTEM DYNAMICS IN ALPHAS-CR2O3
CR2O3, MAGNETIC SCATTERING / EXPERIMENT / MAGNON DISPERSION RELATION / ALPHAS, CR2O3, 85DX FITTED TO FOUR EXCHANGE INTEGAL

69-AL-02 ALS-NIELSEN, J.
STUDIES IN NEUTRON PHYSICS, 1. THERMAL NEUTRON BEAM SPECTRUM BY (EN) MEANS OF THE HE3(N,p)7Li REACTION. 2. THE ORDER DISORDER TRANSITION OF BRAZIL STUDIED BY NEUTRON DIFFRACTION
RISO-196 (1969)
CU-ZN, NEUTRON DIFFRACTION / SHORT RANGE ORDER PARAMETER

INELASTIC NEUTRON SCATTERING BY AR (15O, A-36) CLOSE TO CONDENSATION
PHYS. LETT., V.28, P.642 (1969)
AR, EXPERIMENT / GAS DYNAMICS

69-AY-01 AUGST, G.R. / ZHERNOV, A.P.
VIBRATIONAL SPECTRUM OF A LATTICE CONTAINING ISOLATED INTERSTITIAL IMPURITY ATOMS
THEORY OF SOLIDS, LATTICE DYNAMICS / IMPURITY EFFECT

69-AX-01 AXE, J.O. / SHIRANE, G. / MELLER, K.A.
ZONE-BOUNDARY PHONON INSTABILITY IN CUBIC LA.AL,03
PHYS. REV., V.183, P.820-P.823 (1969)
LA, AL, O3, EXPERIMENT / PHONON DISPERSION / PHASE TRANSITION / PHONON INSTABILITY

69-AZ-02 AXMANN, A. / BIEM, W. / BORSCH, P. / MOSSFELD, F. / STOLLER, M.
LATTICE DYNAMICS OF SOLID HYDROFLUORIC ACID
69-BA-01 BAKER, J.C./ PULL, J.C.
AN INVESTIGATION OF A MONTE CARLO TREATMENT OF THERMAL NEUTRON SCATTERING
AEW=J-T30 (1969)
SCATTERING-THEORIES, SCATTERING LAW, MONTE CARLO METHOD

69-BE-01 BEHARI, J./ TRIPATHI, B.B.
PHONON DISPERSION IN COPPER
CU, DISPERSION RELATION/THEORY, MODIFIED ANGULAR FORCE MODEL/ELECTRON-ION INTERACTION

69-BE-02 BEHARI, J./ TRIPATHI, B.B.
PHONON DISPERSION IN COPPER
CU, THEORY/LATTICE DYNAMICS/DISPERSION RELATION, MODIFIED ANGULAR FORCE MODEL/ELECTRON-ION INTERACTION

69-BL-01 BLESSER, G./ PERLTI, J./ TOTH, G.
INELASTIC SCATTERING OF NEUTRONS BY LOCALIZED VIBRATION OF INTERSTITIAL HYDROGEN IN METAL LATTICES: CASE OF A VANADIUM LATTICE
NEUTRON-SCATTERING IN SOLIDS/THEORY, HYDROGEN/INTERSTITIAL, NUMERICALS

69-BL-02 BLAIR, J.F.
STRUCTURE OF SIMPLE LIQUID
CEM=3-3976, P.09-P.29 (1969)
MISCELLANEOUS, STRUCTURE FACTOR/LIQUID/THEORY

69-BO-01 BOFFEY, T.B.
COMMENT ON TOY'S METHOD FOR OBTAINING THE PHONON FREQUENCIES IN MONOVALENT METALS
PHYS. LETT., V.29A, P.161 (1969)
KJH, DISPERSION RELATION/THEORY/SOLID/LATTICE DYNAMICS/ELECTRON-PHONON INTERACTION/EXCHANGE INTERACTION/TOY METHOD

69-BO-02 BOFFI, S./ CAGLIOTI, G.
LATTICE DYNAMICS BY NEUTRON SCATTERING PART 2
RTF/F(69)41 (1969)
REVIEW ARTICLES, LATTICE DYNAMICS

69-BO-03 BOFFI, S./ CAGLIOTI, G.
LATTICE DYNAMICS BY NEUTRON SCATTERING PART 1
RTF/F(69)28 (1969)

69-BO-04 BOFFI, S./ CAGLIOTI, G.
LATTICE DYNAMICS BY NEUTRON SCATTERING - PART 2
ENERG. NUCL. (MILAN), V.16, P.425-P.437 (1969)
REVIEW ARTICLES, LATTICE DYNAMICS/IONIC CRYSTAL/METAL/FERROELECTRIC MATERIAL

69-BO-05 BOFFI, S./ CAGLIOTI, G.
LATTICE DYNAMICS BY NEUTRON SCATTERING - PART 1
ENERG. NUCL. (MILAN), V.16, P.369-P.377 (1969)
REVIEW ARTICLES, NEUTRON SPECTROSCOPY/LATTICE DYNAMICS

69-BO-06 BORGONOVI, G.M.
COHERENT SCATTERING LAW FOR POLYCRYSTALLINE BERYLLIUM
GAL-9364 (1969)
BE, CALCULATIONS, COHERENT/POLYCRYSTAL/SCATTERING LAW

69-BO-07 BOYSTER, J.K./ MCMURRY, H.L./ SOLBRIG-JR, A.W./ MARTIN, R.M.
MACS C A COMPUTING PROGRAM FOR CRYSTAL VIBRATIONS WHICH INCLUDES LONG-RANGE COULOMB INTERACTIONS
IN-1280 (1969)
COMPUTER-CODES, THEORY/SOLID/LATTICE DYNAMICS/INTER ATOMIC FORCE CONSTANTS/STRUCTURE FACTOR, VALENCE FORCE/COULOMB INTERACTION

69-BU-01 BUTLAND, A.T.D.
HEXCOM, A PROGRAMME FOR COMPUTING COHERENT ELASTIC SCATTERING FROM HEXAGONAL POLYCRYSTALS
AEW=9354, P.0-P.15 (1969)
COMPUTER-CODES, POLYCRYSTAL

69-BU-02 BUTLAND, A.T.D./ CHUDLEY, C.T.
A REVIEW OF THERMAL NEUTRON DIFFUSION DATA FOR HEAVY WATER AND ITS CONSEQUENCES FOR NEUTRON SCATTERING LAW/DELTAS
EER=1-685 (1969)
HEAVY WATER, TOTAL CROSS SECTION/DIFFUSION COEFFICIENT

69-BU-03 BUYER, W.J.L./ COWLEY, H.A.
CRYSTAL DYNAMICS OF POTASSIUM 2, THE ANHARMONIC EFFECTS
KJH, PHONON LIFETIME, ANHARMONIC EFFECT/EXPERIMENT, THEORETICAL, 90K TO 92K/215K/299K/NEUTRAL-PSEUDOATOM APPROXIMATION

69-CA-01 CAGLIOTI, G./ CORCHIA, M./ RIZZI, G.
NEUTRON DIFFRACTION ANALYSIS OF LIQUID ZINC
69-CA-02 CARROTTIE, J.P.; DYNES, R.C.; TROFINENKO, P.N.
PHONON RENORMALIZATION OF THE ELECTRONIC EFFECTIVE MASS
CAN, J. PHYS. V.47, P.1107-P.1116 (1969)
THEORY-DF-SOLIDS FORCCE CONSTANTS ARE TAKEN FROM EXPER-
IMENTAL DISPERSION CURVES; ELECTRON-PHONON INTERACTION
IS TREATED WITH PSEUDOPOTENTIAL THEORY

69-CA-03 CARRIVEAU, G.W.; BORKUNOVI, G.M.; BEYSTER, J.R.
SINGLE DIFFERENTIAL CROSS SECTION OF ZIRCONIUM HYDROIDE
AT EXTENDED TEMPERATURE
Nukleonik, V.12, P.143 (1969)
ZERHO, SIGMA (THETA-E) SOLID --750K ROOM TEMPERATURE

69-CH-01 CHANG, Y.L.; SUMMERFIELD, G.C.
OBSERVATION OF OPTICAL MODES IN POLYETHYLENE BY NEUTRON
SCATTERING
J. POLY. SCI. PART A-2, V.7, P.405 (1969)
POLYETHYLENE ISOLATED THEORY FREQUENCY DISTRIBUTION

69-CH-02 CHRNOPLEKOV, N.A.; ZEMLYANOY, M.G.; SOMENKO, V.A.
CHERTKOV, A.A.
STUDY OF THE DYNAMICS OF GROUP V TRANSITION-METAL HYDROIDE
USING NEUTRON SCATTERING. RESONANCE LET. SOV. PHYS.-SOLID STATE
V-N, EXPERIMENT, PHONON SPECTRA

69-CH-03 CHUNG, C.F.; YIP, S.
GENERALIZED HYDRODYNAMICS AND TIME CORRELATION FUNCTIONS
NEUTRON SCATTERING IN FLUIDS, THEORY CORRELATION FUNCTION
LIQUID

69-CD-01 COCHRANE, K.
DYNAMICAL SCATTERING AND DIELECTRIC PROPERTIES OF FERR
DELECTRIC CRYSTALS
ADVAN. PHYS., V.18, P.157-P.192 (1969)
NEUTRON SCATTERING IN SOLIDS. BA11,03 XH2, P.04 NA, N.
02 THEORY, DIELECTRIC CRITICAL SCATTERING LATTICE
DYNAMICS

69-CD-02 COCKING, S.J.
ATOMIC MOTION IN LIQUID SODIUM I, DIFFUSIVE MOTION
J. PHYS. C. LONDON, V.2, P.2047 (1969)
NAN, QUASI-ELASTIC PEAK TOF SCATTERING LAW MEAN SQUARE
PROPORTIONAL POINT EXPERIMENTAL, LIQUID DIFFUSION PARAMETER
PROPORTIONAL COUNTER, LIQUID METAL

69-CO-03 COLLINS, M.F.; HAYWOOD, B.C.
ATOMIC VIBRATIONS IN CARBON FIBRES
LATTICE DYNAMICS OF POTASSIUM CHLORIDE
PHYS. REV., V.182, P.965-P.972 (1969)
K1, CL, EXPERIMENT, LATTICE DYNAMICS, DISPERSION CURVE
FREQUENCY SPECTRA, DEBYE TEMP., INELASTIC STRUCTURE FAC-
TOR SHELL MODEL FITTING

69-CO-04 COLLINS, M.F.; HAYWOOD, B.C.
ATOMIC VIBRATIONS IN CARBON FIBRES
LATTICE DYNAMICS OF TIN TELLURIDE
SNrTE EXPERIMENT, LATTICE DYNAMICS, DISPERSION RELATION
100DK

69-CO-07 COLELY, E.R.
SYMMETRY PROPERTIES OF THE NORMAL-MODES OF VIBRATIONS OF
F CLEICATEI AND CALPHAT-CORUNDUM
CORUNDUM THEORETICAL, LATTICE DYNAMICS

69-CO-08 COLEY, R.A.; SVENSSON, E.C.; BUYER, W.J.L.
INTERFERENCE BETWEEN ONE-AND-MULTIPHONON PROCESSES IN T
M SCATTERING OF NEUTRONS AND X-RAYS BY CRYSTALS
PHYS. REV., LETT., V.23, P.525 (1969)
NEUTRON SCATTERING IN SOLIDS, ANHARMONICITY

69-CO-09 COLEY, R.A.; BUYER, W.J.L.; DOLLING, G.
RELATIONSHIP OF NORMAL MODES OF VIBRATIONS OF STRONIUM
ITANATE AND ITS ANTIFERROELECTRIC PHASE TRANSITION AT 1
10 DEG.K.
SOLID STATE COMMUN., V.7, P.181 (1969)
SN.TI,03 PHASE TRANSITION, LATTICE VIBRATION

69-DE-01 DEGRAAF, L.A.
STUDY OF MOLECULAR MOTIONS IN CYCLOHEXANE AND CYCLOPENTANE
IN CYCLOHEXANE LIQUID SOLID EXPERIMENT, TIME OF FLIGHT
Hindered ROTATION OF RIGID MOLECULE, ROTATIONAL JUMP
QUASI-ELASTIC PEAK, ROTATING CRYSTAL

69-DE-02 DESAI, R.C.; YIP, S.
INELASTIC SCATTERING OF THERMAL NEUTRONS BY LIQUID SOLI

- 197 -
UM AND LEAD
PHYS. REV., V. 180, P. 299 (1969)
NA/PB THEOR/ LIQID/ SCATTERING FUNCTION LIQUD M ETAL

69-DI-01 DICK+ J.J./ PASSIN, A.
COMPUTER SIMULATION OF THE LATTICE DYNAMICS OF SOLIDS
PHYS. REV., V. 185, P. 1407 (1969)
COMPUTER-CODES THEOR/ SOLID/ LATTICE DYNAMICS/ MOLECU
ULAR DYNAMICS/ ANHARMONICITY

69-DR-01 DREXEL, W./ GLAESER, W./ COMMAY, F.
PHONON DISPERSION IN SILVER
AG DISPER/ION RELATION/ BORN-VON KARMA MODEL/ EXPERI
MENT/ ROOM TEMPERATURE/ PSEUDORANDOM NEUTRON TOP

69-DU-01 DURIG, J.J./ ANTION, D.J.
LOW-FREQUENCY VIBRATIONS IN AMMONIUM IODIDE AND AMMONI
UM BROMIDE
J. CHEM. PHYS., V. 51, P. 3639 (1969)
N.H4I SOLID/ EXPERIMENT/ RAMAN SPECTRA/ FAR IRРАNE
D SPECTRA

69-ED-01 EDER, G.J.
THE ZERO PLACEZK MOMENT AND THE N-PHONON CROSS-SECTION
HEE-TRANS=1137 (1969)
SCATTERING-THEORIES THEOR/ PHONON EXPANSION/ MULTI-P
PHONON CONTRIBUTION

69-ES-01 ESCA L.J./ YEATER, M.L./ MOON, M.E./ SEEMANN, K.
THE TEMPERATURE DEPENDENCE OF NEUTRON INELASTIC SCATTER
ING FROM WATER
RPI-328-210 (1969)
H2O EXPERIMENT/ DOUBLE DIFFERENTIAL SCATTERING CROSS
SECTION/ 27+17O+27OCC/ LINAC TOP

69-FE-01 FELDKAMP, L.A./ VENKATARAMAN, G./ KING, J.S.
LATTICE DYNAMICS OF CUBIC ZINC SULFIDE
SOLID STATE COMM., V. 7, P. 1571-1572 (1969)
ZN.S EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVES
CONST/SIX-PARAMETER VALENCE FORCE MODEL

69-FE-02 FELDKAMP, L.A./ KING, J.S.
NEUTRON SCATTERING IN DEUTERATED POLYETHYLENE
MOL. DYN. AND STRUCT. OF SOLIDS, P. 543 (1969)
POLYETHYLENE CRYSTAL DYNAMICS/ POLYMER

69-FE-03 FERNANDEZ, J.F./ GERSCH, H.A.
INELASTIC NEUTRON SCATTERTING FROM LIQUID HELIUM IN ITS
GROUND STATE

PHYS. LETT., V. 70A, P. 261-262 (1969)
HE GROUND STATE/ THEORY/ ENERGY WIDTH OSCILLATION

69-FI-01 FISCHER, C.O.
MICRODYNAMIC BEHAVIOUR OF HYDROGENOUS LIQUIDS BY CROSS
SECTION MEASUREMENTS WITH COLD NEUTRONS
PHYS. LETT., V. 30A, P. 393-394 (1969)
ZIEN CYCLOHEXANE/ CYCLOHEXANOL/ PYRIDINE/ H2O/ MEX
ANE/ METHANOL/ ETHANOL/ ACETONE/ ACETIC ACID/ GLYCERINE
/ METHYL IODIDE EXPERIMENT/ MOLECULAR DYNAMICS/ TOTAL
SCATTERING CROSS SECTION

69-FU-01 FULINSKI, A./ JANKI, J./ BLOCH, J.
MOLECULAR INTERACTION EFFECT IN NEUTRON SCATTERING BY G
ASEOUS METHANE
I.N.P-677/P/ (1969)
METHANE THEOR/ MOLECULAR INTERACTION

69-GA-01 GARCIA-COLON, L.S./ KOCH, M.L.
BEHAVIOUR OF THE PAIR CORRELATION FUNCTION IN THE CRITI
CAL REGION
PHYS. LETT., V. 29A, P. 666-669 (1969)
THEORY-OF-SOLIDS CRITICAL BEHAVIOUR/ SCALING LAW

69-GI-01 GILAT, G.
ON ACCIDENTAL DEGENERACIES OF PHONONS IN MONATOMIC CUBI
C CRYSTALS
SOLID STATE COMM., V. 7, P. 357-358 (1969)
THEORY-OF-SOLIDS LATTICE DYNAMICS ACCIDENTAL DEGENE
RACIES/ CUBIC CRYSTAL

69-GI-02 GILAT, G./ RIZZI, G./ CUB/OTTI, G.
LATTICE DYNAMICS OF HCP METALS COMPUTED FROM AN OPTIMUM
-MODEL POTENTIAL
PHYS. REV., V. 185, P. 971-973 (1969)
BE/ MG/ ZN THEOR/ LATTICE DYNAMICS/ DISPERSION CURVE
METAL MODEL POTENTIAL CALCULATION

69-GI-03 GILLS, N.S.
SOFT PHONON MODE IN SE TE
PHYS. REV., LETT., V. 22, P. 1221 (1969)
SE TE THEOR/ SOLID

69-GO-01 GOVINDARAJAN, J./ HARIDASAN, T.M.
LATTICE VIBRATIONS IN ALKALI AZIDES
K.N3 RUS/N3 CS.N3 THEOR/ LATTICE VIBRATION RIGID
ION MODEL/ BODY CENTERED TETRAGONAL

69-GY-01 GYORFFY, B.L./ MARCH, N.H.
INTERMEDIATE SCATTERING FUNCTION AND ATOMIC TRANSPORT I
N LIQUID METALS
J. PHYS. CHEM. LIQUIDS, V.1, P.253-P.263 (1969)
NEUTRON-SCATTERING-IN-FLUIDS/ THEORY-OF-FLUIDS/ INTERMEDIATE SCATTERING FUNCTION/ LIQUID

69-HA-01 HALLMAN, E.D.; BROCKHOUSE, B.N.
Ni-Fe/Cu-Zn, DISPERSIoN RELATION, CONSTANT-# METHOD/ FREQUENCY DISTRIBUTION, FCC ALLOY: 296K/ 573K

69-HA-02 HAMILTON, W.C.; EDMONDS, J.W.; TIPPE, A.; HUSH, J.
METHYL GROUP ROTATION AND THE LOW TEMPERATURE TRANSITION IN HEXAMETHYLHEXANED, DISCUSS. FARADAY SOC., V.48, P.192-P.204 (1969)
HEXAMETHYLENE, EXPERIMENT/ TOP SPECTRUM/ NEUTRON DIFFRACTION

LATTICE DYNAMICS AND SECOND-ORDER RAMAN SPECTRUM OF NAF, PHYS. REV., V.179, P.837 (1969)
NAF, LATTICE DYNAMICS/ THEORY/ EXPERIMENT/ RAMAN SPECTRUM/ 300K

69-HA-04 HARIASAN, T.M.; GOVINDRANAJAN, J.
H2O, THEORY/ PHONON SPECTRA/ ICE

69-HA-05 HARLING, O.K.
SLOW NEUTRON INELASTIC SCATTERING STUDY OF LIGHT WATER AND ICE J. CHEM. PHYS., V.50, P.5279 (1969)
H2O, SCATTERING LAW/ FREQUENCY DISTRIBUTION

69-HA-06 HAYWOOD, B.C.G.; COLLINS, M.F.
LATTICE DYNAMICS OF MnO, J. PHYS., V.2, P.46-P.51 (1969)
MnO, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION N, CONST.-# RIGID-ION AND SHELL MODEL FIT

69-HA-07 HEINRICH, A.; SAFFORD, G.J.
STUDY OF LOW-FREQUENCY MOLECULAR MOTIONS IN POLYDIMETHYL SILIKXANE POLYMERS BY NEUTRON INELASTIC SCATTERING J. POLY. SCI., PART A-2, V.7, P.433-P.462 (1969)
POLYDIMETHYLSONIKXANE, EXPERIMENT/ MOLECULAR DYNAMICS/ LATTICE DYNAMICS/ 250C/ -123DC

69-HA-08 HEDEGI, C.H.
THEORY OF PHONON DISPERSION CURVES IN SILICON CARBIDE P

OLYTYPES
PHYS. REV., V.187, P.994 (1969)
SI.C, THEORY/ SOLID/ LATTICE DYNAMICS

69-HO-01 HOEGEBERG, T.; SANDSTROM, R.
AHARMONIC EFFECTS ON PHONONS IN ALUMINIUM PHYS. STATUS SOLIDI, V.33, P.169-P.173 (1969)
AL, THEORY/ PHONON FREQUENCY SHIFT AND DAMPING

69-HU-01 HUBBARD, J.; BEEBY, J.L.
COLLECTIVE MOTION IN LIQUIDS J. PHYS., V.2, P.556 (1969)
NEUTRON-SCATTERING-IN-FLUIDS/ THEORY/ LIQUID

69-HU-02 HUO-KI, A.
BaTiO3, THEORY/ LATTICE DYNAMICS/ PHASE TRANSITION/ SOFT OPTICAL MODE

69-IC-01 ICHIKAWA, K.; HIMOJI, M.
SELF-DIFFUSION IN LIQUID METALS PHIL. MAG., V.20, P.341 (1969)
LI/ NA/ K/ Hg PB, DIFFUSION PARAMETER/ LIQUID/ THEORY/ LIQUID METAL/ FRICTION CONSTANT

69-IV-01 IVANIK, P.G.; KROENKO, V.T.; GORBACHEV, B.I.; TBSULNIK, A.N.
STUDY OF INELASTIC SCATTERING OF SLOW NEUTRON BY POLYETHYLENE AT TEMPERATURES 290 AND 100 K UKRAINIAN PHYS. J., V.14, P.1525 (1969)
POLYETHYLENE, FREQUENCY SPECTRA

69-JA-01 JAYSWAL, V.K.; SHARMA, P.K.
INELASTIC SCATTERING CROSS SECTION OF NEUTRONS IN FERRO ELECTRICS PHYSICA, V.44, P.69-P.80 (1969)
NEUTRON-SCATTERING-IN-SOLIDS/ THEORY/ ONE-PHONON COHERENT CROSS SECTION, DOUBLE-TIME GREEN FUNCTIONS

69-JA-02 JAIN, J.A.; JAKOB, M.; JANIK, J.M.
LATTICE-MOLECULAR VIBRATIONS IN COMPLEXES (H,N)6.12 AND (H,N)36.12 INP-690/PL (1969)
CO. (H,N)36.12/ (H,N)36.12, EXPERIMENT/ MOLECULAR DYNAMICS/ FREQUENCY DISTRIBUTION

69-JA-03 JAIN, J.A.; OTNES, K.; SOLT, G.; KOSALY, G.
LATTICE VIBRATIONS AND MOLECULAR ROTATION IN SOLID METHANE NEAR THE MELTING POINT DISCUSS. FARADAY SOC., V.48, P.87-P.92 (1969)
METHANE, EXPERIMENT/ SPECTRUM AGAINST WAVELENGTH/ SOLID
69-JA-04 JANIK, J.A./ OTNES, K./ SOLT, G./ KOSALY, G.
LATTICE VIBRATIONS AND MOLECULAR ROTATION IN SOLID METH
ANE NEAR THE MELTING POINT
DISCUSS. FAKADAY SOC., V.44, P.87-P.92 (1969)
C,H4 .EXPERIMENT/ TOF SPECTRA

69-JH-01 JHONSON, R./ WESTIN, A.
ON PHONONS IN SIMPLE METALS 2. CALCULATED DISPERSION CURVES IN ALUMINIUM
AE=365 (1969)
AL THEOLOGY/ LATTICE DYNAMICS/ DISPERSION CURVE METAL
ION-ELECTRON INTERACTION MODEL

69-JO-01 JOHNSTON, A.S.
CALCULATION OF THE TWO PHONON COHERENT NEUTRON SCATTERING CROSS SECTION FOR SINGLE CRYSTAL BERYLLIUM IN THE HARMONIC APPROXIMATION
CONF-680501-b (1969)
BE THEOLOGY/ SOLID/ HARMONIC APPROXIMATION/ BORN-VON KAR
MANN MODEL/ SCATTERING LAW DEBYE-WALLER FACTOR FREQUENCY DISTRIBUTION COHERENT CROSS SECTION

69-KA-01 KAMAL, R./ MENDIRATTA, R.G.
VIBRATION SPECTRUM AND SPECIFIC HEAT OF THALLIUM CHLORIDE
J. PHYS. SOCIETY JAPAN, V.26, P.621-P.623 (1969)
Tl.Cl THEOLOGY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION SPECIFIC HEAT

69-KA-02 KAMITAKAHARA, W.A./ BROCKHOUSE, B.N.
CRYSTAL DYNAMICS OF SILVER
Ag .DISPERSION RELATION/ EXPERIMENT/ CONSTANT-G METHOD
ROOM TEMPERATURE

69-KA-03 KARO, A.H./ HARDY, J.R.
LATTICE DYNAMICS OF NA,F
PHYS, REV., V.181, P.1272-P.1277 (1969)
NA,F THEOLOGY/ LATTICE DYNAMICS/ DISPERSION RELATION FREQUENCY SPECTRA RIGID-ION MODEL/ DEFORMATION-DIPOL MODEL/ DEBYE TEMPERATURE

69-KI-01 KING, R/CUTLER, P.R.
PHONON DISPERSION RELATIONS IN BERYLLIUM CALCULATED FROM A PSEUDOPOTENTIAL APPROACH
SOLID STATE COMM., V.7, P.295 (1969)
BE .DISPERSION RELATION/ SOLID/ THEORY/ LATTICE DYNAMICS
CS, PSEUDOPOTENTIAL/ PHONON METAL

J.
IMPROVED THEORETICAL CROSS SECTION FOR POLYETHYLENE
KAPL-P=3680 (1969)
POLYETHYLENE THEORY/ MOLECULAR DYNAMICS SCATTERING CROSS SECTION EVALUATION

69-KL-01 KLEMS, G./ LIPSCHULTZ, F.P.
NEUTRON LINEWIDTH OF LONGITUDINAL PHONON IN SOLID HELI
UM
HE, SOLID/ THEORY

69-KO-01 KOSALY, G./ VALKO, J.
REMARKS ON THE CALCULATION OF SLOW-NEUTRON CROSS SECTION AND THERMAL SPECTRA IN WATER
H2,O THEOLOGY/ CROSS SECTION EVALUATION

69-KR-01 KREBS, K./ MOELLER, K.
INELASTIC NEUTRON SCATTERING AND LATTICE DYNAMICS OF ME
TALS IN QUASI-ION APPROXIMATION
EUR=3621E-PART 2 (1969)
LI/ NA/ K/ RB/ CU/ AL/ PH/ FE/ N/ PT/ COMPUTER-CODES . .PSEUDO-ION APPROXIMATION/ FITTING TO EXPERIMENTAL DISPERSION CURVES FREQUENCY SPECTRUM/ SPECIFIC HEAT

69-KR-02 KRIVOLAZ, M.A.
THEORY OF K-X-RAY AND THERMAL-NEUTRON SCATTERING BY REAL CRYSTAL (TRANSLATED FROM RUSSIAN)
PLENUM PRESS, NEW YORK (1969)
NEUTRON-SCATTERING IN SOLIDS BOOK

69-KX-01 KUSCH, E./ SUMMERFIELD, G.C.
SYMMETRIES IN SCATTERING OF SLOW NEUTRON
PHYS. REV., V.188, P.1445-P.1449 (1969)
SCATTERING-THEORIES . .DETAILED-BALANCE/ THEORY

69-LA-01 LAKATOS, K./ KRUMHANSL, J.A.
EFFECT OF FORCE-CONSTANT ON THE COHERENT NEUTRON SCATTE
RING FROM FACE-CENTERED CUBIC CRYSTALS WITH POINT DEFC
TS
PHYS. REV., V.180, P.729-P.738 (1969)
NEUTRON-SCATTERING IN SOLIDS . .POINT-DEFECTS/ THEORY

69-LA-02 LAGARDE, V./ PRASKA, M./ TREVINO, S.
VIBRATIONS IN TEFILON
TEFLON . .EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVE

69-LE-01 LEADBETTER, A.J.
INELASTIC COLD NEUTRON SCATTERING FROM DIFFERENT FORMS
OF SILICA
J. CHEM. PHYS., V.51, P.779-P.786 (1969)
SILICA, QUARTZ, CHRISTOBALITE, EXPERIMENT, COLLECTIVE VIBRATION, AMORPHOUS SOLID, TOF, SILICA, QUARTZ, CRISTOBALITE

69-LE-02 LEAKE, J. A., MINKIEWICZ, V. J., SHIRANE, G.
PHONON DISPERSION RELATIONS FOR HOLMUIUM
SOLID STATE COMM., V.7, P.535 (1969)
MO, DISPERSSION RELATION, TRIPLE AXIS SPECTROMETER, LATTICE DYNAMICS, 295K, PARAMAGNETIC MO

69-LE-03 LEAKE, J. A., DANIELS, W. B., SKALY, J. R., FRAZER, B. C., SHIRANE, G.
LATTICE DYNAMICS OF NEON AT TWO DENSITIES FROM COHERENT INELASTIC NEUTRON SCATTERING
NE, EXPERIMENT, SOLID, LATTICE DYNAMICS, DISPERSION RELATION, 4.7K/25K, TRIPLE-AXIS-SPECTROMETER

69-LE-04 LEATH, P. L., GOODMAN, B.
FREQUENCY SPECTRA IN DISORDERED ALLOYS: AN INTERPOLATION FORMULA
PHYS. REV., V.181, P.1062-P.1069 (1969)
THEORY-OF-SOLIDS, FREQUENCY SPECTRUM, THEORY, GREEN FUNCTION

69-LE-05 LEBowitz, J. L., PERCUS, J. K., SYKES, J.
QUASICONTACT APPROACH TO TIME-DEPENDENT CORRELATION FUNCTION
PHYS. REV., V.180, P.487 (1969)
THEORY-OF-FLUIDS, THEORY, CORRELATION FUNCTION

69-MA-01 MAELAND, A. J.
TERNARY HYDRIDES POSSESSING THE CUBIC PEROVSKITE STRUCTURE, 2, VIBRATION SPECTRA BY THE INELASTIC SCATTERING OF COLD NEUTRONS
J. CHEM. PHYS., V.51, P.2915-P.2919 (1969)

69-MA-02 MARADUDIN, A. A., DIAMANT, J.
LONGITUDINAL AND TRANSVERSE LOCALIZED VIBRATION MODES
SOLID STATE COMM., V.7, P.1143 (1969)
THEORY-OF-SOLIDS, THEORY, SOLID, LATTICE DYNAMICS, IMPURITY VIBRATION

69-MA-03 MARSUDEN, R.
THE CALCULATED NORMAL FREQUENCIES AND NEUTRON SCATTERING LAW FOR BENZENE
IN=1269 (1969)
BENZENE, THEORY, MOLECULAR DYNAMICS, SCATTERING LAW

69-MA-04 MATSUURA, H., MIYAZAKI, T.
FREQUENCY DISTRIBUTION AND NEUTRON SCATTERING OF POLYETHYlene GYCOL CHAIN
J. CHEM. PHYS., V.50, P.915 (1969)
POLYETHYLENE, FREQUENCY DISTRIBUTION, MOLECULAR DYNAMICS, THEORY, DISPERSION RELATION

69-MC-01 MCDONALD, D. L., ELCOMBE, M., M., PHYOR, A. W.
PHONON DISPERSION CURVES FOR ZINC
ZINC, EXPERIMENT, LATTICE DYNAMICS, DISPERSION RELATION
N, CONSTRUCTIVE METHOD

69-ME-01 MEISTER, H., SKALY, J., FRAZER, B. C., SHIRANE, G.
LATTICE-DYNAMICAL ASPECTS OF THE ANTIFERROELECTRIC PHASE TRANSITION IN (N,0,4.02,0.04
PHYS. REV., V.184, P.550 (1969)
N,H4,3H2,O,4, EXPERIMENT, SOLID, QUASI-ELASTIC NEUTRON SCATTERING, TEMPERATURE DEPENDENT FREQUENCY DISTRIBUTION

69-ME-02 METZBERGER, E. A.
DISPERSION RELATIONS FOR HEXAGONAL CLOSED-PACKED CRYSTAL LATTICES
PHYS. REV., V.177, P.1139 (1969)
BE, MgY, ZN, DISPERSSION RELATION, THEORY, SOLID, LATTICE DYNAMICS, NONCENTRAL-FOURTEEN FORE FIVE FORCE CONSTANTS

69-ME-03 MILLINGTON, A. J., SQUIRES, G. L.
MEASUREMENTS OF THE FREQUENCIES OF THE NORMAL MODES OF ZINC
J. PHYS., C, LONDON, V.2, P.2366 (1969)
ZN, DISPERSION RELATION

69-MI-02 MINKIEWICZ, V. J., SHIRANE, G.
SOFT PHONON MODES IN K,Mn,F3
K,Mn,F3, EXPERIMENT, DISPERSION RELATION, TEMPERATURE DEPENDANCE

69-MO-01 MONTGOMERY, H.
THE SYMMETRY OF LATTICE VIBRATIONS IN THE ZINCBLende AND DIAMOND STRUCTURES
Zn,S, DIAMOND, SR,Ti,03, GROUP THEORY, LATTICE VIBRATIONS, SYMMETRY PROPERTIES

EPITHERMAL NEUTRON INELASTIC SCATTERING BY POLYETHYLENE
MOL. DYN. AND STRUCT. OF SOLIDS, P.347 (1969)
POLYETHYLENE : FREQUENCY SPECTRA

69-M0-03 MORLEY, G.L./ KLIENER, K.L.
LATTICE DYNAMICS OF HCP HE AND HG AT HIGH PRESSURES
PHYS. REV., V.180, P.245 (1969)
HE ..DISPERSION RELATION/ THEORY/ FREQUENCY DISTRIBUTION
HG ..SOLID ..SOUND VELOCITY/ SELF-CONSISTENT METHOD

INCOHERENT NEUTRON SCATTERING FROM LIQUID AND SOLID CU- Ni
CU-NI ..LIQUID/ SOLID/ EXPERIMENT/ ..NEAR THE MELT

69-NE-01 NELKIN, M.
THE ABC GUIDE TO THEORIES ON NEUTRON INELASTIC SCATTERING BY LIQUIDS
AERE-R-6277 (1969)
NEUTRON-SCATTERING IN FLUIDS ..LIQUID/THEORY/CORRELATION FUNCTION/STATISTICAL MECHANICS ..RPA/ MEMORY FUNCTION/ SUSCEPTIBILITY

69-NE-02 NELKIN, M.
EFFECTIVE-FIELD APPROXIMATION IN CLASSICAL LIQUIDS
NEUTRON-SCATTERING IN FLUIDS ..THEORY

69-NR-01 NUSIMOVICI, M.A.
NORMAL MODES OF LATTICE VIBRATION ON BERYLLIUM OXIDE
COMP. REND., V.268, P.755 (1969)
BE-O ..THEORY

69-OI-01 OITMAA, J./ MARAUDIN, A.A.
LATTICE DYNAMICS OF CRYSTALS WITH EXTENDED POINT DEFECTS
SOLID STATE COMMUN., V.7, P.1371-P.1377 (1969)
THEORY OF SOLIDS ..LATTICE DYNAMICS ..IMPERFECT CRYSTAL WITH EXTENDED POINT DEFECTS

69-OR-01 ORTOLEVA, P.0./ NELKIN, M.
FLUCTUATIONS OF THE SINGLE PARTICLE DISTRIBUTION FUNCTION IN CLASSICAL FLUIDS
NEUTRON-SCATTERING IN FLUIDS ..THEORY/ LIQUID ..AUTO-CORRELATION FUNCTION/ SINGLE PARTICLE DISTRIBUTION

ATOMIC OVERLAP IN THE LIQUID STATE

AK/ RB ..LIQUID/ STRUCTURE FACTOR

69-PA-02 PARLINSKI, K.
LATTICE DYNAMICS OF AMMONIUM CHLORIDE
ACTA PHYS. POL., V.35, P.223 (1969)
N.H4.CL ..THEORY

69-PA-03 PAWLEY, G.S.
MOLECULAR CRYSTAL PHONON DISPERSION CURVES AND MODEL FITTING
DISCUSS. FARADAY SOC., V.48, P.129-P.130 (1969)

69-PA-04 PAWLEY, G.S./ YEATS, E.A.
LOW FREQUENCY PHONONS IN NAPHTHALENE
SOLID STATE COMMUN., V.7, P.385-P.388 (1969)
NAPHTHALENE ..EXPERIMENT/ PHONON DISPERSION/ DEUTERATED SAMPLE

69-PJ-01 PINBOR, A.J./ PYNN, R.
APPLICATION OF MODEL POTENTIALS TO PHONON SPECTRUM OF M AGNESIUM
J. PHYS., C. LONDON, V.2, P.1037 (1969)
MG ..DISPERSION RELATION/ SOLID/ THEORY/ LATTICE DYNAMICS ..PHONON/ POTENTIAL/ METAL

69-PL-01 PLAKIDA, N.M./ SIKLOS, T.
THEORY OF ANHARMONIC CRYSTALS: 2. LINEAR CHAIN
PHYS. STATUS SOLIDI, V.33, P.113-P.123 (1969)
THEORY OF SOLIDS ..LINEAR CHAIN/ ANHARMONIC LATTICE/ FREQUENCY AND DAMPING

69-PL-02 PLAKIDA, N.M./ SIKLOS, T.
THEORY OF ANHARMONIC CRYSTALS: 1. GENERAL FORMATION
PHYS. STATUS SOLIDI, V.33, P.114-P.122 (1969)
THEORY OF SOLIDS ..ANHARMONIC CRYSTAL/ DOUBLE-TIME GREEN FUNCTION/ FREQUENCY AND DAMPING

69-PR-01 PRAKASH, S./ JOSHI, S.K.
THE DETERMINATION OF THE CRYSTAL POTENTIAL FOR A CALCULATION OF PHONON FREQUENCIES OF NORMAL METALS
PHYS. LETT., V.30A, P.123 (1969)
NA ..DISPERSION RELATION/ SOLID/ THEORY/ LATTICE DYNAMICS ..PHONON/ POTENTIAL/ METAL

69-PR-02 PRAKASH, S./ JOSHI, S.K.
PHONON FREQUENCIES OF ALKALI METALS
PHYS. REV., V.187, P.808 (1969)
L / NA / K / RB / CS ..DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ SOLID/ LATTICE DYNAMICS ..ALKALI METALS L / O' confirmation/ DIELECTRIC FUNCTION / HARTREE-FOCK-SLATERN METHOD/ EXCHANGE POTENTIAL
69-PR-03 PRASK, H./ BOUTIN, M./ YIP, S.,
NEUTRON SCATTERING STUDIES OF MOLECULAR VIBRATIONS IN IC
MOLAR DYNAMICS AND STRUCTURE OF SOLIDS, NBC SP
ECIAL PUBLICATION 301, WASHINGTON D.C., P. 335 (1969)
H2O, ICE, MOLECULAR VIBRATION

69-PR-04 PREVENDER, T.S.,
FIT, A NONLINEAR LEAST-SQUARES FITTING PROGRAM TO OBTAI
N INTERATOMIC FORCE CONSTANTS FROM OBSERVED PHONON FRE
QUENCIES
IS-2185 (1969)
COMPUTER-CODES, LATTICE DYNAMICS, FORCE CONSTANTS FITTI
NG, CS2, CL TYPE CRYSTAL, PROGRAM LIST

69-PR-05 PREVENDER, T.S.,
TRIO, A COMPUTER PROGRAM FOR THE CALCULATION OF PHONON 
DISPERSION CURVES, ATOM POLARIZATION VECTORS, AND NORMA
LIZED STRUCTURE FACTORS
IS-2186 (1969)
COMPUTER-CODES, LATTICE DYNAMICS, DISPERSION CURVES, PO
LARIZATION VECTOR, STRUCTURE FACTOR

69-PR-06 PRICE, D.L./ ROWE, J.M.,
THE CRYSTAL DYNAMICS OF GREY (ALPHA) TIN AT 900K
SOLID STATE COMMUN., V.7, P.1433-P.1438 (1969)
SN, EXPERIMENT, LATTICE DYNAMICS, DISPERSION CURVES, CON
STANT, STATE FREQUENCY, 900K/ 2900K

69-RA-01 RANNINGER, J.,
SECOND SOUND IN SOLIDS
THEORY-OF-SOLIDS, CORRELATION FUNCTION, SECOND SOUND, CRYSTAL LATTICE

69-RA-02 RAUNIO, G./ ALMOVIST, L./ STECKMAN, R.,
PHONON DISPERSION RELATIONS IN NA(CL
PHYS. REV., V.178, P.1496 (1969)
NA CL, DISPERSION RELATION, EXPERIMENT, SOLID, 800K, 3000K

69-RA-03 RAUNIO, G./ ALMOVIST, L.,
DISPERSION RELATIONS FOR PHONONS IN K CL AT 80 AND 3000K
K CL, EXPERIMENT, PHONON DISPERSION RELATION, 80, 3000K, COMPARED WITH BREATHING SHELL MODEL CALCULATION

69-RA-04 RAUNIO, G.,
PHONON WIDTHS IN NA CL, K CL, AND RB CL FROM NEUTRON ME
ASUREMENTS
PHYS. STATUS SOLIDI, V.33, P.299-P.304 (1969)
NA CL, K CL, RB CL, EXPERIMENT, PHONON WIDTH, 80, 3000K

69-RE-01 REICHEL, K./ MAIER, G.,
CALCULATIONS OF SINGLE DIFFERENTIAL NEUTRON SCATTERING 
CROSS SECTIONS FOR H2O USING GENERALIZED FREQUENCY SP
ECTRUM AND COMPARISON WITH MEASURED VALES (IN GERMANY)
JUL-587-FN (1969)
H2O, CALCULATION, SINGLE DIFFERENTIAL CROSS SECTION

69-RE-02 RENKER, B.,
PHONON DISPERSION IN D2O
PHYS. LETT., V.30A, P.493 (1969)
H2O, PHONON DISPERSION, D2O

69-RE-03 REYNOLDS, P.A./ WHITE, J.W.,
INELASTIC NEUTRON SCATTERING FROM MOLECULAR AND CRYSTAL 
EXCITATIONS IN AROMATIC MOLECULAR CRYSTALS
DISCUSS. FARADAY SOC., V.48, P.131-P.147 (1969)
BENZENE, EXPERIMENT, TOF SPECTRUM, MOLECULAR DYNAMICS

69-RE-04 REYNOLDS, P.A./ WHITE, J.W.,
INELASTIC NEUTRON SCATTERING FROM MOLECULAR AND CRYSTAL 
EXCITATIONS IN AROMATIC MOLECULAR CRYSTALS
DISCUSS. FARADAY SOC., V.48, P.131-P.147 (1969)
CHLOROBENZENE

69-RJ-01 RICHTER, J./ VOSS, K.,
SCATTERING LAW FOR KINETIC MODEL IN GERMANY
THEORY-OF-FLUIDS, SCATTERING-THEORIES, THEORY, SCATTER
ING LAW, VLASEV MODEL

69-RJ-02 RING, J.W./ EGELSTAFF, P.A.,
HYDROGEN MOTION IN LIQUID HYDROGEN FLUORIDE
J. CHEM. PHYS., V.51, P.762 (1969)
H F, SCATTERING FUNCTION

69-RO-01 ROWELL, J.M./ MCMILLAN, W.L./ FELDMANN, W.L.,
PHONON SPECTRA IN PB AND PB40-TL60 DETERMINED BY TUNNEL
ING AND NEUTRON SCATTERING
PHYS. REV., V.178, P.897-P.899 (1969)
PB/ PB TL, EXPERIMENT, SPECTRAL DENSITY, TUNNELING EX
PERIMENT

69-RU-01 RUIJGROK, T.M./ DE-WETTE, F.J./ ANTONIEWICZ, P.R.,
PAIR CORRELATION FUNCTION IN MODEL ANHARMONIC CRYSTALS
PHYSICA, V.41, P.489-P.509 (1969)
NEUTRON-SCATTERING-IN-SOLIDS, THEORY, PAIR CORRELATION
Neutron inelastic scattering and x-ray studies of aqueous solutions of dimethylsulfoxide and dimethylsulphone.
Dimethylsulfoxide/Dimethylsulphone. Sigma (E,E-PRI
METHYLACETATE/WATER INTERACTION.

69-SA-02 SAFFORD, G.J./ LEUNG, P.S./ NAUMANN, A.W./ SCHAFFER, R.P.:
Investigation of low-frequency motions of H2O molecule in ionic solutions by neutron inelastic scattering.
\(H_2O\) in ionic solution. Experiment/ToF spectrum.

69-SA-03 SAFFORD, G.J./ LEUNG, P.S./ NAUMANN, A.W./ SCHAFFER, R.P.:
Investigation of low-frequency motions of H2O molecule in ionic solutions by neutron inelastic scattering.
\(H_2O\) in ionic solution. Experiment/ToF spectrum.

Neutron inelastic scattering and x-ray studies of aqueous solutions of dimethylsulfoxide and dimethylsulphone.
Dimethylsulfoxide/Dimethylsulphone. Experiment/ToF spectrum.

69-SA-05 SAKHI, V.C./ VENKATARAMAN, G.:
Lattice dynamics of beryllium using a pseudopotential approach.
Dispersion relation/ Theory/ Solid. Lattice dynamics.

69-SA-06 SAMPSON, T.E./ CARPENTER, J.M.:
Quasilelastic scattering of thermal neutrons by C,H3,O,H and C,H3,S,H.
Methanol/Methyl mercaptan. Inelastic scattering spectra.

69-SC-01 SCHNEIDER, T./ STOLL, E./ SZABO, N.:
Zero sound dispersion law in classical liquids.
Neutron-scattering-in-fluids/ Ar. Dispersion.

69-SC-02 SCHROEDER, G.:
A comparative investigations on the effects of various crystal models for thermal neutron scattering in beryllium oxide using computer program COLL (in Germany).
BE.O/Debye-Waller factor/frequency distribution/scattering law/
Sigma(E,E-PRI/Scattering theories/solid.

69-SC-03 SCHUMACHER, H.H.:
Disordered scattering of neutrons by substitutional bis-muth in lead.
Bi-Pb. Experiment.

69-SH-01 SHARAN, B./ RAJAI, R.P.:
Elastic and force constants of body centred tetragonal crystals for one-two-three neighbours non-central interaction.
Theory-of-solids/ Lattice dynamics/ Force constant/ Elastic constants/ Body centred tetragonal.

69-SH-02 SHARPE, R.H.:
The lattice dynamics of niobium 1. Measurements of the phonon frequencies.
Dispersion relation/frequency distribution/Debye temperature.
\(296K/T_{DF} triplet-axis.

69-SH-03 SHARPE, R.H.:
The lattice dynamics of niobium 2. Kohn anomalies in NiNb.
Kohn effect/Dispersion relation. Fermi surface.

69-SH-04 SHAWER, R.E./ DEAN, P.:
Atomic vibrations in hexagonal ice 1.
H\(2\)O. Theory/ Lattice dynamics/ Frequency spectra.

69-SH-05 SHIINO, T./ ENOKIDO, H.:
Molecular vibrations of low temperature crystal of C\(2\)O.
C\(2\)O. Theory/ Lattice dynamics/frequency distribution.

69-SH-06 SHINANE, G./ YAMADA, Y.):
Lattice dynamical study of the 110K phase transition in SrTl3.
SrTl3. Experiment/ Lattice dynamics/ Phase transition.
Soft phonon mode.
69-SI-01 SINGH, R.K./ VERMA, M.D.,
DISPERSION RELATIONS IN POTASSIUM IODIDE
INDIAN J. PURE APPL. PHYS., V.7, P.151 (1969)
K.I., PHONON DISPERSION

69-SI-02 SIMHA, S.K.
DERIVATION OF THE SHELL MODEL OF LATTICE DYNAMICS AND ITS RELATION TO THE THEORY OF THE DIELECTRIC CONSTANT
PHYS. REV., V.177, P.1256 (1969)
THEORY OF SOLIDS, LATTICE DYNAMICS/ SOLID/ THEORY

69-SL-01 SLAGGIE, E.L.
MULTIPLE SCATTERING IN DOUBLE DIFFERENTIAL MEASUREMENTS AS A FUNCTION OF NEUTRON PATH LENGTH
NUCL. SCI. ENG., V.36, P.205 (1969)
SCATTERING-THEORIES/ THEORY/ SCATTERING LAW

69-SL-02 SLAGGIE, E.L.
THERMAL EXPANSION AND PHONON FREQUENCY SHIFTS IN NON-PRIMITVE LATTICE
GA-9417 (1969)
ZB-H, THEORY/ ANHARMONICITY/ FREQUENCY DISTRIBUTION, 3000K, 8000K

COHERENT INELASTIC NEUTRON SCATTERING IN N,H, Cl
PHYS. REV., V.181, P.1216-P.1220 (1969)
N,H, Cl, EXPERIMENT/ SOLID/ LATTICE DYNAMICS, TRIPLE-AXIS SPECTROMETER

69-SP-01 SPREVAK, D./ KOPPEL, J.U.
NEUTRON SCATTERING BY POLYETHYLENE
NUCLEONIK, V.12, P.87 (1969)
POLYETHYLENE, THEORY/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ SIGMA (E)/ SCATTERING LAW/ GASKET CODE

69-SP-02 SPREVAK, D./ KOPPEL, J.U.
SLOW-NEUTRON SCATTERING BY DIPHENYL
NUCL. SCI. ENG., V.35, P.80 (1969)
BIPHENYL, THEORY/ SCATTERING LAW/ SIGMA (E)/ LIQUID

69-ST-01 STEINMAN, D.K./ SUMMERFIELD, G.C.
NEUTRON INCOHERENT SCATTERING FROM KDP
K,H, Cl, THEORY/ INCOHERENT SCATTERING, SINGLE CRYSTAL, TUNNELING MOTION

69-ST-02 STOCKMEYER, R./ HOSSEFIELD, F./ AXMANN, A.
INCOHERENT SCATTERING OF SLOW NEUTRONS BY GLOBULAR MOLECULES IN A CUBIC CRYSTAL, 1, CALCULATION OF NEUTRON TIME OF FLIGHT SPECTRA, 2, INTERPRETATION OF SCATTERING DATA

TA FOR ADAMANTANE
ADAMANTANE, THEORY/ MOLECULAR DYNAMICS/ SCATTERING FUNCTION/ COMPUTER CALCULATION

69-TA-01 TAHIM-XHLEI, R.A./ WU, D.H.
PHENOMENOLOGICAL THEORY OF VELOCITY AUTOCORRELATION IN SIMPLE LIQUIDS
J. SOLID STATE COMMUN., V.7, P.1235 (1969)
AR, CORRELATION FUNCTION/ LIQUID/ FREQUENCY DISTRIBUTION/ MEAN SQUARE DISPLACEMENT/ THEORY, MEMORY FUNCTION/ DRUDE-MAXWELL MODEL/ RELAXATION TIME

69-TA-02 TAKAHASHI, M.
COHERENT NEUTRON SCATTERING FROM POLYCRYSTALLINE GRAPHITE
NUCL. SCI. ENG., V.37, P.198-P.215 (1969)
GRAPHITE, THEORY/ LATTICE DYNAMICS/ SCATTERING FUNCTION, COHERENT SCATTERING/ COMPUTER CALCULATION

69-TE-01 TENG, H.C./ BROOKHOUSE, B.N./ DEWIT, G.A.
LATTICE VIBRATIONS IN DEUTERATED AMMONIUM CHLORIDE
PHYS. LETT., V.29A, P.694-P.695 (1969)
N,H, Cl, EXPERIMENT/ CONSTANT METHOD/ LATTICE DYNAMICS/ DISPERSION RELATION, DEUTERATED SAMPLES, 850K

69-TH-01 THAPER, C.I. SEQUEIRA, A./ DASANNACHARYA, B.A./ I YENJAR, P.K.
NEUTRON INELASTIC SCATTERING STUDIES IN CRYSTAL HYDRATE S
PHYS. STATUS SOLIDI, V.34, P.279-P.291 (1969)

69-TO-01 TODIREANU, S.
POSSIBLE PHASE TRANSITIONS IN A PHYSORBED STATE DETECTED BY SLOW NEUTRON SCATTERING
PHYS. LETT., V.30, P.367 (1969)
C,H, CHARCOAL, EXPERIMENT, TOTAL SCATTERING CROSS SECTION

69-TO-02 TONG, S.Y./ MARADUDIN, A.A.
NORMAL MODE OF A SEMI-INFINITE IONIC CRYSTAL
PHYS. REV., V.181, P.1318 (1969)
THEORY OF SOLIDS, THEORY

69-VE-01 VETELINO, J.J./ MITRA, S.S.
LATTICE DYNAMICS OF CUBIC Si,C
PHYS. REV., V.178, P.1349 (1969)
Si,C, LATTICE DYNAMICS, SOLID/ THEORY/ DISPERSION RELATION, FREQUENCY DISTRIBUTION
69-VE-02  VETELINO, J.F.; MITRA, S.S.; BRAFMAN, O.; DANNENBERG, R.C.
LATTICE DYNAMICS OF CUBIC ZINC SULFIDE
ZnS, DYNAMICS/THEORY/ LATTICE DYNAMICS/DISPERSION CURVES/ION MODEL

69-VI-01  VIJAYANAGHANAN, P.R.; YENGAR, K.K.
PHONON IN CALCIUM FLUORIDE
PROCEEDINGS OF THE NUCLEAR PHYSICS AND SOLID STATE
PHYSICS SYMPOSIUM, BOMBAY, V.3, p.25-28 (1969)
CALCULATION/PHONON DISPERSION

69-WA-01  WAEBER, H.B.
LATTICE VIBRATIONS OF GALLIUM METAL 1, GROUP-THEORETICAL
ANALYSIS
GA, GROUP-THEORETICAL ANALYSIS

69-WA-02  WAEBER, H.B.
LATTICE VIBRATIONS OF GALLIUM METAL 2, EXPERIMENTAL DETERMINATION OF THE PHONON DISPERSION RELATION
GA, EXPERIMENT/LATTICE DYNAMICS/DISPERSION RELATION/TRIPLERADIUS SPECTROSCOPIC

69-WA-03  WALKER, L.B.; KOBELSTAFF, P.A.
LATTICE VIBRATIONS IN MOLYBDENUM
PHYS. REV., V.177, p.1211 (1969)
MO, DISPERSION RELATION/LATTICE DYNAMICS/ROCK TEMPERATURE

69-WA-04  WALLACE, D.C.
PSEUDOPOTENTIAL CALCULATION OF PHONON FREQUENCIES AND G RUENNEISEN PARAMETERS FOR LITHIUM
L, DISPERSSION RELATION/SOLID/THEORY/LATTICE DYNAMICS/PSEUDOPOTENTIAL/PHONON/GRUENNEISEN PARAMETER/METAL

69-WA-05  WALLACE, D.C.
DEPENDENCE OF PHONON FREQUENCIES ON THE PSEUDOPOTENTIAL
FORM FACTOR FOR ALUMINUM
AL, THEORY/PHONON DISPERSION

69-WU-01  WU, S.Y.; TAYLOR, P.L.
DYNAMICS OF A DISORDERED DIATOMIC CHAIN
PHYS. REV., V.181, p.1136-1148 (1969)
THEORY OF SOLIDS/PHYSICS/ FREQUENCY SPECTRUM/CHAIN

69-YA-01  YAMADA, Y.; SHIRANE, G.
NEUTRON SCATTERING AND NATURE OF THE SOFT OPTICAL PHONON IN SrTiO3
J. PHYS. SOC. JAP., V.26, p.396-402 (1969)
SR, TiO3, EXPERIMENT/PHYSICS/CONSTITUTE/METAL DISPERSION RELATION/T EMPCATURE DEPENDENCE/4.5K-300K/PHONON MODE

69-YA-02  YAMADA, Y.; SHIRANE, G.
STUDY OF CRITICAL FLUCTUATIONS IN BaTiO3 BY NEUTRON SCATTERING
PHYS. REV., V.177, p.848-857 (1969)
BaTiO3, EXPERIMENT/Critical Scattering/QUASI-ELASTIC SCATTERING/TOPOLOGY/PHONON MODEL/TUNNELING/MODE

70-AC-01  ACHAR, R.N.; BURK, G.H.
SCATTERING-MASS METHOD IN LATTICE DYNAMICS
PHYS. REV., V.188, p.335-359 (1970)
THEORY OF SOLIDS/PHYSICS/FLUIDS/DEFECT/LOCALIZED MODE

70-AI-01  AICAWA, K., N.
AN ESTIMATE FOR THE LIFETIMES OF THE COLLECTIVE MODES IN SIMPLE CLASSICAL LIQUIDS
THEORY OF SOLIDS/PHYSICS/FLUIDS/COLLECTIVE MODE/LIFETIME/MODE/MODE INTERACTION

70-AK-01  AKCASU, A.Z.; DANIELS, E.
FLUCTUATION ANALYSIS IN SIMPLE FLUIDS
PHYS. REV., V.188, p.962 (1970)
THEORY OF FLUIDS/PHYSICS/FLUIDS/GENERALIZED LANGEVINS EQUATION/CURRENT-CURRENT CORRELATION FUNCTION

70-AL-01  ALEXANDROV, V.; KOESTER, L.; SAMOSVAT, G.S.
COHERENT SCATTERING AMPLITUDE OF TUNGSTEN-186 MEASURED
BY SMALL ANGLE SCATTERING
JINR-E4-3717 (1970)
W, EXPERIMENT/SCATTERING AMPLITUDE/SMALL ANGLE SCATTERING

70-AL-02  ALEXANDROV, V.; BALAGUROV, A.M.; SAMOSVAT, G.S.; FYKIN, L.E.
THE DEBYE-WALLER FACTOR FOR TUNGSTEN (IN RUSSIAN)
JINR-P16-3538 (1970)
W, EXPERIMENT/DEBYE-WALLER FACTOR

70-AL-03  ALIKHANGOV, A.A.; DIMITRIJEVIC, Z.; KRASKIC, S.; RAZNY, H.; TUDOROVIC, J.
INVESTIGATION OF MAGNON DISPERSION RELATION IN ALPHA-Fe
PHYS. REV., V.181, p.1136-1148 (1969)
70-AN-01  ANDRIESE, C.D.
ATOMIC MOTION IN GASEOUS ARGON I. DETERMINATION OF THE INTERMEDIATE SCATTERING FUNCTION OF GASEOUS ARGON USING SUBTHERMAL NEUTRONS
PHYSICA, V. 48, P. 61-P. 78 (1970)
AR INTERMEDIATE SCATTERING FUNCTION, 4A NEUTRONS

70-AN-02  ANDRIESE, C.D.
ATOMIC MOTION IN GASEOUS ARGON II. COMPARISON OF MODELS ON THE ATOMIC MOTION IN FLUID WITH NEUTRON-SCATTERING DATA
PHYSICA, V. 49, P. 502 (1970)
ARGON THEORY MODEL WHICH IS USEFUL FOR THE INTERPRETATION OF THE GAS DATA

70-AR-01  ARKUSZEWSKI, J., MINIGASZEK, A CODE FOR THERMAL NEUTRON SCATTERING LAW IN POLYCRYSTALS
INR-1186-XXI-PR (1970)
COMPUTER-CODES THEORY SOLID SCATTERING LAW

70-AU-01  AUGST, G.R.
THEORY OF NEUTRON SCATTERING IN DIATOMIC CRYSTALS CONTAINING IMPURITIES
FIZ. TVEND. TELE (SUW. PHYS., SOLID STATE), V. 12 (V. 12), P. 1311-P. 1316 (P. 1031-P. 1039) (1970)
NEUTRON-SCATTERING IN SOLIDS THEORY IMPURITY EFFECT CUBIC CRYSTAL PHONON

70-AU-02  AXE, J.D./ SHIRANE, G.
STUDY OF THE ALPHA-BETA QUARTZ PHASE TRANSFORMATION BY INELASTIC NEUTRON SCATTERING
PHYS. REV. B, V. 1, P. 342-P. 348 (1970)
QUARTZ EXPERIMENT PHONON CRITICAL SCATTERING PHASE TRANSFORMATION ABOVE 3730C COND. 4N

70-AU-03  AXE, J.D./ HARADA, J./ SHIRANE, G.
ANOMALOUS ACOUSTIC DISPERSION IN CENTERSYMMETRIC CRYSTALS WITH SOFT OPTIC PHONONS
PHYS. REV. B, V. 1, P. 1227 (1970)
K.TA. PHONON DISPERSION CRITICAL PHENOMENA

70-BA-01  BANSAL, M.M./ KOTHARI, L.S./ TEWARI, S.P.
A MODEL FOR THE LATTICE VIBRATIONS OF SOLID METHANE
METHANE THEORY SOLID LATTICE VIBRATION FREQUENCY DISTRIBUTION

70-BA-02  BARKER, J.A./ KLEIN, M.L.
ELASTIC CONSTANTS AND PHONON DISPERSION CURVES FOR SOLID ARGON NEAR 0K
PHYS. REV. B, V. 2, P. 4176 (1970)
ARGON THEORY SOLID LATTICE DYNAMICS DISPERSION RELATION ANHARMONY

70-BA-03  BATA, L./ JOVICIC, D.
THE MOLECULAR DYNAMICS ALONG THE COEXISTENCE CURVE OF A LIQUID-GAS SYSTEMS
CA. H10D EXPERIMENT LIQUID-GAS PHASE

70-BA-04  BATELDO, D.N./ COLLINS, M.F./ HAYWOOD, B.C.G./ SIDERY, G.R.
LATTICE DYNAMICS OF ARGON AT 4 K
ARGON LATTICE DYNAMICS EXPERIMENT DISPERSION CURVE

70-BA-05  BATES, J.B./ LIPPINGOTT, E.R./ MIKAWA, Y./ JAKOBSE, N.R.J.
DYNAMICS OF LATTICE MODELS OF POLYMER
J. CHEM. PHYS. V. 52, P. 3731 (1970)
H2O MOLECULAR VIBRATIONS

70-BE-01  BEG, M.M./ HUSS, D.K.
THE QUSIELASTIC SCATTERING OF COLD NEUTRONS FROM THE BETA-PHASE OPALALLUMIDE HYDRIDE
PD-11 EXPERIMENT QUASIELASTIC SCATTERING DIFFUSIVE MOTION

70-BE-02  BENHAR, J./ TRIPATHI, B.B.
MODIFIED ANGULAR FORCE MODEL IN THE STUDIES OF LATTICE DYNAMICS OF BCC METALS AN APPLICATION TO SODIUM
NA THEORY LATTICE DYNAMICS DISPERSION RELATION BCMETAL

70-BE-03  BENHAR, J./ TRIPATHI, B.B.
PHONON DISPERSION RELATIONS IN NOBLE METALS
Cu Ag Au THEORY LATTICE VIBRATION DISPERSION RELATION NON-CENTRAL FORCE MODEL ELECTRON-ION INTERACTION

70-BE-04  BERSGMA, J.
LATTICE DYNAMICS OF MAGNESIUM STANNIDE AND ZINC BLEND
AZN-121 (1970)
MG2.SN ZN S EXPERIMENT TRIPLE AXIS SPECTROMETER PHONON DISPERSION RELATION
JAERI-M 6857

70-BE-05 BERGSMA, J.
LATTICE DYNAMICS OF ZINC BLende
Zn,S, EXPERIMENT/ DISPERSION CURVES, RIGID ION MODEL/
SMEL MODEL

70-BE-06 BEZDEK, H.J./ SCHMUNK, R.E./ FINEGOLD, L.
LATTICE DYNAMICS OF ZIRCONIUM
PHYS. STATUS SOLIDI, V. 42, P. 275-280 (1970)
Zr, EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ PHON
ON DENSITY

70-BI-01 BINDEK, K.
TOTAL COHERENT CROSS SECTIONS FOR THE SCATTERING OF NEUT
RONS FROM CRYSTALS
PHYS. STATUS SOLIDI, V. 41, P. 767 (1970)
AL, EXPERIMENT/ SCATTERING CROSS SECTION

70-BI-02 BIRK, M.
MEASUREMENT OF THE QUASI-ELASTIC LINE-BROADENING IN GLY
CEROL WITH A NEUTRON CRYSTAL SPECTROMETER OF EXTREMELY
HIGH ENERGY RESOLUTION
Z, PHYS., V. 238, P. 221-232 (1970)
GLYCEROL, EXPERIMENT/ QUASI-ELASTIC SCATTERING/ DIFFU
SION CONSTANT

70-BL-01 BLINC, R./ DIMIC, V.
NEUTRON SCATTERING STUDY OF SELF DIFFUSION IN LIQUID CRYS
TALS
PHYS. LETT., V. 31A, P. 531-534 (1970)
P-OXOXYANISOLE, EXPERIMENT/ TOF/ DIFFUSION CONSTANT/
LIQUID CRYSTAL

70-BL-02 BLINC, R./ DIMIC, V.
NEUTRON SCATTERING STUDY OF SELF-DIFFUSION IN LIQUID CRYS
TALS
J. PHYS., R. 582 (1970)
P-OXOXYANISOLE, EXPERIMENT/ DIFFUSION BROADENING/ NEMA
TIC AND ISOTROPIC LIQUID

70-BO-01 BOSEITIC, M.V./ BARKER, J.A.
LATTICE DYNAMICS WITH THREE-BODY FORCES: ARGM
PHYS. REV., B, V. 2, P. 4169 (1970)
AR, THEORY/ SOLID/ LATTICE DYNAMICS/ ANHARMONICITY, T
HREE-BODY FORCE/ SPECIFIC HEAT/ DEBYE TEMPERATURE

70-BO-02 BOCCHIERI, P./ SCOTTI, A./ BEARZI, B./ LOINGER, A.
ANHARMONIC CHAIN WITH LENNARD-JONES INTERACTION
THEORY-OF-SOLIDS, THEORY, ONE-DIMENSIONAL LATTICE/ ER
GODYCITY/ NUMERICAL STUDY/ CLASSICAL

70-BO-03 BORGUNOVI, G.M.
NEUTRON SCATTERING KERNELS CALCULATIONS AT EPIThERMAl E
NERGES
GA, 9950 (1970)
COMPUTER-CODES, SCATTERING LAW/ SIGMA(E, E-PRIME)

70-BO-04 BORGUNOVI, G.M./ SPREKES, D.
A CALCULATION OF THE COHERENT NEUTRON SCATTERING FROM P
OLYCRYSTALLINE BERYLLIUM
NUCL. SCI. ENG., V. 42, P. 137 (1970)
BE, THEORY/ COHERENT SCATTERING/ POLYCRYSTAL

70-BR-01 BRAUNCK, W./ GAHN, U./ SOMMER, F./ WEEBER, K./ WI
LL. C.
THE RADIAL DISTRIBUTION FUNCTION FOR LIQUID ALUMINIUM F
ROM A NEW PSEUDO-POTENTIAL CALCULATION
AL, THEORY/ STRUCTURE FACTOR

70-BR-02 BRONYER, P.N./ HIGGINS, J.S.
NEUTRON INELASTIC SCATTERING MEASUREMENTS ON 1,1,1-TRIFL
UROETHANE
MOL. PHYS., V. 19, P. 645-657 (1970)
C(H3=C)-C-F, EXPERIMENT/ SCATTERING LAW/ TORSIONAL OSC
ICATION/ SPHERICAL TOP Molecule

70-BR-03 BROWN, J.S.
KREBS MODEL CALCULATION OF PHONON DISPERSION IN PALLADI
UM
PHYS. STATUS SOLIDI, V. 39K, P. 75-78 (1970)
PD, THEORY/ PHONON DISPERSION/ KREBS MODEL

70-BU-04 BRUN, R./ HASMAN, A.
ON THE COHERENT INTERMEDIATE SCATTERING FUNCTION OF GAS
EOUS ARGON AS DETERMINED BY INELASTIC NEUTRON SCATTER
ING AND MOLECULAR DYNAMICS CALCULATIONS
PHYS. LETT., A, V. 33, P. 338 (1970)
ARGON, INTERMEDIATE SCATTERING FUNCTION/ STRUCTURE FAC
TOR/ GAS

70-BU-01 BUEHRER, W.
LATTICE DYNAMICS OF COPPER
ER, 174 (1970)
CU, EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVE/ CO
NSTANT METHOD, PSEUDO-POTENTIAL ANALYSIS

70-BU-02 BUEHRER, W.
LATTICE DYNAMICS OF POTASSIUM FLUORIDE
PHYS. STATUS SOLIDI, V. 41, P. 789-795 (1970)
K,F, EXPERIMENT/ PHONON DISPERSION/ ELEVEN PARAMETER F
ITTING/ FREQUENCY SPECTRUM
APPARTIATE DISPERSION RELATIONS AND THE TOTAL COHERENT INELASTIC NEUTRON SCATTERING CROSS SECTION FOR GRAPHITE
NUCL., SCI., ENG., V.40, P.17-P.24 (1970)
GRAPHITE: THEORY/ SPECTRAL DENSITY/ SIGMA(E)

70-CO-03 CORNGOLD, N./ DUDERSTADT, J.J.
PERTURBATIVE THEORY OF SELF-DIFFUSION IN CLASSICAL MANY-PARTICLE SYSTEM. I. VELOCITY AUTOCORRELATION FUNCTION.
PHYS. REV., A, V.24, P.636 (1970)
THEORY OF FLUIDS: CORRELATION FUNCTION

70-CO-06 COUTHARD, M.A.
PRESSURE DEPENDENCE OF PHONON DISPERSION CURVES IN SIMPLIFIED METALS
SODIUM/ POTASSIUM/ ALUMINIUM/ LEAD: THEORY/ LATTICE VI BRATION DISPERSION RELATION: PRESSURE EFFECT/ PSEUDOPOTENTIAL/ METAL

70-CU-01 CUNNINGHAM, R.M./ MULLESTEIN, L.D./ SHAW, W.M./ TO MPSON, C.W.
INVESTIGATION OF IN-BAND RESONANT MODES IN CR-W ALLOYS BY INELASTIC NEUTRON SCATTERING
PHYS. REV., B, V.2, P.864-P.870 (1970)
CR-W: EXPERIMENT/ IN-BAND PHONON/ MASS EFFECT

70-CZ-01 CZACHOR, A.
SIMPLE MODEL OF LATTICE DYNAMICS FOR MAGNESIUM, COBALT AND TITANIUM
INR-1169/11/PS (1970)
MG/ CO/ Y: THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ BURN-ON VON KARMAN MODEL/ AXIAL SYMMETRY/ ELASTIC CONSTANT/ HEXAGONAL CLOSE-PACKED CRYSTAL

70-CZ-02 CZACHOR, A./ KAJCA, A.
SIMPLE MODEL OF LATTICE DYNAMICS FOR MAGNESIUM, COBALT AND YTTRIUM PART 2
INR-1219/2/PS (1970)
MG/ CO/ Y: CALCULATION/ HEXAGONAL METAL/ FREQUENCY SPECTRA

70-DA-01 DAUBEY, J.
PHONON DISPERSION IN CS.BR
CS.BR: EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION ON TOF/ PSEUDOSTATISTICAL CHOPPER/ 300K

70-DE-01 DE-GRAAF, L.A./ SCIENSKII, J.
STUDY OF MOLECULAR MOTIONS IN PLASTIC-CRYSTALLINE NEODP VANE BY COLD-NEUTRON SCATTERING
PHYSICA, V.48, P.79-P.92 (1970)
70-DE-02  DE-MUL, F. P. / BERGMAN, J. D.
QUASI-ELASTIC INCOHERENT COLD NEUTRON SCATTERING IN LIQUID CYCLOHEXANOL
CYCLOHEXANOL, EXPERIMENT/ TOTAL/ LIQUID/ QUASI-ELASTIC PEAK/ JUMP-DIFFUSION/ INCOHERENT NEUTRON SCATTERING

70-DE-03  DENHAM, P. / FIELD, G. R. / MORSE, P. L. R. / WILKINSON, G. R.
OPTICAL AND DIELECTRIC PROPERTIES AND LATTICE DYNAMICS OF SOME FLUORITE STRUCTURE IONIC CRYSTALS
CA, F2, SrF2, BaF2, CdF2, PbF2, THEORY/ LATTICE DYNAMICS/ FREQUENCY SPECTRA/ DISPERSION CURVES

70-DI-01  DIACONESCU, A. / NAHORNIAK, V. V. / MATESCU, N. / TEUTSCH, H.
COLD NEUTRON SCATTERING BY METAL ALCOHOLS, CYCLOHEXANE AND THEIR MIXTURES NEAR THE CONSCONSTANT POINT
REV. ROUM., PHYS., V. 15, P. 610-P. 673 (1970)
METHANOL/ CYCLOHEXANE, INELASTIC SCATTERING SPECTRA

70-DO-01  DOHLBORG, U. / LARSSON, K. E. / PIRMAJER, E.
ROTATIONAL MOTIONS IN SOLIDS, THE FERROELECTRIC TRANSITION IN NaH2SO4
PHYSICA, V. 49, P. 1 (1970)
AMMONIUM SULFATE, EXPERIMENT/ COLD NEUTRON SPECTROMETER R/ FERROELECTRICITY/ PHASE TRANSITION/ ROTATIONAL MOTION
N/ ANGULAR CORRELATION FUNCTION

70-DO-02  DOI, K. / SAKAMOTO, M. / IIZUMI, M. / MASAKI, N. / MOTOMACHI, H.
LOW ENERGY VIBRATIONS OF POLYETHYLENE AND THE EFFECTS OF CRYSTALLINITY AS OBSERVED BY NEUTRON INELASTIC SCATTERING
POLYETHYLENE, EXPERIMENT/ FREQUENCY DISTRIBUTION

70-DO-03  DOLLING, G. / POWELL, B. M.
INTERMOLECULAR DYNAMICS OF HEXAMETHYLANETETRAMINE
HEXAMETHYLANETETRAMINE, EXPERIMENT/ PHONON DISPERSION/ DENSITY
MODEL FITTING/ PHONON DENSITY

70-DO-04  DOLLING, G. / SAKURAI, J. / COWLEY, R. A.
CRYSTAL DYNAMICS OF SODIUM NITRIDE
J. PHYS. SOC. JAP., V. 28, SUPPLEMENT, P. 258 (1970)

70-DE-01  EDELSTAFF, P. A. / HARRIS, D. H. C.
LOW FREQUENCY MOLECULAR MOTIONS IN LIQUID HYDROCARBONS
PENTANE/ HEPTANE/ DODECANE, EXPERIMENT/ QUASI-ELASTIC/ DIFFUSION CONSTANT

70-EG-02  EDELSTAFF, P. A. / HARRIS, D. H. C.
CRITICAL OPALINESS IN BINARY LIQUID METAL MIXTURES 2.
CONCENTRATION DEPENDENCE
BI-GA, CRITICAL PHENOMENA/ BINARY LIQUID METAL

70-EG-02  EDELSTAFF, P. A. / HARRIS, D. H. C.
CRITICAL OPALINESS IN BINARY LIQUID METAL MIXTURES II
CONCENTRATION DEPENDENCE
BI-GA, EXPERIMENT/ CRITICAL SCATTERING

70-EL-01  ELCOMBE, M. M. / PRYOR, A. W.
THE LATTICE DYNAMICS OF CALCIUM FLUORIDE
CA, F2, EXPERIMENT/ 3-AXIS SPECTROMETER/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY SPECTRA, SHELL MODE
FITTING

70-ER-01  EMRIKSSON, J. R.
A COLD NEUTRON SCATTERING ROUTINE FROM THE GAS MODEL
NUCL. SCI. ENG., V. 41, P. 307 (1970)
SCATTERING THEORIES/ SCATTERING THEORY

70-FL-01  FLOYD, E. R. / KLEINMAN, L.
EFFECT OF THE DIELECTRIC FUNCTION ON THE PHONON SPECTRUM
M OF MAGNETISM
PHYS. REV., B, V. 2, P. 3947-P. 3952 (1970)
MG, THEORY/ PHONON DISPERSION RELATION/ MAGNET/PSEUDOPOTENTIAL

70-FO-01  FORSTER, D. H. / MARTIN, P. C.
KINETIC THEORY OF A WEAKLY COUPLED FLUID
PHYS. REV., A, V. 2, P. 1575 (1970)
THEORY OF FLUIDS/ KINETIC THEORY

70-FR-01  FRAAS, L. M. / PORTO, D. F. / SLOM, E.
SYMMETRY IN RAMAN SCATTERING FROM THE OPTICAL PHONON IN SINGLE CRYSTAL BERYLLIUM
J. SOLID STATE COMM., V. 8, P. 803-P. 805 (1970)
BE, EXPERIMENT/ RAMAN SCATTERING

70-FR-02  FRANKS, F. / RAVENHILL, J. / EDELSTAFF, P. A. / PAGE, D. P.
MOTIONS OF WATER MOLECULES IN DILUTE AQUEOUS SOLUTIONS OF TERTIARY BUTYL ALCOHOL: A NEUTRON SCATTERING STUDY OF HYDROPHobic HYDRATION


ALCOHOL-WATER EXPERIMENT/ NEUTRON SPECTROSCOPY DIFFUSION OF WATER IN AQUEOUS SOLUTIONS OF ALCOHOL

70-FU-01 FURRER, A./ HALG, W.

EXPERIMENTAL PHONON FREQUENCIES AND WIDTHS OF LEAD AT 5, 80, AND 290 DEG. K.

PHYS. STAUS SOLIDS, V. 42, P. 821 (1970)

PB ANHARMONIC EFFECT

70-GG-01 GELDART, D.J./ TAYLOR, R./ VARSHNI, Y.P.


NA DISPERSION RELATION FREQUENCY DISTRIBUTION DEBYE TEMPERATURE/ THEORY/ LATTICE DYNAMICS/ SOLID SCREENING FUNCTION/ METAL/ OPW METHOD/ RPA

70-GI-01 GILAT, G.

ON FLAT PHONONS IN BETA-BRASS SOLID STATE COMMUN, V. 8, P. 253-P. 254 (1970)

CU-ZN THEORY/ FLAT PHONON/ ORDER DISORDER TRANSITION

70-GJ-02 GISSLER, W./ ROPER, H.


NB-H THEORY/ DIFFUSION OF HYDROGEN IN METAL HYDRIDE QUASIELASTIC

70-GK-01 GILDE, H.R.


NE/ AR/ KR/ XE THEORY/ ANHARMONICITY

70-GK-02 GILDE, H.R./ COWLEY, R.A.

CUBIC ANHARMONIC CORRECTION TO SELF-CONSISTENT PHONONS IN B.C.C. HE3 SOLID STATE COMMUN, V. 8, P. 923 (1970)

HE ANHARMONICITY

70-GO-02 GOLDMAN, V.V./ HORTON, G.K./ KLEIN, M.L.


NE HE SELF-CONSISTENT APPROXIMATION/ DISPERSION CURVE LIFETIME THEORY

70-GO-03 GOSSLER, W./ ALEFOLD, G./ SPRINGER, T.

QUASIELASTIC NEUTRON SCATTERING BY HYDROGEN IN NI OBNIUM PHYS. CHEM. SOLIDS, V. 31, P. 2361 (1970)

NB-H IMPURITY

70-GR-01 GRANT, D.M./ PUGHIRE, R.J./ LIVINGSTON, R.C.

METHYL LIBRATION IN PROPANE MEASURED WITH NEUTRON INELASTIC SCATTERING J. CHEM. PHYS., V. 52, P. 4424-P. 4436 (1970)

PROPANE/ EXPERIMENT/ MOLECULAR DYNAMICS/ TOF

70-GU-01 GUPTA, R.P.

AB INITIO PSEUDOPOTENTIAL CALCULATION OF PHONON FREQUENCIES IN LITHIUM SOLID STATE COMMUN, V. 8, P. 991 (1970)

LI DISPERSION RELATION/ THEORY/ LATTICE DYNAMICS PSEUDOPOTENTIAL/ METAL

70-GU-02 GUPTA, H.C./ TRIPATHI, B.B.

PSEUDOPOTENTIAL AND THE PHONON DISPERSION IN ALUMINUM PHYS. REV., B, V. 2, P. 248 (1970)

AL Dispersion Relation/ Theory/ Lattice Dynamics PSEUDOPOTENTIAL/ METAL

70-GU-03 GUPTA, V.D./ DEOPURA, B.L.

LOW FREQUENCY NEUTRON SPECTRUM OF 1,3,5-TRIAMINO-2,4,6-TRINITROBENZENE MOL. PHYS., V. 19, P. 589-P. 592 (1970)

BENZENE EXPERIMENT/ FREQUENCY SPECTRUM

70-GU-04 GUPTA, R.K./ GUPTA, N.P.

ANHARMONIC PHONON SPECTRUM AND HEAT CAPACITIES OF SOLID NEON NUOVO CIMENTI, B, V. 66, P. 1-P. 10 (1970)

NE Theory/ Phonon Dispersion and Spectrum PSEUDOMANOMICentral-Force RIGID-ATOM MODEL

70-GU-05 GUPTA, V.D./ SINGH, R.D.

LOW FREQUENCY SPECTRA OF GLYCINE CHEM. PHYS. LETT., V. 5, P. 189-P. 220 (1970)

GLYCINE EXPERIMENT/ FREQUENCY SPECTRUM

70-HA-01 HARADA, J./ AKE, J.D./ SHIRANE, G.

DETERMINATION OF THE NORMAL VIBRATIONAL DISPLACEMENTS I...
EXAGONAL CLOSE-PACKED KRystal

70-LA-03 LAI, H.W./ SIM, H.K./ WOO, C.W.
DISPERSION OF PHONONS IN LIQUID HE-4
PHYS. REV. A, V.1, P.1536-P.1541 (1970)
HE...DISPERSION CURVE...THEORY

70-LA-04 LAI, H./ SIM, H./ WOO, C.
DISPERSION OF PHONONS IN LIQUID HE-4
PHYS. REV. A, V.1, P.1536 (1970)
HE...DISPERSION CURVE...THEORY

70-LE-02 LEech, J.W./ REISSLAND, J.A.
ANHARMONIC EFFECTS IN INERT GAS SOLIDS, 1 - ASSESSMENT OF A NEW APPROXIMATION
NE/AR/KR/XE...THEORY/LATTICE DYNAMICS/ANHARMONICITY...THERMODYNAMICAL PROPERTIES

70-LE-03 LEech, J.W./ REISSLAND, J.A.
ANHARMONIC EFFECTS IN INERT GAS SOLIDS, 2 - METHOD APPLIED TO NE, AR, KR, XE
NE/AR/KR/XE...THEORY/ANHARMONICITY...SPECIFIC HEAT/DEBYE TEMPERATURE/ THERMAL EXPANSION

70-LE-04 LEFTOWITZ, I./ SHIELDS, M./ DOLLING, G./ BUYERS, W.J.L./ COWLEY, R.A.
THE TRANSITION IN Sn, Te-Ge, Te ALLOYS
Sn, Te...EXPERIMENT/ Sn,94, Ge,05, Te/ PHONON DISPERSION

70-LE-05 LEUNG, P.S./ SAFFORD, G.J.
A NEUTRON INELASTIC SCATTERING INVESTIGATION OF THE CONCENTRATION AND ANION DEPENDENCE OF COW FREQUENCY MOTION S OF H2O MOLECULES IN IONIC SOLUTIONS
LI, CL-H2O, Mg, Cl2-H2O, Cs, Cl-H2O, K, Cl-H2O, Na, Cl-H2O, 2O/ LA, (N,O33) 3-H2O, ...EXPERIMENT/ LOW FREQUENCY MOTION OF H2O IN SOLUTION

70-LE-06 LEUNG, P.S./ SAFFORD, G.J.
A NEUTRON INELASTIC SCATTERING OF THE H2O MOLECULES IN

70-KU-02 KUCHER, T.I./ SCHEDUR, I.A.
PHONON DISPERSION IN NaCl CRYSTALS
UKR. FIZ. Zh., V.15, P.1409 (1970)
Na, Cl...PHONON DISPERSION

70-KU-04 KUNG, K.S./ BALKANSKI, M./ NUSIMOVICI, M.
IONIC CHARGE AND LATTICE DYNAMICS OF CUBIC ZINC SULPHIDE
PHYS. STATUS SOLIDI, V.41, P.491 (1970)
zn,s...THEORY/LATTICE DYNAMICS

70-KU-05 KUSHWAHA, S.S./ RAJPUT, J.S.
PHONON DISPERSION RELATIONS OF BODY-CENTERED CUBIC METALS
PHYS. REV. B, V.2, P.3943-P.3947 (1970)
THEORY OF SOLIDS/ NA/K...PHONON DISPERSION CURVE/ META L/BCC

70-MA-01 LADO, F.
DENSITY AUTOCORRELATION FUNCTION IN A CLASSICAL FLUID FROM INITIAL CORRELATIONS
NEUTRON SCATTERING IN FLUIDS/ VLASOV EQUATIONS/ THEORY...TIME-DEPENDENT DIRECT CORRELATION FUNCTION/ CONTINUED FRACTION

70-LA-02 LAMTEENKORVA, E.E.
AN ELASTIC-CONSTANT MODEL FOR LATTICE DYNAMICS OF HEXAG FOX...CLOSE-PACKED METALS
SOLID STATE COMMUN., V.8, P.69 (1970)
Mg, Cu, H0...DISPERSION RELATION/ HARMONIC APPROXIMATION...THEORY/SOLID/LATTICE DYNAMICS...ELASTIC CONSTANT/ H...
AQUEOUS SOLUTIONS AND SOLID GLASSES OF LANTHANUM NITRATE AND CHROMIC CHLORIDE
J. PHYS. CHEM. SOLIDS. V.74, P.3710-P.3717 (1970)
LA.CN.0393-H2.O/ CrCl3-H2.O/ LaCl3-H2.O. EXP/ EXPERIMENT/ H2O MOTION IN SOLUTION AND GLASS STATE

70-MA-03 MILISZEWSKI, E.F./ SOSNOWSKI, J./ CZACHOR, A.
LATTICE DYNAMICS OF THE PD-1 PER CENT FE INR-P-1226/ 27 PS (1970)
PD-Fe/Edit EXPERIMENT/ PHONON DISPERSION CURVE

70-MA-04 MARIS, H.J./ MASSEY, W.E.
PHONON DISPERSION AND THE PROPAGATION OF SOUND IN LIQUID HELIUM-4 BELOW 0.56 DEG. K.
PHYS. REV. LETT. V.25, P.220 (1970)
HE Theory/ PHONON DISPERSION

70-MA-05 MARTINELLI, L.
THERMOELECTRIC BAND STRUCTURE AND PHONON FREQUENCIES OF NA FROM THE PSEUDopotENTIAL METHOD
NUOVO CIMENTI. B. V.70, P.35-P.72 (1970)
NA Theory/ BAND STRUCTURE/ PHONON DISPERSION/ PSEUDOPOTENTIAL MODEL

70-MI-01 MILLER, S.A./ RAST, H.E./ CASPERSON, H.H.
LATTICE VIBRATIONS OF LiYF4
J. CHEM. PHYS. V.52, P.4172-P.4175 (1970)
LiYF4 Theory/ RAMAN SCATTERING

70-MI-02 MISENTA, R./ OLIVI, L.
SLOW NEUTRON SCATTERING BY SOLID ORTHO-HYDROGEN BELOW T HE Lambda-TEMPERATURE
SOLID STATE COMMUN. V.8, P.373-P.375 (1970)
H2 Theory/ DIFFERENTIAL CROSS SECTION

70-NA-01 NAKAHARA, Y.
THERMAL NEUTRON SCATTERING FROM SIMPLE LIQUID METALS
JAEK-MEMO-419 (1970)
NA Theory/ SCATTERING LAW/ LIQUID, VLASOV EQUATION/ LIQUID METAL

70-NI-01 NISHIGORI, T.
QUASICLASSICAL APPROXIMATION FOR SLOW NEUTRON SCATTERING
PHDGR, THEORET. PHYS. KYOTO, V.43, P.1423-P.1444 (1970)
SCATTERING-THEORIES Theory/ QUASICLASSICAL APPROXIMATION

70-NU-01 NUSIMOVICI, M.A./ BALKANSKI, M./ BIRMAN, J.L.
LATTICE DYNAMICS OF WURTZITE, CdS, 2
PHYS. REV. B. V.1, P.395-P.603 (1970)
CdS Theory/ LATTICE DYNAMICS/ DISPERSION CURVES/ FREQUENCY SPREAD/ SEMI-IONIC COMPOUNDS

70-OL-01 OLIVI, L.
THE SCATTERING OF SLOW NEUTRONS BY ORTHOHYDROGEN

- 215 -
A TABULATION OF THE INTERIONIC POTENTIAL IN THE ALKALI METALS
ANL-7761 (1970)
COMPILATIONS / SOLID THEORY / PAIR POTENTIAL / METAL

70-PU-01 Puff, R.D./ Tenn, J.S.
HIGH-ENERGY NEUTRON-LIQUID HEA-SCATTERING AND THE HEA C ONSIDENSATE DENSITY
PHYS. REV. A, V.1, P.125 (1970)
HE / THEOREY

70-RA-01 Rafizadeh, M.A./ Yip, S.
LATTICE DYNAMICS OF HEXAHYDRON, A RIGID-MOLECULAR APPROXIMATION
HEXETHYLENEDIAMINE / THEOREY / LATTICE DYNAMICS

70-RA-02 Ramaseshan, S./ Viswanathan, K.S.
ANOMALOUS SCATTERING OF CRYSTALS AND THE AMPLITUDES OF VIBRATION OF LATTICE WAVES
CD,S / ANOMALOUS SCATTERING

70-RA-03 Rao, K.R./ Trevino, S.F./ Logan, K.W.
LATTICE DYNAMICS OF SODIUM NITRATE, A GROUP-THEORETICAL ANALYSIS
NA, N,O, / THEOREY / GROUP-THEORETICAL ANALYSIS / LATTICE DYNAMICS

70-RA-04 Rao, K.R./ Trevino, S.F.
LATTICE DYNAMICS OF POTASSIUM AZIDE, A GROUP-THEORETICAL ANALYSIS
K,N, / THEOREY / LATTICE DYNAMICS / GROUP-THEORETICAL ANALYSIS

70-RA-05 Rao, K.R./ Trevino, S.F.
LATTICE DYNAMICS OF SODIUM AZIDE, A GROUP-THEORETICAL ANALYSIS
NA, N,O / THEOREY / LATTICE DYNAMICS / GROUP-THEORETICAL ANALYSIS

70-RA-06 Rao, K.R.
ATOMIC CORRELATIONS IN LIQUIDS
REVIEW / ARTICLES / NEUTRON-SCATTERING-IN-FLUIDS / ATOMIC CORRELATION / LIQUID

70-RA-07 Raunio, G./ Rolandson, S.
LATTICE DYNAMICS OF Na,Cl, K,Cl, Rb,Cl AND Rb,F
AE-384 (1970)
NA,Cl, K,Cl, Rb,Cl, Rb,F / SHELL MODEL FITTING / FREQUENCY CY SPECTRUM / DEBYE TEMPERATURE

70-RA-08 Raunio, G./ Rolandson, S.
PHONON DISPERSION RELATIONS IN Rb,Cl AND Rb,F AT 80 K
Rb,Cl, Rb,F / EXPERIMENT / CONST, / LATTICE DYNAMICS / DISPERSION RELATION / 80K / DEFORMED DIPOL = NEXT-NEAREST-NEIGHBOURS MODEL CALCULATION

70-RA-09 Raunio, G./ Rolandson, S.
LATTICE DYNAMICS OF Na,Cl, K,Cl, Rb,Cl AND Rb,F
NA,Cl, K,Cl, Rb,Cl, Rb,F / THEOREY / DISPERSION CURVES / SHELL MODEL

70-RA-10 Raunio, G./ Rolandson, S.
LATTICE DYNAMICS OF Rb,F AT 80K
PHYS. STATUS SOLIDI, V.40, P.749-P.757 (1970)
Rb,F / EXPERIMENT / PHONON DISPERSION / SHELL MODEL FITTING

70-RE-01 Reid, J.S./ Smith, T./ Buyers, W.J.L.
PHONON FREQUENCIES IN Na,Br
PHYS. REV. B, V.1, P.1833-P.1844 (1970)
Na,Br / EXPERIMENT / LATTICE DYNAMICS / DISPERSION RELATION / FREQUENCY DISTORTION / 295K / RIGID SHELL AND DEFORMABLE SHELL MODEL FITTING

70-RE-02 Reid, J.S./ Smith, T.
IMPROVED DEBYE-WALLER FACTORS FOR SOME ALKALI-HALIDES
J. PHYS. CHEM. SOLID., V.31, P.2669 (1970)
Na,F / Na,Cl / Na,Br / Na,I / K,Cl / K,Br / THEOREY / SOLID / DEBYE-WALLER FACTOR / SHELL MODEL / ROOT SAMPLING METHOD

70-RF-01 Rice, T.M./ Halperin, B.I.
KOHN ANOMALIES IN TUNGSTEN AND OTHER CR-GROUP METALS
Cr, Th / THEOREY / LATTICE VIBRATION / ELECTRON SUSCEPTIBILITY / EFFECT OF THE KOHN ANOMALIES ON PHONON SPECTRUM AND LIFETIME

70-RI-02 Riedeh, K.H.
LOCALIZED IMPURITY MODES AND FORCE CONSTANT CHANGES IN DILUTE CUBIC ALLOYS
ACTA PHYS. AUSTRIA, V.32, P.290-P.299 (1970)
THEOREY-OF-SOLIDS / THEOREY / LIGHT IMPURITY MODE / ESTIMAT
ION OF FORCE CONSTANT CHANGE

70-RI-03 KIEDEL; K.H.
LOCALIZED IMPURITY MODES AND FORCE CONSTANT CHANGES IN
DILUTE CUBIC ALLOYS
THEORY-OF-LIGHT IMPURITY MODES/ ESTIMATION
OF FORCE CONSTANT CHANGE

70-RO-01 ROSSI; R.G.
THE HARD-Sphere MODEL FOR A LIQUID METAL: A COMPARISON
WITH EXPERIMENT
THEORY-OF-FLUIDS/ STRUCTURE FACTOR/ SIGMA(THETA;E)/ C
PRESSIBILITY/ LIQUID METAL

70-RO-02 ROTHCHILD, M.G.
MOLECULAR MOTION IN LIQUIDS, ON THE PREVALENCE OF LARGE
-SIZE ROTATIONAL AND TRANSLATIONAL DIFFUSION STEPS
THEORY-OF-FLUIDS/ LIQUID THEORY

70-RO-03 ROY; A.P./ BROCKHOUSE; B.N.
LATTICE FREQUENCY SPECTRA OF Pb AND Pb40-TL60 BY NEUTRON
SPECTROMETRY
Pb/ Pb-TL/ EXPERIMENT/ FREQUENCY SPECTRA/ POLYCRYSTALLINE SAMPLES/ TRIAXIAL SPECTROMETER/ PHONON LIFETIME/
FORCE-CONSTANT DISTRIBUTION/ ALLOY

70-RU-01 RUBIN; R./ CLAESSEN, Y.
INELASTIC AND QUASI-ELASTIC SCATTERING OF SUBTHERMAL NEUTRONS IN TbH AND NbH
SOLID STATE COMMUN., v.8, p.1321 (1970)
TbH/ NbH/ SOLID/ QUASI-ELASTIC PEAK

70-SA-01 SABINE; T.M./ SVENSSON; C.
THE SCATTERING OF LONG WAVELENGTH NEUTRONS BY NEUTRON IRRADIATED MAGNESIUM OXIDE
MgO/ EXPERIMENT/ TOTAL SCATTERING SIGMA/ DEFECT CLUSTER SCATTERING

70-SA-02 SAKURAI; J./ COWLEY, R.A./ DOLLING, G.
CRYSTAL DYNAMICS AND THE FERROELECTRIC PHASE TRANSITION OF SODIUM NITRIDE
NA/ EXPERIMENT/ 3-AXIS SPECTROMETER/ DISPERSION RELATION

70-SA-03 SAMUELSEN; E.J./ SHIRAME, G.
IC INTERACTIONS IN ALPHA-FE2.03

70-SA-04 SANDSTROEM; E./ MOEGEBERG; T.
ANHARMONIC WIDTHS AND SHIFTS IN SIMPLE METALS: APPLICATION TO ALUMINUM
AL/ THEORY/ ANHARMONICITY/ PHONON WIDTHS AND LIFETIMES/ METAL

70-SA-05 SANGSTER; M.J.L./ PECKHAM; G./ SAUNDERS; D.H.
LATTICE DYNAMICS OF MAGNESIUM OXIDE
MgO/ EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVES/
BREATHEING SHELL MODEL/ FREQUENCY SPECTRUM/ HOT NEUTRON SOURCE

70-SC-01 SCHMUNK; R.E.
LATTICE DYNAMICS OF SODIUM CHLORIDE AT ROOM TEMPERATURE
NA/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ THEORY/ SOLID

70-SC-02 SCHMUNK; R.E./ WINDER, D.H.
LATTICE DYNAMICS OF SODIUM CHLORIDE AT ROOM TEMPERATURE
NA/ PHONON DISPERSION

70-SC-03 SCHNEIDER, T./ BROUT, R./ THOMAS, H./ FEDER, J.
DYNAMICS OF THE LIQUID-SOLID TRANSITION
AR/ THEORY

70-SC-04 SCHOTT; W.
INELASTIC SCATTERING OF SLOW NEUTRON BY SOLID AND LIQUID HYDROGEN
H/ EXPERIMENT

70-SC-05 SCOTT; J.F.
HYBRID PHONONS AND ANHARMONIC INTERACTIONS IN AlP.04
AL./ ANHARMONICITY/ EXPERIMENT/ RAMAN

70-SC-06 SCOTT; W./ RIETSCHEL; H.
NEUTRON SCATTERING FROM SOLID HYDROGEN
KFK-1327 (1970)
H/ EXPERIMENT/ PHONON STATE DENSITY/ QUADRUPOLE INTERACTION CONSTANT
70-SE-01 SEARS, V.F.
HIGH-ENERGY NEUTRON SCATTERING FROM LIQUID HEA, II. INTERFERENCE AND TEMPERATURE EFFECTS
PHYS. REV. A, V.1, P.1699 (1970)
HE, THEORY/ LIQUID

70-SH-01 SHAPIRO, J.N.
LINDEMANN LAW AND LATTICE DYNAMICS
PHYS. REV. B, V.1, P.3982-P.3989 (1970)
THEORY-OF-SOLIDS, FREQUENCY DISTRIBUTION/ THEORY, LATTICE DYNAMICAL CALCULATION OF LINDEMANN LAW FOR MELTING POINT/ ALKALI METAL

70-SH-02 SHAPIRO, J.N./ KNOPOFF, L.
GREUNEISEN PARAMETER FOR BORN-VON KARMAN LATTICE
PHYS. REV. B, V.1, P.3990-P.3992 (1970)
THEORY-OF-SOLIDS, THEORY

70-SH-03 SHARAN, B./ BAJPAI, R.P.
LATTICE DYNAMICS OF HEXAGONAL METALS BASED ON A NEW ELECTRON-ION INTERACTION
BE/ MG/ TL, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION, HEXAGONAL METAL

70-SH-04 SHARAN, B./ BAJPAI, R.P.
LATTICE DYNAMICS OF SILVER BASED ON THE MODELS OF DAYAL AND SHARMA
AG, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATIONS/ SPECIFIC HEAT

70-SH-05 SHARAN, B./ BAJPAI, R.P.
LATTICE DYNAMICS OF ZIRCONIUM AND HAFNIUM
Zr/ Hf, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ DEBYE TEMPERATURE

70-SH-06 SHARAN, B./ BAJPAI, R.P.
LATTICE DYNAMICS OF HEXAGONAL-TRANSITION METAL BASED ON NEW ELECTRON FORCE MODEL
Y/ Ti, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ DEBYE TEMPERATURE

70-SH-07 SHIRANE, G./ AXE, J.D.
SOFT FERROELECTRIC MODES IN LEAD TITANATE
PHYS. REV. B, V.2, P.153 (1970)
PB-TiO3, EXPERIMENT/ DISPERSION RELATION/ FERROELECTRICITY

70-SH-08 SHIRANE, G./ AXE, J.D./ HARADA, J./ LINZ, A.
INELASTIC NEUTRON SCATTERING FROM SINGLE-DOMAIN BaTiO3
Ba-Ti-O3, EXPERIMENT/ LATTICE DYNAMICS

70-SH-09 SHIRANE, G./ MINKIEWICZ, V./ LINZ, A.
NEUTRON SCATTERING STUDY OF THE LATTICE DYNAMICAL PHASE TRANSITIONS IN K-MnF3
J. PHYS. SOCIETY OF JAPAN, V.8, P.1941 (1970)
K, Mn, F3, PHONON DISPERSION/ PHASE TRANSITION

70-SI-01 SIKLOSO, T.
THEORY OF ANHARMONIC CRYSTALS IN PSEUDOHARMONIC APPROXIMATION I. LINEAR CHAIN
J. PHYS. SOCIETY OF JAPAN, V.14, P.3590 (1970)
THEORY-OF-SOLIDS, THEORY, ANHARMONICITY, LINEAR CHAIN/ PSEUDOHARMONIC APPROXIMATION/ MORSE POTENTIAL

70-SI-02 SIKLOSO, T.
THEORY OF ANHARMONIC CRYSTALS IN PSEUDOHARMONIC APPROXIMATION II. THREE-DIMENSIONAL LATTICE
J. PHYS. SOCIETY OF JAPAN, V.14, P.3590 (1970)
THEORY-OF-SOLIDS, THEORY, SOLID, ANHARMONICITY, PSEUDOHARMONIC APPROXIMATION/ MORSE POTENTIAL

70-SI-03 SINGH, N./ JOSHI, S.K.
NONLOCAL PSEUDOPOTENTIAL FORMULATION FOR LATTICE DYNAMICS
PHYSICA, V.47, P.277 (1970)
THEORY-OF-SOLIDS, DISPERSION RELATION/ THEORY, SOLID/ LATTICE DYNAMICS/ PSEUDOPOTENTIAL/ METAL

70-SI-04 SINGH, S.N./ PRAKASH, S.
PHONON DISPERSION IN ALKALI METALS
PHYSICA, V.20, P.10 (1970)
LI/ RB/ K/ Cs, THEORY/ LATTICE DYNAMICS/ SOLID/ DISPERSION RELATION/ ALKALI METAL

70-SI-05 SINGH, R.K./ VERMA, M.P.
LATTICE DYNAMICS OF SODIUM HALIDES
PHYS. REV. B, V.2, P.4289 (1970)
NaF/ NaBr/ NaCl/ NaI, THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION, MODIFIED SHELL MODEL/ DEBYE TEMPERATURE

70-SI-06 SINGH, B.D./ DAYAL, B.
CRYSTAL VIBRATIONS OF SILICON BY THE USE OF VALENCE FORCE POTENTIALS
PHYS. REV. B, V.2, P.141P.149 (1970)
Si, THEORY/ PHONON DISPERSION/ SIX VALENCE FORCE MODEL
70-SI-07 SIMNA, S.X./ BRUN, T.G./ MUNSTEIN, L.D./ SAKURAI, J.
LATTICE DYNAMICS OF YTRIUM AT 295K
Y EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION
MODIFIED AXIALLY SYMMETRIC MODEL FITTING/ FREQUENCY DISTRIBUTION/ SPECIFIC HEAT/ DEBYE TEMPERATURE

70-SI-08 SIMNA, S.X./ BRUN, T.G./ MUNSTEIN, L.D./ SAKURAI, J.
LATTICE DYNAMICS OF YTRIUM AT 295K
Y EXPERIMENT/ LATTICE DYNAMICS/ AS-MODEL FITTING/ FREQUENCY SPECTRA/ SPECIFIC HEAT

70-SK-01 SKALYO-JR, J./ FRAZER, B.C./ SHIRANE, G.
FERROELECTRIC MODE MOTION IN K.D2.P.04
PHYS. REV. B, V.1, P.278-P.286 (1970)
K.H2.P.04 EXPERIMENT/ OVERDAMPED PHONON MODE/ K.D2.P.04

70-SI-01 SLAGGIE, E.L.
THERMAL EXPANSION AND PHONON FREQUENCY SHIFTS IN NONPHERMITIVE LATTICES
PHYS. REV. B, V.2, P.2230 (1970)
THEORY-OF-SOLIDS LATTICE DYNAMICS/ SOLID

70-SI-01 SMITH, H.G./ GLAESER, W.
PHONON SPECTRA IN TAC AND HFC
PHYS. REV. LETT., V.25, P.1611-P.1613 (1970)
TAC/ HFC EXPERIMENT/ DISPERSION RELATION

70-SI-01 SOLBICH, A.W.
VALENCE FORCE POTENTIALS FOR CALCULATING CRYSTAL VIBRATIONS IN SILICON
PHYS. REV. C, V.1, P.1624 (1970)
S1 THEORY/ SOLID/ DISPERSION RELATION/ LATTICE DYNAMICS/ FORCE CONSTANTS/ VALENCE FORCE

70-ST-01 STIRLING, G.C./ LUDMAN, C.J./ WADDINGTON, T.C.
INELASTIC NEUTRON SCATTERING SPECTRA AND RAMAN SPECTRA OF CS.H.CL2 AND CS.D.CL2
J. CHEM. PHYS., V.52, P.2730-P.2735 (1970)
CS.H.CL2 EXPERIMENT/ MOLECULAR DYNAMICS/ FREQUENCY SPECTRA COLD NEUTRON SOURCE

70-ST-02 STRONG, K.A./ BRUGGER, R.M./ PUGMIRE, R.J.
VIBRATIONAL MODES IN ETHYL CHLORIDE MEASURED BY NEUTRON SCATTERING
J. CHEM. PHYS., V.52, P.224 (1970)
ETHYL CHLORIDE EXPERIMENT/ FREQUENCY DISTRIBUTION/ LIQUID STATE

70-VA-01 TANK, K.
THEORY OF NEUTRON SCATTERING FROM LATTICE VIBRATIONS
PHYS. REV., V.29, P.894-P.905 (1970)
NEUTRON SCATTERING IN SOLIDS THEORY/ LATTICE VIBRATION THEORY/ GENERALIZED THEORY OF NEUTRON SCATTERING

70-VA-02 TAYLOR, P.L./ WU, S.Y.
DYNAMICS OF DISORDERED ALLOYS AND GLASSES
PHYS. REV., V.2, P.1732-P.1737 (1970)
THEORY-OF-SOLID GLASS DISORDERED LATTICE FREQUENCY SPECTRUM/ AMORPHOUS

70-TH-01 THAPA, C.L./ DAMANNACHARYA, B.A./ SEQUEIRA, A.I.
YENAGAR, P.K.
OBSERVATION OF LIBRATIONAL MODES OF WATER MOLECULES IN SINGLE CRYSTAL HYDRATES BY NEUTRON SCATTERING
SOLID STATE COMMUN., V.8, P.467-P.499 (1970)

70-UP-01 TONG, E./ RASHMI, C./ DESAI, C.
DENSITY FLUCUTATIONS IN SINGLE-COMPONENT FLUIDS
PHYS. REV., A, V.2, P.2129-P.2139 (1970)
THEORY-OF-FLUIDS GENERAL THEORY

70-UP-01 TROYLOR, J.G.
LATTICE DYNAMICS OF RUTILE
PHYS. LETT., V.11, P.109 (1970)
TA.02 EXPERIMENT/ DISPERSION RELATION RIGID ION MODE L SHELL MODEL FREQUENCY SPECTRUM DIETECTRIC CONSTANT

70-UP-01 UPADHYAYA, K.S./ SINGH, H.K.
DISPERSION PROPERTIES OF MANGANESE OXIDE
SOLID STATE COMMUN., V.11, P.109 (1970)
MN.O THEORY/ DISPERSION RELATIONS

70-VA-01 VADOVIC, C.J./ COLVER, C.P.
TEMPERATURE DEPENDENCE OF SELF-DIFFUSION IN LIQUID META LS
PHIL. MAG., V.21, P.971-P.976 (1970)
AG/ GA/ MG/ NA/ PB/ SN/ ZN THEORY SELF-DIFFUSION CONSTANT

70-VA-02 VAN-DUKE, C.
LATTICE DYNAMICS OF FE3=AL
FE=AL EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION CURVES BORN VON-KARMAN FIT 3RD NEIGHBOURS/ FE3=AL
70-VA-03 VAN-DIJK, C.
INVESTIGATION OF THE LATTICE DYNAMICS OF ALPHA-Fe AND F E3 AL BY NEUTRON INELASTIC SCATTERING
RCN-129 (1970)
FE/FE-AL/EXPERIMENT/ LATTICE DYNAMICS/ PHONON DISPERSION

70-VE-01 VENKATARAMAN, G./ SANNI, V.C.
EXTERNAL VIBRATIONS IN COMPLEX CRYSTALS
REV, MOD, PHYS, V.42, P.409-470 (1970)
THEORY-OF-SOLIDS/ REVIEW-ARTICLES/ FORMAL THEORY/ MOLECULAR CRYSTAL/ COMPLEX IONIC CRYSTAL

70-VE-02 VETELINO, J.F./ MITRA, S.S./ NAMJOSHI, K.V.
LATTICE DYNAMICS OF Zn,Te: PHONON DISPERSION: MULTIPHONON INFRARED SPECTRUM: MODE GRUNEISEN PARAMETERS: AND THERMAL EXPANSION
PHYS, REV, B, V.2, P.967 (1970)
Zn,Te/Dispersion relation/ Frequency spectrum/ Debye temperature/ Multi phonon/ Infrared spectrum/ Gruneisen constant/ Coefficient of thermal expansion/ Rigid ion model

70-VE-03 VETELINO, J.F./ MITRA, S.S./ NAMJOSHI, K.V.
LATTICE DYNAMICS/MODE GRUNEISEN PARAMETERS: AND COEFFICIENT OF THERMAL EXPANSION: OF Cs(Cl, Ce, Br AND Cs, I
PHYS, REV, B, V.2, P.2167-P.2175 (1970)
Cs,Cl/ Cs,Br/ Cs, I/ Theory/ Dispersion curves/ Rigid ion model/ Born-Mayer force/ Gruneisen constants

70-VI-01 V.JAYARAGHAVAN, P.R./ NICKLOW, R.M./ SMITH, H.G./ WILKINSON, M.K.
LATTICE DYNAMICS OF SILVER CHLORIDE
PHYS, REV, B, V.1, P.4419-P.4426 (1970)
Silver chloride/ Experiment/ Lattice dynamics/ TDD/ Dispersion curve/ Density spectrum

70-VA-01 WALLACE, D.C.
LATTICE DYNAMICAL CALCULATION OF SOME THERMODYNAMIC PROPERTIES FOR ALUMINUM
PHYS, REV, B, V.1, P.3963-P.3966 (1970)
Al/ Theory/ Local pseudopotential model

70-VA-02 WASEDA, Y./ SUZUKI, K.
TEMPERATURE DEPENDENCE OF THE STRUCTURE FACTOR OF LIQUID MERCURY
PHYS, LETT, V.31A, P.573 (1970)
Hg/ Experiment/ Liquid/ Structure factor/ Liquid metal

70-VA-03 WASEDA, Y./ SUZUKI, K./ TAMAKI, S./ TAKEUCHI, S.
NEUTRON DIFFRACTION STUDY OF NICKEL IN THE LIQUID STATE
Ni/ Experiment/ Liquid/ 1500DC/ Radial distribution function

70-WE-01 WEGENER, W./ HAUTECLER, S.
PHONON DISPERSION IN Zn,Te
Zn,Te/ Experiment/ TOF/ Dispersion relation

70-WE-02 WEGENER, W.
PHONON DISPERSION IN ZINC OXIDE
JUL-673 FF (1970)
ZnO/ Dispersion relation

70-WE-03 WERTHAMER, N.R.
SELF-CONSISTENT PHONON FORMULATION OF ANHARMONIC LATTICE DYNAMICS
PHYS, REV, B, V.1, P.572-P.581 (1970)
Theory-of-solids/ Lattice dynamics/ Anharmonics/ Pressure/ Elastic constant/ Specific heat

70-WE-04 WERTHAMER, N.R.
NEUTRON SCATTERING FROM PHONONS IN SOLID HELIUM
Hg/ Theory/ Solid/ Phonon relaxation

70-WE-05 WEYMOUTH, J.W./ STEDMAN, R.
FERMI SURFACE OF ALUMINUM FROM KISH ANOMALIES
PHYS, REV, B, V.2, P.4743-P.4751 (1970)
Al/ Experiment/ Lattice dynamics/ Fermi surface/ Kish anomalies

70-WL-01 WILSON, W.D./ JOHNSON, R.A.
NON-CENTRAL-FORCE MODEL OF LiH PHONON DISPERSION CURVE S AND H E MIGRATION
PHYS, REV, B, V.1, P.3510 (1970)
Li, H/ Theory/ Phonon dispersion

70-WO-01 WOODS, A.D./ BOWLEY, R.A.
LONG-WAVELENGTH PHONONS IN LIQUID HELIUM
PHYS, REV, LETT, V.24, P.646-P.647 (1970)
He/ Superfluid

70-ZA-01 ZANDELO, P./ ANDRIESSE, C.D./ BREGMAN, J.D./ HASM AN, A./ VAN-LOOFF, J.J.
TEMPERATURE DEPENDENCE OF THE ATOMIC SELF-MOTION IN LIQUID ARGON
PHYSICA, V.50, P.311 (1970)
Ar/ Experiment/ Liquid/ Velocity autocorrelation function/ Mean square atomic displacement/ Quasi-elastic neutron scattering/ Self-diffusion coefficient/ Modified Langevin model/ Stochastic model
70-ZE-01  ZEIN, N.E./ ZINKENKO, V.I./ SHNERD, V.E.
LATTICE DYNAMICS OF THE PHASE TRANSITIONS IN PEROVSKITE
-TYPE ANTIFERROELECTRICS
FIZ. TVERO. TELA (SOV. PHYS.-SOLID STATE), V.12 (V.
12), P. 2326 (P. 1859) (1971)
SH. TIL.03 PB.23,03 .THEORY/ LATTICE DYNAMICS/ FERROELE
CTRICITY/ PHASE TRANSITION
70-ZW-01  ZWANZIG, R./ BIXON, M.
HYDRODYNAMIC THEORY OF THE VELOCITY CORRELATION FUNCTIO
N
THEORY-OF-FLUIDS/ CORRELATION FUNCTION/ THEORY/ LIQUID
70-ZY-01  JAPAN ATOMIC ENERGY RESEARCH INSTITUTE
PROCEEDINGS OF THE THIRD CONFERENCE ON INELASTIC NEUTRON
SCATTERING TOKAI 1969
JAERI-1197 (1970)
REVIEW-ARTICLES/ DYNAMICS OF SPIN SYSTEM AND POLYMER
71-AL-01  ALMOWIST, L./ STEDMAN, R.
PHONONS IN ZINC AT 80 K
J. PHYS., F. LONDON, V.1, P. 785-P. 790 (1971)
ZINC/ EXPERIMENT/ PHONON DISPERSION/ 80 K
71-BA-01  BAJJAID, J.S./ CHATURVEDI, O.K.
CALCULATION OF THE INCOHERENT SCATTERING CROSS SECTION
SCK(OMEGA)-SELF IN NON GAUSSIAN APPROXIMATION FOR CLASS
ICAL LIQUIDS
J. PHYS., SOC. JAP., V.31, P. 437-P. 443 (1971)
NEUTRON-SCATTERING-IN-FLUIDS/ THEORY/ SCATTERING CROSS
SECTION/ CLASSICAL LIQUID/ NON GAUSSIAN
71-BA-02  BAJJER, A./ JANIK, J.A.
LATTICE VIBRATIONS IN CRYSTALS OF HYDROXYLS OF ALKALI E
ARTH
INP-7A2 (1971)
CALCIUM HYDROXIDE/ FREQUENCY DISTRIBUTION
71-BA-03  BAJPAI, R.P./ NEELAKANDAN, K.
PHONON DISPERSION IN SODIUM SOLID STATE COMMUN., V.9, P.167-P.168 (1971)
NE/ THEORY/ LATTICE DYNAMICS/ DISPERSION CURVE/ AXIALL
Y SYMMETRIC MODEL
71-BA-04  BAJPAI, R.P./ NEELAKANDAN, K.
PHONON DISPERSION IN COPPER PHYSICA, V.33, P. 628-P. 629 (1971)
CU/ THEORY/ DISPERSION CURVE/ MODIFIED AXIALLY SYMMETR
IC MODEL/ EFFECT OF CONDUCTION ELECTRON
71-BA-05  BANERJEE, R./ VARSHNI, Y.P.
LATTICE DYNAMICS AND THERMODYNAMIC PROPERTIES OF BETA-Z
N.G. GA,P AND BETA-SI,C
J. PHYS. SOC. JAP., V.30, P. 1015-P. 1021 (1971)
ZN.S/ GA.P/ SI.C/ THEORY/ PHONON DISPERSION/ FREQUENCY
SPECTRA/ DEBYE TEMPERATURE
71-BA-06  BARKER, J.A./ FISHER, R.A./ WATTS, R.D.
LIQUID ARGIN, MONTE CARLO AND MOLECULAR DYNAMICS CALCUL
ATIONS
MOL. PHYS., V.21, P. 657-P. 673 (1971)
THEORY-OF-FLUIDS/ AR/ COMPUTER-SIMULATION/ MONTE-CARLO
THREE-BODY-INTERACTION
71-BA-07  BARKER, J.A./ BOBETIC, M.V./ KLEIN, M.L.
LATTICE DYNAMICS OF SOLID KR
PHYS. LETT., A, V.34, P. 415-P. 416 (1971)
KR/ THEORY/ PHONON DISPERSION/ ELASTIC CONSTANT
71-BA-08  BATELDER, D.N./ HAYWOOD, B.C.G./ SAUNDERSON, D.H.
TEMPERATURE DEPENDENCE OF PHONON FREQUENCIES IN ARGON B
Y INELASTIC NEUTRON SCATTERING
ARGON/ EXPERIMENT/ PHONON DISPERSION/ 4 K-77 K
71-BA-09  BATELDER, D.N./ COLLINS, M.F./ HAYWOOD, B.C.G./ S
IDEY, G.R.
LATTICE DYNAMICS OF ARGON AT 4 DEGREES KELVIN
J. PHYS., C. LONDON, V.4, P. 249 (1971)
AR/ PHONON DISPERSION/ EXPERIMENT
71-BE-01  BEHARI, J./ THIPATHI, B.B.
LATTICE DYNAMICS OF SOLIDIFIED NEON
J. PHYS. SOC. JAP., V.31, P. 1639-P. 1641 (1971)
NE/ THEORY/ PHONON DISPERSION/ ELASTIC CONSTANT/ DEBYE
TEMP/ FREQUENCY SPECTRA
71-BE-02  BERGMANS, H./ S Afford, G.J./ LEUNG, P.S.
STUDY OF LOW-FREQUENCY MOTIONS OF EXTENDED CHAINS IN PO
LYETHYLENE BY NEUTRON INELASTIC SCATTERING
J. POLY SCI., PART A-2, V.9, P. 1219-P. 1234 (1971)
POLYETHYLENE/ EXPERIMENT/ FREQUENCY SPECTRA/ LOW-FREQU
J. CHEM. PHYS., V. 54, P. 703-P. 710 (1971)
THEORY-OF-SOLIDS THEORY-OF-MOLECULAR-DYNAMICS LINEAR-MOLECULE

71-CH-03 CHIMARA, J./ Sasaki, K./ Obata, Y.
EQUIVALENCE OF THREE KINETIC METHODS FOR CALCULATING THE
SPACE-TIME CORRELATION FUNCTION
J. PHYS. SOC. JAP., V. 31, P. 1323-P. 1328 (1971)
THEORY-OF-FLUIDS THEORY-SPACE-TIME CORRELATION FUNCTION/VLASOV-BOLTZMANN EQUATION

71-CH-04 CHOOUMG, S.L.
LATTICE DYNAMICS OF Ca2.UBr6 PHONONS (ED. BY NUSIMOVIC, M.A.); FLAMMARION SCIENCE, FRANCE, P. 69-P. 73 (1971)
CS2.UBr6 THEORY/ PHONON DISPERSION

71-CO-01 COUCH, J.G./ HARLING, D.K./ CLUNE, L.W.
STRUCTURE IN THE NEUTRON SCATTERING SPECTRA OF ZIRCONIUM HYDRIDE
PHYS. REV. A, V. 4, P. 2675 (1971)
ZrH EXPERIMENT/SOLID/ SIGMA(=E-PRIME+THETA)

71-CO-02 COWLEY, R.W./ WOODS, A.D.B.
INELASTIC SCATTERING OF THERMAL NEUTRONS FROM LIQUID MERCURY CAN, J. PHYS., V. 49, P. 177-P. 200 (1971)
HE EXPERIMENT/ LIQUID/ PHONON DISPERSION

71-CO-03 COWLEY, E.R.
LATTICE VIBRATIONS IN DEUTERATED AMMONIUM CHLORIDE AT 8 K
5 DX, II, THEORETICAL
PHYS. REV. B, V. 3, P. 2743 (1971)
AMMONIUM CHLORIDE THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS

71-CO-04 COX, D.E./ MINKIEWICZ, V.J.
CS2 EXPERIMENT/ SCATTERING AMPLITUDE

71-DA-01 DAY, D.M./ SINCLAIR, R.N.
STUDIES OF VIBRATION SPECTRA OF BOUND HYDROGEN ATOMS USING A PULSED NEUTRON SOURCE
AERE-R-6717 (1971)
ZnH2/ H2O/ H6.7N/ N6.7H2 EXPERIMENT/ TOF SPECTRA/ PULSED NEUTRON SOURCE

71-DA-02 DAY, D.M./ SINCLAIR, R.N.
STUDIES OF VIBRATION SPECTRA OF BONDED HYDROGEN ATOMS USING A PULSED NEUTRON SOURCE
J. CHEM. PHYS., V. 55, P. 2807-P. 2811 (1971)
ZnH2 HYDROGEN SODIAMIDE/ ANILINE EXPERIMENT/ MOLECULAR DYNAMICS/ LINAC PULSED NEUTRON SOURCE

71-DE-01 DEWEETT, F.W./ FOWLER, L.M.
LATTICE DYNAMICS: THERMAL EXPANSION AND SPECIFIC HEAT OF A LENNARD-JONES SOLID IN THE QUASI-HARMONIC APPROXIMATION
PHYSICA, V. 54, P. 292 (1971)
AN EXPERIMENT/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION FUNCTION/ THERMAL EXPANSION/ SPECIFIC HEAT

71-DE-02 DEMPSTER, A.B./ ZWIRI, G.
LATTICE DYNAMICS OF METHANOL HYDROGEN BONDING AND INFRARED ABSORPTION
J. CHEM. PHYS., V. 54, P. 3600 (1971)
METHANOL THEORY/ EXPERIMENT/ LATTICE DYNAMICS

71-DE-03 DENIZ, U.K./ JANNIK, G./ TAUPIN, D.
NEUTRON SCATTERING BY SMALL CHAINLIKE MOLECULES DISPERSED IN C52 J. CHEM. PHYS., V. 55, P. 2384-P. 2390 (1971)
ETHYL ETHER-CARBON DISULFIDE/ DIETHYL DIETHYLENE GLYCOL-CARBON DISULFIDE THEORY/ EXPERIMENT/ QUASI-ELASTIC PEAK KRIEGER, NELKIN MODEL CHAIN LIKE MOLECULE

71-DE-04 DESAI, R.C.
SINGLE-PARTICLE MOTION IN SIMPLE CLASSICAL LIQUIDS
THEORY-OF-FLUIDS THEORY/ CLASSICAL LIQUID/ SINGLE-PARTICLE MOTION

71-DE-05 DEVINE, S./ PECKHAM, G.
GROUP THEORETICAL SELECTION RULES FOR INELASTIC NEUTRON SCATTERING WITH APPLICATIONS TO L1, Ni, He
J. PHYS., C, LONDON, V. 4, P. 1091 (1971)
L1, Ni, He THEORY/ GROUP THEORY/ INELASTIC NEUTRON SCATTERING

71-DI-01 DIETERICH, W./ SCHUSTER, H.
THEORETICAL INTERPRETATION OF NEUTRON SCATTERING EXPERI- MENTS IN V3, S1
PHYS. LETT., A, V. 35, P. 48-P. 49 (1971)
V3, S1 THEORY/ PHONON DISPERSION/ SOFT PHONON

71-DO-01 DORNER, B./ EGGER, H.
ELASTIC CONSTANTS OF ARGON AT 4.2 K FROM PHONON MEASUREMENTS
PHYS. STATUS SOLIDI B, V. 43, P. 61-P. 617 (1971)
AR EXPERIMENT/ PHONON DISPERSION/ SOUND VELOCITY/ ELASTIC CONSTANT
71-DR-01 DREXEL, W.,
LATTICE DYNAMICS OF SILVER
KFX-1383 (1971)
AG **EXPERIMENT/ PHONON DISPERSION

71-DO-01 DJUBA, I.P./ KOCHMANSKY, V.Z.,
INELASTIC SCATTERING OF SLOW NEUTRONS IN IMPERFECT CHYS
TALS 1, COHERENT EFFECTS DUE TO THE LOCALIZED VIBRATION
S OF SUBSTITUTIONAL ATOMS
1TP-71-443P (1971)
NEUTRON-SCATTERING IN SOLIDS **THEORY/ LOCALIZED VIBRAT
ION/ NUMERICAL CALCULATION

71-EG-01 EGELESTAFF, P.A./ PAGE, D.I./ HEARD, C.R.T.,
EXPERIMENTAL STUDY OF THE TRIPLET CORRELATION FUNCTION
FOR SIMPLE LIQUIDS
J. PHYS. C: LONDON, V.4, P.1453-P.1465 (1971)
RB/ AR/ C,CL4 **EXPERIMENT/ TRIPLET CORRELATION FUNCTION
/ THEORY

71-EG-02 EGELESTAFF, P.A./ PAGE, D.I./ POWLES, J.G.,
ORIENTATIONAL CORRELATIONS IN MOLECULAR LIQUIDS BY NEUTR
ON SCATTERING, CARBON TETRACHLORIDE AND GERMANIUM TETR
BROMIDE
MOL. PHYS., V.20, P.881 (1971)
C,CL4/ GE,BR4 **EXPERIMENT/ MOLECULAR LIQUID DYNAMICS

71-EL-01 ELCOMBE, M.M./ PRYOR, A.W.,
THE LATTICE DYNAMICS OF CALCIUM FLUORIDE
J. PHYS. C: LONDON, V.4, P.492 (1971)
CA,F2 **EXPERIMENT/ PHONON DISPERSION

71-ER-01 ERNST, M./ SCHETLEN, J./ SCHMIDT, W.,
NEUTRON SMALL-ANGLE SCATTERING STUDY OF THE TRANSITION
FROM SINGE- TO MULTI-DOMAIN BEHAVIOUR IN PRECIPITATIONS
OF Cu-1 PERCENT Co
PHYS. STATUS SOLIDI A, V.7, P.477-P.483 (1971)
Cu,Cu/ MAGNETIC-SCATTERING/ SCATTERING-BY-DEFECTS **EXP
ERIMENT/ SMALL ANGLE SCATTERING/ PRECIPITATION/ Cu99=Cu
1

71-ER-02 ERNST, G.,
PRESSURE DEPENDENT FREQUENCY-SHIFT OF PHONONS IN SODIUM
MEASURED BY INELASTIC NEUTRON SCATTERING
ACTA PHYS. AUSTRI., V.33, P.27 (1971)
NA **EXPERIMENT/ PHONON FREQUENCY/ PRESSURE EFFECT

THE TEMPERATURE DEPENDENCE OF NEUTRON INELASTIC SCATTER
ING FROM WATER
NUCL. SCI. ENG., V.46, P.223-P.235 (1971)
H2O **EXPERIMENT/ DIFFERENTIAL CROSS SECTION/ 27, 170,
270C/ LINAC

71-FD-01 FELDKAMP, L.A./ STEINMAN, D.K./ VAGELATOS, N./ KIN
G, J.S./ VENKATARAMAN, G.,
LATTICE DYNAMICS OF CUBIC ZINC SULFIDE BY NEUTRON SCAT
TERING
J. PHYS. CHEM. SOLIDS, V.32, P.1573-P.1583 (1971)
ZNS **EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING

71-FI-01 FISHER, I.Z.,
THE HYDRODYNAMIC ASYMPTOTIC BEHAVIOR OF THE VELOCITY AO
TOCORRELATION FUNCTION FOR A MOLECULE IN A CLASSICAL FL
UID
ZH. EKSP. TEOR. FIZ. (sov. phys.-JETP), V.61 (V.34),
P.1647-P.1659 (P.878-P.884) (1971 (1972))
THEORY-OF-FLUIDS **VELOCITY CORRELATION

71-FR-01 FRIKKE, E.,
INTERACTION BETWEEN ELECTRON, MAGNONS AND PHONONS IN NI
CKEL
RCN-140 (1971)
NI **EXPERIMENT/ SOLID/ TOF/ DISPERSION RELATION **META
L

71-GH-01 GEORGHE, D./ RAPANU, S./ STEFAN, H.,
PROGRAM FOR COMPUTING THE SCATTERING CROSS-SECTION I
N HEAVY WATER
IFN-DNBK-3 (1971)
D2O **SCATTERING LAW/ COMPUTER CODE

71-GI-01 GILLESESEN, P./ BZONE, W.,
THEORY OF PHONON DAMPING IN SOLID HELIUM
Z. PHYS. V.292, P.250-P.261 (1971)
HE **EXPERIMENT/ PHONON DAMPING/ SOLID HE

71-GI-02 GILLIS, N.S.,
SOME ASPECTS OF COVALENT BONDING IN NA-CL STRUCTURE CRY
STALS, APPLICATION TO THE LATTICE DYNAMICS OF MgO
PHYS. REV. B, V.3, P.1482-P.1496 (1971)
MgO **THEORY/ LATTICE VIBRATION

71-GI-03 GILLIS, N.S./ KOELKER, T.R.,
ANHARMONIC INTERACTIONS IN ALUMINUM, 2.
PHYS. REV., V.3, P.3568 (1971)
AL **THEORY

71-GL-01 GLYDIS, H.R./ KHANNA, F.C.,
LATTICE DYNAMICS AND SHORT RANGE CORRELATIONS IN B.C.C.
HE (A=3)
CAN, J. PHYS. V.49, P.2999 (1971)
HE **THEORY
71-GO-01 Gobeau, J./ HEURTE, M.
CALCULATIONS OF PHONON DISPERSION CURVES ON CADMIUM FLUORIDE
PHONONS. (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENCE
& FRANCE. P.94-P.98 (1971)
CD,F2 THEORY/ PHONON DISPERSION/ PHONON SPECTRA

71-GO-02 Gotoh, Y./ TAKASHI, M.
SLOW-NEUTRON SCATTERING BY LIGHT AND HEAVY WATER
NUCL. SCI. ENG. V.45. P.126 (1971)
H2O/D2O FREQUENCY DISTRIBUTION/ SCATTERING LAW

71-GR-01 Greenfield, A.J./ Wiser, N.
THE LOW-ES REGION OF THE STRUCTURE FACTOR FOR LIQUID METALS
PHYS. LETT. A, V.34. P.123-P.124 (1971)
NA/ PB EXPERIMENT/ STRUCTURE FACTOR/ X-RAY DIFFRACTION

71-GU-01 Gupta, H.C./ Tripathi, B.B.
LATTICE DYNAMICS OF LITHIUM USING A PSEUDOPOTENTIAL APPROACH
LI THEORY/ PHONON DISPERSION/ ELASTIC CONSTANT/ COMPRESSION

71-GU-02 Gupta, R.K./ Gupta, N.P.
THE EFFECT OF ZERO-POINT ANHARMONICITY ON THE VIBRATIONAL PROPERTIES OF HEAVY RARE-GAS SOLIDS
AR/ KR/ XE THEORY/ PHONON DISPERSION AND SPECTRA/ ANHARMONIC POTENTIAL

71-GU-03 Gupta, H.C./ Tripathi, B.B.
LATTICE DYNAMICS OF LEAD: A PSEUDOPOTENTIAL APPROACH
PHYS. STATUS SOLIDI B. V.45. P.537-P.541 (1971)
PB THEORY/ PHONON DISPERSION/ ELASTIC PROPERTIES/ PSEUDOPOTENTIAL

71-GU-04 Gupta, H.C./ Tripathi, B.B.
LATTICE DYNAMICS OF LEAD: AN ELASTIC FORCE MODEL APPROACH
PHYS. STATUS SOLIDI B. V.45. P.235-P.239 (1971)
PB THEORY/ PHONON DISPERSION

71-HA-01 Hall, C./ Matte, J.A.D.
THE EFFECT OF PHONON VIBRATIONS ON ORDER- DISORDER TRANSFORMATIONS IN BINARY ALLOYS
PHONONS, (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENCE. FRANCE. P.304-P.307 (1971)
THEORY-OF-SOLIDS/ LATTICE VIBRATIONS/ ORDER- DISORDER TRANSFORMATION/ BINARY ALLOY

71-HA-02 Hama, J./ Nakamura, T.
ROTATIONAL CORRELATION FUNCTION OF SPHERICAL ROTORS AND NEUTRON SCATTERING
PHYS. THEOR. PHYSICS. KYOTO. V.46. P.1666-P.1689 (1971)
NEUTRON-SCATTERING-IN-FLUIDS/ METHANE/ THEORY/ MOLECULAR DYNAMICS/ ROTATIONAL CORRELATION/ CROSS SECTION

71-HA-03 HANKE, W.
MODIFIED SHELL MODEL TREATMENT OF PHONONS IN NOBLE AND TRANSITION METALS
PHONONS, (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENCE. FRANCE. P.294-P.298 (1971)
NI/ Pt THEORY/ METAL/ MODIFIED SHELL MODEL

71-HA-04 Harada, J./ Axe, J.D./ Shirane, G.
NEUTRON SCATTERING STUDY OF SOFT MODES IN CUBIC Ba,TiO3
PHYS. REV. A. V.4. P.153 (1971)
Ba,TiO3 EXPERIMENT/ DISPERSION RELATION/ SOFT OPTIC PHONON/ TEMPERATURE CHANGE/ MODE INTERACTION/ COUPLED PHONON MODEL

71-HA-05 Harling, O.K.
HIGH-ENERGY NEUTRON SCATTERING MEASUREMENTS ON LIQUID HELIUM AND BOSE CONDENSATION IN HE II
HE THEORY/ DYNAMICS OF LIQUID

71-HA-06 Harryman, M.B./ Grant, P.A./ Miller, J.W.
DENSITY OF STATES MEASUREMENTS FOR PHONONS IN AROMATIC CRYSTALS
PHONONS, (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENCE. FRANCE. P.209-P.222 (1971)
REVIEW/ ARTICLES/ DENSITY OF STATES/ PHONON/ AROMATIC CRYSTAL

71-HA-07 Haywood, B.C./ Collins, M.F.
OPTICAL PHONONS IN Mn-O
Mn-O EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING

71-HE-01 Henning, B./ Moussa, F./ Pepp, K./ Kunc, K.
NORMAL MODES OF VIBRATIONS IN Zn-Se
Zn-Se EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ PHONON DENSITY

JABRI-M 6857

EY, H.A./ HUTCHINGS, M.T./
EXCITATIONS IN K,CO,F3 =1, EXPERIMENTAL
J. PHYS., C: LONDON, V.4, P.2127-P.2138 (1971)
K,CO,F3 , EXPERIMENT/ PHONON DISPERSION/ MAGNENON DISPERS

71-HO-02 HOUK, T.L./ SHAMBRON, D./ WILSON, R.
CROSS SECTION OF SLOW NEUTRONS ON PARAHYDROGEN
PHYS. REV. LETT., V.26, P.1581-P.1585 (1971)
H , EXPERIMENT/ PARAHYDROGEN/ SCATTERING LENGTH

71-HU-01 HUELLER, A.
MANI BODY FORCES AND ELASTIC CONSTANTS OF RARE GAS CRYSTALS
JUL-754-FF (1971)
THEORY-OF-SOLIDS/ ARGON/ KRYPTON/ XENON, CAUCHY-RELATION

71-IS-01 IISHIBASHI, Y./ TAKAGI, Y.
FORCE CONSTANTS IN Ba,Ti,03 AND Sr,Ti,03
J. PHYS. SOC. JAP., V.31, P.1712-P.1718 (1971)
BA,TI,03, SR,TI,03, THEORY/ CALCULATION/ FORCE CONSTANTS
ANALYSIS

71-JA-01 JAIN, S.C./ BHANDARI, R.C.
MEMORY EFFECTS AND DYNAMICAL CORRELATIONS IN LIQUID ARGON
AND SODIUM
PHYSICA, V.52, P.393-P.409 (1971)
AR/ NA, THEORY/ MEMORY FUNCTION/ LIQUID DYNAMICS

71-JA-02 JAIN, J.M./ JANIK, J.A./ PYTASZ, G./ WISLUTINSKI, I.
TORSIONAL VIBRATIONS OF H2,0 MOLECULES IN CRYSTALINE L
12,5-Si,04(H2,0)
PHYS. STATUS SOLIDI, V.64, P.697 (1971)
L12,5-Si,04(H2,0), INELASTIC SCATTERING SPECTRUM/ H2,0 IN CRYSTAL

71-JE-01 JEX, H.
LATTICE DYNAMICS OF N2,0, CL
PHYS. LETT., A, V.34, P.118-P.119 (1971)
N2,0, CL, THEORY/ DISPERSION RELATION

71-JE-02 JEX, H.
LATTICE DYNAMICS OF N2,0, CL AND N2,0, CL
SOLID STATE COMMUN., V.9, P.2057 (1971)
N2,0, CL, THEORY/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION FUNCTION

71-JE-03 JEX, H.
ANHARMONIC INTERACTIONS IN DIAMOND-TYPE CRYSTALS
PHYS. STATUS SOLIDI B, V.45, P.343-P.355 (1971)

DIAMOND/ Ge/ Si, THEORY/ PHONON DISPERSION/ THERMAL PROPERTIE

71-KA-01 KATYAR, R.S.
LATTICE DYNAMICS OF RUTILE USING SHELL MODEL
PHONONS, (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCI ENCE, FRANCE, P.84-P.88 (1971)
Tl,02, EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ SHELL MODEL

71-KA-02 KATYAR, R.S./ DAWSON, P./ HARGREAVE, M.M./ WILKINSON, G.R.
DYNAMICS OF RUTILE STRUCTURE III
J. PHYS. C: LONDON, V.4, P.2421-P.2431 (1971)
Sn,Tl,02, EXPERIMENT/ INFRARED/ RAMAN/ OPTICAL FREQUENCY/
DIELECTRIC CONSTANT/ THEORY/ DISPERSION CURVE

71-KI-01 KIM, K./ NELKIN, M.
SELF-DIFFUSION MODEL FOR MEMORY FUNCTION IN CLASSICAL FLUIDS
PHYS. REV. A, V.4, P.2063-P.2075 (1971)
NEUTRON-SCATTERING-1N-FLUIDS, MORI-METHOD

71-KI-02 KING, III, W.F./ CUTLER, P.H.
LATTICE DYNAMICS OF MAGNESIUM FROM A FIRST-PRINCIPLES LOCAL
PEEDED POTENTIAL APPROACH
PHYS. REV. B, V.3, P.2465 (1971)
MG, THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSII RELATION
N, METAL/ PSEUDOPOTENTIAL

71-KI-03 KISTNER, G./ RUBIN, R./ SOSNOWSKA, I.
ANISOTROPIC DIFFUSION OF HYDROGEN IN NIQUOBN SINGLE CRYSTALS
PHYS. REV. LETT., V.27, P.1576 (1971)
NBI-H, HYDROGEN DIFFUSION

LATTICE DYNAMICS OF FCC ARGON WITH THREE-BODY FORCE
THEORY-OF-SOLID/ AR, 4DK/ 4DK/ 7DK

71-KL-02 KLEIN, M.
THEORY OF THE PHONON SPECTRUM OF THE BETA-TUNGSTEN COMPOUNDS
PHONONS, (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE, P.299-P.303 (1971)
THEORY-OF-SOLID, THEORY/ PHONON SPECTRUM/ BETA-TUNGSTEN COMPOUNDS

71-KO-01 KONTI, A.
LATTICE DYNAMICS AND THERMODYNAMIC PROPERTIES OF PLATINUM

- 227 -
PT THEORY/ANGULAR FORCE MODEL/DISPERSION CURVE/FREQUENCY SPECTRA/DEBYE-WALLER FACTOR/DEBYE TEMP.

KORUSNIKAI; M.I.; GENKIN; Y.E.; MARKOVIN, V.I.; ZAVODNIKAI; V.G.; SATSU; V.V.
DISTRIBUTION RELATIONSHIP FOR THE PHONON SPECTRUM OF NIOBIUM IN THREE HIGH SYMMETRY DIRECTIONS
FIZ. TVERD. TELA (SOV. PHYS.-SOIL STATE); V.13, P.2138-P,2140 (1.173-P.1793) (1971) (1977)
DB THEORY/PHONON DISPERSION/PSEUDOPOTENTIAL.

KUNC, K.; BALKANSKI, M.; NUSIMOVICI, M.A.
DEFORMABLE BOND MODEL AND IONICITY OF ZINC-BLENDE STRUCTURE
PHONONS (ED. BY NUSIMOVICI, M.A.); FLAMMARION SCI. ENCE, FRANCE; P.109-P.114 (1971)
ZN.BE; THEORY/PHONON DISPERSION/ELASTIC CONSTANTS/DEFORMABLE BOND MODEL

KUSHWAHA, S.S.
THEORETICAL FORMULATION FOR THE LATTICE DYNAMICS OF H.C.
BE/TL NON-CENTRAL FORCE MODEL

KUSHWAHA, S.S.; RAJPUT, J.S.
LATTICE VIBRATIONS OF ZINC PHONONS (ED. BY NUSIMOVICI, M.A.); FLAMMARION SCI.
ENCE, FRANCE; P.290-P,293 (1971)
ZN THEORY/PHONON DISPERSION/HEXAGONAL METAL

KUSHWAHA, S.S.; SINGH, O.N.
LATTICE VIBRATIONS FOR BODY CENTERED CUBIC METALS PHONONS (ED. BY NUSIMOVICI, M.A.); FLAMMARION SCI.
ENCE, FRANCE; P.287-P,293 (1971)
THEORY-OF-SOLIDS/CS THEORY/PHONON DISPERSION

KUSHWAHA, S.S.; RAJPUT, J.S.
PHONON DISPERSION RELATIONS FOR THALLIUM J.
PHYS.; F. LONDON, V.11, P.377-P,381 (1971)
TL CALCULATION/KEB MODEL/PHONON DISPERSION/DEBYE TEMP.

LARSSON, K.E.
ROTATIONAL MOLECULAR MOTION AND THE TRANSIENT NATURE OF LIQUIDS AS SEEN BY SLOW-NEUTRON SCATTERING
NEUTRON-SCATTERING-IN-FLUIDS/RUSI-ELASTIC-PeAK-THEORY/UNCORRELATED TRANSLATIONAL AND ROTATIONAL MOTION

LEIGH, R.S.; SZIGETI, B.; TNEYRA; V.K.
FORCE CONSTANTS AND LATTICE FREQUENCIES
THEORY-OF-SOLIDS/THEORY/FORCE CONSTANT/PHONON FREQUENCY

LENK, R.; SOLBROK, M.
MULTIPLE SCATTERING OF THERMAL NEUTRONS BY A PERFECT CRYSTAL 1 GENERAL FOUNDATION
NEUTRON-SCATTERING-IN-SOLIDS/THEORY/MULTIPLE SCATTERING/PERFECT CRYSTAL

LOGAN, K.W.; TREVINO, S.F.; CASELLA, R.C.; SHAW, W.M.; MUHLESTEIN, L.D.,
THE LATTICE DYNAMICS OF NA.N.03 PHONONS (ED. BY NUSIMOVICI, M.A.); FLAMMARION SCI.
ENCE, FRANCE; P.104-P,108 (1971)
NA.N.03 EXPERIMENT/PHONON DISPERSION

LOVESEY, S.W.
DENSITY FLUCTUATIONS IN CLASSICAL MONOMERIC LIQUIDS
THEORY-OF-FLUIDS/AR TRIPLE-PEAK-STRUCTURE

LOVESEY, S.W.
DENSITY FLUCTUATIONS IN CLASSICAL MONOMERIC LIQUIDS
PHYS. LETT., A, V.36, P.413-P,414 (1971)
THEORY-OF-FLUIDS/LIQUID DENSITY FUNCTION

LURIE, N.A.; CARPENTER, J.M.
LOW-ENERGY NEUTRON SCATTERING FROM HYDROGEN CHLORIDE
H.CH EXPERIMENT/THEORY/GAS-STATE/SCATTERING SIGMA

LURIE, N.A.; DANNER, H.R.
ON THE VIBRATIONAL SPECTRA OF CARBOXYLIC ACIDS BY NEUTRON SPECTROSCOPY
CARBOXYLIC ACID/VIBRATIONAL SPECTRA/LIQUID DYNAMICS/DISPERSION RELATION

MAELAND, A.J.; HOLMES, D.E.
INELASTIC NEUTRON SCATTERING FROM LANTHANUM DIHYDRADE AND LANTHANUM TRHYDRADE
LANTHANUM HYDRADE EXPERIMENT/FREQUENCY SPECTRA

MAELAND, A.J.; HOLMES, D.E.
INELASTIC NEUTRON SCATTERING SPECTRA FROM LANTHANUM DlHYDRADE AND LANTHANUM TRHYDRADE
LA-H . . . INELASTIC SCATTERING SPECTRA

71-MA-03 MAHLER, G./ SCHROEDER, U.
LATTICE DYNAMICS OF CESIUM HALIDES
PHONONS. (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENT.
E. FRANCE. p.89-P.93 (1971)
CS.BR/ CS.CL . . . THEORY/ PHONON DISPERSION

71-MA-04 MAIR, S.L./ BARNEA, Z.
NEUTRON DIFFRACTION STUDY OF ANHARMONIC VIBRATIONAL EFFEC
TS IN STRONTIUM FLUORIDE
PHYS. LETT. 9 v.39A: p.286 (1971)
SH.F2 . . . ANHARMONIC EFFECT

71-MA-05 MALIŻEWSKI, E.F./ SOSNOWSKI, J./ CZACHOR, A.
LATTICE DYNAMICS OF THE PD-1 PERCENT FE ALLOY
PD-FE . . . EXPERIMENT/ PHONON DISPERSION/ FORCE CONSTANT ANALYSIS

71-MA-06 MARSHALL, W./ LOVESEY, S.W.
THEORY OF THERMAL NEUTRON SCATTERING
OXFORD AT THE CLARENDON PRESS (1971)
SCATTERING-THEORIES . . . THEORY/ CORRELATION FUNCTION/ PHONON MAGNETIC/ SPIN WAVE/ LIQUID/ GAS/ CRITICAL/ DIFFUS E/ DEFECT

71-MA-07 MCKENZIE, D.R./ PHYOR, A.W.
LATTICE DYNAMICS OF UREA
J. PHYS. C. LONDON v.4: p.2304-P.2312 (1971)
UREA . . . THEORY/ PHONON DISPERSION

71-MA-08 MCMULLAN, J.T./ HOGAN, J.N.
COMMENT ON THE LATTICE DYNAMICS OF HEXAMETHYLENETETRAMINE
J. CHEM. PHYS. v.10: p.5142-P.5144 (1971)
HEXAMETHYLENETETRAMINE . . . THEORY/ LATTICE DYNAMICS/ DISPERSION CURVE/ SOLID/ MOLECULAR CRYSTAL

71-MA-09 MILLER, A.P./ BROCKHOUSE, B.N.
CRYSTAL DYNAMICS AND ELECTRONIC SPECIFIC HEATS OF PALLAD DIUM AND COPPER
PD/ CU . . . EXPERIMENT/ CALCULATION/ NEUTRON SCATTERING/ DISPERSION CURVE/ FREQUENCY SPECTRUM/ TEMPERATURE DEPEND ENCE/ SPECIFIC HEAT/

71-MA-10 MILLINGTON, A.J./ SQUIRES, G.L.
MEASUREMENTS OF THE FREQUENCIES OF THE NORMAL MODES IN SODIUM
J. PHYS. F. LONDON v.1: p.345 (1971)
NA . . . EXPERIMENT/ PHONON DISPERSION

71-MO-01 MOSCINSKI, J./ NAWALANY, M.
MONTE CARLO RADIAL DISTRIBUTION FUNCTIONS FOR A HARD SPHERE MODEL OF LIQUID CU
PHYS. LETT. A v.37: p.57-P.58 (1971)
THEORY/OF FLUIDS/ CU

71-MU-01 MUJTIZININ, I.A.
LATTICE VIBRATIONS WITH A RANDOM DISTRIBUTION OF INTERS TITAL IMPURITIES
THEORY/OF SOLIDS/ NEUTRON SCATTERING-INSOLIDS . . . THEORY/ INTERSTITIAL IMPURITIES/ TWO-TIME GREEN FUNCTION

71-MU-02 NUSIMOVICI, M.A.
PHONONS
FLAMMARION SCIENCE, PARIS (1971)
REVIEW-ARTICLES . . . PROCEEDING OF THE INTERNATIONAL CONFERENCE ON THEORETICAL PHYSICS, RENNES, FRANCE, 1971

71-NA-01 NAKAHARA, Y.
THERMAL NEUTRON SCATTERING FROM SIMPLE LIQUID METALS
NEUTRON-SCATTERING/IN-FLUIDS/ NA . . . THEORY/ SCATTERING S IGMA/ LIQUID METAL

71-NA-02 NAMJOSHI, K.V./ MITRA, S.S./ VETELINO, J.F.
RIGID ION MODEL OF LATTICE DYNAMICS - A RE-EVALUATION
SOLID STATE COMMUN., v.9: p.185-P.189 (1971)
THEORY/OF SOLIDS/ NA/ NA/ CL . . . LATTICE DYNAMICS/ DISPERSION RELATION/ RIGID ION MODEL USING AN EFFECTIVE IONIC CHARGE

71-NA-03 NAMJOSHI, K.V./ MITRA, S.S.
AN ALL PURPOSE LATTICE DYNAMICAL MODEL FOR ALKALI HALID ES, THE BREATHING SHELL MODEL
PHONONS. (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENT. E. FRANCE. P.79-P.83 (1971)
NA/BR . . . THEORY/ PHONON DISPERSION/ BREATHING SHELL MODEL

71-NI-01 NICKLOW, R.M./ WAKABAYASHI, N./ VIJAYARAGHAVAN, P.
LATTICE DYNAMICS OF HOLMIIUM
PHYS. REV. B v.3: p.1229-P.1234 (1971)
HO . . . EXPERIMENT/ PHONON DISPERSION CURVES/ FREQUENCY DISTRIBUTION/ SPECIFIC HEAT/ DEBYE TEMP./ ROOM TEMP.

71-NI-02 NIELSEN, M./ MOLLER, H.B.
LATTICE DYNAMICS OF SOLID DEUTERIUM BY INELASTIC NEUTRO
N SCATTERING
PHYS. REV., B, V, 3, P, 4383-4385 (1971)
D EXPERIMENT/ LATICE DYNAMICS/ 5DK/ DISPERSION RELATION
71-NI-03 NIELSEN, M./ MOELLER, H.B.
LATTICE DYNAMICS OF SOLID DEUTERIUM BY INELASTIC NEUTRON SCATTERING
PHYS. REV., B, V, 3, P, 4383-4385 (1971)
DEUTERIUM EXPERIMENT/ ORTHO-DEUTERIUM/ PHONON DISPERSION/ SOLID AT 5DK/ ELASTIC CONSTANT/ PHONON DENSITY
71-NI-04 NIKULIN, V.K./ TSAREV, V.N.
AB INITIO PSEUDOPOTENTIAL CALCULATION OF PHONON FREQUENCIES IN SILVER
PHYS. LETT., A, V, 36, P, 337 (1971)
AG CALCULATION/ PHONON FREQUENCY
71-NI-05 NILSSON, G./ NELIN, G.
PHONON DISPERSION RELATIONS IN GE AT 800K
PHYS. REV., B, V, 3, P, 364-369 (1971)
GE EXPERIMENT/ DISPERSION CURVE/ LATTICE DYNAMICS/ 80 DK/ LINE WIDTH
71-NI-06 NISHIGORI, T./ SEKIYA, T.
SLOW NEUTRON SCATTERING AND CLASSICAL MEAN-SQUARE DISPLACEMENT FUNCTIONS OF ATOMS
J. NUCL. SCI. TECHNOL., TOKYO, V, 8, P, 406-407 (1971)
NEUTRON-SCATTERING-IN-MATTER THEORETICAL SCATTERING SIGMA/ MEAN-SQUARE DisPLACEMENT
71-NI-07 NISHIGORI, T./ SEKIYA, T.
PHONON-TYPE EXPANSION FOR SLOW NEUTRON SCATTERING
J. NUCL. SCI. TECHNOL., TOKYO, V, 8, P, 319-326 (1971)
NEUTRON-SCATTERING-IN-MATTER THEORETICAL SCATTERING SIGMA/ GAS
71-NO-01 NOTTING, W.
SIMPLE MODEL FOR MONATOMATIC CLASSICAL LIQUIDS
J. PHYS., V, 242, P, 199-209 (1971)
THEORY-OF-FLUIDS/ ALL/ AR THEORETICAL VAN-MOVE-CORRELATION FUNCTION
71-NO-02 NOGANDA, J.
DETERMINATION OF QUADRUPOLAR COUPLING CONSTANT BY NEUTRON SCATTERING IN SOLID H2
SOLID STATE COMMUN., V, 9, P, 1809 (1971)
H2 THEORY/ SOLID
71-O-01 O'REILLY, D.E.
VELOCITY AUTOCORRELATION FUNCTION AND SELF-DIFFUSION IN LIQUIDS
J. CHEM. PHYS., V, 28, P, 1076-1084 (1971)
THEORY-OF-FLUIDS VELOCITY-AUTOCORRELATION SELF-DIFFUSION QUASI-LATTICE MODEL
71-OY-01 OTNES, K./ RISTE, T./ SHIRANE, G./ FEDER, J.
TEMPERATURE DEPENDENCE OF THE SOFT MODES IN SR.TI.03 ABOVE THE 105 K TRANSITION
SOLID STATE COMMUN., V, 9, P, 1103-1106 (1971)
SR.TI.03 EXPERIMENT/ SOFT PHONON CURVE-WEISS LAW/ PHASE TRANSITION
71-PA-01 PAGE, D.L./ POWLES, J.G.
THE CORRELATION OF MOLECULAR ORIENTATION IN LIQUID WATER BY NEUTRON AND X-RAY SCATTERING
MOL. PHYS., V, 11, P, 129-129 (1971)
D2O THEORETICAL SCATTERING/ X-RAY/ STRUCTURE FACTOR/ MOLECULAR ORIENTATION
71-PA-02 PAL, S.
LATTICE VIBRATIONS IN PALLADIUM
J. PHYS., V, 11, P, 392 (1971)
PD EXPERIMENT/ PHONON DISPERSION/ PHONON DENSITY/ BYE TEMPERATURE
71-PA-03 PAVLAA, G.S./ REYNOLDS, P.A./ KJEMS, J.K./ WHITE, J.W.
A MODEL CALCULATION OF THE INELASTIC NEUTRON SCATTERING SPECTRA FROM POLYCRYSTALLINE NAPHTALENE
SOLID STATE COMMUN., V, 9, P, 153 (1971)
NAPHTALENE THEORY/ POLYCRYSTALLINE LATTICE DYNAMICS
71-PA-04 PAWLEY, G.S./ RINALDI, R.P./ WINSTON, G.G.
THE LATTICE DYNAMICS OF ORTHORHOMBIC SULPHUR PHONONS (ED. BY NUSIMOVICH, M.A.), FLAMMARION SCIENCE, FRANCE, P, 223-227 (1971)
S THEORETICAL EXPERIMENT/ PHONON DISPERSION
71-PI-01 PICK, R.M.
MICROSCOPIC THEORY AND SHELL MODEL IN INSULATORS PHONONS (ED. BY NUSIMOVICH, M.A.), FLAMMARION SCIENCE, FRANCE, P, 20-23 (1971)
THEORY-OF-SOLIDS LATTICE DYNAMICS/ MICROSCOPIC THEORY SHELL MODEL/ INSULATORS
71-PL-01 PLAIDA, N.M.
NEUTRON SCATTERING BY HIGHLY ANHARMONIC CRYSTALS (IN RUSSIAN)
JINR-P-46066 (1971)
NEUTRON-SCATTERING IN SOLIDS THEORETICAL SOLIDS/ LATTICE DYNAMICS/ ANHARMONICITY SCATTERING LAW

- 230 -
71-PL-02 PLAKIDA, N.M.,
PHONONS IN ANHARMONIC METALS
THEORY-OF-SOLIDS THEORY/ ANHARMONIC METAL/ PHONON SPECTRUM

71-PL-03 P. LIHALS, M./ SCHACK, G.
PHONON DISPERSION IN CRYSTALS OF CALCITE STRUCTURE
PHONONS, (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE, P. 74-P. 78 (1971)
CA.C.03 THEORY/ PHONON DISPERSION/ SHELL MODEL

71-PR-01 PRAKASH, S./ JOSHI, S.K.
LATTICE DYNAMICS OF TRANSITION METALS-APPLICATION TO PA RAMAGNETIC NICKEL
PHYS. REV. B, v. 4, p. 1770-P.1778 (1971)
NI THEORY/ DISPERSSION CURVE/ TWO-BAND MODEL/ HARTREE APPROXIMATION

71-PR-02 PRESS, W./ DORNER, B./ STILLER, H.
THE ELASTIC CONSTANTS OF SOLID C6D4-1 FROM NEUTRON MEASUREMENTS
SOLID STATE COMMUN., v. 9, p. 1113-P.1113 (1971)
C,H4 EXPERIMENT/ SOLID C6D4/ PHONON DISPERSION

71-PR-03 PRESS, W.
NEUTRON SCATTERING EXPERIMENTS ON SOLID C6D4
JUR-738-FF (1971)
C,H4 EXPERIMENT/ SOLIDS/ LATTICE DYNAMICS/ DISPERSION RELATION/ MOLECULAR VIBRATIONS

71-PR-04 PRICE, D.L./ ROKE, J.M./ NICKLOW, R.M.
LATTICE DYNAMICS OF GREY TIN AND INDIUM ANTIMONIDE
Sn IN,SB EXPERIMENT/ PHONON DISPERSION CURVE, 90K FOR Sn IN,SB
700K FOR IN,SB

71-PR-05 PRICE, D.L./ ROKE, J.M.
LATTICE DYNAMICS OF GREY TIN AND INDIUM ANTIMONIDE
Sn IN,SB EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL CALCULATION

71-PR-06 PRUEIT, M.L.
COMPUTER SIMULATION OF MOLECULAR DYNAMICS
LA-4696 (1971)
THEORY-OF-FLUIDS/ HYDRODYNAMICS

71-RA-01 RAHMAN, A./ STILLINGER, F.H.
MOLECULAR DYNAMICS STUDY OF LIQUID WATER
H2O ,COMPUTER SIMULATION/ CORRELATION FUNCTION/ SELF-DIFFUSION/ FREQUENCY SPECTRA

71-RA-02 RAICH, J.C./ ETTERS, R.D.
SOFT MODES IN MOLECULAR CRYSTALS
THEORY-OF-SOLIDS THEORY/ FREQUENCY DISTRIBUTION FUNCTION ORIENTATIONAL ORDER DISORDER TRANSITION

71-RA-03 RAO, K.R./ DASAUNACHarya, B.A./ YIP, S.
MULTIPLE SCATTERINGS IN LIQUID METHANE
METHANE MULTIPLE SCATTERING/ CALCULATION/ CORRECTION

71-RA-04 RAO, K.R./ TREVINO, S.F./ PRASK, H./ MICAL, R.D.
LATTICE DYNAMICS OF K.3
K,N3 EXPERIMENT/ PHONON DISPERSION/ RIGID-ION MODEL FITTING

71-RA-05 RAO, K.R./ TREVINO, S.F./ PRASK, H.
LATTICE DYNAMICS OF K.3
K,N3 EXPERIMENT/ PHONON DISPERSION/ RIGID-ION MODEL CALCULATION

PHONON DISPERSION RELATIONS FOR HCP HE-4 AT A MOLAR VOLUME OF 166 C
HE4 EXPERIMENT/ PHONON DISPERSION/ 4.2K/ PHONON DENSITY

71-RE-02 RENKAR, B.
LATTICE DYNAMICS OF D2O - ICE 1H
PHONONS, (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE, P.167-P.170 (1971)
D2O EXPERIMENT/ ICE/ HEXAGONAL/ PHONON DISPERSION

71-RE-03 RENKAR, B.
GITTERDYNAMIK VON D2O-EIS 1H
K.E=1497 (1971)
D2O LATTICE DYNAMICS/ SOLID/ THEORY/ EXPERIMENT/ BOR N-VIDAR KARMAN MODEL DISPERSSION RELATION/ FREQUENCY DISTURBATION/ ICE

71-RI-01 RISTE, T./ SAMUELS/A, E.J./ OTHNES, K./ FEDER, J.
CRITICAL BEHAVIOUR OF SR.TT.03 NEAR THE 105 K PHASE TRANSITION
SOLID STATE COMMUN., v. 9, p. 1455-P.1458 (1971)
SR.TT.03 PHASE TRANSITION/ CRITICAL SCATTERING/ SOFT
PHONON/ CENTRAL PEAK

71-RO-01 ROLANDSON, S./ RAUNIG, G.
LATTICE DYNAMICS OF CS,Br
AE-435 (1971)
CS,Br . EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING/ PHONON DENSITY

71-RO-02 ROLANDSON, S./ RAUNIG, G.
LATTICE DYNAMICS OF Rb,Br
J. PHYS., 4, LONDON, V.4, P.958-P.965 (1971)
Rb,Br . EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING/ ELASTIC CONSTANT/ DIELECTRIC CONSTANT/ FREQUENCY SPECTRA

71-RO-03 ROLANDSON, S./ RAUNIG, G.
LATTICE DYNAMICS OF Cs,Br
PHYS. REV. B, V.4, P.4617-P.4623 (1971)
Cs,Br . EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING/ PHONON DENSITY/ DEBYE-TEMP.

71-RO-04 ROSCIEZWSKI, K.
INCOHERENT CROSS-SECTION FOR NEUTRON QUASIELASTIC SCATTERING IN A LIQUID CRYSTAL
INP-776/PS (1971)
NEUTRON-SCATTERING IN FLUIDS . THEOLOGY/ INCOHERENT/ QUASIELASTIC/ CRYSTAL

71-RO-05 ROELE, J.M./ SKOELDE, K./ FLOTOW, H.E./ RUSH, J.J.
QUASI-ELASTIC NEUTRON SCATTERING BY HYDOR GEN IN THE ALP MA AND BETA PHASES OF VANADIUM HYDRIDE
J. PHYS. CHEM. SOLIDS, V.32, P.61-P.69 (1971)
PD-H . EXPERIMENT/ QUASIELASTIC SCATTERING . DIFFUSIVE MOTION

71-RO-06 ROWELL, J.M./ MCMILLAN, W.L./ FELDMANN, W.L.
SUPERCONDUCTIVITY AND LATTICE DYNAMICS OF WHITE TIN
PHYS. REV. B, V.3, P.4065-P.4073 (1971)
SN . EXPERIMENT/ ELECTRON TUNNELING/ PHONON SPECTRUM

71-RO-07 ROY, A.P.
TEMPERATURE VARIATION OF THE FREQUENCY OF LONGITUDINAL INTER-PLANAR OSCILLATIONS IN PYROLYTIC GRAPHITE
CAN. J. PHYS., V.49, P.277-P.279 (1971)
GRAPHITE . EXPERIMENT/ TEMPERATURE EFFECT/ PHONON FREQUENCY

71-SA-01 SAASTAMONIEN, J./ PALMGREN, A.
SCATTERING CROSS-SECTION AT SUBTHERMAL ENERGIES AND GENERALIZED PHONON SPECTRUM OF ZIRCONIUM HYDRIDE
J. NUCL. ENERGY, V.25, P.189 (1971)
Zr-H . EXPERIMENT/ SOLID/ SCATTERING CROSS SECTION

71-SA-02 SAUNDERSON, D.H./ PECKHAM, D.E.
DISPERSION RELATIONS IN CALCIUM OXIDE BY NEUTRON SPECTROSCOPY
PHONONS, EDITED BY NUSIMOVICI, M.A., FLAMMARION SCIENCE, FRANCE, P.171-P.176 (1971)
CA,0 . EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING

71-SA-03 SAUNDERSON, D.H./ PECKHAM, D.E.
THE LATTICE DYNAMICS OF CALCIUM OXIDE
J. PHYS., 6, LONDON, V.4, P.209-P.209 (1971)
CA,0 . EXPERIMENT/ DISPERSION CURVE/ NEUTRON SCATTERING/ THEORY/ FREQUENCY SPECTRUM/ TRIPLE AXIS SPECTROMETER/ MgO COMPARISON

71-SC-01 SCHMUCK, P.
A PSEUDOPOTENTIAL CALCULATION OF THE PHONON SPECTRUM OF ALUMINUM
Z. PHYS., V.248, P.111 (1971)
AL . THEOLOGY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION . PSEUDOPOTENTIAL/ OPW METHOD

71-SH-01 SHARMA, P.K./ SINGH, N.
PHONON DISPERSION IN NOBLE METALS
PHYS. REV. B, V.4, P.4636-P.4639 (1971)
Cu, Ag, Au . THEOLOGY/ PHONON DISPERSION/ METAL

71-SH-02 SHARP, R.I./ WARMING, E.
THE LATTICE DYNAMICS OF ANTIMONY
J. PHYS., 6, LONDON, V.1, P.570-P.587 (1971)
Sb . EXPERIMENT/ PHONON DISPERSION

71-SH-03 SHAW, W.M./ MULHSTEIN, L.D.
INVESTIGATION OF THE PHONON DISPERSION RELATIONS OF CHROMIUM BY INELASTIC NEUTRON SCATTERING
PHYS. REV. B, V.4, P.969-P.973 (1971)
Cr . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ KOHN EFFECT/ FREQUENCY SPECTRA

71-SH-04 SHAW, W.M./ MULHSTEIN, L.D.
INVESTIGATION OF THE PHONON DISPERSION RELATIONS OF CHROMIUM BY INELASTIC NEUTRON SCATTERING
PHYS. REV. B, V.4, P.969-P.973 (1971)
Cr . EXPERIMENT/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ KOHN ANOMALY

71-SH-05 SHIRANE, G./ AXEL, J.D./ RINGENEAU, R.J.
LATTICE DYNAMICAL PHASE TRANSITION IN V3.SI
SOLID STATE COMM., V.9, P.397-P.398 (1971)
V3.SI . EXPERIMENT/ PHONON DISPERSION/ TEMPERATURE DEPENDENCE
71-SH-06 S Matthias, G./ AXE, J.D.
ACOUSTIC-PHONON INSTABILITY AND CRITICAL SCATTERING IN
NB3.SB
PHYS. REV. LETT., V.27, P.1803-P.1806 (1971)
NB3.SN, EXPERIMENT/ PHONON DISPERSION/ ORBITAL TRANSITION

71-SH-07 SHUKLA, M.M./ CAVALHEIRO, R.
THE EXTENDED DE LAUANY'S MODEL FOR LATTICE DYNAMICS OF
CUBIC METALS
PHONONS, (ED. BY NUSIMOVIC; M.A.), FLAMMARION SCIENCE.
FRANCE, P.313-P.317 (1971)
CU , THEORY/ METAL/ PHONON DISPERSION/ DE LAUANY MODEL

71-SI-01 SINGH, N./ SHARMA, P.K.
DEBYE-WALLER FACTORS OF CUBIC METALS
PHYS. REV. B, V.3, P.1141-P.1148 (1971)
CU/ AG/ Au/ Al/ Ni/ Na/ Cr/ Fe , THEORY/ DEBYE-WALLER FACTOR

71-SI-02 SINGH, R.D./ GUPTA, V.D.
VIBRATIONAL PROPERTIES OF HELICAL POLYGLYCINE
CHEM. PHYS. LETT., V.8, P.294-P.296 (1971)
POLYGLYCINE , THEORY/ DISPERSION CURVES/ PHONON SPECTRA

71-SI-03 SINGH, S.K./ GUPTA, R.P.
UNIFIED MICROSCOPIC APPROACH TO THE LATTICE DYNAMICS OF
CRYSTALS
PHONONS, (ED. BY NUSIMOVIC; M.A.), FLAMMARION SCIENCE,
FRANCE, P.35-P.42 (1971)
THEORY/ OF SOLIDS , LATTICE DYNAMICS/ MICROSCOPIC APPROACH

71-SM-01 SMITH, H.G./ GIBESER, W.
PHONON SPECTRA AND SUPERCONDUCTIVITY IN SOME TRANSITION
METAL CARBIDES
PHONON, (ED. BY NUSIMOVIC; M.A.), FLAMMARION SCIENCE,
FRANCE, P.149-P.149 (1971)
TA/C, HF/C, Nb/C , EXPERIMENT/ PHONON DISPERSION/ SUPER
CONDUCTIVITY

71-SO-01 SOKOLOFF, J.B.
EFFECTS OF PHONONS AND IMPURITIES ON SINGLE-PARTICLE-MO
DE NEUTRON SCATTERING IN CHROMIUM
PHYS. REV. B, V.3, P.2367 (1971)
CR , THEORY

71-SO-02 SOLBRIG, J.R., A.W.
VALENCE FORCE POTENTIALS FOR CALCULATING CRYSTAL VIBRATIONS
IN SILICON
J. PHYS. CHEM. SOLIDS, V.32, P.1761-P.1768 (1971)

71-SO-03 SOLBRIG, M.
MULTIPLE SCATTERING OF THERMAL NEUTRON BY A PERFECT CRYSTAL
SOLID 2 CALCULATION OF APPROXIMATE VALUES FOR THE INFORMATION
QUANTITIES
NEUTRON-SCATTERING-IN-SOLIDS , THEORY/ MULTIPLE SCATTERING/
PERFECT CRYSTAL

71-SO-04 SOSNOWSKI, J./ MALISZEWSKI, E.F./ BEDNARSKI, S./ C.
ZACHOR, A.
PHONON DISPERSION RELATIONS IN ANTIMONY
INR-P-1263/2/PS (1971)
SB , EXPERIMENT/ PHONON DISPERSION/ 5-NEIGHBOURS MODEL
FITTING

71-SO-05 SOSNOWSKI, J./ MALISZEWSKI, E.F./ BEDNARSKI, S./ C.
ZACHOR, A.
PHONON DISPERSION RELATIONS IN ANTIMONY
PHYS. STATU SOLIDI B, V.44, P.65-P.68 (1971)
SB , EXPERIMENT/ PHONON DISPERSION/ MODEL CALCULATION

71-SO-06 SOSNOWSKI, J./ MALISZEWSKI, E.F./ BEDNARSKI, S./ C.
ZACHOR, A.
PHONON DISPERSION RELATIONS IN ANTIMONY
PHYS. STATU SOLIDI B, V.44, P.65-P.68 (1971)
SB , EXPERIMENT/ PHONON DISPERSION

71-SP-01 SPCSITO, G.
HIGH-ENERGY NEUTRON SCATTERING AND THE MIHARA-PUFF THEORY
OF THE STRUCTURE FACTOR FOR LIQUID HELIUM-FOUR
PHYS. REV. A, V.3, P.820 (1971)
HE , THEORY

71-SP-02 SPIELBERG, D.M./ ARNDT, R.A./ DAMASK, A.C./ LEFKOW
ITZ, I.
DIELECTRIC AND NEUTRON INELASTIC SCATTERING MEASUREMENTS
ON PHENANTHRENE
J. CHEM. PHYS., V.54, P.2597 (1971)
PHENANTHRENE , SOLID EXISTENCE, HINDERED VIBRATION

71-SR-01 SRIKANTH, K./ RAO, R.R.
ANHARMONIC PROPERTIES OF THE HEXAGONAL METALS, MAGNESIUM
M, ZINC AND BERYLLIUM - I, LATTICE DYNAMICS AND THIRD ORDER
ELASTIC CONSTANTS
J. PHYSICS, CHEM. SOLIDS, V.32, P.1769-P.1788 (1971)
MG/ ZN/ BE , THEORY/ PHONON DISPERSION/ ELASTIC CONSTANTS

71-ST-01 STAMENKOVIC, S.
THEORY OF COHERENT NEUTRON SCATTERING BY HYDROGEN-BONDED FERROELECTRICS AT LOW TEMPERATURES. 1. GENERAL EXPRESS FOR INELASTIC COHERENT SCATTERING OF SLOW NEUTRONS AND EFFECTIVE THERMAL FACTORS.
JINR E-4 6171 (1971)
NEUTRON-SCATTERING IN SOLIDS THEORY/ FERROELECTRICS

71-ST-02 STAMENOVIC, S.
THEORY OF COHERENT NEUTRON SCATTERING BY HYDROGEN-BONDED FERROELECTRICS AT LOW TEMPERATURES. 2. SCATTERING CHA CHARACTERISTICS AND VARIOUS CONCEPTIONS OF THE TUNNELLING OF QUASI-SPIN MODEL.
JINR E-4 9172 (1971)
NEUTRON-SCATTERING IN SOLIDS THEORY/ FERROELECTRICS

71-ST-03 STEIN, H./ STOCKMEYER, R./ STILLER, H.
SLOW NEUTRON SCATTERING FROM HCP AND FCC SOLID HYDROGEN PHONONS. (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE. P.156-P.161 (1971)
H2 EXPERIMENT/ SOLID HYDROGEN T-O-F SPECTRA/ PHONON DENSITY

71-ST-04 STILLER, H./ SPRINGER, T.
QUASI-ELASTIC SCATTERING OF NEUTRONS FOR THE STUDY OF RANDOM MOTIONS IN SOLIDS 2. NATURFORSCH. A. V.26A P.575 (1971)
NEUTRON-SCATTERING IN SOLIDS THEORY/ QUASI-ELASTIC SCATTERING/ RANDOM MOTION

71-SU-01 SUZUKI, H./ SCHNEPP, O.
INTERMOLECULAR POTENTIAL AND LATTICE DYNAMICS OF THE C02 CRYSTAL.
J. CHEM. PHYS. V.55 P.3347 (1971)
C02 THEORY/ LATTICE DYNAMICS/ FREQUENCY DISTRIBUTION FUNCTION/ SPECIFIC HEAT

71-SW-01 SVENSSON, E.C./ KAMITAKAHARA, W.A.
RESONANT PERTURBATION OF PHONONS IN CuAu ALLOYS STUDIED BY NEUTRON SCATTERING.
CAN J. PHYS. V.49 P.2291-P.2306 (1971)
CuAu EXPERIMENT/ RESONANT MODE/ SHIFT AND WIDTH OF PHONON

71-SW-01 SWAROOP, A./ TIWARI, L.M.
DISPERSION RELATIONS IN GOLD.
PHYS. STATUS SOLIDI B. V.43K P.153-P.155 (1971)
Au THEORY/ PHONON DISPERSION

71-SZ-01 SZIGETI, B.
FORCE CONSTANTS AND EXPERIMENTAL DATA PHONONS. (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE. P.43-P.47 (1971)
THEORY-OF-SOLIDS LATTICE DYNAMICS/ FORCE CONSTANTS

71-TA-01 TAKAHASHI, H.
QUANTUM THEORY OF CORRELATION FUNCTIONS FOR LIQUID METALS AND NORMAL LIQUIDS IN THE ZERO SOUND WAVE RANGE.
PHYSICA A. V.31 P.333 (1971)
THEORY-OF-FLUIDS THEORY/ LIQUID CORRELATION FUNCTION/ SCATTERING LAW LIQUID METAL TWO TIME GREEN FUNCTION/ NORMAL LIQUID EFFECTIVE POTENTIAL

71-TA-02 TAKENO, S./ GODA, M.
A THEORY OF PHONONS IN AMORPHOUS SOLIDS AND ITS IMPLICATION TO COLLECTIVE MOTION IN SIMPLE LIQUIDS.
PROGR. THEORET. PHYS. KYOTO. V.45 P.331-P.352 (1971)
THEORY-OF-FLUIDS THEORY-OF-SOLIDS THEORY/ DISORDERED SYSTEM AMORPHOUS SOLID CLASSICAL LIQUID

71-TE-01 TEM, H.C./ BROCKHOUSE, B.N.
LATTICE VIBRATION IN DEUTERATED AMMONIUM CHLORIDE AT 85 DK. I. EXPERIMENTAL.
PHYS. REV. B. V.3 P.2733 (1971)
AMMONIUM CHLORIDE EXPERIMENT/ CRYSTAL SPECTROMETER DISPERSION RELATION

71-TH-01 THAPER, C.L./ RAO, K.R./ DASANURAYA, B.A./ ROY, A.P./ IYENGAR, P.K.
PHONON DISPERSION CURVES IN BERYLLIUM PHONONS. (ED. NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE. P.140-P.143 (1971)
BE EXPERIMENT/ PHONON DISPERSION/ MODIFIED AXIAL SYMMETRIC MODEL FITTING

71-TH-02 THOMAS, I.L.
MOTION OF THE CENTER OF MASS OF ATOMS AND MOLECULES.
PHYS. REV. A. V.3 P.1022-P.1026 (1971)
MISCELLANEOUS THEORY/ MOTION OF CENTER OF MASS IN PRESENCE OF EXTERNAL RADIATION

71-TI-01 TIITTA, A./ TUNKELÖ, E.
MULTIPLE SCATTERING IN AN INELASTIC NEUTRON SCATTERING WITH LIQUID METHANE.
PHYSICA A. V.34 P.393 (1971)
METHANE LIQUID MULTIPLE SCATTERING

71-TO-01 TOUSSAINT, G.
STUDY ON LATTICE DYNAMICS OF CADMUM BY X-RAY SCATTERING.
G. AT 88K.
PHONONS. (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE. P.129-P.133 (1971)
CO EXPERIMENT/ PHONON DISPERSION/ X-RAY SCATTERING
71-TO-02 TOWERS, G.R.
INFLUENCE OF SHORT-RANGE ORDER ON THE LATTICE VIBRATIONS OF ALLOYS.
PHONONS. (ED. BY NUSIMOVICI, M.A.), FLAMMARION SCIENCE, FRANCE, P.308-P.312 (1971)
THEORY-OF-SOLIDS ,LATTICE VIBRATION/ ALLOYS/ SHORT-RANGE ORDER

LATTICE DYNAMICS OF RUTILE
PHYS. REV., B, V.3, P.3457-P.3472 (1971)
T1.02 ,EXPERIMENT/ DISPERSION CURVE/ NEUTRON SCATTERING/ THEORY/ FREQUENCY SPECTRUM/ TEMPERATURE DEPENDENCE

PHONON SPECTRA OF FCC HE-4
15-2778 (1971)
HE ,EXPERIMENT/ PHONON DISPERSION/ FCC HE

71-TR-03 TREFFER, M.
THE DYNAMICS OF AMMONIUM ION IN CN(H4)2.5.04
CAN. J. PHYS., V.49, P.169-P.1696 (1971)
(N,H4)2.5.04 ,FAR INFRARED EXPERIMENT

71-TR-04 TRIPATHI, B.B./ BHARH, J.
CRYSTAL DYNAMICS OF LIGHT WEIGHT ALKALI METALS
J. PHYS., F, LONDON, V.14, P.19-P.27 (1971)
LI/ Na/ K ,CALCULATION/ PHONON DISPERSION/ DEBYE TEMP.

71-TR-05 TROTT, A.J./ HEALD, P.T.
THE LATTICE DYNAMICS OF THE HEXAGONAL CLOSE-PACKED METALLS
PHYS. STATUS SOLIDI, B, V.46, P.361-P.368 (1971)
BE/ Mg/ Zn ,THEORY/ PHONON DISPERSION AND SPECTRA/ HEXAGONAL LATTICE

71-VA-01 VAN LOEF, J.J.
THE SELF-DIFFUSION COEFFICIENT IN ARGON AT LIQUID DENSITIES
PHYS. LETT., A, V.35, P.169 (1971)
AR ,EXPERIMENT/ LIQUID/ SELF-DIFFUSION

71-VE-01 VERMA, M.P./ SINGH, R.K.
LATTICE DYNAMICS OF Li,H, Li,F AND Li,CL
J. PHYS., C, LONDON, V.4, P.2749-P.2758 (1971)
Li,H/ Li,F/ Li,CL ,THEORY/ PHONON DISPERSION/ STATE DEGENERACY

71-WA-01 WAKABAYASHI, N./ SINHA, S.K./ SPEDDING, F.H.
PHONON SPECTRUM OF SCANDIUM METAL BY INELASTIC SCATTERING OF NEUTRONS
PHYS. REV., B, V.4, P.2398-P.2406 (1971)
SC ,EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ PHONON ON DENSITY/ DEBYE TEMPERATUE

71-WA-02 WAKABAYASHI, N./ NICKLOW, R.M./ SMITH, H.G.
NEUTRON SCATTERING INVESTIGATION OF DEFECT PHONON MODES IN Ge(9,2 PERCENT SI)
PHYS. REV., B, V.4, P.2558-P.2560 (1971)
GE-SI ,EXPERIMENT/ LOCAL MODE/ IMPURITY EFFECT

71-WA-03 WAKABAYASHI, N./ NICKLOW, R.M./ SMITH, H.G.
NEUTRON SCATTERING INVESTIGATION OF IMPURITY PHONON MODES IN Ge(9,2 PERCENT SI)
PHYS. REV., B, V.4, P.2558-P.2560 (1971)
GE-SI ,EXPERIMENT/ IMPURITY EFFECT/ LOCAL MODE/ MASS EFFECT

71-WA-04 WARSHELE, A.
ANHARMONICITY IN CRYSTAL VIBRATIONS
J. CHEM. PHYS., V.54, P.5324-P.5330 (1971)
THEORY-OF-SOLIDS ,LATTICE VIBRATION/ MOLECULAR CRYSTAL/ ANHARMONICITY

71-WA-05 WASEDA, Y./ SUZUKI, K.
PAIR POTENTIALS IN LIQUID CS AND AR BY THE BORN-GREEN EQUATION
PHYS. LETT., A, V.34, P.69 (1971)
CS/ AR ,THEORY/ LIQUID, PAIR POTENTIAL/ BORN-GREEN EQUATION

71-WA-06 WASEDA, Y./ SUZUKI, K.
STRUCTURE OF LIQUID AMMONIA BY NEUTRON DIFFRACTION
PHYS. STATUS SOLIDI, B, V.47, P.581-P.590 (1971)
SB ,EXPERIMENT/ LIQUID/ STRUCTURE FACTOR

71-WE-01 WERNER, S.A./ BYNUM, R.
RESOLUTION EFFECTS IN THE MEASUREMENT OF PHONONS IN SODIUM METAL
J. APPL. PHYS., V.42, P.4736 (1971)
NA ,PHONON DISPERSION

71-WI-01 WINDFIELD, D.J.
MEASUREMENT OF THE APPARENT DIFFUSION COEFFICIENT OF TOLUENE BY QUASIELASTIC NEUTRON SCATTERING
J. CHEM. PHYS., V.54, P.3643 (1971)
TOLUENE ,LIQUID/ QUASIELASTIC PEAK/ EXPERIMENT

71-WO-01 WORLTON, T.G./ SCHMUNK, R.E.
LATTICE VIBRATIONS OF THALLIUM AT 77 AND 296K
PHYS. REV., B, V.3, P.4115-P.4123 (1971)
71-TA-01 YASUKAWA T., KIMURA M., WATANABE N., YAMADA Y., NEUTRON DOWN-SCATTERING SPECTRUM OF ISOTACTIC POLYPROPYLENE.
J. CHEM. PHYS., V.55, P.983-P.984 (1971)
POLYPROPYLENE EXPERIMENT/ TDF SPECTRUM/ FREQUENCY DISTRIBUTION

71-ZE-01 ZEIDLER M.D., A COMPARATIVE STUDY OF QUASI-ELASTIC NEUTRON SCATTERING AND NMR RELAXATION IN LIQUID ACETONITRILE.
BER. BUNSGES. PHYS. CHEM., V.75, P.769 (1971)
ACETONITRILE QUASI-ELASTIC SCATTERING/ LIQUID

71-ZE-02 ZERBI G., PISERI L., CABASSI F., VIBRATIONAL SPECTRUM OF CHAIN MOLECULES WITH CONFORMATIONAL DISORDER: POLYETHYLENE.
MOL. PHYS., V.22, P.261-P.256 (1971)
POLYETHYLENE THEORY/ FREQUENCY SPECTRA/ PERFECT AND IRREGULAR POLYMER CHAIN

72-AG-01 AGRAWAL B.K., RAM P.N., LATTICE DYNAMICS OF CS1 CONTAINING IMPURITY IONS.
PHYS. REV., B, V.4, P.2774-P.2780 (1972)
CS1 THEORY/ IMPURITY EFFECTS/ LATTICE DYNAMICS

72-AH-01 AHMAD A.A., SMITH H.G., WAKABAYASHI N., WILKINSON M.K., LATTICE DYNAMICS OF Cesium CHLORIDE.
PHYS. REV., B, V.6, P.3956-P.3961 (1972)
CS1 EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ FREQUENCY SPECTRUM

72-AH-02 AMTEE M., GLAZER A.M., MEGAW H.D., THE STRUCTURES OF SODIUM NIOBATE BETWEEN 480 AND 575 °C, AND THEIR RELEVANCE TO SOFT-PHONON MODELS.
PHIL. MAGMA, V.26, P.995-P.1016 (1972)
NA, NB, 03 THEORY/ PHASE TRANSITION/ SOFT PHONON

72-AK-01 AKCASU A.Z., LINNEBUR E.J., A MODELED KINETIC EQUATION WITH TWO RELAXATION TIMES.
NEUTRON INELASTIC SCATTERING, IAEA, P.365-P.380 (1972)
THEORY OF FLUIDS MODELED KINETIC EQUATION/ TWO DAMPING CONSTANT

72-AL-01 ALEFELD B., BOHN H.G., STUMP N., INVESTIGATION OF THE JUMP RATE OF PROTONS IN BETA-NB-H.
BY MEANS OF HIGH RESOLUTION QUASI-ELASTIC NEUTRON SCATTERING AND NMR

72-JL-03 JUL-CONF-6, V.1, P.286-P.300 (1972)
NB-H EXPERIMENT/ HYDROGEN DIFFUSION/ QUASI-ELASTIC

72-AL-02 ALLEN G., THE DYNAMICS OF POLYMER CHAINS.
NEUTRON INELASTIC SCATTERING, IAEA, P.261-P.274 (1972)
REVIEW ARTICLES POLYMER CHAIN DYNAMICS

72-AL-03 ALLEN P.B., NEUTRON SPECTROSCOPY OF SUPERCONDUCTORS.
PHYS. REV., B, V.6, P.2577-P.2579 (1972)
THEORY OF SOLIDS PHONON WAVELENGTHS/ ELECTRON-PHONON INTERACTION/ SUPERCONDUCTIVITY

PHYS. LETT., A, V.40, P.295-P.296 (1972)
PB, TE EXPERIMENT/ DISPERSION RELATION/ SOFT PHONON CURIE LAW TEMPERATURE

72-AN-01 ANDRIESSE C.D., LEGRAND E., PAIR POTENTIAL FOR ARGON FROM NEUTRON DIFFRACTION AT LOW DENSITY.
PHYSICA, V.57, P.191-P.204 (1972)
AR EXPERIMENT/ NEUTRON DIFFRACTION

72-AN-02 ANTONINI B., MINKIEWICZ V.J., NEUTRON SCATTERING STUDY OF SPIN WAVES AND PHONONS IN M
N-PT3 SOLID STATE COMMUN., V.10, P.203 (1972)
MN-PT3 EXPERIMENT/ DISPERSION RELATION/ MN-PT3 SPIN WAVE AND PHONON

72-AN-03 ANTONINI M., CORCIA M., MULTIPLE SCATTERING OF NEUTRONS IN LIQUID GALLIUM.
NUOVO CIM., B, V.10, P.117-P.126 (1972)
GA EXPERIMENT/ LIQUID STRUCTURE/ MULTIPLE SCATTERING

72-AN-04 ANTONINI M., SUSHNOVA I., VADACCHINO M., INCOHERENT NEUTRON SCATTERING FROM HYDROGEN BOND IN KDP AND ADP.
RT/FT (72)36 (1972)
K,H2,P,O4 NH4,H2,P,O4 INELASTIC SCATTERING/ INTERFERENCE EFFECT/ PARAELECTRIC PHASE

72-AN-05 ANTONINI M., CORCIA M., MULTIPLE SCATTERING OF NEUTRONS IN LIQUID GALLIUM.
NUOVO CIM., B, V.10, P.117 (1972)
GA DYNAMICS OF LIQUIDS

236
72-BA-01 BAJPAL, R.P.
ON PHONON DISPERSION IN HCP METALS
PHYSICA, V. 62, P. 574-P. 586 (1972)
MG/ ZN/ Y/ Ti/ Tl/ Hf/...THEORY/ PHONON DISPERSION/ FOURTH NEIGHBOURS MODEL/ HEXAGONAL LATTICE

72-BA-02 BAJPAL, R.P./ NEELAKANDAN, K.
ON THE PHONON DISPERSION IN ALKALI METALS
PHYSICA, V. 62, P. 587-P. 594 (1972)
Li/ Na/ K/...THEORY/ PHONON DISPERSION/ BCC METAL/ AXIAL SYMMETRIC MODEL

72-BA-03 BAJPAL, R.P.
PHONON DISPERSION IN ZINC (A PSEUDOPOTENTIAL APPROACH)
PHYS. LETT., A, V. 42, P. 163 (1972)
ZN/...THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION, PSEUDOPOTENTIAL

72-BA-04 BAJPAL, R.P./ ONO, M.
LATTICE VIBRATIONS OF MAGNESIUM: A MODEL POTENTIAL APPROACH
PHYS. LETT., A, V. 41, P. 141 (1972)
MG/...THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION

72-BA-05 BAJPAL, R.P./ NEELAKANDAN, K.
LATTICE DYNAMICS OF TRANSITION METALS
NUOVO CIMENTO, B, V. 7, P. 177-P. 184 (1972)
Fe/ Nb/ Ta/...THEORY/ PHONON DISPERSION/ BCC METAL/ MODIFIED AXIAL SYMMETRIC MODEL

72-BA-06 BARKER, M.I./ GASKELL, T.
DENSITY FLUCTUATIONS IN SIMPLE LIQUIDS: A GENERALIZED HYDRODYNAMIC APPROACH
J. PHYS., C, LONDON, V. 5, P. 3279-P. 3288 (1972)
ARGON/ THEORY-OF-FLUIDS/ CORRELATION FUNCTION

72-BA-07 BARNES, J.D.
NEUTRON INELASTIC SCATTERING STUDY OF THE ROTATOR PHASE TRANSITION IN N-o-ALKANES
NEUTRON INELASTIC SCATTERING/ IAEA, P. 287-P. 298 (1972)
NONADECANE/ EICOSANE/...EXPERIMENT/ QUASI-ELASTIC PEAK/ ROTATIONAL DIFFUSION/ PLASTIC CRYSTAL

72-BA-08 BASU, A.N./ SENSUMPTA, S.
DEFORMABLE SHELL MODEL AND THE PROPERTIES OF LiF CRYSTAL
J. PHYS., C, LONDON, V. 5, P. 1158-P. 1164 (1972)
LiF/...CALCULATION/ DEFORMABLE SHELL MODEL/ PHONON DENSITY/ STATE DENSITY/ ELASTIC CONSTANT

72-BA-09 BAUR, H.
ACOUSTIC PHONONS IN POLYMER-CRYSTALS
KOLLOID-Z., Z. POLYM., V. 250, P. 1000-P. 1015 (1972)
REVIEW-ARTICLES/ POLYMER-CRYSTAL/ PHONON DISPERSION/ CURVE/ THERMAL PROPERTIES

72-BE-01 BEHARI, J./ TRIPATHI, B.B.
LATTICE DYNAMICS OF SOME BCC TRANSITION METALS
J. PHYS. SOC. JAP., V. 33, P. 1207-P. 1213 (1972)
Fe/ Mg/ W/...THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA

72-BE-02 BEHARI, J.
SOME LATTICE DYNAMICAL PROPERTIES OF LEAD ON A PSEUDOPOTENTIAL APPROACH
PHIL. MAG., V. 26, P. 737 (1972)
Pb/...THEORY/ SOLID/ LATTICE DYNAMICS

72-BI-01 BHIRCHALL, J.H.L./ ROSS, D.K.
A NEUTRON SCATTERING STUDY OF HYDROGEN MOTIONS IN NIOBIUM
J. PHYS., C, LONDON, V. 6, P. 313-P. 343 (1972)
Nb=H/...EXPERIMENT/ LOCAL MODE/ SINGLE CRYSTAL/ 130C-400 C

72-BI-02 BHIRCHALL, J.H.L./ ROSS, D.K.
A NEUTRON SCATTERING STUDY OF HYDROGEN MOTIONS IN NIOBIUM
BER, BUNSENES, PHYS. CHEM., V. 76, P. 782 (1972)
Nb=H/...HYDROGEN MOTIONS

72-BO-01 BOBETIC, M.V./ BARKER, J.A./ KLEIN, M.L.
LATTICE DYNAMICS WITH THREE-BODY FORCES, 2: KRYPOTO
PHYS. REV., B, V. 5, P. 3185-P. 3189 (1972)
KR/...THEORY/ DISGYE PARAMETER/ THERMAL EXPANSION/ BULK MODULUS

72-BO-02 BOERJO, F.J./ CORNELL, D.D.
LATTICE MODES AND INTERMEDIATE POTENTIAL OF ORTHORHOMBIC BIC POLYOXYMETHYLENE
J. CHEM. PHYS., V. 56, P. 1516-P. 1519 (1972)
POLYOXYMETHYLENE/...THEORY/ DISPERE CURVE/ FREQUENCY SPECTRA/ RAMAN EXPERIMENT
72-BU-01 BUTLAND, A.T.D./ CHUDLEY, C.T.,
A COMPARATIVE STUDY OF VARIOUS LIGHT WATER SCATTERING MODELS USED IN THERMAL REACTOR CALCULATIONS
AEEW-R-814 (1972)
H2O, SCATTERING MODEL CALCULATION/ INTEGRAL PARAMETER

72-BU-02 BUTLAND, A.T.D.
COMPARISON OF LEAP, TOR AND SLAB PROGRAMMES FOR COMPUTING THE SCATTERING LAW (SCALPHA, BETA) FROM A PHONON FREQUENCY FUNCTION
AEEW-H-1136 (1972)
COMPUTER-CODES, PHONON SPECTRA/ SCATTERING LAW

72-BU-03 BUTLAND, A.T.D.,
THERMAL NEUTRON SCATTER BY GRAPHITE ASSUMING THE CRYSTAL L HAS AN ISOTROPIC STRUCTURE
AEEW-H-813 (1972)
GRAPHITE, SCATTERING MATRICES/ PHONON SPECTRUM/ SPECIFIC HEAT/ ASSUMING ISOTROPIC STRUCTURE

72-BU-04 BUTLAND, A.T.D.

72-BU-05 BUTLAND, A.T.D.,
INTERFERENCE EFFECTS IN THE INELASTIC SCATTERING OF NEUTRONS BY AN ANHARMONIC NEON CRYSTAL
SOLID STATE COMM., V.16, P.1219-P.1222 (1972)
NE, THEORY/ INELASTIC SCATTERING PROFILE/ NUMERICAL CALCULATION/ SOLID

72-BU-06 BUYERS, W.J.L./ SEARS, V.F./ LONNIG, P.A./ LONNIG, D.A.
COLLECTIVE AND SINGLE-PARTICLE EXCITATIONS IN LIQUID NEUTRON INELASTIC SCATTERING, IAEA, P.399-P.411 (1972)
NE, SCATTERING THEORIES, THEORY/ EXPERIMENT/ LIQUID DYNAMICS/ COLLECTIVE MOTION/ SINGLE PARTICLE EXCITATION

72-BU-07 BUYERS, W.J.L./ POWELL, B.M./ WOODS, A.D.B.
TEMPERATURE DEPENDENCE OF A KOHN ANOMALY IN MOLYBDENUM CAN. J. PHYS., V.50, P.3069-P.3070 (1972)
M20, EXPERIMENT/ PHONON DISPERSION/ KOHN ANOMALY/ TEMPERATURE EFFECT

72-C2-01 CARABATOS, C./ PREVOT, B.
SHELL MODEL LATTICE DYNAMICS OF Cs, Cl, Cs, Br, AND Cs I CAN. J. PHYS., V.50, P.122 (1972)
Cs, Cl, Cs, Br, Cs I, THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION, SHELL MODEL

72-CH-01 CHAY, T.R./ FRANK, M.S.
DENSITY FLUCTUATION IN WATER AND IN SIMPLE FLUIDS J. CHEM. PHYS., V.51, P.2910-P.2919 (1972)
M20, THEORY-OF-FLUIDS, CORRELATION FUNCTION

72-CH-02 CHIHARA, J.
THEORY-OF-FLUIDS, THEORY/ QUANTAL SPACE-TIME CORRELATION/ HARTREE APPROXIMATION

72-CH-03 CHODOS, S.L.
LATTICE DYNAMICS OF M2.X.Y6 HEXABOROTITANATE, CS2.U+Br6
J. CHEM. PHYS., V.51, P.2712 (1972)
CS2.U+Br6, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

72-CH-04 CHOWDHURY, M.R./ ROSS, D.K.
THE DIFFUSIVE MOTIONS OF HYDROGEN IN PD-AG ALLOYS JUL-CONF-6, V.1, P.346-P.374 (1972)
PD-AG-M, EXPERIMENT/ QUASIELASTIC/ DIFFUSION/ 100C-360 C
72-CO-01 COHEN, S.S./ GILAT, G.
PHONON FREQUENCY SHIFTS AND FORCE-CONSTANT CHANGES IN DILUTE ALLOYS
SOLID STATE COMMUN., V.11, P.1269-P.1272 (1972)
CR-W.THEORY/ PHONON/ ALLOY/ IMPURITY EFFECT/ FORCE-CO
NSTAT CHANG E

72-CO-02 COHEN, S.S.
INELASTIC INCOHERENT NEUTRON SCATTERING FROM IMPURITIES IN CRYSTALS
PHYS. STATUS SOLIDI, V.50, P.673-P.679 (1972)
NEUTRON-SCATTERING=IN=SO LIDS/ SCATTERING=BY=DEFE CTS . . . T HEORY/ INELASTIC INCOHERENT SCATTERING FROM IMPURE CRYST

72-CO-03 COMES, R./ SHIRANE, G.
NEUTRON-SCATTERING ANALYSIS OF THE LINEAR=DISPLACEMENT
CORRELATIONS IN K.TA.03
PHYS. REV. B, V.5, P.1886-P.1891 (1972)
K.TA.03. . . EXPERIMENT/ PHONON DISPERSION/ ANISOTROPY

72-CO-04 CORNOLD, N.
BEHAVIOR OF AUTO CORRELATION FUNCTIONS
PHYS. REV. A, V.6, P.1570-P.1573 (1972)
THEORY-OF-FLUIDS . . . THEORY/ AUTO CORRELATION/ MEMORY FUN
CTION

72-CO-05 COWLEY, K.A.
NORMAL MODES OF VIBRATION IN CRYSTALS HAVING AN ORDER-D
ORDER TRANSITION
NEUTRON INELASTIC SCATTERING. IAEA, P.813-P.829 (1972)
THEORY-OF-SOLIDS/ SCATTERING-THEORIES . . . THEOR Y/ PHONON/
ALLOYS/ ORDER-DISORDER STATE

72-DA-01 DAHLBERG, U./ GRAESLUND, C./ LARSSON, K.E.
PHASE TRANSITIONS IN NEOPENTANE STUDIED BY COLD NEUTRON
PHYSICA, V.59, P.672-P.692 (1972)
PENTANE . . . EXPERIMENT/ CRYSTAL SPECTROMETER . . . PHASE TRA
TION/ OSCILLATIONAL AND ROTATIONAL MOTION/ BARRIER HI
GHT

72-DA-02 DASANNACHARYA, B.A./ THAPER, C.L./ GOYAL, P.S.
NEUTRON SCATTERING FROM LIQUID AMMONIA
NEUTRON INELASTIC SCATTERING. IAEA, P.477-P.486 (1972)
N,H3 . . . EXPERIMENT/ MOLECULAR LIQUID/ 218/ MODEL ANALYSIS
IS/ SIMPLE DIFFUSION/ HINDERED RELAXATION FUNCTION

72-DA-03 DAUBERT, J.
PHONON DISPERSION IN CS.BR
NEUTRON INELASTIC SCATTERING. IAEA, P.85-P.94 (1972)
CS.BR. . . EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING

72-DA-04 DAVIDOVIC, M./ RATKOVIC, S./ JOVIC, D./ ZIVANOVIC, M.
INELASTIC INCOHERENT NEUTRON SCATTERING ON POLYCRYSTAL
INE TAURINE AND ALPHA-AMINO-IS0-BUTYRIC ACID
CHEM. PHYS. LETT., V.17, P.53-P.56 (1972)
TAURINE/ ALPHA-AMINO-IS0BUTYRIC-ACID . . . EXPERIMENT/ VIB
RATIONAL SPECTRUM

72-DA-05 DAVIDOVIC, M./ RATKOVIC, S./ JOVIC, D./ ZIVANOVIC, M.
INELASTIC INCOHERENT NEUTRON SCATTERING ON POLYCRYSTAL
INE TAURINE AND ALPHA-AMINO-IS0-BUTYRIC ACID
CHEM. PHYS. LETT., V.17, P.53 (1972)
TAURINE/ BUTYRIC ACID . . . INELASTIC NEUTRON SCATTERING/ I
NCORENT

QUASIELASTIC THERMAL NEUTRON SCATTERING BY HYDROGEN IN
ALPHA-VANADIUM HYDRIDE
J. CHEM. PHYSICS., V.62, P.4574-P.4581 (1972)
V-H . . . EXPERIMENT/ QUASIELASTIC DIFFUSION BROADENING

OW, H.E./ HONE, J.M.
STUDY OF HYDROGEN DIFFUSION IN VANADIUM AND TANTALUM HY
DRIDE BY QUASIELASTIC THERMAL NEUTRON SCATTERING
JUL-CONF-6, V.1, P.301-P.312 (1972)
V-H . . . EXPERIMENT/ QUASIELASTIC HYDROGEN DIFFUSIO
N IN METAL

72-DE-03 DEGRAAF, L.A./ RUSH, J.J./ LIVINGSTON, R.C.
NEUTRON SCATTERING STUDY OF THE ROTATIONAL MOTIONS AND
PHASE TRANSITIONS IN SODIUM- AND CAESIUM-HYDROSL I MIDE
NEUTRON INELASTIC SCATTERING. IAEA, P.247-P.257 (1972)
CSA.S/H. . . EXPERIMENT/ MOLECULAR ROTATION/ PHASE TRA
NSITION/ QUASI-ELASTIC

72-DE-04 DE-MUL, F.F.
ON THE MODELS FOR MOLECULAR ROTATION IN PLASTIC CRYSTAL
S STUDIED BY COLD NEUTRON SCATTERING
PHYS. LETT., V.41A, P.272 (1972)
CYCLOHEXANOL . . . CRYSTAL/ MOLECULAR ROTATION

72-DI-01 DIETRICH, G.W./ GRAF, E.H./ HUANG, C.H./ PASSELL, L.
NEUTRON SCATTERING BY ROTONS IN LIQUID HELIUM
PHYS. REV., A, V.5, P.137-139 (1972)
HE...EXPERIMENT/LIQUID/ROTON DISPERSION/LINE WIDTH

72-DJ-02 DYMUB, I.P./KOCHMANSKY, V.Z.
INELASTIC SCATTERING OF SLOW NEUTRONS BY IMPURITY CRYSTALS 2. PECULIARITIES OF SCATTERING CROSS-SECTION IN THE RESONANCE FREQUENCY REGION OF SUBSTITUTIONAL ATOMS
ITP-T2-82P (1972)
NEUTRON-SCATTERING-IN-SOLIDS...THEORY/RESONANCE MODE/FORCE CONSTANT CHANGE

72-EG-01 EGGLESTAFF, P.A.
TIME-DEPENDENT TRIPLET CORRELATION FUNCTIONS IN SIMPLE LIQUIDS
NEUTRON INELASTIC SCATTERING, IAEA, P.383-P.397 (1972)
THEORY-OF-FLUIDS/SCATTERING-THEORIES...TIME-DEPENDENT TRIPLET FUNCTION/PRESSURE DERIVATIVE OF NEUTRON SCATTERING LAW

72-EG-02 EGGLESTAFF, P.A./WANG, S.S.
DENSITY DEPENDENT POTENTIALS IN SIMPLE LIQUIDS
CAN. J. PHYS., V.50, P.2461-P.2463 (1972)
RB/NE...THEORY/EXPERIMENT/LIQUID/STRUCTURE FACTOR...DENSITIES DEPENDENT POTENTIALS

72-EG-03 EGGLESTAFF, P.A./PAGE, D.J./DUFFIL, C.
THE MEAN SQUARE FORCE ON IONS IN LIQUID RUBIDIUM
CAN. J. PHYS., V.50, P.3062 (1972)
RB...MEAN SQUARE FORCE

72-EL-01 ELCOMBE, M.M.
THE LATTICE DYNAMICS OF STRONTIUM FLUORIDE
J. PHYS., C, LONDON, V.5, P.2702-P.2710 (1972)
SR,F2...EXPERIMENT/PHONON DISPERSION/SHREV MODEL FITTING/STATE DENSITY

72-EN-01 ENZ, C.P.
LATTICE DYNAMICS ABOVE STRUCTURAL PHASE TRANSITIONS. Sr Ti, O3
PHYS. REV., B, V.6, P.4699-P.4702 (1972)
SR,T1,03...THEORY/SOFT MODE/CENTRAL PEAK(S)0,0)/PHASE TRANSITION

72-ES-01 ESCHRIG, H./URWANK, P./FELDMANN, K./WEISS, L.
PHONONS IN Mg,Zn2, MODEL POTENTIAL CALCULATIONS AND NEUTRON SCATTERING EXPERIMENTS
JINR-E14-266 (1972)
Mg,zn2...THEORY/EXPERIMENT/MODEL=POTENTIAL/PHONON DISPERSION/FREQUENCY DISTRIBUTION

72-ES-02 ESCHRIG, H./FELDMANN, K./HENNIG, K./WEISS, L.
PHONONS IN Mg,Zn2, MODEL POTENTIAL CALCULATIONS AND NEUTRON SCATTERING EXPERIMENTS

- 240 -
NEUTRON INELASTIC SCATTERING, IAEA, P. 157-P. 169 (1972)
MG,ZN2, CALCULATION/ MODEL POTENTIAL THEORY/ EXPERIMENTS/ PHONON DENSITY

72-ES-03 EWSCHIN, H./ URWANK, P./ WILLIAMS, H.
CALCULATED PHONON SPECTRA AND INS CROSSE SECTIONS OF MG, ZN2
PHYS, Status SOLIDI B, V. 49, P. 507-P. 516 (1972)
MG,ZN2, THEORY/ PHONON SPECTRA/ A,B2 TYPE INTERMETALLIC COMPOUNDS

72-ES-04 EWSCHIN, J./ URWANK, P./ WILLIAMS, H.
CALCULATED PHONON SPECTRA AND INS CROSSE SECTIONS OF MG, ZN2
PHYS, Status SOLIDI B, V. 49, P. 887-P. 897 (1972)
MG, ZN2, THEORY

72-FA-01 FANCONI, B.
LATTICE DYNAMICS OF POLYGLYCINE I
J. CHEM. PHYS, V. 47, P. 2109 (1972)
POLYGLYCINE, THEORY/ DISPERSION RELATION, 2-DIMENSIONAL LATTICE VIBRATION

72-FA-01 FISCHER, K./ BILZ, H./ HABERKORN, R./ EBEL, W.
COVALENCY AND DEFORMABILITY OF AG+ IONS IN THE LATTICE DYNAMICS OF SILVER HALIDES
PHYS, Status SOLIDI B, V. 54, P. 285-P. 294 (1972)
AG,CL/ AG,Br, THEORY/ PHONON DISPERSION/ PHONON DENSITY IN SHELL MODEL

72-FR-01 FRANCHETTI, S.
NEXT-NEIGHBOUR DISTRIBUTIONS IN SIMPLE LIQUIDS
NUOVO CIMENTO B, V. 10, P. 211-P. 228 (1972)
AR/ ZN, THEORY/ RADIAL DENSITY FUNCTION

72-FA-01 GAUSSER, A./ BE.
ELASTIC CONSTANTS AND GRÜNEISEN PARAMETERS OF PYROLYTIC GRAPHITE
PHILOS, MAG, V. 25, P. 687 (1972)
GRAPHITE, THEORY/ SOLID, ELASTIC CONSTANTS

72-GE-01 GENZEL, L./ MARTIN, T.P.
LATTICE DYNAMICS OF MG.O MICROCRYSTALS
PHYS, Status SOLIDI B, V. 51, P. 101-P. 106 (1972)
MG.O, THEORY/ FREQUENCY SPECTRA/ RIGID ION MODEL/ SMALL CRYSTAL

72-GE-02 GESI, K./ AXEL, J.O./ SHIRANE, G./ LINZ, A.
DISPERSION AND DAMPING OF SOFT BOUNDARY PHONONS IN K,MN,F3
PHYS, REV, V. 5, P. 1933-P. 1941 (1972)
K,MN,F3, EXPERIMENTS/ SOFT PHONON/ DISPERSION RELATION/ CURIE-WEISS LAW/ DAMPING PARAMETER/ DIFFUSE SCATTERING

72-GE-03 GESI, K.
LATTICE INSTABILITY AND PHASE TRANSITIONS IN K,MN,F3 (IN JAPANESE)
JAERI-M 4841, PROC, 4TH CONF, ON INELASTIC NEUTRON SCATTERING, P. 86-P. 90 (1972)
K,MN,F3, EXPERIMENT/ SOFT PHONON/ PHASE TRANSITION

72-GE-04 GHATIKE, A.K./ KOTHARI, L.S.
AN INTRODUCTION TO LATTICE DYNAMICS
ADDITION-WESLEY PUBLISHING COMPANY, LONDON (1972)
REVIEW ARTICLES, BOOK, LATTICE DYNAMICS/ NEUTRON SCATTERING

72-GE-02 GHOSH, R.K./ ADDINGTON, T.C./ TEMME, F.P.
ENERGY-LOSS NEUTRON SPECTROSCOPY APPLIED TO STRONGLY HYDROGEN BONDED MOLECULAR SYSTEMS
NEUTRON INELASTIC SCATTERING, IAEA, P. 345-P. 353 (1972)

72-GE-02 GILBERT, E.
FOURIER TRANSFORM OF INELASTIC NEUTRON SCATTERED INTENSITY FOR SOLID HE-4
J. PHYS. LETT., P. 16935 (1972)
HE, FOURIER TRANSFORM OF SCATTERED INTENSITY/ PROBABILITY DENSITY

72-GE-02 GISSLER, W.
INELASTIC NEUTRON SCATTERING BY HYDROGEN IN METALS
J. PHYS. SOLIDS, V. 1, P. 284-P. 285 (1972)
NEUTRON SCATTERING IN SOLIDS/ HYDROGEN IN METAL

72-GE-02 GLYEDE, H.R./ TAYLOR, R.
ANHARMONIC LATTICE DYNAMICS IN NA
PHYS, REV, V. 5, P. 1206-P. 1213 (1972)
NA, THEORY/ PHONON DISPERSION/ LIFE TIME/ ANHARMONIC/ 5, 90, 160, 293, 361K

72-GE-02 GLYEDE, H.R./ KHANNA, F.C.
ANHARMONIC PHONONS IN B,C,C, HE-4
CAN, J. PHYS, V. 50, P. 1152-P. 1155 (1972)
HE, THEORY/ PHONON DISPERSION/ T-MATRIX/ SCF APPROXIMATION

72-GE-01 GODAGI, M.
PHONONS IN RARE-GAS CONDENSATES AND THE LAW OF CORRESPONDENCE
NDING STATES
PROG. THEORET. PHYS., KYOTO, V. 47, P. 1064-1066 (1972)
THEORY OF FLUIDS, THEORY/ PHONON DISPERSION/ LIQUID/ LIQUID OF CORRESPONDING STATES

72-GO-02 GOMPF, F./ LAU, H./ REICHAUT, W./ SALGADO, J.
STUDIES ON THE DETERMINATION OF THE PHONON DENSITY OF STATES BY COHERENT INELASTIC SCATTERING OF SLOW NEUTRONS FROM POLYCRYSTALLINE SAMPLES
NEUTRON INELASTIC SCATTERING, IAEA, P. 137-P. 147 (1972)
P8/ AL/ CA, EXPERIMENT/ PHONON SPECTRA/ COHERENT SCATTERING

72-GO-03 GOYAL, P.S./ DASANNACHARYA, B.A./ THAPER, C.L./ IYENGAR, P.K.
FREQUENCY DISTRIBUTION FUNCTION OF SOLID AMMONIA
PHYS. STATUS SOLIDI, V. 50, P. 701-P. 708 (1972)
AMMONIA, EXPERIMENT/ PHONON DENSITY

72-GO-01 GREENFIELD, A.J./ WISER, N./ LEENSTRA, M.H./ VAN-DER-LUST, H.
COMPARISON OF EXPERIMENTAL AND THEORETICAL STRUCTURE FACTORS FOR LIQUID NA AND K
PHYSICA, V. 59, P. 571-P. 581 (1972)
NA/ K, THEORY/ LIQUID/ STRUCTURE FACTOR/ HARD SPHERE MODEL

72-HA-01 HANKE, W./ BILZ, H.
PHONONS IN METALS
NEUTRON INELASTIC SCATTERING, 1972, IAEA, P. 3-P. 28 (1972)
THEORY OF SOLIDS/ REVIEW ARTICLES, MICROSCOPIC THEORY/ PHONON/ METAL/ REVIEW

72-HA-02 HARADA, J.
SOFT MODES AND THE INELASTIC SCATTERING OF NEUTRONS (IN JAPANESE)
JAERI-M 4861, PROG. 4TH CONF. ON INELASTIC NEUTRON SCATTERING, P. 77-P. 85 (1972)
BA. T1.03, SOFT PHONON MODE/ EXPERIMENT/ PHASE TRANSITION

72-HA-03 HASSAN, M./ LADD, F.
DIFFUSIVE AND COLLECTIVE MOTION IN CLASSICAL FLUIDS
J. CHEM. PHYS., V. 57, P. 3003-P. 3006 (1972)
THEORY-OF-FLUIDS, DIFFUSION CONSTANT

72-HA-04 HAUTECOEUR, S./ VORDEBRUCH, P.
MOLECULAR MOTIONS IN SILANE
NEUTRON INELASTIC SCATTERING, IAEA, P. 489-P. 499 (1972)

972)
51/ H4, EXPERIMENT/ TOF SPECTRA/ GAS AND LIQUID STATE

72-HA-05 HAYNIN, S./ LUBAN, M.
PHONON SPECTRUM OF SUPERFLUID HELIUM
PHYS. LETT., A, V. 42A, P. 133 (1972)
HE, THEORY

72-HA-06 HAWRANEK, J.P./ LOWENDES, R.P.
LATTICE DYNAMICS OF SILVER BROMIDE
SOLID STATE COMMUN., V. 11, P. 1473-P. 1475 (1972)
AG, BR, THEORY/ PHONON DISPERSION/ STATE DENSITY/ DEFORMATION DIPOL MODEL

72-HE-01 HEARN, C.J.
PHONON SOFTENING AND THE METAL-INSULATOR TRANSITION IN V.02
J. PHYS., C, LONDON, V. 5, P. 1317-P. 1334 (1972)
V.02, THEORY/ METAL-NONMETAL PHASE TRANSITION/ SOFT PHONONS

72-HE-02 HENNIN, B./ MOSSA, F.
NORMAL MODES OF VIBRATION IN Cu I
PHYS. REV. LETT., V. 28, P. 964-P. 966 (1972)
Cu, I, EXPERIMENT/ DISPERSSION RELATION/ RIGID ION MODEL/ FREQUENCY DISTRIBUTION/ ELASTIC CONSTANT

72-HO-01 HORNER, H.
THE EFFECT OF HARD-CORE INTERACTIONS ON CALCULATIONS OF PHONON FREQUENCIES AND DAMPING IN RARE GAS CRYSTALS
NEUTRON INELASTIC SCATTERING, IAEA, P. 119-P. 127 (1972)
HE/ NE/ AR, THEORY/ PHONON DISPERSION/ SELFCONSISTENT TREATMENT

72-HO-02 HORNER, H., QUANTUM CRYSTALS: THEORY OF THE PHONON SPECTRUM
BNL-17121 (1972)
THEORY-OF-SOLIDS, ME/ NE, QUANTUM CRYSTALS, PHONON SPECTRUM

72-HO-03 HORNER, H., MULTIPHONON AND SINGLE-PARTICLE EXCITATIONS IN QUANTUM CRYSTALS
BNL-17120 (1972)
HE/ NE, THEORY/ SCATTERING FUNCTION/ SINGLE-PARTICLE EXCITATION/ QUANTUM CRYSTAL

72-HO-04 HOROVITZ, B./ GUTFREUND, H./ WEGER, M.
PHONON DISPERSION IN SYSTEMS WITH A PLANAR FERMI SURFACE
SOLID STATE COMMUN., V. 11, P. 1361-P. 1364 (1972)
THEORY OF SOLIDS: THEORY/ PHONON SPECTRUM/ EFFECT OF A PLANAR FERMI SURFACE

72-HU-01 MULLER, A.; PRESS, W.
CRITICAL SCATTERING IN SOLID Ca04
Ca,4; CRITICAL SCATTERING/ Ca04

72-I1-01 IIZUMI, M.
A METHOD OF DYNAMICAL STRUCTURE ANALYSIS AND ITS APPLICATION TO CALCIUM FLUORIDE
Ca,2F

72-I1-02 IIZUMI, M.; GESI, K.; MARADA, J.
LATTICE VIBRATION IN SrTiO3 (IN JAPANESE)
JAERI-M-4841, PROC. 4TH CONF. ON INELASTIC NEUTRON SCATTERING, P.91-P.93 (1972)
Sr,Ti;03, EXPERIMENT/ PHONON DISPERSION

72-IN-01 INOUE, K.; OTOMO, N.; UTSURO, M.; FUJITA, Y.
SLOW NEUTRON SPECTRA IN THE LIQUID AND SOLID METHANE
METHANE, NEUTRON SPECTRA

72-IR-01 IRWIN, J.C.; LACOMBE, J.
PHONON DISPERSION IN ZnSe
Zn,SE; RAMAN SPECTRA/ MODEL FITTING/ STATE DENSITY/ SP EICIF HEAT

72-IS-01 ISIMIBASHI, Y.; TAKAGI, Y.
COMPUTER EXPERIMENT ON LINEAR CHAIN OF ATOMS LYING IN DOUBLE MINIMUM POTENTIAL
THEORY OF SOLIDS: COMPUTER EXPERIMENT/ DYNAMICS/ LINEAR CHAIN/ DOUBLE MINIMUM

72-IS-02 ISIMIBASHI, Y.
FORCE CONSTANTS IN Ba,Ti;03 AND Sr,Ti;03
JAERI-M-4841, PROC. 4TH CONF. ON INELASTIC NEUTRON SCATTERING, P.98-P.102 (1972)
Ba, Ti;03/ Sr, Ti;03, THEORY/ FORCE CONSTANT

72-IV-01 IVANOVA, M.A.; FISHMAN, A.Y.
INELASTIC SCATTERING OF NEUTRONS IN CRYSTALS CONTAINING LINEAR DEFECTS
NEUTRON-SCATTERING-IN= SOLIDS/ SCATTERING-BY-DEFECTS, THEORY/ LINEAR DEFECT

72-JA-01 JACOBI, N.; SCHNEPP, G.
QUANTUM LATTICE DYNAMICS OF MOLECULAR SOLIDS: 2. APPLICATION TO THE LIBRATIONS OF SOLID C,02, ALPHA-N2 AND ORTHO-H2
C,02/ H2/ N2, THEORY/ LATTICE DYNAMICS/ QUADRAPOL-QUA DRAPOL POTENTIAL

72-JA-02 JACOBI, N.
QUANTUM LATTICE DYNAMICS OF MOLECULAR SOLIDS: 1. GENERAL THEORY
THEORY OF SOLIDS, THEORY/ LATTICE DYNAMICS/ TRANSLATIONAL AND LIBRATIONAL MODES

72-JA-03 JACROT, B.; KROO, N.; SPRINGER, T.
SUMMARY OF THE SYMPOSIUM ON NEUTRON INELASTIC SCATTERING
NEUTRON INELASTIC SCATTERING, IAEA, P.859-P.865 (1972)
REVIEW ARTICLES: SUMMARY OF THE SYMPOSIUM

72-JA-04 JANIK, J.A.; JANIK, J.M.; OTNES, K.; PYNN, R.
A STUDY OF THE ANISOTROPY OF SELF-DIFFUSION IN MAGNETICALLY ORIENTED PARA-AZORYANISOLE
NEUTRON INELASTIC SCATTERING, IAEA, P.515-P.525 (1972)
P-AZORYANISOLE, EXPERIMENT/ QUASI-ELASTIC SCATTERING/ NEUMATIC LIQUID CRYSTAL/ 396-399K; EXTERNAL MAGNETIC FIELD

72-JA-05 JANNIK, G.; SUMMERFILD, G.C.
CONFORMATIONAL MOTIONS OF POLYMERS
NEUTRON INELASTIC SCATTERING, IAEA, P.277-P.286 (1972)
SCATTERING-THEORIES, THEORY/ POLYMER CHAINS IN SOLUTION/ DYNAMIC DIFFUSIVE MOTION

72-JE-01 JEX, H.
ANHARMONIC INTERACTIONS IN GE AND SI
NEUTRON INELASTIC SCATTERING, 1972, IAEA, P.29-P.30 (1972)
GE/ SI, THEORY/ PHONON/ ANHARMONIC INTERACTION

72-JO-01 JOGHI, S.; TRIPATHI, B.B.; BEHARI, J.
EFFECT OF ANGULAR FORCES ON THE CRYSTAL DYNAMICS OF SOLID IDENTIFIED XENON
NUOVO CIMENTI, B, V.10, P.111-P.116 (1972)
XE, THEORY/ PHONON DISPERSION AND SPECTRA/ ELASTIC FOR GE MODEL

72-KA-01 KACHIVA, C.M.
PHONON FREQUENCIES OF METALLIC LITHIUM
PHYS. STATUS SOLIDI B, V.54, P.29-P.32 (1972)

LI Theor/ Phonon Dispersion/ Pseudopotential Calculation

72-KA-02 KACHHAVA, C.M.
PHONON FREQUENCIES OF METALLIC LITHIUM
PHYS. STATUS SOLIDI B, V.54, P.29 (1972)
LI Theor/ Phonon Dispersion

72-KA-03 KAM, L./ GILAT, G.
OPTIMUM-MODEL-POTENTIAL LATTICE DYNAMICS OF BETA-SN
PHYS. REV. B, V.5, P.2887-P.2896 (1972)
SN Theor/ Phonon Dispersion/ State Density/ Model Potential

72-KA-04 KAMITAKAMURA, W.A./ BROCKHOUSE, B.N.
NEUTRON SCATTERING BY VIBRATIONS IN A DISORDERED LATTICE, NI(55 PERCENT) PD(45 PERCENT)
NEUTRON INELASTIC SCATTERING, IAEA, P.73-P.84 (1972)
NI PD Experiment/ Phonon Dispersion/ Alloy/ Mass Effect

72-KA-05 KAMMER, E.W./ CARDINAL, L.C./ VOLD, C.L./ GLICKSMA, N.M.E.
THE ELASTIC CONSTANTS FOR SINGLE-CRYSTAL BISMUTH AND TIN FROM ROOM TEMPERATURE TO THE MELTING POINT
J. PHYS. CHEM. SOLIDS, V.33, P.1891-P.1898 (1972)
B1/ Sn Experiment/ Elastic Constant

72-KA-06 KANAMORI, J.
COOPERATIVE YAHN-TELLER EFFECT (IN JAPANESE)
JAERI-M-4841, PROC. 4HT CONF. ON INELASTIC NEUTRON SCATTERING, P.106-P.107 (1972)
Theor/ Solid/ Yahn-Teller Effect/ Phonon

72-KA-07 KAPULLA, H.
UNTERSUCHUNG DER MOLEKULN UNTEN IM FESTEN METHAN DUHC
H INELASTISCHE NEUTRONENSTEUERUNG
KFK-1489 (1972)
C.H4 Experiment/ Solid/ Rotating Crystal Spectrometer
/ Sigma (E= E'Primei Theta)

72-KA-08 KAPULLA, H./ GLAESER, W.
MOLECULAR ROTATIONS IN THE LOW-TEMPERATURE PHASE OF SOLID METHANE
NEUTRON INELASTIC SCATTERING, IAEA, P.841-P.849 (1972)
Methane, Experiment/ Solid Methane/ Small Energy Peaks

72-KA-09 KATZ, I./ RICE, S.A.
ON THE CALCULATION OF THE DENSITY OF LOCALIZED STATES IN A DENSE FLUID
J. PHYS. C, LONDON, V.5, P.1165-P.1182 (1972)
Theor/ Fluid/ Density of Localized States/ Fluid

72-KE-01 KERR, W.C./ PATAAK, K.N./ SINGWAL, K.S.
ADDENDUM TO NEUTRON SCATTERING FROM LIQUID HELIUM II AT LARGE MOMENTUM TRANSFER AND THE CONDENSATE FRACTION
PHYS. REV. A, V.4, P.2414 (1972)
HE Theor

72-KE-02 KESHRANWI, K.M./ AGHAWALI, B.K.
FREQUENCIES AND WIDTHS OF PHONONS IN DILUTE CR-W ALLOYS
PHYS. REV. B, V.6, P.2178-P.2192 (1972)
CR-W Theor/ DILUTE Alloy/ Phonon Dispersion and Widths/ Mass and Force Constant Change

72-KE-03 KESHRANWI, K.M./ AGHAWALI, B.K.
PHONON FREQUENCIES IN CR-W ALLOY PERCENT W ALLOY SOLID STATE COMMUN., V.11, P.771-P.774 (1972)
CR-W Experiment/ Phonon/ Alloy/ Impurity Effect

72-KI-01 KIM, C.H./ HAFIZADEH, H.A./ YIP, S.
NEUTRON SCATTERING BY VIBRATIONS IN AMMONIUM CHLORIDE IN THE LOW-TEMPERATURE ORDERED PHASE
J. CHEM. PHYS., V.57, P.2291-P.2298 (1972)
N,H,CL Theor/ Phonon Dispersion/ Frequency Spectrum
/ Rigid-Molecular Model/ Ordered Phase

72-KI-02 KITCHENS, T.A./ SHIRANE, G./ MINKIEWICZ, V.J./ OSG QOD, E.R.
SINGLE PARTICLE EXCITATIONS IN SOLID HELIUM
BNL-17101 (1972)
HE Experiment/ Solid/ Single Particle Excitations

72-KO-01 KOEHLER, T.R./ WERTHAMEYER, H.R.
COMPUTATION OF PHONON SPECTRAL FUNCTIONS AND GROUND-STATE ENERGY OF SOLID HELIUM, I. BCC PHASE
PHYS. REV., V.5, P.2239-P.2247 (1972)
HE Theor/ Dispersion Relation

72-KO-02 KOLLMAR, A.
QUASI-ELASTIC SCATTERING OF NEUTRONS FOR INVESTIGATION OF UNPERIODICAL ATOMIC MOTIONS IN LIQUID SELENIUM
JUL-829-FF (1972)
SE Experiment/ Quasi-Elastic Scattering/ Liquid State

72-KO-03 KOTTHARI, L.S./ SINGHMA, U.
LATTICE DYNAMICS OF SODIUM - COMPARISON OF DE LAUNAY AND CGW MODELS
J. PHYS. C, LONDON, V.5, P.293 (1972)
NA Theor/ Solid/ Lattice Dynamics/ Dispersion Relation
ON ANGULAR FORCE

72-KR-01 KHESS, W.
LATTICE DYNAMICS OF HIGHLY POLARIZABLE HOMOPOLAR CRYSTALS WITH DIAMOND STRUCTURE
PHYS. STAT. SOLIDI B, V. 49, P. 235-P. 245 (1972)
GE/ SN • THEOREY/ PHONON DISPERSION/ MODIFIED SHELL MODEL

72-KU-01 KUEHNERT, D./ WAGNER, M.
LATTICE DYNAMICS FROM VIBRATIONAL SPECTRA, EXAMINATION OF A GENERALIZED SHELL MODEL FOR SrF2 AND BaF2
Z. PHYS., V. 256, P. 22-P. 42 (1972)
SR.F2/ BA.F2 • THEOR/ PHONON DISPERSION/ GENERALIZED SHELL MODEL/ VIBRATIONAL SPECTRA

72-KU-02 KUGLER, A.A.
SELF-MOTION RESPONSE AND INCOHERENT SCATTERING FUNCTION IN CLASSICAL LIQUIDS
J. PHYS. CHEM. LIQUIDS, V. 3, P. 205-P. 223 (1972)
NEUTRON SCATTERING IN FLUIDS • THEOR/ CLASSICAL LIQUID/ INCOHERENT

72-KU-03 KUMAR, A./ SHARAN, B.
LATTICE DYNAMICS AND THE HEAT CAPACITY OF INDIUM IN • THEOR/ PHONON DISPERSION/ DERIVE TEMPERATURE
J. PHYS., C. LONDON, V. 5, P. 311-P. 313 (1972)

72-KU-04 KUSHWAHA, S.S./ KUMAR, A.
NONCENTRAL FORCES MODEL FOR TRANSITION H.C.P. METALS NUOVO CIMENTO B, V. 11, P. 301-P. 312 (1972)
TI/ H.F. Y • THEOREY/ PHONON DISPERSION/ H.C.P. TRANSITION METAL

72-LA-01 LADO, F.
NUMERICAL CALCULATION OF THE DENSITY AUTOCORRELATION FUNCTION FOR LIQUID ARGON
PHYS. REV., A, V. 5, P. 2238-P. 2244 (1972)
AR • THEOR/ DENSITY AUTOCORRELATION FUNCTION

72-LA-02 LAL, H.M./ VERMA, M.P.
LATTICE DYNAMICS OF RUBIDIUM HALIDES J. PHYS., C. LONDON, V. 5, P. 543-P. 548 (1972)
RbF/ RbCl/ RbBr/ RbI • THEOREY/ PHONON DISPERSION/ SHELL MODEL

72-LA-03 LAL, H.M./ VERMA, M.P.
LATTICE DYNAMICS OF CsCl, CsBr AND CsI J. PHYS., C. LONDON, V. 5, P. 1038-P. 1045 (1972)
CsCl/ CsBr/ CsI • CALCULATION/ PHONON DISPERSION/ THE REE BODY FORCE SHELL MODEL

72-LE-01 LEADBETTER, A.J./ LITCHINSKY, D./ TURNBULL, A.
ROTATIONAL MOTIONS IN THE PLASTIC CRYSTAL PHASES OF C6, F12, C6,F11,H AND C6,F9,H3
NEUTRON INELASTIC SCATTERING, IAEA, P. 231-P. 243 (1972)
FLUORINATED CYCLOHEXANE • EXPERIMENT/ MOLECULAR ROTATION/ QUASI-ELASTIC SCATTERING

72-LE-02 LEADBETTER, A.J./ STRINGFELLOW, M.W.
THE FREQUENCY SPECTRUM OF THE NORMAL MODES OF VIBRATION OF VITREOUS SILICA AND ALPHA QUARTZ
NEUTRON INELASTIC SCATTERING, IAEA, P. 501-P. 513 (1972)
S1.02 • EXPERIMENT/ VITREOUS SILICA/ ALPHA QUARTZ/ PHON ON SPECTRA

72-LE-03 LEE, Y./ JONAS, J.
DENSITY EFFECTS ON THE DYNAMIC STRUCTURE OF LIQUID DEUTERIUM OXIDE
J. CHEM. PHYS., V. 57, P. 4233-P. 4240 (1972)
D2.0 • VISCOSITY/ DENSITY

72-LE-04 LEFEBVRE, Y./ CHEN, S.H./ YIP, S.
TRANSATIONAL LINE NARROWING IN PRESSURIZED HYDROGEN GAS
NEUTRON INELASTIC SCATTERING, IAEA, P. 445-P. 459 (1972)
H • EXPERIMENT/ QUASI-ELASTIC SCATTERING/ PRESSURE DEPENDENCE/ KINETIC THEORY ANALYSIS

72-LI-01 LITZMAN, G./ BARTUSEK, M./ ZAVADIL, V.
LATTICE DYNAMICS OF A CRYSTAL CONTAINING A POINT DEFECT WITH A LONG RANGE INTERACTION J. PHYS., C. LONDON, V. 5, P. 287-P. 292 (1972)
THEORY OF SOLIDS • LATTICE DYNAMICS/ DEFECT/ LONG RANGE INTERACTION/ GREEN FUNCTION

72-LO-01 LOVESEY, S.W.
THEORY OF THE MAGNON AND PHONON INTERACTION IN Fe-F2 J. PHYS., C. LONDON, V. 5, P. 2769 (1972)
F2.F • THEOR/ THEORY

72-MA-01 MARSH, D.I./ MARTIN, D.H.
LATTICE VIBRATION OF POLYETHYLENE J. PHYS., C. LONDON, V. 5, P. 2309-P. 2316 (1972)
POLYETHYLENE • THEOR/ PHONON DISPERSION/ PHONON SPECTRUM PROPAGATING TRANSVERSELY TO CHAIN AXIS

72-MA-02 MARTIN, P.C./ PARODI, O./ PERSHAN, P.S.
UNIFIED HYDRODYNAMIC THEORY FOR CRYSTALS, LIQUID CRYSTALS, AND NORMAL FLUID PHYS. REV. A, V. 6, P. 2401 (1972)
THEORY-OF-FLUIDS. THEORY/ SCATTERING LAW. THEORY/ HYDRODYNAMICS AND THERMODYNAMICS

72-MA-03 MAZENKO, G.F.
PROPERTIES OF THE LOW-DENSITY MEMORY FUNCTION
PHYS. REV. A, 3, P.2545 (1972)

72-MA-04 MAZENKO, G.F., WEI, Y.C., YIP, S.
THERMAL FLUCTUATIONS IN A HARD-SHERE GAS
PHYS. REV. A, 6, P.981-P.995 (1972)

72-MC-01 MCDOWELL, R.S., ASPHEY, L.B., MOSKINS, L.C.
VIBRATIONAL SPECTRUM AND FORCE FIELD OF RUTHENIUM TETROXIDE
J. CHEM. PHYS., 56, P.5712-P.5721 (1972)
RU-04 EXPERIMENT/ InFRAE RED AND RAMAN SPECTRA/ VAPOR AND LIQUID PHASE/ ANHARMONICITY/ CORIOLIS CONSTANTS

72-MC-02 MCDOWELL, R.S., ASPHEY, L.B.
VIBRATIONAL SPECTRUM AND FORCE FIELD OF XENON TETROXIDE
J. CHEM. PHYS., 57, P.3062 (1972)
XE-04 EXPERIMENT/ VAPOR/ FREQUENCY SHIFT AND ANHARMONICITY CORRECTIONS/ INFRARED AND RAMAN SPECTRA

72-ME-01 MELCHER, R.H., SCOTT, B.A.
SOFT ACOUSTIC MODE AT THE COOPERATIVE JAHN-TELLER PHASE TRANSITION IN DyV04
PHYS. REV. LETT., 28, P.607-P.610 (1972)
DY-V04 EXPERIMENT/ ELASTIC CONSTANT/ SOFT MODE/ MEAN FIELD THEORY/ CRITICAL FLUCTUATION

72-ME-02 MENON, C.S./ RAO, R.R.
LATTICE DYNAMICS AND SOE CONSTANTS OF TERBIUM USING KEATING'S APPROACH
SOLID STATE COMMUN., 10, P.179 (1972)
TE THEORY/ SOILY/ LATTICE DYNAMICS/ DISPERSION RELATION

72-ME-03 MENON, C.S./ RAO, R.R.
LATTICE DYNAMICS AND THE SOE CONSTANTS OF THALLIUM AT 77 AND 296K
SOLID STATE COMMUN., 10, P.701-P.704 (1972)
TL THEORY/ PHONON DISPERSION/ SECOND ORDER ELASTIC CONSTANTS

72-ME-04 MENON, C.S./ RAO, R.R.
LATTICE DYNAMICS: THIRD ORDER ELASTIC CONSTANTS AND THE THERMAL EXPANSION OF CADMIUM
J. PHYS. CHEM. SOLIDS, 33, P.2129-P.2139 (1972)

72-NA-04 NAKAHARA, Y./ KADOTANI, M.
A COMPUTATIONAL METHOD OF THERMAL NEUTRON SCATTERING KERNE LS FOR HIGH TEMPERATURE CRYSTALS

72-ME-05 MENON, C.S./ RAO, R.R.
LATTICE DYNAMICS AND ELASTIC CONSTANTS OF HOMLUM AND YTTRIUM
PHYS. STAT. SOLIDS, B, 49, P.843-P.855 (1972)
H0-Y THEORY/ PHONON DISPERSION/ HEXAGONAL METAL

INFR-791/PS (1972)
LI2S, 5, P.104, P.20 EXPERIMENT/ FREQUENCY SPECTRUM

72-MI-02 MITRA, S.K.
VELOCITY AUTOCORRELATION IN LIQUID SODIUM
PHYS. LETT., 38, P.471 (1972)
SODIUM VELOCITY AUTOCORRELATION

72-MI-03 MITRA, S.K./ DASS, N./ VORSHEH, N.C.
MEMORY FUNCTION OF VELOCITY AUTOCORRELATION OF CLASSICAL LIQUIDS
PHYS. REV. A, 6, P.1214-P.1217 (1972)
MEMORY-OF-FLUIDS THEORY/ LIQUID/ VELOCITY AUTOCORRELATION/ MEMORY FUNCTION

72-MO-01 MOOCH, M.A./ SCHERM, R./ WILKINSON, M.K.
NEUTRON SCATTERING INVESTIGATION OF BOSE-EINSTEIN CONDENSATION IN SUPERFLUID HE-4
CONF-720833-10 (1972)
HE EXPERIMENT/ HIGH ENERGY NEUTRON SCATTERING

72-MO-02 MOSTOLLER, M.
PHONON SPECTRA OF SOME TRANSITION METAL CARBIDES FROM A SIMPLE PSEUDOPOTENTIAL APPROACH
PHYS. REV. B, 3, P.1260-P.1265 (1972)
UCFHP/ TA/C/ NB/C THEORY/ PHONON DISPERSION/ PSEUDOPOTENTIAL APPROACH

72-MO-03 MUILESTEIN, L.D./ GUEREMI, E./ CUNNINGHAM, R.M.
CR EXPERIMENT/ PHONON DISPERSION/ 300DK TO 503DK

72-NA-01 NAKAHARA, Y./ KADOTANI, M.
A COMPUTATIONAL METHOD OF THERMAL NEUTRON SCATTERING KERNELS FOR HIGH TEMPERATURE CRYSTALS
72-NR-02 NAKAMURA, M./ YONEZAWA, F.
A SYSTEMATIC APPROACH TO THE PROBLEMS OF RANDOM LATTICE
S, Z - A DOUBLE-SITE APPROXIMATE AND AN APPLICATION TO
THE CALCULATION OF FREQUENCY SPECTRA OF DISORDERED SY
STEMS
PROGR. THEORET. PHYS., KYOTO, V.47, P.1124-P,1139
(1972)
THEORY-OF-SOLIDS • THEORY/ DISORDERED SYSTEM/ PHONON FRE
QUENCY SPECTRA

72-NR-03 NAKAYAMA, N./ ODAJIMA, A.
A MODIFIED VALENCE FORCE FIELD APPROACH TO LATTICE DYN
AMICS OF TRIGONAL SULPHUR
J. PHYS. SOC. JAP., V.33, P.12-P.20 (1972)
SIGMA/ THEORY/ VALENCE-FORCE-FIELD/ ELASTIC CONSTANT

72-NR-04 NAMAIZAWA, H.
DYNAMICAL THEORY OF QUANTUM SOLIDS - PHONON DISPERSION RELATION
PROGR. THEORET. PHYS., KYOTO, V.48, P.709-P,723 (1972)
THEORY-OF-SOLIDS • THEORY/ QUANTUM LATTICE DYNAMICS/ PH
NON DISPERSION

72-NR-05 NARTEN, A.
LIQUID WATER: ATOM PAIR CORRELATION FUNCTIONS FROM NEUT
RON AND X-RAY DIFFRACTION
J. CHEM. PHYS., V.56, P.5681 (1972)
H2O/ D2O • PAIR CORRELATION/ EXPERIMENT

72-NR-06 NATHANS, R.
THERMAL NEUTRON SCATTERING ON MAGNETIC MATERIALS AND LI
QUIDS
TID-26325, P,8 (1972)
MISCELLANEOUS

72-NE-01 NELIN, G./ NILSSON, G.
PHONON DENSITY OF STATES IN GERMANIUM AT 80K MEASURED BY
NEUTRON SPECTROMETRY
PHYS. REV., B, V.6, P.3151-P.3160 (1972)
GE • EXPERIMENT/ CALCULATION/ PHONON DENSITY

72-NI-01 NICKLOW, R./ NARAYAN, K./ NAYAKAYASHI, H./ SMITH, H.G.
LATTICE DYNAMICS OF PYROLYTIC GRAPHITE
PHYS. REV., B, V.6, P.4993 (1972)
GRAPHITE • PHONON DISPERSION

72-NI-02 NIELSEN, M./ CARNEIRO, K.
LATTICE DYNAMICS OF SOLID HYDROGEN

72-NE-02 NELIN, G./ NILSSON, G.
NEUTRON INELASTIC SCATTERING - IAEA, P.111-P.117 (1
1972)
H • EXPERIMENT/ PHONON DISPERSION/ SOLID PARAHYDROGEN

72-NI-03 NILSSON, G./ NELIN, G.
STUDY OF THE HOMOLOGY BETWEEN SILICON AND GERMANIUM BY
NEUTRON INELASTIC SCATTERING
PHYS. REV., B, V.6, P.3777 (1972)
GE • LATTICE DYNAMICS/ NEUTRON SPECTROSCOPY

72-OS-01 OSGOOD, E.B./ MINKIEWICZ, V.J./ KITCHENS, T.A./ SH
IZUKA, G.
INELASTIC-NEUTRON SCATTERING FROM BCC BETA-NICKEL
PHYS. REV., A, V.5, P.1537-P.1547 (1972)
HE • EXPERIMENT/ PHONON DISPERSION

72-PA-01 PAGE, D.L.
THE STRUCTURE FACTOR FOR LIQUID ARGON AT 84,5DK
AR • EXPERIMENT/ LIQUID/ STRUCTURE FACTOR/ NEUTRON DIFFR
CTION ACTION 84,5DK

72-PA-02 PANDEY, R.N./ DAVY, B.
PHONON DISPERSION-RELATIONS IN RUBIDIUM CHLORIDE ON THE
BASIS OF SHELL MODEL
SOLID STATE COMMUN., V.11, P.185-P,188 (1972)
RbCl • THEORY/ PHONON DISPERSION/ SHELL MODEL

72-PA-03 PANDY, B.P./ DAVY, B.
LATTICE DYNAMICS OF GERMANIUM BY THE C.G.W. TYPE OF ANGU
LAR FORCE MODEL
SOLID STATE COMMUN., V.11, P.775-P,777 (1972)
GE • THEORY/ LATTICE/ DYNAMICS/ DISPERSION RELATION

72-PA-04 PASZKIEWICZ, T.
SELF-CONSISTENT THEORY OF SECOND ORDER ELASTIC CONSTANT
S FOR NONIONIC ANHARMONIC CRYSTALS
JIN1-4644 (1972)
THEORY-OF-SOLIDS • THEORY/ SOLID/ ANHARMONICITY/ ELAST
IC CONSTANTS

72-PA-05 PAVLEW, G.S.
DYNAMICS OF MOLECULAR CRYSTALS
NEUTRON INELASTIC SCATTERING - IAEA, P.175-P.192 (1
1972)
THEORY-OF-SOLIDS • MOLECULAR CRYSTAL/ DYNAMICS

72-PA-06 PAVLEW, G.S.
ANALYTIC FORMULATION OF MOLECULAR LATTICE DYNAMICS BASE
D ON PAIR POTENTIAL FUNCTIONS
PHYS. STATUS SOLIDI B, V.49, P.475-P.488 (1972)
THEORY-OF-SOLIDS • MOLECULAR LATTICE DYNAMICS/
ANALYTIC FORMULATION/PAIR POTENTIAL

72-PL-01 PLAKIDA, N.M.
INTERFERENCE IN NEUTRON SCATTERING IN ANHARMONIC CRYSTALS
FIZ. TVERD. TELA (SOV. PHYS.-SOLID STATE), V. 14 (1972), P.2461-2464 (1971-1972)
NEUTRON-SCATTERING-INSOLIDUS, ANHARMONIC CRYSTAL/ONE-PHONON COHERENT CROSS SECTION

72-PO-01 POLLOCK, E.L.
APPROXIMATE PHONON FREQUENCY DISTRIBUTIONS FOR FCC LENNARD-JONES HARMONIC CRYSTALS
COO-3161-3 (1972)

72-PO-02 POWELL, B.M./WOODS, A.D.B./MARTEL, P.
TEMPERATURE DEPENDENCE OF THE NORMAL MODES OF NIOBIUM NEUTRON INELASTIC SCATTERING, 1972, IAEA, P.43-P.51 (1972)
NB, EXPERIMENT/PHONON DISPERSION/296 TO 1050K

72-PO-03 POWELL, B.M./DOLLING, G./PISERI, L./MARTEL, P.
NORMAL MODES OF SOLID CARBON DIOXIDE NEUTRON INELASTIC SCATTERING, IAEA, P.207-P.217 (1972)
C.2, EXPERIMENT/PHONON DISPERSION/MODEL CALCULATION

72-PO-04 POWLES, J.G./DORE, J.C./PAGE, D.L.
COHERENT NEUTRON SCATTERING BY LIGHT WATER (H2.0) AND A LIGHT-HEAVY WATER MIXTURE (64 PER CENT H2O,76 PER CENT H2O)
MOL. PHYS., V. 24, P.1025-P.1037 (1972)
H2O/H2O, EXPERIMENT/STRUCTURE FACTOR/H2O=H2O, M/M X/RADIUS/ISOTOPIC SUBSTITUTION

72-PR-01 PRakash, S./JOSHI, S.K.
LATTICE DYNAMICS OF NOBLE METALS-APPLICATION TO COPPER PHYS. REV. B, V. 5, P.2880-P.2887 (1972)
CU, THEORY/DISPERSION RELATION

72-PR-02 PRASAD, B./SHIVASTAVA, R.S.
LATTICE VIBRATIONS OF ALUMINUM: A MODEL POTENTIAL APPROACH PHYS. LETT., A, V. 38A, P.527 (1972)
AL, THEORY/SOLID/LATTICE DYNAMICS/DISPERSION RELATION/DEBYE TEMPERATURE/METAL/TWO PARAMETER MODEL POTENTIAL

72-PR-03 PRASAD, B./SHIVASTAVA, R.S.
CRYSTAL DYNAMICS OF LITHIUM BASED ON THE PSEUDOPOTENTIAL L TECHNIQUE PHYS. REV. B, V. 6, P.2192 (1972)
L, THEORY/SOLID/LATTICE DYNAMICS/DISPERSION RELATION/PSEUDOPOTENTIAL

72-PR-04 PRASAD, H.J./TREVINO, S.F./GAULT, J.D./LOGAN, K.
ICE I - LATTICE DYNAMICS AND INCOHERENT NEUTRON SCATTERING J. CHEM. PHYS., V. 56, P.3217 (1972)
H2O/D2O, THEORY/EXPERIMENT/LATTICE DYNAMICS/FREQUENCY RELATION/DISPERSION RELATION/TWO/INCOHERENT APPROXIMATION/SOLID, RO MAN MEAN SQUARE DISPLACEMENT/ICF/SPECIFIC HEAT

72-PR-05 PREVENDER, T.S./SINHA, S.K./SMITH, J.F.
LATTICE DYNAMICS OF Y-ZN PHYS. REV. B, V. 6, P.4438-P.4445 (1972)
Y-ZN, EXPERIMENT/PHONON DISPERSION/ALLOY/MODEL ANALYSIS/FREQUENCY DISTRIBUTION/DEBYE TEMPERATURE

72-PU-01 PUSTOVOIT, V.I.
HARD PHOTON AND SLOW NEUTRON SCATTERING IN SEMICONDUCTORS CRYSTALS UNDER CONDITIONS OF SOUND INSTABILITY ZH, EKSP. TEOR. FIZ. (SOV. PHYS.-JETP), V. 62, P.357-P.359 (1972)
Z, THEORY/SOLID/NEUTRON SCATTERING/IN-SOLID/PHOTON SPECTRUM/DEBYE TEMPERATURE/NEUTRON SCATTERING

72-PY-01 PYNN, R./SWIRES, G.L.
MG, EXPERIMENT/PHONON DISPERSION/PHONON DENSITY/DEBYE TEMPERATURE

72-PY-02 PYNN, R./OTHNES, K./RISTE, I.
COHERENT NEUTRON SCATTERING BY A NEMATIC LIQUID CRYSTAL SOLID STATE COMMUN., V. 11, P.351-P.356 (1972)
P-AZOTYLXANISOLE, EXPERIMENT/NEUTRON DIFFRACTION/PHASE DIAGRAM

72-QU-01 QUILLICHI, M./POULET, H.
THE ANOMALOUS BEHAVIOR OF PHONON NEAR THE 60DC PHASE TRANSITION IN LEAD DICALCMIUM PROPIONATE SOLID STATE COMMUN., V. 10, P.239 (1972)
DICALCMIUM LEAD PROPIONATE, EXPERIMENT/FREQUENCY DISTRIBUTION FUNCTION/PHASE TRANSITION

72-RA-01 RAE, A.T.M.
THE LATTICE DYNAMICS OF H.C.N
J. PHYS., C, LONDON, V.5, P.3309-P.3321 (1972)
H.C.N., CALCULATION/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ PHASE CHANGE/ SOFT PHONON

72-RA-02 RAIFZADED, H./ YIP, S./ PRAS, H.
LATTICE DYNAMICS OF RHOMBOHEDRAL SODIUM AZIDE
J. CHEM. PHYS., V.56, P.3377-P.3382 (1972)
NA,N3, EXPERIMENT/ THEORY/ TIME OF FLIGHT/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION

72-RA-03 RAINFORD, B./ HOUMANN, J.-G./ GUGGENHEIM, H.-J.
MAGNONS AND THE MAGNON-PHONON INTERACTION IN Fe,F2
NEUTRON INELASTIC SCATTERING, IAEA, P.659-P.667 (1972)
FE,F2, EXPERIMENT/ PHONON AND MAGNON DISPERSION/ MAGNON-PHONON INTERACTION

72-RA-04 RAJPUT, J.S./ KUSHWAHA, S.S.
PHONON DISPERSION RELATIONS FOR ZINC PHYS. LETT., V.38A, P.497 (1972)
ZN, THEORY/ PHONON DISPERSION

72-RA-05 RAM, P.N./ AGRAWAL, B.K.
IMPURITY MODES AND EFFECTIVE FORCE CONSTANT IN CS,CL PHYS. REV. B, V.5, P.2335-P.2337 (1972)
CS,CL, THEORY/ LOCALIZED MODE/ GAP MODE/ H. D. K IMPURITY

72-RA-06 RAO, R.R./ MENON, C.S.
PHONON DISPERSION RELATIONS AND ELASTIC CONSTANTS OF H, C, P, HELIUM AT MOLAR VOLUME OF 16 CC SOLID STATE COMMUN., V.11, P.1193 (1972)
HELIUM, DISPERSION-RELATION

72-RE-01 RESIBOIS, P.
REMARKS ON THE KINETIC ENERGY DENSITY FLUCTUATIONS IN CLASSICAL LIQUIDS PHYSICA, V.59, P.587-P.591 (1972)
THEORY/OF/FLUIDS, CLASSICAL LIQUID/ THEORY

72-RE-02 REYNOLDS, P.A./ KJEMS, J.K./ WHITE, J.W.
HIGH-RESOLUTION INELASTIC NEUTRON SCATTERING FROM SOME AROMATIC MOLECULAR POLYCRYSTALS FOR STUDY OF CRYSTAL EXCITATIONS AND ANHARMONIC EFFECTS J. CHEM. PHYS., V.56, P.2928-P.2943 (1972)
C6,H4,CL2/ C6,H4,B2, NEUTRON SPECTRUM/ THEORY/ EXPERIMENT/ INELASTIC NEUTRON SCATTERING/ ANHARMONICITY

72-RE-03 REYNOLDS, P.A./ KJEMS, J.K./ WHITE, J.W.
C6,H4,CL2, EXPERIMENT/ PHONON DISPERSION/ TRICLINIC PHASE 295K TO 90K

72-RE-04 REYNOLDS, J.A./ WHITE, J.W.
INELASTIC NEUTRON SCATTERING SPECTRUM OF P-TERPHENYL J. C. S. FARADAY TRANS., V.68, P.1634-P.1638 (1972)
TERPHENYL, EXPERIMENT/ NEUTRON SPECTROSCOPY/ MOLECULAR VIBRATION

SLOW NEUTRON SCATTERING CROSS-SECTION FOR METHANOL, ETHANOL, PROPRANOOL, ISO-PROPRANOOL, BUTANOL, ETHANEDIOL AND PROPANETRIOL J. NUCL. ENERGY, V.26, P.379-P.383 (1972)
METHANOL/ ETHANOL/ PROPRANOOL/ BUTANOL/ ETHANEDIOL/ PROPANETRIOL EXPERIMENT/ TOTAL SIGMA/ LIQUID

72-RO-02 RODRIGUEZ, C./ DO-AMARAL, L.G./ VINHAS, L.A./ HERDADE, S.B.
PHOTON MOTIONS IN METHANOL BY COLD NEUTRON SCATTERING J. PHYS. V.6, P.3118-P.3121 (1972)
METHANOL, EXPERIMENT/ QUASI-ELASTIC SCATTERING/ MOLECULAR MOTION/ DIFFUSION

72-RO-03 ROME, J.M./ SKOELD, K.
THE COHERENT SCATTERING FUNCTION OF LIQUID ARGON AT 85, 20K NEUTRON INELASTIC SCATTERING, IAEA, P.435-P.439 (1972)
ARG, EXPERIMENT/ LIQUID/ 85, 20K SCATTERING FUNCTION

72-RO-04 ROME, J.M.
VODA, EXPERIMENT/ PHONON SPECTRA/ 300K,425K

NEUTRON QUASI-ELASTIC SCATTERING STUDY OF HYDROGEN DIFFUSION IN A SINGLE CRYSTAL OF PALLADIUM PHYS. REV. LETT., V.29, P.1250 (1972)
PD-H, QUASI-ELASTIC SCATTERING/ HYDROGEN DIFFUSION

72-RO-01 HUSH, J.J./ SCHROEDER, L.W./ HELVEGGER, A.J.

- 249 -
CRITICAL NEUTRON SCATTERING IN Sr,Tl,0.3 AND K,Mn,F3
PHYS, REV. B, V.6, P.432-P.434 (1972)
Sr,Ti,0.3/ K,Mn,F3 EXPERIMENT/ CRITICAL SCATTERING/ PH
ASE TRANSITION

72-SH-04 SHAWER, R.E./ DEAN, P.
ATOMIC VIBRATIONS IN ORIENTATIONALLY DISORDERED SYSTEMS
I. HEXAGONAL ICE
J, PHYS, C, LONDON, V.5, P.1028 (1972)
H20/ D2O THEORY/ SOLID/ LATTICE DYNAMICS/ FREQUENCY
DISTRIBUTION/ ICE/ DISORDERED SYSTEM

72-SH-05 SHAWER, R.E./ DEAN, P.
ATOMIC VIBRATIONS IN ORIENTATIONALLY DISORDERED SYSTEMS
II. A TWO DIMENSIONAL MODEL
J, PHYS, C, LONDON, V.5, P.1071 (1972)
THEORY-OF-SOLID/ THEORY/ SOLID/ LATTICE DYNAMICS/ FREQUENCY SPECTRUM/ BORN-VON KARMA MODEL/ DISORDERED SYSTEM

72-SH-06 SHUKLA, M.M./ DA-CUNHA-LIMA, I.C./ BRECANSIN, L.M
A MODEL FOR LATTICE DYNAMICS OF B.C.C. METALS
SOLID STATE COMMUN., V.11, P.1431 (1972)
NA THEORY/ PHONON DISPERSION

72-SI-01 SILBERGLOTT, R.
MICROSCOPIC MECHANISM OF THE RESPONSE FUNCTION OF THE
SOFT ZONE BOUNDARY PHONON IN Sr,TI,0.3
SOLID STATE COMMUN., V.11, P.247 (1972)
Sr,Ti,0.3 THEORY/ SOFT MODE

72-SI-02 SINGH, S.N./ PRAKASH, S.
PHONON DISPERSION IN ALKALI METALS
PHYSICA, V.58, P.71-P.76 (1972)
L1/ NA/ K/ RB/ CS THEORY/ DISPERSION CURVE

72-SI-03 SINGH, S.N./ PRAKASH, S.
PHONON DISPERSION IN ALKALI METALS
PHYSICA, V.58, P.71-P.76 (1972)
L1/ NA/ K/ RB/ CS THEORY/ PHONON DISPERSION

72-SI-04 SINGH, R.K./ SRIVASTAVA, R.S.
LATTICE DYNAMICAL CALCULATION OF THERMAL EXPANSION COEF
FICIENT AND GRIEVEISEN PARAMETER FOR LITHIUM
J, PHYS, SOC, JAP., V.33, P.1214-P.1217 (1972)
L1 THEORY/ PHONON DISPERSION/ THERMAL EXPANSION/ GRU
EISEN PARAMETER

72-SI-05 SINGH, R.K.
A GENERALIZED SHELL MODEL OF LATTICE DYNAMICS
SOLID STATE COMMUN., V.11, P.65 (1972)
THEORY-OF-SOLIDS THEORY/SHELL MODEL
72-SI-06 SINGH, R.K./ UPADHYAYA, K.S.
CRYSTAL DYNAMICS OF MAGNESIUM OXIDE
PHYS. REV. B, V.6, P.1589-P.1596 (1972)
MG.O . . . THEORY/ SHELL MODEL/ PHONON DISPERSION/ SPECIFIC HEAT

72-SI-07 SINGH, R.K.
DISPERSION OF PHONONS IN LITHIUM DEUTERIDE
SOLID STATE COMM., V.11, P.559-P.561 (1972)
L1.4 . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

72-SI-08 SINGH, R.K.
THE DYNAMICAL BEHAVIOR OF SILVER CHLORIDE WITH MODIFIED SHELL MODEL
PHYS. STATUT SOLIDI B, V.51, P.389 (1972)
AG.CL . . . MODEIFIED SHELL MODEL/ THEORY

72-SI-09 SINK, C.W./ HARVEY, A.B.
VIBRATIONAL SPECTRUM OF METHANETELLUROL
J. CHEM. PHYS., V.57, P.4434 (1972)
C.H4.TE . . . EXPERIMENT . . INFRARED AND RAMAN SPECTRA

72-SK-01 SKALJO-MIC, J./ MINKIEWICZ, V.J./ SHIRANE, G.
INELASTIC NEUTRON SCATTERING FROM SOLID NEON
PHYS. REV. B, V.6, P.4766-P.4779 (1972)
NE . . EXPERIMENT/ PHONON DISPERSION/ A-S MODEL FITTING/ FREQUENCY DISTRIBUTION

72-SK-02 SKOELD, K.S./ ROWE, J.M./ OSTROWSKI, G./ RANDOLPH, P.V.
COHERENT- AND INCOHERENT-SCATTERING LAWS OF LIQUID ARGON
PHYS. REV. A, V.6, P.1107-P.1131 (1972)
AR . . EXPERIMENT/ LIQUID/ SCATTERING LAW/ COHERENT AND INCOHERENT

72-SK-03 SKOELD, K./ ROWE, J.M./ OSTROWSKI, G./ RANDOLPH, P.
NEUTRON INELASTIC SCATTERING STUDY OF LIQUID ARGON
AE-445 (1972)
AR . . EXPERIMENT/ INELASTIC SCATTERING FUNCTION/ 85,2DK

72-SM-01 SMITH, H.G./ WAKABAYASHI, N./ NICKLOW, R.M.
LOCALIZED TORSIONAL AND TRANSLATIONAL MOTIONS IN K.CL.(N., H4)
NEUTRON INELASTIC SCATTERING, J.A.A., P.103 (1972)
K.N.,H4.CL . . EXPERIMENT/ LOCALIZED PHONON

72-SM-02 SMITH, H.G./ WAKABAYASHI, N./ NICKLOW, R.M./ MIHAI, LOVICH, S.
NEUTRON SCATTERING, PHONON SPECTRA, AND SUPERCONDUCTIVITY
CONF-720833-12 (1972)
NB.C/ 2R.C/ TC/ ZH.Y . . EXPERIMENT/ SUPERCONDUCTIVITY/ ELECTRON-PHONON INTERACTION

72-SM-03 SMITH, H.G.
PHONON ANOMALIES IN TRANSITION-METAL CARBIDES
PHYS. REV. LETT., V.29, P.353 (1972)
T.C . . PHONON DISPERSION

72-SO-01 SOLANA, J./ CELLI, V./ RUVALDS, J./ TUETTO, I./ LA
WADOWSKI, A.
THEORY OF THE ROTON LIFETIME IN SUPERFLUID HELIUM
KFKI-72-23 (1972)
HE . . THEORY/ TWO-ROTON RESONANCE/ ROTON DISPERSION/ LINE WIDTH

72-SO-02 SOLBRIG, H.
MULTIPLE SCATTERING OF THERMAL NEUTRONS BY A PERFECT CRYSTAL
3 CALCULATION OF THE NEUTRON WAVE FIELD
PHYS. STATUT SOLIDI B, V.51, P.555-P.564 (1972)
NEUTRON-SCATTERING-IN-SOLIDS . . THEORY/ MULTIPLE SCATTERING/ PERFECT CRYSTAL

72-SO-03 SOSNOWSKI, J./ CZACHOR, A./ MALISZEWSKI, E.
PHONON DISPERSION CURVES IN ANTIMONY
NEUTRON INELASTIC SCATTERING, IAEA, P.61-P.70 (1972)
SB . . EXPERIMENT/ PHONON DISPERSION/ FIVE-NEIGHBOUR MODEL FITTING

72-SO-04 SOSNOWSKI, J./ CZACHOR, A./ MALISZEWSKI, E.
PHONON DISPERSION CURVES IN ANTIMONY
INP-1379/II/PS (1972)
SB . . EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ FREQUENCY SPECTRUM

72-SP-01 SPRINGER, T.
INVESTIGATION OF MOLECULAR MOTIONS IN CRYSTALS WITH NEUTRON SPECTROSCOPES
KOLLOID=Z, V.250, P.993-P.999 (1972)
REVIEW-ARTICLES . . NEUTRON SCATTERING/ ORGANIC MOLECULAR CRYSTAL- PHONON

72-ST-01 STEELE, D./ CHILDS, P.E./ FENDER, B.E.F.
DEFEKT STRUCTURE OF CALCIUM FLUORIDE CONTAINING EXCESS ANIONS II, DIFFUSE SCATTERING
J. PHYS. C: LONDON, V.5, P.2677 (1972)
CA.F2/ SCATTERING-BY-DEFECTS . . DIFFUSE SCATTERING

72-ST-02 STEIN, H.
THE LATTICE DYNAMICS OF CRISTALLINE HYDROGEN IN CUBIC A
ND HEXAGONAL PHASES
JUL-83-PF (1972)
H2 Experiment/ Solid/ Lattice Dynamics/ Scattering LA
W/ Frequency Distribution

72-ST-03 STEIN, N./ STILLER, H./ STOCKMEYER, H.,
PHONONS, LIBRONS, AND THE ROTATIONAL STATE J=1 IN HCP
A ND FCC SOLID HYDROGEN BY NEUTRON SPECTROSCOPY
J. Chem. Phys., V.57, P.1726 (1972)
H2 Lattice and Molecular Dynamics

EXTERNAL MODES IN CA.W.O4
NEUTRON INELASTIC SCATTERING, IAEA, P.219-P.229 (1972)
CA.W.O4 Experiment/ Phonon Dispersion/ Rigid-Ion, Shell Model Calculation

72-ST-05 STIRLING, W.G.
NEUTRON INELASTIC SCATTERING STUDY OF THE LATTICE DYNAMICS OF STRONTIUM TITANATE, HARMONIC MODELS
SR-T1-03 Experiment/ Phonon Dispersion/ Various Model Fitting/ Frequency Distribution/ Specific Heat

72-ST-06 STIRLING, W.G./ COWLEY, R.A./ STRINGFELLOW, M.W.
CRYSTAL DYNAMICS OF PD3#FE AT 80 DEG.K.
PD-Fe Lattice Dynamics/ Phonon Dispersion/ 80 DK

72-ST-07 STUMP, N./ GISSLER, W./ RUBIN, R.
QUASIELASTIC NEUTRON SCATTERING ON HYDROGEN IN NIOBIUM SINGLE CRYSTALS
JUL-CONF-B, V.1, P.375-P.387 (1972)
Nb-H Experiment/ Hydrogen Diffusion/ Single Crystal

72-ST-08 STUMP, N./ GISSLER, W./ RUBIN, R.
QUASIELASTIC NEUTRON SCATTERING ON HYDROGEN IN NIOBIUM SINGLE CRYSTALS
Nb-H Experiment/ Quasi-Elastic Scattering/ Diffusion Broading/ 235C, 256C/ Nb-H 0.07

72-SU-01 SUCK, J.B./ GLAESER, W.
COLLECTIVE EXCITATIONS IN LIQUID RUBIDIUM AND THE LIQUID D-SOLID PHASE
NEUTRON INELASTIC SCATTERING, IAEA, P.435-P.442 (1972)
Rb Experiment/ Liquid and Solid/ Collective Excitation

72-SV-01 SVENSSON, E.C./ WOODS, A.D.B./ MARTEL, P.
PHONON DISPERSION IN LIQUID MELIUM UNDER PRESSURE
He Liquid Dynamics/ Phonon Dispersion

72-TH-01 TAKEDO, S./ GODA, M.
PHONON-LIKE EXCITATIONS IN SOLID MELIUM
PROGR. THEORET. PHYS., KYOTO, V.48, P.73A-P.73O (1972)
Theory-Of-Fluids/ He Theory/ Phonon-Like Excitation/ Liquid MELIUM

72-TH-02 TAKEDO, S./ GODA, M.
A THEORY OF PHONON-LIKE EXCITATIONS IN NON-CRYSTALLINE
SOLIDS AND LIQUIDS
PROGR. THEORET. PHYS., KYOTO, V.47, P.79O-P.806 (1972)
Theory-Of-Solids Theory-Of-Fluids/ He Theory/ Phonon-Like Excitation

72-TH-03 TALWAR, D.N./ AGRAWAL, B.K.
LATTICE DYNAMICS OF II-VI, III-V COMPOUNDS
ZnSe/ InSb Theory/ Phonon Dispersion

72-TH-04 TANI, K.
NEUTRON SCATTERING DUE TO THE LATTICE VIBRATION NEAR THE TRANSITION TEMPERATURE (IN JAPANESE)
JAERI-M-1941, PROC. 4TH CONF. ON INELASTIC NEUTRON SCATTERING, P.103-P.105 (1972)
Neutron Scattering-In-Solids Theory/ Neutron Scattering By Phonon/ Phase Transition

72-TH-05 THE H.C.
MODEL CALCULATIONS FOR LATTICE VIBRATIONS IN N4, CL AT 850K
N4, CL Theory/ Phonon Dispersion/ Rigid-Ion, Shell Model/ Frequency Distribution

72-TH-06 THOMA, K./ ZIMMERMANN, R.
LATTICE VIBRATIONS AT IDEAL (111) SURFACES
Z. Phys., V.225, P.168-P.173 (1972)
S2 Calculation/ Surface Phonon

72-TI-01 TITTA, A./ TUNKELO, E.
CORRECTION FOR MULTIPLE SCATTERING IN COLD NEUTRON EXPERIMENTS
Nucl. Instrum. Methods, V.103, P.575 (1972)
Methane Multiple Scattering

72-TO-01 TOKUNAGA, M.
EFFECT OF DIPOL-DIPOL INTERACTION ON THE DISPERSION RELATION IN FERROELECTRICS OF PEROVSKITE STRUCTURE (IN JAPANESE)

JAERI-M-4841. PROC. 4TH CONF. ON INELASTIC NEUTRON SCATTERING. P. 94-P. 97 (1972)
THEORY-OF-SOLIDS, LATTICE VIBRATION/ DIPOL INTERACTION / PEROVSKITE STRUCTURE

72-TO-02 TOLPYGO, K.B./ TROI TSKAYA, E.P.
FORCE CONSTANTS AND PHONON DISPERSION IN RARE-GAS CRYSTALS
FIZ. TVER., TELA (GOV. PHYS.-SOLID STATE), V. 14, P. 2867-P. 2872 (P. 2480-P. 2483) (1972)
NE/ AK/ KR . . . DISPERSION CURVE

72-TO-03 TONG, B.Y.
KOHN-SHAM SELF-CONSISTENT CALCULATION OF THE STRUCTURE OF METALLIC SODIUM
PHYS. REV. B, V. 6, P. 1189-P. 1194 (1972)
NE . . . THEORY/ LOCAL-EFFECTIVE-POTENTIAL APPROX. / LATTICE PARAMETER/ COMPRESSIBILITY/ COHESIVE ENERGY

72-TO-04 TOUSSAINT, G./ CHAMPIER, G.
LATTICE DYNAMICS OF CADMIUM AT 880K
PHYS. STATUS SOLIDI B, V. 54, P. 163-P. 172 (1972)
NE . . . X-RAY DIFFUSE SCATTERING/ 880K/ PHONON DISPERSION/ MODEL FITTING/ FREQUENCY SPECTRUM

72-TR-01 TRICKEY, S.B./ WITRIOIL, N.M./ KOMLEY, G.L.
LATTICE DYNAMICS OF HARD-CORE, HIGHLY ANHARMONIC CRUSTAL
SOLID STATE COMMUN., V. 11, P. 139-P. 143 (1972)
THEORY-OF-SOLIDS, THEORY/ SELF-CONSISTENT HARMONIC THE ATOM/ HARD-CORE QUANTUM CRYSTAL

PHONON SPECTRA OF FCC AN-4
NEUTRON INELASTIC SCATTERING, IAEA., P. 129-P. 134 (1972)
NE . . . EXPERIMENT/ PHONON DISPERSION/ FCC AN-4

72-TU-01 TURNO, R./ PI SERI, L./ ZERBI, G.
LATTICE DYNAMICS AND SPECTROSCOPIC PROPERTIES BY A VALENCE FORCE POTENTIAL OF DIAMOND-LIKE CRYSTAL: C, Si, Ge, AND Sn
J. CHEM. PHYS., V. 56, P. 1022-P. 1039 (1972)
DIAMOND/ Si/ Ge/ Sn . . . THEORY/ PHONON DISPERSION/ PHONON DENSITY/ VALENCE FORCE POTENTIAL

72-TW-01 TWISLETON, J.F./ WHITE, J.W.
INTERCHAIN FORCE FIELD OF POLYETHYLENE BY NEUTRON SCATTENING
NEUTRON INELASTIC SCATTERING, IAEA., P. 301-P. 313 (1972)
POLYETHYLENE . . . EXPERIMENT/ PHONON DISPERSION/ PERPENDICULAR TO CHAIN AXES

72-UP-01 UPADHYAYA, K.S./ SINGH, R.K.
PHONON SPECTRA OF PARAMAGNETIC CORALTUS OXIDE
PHYS. LETT., A, V. 40, P. 291-P. 292 (1972)
CA.O . . . THEORY/ PHONON DISPERSION/ THREE-BODY FORCE SHELL MODEL

72-UP-02 UPADHYAYA, K.S./ SINGH, R.K.
THREE-BODY FORCE SHELL MODEL-AN APPLICATION TO CAO
SOLID STATE COMMUN., V. 11, P. 567-P. 569 (1972)
CA.O . . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION

72-UP-03 UPADHYAYA, K.S./ SINGH, R.K.
DISPERSION PROPERTIES OF MANGANESE OXIDE
SOLID STATE COMMUN., V. 11, P. 109 (1972)
MN.O . . . THEORY/ PHONON SPECTRA

72-VI-01 VIJAYARAGHAVAN, P.R./ MARSON KOHAD, I/ YENGAR, P.
LATTICE DYNAMICS OF CALCIUM OXIDE
NEUTRON INELASTIC SCATTERING, IAEA., P. 95-P. 102 (1972)
CA.O . . . EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING/ PHONON SPECTRA

72-WA-01 WAEBER, W.B.
A CONTRIBUTION TO THE THEORY OF LATTICE VIBRATIONS
J. PHYS. C, LONDON, V. 5, P. 1773 (1972)
GA . . . THEORY-OF-SOLID, THEORY/ SOLID/ LATTICE DYNAMICS . . . METAL/ ORTHORHOMBIC

72-WA-02 WAKABAYASHI, N./ AHMAD, A.A.Z./ SHANKS, H.R./ DANI
ELSAGH, G.C.
LATTICE DYNAMICS OF MG2.PB AT ROOM TEMPERATURE
PHYS. REV. B, V. 6, P. 2103-P. 2107 (1972)
MG2.PB . . . EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING/ FREQUENCY SPECTRA

72-WA-03 WAGIUTYNSKI, T./ LUTY, T.
LATTICE DYNAMICS CALCULATION FOR LOW TEMPERATURE PHASE
OF SOLID METHANE
INP-T94/PS (1972)
C,H4 . . . THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION SPECIFIC HEAT

72-WE-01 WERTHAMER, N.R.
INTERPRETATION OF INElastic NEUTRON SCATTERING OBSERVAT
IONS IN REC SOLID AND SUPERFLUID HE (ISOTYPE - A=4) PHYS. REV., LETT., V.28, P.1102 (1972)
HE ... THEORY ...

72-WH-01 WHITE, J.W.
SOME APPLICATIONS OF INELASTIC NEUTRON SCATTERING SPECTROSCOPY TO SURFACE CHEMISTRY AND CATALYSIS.
NEUTRON INELASTIC SCATTERING, IAEA, P.315-P.343 (1972)
REVIEW ARTICLES: NEUTRON SPECTROSCOPY AND SURFACE CHEMISTRY AND CATALYSIS

72-WH-02 WHITE, J.W./ WRIGHT, C.J.
INTERNAL VIBRATIONS AND HINDERED ROTATION OF RE.H9(2)
BY NEUTRON SCATTERING SPECTROSCOPY
J. C. S. FARADAY TRANS., 2, V.68, P.1414-P.1422 (1972)
K2.RE.H9[NA2.RE.H9] EXPERIMENT/ N-SPECTROSCOPY/ MOLECULAR VIBRATION

72-WH-03 WHITE, J.W./ WRIGHT, C.J.
NEUTRON SCATTERING SPECTRA OF HYDROCARBONYLS IN THE 90-2000K ENERGY REGION
J. C. S. FARADAY TRANS., 2, V.68, P.1423-P.1433 (1972)

72-WL-01 WINEFIELD, D.J./ ROSS, D.K.
The quasi-elastic scattering of neutrons from C6,H6 AND C6,D6
MOL., PHYS., V.24, P.753-772 (1972)
C6,H6 EXPERIMENT/ TIME OF FLIGHT/ QUASI-ELASTIC SCATTERING/ MEAN INTERVAL BETWEEN JUMP

72-WM-01 WOODS, A.D.B./ SVENSSON, E.C./ MARTEL, P.
LOW-MOMENTUM-TRANSFER NEUTRON SCATTERING IN LIQUID HELIUM
NEUTRON INELASTIC SCATTERING, IAEA, P.359-P.362 (1972)
HE ... EXPERIMENT/ LIQUID DYNAMICS/ LOW-MOMENTUM-TRANSFER

72-YA-01 YAMADA, K./ ISHIKAWA, K.
PHONON DISPERSION AND CONTRIBUTION TO THE HEAT CAPACITY IN LIQUID HE=4
PROGR. THEORET. PHYS., KYOTO, V.47, P.1455-P.1463 (1972)
HE ... THEORY/ PHONON DISPERSION/ LIQUID HELIUM

72-YA-02 YAMADA, Y.
QUASI-SPIN-PHONON INTERACTIONS AND INELASTIC SCATTERING OF NEUTRONS RELATED WITH IT (IN JAPANESE)
JAERI-M-5641, PROC. 4TH CONF. ON INELASTIC NEUTRON SCATTERING, P.108-P.114 (1972)
THEORY-OF-SOLIDS/ SPIN-PHONON INTERACTION/ LATTICE INSTABILITY

72-AM-01 AMARAL, L.O./ VINHAS, L.A./ HERDADE, S.B.
NEUTRON TRANSMISSION STUDY OF THE ROTATIONAL FREEDOM OF METHYL GROUPS IN POLYDIMETHYLISILOXANE
ISAF, P.320 (1972)
NEUTRON-SCATTERING-IN-SOLIDS/ POLYDIMETHYLISILOXANE EXPERIMENT/ SOLID/ T=0-F
SIGMA (E)

73-AS-01 ASKAY, A.
DISPERSION RELATION AND WAVE SOLUTION FOR ANHARMONIC LATTICES AND KORTEweg DE VRIES CONTINUUM
PROC. ROY. SOC. LONDON, SER. A, V.334, P.83 (1973)
THEORY-OF-SOLIDS/ LATTICE DYNAMICS/ DISPERSION RELATION/ ANHARMONIC/ ANALOGOUS/ CHAIN/ KORTEweg DE VRIES EQUATION

73-AX-01 AXEL, J.O./ SHAPIRO, S.H./ SHIRANE, G.
NEUTRON SCATTERING STUDIES OF SOFT MODE DYNAMICS
BNL 18057 (1973)
NB3.SN/ SR.TI.O3 EXPERIMENT/ PHASE TRANSITION/ SOFT MODE

73-AX-02 AXEL, J.O./ SHIRANE, G.
INFLUENCE OF THE SUPERCONDUCTING ENERGY GAP ON PHONON LINEWIDTHS IN Nb3,Sn
PHYS. REV., LETT., V.30, P.214 (1973)
NB3,Sn/ PHONON LINEWIDTHS

73-AX-03 AXEL, J.O./ SHIRANE, G.
INELASTIC-NEUTRON-SCATTERING STUDY OF ACOUSTIC PHONON IN Nb3,Sn
PHYS. REV., B, V.6, P.1965-P.1977 (1973)
Nb3,Sn/ SUPERCONDUCTOR/ ACOUSTIC PHONON DISPERSION/ TEMPERATURE CHANGE/ CUBIC-TETRAHEDRAL PHASE CHANGE/ SUPERCONDUCTING PHASE CHANGE/ ELECTRON-PHONON INTERACTION

73-BA-01 BARKER, M.I./ GASKELL, T.
DENSITY FLUCTUATIONS IN LIQUID ARGON
PHYS. REV., LETT., V.43, P.81-P.82 (1973)
AR ... THEORY/ DYNAMIC STRUCTURE FACTOR

73-BA-02 BARKER, M.I./ GASKELL, T.
DYNAMIC STRUCTURE FACTOR OF LIQUID SODIUM, A GENERALIZE 0 HYDRODYNAMIC APPROACH
J. PHYS., C, LONDON, V.6, P.3341-P.3348 (1973)
73-BA-03 BASU, A.N.,/ SENGUPTA, S.
LATTICE DYNAMICS OF ALKALI HALIDES
PHYS. Rev, 8, V.8, P. 2982-2990 (1973)
NA, CL/ NA, BR/ KI/K/ CL/ K, BR ./. THEORY/ DEFORMABLE SHELL
MODEL/ PHONON DISPERSION/ FREQUENCY SPECTRA

73-BE-01 BEEBY, J.L.
NEUTRON SCATTERING FROM AQUEOUS SOLUTIONS, THE LONG-WAX
LENGTH LIMIT
J. PHYS., C., LONDON, v. 6, p. 2262-2268 (1973)
NEUTRON-SCATTERING IN FLUIDS. . . . THEORY/ LONG-WAVELENGTH
LIMIT/ SCATTERING FUNCTION

73-BE-02 BELL, H.G., KOLLMAR, A., ALEFeld, B., SPRINGER, T.
INVESTIGATION OF COLLECTIVE EXCITATIONS IN LiQUID NEON
BY MEANS OF NEUTRON SCATTERING AT SMALL SCATTERING VECTORS
PHYS. LETT., A, V. 45, P. 479 (1973)
NEUTRON-SCATTERING IN FLUIDS. . . . EXPERIMENT/ LIQUID/ NEUTRON SPECTRUM, . . COHERENT SCATTERING

73-BE-01 BOETTGER, H.
ON THE THEORY OF PHONON-LIKE EXCITATIONS IN NONCRYSTALLINE SOLIDS
PHYS, STATUS SOLIDI. B, V. 59, P. 517 (1973)
THEORY-OF-SOLIDS . . . THEOREY/ LATTICE DYNAMICS/ DISPERSION RELATION . . DISORDERED LATTICE/ DYSION EQUATION/ GREEN'S FUNCTION

73-BE-02 BOULADE, H., TADEEVE, G.
CALCULATION OF DISPERSION RELATIONS AND FREQUENCY DISTRIBUTION OF CRYSTALINE BENZENE
J. CHEM. PHYS., V. 58, P. 979 (1973)
BENZENE . . THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION / FREQUENCY DISTRIBUTION FUNCTION

73-BE-03 BOSE, G., GUPTA, H.C., TRIPATHI, B.B.
PHONON DISPERSION IN SCANDIUM
PHYS, LETT., A, V. 43, P. 363-366 (1973)
SC . . . THEORY/ PHONON DISPERSION/ FIVE PARAMETER

73-BE-04 BOSE, G., TRIPATHI, B.B., GUPTA, H.C.
THE LATTICE DYNAMICS OF HEXAGONAL CLOSE PACKED METALS
J. Phys, SOC. JAP., V. 34, P. 1006-1013 (1973)
BE/ Mg/ Zn . . . THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ SPECIFIC HEAT/ CENTRAL AND NONCENTRAL FORCE

73-BE-05 BOYER, L.L., HARDY, J.R.
LATTICE DYNAMICS OF A RIGID-ION MODEL FOR GADOLINIUM MOYDATE
PHYS, REV, B, V.8, P. 2205-P. 2213 (1973)
GADOLINIUM MOYDATE/ PHASE-TRANSITION . . . THEORY/ RIGID-
ION MODEL/ PHONON DISPERSION/ FREQUENCY SPECTRUM

73-BR-01 BRENNER, J.L., JANOLI, S., POWELL, B.M.
NEUTRON SCATTERING MEASUREMENTS OF THE INTERLAYER INTERACTION IN GaSe
SOLID STATE COMMUN., V. 13, P. 1559 (1973)
Ga/ Se . . . EXPERIMENT/ LATTICE DYNAMICS/ DISPERSION RELATION/ INELASTIC NEUTRON SCATTERING

73-BR-02 BRUCE, A.D., COLLEY, R.A.
LATTICE DYNAMICS OF STRONTIUM TITANATE: ANHARMONIC INTER-
ACTIONS AND STRUCTURAL PHASE TRANSITIONS
J. Phys, , C, LONDON, V. 6, P. 2422-2439 (1973)
SrTiO3/ PHASE-TRANSITION . . . THEORY/ ANHARMONIC MODEL/ PHONON FREQUENCY/ LINE WIDTH

73-BU-01 BUHNER, W.
CRYSTAL DYNAMICS OF CAESIUM FLUORIDE
J. Phys, , C, LONDON, V. 6, P. 2931-2942 (1973)
CsF . . EXPERIMENT/ PHONON DISPERSION/ SEVEN PARAMETER SELL MODEL FITTING/ PHONON SPECTRUM/ HEAT CAPACITY/ DEBYE TEMPERATURE

73-CA-01 CAVALHEIRO, R., SHUKLA, M.M.
THE LATTICE VIBRATIONS IN LEAD
J. Phys, SOC. JAP., V. 34, P. 1002-P. 1005 (1973)
Pb . . . THEORY/ PHONON DISPERSION/ DEBYE TEMPERATURE/ DE LAUNAY MODEL

73-CH-01 CHAMARD-BOIS, R., ROSSAT-MIGNOD, J.
THE DETERMINATION OF CRYSTAL FIELD LEVELS IN THE INTERMETALLIC COMPOUND Mg,Rh BY INELASTIC NEUTRON SCATTERING
SOLID STATE COMMUN., V. 13, P. 1549-1553 (1973)
MAGNETIC-SCATTERING/ Mg-Rh . . EXPERIMENT/ T=0/ CRYSTAL
FIELD-LEVEL

73-CH-02 CHIMARA, J.
INTEGRAL EQUATIONS FOR NEUTRAL AND CHARGED QUANTUM FLUIDS INCLUDING EXTENSION OF THE PERCUS-YEVICK EQUATION
PROGR. THEORET. PHYS., KYOTO, V. 50, P. 1156-P. 1181 (1973)
THEORY-OF-FLUIDS . . . . NEUTRAL AND CHARGED QUANTUM FLUIDS/ INTEGRAL EQUATION

73-CH-03 CHIMARA, J.
SPACE-TIME CORRELATION FUNCTIONS IN QUANTAL AND CLASSICAL BINARY MIXTURES
PROGR. THEORET. PHYS., KYOTO, V. 50, P. 794-P. 806 (1973)
THEORY-OF-FLUIDS . . QUANTAL BINARY MIXTURE/ DYNAMICAL ST
73-Ch-04 CHIMARA, J. INTEGRAL EQUATIONS FOR FLUIDS WITH LONG-RANGE AND SHORT-RANGE POTENTIALS PROGR. THEOR. PHYS., KYOTO, V.49, P.409-P.423 (1973)
THEORY-OF-FLUIDS ... INTEGRAL EQUATION/ LONG-RANGE AND SHORT-RANGE POTENTIALS

73-Ch-05 CHIMARA, J. NEW TYPES OF INTEGRAL EQUATIONS FOR OBTAINING THE RADIAL DISTRIBUTION FUNCTION OF FLUIDS PROGR. THEOR. PHYS., KYOTO, V.49, P.693-P.694 (1973)
THEORY-OF-FLUIDS ... INTEGRAL EQUATION/ CHARGED PARTICLE SYSTEM

PD-H/ PD-AG-H ... EXPERIMENT/ HYDROGEN VIBRATION IN METAL

73-CO-01 COCHRAN, W. THE DYNAMICS OF ATOMS IN CRYSTALS THE STRUCTURES AND PROPERTIES OF SOLIDS 3 (1973)
THEORY-OF-SOLIDS ... THEORY/ SOLID/ LATTICE DYNAMICS

RB: EXPERIMENT/ PHONON DISPERSION/ 12.85-120.205/K/ HARMONIC ANALYSIS/ PHONON DENSITY

RB/ NEUTRON-SCATTERING-IN-SOLIDS ... ANHARMONICITY/ DISPERSION CURVE

TE ... THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION ... BOND CHARGE MODEL

CA.C.03 ... DISPERSION RELATION/ INELASTIC NEUTRON SCATTERING

73-CZ-01 CZACHORSKI, A. SHELL MODEL OF LATTICE DYNAMICS FOR MONATOMIC SYSTEM WITH ISOTROPIC SHELL-CORE COUPLING J. PHYS., V.6L, P.13 (1973)
THEORY-OF-SOLIDS ... THEORY/ LATTICE DYNAMICS ... SHELL MODEL

CU2.O ... EXPERIMENT/ HAMAN EXPERIMENT

SR,CL2 ... INFRA-RED/ RAMAN SPECTRA/ PHONON DISPERSION/ FREQUENCY SPECTRA CALCULATION

73-DI-01 DIMIC, V./ OSREDKAR, M./ SLAK, J./ KANDUSAR, A. A STUDY OF NH4 MOTION IN SOME ANTIFERROELCTRIC CRYSTALS BY INELASTIC SCATTERING OF COLD NEUTRONS PHYS. STATUS SOLIDI B, V.59, P.471-P.479 (1973)
NH4-H2-P.04/ NH4-H2,AS,0.04/ (NH4)2,H2,1.06 ... EXPERIMENT/ ROTATING CRYSTAL SPECTROMETER/ TOF/ SINGA (E, ... MINERATED DEDICATION OF NH4+ ... FAR INFRARED SPECTRA/ MAGNETIC RESONANCE/ 293,153,123,113,13DK

HEXAMETHYLENETETRAMINE ... THEORY/ PHONON DISPERSION/ AS MODEL TENSOR FORCE MODEL

73-DU-01 DUESBERG, M.S./ TAYLOR, R./ GLYDE, H.R. ANHARMONIC LATTICE DYNAMICS IN KPHYS. REV., V.4, P.1372-P.1378 (1973)
K ... ANHARMONICITY/ DISPERSION CURVE/ THEORY


73-FR-01 FRANCHETTI, S., ON THE STRUCTURE OF LIQUID MERCURY NUOVO CIM., B, V.18, P.247-P.257 (1973) HG, Theory/ RADIAL DISTRIBUTION FUNCTION


73-GE-01 GERVAIT, F., ON THE PHONON SELF-ENERGY SOLID STATE COMMUN., V.13, P.1211-P.1214 (1973) THEORY-OF-SOLIDS/ QUARTZ

73-GI-01 GISSLER, W., STUMP, N., THEORY OF QUASIELASTIC NEUTRON SCATTERING BY HYDROGEN I N METALS CONSIDERING FINITE JUMP TIMES PHYSICA, V.85, P.109-P.117 (1973) NEUTRON-SCATTERING-IN-SOLIDS/ THEORY/ DIFFUSION OF HYD ROGEN IN METAL/ SCATTERING FUNCTION


73-HA-01 HAMA, J., MIYAGI, H., SPIN CORRELATION EFFECT ON THE SLOW NEUTRON SCATTERING BY POLYATOMIC MOLECULES WITH PARTICULAR REFERENCE TO ME THANNE PROGR. THEORET. PHYS., KYOTO, V.50, P.1124-P.1143 (1973) METHANE, Theory/ NUCLEAR SPIN CORRELATION EFFECT/ ZEMAC G-GLAUBER APPROXIMATION


73-HE-01 HEDDA, S.B., VINHAS, L.A., RODRIGUES, C., AMARAL, L.W., NEUTRON CROSS SECTIONS OF POLYETHYLENE AND LIGHT WATER IN THE ENERGY RANGE 8.2-0.4 TO 0.13 EV IEA-310 (1973) POLYETHYLENE/ H2O, Experiment/ SOLID LIQUID/ 0-F/ SIGMA (E)
73-HO-01 MOMMA, S./ NAGAI, K./ NAMAIJAWA, M.
GROUND-STATE ENERGY AND PHONON SPECTRA OF BCC SOLID HELIUM
PROG. THEORET. PHYS., KYOTO, V.49, P.1779-P.1781 (1973)
HE = THEORY/ PHONON VELOCITY AND DISPERSION/ BCC SOLID H

73-HO-02 MONG, H.K./ KOPELMAN, R.
COHERENT POTENTIAL THEORY FOR INTERACTING BANDS, PHONONS AND EXCITONS IN SUBSTITUTIONALLY DISORDERED MOLECULAR CRYSTALS
J. CHEM. PHYS., V.58, P.2557-P.2568 (1973)
THEORY-OF-SOLIDS, COHERENT POTENTIAL APPROXIMATION/ DISORDERED MOLECULAR SOLIDS/ INTERACTING BAND

73-11-01 IIZUMI, M.
NEUTRON SCATTERING STUDY OF THE ANHARMONIC LATTICE VIBRATIONS IN CALCIUM FLUORIDE
J. PHYS., SOC. JAP., V.35, P.204-P.212 (1973)
CA,F2, EXPERIMENT/ PHONON WIDTH/ TEMPERATURE EFFECT

73-11-02 IIZUMI, M./ GESI, K./ HARA, J.
DISPERSION RELATION OF THE NORMAL VIBRATIONS IN STRONTIUM TITANATE
J. PHYS., C, LONDON, V.6, P.3021-P.3023 (1973)
SR,T1,03, PHONON DISPERSION

73-1-01 IKEDA, M./ MIHAKAWA, K.
CRITICAL MAGNETIC SCATTERING IN K2,Mn,F4
J. PHYS., SOC. JAP., V.35, P.617-P.617 (1973)
K2,Mn,F4, MAGNETIC-SCATTERING, EXPERIMENT/ CRITICAL SCATTERING

73-15-01 ISHIKAWA, Y./ ENDOH, Y./ IKEDA, S.
MAGNETIC CRITICAL SCATTERING FROM AN ITINERANT ANTIFERROMAGNET OF GAMMA FeO,5-MnO,5 ALLOY 1. QUASI ELASTIC SCATTERING
J. PHYS., SOC. JAP., V.35, P.1626-P.1626 (1973)
F=0.5/MAGNETIC-SCATTERING, EXPERIMENT/ FE0.5-MNO.5/Critical MAGNETIC SCATTERING

73-JA-01 JACKSON, H.W.
PERSISTENT FORM OF S(K) FOR LIQUIDS HE-4, BASIC CALCULATION AND RESULTS
PHYS. REV. A, V.8, P.1529-P.1535 (1973)
HE = SUPERFLUID

73-KA-01 KACHHAVA, C.M.
DIELECTRIC SCREENING AND PHONON DISPERSION IN AL PHYSICA, V.65, P.63-P.72 (1973)
AL = THEORY/ DISPERSION CURVE

73-KA-02 KACHHAVA, C.M.
PHONON DISPERSION IN PB
J. PHYS., F, LONDON, V.3, P.24 (1973)
PB = THEORY/ PHONON DISPERSION

73-KA-03 KACHHAVA, C.M.
PHONON DISPERSION IN PB
J. PHYS., F, LONDON, V.3, P.24-P.29 (1973)
PB = THEORY/ PHONON DISPERSION/ ASHcroft MODEL PSEUDOPO TENTIAL

73-KE-01 KEBUKAWA, T./ YAMASAKI, S./ SUNAKAWA, S.
MULTI-BRANCH STRUCTURE OF THE EXCITATION SPECTRA IN LIQUID HELIUM 2
PROG. THEORET. PHYS., KYOTO, V.49, P.1802-P.1820 (1973)
HE = THEORY/ LIQUID/ PHONON-ROTON DISPERSION

73-KE-02 KEBUKAWA, T.
THE TEMPERATURE DEPENDENCE OF PHONON VELOCITY AND ROTON MINIMUM IN LIQUID HE 2
PROG. THEORET. PHYS., KYOTO, V.49, P.388-P.400 (1973)
HE = THEORY/ PHONON VELOCITY/ ROTON MINIMUM/ TEMPERATURE EFFECT/ CLIQUID

73-KE-03 KERR, W.C./ SINGWAT, K.S.
NEUTRON SCATTERING BY LIQUID NEON
PHYS. REV. A, V.7, P.1043-P.1054 (1973)
NE = NEUTRON-SCATTERING-IN-FLUIDS, QUANTUM EFFECT, LAH GE-Q-REGION

73-KE-04 KESHRWANI, K.M./ AGRAWAL, B.K.
PHONON FREQUENCIES AND WIDTHS IN DILUTE CU-AU ALLOYS
PHYS. REV. B, V.7, P.5153-P.5164 (1973)
CU-AU = THEORY/ PHONON DISPERSION/ DILUTE ALLOY/ PHONON WIDTH/ FORCE CONSTANT CHANGE

73-KK-01 KENNIG, K./ SMARPOV, F.I.
THE STUDY OF NUCLEAR MAGNETISM IN VAN VLECK PARAMAGNETS USING NEUTRON SCATTERING
BNL-TR-562 (1973)
MAGNETIC-SCATTERING, THEORY/ NUCLEAR MAGNETISM

73-KI-01 KIM, K./ NELKIN, M.
DYNAMIC STRUCTURE FACTOR OF A DISORDERED HARMONIC SOLID
PHYS. REV. B, V.7, P.2752-P.2771 (1973)
NEUTRON-SCATTERING-IN-SOLIDS, DYNAMICAL STRUCTURE FACT OF DISORDERED SOLID/ THEORY

73-KN-01 KNOLL, W./ STEEB, S.
STRUCTURE OF MOLten COPPER-ANTIMONY ALLOYS BY COMBINATION OF NEUTRON AND X-RAY DIFFRACTION
Cu-58, EXPERIMENT/ RADIAL DISTRIBUTION FUNCTION/ 21 ALLOYS

73-KN-02 KNOLL, W. / STREBEL, S.
PARTIAL INTERFACE AND PAIR CORRELATION FUNCTIONS, THERMOELECTRIC POWER, AND ELECTRICAL RESISTIVITY OF MOLten Cu-58 ALLOYS
Cu-58, PARTIAL INTERFACE FUNCTION/ PAIR CORRELATION FUNCTION

73-KU-01 KUNITOMI, N. / TSUNODA, Y. / MIHAI, Y.
PHONON MODES IN MASS-EFFECT DISORDERED ALLOY Ni-PT
SOLID STATE COMMUN., V.13, P.469-P.488 (1973)
Ni-PT, EXPERIMENT/ PHONON DISPERSION/ EFFECT OF MASS-DEFFECT

73-KU-02 KUSHWAHA, S.S.
LATTICE VIBRATIONS OF LITHIUM ON MODEL PSEUDOPOTENTIAL
Li, THEORY/ LATTICE DYNAMICS/ DISPERSION RELATION/ PS EUDOPOTENTIAL

73-KU-03 KUSHWAHA, S.S.
LATTICE DYNAMICS OF ANISOTROPIC HCP METALS
Physica, V.64, P.625-P.628 (1973)
Zn, THEORY/ PHONON DISPERSION/ AXIALLY SYMMETRIC MODEL/ ION-ELECTRON INTERACTION

73-KU-04 KUSHWAHA, S.S.
NONCENTRAL FORCE MODEL FOR H.C.P. METALS
Mg/ Be/ Zn, THEORY/ PHONON DISPERSION/ SHORT-RANGE CLOSED-Shell AND IONIC INTERACTION

73-MA-01 LARSSON, N.E.
BIBLIOGRAPHY OF PAPERS RELEVANT TO THE SCATTERING OF THERMAL NEUTRONS (1963-1972)
MCMASTER UNIVERSITY, HAMILTON, ONTARIO, CANADA (1973)
REVIEW ARTICLES, STRUCTURE ANALYSIS/ MAGNETIC STRUCTURE/ PHONON/ MAGNON/ POLARIZED NEUTRON/ CRITICAL PHENOMENON A/ FLUID/ MOLECULE/ MODULATION/ INSTRUMENTATION

73-MA-02 LARSSON, K.E.
ROTATIONAL MOTION OF MOLECULES AND NEUTRON SCATTERING
NEUTRON-SCATTERING-IN-FLUIDS, ROTATIONAL MOTION/ MOLECULE

73-LE-01 LEFEBVRE, J.
LONGITUDINAL PHONONS OF TRANSLATION ALONG THE 4-AXIS ON UREA
SOLID STATE COMMUN., V.13, P.1873-P.1875 (1973)
UREA, PHONON DISPERSION/ X-RAY EXPERIMENT

73-LO-01 LITZMANN, O. / ROZSA, P.
LONG-RANGE FORCES IN THE DYNAMICS OF CRYSTALS WITH DEFECTS
THEORY-OF-SOLIDS, THEORY/ LATTICE DYNAMICS, POINT DEFECT/ GREEN'S FUNCTION/ LOCAL MODE

73-LO-03 LUDY, P.O.
FREQUENCY SPECTRA ON THE SC AND BCC LATTICES
THEORY-OF-SOLIDS, THEORY/ SOLID/ FREQUENCY SPECTRUM

73-LO-04 LOVESEY, S.W.
SINGLE-PARTICLE MOTION IN CLASSICAL MONATOMIC LIQUIDS
THEORY-OF-FLUIDS/ AR, GENERALIZED LANGERSTEIN EQUATION/ SCATTERING FUNCTION

73-MA-01 MACHIDA, M. / MURASE, C.
WAVE NUMBER DEPENDENCE OF THE RELAXATION TIME FOR THE LONGITUDINAL MODE IN SIMPLE LIQUID
THEORY-OF-FLUIDS/ AR, SIMPLE LIQUID/ RELAXATION TIME F
OR LONGITUDINAL MODE

73-MA-02 MAZENKO, G.F.
FULLY RENORMALIZED KINETIC THEORY, II. VELOCITY AUTOCORRELATION
PHYS. REV. A, V.7, P.222-P.233 (1973)

73-MA-03 MAZENKO, G.F.
FULLY RENORMALIZED KINETIC THEORY, I. SELF-DIFFUSION
PHYS. REV. A, V.7, P.209-P.222 (1973)

73-ME-01 MELIK, P.F.
SOFT PHONONS AND THE CENTRAL MODE AT STRUCTURAL PHASE TRANSITIONS
SOLID STATE COMMUN., V.13, P.967 (1973)

73-MI-01 MICHEL, K.H.
INCOHERENT NEUTRON SCATTERING AND MOLECULAR REORIENTATION OF IN CRYSTALS NEAR Tg
J. CHEM. PHYS., V.58, P.1143 (1973)

73-MI-02 MIKKE, H.-J. JANKOWSKA, J.
ANOMALIES IN THE PHONON DISPERSION RELATION IN CR-Fe ALLOY BY NEUTRON SCATTERING
PHYS. STATUS SOLIDI B, V.55, P.1-P.4 (1973)

73-MI-03 MINKIEWICZ, V.J./ KITCHENS, T.A./ SHIRANE, G./ OSLO, E.B.
LATTICE EXCITATIONS OF THE He-4 QUANTUM SOLIDS
PHYS. REV. A, V.7, P.153-P.152 (1973)

73-MI-04 MISAWA, M./ FUKUSHIMA, Y./ SUZUKI, K./ TAKEUCHI, S.
HIGH MOMENTUM TRANSFER STRUCTURE FACTOR OF LIQUID BROMINE BY T=0-F NEUTRON DIFFRACTION
PHYS. LETT., A, V.7, P.273 (1973)

73-MI-05 MITRA, S.S./ SINGH, R.S.
CHANGE OF FORCE CONSTANT AROUND A POINT DEFECT IN A SOLID

73-MI-06 MITRA, S.K.
SELF MOTION IN CLASSICAL LIQUIDS
J. PHYS. C, LONDON, V.6, P.801-P.807 (1973)

73-NA-01 NAKAHARA, Y.
PHYSICAL PROPERTIES OF GRAPHITE AND ITS THERMAL NEUTRON SCATTERING CHARACTERISTICS
JAERI-M-5245 (1973)

73-NA-02 NAKAYAMA, T./ ODAMIM, A.
APPLICATION OF A VALENCE FORCE FIELD MODEL TO THE LATTICE VIBRATIONS OF TRIGONAL Selenium
J. PHYS. SOC. JAP., V.34, P.732-P.736 (1973)

73-NE-01 NETO, N./ OEHLER, G./ HEAT, H.M.
VIBRATIONAL SPECTRUM OF CRYS TALLINE I1DOFORM
J. CHEM. PHYS., V.58, P.5661-P.5672 (1973)

73-NI-01 NILEN, J.W./ COOK, T.H.
VIBRATIONAL SPECTRA OF SOLID METHYLZINC BOROHYDRIDE, CH3Zn(CH3)2BH4
J. CHEM. PHYS., V.58, P.1596-P.1602 (1973)

73-NI-02 NIELSEN, M.
PHONONS IN SOLID HYDROGEN AND DEUTERIUM STUDIED BY INELASTIC NEUTRON SCATTERING
PHYS. REV. B, V.7, P.1628-P.1635 (1973)

73-NI-03 NISHIURA, N./ FUJII, Y./ MOTOE, H./ HOSHINO, S.
NEUTRON DIFFRACTION STUDY ON MOLECULAR RIBBON IN SOLID DIOXYL
J. PHYS. SOC. JAP., V.35, P.842-P.847 (1973)
73-N1-04 Nilssohn, G./ Rollandson, S.
LATTICE DYNAMICS OF COPPER AT 80K
PHYS. REV. B, V.7, P.2393-P.2400 (1973)
CU ..EXPERIMENT/ PHONON DISPERSION/ 80K/ MODEL FITTING/ PHONON DENSITY

73-N1-05 Nishiyama, T.
DISPERSION EQUATION AND LEVEL DENSITY OF ROTONS IN LIQUID HE
PHDGR. THEORET. PHYS., KYOTO, V.30, P.726-P.736 (1973)
HE ..THEORY/ LIQUID HE/ ROTON DISPERSION AND LEVEL DENSITY

73-NU-01 Nusimovic, M.A./ Gorhe, G.
PHONONS IN CINNABAR
PHYS. REV. B, V.8, P.1648-P.1656 (1973)
MS ..THEORY/ PHONON DISPERSION/ VELOCITY OF SOUND

73-OI-01 Ovalle, A.
COLD-NEUTRON INCOHERENT SCATTERING BY HOMOGENEOUSLY ORIENTED NEMATIC LIQUID CRYSTALS
ACTA CRYSTALLOGR., Sect. A, V.29, P.692-P.701 (1973)
NEUTRON-SCATTERING-IN-FLUIDS ..THEORY/ NEMATIC LIQUID CRYSTAL/ QUASI-ELASTIC PEAK

73-ON-01 Ono, M.
LATTICE DYNAMICS OF METALLIC LITHIUM
J. PHYS. SOC. JAP., V.39, P.26-P.35 (1973)
LI ..THEORY/ PHONON DISPERSION/ HARTREE-FOCK EQUATIONS/ HARRISON METHOD

73-OI-02 Ozora, A./ Ito, M./ Ninomura, N./ Watanabe, N.
NEUTRON INELASTIC SCATTERING SPECTRA AND PHASE TRANSITION ON 1,2-DICHLOROETHANE CRYSTAL
CHEM. PHYS. LETT., V.18, P.306-P.308 (1973)
DICHLOROETHANE, EXPERIMENT/ FREQUENCY SPECTRUM/ PHASE TRANSITION

73-PA-01 Page, D.I./ Saunderson, D.H./ Windsor, C.G.
NEUTRON SCATTERING FROM SUPERCOOLED GALLIUM
J. PHYS. C, LONDON, V.6, P.222-P.222 (1973)
GA ..STRUCTURE FACTOR/ LIQUIDS/ QUASI-ELASTIC PEAK

73-PA-02 Pal, S.
LATTICE DYNAMICAL PROPERTIES OF NICKEL
CAN. J. PHYS., V.51, P.1869-P.1873 (1973)
Ni ..THEORY/ PHONON DENSITY/ SHARMA-JOSHI MODEL/ SPECIFIC HEAT/ DEBYE WALLER FACTOR

73-PA-03 Pal, S./ Singh, R.B.
PHONON DISPERSION/ FREQUENCY SPECTRUM AND SPECIFIC HEAT OF PALLADIUM
J. PHYS. SOC. JAP., V.35, P.1487-P.1491 (1973)
PD ..THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRUM/ SPECIFIC HEAT/ KREBS MODEL

73-PA-04 Palmer, H.J./ Saunderson, D.H./ Batchelder, D.N.
PHONON FREQUENCY SPECTRUM IN XENON BY INELASTIC NEUTRON SCATTERING
J. PHYS. C, LONDON, V.6, P.313-P.315 (1973)
XE ..DISPERSION CURVE AT 11 K/ DIRECTION

73-PA-05 Panady, B.P./ Dayal, B.
LATTICE DYNAMICS OF SILICON AND DIAMOND
J. PHYS. C, LONDON, V.6, P.2943-P.2946 (1973)
Si/ GE ..THEORY/ PHONON DISPERSION/ CLARK-DAVIS-WALLS TYPE ANGULAR FORCE MODEL/ FOURIER PARAMETER MODEL

73-PA-06 Pathak, K.N./ Singwi, K.S./ Cubittti, G./ Tosii, M.
COLLECTIVE MOTIONS IN CLASSICAL LIQUIDS, I. LIQUID SODIUM
NUOVO CIMENTI, V.13, P.185-P.195 (1973)
NA ..THEORY/ LIQUID/ COLLECTIVE MOTION/ STRUCTURE FACTOR/ SCATTERING FUNCTION

73-PA-07 Pathak, K.N./ Bansal, R.
COLLECTIVE EXCITATIONS IN CLASSICAL LIQUIDS
J. PHYS. C, LONDON, V.6, P.1989 (1973)
THEORY-OF-FLUIDS ..THEORY/ LIQUIDS/ DYNAMICAL STRUCTURE FACTOR/ HUBBARD-BEBBY THEORY

73-PE-01 Peter, H./ Skalvo, J.JR./ Grimm, H./ Lueschen, E./ Komp, JU.
ELASTIC CONSTANTS OF SOLID KRYPTON AT 77K DETERMINED BY INELASTIC NEUTRON SCATTERING
J. PHYS. CHEM. SOLIDS, V.34, P.255 (1973)
KR ..SOLID/ ELASTIC CONSTANTS/ ..COLD NEUTRON

73-PI-01 Piseri, L./ Powell, B.M./ Dolling, G.
LATTICE DYNAMICS OF POLYETRAFLUOROETHYLENE
J. CHEM. PHYS., V.58, P.158-P.171 (1973)
TEFLON ..EXPERIMENT/ CALCULATION/ PHONON DISPERSION

73-PL-01 Plimal, M.
LATTICE DYNAMICS OF CRYSTALS OF THE CALCITE STRUCTURE 2
..DISPERSION CURVES AND PHONON DENSITIES
PHYS. STATUS SOLIDI B, V.56, P.495-P.506 (1973)
73-RA-03 RAO, R.R./ MENON, C.S.
PHONON DISPERSION RELATIONS AND THERMAL EXPANSION OF EKBIUM
J. APPL. PHYS., V.44, P.3892-P.3896 (1973)
ER ... THEORY/ PHONON DISPERSION/ HEATING METHOD/ THERMAL
EXPANSION/ PHONON DENSITIES

73-RA-04 RAO, R.R./ MENON, C.S.
LATTICE DYNAMICS AND ELASTIC CONSTANTS OF SANDIUM
SOILD STATE COMMUN., V.12, P.527-P.529 (1973)
SC ... THEORY/ PHONON DISPERSION/ SECOND ORDER ELASTIC CO
STANT/ HEATING METHOD

73-RE-01 REESE, R.A./ SINHA, S.K.
PHONON SPECTRUM OF THORIUM
PHYS. REV. B, V.6, P.1332-P.1337 (1973)
THORIUM ... EXPERIMENT/ PHONON DISPERSION/ FORCE CONSTANT
ANALYSIS/ PHONON SPECTRA/ DEBYE TEMPERATURE

73-RE-02 REISSLAND, J.A.
The Physics of Phonon
JOHN WILEY AND SONS LTD (1973)
REVIEW/ ARTICLES/ BOOK

73-RO-01 ROSS, D.K.
INELASTIC NEUTRON SCATTERING FROM POLYCRYSTALLINE GRAPH
ITE AT TEMPERATURES UP TO 19200C
J. PHYS. C: LONDON, V.6, P.3525-P.3535 (1973)
GRAPHITE ... EXPERIMENT/ T-OF/ PHONON DISPERSION/ 20, 10
00 AND 19200C

73-RO-02 ROWE, J.M./ LIVINGSTON, R.C./ RUSH, J.J.
NEUTRON QUASI-ELASTIC SCATTERING STUDY OF SIH REORIENTAT
ION IN THE CUBIC PHASES OF CEBISUM AND RUBIDIUM HYDROSUL
FIDE
J. CHEM. PHYS., V.58, P.5469-P.5473 (1973)
CS-SH ... EXPERIMENT/ QUASI-ELASTIC PEAK/ MOLECULAR
ROTATIONS/ MEAN SQUARE DISPLACEMENT/ SIGMA (THETA-E)
 ... JUMP REORIENTATION

73-RO-03 ROY, A.P./ DASANNAKMARAYA, B.A./ THEPER, C.L./ IYEN
GAR, P.K.
EXPERIMENTAL EVIDENCE OF BREAKDOWN OF SIMPLE PSEUDOPOTE
NTIAL THEORYPON LATTICE DYNAMICS OF BERYLLIUM
PHYS. REV. LETT., V.30, P.996 (1973)
BE ... EXPERIMENT/ SOLID/ LATTICE DYNAMICS/ DISPERSION RE
LATION

73-RU-01 RUPPERSBERG, H.
A NEUTRON DIFFRACTION INVESTIGATION OF LIQUID LITHIUM-L
EAD ALLOYS
PHYS. LETT., A, V.46, P.75 (1973)
73-RU-02  RUSH, J.J./ DE-GRAFF, L.A./ LIVINGSTON, R.C.
NEUTRON SCATTERING INVESTIGATION OF THE ROTATIONAL DYN-
AMICS AND PHASE TRANSITIONS IN SODIUM AND CESIUM HYDRO-
ROSILICATES
J. CHEM. PHYS., V.58, P.3439-P.3448 (1973)
NA.S,M./ CS.S.M. /THEORY/ EXPERIMENT/ QUASI-ELASTIC PEAK
/SIGMA (THETA=0) /SH-MION LIBRATION/ REORIENTATIONAL J
UMP

73-SA-01  SAKAMOTO, M./ IZUMI, M./ MASAKI, N./ MOTOMACHI, M.
./ MINAKAWA, N./ MEASUREMENTS OF LONGITUDINAL ACOUSTIC PHONONS IN POLYSTE-
TRAFLUOROTETRAHYDROETHYLENE
J. POLY. SCI., PART B, V.11, P.377-P.381 (1973)
POLYTRAFLUOROTETRAHYDROETHYLENE /EXPERIMENT/ PHONON DISPERSIO-
N /PHASE TRANSITION

73-SA-02  SALZBERG, J.B./ SHUKLA, M.M.
DISPERSION OF PHONON WAVES IN SOLID KRYPTON
NUOVO CIM., B, V.17, P.166-P.172 (1973)
KR /THEORY/ PHONON DISPERSION/ PHONON SPECTRUM/ AXIALL
Y SYMMETRIC MODEL

73-SA-03  SANGSTER, M.J.L.
INTRICATE POTENTIALS AND FORCE CONSTANT MODELS FOR ROCK
SALT STRUCTURE CRYSTALS
J. PHYS. CHEM. SOLIDS, V.34, P.355-P.363 (1973)
MGO/ NA.CL/ LI.F./ K.I. /INTERIORIC FORCE/ PHONON DISPER-
SION/ DEFORMABLE SHELL MODEL

73-SA-04  SARMA, B.K./ TEMARI, S.P.
SCATTERING OF NEUTRONS FROM THE ZERO-POINT VIBRATIONS OF A LATTICE AT ABSOLUTE ZERO
PHYS. LETT., A, V.45, P.481 (1973)
NEUTRON-SCATTERING IN SOLIDS /THEORY/ SOLID/ SIGMA (E,
E-PRIME,TETRA)/ INCOHERENT APPROXIMATION

73-SC-01  SCHMID, C.S./ HOLELZL, K.
EXACT PHONON GREEN FUNCTION FOR KIRKWOOD'S MODEL
J. PHYS., C, LONDON, V.6, P.2401-P.2421 (1973)
THEORY-OF-SOLIDS /LOCALIZED MODE

73-SC-02  SCHUSTER, H.G.
PHONON SPECTRAL FUNCTION OF A SUPERCONDUCTOR
SOLID STATE COMMUN., V.13, P.159-P.162 (1973)
NEUTRON-SCATTERING IN SOLIDS /SUPERCONDUCTOR

73-SE-01  SEARS, V.F.
INCOHERENT NEUTRON SCATTERING FOR LARGE MOMENTUM TRANSF.
ER, II; QUANTUM EFFECTS AND APPLICATIONS

73-SH-01  SHAPIRO, S.M./ AXE, J.D./ SHIRANE, G./ RISTE, T.
SOME FURTHER OBSERVATIONS OF SOFT PHONON LINE SHAPES IN
K,MN,F3
BNL-18053 (1973)
K,MN,F3 /EXPERIMENT/ SOFT MODE DYNAMICS

73-SH-02  SHARAN, B./ KUMAR, A.
LATTICE DYNAMICAL STUDY OF INDUM
PHYS. REV., B, V.7, P.1362-P.1367 (1973)
IN /THEORY/ PHONON DISPERSION /DEBYE TEMP./ ELASTIC CON-
STANT

73-SH-03  SHARAN, B./ KUMAR, A./ NEELAKANDAN, K.
LATTICE DYNAMICS OF LITHIUM
J. PHYS., F, LONDON, V.3, P.1308-P.1312 (1973)
LI /THEORY/ PHONON DISPERSION

73-SH-04  SHUKLA, M.M./ SALZBERG, J.B.
LATTICE DYNAMICS OF COPPER ON MODIFIED BHATIA'S MODEL
PHYS. LETT., A, V.43, P.429-P.430 (1973)
Cu /THEORY/ PHONON DISPERSION /BHATIA MODEL

73-SH-05  SHUKLA, M.M./ CAVALHEIRO, R.
EXTENDED DE LAUNAYS MODEL FOR LATTICE DYNAMICS OF FACE-
CENTERED-CUBIC METALS
NUOVO CIM., B, V.16, P.63-P.64 (1973)
Cu/ Ag/ Al/ Ni/ PD /THEORY/ PHONON DISPERSION/ PHONON SPECTRA/ FOURTH NEIGHBOURS FORCE

73-SH-06  SHUKLA, M.M./ SALZBERG, J.B.
DISPERSION OF PHONON WAVES IN SOLID ARGON
J. PHYS. SOC. JAP., V.39, P.966-P.999 (1973)
Ar /THEORY/ PHONON DISPERSION/ FREQUENCY SPECTRA/ AXIALL
Y SYMMETRIC MODEL

73-SH-07  SHUKLA, M.M./ CLOSS, H.
A MODEL FOR LATTICE DYNAMICS OF FCC METALS
J. PHYS., F, LONDON, V.3, P.1 (1973)
Cu /THEORY/ PHONON DISPERSION

73-SH-08  SHUKLA, M.M./ CLOSS, H.
A MODEL FOR LATTICE DYNAMICS OF HEXAGONAL CLOSE PACKED M ETALS
SOLID STATE COMMUN., V.13, P.803 (1973)
MG /THEORY/ LATTICE DYNAMICS/ INTERATOMIC FORCE CONSTA-
NT/ DISPERSION RELATION /ELECTRON/ION INTERACTION

73-SH-09  SHUKLA, M.M./ SALZBERG, J.B.
LATTICE DYNAMICS OF SODIUM ON MODIFIED BHATIA'S MODEL
J. PHYS., F. LONDON, V. 3L, P. 99-P. 101 (1973)

73-SH-10 SHUKLA, M.M. / CLOSS, H.,
AN ANGULAR FORCE MODEL FOR LATTICE DYNAMICS OF FACE CENTERED CUBIC METALS
J. PHYS., F. LONDON, V. 3L, P. 83-P. 85 (1973)
CU THEOR/ PHONON DISPERSION/ ANGULAR FORCE MODEL

73-SH-11 SHUKLA, M.M. / CLOSS, H.,
A MODEL FOR LATTICE DYNAMICS OF FCC METALS
J. PHYS., F. LONDON, V. 3L, P. 1-P. 4 (1973)
CU THEOR/ PHONON DISPERSION/ LEHMANN AND KRED MODEL

73-SI-01 SINGH N. / PRAKASH S.,
PHONON FREQUENCIES AND COHESIVE ENERGIES OF COPPER, SILVER, AND GOLD
PHYS. REV. B, V. 8, P. 5532-P. 5544 (1973)
CU/ AG/ AU THEOR/ PHONON DISPERSION

73-SK-01 SKOELD, K. / DAHLBORG, U.,
REORIENTATION OF THE N4H+ ION IN N4H4. CL IN PHASE 2 SOLID STATE COMMUN. V. 13, P. 543-P. 546 (1973)
N4H4. CL EXPERIMENT/ NEUTRON DIFFRACTION/ TOF/ SIGMA (T)
META-E REORIENTATION OF N4H4 ION

73-SM-01 SMITH, J.A.S. / TEMME, F.P. / LUDMAN, C.J. / WADDINGTON, T.C.,
NEUTRON INELASTIC SCATTERING STUDIES ON THE HYDROGEN DIHALIDES
J. C. S. FARADAY TRANS., 2, V. 10, P. 1477-P. 1485 (1973)
NA-HF2/ X-HF2/ CS-H2CL2/ CS-H2BK EXPERIMENT/ MOLECULAR VIBRATION

73-SM-02 SMITH, J.A.S. / TEMME, F.P. / LUDMAN, C.J. / WADDINGTON, T.C.,
NEUTRON INELASTIC SCATTERING STUDIES ON THE HYDROGEN DIHALIDES
J. C. S. FARADAY TRANS., 2, V. 69, P. 1477-P. 1485 (1973)

73-SO-01 SOKOLOFF, J.B. / LOVELL, J.M.,
THEORY OF INELASTIC NEUTRON SCATTERING FROM ORIENTALLY DISORDERED MOLECULAR CRYSTALS, WITH PARTICULAR APPLICATION TO N2D4, BR AND N2D4, CL
PHYS. REV., V. 7, P. 1644-P. 1650 (1973)
N2H4, BR/ N2H4, CL THEOR/ ORDER-DISORDER TRANSITION/ SIGMA (T)
META-E ORIENTATIONAL DISORDER

73-SO-02 SOMA, T.,
STATIC AND DYNAMICAL ELASTIC CONSTANTS OF SIMPLE METALS
J. PHYS. SOC. JAP., V. 36, P. 1292-P. 1300 (1973)
THEOR/OF-SOLIDS, METAL/ ELASTIC CONSTANT/ STATIC AND DYNAMICAL

73-SR-01 SRIVASTAVA, V. / JOSHI, S.K.,
PHONON IN DISORDERED SI-GE ALLOYS
PHYS. REV., V. 8, P. 4671 (1973)
GE-SI EXPERIMENT/ SPECTRAL DENSITY FUNCTION/ RAMAN SPECTRA/THEOR Y

73-ST-01 STALLARD, J.M. / DAVIS-JR, C.M.,
LIQUID ALUMINIUM STRUCTURE FACTOR BY NEUTRON DIFFRACTION
PHYS. REV., V. 8, P. 368-P. 376 (1973)
AL EXPERIMENT/ STRUCTURAL FACTOR/ LIQUID METAL/ 703+10 29 DC

73-SW-01 SWARUP, A. / BHRA, B.M. / TIMARJI, L.M.,
LATTICE DYNAMICS OF CALCIUM AND STRONTIUM PHYSICA, V. 66, P. 403-P. 408 (1973)
CA/ SR THEOR/ PHONON DISPERSION/ PHONON DENSITY/ DEB Y TEM/ SHARMA-JOSHI MODEL

73-TE-01 TADEII, G. / BONALDO, H. / MARZOCCHI, M.P. / CALIFANO, S.,
CALCULATION OF CRYSTAL VIBRATIONS OF BENZENE
J. CHEM. PHYS., V. 58, P. 966 (1973)
C6H6 THEOR/ LATTICE DYNAMICS/ F AND G MATRIX METHOD

73-TE-02 TALWAR, D.N. / AGRAWAL, B.K.,
LATTICE DYNAMICS OF Zn-CD CHALCOGENIDES - A CRITICAL-PO INT ANALYSIS
PHYS. REV., V. 8, P. 693-P. 701 (1973)
Zn, TE, CD, TE, CALCULATION/ SECOND-NEIGHBOR-IONIC MODEL

73-TE-01 TEH, L.C. / BROCKHOUSE, B.N.,
TEMPERATURE DEPENDENCE OF THE LATTICE VIBRATIONS IN N4 CL
PHYS. REV., V. 8, P. 3928-P. 3938 (1973)
N4H4, Cl, LATTICE DYNAMICS/ DISPERSION CURVE

73-TE-02 TEMME, F.P. / WADDINGTON, T.C.,
LIBRATIONAL MOTION IN SODIUM AND LITHIUM ALUMINIUM HYDRIDES, STUDIED BY INELASTIC NEUTRON SCATTERING
J. C. S. FARADAY TRANS., 2, V. 6, P. 783-P. 790 (1973)
Li-Al-H, Na-Al-H EXPERIMENT/ PHONON SPECTRA/ Li-Al-H, Na-Al-H

- 264 -
73-VH-01 Thorpe: M. F.,
Effect of local order on phonon density of states
Ge/Si, theory/solid/lattice dynamics/frequency distribution/bohn model

73-T0-01 Tosi, M. P., March, N. H.,
Small-angle scattering from liquid metals and alloys and d
Electronic correlation functions
Theory-of-fluids/partial correlation function/small region/electron diffusivity

73-UP-01 Upadhyaya, J. C., Verma, M. P.,
Phonon dispersion in yttrium and terbium
Y/Tb, theory/phonon dispersion/sharma-joshi model

73-UP-02 Upadhyaya, J. C., Verma, M. P.,
Dispersion relations in some hexagonal metals
Be/Mg/HO/TL, theory/phonon dispersion/modified sharma-joshi model

73-VA-01 van't Riecht, J. B., de Mool, F. F. M., Weijermans, J. P.,
A cold neutron scattering study of dicalcium strontium propionate
Dicalcium strontium propionate, experiment/vibration spectra/para-electric phase transition/quasi-elastic scattering

73-VE-01 Verma, M. P., Upadhyaya, J. C.,
The use of central pair potentials in the lattice dynamics
Solid state commun., v. 15, p. 779 (1973)
Y, theory/lattice dynamics/solid/elastic constant/electron-ion interaction/phonon dispersion curve

73-VE-02 Verma, M. P., Agarwalla, S. K.,
Three-body-force shell model and the lattice dynamics of
Magnesium oxide
MgO, lattice dynamics/displacement relation/theory

73-VE-03 Veddern, J. F., Namjoshi, V. V., Mitra, A. S.,
Lattice dynamics of CsCl, CsBr, and CsI
CsCl, CsBr, CsI, theory/phonon dispersion/modified rigid-ion model

73-VI-01 Visscher, W. M.,
Self-diffusion, the green-kubo formulas, and the long tail
Of the velocity-autocorrelation function
Theory-of-fluids/self-diffusion/velocity-autocorrelation

73-WA-01 Warren, J. L., Wurlton, T. G.,
Symmetry properties of the lattice dynamics of twenty
Three crystals
Anl-8053 (1973)
Theory-of-solids/symmetry property/computer analysis/23 crystals

73-WE-01 Weber, W.,
Phonon anomalies in strongly coupled superconductors
Ti/C/R/C/HF.C, theory/solid/frequency distribution
N/lattice dynamics/superconductor/strong coupling theory

73-WE-02 Weber, W.,
Lattice dynamics of transition-metal carbides
Ti/C/R/C/HF/C, theory/lattice dynamics/solid/displacement relation/frequency distribution
N/solid model/double shell model

73-WL-01 Willis, B. T. M.,
Chemical applications of thermal neutron scattering
Harwell series, oxford university press, Ely house
London, v. 3 (1973)
Review-articles, book/chemical application/thermal neutron scattering

73-WL-02 Winfeld, D. J., Egelstaff, P. A.,
Short range triplet correlations in krypton near the critical point
K, theory-of-fluids/triplet correlation

73-WO-01 Woods, A. D., Svensson, E. C., Martel, P.,
Neutron scattering by liquid helium under pressure
He, superfluid/pressure effect

73-WO-02 Wong, C. K., Nicol, R.,
Low frequency modes in the Raman spectra of polyethylene
And paraffins, 1. lattice vibrations and their pressure dependence
Polyethylene, paraffine, experiment/raman spectra/pressure effect/lattice mode
EN BONDED LIQUIDS/WATER

74-AX-01 AXEL, J.D.
INELASTIC COHERENT NEUTRON SCATTERING IN AMORPHOUS SOLIDS
BNL-19179 (1974)
NEUTRON-SCATTERING-IN-SOLIDS, INELASTIC COHERENT SCATTERING PHONON AMORPHOUS SOLIDS

74-AX-02 AXEL, J.D./ KEATING, D.T./ CARGILE, G.S./ ALBEN, R.
INELASTIC NEUTRON SCATTERING FROM AMORPHOUS GERMANIUM BNL-18726 (1974)
AMORPHOUS MATERIAL

74-BA-01 BARKER, M.I./ GASKELL, T.
PROPAGATION OF DENSITY FLUCTUATIONS IN LIQUID METALS
J. PHYS. C: LONDON V.7 P.293-298 (1974)

74-BA-02 BARRON T.H.K./ GIBBONS T.G.
QUASIHARMONIC LATTICE DYNAMICS OF BRAVAIS LATTICES: III
THERMAL EXPANSION OF A RHOMBOEDRAL LATTICE
J. PHYS. C: LONDON V.7 P.3260-3268 (1974)

74-BA-03 BARRON T.H.K./ GIBBONS T.G.
QUASIHARMONIC LATTICE DYNAMICS OF BRAVAIS LATTICES: I
MECHANISMS IN CENTRAL FORCE MODELS
J. PHYS. C: LONDON V.7 P.3260-3268 (1974)

74-BA-04 BARRON T.H.K./ GIBBONS T.G.
QUASIHARMONIC LATTICE DYNAMICS OF BRAVAIS LATTICES: II
RHOMBOEDRAL LATTICE WITH SHORT-RANGE CENTRAL FORCES
J. PHYS. C: LONDON V.7 P.3260-3268 (1974)

74-BA-05 BATA, L./ VIZI, I./ KUELER, S.
INTERPRETATION OF THE QUASI-ELASTIC NEUTRON SCATTERING ON PAA BY ROTATIONAL DIFFUSION MODELS
FKI-74-72 (1974)
P=AZOXYANISOLE, EXPERIMENT/ LIQUID CRYSTAL PHASE/ QUASI-ELASTIC SPECTRUM/ ROTATIONAL DIFFUSION MODEL

74-BE-01 BEEDEUX, D./ MAZUR, P.
BROWNIAN MOTION AND FLUCTUATING HYDRODYNAMICS PHYSICA V.76 P.247-258 (1974)

74-BE-02 BLINK, A./ COOPER, D./ COOPER, D.
BROWNIAN MOTION AND FLUCTUATING HYDRODYNAMICS PHYSICA V.76 P.247-258 (1974)

74-EN-01 BLINK, A./ COOPER, D./ COOPER, D.
BROWNIAN MOTION AND FLUCTUATING HYDRODYNAMICS PHYSICA V.76 P.247-258 (1974)

74-EN-02 BLINK, A./ COOPER, D./ COOPER, D.
BROWNIAN MOTION AND FLUCTUATING HYDRODYNAMICS PHYSICA V.76 P.247-258 (1974)
74-DE-02 BETSUYAKU, H., HAMAGUCHI, Y.,
NEUTRON SCATTERING INVESTIGATION OF MAGNETIC EXCITATION
IN KMN F3
J. PHYS. SOC. JAP., V. 37, P. 975-982 (1974)
K.MN.F3/ MAGNETIC-SCATTERING . . . EXPERIMENT/ MAGNETIC SCA
TER FonNUN/ 3.44N

74-BJ-01 BICKERMAN, A. BILEM, W. MERTENS, F. G.,
INCOHERENT NEUTRON SCATTERING BY THE PHONON-VIBRATION S
YSTEM IN SOLID OKTO-HYDROGEN
HYDROGEN . . . THEORY/ SOLID OKTO-HYDROGEN/ PHONON DISPERS
ION AND SPECTRA/ SCATTERING FUNCTION

74-BI-02 BIRGENEAU, H. J., KJEMS, J. K., SHIRANE, G., VAN UIT
ENT, L. G.,
COOPERATIVE JAHN-TELLER PHASE TRANSITION IN PrALO3
PHYS. REV. B, V. 10, P. 2512-2534 (1974)
PR,ALO3 . . . JAHN-TELLER/ STRUCTURAL-PHASE-TRANSITION

74-BL-01 BLINCE, R. J., LUGOMER, S. Z. ZEKIS, B. B.
SOFT-MODE DYNAMICS IN NEMATIC LIQUID CRYSTALS
PHYS. REV. A, V. 9, P. 221-224 (1974)
THEORY-OF-FLUIDS . . . NEMATIC LIQUID CRYSTAL

74-BL-01 BOETTGER, H.
VIBRATIONAL PROPERTIES OF NON-CRYSTALLINE SOLIDS
REVIEW-ARTICLES . . . VIBRATIONAL PROPERTIES/ NON-CRYSTALL
NE SOLIDS/ IR, Raman SPECTRA/ NEUTRON SCATTERING/ SPECI
FIC HEAT

74-BQ-02 BOSNICK, B. A., AZMAN, A.
THE VIBRATIONAL SPECTRUM OF THE DISORDERED HYDROGEN BON
DED CHAIN
CHEM. PHYS. LETT., V. 28, P. 56-60 (1974)
THEORY-OF-SOLIDS . . . FREQUENCY SPECTRUM/ HYDROGEN BOND/ DI
ORDERED CHAIN

74-BR-01 BRENNAN, M. A., HUTCHINSON, P., SANGSTER, M. J. L., SCH
OFIELD, P.
CALULATION OF EFFECTIVE PAIR INTERACTION POTENTIAL
FOR LIQUID NEON FROM STRUCTURE FACTOR MEASUREMENTS
NEON . . . PAIR-DISTRIBUTION FUNCTION

74-BR-02 BREWER, N.
DETERMINATION OF THE PHONON SPECTRUM FROM COHERENT NEUT
RON SCATTERING BY POLYCRYSTALS
AL . . . COHERENT NEUTRON SCATTERING/ POLYCRYSTAL

74-BR-03 BROOKS, J. S., DONELLY, R. J.
INFLUENCE OF PHONON DISPERSION ON THE VELOCITY OF SECON
D SOUND IN HE-2
PHYS. REV., A, V. 9, P. 1444-1445 (1974)
THEORY-OF-FLUIDS/ HE . . . SECOND SOUND

74-BU-01 BURKHARD, H., SEICK, R., KAESTNER, P., UNKELBACH, K.
LATTICE VIBRATIONS AND FREE CARRIER DISPERSION IN PbSe
PHYS. SOLID STATE SOLIDS, V. 63, P. 69 (1974)
Pb,Se . . . EXPERIMENT/ KRAMERS-KRONIG ANALYSIS/ PHONON-PL
ASMON INTERACTION

74-BU-02 BUHADY, W. J., SEARS, V. F., LONNGI, P. A., LONNGI, D.
NEUTRON SCATTERING DATA FOR LIQUID NEON
AECL-4910 (1974)
REL . . . EXPERIMENT/ SMOOMEGA COMPILATION

74-CA-01 CARLILE, C. J., ROSS, D. K.
AN EXPERIMENTAL VERIFICATION OF CHUDELY-EVAN CHILD MODEL FOR
THE DIFFUSION OF HYDROGEN IN ALPHA-PHASE PD, H
SOLID STATE COMMUN., V. 13, P. 1923 (1974)
PD-H . . . EXPERIMENT/ SOLID/ SCATTERING LAW . . . CHUDELY-EVAN
CHILD MODEL/ JUMP-DIFFUSION MODEL

74-CA-02 CARNEIRO, X. C.
THE DYNAMICS OF LIQUID HYDROGEN AND LIQUID NITROGEN STUD
IED BY INELASTIC NEUTRON SCATTERING
RISO REPORT NO. 308 (1974)
H2/ N2 . . . EXPERIMENT/ PHONON LIKE EXCITATION/ LIQUID DYN
AMICS

74-CA-03 CATALIOTTI, R.
PHONON SPECTRUM AND PHONON INTERACTIONS IN CORUNDUM
CORUNDUM . . . PHONON-SPECTRUM

74-CH-01 CHAUBLER, D.
TRANSITIONAL AND ROTATIONAL DIFFUSION IN LIQUID II. OR
IENTATIONAL SINGLE PARTICLE CORRELATION
J. CHEM. PHYS., V. 60, P. 3506 (1974)
THEORY-OF-FLUIDS . . . DYNAMICS OF LIQUID

74-CH-02 CHAUDELY, D.
TRANSITIONAL AND ROTATIONAL DIFFUSION IN LIQUIDS I. . .
TRANSITIONAL SIMPLE-PARTICLE CORRELATION
J. CHEM. PHYS., V. 60, P. 3500 (1974)
THEORY-OF-FLUIDS . . . DYNAMICS OF LIQUID

74-CH-03 CHESSER, N. J., AXEL, J. B.
LATTICE DYNAMICS OF ZINC PHONON STRUCTURE FACTORS
A Rotating Crystal Time of Flight Spectrometer Using a Pulsed Neutron Source.
CAN. J. PHYS., V. 52, P. 2093-2107 (1974)
MISCELLANEOUS

74-ES-01 Eschrig, H./ Van Loenhout, L./ Ziesche, P.
On the Determination of the Phonon Density of States by Means of Coherent Inelastic Scattering of Neutrons on Poly Crystalline Samples.
MG.. Phonon Density of State

74-ET-01 Etchepare, J./ Merian, M./ Smekaline, L.
Vibrational Normal Modes of SiO2: I, Alpha and Beta quartz.
J. CHEM. PHYS., V. 60, P. 1873-1876 (1974)
SiO2... Theory/ Normal Mode/ Compared to Optical Data

74-FI-01 Fischer, K.
Lattice Dynamics and Anharmonic Effects in Ag, Cl, and Ag, Cl, Theory/ Solid/ Lattice Dynamics/ Dispersion Relation/ Anharmonicity/ Frequency Spectrum... Shell Model

74-FI-02 Fixman, M./ Kovac, J.
Dynamics of Stiff Polymer Chains I, II, Freely Jointed Chain.
J. CHEM. PHYS., V. 61, P. 4950 (1974)
Theory/ Fluids... Theory/ Molecular Dynamics

74-FI-03 Fixman, M./ Kovac, J.
Dynamics of Stiff Polymer Chains II.
J. CHEM. PHYS., V. 61, P. 4939 (1974)
Theory/ Fluids... Theory/ Molecular Dynamics

74-FF-01 Frank, I.M.
Absorption and Reflection of Ultracold Neutron.
BNL-TH-567 (1974)
Scattering Theories... Ultracold Neutron

74-FU-01 Fujii, S./ Lurie, N.A./ Pynn, R./ Shimane, G.
Inelastic Neutron Scattering from Solid 36Ar.
PHYS. REV. B, V. 10, P. 3647 (1974)
Ar... Experiment/ Solid/ Dispersion Relation/ Triple Axis Neutron Spectrometer/ Frequency Spectrum

74-FU-02 Fulparo, R./ Walden, V.S./ Vinhas, L.A./ Amaral, L.
Slow Neutron Scattering Cross Section of deoxyribonucleic acid. Enzymes.
IEA-342 (1974)
DNA... Experiment/ Total Cross Section/ Water in DNA and DNA

74-FU-03 Funke, K./ Kalus, J./ Lechner, R.
Quasielastic and Inelastic Scattering of Cold Neutrons from Silver iodide.
Zn... Theory/ Born-von Karman Model/ Dispersion Relation/ Frequency Distribution/ Experiment/ Constant-q Method... Triple-axis Spectrometer

74-GA-01 Gambetti, L./ Menzinger, F./ Sacchetti, F.
Phonons in the Equiatomic CuNi alloy.
RT/F1 (74)48 (PHYS. LETT. A, 327-328, 1974) (1974)
Cu-Ni... Experiment/ Phonon Dispersion/ Alloy/ FCC

Lattice Dynamics of the Na, F Crystal.
Na,F... Dispersion Curves/ Density-of-States/ Theory

74-GL-01 Glinskij, C.J./ Minkiewicz, V.J./ Passelli, L.
Small Angle Neutron Scattering from Cobalt in the Critical Region.
BNL-19545 (1974)
Magnetic Scattering... Small Angle Neutron Scattering/ Critical Scattering/ Magnon

74-GO-01 Goel, C.M./ Pandey, B.P./ Dayal, B.
Lattice Dynamics of Some Transition Metals by an Elastic Force Model.
Ag/ Pd/ Pt... Phonon Dispersion Relation

74-GO-02 Goel, G.M./ Pandey, B.P./ Dayal, B.
Phonon Dispersion Relations in Copper and Silver by a Modified Sharma-Joshi Model.
Cu-Ag... Theory/ Lattice Dynamics/ Interatomic Force Constant/ Dispersion Relation... Electronion Interaction

74-GS-01 Graff, E.H./ Minkiewicz, V.J./ Moeller, H.B./ Passey, L.L.
Neutron Scattering Study of Collective Excitations in Superfluid Helium.
74-GR-02  GROUT, P.J.; LEECH, J.W.
THE LATTICE DYNAMICS OF CRISTALLINE HYDROGEN CHLORIDE IN ITS LOW-TEMPERATURE PHASE:
H.C.L.,  "DISPERSION=CURVES= THEORY

74-GR-03  GRUNEWALD, G.; SHARMBECK, K.
LIFETIMES OF LONG #WAVELENGTH LONGITUDINAL PHONONS IN IMPURE METALS:
Z. PHYS., V.268, P.197 (1974)
THEORY--OFSOLIDS, THEORY--LIFE TIME, ELECTRON-PHONON INTERACTION, IMPURITIES, PHONON GREEN FUNCTION

74-GU-01  GUPTA, H.N.
PHONON DISPERSION RELATIONS AND TWO-PHONON RAMAN SPECTRA:
A OF CESIUM FLUORIDE:
PHYS., STATUS SOLIDI B, V.61, P.681 (1974)
CS.F., THEORETICAL DYNAMICS, DISPERSION RELATION, H.C.L., THREE-BODY FORCE SHIELD MODEL

74-GU-02  GUSSONI, M.; ZERBI, G.
LATTICE DYNAMICS OF MIXED CRYSTALS HCL-DCL:
J. CHEM. PHYS., V.60, P.9862 (1974)
H.C.L., THEORETICAL, DISPERSION RELATION, FREQUENCY DISTRIBUTION, F-G MATRIX METHOD

74-HA-01  HAFNER, J.; SCHMUCKER, P.
LATTICE DYNAMICS OF ALUMINUM: AN INVESTIGATION OF EXCHANGE AND CORRELATION EFFECTS:
PHYS. REV. B, V.9, P.4138 (1974)
AL, THEORETICAL, DYNAMICS, DISPERSION RELATION, KOH N EFFECT

74-HA-02  HALLMAN, E.D.
CRYSTAL DYNAMICS OF THE ALLOY CUS:AU:
CAN. J. PHYS., V.52, P.2235 (1974)
CUS:AU, EXPERIMENTAL, SOLID, DISPERSION RELATION, LATTICE DYNAMICS, BORN-VRUM KAHMAN MODEL, ALLOY

74-HA-03  HAMILTON, W.C.; LASSIER, B.; KAY, M.I.
THE PHONON SPECTRA OF TRIGONAL SELENIUM AT 77 AND 298K:
SE, EXPERIMENT, DISPERSION RELATION, INTERATOMIC FORCE CONSTANT, THREE-Axis SPECTROMETER

74-HA-04  HARA, H.; HONDA, T.
MULTIPLE SCATTERING OF SLOW NEUTRONS BY STATISTICAL MEAN:
PROGR. THEORET. PHYS., KYOTO, V.52, P.68-P.83 (1974)

74-HA-05  HASEGAWA, H.; WATANABE, M.
THEORY OF THERMO-DYNAMIC PROPERTIES OF LIQUID METALS:
THEORY-OFFLUIDS, NA, LIQUID METAL, ELECTRON THEORY, STRUCTURE FACTOR, THERMAL EXPANSION

NEUTRON CRYSTAL FIELD SPECTROSCOPY AND SUSCEPTIBILITY OF ER(CO)Y(CO)ALZ:
ER-Y, AL, MAGNETIC SCATTERING, INELASTIC NEUTRON SCATTERING, SUSCEPTIBILITY

74-HO-01  HOLM, G.; WEBB, J.S.; MONTGOMERY, H.
LATTICE DYNAMICS OF AG.CS:52:
AG.CS:52, EXPERIMENTAL, SOLID, LATTICE DYNAMICS, DISPERSSION RELATION

74-HO-02  HOROVITZ, B.; WEGER, M.
PHONON DISPERSION AND INSTABILITY IN LINEAR-CHAIN CRYSTALS:
PHYS. REV. B, V.9, P.1246 (1974)
THEORY OF SOLIDS, PHONON DISPERSION, CHAIN CRYSTAL

74-HU-01  HUTCHINGS, M.T.
THE USE OF INELASTIC NEUTRON SCATTERING TO DETERMINE THE ELECTRONIC STATES OF INORGANIC MATERIALS:
AERE-R-7969 (1974)
REVIEW OF ARTICLES, MAGNETIC SCATTERING, MAGNETIC INELASTIC SCATTERING, MAGNON, EXCITONS, INORGANIC COMPOUND

74-JA-01  IACHELLO, F.; RASATTI, M.
THE SEMI-PHENOMENOLOGICAL FITS TO THE PHONON DISPERSION CURVES IN LIQUID NE-2:
NE, THEORETICAL, PHONON DISPERSION

74-KA-01  IKEDA, N.
NEUTRON SCATTERING STUDY OF CRITICAL PHENOMENA IN RESTRICTED DIMENSIONAL MAGNETS: UNIVERSALITY AND SCALING-J.
PHYS. SOC. JAP., V.37, P.660-P.666 (1974)
K2.CO.F4/2.CO.F4/ K.CO.F3, MAGNETIC SCATTERING, EXPERIMENT, CRITICAL SCATTERING

74-KA-01  INOUHE, K.; KIYANAGI, Y.
SLOW NEUTRON SCATTERING FORM FACTOR FROM ONE-DIMENSIONAL
L ROTOR

74-10-01 ISOSLEVSKII, V. X.
THE SPECTRAL DISTRIBUTION OF ACOUSTICAL PHONONS IN A PLATE
THEORY OF SOLIDS/ SPECTRAL DISTRIBUTION/ PLATE/ EFFECT OF SURFACE

74-15-01 ISHIKAWA, Y./ NODA, Y.
NEUTRON SPIN-波E SCATTERING FROM A HEUSLER ALLOY (1974)
PD=MN-SN MAGNETIC-SCATTERING/ EXPERIMENT/ MAGNON DISPERSION

74-JA-01 JAIN, S.C./ JAIN, M.
A GENERAL LOCAL MODEL PSEUDO-POTENTIAL FOR SIMPLE METALS,
BINDING ENERGY AND COMPRESSIBILITY
THEORY OF SOLIDS/ THEORY/ PSEUDO-POTENTIAL FORM FACTOR/
SIMPLE METALS

74-JO-01 JOHNSON, F.A.
A BOND CHARGE MODEL OF LATTICE DYNAMICS
THEORY OF SOLIDS/ LATTICE DYNAMICS/ BOND CHARGE MODEL

74-JO-02 JOHNSON, F.A./ MOORE, K.
A BOND CHARGE MODEL OF LATTICE DYNAMICS, II
THEORY OF SOLIDS/ DIAMOND/ Si, PHONON DISPERSION/ BOND CHARGE MODEL

74-JO-03 JOHNSON, M.W.
DIFFUSION A COMPUTER PROGRAM FOR THE CALCULATION OF MULTIPLE SCATTERING EFFECTS IN INELASTIC NEUTRON SCATTERING
AERE-R-7682 (1974)
COMPUTER CODES/ MULTIPLE SCATTERING CORRECTION/ INELASTIC SCATTERING

74-JO-04 JORDAN, P.C.
THEORY OF SELF-DIFFUSION IN LIQUIDS
APPLICATION OF FLUIDS/ THEORY/ LIQUID/ CORRELATION FUNCTION

74-KA-01 KAMITAKAHARA, W.A./ BROCKHOUSE, B.N.
VIBRATIONS OF A MIXED CRYSTAL, DISORDERED SCATTERING FROM
NI-95/pd45
NI-95/ EXPERIMENT/ PHONON DISPERSION/ WIDTH/ DISORDERED
D ALLOY/ FCC/ Ni-95/ pd45

74-KA-02 KANEY, L.B./ HORTON, G.R.
XE DISPERSION CURVES/ THEORY/ MIE-LENNARD-JONES-POTENTIAL

74-KA-03 KANZAKI, H./ SAKURAGI, S./ HOSHINO, S./ SHIRANE, G.
NEUTRON SCATTERING OF PHONONS ASSOCIATED WITH INDIRECT
AG, BR DISPERSION CURVES (111)-DIRECTION

74-KA-04 KAPLAN, T./ MOSTOLLER, M.
LOCAL MODES IN AlO,1-CuO,9 AND (N, H)O,1-KO,9, CL IN THE
COHESIVE-ENERGY-POTENTIAL APPROXIMATION
CU-AL, N, H, CL=K, CL CALCULATIONS/ COHERENT-POTENTIAL
APPROXIMATION/ PHONON DENSITY OF STATES

74-KA-05 KUR, M./ KUSHWAHA, S.S.
ON PHENOMENOLOGICAL MODELS OF LATTICE DYNAMICS
SC THEORY/ PHONON DISPERSION

74-KH-01 KHANNA, S.N./ UPADEHAY, J.C./ JAIN, A.
LATTICE DYNAMICS OF GOLD
AU DISPERSION CURVES

74-KH-04 KRAMER, H.L./ PULS, J.M./ TROWE, H.
NEUTRON SCATTERING FROM NITROGEN ADSORBED ON BASAL-PLAN
FORMED GRAPHITE
N-GRAPHITE, EXPERIMENT/ NEUTRON DIFFRACTION/ NITROGEN
ADSORBED

74-KO-01 KOESTER, L./ KNOPE, K./ WASCHKOWSKI, W.
THE SCATTERING OF SLOW NEUTRONS BY COBALT
CO SCATTERING AMPLITUDE

74-KO-02 KOKIGI, M./ ISHIKAWA, Y./ NAKADA, I./ MOTIZUKI, K.
74-KR-01  KRESS, W.
CALCULATION OF PHONON DISPERSION CURVES AND MODER GRUNEISEN PARAMETER IN Rb.I
Rb.I . . . , THEORY/ PHONON DISPERSION/ GRUNEISEN PARAMETER/ BREATHING SHELL MODEL

74-KU-01  KUENEM, D.H.
LATTICE DYNAMICS IN TERMS OF LOCALIZED ORBITALS
PHYS. REV. B, V.9, P.1792 (1974)
THEORY-OF-SOLIDS . . . , LATTICE DYNAMICS

74-KU-02  KURIHARA, Y./ KURODA, Y./ ISHIMURA, N.
THEORY OF QUANTUM CRYSTAL PROGRESS, THEORET. PHYS., KYOTO, V.51, P.959-P.972 (1974)
HE . . , THEORY/ SOLID HE/ BCC/ PHONON DISPERSION

74-LE-03  LANTZLE, F./ TUNO, P./ WUENTREC, B./ LEWIS, J.W.E.
APPLICATION OF THE MOLECULAR DYNAMICS METHOD TO A LIQUID SYSTEM WITH LONG RANGE FORCES (MOLTEN NA,CL)
NA,CL . . . , THEORY/ FUSED SALT/ RADIAL DISTRIBUTION FUNCTION

74-LE-04  LEE, F.J./ LEE, D.K.
LONG-TO-MEDIUM-WAVELENGTH PHONON SPECTRUM IN LIQUID HE-4
PHYS. REV. A, V.9, P.1408-P.1411 (1974)
THEORY-OF-FLUIDS/ HE . . , DISPERSION RELATION

74-LE-05  LERIBAUX, M.R./ MILLER, L.F.
STRUCTURE OF THE LIQUID ALKALI METALS BY AN OPTIMIZED INVERSION SOLUTION OF THE PERCUSS-YEVICK EQUATIONS
J. CHEM. PHYS., V.61, P.3327 (1974)
THEORY-OF-FLUIDS . . . , THEORY/ LIQUID/ STRUCTURE FACTOR/ . . PERCUSS-YEVICK EQUATION

74-LI-01  LIVINGSTON, R.C.
NEUTRON QUASIELASTIC SCATTERING STUDY OF THE AMMONIUM ION REORIENTATIONS IN A SINGLE CRYSTAL OF N,H, Br AT 373 K
J. CHEM. PHYS., V.60, P.4541 (1974)
N,H,Br . . . , EXPERIMENT/ NEUTRON SPECTRUM/ SCATTERING LAW/ QUASIELASTIC PEAK/ . . , OSCILLATION VIBRATION PEAK/ DYNAMIC ORIENTATIONAL DISORDER

74-LU-01  LURIE, N.A./ SHINANE, G./ SKALYO, JR.
PHONON DISPERSION RELATIONS IN XENON AT 10K
PHYS. REV. B, V.9, P.5300 (1974)
Xe . . . , EXPERIMENT/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION/ BORN-VON KNUDSEN MODEL . . . , SPECIFIC HEAT/ TRIPLE-AXIS CRYSTAL SPECTROMETER

74-LU-02  LUTY, T./ PAWELEY, G.S.
A SHELL MODEL FOR MOLECULAR CRYSTALS
THEORY-OF-SOLIDS . . . , THEORY/ SOLID/ LATTICE DYNAMICS . . . , SHELL MODEL

74-MA-01  MALMI, W.C./ DANNER, H.R./ LURIE, N.A.
COLD NEUTRON SCATTERING FROM GASEOUS METHYL HALIDES
J. CHEM. PHYS., V.61, P.3863-P.3864 (1974)

74-MA-02  MANI, K.K./ KAMANI, R.
LATTICE DYNAMICS OF GRAPHITE
PHYS. STATUS SOLIDI B, V.61, P.659 (1974)
GRAPHITE . . . , THEORY/ LATTICE DYNAMICS/ DISPERSION RELATIONS/ TENSILE FORCE MODEL

74-MA-03  MAURYA, J.R./ SrIVASTAVA, R.S.
PHONON DISPERSION RELATION FOR MAGNESIUM PHYS. LETT., A, V.50, P.297 (1974)
MG . . , THEORY/ SOLID/ DISPERSION RELATION . . , TOYA'S THEORY

74-MI-01  MITSKOVICH, V.
MICROSCOPIC THEORY OF LATTICE DYNAMICS IN NONCONDUCTING CRYSTALS
PHYS. STATUS SOLIDI B, V.61, P.675 (1974)
THEORY-OF-SOLIDS . . . , THEORY/ LATTICE DYNAMICS . . . , NON-CONDUCTING CRYSTAL/ DENSITY MATRIX

74-MO-01  MOOK, H.A.
NEUTRON SCATTERING STUDY OF THE MOMENTUM DISTRIBUTION OF HE
HE . . , INELASTIC NEUTRON SCATTERING/ SCATTERING LAW

74-MO-02  MOSTOLLER, M./ KAPLAN, T./ MAKABAYASHI, N./ NICKLO
LATTICE VIBRATION IN HCP YO.9.TBO.1 IN THE COHERENT-PO TENTIAL APPROXIMATION
PHYS. REV. B, V.10, P.3144 (1974)
YO,TB . . . , THEORY/ LATTICE DYNAMICS/ SOLID/ FREQUENCY SPECTRUM . . , COHERENT POTENTIAL APPROXIMATION/ GREEN FUNCTION/ DISORDERED ALLOY

74-NA-01  NARUTOMI, M.A./ STECKI, J.

- 272 -
ON THE GENERALIZATION OF A VINEYARD CONVOLUTION APPROXIMATION FOR A CLASSICAL SYSTEM
THEORY-OF-FLUIDS, CORRELATION FUNCTION

74-NE-01 NELIN, G.
HARMONIC LATTICE DYNAMICS OF GERMANIUM
GE = THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATI
ON = DEFORMATION DIPOLE MODEL/ SHELL DIPOLE MODEL/ VALE
NCE-FORCE MODEL/ BROKEN BAND MODEL/ BOND CHARGE MODEL/
DIELECTRIC MODEL

74-NE-02 NELIN, G./ NILSSON, G.
PHONON ANHARMONICITY OF GERMANIUM IN THE TEMPERATURE RA
NGE 80-880K
GE = EXPERIMENT/ DISPERSION RELATION/ FREQUENCY DISTRIBU
TION/ CRYSTAL SPECTROMETER

74-NE-03 NELIN, G./ SKOELD, K.
DIFFUSION OF HYDROGEN IN THE BETA-PHASE OF Pd-H STUDIED
BY SMALL ENERGY TRANSFER NEUTRON SCATTERING
AE-493 (1974)
PD-H = EXPERIMENT/ SOLID/ QUASI-ELASTIC NEUTRON SCATTER
ING/ FULL WIDTH AT HALF MAXIMUM

74-NE-04 NELIN, G.
HARMONIC LATTICE DYNAMICS OF GERMANIUM
AE-492 (1974)
GE = THEORY/ SOLID/ LATTICE DYNAMICS/ HARMONIC APPROXIM
ATION/ DISPERSION RELATION = SHELL DIPOLE MODEL/ DIELE
TRIC MODEL/ VALENCE FORCE MODEL/ BROKEN BAND MODEL/ BON
D CHARGE MODEL

74-NE-05 NELIN, G./ NILSSON, G.
PHONON ANHARMONICITY OF GERMANIUM IN THE TEMPERATURE RA
NGE 80-880 K
AE-491 (1974)
GE = EXPERIMENT/ SOLID/ ANHARMONICITY/ FREQUENCY DISTRIBU
TION/ DISPERSION RELATION = DOUBLE MONOCHROMATOR CRY
STAL SPECTROMETER

74-NE-06 NESTERENKO, B.A./ GORBACHEV, B.I./ ZRAZHEVSKIIL, V.
A./ IVANITSKII, P.G./ KROTENKO, V.I.//
PHONON SPECTRUM OF THE SILICON LATTICE
FIZ. TVEHOD, TELA (SOV. PHYS.-SOLID STATE), v.16 (v
Si = PHONON SPECTRUM/ EFFECT OF SURFACE/ EXPERIMENT

74-NE-07 NEWMAN, D.J.
THE DERIVATION OF FORCE CONSTANTS FROM PHONON FREQUENCI
74-RM-09 RATHMANN, O./ ALS-NIELSEN, J.
LONG-RANGE ORDER IN BETA-BRASS STUDIES BY NEUTRON DIFFRACTION ACTION
PHYS. REV. B, V. 9, P. 3921 (1974)
CU-ZN . . . LONG-RANGE ORDER/ NEUTRON DIFFRACTION
74-RE-01 REYNOLDS, P.A./ KEMS, J.K./ WHITE, J.W.
LATTICE VIBRATIONS IN CHLOROBENZENES: EXPERIMENTAL DISPERSION CURVES FOR BETA-PARADICHLOROBENZENE BY NEUTRON SCATTERING
J. CHEM. PHYS., V. 60, P. 824-834 (1974)
DICHLOROBENZENE ... EXPERIMENT/ CALCULATION/ PHONON DISPERSION
74-RI-01 RISTE, T.
ANHARMONIC LATTICES: STRUCTURAL TRANSITIONS AND MELTING NOORDHOF, LEIDEN, NETHERLANDS (1974)
REVIEW-ARTICLES/ PHASE-TRANSITION ... CONFERENCE PROCEEDINGS/ NATO ADVANCED STUDY INSTITUTE
74-RO-01 ROMANO, S./ MARGERITIS, C.
MONTE-CARLO COMPUTATIONS FOR SOME SIMPLE MODELS ACCOUNTING FOR IONIC POLARIZATION IN POTASSIUM PHYSICA, V. 77, P. 557 (1974)
K, CL . . . IONIC POLARIZATION/ ALKALI HALIDE
74-RO-02 ROSE, R.T./ SAUNDERS, D.H.
LITH-03 . . . DISPERSION RELATION/ INElastic NEUTRON SCATTERING
74-RO-03 ROWE, J.M./ RUSHI, J.J./ FLOTON, H.E.
TA-H . . . EXPERIMENT/ QUASI-ELASTIC PEAK/ TOF
CDTE . . . EXPERIMENT/ DISPERSION RELATION/ FREQUENCY DISTRIBUTION . . . PARAMETER SHELL MODEL
LATTICE DYNAMICS OF A SINGLE CRYSTAL OF PD-D0.63 PHYS. REV. LETT., V. 33, P. 1297-P. 1300 (1974)
PD-H . . . EXPERIMENT/ PHONON DISPERSION/ 78,150,22V,295K/ PD-D0.63
74-SA-01 SACCHETTI, F.
MAGNETIC FORM FACTOR DETERMINATION BY INELASTIC SCATTERING OF NEUTONS AS COMPARED TO ELASTIC SCATTERING MEASUREMENTS SOLID STATE COMMUN., V. 13, P. 1964-1964 (1974)
MAGNETIC-SCATTERING . . . THEORY
POLYACRYLMETHYLENE . . . EXPERIMENT/ ORIENTED CRYSTAL/ FREQUENCY SPECTRUM
74-SA-03 SAMUESEN, E.J./ STEINSVOLL, O.
LOW-ENERGY PHONONS IN MAGNETITE PHYS. STATUS SOLIDI B, V. 61, P. 615 (1974)
MAGNETITE . . . EXPERIMENT/ INELASTIC NEUTRON SCATTERING/ DISPERSION RELATION . . . SPINEL STRUCTURE/ TRIPLE AXIS SPECTROMETER/ NEAR THE VERSATILE TRANSITION/ SOUND VELOCITY/ A NQR OF DATA
74-SA-04 SANDLER, S.I./ DAS-GUPTA, A./ STEELE, W.A.
THEORY-OF-FLUIDS . . . RADIAL-DISTRIBUTION-FUNCTION . . . ANALYSIS OF DATA
74-SC-01 SCHEERLINCK, D./ WEGENER, W./ HAUTECHELER, S.
DISPERSION OF ACOUSTICAL MAGMONS AND PHONONS IN Mn(111) FE(111)-04
SOLID STATE COMMUN., V. 13, P. 1526-P. 1533 (1974)
MN.FE-02,04 . . . DISPERSION CURVES
HE . . . HE-3 . . .
74-SC-03 SCHOFIELD, P.
TIME CORRELATIONS IN CLASSICAL STATISTICAL MECHANICS PHYS. A., LONDON, V. 7, P. 266 (1974)
THEORY-OF-FLUIDS/ THEORY-OF-SOLIDS . . . THEORY/ CORRELATION FUNCTION
74-SC-04 SCHRODT, I.B./ DAVIS, H.T.
KINETIC THEORY OF DENSE FLUIDS J. CHEM. PHYS., V. 61, P. 523 (1974)
AR . . . THEORY OF LIQUID . . . HARD AND SOFT PARTS SEPARATION OF
POTENTIAL/ THERMAL CONDUCTIVITY/ SELF DIFFUSION COEFFICIENT/ SHEAR VISCOITY

74-SC-02 SCOTT, J.F.
SOFT-MODE SPECTROSCOPY EXPERIMENTAL STUDIES OF STRUCTURAL PHASE TRANSITIONS
REV. MOD. PHYS., V.46, P.83 (1974)
REVIEW-ARTICLES: THEORY/ EXPERIMENT/ SOLID/ STRUCTURAL PHASE TRANSITION/ NEUTRON SCATTERING/ INFRARED/ X-RAY EXPERIMENT

74-SF-01 SCHN, J.W./ HARDMAN, W.M.
COHESIVE-POTENTIAL APPROXIMATION FOR THE LATTICE VIBRATIONS OF MIXED DIATOMIC SYSTEMS
THEORY-OF-SOLIDS: THEORY/ PHONON/ MASS-DISORDERED SYSTEMS/ COHERENT-POTENTIAL/ ONE-DIMENSIONAL DENSITY-OF-STATE

74-SH-01 SHAPIRO, S.M./ AXE, J.D.
NEUTRON-SCATTERING STUDIES OF SPIN WAVES IN RARE-EARTH ORTHOFERRITES
TM,F,E,03/ ER,F,E,03/ MAGNETIC-SCATTERING/ EXPERIMENT/ MAGNON DISPERSION/ SOFT MODE

74-SH-02 SHAPIRO, S.M./ AXE, J.D./ SHIRANE, G.
NEUTRON SCATTERING STUDY OF THE STRUCTURAL PHASE TRANSITION IN Nb,O2
SOLID STATE COMMUN., V.15, P.377-P.381 (1974)
Nb,O2/ PHASE-TRANSITION/ CRITICAL SCATTERING DUE TO SOFT MODE

74-SH-03 SHARMA, T.P.
LATTICE DYNAMICS OF MnO
SOLID STATE COMMUN., V.15, P.1171-P.1173 (1974)
MnO/ DISPERSION-CURVES/ THEORY/ DEFORMATION-DIPOLE-MODEL

74-SH-04 SHIRANE, G.
NEUTRON SCATTERING STUDIES OF STRUCTURAL PHASE TRANSITIONS AT BROOMHaven
SR,TI,03/ Km,F3/ K,TI,03/ PHASE-TRANSITION/ REVIEW/ SOFT MODE/ PHASE CHANGE

74-SI-01 SINGH, N./ PRAKASH, S.
PHONON FREQUENCIES OF GOLD
AU/ DISPERSION-CURVES

74-SI-02 SINGH, O.N./ KUSHMAHA, S.S.
LATTICE DYNAMICS OF COBALT
CO/ THEORY/ PHONON DISPERSION/ DEBYE TEMP.

74-SI-03 SINGH, R.K.
LATTICE DYNAMICS OF SOME LITHIUM SALTS
LI/H, Li+B, Li+1/ DISPERSION-CURVES/ DENSITY-OF-STATE

74-SK-01 SINHA, M.P./ UPADHYAYA, J.C.
A MODEL FOR LATTICE DYNAMICS OF MCP METALS
YTTIUM/ DISPERSION-CURVES/ CALCULATION

74-SK-01 SKALYO, J./ ENDOH, Y./ SHIRANE, G.
INELASTIC NEUTRON SCATTERING FROM SOLID KRYPTON AT 10 K
PHYS. REV. B, V.9, P.1797 (1974)
KR/ PHONON DISPERSION CURVE/ FREQUENCY DISTRIBUTION/ IN ELASTIC NEUTRON SCATTERING

74-SO-01 SOMA, T.
LATTICE VIBRATION SPECTRA IN ALPHA-SN
SN/ THEORY/ PHONON DISPERSION/ PSEUDOPOTENTIAL

74-ST-01 STAMENKOVIC, S.
THEORY OF NEUTRON ELASTIC SCATTERING BY NEMATIC LIQUID CRYSTALS
J.N.R.-E4-7981 (1974)
NEUTRON-SCATTERING-IN FLUIDS/ LIQUID-CRYSTAL/ THEORY/ SOLID/ SIGMA(TETA,E)/ LIQUID CRYSTAL

74-ST-02 STEINER, M./ DORNER, B./ VILLAIN, J.
INELASTIC NEUTRON INVESTIGATION OF THE ANISOTROPY OF THE SPIN WAVE LIFETIME IN THE ONE-DIMENSIONAL EASY-PLANE FERROMAGNET C5s,Ni,F3
C5s,Ni,F3/ MAGNETIC-SCATTERING/ CONSTANT-Q METHOD/ CORRELATION FUNCTION/ SPIN WAVE

74-ST-03 STILLINGER, F.H./ RAHMAN, A.
MOLECULAR DYNAMICS STUDY OF LIQUID WATER UNDER HIGH COMPRESSION
J. CHEM. PHYS., V.61, P.4973 (1974)
H2O/ LIQUID/ PAIR CORRELATION FUNCTION/ MOLECULAR DYNAMICS/ COMPUTER EXPERIMENT

74-TA-01 TANI, K.
THEORY OF NEUTRON SCATTERING FROM LATTICE VIBRATIONS, 2
APPLICATION OF A PHONON THEORY
NEUTRON-SCATTERING-IN-SOLIDS .. THEORY/ STRUCTURAL PHASE TRANSITION/ MAGNETIC SYSTEM/ ANHARMONIC SYSTEM

74-TE-01 TEUCHERT, W.D.; GECK, R.
SYMmetry OF LATTICE VIBRATIONS IN SelenIUM AND TELLURIUM
PHYS. STATUS SOLIDI B; V.61; P.123-136 (1974)
SE/ TE .. THEORY/ PHONON DISPERSION

74-TE-02 TERNARY, V.K.
LATTICE DYNAMICS OF A SOLID WITH A SCREW DISLOCATION
J. PHYS. C: LONDON; V.7; P.261 (1974)
THEORY-OF-SOLIDS .. THEORY/ SOLID/ LATTICE DYNAMICS .. GRE EN FUNCTION/ SCREW DISLOCATION

74-TH-01 THOMA, K.; DORNER, W.; DUESING, G.; WEGENER, W.
LATTICE DYNAMICS OF ZN,N
SOLID STATE COMMUN.; V.13; P.1111-1114 (1974)
ZN,N .. EXPERIMENT/ PHONON DISPERSION/ SHELL MODEL FITTING WITH 10 PARAMETERS

74-TH-02 TRIPATHI, R.S.; DELMERA, S.N.
PHONONS IN MIXED CRYSTALS .. A SELF-CONSISTENT THEORY IN CLUTURING MASS AND FORCE-CONSTANT CHANGES
J. PHYS. C: LONDON; V.7; P.4470 (1974)
THEORY-OF-SOLIDS .. GREEN FUNCTION

74-TS-01 TSANG, T.; MCLAINE, A.P.
VELOCITY AUTOCORRELATION FUNCTIONS IN CLASSICAL FLUIDS
PHYSICA; V.77; P.361 (1974)
AR .. VELOCITY CORRELATION/ LIQUID

74-TS-02 TSUZUKI, T.
ON THE TEMPERATURE DEPENDENCE OF SUNAKAWA'S EXCITATION SPECTRUM OF BOSE LIQUIDS
HE .. THEORY/ LIQUID HE/ KUTON DISPERION/ TEMPERATURE EFFECT

74-U-01 UPADESHY, K.S.; SINGH, K.K.
SHELL MODEL LATTICE DYNAMICS OF TRANSITION METAL OXIDES
J. PHYS. CHEM. SOLIDS; V.35; P.1173 (1974)
MN/CO/02 .. THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS .. THREE-BODY FORCE SHELL MODEL

74-VA-01 VAGELATOS, N.; MEHE, D.; KING, J.S.
PHONON DISPERSION AND PHONON DENSITIES OF STATES FOR ZN,S AND ZN,TE
J. CHEM. PHYS.; V.60; P.3613 (1974)
ZN,S/ ZN,TE .. PHONON DISPERSION/ FREQUENCY DISTRIBUTION/ INELASTIC NEUTRON SCATTERING

74-VE-01 VETELINO, J.F.; MUY, L.G.; MITRA, S.S.
LATTICE DYNAMICAL CALCULATION OF THE SECOND GRUENNEISEN CONSTANT OF Cs,BR
J. PHYS. CHEM. SOLIDS; V.35; P.47-P.52 (1974)
Cs,BR .. THEORY/ SECOND GRUENNEISEN CONSTANT/ MODIFIED HIGION MODEL/ PRESSURE DEPENDENT LATTICE DYNAMICS

74-VL-01 VORDERMANN, P.; HAUTECROIX, S.
INELASTIC NEUTRON SCATTERING BY CERIUM HYDRIDES (3)
PHYS. STATUS SOLIDI B; V.66; P.595 (1974)
CERIUM HYDRIDE .. CE-I=1.98

74-VL-02 VORDERMANN, P.; HAUTECROIX, S.
INELASTIC NEUTRON SCATTERING BY CERIUM HYDRIDES
PHYS. STATUS SOLIDI B; V.64; P.495-P.501 (1974)
CE-IH .. EXPERIMENT/ PHONON SPECTRA

74-VL-03 VORDERMANN, P.; HAUTECROIX, S.; DECKER, H.
INELASTIC NEUTRON SCATTERING BY CESIUM HYDRIDES .. II
PHYS. STATUS SOLIDI B; V.63; P.171-P.180 (1974)
CESIUM HYDRIDE .. DENSITY-OF-STATES/ SPECIFIC-HEAT

74-W-01 WAABAYASHI, K.; NICKLOW, R.H.
SPIN-FLUX DISPERSION AND EXCHANGE INTERACTIONS IN YO,90
+BOO,10 AND YO,90-HOO,10 ALLOYS
PHYS. REV. B; V.10; P.2049-P.2054 (1974)
Y=TB/ Y=HO/ MAGNETIC-SCATTERING .. EXPERIMENT/ MAGNON DISPERSION/ ALLOY 4+2 DX

74-W-02 WATTS, R.O.
MONTE CARLO STUDIES OF LIQUIDS WATER
MOL. PHYS.; V.28; P.1069-P.1083 (1974)
LIGHT WATER/ THEORY-OF-FLUIDS .. RADIAL-DISTRIBUTION FUNCTION .. MONTE-CARLO

74-W-03 WEAIER, D./ ALBEN, R.
THE APPROACH TO THE INCOMMENSURATE LIMIT IN HIGH-DE INELASTIC
C NEUTRON SCATTERING FROM AN AMORPHOUS TETRAHEDRALLY BONDED SEMICONDUCTOR
J. PHYS. C: LONDON; V.7; P.189 (1974)
6E .. THEORY/ NEUTRON SPECTRUM .. AMORPHOUS SOLID

74-W-04 WEAIER, D./ SCHEERING, D./ LEGRAND, E./ HAUTECROIX, S.
INELASTIC NEUTRON SCATTERING STUDY OF ACOUSTICAL MAGN
S IN MnFe2O4
SOLID STATE COMMUN.; V.15; P.345 (1974)
MN,Fe2,04 .. EXPERIMENT/ TOF/ DISPERSION RELATION .. SPIN WAVE SPECTRUM

74-YA-01 YAMADA, Y.; NODA, Y.; AXE, J.D.; SHIRANE, G.
DYNAMICAL CRITICAL PHENOMENA IN N.D4, BR
PHYS. REV. B, V.9, P.4429 (1974)
N.D4, BR EXPERIMENT/ SIGMA(THETA-E) DISPERSION RELATION ON STRUCTURAL PHASE TRANSITION/ SPIN-PHONON COUPLING

74-YE-01 YELON, M.B./ SCHERMER, R.
ACOUSTIC PHONON SPECTRA OF FE.CL2
SOLID STATE COMMUN., V.15, P.391-394 (1974)
FE.CL2 EXPERIMENT/ PHONON DISPERSION

74-2A-01 ZACCAJ, G./ HEWAT, A.M.
SOFT MODES AND THE STRUCTURE OF FERROELECTRIC TETRAGONAL L KTN; 2, THE LATTICE DYNAMICS OF THE CUBIC PHASE

74-ZY-01 NEUTRON SCATTERING LABORATORY, DIVISION OF PHYSICS, JAERI
PROCEEDING OF THE FIRST CONFERENCE ON APPLICATION OF NEUTRON SCATTERING IN JAPANESE
JAERI-M-5829 (1974)
REVIEW ARTICLES: SCATTERING BY DEFECTS, APPLICATION OF NEUTRON SCATTERING TO MATERIAL SCIENCE

75-AG-01 AGAROCHICH, V.M./ LAZOV, I.I.
NEUTRON SCATTERING BY LASER PHOTONS IN CRYSTALS
NEUTRON SCATTERING IN SOLIDS, NEUTRON PHOTO INTERACTION ON CRYSTAL LATTICE

75-AL-01 ALBEN, R./ WEAIRE, D./ SMITH-JR., J.E./ BRODsky, M./ H.
VIBRATIONAL PROPERTIES OF AMORPHOUS Si AND Ge
PHYS. REV. B, V.11, P.2271-P.2296 (1975)
Si/ Ge EXPERIMENT/ RAMAN/ R SPECTRA/ PHONON SPECTRA/ NUMERICAL CALCULATION/ PREDICTION FOR NEUTRON SCATTERING

75-AL-02 ALTSHULER, A.M./ VEKILOV, Y.K./ IZOTOV, A.D.
LATTICE DYNAMICS OF COVALENT IONIC COMPOUNDS (2)
PHYS. STATUS SOLIDI B, V.70, P.347 (1975)
Si/ Ga/ As/ Zn/ S... THEORY/ DISPERSION RELATION/ LATTICE DYNAMICS, PSEUDOPOTENTIAL METHOD

75-AM-01 AMARAL, L.G./ FULFANG, R./ VINHARIS, L.A.
MOLECULAR DYNAMICS OF TERT-BUTANOL STUDIED BY NEUTRON TRANSMISSION
J. CHEM. PHYS., V.63, P.1312-P.1314 (1975)
BUTANOL EXPERIMENT/ TOTAL CROSS SECTION/ TEMPERATURE EFFECT

75-AS-01 ASADA, H./ TOYA, T./ MOHTOUSHI, H./ SAKAMOTO, M./ HAMAGUCHI, Y.
STUDY OF HYDROGEN ADSORBED ON PLATINUM BY NEUTRON INELASTIC SCATTERING SPECTROSCOPY
J. CHEM. PHYS., V.63, P.4078-P.4079 (1975)
H-PT INELASTIC NEUTRON SCATTERING EXPERIMENT/ HYDROGEN ADSORBED ON PLATINUM

75-AK-01 AXE, J.D./ KEATING, D.T./ MOSS, S.C.
ANOMALOUS INELASTIC NEUTRON SCATTERING IN BCC ZR-NB ALLloys
PHYS. REV. LETT., V.35, P.530 (1975)
ZR-NB EXPERIMENT/ CRYSTAL SPECTROMETER/ DISPERSION RELATION, 0.12586

75-BA-01 BARKER, M.I./ GASKELL, T.
DAMPING OF COLLECTIVE MODE IN LIQUID METALS
J. PHYS., C. LONDON, V.8, P.89-P.100 (1975)
THEORY-OF-FLUIDS/ LIQUID METALS/ DYNAMICS OF COLLECTIVE MODES, LONG-RANGE OSCILLATORY INTERIONIC POTENTIAL

75-BE-01 BEILISMAN, H./ GROENINCKX, G.
STUDY OF THE LOW-FREQUENCY MOTIONS IN POLYMETHYLACETATE (PET) BY NEUTRON INELASTIC SCATTERING
J. POLY. SCI., POLY. PHYS., V.13, P.151-P.162 (1975)
POLYETHYLENE TEREPHTHALATE EXPERIMENT/ PHONON SPECTRA/ EFFECT OF CRYSTALLINITY

75-BE-02 BERNEY, C.V.
NEUTRON SCATTERING FROM FERMI RESONANT VIBRATIONAL MODES IN CARBON DIOXIDE
J. CHEM. PHYS., V.62, P.936 (1975)
C.02 NEUTRON SCATTERING SPECTRUM

75-BE-03 BERNEY, C.V.
NEUTRON SCATTERING FROM FERMI RESONANT VIBRATIONAL MODES IN CARBON DIOXIDE
J. CHEM. PHYS., V.62, P.936-P.937 (1975)
C.02 CALCULATION/ SOLID

75-BE-04 BERTOLO, L.A./ SHUKLA, M.M.
MODIFIED BHATIA'S MODEL FOR LATTICE DYNAMICS OF F.C.C. TRANSITION METALS
J. PHYS. SOC. JAP., V.38, P.1439-P.1446 (1975)
Ni, Pd, Pt THEORY/ PHONON DISPERSION/ MODIFIED BHATIA MODEL

75-BE-05 BETSUYAKU, H.
NEUTRON SCATTERING FUNCTION IN A HEISENBERG PARAMAGNET, APPLICATION TO K,Mn,F3
J. PHYS. SOC. JAP., V.38, P.21-P.31 (1975)
75-BI-01 BIALAS, H./ STOLZ, M.J.
LATTICE DYNAMICS OF SAPPHIRE (CORUNDUM). PART I. PHONON DISPERSION BY INELASTIC NEUTRON SCATTERING.
CORUNDUM . EXPERIMENT/ PHONON DISPERSION/ SAPPHIRE.

75-BI-02 BILIN, N./ PILLIPPS, W.A.
PHONON IN Si:O2 . THE LOW-TEMPERATURE HEAT CAPACITY OF
Cristobalite.
Phil. Mag.: V. 32, P. 113 (1975)
Si:O2 . EXPERIMENT/ DISPERSION RELATION ..2DX=2DK/ AMORPHOUS/ SPECIFIC HEAT

75-BI-03 BILZ, H./ BUCHANAN, M./ FISCHER, K./ HABERKORN, H.
OVERLAP POLARIZATION AND LATTICE DYNAMICS OF IONIC PHYS.
SOLID STATE COMMUN.: V. 18, P. 1023-1026 (1975)
NaCl . THEORY/ OVERLAP POLARIZATION/ SHELL MODEL

75-BL-01 BLASCHKO, O./ ERNST, G./ QUITTNER, G./ KRESS, W./ LECHNER, H.E.
MODE GRÜNEISEN PARAMETER DISPERSION RELATION BY RB.1 DETERMINED BY NEUTRON SCATTERING
RB.1 . PHONON FREQUENCY/ PRESSURE EFFECT/ GRÜNEISEN PARAMETER

75-BL-02 BLASCHKO, O./ ERNST, G./ QUITTNER, G.
PRESSURE INDUCED PHONON FREQUENCY SHIFTS IN KBr MEASURED BY INELASTIC NEUTRON SCATTERING
KBr . EXPERIMENT/ PHONON FREQUENCY SHIFT/ PRESSURE EFFECT

75-BL-03 BLETRY, J./ SADOC, J.F.
DETERMINATION OF THE THREE PARTIAL INTERFERENCE FUNCTIONS OF AN AMORPHOUS COBALT-PHOSPHOR FERRIMAGNET BY POLARIZED-NEUTRON SCATTERING
CO/P MAGNETIC-SCATTERING . EXPERIMENT/ PAIR-CORRELATION FUNCTION

75-BL-04 BLOCK, R./ SCHOMMERS, W.
TRIPLET CORRELATIONS IN DISORDERED SYSTEMS: A STUDY FOR LIQUID HUBIDUM
RB. THEORY-OF-FLUIDS . THEORY/ LIQUID/ MOLECULAR DYNAMICS/ CORRELATION FUNCTION . TRIPLET CORRELATION FUNCTION

75-BO-01 BONILLA, I.R./ RUTT, H.N.
ANGULAR DISPERSION OF PHONONS IN BIAxIAL NA.N.02
Na.N.02 . Raman SPECTRA/ ANGULAR DISPERSION/ INTERNAL PHONON

75-BO-02 BORCHERS, P.M./ ALFLEY, G.F./ SAUNDERSON, D.H.
PHONON DISPERSION CURVES IN INDIUM PHOSPHIDE
IN.P . SOLID/ EXPERIMENT/ DISPERSION RELATION

75-BR-01 BRODSTOCK, W.
THERMAL NEUTRON SCATTERING BY LIQUID ARGON AND THE INTERMOLECULAR POTENTIAL
AR . THEORY/ INTERMOLECULAR POTENTIAL

75-BU-01 BUHNER, W./ BRÜESEL, P.
PHONON DISPERSION AND BETA-ALPHA TRANSITION IN SILVER IODINE
SOLID STATE COMMUN.: V. 15, P. 135 (1975)
AgI . EXPERIMENT/ SOLID/ DISPERSION RELATION

75-BU-02 BUHNER, W.
CRYSTAL DYNAMICS OF SILVER BROMIDE AT 80 AND 295K
AgBr . EXPERIMENT/ PHONON DISPERSION/ 80 AND 295K/ 12- PARAMETER MODEL FITTING/ FREQUENCY DISTRIBUTION

75-BU-03 BUYERS, W.L./ SEARS, V.F./ LONNGI, P.A./ LONNGI, D.A.
COLLECTIVE AND SINGLE EXCITATIONS IN LIQUID NEON
Neon . QUASI-ELASTIC PEAK/ SCATTERING LAW

75-CA-01 CARDENAS, K./ MCTAGUE, J.P.
DYNAMICS OF LIQUID N2 AT T=66.4K STUDIED BY NEUTRON INELASTIC SCATTERING
N2 . EXPERIMENT/ SCATTERING CAW/ LIQUID/ 66.4K

75-CA-02 CARPENTER, J.M./ PELIZZARI, C.A.
INELASTIC NEUTRON SCATTERING FROM AMORPHOUS SOLIDS: I. CALCULATION OF THE SCATTERING LAW FOR MODEL STRUCTURES
NEUTRON-SCATTERING IN SOLIDS . SCATTERING LAW/ AMORPHOUS SOLIDS/ THEORY

75-CA-03 CARPENTER, J.M./ PELIZZARI, C.A.
INELASTIC NEUTRON SCATTERING FROM AMORPHOUS SOLIDS. II.
INTERPRETATION OF MEASUREMENTS PHYS, REV, B, V.12, P.2397-P.2401 (1975)
NEUTRON-SCATTERING IN SOLIDS --- SCATTERING LAH --- THEORY
75-CA-04 CAVALHEIRO, R.S./ SHUKLA, M.M.
DISPERSION OF PHONON WAVES IN PLATINUM AND THORIUM NUOVO CIM, B, V.26, P.220-P.228 (1975)
PT, TH --- THEORY, PHONON DISPERSION, DE-LOUVRAY MODEL
75-CH-01 CHANG, S.S./ TOMPSON, C.W./ GUEREN, E./ DULHANEY, N.L.D.
LATTICE DYNAMICS OF BA, O
J. PHYS, CHEM, SOLIDS, V.36, P.769-P.773 (1975)
BA, O --- EXPERIMENT, PHONON DISPERSION, SHELL MODEL, FITTING FREQUENCY SPECTRA, DEBYE TEMPERATURE
75-CH-02 CHEN, J.Y./ VETELINO, J.F./ MITRA, S.S.
DENSITY OF PHONON STATES IN AMORPHOUS GERMANIUM AND SILICON
SOLID STATE COMMUN, V.14, P.1313 (1975)
G( ) --- THEORETICAL, SOLID, FREQUENCY DISTRIBUTION, AMORPHOUS SOLID, RIGID ION MODEL
75-CL-01 CLOSS, H./ SHUKLA, M.M.
THE LATTICE DYNAMICS OF NOBLE METALS
PHYSICA, B, C, V.79, P.26-P.34 (1975)
CU, AG, AU --- THEORY, PHONON DISPERSION, SPECIFIC HEAT
75-DE-01 DE-PATER, C.J./ VAN-DIJK, C./ NIEUWENHUYZEN, G.J.
DIFFUSE NeUTRON SCATTERING OF PD, Mn
J. PHYS, F, LONDON, V.54, P.38 (1975)
PD-Mn --- MAGNETIC SCATTERING, EXPERIMENT, DIFFUSE SCATTERING, GIANT MAGNETIC MOMENT
75-DE-01 DIEMICH, H./ BIEM, W.
PHONON- AND LIBRON-EXCITATION WITH ORTHO-PARA CONVERSION BY NEUTRON SCATTERING ON SOLID HYDROGEN
Z. PHYS, B, V.20, P.137-P.146 (1975)
H2 --- THEORY, SCATTERING CROSS SECTION, ORTHO-PARA CONVERSION
75-DE-02 DIETRICH, O.W./ MACKENZIE, G.A./ PAWLEY, G.S.
THE STRUCTURAL PHASE TRANSITION IN SOLID DCN
J. PHYS, C, LONDON, V.8, P.98-P.102 (1975)
H.C.N --- EXPERIMENT, PHASE TRANSITION, PHONON SOFTENING
75-DE-03 DIMIC, V./ USREDKAR, M.
NEUTRON SCATTERING INVESTIGATION OF THE PHASE TRANSITIONS IN Pb, CaZn, C2H2, Cu, Cu0.6
PHYS, STATUS SOLI, O, V.30, P.93 (1975)
DICALCIUM LEAD PROPIONATE --- EXPERIMENT, SOLID, LIQUID, ROTATING CRYSTAL, SPECTROMETER, DEBYE-WALLER FACTOR, MEA N SQUARE DISPLACEMENT, ITOH, 4500K
75-EG-01 EGGAN, T.P.
FREQUENCY SPECTRUM OF THE MIXED DIATOMIC CHAIN A(X)B(1---X)C
SOLID STATE COMMUN, V.16, P.705-P.708 (1975)
THEORY OF SOLIDS, EXACT FORMALISM, PHONON FREQUENCY, MIXED CHAIN
75-EL-01 ELLIOTT, R.J./ KLEPPMANN, W.G.
NEUTRON SCATTERING BY ELECTRONS IN A MAGNETIC FIELD
J. PHYS, C, LONDON, V.8, P.2757 (1975)
NEUTRON SCATTERING IN SOLIDS, MAGNETIC SCATTERING, THEORY, DIAMAGNETIC SCATTERING FROM CONDUCTION ELECTRON, WIGNER LATTICE IN STRONG MAGNETIC FIELD
75-EN-01 ENDON, Y./ MIRIANE, G./ SKALY-OR, J.
LATTICE DYNAMICS OF SOLID NEON AT 6.5 AND 23.7K
PHYS, REV, B, V.11, P.1681 (1975)
NE, PHONON DISPERSION, SOLID NEON
75-FA-01 FARR, M.K./ THAYLOR, J.G./ SIMA, S.K.
LATTICE DYNAMICS OF GA, Sb
PHYS, REV, B, V.11, P.1587 (1975)
GA, Sb --- LATTICE DYNAMICS, COHERENT INELASTIC SCATTERING
75-FI-01 FIELEX, B.L.
THE PHONON DISPERSION CURVES OF COPPER
J. PHYS, F, LONDON, V.5, P.1451-P.1458 (1975)
Cu --- THEORY, PHONON DISPERSION, SCREENED SHELL MODEL
75-FI-02 FIELEX, B.L.
LATTICE DYNAMICS OF NOBLE METALS AND TRANSITION METALS
J. PHYS, F, LONDON, V.5, P.17-P.26 (1975)
Cu, Ni --- THEORY, PHONON DISPERSION, METAL MODEL, CALCULATION
75-FI-03 FINKMAN, E./ TAUC, J.J./ KERSHAW, H./ WOLD, A.
LATTICE DYNAMICS OF TETRAHEDRALLY BONDED SEMICONDUCTORS CONTAINING ORDERED VACANT SITES
PHYS, REV, B, V.11, P.3785-P.3794 (1975)
IN2, TE3, GA2, SE3, Zn, Se3, INFARRED, RAMAN SPECTRA, DEFECT STRUCTURE, DISPERSION CURVES
75-FO-01 FRANCHETTI, S.
RADIAL DISTRIBUTION FUNCTIONS IN SOLID AND LIQUID ARGON
NUOVO CIM, B, V.26, P.520-P.521 (1975)
AH --- THEORY, DISPERSION, RADIAL DISTRIBUTION
75-FU-01 FUJII, Y./ MIRIANE, G./ YAMADA, Y.
STUDY OF THE 123-K PHASE TRANSITION OF MAGNETITE BY CRISTALLOGRAPHIC TECHNIQUES
TICAL NEUTRON SCATTERING
PHYS. REV. B 11 P. 2036-2041 (1975)
MAGNETITIC PHASE-TRANSITION EXPERIMENT 123DK TRANSIT
ION CRITICAL SCATTERING / VERWEY UNDERRING
75-GA-01 GARG, P.K./ GUPTA, N.P.
LATTICE DYNAMICS OF MOLECULAR SOLIDS BY A PHENOMENOLOGICAL
MODEL ANNS. PHYS. N.Y. 91 P. 375-385 (1975)
NE/ AR/ KN/ XE LATTICE DYNAMICS/ ANHARMONICITY/ CENTRAL
FORCE MODEL/ DISPERSION RELATION
75-GO-01 GOEL, C.M./ PANDY, B.P./ SAVAL, B.
PHONON DISPERSION IN SODIUM AND POTASSIUM
PHYS. STATUS SOLIDI 86 P. 269-259 (1975)
NA/ K THEOREY/ PHONON DISPERSION/ METAL/ MODIFIED BARKER
JOHNS MODEL
75-GO-02 GOPALAPPA, R.V./ MURTHY, A.K.
STRUCTURE OF LIQUID NOBLE METALS
PHYS. LETT. 45 P. 1-3 (1975)
COOPER/ GOLD/ SILVER LIQUID NOBLE METAL/ STRUCTURE THEORETICAL
75-GO-01 GROUT, P.J./ LEECH, J.W./ ENGLISH, P.S.
THE SYMMETRY PROPERITES OF THE NORMAL MODES OF VIBRATIO
N OF CRYSTALLINE LANTHAN DISULPHIDE AND CHLORINE
J. PHYS. C LONDON 8 P. 1620 (1975)
C-S/ CL/ CL/ THEORY/ LATTICE DYNAMICS/ SOLID
75-GO-02 GROUT, P.J./ LEECH, J.W.
THE LATTICE DYNAMICS OF CRYSTALLINE DEUTERIUM CHLORIDE
(GROUP THEORETICAL ANALYSIS)
J. PHYS. C LONDON 8 P. 932-942 (1975)
H/CL THEOREY/ GROUP THEORETICAL/ LATTICE DYNAMICS
75-GU-01 GUPTA, N.P./ GARG, P.K.
PHONON DISPERSION AND OPERATIVE INTERACTION SYSTEM IN S
OLID XENON
SOLID STATE COMMUN. 16 P. 607-610 (1975)
Xe THEOR/ PHONON DISPERSION/ QUASIHARMONIC CENTRAL FORCE RIG-ATOM MODEL
75-GO-01 GOETZE, W./ LUECKE, M.
DYNAMICAL CURRENT CORRELATION FUNCTIONS OF SIMPLE CLASS
ICAL LIQUIDS FOR INTERMEDIATE WAVE NUMBERS
PHYS. REV. A 11 P. 2173-2179 (1975)
THEORY-OF-FLUIDS/ AR CLASSICAL FLUID/ EXCITATION SPEC
TRUM
75-HA-01 HANSEN, J.P./ MCDONALD, I.R.
STATISTICAL MECHANICS OF DENSE IONIZED MATTER IV DENS
ITY AND CHARGE FLUCTUATIONS IN A SIMPLE MOLten SALT
PHYS. REV. A 11 P. 2111-2123 (1975)
THEORY-OF-FLUIDS/ MOLECULAR DYNAMICS/ MOLten SALT/ STR
UCTURE FACTOR/ SCATTERING FUNCTION
75-HA-02 HARADA, J./ FUJII, Y./ HOSHINO, S.
PHONON DISPERSION IN SOLID D.G.1.1
SOLID STATE COMMUN. 16 P. 1365 (1975)
H/CL EXPERIMENT/ SOLID/ DISPERSION RELATION/ BORN-VON
KARMAN MODEL/ TRIPLE-AXIS SPECTROMETER
75-HE-01 HEIDEMANN, A.
HYPERFINE INTERACTION IN AMORPHOUS FE-MAGNETIC COBALT
PHOSPHORUS-ALLOYS MEASURED BY INELASTIC SCATTERING OF NEUTR
ON
Z. PHYS. B 20 P. 385-389 (1975)
CO/ P/ MAGNETIC-SCATTERING/ EXPERIMENT/ MAGNETIC HYPERF
INE SPLITTING
75-HE-02 HEIMENDAHL, L.V./ THURPE, M.F.
PHONONS IN METALLIC GLASSES
J. PHYS. F LONDON 5 P. 87-91 (1975)
THEORY-OF-SOLIDS/ PHONON SPECTRA/ METALLIC GLASSES
75-HE-03 HENNING, M./ HENNING, B./ CASTETS, A./ TOCCHETTI, D.
STIFFNESS CONSTANT MEASUREMENT IN Ni-Fe ALLOYS BY NEUTRON
INELASTIC SCATTERING
SOLID STATE COMMUN. 17 P. 689-702 (1975)
Ni-Fe/ MAGNETIC-SCATTERING/ STIFFNESS CONSTANT/ SPIN WAV
E
75-HO-01 Horiuchi, T./ Morita, T.
NOTE ON THE LATTICE GREEN'S FUNCTION FOR THE SIMPLE CUB
IC LATTICE
J. PHYS. C LONDON 8 P. 232-238 (1975)
THEORY-OF-SOLIDS/ theory/ SOLID/ GREEN'S FUNCTION/ CUBIC LATTICE
75-HO-01 HUTCHINGS, M.T./ SCHERM, H./ SMITH, S.H./ SMITH, S.
H/RI
INELASTIC NEUTRON SCATTERING STUDIES OF THE JAHN-TELLER PHASE TRANSITION IN Tb9Y04
J. PHYS. C LONDON 8 P. 393-396 (1975)
Tb9Y+4 INELASTIC NEUTRON SCATTERING/ JAHN-TELLER PHASE TRANSITION
75-IA-01 ISHIKAWA, Y./ KOMUJI, M./ NODA, Y.
NEUTRON SCATTERING FROM ANTI-FERROMAGNETIC GAMMA-FeO(0.7)
-Ni(0.1)/ Cr(0.1)/ ALLOY (NON MAGNETIC STAINLESS STEEL)
J. PHYS. SOC. JAP. 40 P. 675-683 (1975)
FE-Ni-Cr/ MAGNETIC-SCATTERING/ EXPERIMENT/ CANTED SPIN
STRUCTURE

75-JA-01 JAIN, S.K./ SRIVASTAVA, G.P.,
PHONON DISPERSION CURVES FOR RUBIDIUM FLUORIDE
J. PHYS. SOC. JAP., V.38, P.1783-1785 (1975)
RB,F ..THEORY/ PHONON DISPERSION

75-JH-01 JHON, M.S./ FORSTER, D.,
A KINETIC THEORY OF CLASSICAL SIMPLE LIQUIDS
PHYS. REV. A, V.12, P.254 (1975)
THEORY-OF-FLUIDS/ AK ..THEORY/ DYNAMICAL STRUCTURE FACTORS

75-KA-01 KAHN, R.,
INELASTIC NEUTRON SCATTERING BY SOLID METHANE AT LOW TEMPERATURE
PHYS. LETT., A, V.54, P.285-287 (1975)
C,H, ..INELASTIC NEUTRON SCATTERING/ LOW TEMPERATURE/ EXPERIMENT

75-KA-02 KANDA, K./ KADOTANI, K./ ALIZAWA, O.,
EFFECT OF TEMPERATURE ON TOTAL CROSS SECTION OF BERYLLIUM FOR THERMAL NEUTRONS
J. NUCL. SCI. TECHNOL., TOKYO, V.12, P.601 (1975)
BE ..TOTAL CROSS SECTION/ EXPERIMENT

75-KA-03 KAPPUS, W.,
LATTICE DYNAMICS OF SAPPHIRE (CORUNDUM)
Z. PHYS. B., V.21, P.325-331 (1975)
AL.03 ..LATTICE DYNAMICS/ RIGID ION THEORY

75-KA-04 KAPPUS, W.,
LATTICE DYNAMICS OF SAPPHIRE (CORUNDUM), PART 2, CALCULATIONS OF PHONON DISPERSION
Z. PHYS. B., V.21, P.325-331 (1975)
CORUNDUM, ..CALCULATION/ PHONON DISPERSION/ RIGID ION MODEL/ SAPPHIRE

75-KJ-01 KLEMS, J.K./ DOLLING, G.,
CRYSTAL DYNAMICS OF NITROGEN: THE CUBIC ALPHA-PHASE
PHYS. REV. B, V.11, P.1639 (1975)
N ..INELASTIC NEUTRON SCATTERING

75-KU-01 KUMAR, S./ TOLPADI, S.,
MODEL FOR LATTICE DYNAMICS IN METALS
SOLID STATE COMMUN., V.16, P.265 (1975)
COPPER/ SODIUM, ..DISPERSION RELATION

75-KU-02 KUMAR, S./ TOLPADI, S.,
MODEL FOR LATTICE DYNAMICS OF FCC METALS
PHYS. LETT., A, V.53, P.303-304 (1975)
Cu ..MODEL CALCULATION/ PHONON DISPERSION

75-LA-01 LABUSCHI, K.,
SCATTERING OF COLD NEUTRONS FROM AN IMPERFECT FLUX LINE LATTICE
PHYS. STATUS SOLIDI B, V.69, P.539-544 (1975)
SCATTERING=THEORIES/ SUPERCONDUCTOR ..THEORY

75-LE-01 LEFEUVRE, J./ MORE, M./ FOURRET, R./ HENNION, B./ CURRAT, R.,
LATTICE VIBRATIONS IN DEUTERATED UREA
J. PHYS., C, LONDON, V.8, P.2011 (1975)
UREA, ..EXPERIMENT/ SOLID/ COHERENT SCATTERING/ DISPERSION ON RELATION/ DEUTERATED UREA

75-LI-01 LINDQVIST, P.A./ BIRGENEAU, R.J./ ALS-NIELSEN, J./ GUGGENHEIM, H.J.,
SPIN-WAVE DISPERSION AND SUBLATTICE MAGNETIZATION IN Ni,CL2
J. PHYS., C, LONDON, V.8, P.1059-1069 (1975)
Ni,CL2, ..MAGNETIC-SCATTERING ..EXPERIMENT/ MAGNONS

75-LO-01 LOVESEY, S.W.,
THE DYNAMIC PROPERTIES OF LIQUID HE3
J. PHYS., C, LONDON, V.8, P.1649 (1975)
He3, ..THEORY/ LIQUID/ STRUCTURE FUNCTION/ SCATTERING LAW/ CORRELATION FUNCTION ..ISOTHERMAL SUSCEPTIBILITY/ LENNARD-JONES POTENTIAL

75-LU-01 LUTY, T./ PAWLEY, G.S.,
A SHELL MODEL FOR MOLECULAR CRYSTALS: ORTHORHOMBIC SULFUR
PHYS. STATUS SOLIDI B, V.69, P.551-555 (1975)
S ..THEORY/ PHONON DISPERSION/ SHELL MODEL

75-LY-01 LYNN, J.W./ IIZUMI, M./ SHIRANE, G./ KERNER, S.A./ SAINT CO, R.B.,
NEUTRON-SCATTERING STUDY OF THE ONE-DIMENSIONAL CONDUCTOR ON Cu,PTT,(CN),8SBU.3.12(UO)2 (KCP)
PHYS. REV. B, V.12, P.1134 (1975)
KCP, ..EXPERIMENT/ SOLID/ KOHN EFFECT/ DISPERSION RELATION ON ..TRIPLE AXIS TECHNIQUE/ ONE-DIMENSIONAL CONDUCTOR/ INTERCHAIN CORRELATION/ TEMPERATURE DEPENDENCE

75-MA-01 MALISZEWSKI, E./ SOSNOWSKI, J./ BEDNARSKI, S./ CIA CHOR, A./ HOLAS, A.,
LATTICE DYNAMICS OF PD1+x=FE(x) SYSTEM
J. PHYS., F, LONDON, V.5, P.1455-1465 (1975)
Pd-Fe, ..EXPERIMENT/ PHONON DISPERSION

75-MA-02 MARTIN, J.W.,
MULTI-BODY FORCES IN METALS AND THE BRUGGER ELASTIC CONSTANTS

- 282 -
JAERI-M 6857

THEORY-OF-SOLIDS. ELASTIC CONSTANTS

75-MC-01 McKENZIE, D.R.
NEUTRON AND RAMAN STUDY OF THE LATTICE DYNAMICS OF DEUTERATED THIOUREA
THIOUREA, SOLID/ EXPERIMENT/ TRIPLE-AXIS-SPECTROMETER/ DISPERSION RELATION/ DEUTERATED THIOUREA

75-MC-02 McKENZIE, D.R.
THE ANITFERROELECTRIC TRANSITION IN THIOUREA STUDIED BY THERMAL NEUTRON SCATTERING
THIOUREA, EXPERIMENT/ TRIPLE-AXIS-SPECTROMETER/ SOLID/ DEUTERATED THIOUREA, ANITFERROELECTRIC TRANSITION/ ROTATIONAL LATTICE MODE

75-MC-03 MURWAN, D.B./ BIRGENEAU, R.J./ BUNNER, W.A./ TAYLOR, H.I./ HAXA, J.D.
NEUTRON SCATTERING STUDY AT HIGH PRESSURE OF THE STRUCTURAL PHASE TRANSITION IN PARATELLURITE
THIOUREA, PHONON DISPERSION/ PRESSURE EFFECT/ PHASE TRANSITION

75-MC-04 MENZINGER, F./ SACCHETTI, F./ SPINELLI, M.C.
CONCENTRATION DEPENDENCE OF THE PHONON DISPERSION RELATIONS IN SUBSTITUTIONAL AFL CO-NI ALLOY
CO-NI, DISPERSION RELATION/ CO-NI, ALLOY/ TRIPLE-AXIS SPECTROSCOPY/ EXPERIMENT

75-MI-01 MIYAJI, Y./ ITOK, M.
NEUTRON INELASTIC SCATTERING SPECTRA AND LATTICE VIBRATIONS OF 9,10-ANTHRACENONE CRYSTAL
ANTHRACENONE, EXPERIMENT/ NEUTRON SCATTERING SPECTRA/ PHONON DENSITY CALCULATION

75-MO-01 MOELLER, H.B./ RISET, T.
NEUTRON SCATTERING STUDY OF TRANSITIONS TO CONVECTION AND TURBULENCE IN NEMATIC PARA-AZOXYANISOLE
PAZ-ARYLISOLE, EXPERIMENT/ NEMATIC LIQUID/ ONSET OF CONVECTION AND TURBULENCE

75-MO-02 MOOK, H.A./ WAHABAYASHI, N./ PAN, D.
MAGNETIC EXCITATIONS IN THE AMORPHOUS FERROMAGNET CO-4.4-PHOSPHORUS
CO-4.4/PHOSPHORUS, EXPERIMENT/ MAGNETIC FLUX

75-MO-03 MORI, M./ YAMADA, Y./ SHIRANE, G.
SOFT PHONON MODE AT THE MARTENSITIC PHASE TRANSFORMATION IN AU-CU-ZN
SOFT STATE COMM. V. 17, P. 127-130 (1975)
AU-CU-ZN, PHASE-TRANSITION, EXPERIMENT/ SOFT MODE/ AU-CU-ZN

75-NA-01 NAND, S./ TRIPATHI, B.B.
LATTICE DYNAMICS OF GOLD: A PSEUDOPOTENTIAL APPROACH
AU, THEORY/ SOLID/ LATTICE DYNAMICS/ DISPERSION RELATION/ PSEUDOPOTENTIAL

75-NA-02 NAND, S./ TRIPATHI, B.B./ GUPTA, H.C.
LATTICE DYNAMICS OF LITHIUM: A PSEUDOPOTENTIAL APPROACH
LI, THEORY/ MODEL POTENTIAL APPROACH

75-NE-01 NELIN, G./ SKOELD, K.
DIFFUSION OF HYDROGEN IN THE BETA-PHASE OF PD-H STUDIED BY SMALL ENERGY TRANSFER NEUTRON SCATTERING
PD-H, EXPERIMENT/ QUASI-ELASTIC PEAK/ MULTIPLE SCATTERING/ CRYSTAL SPECTROMETER, PHASE TRANSITION/ DIFFUSION OF H

75-CM-01 OHASHI, K./ Ohashi, Y./ AWANO, M.
PHONON FREQUENCY SHIFTS AND WIDTHS IN DILUTE ALLOYS
THEORY-OF-SOLIDS/ CO-AU, DILUTE ALLOY PHONON SHIFT AND WIDTH
75-OL-01 Olsson, L.G./ Larsson, K.E.,
Molecular Motions in Liquid Ethane Studied by Cold Neutron Scattering.
Physica, A, 1975, p.203-p.216

75-PEx-01 Peizelt, J.

75-PD-01 Poplavnoi, A.S./ Tuzhelya, V.G.
Lattice Dynamics of Zn,Si,P2 in a Model of Rigid Ions.

75-PD-02 Poplavnoi, A.S./ Tuzhelya, V.G.
Dynamics of the Crystal Lattice of Chalcocryptite in the Hard Ion Model.

75-PP-03 Powell, B.M./ Markel, P.
The Lattice Dynamics of Tellurium.

75-PS-04 Powell, J.G.

75-PR-01 Prask, H.J./ Treviso, S.F./ Rush, J.J.
Quasielastic Neutron Scattering Study of Ammonium-Ion 
Entanglements in Ammonium Penclohexalate.

75-PR-02 Price, D.L./ Copley, J.R.D.
Density Fluctuations in Molten Salts. I. Inelastic Neutron Scattering from Liquid RB,Br.

75-RE-01 Reissland, J.A./ Ese, O.
The Lattice Dynamics of Metals Using the Shaw Model Potential.

75-RO-01 Rosenhen, A./ Johansson, B.
Lattice Dynamics of RbCl.

75-RO-02 Rowe, J.M./ Rush, J.J./ Vagelatos, N./ Price, D.L.
The Effect of Crystal Field on the Lattice Dynamics of NaCl.

75-SA-01 Saado, D./ Venkataaraman, G.
Lattice Dynamics of a Crystal with a Molecular Impurity.
HRc-5, 1975

75-SC-01 Schommers, W.
The Velocity Autocorrelation Function and the Effect of the Long-Range Interaction in Liquid Rubidium.

75-SH-01 Shirane, G./ Chikazumi, S./ Akimitsu, J./ Chiba, K.
Neutron Scattering from Low-Temperature Phase of Magnetite.

75-SI-01 Siegel, E.
Further Justification for the Concept of a Percus-Yevick Temperature in Liquid Metals.

75-SI-02 Siegel, E.
Sound Velocity in Liquid Binary Alloys as Calculated via the Percus-Yevick Liquid Phonon Dispersion Relation.

- 284 -
75-S1-03 SIEGEL, E.,
VIRTUAL CRYSTAL MODEL OF MELTING AND THE STRUCTURE FACTOR OF LIQUID ALLOYS.
PHYS. CHEM. LIQUIDS, V.4, P.217-P.231 (1975)
THEORY-OF-FLUIDS - STRUCTURE FACTOR/BINARY ALLOY LIQUID METAL

75-S1-04 SIEGEL, E.,
CALCULATION OF SOUND VELOCITIES OF LIQUID METALS AT THE MELTING POINT VIA THE PERCUSH-YEVICK THEORY OF MELTING
PHYS. CHEM. LIQUIDS, V.4, P.233-P.240 (1975)
THEORY-OF-FLUIDS - SOUND VELOCITY/ MELTING TEMPERATURE/LIQUID METAL

75-S1-05 SIEGEL, E.,
EQUIVALENCE OF THE PERCUSH-YEVICK COLLECTIVE COORDINATE THEORY OF LIQUIDS WITH THE SELF-CONSISTENT FIELD THEORY OF MELTING.
PHYS. CHEM. LIQUIDS, V.4, P.241-P.253 (1975)
THEORY-OF-FLUIDS - MELTING/STRUCTURE FACTOR/DISPERSION RELATION

75-S1-06 SINCLAIR, R.N./ CLARKE, J.H./ DORE, J.C.,
SINGLE-PARTICLE EXCITATIONS IN LIQUID NITROGEN.
J. PHYS.: C. LONDON, V.8L, P.41-P.42 (1975)
EXPERIMENT/ LIQUID/77.4DK/ SINGLE PARTICLE EXCITATION

75-S1-07 SINGH, J./ PRakash, S.,
PHONON DISPERSION IN SCANDIUM AND YTTRIUM.
PHYS. LETT., A, V.53, P.164-P.168 (1975)
C/ Y CALCULATION/ PHONON DISPERSION/HCP METAL

75-S1-08 SINGH, R.K./ AGARWAL, M.K.,
LATTICE DYNAMICS OF CSF BY EXTENDED THREE-BODY FORCE SHELL MODEL.
SOLID STATE COMMUN., V.17, P.991-P.993 (1975)
CS/FE/PHONON DISPERSION/ SHELL MODEL/THEORY

75-S1-09 SINH, H.P./ UPADHYAYA, J.C.,
PHONON DISPERSION IN SOME HCP TRANSITION METALS.
C/ Y ZR THEORY/ PHONON DISPERSION/ KREB MODEL

75-SN-01 SNEH, S./ DAYAL, B.,
LATTICE DYNAMICA STUDY OF NA,F AND RB,F BY THE SHELL MODEL.
PHYS. STATUS SOLIDI, B, V.67, P.125-P.128 (1975)
NA,F/RB,F THEORY PHONON DISPERSION/SIMPLE SHELL MODEL

75-SR-01 SRINIVASAN, R./ LAKSHMI, G./ RAMACHANDRAN, V.,
VARIABLE-CHARGE SHELL MODEL FOR THE LATTICE DYNAMICS OF THALLIUM BROMIDE.
TL/BR THEORY/ PHONON DISPERSION/ SHELL MODEL

75-SR-02 SRINIVASAN, R./ LAKSHMI, G./ RAMACHANDRAN, V.,
MODE GRUENEISEN PARAMETERS AND THERMAL EXPANSION OF THALLIUM BROMIDE.
TL/BR THEORY/ GRUENEISEN PARAMETER/SHELL MODEL

75-SR-03 SRIVASTAVA, G.P.,
CALCULATION OF BOUNDS ON THE EIGENVALUE SPECTRUM OF ANHARMONIC PHONON COLLISION OPERATOR.
PHYS. LETT., A, V.54, P.222-P.224 (1975)
THEORY-OF-SOLIDS - ANHARMONIC PHONON/COLLISION OPERATOR

75-ST-01 STASSIS, C./ DECKMAN, H.W.,
MAGNETIC SCATTERING OF NEUTRONS.
PHYS. REV. B, V.12, P.1883-P.1898 (1975)
MAGNETIC SCATTERING/ MAGNETIC SCATTERING/ GENERAL THEORY

75-SW-01 SWAMINATHAN, K./ TEWARI, S.P./ KOTMAR, L.S.,
A MODEL FOR THE PHONON FREQUENCY DISTRIBUTION FUNCTION FOR CRYSTALLINE POLYETHYLENE.
PHYS. LETT., A, V.51, P.153-P.154 (1975)
POLYETHYLENE THEORY/LATTICE DYNAMICS/MODEL

75-TA-01 TAKAHASHI, H.,
EXTENSION OF THE LYDDANE-SACKS-TELLER AND COCHRAN-COWLEY-YUKOSAWA RELATIONSHIPS TO A COUPLED SYSTEM OF MANY MODES WITH DAMPING.
PHYS. REV. B, V.11, P.1636 (1975)
THEORY-OF-SOLIDS - COUPLED SYSTEM/DAMPING

75-TA-02 TAUB, H./ PASSELL, L./ KJEMS, J.K./ CARNEIRO, K./ MLTAGE, J.P.,
NEUTRON-SCATTERING STUDIES OF THE STRUCTURE AND DYNAMIC S OF AR-36 MONOLAYER FILM ADSORBED ON BASAL-PLANE-ORIENTED GRAPHITE.
PHYS. REV. LETT., V.34, P.654-P.657 (1975)
AR-GRAPHITE EXPERIMENT/ AR-FILM/ ADSORBED ON GRAPHITE/50K

75-TA-03 TAUB, H./ PARENT, C.B.R.,
ANOMALOUS MAGNETIC CRITICAL BEHAVIOR OBSERVED IN NEUTRO
N SCATTERING FROM HO.SB AND DY.SB
SOLID STATE COMMUN. V.16, P.857-P.860 (1975)
MAGNETIC-SCATTERING/ HO.SB/ DY.SB. ...EXPERIMENT/ CRITIC
AL SCATTERING

75-TE-01 TENTI G. DESAI R.C.
KINETIC THEORY OF MOLECULAR GASES 1 MODELS OF THE LINEA
R WALDMANN- SNIDER COLLISION OPERATOR
CAN. J. PHYS. V.53, P.1256 (1975)
THEORY-OF-FLUIDS ...THEORY ...MODEL COLLISION OPERATOR/ K
INETIC EQUATION

75-TE-02 TENTI G. DESAI R.C.
KINETIC THEORY OF MOLECULAR GASES 2 CALCULATION OF TIME
DEPENDENT CORRELATION FUNCTIONS
CAN. J. PHYS. V.53, P.1279 (1975)
THEORY-OF-FLUIDS ...THEORY ...CORRELATION FUNCTION

75-TH-01 THOMAS M.W.
NEUTRON INELASTIC SCATTERING FROM HEXAMETHYLENETETRAMIN
E-D12 AND ADAMANTANE-D16
CHEM. PHYS. LETT. V.32, P.271-P.273 (1975)
ADAMANTANE/ HEXAMETHYLENETETRAMINE ...EXPERIMENT/ FREQUE
NCY SPECTRA/ 200-800 CM-1

75-TI-01 TIWARI M.D.
LATTICE DYNAMICS OF GOLD
J. PHYS. F, LONDON. V.5L, P.184-P.186 (1975)
AU ...THEORY/ PHONON DISPERSION/ KREB MODEL

75-UP-01 UPADHYAYA J.C. SINHA H.P.
LATTICE DYNAMICS OF MCP METALS
J. PHYS. CHEM. SOLIDS. V.36, P.975 (1975)
BE/ MG/ Y/ HO ...THEORY/ EXPERIMENT/ DISPERSION RELATION
...BMAA MODEL

75-UP-02 UPADHYAYA K.S. SINGH R.K.
THE LATTICE DYNAMICS OF ALKALINE EARTH OXIDES
J. PHYS. CHEM. SOLIDS. V.36, P.293-P.297 (1975)
CA.O/ SR.O ...THEORY/ LATTICE DYNAMICS/ THREE BODY FORCE
SHELL MODEL/ PHONON DISPERSION/ DEBYE TEMPERATURE

75-UP-03 UPADHYAYA J.C. KULSHRESTH A.Q.P.
CRYSTAL EQUILIBRIUM AND PHONON DISPERSION IN SOME BCC T
RANSITION METALS
PHYS. REV. B, V.12, P.2236-P.2242 (1975)
FE/ W/ HO/ W/ Nb/ TA ...LATTICE DYNAMICS/ DISPERSION RELA
TION/ TRANSITION METAL/ THEORY

75-UP-04 UPADHYAYA K.S. SINGH R.K.
THE LATTICE DYNAMICS OF ALKALINE EARTH OXIDES
J. PHYS. CHEM. SOLIDS. V.36, P.293-P.297 (1975)

CA.O/ SR.O ...THEORY/ LATTICE DYNAMICS/ THREE-BODY FORCE
SHELL MODEL/ PHONON DISPERSION/ DEBYE TEMPERATURE

75-VA-01 VARDENY Z. GILAT G. PASTERNAK A.
LATTICE DYNAMICS OF Cu.CL
PHYS. REV. B, V.11, P.5175 (1975)
Cu.CL ...SOLID/ THEORY/ DISPERSION RELATION/ LATTICE DYN
AMICS ...BREATHING SHELL MODEL/ RIGID ION MODEL

75-VE-01 VERMA M.P. GUPTA B.R.K.
THREE-BODY-FORCE SHELL MODEL STUDY OF PHONON DISPERSION
PHYS. REV. B, V.12, P.1314 (1975)
Ta.C/ Hf.C ...THEORY/ DISPERSION RELATION/ SOLID ...THREE
-BODY-FORCE SHELL MODEL/ LONG-RANGE ION-ION INTERAC
TION/ ANOMALOUS RIGGLES IN DISPERSION CURVE

75-VO-01 VON-DER-OSTEN W. DORNER B.
PHONON DISPERSION AG/BR AND EXCHANGE OF THE TRANSVERSE
MODE EIGENVECTORS AT L.
SOLID STATE COMMUN. V.16, P.431 (1975)
AG/BR ...DISPERSION RECATION

75-VA-01 WAKABAYASHI N. SMITH H.G. NICKLOW R.M.
LATTICE DYNAMICS OF HEXAGONAL MO.S2 STUDIED BY NEUTRON
SCATTERING
PHYS. REV. A, V.12, P.659-P.663 (1975)
MO.S2 ...EXPERIMENT/ PHONON DISPERSION/ MODEL FITTING

75-WE-01 WEIS J.K. KLEIN L.L.
THE DYNAMICAL STRUCTURE FACTOR (Q, W) OF SOLID ALPHA-N2
J. CHEM. PHYS. V.61, P.2869-P.2873 (1975)
N2 ...COMPUTER SIMULATION/ SCATTERING FUNCTION/ SOLIDN2

75-WE-02 WESTEREA K.I. COWLEY E.R.
CELL-CLUSTER EXPANSION FOR AN ANHARMONIC SOLID
PHYS. REV. B, V.11, P.4008-P.4016 (1975)
THEORY-OF-SOLIDS ...ANHARMONIC SOLID/ CELL-CLUSTER EXPAN
SION/ THERMODYNAMIC PROPERTIES

75-WO-01 WOOD R.F. MOSTOLLER M.
POSSIBILITY OF OBSERVING SELF-INTERSTIALS IN Cu AND A
L BY NEUTRONSCATTERING
PHYS. REV. LETT. V.35, P.45 (1975)
SCATTERING-THEORIES ...THEORY/ SOLID/ GREEN'S FUNCTION
/COHESION SCATTERING ...INTERSTIAES

75-YE-01 YELON W.B./ VETTIER C.
NEUTRON SCATTERING STUDY OF THE MAGNETIC EXCITATIONS IN
Fe.BR2
J. PHYS. C, LONDON. V.8, P.2760 (1975)
FE.BR2 ...EXPERIMENT/ THEORY ...MAGNETIC SCATTERING/ SPIN
WAVE SPECTRUM/ ANISOTROPY FIELD/ 20K-90K

75-YO-01 YOSHIDA, F., TAKENO, S.
HIGH-FREQUENCY EXPANSION OF MEMORY FUNCTION IN CLASSICAL SIMPLE LIQUIDS
PHYS. THEORET. PHYS., KYOTO, V. 53, P. 293-P. 304 (1975)

THEORY OF LIQUIDS/ AR...CLASSICAL SIMPLE LIQUID/ DYNAMIC STRUCTURE FACTOR/ DISPERSION CURVE OF ELEMENTARY EXCITATION