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JENDL Decay Data File 2015

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JENDL Decay Data File 2015 (JENDL/DDF-2015) has been produced. The decay data of nuclides with mass numbers from 1 to 260 are included. The nuclides with unknown gamma- and/or beta-emission are also included in order to keep decay chains. The data of 1,284 fission product nuclides with mass from 66 to 172 remain unchanged from JENDL/FPD-2011 except several corrections which had been claimed by users, and those of the newly added 1,953 nuclides are taken from ENSDF. Finally, the decay data of 3,237 nuclides including 244 stable nuclides were compiled as JENDL/DDF-2015 file.

Keywords: JENDL, Decay Data, Half-life, Branching Ratio, Q Value

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JENDL 崩壊データファイル 2015

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JENDL 崩壊データファイル 2015 (JENDL/DDF-2015) を作成した。このファイルには質量数 1 から 260 までの原子核の半減期等の崩壊データが収録されている。ガンマ線やベータ線の放出データが不明な核種でも崩壊チェーンが途中で途切れないように、半減期や分岐比のデータを含めた。質量数 66 から 172 までの 1,284 種の核分裂生成物については JENDL/FPD-2011 を用いることを基本とし、一部不都合が報告されたデータに関しては修正を施した。また、新たに追加された 1,953 核種については ENSDF からデータを採取した。最終的に安定核 244 核種を含む 3,237 核種についての崩壊データファイル JENDL/DDF-2015 を作成させた。

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1 Introduction

JENDL FP Decay Data File 2011 (JENDL/FPD-2011)¹⁾ was released in 2011. It covers fission products (FPs) with masses from 66 to 172. The decay data of the file can be used for calculating the generation and depletion of FPs in a reactor. As most of the FP nuclides are short-lived and β -unstable, they decay to more stable nuclides and emit γ - and β -rays during the decay process. The emitted radiations then become the sources of decay heat of spent fuels. The data of the file have been used for the decay heat analyses. They have been also applied to the aggregate β - and γ -ray spectrum calculations. The results have showed good agreement with the measured data for major fissionable nuclides and it has been confirmed that the data of the file could be used for these kinds of calculations.

The radioactive nuclides produced in a nuclear reactor are, however, not limited to only FP nuclides. There are many other radioactive nuclides including trans-uranium elements and activation products. Those radioactive nuclides play an important role for many application fields such as reprocessing spent fuels, disposal of high level radioactive waste, decommissioning nuclear facilities and so on. Then the decay data file including other radioactive nuclides than FPs is required for applying those decay data to various kinds of nuclear application fields.

The decay data of nuclides from A=1 to A=260 were compiled as JENDL Decay Data File 2015 (JENDL/DDF-2015). The present report describes the compilation of the JENDL/DDF-2015 file.

2 Data sources

As the decay data of fission products have already compiled as JENDL/FPD-2011 file and they have been successfully applied to decay heat analyses, they were adopted for the JENDL/DDF-2015 file. However, some data of the JENDL/FPD-2011 file were claimed to be incorrect after the release of the file. For an example, the most strong gamma-ray of ¹⁴⁴Pr decay, 2185.7 keV- gamma-ray, is not included because of some mis-processing original decay data. These incorrect data in the JENDL/FPD-2011 file were corrected and the corrected data were incorporated into the JENDL/DDF-2015 file.

The ENSDF (Evaluated Nuclear Structure and Decay Data File) file²⁾ is an internationally recognized evaluated data file of nuclear structure and decay data. It contains recommended decay data sets based on experimentally measured decay data. The recent decay data of the ENSDF file were adopted for JENDL/DDF-2015 when they are available excepting the data of fission products.

In the compilation, it was intended that the links of decay chains were not broken until stable nuclides. The decay data of the ENSDF file, however, do not always give full decay data. Most of short-lived nuclides suffer from data incompleteness, that is, enough spectral data are not given for them. It then happens that such short-lived nuclides have only the half-lives, decay types and branching ratios with their Q values. The JENDL/DDF-2015 file includes such data without spectral data. When these data were not available in the ENSDF file, measured data and/or other data bases were consulted. The Q values were taken from the recent 2012 evaluation of M. Wang et al.³⁾ The Q values of FP nuclides from JENDL/FPD-2011 which were the 2009 evaluation of G. Audi et al. were also changed.

3 Processing decay data

The ENSDF file includes nuclear structure and decay data of each nuclide. The file consists of a collection of data sets. The data sets of a given nuclide include the information of the evaluated results of a single type of experiment, that is, a radioactive decay or a nuclear reaction. In the compilation of the JENDL Decay Data File, the decay data sets were retrieved from the ENSDF file and converted to the data of JENDL/DDF-2015.

The conversion of the data from ENSDF to JENDL/DDF-2015 was performed using RADLST code ⁴⁾ provided by BNL. As the main concern of the ENSDF file is the nuclear structure, the decay data sets are arranged for each daughter nuclides. When there are two more decay modes, the corresponding daughter nuclides are different and the data sets we are interested in are belonged to those of all the daughter nuclide. The data sets belonging to different daughter nuclides have to be merged to produce the data for the JENDL file. For example ¹³²Cs has two decay mode, that is, β^- decay and EC/β^+ decay. The decay data of β^- decay are included in ¹³²Ba nuclide data sets in the ENSDF file. However, those of EC/β^+ decay belong to the data sets of ¹³²Xe nuclide. The two data sets have to be merged to produce the ¹³²Cs decay data of JENDL/DDF-2015.

When isomers exist, another problem of treating the ENSDF decay data sets occurs. As an example, the ENSDF decay data set of ¹³⁷Cs beta decay is shown here.

```

137BA 137CS B- DECAY 1983BE18,1996BI23,1997WAZZ07NDS 200709
137BA H TYP=ERR$AUT=J. Tuli$DAT=10-Feb-2008$COM=fixed logft values$
137BA H TYP=ERR$AUT=J. Tuli$DAT=17-Dec-2007$COM=fixed typos noted by PNPI$
137BA H TYP=FUL$AUT=E. BROWNE, J. K. TULI$CIT=NDS 108,2173 (2007)$
137BA2 H CUT=1-Oct-2006$
137BA C Measured: E(B-) (1983Be18,1978Ch22,1968Wo02,1966Hs02,1958Yo01),
137BA2C shape of the B spectra (1983Be18,1978Ch22,1978Gr09,1969Sc23,1966Hs02),
137BA3C longitudinal polarization of B (1975Do14), internal bremsstrahlung
137BA4C (1977We04,1975Ba20)
137BA C 1996Bi23, 1997WaZZ: measured 283G, HPGe
137BA CG 1997WaZZ, 1996Bi23 looked for but did not find a transition
137BA2CG from the 661 level to the 283.5 level.
137BA CG 2007NI04: Measured
137BA2CG EKC(127.5 KEV E3 in 134CS)/EKC(661.7 KEV M4 in 137CS)=30.01 15
137BA CG 2007YA02: Measured K X-ray ratios obtained in decay vs
137BA2CG photo-ionization. Values agreed with previous measurements and theory.
137BA3CG Other: 2006Ha36
137BA CL J Adopted values
137CS P 0.0 7/2+ 30.08 Y 9 1175.63 17
137BA N 1.0 1.0 1.0
137BA PN 3
137BA L 0.0 3/2+
137BA B 1176 15.3 2 12.079 17
137BAS B EAV=416.26 8
137BA CB E from 1966Hs02, 1176 3 (1958Yo01), 1176 15 (1983Be18)
137BA CB IB$from 100-IB(661 level).
137BA2CB Others: 5.45 1 (1983Be18), 5.3 4 (1968Wo02), 5.4 3 (1969Ha05),
137BA3CB 6.0 5 (1966Hs02), 7.6 8 (1958Yo01)
137BA CB Shape: DJ=2(no) (1966Hs02,1969Sc23,1978Gr09)
137BA L 283.50 101/2+
137BA B 0.00058 8 16.61 6 2U
137BA CB IB$from IG. 2007SE05 have recomputed logf2UT=16.45 12, IB=8.7E-4 20,
137BA2CB superseding their earlier value of 13.5 (2006SEZY)
137BAS B EAV=334.65 8
137BA G 283.5 15.8E-4 8
137BA CG E,RI$EG from 1997Wa37, %IG average of 5.3E-4 14 (1996Bi23),
137BA2CG 6.1E-4 10 (1997Wa37)

```


137BA L 661.659 311/2- 2.552 M 1 M
 137BA CL T\$from adopted levels
 137BA B 514.03 2394.7 2 9.625 2 1U
 137BAS B EAV=174.32 6
 137BA CB E from 1983Be18. Others: 513.89 26 (1978Ch22),
 137BA2CB 511.63 84 (1968Wo02), 514 1 (1966Hs02), 514 3 (1958Yo01)
 137BA CB IB\$from IG. Others: 94.6 3 (1968Wo02), 94.0 5 (1966Hs02), 92.4 8
 137BAxCB (1958Yo01). IB=94.6, LOGF1UT=8.5 (2006SEZY)
 137BA CB
 137BA CB Shape: DJ=2(yes)-1U (1983Be18,1978Gr09,1969Sc23,1966Hs02)
 137BA G 661.657 3 85.1 2M4 0.1124
 137BAS G KC=0.0915 13\$LC=0.01648 23\$MC=0.00352 5\$NC+=0.000879 13
 137BAS G NC=0.000759 11\$OC=0.0001134 16\$PC=7.21E-6 11
 137BA CG E\$from 1995HeZZ
 137BA CG RI\$recommended by 1991BaZS on the basis of following values:
 137BA2CG 85.21 7 (1983Be18), 84.3 5 (1978Gr09), 84.7 7 (1978MeZM), 85.1 4
 137BA2CG (1975Go28), 84.56 8 (1973LeZJ), 85.1 4 (1969Ha05)
 137BA CG Mult.,CC: see 137BA IT DECAY

The 662 keV level of ¹³⁷Ba has the half-life of 2.552 minutes and is treated as an isomeric state in the JENDL/DDF file. So the gamma-ray of 662 keV emitted from this level should belong to the ^{137m}Ba decay, not to the ¹³⁷Cs decay as the nuclide of ^{137m}Ba is treated as a different nuclide from ¹³⁷Ba. The isomer of ^{137m}Ba is also treated as another decay data set in the ENSDF file. The data set of ^{137m}Ba is shown here.

137BA 137BA IT DECAY (2.552 M) 07NDS 200709
 137BA H TYP=FUL\$AUT=E. BROWNE, J. K. TULI\$CIT=NDS 108,2173 (2007)\$
 137BA2 H CUT=1-Oct-2006\$
 137BA C Measured: G, CE, double-decay processes
 137BA CL J Adopted values
 137BA P 661.659 311/2- 2.552 M 1
 137BA N 1.0 1.0 1.0
 137BA PN 3
 137BA L 0.0 3/2+ STABLE
 137BA L 661.659 311/2- 2.552 M 1 M1
 137BA G 661.657 3 89.90 14M4 0.1124 100
 137BAB G BM4W=2.726 9
 137BAS G K/T=0.0822 11\$L/T=0.01482 21\$M/T=0.00317 5\$N+/T=0.000791 12
 137BAS G N/T=0.000682 10\$O/T=0.0001020 15\$P/T=6.49E-6 10
 137BA CG E\$from 1995HeZZ
 137BA CG CC\$evaluated by 1991BaZS based on the following values:
 137BA2CG 0.1083 3 (1983Be18), 0.1100 3 (1975Go28), 0.1105 4 (1973LeZJ),
 137BA3CG 0.1124 6 (1969Ha05), 0.1100 11 (1965Me03)
 137BA CG \$EKC=0.0904 5 (1992NE04). Also EKC: 0.0900 6 from 1992Ne04 given as
 137BA2CG weighted mean of
 137BA2CG EKC=0.0901 4 (1973LeZJ), 0.0922 22 (1973Wi10),
 137BA3CG 0.0894 10 (1965Me03). Others: EKC=0.0881 2 (1983Be18),
 137BA4CG 0.0888 7 (1978Ch22), 0.0916 4 (1969Ha05)
 137BA CG M K:L1:L2:L3=1000 20:151 4:22 1:19 1 (1962Ge09), K/L=5.29 23,
 137BA2CG L1:L2:L3=341 10:100:50 3 (1967Ka24)
 137BA CG RI\$from TI/(1+CC)
 137BA CG Double-decay processes: see 1971Lj02, 1971Lj01, 1971Po04,
 137BAxCB 1969Lj01. Probability ratio of two-ce(K)/one-ce(K)=8E-5 4 (1999VI15)

When we treat both data sets differently, the 662 keV gamma-ray would be double counted. So the gamma-ray of 662 keV from the 662 keV level has to be removed from the ¹³⁷Cs β^- decay when the both data sets are treated with the RADLST code. When the isomers are processed, similar treatment is indispensable for making decay data file. However, the treatment of removing gamma-rays from the isomer levels causes another problem for using the RADLST code. The energy balance is not kept when gamma rays are removed from the data sets. When the energy balance is not kept, RADLST code stops the processing. So some modification was needed to treat the decay through a meta stable state.

Basically the meta stable states with half-lives longer than 0.1 s are treated as other nuclides than the ground state. However, the excited states with decay branchings to change Z number are included as meta stable states even if the half-lives are shorter than 0.1 s. The number of the meta stable states in the JENDL/DDF-2015 file is limited to at most 2 for each isotope. When the compilation of JENDL Decay Data File was started, the MAT number of each nuclide was intended to coincide with that attached to the nuclide in the general purpose file. The MAT numbers attached to the nuclides of the general purpose file allow at most 2 isomeric states for each isotope. Although it was finally decided that the MAT number of the JENDL/DDF file was uniquely adopted, the number of the meta stable states remained to be 2 for a isotope.

4 Summary

JENDL/DDF-2015 was produced and released in November 2015. The file contains the decay data of 3237 nuclides from neutron to ^{260}Lr . The data of FP region were adopted from the JENDL/FPD-2011 file with necessary modification because of the reported deficiency of some nuclides. Excepting FP nuclides, the decay data were compiled based on the ENSDF file. Even if there is no enough data, the half-lives, the Q values and branching ratios were contained in the compiled file in order to keep the decay chains. It would be better to compensate the deficit decay data by theoretical calculation. Such a work would be necessary in future to keep the consistency of the file.

In any case, the compiled decay data seem to cover the number of nuclides which are required in the nuclear application fields for the moment. However, it is true that the data included in the file are not completed due to the deficit of some data, e.g. spectra. It will be needed to make the file more complete and reliable. Such a development is left for future work.

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Appendix: List of included nuclides

The number of nuclides included in the JENDL/DDF-2015 file is 3237 from neutron to ^{260}Lr . Summary of the number of included nuclides are listed in Table 4.1. The discrete beta spectra means here that the beta transitions to the levels of daughter nuclide are given with maximum energy of beta ray and its transition intensity. And the conversion electrons are included as the discrete beta spectra when they are available. The continuous gamma and beta spectra are those of theoretically estimated ones which are adopted for FP nuclides with short half-lives and no measured spectral data. They are also included in JENDL/FPD-2011. Excepting FP nuclides, no theoretically estimated decay data are included.

Recently the half-lives of double beta decay have been reported. Even if the reported values are lower limits, the half-lives are included in the decay data file.

Table 4.1 Number of nuclides of various types

No. of Nuclides	Data Types
3237	Total number of contained nuclides
244	Stable nuclides
2993	Unstable nuclides or states
650	Isomeric states
	58 Second isomeric states
2431	Gamma spectra
	2012 Discrete gamma spectra
	509 Continuous gamma spectra
1265	Beta spectra
	842 Discrete beta spectra
	486 Continuous beta spectra
988	Positron or EC spectra
567	Alpha spectra

The following pages show the tables of the included decay data for each nuclide. The table was produced by the ENDF decay data processing code SPEC5⁵⁾ developed by T.R. England. The meanings of the column heading of the list are shown below. The SPEC5 code is also used to check the consistency of the decay data included.

<u>Col. Heading</u>	<u>Quantity</u>
No.	Serial number of included nuclide
Symbol	Chemical symbol preceded by the Z value and followed by the atomic number. Neutron is expressed by nn here in order to distinguish from N (Nitrogen).
S	The isomeric state number (0 - ground state, 1 = 1st isomeric state, 2 = 2nd isomeric state).
ZZAAAS	Numeric identifier consisting of the quantity $Z \times 10000 + A \times 10 + S$, where S is the isomeric state number.
Halflife	Total decay half-life in seconds.
E-beta, E-gamma, E-alpha	Average beta, gamma and alpha decay energies. E-beta is the total electron-related radiation such as β^- , β^+ , conversion electron, Auger etc. E-gamma is the average energy of all "electromagnetic" radiation such as gamma rays, X rays, and annihilation radiation. E-alpha is the average energy of all heavy particles and delayed neutrons.
RTYP	Initial or primary decay mode for the listed line of data. See ENDF-6 manual 6).
RFS	Daughter state following the decay (0 = ground state, 1 = 1st isomeric state, 2 = 2nd isomeric state).
Q	Total Q value for the decay mode.
Branching	Fraction of decays from type RTYP to state RFS.
AWR	Atomic weight ratio, meaning the ratio of the atomic mass to the mass of a neutron.
NDK	Number of decay mode.
NSP	Number of spectral types.
MAT	Material identification number

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT	
1	0-nn-	1	0	10	6.1390E+02	3.0137E+05	0.0000E+00	0.0000E+00	1.00	0.0	7.8235E+05	1.0000E+00	1.0000E+00	1	1	1	
2	1-H-	1	0	10010	stable								9.9099E-01	0	0	2	
3	1-H-	2	0	10020	stable								1.9823E+00	0	0	3	
4	1-H-	3	0	10030	3.8880E+08	5.6900E+03	0.0000E+00	0.0000E+00	1.00	0.0	1.8591E+04	1.0000E+00	2.9742E+00	1	1	4	
5	2-He-	3	0	20030	stable								3.3180E+00	0	0	5	
6	2-He-	4	0	20040	stable								4.3093E+00	0	0	6	
7	2-He-	6	0	20060	8.0670E-01	1.5676E+06	0.0000E+00	0.0000E+00	1.00	0.0	3.5052E+06	1.0000E+00	5.9485E+00	1	1	7	
8	3-Li-	6	0	30060	stable								5.6371E+00	0	0	9	
9	3-Li-	7	0	30070	stable								7.0157E+00	0	0	10	
10	4-Be-	7	0	40070	4.5980E+06	4.8490E+01	4.9860E+04	8.2300E+05	0.0000E+00	2.00	0.0	8.6189E+05	1.0000E+00	6.5728E+00	1	3	14
11	2-He-	8	0	20080	1.1910E-01	4.4000E+06	8.2300E+05	6.3000E+03	1.00	0.0	1.0664E+07	8.4000E-01	7.9649E+00	2	2	8	
12	3-Li-	8	0	30080	8.3990E-01	6.2480E+06	0.0000E+00	1.3381E+04	1.40	0.0	8.6313E+06	1.6000E-01	7.9536E+00	1	1	11	
13	5-B-	8	0	50080	7.7000E-01	6.3000E+06	1.0200E+06	1.5200E+04	2.40	0.0	1.6096E+07	1.0000E+00	7.9557E+00	1	3	19	
14	3-Li-	9	0	30090	1.7830E-01	5.7100E+06	0.0000E+00	9.2000E+03	1.00	0.0	1.8072E+07	1.0000E+00	8.9492E+00	2	1	12	
15	4-Be-	9	0	40090	stable								9.0119E+00	0	0	15	
16	5-B-	9	0	50090	8.5000E-19	0.0000E+00	0.0000E+00	1.8580E+05	7.00	0.0	1.8590E+05	1.0000E+00	9.0048E+00	1	0	20	
17	6-C-	9	0	60090	1.2650E-01	6.4000E+06	9.8000E+05	1.2600E+04	2.40	0.0	1.4805E+07	3.8400E-01	8.9535E+00	2	3	26	
18	4-Be-	10	0	40100	4.7700E+13	2.0256E+05	0.0000E+00	0.0000E+00	1.00	0.0	5.5680E+05	1.0000E+00	9.9275E+00	1	1	16	
19	5-B-	10	0	50100	stable								1.0008E+01	0	0	21	
20	6-C-	10	0	60100	1.9290E+01	8.0720E+05	1.7549E+06	0.0000E+00	2.00	0.0	3.6481E+06	1.0000E+00	9.9308E+00	1	4	27	
21	3-Li-	11	0	30110	8.5900E-03	1.4230E+05	0.0000E+00	0.0000E+00	1.00	0.0	2.0551E+07	1.3700E-01	1.0949E+01	2	1	13	
22	4-Be-	11	0	40110	1.3810E+01	4.6500E+06	1.4500E+06	5.5100E+03	1.00	0.0	1.1509E+07	9.6900E-01	1.0927E+01	2	2	17	
23	5-B-	11	0	50110	stable								1.1009E+01	0	0	22	
24	6-C-	11	0	60110	1.2231E+03	3.8470E+05	1.0195E+06	0.0000E+00	2.00	0.0	1.9824E+06	1.0000E+00	1.0917E+01	1	3	28	
25	4-Be-	12	0	40120	2.1300E-02	5.6150E+06	0.0000E+00	5.8680E+03	1.00	0.0	1.1708E+07	1.0000E+00	1.1924E+01	1	1	18	
26	5-B-	12	0	50120	2.0200E-02	6.3520E+06	0.0000E+00	7.5900E+03	1.00	0.0	1.3369E+07	1.0000E+00	1.1911E+01	1	1	23	
27	6-C-	12	0	60120	stable								1.2000E+01	0	0	29	
28	7-N-	12	0	70120	1.1000E-02	7.7300E+06	1.1910E+06	1.2000E+04	2.00	0.0	1.7338E+07	1.0000E+00	1.1915E+01	1	4	37	
29	5-B-	13	0	50130	1.7360E-02	6.3500E+06	3.3000E+05	7.0900E+03	1.00	0.0	1.3437E+07	1.0000E+00	1.2906E+01	1	2	24	
30	6-C-	13	0	60130	stable								1.3003E+01	0	0	30	
31	7-N-	13	0	70130	5.9790E+02	4.9085E+05	1.0200E+06	0.0000E+00	2.00	0.0	2.2205E+06	1.0000E+00	1.2894E+01	1	3	38	
32	8-O-	13	0	80130	8.5800E-03	7.9200E+06	1.0200E+06	1.1600E+04	2.70	0.0	1.5826E+07	1.0000E+00	1.2913E+01	1	2	47	
33	5-B-	14	0	50140	1.2500E-02	7.1000E+06	5.9400E+06	1.2600E+04	1.00	0.0	2.0644E+07	1.0000E+00	1.3905E+01	1	2	25	
34	6-C-	14	0	60140	1.7990E+11	4.9470E+04	0.0000E+00	0.0000E+00	1.00	0.0	1.5648E+05	1.0000E+00	1.3883E+01	1	1	31	
35	7-N-	14	0	70140	stable								1.4000E+01	0	0	39	
36	8-O-	14	0	80140	7.0606E+01	7.7622E+05	3.3201E+06	0.0000E+00	2.00	0.0	5.1440E+06	1.0000E+00	1.3888E+01	1	4	48	
37	6-C-	15	0	60150	2.4490E+00	3.0000E+06	3.3600E+06	2.7000E+03	1.00	0.0	9.7717E+06	1.0000E+00	1.4882E+01	1	2	32	
38	7-N-	15	0	70150	stable								1.5000E+01	0	0	40	
39	8-O-	15	0	80150	1.2224E+02	7.3455E+05	1.0210E+06	0.0000E+00	2.00	0.0	2.7542E+06	1.0000E+00	1.4874E+01	1	3	49	
40	6-C-	16	0	60160	7.4700E-01	2.0900E+06	1.7000E+03	1.1200E+03	1.00	0.0	8.0102E+06	1.0000E-02	1.5877E+01	2	2	33	
41	7-N-	16	0	70160	7.1300E+00	2.7570E+06	4.4900E+06	2.9000E+03	1.00	0.0	1.0421E+07	9.9999E-01	1.5869E+01	2	2	41	
42	8-O-	16	0	80160	stable								1.5995E+01	0	0	50	
43	6-C-	17	0	60170	1.9300E-01	3.7000E+06	1.0300E+06	3.1000E+03	1.00	0.0	1.3161E+07	6.8000E-01	1.6876E+01	2	2	34	
									1.50	0.0	7.2756E+06	3.2000E-01					

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
44	7-N-17	0	70170	4.1730E+00	1.7200E+06	3.6000E+04	0.0000E+00	1.00 0.0	1.50 0.0	8.6788E+06	4.9000E-02	1.6862E+01	2	2	42	
45	8-O-17	0	80170	stable									1.6999E+01	0	0	51
46	9-F-17	0	90170	6.4490E+01	7.3859E+05	1.0207E+06	0.0000E+00	2.00 0.0	2.7605E+06	1.0000E+00	1.0000E+00	1.6856E+01	1	3	59	
47	10-Ne-17	0	100170	1.0920E-01	3.6500E+06	1.0230E+06	3.3500E+03	2.00 0.0	1.4549E+07	1.0000E+00	1.0000E+00	1.6872E+01	1	4	69	
48	6-C-18	0	60180	9.2000E-02	3.6000E+06	2.9000E+06	2.6000E+03	1.00 0.0	1.1805E+07	6.8500E-01	1.0000E+00	1.7872E+01	2	2	35	
49	7-N-18	0	70180	6.2400E-01	3.4800E+06	3.7600E+06	3.1200E+03	1.00 0.0	1.3896E+07	7.3500E-01	1.0000E+00	1.7859E+01	3	2	43	
50	8-O-18	0	80180	stable									1.7999E+01	0	0	52
51	9-F-18	0	90180	6.5860E+03	2.4160E+05	9.8860E+05	0.0000E+00	2.00 0.0	1.6559E+06	1.0000E+00	1.0000E+00	1.7846E+01	1	3	60	
52	10-Ne-18	0	100180	1.6720E+00	1.4990E+06	1.1050E+06	0.0000E+00	2.00 0.0	4.4445E+06	1.0000E+00	1.0000E+00	1.7851E+01	1	4	70	
53	7-N-19	0	70190	2.7100E-01	0.0000E+00	2.9000E+06	0.0000E+00	1.00 0.0	1.2523E+07	1.0000E+00	1.0000E+00	1.8854E+01	1	1	44	
54	8-O-19	0	80190	2.6880E+01	1.7900E+06	9.4000E+05	0.0000E+00	1.00 0.0	4.8203E+06	1.0000E+00	1.0000E+00	1.8840E+01	1	2	53	
55	9-F-19	0	90190	stable									1.8998E+01	0	0	61
56	10-Ne-19	0	100190	1.7220E+01	9.6210E+05	1.0210E+06	0.0000E+00	2.00 0.0	3.2395E+06	1.0000E+00	1.0000E+00	1.8839E+01	1	4	71	
57	8-O-20	0	80200	1.3510E+01	1.1974E+06	1.0574E+06	0.0000E+00	1.00 0.0	3.8136E+06	1.0000E+00	1.0000E+00	1.9832E+01	1	2	54	
58	9-F-20	0	90200	1.1163E+01	2.4814E+06	1.6339E+06	1.0100E+03	1.00 0.0	7.0245E+06	1.0000E+00	1.0000E+00	1.9828E+01	1	2	62	
59	10-Ne-20	0	100200	stable									1.9993E+01	0	0	72
60	11-Na-20	0	110200	4.4790E-01	4.7490E+06	2.3590E+06	3.6000E+03	2.00 0.0	1.3892E+07	1.0000E+00	1.0000E+00	1.9836E+01	1	4	83	
61	12-Mg-20	0	120200	9.0800E-02	3.5200E+06	2.0000E+06	2.0200E+03	2.70 0.0	8.5176E+06	1.0000E+00	1.0000E+00	1.9847E+01	1	3	98	
62	7-N-21	0	70210	8.3000E-02	0.0000E+00	0.0000E+00	0.0000E+00	1.00 0.0	1.7189E+07	9.0000E-02	1.0000E-01	2.1027E+01	2	0	45	
63	8-O-21	0	80210	3.4200E+00	2.3800E+06	2.9500E+06	1.1800E+03	1.00 0.0	8.1095E+06	1.0000E+00	1.0000E+00	2.0828E+01	1	2	55	
64	9-F-21	0	90210	4.1580E+00	2.3500E+06	5.4700E+05	0.0000E+00	1.00 0.0	5.6842E+06	1.0000E+00	1.0000E+00	2.0819E+01	1	2	63	
65	10-Ne-21	0	100210	stable									2.0994E+01	0	0	73
66	11-Na-21	0	110210	2.2490E+01	1.1008E+06	1.0388E+06	0.0000E+00	2.00 0.0	3.5471E+06	1.0000E+00	1.0000E+00	2.0817E+01	1	4	84	
67	12-Mg-21	0	120210	1.2200E-01	8.5000E+06	1.3200E+06	5.7000E+03	2.00 0.0	1.3098E+07	6.7400E-01	1.0000E-02	2.0831E+01	2	4	99	
68	6-C-22	0	60220	6.1000E-03	0.0000E+00	0.0000E+00	0.0000E+00	1.00 0.0	2.1552E+07	2.0000E-02	2.0000E-02	2.1867E+01	3	0	36	
69	7-N-22	0	70220	2.4000E-02	0.0000E+00	0.0000E+00	0.0000E+00	1.00 0.0	2.2755E+07	5.0500E-01	2.2034E+01	2.2034E+01	3	0	46	
70	8-O-22	0	80220	2.2500E+00	1.5300E+06	2.1000E+06	0.0000E+00	1.00 0.0	6.4900E+06	8.9000E-01	1.0000E-01	2.1821E+01	2	2	56	
71	9-F-22	0	90220	4.2300E+00	2.1200E+06	5.4100E+06	1.4100E+03	1.00 0.0	1.0818E+07	1.0000E+00	1.0000E+00	2.1814E+01	1	2	64	
72	10-Ne-22	0	100220	stable									2.1991E+01	0	0	74
73	11-Na-22	0	110220	8.2130E+07	1.9523E+05	2.1975E+06	0.0000E+00	2.00 0.0	2.8432E+06	1.0000E+00	1.0000E+00	2.1806E+01	1	4	85	
74	12-Mg-22	0	120220	3.8750E+00	1.3690E+06	1.7160E+06	0.0000E+00	2.00 0.0	4.7816E+06	1.0000E+00	1.0000E+00	2.1811E+01	1	4	100	
75	13-Al-22	0	130220	5.9000E-02	0.0000E+00	5.1820E+05	0.0000E+00	2.00 0.0	1.8601E+07	5.6000E-01	1.0000E-01	2.1830E+01	2	2	112	
76	8-O-23	0	80230	8.0000E-02	0.0000E+00	0.0000E+00	0.0000E+00	2.70 0.0	1.3097E+07	4.4000E-01	1.0000E+00	2.2818E+01	1	0	57	
77	9-F-23	0	90230	2.2300E+00	3.0000E+06	2.3400E+06	1.2900E+03	1.00 0.0	8.4671E+06	1.0000E+00	1.0000E+00	2.2806E+01	1	2	65	
78	10-Ne-23	0	100230	3.7240E+01	1.9000E+06	1.6500E+05	0.0000E+00	1.00 0.0	4.3758E+06	1.0000E+00	1.0000E+00	2.2797E+01	1	2	75	
79	11-Na-23	0	110230	stable									2.2990E+01	0	0	86
80	12-Mg-23	0	120230	1.1317E+01	1.3350E+06	1.0590E+06	0.0000E+00	2.00 0.0	4.0566E+06	1.0000E+00	1.0000E+00	2.2797E+01	1	4	101	
81	8-O-24	0	80240	6.0000E-02	1.8400E+06	7.5000E+05	7.8000E+04	1.00 0.0	1.0941E+07	4.2000E-01	2.3814E+01	2.3814E+01	2	2	58	

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
82	9-F-24	0	90240	3.9000E-01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	1.3511E+07	1.0000E+00	2.3802E+01	1	0	66
83	10-Ne-24	0	100240	2.0280E+02	8.0300E+05	6.9100E+04	0.0000E+04	0.0000E+00	1.00	1.0	1.9941E+06	1.0000E+00	2.3788E+01	1	2	76
84	11-Na-24	0	110240	5.3990E+04	5.5460E+05	4.1215E+06	0.0000E+00	0.0000E+00	1.00	0.0	5.5156E+06	1.0000E+00	2.3785E+01	1	2	87
85	11-Na-24	1	110241	2.0180E-02	1.3842E+03	4.7197E+05	0.0000E+00	0.0000E+00	1.00	0.0	5.9878E+06	5.0000E+00	2.3785E+01	2	2	88
86	12-Mg-24	0	120240	stable	stable	stable	stable	stable	3.00	0.0	4.7221E+05	9.9950E-01	2.3985E+01	0	0	102
87	13-Al-24	0	130240	2.0530E+00	2.0300E+06	9.5100E+06	2.2000E+03	2.00	0.0	0.0	1.3886E+07	1.0000E+00	2.3794E+01	1	4	113
88	13-Al-24	1	130241	1.3100E-01	9.2000E+05	8.5000E+05	0.0000E+00	0.0000E+00	2.00	0.0	1.4312E+07	1.7500E-01	2.3794E+01	2	4	114
89	9-F-25	0	90250	5.0000E-02	3.7000E+06	2.4000E+06	1.5100E+05	1.00	0.0	0.0	1.3423E+07	8.6000E-01	2.4797E+01	2	2	67
90	10-Ne-25	0	100250	6.0200E-01	3.2000E+06	3.9000E+05	1.0100E+03	1.00	0.0	0.0	7.2980E+06	1.0000E+00	2.4783E+01	1	2	77
91	11-Na-25	0	110250	5.9100E+01	1.5100E+06	4.3600E+05	0.0000E+00	0.0000E+00	1.00	0.0	3.8350E+06	1.0000E+00	2.4775E+01	1	2	89
92	12-Mg-25	0	120250	stable	stable	stable	stable	stable	1.50	0.0	9.2438E+06	1.4000E-01	2.4986E+01	0	0	103
93	13-Al-25	0	130250	7.1830E+00	1.4525E+06	1.0337E+06	0.0000E+00	0.0000E+00	2.00	0.0	4.2766E+06	1.0000E+00	2.4776E+01	1	4	115
94	14-Si-25	0	140250	2.2000E-01	4.4000E+06	1.5200E+06	1.7800E+05	2.00	0.0	0.0	1.2744E+07	6.5000E-01	2.4789E+01	2	4	126
95	9-F-26	0	90260	9.7000E-03	6.9000E+06	1.6700E+06	5.2000E+03	1.00	0.0	0.0	1.0472E+07	3.5000E-01	2.5796E+01	1	2	68
96	10-Ne-26	0	100260	1.9700E-01	3.3900E+06	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	1.8186E+07	1.0000E+00	2.5777E+01	1	1	78
97	11-Na-26	0	110260	1.0770E+00	3.3460E+06	2.1590E+06	1.0250E+03	1.00	0.0	0.0	7.3402E+06	1.0000E+00	2.5769E+01	1	2	90
98	12-Mg-26	0	120260	stable	stable	stable	stable	stable	2.70	0.0	9.3538E+06	1.0000E+00	2.5983E+01	0	0	104
99	13-Al-26	0	130260	2.2600E+13	4.4420E+05	2.6750E+06	0.0000E+00	0.0000E+00	2.00	0.0	4.0044E+06	1.0000E+00	2.5764E+01	1	4	116
100	13-Al-26	1	130261	6.3450E+00	1.4394E+06	1.0220E+06	0.0000E+00	0.0000E+00	2.00	0.0	4.2327E+06	1.0000E+00	2.5764E+01	1	3	117
101	14-Si-26	0	140260	2.2340E+00	1.6200E+06	1.2550E+06	0.0000E+00	0.0000E+00	2.00	0.0	5.0691E+06	8.0000E-04	2.5769E+01	2	4	127
102	10-Ne-27	0	100270	3.1500E-02	7.4000E+06	1.1500E+06	3.8000E+03	1.00	0.0	0.0	4.8408E+06	9.9920E-01	2.6776E+01	1	2	79
103	11-Na-27	0	110270	3.0100E-01	3.6150E+06	1.1700E+06	1.3550E+05	1.00	0.0	0.0	1.2554E+07	1.0000E+00	2.6762E+01	2	2	91
104	12-Mg-27	0	120270	5.6750E+02	7.0100E+05	8.9100E+05	0.0000E+00	0.0000E+00	1.00	0.0	2.6101E+06	1.0000E+00	2.6753E+01	1	2	105
105	13-Al-27	0	130270	stable	stable	stable	stable	stable	1.50	0.0	8.7379E+06	1.2000E-01	2.6982E+01	0	0	118
106	14-Si-27	0	140270	4.1600E+00	1.7163E+06	2.0409E+06	0.0000E+00	0.0000E+00	2.00	0.0	4.8124E+06	1.0000E+00	2.6755E+01	1	4	128
107	15-P-27	0	150270	2.6000E-01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.1662E+07	9.9950E-01	2.6767E+01	2	1	138
108	10-Ne-28	0	100280	1.8900E-02	5.4000E+06	7.6000E+05	1.9500E+05	1.00	0.0	0.0	1.2280E+07	8.8000E-01	2.7771E+01	2	2	80
109	11-Na-28	0	110280	3.0500E-02	6.1000E+06	1.1400E+06	3.3000E+03	1.00	0.0	0.0	1.4030E+07	1.0000E+00	2.7758E+01	1	2	92
110	12-Mg-28	0	120280	7.5290E+04	1.6100E+05	1.3700E+06	0.0000E+00	0.0000E+00	1.00	0.0	1.8318E+06	1.0000E+00	2.7743E+01	1	4	106
111	13-Al-28	0	130280	1.3448E+02	1.2471E+06	1.7788E+06	0.0000E+00	0.0000E+00	1.00	0.0	4.6423E+06	1.0000E+00	2.7742E+01	1	2	119
112	14-Si-28	0	140280	stable	stable	stable	stable	stable	1.50	0.0	1.1317E+07	2.8000E-01	2.7977E+01	0	0	129
113	15-P-28	0	150280	2.7030E-01	4.5900E+06	4.7300E+06	1.6590E+05	2.00	0.0	0.0	1.4345E+07	9.9999E-01	2.7752E+01	2	3	139
114	16-S-28	0	160280	1.2500E-01	2.0340E+06	1.0210E+06	7.3900E+04	2.00	0.0	0.0	2.7600E+06	1.3000E-05	2.7764E+01	2	3	150
115	10-Ne-29	0	100290	1.4800E-02	5.9000E+06	1.5000E+06	3.4000E+03	1.00	0.0	0.0	1.5720E+07	6.8000E-01	2.8770E+01	3	2	81
116	11-Na-29	0	110290	4.4100E-02	4.3000E+06	4.7500E+06	1.5000E+05	1.00	0.0	0.0	1.3283E+07	7.8000E-02	2.8754E+01	2	2	93
117	12-Mg-29	0	120290	1.3000E+00	2.6000E+06	1.8600E+06	0.0000E+00	0.0000E+00	1.00	0.0	9.6274E+06	2.2000E-01	2.8740E+01	1	2	107
118	13-Al-29	0	130290	3.9400E+02	9.7700E+05	1.3790E+06	0.0000E+00	0.0000E+00	1.00	0.0	7.6018E+06	1.0000E+00	2.8732E+01	1	2	120

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
119	14-Si-	29	0	140290	stable								2.8977E+01	0	0	130
120	15-P-	29	0	150290	4.1420E+00	1.7701E+06	1.0484E+06	0.0000E+00	2.00	0.0	4.9426E+06	1.0000E+00	2.8733E+01	1	4	140
121	16-S-	29	0	160290	1.8700E-01	4.0700E+06	4.4400E+06	1.4300E+05	2.00	0.0	1.3796E+07	5.3000E-01	2.8747E+01	2	4	151
122	10-Ne-	30	0	100300	7.3000E-03	5.8000E+06	4.5000E+05	2.8000E+03	1.00	0.0	1.1047E+07	4.7000E-01	2.9766E+01	3	2	82
123	11-Na-	30	0	110300	4.8000E-02	4.2100E+06	2.9300E+06	1.4300E+05	1.00	0.0	1.4565E+07	7.8100E-01	2.9751E+01	3	2	94
124	12-Mg-	30	0	120300	3.3500E-01	2.1000E+06	6.9000E+05	0.0000E+00	1.00	0.0	1.2288E+07	1.3000E-01	2.9733E+01	1	2	108
125	13-Al-	30	0	130300	3.6200E+00	2.3100E+06	3.3500E+06	0.0000E+00	1.00	0.0	7.9000E+06	8.9000E-02	2.9725E+01	1	3	121
126	14-Si-	30	0	140300	stable								2.9974E+01	0	0	131
127	15-P-	30	0	150300	1.4988E+02	1.4385E+06	1.0219E+06	0.0000E+00	2.00	0.0	1.7358E+07	6.8850E-01	2.9721E+01	1	4	141
128	16-S-	30	0	160300	1.1780E+00	2.0810E+06	1.6080E+06	0.0000E+00	2.00	0.0	1.7358E+07	6.8850E-01	2.9727E+01	1	4	152
129	11-Na-	31	0	110310	1.7000E-02	4.4000E+06	1.0600E+06	1.4500E+05	1.00	0.0	1.3073E+07	3.7000E-01	3.0747E+01	3	4	95
130	12-Mg-	31	0	120310	2.3000E-01	4.0000E+06	2.6400E+06	1.7000E+03	1.00	0.0	6.7210E+06	8.7000E-03	3.0730E+01	1	2	109
131	13-Al-	31	0	130310	6.4000E-01	3.4000E+06	7.1000E+05	0.0000E+00	1.00	0.0	1.1833E+07	1.0000E+00	3.0718E+01	1	2	122
132	14-Si-	31	0	140310	9.4380E+03	5.9520E+05	8.8630E+02	0.0000E+00	1.00	0.0	7.9941E+06	1.0000E+00	3.0709E+01	1	2	132
133	15-P-	31	0	150310	stable								3.0974E+01	0	0	142
134	16-S-	31	0	160310	2.5720E+00	1.9961E+06	1.0381E+06	0.0000E+00	2.00	0.0	1.9638E+07	6.8000E-01	3.0713E+01	1	4	153
135	17-Cl-	31	0	170310	1.5000E-01	5.0000E+06	1.9000E+06	1.5000E+05	2.00	0.0	1.1976E+07	9.9300E-01	3.0726E+01	2	4	164
136	18-Ar-	31	0	180310	1.4400E-02	6.2000E+06	8.9000E+05	2.0500E+05	2.00	0.0	1.8360E+07	7.0000E-01	3.0746E+01	2	3	179
137	11-Na-	32	0	110320	1.3200E-02	5.7000E+06	2.4000E+06	1.8300E+05	1.00	0.0	1.3861E+07	2.4000E-01	3.1745E+01	3	4	96
138	12-Mg-	32	0	120320	8.6000E-02	3.8500E+06	1.0700E+06	1.3700E+03	1.00	0.0	1.3861E+07	8.0000E-02	3.1724E+01	2	2	110
139	13-Al-	32	0	130320	3.3000E-02	5.9000E+06	5.3000E+05	2.6000E+03	1.00	0.0	1.0270E+07	9.4500E-01	3.1713E+01	1	2	123
140	14-Si-	32	0	140320	4.8000E+09	6.8560E+04	0.0000E+00	0.0000E+00	1.00	0.0	6.0548E+06	5.5000E-02	3.1699E+01	1	1	133
141	15-P-	32	0	150320	1.2323E+06	6.9490E+05	0.0000E+00	0.0000E+00	1.00	0.0	2.2719E+05	1.0000E+00	3.1699E+01	1	1	143
142	16-S-	32	0	160320	stable								3.1972E+01	0	0	154
143	17-Cl-	32	0	170320	2.9800E-01	3.8100E+06	4.3100E+06	4.7800E+05	2.00	0.0	1.1710E+06	1.0000E+00	3.1711E+01	3	4	165
144	18-Ar-	32	0	180320	9.8000E-02	3.5600E+06	1.7500E+06	1.3400E+03	2.00	0.0	1.2681E+07	9.9920E-01	3.1723E+01	2	4	180
145	11-Na-	33	0	110330	8.2000E-03	3.7000E+06	6.3000E+05	1.2000E+05	1.00	0.0	1.1134E+07	6.4420E-01	3.2744E+01	3	2	97
146	12-Mg-	33	0	120330	9.0500E-02	5.2000E+06	1.9700E+06	1.6200E+05	1.00	0.0	1.0900E+07	1.3000E-01	3.2722E+01	2	2	111
147	13-Al-	33	0	130330	4.1700E-02	5.0700E+06	7.0000E+04	1.9800E+03	1.00	0.0	1.3430E+07	8.6000E-01	3.2708E+01	2	2	124
148	14-Si-	33	0	140330	6.1100E+00	2.6320E+06	1.2600E+05	0.0000E+00	1.00	0.0	7.9894E+06	1.4000E-01	3.2695E+01	1	2	134
149	15-P-	33	0	150330	2.1890E+06	7.6400E+04	0.0000E+00	0.0000E+00	1.00	0.0	1.2046E+07	9.1500E-01	3.2688E+01	1	1	144

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
150	16-S-33	0	16	0330	stable								3.2971E+01	0	0	155
151	17-Cl-33	0	17	0330	2.5110E+00	2.0820E+06	1.0480E+06	0.0000E+00	2.00	0.0	5.5825E+06	1.0000E+00	3.2694E+01	1	4	166
152	18-Ar-33	0	18	0330	1.7300E-01	3.8100E+06	1.3920E+06	1.1750E+05	2.00	0.0	1.1619E+07	6.1200E-01	3.2707E+01	2	4	181
153	13-Al-34	0	13	0340	5.6300E-02	4.4000E+06	2.9000E+06	1.3200E+05	1.00	0.0	9.3423E+06	3.8800E-01	3.3705E+01	2	4	125
154	14-Si-34	0	14	0340	2.7700E+00	1.2980E+06	1.5900E+06	0.0000E+00	1.50	0.0	9.3741E+06	2.6000E-01	3.3687E+01	1	2	135
155	15-P-34	0	15	0340	1.2430E+01	2.3100E+06	3.3000E+05	0.0000E+00	1.00	0.0	4.5920E+06	1.0000E+00	3.3682E+01	1	2	145
156	16-S-34	0	16	0340	stable						5.3830E+06	1.0000E+00	3.3968E+01	0	0	156
157	17-Cl-34	0	17	0340	1.5266E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.4916E+06	1.0000E+00	3.3682E+01	1	0	167
158	17-Cl-34	1	17	0341	1.9200E+03	4.6500E+05	2.1140E+06	0.0000E+00	2.00	0.0	5.6380E+06	5.5400E-01	3.3682E+01	2	4	168
159	18-Ar-34	0	18	0340	8.4500E-01	2.2890E+06	1.1050E+06	0.0000E+00	2.00	0.0	1.4633E+05	4.4600E-01	3.3688E+01	1	4	182
160	14-Si-35	0	14	0350	7.8000E-01	2.7000E+06	4.6800E+06	1.1000E+03	1.00	0.0	6.0618E+06	1.0000E+00	3.4684E+01	1	2	136
161	15-P-35	0	15	0350	4.7300E+01	1.0600E+06	1.5789E+06	0.0000E+00	1.00	0.0	1.0497E+07	1.0000E+00	3.4673E+01	1	2	146
162	16-S-35	0	16	0350	7.5610E+06	4.8630E+04	0.0000E+00	0.0000E+00	1.00	0.0	3.9884E+06	1.0000E+00	3.4669E+01	1	1	157
163	17-Cl-35	0	17	0350	stable						1.6732E+05	1.0000E+00	3.4969E+01	0	0	169
164	18-Ar-35	0	18	0350	1.7750E+00	2.2655E+06	1.0495E+06	0.0000E+00	2.00	0.0	5.9661E+06	1.0000E+00	3.4675E+01	1	4	183
165	19-K-35	0	19	0350	1.9000E-01	3.6000E+06	4.2700E+06	1.0400E+05	2.00	0.0	1.1874E+07	9.9630E-01	3.4687E+01	3	4	196
166	14-Si-36	0	14	0360	4.5000E-01	3.1000E+06	1.6700E+06	8.6000E+04	1.00	0.0	5.8319E+06	2.3000E-03	3.5678E+01	2	2	137
167	15-P-36	0	15	0360	5.6000E+00	1.8700E+06	5.9000E+06	0.0000E+00	1.00	0.0	7.8577E+06	9.0000E-01	3.5669E+01	1	2	147
168	16-S-36	0	16	0360	stable						1.50	0.0	3.5967E+01	0	0	158
169	17-Cl-36	0	17	0360	9.5000E+12	2.4660E+05	1.4600E+02	0.0000E+00	1.00	0.0	4.3932E+06	1.0000E-01	3.5659E+01	2	4	170
170	18-Ar-36	0	18	0360	stable						2.00	0.0	3.5968E+01	0	0	184
171	19-K-36	0	19	0360	3.4200E-01	3.5000E+06	5.4800E+06	3.9000E+05	2.00	0.0	1.1421E+06	1.9000E-02	3.5672E+01	3	4	197
172	20-Ca-36	0	20	0360	1.0200E-01	3.3200E+06	1.6700E+06	9.4000E+04	2.00	0.0	1.2814E+07	9.9949E-01	3.5684E+01	2	4	213
173	16-S-37	0	16	0370	3.0300E+02	8.0000E+05	2.9310E+06	0.0000E+00	1.00	0.0	4.3075E+06	4.8000E-04	3.6653E+01	1	2	159
174	17-Cl-37	0	17	0370	stable						2.70	0.0	3.6966E+01	0	0	171
175	18-Ar-37	0	18	0370	3.0270E+06	1.9350E+03	2.3500E+02	0.0000E+00	2.00	0.0	6.1640E+06	3.1000E-05	3.6649E+01	1	3	185
176	19-K-37	0	19	0370	1.2260E+00	2.3470E+06	1.0720E+06	0.0000E+00	2.00	0.0	1.0966E+07	4.8800E-01	3.6656E+01	1	4	198
177	20-Ca-37	0	20	0370	1.8110E-01	3.2500E+06	1.2800E+06	9.0000E+04	2.00	0.0	1.1664E+07	1.7900E-01	3.6668E+01	2	3	214
178	15-P-38	0	15	0380	6.4000E-01	2.0000E+06	2.5100E+06	5.0000E+04	1.00	0.0	9.8065E+06	8.2100E-01	3.7658E+01	2	2	148
179	16-S-38	0	16	0380	1.0220E+04	4.9000E+05	1.7000E+06	0.0000E+00	1.00	0.0	1.2192E+07	9.0000E-01	3.7645E+01	1	2	160
180	17-Cl-38	0	17	0380	2.2338E+03	1.5200E+06	1.5110E+06	0.0000E+00	1.00	0.0	4.1555E+06	1.0000E-01	3.7642E+01	1	2	172
181	17-Cl-38	1	17	0381	7.1500E-01	0.0000E+00	6.7102E+05	0.0000E+00	3.00	0.0	4.9167E+06	1.0000E+00	3.7642E+01	1	1	173
182	18-Ar-38	0	18	0380	stable						6.7136E+05	1.0000E+00	3.7963E+01	0	0	186
183	19-K-38	0	19	0380	4.5820E+02	1.2057E+06	3.1874E+06	0.0000E+00	2.00	0.0	9.8065E+06	1.0000E+00	3.7643E+01	1	4	199
184	19-K-38	1	19	0381	9.2400E-01	2.3212E+06	1.0210E+06	0.0000E+00	2.00	0.0	6.0445E+06	1.0000E+00	3.7643E+01	1	3	200
185	20-Ca-38	0	20	0380	4.4000E-01	2.4290E+06	1.3680E+06	0.0000E+00	2.00	0.0	6.7422E+06	6.0000E-04	3.7650E+01	2	4	215
186	16-S-39	0	16	0390	1.1500E+01	2.1900E+06	1.7800E+06	0.0000E+00	1.00	0.0	6.6118E+06	9.9940E-01	3.8640E+01	1	2	161

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
187	17-C1-	39	0	170390	3.3360E+03	8.3000E+05	1.4500E+06	0.0000E+00	1.00	0.0	3.4420E+06	1.0000E+00	3.8633E+01	1	2	174
188	18-Ar-	39	0	180390	8.4900E+09	2.1880E+05	0.0000E+00	0.0000E+00	1.00	0.0	5.6500E+05	1.0000E+00	3.8630E+01	1	1	187
189	19-K-	39	0	190390	stable								3.8964E+01	0	0	201
190	20-Ca-	39	0	200390	8.5960E-01	2.5603E+06	1.0213E+06	0.0000E+00	2.00	0.0	6.5245E+06	1.0000E+00	3.8636E+01	1	4	216
191	15-P-	40	0	150400	1.5300E-01	4.1000E+06	3.0400E+06	1.0300E+05	1.00	0.0	1.4763E+07	8.4200E-01	3.9647E+01	2	2	149
192	16-S-	40	0	160400	8.8000E+00	1.4400E+06	1.4700E+06	0.0000E+00	1.00	0.0	7.0166E+06	1.5800E-01	3.9632E+01	1	2	162
193	17-Cl-	40	0	170400	8.1000E+01	1.5200E+06	4.0800E+06	0.0000E+00	1.00	0.0	4.7200E+06	1.0000E+00	3.9627E+01	1	2	175
194	18-Ar-	40	0	180400	stable								3.9963E+01	0	0	188
195	19-K-	40	0	190400	3.9380E+16	4.9950E+05	1.5600E+05	0.0000E+00	1.00	0.0	1.3109E+06	8.9140E-01	3.9621E+01	2	5	202
196	20-Ca-	40	0	200400	stable								3.9963E+01	0	0	217
197	21-Sc-	40	0	210400	1.8230E-01	3.3000E+06	7.1000E+06	3.4000E+05	2.00	0.0	1.4323E+07	9.9543E-01	3.9634E+01	3	4	230
198	22-Ti-	40	0	220400	5.3300E-02	3.5800E+06	1.0680E+06	9.1300E+04	2.00	0.0	1.1673E+07	2.0000E-02	3.9647E+01	2	3	249
199	18-Ar-	41	0	180410	6.5766E+03	4.6390E+05	1.2839E+06	0.0000E+00	1.00	0.0	2.4920E+06	1.0000E+00	4.0613E+01	1	2	189
200	19-K-	41	0	190410	stable								4.0962E+01	0	0	203
201	20-Ca-	41	0	200410	3.2200E+12	2.2734E+03	4.2840E+02	0.0000E+00	2.00	0.0	4.2166E+05	1.0000E+00	4.0610E+01	1	3	218
202	21-Sc-	41	0	210410	5.9630E-01	2.5413E+06	1.0220E+06	0.0000E+00	2.00	0.0	6.4955E+06	1.0000E+00	4.0617E+01	1	4	231
203	22-Ti-	41	0	220410	8.0400E-02	3.3400E+06	1.0300E+06	8.3200E+04	2.70	0.0	1.1860E+07	1.0000E+00	4.0631E+01	1	3	250
204	16-S-	42	0	160420	1.0130E+00	2.5700E+06	1.8480E+06	0.0000E+00	1.00	0.0	7.2752E+06	1.0000E+00	4.1621E+01	1	2	163
205	17-Cl-	42	0	170420	6.9000E+00	3.0700E+06	2.8800E+06	0.0000E+00	1.00	0.0	9.5097E+06	1.0000E+00	4.1613E+01	1	2	176
206	18-Ar-	42	0	180420	1.0400E+09	2.3300E+05	0.0000E+00	0.0000E+00	1.00	0.0	5.9935E+05	1.0000E+00	4.1603E+01	1	1	190
207	19-K-	42	0	190420	4.4500E+04	1.4305E+06	2.7870E+05	0.0000E+00	1.00	0.0	3.5252E+06	1.0000E+00	4.1602E+01	1	2	204
208	20-Ca-	42	0	200420	stable								4.1958E+01	0	0	219
209	21-Sc-	42	0	210420	6.8080E-01	2.5077E+06	1.0211E+06	0.0000E+00	2.00	0.0	6.4261E+06	1.0000E+00	4.1605E+01	1	4	232
210	21-Sc-	42	1	210421	6.2000E+01	1.2556E+06	4.2040E+06	0.0000E+00	2.00	0.0	7.0424E+06	1.0000E+00	4.1605E+01	1	4	233
211	22-Ti-	42	0	220420	1.9900E-01	2.6000E+06	1.3800E+06	0.0000E+00	2.00	0.0	7.0165E+06	1.0000E+00	4.1612E+01	1	4	251
212	17-Cl-	43	0	170430	3.0700E+00	2.8300E+06	2.3300E+06	0.0000E+00	1.00	0.0	7.6872E+06	1.0000E+00	4.2605E+01	1	2	177
213	18-Ar-	43	0	180430	3.2200E+02	1.3800E+06	1.5400E+06	0.0000E+00	1.00	0.0	4.5656E+06	1.0000E+00	4.2597E+01	1	2	191
214	19-K-	43	0	190430	8.0300E+04	3.1000E+05	9.6400E+05	0.0000E+00	1.00	0.0	1.8334E+06	1.0000E+00	4.2592E+01	1	2	205
215	20-Ca-	43	0	200430	stable								4.2959E+01	0	0	220
216	21-Sc-	43	0	210430	1.4010E+04	4.2000E+05	9.8500E+05	0.0000E+00	2.00	0.0	2.2207E+06	1.0000E+00	4.2592E+01	1	4	234
217	22-Ti-	43	0	220430	5.0900E-01	2.6400E+06	1.2020E+06	0.0000E+00	2.00	0.0	6.8670E+06	1.0000E+00	4.2599E+01	1	4	252
218	18-Ar-	44	0	180440	7.1200E+02	4.6100E+05	1.9400E+06	0.0000E+00	1.00	0.0	3.1082E+06	1.0000E+00	4.3588E+01	1	2	192
219	19-K-	44	0	190440	1.3280E+03	1.5000E+06	2.3800E+06	0.0000E+00	1.00	0.0	5.6872E+06	1.0000E+00	4.3584E+01	1	2	206
220	20-Ca-	44	0	200440	stable								4.3955E+01	0	0	221
221	21-Sc-	44	0	210440	1.4290E+04	5.9600E+05	2.1360E+06	0.0000E+00	2.00	0.0	3.6527E+06	1.0000E+00	4.3582E+01	1	4	235
222	21-Sc-	44	1	210441	2.1100E+05	3.2800E+04	2.7450E+05	0.0000E+00	2.00	0.0	3.9239E+06	1.2000E-02	4.3582E+01	2	4	236
223	22-Ti-	44	0	220440	1.8900E+09	1.0570E+04	1.3960E+05	0.0000E+00	2.00	0.0	2.7090E+05	9.8800E-01	4.3582E+01	1	4	253
224	23-V-	44	0	230440	1.1100E-01	4.3000E+06	4.7000E+06	1.6000E+03	2.00	0.0	2.6741E+05	1.0000E+00	4.3597E+01	1	4	266
225	23-V-	44	1	230441	1.5000E-01	3.7000E+06	5.8900E+06	1.3200E+03	2.00	0.0	1.3700E+07	1.0000E+00	4.3597E+01	1	4	267
226	17-Cl-	45	0	170450	4.1000E-01	4.2000E+06	2.9900E+06	9.4000E+04	1.00	0.0	1.1411E+07	7.6000E-01	4.4593E+01	2	4	178
227	18-Ar-	45	0	180450	2.1480E+01	1.9000E+06	2.9500E+06	0.0000E+00	1.00	0.0	6.8448E+06	1.0000E+00	4.4582E+01	1	4	193
228	19-K-	45	0	190450	1.0700E+03	9.8000E+05	1.8400E+06	0.0000E+00	1.00	0.0	4.1965E+06	1.0000E+00	4.4575E+01	1	4	207
229	20-Ca-	45	0	200450	1.4050E+07	7.6900E+04	1.1940E-02	0.0000E+00	1.00	0.0	2.5902E+05	1.0000E+00	4.4570E+01	1	2	222

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
230	21-Sc-	45	0	210450	stable								4.4956E+01	0	0	237
231	21-Sc-	45	1	210451	3.1800E-01	9.7000E+03	6.3000E+02	0.0000E+00	3.00	0.0	1.2400E+04	1.0000E+00	4.4570E+01	1	3	238
232	22-Ti-	45	0	220450	1.1090E+04	3.7270E+05	8.7040E+05	0.0000E+00	2.00	0.0	2.0620E+06	9.9984E-01	4.4572E+01	2	4	254
233	23-V-	45	0	230450	5.4700E-01	2.8500E+06	1.0220E+06	0.0000E+00	2.00	0.0	2.0496E+06	1.6000E-04	4.4579E+01	1	4	268
234	18-Ar-	46	0	180460	8.4000E+00	1.7300E+06	1.9570E+06	0.0000E+00	2.00	0.0	7.1286E+06	1.0000E+00	4.5573E+01	1	2	194
235	19-K-	46	0	190460	1.0500E+02	2.3210E+06	2.8700E+06	0.0000E+00	1.00	0.0	5.6832E+06	1.0000E+00	4.5567E+01	1	2	208
236	20-Ca-	46	0	200460	stable								4.5954E+01	0	0	223
237	21-Sc-	46	0	210460	7.2390E+06	1.1180E+05	2.0095E+06	0.0000E+00	1.00	0.0	2.3665E+06	1.0000E+00	4.5560E+01	1	2	239
238	21-Sc-	46	1	210461	1.8750E+01	5.3700E+04	8.9000E+04	0.0000E+00	3.00	0.0	1.4253E+05	1.0000E+00	4.5560E+01	1	3	240
239	22-Ti-	46	0	220460	stable								4.5953E+01	0	0	255
240	23-V-	46	0	230460	4.2250E-01	2.8143E+06	1.0216E+06	0.0000E+00	2.00	0.0	7.0524E+06	1.0000E+00	4.5565E+01	1	4	269
241	23-V-	46	1	230461	1.0200E-03	0.0000E+00	8.0110E+05	0.0000E+00	3.00	0.0	8.0110E+05	1.0000E+00	4.5565E+01	1	4	270
242	24-Cr-	46	0	240460	2.6000E-01	3.0890E+06	1.0220E+06	0.0000E+00	2.00	0.0	7.6011E+06	1.0000E+00	4.5574E+01	1	3	282
243	18-Ar-	47	0	180470	1.2300E+00	3.5000E+06	2.2900E+06	0.0000E+00	1.00	0.0	1.0501E+07	1.0000E+00	4.6569E+01	1	4	195
244	19-K-	47	0	190470	1.7500E+01	1.8100E+06	2.6240E+06	0.0000E+00	1.00	0.0	6.6315E+06	1.0000E+00	4.6558E+01	1	4	209
245	20-Ca-	47	0	200470	3.9190E+05	4.0000E+05	9.5000E+05	0.0000E+00	1.00	0.0	1.9922E+06	1.0000E+00	4.6551E+01	1	4	224
246	21-Sc-	47	0	210470	2.8937E+05	1.6240E+05	1.0890E+05	0.0000E+00	1.00	0.0	6.0077E+05	1.0000E+00	4.6549E+01	1	4	241
247	22-Ti-	47	0	220470	stable								4.6952E+01	0	0	256
248	23-V-	47	0	230470	1.9560E+03	8.0310E+05	9.9500E+05	0.0000E+00	2.00	0.0	2.9306E+06	1.0000E+00	4.6551E+01	1	4	271
249	24-Cr-	47	0	240470	5.0000E-01	3.0100E+06	1.0250E+06	0.0000E+00	2.00	0.0	7.4449E+06	1.0000E+00	4.6560E+01	1	4	283
250	19-K-	48	0	190480	6.8000E+00	2.6600E+06	6.5000E+06	0.0000E+00	1.00	0.0	1.1940E+07	1.0000E+00	4.7554E+01	1	4	210
251	20-Ca-	48	0	200480	6.0000E+26	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	2.7866E+05	2.5000E-01	4.7953E+01	2	4	225
252	21-Sc-	48	0	210480	1.5720E+05	2.2080E+05	3.3530E+06	0.0000E+00	1.00	0.0	4.2670E+06	7.5000E-01	4.7540E+01	1	4	242
253	22-Ti-	48	0	220480	stable								4.7948E+01	0	0	257
254	23-V-	48	0	230480	1.3801E+06	4.3670E+05	2.9190E+06	0.0000E+00	2.00	0.0	4.0150E+06	1.0000E+00	4.7540E+01	1	4	272
255	24-Cr-	48	0	240480	7.7620E+04	8.3000E+03	4.3400E+05	0.0000E+00	2.00	0.0	1.6551E+06	1.0000E+00	4.7542E+01	1	4	284
256	25-Mn-	48	0	250480	1.5810E-01	3.1200E+06	5.7500E+06	6.6000E+04	2.00	0.0	1.3498E+07	7.2000E-01	4.7557E+01	2	4	300
257	19-K-	49	0	190490	1.2600E+00	2.4700E+06	3.5000E+06	5.1000E+04	1.00	0.0	5.3934E+06	2.8000E-01	4.8547E+01	2	3	211
258	20-Ca-	49	0	200490	5.2310E+02	8.6360E+05	3.1786E+06	0.0000E+00	1.00	0.0	1.1688E+07	1.4000E-01	4.8535E+01	1	2	226
259	21-Sc-	49	0	210490	3.4310E+03	8.2370E+05	1.0400E+03	0.0000E+00	1.00	0.0	5.2612E+06	1.0000E+00	4.8529E+01	1	2	243
260	22-Ti-	49	0	220490	stable								4.8948E+01	0	0	258
261	23-V-	49	0	230490	2.8500E+07	3.3860E+03	9.2270E+02	0.0000E+00	2.00	0.0	6.0186E+05	1.0000E+00	4.8528E+01	1	3	273
262	24-Cr-	49	0	240490	2.5380E+03	9.7500E+05	1.0550E+06	0.0000E+00	2.00	0.0	2.6283E+06	1.0000E+00	4.8531E+01	1	4	285
263	25-Mn-	49	0	250490	3.8200E-01	3.1000E+06	1.0900E+06	0.0000E+00	2.00	0.0	7.6960E+06	1.0000E+00	4.8539E+01	1	4	301
264	19-K-	50	0	190500	4.7200E-01	5.3900E+06	4.7300E+05	1.1000E+05	1.00	0.0	1.3861E+07	7.1000E-01	4.9543E+01	2	3	212
265	20-Ca-	50	0	200500	1.3900E+01	1.3470E+06	1.5690E+06	0.0000E+00	1.00	0.0	7.5007E+06	2.9000E-01	4.9528E+01	2	3	227
266	21-Sc-	50	0	210500	1.0250E+02	1.6400E+06	3.1980E+06	0.0000E+00	1.00	0.0	4.7014E+06	9.9000E-01	4.9523E+01	1	2	244
267	21-Sc-	50	1	210501	3.5000E-01	6.3850E+04	2.8932E+05	0.0000E+00	1.00	0.0	7.1401E+06	2.5000E-02	4.9523E+01	2	2	245
268	22-Ti-	50	0	220500	stable								4.9945E+01	0	0	259
269	23-V-	50	0	230500	4.4000E+24	1.5700E+04	1.4200E+06	0.0000E+00	1.00	0.0	1.0378E+06	1.7000E-01	4.9518E+01	2	5	274
270	24-Cr-	50	0	240500	4.1000E+25	0.0000E+00	0.0000E+00	0.0000E+00	2.20	0.0	2.2068E+06	8.3000E-01	4.9946E+01	1	0	286
271	25-Mn-	50	0	250500	2.8390E-01	9.3002E+06	1.0210E+06	1.5260E+03	2.00	0.0	7.6345E+06	1.0000E+00	4.9525E+01	1	2	302

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
272	25-Mn	50	1	250501	1.0500E+02	1.6200E+06	4.6600E+06	0.0000E+00	2.00	0.0	7.8598E+06	1.0000E+00	4.9525E+01	1	4	303
273	26-Fe	50	0	260500	1.5000E-01	2.5000E+06	7.5000E+05	0.0000E+00	2.00	0.0	8.1386E+06	1.0000E+00	4.9534E+01	1	3	329
274	20-Ca	51	0	200510	1.0000E+01	2.1800E+06	2.7422E+06	0.0000E+00	1.00	0.0	6.8903E+06	1.0000E+00	5.0524E+01	1	2	228
275	21-Sc	51	0	210510	1.2400E+01	1.8400E+06	2.3500E+06	0.0000E+00	1.00	0.0	6.5030E+06	1.0000E+00	5.0516E+01	1	2	246
276	22-Ti	51	0	220510	3.4560E+02	8.6900E+05	3.6900E+05	0.0000E+00	1.00	0.0	4.7318E+06	1.0000E+00	5.0509E+01	1	4	260
277	23-V	51	0	230510	stable								5.0944E+01	0	0	275
278	24-Cr	51	0	240510	2.3934E+06	3.6440E+03	3.2870E+04	0.0000E+00	2.00	0.0	7.5263E+05	1.0000E+00	5.0507E+01	1	4	287
279	25-Mn	51	0	250510	2.7720E+03	9.3480E+05	9.9770E+05	0.0000E+00	2.00	0.0	3.2076E+06	1.0000E+00	5.0511E+01	1	4	304
280	26-Fe	51	0	260510	3.0500E-01	3.2700E+06	1.0620E+06	0.0000E+00	2.00	0.0	8.0412E+06	1.0000E+00	5.0519E+01	1	4	330
281	20-Ca	52	0	200520	4.6000E+00	2.8700E+06	1.8000E+06	0.0000E+00	1.00	0.0	5.9033E+06	1.0000E+00	5.1519E+01	1	2	229
282	21-Sc	52	0	210520	8.2000E+00	2.8600E+06	2.8900E+06	0.0000E+00	1.00	0.0	9.3023E+06	1.0000E+00	5.1510E+01	1	2	247
283	22-Ti	52	0	220520	1.0200E+02	7.4200E+05	1.2750E+05	0.0000E+00	1.00	0.0	1.9748E+06	1.0000E+00	5.1501E+01	1	2	261
284	23-V	52	0	230520	2.2460E+02	1.0686E+06	1.4450E+06	0.0000E+00	1.00	0.0	3.9745E+06	1.0000E+00	5.1499E+01	1	2	276
285	24-Cr	52	0	240520	stable								5.1940E+01	0	0	288
286	25-Mn	52	0	250520	4.8310E+05	7.4300E+04	3.4580E+06	0.0000E+00	2.00	0.0	4.7112E+06	1.0000E+00	5.1499E+01	1	4	305
287	25-Mn	52	1	250521	1.2660E+03	1.1140E+06	2.3930E+06	0.0000E+00	2.00	0.0	5.0890E+06	9.8250E-01	5.1499E+01	2	4	306
288	26-Fe	52	0	260520	2.9790E+04	1.9200E+05	7.4100E+05	0.0000E+00	2.00	1.0	1.9968E+06	1.0000E+00	5.1502E+01	1	4	331
289	26-Fe	52	1	260521	4.5900E+01	1.9800E+06	4.8900E+06	0.0000E+00	2.00	0.0	9.3326E+06	1.0000E+00	5.1502E+01	1	4	332
290	27-Co	52	0	270520	1.1500E-01	3.6600E+06	4.6600E+06	1.1400E+03	2.00	0.0	1.4342E+07	1.0000E+00	5.1517E+01	1	4	359
291	22-Ti	53	0	220530	3.2700E+01	1.4100E+06	1.9600E+06	0.0000E+00	1.00	0.0	5.0200E+06	1.0000E+00	5.2495E+01	1	2	262
292	23-V	53	0	230530	9.2600E+01	1.0090E+06	1.0382E+06	0.0000E+00	1.00	0.0	3.4359E+06	1.0000E+00	5.2489E+01	1	2	277
293	24-Cr	53	0	240530	stable								5.2941E+01	0	0	289
294	25-Mn	53	0	250530	1.1700E+14	3.7950E+03	1.4124E+03	0.0000E+00	2.00	0.0	5.9685E+05	1.0000E+00	5.2486E+01	1	3	307
295	26-Fe	53	0	260530	5.1060E+02	1.1000E+06	1.1800E+06	0.0000E+00	2.00	0.0	3.7423E+06	1.0000E+00	5.2491E+01	1	4	333
296	26-Fe	53	1	260531	1.5240E+02	0.0000E+02	3.0500E+06	0.0000E+00	3.00	0.0	3.0408E+06	1.0000E+00	5.2491E+01	1	1	334
297	27-Co	53	0	270530	2.4000E-01	3.4000E+06	1.1000E+06	0.0000E+00	2.00	0.0	8.2881E+06	1.0000E+00	5.2499E+01	1	4	360
298	27-Co	53	1	270531	2.4700E-01	3.4510E+06	1.0060E+06	0.0000E+00	2.00	1.0	8.4447E+06	9.8500E-01	5.2499E+01	2	3	361
299	21-Sc	54	0	210540	2.9000E-01	4.5000E+06	1.8000E+06	1.0300E+03	1.00	0.0	1.1998E+07	1.0000E+00	5.3499E+01	1	2	248
300	22-Ti	54	0	220540	1.5000E+00	1.3000E+06	8.1000E+05	0.0000E+00	1.00	0.0	4.2950E+06	1.0000E+00	5.3487E+01	1	4	263
301	23-V	54	0	230540	4.9800E+01	1.4700E+06	4.8400E+06	0.0000E+00	1.00	0.0	7.0416E+06	1.0000E+00	5.3483E+01	1	2	278
302	24-Cr	54	0	240540	stable								5.3939E+01	0	0	290
303	25-Mn	54	0	250540	2.6961E+07	3.9810E+03	8.3606E+05	0.0000E+00	1.00	0.0	6.9734E+05	9.3000E-07	5.3477E+01	2	4	308
304	26-Fe	54	0	260540	stable								5.3939E+01	0	0	335
305	27-Co	54	0	270540	1.9330E-01	3.3997E+06	1.0210E+06	0.0000E+00	2.00	0.0	8.2446E+06	1.0000E+00	5.3485E+01	1	4	362
306	27-Co	54	1	270541	8.8800E+01	2.0472E+06	3.9300E+06	0.0000E+00	2.00	0.0	8.4416E+06	1.0000E+00	5.3485E+01	1	4	363
307	22-Ti	55	0	220550	1.3000E+00	3.1000E+06	8.9000E+05	0.0000E+00	1.00	0.0	7.4761E+06	1.0000E+00	5.4483E+01	1	2	264
308	23-V	55	0	230550	6.5400E+00	2.3850E+06	6.8900E+05	0.0000E+00	1.00	0.0	5.9650E+06	1.0000E+00	5.4475E+01	1	2	279
309	24-Cr	55	0	240550	2.0982E+02	1.1010E+06	6.7000E+02	0.0000E+00	1.00	0.0	2.6031E+06	1.0000E+00	5.4469E+01	1	2	291
310	25-Mn	55	0	250550	stable								5.4938E+01	0	0	309
311	26-Fe	55	0	260550	8.6600E+07	3.9700E+03	1.7020E+03	0.0000E+00	2.00	0.0	2.3109E+05	1.0000E+00	5.4466E+01	1	3	364
312	27-Co	55	0	270550	6.3110E+04	4.3200E+06	2.0000E+06	0.0000E+00	2.00	0.0	3.4514E+06	1.0000E+00	5.4470E+01	1	4	364
313	28-Ni	55	0	280550	2.0500E-01	3.6210E+06	1.0210E+06	0.0000E+00	2.00	0.0	8.6940E+06	1.0000E+00	5.4479E+01	1	3	393
314	24-Cr	56	0	240560	3.5600E+02	6.0700E+05	9.1700E+04	0.0000E+00	1.00	0.0	1.6296E+06	1.0000E+00	5.5460E+01	1	4	292
315	25-Mn	56	0	250560	9.2840E+03	8.3100E+05	1.6920E+06	0.0000E+00	1.00	0.0	3.6956E+06	1.0000E+00	5.5458E+01	1	2	310
316	26-Fe	56	0	260560	stable								5.5935E+01	0	0	337
317	27-Co	56	0	270560	6.6729E+06	1.2000E+05	3.6400E+06	0.0000E+00	2.00	0.0	4.5666E+06	1.0000E+00	5.5459E+01	1	4	365
318	28-Ni	56	0	280560	5.2490E+05	1.7000E+06	1.7210E+06	0.0000E+00	2.00	0.0	2.1329E+06	1.0000E+00	5.5462E+01	1	4	394

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
319	22-Ti-	57	0	220570	9.8000E-02	4.6000E+06	8.8000E+05	0.0000E+00	1.00	0.0	1.0361E+07	1.0000E+00	5.6473E+01	1	2	265
320	23-V-	57	0	230570	3.5000E-01	3.6000E+06	4.2000E+05	0.0000E+00	1.00	0.0	8.2958E+06	1.0000E+00	5.6463E+01	1	2	280
321	24-Cr-	57	0	240570	2.1100E+01	1.9000E+06	4.6000E+05	0.0000E+00	1.00	0.0	4.9620E+06	1.0000E+00	5.6455E+01	1	4	293
322	25-Mn-	57	0	250570	8.5400E+01	1.1000E+06	1.0000E+05	0.0000E+00	1.00	0.0	2.6950E+06	1.0000E+00	5.6449E+01	1	4	311
323	26-Fe-	57	0	260570	stable								5.6936E+01	0	0	338
324	27-Co-	57	0	270570	2.3478E+07	1.7800E+04	1.2530E+05	0.0000E+00	2.00	0.0	8.3623E+05	1.0000E+00	5.6447E+01	1	4	366
325	28-Ni-	57	0	280570	1.2816E+05	3.1000E+05	1.9400E+06	0.0000E+00	2.00	0.0	3.2617E+06	1.0000E+00	5.6451E+01	1	4	395
326	29-Cu-	57	0	290570	1.9630E-01	3.6000E+06	1.1400E+06	0.0000E+00	2.00	0.0	8.7750E+06	1.0000E+00	5.6460E+01	1	4	422
327	24-Cr-	58	0	240580	7.0000E+00	1.9600E+06	5.5500E+05	0.0000E+00	1.00	0.0	3.9928E+06	1.0000E+00	5.7446E+01	1	2	294
328	25-Mn-	58	0	250580	3.0000E+00	2.8120E+06	5.6880E+04	0.0000E+00	1.00	0.0	6.5269E+06	1.0000E+00	5.7442E+01	1	2	312
329	25-Mn-	58	1	250581	6.5400E+01	1.7500E+06	2.3600E+06	0.0000E+00	1.00	0.0	6.3987E+06	6.7000E-01	5.7442E+01	2	2	313
330	26-Fe-	58	0	260580	stable				3.00	0.0	7.1780E+04	3.3000E-01		0	0	339
331	27-Co-	58	0	270580	6.1220E+06	3.3700E+04	9.7490E+05	0.0000E+00	2.00	0.0	2.3079E+06	1.0000E+00	5.7438E+01	1	4	367
332	27-Co-	58	1	270581	3.2800E+04	2.2700E+04	2.0100E+03	0.0000E+00	3.00	0.0	2.4890E+04	1.0000E+00	5.7438E+01	1	3	368
333	28-Ni-	58	0	280580	stable								5.7935E+01	0	0	396
334	29-Cu-	58	0	290580	3.2040E+00	3.2900E+06	1.5720E+06	0.0000E+00	2.00	0.0	8.5610E+06	1.0000E+00	5.7447E+01	1	4	423
335	30-Zn-	58	0	300580	8.6000E-02	3.8000E+06	1.2700E+06	0.0000E+00	2.00	0.0	9.3690E+06	1.0000E+00	5.7457E+01	1	4	454
336	25-Mn-	59	0	250590	4.5900E+00	2.0600E+06	5.4000E+05	0.0000E+00	1.00	0.0	5.1388E+06	1.0000E+00	5.8434E+01	1	4	314
337	26-Fe-	59	0	260590	3.8444E+06	1.1780E+05	1.1900E+06	0.0000E+00	1.00	0.0	1.5650E+06	1.0000E+00	5.8429E+01	1	4	340
338	27-Co-	59	0	270590	stable								5.8933E+01	0	0	369
339	28-Ni-	59	0	280590	2.4000E+12	4.3020E+03	2.4240E+03	0.0000E+00	2.00	0.0	1.0730E+06	1.0000E+00	5.8428E+01	1	3	397
340	29-Cu-	59	0	290590	8.1500E+01	1.4880E+06	1.4440E+06	0.0000E+00	2.00	0.0	4.7984E+06	1.0000E+00	5.8433E+01	1	4	424
341	30-Zn-	59	0	300590	1.8200E-01	3.8000E+06	1.0600E+06	6.5400E+04	2.00	0.0	9.1428E+06	9.9900E-01	5.8443E+01	2	4	455
342	25-Mn-	60	0	250600	2.8000E-01	3.7400E+06	2.0400E+05	0.0000E+00	1.00	0.0	8.4444E+06	1.0000E+00	5.9428E+01	1	4	315
343	25-Mn-	60	1	250601	1.7700E+00	2.3100E+06	2.8100E+06	0.0000E+00	1.00	0.0	8.7162E+06	8.8500E-01	5.9428E+01	2	4	316
344	26-Fe-	60	0	260600	4.7000E+13	5.1100E+04	0.0000E+00	0.0000E+00	1.00	1.0	1.7876E+05	1.0000E+00	5.9419E+01	1	1	341
345	27-Co-	60	0	270600	1.6634E+08	9.6740E+04	2.5038E+06	0.0000E+00	1.00	0.0	2.8228E+06	1.0000E+00	5.9419E+01	1	4	370
346	27-Co-	60	1	270601	6.2800E+02	5.3630E+04	6.6000E+03	0.0000E+00	1.00	0.0	2.8814E+06	2.4000E-03	5.9419E+01	2	4	371
347	28-Ni-	60	0	280600	stable								5.9931E+01	0	0	398
348	29-Cu-	60	0	290600	1.4220E+03	9.0000E+05	3.9100E+06	0.0000E+00	2.00	0.0	6.1280E+06	1.0000E+00	5.9423E+01	1	4	425
349	30-Zn-	60	0	300600	1.4300E+02	1.1200E+06	1.5200E+06	0.0000E+00	2.00	0.0	4.1708E+06	1.0000E+00	5.9427E+01	1	4	456
350	31-Ga-	60	0	310600	7.0000E-02	4.6000E+06	4.5000E+06	1.3000E+03	2.00	0.0	1.4390E+07	1.0000E+00	5.9442E+01	1	4	488
351	25-Mn-	61	0	250610	6.7000E-01	3.2600E+06	1.3000E+05	0.0000E+00	1.00	0.0	7.1784E+06	1.0000E+00	6.0421E+01	1	2	317
352	26-Fe-	61	0	260610	3.5900E+02	1.2000E+06	1.3900E+06	0.0000E+00	1.00	0.0	3.9771E+06	1.0000E+00	6.0413E+01	1	2	342
353	27-Co-	61	0	270610	5.9400E+03	4.6640E+05	9.7000E+04	0.0000E+00	1.00	0.0	1.3237E+06	1.0000E+00	6.0409E+01	1	4	372
354	28-Ni-	61	0	280610	stable								6.0931E+01	0	0	399
355	29-Cu-	61	0	290610	1.1999E+04	3.1000E+05	8.2000E+05	0.0000E+00	2.00	0.0	2.2375E+06	1.0000E+00	6.0410E+01	1	4	426
356	30-Zn-	61	0	300610	8.9100E+01	1.8600E+06	1.5280E+06	0.0000E+00	2.00	0.0	5.6351E+06	1.0000E+00	6.0416E+01	1	4	457
357	30-Zn-	61	1	300611	1.4000E-01	6.0000E+03	4.1400E+05	0.0000E+00	3.00	0.0	4.1810E+05	1.0000E+00	6.0416E+01	1	3	458
358	31-Ga-	61	0	310610	1.5000E-01	3.9000E+06	1.0500E+06	0.0000E+00	2.00	0.0	9.2142E+06	9.7000E-01	6.0426E+01	2	4	489
359	25-Mn-	62	0	250620	8.8000E-01	3.8000E+06	2.1000E+06	0.0000E+00	1.00	1.0	8.7960E+06	3.0000E-02				
360	26-Fe-	62	0	260620	6.8000E+01	8.2400E+05	5.0610E+05	0.0000E+00	1.00	0.0	1.0397E+07	1.0000E+00	6.1416E+01	1	2	318
361	27-Co-	62	0	270620	9.0000E+01	1.6400E+06	1.6000E+06	0.0000E+00	1.00	0.0	5.3220E+06	1.0000E+00	6.1405E+01	1	2	343
362	27-Co-	62	1	270621	8.3500E+02	1.0620E+06	2.6920E+06	0.0000E+00	1.00	0.0	5.3440E+06	9.9000E-01	6.1402E+01	1	2	373
									3.00	0.0	2.2000E+04	1.0000E-02	6.1402E+01	2	4	374

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
363	28-Ni	62	0	280620	stable								6.1928E+01	0	0	400
364	29-Cu	62	0	290620	5.8040E+02	1.2806E+06	1.0030E+06	0.0000E+00	2.00	0.0	3.9589E+06	1.0000E+00	6.1401E+01	1	4	427
365	30-Zn	62	0	300620	3.3340E+04	3.2000E+04	4.4100E+05	0.0000E+00	2.00	0.0	1.6195E+06	1.0000E+00	6.1402E+01	1	4	459
366	31-Ga	62	0	310620	1.1610E-01	3.8550E+06	1.0210E+06	0.0000E+00	2.00	0.0	9.1811E+06	1.0000E+00	6.1412E+01	1	3	490
367	26-Fe	63	0	260630	6.1000E+00	2.9000E+00	2.8000E+05	0.0000E+00	1.00	0.0	6.2154E+06	1.0000E+00	6.2399E+01	1	2	344
368	27-Co	63	0	270630	2.7400E+01	1.5700E+06	1.4400E+05	0.0000E+00	1.00	0.0	3.6613E+06	1.0000E+00	6.2393E+01	1	4	375
369	28-Ni	63	0	280630	3.1900E+09	1.7425E+04	0.0000E+00	0.0000E+00	1.00	0.0	6.6977E+04	1.0000E+00	6.2389E+01	1	1	401
370	29-Cu	63	0	290630	stable								6.2930E+01	0	0	428
371	30-Zn	63	0	300630	2.3080E+03	9.2000E+05	1.0960E+06	0.0000E+00	2.00	0.0	3.3662E+06	1.0000E+00	6.2393E+01	1	4	460
372	31-Ga	63	0	310630	3.2400E+01	1.8900E+06	1.3700E+06	0.0000E+00	2.00	0.0	5.6660E+06	1.0000E+00	6.2398E+01	1	4	491
373	25-Mn	64	0	250640	9.0000E-02	3.7100E+06	7.9600E+05	0.0000E+00	1.00	0.0	1.1980E+07	1.0000E+00	6.3404E+01	1	2	319
374	25-Mn	64	1	250641	5.0000E-04	3.0000E+04	1.4800E+05	0.0000E+00	3.00	0.0	1.7500E+05	1.0000E+00	6.3404E+01	1	3	320
375	26-Fe	64	0	260640	2.0000E+00	2.2400E+06	4.6760E+04	0.0000E+00	1.00	0.0	4.8223E+06	1.0000E+00	6.3392E+01	1	2	345
376	27-Co	64	0	270640	3.0000E-01	3.3000E+06	1.8000E+05	0.0000E+00	1.00	0.0	7.3066E+06	1.0000E+00	6.3387E+01	1	2	376
377	28-Ni	64	0	280640	stable								6.3928E+01	0	0	402
378	29-Cu	64	0	290640	4.5724E+04	1.2430E+05	1.8750E+05	0.0000E+00	2.00	0.0	1.6744E+06	6.1500E-01	6.3381E+01	2	5	429
379	30-Zn	64	0	300640	stable								6.3929E+01	0	0	461
380	31-Ga	64	0	310640	1.5760E+02	1.7000E+06	3.3600E+06	0.0000E+00	2.00	0.0	7.1710E+06	1.0000E+00	6.3388E+01	1	4	492
381	32-Ge	64	0	320640	6.3700E+01	1.1200E+06	1.2000E+06	0.0000E+00	2.00	0.0	4.5173E+06	1.0000E+00	6.3392E+01	1	4	520
382	26-Fe	65	0	260650	8.1000E-01	3.0400E+06	1.7000E+06	0.0000E+00	1.00	0.0	7.9637E+06	1.0000E+00	6.4387E+01	1	2	346
383	26-Fe	65	1	260651	1.1200E+00	3.1000E+06	2.2500E+06	0.0000E+00	1.00	0.0	8.3657E+06	1.0000E+00	6.4387E+01	1	2	347
384	27-Co	65	0	270650	1.1600E+00	2.9200E+06	9.2000E+04	0.0000E+00	1.00	0.0	5.9400E+06	1.0000E+00	6.4379E+01	1	2	377
385	28-Ni	65	0	280650	9.0619E+03	6.2800E+05	5.5800E+05	0.0000E+00	1.00	0.0	2.1382E+06	1.0000E+00	6.4372E+01	1	4	403
386	29-Cu	65	0	290650	stable								6.4928E+01	0	0	430
387	30-Zn	65	0	300650	2.1076E+07	6.6310E+03	5.7600E+05	0.0000E+00	2.00	0.0	1.3517E+06	1.0000E+00	6.4371E+01	1	4	462
388	31-Ga	65	0	310650	9.1200E+02	8.2000E+05	1.1700E+06	0.0000E+00	2.00	0.0	3.2545E+06	1.0000E+00	6.4375E+01	1	4	493
389	32-Ge	65	0	320650	3.0900E+01	2.1200E+06	1.8300E+06	0.0000E+00	2.00	0.0	6.1791E+06	1.0000E+00	6.4382E+01	1	4	521
390	23-V	66	0	230660	9.9900E-03	5.4830E+06	4.7990E+06	0.0000E+00	1.00	0.0	1.8928E+07	1.0000E+00	6.5994E+01	1	2	281
391	24-Cr	66	0	240660	1.0000E-02	3.8630E+06	1.6930E+06	0.0000E+00	1.00	0.0	1.2215E+07	1.0000E+00	6.5973E+01	1	2	295
392	25-Mn	66	0	250660	6.6000E-02	4.7390E+06	4.6440E+06	0.0000E+00	1.00	0.0	1.3318E+07	1.0000E+00	6.5961E+01	1	2	321
393	26-Fe	66	0	260660	4.4000E-01	2.2670E+06	1.0470E+06	0.0000E+00	1.00	0.0	6.3407E+06	1.0000E+00	6.5946E+01	1	2	348
394	27-Co	66	0	270660	2.3300E-01	3.2200E+06	3.3730E+06	0.0000E+00	1.00	0.0	9.5978E+06	1.0000E+00	6.5373E+01	1	2	378
395	28-Ni	66	0	280660	1.9660E+05	7.3400E+04	0.0000E+00	0.0000E+00	1.00	0.0	2.5178E+05	1.0000E+00	6.5363E+01	1	1	404
396	29-Cu	66	0	290660	3.0720E+02	1.0667E+06	9.7800E+04	0.0000E+00	1.00	0.0	2.6410E+06	1.0000E+00	6.5363E+01	1	3	431
397	30-Zn	66	0	300660	stable								6.5926E+01	0	0	463
398	31-Ga	66	0	310660	3.4160E+04	1.0000E+06	2.4700E+06	0.0000E+00	2.00	0.0	5.1750E+06	1.0000E+00	6.5365E+01	1	4	494
399	32-Ge	66	0	320660	8.1400E+03	9.7000E+04	6.8300E+05	0.0000E+00	2.00	0.0	2.1170E+06	1.0000E+00	6.5367E+01	1	4	522
400	24-Cr	67	0	240670	3.1120E-02	4.9320E+06	3.1370E+06	0.0000E+00	1.00	0.0	1.4829E+07	1.0000E+00	6.6980E+01	1	2	296
401	25-Mn	67	0	250670	4.2000E-02	4.5310E+06	2.4530E+06	0.0000E+00	1.00	0.0	1.2758E+07	1.0000E+00	6.6964E+01	1	2	322
402	26-Fe	67	0	260670	4.7000E-01	3.7080E+06	1.8520E+06	0.0000E+00	1.00	0.0	9.2532E+06	1.0000E+00	6.6951E+01	1	2	349
403	27-Co	67	0	270670	4.2500E-01	3.0100E+06	1.2490E+06	0.0000E+00	1.00	0.0	8.4209E+06	9.8900E-01	6.6365E+01	2	2	379
404	28-Ni	67	0	280670	2.1000E+01	1.1492E+06	1.4341E+06	0.0000E+00	1.00	0.0	3.5761E+06	1.0000E+00	6.6357E+01	1	2	405
405	29-Cu	67	0	290670	2.2260E+05	1.5560E+05	1.1540E+05	0.0000E+00	1.00	0.0	5.6129E+05	1.0000E+00	6.6353E+01	1	4	432
406	30-Zn	67	0	300670	stable								6.6927E+01	0	0	464
407	31-Ga	67	0	310670	2.8181E+05	3.6000E+04	1.5880E+05	0.0000E+00	2.00	0.0	1.0012E+06	1.0000E+00	6.6353E+01	1	4	495
408	32-Ge	67	0	320670	1.1340E+03	1.1300E+06	1.4000E+06	0.0000E+00	2.00	0.0	4.2209E+06	1.0000E+00	6.6358E+01	1	4	523
409	33-As	67	0	330670	4.2500E+01	2.1000E+06	1.4600E+06	0.0000E+00	2.00	0.0	6.0708E+06	1.0000E+00	6.6364E+01	1	4	554
410	24-Cr	68	0	240680	1.7230E-02	4.3910E+06	2.0090E+06	0.0000E+00	1.00	0.0	1.3423E+07	1.0000E+00	6.7983E+01	1	2	297

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
411	25-Mn	68	0	250680	2.8000E-02	5.0720E+06	5.0500E+06	0.0000E+00	1.00	0.0	1.5527E+07	1.0000E+00	6.7969E+01	1	2	323
412	26-Fe	68	0	260680	1.3200E-01	2.7290E+06	1.2150E+06	0.0000E+00	1.00	1.0	8.1000E+06	1.0000E+00	6.7952E+01	1	2	350
413	27-Co	68	0	270680	1.9900E-01	3.8000E+06	3.4000E+06	0.0000E+00	1.00	0.0	1.1540E+07	9.7600E-01	6.7361E+01	2	4	380
414	27-Co	68	1	270681	1.6000E+00	3.1000E+06	3.5400E+06	0.0000E+00	1.00	0.0	3.7476E+06	2.4000E-02	6.7361E+01	1	2	381
415	28-Ni	68	0	280680	2.9000E+01	6.6370E+05	5.8190E+05	0.0000E+00	1.00	0.0	1.1540E+07	1.0000E+00	6.7932E+01	1	2	406
416	29-Cu	68	0	290680	3.1100E+01	1.4800E+06	1.0200E+06	0.0000E+00	1.00	0.0	2.1032E+06	1.0000E+00	6.7346E+01	1	4	433
417	29-Cu	68	1	290681	2.2500E+02	2.0300E+05	1.1600E+06	0.0000E+00	1.00	0.0	5.1611E+06	1.6000E-01	6.7346E+01	2	4	434
418	30-Zn	68	0	300680	stable			3.00	0.0	7.2160E+05	8.4000E-01	6.7925E+01	0	0	465	
419	31-Ga	68	0	310680	4.0630E+03	7.3990E+05	9.5100E+05	0.0000E+00	2.00	0.0	2.9211E+06	1.0000E+00	6.7344E+01	1	4	496
420	32-Ge	68	0	320680	2.3410E+07	4.6930E+03	4.2080E+03	0.0000E+00	2.00	0.0	1.0696E+05	1.0000E+00	6.7345E+01	1	3	524
421	33-As	68	0	330680	1.5160E+02	2.0200E+06	3.7200E+06	0.0000E+00	2.00	0.0	8.0843E+06	1.0000E+00	6.7353E+01	1	4	555
422	34-Se	68	0	340680	3.5500E+01	2.8000E+06	1.5300E+06	0.0000E+00	2.00	0.0	4.7051E+06	1.0000E+00	6.7358E+01	1	4	584
423	24-Cr	69	0	240690	1.1570E-02	5.1210E+06	3.8210E+06	0.0000E+00	1.00	0.0	1.4516E+07	1.0000E+00	6.8991E+01	1	2	298
424	25-Mn	69	0	250690	1.4000E-02	4.9840E+06	3.0700E+06	0.0000E+00	1.00	0.0	1.4522E+07	1.0000E+00	6.8973E+01	1	2	324
425	26-Fe	69	0	260690	1.7000E-01	4.0460E+06	2.2360E+06	0.0000E+00	1.00	0.0	1.1112E+07	1.0000E+00	6.8958E+01	1	2	351
426	27-Co	69	0	270690	2.1600E-01	3.5610E+06	1.6130E+06	0.0000E+00	1.00	0.0	9.8096E+06	2.9740E-01	6.8946E+01	3	2	382
427	28-Ni	69	0	280690	1.1400E+01	1.1700E+06	2.7900E+06	0.0000E+00	1.00	0.0	5.2234E+06	8.9380E-01	6.8343E+01	1	2	407
428	28-Ni	69	1	280691	3.5000E+00	2.3000E+06	1.2980E+06	0.0000E+00	1.00	0.0	5.7576E+06	1.0000E+00	6.8343E+01	1	2	408
429	29-Cu	69	0	290690	1.7100E+02	8.9000E+02	5.3000E+05	0.0000E+00	1.00	0.0	6.0786E+06	1.0000E+00	6.8337E+01	1	2	435
430	30-Zn	69	0	300690	3.3800E+03	3.2160E+05	4.0000E+00	0.0000E+00	1.00	0.0	9.1020E+05	1.0000E+00	6.8334E+01	1	2	466
431	30-Zn	69	1	300691	4.9540E+04	2.1900E+04	4.1590E+05	0.0000E+00	1.00	0.0	1.3488E+06	3.3000E-04	6.8334E+01	2	3	467
432	31-Ga	69	0	310690	stable			3.00	0.0	4.3864E+05	9.9967E-01	6.8925E+01	0	0	497	
433	32-Ge	69	0	320690	1.4060E+05	1.2000E+05	9.5000E+05	0.0000E+00	2.00	0.0	2.2272E+06	1.0000E+00	6.8336E+01	1	4	525
434	33-As	69	0	330690	9.1400E+02	1.2190E+06	1.1430E+06	0.0000E+00	2.00	0.0	3.9885E+06	1.0000E+00	6.8340E+01	1	4	556
435	34-Se	69	0	340690	2.7400E+01	2.3000E+06	1.8700E+06	0.0000E+00	2.00	0.0	6.775E+06	1.0000E+00	6.8347E+01	1	4	585
436	24-Cr	70	0	240700	7.1430E-03	5.0840E+06	2.5320E+06	0.0000E+00	1.00	0.0	1.3117E+07	1.0000E+00	6.9994E+01	1	2	299
437	25-Mn	70	0	250700	2.4180E-02	5.4450E+06	5.5650E+06	0.0000E+00	1.00	0.0	1.7093E+07	1.0000E+00	6.9979E+01	1	2	325
438	26-Fe	70	0	260700	9.4000E-02	3.3200E+06	1.4600E+06	0.0000E+00	1.00	1.0	1.0610E+07	1.0000E+00	6.9960E+01	1	2	352
439	27-Co	70	0	270700	1.1900E-01	4.11540E+06	4.2080E+06	0.0000E+00	1.00	0.0	1.2294E+07	9.2500E-01	6.9950E+01	2	2	383
440	27-Co	70	1	270701	5.0000E-01	4.3200E+06	4.3930E+06	0.0000E+00	1.00	0.0	1.2294E+07	1.0000E+00	6.9950E+01	1	2	384
441	28-Ni	70	0	280700	6.0000E+00	1.4300E+06	3.0600E+05	0.0000E+00	1.00	1.0	3.6614E+06	1.0000E-02	6.9335E+01	2	4	409
442	29-Cu	70	0	290700	4.4500E+01	1.3270E+06	3.4920E+06	0.0000E+00	1.00	0.0	6.5883E+06	1.0000E+00	6.9332E+01	1	2	436
443	29-Cu	70	1	290701	3.3000E+01	8.6000E+05	1.5100E+06	0.0000E+00	1.00	0.0	6.6894E+06	5.2000E-01	6.9332E+01	2	4	437
444	29-Cu	70	2	290702	6.6000E+00	2.4100E+06	1.3100E+06	0.0000E+00	1.00	0.0	1.0110E+05	4.8000E-01	6.9332E+01	2	4	438
445	30-Zn	70	0	300700	stable			3.00	0.0	2.4240E+05	6.8000E-02	6.9925E+01	0	0	468	
446	31-Ga	70	0	310700	1.2684E+03	6.4400E+05	7.3000E+03	0.0000E+00	1.00	0.0	1.6517E+06	9.9590E-01	6.9325E+01	2	5	498
447	32-Ge	70	0	320700	stable			2.00	0.0	6.5458E+05	4.1000E-03	6.9924E+01	0	0	526	
448	33-As	70	0	330700	3.1560E+03	8.9000E+05	4.0000E+06	0.0000E+00	2.00	0.0	6.2200E+06	1.0000E+00	6.9330E+01	1	4	557
449	34-Se	70	0	340700	2.4660E+03	4.8000E+05	9.9000E+05	0.0000E+00	2.00	0.0	2.4119E+06	1.0000E+00	6.9333E+01	1	4	586
450	35-Br	70	0	350700	7.9100E-02	4.5500E+06	1.0207E+06	0.0000E+00	2.00	0.0	1.0504E+07	1.0000E+00	6.9344E+01	1	3	618

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
451	35-Br	70	1	350701	2.2000E+00	2.0000E+06	5.2000E+06	0.0000E+00	2.00	0.0	1.2797E+07	1.0000E+00	6.9344E+01	1	4	619
452	36-Kr	70	0	360700	5.2000E-02	4.1100E+06	1.0200E+06	0.0000E+00	2.00	0.0	9.7000E+06	1.0000E+00	6.9355E+01	1	3	658
453	25-Mn	71	0	250710	1.3220E-02	5.5740E+06	3.9100E+06	0.0000E+00	1.00	0.0	1.5798E+07	1.0000E+00	7.0982E+01	1	2	326
454	26-Fe	71	0	260710	5.8600E-02	4.4010E+06	2.7100E+06	0.0000E+00	1.00	0.0	1.3370E+07	1.0000E+00	7.0966E+01	1	2	353
455	27-Co	71	0	270710	7.9000E-02	4.1020E+06	2.1620E+06	0.0000E+00	1.00	0.0	1.1036E+07	8.3000E-01	7.0952E+01	2	2	385
456	28-Ni	71	0	280710	2.5600E+00	2.8220E+06	1.2440E+06	0.0000E+00	1.00	0.0	6.7726E+06	1.7000E-01	7.0941E+01	1	2	410
457	29-Cu	71	0	290710	1.9500E+01	1.3588E+06	7.1207E+05	0.0000E+00	1.00	0.0	7.3049E+06	1.0000E+00	7.0932E+01	2	2	439
458	30-Zn	71	0	300710	1.4700E+02	1.0480E+06	3.1500E+05	0.0000E+00	1.00	0.0	4.4600E+06	1.6600E-01	7.0318E+01	1	4	469
459	30-Zn	71	1	300711	1.4260E+04	5.3700E+05	1.5600E+06	0.0000E+00	1.00	0.0	2.9680E+06	9.9500E-01	7.0318E+01	2	4	470
460	31-Ga	71	0	310710	stable	4.7460E+03	4.2670E+03	0.0000E+00	2.00	0.0	2.3264E+05	1.0000E+00	7.0925E+01	0	0	499
461	32-Ge	71	0	320710	9.8800E+05	2.8000E+04	1.6000E+05	0.0000E+00	3.00	0.0	1.9837E+05	1.0000E+00	7.0316E+01	1	3	527
462	32-Ge	71	1	320711	2.0400E-02	2.8000E+04	1.6000E+05	0.0000E+00	3.00	0.0	1.9837E+05	1.0000E+00	7.0316E+01	1	3	528
463	33-As	71	0	330710	2.3500E+05	1.1600E+05	5.7600E+05	0.0000E+00	2.00	0.0	2.0134E+06	1.0000E+00	7.0318E+01	1	4	558
464	34-Se	71	0	340710	2.8400E+02	1.4000E+06	1.6100E+06	0.0000E+00	2.00	0.0	4.7466E+06	1.0000E+00	7.0323E+01	1	4	587
465	35-Br	71	0	350710	2.1400E+01	1.5000E+06	7.6000E+05	0.0000E+00	2.00	0.0	6.6441E+06	1.0000E+00	7.0330E+01	1	4	620
466	36-Kr	71	0	360710	6.4000E-02	4.3140E+06	1.0220E+06	0.0000E+00	2.00	0.0	1.0175E+07	1.0000E+00	7.0341E+01	1	2	659
467	25-Mn	72	0	250720	9.0360E-03	6.0900E+06	6.1000E+06	0.0000E+00	1.00	0.0	1.8740E+07	1.0000E+00	7.1989E+01	1	2	327
468	26-Fe	72	0	260720	3.8030E-02	4.0610E+06	1.8740E+06	0.0000E+00	1.00	0.0	1.1681E+07	1.0000E+00	7.1968E+01	1	2	354
469	27-Co	72	0	270720	9.0000E-02	4.6080E+06	4.6940E+06	0.0000E+00	1.00	0.0	1.4442E+07	9.4000E-01	7.1957E+01	2	2	386
470	28-Ni	72	0	280720	1.5700E+00	2.1000E+06	8.4000E+05	0.0000E+00	1.00	0.0	7.5510E+06	6.0000E-02	7.1323E+01	1	4	411
471	29-Cu	72	0	290720	6.6300E+00	2.4900E+06	2.8200E+06	0.0000E+00	1.00	0.0	5.5569E+06	1.0000E+00	7.1318E+01	1	2	440
472	30-Zn	72	0	300720	1.6740E+05	9.5900E+04	1.4980E+05	0.0000E+00	1.00	0.0	4.4277E+05	9.6600E-01	7.1309E+01	2	4	471
473	31-Ga	72	0	310720	5.0760E+04	4.7590E+05	2.7700E+06	0.0000E+00	1.00	0.0	3.2311E+05	3.4000E-02	7.1309E+01	1	4	500
474	31-Ga	72	1	310721	3.9680E-02	5.0100E+04	6.9200E+04	0.0000E+00	3.00	0.0	3.9976E+06	1.0000E+00	7.1309E+01	1	3	501
475	32-Ge	72	0	320720	stable	stable	stable	0.0000E+00	3.00	0.0	1.1966E+05	1.0000E+00	7.1922E+01	0	0	529
476	33-As	72	0	330720	9.3600E+04	1.0300E+06	1.8000E+06	0.0000E+00	2.00	0.0	4.3561E+06	1.0000E+00	7.1309E+01	1	4	559
477	34-Se	72	0	340720	7.2600E+05	2.1100E+04	3.3900E+04	0.0000E+00	2.00	0.0	3.6162E+05	1.0000E+00	7.1309E+01	1	4	588
478	35-Br	72	0	350720	7.8600E+01	2.6800E+06	2.9100E+06	0.0000E+00	2.00	0.0	8.8009E+06	1.0000E+00	7.1318E+01	1	4	621
479	35-Br	72	1	350721	1.0600E+01	5.0220E+04	5.0700E+04	0.0000E+00	3.00	0.0	1.0076E+05	1.0000E+00	7.1318E+01	1	3	622
480	36-Kr	72	0	360720	1.7100E+01	1.6900E+06	1.4050E+06	0.0000E+00	2.00	0.0	5.1268E+06	9.4800E-01	7.1324E+01	2	4	660
481	25-Mn	73	0	250730	5.9360E-03	6.0090E+06	4.8040E+06	0.0000E+00	1.00	0.0	5.0260E+06	5.2000E-02	7.2993E+01	1	2	328
482	26-Fe	73	0	260730	2.5840E-02	4.9030E+06	3.4070E+06	0.0000E+00	1.00	0.0	1.7283E+07	1.0000E+00	7.2975E+01	1	2	355
483	27-Co	73	0	270730	4.1000E-02	4.7180E+06	2.9800E+06	0.0000E+00	1.00	0.0	1.4280E+07	1.0000E+00	7.2959E+01	2	2	387
484	28-Ni	73	0	280730	8.4000E-01	3.2810E+06	1.6190E+06	0.0000E+00	1.00	0.0	1.3212E+07	7.2000E-01	7.2946E+01	2	2	412
485	29-Cu	73	0	290730	4.2000E+00	1.9850E+06	7.7230E+05	0.0000E+00	1.50	0.0	9.2580E+06	2.8000E-01	7.2936E+01	2	2	441
486	30-Zn	73	0	300730	2.3500E+01	1.5436E+06	1.1709E+06	0.0000E+00	1.00	0.0	1.6035E+06	9.7000E-04	7.2303E+01	1	4	472
487	30-Zn	73	1	300731	5.8000E+00	1.6910E+06	2.7800E+05	0.0000E+00	1.00	0.0	1.0867E+06	9.9971E-01	7.2303E+01	1	2	473
488	31-Ga	73	0	310730	1.7500E+04	4.4700E+05	3.4100E+05	0.0000E+00	1.00	0.0	1.5982E+06	1.0000E+00	7.2299E+01	2	4	502
489	32-Ge	73	0	320730	stable	stable	stable	0.0000E+00	3.00	0.0	1.5315E+06	9.8500E-01	7.2292E+01	0	0	530
490	32-Ge	73	1	320731	4.9900E-01	5.2600E+04	1.1220E+04	0.0000E+00	3.00	0.0	6.6590E+04	1.0000E+00	7.2292E+01	1	3	531

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
491	33-As-	73	0	330730	6.9380E+06	5.7600E+04	1.6020E+04	0.0000E+00	2.00	0.0	3.4477E+05	1.0000E+00	7.2297E+01	1	4	560
492	34-Se-	73	0	340730	2.5700E+04	3.8700E+05	1.0920E+06	0.0000E+00	2.00	0.0	2.7254E+06	1.0000E+00	7.2300E+01	1	4	589
493	34-Se-	73	1	340731	2.3900E+03	1.6300E+05	2.6300E+05	0.0000E+00	2.00	0.0	2.7511E+06	2.7400E-01	7.2300E+01	2	4	590
494	35-Br-	73	0	350730	2.0400E+02	1.3600E+06	1.4100E+06	0.0000E+00	2.00	0.0	4.5798E+06	1.1000E-03	7.2305E+01	2	4	623
495	36-Kr-	73	0	360730	2.7300E+01	2.6000E+06	1.4800E+06	3.6000E+04	2.00	1.0	4.5541E+06	9.9890E-01	7.2312E+01	2	4	661
496	26-Fe-	74	0	260740	1.4040E-02	4.6700E+06	2.3240E+06	0.0000E+00	1.00	0.0	1.3227E+07	1.0000E+00	7.3978E+01	1	2	356
497	27-Co-	74	0	270740	3.6720E-02	5.1670E+06	5.4200E+06	0.0000E+00	1.00	0.0	1.5994E+07	1.0000E+00	7.3964E+01	1	2	388
498	28-Ni-	74	0	280740	6.8000E-01	2.6830E+06	1.1990E+06	0.0000E+00	1.00	0.0	7.5500E+06	9.9370E-01	7.3947E+01	2	2	413
499	29-Cu-	74	0	290740	1.6300E+00	2.5110E+06	3.2060E+06	0.0000E+00	1.00	0.0	2.4600E+06	6.3000E-03	7.3940E+01	2	2	442
500	30-Zn-	74	0	300740	9.5600E+01	5.7770E+05	8.5970E+05	0.0000E+00	1.00	0.0	2.2929E+06	1.1000E-01	7.3929E+01	2	2	474
501	31-Ga-	74	0	310740	4.8700E+02	9.9000E+05	3.0300E+06	0.0000E+00	1.00	0.0	2.2333E+06	8.9000E-01	7.3292E+01	1	2	503
502	31-Ga-	74	1	310741	9.5000E+00	0.0000E+00	3.6000E+04	0.0000E+00	1.00	0.0	5.4325E+06	2.5000E-01	7.3292E+01	2	1	504
503	32-Ge-	74	0	320740	stable				3.00	0.0	5.9700E+04	7.5000E-01	7.3921E+01	0	0	532
504	33-As-	74	0	330740	1.5353E+06	2.6500E+05	7.6000E+05	0.0000E+00	1.00	0.0	1.3532E+06	3.4000E-01	7.3289E+01	2	5	561
505	34-Se-	74	0	340740	stable				2.00	0.0	2.5624E+06	6.6000E-01	7.3923E+01	0	0	591
506	35-Br-	74	0	350740	1.5240E+03	1.0500E+06	4.6300E+06	0.0000E+00	2.00	0.0	6.9250E+06	1.0000E+00	7.3295E+01	1	4	624
507	36-Kr-	74	1	350741	2.7600E+03	1.2400E+06	3.9200E+06	0.0000E+00	2.00	0.0	6.9385E+06	1.0000E+00	7.3295E+01	1	4	625
508	35-Br-	74	0	360740	6.9000E+02	6.3000E+05	1.1000E+06	0.0000E+00	2.00	0.0	2.9564E+06	1.0000E+00	7.3298E+01	1	4	662
509	37-Rb-	74	0	370740	6.4780E-02	4.4520E+06	1.0218E+06	0.0000E+00	2.00	0.0	1.0416E+07	1.0000E+00	7.3309E+01	1	4	695
510	26-Fe-	75	0	260750	1.0430E-02	5.4750E+06	4.4550E+06	0.0000E+00	1.00	0.0	1.5870E+07	1.0000E+00	7.4984E+01	1	2	357
511	27-Co-	75	0	270750	2.4170E-02	5.2590E+06	3.7450E+06	0.0000E+00	1.00	0.0	1.5146E+07	6.2000E-01	7.4967E+01	2	2	389
512	28-Ni-	75	0	280750	3.4400E-01	3.8270E+06	2.2160E+06	0.0000E+00	1.00	0.0	1.1285E+07	3.8000E-01	7.4952E+01	2	2	414
513	29-Cu-	75	0	290750	1.2240E+00	2.6880E+06	1.0900E+06	0.0000E+00	1.00	0.0	1.0225E+07	9.8400E-01	7.4941E+01	2	2	443
514	30-Zn-	75	0	300750	1.0200E+01	1.9400E+06	1.8200E+06	0.0000E+00	1.00	0.0	8.0876E+06	9.6400E-01	7.4289E+01	1	2	475
515	31-Ga-	75	0	310750	1.2600E+02	1.2465E+06	3.7754E+05	0.0000E+00	1.00	0.0	5.9057E+06	1.0000E+00	7.4289E+01	2	2	505
516	32-Ge-	75	0	320750	4.9668E+03	4.2000E+05	3.5000E+04	0.0000E+00	1.00	0.0	3.3924E+06	9.2900E-01	7.4279E+01	1	2	533
517	32-Ge-	75	1	320751	4.7700E+01	7.8040E+04	5.7800E+04	0.0000E+00	1.00	0.0	3.2527E+06	7.1000E-02	7.4279E+01	2	4	534
518	33-As-	75	0	330750	stable				3.00	0.0	1.3969E+05	9.9970E-01	7.4922E+01	0	0	562
519	34-Se-	75	0	340750	1.0350E+07	1.3990E+04	3.8910E+05	0.0000E+00	2.00	0.0	8.6471E+05	1.0000E+00	7.4279E+01	1	4	592
520	35-Br-	75	0	350750	5.8000E+03	5.3000E+05	1.2000E+06	0.0000E+00	2.00	0.0	3.0624E+06	1.0000E+00	7.4282E+01	1	4	626
521	36-Kr-	75	0	360750	2.5700E+02	1.5800E+06	1.2820E+06	0.0000E+00	2.00	0.0	4.7835E+06	1.0000E+00	7.4287E+01	1	4	663
522	37-Rb-	75	0	370750	1.9000E+01	1.6000E+06	1.4000E+06	0.0000E+00	2.00	0.0	7.1049E+06	1.0000E+00	7.4295E+01	1	4	696
523	26-Fe-	76	0	260760	1.0430E-02	5.1330E+06	2.7160E+06	0.0000E+00	1.00	0.0	1.3410E+07	1.0000E+00	7.5987E+01	1	2	358
524	27-Co-	76	0	270760	1.7470E-02	5.8660E+06	6.3710E+06	0.0000E+00	1.00	0.0	1.7512E+07	7.0000E-01	7.5972E+01	2	2	390
525	28-Ni-	76	0	280760	2.3800E-01	3.3790E+06	1.5270E+06	0.0000E+00	1.00	0.0	1.2077E+07	3.0000E-01	7.5954E+01	2	2	415
									1.50	0.0	4.7900E+06	4.1000E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
526	29-Cu-	76	0	290760	6.4100E-01	3.1130E+06	3.5040E+06	0.0000E+00	1.00	0.0	1.1327E+07	9.7000E-01	7.5945E+01	2	2	444
527	29-Cu-	76	1	290761	1.2700E+00	3.6290E+06	3.5950E+06	0.0000E+00	1.50	0.0	3.5116E+06	3.0000E-02	7.5945E+01	1	2	445
528	30-Zn-	76	0	300760	5.7000E+00	1.5900E+06	5.2300E+05	0.0000E+00	1.00	0.0	1.1327E+07	1.0000E+00	7.5281E+01	1	2	476
529	31-Ga-	76	0	310760	3.2600E+01	1.8000E+06	2.8000E+06	0.0000E+00	1.00	0.0	3.9936E+06	1.0000E+00	7.5277E+01	1	2	506
530	32-Ge-	76	0	320760	stable	1.8000E+06	2.8000E+06	0.0000E+00	1.00	0.0	6.9162E+06	1.0000E+00	7.5921E+01	0	0	535
531	33-As-	76	0	330760	9.4500E+04	1.0600E+06	4.1700E+05	0.0000E+00	1.00	0.0	2.9606E+06	1.0000E+00	7.5270E+01	1	2	563
532	34-Se-	76	0	340760	stable	1.0600E+06	4.1700E+05	0.0000E+00	1.00	0.0	2.9606E+06	1.0000E+00	7.5919E+01	0	0	593
533	35-Br-	76	0	350760	5.8300E+04	6.5000E+05	2.7800E+06	0.0000E+00	2.00	0.0	4.9629E+06	1.0000E+00	7.5272E+01	1	4	627
534	35-Br-	76	1	350761	1.3100E+00	6.3600E+04	4.6000E+04	0.0000E+00	2.00	0.0	5.0655E+06	5.5000E-03	7.5272E+01	2	4	628
535	36-Kr-	76	0	360760	5.3300E+04	5.3000E+03	4.2500E+05	0.0000E+00	2.00	0.0	1.2749E+06	9.950E-01	7.5274E+01	2	4	664
536	37-Rb-	76	0	370760	3.6500E+01	2.3500E+06	3.3600E+06	0.0000E+00	2.00	0.0	1.1724E+06	5.0000E-04	7.5283E+01	1	4	697
537	38-Sr-	76	0	380760	8.9000E+00	1.1000E+06	1.3000E+06	0.0000E+00	2.00	0.0	8.5351E+06	1.0000E+00	7.5289E+01	1	4	734
538	27-Co-	77	0	270770	1.1350E-02	5.6470E+06	4.5600E+06	0.0000E+00	1.00	0.0	6.2314E+06	1.0000E+00	7.6976E+01	2	2	391
539	28-Ni-	77	0	280770	1.2800E-01	4.4810E+06	3.0880E+06	0.0000E+00	1.00	0.0	1.6325E+07	4.7000E-01	7.6976E+01	2	2	416
540	29-Cu-	77	0	290770	4.6900E-01	3.2670E+06	1.5060E+06	0.0000E+00	1.00	0.0	1.2311E+07	5.3000E-01	7.6959E+01	2	2	446
541	30-Zn-	77	0	300770	2.0800E+00	2.5400E+06	1.9400E+06	0.0000E+00	1.00	0.0	1.1765E+07	5.1000E-01	7.6276E+01	1	2	477
542	30-Zn-	77	1	300771	1.0500E+00	0.0000E+00	3.8620E+05	0.0000E+00	1.00	0.0	6.1570E+06	4.9000E-01	7.6276E+01	2	1	478
543	31-Ga-	77	0	310770	1.3200E+01	2.0430E+06	7.8930E+05	0.0000E+00	1.00	0.0	9.5046E+06	8.5000E-01	7.6946E+01	2	2	446
544	32-Ge-	77	0	320770	4.0680E+04	6.4200E+05	1.0780E+06	0.0000E+00	1.00	0.0	5.7190E+06	1.5000E-01	7.6276E+01	1	2	477
545	32-Ge-	77	1	320771	5.2900E+01	9.7000E+05	7.4000E+04	0.0000E+00	1.00	0.0	7.2032E+06	1.0000E+00	7.6276E+01	2	1	478
546	33-As-	77	0	330770	1.3979E+05	2.2550E+05	8.1000E+03	0.0000E+00	1.00	0.0	7.9756E+06	6.6000E-01	7.6929E+01	1	2	507
547	34-Se-	77	0	340770	stable	2.2550E+05	8.1000E+03	0.0000E+00	1.00	0.0	7.7244E+05	3.4000E-01	7.6929E+01	1	2	507
548	34-Se-	77	1	340771	1.7360E+01	7.1700E+04	8.8900E+04	0.0000E+00	3.00	0.0	5.0608E+06	1.0000E+00	7.6263E+01	1	2	536
549	35-Br-	77	0	350770	2.0533E+05	5.9700E+03	3.1900E+05	0.0000E+00	2.00	0.0	2.7035E+06	1.0000E+00	7.6263E+01	1	2	536
550	35-Br-	77	1	350771	2.5700E+02	8.5000E+04	1.9600E+04	0.0000E+00	3.00	0.0	7.244E+05	3.4000E-01	7.6261E+01	1	3	630
551	36-Kr-	77	0	360770	4.4600E+03	6.7000E+05	1.0400E+06	0.0000E+00	2.00	0.0	3.0654E+06	9.0500E-01	7.6261E+01	2	4	665
552	37-Rb-	77	0	370770	2.2620E+02	1.7000E+06	1.5300E+06	0.0000E+00	2.00	0.0	2.9595E+06	9.5000E-02	7.6270E+01	1	4	698
553	38-Sr-	77	0	380770	9.0000E+00	2.6100E+06	1.2100E+06	0.0000E+00	2.00	0.0	5.3390E+06	1.0000E+00	7.6277E+01	2	4	735
554	27-Co-	78	0	270780	4.8360E-03	6.4240E+06	6.8150E+06	0.0000E+00	1.00	0.0	7.0271E+06	9.9750E-01	7.7983E+01	1	2	392
555	28-Ni-	78	0	280780	1.1000E-01	3.9290E+06	1.8770E+06	0.0000E+00	1.00	0.0	3.9217E+06	2.5000E-03	7.7983E+01	1	2	417
556	29-Cu-	78	0	290780	3.4200E-01	3.8300E+06	4.0530E+06	0.0000E+00	1.00	0.0	1.2986E+07	3.5000E-01	7.7951E+01	2	2	447
557	30-Zn-	78	0	300780	1.4700E+00	2.2500E+06	1.5300E+06	0.0000E+00	1.50	0.0	6.2204E+06	6.5000E-01	7.7269E+01	2	2	479
558	31-Ga-	78	0	310780	5.0900E+00	2.5800E+06	2.5400E+06	0.0000E+00	1.00	0.0	6.2227E+06	9.9999E-01	7.7269E+01	1	4	508
559	32-Ge-	78	0	320780	5.2800E+03	2.2700E+05	2.7800E+05	0.0000E+00	1.00	0.0	4.3779E+05	1.0000E-05	7.7262E+01	1	2	538
560	33-As-	78	0	330780	5.4420E+03	1.2600E+06	1.3100E+06	0.0000E+00	1.00	0.0	8.1561E+06	1.0000E+00	7.7252E+01	1	2	565

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
561	34-Se	78	0	340780	stable								7.7917E+01	0	0	596
562	35-Br	78	0	350780	3.8700E+02	1.0240E+06	1.0340E+06	0.0000E+00	2.00	0.0	3.5738E+06	1.0000E+00	7.7252E+01	1	4	631
563	36-Kr	78	0	360780	5.0000E+28	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	2.8463E+06	1.0000E+00	7.7921E+01	1	0	666
564	37-Rb	78	0	370780	1.0596E+03	1.1800E+06	4.0400E+06	0.0000E+00	2.00	0.0	7.2442E+06	1.0000E+00	7.7259E+01	1	4	699
565	37-Rb	78	1	370781	3.4400E+02	1.5400E+06	3.2580E+06	0.0000E+00	2.00	0.0	7.3554E+06	9.1000E-01	7.7259E+01	2	4	700
566	38-Sr	78	0	380780	1.6000E+02	9.9000E+05	1.3000E+06	0.0000E+00	3.00	0.0	1.1120E+05	9.0000E-02				
567	39-Y	78	0	390780	5.3000E-02	5.0792E+03	8.8358E+03	0.0000E+00	2.00	0.0	3.7615E+06	1.0000E+00	7.7263E+01	1	4	736
568	39-Y	78	1	390781	5.8000E+00	3.0000E+03	1.0200E+06	0.0000E+00	2.00	0.0	1.0647E+07	1.0000E+00	7.7274E+01	1	3	769
569	28-Ni	79	0	280790	2.4890E-02	4.8410E+06	3.9030E+06	0.0000E+00	1.00	0.0	1.0647E+10	1.0000E+00	7.7274E+01	1	4	770
570	29-Cu	79	0	290790	1.8800E-01	3.7090E+06	1.9700E+06	0.0000E+00	1.50	0.0	1.4189E+07	8.6000E-01	7.8969E+01	2	2	418
571	30-Zn	79	0	300790	9.9500E-01	3.0160E+06	2.9170E+06	0.0000E+00	1.00	0.0	8.7160E+06	1.4000E-01				
572	31-Ga	79	0	310790	2.8470E+00	2.4500E+06	2.0800E+06	3.1300E+04	1.00	0.0	1.1534E+07	4.5000E-01	7.8953E+01	2	2	448
573	32-Ge	79	0	320790	1.8980E+01	1.7100E+06	3.0900E+05	0.0000E+00	1.00	0.0	7.5130E+06	5.5000E-01				
574	32-Ge	79	1	320791	3.9000E+01	1.2900E+06	1.7800E+06	0.0000E+00	1.00	0.0	9.1154E+06	9.8700E-01	7.8263E+01	2	2	480
575	33-As	79	0	330790	5.4100E+02	8.3900E+05	3.3800E+04	0.0000E+00	1.00	0.0	2.2023E+06	1.3000E-02				
576	34-Se	79	0	340790	1.1900E+13	5.5800E+04	0.0000E+00	0.0000E+00	1.00	0.0	6.9789E+06	9.5015E-01	7.8255E+01	3	4	509
577	34-Se	79	1	340791	2.3520E+02	8.3000E+04	1.4100E+04	0.0000E+00	1.00	0.0	7.7930E+06	4.8960E-02				
578	35-Br	79	0	350790	stable								7.8243E+01	2	2	566
579	35-Br	79	1	350791	4.8600E+00	4.7000E+04	1.5960E+05	0.0000E+00	3.00	0.0	1.2431E+06	8.9000E-04				
580	36-Kr	79	0	360790	1.2610E+05	2.3700E+04	2.5600E+05	0.0000E+00	2.00	0.0	4.1095E+06	1.0000E+00	7.8247E+01	1	4	539
581	36-Kr	79	1	360791	5.0000E+01	9.0000E+04	4.0900E+04	0.0000E+00	3.00	0.0	4.2954E+06	9.6000E-01	7.8247E+01	2	4	540
582	37-Rb	79	0	370790	1.3700E+03	7.7000E+05	1.4300E+06	0.0000E+00	2.00	0.0	1.8602E+05	4.0000E-02				
583	38-Sr	79	0	380790	1.3500E+02	1.8950E+06	1.2020E+06	0.0000E+00	2.00	0.0	2.2814E+06	1.9000E-02	7.8243E+01	2	2	566
584	39-Y	79	0	390790	1.4800E+01	1.3000E+06	1.0000E+06	0.0000E+00	1.00	0.0	2.1856E+06	9.8100E-01				
585	28-Ni	80	0	280800	1.5820E-02	5.3050E+06	2.9610E+06	0.0000E+00	1.00	0.0	1.5063E+05	1.0000E+00	7.8241E+01	1	1	597
586	29-Cu	80	0	290800	3.9220E-02	4.3270E+06	4.5870E+06	0.0000E+00	1.00	0.0	2.4640E+05	5.6000E-04	7.8241E+01	2	3	598
587	30-Zn	80	0	300800	5.4500E-01	2.5900E+06	1.7100E+06	0.0000E+00	1.00	0.0	9.5730E+04	9.9944E-01				
588	31-Ga	80	0	310800	1.6970E+00	3.1220E+06	3.5480E+06	0.0000E+00	1.50	0.0	5.3261E+06	1.0000E+00	7.8918E+01	0	0	632
589	32-Ge	80	0	320800	2.9500E+01	8.1510E+05	6.1970E+05	0.0000E+00	2.00	0.0	1.6258E+06	1.0000E+00	7.8240E+01	1	3	633
590	33-As	80	0	330800	1.5200E+01	2.1500E+06	5.8000E+05	0.0000E+00	1.00	0.0	7.1200E+06	1.0000E+00	7.8242E+01	1	4	667
591	34-Se	80	0	340800	stable								7.8242E+01	1	3	668
592	35-Br	80	0	350800	1.0608E+03	7.2600E+05	7.6000E+04	0.0000E+00	1.00	0.0	3.6393E+06	5.4700E-01	7.8246E+01	2	4	701
593	35-Br	80	1	350801	1.5914E+04	5.9500E+04	2.4200E+04	0.0000E+00	1.00	0.0	8.9300E+06	2.3000E-01				
594	36-Kr	80	0	360800	stable								7.8252E+01	1	4	737
595	37-Rb	80	0	370800	3.4000E+01	2.0400E+06	1.1900E+06	0.0000E+00	1.00	0.0	1.0312E+07	9.9140E-01	7.8259E+01	1	4	771
596	38-Sr	80	0	380800	6.3800E+03	4.0000E+04	4.4000E+05	0.0000E+00	2.00	0.0	2.0457E+06	8.6000E-03				
													7.9232E+01	2	5	634
													7.9232E+01	1	3	635
													7.9232E+01	0	0	669
													7.9236E+01	1	4	702
													7.9236E+01	1	4	738

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
597	39-Y-80	0	390800	3.0100E+01	2.1000E+06	2.2000E+06	0.0000E+00	2.00	0.0	9.1646E+06	1.0000E+00	1.0000E+00	7.9248E+01	1	4	772
598	39-Y-80	1	390801	4.8000E+00	6.0000E+05	2.8000E+05	0.0000E+00	2.00	0.0	9.3931E+06	1.9000E-01	1.9000E-01	7.9248E+01	2	4	773
599	28-Ni-81	0	280810	1.2280E-02	5.2520E+06	4.3870E+06	0.0000E+00	1.00	0.0	2.2850E+05	8.1000E-01	1.0000E+00	8.0983E+01	1	2	420
600	29-Cu-81	0	290810	2.5810E-02	4.8260E+06	3.4570E+06	0.0000E+00	1.00	0.0	1.5364E+07	2.8000E-01	2.8000E-01	8.0965E+01	2	2	450
601	30-Zn-81	0	300810	2.9000E-01	4.0320E+06	2.7130E+06	0.0000E+00	1.00	0.0	1.1787E+07	7.2000E-01	7.2000E-01	8.0949E+01	2	2	482
602	31-Ga-81	0	310810	1.2170E+00	2.3600E+06	2.2600E+06	0.0000E+00	1.00	0.0	1.1428E+07	9.2500E-01	9.2500E-01	8.0243E+01	3	4	511
603	32-Ge-81	0	320810	7.6000E+00	1.6800E+06	2.9600E+06	0.0000E+00	1.00	0.0	4.9527E+06	7.5000E-02	7.5000E-02				
604	32-Ge-81	1	320811	7.6000E+00	2.5000E+06	1.7800E+06	0.0000E+00	1.00	0.0	7.9846E+06	4.7300E-01	4.7300E-01	8.0234E+01	1	4	542
605	33-As-81	0	330810	3.3300E+01	1.5750E+06	2.3150E+05	0.0000E+00	1.00	0.0	3.8360E+06	1.1900E-01	1.1900E-01	8.0234E+01	1	4	543
606	34-Se-81	0	340810	1.1070E+03	6.1080E+05	8.1000E+03	0.0000E+00	1.00	0.0	6.2416E+06	1.0000E+00	1.0000E+00	8.0227E+01	2	4	568
607	34-Se-81	1	340811	3.4368E+03	8.5000E+04	1.8100E+04	0.0000E+00	1.00	0.0	9.5840E-01	9.5840E-01	9.5840E-01	8.0223E+01	2	4	601
608	35-Br-81	0	350810	stable									8.0916E+01	0	0	636
609	36-Kr-81	0	360810	7.2000E+12	4.7595E+03	7.2800E+03	0.0000E+00	2.00	0.0	1.5866E+06	1.0000E+00	1.0000E+00	8.0221E+01	1	4	670
610	36-Kr-81	1	360811	1.3100E+01	5.9130E+04	1.3121E+05	0.0000E+00	2.00	0.0	1.6896E+06	5.1000E-04	5.1000E-04	8.0221E+01	2	4	671
611	37-Rb-81	0	370810	1.6459E+04	1.2200E+05	5.1000E+05	0.0000E+00	2.00	0.0	3.7527E+06	4.1600E-02	4.1600E-02	8.0224E+01	2	4	703
612	37-Rb-81	1	370811	1.8330E+03	7.9000E+04	3.0000E+04	0.0000E+00	2.00	0.0	2.0475E+06	9.4500E-01	9.4500E-01	8.0224E+01	3	4	704
613	38-Sr-81	0	380810	1.3380E+03	1.4000E+06	1.9000E+06	0.0000E+00	2.00	0.0	2.3245E+06	2.3860E-02	2.3860E-02	8.0228E+01	2	4	739
614	39-Y-81	0	390810	7.0400E+01	2.1000E+06	1.2000E+06	0.0000E+00	2.00	0.0	8.6310E+04	9.7600E-01	9.7600E-01	8.0234E+01	1	4	774
615	28-Ni-82	0	280820	8.7410E-03	5.9830E+06	3.5360E+06	0.0000E+00	1.00	0.0	3.9285E+06	9.9857E-01	9.9857E-01	8.1988E+01	1	2	421
616	29-Cu-82	0	290820	1.8830E-02	4.6890E+06	5.0620E+06	0.0000E+00	1.00	0.0	3.8422E+06	1.4300E-03	1.4300E-03	8.1972E+01	2	2	451
617	30-Zn-82	0	300820	5.7610E-02	4.2340E+06	2.1810E+06	0.0000E+00	1.00	0.0	2.0475E+06	9.4500E-01	9.4500E-01	8.1954E+01	2	2	483
618	31-Ga-82	0	310820	5.9900E-01	3.7960E+06	4.1310E+06	0.0000E+00	1.00	0.0	2.1338E+06	1.4000E-04	1.4000E-04	8.1942E+01	2	2	512
619	32-Ge-82	0	320820	4.5500E+00	1.4490E+06	7.6520E+05	0.0000E+00	1.00	0.0	8.6310E+04	9.7600E-01	9.7600E-01	8.1928E+01	1	2	544
620	33-As-82	0	330820	1.9100E+01	2.9171E+06	1.0849E+06	0.0000E+00	1.00	0.0	3.9285E+06	9.9857E-01	9.9857E-01	8.1221E+01	1	2	569
621	33-As-82	1	330821	1.3600E+01	1.8200E+06	2.7900E+06	0.0000E+00	1.00	0.0	5.2896E+06	1.9800E-01	1.9800E-01	8.1221E+01	1	2	570
622	34-Se-82	0	340820	2.6000E+27	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	7.4908E+06	1.0000E+00	1.0000E+00	8.1917E+01	1	0	602
623	35-Br-82	0	350820	1.2702E+05	1.4600E+05	2.6600E+06	0.0000E+00	1.00	0.0	2.9964E+06	1.0000E+00	1.0000E+00	8.1213E+01	1	4	637
624	35-Br-82	1	350821	3.6800E+02	5.2000E+04	1.1300E+04	0.0000E+00	1.00	0.0	3.1385E+06	2.4000E-02	2.4000E-02	8.1213E+01	2	4	638
625	36-Kr-82	0	360820	stable									8.1913E+01	0	0	672
626	37-Rb-82	0	370820	7.5450E+01	1.4120E+06	1.1080E+06	0.0000E+00	2.00	0.0	4.5950E+04	9.7600E-01	9.7600E-01	8.1215E+01	1	4	705
627	37-Rb-82	1	370821	2.3299E+04	8.0000E+04	2.9170E+06	0.0000E+00	2.00	0.0	4.4071E+06	1.0000E+00	1.0000E+00	8.1215E+01	1	4	706
628	38-Sr-82	0	380820	2.1900E+06	4.9660E+03	7.9380E+03	0.0000E+00	2.00	0.0	1.7776E+05	1.0000E+00	1.0000E+00	8.1215E+01	1	3	740
629	39-Y-82	0	390820	8.3000E+00	1.5000E+06	7.0000E+05	0.0000E+00	2.00	0.0	7.9471E+06	1.0000E+00	1.0000E+00	8.1223E+01	1	4	775
630	40-Zr-82	0	400820	3.2000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.1200E+06	1.0000E+00	1.0000E+00	8.1933E+01	1	0	820

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
631	41-Nb	82	0	410820	5.0000E-02	4.8000E+06	1.0198E+06	0.0000E+00	2.00	0.0	1.1220E+07	1.0000E+00	8.1239E+01	1	3	855
632	29-Cu	83	0	290830	1.2220E-02	5.2810E+06	4.3320E+06	0.0000E+00	1.00	0.0	1.5374E+07	1.0000E+00	8.2978E+01	1	2	452
633	30-Zn	83	0	300830	4.3610E-02	4.11020E+06	3.9530E+06	0.0000E+00	1.00	0.0	1.2519E+07	7.7000E-01	8.2961E+01	2	2	484
634	31-Ga	83	0	310830	3.1000E-01	3.8810E+06	3.7430E+06	0.0000E+00	1.00	0.0	8.1210E+06	2.3000E-01	8.2947E+01	2	2	513
635	32-Ge	83	0	320830	1.8500E+00	2.6890E+06	2.4440E+06	0.0000E+00	1.00	0.0	1.1719E+07	6.2800E-01	8.2222E+01	2	2	545
636	33-As	83	0	330830	1.3400E+01	1.2556E+06	2.7514E+06	0.0000E+00	1.00	0.0	8.0866E+06	1.0000E-03	8.2925E+01	2	2	571
637	34-Se	83	0	340830	1.3380E+03	5.0000E+05	2.6100E+06	0.0000E+00	1.00	0.0	5.6712E+06	3.6600E-01	8.2207E+01	1	2	603
638	34-Se	83	1	340831	7.0100E+01	1.2730E+06	9.8200E+05	0.0000E+00	1.00	0.0	3.6728E+06	1.0000E+00	8.2207E+01	1	2	604
639	35-Br	83	0	350830	8.6400E+03	3.2500E+05	7.0000E+03	0.0000E+00	1.00	0.0	3.9013E+06	1.0000E+00	8.2203E+01	2	2	639
640	36-Kr	83	0	360830	stable				1.00	1.0	9.3507E+05	9.9970E-01	8.2914E+01	0	0	673
641	36-Kr	83	1	360831	6.5880E+03	3.9100E+04	2.7700E+03	0.0000E+00	3.00	0.0	4.1544E+04	1.0000E+00	8.2202E+01	1	3	674
642	37-Rb	83	0	370830	7.4480E+06	4.9000E+03	4.9100E+05	0.0000E+00	2.00	0.0	9.1940E+05	3.1000E-01	8.2203E+01	2	4	707
643	38-Sr	83	0	380830	1.1668E+05	1.6000E+05	8.1000E+05	0.0000E+00	2.00	0.0	8.6800E+05	6.9000E-01	8.2205E+01	1	4	741
644	38-Sr	83	1	380831	4.9500E+00	3.0300E+04	2.2750E+05	0.0000E+00	3.00	0.0	2.2760E+06	1.0000E+00	8.2205E+01	1	3	742
645	39-Y	83	0	390830	4.2500E+02	1.4300E+06	1.4200E+06	0.0000E+00	2.00	0.0	4.5931E+06	9.7900E-01	8.2210E+01	2	4	776
646	39-Y	83	1	390831	1.7100E+02	7.9000E+05	6.9000E+05	0.0000E+00	2.00	1.0	4.3339E+06	2.1000E-02	8.2210E+01	2	4	777
647	40-Zr	83	0	400830	4.1600E+01	2.0800E+06	1.1860E+06	0.0000E+00	2.00	0.0	6.1980E+04	4.0000E-01	8.2216E+01	2	4	821
648	29-Cu	84	0	290840	1.0100E-02	5.1820E+06	5.3400E+06	0.0000E+00	1.00	0.0	6.2320E+06	9.6100E-01	8.3985E+01	1	2	453
649	30-Zn	84	0	300840	2.5340E-02	4.6230E+06	3.2970E+06	0.0000E+00	1.00	0.0	1.6180E+07	1.0000E+00	8.3966E+01	2	2	485
650	31-Ga	84	0	310840	8.5000E-02	4.2280E+06	4.6330E+06	0.0000E+00	1.00	0.0	1.1873E+07	7.5000E-01	8.3953E+01	2	2	514
651	32-Ge	84	0	320840	9.4700E-01	2.5460E+06	2.4600E+06	0.0000E+00	1.00	0.0	8.7750E+06	2.5000E-01	8.3937E+01	2	2	546
652	33-As	84	0	330840	4.5000E+00	3.2000E+06	3.1500E+06	0.0000E+00	1.00	0.0	1.3865E+07	3.0000E-01	8.3208E+01	2	2	572
653	34-Se	84	0	340840	1.9600E+02	5.4000E+05	4.2000E+05	0.0000E+00	1.00	0.0	8.6220E+06	7.0000E-01	8.3198E+01	1	2	605
654	35-Br	84	0	350840	1.9060E+03	1.2300E+06	1.7600E+06	0.0000E+00	1.00	0.0	3.4496E+06	1.0200E-01	8.3196E+01	1	4	640
655	35-Br	84	1	350841	3.6000E+02	8.9000E+05	2.7700E+06	0.0000E+00	1.00	0.0	1.0094E+07	9.9820E-01	8.3196E+01	1	4	641
656	36-Kr	84	0	360840	stable				1.50	0.0	1.1872E+06	1.8000E-03	8.3912E+01	0	0	675
657	37-Rb	84	0	370840	2.8360E+06	1.5900E+05	8.9300E+05	0.0000E+00	1.00	0.0	1.872E+06	1.4000E-01	8.3193E+01	2	5	708
658	37-Rb	84	1	370841	1.2156E+03	7.1000E+04	3.8000E+05	0.0000E+00	3.00	0.0	8.9060E+05	3.9000E-02	8.3193E+01	1	3	709
659	38-Sr	84	0	380840	stable				2.00	0.0	2.6804E+06	9.6100E-01	8.3914E+01	0	0	743
660	39-Y	84	0	390840	2.3700E+03	9.8000E+05	4.3700E+06	0.0000E+00	2.00	0.0	4.6359E+05	1.0000E+00	8.3200E+01	1	4	778
661	39-Y	84	1	390841	4.6000E+00	2.6000E+06	1.2500E+06	0.0000E+00	2.00	0.0	6.7561E+06	1.0000E+00	8.3200E+01	1	4	779
662	40-Zr	84	0	400840	1.5500E+03	3.3800E+05	1.0100E+06	0.0000E+00	2.00	0.0	8.8231E+06	1.0000E+00	8.3202E+01	2	4	822
663	41-Nb	84	0	410840	9.8000E+00	3.9000E+06	2.0700E+06	0.0000E+00	2.00	0.0	2.4059E+06	1.4000E-01	8.3213E+01	1	4	856
664	30-Zn	85	0	300850	1.9360E-02	4.7860E+06	4.0100E+06	0.0000E+00	1.00	0.0	1.0400E+07	1.0000E+00	8.4973E+01	1	2	486
665	31-Ga	85	0	310850	3.8840E-02	4.5090E+06	4.3050E+06	0.0000E+00	1.00	0.0	1.4224E+07	1.0000E+00	8.4957E+01	2	2	515
									1.50	0.0	1.3060E+07	4.0000E-01	8.4957E+01	2	2	515
									1.50	0.0	1.0014E+07	6.0000E-01	8.4957E+01	2	2	515

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
666	32-Ge-	85	0	320850	5.3500E-01	3.0290E+06	3.1830E+06	0.0000E+00	1.00	0.0	1.0066E+07	8.6000E-01	8.4943E+01	2	2	547
667	33-As-	85	0	330850	2.0280E+00	2.8360E+06	3.0050E+06	0.0000E+00	1.50	0.0	4.6588E+06	1.4000E-01	8.4932E+01	2	2	573
668	34-Se-	85	0	340850	3.1700E+01	1.9000E+06	2.0800E+06	0.0000E+00	1.50	0.0	4.6873E+06	5.9400E-01	8.4193E+01	1	2	606
669	35-Br-	85	0	350850	1.7400E+02	1.0410E+06	6.6000E+04	0.0000E+00	1.00	0.0	2.9049E+06	1.5000E+00	8.4186E+01	2	2	642
670	36-Kr-	85	0	360850	3.3940E+08	2.5071E+05	2.2300E+03	0.0000E+00	1.00	0.0	2.6000E+06	9.9850E-01	8.4183E+01	1	4	676
671	36-Kr-	85	1	360851	1.6130E+04	2.5490E+05	1.5700E+05	0.0000E+00	1.00	0.0	6.8700E+05	1.0000E+00	8.4183E+01	2	4	677
672	37-Rb-	85	0	370850	stable				3.00	0.0	3.0487E+05	2.1400E-01	8.4912E+01	0	0	710
673	38-Sr-	85	0	380850	5.6022E+06	8.4000E+03	5.0000E+05	0.0000E+00	2.00	0.0	1.0650E+06	1.0000E+00	8.4184E+01	1	4	744
674	38-Sr-	85	1	380851	4.0578E+03	1.2200E+04	2.1800E+05	0.0000E+00	2.00	0.0	1.3028E+06	1.3400E-01	8.4184E+01	2	4	745
675	39-Y-	85	0	390850	9.6500E+03	6.4000E+05	1.4600E+06	0.0000E+00	2.00	0.0	2.3878E+05	8.6600E-01	8.4187E+01	2	4	780
676	39-Y-	85	1	390851	1.7500E+04	5.8000E+05	1.3300E+06	0.0000E+00	2.00	0.0	3.2612E+06	3.9000E-01	8.4187E+01	2	4	781
677	40-Zr-	85	0	400850	4.7160E+02	1.3200E+06	1.4730E+06	0.0000E+00	2.00	0.0	3.0420E+06	9.6320E-01	8.4192E+01	2	4	823
678	40-Zr-	85	1	400851	1.0900E+01	1.0000E+05	2.9000E+05	0.0000E+00	2.00	0.0	4.6484E+06	9.6400E-01	8.4192E+01	2	4	824
679	30-Zn-	86	0	300860	1.3280E-02	5.2610E+06	3.6850E+06	0.0000E+00	1.00	0.0	4.9603E+06	8.0000E-02	8.5978E+01	1	2	487
680	31-Ga-	86	0	310860	2.8130E-02	4.6470E+06	5.1720E+06	0.0000E+00	1.00	0.0	2.9220E+05	9.2000E-01	8.5963E+01	2	2	516
681	32-Ge-	86	0	320860	8.7820E-02	3.3620E+06	2.6360E+06	0.0000E+00	1.00	0.0	1.0596E+07	4.2000E-01	8.5947E+01	2	2	548
682	33-As-	86	0	330860	9.4500E-01	3.3170E+06	3.7780E+06	0.0000E+00	1.00	0.0	5.3570E+06	6.0000E-02	8.5937E+01	2	2	574
683	34-Se-	86	0	340860	1.5300E+01	1.4400E+06	2.2700E+06	0.0000E+00	1.50	0.0	1.1541E+07	6.7000E-01	8.5186E+01	1	4	607
684	35-Br-	86	0	350860	5.5000E+01	1.9000E+06	3.3000E+06	0.0000E+00	1.00	0.0	5.3802E+06	3.3000E-01	8.5181E+01	1	2	643
685	36-Kr-	86	0	360860	stable				1.50	0.0	5.1291E+06	1.0000E+00	8.5910E+01	0	0	678
686	37-Rb-	86	0	370860	1.6107E+06	6.6820E+05	9.3000E+04	0.0000E+00	1.00	0.0	7.6334E+06	1.0000E+00	8.5173E+01	2	5	711
687	37-Rb-	86	1	370861	6.1020E+01	9.7000E+03	5.4630E+05	0.0000E+00	3.00	0.0	1.7762E+06	9.9995E-01	8.5173E+01	1	3	712
688	38-Sr-	86	0	380860	stable				2.00	0.0	5.1866E+05	5.2000E-05	8.5909E+01	0	0	746
689	39-Y-	86	0	390860	5.3060E+04	2.1700E+05	3.5800E+06	0.0000E+00	2.00	0.0	5.4583E+05	6.9000E-03	8.5177E+01	1	4	782
690	39-Y-	86	1	390861	2.8800E+03	2.3100E+04	2.2010E+05	0.0000E+00	2.00	0.0	9.9310E-01	9.9310E-01	8.5177E+01	2	4	783
691	40-Zr-	86	0	400860	5.9400E+04	2.9900E+04	2.9490E+05	0.0000E+00	2.00	0.0	1.3146E+06	1.0000E+00	8.5178E+01	1	4	825
692	41-Nb-	86	0	410860	8.8000E+01	1.9000E+06	3.7400E+06	0.0000E+00	2.00	0.0	8.8358E+06	1.0000E+00	8.5187E+01	1	4	857
693	31-Ga-	87	0	310870	1.9430E-02	5.2640E+06	4.4360E+06	0.0000E+00	1.50	0.0	1.4499E+07	2.6000E-01	8.6968E+01	2	2	517
694	32-Ge-	87	0	320870	6.2340E-02	3.5330E+06	3.5850E+06	0.0000E+00	1.00	0.0	1.2110E+07	7.4000E-01	8.6953E+01	2	2	549
695	33-As-	87	0	330870	4.8000E-01	3.4400E+06	3.4730E+06	0.0000E+00	1.50	0.0	6.8130E+06	1.1000E-01	8.6940E+01	2	2	575
696	34-Se-	87	0	340870	5.2900E+00	2.0790E+06	2.6440E+06	0.0000E+00	1.50	0.0	1.0808E+07	8.4600E-01	8.6182E+01	2	2	608
697	35-Br-	87	0	350870	5.5650E+01	1.6100E+06	3.3400E+06	0.0000E+00	1.00	0.0	6.8139E+06	1.5400E-01	8.6182E+01	2	2	608
									1.50	0.0	1.1348E+06	2.0000E-03	8.6174E+01	2	2	644
									1.50	0.0	6.8178E+06	9.7400E-01	8.6174E+01	2	2	644
									1.50	0.0	1.3027E+06	2.6000E-02	8.6174E+01	2	2	644

No.	Symbol	S	z	zAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
698	36-Kr	87	0	360870	4.5800E+03	1.3300E+06	7.9200E+05	0.0000E+00	1.00	0.0	3.8883E+06	1.0000E+00	8.6167E+01	1	4	679
699	37-Rb	87	0	370870	1.5200E+18	8.1700E+04	0.0000E+00	0.0000E+00	1.00	0.0	2.8224E+05	1.0000E+00	8.6163E+01	1	1	713
700	38-Sr	87	0	380870	stable								8.6909E+01	0	0	747
701	38-Sr	87	1	380871	1.0130E+04	6.5000E+04	3.2150E+05	0.0000E+00	2.00	0.0	1.0629E+05	3.0000E-03	8.6162E+01	2	4	748
702	39-Y	87	0	390870	2.8730E+05	7.2000E+04	7.6700E+05	0.0000E+00	2.00	0.0	3.8853E+05	9.9700E-01	8.6164E+01	1	4	784
703	39-Y	87	1	390871	4.8130E+04	7.7000E+04	3.0680E+05	0.0000E+00	2.00	0.0	1.8617E+06	1.0000E+00	8.6164E+01	1	4	785
704	40-Zr	87	0	400870	6.0500E+03	8.2200E+05	9.2700E+05	0.0000E+00	2.00	0.0	3.8079E+05	9.8430E-01	8.6168E+01	2	4	826
705	40-Zr	87	1	400871	1.4000E+01	9.8000E+04	2.3740E+05	0.0000E+00	3.00	0.0	3.2910E+06	9.5100E-01	8.6168E+01	1	3	827
706	41-Nb	87	0	410870	2.2500E+02	1.6700E+06	9.8290E+05	0.0000E+00	2.00	1.0	3.3630E+05	1.0000E+00	8.6174E+01	1	3	858
707	41-Nb	87	1	410871	1.5600E+02	1.3900E+06	1.8300E+06	0.0000E+00	2.00	0.0	5.1374E+06	1.0000E+00	8.6174E+01	1	4	859
708	42-Mo	87	0	420870	1.4000E+01	2.4400E+06	1.2390E+06	0.0000E+00	2.00	0.0	6.9885E+06	1.9000E-02	8.6181E+01	3	4	902
709	31-Ga	88	0	310880	1.4210E-02	5.5050E+06	5.9410E+06	0.0000E+00	1.00	0.0	3.7949E+06	1.5000E-01	8.7975E+01	1	2	518
710	32-Ge	88	0	320880	4.2970E-02	4.0060E+06	3.0030E+06	0.0000E+00	1.00	0.0	1.7448E+07	1.0000E+00	8.7975E+01	1	2	550
711	33-As	88	0	330880	9.2130E-02	3.7520E+06	4.2210E+06	0.0000E+00	1.00	0.0	1.0582E+07	8.3000E-01	8.7956E+01	2	2	576
712	34-Se	88	0	340880	1.5300E+00	2.2150E+06	2.0320E+06	0.0000E+00	1.00	0.0	7.4090E+06	1.7000E-01	8.7945E+01	2	2	609
713	35-Br	88	0	350880	1.6290E+01	2.3000E+06	2.8900E+06	0.0000E+00	1.00	0.0	7.6350E+06	2.3000E-01	8.7169E+01	2	2	645
714	36-Kr	88	0	360880	1.0220E+04	3.7000E+05	1.9500E+06	0.0000E+00	1.00	0.0	1.9222E+06	6.5800E-02	8.7159E+01	1	4	680
715	37-Rb	88	0	370880	1.0664E+03	2.0510E+06	6.7700E+05	0.0000E+00	1.00	0.0	2.9177E+06	1.0000E+00	8.7156E+01	1	4	714
716	38-Sr	88	0	380880	stable								8.7906E+01	0	0	749
717	39-Y	88	0	390880	9.2125E+06	6.2700E+03	2.6950E+06	0.0000E+00	2.00	0.0	3.6226E+06	1.0000E+00	8.7154E+01	1	4	786
718	39-Y	88	1	390881	3.0100E-04	9.9000E+03	3.8251E+05	0.0000E+00	3.00	0.0	3.9286E+05	1.0000E+00	8.7154E+01	1	3	787
719	39-Y	88	2	390882	1.3970E-02	1.1300E+04	6.6281E+05	0.0000E+00	3.00	0.0	6.7455E+05	1.0000E+00	8.7154E+01	1	3	788
720	40-Zr	88	0	400880	7.2100E+06	1.5500E+04	4.0262E+05	0.0000E+00	2.00	0.0	6.7042E+05	1.0000E+00	8.7155E+01	1	4	828
721	41-Nb	88	0	410880	8.7300E+02	1.3800E+06	4.1900E+06	0.0000E+00	2.00	0.0	7.4523E+06	1.0000E+00	8.7163E+01	1	4	860
722	41-Nb	88	1	410881	4.6700E+02	1.3900E+06	4.0700E+06	0.0000E+00	2.00	0.0	7.4523E+06	1.0000E+00	8.7163E+01	1	4	861
723	42-Mo	88	0	420880	4.8000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.4894E+06	1.0000E+00	8.7923E+01	1	0	903
724	43-Tc	88	0	430880	6.4000E+00	3.0000E+06	3.5100E+06	0.0000E+00	2.00	0.0	1.1005E+07	1.0000E+00	8.7177E+01	1	4	936
725	43-Tc	88	1	430881	5.8000E+00	3.7000E+06	2.0800E+06	0.0000E+00	2.00	0.0	1.1005E+07	1.0000E+00	8.7177E+01	1	3	937
726	31-Ga	89	0	310890	9.5200E-03	5.9290E+06	5.1370E+06	0.0000E+00	1.00	0.0	1.7500E+07	1.0000E+00	8.8980E+01	1	2	519
727	32-Ge	89	0	320890	3.2680E-02	4.5980E+06	3.9170E+06	0.0000E+00	1.00	0.0	1.3069E+07	8.1000E-01	8.8963E+01	2	2	551
728	33-As	89	0	330890	6.5990E-02	3.9770E+06	3.9430E+06	0.0000E+00	1.00	0.0	8.9190E+06	1.9000E-01	8.8949E+01	2	2	577
729	34-Se	89	0	340890	4.1000E-01	3.1260E+06	1.8940E+06	0.0000E+00	1.00	0.0	9.0150E+06	3.0000E-01	8.8936E+01	2	2	610
730	35-Br	89	0	350890	4.4000E+00	2.3730E+06	2.7680E+06	0.0000E+00	1.00	0.0	9.2819E+06	9.2200E-01	8.8936E+01	2	2	610
731	36-Kr	89	0	360890	1.8900E+02	1.3800E+06	1.9230E+06	0.0000E+00	1.00	0.0	3.6522E+06	7.8000E-02	8.8163E+01	2	2	646
732	37-Rb	89	0	370890	9.0900E+02	9.7000E+05	2.2400E+06	0.0000E+00	1.00	0.0	8.2615E+06	8.6200E-01	8.8163E+01	2	2	646
733	38-Sr	89	0	380890	4.3660E+06	5.8460E+05	0.0000E+00	0.0000E+00	1.00	0.0	1.5044E+06	9.9990E-01	8.8144E+01	2	1	750
									1.00	1.0	5.9143E+05	9.6000E-05				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
734	39-Y-89	0	39	890	stable								8.8906E+01	0	0	789
735	39-Y-89	1	39	891	1.5660E+01	7.2500E+03	9.0140E+05	0.0000E+00	3.00	0.0	9.0896E+05	1.0000E+00	8.8142E+01	1	3	790
736	40-Zr-89	0	40	890	2.8230E+05	9.3900E+04	2.5760E+05	0.0000E+00	2.00	0.0	8.3228E+06	1.2300E-03	8.8145E+01	2	4	829
737	40-Zr-89	1	40	891	2.4970E+02	3.1100E+04	6.3500E+05	0.0000E+00	2.00	1.0	1.9238E+06	9.9877E-01	8.8145E+01	2	4	830
738	41-Nb-89	0	41	890	7.3000E+03	1.1000E+06	1.3600E+06	0.0000E+00	3.00	0.0	5.8780E+05	9.3770E-01	8.8150E+01	2	4	862
739	41-Nb-89	1	41	891	3.9600E+03	8.1000E+05	1.3100E+06	0.0000E+00	2.00	1.0	3.6632E+06	1.1800E-02	8.8150E+01	1	4	863
740	42-Mo-89	0	42	890	1.2700E+02	1.9550E+06	1.2260E+06	0.0000E+00	2.00	0.0	5.6105E+06	9.9160E-01	8.8156E+01	2	4	904
741	42-Mo-89	1	42	891	1.9000E-01	3.2600E+04	3.1900E+05	0.0000E+00	3.00	0.0	3.8730E+05	1.0000E+00	8.8156E+01	1	3	905
742	32-Ge-90	0	32	900	2.1370E-02	4.9980E+06	3.0740E+06	0.0000E+00	1.00	0.0	1.2109E+07	1.0000E+00	8.9967E+01	1	2	552
743	33-As-90	0	33	900	4.7720E-02	4.5970E+06	4.3800E+06	0.0000E+00	1.00	0.0	1.4470E+07	6.9000E-01	8.9955E+01	2	2	578
744	34-Se-90	0	34	900	1.6030E-01	2.9040E+06	2.6330E+06	0.0000E+00	1.50	0.0	9.5910E+06	3.1000E-01	8.9939E+01	2	2	611
745	35-Br-90	0	35	900	1.9200E+00	2.9000E+06	2.9042E+06	0.0000E+00	1.00	0.0	1.0959E+07	7.4800E-01	8.9159E+01	2	4	647
746	36-Kr-90	0	36	900	3.2320E+01	1.3600E+06	1.3300E+06	0.0000E+00	1.00	0.0	4.4642E+06	2.5200E-01	8.9147E+01	2	4	682
747	37-Rb-90	0	37	900	1.5880E+02	1.9916E+06	2.1641E+06	0.0000E+00	1.00	0.0	4.2986E+06	1.3120E-01	8.9142E+01	1	2	716
748	37-Rb-90	1	37	901	2.5800E+02	1.4000E+06	3.2400E+06	0.0000E+00	1.00	0.0	6.5842E+06	1.0000E+00	8.9142E+01	2	4	717
749	38-Sr-90	0	38	900	9.0850E+05	1.9580E+05	0.0000E+00	0.0000E+00	1.00	0.0	1.0690E+05	2.6000E-02	8.9135E+01	1	1	751
750	39-Y-90	0	39	900	2.3040E+05	9.3380E+05	1.2500E+00	0.0000E+00	1.00	0.0	4.4594E+05	1.0000E+00	8.9135E+01	1	3	791
751	39-Y-90	1	39	901	1.1480E+04	4.5300E+04	6.3530E+05	0.0000E+00	1.00	1.0	6.4137E+05	1.8000E-05	8.9135E+01	2	4	792
752	40-Zr-90	0	40	900	stable								8.9905E+01	0	0	831
753	40-Zr-90	1	40	901	8.0920E-01	1.6000E+04	2.3300E+06	0.0000E+00	3.00	0.0	2.3190E+06	1.0000E+00	8.9132E+01	1	3	832
754	41-Nb-90	0	41	900	5.2560E+04	3.6900E+05	1.9140E+06	0.0000E+00	2.00	0.0	6.1113E+06	1.5000E-02	8.9139E+01	2	4	864
755	41-Nb-90	1	41	901	1.8810E+01	3.9500E+04	8.2200E+04	0.0000E+00	3.00	0.0	1.2467E+05	1.0000E+00	8.9139E+01	1	3	865
756	42-Mo-90	0	42	900	2.0410E+04	2.0000E+05	8.2600E+05	0.0000E+00	2.00	1.0	2.3647E+06	1.0000E+00	8.9142E+01	1	4	906
757	43-Tc-90	0	43	900	8.7000E+00	3.3000E+06	1.7500E+06	0.0000E+00	2.00	0.0	9.4482E+06	1.0000E+00	8.9151E+01	1	4	938
758	43-Tc-90	1	43	901	4.9200E+01	2.2600E+06	4.0400E+06	0.0000E+00	2.00	0.0	9.9482E+06	1.0000E+00	8.9151E+01	1	4	939
759	32-Ge-91	0	32	910	1.5980E-02	5.1300E+06	4.4790E+06	0.0000E+00	1.00	0.0	1.5253E+07	1.0000E+00	9.0975E+01	1	2	553
760	33-As-91	0	33	910	3.4320E-02	4.8610E+06	4.1060E+06	0.0000E+00	1.00	0.0	1.3441E+07	4.2000E-01	9.0959E+01	2	2	579
761	34-Se-91	0	34	910	1.1390E-01	3.7850E+06	3.1260E+06	0.0000E+00	1.50	0.0	1.0832E+07	5.8000E-01	9.0945E+01	2	2	612
762	35-Br-91	0	35	910	5.4100E-01	3.4170E+06	2.1390E+06	0.0000E+00	1.00	0.0	5.5910E+06	2.1000E-01	9.0933E+01	2	2	648
763	36-Kr-91	0	36	910	8.5700E+00	2.1000E+06	1.7460E+06	0.0000E+00	1.00	0.0	6.7712E+06	1.0000E+00	9.0142E+01	1	4	683
764	37-Rb-91	0	37	910	5.8400E+01	1.6100E+06	2.9400E+06	0.0000E+00	1.00	0.0	5.9073E+06	1.0000E+00	9.0135E+01	1	4	718
765	38-Sr-91	0	38	910	3.4670E+04	6.5000E+05	7.0700E+05	0.0000E+00	1.00	0.0	2.6995E+06	4.0900E-01	9.0129E+01	2	4	752
766	39-Y-91	0	39	910	5.0550E+06	6.0320E+05	3.1000E+03	0.0000E+00	1.00	0.0	1.5443E+06	1.0000E+00	9.0126E+01	1	2	793
767	39-Y-91	1	39	911	2.9826E+03	2.6300E+04	5.2830E+05	0.0000E+00	3.00	0.0	5.5557E+05	1.0000E+00	9.0126E+01	1	3	794
768	40-Zr-91	0	40	910	stable								9.0906E+01	0	0	833

No.	Symbol	S	Z	A	AAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
769	41-Nb-91	0	41	0910	2.1000E+10	5.1164E+03	1.0403E+04	0.0000E+00	2.00	0.0	1.2576E+06	1.0000E+00	9.0126E+01	1	3	866	
770	41-Nb-91	1	41	0911	5.2580E+06	9.1000E+04	3.4000E+04	0.0000E+00	2.00	0.0	1.3622E+06	3.4000E-02	9.0126E+01	2	4	867	
771	42-Mo-91	0	42	0910	9.2940E+02	1.4510E+06	9.7760E+05	0.0000E+00	2.00	0.0	1.0462E+05	9.6600E-01	9.0131E+01	2	4	907	
772	42-Mo-91	1	42	0911	6.4600E+01	5.6000E+05	1.3900E+06	0.0000E+00	2.00	1.0	4.3253E+06	3.0000E-04	9.0131E+01	2	4	908	
773	43-Tc-91	0	43	0910	1.8840E+02	1.7000E+06	2.5000E+06	0.0000E+00	2.00	0.0	6.5290E+05	5.0000E-01	9.0137E+01	2	4	940	
774	43-Tc-91	1	43	0911	1.9800E+02	1.8600E+06	1.4100E+06	0.0000E+00	2.00	0.0	5.5694E+06	6.6000E-03	9.0137E+01	2	4	941	
775	33-As-92	0	33	0920	2.6530E-02	5.0490E+06	5.4090E+06	0.0000E+00	2.00	1.0	7.0888E+06	9.7510E-01	9.1966E+01	2	2	580	
776	34-Se-92	0	34	0920	7.4770E-02	4.1130E+06	2.2370E+06	0.0000E+00	1.00	0.0	1.5742E+07	5.9000E-01	9.1949E+01	2	2	613	
777	35-Br-92	0	35	0920	3.4300E-01	4.0060E+06	3.1990E+06	0.0000E+00	1.00	0.0	6.3120E+06	1.2000E-01	9.1939E+01	2	2	649	
778	36-Kr-92	0	36	0920	1.8400E+00	2.0000E+06	1.4000E+06	0.0000E+00	1.50	0.0	6.6698E+06	3.3100E-01	9.1136E+01	2	4	684	
779	37-Rb-92	0	37	0920	4.4920E+00	2.9000E+06	2.1500E+06	0.0000E+00	1.00	0.0	8.0949E+06	9.9899E-01	9.1130E+01	2	4	719	
780	38-Sr-92	0	38	0920	9.7600E+03	2.0000E+05	1.3400E+06	0.0000E+00	1.00	0.0	8.0857E+05	1.0700E-04	9.1121E+01	1	2	753	
781	39-Y-92	0	39	0920	1.2740E+04	1.4500E+06	2.5200E+05	0.0000E+00	1.00	0.0	6.0032E+06	9.9967E-01	9.1119E+01	1	4	795	
782	40-Zr-92	0	40	0920	stable	stable	stable	0.0000E+00	1.50	0.0	1.1285E+07	4.1000E-01	9.11905E+01	0	0	834	
783	41-Nb-92	0	41	0920	1.1000E+15	7.2100E+03	1.5100E+06	0.0000E+00	2.00	0.0	1.2536E+07	6.6900E-01	9.1118E+01	1	4	868	
784	41-Nb-92	1	41	0921	8.7700E+05	5.8700E+03	9.6880E+05	0.0000E+00	2.00	0.0	9.0449E+05	3.3000E-04	9.1118E+01	1	4	869	
785	42-Mo-92	0	42	0920	stable	stable	stable	0.0000E+00	1.50	0.0	7.4460E+06	1.1000E-01	9.1907E+01	0	0	909	
786	43-Tc-92	0	43	0920	2.5500E+02	1.6600E+06	3.7500E+06	0.0000E+00	2.00	0.0	7.8821E+06	1.0000E+00	9.1126E+01	1	4	942	
787	44-Ru-92	0	44	0920	2.1900E+02	7.8000E+05	2.0800E+06	0.0000E+00	2.00	0.0	4.6245E+06	1.0000E+00	9.1131E+01	1	4	978	
788	45-Rh-92	0	45	0920	2.9000E+00	3.4300E+06	2.8202E+06	0.0000E+00	2.00	0.0	1.1302E+07	1.0000E+00	9.1142E+01	1	4	1014	
789	33-As-93	0	33	0930	1.8620E-02	4.8490E+06	4.1110E+06	0.0000E+00	1.00	0.0	1.4313E+07	1.0000E+00	9.2970E+01	1	2	581	
790	34-Se-93	0	34	0930	5.8130E-02	4.1170E+06	4.1420E+06	0.0000E+00	1.00	0.0	1.2255E+07	8.9000E-01	9.2955E+01	2	2	614	
791	35-Br-93	0	35	0930	1.0200E-01	3.5540E+06	3.6720E+06	0.0000E+00	1.00	0.0	1.1166E+07	3.2000E-01	9.2942E+01	2	2	650	
792	36-Kr-93	0	36	0930	1.2860E+00	2.8800E+06	2.2600E+06	0.0000E+00	1.50	0.0	7.7277E+06	6.8000E-01	9.2133E+01	2	4	685	
793	37-Rb-93	0	37	0930	5.8400E+00	2.2000E+06	2.2700E+06	0.0000E+00	1.00	0.0	2.5652E+06	1.9500E-02	9.2124E+01	2	4	720	
794	38-Sr-93	0	38	0930	4.4540E+02	7.7000E+05	2.0200E+06	0.0000E+00	1.00	0.0	2.1761E+06	1.3900E-02	9.2116E+01	2	4	754	
795	39-Y-93	0	39	0930	3.6600E+04	1.1720E+06	9.6000E+04	0.0000E+00	1.00	0.0	3.3830E+06	3.4200E-01	9.2111E+01	1	4	796	
796	39-Y-93	1	39	0931	8.2000E-01	7.5000E+04	6.7965E+05	0.0000E+00	3.00	0.0	2.8950E+06	1.0000E+00	9.2111E+01	1	3	797	
797	40-Zr-93	0	40	0930	4.8000E+13	1.9200E+04	0.0000E+00	0.0000E+00	1.00	0.0	9.0301E+04	2.5000E-02	9.2108E+01	2	1	835	
798	41-Nb-93	0	41	0930	stable	stable	stable	0.0000E+00	1.00	1.0	5.9531E+04	9.7500E-01	9.2906E+01	0	0	870	
799	41-Nb-93	1	41	0931	5.0900E+08	2.6700E+04	1.9700E+03	0.0000E+00	3.00	0.0	3.0771E+04	1.0000E+00	9.2108E+01	1	2	871	
800	42-Mo-93	0	42	0930	1.3000E+11	5.0000E+03	1.0800E+04	0.0000E+00	2.00	0.0	4.0666E+05	1.2000E-01	9.2109E+01	2	3	910	
801	42-Mo-93	1	42	0931	2.4700E+04	9.6000E+04	2.3200E+06	0.0000E+00	2.00	0.0	3.7590E+05	8.0000E-01	9.2109E+01	2	4	911	

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
802	43-Tc-93	0	43	930	9.9000E+03	4.3100E+04	1.5690E+06	0.0000E+00	2.00	0.0	3.2010E+06	1.0000E+00	9.2112E+01	1	4	943
803	43-Tc-93	1	43	931	2.6100E+03	9.1000E+04	9.5000E+05	0.0000E+00	2.00	0.0	3.5928E+06	2.3400E-01	9.2112E+01	2	4	944
804	44-Ru-93	0	44	930	5.9700E+01	2.3400E+06	1.1600E+06	0.0000E+00	2.00	0.0	3.9183E+05	7.6600E-01	9.2119E+01	2	4	979
805	44-Ru-93	1	44	931	1.0800E+01	1.5600E+06	2.0000E+06	1.6900E+04	2.00	1.0	6.3886E+06	4.3000E-03	9.2119E+01	3	4	980
806	33-As-94	0	33	940	1.2950E-02	5.3720E+06	5.9020E+06	0.0000E+00	1.00	0.0	2.70	2.0000E-01	9.3977E+01	1	2	582
807	34-Se-94	0	34	940	4.1060E-02	4.1890E+06	2.3000E+06	0.0000E+00	1.00	0.0	2.9900E+06	2.7000E-04	9.3959E+01	2	2	615
808	35-Br-94	0	35	940	7.0000E-02	4.0190E+06	4.6610E+06	0.0000E+00	1.00	0.0	1.7158E+07	1.0000E+00	9.3948E+01	2	2	651
809	36-Kr-94	0	36	940	2.0000E-01	2.9470E+06	1.4800E+06	0.0000E+00	1.00	0.0	8.4650E+06	6.8000E-01	9.3933E+01	2	2	686
810	37-Rb-94	0	37	940	2.7020E+00	2.7162E+06	3.6600E+06	0.0000E+00	1.50	0.0	3.2009E+06	1.1100E-02	9.3120E+01	2	4	721
811	38-Sr-94	0	38	940	7.5300E+01	7.3250E+05	1.5733E+06	0.0000E+00	1.00	0.0	1.0283E+07	8.9500E-01	9.3109E+01	1	2	755
812	39-Y-94	0	39	940	1.1220E+03	1.8100E+06	7.7000E+05	0.0000E+00	1.00	0.0	3.4518E+06	1.0500E-01	9.3105E+01	1	4	798
813	40-Zr-94	0	40	940	stable	stable	stable	0.0000E+00	1.00	0.0	3.5071E+06	1.0000E+00	9.3906E+01	0	0	836
814	41-Nb-94	0	41	940	6.4000E+11	1.4793E+05	1.5738E+06	0.0000E+00	1.00	0.0	4.9181E+06	1.0000E+00	9.3101E+01	1	4	872
815	41-Nb-94	1	41	941	3.7578E+02	3.4200E+04	1.1700E+04	0.0000E+00	1.00	0.0	2.0845E+06	5.0000E-03	9.3101E+01	2	4	873
816	42-Mo-94	0	42	940	stable	stable	stable	0.0000E+00	1.50	0.0	4.0893E+04	9.9500E-01	9.3905E+01	0	0	912
817	43-Tc-94	0	43	940	1.7580E+04	4.6300E+04	2.6590E+06	0.0000E+00	2.00	0.0	4.2558E+06	1.0000E+00	9.3103E+01	1	4	945
818	43-Tc-94	1	43	941	3.1200E+03	7.5400E+05	1.9540E+06	0.0000E+00	2.00	0.0	4.3318E+06	1.0000E+00	9.3103E+01	1	4	946
819	44-Ru-94	0	44	940	3.1100E+03	5.0000E+03	5.2000E+05	0.0000E+00	2.00	1.0	1.4975E+06	1.0000E+00	9.3105E+01	1	4	981
820	45-Rh-94	0	45	940	7.0600E+01	2.9000E+06	3.7600E+06	0.0000E+00	2.00	0.0	9.6760E+06	1.0000E+00	9.3115E+01	1	4	1015
821	45-Rh-94	1	45	941	2.5800E+01	2.7200E+06	3.8600E+06	0.0000E+00	2.00	0.0	9.6760E+06	1.0000E+00	9.3115E+01	1	4	1016
822	33-As-95	0	33	950	9.9550E-03	5.1780E+06	4.4660E+06	0.0000E+00	1.00	0.0	1.5332E+07	1.0000E+00	9.4982E+01	1	2	583
823	34-Se-95	0	34	950	3.1730E-02	4.5590E+06	4.4970E+06	0.0000E+00	1.00	0.0	1.3311E+07	1.0000E+00	9.4965E+01	1	2	616
824	35-Br-95	0	35	950	6.3480E-02	3.5930E+06	3.7130E+06	0.0000E+00	1.00	0.0	1.2388E+07	6.6000E-01	9.4951E+01	2	2	652
825	36-Kr-95	0	36	950	7.8000E-01	3.0550E+06	3.3550E+06	0.0000E+00	1.00	0.0	9.5060E+06	3.4000E-01	9.4938E+01	2	2	687
826	37-Rb-95	0	37	950	3.7770E-01	2.6900E+06	2.3000E+06	2.8700E+04	1.00	0.0	9.7350E+06	9.7130E-01	9.4114E+01	2	4	722
827	38-Sr-95	0	38	950	2.3900E+01	2.2100E+06	1.5350E+06	0.0000E+00	1.00	0.0	4.8806E+06	8.7000E-02	9.4104E+01	1	4	756
828	39-Y-95	0	39	950	6.1800E+02	1.4400E+06	1.1100E+06	0.0000E+00	1.00	0.0	6.0891E+06	1.0000E+00	9.4098E+01	1	2	799
829	40-Zr-95	0	40	950	5.5324E+06	1.1810E+05	7.3210E+05	0.0000E+00	1.00	0.0	1.1235E+06	9.8920E-01	9.4093E+01	2	4	837
830	41-Nb-95	0	41	950	3.0232E+06	4.4520E+04	7.6449E+05	0.0000E+00	1.00	0.0	8.8781E+05	1.0800E-02	9.4091E+01	1	4	874
831	41-Nb-95	1	41	951	3.1200E+05	1.6900E+05	7.0800E+04	0.0000E+00	1.00	0.0	1.1613E+06	5.6000E-02	9.4091E+01	2	4	875
832	42-Mo-95	0	42	950	stable	stable	stable	0.0000E+00	3.00	0.0	2.3569E+05	9.4400E-01	9.4906E+01	0	0	913
833	43-Tc-95	0	43	950	7.2000E+04	6.3300E+03	7.9650E+05	0.0000E+00	2.00	0.0	1.7294E+06	1.0000E+00	9.4092E+01	1	4	947
834	43-Tc-95	1	43	951	5.2700E+06	1.4500E+04	6.8800E+05	0.0000E+00	2.00	0.0	1.7294E+06	9.6100E-01	9.4092E+01	2	4	948
835	44-Ru-95	0	44	950	5.9100E+03	8.0000E+04	1.2380E+06	0.0000E+00	2.00	0.0	3.8900E+04	3.9000E-02	9.4095E+01	2	4	982
									2.00	1.0	2.5247E+06	2.6000E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT	
836	45-Rh-95	0	450950	3.0100E+02	8.8200E+05	2.4270E+06	0.0000E+00	0.0000E+00	2.00	0.0	5.1159E+06	1.0000E+00	9.4101E+01	1	4	1017	
837	45-Rh-95	1	450951	1.1760E+02	1.7800E+05	8.8000E+05	0.0000E+00	0.0000E+00	2.00	0.0	5.6592E+06	1.2000E-01	9.4101E+01	2	4	1018	
838	46-Pd-95	0	460950	5.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.4330E+05	8.8000E-01	9.4925E+01	1	0	1068	
839	46-Pd-95	1	460951	1.3300E+01	1.8200E+06	3.2400E+06	0.0000E+00	0.0000E+00	2.00	0.0	8.3759E+06	1.0000E+00	9.4109E+01	3	4	1069	
840	47-Ag-95	0	470950	1.7400E+00	2.9500E+06	2.3800E+06	0.0000E+00	0.0000E+00	2.00	0.0	7.1300E+06	9.0000E-03	9.4120E+01	1	4	1112	
841	47-Ag-95	1	470951	5.0000E-01	6.7850E+04	2.7530E+05	0.0000E+00	0.0000E+00	3.00	0.0	1.0368E+07	1.0000E+00	9.4120E+01	1	3	1113	
842	47-Ag-95	2	470952	1.6000E-02	1.9700E+04	2.4600E+06	0.0000E+00	0.0000E+00	3.00	0.0	3.4420E+05	1.0000E+00	9.4120E+01	1	3	1114	
843	34-Se-96	0	340960	1.9420E-02	4.6120E+06	2.6180E+06	0.0000E+00	0.0000E+00	1.00	0.0	1.2336E+07	1.0000E+00	9.5969E+01	1	2	617	
844	35-Br-96	0	350960	4.9250E-02	4.4690E+06	4.8220E+06	0.0000E+00	0.0000E+00	1.00	0.0	1.4916E+07	7.2400E-01	9.5957E+01	2	2	653	
845	36-Kr-96	0	360960	8.0000E-02	3.0730E+06	1.5660E+06	0.0000E+00	0.0000E+00	1.00	0.0	9.9240E+06	2.7600E-01	9.5941E+01	2	2	688	
846	37-Rb-96	0	370960	2.0130E-01	3.6600E+06	3.0840E+06	0.0000E+00	0.0000E+00	1.50	0.0	8.2747E+06	9.6300E-01	9.5110E+01	2	4	723	
847	38-Sr-96	0	380960	1.0700E+00	1.9700E+06	1.3543E+06	0.0000E+00	0.0000E+00	1.00	0.0	4.7429E+06	3.7000E-02	9.5098E+01	1	4	757	
848	39-Y-96	0	390960	5.3400E+00	2.6565E+06	1.2056E+06	0.0000E+00	0.0000E+00	1.00	0.0	1.1576E+07	8.6700E-01	9.5092E+01	1	2	800	
849	39-Y-96	1	390961	9.6000E+00	1.6100E+06	4.3076E+06	0.0000E+00	0.0000E+00	1.00	0.0	5.6966E+06	1.3300E-01	9.5092E+01	1	4	801	
850	40-Zr-96	0	400960	6.3000E+26	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	7.1030E+06	1.0000E+00	9.5092E+01	1	0	838	
851	41-Nb-96	0	410960	8.4060E+04	2.5300E+05	2.4610E+06	0.0000E+00	0.0000E+00	1.00	0.0	3.3490E+06	1.0000E+00	9.5084E+01	1	4	876	
852	42-Mo-96	0	420960	stable	stable	stable	0.0000E+00	0.0000E+00	2.00	0.0	3.1868E+06	1.0000E+00	9.5905E+01	0	0	914	
853	43-Tc-96	0	430960	3.7000E+05	8.2600E+03	2.5000E+06	0.0000E+00	0.0000E+00	2.00	0.0	2.9732E+06	1.0000E+00	9.5084E+01	1	4	949	
854	43-Tc-96	1	430961	3.0900E+03	2.6300E+04	4.8000E+04	0.0000E+00	0.0000E+00	2.00	0.0	8.2747E+06	2.0000E-02	9.5084E+01	2	4	950	
855	44-Ru-96	0	440960	stable	stable	stable	0.0000E+00	0.0000E+00	3.00	0.0	3.4200E+04	9.8000E-01	9.5908E+01	0	0	983	
856	45-Rh-96	0	450960	5.9400E+02	6.9000E+05	3.8800E+06	0.0000E+00	0.0000E+00	2.00	0.0	6.3926E+06	1.0000E+00	9.5091E+01	1	4	1019	
857	45-Rh-96	1	450961	9.0600E+01	5.8000E+05	1.2900E+06	0.0000E+00	0.0000E+00	2.00	0.0	6.4446E+06	4.0000E-01	9.5091E+01	2	4	1020	
858	46-Pd-96	0	460960	1.2200E+02	2.2000E+05	1.4500E+06	0.0000E+00	0.0000E+00	2.00	1.0	5.2000E+04	6.0000E-01	9.5094E+01	1	4	1070	
859	47-Ag-96	0	470960	4.4000E+00	2.3200E+06	3.4000E+06	2.4200E+04	2.00	0.0	0.0	3.4523E+06	1.0000E+00	9.5107E+01	2	4	1115	
860	47-Ag-96	1	470961	6.9000E+00	1.6000E+06	9.7000E+05	1.7000E+04	2.00	0.0	0.0	6.5400E+06	8.5000E-02	9.5107E+01	3	4	1116	
861	35-Br-97	0	350970	3.2320E-02	4.1950E+06	3.5080E+06	0.0000E+00	0.0000E+00	2.00	1.0	1.1670E+07	8.2000E-01	9.6961E+01	2	2	654	
862	36-Kr-97	0	360970	6.3000E-02	3.8340E+06	2.9930E+06	0.0000E+00	0.0000E+00	1.00	0.0	1.3368E+07	6.6000E-01	9.6947E+01	2	2	689	
863	37-Rb-97	0	370970	1.6990E-01	3.0248E+06	2.8767E+06	0.0000E+00	0.0000E+00	1.50	0.0	5.8596E+06	6.7000E-02	9.6105E+01	2	4	724	
864	38-Sr-97	0	380970	4.2600E-01	2.2850E+06	2.0100E+06	0.0000E+00	0.0000E+00	1.00	0.0	6.3394E+06	2.5500E-01	9.6093E+01	3	4	758	
865	39-Y-97	0	390970	3.7500E+00	2.2000E+06	1.8200E+06	0.0000E+00	0.0000E+00	1.50	0.0	6.8774E+06	8.5060E-01	9.6086E+01	2	4	802	
866	39-Y-97	1	390971	1.1700E+00	2.4200E+06	2.1500E+06	0.0000E+00	0.0000E+00	1.00	0.0	1.00	6.8774E+06	9.9945E-01	9.6086E+01	3	4	803
									3.00	0.0	1.50	8.0000E-04	9.9220E-01				
											6.6752E+05	7.0000E-03					

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
867	39-Y-97	2	39	0972	1.4200E-01	1.8500E+05	2.9100E+06	0.0000E+00	1.00	0.0	1.0344E+07	5.2000E-02	9.6086E+01	2	4	804
									3.00	1.0	2.8551E+06	9.4800E-01				
868	40-Zr-97	0	40	970	6.0300E+04	7.0500E+05	1.8700E+05	0.0000E+00	1.00	0.0	2.6597E+06	4.9500E-02	9.6078E+01	2	4	839
									1.00	1.0	1.9163E+06	9.5050E-01				
869	41-Nb-97	0	41	0970	4.3300E+03	4.6880E+05	6.6500E+05	0.0000E+00	1.00	0.0	1.9355E+06	1.0000E+00	9.6076E+01	1	4	877
870	41-Nb-97	1	41	0971	5.8700E+01	0.0000E+00	7.2770E+05	0.0000E+00	3.00	0.0	7.4335E+05	1.0000E+00	9.6076E+01	1	1	878
871	42-Mo-97	0	42	0970	stable								9.6906E+01	0	0	915
872	43-Tc-97	0	43	0970	1.3300E+14	5.1355E+03	1.1815E+04	0.0000E+00	2.00	0.0	3.2471E+05	1.0000E+00	9.6074E+01	1	3	951
873	43-Tc-97	1	43	0971	7.8600E+06	8.6000E+04	1.0100E+04	0.0000E+00	2.00	0.0	4.2128E+05	3.9400E-02	9.6074E+01	2	4	952
									3.00	0.0	9.6500E+04	9.6060E-01				
874	44-Ru-97	0	44	0970	2.4500E+05	5.7400E+03	2.4040E+05	0.0000E+00	2.00	0.0	1.0996E+06	9.9964E-01	9.6075E+01	2	4	984
									2.00	1.0	1.0030E+06	3.6000E-04				
875	45-Rh-97	0	45	0970	1.8400E+03	5.2100E+05	1.4370E+06	0.0000E+00	2.00	0.0	3.5230E+06	1.0000E+00	9.6079E+01	1	4	1021
876	45-Rh-97	1	45	0971	2.7700E+03	1.9200E+05	2.1700E+06	0.0000E+00	2.00	0.0	3.7818E+06	9.4100E-01	9.6079E+01	2	4	1022
									3.00	0.0	2.5876E+05	5.9000E-02				
877	46-Pd-97	0	46	0970	1.8660E+02	7.7000E+05	2.3900E+06	0.0000E+00	2.00	0.0	4.7905E+06	9.8300E-01	9.6084E+01	2	4	1071
									2.00	1.0	4.5317E+06	1.7000E-02				
878	47-Ag-97	0	47	0970	2.5500E+01	1.0000E+06	3.8300E+06	0.0000E+00	2.00	0.0	6.9800E+06	1.0000E+00	9.6091E+01	1	4	1117
879	35-Br-98	0	35	980	2.3620E-02	4.8800E+06	5.3770E+06	0.0000E+00	1.00	0.0	1.5863E+07	1.0000E+00	9.7968E+01	1	2	655
880	36-Kr-98	0	36	980	4.6000E-02	3.4920E+06	1.8510E+06	0.0000E+00	1.00	0.0	1.0007E+07	9.3000E-01	9.7950E+01	2	2	690
									1.50	0.0	6.1370E+06	7.0000E-02				
881	37-Rb-98	0	37	980	1.1400E-01	3.7110E+06	2.9230E+06	0.0000E+00	1.00	0.0	1.2108E+07	8.6200E-01	9.7101E+01	2	4	725
									1.50	0.0	6.1926E+06	1.3800E-01				
882	37-Rb-98	1	37	981	9.6000E-02	5.3850E+06	1.6800E+06	0.0000E+00	1.00	0.0	1.2378E+07	1.0000E+00	9.7100E+01	1	4	726
883	38-Sr-98	0	38	980	6.5300E-01	2.11390E+06	1.0510E+06	0.0000E+00	1.00	0.0	5.8746E+06	9.9750E-01	9.7087E+01	2	4	759
									1.50	0.0	1.6299E+06	2.5000E-03				
884	39-Y-98	0	39	980	5.4800E-01	2.9000E+06	2.8100E+06	0.0000E+00	1.00	0.0	8.9919E+06	9.9669E-01	9.7081E+01	2	4	805
									1.50	0.0	2.5765E+06	3.3100E-03				
885	39-Y-98	1	39	981	2.0000E+00	2.5000E+06	2.7400E+06	0.0000E+00	1.00	0.0	9.4019E+06	8.6600E-01	9.7081E+01	3	4	806
									1.50	0.0	2.9865E+06	3.4000E-02				
									3.00	0.0	4.1000E+05	1.0000E-01				
886	40-Zr-98	0	40	980	3.0700E+01	9.1000E+05	0.0000E+00	0.0000E+00	1.00	0.0	2.2378E+06	1.0000E+00	9.7072E+01	1	1	840
887	41-Nb-98	0	41	980	2.8600E+00	1.6275E+06	8.5580E+05	0.0000E+00	1.00	0.0	4.5845E+06	1.0000E+00	9.7069E+01	1	2	879
888	41-Nb-98	1	41	981	3.0780E+03	7.7000E+05	2.8120E+06	0.0000E+00	1.00	0.0	4.6685E+06	1.0000E+00	9.7069E+01	1	4	880
889	42-Mo-98	0	42	980	stable								9.7905E+01	0	0	916
890	43-Tc-98	0	43	980	1.3300E+14	1.1800E+05	1.4100E+06	0.0000E+00	1.00	0.0	1.7936E+06	1.0000E+00	9.7066E+01	1	2	953
891	44-Ru-98	0	44	980	stable								9.7906E+01	0	0	985
892	45-Rh-98	0	45	980	5.2300E+02	1.3200E+06	1.7700E+06	0.0000E+00	2.00	0.0	5.0496E+06	1.0000E+00	9.7070E+01	1	4	1023
893	45-Rh-98	1	45	981	2.1600E+02	1.0350E+05	2.9000E+05	0.0000E+00	2.00	0.0	5.0496E+06	1.1000E-01	9.7070E+01	2	4	1024
									3.00	0.0	6.0000E+03	8.9000E-01				
894	46-Pd-98	0	46	980	1.0620E+03	4.4000E+04	4.1600E+05	0.0000E+00	2.00	0.0	1.8541E+06	1.0000E+00	9.7072E+01	1	4	1072
895	47-Ag-98	0	47	980	4.7500E+01	1.3300E+06	4.5400E+06	1.3700E+04	2.00	0.0	8.2546E+06	9.9999E-01	9.7081E+01	2	4	1118
									2.70	0.0	2.2409E+06	1.1000E-05				
896	48-Cd-98	0	48	980	9.2000E+00	1.0400E+06	2.5000E+06	9.8000E+03	2.00	0.0	5.4300E+06	9.9975E-01	9.7086E+01	2	4	1177
									2.70	0.0	2.8805E+06	2.5000E-04				
897	35-Br-99	0	35	990	1.5130E-02	4.5720E+06	3.9200E+06	0.0000E+00	1.00	0.0	1.3580E+07	1.0000E+00	9.8972E+01	1	2	656
898	36-Kr-99	0	36	990	4.0000E-02	4.2990E+06	3.5310E+06	0.0000E+00	1.00	0.0	1.2446E+07	8.0000E-01	9.8957E+01	2	2	691
									1.50	0.0	7.4880E+06	1.2000E-01				
899	37-Rb-99	0	37	990	5.0300E-02	3.6640E+06	2.6560E+06	0.0000E+00	1.00	0.0	1.1306E+07	8.4100E-01	9.8944E+01	2	2	727
									1.50	0.0	7.1493E+06	1.5900E-01				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
900	38-Sr-99	0	38	990	2.6900E-01	3.2000E+06	2.1060E+06	0.0000E+00	1.00	0.0	8.1438E+06	9.9900E-01	9.8083E+01	2	4	760
901	39-Y-99	0	39	990	1.4780E+00	2.3750E+06	1.1470E+06	0.0000E+00	1.00	0.0	1.7173E+06	1.0000E-03	9.8075E+01	2	4	807
902	40-Zr-99	0	40	990	2.1000E+00	1.7100E+06	8.4400E+05	0.0000E+00	1.00	0.0	6.9687E+06	9.8100E-01	9.8067E+01	2	4	841
903	41-Nb-99	0	41	990	1.5000E+01	1.2746E+06	6.2173E+05	0.0000E+00	1.00	0.0	2.5655E+06	1.9000E-02	9.8062E+01	1	4	881
904	41-Nb-99	1	41	991	1.5600E+02	1.1829E+06	1.7155E+06	0.0000E+00	1.00	0.0	4.7074E+06	6.3200E-01	9.8062E+01	2	4	882
905	42-Mo-99	0	42	990	2.3738E+05	3.9400E+05	1.4840E+05	0.0000E+00	1.00	0.0	4.3421E+06	3.6800E-01	9.8058E+01	2	4	917
906	43-Tc-99	0	43	990	6.6600E+12	8.4600E+04	7.0000E-01	0.0000E+00	1.00	0.0	1.3578E+06	1.1500E-01	9.8057E+01	1	2	954
907	43-Tc-99	1	43	991	2.1650E+04	1.5100E+04	1.2650E+05	0.0000E+00	1.00	0.0	1.2151E+06	8.8500E-01	9.8057E+01	2	4	955
908	44-Ru-99	0	44	990	stable								9.8906E+01	0	0	986
909	45-Rh-99	0	45	990	1.3910E+06	5.8000E+04	5.5800E+05	0.0000E+00	2.00	0.0	2.0438E+06	1.0000E+00	9.8059E+01	1	4	1025
910	45-Rh-99	1	45	991	1.6900E+04	3.5800E+04	6.5100E+05	0.0000E+00	2.00	0.0	2.1084E+06	1.0000E+00	9.8059E+01	1	4	1026
911	46-Pd-99	0	46	990	1.2840E+03	4.2400E+05	1.2600E+06	0.0000E+00	2.00	0.0	3.3968E+06	2.5900E-02	9.8062E+01	2	4	1073
912	47-Ag-99	0	47	990	1.2400E+02	1.3600E+06	2.3300E+06	0.0000E+00	2.00	0.0	3.3322E+06	9.7410E-01	9.8068E+01	1	4	1119
913	47-Ag-99	1	47	991	1.0500E+01	8.5000E+04	4.1000E+05	0.0000E+00	3.00	0.0	5.4688E+06	1.0000E+00	9.8068E+01	1	3	1120
914	35-Br-100	0	35	1000	1.1550E-02	5.0300E+06	5.5850E+06	0.0000E+00	1.00	0.0	5.0620E+05	1.0000E+00	9.9979E+01	1	2	657
915	36-Kr-100	0	36	1000	3.1590E-02	3.9700E+06	2.1890E+06	0.0000E+00	1.00	0.0	1.6167E+07	8.3000E-01	9.9960E+01	2	2	692
916	37-Rb-100	0	37	1000	5.1000E-02	4.2760E+06	4.6740E+06	0.0000E+00	1.00	0.0	8.0820E+06	1.7000E-01	9.9949E+01	2	2	728
917	38-Sr-100	0	38	1000	2.0200E-01	2.5310E+06	1.2750E+06	0.0000E+00	1.00	0.0	1.3283E+07	9.4000E-01	9.9077E+01	2	2	761
918	39-Y-100	0	39	1000	7.3500E-01	2.9420E+06	2.9890E+06	0.0000E+00	1.00	0.0	7.8940E+06	6.0000E-02	9.9070E+01	2	2	808
919	39-Y-100	1	39	1001	9.4000E-01	3.2900E+06	2.2530E+06	0.0000E+00	1.00	0.0	2.7542E+06	9.9220E-01	9.9927E+01	2	2	809
920	40-Zr-100	0	40	1000	7.1000E+00	1.1141E+06	6.9823E+05	0.0000E+00	1.00	0.0	9.0486E+06	9.9080E-01	9.9059E+01	2	2	842
921	41-Nb-100	0	41	1000	1.5000E+00	2.5400E+06	7.1000E+05	0.0000E+00	1.00	0.0	3.1076E+06	2.0000E-02	9.9056E+01	1	4	883
922	41-Nb-100	1	41	1001	2.9900E+00	2.0000E+06	2.2100E+06	0.0000E+00	1.00	0.0	6.3862E+06	1.0000E+00	9.9056E+01	1	4	884
923	42-Mo-100	0	42	1000	2.3000E+26	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	7.002E+06	1.0000E+00	9.9907E+01	1	0	918
924	43-Tc-100	0	43	1000	1.5460E+01	1.3176E+06	7.6100E+04	0.0000E+00	1.00	0.0	3.0344E+06	1.0000E+00	9.9998E-01	2	5	956
925	44-Ru-100	0	44	1000	stable								9.9904E+01	0	0	987
926	45-Rh-100	0	45	1000	7.4900E+04	5.0000E+04	2.7430E+06	0.0000E+00	2.00	0.0	3.6356E+06	1.0000E+00	9.9050E+01	1	4	1027
927	45-Rh-100	1	45	1001	2.7600E+02	7.7300E+04	6.3900E+04	0.0000E+00	2.00	0.0	3.7432E+06	1.7000E-02	9.9050E+01	2	4	1028
928	46-Pd-100	0	46	1000	3.1400E+05	4.3200E+04	1.2300E+05	0.0000E+00	2.00	0.0	1.0760E+05	9.8300E-01	9.9050E+01	1	4	1074
929	47-Ag-100	0	47	1000	1.2100E+02	1.0600E+06	3.2300E+06	0.0000E+00	2.00	0.0	3.6099E+05	1.0000E+00	9.9058E+01	1	4	1121
930	47-Ag-100	1	47	1001	1.3400E+02	1.5000E+06	2.5700E+06	0.0000E+00	2.00	0.0	7.0893E+06	1.0000E+00	9.9058E+01	1	4	1122
931	48-Cd-100	0	48	1000	4.9100E+01	4.7000E+05	1.6500E+06	0.0000E+00	2.00	0.0	1.1048E+06	1.0000E+00	9.9062E+01	2	4	1178
932	49-In-100	0	49	1000	5.9000E+00	1.3400E+06	3.0500E+06	1.3600E+04	2.00	0.0	3.9278E+06	9.5400E-01	9.9073E+01	2	4	1223
									2.70	0.0	9.8816E+06	9.8400E-01				
											5.1105E+06	1.6000E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
933	36-Kr-101	0	36	1010	2.4260E-02	4.4400E+06	3.9300E+06	0.0000E+00	1.00	0.0	1.3684E+07	1.0000E+00	1.0097E+02	1	2	693
934	37-Rb-101	0	37	1010	3.2000E-02	4.0380E+06	3.1230E+06	0.0000E+00	1.00	0.0	1.2750E+07	7.2000E-01	1.0008E+02	2	2	729
935	38-Sr-101	0	38	1010	1.1800E-01	3.8000E+06	2.6620E+06	0.0000E+00	1.00	0.0	8.9470E+06	2.8000E-01	1.0007E+02	2	2	762
936	39-Y-101	0	39	1010	4.5000E-01	2.6910E+06	1.5230E+06	0.0000E+00	1.00	0.0	3.5550E+06	2.3700E-02	1.0006E+02	2	4	810
937	40-Zr-101	0	40	1010	2.3000E+00	2.2000E+06	1.0910E+06	0.0000E+00	1.00	0.0	5.7172E+06	1.0000E+00	1.0006E+02	1	4	843
938	41-Nb-101	0	41	1010	7.1000E+00	1.8580E+06	4.5000E+05	0.0000E+00	1.00	0.0	4.6284E+06	1.0000E+00	1.0005E+02	1	4	885
939	42-Mo-101	0	42	1010	8.7660E+02	5.4800E+05	1.4710E+06	0.0000E+00	1.00	0.0	2.8246E+06	1.0000E+00	1.0004E+02	1	4	919
940	43-Tc-101	0	43	1010	8.5200E+02	4.7900E+05	3.3700E+05	0.0000E+00	1.00	0.0	1.6135E+06	1.0000E+00	1.0004E+02	1	4	957
941	44-Ru-101	0	44	1010	stable								1.0091E+02	0	0	988
942	45-Rh-101	0	45	1010	1.0400E+08	2.5500E+04	2.8800E+05	0.0000E+00	2.00	0.0	5.4375E+05	1.0000E+00	1.0004E+02	1	4	1029
943	45-Rh-101	1	45	1011	3.7500E+05	1.8800E+04	2.8700E+05	0.0000E+00	2.00	0.0	7.0107E+05	9.2800E-01	1.0004E+02	2	4	1030
944	46-Pd-101	0	46	1010	3.0490E+04	3.1000E+04	3.5100E+05	0.0000E+00	2.00	0.0	1.5730E+05	7.2000E-02	1.0004E+02	2	4	1075
945	47-Ag-101	0	47	1010	6.6600E+02	8.4000E+05	1.5700E+06	0.0000E+00	2.00	0.0	4.0963E+06	1.0000E+00	1.0005E+02	1	4	1123
946	47-Ag-101	1	47	1011	3.1000E+00	1.1300E+05	1.5520E+05	0.0000E+00	3.00	0.0	2.7430E+05	1.0000E+00	1.0005E+02	1	3	1124
947	48-Cd-101	0	48	1010	8.2000E+01	9.7000E+05	2.4320E+06	0.0000E+00	2.00	0.0	5.4979E+06	8.8600E-01	1.0005E+02	2	4	1179
948	49-In-101	0	49	1010	1.5100E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.2238E+06	1.1400E-01	1.0093E+02	1	0	1224
949	50-Sn-101	0	50	1010	1.7000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.2230E+06	1.0000E+00	1.0094E+02	2	0	1300
950	36-Kr-102	0	36	1020	1.5000E-02	4.2990E+06	2.6340E+06	0.0000E+00	1.00	0.0	1.1753E+07	1.0000E+00	1.0197E+02	1	2	694
951	37-Rb-102	0	37	1020	3.7000E-02	4.6180E+06	4.6170E+06	0.0000E+00	1.00	0.0	1.4651E+07	8.2000E-01	1.0196E+02	2	2	730
952	38-Sr-102	0	38	1020	6.9000E-02	3.0170E+06	1.5780E+06	0.0000E+00	1.00	0.0	8.8150E+06	9.4500E-01	1.0107E+02	2	2	763
953	39-Y-102	0	39	1020	3.6000E-01	3.0960E+06	3.8230E+06	0.0000E+00	1.00	0.0	1.0420E+07	9.5100E-01	1.0193E+02	2	2	811
954	39-Y-102	1	39	1021	2.9800E-01	2.9770E+06	3.3910E+06	0.0000E+00	1.00	0.0	3.9261E+06	4.9000E-02	1.0193E+02	1	2	812
955	40-Zr-102	0	40	1020	2.9000E+00	1.2500E+06	7.3730E+05	0.0000E+00	1.00	0.0	4.7168E+06	1.0000E+00	1.0105E+02	1	4	844
956	41-Nb-102	0	41	1020	4.3000E+00	2.2800E+06	2.0900E+06	0.0000E+00	1.00	0.0	7.2599E+06	1.0000E+00	1.0104E+02	1	2	886
957	41-Nb-102	1	41	1021	1.3000E+00	2.8320E+06	1.4610E+06	0.0000E+00	1.00	0.0	7.2599E+06	1.0000E+00	1.0192E+02	1	2	887
958	42-Mo-102	0	42	1020	6.7800E+02	3.5000E+05	1.8500E+04	0.0000E+00	1.00	0.0	1.0001E+06	1.0000E+00	1.0104E+02	1	2	920
959	43-Tc-102	0	43	1020	5.2800E+00	1.9350E+06	1.1000E+05	0.0000E+00	1.00	0.0	4.5323E+06	1.0000E+00	1.0103E+02	1	2	958
960	43-Tc-102	1	43	1021	2.6100E+02	7.8000E+05	2.5200E+06	0.0000E+00	1.00	0.0	4.8323E+06	9.8000E-01	1.0103E+02	2	2	959
961	44-Ru-102	0	44	1020	stable								1.0190E+02	0	0	989
962	45-Rh-102	0	45	1020	1.7910E+07	1.6600E+05	4.9900E+05	0.0000E+00	1.00	0.0	1.1506E+06	2.2000E-01	1.0103E+02	2	5	1031
963	45-Rh-102	1	45	1021	1.1810E+08	5.5600E+03	2.1600E+06	0.0000E+00	2.00	0.0	2.3225E+06	7.8000E-01	1.0103E+02	2	4	1032
964	46-Pd-102	0	46	1020	stable								1.0191E+02	0	0	1076
965	47-Ag-102	0	47	1020	7.7400E+02	9.2000E+05	3.0800E+06	0.0000E+00	2.00	0.0	5.6845E+06	1.0000E+00	1.0104E+02	1	4	1125
966	47-Ag-102	1	47	1021	4.6000E+02	4.0000E+05	1.2000E+06	0.0000E+00	3.00	0.0	5.6939E+06	5.1000E-01	1.0104E+02	2	4	1126
967	48-Cd-102	0	48	1020	3.3000E+02	7.2400E+04	8.2800E+05	0.0000E+00	2.00	0.0	9.3000E+03	4.9000E-01	1.0104E+02	2	4	1180
									2.00	1.0	2.5776E+06	9.4600E-01	1.0104E+02	2	4	1180

No.	Symbol	S	ZzAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
968	49-In-102	0	491020	2.3300E+01	0.0000E+00	3.9500E+06	0.0000E+00	2.00	0.0	8.9658E+06	1.0000E+00	1.0105E+02	1	2	1225
969	50-Sn-102	0	501020	3.8000E+00	1.1490E+06	1.4400E+06	0.0000E+00	2.00	0.0	5.7800E+06	1.0000E+00	1.0106E+02	1	4	1301
970	37-Rb-103	0	371030	2.3750E-02	4.3620E+06	3.5020E+06	0.0000E+00	1.00	0.0	1.3814E+07	5.1000E-01	1.0296E+02	2	2	731
971	38-Sr-103	0	381030	8.4520E-02	3.6940E+06	2.9490E+06	0.0000E+00	1.00	0.0	1.0679E+07	9.0000E-01	1.0295E+02	2	2	764
972	39-Y-103	0	391030	2.3000E-01	3.0340E+06	1.9810E+06	0.0000E+00	1.50	0.0	1.1035E+07	1.0000E-01	1.0294E+02	2	2	813
973	40-Zr-103	0	401030	1.3000E+00	2.4570E+06	1.4670E+06	0.0000E+00	1.00	0.0	5.6800E+06	1.0000E-01	1.0204E+02	1	2	845
974	41-Nb-103	0	411030	1.5000E+00	2.1110E+06	9.8200E+05	0.0000E+00	1.00	0.0	9.3637E+06	9.9990E-01	1.0292E+02	2	2	888
975	42-Mo-103	0	421030	6.7500E+01	1.1200E+06	1.1300E+06	0.0000E+00	1.00	0.0	1.0647E+06	1.0000E+00	1.0203E+02	1	4	921
976	43-Tc-103	0	431030	5.4200E+01	7.0399E+05	5.5265E+05	0.0000E+00	1.00	0.0	8.0000E-02	1.0000E+00	1.0203E+02	1	4	960
977	44-Ru-103	0	441030	3.3909E+06	6.6500E+04	4.9600E+05	0.0000E+00	1.00	0.0	7.2036E+06	9.9990E-01	1.0202E+02	2	4	990
978	44-Ru-103	1	441031	1.6900E-03	1.2600E+04	2.1000E+05	0.0000E+00	3.00	0.0	4.7405E+05	1.0000E-04	1.0202E+02	1	3	991
979	45-Rh-103	0	451030	stable						3.6351E+06	1.0000E+00	1.0291E+02	0	0	1033
980	45-Rh-103	1	451031	3.3668E+03	3.4800E+04	1.6800E+03	0.0000E+00	3.00	0.0	2.6618E+06	1.0000E+00	1.0202E+02	1	3	1034
981	46-Pd-103	0	461030	1.4680E+06	4.9690E+03	1.4554E+04	0.0000E+00	2.00	0.0	7.6442E+05	1.1700E-02	1.0202E+02	2	4	1077
982	47-Ag-103	0	471030	3.9400E+03	1.7600E+05	8.4000E+05	0.0000E+00	2.00	0.0	1.0000E+00	1.0000E+00	1.0203E+02	1	4	1127
983	47-Ag-103	1	471031	5.7000E+00	4.2000E+04	3.5700E+04	0.0000E+00	3.00	0.0	1.6500E+06	1.0000E+00	1.0203E+02	1	3	1128
984	48-Cd-103	0	481030	4.3800E+02	3.4000E+05	1.9400E+06	0.0000E+00	2.00	0.0	4.1483E+06	8.3500E-01	1.0203E+02	2	4	1181
985	49-In-103	0	491030	6.0000E+01	1.5700E+06	2.7700E+06	0.0000E+00	2.00	0.0	4.0138E+06	1.6500E-01	1.0204E+02	1	4	1226
986	50-Sn-103	0	501030	7.0000E+00	2.6000E+05	2.0300E+06	0.0000E+00	2.00	0.0	6.0225E+06	1.0000E+00	1.0204E+02	2	4	1302
987	37-Rb-104	0	371040	1.8590E-02	4.8140E+06	5.3890E+06	0.0000E+00	1.50	0.0	1.5552E+07	6.2000E-01	1.0397E+02	2	2	732
988	38-Sr-104	0	381040	4.9800E-02	3.4300E+06	1.8520E+06	0.0000E+00	1.00	0.0	1.0934E+07	3.8000E-01	1.0395E+02	2	2	765
989	39-Y-104	0	391040	1.8000E-01	3.4940E+06	3.7500E+06	0.0000E+00	1.00	0.0	6.2800E+06	8.3000E-02	1.0394E+02	2	2	814
990	40-Zr-104	0	401040	1.2000E+00	1.7420E+06	8.9440E+05	0.0000E+00	1.50	0.0	5.6860E+06	1.2000E-01	1.0393E+02	2	2	846
991	41-Nb-104	0	411040	4.8000E+00	2.5100E+06	3.3760E+06	0.0000E+00	1.00	0.0	6.0950E+06	9.9988E-01	1.0392E+02	2	2	889
992	41-Nb-104	1	411041	9.4000E-01	3.1250E+06	2.1340E+06	0.0000E+00	1.00	0.0	1.0703E+06	6.0000E-04	1.0392E+02	2	2	890
993	42-Mo-104	0	421040	6.0000E+01	6.2290E+05	5.8470E+05	0.0000E+00	1.50	0.0	8.7457E+06	9.9950E-01	1.0302E+02	1	4	922
994	43-Tc-104	0	431040	1.0980E+03	8.5000E+05	3.2300E+06	0.0000E+00	1.00	0.0	1.2853E+06	5.0000E-04	1.0302E+02	1	4	961
995	44-Ru-104	0	441040	stable						2.1513E+06	1.0000E+00	1.0390E+02	0	0	992
996	45-Rh-104	0	451040	4.2300E+01	9.8500E+05	1.2000E+04	0.0000E+00	1.00	0.0	5.5866E+06	1.0000E+00	1.0301E+02	2	5	1035
997	45-Rh-104	1	451041	2.6000E+02	8.3100E+04	4.5400E+04	0.0000E+00	1.00	0.0	2.4393E+06	9.9550E-01	1.0301E+02	2	4	1036
998	46-Pd-104	0	461040	stable						1.1380E+06	4.5000E-03	1.0301E+02	2	4	1036
999	47-Ag-104	0	471040	4.1500E+03	8.5000E+04	2.7000E+06	0.0000E+00	2.00	0.0	1.2896E+05	9.9870E-01	1.0390E+02	0	0	1078
1000	47-Ag-104	1	471041	2.0100E+03	7.4000E+05	1.8100E+06	0.0000E+00	2.00	0.0	4.2786E+06	1.0000E+00	1.0302E+02	1	4	1129
										4.2856E+06	9.9930E-01	1.0302E+02	2	4	1130
										6.9000E+03	7.0000E-04				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1001	48-Cd-104	0	48	1040	3.4600E+03	2.8200E+04	2.5100E+05	0.0000E+00	2.00	1.0	1.1412E+06	1.0000E+00	1.0302E+02	1	4	1182
1002	49-In-104	0	49	1040	1.0800E+02	5.0000E+05	3.8400E+06	0.0000E+00	2.00	0.0	7.7856E+06	1.0000E+00	1.0303E+02	1	4	1227
1003	49-In-104	1	49	1041	1.5700E+01	6.1000E+04	1.2690E+04	0.0000E+00	2.00	0.0	7.8790E+06	2.0000E-01	1.0303E+02	2	3	1228
1004	50-Sn-104	0	50	1040	2.0800E+01	6.5700E+05	2.1210E+06	0.0000E+00	2.00	0.0	4.5556E+06	1.2000E-01	1.0303E+02	2	4	1303
1005	37-Rb-105	0	37	1050	1.2530E-02	4.6720E+06	4.0870E+06	0.0000E+00	1.00	0.0	4.4621E+06	4.4000E-01	1.0497E+02	2	2	733
1006	38-Sr-105	0	38	1050	3.7830E-02	4.0830E+06	3.3880E+06	0.0000E+00	1.00	0.0	1.2212E+07	9.0000E-01	1.0496E+02	2	2	766
1007	39-Y-105	0	39	1050	8.8760E-02	3.3250E+06	2.3720E+06	0.0000E+00	1.00	0.0	1.0649E+07	8.0000E-01	1.0494E+02	2	2	815
1008	40-Zr-105	0	40	1050	6.0000E-01	2.6620E+06	1.7640E+06	0.0000E+00	1.50	0.0	6.8370E+06	2.0000E-01	1.0493E+02	2	2	847
1009	41-Nb-105	0	41	1050	2.9500E+00	2.4990E+06	1.4040E+06	0.0000E+00	1.00	0.0	7.4313E+06	9.8300E-01	1.0493E+02	2	2	891
1010	42-Mo-105	0	42	1050	3.5600E+01	1.0300E+06	2.4000E+06	0.0000E+00	1.00	0.0	2.3727E+06	1.7000E-02	1.0402E+02	1	4	923
1011	43-Tc-105	0	43	1050	4.5600E+02	7.1700E+05	1.8300E+06	0.0000E+00	1.00	0.0	4.9497E+06	1.0000E+00	1.0401E+02	1	2	962
1012	44-Ru-105	0	44	1050	1.5980E+04	4.1300E+05	7.3800E+05	0.0000E+00	1.00	0.0	1.9180E+06	7.1700E-01	1.0401E+02	2	4	993
1013	45-Rh-105	0	45	1050	1.2730E+05	1.5350E+05	7.7300E+04	0.0000E+00	1.00	0.0	5.6721E+05	1.0000E+00	1.0400E+02	1	4	1037
1014	45-Rh-105	1	45	1051	4.0000E+01	9.4000E+04	3.4590E+04	0.0000E+00	3.00	0.0	1.2957E+05	1.0000E+00	1.0400E+02	1	3	1038
1015	46-Pd-105	0	46	1050	stable								1.0490E+02	0	0	1079
1016	47-Ag-105	0	47	1050	3.5670E+06	1.7900E+04	5.3500E+05	0.0000E+00	2.00	0.0	1.3469E+06	1.0000E+00	1.0400E+02	1	4	1131
1017	47-Ag-105	1	47	1051	4.3400E+02	2.4200E+04	1.3900E+03	0.0000E+00	2.00	0.0	1.3724E+06	3.4000E-03	1.0400E+02	2	4	1132
1018	48-Cd-105	0	48	1050	3.3300E+03	2.1500E+05	1.2500E+06	0.0000E+00	2.00	0.0	2.7370E+06	1.5000E-01	1.0401E+02	2	4	1183
1019	49-In-105	0	49	1050	3.0400E+02	1.0360E+06	1.9200E+06	0.0000E+00	2.00	0.0	2.7115E+06	8.5000E-01	1.0401E+02	1	4	1229
1020	49-In-105	1	49	1051	4.8000E+01	3.1300E+04	6.3600E+05	0.0000E+00	3.00	0.0	4.6933E+06	1.0000E+00	1.0401E+02	1	3	1230
1021	50-Sn-105	0	50	1050	3.4000E+01	1.0300E+06	3.3900E+06	0.0000E+00	2.00	0.0	6.7408E+05	1.0000E+00	1.0402E+02	2	4	1304
1022	52-Te-105	0	52	1050	6.2000E-07	0.0000E+00	0.0000E+00	4.8800E+06	4.00	0.0	5.0692E+06	1.0000E+00	1.0404E+02	1	1	1403
1023	38-Sr-106	0	38	1060	2.4480E-02	3.8190E+06	2.3280E+06	0.0000E+00	1.00	0.0	1.1263E+07	1.0000E+00	1.0596E+02	1	2	767
1024	39-Y-106	0	39	1060	5.7780E-02	3.8130E+06	4.1870E+06	0.0000E+00	1.00	0.0	1.2855E+07	7.6000E-01	1.0595E+02	2	2	816
1025	40-Zr-106	0	40	1060	2.6250E-01	2.1380E+06	1.0910E+06	0.0000E+00	1.50	0.0	7.3470E+06	2.4000E-01	1.0594E+02	2	2	848
1026	41-Nb-106	0	41	1060	9.3000E-01	3.3130E+06	2.5490E+06	0.0000E+00	1.00	0.0	7.2920E+06	9.8500E-01	1.0593E+02	2	2	892
1027	42-Mo-106	0	42	1060	8.7300E+00	1.2320E+06	7.4590E+05	0.0000E+00	1.00	0.0	9.9411E+06	9.5500E-01	1.0592E+02	1	2	924
1028	43-Tc-106	0	43	1060	3.5600E+01	1.4620E+06	3.1300E+06	0.0000E+00	1.00	0.0	3.0722E+06	4.5000E-02	1.0500E+02	1	4	963
1029	44-Ru-106	0	44	1060	3.2120E+07	1.0030E+04	0.0000E+00	0.0000E+00	1.00	0.0	6.5470E+06	1.0000E+00	1.0500E+02	1	4	994
1030	45-Rh-106	0	45	1060	3.0100E+01	1.4100E+06	2.0600E+05	0.0000E+00	1.00	0.0	3.9405E+04	1.0000E+00	1.0500E+02	1	4	1039
1031	45-Rh-106	1	45	1061	7.8600E+03	3.6000E+05	2.8500E+06	0.0000E+00	1.00	0.0	3.5456E+06	1.0000E+00	1.0500E+02	1	4	1040
1032	46-Pd-106	0	46	1060	stable								1.0590E+02	0	0	1080
1033	47-Ag-106	0	47	1060	1.4376E+03	5.0000E+05	7.0600E+05	0.0000E+00	2.00	0.0	2.9651E+06	1.0000E+00	1.0500E+02	1	4	1133
1034	47-Ag-106	1	47	1061	7.1540E+05	9.5700E+03	2.8100E+06	0.0000E+00	2.00	0.0	3.0548E+06	1.0000E+00	1.0500E+02	1	4	1134
1035	48-Cd-106	0	48	1060	stable								1.0591E+02	0	0	1184
1036	49-In-106	0	49	1060	3.7200E+02	1.3000E+06	3.7700E+06	0.0000E+00	2.00	0.0	6.5240E+06	1.0000E+00	1.0500E+02	1	4	1231

No.	Symbol	S	Z	A	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1037	49-In-106	1	49	106	3.1200E+02	1.6300E+06	2.8500E+06	0.0000E+00	2.00	0.0	6.5526E+06	1.0000E+00	1.0500E+02	1	4	1232
1038	50-Sn-106	0	50	106	1.1500E+02	5.0000E+05	2.0070E+06	0.0000E+00	2.00	1.0	3.2257E+06	1.0000E+00	1.0501E+02	1	4	1305
1039	51-Sb-106	0	51	106	6.0000E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.0880E+07	1.0000E+00	1.0593E+02	1	0	1351
1040	52-Te-106	0	52	106	6.0000E-05	0.0000E+00	0.0000E+00	4.3000E+00	4.00	0.0	4.2901E+00	1.0000E+00	1.0503E+02	1	1	1404
1041	38-Sr-107	0	38	107	1.9420E-02	4.5040E+06	4.0360E+06	0.0000E+00	1.00	0.0	1.3465E+07	1.0000E+00	1.0697E+02	1	2	768
1042	39-Y-107	0	39	107	3.5950E-02	3.6670E+06	2.8010E+06	0.0000E+00	1.00	0.0	1.1904E+07	6.8000E-01	1.0695E+02	2	2	817
1043	40-Zr-107	0	40	107	1.6360E-01	2.9820E+06	2.2010E+06	0.0000E+00	1.00	0.0	8.4720E+06	3.2000E-01	1.0694E+02	2	2	849
1044	41-Nb-107	0	41	107	3.0000E-01	2.8150E+06	1.8160E+06	0.0000E+00	1.00	0.0	3.8600E+06	9.8300E-01	1.0693E+02	2	2	893
1045	42-Mo-107	0	42	107	3.5000E+00	2.3170E+06	1.3930E+06	0.0000E+00	1.00	0.0	4.3494E+06	6.0000E-02	1.0692E+02	1	2	925
1046	43-Tc-107	0	43	107	2.1200E+01	1.2840E+06	1.8200E+06	0.0000E+00	1.00	0.0	6.1900E+06	1.0000E+00	1.0600E+02	1	4	964
1047	44-Ru-107	0	44	107	2.2500E+02	1.0600E+06	3.4500E+05	0.0000E+00	1.00	0.0	5.1126E+06	1.0000E+00	1.0599E+02	1	4	995
1048	45-Rh-107	0	45	107	1.3020E+03	4.3000E+05	3.1300E+05	0.0000E+00	1.00	0.0	3.0034E+06	1.0000E+00	1.0599E+02	1	4	1041
1049	46-Pd-107	0	46	107	2.0500E+14	9.6000E+03	0.0000E+00	0.0000E+00	1.00	0.0	1.5087E+06	1.0000E+00	1.0599E+02	1	1	1081
1050	46-Pd-107	1	46	107	2.1300E+01	6.2700E+04	1.5190E+05	0.0000E+00	3.00	0.0	3.4078E+04	1.0000E+00	1.0599E+02	1	3	1082
1051	47-Ag-107	0	47	107	stable	7.9000E+04	1.2700E+04	0.0000E+00	3.00	0.0	9.3120E+04	1.0000E+00	1.0690E+02	0	0	1135
1052	47-Ag-107	1	47	107	4.4300E+01	7.9000E+04	1.2700E+04	0.0000E+00	2.00	0.0	1.4164E+06	6.0000E-04	1.0599E+02	1	3	1136
1053	48-Cd-107	0	48	107	2.3400E+04	5.3030E+03	2.0900E+04	0.0000E+00	2.00	0.0	1.4164E+06	6.0000E-04	1.0599E+02	2	4	1185
1054	49-In-107	0	49	107	1.9440E+03	3.5000E+05	1.5400E+06	0.0000E+00	2.00	0.0	1.3232E+06	9.9940E-01	1.0599E+02	1	4	1233
1055	49-In-107	1	49	107	5.0400E+01	3.7300E+04	6.4070E+05	0.0000E+00	3.00	0.0	3.4260E+06	1.0000E+00	1.0599E+02	1	3	1234
1056	50-Sn-107	0	50	107	1.7400E+02	5.6800E+05	2.5630E+06	0.0000E+00	2.00	0.0	6.7850E+05	1.0000E+00	1.0600E+02	2	4	1306
1057	51-Sb-107	0	51	107	4.0000E+00	2.7000E+06	1.8100E+06	0.0000E+00	2.00	0.0	5.0520E+06	6.9000E-01	1.0601E+02	1	4	1352
1058	52-Te-107	0	52	107	3.1000E-03	0.0000E+00	0.0000E+00	2.8000E+06	2.00	0.0	4.3735E+06	3.1000E-01	1.0602E+02	2	1	1405
1059	39-Y-108	0	39	108	2.7150E-02	4.2100E+06	4.7140E+06	0.0000E+00	1.00	0.0	1.0117E+07	3.0000E-01	1.0796E+02	2	2	818
1060	40-Zr-108	0	40	108	7.9820E-02	2.5670E+06	1.3390E+06	0.0000E+00	1.00	0.0	1.4056E+07	7.4000E-01	1.0794E+02	2	2	850
1061	41-Nb-108	0	41	108	1.9300E-01	3.5870E+06	3.1080E+06	0.0000E+00	1.00	0.0	8.9010E+06	2.6000E-01	1.0794E+02	2	2	894
1062	42-Mo-108	0	42	108	1.0900E+00	1.5938E+06	1.1523E+06	0.0000E+00	1.00	0.0	4.2960E+06	5.8000E-02	1.0700E+02	1	4	926
1063	43-Tc-108	0	43	108	5.1700E+00	2.2600E+06	2.9930E+06	0.0000E+00	1.00	0.0	5.1584E+06	1.0000E+00	1.0699E+02	1	2	965
1064	44-Ru-108	0	44	108	2.7300E+02	3.7000E+05	6.3000E+04	0.0000E+00	1.00	0.0	7.7386E+06	1.0000E+00	1.0698E+02	1	4	996
1065	45-Rh-108	0	45	108	1.6800E+01	1.9000E+06	3.2000E+05	0.0000E+00	1.00	0.0	1.3726E+06	1.0000E+00	1.0698E+02	1	2	1042
1066	45-Rh-108	1	45	108	3.6000E+02	6.3000E+05	2.7200E+06	0.0000E+00	1.00	0.0	4.4924E+06	1.0000E+00	1.0698E+02	1	2	1043
1067	46-Pd-108	0	46	108	stable	6.0800E+05	1.8500E+04	0.0000E+00	1.00	0.0	4.5524E+06	1.0000E+00	1.0790E+02	0	0	1083
1068	47-Ag-108	0	47	108	1.4290E+02	6.0800E+05	1.8500E+04	0.0000E+00	1.00	0.0	1.1216E+07	9.3800E-01	1.0698E+02	2	5	1137
1069	47-Ag-108	1	47	108	1.3800E+10	4.7830E+03	1.6210E+06	0.0000E+00	2.00	0.0	1.9177E+06	2.8500E-02	1.0698E+02	2	4	1138
1070	48-Cd-108	0	48	108	stable	3.9200E+06	3.9200E+06	0.0000E+00	2.00	0.0	1.0951E+05	8.7000E-02	1.0790E+02	0	0	1186
1071	49-In-108	0	49	108	3.4800E+03	1.5100E+05	3.9200E+06	0.0000E+00	2.00	0.0	5.1326E+06	1.0000E+00	1.0698E+02	1	4	1235
1072	49-In-108	1	49	108	2.3800E+03	6.5200E+05	2.7300E+06	0.0000E+00	2.00	0.0	5.1624E+06	1.0000E+00	1.0698E+02	1	4	1236
1073	50-Sn-108	0	50	108	6.1800E+02	3.1000E+04	6.7800E+05	0.0000E+00	2.00	0.0	2.0202E+00	1.0000E+00	1.0699E+02	1	4	1307
1074	51-Sb-108	0	51	108	7.4000E+00	0.0000E+00	2.4700E+06	0.0000E+00	2.00	0.0	9.6246E+06	1.0000E+00	1.0700E+02	1	1	1353
1075	52-Te-108	0	52	108	2.1000E+00	0.0000E+00	0.0000E+00	1.6860E+06	2.00	0.0	6.6637E+06	5.1000E-01	1.0700E+02	2	1	1406
								4.00	0.0	3.4204E+06	4.9000E-01					

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1076	39-Y-109	0	39	1090	1.8900E-02	3.7810E+06	3.2550E+06	0.0000E+00	1.00	0.0	1.2992E+07	1.0000E+00	1.0896E+02	1	2	819
1077	40-Zr-109	0	40	1090	5.5980E-02	3.3870E+06	2.7030E+06	0.0000E+00	1.00	0.0	1.0427E+07	9.6000E-01	1.0895E+02	2	2	851
1078	41-Nb-109	0	41	1090	1.9000E-01	3.1580E+06	2.2630E+06	0.0000E+00	1.00	0.0	5.2820E+06	4.0000E-02	1.0894E+02	2	2	895
1079	42-Mo-109	0	42	1090	5.3000E-01	2.6750E+06	1.8760E+06	0.0000E+00	1.00	0.0	6.0711E+06	3.1000E-01	1.0893E+02	2	2	927
1080	43-Tc-109	0	43	1090	8.6000E-01	2.1440E+06	1.0990E+06	0.0000E+00	1.00	0.0	1.1770E+06	2.0000E-05	1.0892E+02	2	2	966
1081	44-Ru-109	0	44	1090	3.4500E+01	1.0400E+06	1.6600E+06	0.0000E+00	1.00	0.0	1.3073E+06	8.0000E-04	1.0798E+02	1	4	997
1082	45-Rh-109	0	45	1090	8.0000E+01	9.5000E+05	2.9900E+05	0.0000E+00	1.00	0.0	4.2636E+06	1.0000E+00	1.0797E+02	1	4	1044
1083	46-Pd-109	0	46	1090	4.9324E+04	3.6080E+05	6.4500E+02	0.0000E+00	1.00	0.0	2.6067E+06	1.0000E+00	1.0797E+02	2	4	1084
1084	46-Pd-109	1	46	1091	2.8140E+02	7.7000E+04	1.1135E+05	0.0000E+00	3.00	0.0	1.1132E+06	4.0000E-04	1.0797E+02	1	3	1085
1085	47-Ag-109	0	47	1090	stable						1.8890E+05	1.0000E+00	1.0890E+02	0	0	1139
1086	47-Ag-109	1	47	1091	3.9600E+01	7.4273E+04	1.1240E+04	0.0000E+00	3.00	0.0	3.8570E+06	1.0000E+00	1.0797E+02	1	3	1140
1087	48-Cd-109	0	48	1090	3.9860E+07	7.9099E+04	2.6660E+04	0.0000E+00	2.00	0.0	1.3977E+06	3.9000E-02	1.0797E+02	1	4	1187
1088	49-In-109	0	49	1090	1.5000E+04	3.1300E+04	6.4000E+05	0.0000E+00	2.00	0.0	2.0164E+06	1.0000E+00	1.0797E+02	1	4	1237
1089	49-In-109	1	49	1091	8.0000E+01	3.7000E+04	6.1030E+05	0.0000E+00	3.00	0.0	6.5010E+05	1.0000E+00	1.0797E+02	1	3	1238
1090	49-In-109	2	49	1092	2.0900E-01	1.7000E+04	2.0854E+06	0.0000E+00	3.00	0.0	2.1010E+06	1.0000E+00	1.0797E+02	1	3	1239
1091	50-Sn-109	0	50	1090	1.0800E+03	4.5000E+04	2.1800E+06	0.0000E+00	2.00	0.0	3.2069E+06	6.9000E-01	1.0798E+02	2	4	1308
1092	51-Sb-109	0	51	1090	1.7000E+01	1.8800E+06	1.8800E+06	0.0000E+00	2.00	0.0	6.3799E+06	1.0000E+00	1.0798E+02	1	4	1354
1093	52-Te-109	0	52	1090	4.6000E+00	2.3700E+06	1.8800E+06	2.1500E+05	2.00	0.0	8.5357E+06	8.6700E-01	1.0799E+02	3	5	1407
1094	54-Xe-109	0	54	1090	1.3000E-02	0.0000E+00	0.0000E+00	4.1700E+06	4.00	0.0	4.2170E+06	1.0000E+00	1.0801E+02	1	1	1499
1095	40-Zr-110	0	40	1100	3.5830E-02	2.8440E+06	1.5090E+06	0.0000E+00	1.00	0.0	9.2500E+06	9.2900E-01	1.0995E+02	2	2	852
1096	41-Nb-110	0	41	1100	1.7000E-01	3.9270E+06	3.7450E+06	0.0000E+00	1.50	0.0	5.6630E+06	7.1000E-02	1.0994E+02	2	2	896
1097	42-Mo-110	0	42	1100	3.0000E-01	2.1990E+06	1.1520E+06	0.0000E+00	1.00	0.0	1.2413E+07	6.0000E-01	1.0993E+02	2	2	928
1098	43-Tc-110	0	43	1100	9.2000E-01	3.0320E+06	2.1700E+06	0.0000E+00	1.00	0.0	6.4650E+06	4.0000E-01	1.0898E+02	2	2	967
1099	44-Ru-110	0	44	1100	1.1600E+01	6.5850E+05	5.9690E+05	0.0000E+00	1.00	1.0	1.6603E+06	7.4000E-04	1.0897E+02	1	4	998
1100	45-Rh-110	0	45	1100	2.8500E+01	1.1500E+06	2.3800E+06	0.0000E+00	1.00	0.0	2.7584E+06	1.0000E+00	1.0897E+02	1	4	1045
1101	45-Rh-110	1	45	1101	3.2000E+00	2.1000E+06	3.3000E+05	0.0000E+00	1.00	0.0	5.5026E+06	1.0000E+00	1.0897E+02	1	4	1046
1102	46-Pd-110	0	46	1100	stable						5.5026E+06	1.0000E+00	1.0990E+02	0	0	1086
1103	47-Ag-110	0	47	1100	2.4600E+01	1.1780E+06	3.0700E+04	0.0000E+00	1.00	0.0	1.2413E+07	6.0000E-01	1.0896E+02	2	5	1141
1104	47-Ag-110	1	47	1101	2.1579E+07	6.8000E+04	2.7610E+06	0.0000E+00	1.00	0.0	8.7377E+05	3.0000E-03	1.0896E+02	2	4	1142
1105	48-Cd-110	0	48	1100	stable						3.00	0.0	1.0896E+02	2	4	1142
1106	49-In-110	0	49	1100	1.7600E+04	1.0500E+04	3.1000E+06	0.0000E+00	2.00	0.0	1.3670E+06	1.0000E+00	1.0990E+02	0	0	1188
1107	49-In-110	1	49	1101	4.1500E+03	6.5000E+05	1.5900E+06	0.0000E+00	2.00	0.0	3.8780E+06	1.0000E+00	1.0896E+02	1	4	1240
1108	50-Sn-110	0	50	1100	1.4800E+04	1.2500E+04	2.9160E+05	0.0000E+00	2.00	1.0	3.9401E+06	1.0000E+00	1.0896E+02	1	4	1241
1109	51-Sb-110	0	51	1100	2.3000E+01	1.9600E+06	3.7500E+06	0.0000E+00	2.00	0.0	5.6670E+05	1.0000E+00	1.0896E+02	1	4	1309
1110	53-I-110	0	53	1100	6.5000E-01	0.0000E+00	0.0000E+00	6.0700E+05	2.00	0.0	8.3922E+06	1.0000E+00	1.0897E+02	1	4	1355
											1.1766E+07	7.2000E-01	1.0899E+02	3	1	1453
											2.70	0.0	1.0000E-01			
											4.00	0.0	1.7000E-01			
											3.5842E+06	1.3600E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1111	40-Zr-111	0	40	1110	2.8640E-02	3.5750E+06	3.2090E+06	0.0000E+00	1.00	0.0	1.1316E+07	1.0000E+00	1.1096E+02	1	2	853
1112	41-Nb-111	0	41	1110	5.4640E-02	3.3990E+06	2.5680E+06	0.0000E+00	1.00	0.0	1.1062E+07	7.8000E-01	1.1095E+02	2	2	897
1113	42-Mo-111	0	42	1110	4.4930E-01	3.0980E+06	2.4130E+06	0.0000E+00	1.00	0.0	9.0849E+06	9.9690E-01	1.1093E+02	2	2	929
1114	43-Tc-111	0	43	1110	2.9000E-01	2.4860E+06	1.5010E+06	0.0000E+00	1.00	0.0	7.7606E+06	9.9150E-01	1.1093E+02	2	2	968
1115	44-Ru-111	0	44	1110	2.1200E+00	1.8670E+06	9.6240E+05	0.0000E+00	1.00	0.0	5.5215E+06	1.0000E+00	1.0996E+02	1	2	999
1116	45-Rh-111	0	45	1110	1.1000E+01	1.0774E+06	8.9819E+05	0.0000E+00	1.00	0.0	3.6818E+06	1.0000E+00	1.1091E+02	1	2	1047
1117	46-Pd-111	0	46	1110	1.4040E+03	8.3200E+05	4.6800E+04	0.0000E+00	1.00	0.0	2.2298E+06	8.1000E-03	1.0996E+02	2	4	1087
1118	46-Pd-111	1	46	1111	1.9800E+04	1.9000E+05	1.5000E+05	0.0000E+00	1.00	1.0	2.1700E+06	9.9190E-01	1.0996E+02	3	4	1088
1119	47-Ag-111	0	47	1110	6.4370E+05	3.5100E+05	2.6500E+04	0.0000E+00	1.00	0.0	1.7220E+05	7.3000E-01	1.0995E+02	1	4	1143
1120	47-Ag-111	1	47	1111	6.4800E+01	5.5100E+04	4.7800E+03	0.0000E+00	1.00	0.0	1.0368E+06	1.0000E+00	1.0995E+02	2	4	1144
1121	48-Cd-111	0	48	1110	stable								1.1090E+02	0	0	1189
1122	48-Cd-111	1	48	1111	2.9120E+03	1.0500E+05	2.8400E+05	0.0000E+00	3.00	0.0	3.9621E+05	1.0000E+00	1.0995E+02	1	3	1190
1123	49-In-111	0	49	1110	2.4233E+05	3.2000E+04	4.0600E+05	0.0000E+00	2.00	0.0	8.6218E+05	9.9990E-01	1.0995E+02	2	4	1242
1124	49-In-111	1	49	1111	4.6200E+02	6.4600E+04	4.7050E+05	0.0000E+00	3.00	0.0	5.3699E+05	1.0000E+00	1.0995E+02	1	3	1243
1125	50-Sn-111	0	50	1110	2.1200E+03	1.9540E+05	4.9800E+05	0.0000E+00	2.00	0.0	2.4514E+06	9.8290E-01	1.0996E+02	2	4	1310
1126	51-Sb-111	0	51	1110	7.5000E+01	1.3500E+06	1.4800E+06	0.0000E+00	2.00	0.0	1.9144E+06	1.7100E-02	1.0996E+02	1	4	1356
1127	52-Te-111	0	52	1110	2.6200E+01	0.0000E+00	7.3000E+06	0.0000E+00	2.00	0.0	5.1028E+06	1.0000E+00	1.0997E+02	1	1	1408
1128	53-I-111	0	53	1110	2.5000E+00	0.0000E+00	0.0000E+00	2.7740E+03	2.00	0.0	8.6337E+06	9.9900E-01	1.0998E+02	2	1	1454
1129	40-Zr-112	0	40	1120	2.1430E-02	3.0300E+06	1.9430E+06	0.0000E+00	1.00	0.0	1.0463E+07	1.0000E+00	1.1196E+02	1	2	854
1130	41-Nb-112	0	41	1120	4.0340E-02	4.11780E+06	4.1860E+06	0.0000E+00	1.00	0.0	1.3190E+07	7.9000E-01	1.1195E+02	2	2	898
1131	42-Mo-112	0	42	1120	1.8640E-01	2.5520E+06	1.3540E+06	0.0000E+00	1.00	0.0	7.7910E+06	9.8800E-01	1.1194E+02	2	2	930
1132	43-Tc-112	0	43	1120	2.8000E-01	3.3400E+06	2.7900E+06	0.0000E+00	1.00	0.0	3.4870E+06	1.2000E-02	1.1193E+02	2	2	969
1133	44-Ru-112	0	44	1120	1.7500E+00	1.1140E+06	7.2500E+05	0.0000E+00	1.00	0.0	3.4568E+06	1.5000E-02	1.1192E+02	1	2	1000
1134	45-Rh-112	0	45	1120	2.1000E+00	2.4770E+06	1.1560E+06	0.0000E+00	1.00	0.0	4.1042E+06	1.0000E+00	1.1192E+02	1	2	1048
1135	45-Rh-112	1	45	1121	6.8000E+00	1.9100E+06	2.2600E+06	0.0000E+00	1.00	0.0	6.5899E+06	1.0000E+00	1.1095E+02	1	2	1049
1136	46-Pd-112	0	46	1120	7.5710E+04	8.9000E+04	5.1300E+03	0.0000E+00	1.00	0.0	6.5890E+06	1.0000E+00	1.1095E+02	1	4	1089
1137	47-Ag-112	0	47	1120	1.1270E+04	1.4200E+06	6.9000E+05	0.0000E+00	1.00	0.0	2.6189E+05	1.0000E+00	1.1095E+02	1	3	1145
1138	48-Cd-112	0	48	1120	stable								1.1190E+02	0	0	1191
1139	49-In-112	0	49	1120	8.9800E+02	2.4200E+05	2.6500E+05	0.0000E+00	1.00	0.0	3.9921E+06	1.0000E+00	1.1190E+02	0	0	1191
1140	49-In-112	1	49	1121	1.2340E+03	1.2500E+05	3.5300E+04	0.0000E+00	3.00	0.0	6.6492E+05	4.4000E-01	1.1094E+02	2	5	1244
1141	50-Sn-112	0	50	1120	stable								1.1094E+02	1	3	1245
1142	51-Sb-112	0	51	1120	5.1400E+01	1.7540E+06	2.8300E+06	0.0000E+00	2.00	0.0	7.0570E+06	1.0000E+00	1.1190E+02	0	0	1311
1143	52-Te-112	0	52	1120	1.2000E+02	0.0000E+00	3.7800E+06	0.0000E+00	2.00	0.0	4.0315E+06	1.0000E+00	1.1095E+02	1	4	1357
1144	53-I-112	0	53	1120	3.4200E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.0504E+07	9.9999E-01	1.1096E+02	1	1	1409
1145	54-Xe-112	0	54	1120	2.7000E+00	0.0000E+00	0.0000E+00	2.5690E+04	2.00	0.0	2.9571E+06	1.2000E-05	1.1193E+02	2	0	1455
									4.00	0.0	7.0369E+06	9.9160E-01	1.1097E+02	2	1	1500
											3.3303E+06	8.4000E-03				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1146	41-Nb-113	0	41	1130	3.0250E-02	3.2941E+06	3.6375E+06	0.0000E+00	1.00	0.0	1.2258E+07	4.4000E-01	1.1296E+02	2	2	899
									1.50	0.0	8.8820E+06	5.6000E-01				
1147	42-Mo-113	0	42	1130	9.6940E-02	3.4300E+06	2.8020E+06	0.0000E+00	1.00	0.0	1.0042E+07	9.8200E-01	1.1294E+02	2	2	931
									1.50	0.0	4.4150E+06	1.8000E-02				
1148	43-Tc-113	0	43	1130	1.7000E-01	2.7320E+06	1.8220E+06	0.0000E+00	1.00	0.0	9.0588E+06	9.7900E-01	1.1293E+02	2	2	970
									1.50	0.0	4.7459E+06	2.1000E-02				
1149	44-Ru-113	0	44	1130	8.0000E-01	2.5420E+06	1.3930E+06	0.0000E+00	1.00	0.0	6.8974E+06	1.0000E+00	1.1195E+02	1	3	1001
1150	44-Ru-113	1	44	1131	5.1000E-01	2.3920E+06	1.3490E+06	0.0000E+00	1.00	0.0	6.8974E+06	9.2000E-01	1.1195E+02	2	4	1002
									3.00	0.0	1.3000E+05	8.0000E-02				
1151	45-Rh-113	0	45	1130	2.8000E+00	1.6200E+06	2.9500E+05	0.0000E+00	1.00	0.0	4.8236E+06	8.2100E-01	1.1194E+02	2	4	1050
									1.00	0.0	4.9300E+06	1.7900E-01				
1152	46-Pd-113	0	46	1130	9.3000E+01	1.3700E+06	1.2100E+05	0.0000E+00	1.00	0.0	3.4355E+06	3.3000E-02	1.1194E+02	2	4	1090
									1.00	1.0	3.3544E+06	9.6700E-01				
1153	46-Pd-113	1	46	1131	3.0000E-01	5.9000E+04	2.1600E+04	0.0000E+00	3.00	0.0	8.1300E+04	1.0000E+00	1.1194E+02	1	3	1091
1154	47-Ag-113	0	47	1130	1.9330E+04	7.6400E+05	7.1900E+04	0.0000E+00	1.00	0.0	2.0165E+06	9.8400E-01	1.1194E+02	2	4	1146
									1.00	1.0	1.7529E+06	1.6000E-02				
1155	47-Ag-113	1	47	1131	6.8700E+01	1.9660E+05	2.1200E+05	0.0000E+00	1.00	0.0	2.0600E+06	3.6000E-01	1.1194E+02	2	4	1147
									3.00	0.0	4.3600E+04	6.4000E-01				
1156	48-Cd-113	0	48	1130	2.5370E+23	9.2600E+04	0.0000E+00	0.0000E+00	1.00	0.0	3.2257E+05	1.0000E+00	1.1193E+02	1	1	1192
1157	48-Cd-113	1	48	1131	4.4500E+08	1.8540E+05	8.2200E+01	0.0000E+00	1.00	0.0	5.8611E+05	9.9860E-01	1.1193E+02	2	4	1193
									3.00	0.0	2.6370E+05	1.4000E-03				
1158	49-In-113	0	49	1130	stable								1.1290E+02	0	0	1246
1159	49-In-113	1	49	1131	5.9684E+03	1.3400E+05	2.6050E+05	0.0000E+00	3.00	0.0	3.9170E+05	1.0000E+00	1.1193E+02	1	3	1247
1160	50-Sn-113	0	50	1130	9.9440E+06	5.2200E+03	2.3590E+04	0.0000E+00	2.00	0.0	1.0376E+06	4.0000E-08	1.1193E+02	2	4	1312
									2.00	1.0	6.4588E+05	1.0000E+00				
1161	50-Sn-113	1	50	1131	1.2840E+03	5.7300E+04	1.3700E+04	0.0000E+00	2.00	0.0	1.1150E+06	8.9000E-02	1.1193E+02	2	4	1313
									3.00	0.0	7.7000E+04	9.1100E-01				
1162	51-Sb-113	0	51	1130	4.0000E+02	7.5000E+05	1.3000E+06	0.0000E+00	2.00	0.0	3.9112E+06	8.1500E-01	1.1194E+02	2	4	1358
									2.00	1.0	3.8338E+06	1.8500E-01				
1163	52-Te-113	0	52	1130	1.0200E+02	1.6700E+06	2.2000E+06	0.0000E+00	2.00	0.0	6.0700E+06	1.0000E+00	1.1195E+02	1	4	1410
1164	53-I-113	0	53	1130	6.6000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.2275E+06	1.0000E+00	1.1292E+02	2	0	1456
									4.00	0.0	2.7066E+06	3.3100E-09				
1165	54-Xe-113	0	54	1130	2.7400E+00	0.0000E+00	0.0000E+00	3.4000E+04	2.00	0.0	8.9159E+06	9.8900E-01	1.1196E+02	2	1	1501
									4.00	0.0	3.0868E+06	1.1000E-02				
1166	41-Nb-114	0	41	1140	2.4910E-02	4.1200E+06	4.6780E+06	0.0000E+00	1.00	0.0	1.4420E+07	1.0000E+00	1.1396E+02	1	2	900
1167	42-Mo-114	0	42	1140	5.7180E-02	2.9250E+06	1.5780E+06	0.0000E+00	1.00	0.0	8.9610E+06	9.5700E-01	1.1394E+02	2	2	932
									1.50	0.0	4.9330E+06	4.3000E-02				
1168	43-Tc-114	0	43	1140	1.5000E-01	3.5780E+06	3.2570E+06	0.0000E+00	1.00	0.0	1.1454E+07	9.8700E-01	1.1394E+02	2	2	971
									1.50	0.0	5.0310E+06	1.3000E-02				
1169	44-Ru-114	0	44	1140	5.3000E-01	1.4730E+06	8.4370E+05	0.0000E+00	1.00	0.0	5.4914E+06	1.0000E+00	1.1295E+02	1	4	1003
1170	45-Rh-114	0	45	1140	1.8500E+00	2.7420E+06	1.7530E+06	0.0000E+00	1.00	0.0	7.7777E+06	1.0000E+00	1.1294E+02	1	4	1051
1171	45-Rh-114	1	45	1141	1.8500E+00	2.4600E+06	2.5200E+06	0.0000E+00	1.00	0.0	7.7777E+06	1.0000E+00	1.1294E+02	1	2	1052
1172	46-Pd-114	0	46	1140	1.4500E+02	5.3300E+05	2.5900E+04	0.0000E+00	1.00	0.0	1.4396E+06	1.0000E+00	1.1293E+02	1	4	1092
1173	47-Ag-114	0	47	1140	4.6000E+00	2.1500E+06	2.5900E+05	0.0000E+00	1.00	0.0	5.0840E+06	1.0000E+00	1.1293E+02	1	2	1148
1174	47-Ag-114	1	47	1141	1.5000E-03	1.0100E+05	9.3000E+04	0.0000E+00	3.00	0.0	1.9900E+05	1.0000E+00	1.1293E+02	1	3	1149
1175	48-Cd-114	0	48	1140	stable								1.1390E+02	0	0	1194
1176	49-In-114	0	49	1140	7.1900E+01	7.7410E+05	2.1400E+03	0.0000E+00	1.00	0.0	1.9889E+06	9.9500E-01	1.1293E+02	2	5	1248
									2.00	0.0	1.4464E+06	5.0000E-03				
1177	49-In-114	1	49	1141	4.2777E+06	1.4300E+05	8.0000E+04	0.0000E+00	2.00	0.0	1.6367E+06	3.2500E-02	1.1293E+02	2	4	1249
									3.00	0.0	1.9027E+05	9.6750E-01				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1178	49-In-114	2	49	1142	4.3100E-02	4.8240E+02	2.8170E+05	0.0000E+00	3.00	1.0	3.1164E+05	1.0000E+00	1.1293E+02	1	3	1250
1179	50-Sn-114	0	50	1140	stable								1.1390E+02	0	0	1314
1180	51-Sb-114	0	51	1140	2.0940E+02	1.1500E+06	2.6700E+06	0.0000E+00	2.00	0.0	6.0617E+06	1.0000E+00	1.1293E+02	1	4	1359
1181	52-Te-114	0	52	1140	9.1000E+02	1.8000E+05	1.3100E+06	0.0000E+00	2.00	0.0	2.6071E+06	1.0000E+00	1.1293E+02	1	4	1411
1182	53-I-114	0	53	1140	2.1000E+00	3.4900E+06	1.5900E+06	0.0000E+00	2.00	0.0	9.0920E+06	1.0000E+00	1.1294E+02	1	4	1457
1183	53-I-114	1	53	1141	6.2000E+00	2.7100E+06	2.4400E+06	0.0000E+00	2.00	0.0	9.3579E+06	9.1000E-01	1.1294E+02	2	4	1458
1184	41-Nb-115	0	41	1150	1.9250E-02	3.7360E+06	3.2730E+06	0.0000E+00	1.00	0.0	1.3395E+07	1.0000E+00	1.1496E+02	1	2	901
1185	42-Mo-115	0	42	1150	4.6990E-02	3.5980E+06	2.9980E+06	0.0000E+00	1.00	0.0	1.1159E+07	9.4700E-01	1.1495E+02	2	2	933
1186	43-Tc-115	0	43	1150	1.3590E-01	2.9950E+06	2.1620E+06	0.0000E+00	1.00	0.0	1.0396E+07	8.7000E-01	1.1494E+02	2	2	972
1187	44-Ru-115	0	44	1150	7.4000E-01	2.5380E+06	1.8060E+06	0.0000E+00	1.00	0.0	7.9254E+06	9.9997E-01	1.1493E+02	2	2	1004
1188	45-Rh-115	0	45	1150	9.9000E-01	2.0210E+06	1.0540E+06	0.0000E+00	1.00	0.0	6.1973E+06	8.3930E-01	1.1393E+02	3	4	1053
1189	46-Pd-115	0	46	1150	2.5000E+01	1.3453E+06	1.2512E+06	0.0000E+00	1.00	0.0	1.1906E+06	8.3000E-04	1.1491E+02	2	2	1093
1190	46-Pd-115	1	46	1151	5.0000E+01	1.3453E+06	1.2512E+06	0.0000E+00	1.00	0.0	4.5561E+06	7.3000E-01	1.1491E+02	2	2	1094
1191	47-Ag-115	0	47	1150	1.2000E+03	1.0800E+06	4.8000E+05	0.0000E+00	1.00	0.0	3.1017E+06	9.4500E-01	1.1392E+02	2	4	1150
1192	47-Ag-115	1	47	1151	1.8000E+01	1.0000E+06	4.9800E+05	0.0000E+00	1.00	0.0	2.9290E+06	5.5000E-02	1.1392E+02	3	4	1151
1193	48-Cd-115	0	48	1150	1.9246E+05	3.1900E+05	1.9300E+05	0.0000E+00	1.00	0.0	4.1100E+04	2.1000E-01	1.1392E+02	1	4	1195
1194	48-Cd-115	1	48	1151	3.8500E+06	6.0440E+05	3.3000E+04	0.0000E+00	1.00	0.0	1.1157E+06	1.0000E+00	1.1392E+02	2	4	1196
1195	49-In-115	0	49	1150	1.3900E+22	1.5200E+05	0.0000E+00	0.0000E+00	1.00	0.0	4.9749E+05	1.0000E+00	1.1392E+02	1	1	1251
1196	49-In-115	1	49	1151	1.6150E+04	1.7300E+05	1.6300E+05	0.0000E+00	1.00	0.0	8.3373E+05	5.0000E-02	1.1392E+02	2	4	1252
1197	50-Sn-115	0	50	1150	stable								1.1490E+02	0	0	1315
1198	51-Sb-115	0	51	1150	1.9260E+03	2.3300E+05	8.8900E+05	0.0000E+00	2.00	0.0	3.0304E+06	1.0000E+00	1.1392E+02	1	4	1360
1199	52-Te-115	0	52	1150	3.4800E+02	8.0800E+05	2.2100E+06	0.0000E+00	2.00	0.0	4.9406E+06	1.0000E+00	1.1392E+02	1	4	1412
1200	52-Te-115	1	52	1151	4.0200E+02	5.0300E+05	2.4900E+06	0.0000E+00	2.00	0.0	4.9606E+06	1.0000E+00	1.1392E+02	1	4	1413
1201	42-Mo-116	0	42	1160	3.4540E-02	3.1780E+06	1.7370E+06	0.0000E+00	1.00	0.0	9.9560E+06	1.0000E+00	1.1595E+02	1	2	934
1202	43-Tc-116	0	43	1160	7.2660E-02	3.6930E+06	3.4950E+06	0.0000E+00	1.00	0.0	1.2613E+07	8.8000E-01	1.1594E+02	2	2	973
1203	44-Ru-116	0	44	1160	6.9390E-01	1.8430E+06	9.8600E+05	0.0000E+00	1.00	0.0	6.7770E+06	1.2000E-01	1.1593E+02	2	2	1005
1204	45-Rh-116	0	45	1160	6.8000E-01	2.9670E+06	2.2200E+06	0.0000E+00	1.00	0.0	2.0890E+06	5.3000E-04	1.1493E+02	2	4	1054
1205	45-Rh-116	1	45	1161	5.7000E-01	3.1800E+06	2.1700E+06	0.0000E+00	1.00	0.0	1.6162E+06	5.7000E-04	1.1493E+02	1	2	1055
1206	46-Pd-116	0	46	1160	1.1800E+01	6.6230E+05	6.0400E+05	0.0000E+00	1.00	0.0	9.2428E+06	1.0000E+00	1.1492E+02	1	4	1095
1207	47-Ag-116	0	47	1160	2.3000E+02	1.9500E+06	1.7500E+06	0.0000E+00	1.00	0.0	6.1699E+06	1.0000E+00	1.1492E+02	1	2	1152
1208	47-Ag-116	1	47	1161	2.0000E+01	1.3900E+06	3.0700E+06	0.0000E+00	1.00	0.0	6.2178E+06	9.3000E-01	1.1492E+02	2	4	1153
1209	47-Ag-116	2	47	1162	9.3000E+00	1.5200E+06	2.8500E+06	0.0000E+00	1.00	0.0	4.7900E+04	7.0000E-02	1.1492E+02	2	4	1154
									3.00	1.0	8.1900E+04	8.0000E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1210	48-Cd-116	0	48	1160	1.0400E+27	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	2.8134E+06	1.0000E+00	1.1590E+02	1	0	1197
1211	49-In-116	0	49	1160	1.4100E+01	1.3630E+06	1.9589E+04	0.0000E+00	1.00	0.0	3.2762E+06	9.9977E-01	1.1491E+02	2	3	1253
1212	49-In-116	1	49	1161	3.2570E+03	3.1400E+05	2.4900E+06	0.0000E+00	2.00	0.0	4.6281E+05	2.3000E-04	1.1491E+02	1	4	1254
1213	49-In-116	2	49	1162	2.1800E+00	9.3145E+04	6.9000E+04	0.0000E+00	3.00	1.0	3.4035E+06	1.0000E+00	1.1491E+02	1	3	1255
1214	50-Sn-116	0	50	1160	stable						1.6233E+05	1.0000E+00	1.1590E+02	0	0	1316
1215	51-Sb-116	0	51	1160	9.5000E+02	5.2000E+05	2.2900E+06	0.0000E+00	2.00	0.0	4.7043E+06	1.0000E+00	1.1491E+02	1	4	1361
1216	51-Sb-116	1	51	1161	3.6200E+03	3.1100E+05	3.5400E+06	0.0000E+00	2.00	0.0	5.0900E+06	1.0000E+00	1.1491E+02	1	4	1362
1217	52-Te-116	0	52	1160	8.9600E+03	5.8000E+04	1.1300E+05	0.0000E+00	2.00	0.0	1.5527E+06	1.0000E+00	1.1491E+02	1	4	1414
1218	53-I-116	0	53	1160	2.9100E+00	2.9200E+06	1.0784E+06	0.0000E+00	2.00	0.0	7.7767E+06	1.0000E+00	1.1492E+02	1	4	1459
1219	54-Xe-116	0	54	1160	5.9000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.4455E+06	1.0000E+00	1.1592E+02	1	0	1502
1220	55-Cs-116	0	55	1160	7.0000E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.0984E+07	9.7151E-01	1.1593E+02	3	0	1543
									2.70	0.0	6.9860E+06	2.8000E-02				
									2.40	0.0	1.3080E+07	4.9000E-04				
1221	55-Cs-116	1	55	1161	3.8500E+00	3.8000E+06	2.8300E+06	0.0000E+00	2.00	0.0	1.0984E+07	1.0000E+00	1.1494E+02	1	4	1544
1222	42-Mo-117	0	42	1170	3.0030E-02	3.7800E+06	3.4420E+06	0.0000E+00	1.00	0.0	1.2212E+07	1.0000E+00	1.1696E+02	1	2	935
1223	43-Tc-117	0	43	1170	4.8470E-02	3.1730E+06	2.3900E+06	0.0000E+00	1.00	0.0	1.1138E+07	7.7000E-01	1.1695E+02	2	2	974
1224	44-Ru-117	0	44	1170	3.2590E-01	2.6970E+06	2.0260E+06	0.0000E+00	1.00	0.0	9.3779E+06	9.9710E-01	1.1693E+02	2	2	1006
1225	45-Rh-117	0	45	1170	4.4000E-01	2.2890E+06	1.3590E+06	0.0000E+00	1.00	0.0	7.5271E+06	9.8400E-01	1.1693E+02	2	2	1056
1226	46-Pd-117	0	46	1170	4.3000E+00	1.9150E+06	1.0870E+06	0.0000E+00	1.00	0.0	5.7574E+06	1.0000E+00	1.1692E+02	1	2	1096
1227	46-Pd-117	1	46	1171	1.9100E-02	7.8000E+04	1.3000E+05	0.0000E+00	3.00	0.0	2.0320E+06	1.0000E+00	1.1591E+02	1	3	1097
1228	47-Ag-117	0	47	1170	7.2800E+01	1.1000E+06	1.3000E+06	0.0000E+00	1.00	0.0	4.2364E+06	8.6200E-01	1.1591E+02	2	4	1155
1229	47-Ag-117	1	47	1171	5.3400E+00	1.3200E+06	8.3200E+05	0.0000E+00	1.00	0.0	4.1000E+06	1.3800E-01	1.1591E+02	3	4	1156
									1.00	0.0	4.2650E+06	6.5100E-01				
									1.00	0.0	4.1286E+06	2.8900E-01				
									3.00	0.0	2.8600E+04	6.0000E-02				
1230	48-Cd-117	0	48	1170	8.9600E+03	4.3000E+05	1.0800E+06	0.0000E+00	1.00	0.0	2.5246E+06	8.5000E-02	1.1590E+02	2	4	1198
1231	48-Cd-117	1	48	1171	1.2100E+04	2.0700E+05	2.0390E+06	0.0000E+00	1.00	0.0	2.2093E+06	9.1500E-01	1.1590E+02	2	2	1199
1232	49-In-117	0	49	1170	2.5920E+03	2.6400E+05	6.9000E+05	0.0000E+00	1.00	0.0	2.3457E+06	9.9000E-03	1.1590E+02	2	4	1256
1233	49-In-117	1	49	1171	6.9720E+03	4.3100E+05	9.1000E+04	0.0000E+00	1.00	0.0	1.4547E+06	9.9630E-01	1.1590E+02	2	4	1257
									3.00	0.0	1.7700E+06	5.2900E-01				
									3.00	0.0	3.1530E+05	4.7100E-01				
1234	50-Sn-117	0	50	1170	stable						3.1458E+05	1.0000E+00	1.1690E+02	0	0	1317
1235	50-Sn-117	1	50	1171	1.1750E+06	1.5600E+05	1.5750E+05	0.0000E+00	3.00	0.0	3.1458E+05	1.0000E+00	1.1590E+02	1	3	1318
1236	51-Sb-117	0	51	1170	1.0080E+04	2.8100E+04	1.8480E+05	0.0000E+00	2.00	0.0	1.7582E+06	1.0000E+00	1.1590E+02	1	4	1363
1237	52-Te-117	0	52	1170	3.7200E+03	2.1100E+05	1.8500E+06	0.0000E+00	2.00	0.0	3.5441E+06	1.0000E+00	1.1590E+02	1	4	1415
1238	52-Te-117	1	52	1171	1.0300E-01	2.4740E+04	2.8413E+05	0.0000E+00	3.00	0.0	2.9610E+05	1.0000E+00	1.1590E+02	1	3	1416
1239	53-I-117	0	53	1170	1.3320E+02	1.0900E+06	1.2400E+06	0.0000E+00	2.00	0.0	4.6594E+06	1.0000E+00	1.1591E+02	1	4	1460
1240	43-Tc-118	0	43	1180	4.0360E-02	3.8770E+06	3.8350E+06	0.0000E+00	1.00	0.0	1.3469E+07	8.3000E-01	1.1795E+02	2	2	975
									1.50	0.0	7.6590E+06	1.7000E-01				
1241	44-Ru-118	0	44	1180	1.2950E-01	2.0940E+06	1.1180E+06	0.0000E+00	1.00	0.0	7.6290E+06	9.9000E-01	1.1794E+02	2	2	1007
1242	45-Rh-118	0	45	1180	2.6600E-01	3.0940E+06	2.4940E+06	0.0000E+00	1.00	0.0	3.5670E+06	1.0000E-02	1.1793E+02	2	2	1057
1243	46-Pd-118	0	46	1180	1.9000E+00	1.5600E+06	4.1400E+05	0.0000E+00	1.00	0.0	1.0501E+07	9.6900E-01	1.1691E+02	2	4	1098
									1.00	0.0	4.1649E+06	8.5600E-01				
									1.00	0.0	4.0373E+06	1.4400E-01				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1244	47-Ag-118	0	47	1180	3.7600E+00	2.5790E+06	1.5700E+06	0.0000E+00	1.00	0.0	7.1479E+06	1.0000E+00	1.1690E+02	1	2	1157
1245	47-Ag-118	1	47	1181	2.0000E+00	1.1278E+06	1.8527E+06	0.0000E+00	1.00	0.0	7.2756E+06	5.9000E-01	1.1690E+02	2	4	1158
1246	48-Cd-118	0	48	1180	3.0180E+03	1.6100E+05	0.0000E+00	0.0000E+00	1.00	0.0	5.2653E+05	1.0000E+00	1.1689E+02	1	1	1200
1247	49-In-118	0	49	1180	5.0000E+00	1.8790E+06	7.8000E+04	0.0000E+00	1.00	0.0	4.4246E+06	1.0000E+00	1.1689E+02	1	2	1258
1248	49-In-118	1	49	1181	2.6700E+02	6.1000E+05	2.7800E+06	0.0000E+00	1.00	0.0	4.4846E+06	1.0000E+00	1.1689E+02	1	4	1259
1249	49-In-118	2	49	1182	8.5000E+00	9.6000E+04	7.5000E+04	0.0000E+00	1.00	0.0	4.6246E+06	1.4000E-02	1.1689E+02	2	4	1260
1250	50-Sn-118	0	50	1180	stable				3.00	1.0	1.4000E+05	9.8600E-01	1.1790E+02	0	0	1319
1251	51-Sb-118	0	51	1180	2.1600E+02	8.7300E+05	8.0400E+05	0.0000E+00	2.00	0.0	3.6566E+06	1.0000E+00	1.1689E+02	1	4	1364
1252	51-Sb-118	1	51	1181	1.8000E+04	3.5100E+04	2.6100E+06	0.0000E+00	2.00	0.0	3.9066E+06	1.0000E+00	1.1689E+02	1	4	1365
1253	52-Te-118	0	52	1180	5.1840E+05	4.9660E+03	1.9900E+04	0.0000E+00	2.00	0.0	2.9947E+05	1.0000E+00	1.1689E+02	1	3	1417
1254	53-I-118	0	53	1180	8.2000E+02	2.1100E+06	1.9600E+06	0.0000E+00	2.00	0.0	6.7257E+06	1.0000E+00	1.1690E+02	1	4	1461
1255	53-I-118	1	53	1181	5.1000E+02	1.1500E+06	3.7000E+06	0.0000E+00	2.00	0.0	6.8297E+06	1.0000E+00	1.1690E+02	1	4	1462
1256	43-Tc-119	0	43	1190	3.2470E-02	3.2640E+06	2.8470E+06	0.0000E+00	1.00	0.0	1.2193E+07	1.0000E+00	1.1895E+02	1	2	976
1257	44-Ru-119	0	44	1190	8.1330E-02	2.9200E+06	2.3110E+06	0.0000E+00	1.00	0.0	1.0259E+07	9.8300E-01	1.1894E+02	2	2	1008
1258	45-Rh-119	0	45	1190	4.6690E-01	2.4760E+06	1.5980E+06	0.0000E+00	1.00	0.0	8.5853E+06	9.3600E-01	1.1893E+02	2	2	1058
1259	46-Pd-119	0	46	1190	9.2000E-01	2.1110E+06	1.3370E+06	0.0000E+00	1.00	0.0	4.4948E+06	6.4000E-02	1.1892E+02	2	2	1099
1260	47-Ag-119	0	47	1190	2.1000E+00	1.8400E+06	1.6300E+06	0.0000E+00	1.00	0.0	7.2376E+06	4.0000E-01	1.1789E+02	2	4	1159
1261	47-Ag-119	1	47	1191	6.0000E+00	1.9410E+06	9.3600E+05	0.0000E+00	1.00	0.0	5.3314E+06	7.3000E-01	1.1789E+02	1	2	1160
1262	48-Cd-119	0	48	1190	1.6140E+02	8.2000E+05	1.6400E+06	0.0000E+00	1.00	0.0	3.7224E+06	9.7000E-02	1.1789E+02	2	4	1201
1263	48-Cd-119	1	48	1191	1.3200E+02	9.0000E+05	1.9500E+06	0.0000E+00	1.00	0.0	3.4110E+06	9.0300E-01	1.1789E+02	2	4	1202
1264	49-In-119	0	49	1190	1.4400E+02	6.3000E+05	7.1000E+05	0.0000E+00	1.00	0.0	3.5576E+06	2.5000E-03	1.1788E+02	2	4	1261
1265	49-In-119	1	49	1191	1.0800E+03	1.0420E+06	1.2800E+04	0.0000E+00	1.00	0.0	2.6760E+06	7.4000E-02	1.1788E+02	2	4	1262
1266	50-Sn-119	0	50	1190	stable				3.00	0.0	3.1139E+05	4.4000E-02	1.1890E+02	0	0	1320
1267	50-Sn-119	1	50	1191	2.5320E+07	7.5500E+04	1.1500E+04	0.0000E+00	3.00	0.0	8.9536E+04	1.0000E+00	1.1788E+02	1	3	1321
1268	51-Sb-119	0	51	1190	1.3750E+05	2.1800E+04	2.3050E+04	0.0000E+00	2.00	0.0	5.9085E+05	1.0000E+00	1.1788E+02	1	4	1366
1269	52-Te-119	0	52	1190	5.7780E+04	1.3230E+04	7.6900E+05	0.0000E+00	2.00	0.0	2.2930E+06	1.0000E+00	1.1789E+02	1	4	1418
1270	52-Te-119	1	52	1191	4.0600E+05	1.6900E+04	1.5020E+06	0.0000E+00	2.00	0.0	2.5540E+06	1.0000E+00	1.1789E+02	1	4	1419
1271	53-I-119	0	53	1190	1.1460E+03	5.8000E+05	9.5000E+05	0.0000E+00	2.00	0.0	3.4157E+06	9.9050E-01	1.1789E+02	2	4	1463
1272	54-Xe-119	0	54	1190	3.4800E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	1.0	3.1547E+06	9.5000E-03	1.1892E+02	1	0	1503
1273	55-Cs-119	0	55	1190	4.3000E+01	3.2100E+06	1.9040E+06	0.0000E+00	2.00	0.0	4.9711E+06	1.0000E+00	1.1790E+02	1	4	1545
1274	55-Cs-119	1	55	1191	3.0400E+01	2.7000E+06	5.4000E+05	0.0000E+00	2.00	0.0	6.4894E+06	1.0000E+00	1.1790E+02	1	3	1546
1275	43-Tc-120	0	43	1200	2.6970E-02	3.8240E+06	4.3820E+06	0.0000E+00	1.00	0.0	1.4494E+07	1.0000E+00	1.1996E+02	1	2	977
1276	44-Ru-120	0	44	1200	6.2310E-02	2.3610E+06	1.2660E+06	0.0000E+00	1.00	0.0	8.8030E+06	9.7400E-01	1.1994E+02	2	2	1009
1277	45-Rh-120	0	45	1200	2.0190E-01	3.2610E+06	2.8370E+06	0.0000E+00	1.00	0.0	4.7400E+06	2.6000E-02	1.1994E+02	2	2	1059
1278	46-Pd-120	0	46	1200	5.0000E-01	1.3430E+06	8.1370E+05	0.0000E+00	1.00	0.0	5.3713E+06	1.0000E+00	1.1992E+02	1	2	1100
1279	47-Ag-120	0	47	1200	1.2300E+00	2.2870E+06	2.8811E+06	0.0000E+00	1.00	0.0	8.3058E+06	9.9997E-01	1.1889E+02	2	2	1161
									1.50	0.0	2.5430E+05	3.0000E-05				

No.	Symbol S	ZZAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1280	47-Ag-120	1	471201	3.2000E-01	1.3708E+06	2.0859E+06	0.0000E+00	1.00 0.0	8.5089E+06	6.3000E-01	1.1889E+02	2	4	1162
1281	48-Cd-120	0	481200	5.0800E+01	6.7700E+05	0.0000E+00	0.0000E+00	3.00 0.0	2.0300E+05	3.7000E-01	1.1888E+02	1	1	1203
1282	49-In-120	0	491200	3.0800E+00	2.2400E+06	3.3100E+05	0.0000E+00	1.00 0.0	1.7712E+06	1.0000E+00	1.1888E+02	1	2	1263
1283	49-In-120	1	491201	4.6200E+01	1.0000E+06	3.0000E+06	0.0000E+00	1.00 0.0	5.3700E+00	1.0000E+00	1.1888E+02	1	4	1264
1284	49-In-120	2	491202	4.7300E+01	9.0000E+05	3.4500E+06	0.0000E+00	1.00 0.0	5.4400E+06	1.0000E+00	1.1888E+02	1	4	1265
1285	50-Sn-120	0	501200	stable			0.0000E+00	1.00 0.0	5.6700E+06	1.0000E+00	1.1900E+02	0	0	1322
1286	51-Sb-120	0	511200	9.5340E+02	3.0700E+05	4.5200E+05	0.0000E+00	2.00 0.0	2.6806E+06	1.0000E+00	1.1888E+02	1	4	1367
1287	51-Sb-120	1	511201	4.9770E+05	4.2300E+04	2.4660E+06	0.0000E+00	2.00 0.0	2.7800E+06	1.0000E+00	1.1888E+02	1	4	1368
1288	52-Te-120	0	521200	stable			0.0000E+00	1.00 0.0	1.1900E+02	0	0	0	0	1420
1289	53-I-120	0	531200	4.8960E+03	1.1680E+06	2.6500E+06	0.0000E+00	2.00 0.0	5.6150E+06	1.0000E+00	1.1888E+02	1	4	1464
1290	53-I-120	1	531201	3.1800E+03	5.8000E+05	3.3000E+06	0.0000E+00	2.00 0.0	5.9350E+06	1.0000E+00	1.1888E+02	1	4	1465
1291	54-Xe-120	0	541200	2.4000E+03	5.2000E+04	4.3100E+05	0.0000E+00	2.00 0.0	1.5808E+06	1.0000E+00	1.1888E+02	1	4	1504
1292	55-Cs-120	0	551200	6.1300E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00 0.0	8.2838E+06	1.0000E+00	1.1992E+02	1	0	1547
1293	55-Cs-120	1	551201	5.7000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00 0.0	8.2840E+06	1.0000E+00	1.1992E+02	1	0	1548
1294	56-Ba-120	0	561200	2.4000E+01	1.7000E+06	1.2800E+06	0.0000E+00	2.00 0.0	5.0000E+00	1.0000E+00	1.1890E+02	1	4	1591
1295	44-Ru-121	0	441210	5.0090E-02	2.9510E+06	2.7290E+06	0.0000E+00	1.00 0.0	1.1383E+07	1.0000E+00	1.2095E+02	1	2	1010
1296	45-Rh-121	0	451210	1.0070E-01	2.6710E+06	1.8520E+06	0.0000E+00	1.00 0.0	9.7520E+06	8.9000E-01	1.2094E+02	2	2	1060
1297	46-Pd-121	0	461210	1.4390E+00	2.3350E+06	1.6380E+06	0.0000E+00	1.00 0.0	8.2205E+06	9.9200E-01	1.2093E+02	2	2	1101
1298	47-Ag-121	0	471210	7.8000E-01	1.6673E+06	2.0715E+06	0.0000E+00	1.00 0.0	1.3979E+06	8.0000E-03	1.1988E+02	3	4	1163
1299	48-Cd-121	0	481210	1.3500E+01	1.2100E+06	1.6600E+06	0.0000E+00	1.00 0.0	4.7624E+06	1.0392E-01	1.1987E+02	2	4	1204
1300	48-Cd-121	1	481211	8.3000E+00	1.1900E+06	2.1300E+06	0.0000E+00	1.00 0.0	4.4487E+06	6.6300E-01	1.1987E+02	1	4	1205
1301	49-In-121	0	491210	2.3100E+01	9.9000E+05	9.3000E+05	0.0000E+00	1.00 0.0	4.9772E+06	1.0000E+00	1.1987E+02	2	4	1266
1302	49-In-121	1	491211	2.3300E+02	1.5000E+06	6.4000E+04	0.0000E+00	1.00 0.0	3.3613E+06	8.8700E-01	1.1987E+02	2	4	1267
1303	50-Sn-121	0	501210	9.7310E+04	1.1580E+05	0.0000E+00	0.0000E+00	1.00 0.0	3.6750E+06	1.1300E-01	1.1987E+02	2	4	1267
1304	50-Sn-121	1	501211	1.3850E+09	3.4000E+04	5.0000E+03	0.0000E+00	1.00 0.0	3.1360E+05	9.8800E-01	1.1987E+02	2	4	1324
1305	51-Sb-121	0	511210	stable			0.0000E+00	1.00 0.0	1.2000E-02	1.0000E+00	1.2090E+02	0	0	1369
1306	52-Te-121	0	521210	1.6560E+06	8.4700E+03	5.7800E+05	0.0000E+00	2.00 0.0	1.0543E+06	1.0000E+00	1.1987E+02	1	4	1421
1307	52-Te-121	1	521211	1.4190E+07	6.4500E+04	2.1700E+05	0.0000E+00	2.00 0.0	1.3483E+06	1.1400E-01	1.1987E+02	2	4	1422
1308	53-I-121	0	531210	7.6300E+03	6.9000E+04	4.0600E+05	0.0000E+00	2.00 0.0	2.9398E+05	8.8600E-01	1.1987E+02	2	4	1466
1309	54-Xe-121	0	541210	2.4100E+03	5.5000E+05	1.4600E+06	0.0000E+00	2.00 0.0	2.2926E+06	9.9715E-01	1.1987E+02	2	4	1466
1310	55-Cs-121	0	551210	1.5500E+02	1.7000E+06	1.1700E+06	0.0000E+00	2.00 0.0	1.9987E+06	2.8500E-03	1.1987E+02	1	4	1505
1311	55-Cs-121	1	551211	1.2200E+02	1.3400E+06	1.1840E+06	0.0000E+00	2.00 0.0	3.7707E+06	1.0000E+00	1.1987E+02	1	4	1505
1312	44-Ru-122	0	441220	3.7240E-02	2.6800E+06	1.4500E+06	0.0000E+00	1.00 0.0	5.3786E+06	1.0000E+00	1.1988E+02	1	4	1549
1313	45-Rh-122	0	451220	6.7770E-02	3.3700E+06	3.0700E+06	0.0000E+00	1.00 0.0	4.4742E+06	8.3000E-01	1.1988E+02	2	4	1550
1314	46-Pd-122	0	461220	5.1870E-01	1.6500E+06	9.2090E+05	0.0000E+00	1.00 0.0	6.8500E+04	1.7000E-01	1.2193E+02	2	2	1102
1315	47-Ag-122	0	471220	5.2900E-01	3.0480E+06	2.5110E+06	0.0000E+00	1.00 0.0	9.7620E+06	1.0000E+00	1.2195E+02	1	2	1011
									1.2443E+07	9.0900E-01	1.2194E+02	2	2	1061
									1.50 0.0	5.9380E+06	9.1000E-02	2	2	1102
									6.4900E+06	9.7500E-01	1.2193E+02	2	2	1102
									1.50 0.0	1.7153E+06	2.5000E-02	2	2	1164
									9.5063E+06	9.9814E-01	1.2088E+02	2	2	1164
									1.50 0.0	1.8964E+06	1.8600E-03	2	2	1164

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1316	47-Ag-122	1	47	1221	5.5000E-01	2.6650E+06	3.5190E+05	0.0000E+00	1.00	0.0	9.5063E+06	1.0000E+00	1.2088E+02	1	2	1165
1317	48-Cd-122	0	48	1220	5.2400E+00	7.9681E+05	4.5565E+05	0.0000E+00	1.00	0.0	2.9606E+06	1.0000E+00	1.2087E+02	1	2	1206
1318	49-In-122	0	49	1220	1.5000E+00	2.5300E+06	6.4000E+05	0.0000E+00	1.00	0.0	6.3686E+06	1.0000E+00	1.2086E+02	1	2	1268
1319	49-In-122	1	49	1221	1.0300E+01	1.3400E+06	3.0600E+06	0.0000E+00	1.00	0.0	6.4086E+06	1.0000E+00	1.2086E+02	1	4	1269
1320	49-In-122	2	49	1222	1.0800E+01	1.4100E+06	3.4600E+06	0.0000E+00	1.00	0.0	6.4586E+06	1.0000E+00	1.2086E+02	1	4	1270
1321	50-Sn-122	0	50	1220	stable								1.2190E+02	0	0	1325
1322	51-Sb-122	0	51	1220	2.3534E+05	5.6210E+05	4.4520E+05	0.0000E+00	1.00	0.0	1.9808E+06	9.7590E-01	1.2086E+02	2	5	1370
1323	51-Sb-122	1	51	1221	5.3000E-04	6.1300E+04	7.2200E+04	0.0000E+00	3.00	0.0	1.6079E+06	2.4100E-02	1.2086E+02	1	3	1371
1324	51-Sb-122	2	51	1222	2.5146E+02	2.3535E+04	2.2600E+02	0.0000E+00	3.00	1.0	1.3747E+05	1.0000E+00	1.2086E+02	1	3	1372
1325	52-Te-122	0	52	1220	stable								1.2190E+02	0	0	1423
1326	53-I-122	0	53	1220	2.1800E+02	1.1100E+06	9.6000E+05	0.0000E+00	2.00	0.0	4.2340E+06	1.0000E+00	1.2086E+02	1	4	1467
1327	54-Xe-122	0	54	1220	7.2400E+04	8.6500E+03	6.8100E+04	0.0000E+00	2.00	0.0	7.2546E+05	1.0000E+00	1.2086E+02	1	4	1506
1328	55-Cs-122	0	55	1220	2.1180E+01	2.6000E+06	1.3300E+06	0.0000E+00	2.00	0.0	7.2102E+06	1.0000E+00	1.2087E+02	1	4	1551
1329	55-Cs-122	1	55	1221	3.6000E-01	7.4000E+04	3.0100E+04	0.0000E+00	3.00	0.0	1.2705E+05	1.0000E+00	1.2087E+02	1	3	1552
1330	55-Cs-122	2	55	1222	2.2200E+02	1.2720E+06	3.2900E+06	0.0000E+00	2.00	0.0	7.3502E+06	1.0000E+00	1.2087E+02	1	4	1553
1331	44-Ru-123	0	44	1230	3.3720E-02	3.1430E+06	2.9030E+06	0.0000E+00	1.00	0.0	1.2147E+07	1.0000E+00	1.2296E+02	1	2	1012
1332	45-Rh-123	0	45	1230	5.1680E-02	2.9030E+06	2.1470E+06	0.0000E+00	1.00	0.0	1.0908E+07	1.0000E+00	1.2294E+02	1	2	1062
1333	46-Pd-123	0	46	1230	2.2990E-01	2.4950E+06	1.8590E+06	0.0000E+00	1.00	0.0	9.1310E+06	9.9780E-01	1.2293E+02	2	2	1103
1334	47-Ag-123	0	47	1230	2.9600E-01	2.6400E+06	1.8590E+06	0.0000E+00	1.00	0.0	7.8661E+06	8.1450E-01	1.2187E+02	3	4	1166
1335	48-Cd-123	0	48	1230	2.1000E+00	1.7800E+06	2.0200E+06	0.0000E+00	1.00	0.0	1.00	1.8000E-01	1.2186E+02	2	4	1207
1336	48-Cd-123	1	48	1231	1.8200E+00	1.7600E+06	2.5000E+06	0.0000E+00	1.00	0.0	6.0163E+06	3.1200E-01	1.2186E+02	2	4	1208
1337	49-In-123	0	49	1230	6.1700E+00	1.3600E+06	1.0600E+06	0.0000E+00	1.00	0.0	5.6891E+06	6.8800E-01	1.2186E+02	2	4	1271
1338	49-In-123	1	49	1231	4.7400E+01	2.0320E+06	6.6000E+04	0.0000E+00	1.00	1.0	4.3859E+06	3.2000E-02	1.2186E+02	2	4	1271
1339	50-Sn-123	0	50	1230	1.1160E+07	5.2320E+05	6.9000E+03	0.0000E+00	1.00	0.0	4.3613E+06	9.6800E-01	1.2186E+02	1	4	1272
1340	50-Sn-123	1	50	1231	2.4036E+03	4.7890E+05	1.4070E+05	0.0000E+00	1.00	0.0	6.3328E+06	9.8400E-01	1.2185E+02	1	3	1326
1341	51-Sb-123	0	51	1230	stable								1.2185E+02	1	4	1327
1342	52-Te-123	0	52	1230	2.9030E+24	2.0140E+03	2.4600E+02	0.0000E+00	2.00	0.0	6.0056E+06	1.6000E-02	1.2290E+02	0	0	1373
1343	52-Te-123	1	52	1231	1.0299E+07	1.0100E+05	1.4830E+05	0.0000E+00	3.00	0.0	4.3613E+06	9.6800E-01	1.2185E+02	1	3	1424
1344	53-I-123	0	53	1230	4.7604E+04	2.6600E+04	1.7270E+05	0.0000E+00	2.00	0.0	1.2284E+06	9.9955E-01	1.2185E+02	1	3	1425
1345	54-Xe-123	0	54	1230	7.4900E+03	1.8200E+05	6.4000E+05	0.0000E+00	2.00	0.0	9.8096E+05	5.0000E-05	1.2185E+02	2	4	1468
1346	55-Cs-123	0	55	1230	3.5280E+02	9.7000E+05	1.1000E+06	0.0000E+00	2.00	0.0	2.6950E+06	1.0000E+00	1.2185E+02	1	4	1507
1347	55-Cs-123	1	55	1231	1.6400E+00	1.1000E+05	4.6800E+04	0.0000E+00	3.00	0.0	4.2050E+06	1.0000E+00	1.2186E+02	1	4	1554
1348	56-Ba-123	0	56	1230	1.6200E+02	1.6900E+06	9.1000E+05	0.0000E+00	2.00	0.0	1.5630E+06	1.0000E+00	1.2186E+02	1	3	1555
1349	44-Ru-124	0	44	1240	2.5070E-02	3.0670E+06	1.6840E+06	0.0000E+00	1.00	0.0	5.2324E+06	5.8000E-03	1.2186E+02	2	4	1592
1350	45-Rh-124	0	45	1240	4.5130E-02	3.4960E+06	3.3260E+06	0.0000E+00	1.00	0.0	1.0749E+07	1.0000E+00	1.2396E+02	1	2	1013
1351	46-Pd-124	0	46	1240	9.9350E-02	1.9810E+06	1.0720E+06	0.0000E+00	1.00	0.0	1.3386E+07	1.0000E+00	1.2395E+02	1	2	1063
1352	47-Ag-124	0	47	1240	1.7200E-01	3.0900E+06	2.6220E+06	0.0000E+00	1.00	0.0	1.0502E+07	9.8700E-01	1.2393E+02	2	2	1104
1353	48-Cd-124	0	48	1240	1.2500E+00	1.1413E+06	5.6755E+05	0.0000E+00	1.00	0.0	3.1427E+06	1.3000E-02	1.2285E+02	1	4	1209
1354	49-In-124	0	49	1240	3.1200E+00	2.0500E+06	2.7000E+06	0.0000E+00	1.00	0.0	4.1686E+06	1.0000E+00	1.2285E+02	1	4	1273

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1355	49-In-124	1	49	1241	3.7000E+00	1.6200E+06	3.8000E+06	0.0000E+00	1.00	0.0	7.4140E+06	1.0000E+00	1.2285E+02	1	4	1274
1356	50-Sn-124	0	50	1240	stable								1.2390E+02	0	0	1328
1357	51-Sb-124	0	51	1240	5.2010E+06	3.9000E+05	1.8460E+06	0.0000E+00	1.00	0.0	2.9043E+06	1.0000E+00	1.2284E+02	1	4	1374
1358	51-Sb-124	1	51	1241	9.3000E+01	1.1400E+05	4.4000E+05	0.0000E+00	1.00	0.0	2.9152E+06	2.5000E+00	1.2284E+02	2	4	1375
1359	51-Sb-124	2	51	1242	1.2120E+03	2.4300E+04	2.3400E+02	0.0000E+00	3.00	1.0	2.5977E+04	1.0000E+00	1.2284E+02	1	3	1376
1360	52-Te-124	0	52	1240	stable								1.2390E+02	0	0	1426
1361	53-I-124	0	53	1240	3.6081E+05	1.9300E+05	1.1180E+06	0.0000E+00	2.00	0.0	3.1596E+06	1.0000E+00	1.2284E+02	1	4	1469
1362	54-Xe-124	0	54	1240	5.0490E+21	0.0000E+00	0.0000E+00	0.0000E+00	2.20	0.0	2.8643E+06	1.0000E+00	1.2391E+02	1	0	1508
1363	55-Cs-124	0	55	1240	3.0800E+01	1.9100E+06	1.3700E+06	0.0000E+00	2.00	0.0	5.9297E+06	1.0000E+00	1.2285E+02	1	4	1556
1364	55-Cs-124	1	55	1241	6.3000E+00	1.3100E+05	3.1100E+05	0.0000E+00	3.00	0.0	4.6254E+05	1.0000E+00	1.2285E+02	1	3	1557
1365	56-Ba-124	0	56	1240	6.6000E+02	1.0600E+05	7.7000E+05	0.0000E+00	2.00	0.0	2.6416E+06	1.0000E+00	1.2285E+02	1	4	1593
1366	45-Rh-125	0	45	1250	3.5020E-02	3.2700E+06	2.7270E+06	0.0000E+00	1.00	0.0	1.2016E+07	1.0000E+00	1.2495E+02	1	2	1064
1367	46-Pd-125	0	46	1250	8.6060E-02	2.6710E+06	2.0920E+06	0.0000E+00	1.00	0.0	1.0008E+07	1.0000E+00	1.2494E+02	1	2	1105
1368	47-Ag-125	0	47	1250	1.6600E-01	2.5910E+06	1.8150E+06	0.0000E+00	1.00	0.0	9.1179E+06	9.4900E-01	1.2493E+02	2	2	1168
1369	48-Cd-125	0	48	1250	6.5000E-01	2.2200E+06	2.2800E+06	0.0000E+00	1.00	0.0	4.4001E+06	5.1000E-02	1.2385E+02	2	2	1210
1370	48-Cd-125	1	48	1251	4.8000E-01	2.0900E+06	2.4200E+06	0.0000E+00	1.00	0.0	6.7686E+06	5.3600E-01	1.2385E+02	1	2	1211
1371	49-In-125	0	49	1250	2.3600E+00	1.8100E+06	1.2000E+06	0.0000E+00	1.00	0.0	7.4788E+06	1.0000E+00	1.2385E+02	1	2	1211
1371	49-In-125	1	49	1251	2.3600E+00	1.8100E+06	1.2000E+06	0.0000E+00	1.00	0.0	5.4196E+06	1.6800E-01	1.2384E+02	2	4	1275
1372	49-In-125	1	49	1251	1.2200E+01	2.0970E+06	6.7203E+05	0.0000E+00	1.00	0.0	5.3921E+06	8.3200E-01	1.2384E+02	1	4	1276
1373	50-Sn-125	0	50	1250	8.3300E+05	8.0000E+05	3.3000E+05	0.0000E+00	1.00	0.0	5.7522E+06	1.0000E+00	1.2384E+02	1	4	1276
1374	50-Sn-125	1	50	1251	5.7100E+02	8.0600E+05	3.4600E+05	0.0000E+00	1.00	0.0	2.3598E+06	1.0000E+00	1.2383E+02	1	4	1329
1375	51-Sb-125	0	51	1250	8.7054E+07	1.0030E+05	4.3700E+05	0.0000E+00	1.00	0.0	2.3873E+06	1.0000E+00	1.2383E+02	1	4	1330
1375	51-Sb-125	1	51	1250	8.7054E+07	1.0030E+05	4.3700E+05	0.0000E+00	1.00	0.0	7.6670E+05	7.8200E-01	1.2383E+02	2	4	1377
1376	52-Te-125	0	52	1250	stable								1.2490E+02	0	0	1427
1377	52-Te-125	1	52	1251	4.9590E+06	1.0400E+05	3.5200E+04	0.0000E+00	3.00	0.0	1.4478E+05	1.0000E+00	1.2383E+02	1	3	1428
1378	53-I-125	0	53	1250	5.1322E+06	1.6600E+04	4.2300E+04	0.0000E+00	2.00	0.0	1.8577E+05	1.0000E+00	1.2383E+02	1	4	1470
1379	54-Xe-125	0	54	1250	6.0800E+04	3.3000E+04	2.7200E+05	0.0000E+00	2.00	0.0	1.6442E+06	1.0000E+00	1.2383E+02	1	4	1509
1380	54-Xe-125	1	54	1251	5.6900E+01	1.2900E+05	1.1310E+05	0.0000E+00	3.00	0.0	2.5270E+05	1.0000E+00	1.2383E+02	1	3	1510
1381	55-Cs-125	0	55	1250	2.8020E+03	3.5000E+05	7.6000E+05	0.0000E+00	2.00	0.0	3.1052E+06	1.0000E+00	1.2384E+02	1	4	1558
1382	45-Rh-126	0	45	1260	3.2770E-02	3.4620E+06	3.9960E+06	0.0000E+00	1.00	0.0	1.4252E+07	1.0000E+00	1.2595E+02	1	2	1065
1383	46-Pd-126	0	46	1260	6.4590E-02	2.3590E+06	1.2760E+06	0.0000E+00	1.00	0.0	8.7650E+06	1.0000E+00	1.2594E+02	1	2	1106
1384	47-Ag-126	0	47	1260	1.0700E-01	2.9960E+06	3.4380E+06	0.0000E+00	1.00	0.0	1.1477E+07	9.6700E-01	1.2593E+02	2	2	1169
1385	48-Cd-126	0	48	1260	5.1500E-01	1.4905E+06	7.2089E+05	0.0000E+00	1.00	0.0	4.4970E+06	3.3000E-02	1.2592E+02	1	2	1212
1386	49-In-126	0	49	1260	1.5300E+00	2.4000E+06	2.8100E+06	0.0000E+00	1.00	0.0	5.5161E+06	1.0000E+00	1.2483E+02	1	2	1277
1387	49-In-126	1	49	1261	1.6400E+00	1.9900E+06	4.3000E+06	0.0000E+00	1.00	0.0	8.2424E+06	1.0000E+00	1.2483E+02	1	4	1278
1388	50-Sn-126	0	50	1260	7.3000E+12	1.0600E+05	5.6000E+04	0.0000E+00	1.00	0.0	3.6030E+05	3.2000E-01	1.2483E+02	2	4	1331
1389	51-Sb-126	0	51	1260	1.0670E+06	3.7000E+05	2.7600E+06	0.0000E+00	1.00	0.0	3.6720E+06	1.0000E+00	1.2483E+02	1	4	1378
1390	51-Sb-126	1	51	1261	1.1490E+03	6.5000E+05	1.5500E+06	0.0000E+00	1.00	0.0	3.6897E+06	8.6000E-01	1.2483E+02	2	4	1379
1391	51-Sb-126	2	51	1262	1.1000E+01	2.0200E+04	2.7000E+02	0.0000E+00	3.00	1.0	2.2700E+04	1.0000E+00	1.2483E+02	1	3	1380
1392	52-Te-126	0	52	1260	stable								1.2590E+02	0	0	1429
1393	53-I-126	0	53	1260	1.1170E+06	1.6000E+05	4.3500E+05	0.0000E+00	1.00	0.0	1.2343E+06	4.7300E-01	1.2482E+02	2	5	1471
1394	54-Xe-126	0	54	1260	stable								1.2590E+02	0	0	1511
1395	55-Cs-126	0	55	1260	9.8400E+01	1.3200E+06	1.1500E+06	0.0000E+00	2.00	0.0	4.7951E+06	1.0000E+00	1.2483E+02	1	4	1559

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1396	56-Ba-126	0	56	1260	6.0000E+03	1.2100E+04	5.7700E+05	0.0000E+00	2.00	0.0	1.6806E+06	1.0000E+00	1.2483E+02	1	4	1594
1397	45-Rh-127	0	45	1270	2.4470E-02	3.4010E+06	3.0370E+06	0.0000E+00	1.00	0.0	1.0408E+07	1.0000E+00	1.2696E+02	1	2	1066
1398	46-Pd-127	0	46	1270	6.2490E-02	2.7470E+06	2.5990E+06	0.0000E+00	1.00	0.0	1.1141E+07	1.0000E+00	1.2694E+02	1	2	1107
1399	47-Ag-127	0	47	1270	1.9000E-01	2.8870E+06	2.1810E+06	0.0000E+00	1.00	0.0	9.9090E+06	8.8000E-01	1.2693E+02	2	2	1170
1400	48-Cd-127	0	48	1270	4.3000E-01	2.0730E+06	2.0010E+06	0.0000E+00	1.00	0.0	5.6040E+06	1.2000E-01	1.2692E+02	3	2	1213
1401	49-In-127	0	49	1270	1.0900E+00	2.2000E+06	1.6000E+06	1.7500E+04	1.00	0.0	1.2111E+06	1.9000E-04	1.2583E+02	3	4	1279
1402	49-In-127	1	49	1271	3.6700E+00	2.9000E+06	4.7000E+05	2.3000E+04	1.00	0.0	6.5729E+06	2.1380E-01	1.2583E+02	3	4	1279
1403	49-In-127	2	49	1272	1.0400E+00	2.0900E+06	2.9000E+06	0.0000E+00	1.00	0.0	1.4200E+06	6.9000E-03	1.2583E+02	1	4	1281
1404	50-Sn-127	0	50	1270	7.5600E+03	5.7000E+05	1.9100E+06	0.0000E+00	1.00	0.0	8.4359E+06	1.0000E+00	1.2582E+02	1	4	1332
1405	50-Sn-127	1	50	1271	2.4780E+02	8.9031E+05	8.8645E+05	0.0000E+00	1.00	0.0	3.2333E+06	1.0000E+00	1.2582E+02	1	2	1333
1406	51-Sb-127	0	51	1270	3.3300E+05	3.11300E+05	6.9300E+05	0.0000E+00	1.00	0.0	1.5822E+06	8.3500E-01	1.2582E+02	2	4	1381
1407	52-Te-127	0	52	1270	3.3700E+04	2.2460E+05	4.9000E+03	0.0000E+00	1.00	0.0	7.0224E+05	1.0000E+00	1.2582E+02	1	4	1430
1408	52-Te-127	1	52	1271	9.4200E+06	7.5900E+04	1.0900E+04	0.0000E+00	1.00	0.0	7.9047E+05	2.4000E-02	1.2582E+02	2	4	1431
1409	53-I-127	0	53	1270	stable			3.00	0.0	0.0	8.8260E+04	9.7600E-01	1.2690E+02	0	0	1472
1410	54-Xe-127	0	54	1270	3.1450E+06	2.9800E+04	2.7600E+05	0.0000E+00	2.00	0.0	6.6235E+05	1.0000E+00	1.2582E+02	1	4	1512
1411	54-Xe-127	1	54	1271	6.9200E+01	1.1600E+05	1.6700E+05	0.0000E+00	3.00	0.0	2.9710E+05	1.0000E+00	1.2582E+02	1	3	1513
1412	55-Cs-127	0	55	1270	2.2500E+04	2.7700E+04	4.3300E+05	0.0000E+00	2.00	0.0	2.0814E+06	9.9500E-01	1.2582E+02	2	4	1560
1413	56-Ba-127	0	56	1270	7.6200E+02	5.9000E+05	7.2000E+05	0.0000E+00	2.00	0.0	1.7843E+06	5.0000E-04	1.2582E+02	1	4	1595
1414	56-Ba-127	1	56	1271	1.9000E+00	6.0000E+04	3.4000E+04	0.0000E+00	3.00	0.0	3.4222E+06	1.0000E+00	1.2582E+02	1	3	1596
1415	57-La-127	0	57	1270	3.0600E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.9218E+06	1.0000E+00	1.2692E+02	1	0	1631
1416	57-La-127	1	57	1271	2.2200E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.9360E+06	1.0000E+00	1.2692E+02	1	0	1632
1417	58-Ce-127	0	58	1270	3.4000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.9168E+06	1.0000E+00	1.2692E+02	1	0	1668
1418	58-Ce-127	1	58	1271	2.8600E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.9241E+06	5.0000E-02	1.2692E+02	2	0	1669
1419	59-Fr-127	0	59	1270	4.2000E+00	1.6000E+06	1.0000E+06	0.0000E+00	2.00	0.0	5.9099E+06	9.5000E-01	1.2584E+02	2	4	1710
1420	45-Rh-128	0	45	1280	7.8340E-03	4.5950E+06	5.3420E+06	0.0000E+00	1.00	0.0	7.4287E+06	2.9000E-01	1.2796E+02	1	2	1067
1421	46-Pd-128	0	46	1280	4.4930E-02	2.7610E+06	1.5060E+06	0.0000E+00	1.00	0.0	1.5143E+07	1.0000E+00	1.2795E+02	1	2	1108
1422	47-Ag-128	0	47	1280	5.8000E-02	3.1990E+06	3.6990E+06	0.0000E+00	1.00	0.0	1.0032E+07	1.0000E+00	1.2794E+02	2	2	1171
1423	48-Cd-128	0	48	1280	3.4000E-01	1.8310E+06	1.0030E+06	0.0000E+00	1.00	0.0	5.5170E+06	5.1000E-02	1.2793E+02	2	2	1214
1424	49-In-128	0	49	1280	8.4000E-01	2.6400E+06	3.0700E+06	0.0000E+00	1.00	0.0	6.9041E+06	9.921E-01	1.2682E+02	2	2	1282
1425	49-In-128	1	49	1281	7.2000E-01	2.3000E+06	3.5400E+06	0.0000E+00	1.00	0.0	1.1800E+06	7.9000E-04	1.2682E+02	2	2	1282
1426	50-Sn-128	0	50	1280	3.5440E+03	2.5100E+05	6.0000E+05	0.0000E+00	1.00	0.0	9.5561E+06	4.8000E-01	1.2681E+02	1	4	1334
1427	50-Sn-128	1	50	1281	6.5000E+00	7.1000E+04	2.0102E+06	0.0000E+00	3.00	0.0	7.4646E+06	5.2000E-01	1.2681E+02	1	3	1335
1428	51-Sb-128	0	51	1280	3.2440E+04	4.8000E+06	3.0900E+06	0.0000E+00	1.00	0.0	2.0915E+06	1.0000E+00	1.2681E+02	1	4	1382
1429	51-Sb-128	1	51	1281	6.2400E+02	9.5000E+05	1.9100E+06	0.0000E+00	1.00	0.0	4.3634E+06	1.0000E+00	1.2681E+02	2	2	1383
									3.00	0.0	2.0000E+04	3.6000E-02				

No.	Symbol	S	zZAAs	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1430	52-Te-128	0	521280	2.4300E+32	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	8.6650E+05	1.0000E+00	1.2790E+02	1	0	1432
1431	53-I-128	0	531280	1.4994E+03	7.4500E+05	6.7600E+04	0.0000E+00	1.00	0.0	2.1216E+06	9.3100E-01	1.2681E+02	2	5	1473
1432	54-Xe-128	0	541280	stable			0.0000E+00	2.00	0.0	1.2550E+06	6.9000E-02	1.2790E+02	0	0	1514
1433	55-Cs-128	0	551280	2.1720E+02	8.7500E+05	8.9200E+05	0.0000E+00	2.00	0.0	3.9287E+06	1.0000E+00	1.2681E+02	1	4	1561
1434	56-Ba-128	0	561280	2.1000E+05	7.1000E+03	6.6000E+04	0.0000E+00	2.00	0.0	5.5266E+05	1.0000E+00	1.2681E+02	1	4	1597
1435	57-La-128	0	571280	3.1400E+02	1.2500E+06	2.8100E+06	0.0000E+00	2.00	0.0	6.7535E+06	1.0000E+00	1.2682E+02	1	4	1633
1436	57-La-128	1	571281	8.4000E+01	1.6500E+06	8.8000E+05	0.0000E+00	2.00	0.0	1.0000E+00	1.0000E+00	1.2682E+02	1	3	1634
1437	58-Ce-128	0	581280	2.3580E+02	1.8000E+05	1.0200E+06	0.0000E+00	2.00	1.0	3.0915E+06	1.0000E+00	1.2682E+02	1	4	1670
1438	59-Fr-128	0	591280	2.8500E+00	3.4500E+06	1.5700E+06	0.0000E+00	2.00	0.0	9.2032E+06	1.0000E+00	1.2683E+02	1	4	1711
1439	46-Pd-129	0	461290	1.2680E-02	3.9990E+06	3.6810E+06	0.0000E+00	1.00	0.0	1.2280E+07	1.0000E+00	1.2895E+02	1	2	1109
1440	47-Ag-129	0	471290	4.4000E-02	3.1070E+06	2.7900E+06	0.0000E+00	1.00	0.0	1.1299E+07	8.8000E-01	1.2894E+02	2	2	1172
1441	48-Cd-129	0	481290	2.7000E-01	2.3040E+06	2.2280E+06	0.0000E+00	1.00	1.0	6.9600E+06	1.2000E-01	1.2893E+02	2	2	1215
1442	49-In-129	0	491290	6.1000E-01	2.8000E+06	1.9800E+06	2.1700E+04	1.00	0.0	2.5650E+06	7.7000E-03	1.2781E+02	3	4	1284
1443	49-In-129	1	491291	1.2300E+00	3.5000E+06	2.7500E+05	2.7000E+04	1.00	0.0	8.2282E+06	9.5400E-01	1.2781E+02	3	4	1285
1444	49-In-129	2	491292	6.7000E-01	2.4900E+06	3.4000E+06	0.0000E+00	1.00	1.0	4.5000E+06	2.5000E-02	1.2781E+02	1	4	1286
1445	50-Sn-129	0	501290	1.3380E+02	1.2900E+06	1.0079E+06	0.0000E+00	1.00	0.0	9.3641E+06	1.0000E+00	1.2781E+02	1	2	1336
1446	50-Sn-129	1	501291	4.1400E+02	8.7000E+05	2.3200E+06	0.0000E+00	1.00	0.0	4.0222E+06	1.0000E+00	1.2781E+02	2	2	1337
1447	51-Sb-129	0	511290	1.5840E+04	3.9600E+05	1.3700E+06	0.0000E+00	1.00	0.0	2.2061E+06	2.2000E-02	1.2780E+02	2	4	1384
1448	51-Sb-129	1	511291	1.0620E+03	3.7428E+05	2.1446E+06	0.0000E+00	1.00	0.0	2.3755E+06	7.8000E-01	1.2780E+02	2	4	1385
1449	52-Te-129	0	521290	4.1760E+03	5.4000E+05	6.2000E+04	0.0000E+00	1.00	0.0	2.2700E+06	2.2000E-01	1.2780E+02	1	4	1433
1450	52-Te-129	1	521291	2.9030E+06	2.6900E+05	3.7400E+04	0.0000E+00	1.00	0.0	4.2268E+06	2.9000E-01	1.2780E+02	2	4	1434
1451	53-I-129	0	531290	4.9500E+14	5.4000E+04	2.4600E+04	0.0000E+00	1.00	0.0	1.8510E+06	1.5000E-01	1.2780E+02	1	4	1474
1452	54-Xe-129	0	541290	stable			0.0000E+00	1.00	0.0	8.2100E-01	1.0000E+00	1.2890E+02	0	0	1515
1453	54-Xe-129	1	541291	7.6720E+05	1.8191E+05	5.1200E+04	0.0000E+00	3.00	0.0	2.3610E+05	1.0000E+00	1.2780E+02	1	3	1516
1454	55-Cs-129	0	551290	1.1542E+05	1.5400E+04	2.8000E+05	0.0000E+00	2.00	0.0	1.1968E+06	1.0000E+00	1.2780E+02	1	4	1562
1455	56-Ba-129	0	561290	8.0000E+03	1.2600E+05	3.5200E+05	0.0000E+00	2.00	0.0	2.4360E+06	1.0000E+00	1.2780E+02	1	4	1598
1456	56-Ba-129	1	561291	7.7800E+03	2.8000E+04	1.5900E+06	0.0000E+00	2.00	0.0	4.444E+06	1.0000E+00	1.2780E+02	1	4	1599
1457	57-La-129	0	571290	6.9600E+02	6.2000E+05	9.3000E+05	0.0000E+00	2.00	0.0	3.7387E+06	9.3100E-01	1.2781E+02	2	4	1635
1458	57-La-129	1	571291	5.6000E-01	1.1500E+05	4.9700E+04	0.0000E+00	3.00	0.0	6.9000E-02	1.0000E+00	1.2781E+02	1	3	1636
1459	46-Pd-130	0	461300	9.5640E-03	3.8930E+06	2.2110E+06	0.0000E+00	1.00	0.0	1.0587E+07	1.0000E+00	1.2996E+02	1	2	1110
1460	47-Ag-130	0	471300	5.0000E-02	4.3000E+06	5.0220E+06	0.0000E+00	1.00	0.0	1.5614E+07	8.1000E-01	1.2995E+02	2	2	1173
1461	48-Cd-130	0	481300	1.6200E-01	2.3700E+06	1.8000E+06	0.0000E+00	1.50	0.0	9.5180E+06	1.9000E-01	1.2882E+02	2	2	1216
1462	49-In-130	0	491300	2.9000E-01	3.0000E+06	3.4300E+06	0.0000E+00	1.00	0.0	8.3500E+06	9.6500E-02	1.2881E+02	3	4	1287
								1.00	1.0	1.0249E+07	7.9256E-01				
								1.50	0.0	8.3021E+06	1.9814E-01				
								1.50	0.0	2.6519E+06	9.3000E-03				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1463	49-In-130	1	49	130	5.4000E-01	2.8300E+06	2.2600E+06	0.0000E+00	1.00	1.0	8.3521E+06	1.0000E+00	1.2881E+02	1	4	1288
1464	49-In-130	2	49	130	5.4000E-01	3.3320E+06	3.1900E+06	0.0000E+00	1.00	0.0	1.0649E+07	8.9400E-01	1.2881E+02	3	4	1289
1465	50-Sn-130	0	50	130	2.2300E+02	4.5200E+05	9.3600E+05	0.0000E+00	1.00	1.0	2.1486E+06	1.0000E+00	1.2880E+02	1	4	1338
1466	50-Sn-130	1	50	130	1.0200E+02	9.0000E+05	2.0700E+06	0.0000E+00	1.00	0.0	4.1003E+06	8.6000E-01	1.2880E+02	2	4	1339
1467	51-Sb-130	0	51	130	2.3700E+03	6.9000E+05	3.2700E+06	0.0000E+00	1.00	0.0	4.0955E+06	1.0000E-01	1.2880E+02	1	4	1386
1468	51-Sb-130	1	51	130	3.7800E+02	8.3000E+05	2.7100E+06	0.0000E+00	1.00	0.0	5.0677E+06	1.0000E+00	1.2880E+02	1	4	1387
1469	52-Te-130	0	52	130	2.4900E+28	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	2.5275E+06	1.0000E+00	1.2880E+02	1	0	1435
1470	53-I-130	0	53	130	4.4500E+04	2.7900E+05	2.1400E+06	0.0000E+00	1.00	0.0	2.9443E+06	1.0000E+00	1.2879E+02	1	4	1475
1471	53-I-130	1	53	130	5.3000E+02	1.5000E+05	1.1000E+05	0.0000E+00	1.00	0.0	2.9843E+06	1.6000E-01	1.2879E+02	2	4	1476
1472	54-Xe-130	0	54	130	stable				3.00	0.0	3.9961E+04	8.4000E-01		0	0	1517
1473	55-Cs-130	0	55	130	1.7526E+03	3.8700E+05	5.0300E+05	0.0000E+00	1.00	0.0	3.6199E+05	1.6000E-02	1.2879E+02	2	5	1563
1474	55-Cs-130	1	55	130	2.0800E+02	8.9000E+04	6.9500E+04	0.0000E+00	2.00	0.0	2.9807E+06	9.8400E-01	1.2879E+02	2	4	1564
1475	56-Ba-130	0	56	130	stable				3.00	0.0	1.6325E+05	9.9840E-01		0	0	1600
1476	56-Ba-130	1	56	130	9.4000E-03	1.8600E+04	2.1600E+06	0.0000E+00	3.00	0.0	2.4762E+06	1.0000E+00	1.2991E+02	0	0	1601
1477	57-La-130	0	57	130	5.2200E+02	1.1100E+06	2.2400E+06	0.0000E+00	2.00	0.0	5.6344E+06	1.0000E+00	1.2880E+02	1	4	1637
1478	58-Ce-130	0	58	130	1.3700E+03	3.0000E+04	4.9000E+05	0.0000E+00	2.00	0.0	2.2045E+06	1.0000E+00	1.2880E+02	1	4	1671
1479	46-Pd-131	0	46	131	8.9020E-03	3.9500E+06	3.6490E+06	0.0000E+00	1.00	0.0	1.2148E+07	1.0000E+00	1.3096E+02	1	2	1111
1480	47-Ag-131	0	47	131	1.2530E-02	4.1220E+06	3.7240E+06	0.0000E+00	1.00	0.0	1.2586E+07	3.2000E-01	1.3095E+02	2	2	1174
1481	48-Cd-131	0	48	131	6.8000E-02	3.5180E+06	3.2670E+06	0.0000E+00	1.00	0.0	1.2003E+07	6.8000E-01	1.3094E+02	2	2	1217
1482	49-In-131	0	49	131	2.8000E-01	3.3000E+06	2.6120E+06	0.0000E+00	1.50	0.0	6.4820E+06	3.5000E-02	1.2980E+02	3	2	1290
1483	49-In-131	1	49	131	3.5000E-01	4.2500E+06	2.5000E+04	0.0000E+00	1.50	1.0	2.0690E+06	1.0000E-02	1.2980E+02	2	2	1291
1484	49-In-131	2	49	131	3.2000E-01	3.6500E+06	5.5000E+06	0.0000E+00	1.00	1.0	1.2945E+07	9.9970E-01	1.2980E+02	2	4	1292
1485	50-Sn-131	0	50	131	5.6000E+01	1.4644E+06	1.1937E+06	0.0000E+00	1.00	0.0	5.8330E+06	3.0000E-04	1.3092E+02	1	2	1340
1486	50-Sn-131	1	50	131	5.8400E+01	1.2459E+06	1.8924E+06	0.0000E+00	1.00	0.0	4.7098E+06	1.0000E+00	1.2979E+02	1	2	1341
1487	51-Sb-131	0	51	131	1.3818E+03	6.5000E+05	2.0300E+06	0.0000E+00	1.00	0.0	3.2291E+06	9.3500E-01	1.2979E+02	2	4	1388
1488	52-Te-131	0	52	131	1.5000E+03	7.1200E+05	4.1970E+05	0.0000E+00	1.00	0.0	2.2318E+06	1.0000E+00	1.2978E+02	1	4	1436
1489	52-Te-131	1	52	131	1.1970E+05	1.5500E+05	1.3740E+06	0.0000E+00	1.00	0.0	2.4140E+06	7.4100E-01	1.2978E+02	2	4	1437
1490	53-I-131	0	53	131	6.9338E+05	1.9150E+05	3.8200E+05	0.0000E+00	1.00	0.0	9.7085E+05	9.8900E-01	1.2978E+02	2	4	1477
1491	54-Xe-131	0	54	131	stable				1.00	1.0	8.0692E+05	1.1000E-02		0	0	1518
1492	54-Xe-131	1	54	131	1.0250E+06	1.4300E+05	2.0300E+04	0.0000E+00	3.00	0.0	1.6393E+05	1.0000E+00	1.2978E+02	1	3	1519
1493	55-Cs-131	0	55	131	8.3710E+05	5.0192E+05	2.2884E+04	0.0000E+00	2.00	0.0	3.5475E+05	1.0000E+00	1.2978E+02	1	3	1565
1494	56-Ba-131	0	56	131	9.9400E+05	4.4000E+04	4.8810E+05	0.0000E+00	2.00	0.0	1.3750E+06	1.0000E+00	1.2978E+02	1	4	1602
1495	56-Ba-131	1	56	131	8.7600E+02	1.1000E+05	7.7400E+04	0.0000E+00	3.00	0.0	1.8750E+05	1.0000E+00	1.2978E+02	1	3	1603
1496	57-La-131	0	57	131	3.5400E+03	1.9700E+05	6.6600E+05	0.0000E+00	2.00	0.0	2.9147E+06	1.0000E+00	1.2979E+02	1	4	1638
1497	58-Ce-131	0	58	131	6.1800E+02	6.1000E+05	1.5700E+06	0.0000E+00	2.00	0.0	4.0608E+06	1.0000E+00	1.2979E+02	1	4	1672

No.	Symbol	S	z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1498	58-Ce-131	1	58	1311	3.2000E+02	9.7000E+05	8.2000E+05	0.0000E+00	2.00	0.0	4.1239E+06	1.0000E+00	1.2979E+02	1	4	1673
1499	59-Pr-131	0	59	1310	9.0600E+01	1.4800E+06	1.6000E+06	0.0000E+00	2.00	0.0	5.4078E+06	9.0000E-02	1.2979E+02	2	4	1712
1500	59-Pr-131	1	59	1311	5.7300E+00	8.7600E+04	6.8000E+04	0.0000E+00	2.00	0.0	5.4078E+06	9.1000E-01	1.2979E+02	2	4	1713
1501	60-Nd-131	0	60	1310	2.6000E+01	2.2000E+06	1.7900E+06	0.0000E+00	2.00	0.0	1.5240E+05	9.6400E-01	1.2979E+02	2	4	1713
1502	47-Ag-132	0	47	1320	1.1400E-02	4.2810E+06	5.0160E+06	0.0000E+00	1.00	0.0	6.5326E+06	1.0000E+00	1.2980E+02	1	4	1751
1503	48-Cd-132	0	48	1320	9.7000E-02	3.4050E+06	1.8970E+06	0.0000E+00	1.00	0.0	1.2204E+07	6.1000E-01	1.3196E+02	2	2	1175
1504	49-In-132	0	49	1320	2.0700E-01	3.4700E+06	6.2100E+06	0.0000E+00	1.00	0.0	1.2145E+07	4.0000E-01	1.3194E+02	2	2	1218
1505	50-Sn-132	0	50	1320	3.9700E+01	7.2000E+05	1.2800E+06	0.0000E+00	1.00	0.0	8.9000E+06	6.0000E-01	1.3080E+02	2	4	1293
1506	51-Sb-132	0	51	1320	1.6740E+02	1.2500E+06	2.6000E+06	0.0000E+00	1.00	0.0	1.4135E+07	9.3700E-01	1.3080E+02	2	4	1293
1507	51-Sb-132	1	51	1321	2.4600E+02	1.2800E+06	2.6300E+06	0.0000E+00	1.00	0.0	6.5500E+06	6.3000E-02	1.3079E+02	1	4	1342
1508	52-Te-132	0	52	1320	2.7680E+05	1.0100E+05	2.3400E+05	0.0000E+00	1.00	0.0	3.0917E+06	1.0000E+00	1.3079E+02	1	4	1342
1509	53-I-132	0	53	1320	8.2600E+03	4.9300E+05	2.2610E+06	0.0000E+00	1.00	0.0	5.5526E+06	1.0000E+00	1.3078E+02	1	4	1389
1510	53-I-132	1	53	1321	4.9900E+03	1.3100E+05	3.3100E+05	0.0000E+00	1.00	0.0	5.7526E+06	1.0000E+00	1.3078E+02	1	4	1390
1511	54-Xe-132	0	54	1320	stable								1.3190E+02	0	0	1520
1512	54-Xe-132	1	54	1321	8.3900E-03	5.3300E+04	2.7100E+06	0.0000E+00	3.00	0.0	2.7522E+06	1.0000E+00	1.3077E+02	1	3	1521
1513	55-Cs-132	0	55	1320	5.5990E+05	1.2800E+04	7.1440E+05	0.0000E+00	1.00	0.0	1.2787E+06	1.8700E-02	1.3077E+02	2	5	1566
1514	56-Ba-132	0	56	1320	stable								1.3190E+02	0	0	1604
1515	57-La-132	0	57	1320	1.7300E+04	5.5300E+05	2.1400E+06	0.0000E+00	2.00	0.0	4.7114E+06	1.0000E+00	1.3078E+02	1	4	1639
1516	57-La-132	1	57	1321	1.4600E+03	1.1800E+05	7.1300E+05	0.0000E+00	2.00	0.0	4.8996E+06	2.4000E-01	1.3078E+02	2	4	1640
1517	58-Ce-132	0	58	1320	1.2600E+04	1.5010E+04	2.7230E+05	0.0000E+00	2.00	0.0	1.8856E+05	7.6000E-01	1.3078E+02	1	4	1674
1518	58-Ce-132	1	58	1321	9.4000E-03	0.0000E+00	2.1800E+06	0.0000E+00	3.00	0.0	1.2527E+06	1.0000E+00	1.3078E+02	1	4	1674
1519	59-Pr-132	0	59	1320	9.6000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.3405E+06	1.0000E+00	1.3078E+02	1	1	1675
1520	60-Nd-132	0	60	1320	9.4000E+01	5.2600E+05	9.6000E+05	0.0000E+00	2.00	0.0	7.2575E+06	1.0000E+00	1.3192E+02	1	0	1714
1521	47-Ag-133	0	47	1330	8.6550E-03	4.3830E+06	3.9620E+06	0.0000E+00	1.00	0.0	3.7877E+06	1.0000E+00	1.3079E+02	1	4	1752
1522	48-Cd-133	0	48	1330	1.8360E-02	3.5390E+06	3.2960E+06	0.0000E+00	1.00	0.0	1.3350E+07	1.0000E+00	1.3296E+02	1	2	1176
1523	49-In-133	0	49	1330	1.6500E-01	3.7660E+06	3.4140E+06	0.0000E+00	1.00	0.0	1.3544E+07	7.3000E-01	1.3295E+02	2	2	1219
1524	50-Sn-133	0	50	1330	1.4500E+00	3.4000E+06	2.7300E+05	0.0000E+00	1.00	0.0	1.0418E+07	2.7000E-01	1.3293E+02	2	2	1294
1525	51-Sb-133	0	51	1330	1.5000E+02	6.6000E+05	2.7400E+06	0.0000E+00	1.00	0.0	1.1009E+07	8.5000E-01	1.3178E+02	2	2	1343
1526	52-Te-133	0	52	1330	7.5000E+02	7.0600E+05	1.1990E+06	0.0000E+00	1.00	0.0	8.0483E+06	9.9920E-01	1.3178E+02	2	2	1391
1527	52-Te-133	1	52	1331	3.3240E+03	3.7200E+05	1.8560E+06	0.0000E+00	1.00	0.0	6.9005E+05	8.0000E-04	1.3177E+02	2	2	1391
1528	53-I-133	0	53	1330	7.4900E+04	4.0900E+05	6.1200E+05	0.0000E+00	1.00	0.0	4.0096E+06	8.3000E-01	1.3177E+02	2	2	1391
1529	53-I-133	1	53	1331	9.0000E+00	4.9100E+04	1.5814E+06	0.0000E+00	3.00	0.0	3.6753E+06	1.7000E-01	1.3177E+02	1	4	1439
1530	54-Xe-133	0	54	1330	4.5300E+05	1.3600E+05	4.7100E+04	0.0000E+00	1.00	0.0	2.9545E+06	1.0000E+00	1.3177E+02	1	4	1439
1531	54-Xe-133	1	54	1331	1.8920E+05	1.9100E+05	4.0800E+04	0.0000E+00	3.00	0.0	3.2888E+06	7.2932E-01	1.3177E+02	3	4	1440
1532	55-Cs-133	0	55	1330	stable								1.3290E+02	0	0	1567

No.	Symbol	S	Z	A	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1533	56-Ba-133	0	56	133	0	561330	3.3200E+08	4.9600E+04	0.0000E+00	2.00	0.0	5.1734E+05	1.0000E+00	1.3176E+02	1	4	1605
1534	56-Ba-133	1	56	133	1	561331	1.4000E+05	2.2200E+05	0.0000E+00	2.00	0.0	8.0560E+05	9.6000E-05	1.3176E+02	2	4	1606
1535	57-La-133	0	57	133	0	571330	1.4080E+04	1.3000E+05	0.0000E+00	2.00	0.0	2.8825E+05	9.9900E-01	1.3177E+02	2	4	1641
1536	58-Ce-133	0	58	133	0	581330	5.8200E+03	3.5000E+05	0.0000E+00	2.00	0.0	1.7710E+06	3.0000E-04	1.3177E+02	1	4	1676
1537	58-Ce-133	1	58	133	1	581331	1.7600E+04	1.7290E+06	0.0000E+00	2.00	0.0	3.0762E+06	1.0000E+00	1.3177E+02	1	4	1677
1538	59-Pr-133	0	59	133	0	591330	3.9000E+02	0.0000E+00	0.0000E+00	2.00	0.0	3.1134E+06	1.0000E+00	1.3292E+02	1	0	1715
1539	59-Pr-133	1	59	133	1	591331	1.1000E+00	1.2880E+05	0.0000E+00	3.00	0.0	4.4806E+06	1.0000E+00	1.3177E+02	1	3	1716
1540	60-Nd-133	0	60	133	0	601330	7.0000E+01	1.6500E+06	0.0000E+00	2.00	0.0	5.6052E+06	8.0000E-01	1.3178E+02	2	4	1753
1541	60-Nd-133	1	60	133	1	601331	7.0000E+01	0.0000E+00	0.0000E+00	2.00	0.0	5.4131E+06	2.0000E-01	1.3292E+02	2	0	1754
1542	61-Pm-133	0	61	133	0	611330	1.5000E+01	1.8900E+06	0.0000E+00	2.00	0.0	1.2797E+05	5.0000E-01	1.3179E+02	2	4	1790
1543	48-Cd-134	0	48	134	0	481340	1.4330E-02	3.6300E+06	0.0000E+00	1.00	0.0	6.9247E+06	9.4000E-01	1.3395E+02	2	2	1220
1544	49-In-134	0	49	134	0	491340	1.4000E-01	3.9920E+06	0.0000E+00	1.00	0.0	6.7968E+06	6.0000E-02	1.3394E+02	2	2	1295
1545	50-Sn-134	0	50	134	0	501340	1.0500E+00	2.5303E+06	0.0000E+00	1.00	0.0	9.4100E+06	3.7000E-01	1.3278E+02	2	2	1344
1546	51-Sb-134	0	51	134	0	511340	7.8000E-01	2.7810E+06	0.0000E+00	1.00	0.0	7.5883E+06	8.3000E-01	1.3277E+02	2	4	1392
1547	51-Sb-134	1	51	134	1	511341	1.0070E+01	2.8600E+06	0.0000E+00	1.00	0.0	4.4190E+06	1.7000E-01	1.3277E+02	2	4	1393
1548	52-Te-134	0	52	134	0	521340	2.5100E+03	2.2400E+05	0.0000E+00	1.00	0.0	1.5231E+06	1.0000E+00	1.3276E+02	1	4	1441
1549	53-I-134	0	53	134	0	531340	3.1500E+03	6.3400E+05	0.0000E+00	1.00	0.0	4.0652E+06	1.0000E+00	1.3276E+02	1	4	1482
1550	53-I-134	1	53	134	1	531341	2.1120E+02	8.8000E+04	0.0000E+00	1.00	0.0	4.3817E+06	2.3000E-02	1.3276E+02	2	4	1483
1551	54-Xe-134	0	54	134	0	541340	1.8300E+30	0.0000E+00	0.0000E+00	1.10	0.0	3.1650E+05	9.7700E-01	1.3390E+02	1	0	1524
1552	54-Xe-134	1	54	134	1	541341	2.9000E-01	6.7900E+04	0.0000E+00	3.00	0.0	1.9655E+06	1.0000E+00	1.3276E+02	1	3	1525
1553	55-Cs-134	0	55	134	0	551340	6.5173E+07	1.6380E+05	0.0000E+00	1.00	0.0	2.0589E+06	1.0000E+00	1.3276E+02	2	4	1568
1554	55-Cs-134	1	55	134	1	551341	1.0483E+04	1.0500E+05	0.0000E+00	3.00	0.0	1.2332E+06	3.0000E-06	1.3276E+02	1	3	1569
1555	56-Ba-134	0	56	134	0	561340	stable		0.0000E+00	3.00	0.0	1.3874E+05	1.0000E+00	1.3390E+02	0	0	1607
1556	57-La-134	0	57	134	0	571340	3.8700E+02	7.7400E+05	0.0000E+00	2.00	0.0	3.7314E+06	1.0000E+00	1.3276E+02	1	4	1642
1557	58-Ce-134	0	58	134	0	581340	2.7300E+05	5.4600E+03	0.0000E+00	2.00	0.0	3.8576E+05	1.0000E+00	1.3276E+02	1	4	1678
1558	59-Pr-134	0	59	134	0	591340	1.0200E+03	1.5660E+06	0.0000E+00	2.00	0.0	6.3049E+06	1.0000E+00	1.3276E+02	1	4	1717
1559	59-Pr-134	1	59	134	1	591341	6.6000E+02	9.8500E+05	0.0000E+00	2.00	0.0	6.3049E+06	1.0000E+00	1.3276E+02	1	4	1718
1560	60-Nd-134	0	60	134	0	601340	5.1000E+02	1.5900E+05	0.0000E+00	2.00	0.0	2.8816E+06	1.0000E+00	1.3277E+02	1	4	1755
1561	61-Pm-134	0	61	134	0	611340	5.0000E+00	3.3800E+06	0.0000E+00	2.00	0.0	8.9077E+06	1.0000E+00	1.3278E+02	1	4	1791
1562	61-Pm-134	1	61	134	1	611341	2.2000E+01	2.2700E+06	0.0000E+00	2.00	0.0	8.9077E+06	1.0000E+00	1.3278E+02	1	4	1792
1563	62-Sm-134	0	62	134	0	621340	9.5000E+00	2.0200E+06	0.0000E+00	2.00	0.0	5.3630E+06	1.0000E+00	1.3278E+02	1	4	1833
1564	48-Cd-135	0	48	135	0	481350	1.2760E-02	3.9560E+06	0.0000E+00	1.00	0.0	1.2193E+07	6.4000E-01	1.3496E+02	2	2	1221
1565	49-In-135	0	49	135	0	491350	9.2000E-02	4.0590E+06	0.0000E+00	1.00	0.0	1.0168E+07	3.6000E-01	1.3495E+02	2	2	1296
1566	50-Sn-135	0	50	135	0	501350	5.3000E-01	2.5550E+06	0.0000E+00	1.00	0.0	1.4104E+07	2.9000E-01	1.3493E+02	2	2	1345
1567	51-Sb-135	0	51	135	0	511350	1.6790E+00	2.7500E+06	0.0000E+00	1.00	0.0	1.8333E+07	7.1000E-01	1.3377E+02	2	4	1394

No.	Symbol	S	Z	A	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1568	52-Te-135	0	52	135	0	1.9000E+01	2.0842E+06	1.4779E+06	0.0000E+00	1.00	0.0	6.0611E+06	1.0000E+00	1.3376E+02	1	2	1442
1569	53-I-135	0	53	135	0	2.3650E+04	3.3900E+05	1.5810E+06	0.0000E+00	1.00	0.0	2.6278E+06	8.3400E-01	1.3375E+02	2	4	1484
1570	54-Xe-135	0	54	135	0	3.2900E+04	3.2000E+05	2.4800E+05	0.0000E+00	1.00	0.0	2.1013E+06	1.6600E-01	1.3375E+02	1	4	1526
1571	54-Xe-135	1	54	135	1	9.1700E+02	9.7300E+04	4.2800E+05	0.0000E+00	1.00	0.0	1.1650E+06	1.0000E+00	1.3375E+02	2	4	1527
1572	55-Cs-135	0	55	135	0	7.3000E+13	7.5700E+04	0.0000E+00	0.0000E+00	1.00	0.0	5.2656E+05	9.9700E-01	1.3375E+02	1	1	1570
1573	55-Cs-135	1	55	135	1	3.1800E+03	3.5400E+04	1.5980E+06	0.0000E+00	3.00	0.0	2.6890E+05	1.0000E+00	1.3375E+02	1	3	1571
1574	56-Ba-135	0	56	135	0	stable	stable	stable	0.0000E+00	3.00	0.0	1.6330E+06	1.0000E+00	1.3491E+02	0	0	1608
1575	56-Ba-135	1	56	135	1	1.0330E+05	2.0575E+05	6.1100E+04	0.0000E+00	3.00	0.0	2.6890E+05	1.0000E+00	1.3375E+02	1	3	1609
1576	57-La-135	0	57	135	0	7.0200E+04	5.1920E+03	3.5700E+04	0.0000E+00	2.00	0.0	1.2072E+06	1.0000E+00	1.3375E+02	2	4	1643
1577	58-Ce-135	0	58	135	0	6.3700E+04	2.7300E+04	8.2400E+05	0.0000E+00	2.00	0.0	9.3899E-05	5.0000E-09	1.3375E+02	1	4	1679
1578	58-Ce-135	1	58	135	1	2.0000E+01	1.5400E+05	2.9200E+05	0.0000E+00	3.00	0.0	2.0272E+06	1.0000E+00	1.3375E+02	1	3	1680
1579	59-Pr-135	0	59	135	0	1.4400E+03	1.9000E+05	2.6000E+06	0.0000E+00	2.00	0.0	4.4580E+05	1.0000E+00	1.3375E+02	1	3	1719
1580	60-Nd-135	0	60	135	0	7.4000E+02	9.9000E+05	1.2300E+06	0.0000E+00	2.00	0.0	3.6805E+06	1.0000E+00	1.3375E+02	1	4	1756
1581	48-Cd-136	0	48	136	0	9.2520E-03	4.0980E+06	2.3510E+06	0.0000E+00	1.00	0.0	4.7222E+06	1.0000E+00	1.3376E+02	1	4	1756
1582	49-In-136	0	49	136	0	1.6230E-02	4.3830E+06	5.1570E+06	0.0000E+00	1.00	0.0	1.1170E+07	5.6000E-01	1.3596E+02	2	2	1222
1583	50-Sn-136	0	50	136	0	2.5000E-01	2.6140E+06	1.4270E+06	0.0000E+00	1.00	0.0	1.0554E+07	4.4000E-01	1.3595E+02	2	2	1297
1584	51-Sb-136	0	51	136	0	9.2300E-01	2.9530E+06	2.6050E+06	0.0000E+00	1.00	0.0	1.1056E+07	5.7000E-01	1.3594E+02	2	2	1346
1585	52-Te-136	0	52	136	0	1.7630E+01	1.3000E+06	2.0400E+06	0.0000E+00	1.00	0.0	5.7190E+06	7.0000E-01	1.3593E+02	2	2	1395
1586	53-I-136	0	53	136	0	8.3400E+01	1.9900E+06	2.3500E+06	0.0000E+00	1.00	0.0	1.1467E+06	1.6300E-01	1.3475E+02	2	4	1443
1587	53-I-136	1	53	136	1	4.6900E+01	2.6800E+06	2.1330E+06	0.0000E+00	1.00	0.0	5.1197E+06	9.8690E-01	1.3475E+02	1	4	1485
1588	54-Xe-136	0	54	136	0	1.1400E+28	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	6.8837E+06	1.0000E+00	1.3475E+02	1	4	1486
1589	55-Cs-136	0	55	136	0	1.1370E+06	1.3200E+05	1.4400E+06	0.0000E+00	1.00	0.0	7.5237E+06	1.0000E+00	1.3591E+02	1	0	1528
1590	55-Cs-136	1	55	136	1	9.0000E+01	7.9380E+04	5.5000E+03	0.0000E+00	1.00	1.0	2.5482E+06	7.5000E-01	1.3474E+02	2	4	1572
1591	56-Ba-136	0	56	136	0	stable	stable	stable	0.0000E+00	3.00	0.0	5.1776E+05	2.5000E-01	1.3591E+02	2	0	1573
1592	56-Ba-136	1	56	136	1	3.0840E-01	1.0500E+05	1.9234E+06	0.0000E+00	3.00	0.0	1.2918E+06	1.3100E-02	1.3590E+02	0	0	1610
1593	57-La-136	0	57	136	0	5.9220E+02	6.0000E+05	4.1000E+05	0.0000E+00	2.00	0.0	6.8837E+06	1.0000E+00	1.3474E+02	1	3	1611
1594	57-La-136	1	57	136	1	1.1400E-01	1.6500E+05	7.9000E+04	0.0000E+00	3.00	0.0	2.8497E+06	1.0000E+00	1.3474E+02	1	4	1644
1595	58-Ce-136	0	58	136	0	2.2090E+21	0.0000E+00	0.0000E+00	0.0000E+00	2.20	0.0	2.3786E+06	1.0000E+00	1.3474E+02	1	0	1681
1596	59-Pr-136	0	59	136	0	7.8600E+02	1.4500E+06	2.1400E+06	0.0000E+00	2.00	0.0	5.1682E+06	1.0000E+00	1.3474E+02	1	4	1720
1597	60-Nd-136	0	60	136	0	3.0390E+03	5.7000E+04	2.8200E+05	0.0000E+00	2.00	0.0	1.4111E+06	1.0000E+00	1.3475E+02	1	4	1757
1598	61-Pm-136	0	61	136	0	4.7000E+01	2.5000E+06	2.3000E+06	0.0000E+00	2.00	0.0	8.0188E+06	1.0000E+00	1.3476E+02	1	4	1793
1599	61-Pm-136	1	61	136	1	1.0700E+02	2.0100E+06	2.6900E+06	0.0000E+00	2.00	0.0	4.3618E+06	1.0000E+00	1.3476E+02	1	4	1794
1600	62-Sm-136	0	62	136	0	4.7000E+01	1.0100E+06	9.3000E+05	0.0000E+00	2.00	0.0	8.0188E+06	1.0000E+00	1.3476E+02	1	4	1834
1601	49-In-137	0	49	137	0	1.2190E-02	4.4340E+06	4.0210E+06	0.0000E+00	1.00	0.0	1.3583E+07	2.1000E-01	1.3696E+02	2	2	1298
1602	50-Sn-137	0	50	137	0	1.9000E-01	2.9700E+06	2.8310E+06	0.0000E+00	1.00	0.0	1.1843E+07	7.9000E-01	1.3694E+02	2	2	1347
1603	51-Sb-137	0	51	137	0	1.6930E-01	2.5730E+06	2.3890E+06	0.0000E+00	1.00	0.0	1.0242E+07	4.2000E-01	1.3693E+02	2	2	1396
1604	52-Te-137	0	52	137	0	2.4900E+00	2.11730E+06	1.6090E+06	0.0000E+00	1.00	0.0	6.5500E+06	5.8000E-01	1.3575E+02	2	2	1444
										1.50	1.0	7.0520E+06	9.7010E-01	1.3575E+02	2	2	1444
										1.50	1.0	1.3000E+06	2.9900E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1605	53-I-137	0	53	1370	2.4500E+01	1.8930E+06	1.1317E+06	0.0000E+00	1.00	0.0	6.0272E+06	9.2860E-01	1.3574E+02	2	2	1487
1606	54-Xe-137	0	54	1370	2.2910E+02	1.7000E+06	1.9000E+05	0.0000E+00	1.00	0.0	2.0016E+06	7.1400E-02	1.3574E+02	1	4	1529
1607	55-Cs-137	0	55	1370	9.4900E+08	1.8710E+05	0.0000E+00	0.0000E+00	1.00	0.0	4.1624E+06	1.0000E+00	1.3574E+02	2	1	1574
1608	56-Ba-137	0	56	1370	stable			1.00	1.0	0.0	5.1379E+05	9.4700E-01	1.3691E+02	0	0	1612
1609	56-Ba-137	1	56	1371	1.5312E+02	6.3640E+04	5.9480E+05	0.0000E+00	3.00	0.0	6.6166E+05	1.0000E+00	1.3573E+02	1	2	1613
1610	57-La-137	0	57	1370	1.9000E+12	5.0540E+03	2.5327E+04	0.0000E+00	2.00	0.0	5.8055E+05	1.0000E+00	1.3573E+02	1	3	1646
1611	58-Ce-137	0	58	1370	3.2400E+04	7.8300E+03	3.7500E+04	0.0000E+00	2.00	0.0	1.2221E+06	1.0000E+00	1.3573E+02	1	4	1682
1612	58-Ce-137	1	58	1371	1.2380E+05	2.0200E+05	5.5800E+04	0.0000E+00	2.00	0.0	1.4763E+06	7.9000E-02	1.3573E+02	2	4	1683
1613	59-Pr-137	0	59	1370	4.6100E+03	1.9300E+05	3.6900E+05	0.0000E+00	2.00	0.0	2.7170E+06	1.0000E+00	1.3574E+02	1	4	1721
1614	60-Nd-137	0	60	1370	2.3100E+03	3.5000E+05	1.1600E+06	0.0000E+00	2.00	0.0	3.6173E+06	1.0000E+00	1.3574E+02	1	4	1758
1615	60-Nd-137	1	60	1371	1.6000E+00	1.4100E+05	3.7200E+05	0.0000E+00	3.00	0.0	5.1980E+05	1.0000E+00	1.3574E+02	1	3	1759
1616	61-Pm-137	0	61	1370	1.4400E+02	1.0400E+06	1.5500E+06	0.0000E+00	2.00	0.0	5.5117E+06	5.3920E-01	1.3574E+02	2	4	1795
1617	49-In-138	0	49	1380	1.0350E-02	4.6520E+06	5.4650E+06	0.0000E+00	1.00	0.0	5.5117E+06	4.6080E-01	1.3796E+02	1	2	1299
1618	50-Sn-138	0	50	1380	6.6920E-02	3.0110E+06	1.6610E+06	0.0000E+00	1.00	0.0	1.5426E+07	1.0000E+00	1.3795E+02	2	2	1348
1619	51-Sb-138	0	51	1380	1.2560E-01	3.0300E+06	3.5780E+06	0.0000E+00	1.00	0.0	1.1157E+07	7.2000E-01	1.3794E+02	2	2	1397
1620	52-Te-138	0	52	1380	1.4000E+00	1.9460E+06	1.0680E+06	0.0000E+00	1.00	0.0	6.6940E+06	2.8000E-01	1.3793E+02	2	2	1445
1621	53-I-138	0	53	1380	6.2300E+00	2.9000E+06	1.4200E+06	0.0000E+00	1.00	0.0	7.9923E+06	9.4440E-01	1.3674E+02	2	2	1488
1622	54-Xe-138	0	54	1380	8.4500E+02	6.4000E+05	1.1260E+06	0.0000E+00	1.00	0.0	2.3322E+06	5.5600E-02	1.3673E+02	1	4	1530
1623	55-Cs-138	0	55	1380	2.0050E+03	1.2400E+06	2.3600E+06	0.0000E+00	1.00	0.0	2.9148E+06	1.0000E+00	1.3673E+02	1	4	1575
1624	55-Cs-138	1	55	1381	1.7460E+02	3.3000E+05	7.0660E+05	0.0000E+00	1.00	0.0	5.4547E+06	1.9000E-01	1.3673E+02	2	4	1576
1625	56-Ba-138	0	56	1380	stable			3.00	0.0	0.0	7.9900E+04	8.1000E-01	1.3790E+02	0	0	1614
1626	57-La-138	0	57	1380	3.2200E+18	3.7400E+04	1.2260E+06	0.0000E+00	1.00	0.0	1.0468E+06	3.4400E-01	1.3672E+02	2	5	1647
1627	58-Ce-138	0	58	1380	2.8400E+21	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.7400E+06	6.5600E-01	1.3791E+02	1	0	1684
1628	58-Ce-138	1	58	1381	8.6500E-03	4.2580E+04	2.0800E+06	0.0000E+00	3.00	0.0	6.9312E+05	1.0000E+00	1.3672E+02	1	3	1685
1629	59-Pr-138	0	59	1380	8.7000E+01	1.1610E+06	8.1500E+05	0.0000E+00	2.00	0.0	2.1297E+06	1.0000E+00	1.3673E+02	1	4	1722
1630	59-Pr-138	1	59	1381	7.6300E+03	1.7800E+05	5.1300E+05	0.0000E+00	2.00	0.0	4.4370E+06	1.0000E+00	1.3673E+02	2	4	1723
1631	60-Nd-138	0	60	1380	1.8100E+04	8.9000E+03	5.8000E+04	0.0000E+00	2.00	0.0	4.8010E+06	6.9000E-02	1.3673E+02	1	4	1760
1632	61-Pm-138	0	61	1380	1.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.1134E+06	1.0000E+00	1.3792E+02	1	0	1796
1633	61-Pm-138	1	61	1381	1.9400E+02	1.5300E+06	3.0600E+06	0.0000E+00	2.00	0.0	7.0978E+06	1.0000E+00	1.3674E+02	1	4	1797
1634	50-Sn-139	0	50	1390	5.8410E-02	3.2550E+06	3.0720E+06	0.0000E+00	1.00	0.0	1.0188E+07	8.1000E-01	1.3895E+02	2	2	1349
1635	51-Sb-139	0	51	1390	8.8740E-02	2.9080E+06	2.6840E+06	0.0000E+00	1.50	0.0	6.7400E+06	1.9000E-01	1.3894E+02	2	2	1398
1636	52-Te-139	0	52	1390	3.1130E-01	2.3760E+06	2.3510E+06	0.0000E+00	1.00	0.0	1.0417E+07	6.5000E-01	1.3893E+02	2	2	1446
1637	53-I-139	0	53	1390	2.2800E+00	2.5000E+06	6.6200E+05	0.0000E+00	1.00	0.0	7.8370E+06	3.5000E-01	1.3773E+02	2	4	1489
1638	54-Xe-139	0	54	1390	3.9680E+01	1.8100E+06	1.0170E+06	0.0000E+00	1.00	0.0	8.2540E+06	9.6700E-01	1.3773E+02	1	4	1531
1639	55-Cs-139	0	55	1390	5.5600E+02	1.6600E+06	3.0300E+05	0.0000E+00	1.00	0.0	7.1855E+06	8.9700E-02	1.3772E+02	1	4	1577

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1640	56-Ba-139	0	56	1390	4.9840E+03	9.0100E+05	4.6000E+04	0.0000E+00	1.00	0.0	2.3146E+06	1.0000E+00	1.3772E+02	1	4	1615
1641	57-La-139	0	57	1390	stable								1.3891E+02	0	0	1648
1642	58-Ce-139	0	58	1390	1.1892E+07	5.6900E+03	1.6017E+05	0.0000E+00	2.00	0.0	2.7838E+05	1.0000E+00	1.3771E+02	1	4	1686
1643	58-Ce-139	1	58	1391	5.4800E+01	5.0836E+04	6.9929E+05	0.0000E+00	3.00	0.0	7.5424E+05	1.0000E+00	1.3771E+02	1	3	1687
1644	59-Pr-139	0	59	1390	1.5880E+04	8.7700E+04	1.2950E+05	0.0000E+00	2.00	0.0	2.1291E+06	1.0000E+00	1.3772E+02	1	4	1724
1645	60-Nd-139	0	60	1390	1.7800E+03	4.0500E+05	4.4400E+05	0.0000E+00	2.00	0.0	2.8065E+06	1.0000E+00	1.3772E+02	1	4	1761
1646	60-Nd-139	1	60	1391	1.9800E+04	6.4000E+04	1.5800E+06	0.0000E+00	2.00	0.0	3.0376E+06	8.8200E-01	1.3772E+02	2	4	1762
1647	61-Pm-139	0	61	1390	2.4900E+02	1.9100E+06	9.5000E+05	0.0000E+00	2.00	0.0	4.5140E+06	1.0000E+00	1.3772E+02	1	4	1798
1648	61-Pm-139	1	61	1391	1.8000E-01	9.7740E+04	8.5150E+04	0.0000E+00	2.00	1.0	4.4716E+06	6.0000E-04	1.3772E+02	2	3	1799
1649	62-Sm-139	0	62	1390	1.5400E+02	1.4800E+06	1.4600E+06	0.0000E+00	2.00	0.0	5.1204E+06	1.0000E+00	1.3773E+02	1	4	1835
1650	62-Sm-139	1	62	1391	1.0700E+01	1.4600E+05	2.6300E+05	0.0000E+00	2.00	1.0	5.3891E+06	6.3000E-02	1.3773E+02	2	3	1836
1651	63-Eu-139	0	63	1390	1.7900E+01	2.6000E+06	1.7100E+06	0.0000E+00	2.00	0.0	6.9822E+06	3.3000E-01	1.3774E+02	2	4	1870
1652	50-Sn-140	0	50	1400	4.1570E-02	3.0770E+06	1.9940E+06	0.0000E+00	1.00	0.0	6.5248E+06	6.7000E-01	1.3996E+02	2	2	1350
1653	51-Sb-140	0	51	1400	7.0190E-02	3.2630E+06	3.8770E+06	0.0000E+00	1.00	0.0	7.0680E+06	2.8000E-01	1.3995E+02	2	2	1399
1654	52-Te-140	0	52	1400	1.4870E-01	2.3360E+06	1.2750E+06	0.0000E+00	1.00	0.0	7.2392E+06	9.6100E-01	1.3994E+02	2	2	1447
1655	53-I-140	0	53	1400	8.6000E-01	2.7620E+06	2.3280E+06	0.0000E+00	1.00	0.0	4.0310E+06	3.9000E-02	1.3873E+02	2	2	1490
1656	54-Xe-140	0	54	1400	1.3600E+01	1.0400E+06	1.4675E+06	0.0000E+00	1.00	0.0	3.9774E+06	9.3000E-02	1.3872E+02	1	4	1532
1657	55-Cs-140	0	55	1400	6.3700E+01	1.7518E+06	2.2161E+06	0.0000E+00	1.00	0.0	4.06339E+06	1.0000E+00	1.3871E+02	1	4	1578
1658	56-Ba-140	0	56	1400	1.1018E+06	3.2000E+05	1.8200E+05	0.0000E+00	1.00	0.0	6.2199E+06	1.0000E+00	1.3871E+02	1	4	1616
1659	57-La-140	0	57	1400	1.4503E+05	5.3500E+05	2.3080E+06	0.0000E+00	1.00	0.0	1.0480E+06	1.0000E+00	1.3871E+02	1	4	1649
1660	58-Ce-140	0	58	1400	stable								1.3990E+02	0	0	1688
1661	59-Pr-140	0	59	1400	2.0340E+02	5.4700E+05	5.4400E+05	0.0000E+00	2.00	0.0	3.3880E+06	1.0000E+00	1.3871E+02	1	4	1725
1662	60-Nd-140	0	60	1400	2.9120E+05	5.1080E+03	2.8420E+04	0.0000E+00	2.00	0.0	4.3741E+05	1.0000E+00	1.3871E+02	1	3	1763
1663	60-Nd-140	1	60	1401	6.0000E-04	2.7123E+04	2.1942E+06	0.0000E+00	3.00	0.0	2.2215E+06	1.0000E+00	1.3871E+02	1	3	1764
1664	61-Pm-140	0	61	1400	9.2000E+00	2.0150E+06	1.0460E+06	0.0000E+00	2.00	0.0	6.0452E+06	1.0000E+00	1.3871E+02	1	4	1800
1665	61-Pm-140	1	61	1401	3.5700E+02	9.5000E+05	8.8000E+05	0.0000E+00	2.00	0.0	6.4702E+06	2.9000E-02	1.3871E+02	2	4	1801
1666	62-Sm-140	0	62	1400	8.8900E+02	1.6100E+05	5.5800E+05	0.0000E+00	2.00	0.0	4.2488E+06	9.7100E-01	1.3872E+02	1	4	1837
1667	63-Eu-140	0	63	1400	1.5100E+00	3.1700E+06	1.2500E+06	0.0000E+00	2.00	0.0	8.4700E+06	1.0000E+00	1.3873E+02	1	4	1871
1668	64-Gd-140	0	64	1400	1.5800E+01	1.3000E+06	1.1000E+06	0.0000E+00	2.00	0.0	5.2037E+06	1.0000E+00	1.3873E+02	1	4	1908
1669	65-Tb-140	0	65	1400	2.4000E+00	5.0000E+06	2.9000E+06	0.0000E+00	2.00	0.0	1.1300E+07	1.0000E+00	1.3874E+02	1	4	1945
1670	51-Sb-141	0	51	1410	4.7830E-02	3.0500E+06	2.8110E+06	0.0000E+00	1.00	0.0	9.5150E+06	3.5000E-01	1.4095E+02	2	2	1400
1671	52-Te-141	0	52	1410	1.1500E-01	2.6580E+06	2.5980E+06	0.0000E+00	1.00	0.0	8.6260E+06	6.5000E-01	1.4094E+02	2	2	1448
1672	53-I-141	0	53	1410	4.3000E-01	2.4250E+06	1.7790E+06	0.0000E+00	1.00	0.0	5.0380E+06	4.9000E-02	1.4093E+02	2	2	1491
1673	54-Xe-141	0	54	1410	1.7300E+00	2.4000E+06	1.0080E+06	0.0000E+00	1.00	0.0	5.0110E+06	2.1200E-01	1.3972E+02	2	4	1533
1674	55-Cs-141	0	55	1410	2.4840E+01	1.9400E+06	9.9743E+05	0.0000E+00	1.00	0.0	6.2798E+06	9.9956E-01	1.3971E+02	2	4	1579
1675	56-Ba-141	0	56	1410	1.0960E+03	9.4600E+05	9.2500E+05	0.0000E+00	1.00	0.0	7.2176E+05	3.4000E-04	1.3970E+02	1	4	1617

No.	Symbol	S	ZZAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1676	57-La-141	0	571410	1.4110E+04	9.6300E+05	2.6800E+04	0.0000E+00	1.00	0.0	2.5014E+06	1.0000E+00	1.3970E+02	1	2	1650
1677	58-Ce-141	0	581410	2.8087E+06	1.7040E+05	7.6700E+04	0.0000E+00	1.00	0.0	5.8042E+05	1.0000E+00	1.3970E+02	1	4	1689
1678	59-Pr-141	0	591410	stable								1.4091E+02	0	0	1726
1679	60-Nd-141	0	601410	8.9600E+03	1.4200E+04	7.5100E+04	0.0000E+00	2.00	0.0	1.8230E+06	1.0000E+00	1.3970E+02	1	4	1765
1680	60-Nd-141	1	601411	6.2000E+01	5.8900E+04	6.9452E+05	0.0000E+00	2.00	0.0	2.5795E+06	5.0000E-04	1.3970E+02	2	4	1766
1681	61-Pm-141	0	611410	1.2540E+03	6.3100E+05	7.4900E+05	0.0000E+00	2.00	0.0	7.5651E+05	9.9950E-01	1.3970E+02	2	4	1802
1682	62-Sm-141	0	621410	6.1200E+02	6.8600E+05	1.3970E+06	0.0000E+00	2.00	0.0	3.6705E+06	9.9918E-01	1.3971E+02	1	4	1838
1683	62-Sm-141	1	621411	1.3560E+03	3.3800E+05	1.9000E+06	0.0000E+00	2.00	0.0	2.9140E+06	8.2000E-04	1.3971E+02	2	4	1839
1684	63-Eu-141	0	631410	4.0700E+01	1.8600E+06	1.0800E+06	0.0000E+00	2.00	0.0	1.7580E+05	3.1000E-03	1.3971E+02	2	4	1872
1685	63-Eu-141	1	631411	2.7000E+00	3.2000E+05	1.5000E+05	0.0000E+00	2.00	0.0	6.0082E+06	9.8200E-01	1.3971E+02	2	4	1872
1686	64-Gd-141	0	641410	1.4000E+01	2.3650E+06	1.3100E+06	0.0000E+00	2.00	0.0	5.8322E+06	1.8000E-02	1.3971E+02	3	4	1873
1687	64-Gd-141	1	641411	2.4500E+01	2.1703E+06	1.3480E+06	0.0000E+00	2.00	0.0	6.1047E+06	5.2000E-02	1.3971E+02	3	4	1873
1688	65-Tb-141	0	651410	3.5000E+00	2.6890E+06	1.5340E+06	0.0000E+00	2.00	0.0	5.9287E+06	7.8000E-02	1.3973E+02	2	4	1946
1689	51-Sb-142	0	511420	3.9860E-02	3.2830E+06	3.9160E+06	0.0000E+00	1.00	0.0	3.00	8.7000E-01	1.4196E+02	2	2	1401
1690	52-Te-142	0	521420	7.5040E-02	2.5130E+06	1.3750E+06	0.0000E+00	1.50	0.0	9.6400E+04	8.7000E-01	1.4195E+02	2	2	1449
1691	53-I-142	0	531420	2.0000E-01	2.6920E+06	3.2030E+06	0.0000E+00	1.00	0.0	6.7014E+06	1.0000E+00	1.4194E+02	2	2	1492
1692	54-Xe-142	0	541420	1.2200E+00	1.4034E+06	1.5764E+06	0.0000E+00	1.00	0.0	7.0792E+06	2.0000E-02	1.4193E+02	2	2	1534
1693	55-Cs-142	0	551420	1.6840E+00	2.9000E+06	9.5000E+05	0.0000E+00	1.50	0.0	6.9828E+06	8.7000E-01	1.4071E+02	2	4	1580
1694	56-Ba-142	0	561420	6.3600E+02	3.8300E+05	1.0400E+06	0.0000E+00	1.00	0.0	8.3056E+06	3.2100E-01	1.4070E+02	1	4	1618
1695	57-La-142	0	571420	5.4700E+03	8.6800E+05	2.3680E+06	0.0000E+00	1.00	0.0	8.4000E+06	9.2600E-01	1.4070E+02	1	4	1651
1696	58-Ce-142	0	581420	1.5778E+24	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	5.4630E+06	7.4000E-02	1.4191E+02	1	0	1690
1697	59-Pr-142	0	591420	6.8830E+04	8.0900E+05	5.8000E+04	0.0000E+00	1.00	0.0	1.0460E+07	7.5000E-01	1.4069E+02	2	5	1727
1698	59-Pr-142	1	591421	8.8000E+02	0.0000E+00	3.1480E-07	0.0000E+00	3.00	0.0	5.3560E+06	2.5000E-01	1.4069E+02	1	1	1728
1699	60-Nd-142	0	601420	stable						1.1762E+06	4.0600E-03	1.4191E+02	0	0	1767
1700	61-Pm-142	0	611420	4.0500E+01	1.3680E+06	8.6900E+05	0.0000E+00	2.00	0.0	7.3249E+06	9.9910E-01	1.4069E+02	1	4	1803
1701	61-Pm-142	1	611421	2.0000E-03	8.3000E+04	8.0000E+05	0.0000E+00	3.00	0.0	1.1436E+06	9.0000E-04	1.4069E+02	1	3	1804
1702	62-Sm-142	0	621420	4.3490E+03	3.2700E+04	9.4900E+04	0.0000E+00	2.00	0.0	2.1811E+06	1.0000E+00	1.4070E+02	1	4	1840
1703	63-Eu-142	0	631420	2.3400E+00	2.7510E+06	1.1960E+06	0.0000E+00	2.00	0.0	4.5089E+06	1.0000E+00	1.4070E+02	1	4	1874
1704	63-Eu-142	1	631421	7.3400E+01	1.7730E+06	3.4300E+06	0.0000E+00	2.00	0.0	8.1930E+06	1.0000E+00	1.4070E+02	1	4	1875
1705	64-Gd-142	0	641420	7.0200E+01	7.4000E+05	1.0400E+06	0.0000E+00	2.00	0.0	8.1930E+06	1.0000E+00	1.4071E+02	1	4	1911
1706	65-Tb-142	0	651420	5.9700E-01	4.1000E+06	1.2500E+06	0.0000E+00	2.00	0.0	1.0400E+07	1.0000E+00	1.4072E+02	1	4	1947
1707	65-Tb-142	1	651421	3.0300E-01	5.8300E+04	1.6800E+05	0.0000E+00	3.00	0.0	2.8020E+05	1.0000E+00	1.4072E+02	1	3	1948
1708	66-Dy-142	0	661420	2.3000E+00	2.1700E+06	8.6100E+05	0.0000E+00	2.00	0.0	6.4400E+06	1.0000E+00	1.4073E+02	1	4	1993
1709	51-Sb-143	0	511430	2.7390E-02	3.1320E+06	2.8860E+06	0.0000E+00	1.00	0.0	9.7590E+06	3.7000E-01	1.4296E+02	2	2	1402
								1.50	0.0	9.8250E+06	6.3000E-01				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1710	52-Te-143	0	52	1430	6.3840E-02	2.7100E+06	2.6510E+06	0.0000E+00	1.00	0.0	1.0349E+07	9.0000E-01	1.4295E+02	2	2	1450
1711	53-I-143	0	53	1430	1.0680E-01	2.3750E+06	2.2520E+06	0.0000E+00	1.50	0.0	6.4210E+06	1.0000E-01	1.4294E+02	2	2	1493
1712	54-Xe-143	0	54	1430	3.0000E-01	2.0500E+06	2.0800E+06	0.0000E+00	1.50	0.0	9.5760E+06	7.9000E-01	1.4293E+02	2	2	1535
1713	55-Cs-143	0	55	1430	1.7910E+00	1.9350E+06	1.2170E+06	0.0000E+00	1.50	0.0	6.5320E+06	2.1000E-01	1.4170E+02	2	4	1581
1714	56-Ba-143	0	56	1430	1.4500E+01	1.2400E+06	1.1400E+06	0.0000E+00	1.50	0.0	2.2436E+06	3.3000E-03	1.4169E+02	1	4	1619
1715	57-La-143	0	57	1430	8.5200E+02	1.5000E+06	2.6300E+05	0.0000E+00	1.50	0.0	2.0978E+06	1.6400E-02	1.4169E+02	1	2	1652
1716	58-Ce-143	0	58	1430	1.1894E+05	4.3100E+05	2.7900E+05	0.0000E+00	1.50	0.0	4.2344E+06	1.0000E+00	1.4168E+02	1	4	1691
1717	59-Pr-143	0	59	1430	1.1724E+06	3.1510E+05	9.0000E-03	0.0000E+00	1.50	0.0	3.4348E+06	1.0000E+00	1.4168E+02	1	2	1729
1718	60-Nd-143	0	60	1430	stable				1.50	0.0	9.3411E+05	1.0000E+00	1.4291E+02	0	0	1768
1719	61-Pm-143	0	61	1430	2.2900E+07	6.3100E+03	3.1500E+05	0.0000E+00	1.50	0.0	2.7950E+06	1.0000E+00	1.4168E+02	1	4	1805
1720	62-Sm-143	0	62	1430	5.2500E+02	4.7770E+05	5.1300E+05	0.0000E+00	1.50	0.0	3.4438E+06	1.0000E+00	1.4169E+02	1	4	1841
1721	62-Sm-143	1	62	1431	6.6000E+01	6.7000E+04	6.8380E+05	0.0000E+00	2.00	0.0	4.1977E+06	2.4000E-03	1.4169E+02	2	4	1842
1722	62-Sm-143	2	62	1432	3.0000E-02	1.3700E+05	1.8000E+06	0.0000E+00	3.00	0.0	7.5400E+05	9.9760E-01	1.4169E+02	1	3	1843
1723	63-Eu-143	0	63	1430	1.5540E+02	1.2950E+06	1.1060E+06	0.0000E+00	1.50	0.0	2.7950E+06	1.0000E+00	1.4169E+02	1	4	1876
1724	64-Gd-143	0	64	1430	3.9000E+01	1.8100E+06	1.2210E+06	0.0000E+00	1.50	0.0	5.2754E+06	1.0000E+00	1.4170E+02	1	4	1912
1725	64-Gd-143	1	64	1431	1.1000E+02	1.2510E+06	2.1030E+06	0.0000E+00	2.00	0.0	6.0100E+06	1.0000E+00	1.4170E+02	1	4	1913
1726	64-Gd-143	2	64	1432	4.3560E-02	2.4960E+06	1.7450E+06	0.0000E+00	1.50	0.0	7.3220E+06	8.5000E-01	1.4396E+02	2	2	1451
1727	53-I-144	0	53	1440	8.3990E-02	2.7190E+06	3.2480E+06	0.0000E+00	1.50	0.0	6.4310E+06	1.5000E-01	1.4395E+02	2	2	1494
1728	54-Xe-144	0	54	1440	3.8800E-01	1.6060E+06	9.2320E+05	0.0000E+00	1.50	0.0	1.1592E+07	8.3000E-01	1.4394E+02	2	2	1536
1729	55-Cs-144	0	55	1440	9.9400E-01	2.6490E+06	2.1930E+06	0.0000E+00	1.50	0.0	6.8520E+06	1.7000E-01	1.4393E+02	2	2	1582
1730	56-Ba-144	0	56	1440	1.1500E+01	9.4630E+05	7.0500E+05	0.0000E+00	1.50	0.0	8.4966E+06	6.5000E-03	1.4392E+02	1	2	1620
1731	57-La-144	0	57	1440	4.0800E+01	1.3600E+06	2.3300E+06	0.0000E+00	1.50	0.0	2.5952E+06	3.0300E-02	1.4268E+02	1	4	1653
1732	58-Ce-144	0	58	1440	2.4616E+07	9.1100E+04	1.9300E+04	0.0000E+00	1.00	0.0	3.0826E+06	1.0000E+00	1.4268E+02	1	4	1653
1733	59-Pr-144	0	59	1440	1.0370E+03	1.2090E+06	2.8900E+04	0.0000E+00	1.00	0.0	5.821E+06	1.0000E+00	1.4268E+02	2	4	1692
1734	59-Pr-144	1	59	1441	4.3200E+02	4.2800E+04	1.2660E+04	0.0000E+00	1.00	0.0	3.1865E+05	9.9730E-01	1.4268E+02	2	4	1692
1735	60-Nd-144	0	60	1440	7.2000E+22	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	2.5962E+05	2.7000E-03	1.4268E+02	1	3	1730
1736	61-Pm-144	0	61	1440	3.1400E+07	1.4720E+04	1.5630E+06	0.0000E+00	1.00	0.0	2.9974E+06	1.0000E+00	1.4268E+02	2	4	1731
1737	62-Sm-144	0	62	1440	stable				3.00	0.0	5.9030E+04	9.9930E-01	1.4267E+02	1	1	1769
1738	63-Eu-144	0	63	1440	1.0200E+01	2.0570E+06	1.0900E+06	0.0000E+00	1.50	0.0	1.9064E+06	1.0000E+00	1.4268E+02	1	4	1806
1739	64-Gd-144	0	64	1440	2.6800E+02	1.3000E+06	2.0000E+06	0.0000E+00	1.50	0.0	2.3319E+06	1.0000E+00	1.4268E+02	1	4	1806
1740	65-Tb-144	0	65	1440	1.0000E+00	3.5950E+06	1.2630E+06	0.0000E+00	1.50	0.0	6.3464E+06	1.0000E+00	1.4391E+02	0	0	1844
1741	65-Tb-144	1	65	1441	4.2500E+00	9.3000E+05	9.7000E+05	0.0000E+00	2.00	0.0	3.8596E+06	1.0000E+00	1.4268E+02	1	4	1877
1742	66-Dy-144	0	66	1440	9.1000E+00	1.7640E+06	9.2600E+05	0.0000E+00	2.00	0.0	3.9913E+06	1.0000E+00	1.4269E+02	1	4	1914
1743	52-Te-145	0	52	1450	3.7940E-02	2.8520E+06	2.7740E+06	0.0000E+00	1.50	0.0	9.7882E+06	3.4000E-01	1.4270E+02	1	4	1949
1744	53-I-145	0	53	1450	5.6430E-02	2.4680E+06	2.3420E+06	0.0000E+00	1.50	0.0	3.9690E+05	6.6000E-01	1.4270E+02	2	4	1950
1745	54-Xe-145	0	54	1450	1.8680E-01	2.2910E+06	1.8270E+06	0.0000E+00	1.50	0.0	5.7981E+06	1.0000E+00	1.4270E+02	1	4	1994
									1.50	0.0	9.0800E+06	8.5000E-01	1.4496E+02	2	2	1452
									1.50	0.0	7.1960E+06	1.5000E-01	1.4495E+02	2	2	1495
									1.50	0.0	1.0554E+07	6.1000E-01	1.4494E+02	2	2	1537
									1.50	0.0	8.5625E+06	9.5000E-01	1.4494E+02	2	2	1537
									1.50	0.0	3.7059E+06	5.0000E-02	1.4494E+02	2	2	1537

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1746	55-Cs-145	0	55	1450	5.8700E+01	2.0700E+06	1.3870E+06	0.0000E+00	1.00	0.0	7.4604E+06	8.5300E-01	1.4369E+02	2	4	1583
1747	56-Ba-145	0	56	1450	4.3100E+00	1.3100E+06	2.0500E+06	0.0000E+00	1.00	0.0	3.6400E+06	1.4700E-01	1.4368E+02	1	4	1621
1748	57-La-145	0	57	1450	2.4800E+01	9.3780E+05	1.7290E+06	0.0000E+00	1.00	0.0	5.3191E+06	1.0000E+00	1.4368E+02	1	4	1654
1749	58-Ce-145	0	58	1450	1.8060E+02	5.3790E+05	1.0400E+06	0.0000E+00	1.00	0.0	2.5589E+06	1.0000E+00	1.4367E+02	1	4	1693
1750	59-Pr-145	0	59	1450	2.1540E+04	6.7500E+05	1.8580E+04	0.0000E+00	1.00	0.0	1.8060E+06	1.0000E+00	1.4367E+02	1	4	1732
1751	60-Nd-145	0	60	1450	stable								1.4491E+02	0	0	1770
1752	61-Pm-145	0	61	1450	5.5900E+08	1.1410E+04	3.2020E+04	6.2700E-01	2.00	0.0	1.6452E+05	1.0000E+00	1.4491E+02	2	4	1807
1753	62-Sm-145	0	62	1450	2.9400E+07	2.6300E+04	6.2900E+04	0.0000E+00	2.00	0.0	2.3242E+06	2.8000E-07	1.4367E+02	1	4	1845
1754	63-Eu-145	0	63	1450	5.1200E+05	2.3400E+04	1.2800E+06	0.0000E+00	2.00	0.0	6.1609E+06	1.0000E+00	1.4367E+02	1	4	1878
1755	64-Gd-145	0	64	1450	1.3800E+03	3.4400E+05	2.4300E+06	0.0000E+00	2.00	0.0	5.0675E+06	1.0000E+00	1.4368E+02	1	4	1915
1756	64-Gd-145	1	64	1451	8.5000E+01	8.4800E+04	6.8000E+05	0.0000E+00	2.00	0.0	5.8166E+06	5.7000E-02	1.4368E+02	2	4	1916
1757	65-Tb-145	0	65	1450	3.0900E+01	1.0300E+06	2.2500E+06	0.0000E+00	2.00	0.0	6.6221E+06	5.0000E-01	1.4368E+02	2	4	1951
1758	66-Dy-145	0	66	1450	6.0000E+00	2.6700E+06	1.1500E+06	0.0000E+00	2.00	0.0	5.8730E+06	5.0000E-01	1.4369E+02	1	4	1995
1759	66-Dy-145	1	66	1451	1.4100E+01	2.6000E+06	1.1700E+06	0.0000E+00	2.00	0.0	8.0593E+06	1.0000E+00	1.4369E+02	1	4	1996
1760	53-I-146	0	53	1460	4.6400E-02	2.8190E+06	3.3810E+06	0.0000E+00	1.00	0.0	9.6260E+06	7.6000E-01	1.4596E+02	2	2	1496
1761	54-Xe-146	0	54	1460	1.4600E-01	1.9710E+06	1.0860E+06	0.0000E+00	1.00	0.0	7.6140E+06	9.8000E-01	1.4594E+02	2	2	1538
1762	55-Cs-146	0	55	1460	3.2100E-01	2.6320E+06	2.1900E+06	0.0000E+00	1.00	0.0	4.0296E+06	2.0000E-02	1.4594E+02	2	2	1584
1763	56-Ba-146	0	56	1460	2.2200E+00	1.1750E+06	8.3300E+05	0.0000E+00	1.00	0.0	3.8759E+06	1.4200E-01	1.4468E+02	1	2	1622
1764	57-La-146	0	57	1460	6.2700E+00	2.3500E+06	1.4924E+06	0.0000E+00	1.00	0.0	4.1065E+06	1.0000E+00	1.4467E+02	1	4	1655
1765	57-La-146	1	57	1461	1.0000E+01	1.0140E+06	2.2200E+06	0.0000E+00	1.00	0.0	6.5882E+06	1.0000E+00	1.4467E+02	1	4	1656
1766	58-Ce-146	0	58	1460	8.1100E+02	1.9500E+05	3.1600E+05	0.0000E+00	1.00	0.0	1.0457E+06	1.0000E+00	1.4466E+02	1	4	1694
1767	59-Pr-146	0	59	1460	1.4490E+03	1.3200E+06	1.0100E+06	0.0000E+00	1.00	0.0	4.2450E+06	1.0000E+00	1.4466E+02	1	2	1733
1768	60-Nd-146	0	60	1460	stable								1.4591E+02	0	0	1771
1769	61-Pm-146	0	61	1460	1.7450E+08	9.0000E+04	7.5100E+05	0.0000E+00	1.00	0.0	1.5420E+06	3.4000E-01	1.4466E+02	2	5	1808
1770	62-Sm-146	0	62	1460	3.2500E+15	0.0000E+00	0.0000E+00	2.5280E+06	4.00	0.0	2.5288E+06	1.0000E+00	1.4466E+02	1	1	1846
1771	63-Eu-146	0	63	1460	3.9700E+05	4.2400E+04	2.4000E+06	0.0000E+00	2.00	0.0	3.8788E+06	1.0000E+00	1.4466E+02	1	4	1879
1772	64-Gd-146	0	64	1460	4.1710E+06	1.2190E+05	2.5420E+05	0.0000E+00	2.00	0.0	1.0319E+06	1.0000E+00	1.4466E+02	1	4	1917
1773	65-Tb-146	0	65	1460	8.0000E+00	4.1000E+06	1.9000E+06	0.0000E+00	2.00	0.0	8.3221E+06	1.0000E+00	1.4467E+02	1	4	1952
1774	65-Tb-146	1	65	1461	2.3000E+01	1.2100E+06	3.5300E+06	0.0000E+00	2.00	0.0	8.3221E+06	1.0000E+00	1.4467E+02	1	4	1953
1775	65-Tb-146	2	65	1462	1.1800E-03	0.0000E+00	7.5500E+05	0.0000E+00	3.00	0.0	7.7960E+05	1.0000E+00	1.4467E+02	1	1	1954
1776	66-Dy-146	0	66	1460	2.9000E+01	1.3300E+04	1.1800E+06	0.0000E+00	2.00	0.0	5.2085E+06	1.0000E+00	1.4468E+02	1	4	1997
1777	66-Dy-146	1	66	1461	1.5000E-01	9.1500E+04	3.1041E+06	0.0000E+00	3.00	0.0	2.9357E+06	1.0000E+00	1.4468E+02	1	3	1998
1778	53-I-147	0	53	1470	3.1270E-02	2.9650E+06	2.7720E+06	0.0000E+00	1.00	0.0	9.3190E+06	5.8000E-01	1.4696E+02	2	2	1497
1779	54-Xe-147	0	54	1470	1.0000E-01	2.2790E+06	2.3130E+06	0.0000E+00	1.00	0.0	8.8790E+06	4.2000E-01	1.4695E+02	2	2	1539
1780	55-Cs-147	0	55	1470	2.3500E-01	2.4000E+06	1.5810E+06	0.0000E+00	1.00	0.0	4.8910E+06	8.0000E-02	1.4568E+02	2	4	1585
1781	56-Ba-147	0	56	1470	8.9300E-01	1.8580E+06	1.3010E+06	0.0000E+00	1.00	0.0	8.2458E+06	7.1500E-01	1.4567E+02	2	4	1623
1782	57-La-147	0	57	1470	4.0150E+00	1.6320E+06	9.3630E+05	0.0000E+00	1.00	0.0	6.4144E+06	9.9940E-01	1.4567E+02	2	4	1657
									1.50	0.0	7.1148E+05	6.0000E-04	1.4567E+02	2	4	1657
									1.50	0.0	5.3355E+06	9.9959E-01	1.4567E+02	2	4	1657
									1.50	0.0	8.8536E+05	4.1000E-04	1.4567E+02	2	4	1657

No.	Symbol	S	Z	A	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1783	58-Ce-147	0	58	147	0	5.6400E+01	8.5910E+05	1.0810E+06	0.0000E+00	1.00	0.0	3.4301E+06	1.0000E+00	1.4566E+02	1	2	1695
1784	59-Pr-147	0	59	147	0	8.0400E+02	7.5000E+05	8.1400E+05	0.0000E+00	1.00	0.0	2.7026E+06	1.0000E+00	1.4566E+02	1	4	1734
1785	60-Nd-147	0	60	147	0	9.4870E+05	6.1700E+05	1.4400E+05	0.0000E+00	1.00	0.0	8.9530E+05	1.0000E+00	1.4565E+02	1	4	1772
1786	61-Pm-147	0	61	147	0	8.2788E+07	6.1930E+04	4.3600E+06	0.0000E+00	1.00	0.0	2.2407E+05	1.0000E+00	1.4565E+02	1	4	1809
1787	62-Sm-147	0	62	147	0	3.3500E+18	0.0000E+00	0.0000E+00	2.3090E+06	4.00	0.0	2.3112E+06	1.0000E+00	1.4565E+02	1	1	1847
1788	63-Eu-147	0	63	147	0	2.0800E+06	3.7200E+04	4.3800E+05	6.3380E+01	2.00	0.0	1.7216E+06	9.9998E-01	1.4565E+02	2	5	1880
1789	64-Gd-147	0	64	147	0	1.3700E+05	5.3400E+04	1.3160E+06	0.0000E+00	2.00	0.0	2.1878E+06	1.0000E+00	1.4566E+02	1	4	1918
1790	65-Tb-147	0	65	147	0	5.9000E+03	1.7700E+05	2.4300E+06	0.0000E+00	2.00	0.0	4.6141E+06	1.0000E+00	1.4566E+02	1	4	1955
1791	65-Tb-147	1	65	147	1	1.1000E+02	3.1000E+05	1.9000E+06	0.0000E+00	2.00	0.0	4.6647E+06	1.0000E+00	1.4566E+02	1	4	1956
1792	66-Dy-147	0	66	147	0	6.7000E+01	1.5200E+06	1.6800E+06	0.0000E+00	2.00	0.0	6.5465E+06	1.0000E+00	1.4567E+02	1	4	1999
1793	66-Dy-147	1	66	147	1	5.5200E+01	1.6020E+06	1.9700E+06	0.0000E+00	2.00	0.0	7.2970E+06	1.0000E-01	1.4567E+02	3	4	2000
1794	67-Ho-147	0	67	147	0	5.8000E+00	2.5000E+06	1.7500E+06	0.0000E+00	2.00	0.0	7.5040E+05	3.1100E-01	1.4568E+02	2	4	2029
1795	53-I-148	0	53	148	0	2.9730E-02	3.1050E+06	3.7450E+06	0.0000E+00	1.00	0.0	1.0577E+07	6.3000E-01	1.4796E+02	2	2	1498
1796	54-Xe-148	0	54	148	0	5.8830E-02	2.5530E+06	1.4020E+06	0.0000E+00	1.00	0.0	9.0850E+06	3.7000E-01	1.4795E+02	2	2	1540
1797	55-Cs-148	0	55	148	0	1.4600E-01	2.4540E+06	2.9690E+06	0.0000E+00	1.00	0.0	1.0297E+07	7.4900E-01	1.4795E+02	2	2	1586
1798	56-Ba-148	0	56	148	0	6.1200E-01	1.3430E+06	8.3530E+05	0.0000E+00	1.00	0.0	5.1150E+06	9.9600E-01	1.4667E+02	2	4	1624
1799	57-La-148	0	57	148	0	1.2600E+00	2.6700E+06	1.2560E+06	0.0000E+00	1.00	0.0	1.0133E+06	4.0000E-03	1.4666E+02	2	4	1658
1800	58-Ce-148	0	58	148	0	5.6000E+01	6.0100E+05	3.2600E+05	0.0000E+00	1.00	0.0	1.2338E+06	1.5000E-03	1.4665E+02	1	4	1696
1801	59-Pr-148	0	59	148	0	1.3740E+02	1.6850E+06	1.2359E+06	0.0000E+00	1.00	0.0	2.1370E+06	1.0000E+00	1.4665E+02	1	4	1735
1802	59-Pr-148	1	59	148	1	1.2100E+02	1.2907E+06	1.7970E+06	0.0000E+00	1.00	0.0	4.8724E+06	1.0000E+00	1.4665E+02	1	2	1736
1803	60-Nd-148	0	60	148	0	stable	stable	stable	stable	stable	stable	stable	stable	1.4665E+02	1	0	1773
1804	61-Pm-148	0	61	148	0	4.6380E+05	7.2900E+05	5.7400E+05	0.0000E+00	1.00	0.0	2.4710E+06	1.0000E+00	1.4665E+02	1	4	1810
1805	61-Pm-148	1	61	148	1	3.5670E+06	1.6800E+05	1.9910E+06	0.0000E+00	1.00	0.0	2.6089E+06	9.5800E-01	1.4665E+02	2	4	1811
1806	62-Sm-148	0	62	148	0	2.2000E+23	0.0000E+00	0.0000E+00	1.9850E+06	4.00	0.0	1.9869E+06	1.0000E+00	1.4664E+02	1	1	1848
1807	63-Eu-148	0	63	148	0	4.7100E+06	1.9200E+04	2.2300E+06	2.4720E-02	2.00	0.0	3.0367E+06	1.0000E+00	1.4665E+02	2	4	1881
1808	64-Gd-148	0	64	148	0	2.3500E+09	0.0000E+00	0.0000E+00	3.2689E+06	4.00	0.0	2.6916E+06	9.4000E-09	1.4665E+02	1	1	1919
1809	65-Tb-148	0	65	148	0	3.6000E+03	8.4000E+05	2.3440E+06	0.0000E+00	2.00	0.0	3.2712E+06	1.0000E+00	1.4665E+02	1	4	1957
1810	65-Tb-148	1	65	148	1	1.3200E+02	3.3100E+05	3.1600E+06	0.0000E+00	2.00	0.0	5.8281E+06	1.0000E+00	1.4665E+02	1	4	1958
1811	66-Dy-148	0	66	148	0	1.9800E+02	2.5800E+04	7.1739E+05	0.0000E+00	2.00	0.0	6.6781E+06	1.0000E+00	1.4666E+02	1	4	2001
1812	67-Ho-148	0	67	148	0	2.2000E+00	3.7800E+06	1.1000E+06	0.0000E+00	2.00	0.0	9.8621E+06	1.0000E+00	1.4667E+02	1	4	2030
1813	67-Ho-148	1	67	148	1	9.5900E+00	1.6900E+06	3.9300E+06	0.0000E+00	2.00	0.0	1.0112E+06	1.0000E+00	1.4667E+02	1	4	2031
1814	67-Ho-148	2	67	148	2	2.3500E-03	4.2300E+04	6.4800E+05	0.0000E+00	3.00	0.0	6.9440E+05	1.0000E+00	1.4667E+02	1	3	2032
1815	54-Xe-149	0	54	149	0	5.7350E-02	2.6370E+06	2.6190E+06	0.0000E+00	1.00	0.0	8.5000E+06	9.0800E-01	1.4896E+02	2	2	1541
1816	55-Cs-149	0	55	149	0	9.4180E-02	2.5070E+06	2.4040E+06	0.0000E+00	1.00	0.0	5.9420E+06	9.2000E-02	1.4895E+02	2	2	1587
1817	56-Ba-149	0	56	149	0	3.4400E-01	2.0160E+06	1.5200E+06	0.0000E+00	1.00	0.0	7.1990E+06	1.9000E-01	1.4894E+02	2	2	1625
1818	57-La-149	0	57	149	0	1.0500E+00	1.7830E+06	1.0870E+06	0.0000E+00	1.00	0.0	6.4500E+06	9.8570E-01	1.4893E+02	2	2	1659
										1.50	0.0	2.1072E+06	1.4300E-02				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1819	58-Ce-149	0	581490	5.3000E+00	1.1752E+06	1.0450E+06	0.0000E+00	1.00	0.0	4.3694E+06	1.0000E+00	1.0000E+00	1.4893E+02	1	2	1697
1820	59-Pr-149	0	591490	1.3560E+02	9.5260E+05	6.1610E+05	0.0000E+00	1.00	0.0	3.3359E+06	1.0000E+00	1.0000E+00	1.4764E+02	1	4	1737
1821	60-Nd-149	0	601490	6.2210E+03	5.3000E+05	3.8400E+05	0.0000E+00	1.00	0.0	1.6884E+06	1.0000E+00	1.0000E+00	1.4764E+02	1	4	1774
1822	61-Pm-149	0	611490	1.9109E+05	3.6600E+05	1.1900E+04	0.0000E+00	1.00	0.0	1.0714E+06	1.0000E+00	1.0000E+00	1.4764E+02	1	4	1812
1823	62-Sm-149	0	621490	stable									1.4892E+02	0	0	1849
1824	63-Eu-149	0	631490	8.0400E+06	1.9300E+04	6.5500E+04	0.0000E+00	2.00	0.0	6.9462E+05	1.0000E+00	1.0000E+00	1.4764E+02	1	4	1882
1825	64-Gd-149	0	641490	8.0200E+05	6.5000E+04	5.3300E+05	0.0000E+00	2.00	0.0	1.3137E+06	1.0000E+00	1.0000E+00	1.4764E+02	1	4	1920
1826	65-Tb-149	0	651490	1.4820E+04	8.3600E+04	1.3580E+06	6.8190E+05	2.00	0.0	3.6379E+06	8.3300E-01	1.4764E+02	1.4764E+02	2	5	1959
1827	65-Tb-149	1	651491	2.4960E+02	1.7318E+05	1.3534E+06	5.4530E+03	2.00	0.0	3.6737E+06	9.9978E-01	1.4764E+02	1.4764E+02	2	5	1960
1828	66-Dy-149	0	661490	2.5200E+02	1.0000E+05	1.6130E+06	0.0000E+00	2.00	0.0	3.7894E+06	5.5000E-01	1.4765E+02	1.4765E+02	2	4	2002
1829	66-Dy-149	1	661491	4.9000E-01	3.8000E+03	2.5330E+06	0.0000E+00	2.00	1.0	6.4148E+06	7.0000E-03	1.4765E+02	1.4765E+02	2	4	2003
1830	67-Ho-149	0	671490	2.1100E+01	6.2280E+05	1.5250E+06	0.0000E+00	2.00	0.0	2.6611E+06	9.9300E-01	1.4765E+02	1.4765E+02	1	4	2033
1831	67-Ho-149	1	671491	5.6000E+01	7.1930E+05	2.5900E+06	0.0000E+00	2.00	0.0	6.0370E+06	1.0000E+00	1.0000E+00	1.4765E+02	1	4	2034
1832	68-Er-149	0	681490	4.0000E+00	9.0000E+05	2.1000E+06	6.0000E+03	2.00	1.0	7.8720E+06	9.3000E-01	1.4766E+02	1.4766E+02	2	4	2077
1833	68-Er-149	1	681491	8.9000E+00	1.8700E+06	2.4500E+06	0.0000E+00	2.00	0.0	8.6226E+06	7.0000E-02	1.4766E+02	1.4766E+02	4	4	2078
1834	69-Tm-149	0	691490	9.0000E-01	3.4600E+06	1.3610E+06	2.3600E+04	2.00	0.0	8.6226E+06	8.3520E-01	1.4767E+02	1.4767E+02	3	4	2108
1835	54-Xe-150	0	541500	3.6750E-02	3.0920E+06	1.7220E+06	0.0000E+00	1.00	0.0	8.6138E+06	1.2810E-01	1.4996E+02	1.4996E+02	2	2	1542
1836	55-Cs-150	0	551500	8.5030E-02	2.7510E+06	3.3310E+06	0.0000E+00	1.00	0.0	2.70	6.8200E+06	2.0000E-03	1.4995E+02	2	2	1588
1837	56-Ba-150	0	561500	3.0000E-01	1.9850E+06	1.0960E+06	0.0000E+00	1.00	0.0	6.1340E+06	2.0000E-01	1.4994E+02	1.4994E+02	2	2	1626
1838	57-La-150	0	571500	5.1000E-01	2.0370E+06	2.5470E+06	0.0000E+00	1.00	0.0	8.4640E+06	9.7300E-01	1.4994E+02	1.4994E+02	2	2	1660
1839	58-Ce-150	0	581500	4.0000E+00	6.8918E+05	4.3969E+05	0.0000E+00	1.00	0.0	2.2150E+06	2.7000E-02	1.4993E+02	1.4993E+02	1	2	1698
1840	59-Fr-150	0	591500	6.1900E+00	1.9000E+06	5.6000E+05	0.0000E+00	1.00	0.0	3.4536E+06	1.0000E+00	1.0000E+00	1.4864E+02	1	4	1738
1841	60-Nd-150	0	601500	2.8700E+26	0.0000E+00	0.0000E+00	0.0000E+00	1.10	0.0	3.3714E+06	1.0000E+00	1.0000E+00	1.4992E+02	1	0	1775
1842	61-Pm-150	0	611500	9.6500E+03	7.3000E+05	1.4700E+06	0.0000E+00	1.00	0.0	3.4540E+06	1.0000E+00	1.0000E+00	1.4863E+02	1	4	1813
1843	62-Sm-150	0	621500	stable									1.4992E+02	0	0	1850
1844	63-Eu-150	0	631500	1.1600E+09	1.9000E+04	1.5360E+06	0.0000E+00	2.00	0.0	2.2586E+06	1.0000E+00	1.0000E+00	1.4863E+02	1	4	1883
1845	63-Eu-150	1	631501	4.6100E+04	2.9600E+05	4.9000E+04	0.0000E+00	1.00	0.0	1.0135E+06	8.9000E-01	1.4863E+02	1.4863E+02	2	5	1884
1846	64-Gd-150	0	641500	5.6000E+13	0.0000E+00	0.0000E+00	2.8000E+06	4.00	0.0	2.3030E+06	1.1000E-01	1.4863E+02	1.4863E+02	1	1	1921
1847	65-Tb-150	0	651500	1.2500E+04	4.0000E+05	2.7400E+06	1.1000E+04	2.00	0.0	4.6580E+06	1.0000E+00	1.0000E+00	1.4864E+02	2	4	1961
1848	65-Tb-150	1	651501	3.4800E+02	1.2000E+05	2.5200E+06	0.0000E+00	2.00	0.0	3.5869E+06	7.0000E-06	1.4864E+02	1.4864E+02	1	4	1962
1849	66-Dy-150	0	661500	4.3020E+02	5.4100E+03	2.7800E+05	1.4340E+06	2.00	0.0	5.1190E+06	1.0000E+00	1.0000E+00	1.4864E+02	2	5	2004
1850	67-Ho-150	0	671500	7.2000E+01	2.2700E+06	2.0600E+06	0.0000E+00	2.00	0.0	4.3512E+06	3.3000E-01	1.4865E+02	1.4865E+02	1	4	2035
1851	67-Ho-150	1	671501	2.3300E+01	1.4700E+06	3.2700E+06	0.0000E+00	2.00	0.0	7.3636E+06	1.0000E+00	1.0000E+00	1.4865E+02	1	4	2036

No.	Symbol	S	Z	A	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1852	68-Er-150	0	68	150	1.8500E+01	4.9400E+05	9.5000E+05	0.0000E+00	2.00	0.0	4.1146E+06	1.0000E+00	1.0000E+00	1.4865E+02	1	4	2079
1853	69-Tm-150	0	69	150	2.2000E+00	3.2000E+06	3.6300E+06	2.1800E+04	2.00	0.0	1.1340E+07	9.8800E-01	9.8800E-01	1.4866E+02	2	4	2109
1854	69-Tm-150	1	69	150	5.2000E-03	1.6400E+05	7.3000E+05	0.0000E+00	3.00	0.0	7.8830E+06	1.2000E-02	1.2000E-02	1.4866E+02	1	3	2110
1855	55-Cs-151	0	55	151	5.6210E-02	2.9640E+06	2.7950E+06	0.0000E+00	1.00	0.0	6.7160E+05	7.2000E-01	7.2000E-01	1.5096E+02	2	2	1589
1856	56-Ba-151	0	56	151	1.7910E-01	2.1830E+06	2.2510E+06	0.0000E+00	1.00	0.0	7.3260E+06	2.8000E-01	2.8000E-01	1.5095E+02	2	2	1627
1857	57-La-151	0	57	151	9.8180E-01	2.2020E+06	1.6010E+06	0.0000E+00	1.00	0.0	8.3370E+06	9.8200E-01	9.8200E-01	1.5094E+02	2	2	1661
1858	58-Ce-151	0	58	151	1.7600E+00	1.4400E+06	8.7740E+05	0.0000E+00	1.00	0.0	2.9200E+06	1.8000E-02	1.8000E-02	1.5093E+02	1	2	1699
1859	58-Ce-151	1	58	151	1.0200E+00	1.7080E+06	1.3040E+05	0.0000E+00	1.00	0.0	7.4960E+06	9.8100E-01	9.8100E-01	1.5093E+02	1	2	1700
1860	59-Pr-151	0	59	151	1.8900E+01	1.2340E+06	7.0110E+05	0.0000E+00	1.00	0.0	3.0470E+06	1.9000E-02	1.9000E-02	1.5093E+02	1	2	1700
1861	60-Nd-151	0	60	151	7.4600E+02	6.0900E+05	8.5100E+05	0.0000E+00	1.00	0.0	5.544E+06	1.0000E+00	1.0000E+00	1.5093E+02	1	2	1739
1862	61-Pm-151	0	61	151	1.0224E+05	3.0000E+05	3.2800E+05	0.0000E+00	1.00	0.0	4.1628E+06	1.0000E+00	1.0000E+00	1.4963E+02	1	4	1776
1863	62-Sm-151	0	62	151	2.8000E+09	1.9790E+04	1.3600E+01	0.0000E+00	1.00	0.0	2.4431E+06	1.0000E+00	1.0000E+00	1.4962E+02	1	4	1814
1864	63-Eu-151	0	63	151	5.3600E+25	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	1.1902E+04	1.0000E+00	1.0000E+00	1.4962E+02	1	4	1851
1865	64-Gd-151	0	64	151	1.0700E+07	3.3800E+04	7.0300E+04	2.0800E-02	2.00	0.0	7.6376E+04	1.0000E+00	1.0000E+00	1.5092E+02	1	0	1885
1866	65-Tb-151	0	65	151	6.3392E+04	7.4000E+04	9.9300E+05	3.0690E+02	2.00	0.0	1.9650E+06	1.0000E+00	1.0000E+00	1.4962E+02	2	4	1922
1867	65-Tb-151	1	65	151	2.5000E+01	6.9000E+04	8.0000E+04	0.0000E+00	2.00	0.0	2.6531E+06	8.0000E-09	8.0000E-09	1.4963E+02	2	5	1963
1868	66-Dy-151	0	66	151	1.0740E+03	4.7000E+04	1.3400E+06	2.3423E+05	2.00	0.0	3.4965E+06	9.9990E-01	9.9990E-01	1.4963E+02	2	4	1964
1869	67-Ho-151	0	67	151	3.5200E+01	6.2900E+05	1.2700E+06	1.0383E+06	2.00	0.0	9.9530E+04	9.3400E-01	9.3400E-01	1.4963E+02	2	5	2037
1870	67-Ho-151	1	67	151	4.7200E+01	0.0000E+00	0.0000E+00	3.7890E+06	2.00	0.0	2.8708E+06	5.3700E-01	5.3700E-01	1.4963E+02	2	1	2038
1871	68-Er-151	0	68	151	2.3500E+01	8.4000E+05	1.7800E+06	0.0000E+00	2.00	0.0	4.0700E-01	5.6000E-02	5.6000E-02	1.4964E+02	2	4	2080
1872	68-Er-151	1	68	151	5.8000E-01	3.2100E+04	2.4200E+06	0.0000E+00	2.00	0.0	4.1795E+06	8.0000E-01	8.0000E-01	1.4964E+02	2	4	2081
1873	69-Tm-151	0	69	151	4.1700E+00	1.6200E+06	2.7100E+06	0.0000E+00	2.00	0.0	7.9423E+06	4.7000E-02	4.7000E-02	1.4965E+02	1	4	2111
1874	69-Tm-151	1	69	151	6.6000E+00	1.4000E+06	2.9000E+06	0.0000E+00	2.00	0.0	5.1295E+06	7.8000E-01	7.8000E-01	1.4965E+02	1	4	2112
1875	55-Cs-152	0	55	152	5.0620E-02	2.3760E+06	1.6980E+06	0.0000E+00	1.00	0.0	4.6950E+06	2.2000E-01	2.2000E-01	1.5196E+02	2	2	1590
1876	56-Ba-152	0	56	152	1.2300E-01	2.5240E+06	1.3900E+06	0.0000E+00	1.00	0.0	5.3153E+06	3.5000E-01	3.5000E-01	1.5195E+02	2	2	1628
1877	57-La-152	0	57	152	3.9030E-01	2.3550E+06	2.8850E+06	0.0000E+00	1.00	0.0	7.9423E+06	4.7000E-02	4.7000E-02	1.5194E+02	2	2	1662
1878	58-Ce-152	0	58	152	1.4000E+00	1.1660E+06	7.7840E+05	0.0000E+00	1.00	0.0	3.6170E+06	3.1000E-02	3.1000E-02	1.5193E+02	1	2	1701
1879	59-Pr-152	0	59	152	3.6300E+00	2.1200E+06	1.6800E+06	0.0000E+00	1.00	0.0	4.7010E+06	1.0000E+00	1.0000E+00	1.5063E+02	1	4	1740
1880	60-Nd-152	0	60	152	6.8400E+02	3.3000E+02	1.6400E+05	0.0000E+00	1.00	0.0	6.3907E+06	1.0000E+00	1.0000E+00	1.5062E+02	1	4	1777
1881	61-Pm-152	0	61	152	2.4700E+02	1.3300E+06	2.8600E+05	0.0000E+00	1.00	0.0	1.1048E+06	1.0000E+00	1.0000E+00	1.5062E+02	1	4	1815
1882	61-Pm-152	1	61	152	4.5100E+02	9.2000E+05	1.5000E+06	0.0000E+00	1.00	0.0	3.5084E+06	1.0000E+00	1.0000E+00	1.5062E+02	1	4	1816
1883	61-Pm-152	2	61	152	8.2800E+02	6.6079E+05	1.7332E+06	0.0000E+00	1.00	0.0	3.6584E+06	1.0000E+00	1.0000E+00	1.5192E+02	1	2	1817
1884	62-Sm-152	0	62	152	stable	stable	stable	stable	stable	stable	stable	stable	stable	1.5192E+02	0	0	1852
1885	63-Eu-152	0	63	152	4.2720E+08	1.2400E+05	1.1680E+06	0.0000E+00	1.00	0.0	1.8189E+06	2.7900E-01	2.7900E-01	1.5062E+02	2	5	1886
									2.00	0.0	1.8746E+06	7.2100E-01	7.2100E-01				

No.	Symbol S	ZZAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1886	63-Eu-152	1	631521 3.3522E+04	5.1200E+05	2.9400E+05	0.0000E+00	1.00	0.0	1.8645E+06	7.3000E-01	1.5062E+02	2	5	1887
1887	63-Eu-152	2	631522 5.7600E+03	5.8100E+04	7.4800E+04	0.0000E+00	3.00	0.0	1.9202E+06	2.7000E-01	1.5062E+02	1	3	1888
1888	64-Gd-152	0	641520 3.4000E+21	0.0000E+00	0.0000E+00	2.2030E+06	4.00	0.0	1.4781E+05	1.0000E+00	1.5062E+02	1	1	1923
1889	65-Tb-152	0	651520 6.3000E+04	2.1100E+05	1.4600E+06	0.0000E+00	2.00	0.0	2.0499E+06	1.0000E+00	1.5062E+02	1	4	1965
1890	65-Tb-152	1	651521 2.5200E+02	1.4300E+05	7.5500E+05	0.0000E+00	2.00	0.0	3.9900E+06	1.0000E+00	1.5062E+02	2	4	1966
1891	66-Dy-152	0	661520 8.5700E+03	1.0400E+04	2.8640E+05	3.6280E+03	2.00	0.0	4.4917E+06	2.1200E-01	1.5062E+02	2	5	2006
1892	67-Ho-152	0	671520 1.6180E+02	6.0000E+05	1.3400E+06	5.5900E+05	2.00	0.0	5.0174E+05	7.8800E-01	1.5063E+02	2	5	2039
1893	67-Ho-152	1	671521 5.0000E+01	6.7000E+05	3.0700E+06	5.1160E+05	2.00	0.0	5.9835E+05	9.9900E-01	1.5063E+02	2	5	2040
1894	68-Er-152	0	681520 1.0300E+01	1.8900E+04	4.1000E+04	4.4880E+06	2.00	0.0	3.7265E+06	1.0000E-03	1.5063E+02	2	5	2082
1895	69-Tm-152	0	691520 8.0000E+00	4.3000E+05	1.2400E+06	0.0000E+00	2.00	0.0	4.5073E+06	1.2000E-01	1.5064E+02	1	4	2113
1896	69-Tm-152	1	691521 5.2000E+00	1.7000E+06	2.4200E+06	0.0000E+00	2.00	0.0	6.5189E+06	8.8000E-01	1.5064E+02	1	4	2114
1897	70-Yb-152	0	701520 3.0400E+00	1.2100E+06	1.1600E+06	0.0000E+00	2.00	0.0	4.6789E+06	8.9200E-01	1.5065E+02	1	4	2146
1898	71-Lu-152	0	711520 7.0000E-01	3.4000E+06	2.6400E+06	2.3000E+04	2.00	0.0	4.5771E+06	1.0800E-01	1.5066E+02	2	4	2180
1899	56-Ba-153	0	561530 9.6980E-02	2.4980E+06	2.5250E+06	0.0000E+00	1.00	0.0	3.1051E+06	1.0000E-01	1.5296E+02	2	2	1629
1900	57-La-153	0	571530 2.0640E-01	2.5950E+06	2.0880E+06	0.0000E+00	1.00	0.0	4.9344E+06	9.0000E-01	1.5295E+02	2	2	1663
1901	58-Ce-153	0	581530 2.3630E+00	1.6800E+06	1.1250E+06	0.0000E+00	1.00	0.0	8.7840E+06	9.2500E-01	1.5294E+02	1	2	1702
1902	59-Pr-153	0	591530 4.2800E+00	1.7000E+06	1.0270E+06	0.0000E+00	1.00	0.0	4.7460E+06	7.5000E-02	1.5293E+02	1	2	1741
1903	60-Nd-153	0	601530 3.1600E+01	1.1800E+06	2.8000E+05	0.0000E+00	1.00	0.0	6.5450E+06	1.0000E+00	1.5161E+02	1	4	1778
1904	61-Pm-153	0	611530 3.1500E+02	6.9000E+05	7.6300E+04	0.0000E+00	1.00	0.0	3.3173E+06	1.0000E+00	1.5161E+02	1	4	1818
1905	62-Sm-153	0	621530 1.6740E+05	2.6700E+05	6.1800E+04	0.0000E+00	1.00	0.0	1.9115E+06	1.0000E+00	1.5161E+02	1	4	1853
1906	62-Sm-153	1	621531 1.0600E-02	5.9000E+04	2.2900E+04	0.0000E+00	3.00	0.0	8.0728E+05	1.0000E+00	1.5161E+02	1	3	1854
1907	63-Eu-153	0	631530	stable					9.8400E+04	1.0000E+00	1.5161E+02	0	0	1889
1908	64-Gd-153	0	641530 2.0770E+07	4.0000E+04	1.0520E+05	0.0000E+00	2.00	0.0	4.8440E+05	1.0000E+00	1.5161E+02	1	4	1924
1909	65-Tb-153	0	651530 2.0220E+05	4.2400E+04	3.2800E+05	0.0000E+00	2.00	0.0	1.5690E+06	1.0000E+00	1.5161E+02	1	4	1967
1910	66-Dy-153	0	661530 2.3000E+04	8.5100E+04	8.7300E+05	3.2560E+02	2.00	0.0	2.1704E+06	9.991E-01	1.5161E+02	2	5	2007
1911	67-Ho-153	0	671530 1.2060E+02	5.3000E+05	1.0200E+06	1.5100E+04	2.00	0.0	3.5592E+06	9.4000E-05	1.5162E+02	2	5	2041
1912	67-Ho-153	1	671531 5.6000E+02	3.1900E+05	2.9500E+06	7.2200E+03	2.00	0.0	4.1303E+06	9.9950E-01	1.5162E+02	2	4	2042
1913	68-Er-153	0	681530 3.7100E+01	2.7890E+05	5.3500E+05	2.5490E+06	2.00	0.0	4.0160E+06	5.0000E-04	1.5162E+02	3	5	2083
1914	69-Tm-153	0	691530 1.4800E+00	1.5830E+05	1.2600E+05	4.7700E+06	2.00	0.0	4.4714E+06	1.1100E-01	1.5163E+02	3	5	2115
1915	69-Tm-153	1	691531 2.5000E+00	1.6070E+05	8.8000E+04	4.8200E+06	2.00	0.0	4.8023E+06	5.3000E-01	1.5163E+02	2	5	2116
1916	70-Yb-153	0	701530 4.2000E+00	1.6450E+06	1.3620E+06	1.0900E+04	2.00	0.0	6.4829E+06	9.0000E-02	1.5163E+02	4	4	2147

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1917	71-Lu-153	0	71	1530	9.0000E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	8.7850E+06	3.0000E-01	1.5296E+02	2	0	2181
									4.00	0.0	3.0350E+06	7.0000E-01				
1918	56-Ba-154	0	56	1540	6.7590E-02	2.9560E+06	1.6450E+06	0.0000E+00	1.00	0.0	8.2050E+06	9.3600E-01	1.5396E+02	2	2	1630
									1.50	0.0	4.9060E+06	6.4000E-02				
1919	57-La-154	0	57	1540	1.3690E-01	2.6150E+06	3.1990E+06	0.0000E+00	1.00	0.0	1.0591E+07	9.0700E-01	1.5395E+02	2	2	1664
									1.50	0.0	5.1930E+06	9.3000E-02				
1920	58-Ce-154	0	58	1540	9.7370E-01	1.6940E+06	9.5870E+05	0.0000E+00	1.00	0.0	5.8440E+06	9.9981E-01	1.5394E+02	2	2	1703
									1.50	0.0	1.1470E+06	1.9000E-04				
1921	59-Pr-154	0	59	1540	2.3000E+00	1.8730E+06	2.4140E+06	0.0000E+00	1.00	0.0	7.4900E+06	9.9952E-01	1.5261E+02	2	4	1742
									1.50	0.0	1.0646E+06	4.8000E-04				
1922	60-Nd-154	0	60	1540	2.5900E+01	8.7000E+05	4.6520E+05	0.0000E+00	1.00	1.0	2.7869E+06	1.0000E+00	1.5261E+02	1	4	1779
1923	61-Pm-154	0	61	1540	1.6100E+02	8.3900E+05	1.7790E+06	0.0000E+00	1.00	0.0	3.9632E+06	1.0000E+00	1.5260E+02	1	4	1819
1924	61-Pm-154	1	61	1541	1.0400E+02	8.8000E+05	1.7800E+06	0.0000E+00	1.00	0.0	3.9832E+06	1.0000E+00	1.5260E+02	1	4	1820
1925	62-Sm-154	0	62	1540	stable								1.5392E+02	0	0	1855
1926	63-Eu-154	0	63	1540	2.7140E+08	2.7200E+05	1.2430E+06	0.0000E+00	1.00	0.0	1.9682E+06	9.9982E-01	1.5260E+02	2	5	1890
									2.00	0.0	7.1734E+05	1.8000E-04				
1927	63-Eu-154	1	63	1541	2.7600E+03	6.6000E+04	8.4000E+04	0.0000E+00	3.00	0.0	1.4530E+05	1.0000E+00	1.5260E+02	1	3	1891
1928	64-Gd-154	0	64	1540	stable								1.5392E+02	0	0	1925
1929	65-Tb-154	0	65	1540	7.7400E+04	6.1000E+04	2.2400E+06	0.0000E+00	2.00	0.0	3.5496E+06	1.0000E+00	1.5260E+02	1	4	1968
1930	65-Tb-154	1	65	1541	3.3800E+04	1.1000E+05	1.3800E+06	0.0000E+00	2.00	0.0	3.5616E+06	7.8200E-01	1.5260E+02	1	4	1968
									3.00	0.0	1.2000E+04	2.1800E-01				
1931	65-Tb-154	2	65	1542	8.1700E+04	1.0400E+05	2.0900E+06	0.0000E+00	2.00	0.0	3.7496E+06	9.8200E-01	1.5260E+02	2	4	1970
									3.00	1.0	2.0000E+05	1.8000E-02				
1932	66-Dy-154	0	66	1540	9.0000E+13	0.0000E+00	0.0000E+00	2.9400E+06	4.00	0.0	2.9450E+06	1.0000E+00	1.5260E+02	1	1	2008
1933	67-Ho-154	0	67	1540	7.0600E+02	9.3000E+05	1.7000E+06	2.4600E+04	2.00	0.0	5.7544E+06	9.9980E-01	1.5261E+02	2	5	2043
									4.00	0.0	4.0414E+06	1.9000E-04				
1934	67-Ho-154	1	67	1541	1.8600E+02	4.0700E+05	2.3100E+06	9.7000E+03	2.00	0.0	6.0744E+06	9.9999E-01	1.5261E+02	2	4	2044
									4.00	1.0	3.8900E+06	1.0000E-05				
1935	68-Er-154	0	68	1540	2.2200E+02	3.2800E+04	7.5600E+04	1.9590E+04	2.00	0.0	2.0344E+06	9.9530E-01	1.5261E+02	2	5	2084
									4.00	0.0	4.2796E+06	4.7000E-03				
1936	69-Tm-154	0	69	1540	8.1000E+00	1.2690E+06	6.8000E+05	2.7910E+06	2.00	0.0	8.1778E+06	4.6000E-01	1.5262E+02	2	5	2117
									4.00	0.0	5.0938E+06	5.4000E-01				
1937	69-Tm-154	1	69	1541	3.3000E+00	5.5390E+05	1.1700E+06	3.0150E+06	2.00	0.0	8.1778E+06	4.2000E-01	1.5262E+02	2	5	2118
									4.00	1.0	5.1700E+06	5.8000E-01				
1938	70-Yb-154	0	70	1540	4.0900E-01	6.6000E+02	6.7000E+03	5.0650E+06	2.00	0.0	4.4950E+06	7.4000E-02	1.5262E+02	2	5	2148
									4.00	0.0	5.4742E+06	9.2600E-01				
1939	71-Lu-154	1	71	1541	1.1200E+00	5.1000E+04	1.8630E+06	0.0000E+00	2.00	0.0	1.0273E+07	9.9940E-01	1.5263E+02	2	4	2182
									2.70	0.0	7.2190E+06	6.0000E-04				
1940	72-Hf-154	0	72	1540	2.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.0080E+06	1.0000E+00	1.5397E+02	1	0	2231
1941	57-La-155	0	57	1550	1.0400E-01	2.8170E+06	2.6980E+06	0.0000E+00	1.00	0.0	9.7430E+06	8.2000E-01	1.5496E+02	2	2	1665
									1.50	0.0	6.0970E+06	1.8000E-01				
1942	58-Ce-155	0	58	1550	4.4500E-01	2.0150E+06	1.5710E+06	0.0000E+00	1.00	0.0	7.4900E+06	9.9740E-01	1.5495E+02	2	2	1704
									1.50	0.0	2.1980E+06	2.6000E-03				
1943	59-Pr-155	0	59	1550	2.5850E+00	2.0710E+06	1.4800E+06	0.0000E+00	1.00	0.0	6.8685E+06	9.9630E-01	1.5494E+02	2	2	1743
									1.50	0.0	2.1978E+06	3.7000E-03				
1944	60-Nd-155	0	60	1550	8.9000E+00	1.3660E+06	8.3390E+05	0.0000E+00	1.00	0.0	4.6562E+06	1.0000E+00	1.5360E+02	1	2	1780
1945	61-Pm-155	0	61	1550	4.1500E+01	1.0200E+06	6.3300E+05	0.0000E+00	1.00	0.0	3.2503E+06	1.0000E+00	1.5493E+02	1	2	1821
1946	62-Sm-155	0	62	1550	1.3380E+03	5.6800E+05	1.0290E+05	0.0000E+00	1.00	0.0	1.6270E+06	1.0000E+00	1.5399E+02	1	4	1856
1947	63-Eu-155	0	63	1550	1.5000E+08	6.3400E+04	6.1300E+04	0.0000E+00	1.00	0.0	2.5209E+05	1.0000E+00	1.5359E+02	1	4	1892
1948	64-Gd-155	0	64	1550	stable								1.5492E+02	0	0	1926

No.	Symbol	S	zZAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
1949	64-Gd-155	1	641551	3.1970E-02	3.9200E+04	7.3810E+04	0.0000E+00	3.00	0.0	1.2105E+05	1.0000E+00	1.5359E+02	1	3	1927
1950	65-Tb-155	0	651550	4.6000E+05	3.8800E+04	1.7700E+05	0.0000E+00	2.00	0.0	8.1978E+05	1.0000E+00	1.5359E+02	1	4	1971
1951	66-Dy-155	0	661550	3.5600E+04	2.3800E+04	6.4500E+05	0.0000E+00	2.00	0.0	2.0945E+06	1.0000E+00	1.5360E+02	1	4	2009
1952	67-Ho-155	0	671550	2.8800E+03	1.6300E+05	5.4600E+05	0.0000E+00	2.00	0.0	3.1158E+06	1.0000E+00	1.5360E+02	1	4	2045
1953	68-Er-155	0	681550	3.1800E+02	3.0600E+05	1.8300E+06	8.8260E+02	2.00	0.0	3.8302E+06	9.9978E-01	1.5360E+02	2	4	2085
1954	69-Tm-155	0	691550	2.1600E+01	1.4000E+06	1.1100E+06	3.7000E+04	2.00	0.0	4.1182E+06	2.2000E-04	1.5361E+02	2	4	2119
1955	69-Tm-155	1	691551	4.5000E+01	1.4300E+06	8.7000E+05	3.6000E+04	2.00	0.0	5.5831E+06	9.9110E-01	1.5361E+02	2	4	2120
1956	70-Yb-155	0	701550	1.7930E+00	1.7200E+06	8.5000E+05	4.7920E+06	2.00	0.0	4.5720E+06	1.0000E-02	1.5362E+02	2	5	2149
1957	71-Lu-155	0	711550	6.8000E-02	0.0000E+00	0.0000E+00	5.2170E+06	2.00	0.0	6.1232E+06	1.0000E-01	1.5362E+02	2	1	2183
1958	71-Lu-155	1	711551	1.3800E-01	0.0000E+00	0.0000E+00	4.3500E+06	2.00	0.0	5.3387E+06	8.9000E-01	1.5362E+02	2	1	2184
1959	71-Lu-155	2	711552	2.6900E-03	0.0000E+00	0.0000E+00	7.5800E+06	4.00	1.0	5.8027E+06	9.0000E-01	1.5362E+02	1	1	2185
1960	72-Hf-155	0	721550	8.9000E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.9266E+06	2.4000E-01	1.5497E+02	1	0	2232
1961	57-La-156	0	571560	7.6900E-02	3.0360E+06	3.7320E+06	0.0000E+00	1.00	0.0	7.6000E+06	1.0000E+00	1.5596E+02	2	2	1666
1962	58-Ce-156	0	581560	2.2610E-01	2.1180E+06	1.1710E+06	0.0000E+00	1.00	0.0	1.0460E+07	8.1000E-01	1.5596E+02	2	2	1666
1963	59-Pr-156	0	591560	1.2160E+00	2.1490E+06	2.6880E+06	0.0000E+00	1.00	0.0	6.3790E+06	1.9000E-01	1.5595E+02	2	2	1705
1964	60-Nd-156	0	601560	5.4900E+00	1.1220E+06	7.6570E+05	0.0000E+00	1.00	0.0	6.6970E+06	9.9300E-01	1.5595E+02	2	2	1705
1965	61-Pm-156	0	611560	2.6700E+01	1.3900E+06	1.7300E+06	0.0000E+00	1.00	0.0	2.4740E+06	7.0000E-03	1.5594E+02	2	2	1744
1966	62-Sm-156	0	621560	3.3800E+04	2.0000E+05	1.1400E+05	0.0000E+00	1.00	0.0	8.9060E+06	9.7700E-01	1.5594E+02	2	2	1744
1967	63-Eu-156	0	631560	1.3120E+06	4.5000E+05	1.2340E+06	0.0000E+00	1.00	0.0	2.6450E+06	2.3000E-02	1.5593E+02	1	2	1781
1968	64-Gd-156	0	641560	stable	stable	stable	0.0000E+00	1.00	0.0	3.6900E+06	1.0000E+00	1.5459E+02	1	4	1822
1969	65-Tb-156	0	651560	4.6200E+05	7.9000E+04	1.9400E+06	0.0000E+00	2.00	0.0	5.1991E+06	1.0000E+00	1.5459E+02	1	4	1822
1970	65-Tb-156	1	651561	8.8000E+04	1.1300E+04	3.6816E+04	0.0000E+00	3.00	0.0	1.0460E+07	8.1000E-01	1.5459E+02	1	3	1973
1971	65-Tb-156	2	651562	1.9100E+04	8.2000E+04	1.5500E+04	0.0000E+00	2.00	0.0	7.2244E+05	1.0000E+00	1.5459E+02	2	4	1974
1972	66-Dy-156	0	661560	stable	stable	stable	0.0000E+00	3.00	0.0	2.4491E+06	1.0000E+00	1.5592E+02	0	0	1928
1973	67-Ho-156	0	671560	3.3600E+03	6.2000E+05	2.0800E+06	0.0000E+00	2.00	0.0	2.4442E+06	1.0000E+00	1.5459E+02	1	4	1972
1974	67-Ho-156	1	671561	9.5000E+00	4.8100E+04	1.0400E+03	0.0000E+00	3.00	0.0	4.9600E+04	1.0000E+00	1.5459E+02	1	3	1973
1975	67-Ho-156	2	671562	4.6800E+02	6.6700E+04	2.1021E+06	0.0000E+00	2.00	0.0	2.5326E+06	7.0000E-02	1.5459E+02	2	4	1974
1976	68-Er-156	0	681560	1.1700E+03	3.2900E+04	6.5000E+04	0.0000E+00	2.00	1.0	8.8400E+04	9.3000E-01	1.5592E+02	0	0	2010
1977	69-Tm-156	0	691560	8.3800E+01	2.0600E+06	1.9000E+06	5.5000E+04	2.00	0.0	5.0500E+06	1.0000E+00	1.5459E+02	1	4	2046
1978	70-Yb-156	0	701560	2.6000E+01	3.6500E+05	4.5000E+05	4.8970E+05	2.00	0.0	5.2400E+04	2.5000E-01	1.5459E+02	1	3	2047
1979	71-Lu-156	0	711560	4.9400E-01	0.0000E+00	0.0000E+00	5.3100E+06	2.00	0.0	5.4000E+06	7.5000E-01	1.5459E+02	2	4	2048
1980	71-Lu-156	1	711561	1.9800E-01	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	9.1795E+05	1.0000E+00	1.5459E+02	1	4	2086
1981	72-Hf-156	0	721560	2.3000E-02	0.0000E+00	0.0000E+00	5.4230E+06	4.00	1.0	7.3814E+06	9.9936E-01	1.5460E+02	2	5	2121
1982	72-Hf-156	1	721561	5.2000E-04	0.0000E+00	0.0000E+00	6.0200E+06	4.00	0.0	4.3451E+06	6.4000E-04	1.5460E+02	2	5	2121
1983	73-Ta-156	0	731560	1.0600E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.5705E+06	9.0000E-01	1.5460E+02	2	5	2150
										4.00	0.0	1.0000E-01			
										4.8106E+06	1.0000E-01	1.5461E+02	2	1	2186
										9.5085E+06	5.0000E-02	1.5461E+02	2	1	2187
										5.5957E+06	9.5000E-01	1.5461E+02	1	1	2187
										5.4230E+06	1.0000E+00	1.5462E+02	1	1	2233
										6.0285E+06	1.0000E+00	1.5462E+02	1	1	2234
										7.9870E+06	1.0000E+00	1.5462E+02	1	1	2234
										1.1800E+07	2.9000E-01	1.5598E+02	2	0	2274
										7.00	0.0	1.0200E+06	7.1000E-01		

1984	57-La-157	0	571570	5.9190E-02	3.2500E+06	3.0650E+06	0.0000E+00	1.00	0.0	1.0239E+07	1.0000E+00	1.5696E+02	1	2	1667	
1985	58-Ce-157	0	581570	1.7530E-01	2.4310E+06	2.8890E+06	0.0000E+00	1.00	0.0	8.5320E+06	1.0000E+00	1.5695E+02	1	2	1706	
1986	59-Pr-157	0	591570	5.5360E-01	2.3870E+06	1.8810E+06	0.0000E+00	1.00	0.0	7.9210E+06	9.6200E-01	1.5695E+02	2	2	1745	
1987	60-Nd-157	0	601570	5.4330E+00	1.6680E+06	1.1400E+06	0.0000E+00	1.00	0.0	3.8620E+06	3.8000E-02	1.5694E+02	1	2	1782	
1988	61-Pm-157	0	611570	1.0560E+01	1.4510E+06	8.4080E+05	0.0000E+00	1.00	0.0	4.3805E+06	1.0000E+00	1.5693E+02	1	2	1823	
1989	62-Sm-157	0	621570	4.8200E+02	8.9000E+05	4.0900E+05	0.0000E+00	1.00	0.0	2.7807E+06	1.0000E+00	1.5558E+02	1	4	1858	
1990	63-Eu-157	0	631570	5.4650E+04	3.9000E+05	2.9100E+05	0.0000E+00	1.00	0.0	1.3645E+06	1.0000E+00	1.5558E+02	1	4	1894	
1991	64-Gd-157	0	641570	stable								1.5692E+02	0	0	1929	
1992	65-Tb-157	0	651570	2.2400E+09	3.3800E+03	7.2300E+03	0.0000E+00	2.00	0.0	6.0044E+04	1.0000E+00	1.5558E+02	1	4	1975	
1993	66-Dy-157	0	661570	2.9300E+04	9.8700E+03	3.4700E+05	0.0000E+00	2.00	0.0	1.3391E+05	1.0000E+00	1.5558E+02	1	4	2011	
1994	66-Dy-157	1	661571	2.1600E-02	9.5000E+04	1.0100E+05	0.0000E+00	3.00	0.0	1.9950E+05	1.0000E+00	1.5558E+02	1	3	2012	
1995	67-Ho-157	0	671570	7.5600E+02	9.3000E+04	5.6700E+05	0.0000E+00	2.00	0.0	2.5931E+06	9.8000E-01	1.5558E+02	2	4	2049	
1996	68-Er-157	0	681570	1.1190E+03	3.4000E+05	6.6000E+05	0.0000E+00	2.00	0.0	2.3937E+06	2.0000E-02	1.5558E+02	1	4	2087	
1997	68-Er-157	1	681571	7.6000E-02	1.1583E+05	2.3780E+04	0.0000E+00	3.00	0.0	3.4412E+06	1.0000E+00	1.5558E+02	1	2	2088	
1998	69-Tm-157	0	691570	2.1800E+02	8.6000E+05	1.4300E+06	0.0000E+00	2.00	0.0	4.6532E+06	9.2140E-01	1.5559E+02	2	4	2122	
1999	70-Yb-157	0	701570	3.8600E+01	6.1000E+05	6.4000E+05	3.8000E+04	2.00	0.0	4.4978E+06	7.8600E-02	1.5559E+02	2	5	2151	
2000	71-Lu-157	0	711570	6.8000E+00	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	5.3107E+06	9.9500E-01	1.5559E+02	2	1	2235	
2001	71-Lu-157	1	711571	4.7900E+00	0.0000E+00	0.0000E+00	3.0740E+05	2.00	0.0	4.6218E+06	5.0000E-03	1.5695E+02	1	0	2188	
2002	72-Hf-157	0	721570	1.1000E-01	0.0000E+00	0.0000E+00	5.5250E+06	2.00	1.0	5.1077E+06	1.0000E+00	1.5560E+02	2	1	2189	
2003	73-Ta-157	0	731570	1.0100E-02	0.0000E+00	0.0000E+00	6.0600E+06	4.00	0.0	7.5270E+06	6.0000E-02	1.5562E+02	2	1	2275	
2004	73-Ta-157	1	731571	4.3000E-03	0.0000E+00	0.0000E+00	6.3700E+06	4.00	0.0	6.3545E+06	9.4000E-01	1.5562E+02	2	1	2276	
2005	73-Ta-157	2	731572	1.7000E-03	0.0000E+00	0.0000E+00	7.9400E+06	4.00	0.0	9.3500E+05	3.4000E-02	1.5562E+02	1	1	2277	
2006	58-Ce-158	0	581580	1.1180E-01	2.6080E+06	1.4450E+06	0.0000E+00	1.00	0.0	7.9440E+06	1.0000E+00	1.5796E+02	1	2	1707	
2007	59-Pr-158	0	591580	2.9170E-01	2.5520E+06	3.1550E+06	0.0000E+00	1.00	0.0	7.3040E+06	1.0000E+00	1.5796E+02	1	2	1746	
2008	60-Nd-158	0	601580	2.7250E+00	1.5890E+06	9.2390E+05	0.0000E+00	1.00	0.0	9.7250E+06	1.0000E+00	1.5795E+02	1	2	1783	
2009	61-Pm-158	0	611580	4.8000E+00	1.5690E+06	2.1640E+06	0.0000E+00	1.00	0.0	5.0350E+06	1.0000E+00	1.5794E+02	1	2	1824	
2010	62-Sm-158	0	621580	3.1800E+02	4.0843E+05	5.5492E+05	0.0000E+00	1.00	0.0	6.1610E+06	1.0000E+00	1.5793E+02	1	2	1859	
2011	63-Eu-158	0	631580	2.7540E+03	8.9000E+05	1.3000E+06	0.0000E+00	1.00	0.0	2.0050E+06	1.0000E+00	1.5657E+02	1	4	1895	
2012	64-Gd-158	0	641580	stable						3.4337E+06	1.0000E+00	1.5792E+02	0	0	1930	
2013	65-Tb-158	0	651580	5.7000E+09	9.8000E+04	8.0200E+05	0.0000E+00	1.00	0.0	9.3622E+05	1.6600E-01	1.5657E+02	2	5	1976	
2014	65-Tb-158	1	651581	1.0700E+01	8.2400E+04	2.3900E+04	0.0000E+00	3.00	0.0	1.2190E+06	8.3400E-01	1.5657E+02	1	3	1977	
2015	65-Tb-158	2	651582	4.0000E-04	1.3200E+05	2.8100E+05	0.0000E+00	3.00	0.0	1.1030E+05	1.0000E+00	1.5657E+02	1	3	1978	
2016	66-Dy-158	0	661580	stable						3.8840E+05	1.0000E+00	1.5792E+02	0	0	2013	
2017	67-Ho-158	0	671580	6.7800E+02	1.5500E+05	2.3700E+06	0.0000E+00	2.00	0.0	4.2198E+06	1.0000E+00	1.5657E+02	1	4	2050	
2018	67-Ho-158	1	671581	1.6800E+03	9.1000E+04	2.1000E+05	0.0000E+00	2.00	0.0	4.3998E+06	1.0000E-01	1.5657E+02	2	4	2051	
2019	67-Ho-158	2	671582	1.2800E+03	4.9500E+03	2.5718E+06	0.0000E+00	2.00	0.0	6.7201E+04	9.0000E-01	1.5657E+02	2	4	2052	
2020	68-Er-158	0	681580	8.2400E+03	3.5300E+04	1.6500E+05	0.0000E+00	2.00	1.0	1.8000E+05	7.0000E-02	1.5657E+02	1	4	2089	
2021	69-Tm-158	0	691580	2.3900E+02	1.5600E+06	1.7100E+06	0.0000E+00	2.00	0.0	8.1540E+05	1.0000E+00	1.5658E+02	1	4	2123	
2022	70-Yb-158	0	701580	8.9000E+01	8.8600E+04	2.0170E+05	1.9200E+03	2.00	0.0	6.6006E+06	1.0000E+00	1.5658E+02	2	5	2152	
										4.00	0.0	4.1698E+06	2.1000E-05			

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2023	71-Lu-158	0	71	1580	1.0600E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	8.7979E+06	9.9090E-01	1.5795E+02	2	0	2190
									4.00	0.0	4.7900E+06	9.1000E-03				
2024	72-Hf-158	0	72	1580	2.8500E+00	0.0000E+00	0.0000E+00	2.3930E+06	2.00	0.0	5.1098E+06	5.5700E-01	1.5660E+02	2	1	2236
									4.00	0.0	4.4300E+06	4.4300E-01				
2025	73-Ta-158	0	73	1580	5.5000E-02	0.0000E+00	0.0000E+00	5.8700E+06	2.00	0.0	1.0936E+07	4.0000E-02	1.5661E+02	2	1	2278
									4.00	0.0	6.1235E+06	9.6000E-01				
2026	73-Ta-158	1	73	1581	3.6000E-02	0.0000E+00	0.0000E+00	5.9530E+06	2.00	0.0	1.1077E+07	4.0000E-02	1.5661E+02	2	1	2279
									4.00	1.0	6.2060E+06	9.6000E-01				
2027	74-W-158	0	74	1580	1.2500E-03	0.0000E+00	0.0000E+00	6.6090E+06	4.00	0.0	6.6126E+06	1.0000E+00	1.5662E+02	1	1	2316
2028	74-W-158	1	74	1581	1.4300E-04	0.0000E+00	0.0000E+00	8.5000E+06	4.00	0.0	8.5010E+06	1.0000E+00	1.5662E+02	1	1	2317
2029	58-Ce-159	0	58	1590	9.2270E-02	2.3700E+06	2.4490E+06	0.0000E+00	1.00	0.0	7.8100E+06	1.0000E+00	1.5896E+02	1	2	1708
2030	59-Pr-159	0	59	1590	1.7150E-01	2.7730E+06	2.3380E+06	0.0000E+00	1.00	0.0	8.7190E+06	1.0000E+00	1.5895E+02	1	2	1747
2031	60-Nd-159	0	60	1590	1.4250E+00	2.0630E+06	1.6660E+06	0.0000E+00	1.50	0.0	6.7470E+06	9.9979E-01	1.5894E+02	2	2	1784
									1.50	0.0	1.2110E+06	2.1000E-04				
2032	61-Pm-159	0	61	1590	1.4700E+00	1.7820E+06	1.1600E+06	0.0000E+00	1.00	0.0	5.6535E+06	9.9988E-01	1.5894E+02	2	2	1825
									1.50	0.0	6.2464E+05	2.0000E-05				
2033	62-Sm-159	0	62	1590	1.1370E+01	1.0002E+06	9.6497E+05	0.0000E+00	1.00	0.0	3.8351E+06	1.0000E+00	1.5893E+02	1	2	1860
2034	63-Eu-159	0	63	1590	1.0860E+03	9.0000E+05	3.0700E+05	0.0000E+00	1.00	0.0	2.5179E+06	1.0000E+00	1.5756E+02	1	4	1896
2035	64-Gd-159	0	64	1590	6.6524E+04	3.0900E+05	5.6700E+04	0.0000E+00	1.00	0.0	9.7086E+05	1.0000E+00	1.5756E+02	1	4	1931
2036	65-Tb-159	0	65	1590	stable								1.5893E+02	0	0	1979
2037	66-Dy-159	0	66	1590	1.2476E+07	9.9700E+03	4.5200E+04	0.0000E+00	2.00	0.0	3.6538E+05	1.0000E+00	1.5756E+02	1	4	2014
2038	67-Ho-159	0	67	1590	1.9830E+03	5.1400E+04	3.8500E+05	0.0000E+00	2.00	0.0	1.8376E+06	1.0000E+00	1.5756E+02	1	4	2053
2039	67-Ho-159	1	67	1591	8.3000E+00	1.0370E+05	1.0000E+05	0.0000E+00	3.00	0.0	2.0588E+05	1.0000E+00	1.5756E+02	1	3	2054
2040	68-Er-159	0	68	1590	2.1600E+03	4.2900E+04	9.7000E+05	0.0000E+00	2.00	0.0	2.7685E+06	7.6000E-01	1.5757E+02	2	4	2090
									2.00	1.0	2.5626E+06	2.4000E-01				
2041	69-Tm-159	0	69	1590	5.4800E+02	1.6480E+05	3.6800E+05	0.0000E+00	2.00	0.0	3.9898E+06	1.0000E+00	1.5757E+02	1	4	2124
2042	70-Yb-159	0	70	1590	1.0000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.7316E+06	1.0000E+00	1.5894E+02	1	0	2153
2043	71-Lu-159	0	71	1590	1.2100E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.1302E+06	1.0000E+00	1.5895E+02	1	0	2191
2044	72-Hf-159	0	72	1590	5.2000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.8558E+06	6.5000E-01	1.5759E+02	2	0	2237
									4.00	0.0	5.2250E+06	3.5000E-01				
2045	73-Ta-159	0	73	1590	1.0400E+00	0.0000E+00	0.0000E+00	1.9230E+06	2.00	0.0	8.4085E+06	6.6000E-01	1.5760E+02	2	1	2280
									4.00	1.0	5.6610E+06	3.4000E-01				
2046	73-Ta-159	1	73	1591	5.1800E-01	0.0000E+00	0.0000E+00	3.1580E+06	2.00	0.0	8.4725E+06	4.5000E-01	1.5760E+02	2	1	2281
									4.00	0.0	5.7450E+06	5.5000E-01				
2047	74-W-159	0	74	1590	8.2000E-03	0.0000E+00	0.0000E+00	6.4200E+06	2.00	0.0	8.9570E+06	1.0000E-03	1.5761E+02	2	1	2318
									4.00	0.0	6.4504E+06	9.9900E-01				
2048	58-Ce-160	0	58	1600	6.4010E-02	2.9310E+06	1.7000E+06	0.0000E+00	1.00	0.0	8.2360E+06	1.0000E+00	1.5997E+02	1	2	1709
2049	59-Pr-160	0	59	1600	1.4220E-01	2.6390E+06	3.2330E+06	0.0000E+00	1.00	0.0	9.1660E+06	1.0000E+00	1.5996E+02	1	2	1748
2050	60-Nd-160	0	60	1600	5.0300E-01	2.1000E+06	1.2060E+06	0.0000E+00	1.00	0.0	5.8680E+06	1.0000E+00	1.5995E+02	1	2	1785
2051	61-Pm-160	0	61	1600	2.5470E+00	1.9690E+06	2.5000E+06	0.0000E+00	1.00	0.0	7.2330E+06	9.9927E-01	1.5994E+02	2	2	1826
									1.50	0.0	1.1340E+06	7.3000E-04				
2052	62-Sm-160	0	62	1600	9.6000E+00	8.4670E+05	6.8980E+05	0.0000E+00	1.00	0.0	3.2457E+06	1.0000E+00	1.5993E+02	1	2	1861
2053	63-Eu-160	0	63	1600	3.8000E+01	1.1690E+06	2.5400E+06	0.0000E+00	1.00	0.0	4.4605E+06	1.0000E+00	1.5856E+02	1	2	1897
2054	64-Gd-160	0	64	1600	stable								1.5993E+02	0	0	1932
2055	65-Tb-160	0	65	1600	6.2470E+06	2.5800E+05	1.1260E+06	0.0000E+00	1.00	0.0	1.8359E+06	1.0000E+00	1.5855E+02	1	4	1980
2056	66-Dy-160	0	66	1600	stable								1.5993E+02	0	0	2015
2057	67-Ho-160	0	67	1600	1.5360E+03	0.0000E+00	1.6300E+06	0.0000E+00	2.00	0.0	3.2900E+06	1.0000E+00	1.5855E+02	1	2	2055
2058	67-Ho-160	1	67	1601	1.8072E+04	3.6000E+04	1.6708E+06	0.0000E+00	2.00	0.0	3.3500E+06	3.5000E-01	1.5855E+02	2	4	2056
									3.00	0.0	5.9980E+04	6.5000E-01				
2059	67-Ho-160	2	67	1602	3.0000E+00	5.5000E+04	1.0330E+05	0.0000E+00	3.00	0.0	1.6960E+05	1.0000E+00	1.5855E+02	1	3	2057

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2060	68-Er-160	0	68	1600	1.0290E+05	8.8200E+03	3.6900E+04	0.0000E+00	2.00	1.0	2.5722E+05	1.0000E+00	1.5855E+02	1	4	2091
2061	69-Tm-160	0	69	1600	5.6400E+02	1.1000E+06	1.8300E+06	0.0000E+00	2.00	0.0	5.7622E+06	1.0000E+00	1.5856E+02	1	4	2125
2062	69-Tm-160	1	69	1601	7.4500E+01	1.9000E+05	2.1000E+05	0.0000E+00	2.00	0.0	5.8322E+06	1.5000E-01	1.5856E+02	2	4	2126
2063	70-Yb-160	0	70	1600	2.8800E+02	5.2000E+04	2.8700E+05	0.0000E+00	2.00	0.0	7.0000E+04	8.5000E-01	1.5856E+02	1	4	2154
2064	71-Lu-160	0	71	1600	3.6100E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.1371E+06	1.0000E+00	1.5995E+02	1	0	2192
2065	71-Lu-160	1	71	1601	4.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.8950E+06	1.0000E+00	1.5995E+02	1	0	2193
2066	72-Hf-160	0	72	1600	1.3600E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.3387E+06	9.9300E-01	1.5995E+02	2	0	2238
2067	73-Ta-160	0	73	1600	1.5500E+00	0.0000E+00	0.0000E+00	1.8860E+06	2.00	0.0	4.9023E+06	7.0000E-03	1.5859E+02	2	1	2282
2068	73-Ta-160	1	73	1601	1.7000E+00	0.0000E+00	0.0000E+00	5.4500E+06	4.00	1.0	1.0057E+07	6.6000E-01	1.5859E+02	1	1	2283
2069	74-W-160	0	74	1600	9.1000E-02	0.0000E+00	0.0000E+00	5.2700E+06	2.00	0.0	6.4972E+06	1.3000E-01	1.5859E+02	2	1	2319
2070	75-Re-160	0	75	1600	7.9000E-04	0.0000E+00	0.0000E+00	6.0300E+05	4.00	0.0	6.6977E+06	9.0000E-02	1.5861E+02	2	1	2354
2071	59-Pr-161	0	59	1610	8.7870E-02	2.9760E+06	2.8370E+06	0.0000E+00	1.00	0.0	1.2780E+06	9.1000E-01	1.6096E+02	1	2	1749
2072	60-Nd-161	0	60	1610	3.0650E-01	2.1600E+06	1.8790E+06	0.0000E+00	1.00	0.0	9.4630E+06	1.0000E+00	1.6096E+02	1	2	1786
2073	61-Pm-161	0	61	1610	1.3340E+00	2.1080E+06	1.6960E+06	0.0000E+00	1.00	0.0	6.4360E+06	9.9200E-01	1.6095E+02	2	2	1827
2074	62-Sm-161	0	62	1610	4.8000E+00	1.5070E+06	1.1380E+06	0.0000E+00	1.00	0.0	1.9280E+06	8.0000E-03	1.6094E+02	1	2	1862
2075	63-Eu-161	0	63	1610	2.6000E+01	1.0059E+06	1.0062E+06	0.0000E+00	1.00	0.0	5.1196E+06	1.0000E+00	1.6093E+02	1	2	1898
2076	64-Gd-161	0	64	1610	2.2000E+02	5.8620E+05	3.9300E+05	0.0000E+00	1.00	0.0	3.7135E+06	1.0000E+00	1.6095E+02	1	4	1933
2077	65-Tb-161	0	65	1610	5.9670E+05	1.9600E+05	3.5500E+04	0.0000E+00	1.00	0.0	1.9558E+06	1.0000E+00	1.5955E+02	1	4	1981
2078	66-Dy-161	0	66	1610	stable	stable	stable	0.0000E+00	1.00	0.0	5.9367E+05	1.0000E+00	1.5954E+02	1	4	1981
2079	67-Ho-161	0	67	1610	8.9300E+03	2.7600E+04	5.8000E+04	0.0000E+00	2.00	0.0	8.5796E+05	1.0000E+00	1.6093E+02	0	0	2016
2080	67-Ho-161	1	67	1611	6.7600E+00	1.0500E+05	1.0610E+05	0.0000E+00	3.00	0.0	2.1115E+05	1.0000E+00	1.5954E+02	1	3	2059
2081	68-Er-161	0	68	1610	1.1560E+04	1.7500E+04	9.1000E+05	0.0000E+00	2.00	0.0	1.9962E+06	7.3200E-01	1.5955E+02	2	4	2092
2082	69-Tm-161	0	69	1610	1.8100E+03	1.6400E+05	1.1800E+06	0.0000E+00	2.00	0.0	3.3016E+06	1.0000E+00	1.5955E+02	1	4	2127
2083	70-Yb-161	0	70	1610	2.5200E+02	2.8070E+05	9.5400E+05	0.0000E+00	2.00	0.0	4.0596E+06	1.0000E+00	1.5955E+02	1	4	2155
2084	71-Lu-161	0	71	1610	7.7000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.2768E+06	1.0000E+00	1.6095E+02	1	0	2194
2085	71-Lu-161	1	71	1611	7.3000E-03	5.0000E+04	5.5680E+04	0.0000E+00	3.00	0.0	1.6600E+05	1.0000E+00	1.5956E+02	1	2	2195
2086	72-Hf-161	0	72	1610	1.8200E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.2469E+06	9.9870E-01	1.6095E+02	2	0	2239
2087	73-Ta-161	0	73	1610	2.8900E+00	0.0000E+00	0.0000E+00	2.6380E+05	2.00	0.0	4.6852E+06	1.3000E-03	1.5958E+02	2	1	2284
2088	74-W-161	0	74	1610	4.1000E-01	0.0000E+00	0.0000E+00	5.0900E+06	2.00	0.0	7.6139E+06	9.5000E-01	1.5958E+02	2	1	2320
2089	59-Pr-162	0	59	1620	6.4180E-02	2.9270E+06	3.5770E+06	0.0000E+00	1.00	0.0	5.9228E+06	8.6000E-01	1.6197E+02	1	2	1750
2090	60-Nd-162	0	60	1620	2.0410E-01	2.4850E+06	1.4310E+06	0.0000E+00	1.00	0.0	1.0100E+07	1.0000E+00	1.6196E+02	1	2	1787
2091	61-Pm-162	0	61	1620	5.6690E-01	2.0790E+06	2.6200E+06	0.0000E+00	1.00	0.0	7.0560E+06	1.0000E+00	1.6195E+02	1	2	1828
2092	62-Sm-162	0	62	1620	2.4000E+00	1.3830E+06	8.7780E+05	0.0000E+00	1.00	0.0	4.1650E+06	1.0000E+00	1.6194E+02	1	2	1863
2093	63-Eu-162	0	63	1620	1.0600E+01	1.4030E+06	2.0180E+06	0.0000E+00	1.00	0.0	5.5850E+06	1.0000E+00	1.6194E+02	1	2	1899
2094	64-Gd-162	0	64	1620	5.0400E+02	2.8618E+05	5.3704E+05	0.0000E+00	1.00	0.0	1.3951E+06	1.0000E+00	1.6054E+02	1	4	1934
2095	65-Tb-162	0	65	1620	4.5600E+02	5.3100E+05	1.1060E+06	0.0000E+00	1.00	0.0	2.5055E+06	1.0000E+00	1.6054E+02	1	4	1982
2096	66-Dy-162	0	66	1620	stable	stable	stable	0.0000E+00	1.00	0.0	1.6193E+02	0	0	0	0	2017
2097	67-Ho-162	0	67	1620	9.0000E+02	5.5400E+04	1.6200E+05	0.0000E+00	2.00	0.0	2.1394E+06	1.0000E+00	1.6054E+02	1	4	2060
2098	67-Ho-162	1	67	1621	4.0200E+03	5.9800E+04	5.6300E+05	0.0000E+00	2.00	0.0	2.2452E+06	3.8000E-01	1.6054E+02	2	4	2061
									3.00	0.0	1.0587E+05	6.2000E-01				

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2099	68-Er-162	0	68	1620	stable	5.7000E+05	1.8900E+06	0.0000E+00	2.00	0.0	4.8567E+06	1.0000E+00	1.6193E+02	0	0	2093
2100	69-Tm-162	0	69	1620	1.3020E+03	1.0000E+05	4.2000E+05	0.0000E+00	2.00	0.0	4.9857E+06	1.9000E+00	1.6054E+02	1	4	2128
2101	69-Tm-162	1	69	1621	2.4300E+01	1.0000E+05	4.2000E+05	0.0000E+00	3.00	0.0	1.3000E+05	8.1000E-01	1.6054E+02	2	4	2129
2102	70-Yb-162	0	70	1620	1.1320E+03	3.2400E+04	2.4700E+05	0.0000E+00	2.00	0.0	1.6500E+06	1.0000E+00	1.6054E+02	1	4	2156
2103	71-Lu-162	0	71	1620	8.2200E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.9948E+06	1.0000E+00	1.6195E+02	1	0	2196
2104	72-Hf-162	0	72	1620	3.9400E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.6627E+06	9.9992E-01	1.6195E+02	2	0	2240
2105	73-Ta-162	0	73	1620	3.5700E+00	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	4.4162E+06	8.0000E-05	1.6196E+02	2	0	2285
2106	74-W-162	0	74	1620	1.3600E+00	0.0000E+00	0.0000E+00	2.5640E+06	2.00	0.0	5.7800E+06	5.4800E-01	1.6057E+02	2	1	2321
2107	75-Re-162	0	75	1620	1.0700E-01	0.0000E+00	0.0000E+00	6.0500E+06	2.00	0.0	1.1499E+07	6.0000E-01	1.6058E+02	2	1	2355
2108	75-Re-162	1	75	1621	7.7000E-02	0.0000E+00	0.0000E+00	5.7060E+06	2.00	0.0	1.1672E+07	9.0000E-02	1.6058E+02	2	1	2356
2109	76-Os-162	0	76	1620	2.0500E-03	0.0000E+00	0.0000E+00	6.7700E+06	4.00	0.0	6.7673E+06	1.0000E+00	1.6059E+02	1	1	2392
2110	60-Nd-163	0	60	1630	1.4740E-01	2.4820E+06	2.2190E+06	0.0000E+00	1.00	0.0	7.8380E+06	1.0000E+00	1.6296E+02	1	2	1788
2111	61-Pm-163	0	61	1630	3.2010E-01	2.3930E+06	2.0190E+06	0.0000E+00	1.00	0.0	7.4710E+06	1.0000E+00	1.6296E+02	1	2	1829
2112	62-Sm-163	0	62	1630	3.0270E+00	1.6690E+06	1.3340E+06	0.0000E+00	1.00	0.0	5.9190E+06	1.0000E+00	1.6294E+02	1	2	1864
2113	63-Eu-163	0	63	1630	1.0770E+01	1.5410E+06	1.0720E+06	0.0000E+00	1.00	0.0	4.6750E+06	1.0000E+00	1.6294E+02	1	2	1900
2114	64-Gd-163	0	64	1630	6.8000E+01	8.5917E+05	9.6128E+05	0.0000E+00	1.00	0.0	3.2809E+06	1.0000E+00	1.6293E+02	1	2	1935
2115	65-Tb-163	0	65	1630	1.1700E+03	3.6200E+05	7.8900E+05	0.0000E+00	1.00	0.0	1.7851E+06	1.0000E+00	1.6153E+02	1	4	1983
2116	66-Dy-163	0	66	1630	stable	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.5550E+03	1.0000E+00	1.6293E+02	0	0	2018
2117	67-Ho-163	0	67	1630	1.4420E+11	0.0000E+00	0.0000E+00	0.0000E+00	3.00	0.0	2.9788E+05	1.0000E+00	1.6153E+02	1	1	2062
2118	67-Ho-163	1	67	1631	1.0900E+00	6.0021E+04	2.3710E+05	0.0000E+00	2.00	0.0	1.2107E+06	9.9800E-01	1.6153E+02	1	3	2063
2119	68-Er-163	0	68	1630	4.5000E+03	5.4132E+03	3.9990E+04	0.0000E+00	2.00	0.0	1.9128E+05	2.0000E-04	1.6153E+02	2	4	2094
2120	69-Tm-163	0	69	1630	6.5160E+03	6.3000E+04	1.3160E+06	0.0000E+00	2.00	0.0	2.4390E+06	1.0000E+00	1.6153E+02	1	4	2130
2121	70-Yb-163	0	70	1630	6.6300E+02	1.8000E+05	1.2800E+06	0.0000E+00	2.00	0.0	3.4283E+06	1.0000E+00	1.6154E+02	1	4	2157
2122	71-Lu-163	0	71	1630	2.3800E+02	8.1000E+03	3.0300E+06	0.0000E+00	2.00	0.0	4.5078E+06	1.0000E+00	1.6154E+02	1	3	2197
2123	72-Hf-163	0	72	1630	4.0000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.5274E+06	1.0000E+00	1.6295E+02	1	0	2241
2124	73-Ta-163	0	73	1630	1.0600E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.7293E+06	9.9800E-01	1.6296E+02	2	0	2286
2125	74-W-163	0	74	1630	2.6700E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.6264E+06	8.6000E-01	1.6297E+02	2	0	2322
2126	75-Re-163	0	75	1630	3.9000E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.5195E+06	1.4000E-01	1.6298E+02	2	0	2357
2127	76-Os-163	0	76	1630	5.5000E-03	0.0000E+00	0.0000E+00	6.5400E+06	2.00	0.0	9.6000E+06	2.0000E-02	1.6158E+02	2	1	2393
2128	60-Nd-164	0	60	1640	1.0810E-01	2.7410E+06	1.5880E+06	0.0000E+00	1.00	0.0	7.7460E+06	1.0000E+00	1.6396E+02	1	2	1789
2129	61-Pm-164	0	61	1640	1.9160E-01	2.3480E+06	2.9260E+06	0.0000E+00	1.00	0.0	8.2710E+06	1.0000E+00	1.6396E+02	1	2	1830
2130	62-Sm-164	0	62	1640	1.6390E+00	1.8030E+06	1.0490E+06	0.0000E+00	1.00	0.0	5.2320E+06	9.9999E-01	1.6395E+02	2	2	1865
2131	63-Eu-164	0	63	1640	3.0250E+00	1.5630E+06	2.1470E+06	0.0000E+00	1.50	0.0	4.6500E+05	1.0000E-05	1.6394E+02	2	2	1901
2132	64-Gd-164	0	64	1640	4.5000E+01	7.1810E+05	6.4690E+05	0.0000E+00	1.00	0.0	9.4400E+06	9.9999E-01	1.6393E+02	1	2	1936
2133	65-Tb-164	0	65	1640	1.8000E+02	7.5000E+05	2.3600E+06	0.0000E+00	1.00	0.0	2.3030E+06	1.0000E+00	1.6252E+02	1	4	1984
2134	66-Dy-164	0	66	1640	stable	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	3.8900E+06	1.0000E+00	1.6393E+02	0	0	2019
2135	67-Ho-164	0	67	1640	1.7400E+03	1.4500E+05	2.9600E+04	0.0000E+00	1.00	0.0	9.6082E+05	4.0000E-01	1.6252E+02	2	5	2064

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2136	67-Ho-164	1	67	1641	2.2500E+03	8.1000E+04	4.7000E+04	0.0000E+00	3.00	0.0	1.3977E+05	1.0000E+00	1.6252E+02	1	3	2065
2137	68-Er-164	0	68	1640	stable								1.6393E+02	0	0	2095
2138	69-Tm-164	0	69	1640	1.2000E+02	5.4400E+05	7.4100E+05	0.0000E+00	2.00	0.0	4.0379E+06	1.0000E+00	1.6252E+02	1	4	2131
2139	69-Tm-164	1	69	1641	3.0600E+02	3.4900E+04	3.7800E+05	0.0000E+00	2.00	0.0	4.0379E+06	2.0000E-01	1.6252E+02	2	4	2132
2140	70-Yb-164	0	70	1640	4.5500E+03	6.1900E+03	5.3400E+04	0.0000E+00	2.00	0.0	1.0000E+04	8.0000E-01				
2141	71-Lu-164	0	71	1640	1.8840E+02	3.2000E+06	3.2600E+06	0.0000E+00	2.00	0.0	8.8615E+05	1.0000E+00	1.6253E+02	1	4	2158
2142	72-Hf-164	0	72	1640	1.1100E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.3752E+06	1.0000E+00	1.6253E+02	1	4	2198
2143	73-Ta-164	0	73	1640	1.4200E+01	2.7400E+06	1.6170E+06	0.0000E+00	2.00	0.0	8.5354E+06	1.0000E+00	1.6254E+02	1	4	2287
2144	74-W-164	0	74	1640	6.3000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.0549E+06	9.6200E-01	1.6396E+02	2	0	2323
2145	75-Re-164	0	75	1640	5.3000E-01	0.0000E+00	0.0000E+00	3.4400E+06	2.00	0.0	1.0705E+07	4.2000E-01	1.6256E+02	2	1	2358
2146	76-Os-164	0	76	1640	2.1000E-02	0.0000E+00	0.0000E+00	6.3500E+06	2.00	0.0	5.9263E+06	5.8000E-01				
2147	61-Pm-165	0	61	1650	1.5190E-01	2.5790E+06	2.2210E+06	0.0000E+00	1.00	0.0	6.4794E+06	9.8000E-01	1.6496E+02	1	2	1831
2148	62-Sm-165	0	62	1650	6.5990E-01	1.9630E+06	1.6910E+06	0.0000E+00	1.00	0.0	8.0490E+06	1.0000E+00	1.6495E+02	2	2	1866
2149	63-Eu-165	0	63	1650	2.7620E+00	1.8300E+06	1.4070E+06	0.0000E+00	1.00	0.0	1.4540E+06	6.6000E-04	1.6494E+02	2	2	1902
2150	64-Gd-165	0	64	1650	1.0300E+01	1.2300E+06	8.8110E+05	0.0000E+00	1.00	0.0	5.8000E+06	9.9880E-01				
2151	65-Tb-165	0	65	1650	1.2700E+02	8.8800E+05	8.4900E+05	0.0000E+00	1.00	0.0	1.0170E+06	1.2000E-03	1.6494E+02	1	2	1937
2152	66-Dy-165	0	66	1650	8.4020E+03	4.4800E+05	2.2970E+04	0.0000E+00	1.00	0.0	3.0460E+06	1.3200E-01	1.6352E+02	2	4	1985
2153	66-Dy-165	1	66	1651	7.5400E+01	1.0200E+05	1.9000E+04	0.0000E+00	1.00	0.0	2.9380E+06	8.6800E-01				
2154	67-Ho-165	0	67	1650	stable								1.6493E+02	0	0	2066
2155	68-Er-165	0	68	1650	3.7300E+04	5.3210E+03	3.7661E+04	0.0000E+00	2.00	0.0	3.7787E+05	1.0000E+00	1.6351E+02	1	3	2096
2156	69-Tm-165	0	69	1650	1.0822E+05	5.5000E+04	5.3400E+05	0.0000E+00	2.00	0.0	1.5916E+06	1.0000E+00	1.6352E+02	1	4	2133
2157	70-Yb-165	0	70	1650	5.9400E+02	1.3200E+05	3.3800E+05	0.0000E+00	2.00	0.0	2.6334E+06	1.0000E+00	1.6352E+02	1	4	2159
2158	71-Lu-165	0	71	1650	6.4400E+02	7.5900E+04	8.3900E+05	0.0000E+00	2.00	0.0	3.8531E+06	1.0000E+00	1.6352E+02	1	4	2199
2159	72-Hf-165	0	72	1650	7.6000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.8067E+06	1.0000E+00	1.6495E+02	1	0	2243
2160	73-Ta-165	0	73	1650	3.1000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.7879E+06	1.0000E+00	1.6495E+02	1	0	2288
2161	74-W-165	0	74	1650	5.1000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.9864E+06	9.9720E-01	1.6496E+02	2	0	2324
2162	75-Re-165	0	75	1650	2.6100E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.0293E+06	2.8000E-03				
2163	76-Os-165	0	76	1650	7.1000E-02	0.0000E+00	0.0000E+00	5.0700E+06	4.00	0.0	8.2175E+06	9.5000E-01	1.6497E+02	2	0	2359
2164	61-Pm-166	0	61	1660	9.8560E-02	2.6820E+06	3.2230E+06	0.0000E+00	1.00	0.0	6.3355E+06	1.0000E+00	1.6356E+02	1	1	2395
2165	62-Sm-166	0	62	1660	4.5640E-01	2.0840E+06	1.2050E+06	0.0000E+00	1.00	0.0	9.3560E+06	1.0000E+00	1.6596E+02	1	2	1832
2166	63-Eu-166	0	63	1660	1.0240E+00	1.8380E+06	2.3950E+06	0.0000E+00	1.00	0.0	6.0120E+06	9.9710E-01	1.6595E+02	2	2	1867
2167	64-Gd-166	0	64	1660	4.8000E+00	1.1740E+06	8.0610E+05	0.0000E+00	1.00	0.0	1.3860E+06	2.9000E-03				
2168	65-Tb-166	0	65	1660	2.5100E+01	7.4794E+05	2.0496E+06	0.0000E+00	1.00	0.0	7.6010E+06	1.0000E+00	1.6595E+02	1	2	1903
2169	66-Dy-166	0	66	1660	2.9380E+05	1.6700E+05	4.2100E+04	0.0000E+00	1.00	0.0	3.3540E+06	1.0000E+00	1.6594E+02	1	2	1938
2170	67-Ho-166	0	67	1660	9.6570E+04	6.9400E+05	2.9560E+04	0.0000E+00	1.00	0.0	4.7000E+06	1.0000E+00	1.6594E+02	1	2	1986
2171	67-Ho-166	1	67	1661	3.8000E+10	1.4390E+05	1.5930E+06	0.0000E+00	1.00	0.0	4.8711E+05	1.0000E+00	1.6451E+02	1	4	2022
2172	68-Er-166	0	68	1660	stable								1.6451E+02	1	4	2067
2173	69-Tm-166	0	69	1660	2.7720E+04	8.1000E+04	1.9900E+06	0.0000E+00	2.00	0.0	1.8550E+06	1.0000E+00	1.6451E+02	1	4	2068
2174	69-Tm-166	1	69	1661	3.4000E-01	7.7000E+04	2.8570E+04	0.0000E+00	3.00	0.0	1.8609E+06	1.0000E+00	1.6593E+02	0	0	2097
													1.6451E+02	1	4	2134
													1.6451E+02	1	3	2135

No.	Symbol S	ZAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2175	70-Yb-166	0	701660	2.0410E+05	3.6280E+04	8.5600E+04	0.0000E+00	2.00	0.0	2.9263E+05	1.6451E+02	1	4	2160
2176	71-Lu-166	0	711660	1.5900E+02	5.4000E+05	2.2900E+06	0.0000E+00	2.00	0.0	5.5743E+06	1.6451E+02	1	4	2200
2177	71-Lu-166	1	711661	8.5000E+01	2.6000E+05	9.7000E+05	0.0000E+00	2.00	0.0	5.6087E+06	1.6451E+02	2	4	2201
2178	71-Lu-166	2	711662	1.2700E+02	6.6000E+05	2.0100E+06	0.0000E+00	2.00	0.0	3.4370E+04	1.6451E+02	2	4	2202
2179	72-Hf-166	0	721660	4.0600E+02	3.0900E+04	2.2200E+05	0.0000E+00	2.00	1.0	4.3000E+04	1.6452E+02	2	4	2244
2180	73-Ta-166	0	731660	3.4400E+01	2.3800E+06	1.8100E+06	0.0000E+00	2.00	0.0	2.1190E+06	1.6452E+02	1	4	2289
2181	74-W-166	0	741660	1.9200E+01	6.1000E+05	5.2000E+05	1.4800E+04	2.00	0.0	7.7612E+06	1.6453E+02	2	5	2325
2182	75-Re-166	0	751660	2.2500E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.8560E+06	1.6597E+02	2	0	2360
2183	76-Os-166	0	761660	2.1500E-01	0.0000E+00	0.0000E+00	1.8410E+06	2.00	0.0	9.9946E+06	1.6455E+02	2	1	2396
2184	62-Sm-167	0	621670	2.6860E-01	2.3380E+06	2.1010E+06	0.0000E+00	1.00	0.0	5.4618E+06	1.6696E+02	1	2	1868
2185	63-Eu-167	0	631670	7.7330E-01	2.0240E+06	1.6430E+06	0.0000E+00	1.00	0.0	6.1386E+06	1.6695E+02	1	2	1904
2186	64-Gd-167	0	641670	4.5840E+00	1.5450E+06	1.2170E+06	0.0000E+00	1.00	0.0	7.4330E+06	1.6694E+02	1	2	1939
2187	65-Tb-167	0	651670	1.9400E+01	1.0140E+06	1.0273E+06	0.0000E+00	1.00	0.0	5.1140E+06	1.6694E+02	1	2	1987
2188	66-Dy-167	0	661670	3.7200E+02	7.1000E+05	5.3300E+05	0.0000E+00	1.00	0.0	4.0040E+06	1.6550E+02	1	4	2023
2189	67-Ho-167	0	671670	1.1200E+04	2.1000E+05	3.5000E+05	0.0000E+00	1.00	0.0	2.3500E+06	1.6550E+02	2	4	2069
2190	68-Er-167	0	681670	stable			1.00	1.0	8.0188E+05	1.6693E+02	0	0	2098	
2191	68-Er-167	1	681671	2.2690E+00	1.0800E+05	9.8200E+04	0.0000E+00	3.00	0.0	2.0780E+05	1.6550E+02	1	3	2099
2192	69-Tm-167	0	691670	7.9920E+05	1.8300E+04	5.1000E+04	0.0000E+00	2.00	0.0	7.4666E+05	1.6550E+02	2	4	2136
2193	70-Yb-167	0	701670	1.0500E+03	7.8300E+04	2.6600E+05	0.0000E+00	2.00	1.0	5.3886E+05	1.6550E+02	1	4	2161
2194	71-Lu-167	0	711670	3.0900E+03	1.0900E+05	1.6200E+06	0.0000E+00	2.00	0.0	1.9532E+06	1.6550E+02	1	4	2203
2195	72-Hf-167	0	721670	1.2300E+02	8.0000E+05	1.1000E+06	0.0000E+00	2.00	0.0	3.0899E+06	1.6551E+02	1	4	2245
2196	73-Ta-167	0	731670	8.6000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.1167E+06	1.6695E+02	1	0	2290
2197	74-W-167	0	741670	1.9900E+01	1.7500E+06	9.5000E+05	4.0000E+04	2.00	0.0	6.2518E+06	1.6552E+02	2	4	2326
2198	75-Re-167	0	751670	5.9000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.7398E+06	1.6697E+02	2	0	2361
2199	76-Os-167	0	761670	8.3900E-01	0.0000E+00	0.0000E+00	3.4080E+06	2.00	0.0	7.2570E+06	1.6554E+02	2	1	2397
2200	77-Ir-167	0	771670	3.5200E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.2670E+06	1.6699E+02	3	0	2432
2201	78-Pt-167	0	781670	7.8000E-04	0.0000E+00	0.0000E+00	7.1500E+06	4.00	0.0	1.0700E+06	1.6557E+02	1	1	2482
2202	62-Sm-168	0	621680	1.9630E-01	2.4430E+06	1.4150E+06	0.0000E+00	1.00	0.0	7.1552E+06	1.6796E+02	1	2	1869
2203	63-Eu-168	0	631680	3.6510E-01	2.1680E+06	2.7490E+06	0.0000E+00	1.00	0.0	6.9750E+06	1.6796E+02	1	2	1905
2204	64-Gd-168	0	641680	3.4580E+00	1.5210E+06	9.3250E+05	0.0000E+00	1.00	0.0	7.7310E+06	1.6795E+02	1	2	1940
2205	65-Tb-168	0	651680	8.2000E+00	1.1700E+06	1.8530E+06	0.0000E+00	1.00	0.0	4.3590E+06	1.6794E+02	1	2	1988
2206	66-Dy-168	0	661680	5.2200E+02	3.1869E+05	5.4288E+05	0.0000E+00	1.00	0.0	5.8370E+06	1.6649E+02	1	4	2024
2207	67-Ho-168	0	671680	1.7900E+02	7.9000E+05	8.6000E+05	0.0000E+00	1.00	0.0	1.5007E+06	1.6649E+02	1	4	2070
2208	67-Ho-168	1	671681	1.3200E+02	4.7880E+04	7.9331E+03	0.0000E+00	1.00	0.0	1.0000E+00	1.6649E+02	2	3	2071
2209	68-Er-168	0	681680	stable			3.00	0.0	5.9000E+04	1.6793E+02	0	0	2100	
2210	69-Tm-168	0	691680	8.0440E+06	8.1400E+04	1.2587E+06	0.0000E+00	1.00	0.0	2.6809E+05	1.6649E+02	2	5	2137

No.	Symbol S	ZzAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2211	70-Yb-168 0	701680	stable								1.6793E+02	0	0	2162
2212	71-Lu-168 0	711680	3.3000E+02	2.8600E+05	4.3500E+06	0.0000E+00	2.00	0.0	4.5140E+06	1.0000E+00	1.6650E+02	1	4	2204
2213	71-Lu-168 1	711681	4.0200E+02	1.7000E+05	2.4100E+06	0.0000E+00	2.00	0.0	4.7169E+06	9.9600E-01	1.6650E+02	2	4	2205
2214	72-Hf-168 0	721680	1.5570E+03	6.5000E+04	1.9200E+05	0.0000E+00	2.00	1.0	2.0281E+05	4.0000E-03	1.6650E+02	1	4	2246
2215	73-Ta-168 0	731680	1.2000E+02	1.8400E+06	1.5700E+06	0.0000E+00	2.00	0.0	1.5040E+06	1.0000E+00	1.6651E+02	1	4	2291
2216	74-W-168 0	741680	5.3000E+01	2.3000E+05	4.2000E+05	5.3000E+03	2.00	0.0	6.9666E+06	1.0000E+00	1.6651E+02	2	4	2327
2217	75-Re-168 0	751680	4.4000E+00	2.7300E+06	2.2400E+06	6.3400E+04	2.00	0.0	3.5011E+06	9.9997E-01	1.6651E+02	2	4	2327
2218	76-Os-168 0	761680	2.1000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.5005E+06	2.7000E-05	1.6652E+02	2	4	2362
2219	77-Ir-168 0	771680	2.2200E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	9.0980E+06	9.9995E-01	1.6799E+02	2	0	2398
2220	78-Pt-168 0	781680	2.0000E-03	0.0000E+00	0.0000E+00	6.9500E+06	2.00	0.0	5.0630E+06	5.0000E-05	1.6799E+02	2	1	2433
2221	63-Eu-169 0	631690	2.6350E-01	2.2770E+06	1.9350E+06	0.0000E+00	1.00	0.0	6.3812E+06	1.0000E+00	1.6896E+02	1	2	1906
2222	64-Gd-169 0	641690	1.5400E+00	1.9130E+06	1.6640E+06	0.0000E+00	1.00	0.0	7.1520E+06	1.0000E+00	1.6896E+02	1	2	1941
2223	65-Tb-169 0	651690	4.4270E+00	1.3550E+06	9.2740E+05	0.0000E+00	1.00	0.0	6.1760E+06	1.0000E+00	1.6895E+02	1	2	1989
2224	66-Dy-169 0	661690	3.9000E+01	1.1600E+06	3.1565E+05	0.0000E+00	1.00	0.0	5.2690E+06	1.0000E+00	1.6895E+02	1	2	1989
2225	67-Ho-169 0	671690	2.8300E+02	4.1400E+05	6.6200E+05	0.0000E+00	1.00	0.0	3.2000E+06	1.0000E+00	1.6749E+02	1	4	2072
2226	68-Er-169 0	681690	8.1150E+05	1.0300E+05	1.7200E+01	0.0000E+00	1.00	0.0	2.1250E+06	1.0000E+00	1.6749E+02	1	4	2072
2227	69-Tm-169 0	691690	stable						3.5300E+05	1.0000E+00	1.6748E+02	1	4	2101
2228	70-Yb-169 0	701690	2.7664E+06	1.0830E+05	3.1320E+05	0.0000E+00	2.00	0.0	8.9854E+05	1.0000E+00	1.6748E+02	1	4	2163
2229	70-Yb-169 1	701691	4.6000E+01	1.9304E+04	1.2670E+03	0.0000E+00	3.00	0.0	4.2000E+04	1.0000E+00	1.6748E+02	1	2	2164
2230	71-Lu-169 0	711690	1.2262E+05	3.7400E+04	1.1900E+06	0.0000E+00	2.00	0.0	2.2930E+06	6.8200E-01	1.6749E+02	2	4	2206
2231	71-Lu-169 1	711691	1.6000E+02	2.3800E+04	1.3690E+03	0.0000E+00	3.00	0.0	2.2688E+06	3.1800E-01	1.6749E+02	1	3	2207
2232	72-Hf-169 0	721690	1.9440E+02	5.0000E+05	1.1000E+06	0.0000E+00	2.00	0.0	3.3672E+06	9.7000E-01	1.6749E+02	2	4	2247
2233	73-Ta-169 0	731690	2.9400E+02	1.4400E+05	8.2000E+06	0.0000E+00	2.00	0.0	3.3382E+06	3.0000E-02	1.6749E+02	1	3	2292
2234	74-W-169 0	741690	7.4000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.4265E+06	1.0000E+00	1.6749E+02	1	3	2292
2235	75-Re-169 0	751690	8.1000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.3727E+06	1.0000E+00	1.6895E+02	1	0	2328
2236	76-Os-169 0	761690	3.4000E+00	0.0000E+00	0.0000E+00	7.4070E+05	2.00	0.0	6.5086E+06	9.9990E-01	1.6896E+02	2	0	2363
2237	77-Ir-169 0	771690	3.5300E-01	0.0000E+00	0.0000E+00	2.7620E+06	2.00	0.0	5.0135E+06	1.0000E-04	1.6752E+02	2	1	2399
2238	77-Ir-169 1	771691	2.8100E-01	0.0000E+00	0.0000E+00	4.0720E+06	2.00	0.0	7.6862E+06	8.6300E-01	1.6752E+02	2	1	2399
2239	78-Pt-169 0	781690	6.9900E-03	0.0000E+00	0.0000E+00	6.8510E+06	4.00	1.0	8.7981E+06	1.3700E-01	1.6752E+02	2	1	2434
2240	63-Eu-170 0	631700	1.6280E-01	2.1650E+06	2.7530E+06	0.0000E+00	1.00	0.0	6.1409E+06	4.5000E-01	1.6752E+02	2	1	2435
2241	64-Gd-170 0	641700	9.6620E-01	1.9140E+06	1.1160E+06	0.0000E+00	1.00	0.0	6.2500E+06	6.5000E-01	1.6754E+02	1	1	2484
2242	65-Tb-170 0	651700	2.0020E+00	1.4940E+06	2.1070E+06	0.0000E+00	1.00	0.0	6.8575E+06	1.0000E+00	1.6754E+02	1	1	2484
2243	66-Dy-170 0	661700	4.1150E+01	6.4785E+05	6.2895E+05	0.0000E+00	1.00	1.0	7.7310E+06	1.0000E+00	1.6996E+02	1	2	1907
2244	67-Ho-170 0	671700	1.6600E+02	7.4000E+05	1.7000E+06	0.0000E+00	1.00	0.0	5.5820E+06	1.0000E+00	1.6995E+02	1	2	1942
2245	67-Ho-170 1	671701	4.3000E+01	9.5746E+05	1.3172E+06	0.0000E+00	1.00	0.0	6.9400E+06	1.0000E+00	1.6995E+02	1	2	1990
2246	68-Er-170 0	681700	stable						3.8700E+06	1.0000E+00	1.6994E+02	1	2	2026
2247	69-Tm-170 0	691700	1.1110E+07	3.2800E+05	4.1700E+03	0.0000E+00	1.00	0.0	3.9900E+06	1.0000E+00	1.6848E+02	1	4	2073
2248	70-Yb-170 0	701700	stable						9.6843E+05	9.9869E-01	1.6848E+02	2	5	2139
2249	70-Yb-170 1	701701	stable						2.00	0.0	1.6848E+02	2	0	2102
2250	70-Yb-170 2	701702	stable						3.1280E+05	1.3100E-03	1.6848E+02	2	0	2102
2251	70-Yb-170 3	701703	stable						1.6993E+02	0	1.6993E+02	0	0	2165

No.	Symbol	S	z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2249	71-Lu-170	0	71	1700	1.7380E+05	5.1800E+04	2.5220E+06	0.0000E+00	2.00	0.0	3.4577E+06	1.0000E+00	1.6848E+02	1	4	2208
2250	71-Lu-170	1	71	1701	6.7000E-01	7.6300E+04	3.4300E+03	0.0000E+00	3.00	0.0	9.3000E+04	1.0000E+00	1.6848E+02	1	3	2209
2251	72-Hf-170	0	72	1700	5.7600E+04	5.8000E+04	4.4000E+05	0.0000E+00	2.00	0.0	1.0532E+06	9.5900E-01	1.6848E+02	2	4	2248
2252	73-Ta-170	0	73	1700	4.0600E+02	1.6000E+06	1.0600E+06	0.0000E+00	2.00	0.0	6.1162E+06	1.0000E+00	1.6849E+02	1	4	2293
2253	74-W-170	0	74	1700	1.4520E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.8472E+06	1.0000E+00	1.6995E+02	1	0	2329
2254	75-Re-170	0	75	1700	9.2000E+00	2.2900E+06	2.4300E+06	0.0000E+00	2.00	0.0	8.3727E+06	1.0000E+00	1.6850E+02	1	4	2364
2255	76-Os-170	0	76	1700	7.3700E+00	0.0000E+00	0.0000E+00	5.1002E+05	2.00	1.0	4.9913E+06	9.0500E-01	1.6850E+02	2	1	2400
2256	77-Ir-170	0	77	1700	8.7000E-01	0.0000E+00	0.0000E+00	3.0951E+05	2.00	0.0	1.0567E+07	9.4800E-01	1.6851E+02	2	1	2436
2257	77-Ir-170	1	77	1701	8.1100E-01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.0567E+07	3.1000E-01	1.6998E+02	3	0	2437
2258	78-Pt-170	0	78	1700	1.3930E-02	0.0000E+00	0.0000E+00	6.5690E+06	2.00	0.0	7.0550E+06	2.0000E-02	1.6852E+02	2	1	2485
2259	64-Gd-171	0	64	1710	5.1180E-01	1.9880E+06	1.7600E+06	0.0000E+00	1.00	0.0	6.3707E+06	9.8000E-01	1.7096E+02	1	2	1943
2260	65-Tb-171	0	65	1710	1.5270E+00	1.5940E+06	1.1680E+06	0.0000E+00	1.00	0.0	6.1570E+06	1.0000E+00	1.7095E+02	1	2	1991
2261	66-Dy-171	0	66	1710	1.2430E+01	1.2500E+06	9.2900E+05	0.0000E+00	1.00	0.0	4.3300E+06	1.0000E+00	1.7095E+02	1	2	2027
2262	67-Ho-171	0	67	1710	5.3000E+01	7.1300E+05	5.8130E+05	0.0000E+00	1.00	0.0	3.2000E+06	1.0000E+00	1.6947E+02	1	2	2075
2263	68-Er-171	0	68	1710	2.7058E+04	4.1700E+05	3.7300E+05	0.0000E+00	1.00	0.0	1.4921E+06	1.0000E+00	1.6947E+02	1	4	2103
2264	69-Tm-171	0	69	1710	6.0600E+07	2.4900E+04	6.1490E+02	0.0000E+00	1.00	0.0	9.6561E+04	1.0000E+00	1.6947E+02	1	4	2140
2265	70-Yb-171	0	70	1710	stable	stable	stable	0.0000E+00	1.00	0.0	0.0000E+00	0.0000E+00	1.7094E+02	0	0	2166
2266	70-Yb-171	1	70	1711	5.2500E-03	5.2000E+04	3.0500E+04	0.0000E+00	3.00	0.0	9.5282E+04	1.0000E+00	1.6947E+02	1	3	2167
2267	71-Lu-171	0	71	1710	7.1200E+05	8.2000E+04	6.4900E+05	0.0000E+00	2.00	0.0	1.4780E+06	1.0000E+00	1.6947E+02	1	4	2210
2268	71-Lu-171	1	71	1711	7.9000E+01	6.5400E+04	1.7400E+03	0.0000E+00	3.00	0.0	7.1100E+04	1.0000E+00	1.6947E+02	1	3	2211
2269	72-Hf-171	0	72	1710	4.3600E+04	5.8000E+04	9.1000E+05	0.0000E+00	2.00	0.0	2.3986E+06	8.7400E-01	1.6947E+02	2	4	2249
2270	72-Hf-171	1	72	1711	2.9500E+01	1.6580E+04	1.4470E+03	0.0000E+00	3.00	0.0	2.3275E+06	1.2600E-01	1.6947E+02	1	2	2250
2271	73-Ta-171	0	73	1710	1.3980E+03	2.8000E+05	7.2000E+05	0.0000E+00	2.00	0.0	2.1930E+04	1.0000E+00	1.6947E+02	2	4	2294
2272	74-W-171	0	74	1710	1.4280E+02	1.1000E+06	1.8000E+06	0.0000E+00	2.00	0.0	3.6891E+06	3.1000E-01	1.6948E+02	1	4	2330
2273	75-Re-171	0	75	1710	1.5200E+01	1.1800E+06	9.6000E+05	0.0000E+00	2.00	0.0	4.6342E+06	1.0000E+00	1.6948E+02	1	4	2365
2274	76-Os-171	0	76	1710	8.3000E+00	2.0000E+06	1.0400E+06	1.4200E+05	2.00	0.0	6.9470E+06	9.8200E-01	1.6949E+02	2	5	2401
2275	77-Ir-171	0	77	1710	1.4600E+00	0.0000E+00	0.0000E+00	3.5140E+06	2.00	0.0	7.8863E+06	4.2000E-01	1.6950E+02	2	1	2438
2276	78-Pt-171	0	78	1710	4.4000E-02	0.0000E+00	0.0000E+00	6.4720E+06	2.00	0.0	6.0670E+06	5.8000E-01	1.6951E+02	2	1	2486
2277	64-Gd-172	0	64	1720	3.5050E-01	2.1990E+06	1.2790E+06	0.0000E+00	1.00	0.0	6.3440E+06	1.0000E+00	1.7196E+02	1	2	1944
2278	65-Tb-172	0	65	1720	6.9020E-01	1.5110E+06	2.1250E+06	0.0000E+00	1.00	0.0	5.7370E+06	1.0000E+00	1.7196E+02	1	2	1992
2279	66-Dy-172	0	66	1720	8.1120E+00	1.0140E+06	7.5300E+05	0.0000E+00	1.00	0.0	3.4740E+06	1.0000E+00	1.7195E+02	1	2	2028
2280	67-Ho-172	0	67	1720	2.5000E+01	7.5713E+05	2.0579E+06	0.0000E+00	1.00	0.0	5.0000E+06	1.0000E+00	1.7195E+02	1	2	2076
2281	68-Er-172	0	68	1720	1.7750E+05	1.2600E+05	5.0000E+05	0.0000E+00	1.00	0.0	8.9082E+05	1.0000E+00	1.7046E+02	1	4	2104
2282	69-Tm-172	0	69	1720	2.2900E+05	5.3000E+05	4.7400E+05	0.0000E+00	1.00	0.0	1.8813E+06	1.0000E+00	1.7046E+02	1	4	2141
2283	70-Yb-172	0	70	1720	stable	stable	stable	0.0000E+00	1.00	0.0	0.0000E+00	0.0000E+00	1.7194E+02	0	0	2168
2284	71-Lu-172	0	71	1720	5.7900E+05	1.0700E+05	1.9500E+06	0.0000E+00	2.00	0.0	2.5180E+06	1.0000E+00	1.7046E+02	1	4	2212
2285	71-Lu-172	1	71	1721	2.2000E+02	3.4000E+04	1.3700E+03	0.0000E+00	3.00	0.0	4.1860E+04	1.0000E+00	1.7046E+02	1	3	2213
2286	72-Hf-172	0	72	1720	5.9000E+07	6.9000E+04	1.0900E+05	0.0000E+00	2.00	1.0	2.9405E+05	1.0000E+00	1.7046E+02	1	4	2251
2287	73-Ta-172	0	73	1720	2.2080E+03	4.1500E+05	1.8800E+06	0.0000E+00	2.00	0.0	5.0722E+06	1.0000E+00	1.7047E+02	1	4	2295

No.	Symbol	S	z	zAAA	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2288	74-W-172	0	74	1720	4.0000E+02	4.3000E+04	3.0100E+05	0.0000E+00	2.00	0.0	2.2328E+06	1.0000E+00	1.7047E+02	1	4	2331
2289	75-Re-172	0	75	1720	1.5000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	7.5709E+06	1.0000E+00	1.7196E+02	1	0	2366
2290	75-Re-172	1	75	1721	5.5000E+01	2.3000E+06	9.5000E+05	0.0000E+00	2.00	0.0	7.5709E+06	1.0000E+00	1.7048E+02	1	4	2367
2291	76-Os-172	0	76	1720	1.9200E+01	5.5000E+05	6.4000E+05	8.2100E+04	2.00	1.0	4.2827E+06	9.8600E-01	1.7048E+02	2	5	2402
2292	77-Ir-172	0	77	1720	4.4000E+00	1.6500E+02	1.9100E+03	1.1287E+05	2.00	0.0	9.8643E+06	9.8000E-01	1.7049E+02	2	4	2439
2293	77-Ir-172	1	77	1721	2.1900E+00	2.1100E+06	1.8800E+06	1.4190E+06	2.00	0.0	5.9906E+06	2.0000E-02	1.7049E+02	2	5	2440
2294	78-Pt-172	0	78	1720	9.7600E-02	0.0000E+00	0.0000E+00	6.0740E+06	2.00	0.0	6.1290E+06	2.3000E-01	1.7050E+02	2	1	2487
2295	79-Au-172	0	79	1720	2.2000E-02	0.0000E+00	0.0000E+00	6.9200E+06	4.00	0.0	6.2819E+06	6.0000E-02	1.7051E+02	1	1	2524
2296	79-Au-172	1	79	1721	7.7000E-03	0.0000E+00	0.0000E+00	6.9400E+06	4.00	1.0	6.9232E+06	1.0000E+00	1.7051E+02	1	1	2525
2297	68-Er-173	0	68	1730	8.4000E+01	7.0000E+05	8.3000E+05	0.0000E+00	1.00	0.0	2.6000E+06	1.0000E+00	1.7146E+02	1	4	2105
2298	69-Tm-173	0	69	1730	2.9700E+04	3.1000E+05	3.8800E+05	0.0000E+00	1.00	0.0	1.2978E+06	1.0000E+00	1.7145E+02	1	4	2142
2299	70-Yb-173	0	70	1730	stable	stable	stable	0.0000E+00	1.00	0.0	1.7294E+02	0	0	0	0	2169
2300	71-Lu-173	0	71	1730	4.3200E+07	4.5900E+04	1.8200E+05	0.0000E+00	2.00	0.0	6.6964E+05	1.0000E+00	1.7145E+02	1	4	2214
2301	72-Hf-173	0	72	1730	8.5000E+04	4.6000E+04	4.0000E+05	0.0000E+00	2.00	0.0	1.4708E+06	1.0000E+00	1.7146E+02	1	4	2252
2302	73-Ta-173	0	73	1730	1.1300E+04	1.2500E+05	5.3500E+05	0.0000E+00	2.00	0.0	3.0152E+06	1.0000E+00	1.7146E+02	1	4	2296
2303	74-W-173	0	74	1730	4.5000E+02	2.2400E+05	9.7100E+05	0.0000E+00	2.00	0.0	3.6692E+06	1.0000E+00	1.7146E+02	1	4	2332
2304	75-Re-173	0	75	1730	1.1900E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.1735E+06	1.0000E+00	1.7296E+02	1	0	2368
2305	76-Os-173	0	76	1730	2.2400E+01	0.0000E+00	0.0000E+00	1.0372E+03	2.00	0.0	6.1157E+06	9.9979E-01	1.7147E+02	2	1	2403
2306	77-Ir-173	0	77	1730	9.3000E+00	0.0000E+00	0.0000E+00	2.2174E+05	2.00	0.0	7.1699E+06	9.6000E-01	1.7148E+02	2	1	2441
2307	77-Ir-173	1	77	1731	2.1600E+00	6.3000E+03	8.7000E+03	6.5000E+05	2.00	0.0	5.6900E+06	4.0000E-02	1.7148E+02	2	4	2442
2308	78-Pt-173	0	78	1730	3.8200E-01	0.0000E+00	0.0000E+00	5.4600E+06	2.00	0.0	5.6900E+06	1.1200E-01	1.7149E+02	2	1	2488
2309	79-Au-173	0	79	1730	2.5000E-02	0.0000E+00	0.0000E+00	6.4300E+06	2.00	0.0	9.1266E+06	6.0000E-02	1.7150E+02	2	1	2526
2310	79-Au-173	1	79	1731	1.4000E-02	0.0000E+00	0.0000E+00	6.3400E+06	2.00	0.0	9.3406E+07	8.0000E-01	1.7150E+02	2	1	2527
2311	80-Hg-173	0	80	1730	7.0000E-04	0.0000E+00	0.0000E+00	7.3700E+06	4.00	0.0	6.9000E+06	9.2000E-01	1.7152E+02	1	1	2577
2312	68-Er-174	0	68	1740	1.9200E+02	5.8435E+05	3.3100E+05	0.0000E+00	1.00	0.0	7.3780E+06	1.0000E+00	1.7245E+02	1	2	2106
2313	69-Tm-174	0	69	1740	3.2400E+02	5.1000E+05	1.7800E+06	0.0000E+00	1.00	0.0	1.9160E+06	1.0000E+00	1.7245E+02	1	4	2143
2314	70-Yb-174	0	70	1740	stable	stable	stable	0.0000E+00	1.00	0.0	3.0800E+06	1.0000E+00	1.7245E+02	0	0	2170
2315	71-Lu-174	0	71	1740	1.0450E+08	4.0400E+04	1.1590E+05	0.0000E+00	2.00	0.0	1.3734E+06	1.0000E+00	1.7245E+02	1	4	2215
2316	71-Lu-174	1	71	1741	1.2270E+07	1.0600E+05	6.0800E+04	0.0000E+00	2.00	0.0	1.5442E+06	6.2000E-03	1.7245E+02	2	4	2216
2317	72-Hf-174	0	72	1740	6.3000E+22	0.0000E+00	0.0000E+00	2.6000E+06	4.00	0.0	4.4932E+06	9.9380E-01	1.7245E+02	1	1	2253
2318	73-Ta-174	0	73	1740	4.1000E+03	3.6000E+05	9.0000E+05	0.0000E+00	2.00	0.0	4.1059E+06	1.0000E+00	1.7245E+02	1	4	2297
2319	74-W-174	0	74	1740	1.9900E+03	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	1.5137E+06	1.0000E+00	1.7395E+02	1	0	2333
2320	75-Re-174	0	75	1740	1.4400E+02	1.7500E+06	1.1400E+06	0.0000E+00	2.00	0.0	6.5540E+06	1.0000E+00	1.7246E+02	1	4	2369
2321	76-Os-174	0	76	1740	4.4000E+01	0.0000E+00	0.0000E+00	9.5200E+02	2.00	0.0	3.6780E+06	9.9980E-01	1.7246E+02	2	1	2404
2322	77-Ir-174	0	77	1740	7.9000E+00	3.1400E+06	1.4300E+06	9.8000E+04	2.00	0.0	4.8705E+06	2.0000E-04	1.7247E+02	2	5	2443
2323	77-Ir-174	1	77	1741	5.0100E+00	2.7900E+06	2.0800E+06	2.0200E+05	2.00	0.0	9.1264E+06	9.9500E-01	1.7247E+02	2	5	2444
								4.00	0.0	5.8170E+06	2.5000E-02					

No.	Symbol	S	zZAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2324	78-Pt-174	0	781740	8.7600E-01	0.0000E+00	0.0000E+00	4.6090E+06	2.00	0.0	5.5503E+06	2.5000E-01	1.7248E+02	2	1	2489
2325	79-Au-174	0	791740	1.3900E-01	0.0000E+00	0.0000E+00	6.0300E+06	2.00	0.0	6.1831E+06	7.5000E-01	1.7249E+02	2	1	2528
2326	79-Au-174	1	791741	1.6290E-01	0.0000E+00	0.0000E+00	6.6200E+06	4.00	1.0	6.6992E+06	9.0000E-01	1.7249E+02	1	1	2529
2327	80-Hg-174	0	801740	1.9000E-03	0.0000E+00	0.0000E+00	7.2100E+06	2.00	0.0	7.5500E+06	3.0000E-03	1.7251E+02	2	1	2578
2328	68-Er-175	0	681750	7.2000E+01	1.1910E+06	7.7000E+05	0.0000E+00	1.00	0.0	7.2332E+06	9.9700E-01	1.7345E+02	1	4	2107
2329	69-Tm-175	0	691750	9.1000E+02	3.5400E+05	1.0800E+06	0.0000E+00	1.00	0.0	3.6600E+06	1.0000E+00	1.7344E+02	1	4	2144
2330	70-Yb-175	0	701750	3.6158E+05	1.2020E+05	7.9900E+04	0.0000E+00	1.00	0.0	3.8500E+06	1.0000E+00	1.7344E+02	1	4	2171
2331	70-Yb-175	1	701751	6.8200E-02	1.1014E+05	3.9063E+05	0.0000E+00	3.00	0.0	4.7097E+05	1.0000E+00	1.7344E+02	1	2	2172
2332	71-Lu-175	0	711750	stable			0.0000E+00	3.00	0.0	5.1487E+05	1.0000E+00	1.7494E+02	0	0	2217
2333	72-Hf-175	0	721750	6.0500E+06	4.0900E+04	3.5300E+05	0.0000E+00	2.00	0.0	6.8371E+05	1.0000E+00	1.7344E+02	1	4	2254
2334	73-Ta-175	0	731750	3.7800E+04	5.1400E+04	1.0900E+06	0.0000E+00	2.00	0.0	2.0752E+06	1.0000E+00	1.7344E+02	1	4	2298
2335	74-W-175	0	741750	2.1100E+03	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.7758E+06	1.0000E+00	1.7495E+02	1	0	2334
2336	75-Re-175	0	751750	3.5300E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.3445E+06	1.0000E+00	1.7495E+02	1	0	2370
2337	76-Os-175	0	761750	8.4000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.1831E+06	1.0000E+00	1.7496E+02	1	0	2405
2338	77-Ir-175	0	771750	9.0000E+00	0.0000E+00	0.0000E+00	4.6890E+04	2.00	0.0	6.7107E+06	9.9150E-01	1.7346E+02	2	1	2445
2339	78-Pt-175	0	781750	2.5400E+00	0.0000E+00	0.0000E+00	3.8870E+06	2.00	0.0	5.4309E+06	8.5000E-03	1.7347E+02	2	1	2490
2340	79-Au-175	0	791750	2.5400E+00	0.0000E+00	0.0000E+00	6.5590E+06	4.00	0.0	6.1781E+06	6.4000E-01	1.7348E+02	1	1	2530
2341	79-Au-175	1	791751	1.6000E-01	0.0000E+00	0.0000E+00	6.1900E+06	2.00	0.0	8.2847E+06	6.0000E-02	1.7348E+02	2	1	2531
2342	80-Hg-175	0	801750	1.0700E-02	0.0000E+00	0.0000E+00	6.9700E+06	4.00	0.0	6.5620E+06	9.4000E-01	1.7349E+02	1	1	2579
2343	69-Tm-176	0	691760	1.1400E+02	7.9000E+05	1.9000E+06	0.0000E+00	1.00	0.0	7.0721E+06	1.0000E+00	1.7444E+02	1	4	2145
2344	70-Yb-176	0	701760	stable			0.0000E+00	1.00	0.0	4.1200E+06	1.0000E+00	1.7594E+02	0	0	2173
2345	70-Yb-176	1	701761	1.1400E+01	1.3600E+05	8.8900E+05	0.0000E+00	3.00	0.0	1.0503E+06	1.0000E+00	1.7443E+02	1	3	2174
2346	71-Lu-176	0	711760	1.1870E+18	2.9700E+05	4.8000E+05	0.0000E+00	1.00	0.0	1.1942E+06	1.0000E+00	1.7443E+02	1	4	2218
2347	71-Lu-176	1	711761	1.3086E+04	4.3900E+05	7.9000E+03	0.0000E+00	1.00	0.0	1.3171E+06	9.9905E-01	1.7443E+02	2	5	2219
2348	72-Hf-176	0	721760	stable			2.00	0.0	2.2980E+05	9.5000E-04					
2349	73-Ta-176	0	731760	2.9120E+04	7.3000E+04	2.2100E+06	0.0000E+00	2.00	0.0	3.2131E+06	1.0000E+00	1.7443E+02	1	4	2299
2350	74-W-176	0	741760	9.0000E+03	6.1400E+04	1.7340E+05	0.0000E+00	2.00	0.0	7.2377E+05	1.0000E+00	1.7443E+02	1	4	2335
2351	75-Re-176	0	751760	3.1800E+02	9.1000E+05	1.3600E+06	0.0000E+00	2.00	0.0	5.5787E+06	1.0000E+00	1.7444E+02	1	4	2371
2352	76-Os-176	0	761760	2.2000E+02	0.0000E+00	3.5310E+06	0.0000E+00	2.00	0.0	2.9649E+06	1.0000E+00	1.7444E+02	1	1	2406
2353	77-Ir-176	0	771760	8.3000E+00	1.3900E+06	9.8600E+06	1.6230E+05	2.00	0.0	8.2385E+06	9.6900E-01	1.7445E+02	2	4	2446
2354	78-Pt-176	0	781760	6.3000E+00	0.0000E+00	0.0000E+00	2.3530E+06	2.00	0.0	5.2420E+06	3.1000E-02	1.7446E+02	2	1	2491
2355	79-Au-176	0	791760	1.0800E+00	0.0000E+00	0.0000E+00	6.3800E+06	4.00	0.0	4.9257E+06	6.0000E-01	1.7447E+02	1	1	2532
2356	80-Hg-176	0	801760	2.1600E-02	0.0000E+00	0.0000E+00	6.4900E+06	2.00	0.0	6.5578E+06	1.0000E+00	1.7448E+02	2	1	2580
2357	70-Yb-177	0	701770	6.8800E+03	4.3000E+05	1.9900E+05	0.0000E+00	1.00	0.0	6.8993E+06	9.4000E-01	1.7543E+02	1	4	2175
2358	70-Yb-177	1	701771	6.4100E+00	1.7800E+05	1.4990E+05	0.0000E+00	3.00	0.0	1.4010E+06	1.0000E+00	1.7543E+02	1	3	2176
2359	71-Lu-177	0	711770	5.7430E+05	1.4780E+05	3.3350E+04	0.0000E+00	1.00	0.0	3.3150E+05	1.0000E+00	1.7542E+02	1	4	2220
2360	71-Lu-177	1	711771	1.3862E+07	7.9200E+04	1.6800E+05	0.0000E+00	1.00	1.0	4.9724E+05	1.0000E+00	1.7542E+02	2	4	2221
2361	72-Hf-177	0	721770	stable			3.00	0.0	9.7018E+05	2.1400E-01					
2362	72-Hf-177	1	721771	1.0900E+00	2.3800E+05	1.0660E+06	0.0000E+00	3.00	0.0	1.3150E+06	1.0000E+00	1.7542E+02	1	3	2257

No.	Symbol	S	z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2363	72-Hf-177	2	72	1772	3.0800E+03	2.2300E+05	1.1700E+06	0.0000E+00	3.00	0.0	2.7400E+06	1.0000E+00	1.7542E+02	1	3	2258
2364	73-Ta-177	0	73	1770	2.0362E+05	5.1000E+04	1.1200E+05	0.0000E+00	2.00	0.0	1.1660E+06	1.0000E+00	1.7542E+02	1	4	2300
2365	74-W-177	0	74	1770	7.9200E+03	8.3600E+04	8.6700E+05	0.0000E+00	2.00	0.0	2.0153E+06	1.0000E+00	1.7543E+02	1	4	2336
2366	75-Re-177	0	75	1770	8.4000E+02	3.2000E+05	6.3000E+05	0.0000E+00	2.00	0.0	3.4326E+06	1.0000E+00	1.7543E+02	1	4	2372
2367	76-Os-177	0	76	1770	1.8000E+02	6.1000E+05	6.3100E+05	0.0000E+00	2.00	0.0	4.3199E+06	1.0000E+00	1.7543E+02	1	4	2407
2368	77-Ir-177	0	77	1770	3.0000E+01	1.2920E+06	6.8400E+05	3.0980E+04	2.00	0.0	5.9018E+06	9.9940E-01	1.7544E+02	2	5	2447
2369	78-Pt-177	0	78	1770	1.1000E+01	1.3800E+00	2.2700E+00	3.1533E+05	2.00	0.0	6.6770E+06	9.4400E-01	1.7545E+02	2	3	2492
2370	78-Pt-177	1	78	1771	1.1800E+00	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	5.6428E+06	5.6000E-02	1.7697E+02	1	0	2493
2371	79-Au-177	0	79	1770	1.1800E+00	0.0000E+00	0.0000E+00	6.2600E+06	4.00	0.0	6.2980E+06	1.0000E+00	1.7546E+02	1	1	2533
2372	80-Hg-177	0	80	1770	1.2730E-01	0.0000E+00	0.0000E+00	5.7200E+06	2.00	0.0	8.7624E+06	1.5000E-01	1.7547E+02	2	1	2581
2373	81-Tl-177	0	81	1770	1.8000E-02	0.0000E+00	0.0000E+00	5.1600E+06	2.00	0.0	9.4500E+06	2.7000E-01	1.7548E+02	2	1	2622
2374	81-Tl-177	1	81	1771	2.3000E-04	0.0000E+00	0.0000E+00	3.7500E+06	2.00	0.0	7.0669E+06	7.3000E-01	1.7548E+02	2	1	2623
2375	70-Yb-178	0	70	1780	4.4400E+03	1.8200E+05	4.9963E+04	0.0000E+00	1.00	0.0	6.4592E+05	1.0000E+00	1.7642E+02	1	4	2177
2376	71-Lu-178	0	71	1780	1.7040E+03	7.4000E+05	1.2000E+05	0.0000E+00	1.00	0.0	2.0979E+06	1.0000E+00	1.7642E+02	1	2	2222
2377	71-Lu-178	1	71	1781	1.3860E+03	3.4600E+05	1.0100E+06	0.0000E+00	1.00	0.0	2.2217E+06	1.0000E+00	1.7642E+02	1	2	2223
2378	72-Hf-178	0	72	1780	stable								1.7794E+02	0	0	2259
2379	72-Hf-178	1	72	1781	4.0000E+00	0.0000E+00	9.6700E+05	0.0000E+00	3.00	0.0	1.1474E+06	1.0000E+00	1.7641E+02	1	1	2260
2380	72-Hf-178	2	72	1782	9.8000E+08	0.0000E+00	2.1830E+06	0.0000E+00	3.00	0.0	2.4461E+06	1.0000E+00	1.7641E+02	1	1	2261
2381	73-Ta-178	0	73	1780	8.5000E+03	2.6000E+04	2.1010E+05	0.0000E+00	2.00	1.0	6.8958E+05	1.0000E+00	1.7642E+02	1	4	2301
2382	73-Ta-178	1	73	1781	5.5860E+02	1.0600E+04	1.1700E+05	0.0000E+00	2.00	0.0	1.8370E+06	1.0000E+00	1.7642E+02	1	4	2302
2383	73-Ta-178	2	73	1782	2.9000E-01	3.9000E+05	3.7900E+06	0.0000E+00	3.00	0.0	2.8022E+06	1.0000E+00	1.7642E+02	1	3	2303
2384	74-W-178	0	74	1780	1.8700E+06	4.0000E+03	1.6200E+04	0.0000E+00	2.00	1.0	1.9100E+05	1.0000E+00	1.7642E+02	1	3	2337
2385	75-Re-178	0	75	1780	7.9200E+02	4.4000E+05	2.1100E+06	0.0000E+00	2.00	0.0	4.7559E+06	1.0000E+00	1.7642E+02	1	4	2373
2386	76-Os-178	0	76	1780	3.0000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.1095E+06	1.0000E+00	1.7795E+02	1	0	2408
2387	77-Ir-178	0	77	1780	1.2000E+01	1.9000E+06	1.4800E+06	0.0000E+00	2.00	0.0	7.2921E+06	1.0000E+00	1.7643E+02	1	4	2448
2388	78-Pt-178	0	78	1780	2.1100E+01	0.0000E+00	0.0000E+00	2.5579E+05	2.00	0.0	4.2546E+06	9.5000E-01	1.7644E+02	2	1	2494
2389	79-Au-178	0	79	1780	2.6000E+00	1.8000E+06	1.3300E+06	2.4650E+06	2.00	0.0	9.6711E+06	6.0000E-01	1.7645E+02	2	5	2534
2390	80-Hg-178	0	80	1780	2.7000E-01	0.0000E+00	0.0000E+00	4.5100E+06	2.00	0.0	6.1177E+06	4.0000E-01	1.7645E+02	2	1	2582
2391	70-Yb-179	0	70	1790	4.8000E+02	6.9000E+05	9.7000E+05	0.0000E+00	1.00	0.0	2.5230E+06	1.0000E+00	1.7741E+02	1	4	2178
2392	71-Lu-179	0	71	1790	1.6520E+04	4.8900E+05	3.1000E+04	0.0000E+00	1.00	0.0	1.4044E+06	1.0000E+00	1.7741E+02	1	4	2224
2393	71-Lu-179	1	71	1791	3.1000E-03	9.2270E+04	4.9100E+05	0.0000E+00	3.00	0.0	5.9240E+05	1.0000E+00	1.7741E+02	1	2	2225
2394	72-Hf-179	0	72	1790	stable								1.7895E+02	0	0	2262
2395	72-Hf-179	1	72	1791	1.8670E+01	1.3000E+05	2.4270E+05	0.0000E+00	3.00	0.0	3.7503E+05	1.0000E+00	1.7741E+02	1	3	2263
2396	72-Hf-179	2	72	1792	2.1640E+06	1.7700E+05	9.2000E+05	0.0000E+00	3.00	0.0	1.1058E+06	1.0000E+00	1.7741E+02	1	3	2264
2397	73-Ta-179	0	73	1790	5.7400E+07	4.5630E+03	2.6660E+04	0.0000E+00	2.00	0.0	1.0558E+06	1.0000E+00	1.7741E+02	1	3	2304
2398	73-Ta-179	1	73	1791	9.0000E-03	2.6000E+05	1.0130E+06	0.0000E+00	3.00	0.0	1.3172E+06	1.0000E+00	1.7741E+02	1	3	2305
2399	73-Ta-179	2	73	1792	5.4100E-02	6.3000E+04	1.2400E+06	0.0000E+00	3.00	1.0	1.3223E+06	1.0000E+00	1.7741E+02	1	3	2306
2400	74-W-179	0	74	1790	2.2230E+03	1.3400E+04	5.3800E+04	0.0000E+00	2.00	0.0	1.0624E+06	1.0000E+00	1.7741E+02	1	4	2338
2401	74-W-179	1	74	1791	3.8400E+02	1.6200E+05	5.6200E+04	0.0000E+00	2.00	0.0	1.2850E+06	2.9000E-03	1.7741E+02	2	4	2339
2402	75-Re-179	0	75	1790	1.1700E+03	6.9000E+04	1.0810E+06	0.0000E+00	2.00	0.0	2.2152E+05	9.9710E-01	1.7741E+02	2	4	2374
									2.00	1.0	2.4907E+06	2.3800E-01				

No.	Symbol S	ZZAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2403	76-Os-179	0	761790	3.9000E+02	1.8000E+05	1.3500E+06	0.0000E+00	2.00	0.0	3.5655E+06	1.7742E+02	1	4	2409
2404	77-Ir-179	0	771790	7.9000E+01	7.9000E+05	5.0100E+05	0.0000E+00	2.00	0.0	4.9400E+06	1.7742E+02	1	4	2449
2405	78-Pt-179	0	781790	2.1100E+01	1.3200E+06	1.0800E+06	4.1000E+04	2.00	0.0	5.8114E+06	1.7743E+02	2	5	2495
2406	79-Au-179	0	791790	7.1000E+00	0.0000E+00	0.0000E+00	1.3150E+06	2.00	0.0	7.2794E+06	1.7744E+02	2	1	2535
2407	80-Hg-179	0	801790	1.0500E+00	0.0000E+00	0.0000E+00	3.4060E+06	2.00	0.0	5.9810E+06	1.7744E+02	3	1	2583
2408	81-Tl-179	0	811790	2.3000E-01	0.0000E+00	0.0000E+00	6.7100E+06	4.00	0.0	6.7102E+06	1.7745E+02	1	1	2624
2409	81-Tl-179	1	811791	1.5000E-03	0.0000E+00	0.0000E+00	7.3500E+06	4.00	1.0	6.7180E+06	1.7745E+02	1	1	2625
2410	70-Yb-180	0	701800	1.4000E+02	6.0600E+05	9.3000E+05	0.0000E+00	1.00	0.0	2.0790E+06	1.7841E+02	1	4	2179
2411	71-Lu-180	0	711800	3.4200E+02	5.9000E+05	1.5100E+06	0.0000E+00	1.00	0.0	3.1030E+06	1.7840E+02	1	4	2226
2412	72-Hf-180	0	721800	stable							1.7995E+02	0	0	2265
2413	72-Hf-180	1	721801	1.9690E+04	1.2190E+05	9.8700E+05	0.0000E+00	1.00	0.0	2.9590E+05	1.7840E+02	2	4	2266
2414	73-Ta-180	0	731800	2.9354E+04	5.3000E+04	4.7700E+04	0.0000E+00	1.00	0.0	7.0237E+05	1.7840E+02	2	5	2307
2415	74-W-180	0	741800	5.6800E+25	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	2.5150E+06	1.7995E+02	1	0	2340
2416	74-W-180	1	741801	5.4700E-03	1.2150E+05	1.3871E+06	0.0000E+00	3.00	0.0	1.5290E+06	1.7840E+02	1	3	2341
2417	75-Re-180	0	751800	1.4600E+02	1.3400E+05	1.1700E+06	0.0000E+00	2.00	0.0	3.8012E+06	1.7840E+02	1	4	2375
2418	76-Os-180	0	761800	1.2900E+03	1.2800E+04	5.5000E+03	0.0000E+00	2.00	0.0	1.4754E+06	1.7841E+02	1	4	2410
2419	77-Ir-180	0	771800	9.0000E+01	7.5000E+04	9.7000E+05	0.0000E+00	2.00	0.0	6.3844E+06	1.7841E+02	1	4	2450
2420	78-Pt-180	0	781800	5.6000E+01	0.0000E+00	0.0000E+00	1.4190E+04	2.00	0.0	3.5420E+06	1.7842E+02	2	1	2496
2421	79-Au-180	0	791800	8.1000E+00	2.9000E+06	1.8800E+06	6.3000E+04	2.00	0.0	8.8412E+06	1.7843E+02	2	4	2536
2422	80-Hg-180	0	801800	2.5800E+00	0.0000E+00	4.3000E+05	3.0020E+06	2.00	0.0	5.3439E+06	1.7843E+02	2	2	2584
2423	81-Tl-180	0	811800	1.5000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.2584E+06	1.8000E+02	2	0	2626
2424	82-Pb-180	0	821800	4.4000E-03	0.0000E+00	0.0000E+00	7.4000E+06	4.00	0.0	7.4186E+06	1.7846E+02	1	1	2677
2425	71-Lu-181	0	711810	2.1000E+02	7.9000E+05	5.6000E+05	0.0000E+00	1.00	0.0	2.6079E+06	1.7940E+02	1	4	2227
2426	72-Hf-181	0	721810	3.6620E+06	2.0100E+05	5.3190E+05	0.0000E+00	1.00	0.0	1.0364E+06	1.7940E+02	1	4	2267
2427	72-Hf-181	1	721811	1.5000E-03	2.4500E+05	1.4700E+06	0.0000E+00	3.00	0.0	1.7419E+06	1.7940E+02	1	3	2268
2428	73-Ta-181	0	731810	stable							1.8095E+02	0	0	2308
2429	74-W-181	0	741810	1.0472E+07	5.4000E+03	4.0000E+04	0.0000E+00	2.00	0.0	1.8818E+05	1.7939E+02	1	4	2342
2430	75-Re-181	0	751810	7.2000E+04	1.2700E+05	8.0000E+05	0.0000E+00	2.00	0.0	1.7325E+06	1.7940E+02	1	4	2376
2431	76-Os-181	0	761810	6.3000E+03	7.9000E+04	1.3500E+06	0.0000E+00	2.00	0.0	2.9710E+06	1.7940E+02	1	4	2411
2432	76-Os-181	1	761811	1.6200E+02	7.2000E+04	3.7000E+05	0.0000E+00	2.00	0.0	3.0202E+06	1.7940E+02	1	4	2412
2433	77-Ir-181	0	771810	2.9400E+02	3.8000E+05	1.1600E+06	0.0000E+00	2.00	0.0	4.0783E+06	1.7940E+02	2	4	2451
2434	78-Pt-181	0	781810	5.2000E+01	3.8800E+05	6.4000E+06	3.7240E+03	2.00	0.0	4.0291E+06	1.7941E+02	2	5	2497
2435	79-Au-181	0	791810	1.4500E+01	1.0300E+06	2.1700E+06	9.4100E+04	2.00	0.0	5.1500E+06	1.7941E+02	2	5	2537
2436	80-Hg-181	0	801810	3.6000E+00	0.0000E+00	2.0400E+06	1.8045E+06	2.00	0.0	7.2101E+06	1.7942E+02	3	2	2585
2437	81-Tl-181	0	811810	3.2000E+00	0.0000E+00	0.0000E+00	6.3230E+05	2.00	0.0	6.2844E+06	1.7943E+02	2	1	2627
								4.00	1.0	6.3240E+06	1.0000E-01			

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2438	81-Tl-181	1	81	1811	1.4000E-03	1.0040E+05	7.3000E+05	2.6370E+04	3.00	0.0	8.3590E+05	9.9600E-01	1.7943E+02	2	4	2628
2439	82-Pb-181	0	82	1810	4.5000E-02	0.0000E+00	0.0000E+00	7.2000E+06	4.00	0.0	7.1600E+06	4.0000E-03	1.7944E+02	1	1	2678
2440	71-Lu-182	0	71	1820	1.2000E+02	8.0000E+05	6.2000E+05	0.0000E+00	1.00	0.0	4.1720E+06	1.0000E+00	1.8039E+02	1	4	2228
2441	72-Hf-182	0	72	1820	2.8100E+14	6.4400E+04	2.3810E+05	0.0000E+00	1.00	0.0	3.8129E+05	1.0000E+00	1.8039E+02	1	4	2269
2442	72-Hf-182	1	72	1821	3.6900E+03	1.9000E+05	9.1000E+05	0.0000E+00	1.00	0.0	1.5542E+06	4.3000E-01	1.8039E+02	3	4	2270
2443	73-Ta-182	0	73	1820	9.9140E+06	2.0550E+05	1.3032E+06	0.0000E+00	1.00	0.0	1.1729E+06	4.6000E-01	1.8039E+02	1	4	2309
2444	73-Ta-182	1	73	1821	2.8300E-01	1.0434E+04	1.6547E+03	0.0000E+00	3.00	0.0	1.8145E+06	1.0000E+00	1.8039E+02	1	3	2310
2445	73-Ta-182	2	73	1822	9.5000E+02	2.4600E+05	2.6200E+05	0.0000E+00	3.00	0.0	1.6274E+04	1.0000E+00	1.8039E+02	1	3	2311
2446	74-W-182	0	74	1820	stable								1.8195E+02	0	0	2343
2447	75-Re-182	0	75	1820	2.3040E+05	1.8000E+05	1.7610E+06	0.0000E+00	2.00	0.0	2.8000E+06	1.0000E+00	1.8039E+02	1	4	2377
2448	75-Re-182	1	75	1821	4.5700E+04	8.1000E+04	1.2000E+06	0.0000E+00	2.00	0.0	2.8600E+06	1.0000E+00	1.8039E+02	1	4	2378
2449	76-Os-182	0	76	1820	7.8600E+04	4.7100E+04	4.3300E+05	0.0000E+00	2.00	1.0	7.7864E+05	1.0000E+00	1.8039E+02	1	4	2413
2450	77-Ir-182	0	77	1820	9.0000E+02	6.0000E+05	1.0400E+06	0.0000E+00	2.00	0.0	5.5574E+06	1.0000E+00	1.8040E+02	1	4	2452
2451	78-Pt-182	0	78	1820	1.3200E+02	4.9000E+04	2.8300E+05	1.6747E+03	2.00	0.0	2.8835E+06	9.9962E-01	1.8040E+02	2	5	2498
2452	79-Au-182	0	79	1820	1.5500E+01	2.2200E+06	1.4500E+06	5.4600E+04	2.00	0.0	4.9508E+06	3.8000E-04	1.8041E+02	2	5	2538
2453	80-Hg-182	0	80	1820	1.0830E+01	4.9000E+05	6.6000E+05	9.1960E+05	2.00	0.0	5.5262E+06	1.3000E-03	1.8041E+02	2	5	2586
2454	81-Tl-182	0	81	1820	2.9000E+00	0.0000E+00	0.0000E+00	2.6190E+05	2.00	0.0	1.0269E+07	9.7500E-01	1.8042E+02	2	1	2629
2455	71-Lu-183	0	71	1830	5.8000E+01	1.1000E+06	7.0000E+05	0.0000E+00	1.00	0.0	6.5931E+06	2.5000E-02	1.8139E+02	1	4	2229
2456	72-Hf-183	0	72	1830	3.8400E+03	4.2000E+05	7.7000E+05	0.0000E+00	1.00	0.0	3.5700E+06	1.0000E+00	1.8138E+02	1	4	2271
2457	73-Ta-183	0	73	1830	4.4100E+05	3.3400E+05	2.8700E+05	0.0000E+00	1.00	0.0	1.0711E+06	9.4200E-01	1.8138E+02	2	4	2312
2458	74-W-183	0	74	1830	3.4700E+24	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	1.6732E+06	3.0000E+00	1.8295E+02	1	0	2344
2459	74-W-183	1	74	1831	5.2000E+00	1.6700E+05	1.2900E+05	0.0000E+00	3.00	0.0	3.0949E+05	1.0000E+00	1.8138E+02	1	3	2345
2460	75-Re-183	0	75	1830	6.0500E+06	9.7400E+04	1.5620E+05	0.0000E+00	2.00	0.0	5.5600E+05	1.0000E+00	1.8138E+02	1	4	2379
2461	75-Re-183	1	75	1831	1.0400E-03	2.9900E+05	1.5700E+06	0.0000E+00	3.00	0.0	1.9069E+06	1.0000E+00	1.8138E+02	1	3	2380
2462	76-Os-183	0	76	1830	4.6800E+04	7.3000E+04	6.3100E+05	0.0000E+00	2.00	0.0	2.1472E+06	1.0000E+00	1.8138E+02	1	4	2414
2463	76-Os-183	1	76	1831	3.5600E+04	3.6000E+04	9.9900E+05	0.0000E+00	2.00	0.0	2.3179E+06	8.5000E-01	1.8138E+02	2	4	2415
2464	77-Ir-183	0	77	1830	3.5000E+03	1.2000E+05	1.1500E+06	0.0000E+00	2.00	0.0	1.7071E+05	1.5000E-01	1.8138E+02	2	4	2453
2465	78-Pt-183	0	78	1830	3.9000E+02	0.0000E+00	0.0000E+00	4.5300E+02	2.00	0.0	3.4607E+06	7.0000E-01	1.8139E+02	2	1	2499
2466	79-Au-183	0	79	1830	4.2800E+01	8.0000E+05	1.5400E+06	4.5900E+04	2.00	0.0	5.8322E+06	9.9450E-01	1.8140E+02	2	5	2539
2467	80-Hg-183	0	80	1830	9.4000E+00	8.8000E+05	1.6300E+06	6.9980E+05	2.00	0.0	5.4653E+06	5.5000E-03	1.8140E+02	3	5	2587
2468	81-Tl-183	0	81	1830	6.9000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.0747E+06	3.0000E-06	1.8299E+02	2	0	2630
2469	81-Tl-183	1	81	1831	5.3300E-02	1.2900E+03	9.6000E+02	9.7280E+04	2.00	0.0	7.2173E+06	5.0000E-01	1.8141E+02	2	4	2631
2470	82-Pb-183	0	82	1830	5.4000E-01	0.0000E+00	0.0000E+00	6.1800E+06	2.00	0.0	9.0200E+06	1.0000E-01	1.8142E+02	2	1	2679
								4.00	0.0	6.9280E+06	9.0000E-01					

***Branchings do not sum to 1.0, value=3.000000E+00

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2471	82-Pb-183	1	82	1831	4.1500E-01	0.0000E+00	0.0000E+00	6.8600E+06	4.00	0.0	7.0250E+06	1.0000E+00	1.8142E+02	1	1	2680
2472	71-Lu-184	0	71	1840	1.9000E+01	2.1000E+06	7.1000E+04	0.0000E+00	1.00	0.0	5.0890E+06	1.0000E+00	1.8238E+02	1	4	2230
2473	72-Hf-184	0	72	1840	1.4830E+04	4.6000E+05	2.9300E+05	0.0000E+00	1.00	0.0	1.3400E+06	1.0000E+00	1.8238E+02	1	4	2272
2474	72-Hf-184	1	72	1841	4.8000E+01	1.3300E+05	1.1300E+06	0.0000E+00	3.00	0.0	1.2722E+06	1.0000E+00	1.8238E+02	1	3	2273
2475	73-Ta-184	0	73	1840	3.1300E+04	5.2000E+05	1.5700E+06	0.0000E+00	1.00	0.0	2.8660E+06	1.0000E+00	1.8237E+02	1	4	2313
2476	74-W-184	0	74	1840	stable								1.8339E+02	0	0	2346
2477	75-Re-184	0	75	1840	3.0600E+06	5.0600E+04	8.9600E+05	0.0000E+00	2.00	0.0	1.4828E+06	1.0000E+00	1.8237E+02	1	4	2381
2478	75-Re-184	1	75	1841	1.4600E+07	9.8500E+04	3.8400E+05	0.0000E+00	2.00	0.0	1.6709E+06	2.5500E-01	1.8237E+02	2	4	2382
2479	76-Os-184	0	76	1840	1.7700E+21	0.0000E+00	0.0000E+00	0.0000E+00	2.20	0.0	1.4509E+06	5.0000E-01	1.8395E+02	2	0	2416
2480	77-Ir-184	0	77	1840	1.1120E+04	2.3700E+05	1.9700E+06	0.0000E+00	2.00	0.0	1.6732E+06	5.0000E-01	1.8238E+02	1	4	2454
2481	78-Pt-184	0	78	1840	1.0380E+03	1.8200E+05	7.2000E+05	0.0000E+00	2.00	0.0	4.6458E+06	1.0000E+00	1.8238E+02	2	4	2500
2482	78-Pt-184	1	78	1841	1.0100E-03	1.2100E+05	1.6900E+06	0.0000E+00	3.00	0.0	4.5982E+06	1.7000E-05	1.8238E+02	1	3	2501
2483	79-Au-184	0	79	1840	2.0600E+01	1.0700E+06	2.3900E+06	0.0000E+00	2.00	0.0	1.8360E+06	1.0000E+00	1.8239E+02	2	4	2540
2484	79-Au-184	1	79	1841	4.7600E+01	1.4000E+06	1.6300E+06	3.0000E+04	2.00	0.0	7.0886E+06	6.9984E-01	1.8239E+02	3	5	2541
2485	80-Hg-184	0	80	1840	3.0900E+01	2.7000E+05	4.8000E+05	7.5600E+04	2.00	0.0	5.3010E+06	1.6000E-04	1.8239E+02	3	5	2588
2486	81-Tl-184	0	81	1840	1.0300E+01	0.0000E+00	0.0000E+00	1.3060E+05	2.00	0.0	3.9700E+06	2.2700E-02	1.8240E+02	2	1	2632
2487	82-Pb-184	0	82	1840	4.9000E-01	0.0000E+00	0.0000E+00	1.5570E+06	2.00	0.0	5.6619E+06	1.1100E-02	1.8241E+02	2	1	2681
2488	73-Ta-185	0	73	1850	2.9600E+03	7.3000E+05	1.4600E+05	0.0000E+00	1.00	0.0	6.7739E+06	8.0000E-01	1.8337E+02	1	4	2314
2489	74-W-185	0	74	1850	6.4900E+06	1.2690E+05	5.1100E+01	0.0000E+00	1.00	0.0	1.9935E+06	1.0000E+00	1.8337E+02	1	4	2347
2490	74-W-185	1	74	1851	1.0020E+02	1.6400E+05	2.7500E+04	0.0000E+00	3.00	0.0	4.3267E+05	1.0000E+00	1.8337E+02	1	3	2348
2491	75-Re-185	0	75	1850	stable						1.9743E+05	1.0000E+00	1.8495E+02	0	0	2383
2492	76-Os-185	0	76	1850	8.0900E+06	1.4100E+04	6.8900E+05	0.0000E+00	2.00	0.0	1.0128E+06	1.0000E+00	1.8337E+02	1	4	2417
2493	77-Ir-185	0	77	1850	5.1800E+04	1.1000E+05	8.6000E+05	0.0000E+00	2.00	0.0	2.4743E+06	1.0000E+00	1.8337E+02	1	4	2455
2494	78-Pt-185	0	78	1850	4.2500E+03	2.0200E+05	1.3400E+06	0.0000E+00	2.00	0.0	3.6474E+06	1.0000E+00	1.8337E+02	1	4	2502
2495	78-Pt-185	1	78	1851	1.9800E+03	2.3700E+05	7.9000E+05	3.3800E+03	2.00	0.0	3.7508E+06	9.9999E-01	1.8337E+02	2	4	2503
2496	79-Au-185	0	79	1850	2.5500E+02	4.6800E+05	1.2770E+06	2.2000E+04	2.00	0.0	4.5400E+06	1.0000E-05	1.8338E+02	3	5	2542
2497	80-Hg-185	0	80	1850	4.9100E+01	1.0100E+06	6.8000E+05	3.6700E+05	2.00	0.0	4.7179E+06	4.1890E-01	1.8338E+02	2	5	2589
2498	80-Hg-185	1	80	1851	2.1600E+01	2.6200E+05	6.4800E+05	1.6138E+03	2.00	0.0	5.1799E+06	2.6000E-03	1.8338E+02	3	5	2590
2499	81-Tl-185	0	81	1850	1.9500E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	9.9000E+04	5.4000E-01	1.8498E+02	1	0	2633
2500	81-Tl-185	1	81	1851	1.9300E+00	1.9100E+05	2.5500E+05	1.2224E+05	3.00	0.0	6.4177E+06	1.0000E+00	1.8339E+02	2	4	2634
2501	82-Pb-185	0	82	1850	6.3000E+00	0.0000E+00	0.0000E+00	2.2300E+06	2.00	0.0	1.4000E+06	2.0000E-02	1.8340E+02	2	1	2682
2502	82-Pb-185	1	82	1851	4.3000E+00	0.0000E+00	0.0000E+00	3.2730E+06	2.00	1.0	8.2167E+06	6.6000E-01	1.8340E+02	2	1	2683
								4.00	1.0	6.6950E+06	3.4000E-01	5.0000E-01	1.8340E+02	2	1	2683
								4.00	1.0	6.6950E+06	5.0000E-01	5.0000E-01	1.8340E+02	2	1	2683

No.	Symbol	S	z	zAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2503	73-Ta-186	0	73	1860	6.3000E+02	1.1200E+06	1.4000E+06	0.0000E+00	1.00	0.0	3.9010E+06	1.0000E+00	1.8436E+02	1	4	2315
2504	74-W-186	0	74	1860	stable								1.8595E+02	0	0	2349
2505	75-Re-186	0	75	1860	3.2126E+05	3.1150E+05	1.7490E+04	0.0000E+00	1.00	0.0	5.8016E+05	9.2530E-01	1.8436E+02	2	5	2384
2506	75-Re-186	1	75	1861	6.3120E+12	6.9600E+04	1.7400E+04	0.0000E+00	3.00	0.0	1.0717E+06	7.4700E-02	1.8436E+02	1	3	2385
2507	76-Os-186	0	76	1860	6.0000E+22	0.0000E+00	0.0000E+00	2.8210E+06	4.00	0.0	1.4900E+00	1.0000E+00	1.8436E+02	1	1	2418
2508	77-Ir-186	0	77	1860	5.9900E+04	1.3100E+05	1.6200E+06	0.0000E+00	2.00	0.0	8.2204E+06	1.0000E+00	1.8436E+02	1	4	2456
2509	77-Ir-186	1	77	1861	6.8400E+03	1.0000E+05	1.2500E+06	0.0000E+00	2.00	0.0	3.8291E+06	7.5000E-01	1.8436E+02	2	4	2457
2510	78-Pt-186	0	78	1860	7.4900E+03	3.7200E+04	7.0000E+05	0.0000E+00	2.00	1.0	0.0000E+00	2.5000E-01	1.8436E+02	2	4	2504
2511	79-Au-186	0	79	1860	6.4000E+02	1.0500E+06	1.4800E+06	2.1000E+04	2.00	0.0	1.3088E+06	1.0000E+00	1.8437E+02	2	4	2543
2512	80-Hg-186	0	80	1860	8.3000E+01	1.6000E+05	4.3000E+05	1.5000E+03	2.00	0.0	4.3197E+06	1.4000E-06	1.8437E+02	2	4	2591
2513	81-Tl-186	0	81	1860	2.7500E+01	2.1100E+06	2.1000E+06	4.5000E+04	2.00	0.0	5.2044E+06	1.6000E-04	1.8438E+02	2	5	2635
2514	81-Tl-186	1	81	1861	2.9000E+00	6.8000E+04	3.0490E+05	0.0000E+00	3.00	0.0	8.6522E+06	9.9994E-01	1.8438E+02	1	3	2636
2515	82-Pb-186	0	82	1860	4.8200E+00	0.0000E+00	0.0000E+00	2.5840E+06	2.00	0.0	5.9892E+06	6.0000E-05	1.8439E+02	2	1	2684
2516	83-Bi-186	0	83	1860	1.4800E-02	0.0000E+00	0.0000E+00	9.3000E+06	4.00	0.0	6.4699E+06	4.0000E-01	1.8440E+02	1	1	2724
2517	83-Bi-186	1	83	1861	9.8000E-03	0.0000E+00	0.0000E+00	7.4900E+06	4.00	1.0	7.7568E+06	1.0000E+00	1.8440E+02	1	1	2725
2518	74-W-187	0	74	1870	8.6400E+04	2.7400E+05	5.4200E+05	0.0000E+00	1.00	0.0	7.7570E+06	1.0000E+00	1.8535E+02	1	4	2350
2519	75-Re-187	0	75	1870	1.3660E+18	6.1770E+02	0.0000E+00	0.0000E+00	1.00	0.0	1.3123E+06	1.0000E+00	1.8535E+02	1	1	2386
2520	76-Os-187	0	76	1870	stable						2.4670E+03	1.0000E+00	1.8696E+02	0	0	2419
2521	77-Ir-187	0	77	1870	3.7800E+04	4.3600E+04	2.9140E+05	0.0000E+00	2.00	0.0	1.6716E+06	1.0000E+00	1.8535E+02	1	4	2458
2522	77-Ir-187	1	77	1871	3.0300E-02	1.0100E+05	5.1500E+04	0.0000E+00	3.00	0.0	1.8616E+05	1.0000E+00	1.8535E+02	1	3	2459
2523	78-Pt-187	0	78	1870	8.4600E+03	1.2200E+05	1.0050E+06	0.0000E+00	2.00	0.0	2.8643E+06	8.9000E-01	1.8535E+02	2	4	2505
2524	79-Au-187	0	79	1870	4.9800E+02	1.0400E+05	1.3300E+06	0.0000E+00	2.00	0.0	3.6572E+06	1.0000E+00	1.8536E+02	1	4	2544
2525	79-Au-187	1	79	1871	2.3000E+00	1.0300E+05	6.1000E+03	0.0000E+00	3.00	0.0	1.2043E+05	1.0000E+00	1.8536E+02	1	3	2545
2526	80-Hg-187	0	80	1870	1.4400E+02	5.3000E+05	1.5500E+06	9.4000E+03	2.00	0.0	4.9102E+06	6.0000E-01	1.8536E+02	3	4	2592
2527	80-Hg-187	1	80	1871	1.1400E+02	4.3000E+05	1.2500E+06	8.4000E+03	2.00	0.0	4.7898E+06	4.0000E-01	1.8536E+02	3	4	2593
2528	81-Tl-187	0	81	1870	5.1000E+01	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	4.9760E+06	3.7000E-06	1.8698E+02	2	0	2637
2529	81-Tl-187	1	81	1871	1.5600E+01	3.5000E+04	2.6490E+05	8.2870E+03	2.00	1.0	5.3211E+06	3.0000E-04	1.8537E+02	3	4	2638
2530	82-Pb-187	0	82	1870	1.8300E+01	0.0000E+00	0.0000E+00	7.3000E+03	2.00	1.0	3.3400E+05	4.9925E-01	1.8538E+02	2	1	2685
2531	82-Pb-187	1	82	1871	1.5200E+01	0.0000E+00	0.0000E+00	5.9320E+05	2.00	0.0	7.1222E+06	8.8000E-01	1.8538E+02	2	1	2686
2532	83-Bi-187	0	83	1870	3.2000E-02	0.0000E+00	0.0000E+00	7.2100E+06	4.00	0.0	6.4280E+06	9.5000E-02	1.8539E+02	2	1	2726
2533	83-Bi-187	1	83	1871	2.9000E-04	0.0000E+00	0.0000E+00	7.9000E+06	4.00	0.0	7.7790E+06	1.1300E-01	1.8539E+02	1	1	2727
2534	74-W-188	0	74	1880	6.0290E+06	9.9600E+04	1.8900E+03	0.0000E+00	1.00	0.0	7.8900E+06	1.0000E+00	1.8634E+02	1	4	2351

No.	Symbol	S	Z	AA	AS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2535	75-Re-188	0	75	1880	6.1214E+04	7.7800E+05	6.1100E+04	0.0000E+00	0.0000E+00	1.00	0.0	2.1204E+06	1.0000E+00	1.8634E+02	1	4	2387
2536	75-Re-188	1	75	1881	1.1154E+03	8.6000E+04	7.4000E+04	0.0000E+00	0.0000E+00	3.00	0.0	1.7207E+05	1.0000E+00	1.8634E+02	1	3	2388
2537	76-Os-188	0	76	1880	stable									1.8796E+02	0	0	2420
2538	77-Ir-188	0	77	1880	1.4940E+05	4.2000E+04	2.0900E+06	0.0000E+00	0.0000E+00	2.00	0.0	2.7879E+06	1.0000E+00	1.8634E+02	1	4	2460
2539	78-Pt-188	0	78	1880	8.8000E+05	7.4900E+04	2.0500E+05	9.6800E-01	9.6800E-01	2.00	0.0	5.2238E+05	1.0000E+00	1.8635E+02	2	4	2506
2540	79-Au-188	0	79	1880	5.3000E+02	7.7000E+05	1.4600E+06	0.0000E+00	0.0000E+00	2.00	0.0	4.0027E+06	2.6000E-07	1.8635E+02	1	4	2546
2541	80-Hg-188	0	80	1880	1.9500E+02	4.8400E+04	2.2800E+05	1.6370E+00	1.6370E+00	2.00	0.0	5.5522E+06	1.0000E+00	1.8635E+02	2	4	2594
2542	81-Tl-188	0	81	1880	7.1000E+01	1.6600E+06	2.4300E+06	0.0000E+00	0.0000E+00	2.00	0.0	4.7027E+06	3.7000E-07	1.8636E+02	1	4	2639
2543	82-Pb-188	0	82	1880	2.5100E+01	3.3000E+05	6.3000E+05	5.7530E+05	5.7530E+05	2.00	0.0	4.5214E+06	9.0700E-01	1.8637E+02	2	5	2687
2544	83-Bi-188	0	83	1880	2.6500E-01	0.0000E+00	0.0000E+00	6.9900E+06	6.9900E+06	4.00	0.0	6.1088E+06	9.3000E-02	1.8638E+02	1	1	2728
2545	83-Bi-188	1	83	1881	6.0000E-02	0.0000E+00	0.0000E+00	7.1500E+06	7.1500E+06	4.00	1.0	7.2636E+06	1.0000E+00	1.8638E+02	1	1	2729
2546	84-Po-188	0	84	1880	2.8000E-04	0.0000E+00	0.0000E+00	8.0000E+06	8.0000E+06	4.00	0.0	7.2550E+06	1.0000E+00	1.8639E+02	1	1	2784
2547	74-W-189	0	74	1890	6.4000E+02	0.0000E+00	1.6700E+06	0.0000E+00	0.0000E+00	1.00	0.0	8.0822E+06	1.0000E+00	1.8734E+02	1	2	2352
2548	75-Re-189	0	75	1890	8.7500E+04	3.3000E+05	5.5000E+04	0.0000E+00	0.0000E+00	1.00	0.0	2.3632E+06	1.0000E+00	1.8734E+02	1	2	2352
2549	76-Os-189	0	76	1890	stable					1.00	1.0	1.0077E+06	8.8400E-01	1.8734E+02	2	4	2389
2550	76-Os-189	1	76	1891	2.0920E+04	2.4272E+04	1.9409E+03	0.0000E+00	0.0000E+00	3.00	0.0	9.7693E+05	1.1600E-01	1.8896E+02	0	0	2421
2551	77-Ir-189	0	77	1890	1.1400E+06	3.8900E+04	7.8000E+04	0.0000E+00	0.0000E+00	2.00	0.0	3.0810E+04	1.0000E+00	1.8734E+02	1	2	2422
2552	77-Ir-189	1	77	1891	1.3300E-02	1.3100E+05	2.3000E+05	0.0000E+00	0.0000E+00	2.00	0.0	5.3176E+05	9.2550E-01	1.8734E+02	2	4	2461
2553	77-Ir-189	2	77	1892	3.7000E-03	1.4400E+05	1.9600E+06	0.0000E+00	0.0000E+00	3.00	0.0	5.0095E+05	7.4500E-02	1.8734E+02	1	3	2462
2554	78-Pt-189	0	78	1890	3.9100E+04	7.8000E+04	4.6200E+05	0.0000E+00	0.0000E+00	2.00	0.0	3.7217E+05	1.0000E+00	1.8734E+02	1	3	2463
2555	79-Au-189	0	79	1890	1.7220E+03	7.5000E+04	8.4000E+05	0.0000E+00	0.0000E+00	2.00	0.0	1.9713E+06	9.2300E-01	1.8734E+02	2	4	2507
2556	79-Au-189	1	79	1891	2.7500E+02	9.0000E+04	2.2000E+05	0.0000E+00	0.0000E+00	2.00	0.0	1.5991E+06	7.7000E-02	1.8734E+02	1	4	2547
2557	80-Hg-189	0	80	1890	4.5600E+02	3.0200E+05	1.1770E+06	0.0000E+00	0.0000E+00	2.00	0.0	2.9035E+06	1.0000E+00	1.8734E+02	1	4	2548
2558	80-Hg-189	1	80	1891	5.1600E+02	1.8070E+05	1.5320E+06	0.0000E+00	0.0000E+00	2.00	0.0	3.1507E+06	1.0000E+00	1.8734E+02	1	4	2548
2559	81-Tl-189	0	81	1890	1.8300E+02	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.9557E+06	8.1000E-01	1.8735E+02	2	4	2595
2560	82-Pb-189	0	82	1890	5.1000E+01	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.7085E+06	1.9000E-01	1.8735E+02	2	4	2595
2561	83-Bi-189	0	83	1890	6.7400E-01	0.0000E+00	0.0000E+00	5.2840E+06	5.2840E+06	2.00	0.0	4.0557E+06	2.1000E-01	1.8735E+02	2	4	2596
2562	83-Bi-189	1	83	1891	5.0000E-03	4.2000E+03	1.2100E+04	6.1600E+06	6.1600E+06	3.00	0.0	6.8200E+06	7.2000E-01	1.8737E+02	3	1	2730
2563	84-Po-189	0	84	1890	3.5000E-03	0.0000E+00	0.0000E+00	7.4000E+06	7.4000E+06	4.00	0.0	1.8400E+05	1.7000E-01	1.8737E+02	2	4	2731
2564	74-W-190	0	74	1900	1.8000E+03	4.7000E+05	1.4900E+05	0.0000E+00	0.0000E+00	2.00	0.0	3.8085E+06	7.9000E-01	1.8738E+02	1	1	2785
2565	75-Re-190	0	75	1900	1.8600E+02	7.0000E+05	1.3400E+06	0.0000E+00	0.0000E+00	1.00	0.0	7.6943E+06	1.0000E+00	1.8738E+02	1	1	2785
2566	75-Re-190	1	75	1901	1.1500E+04	3.9000E+05	9.1600E+05	0.0000E+00	0.0000E+00	1.00	0.0	1.2541E+06	1.0000E+00	1.8833E+02	1	4	2353
2567	76-Os-190	0	76	1900	stable					3.00	0.0	3.2844E+06	5.4400E-01	1.8833E+02	2	4	2391
2568	76-Os-190	1	76	1901	5.9400E+02	1.0700E+05	1.5888E+06	0.0000E+00	0.0000E+00	3.00	0.0	2.1000E+05	4.5600E-01	1.8996E+02	0	0	2423
2569	77-Ir-190	0	77	1900	1.0180E+06	6.8500E+04	1.4750E+06	0.0000E+00	0.0000E+00	2.00	0.0	1.7058E+06	1.0000E+00	1.8833E+02	1	3	2424
2570	77-Ir-190	1	77	1901	4.0320E+03	1.7380E+04	2.0506E+03	0.0000E+00	0.0000E+00	3.00	0.0	1.9538E+06	1.0000E+00	1.8833E+02	1	4	2464
2571	77-Ir-190	2	77	1902	1.1110E+04	1.6000E+04	5.7200E+04	0.0000E+00	0.0000E+00	2.00	1.0	6.2482E+05	9.1400E-01	1.8833E+02	2	4	2465
										3.00	0.0	3.7640E+05	8.6000E-02	1.8833E+02	2	4	2466

No.	Symbol	S	z	zAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2572	78-Pt-190	0	78	1900	2.0500E+19	0.0000E+00	0.0000E+00	3.2000E+06	4.00	0.0	3.2522E+06	1.0000E+00	1.8833E+02	1	1	2508
2573	79-Au-190	0	79	1900	2.5700E+03	1.3000E+05	2.9100E+06	0.0000E+00	2.00	0.0	4.4420E+06	1.0000E+00	1.8833E+02	1	4	2549
2574	79-Au-190	1	79	1901	1.2500E-01	0.0000E+00	0.0000E+00	0.0000E+00	3.00	0.0	2.6000E+05	1.0000E+00	1.8833E+02	1	0	2550
2575	80-Hg-190	0	80	1900	1.2000E+03	3.6000E+04	1.9500E+05	0.0000E+00	2.00	0.0	1.5131E+06	1.0000E+00	1.8833E+02	1	4	2597
2576	81-Tl-190	0	81	1900	1.5600E+02	1.0000E+06	1.0400E+06	0.0000E+00	2.00	0.0	6.9910E+06	1.0000E+00	1.8834E+02	1	4	2641
2577	81-Tl-190	1	81	1901	2.2200E+02	3.9000E+05	2.2100E+06	0.0000E+00	2.00	0.0	6.9910E+06	1.0000E+00	1.8834E+02	1	4	2642
2578	82-Pb-190	0	82	1900	7.1000E+01	1.9000E+05	8.6000E+05	2.5800E+04	2.00	0.0	3.9630E+06	9.9600E-01	1.8835E+02	2	5	2689
2579	83-Bi-190	0	83	1900	6.3000E+00	0.0000E+00	0.0000E+00	5.2600E+06	2.00	0.0	9.8175E+06	2.0000E-01	1.8836E+02	2	1	2732
2580	83-Bi-190	1	83	1901	6.2000E+00	0.0000E+00	0.0000E+00	4.6220E+06	2.00	0.0	9.8175E+06	8.0000E-01	1.8836E+02	2	1	2733
2581	84-Po-190	0	84	1900	2.4500E-03	0.0000E+00	0.0000E+00	7.6800E+06	4.00	0.0	6.8620E+06	7.0000E-01	1.8836E+02	1	1	2786
2582	76-Os-191	0	76	1910	1.3310E+06	3.7500E+04	0.0000E+00	0.0000E+00	1.00	1.0	7.6932E+06	1.0000E+00	1.8932E+02	1	1	2425
2583	76-Os-191	1	76	1911	4.7160E+04	6.2300E+04	7.3100E+03	0.0000E+00	3.00	0.0	1.4269E+05	1.0000E+00	1.8932E+02	1	3	2426
2584	77-Ir-191	0	77	1910	stable	0.0000E+00	0.0000E+00	0.0000E+00	3.00	0.0	7.4381E+04	1.0000E+00	1.8932E+02	0	0	2467
2585	77-Ir-191	1	77	1911	4.8990E+00	8.8600E+04	7.4500E+04	0.0000E+00	3.00	0.0	1.7128E+05	1.0000E+00	1.8932E+02	1	3	2468
2586	78-Pt-191	0	78	1910	2.4210E+05	6.9400E+04	3.2000E+05	0.0000E+00	2.00	0.0	1.0094E+06	9.9270E-01	1.8932E+02	2	4	2509
2587	79-Au-191	0	79	1910	1.1400E+04	6.3600E+04	5.2700E+05	0.0000E+00	2.00	0.0	1.8903E+06	1.0000E+00	1.8932E+02	1	4	2551
2588	79-Au-191	1	79	1911	9.2000E-01	5.6000E+04	2.0600E+05	0.0000E+00	3.00	0.0	2.6700E+05	1.0000E+00	1.8932E+02	1	3	2552
2589	80-Hg-191	0	80	1910	2.9400E+03	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.2182E+06	1.0000E+00	1.9097E+02	1	0	2598
2590	80-Hg-191	1	80	1911	3.0500E+03	6.5000E+04	1.3000E+06	0.0000E+00	2.00	0.0	3.3462E+06	1.8000E-01	1.8933E+02	2	4	2599
2591	81-Tl-191	0	81	1910	1.2000E+03	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.0800E+06	8.2000E-01	1.9097E+02	1	0	2643
2592	81-Tl-191	1	81	1911	3.1300E+02	3.7600E+05	1.3000E+06	0.0000E+00	2.00	0.0	4.3101E+06	1.0000E+00	1.8933E+02	2	4	2644
2593	82-Pb-191	0	82	1910	8.0000E+01	0.0000E+00	0.0000E+00	6.8800E+02	2.00	0.0	4.4811E+06	4.2200E-01	1.8934E+02	2	1	2690
2594	82-Pb-191	1	82	1911	1.3100E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.0471E+06	9.9987E-01	1.9098E+02	2	0	2691
2595	83-Bi-191	0	83	1910	1.2400E+01	0.0000E+00	0.0000E+00	3.2900E+06	2.00	1.0	6.8560E+06	4.9000E-01	1.8935E+02	3	1	2734
2596	83-Bi-191	1	83	1911	1.2500E-01	0.0000E+00	0.0000E+00	4.7700E+06	3.00	0.0	6.4440E+06	4.9500E-01	1.8935E+02	2	1	2735
2597	84-Po-191	0	84	1910	2.2000E-02	0.0000E+00	0.0000E+00	7.3800E+06	2.00	1.0	7.9320E+06	1.0000E-02	1.8935E+02	3	1	2787
2598	84-Po-191	1	84	1911	9.3000E-02	0.0000E+00	0.0000E+00	6.9720E+06	2.00	0.0	7.4932E+06	1.5000E-01	1.8935E+02	2	1	2788
2599	85-At-191	0	85	1910	1.7000E-03	0.0000E+00	0.0000E+00	7.7000E+06	4.00	1.0	8.2110E+06	4.0000E-02	1.8937E+02	1	1	2826
2600	85-At-191	1	85	1911	2.1000E-03	0.0000E+00	0.0000E+00	7.8000E+06	4.00	0.0	7.5410E+06	9.6000E-01	1.8937E+02	1	1	2827
2601	76-Os-192	0	76	1920	stable	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	7.7100E+06	1.0000E+00	1.9196E+02	0	0	2427
2602	76-Os-192	1	76	1921	5.9000E+00	1.4000E+05	1.6400E+06	0.0000E+00	1.00	0.0	7.8800E+06	1.0000E+00	1.9031E+02	2	3	2428
2603	77-Ir-192	0	77	1920	6.3787E+06	2.1690E+05	8.1630E+05	0.0000E+00	1.00	0.0	9.6910E+05	1.3000E-01	1.9031E+02	2	5	2469
2604	77-Ir-192	1	77	1921	8.7000E+01	4.9748E+04	2.1870E+03	0.0000E+00	1.00	0.0	2.0154E+06	8.7000E-01	1.9031E+02	2	4	2470

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2605	77-Ir-192	2	77	1922	7.6000E+09	1.5011E+05	2.0167E+03	0.0000E+00	3.00	0.0	1.6814E+05	1.0000E+00	1.9031E+02	1	3	2471
2606	78-Pt-192	0	78	1920	stable								1.9196E+02	0	0	2510
2607	79-Au-192	0	79	1920	1.7800E+04	8.3000E+04	1.9100E+06	0.0000E+00	2.00	0.0	3.5163E+06	1.0000E+00	1.9032E+02	1	4	2553
2608	79-Au-192	1	79	1921	1.6000E-01	7.5340E+04	5.6020E+03	0.0000E+00	3.00	0.0	4.3160E+05	1.0000E+00	1.9032E+02	1	3	2554
2609	80-Hg-192	0	80	1920	1.7500E+04	5.7400E+04	2.7900E+05	0.0000E+00	2.00	0.0	7.6476E+05	1.0000E+00	1.9032E+02	1	4	2600
2610	81-Tl-192	0	81	1920	5.7600E+02	8.8000E+05	2.4300E+06	0.0000E+00	2.00	0.0	6.1388E+06	1.0000E+00	1.9032E+02	1	4	2645
2611	81-Tl-192	1	81	1921	6.4800E+02	5.0000E+05	2.8800E+06	0.0000E+00	2.00	0.0	6.2768E+06	1.0000E+00	1.9032E+02	1	4	2646
2612	82-Pb-192	0	82	1920	2.1000E+02	7.7000E+04	1.0300E+06	0.0000E+00	2.00	0.0	3.3068E+06	9.9994E-01	1.9033E+02	2	4	2692
2613	83-Bi-192	0	83	1920	3.4600E+01	1.6000E+06	2.6000E+06	7.7700E+05	2.00	0.0	5.2209E+06	5.9000E-05	1.9034E+02	2	5	2736
2614	83-Bi-192	1	83	1921	3.9600E+01	1.2400E+06	3.0900E+06	6.4400E+05	2.00	0.0	9.1770E+06	9.0000E-01	1.9034E+02	2	5	2737
2615	84-Po-192	0	84	1920	3.3200E-02	0.0000E+00	0.0000E+00	7.2600E+06	2.00	0.0	6.3760E+06	1.0000E-01	1.9034E+02	2	1	2789
2616	76-Os-193	0	76	1930	1.0840E+05	3.7300E+05	5.7300E+04	0.0000E+00	1.00	0.0	1.1423E+06	9.9660E-01	1.9131E+02	2	4	2429
2617	77-Ir-193	0	77	1930	stable								1.9296E+02	0	0	2472
2618	77-Ir-193	1	77	1931	9.1000E+05	7.3229E+04	2.3303E+03	0.0000E+00	3.00	0.0	8.0221E+04	1.0000E+00	1.9130E+02	1	3	2473
2619	78-Pt-193	0	78	1930	1.5800E+09	3.2500E+03	1.9810E+03	0.0000E+00	2.00	0.0	5.6628E+04	1.0000E+00	1.9130E+02	1	3	2511
2620	78-Pt-193	1	78	1931	3.7400E+05	1.1594E+05	1.2642E+04	0.0000E+00	3.00	0.0	1.4978E+05	1.0000E+00	1.9130E+02	1	3	2512
2621	79-Au-193	0	79	1930	6.3500E+04	4.8200E+04	1.6700E+05	0.0000E+00	2.00	0.0	1.0758E+06	1.0000E+00	1.9131E+02	1	4	2555
2622	79-Au-193	1	79	1931	3.9000E+00	8.1900E+04	1.9640E+05	0.0000E+00	2.00	1.0	1.2162E+06	3.0000E-04	1.9131E+02	2	4	2556
2623	80-Hg-193	0	80	1930	1.3700E+04	6.4000E+04	8.2000E+05	0.0000E+00	2.00	0.0	2.9019E+05	9.9970E-01	1.9131E+02	2	4	2601
2624	80-Hg-193	1	80	1931	4.2500E+04	4.1800E+04	1.8100E+06	0.0000E+00	2.00	0.0	2.3431E+06	9.6600E-01	1.9131E+02	2	4	2602
2625	81-Tl-193	0	81	1930	1.3000E+03	1.7000E+05	1.2000E+06	0.0000E+00	2.00	0.0	4.838E+06	2.5000E-02	1.9131E+02	3	4	2602
2626	81-Tl-193	1	81	1931	1.2700E+02	2.2037E+04	2.6100E+05	0.0000E+00	2.00	0.0	2.1936E+06	9.0300E-01	1.9131E+02	2	3	2648
2627	82-Pb-193	1	82	1931	3.4800E+02	4.4700E+05	1.1000E+06	0.0000E+00	2.00	1.0	5.0695E+06	1.0000E+00	1.9132E+02	1	4	2693
2628	83-Bi-193	0	83	1930	6.7000E+01	0.0000E+00	0.0000E+00	2.1117E+05	2.00	1.0	6.1566E+06	9.6500E-01	1.9132E+02	3	1	2738
2629	83-Bi-193	1	83	1931	3.2000E+00	0.0000E+00	0.0000E+00	5.9500E+06	2.00	0.0	6.0240E+06	3.4000E-02	1.9132E+02	2	1	2739
2630	84-Po-193	0	84	1930	4.2000E-01	0.0000E+00	0.0000E+00	7.0900E+06	4.00	0.0	7.0937E+06	1.0000E+00	1.9133E+02	1	1	2790
2631	84-Po-193	1	84	1931	2.4000E-01	0.0000E+00	0.0000E+00	7.1400E+06	4.00	1.0	7.1000E+06	1.0000E+00	1.9133E+02	1	1	2791
2632	85-At-193	0	85	1930	2.8000E-02	0.0000E+00	0.0000E+00	7.3900E+06	4.00	1.0	7.3000E+06	1.0000E+00	1.9135E+02	1	1	2828
2633	85-At-193	1	85	1931	2.1000E-02	2.6700E+04	6.8040E+04	7.4800E+06	4.00	0.0	7.4950E+06	1.0000E+00	1.9135E+02	1	4	2829
2634	85-At-193	2	85	1932	2.7000E-02	4.9000E+04	5.4000E+04	1.7410E+06	3.00	0.0	3.9000E+06	7.6000E-01	1.9135E+02	2	4	2830
2635	86-Rn-193	0	86	1930	1.2000E-03	0.0000E+00	0.0000E+00	7.9000E+06	4.00	0.0	8.0400E+06	1.0000E+00	1.9136E+02	1	1	2866
2636	76-Os-194	0	76	1940	1.8900E+08	1.6000E+04	2.3000E+03	0.0000E+00	1.00	0.0	9.6600E+04	1.0000E+00	1.9230E+02	1	2	2430
2637	77-Ir-194	0	77	1940	6.9400E+04	8.0400E+05	9.1000E+04	0.0000E+00	1.00	0.0	2.2288E+06	1.0000E+00	1.9230E+02	1	4	2474
2638	77-Ir-194	1	77	1941	3.1850E-02	8.3000E+04	5.3000E+04	0.0000E+00	3.00	0.0	1.4708E+05	1.0000E+00	1.9230E+02	1	3	2475
2639	77-Ir-194	2	77	1942	1.4800E+07	8.3100E+04	2.3300E+06	0.0000E+00	1.00	0.0	2.4688E+06	1.0000E+00	1.9230E+02	1	4	2476
2640	78-Pt-194	0	78	1940	stable								1.9396E+02	0	0	2513

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT	
2641	79-Au-194	0	79	1940	1.3690E+05	3.5500E+04	1.0550E+06	0.0000E+00	2.00	0.0	2.5494E+06	1.0000E+00	1.9230E+02	1	4	2557	
2642	79-Au-194	1	79	1941	6.0000E-01	7.5000E+04	1.0500E+04	0.0000E+00	3.00	0.0	1.0740E+05	1.0000E+00	1.9230E+02	1	3	2558	
2643	79-Au-194	2	79	1942	4.2000E-01	1.9700E+05	1.5600E+05	0.0000E+00	3.00	0.0	4.7580E+05	1.0000E+00	1.9230E+02	1	3	2559	
2644	80-Hg-194	0	80	1940	1.4000E+10	3.3400E+03	2.2900E+03	0.0000E+00	2.00	0.0	2.9210E+04	1.0000E+00	1.9230E+02	1	3	2603	
2645	81-Tl-194	0	81	1940	1.9800E+03	6.0000E+05	1.0700E+06	0.0000E+00	2.00	0.0	5.2464E+06	1.0000E+00	1.9230E+02	1	4	2649	
2646	81-Tl-194	1	81	1941	1.9680E+03	3.0000E+05	2.5300E+06	0.0000E+00	2.00	0.0	5.4964E+06	1.0000E+00	1.9230E+02	1	4	2650	
2647	82-Pb-194	0	82	1940	7.2000E+02	7.2000E+04	1.0790E+06	3.3870E-01	2.00	0.0	2.7301E+06	1.0000E+00	1.9231E+02	2	4	2694	
2648	83-Bi-194	0	83	1940	9.5000E+01	1.8100E+06	2.2100E+06	6.4000E+04	2.00	0.0	4.7378E+06	7.3000E-08	1.9232E+02	2	5	2740	
2649	83-Bi-194	1	83	1941	1.2500E+02	1.2700E+06	3.0000E+06	0.0000E+00	2.00	0.0	8.2810E+06	1.0000E+00	1.9232E+02	1	4	2741	
2650	83-Bi-194	2	83	1942	1.1500E+02	1.2300E+06	3.2200E+06	3.4800E+04	2.00	0.0	8.4010E+06	9.9800E-01	1.9232E+02	2	5	2742	
2651	84-Po-194	0	84	1940	3.9200E-01	0.0000E+00	0.0000E+00	6.4910E+06	2.00	0.0	5.0320E+06	7.0000E-02	1.9232E+02	2	1	2792	
2652	77-Ir-195	0	77	1950	9.0000E+03	3.8000E+05	5.9000E+04	0.0000E+00	1.00	0.0	6.9870E+06	9.3000E-01	1.9329E+02	1	4	2477	
2653	77-Ir-195	1	77	1951	1.3700E+04	2.5600E+05	3.5300E+05	0.0000E+00	1.00	0.0	1.1020E+06	1.0000E+00	1.9329E+02	3	4	2478	
2654	78-Pt-195	0	78	1950	stable				3.00	0.0	1.0000E+05	5.0000E-02	1.9496E+02	0	0	2514	
2655	78-Pt-195	1	78	1951	3.4650E+05	1.7000E+05	7.5400E+04	0.0000E+00	3.00	0.0	2.5930E+05	1.0000E+00	1.9329E+02	1	3	2515	
2656	79-Au-195	0	79	1950	1.6079E+07	4.2500E+04	8.4100E+04	0.0000E+00	2.00	0.0	2.2682E+05	1.0000E+00	1.9329E+02	1	4	2560	
2657	79-Au-195	1	79	1951	3.0500E+01	1.0940E+05	2.0240E+05	0.0000E+00	3.00	0.0	3.1858E+05	1.0000E+00	1.9329E+02	1	3	2561	
2658	80-Hg-195	0	80	1950	3.7910E+04	5.1000E+04	1.9700E+05	0.0000E+00	2.00	0.0	1.5699E+06	9.7800E-01	1.9329E+02	2	4	2604	
2659	80-Hg-195	1	80	1951	1.5000E+05	8.6000E+04	1.1600E+05	0.0000E+00	2.00	0.0	1.7459E+06	2.3000E-02	1.9329E+02	3	4	2605	
2660	81-Tl-195	0	81	1950	4.1800E+03	5.6000E+04	1.2700E+06	0.0000E+00	2.00	0.0	1.4274E+06	4.3500E-01	1.9329E+02	2	4	2651	
2661	81-Tl-195	1	81	1951	3.6000E+00	1.1600E+05	3.6000E+05	0.0000E+00	3.00	0.0	2.6685E+06	3.7000E-03	1.9329E+02	1	3	2652	
2662	82-Pb-195	0	82	1950	9.0000E+02	4.5200E+05	5.6600E+05	0.0000E+00	2.00	0.0	4.4220E+06	1.0000E+00	1.9330E+02	1	4	2695	
2663	82-Pb-195	1	82	1951	9.0000E+02	1.7400E+05	1.2500E+06	0.0000E+00	2.00	1.0	4.1622E+06	1.0000E+00	1.9330E+02	1	4	2696	
2664	83-Bi-195	0	83	1950	1.8300E+02	5.2400E+05	1.2900E+06	1.1500E+04	2.00	0.0	5.6876E+06	3.9290E-01	1.9331E+02	4	5	2743	
2665	83-Bi-195	1	83	1951	8.7000E+01	0.0000E+00	0.0000E+00	2.0560E+06	2.00	0.0	4.00	6.0886E+06	6.7000E-01	1.9331E+02	2	1	2744
2666	84-Po-195	0	84	1950	4.6400E+00	0.0000E+00	0.0000E+00	7.3600E+06	2.00	1.0	6.2310E+06	3.3000E-01	1.9331E+02	2	1	2793	
2667	84-Po-195	1	84	1951	1.9200E+00	0.0000E+00	0.0000E+00	6.1500E+06	2.00	0.0	6.7499E+06	7.5000E-01	1.9331E+02	2	1	2794	
2668	85-At-195	0	85	1950	3.2800E-01	0.0000E+00	0.0000E+00	6.6350E+06	2.00	0.0	7.5852E+06	6.0000E-02	1.9332E+02	2	1	2831	
2669	85-At-195	1	85	1951	1.4700E-01	0.0000E+00	0.0000E+00	7.0200E+06	2.00	1.0	7.0980E+06	9.4000E-01	1.9332E+02	2	1	2832	
2670	86-Rn-195	0	86	1950	6.0000E-03	0.0000E+00	0.0000E+00	7.6700E+06	2.00	0.0	8.5261E+06	2.5000E-03	1.9334E+02	2	1	2867	
2671	86-Rn-195	1	86	1951	5.0000E-03	0.0000E+00	0.0000E+00	7.7000E+06	2.00	1.0	8.5521E+06	2.0000E-03	1.9334E+02	2	1	2868	

No.	Symbol	S	z	zAAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2672	76-Os-196	0	761960	2.0940E+03	6.0000E+05	6.9600E+04	0.0000E+00	1.00	0.0	1.1591E+06	1.0000E+00	1.9429E+02	1	2	2431	
2673	77-Ir-196	0	771960	5.2000E+01	1.1600E+06	2.3000E+05	0.0000E+00	1.00	0.0	3.2090E+06	1.0000E+00	1.9429E+02	1	4	2479	
2674	77-Ir-196	1	771961	5.0400E+03	4.6000E+05	2.4700E+06	0.0000E+00	1.00	0.0	3.6190E+06	1.0000E+00	1.9429E+02	1	4	2480	
2675	78-Pt-196	0	781960	stable								1.9596E+02	0	0	2516	
2676	79-Au-196	0	791960	5.3282E+05	3.2500E+04	4.7200E+05	0.0000E+00	1.00	0.0	6.8684E+05	7.0000E-02	1.9428E+02	2	5	2562	
2677	79-Au-196	1	791961	8.1000E+00	7.7000E+04	2.7500E+03	0.0000E+00	3.00	0.0	1.5070E+06	9.3000E-01	1.9428E+02	1	3	2563	
2678	79-Au-196	2	791962	3.4600E+04	3.5200E+05	2.2900E+05	0.0000E+00	3.00	0.0	5.9566E+04	1.0000E+00	1.9428E+02	1	3	2564	
2679	80-Hg-196	0	801960	stable								1.9597E+02	0	0	2606	
2680	81-Tl-196	0	811960	6.6200E+03	1.7200E+05	1.8600E+06	0.0000E+00	2.00	0.0	4.3302E+06	1.0000E+00	1.9429E+02	1	4	2653	
2681	81-Tl-196	1	811961	5.0800E+03	1.5100E+05	1.9200E+06	0.0000E+00	2.00	0.0	4.7244E+06	9.6200E-01	1.9429E+02	2	4	2654	
2682	82-Pb-196	0	821960	2.2200E+03	9.2000E+04	5.0100E+05	0.0000E+00	2.00	0.0	2.1360E+06	1.0000E+00	1.9429E+02	1	4	2697	
2683	83-Bi-196	0	831960	3.0800E+02	1.1700E+06	2.2800E+06	0.0000E+00	2.00	0.0	7.3516E+06	9.9999E-01	1.9430E+02	2	5	2745	
2684	83-Bi-196	1	831961	6.0000E-01	1.1693E+05	4.4620E+04	0.0000E+00	3.00	0.0	1.6700E+05	1.0000E+00	1.9430E+02	1	3	2746	
2685	83-Bi-196	2	831962	2.4000E+02	7.1000E+05	2.1400E+06	1.2300E+04	2.00	0.0	7.6226E+06	7.4000E-01	1.9430E+02	3	4	2747	
2686	84-Po-196	0	841960	5.7300E+00	0.0000E+00	0.0000E+00	6.2540E+06	2.00	0.0	4.5700E+06	3.8000E-06	1.9430E+02	2	1	2795	
2687	85-At-196	0	851960	2.5300E-01	0.0000E+00	0.0000E+00	6.8400E+06	2.00	0.0	6.6580E+06	9.4000E-01	1.9431E+02	2	1	2833	
2688	86-Rn-196	0	861960	3.0000E-03	0.0000E+00	0.0000E+00	7.6000E+06	2.00	0.0	5.8900E+06	2.0000E-03	1.9432E+02	2	1	2869	
2689	78-Pt-197	0	781970	7.1609E+04	2.5100E+05	2.5100E+04	0.0000E+00	1.00	0.0	7.6167E+06	9.9800E-01	1.9527E+02	1	4	2517	
2690	78-Pt-197	1	781971	5.7250E+03	3.1600E+05	8.3000E+04	0.0000E+00	1.00	0.0	1.1186E+06	3.3000E-02	1.9527E+02	2	4	2518	
2691	79-Au-197	0	791970	stable								1.9697E+02	0	0	2565	
2692	79-Au-197	1	791971	7.7300E+00	1.7500E+05	2.2510E+05	0.0000E+00	3.00	0.0	4.0915E+05	1.0000E+00	1.9527E+02	1	3	2566	
2693	80-Hg-197	0	801970	2.3090E+05	6.4200E+04	9.9000E+04	0.0000E+00	2.00	0.0	5.9994E+05	1.0000E+00	1.9527E+02	1	4	2607	
2694	80-Hg-197	1	801971	8.5700E+04	1.9300E+05	7.7700E+04	0.0000E+00	2.00	1.0	4.8972E+05	8.6000E-02	1.9527E+02	2	4	2608	
2695	81-Tl-197	0	811970	1.0220E+04	4.7000E+04	4.6000E+05	0.0000E+00	2.00	0.0	2.9893E+05	9.1400E-01	1.9528E+02	1	4	2655	
2696	81-Tl-197	1	811971	5.4000E-01	1.6900E+05	4.3500E+05	0.0000E+00	3.00	0.0	6.0800E+05	1.0000E+00	1.9528E+02	1	3	2656	
2697	82-Pb-197	0	821970	4.8000E+02	7.5000E+04	1.5300E+06	0.0000E+00	2.00	0.0	3.5912E+06	1.0000E+00	1.9528E+02	1	4	2698	
2698	82-Pb-197	1	821971	2.5700E+03	1.0000E+05	8.9000E+05	0.0000E+00	2.00	1.0	3.3023E+06	8.1000E-01	1.9528E+02	2	4	2699	
2699	83-Bi-197	0	831970	5.6000E+02	2.6600E+05	1.8000E+06	0.0000E+00	2.00	0.0	5.0617E+06	2.3400E-01	1.9529E+02	2	4	2748	
2700	83-Bi-197	1	831971	3.0200E+02	0.0000E+00	4.0000E+04	3.2410E+06	2.00	0.0	4.7424E+06	7.6600E-01	1.9529E+02	2	2	2749	
2701	84-Po-197	0	841970	5.3600E+01	0.0000E+00	0.0000E+00	2.8200E+06	2.00	1.0	5.9000E+06	6.0000E-01	1.9529E+02	2	1	2796	
2702	84-Po-197	1	841971	2.5800E+01	0.0000E+00	0.0000E+00	5.4350E+06	2.00	0.0	6.4115E+06	5.6000E-01	1.9529E+02	2	1	2797	
2703	85-At-197	0	851970	3.8800E-01	0.0000E+00	0.0000E+00	7.1010E+06	2.00	1.0	6.8100E+06	3.9000E-02	1.9530E+02	2	1	2834	
2704	85-At-197	1	851971	2.0000E+00	0.0000E+00	0.0000E+00	6.8400E+06	4.00	1.0	7.1037E+06	9.6100E-01	1.9530E+02	1	1	2835	
2705	86-Rn-197	0	861970	6.6000E-02	0.0000E+00	0.0000E+00	7.4100E+06	4.00	0.0	6.8400E+06	1.0000E+00	1.9531E+02	1	1	2870	

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2706	86-Rn-197	1	86	1971	2.1000E-02	0.0000E+00	0.0000E+00	7.5100E+06	4.00	1.0	7.4100E+06	1.0000E+00	1.9531E+02	1	1	2871
2707	78-Pt-198	0	78	1980	stable								1.9797E+02	0	0	2519
2708	79-Au-198	0	79	1980	2.3282E+05	3.2740E+05	4.0310E+05	0.0000E+00	1.00	0.0	1.3728E+06	1.0000E+00	1.9627E+02	1	4	2567
2709	79-Au-198	1	79	1981	1.9630E+05	2.5600E+05	5.3700E+05	0.0000E+00	3.00	0.0	8.1170E+05	1.0000E+00	1.9627E+02	1	3	2568
2710	80-Hg-198	0	80	1980	stable								1.9797E+02	0	0	2609
2711	81-Tl-198	0	81	1980	1.9100E+04	3.2100E+04	2.0000E+06	0.0000E+00	2.00	0.0	3.4600E+06	1.0000E+00	1.9627E+02	1	4	2657
2712	81-Tl-198	1	81	1981	6.7300E+03	1.8000E+05	1.2500E+06	0.0000E+00	2.00	0.0	4.0036E+06	5.5900E-01	1.9627E+02	2	4	2658
2713	81-Tl-198	2	81	1982	3.2100E-02	4.2100E+05	2.9700E+05	0.0000E+00	3.00	0.0	5.4350E+05	4.4100E-01	1.9627E+02	2	4	2658
2714	82-Pb-198	0	82	1980	8.6000E+03	7.0000E+04	4.3800E+05	0.0000E+00	2.00	0.0	7.4230E+05	1.0000E+00	1.9627E+02	1	3	2659
2715	83-Bi-198	0	83	1980	6.1800E+02	0.0000E+00	0.0000E+00	0.0000E+00	3.00	0.0	1.4448E+06	1.0000E+00	1.9627E+02	1	4	2700
2716	83-Bi-198	1	83	1981	6.9600E+02	8.5000E+05	2.7100E+06	0.0000E+00	2.00	0.0	6.6806E+06	1.0000E+00	1.9798E+02	1	0	2750
2717	83-Bi-198	2	83	1982	7.7000E+00	8.0700E+04	9.6900E+04	0.0000E+00	3.00	0.0	2.4850E+05	1.0000E+00	1.9628E+02	1	4	2751
2718	84-Po-198	0	84	1980	1.0620E+02	0.0000E+00	0.0000E+00	3.5950E+06	2.00	0.0	3.8966E+06	4.3000E-01	1.9628E+02	2	1	2798
2719	85-At-198	0	85	1980	4.1000E+00	0.0000E+00	0.0000E+00	6.7000E+06	2.00	0.0	8.7520E+06	3.0000E-02	1.9629E+02	2	1	2836
2720	85-At-198	1	85	1981	1.0300E+00	0.0000E+00	0.0000E+00	6.5000E+06	2.00	0.0	6.8898E+06	9.7000E-01	1.9629E+02	2	1	2837
2721	86-Rn-198	0	86	1980	6.5000E-02	0.0000E+00	0.0000E+00	7.3100E+06	2.00	0.0	5.4400E+06	6.0000E-03	1.9630E+02	2	1	2872
2722	78-Pt-199	0	78	1990	1.8480E+03	5.6300E+05	1.5820E+05	0.0000E+00	1.00	0.0	7.3493E+06	9.9400E-01	1.9726E+02	1	4	2520
2723	78-Pt-199	1	78	1991	1.3600E+01	7.6200E+04	3.4110E+05	0.0000E+00	3.00	0.0	1.7046E+06	1.0000E+00	1.9726E+02	1	3	2521
2724	79-Au-199	0	79	1990	2.7120E+05	1.1500E+05	9.5200E+04	0.0000E+00	1.00	0.0	4.5144E+05	1.0000E+00	1.9726E+02	1	4	2569
2725	80-Hg-199	0	80	1990	stable								1.9897E+02	0	0	2610
2726	80-Hg-199	1	80	1991	2.5600E+03	3.3900E+05	1.8300E+05	0.0000E+00	3.00	0.0	5.3248E+05	1.0000E+00	1.9726E+02	1	3	2611
2727	81-Tl-199	0	81	1990	2.6700E+04	5.2500E+04	2.5100E+05	0.0000E+00	2.00	0.0	4.4870E+06	1.0000E+00	1.9726E+02	1	4	2660
2728	81-Tl-199	1	81	1991	2.8400E-02	9.5000E+04	6.5710E+05	0.0000E+00	3.00	0.0	7.4980E+05	1.0000E+00	1.9726E+02	1	3	2661
2729	82-Pb-199	0	82	1990	5.4000E+03	4.8000E+04	1.0300E+06	0.0000E+00	2.00	0.0	2.8277E+06	1.0000E+00	1.9726E+02	1	4	2701
2730	82-Pb-199	1	82	1991	7.3200E+02	2.7500E+05	1.3880E+05	0.0000E+00	2.00	1.0	2.5130E+06	7.0000E-02	1.9726E+02	2	4	2702
2731	83-Bi-199	0	83	1990	1.6200E+03	2.1800E+05	1.3180E+06	0.0000E+00	2.00	0.0	4.4342E+06	3.0000E-01	1.9727E+02	2	4	2753
2732	83-Bi-199	1	83	1991	1.4820E+03	0.0000E+00	0.0000E+00	5.4840E+02	2.00	0.0	4.0001E+06	7.0000E-01	1.9727E+02	2	1	2754
2733	84-Po-199	0	84	1990	3.2800E+02	4.6500E+05	2.5300E+06	4.6350E+05	2.00	0.0	5.5990E+06	1.0000E-04	1.9727E+02	3	5	2799
2734	84-Po-199	1	84	1991	2.5000E+02	3.6900E+05	1.4000E+06	1.4905E+06	2.00	0.0	6.0742E+06	7.5000E-02	1.9727E+02	3	5	2800
2735	85-At-199	0	85	1990	7.0300E+00	0.0000E+00	0.0000E+00	6.0990E+06	2.00	1.0	5.8935E+06	7.3500E-01	1.9728E+02	2	1	2838
2736	86-Rn-199	0	86	1990	5.9000E-01	0.0000E+00	0.0000E+00	6.7000E+06	2.00	0.0	7.3236E+06	6.0000E-02	1.9729E+02	2	1	2873
2737	86-Rn-199	1	86	1991	3.1000E-01	0.0000E+00	0.0000E+00	6.9900E+06	2.00	0.0	7.1362E+06	9.4000E-01	1.9729E+02	2	1	2874
2738	78-Pt-200	0	78	2000	4.5400E+04	2.0200E+05	4.1900E+04	0.0000E+00	1.00	0.0	7.1300E+06	9.7000E-01	1.9825E+02	1	2	2522
2739	79-Au-200	0	79	2000	2.9040E+03	7.3000E+05	2.7300E+05	0.0000E+00	1.00	0.0	2.2634E+06	1.0000E+00	1.9825E+02	1	4	2570
2740	79-Au-200	1	79	2001	6.7300E+04	2.4000E+05	2.2300E+06	0.0000E+00	1.00	0.0	3.2254E+06	8.4000E-01	1.9825E+02	2	4	2571

No.	Symbol	S	Z	A	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2741	80-Hg-200	0	80	200	0	stable	3.6600E+04	1.3200E+06	0.0000E+00	2.00	0.0	2.4560E+06	1.0000E+00	1.9997E+02	0	0	2612
2742	81-Tl-200	0	81	200	0	stable	3.6600E+04	1.3200E+06	0.0000E+00	2.00	0.0	2.4560E+06	1.0000E+00	1.9825E+02	1	4	2662
2743	81-Tl-200	1	81	200	1	3.4000E-02	1.6900E+05	5.7900E+05	0.0000E+00	3.00	0.0	7.5360E+05	1.0000E+00	1.9825E+02	1	3	2663
2744	82-Pb-200	0	82	200	0	7.7400E+04	9.0200E+04	2.0900E+05	0.0000E+00	2.00	0.0	7.9702E+05	1.0000E+00	1.9825E+02	1	4	2703
2745	83-Bi-200	0	83	200	0	2.1800E+03	2.0000E+05	2.4000E+06	0.0000E+00	2.00	0.0	5.8799E+06	1.0000E+00	1.9826E+02	1	4	2755
2746	83-Bi-200	1	83	200	1	1.8600E+03	5.4000E+05	1.7400E+06	0.0000E+00	2.00	0.0	6.0798E+06	1.0000E+00	1.9826E+02	1	4	2756
2747	83-Bi-200	2	83	200	2	4.0000E-01	5.6100E+04	3.6511E+05	0.0000E+00	3.00	0.0	4.2820E+05	1.0000E+00	1.9826E+02	1	2	2757
2748	84-Po-200	0	84	200	0	6.9000E+02	8.1000E+04	7.7000E+05	6.6483E+05	2.00	1.0	3.2164E+06	8.8900E-01	1.9826E+02	2	5	2801
2749	85-At-200	0	85	200	0	4.3000E+01	3.3000E+05	8.0000E+05	3.4353E+06	2.00	0.0	7.9664E+06	4.8000E-01	1.9827E+02	2	5	2839
2750	85-At-200	1	85	200	1	4.7000E+01	6.0000E+05	1.4000E+06	2.8234E+06	2.00	0.0	6.5961E+06	5.2000E-01	1.9827E+02	4	5	2840
2751	85-At-200	2	85	200	2	7.3000E+00	2.2000E+04	5.1000E+03	7.0014E+05	2.00	0.0	6.4310E+06	7.0000E-04	1.9827E+02	3	4	2841
2752	86-Rn-200	0	86	200	0	9.6000E-01	0.0000E+00	0.0000E+00	6.9000E+06	2.00	0.0	4.9736E+06	1.0500E-01	1.9828E+02	2	1	2875
2753	87-Fr-200	0	87	200	0	4.9000E-02	0.0000E+00	0.0000E+00	7.6200E+06	4.00	0.0	7.0433E+06	9.8000E-01	1.9829E+02	1	1	2903
2754	79-Au-201	0	79	201	0	1.5600E+03	4.5100E+05	5.4600E+04	0.0000E+00	1.00	0.0	7.6225E+06	1.0000E+00	1.9924E+02	1	4	2572
2755	80-Hg-201	0	80	201	0	stable	3.0500E+04	7.9000E+04	0.0000E+00	2.00	0.0	4.8379E+05	1.0000E+00	2.0097E+02	0	0	2613
2756	81-Tl-201	0	81	201	0	2.6284E+05	6.3900E+04	8.5150E+05	0.0000E+00	3.00	0.0	9.1910E+05	1.0000E+00	1.9924E+02	1	4	2664
2757	81-Tl-201	1	81	201	1	2.0100E-03	3.0500E+04	7.9000E+04	0.0000E+00	2.00	0.0	4.8379E+05	1.0000E+00	1.9924E+02	1	3	2665
2758	82-Pb-201	0	82	201	0	3.3590E+04	5.6200E+04	7.5300E+05	0.0000E+00	2.00	0.0	1.9195E+06	1.0000E+00	1.9925E+02	1	4	2704
2759	82-Pb-201	1	82	201	1	6.0800E+01	2.3100E+05	3.4660E+05	0.0000E+00	3.00	0.0	6.2910E+05	1.0000E+00	1.9925E+02	1	2	2705
2760	83-Bi-201	0	83	201	0	6.1800E+03	4.6100E+04	1.8700E+06	0.0000E+00	2.00	0.0	3.8447E+06	5.5000E-01	1.9925E+02	2	4	2758
2761	83-Bi-201	1	83	201	1	3.5500E+03	1.4200E+04	5.7800E+04	1.5720E+04	2.00	1.0	3.2156E+06	4.5000E-01	1.9925E+02	3	4	2759
2762	84-Po-201	0	84	201	0	9.1800E+02	2.1790E+05	1.2480E+06	9.6550E+04	2.00	1.0	4.6911E+05	9.1100E-01	1.9926E+02	2	5	2802
2763	84-Po-201	1	84	201	1	5.3400E+02	1.0700E+06	9.3200E+05	1.7225E+05	2.00	0.0	5.3139E+06	4.1400E-01	1.9926E+02	3	5	2803
2764	85-At-201	0	85	201	0	8.3000E+01	0.0000E+00	0.0000E+00	3.8164E+06	2.00	1.0	6.2230E+06	2.4000E-02	1.9926E+02	2	1	2842
2765	86-Rn-201	0	86	201	0	7.1000E+00	0.0000E+00	0.0000E+00	5.4570E+06	2.00	0.0	6.7169E+06	2.0000E-01	1.9927E+02	2	1	2876
2766	86-Rn-201	1	86	201	1	3.8000E+00	0.0000E+00	0.0000E+00	6.2170E+06	2.00	0.0	6.9969E+06	1.0000E-01	1.9927E+02	2	1	2877
2767	87-Fr-201	0	87	201	0	6.9000E-02	0.0000E+00	0.0000E+00	7.5100E+06	4.00	0.0	7.5210E+06	1.0000E+00	1.9928E+02	1	1	2904
2768	77-Ir-202	0	77	202	0	1.1000E+01	2.2510E+06	0.0000E+00	0.0000E+00	1.00	0.0	5.9160E+06	1.0000E+00	2.0024E+02	1	1	2481
2769	78-Pt-202	0	78	202	0	1.6000E+05	6.5470E+05	0.0000E+00	0.0000E+00	1.00	0.0	1.6608E+06	1.0000E+00	2.0024E+02	1	1	2523
2770	79-Au-202	0	79	202	0	2.8400E+01	1.0900E+06	1.7800E+05	0.0000E+00	1.00	0.0	2.9925E+06	1.0000E+00	2.0024E+02	1	4	2573
2771	80-Hg-202	0	80	202	0	stable	3.0500E+04	7.9000E+04	0.0000E+00	2.00	0.0	4.8379E+05	1.0000E+00	2.0197E+02	0	0	2614
2772	81-Tl-202	0	81	202	0	1.0640E+06	1.8800E+04	4.6600E+05	0.0000E+00	2.00	0.0	1.3591E+06	1.0000E+00	2.0024E+02	1	4	2666
2773	82-Pb-202	0	82	202	0	1.6600E+12	3.0000E+03	2.3000E+03	2.5450E+04	2.00	0.0	4.6188E+04	9.9500E-01	2.0024E+02	2	4	2706

No.	Symbol	S	z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2774	82-Pb-202	1	82	2021	1.2740E+04	1.1700E+05	1.9600E+06	0.0000E+00	2.00	0.0	2.2160E+06	9.5000E-02	2.0024E+02	2	4	2707
2775	83-Bi-202	0	83	2020	6.1600E+03	1.4500E+05	2.7560E+06	0.0000E+00	2.00	0.0	2.1698E+06	9.0500E-01	2.0024E+02	1	4	2760
2776	84-Po-202	0	84	2020	2.6760E+03	0.0000E+00	0.0000E+00	1.0942E+05	2.00	0.0	5.1994E+06	1.0000E+00	2.0025E+02	2	1	2804
2777	85-At-202	0	85	2020	1.8400E+02	8.0000E+05	7.7000E+05	2.3664E+06	2.00	0.0	2.8166E+06	9.8080E-01	2.0025E+02	2	5	2843
2778	85-At-202	1	85	2021	1.8200E+02	7.4000E+05	2.1500E+06	5.5800E+05	2.00	0.0	1.9200E-02	6.3000E-01	2.0025E+02	2	5	2844
2779	85-At-202	2	85	2022	4.6000E-01	9.4000E+04	4.0030E+05	5.9780E+03	3.00	0.0	6.3537E+06	8.7000E-02	2.0025E+02	2	4	2845
2780	86-Rn-202	0	86	2020	9.7000E+00	0.0000E+00	0.0000E+00	5.2820E+06	2.00	0.0	3.9170E+05	9.9904E-01	2.0026E+02	2	1	2878
2781	87-Fr-202	0	87	2020	3.0000E-01	0.0000E+00	0.0000E+00	7.3800E+06	4.00	0.0	6.7737E+06	7.8000E-01	2.0027E+02	1	1	2905
2782	87-Fr-202	1	87	2021	2.9000E-01	0.0000E+00	0.0000E+00	7.3800E+06	4.00	0.0	7.3886E+06	1.0000E+00	2.0027E+02	1	1	2906
2783	79-Au-203	0	79	2030	6.0000E+01	7.8000E+05	7.9000E+03	0.0000E+00	1.00	0.0	7.3890E+06	1.0000E+00	2.0123E+02	1	2	2574
2784	80-Hg-203	0	80	2030	4.0257E+06	9.8500E+04	2.3786E+05	0.0000E+00	1.00	0.0	2.1253E+06	1.0000E+00	2.0123E+02	1	4	2615
2785	81-Tl-203	0	81	2030	stable	stable	stable	0.0000E+00	1.00	0.0	4.9206E+05	1.0000E+00	2.0297E+02	0	0	2667
2786	82-Pb-203	0	82	2030	1.8691E+05	5.2000E+04	3.1300E+05	0.0000E+00	2.00	0.0	9.7484E+05	1.0000E+00	2.0123E+02	1	4	2708
2787	82-Pb-203	1	82	2031	6.2100E+00	1.5300E+05	6.5900E+05	0.0000E+00	3.00	0.0	8.2530E+05	1.0000E+00	2.0123E+02	1	3	2709
2788	82-Pb-203	2	82	2032	4.8000E-01	3.8100E+05	2.6100E+06	0.0000E+00	3.00	0.0	2.9491E+06	1.0000E+00	2.0123E+02	1	3	2710
2789	83-Bi-203	0	83	2030	4.2340E+04	6.9000E+04	2.4400E+06	0.0000E+00	2.00	0.0	3.2618E+06	1.0000E+00	2.0123E+02	1	4	2761
2790	83-Bi-203	1	83	2031	3.0500E-01	1.5800E+05	9.3000E+05	0.0000E+00	3.00	0.0	1.0981E+06	1.0000E+00	2.0123E+02	1	3	2762
2791	84-Po-203	0	84	2030	2.2000E+03	1.0600E+05	1.5300E+06	7.4000E+03	2.00	0.0	4.2135E+06	7.1820E-01	2.0124E+02	3	5	2805
2792	84-Po-203	1	84	2031	4.5000E+01	0.0000E+00	3.4400E+05	0.0000E+00	3.00	0.0	3.1154E+06	2.8070E-01	2.0124E+02	1	1	2806
2793	85-At-203	0	85	2030	4.4400E+02	4.5000E+05	9.2100E+05	1.6834E+06	2.00	0.0	5.4960E+06	1.1000E-03	2.0124E+02	3	5	2846
2794	86-Rn-203	0	86	2030	4.4000E+01	0.0000E+00	0.0000E+00	4.3550E+06	2.00	0.0	6.2100E+06	2.7000E-01	2.0125E+02	2	1	2879
2795	86-Rn-203	1	86	2031	2.6900E+01	0.0000E+00	0.0000E+00	5.2102E+06	2.00	0.0	6.0032E+06	3.4000E-01	2.0125E+02	2	1	2880
2796	87-Fr-203	0	87	2030	5.4900E-01	0.0000E+00	0.0000E+00	6.9100E+06	2.00	1.0	6.6820E+06	7.8000E-01	2.0126E+02	2	1	2907
2797	88-Ra-203	0	88	2030	3.1000E-02	0.0000E+00	0.0000E+00	7.7400E+06	4.00	0.0	7.2748E+06	9.5000E-01	2.0126E+02	1	1	2943
2798	88-Ra-203	1	88	2031	2.4000E-02	0.0000E+00	0.0000E+00	7.7600E+06	4.00	1.0	7.7418E+06	1.0000E+00	2.0126E+02	1	1	2944
2799	79-Au-204	0	79	2040	3.9800E+01	8.7000E+05	2.0100E+06	0.0000E+00	1.00	0.0	7.7700E+06	1.0000E+00	2.0223E+02	1	4	2575
2800	80-Hg-204	0	80	2040	stable	stable	stable	0.0000E+00	1.00	0.0	4.0400E+06	1.0000E+00	2.0397E+02	0	0	2616
2801	81-Tl-204	0	81	2040	1.1940E+08	2.3707E+05	1.2670E+03	0.0000E+00	1.00	0.0	7.6375E+05	9.7080E-01	2.0222E+02	2	4	2668
2802	82-Pb-204	0	82	2040	4.4000E+24	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.4458E+05	2.9200E-02	2.0397E+02	1	0	2711
2803	82-Pb-204	1	82	2041	4.0160E+03	1.0150E+05	2.0890E+06	0.0000E+00	3.00	0.0	1.9693E+06	1.0000E+00	2.0222E+02	1	3	2712
2804	83-Bi-204	0	83	2040	4.0400E+04	7.2200E+04	2.9400E+06	0.0000E+00	2.00	0.0	2.1859E+06	1.0000E+00	2.0223E+02	2	4	2763
2805	83-Bi-204	1	83	2041	1.3000E-02	6.2300E+04	7.3684E+05	0.0000E+00	3.00	0.0	4.4638E+06	8.5100E-01	2.0223E+02	1	3	2764
2806	83-Bi-204	2	83	2042	1.0700E-03	3.4400E+05	2.4650E+06	0.0000E+00	3.00	0.0	8.0550E+05	1.0000E+00	2.0223E+02	1	3	2765
2807	84-Po-204	0	84	2040	1.2710E+04	1.7000E+05	1.3190E+06	3.5489E+04	2.00	0.0	2.3034E+06	1.0000E+00	2.0223E+02	2	5	2807
								4.00	0.0	5.4848E+06	6.7000E-03					

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2808	85-At-204	0	852040	5.5300E+02	3.9400E+05	2.2400E+06	2.4371E+05	2.00	0.0	6.4654E+06	9.6090E-01	2.0224E+02	2	5	2847	
2809	85-At-204	1	852041	1.0800E-01	3.5500E+04	5.5100E+05	0.0000E+00	3.00	0.0	6.0703E+06	3.9100E-02	2.0224E+02	1	3	2848	
2810	86-Rn-204	0	862040	7.3800E+01	0.0000E+00	0.0000E+00	4.7386E+06	2.00	0.0	5.8730E+05	1.0000E+00	2.0224E+02	2	1	2881	
2811	87-Fr-204	0	872040	1.9000E+00	0.0000E+00	0.0000E+00	5.0180E+06	2.00	0.0	3.8925E+06	2.7600E+00	2.0224E+02	2	1	2908	
2812	87-Fr-204	1	872041	1.6000E+00	0.0000E+00	0.0000E+00	2.1320E+06	2.00	0.0	7.2400E-01	3.0000E-01	2.0225E+02	2	1	2909	
2813	87-Fr-204	2	872042	8.0000E-01	0.0000E+00	0.0000E+00	7.1500E+06	4.00	2.0	7.1704E+06	7.0000E-01	2.0225E+02	3	1	2909	
2814	88-Ra-204	0	882040	5.7000E-02	0.0000E+00	0.0000E+00	7.6300E+06	4.00	0.0	7.1050E+06	2.9800E-03	2.0225E+02	1	1	2910	
2815	79-Au-205	0	792050	3.1000E+01	1.1000E+06	4.5000E+05	0.0000E+00	1.00	0.0	7.1430E+06	1.0000E+00	2.0225E+02	1	1	2945	
2816	80-Hg-205	0	802050	3.0800E+02	5.3900E+05	5.3000E+03	0.0000E+00	1.00	0.0	7.6366E+06	1.0000E+00	2.0322E+02	1	4	2576	
2817	80-Hg-205	1	802051	1.0900E+00	1.1280E+05	1.3671E+06	0.0000E+00	3.00	0.0	3.5180E+06	1.0000E+00	2.0322E+02	1	4	2617	
2818	81-Tl-205	0	812050	stable	stable	stable	0.0000E+00	3.00	0.0	1.5329E+06	1.0000E+00	2.0322E+02	1	3	2618	
2819	82-Pb-205	0	822050	5.4600E+14	2.9490E+03	2.2650E+03	0.0000E+00	2.00	0.0	2.0498E+02	2.0498E+02	2.0322E+02	0	0	2669	
2820	82-Pb-205	1	822051	5.5500E-03	3.2000E+04	9.6000E+05	0.0000E+00	3.00	0.0	5.0632E+04	1.0000E+00	2.0322E+02	1	3	2713	
2821	83-Bi-205	0	832050	1.3230E+06	1.9100E+04	1.5570E+06	0.0000E+00	2.00	0.0	1.0137E+06	1.0000E+00	2.0322E+02	1	3	2714	
2822	84-Po-205	0	842050	6.3000E+03	5.3500E+04	1.6700E+06	2.0880E+03	2.00	0.0	2.7056E+06	8.6500E-01	2.0322E+02	2	4	2766	
2823	84-Po-205	1	842051	5.7400E-02	3.3500E+04	5.3283E+05	0.0000E+00	3.00	0.0	1.6917E+06	1.3500E-01	2.0322E+02	2	5	2808	
2824	85-At-205	0	852050	1.6100E+03	1.6900E+05	1.5400E+06	6.0360E+05	2.00	0.0	5.3253E+06	4.0000E-04	2.0322E+02	1	3	2809	
2825	86-Rn-205	0	862050	1.7000E+02	0.0000E+00	0.0000E+00	1.5697E+06	2.00	0.0	1.4610E+06	1.0000E+00	2.0322E+02	2	5	2849	
2826	87-Fr-205	0	872050	3.9200E+00	0.0000E+00	0.0000E+00	7.0503E+06	4.00	0.0	6.0195E+06	1.0000E-01	2.0322E+02	2	1	2882	
2827	88-Ra-205	0	882050	2.1000E-01	0.0000E+00	0.0000E+00	7.5000E+06	4.00	0.0	7.5400E+06	7.5400E-01	2.0322E+02	2	1	2882	
2828	88-Ra-205	1	882051	1.7000E-01	0.0000E+00	0.0000E+00	7.5000E+06	4.00	1.0	6.3861E+06	2.4600E-01	2.0324E+02	1	1	2911	
2829	80-Hg-206	0	802060	4.9900E+02	4.2000E+05	1.0200E+05	0.0000E+00	1.00	0.0	7.0546E+06	1.0000E+00	2.0324E+02	1	1	2946	
2830	81-Tl-206	0	812060	2.5210E+02	5.3840E+05	4.1000E+01	0.0000E+00	1.00	0.0	7.4864E+06	1.0000E+00	2.0324E+02	1	1	2947	
2831	81-Tl-206	1	812061	2.2440E+02	2.1100E+05	2.4300E+06	0.0000E+00	3.00	0.0	7.4900E+06	1.0000E+00	2.0324E+02	1	1	2947	
2832	82-Pb-206	0	822060	stable	stable	stable	0.0000E+00	3.00	0.0	1.3076E+06	1.0000E+00	2.0421E+02	1	4	2619	
2833	83-Bi-206	0	832060	5.3940E+05	1.2660E+05	3.2800E+06	0.0000E+00	2.00	0.0	1.5322E+06	1.0000E+00	2.0421E+02	1	3	2670	
2834	84-Po-206	0	842060	7.6000E+05	1.4000E+05	1.1440E+06	2.9023E+05	2.00	0.0	2.6433E+06	1.0000E+00	2.0421E+02	1	3	2671	
2835	85-At-206	0	852060	1.8400E+03	3.6000E+05	2.4500E+06	5.7900E+04	2.00	0.0	3.7573E+06	1.0000E+00	2.0421E+02	1	4	2767	
2836	86-Rn-206	0	862060	3.4000E+02	0.0000E+00	0.0000E+00	4.0204E+06	2.00	0.0	1.8394E+06	9.4550E-01	2.0421E+02	2	5	2810	
2837	87-Fr-206	0	872060	1.6000E+01	2.6500E+05	2.8200E+05	5.8200E+06	2.00	0.0	5.3270E+06	5.4500E-02	2.0422E+02	2	5	2850	
2838	87-Fr-206	1	872061	1.6000E+01	1.9000E+05	3.9800E+05	5.8180E+06	2.00	0.0	9.1000E-01	2.0422E+02	2.0422E+02	2	5	2850	
2839	87-Fr-206	2	872062	7.0000E-01	4.7200E+03	2.0000E+04	3.5320E+05	2.00	0.0	5.8869E+06	9.0000E-03	2.0422E+02	2	2	2883	
2840	88-Ra-206	0	882060	2.4000E-01	0.0000E+00	0.0000E+00	7.4100E+06	4.00	0.0	3.3136E+06	3.8000E-01	2.0423E+02	2	5	2912	
2841	89-Ac-206	0	892060	2.2000E-02	0.0000E+00	0.0000E+00	7.9000E+06	4.00	0.0	6.9234E+06	8.4000E-01	2.0423E+02	2	5	2913	
2842	89-Ac-206	1	892061	3.3000E-02	0.0000E+00	0.0000E+00	7.9000E+06	4.00	1.0	7.8729E+06	1.6000E-01	2.0423E+02	2	4	2914	

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2843	80-Hg-207	0	802070	1.7400E+02	9.5000E+05	1.3925E+06	0.0000E+00	1.00 0.0	4.5460E+06	2.5000E-01	2.0520E+02	2	4	2620		
2844	81-Tl-207	0	812070	2.8620E+02	4.9530E+05	2.3500E+03	0.0000E+00	1.00 1.0	3.1978E+06	7.5000E-01	2.0520E+02	1	4	2672		
2845	81-Tl-207	1	812071	1.3300E+00	0.0000E+00	1.3500E+06	0.0000E+00	3.00 0.0	1.4181E+06	1.0000E+00	2.0520E+02	1	1	2673		
2846	82-Pb-207	0	822070	stable					1.3500E+06	1.0000E+00	2.0698E+02	0	0	2716		
2847	82-Pb-207	1	822071	8.0600E-01	0.0000E+00	1.4990E+06	0.0000E+00	3.00 0.0	1.6330E+06	1.0000E+00	2.0520E+02	1	1	2717		
2848	83-Bi-207	0	832070	9.9560E+08	5.4800E+03	2.9080E+05	1.0742E+03	2.00 0.0	2.3974E+06	1.6000E-01	2.0520E+02	2	4	2768		
2849	84-Po-207	0	842070	2.0880E+04	4.2600E+04	1.2840E+06	1.0742E+03	2.00 0.0	7.6405E+05	8.4000E-01	2.0520E+02	2	5	2811		
2850	84-Po-207	1	842071	2.7900E+00	2.8500E+05	1.0750E+06	0.0000E+00	3.00 0.0	5.2158E+06	2.1000E-04	2.0520E+02	1	3	2812		
2851	85-At-207	0	852070	6.4800E+03	1.1300E+05	2.0200E+06	5.0500E+05	2.00 0.0	1.3830E+06	1.0000E+00	2.0521E+02	3	5	2851		
2852	86-Rn-207	0	862070	5.5500E+02	2.0200E+05	9.5300E+05	1.3155E+06	2.00 0.0	3.9184E+06	9.0400E-01	2.0521E+02	2	5	2884		
2853	87-Fr-207	0	872070	1.4800E+01	0.0000E+00	0.0000E+00	6.5530E+06	2.00 0.0	2.5111E+06	2.1000E-01	2.0522E+02	2	1	2915		
2854	88-Ra-207	0	882070	1.2000E+00	0.0000E+00	0.0000E+00	6.2510E+06	2.00 0.0	5.7904E+06	5.0000E-02	2.0523E+02	2	1	2949		
2855	88-Ra-207	1	882071	5.7000E-02	0.0000E+00	0.0000E+00	1.1200E+06	3.00 0.0	6.8933E+06	9.5000E-01	2.0523E+02	2	1	2950		
2856	89-Ac-207	0	892070	2.7000E-02	0.0000E+00	0.0000E+00	7.8000E+06	4.00 0.0	7.4650E+06	1.5000E-01	2.0523E+02	1	1	2979		
2857	80-Hg-208	0	802080	2.5000E+03	0.0000E+00	4.6500E+06	0.0000E+00	1.00 0.0	7.8449E+06	1.0000E+00	2.0620E+02	1	1	2621		
2858	81-Tl-208	0	812080	1.8318E+02	5.9600E+05	3.3810E+06	0.0000E+00	1.00 0.0	3.4838E+06	1.0000E+00	2.0620E+02	1	4	2674		
2859	82-Pb-208	0	822080	stable					4.9989E+06	1.0000E+00	2.0798E+02	0	0	2718		
2860	83-Bi-208	0	832080	1.1610E+13	4.6300E+03	2.6437E+06	0.0000E+00	2.00 0.0	5.5400E+05	8.5000E-01	2.0619E+02	1	4	2769		
2861	83-Bi-208	1	832081	2.5800E-03	7.2000E+04	1.5000E+06	0.0000E+00	3.00 0.0	7.4650E+06	1.5000E-01	2.0619E+02	1	3	2770		
2862	84-Po-208	0	842080	9.1450E+07	5.1000E+00	3.3900E+01	5.2130E+06	2.00 0.0	7.2730E+06	4.0000E-05	2.0620E+02	2	4	2813		
2863	85-At-208	0	852080	5.8700E+03	1.2400E+05	3.0300E+06	3.2123E+04	2.00 0.0	5.2153E+06	9.9996E-01	2.0620E+02	2	5	2852		
2864	86-Rn-208	0	862080	1.4610E+03	7.8000E+04	5.4800E+05	3.8800E+06	4.00 0.0	4.9995E+06	9.9450E-01	2.0620E+02	2	4	2885		
2865	87-Fr-208	0	872080	5.9100E+01	7.0000E+04	2.4000E+05	6.0260E+06	2.00 0.0	2.8144E+06	3.8000E-01	2.0621E+02	2	5	2916		
2866	88-Ra-208	0	882080	1.3000E+00	0.0000E+00	0.0000E+00	6.9100E+06	2.00 0.0	6.7847E+06	8.9000E-01	2.0621E+02	2	1	2951		
2867	89-Ac-208	0	892080	9.5000E-02	0.0000E+00	0.0000E+00	7.6000E+06	2.00 0.0	9.0441E+06	1.0000E-02	2.0623E+02	2	1	2980		
2868	89-Ac-208	1	892081	2.5000E-02	0.0000E+00	0.0000E+00	7.1000E+06	2.00 0.0	7.7268E+06	9.9000E-01	2.0623E+02	2	1	2981		
2869	81-Tl-209	0	812090	1.3200E+02	6.8200E+05	2.1400E+06	0.0000E+00	1.00 0.0	8.1000E+06	9.0000E-01	2.0719E+02	1	4	2675		
2870	82-Pb-209	0	822090	1.1710E+04	1.9750E+05	0.0000E+00	0.0000E+00	1.00 0.0	3.9764E+06	1.0000E+00	2.0719E+02	1	1	2719		
2871	83-Bi-209	0	832090	6.0000E+26	0.0000E+00	0.0000E+00	3.1350E+06	4.00 0.0	6.4403E+05	1.0000E+00	2.0718E+02	1	1	2771		
2872	84-Po-209	0	842090	3.2200E+09	3.0000E+02	5.5000E+03	4.9510E+06	2.00 0.0	3.1373E+06	1.0000E+00	2.0719E+02	2	5	2814		
2873	85-At-209	0	852090	1.9480E+04	1.0600E+05	2.2890E+06	2.3595E+05	2.00 0.0	1.8926E+06	4.8000E-03	2.0719E+02	2	5	2814		
2874	86-Rn-209	0	862090	1.7300E+03	1.1350E+05	1.1480E+06	1.0475E+06	2.00 0.0	4.9792E+06	9.9520E-01	2.0719E+02	2	5	2853		
								4.00 0.0	3.4832E+06	9.5900E-01	2.0720E+02	2	5	2886		
								4.00 0.0	5.7569E+06	4.1000E-02	2.0720E+02	2	5	2886		
								4.00 0.0	3.9535E+06	8.3000E-01	2.0720E+02	2	5	2886		
								4.00 0.0	6.1555E+06	1.7000E-01	2.0720E+02	2	5	2886		

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2875	87-Fr-209	0	87	2090	5.0500E+01	0.0000E+00	0.0000E+00	6.0300E+06	2.00	0.0	5.1609E+06	1.1000E-01	2.0720E+02	2	1	2917
2876	88-Ra-209	0	88	2090	4.7000E+00	0.0000E+00	0.0000E+00	7.1300E+06	4.00	0.0	6.7774E+06	8.9000E-01	2.0721E+02	1	1	2952
2877	89-Ac-209	0	89	2090	1.0000E-01	0.0000E+00	0.0000E+00	7.7200E+06	4.00	0.0	7.1430E+06	1.0000E+00	2.0721E+02	1	1	2982
2878	90-Th-209	1	90	2091	4.0000E-03	0.0000E+00	0.0000E+00	8.0000E+06	4.00	1.0	8.2400E+06	1.0000E+00	2.0723E+02	1	1	3009
2879	81-Tl-210	0	81	2100	7.8000E+01	1.3000E+06	2.7600E+06	0.0000E+00	1.00	0.0	5.4819E+04	1.0000E+00	2.0819E+02	1	4	2676
2880	82-Pb-210	0	82	2100	7.0100E+08	3.3300E+04	4.5300E+03	7.0680E-02	1.00	0.0	6.3486E+04	1.0000E+00	2.0818E+02	2	4	2720
2881	83-Bi-210	0	83	2100	4.3300E+05	3.8900E+05	0.0000E+00	7.4310E+03	1.00	0.0	3.7923E+06	1.9000E-08	2.0818E+02	2	1	2772
2882	83-Bi-210	1	83	2101	9.5900E+13	4.5700E+04	2.6200E+05	5.0051E+06	4.00	0.0	1.1612E+06	1.0000E+00	2.0818E+02	1	4	2773
2883	84-Po-210	0	84	2100	1.1956E+07	7.8000E-02	8.3000E+00	5.4056E+06	4.00	0.0	5.3077E+06	1.0000E+00	2.0818E+02	1	3	2815
2884	85-At-210	0	85	2100	2.9200E+04	7.0000E+04	2.9600E+06	5.5233E+03	2.00	0.0	3.9810E+06	9.9825E-01	2.0818E+02	2	5	2854
2885	86-Rn-210	0	86	2100	8.6000E+03	8.2000E+03	6.1000E+04	5.9100E+06	2.00	0.0	5.6312E+06	1.7500E-03	2.0819E+02	2	5	2887
2886	87-Fr-210	0	87	2100	1.9100E+02	1.6600E+04	1.3100E+06	4.7350E+06	2.00	0.0	6.2720E+06	2.9000E-01	2.0819E+02	2	4	2918
2887	88-Ra-210	0	88	2100	3.7000E+00	0.0000E+00	0.0000E+00	7.1500E+06	4.00	0.0	6.6716E+06	7.1000E-01	2.0820E+02	1	1	2953
2888	89-Ac-210	0	89	2100	3.5000E-01	0.0000E+00	0.0000E+00	7.6000E+06	4.00	0.0	7.1508E+06	1.0000E+00	2.0821E+02	1	1	2983
2889	90-Th-210	0	90	2100	9.0000E-03	0.0000E+00	0.0000E+00	8.0000E+06	4.00	0.0	7.6072E+06	1.0000E+00	2.0821E+02	1	1	3010
2890	82-Pb-211	0	82	2110	2.1660E+03	4.4980E+05	6.4400E+04	0.0000E+00	1.00	0.0	8.0689E+06	1.0000E+00	2.0918E+02	1	4	2721
2891	83-Bi-211	0	83	2110	1.2840E+02	1.3100E+04	4.7300E+04	6.6733E+06	1.00	0.0	5.7397E+05	2.7600E-03	2.0918E+02	2	5	2774
2892	84-Po-211	0	84	2110	5.1600E-01	1.6700E+02	8.1700E+03	7.5832E+06	4.00	0.0	6.7503E+06	9.9724E-01	2.0917E+02	1	4	2816
2893	84-Po-211	1	84	2111	2.5200E+01	3.5000E+00	1.5100E+04	7.5000E+06	3.00	0.0	1.4620E+06	1.6000E-04	2.0917E+02	3	3	2817
2894	85-At-211	0	85	2110	2.5970E+04	1.9610E+03	2.3390E+04	2.5003E+06	2.00	0.0	4.0550E+06	8.9490E-02	2.0918E+02	2	5	2855
2895	86-Rn-211	0	86	2110	5.2600E+04	5.7900E+04	1.8700E+06	1.6158E+06	2.00	0.0	7.4220E+06	9.1035E-01	2.0918E+02	2	5	2888
2896	87-Fr-211	0	87	2110	1.8600E+02	0.0000E+00	2.9700E+05	5.3300E+06	2.00	0.0	4.6152E+06	2.0000E-01	2.0918E+02	2	2	2919
2897	88-Ra-211	0	88	2110	1.3000E+01	0.0000E+00	0.0000E+00	6.5500E+06	2.00	0.0	4.9718E+06	7.0000E-02	2.0919E+02	2	1	2954
2898	89-Ac-211	0	89	2110	2.5000E-01	0.0000E+00	0.0000E+00	7.6200E+06	4.00	0.0	7.0418E+06	9.3000E-01	2.0920E+02	1	1	2984
2899	82-Pb-212	0	82	2120	3.8300E+04	1.7300E+05	1.4450E+05	0.0000E+00	1.00	0.0	5.9977E+05	1.0000E+00	2.1017E+02	1	4	2722
2900	83-Bi-212	0	83	2120	3.6330E+03	5.0350E+05	1.0380E+05	2.2258E+06	1.00	0.0	2.2520E+06	6.4060E-01	2.1017E+02	2	5	2775
2901	83-Bi-212	1	83	2121	1.5000E+03	0.0000E+00	0.0000E+00	4.2605E+06	1.00	0.0	6.2073E+06	3.5940E-01	2.1017E+02	2	1	2776
2902	83-Bi-212	2	83	2122	4.2000E+02	4.2000E+05	0.0000E+00	0.0000E+00	1.00	0.0	6.4573E+06	6.7000E-01	2.1017E+02	1	1	2777
2903	84-Po-212	0	84	2120	2.9900E-07	0.0000E+00	0.0000E+00	8.9511E+06	4.00	0.0	8.9541E+06	1.0000E+00	2.1017E+02	1	1	2818
2904	84-Po-212	1	84	2121	4.5100E+01	1.1500E+02	0.0000E+00	1.1770E+07	3.00	0.0	2.9220E+06	7.0000E-04	2.1017E+02	2	3	2819
2905	85-At-212	0	85	2120	3.1400E-01	0.0000E+00	0.0000E+00	7.7949E+06	4.00	0.0	1.1884E+07	9.9930E-01	2.1017E+02	1	1	2856
2906	85-At-212	1	85	2121	1.1900E-01	0.0000E+00	4.1900E+04	7.9827E+06	4.00	0.0	7.8170E+06	1.0000E+00	2.1017E+02	1	2	2857
2907	86-Rn-212	0	86	2120	1.4300E+03	0.0000E+00	0.0000E+00	6.3820E+06	4.00	0.0	6.3850E+06	1.0000E+00	2.1017E+02	1	1	2889
2908	87-Fr-212	0	87	2120	1.2000E+03	1.0270E+05	1.1300E+06	2.8204E+06	2.00	0.0	5.1435E+06	5.7000E-01	2.1018E+02	2	5	2920
								4.00	0.0	6.5289E+06	4.3000E-01					

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2909	88-Ra-212	0	88	2120	1.3000E+01	0.0000E+00	2.6992E+02	5.9750E+06	2.00	0.0	3.3171E+06	1.5000E-01	2.1018E+02	2	2	2955
2910	89-Ac-212	0	89	2120	9.3000E-01	0.0000E+00	0.0000E+00	7.2900E+06	2.00	0.0	7.0316E+06	8.5000E-01	2.1019E+02	2	1	2985
2911	90-Th-212	0	90	2120	3.0000E-02	0.0000E+00	0.0000E+00	7.9300E+06	2.00	0.0	7.5188E+06	9.7000E-01	2.1019E+02	2	1	3011
2912	91-Pa-212	0	91	2120	5.0000E-03	0.0000E+00	0.0000E+00	8.4000E+06	4.00	0.0	7.9580E+06	9.9700E-01	2.1021E+02	1	1	3036
2913	83-Bi-213	0	83	2130	2.7350E+03	4.4100E+05	1.2660E+05	1.3245E+05	1.00	0.0	1.4228E+06	9.7910E-01	2.1116E+02	2	5	2778
2914	84-Po-213	0	84	2130	4.2000E-06	0.0000E+00	3.7000E+01	8.5340E+06	4.00	0.0	5.9825E+06	2.0900E-02	2.1116E+02	1	2	2820
2915	85-At-213	0	85	2130	1.2500E-07	0.0000E+00	0.0000E+00	9.3000E+06	4.00	0.0	8.5361E+06	1.0000E+00	2.1116E+02	1	1	2858
2916	86-Rn-213	0	86	2130	2.5000E-02	0.0000E+00	0.0000E+00	8.2300E+06	4.00	0.0	9.2541E+06	1.0000E+00	2.1118E+02	1	1	2890
2917	87-Fr-213	0	87	2130	3.4600E+01	0.0000E+00	0.0000E+00	6.8650E+06	2.00	0.0	8.2428E+06	1.0000E+00	2.1116E+02	1	1	2890
2918	88-Ra-213	0	88	2130	1.6400E+02	3.7000E+04	1.5000E+04	5.4540E+06	2.00	0.0	2.1452E+06	5.5000E-03	2.1117E+02	2	1	2921
2919	88-Ra-213	1	88	2131	2.1000E-03	1.0000E+05	1.6300E+06	8.5880E+04	3.00	0.0	6.9048E+06	9.9450E-01	2.1117E+02	2	4	2956
2920	89-Ac-213	0	89	2130	8.0000E-01	0.0000E+00	0.0000E+00	7.5000E+06	4.00	0.0	3.9106E+06	2.0000E-01	2.1117E+02	2	4	2957
2921	90-Th-213	0	90	2130	1.4000E-01	0.0000E+00	0.0000E+00	8.9800E+06	4.00	0.0	8.618E+06	8.0000E-01	2.1117E+02	2	4	2957
2922	82-Pb-214	0	82	2140	1.6100E+03	2.9100E+05	2.4030E+05	0.0000E+00	1.00	0.0	1.7700E+06	9.9000E-01	2.1117E+02	2	4	2957
2923	83-Bi-214	0	83	2140	1.1940E+03	6.5400E+05	1.4773E+06	1.3160E+04	1.00	0.0	8.6300E+06	1.0000E-02	2.1118E+02	1	1	2986
2924	84-Po-214	0	84	2140	1.6430E-04	0.0000E+00	8.3000E+01	7.8308E+06	4.00	0.0	7.4993E+06	1.0000E+00	2.1118E+02	1	1	2986
2925	85-At-214	0	85	2140	5.5800E-07	0.0000E+00	0.0000E+00	9.2100E+06	4.00	0.0	8.9872E+06	1.0000E+00	2.1216E+02	1	1	2859
2926	86-Rn-214	0	86	2140	2.7000E-07	0.0000E+00	0.0000E+00	8.2100E+06	4.00	0.0	9.2084E+06	1.0000E+00	2.1216E+02	1	1	2891
2927	87-Fr-214	0	87	2140	5.0000E-03	0.0000E+00	0.0000E+00	8.5800E+06	4.00	0.0	8.5885E+06	1.0000E+00	2.1216E+02	1	1	2922
2928	87-Fr-214	1	87	2141	3.3500E-03	0.0000E+00	0.0000E+00	8.6610E+06	4.00	0.0	8.7110E+06	1.0000E+00	2.1216E+02	1	1	2923
2929	88-Ra-214	0	88	2140	2.4600E+00	0.0000E+00	1.3000E+03	7.2650E+06	2.00	0.0	1.0511E+06	5.9000E-04	2.1216E+02	2	2	2958
2930	89-Ac-214	0	89	2140	8.2000E+00	0.0000E+00	0.0000E+00	6.7720E+06	2.00	0.0	7.2725E+06	9.9941E-01	2.1217E+02	2	1	2987
2931	90-Th-214	0	90	2140	1.0000E-01	0.0000E+00	0.0000E+00	7.8100E+06	2.00	0.0	6.3516E+06	7.0000E-02	2.1217E+02	2	1	3013
2932	83-Bi-215	0	83	2150	4.6200E+02	3.0000E+05	7.0000E+05	0.0000E+00	1.00	0.0	7.8271E+06	9.9900E-01	2.1315E+02	1	4	2780
2933	83-Bi-215	1	83	2151	3.6400E+01	1.9800E+05	1.1434E+06	0.0000E+00	3.00	0.0	2.1887E+06	1.0000E+00	2.1315E+02	1	3	2781
2934	84-Po-215	0	84	2150	1.7810E-03	0.0000E+00	0.0000E+00	7.5301E+06	4.00	0.0	1.3480E+06	1.0000E+00	2.1315E+02	1	1	2822
2935	85-At-215	0	85	2150	1.0000E-04	0.0000E+00	0.0000E+00	8.1800E+06	4.00	0.0	7.5262E+06	1.0000E+00	2.1315E+02	1	1	2860
2936	86-Rn-215	0	86	2150	2.3000E-06	0.0000E+00	0.0000E+00	8.8400E+06	4.00	0.0	8.1784E+06	1.0000E+00	2.1315E+02	1	1	2892
2937	87-Fr-215	0	87	2150	8.6000E-08	0.0000E+00	0.0000E+00	9.5300E+06	4.00	0.0	8.8390E+06	1.0000E+00	2.1315E+02	1	1	2924
2938	88-Ra-215	0	88	2150	1.5500E-03	0.0000E+00	0.0000E+00	8.3000E+06	4.00	0.0	9.5403E+06	1.0000E+00	2.1315E+02	1	1	2959
2939	89-Ac-215	0	89	2150	1.7000E-01	0.0000E+00	0.0000E+00	7.7300E+06	2.00	0.0	8.8642E+06	1.0000E+00	2.1316E+02	1	1	2988
2940	90-Th-215	0	90	2150	1.2000E+00	0.0000E+00	0.0000E+00	7.5700E+06	4.00	0.0	3.4969E+06	9.0000E-04	2.1316E+02	2	1	2988
2941	83-Bi-216	0	83	2160	1.3500E+02	1.2900E+05	1.6710E+06	0.0000E+00	1.00	0.0	7.7459E+06	9.9910E-01	2.1316E+02	1	1	3014
2942	84-Po-216	0	84	2160	1.4500E-01	0.0000E+00	0.0000E+00	6.9041E+06	4.00	0.0	7.6646E+06	1.0000E+00	2.1415E+02	1	4	2782
2943	85-At-216	0	85	2160	3.0000E-04	1.1100E+03	2.5400E+03	7.9600E+06	4.00	0.0	4.0900E+06	1.0000E+00	2.1415E+02	1	2	2823
2944	86-Rn-216	0	86	2160	4.5000E-05	0.0000E+00	0.0000E+00	8.2000E+06	4.00	0.0	6.9063E+06	1.0000E+00	2.1415E+02	1	4	2861
2945	87-Fr-216	0	87	2160	7.0000E-07	0.0000E+00	1.6500E+01	8.7800E+06	4.00	0.0	7.9496E+06	1.0000E+00	2.1415E+02	1	1	2893
2946	88-Ra-216	0	88	2160	1.8200E-07	0.0000E+00	0.0000E+00	9.5200E+06	4.00	0.0	8.1974E+06	1.0000E+00	2.1415E+02	1	1	2893
																2925
																2960

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2947	89-Ac-216	0	892160	4.4000E-04	0.0000E+00	0.0000E+00	0.0000E+00	9.2300E+6	4.00	0.0	9.2354E+06	1.0000E+00	2.1415E+02	1	1	2989
2948	89-Ac-216	1	892161	4.4100E-04	0.0000E+00	0.0000E+00	0.0000E+00	9.2010E+6	4.00	0.0	9.2820E+06	1.0000E+00	2.1415E+02	1	1	2990
2949	90-Th-216	0	902160	2.6000E-02	0.0000E+00	0.0000E+00	0.0000E+00	8.0700E+6	4.00	0.0	8.0724E+06	1.0000E+00	2.1415E+02	1	1	3015
2950	91-Pa-216	0	912160	1.6700E-01	0.0000E+00	0.0000E+00	0.0000E+00	7.4700E+6	2.00	0.0	7.4900E+06	7.0000E-02	2.1416E+02	2	1	3037
2951	84-Po-217	0	842170	1.4600E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.3200E+6	4.00	0.0	8.0970E+06	9.3000E-01	2.1514E+02	2	1	2824
2952	85-At-217	0	852170	3.2300E-02	3.0200E+01	2.1100E+02	7.1940E+06	1.00	0.0	4.00	1.4894E+06	5.0000E-02	2.1514E+02	2	1	2824
2953	86-Rn-217	0	862170	5.4000E-04	0.0000E+00	0.0000E+00	0.0000E+00	7.8840E+6	4.00	0.0	6.6621E+06	9.5000E-01	2.1514E+02	2	4	2862
2954	87-Fr-217	0	872170	1.9000E-05	0.0000E+00	0.0000E+00	0.0000E+00	7.8871E+06	4.00	0.0	7.3700E+05	7.0000E-05	2.1514E+02	2	4	2862
2955	88-Ra-217	0	882170	1.6000E-06	0.0000E+00	0.0000E+00	0.0000E+00	8.4700E+6	4.00	0.0	7.2013E+06	9.9993E-01	2.1514E+02	1	1	2894
2956	89-Ac-217	0	892170	6.9000E-08	0.0000E+00	0.0000E+00	0.0000E+00	9.1600E+6	4.00	0.0	7.8871E+06	1.0000E+00	2.1514E+02	1	1	2926
2957	90-Th-217	0	902170	2.5100E-04	0.0000E+00	0.0000E+00	0.0000E+00	9.8300E+6	4.00	0.0	8.4692E+06	1.0000E+00	2.1514E+02	1	1	2961
2958	91-Pa-217	0	912170	3.6000E-03	0.0000E+00	0.0000E+00	0.0000E+00	8.4800E+6	4.00	0.0	9.1607E+06	1.0000E+00	2.1515E+02	1	1	2991
2959	91-Pa-217	1	912171	1.2000E-03	0.0000E+00	0.0000E+00	0.0000E+00	7.7900E+6	3.00	0.0	9.8315E+06	1.0000E+00	2.1515E+02	1	1	2991
2960	92-U-217	0	922170	1.6000E-02	0.0000E+00	0.0000E+00	0.0000E+00	8.1700E+6	4.00	0.0	9.4353E+06	1.0000E+00	2.1515E+02	1	1	3016
2961	83-Bi-218	0	832180	3.3000E+01	1.4000E+06	1.3000E+06	0.0000E+00	8.4800E+6	4.00	0.0	8.4888E+06	1.0000E+00	2.1515E+02	1	1	3038
2962	84-Po-218	0	842180	1.8590E+02	0.0000E+00	0.0000E+00	0.0000E+00	6.1115E+6	1.00	0.0	1.8500E+06	2.7000E-01	2.1515E+02	2	1	3039
2963	85-At-218	0	852180	1.5000E+00	0.0000E+00	0.0000E+00	0.0000E+00	6.8090E+6	1.00	0.0	1.0346E+07	7.3000E-01	2.1614E+02	2	1	2863
2964	86-Rn-218	0	862180	3.5000E-02	0.0000E+00	0.0000E+00	0.0000E+00	8.1700E+6	4.00	0.0	1.0346E+07	7.3000E-01	2.1614E+02	1	1	3060
2965	87-Fr-218	0	872180	1.0000E-03	0.0000E+00	0.0000E+00	0.0000E+00	0.0000E+00	1.00	0.0	8.4280E+06	1.0000E+00	2.1614E+02	1	4	2783
2966	87-Fr-218	1	872181	2.2000E-02	1.3500E+05	2.7000E+05	0.0000E+00	6.1115E+6	1.00	0.0	4.8572E+06	1.0000E+00	2.1614E+02	2	1	2825
2967	88-Ra-218	0	882180	2.5200E-05	0.0000E+00	0.0000E+00	0.0000E+00	7.2590E+6	4.00	0.0	7.2625E+06	1.0000E+00	2.1613E+02	1	2	2895
2968	89-Ac-218	0	892180	1.0800E-06	0.0000E+00	0.0000E+00	0.0000E+00	7.9870E+6	4.00	0.0	8.0140E+06	1.0000E+00	2.1613E+02	1	2	2927
2969	90-Th-218	0	902180	1.1700E-07	0.0000E+00	0.0000E+00	0.0000E+00	7.6550E+6	4.00	0.0	8.1000E+06	1.0000E+00	2.1613E+02	1	4	2928
2970	91-Pa-218	0	912180	1.1300E-04	0.0000E+00	0.0000E+00	0.0000E+00	8.5400E+6	4.00	0.0	8.5459E+06	1.0000E+00	2.1613E+02	1	1	2962
2971	85-At-219	0	852190	5.6000E+01	0.0000E+00	0.0000E+00	0.0000E+00	9.4000E+6	4.00	0.0	9.3774E+06	1.0000E+00	2.1614E+02	1	1	2992
2972	86-Rn-219	0	862190	3.9600E+00	6.7000E+03	5.8500E+04	0.0000E+00	9.8400E+6	4.00	0.0	9.8490E+06	1.0000E+00	2.1614E+02	1	1	3017
2973	87-Fr-219	0	872190	2.0000E-02	4.1000E+02	3.6000E+03	0.0000E+00	9.7700E+6	4.00	0.0	9.8150E+06	1.0000E+00	2.1615E+02	1	1	3040
2974	88-Ra-219	0	882190	1.0000E-02	5.7000E+04	1.7100E+05	0.0000E+00	6.0000E+6	1.00	0.0	1.5663E+06	3.0000E-02	2.1713E+02	2	1	2864
2975	89-Ac-219	0	892190	1.1800E-05	0.0000E+00	0.0000E+00	0.0000E+00	6.8783E+6	4.00	0.0	6.3237E+06	9.7000E-01	2.1713E+02	1	4	2896
2976	90-Th-219	0	902190	1.0500E-06	0.0000E+00	0.0000E+00	0.0000E+00	7.4410E+6	4.00	0.0	6.9461E+06	1.0000E+00	2.1713E+02	1	4	2929
2977	91-Pa-219	0	912190	5.3000E-08	0.0000E+00	0.0000E+00	0.0000E+00	7.9430E+6	4.00	0.0	8.1378E+06	1.0000E+00	2.1713E+02	1	4	2963
2978	92-U-219	0	922190	4.0000E-05	0.0000E+00	0.0000E+00	0.0000E+00	8.8200E+6	4.00	0.0	8.8265E+06	1.0000E+00	2.1713E+02	1	1	2993
2979	85-At-220	0	852200	2.2260E+02	1.1800E+06	4.4900E+05	0.0000E+00	9.5000E+6	4.00	0.0	9.5141E+06	1.0000E+00	2.1713E+02	1	1	3018
2980	86-Rn-220	0	862200	5.5600E+01	0.0000E+00	0.0000E+00	0.0000E+00	1.0000E+7	4.00	0.0	1.0085E+07	1.0000E+00	2.1714E+02	1	1	3041
2981	87-Fr-220	0	872200	2.7400E+01	1.3700E+04	9.4700E+03	0.0000E+00	1.0000E+7	4.00	0.0	9.9401E+06	1.0000E+00	2.1714E+02	1	1	3061
2982	88-Ra-220	0	882200	1.8000E-02	0.0000E+00	0.0000E+00	0.0000E+00	5.0470E+5	1.00	0.0	3.7622E+06	9.2000E-01	2.1812E+02	2	5	2865
2983	89-Ac-220	0	892200	2.6400E-02	1.0900E+06	1.4000E+06	0.0000E+00	6.4020E+6	4.00	0.0	6.0768E+06	8.0000E-02	2.1812E+02	1	2	2897
2984	90-Th-220	0	902200	9.7000E-06	0.0000E+00	0.0000E+00	0.0000E+00	6.4047E+6	4.00	0.0	6.4047E+06	1.0000E+00	2.1812E+02	1	2	2987
2985	86-Rn-221	0	862210	1.5400E+03	3.6000E+05	1.1800E+05	0.0000E+00	6.6700E+6	1.00	0.0	1.2126E+06	3.5000E-03	2.1812E+02	2	5	2930
2986	87-Fr-221	0	872210	2.9400E+02	8.4300E+03	2.8800E+04	0.0000E+00	7.5800E+6	4.00	0.0	6.8007E+06	9.9650E-01	2.1812E+02	1	2	2964
2987	88-Ra-221	0	882210	1.5400E+03	3.6000E+05	1.1800E+05	0.0000E+00	7.9550E+6	4.00	0.0	7.5924E+06	1.0000E+00	2.1812E+02	1	4	2994
2988	89-Ac-221	0	892210	1.5400E+03	3.6000E+05	1.1800E+05	0.0000E+00	9.0000E+6	4.00	0.0	8.3478E+06	1.0000E+00	2.1812E+02	1	4	2994
2989	90-Th-221	0	902210	1.5400E+03	3.6000E+05	1.1800E+05	0.0000E+00	9.0000E+6	4.00	0.0	8.9530E+06	1.0000E+00	2.1813E+02	1	1	3019
2990	91-Pa-221	0	912210	1.5400E+03	3.6000E+05	1.1800E+05	0.0000E+00	1.3470E+6	1.00	0.0	1.1941E+06	7.8000E-01	2.1912E+02	2	5	2898
2991	92-U-221	0	922210	2.9400E+02	8.4300E+03	2.8800E+04	0.0000E+00	6.4716E+6	1.00	0.0	6.1624E+06	2.2000E-01	2.1912E+02	2	4	2931
2992	93-Np-221	0	932210	2.9400E+02	8.4300E+03	2.8800E+04	0.0000E+00	4.00	0.0	3.1436E+05	5.0000E-05	2.1912E+02	2	4	2931	
2993	94-Pm-221	0	942210	2.9400E+02	8.4300E+03	2.8800E+04	0.0000E+00	4.00	0.0	6.4578E+06	9.9995E-01	2.1912E+02	2	4	2931	

No.	Symbol	S	Z	A	AA	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
2987	88-Ra-221	0	88	221	0	882210	2.8000E+01	3.5000E+04	7.0240E+06	4.00	0.0	6.8804E+06	1.0000E+00	2.1912E+02	1	4	2965
2988	89-Ac-221	0	89	221	0	892210	5.2000E-02	0.0000E+00	7.7300E+06	4.00	0.0	7.7836E+06	1.0000E+00	2.1912E+02	1	1	2995
2989	90-Th-221	0	90	221	0	902210	1.7300E-03	0.0000E+00	8.4010E+06	4.00	0.0	8.6257E+06	1.0000E+00	2.1912E+02	1	1	3020
2990	91-Pa-221	0	91	221	0	912210	5.9000E-06	0.0000E+00	9.2000E+06	4.00	0.0	9.2477E+06	1.0000E+00	2.1912E+02	1	1	3042
2991	86-Rn-222	0	86	222	0	862220	3.3035E+05	3.8760E+02	5.5881E+06	4.00	0.0	5.5903E+06	1.0000E+00	2.2011E+02	1	2	2899
2992	87-Fr-222	0	87	222	0	872220	8.5200E+02	1.7900E+05	0.0000E+00	1.00	0.0	2.0282E+06	1.0000E+00	2.2011E+02	1	4	2932
2993	88-Ra-222	0	88	222	0	882220	3.6170E+01	9.2000E+03	6.6600E+06	4.00	0.0	6.7888E+06	1.0000E+00	2.2011E+02	1	4	2966
2994	89-Ac-222	0	89	222	0	892220	5.0000E+00	0.0000E+00	7.0610E+06	2.00	0.0	2.3002E+06	1.0000E-02	2.2011E+02	2	1	2996
2995	89-Ac-222	1	89	222	1	892221	6.3000E+01	0.0000E+00	6.5500E+06	2.00	0.0	7.1374E+06	9.9000E-01	2.2011E+02	3	1	2997
2996	90-Th-222	0	90	222	0	902220	2.2370E-03	0.0000E+00	8.1150E+06	4.00	0.0	8.1270E+06	1.0000E+00	2.2011E+02	1	1	3021
2997	91-Pa-222	0	91	222	0	912220	2.9000E-03	0.0000E+00	8.4720E+06	4.00	0.0	8.8860E+06	1.0000E+00	2.2012E+02	1	1	3043
2998	86-Rn-223	0	86	223	0	862230	1.4580E+03	3.3900E+05	0.0000E+00	1.00	0.0	2.0058E+06	1.0000E+00	2.2111E+02	1	4	2900
2999	87-Fr-223	0	87	223	0	872230	1.3200E+03	3.7000E+05	0.0000E+00	1.00	0.0	1.1492E+06	9.9994E-01	2.2110E+02	2	4	2933
3000	88-Ra-223	0	88	223	0	882230	9.8800E+05	1.3840E+05	5.7671E+06	4.00	0.0	5.9790E+06	1.0000E+00	2.2110E+02	1	4	2967
3001	89-Ac-223	0	89	223	0	892230	1.2600E+02	1.7500E+04	6.7192E+06	2.00	0.0	5.9189E+05	1.0000E-02	2.2110E+02	2	4	2998
3002	90-Th-223	0	90	223	0	902230	6.0000E-01	7.3000E+04	7.4500E+06	4.00	0.0	7.5666E+06	1.0000E+00	2.2110E+02	1	4	3022
3003	91-Pa-223	0	91	223	0	912230	5.1000E-03	0.0000E+00	8.2490E+06	4.00	0.0	8.3263E+06	1.0000E+00	2.2111E+02	1	1	3044
3004	92-U-223	0	92	223	0	922230	1.8000E-05	0.0000E+00	9.0000E+06	4.00	0.0	8.9409E+06	1.0000E+00	2.2111E+02	1	1	3062
3005	87-Fr-224	0	87	224	0	872240	2.0000E+02	5.4500E+05	0.0000E+00	1.00	0.0	2.9678E+06	1.0000E+00	2.2210E+02	1	4	2934
3006	88-Ra-224	0	88	224	0	882240	3.1600E+05	1.0380E+04	5.7747E+06	4.00	0.0	5.7888E+06	1.0000E+00	2.2210E+02	1	4	2968
3007	89-Ac-224	0	89	224	0	892240	1.0000E+04	2.3000E+05	5.6258E+06	2.00	0.0	1.4077E+06	9.0900E-01	2.2210E+02	2	5	2999
3008	90-Th-224	0	90	224	0	902240	1.0500E+00	1.2200E+04	7.2200E+06	4.00	0.0	6.3269E+06	9.1000E-02	2.2210E+02	1	4	3023
3009	91-Pa-224	0	91	224	0	912240	7.9000E-01	3.3500E+04	7.8210E+06	4.00	0.0	7.2985E+06	1.0000E+00	2.2210E+02	1	4	3045
3010	92-U-224	0	92	224	0	922240	7.0000E-04	0.0000E+00	8.6000E+06	4.00	0.0	8.6198E+06	1.0000E+00	2.2210E+02	1	1	3063
3011	86-Rn-225	0	86	225	0	862250	2.7960E+02	6.8500E+05	0.0000E+00	1.00	0.0	2.7133E+06	1.0000E+00	2.2310E+02	1	4	2901
3012	87-Fr-225	0	87	225	0	872250	2.4000E+02	1.7700E+05	0.0000E+00	1.00	0.0	1.8265E+06	1.0000E+00	2.2309E+02	1	4	2935
3013	88-Ra-225	0	88	225	0	882250	1.2870E+06	1.0700E+05	1.7200E+03	1.00	0.0	3.5571E+05	9.9974E-01	2.2309E+02	2	4	2969
3014	89-Ac-225	0	89	225	0	892250	8.6400E+05	1.1500E+04	5.8790E+06	4.00	0.0	5.0967E+06	2.6000E-04	2.2309E+02	1	4	3000
3015	90-Th-225	0	90	225	0	902250	5.2320E+02	1.4800E+05	5.9830E+06	2.00	0.0	6.7196E+05	1.0000E-01	2.2309E+02	2	4	3024
3016	91-Pa-225	0	91	225	0	912250	1.7000E+00	0.0000E+00	7.3600E+06	4.00	0.0	6.9214E+06	9.0000E-01	2.2309E+02	1	1	3046
3017	92-U-225	0	92	225	0	922250	6.1000E-02	0.0000E+00	6.6500E+06	4.00	0.0	8.0146E+06	1.0000E+00	2.2310E+02	1	1	3064
3018	87-Fr-226	0	87	226	0	872260	5.0490E+01	4.5500E+03	0.0000E+00	1.00	0.0	3.8710E+06	1.0000E+00	2.2409E+02	1	4	2936
3019	88-Ra-226	0	88	226	0	882260	5.0490E+10	7.3700E+03	4.8592E+06	4.00	0.0	4.8706E+06	1.0000E+00	2.2408E+02	1	4	2970
3020	89-Ac-226	0	89	226	0	892260	1.0570E+05	1.3200E+05	4.9000E+03	1.00	0.0	1.1131E+06	8.2997E-01	2.2408E+02	3	6	3001
3021	90-Th-226	0	90	226	0	902260	1.8340E+03	8.5000E+03	6.4180E+06	4.00	0.0	6.4509E+06	1.0000E+00	2.2408E+02	1	4	3025
3022	91-Pa-226	0	91	226	0	912260	1.0800E+02	0.0000E+00	5.1000E+06	2.00	0.0	2.8361E+06	2.6000E-01	2.2409E+02	2	1	3047
3023	92-U-226	0	92	226	0	922260	3.5000E-01	0.0000E+00	7.7000E+06	4.00	0.0	7.7010E+06	1.0000E+00	2.2409E+02	1	1	3065
3024	93-Np-226	0	93	226	0	932260	3.5000E-02	0.0000E+00	8.2000E+06	4.00	1.0	8.2000E+06	1.0000E+00	2.2409E+02	1	1	3081
3025	86-Rn-227	0	86	227	0	862270	2.0800E+01	1.0800E+06	0.0000E+00	1.00	0.0	3.2000E+06	1.0000E+00	2.2509E+02	1	4	2902

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
3064	91-Pa-232	0	912320	1.1400E+05	1.6100E+05	9.3300E+05	0.0000E+00	0.0000E+00	1.00	0.0	1.3371E+06	9.9700E-01	2.3004E+02	2	5	3053
3065	92-U-232	0	922320	2.1740E+09	1.4500E+04	1.6600E+03	5.3936E+06	4.00	0.0	2.00	4.9926E+05	3.0000E-03	2.3004E+02	1	4	3071
3066	93-Np-232	0	932320	8.8200E+02	4.9700E+04	1.2000E+06	0.0000E+00	2.00	0.0	0.0	5.4136E+06	1.0000E+00	2.3005E+02	1	4	3085
3067	94-Pu-232	0	942320	2.0500E+03	4.3526E+03	6.4587E+04	1.5400E+06	2.00	0.0	4.00	1.0020E+06	7.7000E-01	2.3005E+02	2	4	3101
3068	89-Ac-233	0	892330	1.4500E+02	9.2000E+05	4.9900E+05	0.0000E+00	1.00	0.0	0.0	6.7159E+06	2.3000E-01	2.3104E+02	1	4	3008
3069	90-Th-233	0	902330	1.3380E+03	4.1070E+05	3.5600E+04	0.0000E+00	1.00	0.0	0.0	2.5744E+06	1.0000E+00	2.3104E+02	1	4	3032
3070	91-Pa-233	0	912330	2.3306E+06	2.0100E+05	2.1870E+05	0.0000E+00	1.00	0.0	0.0	1.2436E+06	1.0000E+00	2.3104E+02	1	4	3054
3071	92-U-233	0	922330	5.0240E+12	3.9000E+03	2.3400E+02	4.8885E+06	4.00	0.0	0.0	4.9086E+06	1.0000E+00	2.3104E+02	1	4	3072
3072	93-Np-233	0	932330	2.1720E+03	5.4880E+03	8.8160E+04	0.0000E+00	2.00	0.0	4.00	1.0297E+06	9.9900E-01	2.3104E+02	2	4	3086
3073	94-Pu-233	0	942330	1.2540E+03	0.0000E+00	3.3000E+06	0.0000E+00	2.00	0.0	0.0	5.6267E+06	1.0000E-03	2.3104E+02	2	1	3102
3074	95-Am-233	0	952330	1.9000E+02	0.0000E+00	0.0000E+00	2.0690E+05	2.00	0.0	4.00	6.4163E+06	1.2000E-03	2.3104E+02	2	1	3117
3075	90-Th-234	0	902340	2.0820E+06	5.8800E+04	7.0000E+03	0.0000E+00	1.00	0.0	1.00	3.2110E+06	9.7000E-01	2.3203E+02	2	4	3033
3076	91-Pa-234	0	912340	2.4120E+04	4.0700E+05	1.5200E+06	0.0000E+00	1.00	0.0	1.00	2.7409E+05	7.0000E-03	2.3203E+02	1	4	3055
3077	91-Pa-234	1	912341	6.9500E+01	8.1030E+05	1.6222E+04	0.0000E+00	1.00	0.0	3.00	2.0017E+05	9.9300E-01	2.3203E+02	2	4	3056
3078	92-U-234	0	922340	7.7470E+12	1.1900E+04	1.4100E+03	4.8409E+06	4.00	0.0	0.0	7.3920E+04	1.6000E-03	2.3203E+02	1	4	3073
3079	93-Np-234	0	932340	3.8000E+05	3.1700E+04	1.0950E+06	0.0000E+00	2.00	0.0	0.0	4.8577E+06	1.0000E+00	2.3203E+02	1	4	3087
3080	94-Pu-234	0	942340	3.1700E+04	4.9000E+03	6.7600E+04	3.7897E+05	2.00	0.0	4.00	3.9321E+06	9.4000E-01	2.3203E+02	2	4	3103
3081	90-Th-235	0	902350	4.2600E+02	6.7000E+05	5.2000E+04	0.0000E+00	1.00	0.0	0.0	6.3100E+06	6.0000E-02	2.3303E+02	1	2	3034
3082	91-Pa-235	0	912350	1.4460E+03	4.7600E+05	0.0000E+00	0.0000E+00	1.00	0.0	0.0	1.7288E+06	1.0000E+00	2.3303E+02	1	1	3057
3083	92-U-235	0	922350	2.2210E+16	3.8700E+04	1.6520E+05	4.4134E+06	4.00	0.0	0.0	1.3682E+06	1.0000E+00	2.3303E+02	1	4	3074
3084	93-Np-235	0	932350	3.4230E+07	3.3700E+03	6.6000E+03	1.2974E+02	2.00	0.0	0.0	2.4222E+05	9.9997E-01	2.3302E+02	2	4	3088
3085	94-Pu-235	0	942350	1.5000E+03	5.4000E+03	9.0000E+04	1.2640E+02	2.00	0.0	4.00	5.1940E+06	2.6000E-05	2.3303E+02	2	5	3104
3086	95-Am-235	0	952350	5.9000E+02	0.0000E+00	0.0000E+00	2.5830E+04	4.00	0.0	0.0	1.1390E+06	9.9997E-01	2.3303E+02	2	1	3118
3087	90-Th-236	0	902360	2.2400E+03	3.5000E+05	3.4900E+04	0.0000E+00	1.00	0.0	0.0	5.9514E+06	2.7000E-05	2.3402E+02	1	4	3035
3088	91-Pa-236	0	912360	5.4600E+02	8.0000E+05	9.0700E+05	0.0000E+00	1.00	0.0	0.0	2.4424E+06	9.9600E-01	2.3402E+02	1	4	3058
3089	92-U-236	0	922360	7.3910E+14	8.8000E+03	1.2000E+03	4.5500E+06	4.00	0.0	0.0	2.8874E+06	1.0000E+00	2.3402E+02	1	4	3075
3090	93-Np-236	0	932360	4.8600E+12	2.1000E+05	1.5300E+05	0.0000E+00	1.00	0.0	2.00	4.7658E+05	1.3520E-01	2.3402E+02	3	5	3089
3091	93-Np-236	1	932361	8.1000E+04	9.7000E+04	4.9000E+04	0.0000E+00	1.00	0.0	0.0	9.3292E+05	8.6320E-01	2.3402E+02	2	5	3090
3092	94-Pu-236	0	942360	9.0200E+07	9.6000E+03	1.5800E+03	5.8583E+06	4.00	0.0	0.0	5.4658E+05	5.0000E-01	2.3402E+02	1	4	3105
3093	95-Am-236	0	952360	2.1600E+02	4.8000E+04	1.0200E+06	0.0000E+00	2.00	0.0	4.00	1.0029E+06	1.0000E+00	2.3402E+02	2	4	3119
3094	95-Am-236	1	952361	1.7400E+02	1.8000E+04	1.2100E+06	0.0000E+00	2.00	0.0	0.0	6.2562E+06	4.0000E-05	2.3402E+02	1	4	3120
3095	91-Pa-237	0	912370	5.2200E+02	5.7000E+05	6.1000E+05	0.0000E+00	1.00	0.0	0.0	3.1390E+06	1.0000E+00	2.3501E+02	1	4	3059
3096	92-U-237	0	922370	5.8320E+05	1.8200E+05	1.3920E+05	0.0000E+00	1.00	0.0	0.0	2.1356E+06	1.0000E+00	2.3501E+02	1	4	3076
3097	93-Np-237	0	932370	6.7660E+13	4.9900E+04	2.8700E+04	4.8699E+06	4.00	0.0	0.0	5.1859E+06	1.0000E+00	2.3501E+02	1	4	3091
3098	94-Pu-237	0	942370	3.9050E+06	9.1000E+03	5.3100E+04	3.3675E+02	2.00	0.0	4.00	4.9585E+06	1.0000E+00	2.3501E+02	2	5	3106

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
3099	94-Pu-237	1	94	2371	1.8000E-01	1.2504E+05	2.7653E+03	0.0000E+00	3.00	0.0	1.4554E+05	1.0000E+00	2.3501E+02	1	2	3107
3100	95-Am-237	0	95	2370	4.3800E+03	3.4400E+04	3.6900E+05	1.5105E+03	2.00	0.0	1.4780E+06	7.5681E-01	2.3501E+02	3	5	3121
3101	92-U-238	0	92	2380	1.4100E+17	7.1000E+03	1.0000E+03	4.2580E+06	4.00	0.0	6.1960E+06	2.5000E-04	2.3601E+02	1	4	3077
3102	93-Np-238	0	93	2380	1.8291E+05	2.1050E+05	5.8100E+05	0.0000E+00	1.00	0.0	4.2698E+06	1.0000E+00	2.3601E+02	1	2	3092
3103	94-Pu-238	0	94	2380	2.7680E+09	8.4700E+03	1.4200E+03	5.5788E+06	4.00	0.0	5.9332E+06	1.0000E+00	2.3601E+02	1	4	3108
3104	95-Am-238	0	95	2380	5.8800E+03	1.2200E+04	9.0000E+05	2.9690E+00	2.00	0.0	2.2583E+06	1.0000E+00	2.3601E+02	2	4	3122
3105	96-Cm-238	0	96	2380	8.6000E+03	0.0000E+00	0.0000E+00	2.5400E+05	2.00	0.0	6.0400E+06	1.0000E-06	2.3601E+02	2	1	3135
3106	92-U-239	0	92	2390	1.4070E+03	4.0800E+05	5.0900E+04	0.0000E+00	1.00	0.0	1.0217E+06	9.6160E-01	2.3700E+02	1	4	3078
3107	93-Np-239	0	93	2390	2.0360E+05	2.7000E+05	1.7530E+05	0.0000E+00	1.00	0.0	6.6702E+06	3.8400E-02	2.3700E+02	1	4	3093
3108	94-Pu-239	0	94	2390	7.6090E+11	4.0000E+03	5.0300E+02	5.2373E+06	4.00	0.0	7.2251E+05	1.0000E+00	2.3700E+02	2	4	3109
3109	95-Am-239	0	95	2390	4.2800E+04	1.3700E+05	2.3200E+05	5.7531E+02	2.00	0.0	5.2444E+06	9.9900E-01	2.3700E+02	2	5	3123
3110	96-Cm-239	0	96	2390	1.0440E+04	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	8.0212E+05	9.9900E-01	2.3905E+02	1	0	3136
3111	92-U-240	0	92	2400	5.0800E+04	1.2300E+05	1.5900E+03	0.0000E+00	1.00	1.0	1.7563E+06	1.0000E+00	2.3799E+02	1	3	3079
3112	93-Np-240	0	93	2400	3.7140E+03	5.3000E+05	1.1200E+06	0.0000E+00	1.00	0.0	3.7861E+05	1.0000E+00	2.3799E+02	1	4	3094
3113	93-Np-240	1	93	2401	4.3320E+02	6.5400E+05	3.2000E+05	0.0000E+00	1.00	0.0	2.1906E+06	1.0000E+00	2.3799E+02	2	4	3095
3114	94-Pu-240	0	94	2400	2.0705E+11	8.4300E+03	1.3400E+03	5.2413E+06	4.00	0.0	0.0000E+00	1.0000E+00	2.4006E+02	1	0	3149
3115	95-Am-240	0	95	2400	1.8290E+05	5.0100E+04	1.0110E+06	1.0210E+01	2.00	0.0	5.2558E+06	1.0000E+00	2.3800E+02	3	1	3162
3116	96-Cm-240	0	96	2400	2.3300E+06	0.0000E+00	0.0000E+00	6.3679E+06	2.00	0.0	1.9000E-06	3.0000E-03	2.3799E+02	2	1	3137
3117	97-Bk-240	0	97	2400	2.9000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	6.3978E+06	9.9700E-01	2.4006E+02	1	0	3149
3118	98-Cf-240	0	98	2400	5.8000E+01	0.0000E+00	0.0000E+00	6.7000E+06	2.00	0.0	3.9400E+06	1.0000E+00	2.3800E+02	3	1	3162
3119	93-Np-241	0	93	2410	8.3400E+02	4.4000E+05	3.5500E+04	0.0000E+00	1.00	0.0	2.1359E+05	3.0000E-02	2.3899E+02	1	4	3096
3120	94-Pu-241	0	94	2410	4.5096E+08	5.2300E+03	1.7800E+00	1.1999E+02	1.00	0.0	1.3050E+06	1.0000E+00	2.3899E+02	2	4	3111
3121	95-Am-241	0	95	2410	1.3652E+10	2.9000E+04	2.7200E+04	5.5813E+06	4.00	0.0	5.1400E+06	2.4500E-05	2.3899E+02	1	4	3125
3122	96-Cm-241	0	96	2410	2.8340E+06	1.0590E+05	4.8000E+05	5.9287E+04	2.00	0.0	6.378E+06	1.0000E+00	2.3899E+02	3	5	3138
3123	97-Bk-241	0	97	2410	2.7600E+02	0.0000E+00	0.0000E+00	4.00	1.0	6.1852E+06	9.0000E-05	9.0000E-01	2.4106E+02	2	0	3150
3124	92-U-242	0	92	2420	1.0100E+03	3.9000E+05	4.0000E+04	0.0000E+00	1.00	0.0	0.0000E+00	2.0000E-02	2.3998E+02	1	4	3080
3125	93-Np-242	0	93	2420	1.3200E+02	8.9000E+05	2.6300E+05	0.0000E+00	1.00	0.0	1.2020E+06	5.0000E-01	2.3998E+02	1	2	3097
3126	93-Np-242	1	93	2421	3.3000E+02	5.9600E+02	8.9300E+05	0.0000E+00	1.00	0.0	2.7000E+06	1.0000E+00	2.3998E+02	1	4	3098
3127	94-Pu-242	0	94	2420	1.1790E+13	6.6000E+03	1.1700E+03	4.9729E+06	4.00	0.0	4.9846E+06	1.0000E+00	2.3998E+02	1	4	3112
3128	95-Am-242	0	95	2420	5.7670E+04	1.7400E+05	1.7200E+04	0.0000E+00	1.00	0.0	6.6446E+05	8.2700E-01	2.3998E+02	2	5	3126
3129	95-Am-242	1	95	2421	4.4500E+09	3.6870E+04	3.8600E+03	2.4012E+04	3.00	0.0	7.5130E+05	1.7300E-01	2.3998E+02	2	3	3127
3130	96-Cm-242	0	96	2420	1.4078E+07	6.7110E+03	2.1400E+01	6.2050E+06	4.00	0.0	4.8600E+04	9.9541E-01	2.3998E+02	1	3	3139
3131	97-Bk-242	0	97	2420	4.2000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	5.6370E+06	4.5900E-03	2.4206E+02	1	0	3151

No.	Symbol	S	ZZAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
3132	98-Cf-242	0	982420	2.0900E+02	0.0000E+00	0.0000E+00	7.5080E+06	4.00	0.0	7.5168E+06	1.0000E+00	2.3998E+02	1	1	3163
3133	94-Pu-243	0	942430	1.7842E+04	1.6300E+05	2.7000E+04	0.0000E+00	1.00	0.0	5.7966E+05	1.0000E+00	2.4097E+02	1	4	3113
3134	95-Am-243	0	952430	2.3260E+11	1.8700E+04	5.6600E+04	5.3564E+06	4.00	0.0	4.3888E+06	1.0000E+00	2.4097E+02	1	4	3128
3135	96-Cm-243	0	962430	9.1800E+08	1.2000E+05	1.2820E+05	5.9271E+06	2.00	0.0	7.4730E+03	2.9000E+00	2.4097E+02	2	5	3140
3136	97-Bk-243	0	972430	1.6200E+04	2.6000E+01	2.3000E+02	9.8310E+03	2.00	0.0	6.1688E+06	9.9710E-01	2.4098E+02	2	3	3152
3137	98-Cf-243	0	982430	6.4000E+02	0.0000E+00	0.0000E+00	1.0092E+06	2.00	0.0	1.5076E+06	9.9850E-01	2.4098E+02	2	1	3164
3138	99-Es-243	0	992430	2.1000E+01	0.0000E+00	0.0000E+00	2.4104E+06	2.00	0.0	6.8743E+06	1.5000E-03	2.4098E+02	2	1	3177
3139	93-Np-244	0	932440	1.3700E+02	6.0000E+05	4.2000E+05	0.0000E+00	1.00	0.0	7.4180E+06	1.4000E-01	2.4197E+02	1	4	3099
3140	94-Pu-244	0	942440	2.5590E+15	3.7000E+03	1.3000E+01	4.6502E+06	4.00	0.0	3.7570E+06	7.0000E-01	2.4197E+02	2	3	3114
3141	95-Am-244	0	952440	3.6400E+04	3.1000E+05	8.0000E+05	0.0000E+00	1.00	0.0	8.0720E+06	3.0000E-01	2.4197E+02	2	1	3129
3142	95-Am-244	1	952441	1.5600E+03	5.2000E+05	1.5100E+04	0.0000E+00	1.00	0.0	0.0000E+00	1.2100E-03	2.4197E+02	1	4	3130
3143	96-Cm-244	0	962440	5.7150E+08	5.9000E+03	1.6500E+01	5.8916E+06	4.00	0.0	1.5134E+06	9.9964E-01	2.4197E+02	2	4	3130
3144	96-Cm-244	1	962441	3.4000E-02	1.7400E+05	7.9000E+05	0.0000E+00	3.00	0.0	7.5000E+04	3.6100E-04	2.4197E+02	1	4	3141
3145	97-Bk-244	0	972440	1.5700E+04	0.0000E+00	1.3000E+00	3.9873E+02	2.00	0.0	5.9017E+06	1.0000E+00	2.4197E+02	1	3	3142
3146	98-Cf-244	0	982440	1.1600E+03	0.0000E+00	0.0000E+00	5.1230E+06	2.00	0.0	2.2618E+06	9.9994E-01	2.4197E+02	2	1	3153
3147	99-Es-244	0	992440	3.7000E+01	0.0000E+00	1.5000E+04	3.4620E+05	2.00	0.0	6.7788E+06	6.0000E-05	2.4197E+02	2	1	3165
3148	94-Pu-245	0	942450	3.7800E+04	3.4000E+05	3.9600E+05	0.0000E+00	1.00	0.0	7.6366E+05	3.0000E-01	2.4296E+02	2	1	3178
3149	95-Am-245	0	952450	7.3800E+03	2.8400E+05	3.1800E+04	0.0000E+00	1.00	0.0	7.3289E+06	7.0000E-01	2.4296E+02	2	2	3178
3150	96-Cm-245	0	962450	2.6800E+11	7.1200E+04	9.7500E+04	5.4756E+06	4.00	0.0	7.9360E+06	5.0000E-02	2.4296E+02	1	4	3115
3151	97-Bk-245	0	972450	4.2700E+05	1.2100E+05	2.3200E+05	7.3512E+03	2.00	0.0	1.2773E+06	1.0000E+00	2.4296E+02	1	4	3131
3152	98-Cf-245	0	982450	2.7840E+03	0.0000E+00	0.0000E+00	2.4358E+06	2.00	0.0	8.9738E+05	1.0000E+00	2.4296E+02	1	4	3143
3153	99-Es-245	0	992450	6.6000E+01	0.0000E+00	0.0000E+00	3.1411E+06	2.00	0.0	5.6230E+06	1.0000E+00	2.4296E+02	1	4	3143
3154	100-Fm-245	0	1002450	4.2000E+00	0.0000E+00	0.0000E+00	8.0000E+06	4.00	0.0	8.1074E+05	9.9880E-01	2.4296E+02	2	5	3154
3155	94-Pu-246	0	942460	9.3660E+05	1.0100E+05	1.4100E+05	0.0000E+00	1.00	1.0	6.4545E+06	1.2000E-03	2.4296E+02	2	1	3166
3156	95-Am-246	0	952460	2.3400E+03	7.3000E+05	8.9000E+05	0.0000E+00	1.00	0.0	1.5713E+06	6.4700E-01	2.4296E+02	2	1	3179
3157	95-Am-246	1	952461	1.5000E+03	4.9500E+05	9.7700E+05	0.0000E+00	1.00	0.0	7.2584E+06	3.5300E-01	2.4296E+02	2	1	3179
3158	96-Cm-246	0	962460	1.5020E+11	0.0000E+00	0.0000E+00	5.4650E+06	4.00	0.0	8.4350E+06	9.6000E-01	2.4296E+02	2	1	3191
3159	97-Bk-246	0	972460	1.5550E+05	3.7400E+04	8.5000E+05	0.0000E+00	2.00	0.0	4.0000E-02	4.0000E-02	2.4396E+02	1	4	3116
3160	98-Cf-246	0	982460	1.2850E+05	4.1000E+03	1.0000E+03	6.8555E+06	4.00	0.0	3.7100E+05	1.0000E+00	2.4396E+02	1	4	3132
3161	99-Es-246	0	992460	4.6000E+02	0.0000E+00	0.0000E+00	7.4150E+05	2.00	0.0	2.3770E+06	1.0000E+00	2.4396E+02	1	4	3132
3162	100-Fm-246	0	1002460	1.1000E+00	0.0000E+00	0.0000E+00	7.6900E+06	4.00	0.0	4.4070E+06	1.0000E+00	2.4396E+02	1	4	3133
3163	95-Am-247	0	952470	1.3800E+03	5.8000E+05	8.9000E+04	0.0000E+00	1.00	0.0	5.4751E+06	9.9974E-01	2.4396E+02	2	1	3144
3164	96-Cm-247	0	962470	4.9200E+14	1.0900E+04	3.1400E+05	5.0290E+06	4.00	0.0	6.00	2.6300E-04	2.4396E+02	1	4	3155
3165	97-Bk-247	0	972470	4.4000E+10	7.0000E+04	1.4100E+05	5.6560E+06	4.00	0.0	1.3500E+06	1.0000E+00	2.4396E+02	1	4	3155
												2.4396E+02	1	4	3167
												2.4396E+02	2	1	3180
												2.4396E+02	2	1	3192
												2.4396E+02	2	1	3192
												2.4495E+02	1	4	3134
												2.4495E+02	1	4	3145
												2.4495E+02	1	4	3156

No.	Symbol	S	Z	AAAS	Half-life	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT
3196	100-Fm-252	0	1002520	9.1400E+04	4.3900E+03	1.1300E+03	7.1430E+06	4.00	0.0	7.1527E+06	1.0000E+00	2.4992E+02	1	4	3197	
3197	101-Md-252	0	1012520	1.4000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	3.6930E+06	1.0000E+00	2.5161E+02	1	0	3208	
3198	102-No-252	0	1022520	2.2700E+00	0.0000E+00	0.0000E+00	4.9520E+06	2.00	0.0	2.3620E+06	9.8000E-02	2.4992E+02	3	1	3218	
3199	98-Cf-253	0	982530	1.5390E+06	7.2300E+04	0.0000E+00	1.9967E+04	1.00	0.0	6.00	0.0000E+00	2.5091E+02	2	2	3174	
3200	99-Es-253	0	992530	1.7690E+06	1.2900E+03	3.5400E+02	6.7383E+06	4.00	0.0	8.1260E+06	3.1000E-03	2.5091E+02	1	4	3187	
3201	100-Fm-253	0	1002530	2.5900E+05	1.4400E+04	4.2000E+04	8.3358E+05	2.00	0.0	3.3427E+05	8.8000E-01	2.5091E+02	2	5	3198	
3202	101-Md-253	0	1012530	7.0000E+02	5.5700E+01	2.4160E+03	4.9700E+04	2.00	0.0	1.8260E+06	9.9300E-01	2.5091E+02	2	4	3209	
3203	102-No-253	0	1022530	9.7000E+01	0.0000E+00	0.0000E+00	8.1700E+06	4.00	0.0	7.5731E+06	7.0000E-03	2.5092E+02	1	1	3219	
3204	103-Lr-253	0	1032530	1.5000E+00	0.0000E+00	0.0000E+00	8.7500E+06	4.00	0.0	8.9182E+06	9.8700E-01	2.5092E+02	2	1	3227	
3205	98-Cf-254	0	982540	5.2270E+06	0.0000E+00	0.0000E+00	1.8060E+04	4.00	0.0	5.9268E+06	3.1000E-02	2.5190E+02	2	1	3175	
3206	99-Es-254	0	992540	2.3820E+07	1.2590E+04	6.1740E+04	6.5010E+06	1.00	0.0	1.0878E+06	1.7400E-06	2.5190E+02	2	4	3188	
3207	100-Fm-254	0	1002540	1.1664E+04	4.5100E+03	1.1400E+03	7.2960E+06	4.00	0.0	6.6157E+06	1.0000E+00	2.5190E+02	2	4	3199	
3208	101-Md-254	0	1012540	6.0000E+02	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	0.0000E+00	5.9200E-04	2.5364E+02	1	0	3210	
3209	101-Md-254	1	1012541	1.7000E+03	0.0000E+00	0.0000E+00	0.0000E+00	2.00	0.0	2.5500E+06	1.0000E+00	2.5364E+02	1	0	3211	
3210	102-No-254	0	1022540	5.1000E+01	0.0000E+00	0.0000E+00	7.3900E+06	2.00	0.0	1.2700E+06	1.0000E-01	2.5191E+02	2	1	3220	
3211	103-Lr-254	0	1032540	1.3000E+01	0.0000E+00	0.0000E+00	6.5200E+06	2.00	0.0	8.2264E+06	9.0000E-01	2.5191E+02	2	1	3228	
3212	98-Cf-255	0	982550	5.1000E+03	2.1800E+05	0.0000E+00	0.0000E+00	1.00	0.0	8.8163E+06	7.6000E-01	2.5290E+02	1	1	3176	
3213	99-Es-255	0	992550	3.4400E+06	4.0000E+04	0.0000E+00	5.1930E+05	1.00	0.0	2.8962E+05	9.2000E-01	2.5290E+02	2	2	3189	
3214	100-Fm-255	0	1002550	7.2300E+04	2.8900E+04	1.0200E+04	7.1650E+06	4.00	0.0	6.4363E+06	8.0000E-02	2.5290E+02	1	4	3200	
3215	101-Md-255	0	1012550	1.6200E+03	2.5000E+03	9.0000E+04	5.9580E+05	2.00	0.0	7.2397E+06	1.0000E+00	2.5290E+02	2	5	3212	
3216	102-No-255	0	1022550	1.8600E+02	1.6000E+04	2.1000E+04	5.0080E+06	2.00	0.0	7.9059E+06	8.0000E-02	2.5290E+02	2	5	3221	
3217	103-Lr-255	0	1032550	2.2000E+01	0.0000E+00	0.0000E+00	7.2200E+06	2.00	0.0	1.9629E+06	3.9000E-01	2.5290E+02	2	1	3229	
3218	104-Rf-255	0	1042550	1.6800E+00	0.0000E+00	8.3000E+04	4.2500E+06	4.00	0.0	8.4284E+06	6.1000E-01	2.5291E+02	2	2	3234	
3219	99-Es-256	0	992560	1.5200E+03	5.7000E+05	0.0000E+00	0.0000E+00	1.00	0.0	8.5556E+06	8.5000E-01	2.5389E+02	1	1	3190	
3220	100-Fm-256	0	1002560	9.4600E+03	0.0000E+00	0.0000E+00	5.6850E+05	4.00	0.0	1.7000E+06	1.0000E+00	2.5389E+02	2	1	3201	
3221	101-Md-256	0	1012560	4.6200E+03	0.0000E+00	0.0000E+00	6.8007E+05	2.00	0.0	0.0000E+00	9.1900E-01	2.5389E+02	2	1	3213	
3222	102-No-256	0	1022560	2.9100E+00	0.0000E+00	0.0000E+00	8.5300E+06	4.00	0.0	1.9690E+06	9.0800E-01	2.5389E+02	2	1	3222	
3223	103-Lr-256	0	1032560	2.7000E+01	0.0000E+00	0.0000E+00	7.2900E+06	2.00	0.0	7.7370E+06	9.2000E-02	2.5390E+02	2	1	3230	
3224	104-Rf-256	0	1042560	6.4000E-03	0.0000E+00	0.0000E+00	2.8130E+04	4.00	0.0	8.5814E+06	9.9500E-01	2.5390E+02	2	1	3235	
								6.00	0.0	8.110E+06	8.5000E-01	2.5390E+02	2	1	3230	
								6.00	0.0	8.2556E+06	3.2000E-03	2.5390E+02	2	1	3235	
								6.00	0.0	0.0000E+00	9.9680E-01					

No.	Symbol S	zZAAAS	Halflife	E-beta	E-gamma	E-alpha	RTYP	RFS	Q	Branching	AWR	NDK	NSP	MAT	
3225	100-Fm-257	0	1002570	8.6830E+06	1.1800E+05	1.1600E+05	6.6580E+06	4.00	0.0	6.8636E+06	9.9790E-01	2.5489E+02	2	4	3202
								6.00	0.0	0.0000E+00	2.1000E-03				
								4.0642E+05	0.0	8.5000E-01	8.5000E-01	2.5489E+02	2	5	3214
3226	101-Md-257	0	1012570	1.9870E+04	3.8000E+03	9.3000E+04	1.0778E+06	2.00	0.0	7.5576E+06	1.5000E-01				
								4.00	0.0	1.2533E+06	1.5000E-01	2.5489E+02	2	2	3223
								4.00	0.0	8.4766E+06	8.5000E-01				
3227	102-No-257	0	1022570	2.4500E+01	0.0000E+00	4.8000E+03	7.2500E+06	2.00	0.0	9.0080E+06	1.0000E+00	2.5489E+02	1	1	3231
								4.00	0.0	3.2610E+06	1.2000E-01	2.5489E+02	2	1	3236
								4.00	0.0	9.0828E+06	8.8000E-01				
3230	101-Md-258	0	1012580	4.4500E+06	2.8000E+05	4.5000E+05	6.8530E+06	4.00	0.0	7.2713E+06	1.0000E+00	2.5588E+02	1	4	3215
								6.00	0.0	0.0000E+00	1.0000E+00	2.5767E+02	1	0	3224
3231	102-No-258	0	1022580	1.2000E-03	0.0000E+00	0.0000E+00	0.0000E+00	6.00	0.0	3.3040E+06	5.0000E-02	2.5588E+02	2	1	3232
3232	103-Lr-258	0	1032580	4.1000E+00	0.0000E+00	0.0000E+00	8.3200E+06	2.00	0.0	8.9045E+06	9.5000E-01				
								4.00	0.0	7.1100E+06	1.3000E-02	2.5871E+02	2	0	3216
3233	101-Md-259	0	1012590	5.7600E+03	0.0000E+00	0.0000E+00	0.0000E+00	4.00	0.0	2.5500E+08	9.8700E-01				
								6.00	0.0	4.8600E+05	2.5000E-01	2.5688E+02	2	2	3225
3234	102-No-259	0	1022590	3.5000E+03	0.0000E+00	0.0000E+00	5.7400E+06	2.00	0.0	4.00	7.5000E-01				
								4.00	0.0	9.1300E+06	9.2000E-01	2.5688E+02	2	1	3237
3235	104-Rf-259	0	1042590	3.2000E+00	0.0000E+00	0.0000E+00	8.2000E+06	4.00	0.0	0.0000E+00	8.0000E-02				
								6.00	0.0	0.0000E+00	1.0000E+00	2.5970E+02	1	0	3226
3236	102-No-260	0	1022600	1.0600E-01	0.0000E+00	0.0000E+00	0.0000E+00	6.00	0.0	2.6650E+06	2.0000E-01	2.5787E+02	2	1	3233
3237	103-Lr-260	0	1032600	1.8000E+02	0.0000E+00	0.0000E+00	6.5000E+06	2.00	0.0	4.00	8.3960E+06				

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国際単位系 (SI)

表1. SI 基本単位

基本量	SI 基本単位	
	名称	記号
長さ	メートル	m
質量	キログラム	kg
時間	秒	s
電流	アンペア	A
熱力学温度	ケルビン	K
物質량	モル	mol
光度	カンデラ	cd

表2. 基本単位を用いて表されるSI組立単位の例

組立量	SI 組立単位	
	名称	記号
面積	平方メートル	m ²
体積	立方メートル	m ³
速度	メートル毎秒	m/s
加速度	メートル毎秒毎秒	m/s ²
波数	毎メートル	m ⁻¹
密度, 質量密度	キログラム毎立方メートル	kg/m ³
面積密度	キログラム毎平方メートル	kg/m ²
比体積	立方メートル毎キログラム	m ³ /kg
電流密度	アンペア毎平方メートル	A/m ²
磁界の強さ	アンペア毎メートル	A/m
量濃度 ^(a) , 濃度	モル毎立方メートル	mol/m ³
質量濃度	キログラム毎立方メートル	kg/m ³
輝度	カンデラ毎平方メートル	cd/m ²
屈折率 ^(b)	(数字の)	1
比透磁率 ^(b)	(数字の)	1

(a) 量濃度 (amount concentration) は臨床化学の分野では物質濃度 (substance concentration) ともよばれる。
 (b) これらは無次元量あるいは次元1をもつ量であるが、そのことを表す単位記号である数字の1は通常は表記しない。

表3. 固有の名称と記号で表されるSI組立単位

組立量	SI 組立単位		
	名称	記号	他のSI単位による表し方
平面角	ラジアン ^(b)	rad	1 ^(b)
立体角	ステラジアン ^(b)	sr ^(e)	1 ^(b)
周波数	ヘルツ ^(d)	Hz	s ⁻¹
力	ニュートン	N	m kg s ⁻²
圧力, 応力	パスカル	Pa	N/m ²
エネルギー, 仕事, 熱量	ジュール	J	N m
仕事率, 工率, 放射束	ワット	W	J/s
電荷, 電気量	クーロン	C	s A
電位差 (電圧), 起電力	ボルト	V	W/A
静電容量	ファラド	F	C/V
電気抵抗	オーム	Ω	V/A
コンダクタンス	ジーメンズ	S	A/V
磁束	ウェーバ	Wb	Vs
磁束密度	テスラ	T	Wb/m ²
インダクタンス	ヘンリー	H	Wb/A
セルシウス温度	セルシウス度 ^(e)	°C	K
光線	ルーメン	lm	cd sr ^(e)
放射線	ルクス	lx	lm/m ²
放射性核種の放射能 ^(f)	ベクレル ^(d)	Bq	s ⁻¹
吸収線量, 比エネルギー分与, カーマ	グレイ	Gy	J/kg
線量当量, 周辺線量当量, 方向性線量当量, 個人線量当量	シーベルト ^(g)	Sv	J/kg
酸素活性化	カタール	kat	s ⁻¹ mol

(a) SI接頭語は固有の名称と記号を持つ組立単位と組み合わせても使用できる。しかし接頭語を付した単位はもはやコヒーレントではない。
 (b) ラジアンとステラジアンは数字の1に対する単位の特別な名称で、量についての情報をつたえるために使われる。実際には、使用する時には記号rad及びsrが用いられるが、習慣として組立単位としての記号である数字の1は明示されない。
 (c) 測光学ではステラジアンという名称と記号srを単位の表し方の中に、そのまま維持している。
 (d) ヘルツは周期現象についてのみ、ベクレルは放射性核種の統計的過程についてのみ使用される。
 (e) セルシウス度はケルビンの特別な名称で、セルシウス温度を表すために使用される。セルシウス度とケルビンの単位の大きさは同一である。したがって、温度差や温度間隔を表す数値はどちらの単位で表しても同じである。
 (f) 放射性核種の放射能 (activity referred to a radionuclide) は、しばしば誤った用語で"radioactivity"と記される。
 (g) 単位シーベルト (PV, 2002, 70, 205) についてはCIPM勧告2 (CI-2002) を参照。

表4. 単位の中に固有の名称と記号を含むSI組立単位の例

組立量	SI 組立単位		
	名称	記号	SI 基本単位による表し方
粘力のモーメント	パスカル秒	Pa s	m ⁻¹ kg s ⁻¹
表面張力	ニュートンメートル	N m	m ² kg s ⁻²
角速度	ニュートン毎メートル	N/m	kg s ⁻²
角加速度	ラジアン毎秒	rad/s	m m ⁻¹ s ⁻¹ = s ⁻¹
熱流密度, 放射照度	ラジアン毎秒毎秒	rad/s ²	m m ⁻¹ s ⁻² = s ⁻²
熱容量, エントロピー	ワット毎平方メートル	W/m ²	kg s ⁻³
比熱容量, 比エントロピー	ジュール毎ケルビン	J/K	m ² kg s ⁻² K ⁻¹
比エネルギー	ジュール毎キログラム毎ケルビン	J/(kg K)	m ² s ⁻² K ⁻¹
熱伝導率	ジュール毎キログラム	J/kg	m ² s ⁻²
体積エネルギー	ワット毎メートル毎ケルビン	W/(m K)	m kg s ⁻³ K ⁻¹
電界の強さ	ジュール毎立方メートル	J/m ³	m ⁻¹ kg s ⁻²
電荷密度	ジュール毎立方メートル	V/m	m kg s ⁻³ A ⁻¹
電表面積	クーロン毎立方メートル	C/m ³	m ⁻³ s A
電束密度, 電気変位	クーロン毎平方メートル	C/m ²	m ⁻² s A
誘電率	クーロン毎平方メートル	C/m ²	m ² s A
透磁率	ファラド毎メートル	F/m	m ³ kg ⁻¹ s ⁴ A ²
モルエネルギー	ヘンリー毎メートル	H/m	m kg s ⁻² A ²
モルエントロピー, モル熱容量	ジュール毎モル	J/mol	m ² kg s ⁻² mol ⁻¹
照射線量 (X線及びγ線)	ジュール毎モル毎ケルビン	J/(mol K)	m ² kg s ⁻² K ⁻¹ mol ⁻¹
吸収線量率	クーロン毎キログラム	C/kg	kg ⁻¹ s A
放射線強度	グレイ毎秒	Gy/s	m ² s ⁻³
放射線輝度	ワット毎ステラジアン	W/sr	m ⁴ m ⁻² kg s ⁻³ = m ² kg s ⁻³
酵素活性濃度	ワット毎平方メートル毎ステラジアン	W/(m ² sr)	m ² m ⁻² kg s ⁻³ = kg s ⁻³
	カタール毎立方メートル	kat/m ³	m ³ s ⁻¹ mol

表5. SI 接頭語

乗数	名称	記号	乗数	名称	記号
10 ²⁴	ヨタ	Y	10 ¹	デシ	d
10 ²¹	ゼタ	Z	10 ²	センチ	c
10 ¹⁸	エクサ	E	10 ³	ミリ	m
10 ¹⁵	ペタ	P	10 ⁶	マイクロ	μ
10 ¹²	テラ	T	10 ⁹	ナノ	n
10 ⁹	ギガ	G	10 ¹²	ピコ	p
10 ⁶	メガ	M	10 ⁻¹⁵	フェムト	f
10 ³	キロ	k	10 ⁻¹⁸	アト	a
10 ²	ヘクト	h	10 ⁻²¹	ゼプト	z
10 ¹	デカ	da	10 ⁻²⁴	ヨクト	y

表6. SIに属さないが、SIと併用される単位

名称	記号	SI 単位による値
分	min	1 min=60 s
時	h	1 h=60 min=3600 s
日	d	1 d=24 h=86 400 s
度	°	1°=(π/180) rad
分	'	1'=(1/60)°=(π/10 800) rad
秒	"	1"=(1/60)'=(π/648 000) rad
ヘクタール	ha	1 ha=1 hm ² =10 ⁴ m ²
リットル	L, l	1 L=1 l=1 dm ³ =10 ³ cm ³ =10 ⁻³ m ³
トン	t	1 t=10 ³ kg

表7. SIに属さないが、SIと併用される単位で、SI単位で表される数値が実験的に得られるもの

名称	記号	SI 単位で表される数値
電子ボルト	eV	1 eV=1.602 176 53(14)×10 ⁻¹⁹ J
ダルトン	Da	1 Da=1.660 538 86(28)×10 ⁻²⁷ kg
統一原子質量単位	u	1 u=1 Da
天文単位	ua	1 ua=1.495 978 706 91(6)×10 ¹¹ m

表8. SIに属さないが、SIと併用されるその他の単位

名称	記号	SI 単位で表される数値
バール	bar	1 bar=0.1MPa=100 kPa=10 ⁵ Pa
水銀柱ミリメートル	mmHg	1 mmHg=133.322Pa
オングストローム	Å	1 Å=0.1nm=100pm=10 ⁻¹⁰ m
海里	M	1 M=1852m
バイン	b	1 b=100fm ² =(10 ¹² cm) ² =10 ⁻²⁸ m ²
ノット	kn	1 kn=(1852/3600)m/s
ネーパ	Np	SI単位との数値的関係は、 対数量の定義に依存。
ベレル	B	
デシベル	dB	

表9. 固有の名称をもつCGS組立単位

名称	記号	SI 単位で表される数値
エルグ	erg	1 erg=10 ⁻⁷ J
ダイン	dyn	1 dyn=10 ⁻⁵ N
ポアズ	P	1 P=1 dyn s cm ⁻² =0.1Pa s
ストークス	St	1 St=1cm ² s ⁻¹ =10 ⁻⁴ m ² s ⁻¹
ストルブ	sb	1 sb=1cd cm ⁻² =10 ⁴ cd m ⁻²
フォト	ph	1 ph=1cd sr cm ⁻² =10 ⁴ lx
ガリ	Gal	1 Gal=1cm s ⁻² =10 ⁻² ms ⁻²
マクスウェル	Mx	1 Mx=1 G cm ² =10 ⁻⁸ Wb
ガウス	G	1 G=1Mx cm ⁻² =10 ⁻⁴ T
エルステッド ^(a)	Oe	1 Oe _e =(10 ³ /4π)A m ⁻¹

(a) 3元系のCGS単位系とSIでは直接比較できないため、等号「△」は対応関係を示すものである。

表10. SIに属さないその他の単位の例

名称	記号	SI 単位で表される数値
キュリー	Ci	1 Ci=3.7×10 ¹⁰ Bq
レントゲン	R	1 R=2.58×10 ⁻⁴ C/kg
ラド	rad	1 rad=1cGy=10 ⁻² Gy
レム	rem	1 rem=1 cSv=10 ⁻² Sv
ガンマ	γ	1 γ=1 nT=10 ⁻⁹ T
フェルミ	f	1 フェルミ=1 fm=10 ⁻¹⁵ m
メートル系カラット		1 メートル系カラット=0.2 g=2×10 ⁻⁴ kg
トル	Torr	1 Torr=(101 325/760) Pa
標準大気圧	atm	1 atm=101 325 Pa
カロリ	cal	1 cal=4.1858J (「15°C」カロリ), 4.1868J (「IT」カロリ), 4.184J (「熱化学」カロリ)
マイクロン	μ	1 μ=1μm=10 ⁻⁶ m

