

JAERI - M
94-059

(INDC(JPN) - 170/L)

**LIST OF STRONG GAMMA-RAYS EMITTED FROM
RADIONUCLIDES (VERSION 2)**

March 1994

Tsutomu NARITA, Tsutomu ICHIMIYA and Kensuke KITAO^{**}

JAERI-Mレポートは、日本原子力研究所が不定期に公刊している研究報告書です。
入手の問合せは、日本原子力研究所技術情報部情報資料課 〒319-11茨城県那珂郡東
海村 あて、お申しつけ下さい。なお、このほかに財團法人原子力広議会資料セミナー
〒319-11 茨城県那珂郡東海村日本原子力研究所内にて複写による実費販布をおこなって
おります。

JAERI-M reports are issued irregularly.

Inquiries about availability of the reports should be addressed to **Information Division**,
Department of Technical Information, Japan Atomic Energy Research Institute, Tokai-
mura, Naka-gun, Ibaraki-ken 319-11, Japan

List of Strong Gamma-rays Emitted from Radionuclides(Version 2)

Tsutomu NARITA, Tsutomu ICHIMIYA* and Kensuke KITAO**

Department of Reactor Engineering
Tokai Research Establishment
Japan Atomic Energy Research Institute
Tokai-mura, Naka-gun, Ibaraki-ken

(Received February 23, 1994)

The report is a quick index to identify gamma-emitting nuclides from energy peaks on the gamma-ray spectrum, and it consists of the three strongest gamma-rays, greater than 1 keV, emitted from decay of each radioactive nuclide. This report supersedes JAERI-M 92-051(March 1992), but in this new edition the list of gamma-rays is divided into five part according to the half-life of parent nuclides. These gamma-rays are arranged in the table in order of increasing energy. The lists are derived from Evaluated Nuclear Structure Data File (ENSDF, file as of September 1993) maintained by National Nuclear Data Center at Brookhaven National Laboratory, USA. A list to which the five tables are united has been prepared on a floppy disk in addition to the lists above mentioned. In appendix, radionuclides is also listed with known energy values but unknown intensities of all gamma-rays following the decay.

Keywords: Gamma-rays, Radioactive Nuclide, Gamma-ray Spectrometry

* The Japan Radioisotope Association
** Member of Japanese Data Committee

放射性核種から放出される放出割合の大きい γ 線の一覧表（第二版）

日本原子力研究所東海研究所原子炉工学部
成田 孟・一宮 勉・喜多尾憲助**

(1994年2月23日受理)

この表は、 γ 線放出核種を γ 線エネルギーから同定するための早見表であって、各々の放射性核種から放出される γ 線のうち、1 keV以上のエネルギーをもつ γ 線について、放出割合の大きいものから順に「3本づつ」選び、エネルギー順に配列したものである。本表は1992年3月に発表したレポートJAERI-M 92-051を改訂したものであるが、ここでは使用上の便宜を考慮して親核種の半減期によって、表を5つに分けた。又 γ 線は特定されているが、 γ 線の放出強度が全く報告されていない γ 線放出核種の一覧表も付録として掲載してある。評価済み核構造データファイル(ENSDF、1993年9月現在)に収録されている γ 線放出核種はすべて本レポートに掲載した。ここで用いた γ 線のエネルギー値、放出割合、親核種の半減期などの数値は、すべて上記ENSDFからとったものである。なお本表のフロッピーデスク版として、半減期別に分類せず一つにまとめたものを別に用意した。

Contents

1. Introduction	1
2. Policy	1
3. Explanation of Tables	2
4. List of Strong Gamma-rays Emitted from Radionuclides	5
4.1 Gamma-rays of Radionuclides ($T_{1/2} < 0.1$ sec)	5
4.2 Gamma-rays of Radionuclides (0.1 sec $\leq T_{1/2} < 1$ min)	11
4.3 Gamma-rays of Radionuclides (1 min $\leq T_{1/2} < 1$ hr)	42
4.4 Gamma-rays of Radionuclides (1 hr $\leq T_{1/2} < 1$ d)	75
4.5 Gamma-rays of Radionuclides (1 d $< T_{1/2}$)	91
Appendix List of Radionuclides for Whose all Gamma-rays only Energy Values are known	107

目 次

1. はじめに	1
2. 編集方針	1
3. 表の説明	2
4. 各放射性核種から放出される3本の強い γ 線の一覧表	5
4.1 半減期0.1秒未満の放射性核種からの γ 線	5
4.2 半減期0.1秒以上、1分未満の放射性核種からの γ 線	11
4.3 半減期1分以上、1時間未満の放射性核種からの γ 線	42
4.4 半減期1時間以上、1日未満の放射性核種からの γ 線	75
4.5 半減期1日以上の放射性核種からの γ 線	91
付録 放出 γ 線のエネルギー値のみが知られている放射性核種の一覧表	107

1. Introduction

With the advent and wide use of germanium detectors, gamma-ray spectroscopy has taken roots deeply in the field of spectrometry and metrology of radionuclides. The gamma-ray spectroscopy with the germanium detectors is a simple and accurate analytical method, but it is not easy to identify radionuclides from complex gamma-ray spectra such as those observed in the activation analysis of complex materials and those from radioactive nuclides formed by irradiation of high energy particles. This report is a quick index to identify gamma-emitting nuclides from energy peaks on such complex spectra. The report is a list of the three strongest gamma-rays for each nuclide which are greater than 1 keV. The list consists of five tables, which are divided according to the half-life of parent nuclides. A list to which the five tables are united has also been prepared on a floppy disk in addition to the lists above mentioned. These gamma-rays are arranged in order of increasing energy. Each line of the list contains the energy and intensity of one of the three strongest gamma-rays, parent nuclide identification (elemental symbol, half-life and decay mode), total number of gamma-rays observed in the decay of the parent nuclide, and the energies and intensities of other two of the three gamma-rays. With the last two columns of each line, identification of nuclides could be made more easily and more quickly. There are many nuclides whose gamma-rays are observed but their intensities have not reported at all. These radionuclides are also listed with their gamma-rays in appendix. All gamma-emitting radionuclides whose data are compiled in the Evaluated Nuclear Structure Data File (ENSDF, file as of September 1993) are listed in this report. All data contained in the list are retrieved from the file. This report supersedes the old edition JAERI-M 90-051 (March 1992).

2. Policy

2.1. Data source

The gamma-emitting nuclides and their half-lives, as well as all data of gamma-rays used in the lists, are retrieved from the Evaluated Nuclear Structure Data Files (ENSDF, file as of September 1993) maintained by the National Nuclear Data Center at Brookhaven National Laboratory, USA, on behalf of the International Network for Nuclear Structure and Decay Evaluations.

2.2. Criteria of listing

The criteria of listing are as follows:

- (1) Three gamma-rays with the strongest intensity are included.
- (2) Among these the gamma-rays with the energy lower than 1 keV and/or with the relative intensities less than 0.01 are excluded.
- (3) If gamma-rays in the decay of a radionuclide have the same intensities, the gamma-ray with greater energy is listed.
- (4) If the numbers of gamma-rays of a nuclide are three or less, all these gamma-rays are listed even if intensities are not given in ENSDF. All these gamma-rays are listed.
- (5) Half-lives of both ^{109}Ru (IT decay) and ^{149}Er (EC decay) have been not measured, but gamma-rays of these nuclides are listed in the part 2 of the list.

2.3. Classification of the list

For convenience' sake, the list is divided into five parts according to the half-lives of parent nuclides: Gamma-rays of radionuclides with the half-life ($T_{1/2}$) less than 0.1 sec are listed in part 1. Part 2 contains gamma-rays of radionuclides with the half-life of 0.1 sec and greater, and less than 1 min. Part 3 contains gamma-rays of radionuclides with the half-life of 1 min and greater, and less than 1 hr. Part 4 contains gamma-rays of radionuclides with the half-life of 1 hr and greater, and less than 1 d. Part 5 contains gamma-rays of radionuclides with half-life of 1 day or greater.

2.4. Values of data given in the tables

Energy values of gamma-rays, half-life values of parent nuclides, and the total number of gamma-rays in the decay of each parent nuclide are these recorded on ENSDF. The intensity of the gamma-rays is the value the 100 disintegration of the parent nucleus, if a normalization factor is given in ENSDF. Intensities of gamma-rays of the nuclides are relative values to intensity of the strongest gamma-ray, if the normalization factor is not given in ENSDF.

2.5. Floppy disk version

A floppy disk which contains the combined list of the three strongest gamma-rays of each nuclide is prepared.

3. Explanation of tables

The column headings, explained below, apply only to the entries.

3.1 List of the three strong gamma-rays of the radionuclides

(1) Col.1 "Energy"

Energy of three strong gamma-ray in keV. See section 3.3 for symbols attached to the value.

(2) Col.2 "Intensity"

Intensity of the gamma-ray per 100 disintegrations of the parent nucleus. The symbol "--" denotes that no intensity is given in ENSDF. For other symbols, see section 3.3. The letter "U" denotes that the gamma-ray is not placed in the decay scheme.

(3) Col.3 "Parent Nuclide"

Element symbol and mass number of the parent nuclide. The symbol "#" denotes that the nuclide have two decay data sets in ENSDF.

(4) Col.4 "Decay Mode"

Decay mode of the parent nuclide listed in col.3. Symbols used are the followings:

B-	Negatron decay
B+	Positron decay
EC	Electron capture
A	Alpha decay
IT	Isomeric transition
B-N	Delayed neutron emission following negatron decay
B-2	Delayed two neutrons emission following negatron decay
B+P	Delayed proton emission following positron decay
ECP	Delayed proton emission following electron capture
2B-	Double beta decay

(5) Col. 5 "Half-life"

Half-life of the nuclide in the decimal or exponential notation. Symbols for units are the followings:

NS	Nanosecond
US	Microsecond
MS	Millisecond
S	Second
M	Minute
H	Hour
D	Day
Y	Year

$2.0+3.0M$ means that the parent nuclide is a composite of nuclides with half-lives of 2.0 min. and 3.0 min. The symbol "--" denotes that no value of the half life is given in ENSDF.

(6) Col.6 "No. of G"

Total number of gamma-rays observed in the decay of the parent nuclide.

(7) Cols.7 and 8 "Other intense gamma-rays - Energy (Intensity)"

Energies and intensities of other two gamma-rays for the same nuclide are given. See sections 3.1.1 and 3.1.2 for symbols and letters used in these columns.

3.2 Appendix.

(1) Col.1 "Parent Nuclide"

Elemental symbol of the parent nuclide.

(2) Col.2 "Decay mode"

Decay mode of the parent nuclide in col.1. See the section 3.1.4 for symbols used in this column.

(3) Col.3 "Half life"

Value and unit of the half-life of the parent nuclide in col.1. See the section 3.1.5 for symbols used in this column.

(4) Col.4 "Energy"

Energy in keV of the gamma-ray from the decay of the parent nuclide in col.1. See sections 3.3 for symbols used in this column.

3.3 Symbols used in the tables

* Relative value

~ Approximate value

? Calculated or estimated value

> Greater or equal to

< Less than or equal to

4. List of Strong Gamma-rays Emitted from Radionuclides

4.1 Gamma-rays of Radionuclides ($T_{1/2} \leq 0.1$ sec)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	14.0 -	125.1 (keV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
14.	--	Gd-155	IT	31	MS	3	22.00(--)	86.00(--)
17.1	--	Gd-159	IT	26.2	NS	3	50.70(--)	67.80(--)
19.84	7.0	Ho-166	IT	185	US	4	116.83(13.)	136.66(50.)
22.	--	Gd-155	IT	31	MS	3	14.00(--)	86.00(--)
32.3	34.	Br-78	IT	119.2	US	2	148.60(68.)	
32.9	49.5	Sm-153	IT	10.6	MS	6	46.10(2.18)	58.00(1.14)
34.6	10.8	Pd-117	IT	19.1	MS	5	97.10(3.5)	168.60(59.2)
37.3	23.	Dy-157	IT	20.2	MS	6	61.00(6.9)	87.00(20.9)
42.	* 36.1	Gd-153	IT	76.1	US	8	52.00(19.6)	77.00(*100.)
45.54	21.4	Er-161	IT	7.5	US	19	131.00(14.9)	147.00(22.3)
45.8	--	Sb-114	IT	219	US	4	90.20(--)	321.80(--)
46.1	2.18	Sm-153	IT	10.6	MS	6	32.90(49.5)	58.00(1.14)
46.9	8.27	I-115	IT	144	US	6	275.30(28.7)	322.50(84.4)
48.2	0.21	Pt-191	IT	95	US	3	91.10(12.)	
50.	* 4.48	Te-135	IT	0.51	US	3	325.00(95.2)	1180.30(*100.)
50.7	--	Gd-159	IT	26.2	NS	3	17.10(--)	67.80(--)
52.	* 19.6	Gd-153	IT	76.1	US	8	42.00(36.1)	77.00(*100.)
54.6	> 41.4	Na-29	B-	44.9	MS	18	1638.00(5.87)	2560.20(36.)
55.04	37.5	Tb-158	IT	395	US	8	65.76(28.)	171.07(50.)
58.	1.14	Sm-153	IT	10.6	MS	6	32.90(49.5)	46.10(2.18)
59.9	9.5	Cd-109	IT	12	US	1		
61.	6.9	Dy-157	IT	20.2	MS	6	37.30(23.)	87.00(20.9)
61.7	30.	Sb-133	IT	3	US	3	1510.10(100.)	2792.10(100.)
64.	17.5	Gd-157	IT	17	US	12	199.00(30.)	245.00(60.6)
65.76	28.	Tb-158	IT	395	US	8	55.04(37.5)	171.07(50.)
65.9	11.4	Cs-127	IT	55	US	7	178.80(42.1)	206.00(58.5)
67.06	8.0	Lu-174	IT	145	NS	11	164.88(4.9)	253.41(15.8)
67.06	* 8.0	Lu-174	IT	395	NS	5	129.07(*100.)	196.12(*32.2)
67.35	50.3	Lu-172	IT	440	US	2		
67.8	--	Gd-159	IT	26.2	NS	3	17.10(--)	50.70(--)
76.5	24.7	Sm-143	IT	30	MS	12	208.00(49.4)	1573.40(63.6)
77.	*100.	Gd-153	IT	76.1	US	8	42.00(36.1)	52.00(*19.6)
80.8	--	Tb-153	IT	186	US	2	82.50(--)	
82.5	--	Tb-153	IT	186	US	2	80.80(--)	
84.2	* 63.	Ir-194	IT	31.85	MS	6	112.20(*100.)	
85.	--	Ge-69	IT	5.1	US	1		
86.	--	Gd-155	IT	31	MS	3	14.00(--)	22.00(--)
86.7	--	Pr-142	IT	61	NS	3	268.20(--)	553.00(--)
87.	20.9	Dy-157	IT	20.2	MS	6	37.30(23.)	61.00(6.9)
90.2	--	Sb-114	IT	219	US	4	45.80(--)	321.80(--)
90.8	100.	Rb-99	B-	59	MS	31	125.20(40.)	1071.60(26.)
91.1	12.	Pr-191	IT	95	US	3	48.20(0.21)	
93.89	13.4	Sr-102	B-	69	MS	25	150.15(18.)	243.80(53.)
97.1	3.5	Pd-117	IT	19.1	MS	5	34.60(10.8)	168.60(59.2)
98.5	--	Pr-140	IT	3.05	US	2	635.90(--)	
100.7	14.8	Sn-115	IT	159	US	3	115.90(53.)	497.60(*84.8)
103.	--	Dy-155	IT	6	US	6	137.76(--)	147.20(--)
104.6	1.E-03	Ra-213	A	2.1	MS	3	110.10(5.E-03)	214.70(0.01)
110.1	5.E-03	Ra-213	A	2.1	MS	3	104.60(1.E-03)	214.70(0.01)
112.2	*100.	Ir-194	IT	31.85	MS	6	84.20(*63.)	
112.9	21.3	Dy-159	IT	122.3	US	15	116.50(26.4)	121.01(19.5)
113.82	11.3	Ir-189	IT	13.3	MS	5	186.68(24.6)	300.50(41.)
115.2	50.4	Te-134	IT	165	NS	3	297.10(99.1)	1279.70(95.8)
115.9	53.	Sn-115	IT	159	US	3	100.70(14.8)	497.60(*84.8)
116.5	26.4	Dy-159	IT	122.3	US	15	112.90(21.3)	121.01(19.5)
116.83	13.	Ho-166	IT	185	US	4	19.84(7.0)	136.66(50.)
121.01	19.5	Dy-159	IT	122.3	US	15	112.90(21.3)	116.50(26.4)
125.1	83.	Y-99	IT	8.6	US	26	158.70(52.5)	214.00(41.5)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	125.2 -	245.0 (KeV)
							Other two intense gamma-rays	Energy(Intensity)
125.2	40.	Rb-99	B-	59	MS	31	90.80(100.)	1071.60(26.)
125.4	25.8	Al-34	B-	60	MS	4	929.60(56.4)	3327.50(60.)
129.07	*100.	Lu-174	IT	395	NS	5	67.06(* 8.0)	196.12(* 32.2)
131.	14.9	Er-161	IT	7.5	US	19	45.54(21.4)	147.00(22.3)
132.3	62.	Sn-132	IT	1.98	US	5	299.20(100.)	
133.	57.	Ta-181	IT	18.9	US	4	346.00(16.)	482.00(100.)
135.8	41.	Lu-161	IT	7.3	MS	1		
136.66	50.	Ho-166	IT	185	US	4	19.84(7.0)	116.83(13.)
137.76	--	Dy-155	IT	6	US	6	103.00(--)	147.20(--)
144.22	72.8	Rb-98	B-	96	MS	30	289.50(67.6)	3010.50(23.4)
144.6	11.1	Rb-99	B-N	59	MS	7	289.40(3.32)	1079.80(1.11)
144.6	*100.	Rb-100	B-2	51	MS	1		
147.	22.3	Er-161	IT	.5	US	19	45.54(21.4)	131.00(14.9)
147.2	--	Dy-155	IT	6	US	6	103.00(--)	137.76(--)
148.6	68.	Br-78	IT	119.2	US	2	32.30(34.)	
150.15	18.	Sr-102	B-	69	MS	25	93.89(13.4)	243.80(53.)
151.5	72.	Tm-152	IT	294	NS	19	235.70(70.)	320.10(100.)
158.7	52.3	Y-99	IT	8.6	US	26	125.10(83.)	214.00(41.5)
160.87	43.7	Ra-213	IT	2.1	MS	5	546.35(98.8)	1062.50(95.)
162.5	70.	Sb-133	IT	16.0	US	4	1510.10(100.)	2792.10(100.)
164.88	4.9	Lu-174	IT	145	NS	11	67.06(8.0)	253.41(15.8)
168.6	59.2	Pd-117	IT	19.1	MS	5	34.60(10.8)	97.10(3.5)
171.07	50.	Tb-158	IT	395	US	8	55.04(37.5)	65.76(28.)
171.2	4.86	Na-31	B-	17.0	MS	11	2022.50(3.86)	2243.80(10.6)
174.95	91.2	Ge-71	IT	20.40	MS	2		
178.8	42.1	Cs-127	IT	55	US	7	65.90(11.4)	206.00(58.5)
186.68	24.6	Ir-189	IT	13.3	MS	5	113.82(11.3)	300.50(41.)
187.8	*100.	In-112	IT	2.81	US	4	262.70(* 75.8)	
190.34	15.4	In-114	IT	43.1	MS	2	311.65(88.5)	
193.9	73.5	Re-183	IT	1.04	MS	16	257.00(35.3)	585.50(58.8)
194.1	33.6	Nb-91	IT	3.76	US	7	1790.60(36.3)	1984.60(62.6)
196.12	* 32.2	Lu-174	IT	395	NS	5	67.06(* 8.0)	129.07(* 100.)
197.4	* 82.4	Sb-117	IT	355	US	26	1000.20(* 100.)	1322.90(* 54.9)
198.8	--	Tl-198	IT	32.1	MS	1		
199.	30.	Gd-157	IT	17	US	12	64.00(17.5)	245.00(60.6)
203.5	93.8	Cd-109	IT	10.9	US	2	259.50(85.5)	
204.6	12.3	U-236	IT	97	NS	24	642.40(30.)	942.60(13.2)
205.2	--	Tb-146	IT	1.18	MS	6	343.10(--)	417.70(--)
206.	58.5	Cs-127	IT	55	US	7	65.90(11.4)	178.80(42.1)
208.	49.4	Sm-143	IT	30	MS	12	76.50(24.7)	1573.40(63.6)
208.5	--	Pm-142	IT	67	US	8	241.00(--)	433.70(--)
210.7	91.	Ru-103	IT	1.69	MS	4	213.40(5.1)	
211.6	--	Tb-142	IT	15	US	11	220.03(--)	303.83(--)
213.	22.4	Tl-200	IT	34.3	MS	2	539.00(97.6)	
213.4	5.1	Ru-103	IT	1.69	MS	4	210.70(91.)	
214.	41.5	Y-99	IT	8.6	US	26	125.10(83.)	158.70(52.3)
214.7	0.01	Ra-213	A	2.1	MS	3	104.60(1.E-03)	110.10(5.E-03)
218.9	* 19.4	Hg-201	IT	94	US	3	521.05(* 100.)	
219.2	65.	Os-183	IT	30	NS	31	317.50(56.)	491.10(54.)
220.03	--	Tb-142	IT	15	US	11	211.60(--)	303.83(--)
220.7	81.7	Ru-101	IT	17.5	US	2	306.60(98.5)	
225.	< 4.35	Tl-201	IT	2.035	MS	4	331.10(87.)	588.00(87.)
232.8	61.4	Eu-148	IT	235	NS	9	396.20(29.)	475.60(67.5)
234.	21.	Rn-207	IT	181	US	2	665.10(98.)	
235.7	70.	Tm-152	IT	294	NS	19	151.50(72.)	320.10(100.)
241.	--	Pm-142	IT	67	US	8	208.50(--)	433.70(--)
243.8	53.	Sr-102	B-	69	MS	25	93.89(13.4)	150.15(18.)
245.	60.6	Gd-157	IT	17	US	12	64.00(17.5)	199.00(30.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	247.6 -	456.2 (KeV)
						Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)
247.6	45.	Ir-189	IT	3.7	MS	42	345.80(48.)	701.50(43.5)
251.6	21.4	Rb-101	B-	0.032	S	9	271.20(69.)	1091.80(17.3)
253.41	15.8	Lu-174	IT	145	NS	11	67.06(8.0)	164.88(4.9)
257.	35.3	Re-183	IT	1.04	MS	16	193.90(73.5)	585.50(58.8)
258.5	0.06	At-217	A	32.3	MS	8	593.10(0.01)	
259.5	85.5	Cd-109	IT	10.9	US	2	203.50(93.8)	
262.7	* 75.8	In-112	IT	2.81	US	4	187.80(*100.)	
268.2	--	Pr-142	IT	61	NS	3	86.70(--)	553.00(--)
271.2	69.	Rb-101	B-	0.032	S	9	251.60(21.4)	1091.80(17.3)
272.	--	Bi-201	IT	26	US	5	412.00(--)	967.10(--)
272.2	78.	Pt-184	IT	1.01	MS	25	360.80(55.4)	431.00(52.3)
274.6	86.	Bi-199	IT	101	NS	6	499.80(86.)	1002.50(100.)
275.3	28.7	I-115	'	144	US	6	46.90(8.27)	322.50(84.4)
279.4	67.3	Sb-115	IT	159	NS	7	1216.70(? 70.4)	1300.25(? 91.5)
280.3	84.2	Te-115	IT	7.5	US	1		
289.4	3.32	Rb-99	B-N	59	MS	7	144.60(11.1)	1079.80(1.11)
289.5	67.6	Rb-98	B-	96	MS	30	144.22(72.8)	3010.50(23.4)
297.1	99.1	Tc-134	IT	165	NS	3	115.20(50.4)	1279.70(95.8)
299.2	100.	Sn-132	IT	1.98	US	5	132.30(62.)	
300.5	41.	Ir-189	IT	13.3	MS	5	113.82(11.3)	186.68(24.6)
302.9	84.5	Ce-138	IT	8.65	MS	3	789.20(99.7)	1037.60(99.8)
303.83	--	Tb-142	IT	15	US	11	211.60(--)	220.03(--)
304.	--	I-115	IT	16.79	MS	1		
306.6	98.5	Ru-101	IT	17.5	US	2	220.70(81.7)	
311.65	88.5	In-114	IT	43.1	MS	2	190.34(15.4)	
312.3	86.	Yb-152	IT	39	US	6	358.50(95.)	1531.20(100.)
317.5	56.	Os-183	IT	30	NS	31	219.20(65.)	491.10(54.)
320.1	U 100.	Tm-152	IT	294	NS	19	151.50(72.)	235.70(70.)
321.8	--	Sb-114	IT	219	US	4	45.80(--)	90.20(--)
322.5	84.4	I-115	IT	144	US	6	46.90(8.27)	275.30(28.7)
325.	* 95.2	Tc-135	IT	0.51	US	3	50.00(* 4.48)	1180.30(*100.)
325.4	* 100.	Ce-132	IT	13	MS	4	533.10(* 80.)	684.20(* 70.)
331.1	87.	Tl-201	IT	2.035	MS	4	225.00(< 4.35)	588.00(87.)
333.	--	Hg-203	IT	21	US	2	580.00(--)	
343.1	--	Tb-146	IT	1.18	MS	6	205.20(--)	417.70(--)
346.	16.	Ta-181	IT	18.9	US	4	133.00(57.)	482.00(100.)
352.	--	Fr-219	A	20	MS	5	493.00(--)	530.00(--)
353.	4.57	Tl-199	IT	28.4	MS	5	367.00(87.)	382.80(77.3)
356.7	48.	Hg-186	IT	100	US	4	402.60(79.)	405.30(100.)
357.2	100.	Ba-130	IT	11	MS	14	544.50(85.)	691.10(76.)
358.5	95.	Yb-152	IT	39	US	6	312.30(86.)	1531.20(100.)
360.8	55.4	Pt-184	IT	1.01	MS	5	272.20(78.)	431.00(52.3)
367.	87.	Tl-199	IT	28.~	MS	5	353.00(4.57)	382.80(77.3)
367.	86.5	Tl-204	IT	1.07	MS	9	608.00(91.)	736.50(82.8)
382.8	77.3	Tl-199	IT	28.4	MS	5	353.00(4.57)	367.00(87.)
390.	--	Ge-69	IT	3.2	US	1		
396.2	29.	Eu-148	IT	235	NS	9	232.80(61.4)	475.60(67.5)
402.6	79.	Hg-186	IT	100	US	4	356.70(48.)	405.30(100.)
404.	--	At-215	A	0.10	MS	1		
405.3	100.	Hg-186	IT	100	US	4	356.70(48.)	402.60(79.)
412.	--	Bi-201	IT	26	US	5	272.00(--)	967.10(--)
414.1	* 100.	Tl-204	IT	63	US	2	689.90(* 87.7)	
417.7	--	Tb-146	IT	1.18	MS	6	205.20(--)	343.10(--)
431.	52.3	Pt-184	IT	1.01	MS	25	272.20(78.)	360.80(55.4)
433.7	--	Pm-142	IT	67	US	8	208.50(--)	241.00(--)
435.	--	Nd-140	IT	0.60	MS	3	770.00(--)	1000.00(--)
438.8	- 0.04	Po-215	A	1.781	MS	1		
456.2	49.	Bi-207	IT	182	US	15	669.60(62.)	713.50(39.)

Energy 458.1 - 770.0 (KeV)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)
458.1	95.7	Pb-206	IT	197	NS	4	1299.10(37.6)
459.6	--	Tl-202	IT	572	US	2	490.70(--)
465.	1.0	Ra-220	A	25	MS	1	
472.2	--	Na- 24	IT	20.20	MS	1	
475.6	67.5	Eu-148	IT	235	NS	9	232.80(61.4)
482.	100.	Ta-181	IT	18.9	US	4	133.00(57.)
484.	-100.	Po-200	IT	190	NS	4	611.00(-100.)
489.	--	Ra-219	A	10	MS	6	592.00(--)
490.7	--	Tl-202	IT	572	US	2	459.60(--)
491.1	54.	Ds-183	IT	30	NS	31	219.20(65.)
493.	--	Fr-219	A	20	MS	5	352.00(--)
493.76	96.5	Au-199	IT	0.44	MS	2	
497.6	* 84.8	Sn-115	IT	159	US	3	100.70(14.8)
498.	--	Ac-217	A	740	NS	2	1105.00(--)
499.8	86.	Bi-199	IT	101	NS	6	274.60(86.)
510.3	73.5	Bi-208	IT	2.58	MS	6	650.10(23.5)
516.2	92.1	Pb-206	IT	123	US	9	803.70(99.)
521.05	*100.	Hg-201	IT	94	US	3	218.90(* 19.4)
530.	--	Fr-219	A	20	MS	5	352.00(--)
533.1	* 80.	Ce-132	IT	13	MS	4	325.40(*100.)
538.1	98.	Xe-132	IT	8.39	MS	5	667.70(98.)
539.	97.6	Tl-200	IT	34.3	MS	2	213.00(22.4)
544.5	85.	Ba-130	IT	11	MS	14	357.20(100.)
545.8	48.	Ir-189	IT	3.7	MS	42	247.60(45.)
546.35	98.8	Ra-213	IT	2.1	MS	5	160.87(43.7)
546.5	6.4 U	Na- 33	B-	8.2	MS	4	704.30(3.68U)
553.	--	Pr-142	IT	61	NS	3	86.70(--)
576.5	7.98	Sb-115	IT	6.2	NS	3	723.57(8.07)
580.	--	Hg-203	IT	21	US	2	333.00(--)
580.8.	--	Po-205	IT	2.5	NS	6	636.40(--)
585.5	58.8	Re-183	IT	1.04	MS	16	193.90(73.5)
588.	87.	Tl-201	IT	2.035	MS	4	225.00(* 4.35)
592.	--	Ra-219	A	10	MS	6	489.00(--)
593.1	0.01	At-217	A	32.3	MS	8	258.50(0.06)
608.	91.	Bi-204	IT	1.07	MS	9	367.00(86.5)
609.31	0.12	Rn-218	A	35	MS	1	
611.	-100.	Po-200	IT	190	NS	4	484.00(-100.)
627.	100.	Sr- 86	IT	0.46	US	4	1078.00(100.)
635.9	--	Pr-140	IT	3.05	US	2	98.50(--)
636.4	--	Po-205	IT	2.5	NS	6	580.80(--)
642.4	30.	U- 236	IT	97	NS	24	204.60(12.3)
650.1	23.5	Bi-208	IT	2.58	MS	6	510.30(73.5)
665.1	98.	Rn-207	IT	181	US	2	234.00(21.)
667.7	98.	Xe-132	IT	8.39	MS	5	538.10(98.)
668.	100.	Po-200	IT	190	NS	4	484.00(-100.)
669.6	62.	Bi-207	IT	182	US	15	456.20(49.)
684.2	* 70.	Ce-132	IT	13	MS	4	325.40(*100.)
689.9	* 87.7	Tl-204	IT	63	US	2	414.10(*100.)
691.1	76.	Ba-130	IT	11	MS	14	357.20(100.)
701.5	43.5	Ir-189	IT	3.7	MS	42	247.60(45.)
703.4	--	Pb-205	IT	5.54	MS	6	987.70(--)
704.3	3.68U	Na- 33	B-	8.2	MS	4	546.50(6.4 U)
713.5	39.	Bi-207	IT	182	US	15	456.20(49.)
719.2	--	Po-205	IT	2.5	NS	6	580.80(--)
723.57	8.07	Sb-115	IT	6.2	NS	3	576.50(7.98)
736.5	82.8	Bi-204	IT	1.07	MS	9	367.00(86.5)
752.15	57.	Fe- 49	B+P	75	MS	1	
770.	--	Nd-140	IT	0.60	MS	3	435.00(--)
							1000.00(--)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy		772.6 - 1879.0 (KeV)	
						Other two intense gamma-rays		Energy (Intensity)	
772.6	100.	Xe-132	IT	8.39	MS	5	538.10(98.)	667.70(98.)	
775.8	* 13.	Te-132	IT	3.9	US	6	926.20(* 13.)	973.90(* 100.)	
778.8	5.E-03	Po-213	A	4.2	US	1			
789.2	99.7	Ce-138	IT	8.65	MS	3	302.90(84.5)	1037.60(99.8)	
799.7	0.01	Po-214	A	164.3	US	2			
801.1	100.	V - 46	IT	1.02	MS	1			
803.1	99.	Pb-206	IT	123	US	9	516.20(92.1)	881.00(67.3)	
805.2	--	Ra-219	A	10	MS	6	489.00(--)	592.00(--)	
859.	84.5	Zr- 91	IT	4.35	US	16	2131.10(13.8)	2169.90(86.2)	
881.	67.3	Pb-206	IT	123	US	9	516.20(92.1)	803.10(99.)	
885.5	60.	Na- 32	B-	13.2	MS	5	1973.00(8.58)	2151.50(31.6)	
885.5	16.1	Na- 33	B-N	8.2	MS	2	2550.70(2.58U)		
885.5	--	Na- 34	B-2	5.5	MS	1			
921.	98.	Bi-208	IT	2.58	MS	6	510.30(73.5)	650.10(23.5)	
926.2	* 13.	Te-132	IT	3.9	US	6	775.80(* 13.)	973.90(* 100.)	
929.6	56.4	Al- 34	B-	60	MS	4	125.40(25.8)	3327.50(60.)	
942.6	13.2	U - 236	IT	97	NS	24	204.60(12.3)	642.40(30.)	
967.1	--	Bi-201	IT	26	US	5	272.00(--)	412.00(--)	
973.9	*100.	Te-132	IT	3.9	US	6	775.80(* 13.)	926.20(* 13.)	
985.4	6.53	Na- 30	B-	48	MS	20	1482.80(46.)	1978.40(10.9)	
987.7	--	Pb-205	IT	5.54	MS	6	703.40(--)	1013.80(--)	
1000.	--	Nd-140	IT	0.60	MS	3	435.00(--)	770.00(--)	
1000.2	*100.	Sb-117	IT	355	US	26	197.40(* 82.4)	1322.90(* 54.9)	
1002.5	100.	Bi-199	IT	101	NS	6	274.60(86.)	499.80(86.)	
1013.8	--	Pb-205	IT	5.54	MS	6	703.40(--)	987.70(--)	
1037.6	99.8	Ce-138	IT	8.65	MS	3	302.90(84.5)	789.20(99.7)	
1062.5	95.	Ra-213	IT	2.1	MS	5	160.87(43.7)	546.35(98.8)	
1071.6	26.	Rb- 99	B-	59	MS	31	90.80(100.)	125.20(40.)	
1078.	100.	Sr- 86	IT	0.46	US	4	627.00(100.)	1154.00(100.)	
1079.8	1.11	Rb- 99	B-N	59	MS	7	144.60(11.1)	289.40(3.52)	
1091.8	17.3	Rb-101	B-	0.032	S	9	251.60(21.4)	271.20(69.)	
1093.2	--	Yb-172	IT	3.6	US	15	1094.40(--)	1116.20(--)	
1094.4	--	Yb-172	IT	3.6	US	15	1093.20(--)	1116.20(--)	
1105.	--	Ac-217	A	740	NS	2	498.00(--)		
1116.2	--	Yb-172	IT	3.6	US	15	1093.20(--)	1094.40(--)	
1154.	100.	Sr- 86	IT	0.46	US	4	627.00(100.)	1078.00(100.)	
1180.3	*100.	Te-135	IT	0.51	US	3	50.00(* 4.48)	325.00(* 95.2)	
1216.7	? 70.4	Sb-115	IT	159	NS	7	279.40(67.3)	1300.25(? 91.5)	
1242.6	4.16U	Na- 33	B-	8.2	MS	4	546.50(6.4 U)	704.30(3.68U)	
1247.	< 5.5	B - 14	B-	16.1	MS	6	6093.00(81.)	6726.00(8.4)	
1279.7	95.8	Te-134	IT	165	NS	3	115.20(50.4)	297.10(99.1)	
1299.1	37.6	Pb-206	IT	197	NS	4	458.10(95.7)	1368.70(56.1)	
1300.25	91.7	Sb-115	IT	6.2	NS	3	576.50(7.98)	723.57(8.07)	
1300.25	? 91.5	Sb-115	IT	159	NS	7	279.40(67.3)	1216.70(? 70.4)	
1322.9	* 54.9	Sb-117	IT	355	US	26	197.40(* 82.4)	1000.20(* 100.)	
1368.7	56.1	Pb-206	IT	197	NS	4	458.10(95.7)	1299.10(37.6)	
1473.4	37.	Na- 28	B-	30.5	MS	5	2389.20(18.7)	3087.40(2.6)	
1474.	18.4	Na- 29	B-N	44.9	MS	4	2389.80(0.6)		
1482.8	46.	Na- 30	B-	48	MS	20	985.40(6.53)	1978.40(10.9)	
1482.8	38.2	Na- 31	B-N	17.0	MS	5	1820.70(7.63)	1978.40(8.4)	
1510.1	100.	Sb-133	IT	3	US	3	61.70(30.)	2792.10(100.)	
1510.1	100.	Sb-133	IT	16.0	US	4	162.50(70.)	2792.10(100.)	
1531.2	100.	Yb-152	IT	39	US	6	312.30(86.)	358.50(95.)	
1573.4	63.6	Sm-143	IT	30	MS	12	76.50(24.7)	208.00(49.4)	
1638.	5.87	Na- 29	B-	44.9	MS	18	54.60(> 41.4)	2560.20(36.)	
1790.6	36.3	Nb- 91	IT	3.76	US	7	194.10(33.6)	1984.60(62.6)	
1820.7	7.63	Na- 31	B-N	17.0	MS	5	1482.80(38.2)	1978.40(8.4)	
1879.	--	U - 238	IT	225	NS	4	2512.70(--)	2558.00(--)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1941.4 - 8857. (KeV)		
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
1941.4	12.	Al- 32	B-	33	MS	1		
1973.	8.58	Na- 32	B-	13.2	MS	5	885.50(60.)	2151.50(31.6)
1978.4	10.9	Na- 30	B-	48	MS	20	985.40(6.53)	1482.80(46.)
1978.4	8.4	Na- 31	B-N	17.0	MS	5	1482.80(38.2)	1820.70(7.63)
1984.6	62.6	Nb- 91	IT	3.76	US	7	194.10(33.6)	1790.60(36.3)
2022.5	3.86	Na- 31	B-	17.0	MS	11	171.20(4.86)	2243.80(10.6)
2151.1	13.8	Zr- 91	IT	4.35	US	16	859.00(84.5)	2169.90(86.2)
2151.5	31.6	Na- 32	B-	13.2	MS	5	885.50(60.)	1973.00(8.58)
2169.9	86.2	Zr- 91	IT	4.35	US	16	859.00(84.5)	2151.10(13.8)
2243.8	10.6	Na- 31	B-	17.0	MS	11	171.20(4.86)	2022.50(3.86)
2389.2	18.7	Na- 28	B-	30.5	MS	5	1473.40(37.)	3087.40(2.6)
2389.8	0.6	Na- 29	B-N	44.9	MS	4	1474.00(18.4)	
2512.7	--	U -238	IT	225	NS	4	1879.00(--)	2558.00(--)
2550.7	2.58U	Na- 33	B-N	8.2	MS	2	885.50(16.1)	
2558.	--	U -238	IT	225	NS	4	1879.00(--)	2512.70(--)
2560.2	36.	Na- 29	B-	44.9	MS	18	54.60(41.4)	1638.00(5.87)
2792.1	100.	Sb-133	IT	16.0	US	4	162.50(70.)	1510.10(100.)
2792.1	100.	Sb-133	IT	3	US	3	61.70(30.)	1510.10(100.)
3010.5	23.4	Rb- 98	B-	96	MS	30	144.22(72.8)	289.50(67.6)
3087.4	2.6	Na- 28	B-	30.5	MS	5	1473.40(37.)	2389.20(18.7)
3088.	0.12	B - 13	B-	17.36	MS	4	3684.00(7.5)	8857.00(0.16)
3214.83	--	B - 12	B-	20.20	MS	2	4438.03(--)	
3215.3	1.5	N - 12	B+	11.000	MS	2	4438.91(2.73)	
3327.5	60.	Al- 34	B-	60	MS	4	125.40(25.8)	929.60(56.4)
3684.	7.5	B - 13	B-	17.36	MS	4	3088.00(0.12)	8857.00(0.16)
3736.5	1.94	I- 41	ECP	80	MS	1		
4438.03	--	B - 12	B-	20.20	MS	2	3214.83(--)	
4438.91	2.73	N - 12	B+	11.000	MS	2	3215.50(1.5)	
6993.	81.	B - 14	B-	16.1	MS	6	1247.00(5.5)	6726.00(8.4)
6726.	8.4	B - 14	B-	16.1	MS	6	1247.00(5.5)	6093.00(81.)
8857.	0.16	B - 13	B-	17.36	MS	4	3088.00(0.12)	3684.00(7.5)

4.2 Gamma-rays of Radionuclides (0.1 sec $\leq T_{1/2} \leq 1$ min)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy		12.4 -	63.0 (KeV)
						Other two intense gamma-rays		Energy(Intensity)	Energy(Intensity)
12.4	0.16	Sc- 45	IT	318	MS	1			
13.5	* 32.	Nb-101	B-	7.1	S	47	157.50(* 32.)	276.10(* 100.)	
15.	--	Hg-185	A	49	S	3	79.00(--)	94.00(--)	
16.26	--	Ta-182	IT	283	MS	1			
21.6	--	Te-117	IT	103	MS	3	274.40(--)		
21.8	2.16	La-136	IT	114	MS	8	33.50(39.2)	95.70(44.4)	
22.92	3.14	Tb-151	IT	25	S	4	49.46(22.4)		
24.2	4.E-04	Yb-169	IT	46	S	1			
24.3	--	Nb- 83	EC	4.1	S	2	52.70(--)		
26.1	0.02	Hg-185	IT	21	S	3	65.30(0.03)		
28.6	--	Ag-117	IT	5.34	S	1			
29.7	9.9 U	Cs-117	B+	8.4	S	63	204.80(15.)	205.60(6.75)	
30.7	*100. U	Cs-114	B+	0.57	S	2	121.60(* 82.1 U)		
32.	? 2.8	Pt-199	IT	13.6	S	2	391.93(84.7)		
33.5	39.2	La-136	IT	114	MS	8	21.80(2.16)	95.70(44.4)	
33.6	--	Bi-192	A	39.6	S	3	103.10(--)	268.80(--)	
34.6	10.8	Rh-117	B-	0.44	S	4	97.10(11.)	131.80(33.)	
35.	--	Tl-187	IT	15.60	S	2	299.50(--)		
35.19	2.27	Au-194	IT	600	MS	3	45.32(5.4)		
40.1	? 3.5	V- 45	B+	539	MS	1			
40.3	4.8	Cu- 58	EC	3.204	S	22	1448.30(11.5)	1454.60(16.)	
41.1	0.01	Ag-115	IT	18.0	S	1			
42.1	--	Zn- 73	B-	5.8	S	1			
42.5	* 25.3 U	Hg-181	EC	3.6	S	20	147.80(* 100. U)	1986.70(* 16.7 U)	
44.52	0.84	Lu-170	IT	0.67	S	2	48.42(0.43)		
45.	*100.	Ff-220	A	27.4	S	15	106.00(* 72.2)	161.50(* 65.)	
45.1	*100.	Tb-143	EC	12	S	11	462.80(* 45.2)	686.10(* 47.6)	
45.32	5.4	Au-194	IT	600	MS	3	35.19(2.27)		
45.39	48.	Hf-163	EC	40.0	S	11	62.14(64.)	70.98(100.)	
45.48	48.4	Br- 76	IT	1.31	S	3	57.11(9.07)		
45.85	* 50. U	Cs-122	IT	0.36	S	2	81.20(* 100. U)		
48.3	15.4	Se- 86	B-	15.3	S	22	2441.10(43.)	2660.00(21.6)	
48.42	0.43	Lu-170	IT	0.67	S	2	44.52(0.84)		
48.53	7.9	Cs-141	B-	24.94	S	193	561.63(4.66)	1194.02(3.95)	
49.46	22.4	Tb-151	IT	25	S	4	22.92(3.14)		
50.12	*100.	Nb- 85	B+	20.9	S	1			
51.	-- U	Ba-120	B+	32	S	2	182.00(-- U)		
51.15	21.5	Ho-160	IT	3	S	4	107.28(10.2)	118.41(56.5)	
52.6	6.76	W- 183	IT	5.20	S	6	99.08(8.14)	107.93(18.9)	
52.7	--	Nb- 83	EC	4.1	S	2	24.30(--)		
53.53	? 10.3	Ge- 73	IT	0.499	S	2			
54.	* 54.	Mo-106	B-	8.4	S	35	465.70(* 100.)	618.60(* 25.)	
54.6	11. U	Pd- 94	B+	9.0	S	4	558.20(100.)	723.90(12.1 U)	
55.	--	Au-182	A	21	S	1			
55.55	7.5	Zr- 83	EC	44	S	46	105.01(5.7)	474.38(5.1)	
56.08	29.2	Ba-148	B-	0.607	S	66	133.53(3.88)	415.78(3.59)	
56.5	--	Ga- 74	IT	9.5	S	3	59.70(--)		
57.11	9.07	Br- 76	IT	1.31	S	3	45.48(48.4)		
57.7	*100.	Ce-149	B-	5.2	S	21	86.40(* 20.2)	380.00(* 33.7)	
58.4	*100. U	Ce-127	B+	32	S	1			
59.7	--	Ga- 74	IT	9.5	S	3	56.50(--)		
60.5	*100.	Hg-183	EC	8.8	S	174	159.90(* 20.8)	172.70(* 16.9)	
61.35	25.	Ar- 45	B-	21.48	S	49	1020.04(34.)	3703.20(33.3)	
62.	26.7	Ge- 65	EC	30.9	S	39	649.70(33.)	809.10(21.4)	
62.14	64.	Hf-163	EC	40.0	S	11	45.39(48.)	70.98(100.)	
62.8	22.7	Cd-124	B-	0.9	S	4	143.33(12.9)	179.91(49.9)	
62.94	--	Ar-212	A	0.119	S	1			
63.	19.1	Kr- 73	EC	27.0	S	17	178.10(65.8)	454.80(15.1 U)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Other two intense Energy(Intensity)	63.0 -	94.0 (KeV)
							gamma-rays Energy(Intensity)	
63.	* 34.5	Cs-123	IT	1.60	S 2	95.50(*100.)		
64.5	8.9	Zr-102	B-	2.9	S 31	535.30(10.6)	599.60(13.9)	
65.3	0.03	Hg-185	IT	21	S 3	26.10(0.02)		
65.7	> 92.	Mo-107	B-	3.5	S 21	384.40(57.6)	400.30(100.)	
65.9	5.3	Ba-145	B-	4.31	S 77	91.90(7.35)	96.60(17.1)	
66.4	24.8	Se- 69	EC	27.4	S 51	97.98(66.)	691.80(16.6)	
66.9	7.31	Tm-162	IT	24.3	S 2			
67.4	--	Pb-187	A	15.2	S 3	208.00(--)	275.50(--)	
67.5	23.8	La-129	IT	0.56	S 2	104.50(4.28)		
70.	10.8	La-145	B-	24.8	S 76	118.20(3.64)	355.80(3.83)	
70.98	100.	Hf-163	EC	40.0	S 11	45.39(48.)	62.14(64.)	
71.4	--	Hg-183	A	8.8	S 3	87.40(--)	153.80(--)	
71.55	51.9	Ca- 50	B-	13.9	S 5	256.89(97.8)	1519.30(62.)	
71.6	*100.	O - 22	B-	2.25	S 6	637.40(*100.)	1862.60(* 56.)	
72.	* 15.6	Dy-147	IT	55	S 2	678.70(*100.)		
72.4	* 38.9	Pr-152	B-	3.24	S 29	164.20(*100.)	284.90(* 81.)	
72.8	--	Pm-158	B-	4.8	S 1			
72.92	* 59.5	Mg- 22	B+	3.857	S 4	582.00(*100.)	1278.82(* 5.71)	
73.	3.8	I - 133	IT	9	S 3	647.00(* 100.)	912.00(* 100.)	
75.4	< 9.19	Ir-177	EC	30	S 10	147.80(9.19)	184.10(9.99)	
76.4	--	Pt-175	A	2.52	S 3	134.40(--)	211.80(--)	
76.5	19.3	Mo-105	B-	35.6	S 89	85.40(25.)	147.80(14.8)	
78.7	* 40.	Ho-170	B-	43	S 31	812.30(*100.)	1894.00(* 45.2)	
79.	--	Hg-185	A	49	S 3	15.00(--)	94.00(--)	
79.4	- 4.19	Au-181	EC	11.4	S 259	198.60(4.35)	2022.40(4.19)	
81.2	*100. U	Cs-122	IT	0.36	S 2	45.85(* 50. U)		
81.9	--	Ag-116	IT	8.6	S 1			
82.4	-- U	Ru-112	B-	1.75	S 3	244.60(-- U)	327.00(-- U)	
82.4	20.8	Ce-135	IT	20	S 4	150.30(21.2)	212.90(73.1)	
82.5	--	Ne - 26	B-	0.23	S 3	151.10(--)	233.60(--)	
83.4	8.32	Cr- 57	B-	21.1	S 25	850.20(8.16)	1752.10(5.2)	
84.6	* 63. U	Nd-156	B-	5.47	S 8	150.40(*100. U)	157.30(* 78. U)	
84.66	0.3	Au-196	IT	8.1	S 1			
84.79	-- U	Ce-151	B-	1.02	S 4	96.80(--)	118.57(-- U)	
85.2	4.13	Cs-147	B-	0.225	S 46	109.70(2.56)	245.80(2.56)	
85.4	25.	Mo-105	B-	35.6	S 89	76.50(19.3)	147.80(14.8)	
85.4	62.	Pt-177	EC	11	S 7	148.00(100.)	223.30(52.)	
85.58	48.2	Sn-132	B-	39.7	S 21	340.53(49.2)	899.04(44.8)	
86.4	* 20.2	Ce-149	B-	5.2	S 21	57.70(*100.)	380.00(* 33.7)	
87.13	48.7	Co- 63	B-	27.4	S 11	155.60(1.6)	981.70(2.11)	
87.4	--	Hg-183	A	8.8	S 3	71.40(--)	153.80(--)	
87.5	3.7	Cr- 47	B+	508	MS 1			
88.03	--	Ag-109	IT	39.6	S 1			
88.1	* 16.7	Tm-155	EC	34	S 41	226.80(*100.)	532.00(* 20.3)	
89.23	20.2	In-130	B-	0.55	S 32	774.37(46.3)	1221.24(89.)	
89.3	0.33	Pd-115	IT	50	S 1			
89.5	41.5	Cs-124	IT	6.3	S 10	96.55(40.9)	211.64(44.2)	
89.53	95.5	Ne - 25	B-	602	MS 9	979.77(18.1)	1069.30(2.3)	
90.	--	Xe-143	B-	0.30	S 1			
91.15	3.6	Sn-128	IT	6.5	S 3	831.54(100.)	1168.80(100.)	
91.9	7.35	Ba-145	B-	4.31	S 77	65.90(5.3)	96.60(17.1)	
92.9	4.74	Ce-147	B-	56.4	S 51	268.80(7.2)	374.23(3.46)	
93.	*100. U	La-123	B+	17	S 1			
93.1	25.5	Ge- 81	B-	7.6	S 44	197.30(12.3)	335.98(12.8)	
93.1	2.1	Ra-221	A	28	S 8	149.00(9.0)	174.10(1.6)	
93.12	4.67	Ag-107	IT	44.3	S 1			
93.63	33.7	Rb- 91	B-	58.4	S 125	2564.19(12.5)	3599.67(10.4)	
94.	--	Hg-185	A	49	S 3	15.00(--)	79.00(--)	

Energy (keV)	Intensity (%)	Parent Decay	Half- Life	No. of G.	Energy of G. (Intensity)	94.8 - 112.2 (keV)	94.8 - 112.2 (keV)
			Mode			Others	Intensities
							Energy (Intensity)
94.8	*100.		Nb-105 B-	2.95	S	36	246.90(= 78.7)
95.	--		Na-258 A	4.4	S	1	63.00(= 34.5)
95.5	*100.		Cs-123 IT	1.60	S	2	33.00(= 39.2)
95.7	44.4		La-136 IT	1.14	MS	8	21.80(= 2.16)
96.2	* 47.7		Tc-109 B-	0.86	S	30	128.70(= 51.3)
96.4	1.57		Eu-141 IT	2.7	S	1	194.60(= 100.)
96.54	4.22		In-130 B-	0.55	S	10	391.39(= 11.4)
96.55	40.9		Gd-124 IT	6.3	S	10	89.50(= 41.5)
96.6	17.1		Ba-145 B-	4.31	S	77	65.90(= 5.3)
96.8	--		Cr-151 B-	1.02	S	4	84.79(= -- U)
97.1	11.		Rn-117 B-	0.44	S	4	34.60(= 10.8)
97.78	? 43.1		Nb-99 B-	15.0	S	2	137.72(= 90.6)
97.98	66.		Sc-69 EC	27.4	S	51	66.40(= 24.8)
98.1	61.		Kr-101 IT	3.10	S	2	176.20(= 47.3)
98.3	*100.		V-101 B-	500	MS	12	133.80(= 18.8)
99.08	8.14		W-183 IT	5.20	S	6	52.60(= 6.76)
99.2	* B6.		Ba-121 B+	29.7	S	5	111.60(= 100.)
100.48	2.7		Gd-104 B-	19.1	S	31	109.58(= 21.4)
100.9	6.1		Fr-104 B-	1.2	S	16	445.00(= 5.46U)
101.	--		Ho-151 A	35.2	S	2	523.00(= --)
101.1	13.8		Pd-116 B-	11.8	S	9	114.70(= --)
101.1	0.81		Au-187 IT	2.3	S	2	178.30(= 13.8)
102.	9.66		Re-171 EC	15.2	S	14	1066.00(= 8.05)
102.56	100.		Nb-105 B-	1.5	S	39	568.40(= 16.1)
102.7	21.		Tc-107 B-	21.2	S	133	161.60(= 27. U)
103.1	--		Kr-114 B+	10.0	S	3	358.50(= 34.)
103.61	87.5		Ba-192 B+	39.6	S	3	33.60(= --)
103.86	23.3		In-122 B-	10.8	S	25	1001.37(= 98.3)
104.	--		Ba-144 B-	11.5	S	100	172.83(= 15.4)
104.5	U		Tc-111 B-	0.30	S	2	150.40(= -- U)
104.5	100.		Xe-116 EC	56	S	8	247.70(= 40. U)
104.5	4.28		La-129 IT	0.56	S	2	67.50(= 23.8)
104.5	76.5		Yb-177 IT	6.41	S	2	227.00(= 12.3)
105.01	5.7		In-122 B-	10.8	S	46	55.55(= 7.5)
105.2	4.84		Ba-144 B-	11.5	S	115	167.40(= 11.)
105.94	9.84		Kr-141 B-	1.73	S	281	118.70(= 16.1)
106.	--		Hg-185 A	21	S	4	118.00(= --)
106.	* 72.2		FF-220 A	27.4	S	15	45.00(= 100.)
106.31	7.6		Tc-107 B-	21.2	S	133	102.70(= 21.)
107.28	43.7		Cd-98 EC	9.2	S	19	347.18(= 78.)
107.28	10.2		Ho-160 IT	3	S	2	51.15(= 21.5)
107.93	107.93		Fe-183 IT	5.20	S	6	52.60(= 6.76)
108.2	--		Pm-157 B-	10.90	S	2	99.08(= 8.14)
108.4	34.4		Nd-137 IT	1.60	S	4	160.50(= -- U)
108.4	52.		Tc-151 EC	1.6	S	3	177.50(= 57.3)
108.4	43.5		Kr-91 B-	8.57	S	3	474.20(= 100.)
108.79	43.5		Fr-149 IT	5.20	S	221	506.59(= 19.1)
109.58	21.4		Gd-147 B-	0.225	S	31	100.48(= 2.7)
109.7	2.56		Tb-158 IT	10.5	S	46	85.20(= 4.13)
109.9	0.88		Pr-110 EC	26.91	S	1	245.80(= 2.56)
111.4	< 3.45		O-19 B-	9	S	197.00(= 90.3)	520.10(= 85.)
111.4	10.4		Ge-80 B-	29.5	S	20	265.36(= 27.)
111.4	6.48U		Xe-125 IT	57	S	2	1564.30(= 4.86U)
111.5	--		Er-149 IT	10.8	S	2	141.00(= 19.7)
111.6	* 100.		Fe-121 B+	29.7	S	5	630.30(= --)
111.79	88.		In-126 B-	1.45	S	57	210.80(= 61.)
112.2	25.		Ru-110 B-	14.6	S	10	1141.11(= 100.)
112.2	* 100.		Pt-181 EC	51	S	79	166.10(= 0.65)
							289.40(= 100.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy 112.4 - 131.5 (KeV)	
							Other two intense gamma-rays	Energy (Intensity)
112.46	10.7	Cs-145	B-	0.594	S	117	175.36(19.8)	198.93(10.9)
113.	2.84	Tb-144	IT	4.25	S	2	283.90(66.)	
113.2	1.21	Gd-141	IT	24.5	S	7	198.40(3.62)	258.20(3.09)
113.55	--	Th-223	A	0.60	S	9	140.02(--)	151.98(--)
114.5	39.	Sm-136	EC	42.7	S	22	404.30(5.85U)	874.50(6.24U)
114.7	86.	Pd-116	B-	11.8	S	9	101.10(13.8)	178.30(13.8)
115.2	73.1	Yb-156	EC	26.1	S	1		
116.1	0.45	Ru-110	B-	14.6	S	10	112.20(25.)	166.10(0.65)
117.	--	Rf-257	A	4.8	S	1		
117.42	13.8	Pm-156	B-	26.70	S	48	173.75(52.)	1147.84(20.5)
117.72	12.	La-147	B-	4.015	S	72	186.32(6.48)	438.30(5.04)
118.	100. U	Os-174	EC	44	S	7	302.00(26. U)	325.00(43. U)
118.	--	Hg-185	A	21	S	4	106.00(--)	161.00(-- U)
118.2	3.64	La-145	B-	24.8	S	76	70.00(10.8)	355.80(3.83)
118.41	56.5	Ho-160	IT	3	S	4	51.15(21.5)	107.28(10.2)
118.57	-- U	Ce-151	B-	1.02	S	4	84.79(-- U)	96.80(--)
118.7	16.1	Xe-141	B-	1.73	S	281	105.94(9.84)	909.23(24.)
118.8	71.	Mo- 99	IT	190	MS	2	268.50(86.7)	
119.3	*100.	Zr- 91	B-	2.1	S	81	205.70(* 55.6)	912.20(* 32.2)
119.35	73.	Sr- 98	B-	0.653	S	41	428.40(30.7)	444.63(39.4)
120.8	9.3	As- 67	EC	42.5	S	26	122.70(19.2)	243.60(7.8)
121.15	5.E-03	Ge- 75	B-	47.7	S	7	136.01(0.02)	279.48(4.E-03)
121.17	13.2	Ce-148	B-	56	S	40	269.52(17.)	291.72(16.7)
121.2	14.2	Ba-146	B-	2.22	S	247	140.70(20.2)	251.20(19.6)
121.6	* 82.1 U	Cs-114	B+	0.57	S	2	30.70(* 100. U)	
121.76	43.8	Y- 99	B-	1.47	S	20	575.40(10.9)	724.30(19.7)
121.82	35.5	Kr- 90	B-	32.32	S	103	539.49(30.8)	1118.69(39.)
122.3	76.5	Sr- 96	B-	1.06	S	15	809.40(71.9)	931.70(11.8)
122.7	19.2	As- 67	EC	42.5	S	26	120.80(9.3)	243.60(7.8)
123.4	* 45.	Re-172	EC	15	S	13	253.70(* 100.)	350.40(* 55.)
123.4	*100.	Re-172	EC	55	S	4	253.70(* 74.1)	743.00(* 19.3 U)
125.12	16.1	Sr- 99	B-	270	MS	80	536.12(14.)	1198.12(9.18)
125.5	-- U	Mo-108	B-	1.5	S	3	258.53(-- U)	268.21(-- U)
125.6	33.3	Rh-115	B-	0.99	S	12	127.90(64.6)	296.50(17.)
125.76	- 38.4	In-123	B-	47.8	S	11		
125.8	32.5	W-166	EC	18.8	S	7	172.50(1.88)	224.60(2.53)
126.	* 92.6	Cr- 58	B-	7.0	S	6	289.50(* 23.1)	682.90(* 100.)
126.3	84.	Zr-103	B-	1.3	S	58	163.90(94.)	247.60(100.)
127.	28.9	Ru-114	B-	0.57	S	5	128.20(8.6)	179.10(8.1)
127.6	45.8	Ti- 53	B-	32.7	S	20	228.40(39.8)	1675.50(25.1)
127.74	7.22	Ag-118	IT	2.0	S	1		
127.9	64.6	Rh-115	B-	0.99	S	12	125.60(33.3)	296.50(17.)
128.2	8.6	Ru-114	B-	0.57	S	5	127.00(28.9)	179.10(8.1)
128.34	18.	Sr-101	B-	121	MS	96	510.73(8.46)	1124.82(10.9)
128.58	27.	Au-194	IT	420	MS	9	137.16(17.3)	170.78(27.3)
128.7	* 51.3	Tc-109	B-	0.86	S	30	96.20(* 47.7)	194.60(* 100.)
129.1	11.	Fr-230	B-	19.1	S	107	711.00(13.6)	728.40(7.26)
129.3	84.8 U	Hg-182	EC	11.3	S	12	217.70(63.6 U)	413.50(44.9 U)
129.43	29.	Ir-191	IT	4.94	S	4		
129.57	--	Rh-105	IT	45	S	1		
129.8	60.7	In-130	B-	0.32	S	14	1221.24(59.9)	1905.17(74.)
129.9	100.	Pd-119	B-	0.92	S	5	256.60(63.)	326.10(52.)
130.	*100.	Se- 89	B-	0.41	S	1		
130.01	27.2	Kr- 79	IT	50	S	1		
130.2	*100.	Pr-150	B-	6.19	S	26	722.50(* 24.3)	852.70(* 22.3)
130.2	3.12	Au-197	IT	7.73	S	5	201.80(1.13)	279.00(70.9)
130.59	0.12	Rn-219	A	3.96	S	18	271.23(10.8)	401.81(6.57)
131.5	60.8	Ag-115	B-	18.0	S	10	229.10(79.)	388.90(41.1 U)

Energy (KeV)	Intensity (%)	Parent Decay	Nuclide	Mode	Half- Life	No. of G	Energy 131.7 - 158.7 (KeV)		Energy by Intensity	Other two intense gamma-rays	Energy by Intensity	
							131.7	158.7				
131.7	71.	Ir-178	EC	12	S	23	266.30(	100.	362.90(	35.2)	
131.8	33.	Rh-117	B-	0.44	S	4	34.60(	10.8	97.10(	11.)	
132.7	56.	Sn-104	A+	20.8	S	19	401.20(	16.2	912.60(	42.)	
133.53	3.88	Ba-148	B-	0.607	S	66	56.08(	29.2	415.78(	3.59)	
133.8	* 18.8	Y-101	B-	500	MS	12	98.30(	* 100.	232.10(	11.9)	
134.	73.	La-141	B+	5.3	S	10	138.70(	* 100.	213.30(	57.)	
134.4	--	Pt-175	A	2.52	S	3	76.40(	--	211.80(--)	
134.44	4.51	Ag-103	IT	5.7	S	1						
135.1	27.4	Zr-87	IT	14.0	S	2	201.20(	96.3	386.80(	42.5)	
135.1	51.3	Ag-117	B-	5.34	S	61	298.10(	22.4	279.48(	4-E-03)	
136.01	0.02	Ge-75	B-	47.7	S	7	121.15(	5-E-03	562.90(	7.0)	
136.08	16.6	Tc-103	IT	54.2	S	71	346.38(	17.5	170.78(	27.3)	
137.16	17.3	Au-194	IT	42.0	MS	9	128.58(	27.			
137.72	90.6	Nb-99	B-	15.0	S	2	97.78(	? 43.1			
138.2	21.6	In-118	IT	8.5	S	1						
138.7	* 100.	La-121	B+	5.3	S	10	134.00(	* 73.	213.30(	* 57.)	
139.68	38.8	Ge-75	IT	47.7	S	3						
140.02	--	Th-223	A	0.60	S	9	113.55(	--	151.98(--)	
140.7	20.2	Ba-146	B-	2.22	S	247	121.20(	14.2	251.20(	19.6)	
141.	19.7	Kr-125	IT	5.7	S	2	111.00(	61.8			
141.7	--	Cs-148	B-	170	MS	1						
142.31	13.	Yb-152	EC	3.1	S	4	316.90(	7.0	482.40(	100.)	
142.53	64.1	Kr-92	B-	1.840	S	100	812.60(	14.6	1218.60(	59.6)	
142.53	62.	Sc-46	IT	18.75	S	1						
143.33	12.9	Cd-124	B-	0.9	S	4	62.80(	22.7	179.91(	49.9)	
144.22	24.5	Rb-98	B-	114	MS	45	1693.30(	5.92	2171.70(	5.68)	
144.82	6.79	Sr-77	EC	9.0	S	7	146.94(	86.1	160.10(	9.21)	
146.94	86.1	Sr-77	EC	9.0	S	7	144.82(	6.79	160.10(	9.21)	
147.8	14.8	Mo-105	B-	35.6	S	89	76.50(	19.3	85.40(	25.)	
147.8	9.19	Ir-177	EC	30	S	10	75.40(	* 9.19	184.10(	9.99)	
147.8	* 100.	U	EC	3.6	S	20	42.50(	* 25.3	1986.70(	* 16.7	U)
148.4	--	Pt-177	EC	11	S	7	85.40(	62.	223.10(	52.)	
148.4	--	Au-181	A	11.4	S	1						
149.	9.0	Ra-221	A	28	S	8	93.10(	2.1	174.10(	1.6)	
150.	--	Hg-181	ECP	3.6	S	1						
150.3	21.2	Ce-135	IT	20	S	4	82.40(	20.8	212.90(	73.1)	
150.4	--	Tc-111	B-	0.30	S	2	104.00(	--	U)		
150.51	* 100.	U	ND-156	B-	5.47	S	8	84.60(* 63.	157.30(* 78.	U)
151.1	--	Lu-159	EC	12.3	S	3	187.50(	* 25.	369.30(	* 19.	U)
151.7	14.	Ne-26	B-	0.23	S	3	82.50(	--	233.60(--)	
151.7	14.	Nd-154	B-	25.9	S	51	180.69(	* 9.24	799.55(	* 21.5)	
151.73	17.9	Y-102	B-	0.36	S	8	326.64(	42.	1091.30(	33.)	
151.73	100.	Y-102	B-	0.30	S	6	1059.21(	29.	1211.08(	40.)	
151.98	--	Th-223	A	0.60	S	9	113.55(	--	140.02(--)	
152.2	98.2	Au-180	EC	8.1	S	12	524.20(	43.2	859.70(	34.4)	
153.8	--	Hg-183	A	8.8	S	3	71.40(	--	87.40(--)	
154.9	96.2	Au-182	EC	21	S	41	264.80(	38.5	855.30(	13.9)	
155.3	36.2	Sm-139	IT	10.7	S	7	190.10(	36.9	267.30(	36.2)	
155.3	30.6	Eu-139	EC	17.9	S	23	190.10(	24.6	267.30(	30.6)	
155.6	1.6	Co-63	B-	27.4	S	11	87.13(	48.7	981.70(	2.21)	
155.94	17.2	Zn-75	B-	10.2	S	103	228.67(	28.9	432.29(	20.2)	
156.	57.5	Re-170	EC	8.0	S	3	305.50(	85.8	412.50(	20.6)	
156.2	58.4	Hg-186	EC	30.6	S	16	236.20(	64.2	295.10(	10.3)	
157.3	78.	U	Nd-156	B-	5.47	S	8	84.60(* 63.	150.40(* 100.	U)
157.5	32.	Nb-161	B-	7.1	S	47	13.50(	* 32.	276.10(	* 100.)	
158.47	55.4	La-148	B-	1.05	S	56	760.30(	* 8.56	989.85(	* 9.34)	
158.47	52.6	Ta-166	EC	34.4	S	22	311.70(	28.2	810.10(	9.78)	
158.7	--	Hg-181	A	3.6	S	7	214.20(	--	239.80(--)	

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Other two Energy (Intensity)	159.0 -	178.3 (keV)
							intense gamma-rays (Intensity)	Energy (Intensity)
159.	--	Sm-131	B+P	1.2	S	1		
159.2	100.	Se-88	B-	1.5†	S	13	259.20(82.)	1903.70(64.)
159.7	11.3	Ge- 77	IT	52.9	S	1		
159.9	* 20.8	Hg-183	EC	8.8	S	174	60.50(*100.)	172.70(* 16.9)
160.1	9.21	Sr- 77	EC	9.0	S	7	144.82(6.79)	146.94(86.1)
160.5	-- U	Pm-157	B-	10.90	S	4	108.20(-- U)	187.90(-- U)
160.71	2.78	Hf-179	IT	18.67	S	3	214.36(94.)	
161.	-- U	Hg-185	A	21	S	4	106.00(--)	118.00(--)
161.	--	Tl-187	EC	15.60	S	1		
161.2	9.41	Au-183	EC	42.0	S	231	214.10(5.88)	313.10(5.0)
161.4	70.9	Y- 97	B-	1.23	S	20	1091.00(55.4 U)	1103.05(92.3)
161.5	* 65.	Fr-220	A	27.4	S	15	45.00(*100.)	106.00(* 72.2)
161.6	27. U	Xe-114	B+	10.0	S	3	103.10(20. U)	308.50(42. U)
162.	52.5	Se- 77	IT	17.36	S	1		
162.14	100. U	Rn-227	B-	22.5	S	33	686.20(62. U)	739.20(65. U)
162.39	--	In-116	IT	2.18	S	1		
162.6	16.3	Kr- 72	EC	17.2	S	10	310.10(28.5)	415.00(34.7)
162.8	-- U	Ta-165	EC	31.0	S	5	199.40(-- U)	311.00(-- U)
163.	50.	Au-184	EC	53.0	S	123	273.00(40.)	362.50(17.5)
163.6	36.4	Ag- 99	IT	10.5	S	2	342.60(98.3)	
163.7	--	Eu-161	B-	26	S	5	293.90(-- U)	314.30(--)
163.9	94.	Zr-103	B-	1.3	S	58	126.30(84.)	247.60(100.)
163.92	* 30.7	Ba-136	IT	0.3084	S	6	818.51(99.7)	1048.07(*100.)
164.2	* 100.	Pr-152	B-	3.24	S	29	72.40(* 38.9)	284.90(* 81.)
166.	5.19	Ho-159	IT	8.30	S	3	205.90(39.6)	
166.1	0.65	Ru-110	B-	14.6	S	10	112.20(25.)	116.10(0.45)
167.1	26.	Rb- 97	B-	171.8	MS	79	585.20(21.)	600.50(10.6)
167.4	11.	Au-147	B-	0.893	S	115	105.20(4.84)	196.10(4.78)
168.2	6.6	Lu-183	B-	58	S	18	1056.70(14.5)	1125.30(22.)
168.8	--	Tl-185	IT	1.8	S	2	284.00(--)	
169.3	* 100.	Cs-119	B+	30.4	S	3	245.90(* 40.1)	314.00(* 47.2)
170.	--	Hg-180	A	3.0	S	2	263.00(--)	
170.7	--	Hg-182	A	11.3	S	2	251.20(--)	
170.78	27.3	Au-194	IT	420	MS	9	128.58(27.)	137.16(17.3)
171.	--	Er-149	EC	--	S	3	343.70(--)	436.60(--)
171.4	--	Tm-153	A	2.5	S	2	344.00(--)	
171.4	--	Tm-153	A	1.48	S	2	344.00(--)	
171.55	* 100.	Nb-106	B-	1.02	S	12	350.70(* 39.)	714.00(* 30.)
171.6	6.16	Br- 71	EC	21.4	S	11	233.70(6.48)	260.50(8.0)
172.5	1.88	W-166	EC	18.8	S	7	125.80(32.5)	224.60(2.53)
172.7	* 16.9	Hg-183	EC	8.8	S	174	60.50(*100.)	159.90(* 20.8)
172.83	15.4	Be-144	B-	11.5	S	100	103.86(23.3)	430.48(18.3)
173.1	100.	Eu-160	B-	38	S	14	412.00(56.)	514.80(60.)
173.75	52.	Pm-156	B-	26.70	S	48	117.42(13.8)	1147.84(20.5)
173.9	100.	Hf-162	EC	37.6	S	4	196.34(25.)	410.12(16.8)
174.1	1.6	Ra-221	A	28	S	8	93.10(2.1)	149.00(9.0)
174.97	11.3	Xe-139	B-	39.68	S	266	218.59(56.)	296.53(21.7)
175.	68.	Si- 36	B-	0.45	S	9	249.90(68.)	878.20(44.2)
175.36	19.8	Cs-145	B-	0.594	S	117	112.46(10.7)	198.93(10.9)
176.2	47.3	Ag-101	IT	3.10	S	2	98.10(61.)	
176.3	29.7	Cs-119	B+	43.0	S	17	225.10(26.3)	257.50(17.4)
177.	9.2	Tc-107	B-	21.2	S	133	102.70(21.)	106.31(7.6)
177.	100. U	Os-173	EC	16	S	4	187.00(50. U)	285.00(30. U)
177.	< 0.05	Fr-220	B-	27.4	S	1		
177.	9.0	Th-224	A	1.05	S	4	235.00(0.4)	410.00(0.8)
177.5	57.3	Nd-137	IT	1.60	S	4	108.40(34.4)	233.70(63.7)
178.1	65.8	Kr- 73	EC	27.0	S	17	63.00(19.1)	454.80(15.1 U)
178.3	13.8	Pd-116	B-	11.8	S	9	101.10(13.8)	114.70(86.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy		178.9 -	201.2 (KeV)
						Other two intense gamma-rays		Energy(Intensity)	Energy(Intensity)
178.9	> 78.6	Rb- 75	EC	19.0	S	31	178.90(< 64.3)	187.00(10.9)	
178.9	< 64.3	Rb- 75	EC	19.0	S	31	178.90(> 78.6)	187.00(10.9)	
179.1	8.1	Ru-114	B-	0.57	S	5	127.00(28.9)	128.20(8.6)	
179.4	9.1	Er-152	EC	10.3	S	1			
179.91	49.9	Cd-124	B-	0.9	S	4	62.80(22.7)	143.33(12.9)	
180.69	9.24	Nd-154	B-	25.9	S	51	151.70(14.)	799.55(11.5)	
181.02	57.	Cs-146	B-	0.343	S	53	332.38(6.44)	557.76(9.18)	
181.68	28.1	Zn- 78	B-	1.47	S	57	224.75(43.9)	860.30(24.5)	
181.9	4.3	Dy-142	EC	2.3	S	1			
182.	-- U	Ba-120	B+	32	S	2	51.00(-- U)		
184.1	9.99	Ir-177	EC	30	S	10	75.40(< 9.19)	147.80(9.19)	
184.6	--	Bi-192	A	37	S	1			
185.	49.1	Pb-188	EC	24.2	S	2	758.20(28.9)		
186.02	2.79	Ge- 79	IT	39.0	S	1			
186.05	16.3	Fr-226	B-	48	S	105	253.73(22.3)	254.10(2.49)	
186.32	6.48	La-147	B-	4.015	S	72	117.72(12.)	438.30(5.04)	
187.	10.9	Rb- 75	EC	19.0	S	31	178.90(> 78.6)	178.90(< 64.3)	
187.	50. U	Os-173	EC	16	S	4	177.00(100. U)	285.00(30. U)	
187.5	* 25. U	Lu-159	EC	12.3	S	3	150.51(*100. U)	369.30(* 19. U)	
187.63	88.	In-125	B-	12.2	S	1			
187.9	-- U	Pm-157	B-	10.90	S	4	108.20(-- U)	160.50(-- U)	
188.7	? 39.8	Pm-139	IT	180	MS	1			
188.7	2.51	Sm-139	EC	10.7	S	1			
189.1	11.8	Pr-151	B-	18.90	S	27	484.60(11.3)	880.30(13.)	
189.1	33.	Ho-147	B+	5.8	S	14	486.70(20.)	883.90(33.)	
189.49	28.1	Zn- 77	B-	2.08	S	97	473.94(19.7)	1832.00(12.4)	
189.5	13.3	Bi-203	IT	303	MS	5	893.50(10.)	908.60(90.)	
189.7	17.	Rh-113	B-	2.72	S	41	219.60(3.88)	409.30(15.9)	
189.9	*100.	Sm-159	B-	11.2	S	20	254.80(* 22.)	861.90(* 40.)	
190.1	36.9	Sm-139	IT	10.7	S	7	155.30(36.2)	267.30(36.2)	
190.1	24.6	Eu-139	EC	17.9	S	23	155.30(30.6)	267.30(30.6)	
190.1	81.8	Yb-176	IT	11.4	S	5	292.90(93.)	389.70(91.1)	
190.38	67.	Kr- 81	IT	13.10	S	1			
192.2	*100.	Nb-104	B-	4.8+0.92	S	46	368.40(* 20.)	620.20(* 19.2)	
193.	5.71	Ga- 63	EC	32.4	S	16	627.10(10.3)	637.00(11.2)	
194.6	*100.	Tc-109	B-	0.86	S	30	96.20(* 47.7)	128.70(* 51.3)	
194.8	0.42	Ge- 77	B-	52.9	S	4	215.50(21.5)		
195.5	--	Zn- 73	IT	5.8	S	1			
195.55	12.6	Cs-143	B-	1.77	S	84	232.42(8.32)	306.42(6.8)	
196.1	4.78	Ba-147	B-	0.893	S	115	105.20(4.84)	167.40(11.)	
196.34	25.	Hf-162	EC	37.6	S	4	173.90(100.)	410.12(16.8)	
196.5	11.	Dy-144	EC	9.1	S	4	298.60(10.)	475.50(4.95)	
197.	90.3	O- 19	B-	26.91	S	9	110.00(< 3.45)	1356.00(50.3)	
197.	-2.E-03	Ne- 19	EC	17.22	S	3	1356.92(-2.E-03)		
197.3	12.3	Ge- 81	B-	7.6	S	44	93.10(25.5)	335.98(12.8)	
197.3	80.6	In-120	B-	47.3	S	13	1023.10(97.4)	1171.30(100.)	
197.32	78.3	I- 136	B-	46.9	S	28	381.36(99.8)	1513.02(100.)	
198.4	3.62	Gd-141	IT	24.5	S	7	113.20(1.21)	258.20(3.09)	
198.4	14.8	Tb-141	EC	3.5	S	37	293.30(16.8)	343.60(16.3)	
198.6	88.	Ho-171	B-	53	S	15	279.20(60.)	903.30(100.)	
198.6	4.35	Au-181	EC	11.4	S	259	79.40(- 4.19)	2022.40(4.19)	
198.8	*100.	Pm-135	EC	49	S	32	207.20(* 70. U)	463.50(* 62.)	
198.93	10.9	Cs-145	B-	0.594	S	117	112.46(10.7)	175.36(19.8)	
199.2	* 17. U	Cu- 73	B-	3.9	S	5	449.70(*100. U)	502.00(* 12. U)	
199.33	*100.	Cs-144	B-	1.01	S	73	639.00(* 21.2)	758.96(* 20.6)	
199.4	-- U	Ta-165	EC	31.0	S	5	162.80(-- U)	311.00(-- U)	
200.38	1.64	Au-195	IT	30.5	S	5	261.75(68.)		
201.2	96.3	Zr- 87	IT	14.0	S	2	135.10(27.4)		

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	201.8 - 225.1 (KeV)	
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
201.8	1.13	Au-197	IT	7.73	S	5	130.20(3.12)	279.00(70.9)
203.	22.9	Ag-120	IT	0.32	S	1		
204.	15.1	Rb-95	B-	377.2	MS	236	352.00(49.)	680.70(14.8)
204.	2.25	Rb-96	B-N	202.8	MS	28	352.00(8.05)	680.80(1.37)
204.77	19.4	Gd-143	EC	39	S	7	258.81(74.8)	463.70(9.87)
204.8	15.	Cs-117	B+	8.4	S	63	29.70(9.9 U)	205.60(6.75)
205.6	6.75	Cs-117	B+	8.4	S	63	29.70(9.9 U)	204.80(15.)
205.7	* 55.6	Zr-101	B-	2.1	S	81	119.30(*100.)	9.2.20(* 32.2)
205.8	57.3	Os-192	IT	5.9	S	32	453.10(51.6)	569.36(60.8)
205.9	39.6	Ho-159	IT	8.30	S	3	166.00(5.19)	
206.2	* 100. U	Ru-109	IT	--		2	225.90(*100. U)	
206.29	22.	Ru-109	B-	34.5	S	227	225.98(19.6)	1929.05(13.7)
206.8	8.18	Mn-61	B-	0.71	S	5	391.00(1.1)	628.60(16.7)
207.2	75.8	Br-79	IT	4.864	S	1		
207.2	* 70. U	Pm-135	EC	49	S	32	198.80(*100.)	463.50(* 62.)
207.5	85.	Tm-150	EC	3.5	S	4	474.80(83.)	1578.90(89.)
207.8	41.7	Er-167	IT	2.269	S	1		
208.	--	Yb-151	ECP	1.6	S	2	1579.00(--)	
208.	--	Pb-187	A	15.2	S	3	67.40(--)	275.50(--)
208.37	73.7	Hf-177	IT	1.08	S	59	228.48(47.2)	378.50(38.)
209.5	5.69	Ho-151	EC	35.2	S	40	527.00(62.6)	775.30(9.2)
210.8	* 61.	Ba-121	B+	29.7	S	5	99.20(* 86.)	113.60(*100.)
211.05	74.	Ta-164	EC	14.2	S	14	376.80(22.)	605.00(14.)
211.15	45.5	Ho-161	IT	6.76	S	1		
211.47	24.9	Ba-143	B-	14.33	S	194	798.79(15.6)	980.45(11.6)
211.55	72.	S - 40	B-	8.8	S	4	431.50(36.7)	888.40(36.)
211.64	44.2	Ca-124	IT	6.3	S	10	89.50(41.5)	96.55(40.9)
211.7	77.7	Ru-111	B-	2.12	S	26	303.80(100.)	382.00(41.3)
211.7	31.	Ru-113	B-	0.80	S	21	265.20(100.)	337.50(27.9)
211.8	--	Pt-175	A	2.52	S	3	76.40(--)	134.40(--)
212.5	* 55.	Hg-185	EC	50+28	S	158	222.80(*100.)	258.70(* 92.)
212.9	73.1	Ce-135	IT	20	S	4	82.40(20.8)	150.30(21.2)
213.1	88.	Pm-132	EC	6.3	S	7	397.00(22.9)	610.40(12.3)
213.3	* 57.	La-121	B+	5.3	S	10	134.00(* 73.)	138.70(*100.)
213.43	4.49	Rb-93	B-	5.7	S	250	432.61(11.7)	986.20(4.43)
213.43	81.7	Hf-178	IT	4.0	S	6	325.56(94.1)	426.36(96.9)
214.1	5.88	Au-183	EC	42.0	S	231	161.20(9.41)	313.10(5.0)
214.2	--	Hg-181	A	3.3	S	7	158.70(--)	239.80(--)
214.36	94.	Hf-179	IT	18.67	S	3	160.71(2.78)	
214.9	68.7	Pd-107	IT	21.3	S	1		
215.5	21.5	Ge-77	B-	52.9	S	4	194.80(0.42)	
215.8	54.4	Gd-141	EC	14	S	10	336.20(17.1)	525.90(17.1)
216.46	1.37	Ga-82	B-N	0.602	S	3	530.20(0.48)	711.05(3.38)
216.47	37.4	Ga-81	B-	1.221	S	107	711.19(17.6)	828.26(22.1)
217.7	63.6 U	Hg-182	EC	11.3	S	12	129.30(84.8 U)	413.50(44.9 U)
218.1	6.0	Zn-73	B-	23.5	S	18	495.60(1.48)	910.50(1.91)
218.59	56.	Xe-139	B-	39.68	S	266	174.97(11.3)	296.53(21.7)
219.1	-- U	Te-110	EC	18.6	S	4	605.90(-- U)	894.80(-- U)
219.47	67.4	Kr-94	B-	0.20	S	21	629.20(100.)	764.50(71.)
219.6	3.88	Rh-113	B-	2.72	S	41	189.70(17.)	401.30(15.9)
219.75	3.78	Au-193	IT	3.9	S	4	257.97(66.1)	
222.45	30.5	Tl-197	IT	0.54	S	2	385.80(91.4)	
222.8	* 100.	Hg-185	EC	50+28	S	158	212.50(* 55.)	258.70(* 92.)
223.1	52.	Pt-177	EC	11	S	7	85.40(62.)	148.00(100.)
223.9	10.	Gd-141	EC	24.5	S	40	351.10(13.9)	574.90(7.92)
224.6	2.53	W - 166	EC	18.8	S	7	125.80(32.5)	172.50(1.88)
224.75	43.9	Zn-78	B-	1.47	S	57	181.68(28.1)	860.30(24.5)
225.1	26.3	Cs-119	B+	43.0	S	17	176.30(29.7)	257.50(17.4)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	225.9 -	254.0 (KeV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
225.9	*100.	U	Ru-109	IT	--	2	206.20(*100. U)	
225.98	19.6		Ru-109	B-	34.5	227	206.29(22.)	1929.05(13.7)
226.	--		Pt-176	A	6.33	1		
226.8	*100.		Tm-155	EC	34	41	88.10(* 16.7)	532.00(* 20.3)
227.	12.3		Yb-177	IT	6.41	2	104.50(76.5)	
227.52	4.99		Tm-162	EC	24.3	19	798.68(5.18)	811.52(6.48)
228.4	39.8		Ti- 53	B-	32.7	20	127.60(45.8)	1675.50(25.1)
228.48	47.2		Hf-177	IT	1.08	39	208.37(73.7)	378.50(38.)
228.67	28.9		Zn- 75	B-	10.2	103	155.94(17.2)	432.29(20.2)
229.1	79.		Ag-115	B-	18.0	10	131.50(60.8)	388.90(41.1 U)
230.2	# 92.		Pt-181	EC	51	79	112.20(*100.)	289.40(*100.)
230.44	61.4		Ge- 79	B-	39.0	35	542.27(32.6)	755.00(18.4 U)
231.	* 8.9		Rh-111	B-	11	44	275.40(*100.)	411.80(* 9.42)
232.1	* 11.9		Y-101	B-	500	MS	98.30(*100.)	133.80(* 18.8)
232.42	8.32		Cs-143	B-	1.77	S 84	195.55(12.6)	306.42(6.8)
232.9	68.		Xe-134	IT	290	MS 3	845.90(100.)	879.90(94.)
233.6	--		Ne- 26	B-	0.23	S 3	82.50(--)	151.10(--)
233.7	6.48		Br- 71	EC	21.4	S 11	171.60(6.16)	260.50(8.0)
233.7	63.7		Nd-137	IT	1.60	S 4	108.40(34.4)	177.50(57.3)
235.	0.4		Tn-224	A	1.05	S 4	177.00(9.0)	410.00(0.8)
236.2	64.2		Hg-184	EC	30.6	S 16	156.20(58.4)	295.10(10.3)
237.	5.0		Fe- 51	EC	305.0	MS 6	1825.00(0.49)	2140.00(0.24)
237.2	* 95.3		Dy-146	IT	150	MS 9	682.90(* 94.3)	925.30(*100.)
239.8	--		Hg-181	A	3.6	S 7	158.70(--)	214.20(--)
240.67	*100.		Tc-110	B-	0.92	S 18	372.10(* 17.)	613.00(* 16.)
241.	13.		Au-191	IT	0.92	S 4	253.00(61.)	
242.25	81.6		Te-108	B-	5.17	S 77	465.60(14.3)	707.81(11.4)
242.4	* 70.		Lu-184	B-	20	S 4	367.60(*100.)	481.90(* 60.)
242.5	37.		Se- 87	B-	5.85	S 13	334.00(34.6)	573.20(19.2)
243.4	* 100.		Lu-160	EC	36.1+40	S 28	395.40(21.)	577.20(10.7)
243.6	7.8		As- 67	EC	42.5	S 26	120.80(9.3)	122.70(19.2)
243.6	--		Te-137	B-	3.5	S 1		
244.2	7.0		Er-148	EC	4.5	S 2	315.20(6.0)	
244.3	71.		Mg- 30	B-	335	MS 4	444.00(71. U)	2168.90(2.13U)
244.6	--	U	Ru-112	B-	1.75	S 3	82.40(-- U)	327.00(-- U)
245.8	2.56		Cs-147	B-	0.225	S 46	85.20(4.13)	109.70(2.56)
245.9	* 40.1		Cs-119	B+	30.4	S 3	169.30(*100.)	314.00(* 47.2)
246.9	* 78.7		Nb-105	B-	2.95	S 36	94.80(*100.)	309.90(* 41.9)
247.5	100.		Pd-117	B-	4.3	S 12	323.90(37.)	649.90(41. U)
247.6	100.		Zr-103	B-	1.3	S 58	126.30(84.)	163.90(94.)
247.7	* 40.	U	Xe-116	EC	56	S 8	104.50(100. U)	310.70(42. U)
248.5	--		Bi-198	IT	7.7	S 1		
248.84	* 4.0		Ge- 82	B-	4.55	S 5	843.24(* 9.3)	1091.90(*100.)
249.9	68.		Si- 36	B-	0.45	S 9	175.00(68.)	878.20(44.2)
251.2	19.6		Ba-146	B-	2.22	S 247	121.20(14.2)	140.70(20.2)
251.2	--		Hg-182	A	11.3	S 2	170.70(--)	
252.3	*100.		In-101	B+	16	S 4	420.70(* 54. U)	750.30(* 61. U)
252.3	77.4		In-127	B-	3.7	S 7	948.40(5.54)	3074.00(5.8)
253.	--		Ho-151	A	35.2	S 2	101.00(--)	
253.	--		Ho-151	A	47.2	S 2	101.00(--)	
253.	61.		Au-191	IT	0.92	S 4	241.00(13.)	
253.37	39.5		Kr- 93	B-	1.29	S 237	266.81(20.3)	323.92(23.8)
253.4	- 13.4		Dy-147	EC	55.7	S 41	364.80(16.8)	1388.00(10.1)
253.68	1.39		In-118	B-	8.5	S 7	1050.69(1.36)	1229.64(1.4)
253.7	* 74.1		Re-172	EC	55	S 4	123.40(*100.)	743.00(* 19.3 U)
253.7	*100.		Re-172	EC	15	S 13	123.40(* 45.)	350.40(* 55.)
253.73	22.3		Fr-226	B-	48	S 105	186.05(16.3)	254.10(2.69)
254.	--		Nd-131	B+P	25	S 1		

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	254.1 -	285.0 (KeV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
254.1	2.49	Fr-226	B-	48	S 105	186.05(16.3)	253.73(22.3)	
254.8	* 22.	Sm-159	B-	11.2	S 20	189.90(* 100.)	861.90(* 40.)	
256.	* 100.	Eu-136	B+	3.9	S 7	432.90(* 44.)	778.60(* 21.)	
256.4	15.9	Er-151	EC	23.5	S 18	638.30(36.)	667.20(17.)	
256.6	63.	Pd-119	B-	0.92	S 5	129.90(100.)	326.10(52.)	
256.89	97.8	Ca- 50	B-	13.9	S 5	71.55(51.9)	1519.30(62.)	
256.89	--	Sc- 50	IT	0.35	S 1			
257.5	17.4	Cs-119	B+	43.0	S 17	176.30(29.7)	225.10(26.3)	
257.7	39.	Tb-145	EC	29.5	S 21	537.00(23.)	987.50(37.)	
257.97	66.1	Au-193	IT	3.9	S 4	219.75(3.78)		
258.2	3.09	Gd-141	IT	24.5	S 7	113.20(1.21)	198.40(3.62)	
258.4	92.9	La-146	B-	10.0	S 16	409.90(80.8)	514.60(31.)	
258.47	63.7	La-146	B-	6.27	S 186	702.28(6.43)	924.58(7.45)	
258.5	83.	Pb-203	IT	0.48	S 19	838.60(100.)	873.90(51.)	
258.53	-- U	Mo-108	B-	1.5	S 3	125.50(-- U)	268.21(-- U)	
258.7	* 92.	Hg-185	EC	50+28	S 158	212.50(* 55.)	222.80(* 100.)	
258.81	74.8	Gd-143	EC	39	S 7	204.77(19.4)	463.70(9.87)	
259.1	87.4	Sr- 83	IT	4.95	S 1			
259.2	82.	Se- 88	B-	1.53	S 13	159.20(100.)	1903.70(64.)	
260.09	* 100.	Cd-126	B-	0.506	S 11	428.11(* 83.7)	688.23(* 5.9)	
260.5	8.0	Br- 71	EC	21.4	S 11	171.60(6.16)	233.70(6.48)	
261.75	68.	Au-195	IT	30.5	S 5	200.38(1.66)		
261.96	7.9	In-121	B-	23.1	S 10	657.32(7.1)	925.57(87.)	
262.5	* 100.	Mo- 87	B+	13.4	S 6	397.00(* 33. U)		
262.7	100. U	Br- 91	B-	0.541	S 4	364.80(40. U)	803.30(80. U)	
263.	--	Hg-180	A	3.0	S 2	170.00(--)		
263.2	100.	Ru-113	B-	0.80	S 21	211.70(31.)	337.50(27.9)	
264.8	38.5	Au-182	EC	21	S 41	154.90(96.2)	855.30(13.9)	
265.36	27.	Ge- 80	B-	29.5	S 20	110.40(6.48U)	1564.30(4.86U)	
266.3	100.	Ir-178	EC	12	S 23	131.70(71.)	362.90(35.2)	
266.8	10.4	Te-135	B-	19.0	S 41	603.50(37.)	870.30(7.73)	
266.81	20.3	Kr- 93	B-	1.29	S 237	253.37(39.5)	323.92(23.8)	
267.3	36.2	Sm-139	IT	10.7	S 7	155.30(36.2)	190.10(36.9)	
267.3	30.6	Eu-139	EC	17.9	S 23	155.30(30.6)	190.10(24.6)	
268.08	45.	Po-207	IT	2.79	S 3	300.47(33.8)	814.40(100.)	
268.21	-- U	Mo-108	B-	1.5	S 3	125.50(-- U)	258.53(-- U)	
268.5	86.7	Mo- 89	IT	190	MS 2	118.80(71.)		
268.8	7.2	Ce-147	B-	56.4	S 51	92.90(4.74)	374.23(3.46)	
268.8	--	Bi-192	A	39.6	S 3	33.60(--)	103.10(--)	
269.52	17.	Ce-148	B-	56	S 40	121.17(13.2)	291.72(16.7)	
270.1	* 100.	Tc-106	B-	36	S 51	1969.40(* 15.9)	2239.30(* 24.4)	
271.23	10.8	Rn-219	A	3.96	S 18	130.59(0.12)	401.81(6.37)	
272.3	6.4	Mn- 49	B+	384	MS 1			
273.	40.	Au-184	EC	53.0	S 123	163.00(50.)	362.50(17.5)	
274.4	--	Te-117	IT	103	MS 3	21.60(--)		
275.4	* 100.	Rh-111	B-	11	S 44	231.00(* 8.9)	411.80(* 9.42)	
275.5	--	Pb-187	A	15.2	S 3	67.40(--)	208.00(--)	
276.1	* 100.	Nb-101	B-	7.1	S 47	13.50(* 32.)	157.50(* 32.)	
278.	-- U	Zr- 82	B+	32	S 6	397.00(-- U)	525.00(-- U)	
279.	70.9	Au-197	IT	7.73	S 5	130.20(3.12)	201.80(1.13)	
279.2	60.	Ho-171	B-	53	S 15	198.60(88.)	903.30(100.)	
279.48	4.E-03	Ge- 75	B-	47.7	S 7	121.15(5.E-03)	136.01(0.02)	
280.	14.8	O- 21	B-	3.42	S 13	1730.35(45.6)	3517.39(15.4)	
283.9	66.	Tb-144	IT	4.25	S 2	113.00(2.84)		
284.	--	Tl-185	IT	1.8	S 2	168.80(--)		
284.4	99.9	Ta-162	EC	3.52	S 2	444.00(* 40.)		
284.9	* 81.	Pr-152	B-	3.24	S 29	72.40(* 38.9)	164.20(* 100.)	
285.	30. U	Os-173	EC	16	S 4	177.00(100. U)	187.00(50. U)	

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	286.8 -	325.0 (keV)
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
286.8	38.2	Tl-184	EC	11	S	13	339.90(24.5)	366.70(97.9)
288.7	85.7	Er-151	IT	0.58	S	6	1098.90(91.8)	1140.20(93.5)
289.4	*100.	Pt-181	EC	51	S	79	112.20(*100.)	230.20(* 92.)
289.5	* 23.1	Cr- 58	B-	7.0	S	6	126.00(* 92.6)	682.90(*100.)
291.72	16.7	Ce-148	B-	56	S	40	121.17(13.2)	269.52(17.)
292.2	83.7	Zr- 85	IT	10.9	S	1		
292.5	-- U	Tb-141	EC	7.9	S	1		
292.9	93.	Yb-176	IT	11.4	S	5	190.10(81.8)	389.70(91.1)
293.2	--	Bi-190	A	6.3	S	1		
293.3	16.8	Tb-141	EC	3.5	S	37	198.40(14.8)	343.60(16.3)
293.9	-- U	Eu-161	B-	26	S	5	163.70(--)	314.30(--)
294.	*100.	Pm-134	EC	24	S	4	460.00(* 15.)	495.00(* 60.)
295.1	10.3	Hg-184	EC	30.6	S	16	156.20(58.4)	236.20(64.2)
296.	79.4	Nb-102	B-	4.3	S	34	551.60(30.4)	1632.70(41.2)
296.5	17.	Rh-115	B-	0.99	S	12	125.60(33.3)	127.90(64.6)
296.53	21.7	Xe-139	B-	39.68	S	266	174.97(11.3)	218.59(56.)
296.9	3.7	Er-151	EC	0.58	S	7	597.40(--.4)	789.30(5.11)
297.	97.	Sb-134	B-	10.43	S	4	706.30(57.)	1279.10(100.)
298.1	22.4	Ag-117	B-	5.34	S	61	135.40(51.3)	386.80(42.5)
298.6	10.	Dy-144	EC	9.1	S	4	198.50(11.)	475.50(4.95)
299.	? 77.5	No-163	IT	1.09	S	1		
299.2	49.	In-132	B-	0.201	S	16	374.70(61.7)	4040.60(60.8)
299.5	--	Tl-187	IT	15.60	S	2	35.00(--)	
299.5	*100.	Pb-187	EC	15.2	S	8	493.60(* 2.67U)	617.20(* 2.67U)
300.47	33.8	Po-207	IT	2.79	S	3	268.08(45.)	814.40(100.)
300.5	*100. U	Hg-180	EC	3.0	S	6	381.20(* 69. U)	479.90(* 23. U)
302.	26. U	Os-174	EC	44	S	7	118.00(100. U)	325.00(43. U)
303.8	100.	Ru-111	B-	2.12	S	26	211.70(77.7)	382.00(41.3)
303.87	7.49	Pd-115	B-	25	S	32	342.71(7.6)	396.56(6.31)
305.5	85.8	Re-170	EC	8.0	S	3	156.00(57.5)	412.50(50.6)
306.42	6.8	Cs-143	B-	1.77	S	84	195.55(12.6)	232.42(8.32)
306.51	100.	Ge- 83	B-	1.85	S	51	1193.77(20.5)	1525.50(13.6)
308.5	42. U	Xe-114	B+	10.0	S	3	103.10(20. U)	161.60(27. U)
309.9	* 41.9	Nb-105	B-	2.95	S	36	94.80(*100.)	246.90(* 78.7)
310.1	28.5	Kr- 72	EC	17.2	S	10	162.60(16.3)	415.00(34.7)
310.6	2.9	Co- 65	B-	1.20	S	9	963.70(2.61)	1141.70(4.0)
310.7	42. U	Xe-116	EC	56	S	8	104.50(100. U)	247.70(40. U)
310.8	5.0	Fe- 64	B-	2.0	S	1		
311.	-- U	Ta-165	EC	31.0	S	5	162.80(-- U)	199.40(-- U)
311.6	--	Pd- 95	B+P	13.3	S	4	756.00(--)	1430.70(--)
311.7	97.3	Rh- 94	B+	25.8	S	15	756.20(100.)	1430.70(100.)
311.7	28.2	Ta-166	EC	34.4	S	22	158.70(52.6)	810.10(9.76)
312.6	7.E-03	Sr- 42	EC	681.3	MS	2	1524.70(7.E-03)	
312.6	87.	Lu-152	EC	0.7	S	4	358.70(89.)	1531.40(100.)
312.9	14.3	Ho-145	EC	2.4	S	16	334.10(13.5)	339.80(15.)
313.1	5.0	Au-183	EC	42.0	S	231	161.20(9.41)	214.10(5.88)
314.	* 47.2	Cs-119	B+	30.4	S	3	169.30(*100.)	245.90(* 40.1)
314.3	--	Eu-161	B-	26	S	5	163.70(--)	293.90(-- U)
314.55	32.1	Ag-121	B-	0.78	S	140	353.43(19.9)	500.61(9.31)
315.2	6.0	Er-148	EC	4.5	S	2	244.20(7.0)	
315.3	66.6	In-129	B-	1.26	S	5	906.70(3.77)	1222.00(5.97)
316.4	51.	Pt-183	EC	43	S	6	329.00(36.)	629.60(100.)
316.9	7.0	Yb-152	EC	3.1	S	4	141.70(13.)	482.40(100.)
323.9	37.	Pd-117	B-	4.3	S	12	247.50(100.)	649.90(41. U)
323.92	23.8	Kr- 3	B-	1.29	S	237	253.37(39.5)	266.81(20.3)
324.22	49.5	Cd-121	B-	13.5	S	58	349.20(12.9)	1040.26(16.8)
324.22	2.77	Ra-222	A	38.0	S	6		
325.	43. U	Os-174	EC	44	S	7	118.00(100. U)	302.00(26. U)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 325.2 - 355.8 (KeV)		
						Other two intense gamma-rays		Energy (Intensity)
325.2	5.19	Fr-208	EC	59.1	S 22	635.80(9.8)	778.50(6.76)	
325.5	81.	Ag- 96	EC	5.1	S 4	684.40(88.3)	1415.50(92.)	
325.56	94.1	Hf-178	IT	4.0	S 6	213.43(81.7)	426.36(96.9)	
326.1	52.	Pd-119	B-	0.92	S 5	129.90(100.)	256.60(63.)	
326.64	42.	Y-102	B-	0.36	S 8	151.73(79.)	1091.30(33.)	
327.	-- U	Ru-112	B-	1.75	S 3	82.40(-- U)	244.60(-- U)	
328.3	2.65	Ca- 38	EC	440	MS 3	1567.90(21.)	3211.20(0.29)	
329.	36.	Pt-183	EC	43	S 6	316.40(53.)	629.60(100.)	
331.1	47.5	Cs-122	B+	21.0	S 44	512.00(3.8)	817.90(3.09)	
331.4	58.8	Pb-187	EC	18.3	S 5	343.50(73.5)	393.40(98.)	
331.91	51.	Mg- 21	B+	122	MS 3	1384.10(10.1)	1715.90(0.65)	
332.38	6.44	Cs-146	B-	0.343	S 53	181.02(57.)	557.76(9.18)	
332.5	87.	Rh-114	B-	1.85	S 28	519.80(48.4)	618.70(31.)	
332.5	56.	Rh-114	B-	1.85	S 5	361.90(20.2)	694.40(13.4)	
333.99	18.8	Te-136	B+	17.5	S 23	578.75(18.4)	2077.90(22.4)	
334.	34.6	Se- 87	B-	5.85	S 13	242.50(37.)	573.20(19.2)	
334.	* 8.0	In-131	B-	0.27	S 4	1220.00(* 4.0)	2429.00(* 100.)	
334.1	13.5	Ho-145	EC	2.4	S 16	312.90(14.3)	339.80(15.)	
335.98	12.8	Ge- 81	B-	7.6	S 44	93.10(25.5)	197.30(12.3)	
335.98	58.9	Ge- 81	B-	7.6	S 54	792.94(34.1)	1495.53(19.9)	
336.2	17.1	Gd-141	EC	14	S 10	215.80(54.4)	525.90(17.1)	
337.2	*100.	Cs-118	B+	14+17	S 113	472.70(* 37.5)	586.50(* 15.5)	
337.5	27.9	Ru-113	B-	0.80	S 21	211.70(31.)	263.20(100.)	
339.8	15.	Ho-145	EC	2.4	S 16	312.90(14.3)	334.10(13.5)	
339.9	24.5	Tl-184	EC	11	S 13	286.80(38.2)	366.70(97.9)	
340.5	90.	Rh-116	B-	0.9	S 13	538.40(39.6)	639.40(52.2)	
340.5	45.	Rh-116	B-	0.68	S 3	398.10(16.2)	738.10(11.7)	
340.53	49.2	Sn-132	B-	39.7	S 21	85.58(48.2)	899.04(44.8)	
342.6	98.3	Ag- 99	IT	10.5	S 2	163.60(36.4)		
342.71	7.6	Pd-115	B-	25	S 32	303.87(7.49)	396.56(6.31)	
342.9	100.	Cd- 99	B+	16	S 21	671.80(31. U)	1583.30(28. U)	
343.5	57.6	As- 82	B-	13.6	S 12	654.40(72.)	1895.40(38.9)	
343.5	73.5	Pb-187	EC	18.3	S 5	331.40(58.8)	393.40(98.)	
343.6	16.3	Tb-141	EC	3.5	S 37	198.40(14.8)	293.30(16.8)	
343.7	--	Er-149	EC	--	S 3	171.00(--)	436.60(--)	
344.	--	Tm-153	A	1.48	S 2	171.40(--)		
344.	--	Tm-153	A	2.5	S 2	171.40(--)		
345.2	46.	Se- 85	B-	31.7	S 49	1427.20(7.04)	3396.60(7.41)	
346.38	17.5	Tc-103	B-	54.2	S 71	136.08(16.6)	562.90(7.0)	
346.7	*100.	Eu-138	EC	12.1	S 23	544.50(* 55.)	685.60(* 41.)	
347.18	78.	Cd- 98	EC	9.2	S 19	107.28(43.7)	1176.10(66.3)	
348.7	32.9	Rh-112	B-	3.8	S 6	388.20(4.09)	777.50(3.64)	
348.7	86.8	Rh-112	B-	6.8	S 26	560.50(48.6)	1098.60(39.4)	
349.2	12.9	Cd-121	B-	13.5	S 58	324.22(49.5)	1040.26(16.8)	
350.	--	Tl-207	IT	1.33	S 2	-1000.00(--)		
350.4	* 55.	Re-172	EC	15	S 13	123.40(* 45.)	253.70(* 100.)	
350.7	* 39.	Nb-106	B-	1.02	S 12	171.55(* 100.)	714.00(* 30.)	
350.72	4.6	Na- 21	B+	22.49	S 1			
350.73	90.	F- 21	B-	4.158	S 16	1395.13(15.4)		
351.1	13.9	Gd-141	EC	24.5	S 40	223.90(10.)	574.90(7.92)	
351.5	* 43. U	I- 113	EC	6.6	S 22	462.50(* 100. U)	622.40(* 74. U)	
352.	49.	Rb- 95	B-	377.2	MS 236	204.00(15.1)	680.70(14.8)	
352.	8.05	Rb- 96	B-N	202.8	MS 28	204.00(2.25)	680.80(1.37)	
353.43	19.9	Ag-121	B-	0.78	S 140	314.55(32.1)	500.61(9.31)	
353.9	39.7	Cs-124	B+	30.8	S 44	492.50(3.61)	914.80(3.97)	
355.4	18.9	Ir-196	B-	52	S 12	446.60(4.54)	779.40(10.4)	
355.6	8.17	Rb- 76	EC	39.1	S 46	424.00(43.4)	2571.30(47.2)	
355.8	3.83	La-145	B-	24.8	S 76	70.00(10.8)	118.20(3.64)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	356.7 - 396.0 (KeV)
						Other two intense gamma-rays	
						Energy (Intensity)	Energy (Intensity)
356.77	31.8	Tl-186	EC	27.5	S 32	402.67(49.8)	405.35(100.)
358.12	0.02	Rh-104	EC	42.3	S 2	629.60(1.E-03)	
358.2	*100.	Lu-158	EC	10.4	S 2	477.00(* 21.)	
358.7	89.	Lu-152	EC	0.7	S 4	312.60(87.)	1531.40(100.)
359.6	27.2	Cs-142	B-	1.70	S 115	966.89(8.98)	1326.46(12.9)
361.9	20.2	Rh-114	B-	1.85	S 5	332.50(56.)	694.40(13.4)
362.5	17.5	Au-184	EC	53.0	S 123	163.00(50.)	273.00(40.)
362.9	35.2	Ir-178	EC	12	S 23	131.70(71.)	266.30(100.)
364.8	40. U	Br- 91	B-	0.541	S 4	262.70(100. U)	803.30(80. U)
364.8	16.8	Dy-147	EC	55.7	S 41	253.40(- 13.4)	1388.00(10.1)
366.2	12.	Ag-119	B-	2.1	S 137	399.10(10.8)	626.40(13.)
366.7	97.9	Tl-184	EC	11	S 13	286.80(38.2)	339.90(24.5)
367.6	*100.	Lu-184	B-	20	S 4	242.40(* 70.)	481.90(* 60.)
368.4	* 20.	Nb-104	B-	4.8+0.92	S 46	192.20(*100.)	620.20(* 19.2)
369.3	* 19. U	Lu-159	EC	12.3	S 3	150.51(*100. U)	187.50(* 25. U)
372.1	* 17.	Tc-110	B-	0.92	S 18	240.67(*100.)	613.00(* 16.)
373.8	54.	Rh-110	B-	3.2	S 8	439.70(6.48)	796.70(5.35)
373.8	91.	Rh-110	B-	28.5	S 26	546.30(42.4)	687.70(25.8)
374.	<6.E-03	Ag-110	EC	24.6	S 1		
374.	--	Bi-190	A	6.2	S 1		
374.2	79.8	Tl-186	IT	2.9	S 1		
374.23	3.46	Ce-147	B-	56.4	S 51	92.90(4.74)	268.80(7.2)
374.7	61.7	In-132	B-	0.201	S 16	299.20(49.)	4040.60(60.8)
376.66	90.6	I -140	B-	0.86	S 8	457.63(58.9)	936.70(16.3)
376.8	22.	Ta-164	EC	14.2	S 14	211.05(74.)	605.00(14.)
378.5	38.	Hf-177	IT	1.08	S 39	208.37(73.7)	228.48(47.2)
379.7	6.31	Tb-151	EC	25	S 5	522.40(1.52)	830.50(3.3)
380.	* 33.7	Ce-149	B-	5.2	S 21	57.70(*100.)	86.40(* 20.2)
381.2	* 69. U	Ho-180	EC	3.0	S 6	300.50(*100. U)	479.90(* 23. U)
381.36	99.8	I -136	B-	46.9	S 28	197.52(78.3)	1313.02(100.)
381.8	43.7	Pd- 95	EC	13.3	S 35	716.60(60.7)	1350.90(90.5)
382.	41.3	Ru-111	B-	2.12	S 26	211.70(77.7)	303.80(100.)
382.9	2.97	Eu-141	EC	40.0	S 51	384.50(5.55)	394.00(9.0)
383.64	91.6	Tl-195	IT	3.6	S 2		
384.4	57.6	Mo-107	B-	3.5	S 21	65.70(> 92.)	400.30(100.)
384.5	5.55	Eu-141	EC	40.0	S 51	382.90(2.97)	394.00(9.0)
385.2	0.06	I -138	B-N	6.41	S 2	601.00(1.13)	
385.8	91.4	Tl-197	IT	0.54	S 2	222.45(30.5)	
385.85	100.	Y - 80	EC	35	S 9	595.03(39.)	1185.24(20.)
386.8	42.5	Ag-117	B-	5.34	S 61	135.40(51.3)	298.10(22.4)
388.2	4.09	Rh-112	B-	3.8	S 6	348.70(32.9)	777.50(3.64)
388.9	41.1 U	Ag-115	B-	18.0	S 10	131.50(60.8)	229.10(79.)
389.7	12.7	Na- 25	B-	59.1	S 10	585.03(13.)	974.72(15.)
389.7	91.1	Yb-176	IT	11.4	S 5	190.10(81.8)	292.90(93.)
391.	1.1	Mn- 61	B-	0.71	S 5	206.80(8.18)	628.60(16.7)
391.	--	Fr-206	A	0.7	S 1		
391.39	11.4	In-130	B-	0.55	S 10	96.54(4.22)	2258.79(88.)
391.93	84.7	Pt-199	IT	13.6	S 2	32.00(? 2.8)	
393.4	98.	Pb-187	EC	18.3	S 5	331.40(58.8)	343.50(73.5)
393.5	95.	Cs-116	B+	3.84	S 47	524.30(76.)	615.10(30.4)
393.5	--	Cs-116	B+	0.70	S 1		
393.7	100.	Ru- 91	B+	9	S 4	892.80(15.)	1096.90(24.)
393.9	93.	Ho-150	EC	26	S 6	653.40(100.)	803.40(100.)
394.	0.6	Eu-141	EC	2.7	S 14	518.80(0.45)	882.90(0.54U)
394.	9.0	Eu-141	EC	40.0	S 51	382.90(2.97)	384.50(5.55)
394.8	36.7	S - 39	B-	11.5	S 7	1301.70(52.2)	1696.50(44.2)
395.4	21.	Lu-160	EC	36.1+40	S 28	243.40(100.)	577.20(10.7)
396.	99.8 U	Ta-163	EC	11.0	S 7	448.70(- 59.9 U)	451.10(- 69.9 U)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 396.5 - 448.7 (KeV)	
						Other two intense gamma-rays	
						Energy (Intensity)	Energy (Intensity)
396.56	6.31	Pd-115	B-	25	S	32	303.87(7.49)
397.	-- U	Zr- 82	B+	32	S	6	278.00(-- U)
397.	* 33. U	Mo- 87	B+	13.4	S	6	262.50(*100.)
397.	22.9	Pm-132	EC	6.3	S	7	213.10(88.)
397.44	94.3	La-144	B-	40.8	S	149	541.20(39.2)
398.1	16.2	Rn-116	B-	0.68	S	3	340.50(45.)
399.1	10.8	Ag-119	B-	2.1	S	137	366.20(12.)
400.3	100.	Mo-107	B-	3.5	S	21	65.70(> 92.)
401.	< 2.0	O- 20	B-	13.57	S	6	656.00(< 3.2)
401.2	16.2	Sn-104	B+	20.8	S	19	132.70(56.)
401.81	6.37	Rn-219	A	3.96	S	18	130.59(0.12)
402.67	49.8	Tl-186	EC	27.5	S	32	356.77(31.8)
404.	21.	In-109	IT	0.21	S	6	678.00(100.)
404.3	5.85U	Sm-136	EC	42.7	S	22	114.50(39.)
405.35	100.	Tl-186	EC	27.5	S	32	356.77(31.8)
407.4	* 76.	Ir-198	B-	8	S	2	507.00(*100.)
409.3	15.9	Rh-113	B-	2.72	S	41	189.70(17.)
409.8	28.	Pm-155	B-	48	S	5	725.40(68.)
409.9	80.8	La-146	B-	10.0	S	16	258.40(92.9)
410.	0.8	Th-224	A	1.05	S	4	177.00(9.0)
410.12	16.8	Hf-162	EC	37.6	S	4	173.90(100.)
410.4	6.27	Fr-228	B-	39	S	174	473.70(10.2)
411.48	3.87	Br- 90	B-N	1.71	S	6	962.74(1.25)
411.8	* 9.42	Rh-111	B-	11	S	44	231.00(* 8.9)
412.	56.	Eu-160	B-	38	S	14	173.10(100.)
412.5	50.6	Re-170	EC	8.0	S	3	156.00(57.5)
413.5	44.9 U	Hg-182	EC	11.3	S	12	129.30(84.8 U)
414.3	* 15.	Rb- 97	B-N	175	MS	27	692.00(* 16.5)
- 415.	34.7	Kr- 72	EC	17.2	S	10	162.60(16.3)
415.78	3.59	Ba-148	B-	0.607	S	66	56.08(29.2)
416.5	7.56	Zr- 85	B+	10.9	S	1	
420.7	* 54. U	In-101	B+	16	S	4	252.30(*100.)
422.5	66.	Tm-152	EC	5.2	S	4	672.60(76.)
424.	43.4	Rb- 76	EC	39.1	S	46	355.60(8.17)
425.8	--	Al- 24	IT	131.3	MS	1	
426.36	96.9	Hf-178	IT	4.0	S	6	213.43(81.7)
428.11	* 83.7	Cd-126	B-	0.506	S	11	260.09(*100.)
428.4	30.7	Sr- 98	B-	0.653	S	41	119.35(73.)
429.07	60.	Si- 34	B-	2.77	S	3	1178.50(64.)
430.48	18.3	Ba-144	B-	11.5	S	100	103.86(23.3)
431.5	36.7	S- 40	B-	8.8	S	4	211.55(72.)
432.29	20.2	Zn- 75	B-	10.2	S	103	155.94(17.2)
432.61	11.7	Rb- 93	B-	5.7	S	250	213.43(4.49)
432.9	* 44.	Eu-136	B+	3.9	S	7	256.00(*100.)
434.1	43.	Rh-108	B-	16.8	S	10	497.30(5.16)
436.56	91.	Au-204	B-	39.8	S	27	691.74(24.)
436.6	--	Er-149	EC	--	S	3	171.00(--)
438.3	5.04	La-147	B-	4.015	S	72	117.72(12.)
439.54	10.	Au-202	B-	28.8	S	13	1125.20(2.3)
439.7	6.48	Rh-110	B-	3.2	S	8	373.80(54.)
439.99	32.9	Ne- 23	B-	37.24	S	5	1635.96(0.99)
439.99	8.2	Mg- 23	EC	11.317	S	3	
444.	71. U	Mg- 30	B-	335	MS	4	244.30(71.)
444.	* 40.	Ta-162	EC	3.52	S	2	284.40(99.9)
444.63	39.4	Sr- 98	B-	0.653	S	41	119.35(73.)
445.	5.49U	Zr-104	B-	1.2	S	16	100.90(6.1)
446.6	4.54	Ir-196	B-	52	S	12	355.40(18.9)
448.7	* 59.9 U	Ta-163	EC	11.0	S	7	396.00(99.8 U)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Other two intense gamma-rays	Energy	449.7 -	497.3 (KeV)
							Energy (Intensity)	Energy (Intensity)	Energy (Intensity)
449.7	*100. U	Cu- 73	B-	3.9	S	5	199.20(* 17. U)	502.00(* 12. U)	
449.7	100. U	Cs-114	B+	0.57	S	5	618.30(5.0)	698.20(11.8)	
451.1	- 69.9 U	Ta-163	EC	11.0	S	7	396.00(99.8 U)	448.70(- 59.9 U)	
451.9	6.88	K- 49	B-N	1.26	S	3	3831.56(86.)		
453.1	51.6	Os-192	IT	5.9	S	32	205.80(57.3)	569.36(60.8)	
454.8	15.1 U	Kr- 73	EC	27.0	S	17	63.00(19.1)	178.10(65.8)	
455.	* 94.	Bi-190	EC	6.3+6.2	S	7	506.20(* 92.)	773.80(*100.)	
457.63	58.9	I- 140	B-	0.86	S	8	376.66(90.6)	936.70(16.3)	
458.6	* 48.	Ga- 77	B-	13.2	S	15	469.40(*100.)		
459.6	* 15. U	Eu-140	EC	1.54	S	3	530.70(*100.)	1068.10(* 17. U)	
460.	* 15.	Pm-134	EC	24	S	4	294.00(*100.)	495.00(* 60.)	
461.	0.9	Ar- 34	EC	844.5	MS	4	665.54(2.5)	3128.97(1.3)	
461.5	0.39U	As- 85	B-	2.028	S	5	1111.50(1.96U)	3749.40(0.44U)	
462.5	*100. U	I- 113	EC	6.6	S	22	351.50(* 43. U)	622.40(* 74. U)	
462.8	* 45.2	Tb-143	EC	12	S	11	45.10(*100.)	686.10(* 47.6)	
463.3	0.26	In-116	B-	14.10	S	10	1252.60(0.03)	1293.40(1.3)	
463.5	* 62.	Pm-135	EC	49	S	32	198.80(*100.)	207.20(* 70. U)	
463.7	9.87	Gd-143	EC	39	S	7	204.77(19.4)	258.81(74.8)	
464.79	24.2	Ga- 79	B-	3.00	S	1.4	516.41(21.5)	1187.28(12.8)	
465.6	14.3	Tc-108	B-	5.17	S	77	242.25(81.6)	707.81(11.4)	
465.7	*100.	Mo-106	B-	8.4	S	35	54.00(* 54.)	618.60(* 25.)	
467.47	100.	Re-192	B-	16	S	5	750.96(25.)		
467.7	20.	As- 81	B-	33.3	S	31	491.20(8.5)	521.10(1.4)	
468.9	0.88	Tc-102	B-	5.28	S	13	475.00(6.7)	865.50(0.87)	
469.14	55.2	Zr- 99	B-	2.1	S	16	546.13(48.6)	593.99(27.4)	
469.4	*100.	Ga- 77	B-	13.2	S	15	458.60(* 48.)		
471.3	23.	Co- 66	B-	0.23	S	4	1246.00(98.)	1424.80(100.)	
472.7	* 37.5	Cs-118	B+	14+17	S	113	337.20(*100.)	586.50(* 15.5)	
472.8	28.5	Mn- 59	B-	4.6	S	9	570.70(24.2)	726.30(41.2)	
473.7	10.2	Fr-228	B-	39	S	174	410.40(6.27)	474.00(7.63)	
473.94	19.7	Zn- 77	B-	2.08	S	97	189.49(28.1)	1832.00(12.4)	
474.	7.63	Fr-228	B-	39	S	174	410.40(6.27)	473.70(10.2)	
474.2	*100.	Yb-151	EC	1.6	S	3	108.40(* 52.)	520.10(* 85.)	
474.38	5.1	Zr- 83	EC	44	S	46	55.55(7.5)	105.01(5.7)	
474.8	83.	Tm-150	EC	3.5	S	4	207.50(85.)	1578.90(89.)	
475.	6.7	Tc-102	B-	5.28	S	13	468.90(0.88)	865.50(0.87)	
475.3	0.19	Y- 96	B-	5.34	S	64	1750.40(2.35)	2225.60(0.32)	
475.5	4.95	Dy-144	EC	9.1	S	4	196.50(11.)	298.60(10.)	
475.8	100.	Er-150	EC	18.5	S	1			
477.	* 21.	Lu-158	EC	10.4	S	2	358.20(*100.)		
477.1	2.56U	Pm-140	EC	9.2	S	18	773.80(5.02)	1204.80(1.86U)	
479.9	* 23. U	Hg-180	EC	3.0	S	6	300.50(*100. U)	381.20(* 69. U)	
481.9	* 60.	Lu-184	B-	20	S	4	242.40(* 70.)	367.60(*100.)	
482.4	100.	Yb-152	EC	3.1	S	4	141.70(13.)	316.90(7.0)	
483.6	1.74	I- 139	B-N	2.29	S	4	588.80(5.76)	875.20(0.46)	
484.6	11.3	Pr-151	B-	18.90	S	27	189.10(11.8)	880.30(13.)	
486.7	20.	Ho-147	B+	5.8	S	14	189.10(33.)	883.90(33.)	
487.75	57.5	Ag-118	B-	2.0	S	30	677.08(41.4)	1058.61(10.5)	
487.75	51.8	Ag-118	B-	3.76	S	12	2788.70(17.5)	3224.30(15.7)	
489.7	*100.	Cu- 71	B-	19.5	S	13	586.50(* 30.2)	595.20(* 30.5)	
491.2	8.5	As- 81	B-	33.3	S	31	467.70(20.)	521.10(1.4)	
491.4	5.0	Zn- 59	EC	183.7	MS	2	913.80(1.6)		
492.5	3.61	Cs-124	B+	30.8	S	44	353.90(39.7)	914.80(3.97)	
492.9	20.7	Mn- 60	B-	1.77	S	9	823.60(85.)	1968.80(60.4)	
493.6	* 2.67U	Pb-187	EC	15.2	S	8	299.50(*100.)	617.20(* 2.67U)	
495.	* 60.	Pm-134	EC	24	S	4	294.00(*100.)	460.00(* 15.)	
495.6	1.48	Zn- 73	B-	23.5	S	18	218.10(6.0)	910.50(1.91)	
497.3	5.16	Rh-108	B-	16.8	S	10	434.10(43.)	618.90(15.)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy	500.6 -	555.8 (KeV)
							Other two intense gamma-rays	Energy (Intensity)	
500.61	9.31	Ag-121	B-	0.78	S	140	314.55(32.1)	353.43(19.9)	
501.8	* 80.	Bi-192	EC	39.6+37	S	47	504.30(* 39.)	853.80(* 100.)	
502.	* 12. U	Cu- 73	B-	3.9	S	5	199.20(* 17. U)	449.70(* 100. U)	
504.3	17.	Hg-148	EC	9	S	3	661.50(69.)	1688.30(100.)	
504.3	* 39.	Bi-192	EC	39.6+37	S	47	501.80(* 80.)	853.80(* 100.)	
504.7	5.49U	Zr-104	B-	1.2	S	16	100.90(6.1)	445.00(5.49U)	
505.9	- 63.3	Ag-120	B-	0.32	S	5	697.80(- 63.3)	925.80(- 44.4)	
505.9	- 71.	Ag-120	B-	1.23	S	5	697.80(- 30.)	817.10(- 11.)	
506.2	* 92.	Bi-190	EC	6.3+6.2	S	7	455.00(* 94.)	773.80(* 100.)	
506.59	19.1	Kr- 91	B-	8.57	S	221	108.79(43.5)	612.87(7.7)	
507.	* 100.	Ir-198	B-	8	S	2	407.40(* 76.)		
510.73	8.46	Sr-101	B-	121	MS	96	128.34(18.)	1124.82(10.9)	
511.86	20.4	Rh-106	B-	29.80	S	88	621.93(9.93)	1050.41(1.56)	
512.	3.8	Cs-122	B+	21.0	S	44	331.10(47.5)	817.90(3.09)	
513.4	88.4	Ag-116	B-	8.6	S	16	705.50(58.3)	1028.90(26.5)	
514.6	31.	La-146	B-	10.0	S	16	258.40(92.9)	409.90(80.8)	
514.8	60.	Eu-160	B-	38	S	14	173.10(100.)	412.00(56.)	
515.4	24.9	Tb-142	EC	597	MS	15	853.10(2.42)	1399.20(2.39)	
515.4	--	Tb-142	EC	303	MS	2	693.70(--)		
516.41	21.5	Ga- 79	B-	3.00	S	114	464.79(24.2)	1187.28(12.8)	
517.86	72.6	V - 55	B-	6.54	S	14	880.61(18.1)	921.18(4.65)	
518.8	0.45	Eu-141	EC	2.7	S	14	394.00(0.6)	882.90(0.54U)	
519.8	48.4	Rh-114	B-	1.85	S	28	332.50(87.)	618.70(31.)	
520.1	* 85.	Yb-151	EC	1.6	S	3	108.40(* 52.)	474.20(* 100.)	
521.1	1.4	As- 81	B-	33.3	S	31	467.70(20.)	491.20(8.5)	
522.4	1.52	Tb-151	EC	25	S	5	379.70(6.31)	830.50(5.3)	
524.2	43.2	Au-180	EC	8.1	S	12	152.20(98.2)	859.70(34.4)	
524.3	76.	Cs-116	B+	3.84	S	47	393.50(95.)	615.10(30.4)	
525.	-- U	Zr- 82	B+	32	S	6	278.00(-- U)	397.00(-- U)	
525.9	17.1	Gd-141	EC	14	S	10	215.80(54.4)	336.20(17.1)	
527.	62.6	Ho-151	EC	35.2	S	40	209.50(5.69)	775.30(9.2)	
527.7	100.	I - 139	B-	2.29	S	102	536.60(67.)	571.20(98.)	
528.	0.7	In-118	B-	5.0	S	11	1173.40(0.43)	1229.70(5.0)	
530.2	0.48	Ga- 82	B-N	0.602	S	3	216.46(1.37)	711.05(3.38)	
530.7	* 100.	Eu-140	EC	1.54	S	3	459.60(* 15. U)	1068.10(* 17. U)	
531.	--	Eu-140	EC	20	S	2	714.00(--)		
532.	* 20.3	Tm-155	EC	34	S	41	88.10(* 16.7)	226.80(* 100.)	
535.3	10.6	Zr-102	B-	2.9	S	31	64.50(8.9)	599.60(13.9)	
536.12	14.	Sr- 99	B-	270	MS	80	125.12(16.1)	1198.12(9.18)	
536.6	67.	I - 139	B-	2.29	S	102	527.70(100.)	571.20(98.)	
537.	23.	Tb-145	EC	29.5	S	21	257.70(39.)	987.60(37.)	
538.24	* 76.9	Xe-142	B-	1.22	S	154	571.26(* 100.)	657.05(* 79.1)	
538.4	39.6	Rh-116	B-	0.9	S	13	340.50(90.)	639.40(52.2)	
538.5	34.	Nb-103	B-	1.5	S	39	102.56(100.)	641.10(55.)	
539.49	30.8	Kr- 90	B-	32.32	S	103	121.82(35.5)	1118.69(39.)	
539.59	7.0	Tc-100	B-	15.8	S	21	590.83(5.74)	1512.20(0.44)	
540.	100.	Nb- 84	B+	12	S	2	722.80(23.)		
540.2	1.2	I - 116	B+	2.91	S	2	678.90(8.3)		
541.2	39.2	La-144	B-	40.8	S	149	397.44(94.3)	844.80(22.3)	
542.27	32.6	Ge- 79	B-	39.0	S	35	230.44(61.4)	755.00(18.4 U)	
544.5	* 55.	Eu-138	EC	12.1	S	23	346.70(* 100.)	685.60(* 41.)	
545.51	26.	Ga- 76	B-	32.6	S	108	562.93(66.)	1108.41(15.8)	
546.13	48.6	Zr- 99	B-	2.1	S	16	469.14(55.2)	593.99(27.4)	
546.3	42.4	Rh-110	B-	28.5	S	26	373.80(91.)	687.70(25.8)	
549.73	0.11	Rn-220	A	55.6	S	1			
551.4	--	Nb-102	B-	1.3	S	6	847.40(--)	949.00(--)	
551.6	30.4	Nb-102	B-	4.3	S	34	296.00(79.4)	1632.70(41.2)	
555.81	1.99	Rh-104	B-	42.3	S	14	1237.05(0.07)		

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy 557.7 - 602.1 (KeV)	
							Other two intense gamma-rays	Energy(Intensity)
557.76	9.18	Cs-146	B-	0.343	S	53	181.02(57.)	332.38(6.44)
558.2	100.	Pd- 94	B+	9.0	S	4	54.60(11. U)	723.90(12.1 U)
558.45	20.4	Ag-114	B-	4.6	S	40	576.10(1.77)	1301.23(1.31)
559.	< 0.55	Br- 76	EC	1.31	S	2	772.00(< 0.55)	
559.	68.3	Fr-206	EC	15.9	S	12	575.30(97.5)	628.60(30.2)
560.	--	Tm-154	EC	3.30	S	4	602.00(--)	625.00(--)
560.5	48.6	Rn-112	B-	6.8	S	26	348.70(86.8)	1098.60(39.4)
561.63	4.66	Cs-141	B-	24.94	S	193	48.53(7.9)	1194.02(3.95)
562.9	7.0	Tc-103	B-	54.2	S	71	136.08(16.6)	346.38(17.5)
562.93	66.	Ga- 76	B-	32.6	S	108	545.51(26.)	1108.41(15.8)
564.79	13.3	K - 47	B-	17.5	S	6	586.01(79.7)	2013.45(93.3)
567.06	18.2	Ga- 78	B-	5.09	S	47	619.40(77.)	1186.42(20.1)
568.4	16.1	Re-171	EC	15.2	S	14	102.00(9.66)	1066.00(8.05)
569.36	60.8	Os-192	IT	5.9	S	32	205.80(57.3)	453.10(51.6)
569.45	95.9	Ag-122	B-	0.48	S	6	650.20(20.5)	759.70(32.1)
569.65	0.55	Po-211	A	0.516	S	3	897.80(0.56)	
569.8	5.61	Rb- 92	B-	4.51	S	53	814.98(33.)	2820.60(6.2)
569.8	0.04	Rb- 93	B-N	5.86	S	6	814.70(1.34)	963.50(0.02)
570.	--	Ag-122	B-	1.5	S	2	760.00(--)	
570.	--	Pb-207	IT	0.805	S	2	1064.00(--)	
570.	- 2.0	Po-212	A	45.1	S	2	2610.00(2.6)	
570.7	24.2	Mn- 59	B-	4.6	S	9	472.80(28.5)	726.30(41.2)
571.1	53.	Ag- 98	EC	46.7	S	24	678.50(85.)	863.10(100.)
571.2	98.	I - 139	B-	2.29	S	102	527.70(100.)	536.60(67.)
571.26	*100.	Xe-142	B-	1.22	S	154	538.24(* 76.9)	657.05(* 79.1)
573.2	19.2	Se- 87	B-	5.85	S	13	242.50(37.)	334.00(34.6)
573.68	25.	Y - 82	B+	9.5	S	4	602.14(10.2)	737.35(2.25)
574.9	7.92	Gd-141	EC	24.5	S	40	223.90(10.)	351.10(13.9)
575.3	97.5	Fr-206	EC	15.9	S	12	559.00(68.3)	628.60(30.2)
575.4	10.9	Y - 99	B-	1.47	S	20	121.76(43.8)	724.50(19.7)
576.1	1.77	Ag-114	B-	4.6	S	40	558.45(20.4)	1301.23(1.31)
577.2	10.7	Lu-160	EC	36.1+40	S	28	243.40(100.)	395.40(21.)
577.5	4.26	As- 85	B-N	2.028	S	5	667.10(30.)	1455.10(71.)
578.2	13.	Dy-145	EC	13.6	S	4	639.60(12.1)	804.30(10.)
578.6	--	Te-137	B-N	2.49	S	6	630.70(--)	738.20(--)
578.75	18.4	Te-136	B-	17.5	S	23	333.99(18.8)	2077.90(22.4)
582.	*100.	Mg- 22	B+	3.857	S	4	72.92(* 59.5)	1278.82(* 5.71)
585.03	13.	Na- 25	B-	59.1	S	10	389.70(12.7)	974.72(15.)
585.03	0.02	Al- 25	EC	7.183	S	4	974.72(0.02)	1611.71(0.79)
585.2	21.	Rb- 97	B-	171.8	MS	79	167.10(26.)	600.50(10.6)
586.01	79.7	K - 47	B-	17.5	S	6	564.79(13.3)	2013.45(93.3)
586.5	* 30.2	Cu- 71	B-	19.5	S	13	489.70(* 100.)	595.20(* 30.5)
586.5	* 15.5	Cs-118	B+	14+17	S	113	337.20(* 100.)	472.70(* 37.5)
587.3	93.	At-204	IT	108	MS	1		
588.8	5.76	I - 139	B-N	2.29	S	4	483.60(1.74)	875.20(0.46)
588.83	56.	I - 138	B-	6.41	S	98	875.23(9.24)	2262.19(3.86)
590.83	5.74	Tc-100	B-	15.8	S	21	539.59(7.0)	1512.20(0.44)
593.	30.	In-102	EC	24	S	6	776.80(100.)	861.40(96.)
593.99	27.4	Zr- 99	B-	2.1	S	16	469.14(55.2)	546.13(48.6)
595.03	39.	Y - 80	EC	35	S	9	385.85(100.)	1185.24(20.)
595.2	* 30.5	Cu- 71	B-	19.5	S	13	489.70(* 100.)	586.50(* 30.2)
597.4	4.4	Er-151	EC	0.58	S	7	296.90(3.7)	789.30(5.11)
599.6	13.9	Zr-102	B-	2.9	S	31	64.50(8.9)	535.30(10.6)
600.5	10.6	Rb- 97	B-	171.8	MS	79	167.10(26.)	585.20(21.)
601.	1.13	I - 138	B-N	6.41	S	2	385.20(0.06)	
601.05	4.8	I - 137	B-	24.5	S	250	1218.00(12.8)	1302.64(4.42)
602.	--	Tm-154	EC	3.30	S	4	560.00(--)	625.90(--)
602.14	10.2	Y - 82	B+	9.5	S	4	573.68(25.)	737.35(2.25)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy	603.5 -	654.4 (KeV)
							Other two intense gamma-rays	Energy(Intensity)	
603.5	37.	Tc-135	B-	19.0	S 41	266.80(10.4)	870.50(7.73)		
605.	14.	Ta-164	EC	14.2	S 14	211.05(74.)	376.80(22.)		
605.9	-- U	Te-110	EC	18.6	S 4	219.10(-- U)	894.80(-- U)		
610.4	12.3	Pm-132	EC	6.3	S 7	213.10(88.)	397.00(22.9)		
611.05	56.	Ti- 42	EC	199	MS 5	636.40(0.67)	2222.60(0.67)		
612.87	7.7	Kr- 91	B-	8.57	S 221	108.79(43.5)	506.59(19.1)		
613.	* 16.	Tc-110	B-	0.92	S 18	240.67(*100.)	372.10(* 17.)		
613.7	88.4	No-152	EC	49.5	S 69	647.20(92.3)	683.30(87.7)		
615.1	30.4	Cs-116	B+	3.84	S 47	393.50(95.)	524.30(76.)		
616.7	25.	Rb- 80	EC	34	S 4	639.60(1.5)	704.30(1.88)		
617.1	55.6	Y- 96	B-	9.6	S 59	915.00(59.6)	1750.60(88.9)		
617.2	* 2.67U	Pb-187	EC	15.2	S 8	299.50(*100.)	493.60(* 2.67U)		
617.88	8.0	In-125	B-	2.33	S 11	1031.75(10.3)	1335.04(76.)		
618.3	5.0	Cs-114	B+	0.57	S 5	449.70(100.)	698.20(11.8)		
618.6	* 25.	Mo-106	B-	8.4	S 35	54.00(* 54.)	465.70(*100.)		
618.7	31.	Rh-114	B-	1.85	S 28	332.50(87.)	519.80(48.4)		
618.8	2.6	In-123	B-	5.98	S 16	1019.70(32.)	1130.50(63.)		
618.9	--	Rh-108	B-	16.8	S 10	434.10(43.)	497.30(5.16)		
619.4	77.	Ga- 78	B-	5.09	S 47	567.06(18.2)	1186.42(20.1)		
620.2	* 19.2	Nb-104	B-	4.8+0.92	S 46	192.20(*100.)	368.40(* 20.)		
620.5	63.2	Y- 98	B-	2.0	S 24	647.58(53.1)	1222.80(80.2)		
621.7	51.	Fe- 52	EC	45.9	S 6	869.90(93.)	929.50(100.)		
621.93	9.93	Rh-106	B-	29.80	S 88	511.86(20.4)	1050.41(1.56)		
622.4	* 74. U	I- 113	EC	6.6	S 22	351.50(* 43. U)	462.50(*100. U)		
625.	--	Tm-154	EC	3.30	S 4	560.00(--)	602.00(--)		
626.4	13.	Ag-119	B-	2.1	S 137	366.20(12.)	399.10(10.8)		
627.1	10.3	Ga- 63	EC	32.4	S 16	193.00(5.71)	637.00(11.2)		
628.6	16.7	Mn- 61	B-	0.71	S 5	206.80(8.18)	391.00(1.1)		
628.6	30.2	Fr-206	EC	15.9	S 12	559.00(68.3)	575.30(97.5)		
629.2	100.	Kr- 94	B-	0.20	S 21	219.47(67.4)	764.50(71.)		
629.6	1.E-03	Rh-104	EC	42.3	S 2	358.12(0.02)			
629.6	100.	Pt-183	EC	43	S 6	316.40(53.)	329.00(36.)		
630.3	--	Er-149	IT	10.8	S 2	111.30(--)			
630.7	--	Te-137	B-N	2.49	S 6	578.60(--)	738.20(--)		
635.8	9.8	Fr-208	EC	59.1	S 22	325.20(5.19)	778.50(6.76)		
636.4	0.67	Ti- 42	EC	199	MS 5	611.05(56.)	2222.60(0.67)		
637.	11.2	Ga- 63	EC	32.4	S 16	193.00(5.71)	627.10(10.3)		
637.4	*100.	O- 22	B-	2.25	S 6	71.60(*100.)	1862.60(* 56.)		
638.3	36.	Er-151	EC	23.5	S 18	256.40(15.9)	667.20(17.)		
639.	* 21.2	Cs-144	B-	1.01	S 73	199.33(*100.)	758.96(* 20.6)		
639.4	52.2	Rh-116	B-	0.9	S 13	340.50(90.)	538.40(39.6)		
639.6	1.5	Rb- 80	EC	34	S 4	616.70(25.)	704.30(1.88)		
639.6	12.1	Dy-145	EC	13.6	S 4	578.20(13.)	804.30(10.)		
641.1	55.	Nb-103	B-	1.5	S 39	102.56(100.)	538.50(34.)		
641.4	0.65	Pm-142	EC	40.5	S 13	1575.80(3.3)	2384.30(0.11)		
646.1	8.6	In-127	B-	1.15	S 66	805.10(7.79)	1597.70(67.7)		
646.17	100.	P- 37	B-	2.31	S 5	1582.90(74.4 U)	2254.10(8.2 U)		
646.6	100.	Tm-148	EC	0.7	S 8	877.40(72.)	1002.90(55.)		
647.	100.	I- 133	IT	9	S 3	73.00(3.8)	912.00(100.)		
647.2	92.3	Ho-152	EC	49.5	S 69	613.70(88.4)	683.30(87.7)		
647.58	53.1	Y- 98	B-	2.0	S 24	620.50(63.2)	1222.80(80.2)		
649.7	33.	Ge- 65	EC	30.9	S 39	62.00(26.7)	809.10(21.4)		
649.9	41. U	Pd-117	B-	4.3	S 12	247.50(100.)	323.90(37.)		
650.2	20.5	Ag-122	B-	0.48	S 6	569.45(95.9)	759.70(32.1)		
652.2	12.7	Sr- 97	B-	420	MS 66	953.80(23.9)	1905.00(28.)		
652.4	68.	Cu- 72	B-	6.6	S 25	1004.60(12.)	1657.70(10.1)		
653.4	100.	Ho-150	EC	26	S 6	393.90(93.)	803.40(100.)		
654.4	72.	As- 82	B-	13.6	S 12	343.50(57.6)	1895.40(38.9)		

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	654.4 -	692.0 (KeV)
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
654.4	15.1	As- 82	B-	19.1	S	17	755.20(< 1.81)	1731.30(4.09)
655.17	7.68	Br- 90	B-	1.92	S	72	707.05(38.)	1362.32(11.2)
656.	< 3.2	O- 20	B-	13.57	S	6	401.00(< 2.0)	1057.00(> 96.)
657.05	* 79.1	Xe-142	B-	1.22	S	154	538.24(* 76.9)	571.26(*100.)
657.32	7.1	In-121	B-	23.1	S	10	261.96(7.9)	925.57(87.)
657.5	4.5	Ag-110	B-	24.6	S	13		
658.	--	Po-194	A	0.44	S	1		
659.1	5.48	Ga- 81	B-N	1.223	S	3	914.30(< 0.15)	1573.40(< 0.15)
659.14	78.	Ga- 80	B-	1.697	S	75	1083.47(48.4)	1109.36(18.6)
660.	0.15	Ne- 18	EC	1672	MS	5	1041.30(7.19)	1080.00(< 0.64)
661.5	69.	Ho-148	EC	9	S	3	504.30(17.)	1688.30(100.)
664.5	20.1	Sb-109	B+	16.67	S	11	925.40(31.9)	1061.70(23.9)
665.1	< 4.9	Fr-207	EC	14.8	S	1		
665.54	2.5	Ar- 34	EC	844.5	MS	4	461.00(0.9)	3128.97(1.3)
666.2	42.	As- 80	B-	15.2	S	20	1207.10(4.28)	1645.20(7.52)
667.1	20.7	As- 84	B-	5.5	S	18	1455.10(49.)	2086.60(4.66)
667.1	30.	As- 85	B-N	2.028	S	5	577.50(4.26)	1455.10(71.)
667.2	17.	Er-151	EC	23.5	S	18	256.40(15.9)	638.30(36.)
667.5	0.7	Y- 97	IT	1.21	S	1		
670.	3.74	Sb-112	EC	51.4	S	122	990.90(14.3)	1257.05(96.)
671.36	100.	Cl- 38	IT	715	MS	1		
671.8	31. U	Cd- 99	B+	16	S	21	342.90(100.)	1583.30(28. U)
672.6	76.	Tm-152	EC	5.2	S	4	422.50(66.)	808.20(100.)
672.7	9.5	Tm-152	EC	8.0	S	7	715.90(13.)	808.30(100.)
673.7	55.	Ho-146	EC	3.9	S	9	682.90(100.)	925.30(69.)
674.1	--	In-105	IT	48	S	1		
675.17	17.	K- 48	B-	6.8	S	21	780.15(31.4)	3831.56(78.8)
675.2	62.4	Ca- 52	B-	4.6	S	6	961.20(49.9)	1636.40(35.6)
677.08	41.4	Ag-118	B-	2.0	S	30	487.75(57.5)	1058.61(10.5)
677.2.	78.4	S- 30	B+	1.178	S	3	2341.40(2.28)	
678.	100.	In-109	IT	0.21	S	6	404.00(21.)	1428.00(80.)
678.4	94.3	In-107	IT	50.4	S	1		
678.5	85.	Ag- 98	EC	46.7	S	24	571.10(53.)	863.10(100.)
678.7	* 100.	Dy-147	IT	55	S	2	72.00(* 15.6)	
678.9	* 8.3	I- 116	B+	2.91	S	2	540.20(1.2)	
679.7	39.7	Ni- 69	B-	11.4	S	27	1213.00(39.3)	1871.10(40.9)
680.7	14.8	Rb- 95	B-	377.2	MS	236	204.00(15.1)	352.00(49.)
680.7	6.0	Ru- 93	B+	59.7	S	49	1015.90(0.43)	1434.90(0.74)
680.8	1.37	Rb- 96	B-N	202.8	MS	28	204.00(2.25)	352.00(8.05)
682.6	-- U	I- 114	B+	2.1	S	2	708.80(--)	
682.9	* 100.	Cr- 58	B-	7.0	S	6	126.00(* 92.6)	289.50(* 23.1)
682.9	* 94.3	Dy-146	IT	150	MS	9	237.20(* 95.3)	925.30(*100.)
682.9	100.	Ho-146	EC	3.9	S	9	673.70(55.)	925.30(69.)
683.3	87.7	Ho-152	EC	49.5	S	69	613.70(88.4)	647.20(92.3)
684.4	88.3	Ag- 96	EC	5.1	S	4	325.50(81.)	1415.50(92.)
685.6	22.6	Sr- 95	B-	23.90	S	86	2717.30(4.61)	2933.10(4.07)
685.6	* 41.	Eu-138	EC	12.1	S	23	346.70(*100.)	544.50(* 55.)
686.1	* 47.6	Tb-143	EC	12	S	11	45.10(*100.)	462.80(* 45.2)
686.2	* 100. U	Ag- 97	B+	21	S	2	1294.10(* 53. U)	739.20(65. U)
686.2	62. U	Rn-227	B-	22.5	S	33	162.14(100. U)	546.30(42.4)
687.7	25.8	Rh-110	B-	28.5	S	26	373.80(91.)	428.11(83.7)
688.23	* 5.9	Cd-126	B-	0.506	S	11	260.09(*100.)	
688.9	-- U	I- 112	EC	3.42	S	2	786.90(-- U)	
- 690.	- 10.	Au-203	B-	53	S	1		
691.74	24.	Au-204	B-	39.8	S	27	436.56(91.)	1511.10(25.2)
691.8	16.6	Se- 69	EC	27.4	S	51	66.40(24.8)	97.98(66.)
692.	7.96	Rb- 96	B-	0.199	S	109	813.20(7.02)	815.00(78.)
692.	* 16.5	Rb- 97	B-N	175	MS	27	414.30(* 15.)	815.00(*100.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	692.0 -	759.7 (KeV)
						Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)
692.	--	Rb- 97	B-N	169.9	MS	6	815.00(--)	1507.00(--)
693.7	--	Tb-142	EC	303	MS	2	515.40(--)	
694.1	100.	Co- 67	B-	0.42	S	1		
694.4	13.4	Rh-114	B-	1.85	S	5	332.50(56.)	361.90(20.2)
697.8	- 30.	Ag-120	B-	1.23	S	5	505.90(71.)	817.10(11.)
697.8	- 63.3	Ag-120	B-	0.32	S	5	505.90(63.3)	925.80(44.4)
698.2	11.8	Cs-114	B+	0.57	S	5	449.70(100.)	618.30(5.0)
702.	* 74.7 U	Zn- 79	B-	2.63	S	3	866.30(*100. U)	874.30(* 31.3 U)
702.28	6.43	La-146	B-	6.27	S	186	258.47(63.7)	924.58(7.45)
704.1	--	As- 86	B-	0.9	S	1		
704.2	1.43	In-120	B-	3.08	S	11	1172.50(19.)	2039.80(1.86U)
704.3	1.88	Rb- 80	EC	34	S	4	616.70(25.)	639.60(1.5)
705.5	58.3	Ag-116	B-	8.6	S	16	513.40(88.4)	1028.90(26.5)
706.3	57.	Sb-134	B-	10.43	S	4	297.00(97.)	1279.10(100.)
707.05	38.	Br- 90	B-	1.92	S	72	655.17(7.68)	1362.32(11.2)
707.81	11.4	Tc-108	B-	5.17	S	77	242.25(81.6)	465.60(14.3)
708.8	--	I- 114	B+	2.1	S	2	682.60(-- U)	
711.	13.6	Fr-230	B-	19.1	S	107	129.10(11.)	728.40(7.26)
711.05	3.38	Ga- 82	B-N	0.602	S	3	216.46(1.37)	530.20(0.48)
711.19	17.6	Ga- 81	B-	1.221	S	107	216.47(37.4)	828.26(22.1)
712.53	45.1	Zn- 80	B-	0.545	S	32	715.40(33.8)	964.93(15.6)
714.	* 30.	Nd-106	B-	1.02	S	12	171.55(*100.)	350.70(* 39.)
714.	--	Eu-140	EC	20	S	2	531.00(--)	
715.4	33.8	Zn- 80	B-	0.545	S	32	712.53(45.1)	964.93(15.6)
715.9	13.	Tm-152	EC	8.0	S	7	672.70(9.5)	808.30(100.)
716.6	60.7	Pd- 95	EC	13.3	S	35	381.80(43.7)	1350.90(90.5)
718.26	98.5	C- 10	B+	19.255	S	2	1021.72(1.47)	
722.5	* 24.3	Pr-150	B-	6.19	S	26	130.20(*100.)	852.70(* 22.3)
722.8	23.	Nb- 84	B+	12	S	2	540.00(100.)	
723.9	12.1 U	Pd- 94	B+	9.0	S	4	54.60(11. U)	558.20(100.)
724.3	19.7	Y- 99	B-	1.47	S	20	121.76(43.8)	575.40(10.9)
725.4	68.	Pm-155	B-	48	S	5	409.80(28.)	778.60(100.)
726.3	41.2	Mn- 59	B-	4.6	S	9	472.80(28.5)	570.70(24.2)
728.4	7.26	Fr-230	B-	19.1	S	107	129.10(11.)	711.00(13.6)
734.4	21.6	Ru- 93	IT	10.8	S	1		
734.6	43.	As- 83	B-	13.4	S	46	1113.10(14.7)	2076.70(11.9)
735.5	* 42.4 U	Mg- 32	B-	120	MS	3	2466.90(* 16.2 U)	2765.50(*100. U)
737.35	2.25	Y- 82	B+	9.5	S	4	573.68(25.)	602.14(10.2)
738.1	11.7	Rh-116	B-	0.68	S	3	340.50(45.)	398.10(16.2)
738.2	--	Te-137	B-N	2.49	S	6	578.60(--)	630.70(--)
739.2	65. U	Rn-227	B-	22.5	S	33	162.14(100. U)	686.20(62. U)
743.	18.7	Tb-144	EC	4.25	S	16	959.30(7.65)	1001.60(10.9)
743.	21.	Tb-144	EC	1	S	7	1143.90(3.99)	1719.10(1.68)
743.	* 19.3 U	Re-172	EC	55	S	4	123.40(*100.)	253.70(* 74.1)
749.	9.2	Pd-115	B-	50	S	2		
750.3	* 61. U	In-101	B+	16	S	4	252.30(*100.)	420.70(* 54. U)
750.96	25.	Re-192	B-	16	S	5	467.47(100.)	
752.1	99.7	Mn- 48	B+	158.1	MS	18	1106.10(39.2)	3676.20(30.4)
752.43	* 28.9	Al- 31	B-	0.644	S	5	1694.98(* 57.8)	2316.80(*100.)
754.24	? 92.5	Ce-139	IT	54.8	S	1		
754.73	40.8	Sc- 40	EC	182.3	MS	8	2044.65(25.4)	3736.50(99.5)
755.	18.4 U	Ge- 79	B-	39.0	S	35	230.44(61.4)	542.27(32.6)
755.2	1.81	As- 82	B-	19.1	S	17	654.40(15.1)	1731.30(4.09)
756.	--	Pd- 95	B+P	13.3	S	4	311.60(--)	1430.70(--)
756.2	100.	Rh- 94	B+	25.8	S	15	311.70(97.3)	1430.70(100.)
758.2	28.9	Pb-188	EC	24.2	S	2	185.00(49.1)	
758.96	* 20.6	Cs-144	B-	1.01	S	73	199.33(*100.)	639.00(* 21.2)
759.7	32.1	Ag-122	B-	0.48	S	6	569.45(95.9)	650.20(20.5)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Energy(Intensity)	760.0 -	817.9 (KeV)
							Other two intense gamma-rays	Energy(Intensity)
760.	--	Ag-122	B-	1.5	S	2	570.00(--)	989.85(9.34)
760.3	8.56	La-148	B-	1.05	S	56	158.47(55.6)	629.20(100.)
764.5	71.	Kr- 94	B-	0.20	S	21	219.47(67.4)	1287.40(2.1)
768.	15.3	Eu-142	EC	2.4	S	8	889.60(2.03)	1446.00(10.)
769.	100.	Br- 92	B-	0.343	S	24	1035.00(6.0)	2118.00(44.5)
769.3	9.08	In-129	B-	0.59	S	45	1865.00(32.2)	
772.	< 0.55	Br- 76	EC	1.31	S	2	559.00(< 0.55)	
772.39	--	Zn- 77	IT	1.05	S	1		
773.8	5.02	Pm-140	EC	9.2	S	18	477.10(2.56U)	1204.80(1.86U)
773.8	*100.	Bi-190	EC	6.3+6.2	S	7	455.00(* 94.)	506.20(* 92.)
774.37	46.3	In-130	B-	0.55	S	32	89.23(20.2)	1221.24(89.)
775.28	63.	Br- 88	B-	16.5	S	166	802.14(13.1)	1440.69(4.72)
775.3	5.14	Br- 89	B-N	4.40	S	4	802.32(0.18)	868.60(< 0.18)
775.3	9.2	Ho-151	EC	35.2	S	40	209.50(5.69)	527.00(62.6)
776.8	100.	In-102	EC	24	S	6	593.00(30.)	861.40(96.)
777.5	3.64	Rh-112	B-	3.8	S	6	348.70(32.9)	388.20(4.09)
778.5	6.76	Fr-208	EC	59.1	S	22	325.20(5.19)	635.80(9.8)
778.6	100.	Pm-155	B-	48	S	5	409.80(28.)	725.40(68.)
778.6	* 21.	Eu-136	B+	3.9	S	7	256.00(*100.)	432.90(* 44.)
779.4	10.4	Ir-196	B-	52	S	12	355.40(18.9)	446.60(4.54)
780.15	31.4	K- 48	B-	6.8	S	21	675.17(17.)	3831.56(78.8)
786.9	-- U	I-112	EC	3.42	S	2	688.90(-- U)	
787.4	13.	Nb- 98	B-	2.86	S	12	1024.30(6.11)	1432.40(3.38)
789.3	5.11	Eri-151	EC	0.58	S	7	296.90(3.7)	597.40(4.4)
792.94	34.1	Gd- 81	B-	7.6	S	54	335.98(58.9)	1495.53(19.9)
793.	35.	Y- 84	B+	4.6	S	1		
796.7	5.35	Rh-110	B-	3.2	S	8	373.80(54.)	439.70(6.48)
798.68	5.18	Tm-162	EC	24.3	S	19	227.52(4.99)	811.52(6.48)
798.79	15.6	Ba-143	B-	14.33	S	194	211.47(24.9)	980.45(11.6)
799.55	11.5	Nd-154	B-	25.9	S	51	151.70(14.)	180.69(9.24)
801.6	73.	Tm-151	EC	4.13	S	9	1548.60(10.)	2115.80(13.)
802.14	13.1	Br- 88	B-	16.5	S	166	775.28(63.)	1440.69(4.72)
802.32	0.18	Br- 89	B-N	4.40	S	4	775.30(5.14)	868.60(< 0.18)
803.3	80. U	Br- 91	B-	0.541	S	4	262.70(100. U)	364.80(40. U)
803.4	100.	Ho-150	EC	26	S	6	393.90(93.)	653.40(100.)
804.3	10.	Dy-145	EC	15.6	S	4	578.20(13.)	639.60(12.1)
804.9	2.E-03	Po-216	A	0.145	S	1		
805.1	7.79	In-127	B-	1.15	S	66	646.10(8.6)	1597.70(67.7)
805.52	20.	Xe-140	B-	13.60	S	150	1315.05(8.2)	1413.66(12.2)
808.2	100.	Tm-152	EC	5.2	S	4	422.50(66.)	672.60(76.)
808.3	100.	Tm-152	EC	8.0	S	7	672.70(9.5)	715.90(13.)
809.1	21.4	Ge- 65	EC	30.9	S	39	62.00(26.7)	649.70(33.)
809.4	71.9	Sr- 96	B-	1.06	S	15	122.30(76.5)	931.70(11.8)
810.1	9.78	Ta-166	EC	34.4	S	22	158.70(52.6)	311.70(28.2)
810.51	42.1	Ar- 33	EC	173.0	MS	3	1541.20(1.0)	2351.70(0.7)
811.52	6.48	Tm-162	EC	24.3	S	19	227.52(4.99)	798.68(5.18)
812.3	*100.	Ho-170	B-	43	S	31	78.70(* 40.)	1894.00(* 45.2)
812.6	14.6	Kr- 92	B-	1.840	S	100	142.31(64.1)	1218.60(59.6)
813.2	7.02	Rb- 96	B-	0.199	S	109	692.00(7.96)	815.00(78.)
814.4	100.	Po-207	IT	2.79	S	3	268.08(45.)	300.47(33.8)
814.7	1.34	Rb- 93	B-N	5.86	S	6	569.80(0.04)	963.50(0.02)
814.98	33.	Rb- 92	B-	4.51	S	53	569.80(5.61)	2820.60(6.2)
815.	78.	Rb- 96	B-	0.199	S	109	692.00(7.96)	813.20(7.02)
815.	*100.	Rb- 77	B-N	175	MS	27	414.30(* 15.)	692.00(* 16.5)
815.	--	Rb- 97	B-N	169.9	MS	6	692.00(--)	1597.00(--)
817.1	- 11.	Ag-120	B-	1.23	S	5	505.90(* 71.)	697.80(* 30.)
817.7	1.56	Eu-144	EC	10.2	S	6	1660.10(9.6)	2423.30(0.96)
817.9	3.09	Cs-222	B+	21.0	S	44	331.10(47.5)	512.00(3.8)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	818.5 -	889.6 (KeV)	
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)	
818.51	* 99.7	Ba-136	IT	0.3084	S	6	163.92(* 30.7)	1048.07(* 100.)	
820.	60.	N - 18	B-	0.63	S	4	1650.00(63.)	1980.00(100.)	
820.2	6.43	Pb-203	IT	6.3	S	3	825.20(71.4)		
821.6	0.47	Ni - 67	B-	21	S	7	1115.30(0.49)	1937.10(0.64)	
823.6	85.	Mn - 60	B-	1.77	S	9	492.90(20.7)	1968.80(60.4)	
825.2	71.4	Pb-203	IT	6.3	S	3	820.20(6.43)		
828.26	22.1	Ga - 81	B-	1.221	S	107	216.47(37.4)	711.19(17.6)	
829.42	21.9	Si - 26	EC	2.234	S	11	1622.26(2.73)	1843.26(0.26)	
830.5	3.5	Tb-151	EC	25	S	5	379.70(6.31)	522.40(1.52)	
831.2	--	Zn - 76	B-	5.7	S	12	1030.60(--)	2091.00(-- U)	
831.54	100.	In-128	B-	0.9	S	42	1168.80(100.)	1867.04(32.3)	
831.54	100.	Sn-128	IT	6.5	S	3	91.15(3.6)	1168.80(100.)	
834.75	97.1	V - 54	B-	49.8	S	27	988.96(80.1)	2259.35(45.6)	
836.9	87.1	Rb - 94	B-	2.702	S	149	1309.10(87.1)	1577.50(31.8)	
836.9	2.98	Rb - 95	B-N	0.384	S	12	1089.40(0.14)	1309.10(0.14)	
838.6	100.	Pb-203	IT	0.48	S	19	258.50(83.)	873.90(51.)	
840.99	0.52	Cl - 35	EC	2.511	S	9	1967.12(0.46)	2867.59(0.44)	
843.24	* 9.3	Ge - 82	B-	4.55	S	5	248.84(4.0)	1091.90(=100.)	
844.8	23.3	La-144	B-	40.8	S	149	397.44(94.3)	541.20(39.2)	
845.2	2.77	Tl - 43	EC	509	MS	18	2288.20(4.4)	2458.50(0.91)	
845.9	100.	Xe-134	IT	290	MS	3	232.90(68.)	879.90(94.)	
847.4	--	Nb-102	B-	1.3	S	6	551.40(--)	949.00(--)	
850.2	8.16	Cr - 57	B-	21.1	S	25	83.40(8.32)	1752.10(5.2)	
852.7	* 22.3	Pr-150	B-	6.19	S	26	130.20(* 100.)	722.90(* 24.3)	
853.1	2.42	Tb-142	EC	597	MS	15	515.40(24.9)	1399.20(2.39)	
853.8	*100.	Bi-192	EC	39.6+37	S	47	501.80(* 80.)	504.30(* 39.)	
855.3	13.9	Au-182	EC	21	S	41	154.90(96.2)	264.80(38.5)	
859.7	34.4	Au-180	EC	8.1	S	12	152.20(98.2)	524.20(43.2)	
860.	--	Kr - 73	B+P	27.0	S	1			
860.3	.24.5	Zn - 78	B-	1.47	S	57	181.68(28.1)	224.75(43.9)	
861.4	96.	In-102	EC	24	S	6	593.00(30.)	776.80(100.)	
861.6	34.5	Ca - 51	B-	10.0	S	22	1167.50(23.5)	1394.00(26.6)	
861.9	* 40.	Sm-159	B-	11.2	S	20	189.90(* 100.)	254.80(* 22.)	
863.1	100.	Ag - 98	EC	46.7	S	24	571.10(53.)	678.50(85.)	
863.7	32.5	In-120	B-	46.2	S	24	1023.10(54.8)	1171.30(96.1)	
865.5	0.87	Tc-102	B-	5.28	S	13	468.90(0.88)	475.00(6.7)	
866.3	*100.	U	Zn - 79	2.63	S	3	702.00(* 74.7 U)	874.30(* 31.3 U)	
867.46	* 13.4	Ga - 82	B-	0.602	S	8	1348.07(* 100.)	2215.00(* 22.)	
868.6	< 0.18	Br - 89	B-N	4.40	S	4	775.30(5.14)	802.32(* 0.18)	
869.9	93.	Fe - 52	EC	45.9	S	6	621.70(51.)	929.50(100.)	
870.3	7.73	Tc-135	B-	19.0	S	41	266.80(10.4)	603.50(37.)	
870.81	3.34	N - 17	B-	4.169	S	2	2184.40(0.34)		
873.9	51.	Pb-203	IT	0.48	S	19	258.50(83.)	838.60(100.)	
874.3	* 31.3	U	Zn - 79	B-	2.63	S	3	702.00(* 74.7 U)	866.30(* 100. U)
874.5	6.24U	Sm-136	EC	42.7	S	22	114.50(39.)	404.30(5.85U)	
875.2	0.46	I - 139	B-N	2.29	S	4	483.60(1.74)	588.80(5.76)	
875.23	9.24	I - 138	B-	6.41	S	98	588.83(56.)	2262.19(3.86)	
877.4	72.	Tm-148	EC	0.7	S	8	646.60(100.)	1002.90(55.)	
878.2	44.2	Si - 36	B-	0.45	S	9	175.00(68.)	249.90(68.)	
879.9	94.	Xe-134	IT	290	MS	3	232.90(68.)	845.90(100.)	
880.3	13.	Pr-151	B-	18.90	S	27	189.10(11.8)	484.60(11.3)	
880.61	18.1	V - 55	B-	6.54	S	14	517.86(72.6)	921.18(4.65)	
882.9	0.54U	Eu-141	EC	2.7	S	14	394.00(0.6)	518.80(0.45)	
883.9	33.	Ho-147	B+	5.8	S	14	189.10(33.)	486.70(20.)	
884.8	54.	Cu - 70	B-	4.5	S	6	1876.00(2.16U)		
884.8	*100.	Cu - 70	B-	47	S	17	901.70(* 87.)	1251.70(* 57.4)	
888.4	36.	S - 40	B-	8.8	S	4	211.55(72.)	431.50(36.7)	
889.6	2.03	Eu-142	EC	2.4	S	8	768.00(15.3)	1267.40(2.1)	

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (keV)	Other nuclides	Intensity (%)	Gamma rays		
892.8	15.	Ru- 91	B+	9	4	393.70(	100.	)	1096.90(24.)	
893.5	10.	Bi-203	IT	303	5	189.50(	13.3	)	908.60(90.)	
894.8	--	Te-110	EC	18.6	5	219.10(	—	)	605.90(--)	
897.8	0.56	Po-211	A	0.516	5	589.65(	0.55	)	884.80(*100.)	
899.04	44.8	Sn-132	B-	39.7	21	85.58(	48.2	)	1251.70(* 57.4)	
900.	1.65	Po-211	A	25.2	5	17	1638.20(	35.3	)	3290.70(100.)
901.7	* 87.	Cu- 70	B-	4.7	21	198.60(	88. )	)	279.20(60.)	
902.6	70.4	P- 36	B-	5.6	5	15	198.60(	88. )	)	1206.00(*100.)
903.3	100.	Ho-171	B-	5.3	5	2	315.30(	66.6	)	315.30(5.97)
905.	* 25.	Sb-108	EC	7.0	5	57	111.79(	88. )	)	1141.11(100.)
906.7	3.77	In-129	B-	1.26	5	5	119.30(*100.)	132.70(	)	205.70(* 55.6)
908.58	99.4	In-126	B-	1.45	5	5	19	40.10(56.))	401.20(16.2)
908.6	90.	Bi-203	IT	303	5	2	49.40(	5.0	)	105.94(9.84)
909.12	99.1	Y- 89	IT	16.06	5	281	218.10(	6.0	)	118.70(16.1)
910.23	24.	Xe-141	B-	1.73	5	18	119.30(*100.)	495.60(	)	495.60(2.48)
910.5	1.91	Ga- 81	B-N	23.5	5	3	73.00(	3.8	)	647.00(100.)
912.	100.	In-133	IT	9	5	81	119.30(*100.)	106.70(	)	106.70(100.)
912.2	* 32.2	Zr-101	B-	2.1	5	5	19	49.40(5.0)	1573.40(* 0.15)
912.6	42.	Sn-104	B+	20.8	5	2	333.90(	39.7	)	492.50(3.61)
913.8	1.6	Zn- 59	EC	183.7	MS	3	59.10(	55.3	)	1750.60(88.9)
914.3	< 0.15	Ga- 81	B-N	1.223	5	44	61.70(	55.6	)	721.70(18.1)
914.8	3.97	Cs-124	B+	30.8	5	5	51.78(	72.6	)	880.61(18.1)
915.	59.6	Y- 96	IT	9.6	5	14	19	258.47(63.7)	702.28(6.43)
921.18	4.65	V- 55	B-	6.54	5	2	63.7	106.10(	)	682.90(94.3)
924.58	7.45	La-146	B-	6.27	5	2	9	673.70(55.3)	682.90(94.3)
925.3	* 10.0	Dy-146	IT	150	MS	3	237.20(	95.3	)	682.90(94.3)
925.3	6.9	Ho-146	EC	3.9	MS	9	664.50(	20.1	)	1061.70(23.9)
925.4	31.9	In-109	B+	16.67	MS	11	261.96(	7.9	)	457.63(58.9)
925.57	87.	In-121	B-	23.1	MS	10	505.90(	63.3	)	657.32(7.1)
925.8	- 44.4	Ag-120	B-	0.32	MS	6	621.70(	51. )	)	697.80(63.3)
929.5	10.0	Fe- 52	EC	45.9	MS	2	376.66(	90. )	)	869.90(93.)
931.1	5.0	Co- 64	B-	0.30	MS	2	122.30(	76.5	)	809.40(71.9)
931.7	11.8	Si- 96	B-	1.06	MS	8	100.00(	90.6	)	1054.30(100.)
936.7	16.3	T- 140	B-	0.86	MS	20	948.10(	100. )	)	1626.20(24.5)
944.7	36.6	TC- 90	EC	49.2	MS	15	1612.80(	35.6)		
946.9	31.1	Mg- 31	H-	2.30	MS	1	944.70(	36.6)		
948.1	78.	Tc- 90	EC	8.7	MS	20	1054.30(	100.))		
948.1	100.	Tc- 90	EC	49.2	MS	2	252.30(	77.4)		
948.4	5.54	In-127	B-	3.7	MS	7	3074.00(	5.8)		
949.	--	Nb-102	B-	1.3	MS	6	847.40(—)		
953.53	4.26	Br- 89	B-	4.40	MS	11	1097.82(	6.0)		
953.8	23.9	Sr- 97	B-	4.20	MS	6	1905.00(	28.))		
959.3	7.65	Tb-144	EC	4.25	MS	16	652.20(	12.7)		
960.4	15.	Mg- 29	B-	1.30	MS	5	743.00(	18.7)		
961.2	49.9	C- 52	B-	4.6	MS	12	1398.00(	16.4)		
962.18	12.	Sn-133	B-	1.44	MS	6	675.20(	62.4)		
962.18	1.2*	Br- 90	B-N	1.71	MS	31	1515.10(	0.52)		
962.74	1.25	Rb- 93	B-N	5.86	MS	5	411.48(	3.87)		
963.5	0.02	In-124	B-	5.86	MS	6	569.80(	0.04)		
963.7	2.61	Co- 65	B-	1.20	MS	9	310.60(	2.9)		
964.93	15.9	Zn- 80	B-	0.545	MS	32	712.53(	45.1)		
966.89	18.9	Cs-142	B-	1.70	MS	115	359.60(	27.2)		
969.61	14.9	In-126	B-	1.5	MS	71	1141.11(	55.9)		
969.94	51.8	In-124	B-	2.4	MS	38	1012.85(	47.2)		
974.72	15.	Na- 25	B-	59.1	MS	10	389.70(	12.7)		
974.72	0.02	Al- 25	EC	7.183	MS	4	585.03(	0.02)		
979.77	18.1	Ne- 25	B-	602	MS	9	89.53(	95.5	)	1611.71(0.79)
980.45	11.6	Ba-143	B-	14.33	MS	194	211.47(	24.9	)	1069.30(2.3)
980.7	84.	He- 8	B-	119.0	MS	1	798.79(	15.6)		

Energy 981.7 - 1073.3 (KeV)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)
981.7	2.11	Co- 63	B-	27.4	S 11	87.13(48.7)	155.60(1.6)
984.4	*100.	Tm-151	EC	5.2	S 1		
984.66	87.	Na- 27	B-	301	MS 17	1697.90(11.8)	3109.20(2.61)
984.7	31.2	Sb-110	EC	23.0	S 40	1211.70(91.6)	1243.30(13.4)
986.2	4.43	Rb- 93	B-	5.7	S 250	213.43(4.49)	432.61(11.7)
987.6	37.	Tb-145	EC	29.5	S 21	257.70(39.)	537.04(23.)
987.81	13.7	Cd-121	B-	8.3	S 62	1020.89(18.9)	2059.41(21.)
988.96	80.1	V - 54	B-	49.8	S 27	834.75(97.1)	2259.35(45.6)
989.85	9.34	La-148	B-	1.05	S 56	158.47(55.6)	760.30(8.56)
990.9	14.3	Sb-112	EC	51.4	S 122	670.00(3.74)	1257.05(96.)
992.	-- U	Ru- 90	EC	13	S 2	1002.00(-- U)	
994.8	14.	Fe- 63	B-	6.1	S 19	1299.00(1.23)	1427.20(4.62)
997.79	21.1	In-124	B-	3.17	S 79	1131.64(67.9)	3214.15(21.5)
997.93	4.26	Br- 89	B-	4.40	S 111	953.53(4.26)	1097.82(6.0)
-1000.	--	Tl-207	IT	1.33	S 2	350.00(--)	
1001.37	58.5	In-122	B-	10.3	S 11	1140.28(100.)	1190.33(20.)
1001.37	98.3	In-122	B-	10.8	S 25	103.61(87.5)	1140.28(100.)
1001.6	10.9	Tb-144	EC	4.25	S 16	743.00(18.7)	959.30(7.65)
1002.	-- U	Ru- 90	EC	13	S 2	992.00(-- U)	
1002.9	55.	Tm-148	EC	0.7	S 8	646.60(100.)	877.40(72.)
1004.6	12.	Cu- 72	B-	6.6	S 25	652.40(68.)	1657.70(10.1)
1013.12	1.67	In-122	B-	1.5	S 24	1140.28(29.)	2759.13(3.07)
1014.46	100.	Si- 27	EC	4.16	S 8		
1015.9	0.43	Ru- 93	B+	59.7	S 49	680.70(6.0)	1434.90(0.74)
1019.7	32.	In-123	B-	5.98	S 16	618.80(2.6)	1130.50(63.)
1020.04	34.	Ar- 45	B-	21.48	S 49	61.35(25.)	3703.20(33.3)
1020.89	18.9	Cd-121	B-	8.3	S 62	987.81(13.7)	2059.41(21.)
1021.72	1.47	C - 10	B+	19.255	S 2	718.26(98.5)	
1023.1	54.8	In-120	B-	46.2	S 24	863.70(32.5)	1171.30(96.1)
1023.1	97.4	In-120	B-	47.3	S 13	197.30(80.6)	1171.30(100.)
1024.3	8.11	Nb- 98	B-	2.86	S 12	787.40(13.)	1432.40(3.38)
1026.	28.7	K - 51	B-N	365	MS 2	1973.00(9.87)	
1027.	9.1	K - 50	B-	472	MS 5	4030.00(2.6)	4880.00(1.5)
1028.9	26.5	Ag-116	B-	8.6	S 16	513.40(88.4)	705.50(58.3)
1030.6	--	Zn- 76	B-	5.7	S 12	831.20(--)	2091.00(-- U)
1031.75	10.3	In-125	B-	2.33	S 11	617.88(8.0)	1335.04(76.)
1032.3	13.7	Sc- 52	B-	8.2	S 19	1049.70(97.6)	1267.90(39.)
1034.7	--	Ho-149	EC	30	S 1		
1035.	6.0	Br- 92	B-	0.343	S 24	769.00(100.)	1446.00(10.)
1040.26	16.8	Cd-121	B-	13.5	S 58	324.22(49.5)	349.20(12.9)
1041.3	7.19	Ne- 18	EC	1672	MS 5	660.00(0.15)	1080.00(< 0.64)
1048.07	*100.	Ba-136	IT	0.3084	S 5	163.92(30.7)	818.51(* 99.7)
1049.7	97.6	Sc- 52	B-	8.2	S 19	1032.30(13.7)	1267.90(39.)
1050.41	1.56	Rh-106	B-	29.80	S 88	511.86(20.4)	621.93(9.93)
1050.69	1.36	In-118	B-	8.5	S 7	253.68(1.39)	1229.64(1.4)
1054.3	100.	Tc- 90	EC	49.2	S 20	944.70(36.6)	948.10(100.)
1056.7	14.5	Lu-183	B-	58	S 18	168.20(6.6)	1125.30(22.)
1057.	> 96.	O - 20	B-	13.57	S 6	401.00(< 2.0)	656.00(< 3.2)
1058.61	10.5	Ag-118	B-	2.0	S 30	487.75(57.5)	677.08(41.4)
1059.21	29.	Y - 102	B-	0.30	S 6	151.73(100.)	1211.08(40.)
1061.7	23.9	Sb-109	B+	16.67	S 11	664.50(20.1)	925.40(31.9)
1064.	--	Pb-207	IT	0.805	S 2	570.00(--)	
1066.	8.05	Re-171	EC	15.2	S 14	102.00(9.66)	568.40(16.1)
1068.1	* 17.	Eu-140	EC	1.54	S 3	459.60(* 15. U)	530.70(* 100.)
1069.	--	Pr-130	EC	40.0	S 28	1282.00(--)	1405.00(--)
1069.3	2.3	Ne- 25	B-	602	MS 9	89.53(95.5)	979.77(18.1)
1072.85	47.2	In-124	B-	2.4	S 38	969.94(51.8)	1131.64(99.9)
1073.3	10.7	Ho-149	EC	21.4	S 3	1091.10(82.)	1583.60(7.38)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1077.7 - 1198.1 (KeV)	
						Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)
1077.7	63.7	Cu- 68	B-	31.1	S	13	1261.80(12.5)
1078.7	* 51.6	Tb-146	EC	23	S	15	1417.10(= 17.2)
1080.	< 0.64	Ne- 18	EC	1672	MS	5	660.00(0.15)
1083.47	48.4	Ga- 80	B-	1.697	S	75	659.14(78.)
1089.4	0.14	Rb- 95	B-N	0.384	S	12	836.90(2.98)
1091.	55.4	Y - 97	B-	1.23	S	20	161.40(70.9)
1091.1	82.	Ho-149	EC	21.4	S	3	1073.30(10.7)
1091.3	33.	Y - 102	B-	0.36	S	8	151.73(79.)
1091.9	*100.	Ge- 82	B-	4.55	S	5	248.84(= 4.0)
1096.9	24.	Ru- 91	B+	9	S	4	393.70(100.)
1097.82	6.0	Br- 89	B-	4.40	S	111	953.53(4.26)
1097.85	0.91	Br- 90	B-N	1.71	S	6	411.48(3.87)
1098.6	39.4	Rh-112	B-	6.8	S	26	348.70(86.8)
1098.9	91.8	Er-151	IT	0.58	S	6	288.70(85.7)
1103.05	92.3	Y - 97	B-	1.23	S	20	161.40(70.9)
1106.1	39.2	Mn- 48	B+	158.1	MS	18	752.10(99.7)
1108.41	15.8	Ga- 76	B-	32.6	S	108	545.51(26.)
1109.36	18.6	Ga- 80	B-	1.697	S	75	659.14(78.)
1111.2	25.9	Ru- 93	B+	10.8	S	8	1396.20(58.1)
1111.5	1.96U	As- 85	B-	2.028	S	5	461.50(0.39U)
1111.7	3.7	Cu- 57	B+	199.4	MS	1	
1113.1	14.7	As- 83	B-	13.4	S	46	734.60(43.)
1115.3	0.49	Ni- 57	B-	21	S	7	821.60(0.47)
1118.69	39.	Kr- 90	B-	32.32	S	103	121.82(35.5)
1124.82	10.9	Sr-101	B-	121	MS	96	128.34(18.)
1125.2	2.3	Au-202	B-	28.8	S	13	439.54(10.)
1125.3	22.	Lu-183	B-	58	S	18	168.20(6.6)
1129.65	5.3	Na- 26	B-	1.072	S	22	1808.63(99.)
1130.5	63.	In-123	B-	5.98	S	16	618.80(2.6)
1131.64	67.9	In-124	B-	3.17	S	79	997.79(21.1)
1131.64	99.9	In-124	B-	2.4	S	38	969.94(51.8)
1140.2	93.5	Er-151	IT	0.58	S	6	288.70(85.7)
1140.28	100.	In-122	B-	10.8	S	25	103.61(87.5)
1140.28	29.	In-122	B-	1.5	S	24	1013.12(2.67)
1140.28	100.	In-122	B-	10.3	S	11	1001.37(58.5)
1141.11	100.	In-126	B-	1.45	S	57	111.79(88.)
1141.11	55.9	In-126	B-	1.5	S	71	969.61(14.9)
1141.7	4.0	Co- 65	B-	1.20	S	9	310.60(2.9)
1143.9	3.99	Tb-144	EC	1	S	7	743.00(21.)
1147.84	20.5	Pm-156	B-	26.70	S	48	117.42(13.8)
1167.5	23.5	Ca- 51	B-	10.0	S	22	861.60(34.5)
1168.8	50.3	In-128	B-	0.9	S	55	3519.81(16.6)
1168.8	100.	In-128	B-	0.9	S	42	831.54(100.)
1168.8	100.	Sn-128	IT	6.5	S	3	91.15(3.6)
1171.3	96.1	In-120	B-	46.2	S	24	863.70(32.5)
1171.3	100.	In-120	B-	47.3	S	13	197.30(80.6)
1172.5	19.	In-120	B-	3.08	S	11	704.20(1.43)
1173.4	0.43	In-118	B-	5.0	S	11	528.00(0.7)
1176.1	66.3	Cd- 98	EC	9.2	S	19	107.28(43.7)
1178.5	64.	Si- 34	B-	2.77	S	3	429.07(60.)
1185.24	20.	Y - 80	EC	35	S	9	385.85(100.)
1186.42	20.1	Ga- 78	B-	5.09	S	47	567.06(18.2)
1186.7	--	Cl- 41	B-	38.4	S	11	1353.00(--)
1187.28	12.8	Ga- 79	B-	3.00	S	114	464.79(24.2)
1190.33	20.	In-122	B-	10.3	S	11	1001.37(58.5)
1193.77	20.5	Ge- 83	B-	1.85	S	51	306.51(100.)
1194.02	3.95	Cs-141	B-	24.94	S	193	48.53(7.9)
1198.12	9.18	Sr- 99	B-	270	MS	80	125.12(16.1)

Energy (keV)	Intensity (%)	Parent Decay	Half Life	No. of G	Energy: 1204.8 - 1368.6 (keV)	
					Other Energy (Intensity)	Two intense gamma-rays (Intensity)
1204.8	1.86	Pm-140 EC	9.2	S 18	477.10(2.56)	773.80(5.02)
1206.	*100.	Sb-108 EC	7.0	S 2	905.00(25.)	
1207.1	4.28	As- 81 B-	15.2	S 20	666.20(42.)	1645.20(7.52)
1211.08	40.	Y-102 B-	0.30	S 6	151.73(100.)	1059.21(29.)
1211.7	91.6	Sb-110 EC	23.0	S 40	984.70(31.2)	1243.30(13.4)
1213.	39.3	Ni- 69 B-	11.4	S 27	679.70(39.7)	1871.10(40.9)
1218.	12.8	I-137 B-	24.5	S 250	601.05(4.8)	1302.64(4.42)
1218.6	59.6	Kr- 92 B-	1.840	S 100	142.31(64.1)	812.60(14.6)
1219.42	1.35	Ar- 35 EC	1.775	S 11	1763.10(0.31)	2693.50(0.15)
1220.	* 4.0	In-131 B-	0.27	S 4	334.00(8.0)	2429.00(10.6)
1221.24	59.9	In-130 B-	0.32	S 14	129.80(60.7)	1905.17(7.2)
1221.24	89.	In-130 B-	0.55	S 32	89.23(20.2)	77.37(46.3)
1222.	5.97	In-129 B-	1.26	S 5	315.30(66.6)	956.70(3.77)
1222.8	80.2	Y- 98 B-	2.0	S 24	620.50(63.2)	647.58(53.1)
1223.	36.	Y- 98 B-	0.548	S 40	1592.90(14.7)	2941.30(16.7)
1229.64	1.4	In-118 B-	8.5	S 7	253.68(1.39)	1050.69(1.36)
1229.7	5.0	In-118 B-	5.0	S 11	526.00(0.7)	1173.40(0.43)
1237.05	0.07	Rn-104 B-	42.3	S 14	555.81(1.99)	
1243.3	13.4	Sb-110 EC	23.0	S 40	984.70(31.2)	1211.70(91.6)
1246.	98.	Co- 66 B-	0.23	S 1	471.30(23.)	1224.80(100.)
1251.7	* 57.4	Cu- 70 B-	47	S 17	884.80(100.)	901.70(87.)
1252.6	0.03	In-116 B-	14.10	S 10	463.30(0.26)	1293.40(1.3)
1257.05	96.	Se-112 EC	51.4	S 122	670.00(3.74)	990.90(1.3)
1261.8	12.5	Cv- 68 B-	31.1	S 13	1077.70(63.7)	1883.80(2.2--)
1263.3	40.	Al- 30 B-	3.60	S 14	2235.37(55.)	3486.70(32.)
1266.15	1.21	S- 31 B+	2.572	S 5	3134.10(0.04)	
1267.9	39.	Sr- 52 B-	8.2	S 19	1032.30(13.7)	1049.70(97.6)
1273.3	90.6	P- 29 B+	4.140	S 6	2028.20(3.7)	2425.60(5.7)
1274.53	100.	F- 22 B-	4.24	S 14	2082.50(85.1)	2165.90(67.8)
1278.82	* 5.71	Mg- 22 B+	3.857	S 4	72.92(59.5)	582.00(100.)
1279.1	100.	Sb-134 B-	10.43	S 4	297.00(97.)	706.30(57.)
1282.	--	Pr-130 EC	40.0	S 28	1069.00(--)	1405.00(--)
1287.4	2.1	Eu-142 EC	2.4	S 8	768.00(15.3)	889.60(2.03)
1292.	88.5	P- 38 B-	0.64	S 5	2224.30(20.4)	3516.20(11.5)
1293.4	1.3	In-116 B-	14.10	S 10	463.30(0.26)	1252.60(1.03)
1294.1	* 53. U	Ag- 97 B+	21	S 2	686.20(100. U)	
1299.	1.23	Fe- 63 B-	6.1	S 19	994.80(14.)	1427.20(4.62)
1301.23	1.31	Ag-114 B-	4.6	S 40	558.45(20.4)	576.10(1.77)
1301.7	52.2	S- 39 B-	11.5	S 7	394.80(36.7)	1696.50(44.2)
1302.64	4.42	I-137 B-	24.5	S 250	601.05(4.8)	1218.00(12.8)
1306.37	2.25	Au-202 B-	28.8	S 13	439.54(10.)	1125.20(2.3)
1309.1	87.1	Rb- 94 B-	2.702	S 149	836.90(87.1)	1577.50(31.8)
1309.1	0.14	Rb- 95 B-N	0.384	S 12	836.90(2.98)	1089.40(0.14)
1313.02	100.	I-136 B-	46.9	S 28	197.32(78.3)	381.36(99.8)
1315.05	8.2	Ke-140 B-	13.60	S 150	805.52(20.)	1413.66(12.2)
1326.46	12.9	Ts-142 B-	1.70	S 115	359.60(27.2)	966.89(8.98)
1328.	5.6	Co- 53 EC	240	MS 1		
1335.04	76.	In-125 B-	2.33	S 11	617.88(8.0)	1031.75(10.3)
1346.1	10.	Co- 64 B-	0.30	S 2	931.10(5.0)	
1348.07	*100.	Ga- 82 B-	0.402	S 8	867.46(13.4)	2215.00(22.)
1350.9	90.5	Pd- 95 EC	13.3	S 35	381.80(43.7)	716.60(60.7)
1353.	--	Cl- 41 B-	38.4	S 11	1186.70(--)	1354.00(--)
1354.	--	Cl- 41 B-	38.4	S 11	1186.70(--)	1353.00(--)
1356.	50.3	O- 19 B-	26.91	S 9	110.00(< 3.45)	197.00(90.3)
1356.92	-2.E-03	Ne- 19 EC	17.22	S 3	197.00(-2.E-03)	
1361.65	10.4	Br- 86 B-	55.0	S 22	1564.92(64.)	2751.20(21.1)
1362.32	11.2	Br- 90 B-	1.92	S 72	655.17(7.68)	707.05(38.)
1368.63	96.	Al- 24 EC	2.053	S 49	2754.03(41.2)	7069.50(43.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1368.6 - 1577.6 (KeV)		
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
1368.63	5.3	Al- 24	EC	131.3	MS	7	8597.50(0.6)	9965.60(1.6)
1370.82	8.4	Ca- 37	EC	175	MS	1		
1383.55	*100.	S - 29	B+	187	MS	24	1953.91(92.)	2422.70(84.)
1384.1	10.1	Mg- 21	B+	122	MS	3	331.91(51.)	1715.90(0.65)
1388.	10.1	Dy-147	EC	55.7	S	41	253.40(13.4)	364.80(16.8)
1394.	26.6	Ca- 51	B-	10.0	S	22	861.60(34.5)	1167.50(23.5)
1395.13	15.4	F - 21	B-	4.158	S	16	350.73(90.)	
1396.2	38.1	Ru- 93	B+	10.8	S	8	1111.20(25.9)	2039.10(9.11)
1398.	16.4	Mg- 29	B-	1.30	S	12	960.40(15.)	2224.00(56.)
1399.2	2.39	Tb-142	EC	597	MS	15	515.40(24.9)	853.10(2.42)
1405.	--	Pr-130	EC	40.0	S	28	1069.00(--)	1282.00(--)
1413.66	12.2	Xe-140	B-	13.60	S	150	805.52(20.)	1315.05(8.2)
1415.5	92.	Ag- 96	EC	5.1	S	4	325.50(81.)	684.40(88.3)
1417.1	* 17.2	Tb-146	EC	23	S	15	1078.70(51.6)	1579.30(100.)
1419.71	22.	Br- 87	B-	55.69	S	363	1476.06(7.9)	1577.60(6.0)
1424.8	100.	Co- 66	B-	0.23	S	4	471.30(23.)	1246.00(98.)
1427.2	4.62	Fe- 63	B-	6.1	S	19	994.80(14.)	1299.00(1.23)
1427.2	7.04	Se- 85	B-	31.7	S	49	345.20(46.)	3396.60(7.41)
1427.6	--	Nb-100	B-	1.5+3.1	S	21	1499.90(--)	1565.80(--)
1428.	80.	In-109	IT	0.21	S	6	404.00(21.)	678.00(100.)
1430.7	100.	Rh- 94	B+	25.8	S	15	311.70(97.3)	756.20(100.)
1430.7	--	Pd- 95	B+P	13.3	S	4	311.60(--)	756.00(--)
1431.6	13.1	Si- 33	B-	6.18	S	4	1847.54(100.)	2538.50(9.3)
1432.4	3.38	Nb- 98	B-	2.86	S	12	787.40(13.)	1024.30(6.13)
1434.9	0.74	Ru- 93	B+	59.7	S	49	680.70(6.0)	1015.90(0.43)
1437.3	52.	Sc- 51	B-	12.4	S	30	1567.50(14.9)	2144.10(51.8)
1440.69	4.72	Br- 88	B-	16.5	S	166	775.28(63.)	802.14(13.1)
1446.	10.	Br- 92	B-	0.343	S	24	769.00(100.)	1035.00(6.0)
1446.5	1.2	Mn- 58	B-	3.0	S	5	2065.60(0.5)	2433.10(1.2)
1448.3	11.5	Cu- 58	EC	3.204	S	22	40.30(4.8)	1454.60(16.)
1454.6	'16.	Cu- 58	EC	3.204	S	22	40.30(4.8)	1448.30(11.5)
1455.1	49.	As- 84	B-	5.5	S	18	667.10(20.7)	2086.60(4.66)
1455.1	71.	As- 85	B-N	2.028	S	5	577.50(4.26)	667.10(30.)
1476.06	7.9	Br- 87	B-	55.69	S	363	1419.71(22.)	1577.60(6.0)
1495.53	19.9	Ge- 81	B-	7.6	S	54	335.98(58.9)	792.94(34.1)
1499.9	--	Nb-100	B-	1.5+3.1	S	21	1427.60(--)	1565.80(--)
1505.85	9.2	Ge- 79	B-	19.1	S	31	100.48(2.7)	109.58(21.4)
1507.	--	Rb- 97	B-N	169.9	MS	6	692.00(--)	815.00(--)
1511.1	25.2	Au-204	B-	39.8	S	27	436.56(91.)	691.74(24.)
1512.2	0.44	Tc-100	B-	15.8	S	21	539.59(7.0)	590.83(5.74)
1519.3	62.	Ca- 50	B-	13.9	S	5	71.55(51.9)	256.89(97.8)
1524.7	7.E-03	Sc- 42	EC	681.3	MS	2	312.60(7.E-03)	
1525.5	13.6	Ge- 83	B-	1.85	S	51	306.51(100.)	1193.77(20.5)
1531.4	100.	Lu-152	EC	0.7	S	4	312.60(87.)	358.70(89.)
1541.2	1.0	Ar- 33	EC	173.0	MS	3	810.51(42.1)	2351.70(0.7)
1548.4	8.E-03	Ar- 33	ECP	173	MS	2	2231.10(0.24)	
1548.6	10.	Tm-151	EC	4.13	S	9	801.60(73.)	2115.80(13.)
1553.77	2.5	Sc- 50	B-	0.35	S	1		
1564.3	4.86U	Ge- 80	B-	29.5	S	20	110.40(6.48U)	265.36(27.)
1564.92	64.	Br- 86	B-	55.0	S	22	1361.65(10.4)	2751.20(21.1)
1565.8	--	Nb-100	B-	1.5+3.1	S	21	1427.60(--)	1499.90(--)
1567.5	14.9	Sc- 51	B-	12.4	S	30	1437.30(52.)	2144.10(31.8)
1567.9	21.	Ca- 38	EC	440	MS	3	328.30(2.65)	3211.20(0.29)
1572.33	99.5	P - 35	B-	47.3	S	2		
1573.4	< 0.15	Ge- 81	B-N	1.223	S	3	659.10(5.48)	914.30(< 0.15)
1575.8	3.3	Pm-142	EC	40.5	S	13	641.40(0.65)	2384.30(0.11)
1577.5	31.8	Rb- 94	B-	2.702	S	149	836.90(87.1)	1309.10(87.1)
1577.6	6.0	Br- 87	B-	55.69	S	363	1419.71(22.)	1476.06(7.9)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1578.2 - 1883.8 (KeV)	
						Other two intense gamma-rays	Energy(Intensity)
1578.2	--	Dy-169	B-	39	S	1	
1578.9	89.	Tm-150	EC	3.5	S	4	207.50(85.)
1579.	--	Yb-151	ECP	1.6	S	2	208.00(--)
1579.3	*100.	Tb-146	EC	23	S	15	1078.70(51.6)
1582.9	74.4 U	P - 37	B-	2.31	S	5	646.17(100.)
1583.3	28. U	Cd- 99	B+	16	S	21	342.90(100.)
1583.6	7.38	Ho-149	EC	21.4	S	3	1073.30(10.7)
1590.9	14.7	Y - 98	B-	0.548	S	40	1223.00(36.)
1597.7	67.7	In-127	B-	1.15	S	66	646.10(8.6)
1607.6	36.	Si- 34	B-	2.77	S	3	429.07(60.)
1611.71	0.79	Al- 25	EC	7.183	S	4	585.03(0.02)
1612.8	35.6	Mg- 31	B-	230	MS	15	946.90(31.1)
1622.26	2.73	Si- 26	EC	2.234	S	11	829.42(21.9)
1626.2	24.5	Mg- 31	B-	230	MS	15	946.90(31.1)
1632.7	41.2	Nb-102	B-	4.3	S	34	296.00(79.4)
1633.6	100.	F - 20	B-	11.00	S	3	551.60(30.4)
1634.	79.5	Na- 20	EC	446	MS	14	
1635.96	0.99	No- 23	B-	37.24	S	5	439.99(32.9)
1636.4	35.6	Ca- 52	B-	4.6	S	6	675.20(62.4)
1638.2	35.3	P - 36	B-	5.6	S	21	901.80(70.4)
1639.8	* 60.9 U	I - 136	B-	83.4+46.9S	40	1686.10(*100. U)	1689.00(* 84.8 U)
1645.2	7.52	As- 80	B-	15.2	S	20	666.20(42.)
1650.	63.	N - 18	B-	0.63	S	4	820.00(60.)
1657.7	10.1	Cu- 72	B-	6.6	S	25	652.40(68.)
1660.1	9.6	Eu-144	EC	10.2	S	6	817.70(1.56)
1667.7	7.4	Ho-148	EC	2.2	S	1	2423.30(0.96)
1675.5	25.1	Tl- 53	B-	32.7	S	20	127.60(45.8)
1686.1	*100. U	I - 136	B-	83.4+46.9S	40	1639.80(* 60.9 U)	1689.00(* 84.8 U)
1688.3	100.	Ho-148	EC	9	S	3	504.30(17.)
1689.	* 84.8 U	I - 136	B-	83.4+46.9S	40	1639.80(* 60.9 U)	1686.10(*100. U)
1693.3	5.92	Rb- 98	B-	114	MS	45	144.22(24.5)
1694.98	* 57.8	Al- 31	B-	0.644	S	5	752.43(28.9)
1696.5	44.2	S - 39	B-	11.5	S	7	394.80(36.7)
1697.9	11.8	Na- 27	B-	301	MS	17	984.66(87.)
1701.44	33.	F - 23	B-	2.23	S	16	1822.40(15.6)
1715.9	0.65	Mg- 21	B+	122	MS	3	331.91(51.)
1719.1	1.68	Tb-144	EC	1	S	7	743.00(21.)
1730.35	45.6	O - 21	B-	3.42	S	13	280.00(14.8)
1731.3	4.09	As- 82	B-	19.1	S	17	654.40(15.1)
1750.4	2.35	Y - 96	B-	5.34	S	64	475.30(0.19)
1750.6	14.2	K - 35	EC	190	MS	18	2589.80(26.4)
1750.6	88.9	Y - 96	B-	9.6	S	59	617.10(55.6)
1752.1	5.2	Cr- 57	B-	21.1	S	25	83.40(8.32)
1763.1	0.31	Ar- 35	EC	1.775	S	11	1219.42(1.35)
1778.98	97.5	P - 28	B+	270.3	MS	31	4497.00(11.)
1808.63	99.	Na- 26	B-	1.072	S	22	1129.65(5.3)
1808.63	0.13	Na- 27	B-N	301	MS	1	2541.20(2.5)
1822.4	15.6	F - 23	B-	2.23	S	16	1701.44(33.)
1825.	0.49	Fe- 51	EC	305.0	MS	6	237.00(5.0)
1832.	12.4	Zn- 77	B-	2.08	S	97	189.49(28.1)
1843.26	0.26	Si- 26	EC	2.234	S	11	829.42(21.9)
1847.54	100.	Si- 33	B-	6.18	S	4	1431.60(13.1)
1862.6	* 56.	O - 22	B-	2.25	S	6	71.60(*100.)
1865.	32.2	In-129	B-	0.59	S	45	769.30(9.08)
1867.04	32.3	In-128	B-	0.9	S	42	831.54(100.)
1871.1	40.9	Ni- 69	B-	11.4	S	27	679.70(39.7)
1876.	2.16U	Cu- 70	B-	4.5	S	6	884.80(54.)
1883.8	2.44	Cu- 68	B-	31.1	S	13	1077.70(63.7)
							1261.80(12.5)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1894.0 - 2239.3 (KeV)	
						Other two intense gamma-rays	
						Energy(intensity)	Energy(intensity)
1894.	* 45.2	Ho-170	B-	43	S	31	78.70(* 40.)
1895.4	38.9	As- 82	B-	13.6	S	12	343.50(57.6)
1903.7	64.	Se- 88	B-	1.53	S	13	159.20(100.)
1905.	28.	Sr- 97	B-	420	MS	66	652.20(12.7)
1905.17	74.	In-130	B-	0.32	S	14	129.80(60.7)
1923.8	--	Dy-146	EC	29	S	51	2082.00(--)
1929.05	13.7	Ru-109	B-	34.5	S	227	206.29(22.)
1937.1	0.64	Ni- 67	B-	21	S	7	821.60(0.47)
1944.3	100.	Ar- 46	B-	8.4	S	4	
1953.91	* 92.	S - 29	B+	187	MS	24	1383.55(* 100.)
1967.12	0.46	Cl- 33	EC	2.511	S	9	840.99(0.52)
1968.8	60.4	Mn- 60	B-	1.77	S	9	492.90(20.7)
1969.4	* 15.9	Tc-106	B-	36	S	51	270.10(* 100.)
1970.33	82.	K - 36	EC	342	MS	32	2207.87(29.9)
1971.	10.	Tb-146	EC	8	S	2	
1973.	9.87	K - 51	B-N	365	MS	2	1026.00(28.7)
1980.	100.	N - 18	B-	0.63	S	4	820.00(60.)
1981.5	100.	F - 24	B-	0.34	S	1	
1986.7	* 16.7 U	Hg-181	EC	3.6	S	20	42.50(* 25.3 U)
1996.55	7.31	Y - 97	B-	3.5	S	19	3287.65(18.1)
2013.45	93.3	K - 47	B-	17.5	S	6	564.79(13.3)
2022.4	4.19	Au-181	EC	11.4	S	259	79.40(- 4.19)
2023.	0.4	K - 49	B-	1.26	S	5	2249.00(1.54)
2023.	4.64	K - 50	B-N	472	MS	3	3354.00(0.58)
2028.2	3.7	P - 29	B+	4.140	S	6	1273.30(90.6)
2039.1	9.11	Ru- 93	B+	10.8	S	8	1111.20(25.9)
2039.8	1.86U	In-120	B-	3.08	S	11	704.20(1.43)
2044.65	25.4	Sc- 40	EC	182.3	MS	8	754.73(40.8)
2059.41	21.	Cd-121	B-	8.3	S	62	987.81(13.7)
2065.6	0.5	Mn- 58	B-	3.0	S	5	1446.50(1.2)
2076.7	11.9	As- 83	B-	13.4	S	46	734.60(43.)
2077.9	22.4	Te-136	B-	17.5	S	23	333.99(18.8)
2082.	--	Dy-146	EC	29	S	51	1923.80(--)
2082.5	85.1	F - 22	B-	4.24	S	14	1274.53(100.)
2086.6	4.66	As- 84	B-	5.5	S	18	667.10(20.7)
2091.	-- U	Zn- 76	B-	5.7	S	12	831.20(--)
2115.8	13.	Tm-151	EC	4.13	S	9	801.60(73.)
2118.	44.5	In-129	B-	0.59	S	45	769.30(9.08)
2124.47	100.	Be- 11	B-	13.81	S	11	4443.90(100.)
2127.49	15.	P - 34	B-	12.43	S	6	4114.54(0.18)
2129.3	22.4	F - 23	B-	2.23	S	16	1701.44(33.)
2140.	0.24	Fe- 51	EC	305.0	MS	6	237.00(5.0)
2144.1	31.8	Sc- 51	B-	12.4	S	30	1437.30(52.)
2156.8	--	Dy-146	EC	29	S	51	1923.80(--)
2165.9	67.8	F - 22	B-	4.24	S	14	1274.53(100.)
2168.9	2.13U	Mg- 30	B-	335	MS	4	244.30(71.)
2171.7	5.68	Rb- 98	B-	114	MS	45	144.22(24.5)
2184.4	0.34	N - 17	B-	4.169	S	2	870.81(3.34)
2207.87	29.9	K - 36	EC	342	MS	32	1970.33(82.)
2215.	* 22.	Ga- 82	B-	0.602	S	8	867.46(* 13.4)
2222.6	0.67	Ti- 42	EC	199	MS	5	611.05(56.)
2224.	36.	Mg- 29	B-	1.30	S	12	960.40(15.)
2224.3	20.4	P - 38	B-	0.64	S	5	1292.00(88.5)
2225.6	0.32	Y - 96	B-	5.34	S	64	475.30(0.19)
2230.3	71.6	Cl- 32	B+	298	MS	17	2465.10(4.1)
2231.1	0.24	Ar- 33	ECP	173	MS	2	1548.40(8.E-03)
2235.37	65.	Al- 30	B-	3.60	S	14	1263.30(40.)
2239.3	* 24.4	Tc-106	B-	36	S	51	270.10(* 100.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 2249.0 - 3354.0 (KeV)		
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
2249.	1.54	K - 49	B-	1.26	S	5	2023.00(0.4)	4272.00(1.76)
2254.1	8.2 U	P - 37	B-	2.31	S	5	646.17(100.)	1582.90(74.4 U)
2258.79	88.	In-130	B-	0.55	S	10	96.54(4.22)	391.39(11.4)
2259.35	45.6	V - 54	B-	49.8	S	27	834.75(97.1)	988.96(80.1)
2262.19	3.86	I - 138	B-	6.41	S	98	588.83(56.)	875.23(9.24)
2288.2	4.4	Tl - 43	EC	509	MS	18	845.20(2.77)	2458.50(0.91)
2316.8	*100.	Al - 31	B-	0.644	S	5	752.43(* 28.9)	1694.98(* 57.8)
2341.4	2.28	S - 30	B+	1.178	S	3	677.20(78.4)	
2351.7	0.7	Ar - 33	EC	173.0	MS	3	810.51(42.1)	1541.20(1.0)
2384.3	0.11	Pm-142	EC	40.5	S	13	661.40(0.65)	1575.80(3.3)
2386.3	31.6	Si - 35	B-	0.78	S	15	3859.50(32.7)	4100.70(36.5)
2422.7	* 84.	S - 29	B+	187	MS	24	1383.55(* 100.)	1953.91(* 92.)
2423.3	0.96	Eu-144	EC	10.2	S	6	817.70(1.56)	1660.10(9.6)
2425.6	5.7	P - 29	B+	4.140	S	6	1273.30(90.6)	2028.20(3.7)
2429.	*100.	In-131	B-	0.27	S	4	334.00(* 8.0)	1220.00(* 4.0)
2432.8	31.8	K - 36	EC	342	MS	32	1970.33(82.)	2207.87(29.9)
2433.1	1.2	Mn - 58	B-	3.0	S	5	1446.50(1.2)	2065.60(0.5)
2441.1	43.	Se - 86	B-	15.3	S	22	48.30(15.4)	2660.00(21.6)
2458.5	0.91	Ti - 43	EC	509	MS	18	845.20(2.77)	2288.20(4.4)
2465.1	4.1	Cl - 32	B+	298	MS	17	2230.30(71.6)	4772.20(20.5)
2466.9	* 16.2 U	Mo - 32	B-	120	MS	3	735.50(* 42.4 U)	2765.30(* 100. U)
2522.4	2.E-03	Ca - 39	EC	859.6	MS	1		
2538.5	9.3	Si - 33	B-	6.18	S	4	1431.60(13.1)	1847.54(100.)
2541.2	2.5	Na - 26	B-	1.072	S	22	1129.65(5.3)	1808.63(99.)
2563.	< 18.	K - 52	B-	105	MS	1		
2564.19	12.5	Rb - 91	B-	58.4	S	125	93.63(33.7)	3599.67(10.4)
2571.3	47.2	Rb - 76	EC	39.1	S	46	355.60(8.17)	424.00(43.4)
2574.8	0.02	Sc - 41	EC	596.3	MS	2	2959.30(0.01)	
2589.8	26.4	K - 35	EC	190	MS	18	1750.60(14.2)	2982.67(50.8)
2610.	2.6	Po-212	A	45.1	S	2	570.00(* 2.0)	
2660.	21.6	Se - 86	B-	15.3	S	22	48.30(15.4)	2441.10(43.)
2693.5	0.15	Ar - 35	EC	1.775	S	11	1219.42(1.35)	1763.10(0.31)
2717.3	4.61	Sr - 95	B-	23.90	S	86	685.60(22.6)	2933.10(4.07)
2741.	0.76	N - 16	B-	7.12	S	11	6129.39(69.)	7117.00(5.0)
2751.2	21.1	Br - 86	B-	55.0	S	22	1361.65(10.4)	1564.92(64.)
2754.03	41.2	Al - 24	EC	2.053	S	49	1368.63(96.)	2069.50(43.)
2759.13	3.07	In-122	B-	1.5	S	24	1013.12(2.67)	1140.28(29.)
2765.3	*100. U	Mg - 32	B-	120	MS	3	735.50(* 42.4 U)	2466.90(* 16.2 U)
2788.7	17.5	Ag-118	B-	3.76	S	12	487.75(51.8)	3224.30(15.7)
2796.	1.8	K - 37	EC	1.226	S	2	3601.80(0.02)	
2820.6	6.2	Rb - 92	B-	4.51	S	53	569.80(5.61)	814.98(33.)
2867.59	0.44	Cl - 33	EC	2.511	S	9	840.99(0.52)	1967.12(0.46)
2933.1	4.07	Sr - 95	B-	23.90	S	86	685.60(22.6)	2717.30(4.61)
2941.3	16.7	Y - 98	B-	0.548	S	40	1223.00(36.)	1590.90(14.7)
2959.3	0.01	Sc - 41	EC	596.3	MS	2	2574.80(0.02)	
2982.67	50.8	K - 35	EC	190	MS	18	1750.60(14.2)	2589.80(26.4)
3074.	5.8	In-127	B-	3.7	S	7	252.30(77.4)	948.40(5.54)
3109.2	< 2.61	Na - 27	B-	301	MS	17	984.66(87.)	1697.90(11.8)
3128.97	1.3	Ar - 34	EC	844.5	MS	4	461.00(0.9)	665.54(2.5)
3134.1	0.04	S - 31	B+	2.572	S	5	1266.15(1.21)	
3211.2	0.29	Ca - 38	EC	440	MS	3	328.30(2.65)	1567.90(21.)
3214.15	21.5	In-124	B-	3.17	S	79	997.79(21.1)	1131.64(67.9)
3224.3	15.7	Ag-118	B-	3.76	S	12	487.75(51.8)	2788.70(17.5)
3287.65	18.1	Y - 97	B-	3.5	S	19	1996.55(7.31)	3401.30(14.2)
3290.7	100.	P - 36	B-	5.6	S	21	901.80(70.4)	1638.20(35.3)
3292.	-- U	Sb-135	B-	1.71	S	2	3406.00(-- U)	
3344.61	21.6	In-126	B-	1.5	S	71	969.61(14.9)	1141.11(55.9)
3354.	0.58	K - 50	B-N	472	MS	3	2023.00(4.64)	4073.00(0.58)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 3596.6 - 9965.6 (KeV)		
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
3396.6	7.41	Se- 85	B-	31.7	S	49	345.20(46.)	1427.20(7.04)
3401.3	14.2	Y - 97	B-	3.5	S	19	1996.55(7.31)	3287.65(18.1)
3406.	-- U	Sb-135	B-	1.71	S	2	3292.00(-- U)	
3462.	10.7	K - 51	B-	365	MS	2	3530.00(2.3)	
3498.7	32.	Al - 30	B-	3.60	S	14	1263.30(40.)	2235.37(65.)
3516.2	11.5	P - 38	B-	0.64	S	5	1292.00(88.5)	2224.30(20.4)
3517.39	15.4	O - 21	B-	3.42	S	13	280.00(14.8)	1730.35(45.6)
3519.81	16.6	In-128	B-	0.9	S	55	1168.80(50.3)	4297.61(11.8)
3530.	2.3	K - 51	B-	365	MS	2	3462.00(10.7)	
3599.67	10.4	Rb- 91	B-	58.4	S	125	93.63(33.7)	2564.19(12.5)
3601.8	0.02	K - 37	EC	1.226	S	2	2796.00(1.8)	
3676.2	30.4	Mn- 48	B+	158.1	MS	18	752.10(99.7)	1106.10(39.2)
3703.2	33.3	Ar - 45	B-	21.48	S	49	61.35(25.)	1020.04(34.)
3736.5	99.5	Sc - 40	EC	182.3	MS	8	754.73(40.8)	2044.65(25.4)
3749.4	0.44U	As - 85	B-	2.028	S	5	461.50(0.39U)	1111.50(1.96U)
3831.56	78.8	K - 48	B-	6.8	S	21	675.17(17.)	780.15(31.4)
3831.56	86.	K - 49	B-N	1.26	S	3	451.90(6.88)	
3859.5	32.7	Si - 35	B-	0.78	S	15	2386.30(31.6)	4100.70(36.5)
4030.	2.6	K - 50	B-	472	MS	5	1027.00(9.1)	4880.00(1.5)
4040.6	60.8	In-132	B-	0.201	S	16	299.20(49.)	374.70(61.7)
4073.	0.58	K - 50	B-N	472	MS	3	2023.00(4.64)	3354.00(0.58)
4100.7	36.5	Si - 35	B-	0.78	S	15	2386.30(31.6)	3859.50(32.7)
4114.54	0.18	P - 34	B-	12.43	S	6	2127.49(15.)	
4272.	1.76	K - 49	B-	1.26	S	5	2023.00(0.4)	2249.00(1.54)
4297.61	11.8	In-128	B-	0.9	S	55	1168.80(50.3)	3519.81(16.6)
4443.9	100.	Be- 11	B-	13.81	S	11	2124.47(100.)	7282.92(87.)
4497.	11.	P - 28	B+	270.3	MS	31	1778.98(97.5)	7535.70(8.5)
4772.2	20.5	Cl - 32	B+	298	MS	17	2230.30(71.6)	2465.10(4.1)
4880.	1.5	K - 50	B-	472	MS	5	1027.00(9.1)	4030.00(2.6)
5150.1	0.52	Sn-133	B-	1.44	S	31	962.18(12.)	5612.30(0.44)
5297.9	68.	C - 15	B-	2.449	S	16		
5612.3	0.44	Sn-133	B-	1.44	S	31	962.18(12.)	5150.10(0.52)
6129.39	69.	N - 16	B-	7.12	S	11	2741.00(0.76)	7117.00(5.0)
7069.5	43.	Al - 24	EC	2.053	S	49	1368.63(96.)	2754.03(41.2)
7117.	5.0	N - 16	B-	7.12	S	11	2741.00(0.76)	6129.39(69.)
7282.92	87.	Be- 11	B-	13.81	S	11	2124.47(100.)	4443.90(100.)
7535.7	8.5	P - 28	B+	270.3	MS	31	1778.98(97.5)	4497.00(11.)
8597.5	0.6	Al - 24	EC	131.3	MS	7	1368.63(5.3)	9965.60(1.6)
9965.6	1.6	Al - 24	EC	131.3	MS	7	1368.63(5.3)	8597.50(0.6)

4.3 Gamma-rays of Radionuclides ($1 \text{ min} \leq T_{1/2} < 1 \text{ hr}$)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half- Life	No. of G	Energy (Intensity)		
						Other two intense Energy (Intensity)	Energy (Intensity)	
1.58	--	Sm-141	IT	22.6	N	2	174.20(--)	
5.	--	Po-203	A	36.7	S	1	417.90(--)	
6.5	--	Ar-201	EC	89	S	3	571.00(--)	
6.9	--	Ag-104	IT	33.5	M	1		
9.3	3.E-06	Ag-102	IT	7.7	M	1	73.92(--)	
< 10.	--	Pa-234	IT	1.17	M	2	208.10(--)	
10.2	--	Y-86	IT	4.8	M	2	122.06(13.9)	
10.86	3.E-03	Sb-124	IT	9.5	S	1	692.00(5.5)	
14.41	10.6	Mn-57	B-	85.4	S	23	692.00(5.5)	
16.	8.0	Nd-152	B-	11.4	M	2	278.50(32.)	
17.	18.	Ti-52	B-	1.7	M	2	124.45(100.)	
17.7	4.E-05	Sb-126	IT	19.0	M	1		
< 20.	--	Sb-128	IT	10.4	M	1		
20.1	17.3	Os-80	EC	21.5	M	21		
22.	--	Co-62	IT	13.9	M	1		
23.87	16.	In-119	B-	2.4	M	5	763.14(99.2)	
25.	* 24.	U	La-127	B+	S	2	56.20(* 100.)	
25.1	29.7	Xe-120	B+	40	M	205	72.60(9.0)	
25.48	--	Ag-105	IT	7.23	M	1		
25.71	0.01	Sr-73	IT	39.8	M	1		
25.98	3.E-03	Sb-124	IT	20.2	M	1	83.00(95.3)	
26.	4.4.6	Cr-56	B-	5.94	M	2	169.40(20.)	
26.2	8.6	Ce-131	EC	10	M	80	414.20(10.6)	
26.9	--	Er-152	EC	5.68	M	1		
27.3	4.49	Gd-145	IT	85	M	2	721.40(82.)	
27.37	15.7	Pa-227	B-	42.2	M	63	300.09(4.59)	
28.3	* 32.	Pm-153	B-	5.4	M	13	35.90(* 100.)	
28.5	37.	U	Xe-117	B+	S	4.5	32.50(7.6)	
28.8	* 100.	Ta-169	EC	4.9	M	19	153.50(* 34.8)	
29.	1.E-03	Lu-169	IT	160	M	1		
29.36	2.5	Th-233	B-	22.3	M	131	86.48(2.7)	
29.66	14.4	Lu-167	EC	51.5	M	456	213.19(3.6)	
29.9	3.11	Er-156	EC	19.5	M	6	35.30(18.3)	
30.6	*	56.	Ba-123	B+	2.7	M	9	94.50(* 100.)
30.7	19.	W-179	EC	37.5	M	2		
32.3	7.6	U	Xe-117	B+	S	4.5	28.50(37.)	
32.3	* 16.7	Os-179	EC	6.5	M	60	65.40(* 100.)	
34.2	0.02	Tc-96	IT	51.5	M	1		
34.2	0.23	Pu-235	EC	25.3	M	17	49.10(2.36)	
34.3	--	Lu-166	IT	1.41	M	1	756.40(0.48)	
35.2	--	Sr-129	IT	6.7	M	1		
35.3	18.3	Er-156	EC	19.5	M	6	29.90(3.11)	
35.42	14.1	U	W-176	EC	31	M	30	328.68(9.5)
35.5	19.3	Y	-83	B+	7.08	M	128	489.90(5.53)
35.82	12.9	Eu-154	IT	46.0	M	16	68.17(37.)	
35.99	23.3	W-172	EC	6.7	M	38	457.63(59.5)	
35.9	* 100.	Pb-153	B-	5.4	M	13	28.30(* 32.)	
36.3	14.	Mo-104	B-	60	S	36	68.80(55.)	
37.34	11.4	He-164	IT	37.5	M	4	56.64(6.51)	
38.25	* 100.	Tm-159	EC	9.15	M	130	84.84(99.2)	
39.	5.1	Gd-162	B-	8.4	M	5	403.00(43.4)	
39.41	28.	Sr-79	EC	2.25	M	14	105.00(21.8)	
39.76	0.07	Rn-103	IT	56.114	M	1		
39.96	--	I-130	IT	9.0	M	1		
40.2	18.9	Nd-136	EC	50.65	M	48	108.90(31.5)	
40.94	0.07	Nb-94	IT	6.26	M	1	204.09(51.7)	
41.48	23.3	Nd-35	EC	12.4	M	41	441.10(14.9)	
41.86	--	Lu-172	IT	3.7	M	1		

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Other two intense gamma-rays	43.5 - 67.2 (KeV)	
							Energy (Intensity)	Energy (Intensity)
43.53	4.14	U-239	B-	23.45	M 117	74.66(48.1)		
43.6	--	Ag-113	IT	68.7	S 1			
43.6	* 10.3	U	La-125	B+	S 2	67.60(*100. U)		
43.7	* 70.		Lu-161	EC	S 77	100.32(* 95.)	110.78(*100.)	
44.4	10.3		I-134	IT	M 3	271.90(79.1)		
44.5	* 10.		Tm-177	B-	S 7	104.50(*100.)	517.50(* 22.2)	
44.9	48.	U	Zr-84	B+	M 25.9	112.50(* 100. U)	372.90(41. U)	
45.21	39.8	U	Ho-159	EC	M 33.05	46.00(71.3 U)	121.01(36.2)	
45.38	4.86		Ho-155	EC	M 48	136.30(4.32)	240.19(10.8)	
45.54	25.		Tm-161	EC	M 33	84.40(9.45)	1648.10(19.5)	
45.8	* 56.6		Mo-103	B-	S 67.5	83.40(*100.)	423.91(* 69.)	
45.95	0.24		Br-82	IT	M 6.13			
46.	71.3	U	Ho-159	EC	M 33.05	45.21(39.8 U)	121.01(36.2)	
47.1	1.05U	Rb-78	IT	5.74	M 2	103.30(8.0)		
49.1	2.36	Pu-235	EC	25.3	M 17	34.20(0.23)	756.40(0.48)	
49.4	33.4	Zn-74	B-	95.6	S 24	57.10(70.3)	143.50(21.7)	
49.46	18.		Dy-151	EC	M 17.9	386.10(19.4)	546.31(14.3)	
49.51	35.8		Se-70	B+	M 41.1	376.65(9.43)	426.15(29.1)	
49.51	0.78	Rb-81	EC	30.5	M 43	643.60(0.12)	1194.60(0.11)	
49.6	100.		Ta-171	EC	M 23.3	501.80(22.6)	506.40(54.)	
50.1	36.	Fr-223	B-	21.8	M 138	79.65(9.12)	234.80(3.0)	
51.18	7.03	Cs-130	IT	3.46	M 7	80.45(34.6)	148.35(5.09)	
51.42	48.3	Rh-104	IT	4.34	M 4	77.53(2.08)	97.11(2.99)	
52.	0.09	Rh-96	IT	1.51	M 1			
53.	--	Xe-118	B+	6	M 2	117.00(--)		
53.05	- 24.1	Er-157	EC	18.65	M 122	121.40(10.1)	391.32(14.2)	
53.6	-- U	Sm-138	EC	3.1	M 2	74.70(-- U)		
54.	88.	Lu-163	EC	238	S 53	163.08(* 100.)	396.34(63.)	
55.58	3.9	U-242	B-	16.8	M 14	67.60(9.57)	585.00(1.92)	
56.2	*100.	U	La-127	B+	M 3.8	25.00(* 24. U)		
56.64	6.51	Ho-164	IT	37.5	M 4	37.34(11.4)	94.00(0.14)	
56.68	--	Ir-192	IT	1.45	M 1			
57.1	70.3	Zn-74	B-	95.6	S 24	49.40(33.4)	143.50(21.7)	
58.6	--	Co-60	IT	10.467	M 1			
59.03	--	Pr-144	IT	7.2	M 1			
59.77	0.53	Ag-111	IT	64.8	S 1			
60.	--	Md-255	EC	27	M 1			
60.1	- 20.4	In-121	B-	3.88	M 10	1041.20(1.12)	1102.20(0.92)	
61.2	11.4	Ga-65	EC	15.2	M 89	115.09(54.)	153.00(8.86)	
61.4	25.6	Zn-60	EC	2.38	M 7	273.40(10.9)	670.30(64.)	
61.41	53.6	Sb-122	IT	4.21	M 3	76.06(18.5)		
62.29	16.4	Cr-49	B+	42.3	M 22	90.64(53.2)	152.93(30.3)	
62.5	--	Bi-214	A	19.9	M 2	191.10(--)		
62.54	13.3	Ce-145	B-	3.01	M 89	724.33(59.)	1148.03(9.14)	
63.6	21.6	Re-188	IT	18.6	M 7	92.43(5.15)	105.96(10.8)	
63.62	6.46	Yb-163	EC	11.05	M 179	123.21(1.98)	860.28(10.1)	
63.9	--	Bi-194	A	125	S 3	112.20(--)	272.40(--)	
64.27	14.5	Fr-227	B-	2.47	M 123	90.03(38.7)	585.80(29.5)	
64.62	6.12	Pa-227	A	38.3	M 30	84.80(0.86)	110.05(1.24)	
64.9	34.	Br-73	EC	3.4	M 20	335.70(11.6)	699.50(13.6)	
65.4	*100.	Os-179	EC	6.5	M 60	32.30(* 16.7 U)	218.60(* 16.7)	
65.86	5.8	W-185	IT	1.67	M 14	131.55(4.33)	173.68(3.26)	
66.1	3.84	Ta-185	B-	49	M 27	173.91(22.5)	177.59(25.6)	
66.3	2.12	Ba-127	B+	12.7	M 63	114.80(9.26)	180.80(12.4)	
66.52	57.	Rb-77	EC	3.75	M 93	178.78(22.2)	393.37(9.75)	
66.7	62.9	Hg-188	EC	3.25	M 74	82.70(2.6)	190.10(4.4)	
67.07	2.59	Se-73	EC	39.8	M 66	84.00(2.03)	253.70(2.36)	
67.25	0.19	Ho-158	IT	27	M 1			

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 67.6 - 84.8 (KeV)		
						Other two intense gamma-rays		
67.6	*100. U	La-125	B+	76	S	2	43.60(* 10.3 U)	
67.6	9.57	U-242	B-	16.8	M	14	55.58(3.9)	585.00(1.92)
67.8	7.08	Eu-159	B-	18.7	M	61	71.40(3.96)	78.60(3.36)
68.	1.E-03	At-206	A	30.0	M	1		
68.17	37.	Eu-154	IT	46.0	M	16	35.82(12.9)	100.88(25.2)
68.5	--	Cs-121	IT	122	S	1		
68.8	55.	Mo-104	B-	60	S	36	36.30(14.)	69.70(17.8)
68.86	6.32	Yb-165	EC	9.9	M	167	80.11(33.7)	1090.28(3.05)
69.7	17.8	Mo-104	B-	60	S	36	36.30(14.)	68.80(55.)
70.	35.5	Sn-130	B-	3.72	M	15	192.50(70.3)	779.80(58.6)
70.43	0.78	Pd-111	B+	23.4	M	82	580.00(0.84)	1459.00(0.56)
71.1	0.21	Lu-171	IT	79	S	1		
71.4	3.96	Eu-159	B-	18.7	M	61	67.80(7.08)	78.60(3.36)
71.7	0.56	Fr-212	A	20.0	M	7	84.10(0.65)	124.25(2.02)
72.	--	Po-199	IT	4.2	M	2	238.00(--)	
72.6	9.0	Xe-120	B+	40	M	205	25.10(29.7)	178.10(6.75)
73.39	1.98	Ho-164	EC	29	M	3		
73.92	--	Pa-234	IT	1.17	M	2	10.00(--)	
74.	10.4	Pr-133	EC	6.5	M	55	134.30(14.)	315.60(9.8)
74.2	54.	Yb-158	EC	1.57	M	1		
74.66	48.1	U-239	B-	23.45	M	117	43.53(4.14)	
74.7	-- U	Sm-138	EC	3.1	M	2	53.60(-- U)	
75.1	27.7	Sn-128	B-	59.1	M	11	482.30(59.)	557.30(16.5)
75.5	17.3	Nd-137	EC	38.5	M	175	306.60(10.1)	580.60(13.)
76.06	18.5	Sb-122	IT	4.21	M	3	61.41(53.6)	
77.	0.5	Sn-113	IT	21.4	M	1		
77.53	2.08	Rh-104	IT	4.34	M	4	51.42(48.5)	97.11(2.99)
77.6	*100.	Ba-125	B+	3.5	M	8	85.40(* 82.)	140.90(* 86.)
78.	* 63.3	Hg-189	EC	7.6+8.7	M	271	321.00(* 100.)	565.50(* 47.6)
78.2	34.1	Yb-161	EC	4.2	M	70	599.88(25.9)	631.45(13.9)
78.6	3.36	Eu-159	B-	18.7	M	61	67.80(7.08)	71.40(3.96)
78.76	41.	Hf-166	EC	6.77	M	18	341.82(4.67)	407.91(4.51)
79.05	1.32	Ba-131	IT	14.6	M	2	108.45(55.)	
79.2	24.7	Y-81	EC	72.4	S	11	124.16(41.1)	408.36(15.3)
79.49	11.1	Eu-158	B-	45.9	M	132	944.15(25.)	977.14(13.6)
79.65	7.14	Re-177	EC	14.0	M	26	84.30(6.3 U)	196.85(8.4)
79.65	9.12	Fr-223	B-	21.8	M	138	50.10(36.)	234.80(3.0)
79.8	71.	Mo-88	B+	8.0	M	4	130.90(60. U)	170.50(100.)
79.9	0.37	Cs-138	IT	2.90	M	1		
80.11	33.7	Yb-165	EC	9.9	M	167	68.86(6.32)	1090.28(3.05)
80.45	34.6	Cs-130	IT	3.46	M	7	51.18(7.03)	148.35(5.09)
80.7	8.02	Ho-162	EC	15.0	M	20	1319.60(3.82)	1372.80(0.81)
81.96	14.8	Pm-154	B-	2.68	M	56	184.68(30.)	1440.24(12.)
82.64	13.7	Pr-135	EC	24	M	51	213.45(13.)	296.12(24.1)
82.7	2.6	Hg-188	EC	3.25	M	74	66.70(62.9)	190.10(4.4)
83.	95.3	Cr-53	B-	5.94	M	2	26.00(44.6)	
83.4	*100.	Mo-103	B-	67.5	S	43	45.80(* 56.6)	423.91(* 69.)
83.5	47.	Cd-104	EC	57.7	M	9	559.00(6.34)	709.30(19.5)
83.55	0.57	Ac-223	A	2.10	M	54	98.58(0.89)	191.30(0.58)
83.8	67.	Te-114	EC	15.2	M	48	90.28(100.)	726.60(43.)
84.	2.03	Se-73	EC	39.8	M	66	67.07(2.59)	253.70(2.36)
84.1	0.65	Fr-212	A	20.0	M	7	71.70(0.56)	124.25(2.02)
84.3	6.3 U	Re-177	EC	14.0	M	26	79.65(7.14)	196.85(8.4)
84.4	9.45	Tm-161	EC	33	M	232	45.54(25.)	1648.10(19.5)
84.6	69.7	Cu-68	IT	3.75	M	5	111.30(17.2)	525.90(73.3)
84.7	42.	Sn-130	B-	1.7	M	20	144.90(100.)	899.20(49.)
84.8	*100.	Os-177	EC	2.8	M	63	125.40(* 63.2 U)	195.80(* 61.3)
84.8	0.86	Pa-227	A	38.3	M	30	64.62(6.12)	110.05(1.24)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 84.8 - 107.9 (KeV)	
						Other two intense gamma-rays	
						Energy (Intensity)	Energy (Intensity)
84.84	99.2	Tm-159	EC	9.15	M	130	38.35(*100.)
84.9	4.84	Pb-197	IT	43	M	2	234.40(0.29)
85.4	82.	Ba-125	B+	3.5	M	8	77.60(*100.)
86.26	5.18	Rb- 81	IT	30.5	M	1	
86.48	2.7	Th-233	B-	22.3	M	131	29.36(2.5)
86.79	3.44	As- 69	EC	15.23	M	77	145.96(4.96)
87.5	5.62	Ir-183	EC	57	M	266	228.60(6.86)
88.25	2.72	Sb-113	EC	6.67	M	70	332.41(14.8)
88.43	1.76	U-229	EC	58	M	20	122.51(2.0)
89.7	31.	Kr- 74	EC	11.50	M	58	202.98(18.)
90.03	38.7	Fr-227	B-	2.47	M	123	64.27(14.5)
90.28	100.	Te-114	EC	15.2	M	48	83.80(67.)
90.66	53.2	Cr- 49	B+	42.3	M	22	62.29(16.4)
91.33	2.38	Ru-108	B-	4.55	M	5	150.46(7.84)
91.39	2.31	Ho-164	B-	29	M	1	
91.41	6.7	Tm-164	EC	2.0	M	168	768.91(1.25)
92.43	5.15	Re-188	IT	18.6	M	7	63.60(21.6)
93.	1.66	U-228	A	9.1	M	4	187.00(0.29)
93.13	6.58	Ta-178	EC	9.31	M	32	1341.00(1.03)
93.18	6.24	Lu-178	B-	28.4	M	38	1309.91(1.46)
94.	0.14	Ho-164	IT	37.5	M	4	37.34(11.4)
94.5	*100.	Ba-123	B+	2.7	M	9	30.60(* 56.)
95.	< 0.06	At-202	A	181	S	1	
95.26	17.4	Ta-172	EC	36.8	M	111	214.07(54.)
95.5	9.35	As- 79	B-	9.01	M	11	364.50(1.06)
95.73	9.5	Se- 79	IT	3.91	M	1	
95.74	3.25	Pd-113	B-	93	S	33	643.70(3.0)
97.11	2.99	Rh-104	IT	4.34	M	4	51.42(48.3)
97.3	14.5	Cs-123	B+	5.87	M	30	307.10(3.28)
97.7	80.	Ra-232	B-	250	S	6	470.90(100.)
97.78	6.65	Nb- 99	B-	2.6	M	143	253.50(3.7)
98.1	47.2	Cd-101	EC	1.2	M	103	1258.90(6.21)
98.58	0.89	Ac-223	A	2.10	M	54	83.55(0.57)
98.9	* 70.	Ho-158	EC	11+27	M	244	218.20(*100.)
100.	95.	Xe-119	B+	5.8	M	19	231.80(100.)
100.32	* 95.	Lu-161	EC	77	S	13	43.70(* 70.)
100.4	*100.	Er-174	B-	3.3	M	12	708.40(* 93.)
100.8	23.	Dy-149	EC	4.23	M	56	789.50(15.)
100.8	21.	Ta-170	EC	6.76	M	23	221.20(15.7)
100.88	25.2	Eu-154	IT	46.0	M	16	35.82(12.9)
102.	17.5	Tm-162	EC	21.70	M	334	227.52(7.1)
102.31	13.9	Gd-161	B-	3.66	M	126	314.92(22.7)
102.38	12.6	Lu-166	EC	1.41	M	41	228.12(15.2)
103.01	12.7	Se- 81	IT	57.28	M	1	
103.3	8.0	Rb- 78	IT	5.74	M	2	47.10(1.05U)
103.53	22.2	Re-180	EC	2.44	M	99	825.36(9.9)
104.32	74.6	Sr-155	B-	22.1	M	60	141.41(2.01)
104.5	*100.	Tm-177	B-	85	S	7	44.50(* 10.)
104.6	0.34	Ra-213	A	2.74	M	3	110.10(6.4)
105.	21.8	Sr- 79	EC	2.25	M	14	39.41(28.)
105.87	13.6	Br- 77	IT	4.28	M	1	
105.9	23.	Re-178	EC	13.2	M	114	237.30(44.6)
105.96	10.8	Re-188	IT	18.6	M	7	63.60(21.6)
106.16	22.5	Yb-167	EC	17.5	M	133	113.32(55.3)
106.75	13.9	Pd- 98	EC	17.7	M	16	112.00(58.)
106.92	--	Rb- 90	IT	258	S	1	
107.6	100.	Ir-181	EC	4.90	M	33	318.90(46.)
107.94	14.1	Tc-105	B-	7.63	M	120	143.26(15.7)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	108.1 - 127.1 (KeV)	
							Other two intense gamma-rays	Energy(Intensity)
108.16	3.01	Dy-165	IT	1.257	M	1	79.05(1.32)	
108.45	55.	Ba-131	IT	14.6	M	2	365.80(16.4)	418.40(18.2)
108.45	23.1	La-131	EC	59	M	59	138.46(11.)	165.08(9.9)
108.51	9.5	Pr-149	B-	2.26	M	87	177.50(40.3)	233.60(29.6)
108.6	35.	Pm-137	EC	2.4	M	98	161.80(83.7)	366.00(92. U)
108.8	*100.	Ho-153	EC	9.3	M	13	40.20(18.9)	574.80(10.4)
108.9	31.5	Nd-136	EC	50.65	M	48	240.60(*100.)	
108.9	* 54.	Re-176	EC	5.7	M	2		
110.05	1.24	Pa-227	A	38.3	M	30	64.62(6.12)	84.80(0.86)
110.1	6.4	Ra-213	A	2.74	M	3	104.60(0.34)	214.70(0.96)
110.12	*100.	Er-155	EC	5.3	M	48	234.00(* 40.)	241.50(* 65.)
110.5	16.9	La-129	B+	11.6	M	115	278.60(24.7)	457.00(8.03)
110.78	*100.	Lu-161	EC	77	S	13	43.70(* 70.)	100.32(* 95.)
110.8	4.2	Th-236	B-	37.5	M	19	196.00(0.69)	646.60(0.72)
111.09	12.5	Fr-222	B-	14.2	M	10	206.10(51.)	241.80(1.89)
111.12	3.29	Th-226	A	30.9	M	10	131.02(0.28)	242.12(0.87)
111.3	17.2	Cu-68	IT	3.75	M	5	84.60(69.7)	525.90(73.3)
112.	58.	Pd-98	EC	17.7	M	16	106.75(13.9)	662.20(19.7)
112.	8.59	Cs-125	B+	45	M	40	412.00(5.25)	526.00(24.5)
112.1	63.	Hg-186	EC	1.38	M	84	191.60(3.72)	251.50(54.8)
112.2	--	Bi-194	A	125	S	3	63.90(--)	272.40(--)
112.4	* 49.	Lu-168	EC	5.5	M	57	228.60(70.)	1483.60(72.)
112.4	19.8	Ro-174	EC	2.40	M	13	243.70(36.6)	1002.90(5.62)
112.5	100. U	Zr-84	B+	25.9	M	9	44.90(48. U)	372.90(41. U)
113.32	55.3	Yb-167	EC	17.5	M	133	106.16(22.5)	176.23(20.5)
114.8	9.26	Ba-127	B+	12.7	M	63	66.30(2.12)	180.80(12.4)
115.09	54.	Ga-65	EC	15.2	M	89	61.20(11.4)	153.00(8.86)
116.8	43.4	Nd-151	B-	12.44	M	509	255.68(16.4)	1180.89(14.8)
117.	--	Xe-118	B+	6	M	2	53.00(--)	
117.21	84.3	Tl-209	B-	2.20	M	5	465.13(96.9)	1567.09(99.8)
118.09	28.3	Os-181	EC	2.7	M	12	144.84(100.)	1118.80(4.2 U)
118.7	33.6	Yb-162	EC	18.8?	M	46	163.35(40.)	576.10(3.24)
120.1	0.32	W-179	IT	6.4	M	3	221.50(8.57)	
120.6	100.	Lu-165	EC	10.74	M	139	132.49(100.)	174.25(47.)
121.01	36.2	Ho-159	EC	33.05	M	111	45.21(39.8 U)	46.00(71.3 U)
121.4	10.1	Er-157	EC	18.65	M	122	53.05(- 24.1)	391.32(14.2)
121.8	45.1	Pm-152	B-	7.52	M	68	244.70(78.4)	340.40(31.3)
121.8	15.7	Pm-152	B-	4.1	M	74	841.40(2.17)	960.90(1.92)
122.06	13.9	Mn-57	B-	85.4	S	23	14.41(10.6)	692.00(5.5)
122.1	*100.	Hf-164	EC	111	S	18	153.30(* 47.4)	313.70(* 21.8)
122.51	2.0	U-229	EC	58	M	20	88.43(1.76)	198.83(1.76 U)
123.21	1.98	Yb-163	EC	11.05	M	179	63.62(6.46)	860.28(10.1)
123.27	100.	Lu-164	EC	3.14	M	54	262.22(31.9)	740.52(36.)
123.5	* 69.	Ba-123	B+	2.7	M	9	30.60(* 56.)	94.50(* 100.)
123.6	3.86	Hf-169	EC	3.24	M	10	369.50(9.74)	492.86(84.)
123.9	35.7	Ta-168	EC	2.44	M	26	261.50(27.4)	750.20(9.32)
124.16	41.1	Y-81	EC	72.4	S	11	79.23(24.7)	408.36(15.3)
124.25	2.02	Fr-212	A	20.0	M	7	71.70(0.56)	84.10(0.65)
124.45	100.	Ti-52	B-	1.7	M	2	17.00(18.)	
124.6	69.	Xe-127	IT	69.2	S	2	172.50(37.9)	
124.9	65.	Pd-96	EC	122	S	19	499.70(17.9)	762.30(50.)
125.4	* 63.2 U	Os-177	EC	2.8	M	63	84.80(* 100.)	195.80(* 61.3)
125.7	35.	Tm-160	EC	9.4	M	44	264.00(9.4)	728.50(12.8)
125.8	6.48	Tm-160	EC	74.5	S	14	264.10(9.0)	375.80(2.43)
126.	2.E-03	Cr-55	B-	3.497	M	7	1528.00(0.04)	2252.50(3.E-03)
126.2	5.3	Os-196	B-	34.9	M	10	315.40(2.5)	407.90(5.9)
126.7	4.49	Pd-114	B-	2.42	M	5	232.00(4.9)	358.50(1.63)
127.1	34.6	Ir-182	EC	15	M	68	236.30(9.43U)	273.00(44.9)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy 127.2 - 152.9 (KeV)	
							Other two intense gamma-rays	Energy (Intensity)
127.23	2.86	Tc-101	B-	14.2	M	30	306.83(88.)	545.06(5.98)
127.3	* 56.	Pm-153	B-	5.4	M	13	28.30(* 32.)	35.90(* 100.)
128.2	10.7	Ge- 64	EC	63.7	S	8	427.00(37.4)	667.10(16.9)
130.2	6.6 U	W-173	EC	7.97	M	10	174.90(5.0 U)	457.60(24.1 U)
130.9	60. U	Mo- 88	B+	8.0	M	4	79.80(71.)	170.50(100.)
131.02	0.28	Th-226	A	30.9	M	10	111.12(3.29)	242.12(0.87)
131.47	41.3	In-105	EC	5.07	M	150	260.27(15.7)	604.32(9.21)
131.55	4.33	W-185	IT	1.67	M	14	65.86(5.8)	173.68(3.26)
131.61	16.3	Fr-224	B-	3.30	M	117	215.99(33.1)	836.90(9.78)
131.8	* 95.	Ir-180	EC	1.5	M	16	276.20(* 100.)	698.70(* 22.5 U)
132.49	100.	Lu-165	EC	10.74	M	139	120.60(100.)	174.25(47.)
132.5	67.	Kr- 75	EC	4.3	M	43	153.20(8.04)	154.50(20.8)
132.8	10.9	Xe-121	B+	40.1	M	250	252.70(12.6)	445.20(7.75)
133.1	0.86	Np-241	B-	13.9	M	17	175.10(3.1)	518.80(~ 0.4)
133.5	0.81	Er-156	EC	19.5	M	6	29.90(3.11)	35.30(18.3)
134.1	--	Bi-195	EC	183	S	1		
134.3	14.	Pr-133	EC	6.5	M	55	74.00(10.4)	315.60(9.8)
134.6	65.5	Ru- 92	EC	3.65	M	54	213.81(96.)	259.27(92.2)
134.8	27.5	Nb- 87	B+	3.7	M	2	201.00(97.)	
135.3	80.	Pt-185	EC	70.9+33.0M	117	197.40(74.)	229.60(100.)	
135.4	23.	Ag-117	B-	72.8	S	84	157.10(7.89)	337.70(10.3)
135.8	49.4	La-132	IT	24.3	M	3		
136.	72.7	Pd- 99	B+	21.4	M	109	263.60(15.2)	673.40(6.91)
136.	100. U	Pt-182	EC	2.6	M	4	146.00(15.4 U)	210.00(12. U)
136.3	4.32	Ho-155	EC	4.8	M	188	45.38(4.86)	240.19(10.8)
137.8	51.1	Ho-156	EC	56	M	215	266.55(54.7)	366.44(10.7)
138.46	11.	Pr-149	B-	2.26	M	87	108.51(9.5)	165.08(9.9)
139.9	3.8	Hf-167	EC	2.05	M	3	175.40(6.0)	315.24(100.)
140.	5.0	Sm-140	EC	14.82	M	120	225.40(10.)	275.50(* 10.)
140.35	9.32	Yb-160	EC	4.8	M	29	173.74(42.)	215.78(20.2)
140.9	* 86.	Ba-125	B+	3.5	M	8	77.60(* 100.)	85.40(* 82.)
141.41	2.01	Sm-155	B-	22.1	M	60	104.32(74.6)	245.73(3.73)
142.6	68.	Hg-190	EC	20.0	M	25	154.70(2.52)	171.50(4.76)
143.17	0.01	Rn-209	A	28.5	M	5	154.19(7.E-03)	384.34(2.E-03)
143.26	15.7	Tc-105	B-	7.63	M	120	107.94(14.1)	321.50(11.1)
143.41	13.9	Rb- 79	EC	22.9	M	253	182.77(19.2)	688.10(23.1)
143.5	21.7	Zn- 74	B-	95.6	S	24	49.40(33.4)	57.10(70.3)
144.84	100.	Os-181	EC	2.7	M	12	118.09(28.3)	1118.80(4.2 U)
144.9	100.	Sn-130	B-	1.7	M	20	84.70(42.)	899.20(49.)
145.44	--	Nd-141	EC	62.0	S	3	972.14(--)	1117.60(--)
145.96	4.96	As- 69	EC	15.23	M	77	86.79(3.44)	232.73(10.9)
146.	15.4 U	Pt-182	EC	2.6	M	4	136.00(100. U)	210.00(12. U)
146.36	40.5	Cl- 34	IT	32.00	M	1		
146.78	37.2	Ta-182	IT	15.84	M	6	171.59(49.)	184.95(24.5)
147.5	47.5	Se- 71	EC	4.74	M	86	830.33(9.74)	1095.26(9.83)
147.76	30.1	Sr- 81	EC	22.3	M	83	153.54(33.8)	443.34(17.5)
148.19	3.76	Mo-102	B-	11.3	M	8	211.66(3.8)	223.85(1.44)
148.35	5.09	Cs-130	IT	3.46	M	7	51.18(7.03)	80.45(34.6)
149.17	--	W-175	EC	34	M	7	166.69(--)	270.25(--)
149.72	68.9	Te-131	B-	25.0	M	79	452.32(18.2)	1146.96(4.96)
150.	--	Pt-201	B-	2.5	M	6	230.00(--)	1760.00(--)
150.06	4.54	Rn-221	B-	25	M	54	186.38(21.6)	216.92(2.59)
150.46	7.84	Ru-108	B-	4.55	M	5	91.33(2.38)	164.95(28.)
150.6	66.	Sb-132	B-	4.10	M	18	696.80(100.)	973.90(100.)
150.82	29.1	Cd-111	IT	48.6	M	2	245.40(94.)	
151.19	8.92	Pb-190	EC	1.2	M	24	598.30(8.03)	942.20(33.9)
151.3	--	Bi-194	A	92	S	1		
152.9	--	Bk-251	B-	56	M	2	177.80(--)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	152.9 -	176.1 (KeV)
						Energy(Intensity)	Other two intense gamma-rays	Energy(Intensity)
152.93	30.3	Cr- 49	B+	42.3	M	22	62.29(16.4)	90.64(53.2)
153.	8.86	Ga- 65	EC	15.2	M	89	61.20(11.4)	115.09(54.)
153.2	8.04	Kr- 75	EC	4.3	M	43	132.50(67.)	154.50(20.8)
153.3	* 47.4	Hf-164	EC	111	S	18	122.10(*100.)	313.70(* 21.8)
153.5	* 34.8 U	Ta-169	EC	4.9	M	19	28.80(*100.)	192.40(* 43.5 U)
153.5	25.4	Am-246	B-	39	M	15	205.00(36.)	679.00(53.)
153.54	33.8	Sr- 81	EC	22.3	M	83	147.76(30.1)	443.34(17.5)
153.8	0.24	Dy-165	B-	1.257	M	20	361.47(0.53)	515.47(1.53)
153.9	15.2	Cs-121	EC	155	S	67	239.60(7.73)	427.10(3.63)
154.19	7.E-03	Rn-209	A	28.5	M	5	143.17(0.01)	384.34(2.E-03)
154.48	70.7	Sb-111	EC	75	S	24	489.10(41.6)	1032.60(9.95)
154.5	20.8	Kr- 75	EC	4.3	M	43	132.50(67.)	153.20(8.04)
154.7	2.52	Hg-190	EC	20.0	M	25	142.60(68.)	171.50(4.76)
154.8	30.6	Pt-184	EC	17.3	M	132	192.00(26.6)	548.30(23.1)
156.4	13.2	In-112	IT	20.56	M	1		
157.1	7.89	Ag-117	B-	72.8	S	84	135.40(23.)	337.70(10.3)
157.2	* 68. U	Hf-168	EC	25.95	M	20	183.80(*100. U)	
157.6	39.	W -190	B-	30.0	M	2	162.10(11.)	
158.38	52.3	Hg-199	IT	42.6	M	5	374.10(13.8)	
158.6	87.	In-117	B-	43.2	M	4	552.90(100.)	
159.1	19.2	Np-242	B-	5.5	M	7	785.70(60.)	944.80(37.8)
159.59	16.5	Tb-152	IT	4.2	M	9	277.20(8.48)	283.29(59.7)
159.8	0.11	V - 47	B+	32.6	M	13	244.40(0.09)	1793.90(0.19)
160.33	85.6	Sn-123	B-	60.08	M	5		
161.8	* 83.7	Ho-153	EC	9.3	M	13	108.80(*100.)	366.00(* 92. U)
162.1	11.	W -190	B-	30.0	M	2	157.60(39.)	
163.08	100.	Lu-163	EC	238	S	53	54.00(88.)	396.34(63.)
163.2	58.	Nd-134	EC	8.5	M	28	216.80(12.4)	288.90(13.)
163.35	40.	Yb-162	EC	18.87	M	46	118.70(33.6)	576.10(3.24)
164.5	* 15.	Tb-149	EC	4.16	M	9	651.00(* 33.6 U)	796.00(*100.)
164.95	28.	Ru-108	B-	4.55	M	5	91.33(2.38)	150.46(7.84)
165.08	9.9	Pr-149	B-	2.26	M	87	108.51(9.5)	138.46(11.)
165.7	8.71U	Po-202	EC	44.7	M	25	316.00(14.3 U)	688.60(51. U)
166.14	* 100.	Yb-159	EC	1.40	M	13	177.19(* 20. U)	390.30(* 18. U)
166.4	59.	Au-189	EC	4.59	M	4	321.10(11.8)	
166.69	--	W -175	EC	34	M	7	149.17(--)	270.25(--)
166.82	100.	Lu-162	EC	1.37	M	26	631.87(26.6)	798.76(16.9)
167.01	84.3	G- 67	EC	18.9	M	56	911.20(3.09)	1472.80(4.9)
167.5	13.6	Pb-192	EC	3.5	M	15	608.20(17.9)	1195.40(47.)
168.86	25.4	Tb-164	B-	3.0	M	182	688.46(21.2)	754.77(23.3)
169.4	20.	Ce-131	EC	10	M	80	26.20(8.6)	414.20(10.6)
169.5	20.	Ba-124	EC	11.9	M	11	188.80(10.2)	1216.00(12.2)
170.5	100.	Mo- 88	B+	8.0	M	4	79.80(71.)	130.90(60. U)
170.69	0.8	Mg- 27	B-	9.462	M	3	843.76(71.8)	1014.44(28.)
171.28	0.12	Ag-111	B-	64.8	S	9	245.40(0.5)	620.10(0.12)
171.5	4.76	Hg-190	EC	20.0	M	25	142.60(68.)	154.70(2.52)
171.59	49.	Ta-182	IT	15.84	M	6	146.78(37.2)	184.95(24.5)
172.5	37.9	Xe-127	IT	69.2	S	2	124.60(69.)	
173.68	3.26	W -185	IT	1.67	M	14	65.86(5.8)	131.55(4.33)
173.74	42.	Yb-160	EC	4.8	M	29	140.35(9.32)	215.78(20.2)
173.91	22.5	Ta-185	B-	49	M	27	66.10(3.84)	177.59(25.6)
174.2	--	Sm-141	IT	22.6	M	2	1.58(--)	
174.25	47.	Lu-165	EC	10.74	M	139	120.60(100.)	132.49(100.)
174.28	74.4	K - 45	B-	17.3	M	51	1705.60(52.7)	2353.60(14.1)
174.9	5.0 U	W -173	EC	7.97	M	10	130.20(6.6 U)	457.60(24.1 U)
175.1	3.1	Np-241	B-	13.9	M	17	133.10(0.86)	518.80(0.4)
175.4	6.0	Hf-167	EC	2.05	M	3	139.90(3.8)	315.24(100.)
176.17	0.29	Ga- 70	B-	21.14	M	3	1039.20(0.65)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 176.2 - 197.6 (KeV)		
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
176.23	20.5	Yb-167	EC	17.5	M 133	106.16(* 22.5)	113.32(* 55.3)	
177.19	* 20.	U	Yb-159	EC	M 13	166.14(* 100.)	390.30(* 18. U)	
177.5	40.3	Pm-137	EC	2.4	M 98	108.60(* 35.)	233.60(* 29.6)	
177.59	25.6	Ta-185	B-	49	M 27	66.10(* 3.84)	173.91(* 22.5)	
177.8	--	Bk-251	B-	56	M 2	152.90(* --)		
178.03	7.61	Rh-109	B-	80	S 37	326.83(* 54.)	426.14(* 7.72)	
178.1	6.75	Xe-120	B+	40	M 205	25.10(* 29.7)	72.60(* 9.0)	
178.78	22.2	Rb- 77	EC	3.75	M 93	66.52(* 57.)	393.37(* 9.75)	
178.9	11.3	Gd-142	EC	70.2	S 60	284.44(* 6.19)	526.19(* 5.93)	
179.4	30.2	Cs-121	EC	122	S 100	196.00(* 24.1)	459.70(* 12.)	
180.	100.	Hf-165	EC	76	S 2	772.70(* 1.4)		
180.8	12.4	Ba-127	B+	12.7	M 63	66.30(* 2.12)	114.80(* 9.26)	
181.5	6.4	U	Re-173	EC	M 3	190.70(* 1.71U)	373.60(* 1.64U)	
181.57	23.8	Ho-170	B-	2.76	M 43	258.17(* 37.)	932.10(* 36.1)	
182.3	41.	Sb-130	B-	6.3	M 40	793.40(* 86.)	839.40(* 100.)	
182.6	66.	Ar- 44	B-	11.87	M 27	1703.40(* 56.5)	1886.00(* 31.4)	
182.77	19.2	Rb- 79	EC	22.9	M 253	143.41(* 13.9)	688.10(* 23.1)	
183.8	* 100.	U	Hf-168	EC	25.95	M 20	157.20(* 68. U)	
184.2	100.	W-171	EC	2.38	M 10	294.50(* 89.)	478.70(* 83.)	
184.68	30.	Pm-154	B-	2.68	M 56	81.96(* 14.8)	1440.24(* 12.)	
184.95	24.5	Ta-182	IT	15.84	M 6	146.78(* 37.2)	171.59(* 49.)	
186.38	21.6	Rn-221	B-	25	M 54	150.06(* 4.54)	216.92(* 2.59)	
186.68	48.4	Re-190	B-	3.1	M 29	223.81(* 26.)	557.95(* 28.2)	
187.	0.29	U-228	A	9.1	M 4	93.00(* 1.66)	246.00(* 0.39)	
187.2	3.35	No-255	A	3.1	M 2			
187.91	55.	In-103	EC	65	S 14	720.66(* 13.9)	739.95(* 10.1)	
188.8	10.2	Ba-124	EC	11.9	M 11	169.50(* 20.)	1216.00(* 12.2)	
188.9	? 55.9	Pd-109	IT	4.69	M 1			
189.11	47.3	Rh- 97	B+	44.3	M 85	421.52(* 12.)	2245.80(* 14.3)	
189.4	15.2	U	Sm-158	B-	M 5.51	324.50(* 10.6 U)	363.60(* 12.4 U)	
189.8	44.2	Tm-176	B-	1.9	M 86	381.80(* 23.1)	1069.20(* 33.)	
190.1	4.4	Hg-188	EC	3.25	M 74	66.70(* 62.9)	82.70(* 2.6)	
190.33	46.	Ba-141	B-	18.27	M 159	276.95(* 23.4)	304.19(* 25.4)	
190.7	1.71U	Re-173	EC	1.98	M 3	181.50(* 6.4 U)	373.60(* 1.64U)	
191.1	--	Bi-214	A	19.9	M 2	62.50(* --)		
191.3	0.58	Ac-223	A	2.10	M 54	83.55(* 0.57)	98.58(* 0.89)	
191.5	100.	Au-186	EC	10.7	M 64	298.60(* 41.)	765.40(* 17.)	
191.6	3.72	Hg-186	EC	1.38	M 84	112.10(* 63.)	251.50(* 54.8)	
191.7	15.4	Cs-138	B-	2.90	M 10	463.00(* 18.6)	1436.00(* 19.)	
191.92	18.8	Mo-101	B-	14.61	M 190	590.91(* 16.4)	1012.48(* 12.8)	
192.	26.6	Pt-184	EC	17.3	M 132	154.80(* 30.6)	548.30(* 23.1)	
192.14	62.	Tm-158	EC	4.02	M 191	335.08(* 16.8)	1149.83(* 7.56)	
192.4	* 43.5	U	Ta-169	EC	M 4.9	28.80(* 100.)	153.50(* 34.8 U)	
192.47	31.	U	Dy-168	B-	M 8.5	443.00(* 16.1 U)	486.70(* 22. U)	
192.5	70.3	Sn-130	B-	3.72	M 15	70.00(* 35.5)	779.80(* 58.5)	
192.8	46.6	Er-173	B-	1.4	M 13	199.20(* 48.)	895.20(* 53.8)	
193.41	6.88	Ho-157	EC	12.6	M 145	279.97(* 21.5)	341.16(* 16.6)	
193.67	1.61	Pm-141	EC	20.90	M 70	886.22(* 2.44)	1223.26(* 4.74)	
194.05	9.86	Ru-107	B-	3.75	M 120	462.61(* 3.66)	847.93(* 5.3)	
195.8	* 61.3	Os-177	EC	2.8	M 63	84.80(* 100.)	125.40(* 63.2 U)	
196.	24.1	Cs-121	EC	122	S 100	179.40(* 30.2)	459.70(* 12.)	
196.	0.69	Th-236	B-	37.5	M 19	110.80(* 4.2)	646.60(* 0.72)	
196.3	* 35.	Sm-157	B-	8.07	M 23	197.80(* 100.)	394.20(* 20.5)	
196.3	* 65.5	Hg-191	EC	49	M 10	224.70(* 60.)	252.40(* 100.)	
196.6	74.3	Sm-141	EC	22.6	M 47	431.80(* 40.4)	777.40(* 20.3)	
196.85	8.4	Re-177	EC	14.0	M 26	79.65(* 7.14)	84.30(* 6.3 U)	
197.4	74.	Pt-185	EC	70.9+33.0M	117	135.30(* 80.)	229.60(* 100.)	
197.6	* 80.	Bi-198	EC	11.85	M 11	562.40(* 79.)	1063.45(* 100.)	

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of 6	Energy 197.8 - 225.4 (keV)		
						Other two intense gamma-rays		Energy (Intensity)
197.8	*100.	Sm-157	B-	8.07	M	23	196.30(* 35.)	394.20(* 20.5)
197.9	50.	Ta-186	E-	10.5	M	91	214.90(* 42.3)	510.60(* 37.5)
198.82	27.7	Lu-168	EC	6.7	M	116	896.10(* 15.4)	979.20(* 20.)
198.83	1.76U	U-229	EC	58	M	20	88.43(* 1.76)	122.51(* 2.0)
199.2	48.	Er-173	B-	1.4	M	13	192.80(* 46.6)	895.20(* 53.8)
201.	100.	Nb- 87	B+	2.6	M	34	470.58(* 73.)	1066.80(* 37.)
201.	97.	Nb- 87	B+	3.7	M	2	134.80(* 27.5)	
202.98	18.	Kr- 74	EC	11.50	M	58	89.70(* 31.)	296.67(* 9.92)
203.3	14.	Fr-210	EC	3.18	M	9	643.80(* 40.)	817.20(* 24.)
203.75	2.2	Hg-205	B-	5.2	M	13		
203.8	16.2	Pb-194	EC	12.0	M	122	581.82(* 18.8)	1519.45(* 16.4)
204.09	51.7	Nd-135	EC	12.4	M	41	41.48(* 23.3)	441.10(* 14.9)
204.95	47.2	In-107	EC	32.4	M	156	320.94(* 10.2)	505.51(* 11.9)
205.	36.	Am-246	B-	39	M	15	153.50(* 25.4)	679.00(* 53.)
205.9	9.48	Er-159	EC	36	M	105	624.20(* 32.7)	649.10(* 22.9)
205.9	16.1	Lu-181	B-	3.5	M	20	574.80(* 15.4)	652.40(* 22.)
206.1	51.	Fr-222	B-	14.2	M	10	111.09(* 12.5)	241.80(* 1.89)
206.2	9.E-04	Cs-130	EC	3.46	M	5	470.80(* 5.E-03)	536.20(* 0.06)
208.1	--	Y- 86	IT	48	M	2	10.20(* --)	
208.15	14.6	Tm-164	EC	5.1	M	44	240.49(* 7.46)	315.00(* 9.6)
209.1	-- U	Ce-130	EC	25	M	8	219.60(* -- U)	307.30(* -- U)
210.	12. U	Pt-182	EC	2.6	M	4	136.00(* 100. U)	146.00(* 15.4 U)
210.47	22.3	Te-134	B-	41.8	M	26	277.95(* 20.9)	767.20(* 29.)
211.66	3.8	Mo-102	B-	11.3	M	8	148.19(* 3.76)	223.83(* 1.44)
212.8	4.45	Ag-115	B-	20.0	M	145	229.10(* 18.)	472.70(* 3.98)
213.19	3.6	Lu-167	EC	51.5	M	456	29.66(* 14.4)	239.22(* 8.57)
213.45	13.	Pr-135	EC	24	M	51	82.64(* 13.7)	296.12(* 24.1)
213.5	81.7	Lu-178	B-	23.1	M	8	325.30(* 94.1)	426.20(* 96.9)
213.81	96.	Ru- 92	EC	3.65	M	54	134.60(* 65.5)	259.27(* 92.2)
214.	11.5	Gd-163	B-	68	S	13	287.79(* 25.)	1562.10(* 9.0)
214.07	54.	Ta-172	EC	36.8	M	111	95.26(* 17.4)	1109.30(* 14.6)
214.2	-- U	Ta-167	EC	1.4	M	9	278.00(* -- U)	296.30(* -- U)
214.7	0.96	Ra-213	A	2.74	M	3	104.60(* 0.34)	110.10(* 6.4)
214.9	42.3	Ta-186	B-	10.5	M	91	197.90(* 50.)	510.60(* 37.5)
215.6	* 90.1 U	Tl-189	EC	1.4	M	5	317.50(* 100. U)	335.00(* 63.1 U)
215.61	29.5	Rb- 84	IT	20.26	M	3	248.02(* 60.2)	463.62(* 36.1)
215.78	20.2	Yb-160	EC	4.8	M	29	140.35(* 9.32)	173.74(* 42.)
215.9	*100.	Tl-191	EC	5.22	M	162	265.00(* 58.)	326.30(* 77.)
215.99	33.1	Fr-224	B-	3.30	M	117	131.61(* 16.3)	836.90(* 9.78)
216.8	12.4	Nd-134	EC	8.5	M	28	163.20(* 58.)	288.90(* 13.)
216.92	2.59	Rn-221	B-	25	M	54	150.06(* 4.54)	186.38(* 21.6)
218.19	11.6	Fr-221	A	4.9	M	11	410.70(* 0.14)	
218.2	*100.	Ho-158	EC	11.27	M	244	98.90(* 70.)	945.70(* 36.6)
218.23	20.8	Ce-146	B-	13.52	M	26	264.56(* 8.99)	316.74(* 56.2)
218.6	* 16.7	Os-179	EC	6.5	M	60	32.30(* 16.7 U)	65.40(* 100.)
218.9	18.1	Br- 74	EC	25.4	M	90	634.20(* 14.1)	634.80(* 64.1)
219.6	-- U	Ce-130	EC	25	M	8	209.10(* -- U)	307.30(* -- U)
220.95	20.1	Kr- 89	B-	3.15	M	332	586.03(* 16.6)	904.27(* 7.22)
221.2	15.7	Ta-170	EC	6.76	M	23	100.80(* 21.)	860.40(* 7.39)
221.2	17.7	Ac-231	B-	7.5	M	27	282.30(* 34.)	306.90(* 27.2)
221.3	10.	Xe-117	B+	61	S	43	28.50(* 37. U)	32.30(* 7.6 U)
221.5	8.57	W-179	IT	6.4	M	3	120.10(* 0.32)	
222.75	24.6	Pb-197	EC	43	M	73	385.85(* 73.6)	387.72(* 25.1)
223.81	26.	Re-190	B-	3.1	M	29	186.68(* 48.4)	557.95(* 28.2)
223.83	1.44	Mo-102	B-	11.3	M	8	148.19(* 3.76)	211.66(* 3.8)
224.7	* 60.	Hg-191	EC	49	M	10	196.30(* 65.5)	252.40(* 100.)
225.18	32.7	Se- 83	B-	22.3	M	98	356.70(* 70.)	510.06(* 42.7)
225.4	10.	Sm-140	EC	14.82	M	120	140.00(* 5.0)	225.50(* 10.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	225.5 -	253.2 (KeV)
						Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)
225.5	< 10.	Sm-140	EC	14.82	M	120	140.00(5.0)	225.40(10.)
226.	5.75	Am-247	B-	23.0	M	2	285.00(23.)	191.60(3.72)
227.52	7.1	Tm-162	EC	21.70	M	334	102.00(17.5)	798.68(8.38)
227.72	42.6	Fr-212	EC	20.0	M	18	1185.60(14.1)	1274.80(4.6)
228.12	15.2	Lu-166	EC	1.41	M	41	102.38(12.6)	285.07(11.)
228.12	77.3	Lu-166	EC	2.65	M	101	337.50(41.)	367.95(31.4)
228.6	70.	Lu-168	EC	5.5	M	57	112.40(49.)	1483.60(72.)
228.6	6.86	Ir-183	EC	57	M	266	87.50(5.62)	392.50(10.4)
229.1	18.	Ag-115	B-	20.0	M	145	212.80(4.45)	472.70(3.98)
229.6	100.	Pt-185	EC	70.9+33.0M		117	135.30(80.)	197.40(74.)
230.	--	Pt-201	B-	2.5	M	4	150.00(--)	1760.00(--)
230.4	= 35.7 U	Ce-131	EC	5	M	3	395.50(=100. U)	421.30(= 53.6 U)
231.8	100.	Xe-119	B+	5.8	M	19	100.00(95.)	461.50(91.)
232.	4.9	Pd-114	B-	2.42	M	5	126.70(4.49)	358.50(1.63)
232.73	10.9	As- 69	EC	15.23	M	77	86.79(3.44)	145.96(4.96)
233.4	100.	Hn-187	EC	2.4+1.9	M	75	240.30(33.)	376.30(38.)
233.6	29.6	Pm-137	EC	2.4	M	98	108.60(35.)	177.50(40.3)
234.	* 40.	Er-155	EC	5.3	M	48	110.12(=100.)	241.50(= 65.)
234.3	1.56	I - 134	B-	3.69	M	3	847.00(2.27)	884.00(2.27)
234.4	0.29	Pb-197	IT	43	M	2	84.90(4.84)	
234.8	3.0	Fr-223	B-	21.8	M	138	50.10(36.)	79.65(9.12)
235.4	99.9	Pu-233	EC	20.9	M	28	500.30(38.6)	534.80(90.1)
236.3	9.43U	Ir-182	EC	15	M	68	127.10(34.6)	273.00(44.9)
237.3	44.6	Re-178	EC	13.2	M	114	105.90(23.)	939.10(8.93)
238.	--	Po-199	IT	4.2	M	2	72.00(--)	
238.7	0.22	W - 179	EC	6.4	M	8	281.70(0.19)	288.90(0.03)
239.22	8.57	Lu-167	EC	51.5	M	456	29.66(14.4)	213.19(3.6)
239.6	7.73	Cs-121	EC	155	S	67	153.90(15.2)	427.10(3.63)
240.19	10.8	Ho-155	EC	48	M	188	45.38(4.86)	136.30(4.32)
240.3	33.	Hg-187	EC	2.4+1.9	M	75	233.40(100.)	376.30(56.)
240.49	7.46	Tm-164	EC	5.1	M	44	208.15(14.6)	315.00(9.6)
240.6	* 100.	Re-176	EC	5.7	M	2	108.90(= 54.)	
241.5	* 65.	Er-155	EC	5.3	M	48	110.12(=100.)	234.00(= 40.)
241.8	1.89	Fr-222	B-	14.2	M	10	111.09(12.5)	206.10(51.)
241.98	7.5	Pb-214	B-	26.8	M	29	295.21(18.5)	351.92(35.8)
242.12	0.87	Th-226	A	30.9	M	10	111.12(3.29)	131.02(0.28)
242.6	* 41.1	In-108	EC	58.0	M	117	632.90(=100.)	875.40(=100.)
243.	* 52.6	Au-185	EC	4.3+6.8	M	197	310.40(=100.)	331.80(= 37.9)
243.7	36.6	Re-174	EC	2.40	M	13	112.40(19.8)	1002.90(5.62)
244.4	0.09	V - 47	B+	32.6	M	13	159.80(0.11)	1793.90(0.19)
244.7	78.4	Pm-152	B-	7.52	M	68	121.80(45.1)	340.40(31.3)
245.4	0.5	Ag-111	B-	64.8	S	9	171.28(0.12)	620.10(0.12)
245.4	94.	Cd-111	IT	48.6	M	2	150.82(29.1)	
245.73	3.73	Sm-155	B-	22.1	M	60	104.32(74.6)	141.41(2.01)
246.	- 28.2	Po-199	EC	5.2	M	7	845.70(- 23.3)	880.20(- 17.9)
246.	5.06	Th-225	A	8.72	M	21	321.40(22.5)	359.00(4.05)
246.	0.39	U - 228	A	9.1	M	4	93.00(1.66)	187.00(0.29)
247.	20.	U - 227	A	1.1	M	6	259.00(3.0)	310.00(3.6)
248.02	60.2	Rb- 84	IT	20.26	M	3	215.61(29.5)	463.62(36.1)
250.1	21.8	Nd-152	B-	11.4	M	7	16.00(8.0)	278.50(32.)
250.33	46.3	Ci - 39	B-	55.6	M	22	1267.18(53.6)	1517.51(39.2)
251.05	5.02	Rn-208	EC	24.35	M	107	350.03(3.34U)	426.78(7.07)
251.5	54.8	Hg-186	EC	1.38	M	84	112.10(63.)	191.60(3.72)
252.4	* 100.	Hg-191	EC	49	M	10	196.30(65.5)	224.70(= 60.)
252.6	57.	Hg-191	EC	50.8	M	90	420.30(18.6)	578.70(17.6)
252.7	12.6	Xe-121	B+	40.1	M	250	132.80(10.9)	445.20(7.75)
252.8	* 100.	Ga- 75	B-	126	S	38	574.70(= 31.6)	885.40(= 11.1)
253.2	* 57.1	Sn-106	EC	2.10	M	12	386.50(=100.)	477.20(= 62.3)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	253.5 -	278.6 (KeV)
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
253.5	3.7	Nb- 99	B-	2.6	M 143	97.78(6.65)	2641.30(3.69)	
253.7	2.36	Se- 73	EC	39.8	M 66	67.07(2.59)	84.00(2.03)	
254.2	- 1.76	Rn-221	A	25	M 2	264.68(0.94)		
255.3	20.5	Ba-142	B-	10.6	M 90	895.20(13.9)	1204.30(14.2)	
255.68	16.4	Nd-151	B-	12.44	M 509	116.80(43.4)	1180.89(14.8)	
257.52	86.7	I -119	EC	19.1	M 185	320.53(2.17)	635.86(2.69)	
257.9	0.06	Pa-234	B-	1.17	M 124	766.36(0.21)	1001.03(0.59)	
258.	100.	W -189	B-	11.5	M 10	417.00(96. U)	550.00(28. U)	
258.17	37.	Ho-170	B-	2.76	M 43	181.57(23.8)	932.10(36.1)	
258.41	31.5	Ke-138	B-	14.08	M 101	434.56(20.3)	1768.26(16.7)	
258.7	1.36	Rh- 97	IT	44.3	M 1			
259.	3.0	U -227	A	1.1	M 6	247.00(20.)	310.00(3.6)	
259.27	92.2	Ru- 92	EC	3.65	M 54	134.69(65.5)	213.81(96.)	
259.33	27.9	Dy-167	B-	6.20	M 29	310.26(25.)	569.70(48.1)	
260.05	80.	Tb-162	B-	7.60	M 50	807.53(42.8)	888.20(38.7)	
260.1	0.05	Se- 81	B-	57.28	M 6	275.93(0.05)	767.10(6.E-04)	
260.27	15.7	In-105	EC	5.07	M 150	131.47(41.3)	604.12(9.21)	
261.01	52.6	Ag-101	EC	11.1	M 76	588.00(9.99)	667.32(9.84)	
261.5	27.4	Ta-168	EC	2.44	M 26	123.90(35.7)	750.20(9.32)	
261.5	* 12. U	Po-203	EC	1.2	M 3	577.00(* 54.2 U)	904.90(* 100. U)	
262.22	31.9	Lu-164	EC	3.14	M 54	123.27(100.)	740.52(36.)	
263.6	15.2	Pd- 99	B+	21.4	M 109	136.00(72.7)	673.40(6.91)	
263.8	2.84U	Np-231	EC	48.8	M 16	348.40(3.63U)	370.90(9.8)	
264.	9.4	Tm-160	EC	9.4	M 44	125.70(35.)	728.50(12.8)	
264.1	9.0	Tm-160	EC	74.5	S 14	125.80(6.48)	375.80(2.43)	
264.46	65.	Ag- 99	B+	124	S 103	805.60(12.5)	832.29(13.5)	
264.56	8.99	Ce-146	B-	13.52	M 26	218.23(20.8)	316.74(56.2)	
264.68	0.94	Rn-221	A	25	M 2	254.20(1.76)		
264.9	77.	Rn-205	EC	2.83	M 6	464.50(19.3)	620.20(19.3)	
265.	* 58.	Tl-191	EC	5.22	M 162	215.90(* 100.)	326.30(* 77.)	
265.3	57.7	Pd- 97	B+	3.1	M 64	475.20(27.5)	792.70(14.3)	
265.63	* 100.	Au-188	EC	8.84	M 143	340.04(* 23.9)	605.30(* 16.3)	
265.7	86.	Tl-206	IT	3.74	M 17	453.30(92.9)	686.50(90.3)	
266.55	54.7	Ho-156	EC	56	M 215	137.80(51.1)	366.44(10.7)	
270.25	--	W -175	EC	34	M 7	149.17(--)	166.69(--)	
271.3	* 87.3	Tm-159	EC	9.15	M 130	38.35(* 100.)	84.84(* 99.2)	
271.7	* 5.5	Bi-215	B-	7.7	M 7	293.74(* 100.)	517.60(* 1.9)	
271.9	79.1	I -134	IT	3.69	M 3	44.40(10.3)		
271.94	84.3	Gd-143	EC	112	S 62	588.00(15.7)	798.89(10.7)	
272.4	--	Bi-194	A	125	S 3	63.90(--)	112.20(--)	
272.69	45.5	Sn-108	EC	10.30	M 21	396.34(64.3)	669.16(22.6)	
272.7	4.73	Po-201	EC	8.9	M 4	412.40(25.6)	967.00(57.)	
272.73	85.8	Tm-174	B-	5.4	M 43	366.40(92.2)	991.84(87.)	
273.	44.9	Ir-182	EC	15	M 68	127.10(34.6)	236.30(9.43U)	
273.4	10.9	Zn- 60	EC	2.38	M 7	61.40(25.6)	670.30(64.)	
273.7	36.5	Sr-139	EC	2.57	M 79	306.70(28.5)	596.30(8.03)	
274.4	20.4	I -117	B+	2.22	M 31	325.80(75.)	661.50(5.1)	
275.	--	Bi-212	B-	25.0	M 5	404.00(--)	727.00(--)	
275.93	0.05	Se- 81	B-	57.28	M 6	260.10(0.05)	767.10(6.E-04)	
275.93	0.67	Se- 81	B-	18.45	M 12	290.04(0.55)	828.27(0.28)	
276.2	* 100.	Ir-180	EC	1.5	M 16	131.80(* 95.)	698.70(* 22.5 U)	
276.95	23.4	Ba-141	B-	18.27	M 159	190.33(46.)	304.19(25.4)	
277.2	8.48	Tb-152	IT	4.2	M 9	159.59(16.5)	283.29(59.7)	
277.3	78.4	Hf-177	IT	51.4	M 10	295.10(72.3)	326.70(67.7)	
277.95	20.9	Tc-134	B-	41.8	M 26	210.47(22.3)	767.20(29.)	
278.	-- U	Ta-167	EC	1.4	M 9	214.20(-- U)	296.30(-- U)	
278.5	32.	Nd-152	B-	11.4	M 7	36.00(8.0)	250.10(21.8)	
278.6	24.7	La-129	B+	11.6	M 115	110.50(16.9)	457.00(8.03)	

Energy 279.9 - 312.1 (KeV)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Other two intense gamma-rays	
						Energy (Intensity)	Energy (Intensity)
279.97	21.5	Ho-157	EC	12.6	M 145	193.41(6.88)	341.16(16.6)
280.3	73.2	Bi-194	EC	92+125	S 38	575.00(97.3)	965.00(99.2)
281.	6.8	Fr-211	EC	3.10	M 7	540.00(20.)	918.00(11.)
281.7	0.19	W-179	EC	6.4	M 8	238.70(0.22)	288.90(0.03)
282.3	34.	Ac-231	B-	7.5	M 27	221.20(17.7)	306.90(27.2)
283.29	59.7	Tb-152	IT	4.2	M 9	159.59(16.5)	277.20(8.48)
284.	-- U	I-115	B+	1.3	M 4	460.00(-- U)	709.00(-- U)
284.1	87.2	La-128	B+	5.0	M 78	479.31(53.5)	643.60(14.7)
284.44	6.19	Gd-142	EC	70.2	S 60	178.90(11.3)	526.19(5.95)
285.	23.	Am-247	B-	23.0	M 2	226.00(5.75)	
285.07	11.	Lu-166	EC	1.41	M 41	102.38(12.6)	228.12(15.2)
285.8	7.37	La-132	EC	24.3	M 17	464.55(22.3)	663.07(11.6)
287.	--	Np-243	B-	1.8	M 1		
287.79	25.	Gd-163	B-	68	S 13	214.00(11.5)	1562.10(9.0)
288.9	13.	Nd-134	EC	8.5	M 28	163.20(58.)	216.80(12.4)
288.9	0.03	W-179	EC	6.4	M 8	238.70(0.22)	281.70(0.19)
289.97	27.	Re-179	EC	19.5	M 182	430.23(27.6)	1680.26(12.9)
290.04	0.55	Se-81	B-	18.45	M 12	275.93(0.67)	828.27(0.28)
292.8	0.43	Bi-213	B-	45.59	M 10	440.46(26.1)	807.36(0.29)
292.9	36.8	Cd-119	B-	2.69	M 82	343.00(16.9)	1609.70(10.9)
293.74	+100.	Bi-215	B-	7.7	M 7	271.70(5.5)	517.60(1.9)
294.5	89.	W-171	EC	2.38	M 10	184.20(100.)	478.70(83.)
295.1	72.3	Hf-177	IT	51.4	M 10	277.30(78.4)	326.70(67.7)
295.21	18.5	Pb-214	B-	26.8	M 29	241.98(7.5)	351.92(35.8)
295.8	99.9 U	Ho-153	EC	2.0	M 9	534.60(45. U)	638.30(29. U)
295.82	71.	Au-190	EC	42.8	M 165	301.82(23.4)	597.68(9.44)
295.96	--	Ir-192	B-	1.45	M 3	316.51(--)	612.47(--)
296.	79.2	Tl-210	B-	1.30	M 24	799.60(99.)	1316.00(20.8)
296.12	24.1	Pr-135	EC	24	M 51	82.64(13.7)	213.45(13.)
296.2.	86.	Te-112	EC	2.0	M 36	372.70(100.)	418.90(57.)
296.3'	-- U	Ta-167	EC	1.4	M 9	214.20(-- U)	278.00(-- U)
296.67	9.92	Kr-74	EC	11.50	M 58	89.70(31.)	202.98(18.)
297.9	22.2	Fe-61	B-	5.98	M 48	1027.42(42.7)	1205.07(43.6)
298.3	10.1	Ag-113	B-	68.7	S 22	316.10(17.6)	392.30(11.1)
298.6	41.	Au-186	EC	10.7	M 64	191.50(100.)	765.40(17.)
299.1	0.44	Np-233	EC	36.2	M 30	312.10(0.7)	546.90(0.28)
300.09	4.59	Ra-227	B-	42.2	M 63	27.37(15.7)	302.68(4.32)
301.7	61.	Pr-148	B-	2.27	M 50	1022.96(4.76)	1357.78(5.49)
301.74	95.	Pr-148	B-	2.0	M 8	450.80(50.)	697.52(40.)
301.82	23.4	Au-190	EC	42.8	M 165	295.82(71.)	597.68(9.44)
302.68	4.32	Ra-227	B-	42.2	M 63	27.37(15.7)	300.09(4.59)
302.77	66.	Rh-107	B-	21.7	M 39	312.21(4.8)	392.47(8.8)
304.19	25.4	Ba-141	B-	18.27	M 159	190.33(46.)	276.95(23.4)
304.8	31.	Hg-206	B-	8.15	M 3	344.30(0.65)	649.50(2.6)
306.25	0.03	Ag-105	EC	7.23	M 32	319.16(0.16)	442.25(0.02)
306.6	10.1	Nd-137	EC	38.5	M 175	75.50(17.3)	580.60(13.)
306.7	28.5	Sm-139	EC	2.57	M 79	273.70(36.5)	596.30(8.03)
306.83	88.	Tc-101	B-	14.2	M 30	127.23(2.86)	545.06(5.98)
306.9	0.15	Pr-140	EC	3.39	M 23	751.80(0.03)	1596.10(0.5)
306.9	27.2	Ac-231	B-	7.5	M 27	221.20(17.7)	282.30(34.)
307.1	3.28	Cs-123	B+	5.87	M 30	97.30(14.5)	596.60(8.26)
307.3	-- U	Ce-130	EC	25	M 8	209.10(-- U)	219.60(-- U)
310.	3.6	U-227	A	1.1	M 6	247.00(20.)	259.00(3.0)
310.26	25.	Dy-167	B-	6.20	M 29	259.33(27.9)	569.70(48.1)
310.4	+100.	Au-185	EC	4.3+6.8	M 197	243.00(* 52.6)	331.80(* 37.9)
311.39	2.2	In-119	IT	18.0	M 1		
312.07	62.4	Te-133	B-	12.5	M 207	407.63(27.1)	1333.21(10.7)
312.1	0.7	Np-233	EC	36.2	M 30	299.10(0.44)	546.90(0.28)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	312.2 -	337.5 (KeV)
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	Energy (Intensity)
312.21	4.8	Rh-107	B-	21.7	M	39	302.77(66.)	392.47(8.8)
313.6	0.48	In-121	IT	3.88	M	1		
313.7	* 21.8	Hf-164	EC	111	S	18	122.10(*100.)	153.30(* 47.4)
314.	88.7	Sb-128	B-	10.4	M	16	743.24(96.4)	753.90(96.4)
314.68	12.5	Pr-147	B-	13.4	M	98	577.91(8.04)	641.48(9.46)
314.92	22.7	Gd-161	B-	3.66	M	126	102.31(13.9)	360.94(60.1)
315.	9.6	Tm-164	EC	5.1	M	44	208.15(14.6)	240.49(7.46)
315.24	100.	Hf-167	EC	2.05	M	3	139.90(3.8)	175.40(6.0)
315.4	2.5	Os-196	B-	34.9	M	10	126.20(5.3)	407.90(5.9)
315.6	9.8	Pr-133	EC	6.5	M	55	74.00(10.4)	134.30(14.)
316.	14.3 U	Po-202	EC	44.7	M	25	165.70(8.71U)	688.60(51. U)
316.1	17.6	Ag-113	B-	68.7	S	22	298.30(10.1)	392.30(11.1)
316.51	--	Ir-192	B-	1.45	M	3	295.96(--)	612.47(--)
316.74	56.2	Ce-146	B-	13.52	M	26	218.23(20.8)	264.56(8.99)
317.03	4.87	Pt-199	B-	30.8	M	44	493.75(5.73)	542.98(14.8)
317.5	*100. U	Tl-189	EC	1.4	M	5	215.60(* 90.1 U)	335.00(* 63.1 U)
318.4	1.E-03	Zn-69	B-	56.4	M	2	871.70(3.E-04)	
318.9	46.	Ir-181	EC	4.90	M	33	107.60(100.)	1639.60(52.)
319.16	0.16	Ag-105	EC	7.23	M	32	306.25(0.03)	442.25(0.02)
320.08	93.1	Ti- 51	B-	5.76	M	3	608.55(1.18)	928.63(6.9)
320.53	2.17	I- 119	EC	19.1	M	185	257.52(86.7)	635.86(2.69)
320.94	10.2	In-107	EC	32.4	M	156	204.95(47.2)	505.51(11.9)
321.	*100.	Hg-189	EC	7.6+8.7	M	271	78.00(* 63.3)	565.50(* 47.6)
321.1	11.8	Au-189	EC	4.59	M	4	166.40(59.)	
321.4	22.5	Th-225	A	8.72	M	21	246.00(5.06)	359.00(4.05)
321.5	11.1	Tc-105	B-	7.63	M	120	107.94(14.1)	143.26(15.7)
322.4	*100.	Cs-120	B+	60.6	S	117	473.50(* 30.3)	553.40(* 19.1)
323.81	0.17	Bi-213	A	45.59	M	3	544.90(0.02)	868.00(0.01)
324.37	*100.	Tl-193	EC	21.6	M	50	676.10(* 48.) U)	1044.70(* 59.) U)
324.5	* 10.6 U	Sr-158	B-	5.51	M	27	189.40(15.2 U)	363.60(12.4 U)
324.5	38.	Rn-206	EC	5.67	M	31	386.60(23.9)	497.70(39.5)
325.3	94.1	Lu-178	B-	23.1	M	8	213.50(81.7)	426.20(96.9)
325.4	*100.	Pr-132	EC	1.6	M	20	496.90(* 25.)	822.40(* 17.3)
325.8	75.	I- 117	B+	2.22	M	31	274.40(20.4)	661.50(5.1)
326.3	* 77.	Tl-191	EC	5.22	M	162	215.90(* 100.)	265.00(* 58.)
326.7	67.7	Hf-177	IT	51.4	M	10	277.30(78.4)	295.10(72.3)
326.83	54.	Rh-109	B-	80	S	37	178.03(7.61)	426.14(7.72)
327.18	7.01	Sb-114	B+	3.49	M	122	887.57(17.4)	1299.92(98.7)
327.3	52.	No-232	EC	14.7	M	28	819.50(33.3)	867.20(24.4)
328.68	9.5 U	W-174	EC	31	M	30	35.42(14.1 U)	428.83(12.7 U)
329.3	* 79.1	Tc- 92	EC	4.25	M	22	773.00(* 99.)	1509.60(* 100.)
329.5	6.21	Gd-145	EC	85	S	3	386.60(5.7)	716.00(1.6)
330.9	78.	Sb-130	B-	39.5	M	59	793.40(100.)	839.40(100.)
331.1	93.5	Cs-122	B+	4.5	M	61	497.10(79.5)	638.50(62.6)
331.8	* 37.9	Au-185	EC	4.3+6.8	M	197	243.00(* 52.6)	310.40(* 100.)
331.9	99.6	Sr-125	B-	9.52	M	26		
332.41	14.8	Sb-113	EC	6.67	M	70	88.25(2.72)	497.96(80.)
333.3	*100.	Gd-144	EC	4.5	M	67	629.50(* 32.4)	2432.60(* 94.8)
333.7	100. U	Tl-189	EC	2.3	M	5	451.00(49.) U)	942.20(69.) U)
334.27	7.17	Tc-133	IT	55.4	M	1		
334.6	45. U	Ho-153	EC	2.0	M	9	295.80(99.9 U)	638.30(29.) U)
334.6	93.9	Ho-154	EC	3.25	M	32	412.40(78.9)	477.10(55.4)
334.6	84.4	Ho-154	EC	11.8	M	64	412.50(15.)	873.40(12.5)
335.	* 63.1 U	Tl-189	EC	1.4	M	5	215.60(* 90.1 U)	317.50(* 100.) U)
335.08	16.8	Tm-158	EC	4.02	M	191	192.14(62.)	1149.83(7.56)
335.7	11.6	Br- 73	EC	3.4	M	20	64.90(34.)	699.50(13.6)
337.45	14.5	Rn-209	EC	28.5	M	200	408.32(50.3)	745.78(22.8)
337.5	41.	Lu-166	EC	2.65	M	101	228.12(77.3)	367.95(31.4)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy 337.7 - 375.4 (KeV)	
							Other two intense gamma-rays	Energy (Intensity)
337.7	10.3	Ag-117	B-	72.8	S	84	135.40(23.)	157.10(7.89)
339.3	8.02	Cu- 59	EC	81.5	S	24	878.00(11.8)	1301.50(14.6)
340.	--	La-126	B+	1.0	M	4	460.00(--)	625.00(--)
340.04	* 23.9	Au-188	EC	8.84	M	143	265.63(*100.)	605.30(* 16.3)
340.4	31.3	Pm-152	B-	7.52	M	68	121.80(45.1)	244.70(78.4)
341.16	16.6	Ho-157	EC	12.6	M	145	193.41(6.88)	279.97(21.5)
341.82	4.67	Hf-166	EC	6.77	M	18	78.76(41.)	407.91(4.51)
343.	16.9	Cd-119	B-	2.69	M	82	292.90(36.8)	1609.70(10.9)
344.26	20.8	Tb-152	EC	4.2	M	46	411.10(18.8)	471.90(12.2)
344.3	0.65	Hg-206	B-	8.15	M	3	304.80(31.)	649.50(2.6)
344.53	45.4	Rn-207	EC	9.3	M	117	402.68(11.8)	747.15(14.1)
344.55	85.7	Tm-156	EC	83.8	S	59	452.85(17.2)	585.93(14.6)
346.87	4.2	Cd-105	EC	55.5	M	293	961.84(4.69)	1302.46(3.98)
348.4	* 90. U	Tm-157	EC	3.5	M	144	385.50(* 95.)	455.00(*100.)
348.4	3.63U	Np-231	EC	48.8	M	16	263.80(2.84U)	370.90(9.8)
350.03	3.34U	Rn-208	EC	24.35	M	107	251.05(5.02)	426.78(7.07)
351.	77.	Hg-207	B-	2.9	M	33	997.10(78.)	1637.10(29.5)
351.06	12.9	Bi-211	A	2.14	M	1		
351.2	26.3	Tb-163	B-	19.5	M	97	389.80(24.3)	494.50(22.5)
351.6	43. U	Yb-179	B-	8.1	M	16	612.50(100.)	653.60(27. U)
351.92	35.8	Pb-214	B-	26.8	M	29	241.98(7.5)	295.21(18.5)
356.69	17.5	Se- 83	B-	70.1	S	36	988.05(16.1)	1030.61(21.2)
356.7	70.	Se- 83	B-	22.3	M	98	225.18(32.7)	510.06(42.7)
357.4	81.	La-130	EC	8.7	M	72	550.70(25.9)	908.00(17.)
358.	89.	Tc-104	B-	18.4	M	163	530.50(15.6)	535.10(14.7)
358.5	1.63	Pd-114	B-	2.42	M	5	126.70(4.49)	232.00(4.9)
359.	4.05	Th-225	A	8.72	M	21	246.00(5.06)	321.40(22.5)
360.94	60.1	Gd-161	B-	3.66	M	126	102.31(13.9)	314.92(22.7)
361.2	94.9	Os-190	IT	9.9	M	5	502.50(97.8)	616.50(98.6)
361.47	0.53	Dy-165	B-	1.257	M	20	153.80(0.24)	515.47(1.53)
361.9	13.	Po-199	EC	4.2	M	53	1001.70(35.4)	1033.80(29.4)
362.	<3.E-04	Tl-206	B-	4.199	M	3	803.30(5.E-03)	
363.6	12.4 U	Sm-158	B-	5.51	M	27	189.40(15.2 U)	324.50(10.6 U)
363.96	12.8	Tm-175	B-	15.2	M	74	514.86(86.6)	941.15(14.2)
364.5	1.06	As- 79	B-	9.01	M	11	95.50(9.35)	432.00(0.85)
365.	67.3	Tl-193	IT	2.11	M	2		
365.	*100.	Pb-193	EC	5.8	M	12	392.20(* 20.7)	716.50(* 6.7)
365.1	? 0.02	Nb- 99	IT	2.6	M	1		
365.8	16.4	La-131	EC	59	M	59	108.45(23.1)	418.40(18.2)
366.	* 92. U	Ho-153	EC	9.3	M	13	108.80(*100.)	161.80(* 83.7)
366.4	92.2	Tm-174	B-	5.4	M	43	272.73(85.8)	991.84(87.)
366.44	10.7	Ho-156	EC	56	M	215	137.80(51.1)	266.55(54.7)
366.6	--	Pb-196	EC	37	M	12	494.00(--)	503.00(--)
366.9	7.0	Pb-199	EC	12.2	M	14		
367.2	75.2	Ru- 94	EC	51.8	M	4	525.00(1.8)	891.20(24.8)
367.8	3.52	Pm-139	EC	4.15	M	55	402.80(14.5)	463.10(4.07)
367.9	18.9	Au-200	B-	48.4	M	37	1225.41(10.7)	1262.89(3.12)
367.95	31.4	Lu-166	EC	2.65	M	101	228.12(77.3)	337.50(41.)
369.5	9.74	Hf-169	EC	3.24	M	10	123.60(3.86)	492.86(86.)
370.9	9.8	Np-231	EC	48.8	M	16	263.80(2.84U)	348.40(3.63U)
372.	* 46.	Bi-196	EC	4.6	M	6	688.00(* 62.)	1048.60(*100.)
372.7	100.	Te-112	EC	2.0	M	36	296.20(86.)	418.90(57.)
372.9	41. U	Zr- 84	B+	25.9	M	9	44.90(48. U)	112.50(100. U)
373.5	89.8	Pm-136	EC	107	S	15	602.70(49.7)	858.00(31.4)
373.6	1.64U	Re-173	EC	1.98	M	3	181.50(6.4 U)	190.70(1.71U)
373.8	*100.	Pm-136	EC	107	S	27	602.70(* 38.4)	857.20(* 23.4)
374.1	13.8	Hg-199	IT	42.6	M	5	158.38(52.3)	
375.48	12.8	Pb-197	EC	8	M	40	585.85(? 50.4)	761.14(13.3)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	375.8 -	412.0 (KeV)
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
375.8	2.43	Tm-160	EC	74.5	S	14	125.80(6.48)	264.20(9.0)
376.3	38.	Hg-187	EC	2.4+1.9	M	75	233.40(100.)	240.30(33.)
376.65	9.43	Se- 70	B+	41.1	M	36	49.51(35.8)	426.15(29.1)
377.74	1.68	Mn- 52	IT	21.1	M	1		
377.9	42.	Fe- 53	EC	8.51	M	10	1619.90(0.5)	
381.8	23.1	Tm-176	B-	1.9	M	86	189.80(44.2)	1069.20(33.)
381.9	42.9	Sn-129	B-	6.7	M	5	569.40(49.)	1134.00(55.)
383.64	*100.	Pb-195	EC	15.0	M	50	394.21(41.2)	878.40(22.6)
384.34	2.E-03	Rn-209	A	28.5	M	5	143.17(0.01)	154.19(7.E-03)
385.5	* 95.	Tm-157	EC	3.5	M	144	348.40(90. U)	455.00(*100.)
385.85	? 50.4	Pb-197	EC	8	M	40	375.48(12.8)	761.14(13.3)
385.85	? 73.6	Pb-197	EC	43	M	73	222.75(24.6)	387.72(25.1)
386.1	19.4	Dy-151	EC	17.9	M	174	49.46(18.)	546.31(14.3)
386.5	*100.	Sn-106	EC	2.10	M	12	253.20(57.1)	477.20(62.3)
386.6	5.7	Gd-145	EC	85	S	3	329.50(6.21)	716.00(1.6)
386.6	23.9	Rn-206	EC	5.67	M	31	324.50(38.)	497.70(39.5)
387.1	*100.	Pb-191	EC	2.18	M	16	613.50(40.)	712.20(46.)
387.72	25.1	Pb-197	EC	43	M	73	222.75(24.6)	385.85(? 73.6)
388.6	40.7	Cs-126	B+	1.64	M	26	491.20(5.13)	925.20(4.8)
389.7	1.28	Cm-251	B-	16.8	M	14	530.00(1.62)	542.70(10.9)
389.8	24.3	Tb-163	B-	19.5	M	97	351.20(26.3)	494.50(22.5)
390.	3.84	Zn- 71	B-	2.45	M	24	511.60(32.)	910.30(7.84)
390.3	* 18. U	Yb-159	EC	1.40	M	13	166.14(*100.)	177.19(? 20. U)
391.32	14.2	Er-157	EC	18.65	M	122	53.05(~ 24.1)	121.40(10.1)
391.83	58.6	Tc- 93	IT	43.5	M	1		
392.2	* 20.7	Pb-193	EC	5.8	M	12	365.00(*100.)	716.50(6.7)
392.3	11.1	Ag-113	B-	68.7	S	22	298.30(10.1)	316.10(17.6)
392.47	8.8	Rh-107	B-	21.7	M	39	302.77(66.)	312.21(4.8)
392.5	10.4	Ir-183	EC	57	M	266	87.50(5.62)	228.60(6.86)
393.37	9.75	Rb- 77	EC	3.75	M	93	66.52(57.)	178.78(22.2)
393.7	4.5	Pb-195	EC	15	M	18	871.00(3.8)	883.10(10.6)
394.2	* 20.5	Sm-157	B-	8.07	M	23	196.30(35.)	197.80(*100.)
394.21	* 41.2	Pb-195	EC	15.0	M	50	383.64(*100.)	878.40(* 22.6)
395.5	*100. U	Ce-131	EC	5	M	3	230.40(35.7 U)	421.30(* 53.6 U)
395.54	48.1	At-206	EC	30.0	M	69	477.10(85.9)	700.66(97.6)
396.34	64.3	Sn-108	EC	10.30	M	21	272.69(45.5)	669.16(22.6)
396.34	63.	Lu-163	EC	238	S	53	54.00(88.)	163.08(100.)
397.2	64.	Dy-150	EC	7.17	M	1		
399.4	45.7	Nb- 88	B+	7.8	M	91	1057.10(89.3)	1082.60(53.9)
402.68	11.8	Rn-207	EC	9.3	M	117	344.53(45.4)	747.15(14.1)
402.8	14.5	Pm-139	EC	4.15	M	55	367.80(3.52)	463.10(4.07)
403.	43.4	Gd-162	B-	8.4	M	5	39.00(5.1)	442.12(51.)
403.9	42.5	Sm-141	EC	10.2	M	29	438.20(37.7)	1292.60(6.76)
404.	--	Bi-212	B-	25.0	M	5	275.00(--)	727.00(--)
404.85	3.78	Pb-211	B-	36.1	M	39	427.09(1.76)	832.01(3.52)
405.	6.92	Nd-139	EC	29.7	M	27	916.90(1.52)	1074.20(2.53)
406.14	*100.	Hg-158	EC	21.3	M	21	838.90(84.3)	1484.10(* 66.2)
407.63	27.1	Te-133	B-	12.5	M	207	312.07(62.4)	1333.21(10.7)
407.9	5.9	Ds-196	B-	34.9	M	10	126.20(5.3)	315.40(2.5)
407.91	4.51	Hf-166	EC	6.77	M	18	78.76(41.)	341.82(4.67)
407.98	41.7	Lu-180	B-	5.7	M	29	1106.43(22.4)	1199.73(25.2)
408.2	100.	Se- 84	B-	3.1	M	2	498.50(2.4 U)	
408.32	50.3	Rn-209	EC	28.5	M	200	337.45(14.5)	745.78(22.8)
408.36	15.3	Y- 81	EC	72.4	S	11	79.23(24.7)	124.16(41.1)
410.7	0.14	Fr-221	A	4.9	M	11	218.19(11.6)	
411.	97.	Co- 54	EC	1.48	M	3	1130.00(98.)	1407.00(100.)
411.1	18.8	Tb-152	EC	4.2	M	46	344.26(20.8)	471.90(12.2)
412.	5.25	Cs-125	B+	45	M	40	112.00(8.59)	526.00(24.5)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	412.4 -	441.3 (KeV)
							Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)	
412.4	78.9	Ho-154	EC	3.25	M	32	334.60(93.9)	477.10(55.4)
412.4	25.6	Po-201	EC	8.9	M	4	272.70(4.73)	967.00(57.)
412.5	15.	Ho-154	EC	11.8	M	64	334.60(84.4)	873.40(12.5)
412.9	88.	Tl-188	EC	71	S	75	504.30(23.3)	592.10(60.7)
413.8	7.56	Sr- 79	EC	2.25	M	14	39.41(28.)	105.00(21.8)
414.2	10.6	Ce-131	EC	10	M	80	26.20(8.6)	169.40(20.)
414.5	85.7	Sb-126	B-	19.0	M	8	666.10(85.7)	694.80(82.2)
416.	55. U	Rn-223	B-	23.2	M	72	591.80(100. U)	635.20(76. U)
416.3	27.	Zr- 85	B+	7.86	M	34	454.30(45.)	1198.40(4.81)
416.4	91.2	Tl-190	EC	3.7	M	41	625.40(82.1)	731.10(37.4)
416.4	79.	Tl-190	EC	2.6	M	24	625.40(11.1)	683.50(8.69)
416.86	28.9	In-116	B-	54.41	M	46	1097.30(56.2)	1293.54(84.4)
417.	96. U	W-189	B-	11.5	M	10	258.00(100.)	550.00(28. U)
417.	2.0	Th-235	B-	7.1	M	20	696.10(0.64)	727.20(0.87)
417.9	6.64	Po-201	IT	8.9	M	2		
417.9	--	At-201	EC	89	S	3	6.50(--)	571.00(--)
418.4	18.2	La-131	EC	59	M	59	108.45(23.1)	365.80(16.4)
418.9	57.	Tc-112	EC	2.0	M	36	296.20(86.)	372.70(100.)
419.57	92.	Pm-140	EC	5.95	M	33	773.74(100.)	1028.19(100.)
419.77	91.	Bi-200	EC	36.4	M	33	462.34(98.)	1026.49(100.)
419.8	21.6	Bi-200	EC	31	M	7	462.40(37.9)	1026.80(91.)
420.3	18.6	Hg-191	EC	50.8	M	90	252.60(57.)	578.70(17.6)
421.3	* 53.6 U	Ce-131	EC	5	M	3	230.40(* 35.7 U)	395.50(* 100. U)
421.52	12.	Rh- 97	B+	44.3	M	85	189.11(47.3)	2245.80(14.3)
421.55	73.7	Rh- 97	B+	31.1	M	69	840.08(12.1)	878.80(9.13)
421.8	19.5	Y- 83	B+	2.85	M	3	494.50(8.11)	
422.8	*100.	Tl-192	EC	9.6+10.8	M	75	634.80(* 75.9)	786.30(* 31.7)
423.91	* 69.	Mo-103	B-	67.5	S	43	45.80(* 56.6)	83.40(* 100.)
424.	100.	Br- 84	B-	6.0	M	6	881.60(98.)	1462.80(97.)
424.1.	18.1	Pb-199	IT	12.2	M	2		
425.3	- 14.	Bi-199	EC	27	M	185	841.70(7.0)	946.00(6.86)
426.14	7.72	Rh-109	B-	80	S	37	178.03(7.61)	326.83(54.)
426.15	29.1	Se- 70	B+	41.1	M	36	49.51(35.8)	376.65(9.43)
426.2	96.9	Lu-178	B-	23.1	M	8	213.50(81.7)	325.30(94.1)
426.24	67.1	At-204	EC	9.2	M	56	516.32(89.8)	684.34(94.2)
426.78	7.07	Rn-208	EC	24.35	M	107	251.05(5.02)	350.03(3.34U)
427.	37.4	Ge- 64	EC	63.7	S	8	128.20(10.7)	667.10(16.9)
427.09	1.76	Pb-211	B-	36.1	M	39	404.85(3.78)	832.01(3.52)
427.1	3.63	Cs-121	EC	155	S	67	153.90(15.2)	239.60(7.73)
428.2	*100.	Tl-194	EC	33.0	M	7	636.30(* 23.3)	645.20(* 13.3)
428.2	98.8	Tl-194	EC	32.8	M	48	636.30(98.8)	749.00(76.)
428.4	16.6	Po-201	EC	15.3	M	9	890.40(100.)	904.70(54.5 U)
428.83	12.7 U	W- 174	EC	31	M	30	35.42(14.1 U)	328.68(9.5 U)
430.	- 8.0	Md-255	A	27	M	1		
430.23	27.6	Re-179	EC	19.5	M	182	289.97(27.)	1680.26(12.9)
430.56	* 61.1 U	Ir-197	B-	8.9+5.8	M	44	469.72(* 100. U)	815.92(* 45. U)
431.8	40.4	Sm-141	EC	22.6	M	47	196.60(74.3)	777.40(20.3)
432.	0.85	As- 79	B-	9.01	M	11	95.50(9.35)	364.50(1.06)
433.94	0.5	Ag-108	EC	2.37	M	12	618.86(0.26)	1007.22(0.01)
434.2	87.7	Rh-108	B-	6.0	M	14	581.10(59.6)	947.10(49.1)
434.4	9.28	Po-200	EC	11.5	M	56	617.70(19.7)	671.00(34.)
434.56	20.3	Xe-138	B-	14.08	M	101	258.41(31.5)	1768.26(16.7)
436.92	100.	Sc- 42	EC	61.7	S	6	1227.66(99.)	1524.70(99.7)
438.2	37.7	Sm-141	EC	10.2	M	29	403.90(42.5)	1292.60(6.76)
438.37	42.	Tb-150	EC	5.8	M	26	638.05(1 .)	650.40(70.)
440.46	26.1	Bi-213	B-	45.59	M	10	292.80(0.43)	807.36(0.29)
441.1	14.9	Nd-135	EC	12.4	M	41	41.48(23.3)	204.09(51.7)
441.3	40.7	At-202	EC	181	S	3	569.70(80.5)	675.30(86.6)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	442.1 -	479.3 (KeV)
						Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)
442.12	51.	Gd-162	B-	8.4	M	5	39.00(5.1)	403.00(43.6)
442.25	0.02	Ag-105	EC	7.23	M	32	306.25(0.03)	319.16(0.16)
442.9	16.9	I - 128	B-	24.99	M	7	526.56(2.58)	969.46(0.4)
442.9	26.8	Cs-128	B+	3.62	M	111	526.56(2.41)	1140.08(1.17)
443.	16.1 U	Dy-168	B-	8.5	M	5	192.47(31. U)	486.70(22. U)
443.34	17.5	Sr- 81	EC	22.3	M	83	147.76(30.1)	153.54(33.8)
445.2	7.75	Xe-121	B+	40.1	M	250	132.80(10.9)	252.70(12.6)
447.77	55.	Au-189	EC	28.7	M	48	713.24(100.)	812.80(63.)
450.8	50.	Pr-148	B-	2.0	M	8	301.74(95.)	697.52(40.)
451.	49. U	Tl-189	EC	2.3	M	5	333.70(100. U)	942.20(69. U)
452.32	18.2	Te-131	B-	25.0	M	79	149.72(68.9)	1146.96(4.96)
452.85	17.2	Tm-156	EC	83.8	S	59	344.55(85.7)	585.93(14.6)
453.3	92.9	Tl-206	IT	3.74	M	17	265.70(86.)	686.50(90.3)
453.88	48.	Pr-146	B-	24.15	M	109	735.72(7.49)	1524.73(15.6)
454.	7.E-03	Br- 78	B-	6.46	M	1		
454.3	45.	Zr- 85	B+	7.86	M	34	416.30(27.)	1198.40(4.81)
454.7	13.1	Br- 72	EC	78.6	S	35	862.00(70.2)	1316.70(17.3)
454.9	8.2	Ac-230	B-	122	S	159	508.20(5.15)	1243.90(3.5)
454.99	62.7	Rb- 78	EC	17.66	M	120	562.15(11.4)	692.88(12.6)
454.99	81.	Br- 78	EC	5.74	M	74	664.42(38.3)	1109.72(13.1)
455.	*100.	Tm-157	EC	3.5	M	144	348.40(90. U)	385.50(95.)
455.49	31.2	Xe-137	B-	3.818	M	94	848.95(0.62)	1783.43(0.41)
457.	8.03	La-129	B+	11.6	M	115	110.50(16.9)	278.60(24.7)
457.6	24.1 U	W - 173	EC	7.97	M	10	130.20(6.6 U)	174.90(5.0 U)
457.63	59.5	W - 172	EC	6.7	M	38	35.89(23.3)	511.00(22.8 U)
459.16	21.4	Mn- 58	B-	65.3	S	39	810.76(88.2)	1323.09(59.4)
459.22	1.4	Th-233	B-	22.3	M	131	29.56(2.5)	86.48(2.7)
459.7	12.	Cs-121	EC	122	S	100	179.40(30.2)	196.00(24.1)
460.	-- U	I - 115	B+	1.3	M	4	284.00(-- U)	709.00(-- U)
460.	--	La-126	B+	1.0	M	4	340.00(--)	625.00(--)
461.5	91.	Xe-119	B+	5.8	M	19	100.00(95.)	231.80(100.)
462.34	98.	Bi-200	EC	36.4	M	33	419.77(91.)	1026.49(100.)
462.4	37.9	Bi-200	EC	31	M	7	419.80(21.6)	1026.80(91.)
462.61	3.66	Ru-107	B-	3.75	M	120	194.05(9.86)	847.93(5.3)
462.8	30.7	Cs-138	B-	32.2	M	88	1009.78(29.8)	1435.86(76.3)
463.	18.6	Cs-138	B-	2.90	M	10	191.70(15.4)	1436.00(19.)
463.1	4.07	Pm-139	EC	4.15	M	55	367.80(3.52)	402.80(14.5)
463.62	36.1	Rb- 84	IT	20.26	M	3	215.61(29.5)	248.02(60.2)
464.5	19.3	Rn-205	EC	2.83	M	6	264.90(77.)	620.20(19.3)
464.55	22.3	La-132	EC	24.3	M	17	285.80(7.37)	663.07(11.6)
465.13	96.9	Tl-209	B-	2.20	M	5	117.21(84.3)	1567.09(99.8)
469.72	*100. U	Ir-197	B- 8.9+5.8	M	44	430.56(= 61.1 U)	815.92(= 45. U)	
470.58	73.	Nb- 87	B+	2.6	M	34	201.00(100.)	1066.80(37.)
470.8	5.E-03	Cs-130	EC	3.46	M	5	206.20(9.E-04)	536.20(0.06)
470.9	100.	Ra-232	B-	250	S	6	97.70(80.)	478.50(69.)
471.9	12.2	Tb-152	EC	4.2	M	46	344.26(20.8)	411.10(18.8)
472.2	--	Ne- 24	B-	3.38	M	2	874.41(--)	
472.7	3.98	Ag-115	B-	20.0	M	145	212.80(4.45)	229.10(18.)
473.5	* 30.3	Ca-120	B+	60.6	S	117	322.40(= 100.)	553.40(= 19.1)
475.	16.8	Zn- 61	EC	89.1	S	46	970.00(2.57)	1660.40(7.8)
475.2	87.	Tc-102	B-	4.35	M	36	628.10(26.7)	630.20(16.1)
475.2	27.5	Pd- 97	B+	3.1	M	64	265.30(57.7)	792.70(14.3)
477.1	55.4	Ho-154	EC	3.25	M	32	334.60(93.9)	412.40(78.9)
477.1	85.9	At-206	EC	30.0	M	69	395.54(48.1)	700.66(97.6)
477.2	* 62.3	Sn-106	EC	2.10	M	12	253.20(= 57.1)	386.50(= 100.)
478.5	69.	Ra-232	B-	250	S	6	97.70(80.)	470.90(100.)
478.7	83.	W - 171	EC	2.38	M	10	184.20(100.)	294.50(89.)
479.31	53.5	La-128	B+	5.0	M	78	284.10(87.2)	643.60(14.7)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy (Intensity)	Energy (Intensity)	
480.7	0.31	Tc-96	EC	51.5	M	40	778.22(1.87)	1200.15(1.08)	
481.	62.5	Co-102	EC	5.5	M	17	505.10(9.56)	1036.60(12.8)	
482.3	59.	Sn-128	B-	59.1	M	11	75.10(27.7)	557.30(16.5)	
486.7	22.	U	Dy-166	8.5	M	5	192.47(31.1 U)	443.00(16.1 U)	
489.1	41.6	Sb-111	EC	75	S	24	154.48(70.7)	1032.60(9.95)	
489.3	1.27	Sb-115	EC	32.1	M	49	497.31(97.9)	882.10(6.3)	
489.9	5.53	Y-83	B+	7.08	M	128	35.50(19.3)	925.20(4.8)	
491.2	5.13	Cs-126	B+	1.64	M	26	388.60(40.7)	1564.00(3.96)	
491.3	90.	Sn-127	B-	4.13	M	7	1348.00(4.77 U)	1348.00(4.77 U)	
492.86	84.	Hf-169	EC	3.24	M	10	123.60(3.86)	369.50(9.74)	
493.1	21.6	Pm-138	EC	3.24	M	70	520.90(100.)	729.00(37.8)	
493.75	5.73	Pt-199	B-	30.8	M	44	317.03(4.87)	542.98(14.8)	
494.	--	Pb-196	EC	37	M	12	366.60(--)	503.00(--)	
494.5	8.11	Y-83	B+	2.85	M	3	421.80(19.5)	421.80(19.5)	
494.5	22.5	Tb-163	B-	19.5	M	97	351.20(26.3)	389.80(24.3)	
496.9	25.	Pr-132	EC	1.6	M	20	325.40(100.)	822.40(17.3)	
497.1	79.5	Cs-122	B+	4.5	M	61	331.10(93.5)	638.50(62.6)	
497.31	97.9	Sb-115	EC	32.1	M	49	489.30(1.27)	386.60(23.9)	
497.7	39.5	Rn-206	EC	5.67	M	31	324.50(36.0)	332.41(14.8)	
497.96	80.	Sb-113	EC	6.67	M	70	88.25(2.72)	602.72(25.)	
498.4	24.5	Sb-122	B-	9.5	M	4	645.82(25.)	645.82(25.)	
498.5	2.4	Sp-84	B-	3.1	M	2	408.20(100.)	1328.40(2.55)	
499.7	17.9	Pd-96	EC	122	M	19	124.90(65.)	762.30(50.)	
500.3	--	Pu-233	EC	20.9	M	28	325.40(99.9)	534.80(90.1)	
500.3	38.6	Tl-171	EC	23.3	M	85	49.60(100.)	506.40(54.)	
501.8	22.6	Tl-171	EC	32.4	M	156	361.20(94.9)	616.50(98.6)	
502.5	97.8	Os-190	IT	9.9	M	5	10	927.60(3.79)	494.00(--)
502.9	51.4	Tc-91	B+	3.3	M	12	366.60(--)	592.10(60.7)	
503.	--	Pb-196	EC	37	M	75	412.90(88.)	1036.60(12.8)	
504.3	23.3	Tl-188	EC	71	M	20	235.40(99.9)	320.94(10.2)	
505.1	9.56	Cd-102	EC	5.5	M	17	481.00(62.5)	481.00(62.5)	
505.51	11.9	In-107	EC	32.4	M	156	204.95(47.2)	204.95(47.2)	
506.1	-100.	Fe-62	B-	6.8	M	1	363.96(12.8)	941.15(14.2)	
506.4	54.	Ta-171	EC	23.3	M	85	49.60(100.)	501.80(22.6)	
508.2	5.15	Ac-230	B-	122	M	159	454.90(8.2)	1243.90(3.5)	
510.06	42.7	Se-83	B-	22.3	M	225	35.89(23.3)	457.63(59.5)	
510.6	37.5	Ta-186	B-	10.5	M	91	197.90(50.)	214.90(42.3)	
510.77	22.6	Tl-208	B-	3.053	M	29	583.19(84.5)	2614.53(99.2)	
511.	22.8	W-172	EC	6.7	M	38	35.89(23.3)	356.70(70.)	
511.6	32.	Zn-71	B-	2.45	M	24	390.00(3.84)	910.30(7.84)	
511.9	17.	Ag-106	EC	23.96	M	39	621.95(0.32)	873.46(0.2)	
513.4	76.	Ag-116	B-	2.68	M	64	699.59(10.9)	2477.90(11.6)	
514.86	86.6	Tm-175	B-	15.2	M	74	363.96(12.8)	941.15(14.2)	
515.47	1.53	Dy-165	B-	1.257	M	20	153.80(0.24)	361.47(0.53)	
516.32	89.8	At-204	EC	9.2	M	56	426.24(67.1)	684.34(94.2)	
517.	0.83	Au-201	B-	26	M	23	542.60(1.2)	613.20(0.77)	
517.5	* 22.2	Ta-177	B-	85	M	7	44.50(10.)	104.50(100.)	
517.6	*	B-215	B-	7.7	M	7	271.70(5.5)	293.74(100.)	
518.8	0.4	Nn-241	B-	13.9	M	17	133.10(0.86)	175.10(3.1)	
520.9	100.	Pa-138	EC	3.24	M	70	493.10(21.6)	729.00(37.8)	
522.8	56.4	Ac-233	B-	145	M	5	539.60(37.6)	121.12(99.5)	
523.79	88.7	Sc-203	B-	102.5	M	14	1121.12(99.5)	1553.77(100.)	
525.	1.8	Ru-94	EC	51.8	M	5	84.60(69.7)	891.20(24.8)	
525.9	73.3	Cu-68	IT	3.75	M	40	111.30(17.2)	367.40(1.08)	
526.	24.5	La-125	B+	4.5	M	12	8.59(8.59)	412.00(5.25)	
526.19	5.93	Gd-142	EC	70.2	M	60	284.44(6.19)	284.44(6.19)	
526.56	1.58	I-128	B-	24.99	M	7	969.46(0.4)	969.46(0.4)	
526.56	80.5	Kr-135	IT	15.29	M	1	442.90(26.8)	1140.98(1.17)	
526.56	2.41	Cs-128	B+	3.62	M	111	442.90(26.8)	1140.98(1.17)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy	528.7 -	575.0 (KeV)
							Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
528.73	0.47	Sb-118	EC	3.6	M	17	1229.33(2.47)	1267.23(0.51)	
529.4	14.9	Pa-237	B-	8.7	M	18	853.70(34.1)	865.00(15.5)	
530.	1.62	Cm-251	B-	16.8	M	14	389.70(1.28)	542.70(10.9)	
530.5	15.6	Tc-104	B-	18.4	M	163	358.00(89.)	535.10(14.7)	
531.2	5.97	Cu- 69	B-	2.85	M	32	834.40(13.1)	1007.50(23.4)	
534.8	90.1	Pu-233	EC	20.9	M	28	235.40(99.9)	500.30(38.6)	
535.1	14.7	Tc-104	B-	18.4	M	163	358.00(89.)	530.50(15.6)	
536.09	15.7	I - 130	B-	9.0	M	35	586.05(1.07)	1614.10(0.45)	
536.1	3.84	Cs-130	EC	29.21	M	22	586.10(0.47)	894.50(0.39)	
536.2	0.06	Cs-130	EC	3.46	M	5	206.20(9.E-04)	470.60(5.E-03)	
537.	87.	In-111	IT	7.7	M	1			
538.85	7.23	Tb-165	B-	2.11	M	24	1178.53(13.2)	1292.05(7.04)	
539.6	37.6	Ac-223	B-	145	S	3	522.80(56.4)		
539.75	52.4	Pr-136	EC	13.1	M	103	552.16(76.)	1092.30(18.5)	
540.	20.	Fr-211	EC	3.10	M	7	281.00(6.8)	918.00(11.)	
542.6	< 1.2	Au-201	B-	26	M	23	517.00(0.83)	613.20(0.77)	
542.7	10.9	Cm-251	B-	16.8	M	14	389.70(1.28)	530.00(1.62)	
542.98	14.8	Pt-199	B-	30.8	M	44	317.03(4.87)	493.75(5.73)	
543.3	80.1	Rh- 95	IT	1.96	M	1			
544.9	0.02	Bi-213	A	45.59	M	3	323.81(0.17)	868.00(0.01)	
545.	9.95	I - 118	B+	13.7	M	55	605.60(83.5)	1338.80(8.68)	
545.06	5.98	Tc-101	B-	14.2	M	30	127.23(2.86)	306.83(88.)	
546.31	14.3	Dy-151	EC	17.9	M	174	49.46(18.)	386.10(19.4)	
546.9	0.28	Np-233	EC	36.2	M	30	299.10(0.44)	312.10(0.7)	
548.3	23.1	Pt-184	EC	17.3	M	132	154.80(30.6)	192.00(26.6)	
550.	28. U	W - 189	B-	11.5	M	10	258.00(100.)	417.00(96. U)	
550.7	25.9	La-130	EC	8.7	M	72	357.40(81.)	908.00(17.)	
550.9	4.93	Y - 94	B-	18.7	M	54	918.74(56.)	1138.90(5.99)	
552.16	76.	Pr-136	EC	13.1	M	103	539.75(52.4)	1092.30(18.5)	
552.9	100.	In-117	B-	43.2	M	4	158.80(87.)		
553.4	* 19.1	Cs-120	B+	60.6	S	117	322.60(*100.)	473.50(30.3)	
554.6	20.9	Np-240	B-	7.22	M	106	597.40(11.7)	1496.90(1.33)	
555.57	94.9	Y - 91	IT	49.71	M	1			
555.8	91.	Ag-104	EC	33.5	M	67	1238.80(3.87)	2276.70(2.46)	
555.81	0.13	Rh-104	B-	4.34	M	27	767.78(6.E-03)	1237.05(4.E-03)	
556.07	98.2	Rb- 86	IT	1.017	M	1			
556.6	86.6	Eu-142	EC	1.22	M	32	768.00(100.)	1023.30(92.)	
556.7	90.6	Ag-102	EC	12.9	M	35	719.40(58.1)	1744.60(17.3)	
556.7	47.9	Ag-102	EC	7.7	M	32	1834.70(9.84)	2054.50(6.65)	
557.3	16.5	Sn-128	B-	59.1	M	11	75.10(27.7)	482.30(59.)	
557.95	28.2	Re-190	B-	3.1	M	29	186.68(48.4)	223.81(26.)	
558.43	< 0.07	In-114	EC	71.9	S	3	575.80(4.E-03)		
559.	6.34	Cd-104	EC	57.7	M	9	83.50(47.)	709.30(19.5)	
560.4	100.	I - 120	B+	53	M	48	601.10(87.)	614.70(67.)	
562.15	11.4	Rb- 78	EC	17.66	M	120	454.99(62.7)	692.88(12.6)	
562.4	* 79.	Bi-198	EC	11.85	M	11	197.60(80.)	1063.45(*100.)	
563.23	0.36	La-134	EC	6.45	M	109	604.70(5.05)	1554.93(0.41)	
564.12	17.6	I - 122	B+	3.63	M	47	692.79(1.33)	793.28(1.3)	
565.5	* 47.6	Hg-189	EC	7.6+8.7	M	271	78.00(* 63.3)	321.00(*100.)	
569.4	49.	Sn-129	B-	6.7	M	5	381.90(42.9)	1134.00(55.)	
569.7	48.1	Dy-167	B-	6.20	M	29	259.33(27.9)	310.26(25.)	
569.7	< 0.01	Tl-207	B-	4.77	M	2	897.60(0.24)		
569.7	80.5	At-202	EC	181	S	3	441.30(40.7)	675.30(86.6)	
571.	--	At-201	EC	89	S	3	6.50(--)	417.90(--)	
574.7	* 31.6	Ga- 75	B-	126	S	38	252.80(*100.)	885.40(* 11.1)	
574.8	10.4	Nd-136	EC	50.65	M	48	40.20(18.9)	108.90(31.5)	
574.8	15.4	Lu-181	B-	3.5	M	20	205.90(16.1)	652.40(22.)	
575.	97.3	Bi-194	EC	92+125	S	38	280.30(73.2)	965.00(99.2)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 575.8 - 616.3 (KeV)	
						Other Energy (Intensity)	two intense gamma-rays Energy(Intensity)
575.8	4.E-03	In-114	EC	71.9	S 3	558.43(< 0.07)	
576.1	3.24	Yb-162	EC	18.87	M 46	118.70(33.6)	163.35(40.)
577.	* 54.2 U	Po-203	EC	1.2	M 3	261.50(* 12. U)	904.90(*100. U)
577.91	8.04	Pr-147	B-	13.4	M 98	314.68(12.5)	641.48(9.46)
578.7	17.6	Hg-191	EC	50.8	M 90	252.60(57.)	420.30(18.6)
580.	0.84	Pd-111	B-	23.4	M 82	70.43(0.78)	1459.00(0.56)
580.6	13.	Nd-137	EC	38.5	M 175	75.50(17.3)	306.60(10.1)
581.1	59.6	Rh-108	B-	6.0	M 14	434.20(87.7)	947.10(49.1)
581.82	18.8	Pb-194	EC	12.0	M 122	203.80(16.2)	1519.45(16.4)
583.19	84.5	Tl-208	B-	3.053	M 29	510.77(22.6)	2614.53(99.2)
585.	1.92	U-242	B-	16.8	M 14	55.58(3.9)	67.60(9.57)
585.8	29.5	Fr-227	B-	2.47	M 123	64.27(14.5)	90.03(38.7)
585.93	14.6	Tm-156	EC	83.8	S 59	344.55(85.7)	452.85(17.2)
586.03	16.6	Kr- 89	B-	3.15	M 332	220.95(20.1)	904.27(7.22)
586.05	1.07	I-130	B-	9.0	M 35	536.09(15.7)	1614.10(0.45)
586.1	0.47	Cs-130	EC	29.21	M 22	536.10(3.84)	894.50(0.39)
587.79	89.5	Zr- 89	IT	4.18	M 1		
588.	9.99	Ag-101	EC	11.1	M 76	261.01(52.6)	667.32(9.84)
588.	15.7	Gd-143	EC	112	S 62	271.94(84.3)	798.89(10.7)
590.24	65.7	Sr- 93	B-	7.423	M 171	875.80(23.4)	888.18(21.5)
590.91	16.4	Mo-101	B-	14.61	M 190	191.92(18.8)	1012.48(12.8)
591.3	39.6	Ho-150	EC	88	S 2	803.70(90.)	
591.8	100. U	Rn-223	B-	23.2	M 72	416.00(55. U)	635.20(76. U)
592.1	60.7	Tl-188	EC	71	S 75	412.90(88.)	504.30(23.3)
594.6	* 72.5 U	Os-178	EC	5.0	M 14	968.70(*100. U)	1331.10(* 94.2 U)
595.87	91.4	Ga- 74	B-	8.12	M 121	608.40(14.3)	2353.61(44.5)
596.3	8.03	Sm-139	EC	2.57	M 79	273.70(36.5)	306.70(28.5)
596.6	8.26	Cs-123	B+	5.87	M 30	97.30(14.5)	307.10(3.28)
597.4	11.7	Np-240	B-	7.22	M 106	554.60(20.9)	1496.90(1.33)
597.68	9.44	Au-190	EC	42.8	M 165	295.82(71.)	301.82(23.4)
598.3	8.03	Pb-190	EC	1.2	M 24	151.19(8.92)	942.20(33.9)
599.88	25.9	Yb-161	EC	4.2	M 70	78.20(34.1)	631.45(13.9)
600.6	* 83.9	I-118	B+	8.5	M 46	605.60(*100.)	614.30(* 51.4)
601.1	87.	I-120	B+	53	M 48	560.40(100.)	614.70(67.)
602.35	49.	Cs-140	B-	63.7	S 239	908.36(7.89)	1200.49(4.21)
602.7	49.7	Pm-136	EC	107	S 15	373.50(89.8)	858.00(31.4)
602.7	* 38.4	Pm-136	EC	107	S 27	373.80(*100.)	857.20(* 23.4)
602.72	25.	Sb-124	B-	93	S 4	498.40(24.5)	645.82(25.)
604.12	9.21	In-105	EC	5.07	M 150	131.47(41.3)	260.27(15.7)
604.7	5.05	La-134	EC	6.45	M 109	563.23(0.36)	1554.93(0.41)
605.3	* 16.3	Au-188	EC	8.84	M 143	265.63(*100.)	340.04(* 23.9)
605.6	*100.	I-118	B+	8.5	M 46	600.60(* 83.9)	614.30(* 51.4)
605.6	83.5	I-118	B+	13.7	M 55	545.00(9.95)	1338.80(8.68)
606.4	1.11	In-112	EC	14.97	M 31	617.10(4.65)	1253.10(0.22)
608.2	17.9	Pb-192	EC	3.5	M 15	167.50(13.6)	1195.40(47.)
608.4	14.3	Ga- 74	B-	8.12	M 121	595.87(91.4)	2353.61(44.5)
608.55	1.18	Tl- 51	B-	5.76	M 3	320.08(93.1)	928.63(6.9)
609.31	44.8	Bi-214	B-	19.9	M 241	1120.29(14.8)	1764.49(15.4)
612.47	--	Ir-192	B-	1.45	M 3	295.96(--)	316.51(--)
612.5	100.	Yb-179	B-	8.1	M 16	351.60(43. U)	653.60(27. U)
613.2	0.77	Au-201	B-	26	M 23	517.00(0.83)	542.60(< 1.2)
613.5	* 40.	Pb-191	EC	2.18	M 26	387.10(*100.)	712.20(* 46.)
613.68	13.6	Br- 78	EC	6.46	M 20		
613.7	73.2	Ho-152	EC	161.8	S 22	613.70(13.9)	1098.00(12.2)
613.7	13.9	Ho-152	EC	161.8	S 22	613.70(73.2)	1098.00(12.2)
614.3	* 51.4	I-118	B+	8.5	M 46	600.60(* 83.9)	605.60(*100.)
614.7	67.	I-120	B+	53	M 48	560.40(100.)	601.10(87.)
616.3	6.69	Br- 80	B-	17.68	M 7	639.40(0.26)	703.80(0.19)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	616.5 -	645.7 (KeV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
616.5	98.6	Ds-190	IT	9.9	M	5	361.20(94.9)	502.50(97.8)
617.1	4.65	In-112	EC	14.97	M	31	606.40(1.11)	1253.10(0.22)
617.7	19.7	Po-200	EC	11.5	M	56	434.40(9.28)	671.00(34.)
617.8	0.02	Pr-144	B-	7.2	M	5	1631.36(0.03)	1885.30(0.01)
618.86	0.26	Ag-108	EC	2.37	M	12	433.94(0.5)	1007.22(0.01)
620.1	0.12	Ag-111	B-	64.8	S	9	171.28(0.12)	245.40(0.5)
620.2	19.3	Rn-205	EC	2.83	M	6	264.90(77.)	464.50(19.3)
620.24	100.	Dy-148	EC	3.1	M	1		
620.3	2.34	La-143	B-	14.14	M	77	621.40(1.52)	643.75(1.55)
621.4	1.52	La-143	B-	14.14	M	77	620.30(2.34)	643.75(1.55)
621.95	0.32	Ag-106	EC	23.96	M	39	511.90(17.)	873.46(0.2)
624.2	32.7	Er-159	EC	36	M	105	205.90(9.48)	649.10(22.9)
625.	--	La-126	B+	1.0	M	4	340.00(--)	460.00(--)
625.4	82.1	Tl-190	EC	3.7	M	41	416.40(41.2)	731.10(37.4)
625.4	11.1	Tl-190	EC	2.6	M	24	416.40(79.)	683.50(8.69)
627.2	0.69	Y - 86	B+	48	M	4	1076.60(0.69)	1153.10(0.69)
627.24	1.78	Cs-139	B-	9.27	M	179	1283.23(8.3)	1420.66(0.91)
628.1	26.7	Tc-102	B-	4.35	M	36	475.20(87.)	630.20(16.1)
628.88	5.6	At-205	EC	26.2	M	150	669.41(8.6)	719.30(30.6)
629.5	* 32.4	Gd-144	EC	4.5	M	67	333.30(*100.)	2432.60(* 94.8)
630.2	16.1	Tc-102	B-	4.35	M	36	475.20(87.)	628.10(26.7)
631.45	13.9	Yb-161	EC	4.2	M	70	78.20(34.1)	599.88(25.9)
631.73	74.5	Rh - 96	EC	9.90	M	109	685.47(95.7)	832.52(100.)
631.87	95.	Tb-148	EC	2.20	M	11	784.48(100.)	882.41(< 92.)
631.87	26.6	Lu-162	EC	1.37	M	26	166.82(100.)	798.76(16.9)
632.6	91.8	In-106	EC	5.2	M	70	861.10(10.6)	1714.90(17.1)
632.6	99.7	In-106	EC	6.2	M	83	861.10(91.7)	997.80(47.9)
632.9	76.4	In-108	EC	39.6	M	45	1986.30(12.4)	3452.20(9.17)
632.9	*100.	In-108	EC	58.0	M	117	242.60(* 41.1)	875.40(*100.)
632.98	.1.76	Ag-108	B-	2.37	M	1		
634.2	14.1	Br - 74	EC	25.4	M	90	218.90(18.1)	674.80(64.1)
634.3	16.4	Br - 74	EC	46	M	123	634.80(91.2)	728.30(35.6)
634.8	64.1	Br - 74	EC	25.4	M	90	218.90(18.1)	634.20(14.1)
634.8	91.2	Br - 74	EC	46	M	123	634.30(16.4)	728.30(35.6)
634.8	* 75.9	Tl-192	EC	9.6+10.8	M	75	422.80(*100.)	786.30(* 31.7)
635.	88.	Pa-238	B-	2.3	M	172	1014.50(*100.)	1015.20(< 100.)
635.2	76. U	Rn-223	B-	23.2	M	72	416.00(55. U)	591.80(100. U)
635.86	2.69	I - 119	EC	19.1	M	185	257.52(86.7)	320.53(2.17)
636.3	98.8	Tl-194	EC	32.8	M	48	428.20(98.8)	749.00(76.)
636.3	* 23.3	Tl-194	EC	33.0	M	7	428.20(*100.)	645.20(* 13.3)
638.05	100.	Tb-150	EC	5.8	M	26	438.37(42.)	650.40(70.)
638.3	29. U	Ho-153	EC	2.0	M	9	295.80(99.9 U)	334.60(45. U)
638.5	62.6	Cs-122	B+	4.5	M	61	331.10(93.5)	497.10(79.5)
639.3	66.7 U	At-203	EC	7.37	M	20	1002.00(59.1 U)	1034.00(69. U)
639.4	0.26	Br - 80	B-	17.68	M	7	616.30(6.69)	703.80(0.19)
639.6	*100.	Pr-134	EC	11	M	41	1125.40(*100.)	1196.80(*100.)
640.9	50.5	Po-203	IT	1.2	M	1		
641.48	9.46	Pr-147	B-	13.4	M	98	314.68(12.5)	577.91(8.04)
642.3	22.	Sb-131	B-	23	M	72	933.10(24.6)	943.40(44.)
642.3	37.	Pa-236	B-	9.1	M	68	687.50(9.9)	1762.70(6.0)
643.6	0.12	Rb - 81	EC	30.5	M	43	49.51(0.78)	1194.60(0.11)
643.6	14.7	La-128	B+	5.0	M	78	284.10(87.2)	479.31(53.5)
643.7	3.0	Pd-113	B-	93	S	33	95.74(3.25)	739.63(2.4)
643.75	1.55	La-143	B-	14.14	M	77	620.30(2.34)	621.40(1.52)
643.8	40.	Fr-210	EC	3.18	M	9	203.30(14.)	817.20(24.)
645.2	* 13.3	Tl-194	EC	33.0	M	7	428.20(*100.)	636.30(* 23.3)
645.6	100.	Sn-129	B-	2.16	M	1		
645.7	--	Pa-235	B-	24.1	M	16	652.00(--)	659.30(--)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy of G Energy(Intensity)	Energy of two intense gamma-rays	Energy 645.8 - 692.7 (KeV)
645.82	- 25-	Sb-124	B-	93	5	4 498.40(24.5)	602.72(25. -)	
646.6	0.72	Th-236	B-	37.5	19	110.80(4.2)	196.00(0.69)	
647.51	19.4	Te-133	B-	55.4	M	210	863.96(15.6)	912.67(55.3)
649.1	22.9	Er-159	EC	36	M	105	205.90(9.48)	624.20(32.7)
649.5	2.6	Hg-206	B-	8.15	M	3	304.80(31.)	344.30(0.65)
649.8	28.	Sn-109	B+	18.0	M	161	1099.20(30.1)	1321.30(11.9)
650.1	93.7	In-109	IT	1.34	M	1		
650.4	70.	Tb-150	EC	5.8	M	26	438.37(42.)	638.05(100.)
651.2	* 33.6	U	Tb-149	EC	4.16	M	9 164.50(* 15.)	796.00(* 100.)
651.2	32.1	As- 68	EC	151.6	S	37	761.80(33.8)	1016.10(78.)
652.	--	Pa-235	B-	24.1	M	16	645.70(--)	659.30(--)
652.	22.	Lu-181	B-	3.5	M	20	205.90(16.1)	574.80(15.4)
652.6	94.2	Rh- 98	EC	8.7	M	19	245.40(5.28)	1817.00(4.71)
652.6	96.	Rh- 98	EC	3.5	M	9	745.20(78.)	1144.00(8.5)
652.9	48.2	Mo- 91	IT	65.0	S	1		
653.6	27.	Yb-179	B-	8.1	M	16	351.60(43.) U)	612.50(100.)
658.	100.	In-104	EC	1.8	M	130	834.10(99.)	878.10(29.4)
658.5	5.67	Mo- 89	B+	2.04	M	8	844.00(3.67)	1272.60(3.67)
659.3	--	Pa-235	B-	24.1	M	16	645.70(--)	652.00(--)
661.5	5.1	Pd- 98	EC	17.?	M	16	106.75(13.9)	464.55(22.3)
661.6	--	Pa-137	IT	2.5513	M	1		
662.2	19.7	La-132	EC	24.3	M	17	285.80(7.37)	1109.72(13.1)
663.07	11.6	Rb- 78	EC	5.72	M	74	456.99(8.1)	1959.00(5.35)
664.42	38.3	Ac-232	B-	1.19	S	29	1899.00(8.87)	773.00(--)
665.3	--	Ag-100	EC	2.3	M	3	750.50(--)	1040.00(80.8)
665.8	1.08	Br- 80	EC	17.68	M	6	788.00(< 0.01)	812.20(0.04)
666.1	85.7	Sb-126	B-	19.0	M	8	414.50(85.7)	694.80(82.2)
667.1	16.9	Ge- 64	EC	63.7	S	8	128.20(10.7)	427.00(37.4)
667.32	9.84	Ag-101	EC	11.1	M	76	261.01(52.6)	588.00(9.99)
668.4	21.8	As- 70	EC	52.6	M	79	1040.00(80.8)	1114.30(21.8)
669.16	22.6	Nb- 80	EC	10.30	M	21	726.69(45.5)	396.34(64.3)
669.41	8.6	At-205	EC	26.2	M	150	628.88(5.6)	719.30(30.6)
669.62	8.2	Zn- 63	EC	38.47	M	66	962.06(6.48)	1412.08(0.75)
670.3	64.	Zn- 60	EC	2.9	M	7	61.40(25.6)	273.45(10.9)
671.	34.	Po-200	EC	11.5	M	56	434.40(9.28)	617.70(19.7)
671.2	* 62.1	Nb- 88	B+	14.5	M	37	1057.70(* 97.1)	1082.60(* 100.)
671.8	* 54.7	Bi-194	EC	106	S	10	965.00(* 40.6)	1308.30(* 100.)
673.4	6.91	Pd- 99	B+	21.4	M	109	136.00(72.7)	263.60(15.2)
675.3	86.6	At-202	EC	181	S	3	441.30(40.7)	569.70(80.5)
677.6	*	Tl-195	EC	21.6	M	30	324.37(* 100.)	1044.70(* 59.) U)
677.6	5.8	Rh- 95	EC	5.02	M	68	941.60(71.6)	1352.00(20.8)
678.6	100.	Sn-107	EC	2.90	M	84	1129.00(100.)	1542.00(30.)
679.	53.	Am-216	B-	39	M	15	153.50(25.4)	205.00(36.)
683.3	54.9	In-218	B-	4.45	M	17	1050.80(81.9)	1229.50(96.4)
683.5	8.69	Tl-190	EC	2.6	M	24	416.40(79.)	625.40(11.1)
688.1	23.1	At-204	EC	9.2	M	56	426.24(67.1)	516.32(89.8)
688.2	94.2	Pr-138	EC	1.45	M	109	631.30(74.5)	832.52(100.)
688.47	95.7	Rh- 96	EC	9.90	M	17	265.70(86.)	453.30(92.9)
686.5	90.3	Tb-167	B-	3.0	M	25	165.70(8.71U)	316.00(14.3 U)
688.6	51.	Po-202	EC	44.7	M	3	963.00(0.04)	
689.	0.2	Sm-143	EC	66	S	23	14.41(10.6)	122.06(13.9)
692.	5.5	Mn- 57	B-	85.4	S	47	564.12(17.6)	793.28(1.3)
692.79	1.33			1.33				

Energy (KeV)	Intensity (%)	Parent	Decay Mode	Half Life	No. of G	Energy (Intensity)	692.8 -	750.2 (KeV)
							Other two intense gamma-rays	Energy(Intensity)
692.88	12.6	Rb- 78	EC	17.66	M 120	454.99(62.7)	562.15(11.4)	
694.8	82.2	Sb-126	B-	19.0	M 8	414.50(85.7)	666.10(85.7)	
696.1	0.64	Th-235	B-	7.1	M 20	417.00(2.0)	727.20(0.87)	
696.51	1.34	Pr-144	B-	17.28	M 17	1489.16(0.28)	2185.66(0.69)	
696.8	86.1	Sb-132	B-	2.79	M 37	973.90(99.)	989.60(14.8)	
696.8	100.	Sb-132	B-	4.10	M 18	150.60(66.)	973.90(100.)	
697.52	40.	Pr-148	B-	2.0	M 8	301.74(95.)	450.80(50.)	
698.37	0.03	Br- 82	B-	6.13	M 20	776.52(0.26)	1474.88(0.02)	
698.7	* 22.5	U Ir-180	EC	1.5	M 16	131.80(* 95.)	276.20(*100.)	
699.5	13.6	Br- 73	EC	3.4	M 20	64.90(34.)	335.70(11.6)	
699.59	10.9	Ag-116	B-	2.68	M 64	513.40(76.)	2477.90(11.6)	
700.66	97.6	At-206	EC	30.0	M 69	395.54(48.1)	477.10(85.9)	
701.1	100.	Fe- 53	IT	2.58	M 6	1011.50(86.)	1328.10(87.)	
703.8	0.19	Br- 80	B-	17.68	M 7	616.30(6.69)	639.40(0.26)	
703.8	0.15	Sb-120	B+	15.89	M 3	988.60(0.06)	1171.20(1.69)	
703.9	2.13	Sr- 94	B-	75.2	S 16	723.80(2.4)	1427.70(94.2)	
708.4	* 93.	Er-174	B-	3.3	M 12	100.40(*100.)	766.90(* 92.)	
709.	-- U	I -115	B+	1.3	M 4	284.00(-- U)	460.00(-- U)	
709.3	19.5	Cd-104	EC	57.7	M 9	83.50(47.)	559.00(6.34)	
712.2	* 46.	Pb-191	EC	2.18	M 16	387.10(*100.)	613.50(* 40.)	
713.24	100.	Au-189	EC	28.7	M 48	447.77(55.)	812.80(63.)	
716.	1.6	Gd-145	EC	85	S 3	329.50(6.21)	386.60(5.7)	
716.5	* 6.7	Pb-193	EC	5.8	M 12	365.00(*100.)	392.20(* 20.7)	
719.3	30.6	At-205	EC	26.2	M 150	628.88(5.6)	669.41(8.6)	
719.4	58.1	Ag-102	EC	12.9	M 35	556.70(90.6)	1744.60(17.3)	
720.66	13.9	In-103	EC	65	S 14	187.91(55.)	739.95(10.1)	
720.7	17.9	Cd-119	B-	2.20	M 74	1025.00(24.8)	2021.30(22.6)	
720.8	* 100.	Lu-182	B-	2.0	M 5	808.10(* 50.)	818.20(*100.)	
721.4	82.	Gd-145	IT	85	S 2	27.30(4.49)		
722.63	73.8	Nb- 98	B-	51.3	M 287	787.36(93.4)	1168.83(17.8)	
723.57	30.1	Te-115	EC	5.8	M 56	1326.84(22.7)	1380.58(23.)	
723.6	? 18.	Te-115	EC	6.7	M 30	770.40(34.2)	1071.70(12.9)	
723.8	2.4	Sr- 94	B-	75.2	S 16	703.90(2.13)	1427.70(94.2)	
724.33	59.	Ce-145	B-	3.01	M 89	62.54(13.3)	1148.03(9.14)	
726.6	43.	Te-114	EC	15.2	M 48	83.80(67.)	90.28(100.)	
727.	--	Bi-212	B-	25.0	M 5	275.00(--)	404.00(--)	
727.2	0.87	Th-235	B-	7.1	M 20	417.00(2.0)	696.10(0.64)	
728.18	28.2	Ho-160	EC	0.43+5.02H	352	879.37(18.6)	962.36(16.7)	
728.3	35.6	Br- 74	EC	46	M 123	634.30(16.4)	634.80(91.2)	
728.5	12.8	Tm-160	EC	9.4	M 44	125.70(35.)	264.00(9.4)	
729.	37.8	Pm-138	EC	3.24	M 70	493.10(21.6)	520.90(100.)	
731.1	37.4	Tl-190	EC	3.7	M 41	416.40(91.2)	625.40(82.1)	
735.72	7.49	Pr-146	B-	24.15	M 109	453.88(48.)	1524.73(15.6)	
735.93	5.2	Np-242	B-	2.2	M 43	780.44(2.76)	1473.10(2.34)	
738.1	15.5	Ar- 43	B-	5.37	M 85	975.00(34.)	1439.50(12.5)	
739.63	2.4	Pd-113	B-	93	S 33	95.74(3.25)	643.70(3.0)	
739.95	10.1	In-103	EC	65	S 14	187.91(55.)	720.66(13.9)	
740.52	36.	Lu-164	EC	3.14	M 54	123.27(100.)	262.22(31.9)	
741.3	36.6	Ho-168	B-	2.99	M 105	815.90(18.6)	821.09(34.5)	
743.24	96.4	Sb-128	B-	10.4	M 16	314.00(88.7)	753.90(96.4)	
743.5	0.17	I -128	EC	24.99	M 1			
745.2	78.	Rh- 98	EC	3.5	M 9	652.60(96.)	1144.00(8.5)	
745.4	5.28	Rh- 98	EC	8.7	M 19	652.60(94.2)	1817.00(4.71)	
745.78	22.8	Rn-209	EC	28.5	M 200	337.45(14.5)	408.32(50.3)	
747.15	14.1	Rn-207	EC	9.3	M 117	344.53(45.4)	402.68(11.8)	
749.	76.	Tl-194	EC	32.8	M 48	428.20(98.8)	636.30(98.8)	
749.07	0.27	Mn- 51	EC	46.2	M 11	1148.01(0.08)	1164.40(0.08)	
750.2	9.32	Ta-168	EC	2.44	M 26	123.90(35.7)	261.50(27.4)	

Energy (KeV)	Intensity (Σ)	Parent Nuclide	Decay Mode	Half Life of G	No. of G	Energy (keV)	Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)	
750.5	--	Ag-100	EC	2.3	M	3	665.30(	--	773.00(
751.74	97.8	Nb- 86	EC	88	S	24	914.81(	78.1	1003.24(
751.8	0.03	Pr-140	EC	3.39	M	13	306.90(	0.15	37.4
753.9	96.4	Sb-128	B+	10.4	M	16	314.00(	88.7	1596.10(
754.4	89.7	Sm-143	IT	6.6	S	1	182	168.86(	0.5
754.77	23.3	Tb-164	B-	3.0	M	20	168.86(	25.4	688.46(
756.2	51	Rh- 94	B+	70.6	S	20	1072.50(	30.7	21.2
756.4	0.48	Pu-235	EC	25.3	M	17	1072.50(	0.23	1430.70(
756.51	91.4	Nd-141	IT	62.0	S	1	17	49.10(100.	49.10(
760.5	0.29	Pd- 96	EC	9.87	M	28	818.51(	2.3	1322.99(
761.	10.3	La-136	EC	4.7	M	38	788.40(	21.2	0.27
761.14	13.3	Ho-169	B-	8	M	40	375.48(	12.8	852.60(
761.8	33.8	Pb-197	EC	151.6	S	37	651.20(	32.1	385.85(
761.97	1.48	As- 68	EC	35.3	M	52	1152.98(	2.65	50.4
762.3	50	Sn-111	EC	5	M	19	124.90(	65.	1016.10(
763.14	99.2	Pd- 96	EC	122	M	5	23.87(	16.	78.
765.4	17	In-119	B+	2.4	M	64	191.50(	100.	191.50(
766.36	0.21	Au-186	EC	10.7	M	129	257.90(	0.06	1001.03(
766.9	* 92	Pa-234	B+	1.17	M	12	100.40(	41.00(	0.59
767.1	6.5-04	Er-174	B-	3.3	M	27	708.40(	93.	708.40(
767.2	29	Se- 81	B+	57.28	M	6	260.10(	0.05	275.93(
767.78	6.E-03	Tc-134	B-	41.8	M	26	210.47(	22.3	277.95(
768.	100.	Rh-104	B-	4.34	M	32	555.81(	0.13	20.9
768.91	1.25	Eu-142	EC	1.22	M	32	556.60(	86.6	1237.05(
770.4	34.2	Tm-164	EC	2.0	M	168	91.41(	6.7	1023.30(
772.7	1.4	Tc-115	EC	6.7	M	30	1154.66(	1.64	92.
773.	* 99.	Hf-165	EC	7.6	S	2	773.60(	18.	1154.66(
773.	--	Tc- 92	EC	4.25	M	22	329.30(	79.1	1071.70(
773.	--	Ag-100	EC	2.3	M	33	665.30(	--	12.9
773.74	100.	Pm-140	EC	5.95	M	33	419.57(	92.	12.9
775.8	* 98.	Os-176	EC	3.0	M	5	1209.20(	71.	12.9
776.52	0.26	Rb- 82	B+	6.13	M	20	698.37(	0.03	1474.88(
776.52	13.4	Rb- 82	B+	1.273	M	49	1395.14(	0.47	0.02
777.4	20.3	Sm-141	EC	22.6	M	47	196.60(	74.3	431.80(
778.22	1.87	Tc- 96	EC	51.5	M	40	480.70(	0.31	40.4
779.8	58.6	Sn-130	B-	3.72	M	70.00(	35.5	1200.15(
780.44	2.76	Np-242	B-	2.2	M	43	735.95(	5.2	192.50(
783.3	100.	Mn- 50	B+	1.75	M	11	1098.00(	98.5	70.3
784.48	100.	Tb-148	EC	2.20	M	7	1631.87(	95.	1473.10(
785.7	60.	Pm-242	B-	5.5	M	7	159.10(	19.2	2.34
786.3	* 31.7	Tl-192	EC	9.6+10.8	M	75	422.80(	4100.	1443.30(
786.9	4.E-03	Xe-135	B-	15.29	M	4	133.00(	3.5-04	69.
787.2	100.	Cs-135	IT	53	M	2	846.10(	95.9	882.41(
787.36	93.4	Nb- 98	B-	51.3	M	287	722.63(	73.8	92.
787.7	8.17	Rh- 95	EC	1.96	M	9	3407.10(	2.11	3824.40(
788.	0.01	Br- 90	EC	17.68	M	6	665.80(	1.08	812.20(
788.4	< 21.2	Ho-169	B+	4.7	M	38	761.00(	10.3	852.90(
788.7	2.4	Pr-138	EC	1.25	M	18	688.20(	0.82	11.2
789.5	15.	Dy-149	EC	4.23	M	56	100.80(	23.	1551.10(
792.7	14.3	Pd- 97	B+	3.1	M	6	1766.50(	18.2	4.23
793.	98.6	Y- 84	B+	4.0	M	25	265.30(	57.7	475.20(
793.28	1.3	I- 122	B+	3.63	M	74.9	974.10(	74.9	27.5
793.4	100.	Sb-130	B-	39.5	M	47	1039.80(	56.2	1039.80(
793.4	86.	Sb-130	B-	6.3	M	47	664.12(	17.6	692.79(
796.	100.	Tb-149	EC	4.16	M	40	839.40(	1.33	1.33
798.68	8.38	Im-162	EC	21.70	M	9	164.50(	15.	651.00(
798.76	16.9	Lu-162	EC	1.37	M	334	102.00(	17.5	33.6
798.8	24.7	Am-246	B-	25.0	M	26	227.52(	7.1	0.00(
798.89	10.7	Gd-163	EC	112	M	249	166.82(	100.	631.87(
					M	62	1062.04(	17.1	37.8
					M	271.94(	84.3	634.80(	75.9
					M	588.00(	15.7	634.80(	75.9

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	799.6 -	860.4 (KeV)	
						Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)	
799.6	99.	Tl-210	B-	1.30	M	24	296.00(79.2)	1316.00(20.8)	
802.41	2.56	Br- 85	B-	2.90	M	44	919.06(0.65)	924.63(1.63)	
803.3	5.E-03	Tl-206	B-	4.199	M	3	362.00(<3.E-04)		
803.7	90.	Ho-150	EC	88	S	2	591.30(39.6)		
805.6	12.5	Ag- 99	B+	124	S	103	264.46(65.)	832.29(13.5)	
807.36	0.29	Bi-213	B-	45.59	M	10	292.80(0.43)	440.46(26.1)	
807.53	42.8	Tb-162	B-	7.60	M	50	260.05(80.)	888.20(38.7)	
807.85	13.7	Ga- 64	EC	2.630	M	49	991.51(43.2)	3365.87(13.1)	
808.1	* 50.	Lu-182	B-	2.0	M	5	720.80(*100.)	818.20(*100.)	
810.76	88.2	Mn- 58	B-	65.3	S	39	459.16(21.4)	1323.09(59.4)	
812.2	0.04	Br- 80	EC	17.68	M	6	665.80(1.08)	788.00(0.01)	
812.8	63.	Au-189	EC	28.7	M	48	447.77(55.)	713.24(100.)	
814.4	22.	Te-113	EC	1.7	M	39	1018.10(13.)	1181.00(12.3)	
815.9	18.6	Ho-168	B-	2.99	M	105	741.30(36.6)	821.09(34.5)	
815.92	* 45.	U	Ir-197	B- 8.9+5.8	M	44	430.56(* 61.1 U)	469.72(*100. U)	
817.2	24.	Fr-210	EC	3.18	M	9	203.30(14.)	643.80(40.)	
817.8	18.5	Sb-133	B-	2.5	M	99	1096.22(43.)	2755.00(12.5)	
818.2	*100.	Lu-182	B-	2.0	M	5	720.80(*100.)	808.10(* 50.)	
818.51	2.3	La-136	EC	9.87	M	28	760.50(0.29)	1322.99(0.27)	
819.5	33.3	Np-232	EC	14.7	M	28	327.30(52.)	867.20(24.4)	
821.09	34.5	Ho-168	B-	2.99	M	105	741.30(36.6)	815.90(18.6)	
822.4	* 17.3	Pr-132	EC	1.6	M	20	325.40(*100.)	496.90(* 25.)	
825.36	9.9	Re-180	EC	2.44	M	99	103.53(22.2)	902.79(90.)	
826.28	-8.E-03	Co- 60	B-	10.467	M	3	1332.50(0.24)		
826.4	21.7	Cu- 60	EC	23.7	M	88	1332.50(88.)	1791.60(45.4)	
828.27	0.28	Se- 81	B-	18.45	M	12	275.93(0.67)	290.04(0.55)	
830.33	9.74	Se- 71	EC	4.74	M	86	147.50(47.5)	1095.26(9.83)	
831.69	94.5	Rb- 90	B-	258	S	108	1375.36(16.7)	3517.00(14.4)	
831.69	28.	Rb- 90	B-	158	S	95	1060.70(6.69)	4365.90(5.6)	
832.01	3.52	Pb-211	B-	36.1	M	39	404.85(3.78)	427.09(1.76)	
832.29	13.5	Ag- 99	B+	124	S	103	264.46(65.)	805.60(12.5)	
832.52	100.	Rh- 96	EC	9.90	M	109	631.73(74.5)	685.47(95.7)	
832.52	39.2	Rh- 96	EC	1.51	M	28	1098.20(8.89)	1692.30(6.97)	
833.	0.16	Cu- 66	B-	5.088	M	4	1039.20(7.4)		
834.1	99.	In-104	EC	1.8	M	130	658.00(100.)	878.10(29.4)	
834.4	13.1	Cu- 69	B-	2.85	M	32	551.20(5.97)	1007.50(23.4)	
836.9	9.78	Fr-224	B-	3.30	M	117	131.61(16.3)	215.99(33.1)	
838.9	* 84.3	Ho-158	EC	21.3	M	21	406.14(*100.)	1484.10(* 66.2)	
839.4	100.	Sb-130	B-	6.3	M	40	182.30(41.)	793.40(86.)	
839.4	100.	Sb-130	B-	39.5	M	59	330.90(78.)	793.40(100.)	
839.66	12.5	Pm-154	B-	1.73	M	45	1393.80(12.3)	2058.81(19.)	
840.08	12.1	Rh- 97	B+	31.1	M	69	421.55(73.7)	878.80(9.13)	
841.4	2.17	Pm-152	B-	4.1	M	74	121.80(15.7)	960.90(1.92)	
841.7	7.0	Bi-199	EC	27	M	185	425.30(14.)	946.00(6.86)	
843.76	71.8	Mg- 27	B-	9.462	M	3	170.69(0.8)	1014.44(28.)	
844.	3.67	Mo- 89	B+	2.04	M	8	658.50(5.67)	1272.60(3.67)	
845.7	- 23.3	Po-199	EC	5.2	M	7	246.00(- 28.2)	880.20(- 17.9)	
846.1	95.9	Cs-135	IT	53	M	2	787.20(100.)		
847.	2.27	I	-134	B-	3.69	M	3	234.30(1.56)	884.00(2.27)
847.02	95.4	I	-134	B-	52.6	M	88	884.09(64.9)	1072.55(15.)
847.93	5.3	Ru-107	B-	3.75	M	120	194.05(9.86)	462.61(3.66)	
848.95	0.62	Xe-137	B-	3.818	M	94	455.49(31.2)	1783.43(0.41)	
852.9	11.2	Ho-169	B-	4.7	M	38	761.00(10.3)	788.40(21.2)	
853.7	34.1	Pa-237	B-	8.7	M	18	529.40(14.9)	865.00(15.5)	
857.2	* 23.4	Pm-136	EC	107	S	27	373.80(*100.)	602.70(* 38.4)	
858.	31.4	Pm-136	EC	107	S	15	373.50(89.8)	602.70(49.7)	
860.28	10.1	Yb-163	EC	11.05	M	179	63.62(6.46)	123.21(1.98)	
860.4	7.39	Ta-170	EC	6.76	M	23	100.80(21.)	221.20(15.7)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	B61.1 -	916.9 (KeV)
							Other two intense gamma-rays	Energy[Intensity]
861.1	91.7	In-106	EC	6.2	M	83	632.60(99.7)	997.80(47.9)
861.1	10.6	In-106	EC	5.2	M	70	632.60(91.8)	1714.90(17.1)
862.	70.2	Br- 72	EC	78.6	S	35	454.70(13.1)	1316.70(17.3)
863.96	15.6	Te-133	B-	55.4	M	210	647.51(19.4)	912.67(55.3)
865.	15.5	Pa-237	B-	8.7	M	18	529.40(14.9)	853.70(34.1)
867.2	24.4	Np-232	EC	14.7	M	28	327.30(52.)	819.50(33.3)
868.	0.01	Bi-213	A	45.59	M	3	323.81(0.17)	544.90(0.02)
871.	0.5	Nb- 94	B-	6.26	M	3		
871.	3.8	Pb-195	EC	15	M	18	393.70(4.5)	883.10(10.6)
871.05	94.2	Tc- 94	B+	52.0	M	41	1522.10(4.52)	1868.68(5.75)
871.7	3.E-04	Zn- 69	B-	56.4	M	2	318.40(1.E-03)	
873.4	12.5	Ho-154	EC	11.8	M	64	334.60(84.4)	412.50(15.)
873.46	0.2	Ag-106	EC	23.96	M	39	511.90(17.)	621.95(0.32)
874.41	--	Ne- 24	B-	3.38	M	2	472.20(--)	
875.4	*100.	In-108	EC	58.0	M	117	242.60(* 41.1)	632.90(*100.)
875.71	0.15	Cu- 62	B+	9.74	M	16	1173.02(0.34)	2301.96(0.04)
875.8	23.4	Sr- 93	B-	7.423	M	171	590.24(65.7)	888.18(21.5)
878.	11.8	Cu- 59	EC	81.5	S	24	339.30(8.02)	1301.50(14.6)
878.1	29.4	In-104	EC	1.8	M	130	658.00(100.)	834.10(99.)
878.4	* 22.6	Pb-195	EC	15.0	M	50	383.64(*100.)	394.21(* 41.2)
878.8	9.13	Rh- 97	B+	31.1	M	69	421.55(73.7)	840.08(12.1)
879.37	18.6	Ho-160	EC	0.43+5.02H	352		728.18(28.2)	962.36(16.7)
880.2	- 17.9	Po-199	EC	5.2	M	7	246.00(- 28.2)	845.70(- 23.)
881.6	98.	Br- 84	B-	6.0	M	6	424.00(100.)	1462.80(97.)
881.6	41.6	Br- 84	B-	31.80	M	53	1897.60(14.7)	3927.50(6.78)
882.1	6.3	Y- 83	B+	7.08	M	128	35.50(19.3)	489.90(5.55)
882.41	< 92.	Tb-148	EC	2.20	M	11	631.87(95.)	784.48(100.)
883.1	10.6	Pb-195	EC	15	M	18	393.70(4.5)	871.00(3.8)
884.	2.27	I-134	B-	3.69	M	3	234.30(1.56)	847.00(2.27)
884.09	64.9	I-134	B-	52.6	M	88	847.02(95.4)	1072.55(15.)
885.4	* 11.1	Ge- 75	B-	126	S	38	252.80(*100.)	574.70(* 31.6)
886.22	2.44	Pm-141	EC	20.90	M	70	193.67(1.61)	1223.26(4.74)
887.57	17.4	Sb-114	B+	3.49	M	122	327.18(7.01)	1299.92(98.7)
888.18	21.5	Sr- 93	B-	7.423	M	171	590.24(65.7)	875.80(23.4)
888.2	38.7	Tb-162	B-	7.60	M	50	260.05(80.)	807.53(42.8)
890.4	100.	Po-201	EC	15.3	M	9	428.40(16.6)	904.70(54.5 U)
891.2	24.8	Ru- 94	EC	51.8	M	4	367.20(75.2)	525.00(1.8)
893.5	18.7	Po-203	EC	36.7	M	84	908.60(54.9)	1090.90(19.2)
894.5	0.39	Cs-130	EC	29.21	M	22	536.10(3.84)	586.10(0.47)
895.2	13.9	Ba-142	B-	10.6	M	90	255.30(20.5)	1204.30(14.2)
895.2	53.8	Er-173	B-	1.4	M	13	192.80(46.6)	199.20(48.)
896.1	15.4	Lu-168	EC	6.7	M	116	198.82(27.7)	979.20(20.)
897.6	0.24	Tl-207	B-	4.77	M	2	569.70(< 0.01)	
898.03	14.	Rb- 88	B-	17.78	M	30	1836.00(21.4)	2677.89(1.96)
899.2	49.	Sn-130	B-	1.7	M	20	84.70(42.)	144.90(100.)
902.79	90.	Re-180	EC	2.44	M	99	103.53(22.2)	825.36(9.9)
904.27	7.22	Kr- 89	B-	3.15	M	332	220.95(20.1)	586.03(16.6)
904.7	54.5 U	Po-201	EC	15.3	M	9	428.40(16.6)	890.40(100.)
904.9	*100. U	Po-203	EC	1.2	M	3	261.50(* 12. U)	577.00(* 54.2 U)
908.	17.	La-130	EC	8.7	M	72	357.40(81.)	550.70(25.9)
908.36	7.89	Cs-140	B-	63.7	S	239	602.35(49.)	1200.49(4.21)
908.6	54.9	Po-203	EC	36.7	M	84	893.90(18.7)	1090.90(19.2)
910.3	7.84	Zn- 71	B-	2.45	M	24	390.00(3.84)	511.60(32.)
911.2	3.09	Ge- 67	EC	18.9	M	56	167.01(84.3)	1472.80(4.9)
912.67	55.3	Te-133	B-	55.4	M	210	647.51(19.4)	863.96(15.6)
914.6	3.02	Au-187	EC	8.4	M	276	1331.90(7.0)	1408.10(3.06)
914.81	78.1	Nb- 86	EC	88	S	24	751.74(97.8)	1003.24(37.4)
916.9	1.52	Nd-139	EC	29.7	M	27	405.00(6.92)	1074.20(2.53)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy	918.0 -	1009.7 (KeV)
							Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
918.	11.	Fr-211	EC	3.10	M	7	281.00(6.8)	540.00(20.)	
918.74	56.	Y - 94	B-	18.7	M	54	550.90(4.93)	1138.90(5.99)	
919.06	0.65	Br- 85	B-	2.90	M	44	802.41(2.56)	924.63(1.63)	
924.63	1.63	Br- 85	B-	2.90	M	44	802.41(2.56)	919.06(0.65)	
925.2	4.8	Cs-126	B+	1.64	M	26	388.60(40.7)	491.20(5.13)	
927.6	3.79	Tc- 91	B+	3.3	M	10	502.90(51.4)	1328.40(2.55)	
928.63	6.9	Ti- 51	B-	5.76	M	3	320.08(93.1)	608.55(1.18)	
931.8	24.7	Sb-116	EC	15.8	M	23	1293.54(84.8)	2225.33(14.2)	
932.1	36.1	Ho-170	B-	2.76	M	43	181.57(23.8)	258.17(37.)	
933.1	24.6	Sb-131	B-	23	M	72	642.30(22.)	943.40(44.)	
939.1	8.93	Re-178	EC	13.2	M	114	105.90(23.)	237.30(44.6)	
941.15	14.2	Tm-175	B-	15.2	M	74	363.96(12.8)	514.86(86.6)	
941.6	71.6	Rh- 95	EC	5.02	M	68	677.60(5.8)	1352.00(20.8)	
941.95	0.36	Am-244	B-	26	M	8	1062.95(0.28)	1084.18(0.37)	
942.2	69. U	Tl-189	EC	2.3	M	5	333.70(100. U)	451.00(49. U)	
942.2	33.9	Pb-190	EC	1.2	M	24	151.19(8.92)	598.30(8.03)	
943.4	44.	Sb-131	B-	23	M	72	642.30(22.)	933.10(24.6)	
943.7	2.85	Tc- 93	EC	43.5	M	11	1492.20(1.88)	2644.60(14.)	
944.15	25.	Eu-158	B-	45.9	M	132	79.49(11.1)	977.14(13.6)	
944.8	37.8	Np-242	B-	5.5	M	7	159.10(19.2)	785.70(60.)	
945.7	* 36.6	Ho-158	EC	11+27	M	244	98.90(* 70.)	218.20(* 100.)	
946.	6.86	Bi-199	EC	27	M	185	425.30(~ 14.)	841.70(7.0)	
947.1	49.1	Rh-108	B-	6.0	M	14	434.20(87.7)	581.10(59.6)	
954.	15.8	Y - 95	B-	10.3	M	59	2175.60(7.0)	3576.00(6.38)	
960.9	1.92	Pm-152	B-	4.1	M	74	121.80(15.7)	841.40(2.17)	
961.84	4.69	Cd-105	EC	55.5	M	293	346.87(4.2)	1302.46(3.98)	
962.06	6.48	Zn- 63	EC	38.47	M	66	669.62(8.2)	1412.08(0.75)	
962.36	16.7	Ho-160	EC	0.43+5.02H	M	352	728.18(28.2)	879.37(18.6)	
963.	0.04	Sm-143	EC	66	S	3	689.00(0.2)		
965.	99.2	Bi-194	EC	92+125	S	38	280.30(73.2)	575.00(97.3)	
965.	* 40.6	Bi-194	EC	106	S	10	671.80(* 54.7)	1308.30(* 100.)	
967.	57.	Po-201	EC	8.9	M	4	272.70(4.73)	412.40(25.6)	
968.7	* 100. U	Os-178	EC	5.0	M	14	594.60(* 72.5 U)	1331.10(* 94.2 U)	
969.46	0.4	I - 128	B-	24.99	M	7	442.90(16.9)	526.56(1.58)	
970.	2.57	Zn- 61	EC	89.1	S	46	475.00(16.8)	1660.40(7.8)	
972.14	--	Nd-141	EC	62.0	S	3	145.44(--)	1117.60(--)	
973.9	99.	Sb-132	B-	2.79	M	37	696.80(86.1)	989.60(14.8)	
973.9	100.	Sb-132	B-	4.10	M	18	150.60(66.)	696.80(100.)	
974.1	74.9	Y - 84	B+	40	M	25	793.00(98.6)	1039.80(56.2)	
975.	34.	Ar- 43	B-	5.37	M	85	738.10(15.5)	1439.50(12.5)	
977.14	13.6	Eu-158	B-	45.9	M	132	79.49(11.1)	944.15(25.)	
979.2	20.	Lu-168	EC	6.7	M	116	198.82(27.7)	896.10(15.4)	
988.05	16.1	Se- 83	B-	70.1	S	36	356.69(17.5)	1030.61(21.2)	
988.6	0.06	Sb-120	B+	15.89	M	3	703.80(0.15)	1171.20(1.69)	
989.6	14.8	Sb-132	B-	2.79	M	37	696.80(86.1)	973.90(99.)	
991.51	43.2	Ga- 64	EC	2.630	M	49	807.85(13.7)	3365.87(13.1)	
991.84	87.	Tm-174	B-	5.4	M	43	272.73(85.8)	386.40(92.2)	
997.1	78.	Hg-207	B-	2.9	M	33	351.00(77.)	1637.10(29.5)	
997.8	47.9	In-106	EC	6.2	M	83	632.60(99.7)	861.10(91.7)	
1001.03	0.59	Pa-234	B-	1.17	M	129	257.90(0.06)	766.36(0.21)	
1001.7	35.4	Po-199	EC	4.2	M	53	361.90(13.)	1033.80(29.4)	
1002.	59.1 U	At-203	EC	7.37	M	20	639.30(66.7 U)	1034.00(69. U)	
1002.9	5.62	Re-174	EC	2.40	M	13	112.40(19.8)	243.70(36.6)	
1003.24	37.4	Nb- 86	EC	88	S	24	751.74(97.8)	914.81(78.1)	
1006.	89.6	V - 53	B-	1.61	M	7	1289.10(10.)		
1007.22	0.01	Ag-108	EC	2.37	M	12	433.94(0.5)	618.86(0.26)	
1007.5	23.4	Cu- 69	B-	2.85	M	32	531.20(5.97)	834.40(13.1)	
1009.78	29.8	Cs-138	B-	32.2	M	88	462.80(30.7)	1435.86(76.3)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Energy(Intensity)	1011.5 -	1011.5 -	1098.0 (KeV)
							Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
1011.5	86.	Fe- 53	IT	2.58	M	6	701.10(100.)	1328.10(87.)	
1012.48	12.8	Mo-101	B-	14.61	M	190	191.92(18.8)	590.91(16.4)	
1014.44	28.	Mg- 27	B-	9.462	M	3	170.69(0.8)	843.76(71.8)	
1014.5	<100.	Pa-238	B-	2.3	M	172	635.00(88.)	1015.20(<100.)	
1015.2	<100.	Pa-238	B-	2.3	M	172	635.00(88.)	1014.50(<100.)	
1016.1	78.	As- 68	EC	151.6	S	37	651.20(32.1)	761.80(33.8)	
1018.1	13.	Tc-113	EC	1.7	M	39	814.40(22.)	1181.00(12.3)	
1022.96	4.76	Pr-148	B-	2.27	M	50	301.70(61.)	1357.78(5.49)	
1023.3	92.	Eu-142	EC	1.22	M	32	556.60(86.6)	768.00(100.)	
1025.	24.8	Cd-119	B-	2.20	M	74	720.70(17.9)	2021.30(22.6)	
1026.49	100.	Bi-200	EC	36.4	M	33	419.77(91.)	462.34(98.)	
1026.8	91.	Bi-200	EC	31	M	7	419.80(21.6)	462.40(37.9)	
1027.42	42.7	Fe- 61	B-	5.98	M	48	297.90(22.2)	1205.07(43.6)	
1028.19	100.	Pm-140	EC	5.95	M	33	419.57(92.)	773.74(100.)	
1030.61	21.2	Se- 83	B-	70.1	S	36	356.69(17.5)	988.05(16.1)	
1031.92	58.	Rb- 89	B-	15.15	M	62	1248.14(42.6)	2195.92(13.3)	
1032.6	9.95	Sb-111	EC	75	S	24	154.48(70.7)	489.10(41.6)	
1033.8	29.4	Po-199	EC	4.2	M	53	361.90(13.)	1001.70(35.4)	
1034.	69. U	At-203	EC	7.37	M	20	639.30(66.7 U)	1002.00(59.1 U)	
1036.6	12.8	Cd-102	EC	5.5	M	17	481.00(62.5)	505.10(9.56)	
1039.2	7.4	Cu- 66	B-	5.088	M	4	833.00(0.16)		
1039.2	0.65	Ga- 70	B-	21.14	M	3	176.17(0.29)		
1039.8	56.2	Y- 84	B+	40	M	25	793.00(98.6)	974.10(74.9)	
1040.	80.8	As- 70	EC	52.6	M	79	668.40(21.8)	1114.30(21.8)	
1041.	9.58	Cu- 68	B-	3.75	M	24	1077.70(11.9)	1340.50(12.)	
1041.2	1.12	In-121	B-	3.88	M	10	60.10(- 20.4)	1102.20(0.92)	
1041.8	9.9	Gd-145	EC	23.0	M	326	1757.90(34.2)	1880.60(32.6)	
1044.7	* 59. U	Tl-193	EC	21.6	M	50	324.37(*100.)	676.10(* 48. U)	
1048.6	*100.	Bi-196	EC	4.6	M	6	372.00(* 46.)	688.00(* 62.)	
1050.8	81.9	In-118	B-	4.45	M	17	683.30(54.9)	1229.50(96.4)	
1056.58	1.9	Sm-143	EC	8.83	M	25	1173.18(0.42)	1514.98(0.66)	
1057.1	89.3	Nb- 88	B+	7.8	M	91	399.40(45.7)	1082.60(53.9)	
1057.1	* 97.1	Nb- 88	B+	14.5	M	37	671.20(* 62.1)	1082.60(*100.)	
1060.7	6.69	Rb- 90	B-	158	S	95	831.69(28.)	4365.90(5.6)	
1062.04	17.1	Am-246	B-	25.0	M	249	798.80(24.7)	1078.86(27.7)	
1062.95	0.28	Am-244	B-	26	M	8	941.95(0.36)	1084.18(0.37)	
1063.45	*100.	Bi-198	EC	11.85	M	11	197.60(* 80.)	562.40(* 79.)	
1065.55	0.13	In-119	B-	18.0	M	14	1163.85(0.06)	1249.71(0.08)	
1066.8	37.	Nb- 87	B+	2.6	M	34	201.00(100.)	470.58(73.)	
1069.2	33.	Tm-176	B-	1.9	M	86	189.80(44.2)	381.80(23.1)	
1071.7	12.9	Te-115	EC	6.7	M	30	723.60(18.)	770.40(34.2)	
1072.5	30.7	Rh- 94	B+	70.6	S	20	756.20(51.)	1430.70(100.)	
1072.55	15.	I- 134	B-	52.6	M	88	847.02(95.4)	884.09(64.9)	
1074.2	2.53	Nd-139	EC	29.7	M	27	405.00(6.92)	916.90(1.52)	
1076.6	0.69	Y- 86	B+	48	M	4	627.20(0.69)	1153.10(0.69)	
1077.7	11.9	Cu- 68	B-	3.75	M	24	1041.00(9.58)	1340.50(12.)	
1078.86	27.7	Am-246	B-	25.0	M	249	798.80(24.7)	1062.04(17.1)	
1079.9	5.44	Cd-103	EC	7.3	M	233	1448.70(5.55)	1461.81(11.7)	
1082.6	53.9	Nb- 88	B+	7.8	M	91	399.40(45.7)	1057.10(89.3)	
1082.6	*100.	Nb- 88	B+	14.5	M	37	671.20(* 62.1)	1057.10(* 97.1)	
1084.18	0.37	Am-244	B-	26	M	8	941.95(0.36)	1062.95(0.28)	
1090.28	3.05	Yb-165	EC	9.9	M	167	68.86(6.32)	80.11(33.7)	
1090.9	19.2	Po-203	EC	36.7	M	84	893.50(18.7)	908.60(54.9)	
1092.3	18.5	Pr-136	EC	13.1	M	103	539.75(52.4)	552.16(76.)	
1095.26	9.83	Se- 71	EC	4.74	M	86	147.50(47.5)	830.33(9.74)	
1096.22	43.	Sb-133	B-	2.5	M	99	817.80(18.5)	2755.00(12.5)	
1097.3	56.2	In-116	B-	54.41	M	46	416.86(28.9)	1293.54(84.4)	
1098.	98.5	Mn- 50	B+	1.75	M	11	783.30(100.)	1443.30(69.)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Energy(intensity)	1098.0 - 1223.2 (KeV)	
							Other two intense gamma-rays	Energy(intensity)
1098.	12.2	Ho-152	EC	161.8	S	22	613.70(73.2)	613.70(13.9)
1098.2	8.89	Rh- 96	EC	1.51	M	28	832.52(39.2)	1692.30(6.97)
1099.2	30.1	Sn-109	B+	18.0	M	161	649.80(28.)	1321.30(11.9)
1102.2	0.92	In-121	B-	3.88	M	10	60.10(- 20.4)	1041.20(1.12)
1106.43	22.4	Lu-180	B-	5.7	M	29	407.98(41.7)	1199.73(25.2)
1107.3	7.5	Eu-143	EC	2.63	M	57	1536.80(3.29)	1912.70(2.13)
1109.3	14.6	Ta-172	EC	36.8	M	111	95.26(17.4)	214.07(54.)
1109.72	13.1	Rb- 78	EC	5.74	M	74	454.99(81.)	664.42(38.3)
1114.3	21.8	As- 70	EC	52.6	M	79	668.40(21.8)	1040.00(80.8)
1117.6	--	Nd-141	EC	62.0	S	3	145.44(--)	972.14(--)
1118.8	4.2	Os-181	EC	2.7	M	12	118.09(28.3)	144.84(100.)
1120.29	14.8		B+	19.9	M	241	609.31(44.8)	1764.49(15.4)
1121.12	99.5	Sc- 50	B-	102.5	S	14	523.79(88.7)	1553.77(100.)
1125.4	*100.	Pr-134	EC	11	M	41	639.60(*100.)	1196.80(*100.)
1128.9	11.1	Co- 62	B-	1.50	M	13	1172.90(83.8)	2301.80(14.7)
1129.	100.	Sn-107	EC	2.90	M	84	678.60(100.)	1542.00(30.)
1130.	98.	Co- 54	EC	1.48	M	3	411.00(97.)	1407.00(100.)
1133.	3.E-04	Xe-135	B-	15.29	M	4	786.90(4.E-03)	1358.00(2.E-04)
1134.	55.	Sn-129	B-	6.7	M	5	381.90(42.9)	569.40(49.)
1138.9	5.99	Y - 94	B-	18.7	M	54	550.90(4.93)	918.74(56.)
1140.08	1.17	Cs-128	B+	3.62	M	111	442.90(26.8)	526.56(2.41)
1144.	8.5	Rh- 98	EC	3.5	M	9	652.60(96.)	745.20(78.)
1146.96	4.96	Tc-131	B-	25.0	M	79	149.72(68.9)	452.32(18.2)
1148.01	0.08	Mn- 51	EC	46.2	M	11	749.07(0.27)	1164.40(0.08)
1148.03	9.14	Co-145	B-	3.01	M	89	62.54(13.3)	724.33(59.)
1149.83	7.56	Tm-158	EC	4.02	M	191	192.14(62.)	335.08(16.8)
1152.98	2.65	Sn-111	EC	35.3	M	52	761.97(1.48)	1914.70(1.99)
1153.1	0.69	Y - 86	B+	48	M	4	627.20(0.69)	1076.60(0.69)
1154.66	1.64	Tm-164	EC	2.0	M	168	91.41(6.7)	768.91(1.25)
1157.03	58.	K - 44	B-	22.13	M	109	2150.76(22.7)	2518.95(9.69)
1163.5	68.1	Co- 62	B-	13.91	M	12	1172.90(97.9)	2003.70(18.6)
1163.85	0.06	In-119	B-	18.0	M	14	1065.55(0.13)	1249.71(0.08)
1164.4	0.08	Mn- 51	EC	46.2	M	11	749.07(0.27)	1148.01(0.08)
1168.83	17.8	Nb- 98	B-	51.3	M	287	722.63(73.8)	787.36(93.4)
1171.2	1.69	Sb-120	B+	15.89	M	3	703.80(0.15)	988.60(0.06)
1172.9	97.9	Co- 62	B-	13.91	M	12	1163.50(68.1)	2003.70(18.6)
1172.9	83.8	Co- 62	B-	1.50	M	13	1128.90(11.1)	2301.80(14.7)
1173.02	0.34	Cu- 62	B+	9.74	M	16	875.71(0.15)	2301.96(0.04)
1173.18	0.42	Sm-143	EC	8.83	M	25	1056.58(1.9)	1514.98(0.66)
1176.63	14.1	Cl- 34	EC	32.00	M	8	2127.49(42.8)	3304.04(12.3)
1178.53	13.2	Tb-165	B-	2.11	M	24	538.85(7.23)	1292.05(7.04)
1180.89	14.8	Nd-151	B-	12.44	M	509	116.80(43.4)	255.68(16.4)
1181.	12.3	Te-113	EC	1.7	M	39	814.40(22.)	1018.10(13.)
1185.6	14.1	Fr-212	EC	20.0	M	18	227.72(42.6)	1274.80(46.)
1194.6	0.11	Rb- 81	EC	30.5	M	43	49.51(0.78)	643.60(0.12)
1195.4	47.	Pb-192	EC	3.5	M	15	167.50(13.6)	608.20(17.9)
1196.8	*100.	Pr-134	EC	11	M	41	639.60(*100.)	1125.60(*100.)
1198.4	4.81	Zr- 85	B+	7.86	M	34	416.30(27.)	454.30(45.)
1199.73	25.2	Lu-180	B-	5.7	M	29	407.98(41.7)	1106.43(22.4)
1200.15	1.08	Tc- 96	EC	51.5	M	40	480.70(0.31)	778.22(1.87)
1200.49	4.21	Cs-140	B-	63.7	S	239	602.35(49.)	908.36(7.89)
1204.3	14.2	Ba-142	B-	10.6	M	90	255.30(20.5)	895.20(13.9)
1205.07	43.6	Fe- 61	B-	5.98	M	48	297.90(22.2)	1027.42(42.7)
1208.1	18.7	Mo- 91	B+	65.0	S	9	1508.00(24.3)	2240.70(0.73)
1209.2	* 71.	Ds-176	EC	3.0	M	5	775.80(98.)	1290.90(*100.)
1214.	--	Pm-152	B-	13.8	M	14	1233.80(--)	1437.50(--)
1216.	12.2	Ba-124	EC	11.9	M	11	169.50(20.)	188.80(10.2)
1223.26	4.74	Pm-141	EC	20.90	M	70	193.67(1.61)	886.22(2.44)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1225.4 - 1352.0 (keV)	
						Other two intense Energy (Intensity)	gamma-rays Energy (Intensity)
1225.41	10.7	Au-200	B-	48.4	M	37	367.90(18.9) 1262.89(3.12)
1227.66	99.	Sc- 42	EC	61.7	S	6	436.92(100.) 1524.70(99.7)
1229.33	2.47	Sb-118	EC	3.6	M	17	528.73(0.47) 1267.23(0.51)
1229.5	96.4	In-118	B-	4.45	M	17	683.30(54.9) 1050.80(81.9)
1233.8	-- U	Pm-152	B-	13.8	M	14	1214.00(--) 1437.50(--)
1235.	6.4	Wk - 46	B-	105	S	22	1345.00(100.) 3735.00(21.4)
1237.05	4.1E-03	Rn-104	B-	4.34	M	27	555.81(0.13) 767.78(6.E-03)
1238.8	3.87	Ag-104	EC	33.5	M	67	555.80(91.) 2276.70(2.46)
1243.9	3.5	Ac-230	B-	122	S	159	454.90(8.2) 508.20(5.15)
1248.14	42.6	Rb- 89	B-	15.15	M	62	1031.92(58.) 2195.92(13.3)
1249.71	0.08	In-119	B-	18.0	M	14	1065.55(0.13) 1163.85(0.06)
1253.1	0.22	In-112	EC	14.97	M	31	606.40(1.11) 617.10(4.65)
1256.64	15.2	Lu-166	EC	2.12	M	17	1427.18(23.) 2098.60(16.1)
1258.9	8.21	Cd-101	EC	1.2	M	103	98.10(47.2) 1722.50(11.4)
1262.89	3.12	Au-200	B-	48.4	M	37	367.90(18.9) 1225.41(10.7)
1267.18	53.6	Cl- 39	B-	55.6	M	22	250.33(46.3) 1517.51(39.2)
1267.23	0.51	Sb-118	EC	3.6	M	17	528.73(0.47) 1229.33(2.47)
1272.6	3.67	Mo- 89	B+	2.04	M	8	658.50(5.67) 844.00(5.67)
1273.3	90.6	Al- 29	B-	6.56	M	8	2028.20(3.7) 2425.60(5.7)
1274.8	46.	Fr-212	EC	20.0	M	18	227.72(42.6) 1185.60(14.1)
1283.23	8.3	Cs-139	B-	9.27	M	179	627.24(1.78) 1420.66(0.91)
1289.1	10.	V - 53	B-	1.61	M	7	1006.00(89.6)
1290.9	*100.	Os-176	EC	3.0	M	5	775.80(98.) 1209.20(71.)
1292.05	7.04	Tb-165	B-	2.11	M	24	538.85(7.23) 1178.53(13.2)
1292.6	6.76	Sm-141	EC	10.2	M	29	403.90(42.5) 438.20(37.7)
1293.54	84.4	In-116	B-	54.41	M	46	416.86(28.9) 1097.30(56.2)
1293.54	84.8	Sb-116	EC	15.8	M	23	931.80(24.7) 2225.33(14.2)
1299.83	0.14	In-114	B-	71.9	S	1	
1299.92	98.7	Sb-114	B+	3.49	M	122	327.18(7.01) 887.57(17.4)
1301.5	14.6	Cu- 59	EC	81.5	S	24	339.30(8.02) 878.00(11.8)
1302.46	3.98	Cd-105	EC	55.5	M	293	346.87(4.2) 961.84(~.69)
1308.3	*100.	Bi-194	EC	106	S	10	671.80(54.7) 965.00(40.6)
1309.91	1.46	Lu-178	B-	28.4	M	38	93.18(6.24) 1340.80(4.59)
1313.02	66.7	I - 136	B-	83.4	S	96	1321.08(24.8) 2289.60(10.4)
1316.	20.8	Tl-210	B-	1.30	M	24	296.00(79.2) 799.60(99.)
1316.7	17.3	Br- 72	EC	78.6	S	35	454.70(13.1) 862.00(70.2)
1319.6	3.82	Ho-162	EC	15.0	M	20	80.70(8.02) 1372.80(0.81)
1321.08	24.8	I - 136	B-	83.4	S	96	1313.02(66.7) 2289.60(10.4)
1321.3	11.9	Sn-109	B+	18.0	M	161	649.80(28.) 1099.20(30.1)
1322.99	0.27	La-136	EC	9.87	M	28	760.50(0.29) 818.51(2.3)
1323.09	59.4	Mn- 58	B-	65.3	S	39	459.16(21.4) 810.76(88.2)
1326.84	22.7	Tc-115	EC	5.8	M	56	723.57(30.1) 1380.58(23.)
1328.1	87.	Fe- 53	IT	2.58	M	6	701.10(100.) 1011.50(86.)
1328.4	2.55	Tc - 91	B+	3.3	M	10	502.90(51.4) 927.60(3.79)
1331.1	* 94.2 U	Os-178	EC	5.0	M	14	594.60(72.5 U) 968.70(*100. U)
1331.9	7.0	Au-187	EC	8.4	M	276	914.60(3.02) 1408.10(3.06)
1332.5	0.24	Co- 60	B-	10.467	M	3	826.28(8.E-03)
1332.5	88.	Cu- 60	EC	23.7	M	88	826.40(21.7) 1791.60(45.4)
1333.21	10.7	Tc-133	B-	12.5	M	207	312.07(62.4) 407.63(27.1)
1338.8	8.68	I - 118	B+	13.7	M	55	545.00(9.95) 605.60(83.5)
1340.5	12.	Cu- 68	B-	3.75	M	24	1041.00(9.58) 1077.70(11.9)
1340.8	4.59	Lu-178	B-	28.4	M	38	93.18(6.24) 1309.91(1.46)
1341.	1.03	Ta-178	EC	9.31	M	32	93.13(6.58) 1350.76(1.18)
1345.	100.	Wk - 46	B-	105	S	22	1235.00(6.4) 3735.00(21.4)
1347.	90.	Wk - 46	B-	105	S	7	3015.00(9.0) 3700.00(27.9)
1348.	4.77U	Sn-127	B-	4.13	M	7	491.30(90.) 1564.00(3.96U)
1350.76	1.18	Ta-178	EC	9.31	M	32	93.13(6.58) 1341.00(1.03)
1352.	20.8	Rh- 95	EC	5.02	M	68	677.60(5.8) 941.60(71.6)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	1357.7 -	1605.2 (keV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
1357.78	5.49	Pr-148	B-	2.27	M 50	301.70(61.)	1022.96(4.76)	
1358.	2.E-04	Xe-135	B-	15.29	M 4	786.90(4.E-03)	1133.00(3.E-04)	
1372.8	0.81	Ho-162	EC	15.0	M 20	80.70(8.02)	1319.60(3.82)	
1375.36	16.7	Rb- 90	B-	258	S 108	831.69(94.5)	3317.00(14.4)	
1380.58	23.	Tc-115	EC	5.8	M 56	723.57(30.1)	1326.84(22.7)	
1393.8	12.3	Pm-154	B-	1.73	M 45	839.66(12.5)	2058.81(19.)	
1395.14	0.47	Rb- 82	B+	1.273	M 49	776.52(13.4)		
1397.3	78.5	Tb-147	EC	1.83	M 23	1642.80(1.18)	1798.30(14.3)	
1407.	100.	Co- 54	EC	1.48	M 3	411.00(97.)	1130.00(98.)	
1408.1	3.06	Au-187	EC	8.4	M 276	914.60(3.02)	1531.90(7.0)	
1412.08	0.75	Zn- 63	EC	38.47	M 66	669.62(8.2)	962.06(6.48)	
1420.66	0.91	Cs-139	B-	9.27	M 179	627.24(1.78)	1283.23(8.3)	
1427.18	23.	Lu-166	EC	2.12	M 17	1256.64(15.2)	2098.60(16.1)	
1427.7	94.2	Sr- 94	B-	75.2	S 16	703.90(2.13)	723.80(2.4)	
1430.7	100.	Rh- 94	B+	70.6	S 20	756.20(51.)	1072.50(30.7)	
1434.06	100.	V- 52	B-	3.75	M 16			
1434.06	98.3	Mn- 52	EC	21.1	M 16			
1435.86	76.3	Cs-138	B-	32.2	M 88	462.80(30.7)	1009.78(29.8)	
1436.	19.	Cs-138	B-	2.90	M 10	191.70(15.4)	463.00(18.6)	
1437.5	--	Pm-152	B-	13.8	M 14	1214.00(--)	1233.80(--)	U
1439.5	12.5	Ar- 43	B-	5.37	M 85	738.10(15.5)	975.00(34.)	
1440.24	12.	Pm-154	B-	2.68	M 56	81.96(14.8)	184.68(30.)	
1443.3	69.	Mn- 50	B+	1.75	M 11	783.30(100.)	1098.00(98.5)	
1448.7	5.55	Cd-103	EC	7.3	M 233	1079.90(5.44)	1461.81(11.7)	
1459.	0.56	Pd-111	B-	23.4	M 82	70.43(0.78)	580.00(0.84)	
1460.83	78.8	Cl- 40	B-	1.35	M 46	2621.50(15.4)	2839.80(30.4)	
1461.81	11.7	Cd-103	EC	7.3	M 233	1079.90(5.44)	1448.70(5.55)	
1462.8	97.	Br- 84	B-	6.0	M 6	424.00(100.)	881.60(98.)	
1472.8	4.9	Ge- 67	EC	18.9	M 56	167.01(84.3)	911.20(3.09)	
1473.1	2.34	Np-242	B-	2.2	M 43	735.93(5.2)	780.44(2.76)	
1474.88	0.02	Br- 82	B-	6.13	M 20	698.37(0.03)	776.52(0.26)	
1483.6	72.	Lu-168	EC	5.5	M 57	112.40(~49.)	228.60(70.)	
1484.1	* 66.2	Ho-158	EC	21.3	M 21	406.14(*100.)	838.90(84.3)	
1489.16	0.28	Pr-144	B-	17.28	M 17	696.51(1.34)	2185.66(0.69)	
1492.2	1.88	Tc- 93	EC	43.5	M 11	943.70(2.85)	2644.60(14.)	
1496.9	1.33	Np-240	B-	7.22	M 106	554.60(20.9)	597.40(11.7)	
1507.3	6.06	Zr- 89	B+	4.18	M 1			
1508.	24.3	Mo- 91	B+	65.0	S 9	1208.10(18.7)	2240.70(0.75)	
1509.6	*100.	Tc- 92	EC	4.25	M 22	329.30(* 79.1)	773.00(* 99.)	
1514.98	0.66	Sm-143	EC	8.83	M 25	1056.58(1.9)	1173.18(0.42)	
1517.51	39.2	Cl- 39	B-	55.6	M 22	250.33(46.3)	1267.18(53.6)	
1519.45	16.4	Pb-194	EC	12.0	M 122	203.80(16.2)	581.82(18.8)	
1522.1	4.52	Tc- 94	B+	52.0	M 41	871.05(94.2)	1868.68(5.75)	
1524.7	99.7	Sc- 42	EC	61.7	S 6	436.92(100.)	1227.66(99.)	
1524.73	15.6	Pr-146	B-	24.15	M 109	453.88(48.)	735.72(7.49)	
1528.	0.04	Cr- 55	B-	3.497	M 7	126.00(2.E-03)	2252.50(3.E-03)	
1536.8	3.29	Eu-143	EC	2.63	M 57	1107.30(7.5)	1912.70(2.23)	
1542.	30.	Sn-107	EC	2.90	M 84	678.60(100.)	1129.00(100.)	
1551.1	0.42	Pr-138	EC	1.45	M 18	688.20(0.82)	788.70(2.4)	
1553.77	100.	Sc- 50	B-	102.5	S 14	523.79(88.7)	1121.12(99.5)	
1554.93	0.41	La-134	EC	6.45	M 109	163.23(0.36)	604.70(5.05)	
1562.1	9.0	Gd-163	B-	68	S 13	214.00(11.5)	287.79(25.)	
1564.	3.96U	Sn-127	B-	4.13	M 7	491.30(90.)	1348.00(4.77U)	
1567.09	99.8	Tl-209	B-	2.20	M 5	117.21(84.3)	465.13(96.9)	
1579.9	*100.	Pr-134	EC	17	M 37	1904.30(*100.)	1964.10(*100.)	
1581.5	0.23	Mo- 91	B+	15.49	M 20	1637.30(0.33)	2631.90(0.12)	
1596.1	0.5	Pr-140	EC	3.39	M 13	306.90(0.15)	751.80(0.03)	
1605.2	7.77	Tc- 91	B+	3.16	M 108	1639.90(9.25)	2450.90(13.5)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1609.7 - 2175.6 (KeV)		
						Other two intense gamma-rays		Energy(Intensity)
1609.7	10.9	Cd-119	B-	2.69	M	82	292.90(36.8)	343.00(16.9)
1614.1	0.45	I - 130	B-	9.0	M	35	536.09(15.7)	586.05(1.07)
1619.9	0.5	Fe - 53	EC	8.51	M	10	377.90(42.)	
1622.6	0.01	Sc - 49	B-	57.2	M	2	1761.90(0.05)	
1631.36	0.03	Pr-144	B-	7.2	M	5	617.80(0.02)	1885.30(0.01)
1637.1	29.5	Hg-207	B-	2.9	M	33	351.00(77.)	997.10(78.)
1637.3	0.33	Mo - 91	B+	15.49	M	20	1581.50(0.23)	2631.90(0.12)
1639.6	52.	Ir-181	EC	4.90	M	33	107.60(100.)	318.90(46.)
1639.9	9.15	Tc - 91	B+	3.14	M	108	1605.20(7.77)	2450.90(13.5)
1642.71	31.9	Cl - 38	B-	37.24	M	2	2167.41(42.4)	
1642.8	1.18	Tb-147	EC	1.83	M	23	1397.30(78.5)	1798.30(14.3)
1648.1	19.5	Tm-161	EC	33	M	232	45.54(25.)	84.40(9.45)
1660.4	7.8	Zn - 61	EC	89.1	S	46	475.00(16.8)	970.00(2.57)
1680.26	12.9	Ro-179	EC	19.5	M	182	289.97(27.)	430.23(27.6)
1692.3	6.97	Rn - 96	EC	1.51	M	28	832.52(39.2)	1098.20(8.89)
1703.4	56.5	Ar - 44	B-	11.87	M	27	182.60(66.)	1886.00(31.4)
1705.6	52.7	K - 45	B-	17.3	M	51	174.28(74.4)	2353.60(14.1)
1714.9	17.1	In-106	EC	5.2	M	70	632.60(91.8)	861.10(10.6)
1722.5	11.4	Cd-101	EC	1.2	M	103	98.10(47.2)	1258.90(8.21)
1744.6	17.3	Ag-102	EC	12.9	M	35	556.70(90.6)	719.40(58.1)
1757.9	34.2	Gd-145	EC	23.0	M	326	1041.80(9.9)	1880.60(32.6)
1760.	--	Pt-201	B-	2.5	M	4	150.00(--)	230.00(--)
1761.9	0.05	Sc - 49	B-	57.2	M	2	1622.60(0.01)	
1762.7	6.0	Pd-236	B-	9.1	M	68	642.30(37.)	687.50(9.9)
1764.49	15.4	Bi-214	B-	19.9	M	241	609.31(44.8)	1120.29(14.8)
1768.26	16.7	Xe-138	B-	14.08	M	101	258.41(31.5)	434.56(20.3)
1776.5	18.2	Dy-149	EC	4.23	M	56	100.80(23.)	789.50(15.)
1778.85	100.	Al - 28	B-	2.2414	M	1		
1783.43	0.41	Xe-137	B-	3.818	M	94	455.49(31.2)	848.95(0.62)
1791.6	45.4	Cu - 60	EC	23.7	M	88	826.40(21.7)	1332.50(88.)
1793.9	0.19	V - 47	B+	32.6	M	13	159.80(0.11)	244.40(0.09)
1798.3	14.3	Tb-147	EC	1.83	M	23	1397.30(78.5)	1642.80(1.18)
1817.	4.71	Rh - 98	EC	8.7	M	19	652.60(94.2)	745.40(5.28)
1834.7	9.84	Ag-102	EC	7.7	M	32	556.70(47.9)	2054.50(6.65)
1836.	21.4	Rb - 88	B-	17.78	M	30	898.03(14.)	2677.89(1.96)
1868.68	5.75	Tc - 94	B+	52.0	M	41	871.05(94.2)	1522.10(4.52)
1880.6	32.6	Gd-145	EC	23.0	M	326	1041.80(9.9)	1757.90(34.2)
1885.3	0.01	Pr-144	B-	7.2	M	5	617.80(0.02)	1631.36(0.03)
1886.	31.4	Ar - 44	B-	11.87	M	27	182.60(66.)	1703.40(56.5)
1897.6	14.7	Br - 84	B-	31.80	M	53	881.60(41.6)	3927.50(6.78)
1899.	8.87	Ac-232	B-	119	S	29	665.00(15.3)	1959.00(5.35)
1904.3	*100.	Pr-134	EC	17	M	37	1579.90(*100.)	1964.10(*100.)
1912.7	2.13	Eu-143	EC	2.63	M	57	1107.30(7.5)	1536.80(3.29)
1914.7	1.99	Sn-111	EC	35.3	M	52	761.97(1.48)	1152.98(2.65)
1959.	5.35	Ac-232	B-	119	S	29	665.00(15.3)	1899.00(8.87)
1964.1	*100.	Pr-134	EC	17	M	37	1579.90(*100.)	1904.30(*100.)
1986.3	12.4	In-108	EC	39.6	M	45	632.90(76.4)	3452.20(9.17)
2003.7	18.6	Co - 62	B-	13.91	M	12	1163.50(68.1)	1172.90(97.9)
2021.3	22.6	Cd-119	B-	2.20	M	74	720.70(17.9)	1025.00(24.8)
2028.2	3.7	Al - 29	B-	6.56	M	8	1273.30(90.6)	2425.60(5.7)
2054.5	6.65	Ag-102	EC	7.7	M	32	556.70(47.9)	1834.70(9.84)
2058.81	19.	Pm-154	B-	1.73	M	45	839.66(12.5)	1393.80(12.3)
2098.6	16.1	Lu-166	EC	2.12	M	17	1256.64(15.2)	1427.18(23.)
2127.49	42.8	Cl - 34	EC	32.00	M	8	1176.63(14.1)	3304.04(12.3)
2150.76	22.7	K - 44	B-	22.13	M	109	1157.03(58.)	2518.95(9.69)
2167.41	42.4	Cl - 38	B-	37.24	M	2	1642.71(31.9)	
2167.41	99.9	K - 38	EC	7.636	M	3		
2175.6	7.0	Y - 95	B-	10.3	M	59	954.00(15.8)	3576.00(6.38)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Other two intense gamma-rays	2185.6 - 4365.9 (KeV)	
							Energy (Intensity)	Energy (Intensity)
2185.66	0.69	Pr-144	B-	17.28	M	17	696.51(1.34)	1489.16(0.28)
2195.92	13.3	Rb- 89	B-	15.15	M	62	1031.92(58.)	1248.14(42.6)
2225.33	14.2	Sb-116	EC	15.8	M	23	931.80(24.7)	1293.54(84.8)
2235.37	0.07	P - 30	B+	2.498	M	1		
2240.7	0.73	Mo- 91	B+	65.0	S	4	1208.10(18.7)	1508.00(24.3)
2245.8	14.3	Rh- 97	B+	44.3	M	85	167.11(47.3)	421.52(12.)
2252.5	3.8E-03	Cr- 55	B-	3.497	M	7	126.00(2.E-03)	1528.00(0.04)
2276.7	2.46	Ag-104	EC	33.5	M	67	555.80(91.)	1238.80(3.87)
2289.6	10.4	I - 136	B-	83.4	S	96	1313.02(66.7)	1321.08(24.8)
2301.8	14.7	Ca- 62	B-	1.50	M	13	1128.90(11.1)	1172.90(83.8)
2301.96	0.04	Cu- 62	B+	9.74	M	16	875.71(0.15)	1173.02(0.34)
2312.66	99.3	O - 14	EC	70.599	S	3		
2353.6	14.1	K - 45	B-	17.3	M	51	174.28(74.4)	1705.60(52.7)
2353.61	44.5	Ga- 74	B-	8.12	M	121	595.87(91.4)	608.40(14.3)
2425.6	5.7	Al - 29	B-	6.56	M	8	1273.30(90.6)	2028.20(3.7)
2432.6	* 94.8	Gd-144	EC	4.5	M	67	333.30(*100.)	629.50(32.4)
2450.9	13.5	Tc- 91	B+	3.14	M	108	1605.20(7.77)	1639.90(9.15)
2477.9	11.6	Ag-116	B-	2.68	M	64	513.40(76.)	699.59(10.9)
2518.95	9.69	K - 44	B-	22.13	M	109	1157.03(58.)	2150.76(22.7)
2614.53	99.2	Tl-208	B-	5.053	M	29	510.77(22.6)	583.19(84.5)
2621.5	15.4	Cl - 40	B-	1.35	M	46	1460.83(78.8)	2839.80(30.4)
263.4	0.12	Mo- 91	B+	15.49	M	20	1581.50(0.23)	1637.30(0.33)
2641.3	3.69	Nb - 99	B-	2.6	M	143	97.78(6.65)	253.50(3.7)
2644.6	14.	Tc- 93	EC	43.5	M	11	943.70(2.85)	1492.20(1.88)
2677.89	1.96	Rb- 88	B-	17.78	M	30	898.03(14.)	1836.00(21.4)
2755.	12.5	Sb-133	B-	2.5	M	99	817.80(18.5)	1096.22(43.)
2839.8	30.4	Cl - 40	B-	1.35	M	46	1460.83(78.8)	2621.50(15.4)
3015.	9.0	#K - 46	B-	105	S	7	1347.00(90.)	3700.00(27.9)
3084.4	92.1	Ca- 49	B-	8.715	M	12	4071.90(7.0)	
3103.36	94.	S - 37	B-	5.05	M	7		
3304.04	12.3	Cl - 34	EC	32.00	M	8	1176.63(14.1)	2127.49(42.8)
3317.	14.4	Rb- 90	B-	258	S	108	831.69(94.5)	1375.36(16.7)
3565.87	13.1	Ga- 64	EC	2.630	M	49	807.85(13.7)	991.51(43.2)
3407.1	2.11	Rh- 95	EC	1.96	M	9	787.70(8.17)	3824.40(1.35)
3452.2	9.17	In-108	EC	39.6	M	45	632.90(76.4)	1986.30(12.4)
3576.	6.38	Y - 95	B-	10.3	M	59	954.00(15.8)	2175.60(7.0)
3700.	27.9	#K - 46	B-	105	S	7	1347.00(90.)	3015.00(9.0)
3735.	21.4	#K - 46	B-	105	S	22	1235.00(6.4)	1345.00(100.)
3824.4	1.35	Rh- 95	EC	1.96	M	9	787.70(8.17)	3407.10(2.11)
3927.5	6.78	Br- 84	B-	31.80	M	53	881.60(41.6)	1897.60(14.7)
4071.9	7.0	Ca- 49	B-	8.715	M	12	3084.40(92.1)	
4365.9	5.6	Rb- 90	B-	158	S	95	831.69(28.)	1060.70(6.69)

4.4 Gamma-rays of Radionuclides ($1 \text{ hr} \leq T_{1/2} < 1 \text{ d}$)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Energy(Intensity)	9.4 -	72.5 (KeV)
							two intense gamma-rays	Energy(Intensity)
9.4	4.9	Kr-83	IT	1.83	H	2	32.15(0.05)	
11.23	0.94	Cs-134	IT	2.91	H	3	127.50(12.7)	
18.21	1.26	Eu-152	IT	96	M	5	89.85(69.9)	
18.5	27.2	Pd-112	B-	21.03	H	1		
24.89	0.04	Co-58	IT	9.15	H	1		
25.66	27.3	Ho-161	EC	2.48	H	53	77.42(1.91)	103.05(3.9)
26.3	--	Ir-190	IT	1.2	H	1		
27.81	16.3	Te-129	B-	69.6	M	52	459.60(7.7)	487.39(1.42)
29.1	21.6	Zr-86	EC	16.5	H	12	242.80(95.8)	612.00(5.7)
30.64	66.	Mg-28	B-	20.91	H	10	941.45(38.3)	1342.25(52.6)
30.81	--	Os-189	IT	5.8	H	1		
? 30.85	? 1.33	Ir-195	B-	2.5	H	4	98.85(? 9.73)	211.30(? 2.4)
32.15	0.05	Kr-83	IT	1.83	H	2	9.40(4.9)	
37.05	39.1	Br-80	IT	4.4205	H	2		
38.3	7.63	Ho-162	IT	67.0	M	3	57.80(4.4)	
39.51	0.3	Hg-193	IT	11.8	H	2		
39.86	1.06	Bi-212	A	60.55	M	11	288.20(0.34)	452.98(0.36)
40.85	25.2	Zn-62	EC	9.26	H	29	548.35(15.2)	596.56(25.7)
40.93	1.15	Yb-164	EC	75.8	M	38	390.60(0.31)	675.41(0.38)
41.	--	Cm-239	EC	2.9	H	3	146.40(--)	188.00(--)
41.8	0.76	Pu-243	B-	4.956	H	21	84.00(23.)	381.70(0.56)
42.13	--	Am-242	B-	16.02	H	1		
42.4	6.7	Yb-178	B-	74	M	3	348.40(64.)	390.80(100.)
42.76	0.01	Fm-254	A	3.240	H	3	99.16(0.03)	151.00(1.E-03)
43.4	? 7.E-03	Bk-248	EC	23.7	H	1		
43.89	28.7	Ge-66	EC	2.26	H	92	272.97(10.4)	381.85(27.9)
44.1	1.05	U-240	B-	14.1	H	15	66.50(0.15)	189.70(0.24)
44.52	--	Am-242	EC	16.02	H	1		
44.63	0.01	Np-236	B-	22.5	H	1		
45.5	.19.5	Kr-76	EC	14.8	H	77	270.20(21.1)	315.70(39.)
48.8	? 5.E-03	Am-239	A	11.9	H	1		
53.1	1.09	Pt-197	IT	95.41	M	2	346.50(11.1)	
54.96	5.93	Xe-125	EC	17.0	H	42	188.43(54.9)	243.40(28.8)
57.8	4.4	Ho-162	IT	67.0	M	3	38.30(7.63)	
58.	2.27	Gd-159	B-	18.56	H	18	348.17(0.22)	363.56(10.8)
58.39	19.2	Ce-133	EC	4.9	H	320	477.22(39.2)	510.36(20.7)
58.48	0.67	Fm-255	A	20.07	H	56	80.92(0.27)	81.48(0.81)
59.98	0.07	Ho-160	IT	5.02	H	1		
60.	5.74	Ir-185	EC	14.0	H	189	254.20(13.3)	1828.80(10.1)
60.08	2.93	Au-200	IT	18.7	H	11	146.07(3.47)	332.82(12.1)
61.3	6.7	W-176	EC	2.3	H	6	94.60(6.83)	100.20(7.3)
61.46	6.19	Hg-195	EC	9.9	H	46	585.13(1.99)	779.80(6.8)
62.6	0.88	Tm-173	B-	8.24	H	3	398.90(87.9)	461.40(6.86)
63.	* 35.4	Ra-230	B-	93	M	49	72.00(*100.)	202.80(27.3)
63.93	23.	Eu-157	B-	15.18	H	125	370.51(11.)	410.72(17.5)
66.5	0.15	U-240	B-	14.1	H	15	44.10(1.05)	189.70(0.24)
67.07	* 72.	Se-73	EC	7.15	H	63	361.20(*100.)	
67.41	4.23	Cu-61	EC	3.333	H	32	282.96(12.2)	656.01(10.8)
67.42	84.7	Co-61	B-	1.650	H	3	909.20(3.62)	
67.75	38.2	Ra-182	EC	12.7	H	84	1121.40(31.8)	1221.50(24.8)
68.5	0.42	Rn-211	A	14.6	H	3	167.90(0.07)	236.40(0.06)
69.23	11.6	Tm-163	EC	1.810	H	263	104.32(18.6)	241.35(10.9)
69.7	5.95	Ta-173	EC	3.14	H	223	90.30(5.04)	172.20(17.5)
70.44	8.27	Pd-111	B-	5.5	H	88	391.30(5.39)	632.80(3.56)
71.95	10.6	Er-158	EC	2.25	H	36	248.58(2.57)	386.85(6.6)
72.	11.1	W-187	B-	23.72	H	87	479.55(21.8)	685.73(27.3)
72.	*100.	Ra-230	B-	93	M	49	63.00(35.4)	202.80(*27.3)
72.5	0.26	Pr-145	B-	5.984	H	61	675.79(0.51)	748.28(0.53)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	73.1 -	120.1 (KeV)
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
73.16	38.4	Hf-183	B-	1.067	H	49	459.07(27.3)	783.73(65.7)
74.38	0.07	Os-191	IT	13.10	H	1		
76.2	13.4	Pt-200	B-	12.5	H	36	135.94(3.24)	243.71(2.49)
76.9	15.8	Ce-133	EC	97	M	5	97.26(45.)	557.70(11.3 U)
77.35	17.	Pt-197	B-	18.3	H	3	191.44(3.66)	268.78(0.23)
77.42	1.91	Ho-161	EC	2.48	H	53	25.66(27.3)	103.05(3.9)
80.82	9.02	Dy-153	EC	6.4	H	406	99.71(8.06)	213.77(8.45)
80.92	0.27	Fm-255	A	20.07	H	56	58.48(0.67)	81.48(0.81)
81.48	0.81	Fm-255	A	20.07	H	56	58.48(0.67)	80.92(0.27)
83.	1.23	At-210	A	8.1	H	8	106.00(0.44)	167.00(0.28)
84.	23.	Pu-243	B-	4.956	H	21	41.80(0.76)	381.70(0.56)
87.6	23.5	Sm-156	B-	9.4	H	12	165.80(12.7)	204.00(20.6)
88.04	3.61	Pd-109	B-	13.7012	H	31		
88.35	11.4	Ta-176	EC	8.08	H	404	1159.30(23.8)	1224.96(5.46)
88.36	8.76	Lu-176	B-	3.68	H	10		
88.4	0.58	Tb-156	IT	5.3	H	1		
89.85	69.9	Eu-152	IT	96	M	5	18.21(1.26)	
90.3	5.04	Ta-173	EC	3.14	H	223	69.70(5.95)	172.20(17.5)
91.	16.	Ta-174	EC	1.05	H	215	206.50(58.)	1205.92(4.87)
93.12	4.79	Cd-107	EC	6.50	H	37	796.46(0.07)	828.93(0.17)
93.4	4.34	Ta-180	EC	8.152	H	1		
93.7	31.4	Te-116	EC	2.49	H	21	103.00(1.95)	628.70(3.22)
94.34	7.63	Pt-189	EC	10.87	H	173	548.85(7.07)	721.38(9.3)
94.7	3.58	Dy-165	B-	2.334	H	56	361.68(0.84)	633.41(0.57)
94.8	6.83	W-176	EC	2.3	H	6	61.30(6.7)	100.20(73.)
95.	4.44U	Pa-228	A	22	H	10	240.00(1.02U)	310.00(1.85U)
97.26	45.	Ce-133	EC	97	M	5	76.90(15.8)	557.70(11.3 U)
98.	3.72	I-132	IT	1.387	H	2		
98.85?	10.3	Ir-195	B-	3.8	H	95	432.86(9.4)	684.88(9.4)
98.85?	9.73	Ir-195	B-	2.5	H	4	30.85(1.33)	211.30(2.4)
99.16	0.03	Fm-254	A	3.240	H	3	42.76(0.01)	151.00(1.E-03)
99.71	8.06	Dy-153	EC	6.4	H	406	80.82(9.02)	213.77(8.45)
100.	--	Ir-195	IT	3.8	H	1		
100.2	73.	W-176	EC	2.3	H	6	61.30(6.7)	94.80(6.83)
100.7	0.02	Hf-180	B-	5.5	H	1		
103.	1.95	Te-116	EC	2.49	H	21	93.70(31.4)	628.70(3.22)
103.05	3.9	Ho-161	EC	2.48	H	53	25.66(27.3)	77.42(1.91)
103.6	0.78	Ta-180	B-	8.152	H	1		
104.32	18.6	Tm-163	EC	1.810	H	263	69.23(11.6)	241.35(10.9)
106.	0.44	At-210	A	8.1	H	8	83.00(1.23)	167.00(0.28)
106.43	8.8	Pt-187	EC	2.35	H	69	110.05(5.72)	201.50(6.42)
108.09	24.3	Tb-151	EC	17.609	H	355	251.86(26.3)	287.36(28.3)
110.05	5.72	Pt-187	EC	2.35	H	69	106.43(8.8)	201.50(6.42)
111.62	20.5	Er-171	B-	7.516	H	66	295.90(28.9)	308.29(64.4)
112.31	96.	Cr-48	EC	21.56	H	3	308.24(100.)	
113.87	39.9	Nd-139	EC	5.5	H	57	738.20(35.3)	982.20(26.4)
114.3	6.16	Hf-182	B-	61.5	M	39	799.60(9.4)	942.80(18.8)
114.31	19.	Nd-149	B-	1.725	H	220	211.31(25.9)	270.17(10.7)
114.43	20.6	Os-183	EC	13.0	H	127	167.85(8.81)	381.74(89.6)
115.18	0.59	Pb-212	B-	10.64	H	12	238.63(43.3)	300.09(3.28)
115.65	50.5	W-177	EC	135	M	114	426.98(13.2)	1036.40(10.3)
118.01	12.9	Os-181	EC	105	M	133	238.75(44.4)	827.00(20.2)
118.74	31.2	Ag-103	EC	65.7	M	108	148.20(2^a 3)	266.86(13.3)
119.12	11.3	Re-190	IT	3.2	H	1		
119.79	30.5	Ir-184	EC	3.09	H	188	263.98(68.)	390.36(25.9)
120.	--	Md-256	A	76	M	2	400.00(--)	
120.1	--	Tl-196	IT	1.41	H	4	240.70(--)	274.60(--)
120.17	19.1	Hf-170	EC	16.01	H	101	164.78(33.3)	620.70(22.8)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	121.7 -	168.6 (KeV)
						Other two Energy(Intensity)	intens.	gamma-rays Energy(Intensity)
121.78	7.21	Eu-152	EC	9.274	H	41	841.63(14.6)	963.37(12.)
122.	*100.	Hf-171	EC	12.1	H	194	347.18(46.9)	662.20(83.1)
122.37	64.2	Mo- 90	EC	5.67	H	24	203.13(6.37)	257.34(77.7)
123.07	30.3	Tb-154	EC	9.0	H	173	247.94(22.1)	540.18(19.6)
123.07	25.8	Tb-154	EC	21.5	H	180	1274.46(10.5)	2187.10(9.94)
123.38	0.45	Lu-179	B-	4.59	H	27	214.33(11.3)	215.01(0.46)
123.67	83.	Hf-173	EC	23.6	H	96	139.63(12.7)	296.97(33.9)
124.7	15.6	Cs-127	EC	6.25	H	60	411.90(58.4)	462.30(4.2)
127.5	12.7	Cs-134	IT	2.91	H	3	11.23(0.94)	
129.64	81.	Kr- 77	EC	74.4	M	31	146.59(37.3)	311.90(3.73)
129.82	0.15	Sr- 85	EC	67.63	M	8	151.19(12.9)	
130.	0.1	Pt-197	B-	95.41	M	5	202.00(0.03)	279.00(2.36)
130.2	0.22	Hg-197	EC	23.8	H	5	201.80(0.07)	279.00(4.96)
131.2	20.	Pa-234	B-	6.70	H	206	883.24(15.)	946.00(12.)
131.35	25.	Ac-224	EC	2.9	H	6	215.75(53.)	
133.98	34.1	Hg-197	IT	23.8	H	2		
135.94	3.24	Pt-200	B-	12.5	H	36	76.20(13.4)	243.71(2.49)
137.14	26.5	Ir-186	EC	2.0	H	68	630.32(18.)	767.46(21.2)
137.16	41.6	Ir-186	EC	16.64	H	157	296.89(64.)	434.83(34.4)
139.1	44.6	Hf-184	B-	4.12	H	6	181.00(13.8)	344.90(35.2)
139.63	12.7	Hf-173	EC	23.6	H	96	123.67(83.)	296.97(33.9)
139.8	27.5	Tb-147	EC	1.7	H	15	694.40(43.)	1152.20(100.)
140.51	89.1	Tc- 99	IT	6.01	H	3		
140.8	0.26	Ac-224	A	2.9	H	36	156.40(0.48)	261.60(0.14)
141.18	66.8	Nb- 90	EC	14.60	H	56	1129.22(92.7)	2318.96(82.)
141.19	6.6	Br- 75	EC	96.7	M	58	286.50(88.)	427.79(4.4)
146.07	3.47U	Au-200	IT	18.7	H	11	60.08(2.93)	332.82(12.1 U)
146.4	--	Cm-239	EC	2.9	H	3	41.00(--)	188.00(--)
146.59	37.3	Kr- 77	EC	74.4	M	31	129.64(81.)	311.90(3.73)
147.62	37.7	Pb-200	EC	21.5	H	20	235.62(4.3)	257.17(4.46)
147.81	42.5	Au-196	IT	9.7	H	11	168.37(7.65)	188.27(37.4)
148.2	28.3	Ag-103	EC	65.7	M	108	118.74(31.2)	266.86(13.3)
148.61	2.69	Xe-122	EC	20.1	H	22	350.06(8.0)	416.63(1.92)
148.7	? 0.01	Ir-190	IT	3.25	H	2		
148.9	49.	Xe-123	B+	2.08	H	110	178.10(14.9)	330.20(8.57)
150.6	20.3	Yb-177	B-	1.911	H	25	1080.20(5.6)	1241.20(3.47)
151.	1.E-03	Fm-254	A-	3.240	H	3	42.76(0.01)	99.16(0.03)
151.19	75.	Kr- 85	B-	4.480	H	6		
151.19	12.9	Sr- 85	EC	67.63	M	8	129.82(0.15)	
152.22	7.22	Tl-197	EC	2.84	H	76	425.84(12.9)	1411.34(4.52)
153.86	16.4	Am-244	B-	10.1	H	7	743.97(66.)	897.85(28.)
155.03	14.9	Re-188	B-	16.98	H	54	477.99(1.01)	632.98(1.25)
155.37	10.5	Ce-132	EC	3.51	H	56	182.11(77.4)	216.83(4.95)
156.4	0.48	Ac-224	A	2.9	H	36	140.80(0.26)	261.6(0.14)
157.2	7.0	Hg-192	EC	4.85	H	38	274.80(50.4)	306.50(5.39)
158.56	85.9	Sb-117	EC	2.80	H	12		
158.6	15.9	In-117	B-	116.2	M	5		
158.97	83.3	I- 123	EC	13.2	H	45	528.96(1.39)	
164.6	100.	Ac-229	B-	62.7	M	48	261.90(39.)	569.10(91.)
164.78	33.3	Hf-170	EC	16.01	H	101	120.17(19.1)	620.70(22.8)
164.98	26.9	Tb-149	EC	4.13	H	333	352.24(30.1)	388.57(18.8)
165.8	12.7	Sm-156	B-	9.4	H	12	87.60(23.5)	204.00(20.6)
165.86	23.7	Ba-139	B-	83.06	M	29	1420.50(0.26)	
167.	0.28	At-210	A	8.1	H	8	83.00(1.23)	106.00(0.44)
167.85	8.81	Os-183	EC	13.0	H	127	114.43(20.6)	381.74(89.6)
167.9	0.07	Rn-211	A	14.6	H	3	68.50(0.42)	236.40(0.06)
168.37	7.65	Au-196	IT	9.7	H	11	147.81(42.5)	188.27(37.4)
168.68	99.2	Fe- 52	EC	8.275	H	3	377.74(1.68)	

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half- Life	No. of G	Other two intense Energy (Intensity)	Energy 170.7 170.1 (keV)		Energy gamma-ray (Intensity)
							Intensity	Energy (Intensity)	
170.72	0.07	O-185	IT	9.9	H	1			
172.18	35.6	Pd-111	IT	5.5	H	1			
172.2	17.5	Ta-173	EC	5.14	H	225	69.700	5.95	
173.4	18.	Pb-198	EC	7.4	H	77	290.500	56.	
175.	10.1	Sr-80	EC	106.5	M	7	553.400	6.86	
175.	8.82	I-132	B-	1.387	H	7	399.800	14.	
177.59	48.6	At-208	EC	1.63	H	188	660.000	88.8	
178.1	14.9	Xe-123	B+	2.08	H	110	148.900	49.	
180.23	33.5	Os-182	EC	22.10	H	33	263.290	6.71	
181.	13.8	Hf-184	B-	4.12	H	6	139.100	44.6	
182.11	77.4	Ce-132	EC	5.51	H	56	155.370	10.5	
182.2	1.84	Dy-157	EC	8.14	H	27	326.160	9.7	
184.41	16.1	Tm-166	EC	7.70	H	328	778.810	18.9	
184.56	5.43	Dy-155	EC	10.0	H	250	226.920	69.6	
185.	28.6	No-162	EC	67.0	M	55	282.900	11.7	
186.17	10.1	Au-193	B+	17.65	H	68	255.570	6.7	
186.68	27.5	Ru-190	B-	3.2	H	88	557.930	14.2	
187.1	0.06	Br-243	A	4.5	H	5	536.000	0.01	
188.	--	Cm-239	EC	2.9	H	3	41.000	-	
188.27	37.4	Au-196	IT	9.7	H	11	147.810	42.5	
188.43	54.9	Xe-125	EC	17.0	H	42	54.960	5.95	
189.7	0.24	U-240	B	14.1	H	15	44.100	1.05	
190.3	64.	Ru-81	EC	4.576	H	63	466.330	23.7	
191.44	3.66	Pt-197	B	18.5	H	3	77.510	17.	
196.3	26.	Fr-88	B	7.86	H	88	2195.840	15.7	
198.6	1.19	Ge-75	B-	82.78	M	12	264.600	11.4	
199.5	0.55	Nd-138	EC	5.04	H	23	325.740	2.93	
201.5	6.42	Pt-187	EC	2.35	H	69	106.430	8.8	
201.8	0.07	Hg-197	EC	23.8	H	3	130.200	0.22	
202.	0.03	Pt-197	B-	95.41	M	3	120.000	0.1	
202.21	4.7	Ru-224	B	107	M	10	260.580	21.5	
202.53	97.3	Y-90	IT	3.19	H	3	479.510	59.7	
202.8	27.3	Ru-230	B	93	M	63	65.000	55.6	
202.9	0.06	Tc-127	B-	9.55	H	9	360.300	6.14	
203.13	6.37	Mn-90	EC	5.67	H	24	124.570	64.2	
203.5	73.5	In-109	B+	4.2	H	65	623.500	5.51	
204.	20.6	Sr-156	B-	9.4	H	12	87.600	23.5	
206.5	58.	Ta-174	EC	1.05	H	215	91.000	16.	
207.4	13.3	Ta-175	EC	10.5	H	140	266.900	10.3	
208.21	12.2	Tl-199	EC	7.42	H	33	247.260	9.22	
209.8	3.5	Am-239	EC	11.9	H	32	228.180	11.5	
211.03	30.8	Ge-77	B	11.30	H	179	211.300	28.6	
211.15	12.2	Ir-161	EC	3.21	H	263	592.600	5.66	
211.3	2.4	Ir-195	B	2.5	H	4	30.850	1.35	
211.31	25.9	Nd-149	B-	1.725	H	220	114.510	19.	
212.2	84.3	I-121	EC	2.12	H	160	532.080	6.07	
213.43	81.7	Ta-178	EC	2.36	H	7	325.560	94.1	
213.77	8.45	Dy-153	EC	6.4	H	406	80.820	9.02	
214.33	11.3	Lu-179	B-	4.59	H	27	123.380	0.43	
215.01	0.46	Lu-179	B-	4.59	H	27	123.380	0.45	
215.26	81.7	Hf-180	IT	5.5	H	6	332.300	94.4	
215.5	28.6	Ge-77	B-	11.30	H	179	211.030	30.8	
215.75	53.	Ag-224	EC	2.9	H	6	111.530	26.	
216.83	4.95	Ce-132	EC	3.51	H	56	155.370	19.3	
217.6	87.7	B+	244	4.55	H	26	891.500	100.	
224.4	34.9	Hf-182	IT	61.5	M	6	346.100	42.2	
226.92	69.6	Dy-155	EC	10.0	H	230	184.360	3.43	
228.18	11.3	Am-239	EC	11.9	H	32	207.800	3.5	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy Other two intense gamma-rays Energy(Intensity)	Energy 231.1 - 270.2 (KeV)	
							Energy (Intensity)	Energy (Intensity)
231.15	?	0.75	Nd-139	IT	5.5	H	1	
231.7	22.8	Y - 85	EC	4.86	H	148	767.30(3.62)	2123.80(4.97)
231.86	84.4	Sr- 85	IT	67.63	M	3		
232.8	9.E-06	Tc- 99	B-	6.01	H	3	322.40(1.E-04)	
233.6	19.6	Ba-126	B+	100	M	90	241.00(5.98)	257.60(7.61)
235.62	4.3	Pb-200	EC	21.5	H	20	147.62(37.7)	257.17(4.46)
236.4	0.06	Rn-211	A	14.6	H	3	68.50(0.42)	167.90(0.07)
237.9	5.04	Ho-167	B-	3.1	H	32	321.30(23.5)	346.50(56.)
238.63	43.3	Pb-212	B-	10.64	H	12	115.18(0.59)	300.09(3.28)
238.75	44.4	Os-181	EC	105	M	133	118.01(12.9)	827.00(20.2)
240.	1.02U	Pa-228	A	22	H	10	95.00(4.44U)	310.00(1.85U)
240.7	--	Tl-196	IT	1.41	H	4	120.10(--)	274.60(--)
240.84	0.34	Am-245	B-	2.05	H	9	252.72(6.1)	295.60(0.22)
241.	5.98	Ba-126	B+	100	M	90	233.60(19.6)	257.60(7.61)
241.35	10.9	Tm-163	EC	1.810	H	263	69.23(11.6)	104.32(18.6)
242.8	95.8	Zr- 86	EC	16.5	H	12	29.10(21.6)	612.00(5.7)
243.4	28.8	Xe-125	EC	17.0	H	42	54.96(5.93)	188.43(54.9)
243.71	2.49	Pt-200	B-	12.5	H	36	76.20(13.4)	135.94(3.24)
245.3	79.5	At-210	EC	8.1	H	67	1181.40(99.3)	1483.30(46.5)
247.26	9.22	Tl-199	EC	7.42	H	33	208.21(12.2)	455.46(12.3)
247.94	78.8	Tb-154	EC	22.7	H	53	346.70(69.1)	1419.81(46.1)
247.94	22.1	Tb-154	EC	9.0	H	173	123.07(30.3)	540.18(19.6)
248.58	2.57	Er-158	EC	2.25	H	36	71.95(10.6)	135.94(3.24)
249.79	90.2	Xe-135	B-	9.14	H	13	608.18(2.9)	1483.30(46.5)
251.86	26.3	Tb-151	EC	17.609	H	355	108.09(24.3)	287.36(28.3)
252.72	6.1	Am-245	B-	2.05	H	9	240.84(0.34)	295.60(0.22)
252.85	43.2	Ta-184	B-	8.7	H	74	414.01(72.)	920.93(32.)
253.68	93.	Sb-118	EC	5.00	H	8	1050.69(98.)	1229.64(100.)
-254.2	13.3	Ir-185	EC	14.0	H	189	60.00(5.74)	1828.80(10.1)
255.11	0.24	Pr-139	EC	4.41	H	28	1347.33(0.47)	1630.67(0.34)
255.57	6.7	Au-193	EC	17.65	H	68	186.17(10.1)	268.22(3.89)
256.93	97.5	Dy-152	EC	2.38	H	1		
257.17	4.46	Pb-200	EC	21.5	H	20	147.62(37.7)	235.62(4.3)
257.34	77.7	Mo- 90	EC	5.67	H	24	122.37(64.2)	203.13(6.37)
257.6	7.61	Ba-126	B+	100	M	90	233.60(19.6)	241.00(5.98)
257.97	61.4	Hg-193	EC	11.8	H	128	407.63(25.2)	573.25(14.2)
258.8	1.64	Ag-113	B-	5.37	H	38	298.60(10.)	316.30(1.34)
259.6	2.67	Tl-198	IT	1.87	H	4	260.90(1.21)	282.80(26.2)
260.58	21.5 U	Rn-224	B-	107	M	10	202.21(4.7 U)	265.81(20.1 U)
260.9	1.21	Tl-198	IT	1.87	H	4	259.60(2.67)	282.80(26.2)
261.6	0.14	Ac-224	A	2.9	H	36	140.80(0.26)	156.40(0.48)
261.9	39.	Ac-229	B-	62.7	M	48	164.60(100.)	569.10(91.)
263.06	57.8	Mo- 93	IT	6.85	H	8	684.67(99.7)	1477.12(99.)
263.29	6.71	Ds-182	EC	22.10	H	33	180.23(33.5)	510.06(52.4)
263.98	68.	Ir-184	EC	3.09	H	188	119.79(30.5)	390.36(25.9)
264.44	53.9	Ge- 77	B-	11.30	H	179	211.03(30.8)	215.50(28.6)
264.6	11.4	Ge- 75	B-	82.78	M	12	198.60(1.19)	468.80(0.22)
265.56	41.8	Ce-135	EC	17.7	H	145	300.07(23.5)	606.76(18.8)
265.81	20.1 U	Rn-224	B-	107	M	10	202.21(4.7 U)	260.58(21.5 U)
266.86	13.3	Ag-103	EC	65.7	M	108	118.74(31.2)	148.20(28.3)
266.9	6.8	Y - 93	B-	10.10	H	29	946.90(1.9)	1917.70(1.43)
266.9	10.3	Ta-175	EC	10.5	H	140	207.40(13.3)	348.50(11.4)
268.22	3.89	Au-197	EC	17.65	H	68	186.17(10.1)	255.57(6.7)
268.78	0.23	Pt-19	B-	18.3	H	3	77.35(17.)	191.44(3.66)
269.67	6.43	Pd-101	EC	8.47	H	67	296.29(19.2)	590.44(12.1)
270.07	27.8	Po-204	EC	3.53	H	42	883.96(29.9)	1016.29(24.1)
270.17	10.7	Nd-149	B-	1.725	H	220	114.31(19.)	211.31(25.9)
270.2	21.1	Kr- 76	EC	14.8	H	77	45.50(19.5)	315.70(39.)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half- Life	No. of G	Energy (Intensity)		Energy (Intensity)		
						Other two intense gamma-rays	Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)	
271.0	8.38	Tb-152	EC	17.5	H	346.28(	65.	586.29(	9.43	
272.97	10.4	Ge- 66	EC	2.26	H	92	43.89(	28.7	381.85(	27.9
273.35	27.9	Cd-117	B-	2.49	H	115	34.46(	17.9	1303.27(	18.4
274.6	--	Tl-196	I+	1.41	H	4	120.10(	--	240.70(--
274.8	50.4	Hg-192	EC	4.05	H	38	157.20(	7.0	306.50(	5.39
277.3	96.	Ge- 78	B+	88	H	2	293.90(	4.05		
277.6	15.	Am-139	EC	11.9	H	32	209.80(	3.5	228.18(	11.3
277.86	7.21	Au-191	EC	3.18	H	130	586.44(	17.	674.22(	6.83
278.83	2.5	La-133	EC	3.912	H	134	290.06(	1.41	302.35(	1.45
279.	2.36	Pt-197	B+	95.41	H	5	130.00(	0.1	202.00(	0.03
279.	4.96	Hg-197	EC	23.8	H	5	130.20(	0.22	201.80(	0.07
280.23	47.3	Am-235	EC	73.0	H	46	438.40(	8.3	473.50(	4.3
282.8	26.2	Tl-198	I+	1.87	H	4	259.60(	2.67	260.90(	1.21
282.9	11.3	Ho-162	EC	67.0	H	35	185.00(	2.67	1220.00(	22.5
282.96	12.2	Cu- 61	EC	67.0	H	32	28.60(	2.67	656.01(	10.8
283.	--	Sn-110	EC	4.11	H	1	67.41(	4.23		
286.5	88.	Br- 75	EC	96.7	H	58	141.19(	6.6	427.79(	4.4
287.36	28.3	Tb-151	EC	17.609	H	555	108.09(	24.3	251.86(	26.5
288.2	0.34	Bi-212	A	60.55	H	11	39.86(	1.06	452.98(	0.36
290.06	1.41	La-133	EC	3.912	H	134	278.83(	2.5	302.55(	1.65
290.3	36.	Pb-198	EC	2.4	H	22	173.40(	18.5	365.00(	19.3
293.54	2.55	Ir-194	B+	19.15	H	71	328.45(	13.1	645.15(	1.17
293.9	4.03	Ge- 78	B+	88	H	2	277.50(	96.		
294.1	0.93	Cf-247	EC	3.11	H	19	417.90(	0.34	447.80(	0.15
295.6	0.22	Am-245	B+	2.05	H	9	240.84(	0.34	252.72(	6.1
295.9	26.9	Er-171	EC	7.516	H	66	111.62(	20.5	308.29(	64.4
295.96	22.3	Au-192	EC	4.94	H	598	316.51(	58.	2236.99(	5.57
296.29	19.2	Pd-101	EC	8.47	H	67	269.67(	6.45	590.44(	12.1
296.89	64.	Ir-186	EC	16.64	H	157	137.16(	41.6	434.85(	34.4
296.97	35.9	Hf-175	EC	25.6	H	96	123.67(	83.	139.65(	12.7
297.32	79.8	Ge- 73	B-	4.86	H	18	325.70(	11.2	739.42(	4.23
298.6	10.	Ag-113	B-	5.37	H	38	258.80(	1.64	316.30(	1.36
300.07	23.5	Ce-135	EC	17.7	H	145	265.56(	41.8	606.76(	18.8
300.09	32.8	Pb-212	B+	10.64	H	12	115.18(	0.59	238.65(	43.3
300.65	12.6	At-207	EC	1.80	H	246	588.35(	18.9	814.41(	43.8
302.35	1.65	La-133	EC	3.912	H	134	278.83(	2.5	290.06(	1.41
302.7	79.2	Pr-138	EC	2.1	H	60	788.70(	99.	1037.80(	100.
303.41	22.	E ³ -250	EC	8.6	H	33	349.40(	20.1	829.00(	72.9
304.87	14.	Kr- 85	I+	4.480	H	1				
306.5	5.39	Hg-192	EC	4.85	H	38	157.20(	7.0	274.80(	50.4
308.22	4.9	Pu-245	B+	21.56	H	119	327.43(	25.4	560.35(	5.41
308.24	100.	Cr- 48	EC	2.1	H	3	112.31(	96.		
308.29	64.4	Er-171	B-	7.516	H	66	111.42(	20.5	295.90(	28.9
310.	1.85U	Pa-228	A	22.	H	10	95.00(	4.440	240.00(	1.020
311.9	3.73	Kr- 77	EC	74.4	H	31	129.64(	81.	146.59(	37.3
312.6	0.34	K- -	B-	12.360	H	9	1522.70(	18.1		
314.6	61.	Sb-128	B-	9.01	H	54	743.30(	100.	754.00(	100.
315.3	19.1	In-117	I+	216.2	H	1				
315.7	39.	Kr- 76	I+	14.8	H	77	45.50(	19.5	270.20(	21.1
316.3	1.34	Ab-113	B-	5.37	H	38	258.80(	1.64	298.00(	10.
316.51	58.	Au-192	EC	4.94	H	398	295.96(	22.3	2236.89(	5.57
321.3	23.5	Ho-167	B-	3.1	H	32	237.90(	5.02	346.50(	56.
322.4	1.E-04	Tc- 95	B-	6.01	H	3	232.80(	9.E-06		
325.56	94.1	Ta-178	EC	2.36	H	7	213.43(	81.7	426.36(	96.9
325.7	11.2	Ga- 73	B+	4.86	H	18	297.32(	79.8	239.42(	4.23
325.76	2.73	Nd-138	EC	5.04	H	23	199.50(	0.55	341.65(	0.41
326.16	92.	Dy-157	EC	8.14	H	27	182.20(	1.84		
327.43	25.4	Pu-245	B-	10.5	H	119	303.22(	4.9	560.13(	5.41

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	328.4 -	388.5 (KeV)
							Other two intense gamma-rays	
328.45	13.1	Ir-194	B-	19.15	H	71	293.54(2.55)	645.15(1.17)
330.2	8.57	Kr-123	B+	2.08	H	110	148.90(49.)	178.10(14.9)
331.17	79.1	Pb-201	EC	9.33	H	75	361.27(9.89)	945.96(7.36)
332.3	94.4	Hf-180	IT	5.5	H	6	215.26(81.7)	443.19(83.3)
332.82	12.1 U	Au-200	IT	18.7	H	11	60.08(2.93)	146.07(3.47U)
333.9	3.96	Eu-150	EC	12.8	H	21	406.50(2.81)	1165.70(0.26)
333.92	68.	Pm-150	B-	2.68	H	145	1165.77(15.8)	1324.51(17.5)
336.24	45.8	In-115	IT	4.486	H	1		
336.4	70.2	Ru- 95	EC	1.643	H	104	626.83(17.)	1096.80(21.)
338.32	11.3	Ac-228	B-	6.15	H	250	911.21(26.6)	968.97(16.2)
340.8	70.3	Rh- 99	B+	4.7	H	45	617.80(12.)	1261.20(11.1)
341.65	0.41	Nd-138	EC	5.04	H	23	199.50(0.55)	325.76(2.93)
344.1	42.2	Hf-182	IT	61.5	M	6	224.40(34.9)	506.60(21.6)
344.28	65.	Tb-152	EC	17.5	H	340	271.08(8.58)	586.29(9.43)
344.31	2.44	Eu-152	B-	9.274	H	22	970.38(0.6)	1314.67(0.9)
344.46	17.9	Cd-117	B-	2.49	H	115	273.35(27.9)	1503.27(18.4)
344.49	35.2	Hf-184	B-	4.12	H	6	139.10(44.6)	181.00(13.8)
346.5	56.	Ho-167	B-	3.1	H	32	237.90(5.04)	321.30(23.5)
346.5	11.1	Pt-197	IT	95.41	M	2	53.10(1.09)	
346.7	69.1	Tb-154	EC	22.7	M	53	247.94(78.8)	1419.81(46.1)
347.18	*46.9	Hf-171	EC	12.1	H	194	122.00(*100.)	662.20(* 83.1)
348.17	0.22	Gd-159	B-	18.56	H	18	58.00(2.27)	363.56(10.8)
348.4	64.	Yb-178	B-	74	M	3	42.40(6.7)	390.80(100.)
348.5	11.4	Ta-175	EC	10.5	H	140	207.40(13.3)	266.90(10.3)
349.4	20.1	Es-250	EC	8.6	H	33	303.41(22.)	829.00(72.9)
350.06	8.0	Xe-122	EC	20.1	H	22	148.61(2.69)	416.63(1.92)
352.24	30.1	Tb-149	EC	4.13	H	333	164.98(26.9)	388.57(18.8)
353.39	9.8	Pb-199	EC	90	M	120	366.90(45.8)	1135.04(8.12)
358.3	0.32	Fm-251	A	5.30	H	18	425.40(0.95)	480.40(0.39)
360.3	0.14	Tc-127	B-	9.35	H	9	202.90(0.06)	417.90(0.99)
360.7	19.8	Re-181	EC	19.9	H	129	365.50(56.5)	639.00(6.44)
361.2	*100.	Se- 73	EC	7.15	H	63	67.07(* 72.)	
361.2	89.6	Ir-190	EC	3.25	H	9	502.50(92.3)	616.50(93.1)
361.27	9.89	Pb-201	EC	9.33	H	75	331.17(79.1)	945.96(7.36)
361.68	0.84	Dy-165	B-	2.334	H	56	94.70(3.58)	633.41(0.57)
363.56	10.8	Gd-159	B-	18.56	H	18	58.00(2.27)	348.17(0.22)
365.4	? 19.3	Pb-198	EC	2.4	H	22	173.40(18.)	290.30(36.)
365.5	56.5	Re-181	EC	19.9	H	129	360.70(19.8)	639.00(6.44)
366.27	4.81	Ni- 65	B-	2.51719	H	10	1115.53(15.4)	1481.84(23.6)
366.9	45.8	Pb-199	EC	90	M	120	353.39(9.8)	1135.04(8.12)
367.99	73.2	Au-200	B-	18.7	H	8	497.77(73.2)	579.29(71.7)
368.76	0.35	Cm-249	B-	64.15	M	22	560.39(0.84)	634.31(1.5)
370.51	11.	Eu-157	B-	15.18	H	125	63.93(23.)	410.72(17.5)
372.76	86.8	K- 43	B-	22.3	H	10	396.86(11.8)	617.49(79.2)
372.76	22.5	Sc- 43	EC	3.891	H	5		
374.74	89.1	Pb-204	IT	67.2	M	7	899.15(99.)	911.74(96.)
374.76	81.8	Bi-204	EC	11.22	H	270	899.15(98.5)	983.98(58.8)
375.1	3.28	Es-249	EC	102.2	M	53	379.50(40.4)	813.20(9.16)
377.74	1.68	Fe- 52	EC	8.275	H	3	168.68(99.2)	
379.5	40.4	Es-249	EC	102.2	M	53	375.10(3.28)	813.20(9.16)
380.79	78.1	Y- 87	IT	13.37	H	1		
381.7	0.56	Pu-243	B-	4.956	H	21	41.80(0.76)	84.00(23.)
381.74	89.6	Os-183	EC	13.0	H	127	114.43(20.6)	167.85(8.81)
381.85	27.9	Ge- 66	EC	2.26	H	92	43.89(28.7)	272.97(10.4)
386.28	93.	Zn- 71	B-	3.96	H	61	487.34(62.3)	620.19(56.7)
386.85	6.6	Er-158	EC	2.25	H	36	71.95(10.6)	248.58(2.57)
388.53	81.9	Sr- 87	IT	2.803	H	1		
388.57	18.8	Tb-149	EC	4.13	H	333	164.98(26.9)	352.24(30.1)

Energy (keV)	Intensity (%)	Percent Decay	Nuclide/ Mode	Half- Life	No. of G	Other two intensity gamma-rays		Energy (Intensity)
						Energy (Intensity)	Energy (Intensity)	
389.94	6.16	Pb-208 EC	3.62	H	8	259.7(2	8.6	490.4(7
390.36	25.9	Ir-184 EC	3.09	H	188	119.7(9	30.5	263.9(8
390.36	0.31	Yb-164 EC	75.8	H	38	40.9(3	1.15	675.4(1
390.8	100.0	Yb-178 B-	74	H	3	42.4(0	6.7	348.4(0
391.3	5.39	Pd-111 B-	5.5	H	88	70.4(4	8.27	632.8(0
391.69	--	In-113 IT	1.6582	H	1			3.56
393.5	97.	Ir-196 B-	1.40	H	38	447.1(0	94.1	521.4(0
396.86	11.8	K-43 B-	22.3	H	10	372.7(6	86.8	96.
398.9	87.9	Tm-173 B-	8.24	H	3	62.6(0	0.88	617.4(9
400.0	--	Md-256 A	76	H	2	120.0(0	--	461.4(0
400.81	3.94	Ir-187 EC	10.5	H	96	427.0(2	4.12	912.8(6
402.59	49.6	Kr-87 B-	76.5	H	33	845.4(4	7.34	2554.8(0
405.6	0.99	Fm-251 EC	5.30	H	50	453.1(0	1.45	880.8(0
406.5	2.81	Eu-150 EC	12.8	H	21	333.9(0	3.96	1165.7(0
407.63	25.2	Hg-193 EC	11.8	H	128	257.9(7	61.4	573.2(5
409.5	0.84	Y-85 B+	2.68	H	10	504.4(4	60.	913.8(9
410.72	17.5	Eu-157 B-	15.18	H	125	63.9(3	23.	370.5(1
411.8	81.8	Tl-198 EC	5.5	H	163	636.7(3	10.1	675.8(0
411.8	57.3	Tl-198 EC	1.87	H	31	587.2(0	52.5	636.7(0
411.9	58.4	Cs-127 EC	6.25	H	60	124.7(0	15.6	462.3(0
414.0	72.	Ta-184 B-	8.7	H	74	252.8(5	43.5	920.9(3
416.63	1.92	Xe-122 EC	20.1	H	12	148.6(1	2.69	350.0(6
417.9	0.99	Tc-127 B-	9.35	H	9	202.9(0	0.06	360.3(0
417.9	0.34	Cf-242 EC	3.11	H	19	294.1(0	0.98	447.8(0
422.13	85.6	Pb-202 IT	3.53	H	14	786.9(9	49.8	960.7(0
425.4	83.7	B-120 EC	1.67	H	176	657.4(9	60.6	960.6(7
425.4	0.95	Fm-251 A	5.20	H	18	358.3(0	0.32	480.4(0
425.7	83.7	Tl-196 EC	1.84	H	54	610.5(0	11.9	635.2(0
425.84	12.9	Tl-197 EC	2.84	H	76	152.2(2	7.22	141.1(4
426.3	91.2	Tl-196 EC	1.41	H	12	635.3(0	51.3	695.4(0
426.36	96.9	Ta-178 EC	2.36	H	7	213.4(3	81.7	325.5(6
426.98	13.2	W-177 EC	135	H	114	115.6(5	50.5	1036.4(0
427.02	4.12	Ir-187 EC	10.5	H	96	400.8(1	3.94	912.8(6
427.79	4.4	Bm-75 EC	96.7	H	58	141.1(9	6.6	286.5(0
430.49	3.28	Sr-92 B-	2.71	H	9	953.3(1	3.52	1383.9(3
432.86	9.4	Ir-195 B-	3.8	H	95	98.85(?)	10.3	684.8(8
433.22	0.07	Ce-137 EC	9.0	H	20	436.5(9	0.33	447.1(5
433.89	1.28	Pr-137 EC	1.28	H	119	513.9(8	1.08	836.6(5
434.83	34.4	Ir-186 EC	16.64	H	157	137.1(6	41.6	296.8(9
436.1	0.03	Er-163 EC	75.0	H	29	439.9(0	0.03	1113.5(0
436.59	0.33	Ce-137 EC	9.0	H	20	433.9(2	0.07	647.1(5
438.4	8.3	Am-237 EC	73.0	H	46	280.2(3	47.3	473.5(0
438.63	94.8	Zn-69 IT	13.76	H	1			4.3
439.9	0.03	Er-163 EC	75.0	H	29	436.1(0	0.03	1113.5(0
446.15	23.2	Rb-81 EC	4.576	H	63	215.2(6	81.7	332.3(0
447.1	94.1	Ir-196 B-	1.40	H	38	393.5(0	97.	521.4(0
447.15	2.24	Ce-137 EC	9.0	H	6	190.3(0	64.	510.4(3
447.8	0.55	Cf-247 EC	3.11	H	19	294.1(0	0.98	436.5(9
452.98	0.36	Bi-212 A	60.55	H	11	39.8(6	1.06	417.9(0
453.1	1.45	Fm-251 EC	5.30	H	50	405.6(0	0.99	288.2(0
455.46	12.3	Tl-199 EC	7.42	H	3	208.2(1	12.2	247.2(6
458.25	1.7	Rn-210 EC	2.4	H	51	570.9(5	0.84	648.7(0
459.07	27.3	Hf-183 B-	1.067	H	49	73.1(6	38.4	783.7(3
459.6	7.7	Tc-129 B-	69.6	H	52	27.8(1	16.3	487.3(9
459.72	8.6	Pb-202 EC	3.62	H	8	389.9(4	6.16	490.4(7
461.4	6.86	Tm-173 B-	8.24	H	3	62.6(0	0.88	398.9(0
462.3	4.2	Cs-127 EC	6.25	H	60	124.7(0	15.6	411.9(0

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	463.0 -	561.0 (KeV)
						Energy (Intensity)	Other two intense gamma-rays	Energy (Intensity)
463.	13.8	Pa-228	EC	22	H	175	911.23(16.7)	964.60(10.5)
464.55	76.	La-132	EC	4.8	H	87	567.14(15.7)	1909.91(9.04)
468.8	0.22	Ge- 75	B-	82.78	M	12	198.60(1.19)	264.60(11.4)
469.37	17.5	Ru-105	B-	4.44	H	88	676.36(15.7)	724.50(47.3)
473.5	4.3	Am-237	EC	73.0	M	46	280.23(47.3)	438.40(8.3)
477.2	20.2	Co- 55	EC	17.53	H	23	931.10(75.)	1408.50(16.9)
477.22	39.2	Ce-133	EC	4.9	H	320	58.39(19.2)	510.36(20.7)
477.99	1.01	Re-188	B-	16.98	H	54	155.03(14.9)	632.98(1.25)
479.51	90.7	Y - 90	IT	3.19	H	3	202.53(97.3)	
479.55	21.8	W - 187	B-	23.72	H	87	72.00(11.1)	685.73(27.3)
480.4	0.39	Fm-251	A	5.30	H	18	358.30(0.32)	425.40(0.95)
480.51	1.52	La-135	EC	19.5	H	28	587.83(0.11)	874.51(0.16)
487.34	62.3	Zn- 71	B-	3.96	H	61	386.28(93.)	620.19(56.7)
487.39	1.42	Tc-129	B-	69.6	M	52	27.81(16.3)	459.60(7.7)
489.05	19.8	Tb-148	EC	60	M	78	784.43(84.4)	1079.03(11.5)
490.47	9.14	Pb-202	EC	3.62	H	8	389.94(6.16)	459.72(8.6)
496.3	14.8	Tb-150	EC	3.48	H	287	638.05(72.)	792.50(4.39)
497.37	0.05	In-115	B-	4.486	H	1		
497.77	73.2	Au-200	B-	18.7	H	8	367.99(73.2)	579.29(71.7)
502.5	92.3	Ir-190	EC	3.25	H	9	361.20(89.6)	616.50(93.1)
504.44	60.	Y - 85	B+	2.68	H	10	409.50(0.84)	913.89(9.0)
506.6	21.6	Hf-182	IT	61.5	M	6	224.40(34.9)	344.10(42.2)
507.4	84.6	Nb- 89	B+	1.18	H	4	588.00(99.5)	769.60(6.47)
507.66	5.31	Zr- 97	B-	16.90	H	41	743.33(94.8)	1147.99(2.65)
510.06	52.4	Ot-182	EC	22.10	H	33	180.23(33.5)	263.29(6.71)
510.36	20.7	Ce-133	EC	4.9	H	320	58.39(19.2)	477.22(39.2)
510.43	5.34	Rb- 81	EC	4.576	H	63	190.30(64.)	446.15(23.2)
511.7	85.5	Rh-106	B-	130	M	42	717.20(28.9)	1046.70(30.4)
513.98	1.08	Pr-137	EC	1.28	H	119	433.89(1.28)	836.65(1.78)
520.41	0.06	Br- 83	B-	2.40	H	11	529.64(1.2)	552.65(0.02)
521.4	96.	Ir-196	B-	1.40	H	38	393.50(97.)	447.10(94.1)
528.96	1.39	I - 123	EC	13.2	H	45	158.97(83.3)	
529.64	1.2	Br- 83	B-	2.40	H	11	520.41(0.06)	552.65(0.02)
529.87	87.	I - 133	B-	20.8	H	47	875.33(4.51)	1298.22(2.35)
532.08	6.07	I - 121	EC	2.12	H	160	212.20(84.3)	598.74(1.47)
536.	< 0.01	Bk-243	A	4.5	H	5	187.10(0.06)	536.00(< 0.01)
536.	< 0.01	Bk-243	A	4.5	H	5	187.10(0.06)	536.00(< 0.01)
536.09	99.	I - 130	B-	12.36	H	54	668.54(96.1)	739.48(82.3)
538.09	0.01	Np-236	EC	22.5	H	5	642.33(0.92)	687.61(0.25)
539.6	78.4	Rh-100	B+	20.8	H	65	1553.40(20.5)	2376.10(35.)
540.18	19.6	Tb-154	EC	9.0	H	173	123.07(30.3)	247.94(22.1)
541.22	0.06	Mo- 93	EC	6.85	H	9	689.07(0.07)	949.82(0.12)
542.87	52.	Sb-116	EC	60.3	M	12	972.55(72.)	1293.54(100.)
544.7	17.9	Sb-129	B-	4.40	H	99	812.80(43.)	914.60(20.)
545.	91.	At-209	EC	5.41	H	103	781.90(83.5)	790.20(63.5)
548.35	15.2	Zn- 62	EC	9.26	H	29	40.85(25.2)	596.56(25.7)
550.7	4.97	Bk-248	B-	23.7	H	3		
552.65	0.02	Br- 83	B-	2.40	H	11	520.41(0.06)	529.64(1.2)
553.4	6.86	Sr- 80	EC	106.3	M	7	175.00(10.1)	589.00(39.)
554.35	62.4	Rb- 82	B+	6.472	H	64	619.11(38.)	776.52(84.4)
555.8	92.6	Ag-104	EC	69.2	M	85	767.60(65.7)	941.60(25.)
557.7	11.3 U	Ce-133	EC	97	M	5	76.90(15.8)	97.26(45.)
557.95	14.2	Re-190	B-	3.2	H	88	186.68(27.6)	605.14(14.8)
559.09	74.	Br- 76	EC	16.2	H	162	657.02(15.9)	1853.67(14.7)
560.13	5.41	Pu-245	B-	10.5	H	119	308.22(4.9)	327.43(25.4)
560.39	0.84	Cm-249	B-	64.15	M	22	368.76(0.35)	634.31(1.5)
560.4	73.	I - 120	B+	81.0	M	130	641.10(9.12)	1523.00(11.2)
561.	10.9	Am-238	EC	98	M	77	918.70(23.)	962.80(28.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. at G	Energy (Intensity)	Energy	561.1 -	636.7 (KeV)
							Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
561.1	2.4	Y - 92	B-	3.54	H	21	934.47(13.9)	1405.40(4.78)	
563.52	10.5	Tl-195	EC	1.16	H	298	884.47(9.97)	1363.88(8.4)	
564.4	14.7	Cd-117	B-	3.36	H	81	1065.98(23.1)	1997.33(26.2)	
566.34	27.6	Nd-240	B-	61.9	M	36	600.57(20.)	973.90(25.9)	
567.14	15.7	La-132	EC	4.8	H	87	464.55(76.)	1909.91(9.04)	
568.85	7.07	Pt-189	EC	10.87	H	173	94.34(7.63)	721.38(9.3)	
568.87	58.	Nb - 96	B-	23.35	H	32	778.22(96.4)	1091.35(48.5)	
569.1	91.	Ac-229	B-	62.7	M	48	164.60(100.)	261.90(39.)	
570.95	0.84	Rn-210	EC	2.4	H	51	458.25(1.7)	648.70(0.84)	
573.25	14.2	Hg-193	EC	11.8	H	128	257.97(61.4)	407.63(25.2)	
573.9	0.03	Zn - 69	B-	13.76	H	1			
579.29	71.7	Au-200	B-	18.7	H	8	367.99(73.2)	497.77(73.2)	
585.13	1.99	Hg-195	EC	9.9	H	46	61.46(6.19)	779.80(6.8)	
586.29	9.43	Tb-152	EC	17.5	H	360	271.08(8.58)	344.28(65.)	
586.44	17.	Au-191	EC	3.18	H	130	277.86(7.21)	674.22(6.83)	
587.2	52.5	Tl-198	EC	1.87	H	31	411.80(57.3)	636.70(57.3)	
587.83	0.11	La-135	EC	19.5	H	28	480.51(1.52)	874.51(0.16)	
588.	99.5	Nb - 89	B+	1.18	H	4	507.40(84.6)	769.60(6.47)	
588.33	18.9	At-207	EC	1.80	H	246	300.65(12.6)	814.41(43.8)	
589.	39.	Sr - 80	EC	106.3	M	7	175.00(10.1)	553.40(6.86)	
590.44	12.1	Pd-101	EC	8.47	H	67	269.67(6.43)	296.29(19.2)	
592.6	3.66	Er-161	EC	3.21	H	263	211.15(12.2)	826.60(64.)	
596.56	25.7	Zn - 62	EC	9.26	H	29	40.85(25.2)	548.35(15.2)	
598.74	1.47	I - 121	EC	2.12	H	160	212.20(84.3)	532.08(6.07)	
599.8	14.	I - 132	B-	1.387	H	7	175.00(8.82)	614.00(2.52)	
600.57	20.	Nd-240	B-	61.9	M	36	566.34(27.6)	973.90(25.9)	
605.14	14.8	Re-190	B-	3.2	H	88	186.68(27.6)	557.95(14.2)	
606.7	3.1	Ag-112	B-	3.130	H	81	617.40(43.)	1387.70(5.58)	
606.76	18.8	Ce-135	EC	17.7	H	145	265.56(41.8)	300.07(23.5)	
608.18	2.9	Xe-135	B-	9.14	H	13	249.79(90.2)		
610.5	11.9	Tl-196	EC	1.84	H	54	425.70(83.7)	635.20(9.79)	
611.5	6.02	Pt-186	EC	2.0	H	34	635.60(3.78)	689.20(70.)	
612.	5.7	Zr - 86	EC	16.5	H	12	29.10(21.6)	242.80(95.8)	
613.8	54.	As - 78	B-	90.7	M	67	694.90(16.7)	1308.70(13.)	
614.	2.52	I - 132	B-	1.387	H	7	175.00(8.82)	599.80(14.)	
616.5	93.1	Ir-190	EC	3.25	H	9	361.20(89.6)	502.50(92.3)	
617.4	43.	Ag-112	B-	3.130	H	81	606.70(3.1)	1387.70(5.38)	
617.49	79.2	K - 43	B-	22.3	H	10	372.76(86.8)	396.86(11.8)	
617.8	12.	Rh - 99	B+	4.7	H	45	340.80(70.3)	1261.20(11.1)	
619.11	38.	Rb - 82	B+	6.472	H	64	554.35(62.4)	776.52(84.4)	
620.19	56.7	Zn - 71	B-	3.96	H	61	386.28(93.)	487.34(62.3)	
620.7	22.8	Hf-170	EC	16.01	H	101	120.17(19.1)	164.78(33.3)	
623.5	5.51	In-109	B+	4.2	H	65	203.50(73.5)	1149.10(4.34)	
626.83	17.8	Ru - 95	EC	1.643	H	104	336.40(70.2)	1096.80(21.)	
627.72	32.6	Y - 86	B+	14.74	H	104	1076.63(82.5)	1153.05(30.5)	
628.7	3.22	Tc-116	EC	2.49	H	21	93.70(31.4)	103.00(1.95)	
629.1	24.	Bi-201	EC	108	M	197	936.20(11.3)	1014.10(10.7)	
629.96	24.8	Ga - 72	B-	14.10	H	90	834.03(95.6)	2201.66(25.9)	
630.32	18.	Ir-186	EC	2.0	H	68	137.14(26.5)	767.46(21.2)	
632.8	3.56	Pd-111	B-	5.5	H	88	70.44(8.27)	391.30(5.39)	
632.98	1.25	Re-188	B-	16.98	H	54	155.03(14.9)	477.99(1.01)	
633.41	0.57	Dy-165	B-	2.334	H	56	94.70(3.58)	361.68(0.84)	
634.31	1.5	Cm-249	B-	64.15	M	22	368.76(0.35)	560.39(0.84)	
635.2	9.79	Tl-196	EC	1.84	H	54	425.70(83.7)	610.50(11.9)	
635.3	51.3	Tl-196	EC	1.41	H	12	426.30(91.2)	695.40(41.1)	
635.6	< 3.78	Pt-186	EC	2.0	H	34	611.50(3.02)	689.20(70.)	
636.7	10.1	Tl-198	EC	5.3	H	163	411.80(81.8)	675.80(10.9)	
636.7	57.3	Tl-198	EC	1.87	H	31	411.80(57.3)	587.20(52.5)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	638.0 -	749.8 (KeV)
							Other two intense gamma-rays	Energy(Intensity)
638.05	72.	Tb-150	EC	3.48	H	287	496.30(14.8)	792.50(4.39)
639.	6.44	Re-181	EC	19.9	H	129	360.70(19.8)	365.50(56.5)
641.1	9.12	I-120	B+	81.0	M	130	560.40(73.)	1523.00(11.2)
641.28	47.4	La-142	B-	91.1	M	173	2397.80(13.3)	2542.70(10.)
642.	0.22	Pr-142	EC	19.12	H	1		
642.33	0.92	Np-236	EC	22.5	H	5	538.09(0.01)	687.61(0.25)
644.01	84.	Te-119	EC	16.03	H	28	699.85(10.1)	1749.65(3.95)
645.15	1.17	Ir-194	B-	19.15	H	71	293.54(2.55)	328.45(13.1)
648.7	0.84	Rn-210	EC	2.4	H	51	458.25(1.7)	570.95(0.84)
652.9	8.02	Sr- 91	B-	9.63	H	49	749.80(23.6)	1024.30(33.4)
656.01	10.8	Cu- 61	EC	3.333	H	32	67.41(4.23)	282.96(12.2)
657.02	15.9	Br- 76	EC	16.2	H	162	559.09(74.)	1853.67(14.7)
657.49	60.6	Bi-202	EC	1.67	H	176	422.13(83.7)	960.67(99.3)
657.75	97.8	In-110	EC	69.1	M	59	2129.48(2.13)	2211.49(1.76)
657.75	98.3	In-110	EC	4.9	H	51	884.67(92.9)	937.48(68.4)
657.92	98.4	Nb- 97	B-	72.1	M	13	1024.53(1.08)	
660.04	88.8	At-208	EC	1.63	H	188	177.59(48.6)	686.53(97.6)
662.2	83.1	Hf-171	EC	12.1	H	194	122.00(*100.)	347.18(46.9)
667.72	98.7	I-132	B-	2.295	H	174	772.60(75.6)	954.55(17.6)
668.54	96.1	I- 130	B-	12.36	H	54	536.09(99.)	739.48(82.3)
669.6	3.E-03	At-211	A	7.214	H	2	742.70(1.E-03)	
674.1	45.1	Rn-211	EC	14.6	H	46	678.40(28.9)	1362.90(32.5)
674.22	6.83	Au-191	EC	3.18	H	130	277.86(7.21)	586.44(17.)
675.41	0.38	Yb-164	EC	75.8	M	38	40.93(1.15)	390.60(0.31)
675.79	0.51	Pr-145	B-	5.984	H	61	72.50(0.26)	748.28(0.53)
675.8	10.9	Tl-198	EC	5.3	H	163	411.80(81.8)	636.70(10.1)
676.36	15.7	Ru-105	B-	4.44	H	88	469.37(17.5)	724.30(47.3)
678.4	28.9	Rn-211	EC	14.6	H	46	674.10(45.1)	1362.90(32.5)
679.	0.1	Sm-142	EC	72.49	M	6	1243.00(0.260)	1345.00(0.130)
684.67	99.7	Mo- 93	IT	6.85	H	8	263.06(57.8)	1477.12(99.)
684.88	9.4	Ir-195	B-	3.8	H	95	98.85(? 10.3)	432.86(9.4)
685.73	27.3	W- 187	B-	23.72	H	87	72.00(11.1)	479.55(21.8)
686.53	97.6	At-208	EC	1.63	H	188	177.59(48.6)	660.04(88.8)
687.	0.26	At-211	EC	7.214	H	1		
687.61	0.25	Np-236	EC	22.5	H	5	538.09(0.01)	642.33(0.92)
689.07	0.07	Mo- 93	EC	6.85	H	9	541.22(0.06)	949.82(0.12)
689.2	70.	Pt-186	EC	2.0	H	34	611.50(6.02)	635.60(3.78)
694.4	43.	Tb-147	EC	1.7	H	15	139.80(27.5)	1152.20(100.)
694.9	16.7	As- 78	B-	90.7	M	67	613.80(54.)	1308.70(13.)
695.4	41.1	Tl-196	EC	1.41	H	12	426.30(91.2)	635.30(51.3)
699.85	10.1	Te-219	EC	16.03	H	28	644.01(84.)	1749.65(3.95)
702.67	99.6	Tc- 94	B+	293	M	11	849.74(95.7)	871.05(99.9)
717.2	28.9	Rh-106	B-	130	M	42	511.70(85.5)	1046.70(30.4)
719.6	0.15	Ti- 45	EC	184.8	M	15	1408.10(0.09)	1660.90(0.04)
719.7	64.7	Te-117	B+	62	M	21	1716.40(15.9)	2300.00(11.2)
721.38	9.3	Pt-189	EC	10.87	H	173	94.34(7.63)	568.85(7.07)
724.3	47.3	Ru-105	B-	4.44	H	88	469.37(17.5)	676.36(15.7)
727.33	6.58	Bi-212	B-	60.55	M	13	785.37(1.1)	1620.50(1.49)
738.2	35.3	Nd-139	EC	5.5	H	57	113.87(39.9)	982.20(26.4)
739.42	4.23	Ga- 73	B-	4.86	H	18	297.32(79.8)	325.70(11.2)
739.48	82.3	I- 130	B-	12.36	H	54	536.09(99.)	668.54(96.1)
742.65	28.4	Po-207	EC	5.80	H	54	911.79(17.1)	992.32(59.2)
742.7	1.E-03	At-211	A	7.214	H	2	669.60(3.E-03)	
743.3	100.	Sb-128	B-	9.01	H	54	314.10(61.)	754.00(100.)
743.33	94.8	Zr- 97	B-	16.90	H	41	507.66(5.31)	1147.99(2.65)
743.97	66.	Am-244	B-	10.1	H	7	153.86(16.4)	897.85(28.)
748.28	0.53	Pr-145	B-	5.984	H	61	72.50(0.26)	675.79(0.51)
749.8	23.6	Sr- 91	B-	9.63	H	49	652.90(8.02)	1024.30(33.4)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half- Life	No. of G	Energy (Intensity)		Energy (Intensity)	
						Other two intensities	Gamma- rays	754.0 - B99.1 (KeV)	B99.1 (KeV)
754.	100.	Sb-128	B-	9.01	H	54	314.10 (61.)	743.30 (100.)	
755.	9.99	Bk-223	EC	4.5	H	4	84.00 (3.0)	946.00 (- 3.0)	
765.7	93.8	Tc-95	EC	20.0	H	23	947.67 (1.95)	1073.71 (3.74)	
767.3	3.62	Y-85	EC	4.86	H	148	231.70 (22.8)	2123.80 (4.97)	
767.4	21.2	Ir-186	EC	2.0	H	68	137.14 (26.5)	630.32 (18.)	
767.6	65.7	Ag-104	EC	69.2	H	85	555.80 (92.6)	941.60 (25.)	
769.6	6.47	Nb-89	B+	1.18	H	4	507.40 (84.6)	588.00 (99.5)	
772.6	75.6	I-132	B-	2.295	H	174	667.72 (98.7)	954.55 (17.6)	
776.52	84.4	Rb-82	B+	6.472	H	64	554.35 (62.4)	619.11 (36.)	
778.22	96.4	Nb-96	B-	23.35	H	52	568.87 (58.)	1091.35 (48.5)	
778.81	18.9	Tm-166	EC	7.70	H	328	184.41 (16.1)	2052.36 (17.2)	
779.8	6.8	Hg-195	EC	9.9	H	46	61.46 (6.19)	585.13 (1.99)	
781.9	83.5	Al-209	EC	5.41	H	103	545.00 (91.)	790.20 (63.5)	
783.73	65.7	Hf-183	B-	1.067	H	49	38.4	459.40 (27.3)	
784.43	84.4	Tb-148	EC	1.0	H	78	489.05 (19.8)	1079.03 (11.5)	
785.37	1.1	Bi-212	B+	60.55	H	13	727.35 (6.58)	1620.50 (1.49)	
786.99	49.8	Pb-202	LIT	3.55	H	14	422.12 (85.6)	960.70 (91.6)	
788.7	* 99.	Pr-138	EC	2.1	H	60	302.70 (* 79.2)	1037.80 (100.)	
789.21	* 36.1	Hg-193	EC	5.80	H	43	861.41 (100.)	1118.86 (64.4)	
790.2	63.5	Al-209	EC	5.41	H	103	545.00 (91.)	781.90 (83.5)	
792.5	4.39	Tb-150	EC	3.48	H	287	496.30 (14.8)	638.05 (72.)	
796.46	0.07	Cd-107	EC	6.50	H	57	93.12 (4.79)	828.93 (0.17)	
799.6	9.4	Hf-182	B+	61.5	H	39	114.30 (6.16)	942.80 (18.8)	
812.8	4.3	Sb-129	B-	4.40	H	99	54.70 (17.9)	914.60 (20.)	
813.2	9.16	Es-249	EC	102.2	H	53	375.10 (3.28)	379.50 (40.4)	
814.41	43.8	Al-207	EC	1.80	H	246	301.65 (12.6)	586.35 (18.9)	
820.23	29.6	Bi-203	EC	11.76	H	225	825.21 (14.4)	896.85 (15.1)	
823.1	10.6	Sn-127	B+	2.10	H	162	109.60 (19.3)	1114.30 (37.9)	
825.21	14.6	Bi-203	EC	11.76	H	223	820.23 (29.6)	896.85 (15.1)	
826.6	64.	Er-161	EC	3.21	H	231	211.15 (12.2)	592.60 (5.66)	
827.	20.2	Ds-181	EC	105	H	133	118.01 (12.9)	238.75 (44.4)	
828.9	5.52	Es-250	EC	2.22	H	31	989.10 (13.4)	1031.90 (10.6)	
828.93	0.17	Cd-107	EC	6.50	H	37	93.12 (4.79)	796.46 (0.07)	
829.	72.9	Es-250	EC	8.6	H	33	301.41 (22.)	349.40 (20.1)	
833.46	5.89	Ga-66	EC	9.49	H	62	1039.24 (37.)	2751.92 (23.4)	
834.03	95.6	Ga-72	B-	14.10	H	90	629.96 (24.8)	2201.66 (25.9)	
836.65	1.78	Pr-137	EC	1.28	H	119	433.89 (1.28)	513.98 (1.08)	
840.	3.0	U			H	4	755.00 (9.99)	946.00 (- 7.99)	
841.63	14.6	Bk-152	EC	4.5	H	41	212.78 (7.21)	963.37 (12.)	
845.44	7.34	Kr-87	B-	76.3	H	33	402.59 (49.6)	2554.80 (9.23)	
846.75	98.9	Mn-56	B-	2.5785	H	10	181.07 (27.2)	2113.05 (14.3)	
849.74	95.7	Tc-94	B+	293	H	11	702.67 (99.6)	871.05 (99.9)	
849.8	25.5	Po-205	EC	1.06	H	104	872.40 (37.)	1001.20 (28.8)	
861.11	* 100.	Hg-193	EC	3.80	H	43	789.21 (36.1)	1118.84 (64.4)	
862.	--	Es-256	B-	7.6	H	13	1051.90 (--)	1093.50 (--)	
871.05	99.9	Tc-94	B+	293	H	11	702.67 (99.6)	849.74 (95.7)	
872.4	37.	Po-205	EC	1.56	H	104	869.80 (27.8)	1001.20 (28.8)	
874.51	0.16	La-135	EC	19.5	H	28	430.51 (1.52)	587.83 (0.11)	
875.33	4.51	I-133	B-	20.8	H	47	529.87 (87.)	937.48 (68.4)	
880.8	2.19	Fm-251	EC	5.30	H	50	405.60 (0.99)	453.10 (1.45)	
883.24	15.	Pa-234	B-	6.70	H	206	131.20 (20.)	946.00 (12.)	
883.96	29.9	Po-204	EC	3.53	H	42	270.07 (27.8)	1016.29 (24.1)	
884.47	9.97	Tl-195	EC	1.16	H	298	563.52 (10.5)	1363.88 (8.4)	
884.67	92.9	In-110	EC	4.9	H	51	657.75 (98.3)	937.48 (68.4)	
891.5	* 100.	U			H	26	211.60 (* 87.7)	921.50 (* 19.3)	
896.85	13.1	Bi-203	EC	11.76	H	223	820.23 (29.6)	825.21 (14.6)	
897.85	28.	Am-244	B-	10.1	H	7	151.86 (16.4)	743.97 (66.)	
899.15	99.	Pb-204	IT	67.2	H	7	374.74 (89.1)	911.74 (96.)	

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	899.1 -	1065.9 (KeV)
							Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)	Energy(Intensity)
899.15	98.5	Bi-204	EC	11.22	H	270	374.76(81.8)	983.98(58.8)
909.2	3.62	Co- 61	B-	1.650	H	3	67.42(84.7)	
911.21	26.6	Ac-228	B-	6.15	H	250	338.32(11.3)	968.97(16.2)
911.23	16.7	Pa-228	EC	22	H	175	463.00(13.8)	964.60(10.5)
911.74	96.	Pb-204	IT	67.2	M	7	374.74(89.1)	899.15(99.)
911.79	17.1	Po-207	EC	5.80	H	54	742.65(28.4)	992.32(59.2)
912.86	4.79	Ir-187	EC	10.5	H	96	400.81(3.94)	427.02(4.12)
913.89	9.0	Y - 85	B+	2.68	H	10	409.50(0.84)	504.44(60.)
914.6	20.	Sb-129	B-	4.40	H	99	544.70(17.9)	812.80(43.)
918.7	23.	Am-238	EC	98	M	77	561.00(10.9)	962.80(28.)
920.93	32.	Ta-184	B-	8.7	H	74	252.85(43.2)	414.01(72.)
921.5	*19.3 U	Bk-244	EC	4.35	H	26	217.60(* 87.7 U)	891.50(*100. U)
931.1	75.	Co- 55	EC	17.53	H	25	477.20(20.2)	1408.50(16.9)
934.47	13.9	Y - 92	B-	3.54	H	21	561.10(2.4)	1405.40(4.78)
936.2	11.3	Bi-201	EC	108	M	197	629.10(24.)	1014.10(10.7)
937.48	68.4	In-110	EC	4.9	H	51	657.75(98.3)	884.67(92.9)
941.45	38.3	Mg- 28	B-	20.91	H	10	30.64(66.)	1342.25(52.6)
941.6	25.	Ag-104	EC	69.2	M	85	555.80(92.6)	767.60(65.7)
942.8	18.8	Hf-182	B-	61.5	M	39	114.30(6.16)	799.60(9.4)
945.96	7.36	Pb-201	EC	9.33	H	75	331.17(79.1)	361.27(9.89)
946.	12.	Pa-234	B-	6.70	H	206	131.20(20.)	883.24(15.)
946.	*7.99U	Bk-243	EC	4.5	H	4	755.00(9.99U)	840.00(3.0 U)
946.9	1.9	Y - 93	B-	10.10	H	29	266.90(6.8)	1917.70(1.43)
947.67	1.95	Tc- 95	EC	20.0	H	23	765.79(93.8)	1073.71(3.74)
949.82	0.12	Mo- 93	EC	6.85	H	9	541.22(0.06)	689.07(0.07)
953.31	3.52	Sr- 92	B-	2.71	H	9	430.49(3.28)	1383.93(90.)
954.55	17.6	I - 132	B-	2.295	H	174	667.72(98.7)	772.60(75.6)
960.67	99.3	Bi-202	EC	1.67	H	176	422.13(83.7)	657.49(60.6)
960.7	91.6	Pb-202	IT	3.53	H	14	422.12(85.6)	786.99(49.8)
962.8	.28.	Am-238	EC	98	M	77	561.00(10.9)	918.70(23.)
963.37	12.	Eu-152	EC	9.274	H	41	121.78(7.21)	841.63(14.6)
964.6	10.5	Pa-228	EC	22	H	175	463.00(13.8)	911.23(16.7)
968.97	16.2	Ac-228	B-	6.15	H	250	338.32(11.3)	911.21(26.6)
970.38	0.6	Eu-152	B-	9.274	H	22	344.31(2.44)	1314.67(0.96)
972.55	72.	Sb-116	EC	60.3	M	12	542.87(52.)	1273.56(100.)
973.9	25.9	Np-240	B-	61.9	M	36	566.34(27.6)	600.57(20.)
982.2	26.4	Nd-139	EC	5.5	H	57	113.87(39.9)	738.20(35.3)
983.98	58.8	Bi-204	EC	11.22	H	270	374.76(81.8)	899.15(98.5)
989.1	13.4	Es-250	EC	2.22	H	31	828.90(5.52)	1031.90(10.6)
989.12	45.	Bk-250	B-	193.0	M	54	1028.65(4.91)	1031.85(35.6)
992.32	59.2	Po-207	EC	5.80	H	54	742.65(28.4)	911.79(17.1)
1001.2	28.8	Po-205	EC	1.66	H	104	849.80(25.5)	872.40(37.)
1014.1	10.7	Bi-201	EC	108	M	197	629.10(24.)	936.20(11.3)
1016.29	24.1	Po-204	EC	3.53	H	42	270.07(27.8)	933.96(29.9)
1024.	0.28	Zr- 87	B+	1.68	H	28	1210.00(0.33)	1227.00(1.0)
1024.3	33.4	Sr- 91	B-	9.63	H	49	652.90(8.02)	749.80(23.6)
1024.53	1.08	Nb- 97	B-	72.1	M	13	657.92(98.4)	
1028.65	4.91	Bk-250	B-	193.0	M	54	989.12(45.)	1031.85(35.6)
1031.85	35.6	Bk-250	B-	193.0	M	54	989.12(45.)	1028.65(4.91)
1031.9	10.6	Es-250	EC	2.22	H	31	828.90(5.52)	989.10(13.4)
1034.68	6.02	Os-183	EC	9.9	H	52	1101.93(49.)	1107.93(22.4)
1036.4	10.3	W - 177	EC	1.5	M	114	115.65(50.5)	426.98(13.2)
1037.8	*100.	Pr-138	EC	2.1	H	60	302.70(* 79.2)	788.70(* 99.)
1039.24	37.	Ga- 66	EC	9.49	H	62	833.46(5.89)	2751.92(23.4)
1046.7	30.4	Rh-106	B-	130	M	42	511.70(85.5)	717.20(28.9)
1050.69	98.	Sb-118	EC	5.00	H	8	253.68(93.)	1229.64(100.)
1051.9	--	Es-256	B-	7.6	H	13	862.00(--)	1093.50(--)
1065.98	23.1	Cd-117	B-	3.36	H	81	564.40(14.7)	1997.33(26.2)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1073.7 - 1354.5 (KeV)		
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
1073.71	3.74	Tc- 95	EC	20.0	H	23	765.79(93.8)	947.67(1.95)
1076.63	82.5	Y - 86	B+	14.74	H	104	627.72(32.6)	1153.05(30.5)
1077.4	3.0	Ga- 68	EC	67.629	M	9	1261.30(0.09)	1883.20(0.13)
1079.03	11.5	Tb-148	EC	60	M	78	489.05(19.8)	784.43(84.4)
1080.2	5.6	Yt- 77	B-	1.911	H	25	150.60(20.3)	1241.20(3.47)
1090.	2.79	Dy-155	EC	10.0	H	230	184.56(3.43)	226.92(69.6)
1091.35	48.5	Nb- 96	B-	23.35	H	32	568.87(58.)	778.22(96.4)
1093.5	--	Es-256	B-	7.6	H	13	862.00(--)	1051.90(--)
1095.6	19.3	Sn-127	B-	2.10	H	162	823.10(10.6)	1114.30(37.9)
1096.8	21.	Ru- 95	EC	1.643	H	104	336.40(70.2)	626.83(17.8)
1101.93	49.	Os-183	EC	9.9	H	52	1034.68(6.02)	1107.93(22.4)
1107.93	22.4	Os-183	EC	9.9	H	52	1034.68(6.02)	1101.93(49.)
1113.5	0.05	Er-163	EC	75.0	M	29	436.10(0.03)	439.90(0.03)
1114.3	37.9	Sn-127	B-	2.10	H	162	823.10(10.6)	1095.60(19.3)
1115.53	15.4	Ni- 65	B-	2.51719	H	10	366.27(4.81)	1481.84(23.6)
1118.84	64.4	Hg-193	EC	3.80	H	43	789.21(36.1)	861.11(100.)
1121.4	31.8	Re-182	EC	12.7	H	84	67.75(38.2)	1221.50(24.8)
1126.91	0.8	Nd-141	EC	2.49	H	15	1147.30(0.31)	1292.64(0.46)
1129.22	92.7	Nb- 90	EC	14.60	H	56	141.18(66.8)	2318.96(82.)
1131.51	22.7	I - 135	B-	6.57	H	93	1260.41(28.9)	1678.03(9.62)
1135.04	8.12	Pb-199	EC	90	M	120	353.39(9.8)	366.90(45.8)
1147.3	0.31	Nd-141	EC	2.49	H	15	1126.91(0.8)	1292.64(0.46)
1147.99	2.65	Zr- 97	B-	16.90	H	41	507.66(5.31)	743.33(94.8)
1149.1	4.34	In-109	B+	4.2	H	65	203.50(73.5)	623.50(5.51)
1152.2	100.	Tb-147	EC	1.7	H	15	139.80(27.5)	694.40(43.)
1153.05	30.5	Y - 86	B+	14.74	H	104	627.72(32.6)	1076.63(82.5)
1157.03	99.9	Sc- 44	EC	3.927	H	5		
1159.3	23.8	Ta-176	EC	8.08	H	404	88.35(11.4)	1224.96(5.46)
1165.7	0.26	Eu-150	EC	12.8	H	21	333.90(3.96)	406.50(2.81)
1165.77	15.8	Pm-150	EC	2.68	H	145	333.92(68.)	1324.51(17.5)
1181.4	99.3	At-210	EC	8.1	H	67	245.30(79.5)	1483.30(46.5)
1205.92	4.87	Ta-174	EC	1.05	H	215	91.00(16.)	206.50(58.)
1210.	0.33	Zr- 87	B+	1.68	H	28	1024.00(0.28)	1227.00(1.0)
1220.	22.5	Ho-162	EC	67.0	M	35	185.00(28.6)	282.90(11.3)
1221.5	24.8	Re-182	EC	12.7	H	84	67.75(38.2)	1121.40(31.8)
1224.96	5.46	Ta-176	EC	8.08	H	404	88.35(11.4)	1159.30(23.8)
1227.	1.0	Zr- 87	B+	1.68	H	28	1024.00(0.28)	1210.00(0.33)
1229.64	100.	Sb-118	EC	5.00	H	8	253.68(93.)	1050.69(98.)
1241.2	3.47	Yb-177	B-	1.911	H	25	150.60(20.3)	1080.20(5.6)
1243.	0.26U	Sm-142	EC	72.49	M	6	679.00(0.1)	1345.00(0.13U)
1260.41	28.9	I - 135	B-	6.57	H	93	1131.51(22.7)	1678.03(9.62)
1261.2	11.1	Rh- 99	B+	4.7	H	45	340.80(70.3)	617.80(12.)
1261.3	0.09	Ga- 68	EC	67.629	M	9	1077.40(3.0)	1883.20(0.13)
1266.15	0.07	Si- 31	B-	157.3	M	1		
1274.46	10.5	Tb-154	EC	21.5	H	180	123.07(25.8)	2187.10(9.94)
1292.64	0.46	Nd-141	EC	2.49	H	15	1126.91(0.8)	1147.30(0.31)
1293.54	100.	Sb-116	EC	60.3	M	12	542.87(52.)	972.55(72.)
1293.59	99.1	Ar- 41	B-	109.34	M	2		
1298.22	2.35	I - 133	B-	20.8	H	47	529.87(87.)	875.33(4.51)
1303.27	18.4	Cd-117	B-	2.49	H	115	273.35(27.9)	344.46(17.9)
1308.7	13.	As- 78	B-	90.7	M	67	613.80(54.)	694.90(16.7)
1314.67	0.96	Eu-152	B-	9.274	H	22	344.31(2.44)	970.38(0.6)
1324.51	17.5	Pm-150	B-	2.68	H	145	333.92(68.)	1165.77(15.8)
1342.25	52.6	Mg- 28	B-	20.91	H	10	30.64(66.)	941.45(38.3)
1345.	0.13U	Sm-142	EC	72.49	M	6	679.00(0.1)	1243.00(0.26U)
1345.77	0.47	Cu- 64	EC	12.700	H	1		
1347.33	0.47	Pr-139	EC	4.41	H	28	255.11(0.24)	1630.67(0.34)
1354.52	1.64	La-141	B-	3.92	H	29	1693.30(0.07)	2267.00(0.04)

Energy (keV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 1362.9 - 2397.8 (keV)		
						Other two intense gamma-rays		
						Energy (Intensity)	Energy (Intensity)	
1362.9	32.5	Rn-211	EC	14.6	H	46	674.10(45.1)	678.40(28.9)
1362.94	56.5	Tc- 93	EC	2.75	H	15	1477.14(6.95)	1520.30(20.5)
1363.88	8.4	Tl-195	EC	1.16	H	298	563.52(10.5)	884.47(9.97)
1368.63	100.	Na- 24	B-	14.9590	H	6	2754.03(99.9)	
1383.93	90.	Sr- 92	B-	2.71	H	9	430.49(3.28)	953.31(3.52)
1387.7	5.38	Ag-112	B-	3.130	H	81	606.70(3.1)	617.40(43.)
1405.4	4.78	Y- 92	B-	3.54	H	21	561.10(2.4)	934.47(13.9)
1408.1	0.09	Ti- 45	EC	184.8	M	15	719.60(0.15)	1660.90(0.04)
1408.5	16.9	Co- 55	EC	17.53	H	23	477.20(20.2)	931.10(75.)
1411.34	4.52	Tl-197	EC	2.84	H	76	152.22(7.22)	425.84(12.9)
1419.81	46.1	Tb-154	EC	22.7	H	53	247.94(78.8)	346.70(69.1)
1420.5	0.26	Ba-139	B-	83.06	M	29	165.86(23.7)	
1459.1	*100.	Ba-129	B+	2.23+2.17H	182	1623.60(*100.)	1953.60(*100.)	
1477.12	99.	No- 93	IT	6.85	H	8	263.06(57.8)	684.67(99.7)
1477.14	6.95	Tc- 93	EC	2.75	H	15	1362.94(56.5)	1520.30(20.5)
1481.84	23.6	Ni- 65	B-	2.51719	H	10	366.27(4.81)	1115.53(15.4)
1483.3	46.5	At-210	EC	8.1	H	67	245.30(79.5)	1181.40(99.3)
1520.3	20.5	Tc- 93	EC	2.75	H	15	1362.94(56.5)	1477.14(6.95)
1523.	11.2	I -120	B+	81.0	M	130	560.40(73.)	641.10(9.12)
1524.7	18.1	K - 42	B-	12.360	H	9	312.60(0.34)	
1553.4	20.5	Rh-100	B+	20.8	H	65	539.60(78.4)	2376.10(35.)
1575.6	3.68	Pr-142	B-	19.12	H	2		
1620.5	1.49	Bi-212	B-	60.55	M	13	727.33(6.58)	785.37(1.1)
1623.6	*100.	Ba-129	B+	2.23+2.17H	182	1459.10(*100.)	1953.60(*100.)	
1627.2	3.4	Nb- 89	B+	1.9	H	92	1833.40(3.16)	3092.70(2.96)
1630.67	0.34	Pr-139	EC	4.41	H	28	255.11(0.24)	1347.33(0.47)
1660.9	0.04	Ti- 45	EC	184.8	M	15	719.60(0.15)	1408.10(0.09)
1678.03	9.62	I -135	B-	6.57	H	93	1131.51(22.7)	1260.41(28.9)
1693.3	0.07	La-141	B-	3.92	H	29	1354.52(1.64)	2267.00(0.04)
1716.4	15.9	Te-117	B+	62	M	21	719.70(64.7)	2300.00(11.2)
1745.77	2.44	S - 38	B-	170.3	M	5	1941.94(83.)	2750.97(1.38)
1749.65	3.95	Te-119	EC	16.03	H	28	644.01(84.)	699.85(10.1)
1810.72	27.2	Mn- 56	B-	2.5785	H	10	846.75(98.9)	2113.05(14.3)
1828.8	10.1	Ir-185	EC	14.0	H	189	60.00(5.74)	254.20(13.3)
1833.4	3.16	Nb- 89	B+	1.9	H	92	1627.20(3.4)	3092.70(2.96)
1853.67	14.7	Br- 76	EC	16.2	H	162	559.09(74.)	657.02(15.9)
1883.2	0.13	Ga- 68	EC	67.629	M	9	1077.40(3.0)	1261.30(0.09)
1909.91	9.04	La-132	EC	4.8	H	87	464.55(76.)	567.14(15.7)
1917.7	1.43	Y - 93	B-	10.10	H	29	266.90(6.8)	945.90(1.9)
1941.94	83.	S - 38	B-	170.3	M	5	1745.77(2.44)	2750.97(1.38)
1953.6	*100.	Ba-129	B+	2.23+2.17H	182	1459.10(*100.)	1623.60(*100.)	
1997.33	26.2	Cd-117	B-	3.36	H	81	564.40(14.7)	1065.98(23.1)
2052.36	17.2	Tm-166	EC	7.70	H	328	184.61(16.1)	778.81(18.9)
2113.05	14.3	Mn- 56	B-	2.5785	H	10	846.75(98.9)	1810.72(27.2)
2123.8	4.97	Y - 85	EC	4.86	H	148	231.70(22.8)	767.30(3.62)
2129.48	2.13	In-110	EC	69.1	M	59	657.75(97.8)	2211.49(1.76)
2187.1	9.94	Tb-154	EC	21.5	H	180	123.07(25.8)	1274.46(10.5)
2195.84	13.2	Kr- 88	B-	2.84	H	88	196.30(26.)	2392.11(34.6)
2201.66	25.9	Ga- 72	B-	14.10	H	90	629.96(24.8)	834.03(95.6)
2211.49	1.76	In-110	EC	69.1	M	59	657.75(97.8)	2129.48(2.13)
2236.89	5.57	Au-192	EC	4.94	H	398	295.96(22.3)	316.51(58.)
2267.	0.04	La-141	B-	3.92	H	29	1354.52(1.64)	1693.30(0.07)
2300.	11.2	Te-117	B+	62	M	21	719.70(64.7)	1716.40(15.9)
2318.96	82.	Nb- 90	EC	14.60	H	56	141.18(66.8)	1129.22(92.7)
2318.97	2.E-03	Y - 90	B-	3.19	H	1		
2376.1	35.	Rh-100	B+	20.8	H	65	539.60(78.4)	1553.40(20.5)
2392.11	34.6	Kr- 88	B-	2.84	H	88	196.30(26.)	2195.84(13.2)
2397.8	13.3	La-142	B-	91.1	M	173	641.28(47.4)	2542.70(10.)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 2542.7 - 3092.7 (KeV)	
						Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)
2542.7	10.	La-142	B-	91.1	M	173	641.28(47.4) 2397.80(13.3)
2554.8	9.23	Kr- 87	B-	76.3	M	33	402.59(49.6) 845.44(7.34)
2750.97	1.38	S - 38	B-	170.3	M	5	1745.77(2.44) 1941.94(83.)
2751.92	23.4	Ga- 66	EC	9.49	H	62	833.46(5.89) 1039.24(37.)
2754.03	99.9	Na- 24	B-	14.9590	H	6	1368.63(100.)
3092.7	2.96	Nb- 89	B+	1.9	H	92	1627.20(3.4) 1833.40(3.16)

4.5 Gamma-rays of Radionuclides ($1d \leq T_{1/2}$)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	1.6 -	40.9 (KeV)
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
1.64	--	Pt-193	IT	4.33	D	3	12.63(--)	135.50(--)
6.24	1.03	W-181	EC	121.2	D	3	136.28(0.03)	
6.29	--	Sn-121	IT	55	Y	1		
7.13	4.95	Er-160	EC	28.58	H	2	59.98(0.07)	
8.41	0.16	Er-169	B-	9.40	D	3		
9.3	--	Ac-227	B-	21.773	Y	3	15.20(--)	24.50(--)
12.33	1.5	Ba-133	IT	38.9	H	3	275.93(17.5)	
12.47	3.E-06	Ca-45	B-	163.8	D	1		
12.63	--	Pt-193	IT	4.33	D	3	1.64(--)	135.50(--)
12.76	0.3 U	Ra-228	B-	5.75	Y	11	13.52(1.6 U)	16.18(0.72U)
13.52	1.6 U	Ra-228	B-	5.75	Y	11	12.76(0.3 U)	16.18(0.72U)
14.41	9.16	Co-57	EC	271.79	D	10	122.06(85.6)	136.47(10.7)
15.2	--	Ac-227	B-	21.773	Y	3	9.30(--)	24.50(--)
16.18	0.72U	Ra-228	B-	5.75	Y	11	12.76(0.3 U)	13.52(1.6 U)
16.21	0.16	Hg-195	IT	41.6	H	4	37.09(1.84)	122.78(0.03)
16.4	8.29	Zn-72	B-	46.5	H	9	144.70(82.9)	191.50(9.37)
19.39	13.7	Lu-171	EC	8.24	D	101	667.40(11.)	739.78(47.8)
21.54	0.03	Sm-151	B-	90	Y	1		
22.51	2.4	Eu-149	EC	93.1	D	27	277.09(3.55)	327.53(4.03)
23.87	16.1	Sb-119	EC	38.19	H	1		
23.88	16.1	Sn-119	IT	293.1	D	3	25.27(14.3 U)	
23.98	20.3	Hf-172	EC	1.87	Y	32	67.35(5.31)	125.82(11.3)
24.5	--	Ac-227	B-	21.773	Y	3	9.30(--)	15.20(--)
25.27	14.3 U	Sn-119	IT	293.1	D	3	23.88(16.1)	
25.64	14.5	Th-231	B-	25.52	H	63	84.21(6.6)	89.95(0.94)
25.64	12.	U-231	EC	4.2	D	12	84.18(7.0)	? 217.90(0.8)
25.64	2.E-04	Np-235	A	396.1	D	20	81.20(2.E-05)	84.20(1.E-04)
25.65	23.2	Tb-161	B-	6.88	D	37	48.92(17.)	74.57(10.2)
26.34	0.22	Pu-237	EC	45.2	D	12	33.20(0.07)	59.54(3.28)
26.34	2.41	Am-241	A	432.2	Y	172	59.54(35.9)	
26.35	2.43	U-237	B-	6.75	D	27	59.54(34.5)	208.00(21.1)
27.36	10.3	Pa-231	A	3.276E+4	Y	96	300.07(2.47)	302.65(2.19)
28.23	1.13	Dy-166	B-	81.6	H	7	54.24(0.81)	82.47(13.8)
29.37	15.	No-237	A	2.14E+6	Y	69	86.48(12.4)	94.64(0.6)
29.95	14.1	Ba-140	B-	12.752	D	13	162.67(6.21)	537.31(24.4)
30.77	--	Zr-93	B-	1.53E+6	Y	1		
30.77	5.E-04	Nb-93	IT	15.8	Y	1		
30.77	--	Mo-93	EC	3.5E+3	Y	1		
30.88	0.75	Au-195	EC	186.09	D	5	98.88(10.9)	129.76(0.82)
30.89	2.28	Pt-195	IT	4.02	D	9	98.90(11.4)	129.79(2.83)
32.19	0.28	Tl-201	EC	72.912	H	9	135.34(2.8)	167.43(10.6)
33.2	0.07	Pu-237	EC	45.2	D	12	26.34(0.22)	59.54(3.28)
33.4	--	Es-255	A	39.8	D	3	233.60(--)	269.10(--)
35.46	6.67	Te-125	IT	58	D	3	109.27(0.28)	
35.49	6.66	I-125	EC	60.14	D	1		
37.09	1.84	Hg-195	IT	41.6	H	4	16.21(0.16)	122.78(0.03)
37.14	0.94	Tc-121	EC	154	D	10	998.29(0.08)	1102.15(2.54)
37.15	1.85	Sn-121	B-	55	Y	1		
37.6	7.5	I-129	B-	1.57E7	Y	1		
38.66	0.01	Pu-239	A	24110	Y	208	51.62(0.03)	129.30(6.E-03)
38.9	--	Tc-95	IT	61	D	1		
39.08	< 0.15	Ce-134	EC	75.9	H	36	130.41(0.21)	162.31(0.23)
39.58	7.5	Xe-129	IT	8.89	D	2	196.56(4.59)	
39.75	0.07	Pd-103	EC	16.991	D	9	357.45(0.02)	497.08(4.E-03)
40.	29.	Ra-225	B-	14.8	D	1		
40.09	0.1	Pa-229	A	1.50	D	32	64.70(0.05)	75.12(0.03)
40.29	5.02	Re-186	IT	2.0E+5	Y	7	58.98(17.8)	99.33(1.07)
40.98	0.26	Ce-144	B-	284.9	D	7	80.12(1.36)	133.51(11.1)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	41.5 -	63.1 (KeV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
41.53	0.01	Fm-252	A	25.39	H	2	96.28(0.04)	
41.79	- 0.05	Es-253	A	20.47	D	69	387.10(0.02)	389.18(0.03)
41.95	0.35	Cm-245	A	8500	Y	22	132.99(2.77)	174.94(9.5)
42.	0.01	Cf-246	A	35.7	H	3	96.00(0.01)	146.00(3.E-03)
42.44	0.09	U-233	A	1.592E+5	Y	151	54.70(0.02)	97.13(0.02)
42.82	0.02	Cm-244	A	18.10	Y	19	98.86(2.E-03)	152.63(1.E-03)
42.85	? 0.01	Cf-250	A	13.08	Y	1		
43.1	5.4	Os-194	B-	6.0	Y	2		
43.4	0.01	Cf-252	A	2.645	Y	3	100.20(0.01)	160.00(-2.E-03)
43.5	0.04	Pu-238	A	87.74	Y	36	99.85(7.E-03)	152.72(9.E-04)
43.53	5.93	Am-243	A	7370	Y	19	74.66(68.2)	
43.81	25.	Pu-246	B-	10.84	D	14	179.94(9.7)	223.75(23.5)
44.08	0.03	Cm-242	A	162.8	D	30	101.93(3.E-03)	157.42(1.E-03)
44.55	--	Cm-246	A	4730	Y	1		
44.68	12.4	Lu-174	IT	142	D	5	67.06(7.25)	111.76(0.3)
44.91	0.04	Pu-242	A	3.733E+5	Y	3	103.50(8.E-03)	158.80(5.E-04)
45.24	0.04	Pu-240	A	6564	Y	13	104.23(7.E-03)	
45.3	1.36	Eu-155	B-	4.68	Y	18	86.54(32.8)	105.31(21.8)
46.	58.	Se- 72	EC	8.40	D	1		
46.48	7.97	Re-183	EC	70.0	D	28	162.33(23.3)	291.80(3.05)
46.54	4.25	Pb-210	B-	22.3	Y	1		
47.16	16.9	Tm-165	EC	30.06	H	177	242.92(35.5)	297.37(12.7)
? 47.57	? 0.07	Pu-236	A	2.851	Y	7	109.00(0.01)	165.00(7.E-04)
? 48.	--	Cf-253	B-	17.81	D	1		
48.63	--	Am-242	IT	141	Y	1		
48.92	17.	Tb-161	B-	6.88	D	37	25.65(23.2)	74.57(10.2)
49.37	? 0.08	U-236	A	2.3416E7	Y	2	112.75(0.02)	
49.37	0.19	Am-242	A	141	Y	21	86.68(0.04)	109.60(0.02)
- 49.55	0.06	U-238	A	4.468E+9	Y	2	113.50(0.01)	
49.63	73.7	Tb-156	IT	24.4	H	2		
49.72	15.	Te-132	B-	3.204	D	4	116.30(1.96)	228.16(88.)
50.	--	Fm-253	EC	3.00	D	1		
50.13	8.0	Th-227	A	18.72	D	233	235.97(12.3)	256.25(7.01)
51.62	0.03	Pu-239	A	24110	Y	208	38.66(0.01)	129.30(6.E-03)
52.33	0.55U	Es-252	A	471.7	D	20	64.42(0.27)	418.50(0.22)
52.39	49.5 U	Lu-172	EC	6.70	D	200	900.73(29.9)	1093.61(62.5)
53.2	0.12	U-234	A	2.457E+5	Y	9	120.90(0.03)	
53.44	? 10.3	As- 73	EC	80.30	D	2		
54.24	0.81	Dy-166	B-	81.6	H	7	28.23(1.13)	82.47(13.8)
54.5	8.E-03	Tb-157	EC	99	Y	1		
54.7	0.02	U-233	A	1.592E+5	Y	151	42.44(0.09)	97.13(0.02)
57.1	4.61	Tm-167	EC	9.25	D	10	207.80(41.)	531.50(1.59)
57.36	11.7	Ce-143	B-	33.10	H	52	293.27(42.8)	664.57(5.69)
57.63	0.5	Te-127	B-	109	D	5	658.90(0.01)	
57.78	0.2	U-232	A	68.9	Y	16	129.08(0.07)	270.20(3.E-03)
58.	2.22	Dy-159	EC	144.4	D	10		
58.6	--	Fe- 60	B-	1.5E+6	Y	1		
58.98	17.8	Re-186	IT	2.0E+5	Y	7	40.29(5.02)	99.33(1.07)
59.05	1.2	Ir-189	EC	13.2	D	30	69.53(3.54)	245.08(6.0)
59.54	34.5	U-237	B-	6.75	D	27	26.35(2.43)	208.00(21.1)
59.54	3.28	Pu-237	EC	45.2	D	12	26.34(0.22)	33.20(0.07)
59.54	35.9	Am-241	A	432.2	Y	172	26.34(2.41)	
59.98	0.07	Er-160	EC	28.58	H	2	7.13(4.95)	
? 60.	--	Es-255	B-	39.8	D	1		
61.22	12.2	Sm-145	EC	340	D	3		
61.6	1.5	Fm-257	A	100.5	D	8	179.40(8.68)	241.00(10.3)
63.	2.0	Es-254	A	275.5	D	23	304.00(0.07)	316.00(0.15)
63.12	44.2	Yb-169	EC	32.026	D	74	177.21(22.2)	197.96(35.8)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	Energy, 63.2 - 86.4 (KeV)	
							Other two intense gamma-rays	Energy (Intensity)
63.29	4.47	Th-234	B-	24.10	D	19	92.38(2.6)	92.80(2.56)
63.58	0.11	W-188	B-	69.4	D	7	227.09(0.22)	290.67(0.4)
63.81	0.27	Th-232	A	1~.05E+9	Y	2	140.88(0.03)	
64.28	9.58	Sn-126	B-	1.0E5	Y	8	86.94(8.92)	87.57(37.)
64.42	0.27	Es-252	A	471.7	D	20	52.33(0.55)	418.50(0.22)
64.7	0.05	Pa-229	A	1.50	D	32	40.04(0.1)	75.12(0.03)
66.73	0.14	Tm-171	B-	1.92	Y	1		
67.06	7.25	Lu-174	IT	142	D	5	44.68(12.4)	111.76(0.3)
67.2	0.55	Pm-145	EC	17.7	Y	2	72.40(1.85)	
67.35	5.31	Hf-172	EC	1.87	Y	32	23.98(20.3)	125.82(11.3)
67.6	0.11	Ac-226	EC	29	H	3	185.60(4.76)	253.50(5.71)
67.67	0.38	Th-230	A	7.538E+4	Y	11	143.87(0.05)	253.73(0.01)
67.75	41.2	Ta-182	B-	114.43	D	43	1121.30(34.9)	1221.41(27.)
67.85	22.2	Re-182	EC	64.0	H	100	229.32(25.7)	1121.30(22.)
67.88	94.4	Tl-144	EC	49	Y	3	78.34(96.2)	
68.11	3.32	Er-172	B-	49.3	H	44	407.34(42.4)	610.06(44.5)
69.21	6.E-03	Ac-227	A	21.773	Y	12	100.00(~9.E-03)	160.26(6.E-03)
69.53	3.54	Ir-189	EC	13.2	D	30	59.05(1.2)	245.08(6.0)
69.67	5.25	Sm-153	B-	46.7	H	59	97.43(0.73)	103.18(28.3)
69.67	2.32	Gd-153	EC	241.6	D	12	97.43(27.6)	103.18(19.6)
71.3	0.04	Es-254	A	39.3	H	15	177.30(0.06)	211.80(0.1)
72.2	0.6	U-230	A	20.8	D	11	154.73(0.12)	230.37(0.12)
72.23	0.56	Ac-226	B-	29	H	9	158.05(17.5)	230.00(26.9)
72.4	1.85	Pm-145	EC	17.7	Y	2	67.20(0.55)	
73.04	3.24	Os-193	B-	30.5	H	68	138.92(4.27)	460.49(3.95)
74.57	10.2	Tb-161	B-	6.88	D	37	25.65(23.2)	48.92(17.)
74.66	68.2	Am-243	A	7370	Y	19	43.53(5.93)	
74.77	* 98.	Pd-100	EC	3.63	D	9	84.00(~100.)	126.07(11.)
75.12	0.03	Pa-229	A	1.50	D	32	40.09(0.1)	64.70(0.05)
75.7.	.1.02	Pm-148	IT	41.29	D	2		
76.47	5.93	Lu-174	EC	3.31	Y	5	1241.85(5.14)	
77.1	2.E-05	Pu-241	A	14.35	Y	16	103.68(1.E-04)	148.57(2.E-04)
77.35	18.	Hg-197	EC	64.14	H	3	191.36(0.61)	
78.34	96.2	Tl-144	EC	49	Y	3	67.88(94.4)	
78.67	11.1	Lu-173	EC	1.37	Y	19	100.70(4.51)	272.09(18.5)
78.7	4.E-03	Tm-172	EC	128.6	D	1		
78.75	6.58	Tm-172	B-	63.6	H	66	1093.59(6.04)	1387.09(5.62)
79.13	6.63	Ag-108	IT	418	Y	2		
79.51	11.6	Tb-158	EC	180	Y	12	944.19(43.9)	962.13(20.3)
80.12	1.36	Ce-144	B-	284.9	D	7	40.98(0.26)	133.51(11.1)
80.22	--	Ir-193	IT	10.53	D	1		
80.57	6.71	Ho-166	B-	26.80	H	15	1379.40(0.93)	1581.89(0.19)
81.	38.	Xe-133	B-	5.243	D	6		
81.	34.1	Ba-133	EC	10.52	Y	7	302.85(18.3)	356.02(62.)
81.2	2.E-05	No-235	A	396.1	D	20	25.64(2.E-04)	84.20(1.E-04)
81.99	3.E-03	Eu-154	EC	8.592	Y	2	184.68(4.E-03)	
82.29	--	Yb-166	EC	56.7	H	1		
82.47	13.8	Dy-166	B-	81.6	H	7	28.23(1.13)	54.24(0.81)
84.	*100.	Pd-100	EC	3.63	D	9	74.77(98.)	126.07(11.)
84.	- 40.	Bk-247	A	1380	Y	2	265.00(30.)	
84.18	7.0	U-231	EC	4.2	D	12	25.64(12.)	? 217.90(- 0.8)
84.2	1.E-04	Np-235	A	396.1	D	20	25.64(2.E-04)	81.20(2.E-05)
84.21	6.6	Th-231	B-	25.52	H	63	25.64(14.5)	89.95(0.94)
84.26	3.26	Tm-170	B-	128.6	D	1		
84.26	8.74	Lu-170	EC	2.00	D	560	1280.25(7.93)	2041.88(5.91)
84.37	1.27	Th-228	A	1.9131	Y	14	131.61(0.14)	215.99(0.26)
86.4	2.58	Th-229	A	7340	Y	106	193.51(4.43)	210.85(2.78)
86.48	12.4	Np-237	A	2.14E+6	Y	69	29.37(15.)	94.64(0.6)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	86.5 -	109.6 (KeV) (Intensity)
							Other two intense gamma-rays	
86.54	32.8	Eu-155	B-	4.68	Y	18	45.30(1.36)	105.31(21.8)
86.55	31.8	Tb-155	EC	5.32	D	132	105.32(24.9)	180.08(7.4)
86.68	0.04	Am-242	A	141	Y	21	49.37(0.19)	109.60(0.02)
86.94	8.92	Sn-126	B-	1.0E5	Y	8	64.28(9.58)	87.57(37.)
87.57	37.	Sn-126	B-	1.0E5	Y	8	64.28(9.58)	86.94(8.92)
87.73	--	Tm-168	B-	93.1	D	1		
88.03	3.61	Cd-109	EC	462.9	D	1		
88.26	0.08	Te-127	IT	109	D	1		
88.35	13.1	Lu-176	B-	3.60E+10	Y	4	201.82(84.)	306.88(93.)
88.97	8.44	Eu-156	B-	15.19	D	105	811.77(9.7)	1230.71(7.98)
89.5	6.E-04	Tc-99	B-	2.111E+5	Y	1		
89.76	29.	Rh-99	B-	16.1	D	34	353.05(30.)	528.24(33.)
89.95	0.94	Th-231	B-	25.52	H	63	25.64(14.5)	84.21(6.6)
91.11	27.9	Nd-147	B-	10.98	D	15	319.41(1.95)	531.02(13.1)
91.27	7.0	Cu-67	B-	61.83	H	6	93.31(16.1)	184.58(48.7)
92.38	2.6	Th-234	B-	24.10	D	19	63.29(4.47)	92.80(2.56)
92.8	2.56	Th-234	B-	24.10	D	19	63.29(4.47)	92.38(2.6)
93.31	16.1	Cu-67	B-	61.83	H	6	91.27(7.0)	184.58(48.7)
93.31	39.2	Ga-67	EC	3.2612	D	10	184.58(21.2)	300.22(16.8)
94.64	0.6	Nd-237	A	2.14E+6	Y	69	29.37(15.)	86.48(12.4)
96.	0.01	Cf-246	A	35.7	H	3	42.00(0.01)	146.00(3.E-03)
96.28	0.04	Fm-252	A	25.39	H	2	41.53(0.01)	
96.5	0.31	Tc-97	IT	90.5	D	1		
96.73	0.2	Ag-111	B-	7.45	D	14	245.42(1.74)	342.12(6.68)
97.13	0.02	U-233	A	1.592E+5	Y	151	42.44(0.09)	54.70(0.02)
97.21	70.1	Au-198	IT	2.30	D	6	180.31(50.8)	214.89(77.)
97.43	0.73	Sm-153	B-	46.7	H	59	69.67(5.25)	103.18(28.3)
97.43	27.6	Gd-153	EC	241.6	D	12	69.67(2.32)	103.18(19.6)
98.86	2.E-03	Cm-244	A	18.10	Y	19	42.82(0.02)	152.63(1.E-03)
98.88	10.9	Au-195	EC	186.09	D	5	30.88(0.75)	129.76(0.82)
98.9	11.4	Pt-195	IT	4.02	D	9	30.89(2.28)	129.79(2.83)
98.9	1.5	Am-240	EC	50.9	H	37	888.80(25.1)	987.76(73.2)
98.92	4.32	Tb-158	B-	180	Y	6	218.22(0.93)	930.00(< 0.260)
99.33	1.07	Re-186	IT	2.0E+5	Y	7	40.29(5.02)	58.98(17.8)
99.63	0.62	Ac-225	A	10.0	D	97	99.91(1.01)	150.04(0.8)
99.85	7.E-03	Pu-238	A	87.74	Y	36	43.50(0.04)	152.72(9.E-04)
99.91	1.01	Ac-225	A	10.0	D	97	99.63(0.62)	150.04(0.8)
100.	-9.E-03	Ac-227	A	21.773	Y	12	69.21(6.E-03)	160.26(6.E-03)
100.2	-0.01	Cf-252	A	2.645	Y	3	43.40(0.01)	160.00(< 2.E-03)
100.7	4.51	Lu-173	EC	1.37	Y	19	78.65(11.1)	272.09(18.5)
101.93	3.E-03	Cm-242	A	162.8	D	30	44.08(0.03)	157.42(1.E-03)
102.82	0.85	Np-236	B-	154E+3	Y	3	158.35(3.96)	
103.18	28.3	Sm-153	B-	46.7	H	59	69.67(5.25)	97.43(0.73)
103.18	19.6	Gd-153	EC	241.6	D	12	69.67(2.32)	97.43(27.6)
103.5	8.E-03	Pu-242	A	3.733E+5	Y	3	44.91(0.04)	158.80(5.E-04)
103.68	1.E-04	Pu-241	A	14.35	Y	16	77.10(2.E-05)	148.57(2.E-04)
104.23	7.25	Np-236	EC	154E+3	Y	7	160.33(31.5)	
104.23	7.E-03	Pu-240	A	6564	Y	13	45.24(0.04)	
104.62	0.54	Nb-91	IT	60.86	D	1		
104.73	13.4	Re-184	IT	269	D	3		
105.31	21.8	Eu-155	B-	4.68	Y	18	45.30(1.36)	86.54(32.8)
105.32	24.9	Tb-155	EC	5.32	D	132	86.55(31.8)	180.08(7.4)
105.5	0.15	Te-129	IT	33.6	D	1		
106.12	27.2	Np-239	B-	2.3565	D	38	228.18(10.8)	277.60(14.4)
107.93	11.	Ta-183	B-	5.1	D	32	246.06(26.8)	354.00(11.2)
109.	0.01	Pu-236	A	2.851	Y	7?	47.57(? 0.07)	165.00(7.E-04)
109.27	0.28	Te-125	IT	58	D	3	35.46(6.67)	
109.6	0.02	Am-242	A	141	Y	21	49.37(0.19)	86.68(0.04)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	109.7 -	144.8 (KeV)
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
109.76	6.24	Tb-153	EC	2.34	D	319	170.50(6.57)	212.04(30.)
111.21	17.1	Re-184	EC	38.0	D	30	792.07(37.5)	903.28(37.9)
111.76	0.3	Lu-174	IT	142	D	5	44.68(12.4)	67.06(7.25)
112.75	0.02	U-236	A	2.3416E7	Y	2	49.37(? 0.08)	
112.9	7.24	Ta-177	EC	56.56	H	48	208.40(0.94)	
112.95	6.4	Lu-177	B-	6.73	D	6	208.37(11.)	1057.80(0.29)
113.5	0.01	U-238	A	4.468E+9	Y	2	49.55(0.06)	321.32(0.22)
113.8	1.91	Yb-175	B-	4.19	D	6	282.52(3.06)	396.32(6.5)
114.33	2.6	Hf-182	B+	9E6	Y	5	156.09(7.0)	270.40(80.)
114.71	44.	Gd-146	EC	48.27	D	8	115.51(44.)	154.57(46.6)
115.51	44.	Gd-146	EC	48.27	D	8	114.71(44.)	154.57(46.6)
116.3	1.96	Te-132	B-	3.204	D	4	49.72(15.)	228.16(88.)
116.48	8.E-03	Ag-110	IT	249.79	D	2		
117.2	0.05	Pa-229	EC	1.50	D	9	119.00(0.13)	146.40(0.1)
119.	0.13	Pa-229	EC	1.50	D	9	117.20(0.05)	146.40(0.1)
120.9	0.03	U-234	A	2.457E+5	Y	9	53.20(0.12)	
121.22	3.E-03	Pm-147	B-	6.6234	Y	3		
121.22	22.9	Eu-147	EC	24	D	77	197.30(26.5)	677.52(9.78)
121.62	5.91	Lu-177	IT	160.4	D	10	319.02(10.5)	413.66(17.4)
121.78	28.4	Eu-152	EC	13.542	Y	89	964.13(14.3)	1408.01(20.9)
122.06	85.6	Co- 57	EC	271.79	D	10	14.41(9.16)	136.47(10.7)
122.61	0.04	Re-186	EC	90.64	H	1		
122.7	28.	Hf-179	IT	25.1	D	13	362.55(40.1)	453.59(68.6)
122.78	0.03	Hg-195	IT	41.6	H	4	16.21(0.16)	37.09(1.84)
123.07	40.4	Eu-154	B-	8.592	Y	141	722.30(20.)	1274.51(34.4)
123.8	29.1	Ba-131	EC	11.8	D	48	216.09(19.9)	496.28(43.8)
125.36	0.02	W-185	B-	75.1	D	1		
125.82	11.3	Hf-172	EC	1.87	Y	32	23.98(20.3)	67.35(5.31)
126.07	* 11.	Pd-100	EC	3.63	D	9	74.77(* 98.)	84.00(*100.)
127.16	16.7	Ni- 57	B+	35.60	H	24	1377.63(81.7)	2919.52(12.3)
127.21	73.	Rh-101	EC	3.3	Y	14	198.00(70.8)	325.20(13.4)
129.08	0.07	U-232	A	68.9	Y	16	57.78(0.2)	270.20(3.E-03)
129.3	6.E-03	Pu-239	A	24110	Y	208	38.66(0.01)	51.62(0.03)
129.43	29.	Os-191	B-	15.4	D	4		
129.76	0.82	Au-195	EC	186.09	D	5	30.88(0.75)	98.88(10.9)
129.79	2.83	Pt-195	IT	4.02	D	9	30.89(2.28)	98.90(11.4)
130.41	0.21	Ce-134	EC	75.9	H	36	39.08(< 0.15)	162.31(0.23)
130.94	--	Ca- 48	B-6E+18	Y	1			
131.61	0.14	Th-228	A	1.9131	Y	14	84.37(1.27)	215.99(0.26)
132.41	3.86	Cm-241	EC	32.8	D	29	430.63(4.06)	471.81(71.3)
132.99	2.77	Cm-245	A	8500	Y	22	41.95(0.35)	174.94(9.5)
133.02	43.3	Hf-181	B-	42.39	D	10	345.93(15.1)	482.18(80.5)
133.51	11.1	Ce-144	B-	284.9	D	7	40.98(0.26)	80.12(1.36)
135.34	2.8	Tl-201	EC	72.912	H	9	32.19(0.28)	167.43(10.6)
135.5	--	Pt-193	IT	4.33	D	3	1.64(--)	12.63(--)
136.	58.3	Se- 75	EC	119.770	D	21	264.66(58.5)	279.54(24.8)
136.28	0.03	W-181	EC	121.2	D	3	6.24(1.03)	
136.47	10.7	Co- 57	EC	271.79	D	10	14.41(9.16)	122.06(85.6)
137.16	8.22	Re-186	B-	90.64	H	8		
138.92	4.27	Os-193	B-	30.5	H	68	73.04(3.24)	460.49(3.95)
139.03	13.9	Es-252	EC	471.7	D	17	785.10(18.3)	924.10(2.41)
140.51	4.52	Mo- 99	B-	65.94	H	41	181.06(6.08)	739.58(12.1)
140.7	=100.	Rh-102	IT	2.9	Y	3		
140.88	0.03	Th-232	A	14.05E+9	Y	2	63.81(0.27)	
143.76	10.9	U-235	A	703.8E+6	Y	70	185.72(57.5)	205.31(5.0)
143.87	0.05	Th-230	A	7.538E+4	Y	11	67.67(0.38)	252.73(0.01)
144.7	82.9	Zn- 72	B-	46.5	H	9	16.40(8.29)	191.50(9.37)
144.8	0.19	Fm-253	A	3.00	D	4	271.80(2.64)	405.00(- 0.08)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	145.4 - 180.0 (KeV)
						Other two intense gamma-rays	
						Energy(Intensity)	Energy(Intensity)
145.44	48.2	Ce-141	B-	32.50	D	1	
145.54	--	Cm-241	A	32.8	D	1	
146.	3.E-03	Cf-246	A	35.7	H	3	42.00(0.01)
146.4	0.1	Pa-229	EC	1.50	D	9	117.20(0.05)
148.57	2.E-04	Pu-241	A	14.35	Y	16	77.10(2.E-05)
149.72	49.	Gd-149	EC	9.4	D	56	298.64(28.9)
150.04	0.8	Ac-225	A	10.0	D	97	99.63(0.62)
150.06	10.8	Pa-232	B-	1.31	D	45	894.35(19.8)
152.63	1.E-03	Cm-244	A	18.10	Y	19	42.82(0.02)
152.7	0.91	Es-251	EC	33	H	5	163.50(0.1)
152.72	9.E-04	Pu-238	A	87.74	Y	36	43.50(0.04)
153.59	66.2	Te-119	EC	4.70	D	48	270.53(28.)
153.6	6.2	Gd-151	EC	124	D	32	174.70(2.96)
154.21	5.62	Ra-223	A	11.435	D	67	269.46(13.7)
154.23	0.12	U-230	A	20.8	D	11	72.20(0.6)
154.57	46.6	Gd-146	EC	48.27	D	8	114.71(44.)
155.05	29.7	Ir-188	EC	41.5	H	191	633.02(17.9)
155.16	--	Ir-192	IT	241	Y	1	
156.02	2.11	Sn-117	IT	13.60	D	3	158.56(86.4)
156.09	7.0	Hf-182	B-	9E6	Y	5	114.33(2.6)
157.32	0.2	Rh-101	IT	4.34	D	1	
157.42	1.E-03	Cm-242	A	162.8	D	30	44.08(0.03)
158.05	17.5	Ac-226	B-	29	H	9	72.23(0.56)
158.35	3.96	Np-236	B-	154E+3	Y	3	102.82(0.85)
158.38	98.8	Ni- 56	EC	5.9	D	6	749.95(49.5)
158.38	36.9	Au-199	B-	3.139	D	3	208.21(8.38)
158.56	86.4	Sn-117	IT	13.60	D	3	156.02(2.11)
158.8	5.E-04	Pu-242	A	3.733E+5	Y	3	44.91(0.04)
159.	84.	Te-123	IT	119.7	D	3	
159.38	67.9	Sc- 47	B-	3.345	D	1	
160.	-2.E-03	Cf-252	A	2.645	Y	3	43.40(0.01)
160.26	6.E-03	Ac-227	A	21.773	Y	12	69.21(6.E-03)
160.33	31.5	Np-236	EC	154E+3	Y	7	104.23(7.25)
162.31	0.23	Ce-134	EC	75.9	H	36	39.08(0.15)
162.33	23.3	Re-183	EC	70.0	D	28	46.48(7.97)
162.67	6.21	Ba-140	B-	12.752	D	13	29.95(14.1)
163.5	- 0.1	Es-251	EC	33	H	5	152.70(0.91)
163.93	1.96	Xe-131	IT	11.9	D	1	
165.	7.E-04	Pu-236	A	2.851	Y	7	47.57(0.07)
165.5	8.E-03	Bk-245	A	4.90	D	12	207.40(0.04)
165.85	? 79.9	Ce-139	EC	137.640	D	1	
167.43	10.6	Tl-201	EC	72.912	H	9	32.19(0.28)
167.75	8.33	Pm-151	B-	28.40	H	234	275.21(6.75)
169.26	0.44	Ce-137	EC	34.4	H	10	762.30(0.19)
170.5	6.57	Tb-153	EC	2.34	D	319	109.76(6.24)
171.28	? 90.2	In-111	EC	2.8049	D	3	245.35(94.)
172.13	25.5	Xe-127	EC	36.4	D	6	202.86(68.3)
174.7	2.96	Gd-151	EC	124	D	32	153.60(6.2)
174.94	9.5	Cm-245	A	8500	Y	22	41.95(0.35)
174.95	82.	As- 71	EC	65.28	H	148	499.88(3.62)
176.6	17.7	Cf-251	A	898	Y	16	227.00(6.3)
176.65	0.47	Lu-174	EC	142	D	7	272.91(0.55)
177.21	22.2	Yb-169	EC	32.026	D	74	63.12(44.2)
177.3	0.06	Es-254	A	39.3	H	15	71.30(0.04)
177.6	2.39	Es-251	EC	33	H	5	152.70(0.91)
179.4	8.68	Fm-257	A	100.5	D	8	61.60(1.5)
179.94	9.7	Pu-246	B-	10.84	D	14	43.81(25.)
180.08	7.4	Tb-155	EC	5.32	D	132	86.55(31.8)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy		180.3 -	228.1 (KeV)
						Other two intense gamma-rays		Energy (Intensity)	Energy (Intensity)
180.31	50.8	Au-198	IT	2.30	D	6	97.21(	70.1)	214.89(77.)
181.06	6.08	Mo- 99	B-	65.94	H	41	140.51(	4.52)	739.58(12.1)
182.25	0.85	Te-131	IT	30	H	1			
184.41	72.6	Ho-166	B-	1.20E3	Y	67	711.68(	55.3)	810.28(58.1)
184.58	48.7	Cu- 67	B-	61.83	H	6	91.27(	7.0)	93.31(16.1)
184.58	21.2	Ga- 67	EC	3.2612	D	10	93.31(	39.2)	300.22(16.8)
184.68	4.E-03	Eu-154	EC	8.592	Y	2	81.99(	3.E-03)	
185.6	4.76	Ac-226	EC	29	H	3	67.60(	0.11)	253.50(5.71)
185.72	57.5	U -235	A	703.8E+6	Y	70	143.76(	10.9)	205.31(5.0)
186.1	3.5	Ra-226	A	1600	Y	5			
186.68	52.4	Ir-190	EC	11.78	D	66	518.55(	34.)	605.14(39.9)
187.59	19.4	Pt-188	EC	10.2	D	16	195.05(	18.6)	381.43(7.47)
190.27	14.7	In-114	IT	49.51	D	1			
191.21	20.6	Lu-169	EC	34.06	H	309	960.62(	23.4)	1449.74(9.92)
191.36	0.61	Hg-197	EC	64.14	H	3	77.35(	18.)	
191.5	9.37	Zn- 72	B-	46.5	H	9	16.40(	8.29)	144.70(82.9)
192.35	3.08	Fe- 59	B-	44.496	D	8	1099.25(	56.5)	1291.60(43.2)
193.51	4.43	Th-229	A	7340	Y	106	86.40(	2.58)	210.85(2.78)
195.05	18.6	Pt-188	EC	10.2	D	16	187.59(	19.4)	381.43(7.47)
196.56	4.59	Xe-129	IT	8.89	D	2	39.58(	7.5)	
197.3	87.	Sb-120	EC	5.76	D	5	1023.30(	99.4)	1171.70(100.)
197.3	26.5	Eu-147	EC	24	D	77	121.22(	22.9)	677.52(9.78)
197.96	35.8	Yb-169	EC	32.026	D	74	63.12(	44.2)	177.21(22.2)
198.	70.8	Rh-101	EC	3.3	Y	14	127.21(	73.)	325.20(13.4)
198.24	52.6	Tm-168	EC	93.1	D	64	447.51(	23.)	815.99(49.)
199.19	40.9	Tb-156	EC	5.35	D	126	534.29(	66.6)	1222.44(31.)
201.82	84.	Lu-176	B-	3.60E+10	Y	4	88.35(	13.1)	306.88(93.)
202.86	68.3	Xe-127	EC	36.4	D	6	172.13(	25.5)	374.99(17.2)
204.12	2.33	Nb- 95	B-	86.6	H	5	582.07(	0.05)	
204.12	63.2	Tc- 95	EC	61	D	31	582.08(	30.)	835.15(26.6)
205.31	5.0	U -235	A	703.8E+6	Y	70	143.76(	10.9)	185.72(57.5)
205.8	3.3	Ir-192	EC	73.831	D	14	374.49(	0.72)	484.58(3.18)
207.4	0.04	Bk-245	A	4.90	D	12	165.50(	8.E-03)	471.80(0.03)
207.8	41.	Tm-167	EC	9.25	D	10	57.10(	4.61)	531.50(1.59)
208.	21.1	U -237	B-	6.75	D	27	26.35(	2.43)	59.54(34.5)
208.21	8.38	Au-199	B-	3.139	D	3	158.38(	36.9)	
208.37	57.7	Lu-177	B-	160.4	D	39	228.48(	37.)	378.50(29.7)
208.37	11.	Lu-177	B-	6.73	D	6	112.95(	6.4)	321.32(0.22)
208.4	0.94	Ta-177	EC	56.56	H	48	112.90(	7.24)	1057.80(0.29)
209.75	3.29	Cm-243	A	29.1	Y	39	228.18(	10.6)	277.60(14.)
210.85	2.78	Th-229	A	7340	Y	106	86.40(	2.58)	193.51(4.43)
211.8	0.1	Es-254	A	39.3	H	15	71.30(	0.04)	177.30(0.06)
212.04	30.	Tb-153	EC	2.34	D	319	109.76(	6.24)	170.50(6.57)
212.19	81.4	Te-121	IT	154	D	2			
214.89	77.	Au-198	IT	2.30	D	6	97.21(	70.1)	180.31(50.8)
215.68	86.2	Ru- 97	EC	2.9	D	19	324.55(	10.2)	569.27(0.89)
215.99	0.26	Th-228	A	1.9131	Y	14	84.37(	1.27)	131.61(0.14)
216.09	19.9	Ba-131	EC	11.8	D	48	123.80(	29.1)	496.28(43.8)
216.55	9.43	Re-184	EC	169	D	33	252.84(	10.7)	920.93(8.14)
216.68	5.5	Re-189	B-	24.3	H	72	219.40(	4.54)	245.08(3.52)
? 217.9	- 0.8	U -231	EC	4.2	D	12	25.64(	12.)	84.18(7.0)
218.22	0.93	Tb-158	B-	180	Y	6	98.92(	4.32)	930.00(< 0.260)
219.4	4.54	Re-189	B-	24.3	H	72	216.68(	5.5)	245.08(3.52)
223.75	23.5	Pu-246	B-	10.84	D	14	43.81(	25.)	179.94(9.7)
227.	6.3	Cf-251	A	898	Y	16	176.60(	17.7)	285.00(1.4)
227.09	0.22	W -188	B-	69.4	D	7	63.58(	0.11)	290.67(0.4)
228.16	88.	Te-132	B-	3.204	D	4	49.72(	15.)	116.30(1.96)
228.18	10.8	Np-239	B-	2.3565	D	38	106.12(	27.2)	277.60(14.4)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy		228.1 -	279.2 (KeV)
						Other two intense gamma-rays		Energy(Intensity)	Energy(Intensity)
228.18	10.6	Cm-243	A	29.1	Y	39	209.75(	3.29)	277.60(14.)
228.48	37.	Lu-177	B-	160.4	D	39	208.37(	57.7)	378.50(29.7)
229.32	63.1	Gd-147	EC	38.1	H	177	396.00(	34.3)	929.01(20.2)
229.32	25.7	Re-182	EC	64.0	H	100	67.85(	22.2)	1121.30(22.)
230.	26.9	Ac-226	B-	29	H	9	72.23(	0.56)	158.05(17.5)
230.37	0.12	U-230	A	20.8	D	11	72.20(	0.6)	154.23(0.12)
233.22	10.	Xe-133	IT	2.19	D	1			
233.6	--	Es-255	A	39.8	D	3	33.40(	-- )	269.10(--)
235.69	24.8	Nb-95	IT	86.6	H	1			
235.97	12.3	Th-227	A	18.72	D	233	50.13(	8.0)	256.25(7.01)
238.98	23.1	Br-77	EC	57.036	H	61	297.23(	4.16)	520.69(22.4)
239.01	1.59	As-77	B-	38.83	H	15	249.81(	0.39)	520.65(0.56)
240.99	3.97	Ra-224	A	3.62	D	5			
241.	10.3	Fm-257	A	100.5	D	8	61.60(	1.5)	179.40(8.68)
242.92	35.5	Tm-165	EC	30.06	H	177	47.16(	16.9)	297.37(12.7)
243.29	5.6	Gd-151	EC	124	D	32	153.60(	6.2)	174.70(2.96)
245.08	3.52	Re-189	B-	24.3	H	72	216.68(	5.5)	219.40(4.54)
245.08	6.0	Ir-189	EC	13.2	D	30	59.05(	1.2)	69.53(3.54)
245.35	94.	In-111	EC	2.8049	D	3	171.28(?	90.7)	
245.42	1.24	Ag-111	B-	7.45	D	14	96.73(	0.2)	342.12(6.68)
246.06	26.8	Ta-183	B-	5.1	D	32	107.93(	11.)	354.00(11.2)
249.81	0.39	As-77	B-	38.83	H	15	239.01(	1.59)	520.65(0.56)
252.8	2.5	Cf-249	A	351	Y	42	333.37(	14.6)	388.16(66.)
252.84	10.7	Re-184	EC	169	D	33	216.55(	9.43)	920.93(8.14)
252.85	29.1	Bk-245	EC	4.94	D	18	380.80(	2.4)	385.00(0.57)
253.5	5.71	Ac-226	EC	29	H	3	67.60(	0.11)	185.60(4.76)
253.73	0.01	Th-230	A	7.538E+4	Y	11	67.67(	0.38)	143.87(0.05)
254.29	11.	Ce-137	IT	34.4	H	1			
255.06	1.82	Sn-113	EC	115.09	D	5	391.69(	64.)	
256.25	7.01	Th-227	A	18.72	D	233	50.13(	8.0)	235.97(12.3)
260.5	0.68	Po-209	A	102	Y	2	262.80(	0.23)	
261.29	12.7	Kr-79	EC	35.04	H	45	397.54(	9.33)	606.09(8.12)
261.75	30.9	Hg-195	EC	41.6	H	58	387.87(	2.15)	560.27(7.01)
262.8	0.23	Po-209	A	102	Y	2	260.50(	0.68)	
263.7	0.02	Cd-113	IT	14.1	Y	1			
264.66	58.5	Se-75	EC	119.770	D	21	136.00(	58.3)	279.54(24.8)
265.	--	Bi-210	A	5.010	D	2	304.00(--)	
265.	- 30.	Bk-247	A	1380	Y	2	84.00(	40.)	
265.6	50.	Bi-210	A	3.14E+6	Y	12	304.70(	27.5)	649.70(3.85)
268.22	15.6	Ba-135	IT	28.7	H	1			
269.1	--	Es-255	A	39.8	D	3	33.40(	-- )	233.60(--)
269.46	13.7	Ra-223	A	11.435	D	67	154.21(	5.62)	323.87(3.93)
270.2	3.E-03	U-232	A	68.9	Y	16	57.78(	0.2)	129.08(0.07)
270.4	80.	Hf-182	B-	9E6	Y	5	114.33(	2.6)	156.09(7.0)
270.53	28.	Te-119	EC	4.70	D	48	153.59(	66.2)	1212.73(66.2)
271.13	86.7	Sc-44	IT	58.6	H	1			
271.8	2.64	Fm-253	A	3.00	D	4	144.80(	0.19)	405.00(0.08)
272.09	18.5	Lu-173	EC	1.37	Y	19	78.65(	11.1)	100.70(4.51)
272.91	0.55	Lu-174	EC	142	D	7	176.65(	0.47)	992.08(0.55)
273.44	14.5	Ba-128	EC	2.43	D	12	374.99(	0.31)	
275.21	6.75	Pm-151	B-	28.40	H	234	167.75(	8.33)	340.08(22.5)
275.93	17.5	Ba-133	IT	38.9	H	3	12.33(	1.5)	
275.99	0.3	Kr-81	EC	2.29E5	Y	1			
277.09	3.55	Eu-149	EC	93.1	D	27	22.51(	2.4)	327.53(4.03)
277.6	14.4	Np-239	B-	2.3565	D	38	106.12(	27.2)	228.18(10.8)
277.6	14.	Cm-243	A	29.1	Y	39	209.75(	3.29)	228.18(10.6)
278.	3.4	Cm-247	A	1.56E+7	Y	14	287.50(	2.0)	402.40(72.)
279.2	81.5	Hg-203	B-	46.612	D	1			

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	279.2 -	340.8 (KeV)
							Other two intense gamma-rays	
279.2	80.8	Pb-203	EC	51.873	H	3	401.32(3.47)	
279.54	24.8	Se- 75	EC	119.770	D	21	136.00(58.3)	264.66(58.5)
280.4	9.E-04	Pu-237	A	45.2	D	27	298.89(7.E-04)	320.75(5.E-04)
280.44	30.2	Ag-105	EC	41.29	D	69	344.52(41.4)	644.55(11.1)
282.52	3.06	Yb-175	B-	4.19	D	6	113.80(1.91)	396.32(6.5)
284.3	6.06	I -131	B-	8.04	D	19	364.48(81.2)	636.97(7.27)
285.	1.4	Cf-251	A	898	Y	16	176.60(17.7)	227.00(6.3)
285.95	3.1	Pm-149	B-	53.08	H	50	590.88(0.07)	859.46(0.11)
286.41	.23.8	Po-206	EC	8.8	D	79	511.36(24.1)	1032.26(32.9)
287.5	2.0	Cm-247	A	1.56E+7	Y	14	278.00(3.4)	402.40(72.)
290.67	0.4	W -188	B-	69.4	D	7	63.58(0.11)	227.09(0.22)
291.8	3.05	Re-183	EC	70.0	D	28	46.48(7.97)	162.33(23.3)
291.9	1.E-03	Po-208	EC	2.898	Y	7	570.70(8.E-04)	602.90(6.E-04)
293.27	42.8	Ce-143	B-	33.10	H	52	57.36(11.7)	664.57(5.69)
293.58	10.2	Au-194	EC	38.02	H	163	328.50(60.)	1468.89(6.3)
297.23	4.16	Br -77	EC	57.036	H	61	238.98(23.1)	520.69(22.4)
297.37	12.7	Tm-165	EC	30.06	H	177	47.16(16.9)	242.92(35.5)
298.58	25.5	Tb-160	B-	72.3	D	40	879.38(30.)	966.17(25.2)
298.64	28.9	Gd-149	EC	9.4	D	56	149.72(49.)	346.69(23.4)
298.89	7.E-04	Pu-237	A	45.2	D	27	280.40(9.E-04)	320.75(5.E-04)
300.07	2.47	Pa-231	A	3.276E+4	Y	96	27.36(10.3)	302.65(2.19)
300.22	16.8	Ga -67	EC	3.2612	D	10	93.31(39.2)	184.58(21.2)
300.34	6.62	Pa-233	B-	26.967	D	20	312.17(38.6)	340.81(4.47)
302.65	2.19	Pa-231	A	3.276E+4	Y	96	27.36(10.3)	300.07(2.47)
302.85	18.3	Be-133	EC	10.52	Y	9	81.00(34.1)	356.02(62.)
304.	--	Bi-210	A	5.010	D	2	265.00(--)	
304.	0.07	Es-254	A	275.5	D	23	63.00(2.0)	316.00(0.15)
304.7	27.5	Bi-210	A	3.14E+6	Y	12	265.60(50.)	649.70(3.85)
306.1	5.1	Rh-105	B-	35.36	H	5	318.90(19.1)	
306.86	93.5	Rh-101	EC	4.34	D	16	545.06(4.96)	
306.88	93.	Lu-176	B-	3.60E+10	Y	4	88.35(13.1)	201.82(84.)
307.5	3.E-06	Bk-249	A	320	D	2	327.20(2.E-05)	
308.46	30.	Ir-192	B-	73.831	D	23	316.51(82.8)	468.6 (47.8)
312.17	38.6	Pa-233	B-	26.967	D	20	300.34(6.62)	340.81(4.47)
314.8	0.09	Pa-230	B-	17.4	D	6	366.56(0.08)	383.60(0.04)
316.	0.15	Es-254	A	275.5	D	23	63.00(2.0)	304.00(0.07)
316.51	82.8	Ir-192	B-	73.831	D	23	308.46(30.)	468.07(47.8)
318.9	19.1	Rh-105	B-	35.36	H	5	306.10(5.2)	
319.02	10.5	Lu-177	IT	160.4	D	10	121.62(5.91)	413.66(17.4)
319.41	1.95	Nd-147	B-	10.98	D	15	91.11(27.9)	531.02(13.1)
320.08	10.1	Cr -51	EC	27.704	D	1		
320.75	5.E-04	Pu-237	A	45.2	D	27	280.40(9.E-04)	298.89(7.E-04)
321.32	0.22	Lu-177	B-	6.73	D	6	112.95(6.4)	208.37(11.)
323.87	3.93	Ra-223	A	11.435	D	67	154.21(5.62)	269.46(13.7)
324.55	10.2	Ru -97	EC	2.9	D	19	215.68(86.2)	569.27(0.89)
325.2	13.4	Rh-101	EC	3.3	Y	14	127.21(73.)	198.00(70.8)
325.56	94.1	Hf-178	IT	31	Y	16	426.36(96.9)	574.21(89.1)
327.2	2.E-05	Bk-249	A	320	D	2	307.50(3.E-06)	
327.53	4.03	Eu-149	EC	93.1	D	27	22.51(2.4)	277.09(3.55)
328.5	93.	Ir-194	B-	171	D	11	482.60(97.)	600.50(62.)
328.5	60.	Au-194	EC	38.02	H	163	293.58(10.2)	1468.89(6.3)
333.03	22.9	Au-196	EC	6.183	D	15	355.73(86.9)	
333.37	14.6	Cf-249	A	351	Y	42	252.80(2.5)	388.16(66.)
333.97	96.	Eu-150	EC	35.8	Y	137	439.40(80.4)	584.27(52.6)
336.2	45.9	Cd-115	B-	53.46	H	17	492.35(8.03)	527.90(27.4)
340.08	22.5	Pm-151	B-	28.40	H	234	167.75(8.33)	275.21(6.75)
340.55	42.2	Cs-136	B-	13.16	D	23	818.51(99.7)	1048.07(79.8)
340.81	4.47	Pa-233	B-	26.967	D	20	300.34(6.62)	312.17(38.6)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	342.1 -	439.5 (KeV)
						Other two intense gamma-rays	Energy(Intensity)	Energy(Intensity)
342.12	6.68	Ag-111	B-	7.45	D	14	96.73(0.2)	245.42(1.24)
344.28	26.6	Eu-152	B-	13.542	Y	38	411.12(2.23)	778.90(13.)
344.52	41.4	Ag-105	EC	41.29	D	69	280.44(30.2)	644.55(11.1)
345.93	15.1	Hf-181	B-	42.39	D	10	133.02(43.3)	482.18(80.5)
346.69	23.4	Gd-149	EC	9.4	D	56	149.72(49.)	298.64(28.9)
353.05	30.	Rh- 99	B+	16.1	D	34	89.76(29.)	528.24(33.)
353.6	--	Hf-175	EC	70	D	10	432.80(--)	432.80(--)
354.	11.2	Ta-183	B-	5.1	D	32	107.93(11.)	246.06(26.8)
355.73	86.9	Au-196	EC	6.183	D	15	333.03(22.9)	
356.02	62.	Ba-133	EC	10.52	Y	9	81.00(34.1)	302.85(18.3)
357.45	0.02	Pd-103	EC	16.991	D	9	39.75(0.07)	497.08(4.E-03)
359.88	6.0	Pt-191	EC	2.9	D	61	409.44(8.0)	538.87(13.7)
362.55	40.1	Hf-179	IT	25.1	D	13	122.70(28.)	453.59(68.6)
364.48	81.2	I- 131	B-	8.04	D	19	284.30(6.06)	636.97(7.27)
366.56	0.08	Pa-230	B-	17.4	D	6	314.80(0.09)	383.60(0.04)
367.94	87.2	Tl-200	EC	26.1	H	96	579.28(13.8)	1205.70(29.9)
371.92	30.8	Cs-129	EC	32.06	H	30	411.49(22.5)	548.95(3.42)
374.49	0.72	Ir-192	EC	73.831	D	14	205.80(3.3)	484.58(3.18)
374.99	17.2	Xe-127	EC	36.4	D	6	172.15(25.5)	202.86(68.3)
374.99	0.31	Ba-128	EC	2.43	D	12	273.44(14.5)	
378.5	29.7	Lu-177	B-	160.4	D	39	208.37(57.7)	228.48(37.)
380.8	2.4	Bk-245	EC	4.94	D	18	252.85(29.1)	385.00(0.57)
381.43	7.47	Pt-188	EC	10.2	D	16	187.59(19.4)	195.05(18.6)
381.53	14.1	Sr- 83	B+	32.41	H	137	418.37(4.41)	762.65(30.)
383.6	0.04	Pa-230	B-	17.4	D	6	314.80(0.09)	366.56(0.08)
385.	0.57	Bk-245	EC	4.94	D	18	252.85(29.1)	380.80(2.4)
387.1	0.02	Es-253	A	20.47	D	69	41.79(- 0.05)	389.18(0.03)
387.87	2.15	Hg-195	EC	41.6	H	58	261.75(30.9)	560.27(7.01)
388.16	66.	Cf-249	A	551	Y	42	252.80(2.5)	353.37(14.6)
388.53	82.1	Y- 87	EC	79.8	H	2	484.81(89.7)	
388.63	34.1	I- 126	B-	13.02	D	3	491.24(2.85)	879.88(0.75)
389.18	0.03	Es-253	A	20.47	D	69	41.79(- 0.05)	387.10(0.02)
391.69	64.	Sn-113	EC	115.09	D	5	255.06(1.82)	
392.9	--	Zr- 88	EC	83.4	D	1		
396.	34.3	Gd-147	EC	38.1	H	177	229.32(63.1)	929.01(20.2)
396.32	6.5	Yb-175	B-	4.19	D	6	113.80(1.91)	282.52(3.06)
397.54	9.33	Kr- 79	EC	35.04	H	45	261.29(12.7)	606.09(8.12)
401.32	3.47	Pb-203	EC	51.873	H	3	279.20(80.8)	
402.4	72.	Cm-247	A	1.56E+7	Y	14	278.00(3.4)	287.50(2.0)
405.	- 0.08	Fm-253	A	3.00	D	4	144.80(0.19)	271.80(2.64)
407.34	42.4	Er-172	B-	49.3	H	44	68.11(3.32)	610.06(44.5)
409.44	8.0	Pt-191	EC	2.9	D	61	359.88(6.0)	538.87(13.7)
411.12	2.23	Eu-152	B-	13.542	Y	38	344.28(26.6)	778.90(13.)
411.49	22.5	Cs-129	EC	32.06	H	30	371.92(30.8)	548.95(3.42)
411.8	95.5	Au-198	B-	2.696	D	3		
413.66	17.4	Lu-177	IT	160.4	D	10	121.62(5.91)	319.02(10.5)
414.8	83.3	Sb-126	B-	12.4	D	27	666.30(99.7)	695.00(99.7)
418.37	4.41	Sr- 83	B+	32.41	H	137	381.53(14.1)	762.65(30.)
418.5	0.22	Es-252	A	471.7	D	20	52.33(0.55U)	64.42(0.27)
426.1	7.2	Au-196	B-	6.183	D	1		
426.36	96.9	Hf-178	IT	31	Y	16	325.56(94.1)	574.21(89.1)
427.89	29.4	Sb-125	B-	2.73	Y	24	600.56(17.8)	635.89(11.3)
430.63	4.06	Cm-241	EC	32.8	D	29	132.41(3.86)	471.81(71.3)
432.8	--	Hf-175	EC	70	D	10	353.60(--)	432.80(--)
432.8	--	Hf-175	EC	70	D	10	353.60(--)	432.80(--)
433.94	90.5	Ag-108	EC	418	Y	3	614.28(89.8)	722.94(90.8)
439.4	80.4	Eu-150	EC	35.8	Y	137	333.97(96.)	584.27(52.6)
439.56	91.4	Tl-202	EC	12.23	D	3		

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	447.5 -	559.1 (KeV)
						Other two intense gamma-rays	Energy (Intensity)	Energy (Intensity)
447.51	23.	Tm-168	EC	93.1	D	64	198.24(52.6)	815.99(49.)
453.59	68.6	Hf-179	IT	25.1	D	13	122.70(28.)	362.55(40.1)
453.88	65.	Pm-146	EC	5.53	Y	4	735.93(22.5)	
454.95	6.27	Pa-230	EC	17.4	D	60	918.48(8.24)	951.95(29.1)
460.49	3.95	Os-193	B-	30.5	H	68	73.04(3.24)	138.92(4.27)
464.47	1.73	Cs-132	B-	6.479	D	3	567.16(0.23)	1031.66(0.12)
468.07	47.8	Ir-192	B-	73.831	D	23	308.46(30.)	316.51(82.8)
470.47	1.41	Tc-121	EC	16.78	D	5	507.59(17.7)	573.14(80.3)
471.8	0.03	Bk-245	A	4.90	D	12	165.50(8.E-03)	207.40(0.04)
471.81	71.3	Cm-241	EC	32.8	D	29	132.41(3.86)	430.65(4.06)
473.	24.7	Sb-127	B-	3.85	D	36	685.70(35.3)	783.70(14.5)
475.06	95.	Rh-102	EC	2.9	Y	16	631.29(56.)	697.49(44.)
475.06	39.4	Rh-102	EC	207	D	29	628.05(3.85)	1103.16(2.48)
476.78	42.	Pm-144	EC	363	D	12	618.01(98.6)	696.49(99.5)
477.61	10.5	Be- 7	EC	53.29	D	1		
482.18	80.5	Hf-181	B-	42.39	D	10	133.02(43.3)	343.93(15.1)
482.6	97.	Ir-194	B-	171	D	11	328.50(93.)	600.50(62.)
484.47	0.29	Cd-115	B-	44.6	D	27	933.84(2.0)	1290.59(0.89)
484.58	3.18	Ir-192	EC	73.831	D	14	105.80(3.3)	374.49(0.72)
484.81	89.7	Y- 87	EC	79.8	H	2	388.53(82.1)	
487.02	44.3	La-140	B-	1.6781	D	39	815.77(22.9)	1596.21(95.4)
489.23	6.51	Ca- 47	B-	4.536	D	9	807.86(6.51)	1297.09(74.)
491.24	2.85	I- 126	B-	13.02	D	3	388.63(34.1)	879.88(0.75)
492.35	8.03	Cd-115	B-	53.46	H	17	336.24(45.9)	527.90(27.4)
496.28	43.8	Ba-131	EC	11.8	D	48	123.80(29.1)	216.09(19.9)
497.08	91.	Ru-103	B-	39.26	D	20	610.33(5.76)	
497.08	4.E-03	Pd-103	EC	16.991	D	9	39.75(0.07)	357.45(0.02)
499.88	3.62	As- 71	EC	65.28	H	148	174.95(82.)	1095.49(4.08)
507.59	17.7	Tc-121	EC	16.78	D	5	470.47(1.41)	573.14(80.3)
510.	0.08	Rn-222	A	3.8235	D	1		
511.38	24.1	Po-206	EC	8.8	D	79	286.41(23.8)	1032.26(32.9)
511.85	87.7	Ag-106	EC	8.46	D	59	717.34(28.9)	1045.83(29.6)
514.	0.43	Kr- 85	B-	10.756	Y	4		
514.01	95.7	Sr- 85	EC	64.84	D	8		
516.18	40.7	Bi-206	EC	6.243	D	84	803.10(98.9)	881.01(66.2)
518.55	34.	Ir-190	EC	11.78	D	66	186.68(52.4)	605.14(39.9)
520.39	44.7	Rb- 83	EC	86.2	D	13	529.59(29.3)	552.59(16.)
520.65	0.56	As- 77	B-	38.83	H	15	239.01(1.59)	249.81(0.39)
520.69	22.4	Br- 77	EC	57.036	H	61	238.98(23.1)	297.23(4.16)
527.9	27.4	Cd-115	B-	53.46	H	17	336.24(45.9)	492.35(8.03)
528.24	33.	Rh- 99	B+	16.1	D	34	89.76(29.)	353.05(30.)
529.59	29.3	Rb- 83	EC	86.2	D	13	520.39(44.7)	552.59(16.)
531.02	13.1	Nd-147	B-	10.98	D	15	91.11(27.9)	319.41(1.95)
531.5	1.59	Tm-167	EC	9.25	D	10	57.10(4.61)	207.80(41.)
534.29	66.6	Tb-156	EC	5.35	D	126	199.19(40.9)	1222.44(31.)
537.31	24.4	Ba-140	B-	12.732	D	13	29.95(14.1)	162.67(6.21)
538.87	13.7	Pt-191	EC	2.9	D	61	359.88(6.0)	409.44(8.0)
545.06	4.96	Rh-101	EC	4.34	D	16	306.86(93.5)	
548.95	3.42	Cs-129	EC	32.06	H	30	371.92(30.8)	411.49(22.5)
550.23	98.6	Eu-148	EC	54.5	D	228	611.25(20.1)	629.93(70.5)
550.27	22.	Pm-148	B-	5.370	D	22	914.85(11.5)	1465.12(22.2)
550.27	94.4	Pm-148	B-	41.29	D	22	629.97(88.6)	725.70(32.7)
552.59	16.	Rb- 83	EC	86.2	D	13	520.39(44.7)	529.59(29.3)
554.35	70.8	Br- 82	B-	35.30	H	33	619.11(43.4)	776.52(83.5)
556.6	1.92	Rh-102	B-	207	D	1		
556.65	0.12	Tc-129	B-	33.6	D	39	695.88(2.99)	729.57(0.7)
558.43	4.39	In-114	EC	49.51	D	2	725.24(4.39)	
559.1	45.	As- 76	B-	26.32	H	63	657.05(6.17)	1216.08(3.42)

Energy (keV)	Intensity (%)	Parent	Nuclide	Mode	Half Life	No. of G	Energy 560.2 - 667.4 (keV)	
							Other two intense gamma-rays	Energy(Intensity)
560.27	7.01	Hg-195	EC	41.6	H	58	261.75(30.9)	387.87(2.15)
561.1	*100.	Nb- 92	EC	3.47E7	Y	2	934.50(* 74.6)	
564.24	69.3	Sb-122	B-	2.70	D	7	692.65(3.78)	1256.93(0.8)
567.16	0.23	Cs-132	B-	6.479	D	3	464.47(1.73)	1031.66(0.12)
569.27	0.89	Ru- 97	EC	2.9	D	19	215.68(86.2)	324.55(10.2)
569.32	15.4	Cs-134	B-	2.062	Y	12	604.70(97.6)	795.85(85.4)
569.7	97.8	Bi-207	EC	32.2	Y	7	1063.66(74.1)	1770.24(6.87)
570.7	8.E-04	Po-208	EC	2.898	Y	7	291.90(1.E-03)	602.90(6.E-04)
573.14	80.3	Te-121	EC	16.78	D	5	470.47(1.41)	507.59(17.7)
574.11	13.3	Ge- 69	EC	39.05	H	37	871.98(11.9)	1106.77(36.)
574.21	89.1	Hf-178	IT	31	Y	16	325.56(94.1)	426.36(96.9)
579.28	13.8	Tl-200	EC	26.1	H	96	367.94(87.2)	1205.70(29.9)
582.07	0.05	Nb- 95	B-	86.6	H	5	204.12(2.33)	
582.08	30.	Tc- 95	EC	61	D	31	204.12(63.2)	835.15(26.6)
584.27	52.6	Eu-150	EC	35.8	Y	137	333.97(96.)	439.40(80.4)
590.88	0.07	Pm-149	B-	53.08	H	50	285.95(3.1)	859.46(0.11)
595.83	59.4	As- 74	EC	17.77	D	12		
600.5	62.	Ir-194	B-	171	D	11	328.50(93.)	482.60(97.)
600.56	17.8	Sb-125	B-	2.73	Y	24	427.89(29.4)	635.89(11.3)
602.72	60.5	I- 124	EC	4.18	D	100	722.78(9.98)	1691.02(10.4)
602.73	97.8	Sb-124	B-	60.20	D	85	722.79(10.8)	1690.98(47.3)
602.9	6.E-04	Po-208	EC	2.898	Y	7	291.90(1.E-03)	570.70(8.E-04)
604.7	97.6	Cs-134	B-	2.062	Y	12	569.32(15.4)	795.85(87.4)
605.14	39.9	Ir-190	EC	11.78	D	66	186.68(52.4)	518.55(34.)
606.09	8.12	Kr- 79	EC	35.04	H	45	261.29(12.7)	397.54(9.33)
610.06	44.5	Er-172	B-	49.3	H	44	68.11(3.32)	407.54(42.4)
610.33	5.76	Ru-103	B-	39.26	D	20	497.08(91.)	
611.25	20.1	Eu-148	EC	54.5	D	228	550.23(98.6)	629.93(70.5)
614.28	89.8	Pm-108	EC	418	Y	3	433.94(90.5)	722.94(90.8)
618.01	98.6	Pm-144	EC	363	D	12	476.78(42.)	696.49(99.5)
619.11	43.4	Br- 82	B-	35.30	H	33	554.35(70.8)	776.52(83.5)
628.05	3.85	Pm-102	EC	207	D	29	475.06(39.4)	1103.16(2.48)
629.92	7.92	As- 72	EC	26.0	H	85	833.99(79.5)	1464.00(1.11)
629.93	70.5	Eu-148	EC	54.5	D	228	550.23(98.6)	611.25(20.1)
629.97	88.6	Pm-148	B-	41.29	D	22	550.27(94.4)	725.70(32.7)
631.29	56.	Rh-102	EC	2.9	Y	16	475.06(95.)	697.49(44.)
632.5	1.E-02	Ba-133	EC	38.9	H	1		
633.02	17.9	Ir-188	EC	41.5	H	191	155.05(29.7)	2214.59(18.7)
633.03	43.3	Eu-146	EC	4.59	D	388	634.07(37.4)	747.20(98.3)
633.25	2.15	Pm-146	B-	5.53	Y	2	747.24(34.)	
634.07	37.4	Eu-146	EC	4.59	D	388	633.03(43.3)	747.20(98.3)
634.78	15.4	As- 74	B-	17.77	D	3		
635.89	11.3	Sb-125	B-	2.73	Y	24	427.89(29.4)	600.56(17.8)
636.97	7.27	I- 131	B-	8.04	D	19	284.30(6.06)	364.48(81.2)
644.55	11.1	Ag-105	EC	41.29	D	69	280.44(30.2)	344.52(41.4)
646.12	81.	Os-185	EC	93.6	D	28	874.81(6.61)	880.52(5.0)
648.8	28.4	Es-254	B-	39.3	H	8	688.68(12.3)	693.78(24.3)
649.7	3.85	Bi-210	A	3.14E+6	Y	12	265.60(50.)	304.70(27.5)
652.41	* 98.	Tc- 98	EC	4.2E+06	Y	2	745.35(*100.)	
653.51	15.	Eu-145	EC	5.93	D	91	893.73(65.7)	1658.53(14.9)
657.05	6.17	As- 76	B-	26.32	H	63	559.10(45.)	1216.08(3.42)
657.76	94.	Ag-110	B-	249.79	D	58	884.68(72.2)	937.49(34.1)
658.9	0.01	Te-127	B-	109	D	5	57.63(0.5)	
661.66	85.2	Cs-137	B-	30.0	Y	1		
664.57	5.69	Ce-143	B-	33.10	H	52	57.36(11.7)	293.27(42.8)
666.3	99.7	Sb-126	B-	12.4	D	27	414.80(83.3)	695.00(99.7)
666.33	33.1	I- 126	EC	13.02	D	7	753.82(4.16)	
667.4	11.	Lu-171	EC	8.24	D	101	19.39(23.7)	739.78(47.8)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	667.7 - 815.7 (KeV)	
							Other two intense gamma-rays	Energy(Intensity)
667.72	97.5	Cs-132	EC	6.479	D	10	121.22(22.9)	197.30(26.5)
677.52	9.78	Eu-147	EC	24	D	77	473.00(24.7)	783.70(14.5)
685.7	35.3	Sb-127	B-	3.85	D	36	648.80(28.4)	693.78(24.3)
688.68	12.3	Es-254	B-	39.3	H	8	564.24(69.3)	1256.93(0.8)
692.65	3.78	Sb-122	B-	2.70	D	7	648.80(28.4)	688.68(12.3)
693.78	24.3	Es-254	B-	39.3	H	8	414.80(83.3)	666.30(99.7)
695.	99.7	Sb-126	B-	12.4	D	27	556.65(0.12)	729.57(0.7)
695.88	2.99	Te-129	B-	33.6	D	39	476.78(42.)	618.01(98.6)
696.49	99.5	Pm-144	EC	363	D	12	475.06(95.)	631.29(56.)
697.49	44.	Rh-102	EC	2.9	Y	16	871.09(99.9)	
702.62	97.9	Nb- 94	B-	2.03E+4	Y	2		
703.45	31.1	Bi-205	EC	15.31	D	150	987.66(16.1)	1764.30(32.5)
711.68	55.3	Ho-166	B-	1.20E3	Y	67	184.41(72.6)	810.28(58.1)
717.34	28.9	Ag-106	EC	8.46	D	59	511.85(87.7)	1045.83(29.6)
722.3	20.	Eu-154	B-	8.592	Y	141	123.07(40.4)	1274.51(34.4)
722.78	9.98	I- 124	EC	4.18	D	100	602.72(60.5)	1691.02(10.4)
722.79	10.8	Sb-124	B-	60.20	D	85	602.73(97.8)	1690.98(47.3)
722.94	90.8	Ag-108	EC	418	Y	3	433.94(90.5)	614.28(89.8)
724.2	44.2	Zr- 95	B-	64.02	D	3	756.73(54.5)	
725.24	4.39	In-114	EC	49.51	D	2	558.43(4.39)	
725.7	32.7	Pm-148	B-	41.29	D	22	550.27(94.4)	629.97(88.6)
729.57	0.7	Tc-129	B-	33.6	D	39	556.65(0.12)	695.88(2.99)
735.93	22.5	Pm-146	EC	5.53	Y	4	453.88(65.)	
739.58	12.1	Mo- 99	B-	65.94	H	41	140.51(4.52)	181.06(6.08)
739.78	47.8	Lu-171	EC	8.24	D	101	19.39(13.7)	667.40(11.)
741.98	38.5	Pm-143	EC	265	D	1		
742.	1.E-06	Pr-143	B-	13.58	D	1		
744.23	90.6	Mn- 52	EC	5.591	D	21	935.54(96.9)	1434.09(100.)
745.35	=100.	Tc- 98	B-	4.2E+06	Y	2	652.41(98.)	
747.2	98.3	Eu-146	EC	4.59	D	388	633.03(43.3)	634.07(37.4)
747.24	34.	Pm-146	B-	5.53	Y	2	633.25(2.15)	
749.95	49.5	Ni- 56	EC	5.9	D	6	158.38(98.8)	811.85(86.)
753.82	4.16	I- 126	EC	13.02	D	7	666.33(33.1)	
756.73	54.5	Zr- 95	B-	64.02	D	3	724.20(44.2)	
762.3	0.19	Ce-137	EC	34.4	H	10	169.26(0.44)	824.82(0.44)
762.65	30.	Sr- 83	B+	32.41	H	137	381.53(14.1)	418.37(4.41)
765.81	99.8	Nb- 95	B-	34.975	D	3		
773.67	38.1	Tc-131	B-	30	H	190	793.75(13.8)	852.21(20.6)
776.52	83.5	Br- 82	B-	35.30	H	33	554.35(70.8)	619.11(43.4)
778.22	99.8	Tc- 96	EC	4.28	D	28	812.54(82.)	849.86(97.6)
778.9	13.	Eu-152	B-	13.542	Y	38	344.28(26.6)	411.12(2.23)
783.29	17.	V- 50	B-	1.4E+17	Y	1		
783.7	14.5	Sb-127	B-	3.85	D	36	473.00(24.7)	685.70(35.3)
785.1	18.3	Es-252	EC	471.7	D	17	139.03(13.9)	924.10(2.41)
788.74	33.6	La-138	B-	1.05E+11	Y	1		
792.07	37.5	Re-184	EC	38.0	D	30	111.21(17.1)	903.28(37.9)
793.75	13.8	Tc-131	B-	30	H	190	773.67(38.1)	852.21(20.6)
795.85	85.4	Cs-134	B-	2.062	Y	12	569.32(15.4)	604.70(97.6)
798.7	61.	Bk-246	EC	1.80	D	18	833.50(5.0)	1081.40(5.8)
803.1	98.9	Bi-206	EC	6.243	D	84	516.18(40.7)	881.01(66.2)
803.1	1.E-03	Po-210	A	138.376	D	1		
807.86	6.51	Ca- 47	B-	4.536	D	9	489.23(6.51)	1297.09(74.)
810.28	58.1	Ho-166	B-	1.20E3	Y	67	184.41(72.6)	711.68(55.3)
810.77	99.4	Co- 58	EC	70.916	D	3		
811.77	9.7	Eu-156	B-	15.19	D	105	88.97(8.44)	1230.71(7.98)
811.85	86.	Ni- 56	EC	5.9	D	6	158.38(98.8)	749.95(49.5)
812.54	82.	Tc- 96	EC	4.28	D	28	778.22(99.8)	849.86(97.6)
815.77	22.9	La-140	B-	1.6781	D	39	487.02(44.3)	1596.21(95.4)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy 815.9 - 987.7 (KeV)	
						Other two intense gamma-rays	
						Energy (Intensity)	Energy (Intensity)
815.99	49.	Tm-168	EC	93.1	D 64	198.24(52.6)	447.51(23.)
818.51	99.7	Cs-136	B-	13.16	D 23	340.55(42.2)	1048.07(79.8)
822.48	3.99	Sn-125	B-	9.64	D 52	1067.10(9.04)	1089.15(4.28)
824.82	0.44	Ce-137	EC	34.4	H 10	169.26(0.44)	762.30(0.19)
833.5	5.0	Bk-246	EC	1.80	D 18	798.70(61.)	1081.40(5.8)
833.99	79.5	As- 72	EC	26.0	H 85	629.92(7.92)	1464.00(1.11)
834.85	100.	Mn- 54	EC	312.12	D 1		
835.15	26.6	Tc- 95	EC	61	D 31	204.12(63.2)	582.08(30.)
846.77	99.9	Co- 56	EC	77.27	D 46	1238.28(66.1)	2598.46(17.)
847.	3.E-04	Cs-134	EC	2.062	Y 1		
849.86	97.6	Tc- 96	EC	4.28	D 28	778.22(99.8)	812.54(82.)
852.21	20.6	Tc-131	B-	30	H 190	773.67(38.1)	793.75(13.8)
859.46	0.11	Pm-149	B-	53.08	H 50	285.95(3.1)	590.88(0.07)
871.09	99.9	Nb- 94	B-	2.03E+4	Y 2	702.62(97.9)	
871.98	11.9	Ge- 69	EC	39.05	H 37	574.11(13.3)	1106.77(36.)
874.81	6.61	Os-185	EC	93.6	D 28	646.12(81.)	880.52(5.0)
879.38	30.	Tb-160	B-	72.3	D 40	298.58(25.5)	966.17(25.2)
879.88	0.75	I -126	B-	13.02	D 3	388.63(34.1)	491.24(2.85)
880.52	5.0	Os-185	EC	93.6	D 28	646.12(81.)	874.81(6.61)
881.01	66.2	Bi-206	EC	6.243	D 84	516.18(40.7)	803.10(98.9)
881.61	69.	Rb- 84	EC	32.87	D 3	1897.76(0.74)	
884.68	72.2	Ag-110	B-	249.79	D 58	657.76(94.)	937.49(34.1)
888.8	25.1	Am-240	EC	50.9	H 37	98.90(1.5)	987.76(73.2)
889.28	100.	Sc- 46	B-	83.810	D 3	1120.55(100.)	
893.73	65.7	Eu-145	EC	5.93	D 91	653.51(15.)	1658.53(14.9)
894.35	19.8	Pa-232	B-	1.31	D 45	150.06(10.8)	969.32(41.6)
896.6	0.47	Po-209	EC	102	Y 1		
898.04	93.7	Y - 88	B+	106.65	D 6	1836.06(99.2)	
900.73	29.9	Lu-172	EC	6.70	D 200	52.39(49.5 U)	1093.61(62.5)
903.28	37.9	Re-184	EC	38.0	D 30	111.21(17.1)	792.07(37.5)
909.12	1.E-02	Sr- 89	B-	50.53	D 1		
909.14	99.9	Zr- 89	B+	78.41	H 5		
912.6	1.78	Nb- 92	EC	10.15	D 6	934.44(99.1)	
914.85	11.5	Pm-148	B-	5.370	D 22	550.27(22.)	1465.12(22.2)
918.48	8.24	Pa-230	EC	17.4	D 60	454.95(6.27)	951.95(29.1)
920.93	8.14	Re-184	EC	169	D 33	216.55(9.43)	252.84(10.7)
924.1	2.41	Es-252	EC	471.7	D 17	139.03(13.9)	785.10(18.3)
929.01	20.2	Gd-147	EC	38.1	H 177	229.32(63.1)	396.00(34.3)
930.	< 0.26U	Tb-158	B-	180	Y 6	98.92(4.32)	218.22(0.93)
933.84	2.0	Cd-115	B-	44.6	D 27	484.47(0.29)	1290.59(0.89)
934.44	99.1	Nb- 92	EC	10.15	D 6	912.60(1.78)	
934.5	* 74.6	Nb- 92	EC	3.47E7	Y 2	561.10(*100.)	
935.54	94.9	Mn- 52	EC	5.591	D 21	744.23(90.6)	1434.09(100.)
937.49	34.1	Ag-110	B-	249.79	D 58	657.76(94.)	884.68(72.2)
944.13	7.76	V - 48	EC	15.9735	D 11	983.52(100.)	1312.10(97.5)
944.19	43.9	Tb-158	EC	180	Y 12	79.51(11.6)	962.13(20.3)
951.95	29.1	Pa-230	EC	17.4	D 60	454.95(6.27)	918.48(8.24)
960.62	23.4	Lu-169	EC	34.06	H 309	191.21(20.6)	1449.74(9.92)
962.13	20.3	Tb-158	EC	180	Y 12	79.51(11.6)	944.19(43.9)
964.13	14.3	Eu-152	EC	13.542	Y 89	121.78(28.4)	1408.01(20.9)
966.17	25.2	Tb-160	B-	72.3	D 40	298.58(25.5)	879.38(30.)
969.32	41.6	Pa-232	B-	1.31	D 45	150.06(10.8)	894.35(19.8)
983.52	--	Ca- 48	2B-	6E+18	Y 2	2013.66(--)	
983.52	100.	V - 48	EC	15.9735	D 11	944.13(7.76)	1312.10(97.5)
983.53	* 100.	Sc- 48	B-	43.67	H 5	1037.52(* 97.5)	1312.12(*100.)
984.45	27.8	Ng-238	B-	2.117	D 38	1025.87(9.6)	1028.54(20.3)
987.66	16.1	Bi-205	EC	15.31	D 150	703.45(31.1)	1764.30(32.5)
987.76	73.2	Am-240	EC	50.9	H 37	98.90(1.5)	888.80(25.1)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy	992.0 -	1379.4 (KeV)
						Other Energy	two intense gamma-rays (Intensity)	Energy (Intensity)
992.08	0.55	Tu-174	EC	142	D	7	176.65(0.47)	272.91(0.55)
998.29	0.08	Te-121	EC	154	D	10	37.14(0.94)	1102.15(2.54)
1001.85	1.2	Sc- 44	EC	58.6	H	3	1126.08(1.2)	1157.03(1.2)
1023.3	99.4	Sb-120	EC	5.76	D	5	197.30(87.)	1171.70(100.)
1025.87	9.6	Np-238	B-	2.117	D	38	984.45(27.8)	1028.54(20.3)
1028.54	20.3	Ne-238	B-	2.117	D	38	984.45(27.8)	1025.87(9.6)
1030.23	0.03	Sn-123	B-	129.2	D	9	1088.64(0.6)	
1031.66	0.12	Cs-132	B-	6.479	D	3	464.47(1.73)	567.16(0.23)
1032.26	32.9	Po-206	EC	8.8	D	79	286.41(23.8)	511.36(24.1)
1037.52	* 97.5	Sc- 48	B-	43.67	H	5	983.53(*100.)	1312.12(*100.)
1045.83	29.6	Ag-106	EC	8.46	D	59	511.85(87.7)	717.34(28.9)
1048.07	79.8	Cs-136	B-	13.16	D	23	340.55(42.2)	818.51(99.7)
1057.8	0.29	Ta-177	EC	56.56	H	48	112.90(7.24)	208.40(0.94)
1063.66	74.1	Bi-207	EC	32.2	Y	7	569.70(97.8)	1770.24(6.87)
1067.1	9.04	Sn-125	B-	9.64	D	52	822.48(3.99)	1089.15(4.28)
1077.	8.64	Rb- 86	B-	18.631	D	1		
1081.4	5.8	Bk-246	EC	1.80	D	18	798.70(61.)	833.50(5.0)
1088.64	0.6	Sn-123	B-	129.2	D	9	1030.23(0.03)	
1089.15	4.28	Sn-125	B-	9.64	D	52	822.48(3.99)	1067.10(9.04)
1093.59	6.04	Tm-172	B-	63.6	H	66	78.75(6.58)	1387.09(5.62)
1093.61	62.5	Lu-172	EC	6.70	D	200	52.39(49.5 U)	900.73(29.9)
1095.49	4.08	As- 71	EC	65.28	H	148	174.95(82.)	499.88(3.62)
1099.25	56.5	Fe- 59	B-	44.496	D	8	192.35(3.08)	1291.60(43.2)
1102.15	2.54	Tc-121	EC	154	D	10	37.14(0.94)	998.29(0.08)
1103.16	2.48	Rh-102	FC	207	D	29	475.06(39.4)	628.05(3.85)
1106.77	36.	Ge- 69	EC	39.05	H	37	574.11(13.3)	871.98(11.9)
1115.55	50.6	Zn- 65	EC	244.26	D	3		
1120.55	100.	Sc- 46	B-	83.810	D	3	889.28(100.)	
1121.3	34.9	Ta-182	B-	114.43	D	43	67.75(41.2)	1221.41(27.)
1121.3	22.	Re-182	EC	64.0	H	100	67.85(22.2)	329.32(25.7)
1126.08	1.2	Sc- 44	EC	58.6	H	3	1001.85(1.2)	1157.03(1.2)
1129.65	2.4	Al- 26	EC	7.4E+5	Y	3	1808.67(99.7)	
1140.	0.74	Sb-122	EC	2.70	D	1		
1157.03	1.2	Sc- 44	EC	58.6	H	3	1001.85(1.2)	1126.08(1.2)
1171.7	100.	Sb-120	EC	5.76	D	5	197.30(87.)	1023.30(99.4)
1173.24	100.	Co- 60	B-	5.2714	Y	6	1332.50(100.)	
1204.67	0.3	Y- 91	B-	58.51	D	1		
1204.67	2.87	Nb- 91	EC	60.86	D	1		
1205.7	29.9	Tl-200	EC	26.1	H	96	367.94(87.2)	579.28(13.8)
1212.73	66.2	Te-119	EC	4.70	D	48	153.59(66.2)	270.53(28.)
1216.08	3.42	As- 76	B-	26.32	H	63	559.10(45.)	657.05(6.17)
1221.41	27.	Ta-182	B-	114.43	D	43	67.75(41.2)	1121.30(34.9)
1222.44	31.	Tb-156	EC	5.35	D	126	199.19(40.9)	534.29(66.6)
1230.71	7.98	Eu-156	B-	15.19	D	105	88.97(8.44)	811.77(9.7)
1238.28	66.1	Co- 56	EC	77.27	D	46	846.77(99.9)	2598.46(17.)
1241.85	5.14	Lu-174	EC	3.31	Y	5	76.47(5.93)	
1256.93	0.8	Sb-122	B-	2.70	D	7	564.24(69.3)	692.65(3.78)
1274.51	34.4	Eu-154	B-	8.592	Y	141	125.07(40.4)	722.30(20.)
1274.53	99.9	Na- 22	B+	2.6088	Y	1		
1280.25	7.93	Lu-170	EC	2.00	D	560	84.26(8.74)	2041.88(5.91)
1290.59	0.89	Od-115	B-	44.6	D	27	484.47(0.29)	933.84(2.0)
1291.6	43.2	Fe- 59	B-	44.496	D	8	192.35(3.08)	1099.25(56.5)
1297.09	74.	Ca- 47	B	4.536	D	9	489.23(6.51)	807.86(6.51)
1312.1	97.5	V- 48	EC	15.9735	D	11	944.13(7.76)	983.52(100.)
1312.12	*100.	Sc- 48	B-	43.67	H	5	983.53(*100.)	1037.52(* 97.5)
1332.5	100.	Co- 60	B-	5.2714	Y	6	1173.24(100.)	
1377.63	81.7	Ni- 57	B+	35.60	H	24	127.16(16.7)	1919.52(12.3)
1379.4	0.93	Ho-166	B-	26.80	H	15	80.57(6.71)	1581.89(0.19)

Energy (KeV)	Intensity (%)	Parent Nuclide	Decay Mode	Half Life	No. of G	Energy (Intensity)	1387.0	-	2610.	(KeV)
							Other two intense gamma-rays		Energy (Intensity)	
1387.09	5.62	Tm-172	B-	63.6	H	66	78.75(6.58)	1093.59(6.04)		
1408.01	20.9	Eu-152	EC	13.542	Y	89	121.78(28.4)	964.13(14.3)		
1434.09	100.	Mn- 52	EC	5.591	D	21	744.23(90.6)	935.54(94.9)		
1435.8	66.4	La-138	EC	1.05E+11	Y	1				
1449.74	9.92	Lu-169	EC	34.06	H	309	191.21(20.6)	960.62(23.4)		
1460.83	10.7	K - 40	EC	1.277E+9	Y	1				
1464.	1.11	As- 72	EC	26.0	H	85	629.92(7.92)	833.99(79.5)		
1465.12	22.2	Pm-148	B-	5.370	D	22	550.27(22.)	914.85(11.5)		
1468.89	6.3	Au-196	EC	38.02	H	163	293.58(10.2)	328.50(60.)		
1527.21	* 60. U	Np-234	EC	4.4	D	95	1558.31(*100. U)	1601.80(* 48.9 U)		
1553.77	83.	V - 50	EC	1.4E+17	Y	1				
1558.31	*100. U	Np-234	EC	4.4	D	95	1527.21(* 60. U)	1601.80(* 48.9 U)		
1581.89	0.19	Ho-166	B-	26.80	H	15	80.57(6.71)	1379.40(0.93)		
1596.21	95.4	La-140	B-	1.6781	D	39	487.02(44.3)	815.77(22.9)		
1601.8	* 48.9 U	Np-234	EC	4.4	D	95	1527.21(* 60. U)	1558.31(*100. U)		
1658.53	14.9	Eu-145	EC	5.93	D	91	653.51(15.)	893.73(65.7)		
1690.98	47.3	Sb-124	B-	60.20	D	85	602.73(97.8)	722.79(10.8)		
1691.02	10.4	I - 124	EC	4.18	D	100	602.72(60.5)	722.78(9.98)		
1764.3	32.5	Bi-205	EC	15.31	D	150	703.45(31.1)	987.66(16.1)		
1770.24	6.87	Bi-207	EC	32.2	Y	7	569.70(97.8)	1063.66(74.1)		
1808.63	99.7	Al - 26	EC	7.4E+5	Y	3	1129.65(2.4)			
1836.06	99.2	Y - 88	B+	106.65	D	6	898.04(93.7)			
1897.76	0.74	Rb- 84	EC	32.87	D	3	881.61(69.)			
1919.52	12.3	Ni - 57	B+	35.60	H	24	127.16(16.7)	1377.63(81.7)		
2013.66	--	Ca - 48	2B-	6E+18	Y	2	983.52(--)			
2041.88	5.91	Lu-170	EC	2.00	D	560	84.26(8.74)	1280.25(7.95)		
2186.25	1.E-06	Y - 90	B-	64.10	H	2				
2214.59	18.7	Ir-188	EC	41.5	H	191	155.05(29.7)	633.02(17.9)		
2598.46	17.	Co - 56	EC	77.27	D	46	846.77(99.9)	1238.28(66.1)		
2610. .	100.	Bi-208	EC	3.68E+5	Y	1				

Appendix

List of Radionuclides for Whose all Gamma-rays only Energy Values are Known.

Parent Nuclide	Decay Mode	Half Life	Energy (KeV)	Parent Nuclide	Decay Mode	Half Life	Energy (KeV)
B - 12	B-	20.20	MS	3214.83	Y - 86	IT	48
				4438.03	Zr - 82	32	M
Ne - 24	B-	3.38	M	472.2			208.1
				874.41			129.
Ne - 26	B-	0.23	S	82.5			144.
				151.1			248.
				233.6			278.
Na - 24	IT	20.20	MS	472.2	Zr - 88	EC	83.4
Na - 34	B-2	5.5	MS	885.5	Zr - 93	B-	1.53E+6
Al - 24	IT	131.3	MS	425.8	Nb - 83	EC	4.1
Cl - 41	B-	38.4	S	167.3	Nb - 100	B-	1.5+3.1
				348.7			S
				515.			159.3
				516.			461.8
				518.7			527.9
				834.			535.2
				838.			600.1
				867.4			635.2
				1186.7			638.4
				1353.			694.5
				1354.			702.6
Ca - 48	B-	6E+18	Y	130.94			707.3
Ca - 48	2B-	6E+18	Y	983.52			768.3
				2013.66			792.4
Sc - 50	IT	0.35	S	256.89			928.1
Fe - 60	B-	1.5E+6	Y	58.6			952.5
Co - 60	IT	10.467	M	58.6			966.1
Co - 62	IT	13.91	M	22.			1063.7
Zn - 73	IT	5.8	S	195.5			1071.3
Zn - 73	B-	5.8	S	42.1			1280.3
Zn - 76	B-	5.7	S	75.7			1427.6
				172.5			1499.9
				199.6	Nb - 102	B-	1.3
				275.3			S
				281.7			296.
				290.1			397.6
				365.9			400.6
				748.8			551.4
				755.			847.4
				831.2			949.
				1030.6	Mo - 93	EC	3.5E+3
				2091.	Mo - 108	B-	1.5
Zn - 77	IT	1.05	S	772.39			Y
Ga - 74	IT	9.5	S	56.5			30.77
				59.7			125.5
Ge - 69	IT	3.2	US	390.			258.53
Ge - 69	IT	5.1	US	85.			268.21
As - 75	IT	16.79	MS	304.	Tc - 95	IT	61
As - 86	B-	0.9	S	704.1	Tc - 111	B-	0.30
Kr - 73	B+P	27.0	S	860.	Ru - 90	EC	13
Rb - 90	IT	258	S	106.92	Ru - 112	B-	1.75
Rb - 97	B-N	169.9	MS	235.	Rh - 105	IT	45
				414.	Pd - 95	B+P	13.3
				651.			S
				692.			129.57
				815.			146.3
				1507.			311.6
Y - 86	IT	48	M	10.2			756.
							1430.7
							665.3
							750.5
							773.

Parent Nuclide	Dcay Mode	Half Life	Energy (KeV)
Ag-104	IT	33.5	M 6.9
Ag-105	IT	7.23	M 25.48
Ag-109	IT	39.6	S 88.03
Ag-113	IT	68.7	S 43.6
Ag-116	IT	8.6	S 81.9
Ag-117	IT	5.34	S 28.6
Ag-122	B-	1.5	S 570. 760.
In-105	IT	48	S 674.1
In-113	IT	1.6582	H 391.69
In-116	IT	2.18	S 162.39
Sn-110	EC	4.11	H 283.
Sn-121	IT	55	Y 6.29
Sn-129	IT	6.7	M 35.2
Sb-114	IT	219	US 37.7 45.8 90.2 321.8
Sb-128	IT	10.4	M < 20.
Sb-135	B-	1.71	S 3292. 3406.
Te-110	EC	18.6	S 107.5 219.1 605.9 894.8
Te-117	IT	103	MS 21.6 274.4
Te-137	B-N	2.49	S 87.3 135. 332.6 578.6 630.7 738.2
Te-137	B-	3.5	S 243.6
I -112	EC	3.42	S 688.9
I -114	B+	2.1	S 786.9
I -115	B+	1.3	S 682.6 708.8
I -130	IT	9.0	M 275. 284. 460. 709.
Xe-118	B+	6	M 39.96 53. 117.
Xe-143	B-	0.30	S 90.
Cs-116	B+	0.70	S 393.5
Cs-121	IT	122	S 68.5
Cs-148	B-	170	MS 141.7
Ba-120	B+	32	S 51. 182.
Ba-137	IT	2.5513	M 661.66
La-126	B+	1.0	M 256. 340. 460. 625.
Ce-130	EC	25	M 107.9 130.8

Parent Nuclide	Dcay Mode	Half Life	Energy (KeV)	
Ce-130	EC	25	M 134.4	
			162.2	
			181.3	
			209.1	
			219.6	
			307.3	
Ce-151	B-	1.02	S 52.6 84.79 96.8	
Pr-130	EC	40.0	S 118.57 253.7 283. 343. 456.5 466.9 488.4 494.4 499. 576. 575. 578.5 580.9 612.6 614. 631. 632. 771.8 792. 834.7 837.2 923.4 938.2 951.9 961.4 1046. 1069. 1282. 1405. Pr-140	IT 3.05 US 98.5 61 NS 635.9 Pr-142 IT 7.2 M 86.7 Nd-131 B+P 268.2 Nd-140 IT 0.60 MS 553. Pr-144 IT 7.2 M 59.03 Nd-131 B+P 254. Nd-140 IT 0.60 MS 435. Nd-141 EC 62.0 S 770. Pr-142 IT 67 US 1000. Nd-141 EC 62.0 S 145.44 972.14 1117.6 32.45 37.5 43. 203.5 208.5 208.5 241.

Parent Nuclide	Dcay Mode	Half Life	Energy (KeV)
Pm-142	IT	67	US 433.7
Pm-152	B-	13.8	M 63.
			116.5
			121.8
			137.4
			200.3
			229.9
			244.7
			340.4
			360.4
			852.8
			1193.1
			1214.
			1233.8
			1437.5
Pm-157	B-	10.90	S 52.6
			108.2
			160.5
			187.9
Pm-158	B-	4.8	S 72.8
Sm-131	B+P	1.2	S 159.
Sm-138	EC	3.1	M 53.6
			74.7
Sm-141	IT	22.6	M 1.5B
			174.2
Eu-140	EC	20	S 531.
			714.
Eu-161	B-	26	S 71.9
			91.9
			163.7
			293.9
			314.3
Gd-155	IT	31	MS 14.
			22.
			86.
Gd-159	IT	26.2	NS 17.1
			50.7
			67.8
Tb-141	EC	7.9	S 292.5
Tb-142	EC	303	MS 515.4
			693.7
Tb-142	IT	15	US 29.7
			37.4
			68.5
			83.9
			98.3
			137.98
			165.85
			181.9
			211.6
			220.03
			303.83
Tb-146	IT	1.18	MS 19.
			138.
			156.7
			205.2
			343.1
			417.7

Parent Nuclide	Dcay Mode	Half Life	Energy (KeV)
Tb-153	IT	186	US 80.8
			82.5
Dy-146	EC	29	S 74.7
			113.7
			117.8
			143.5
			236.8
			241.1
			268.4
			280.2
			285.7
			305.5
			322.1
			324.8
			338.1
			354.9
			384.6
			419.3
			441.1
			565.9
			618.4
			660.3
			664.9
			682.1
			882.1
			920.
			1062.2
			1066.8
			1073.4
			1084.4
			1161.2
			1171.2
			1342.3
			1352.8
			1372.2
			1388.8
			1399.3
			1446.7
			1474.7
			1496.3
			1696.1
			1727.1
			1737.4
			1743.8
			1772.1
			1801.8
			1801.8
			1841.
			1876.7
			1915.7
			1923.8
			2082.
			2156.8
			9.1
			79.
			86.75
			103.
			137.76
Dy-155	IT	6	US

Parent Nuclide	Dcay Mode	Half Life	Energy (KeV)
Dy-155	IT	6	US 147.2
Dy-169	B-	39	S 1578.2
Ho-149	EC	30	S 1034.7
Ho-151	A	35.2	S 101. 253.
Ho-151	A	47.2	S 101. 253. 171.
Er-149	EC		343.7 436.6
Er-149	IT	10.8	S 111.3 630.3
Er-154	EC	3.68	M 26.9
Tm-153	A	1.48	S 171.4 344.
Tm-153	A	2.5	S 171.4 344.
Tm-154	EC	3.30	S 542. 560. 602. 625.
Tm-168	B-	93.1	D 87.73
Yb-151	ECP	1.6	S 208. 1579.
Yb-166	EC	56.7	H 82.29
Yb-172	IT	3.6	US 78.7 90.7 112.7 174.6 181.6 197.6 203.4 279.7 813.5 912.8 1003.5 1011.1 1093.2 1094.6 1116.2
Lu-166	IT	1.41	M 34.37
Lu-172	IT	3.7	M 41.86
Lu-184	B-		107.4
Hf-175	EC	70	D 89.36 113.8 143.9 161.3 229.6 318.9 343.4 353.6 432.8 432.8 22.5 94.1 162.8 199.4 311.
Ta-165	EC	31.0	S 110.-

Parent Nuclide	Dcay Mode	Half Life	Energy (KeV)
Ta-167	EC	1.4	M 81.6 92.3 111.6 113.7 118.6 139.5 214.2 278. 296.3
Ta-182	IT	283	MS 16.26
W -175	EC	34	M 14.97 36.4 51.38 121.16 149.17 166.69 270.25
Os-189	IT	5.8	H 30.81
Ir-190	IT	1.2	H 26.3
Ir-192	IT	1.45	M 56.68
Ir-192	IT	241	YY 155.16
Ir-192	B-	1.45	M 295.96
Ir-193	IT	10.53	D 612.47 80.22
Ir-195	IT	3.8	H 100. 76.4
Pt-175	A	2.52	S 134.4 211.8
Pt-176	A	6.33	S 226.
Pt-193	IT	4.33	D 1.64 12.63
Pt-201	B-	2.5	M 135.5 70. 150. 230.
Au-181	A	11.4	S 1760. 148.4
Au-182	A	21	S 55. 170.
Hg-180	A	3.0	S 263. 66.3 80.9 92.4 147.4 158.7 214.2 239.8
Hg-181	A	3.6	S 150. 170.7 251.2
Hg-182	ECP	3.6	S 71.4 87.4 153.8
Hg-182	A	11.3	S 61. 106. 118. 161.
Hg-183	A	8.8	S 110.-
Hg-185	A	21	S 110.-

Parent Nuclide	Decay Mode	Half Life	Energy (KeV)
Hg-185	A	49	S 15. 79. 94.
Hg-203	IT	21	US 333. 580.
Tl-185	IT	1.8	S 168.8 284.
Tl-187	EC	15.60	S 161.
Tl-187	IT	15.60	S 35. 299.5
Tl-196	IT	1.41	H 33.7 120.1 240.7 274.6
Tl-198	IT	32.1	MS 198.8
Tl-202	IT	572	US 459.6 490.7
Tl-207	IT	1.33	S - 350. ~ 1000.
Pb-187	A	15.2	S 67.4 208. 275.5
Pb-196	EC	37	M 113. 126. 127. 175. 191.8 240.3 241. 253.2 302. 366.6 494. 503.
Pb-205	IT	5.54	MS 26.22 284.2 310.4 703.4 987.7 1013.8
Pb-207	IT	0.805	S 570. 1064.
Bi-190	A	6.2	S 374.
Bi-190	A	6.3	S 293.2
Bi-192	A	37	S 184.6
Bi-192	A	39.6	S 33.6 103.1 268.8
Bi-194	A	125	S 63.9 112.2 272.4
Bi-194	A	92	S 151.3
Bi-195	EC	183	S 134.1
Bi-198	IT	7.7	S 248.5
Bi-201	IT	26	US 95.2 185.5 272. 412.

Parent Nuclide	Decay Mode	Half Life	Energy (KeV)
Bi-201	IT	26	US 967.1
Bi-210	A	5.010	D 265.
Bi-212	B-	25.0	M 304.
Bi-214	A	19.9	M 120.
Po-194	A	0.44	S 223.
Po-199	IT	4.2	M 275.
Po-203	A	38.7	M 404.
Po-205	IT	2.5	NS 72.
At-201	EC	89	S 238.
At-212	A	0.119	S 5.
At-215	A	0.10	MS 160.8
Fr-206	A	0.7	S 334.2
Fr-219	A	20	MS 374.
Ra-219	A	10	MS 580.8
Ac-217	A	740	MS 636.4
Ac-227	B-	21.773	Y 719.2
Th-223	A	0.60	S 6.5
			417.9
			571.
			62.94
			404.
			391.
			163.
			189.
			352.
			493.
			530.
			214.1
			290.8
			315.82
			489.
			592.
			805.2
			498.
			1105.
			9.3
			15.2
			24.5
			26.5
			57.1
			68.2
			75.2
			88.
			97.1
			113.55
			140.02
			151.98
			10.
			73.92
			12.9
			38.7
			51.6
			68.7
			127.8

Parent Nuclide	Decay Mode	Half Life		Energy (KeV)
Pa-235	B-	24.1	M	131.8 345. 374.9 381. 393.7 413.6 637.8 645.7 652. 659.3
U -238	IT	225	NS	44.7 1879. 2512.7 2558.
Np-243	B-	1.8	M	287.
Am-242	EC	16.02	H	44.52
Am-242	IT	141	Y	48.63
Am-242	B-	16.02	H	42.13
Cm-239	EC	2.9	H	41. 146.4 188.
Cm-241	A	32.8	D	145.54
Cm-246	A	4730	Y	44.55
Bk-251	B-	56	M	152.9 177.8
Cf-253	B-	17.81	D ?	48.
Es-255	A	39.8	D -	33.4 233.6 269.1
Es-255	B-	39.8	D ?	60.
Es-256	B-	7.6	H ?	48.1 111.4 172.6 190.1 199.4 218.3 231.3 417.7 634.1 833.7 862. 1051.9 1093.5
Fm-253	EC	3.00	D	50.
Md-255	EC	27	M ?	60.
Md-256	A	76	M	120. 400.
Rf-257	A	4.8	S	117.
Ha-258	A	4.4	S -	95.

国際単位系(SI)と換算表

表1 SI基本単位および補助単位

量	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
物質量	モル	mol
光强度	カンデラ	cd
平面角	ラジアン	rad
立体角	ステララン	sr

表3 固有の名称をもつSI組立単位

量	名称	記号	他のSI単位 による表現
周波数	ヘルツ	Hz	s ⁻¹
力	ニュートン	N	kg·m/s ²
重力、比重	パスカル	Pa	N/m ²
エネルギー、仕事、熱量	ジルベル	J	N·m
率、放射率	ワット	W	J/s
電気量、電荷	クロック	C	A·s
電位、电压、起電力	ボルト	V	W/A
静電容量	フクナクト	F	C ² /V
電気抵抗	オーム	Ω	V/A
インダクタンス	ヘンツィ	S	A·V
磁束密度	ウェーブ	Wb	V·s
磁場密度	テスラ	T	Wb/m
インダクタンス	ヘンツィ	H	Wb/A
セルシウス温度	セルシウス度	°C	°K
光强度	ルーメン	lm	cd·sr
角度	ラジアン	rad	lm·m
放射能	ベクレル	Bq	s
吸収線量	グレイ	Gy	J/kg
線量当量	シーベルト	Sv	J/kg

表2 SIと併用される単位

名称	記号
分、時、日	min, h, d
度、分、秒	°, ′, ″
リットル	L, l
トント	t
電子volt	eV
原子質量単位	u

1 eV = 1.60218×10^{-19} J

1 u = 1.66054×10^{-27} kg

表3 SI接頭語

倍数	接頭語	記号
10^{18}	エクサ	E
10^{12}	ヘクタ	P
10^6	ミリ	M
10^3	ミク	k
10^2	ヘクト	da
10^{-1}	ミク	d
10^{-2}	ナノ	c
10^{-3}	マイリ	m
10^{-6}	マイクロ	n
10^{-9}	ナノ	p
10^{-12}	ピコ	f
10^{-18}	アatto	a

表4 SIと共に暫定的に
維持される単位

名称	記号
オンクストローム	Å
ハーパー	b
ハーバル	bar
ガル	Gal
ガラリー	Gr
レーヴィーク	R
ラード	rad
レーベル	rem

1 Å = $0.1 \text{ nm} = 10^{-10} \text{ m}$

1 b = $100 \text{ fm} = 10^{-15} \text{ m}$

1 bar = $0.1 \text{ MPa} = 10^5 \text{ Pa}$

1 Gal = $1 \text{ cm/s} = 10^{-2} \text{ m/s}$

1 Gr = $3.7 \times 10^{-10} \text{ Bq}$

1 R = $2.58 \times 10^{-4} \text{ C/kg}$

1 rad = $1 \text{ eGy} = 10^{-4} \text{ Gy}$

1 rem = $1 \text{ eSv} = 10^{-4} \text{ Sv}$

(d)

1 表1 5.1 国際単位系 第5版、国際単位協議会 1985年刊行による。ただし、1 eV および 1 u の値は CODATA の 1986 年標準値による。

2 表4 には海里、ナット、アル、ハックルも含まれているがこれらは単位なのでこゝでは省略した。

3 bar (4), JBS では液体の圧力を表す場合に限り表2のカナリヤーに分類されている。

4 EC開発理事会指令では bar, barn および 面積の単位 mmHg を表2のカナリヤーに入れている。

換算表

力 N = 10^3 dyn	kgf	lbf
1	0.101972	0.224809
9.80665	1	2.0462
1.14822	0.453542	1

粘度 1 Pa·s = N·s/m² = 10^3 P_{斯托克斯} = g/cm·s

動粘度 1 m²/s = 10^6 St_{スコット} = cm²/s

力 N = 10^3 dyn	MPa = 10^6 bar	kgf/cm ²	atm	mmHg / Torr	lbf/in ² / psi
1	0.0980665	1	0.986923	7.50062×10^4	145.038
9.80665	0.101325	1.03323	1	735.559	14.2233
1.14822	1.33322×10^{-1}	1.45951×10^{-1}	1.1579×10^{-1}	1	1.93368×10^{-1}
1	6.89476×10^{-1}	7.03070×10^{-1}	6.80460×10^{-1}	51.7149	1

1 J = 10^7 erg	kgf·m	kW·h	cal(100kcal)	Btu	ft · lbf	eV	Elect	$4.18695 \text{ J} = 1 \text{ cal}$
1	0.101972	2.77778 $\times 10^{-7}$	0.238889	9.47813×10^{-7}	0.737562	6.24150×10^{-7}	4.1864 J (熱化)	
9.80665	1	2.4207×10^{-7}	2.34270	9.29487×10^{-7}	7.23301	6.12082×10^{-7}	4.1855 J (15 °C)	
1.14822	3.6×10^{-7}	3.67098×10^{-7}	1	8.59999 $\times 10^{-7}$	3.11213	2.65522×10^{-7}	4.18694 J	4.1868 J (国際基準表)
1	0.426858	1.16279×10^{-7}	1	3.97500 $\times 10^{-7}$	3.08747	2.61272×10^{-7}	4.1864 J (熱化)	$4.1855 J (15 °C)$
1055.06	107.586	2.93672×10^{-7}	252.042	1	778.172	6.58515×10^{-7}	4.1865 J (1PS (1.0, 2))	
1.35582	0.138255	3.76616×10^{-7}	0.323896	1.28506×10^{-7}	1	8.46233×10^{-7}	75 kgf·m·s	
1	1.60218×10^{-7}	1.133277×10^{-7}	1.45050×10^{-7}	3.82743×10^{-7}	1.18157×10^{-7}	1.18171×10^{-7}	735.499 W	

放射能	Bq	Ci	吸量	Gy	rad
1	2.70270×10^{-10}	1	100	1	100
3.7×10^{12}	1		0.01	1	

吸量	C/kg	R
1	1	3876
2.58×10^{-4}	1	1