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Informal Report

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**Multigroup Beta and Gamma Spectra of  
Individual ENDF/B-IV Fission-Product Nuclides**



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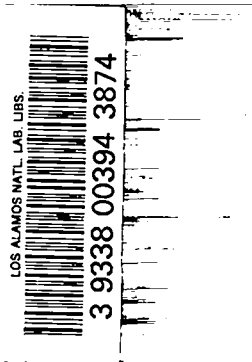
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## Multigroup Beta and Gamma Spectra of Individual ENDF/B-IV Fission-Product Nuclides

by

T. R. England  
M. G. Stamatelatos



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MULTIGROUP BETA AND GAMMA SPECTRA OF  
INDIVIDUAL ENDF/B-IV FISSION-PRODUCT NUCLIDES

by

T. R. England and M. G. Stamatelatos

ABSTRACT

Delayed beta and gamma group-energy spectra were calculated for 180 individual fission-product nuclides having spectral data in ENDF/B-IV fission-product files. The beta spectra, in uniform-grid 75-group structure, and the gamma spectra, in uniform-grid 150-group structure between 0 and 7.5 MeV, are sufficiently detailed for collapsing to any desired practical group structure. These spectra have been used in decay-heat summation calculations for comparisons with corresponding experimental beta and gamma spectra.

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I. INTRODUCTION

The fission-product Evaluated Nuclear Data Files Version IV (ENDF/B-IV) are currently the most comprehensive source of evaluated data on fission-product nuclides. They contain cross sections, decay constants, decay energies, fission yields, etc. on 824 fission-product nuclides. They also contain spectral data for the 180 most important of these nuclides from the point of view of decay heating.<sup>1</sup> In recent comparisons of experimental beta and gamma spectra with summation calculations,<sup>2</sup> these 180 nuclides were seen to account for some two-thirds of the total decay energy even at very short cooling times after fission ( $\lesssim 10$  s) and also to account for 90-98% of the total decay energy at times of  $\gtrsim 100$  s after shutdown.

The purpose of this report is to document the intensity-weighted group spectra for the 180 fission-product nuclides used in the LASL comparisons.<sup>2</sup> Also, the fine-group spectra can easily be collapsed to wide-group spectra used in reactor design and safety studies involving aggregate fission products.

## II. GAMMA SPECTRA

Of the 180 fission products having spectral data in the ENDF/B-IV files, 172 have gamma and 163 have beta spectra. Gamma spectral data are given in the ENDF/B-IV files as line energies and intensities. These line energies, weighted by the intensities, were incorporated in 150 constant-grid (50-keV) groups between 0 and 7.5 MeV, a range that contains all fission-product decay gammas.

For comparisons with experiments, it is desirable to energy broaden the lines before multigrouping in correspondence with the experimental energy resolution. This energy broadening, however, is strictly dependent on the experimental set-up used and was not applied to the spectra given in this report. Nevertheless, the structure of the spectra given here is fine enough that broadening can be applied to the multigrouped data without significant loss of accuracy, especially when these spectra are further collapsed to coarser group structures.

## III. BETA SPECTRA

The beta spectral information on 163 ENDF/B-IV fission products includes intensities and end-point energies. The intensity-weighted group spectra reported here were calculated in the following way.

The probability of beta disintegration with total relativistic energy  $W$ , in electron rest energy units in group  $i$ , is

$$N_i(Z) = \int_{W_i}^{W_{i+1}} N(Z,W) dW \quad , \quad (1)$$

where  $W_i$  and  $W_{i+1}$  are the  $i$ -th group energy boundaries,  $Z$  is the atomic number of the beta-emitting nucleus, and  $N(W)dW$  is the probability of the beta disintegration with energy in the  $W$  to  $W + dW$  range:

$$N(Z,W) = C |M|^2 F(Z,W) K(W) W \sqrt{(W^2-1)} (W_0-W)^2 \quad , \quad (2)$$

where

$F(Z,W)$  = electron density ratio (or Fermi function),

$C$  = a universal constant,

$|M|^2$  = the square modulus of the transition matrix element,

$W_0$  = maximum value of  $W$   
 $K(W)$  = shape factor dependent on the type of transition  
 (allowed, forbidden unique, etc.)

The electron density ratio, also known as the Fermi function, is given by the following relativistic expression<sup>3-5</sup>

$$F(Z,W) = \frac{4(1+\frac{S}{2})}{|\Gamma(3+2S)|^2} \left(\frac{2R}{\lambda_c}\right)^{2S} e^{\pi y} (W^2-1)^S |\Gamma(1+S+iy)|^2, \quad (3)$$

where

$$S = \sqrt{1 - (\alpha z)^2} - 1$$

$$\lambda_c = \frac{\hbar}{m_e c} \approx 386 \times 10^{-13} \text{ cm} . \quad (4)$$

Discussion of the Fermi function and approximations thereof can be found in Ref. 5.

Equation (3) is a complicated expression with complex gamma functions which make Eq. (1) impossible to integrate analytically. The spectra given in this report were obtained by numerically integrating Eq. (1) using a variable-grid Simpson integration until a desired accuracy (0.01%) was achieved. A constant grid (100 keV) was used between 0 and 7.5 MeV.

#### IV. DATA FORMAT

Following a list of beta- and gamma-group upper boundaries (Table I), the beta and/or gamma spectra are given in Table II for all 180 fission products having spectral data in ENDF/B-IV. Each isotope for which spectra are included is identified by the charge (Z), chemical symbol (CM) and atomic number (A) using the notation Z-CM-A. If the nuclide is isomeric, this is noted by an M following this notation. Each nuclide is also identified by its ENDF/B-IV MAT number. The spectral listings include the group number and then the number of group gammas (or betas) per disintegration.

## V. USE OF SPECTRA AT THE LOS ALAMOS SCIENTIFIC LABORATORY

The latest and most versatile version of the CINDER code (CINDER-10), developed by one of us, is being used to calculate nuclide densities, activities, total beta and gamma decay energies, etc. Spectral routines are also included in CINDER-10; however, unlike other nuclide decay and absorption parameters, the individual nuclide spectra are not required in the CINDER-10 calculation, except for spectral calculations. Frequently, the same CINDER run is used for various spectral calculations, that is, using different group structures or experimental resolutions. Therefore, the results of each CINDER run (individual nuclide activities, total beta and gamma decay energies, etc.) are stored, and the desired spectra are folded into the results of these runs using auxiliary routines. The individual-nuclide spectra in this report have also required the development of other codes.

The spectra of individual isotopes are calculated with a special computer code FPDCYS which we recently developed at the Los Alamos Scientific Laboratory (LASL). This code has the capability of generating beta and/or gamma spectra with user-requested characteristics, that is, energy-broadened or-unbroadened gamma spectra, "exactly" calculated beta spectra or beta spectra calculated with approximate, fast, analytically integrable spectrum functions,<sup>5</sup> etc. This code processes such data directly from the ENDF/B-IV files.

Finally, these spectra and the fission-product activities calculated by CINDER-10 are combined in a computer program FPSPEC, developed by one of us, to yield cumulative fission-product beta and/or gamma spectra at any time during or after fission. These spectra, normalized to the total energy rates from CINDER-10, compare very well with recent experimental gamma spectra measured at LASL<sup>2</sup> and beta spectra measured at the University of Illinois.<sup>2,6</sup> Documentation on the FPDCYS and FPSPEC computer codes will be given elsewhere.

## REFERENCES

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## GAMMA ENERGIES

## BETA ENERGIES

1	5.000E+04	51	2.550E+06	101	5.050E+06	1	1.000E+05	51	5.100E+06
2	1.000E+05	52	2.600E+06	102	5.100E+06	2	2.000E+05	52	5.200E+06
3	1.500E+05	53	2.650E+06	103	5.150E+06	3	3.000E+05	53	5.300E+06
4	2.000E+05	54	2.700E+06	104	5.200E+06	4	4.000E+05	54	5.400E+06
5	2.500E+05	55	2.750E+06	105	5.250E+06	5	5.000E+05	55	5.500E+06
6	3.000E+05	56	2.800E+06	106	5.300E+06	6	6.000E+05	56	5.600E+06
7	3.500E+05	57	2.850E+06	107	5.350E+06	7	7.000E+05	57	5.700E+06
8	4.000E+05	58	2.900E+06	108	5.400E+06	8	8.000E+05	58	5.800E+06
9	4.500E+05	59	2.950E+06	109	5.450E+06	9	9.000E+05	59	5.900E+06
10	5.000E+05	60	3.000E+06	110	5.500E+06	10	1.000E+06	60	6.000E+06
11	5.500E+05	61	3.050E+06	111	5.550E+06	11	1.100E+06	61	6.100E+06
12	6.000E+05	62	3.100E+06	112	5.600E+06	12	1.200E+06	62	6.200E+06
13	6.500E+05	63	3.150E+06	113	5.650E+06	13	1.300E+06	63	6.300E+06
14	7.000E+05	64	3.200E+06	114	5.700E+06	14	1.400E+06	64	6.400E+06
15	7.500E+05	65	3.250E+06	115	5.750E+06	15	1.500E+06	65	6.500E+06
16	8.000E+05	66	3.300E+06	116	5.800E+06	16	1.600E+06	66	6.600E+06
17	8.500E+05	67	3.350E+06	117	5.850E+06	17	1.700E+06	67	6.700E+06
18	9.000E+05	68	3.400E+06	118	5.900E+06	18	1.800E+06	68	6.800E+06
19	9.500E+05	69	3.450E+06	119	5.950E+06	19	1.900E+06	69	6.900E+06
20	1.000E+06	70	3.500E+06	120	6.000E+06	20	2.000E+06	70	7.000E+06
21	1.050E+06	71	3.550E+06	121	6.050E+06	21	2.100E+06	71	7.100E+06
22	1.100E+06	72	3.600E+06	122	6.100E+06	22	2.200E+06	72	7.200E+06
23	1.150E+06	73	3.650E+06	123	6.150E+06	23	2.300E+06	73	7.300E+06
24	1.200E+06	74	3.700E+06	124	6.200E+06	24	2.400E+06	74	7.400E+06
25	1.250E+06	75	3.750E+06	125	6.250E+06	25	2.500E+06	75	7.500E+06
26	1.300E+06	76	3.800E+06	126	6.300E+06	26	2.600E+06		
27	1.350E+06	77	3.850E+06	127	6.350E+06	27	2.700E+06		
28	1.400E+06	78	3.900E+06	128	6.400E+06	28	2.800E+06		
29	1.450E+06	79	3.950E+06	129	6.450E+06	29	2.900E+06		
30	1.500E+06	80	4.000E+06	130	6.500E+06	30	3.000E+06		
31	1.550E+06	81	4.050E+06	131	6.550E+06	31	3.100E+06		
32	1.600E+06	82	4.100E+06	132	6.600E+06	32	3.200E+06		
33	1.650E+06	83	4.150E+06	133	6.650E+06	33	3.300E+06		
34	1.700E+06	84	4.200E+06	134	6.700E+06	34	3.400E+06		
35	1.750E+06	85	4.250E+06	135	6.750E+06	35	3.500E+06		
36	1.800E+06	86	4.300E+06	136	6.800E+06	36	3.600E+06		
37	1.850E+06	87	4.350E+06	137	6.850E+06	37	3.700E+06		
38	1.900E+06	88	4.400E+06	138	6.900E+06	38	3.800E+06		
39	1.950E+06	89	4.450E+06	139	6.950E+06	39	3.900E+06		
40	2.000E+06	90	4.500E+06	140	7.000E+06	40	4.000E+06		
41	2.050E+06	91	4.550E+06	141	7.050E+06	41	4.100E+06		
42	2.100E+06	92	4.600E+06	142	7.100E+06	42	4.200E+06		
43	2.150E+06	93	4.650E+06	143	7.150E+06	43	4.300E+06		
44	2.200E+06	94	4.700E+06	144	7.200E+06	44	4.400E+06		
45	2.250E+06	95	4.750E+06	145	7.250E+06	45	4.500E+06		
46	2.300E+06	96	4.800E+06	146	7.300E+06	46	4.600E+06		
47	2.350E+06	97	4.850E+06	147	7.350E+06	47	4.700E+06		
48	2.400E+06	98	4.900E+06	148	7.400E+06	48	4.800E+06		
49	2.450E+06	99	4.950E+06	149	7.450E+06	49	4.900E+06		
50	2.500E+06	100	5.000E+06	150	7.500E+06	50	5.000E+06		

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.224E-03	51 0.
2 0.	52 0.	102 0.	2 8.631E-03	52 0.
3 0.	53 0.	103 0.	3 1.122E-02	53 0.
4 0.	54 0.	104 0.	4 1.388E-02	54 0.
5 2.000E-01	55 0.	105 0.	5 1.658E-02	55 0.
6 0.	56 0.	106 0.	6 1.927E-02	56 0.
7 0.	57 0.	107 0.	7 2.192E-02	57 0.
8 0.	58 0.	108 0.	8 2.448E-02	58 0.
9 0.	59 0.	109 0.	9 2.693E-02	59 0.
10 6.000E-02	60 0.	110 0.	10 2.923E-02	60 0.
11 1.200E-01	61 0.	111 0.	11 3.136E-02	61 0.
12 0.	62 0.	112 0.	12 3.329E-02	62 0.
13 4.000E-02	63 0.	113 0.	13 3.500E-02	63 0.
14 0.	64 0.	114 0.	14 3.648E-02	64 0.
15 2.000E-02	65 0.	115 0.	15 3.771E-02	65 0.
16 9.400E-02	66 0.	116 0.	16 3.867E-02	66 0.
17 0.	67 0.	117 0.	17 3.936E-02	67 0.
18 0.	68 0.	118 0.	18 3.977E-02	68 0.
19 0.	69 0.	119 0.	19 3.991E-02	69 0.
20 0.	70 0.	120 0.	20 3.976E-02	70 0.
21 0.	71 0.	121 0.	21 3.933E-02	71 0.
22 0.	72 0.	122 0.	22 3.863E-02	72 0.
23 0.	73 0.	123 0.	23 3.766E-02	73 0.
24 0.	74 0.	124 0.	24 3.644E-02	74 0.
25 0.	75 0.	125 0.	25 3.498E-02	75 0.
26 0.	76 0.	126 0.	26 3.329E-02	
27 0.	77 0.	127 0.	27 3.140E-02	
28 0.	78 0.	128 0.	28 2.934E-02	
29 0.	79 0.	129 0.	29 2.711E-02	
30 0.	80 0.	130 0.	30 2.476E-02	
31 0.	81 0.	131 0.	31 2.231E-02	
32 0.	82 0.	132 0.	32 1.980E-02	
33 0.	83 0.	133 0.	33 1.726E-02	
34 0.	84 0.	134 0.	34 1.473E-02	
35 0.	85 0.	135 0.	35 1.226E-02	
36 0.	86 0.	136 0.	36 9.881E-03	
37 0.	87 0.	137 0.	37 7.649E-03	
38 0.	88 0.	138 0.	38 5.613E-03	
39 0.	89 0.	139 0.	39 3.824E-03	
40 0.	90 0.	140 0.	40 2.337E-03	
41 0.	91 0.	141 0.	41 1.211E-03	
42 0.	92 0.	142 0.	42 4.616E-04	
43 0.	93 0.	143 0.	43 6.743E-05	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 1.672E-03	101 0.	1 3.588E-03	51 4.188E-03
2 0.	52 1.254E-03	102 0.	2 4.987E-03	52 3.348E-03
3 0.	53 0.	103 0.	3 6.516E-03	53 2.628E-03
4 0.	54 0.	104 0.	4 8.121E-03	54 2.030E-03
5 0.	55 0.	105 0.	5 9.778E-03	55 1.503E-03
6 0.	56 2.926E-03	106 0.	6 1.147E-02	56 1.040E-03
7 5.434E-02	57 2.508E-03	107 0.	7 1.316E-02	57 6.511E-04
8 0.	58 0.	108 0.	8 1.485E-02	58 3.447E-04
9 0.	59 8.360E-04	109 0.	9 1.652E-02	59 1.306E-04
10 0.	60 0.	110 0.	10 1.814E-02	60 1.890E-05
11 0.	61 8.360E-04	111 0.	11 1.970E-02	61 0.
12 0.	62 4.180E-04	112 0.	12 2.120E-02	62 0.
13 0.	63 0.	113 0.	13 2.261E-02	63 0.
14 4.180E-01	64 0.	114 0.	14 2.392E-02	64 0.
15 0.	65 0.	115 0.	15 2.514E-02	65 0.
16 7.942E-03	66 0.	116 0.	16 2.623E-02	66 0.
17 4.598E-03	67 0.	117 0.	17 2.721E-02	67 0.
18 7.106E-03	68 0.	118 0.	18 2.807E-02	68 0.
19 7.106E-03	69 0.	119 0.	19 2.879E-02	69 0.
20 0.	70 0.	120 0.	20 2.938E-02	70 0.
21 0.	71 0.	121 0.	21 2.983E-02	71 0.
22 1.254E-03	72 0.	122 0.	22 3.014E-02	72 0.
23 0.	73 0.	123 0.	23 3.031E-02	73 0.
24 0.	74 0.	124 0.	24 3.035E-02	74 0.
25 4.180E-02	75 0.	125 0.	25 3.025E-02	75 0.
26 9.614E-03	76 0.	126 0.	26 3.002E-02	
27 0.	77 0.	127 0.	27 2.966E-02	
28 0.	78 0.	128 0.	28 2.919E-02	
29 1.129E-02	79 0.	129 0.	29 2.860E-02	
30 0.	80 0.	130 0.	30 2.790E-02	
31 0.	81 0.	131 0.	31 2.711E-02	
32 0.	82 0.	132 0.	32 2.622E-02	
33 7.691E-02	83 0.	133 0.	33 2.526E-02	
34 0.	84 0.	134 0.	34 2.422E-02	
35 0.	85 0.	135 0.	35 2.313E-02	
36 0.	86 0.	136 0.	36 2.199E-02	
37 9.196E-03	87 0.	137 0.	37 2.083E-02	
38 0.	88 0.	138 0.	38 1.964E-02	
39 0.	89 0.	139 0.	39 1.841E-02	
40 5.016E-03	90 0.	140 0.	40 1.717E-02	
41 0.	91 0.	141 0.	41 1.591E-02	
42 0.	92 0.	142 0.	42 1.465E-02	
43 0.	93 0.	143 0.	43 1.338E-02	
44 8.360E-04	94 0.	144 0.	44 1.212E-02	
45 0.	95 0.	145 0.	45 1.086E-02	
46 0.	96 0.	146 0.	46 9.630E-03	
47 0.	97 0.	147 0.	47 8.426E-03	
48 8.778E-03	98 0.	148 0.	48 7.266E-03	
49 0.	99 0.	149 0.	49 6.163E-03	
50 1.254E-03	100 0.	150 0.	50 5.131E-03	

-----

## BETA SPECTRUM

1	8.290E-03	51	0.
2	1.137E-02	52	0.
3	1.464E-02	53	0.
4	1.797E-02	54	0.
5	2.130E-02	55	0.
6	2.456E-02	56	0.
7	2.769E-02	57	0.
8	3.067E-02	58	0.
9	3.342E-02	59	0.
10	3.593E-02	60	0.
11	3.816E-02	61	0.
12	4.007E-02	62	0.
13	4.165E-02	63	0.
14	4.287E-02	64	0.
15	4.372E-02	65	0.
16	4.420E-02	66	0.
17	4.429E-02	67	0.
18	4.401E-02	68	0.
19	4.334E-02	69	0.
20	4.231E-02	70	0.
21	4.093E-02	71	0.
22	3.922E-02	72	0.
23	3.720E-02	73	0.
24	3.490E-02	74	0.
25	3.235E-02	75	0.
26	2.959E-02		
27	2.667E-02		
28	2.363E-02		
29	2.052E-02		
30	1.739E-02		
31	1.432E-02		
32	1.135E-02		
33	8.572E-03		
34	6.045E-03		
35	3.852E-03		
36	2.074E-03		
37	7.986E-04		
38	1.171E-04		
39	0.		
40	0.		
41	0.		
42	0.		
43	0.		
44	0.		
45	0.		
46	0.		
47	0.		
48	0.		
49	0.		
50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 1.005E-02	101 0.	1 2.242E-03	51 1.391E-02
2 0.	52 9.136E-03	102 0.	2 3.120E-03	52 1.300E-02
3 0.	53 1.188E-02	103 0.	3 4.083E-03	53 1.209E-02
4 0.	54 0.	104 0.	4 5.099E-03	54 1.118E-02
5 0.	55 0.	105 0.	5 6.151E-03	55 1.028E-02
6 0.	56 0.	106 0.	6 7.230E-03	56 9.382E-03
7 0.	57 1.096E-02	107 0.	7 8.323E-03	57 8.495E-03
8 0.	58 0.	108 0.	8 9.419E-03	58 7.620E-03
9 0.	59 0.	109 0.	9 1.051E-02	59 6.763E-03
10 0.	60 0.	110 0.	10 1.159E-02	60 5.929E-03
11 0.	61 0.	111 0.	11 1.264E-02	61 5.125E-03
12 0.	62 0.	112 0.	12 1.366E-02	62 4.358E-03
13 0.	63 9.136E-03	113 0.	13 1.465E-02	63 3.635E-03
14 1.142E-01	64 0.	114 0.	14 1.559E-02	64 2.963E-03
15 0.	65 0.	115 0.	15 1.649E-02	65 2.349E-03
16 0.	66 0.	116 0.	16 1.734E-02	66 1.801E-03
17 0.	67 0.	117 0.	17 1.814E-02	67 1.324E-03
18 0.	68 0.	118 0.	18 1.888E-02	68 9.114E-04
19 0.	69 0.	119 0.	19 1.956E-02	69 5.675E-04
20 0.	70 0.	120 0.	20 2.019E-02	70 2.989E-04
21 0.	71 0.	121 0.	21 2.077E-02	71 1.127E-04
22 6.395E-03	72 0.	122 0.	22 2.128E-02	72 1.624E-05
23 0.	73 0.	123 0.	23 2.175E-02	73 0.
24 0.	74 9.136E-03	124 0.	24 2.217E-02	74 0.
25 0.	75 0.	125 0.	25 2.254E-02	75 0.
26 0.	76 0.	126 0.	26 2.287E-02	
27 0.	77 0.	127 0.	27 2.317E-02	
28 0.	78 0.	128 0.	28 2.343E-02	
29 0.	79 0.	129 0.	29 2.365E-02	
30 0.	80 0.	130 0.	30 2.383E-02	
31 0.	81 0.	131 0.	31 2.395E-02	
32 0.	82 0.	132 0.	32 2.400E-02	
33 0.	83 0.	133 0.	33 2.398E-02	
34 0.	84 0.	134 0.	34 2.389E-02	
35 1.919E-02	85 0.	135 0.	35 2.374E-02	
36 0.	86 0.	136 0.	36 2.352E-02	
37 0.	87 0.	137 0.	37 2.324E-02	
38 0.	88 0.	138 0.	38 2.289E-02	
39 0.	89 0.	139 0.	39 2.249E-02	
40 0.	90 0.	140 0.	40 2.202E-02	
41 0.	91 0.	141 0.	41 2.150E-02	
42 0.	92 0.	142 0.	42 2.093E-02	
43 0.	93 0.	143 0.	43 2.030E-02	
44 0.	94 0.	144 0.	44 1.963E-02	
45 0.	95 0.	145 0.	45 1.891E-02	
46 0.	96 0.	146 0.	46 1.815E-02	
47 0.	97 0.	147 0.	47 1.736E-02	
48 0.	98 0.	148 0.	48 1.653E-02	
49 0.	99 0.	149 0.	49 1.568E-02	
50 0.	100 0.	150 0.	50 1.480E-02	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.371E-03	51 2.157E-04
2 0.	52 0.	102 0.	2 1.010E-02	52 1.146E-04
3 0.	53 0.	103 0.	3 1.302E-02	53 4.356E-05
4 0.	54 0.	104 0.	4 1.598E-02	54 6.319E-06
5 0.	55 0.	105 0.	5 1.894E-02	55 0.
6 0.	56 0.	106 0.	6 2.184E-02	56 0.
7 5.702E-01	57 0.	107 0.	7 2.464E-02	57 0.
8 0.	58 0.	108 0.	8 2.729E-02	58 0.
9 0.	59 0.	109 0.	9 2.977E-02	59 0.
10 0.	60 0.	110 0.	10 3.202E-02	60 0.
11 0.	61 0.	111 0.	11 3.403E-02	61 0.
12 1.540E-01	62 0.	112 0.	12 3.577E-02	62 0.
13 0.	63 0.	113 0.	13 3.722E-02	63 0.
14 7.128E-01	64 0.	114 0.	14 3.837E-02	64 0.
15 0.	65 0.	115 0.	15 3.920E-02	65 0.
16 0.	66 0.	116 0.	16 3.972E-02	66 0.
17 3.193E-01	67 0.	117 0.	17 3.991E-02	67 0.
18 0.	68 0.	118 0.	18 3.978E-02	68 0.
19 2.281E-02	69 0.	119 0.	19 3.933E-02	69 0.
20 0.	70 0.	120 0.	20 3.859E-02	70 0.
21 0.	71 0.	121 0.	21 3.755E-02	71 0.
22 3.992E-01	72 0.	122 0.	22 3.625E-02	72 0.
23 0.	73 0.	123 0.	23 3.471E-02	73 0.
24 0.	74 0.	124 0.	24 3.295E-02	74 0.
25 0.	75 0.	125 0.	25 3.100E-02	75 0.
26 0.	76 0.	126 0.	26 2.891E-02	
27 0.	77 0.	127 0.	27 2.671E-02	
28 0.	78 0.	128 0.	28 2.444E-02	
29 0.	79 0.	129 0.	29 2.216E-02	
30 0.	80 0.	130 0.	30 1.993E-02	
31 7.983E-02	81 0.	131 0.	31 1.778E-02	
32 0.	82 0.	132 0.	32 1.576E-02	
33 0.	83 0.	133 0.	33 1.380E-02	
34 0.	84 0.	134 0.	34 1.190E-02	
35 3.592E-01	85 0.	135 0.	35 1.011E-02	
36 0.	86 0.	136 0.	36 8.477E-03	
37 0.	87 0.	137 0.	37 7.036E-03	
38 3.592E-01	88 0.	138 0.	38 5.808E-03	
39 0.	89 0.	139 0.	39 4.703E-03	
40 0.	90 0.	140 0.	40 3.717E-03	
41 0.	91 0.	141 0.	41 2.878E-03	
42 0.	92 0.	142 0.	42 2.213E-03	
43 0.	93 0.	143 0.	43 1.753E-03	
44 0.	94 0.	144 0.	44 1.488E-03	
45 0.	95 0.	145 0.	45 1.267E-03	
46 0.	96 0.	146 0.	46 1.055E-03	
47 0.	97 0.	147 0.	47 8.532E-04	
48 4.562E-02	98 0.	148 0.	48 6.655E-04	
49 0.	99 0.	149 0.	49 4.945E-04	
50 0.	100 0.	150 0.	50 3.435E-04	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.371E-01	51 0.
2 0.	52 0.	102 0.	2 1.516E-01	52 0.
3 0.	53 0.	103 0.	3 1.524E-01	53 0.
4 0.	54 0.	104 0.	4 1.394E-01	54 0.
5 3.375E-01	55 0.	105 0.	5 1.158E-01	55 0.
6 2.744E-03	56 0.	106 0.	6 8.628E-02	56 0.
7 4.802E-03	57 0.	107 0.	7 5.729E-02	57 0.
8 6.977E-01	58 0.	108 0.	8 3.279E-02	58 0.
9 1.098E-02	59 0.	109 0.	9 1.750E-02	59 0.
10 6.730E-02	60 0.	110 0.	10 1.361E-02	60 0.
11 4.432E-01	61 0.	111 0.	11 1.304E-02	61 0.
12 9.810E-02	62 0.	112 0.	12 1.240E-02	62 0.
13 3.499E-02	63 0.	113 0.	13 1.160E-02	63 0.
14 4.322E-02	64 0.	114 0.	14 1.062E-02	64 0.
15 2.003E-01	65 0.	115 0.	15 9.519E-03	65 0.
16 1.598E-01	66 0.	116 0.	16 8.344E-03	66 0.
17 1.592E-01	67 0.	117 0.	17 7.162E-03	67 0.
18 2.134E-01	68 0.	118 0.	18 6.047E-03	68 0.
19 1.578E-02	69 0.	119 0.	19 5.034E-03	69 0.
20 1.921E-02	70 0.	120 0.	20 4.077E-03	70 0.
21 1.235E-02	71 0.	121 0.	21 3.152E-03	71 0.
22 8.575E-02	72 0.	122 0.	22 2.292E-03	72 0.
23 4.116E-03	73 0.	123 0.	23 1.528E-03	73 0.
24 4.185E-02	74 0.	124 0.	24 8.970E-04	74 0.
25 2.813E-02	75 0.	125 0.	25 4.452E-04	75 0.
26 8.369E-02	76 0.	126 0.	26 1.892E-04	
27 1.036E-01	77 0.	127 0.	27 5.287E-05	
28 4.802E-02	78 0.	128 0.	28 3.916E-06	
29 2.401E-02	79 0.	129 0.	29 0.	
30 6.860E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 2.538E-02	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 7.546E-03	84 0.	134 0.	34 0.	
35 6.174E-03	85 0.	135 0.	35 0.	
36 1.921E-02	86 0.	136 0.	36 0.	
37 2.058E-02	87 0.	137 0.	37 0.	
38 1.070E-01	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 6.174E-03	90 0.	140 0.	40 0.	
41 6.860E-03	91 0.	141 0.	41 0.	
42 8.232E-03	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 3.430E-03	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 9.261E-02	96 0.	146 0.	46 0.	
47 3.430E-02	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 4.116E-03	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.853E-02	51 0.
2 0.	52 0.	102 0.	2 2.433E-02	52 0.
3 0.	53 0.	103 0.	3 3.003E-02	53 0.
4 1.650E-03	54 0.	104 0.	4 3.527E-02	54 0.
5 3.135E-03	55 4.290E-04	105 0.	5 3.992E-02	55 0.
6 0.	56 0.	106 0.	6 4.386E-02	56 0.
7 4.950E-04	57 2.145E-04	107 0.	7 4.702E-02	57 0.
8 1.668E-01	58 0.	108 0.	8 4.937E-02	58 0.
9 6.600E-04	59 2.145E-04	109 0.	9 5.092E-02	59 0.
10 0.	60 0.	110 0.	10 5.165E-02	60 0.
11 0.	61 0.	111 0.	11 5.162E-02	61 0.
12 0.	62 3.630E-04	112 0.	12 5.089E-02	62 0.
13 4.455E-03	63 0.	113 0.	13 4.948E-02	63 0.
14 1.445E-01	64 0.	114 0.	14 4.745E-02	64 0.
15 0.	65 0.	115 0.	15 4.494E-02	65 0.
16 1.171E-02	66 0.	116 0.	16 4.209E-02	66 0.
17 0.	67 0.	117 0.	17 3.908E-02	67 0.
18 0.	68 0.	118 0.	18 3.611E-02	68 0.
19 0.	69 0.	119 0.	19 3.340E-02	69 0.
20 1.581E-01	70 0.	120 0.	20 3.088E-02	70 0.
21 2.185E-01	71 0.	121 0.	21 2.818E-02	71 0.
22 4.653E-02	72 0.	122 0.	22 2.535E-02	72 0.
23 5.115E-03	73 0.	123 0.	23 2.245E-02	73 0.
24 0.	74 0.	124 0.	24 1.956E-02	74 0.
25 0.	75 0.	125 0.	25 1.672E-02	75 0.
26 0.	76 0.	126 0.	26 1.403E-02	
27 8.910E-03	77 0.	127 0.	27 1.159E-02	
28 0.	78 0.	128 0.	28 9.497E-03	
29 0.	79 0.	129 0.	29 7.883E-03	
30 0.	80 0.	130 0.	30 6.744E-03	
31 4.950E-04	81 0.	131 0.	31 5.727E-03	
32 1.138E-02	82 0.	132 0.	32 4.734E-03	
33 0.	83 0.	133 0.	33 3.778E-03	
34 2.409E-02	84 0.	134 0.	34 2.879E-03	
35 0.	85 0.	135 0.	35 2.059E-03	
36 6.765E-03	86 0.	136 0.	36 1.342E-03	
37 0.	87 0.	137 0.	37 7.523E-04	
38 0.	88 0.	138 0.	38 3.169E-04	
39 0.	89 0.	139 0.	39 6.317E-05	
40 0.	90 0.	140 0.	40 3.017E-07	
41 6.600E-04	91 0.	141 0.	41 0.	
42 1.044E-01	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 3.795E-04	100 0.	150 0.	50 0.	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.054E-02	51 0.
2 0.	52 0.	102 0.	2 8.718E-02	52 0.
3 0.	53 0.	103 0.	3 1.004E-01	53 0.
4 0.	54 0.	104 0.	4 1.088E-01	54 0.
5 0.	55 0.	105 0.	5 1.120E-01	55 0.
6 0.	56 0.	106 0.	6 1.100E-01	56 0.
7 0.	57 0.	107 0.	7 1.031E-01	57 0.
8 0.	58 0.	108 0.	8 9.181E-02	58 0.
9 1.000E+00	59 0.	109 0.	9 7.700E-02	59 0.
10 0.	60 0.	110 0.	10 5.986E-02	60 0.
11 0.	61 0.	111 0.	11 4.186E-02	61 0.
12 0.	62 0.	112 0.	12 2.478E-02	62 0.
13 0.	63 0.	113 0.	13 1.069E-02	63 0.
14 0.	64 0.	114 0.	14 1.955E-03	64 0.
15 0.	65 0.	115 0.	15 1.582E-06	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.634E-02	51 0.
2 0.	52 1.365E-03	102 0.	2 6.249E-02	52 0.
3 0.	53 2.979E-03	103 0.	3 6.380E-02	53 0.
4 0.	54 0.	104 0.	4 6.060E-02	54 0.
5 3.021E-03	55 0.	105 0.	5 5.453E-02	55 0.
6 0.	56 4.841E-03	106 0.	6 4.792E-02	56 0.
7 7.034E-04	57 1.117E-02	107 0.	7 4.243E-02	57 0.
8 8.607E-03	58 0.	108 0.	8 3.921E-02	58 0.
9 4.138E-04	59 0.	109 0.	9 3.743E-02	59 0.
10 0.	60 1.738E-03	110 0.	10 3.549E-02	60 0.
11 0.	61 2.483E-02	111 0.	11 3.348E-02	61 0.
12 8.276E-04	62 0.	112 0.	12 3.145E-02	62 0.
13 1.738E-02	63 0.	113 0.	13 2.973E-02	63 0.
14 9.103E-04	64 0.	114 0.	14 2.852E-02	64 0.
15 1.283E-02	65 2.234E-02	115 0.	15 2.735E-02	65 0.
16 0.	66 0.	116 0.	16 2.615E-02	66 0.
17 5.959E-02	67 0.	117 0.	17 2.501E-02	67 0.
18 4.138E-01	68 2.855E-02	118 0.	18 2.384E-02	68 0.
19 3.517E-03	69 0.	119 0.	19 2.272E-02	69 0.
20 8.276E-03	70 0.	120 0.	20 2.174E-02	70 0.
21 6.575E-02	71 0.	121 0.	21 2.085E-02	71 0.
22 1.407E-03	72 0.	122 0.	22 1.990E-02	72 0.
23 1.734E-03	73 0.	123 0.	23 1.888E-02	73 0.
24 1.076E-03	74 0.	124 0.	24 1.779E-02	74 0.
25 2.565E-02	75 0.	125 0.	25 1.668E-02	75 0.
26 4.552E-04	76 0.	126 0.	26 1.557E-02	
27 0.	77 0.	127 0.	27 1.450E-02	
28 0.	78 0.	128 0.	28 1.352E-02	
29 6.207E-04	79 6.745E-02	129 0.	29 1.260E-02	
30 1.945E-02	80 0.	130 0.	30 1.164E-02	
31 9.931E-04	81 0.	131 0.	31 1.064E-02	
32 6.455E-03	82 2.731E-03	132 0.	32 9.618E-03	
33 3.931E-03	83 3.848E-05	133 0.	33 8.592E-03	
34 0.	84 0.	134 0.	34 7.577E-03	
35 1.614E-02	85 0.	135 0.	35 6.591E-03	
36 6.207E-04	86 0.	136 0.	36 5.654E-03	
37 2.814E-03	87 0.	137 0.	37 4.786E-03	
38 1.577E-01	88 0.	138 0.	38 4.009E-03	
39 0.	89 0.	139 0.	39 3.323E-03	
40 0.	90 0.	140 0.	40 2.677E-03	
41 2.069E-02	91 0.	141 0.	41 2.073E-03	
42 2.110E-03	92 0.	142 0.	42 1.522E-03	
43 0.	93 0.	143 0.	43 1.036E-03	
44 0.	94 0.	144 0.	44 6.278E-04	
45 1.225E-02	95 0.	145 0.	45 3.111E-04	
46 0.	96 0.	146 0.	46 9.960E-05	
47 0.	97 0.	147 0.	47 7.614E-06	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 6.621E-02	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.933E-02	51 0.
2 0.	52 0.	102 0.	2 3.820E-02	52 0.
3 0.	53 0.	103 0.	3 4.682E-02	53 0.
4 0.	54 0.	104 0.	4 5.460E-02	54 0.
5 0.	55 0.	105 0.	5 6.126E-02	55 0.
6 0.	56 0.	106 0.	6 6.661E-02	56 0.
7 0.	57 0.	107 0.	7 7.047E-02	57 0.
8 0.	58 0.	108 0.	8 7.275E-02	58 0.
9 1.030E+00	59 0.	109 0.	9 7.341E-02	59 0.
10 0.	60 0.	110 0.	10 7.244E-02	60 0.
11 0.	61 0.	111 0.	11 6.988E-02	61 0.
12 0.	62 0.	112 0.	12 6.584E-02	62 0.
13 0.	63 0.	113 0.	13 6.046E-02	63 0.
14 0.	64 0.	114 0.	14 5.395E-02	64 0.
15 0.	65 0.	115 0.	15 4.654E-02	65 0.
16 0.	66 0.	116 0.	16 3.854E-02	66 0.
17 0.	67 0.	117 0.	17 3.029E-02	67 0.
18 9.800E-01	68 0.	118 0.	18 2.216E-02	68 0.
19 0.	69 0.	119 0.	19 1.462E-02	69 0.
20 0.	70 0.	120 0.	20 8.124E-03	70 0.
21 1.000E-02	71 0.	121 0.	21 3.221E-03	71 0.
22 0.	72 0.	122 0.	22 4.843E-04	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 9.700E-01	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 2.000E-02	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.661E-02	51 0.
2 0.	52 0.	102 0.	2 3.448E-02	52 0.
3 0.	53 0.	103 0.	3 4.205E-02	53 0.
4 0.	54 0.	104 0.	4 4.881E-02	54 0.
5 0.	55 0.	105 0.	5 5.452E-02	55 0.
6 0.	56 0.	106 0.	6 5.906E-02	56 0.
7 0.	57 0.	107 0.	7 6.231E-02	57 0.
8 0.	58 0.	108 0.	8 6.425E-02	58 0.
9 0.	59 0.	109 0.	9 6.490E-02	59 0.
10 0.	60 0.	110 0.	10 6.433E-02	60 0.
11 0.	61 0.	111 0.	11 6.268E-02	61 0.
12 0.	62 0.	112 0.	12 6.014E-02	62 0.
13 0.	63 0.	113 0.	13 5.694E-02	63 0.
14 0.	64 0.	114 0.	14 5.330E-02	64 0.
15 0.	65 0.	115 0.	15 4.917E-02	65 0.
16 0.	66 0.	116 0.	16 4.432E-02	66 0.
17 6.607E-02	67 0.	117 0.	17 3.888E-02	67 0.
18 0.	68 0.	118 0.	18 3.302E-02	68 0.
19 1.093E-02	69 0.	119 0.	19 2.694E-02	69 0.
20 0.	70 0.	120 0.	20 2.086E-02	70 0.
21 0.	71 0.	121 0.	21 1.504E-02	71 0.
22 0.	72 0.	122 0.	22 9.762E-03	72 0.
23 0.	73 0.	123 0.	23 5.317E-03	73 0.
24 0.	74 0.	124 0.	24 2.038E-03	74 0.
25 0.	75 0.	125 0.	25 2.784E-04	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.536E-02	51 2.752E-03
2 0.	52 0.	102 0.	2 1.976E-02	52 2.529E-03
3 0.	53 0.	103 0.	3 2.394E-02	53 2.312E-03
4 0.	54 0.	104 0.	4 2.763E-02	54 2.105E-03
5 0.	55 0.	105 0.	5 3.075E-02	55 1.909E-03
6 0.	56 2.067E-01	106 0.	6 3.327E-02	56 1.728E-03
7 0.	57 0.	107 0.	7 3.520E-02	57 1.562E-03
8 0.	58 0.	108 0.	8 3.660E-02	58 1.415E-03
9 0.	59 2.275E-02	109 4.030E-02	9 3.757E-02	59 1.277E-03
10 3.900E-03	60 0.	110 0.	10 3.826E-02	60 1.141E-03
11 0.	61 0.	111 2.860E-02	11 3.884E-02	61 1.008E-03
12 0.	62 0.	112 0.	12 3.939E-02	62 8.784E-04
13 0.	63 0.	113 0.	13 3.955E-02	63 7.538E-04
14 0.	64 0.	114 0.	14 3.927E-02	64 6.349E-04
15 7.150E-03	65 0.	115 0.	15 3.860E-02	65 5.228E-04
16 4.290E-02	66 0.	116 0.	16 3.757E-02	66 4.185E-04
17 2.860E-02	67 0.	117 0.	17 3.625E-02	67 3.232E-04
18 0.	68 0.	118 0.	18 3.471E-02	68 2.378E-04
19 0.	69 0.	119 0.	19 3.298E-02	69 1.637E-04
20 0.	70 0.	120 0.	20 3.102E-02	70 1.019E-04
21 0.	71 0.	121 0.	21 2.884E-02	71 5.362E-05
22 0.	72 0.	122 0.	22 2.649E-02	72 2.022E-05
23 0.	73 0.	123 0.	23 2.402E-02	73 2.912E-06
24 0.	74 0.	124 0.	24 2.152E-02	74 0.
25 7.800E-02	75 0.	125 9.100E-03	25 1.905E-02	75 0.
26 7.605E-02	76 0.	126 0.	26 1.670E-02	
27 0.	77 0.	127 0.	27 1.457E-02	
28 2.217E-01	78 0.	128 0.	28 1.275E-02	
29 0.	79 0.	129 0.	29 1.135E-02	
30 5.590E-02	80 0.	130 0.	30 1.049E-02	
31 1.209E-01	81 0.	131 0.	31 1.008E-02	
32 6.500E-01	82 0.	132 0.	32 9.697E-03	
33 0.	83 0.	133 0.	33 9.290E-03	
34 0.	84 0.	134 0.	34 8.859E-03	
35 0.	85 0.	135 0.	35 8.410E-03	
36 1.365E-02	86 0.	136 0.	36 7.948E-03	
37 0.	87 0.	137 0.	37 7.480E-03	
38 0.	88 0.	138 0.	38 7.013E-03	
39 0.	89 0.	139 0.	39 6.554E-03	
40 7.540E-02	90 0.	140 0.	40 6.110E-03	
41 0.	91 0.	141 0.	41 5.691E-03	
42 0.	92 0.	142 0.	42 5.304E-03	
43 0.	93 0.	143 0.	43 4.955E-03	
44 0.	94 0.	144 0.	44 4.631E-03	
45 0.	95 0.	145 0.	45 4.329E-03	
46 0.	96 0.	146 0.	46 4.038E-03	
47 9.880E-02	97 0.	147 0.	47 3.754E-03	
48 0.	98 0.	148 0.	48 3.481E-03	
49 0.	99 0.	149 0.	49 3.222E-03	
50 0.	100 0.	150 0.	50 2.981E-03	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.583E-03	51 4.801E-03
2 0.	52 4.825E-02	102 0.	2 1.277E-02	52 4.068E-03
3 0.	53 0.	103 0.	3 1.606E-02	53 3.370E-03
4 0.	54 0.	104 0.	4 1.926E-02	54 2.713E-03
5 0.	55 0.	105 0.	5 2.229E-02	55 2.106E-03
6 0.	56 0.	106 0.	6 2.509E-02	56 1.558E-03
7 0.	57 0.	107 0.	7 2.759E-02	57 1.078E-03
8 0.	58 0.	108 0.	8 2.975E-02	58 6.743E-04
9 0.	59 0.	109 0.	9 3.153E-02	59 3.567E-04
10 0.	60 0.	110 0.	10 3.291E-02	60 1.351E-04
11 0.	61 0.	111 0.	11 3.387E-02	61 1.954E-05
12 0.	62 0.	112 0.	12 3.440E-02	62 0.
13 2.285E-01	63 0.	113 0.	13 3.451E-02	63 0.
14 0.	64 0.	114 0.	14 3.422E-02	64 0.
15 0.	65 0.	115 0.	15 3.354E-02	65 0.
16 0.	66 0.	116 0.	16 3.251E-02	66 0.
17 0.	67 0.	117 0.	17 3.118E-02	67 0.
18 0.	68 0.	118 0.	18 2.959E-02	68 0.
19 0.	69 0.	119 0.	19 2.782E-02	69 0.
20 0.	70 0.	120 0.	20 2.593E-02	70 0.
21 0.	71 0.	121 0.	21 2.400E-02	71 0.
22 0.	72 0.	122 0.	22 2.213E-02	72 0.
23 0.	73 0.	123 0.	23 2.041E-02	73 0.
24 0.	74 0.	124 0.	24 1.897E-02	74 0.
25 0.	75 0.	125 0.	25 1.790E-02	75 0.
26 0.	76 0.	126 0.	26 1.736E-02	
27 0.	77 0.	127 0.	27 1.733E-02	
28 0.	78 0.	128 0.	28 1.735E-02	
29 4.552E-01	79 0.	129 0.	29 1.732E-02	
30 3.186E-01	80 0.	130 0.	30 1.722E-02	
31 0.	81 0.	131 0.	31 1.707E-02	
32 0.	82 0.	132 0.	32 1.685E-02	
33 0.	83 8.467E-02	133 0.	33 1.657E-02	
34 0.	84 0.	134 0.	34 1.623E-02	
35 0.	85 0.	135 0.	35 1.584E-02	
36 0.	86 0.	136 0.	36 1.539E-02	
37 0.	87 0.	137 0.	37 1.489E-02	
38 0.	88 0.	138 0.	38 1.435E-02	
39 0.	89 0.	139 0.	39 1.376E-02	
40 0.	90 0.	140 0.	40 1.313E-02	
41 0.	91 0.	141 0.	41 1.246E-02	
42 0.	92 0.	142 0.	42 1.176E-02	
43 0.	93 0.	143 0.	43 1.103E-02	
44 0.	94 0.	144 0.	44 1.027E-02	
45 0.	95 0.	145 0.	45 9.500E-03	
46 0.	96 0.	146 0.	46 8.714E-03	
47 0.	97 0.	147 0.	47 7.921E-03	
48 0.	98 0.	148 0.	48 7.126E-03	
49 0.	99 0.	149 0.	49 6.337E-03	
50 0.	100 0.	150 0.	50 5.559E-03	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.376E-01	51 0.
2 0.	52 0.	102 0.	2 2.373E-01	52 0.
3 0.	53 0.	103 0.	3 2.121E-01	53 0.
4 0.	54 0.	104 0.	4 1.634E-01	54 0.
5 0.	55 0.	105 0.	5 1.017E-01	55 0.
6 0.	56 0.	106 0.	6 4.240E-02	56 0.
7 0.	57 0.	107 0.	7 5.488E-03	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 4.340E-03	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.370E-01	51 0.
2 0.	52 0.	102 0.	2 1.490E-01	52 0.
3 0.	53 0.	103 0.	3 1.473E-01	53 0.
4 7.532E-01	54 0.	104 0.	4 1.316E-01	54 0.
5 0.	55 0.	105 0.	5 1.046E-01	55 0.
6 0.	56 0.	106 0.	6 7.090E-02	56 0.
7 1.400E-01	57 0.	107 0.	7 3.686E-02	57 0.
8 0.	58 0.	108 0.	8 1.042E-02	58 0.
9 0.	59 0.	109 0.	9 2.879E-04	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.816E-02	51 0.
2 0.	52 1.350E-01	102 0.	2 3.428E-02	52 0.
3 0.	53 0.	103 0.	3 3.922E-02	53 0.
4 0.	54 0.	104 0.	4 4.259E-02	54 0.
5 0.	55 0.	105 0.	5 4.446E-02	55 0.
6 0.	56 0.	106 0.	6 4.507E-02	56 0.
7 0.	57 3.400E-03	107 0.	7 4.471E-02	57 0.
8 0.	58 0.	108 0.	8 4.354E-02	58 0.
9 4.940E-01	59 0.	109 0.	9 4.202E-02	59 0.
10 0.	60 0.	110 0.	10 4.067E-02	60 0.
11 0.	61 0.	111 0.	11 3.936E-02	61 0.
12 0.	62 0.	112 0.	12 3.804E-02	62 0.
13 0.	63 0.	113 0.	13 3.699E-02	63 0.
14 1.900E-02	64 0.	114 0.	14 3.654E-02	64 0.
15 0.	65 0.	115 0.	15 3.645E-02	65 0.
16 0.	66 0.	116 0.	16 3.634E-02	66 0.
17 8.430E-02	67 4.700E-03	117 0.	17 3.591E-02	67 0.
18 0.	68 0.	118 0.	18 3.516E-02	68 0.
19 1.300E-03	69 0.	119 0.	19 3.408E-02	69 0.
20 0.	70 0.	120 0.	20 3.271E-02	70 0.
21 0.	71 0.	121 0.	21 3.107E-02	71 0.
22 0.	72 0.	122 0.	22 2.919E-02	72 0.
23 0.	73 0.	123 0.	23 2.711E-02	73 0.
24 1.150E-02	74 0.	124 0.	24 2.483E-02	74 0.
25 0.	75 0.	125 0.	25 2.242E-02	75 0.
26 0.	76 0.	126 0.	26 1.990E-02	
27 6.800E-03	77 0.	127 0.	27 1.734E-02	
28 4.100E-03	78 0.	128 0.	28 1.478E-02	
29 0.	79 0.	129 0.	29 1.229E-02	
30 0.	80 0.	130 0.	30 9.924E-03	
31 3.600E-03	81 0.	131 0.	31 7.760E-03	
32 1.200E-03	82 0.	132 0.	32 5.815E-03	
33 0.	83 0.	133 0.	33 4.113E-03	
34 0.	84 0.	134 0.	34 2.718E-03	
35 2.100E-02	85 0.	135 0.	35 1.701E-03	
36 0.	86 0.	136 0.	36 1.044E-03	
37 0.	87 0.	137 0.	37 5.499E-04	
38 0.	88 0.	138 0.	38 2.017E-04	
39 0.	89 0.	139 0.	39 2.508E-05	
40 0.	90 0.	140 0.	40 0.	
41 3.000E-02	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 2.400E-03	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	2.173E-02	51	8.784E-03	101	0.	1	2.931E-01	51	0.
2	1.940E-04	52	3.919E-04	102	0.	2	2.620E-01	52	0.
3	4.384E-03	53	0.	103	0.	3	1.980E-01	53	0.
4	3.460E-01	54	0.	104	0.	4	1.165E-01	54	0.
5	4.350E-03	55	7.023E-04	105	0.	5	4.584E-02	55	0.
6	0.	56	1.637E-03	106	0.	6	1.424E-02	56	0.
7	3.151E-03	57	0.	107	0.	7	9.453E-03	57	0.
8	3.751E-02	58	0.	108	0.	8	8.211E-03	58	0.
9	7.838E-04	59	0.	109	0.	9	7.526E-03	59	0.
10	1.309E-02	60	0.	110	0.	10	6.761E-03	60	0.
11	4.190E-04	61	0.	111	0.	11	6.015E-03	61	0.
12	1.339E-03	62	0.	112	0.	12	5.334E-03	62	0.
13	6.208E-04	63	0.	113	0.	13	4.787E-03	63	0.
14	4.225E-03	64	0.	114	0.	14	4.261E-03	64	0.
15	2.215E-03	65	0.	115	0.	15	3.700E-03	65	0.
16	1.096E-02	66	0.	116	0.	16	3.137E-03	66	0.
17	1.563E-01	67	0.	117	0.	17	2.607E-03	67	0.
18	1.096E-02	68	0.	118	0.	18	2.143E-03	68	0.
19	3.504E-03	69	0.	119	0.	19	1.734E-03	69	0.
20	1.847E-02	70	0.	120	0.	20	1.368E-03	70	0.
21	7.911E-03	71	0.	121	0.	21	1.070E-03	71	0.
22	1.013E-03	72	0.	122	0.	22	8.306E-04	72	0.
23	1.467E-02	73	0.	123	0.	23	6.070E-04	73	0.
24	1.830E-02	74	0.	124	0.	24	4.043E-04	74	0.
25	7.845E-03	75	0.	125	0.	25	2.327E-04	75	0.
26	1.370E-02	76	0.	126	0.	26	1.032E-04		
27	2.642E-03	77	0.	127	0.	27	2.464E-05		
28	2.117E-02	78	0.	128	0.	28	4.245E-07		
29	2.918E-03	79	0.	129	0.	29	0.		
30	1.152E-03	80	0.	130	0.	30	0.		
31	1.468E-01	81	0.	131	0.	31	0.		
32	0.	82	0.	132	0.	32	0.		
33	5.719E-03	83	0.	133	0.	33	0.		
34	1.020E-02	84	0.	134	0.	34	0.		
35	0.	85	0.	135	0.	35	0.		
36	1.024E-03	86	0.	136	0.	36	0.		
37	4.423E-04	87	0.	137	0.	37	0.		
38	1.304E-03	88	0.	138	0.	38	0.		
39	1.036E-03	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	8.903E-02	91	0.	141	0.	41	0.		
42	0.	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	1.498E-01	94	0.	144	0.	44	0.		
45	3.742E-02	95	0.	145	0.	45	0.		
46	3.570E-04	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	3.964E-01	98	0.	148	0.	48	0.		
49	1.308E-03	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	3.083E-03	101	0.	1	4.135E-02	51	0.
2	0.	52	1.598E-03	102	0.	2	4.429E-02	52	0.
3	0.	53	4.972E-03	103	0.	3	4.569E-02	53	0.
4	2.286E-02	54	9.675E-04	104	0.	4	4.696E-02	54	0.
5	2.265E-01	55	1.102E-03	105	0.	5	4.795E-02	55	0.
6	8.842E-03	56	1.978E-02	106	0.	6	4.875E-02	56	0.
7	1.787E-02	57	1.935E-03	107	0.	7	4.912E-02	57	0.
8	7.274E-02	58	2.700E-02	108	0.	8	4.891E-02	58	0.
9	4.360E-02	59	1.215E-03	109	0.	9	4.823E-02	59	0.
10	1.010E-01	60	4.950E-04	110	0.	10	4.709E-02	60	0.
11	1.058E-03	61	6.365E-03	111	0.	11	4.549E-02	61	0.
12	2.521E-01	62	4.275E-04	112	0.	12	4.354E-02	62	0.
13	1.080E-02	63	1.388E-02	113	0.	13	4.140E-02	63	0.
14	2.821E-02	64	2.115E-03	114	0.	14	3.904E-02	64	0.
15	6.624E-02	65	5.175E-03	115	0.	15	3.656E-02	65	0.
16	2.873E-02	66	1.192E-03	116	0.	16	3.405E-02	66	0.
17	2.092E-02	67	3.308E-03	117	0.	17	3.152E-02	67	0.
18	7.162E-02	68	2.068E-02	118	0.	18	2.885E-02	68	0.
19	9.160E-02	69	4.950E-04	119	0.	19	2.610E-02	69	0.
20	2.497E-02	70	4.725E-04	120	0.	20	2.340E-02	70	0.
21	6.840E-03	71	1.530E-02	121	0.	21	2.089E-02	71	0.
22	9.292E-03	72	3.532E-03	122	0.	22	1.865E-02	72	0.
23	6.345E-02	73	1.755E-03	123	0.	23	1.669E-02	73	0.
24	1.942E-02	74	2.340E-03	124	0.	24	1.509E-02	74	0.
25	9.742E-03	75	1.154E-02	125	0.	25	1.370E-02	75	0.
26	1.685E-02	76	1.665E-03	126	0.	26	1.241E-02		
27	3.998E-02	77	3.938E-03	127	0.	27	1.119E-02		
28	3.735E-03	78	8.325E-04	128	0.	28	1.004E-02		
29	5.715E-03	79	6.165E-03	129	0.	29	8.953E-03		
30	8.586E-02	80	7.763E-03	130	0.	30	7.944E-03		
31	1.111E-01	81	1.845E-03	131	0.	31	7.019E-03		
32	4.860E-03	82	8.325E-04	132	0.	32	6.196E-03		
33	1.384E-02	83	6.300E-04	133	0.	33	5.496E-03		
34	5.805E-02	84	1.012E-03	134	0.	34	4.877E-03		
35	4.140E-03	85	0.	135	0.	35	4.303E-03		
36	1.080E-02	86	6.975E-04	136	0.	36	3.767E-03		
37	9.607E-03	87	1.395E-03	137	0.	37	3.271E-03		
38	6.165E-03	88	4.725E-04	138	0.	38	2.798E-03		
39	1.946E-02	89	2.025E-04	139	0.	39	2.351E-03		
40	3.240E-03	90	1.665E-03	140	0.	40	1.937E-03		
41	2.385E-02	91	0.	141	0.	41	1.559E-03		
42	9.900E-04	92	0.	142	0.	42	1.220E-03		
43	1.199E-02	93	3.150E-04	143	0.	43	9.251E-04		
44	8.370E-03	94	2.025E-04	144	0.	44	6.834E-04		
45	7.875E-04	95	1.125E-04	145	0.	45	4.853E-04		
46	2.812E-03	96	0.	146	0.	46	3.166E-04		
47	9.900E-04	97	0.	147	0.	47	1.793E-04		
48	9.000E-03	98	0.	148	0.	48	7.788E-05		
49	8.618E-03	99	0.	149	0.	49	1.742E-05		
50	4.500E-04	100	0.	150	0.	50	2.208E-07		

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.966E-02	51 0.
2 0.	52 0.	102 0.	2 2.577E-02	52 0.
3 5.800E-01	53 0.	103 0.	3 3.191E-02	53 0.
4 0.	54 0.	104 0.	4 3.769E-02	54 0.
5 2.460E-01	55 1.300E-02	105 0.	5 4.293E-02	55 0.
6 0.	56 0.	106 0.	6 4.751E-02	56 0.
7 0.	57 0.	107 0.	7 5.133E-02	57 0.
8 0.	58 1.300E-02	108 0.	8 5.430E-02	58 0.
9 3.500E-02	59 0.	109 0.	9 5.639E-02	59 0.
10 1.500E-02	60 0.	110 0.	10 5.758E-02	60 0.
11 3.800E-01	61 0.	111 0.	11 5.787E-02	61 0.
12 6.500E-02	62 0.	112 0.	12 5.732E-02	62 0.
13 1.400E-02	63 3.000E-03	113 0.	13 5.598E-02	63 0.
14 1.000E-02	64 0.	114 0.	14 5.392E-02	64 0.
15 1.900E-02	65 0.	115 0.	15 5.112E-02	65 0.
16 0.	66 0.	116 0.	16 4.761E-02	66 0.
17 0.	67 0.	117 0.	17 4.349E-02	67 0.
18 0.	68 0.	118 0.	18 3.888E-02	68 0.
19 1.600E-02	69 0.	119 0.	19 3.391E-02	69 0.
20 0.	70 0.	120 0.	20 2.875E-02	70 0.
21 5.000E-03	71 0.	121 0.	21 2.358E-02	71 0.
22 0.	72 0.	122 0.	22 1.858E-02	72 0.
23 5.300E-01	73 0.	123 0.	23 1.399E-02	73 0.
24 1.100E-02	74 0.	124 0.	24 1.001E-02	74 0.
25 0.	75 0.	125 0.	25 6.835E-03	75 0.
26 0.	76 0.	126 0.	26 4.719E-03	
27 1.300E-02	77 0.	127 0.	27 3.849E-03	
28 3.000E-03	78 0.	128 0.	28 3.535E-03	
29 3.700E-02	79 0.	129 0.	29 3.251E-03	
30 6.000E-03	80 0.	130 0.	30 2.958E-03	
31 1.320E-01	81 0.	131 0.	31 2.659E-03	
32 3.100E-02	82 0.	132 0.	32 2.360E-03	
33 1.500E-03	83 0.	133 0.	33 2.065E-03	
34 1.600E-02	84 0.	134 0.	34 1.774E-03	
35 0.	85 0.	135 0.	35 1.494E-03	
36 9.600E-02	86 0.	136 0.	36 1.230E-03	
37 0.	87 0.	137 0.	37 9.867E-04	
38 2.000E-03	88 0.	138 0.	38 7.674E-04	
39 0.	89 0.	139 0.	39 5.714E-04	
40 3.000E-03	90 0.	140 0.	40 3.983E-04	
41 5.000E-03	91 0.	141 0.	41 2.522E-04	
42 0.	92 0.	142 0.	42 1.368E-04	
43 1.800E-02	93 0.	143 0.	43 5.472E-05	
44 0.	94 0.	144 0.	44 9.407E-06	
45 0.	95 0.	145 0.	45 7.255E-09	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 5.000E-03	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 6.000E-03	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.410E-03	51 4.428E-03
2 0.	52 0.	102 0.	2 4.683E-03	52 3.503E-03
3 6.501E-01	53 0.	103 0.	3 6.089E-03	53 2.681E-03
4 0.	54 0.	104 0.	4 7.576E-03	54 1.976E-03
5 0.	55 3.630E-02	105 0.	5 9.119E-03	55 1.398E-03
6 0.	56 0.	106 0.	6 1.070E-02	56 9.340E-04
7 0.	57 0.	107 0.	7 1.230E-02	57 5.832E-04
8 3.300E-02	58 0.	108 0.	8 1.391E-02	58 3.160E-04
9 3.300E-02	59 0.	109 0.	9 1.550E-02	59 1.261E-04
10 0.	60 0.	110 0.	10 1.707E-02	60 2.184E-05
11 3.300E-01	61 0.	111 0.	11 1.859E-02	61 2.166E-08
12 0.	62 0.	112 0.	12 2.006E-02	62 0.
13 1.386E-01	63 0.	113 0.	13 2.147E-02	63 0.
14 0.	64 0.	114 0.	14 2.280E-02	64 0.
15 9.900E-03	65 0.	115 0.	15 2.404E-02	65 0.
16 0.	66 0.	116 0.	16 2.519E-02	66 0.
17 0.	67 0.	117 0.	17 2.624E-02	67 0.
18 0.	68 0.	118 0.	18 2.718E-02	68 0.
19 0.	69 0.	119 0.	19 2.801E-02	69 0.
20 0.	70 0.	120 0.	20 2.871E-02	70 0.
21 0.	71 0.	121 0.	21 2.930E-02	71 0.
22 0.	72 0.	122 0.	22 2.975E-02	72 0.
23 1.155E-01	73 0.	123 0.	23 3.008E-02	73 0.
24 0.	74 0.	124 0.	24 3.027E-02	74 0.
25 0.	75 0.	125 0.	25 3.034E-02	75 0.
26 0.	76 0.	126 0.	26 3.028E-02	
27 0.	77 0.	127 0.	27 3.008E-02	
28 0.	78 0.	128 0.	28 2.976E-02	
29 0.	79 0.	129 0.	29 2.932E-02	
30 0.	80 0.	130 0.	30 2.876E-02	
31 0.	81 0.	131 0.	31 2.808E-02	
32 0.	82 0.	132 0.	32 2.730E-02	
33 0.	83 0.	133 0.	33 2.641E-02	
34 0.	84 0.	134 0.	34 2.543E-02	
35 0.	85 0.	135 0.	35 2.436E-02	
36 0.	86 0.	136 0.	36 2.321E-02	
37 0.	87 0.	137 0.	37 2.200E-02	
38 0.	88 0.	138 0.	38 2.073E-02	
39 0.	89 0.	139 0.	39 1.941E-02	
40 0.	90 0.	140 0.	40 1.806E-02	
41 0.	91 0.	141 0.	41 1.669E-02	
42 0.	92 0.	142 0.	42 1.532E-02	
43 0.	93 0.	143 0.	43 1.395E-02	
44 0.	94 0.	144 0.	44 1.261E-02	
45 0.	95 0.	145 0.	45 1.132E-02	
46 0.	96 0.	146 0.	46 1.007E-02	
47 0.	97 0.	147 0.	47 8.850E-03	
48 0.	98 0.	148 0.	48 7.664E-03	
49 0.	99 0.	149 0.	49 6.523E-03	
50 5.610E-02	100 0.	150 0.	50 5.439E-03	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.541E-03	51 3.334E-03
2 0.	52 1.955E-03	102 0.	2 6.191E-03	52 2.739E-03
3 3.430E-01	53 1.578E-03	103 0.	3 7.993E-03	53 2.183E-03
4 6.277E-03	54 0.	104 0.	4 9.871E-03	54 1.673E-03
5 1.921E-03	55 1.749E-03	105 0.	5 1.179E-02	55 1.217E-03
6 1.441E-03	56 1.646E-03	106 0.	6 1.373E-02	56 8.208E-04
7 4.277E-02	57 1.612E-03	107 0.	7 1.565E-02	57 4.932E-04
8 2.675E-03	58 3.773E-04	108 0.	8 1.755E-02	58 2.423E-04
9 4.356E-03	59 0.	109 0.	9 1.939E-02	59 7.701E-05
10 2.113E-02	60 0.	110 0.	10 2.116E-02	60 5.850E-06
11 7.697E-02	61 0.	111 0.	11 2.284E-02	61 0.
12 1.201E-03	62 1.166E-03	112 0.	12 2.441E-02	62 0.
13 8.198E-03	63 6.517E-04	113 0.	13 2.587E-02	63 0.
14 2.881E-03	64 2.332E-03	114 0.	14 2.720E-02	64 0.
15 3.361E-03	65 0.	115 0.	15 2.839E-02	65 0.
16 2.401E-03	66 3.430E-04	116 0.	16 2.944E-02	66 0.
17 7.855E-02	67 4.459E-04	117 0.	17 3.034E-02	67 0.
18 2.308E-02	68 0.	118 0.	18 3.109E-02	68 0.
19 2.195E-03	69 0.	119 0.	19 3.168E-02	69 0.
20 0.	70 0.	120 0.	20 3.210E-02	70 0.
21 2.538E-02	71 0.	121 0.	21 3.236E-02	71 0.
22 0.	72 0.	122 0.	22 3.245E-02	72 0.
23 5.488E-04	73 0.	123 0.	23 3.239E-02	73 0.
24 5.488E-04	74 4.459E-04	124 0.	24 3.216E-02	74 0.
25 3.220E-01	75 2.058E-04	125 0.	25 3.178E-02	75 0.
26 1.166E-03	76 0.	126 0.	26 3.125E-02	
27 8.575E-04	77 0.	127 0.	27 3.058E-02	
28 1.880E-02	78 0.	128 0.	28 2.979E-02	
29 8.918E-04	79 0.	129 0.	29 2.887E-02	
30 5.145E-04	80 0.	130 0.	30 2.783E-02	
31 6.860E-04	81 0.	131 0.	31 2.668E-02	
32 2.332E-03	82 0.	132 0.	32 2.544E-02	
33 2.058E-04	83 0.	133 0.	33 2.412E-02	
34 1.029E-03	84 0.	134 0.	34 2.272E-02	
35 0.	85 0.	135 0.	35 2.127E-02	
36 3.773E-04	86 0.	136 0.	36 1.977E-02	
37 0.	87 0.	137 0.	37 1.825E-02	
38 4.459E-03	88 0.	138 0.	38 1.672E-02	
39 3.087E-04	89 0.	139 0.	39 1.520E-02	
40 2.504E-03	90 0.	140 0.	40 1.371E-02	
41 2.435E-03	91 0.	141 0.	41 1.228E-02	
42 1.646E-03	92 0.	142 0.	42 1.092E-02	
43 4.459E-04	93 0.	143 0.	43 9.647E-03	
44 0.	94 0.	144 0.	44 8.499E-03	
45 0.	95 0.	145 0.	45 7.498E-03	
46 8.918E-04	96 0.	146 0.	46 6.670E-03	
47 0.	97 0.	147 0.	47 5.968E-03	
48 0.	98 0.	148 0.	48 5.285E-03	
49 2.435E-03	99 0.	149 0.	49 4.613E-03	
50 9.261E-04	100 0.	150 0.	50 3.961E-03	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.725E-02	51 6.473E+04
2 0.	52 2.466E-03	102 0.	2 1.894E-02	52 2.462E+04
3 0.	53 1.214E-04	103 0.	3 1.960E-02	53 3.572E+05
4 0.	54 2.567E-02	104 0.	4 1.963E-02	54 0.
5 0.	55 1.028E-03	105 0.	5 1.987E-02	55 0.
6 0.	56 1.603E-05	106 0.	6 2.051E-02	56 0.
7 0.	57 0.	107 0.	7 2.122E-02	57 0.
8 0.	58 0.	108 0.	8 2.230E-02	58 0.
9 2.702E-04	59 0.	109 0.	9 2.390E-02	59 0.
10 2.634E-04	60 0.	110 0.	10 2.545E-02	60 0.
11 0.	61 3.870E-03	111 0.	11 2.680E-02	61 0.
12 0.	62 0.	112 0.	12 2.794E-02	62 0.
13 1.397E-04	63 0.	113 0.	13 2.885E-02	63 0.
14 0.	64 0.	114 0.	14 2.955E-02	64 0.
15 0.	65 3.549E-03	115 0.	15 3.003E-02	65 0.
16 0.	66 0.	116 0.	16 3.030E-02	66 0.
17 0.	67 0.	117 0.	17 3.038E-02	67 0.
18 1.175E-01	68 0.	118 0.	18 3.029E-02	68 0.
19 1.145E-04	69 0.	119 0.	19 3.004E-02	69 0.
20 0.	70 1.786E-03	120 0.	20 2.967E-02	70 0.
21 1.168E-04	71 6.870E-05	121 0.	21 2.920E-02	71 0.
22 0.	72 0.	122 0.	22 2.865E-02	72 0.
23 0.	73 3.435E-05	123 0.	23 2.804E-02	73 0.
24 0.	74 0.	124 0.	24 2.741E-02	74 0.
25 5.908E-04	75 0.	125 0.	25 2.678E-02	75 0.
26 2.290E-04	76 0.	126 0.	26 2.620E-02	
27 6.870E-05	77 0.	127 0.	27 2.563E-02	
28 7.452E-03	78 0.	128 0.	28 2.497E-02	
29 0.	79 0.	129 0.	29 2.420E-02	
30 0.	80 6.870E-05	130 0.	30 2.335E-02	
31 0.	81 1.145E-04	131 0.	31 2.242E-02	
32 2.290E-04	82 0.	132 0.	32 2.143E-02	
33 6.870E-05	83 0.	133 0.	33 2.039E-02	
34 7.465E-04	84 0.	134 0.	34 1.932E-02	
35 0.	85 0.	135 0.	35 1.823E-02	
36 2.711E-03	86 0.	136 0.	36 1.711E-02	
37 2.290E-01	87 0.	137 0.	37 1.595E-02	
38 0.	88 0.	138 0.	38 1.473E-02	
39 0.	89 0.	139 0.	39 1.348E-02	
40 0.	90 0.	140 0.	40 1.221E-02	
41 0.	91 0.	141 0.	41 1.093E-02	
42 0.	92 0.	142 0.	42 9.645E-03	
43 6.407E-03	93 2.748E-05	143 0.	43 8.377E-03	
44 2.977E-04	94 0.	144 0.	44 7.139E-03	
45 0.	95 1.122E-03	145 0.	45 5.945E-03	
46 0.	96 0.	146 0.	46 4.811E-03	
47 0.	97 0.	147 0.	47 3.754E-03	
48 2.908E-04	98 8.244E-05	148 0.	48 2.791E-03	
49 0.	99 0.	149 0.	49 1.939E-03	
50 0.	100 0.	150 0.	50 1.218E-03	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.105E-02	51 0.
2 0.	52 1.090E-01	102 0.	2 6.185E-02	52 0.
3 1.282E-04	53 0.	103 0.	3 7.042E-02	53 0.
4 0.	54 4.487E-04	104 0.	4 7.597E-02	54 0.
5 1.282E-04	55 2.243E-02	105 0.	5 7.841E-02	55 0.
6 2.160E-02	56 0.	106 0.	6 7.775E-02	56 0.
7 0.	57 1.282E-04	107 0.	7 7.421E-02	57 0.
8 0.	58 0.	108 0.	8 6.825E-02	58 0.
9 0.	59 1.923E-04	109 0.	9 6.060E-02	59 0.
10 7.692E-04	60 6.410E-05	110 0.	10 5.214E-02	60 0.
11 0.	61 1.282E-04	111 0.	11 4.387E-02	61 0.
12 7.692E-04	62 0.	112 0.	12 3.677E-02	62 0.
13 0.	63 5.769E-04	113 0.	13 3.210E-02	63 0.
14 1.105E-01	64 0.	114 0.	14 2.914E-02	64 0.
15 0.	65 8.333E-04	115 0.	15 2.596E-02	65 0.
16 2.564E-03	66 1.923E-04	116 0.	16 2.255E-02	66 0.
17 5.128E-04	67 6.410E-05	117 0.	17 1.909E-02	67 0.
18 0.	68 0.	118 0.	18 1.578E-02	68 0.
19 1.019E-01	69 0.	119 0.	19 1.280E-02	69 0.
20 6.410E-04	70 0.	120 0.	20 1.028E-02	70 0.
21 6.435E-01	71 1.269E-02	121 0.	21 8.331E-03	71 0.
22 5.128E-04	72 0.	122 0.	22 7.131E-03	72 0.
23 1.282E-04	73 0.	123 0.	23 6.746E-03	73 0.
24 3.846E-04	74 3.846E-04	124 0.	24 6.548E-03	74 0.
25 4.747E-01	75 0.	125 0.	25 6.331E-03	75 0.
26 0.	76 1.282E-04	126 0.	26 6.092E-03	
27 0.	77 3.205E-04	127 0.	27 5.822E-03	
28 0.	78 0.	128 0.	28 5.522E-03	
29 1.154E-03	79 0.	129 0.	29 5.193E-03	
30 3.910E-03	80 1.923E-04	130 0.	30 4.842E-03	
31 3.038E-02	81 0.	131 0.	31 4.471E-03	
32 1.923E-04	82 8.333E-04	132 0.	32 4.083E-03	
33 2.564E-04	83 0.	133 0.	33 3.681E-03	
34 0.	84 0.	134 0.	34 3.271E-03	
35 0.	85 0.	135 0.	35 2.859E-03	
36 1.282E-04	86 0.	136 0.	36 2.449E-03	
37 0.	87 0.	137 0.	37 2.048E-03	
38 0.	88 0.	138 0.	38 1.662E-03	
39 3.654E-03	89 0.	139 0.	39 1.298E-03	
40 2.564E-04	90 0.	140 0.	40 9.640E-04	
41 2.628E-02	91 0.	141 0.	41 6.665E-04	
42 2.564E-03	92 0.	142 0.	42 4.137E-04	
43 1.923E-04	93 0.	143 0.	43 2.140E-04	
44 1.474E-01	94 0.	144 0.	44 7.590E-05	
45 2.564E-04	95 0.	145 0.	45 8.492E-06	
46 1.987E-03	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 1.282E-04	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 5.769E-04	100 0.	150 0.	50 0.	



## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 4.000E-03	101 0.	1 2.490E-02	51 2.017E-03
2 0.	52 6.000E-03	102 2.000E-03	2 3.095E-02	52 1.632E-03
3 0.	53 0.	103 0.	3 3.625E-02	53 1.296E-03
4 0.	54 0.	104 1.400E-02	4 4.036E-02	54 1.016E-03
5 0.	55 0.	105 0.	5 4.316E-02	55 8.013E-04
6 0.	56 1.000E-03	106 3.300E-03	6 4.464E-02	56 6.426E-04
7 3.000E-04	57 0.	107 5.600E-03	7 4.488E-02	57 5.023E-04
8 0.	58 0.	108 0.	8 4.407E-02	58 3.752E-04
9 0.	59 0.	109 0.	9 4.247E-02	59 2.633E-04
10 0.	60 0.	110 0.	10 4.046E-02	60 1.685E-04
11 0.	61 1.900E-02	111 0.	11 3.843E-02	61 9.282E-05
12 1.200E-03	62 0.	112 0.	12 3.653E-02	62 3.846E-05
13 0.	63 0.	113 0.	13 3.446E-02	63 7.555E-06
14 0.	64 0.	114 0.	14 3.209E-02	64 3.565E-08
15 0.	65 0.	115 0.	15 2.956E-02	65 0.
16 0.	66 8.600E-03	116 0.	16 2.697E-02	66 0.
17 5.090E-01	67 1.230E-02	117 0.	17 2.454E-02	67 0.
18 1.000E-03	68 1.010E-01	118 0.	18 2.239E-02	68 0.
19 0.	69 0.	119 0.	19 2.059E-02	69 0.
20 1.100E-02	70 0.	120 0.	20 1.933E-02	70 0.
21 2.600E-03	71 5.500E-02	121 0.	21 1.849E-02	71 0.
22 1.060E-01	72 0.	122 0.	22 1.782E-02	72 0.
23 5.000E-03	73 0.	123 0.	23 1.732E-02	73 0.
24 0.	74 2.000E-03	124 0.	24 1.682E-02	74 0.
25 7.200E-03	75 0.	125 0.	25 1.628E-02	75 0.
26 0.	76 0.	126 0.	26 1.573E-02	
27 4.000E-03	77 7.900E-03	127 0.	27 1.517E-02	
28 9.600E-03	78 4.000E-03	128 0.	28 1.463E-02	
29 0.	79 0.	129 0.	29 1.413E-02	
30 5.000E-03	80 0.	130 0.	30 1.370E-02	
31 0.	81 0.	131 0.	31 1.326E-02	
32 0.	82 7.000E-03	132 0.	32 1.279E-02	
33 0.	83 9.200E-02	133 0.	33 1.228E-02	
34 9.600E-03	84 0.	134 0.	34 1.175E-02	
35 0.	85 0.	135 0.	35 1.119E-02	
36 3.000E-03	86 3.000E-03	136 0.	36 1.060E-02	
37 7.300E-03	87 3.000E-03	137 0.	37 9.983E-03	
38 5.600E-03	88 1.030E-01	138 0.	38 9.354E-03	
39 0.	89 0.	139 0.	39 8.715E-03	
40 0.	90 4.000E-03	140 0.	40 8.070E-03	
41 0.	91 0.	141 0.	41 7.425E-03	
42 0.	92 0.	142 0.	42 6.786E-03	
43 8.600E-03	93 2.900E-02	143 0.	43 6.163E-03	
44 7.900E-03	94 0.	144 0.	44 5.564E-03	
45 1.850E-02	95 0.	145 0.	45 4.996E-03	
46 2.000E-04	96 0.	146 0.	46 4.448E-03	
47 0.	97 0.	147 0.	47 3.914E-03	
48 0.	98 0.	148 0.	48 3.399E-03	
49 0.	99 0.	149 0.	49 2.907E-03	
50 8.600E-03	100 3.000E-03	150 0.	50 2.444E-03	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.601E-02	51 0.
2 0.	52 3.000E-04	102 0.	2 3.300E-02	52 0.
3 4.000E-03	53 0.	103 0.	3 3.954E-02	53 0.
4 0.	54 0.	104 0.	4 4.512E-02	54 0.
5 0.	55 0.	105 0.	5 4.952E-02	55 0.
6 0.	56 1.900E-01	106 0.	6 5.265E-02	56 0.
7 1.300E-02	57 3.600E-02	107 0.	7 5.446E-02	57 0.
8 0.	58 0.	108 0.	8 5.499E-02	58 0.
9 0.	59 0.	109 0.	9 5.431E-02	59 0.
10 0.	60 0.	110 0.	10 5.258E-02	60 0.
11 0.	61 0.	111 0.	11 5.003E-02	61 0.
12 1.000E-02	62 0.	112 0.	12 4.695E-02	62 0.
13 0.	63 8.400E-02	113 0.	13 4.367E-02	63 0.
14 0.	64 0.	114 0.	14 4.061E-02	64 0.
15 1.000E-02	65 0.	115 0.	15 3.788E-02	65 0.
16 0.	66 0.	116 0.	16 3.486E-02	66 0.
17 1.022E+00	67 1.800E-01	117 0.	17 3.154E-02	67 0.
18 0.	68 1.000E-02	118 0.	18 2.807E-02	68 0.
19 0.	69 0.	119 0.	19 2.462E-02	69 0.
20 1.000E-02	70 0.	120 0.	20 2.138E-02	70 0.
21 0.	71 4.000E-02	121 0.	21 1.855E-02	71 0.
22 1.100E-01	72 0.	122 0.	22 1.624E-02	72 0.
23 0.	73 0.	123 0.	23 1.432E-02	73 0.
24 0.	74 0.	124 0.	24 1.270E-02	74 0.
25 0.	75 0.	125 0.	25 1.114E-02	75 0.
26 3.000E-02	76 0.	126 0.	26 9.665E-03	
27 0.	77 0.	127 0.	27 8.327E-03	
28 2.900E-01	78 0.	128 0.	28 7.188E-03	
29 0.	79 0.	129 0.	29 6.302E-03	
30 2.000E-04	80 0.	130 0.	30 5.545E-03	
31 0.	81 0.	131 0.	31 4.791E-03	
32 0.	82 0.	132 0.	32 4.052E-03	
33 0.	83 0.	133 0.	33 3.343E-03	
34 7.600E-02	84 0.	134 0.	34 2.680E-03	
35 4.700E-02	85 1.500E-02	135 0.	35 2.080E-03	
36 0.	86 0.	136 0.	36 1.556E-03	
37 2.000E-02	87 0.	137 0.	37 1.099E-03	
38 5.800E-03	88 0.	138 0.	38 7.189E-04	
39 0.	89 0.	139 0.	39 4.305E-04	
40 0.	90 0.	140 0.	40 2.325E-04	
41 0.	91 0.	141 0.	41 9.716E-05	
42 0.	92 0.	142 0.	42 1.905E-05	
43 7.300E-02	93 0.	143 0.	43 7.978E-08	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 2.000E-02	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 2.200E-02	101 0.	1 2.121E-02	51 3.468E-04
2 3.800E-01	52 2.000E-01	102 0.	2 2.713E-02	52 2.281E-04
3 0.	53 0.	103 0.	3 3.278E-02	53 1.373E-04
4 0.	54 0.	104 0.	4 3.776E-02	54 7.055E-05
5 0.	55 1.800E-02	105 0.	5 4.188E-02	55 2.497E-05
6 0.	56 0.	106 0.	6 4.504E-02	56 2.830E-06
7 1.200E-01	57 0.	107 0.	7 4.718E-02	57 0.
8 0.	58 0.	108 0.	8 4.829E-02	58 0.
9 2.700E-02	59 3.600E-02	109 0.	9 4.840E-02	59 0.
10 0.	60 0.	110 0.	10 4.761E-02	60 0.
11 0.	61 0.	111 0.	11 4.602E-02	61 0.
12 1.700E-02	62 0.	112 0.	12 4.383E-02	62 0.
13 4.000E-02	63 0.	113 0.	13 4.122E-02	63 0.
14 0.	64 0.	114 0.	14 3.839E-02	64 0.
15 0.	65 0.	115 0.	15 3.557E-02	65 0.
16 0.	66 0.	116 0.	16 3.281E-02	66 0.
17 0.	67 0.	117 0.	17 3.018E-02	67 0.
18 0.	68 0.	118 0.	18 2.772E-02	68 0.
19 2.800E-02	69 2.400E-02	119 0.	19 2.551E-02	69 0.
20 0.	70 0.	120 0.	20 2.370E-02	70 0.
21 3.400E-02	71 0.	121 0.	21 2.220E-02	71 0.
22 0.	72 1.400E-01	122 0.	22 2.063E-02	72 0.
23 4.700E-02	73 3.500E-02	123 0.	23 1.895E-02	73 0.
24 0.	74 0.	124 0.	24 1.721E-02	74 0.
25 0.	75 1.200E-02	125 0.	25 1.546E-02	75 0.
26 0.	76 1.000E-02	126 0.	26 1.375E-02	
27 8.000E-03	77 2.100E-02	127 0.	27 1.214E-02	
28 0.	78 0.	128 0.	28 1.070E-02	
29 8.000E-03	79 0.	129 0.	29 9.449E-03	
30 1.600E-02	80 0.	130 0.	30 8.431E-03	
31 0.	81 0.	131 0.	31 7.680E-03	
32 0.	82 5.700E-02	132 0.	32 7.032E-03	
33 6.200E-02	83 0.	133 0.	33 6.407E-03	
34 0.	84 0.	134 0.	34 5.818E-03	
35 0.	85 0.	135 0.	35 5.274E-03	
36 0.	86 3.000E-02	136 0.	36 4.785E-03	
37 3.800E-02	87 0.	137 0.	37 4.360E-03	
38 0.	88 0.	138 0.	38 3.964E-03	
39 2.500E-02	89 0.	139 0.	39 3.575E-03	
40 1.060E-01	90 5.000E-03	140 0.	40 3.191E-03	
41 8.000E-03	91 0.	141 0.	41 2.815E-03	
42 0.	92 0.	142 0.	42 2.454E-03	
43 0.	93 0.	143 0.	43 2.112E-03	
44 0.	94 0.	144 0.	44 1.796E-03	
45 0.	95 0.	145 0.	45 1.512E-03	
46 0.	96 0.	146 0.	46 1.259E-03	
47 1.000E-02	97 0.	147 0.	47 1.038E-03	
48 0.	98 0.	148 0.	48 8.390E-04	
49 0.	99 0.	149 0.	49 6.554E-04	
50 0.	100 0.	150 0.	50 4.903E-04	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.678E-03	51 1.599E-02
2 1.970E-04	52 0.	102 1.045E-03	2 4.585E-03	52 1.525E-02
3 0.	53 0.	103 0.	3 4.716E-03	53 1.449E-02
4 0.	54 0.	104 3.015E-03	4 5.483E-03	54 1.370E-02
5 0.	55 0.	105 2.653E-03	5 6.230E-03	55 1.290E-02
6 0.	56 0.	106 0.	6 6.985E-03	56 1.209E-02
7 0.	57 7.558E-03	107 1.005E-03	7 7.792E-03	57 1.126E-02
8 1.833E-03	58 3.337E-04	108 7.236E-04	8 8.607E-03	58 1.043E-02
9 0.	59 8.844E-04	109 0.	9 9.390E-03	59 9.602E-03
10 0.	60 0.	110 1.005E-03	10 1.014E-02	60 8.775E-03
11 0.	61 0.	111 0.	11 1.087E-02	61 7.955E-03
12 6.834E-03	62 0.	112 3.015E-03	12 1.157E-02	62 7.147E-03
13 0.	63 1.206E-03	113 2.412E-03	13 1.227E-02	63 6.357E-03
14 0.	64 0.	114 0.	14 1.297E-02	64 5.588E-03
15 5.628E-04	65 0.	115 8.442E-04	15 1.369E-02	65 4.845E-03
16 1.367E-03	66 0.	116 0.	16 1.444E-02	66 4.135E-03
17 4.020E-02	67 0.	117 0.	17 1.521E-02	67 3.461E-03
18 0.	68 0.	118 8.442E-04	18 1.597E-02	68 2.831E-03
19 0.	69 0.	119 1.126E-03	19 1.672E-02	69 2.249E-03
20 1.849E-03	70 0.	120 0.	20 1.743E-02	70 1.720E-03
21 0.	71 4.422E-04	121 1.688E-03	21 1.810E-02	71 1.250E-03
22 0.	72 0.	122 0.	22 1.874E-02	72 8.447E-04
23 0.	73 0.	123 1.005E-03	23 1.933E-02	73 5.115E-04
24 0.	74 5.226E-04	124 0.	24 1.988E-02	74 2.565E-04
25 4.422E-04	75 0.	125 0.	25 2.038E-02	75 8.646E-05
26 1.206E-03	76 0.	126 0.	26 2.085E-02	
27 1.688E-03	77 4.422E-04	127 0.	27 2.126E-02	
28 5.065E-03	78 0.	128 0.	28 2.163E-02	
29 0.	79 0.	129 0.	29 2.195E-02	
30 4.945E-04	80 0.	130 0.	30 2.222E-02	
31 0.	81 0.	131 0.	31 2.244E-02	
32 0.	82 0.	132 0.	32 2.260E-02	
33 0.	83 0.	133 0.	33 2.270E-02	
34 0.	84 0.	134 0.	34 2.275E-02	
35 5.266E-03	85 4.020E-04	135 0.	35 2.275E-02	
36 9.246E-04	86 0.	136 0.	36 2.268E-02	
37 7.236E-04	87 0.	137 0.	37 2.257E-02	
38 6.834E-04	88 0.	138 0.	38 2.240E-02	
39 0.	89 1.568E-03	139 0.	39 2.218E-02	
40 8.442E-04	90 0.	140 0.	40 2.190E-02	
41 8.844E-04	91 7.638E-04	141 0.	41 2.158E-02	
42 0.	92 0.	142 0.	42 2.120E-02	
43 0.	93 2.693E-03	143 0.	43 2.078E-02	
44 0.	94 0.	144 0.	44 2.031E-02	
45 9.648E-04	95 0.	145 0.	45 1.980E-02	
46 0.	96 0.	146 0.	46 1.925E-02	
47 0.	97 2.533E-03	147 0.	47 1.867E-02	
48 0.	98 0.	148 0.	48 1.805E-02	
49 0.	99 1.327E-03	149 0.	49 1.739E-02	
50 0.	100 0.	150 0.	50 1.671E-02	

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## BETA SPECTRUM

1	6.616E-02	51 0.
2	8.095E-02	52 0.
3	9.319E-02	53 0.
4	1.016E-01	54 0.
5	1.056E-01	55 0.
6	1.052E-01	56 0.
7	1.006E-01	57 0.
8	9.189E-02	58 0.
9	7.988E-02	59 0.
10	6.537E-02	60 0.
11	4.942E-02	61 0.
12	3.334E-02	62 0.
13	1.869E-02	63 0.
14	7.209E-03	64 0.
15	9.116E-04	65 0.
16	0.	66 0.
17	0.	67 0.
18	0.	68 0.
19	0.	69 0.
20	0.	70 0.
21	0.	71 0.
22	0.	72 0.
23	0.	73 0.
24	0.	74 0.
25	0.	75 0.
26	0.	
27	0.	
28	0.	
29	0.	
30	0.	
31	0.	
32	0.	
33	0.	
34	0.	
35	0.	
36	0.	
37	0.	
38	0.	
39	0.	
40	0.	
41	0.	
42	0.	
43	0.	
44	0.	
45	0.	
46	0.	
47	0.	
48	0.	
49	0.	
50	0.	

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## BETA SPECTRUM

1	3.235E-01	51	0.
2	2.915E-01	52	0.
3	2.194E-01	53	0.
4	1.249E-01	54	0.
5	3.927E-02	55	0.
6	1.468E-03	56	0.
7	0.	57	0.
8	0.	58	0.
9	0.	59	0.
10	0.	60	0.
11	0.	61	0.
12	0.	62	0.
13	0.	63	0.
14	0.	64	0.
15	0.	65	0.
16	0.	66	0.
17	0.	67	0.
18	0.	68	0.
19	0.	69	0.
20	0.	70	0.
21	0.	71	0.
22	0.	72	0.
23	0.	73	0.
24	0.	74	0.
25	0.	75	0.
26	0.		
27	0.		
28	0.		
29	0.		
30	0.		
31	0.		
32	0.		
33	0.		
34	0.		
35	0.		
36	0.		
37	0.		
38	0.		
39	0.		
40	0.		
41	0.		
42	0.		
43	0.		
44	0.		
45	0.		
46	0.		
47	0.		
48	0.		
49	0.		
50	0.		

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 8.216E-02	51 0.
2 0.	52 0.	102 0.	2 9.328E-02	52 0.
3 1.436E-03	53 0.	103 0.	3 9.912E-02	53 0.
4 0.	54 0.	104 0.	4 9.958E-02	54 0.
5 0.	55 0.	105 0.	5 9.594E-02	55 0.
6 1.743E-02	56 0.	106 0.	6 8.896E-02	56 0.
7 0.	57 0.	107 0.	7 7.904E-02	57 0.
8 2.505E-03	58 0.	108 0.	8 6.676E-02	58 0.
9 0.	59 0.	109 0.	9 5.331E-02	59 0.
10 7.682E-04	60 0.	110 0.	10 4.060E-02	60 0.
11 0.	61 0.	111 0.	11 3.092E-02	61 0.
12 1.102E-03	62 0.	112 0.	12 2.551E-02	62 0.
13 2.271E-02	63 0.	113 0.	13 2.169E-02	63 0.
14 1.105E-01	64 0.	114 0.	14 1.931E-02	64 0.
15 2.305E-01	65 0.	115 0.	15 1.793E-02	65 0.
16 5.912E-03	66 0.	116 0.	16 1.642E-02	66 0.
17 0.	67 0.	117 0.	17 1.472E-02	67 0.
18 2.338E-03	68 0.	118 0.	18 1.289E-02	68 0.
19 4.075E-02	69 0.	119 0.	19 1.100E-02	69 0.
20 7.682E-04	70 0.	120 0.	20 9.109E-03	70 0.
21 3.340E-01	71 0.	121 0.	21 7.300E-03	71 0.
22 2.338E-03	72 0.	122 0.	22 5.573E-03	72 0.
23 1.136E-03	73 0.	123 0.	23 3.950E-03	73 0.
24 0.	74 0.	124 0.	24 2.505E-03	74 0.
25 0.	75 0.	125 0.	25 1.315E-03	75 0.
26 9.352E-03	76 0.	126 0.	26 4.662E-04	
27 4.008E-04	77 0.	127 0.	27 4.878E-05	
28 2.338E-04	78 0.	128 0.	28 0.	
29 9.185E-03	79 0.	129 0.	29 0.	
30 1.503E-03	80 0.	130 0.	30 0.	
31 6.346E-04	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 3.674E-03	84 0.	134 0.	34 0.	
35 1.937E-03	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 5.010E-05	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.077E-01	51 0.
2 0.	52 0.	102 0.	2 2.789E-01	52 0.
3 0.	53 0.	103 0.	3 2.121E-01	53 0.
4 0.	54 0.	104 0.	4 1.236E-01	54 0.
5 2.970E-02	55 0.	105 0.	5 4.225E-02	55 0.
6 0.	56 0.	106 0.	6 4.644E-03	56 0.
7 0.	57 0.	107 0.	7 2.905E-03	57 0.
8 0.	58 0.	108 0.	8 2.844E-03	58 0.
9 3.330E-02	59 0.	109 0.	9 2.713E-03	59 0.
10 2.610E-03	60 0.	110 0.	10 2.527E-03	60 0.
11 0.	61 0.	111 0.	11 2.305E-03	61 0.
12 0.	62 0.	112 0.	12 2.044E-03	62 0.
13 0.	63 0.	113 0.	13 1.742E-03	63 0.
14 3.690E-03	64 0.	114 0.	14 1.411E-03	64 0.
15 0.	65 0.	115 0.	15 1.071E-03	65 0.
16 0.	66 0.	116 0.	16 7.402E-04	66 0.
17 0.	67 0.	117 0.	17 4.421E-04	67 0.
18 9.900E-04	68 0.	118 0.	18 2.018E-04	68 0.
19 0.	69 0.	119 0.	19 4.715E-05	69 0.
20 3.600E-02	70 0.	120 0.	20 6.183E-07	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 2.880E-02	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 9.000E-01	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 2.429E-02	101 0.	1 1.917E+02	51 0.
2 0.	52 0.	102 0.	2 2.506E-02	52 0.
3 0.	53 0.	103 0.	3 3.108E-02	53 0.
4 1.651E-01	54 1.457E-02	104 0.	4 3.684E-02	54 0.
5 0.	55 0.	105 0.	5 4.218E-02	55 0.
6 6.314E-02	56 0.	106 0.	6 4.695E-02	56 0.
7 2.914E-02	57 0.	107 0.	7 5.103E-02	57 0.
8 9.714E-03	58 0.	108 0.	8 5.435E-02	58 0.
9 2.914E-02	59 0.	109 0.	9 5.683E-02	59 0.
10 2.914E-02	60 0.	110 0.	10 5.842E-02	60 0.
11 0.	61 0.	111 0.	11 5.911E-02	61 0.
12 4.857E-01	62 0.	112 0.	12 5.888E-02	62 0.
13 9.714E-03	63 0.	113 0.	13 5.776E-02	63 0.
14 1.943E-02	64 0.	114 0.	14 5.579E-02	64 0.
15 1.603E-01	65 0.	115 0.	15 5.303E-02	65 0.
16 0.	66 0.	116 0.	16 4.955E-02	66 0.
17 9.714E-03	67 0.	117 0.	17 4.546E-02	67 0.
18 3.206E-01	68 0.	118 0.	18 4.087E-02	68 0.
19 0.	69 0.	119 0.	19 3.593E-02	69 0.
20 0.	70 0.	120 0.	20 3.079E-02	70 0.
21 2.914E-02	71 0.	121 0.	21 2.564E-02	71 0.
22 9.714E-03	72 0.	122 0.	22 2.068E-02	72 0.
23 3.886E-02	73 0.	123 0.	23 1.606E-02	73 0.
24 0.	74 0.	124 0.	24 1.180E-02	74 0.
25 1.943E-02	75 0.	125 0.	25 8.014E-03	75 0.
26 5.343E-02	76 0.	126 0.	26 4.919E-03	
27 1.943E-02	77 0.	127 0.	27 2.642E-03	
28 3.886E-02	78 0.	128 0.	28 1.030E-03	
29 0.	79 0.	129 0.	29 1.526E-04	
30 4.857E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 4.857E-03	82 0.	132 0.	32 0.	
33 1.943E-02	83 0.	133 0.	33 0.	
34 6.314E-02	84 0.	134 0.	34 0.	
35 4.857E-03	85 0.	135 0.	35 0.	
36 4.857E-03	86 0.	136 0.	36 0.	
37 9.714E-03	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 4.857E-03	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 9.714E-03	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 9.714E-03	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

-----  
GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.583E-02	51 0.
2 0.	52 0.	102 0.	2 4.548E-02	52 0.
3 0.	53 0.	103 0.	3 5.460E-02	53 0.
4 0.	54 0.	104 0.	4 6.244E-02	54 0.
5 0.	55 0.	105 0.	5 6.869E-02	55 0.
6 0.	56 0.	106 0.	6 7.313E-02	56 0.
7 0.	57 0.	107 0.	7 7.563E-02	57 0.
8 0.	58 0.	108 0.	8 7.613E-02	58 0.
9 0.	59 0.	109 0.	9 7.465E-02	59 0.
10 0.	60 0.	110 0.	10 7.129E-02	60 0.
11 0.	61 0.	111 0.	11 6.621E-02	61 0.
12 0.	62 0.	112 0.	12 5.967E-02	62 0.
13 1.816E-02	63 0.	113 0.	13 5.196E-02	63 0.
14 0.	64 0.	114 0.	14 4.348E-02	64 0.
15 4.032E-02	65 0.	115 0.	15 3.468E-02	65 0.
16 0.	66 0.	116 0.	16 2.609E-02	66 0.
17 1.558E-02	67 0.	117 0.	17 1.830E-02	67 0.
18 0.	68 0.	118 0.	18 1.198E-02	68 0.
19 0.	69 0.	119 0.	19 7.860E-03	69 0.
20 0.	70 0.	120 0.	20 6.448E-03	70 0.
21 0.	71 0.	121 0.	21 5.977E-03	71 0.
22 0.	72 0.	122 0.	22 5.462E-03	72 0.
23 0.	73 0.	123 0.	23 4.908E-03	73 0.
24 0.	74 0.	124 0.	24 4.326E-03	74 0.
25 0.	75 0.	125 0.	25 3.728E-03	75 0.
26 0.	76 0.	126 0.	26 3.129E-03	
27 0.	77 0.	127 0.	27 2.544E-03	
28 0.	78 0.	128 0.	28 1.985E-03	
29 8.330E-01	79 0.	129 0.	29 1.462E-03	
30 0.	80 0.	130 0.	30 9.914E-04	
31 0.	81 0.	131 0.	31 5.910E-04	
32 0.	82 0.	132 0.	32 2.797E-04	
33 0.	83 0.	133 0.	33 7.762E-05	
34 0.	84 0.	134 0.	34 3.072E-06	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.857E-02	51 0.
2 0.	52 0.	102 0.	2 3.665E-02	52 0.
3 0.	53 0.	103 0.	3 4.461E-02	53 0.
4 0.	54 0.	104 0.	4 5.188E-02	54 0.
5 0.	55 0.	105 0.	5 5.820E-02	55 0.
6 0.	56 0.	106 0.	6 6.338E-02	56 0.
7 0.	57 0.	107 0.	7 6.727E-02	57 0.
8 0.	58 0.	108 0.	8 6.976E-02	58 0.
9 0.	59 0.	109 0.	9 7.079E-02	59 0.
10 0.	60 0.	110 0.	10 7.035E-02	60 0.
11 0.	61 0.	111 0.	11 6.846E-02	61 0.
12 0.	62 0.	112 0.	12 6.521E-02	62 0.
13 0.	63 0.	113 0.	13 6.069E-02	63 0.
14 0.	64 0.	114 0.	14 5.508E-02	64 0.
15 0.	65 0.	115 0.	15 4.855E-02	65 0.
16 0.	66 0.	116 0.	16 4.136E-02	66 0.
17 0.	67 0.	117 0.	17 3.376E-02	67 0.
18 0.	68 0.	118 0.	18 2.608E-02	68 0.
19 0.	69 0.	119 0.	19 1.868E-02	69 0.
20 0.	70 0.	120 0.	20 1.193E-02	70 0.
21 0.	71 0.	121 0.	21 6.291E-03	71 0.
22 0.	72 0.	122 0.	22 2.217E-03	72 0.
23 0.	73 0.	123 0.	23 2.209E-04	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 1.000E-10	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.005E-03	51 0.
2 0.	52 0.	102 0.	2 9.742E-04	52 0.
3 0.	53 0.	103 0.	3 8.266E-04	53 0.
4 0.	54 0.	104 0.	4 5.876E-04	54 0.
5 9.600E-01	55 0.	105 0.	5 3.151E-04	55 0.
6 0.	56 0.	106 0.	6 8.938E-05	56 0.
7 0.	57 0.	107 0.	7 2.170E-06	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 9.100E-01	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.380E-02	51 0.
2 0.	52 0.	102 0.	2 7.712E-02	52 0.
3 0.	53 0.	103 0.	3 8.828E-02	53 0.
4 0.	54 0.	104 0.	4 9.645E-02	54 0.
5 0.	55 0.	105 0.	5 1.011E-01	55 0.
6 0.	56 0.	106 0.	6 1.017E-01	56 0.
7 0.	57 0.	107 0.	7 9.841E-02	57 0.
8 0.	58 0.	108 0.	8 9.140E-02	58 0.
9 0.	59 0.	109 0.	9 8.116E-02	59 0.
10 0.	60 0.	110 0.	10 6.835E-02	60 0.
11 0.	61 0.	111 0.	11 5.386E-02	61 0.
12 0.	62 0.	112 0.	12 3.875E-02	62 0.
13 0.	63 0.	113 0.	13 2.428E-02	63 0.
14 0.	64 0.	114 0.	14 1.192E-02	64 0.
15 0.	65 0.	115 0.	15 3.310E-03	65 0.
16 0.	66 0.	116 0.	16 1.088E-04	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 2.200E-03	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 9.480E-01	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.676E-02	51 0.
2 0.	52 0.	102 0.	2 2.124E-02	52 0.
3 0.	53 0.	103 0.	3 2.560E-02	53 0.
4 0.	54 0.	104 0.	4 2.955E-02	54 0.
5 0.	55 0.	105 0.	5 3.297E-02	55 0.
6 0.	56 0.	106 0.	6 3.580E-02	56 0.
7 0.	57 4.113E-05	107 0.	7 3.805E-02	57 0.
8 0.	58 0.	108 0.	8 3.972E-02	58 0.
9 2.303E-02	59 0.	109 0.	9 4.090E-02	59 0.
10 4.785E-03	60 0.	110 0.	10 4.164E-02	60 0.
11 0.	61 0.	111 0.	11 4.206E-02	61 0.
12 2.372E-02	62 0.	112 0.	12 4.234E-02	62 0.
13 0.	63 0.	113 0.	13 4.266E-02	63 0.
14 0.	64 0.	114 0.	14 4.303E-02	64 0.
15 0.	65 0.	115 0.	15 4.306E-02	65 0.
16 0.	66 1.371E-05	116 0.	16 4.269E-02	66 0.
17 1.234E-02	67 0.	117 0.	17 4.194E-02	67 0.
18 0.	68 2.742E-05	118 0.	18 4.084E-02	68 0.
19 1.433E-01	69 0.	119 0.	19 3.940E-02	69 0.
20 6.718E-04	70 0.	120 0.	20 3.765E-02	70 0.
21 0.	71 0.	121 0.	21 3.565E-02	71 0.
22 0.	72 0.	122 0.	22 3.343E-02	72 0.
23 2.399E-03	73 0.	123 0.	23 3.102E-02	73 0.
24 0.	74 0.	124 0.	24 2.843E-02	74 0.
25 0.	75 0.	125 0.	25 2.568E-02	75 0.
26 0.	76 0.	126 0.	26 2.283E-02	
27 0.	77 0.	127 0.	27 1.993E-02	
28 0.	78 0.	128 0.	28 1.703E-02	
29 4.716E-02	79 0.	129 0.	29 1.416E-02	
30 0.	80 0.	130 0.	30 1.136E-02	
31 0.	81 0.	131 0.	31 8.700E-03	
32 0.	82 0.	132 0.	32 6.258E-03	
33 0.	83 0.	133 0.	33 4.106E-03	
34 0.	84 0.	134 0.	34 2.323E-03	
35 0.	85 0.	135 0.	35 9.934E-04	
36 0.	86 0.	136 0.	36 2.064E-04	
37 3.551E-03	87 0.	137 0.	37 1.397E-06	
38 2.742E-04	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 5.484E-05	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 1.919E-04	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 1.371E-04	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 2.742E-05	99 0.	149 0.	49 0.	
50 5.484E-05	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.256E-02	51 0.
2 0.	52 0.	102 0.	2 2.784E-02	52 0.
3 0.	53 0.	103 0.	3 3.274E-02	53 0.
4 0.	54 0.	104 0.	4 3.708E-02	54 0.
5 0.	55 0.	105 0.	5 4.099E-02	55 0.
6 6.829E-02	56 0.	106 0.	6 4.451E-02	56 0.
7 0.	57 0.	107 0.	7 4.771E-02	57 0.
8 0.	58 0.	108 0.	8 5.074E-02	58 0.
9 0.	59 0.	109 0.	9 5.318E-02	59 0.
10 0.	60 0.	110 0.	10 5.486E-02	60 0.
11 0.	61 0.	111 0.	11 5.577E-02	61 0.
12 0.	62 0.	112 0.	12 5.588E-02	62 0.
13 0.	63 0.	113 0.	13 5.523E-02	63 0.
14 6.090E-03	64 0.	114 0.	14 5.384E-02	64 0.
15 1.610E-04	65 0.	115 0.	15 5.179E-02	65 0.
16 0.	66 0.	116 0.	16 4.909E-02	66 0.
17 0.	67 0.	117 0.	17 4.580E-02	67 0.
18 0.	68 0.	118 0.	18 4.200E-02	68 0.
19 1.953E-02	69 0.	119 0.	19 3.780E-02	69 0.
20 2.730E-04	70 0.	120 0.	20 3.333E-02	70 0.
21 0.	71 0.	121 0.	21 2.864E-02	71 0.
22 0.	72 0.	122 0.	22 2.384E-02	72 0.
23 0.	73 0.	123 0.	23 1.906E-02	73 0.
24 7.980E-04	74 0.	124 0.	24 1.445E-02	74 0.
25 1.302E-03	75 0.	125 0.	25 1.018E-02	75 0.
26 0.	76 0.	126 0.	26 6.445E-03	
27 0.	77 0.	127 0.	27 3.422E-03	
28 0.	78 0.	128 0.	28 1.266E-03	
29 2.380E-03	79 0.	129 0.	29 1.560E-04	
30 4.039E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 4.690E-04	83 0.	133 0.	33 0.	
34 2.170E-04	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 2.170E-04	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.407E-02	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 3.269E-03	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 1.750E-04	100 0.	150 0.	50 0.	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.151E-02	51 0.
2 0.	52 0.	102 0.	2 1.501E-02	52 0.
3 0.	53 0.	103 0.	3 1.862E-02	53 0.
4 0.	54 0.	104 0.	4 2.211E-02	54 0.
5 7.350E-04	55 0.	105 0.	5 2.541E-02	55 0.
6 0.	56 0.	106 0.	6 2.844E-02	56 0.
7 0.	57 5.880E-03	107 0.	7 3.115E-02	57 0.
8 2.205E-02	58 0.	108 0.	8 3.351E-02	58 0.
9 0.	59 0.	109 0.	9 3.551E-02	59 0.
10 0.	60 0.	110 0.	10 3.713E-02	60 0.
11 0.	61 0.	111 0.	11 3.839E-02	61 0.
12 6.689E-02	62 0.	112 0.	12 3.931E-02	62 0.
13 0.	63 0.	113 0.	13 3.994E-02	63 0.
14 2.205E-03	64 0.	114 0.	14 4.031E-02	64 0.
15 0.	65 0.	115 0.	15 4.048E-02	65 0.
16 2.279E-02	66 0.	116 0.	16 4.044E-02	66 0.
17 0.	67 0.	117 0.	17 4.016E-02	67 0.
18 0.	68 0.	118 0.	18 3.961E-02	68 0.
19 7.350E-01	69 0.	119 0.	19 3.880E-02	69 0.
20 0.	70 0.	120 0.	20 3.771E-02	70 0.
21 0.	71 0.	121 0.	21 3.636E-02	71 0.
22 0.	72 0.	122 0.	22 3.478E-02	72 0.
23 7.791E-02	73 0.	123 0.	23 3.298E-02	73 0.
24 1.103E-02	74 0.	124 0.	24 3.100E-02	74 0.
25 8.085E-03	75 0.	125 0.	25 2.889E-02	75 0.
26 0.	76 0.	126 0.	26 2.669E-02	
27 0.	77 0.	127 0.	27 2.445E-02	
28 0.	78 0.	128 0.	28 2.221E-02	
29 5.145E-03	79 0.	129 0.	29 2.000E-02	
30 0.	80 0.	130 0.	30 1.780E-02	
31 0.	81 0.	131 0.	31 1.563E-02	
32 0.	82 0.	132 0.	32 1.354E-02	
33 0.	83 0.	133 0.	33 1.156E-02	
34 3.234E-02	84 0.	134 0.	34 9.704E-03	
35 0.	85 0.	135 0.	35 7.990E-03	
36 0.	86 0.	136 0.	36 6.434E-03	
37 0.	87 0.	137 0.	37 5.065E-03	
38 1.103E-02	88 0.	138 0.	38 3.915E-03	
39 0.	89 0.	139 0.	39 3.029E-03	
40 0.	90 0.	140 0.	40 2.445E-03	
41 0.	91 0.	141 0.	41 2.018E-03	
42 0.	92 0.	142 0.	42 1.617E-03	
43 1.543E-02	93 0.	143 0.	43 1.244E-03	
44 0.	94 0.	144 0.	44 9.055E-04	
45 0.	95 0.	145 0.	45 6.094E-04	
46 0.	96 0.	146 0.	46 3.631E-04	
47 0.	97 0.	147 0.	47 1.745E-04	
48 0.	98 0.	148 0.	48 5.185E-05	
49 1.470E-03	99 0.	149 0.	49 2.936E-06	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.058E-02	51 0.
2 0.	52 0.	102 0.	2 2.449E-02	52 0.
3 0.	53 1.957E-02	103 0.	3 2.752E-02	53 0.
4 0.	54 0.	104 0.	4 2.941E-02	54 0.
5 0.	55 0.	105 0.	5 3.026E-02	55 0.
6 0.	56 0.	106 0.	6 3.026E-02	56 0.
7 0.	57 1.833E-03	107 0.	7 2.974E-02	57 0.
8 1.319E-03	58 0.	108 0.	8 2.915E-02	58 0.
9 7.696E-03	59 0.	109 0.	9 2.901E-02	59 0.
10 0.	60 0.	110 0.	10 2.934E-02	60 0.
11 0.	61 0.	111 0.	11 2.968E-02	61 0.
12 1.246E-03	62 0.	112 0.	12 3.011E-02	62 0.
13 1.246E-03	63 2.639E-03	113 0.	13 3.075E-02	63 0.
14 0.	64 0.	114 0.	14 3.157E-02	64 0.
15 0.	65 0.	115 0.	15 3.230E-02	65 0.
16 0.	66 4.911E-03	116 0.	16 3.282E-02	66 0.
17 1.100E-03	67 0.	117 0.	17 3.313E-02	67 0.
18 0.	68 0.	118 0.	18 3.325E-02	68 0.
19 0.	69 0.	119 0.	19 3.319E-02	69 0.
20 7.330E-02	70 2.785E-03	120 0.	20 3.295E-02	70 0.
21 3.958E-03	71 0.	121 0.	21 3.257E-02	71 0.
22 0.	72 2.939E-02	122 0.	22 3.204E-02	72 0.
23 0.	73 0.	123 0.	23 3.132E-02	73 0.
24 2.712E-03	74 0.	124 0.	24 3.042E-02	74 0.
25 0.	75 0.	125 0.	25 2.935E-02	75 0.
26 8.063E-04	76 0.	126 0.	26 2.812E-02	
27 2.118E-02	77 0.	127 0.	27 2.673E-02	
28 2.785E-03	78 0.	128 0.	28 2.520E-02	
29 2.712E-03	79 0.	129 0.	29 2.355E-02	
30 0.	80 0.	130 0.	30 2.179E-02	
31 2.639E-03	81 0.	131 0.	31 1.995E-02	
32 0.	82 0.	132 0.	32 1.806E-02	
33 6.670E-03	83 0.	133 0.	33 1.613E-02	
34 1.979E-03	84 0.	134 0.	34 1.419E-02	
35 1.393E-03	85 0.	135 0.	35 1.226E-02	
36 0.	86 0.	136 0.	36 1.037E-02	
37 6.524E-03	87 0.	137 0.	37 8.538E-03	
38 4.031E-03	88 0.	138 0.	38 6.794E-03	
39 1.385E-02	89 0.	139 0.	39 5.171E-03	
40 1.466E-03	90 0.	140 0.	40 3.702E-03	
41 0.	91 0.	141 0.	41 2.425E-03	
42 0.	92 0.	142 0.	42 1.378E-03	
43 0.	93 0.	143 0.	43 6.009E-04	
44 3.159E-02	94 0.	144 0.	44 1.349E-04	
45 0.	95 0.	145 0.	45 1.714E-06	
46 9.163E-03	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 3.152E-03	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 2.199E-03	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.143E-03	51 0.
2 0.	52 0.	102 0.	2 6.935E-03	52 0.
3 1.000E+00	53 0.	103 0.	3 8.903E-03	53 0.
4 0.	54 0.	104 0.	4 1.096E-02	54 0.
5 0.	55 0.	105 0.	5 1.308E-02	55 0.
6 0.	56 0.	106 0.	6 1.521E-02	56 0.
7 0.	57 0.	107 0.	7 1.734E-02	57 0.
8 0.	58 0.	108 0.	8 1.943E-02	58 0.
9 0.	59 0.	109 0.	9 2.148E-02	59 0.
10 0.	60 0.	110 0.	10 2.344E-02	60 0.
11 0.	61 0.	111 0.	11 2.530E-02	61 0.
12 0.	62 0.	112 0.	12 2.705E-02	62 0.
13 0.	63 0.	113 0.	13 2.867E-02	63 0.
14 0.	64 0.	114 0.	14 3.014E-02	64 0.
15 0.	65 0.	115 0.	15 3.146E-02	65 0.
16 0.	66 0.	116 0.	16 3.260E-02	66 0.
17 1.000E+00	67 0.	117 0.	17 3.356E-02	67 0.
18 0.	68 0.	118 0.	18 3.434E-02	68 0.
19 0.	69 0.	119 0.	19 3.493E-02	69 0.
20 0.	70 0.	120 0.	20 3.532E-02	70 0.
21 0.	71 0.	121 0.	21 3.551E-02	71 0.
22 0.	72 0.	122 0.	22 3.550E-02	72 0.
23 0.	73 0.	123 0.	23 3.530E-02	73 0.
24 0.	74 0.	124 0.	24 3.490E-02	74 0.
25 0.	75 0.	125 0.	25 3.430E-02	75 0.
26 0.	76 0.	126 0.	26 3.352E-02	
27 0.	77 0.	127 0.	27 3.256E-02	
28 0.	78 0.	128 0.	28 3.143E-02	
29 0.	79 0.	129 0.	29 3.014E-02	
30 0.	80 0.	130 0.	30 2.871E-02	
31 0.	81 0.	131 0.	31 2.713E-02	
32 0.	82 0.	132 0.	32 2.544E-02	
33 0.	83 0.	133 0.	33 2.365E-02	
34 0.	84 0.	134 0.	34 2.176E-02	
35 0.	85 0.	135 0.	35 1.982E-02	
36 0.	86 0.	136 0.	36 1.782E-02	
37 0.	87 0.	137 0.	37 1.581E-02	
38 0.	88 0.	138 0.	38 1.380E-02	
39 0.	89 0.	139 0.	39 1.181E-02	
40 0.	90 0.	140 0.	40 9.876E-03	
41 0.	91 0.	141 0.	41 8.025E-03	
42 0.	92 0.	142 0.	42 6.287E-03	
43 0.	93 0.	143 0.	43 4.691E-03	
44 0.	94 0.	144 0.	44 3.272E-03	
45 0.	95 0.	145 0.	45 2.062E-03	
46 0.	96 0.	146 0.	46 1.099E-03	
47 0.	97 0.	147 0.	47 4.194E-04	
48 0.	98 0.	148 0.	48 6.102E-05	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 4.400E-02	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 1.790E-01	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 8.200E-01	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.912E-01	51 0.
2 0.	52 0.	102 0.	2 3.365E-01	52 0.
3 0.	53 0.	103 0.	3 1.491E-01	53 0.
4 0.	54 0.	104 0.	4 2.133E-02	54 0.
5 0.	55 0.	105 0.	5 1.212E-03	55 0.
6 0.	56 0.	106 0.	6 8.801E-04	56 0.
7 0.	57 0.	107 0.	7 5.236E-04	57 0.
8 0.	58 0.	108 0.	8 2.114E-04	58 0.
9 0.	59 0.	109 0.	9 2.707E-05	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 4.420E-01	65 0.	115 0.	15 0.	65 0.
16 5.480E-01	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.217E-02	51 0.
2 0.	52 0.	102 0.	2 7.052E-02	52 0.
3 5.640E-04	53 0.	103 0.	3 7.563E-02	53 0.
4 3.760E-04	54 0.	104 0.	4 7.761E-02	54 0.
5 1.786E-03	55 0.	105 0.	5 7.786E-02	55 0.
6 1.645E-02	56 0.	106 0.	6 7.802E-02	56 0.
7 1.128E-03	57 0.	107 0.	7 7.800E-02	57 0.
8 2.303E-02	58 0.	108 0.	8 7.612E-02	58 0.
9 3.290E-03	59 0.	109 0.	9 7.259E-02	59 0.
10 0.	60 0.	110 0.	10 6.774E-02	60 0.
11 5.687E-02	61 0.	111 0.	11 6.149E-02	61 0.
12 0.	62 0.	112 0.	12 5.402E-02	62 0.
13 1.410E-02	63 0.	113 0.	13 4.563E-02	63 0.
14 3.760E-03	64 0.	114 0.	14 3.671E-02	64 0.
15 9.400E-03	65 0.	115 0.	15 2.777E-02	65 0.
16 0.	66 0.	116 0.	16 1.919E-02	66 0.
17 8.836E-03	67 0.	117 0.	17 1.145E-02	67 0.
18 3.384E-03	68 0.	118 0.	18 5.225E-03	68 0.
19 0.	69 0.	119 0.	19 1.221E-03	69 0.
20 2.914E-03	70 0.	120 0.	20 1.600E-05	70 0.
21 1.363E-02	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 2.792E-02	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 9.870E-03	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 1.363E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 1.363E-02	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 3.572E-03	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.866E-03	51 0.
2 0.	52 0.	102 0.	2 1.307E-02	52 0.
3 0.	53 0.	103 0.	3 1.651E-02	53 0.
4 0.	54 0.	104 0.	4 1.999E-02	54 0.
5 0.	55 0.	105 0.	5 2.345E-02	55 0.
6 0.	56 0.	106 0.	6 2.680E-02	56 0.
7 0.	57 0.	107 0.	7 2.999E-02	57 0.
8 0.	58 0.	108 0.	8 3.298E-02	58 0.
9 1.000E-01	59 0.	109 0.	9 3.571E-02	59 0.
10 5.000E-01	60 0.	110 0.	10 3.815E-02	60 0.
11 4.000E-01	61 0.	111 0.	11 4.026E-02	61 0.
12 5.000E-01	62 0.	112 0.	12 4.202E-02	62 0.
13 0.	63 0.	113 0.	13 4.340E-02	63 0.
14 0.	64 0.	114 0.	14 4.438E-02	64 0.
15 0.	65 0.	115 0.	15 4.497E-02	65 0.
16 0.	66 0.	116 0.	16 4.514E-02	66 0.
17 0.	67 0.	117 0.	17 4.491E-02	67 0.
18 0.	68 0.	118 0.	18 4.428E-02	68 0.
19 0.	69 0.	119 0.	19 4.326E-02	69 0.
20 0.	70 0.	120 0.	20 4.186E-02	70 0.
21 0.	71 0.	121 0.	21 4.011E-02	71 0.
22 0.	72 0.	122 0.	22 3.804E-02	72 0.
23 0.	73 0.	123 0.	23 3.567E-02	73 0.
24 0.	74 0.	124 0.	24 3.305E-02	74 0.
25 0.	75 0.	125 0.	25 3.021E-02	75 0.
26 0.	76 0.	126 0.	26 2.720E-02	
27 0.	77 0.	127 0.	27 2.408E-02	
28 0.	78 0.	128 0.	28 2.090E-02	
29 0.	79 0.	129 0.	29 1.772E-02	
30 0.	80 0.	130 0.	30 1.462E-02	
31 0.	81 0.	131 0.	31 1.166E-02	
32 0.	82 0.	132 0.	32 8.913E-03	
33 0.	83 0.	133 0.	33 6.470E-03	
34 0.	84 0.	134 0.	34 4.415E-03	
35 0.	85 0.	135 0.	35 2.838E-03	
36 0.	86 0.	136 0.	36 1.760E-03	
37 0.	87 0.	137 0.	37 9.456E-04	
38 0.	88 0.	138 0.	38 3.635E-04	
39 0.	89 0.	139 0.	39 5.324E-05	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.328E-01	51 0.
2 0.	52 0.	102 0.	2 6.720E-02	52 0.
3 0.	53 0.	103 0.	3 0.	53 0.
4 0.	54 0.	104 0.	4 0.	54 0.
5 0.	55 0.	105 0.	5 0.	55 0.
6 0.	56 0.	106 0.	6 0.	56 0.
7 0.	57 0.	107 0.	7 0.	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 1.000E+00	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 2.630E-01	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.225E-02	51 0.
2 0.	52 0.	102 0.	2 1.080E-01	52 0.
3 0.	53 0.	103 0.	3 1.189E-01	53 0.
4 5.000E-04	54 0.	104 0.	4 1.235E-01	54 0.
5 5.000E-04	55 0.	105 0.	5 1.219E-01	55 0.
6 0.	56 0.	106 0.	6 1.140E-01	56 0.
7 0.	57 0.	107 0.	7 1.008E-01	57 0.
8 0.	58 0.	108 0.	8 8.331E-02	58 0.
9 0.	59 0.	109 0.	9 6.319E-02	59 0.
10 0.	60 0.	110 0.	10 4.244E-02	60 0.
11 5.000E-04	61 0.	111 0.	11 2.326E-02	61 0.
12 0.	62 0.	112 0.	12 8.322E-03	62 0.
13 0.	63 0.	113 0.	13 7.704E-04	63 0.
14 1.000E+00	64 0.	114 0.	14 0.	64 0.
15 9.000E-04	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 5.000E-04	68 0.	118 0.	18 0.	68 0.
19 4.000E-04	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 1.100E-02	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 1.400E-03	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 1.600E-03	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 1.200E-03	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 3.000E-04	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 9.800E-01	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 8.111E-03	51 0.
2 2.945E-04	52 0.	102 0.	2 1.073E-02	52 0.
3 0.	53 0.	103 0.	3 1.356E-02	53 0.
4 1.826E-03	54 0.	104 0.	4 1.644E-02	54 0.
5 0.	55 0.	105 0.	5 1.932E-02	55 0.
6 0.	56 0.	106 0.	6 2.214E-02	56 0.
7 5.949E-03	57 0.	107 0.	7 2.486E-02	57 0.
8 0.	58 0.	108 0.	8 2.744E-02	58 0.
9 5.890E-04	59 0.	109 0.	9 2.983E-02	59 0.
10 5.890E-04	60 0.	110 0.	10 3.202E-02	60 0.
11 0.	61 0.	111 0.	11 3.397E-02	61 0.
12 0.	62 0.	112 0.	12 3.567E-02	62 0.
13 2.651E-03	63 0.	113 0.	13 3.709E-02	63 0.
14 0.	64 0.	114 0.	14 3.823E-02	64 0.
15 5.048E-02	65 0.	115 0.	15 3.907E-02	65 0.
16 5.595E-02	66 0.	116 0.	16 3.962E-02	66 0.
17 6.008E-03	67 0.	117 0.	17 3.988E-02	67 0.
18 0.	68 0.	118 0.	18 3.984E-02	68 0.
19 0.	69 0.	119 0.	19 3.952E-02	69 0.
20 1.767E-03	70 0.	120 0.	20 3.893E-02	70 0.
21 1.178E-03	71 0.	121 0.	21 3.809E-02	71 0.
22 0.	72 0.	122 0.	22 3.702E-02	72 0.
23 0.	73 0.	123 0.	23 3.574E-02	73 0.
24 1.031E-02	74 0.	124 0.	24 3.428E-02	74 0.
25 0.	75 0.	125 0.	25 3.268E-02	75 0.
26 0.	76 0.	126 0.	26 3.096E-02	
27 0.	77 0.	127 0.	27 2.912E-02	
28 0.	78 0.	128 0.	28 2.714E-02	
29 4.241E-03	79 0.	129 0.	29 2.506E-02	
30 0.	80 0.	130 0.	30 2.288E-02	
31 7.304E-03	81 0.	131 0.	31 2.063E-02	
32 0.	82 0.	132 0.	32 1.833E-02	
33 0.	83 0.	133 0.	33 1.602E-02	
34 0.	84 0.	134 0.	34 1.373E-02	
35 5.419E-03	85 0.	135 0.	35 1.150E-02	
36 0.	86 0.	136 0.	36 9.381E-03	
37 0.	87 0.	137 0.	37 7.383E-03	
38 2.003E-03	88 0.	138 0.	38 5.535E-03	
39 8.835E-04	89 0.	139 0.	39 3.877E-03	
40 1.649E-03	90 0.	140 0.	40 2.455E-03	
41 0.	91 0.	141 0.	41 1.314E-03	
42 0.	92 0.	142 0.	42 5.030E-04	
43 0.	93 0.	143 0.	43 7.342E-05	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.283E-02	51 0.
2 0.	52 0.	102 0.	2 6.221E-02	52 0.
3 0.	53 0.	103 0.	3 6.917E-02	53 0.
4 0.	54 0.	104 0.	4 7.297E-02	54 0.
5 0.	55 0.	105 0.	5 7.368E-02	55 0.
6 0.	56 0.	106 0.	6 7.174E-02	56 0.
7 1.063E-01	57 0.	107 0.	7 6.789E-02	57 0.
8 0.	58 0.	108 0.	8 6.319E-02	58 0.
9 1.053E-02	59 0.	109 0.	9 5.898E-02	59 0.
10 1.053E-02	60 0.	110 0.	10 5.611E-02	60 0.
11 0.	61 0.	111 0.	11 5.272E-02	61 0.
12 0.	62 0.	112 0.	12 4.838E-02	62 0.
13 4.737E-02	63 0.	113 0.	13 4.337E-02	63 0.
14 0.	64 0.	114 0.	14 3.802E-02	64 0.
15 9.021E-01	65 0.	115 0.	15 3.270E-02	65 0.
16 1.053E+00	66 0.	116 0.	16 2.772E-02	66 0.
17 1.074E-01	67 0.	117 0.	17 2.290E-02	67 0.
18 0.	68 0.	118 0.	18 1.843E-02	68 0.
19 0.	69 0.	119 0.	19 1.462E-02	69 0.
20 0.	70 0.	120 0.	20 1.183E-02	70 0.
21 0.	71 0.	121 0.	21 9.791E-03	71 0.
22 0.	72 0.	122 0.	22 7.909E-03	72 0.
23 0.	73 0.	123 0.	23 6.222E-03	73 0.
24 1.842E-01	74 0.	124 0.	24 4.829E-03	74 0.
25 0.	75 0.	125 0.	25 3.809E-03	75 0.
26 1.053E-02	76 0.	126 0.	26 2.968E-03	
27 1.053E-02	77 0.	127 0.	27 2.179E-03	
28 0.	78 0.	128 0.	28 1.467E-03	
29 7.368E-02	79 0.	129 0.	29 8.624E-04	
30 0.	80 0.	130 0.	30 3.958E-04	
31 1.305E-01	81 0.	131 0.	31 1.002E-04	
32 0.	82 0.	132 0.	32 2.469E-06	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 9.684E-02	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.579E-02	89 0.	139 0.	39 0.	
40 2.947E-02	90 0.	140 0.	40 0.	
41 1.053E-02	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 1.053E-02	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 2.590E-03	101 0.	1 1.126E-02	51 0.
2 2.590E-02	52 0.	102 0.	2 1.482E-02	52 0.
3 5.698E-03	53 1.295E-02	103 0.	3 1.862E-02	53 0.
4 2.331E-03	54 3.626E-03	104 0.	4 2.245E-02	54 0.
5 0.	55 3.885E-03	105 0.	5 2.621E-02	55 0.
6 1.930E-02	56 1.942E-03	106 0.	6 2.983E-02	56 0.
7 0.	57 0.	107 0.	7 3.324E-02	57 0.
8 1.308E-02	58 1.243E-02	108 0.	8 3.638E-02	58 0.
9 2.331E-03	59 1.295E-03	109 0.	9 3.920E-02	59 0.
10 5.957E-03	60 0.	110 0.	10 4.166E-02	60 0.
11 1.282E-02	61 1.036E-03	111 0.	11 4.373E-02	61 0.
12 7.123E-03	62 0.	112 0.	12 4.537E-02	62 0.
13 4.921E-03	63 0.	113 0.	13 4.657E-02	63 0.
14 8.159E-03	64 0.	114 0.	14 4.730E-02	64 0.
15 0.	65 0.	115 0.	15 4.757E-02	65 0.
16 6.216E-03	66 0.	116 0.	16 4.737E-02	66 0.
17 3.367E-03	67 0.	117 0.	17 4.671E-02	67 0.
18 2.201E-03	68 0.	118 0.	18 4.559E-02	68 0.
19 8.159E-03	69 0.	119 0.	19 4.404E-02	69 0.
20 0.	70 0.	120 0.	20 4.209E-02	70 0.
21 1.425E-03	71 0.	121 0.	21 3.976E-02	71 0.
22 3.367E-03	72 0.	122 0.	22 3.710E-02	72 0.
23 9.065E-04	73 0.	123 0.	23 3.414E-02	73 0.
24 0.	74 0.	124 0.	24 3.094E-02	74 0.
25 0.	75 0.	125 0.	25 2.755E-02	75 0.
26 3.108E-03	76 0.	126 0.	26 2.403E-02	
27 1.813E-03	77 0.	127 0.	27 2.046E-02	
28 0.	78 0.	128 0.	28 1.691E-02	
29 0.	79 0.	129 0.	29 1.347E-02	
30 2.849E-03	80 0.	130 0.	30 1.020E-02	
31 0.	81 0.	131 0.	31 7.220E-03	
32 0.	82 0.	132 0.	32 4.615E-03	
33 0.	83 0.	133 0.	33 2.492E-03	
34 2.849E-03	84 0.	134 0.	34 9.622E-04	
35 2.201E-03	85 0.	135 0.	35 1.415E-04	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 1.813E-03	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 1.683E-03	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 2.072E-03	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	2.747E-02	101	0.	1	4.310E-02	51	0.
2	2.747E-01	52	0.	102	0.	2	5.274E-02	52	0.
3	6.043E-02	53	1.373E-01	103	0.	3	6.115E-02	53	0.
4	2.472E-02	54	3.846E-02	104	0.	4	6.749E-02	54	0.
5	0.	55	4.120E-02	105	0.	5	7.147E-02	55	0.
6	2.046E-01	56	2.060E-02	106	0.	6	7.297E-02	56	0.
7	0.	57	0.	107	0.	7	7.203E-02	57	0.
8	1.387E-01	58	1.319E-01	108	0.	8	6.882E-02	58	0.
9	1.648E-02	59	1.373E-02	109	0.	9	6.364E-02	59	0.
10	6.318E-02	60	0.	110	0.	10	5.693E-02	60	0.
11	1.277E-01	61	1.099E-02	111	0.	11	4.926E-02	61	0.
12	7.554E-02	62	0.	112	0.	12	4.132E-02	62	0.
13	5.219E-02	63	0.	113	0.	13	3.391E-02	63	0.
14	5.357E-02	64	0.	114	0.	14	2.796E-02	64	0.
15	0.	65	0.	115	0.	15	2.368E-02	65	0.
16	5.494E-02	66	0.	116	0.	16	2.100E-02	66	0.
17	0.	67	0.	117	0.	17	1.965E-02	67	0.
18	2.335E-02	68	0.	118	0.	18	1.885E-02	68	0.
19	4.807E-02	69	0.	119	0.	19	1.791E-02	69	0.
20	0.	70	0.	120	0.	20	1.681E-02	70	0.
21	1.511E-02	71	0.	121	0.	21	1.557E-02	71	0.
22	1.785E-02	72	0.	122	0.	22	1.422E-02	72	0.
23	9.615E-03	73	0.	123	0.	23	1.279E-02	73	0.
24	0.	74	0.	124	0.	24	1.131E-02	74	0.
25	0.	75	0.	125	0.	25	9.832E-03	75	0.
26	3.296E-02	76	0.	126	0.	26	8.383E-03		
27	1.923E-02	77	0.	127	0.	27	6.992E-03		
28	0.	78	0.	128	0.	28	5.673E-03		
29	0.	79	0.	129	0.	29	4.467E-03		
30	3.022E-02	80	0.	130	0.	30	3.407E-03		
31	0.	81	0.	131	0.	31	2.490E-03		
32	0.	82	0.	132	0.	32	1.726E-03		
33	0.	83	0.	133	0.	33	1.099E-03		
34	3.022E-02	84	0.	134	0.	34	6.276E-04		
35	2.335E-02	85	0.	135	0.	35	3.298E-04		
36	0.	86	0.	136	0.	36	1.491E-04		
37	0.	87	0.	137	0.	37	4.218E-05		
38	1.923E-02	88	0.	138	0.	38	2.288E-06		
39	0.	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	1.785E-02	91	0.	141	0.	41	0.		
42	0.	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	0.	94	0.	144	0.	44	0.		
45	2.198E-02	95	0.	145	0.	45	0.		
46	0.	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.717E-03	51 7.419E-04
2 0.	52 0.	102 0.	2 8.934E-03	52 5.226E-04
3 0.	53 0.	103 0.	3 1.134E-02	53 3.664E-04
4 7.464E-02	54 0.	104 0.	4 1.384E-02	54 2.459E-04
5 0.	55 0.	105 0.	5 1.635E-02	55 1.468E-04
6 0.	56 0.	106 0.	6 1.885E-02	56 7.118E-05
7 0.	57 0.	107 0.	7 2.130E-02	57 2.184E-05
8 0.	58 0.	108 0.	8 2.366E-02	58 1.440E-06
9 0.	59 0.	109 0.	9 2.591E-02	59 0.
10 4.292E-02	60 0.	110 0.	10 2.801E-02	60 0.
11 1.175E+00	61 0.	111 0.	11 2.994E-02	61 0.
12 0.	62 0.	112 0.	12 3.168E-02	62 0.
13 4.936E-01	63 0.	113 0.	13 3.322E-02	63 0.
14 1.306E-02	64 0.	114 0.	14 3.453E-02	64 0.
15 1.278E-01	65 0.	115 0.	15 3.561E-02	65 0.
16 9.703E-02	66 0.	116 0.	16 3.645E-02	66 0.
17 0.	67 0.	117 0.	17 3.704E-02	67 0.
18 0.	68 0.	118 0.	18 3.737E-02	68 0.
19 5.038E-02	69 0.	119 0.	19 3.746E-02	69 0.
20 1.717E-01	70 0.	120 0.	20 3.729E-02	70 0.
21 0.	71 0.	121 0.	21 3.687E-02	71 0.
22 9.610E-02	72 0.	122 0.	22 3.622E-02	72 0.
23 0.	73 0.	123 0.	23 3.533E-02	73 0.
24 0.	74 0.	124 0.	24 3.424E-02	74 0.
25 2.892E-02	75 0.	125 0.	25 3.293E-02	75 0.
26 1.894E-01	76 0.	126 0.	26 3.145E-02	
27 0.	77 0.	127 0.	27 2.980E-02	
28 0.	78 0.	128 0.	28 2.801E-02	
29 3.172E-02	79 0.	129 0.	29 2.611E-02	
30 3.452E-02	80 0.	130 0.	30 2.412E-02	
31 2.799E-02	81 0.	131 0.	31 2.207E-02	
32 3.545E-02	82 0.	132 0.	32 2.001E-02	
33 0.	83 0.	133 0.	33 1.795E-02	
34 0.	84 0.	134 0.	34 1.594E-02	
35 0.	85 0.	135 0.	35 1.402E-02	
36 0.	86 0.	136 0.	36 1.224E-02	
37 0.	87 0.	137 0.	37 1.063E-02	
38 0.	88 0.	138 0.	38 9.245E-03	
39 0.	89 0.	139 0.	39 8.065E-03	
40 0.	90 0.	140 0.	40 7.045E-03	
41 0.	91 0.	141 0.	41 6.114E-03	
42 0.	92 0.	142 0.	42 5.278E-03	
43 0.	93 0.	143 0.	43 4.542E-03	
44 0.	94 0.	144 0.	44 3.865E-03	
45 0.	95 0.	145 0.	45 3.246E-03	
46 0.	96 0.	146 0.	46 2.696E-03	
47 0.	97 0.	147 0.	47 2.200E-03	
48 0.	98 0.	148 0.	48 1.753E-03	
49 0.	99 0.	149 0.	49 1.361E-03	
50 0.	100 0.	150 0.	50 1.024E-03	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.066E-03	51 0.
2 0.	52 0.	102 0.	2 9.402E-03	52 0.
3 0.	53 0.	103 0.	3 1.194E-02	53 0.
4 0.	54 0.	104 0.	4 1.457E-02	54 0.
5 0.	55 0.	105 0.	5 1.723E-02	55 0.
6 6.984E-01	56 0.	106 0.	6 1.987E-02	56 0.
7 0.	57 0.	107 0.	7 2.246E-02	57 0.
8 3.492E-01	58 0.	108 0.	8 2.496E-02	58 0.
9 0.	59 0.	109 0.	9 2.734E-02	59 0.
10 0.	60 0.	110 0.	10 2.956E-02	60 0.
11 0.	61 0.	111 0.	11 3.161E-02	61 0.
12 0.	62 0.	112 0.	12 3.346E-02	62 0.
13 0.	63 0.	113 0.	13 3.509E-02	63 0.
14 0.	64 0.	114 0.	14 3.648E-02	64 0.
15 0.	65 0.	115 0.	15 3.762E-02	65 0.
16 0.	66 0.	116 0.	16 3.851E-02	66 0.
17 0.	67 0.	117 0.	17 3.913E-02	67 0.
18 0.	68 0.	118 0.	18 3.947E-02	68 0.
19 0.	69 0.	119 0.	19 3.954E-02	69 0.
20 0.	70 0.	120 0.	20 3.934E-02	70 0.
21 0.	71 0.	121 0.	21 3.886E-02	71 0.
22 0.	72 0.	122 0.	22 3.812E-02	72 0.
23 0.	73 0.	123 0.	23 3.713E-02	73 0.
24 0.	74 0.	124 0.	24 3.590E-02	74 0.
25 0.	75 0.	125 0.	25 3.443E-02	75 0.
26 0.	76 0.	126 0.	26 3.275E-02	
27 0.	77 0.	127 0.	27 3.088E-02	
28 0.	78 0.	128 0.	28 2.884E-02	
29 0.	79 0.	129 0.	29 2.665E-02	
30 0.	80 0.	130 0.	30 2.434E-02	
31 0.	81 0.	131 0.	31 2.195E-02	
32 0.	82 0.	132 0.	32 1.949E-02	
33 0.	83 0.	133 0.	33 1.702E-02	
34 0.	84 0.	134 0.	34 1.456E-02	
35 0.	85 0.	135 0.	35 1.215E-02	
36 0.	86 0.	136 0.	36 9.844E-03	
37 0.	87 0.	137 0.	37 7.678E-03	
38 0.	88 0.	138 0.	38 5.702E-03	
39 0.	89 0.	139 0.	39 3.966E-03	
40 0.	90 0.	140 0.	40 2.521E-03	
41 0.	91 0.	141 0.	41 1.423E-03	
42 0.	92 0.	142 0.	42 6.978E-04	
43 0.	93 0.	143 0.	43 2.778E-04	
44 0.	94 0.	144 0.	44 1.222E-04	
45 0.	95 0.	145 0.	45 4.666E-05	
46 0.	96 0.	146 0.	46 6.797E-06	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1	1.300E-02	51 0.	101 0.	1	1.635E-01	51 0.
2	0.	52 0.	102 0.	2	1.568E-01	52 0.
3	1.400E-01	53 0.	103 0.	3	1.384E-01	53 0.
4	6.700E-02	54 0.	104 0.	4	1.163E-01	54 0.
5	0.	55 0.	105 0.	5	1.031E-01	55 0.
6	0.	56 0.	106 0.	6	9.396E-02	56 0.
7	0.	57 0.	107 0.	7	8.045E-02	57 0.
8	1.460E-02	58 0.	108 0.	8	6.367E-02	58 0.
9	2.400E-04	59 0.	109 0.	9	4.537E-02	59 0.
10	0.	60 0.	110 0.	10	2.747E-02	60 0.
11	5.400E-04	61 0.	111 0.	11	1.221E-02	61 0.
12	0.	62 0.	112 0.	12	2.396E-03	62 0.
13	2.400E-04	63 0.	113 0.	13	4.817E-06	63 0.
14	0.	64 0.	114 0.	14	0.	64 0.
15	1.380E-01	65 0.	115 0.	15	0.	65 0.
16	4.800E-02	66 0.	116 0.	16	0.	66 0.
17	1.400E-03	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	1.100E-03	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	1.789E+00	51 0.	101 0.	1	1.142E-01	51 0.
2	5.490E-02	52 0.	102 0.	2	1.235E-01	52 0.
3	4.110E-03	53 0.	103 0.	3	1.240E-01	53 0.
4	2.508E-01	54 0.	104 0.	4	1.154E-01	54 0.
5	5.440E-03	55 0.	105 0.	5	9.992E-02	55 0.
6	1.000E-03	56 0.	106 0.	6	8.060E-02	56 0.
7	1.173E-02	57 0.	107 0.	7	6.155E-02	57 0.
8	1.909E-02	58 0.	108 0.	8	4.764E-02	58 0.
9	2.797E-02	59 0.	109 0.	9	4.082E-02	59 0.
10	1.854E-02	60 0.	110 0.	10	3.689E-02	60 0.
11	1.415E-01	61 0.	111 0.	11	3.332E-02	61 0.
12	2.044E-01	62 0.	112 0.	12	2.965E-02	62 0.
13	2.235E-02	63 0.	113 0.	13	2.593E-02	63 0.
14	6.947E-02	64 0.	114 0.	14	2.219E-02	64 0.
15	3.832E-02	65 0.	115 0.	15	1.858E-02	65 0.
16	1.436E-02	66 0.	116 0.	16	1.529E-02	66 0.
17	1.127E-02	67 0.	117 0.	17	1.225E-02	67 0.
18	6.321E-02	68 0.	118 0.	18	9.572E-03	68 0.
19	4.083E-02	69 0.	119 0.	19	7.351E-03	69 0.
20	4.430E-03	70 0.	120 0.	20	5.378E-03	70 0.
21	1.711E-01	71 0.	121 0.	21	3.673E-03	71 0.
22	5.150E-03	72 0.	122 0.	22	2.344E-03	72 0.
23	0.	73 0.	123 0.	23	1.444E-03	73 0.
24	6.548E-02	74 0.	124 0.	24	8.048E-04	74 0.
25	1.320E-03	75 0.	125 0.	25	3.351E-04	75 0.
26	4.548E-02	76 0.	126 0.	26	6.301E-05	
27	4.064E-02	77 0.	127 0.	27	1.579E-07	
28	3.604E-02	78 0.	128 0.	28	0.	
29	2.486E-02	79 0.	129 0.	29	0.	
30	2.700E-03	80 0.	130 0.	30	0.	
31	6.496E-02	81 0.	131 0.	31	0.	
32	1.879E-02	82 0.	132 0.	32	0.	
33	1.900E-03	83 0.	133 0.	33	0.	
34	2.240E-02	84 0.	134 0.	34	0.	
35	1.940E-03	85 0.	135 0.	35	0.	
36	1.551E-02	86 0.	136 0.	36	0.	
37	1.260E-02	87 0.	137 0.	37	0.	
38	7.000E-04	88 0.	138 0.	38	0.	
39	2.250E-03	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	8.225E-02	91 0.	141 0.	41	0.	
42	6.750E-03	92 0.	142 0.	42	0.	
43	5.990E-03	93 0.	143 0.	43	0.	
44	1.800E-04	94 0.	144 0.	44	0.	
45	1.770E-03	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	1.900E-04	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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## BETA SPECTRUM

1	1.623E-01	51	0.
2	1.758E-01	52	0.
3	1.760E-01	53	0.
4	1.615E-01	54	0.
5	1.346E-01	55	0.
6	9.908E-02	56	0.
7	6.053E-02	57	0.
8	2.603E-02	58	0.
9	4.175E-03	59	0.
10	0.	60	0.
11	0.	61	0.
12	0.	62	0.
13	0.	63	0.
14	0.	64	0.
15	0.	65	0.
16	0.	66	0.
17	0.	67	0.
18	0.	68	0.
19	0.	69	0.
20	0.	70	0.
21	0.	71	0.
22	0.	72	0.
23	0.	73	0.
24	0.	74	0.
25	0.	75	0.
26	0.		
27	0.		
28	0.		
29	0.		
30	0.		
31	0.		
32	0.		
33	0.		
34	0.		
35	0.		
36	0.		
37	0.		
38	0.		
39	0.		
40	0.		
41	0.		
42	0.		
43	0.		
44	0.		
45	0.		
46	0.		
47	0.		
48	0.		
49	0.		
50	0.		

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GAMMA SPECTRUM

1	1.000E-07	51	0.	101	0.
2	0.	52	0.	102	0.
3	8.863E-01	53	0.	103	0.
4	0.	54	0.	104	0.
5	0.	55	0.	105	0.
6	0.	56	0.	106	0.
7	0.	57	0.	107	0.
8	0.	58	0.	108	0.
9	0.	59	0.	109	0.
10	0.	60	0.	110	0.
11	0.	61	0.	111	0.
12	0.	62	0.	112	0.
13	0.	63	0.	113	0.
14	0.	64	0.	114	0.
15	0.	65	0.	115	0.
16	0.	66	0.	116	0.
17	0.	67	0.	117	0.
18	0.	68	0.	118	0.
19	0.	69	0.	119	0.
20	0.	70	0.	120	0.
21	0.	71	0.	121	0.
22	0.	72	0.	122	0.
23	0.	73	0.	123	0.
24	0.	74	0.	124	0.
25	0.	75	0.	125	0.
26	0.	76	0.	126	0.
27	0.	77	0.	127	0.
28	0.	78	0.	128	0.
29	0.	79	0.	129	0.
30	0.	80	0.	130	0.
31	0.	81	0.	131	0.
32	0.	82	0.	132	0.
33	0.	83	0.	133	0.
34	0.	84	0.	134	0.
35	0.	85	0.	135	0.
36	0.	86	0.	136	0.
37	0.	87	0.	137	0.
38	0.	88	0.	138	0.
39	0.	89	0.	139	0.
40	0.	90	0.	140	0.
41	0.	91	0.	141	0.
42	0.	92	0.	142	0.
43	0.	93	0.	143	0.
44	0.	94	0.	144	0.
45	0.	95	0.	145	0.
46	0.	96	0.	146	0.
47	0.	97	0.	147	0.
48	0.	98	0.	148	0.
49	0.	99	0.	149	0.
50	0.	100	0.	150	0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.225E-02	51 0.
2 0.	52 0.	102 0.	2 1.072E-01	52 0.
3 2.721E-02	53 0.	103 0.	3 1.174E-01	53 0.
4 2.178E-02	54 0.	104 0.	4 1.215E-01	54 0.
5 5.284E-03	55 0.	105 0.	5 1.194E-01	55 0.
6 5.981E-04	56 0.	106 0.	6 1.114E-01	56 0.
7 8.873E-01	57 0.	107 0.	7 9.875E-02	57 0.
8 8.972E-04	58 0.	108 0.	8 8.268E-02	58 0.
9 4.985E-04	59 0.	109 0.	9 6.445E-02	59 0.
10 3.489E-04	60 0.	110 0.	10 4.534E-02	60 0.
11 7.188E-02	61 0.	111 0.	11 2.734E-02	61 0.
12 0.	62 0.	112 0.	12 1.258E-02	62 0.
13 6.929E-03	63 0.	113 0.	13 2.847E-03	63 0.
14 0.	64 0.	114 0.	14 2.506E-05	64 0.
15 9.371E-03	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 2.791E-03	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 2.093E-03	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.440E-02	51 0.
2 0.	52 0.	102 0.	2 1.855E-02	52 0.
3 0.	53 0.	103 0.	3 2.285E-02	53 0.
4 0.	54 0.	104 0.	4 2.702E-02	54 0.
5 0.	55 0.	105 0.	5 3.095E-02	55 0.
6 0.	56 0.	106 0.	6 3.453E-02	56 0.
7 0.	57 0.	107 0.	7 3.770E-02	57 0.
8 0.	58 0.	108 0.	8 4.039E-02	58 0.
9 0.	59 0.	109 0.	9 4.256E-02	59 0.
10 6.095E-01	60 0.	110 0.	10 4.419E-02	60 0.
11 0.	61 0.	111 0.	11 4.526E-02	61 0.
12 0.	62 0.	112 0.	12 4.576E-02	62 0.
13 1.007E-01	63 0.	113 0.	13 4.573E-02	63 0.
14 0.	64 0.	114 0.	14 4.517E-02	64 0.
15 0.	65 0.	115 0.	15 4.414E-02	65 0.
16 0.	66 0.	116 0.	16 4.269E-02	66 0.
17 0.	67 0.	117 0.	17 4.089E-02	67 0.
18 0.	68 0.	118 0.	18 3.882E-02	68 0.
19 0.	69 0.	119 0.	19 3.656E-02	69 0.
20 0.	70 0.	120 0.	20 3.424E-02	70 0.
21 0.	71 0.	121 0.	21 3.196E-02	71 0.
22 0.	72 0.	122 0.	22 2.987E-02	72 0.
23 1.007E-01	73 0.	123 0.	23 2.799E-02	73 0.
24 0.	74 0.	124 0.	24 2.601E-02	74 0.
25 0.	75 0.	125 0.	25 2.389E-02	75 0.
26 0.	76 0.	126 0.	26 2.164E-02	
27 0.	77 0.	127 0.	27 1.932E-02	
28 0.	78 0.	128 0.	28 1.697E-02	
29 0.	79 0.	129 0.	29 1.464E-02	
30 0.	80 0.	130 0.	30 1.237E-02	
31 0.	81 0.	131 0.	31 1.023E-02	
32 0.	82 0.	132 0.	32 8.281E-03	
33 0.	83 0.	133 0.	33 6.578E-03	
34 0.	84 0.	134 0.	34 5.190E-03	
35 0.	85 0.	135 0.	35 4.125E-03	
36 0.	86 0.	136 0.	36 3.179E-03	
37 0.	87 0.	137 0.	37 2.314E-03	
38 0.	88 0.	138 0.	38 1.552E-03	
39 0.	89 0.	139 0.	39 9.152E-04	
40 0.	90 0.	140 0.	40 4.288E-04	
41 0.	91 0.	141 0.	41 1.179E-04	
42 0.	92 0.	142 0.	42 4.633E-06	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.066E-02	51 0.
2 0.	52 0.	102 0.	2 6.202E-02	52 0.
3 0.	53 0.	103 0.	3 7.218E-02	53 0.
4 0.	54 0.	104 0.	4 8.014E-02	54 0.
5 0.	55 0.	105 0.	5 8.549E-02	55 0.
6 0.	56 0.	106 0.	6 8.804E-02	56 0.
7 0.	57 0.	107 0.	7 8.771E-02	57 0.
8 0.	58 0.	108 0.	8 8.459E-02	58 0.
9 4.789E-02	59 0.	109 0.	9 7.890E-02	59 0.
10 9.391E-01	60 0.	110 0.	10 7.097E-02	60 0.
11 0.	61 0.	111 0.	11 6.126E-02	61 0.
12 0.	62 0.	112 0.	12 5.038E-02	62 0.
13 4.388E-01	63 0.	113 0.	13 3.903E-02	63 0.
14 5.268E-02	64 0.	114 0.	14 2.804E-02	64 0.
15 0.	65 0.	115 0.	15 1.838E-02	65 0.
16 0.	66 0.	116 0.	16 1.108E-02	66 0.
17 0.	67 0.	117 0.	17 6.558E-03	67 0.
18 0.	68 0.	118 0.	18 4.732E-03	68 0.
19 1.916E-02	69 0.	119 0.	19 4.119E-03	69 0.
20 0.	70 0.	120 0.	20 3.567E-03	70 0.
21 1.198E-01	71 0.	121 0.	21 3.004E-03	71 0.
22 9.579E-03	72 0.	122 0.	22 2.445E-03	72 0.
23 1.427E-01	73 0.	123 0.	23 1.913E-03	73 0.
24 1.016E-01	74 0.	124 0.	24 1.428E-03	74 0.
25 0.	75 0.	125 0.	25 1.016E-03	75 0.
26 5.080E-02	76 0.	126 0.	26 7.008E-04	
27 3.446E-02	77 0.	127 0.	27 5.090E-04	
28 0.	78 0.	128 0.	28 3.932E-04	
29 0.	79 0.	129 0.	29 2.882E-04	
30 0.	80 0.	130 0.	30 1.942E-04	
31 2.686E-02	81 0.	131 0.	31 1.145E-04	
32 4.789E-02	82 0.	132 0.	32 5.310E-05	
33 1.734E-01	83 0.	133 0.	33 1.394E-05	
34 0.	84 0.	134 0.	34 4.212E-07	
35 5.174E-02	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 6.611E-02	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.916E-02	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 9.579E-03	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 1.936E-01	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 9.579E-03	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 4.310E-02	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 1.258E-02	101 0.	1 4.439E-02	51 0.
2 0.	52 0.	102 0.	2 4.672E-02	52 0.
3 0.	53 1.341E-02	103 0.	3 4.647E-02	53 0.
4 0.	54 0.	104 0.	4 4.470E-02	54 0.
5 0.	55 0.	105 0.	5 4.369E-02	55 0.
6 0.	56 0.	106 0.	6 4.462E-02	56 0.
7 3.773E-02	57 0.	107 0.	7 4.563E-02	57 0.
8 8.384E-01	58 0.	108 0.	8 4.670E-02	58 0.
9 0.	59 0.	109 0.	9 4.764E-02	59 0.
10 1.258E-02	60 0.	110 0.	10 4.796E-02	60 0.
11 2.733E-01	61 3.354E-03	111 0.	11 4.756E-02	61 0.
12 4.192E-03	62 0.	112 0.	12 4.647E-02	62 0.
13 4.360E-02	63 1.258E-02	113 0.	13 4.479E-02	63 0.
14 0.	64 0.	114 0.	14 4.264E-02	64 0.
15 0.	65 0.	115 0.	15 4.015E-02	65 0.
16 2.096E-02	66 0.	116 0.	16 3.746E-02	66 0.
17 1.677E-03	67 0.	117 0.	17 3.468E-02	67 0.
18 1.970E-01	68 5.030E-03	118 0.	18 3.201E-02	68 0.
19 0.	69 5.030E-03	119 0.	19 2.942E-02	69 0.
20 0.	70 0.	120 0.	20 2.680E-02	70 0.
21 0.	71 0.	121 0.	21 2.423E-02	71 0.
22 0.	72 0.	122 0.	22 2.176E-02	72 0.
23 0.	73 2.515E-03	123 0.	23 1.947E-02	73 0.
24 2.515E-02	74 0.	124 0.	24 1.728E-02	74 0.
25 0.	75 1.677E-03	125 0.	25 1.510E-02	75 0.
26 1.258E-02	76 0.	126 0.	26 1.295E-02	
27 0.	77 0.	127 0.	27 1.088E-02	
28 2.096E-02	78 0.	128 0.	28 8.977E-03	
29 0.	79 0.	129 0.	29 7.255E-03	
30 0.	80 0.	130 0.	30 5.752E-03	
31 1.677E-02	81 0.	131 0.	31 4.501E-03	
32 3.857E-02	82 0.	132 0.	32 3.433E-03	
33 6.372E-02	83 0.	133 0.	33 2.550E-03	
34 6.037E-02	84 0.	134 0.	34 1.885E-03	
35 1.928E-02	85 0.	135 0.	35 1.380E-03	
36 0.	86 0.	136 0.	36 9.417E-04	
37 0.	87 0.	137 0.	37 5.788E-04	
38 0.	88 0.	138 0.	38 3.064E-04	
39 1.677E-02	89 0.	139 0.	39 1.405E-04	
40 4.192E-03	90 0.	140 0.	40 7.344E-05	
41 0.	91 0.	141 0.	41 3.438E-05	
42 8.384E-03	92 0.	142 0.	42 9.445E-06	
43 3.689E-02	93 0.	143 0.	43 3.708E-07	
44 1.341E-02	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 4.192E-03	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 8.384E-03	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.797E-01	51 0.
2 3.456E-03	52 0.	102 0.	2 2.022E-01	52 0.
3 1.080E-04	53 0.	103 0.	3 9.652E-03	53 0.
4 0.	54 0.	104 0.	4 5.920E-03	54 0.
5 1.260E-04	55 0.	105 0.	5 3.826E-03	55 0.
6 2.556E-03	56 0.	106 0.	6 1.869E-03	56 0.
7 0.	57 0.	107 0.	7 4.306E-04	57 0.
8 6.300E-05	58 0.	108 0.	8 2.850E-06	58 0.
9 3.618E-03	59 0.	109 0.	9 0.	59 0.
10 9.000E-01	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 8.037E-03	62 0.	112 0.	12 0.	62 0.
13 5.760E-02	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.296E-01	51 0.
2 2.300E-03	52 0.	102 0.	2 1.407E-01	52 0.
3 1.700E-02	53 0.	103 0.	3 1.440E-01	53 0.
4 2.400E-03	54 0.	104 0.	4 1.386E-01	54 0.
5 1.790E-03	55 0.	105 0.	5 1.262E-01	55 0.
6 7.262E-02	56 0.	106 0.	6 1.097E-01	56 0.
7 1.397E-01	57 0.	107 0.	7 9.037E-02	57 0.
8 5.442E-02	58 0.	108 0.	8 6.797E-02	58 0.
9 2.660E-02	59 0.	109 0.	9 4.480E-02	59 0.
10 2.179E-01	60 0.	110 0.	10 2.402E-02	60 0.
11 7.900E-03	61 0.	111 0.	11 8.661E-03	61 0.
12 1.367E-02	62 0.	112 0.	12 1.460E-03	62 0.
13 5.900E-03	63 0.	113 0.	13 3.540E-04	63 0.
14 1.965E-01	64 0.	114 0.	14 1.604E-04	64 0.
15 4.906E-01	65 0.	115 0.	15 6.433E-05	65 0.
16 0.	66 0.	116 0.	16 3.281E-05	66 0.
17 9.790E-03	67 0.	117 0.	17 1.228E-05	67 0.
18 3.630E-02	68 0.	118 0.	18 1.463E-06	68 0.
19 5.900E-03	69 0.	119 0.	19 0.	69 0.
20 2.383E-02	70 0.	120 0.	20 0.	70 0.
21 3.400E-03	71 0.	121 0.	21 0.	71 0.
22 2.300E-04	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 1.020E-03	75 0.	125 0.	25 0.	75 0.
26 2.300E-04	76 0.	126 0.	26 0.	
27 2.300E-03	77 0.	127 0.	27 0.	
28 5.600E-04	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 8.500E-04	84 0.	134 0.	34 0.	
35 3.200E-04	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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## BETA SPECTRUM

1	1.000E+00	51 0.
2	0.	52 0.
3	0.	53 0.
4	0.	54 0.
5	0.	55 0.
6	0.	56 0.
7	0.	57 0.
8	0.	58 0.
9	0.	59 0.
10	0.	60 0.
11	0.	61 0.
12	0.	62 0.
13	0.	63 0.
14	0.	64 0.
15	0.	65 0.
16	0.	66 0.
17	0.	67 0.
18	0.	68 0.
19	0.	69 0.
20	0.	70 0.
21	0.	71 0.
22	0.	72 0.
23	0.	73 0.
24	0.	74 0.
25	0.	75 0.
26	0.	
27	0.	
28	0.	
29	0.	
30	0.	
31	0.	
32	0.	
33	0.	
34	0.	
35	0.	
36	0.	
37	0.	
38	0.	
39	0.	
40	0.	
41	0.	
42	0.	
43	0.	
44	0.	
45	0.	
46	0.	
47	0.	
48	0.	
49	0.	
50	0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.944E-02	51 0.
2 0.	52 0.	102 0.	2 2.482E-02	52 0.
3 0.	53 0.	103 0.	3 3.031E-02	53 0.
4 1.191E-01	54 0.	104 0.	4 3.555E-02	54 0.
5 5.955E-03	55 0.	105 0.	5 4.037E-02	55 0.
6 1.906E-02	56 0.	106 0.	6 4.462E-02	56 0.
7 0.	57 0.	107 0.	7 4.823E-02	57 0.
8 5.360E-02	58 0.	108 0.	8 5.112E-02	58 0.
9 2.382E-02	59 0.	109 0.	9 5.322E-02	59 0.
10 5.955E-02	60 0.	110 0.	10 5.452E-02	60 0.
11 0.	61 0.	111 0.	11 5.502E-02	61 0.
12 2.858E-02	62 0.	112 0.	12 5.471E-02	62 0.
13 0.	63 0.	113 0.	13 5.365E-02	63 0.
14 0.	64 0.	114 0.	14 5.187E-02	64 0.
15 2.263E-02	65 0.	115 0.	15 4.947E-02	65 0.
16 0.	66 0.	116 0.	16 4.653E-02	66 0.
17 6.550E-02	67 0.	117 0.	17 4.316E-02	67 0.
18 0.	68 0.	118 0.	18 3.951E-02	68 0.
19 0.	69 0.	119 0.	19 3.572E-02	69 0.
20 0.	70 0.	120 0.	20 3.195E-02	70 0.
21 3.216E-02	71 0.	121 0.	21 2.820E-02	71 0.
22 0.	72 0.	122 0.	22 2.460E-02	72 0.
23 0.	73 0.	123 0.	23 2.113E-02	73 0.
24 0.	74 0.	124 0.	24 1.769E-02	74 0.
25 0.	75 0.	125 0.	25 1.432E-02	75 0.
26 3.335E-02	76 0.	126 0.	26 1.112E-02	
27 0.	77 0.	127 0.	27 8.188E-03	
28 0.	78 0.	128 0.	28 5.567E-03	
29 0.	79 0.	129 0.	29 3.327E-03	
30 0.	80 0.	130 0.	30 1.578E-03	
31 0.	81 0.	131 0.	31 4.388E-04	
32 0.	82 0.	132 0.	32 1.739E-05	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.332E-02	51 0.
2 0.	52 0.	102 0.	2 1.085E-01	52 0.
3 0.	53 0.	103 0.	3 1.191E+01	53 0.
4 2.800E-01	54 0.	104 0.	4 1.235E+01	54 0.
5 0.	55 0.	105 0.	5 1.215E-01	55 0.
6 0.	56 0.	106 0.	6 1.134E-01	56 0.
7 0.	57 0.	107 0.	7 9.988E-02	57 0.
8 0.	58 0.	108 0.	8 8.223E-02	58 0.
9 0.	59 0.	109 0.	9 6.209E-02	59 0.
10 0.	60 0.	110 0.	10 4.156E-02	60 0.
11 0.	61 0.	111 0.	11 2.313E-02	61 0.
12 0.	62 0.	112 0.	12 9.633E-03	62 0.
13 0.	63 0.	113 0.	13 2.022E-03	63 0.
14 0.	64 0.	114 0.	14 1.012E-05	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1	1.000E+00	51 0.	101 0.
2	0.	52 0.	102 0.
3	0.	53 0.	103 0.
4	0.	54 0.	104 0.
5	0.	55 0.	105 0.
6	0.	56 0.	106 0.
7	0.	57 0.	107 0.
8	0.	58 0.	108 0.
9	0.	59 0.	109 0.
10	0.	60 0.	110 0.
11	0.	61 0.	111 0.
12	0.	62 0.	112 0.
13	0.	63 0.	113 0.
14	0.	64 0.	114 0.
15	0.	65 0.	115 0.
16	0.	66 0.	116 0.
17	0.	67 0.	117 0.
18	0.	68 0.	118 0.
19	0.	69 0.	119 0.
20	0.	70 0.	120 0.
21	0.	71 0.	121 0.
22	0.	72 0.	122 0.
23	0.	73 0.	123 0.
24	0.	74 0.	124 0.
25	0.	75 0.	125 0.
26	0.	76 0.	126 0.
27	0.	77 0.	127 0.
28	0.	78 0.	128 0.
29	0.	79 0.	129 0.
30	0.	80 0.	130 0.
31	0.	81 0.	131 0.
32	0.	82 0.	132 0.
33	0.	83 0.	133 0.
34	0.	84 0.	134 0.
35	0.	85 0.	135 0.
36	0.	86 0.	136 0.
37	0.	87 0.	137 0.
38	0.	88 0.	138 0.
39	0.	89 0.	139 0.
40	0.	90 0.	140 0.
41	0.	91 0.	141 0.
42	0.	92 0.	142 0.
43	0.	93 0.	143 0.
44	0.	94 0.	144 0.
45	0.	95 0.	145 0.
46	0.	96 0.	146 0.
47	0.	97 0.	147 0.
48	0.	98 0.	148 0.
49	0.	99 0.	149 0.
50	0.	100 0.	150 0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.682E+02	51 0.
2 0.	52 0.	102 0.	2 3.382E+02	52 0.
3 0.	53 0.	103 0.	3 4.082E+02	53 0.
4 0.	54 0.	104 0.	4 4.730E+02	54 0.
5 0.	55 0.	105 0.	5 5.305E+02	55 0.
6 0.	56 0.	106 0.	6 5.789E+02	56 0.
7 0.	57 0.	107 0.	7 6.172E+02	57 0.
8 1.531E-04	58 0.	108 0.	8 6.443E+02	58 0.
9 0.	59 0.	109 0.	9 6.595E+02	59 0.
10 5.481E-05	60 0.	110 0.	10 6.625E+02	60 0.
11 0.	61 0.	111 0.	11 6.533E+02	61 0.
12 1.890E-02	62 0.	112 0.	12 6.324E+02	62 0.
13 0.	63 0.	113 0.	13 6.004E+02	63 0.
14 0.	64 0.	114 0.	14 5.584E+02	64 0.
15 0.	65 0.	115 0.	15 5.077E+02	65 0.
16 5.481E-05	66 0.	116 0.	16 4.499E+02	66 0.
17 0.	67 0.	117 0.	17 3.869E+02	67 0.
18 0.	68 0.	118 0.	18 3.209E+02	68 0.
19 0.	69 0.	119 0.	19 2.544E+02	69 0.
20 0.	70 0.	120 0.	20 1.899E+02	70 0.
21 0.	71 0.	121 0.	21 1.299E+02	71 0.
22 0.	72 0.	122 0.	22 7.750E+03	72 0.
23 0.	73 0.	123 0.	23 3.605E+03	73 0.
24 0.	74 0.	124 0.	24 9.241E+04	74 0.
25 6.823E-04	75 0.	125 0.	25 2.297E+05	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 3.969E-06	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 9.072E-06	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



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GAMMA SPECTRUM

BETA SPECTRUM

1	8.003E-03	51 0.	101 0.	1	5.623E-04	51 0.
2	1.782E-02	52 0.	102 0.	2	4.405E-04	52 0.
3	0.	53 0.	103 0.	3	2.912E-04	53 0.
4	0.	54 0.	104 0.	4	1.798E-04	54 0.
5	0.	55 0.	105 0.	5	1.251E-04	55 0.
6	0.	56 0.	106 0.	6	1.087E-04	56 0.
7	0.	57 0.	107 0.	7	9.513E-05	57 0.
8	0.	58 0.	108 0.	8	7.756E-05	58 0.
9	0.	59 0.	109 0.	9	5.759E-05	59 0.
10	0.	60 0.	110 0.	10	3.727E-05	60 0.
11	0.	61 0.	111 0.	11	1.901E-05	61 0.
12	0.	62 0.	112 0.	12	5.667E-06	62 0.
13	0.	63 0.	113 0.	13	2.453E-07	63 0.
14	0.	64 0.	114 0.	14	0.	64 0.
15	8.003E-04	65 0.	115 0.	15	0.	65 0.
16	8.964E-03	66 0.	116 0.	16	0.	66 0.
17	1.601E-02	67 0.	117 0.	17	0.	67 0.
18	9.604E-03	68 0.	118 0.	18	0.	68 0.
19	2.561E-02	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	9.604E-03	76 0.	126 0.	26	0.	
27	1.120E-02	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	9.604E-03	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	1.120E-02	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.185E-01	51 0.
2 0.	52 0.	102 0.	2 2.771E-01	52 0.
3 0.	53 0.	103 0.	3 1.659E-01	53 0.
4 0.	54 0.	104 0.	4 9.743E-02	54 0.
5 0.	55 0.	105 0.	5 3.577E-02	55 0.
6 1.700E-03	56 0.	106 0.	6 2.733E-03	56 0.
7 2.470E-01	57 0.	107 0.	7 0.	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 4.300E-04	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 2.000E-01	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 1.992E-05	101 0.	1 1.468E-02	51 0.
2 0.	52 1.992E-05	102 0.	2 1.875E-02	52 0.
3 0.	53 0.	103 0.	3 2.296E-02	53 0.
4 0.	54 0.	104 0.	4 2.706E-02	54 0.
5 0.	55 3.984E-05	105 0.	5 3.094E-02	55 0.
6 0.	56 0.	106 0.	6 3.454E-02	56 0.
7 0.	57 0.	107 0.	7 3.781E-02	57 0.
8 0.	58 0.	108 0.	8 4.070E-02	58 0.
9 0.	59 1.992E-05	109 0.	9 4.315E-02	59 0.
10 0.	60 0.	110 0.	10 4.512E-02	60 0.
11 1.992E-01	61 0.	111 0.	11 4.660E-02	61 0.
12 0.	62 0.	112 0.	12 4.758E-02	62 0.
13 1.034E-01	63 0.	113 0.	13 4.803E-02	63 0.
14 0.	64 0.	114 0.	14 4.798E-02	64 0.
15 0.	65 0.	115 0.	15 4.743E-02	65 0.
16 0.	66 0.	116 0.	16 4.641E-02	66 0.
17 0.	67 0.	117 0.	17 4.495E-02	67 0.
18 3.984E-03	68 0.	118 0.	18 4.307E-02	68 0.
19 0.	69 0.	119 0.	19 4.084E-02	69 0.
20 0.	70 0.	120 0.	20 3.831E-02	70 0.
21 1.594E-02	71 0.	121 0.	21 3.554E-02	71 0.
22 2.191E-04	72 0.	122 0.	22 3.258E-02	72 0.
23 4.223E-03	73 0.	123 0.	23 2.951E-02	73 0.
24 7.370E-04	74 0.	124 0.	24 2.641E-02	74 0.
25 0.	75 0.	125 0.	25 2.336E-02	75 0.
26 7.968E-05	76 0.	126 0.	26 2.027E-02	
27 0.	77 0.	127 0.	27 1.718E-02	
28 0.	78 0.	128 0.	28 1.416E-02	
29 0.	79 0.	129 0.	29 1.127E-02	
30 2.988E-04	80 0.	130 0.	30 8.602E-03	
31 0.	81 0.	131 0.	31 6.234E-03	
32 1.594E-03	82 0.	132 0.	32 4.168E-03	
33 1.992E-05	83 0.	133 0.	33 2.434E-03	
34 0.	84 0.	134 0.	34 1.110E-03	
35 0.	85 0.	135 0.	35 2.795E-04	
36 5.777E-04	86 0.	136 0.	36 6.852E-06	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.195E-04	89 0.	139 0.	39 0.	
40 2.390E-04	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 3.187E-04	93 0.	143 0.	43 0.	
44 7.968E-05	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 1.195E-04	97 0.	147 0.	47 0.	
48 2.390E-04	98 0.	148 0.	48 0.	
49 1.594E-04	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

45-RH-106M - ENDF NO. 337

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.563E-01	51 0.
2 0.	52 0.	102 0.	2 1.669E-01	52 0.
3 0.	53 0.	103 0.	3 1.652E-01	53 0.
4 5.487E-03	54 0.	104 0.	4 1.505E-01	54 0.
5 7.760E-02	55 0.	105 0.	5 1.250E-01	55 0.
6 0.	56 0.	106 0.	6 9.303E-02	56 0.
7 1.881E-02	57 0.	107 0.	7 6.023E-02	57 0.
8 3.214E-02	58 0.	108 0.	8 3.387E-02	58 0.
9 2.336E-01	59 0.	109 0.	9 1.888E-02	59 0.
10 2.297E-01	60 0.	110 0.	10 1.112E-02	60 0.
11 7.838E-01	61 0.	111 0.	11 7.561E-03	61 0.
12 7.838E-03	62 0.	112 0.	12 5.008E-03	62 0.
13 2.375E-01	63 0.	113 0.	13 3.382E-03	63 0.
14 1.724E-02	64 0.	114 0.	14 2.001E-03	64 0.
15 4.828E-01	65 0.	115 0.	15 8.818E-04	65 0.
16 5.173E-02	66 0.	116 0.	16 1.801E-04	66 0.
17 3.433E-01	67 0.	117 0.	17 8.401E-07	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 2.963E-01	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 1.231E-01	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 1.787E-01	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 2.587E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 1.607E-01	81 0.	131 0.	31 0.	
32 6.662E-02	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 2.038E-02	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 1.724E-02	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 1.568E-02	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 7.838E-03	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.130E-01	51 0.
2 6.000E-04	52 0.	102 0.	2 1.272E-01	52 0.
3 5.400E-03	53 0.	103 0.	3 1.347E-01	53 0.
4 1.100E-03	54 0.	104 0.	4 1.344E-01	54 0.
5 3.100E-03	55 0.	105 0.	5 1.265E-01	55 0.
6 2.710E-02	56 0.	106 0.	6 1.118E-01	56 0.
7 7.522E-01	57 0.	107 0.	7 9.209E-02	57 0.
8 1.172E-01	58 0.	108 0.	8 6.986E-02	58 0.
9 3.000E-04	59 0.	109 0.	9 4.803E-02	59 0.
10 6.300E-03	60 0.	110 0.	10 2.814E-02	60 0.
11 5.000E-04	61 0.	111 0.	11 1.193E-02	61 0.
12 1.230E-02	62 0.	112 0.	12 2.313E-03	62 0.
13 3.000E-04	63 0.	113 0.	13 8.721E-05	63 0.
14 2.230E-02	64 0.	114 0.	14 0.	64 0.
15 8.000E-04	65 0.	115 0.	15 0.	65 0.
16 1.000E-03	66 0.	116 0.	16 0.	66 0.
17 3.000E-04	67 0.	117 0.	17 0.	67 0.
18 4.000E-04	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 7.000E-04	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 8.446E-03	51 0.
2 0.	52 0.	102 0.	2 1.105E-02	52 0.
3 0.	53 0.	103 0.	3 1.386E-02	53 0.
4 0.	54 0.	104 0.	4 1.674E-02	54 0.
5 0.	55 0.	105 0.	5 1.962E-02	55 0.
6 0.	56 0.	106 0.	6 2.245E-02	56 0.
7 0.	57 0.	107 0.	7 2.518E-02	57 0.
8 0.	58 0.	108 0.	8 2.778E-02	58 0.
9 4.634E-01	59 0.	109 0.	9 3.020E-02	59 0.
10 4.313E-01	60 0.	110 0.	10 3.241E-02	60 0.
11 0.	61 0.	111 0.	11 3.440E-02	61 0.
12 0.	62 0.	112 0.	12 3.613E-02	62 0.
13 2.371E-01	63 0.	113 0.	13 3.759E-02	63 0.
14 0.	64 0.	114 0.	14 3.876E-02	64 0.
15 0.	65 0.	115 0.	15 3.963E-02	65 0.
16 0.	66 0.	116 0.	16 4.020E-02	66 0.
17 0.	67 0.	117 0.	17 4.046E-02	67 0.
18 0.	68 0.	118 0.	18 4.041E-02	68 0.
19 0.	69 0.	119 0.	19 4.006E-02	69 0.
20 0.	70 0.	120 0.	20 3.941E-02	70 0.
21 0.	71 0.	121 0.	21 3.847E-02	71 0.
22 0.	72 0.	122 0.	22 3.727E-02	72 0.
23 0.	73 0.	123 0.	23 3.581E-02	73 0.
24 0.	74 0.	124 0.	24 3.411E-02	74 0.
25 0.	75 0.	125 0.	25 3.222E-02	75 0.
26 0.	76 0.	126 0.	26 3.014E-02	
27 0.	77 0.	127 0.	27 2.791E-02	
28 0.	78 0.	128 0.	28 2.558E-02	
29 0.	79 0.	129 0.	29 2.316E-02	
30 0.	80 0.	130 0.	30 2.072E-02	
31 5.382E-02	81 0.	131 0.	31 1.829E-02	
32 0.	82 0.	132 0.	32 1.591E-02	
33 0.	83 0.	133 0.	33 1.365E-02	
34 0.	84 0.	134 0.	34 1.155E-02	
35 0.	85 0.	135 0.	35 9.677E-03	
36 0.	86 0.	136 0.	36 8.051E-03	
37 0.	87 0.	137 0.	37 6.580E-03	
38 0.	88 0.	138 0.	38 5.213E-03	
39 0.	89 0.	139 0.	39 3.964E-03	
40 3.243E-02	90 0.	140 0.	40 2.863E-03	
41 0.	91 0.	141 0.	41 1.942E-03	
42 0.	92 0.	142 0.	42 1.217E-03	
43 0.	93 0.	143 0.	43 6.499E-04	
44 0.	94 0.	144 0.	44 2.483E-04	
45 0.	95 0.	145 0.	45 3.618E-05	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.340E-02	51 0.
2 0.	52 0.	102 0.	2 6.442E-02	52 0.
3 0.	53 0.	103 0.	3 7.396E-02	53 0.
4 0.	54 0.	104 0.	4 8.100E-02	54 0.
5 0.	55 0.	105 0.	5 8.516E-02	55 0.
6 0.	56 0.	106 0.	6 8.629E-02	56 0.
7 0.	57 0.	107 0.	7 8.439E-02	57 0.
8 0.	58 0.	108 0.	8 7.965E-02	58 0.
9 1.273E+00	59 0.	109 0.	9 7.239E-02	59 0.
10 2.465E-01	60 0.	110 0.	10 6.308E-02	60 0.
11 0.	61 0.	111 0.	11 5.235E-02	61 0.
12 6.289E-01	62 0.	112 0.	12 4.096E-02	62 0.
13 2.983E-01	63 0.	113 0.	13 2.982E-02	63 0.
14 0.	64 0.	114 0.	14 1.996E-02	64 0.
15 8.803E-02	65 0.	115 0.	15 1.258E-02	65 0.
16 0.	66 0.	116 0.	16 8.973E-03	66 0.
17 0.	67 0.	117 0.	17 8.441E-03	67 0.
18 0.	68 0.	118 0.	18 8.134E-03	68 0.
19 9.576E-01	69 0.	119 0.	19 7.759E-03	69 0.
20 0.	70 0.	120 0.	20 7.327E-03	70 0.
21 0.	71 0.	121 0.	21 6.850E-03	71 0.
22 3.130E-02	72 0.	122 0.	22 6.340E-03	72 0.
23 0.	73 0.	123 0.	23 5.813E-03	73 0.
24 0.	74 0.	124 0.	24 5.285E-03	74 0.
25 8.509E-02	75 0.	125 0.	25 4.775E-03	75 0.
26 0.	76 0.	126 0.	26 4.301E-03	
27 0.	77 0.	127 0.	27 3.884E-03	
28 0.	78 0.	128 0.	28 3.507E-03	
29 0.	79 0.	129 0.	29 3.131E-03	
30 0.	80 0.	130 0.	30 2.762E-03	
31 9.781E-03	81 0.	131 0.	31 2.408E-03	
32 0.	82 0.	132 0.	32 2.078E-03	
33 0.	83 0.	133 0.	33 1.783E-03	
34 0.	84 0.	134 0.	34 1.533E-03	
35 0.	85 0.	135 0.	35 1.321E-03	
36 0.	86 0.	136 0.	36 1.116E-03	
37 6.358E-02	87 0.	137 0.	37 9.186E-04	
38 0.	88 0.	138 0.	38 7.305E-04	
39 0.	89 0.	139 0.	39 5.555E-04	
40 0.	90 0.	140 0.	40 3.975E-04	
41 0.	91 0.	141 0.	41 2.602E-04	
42 0.	92 0.	142 0.	42 1.478E-04	
43 0.	93 0.	143 0.	43 6.440E-05	
44 0.	94 0.	144 0.	44 1.445E-05	
45 0.	95 0.	145 0.	45 1.835E-07	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.799E-02	51 0.
2 0.	52 0.	102 0.	2 2.299E-02	52 0.
3 0.	53 0.	103 0.	3 2.812E-02	53 0.
4 0.	54 0.	104 0.	4 3.306E-02	54 0.
5 0.	55 0.	105 0.	5 3.766E-02	55 0.
6 0.	56 0.	106 0.	6 4.178E-02	56 0.
7 0.	57 0.	107 0.	7 4.535E-02	57 0.
8 1.154E+00	58 0.	108 0.	8 4.827E-02	58 0.
9 2.860E-01	59 0.	109 0.	9 5.049E-02	59 0.
10 0.	60 0.	110 0.	10 5.199E-02	60 0.
11 4.290E-01	61 0.	111 0.	11 5.273E-02	61 0.
12 1.621E-01	62 0.	112 0.	12 5.271E-02	62 0.
13 0.	63 0.	113 0.	13 5.195E-02	63 0.
14 3.718E-01	64 0.	114 0.	14 5.048E-02	64 0.
15 0.	65 0.	115 0.	15 4.835E-02	65 0.
16 0.	66 0.	116 0.	16 4.562E-02	66 0.
17 2.669E-01	67 0.	117 0.	17 4.236E-02	67 0.
18 1.335E-01	68 0.	118 0.	18 3.868E-02	68 0.
19 2.097E-01	69 0.	119 0.	19 3.468E-02	69 0.
20 3.813E-02	70 0.	120 0.	20 3.048E-02	70 0.
21 5.720E-02	71 0.	121 0.	21 2.624E-02	71 0.
22 0.	72 0.	122 0.	22 2.210E-02	72 0.
23 0.	73 0.	123 0.	23 1.823E-02	73 0.
24 0.	74 0.	124 0.	24 1.483E-02	74 0.
25 1.335E-01	75 0.	125 0.	25 1.208E-02	75 0.
26 0.	76 0.	126 0.	26 1.021E-02	
27 0.	77 0.	127 0.	27 9.235E-03	
28 2.860E-02	78 0.	128 0.	28 8.473E-03	
29 4.767E-02	79 0.	129 0.	29 7.754E-03	
30 0.	80 0.	130 0.	30 7.101E-03	
31 0.	81 0.	131 0.	31 6.481E-03	
32 5.720E-02	82 0.	132 0.	32 5.844E-03	
33 2.860E-02	83 0.	133 0.	33 5.193E-03	
34 0.	84 0.	134 0.	34 4.539E-03	
35 0.	85 0.	135 0.	35 3.890E-03	
36 0.	86 0.	136 0.	36 3.257E-03	
37 0.	87 0.	137 0.	37 2.650E-03	
38 4.767E-02	88 0.	138 0.	38 2.080E-03	
39 0.	89 0.	139 0.	39 1.559E-03	
40 0.	90 0.	140 0.	40 1.099E-03	
41 0.	91 0.	141 0.	41 7.141E-04	
42 0.	92 0.	142 0.	42 4.167E-04	
43 0.	93 0.	143 0.	43 2.094E-04	
44 0.	94 0.	144 0.	44 7.162E-05	
45 0.	95 0.	145 0.	45 7.025E-06	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 45-RH-110M - ENDF NO. 344

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.124E-03	51 1.924E-03
2 0.	52 0.	102 0.	2 5.471E-03	52 1.196E-03
3 0.	53 0.	103 0.	3 6.967E-03	53 6.342E-04
4 0.	54 0.	104 0.	4 8.548E-03	54 2.407E-04
5 0.	55 0.	105 0.	5 1.018E-02	55 3.488E-05
6 0.	56 0.	106 0.	6 1.186E-02	56 0.
7 0.	57 0.	107 0.	7 1.354E-02	57 0.
8 1.500E-01	58 0.	108 0.	8 1.522E-02	58 0.
9 0.	59 0.	109 0.	9 1.688E-02	59 0.
10 0.	60 0.	110 0.	10 1.850E-02	60 0.
11 0.	61 0.	111 0.	11 2.008E-02	61 0.
12 0.	62 0.	112 0.	12 2.159E-02	62 0.
13 0.	63 0.	113 0.	13 2.302E-02	63 0.
14 0.	64 0.	114 0.	14 2.437E-02	64 0.
15 0.	65 0.	115 0.	15 2.562E-02	65 0.
16 0.	66 0.	116 0.	16 2.677E-02	66 0.
17 0.	67 0.	117 0.	17 2.780E-02	67 0.
18 0.	68 0.	118 0.	18 2.872E-02	68 0.
19 0.	69 0.	119 0.	19 2.951E-02	69 0.
20 0.	70 0.	120 0.	20 3.017E-02	70 0.
21 0.	71 0.	121 0.	21 3.070E-02	71 0.
22 0.	72 0.	122 0.	22 3.109E-02	72 0.
23 0.	73 0.	123 0.	23 3.135E-02	73 0.
24 0.	74 0.	124 0.	24 3.146E-02	74 0.
25 0.	75 0.	125 0.	25 3.144E-02	75 0.
26 0.	76 0.	126 0.	26 3.127E-02	
27 0.	77 0.	127 0.	27 3.097E-02	
28 0.	78 0.	128 0.	28 3.054E-02	
29 0.	79 0.	129 0.	29 2.998E-02	
30 0.	80 0.	130 0.	30 2.929E-02	
31 0.	81 0.	131 0.	31 2.847E-02	
32 0.	82 0.	132 0.	32 2.755E-02	
33 0.	83 0.	133 0.	33 2.651E-02	
34 0.	84 0.	134 0.	34 2.537E-02	
35 0.	85 0.	135 0.	35 2.414E-02	
36 0.	86 0.	136 0.	36 2.283E-02	
37 0.	87 0.	137 0.	37 2.144E-02	
38 0.	88 0.	138 0.	38 1.999E-02	
39 0.	89 0.	139 0.	39 1.849E-02	
40 0.	90 0.	140 0.	40 1.695E-02	
41 0.	91 0.	141 0.	41 1.539E-02	
42 0.	92 0.	142 0.	42 1.382E-02	
43 0.	93 0.	143 0.	43 1.225E-02	
44 0.	94 0.	144 0.	44 1.070E-02	
45 0.	95 0.	145 0.	45 9.191E-03	
46 0.	96 0.	146 0.	46 7.735E-03	
47 0.	97 0.	147 0.	47 6.350E-03	
48 0.	98 0.	148 0.	48 5.057E-03	
49 0.	99 0.	149 0.	49 3.874E-03	
50 0.	100 0.	150 0.	50 2.823E-03	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	4.400E-06	51	0.	101	0.	1	1.347E-01	51	0.
2	0.	52	0.	102	0.	2	1.490E-01	52	0.
3	9.900E-06	53	0.	103	0.	3	1.544E-01	53	0.
4	0.	54	0.	104	0.	4	1.494E-01	54	0.
5	0.	55	0.	105	0.	5	1.344E-01	55	0.
6	0.	56	0.	106	0.	6	1.114E-01	56	0.
7	1.232E-04	57	0.	107	0.	7	8.286E-02	57	0.
8	3.300E-06	58	0.	108	0.	8	5.261E-02	58	0.
9	6.600E-05	59	0.	109	0.	9	2.516E-02	59	0.
10	0.	60	0.	110	0.	10	5.973E-03	60	0.
11	0.	61	0.	111	0.	11	6.500E-05	61	0.
12	9.900E-06	62	0.	112	0.	12	0.	62	0.
13	1.397E-04	63	0.	113	0.	13	0.	63	0.
14	0.	64	0.	114	0.	14	0.	64	0.
15	2.310E-05	65	0.	115	0.	15	0.	65	0.
16	4.070E-05	66	0.	116	0.	16	0.	66	0.
17	0.	67	0.	117	0.	17	0.	67	0.
18	1.100E-06	68	0.	118	0.	18	0.	68	0.
19	0.	69	0.	119	0.	19	0.	69	0.
20	0.	70	0.	120	0.	20	0.	70	0.
21	0.	71	0.	121	0.	21	0.	71	0.
22	0.	72	0.	122	0.	22	0.	72	0.
23	0.	73	0.	123	0.	23	0.	73	0.
24	0.	74	0.	124	0.	24	0.	74	0.
25	0.	75	0.	125	0.	25	0.	75	0.
26	0.	76	0.	126	0.	26	0.		
27	0.	77	0.	127	0.	27	0.		
28	0.	78	0.	128	0.	28	0.		
29	0.	79	0.	129	0.	29	0.		
30	0.	80	0.	130	0.	30	0.		
31	0.	81	0.	131	0.	31	0.		
32	0.	82	0.	132	0.	32	0.		
33	0.	83	0.	133	0.	33	0.		
34	0.	84	0.	134	0.	34	0.		
35	0.	85	0.	135	0.	35	0.		
36	0.	86	0.	136	0.	36	0.		
37	0.	87	0.	137	0.	37	0.		
38	0.	88	0.	138	0.	38	0.		
39	0.	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	0.	91	0.	141	0.	41	0.		
42	0.	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	0.	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	0.	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 1.000E+00	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.071E-02	51 0.
2 6.960E-03	52 0.	102 0.	2 4.903E-02	52 0.
3 2.175E-05	53 0.	103 0.	3 5.653E-02	53 0.
4 6.090E-04	54 0.	104 0.	4 6.261E-02	54 0.
5 2.349E-04	55 0.	105 0.	5 6.722E-02	55 0.
6 8.961E-04	56 0.	106 0.	6 7.047E-02	56 0.
7 2.175E-04	57 0.	107 0.	7 7.254E-02	57 0.
8 5.246E-03	58 0.	108 0.	8 7.348E-02	58 0.
9 2.210E-03	59 0.	109 0.	9 7.283E-02	59 0.
10 1.305E-03	60 0.	110 0.	10 7.057E-02	60 0.
11 6.682E-03	61 0.	111 0.	11 6.684E-02	61 0.
12 8.961E-03	62 0.	112 0.	12 6.178E-02	62 0.
13 4.315E-03	63 0.	113 0.	13 5.555E-02	63 0.
14 6.455E-03	64 0.	114 0.	14 4.840E-02	64 0.
15 1.549E-03	65 0.	115 0.	15 4.065E-02	65 0.
16 5.742E-04	66 0.	116 0.	16 3.261E-02	66 0.
17 3.776E-03	67 0.	117 0.	17 2.460E-02	67 0.
18 4.350E-05	68 0.	118 0.	18 1.699E-02	68 0.
19 2.871E-04	69 0.	119 0.	19 1.023E-02	69 0.
20 3.480E-04	70 0.	120 0.	20 4.799E-03	70 0.
21 7.656E-04	71 0.	121 0.	21 1.239E-03	71 0.
22 3.741E-04	72 0.	122 0.	22 3.098E-05	72 0.
23 1.566E-03	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 3.480E-05	75 0.	125 0.	25 0.	75 0.
26 8.700E-05	76 0.	126 0.	26 0.	
27 7.830E-05	77 0.	127 0.	27 0.	
28 7.438E-03	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 7.656E-03	80 0.	130 0.	30 0.	
31 3.132E-04	81 0.	131 0.	31 0.	
32 3.219E-04	82 0.	132 0.	32 0.	
33 2.001E-04	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 8.700E-06	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 2.610E-05	88 0.	138 0.	38 0.	
39 8.700E-06	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.606E-02	51 0.
2 7.140E-02	52 0.	102 0.	2 4.678E-02	52 0.
3 3.111E-03	53 0.	103 0.	3 3.528E-02	53 0.
4 3.190E-01	54 0.	104 0.	4 2.570E-02	54 0.
5 0.	55 0.	105 0.	5 1.875E-02	55 0.
6 8.619E-03	56 0.	106 0.	6 1.510E-02	56 0.
7 1.428E-03	57 0.	107 0.	7 1.396E-02	57 0.
8 6.222E-02	58 0.	108 0.	8 1.313E-02	58 0.
9 3.764E-02	59 0.	109 0.	9 1.244E-02	59 0.
10 1.887E-02	60 0.	110 0.	10 1.166E-02	60 0.
11 1.428E-02	61 0.	111 0.	11 1.069E-02	61 0.
12 4.004E-02	62 0.	112 0.	12 9.566E-03	62 0.
13 3.851E-02	63 0.	113 0.	13 8.390E-03	63 0.
14 3.340E-02	64 0.	114 0.	14 7.226E-03	64 0.
15 1.224E-02	65 0.	115 0.	15 6.146E-03	65 0.
16 2.065E-02	66 0.	116 0.	16 5.123E-03	66 0.
17 2.397E-03	67 0.	117 0.	17 4.128E-03	67 0.
18 3.315E-03	68 0.	118 0.	18 3.152E-03	68 0.
19 1.530E-03	69 0.	119 0.	19 2.222E-03	69 0.
20 4.590E-03	70 0.	120 0.	20 1.388E-03	70 0.
21 3.417E-03	71 0.	121 0.	21 7.045E-04	71 0.
22 6.171E-03	72 0.	122 0.	22 2.314E-04	72 0.
23 1.173E-02	73 0.	123 0.	23 2.572E-05	73 0.
24 6.120E-03	74 0.	124 0.	24 2.936E-08	74 0.
25 4.590E-04	75 0.	125 0.	25 0.	75 0.
26 1.173E-02	76 0.	126 0.	26 0.	
27 5.100E-04	77 0.	127 0.	27 0.	
28 3.570E-04	78 0.	128 0.	28 0.	
29 9.180E-04	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 2.295E-02	84 0.	134 0.	34 0.	
35 2.754E-03	85 0.	135 0.	35 0.	
36 4.794E-03	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.530E-03	89 0.	139 0.	39 0.	
40 7.140E-03	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 6.630E-04	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 1.000E+00	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.429E-01	51 0.
2 2.600E-03	52 0.	102 0.	2 1.556E-01	52 0.
3 0.	53 0.	103 0.	3 1.584E-01	53 0.
4 0.	54 0.	104 0.	4 1.500E-01	54 0.
5 1.600E-02	55 0.	105 0.	5 1.318E-01	55 0.
6 0.	56 0.	106 0.	6 1.063E-01	56 0.
7 6.300E-02	57 0.	107 0.	7 7.728E-02	57 0.
8 0.	58 0.	108 0.	8 4.874E-02	58 0.
9 0.	59 0.	109 0.	9 2.334E-02	59 0.
10 0.	60 0.	110 0.	10 5.586E-03	60 0.
11 0.	61 0.	111 0.	11 6.453E-05	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 2.000E-03	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 1.000E+00	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 9.729E-03	101 0.	1 2.323E-02	51 0.
2 0.	52 1.142E-03	102 0.	2 2.795E-02	52 0.
3 2.115E-03	53 0.	103 0.	3 3.221E-02	53 0.
4 0.	54 2.496E-03	104 0.	4 3.567E-02	54 0.
5 2.115E-04	55 4.653E-04	105 0.	5 3.830E-02	55 0.
6 3.384E-04	56 1.269E-03	106 0.	6 4.017E-02	56 0.
7 2.115E-04	57 4.188E-03	107 0.	7 4.144E-02	57 0.
8 6.345E-04	58 4.230E-04	108 0.	8 4.218E-02	58 0.
9 5.499E-04	59 1.269E-04	109 0.	9 4.244E-02	59 0.
10 6.768E-04	60 1.692E-04	110 0.	10 4.228E-02	60 0.
11 9.306E-04	61 0.	111 0.	11 4.180E-02	61 0.
12 3.384E-04	62 4.230E-05	112 0.	12 4.120E-02	62 0.
13 4.579E-01	63 8.460E-05	113 0.	13 4.056E-02	63 0.
14 3.464E-02	64 8.460E-05	114 0.	14 3.981E-02	64 0.
15 2.369E-03	65 8.460E-05	115 0.	15 3.889E-02	65 0.
16 7.403E-03	66 0.	116 0.	16 3.782E-02	66 0.
17 1.819E-03	67 0.	117 0.	17 3.662E-02	67 0.
18 1.328E-02	68 1.692E-04	118 0.	18 3.533E-02	68 0.
19 2.115E-03	69 0.	119 0.	19 3.395E-02	69 0.
20 3.384E-04	70 0.	120 0.	20 3.248E-02	70 0.
21 1.058E-03	71 0.	121 0.	21 3.087E-02	71 0.
22 1.184E-03	72 0.	122 0.	22 2.907E-02	72 0.
23 5.711E-03	73 0.	123 0.	23 2.710E-02	73 0.
24 6.768E-04	74 0.	124 0.	24 2.501E-02	74 0.
25 0.	75 0.	125 0.	25 2.283E-02	75 0.
26 4.230E-03	76 0.	126 0.	26 2.062E-02	
27 1.189E-02	77 0.	127 0.	27 1.840E-02	
28 5.795E-02	78 0.	128 0.	28 1.620E-02	
29 7.191E-04	79 0.	129 0.	29 1.402E-02	
30 6.430E-03	80 0.	130 0.	30 1.189E-02	
31 6.345E-03	81 0.	131 0.	31 9.841E-03	
32 6.345E-04	82 0.	132 0.	32 7.935E-03	
33 2.876E-02	83 0.	133 0.	33 6.226E-03	
34 9.306E-04	84 0.	134 0.	34 4.763E-03	
35 9.306E-04	85 0.	135 0.	35 3.494E-03	
36 8.756E-03	86 0.	136 0.	36 2.370E-03	
37 0.	87 0.	137 0.	37 1.422E-03	
38 2.792E-03	88 0.	138 0.	38 6.884E-04	
39 1.904E-03	89 0.	139 0.	39 2.058E-04	
40 8.037E-04	90 0.	140 0.	40 1.172E-05	
41 0.	91 0.	141 0.	41 0.	
42 7.318E-03	92 0.	142 0.	42 0.	
43 2.191E-02	93 0.	143 0.	43 0.	
44 4.230E-04	94 0.	144 0.	44 0.	
45 4.061E-03	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 4.230E-05	97 0.	147 0.	47 0.	
48 4.230E-05	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.706E-02	51 0.
2 0.	52 0.	102 0.	2 7.900E-02	52 0.
3 0.	53 0.	103 0.	3 8.868E-02	53 0.
4 0.	54 0.	104 0.	4 9.500E-02	54 0.
5 3.012E-02	55 0.	105 0.	5 9.758E-02	55 0.
6 0.	56 0.	106 0.	6 9.637E-02	56 0.
7 0.	57 0.	107 0.	7 9.158E-02	57 0.
8 0.	58 0.	108 0.	8 8.362E-02	58 0.
9 5.568E-02	59 0.	109 0.	9 7.314E-02	59 0.
10 2.830E-02	60 0.	110 0.	10 6.098E-02	60 0.
11 0.	61 0.	111 0.	11 4.819E-02	61 0.
12 1.278E-02	62 0.	112 0.	12 3.603E-02	62 0.
13 3.286E-02	63 0.	113 0.	13 2.594E-02	63 0.
14 5.203E-01	64 0.	114 0.	14 1.938E-02	64 0.
15 0.	65 0.	115 0.	15 1.481E-02	65 0.
16 0.	66 0.	116 0.	16 1.053E-02	66 0.
17 3.104E-02	67 0.	117 0.	17 6.710E-03	67 0.
18 0.	68 0.	118 0.	18 3.610E-03	68 0.
19 0.	69 0.	119 0.	19 1.503E-03	69 0.
20 0.	70 0.	120 0.	20 3.085E-04	70 0.
21 0.	71 0.	121 0.	21 1.508E-06	71 0.
22 8.078E-01	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 1.187E-02	74 0.	124 0.	24 0.	74 0.
25 9.128E-01	75 0.	125 0.	25 0.	75 0.
26 3.651E-02	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 8.215E-03	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 4.564E-03	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 3.195E-02	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 1.826E-03	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

49-IN-118M - ENDF NO. 457

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.609E-03	51 0.
2 0.	52 0.	102 0.	2 1.239E-02	52 0.
3 0.	53 0.	103 0.	3 1.538E-02	53 0.
4 0.	54 0.	104 0.	4 1.841E-02	54 0.
5 0.	55 0.	105 0.	5 2.142E-02	55 0.
6 0.	56 0.	106 0.	6 2.434E-02	56 0.
7 0.	57 0.	107 0.	7 2.713E-02	57 0.
8 0.	58 0.	108 0.	8 2.974E-02	58 0.
9 0.	59 0.	109 0.	9 3.214E-02	59 0.
10 0.	60 0.	110 0.	10 3.429E-02	60 0.
11 4.500E-02	61 0.	111 0.	11 3.617E-02	61 0.
12 0.	62 0.	112 0.	12 3.777E-02	62 0.
13 0.	63 0.	113 0.	13 3.905E-02	63 0.
14 0.	64 0.	114 0.	14 4.001E-02	64 0.
15 0.	65 0.	115 0.	15 4.065E-02	65 0.
16 0.	66 0.	116 0.	16 4.097E-02	66 0.
17 1.200E-02	67 0.	117 0.	17 4.095E-02	67 0.
18 0.	68 0.	118 0.	18 4.062E-02	68 0.
19 0.	69 0.	119 0.	19 3.998E-02	69 0.
20 0.	70 0.	120 0.	20 3.904E-02	70 0.
21 0.	71 0.	121 0.	21 3.783E-02	71 0.
22 0.	72 0.	122 0.	22 3.636E-02	72 0.
23 0.	73 0.	123 0.	23 3.468E-02	73 0.
24 0.	74 0.	124 0.	24 3.279E-02	74 0.
25 1.500E-01	75 0.	125 0.	25 3.075E-02	75 0.
26 0.	76 0.	126 0.	26 2.859E-02	
27 0.	77 0.	127 0.	27 2.635E-02	
28 0.	78 0.	128 0.	28 2.408E-02	
29 0.	79 0.	129 0.	29 2.184E-02	
30 0.	80 0.	130 0.	30 1.966E-02	
31 0.	81 0.	131 0.	31 1.754E-02	
32 0.	82 0.	132 0.	32 1.540E-02	
33 0.	83 0.	133 0.	33 1.326E-02	
34 0.	84 0.	134 0.	34 1.115E-02	
35 0.	85 0.	135 0.	35 9.111E-03	
36 0.	86 0.	136 0.	36 7.172E-03	
37 0.	87 0.	137 0.	37 5.377E-03	
38 0.	88 0.	138 0.	38 3.767E-03	
39 0.	89 0.	139 0.	39 2.385E-03	
40 0.	90 0.	140 0.	40 1.276E-03	
41 0.	91 0.	141 0.	41 4.887E-04	
42 0.	92 0.	142 0.	42 7.133E-05	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.861E-02	51 0.
2 6.500E-02	52 0.	102 0.	2 3.554E-02	52 0.
3 0.	53 2.000E-02	103 0.	3 4.234E-02	53 0.
4 8.400E-02	54 0.	104 0.	4 4.852E-02	54 0.
5 0.	55 0.	105 0.	5 5.384E-02	55 0.
6 1.500E-02	56 0.	106 0.	6 5.814E-02	56 0.
7 0.	57 0.	107 0.	7 6.130E-02	57 0.
8 1.400E-02	58 0.	108 0.	8 6.325E-02	58 0.
9 4.200E-02	59 0.	109 0.	9 6.397E-02	59 0.
10 8.000E-03	60 0.	110 0.	10 6.348E-02	60 0.
11 1.600E-02	61 0.	111 0.	11 6.183E-02	61 0.
12 1.500E-02	62 0.	112 0.	12 5.911E-02	62 0.
13 3.100E-02	63 0.	113 0.	13 5.546E-02	63 0.
14 1.800E-02	64 0.	114 0.	14 5.103E-02	64 0.
15 9.600E-02	65 0.	115 0.	15 4.602E-02	65 0.
16 0.	66 0.	116 0.	16 4.065E-02	66 0.
17 0.	67 0.	117 0.	17 3.502E-02	67 0.
18 3.100E-01	68 0.	118 0.	18 2.938E-02	68 0.
19 1.500E-02	69 0.	119 0.	19 2.395E-02	69 0.
20 1.050E-01	70 0.	120 0.	20 1.900E-02	70 0.
21 6.200E-01	71 0.	121 0.	21 1.471E-02	71 0.
22 0.	72 0.	122 0.	22 1.133E-02	72 0.
23 0.	73 0.	123 0.	23 9.007E-03	73 0.
24 1.047E+00	74 0.	124 0.	24 7.306E-03	74 0.
25 5.000E-03	75 0.	125 0.	25 5.703E-03	75 0.
26 1.240E-01	76 0.	126 0.	26 4.227E-03	
27 0.	77 0.	127 0.	27 2.936E-03	
28 0.	78 0.	128 0.	28 1.875E-03	
29 0.	79 0.	129 0.	29 1.017E-03	
30 4.500E-02	80 0.	130 0.	30 3.946E-04	
31 0.	81 0.	131 0.	31 5.824E-05	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 4.000E-02	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 6.500E-02	91 0.	141 0.	41 0.	
42 1.200E-02	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 2.500E-02	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 1.400E-02	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 9.000E-03	98 0.	148 0.	48 0.	
49 9.000E-03	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.530E-03	51 2.582E+03
2 0.	52 0.	102 0.	2 5.937E-03	52 1.789E+03
3 0.	53 0.	103 0.	3 7.489E-03	53 1.121E+03
4 0.	54 0.	104 0.	4 9.124E-03	54 5.938E+04
5 0.	55 0.	105 0.	5 1.081E-02	55 2.252E+04
6 0.	56 0.	106 0.	6 1.252E-02	56 3.261E+05
7 0.	57 0.	107 0.	7 1.424E-02	57 0.
8 0.	58 0.	108 0.	8 1.594E-02	58 0.
9 0.	59 0.	109 0.	9 1.762E-02	59 0.
10 0.	60 0.	110 0.	10 1.924E-02	60 0.
11 0.	61 0.	111 0.	11 2.081E-02	61 0.
12 0.	62 0.	112 0.	12 2.230E-02	62 0.
13 0.	63 0.	113 0.	13 2.370E-02	63 0.
14 0.	64 0.	114 0.	14 2.501E-02	64 0.
15 0.	65 0.	115 0.	15 2.622E-02	65 0.
16 0.	66 0.	116 0.	16 2.730E-02	66 0.
17 0.	67 0.	117 0.	17 2.827E-02	67 0.
18 0.	68 0.	118 0.	18 2.911E-02	68 0.
19 0.	69 0.	119 0.	19 2.982E-02	69 0.
20 0.	70 0.	120 0.	20 3.039E-02	70 0.
21 0.	71 0.	121 0.	21 3.082E-02	71 0.
22 0.	72 0.	122 0.	22 3.112E-02	72 0.
23 0.	73 0.	123 0.	23 3.127E-02	73 0.
24 1.500E-01	74 0.	124 0.	24 3.128E-02	74 0.
25 0.	75 0.	125 0.	25 3.115E-02	75 0.
26 0.	76 0.	126 0.	26 3.088E-02	
27 0.	77 0.	127 0.	27 3.047E-02	
28 0.	78 0.	128 0.	28 2.994E-02	
29 0.	79 0.	129 0.	29 2.928E-02	
30 0.	80 0.	130 0.	30 2.850E-02	
31 0.	81 0.	131 0.	31 2.760E-02	
32 0.	82 0.	132 0.	32 2.660E-02	
33 0.	83 0.	133 0.	33 2.550E-02	
34 0.	84 0.	134 0.	34 2.432E-02	
35 0.	85 0.	135 0.	35 2.306E-02	
36 0.	86 0.	136 0.	36 2.173E-02	
37 0.	87 0.	137 0.	37 2.035E-02	
38 0.	88 0.	138 0.	38 1.893E-02	
39 0.	89 0.	139 0.	39 1.748E-02	
40 0.	90 0.	140 0.	40 1.602E-02	
41 0.	91 0.	141 0.	41 1.456E-02	
42 0.	92 0.	142 0.	42 1.312E-02	
43 0.	93 0.	143 0.	43 1.172E-02	
44 0.	94 0.	144 0.	44 1.038E-02	
45 0.	95 0.	145 0.	45 9.106E-03	
46 0.	96 0.	146 0.	46 7.880E-03	
47 0.	97 0.	147 0.	47 6.692E-03	
48 0.	98 0.	148 0.	48 5.554E-03	
49 0.	99 0.	149 0.	49 4.480E-03	
50 0.	100 0.	150 0.	50 3.484E-03	

50-SN-125 - ENDF NO. 496

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.668E-02	51 0.
2 1.506E-03	52 0.	102 0.	2 7.548E-02	52 0.
3 0.	53 0.	103 0.	3 6.198E-02	53 0.
4 0.	54 0.	104 0.	4 5.227E-02	54 0.
5 2.658E-04	55 0.	105 0.	5 5.148E-02	55 0.
6 1.156E-03	56 0.	106 0.	6 5.446E-02	56 0.
7 1.334E-02	57 0.	107 0.	7 5.685E-02	57 0.
8 2.313E-03	58 0.	108 0.	8 5.809E-02	58 0.
9 1.772E-04	59 0.	109 0.	9 5.822E-02	59 0.
10 1.329E-02	60 0.	110 0.	10 5.730E-02	60 0.
11 6.202E-05	61 0.	111 0.	11 5.544E-02	61 0.
12 5.316E-05	62 0.	112 0.	12 5.272E-02	62 0.
13 0.	63 0.	113 0.	13 4.930E-02	63 0.
14 4.164E-04	64 0.	114 0.	14 4.527E-02	64 0.
15 0.	65 0.	115 0.	15 4.056E-02	65 0.
16 0.	66 0.	116 0.	16 3.531E-02	66 0.
17 4.873E-02	67 0.	117 0.	17 2.968E-02	67 0.
18 2.392E-03	68 0.	118 0.	18 2.388E-02	68 0.
19 4.138E-02	69 0.	119 0.	19 1.815E-02	69 0.
20 0.	70 0.	120 0.	20 1.272E-02	70 0.
21 2.658E-03	71 0.	121 0.	21 7.893E-03	71 0.
22 1.400E-01	72 0.	122 0.	22 3.957E-03	72 0.
23 8.860E-05	73 0.	123 0.	23 1.240E-03	73 0.
24 3.420E-03	74 0.	124 0.	24 7.918E-05	74 0.
25 2.277E-03	75 0.	125 0.	25 0.	75 0.
26 1.772E-04	76 0.	126 0.	26 0.	
27 6.202E-04	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 4.784E-03	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 9.746E-05	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 1.506E-03	87 0.	137 0.	37 0.	
38 7.088E-04	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 3.544E-05	90 0.	140 0.	40 0.	
41 2.126E-02	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 4.607E-04	95 0.	145 0.	45 0.	
46 1.861E-03	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.172E-02	51 0.
2 0.	52 0.	102 0.	2 5.001E-02	52 0.
3 0.	53 0.	103 0.	3 5.755E-02	53 0.
4 0.	54 0.	104 0.	4 6.381E-02	54 0.
5 0.	55 0.	105 0.	5 6.868E-02	55 0.
6 6.637E-04	56 0.	106 0.	6 7.212E-02	56 0.
7 9.488E-01	57 0.	107 0.	7 7.413E-02	57 0.
8 8.533E-04	58 0.	108 0.	8 7.462E-02	58 0.
9 0.	59 0.	109 0.	9 7.338E-02	59 0.
10 0.	60 0.	110 0.	10 7.048E-02	60 0.
11 0.	61 0.	111 0.	11 6.601E-02	61 0.
12 1.991E-03	62 0.	112 0.	12 6.013E-02	62 0.
13 1.517E-03	63 0.	113 0.	13 5.308E-02	63 0.
14 4.361E-04	64 0.	114 0.	14 4.515E-02	64 0.
15 0.	65 0.	115 0.	15 3.669E-02	65 0.
16 1.233E-04	66 0.	116 0.	16 2.809E-02	66 0.
17 6.637E-04	67 0.	117 0.	17 1.978E-02	67 0.
18 0.	68 0.	118 0.	18 1.226E-02	68 0.
19 0.	69 0.	119 0.	19 6.075E-03	69 0.
20 0.	70 0.	120 0.	20 1.817E-03	70 0.
21 9.481E-04	71 0.	121 0.	21 9.242E-05	71 0.
22 5.689E-04	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 2.844E-04	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 1.233E-04	76 0.	126 0.	26 0.	
27 2.844E-04	77 0.	127 0.	27 0.	
28 9.481E-04	78 0.	128 0.	28 0.	
29 6.826E-03	79 0.	129 0.	29 0.	
30 1.801E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 5.689E-05	82 0.	132 0.	32 0.	
33 1.327E-03	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 2.844E-04	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 2.844E-04	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 1.896E-05	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



## GAMMA SPECTRUM

## BETA SPECTRUM

1	9.046E-04	51	8.754E-04	101	0.	1	1.937E-01	51	0.
2	1.018E-02	52	1.196E-02	102	0.	2	1.543E-01	52	0.
3	2.860E-02	53	0.	103	0.	3	1.126E-01	53	0.
4	3.881E-02	54	1.255E-02	104	0.	4	7.783E-02	54	0.
5	2.976E-02	55	0.	105	0.	5	5.181E-02	55	0.
6	7.441E-02	56	0.	106	0.	6	3.773E-02	56	0.
7	8.754E-03	57	1.021E-02	107	0.	7	3.099E-02	57	0.
8	2.218E-02	58	2.043E-03	108	0.	8	2.738E-02	58	0.
9	7.003E-02	59	0.	109	0.	9	2.523E-02	59	0.
10	7.470E-02	60	0.	110	0.	10	2.391E-02	60	0.
11	5.311E-02	61	0.	111	0.	11	2.332E-02	61	0.
12	4.640E-02	62	0.	112	0.	12	2.303E-02	62	0.
13	1.984E-02	63	0.	113	0.	13	2.273E-02	63	0.
14	1.459E-03	64	0.	114	0.	14	2.222E-02	64	0.
15	2.626E-03	65	0.	115	0.	15	2.150E-02	65	0.
16	4.377E-03	66	0.	116	0.	16	2.059E-02	66	0.
17	1.932E-01	67	0.	117	0.	17	1.948E-02	67	0.
18	6.799E-02	68	0.	118	0.	18	1.819E-02	68	0.
19	1.255E-02	69	0.	119	0.	19	1.677E-02	69	0.
20	8.200E-02	70	0.	120	0.	20	1.526E-02	70	0.
21	3.064E-02	71	0.	121	0.	21	1.367E-02	71	0.
22	1.827E-01	72	0.	122	0.	22	1.200E-02	72	0.
23	2.941E-01	73	0.	123	0.	23	1.027E-02	73	0.
24	2.918E-02	74	0.	124	0.	24	8.517E-03	74	0.
25	4.961E-03	75	0.	125	0.	25	6.795E-03	75	0.
26	5.836E-03	76	0.	126	0.	26	5.150E-03		
27	5.836E-04	77	0.	127	0.	27	3.634E-03		
28	5.252E-03	78	0.	128	0.	28	2.305E-03		
29	2.334E-03	79	0.	129	0.	29	1.222E-03		
30	1.751E-02	80	0.	130	0.	30	4.496E-04		
31	5.836E-04	81	0.	131	0.	31	5.520E-05		
32	1.517E-02	82	0.	132	0.	32	0.		
33	9.046E-03	83	0.	133	0.	33	0.		
34	3.793E-03	84	0.	134	0.	34	0.		
35	3.502E-03	85	0.	135	0.	35	0.		
36	3.502E-03	86	0.	136	0.	36	0.		
37	8.754E-04	87	0.	137	0.	37	0.		
38	0.	88	0.	138	0.	38	0.		
39	5.836E-04	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	4.085E-02	91	0.	141	0.	41	0.		
42	5.836E-04	92	0.	142	0.	42	0.		
43	3.998E-03	93	0.	143	0.	43	0.		
44	2.597E-03	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	0.	96	0.	146	0.	46	0.		
47	9.338E-03	97	0.	147	0.	47	0.		
48	8.754E-04	98	0.	148	0.	48	0.		
49	2.626E-03	99	0.	149	0.	49	0.		
50	8.754E-04	100	0.	150	0.	50	0.		

50-SN-127M - ENDF No. 500

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.231E-02	51 0.
2 0.	52 0.	102 0.	2 2.808E-02	52 0.
3 0.	53 0.	103 0.	3 3.395E-02	53 0.
4 0.	54 0.	104 0.	4 3.956E-02	54 0.
5 0.	55 0.	105 0.	5 4.472E-02	55 0.
6 0.	56 0.	106 0.	6 4.928E-02	56 0.
7 0.	57 0.	107 0.	7 5.313E-02	57 0.
8 0.	58 0.	108 0.	8 5.620E-02	58 0.
9 0.	59 0.	109 0.	9 5.841E-02	59 0.
10 1.000E+00	60 0.	110 0.	10 5.973E-02	60 0.
11 0.	61 0.	111 0.	11 6.014E-02	61 0.
12 0.	62 0.	112 0.	12 5.963E-02	62 0.
13 0.	63 0.	113 0.	13 5.824E-02	63 0.
14 0.	64 0.	114 0.	14 5.599E-02	64 0.
15 0.	65 0.	115 0.	15 5.295E-02	65 0.
16 0.	66 0.	116 0.	16 4.919E-02	66 0.
17 0.	67 0.	117 0.	17 4.481E-02	67 0.
18 0.	68 0.	118 0.	18 3.992E-02	68 0.
19 0.	69 0.	119 0.	19 3.466E-02	69 0.
20 0.	70 0.	120 0.	20 2.916E-02	70 0.
21 0.	71 0.	121 0.	21 2.360E-02	71 0.
22 0.	72 0.	122 0.	22 1.816E-02	72 0.
23 0.	73 0.	123 0.	23 1.304E-02	73 0.
24 0.	74 0.	124 0.	24 8.446E-03	74 0.
25 0.	75 0.	125 0.	25 4.618E-03	75 0.
26 0.	76 0.	126 0.	26 1.803E-03	
27 0.	77 0.	127 0.	27 2.677E-04	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 50-SN-128 - ENDF No. 501

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GAMMA SPECTRUM

## BETA SPECTRUM

1	1.284E-01	51 0.	101 0.	1	1.798E-01	51 0.
2	3.024E-01	52 0.	102 0.	2	1.807E-01	52 0.
3	0.	53 0.	103 0.	3	1.659E-01	53 0.
4	7.440E-02	54 0.	104 0.	4	1.366E-01	54 0.
5	6.000E-03	55 0.	105 0.	5	9.740E-02	55 0.
6	0.	56 0.	106 0.	6	5.565E-02	56 0.
7	0.	57 0.	107 0.	7	2.083E-02	57 0.
8	0.	58 0.	108 0.	8	3.125E-03	58 0.
9	1.140E-01	59 0.	109 0.	9	1.153E-05	59 0.
10	6.600E-01	60 0.	110 0.	10	0.	60 0.
11	0.	61 0.	111 0.	11	0.	61 0.
12	1.800E-01	62 0.	112 0.	12	0.	62 0.
13	0.	63 0.	113 0.	13	0.	63 0.
14	1.320E-01	64 0.	114 0.	14	0.	64 0.
15	0.	65 0.	115 0.	15	0.	65 0.
16	0.	66 0.	116 0.	16	0.	66 0.
17	0.	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.724E-02	51 0.
2 4.896E-01	52 0.	102 0.	2 6.862E-02	52 0.
3 0.	53 0.	103 0.	3 7.863E-02	53 0.
4 0.	54 0.	104 0.	4 8.629E-02	54 0.
5 4.224E-01	55 0.	105 0.	5 9.118E-02	55 0.
6 0.	56 0.	106 0.	6 9.310E-02	56 0.
7 4.320E-01	57 0.	107 0.	7 9.199E-02	57 0.
8 0.	58 0.	108 0.	8 8.795E-02	58 0.
9 0.	59 0.	109 0.	9 8.123E-02	59 0.
10 0.	60 0.	110 0.	10 7.218E-02	60 0.
11 3.936E-02	61 0.	111 0.	11 6.130E-02	61 0.
12 0.	62 0.	112 0.	12 4.922E-02	62 0.
13 0.	63 0.	113 0.	13 3.667E-02	63 0.
14 1.920E-02	64 0.	114 0.	14 2.451E-02	64 0.
15 0.	65 0.	115 0.	15 1.372E-02	65 0.
16 0.	66 0.	116 0.	16 5.403E-03	66 0.
17 0.	67 0.	117 0.	17 7.619E-04	67 0.
18 4.224E-01	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 3.840E-01	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 2.016E-02	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 1.344E-01	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	4.288E-02	51 0.	101 0.	1	7.029E-01	51 0.
2	0.	52 0.	102 0.	2	1.919E-01	52 0.
3	3.413E-03	53 0.	103 0.	3	6.574E-02	53 0.
4	7.124E-02	54 0.	104 0.	4	2.382E-02	54 0.
5	5.889E-03	55 0.	105 0.	5	9.875E-03	55 0.
6	0.	56 0.	106 0.	6	2.236E-03	56 0.
7	4.590E-03	57 0.	107 0.	7	1.329E-05	57 0.
8	1.540E-02	58 0.	108 0.	8	0.	58 0.
9	3.064E-01	59 0.	109 0.	9	0.	59 0.
10	1.057E-01	60 0.	110 0.	10	0.	60 0.
11	0.	61 0.	111 0.	11	0.	61 0.
12	0.	62 0.	112 0.	12	0.	62 0.
13	3.461E-01	63 0.	113 0.	13	0.	63 0.
14	1.761E-02	64 0.	114 0.	14	0.	64 0.
15	0.	65 0.	115 0.	15	0.	65 0.
16	0.	66 0.	116 0.	16	0.	66 0.
17	0.	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.850E-01	51 0.
2 1.340E-02	52 0.	102 0.	2 1.833E-01	52 0.
3 0.	53 0.	103 0.	3 1.695E-01	53 0.
4 1.400E-03	54 0.	104 0.	4 1.461E-01	54 0.
5 0.	55 0.	105 0.	5 1.171E-01	55 0.
6 1.078E-01	56 0.	106 0.	6 8.643E-02	56 0.
7 2.400E-03	57 0.	107 0.	7 5.582E-02	57 0.
8 8.900E-03	58 0.	108 0.	8 3.016E-02	58 0.
9 8.280E-02	59 0.	109 0.	9 1.446E-02	59 0.
10 2.420E-01	60 0.	110 0.	10 6.982E-03	60 0.
11 3.470E-02	61 0.	111 0.	11 2.918E-03	61 0.
12 3.100E-03	62 0.	112 0.	12 1.373E-03	62 0.
13 4.550E-02	63 0.	113 0.	13 7.184E-04	63 0.
14 3.928E-01	64 0.	114 0.	14 2.790E-04	64 0.
15 1.880E-02	65 0.	115 0.	15 3.700E-05	65 0.
16 1.418E-01	66 0.	116 0.	16 0.	66 0.
17 5.800E-03	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 4.900E-03	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 3.400E-03	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 3.400E-03	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 7.000E-04	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.311E+01	51 0.
2 0.	52 0.	102 0.	2 1.361E+01	52 0.
3 1.000E-02	53 0.	103 0.	3 1.316E+01	53 0.
4 5.000E-03	54 0.	104 0.	4 1.183E+01	54 0.
5 5.300E-02	55 0.	105 0.	5 9.904E-02	55 0.
6 6.000E-03	56 0.	106 0.	6 7.845E-02	56 0.
7 6.700E-01	57 0.	107 0.	7 5.999E-02	57 0.
8 3.000E-02	58 0.	108 0.	8 4.488E-02	58 0.
9 2.500E-02	59 0.	109 0.	9 3.438E-02	59 0.
10 3.000E-02	60 0.	110 0.	10 2.726E-02	60 0.
11 4.500E-01	61 0.	111 0.	11 2.115E-02	61 0.
12 2.000E-02	62 0.	112 0.	12 1.654E-02	62 0.
13 6.870E-01	63 0.	113 0.	13 1.293E-02	63 0.
14 2.450E-01	64 0.	114 0.	14 9.555E-03	64 0.
15 1.040E+00	65 0.	115 0.	15 6.687E-03	65 0.
16 1.015E+00	66 0.	116 0.	16 4.474E-03	66 0.
17 1.790E-01	67 0.	117 0.	17 2.769E-03	67 0.
18 3.900E-02	68 0.	118 0.	18 1.393E-03	68 0.
19 1.000E-02	69 0.	119 0.	19 4.315E-04	69 0.
20 1.000E-02	70 0.	120 0.	20 2.525E-05	70 0.
21 3.500E-02	71 0.	121 0.	21 0.	71 0.
22 2.000E-02	72 0.	122 0.	22 0.	72 0.
23 2.800E-02	73 0.	123 0.	23 0.	73 0.
24 6.000E-02	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 2.000E-02	76 0.	126 0.	26 0.	
27 1.000E-02	77 0.	127 0.	27 0.	
28 1.800E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 5.000E-03	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 5.000E-03	84 0.	134 0.	34 0.	
35 3.000E-03	85 0.	135 0.	35 0.	
36 4.000E-03	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 51-SB-128M - ENDF No. 523

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.366E-02	51 0.
2 0.	52 0.	102 0.	2 4.131E-02	52 0.
3 0.	53 0.	103 0.	3 4.865E-02	53 0.
4 1.000E-02	54 0.	104 0.	4 5.514E-02	54 0.
5 0.	55 0.	105 0.	5 6.049E-02	55 0.
6 0.	56 0.	106 0.	6 6.454E-02	56 0.
7 9.500E-01	57 0.	107 0.	7 6.719E-02	57 0.
8 0.	58 0.	108 0.	8 6.840E-02	58 0.
9 0.	59 0.	109 0.	9 6.816E-02	59 0.
10 0.	60 0.	110 0.	10 6.655E-02	60 0.
11 0.	61 0.	111 0.	11 6.369E-02	61 0.
12 3.400E-02	62 0.	112 0.	12 5.973E-02	62 0.
13 0.	63 0.	113 0.	13 5.490E-02	63 0.
14 0.	64 0.	114 0.	14 4.944E-02	64 0.
15 1.000E+00	65 0.	115 0.	15 4.364E-02	65 0.
16 1.074E+00	66 0.	116 0.	16 3.776E-02	66 0.
17 2.300E-02	67 0.	117 0.	17 3.206E-02	67 0.
18 0.	68 0.	118 0.	18 2.650E-02	68 0.
19 2.400E-02	69 0.	119 0.	19 2.104E-02	69 0.
20 0.	70 0.	120 0.	20 1.579E-02	70 0.
21 1.000E-02	71 0.	121 0.	21 1.090E-02	71 0.
22 3.000E-03	72 0.	122 0.	22 6.602E-03	72 0.
23 1.200E-02	73 0.	123 0.	23 3.172E-03	73 0.
24 1.800E-02	74 0.	124 0.	24 8.920E-04	74 0.
25 0.	75 0.	125 0.	25 3.568E-05	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 6.000E-03	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 3.000E-03	82 0.	132 0.	32 0.	
33 5.000E-03	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



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GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	0.	101	0.	1	2.190E-01	51	0.
2	2.543E-03	52	0.	102	0.	2	1.892E-01	52	0.
3	5.548E-03	53	0.	103	0.	3	1.503E-01	53	0.
4	1.909E-02	54	0.	104	0.	4	1.074E-01	54	0.
5	1.378E-02	55	0.	105	0.	5	7.007E-02	55	0.
6	1.479E-02	56	0.	106	0.	6	5.001E-02	56	0.
7	1.133E-02	57	0.	107	0.	7	4.211E-02	57	0.
8	4.484E-02	58	0.	108	0.	8	3.662E-02	58	0.
9	1.849E-02	59	0.	109	0.	9	3.074E-02	59	0.
10	2.311E-03	60	0.	110	0.	10	2.488E-02	60	0.
11	1.734E-01	61	0.	111	0.	11	1.958E-02	61	0.
12	0.	62	0.	112	0.	12	1.488E-02	62	0.
13	2.173E-02	63	0.	113	0.	13	1.052E-02	63	0.
14	1.082E-01	64	0.	114	0.	14	6.847E-03	64	0.
15	0.	65	0.	115	0.	15	4.176E-03	65	0.
16	4.299E-02	66	0.	116	0.	16	2.589E-03	66	0.
17	4.623E-01	67	0.	117	0.	17	1.604E-03	67	0.
18	1.988E-02	68	0.	118	0.	18	9.218E-04	68	0.
19	2.094E-01	69	0.	119	0.	19	5.325E-04	69	0.
20	7.998E-02	70	0.	120	0.	20	2.895E-04	70	0.
21	1.318E-01	71	0.	121	0.	21	1.181E-04	71	0.
22	5.548E-04	72	0.	122	0.	22	2.470E-05	72	0.
23	6.935E-03	73	0.	123	0.	23	1.886E-07	73	0.
24	3.005E-03	74	0.	124	0.	24	0.	74	0.
25	6.935E-03	75	0.	125	0.	25	0.	75	0.
26	1.618E-02	76	0.	126	0.	26	0.		
27	8.321E-03	77	0.	127	0.	27	0.		
28	0.	78	0.	128	0.	28	0.		
29	6.935E-03	79	0.	129	0.	29	0.		
30	6.010E-03	80	0.	130	0.	30	0.		
31	3.467E-03	81	0.	131	0.	31	0.		
32	1.193E-02	82	0.	132	0.	32	0.		
33	1.387E-03	83	0.	133	0.	33	0.		
34	9.939E-03	84	0.	134	0.	34	0.		
35	5.825E-02	85	0.	135	0.	35	0.		
36	6.472E-04	86	0.	136	0.	36	0.		
37	2.311E-03	87	0.	137	0.	37	0.		
38	2.589E-03	88	0.	138	0.	38	0.		
39	2.959E-03	89	0.	139	0.	39	0.		
40	7.859E-04	90	0.	140	0.	40	0.		
41	1.849E-04	91	0.	141	0.	41	0.		
42	4.808E-03	92	0.	142	0.	42	0.		
43	2.311E-03	93	0.	143	0.	43	0.		
44	6.010E-04	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	1.849E-04	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

GAMMA SPECTRUM			BETA SPECTRUM	
1 0.	51 0.	101 0.	1 2.045E-02	51 0.
2 0.	52 0.	102 0.	2 2.564E-02	52 0.
3 0.	53 0.	103 0.	3 3.092E-02	53 0.
4 5.386E-01	54 0.	104 0.	4 3.594E-02	54 0.
5 0.	55 0.	105 0.	5 4.055E-02	55 0.
6 0.	56 0.	106 0.	6 4.462E-02	56 0.
7 3.820E-02	57 0.	107 0.	7 4.805E-02	57 0.
8 2.197E-02	58 0.	108 0.	8 5.077E-02	58 0.
9 0.	59 0.	109 0.	9 5.274E-02	59 0.
10 1.910E-02	60 0.	110 0.	10 5.394E-02	60 0.
11 0.	61 0.	111 0.	11 5.434E-02	61 0.
12 0.	62 0.	112 0.	12 5.397E-02	62 0.
13 0.	63 0.	113 0.	13 5.285E-02	63 0.
14 0.	64 0.	114 0.	14 5.104E-02	64 0.
15 0.	65 0.	115 0.	15 4.860E-02	65 0.
16 8.385E-01	66 0.	116 0.	16 4.562E-02	66 0.
17 9.550E-01	67 0.	117 0.	17 4.219E-02	67 0.
18 0.	68 0.	118 0.	18 3.844E-02	68 0.
19 1.910E-02	69 0.	119 0.	19 3.451E-02	69 0.
20 0.	70 0.	120 0.	20 3.053E-02	70 0.
21 2.779E-01	71 0.	121 0.	21 2.669E-02	71 0.
22 0.	72 0.	122 0.	22 2.316E-02	72 0.
23 1.041E-01	73 0.	123 0.	23 2.015E-02	73 0.
24 0.	74 0.	124 0.	24 1.753E-02	74 0.
25 6.017E-02	75 0.	125 0.	25 1.491E-02	75 0.
26 0.	76 0.	126 0.	26 1.230E-02	
27 0.	77 0.	127 0.	27 9.783E-03	
28 0.	78 0.	128 0.	28 7.416E-03	
29 0.	79 0.	129 0.	29 5.276E-03	
30 0.	80 0.	130 0.	30 3.445E-03	
31 0.	81 0.	131 0.	31 2.000E-03	
32 2.292E-02	82 0.	132 0.	32 9.994E-04	
33 0.	83 0.	133 0.	33 3.963E-04	
34 0.	84 0.	134 0.	34 1.183E-04	
35 0.	85 0.	135 0.	35 9.298E-06	
36 0.	86 0.	136 0.	36 2.246E-11	
37 0.	87 0.	137 0.	37 0.	
38 9.550E-03	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.767E-02	51 0.
2 0.	52 0.	102 0.	2 3.417E-02	52 0.
3 0.	53 0.	103 0.	3 4.052E-02	53 0.
4 9.747E-01	54 0.	104 0.	4 4.627E-02	54 0.
5 0.	55 0.	105 0.	5 5.120E-02	55 0.
6 3.532E-02	56 0.	106 0.	6 5.516E-02	56 0.
7 8.711E-01	57 0.	107 0.	7 5.806E-02	57 0.
8 0.	58 0.	108 0.	8 5.984E-02	58 0.
9 0.	59 0.	109 0.	9 6.050E-02	59 0.
10 2.001E-01	60 0.	110 0.	10 6.006E-02	60 0.
11 0.	61 0.	111 0.	11 5.859E-02	61 0.
12 0.	62 0.	112 0.	12 5.620E-02	62 0.
13 0.	63 0.	113 0.	13 5.302E-02	63 0.
14 0.	64 0.	114 0.	14 4.923E-02	64 0.
15 2.119E-01	65 0.	115 0.	15 4.503E-02	65 0.
16 1.177E+00	66 0.	116 0.	16 4.068E-02	66 0.
17 1.177E+00	67 0.	117 0.	17 3.642E-02	67 0.
18 0.	68 0.	118 0.	18 3.238E-02	68 0.
19 0.	69 0.	119 0.	19 2.838E-02	69 0.
20 2.354E-02	70 0.	120 0.	20 2.442E-02	70 0.
21 0.	71 0.	121 0.	21 2.058E-02	71 0.
22 2.178E-02	72 0.	122 0.	22 1.703E-02	72 0.
23 0.	73 0.	123 0.	23 1.390E-02	73 0.
24 0.	74 0.	124 0.	24 1.099E-02	74 0.
25 0.	75 0.	125 0.	25 8.212E-03	75 0.
26 8.711E-02	76 0.	126 0.	26 5.673E-03	
27 0.	77 0.	127 0.	27 3.474E-03	
28 0.	78 0.	128 0.	28 1.725E-03	
29 4.944E-02	79 0.	129 0.	29 5.431E-04	
30 0.	80 0.	130 0.	30 4.223E-05	
31 0.	81 0.	131 0.	31 0.	
32 2.943E-02	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 3.532E-02	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.060E-02	89 0.	139 0.	39 0.	
40 1.766E-02	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 2.832E-03	101 0.	1 6.738E-02	51 0.
2 0.	52 0.	102 0.	2 7.731E-02	52 0.
3 0.	53 0.	103 0.	3 8.450E-02	53 0.
4 0.	54 9.912E-03	104 0.	4 8.814E-02	54 0.
5 0.	55 0.	105 0.	5 8.822E-02	55 0.
6 3.304E-02	56 0.	106 0.	6 8.513E-02	56 0.
7 1.982E-02	57 0.	107 0.	7 7.963E-02	57 0.
8 0.	58 0.	108 0.	8 7.271E-02	58 0.
9 2.690E-02	59 0.	109 0.	9 6.494E-02	59 0.
10 0.	60 0.	110 0.	10 5.657E-02	60 0.
11 0.	61 0.	111 0.	11 4.787E-02	61 0.
12 0.	62 0.	112 0.	12 3.924E-02	62 0.
13 2.166E-01	63 0.	113 0.	13 3.125E-02	63 0.
14 1.699E-02	64 0.	114 0.	14 2.457E-02	64 0.
15 3.162E-02	65 0.	115 0.	15 1.938E-02	65 0.
16 0.	66 0.	116 0.	16 1.590E-02	66 0.
17 2.030E-02	67 0.	117 0.	17 1.326E-02	67 0.
18 3.870E-02	68 0.	118 0.	18 1.087E-02	68 0.
19 7.387E-01	69 0.	119 0.	19 8.724E-03	69 0.
20 4.720E-03	70 0.	120 0.	20 6.860E-03	70 0.
21 2.360E-03	71 0.	121 0.	21 5.270E-03	71 0.
22 0.	72 0.	122 0.	22 3.962E-03	72 0.
23 9.912E-02	73 0.	123 0.	23 2.910E-03	73 0.
24 9.440E-03	74 0.	124 0.	24 2.033E-03	74 0.
25 5.570E-02	75 0.	125 0.	25 1.361E-03	75 0.
26 3.068E-02	76 0.	126 0.	26 8.648E-04	
27 6.136E-03	77 0.	127 0.	27 4.992E-04	
28 1.605E-02	78 0.	128 0.	28 2.894E-04	
29 0.	79 0.	129 0.	29 1.859E-04	
30 1.699E-02	80 0.	130 0.	30 1.046E-04	
31 2.266E-02	81 0.	131 0.	31 4.397E-05	
32 1.935E-02	82 0.	132 0.	32 8.582E-06	
33 1.369E-02	83 0.	133 0.	33 3.155E-08	
34 0.	84 0.	134 0.	34 0.	
35 2.030E-02	85 0.	135 0.	35 0.	
36 7.080E-03	86 0.	136 0.	36 0.	
37 9.912E-03	87 0.	137 0.	37 0.	
38 4.154E-02	88 0.	138 0.	38 0.	
39 4.720E-03	89 0.	139 0.	39 0.	
40 1.888E-02	90 0.	140 0.	40 0.	
41 4.720E-03	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 6.608E-03	93 0.	143 0.	43 0.	
44 2.313E-02	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 3.304E-03	96 0.	146 0.	46 0.	
47 1.652E-02	97 0.	147 0.	47 0.	
48 1.227E-02	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 3.304E-03	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.048E-02	51 0.
2 0.	52 0.	102 0.	2 1.344E-02	52 0.
3 1.000E-01	53 0.	103 0.	3 1.659E-02	53 0.
4 0.	54 0.	104 0.	4 1.979E-02	54 0.
5 0.	55 0.	105 0.	5 2.294E-02	55 0.
6 0.	56 0.	106 0.	6 2.599E-02	56 0.
7 0.	57 0.	107 0.	7 2.888E-02	57 0.
8 0.	58 0.	108 0.	8 3.156E-02	58 0.
9 0.	59 0.	109 0.	9 3.401E-02	59 0.
10 0.	60 0.	110 0.	10 3.618E-02	60 0.
11 0.	61 0.	111 0.	11 3.805E-02	61 0.
12 0.	62 0.	112 0.	12 3.959E-02	62 0.
13 4.100E-02	63 0.	113 0.	13 4.080E-02	63 0.
14 6.900E-01	64 0.	114 0.	14 4.166E-02	64 0.
15 0.	65 0.	115 0.	15 4.216E-02	65 0.
16 0.	66 0.	116 0.	16 4.230E-02	66 0.
17 0.	67 0.	117 0.	17 4.209E-02	67 0.
18 0.	68 0.	118 0.	18 4.154E-02	68 0.
19 0.	69 0.	119 0.	19 4.065E-02	69 0.
20 1.260E+00	70 0.	120 0.	20 3.944E-02	70 0.
21 0.	71 0.	121 0.	21 3.794E-02	71 0.
22 0.	72 0.	122 0.	22 3.617E-02	72 0.
23 7.900E-02	73 0.	123 0.	23 3.416E-02	73 0.
24 8.500E-02	74 0.	124 0.	24 3.195E-02	74 0.
25 2.700E-02	75 0.	125 0.	25 2.957E-02	75 0.
26 0.	76 0.	126 0.	26 2.707E-02	
27 0.	77 0.	127 0.	27 2.449E-02	
28 0.	78 0.	128 0.	28 2.189E-02	
29 0.	79 0.	129 0.	29 1.933E-02	
30 0.	80 0.	130 0.	30 1.685E-02	
31 2.300E-02	81 0.	131 0.	31 1.453E-02	
32 0.	82 0.	132 0.	32 1.242E-02	
33 0.	83 0.	133 0.	33 1.060E-02	
34 0.	84 0.	134 0.	34 8.933E-03	
35 0.	85 0.	135 0.	35 7.336E-03	
36 0.	86 0.	136 0.	36 5.839E-03	
37 0.	87 0.	137 0.	37 4.475E-03	
38 0.	88 0.	138 0.	38 3.278E-03	
39 0.	89 0.	139 0.	39 2.283E-03	
40 0.	90 0.	140 0.	40 1.485E-03	
41 0.	91 0.	141 0.	41 8.405E-04	
42 0.	92 0.	142 0.	42 3.635E-04	
43 0.	93 0.	143 0.	43 7.968E-05	
44 0.	94 0.	144 0.	44 8.608E-07	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.048E-02	51 0.
2 0.	52 0.	102 0.	2 1.345E-02	52 0.
3 3.500E-01	53 0.	103 0.	3 1.662E-02	53 0.
4 4.100E-01	54 0.	104 0.	4 1.984E-02	54 0.
5 0.	55 0.	105 0.	5 2.302E-02	55 0.
6 0.	56 0.	106 0.	6 2.610E-02	56 0.
7 0.	57 0.	107 0.	7 2.903E-02	57 0.
8 3.200E-01	58 0.	108 0.	8 3.177E-02	58 0.
9 0.	59 0.	109 0.	9 3.427E-02	59 0.
10 0.	60 0.	110 0.	10 3.650E-02	60 0.
11 0.	61 0.	111 0.	11 3.843E-02	61 0.
12 0.	62 0.	112 0.	12 4.004E-02	62 0.
13 0.	63 0.	113 0.	13 4.132E-02	63 0.
14 1.000E+00	64 0.	114 0.	14 4.225E-02	64 0.
15 0.	65 0.	115 0.	15 4.282E-02	65 0.
16 0.	66 0.	116 0.	16 4.302E-02	66 0.
17 0.	67 0.	117 0.	17 4.287E-02	67 0.
18 0.	68 0.	118 0.	18 4.237E-02	68 0.
19 0.	69 0.	119 0.	19 4.153E-02	69 0.
20 1.000E+00	70 0.	120 0.	20 4.036E-02	70 0.
21 1.400E-01	71 0.	121 0.	21 3.888E-02	71 0.
22 0.	72 0.	122 0.	22 3.712E-02	72 0.
23 0.	73 0.	123 0.	23 3.510E-02	73 0.
24 0.	74 0.	124 0.	24 3.285E-02	74 0.
25 0.	75 0.	125 0.	25 3.041E-02	75 0.
26 0.	76 0.	126 0.	26 2.783E-02	
27 0.	77 0.	127 0.	27 2.514E-02	
28 0.	78 0.	128 0.	28 2.238E-02	
29 0.	79 0.	129 0.	29 1.963E-02	
30 0.	80 0.	130 0.	30 1.692E-02	
31 0.	81 0.	131 0.	31 1.432E-02	
32 0.	82 0.	132 0.	32 1.189E-02	
33 0.	83 0.	133 0.	33 9.656E-03	
34 0.	84 0.	134 0.	34 7.556E-03	
35 0.	85 0.	135 0.	35 5.626E-03	
36 0.	86 0.	136 0.	36 3.916E-03	
37 0.	87 0.	137 0.	37 2.478E-03	
38 0.	88 0.	138 0.	38 1.369E-03	
39 0.	89 0.	139 0.	39 6.376E-04	
40 0.	90 0.	140 0.	40 2.095E-04	
41 0.	91 0.	141 0.	41 1.783E-05	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.095E-01	51 0.
2 0.	52 2.712E-02	102 0.	2 1.152E-01	52 0.
3 2.750E-02	53 3.099E-03	103 0.	3 1.146E-01	53 0.
4 0.	54 0.	104 0.	4 1.086E-01	54 0.
5 0.	55 4.648E-03	105 0.	5 1.003E-01	55 0.
6 0.	56 1.189E-01	106 0.	6 9.073E-02	56 0.
7 3.835E-02	57 0.	107 0.	7 7.912E-02	57 0.
8 1.975E-02	58 0.	108 0.	8 6.620E-02	58 0.
9 9.025E-02	59 0.	109 0.	9 5.372E-02	59 0.
10 1.356E-02	60 0.	110 0.	10 4.175E-02	60 0.
11 1.162E-02	61 8.909E-03	111 0.	11 3.092E-02	61 0.
12 0.	62 0.	112 0.	12 2.265E-02	62 0.
13 3.602E-02	63 0.	113 0.	13 1.773E-02	63 0.
14 3.564E-02	64 0.	114 0.	14 1.386E-02	64 0.
15 0.	65 0.	115 0.	15 1.059E-02	65 0.
16 0.	66 0.	116 0.	16 8.035E-03	66 0.
17 3.397E-01	67 0.	117 0.	17 6.016E-03	67 0.
18 3.099E-02	68 0.	118 0.	18 4.322E-03	68 0.
19 0.	69 0.	119 0.	19 2.861E-03	69 0.
20 0.	70 0.	120 0.	20 1.725E-03	70 0.
21 3.254E-02	71 4.648E-03	121 0.	21 9.379E-04	71 0.
22 4.063E-01	72 0.	122 0.	22 3.899E-04	72 0.
23 4.377E-02	73 0.	123 0.	23 9.838E-05	73 0.
24 3.602E-02	74 0.	124 0.	24 8.613E-06	74 0.
25 6.972E-03	75 0.	125 0.	25 2.160E-08	75 0.
26 6.546E-02	76 0.	126 0.	26 0.	
27 4.183E-02	77 0.	127 0.	27 0.	
28 5.423E-03	78 0.	128 0.	28 0.	
29 3.060E-02	79 0.	129 0.	29 0.	
30 3.525E-02	80 0.	130 0.	30 0.	
31 6.972E-03	81 0.	131 0.	31 0.	
32 4.106E-02	82 0.	132 0.	32 0.	
33 2.634E-02	83 0.	133 0.	33 0.	
34 3.873E-02	84 0.	134 0.	34 0.	
35 6.934E-02	85 0.	135 0.	35 0.	
36 2.440E-02	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 1.472E-02	88 0.	138 0.	38 0.	
39 1.588E-02	89 0.	139 0.	39 0.	
40 2.285E-02	90 0.	140 0.	40 0.	
41 4.261E-03	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 1.123E-02	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 1.588E-02	96 0.	146 0.	46 0.	
47 1.937E-02	97 0.	147 0.	47 0.	
48 7.360E-03	98 0.	148 0.	48 0.	
49 8.715E-02	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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## BETA SPECTRUM

1	1.518E-03	51	1.789E-02
2	2.009E-03	52	1.741E-02
3	2.563E-03	53	1.689E-02
4	3.162E-03	54	1.635E-02
5	3.799E-03	55	1.578E-02
6	4.466E-03	56	1.519E-02
7	5.158E-03	57	1.458E-02
8	5.871E-03	58	1.395E-02
9	6.600E-03	59	1.331E-02
10	7.339E-03	60	1.264E-02
11	8.087E-03	61	1.197E-02
12	8.837E-03	62	1.128E-02
13	9.588E-03	63	1.059E-02
14	1.033E-02	64	9.897E-03
15	1.107E-02	65	9.199E-03
16	1.180E-02	66	8.502E-03
17	1.252E-02	67	7.809E-03
18	1.322E-02	68	7.124E-03
19	1.390E-02	69	6.448E-03
20	1.456E-02	70	5.786E-03
21	1.520E-02	71	5.142E-03
22	1.582E-02	72	4.517E-03
23	1.641E-02	73	3.917E-03
24	1.696E-02	74	3.344E-03
25	1.749E-02	75	2.803E-03
26	1.798E-02		
27	1.845E-02		
28	1.887E-02		
29	1.926E-02		
30	1.962E-02		
31	1.993E-02		
32	2.021E-02		
33	2.044E-02		
34	2.064E-02		
35	2.079E-02		
36	2.091E-02		
37	2.098E-02		
38	2.102E-02		
39	2.101E-02		
40	2.096E-02		
41	2.087E-02		
42	2.074E-02		
43	2.057E-02		
44	2.036E-02		
45	2.012E-02		
46	1.984E-02		
47	1.951E-02		
48	1.916E-02		
49	1.877E-02		
50	1.835E-02		



## 51-SB-134M - ENDF No. 532

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.046E-03	51 9.676E-03
2 0.	52 0.	102 0.	2 3.998E-03	52 8.578E-03
3 4.900E-01	53 0.	103 0.	3 5.058E-03	53 7.513E-03
4 0.	54 0.	104 0.	4 6.189E-03	54 6.490E-03
5 0.	55 0.	105 0.	5 7.370E-03	55 5.518E-03
6 9.700E-01	56 0.	106 0.	6 8.587E-03	56 4.608E-03
7 0.	57 0.	107 0.	7 9.827E-03	57 3.770E-03
8 0.	58 0.	108 0.	8 1.108E-02	58 3.017E-03
9 0.	59 0.	109 0.	9 1.233E-02	59 2.358E-03
10 0.	60 0.	110 0.	10 1.358E-02	60 1.807E-03
11 0.	61 0.	111 0.	11 1.480E-02	61 1.375E-03
12 0.	62 0.	112 0.	12 1.600E-02	62 1.051E-03
13 0.	63 0.	113 0.	13 1.717E-02	63 7.737E-04
14 0.	64 0.	114 0.	14 1.829E-02	64 5.323E-04
15 5.700E-01	65 0.	115 0.	15 1.937E-02	65 3.310E-04
16 0.	66 0.	116 0.	16 2.039E-02	66 1.739E-04
17 0.	67 0.	117 0.	17 2.136E-02	67 6.517E-05
18 0.	68 0.	118 0.	18 2.225E-02	68 9.182E-06
19 0.	69 0.	119 0.	19 2.308E-02	69 0.
20 0.	70 0.	120 0.	20 2.384E-02	70 0.
21 0.	71 0.	121 0.	21 2.452E-02	71 0.
22 0.	72 0.	122 0.	22 2.512E-02	72 0.
23 0.	73 0.	123 0.	23 2.563E-02	73 0.
24 0.	74 0.	124 0.	24 2.607E-02	74 0.
25 0.	75 0.	125 0.	25 2.641E-02	75 0.
26 1.000E+00	76 0.	126 0.	26 2.667E-02	
27 0.	77 0.	127 0.	27 2.684E-02	
28 0.	78 0.	128 0.	28 2.692E-02	
29 0.	79 0.	129 0.	29 2.692E-02	
30 0.	80 0.	130 0.	30 2.682E-02	
31 0.	81 0.	131 0.	31 2.664E-02	
32 0.	82 0.	132 0.	32 2.638E-02	
33 0.	83 0.	133 0.	33 2.602E-02	
34 0.	84 0.	134 0.	34 2.559E-02	
35 0.	85 0.	135 0.	35 2.508E-02	
36 0.	86 0.	136 0.	36 2.449E-02	
37 0.	87 0.	137 0.	37 2.383E-02	
38 0.	88 0.	138 0.	38 2.310E-02	
39 0.	89 0.	139 0.	39 2.230E-02	
40 0.	90 0.	140 0.	40 2.144E-02	
41 0.	91 0.	141 0.	41 2.053E-02	
42 0.	92 0.	142 0.	42 1.957E-02	
43 0.	93 0.	143 0.	43 1.856E-02	
44 0.	94 0.	144 0.	44 1.751E-02	
45 0.	95 0.	145 0.	45 1.643E-02	
46 0.	96 0.	146 0.	46 1.533E-02	
47 0.	97 0.	147 0.	47 1.420E-02	
48 0.	98 0.	148 0.	48 1.307E-02	
49 0.	99 0.	149 0.	49 1.193E-02	
50 0.	100 0.	150 0.	50 1.079E-02	

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GAMMA SPECTRUM

1	6.670E-02	51	0.	101	0.
2	0.	52	0.	102	0.
3	2.700E-03	53	0.	103	0.
4	0.	54	0.	104	0.
5	0.	55	0.	105	0.
6	0.	56	0.	106	0.
7	0.	57	0.	107	0.
8	0.	58	0.	108	0.
9	0.	59	0.	109	0.
10	0.	60	0.	110	0.
11	0.	61	0.	111	0.
12	0.	62	0.	112	0.
13	0.	63	0.	113	0.
14	0.	64	0.	114	0.
15	0.	65	0.	115	0.
16	0.	66	0.	116	0.
17	0.	67	0.	117	0.
18	0.	68	0.	118	0.
19	0.	69	0.	119	0.
20	0.	70	0.	120	0.
21	0.	71	0.	121	0.
22	0.	72	0.	122	0.
23	0.	73	0.	123	0.
24	0.	74	0.	124	0.
25	0.	75	0.	125	0.
26	0.	76	0.	126	0.
27	0.	77	0.	127	0.
28	0.	78	0.	128	0.
29	0.	79	0.	129	0.
30	0.	80	0.	130	0.
31	0.	81	0.	131	0.
32	0.	82	0.	132	0.
33	0.	83	0.	133	0.
34	0.	84	0.	134	0.
35	0.	85	0.	135	0.
36	0.	86	0.	136	0.
37	0.	87	0.	137	0.
38	0.	88	0.	138	0.
39	0.	89	0.	139	0.
40	0.	90	0.	140	0.
41	0.	91	0.	141	0.
42	0.	92	0.	142	0.
43	0.	93	0.	143	0.
44	0.	94	0.	144	0.
45	0.	95	0.	145	0.
46	0.	96	0.	146	0.
47	0.	97	0.	147	0.
48	0.	98	0.	148	0.
49	0.	99	0.	149	0.
50	0.	100	0.	150	0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.528E-01	51 0.
2 5.561E-03	52 0.	102 0.	2 2.398E-01	52 0.
3 3.277E-05	53 0.	103 0.	3 2.061E-01	53 0.
4 2.979E-06	54 0.	104 0.	4 1.563E-01	54 0.
5 9.702E-04	55 0.	105 0.	5 9.734E-02	55 0.
6 0.	56 0.	106 0.	6 4.179E-02	56 0.
7 0.	57 0.	107 0.	7 6.241E-03	57 0.
8 1.354E-03	58 0.	108 0.	8 0.	58 0.
9 9.930E-03	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 1.291E-06	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 8.700E-02	51 0.
2 0.	52 0.	102 0.	2 9.750E-02	52 0.
3 0.	53 0.	103 0.	3 1.047E-01	53 0.
4 0.	54 0.	104 0.	4 1.082E-01	54 0.
5 2.000E-03	55 0.	105 0.	5 1.082E-01	55 0.
6 1.210E-02	56 0.	106 0.	6 1.038E-01	56 0.
7 5.000E-04	57 0.	107 0.	7 9.546E-02	57 0.
8 0.	58 0.	108 0.	8 8.381E-02	58 0.
9 0.	59 0.	109 0.	9 6.987E-02	59 0.
10 9.220E-02	60 0.	110 0.	10 5.493E-02	60 0.
11 9.000E-04	61 0.	111 0.	11 4.036E-02	61 0.
12 1.900E-03	62 0.	112 0.	12 2.647E-02	62 0.
13 9.000E-04	63 0.	113 0.	13 1.419E-02	63 0.
14 4.000E-04	64 0.	114 0.	14 4.961E-03	64 0.
15 1.300E-02	65 0.	115 0.	15 4.422E-04	65 0.
16 1.000E-04	66 0.	116 0.	16 0.	66 0.
17 4.700E-03	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 2.000E-04	70 0.	120 0.	20 0.	70 0.
21 3.000E-04	71 0.	121 0.	21 0.	71 0.
22 6.300E-03	72 0.	122 0.	22 0.	72 0.
23 2.400E-03	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 1.000E-04	75 0.	125 0.	25 0.	75 0.
26 2.000E-04	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 1.000E-04	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 52-TE-129M - ENDF NO. 549

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.885E-02	51 0.
2 0.	52 0.	102 0.	2 3.204E-02	52 0.
3 9.739E-03	53 0.	103 0.	3 3.489E-02	53 0.
4 0.	54 0.	104 0.	4 3.657E-02	54 0.
5 0.	55 0.	105 0.	5 3.676E-02	55 0.
6 0.	56 0.	106 0.	6 3.556E-02	56 0.
7 0.	57 0.	107 0.	7 3.318E-02	57 0.
8 0.	58 0.	108 0.	8 2.993E-02	58 0.
9 0.	59 0.	109 0.	9 2.622E-02	59 0.
10 0.	60 0.	110 0.	10 2.241E-02	60 0.
11 0.	61 0.	111 0.	11 1.824E-02	61 0.
12 3.608E-03	62 0.	112 0.	12 1.381E-02	62 0.
13 0.	63 0.	113 0.	13 9.420E-03	63 0.
14 1.013E-01	64 0.	114 0.	14 5.444E-03	64 0.
15 2.555E-02	65 0.	115 0.	15 2.287E-03	65 0.
16 1.106E-04	66 0.	116 0.	16 3.996E-04	66 0.
17 4.131E-03	67 0.	117 0.	17 1.730E-07	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 6.433E-04	71 0.	121 0.	21 0.	71 0.
22 5.830E-04	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 3.015E-05	78 0.	128 0.	28 0.	
29 1.407E-04	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 52-TE-131 - ENDF No. 551

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.243E-02	51 0.
2 0.	52 0.	102 0.	2 7.349E-02	52 0.
3 6.709E-01	53 0.	103 0.	3 8.266E-02	53 0.
4 0.	54 0.	104 0.	4 8.897E-02	54 0.
5 4.690E-04	55 0.	105 0.	5 9.206E-02	55 0.
6 2.948E-03	56 0.	106 0.	6 9.185E-02	56 0.
7 7.370E-03	57 0.	107 0.	7 8.847E-02	57 0.
8 9.849E-03	58 0.	108 0.	8 8.223E-02	58 0.
9 4.020E-04	59 0.	109 0.	9 7.361E-02	59 0.
10 2.294E-01	60 0.	110 0.	10 6.327E-02	60 0.
11 3.752E-03	61 0.	111 0.	11 5.205E-02	61 0.
12 1.407E-03	62 0.	112 0.	12 4.093E-02	62 0.
13 4.797E-02	63 0.	113 0.	13 3.105E-02	63 0.
14 1.641E-02	64 0.	114 0.	14 2.369E-02	64 0.
15 5.025E-03	65 0.	115 0.	15 1.840E-02	65 0.
16 0.	66 0.	116 0.	16 1.366E-02	66 0.
17 2.412E-03	67 0.	117 0.	17 9.681E-03	67 0.
18 2.010E-03	68 0.	118 0.	18 6.363E-03	68 0.
19 3.149E-02	69 0.	119 0.	19 3.528E-03	69 0.
20 3.893E-02	70 0.	120 0.	20 1.391E-03	70 0.
21 8.710E-03	71 0.	121 0.	21 2.054E-04	71 0.
22 2.077E-03	72 0.	122 0.	22 0.	72 0.
23 5.628E-02	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 7.571E-03	76 0.	126 0.	26 0.	
27 6.700E-05	77 0.	127 0.	27 0.	
28 6.030E-04	78 0.	128 0.	28 0.	
29 1.072E-03	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 1.742E-03	81 0.	131 0.	31 0.	
32 6.700E-05	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 6.700E-05	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.943E-01	51 0.
2 5.113E-02	52 0.	102 0.	2 2.152E-01	52 0.
3 4.255E-01	53 0.	103 0.	3 1.434E-01	53 0.
4 2.237E-02	54 0.	104 0.	4 7.538E-02	54 0.
5 1.928E-01	55 0.	105 0.	5 3.210E-02	55 0.
6 4.056E-02	56 0.	106 0.	6 1.605E-02	56 0.
7 1.173E-01	57 0.	107 0.	7 8.600E-03	57 0.
8 1.168E-02	58 0.	108 0.	8 4.292E-03	58 0.
9 7.497E-03	59 0.	109 0.	9 3.440E-03	59 0.
10 9.894E-02	60 0.	110 0.	10 3.410E-03	60 0.
11 0.	61 0.	111 0.	11 3.321E-03	61 0.
12 1.069E-02	62 0.	112 0.	12 3.178E-03	62 0.
13 1.069E-02	63 0.	113 0.	13 2.990E-03	63 0.
14 3.294E-02	64 0.	114 0.	14 2.766E-03	64 0.
15 2.655E-02	65 0.	115 0.	15 2.511E-03	65 0.
16 6.289E-01	66 0.	116 0.	16 2.221E-03	66 0.
17 5.863E-02	67 0.	117 0.	17 1.906E-03	67 0.
18 2.237E-01	68 0.	118 0.	18 1.577E-03	68 0.
19 4.265E-02	69 0.	119 0.	19 1.244E-03	69 0.
20 0.	70 0.	120 0.	20 9.218E-04	70 0.
21 0.	71 0.	121 0.	21 6.237E-04	71 0.
22 1.168E-02	72 0.	122 0.	22 3.655E-04	72 0.
23 1.683E-01	73 0.	123 0.	23 1.643E-04	73 0.
24 0.	74 0.	124 0.	24 3.822E-05	74 0.
25 1.066E-01	75 0.	125 0.	25 5.341E-07	75 0.
26 0.	76 0.	126 0.	26 0.	
27 1.069E-02	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 1.487E-02	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 1.598E-02	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 2.126E-02	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 3.196E-03	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 3.196E-03	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 52-TE-132 - ENDF NO. 553

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GAMMA SPECTRUM

## BETA SPECTRUM

1	1.390E-01	51 0.	101 0.	1	8.096E-01	51 0.
2	0.	52 0.	102 0.	2	1.899E-01	52 0.
3	3.700E-02	53 0.	103 0.	3	5.161E-04	53 0.
4	0.	54 0.	104 0.	4	0.	54 0.
5	8.500E-01	55 0.	105 0.	5	0.	55 0.
6	0.	56 0.	106 0.	6	0.	56 0.
7	0.	57 0.	107 0.	7	0.	57 0.
8	0.	58 0.	108 0.	8	0.	58 0.
9	0.	59 0.	109 0.	9	0.	59 0.
10	0.	60 0.	110 0.	10	0.	60 0.
11	0.	61 0.	111 0.	11	0.	61 0.
12	0.	62 0.	112 0.	12	0.	62 0.
13	0.	63 0.	113 0.	13	0.	63 0.
14	0.	64 0.	114 0.	14	0.	64 0.
15	0.	65 0.	115 0.	15	0.	65 0.
16	0.	66 0.	116 0.	16	0.	66 0.
17	0.	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50		100 0.	150 0.	50	0.	



GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 7.200E-04	101 0.	1 5.261E-02	51 0.
2 0.	52 0.	102 0.	2 6.087E-02	52 0.
3 0.	53 0.	103 0.	3 6.750E-02	53 0.
4 0.	54 0.	104 0.	4 7.206E-02	54 0.
5 0.	55 0.	105 0.	5 7.467E-02	55 0.
6 0.	56 0.	106 0.	6 7.521E-02	56 0.
7 7.200E-01	57 0.	107 0.	7 7.382E-02	57 0.
8 2.880E-03	58 0.	108 0.	8 7.099E-02	58 0.
9 3.240E-01	59 0.	109 0.	9 6.702E-02	59 0.
10 1.080E-02	60 0.	110 0.	10 6.179E-02	60 0.
11 5.760E-03	61 0.	111 0.	11 5.566E-02	61 0.
12 5.040E-03	62 0.	112 0.	12 4.916E-02	62 0.
13 2.880E-03	63 0.	113 0.	13 4.292E-02	63 0.
14 0.	64 0.	114 0.	14 3.700E-02	64 0.
15 8.640E-02	65 0.	115 0.	15 3.138E-02	65 0.
16 6.984E-02	66 0.	116 0.	16 2.623E-02	66 0.
17 4.464E-02	67 0.	117 0.	17 2.187E-02	67 0.
18 0.	68 0.	118 0.	18 1.786E-02	68 0.
19 5.544E-02	69 0.	119 0.	19 1.394E-02	69 0.
20 0.	70 0.	120 0.	20 1.027E-02	70 0.
21 8.208E-02	71 0.	121 0.	21 7.057E-03	71 0.
22 1.296E-02	72 0.	122 0.	22 4.518E-03	72 0.
23 0.	73 0.	123 0.	23 2.841E-03	73 0.
24 0.	74 0.	124 0.	24 1.701E-03	74 0.
25 0.	75 0.	125 0.	25 8.080E-04	75 0.
26 1.440E-02	76 0.	126 0.	26 2.223E-04	
27 1.231E-01	77 0.	127 0.	27 8.135E-06	
28 0.	78 0.	128 0.	28 0.	
29 9.360E-03	79 0.	129 0.	29 0.	
30 3.600E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 3.312E-02	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 5.760E-03	87 0.	137 0.	37 0.	
38 1.440E-02	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 2.880E-03	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 2.880E-03	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## 52-TE-133M - ENDF No. 555

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.485E-02	51 0.
2 1.374E-01	52 0.	102 0.	2 7.495E-02	52 0.
3 0.	53 0.	103 0.	3 8.252E-02	53 0.
4 1.710E-01	54 0.	104 0.	4 8.661E-02	54 0.
5 3.084E-02	55 0.	105 0.	5 8.698E-02	55 0.
6 1.776E-01	56 0.	106 0.	6 8.370E-02	56 0.
7 1.748E-01	57 0.	107 0.	7 7.712E-02	57 0.
8 1.589E-02	58 0.	108 0.	8 6.781E-02	58 0.
9 4.860E-02	59 0.	109 0.	9 5.660E-02	59 0.
10 2.150E-02	60 0.	110 0.	10 4.452E-02	60 0.
11 0.	61 0.	111 0.	11 3.280E-02	61 0.
12 2.523E-02	62 0.	112 0.	12 2.292E-02	62 0.
13 3.150E-01	63 0.	113 0.	13 1.654E-02	63 0.
14 0.	64 0.	114 0.	14 1.436E-02	64 0.
15 0.	65 0.	115 0.	15 1.296E-02	65 0.
16 0.	66 0.	116 0.	16 1.138E-02	66 0.
17 0.	67 0.	117 0.	17 9.677E-03	67 0.
18 2.701E-01	68 0.	118 0.	18 7.908E-03	68 0.
19 9.346E-01	69 0.	119 0.	19 6.138E-03	69 0.
20 1.019E-01	70 0.	120 0.	20 4.442E-03	70 0.
21 2.523E-02	71 0.	121 0.	21 2.899E-03	71 0.
22 0.	72 0.	122 0.	22 1.596E-03	72 0.
23 0.	73 0.	123 0.	23 6.271E-04	73 0.
24 0.	74 0.	124 0.	24 9.360E-05	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 6.168E-02	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 5.794E-02	91 0.	141 0.	41 0.	
42 1.121E-02	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.983E-01	51 0.
2 2.083E-01	52 0.	102 0.	2 3.033E-01	52 0.
3 6.675E-03	53 0.	103 0.	3 1.881E-01	53 0.
4 1.762E-01	54 0.	104 0.	4 8.890E-02	54 0.
5 3.097E-01	55 0.	105 0.	5 2.102E-02	55 0.
6 2.035E-01	56 0.	106 0.	6 8.516E-04	56 0.
7 0.	57 0.	107 0.	7 0.	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 1.735E-01	59 0.	109 0.	9 0.	59 0.
10 1.308E-01	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 1.922E-01	62 0.	112 0.	12 0.	62 0.
13 1.602E-02	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 1.922E-01	65 0.	115 0.	15 0.	65 0.
16 2.670E-01	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 1.201E-02	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.270E-01	51 0.
2 2.619E-02	52 0.	102 0.	2 2.740E-01	52 0.
3 0.	53 0.	103 0.	3 2.013E-01	53 0.
4 3.143E-03	54 0.	104 0.	4 1.272E-01	54 0.
5 0.	55 0.	105 0.	5 5.910E-02	55 0.
6 6.558E-02	56 0.	106 0.	6 1.124E-02	56 0.
7 4.400E-03	57 0.	107 0.	7 2.403E-04	57 0.
8 8.383E-01	58 0.	108 0.	8 4.256E-05	58 0.
9 6.286E-04	59 0.	109 0.	9 8.577E-09	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 3.143E-03	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 7.386E-02	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 1.676E-02	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 8.184E-04	101 0.	1 1.068E-01	51 0.
2 0.	52 0.	102 0.	2 1.171E-01	52 0.
3 3.069E-03	53 0.	103 0.	3 1.212E-01	53 0.
4 0.	54 0.	104 0.	4 1.184E-01	54 0.
5 0.	55 0.	105 0.	5 1.091E-01	55 0.
6 2.967E-02	56 0.	106 0.	6 9.474E-02	56 0.
7 0.	57 0.	107 0.	7 7.748E-02	57 0.
8 0.	58 0.	108 0.	8 6.005E-02	58 0.
9 0.	59 0.	109 0.	9 4.568E-02	59 0.
10 0.	60 0.	110 0.	10 3.496E-02	60 0.
11 2.251E-01	61 0.	111 0.	11 2.680E-02	61 0.
12 0.	62 0.	112 0.	12 2.117E-02	62 0.
13 1.494E-01	63 0.	113 0.	13 1.698E-02	63 0.
14 1.053E+00	64 0.	114 0.	14 1.398E-02	64 0.
15 6.905E-02	65 0.	115 0.	15 1.115E-02	65 0.
16 7.877E-01	66 0.	116 0.	16 8.463E-03	66 0.
17 8.491E-02	67 0.	117 0.	17 6.117E-03	67 0.
18 1.534E-02	68 0.	118 0.	18 4.281E-03	68 0.
19 2.864E-02	69 0.	119 0.	19 2.827E-03	69 0.
20 1.815E-01	70 0.	120 0.	20 1.682E-03	70 0.
21 6.138E-03	71 0.	121 0.	21 7.832E-04	71 0.
22 0.	72 0.	122 0.	22 2.000E-04	72 0.
23 5.013E-02	73 0.	123 0.	23 4.794E-06	73 0.
24 1.125E-02	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 3.171E-02	76 0.	126 0.	26 0.	
27 1.637E-03	77 0.	127 0.	27 0.	
28 9.821E-02	78 0.	128 0.	28 0.	
29 1.432E-02	79 0.	129 0.	29 0.	
30 1.739E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 1.330E-03	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 1.504E-02	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 1.688E-02	91 0.	141 0.	41 0.	
42 3.887E-03	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 3.785E-03	94 0.	144 0.	44 0.	
45 2.046E-03	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 3.171E-03	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.466E-01	51 0.
2 0.	52 0.	102 0.	2 1.420E-01	52 0.
3 0.	53 0.	103 0.	3 1.335E-01	53 0.
4 0.	54 0.	104 0.	4 1.220E-01	54 0.
5 0.	55 0.	105 0.	5 1.117E-01	55 0.
6 3.641E-03	56 0.	106 0.	6 1.005E-01	56 0.
7 0.	57 0.	107 0.	7 8.595E-02	57 0.
8 0.	58 0.	108 0.	8 6.834E-02	58 0.
9 2.952E-03	59 0.	109 0.	9 4.932E-02	59 0.
10 0.	60 0.	110 0.	10 3.084E-02	60 0.
11 8.954E-01	61 0.	111 0.	11 1.485E-02	61 0.
12 0.	62 0.	112 0.	12 3.909E-03	62 0.
13 5.510E-03	63 0.	113 0.	13 3.599E-04	63 0.
14 6.790E-03	64 0.	114 0.	14 1.509E-04	64 0.
15 1.476E-02	65 0.	115 0.	15 3.977E-05	65 0.
16 4.428E-03	66 0.	116 0.	16 1.010E-06	66 0.
17 1.279E-03	67 0.	117 0.	17 0.	67 0.
18 5.540E-02	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 4.822E-03	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 1.476E-02	75 0.	125 0.	25 0.	75 0.
26 2.165E-02	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	5.724E-04	101	0.	1	6.507E-02	51	0.
2	0.	52	0.	102	0.	2	7.550E-02	52	0.
3	5.581E-02	53	8.586E-04	103	0.	3	8.366E-02	53	0.
4	1.240E-02	54	0.	104	0.	4	8.869E-02	54	0.
5	2.767E-02	55	0.	105	0.	5	9.037E-02	55	0.
6	1.526E-03	56	0.	106	0.	6	8.883E-02	56	0.
7	5.533E-03	57	0.	107	0.	7	8.444E-02	57	0.
8	5.056E-03	58	0.	108	0.	8	7.782E-02	58	0.
9	1.212E-01	59	0.	109	0.	9	6.952E-02	59	0.
10	2.738E-02	60	0.	110	0.	10	5.987E-02	60	0.
11	9.683E-02	61	0.	111	0.	11	4.963E-02	61	0.
12	1.220E-01	62	0.	112	0.	12	3.972E-02	62	0.
13	1.267E-01	63	0.	113	0.	13	3.112E-02	63	0.
14	7.479E-02	64	0.	114	0.	14	2.430E-02	64	0.
15	2.442E-02	65	0.	115	0.	15	1.858E-02	65	0.
16	4.646E-02	66	0.	116	0.	16	1.432E-02	66	0.
17	9.656E-01	67	0.	117	0.	17	1.119E-02	67	0.
18	7.141E-01	68	0.	118	0.	18	8.679E-03	68	0.
19	3.835E-02	69	0.	119	0.	19	6.725E-03	69	0.
20	5.008E-02	70	0.	120	0.	20	4.976E-03	70	0.
21	2.213E-02	71	0.	121	0.	21	3.392E-03	71	0.
22	1.491E-01	72	0.	122	0.	22	2.049E-03	72	0.
23	9.817E-02	73	0.	123	0.	23	1.029E-03	73	0.
24	4.865E-03	74	0.	124	0.	24	3.615E-04	74	0.
25	0.	75	0.	125	0.	25	6.885E-05	75	0.
26	4.675E-03	76	0.	126	0.	26	1.515E-06		
27	2.862E-03	77	0.	127	0.	27	0.		
28	3.530E-03	78	0.	128	0.	28	0.		
29	1.622E-03	79	0.	129	0.	29	0.		
30	3.444E-02	80	0.	130	0.	30	0.		
31	5.152E-03	81	0.	131	0.	31	0.		
32	0.	82	0.	132	0.	32	0.		
33	5.152E-02	83	0.	133	0.	33	0.		
34	1.526E-03	84	0.	134	0.	34	0.		
35	2.862E-02	85	0.	135	0.	35	0.		
36	0.	86	0.	136	0.	36	0.		
37	5.753E-02	87	0.	137	0.	37	0.		
38	5.724E-04	88	0.	138	0.	38	0.		
39	1.908E-03	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	2.099E-03	91	0.	141	0.	41	0.		
42	0.	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	2.194E-03	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	5.724E-04	96	0.	146	0.	46	0.		
47	2.099E-03	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	9.540E-04	99	0.	149	0.	49	0.		
50	1.193E-02	100	0.	150	0.	50	0.		

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GAMMA SPECTRUM

1	1.000E+00	51 0.	101 0.
2	0.	52 0.	102 0.
3	0.	53 0.	103 0.
4	0.	54 0.	104 0.
5	0.	55 0.	105 0.
6	1.000E+00	56 0.	106 0.
7	0.	57 0.	107 0.
8	0.	58 0.	108 0.
9	0.	59 0.	109 0.
10	0.	60 0.	110 0.
11	0.	61 0.	111 0.
12	0.	62 0.	112 0.
13	0.	63 0.	113 0.
14	0.	64 0.	114 0.
15	0.	65 0.	115 0.
16	0.	66 0.	116 0.
17	0.	67 0.	117 0.
18	0.	68 0.	118 0.
19	0.	69 0.	119 0.
20	0.	70 0.	120 0.
21	0.	71 0.	121 0.
22	0.	72 0.	122 0.
23	0.	73 0.	123 0.
24	0.	74 0.	124 0.
25	0.	75 0.	125 0.
26	0.	76 0.	126 0.
27	0.	77 0.	127 0.
28	0.	78 0.	128 0.
29	0.	79 0.	129 0.
30	0.	80 0.	130 0.
31	0.	81 0.	131 0.
32	0.	82 0.	132 0.
33	0.	83 0.	133 0.
34	0.	84 0.	134 0.
35	0.	85 0.	135 0.
36	0.	86 0.	136 0.
37	0.	87 0.	137 0.
38	0.	88 0.	138 0.
39	0.	89 0.	139 0.
40	0.	90 0.	140 0.
41	0.	91 0.	141 0.
42	0.	92 0.	142 0.
43	0.	93 0.	143 0.
44	0.	94 0.	144 0.
45	0.	95 0.	145 0.
46	0.	96 0.	146 0.
47	0.	97 0.	147 0.
48	0.	98 0.	148 0.
49	0.	99 0.	149 0.
50	0.	100 0.	150 0.



## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.585E-01	51 0.
2 0.	52 0.	102 0.	2 1.545E-01	52 0.
3 0.	53 0.	103 0.	3 1.413E-01	53 0.
4 4.000E-03	54 0.	104 0.	4 1.239E-01	54 0.
5 1.960E-02	55 0.	105 0.	5 1.064E-01	55 0.
6 3.200E-02	56 0.	106 0.	6 8.939E-02	56 0.
7 0.	57 0.	107 0.	7 7.107E-02	57 0.
8 0.	58 0.	108 0.	8 5.319E-02	58 0.
9 5.096E-02	59 0.	109 0.	9 3.714E-02	59 0.
10 3.120E-03	60 0.	110 0.	10 2.409E-02	60 0.
11 6.720E-02	61 0.	111 0.	11 1.522E-02	61 0.
12 0.	62 0.	112 0.	12 9.312E-03	62 0.
13 0.	63 0.	113 0.	13 5.041E-03	63 0.
14 0.	64 0.	114 0.	14 2.181E-03	64 0.
15 6.800E-03	65 0.	115 0.	15 7.230E-04	65 0.
16 0.	66 0.	116 0.	16 4.200E-04	66 0.
17 6.400E-02	67 0.	117 0.	17 3.123E-04	67 0.
18 0.	68 0.	118 0.	18 2.275E-04	68 0.
19 0.	69 0.	119 0.	19 1.494E-04	69 0.
20 2.160E-02	70 0.	120 0.	20 8.270E-05	70 0.
21 8.000E-02	71 0.	121 0.	21 3.266E-05	71 0.
22 0.	72 0.	122 0.	22 4.895E-06	72 0.
23 2.624E-01	73 0.	123 0.	23 0.	73 0.
24 1.112E-02	74 0.	124 0.	24 0.	74 0.
25 8.160E-03	75 0.	125 0.	25 0.	75 0.
26 2.792E-01	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 1.208E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 8.000E-02	80 0.	130 0.	30 0.	
31 9.920E-03	81 0.	131 0.	31 0.	
32 1.232E-02	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 9.440E-02	84 0.	134 0.	34 0.	
35 3.360E-02	85 0.	135 0.	35 0.	
36 7.520E-02	86 0.	136 0.	36 0.	
37 5.600E-03	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 2.960E-03	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 7.200E-03	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.906E-03	51 9.082E-05
2 0.	52 0.	102 0.	2 1.266E-02	52 7.944E-05
3 0.	53 7.955E-02	103 0.	3 1.560E-02	53 6.841E-05
4 0.	54 0.	104 0.	4 1.859E-02	54 5.781E-05
5 1.326E-02	55 0.	105 0.	5 2.155E-02	55 4.776E-05
6 0.	56 0.	106 0.	6 2.443E-02	56 3.835E-05
7 3.977E-02	57 0.	107 0.	7 2.716E-02	57 2.970E-05
8 0.	58 4.640E-02	108 0.	8 2.972E-02	58 2.192E-05
9 9.943E-03	59 0.	109 0.	9 3.207E-02	59 1.512E-05
10 0.	60 0.	110 0.	10 3.418E-02	60 9.438E-06
11 0.	61 0.	111 0.	11 3.602E-02	61 4.981E-06
12 0.	62 0.	112 0.	12 3.757E-02	62 1.883E-06
13 0.	63 0.	113 0.	13 3.882E-02	63 2.717E-07
14 0.	64 0.	114 0.	14 3.975E-02	64 0.
15 0.	65 0.	115 0.	15 4.036E-02	65 0.
16 0.	66 0.	116 0.	16 4.065E-02	66 0.
17 0.	67 0.	117 0.	17 4.061E-02	67 0.
18 0.	68 0.	118 0.	18 4.025E-02	68 0.
19 0.	69 0.	119 0.	19 3.959E-02	69 0.
20 3.977E-02	70 0.	120 0.	20 3.862E-02	70 0.
21 0.	71 0.	121 0.	21 3.738E-02	71 0.
22 0.	72 0.	122 0.	22 3.588E-02	72 0.
23 0.	73 0.	123 0.	23 3.414E-02	73 0.
24 0.	74 0.	124 0.	24 3.220E-02	74 0.
25 0.	75 0.	125 0.	25 3.008E-02	75 0.
26 0.	76 0.	126 0.	26 2.781E-02	
27 9.546E-01	77 0.	127 0.	27 2.545E-02	
28 0.	78 0.	128 0.	28 2.302E-02	
29 0.	79 0.	129 0.	29 2.058E-02	
30 0.	80 0.	130 0.	30 1.818E-02	
31 2.652E-02	81 0.	131 0.	31 1.585E-02	
32 0.	82 0.	132 0.	32 1.362E-02	
33 0.	83 0.	133 0.	33 1.155E-02	
34 0.	84 0.	134 0.	34 9.692E-03	
35 0.	85 0.	135 0.	35 8.081E-03	
36 0.	86 0.	136 0.	36 6.715E-03	
37 0.	87 0.	137 0.	37 5.630E-03	
38 0.	88 0.	138 0.	38 4.830E-03	
39 0.	89 0.	139 0.	39 4.157E-03	
40 3.314E-02	90 0.	140 0.	40 3.575E-03	
41 0.	91 0.	141 0.	41 3.062E-03	
42 0.	92 0.	142 0.	42 2.575E-03	
43 0.	93 0.	143 0.	43 2.112E-03	
44 0.	94 0.	144 0.	44 1.678E-03	
45 0.	95 0.	145 0.	45 1.281E-03	
46 1.193E-01	96 0.	146 0.	46 9.283E-04	
47 0.	97 0.	147 0.	47 6.273E-04	
48 0.	98 0.	148 0.	48 3.862E-04	
49 7.292E-02	99 0.	149 0.	49 2.132E-04	
50 0.	100 0.	150 0.	50 1.168E-04	

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GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.949E-03	51 0.
2 0.	52 0.	102 0.	2 1.023E-02	52 0.
3 0.	53 0.	103 0.	3 1.269E-02	53 0.
4 8.500E-01	54 0.	104 0.	4 1.523E-02	54 0.
5 0.	55 0.	105 0.	5 1.778E-02	55 0.
6 0.	56 0.	106 0.	6 2.031E-02	56 0.
7 0.	57 0.	107 0.	7 2.278E-02	57 0.
8 1.170E+00	58 0.	108 0.	8 2.514E-02	58 0.
9 0.	59 0.	109 0.	9 2.738E-02	59 0.
10 0.	60 0.	110 0.	10 2.947E-02	60 0.
11 0.	61 0.	111 0.	11 3.138E-02	61 0.
12 0.	62 0.	112 0.	12 3.310E-02	62 0.
13 0.	63 0.	113 0.	13 3.460E-02	63 0.
14 0.	64 0.	114 0.	14 3.588E-02	64 0.
15 0.	65 0.	115 0.	15 3.692E-02	65 0.
16 0.	66 0.	116 0.	16 3.771E-02	66 0.
17 0.	67 0.	117 0.	17 3.825E-02	67 0.
18 0.	68 0.	118 0.	18 3.854E-02	68 0.
19 0.	69 0.	119 0.	19 3.858E-02	69 0.
20 0.	70 0.	120 0.	20 3.836E-02	70 0.
21 0.	71 0.	121 0.	21 3.789E-02	71 0.
22 0.	72 0.	122 0.	22 3.718E-02	72 0.
23 0.	73 0.	123 0.	23 3.623E-02	73 0.
24 0.	74 0.	124 0.	24 3.506E-02	74 0.
25 0.	75 0.	125 0.	25 3.368E-02	75 0.
26 0.	76 0.	126 0.	26 3.211E-02	
27 1.000E+00	77 0.	127 0.	27 3.036E-02	
28 0.	78 0.	128 0.	28 2.845E-02	
29 0.	79 0.	129 0.	29 2.641E-02	
30 0.	80 0.	130 0.	30 2.426E-02	
31 0.	81 0.	131 0.	31 2.203E-02	
32 0.	82 0.	132 0.	32 1.974E-02	
33 0.	83 0.	133 0.	33 1.742E-02	
34 0.	84 0.	134 0.	34 1.511E-02	
35 0.	85 0.	135 0.	35 1.285E-02	
36 0.	86 0.	136 0.	36 1.066E-02	
37 0.	87 0.	137 0.	37 8.589E-03	
38 0.	88 0.	138 0.	38 6.677E-03	
39 0.	89 0.	139 0.	39 4.965E-03	
40 0.	90 0.	140 0.	40 3.499E-03	
41 0.	91 0.	141 0.	41 2.304E-03	
42 0.	92 0.	142 0.	42 1.344E-03	
43 0.	93 0.	143 0.	43 6.333E-04	
44 0.	94 0.	144 0.	44 2.102E-04	
45 0.	95 0.	145 0.	45 6.193E-05	
46 0.	96 0.	146 0.	46 9.010E-06	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 2.000E-02	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.581E-01	51 0.
2 3.732E-01	52 0.	102 0.	2 3.304E-01	52 0.
3 0.	53 0.	103 0.	3 1.074E-01	53 0.
4 6.000E-04	54 0.	104 0.	4 4.115E-03	54 0.
5 2.000E-06	55 0.	105 0.	5 0.	55 0.
6 0.	56 0.	106 0.	6 0.	56 0.
7 5.000E-05	57 0.	107 0.	7 0.	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 1.030E-01	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

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GAMMA SPECTRUM

## BETA SPECTRUM

1	1.026E+00	51 0.	101 0.	1	1.760E-01	51 0.
2	0.	52 0.	102 0.	2	1.817E-01	52 0.
3	0.	53 0.	103 0.	3	1.759E-01	53 0.
4	2.320E-02	54 0.	104 0.	4	1.572E-01	54 0.
5	9.060E-01	55 0.	105 0.	5	1.283E-01	55 0.
6	0.	56 0.	106 0.	6	9.355E-02	56 0.
7	0.	57 0.	107 0.	7	5.753E-02	57 0.
8	2.110E-03	58 0.	108 0.	8	2.549E-02	58 0.
9	3.200E-03	59 0.	109 0.	9	4.652E-03	59 0.
10	0.	60 0.	110 0.	10	2.082E-06	60 0.
11	0.	61 0.	111 0.	11	0.	61 0.
12	0.	62 0.	112 0.	12	0.	62 0.
13	0.	63 0.	113 0.	13	0.	63 0.
14	3.200E-04	64 0.	114 0.	14	0.	64 0.
15	4.500E-04	65 0.	115 0.	15	0.	65 0.
16	0.	66 0.	116 0.	16	0.	66 0.
17	5.000E-04	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 8.120E-01	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 0.	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.



## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 9.495E-03	51 0.
2 0.	52 0.	102 0.	2 1.208E-02	52 0.
3 0.	53 0.	103 0.	3 1.483E-02	53 0.
4 0.	54 0.	104 0.	4 1.761E-02	54 0.
5 0.	55 0.	105 0.	5 2.035E-02	55 0.
6 0.	56 0.	106 0.	6 2.300E-02	56 0.
7 0.	57 0.	107 0.	7 2.553E-02	57 0.
8 1.800E-03	58 2.700E-03	108 0.	8 2.789E-02	58 0.
9 0.	59 0.	109 0.	9 3.007E-02	59 0.
10 3.200E-01	60 0.	110 0.	10 3.204E-02	60 0.
11 0.	61 0.	111 0.	11 3.379E-02	61 0.
12 9.000E-04	62 0.	112 0.	12 3.530E-02	62 0.
13 0.	63 0.	113 0.	13 3.658E-02	63 0.
14 0.	64 0.	114 0.	14 3.763E-02	64 0.
15 0.	65 0.	115 0.	15 3.844E-02	65 0.
16 0.	66 0.	116 0.	16 3.902E-02	66 0.
17 6.900E-03	67 0.	117 0.	17 3.933E-02	67 0.
18 0.	68 0.	118 0.	18 3.937E-02	68 0.
19 7.000E-04	69 0.	119 0.	19 3.912E-02	69 0.
20 2.300E-03	70 0.	120 0.	20 3.861E-02	70 0.
21 0.	71 0.	121 0.	21 3.784E-02	71 0.
22 8.000E-04	72 0.	122 0.	22 3.682E-02	72 0.
23 2.800E-03	73 0.	123 0.	23 3.556E-02	73 0.
24 1.500E-03	74 0.	124 0.	24 3.409E-02	74 0.
25 0.	75 0.	125 0.	25 3.241E-02	75 0.
26 2.600E-03	76 0.	126 0.	26 3.056E-02	
27 0.	77 0.	127 0.	27 2.855E-02	
28 0.	78 0.	128 0.	28 2.640E-02	
29 0.	79 0.	129 0.	29 2.415E-02	
30 0.	80 0.	130 0.	30 2.181E-02	
31 0.	81 0.	131 0.	31 1.942E-02	
32 1.800E-03	82 0.	132 0.	32 1.702E-02	
33 1.700E-03	83 0.	133 0.	33 1.464E-02	
34 8.000E-04	84 0.	134 0.	34 1.232E-02	
35 0.	85 0.	135 0.	35 1.011E-02	
36 5.100E-03	86 0.	136 0.	36 8.044E-03	
37 0.	87 0.	137 0.	37 6.165E-03	
38 0.	88 0.	138 0.	38 4.519E-03	
39 1.200E-03	89 0.	139 0.	39 3.156E-03	
40 0.	90 0.	140 0.	40 2.087E-03	
41 0.	91 0.	141 0.	41 1.220E-03	
42 0.	92 0.	142 0.	42 5.645E-04	
43 0.	93 0.	143 0.	43 1.507E-04	
44 0.	94 0.	144 0.	44 5.189E-06	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 1.100E-03	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	0.	101	0.	1	1.374E-01	51	0.
2	0.	52	0.	102	0.	2	1.330E-01	52	0.
3	5.780E-04	53	0.	103	0.	3	1.185E-01	53	0.
4	4.893E-02	54	0.	104	0.	4	9.738E-02	54	0.
5	3.307E-02	55	0.	105	0.	5	7.439E-02	55	0.
6	2.930E-01	56	0.	106	0.	6	5.527E-02	56	0.
7	1.367E-03	57	0.	107	0.	7	4.158E-02	57	0.
8	6.450E-02	58	0.	108	0.	8	3.297E-02	58	0.
9	2.108E-01	59	0.	109	0.	9	3.160E-02	59	0.
10	0.	60	0.	110	0.	10	3.175E-02	60	0.
11	7.424E-03	61	0.	111	0.	11	3.137E-02	61	0.
12	6.387E-03	62	0.	112	0.	12	3.048E-02	62	0.
13	3.555E-04	63	0.	113	0.	13	2.912E-02	63	0.
14	4.031E-03	64	0.	114	0.	14	2.735E-02	64	0.
15	8.670E-04	65	0.	115	0.	15	2.521E-02	65	0.
16	1.737E-03	66	0.	116	0.	16	2.275E-02	66	0.
17	1.168E-03	67	0.	117	0.	17	2.004E-02	67	0.
18	1.097E-02	68	0.	118	0.	18	1.718E-02	68	0.
19	1.815E-02	69	0.	119	0.	19	1.424E-02	69	0.
20	9.392E-04	70	0.	120	0.	20	1.135E-02	70	0.
21	0.	71	0.	121	0.	21	8.597E-03	71	0.
22	7.479E-03	72	0.	122	0.	22	6.121E-03	72	0.
23	2.469E-02	73	0.	123	0.	23	4.058E-03	73	0.
24	3.153E-03	74	0.	124	0.	24	2.553E-03	74	0.
25	1.433E-03	75	0.	125	0.	25	1.614E-03	75	0.
26	0.	76	0.	126	0.	26	9.082E-04		
27	9.306E-04	77	0.	127	0.	27	3.794E-04		
28	2.448E-03	78	0.	128	0.	28	7.138E-05		
29	0.	79	0.	129	0.	29	1.646E-07		
30	7.427E-04	80	0.	130	0.	30	0.		
31	8.092E-04	81	0.	131	0.	31	0.		
32	3.445E-03	82	0.	132	0.	32	0.		
33	3.332E-03	83	0.	133	0.	33	0.		
34	0.	84	0.	134	0.	34	0.		
35	0.	85	0.	135	0.	35	0.		
36	1.842E-01	86	0.	136	0.	36	0.		
37	1.980E-03	87	0.	137	0.	37	0.		
38	1.538E-02	88	0.	138	0.	38	0.		
39	6.303E-03	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	1.952E-01	91	0.	141	0.	41	0.		
42	1.604E-02	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	0.	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	2.548E-02	96	0.	146	0.	46	0.		
47	7.855E-03	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	6.185E-03	100	0.	150	0.	50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	4.119E-03	101	0.	1	1.523E-02	51	0.
2	3.586E-03	52	3.960E-03	102	0.	2	1.830E-02	52	0.
3	7.584E-03	53	1.722E-03	103	0.	3	2.123E-02	53	0.
4	1.957E-01	54	1.353E-03	104	0.	4	2.387E-02	54	0.
5	5.786E-01	55	1.166E-03	105	0.	5	2.623E-02	55	0.
6	3.043E-01	56	6.908E-03	106	0.	6	2.839E-02	56	0.
7	6.523E-03	57	2.838E-03	107	0.	7	3.037E-02	57	0.
8	7.102E-02	58	2.849E-03	108	0.	8	3.206E-02	58	0.
9	3.690E-03	59	3.949E-03	109	0.	9	3.346E-02	59	0.
10	1.729E-02	60	6.930E-04	110	0.	10	3.465E-02	60	0.
11	2.222E-02	61	6.870E-04	111	0.	11	3.562E-02	61	0.
12	3.998E-03	62	0.	112	0.	12	3.632E-02	62	0.
13	7.364E-02	63	1.793E-03	113	0.	13	3.672E-02	63	0.
14	6.127E-03	64	1.023E-03	114	0.	14	3.685E-02	64	0.
15	4.650E-02	65	3.960E-04	115	0.	15	3.676E-02	65	0.
16	3.974E-02	66	0.	116	0.	16	3.646E-02	66	0.
17	1.259E-02	67	0.	117	0.	17	3.595E-02	67	0.
18	5.313E-03	68	1.502E-03	118	0.	18	3.528E-02	68	0.
19	4.879E-03	69	7.040E-04	119	0.	19	3.446E-02	69	0.
20	1.094E-02	70	0.	120	0.	20	3.351E-02	70	0.
21	7.299E-03	71	6.380E-04	121	0.	21	3.246E-02	71	0.
22	1.980E-03	72	0.	122	0.	22	3.132E-02	72	0.
23	9.504E-03	73	0.	123	0.	23	3.009E-02	73	0.
24	8.470E-03	74	0.	124	0.	24	2.880E-02	74	0.
25	1.475E-02	75	0.	125	0.	25	2.743E-02	75	0.
26	1.646E-02	76	0.	126	0.	26	2.601E-02		
27	1.503E-02	77	0.	127	0.	27	2.453E-02		
28	1.125E-02	78	0.	128	0.	28	2.299E-02		
29	7.887E-03	79	0.	129	0.	29	2.137E-02		
30	8.723E-03	80	0.	130	0.	30	1.970E-02		
31	1.070E-02	81	0.	131	0.	31	1.800E-02		
32	2.788E-03	82	0.	132	0.	32	1.628E-02		
33	5.500E-03	83	0.	133	0.	33	1.457E-02		
34	1.462E-02	84	0.	134	0.	34	1.287E-02		
35	2.783E-03	85	0.	135	0.	35	1.121E-02		
36	1.023E-02	86	0.	136	0.	36	9.597E-03		
37	4.361E-03	87	0.	137	0.	37	8.063E-03		
38	1.355E-02	88	0.	138	0.	38	6.633E-03		
39	2.524E-03	89	0.	139	0.	39	5.337E-03		
40	7.513E-03	90	0.	140	0.	40	4.183E-03		
41	4.664E-03	91	0.	141	0.	41	3.155E-03		
42	1.199E-02	92	0.	142	0.	42	2.270E-03		
43	6.661E-03	93	0.	143	0.	43	1.548E-03		
44	3.344E-03	94	0.	144	0.	44	1.007E-03		
45	5.462E-03	95	0.	145	0.	45	6.327E-04		
46	4.400E-03	96	0.	146	0.	46	3.724E-04		
47	9.086E-03	97	0.	147	0.	47	1.857E-04		
48	1.309E-03	98	0.	148	0.	48	6.315E-05		
49	4.318E-03	99	0.	149	0.	49	6.174E-06		
50	9.680E-04	100	0.	150	0.	50	0.		

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 4.741E-01	51 0.
2 0.	52 0.	102 0.	2 1.814E-01	52 0.
3 0.	53 0.	103 0.	3 1.514E-01	53 0.
4 0.	54 0.	104 0.	4 1.086E-01	54 0.
5 0.	55 0.	105 0.	5 6.164E-02	55 0.
6 0.	56 0.	106 0.	6 2.139E-02	56 0.
7 0.	57 0.	107 0.	7 1.436E-03	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 1.400E-02	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 2.280E-01	62 0.	112 0.	12 0.	62 0.
13 9.800E-01	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 8.800E-01	66 0.	116 0.	16 0.	66 0.
17 9.000E-02	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 1.100E-02	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 1.900E-02	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 3.300E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

1	9.920E-01	51	0.	101	0.
2	0.	52	0.	102	0.
3	1.000E+00	53	0.	103	0.
4	0.	54	0.	104	0.
5	0.	55	0.	105	0.
6	0.	56	0.	106	0.
7	0.	57	0.	107	0.
8	0.	58	0.	108	0.
9	0.	59	0.	109	0.
10	0.	60	0.	110	0.
11	0.	61	0.	111	0.
12	0.	62	0.	112	0.
13	0.	63	0.	113	0.
14	0.	64	0.	114	0.
15	0.	65	0.	115	0.
16	0.	66	0.	116	0.
17	0.	67	0.	117	0.
18	0.	68	0.	118	0.
19	0.	69	0.	119	0.
20	0.	70	0.	120	0.
21	0.	71	0.	121	0.
22	0.	72	0.	122	0.
23	0.	73	0.	123	0.
24	0.	74	0.	124	0.
25	0.	75	0.	125	0.
26	0.	76	0.	126	0.
27	0.	77	0.	127	0.
28	0.	78	0.	128	0.
29	0.	79	0.	129	0.
30	0.	80	0.	130	0.
31	0.	81	0.	131	0.
32	0.	82	0.	132	0.
33	0.	83	0.	133	0.
34	0.	84	0.	134	0.
35	0.	85	0.	135	0.
36	0.	86	0.	136	0.
37	0.	87	0.	137	0.
38	0.	88	0.	138	0.
39	0.	89	0.	139	0.
40	0.	90	0.	140	0.
41	0.	91	0.	141	0.
42	0.	92	0.	142	0.
43	0.	93	0.	143	0.
44	0.	94	0.	144	0.
45	0.	95	0.	145	0.
46	0.	96	0.	146	0.
47	0.	97	0.	147	0.
48	0.	98	0.	148	0.
49	0.	99	0.	149	0.
50	0.	100	0.	150	0.

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.027E-01	51 0.
2 1.950E-01	52 0.	102 0.	2 3.257E-01	52 0.
3 4.500E-03	53 0.	103 0.	3 1.370E-01	53 0.
4 2.645E-01	54 0.	104 0.	4 2.321E-02	54 0.
5 0.	55 0.	105 0.	5 7.557E-03	55 0.
6 1.250E-01	56 0.	106 0.	6 3.241E-03	56 0.
7 4.510E-01	57 0.	107 0.	7 6.049E-04	57 0.
8 0.	58 0.	108 0.	8 2.754E-07	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 1.000E-02	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 1.000E+00	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 8.050E-01	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 1.970E-01	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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## BETA SPECTRUM

1	3.542E-01	51	0.
2	2.941E-01	52	0.
3	2.030E-01	53	0.
4	1.025E-01	54	0.
5	2.644E-02	55	0.
6	6.141E-03	56	0.
7	5.093E-03	57	0.
8	3.884E-03	58	0.
9	2.613E-03	59	0.
10	1.428E-03	60	0.
11	5.052E-04	61	0.
12	4.453E-05	62	0.
13	0.	63	0.
14	0.	64	0.
15	0.	65	0.
16	0.	66	0.
17	0.	67	0.
18	0.	68	0.
19	0.	69	0.
20	0.	70	0.
21	0.	71	0.
22	0.	72	0.
23	0.	73	0.
24	0.	74	0.
25	0.	75	0.
26	0.		
27	0.		
28	0.		
29	0.		
30	0.		
31	0.		
32	0.		
33	0.		
34	0.		
35	0.		
36	0.		
37	0.		
38	0.		
39	0.		
40	0.		
41	0.		
42	0.		
43	0.		
44	0.		
45	0.		
46	0.		
47	0.		
48	0.		
49	0.		
50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	1.650E-04	101	0.	1	2.197E-02	51	0.
2	0.	52	2.632E-03	102	0.	2	2.693E-02	52	0.
3	1.241E-02	53	8.148E-02	103	0.	3	3.183E-02	53	0.
4	7.200E-03	54	0.	104	0.	4	3.638E-02	54	0.
5	1.443E-02	55	1.343E-03	105	0.	5	4.049E-02	55	0.
6	0.	56	0.	106	0.	6	4.411E-02	56	0.
7	3.352E-03	57	1.125E-03	107	0.	7	4.724E-02	57	0.
8	3.915E-03	58	0.	108	0.	8	4.984E-02	58	0.
9	4.401E-02	59	2.250E-04	109	0.	9	5.179E-02	59	0.
10	2.675E-01	60	0.	110	0.	10	5.306E-02	60	0.
11	9.844E-02	61	3.600E-04	111	0.	11	5.364E-02	61	0.
12	4.200E-04	62	2.175E-04	112	0.	12	5.357E-02	62	0.
13	0.	63	0.	113	0.	13	5.285E-02	63	0.
14	9.825E-04	64	9.750E-05	114	0.	14	5.153E-02	64	0.
15	1.133E-03	65	0.	115	0.	15	4.962E-02	65	0.
16	7.463E-03	66	0.	116	0.	16	4.715E-02	66	0.
17	1.703E-03	67	1.807E-03	117	0.	17	4.419E-02	67	0.
18	4.824E-02	68	3.150E-03	118	0.	18	4.079E-02	68	0.
19	1.980E-03	69	2.925E-04	119	0.	19	3.703E-02	69	0.
20	4.950E-04	70	0.	120	0.	20	3.302E-02	70	0.
21	2.849E-01	71	0.	121	0.	21	2.885E-02	71	0.
22	1.500E-03	72	0.	122	0.	22	2.462E-02	72	0.
23	1.193E-02	73	2.850E-04	123	0.	23	2.044E-02	73	0.
24	1.673E-03	74	6.750E-05	124	0.	24	1.644E-02	74	0.
25	3.787E-03	75	0.	125	0.	25	1.274E-02	75	0.
26	1.665E-03	76	0.	126	0.	26	9.496E-03		
27	1.107E-02	77	0.	127	0.	27	6.823E-03		
28	1.215E-03	78	0.	128	0.	28	4.784E-03		
29	7.631E-01	79	2.250E-04	129	0.	29	3.410E-03		
30	1.785E-03	80	0.	130	0.	30	2.482E-03		
31	0.	81	0.	131	0.	31	1.809E-03		
32	3.577E-03	82	2.250E-04	132	0.	32	1.306E-03		
33	1.357E-03	83	0.	133	0.	33	8.979E-04		
34	0.	84	0.	134	0.	34	5.963E-04		
35	2.782E-03	85	0.	135	0.	35	3.923E-04		
36	1.433E-03	86	0.	136	0.	36	2.298E-04		
37	1.395E-03	87	0.	137	0.	37	1.061E-04		
38	0.	88	0.	138	0.	38	2.792E-05		
39	1.282E-03	89	0.	139	0.	39	8.797E-07		
40	0.	90	0.	140	0.	40	0.		
41	1.223E-03	91	0.	141	0.	41	0.		
42	1.155E-03	92	0.	142	0.	42	0.		
43	7.950E-04	93	0.	143	0.	43	0.		
44	0.	94	0.	144	0.	44	0.		
45	1.624E-01	95	0.	145	0.	45	0.		
46	0.	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	2.145E-03	100	0.	150	0.	50	0.		



55-CS-138M - ENDF No. 621

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.299E-02	51 0.
2 2.477E-02	52 0.	102 0.	2 2.862E-02	52 0.
3 1.115E-01	53 0.	103 0.	3 3.432E-02	53 0.
4 9.906E-01	54 0.	104 0.	4 3.974E-02	54 0.
5 3.467E-02	55 0.	105 0.	5 4.472E-02	55 0.
6 0.	56 0.	106 0.	6 4.911E-02	56 0.
7 7.677E-02	57 0.	107 0.	7 5.281E-02	57 0.
8 0.	58 0.	108 0.	8 5.574E-02	58 0.
9 0.	59 0.	109 0.	9 5.784E-02	59 0.
10 1.220E+00	60 0.	110 0.	10 5.908E-02	60 0.
11 3.963E-02	61 0.	111 0.	11 5.944E-02	61 0.
12 0.	62 0.	112 0.	12 5.892E-02	62 0.
13 0.	63 0.	113 0.	13 5.755E-02	63 0.
14 0.	64 0.	114 0.	14 5.537E-02	64 0.
15 0.	65 0.	115 0.	15 5.242E-02	65 0.
16 0.	66 0.	116 0.	16 4.878E-02	66 0.
17 0.	67 0.	117 0.	17 4.455E-02	67 0.
18 0.	68 0.	118 0.	18 3.983E-02	68 0.
19 0.	69 0.	119 0.	19 3.475E-02	69 0.
20 0.	70 0.	120 0.	20 2.943E-02	70 0.
21 0.	71 0.	121 0.	21 2.404E-02	71 0.
22 0.	72 0.	122 0.	22 1.874E-02	72 0.
23 0.	73 0.	123 0.	23 1.371E-02	73 0.
24 0.	74 0.	124 0.	24 9.170E-03	74 0.
25 0.	75 0.	125 0.	25 5.318E-03	75 0.
26 0.	76 0.	126 0.	26 2.385E-03	
27 0.	77 0.	127 0.	27 5.924E-04	
28 0.	78 0.	128 0.	28 1.384E-05	
29 1.238E+00	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	5.382E-03	101	0.	1	1.493E-02	51	0.
2	0.	52	0.	102	0.	2	1.749E-02	52	0.
3	0.	53	4.160E-03	103	0.	3	1.993E-02	53	0.
4	1.664E-04	54	3.519E-04	104	0.	4	2.230E-02	54	0.
5	5.074E-04	55	0.	105	0.	5	2.466E-02	55	0.
6	1.701E-04	56	2.971E-04	106	0.	6	2.697E-02	56	0.
7	1.336E-04	57	1.280E-03	107	0.	7	2.917E-02	57	0.
8	6.884E-04	58	0.	108	0.	8	3.119E-02	58	0.
9	1.038E-03	59	0.	109	0.	9	3.297E-02	59	0.
10	1.535E-03	60	1.002E-03	110	0.	10	3.451E-02	60	0.
11	3.523E-03	61	3.022E-04	111	0.	11	3.575E-02	61	0.
12	2.283E-03	62	8.614E-05	112	0.	12	3.672E-02	62	0.
13	1.723E-02	63	0.	113	0.	13	3.740E-02	63	0.
14	1.904E-03	64	1.810E-04	114	0.	14	3.781E-02	64	0.
15	2.221E-03	65	0.	115	0.	15	3.796E-02	65	0.
16	1.382E-03	66	1.029E-04	116	0.	16	3.788E-02	66	0.
17	1.463E-03	67	5.059E-04	117	0.	17	3.760E-02	67	0.
18	9.972E-04	68	7.994E-04	118	0.	18	3.714E-02	68	0.
19	4.129E-03	69	4.037E-04	119	0.	19	3.649E-02	69	0.
20	5.971E-04	70	1.099E-03	120	0.	20	3.568E-02	70	0.
21	1.591E-04	71	0.	121	0.	21	3.471E-02	71	0.
22	1.175E-03	72	0.	122	0.	22	3.357E-02	72	0.
23	1.081E-03	73	2.796E-04	123	0.	23	3.227E-02	73	0.
24	3.115E-03	74	1.381E-03	124	0.	24	3.083E-02	74	0.
25	5.139E-04	75	2.643E-04	125	0.	25	2.926E-02	75	0.
26	7.300E-02	76	4.555E-04	126	0.	26	2.756E-02		
27	7.511E-03	77	2.927E-04	127	0.	27	2.576E-02		
28	5.636E-04	78	2.789E-04	128	0.	28	2.387E-02		
29	9.567E-03	79	1.219E-04	129	0.	29	2.193E-02		
30	4.811E-04	80	0.	130	0.	30	1.997E-02		
31	1.226E-03	81	0.	131	0.	31	1.800E-02		
32	8.884E-04	82	0.	132	0.	32	1.601E-02		
33	4.432E-03	83	0.	133	0.	33	1.400E-02		
34	9.002E-03	84	0.	134	0.	34	1.200E-02		
35	2.021E-03	85	0.	135	0.	35	1.005E-02		
36	3.540E-04	86	0.	136	0.	36	8.163E-03		
37	2.730E-04	87	0.	137	0.	37	6.387E-03		
38	5.780E-03	88	0.	138	0.	38	4.752E-03		
39	4.062E-03	89	0.	139	0.	39	3.296E-03		
40	2.913E-04	90	0.	140	0.	40	2.056E-03		
41	2.593E-03	91	0.	141	0.	41	1.073E-03		
42	1.803E-03	92	0.	142	0.	42	3.893E-04		
43	7.091E-03	93	0.	143	0.	43	4.722E-05		
44	2.573E-03	94	0.	144	0.	44	0.		
45	4.672E-04	95	0.	145	0.	45	0.		
46	1.431E-04	96	0.	146	0.	46	0.		
47	6.351E-03	97	0.	147	0.	47	0.		
48	2.821E-03	98	0.	148	0.	48	0.		
49	4.154E-04	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

## GAMMA SPECTRUM

1	0.	51	4.322E-02	101	0.
2	0.	52	4.380E-04	102	0.
3	0.	53	0.	103	0.
4	0.	54	1.533E-03	104	0.
5	0.	55	7.738E-03	105	0.
6	0.	56	2.336E-03	106	0.
7	0.	57	7.665E-03	107	0.
8	0.	58	4.891E-03	108	0.
9	0.	59	0.	109	0.
10	0.	60	6.935E-03	110	0.
11	4.263E-02	61	1.825E-03	111	0.
12	0.	62	1.540E-02	112	0.
13	7.312E-01	63	3.285E-03	113	0.
14	2.212E-02	64	4.088E-03	114	0.
15	9.198E-03	65	5.840E-03	115	0.
16	2.044E-03	66	2.044E-03	116	0.
17	3.066E-03	67	3.942E-03	117	0.
18	2.336E-03	68	6.716E-03	118	0.
19	1.251E-01	69	6.497E-03	119	0.
20	0.	70	8.979E-03	120	0.
21	2.292E-02	71	2.190E-03	121	0.
22	4.088E-03	72	1.241E-03	122	0.
23	3.081E-02	73	3.869E-03	123	0.
24	4.015E-03	74	6.570E-04	124	0.
25	8.840E-02	75	0.	125	0.
26	7.081E-03	76	4.380E-03	126	0.
27	7.300E-04	77	3.650E-04	127	0.
28	2.759E-02	78	0.	128	0.
29	1.591E-02	79	4.015E-03	129	0.
30	1.898E-03	80	0.	130	0.
31	8.322E-03	81	1.460E-04	131	0.
32	0.	82	8.760E-04	132	0.
33	4.927E-02	83	6.570E-04	133	0.
34	5.256E-03	84	2.190E-04	134	0.
35	3.044E-02	85	9.490E-04	135	0.
36	7.081E-03	86	0.	136	0.
37	1.971E-03	87	0.	137	0.
38	4.906E-02	88	4.380E-04	138	0.
39	1.343E-02	89	8.030E-04	139	0.
40	6.424E-03	90	0.	140	0.
41	1.241E-02	91	1.752E-03	141	0.
42	5.183E-03	92	2.190E-04	142	0.
43	4.314E-02	93	0.	143	0.
44	1.190E-02	94	0.	144	0.
45	3.745E-02	95	0.	145	0.
46	2.314E-02	96	2.920E-04	146	0.
47	5.490E-02	97	2.920E-04	147	0.
48	4.891E-03	98	0.	148	0.
49	1.781E-02	99	0.	149	0.
50	1.029E-02	100	2.920E-04	150	0.

## BETA SPECTRUM

1	2.167E-02	51	2.325E-03
2	2.525E-02	52	1.889E-03
3	2.825E-02	53	1.493E-03
4	3.044E-02	54	1.141E-03
5	3.182E-02	55	8.413E-04
6	3.249E-02	56	5.990E-04
7	3.265E-02	57	4.213E-04
8	3.257E-02	58	3.040E-04
9	3.260E-02	59	2.097E-04
10	3.288E-02	60	1.308E-04
11	3.309E-02	61	6.904E-05
12	3.315E-02	62	2.609E-05
13	3.311E-02	63	3.764E-06
14	3.297E-02	64	0.
15	3.263E-02	65	0.
16	3.205E-02	66	0.
17	3.126E-02	67	0.
18	3.028E-02	68	0.
19	2.914E-02	69	0.
20	2.792E-02	70	0.
21	2.665E-02	71	0.
22	2.539E-02	72	0.
23	2.420E-02	73	0.
24	2.311E-02	74	0.
25	2.207E-02	75	0.
26	2.105E-02		
27	2.005E-02		
28	1.906E-02		
29	1.805E-02		
30	1.704E-02		
31	1.604E-02		
32	1.507E-02		
33	1.416E-02		
34	1.332E-02		
35	1.254E-02		
36	1.179E-02		
37	1.106E-02		
38	1.034E-02		
39	9.644E-03		
40	8.948E-03		
41	8.258E-03		
42	7.575E-03		
43	6.898E-03		
44	6.231E-03		
45	5.584E-03		
46	4.961E-03		
47	4.367E-03		
48	3.809E-03		
49	3.288E-03		
50	2.793E-03		

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GAMMA SPECTRUM

1 0.	51 0.	101 0.
2 0.	52 0.	102 0.
3 0.	53 0.	103 0.
4 0.	54 0.	104 0.
5 0.	55 0.	105 0.
6 0.	56 0.	106 0.
7 0.	57 0.	107 0.
8 0.	58 0.	108 0.
9 0.	59 0.	109 0.
10 0.	60 0.	110 0.
11 0.	61 0.	111 0.
12 0.	62 0.	112 0.
13 0.	63 0.	113 0.
14 9.000E-01	64 0.	114 0.
15 0.	65 0.	115 0.
16 0.	66 0.	116 0.
17 0.	67 0.	117 0.
18 0.	68 0.	118 0.
19 0.	69 0.	119 0.
20 0.	70 0.	120 0.
21 0.	71 0.	121 0.
22 0.	72 0.	122 0.
23 0.	73 0.	123 0.
24 0.	74 0.	124 0.
25 0.	75 0.	125 0.
26 0.	76 0.	126 0.
27 0.	77 0.	127 0.
28 0.	78 0.	128 0.
29 0.	79 0.	129 0.
30 0.	80 0.	130 0.
31 0.	81 0.	131 0.
32 0.	82 0.	132 0.
33 0.	83 0.	133 0.
34 0.	84 0.	134 0.
35 0.	85 0.	135 0.
36 0.	86 0.	136 0.
37 0.	87 0.	137 0.
38 0.	88 0.	138 0.
39 0.	89 0.	139 0.
40 0.	90 0.	140 0.
41 0.	91 0.	141 0.
42 0.	92 0.	142 0.
43 0.	93 0.	143 0.
44 0.	94 0.	144 0.
45 0.	95 0.	145 0.
46 0.	96 0.	146 0.
47 0.	97 0.	147 0.
48 0.	98 0.	148 0.
49 0.	99 0.	149 0.
50 0.	100 0.	150 0.

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.660E-02	51 0.
2 0.	52 0.	102 0.	2 4.445E-02	52 0.
3 0.	53 0.	103 0.	3 5.192E-02	53 0.
4 2.256E-01	54 0.	104 0.	4 5.851E-02	54 0.
5 0.	55 0.	105 0.	5 6.393E-02	55 0.
6 0.	56 0.	106 0.	6 6.803E-02	56 0.
7 0.	57 0.	107 0.	7 7.071E-02	57 0.
8 0.	58 0.	108 0.	8 7.194E-02	58 0.
9 0.	59 0.	109 0.	9 7.173E-02	59 0.
10 0.	60 0.	110 0.	10 7.007E-02	60 0.
11 0.	61 0.	111 0.	11 6.700E-02	61 0.
12 0.	62 0.	112 0.	12 6.264E-02	62 0.
13 0.	63 0.	113 0.	13 5.713E-02	63 0.
14 0.	64 0.	114 0.	14 5.067E-02	64 0.
15 0.	65 0.	115 0.	15 4.350E-02	65 0.
16 0.	66 0.	116 0.	16 3.590E-02	66 0.
17 0.	67 0.	117 0.	17 2.817E-02	67 0.
18 0.	68 0.	118 0.	18 2.067E-02	68 0.
19 0.	69 0.	119 0.	19 1.379E-02	69 0.
20 0.	70 0.	120 0.	20 7.940E-03	70 0.
21 0.	71 0.	121 0.	21 3.593E-03	71 0.
22 9.950E-05	72 0.	122 0.	22 1.022E-03	72 0.
23 0.	73 0.	123 0.	23 4.803E-05	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 8.343E-05	75 0.	125 0.	25 0.	75 0.
26 3.615E-04	76 0.	126 0.	26 0.	
27 1.669E-04	77 0.	127 0.	27 0.	
28 3.584E-05	78 0.	128 0.	28 0.	
29 3.090E-03	79 0.	129 0.	29 0.	
30 1.885E-05	80 0.	130 0.	30 0.	
31 3.152E-05	81 0.	131 0.	31 0.	
32 3.770E-05	82 0.	132 0.	32 0.	
33 2.472E-06	83 0.	133 0.	33 0.	
34 3.986E-05	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 5.253E-06	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 6.180E-07	88 0.	138 0.	38 0.	
39 1.236E-06	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 1.545E-06	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1	1.529E-01	51 0.	101 0.	1	2.329E-01	51 0.
2	0.	52 0.	102 0.	2	2.113E-01	52 0.
3	2.180E-03	53 0.	103 0.	3	1.728E-01	53 0.
4	6.200E-02	54 0.	104 0.	4	1.277E-01	54 0.
5	0.	55 0.	105 0.	5	9.232E-02	55 0.
6	0.	56 0.	106 0.	6	6.954E-02	56 0.
7	4.500E-02	57 0.	107 0.	7	4.878E-02	57 0.
8	0.	58 0.	108 0.	8	2.845E-02	58 0.
9	5.300E-02	59 0.	109 0.	9	1.152E-02	59 0.
10	0.	60 0.	110 0.	10	1.666E-03	60 0.
11	2.380E-01	61 0.	111 0.	11	6.923E-04	61 0.
12	0.	62 0.	112 0.	12	0.	62 0.
13	0.	63 0.	113 0.	13	0.	63 0.
14	0.	64 0.	114 0.	14	0.	64 0.
15	0.	65 0.	115 0.	15	0.	65 0.
16	0.	66 0.	116 0.	16	0.	66 0.
17	0.	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	0.	101	0.	1	5.195E-02	51	0.
2	0.	52	0.	102	0.	2	5.960E-02	52	0.
3	9.886E-03	53	0.	103	0.	3	6.555E-02	53	0.
4	4.969E-01	54	0.	104	0.	4	6.941E-02	54	0.
5	1.412E-03	55	0.	105	0.	5	7.129E-02	55	0.
6	2.472E-01	56	0.	106	0.	6	7.160E-02	56	0.
7	4.198E-01	57	0.	107	0.	7	7.072E-02	57	0.
8	2.133E-02	58	0.	108	0.	8	6.857E-02	58	0.
9	4.870E-04	59	0.	109	0.	9	6.529E-02	59	0.
10	1.597E-01	60	0.	110	0.	10	6.116E-02	60	0.
11	1.369E-02	61	0.	111	0.	11	5.654E-02	61	0.
12	7.256E-03	62	0.	112	0.	12	5.198E-02	62	0.
13	1.035E-01	63	0.	113	0.	13	4.747E-02	63	0.
14	1.300E-02	64	0.	114	0.	14	4.276E-02	64	0.
15	4.860E-02	65	0.	115	0.	15	3.792E-02	65	0.
16	3.604E-03	66	0.	116	0.	16	3.306E-02	66	0.
17	2.372E-02	67	0.	117	0.	17	2.813E-02	67	0.
18	4.013E-02	68	0.	118	0.	18	2.317E-02	68	0.
19	1.636E-02	69	0.	119	0.	19	1.842E-02	69	0.
20	1.018E-02	70	0.	120	0.	20	1.409E-02	70	0.
21	8.863E-03	71	0.	121	0.	21	1.032E-02	71	0.
22	2.338E-03	72	0.	122	0.	22	7.226E-03	72	0.
23	0.	73	0.	123	0.	23	4.718E-03	73	0.
24	6.068E-02	74	0.	124	0.	24	2.860E-03	74	0.
25	5.844E-03	75	0.	125	0.	25	1.660E-03	75	0.
26	2.109E-02	76	0.	126	0.	26	8.882E-04		
27	2.089E-02	77	0.	127	0.	27	4.375E-04		
28	9.107E-03	78	0.	128	0.	28	1.554E-04		
29	1.159E-02	79	0.	129	0.	29	3.837E-05		
30	7.159E-03	80	0.	130	0.	30	8.314E-06		
31	4.188E-03	81	0.	131	0.	31	1.067E-07		
32	5.941E-03	82	0.	132	0.	32	0.		
33	2.386E-03	83	0.	133	0.	33	0.		
34	2.206E-02	84	0.	134	0.	34	0.		
35	7.695E-03	85	0.	135	0.	35	0.		
36	5.113E-03	86	0.	136	0.	36	0.		
37	8.279E-04	87	0.	137	0.	37	0.		
38	1.218E-03	88	0.	138	0.	38	0.		
39	1.851E-03	89	0.	139	0.	39	0.		
40	1.948E-03	90	0.	140	0.	40	0.		
41	3.993E-03	91	0.	141	0.	41	0.		
42	8.279E-04	92	0.	142	0.	42	0.		
43	1.558E-03	93	0.	143	0.	43	0.		
44	2.630E-03	94	0.	144	0.	44	0.		
45	6.331E-04	95	0.	145	0.	45	0.		
46	1.023E-03	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	1.948E-03	100	0.	150	0.	50	0.		

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.346E-01	51 0.
2 1.226E-01	52 0.	102 0.	2 1.434E-01	52 0.
3 1.045E-02	53 0.	103 0.	3 1.436E-01	53 0.
4 2.372E-02	54 0.	104 0.	4 1.348E-01	54 0.
5 1.220E-01	55 0.	105 0.	5 1.181E-01	55 0.
6 2.211E-01	56 0.	106 0.	6 9.601E-02	56 0.
7 4.402E-02	57 0.	107 0.	7 7.205E-02	57 0.
8 4.985E-02	58 0.	108 0.	8 5.038E-02	58 0.
9 7.598E-02	59 0.	109 0.	9 3.252E-02	59 0.
10 9.045E-03	60 0.	110 0.	10 1.973E-02	60 0.
11 4.824E-03	61 0.	111 0.	11 1.394E-02	61 0.
12 2.432E-02	62 0.	112 0.	12 1.124E-02	62 0.
13 3.618E-03	63 0.	113 0.	13 9.217E-03	63 0.
14 0.	64 0.	114 0.	14 7.213E-03	64 0.
15 0.	65 0.	115 0.	15 5.324E-03	65 0.
16 1.206E-02	66 0.	116 0.	16 3.608E-03	66 0.
17 3.879E-02	67 0.	117 0.	17 2.184E-03	67 0.
18 1.244E-01	68 0.	118 0.	18 1.184E-03	68 0.
19 1.005E-01	69 0.	119 0.	19 6.059E-04	69 0.
20 0.	70 0.	120 0.	20 2.489E-04	70 0.
21 9.387E-02	71 0.	121 0.	21 5.174E-05	71 0.
22 1.299E-01	72 0.	122 0.	22 3.192E-07	72 0.
23 2.512E-02	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 2.143E-01	75 0.	125 0.	25 0.	75 0.
26 1.809E-03	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 3.839E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 3.201E-02	101 0.	1 1.013E-01	51 0.
2 5.164E-04	52 0.	102 0.	2 1.108E-01	52 0.
3 7.642E-03	53 0.	103 0.	3 1.152E-01	53 0.
4 1.136E-03	54 0.	104 0.	4 1.141E-01	54 0.
5 3.924E-03	55 0.	105 0.	5 1.085E-01	55 0.
6 4.957E-03	56 0.	106 0.	6 9.926E-02	56 0.
7 1.859E-01	57 0.	107 0.	7 8.738E-02	57 0.
8 0.	58 6.196E-04	108 0.	8 7.393E-02	58 0.
9 2.685E-02	59 0.	109 0.	9 5.939E-02	59 0.
10 4.296E-01	60 0.	110 0.	10 4.506E-02	60 0.
11 0.	61 0.	111 0.	11 3.185E-02	61 0.
12 0.	62 0.	112 0.	12 2.041E-02	62 0.
13 0.	63 2.065E-04	113 0.	13 1.215E-02	63 0.
14 0.	64 0.	114 0.	14 7.557E-03	64 0.
15 0.	65 0.	115 0.	15 5.133E-03	65 0.
16 3.821E-02	66 0.	116 0.	16 3.234E-03	66 0.
17 2.096E-01	67 0.	117 0.	17 1.961E-03	67 0.
18 4.854E-02	68 0.	118 0.	18 1.326E-03	68 0.
19 8.675E-02	69 0.	119 0.	19 8.396E-04	69 0.
20 0.	70 0.	120 0.	20 4.357E-04	70 0.
21 0.	71 0.	121 0.	21 1.480E-04	71 0.
22 0.	72 0.	122 0.	22 1.290E-05	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 9.966E-01	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 7.849E-03	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.326E-02	51 0.
2 0.	52 0.	102 0.	2 3.920E-02	52 0.
3 0.	53 0.	103 0.	3 4.552E-02	53 0.
4 0.	54 0.	104 0.	4 5.134E-02	54 0.
5 0.	55 0.	105 0.	5 5.627E-02	55 0.
6 0.	56 0.	106 0.	6 6.015E-02	56 0.
7 1.548E-05	57 0.	107 0.	7 6.292E-02	57 0.
8 0.	58 0.	108 0.	8 6.458E-02	58 0.
9 8.844E-06	59 0.	109 0.	9 6.514E-02	59 0.
10 8.241E-06	60 0.	110 0.	10 6.465E-02	60 0.
11 1.286E-05	61 0.	111 0.	11 6.323E-02	61 0.
12 3.919E-05	62 0.	112 0.	12 6.091E-02	62 0.
13 0.	63 0.	113 0.	13 5.760E-02	63 0.
14 3.475E-04	64 0.	114 0.	14 5.337E-02	64 0.
15 3.819E-05	65 0.	115 0.	15 4.835E-02	65 0.
16 0.	66 0.	116 0.	16 4.270E-02	66 0.
17 2.492E-05	67 0.	117 0.	17 3.658E-02	67 0.
18 3.759E-05	68 0.	118 0.	18 3.020E-02	68 0.
19 0.	69 0.	119 0.	19 2.378E-02	69 0.
20 1.729E-05	70 0.	120 0.	20 1.758E-02	70 0.
21 0.	71 0.	121 0.	21 1.187E-02	71 0.
22 0.	72 0.	122 0.	22 6.933E-03	72 0.
23 0.	73 0.	123 0.	23 3.101E-03	73 0.
24 0.	74 0.	124 0.	24 7.122E-04	74 0.
25 0.	75 0.	125 0.	25 9.215E-06	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 2.016E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 2.223E-04	80 0.	130 0.	30 0.	
31 1.122E-04	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 1.045E-04	83 0.	133 0.	33 0.	
34 9.037E-04	84 0.	134 0.	34 0.	
35 1.906E-04	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 4.100E-05	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 9.105E-05	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 4.498E-04	94 0.	144 0.	44 0.	
45 9.568E-05	95 0.	145 0.	45 0.	
46 5.057E-04	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	1.073E-01	101	0.	1	6.076E-02	51	0.
2	0.	52	0.	102	0.	2	6.601E-02	52	0.
3	2.293E-03	53	0.	103	0.	3	6.857E-02	53	0.
4	1.376E-03	54	2.522E-02	104	0.	4	6.865E-02	54	0.
5	0.	55	0.	105	0.	5	6.728E-02	55	0.
6	4.585E-04	56	3.210E-03	106	0.	6	6.512E-02	56	0.
7	4.585E-04	57	1.513E-02	107	0.	7	6.170E-02	57	0.
8	2.751E-03	58	0.	108	0.	8	5.775E-02	58	0.
9	6.878E-03	59	0.	109	0.	9	5.420E-02	59	0.
10	0.	60	4.127E-02	110	0.	10	5.121E-02	60	0.
11	3.668E-03	61	1.788E-02	111	0.	11	4.802E-02	61	0.
12	1.284E-02	62	1.376E-03	112	0.	12	4.441E-02	62	0.
13	4.604E-01	63	0.	113	0.	13	4.014E-02	63	0.
14	0.	64	4.585E-03	114	0.	14	3.535E-02	64	0.
15	0.	65	4.585E-03	115	0.	15	3.028E-02	65	0.
16	4.585E-04	66	1.376E-03	116	0.	16	2.518E-02	66	0.
17	0.	67	1.238E-02	117	0.	17	2.035E-02	67	0.
18	1.013E-01	68	0.	118	0.	18	1.612E-02	68	0.
19	1.376E-03	69	3.210E-03	119	0.	19	1.280E-02	69	0.
20	4.585E-03	70	3.668E-03	120	0.	20	1.044E-02	70	0.
21	6.832E-02	71	0.	121	0.	21	8.953E-03	71	0.
22	6.420E-03	72	0.	122	0.	22	8.068E-03	72	0.
23	8.712E-03	73	1.788E-02	123	0.	23	7.442E-03	73	0.
24	2.201E-02	74	0.	124	0.	24	6.920E-03	74	0.
25	2.293E-02	75	3.210E-03	125	0.	25	6.448E-03	75	0.
26	3.668E-03	76	0.	126	0.	26	5.990E-03		
27	4.585E-03	77	0.	127	0.	27	5.534E-03		
28	2.935E-02	78	2.293E-03	128	0.	28	5.082E-03		
29	2.751E-03	79	0.	129	0.	29	4.644E-03		
30	2.293E-03	80	4.585E-04	130	0.	30	4.228E-03		
31	4.081E-02	81	4.585E-04	131	0.	31	3.826E-03		
32	0.	82	0.	132	0.	32	3.420E-03		
33	2.751E-03	83	0.	133	0.	33	3.014E-03		
34	4.127E-03	84	0.	134	0.	34	2.613E-03		
35	1.467E-02	85	0.	135	0.	35	2.224E-03		
36	3.485E-02	86	0.	136	0.	36	1.853E-03		
37	2.293E-03	87	0.	137	0.	37	1.509E-03		
38	5.044E-03	88	0.	138	0.	38	1.198E-03		
39	8.437E-02	89	0.	139	0.	39	9.278E-04		
40	1.834E-03	90	0.	140	0.	40	6.974E-04		
41	3.072E-02	91	0.	141	0.	41	4.930E-04		
42	4.035E-02	92	0.	142	0.	42	3.173E-04		
43	1.743E-02	93	0.	143	0.	43	1.754E-04		
44	5.594E-02	94	0.	144	0.	44	7.237E-05		
45	0.	95	0.	145	0.	45	1.375E-05		
46	3.210E-03	96	0.	146	0.	46	4.322E-08		
47	0.	97	0.	147	0.	47	0.		
48	1.550E-01	98	0.	148	0.	48	0.		
49	1.834E-03	99	0.	149	0.	49	0.		
50	3.668E-03	100	0.	150	0.	50	0.		

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.799E-01	51 0.
2 0.	52 0.	102 0.	2 3.023E-01	52 0.
3 4.930E-01	53 0.	103 0.	3 1.963E-01	53 0.
4 0.	54 0.	104 0.	4 9.129E-02	54 0.
5 0.	55 0.	105 0.	5 2.717E-02	55 0.
6 0.	56 0.	106 0.	6 3.014E-03	56 0.
7 0.	57 0.	107 0.	7 0.	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.329E-01	51 0.
2 1.160E-01	52 0.	102 0.	2 1.394E-01	52 0.
3 9.700E-04	53 0.	103 0.	3 1.391E-01	53 0.
4 0.	54 0.	104 0.	4 1.317E-01	54 0.
5 1.980E-02	55 0.	105 0.	5 1.182E-01	55 0.
6 4.130E-01	56 0.	106 0.	6 1.004E-01	56 0.
7 0.	57 0.	107 0.	7 8.079E-02	57 0.
8 3.350E-02	58 0.	108 0.	8 6.198E-02	58 0.
9 1.960E-03	59 0.	109 0.	9 4.387E-02	59 0.
10 1.973E-02	60 0.	110 0.	10 2.728E-02	60 0.
11 0.	61 0.	111 0.	11 1.479E-02	61 0.
12 2.650E-03	62 0.	112 0.	12 7.725E-03	62 0.
13 0.	63 0.	113 0.	13 2.937E-03	63 0.
14 5.160E-02	64 0.	114 0.	14 3.533E-04	64 0.
15 5.040E-02	65 0.	115 0.	15 0.	65 0.
16 1.700E-04	66 0.	116 0.	16 0.	66 0.
17 5.000E-04	67 0.	117 0.	17 0.	67 0.
18 9.220E-03	68 0.	118 0.	18 0.	68 0.
19 3.100E-04	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 9.200E-04	71 0.	121 0.	21 0.	71 0.
22 3.400E-04	72 0.	122 0.	22 0.	72 0.
23 3.600E-03	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 1.570E-04	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1	6.100E-03	51 0.	101 0.	1	6.702E-01	51 0.
2	1.718E-02	52 0.	102 0.	2	2.755E-01	52 0.
3	1.080E-01	53 0.	103 0.	3	5.585E-02	53 0.
4	0.	54 0.	104 0.	4	1.731E-04	54 0.
5	0.	55 0.	105 0.	5	0.	55 0.
6	0.	56 0.	106 0.	6	0.	56 0.
7	0.	57 0.	107 0.	7	0.	57 0.
8	0.	58 0.	108 0.	8	0.	58 0.
9	0.	59 0.	109 0.	9	0.	59 0.
10	0.	60 0.	110 0.	10	0.	60 0.
11	0.	61 0.	111 0.	11	0.	61 0.
12	0.	62 0.	112 0.	12	0.	62 0.
13	0.	63 0.	113 0.	13	0.	63 0.
14	0.	64 0.	114 0.	14	0.	64 0.
15	0.	65 0.	115 0.	15	0.	65 0.
16	0.	66 0.	116 0.	16	0.	66 0.
17	0.	67 0.	117 0.	17	0.	67 0.
18	0.	68 0.	118 0.	18	0.	68 0.
19	0.	69 0.	119 0.	19	0.	69 0.
20	0.	70 0.	120 0.	20	0.	70 0.
21	0.	71 0.	121 0.	21	0.	71 0.
22	0.	72 0.	122 0.	22	0.	72 0.
23	0.	73 0.	123 0.	23	0.	73 0.
24	0.	74 0.	124 0.	24	0.	74 0.
25	0.	75 0.	125 0.	25	0.	75 0.
26	0.	76 0.	126 0.	26	0.	
27	0.	77 0.	127 0.	27	0.	
28	0.	78 0.	128 0.	28	0.	
29	0.	79 0.	129 0.	29	0.	
30	0.	80 0.	130 0.	30	0.	
31	0.	81 0.	131 0.	31	0.	
32	0.	82 0.	132 0.	32	0.	
33	0.	83 0.	133 0.	33	0.	
34	0.	84 0.	134 0.	34	0.	
35	0.	85 0.	135 0.	35	0.	
36	0.	86 0.	136 0.	36	0.	
37	0.	87 0.	137 0.	37	0.	
38	0.	88 0.	138 0.	38	0.	
39	0.	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	0.	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	0.	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.737E-02	51 0.
2 5.736E-01	52 0.	102 0.	2 7.848E-02	52 0.
3 0.	53 0.	103 0.	3 8.753E-02	53 0.
4 0.	54 0.	104 0.	4 9.367E-02	54 0.
5 2.964E-02	55 0.	105 0.	5 9.653E-02	55 0.
6 1.089E-01	56 0.	106 0.	6 9.603E-02	56 0.
7 2.678E-02	57 0.	107 0.	7 9.228E-02	57 0.
8 0.	58 0.	108 0.	8 8.558E-02	58 0.
9 1.176E-01	59 0.	109 0.	9 7.638E-02	59 0.
10 0.	60 0.	110 0.	10 6.531E-02	60 0.
11 0.	61 0.	111 0.	11 5.315E-02	61 0.
12 0.	62 0.	112 0.	12 4.081E-02	62 0.
13 0.	63 0.	113 0.	13 2.937E-02	63 0.
14 0.	64 0.	114 0.	14 1.968E-02	64 0.
15 6.500E-01	65 0.	115 0.	15 1.134E-02	65 0.
16 0.	66 0.	116 0.	16 4.854E-03	66 0.
17 0.	67 0.	117 0.	17 1.093E-03	67 0.
18 1.437E-02	68 0.	118 0.	18 2.958E-04	68 0.
19 0.	69 0.	119 0.	19 1.640E-04	69 0.
20 0.	70 0.	120 0.	20 6.490E-05	70 0.
21 0.	71 0.	121 0.	21 9.739E-06	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 1.147E-01	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.359E-01	51 0.
2 2.912E-02	52 0.	102 0.	2 2.293E-01	52 0.
3 1.266E-01	53 0.	103 0.	3 2.028E-01	53 0.
4 0.	54 0.	104 0.	4 1.594E-01	54 0.
5 2.968E-01	55 0.	105 0.	5 1.061E-01	55 0.
6 1.383E-01	56 0.	106 0.	6 5.303E-02	56 0.
7 5.600E-01	57 0.	107 0.	7 1.335E-02	57 0.
8 3.920E-03	58 0.	108 0.	8 1.850E-04	58 0.
9 1.456E-02	59 0.	109 0.	9 0.	59 0.
10 6.720E-03	60 0.	110 0.	10 0.	60 0.
11 1.232E-02	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



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## BETA SPECTRUM

1	1.669E-01	51	0.
2	1.749E-01	52	0.
3	1.714E-01	53	0.
4	1.561E-01	54	0.
5	1.307E-01	55	0.
6	9.829E-02	56	0.
7	6.314E-02	57	0.
8	3.075E-02	58	0.
9	7.644E-03	59	0.
10	1.123E-04	60	0.
11	0.	61	0.
12	0.	62	0.
13	0.	63	0.
14	0.	64	0.
15	0.	65	0.
16	0.	66	0.
17	0.	67	0.
18	0.	68	0.
19	0.	69	0.
20	0.	70	0.
21	0.	71	0.
22	0.	72	0.
23	0.	73	0.
24	0.	74	0.
25	0.	75	0.
26	0.		
27	0.		
28	0.		
29	0.		
30	0.		
31	0.		
32	0.		
33	0.		
34	0.		
35	0.		
36	0.		
37	0.		
38	0.		
39	0.		
40	0.		
41	0.		
42	0.		
43	0.		
44	0.		
45	0.		
46	0.		
47	0.		
48	0.		
49	0.		
50	0.		

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.163E-02	51 0.
2 0.	52 0.	102 0.	2 2.639E-02	52 0.
3 0.	53 0.	103 0.	3 3.108E-02	53 0.
4 0.	54 0.	104 0.	4 3.546E-02	54 0.
5 0.	55 0.	105 0.	5 3.943E-02	55 0.
6 0.	56 0.	106 0.	6 4.295E-02	56 0.
7 0.	57 0.	107 0.	7 4.601E-02	57 0.
8 0.	58 0.	108 0.	8 4.865E-02	58 0.
9 0.	59 0.	109 0.	9 5.091E-02	59 0.
10 0.	60 0.	110 0.	10 5.258E-02	60 0.
11 0.	61 0.	111 0.	11 5.358E-02	61 0.
12 0.	62 0.	112 0.	12 5.391E-02	62 0.
13 0.	63 0.	113 0.	13 5.356E-02	63 0.
14 1.510E-02	64 0.	114 0.	14 5.256E-02	64 0.
15 0.	65 0.	115 0.	15 5.091E-02	65 0.
16 0.	66 0.	116 0.	16 4.868E-02	66 0.
17 0.	67 0.	117 0.	17 4.589E-02	67 0.
18 0.	68 0.	118 0.	18 4.262E-02	68 0.
19 0.	69 0.	119 0.	19 3.893E-02	69 0.
20 0.	70 0.	120 0.	20 3.491E-02	70 0.
21 0.	71 0.	121 0.	21 3.064E-02	71 0.
22 0.	72 0.	122 0.	22 2.623E-02	72 0.
23 0.	73 0.	123 0.	23 2.178E-02	73 0.
24 0.	74 0.	124 0.	24 1.742E-02	74 0.
25 0.	75 0.	125 0.	25 1.325E-02	75 0.
26 0.	76 0.	126 0.	26 9.396E-03	
27 0.	77 0.	127 0.	27 6.006E-03	
28 0.	78 0.	128 0.	28 3.229E-03	
29 0.	79 0.	129 0.	29 1.227E-03	
30 2.900E-03	80 0.	130 0.	30 1.687E-04	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 7.400E-03	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.627E-05	51 0.
2 9.995E-01	52 0.	102 0.	2 4.209E-05	52 0.
3 0.	53 0.	103 0.	3 4.674E-05	53 0.
4 0.	54 0.	104 0.	4 4.979E-05	54 0.
5 0.	55 0.	105 0.	5 5.103E-05	55 0.
6 0.	56 0.	106 0.	6 5.042E-05	56 0.
7 0.	57 0.	107 0.	7 4.803E-05	57 0.
8 0.	58 0.	108 0.	8 4.401E-05	58 0.
9 0.	59 0.	109 0.	9 3.861E-05	59 0.
10 0.	60 0.	110 0.	10 3.216E-05	60 0.
11 0.	61 0.	111 0.	11 2.507E-05	61 0.
12 0.	62 0.	112 0.	12 1.785E-05	62 0.
13 0.	63 0.	113 0.	13 1.106E-05	63 0.
14 5.000E-04	64 0.	114 0.	14 5.355E-06	64 0.
15 0.	65 0.	115 0.	15 1.450E-06	65 0.
16 0.	66 0.	116 0.	16 4.302E-08	66 0.
17 5.000E-04	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 5.722E-02	51 0.
2 2.270E-03	52 0.	102 0.	2 6.665E-02	52 0.
3 0.	53 0.	103 0.	3 7.470E-02	53 0.
4 0.	54 0.	104 0.	4 8.092E-02	54 0.
5 0.	55 0.	105 0.	5 8.521E-02	55 0.
6 0.	56 0.	106 0.	6 8.718E-02	56 0.
7 0.	57 0.	107 0.	7 8.668E-02	57 0.
8 0.	58 0.	108 0.	8 8.378E-02	58 0.
9 0.	59 0.	109 0.	9 7.863E-02	59 0.
10 0.	60 0.	110 0.	10 7.151E-02	60 0.
11 0.	61 0.	111 0.	11 6.281E-02	61 0.
12 0.	62 0.	112 0.	12 5.291E-02	62 0.
13 0.	63 0.	113 0.	13 4.224E-02	63 0.
14 4.000E-03	64 0.	114 0.	14 3.140E-02	64 0.
15 3.775E-03	65 0.	115 0.	15 2.104E-02	65 0.
16 0.	66 0.	116 0.	16 1.193E-02	66 0.
17 0.	67 0.	117 0.	17 4.881E-03	67 0.
18 0.	68 0.	118 0.	18 8.041E-04	68 0.
19 0.	69 0.	119 0.	19 9.187E-04	69 0.
20 1.820E-03	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 1.303E-03	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 1.416E-03	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 2.247E-03	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.490E-02	51 0.
2 0.	52 0.	102 0.	2 6.197E-02	52 0.
3 0.	53 0.	103 0.	3 6.067E-02	53 0.
4 0.	54 0.	104 0.	4 6.236E-02	54 0.
5 0.	55 0.	105 0.	5 6.413E-02	55 0.
6 0.	56 0.	106 0.	6 6.505E-02	56 0.
7 0.	57 0.	107 0.	7 6.449E-02	57 0.
8 0.	58 0.	108 0.	8 6.277E-02	58 0.
9 0.	59 0.	109 0.	9 6.022E-02	59 0.
10 8.800E-01	60 0.	110 0.	10 5.689E-02	60 0.
11 0.	61 0.	111 0.	11 5.302E-02	61 0.
12 1.716E-02	62 0.	112 0.	12 4.862E-02	62 0.
13 5.597E-02	63 0.	113 0.	13 4.361E-02	63 0.
14 0.	64 0.	114 0.	14 3.826E-02	64 0.
15 1.440E-01	65 0.	115 0.	15 3.287E-02	65 0.
16 1.216E-01	66 0.	116 0.	16 2.769E-02	66 0.
17 0.	67 0.	117 0.	17 2.287E-02	67 0.
18 0.	68 0.	118 0.	18 1.842E-02	68 0.
19 4.796E-02	69 0.	119 0.	19 1.462E-02	69 0.
20 0.	70 0.	120 0.	20 1.166E-02	70 0.
21 2.244E-02	71 0.	121 0.	21 9.782E-03	71 0.
22 1.918E-02	72 0.	122 0.	22 8.806E-03	72 0.
23 0.	73 0.	123 0.	23 7.923E-03	73 0.
24 0.	74 0.	124 0.	24 7.050E-03	74 0.
25 3.168E-03	75 0.	125 0.	25 6.206E-03	75 0.
26 0.	76 0.	126 0.	26 5.389E-03	
27 3.194E-02	77 0.	127 0.	27 4.619E-03	
28 8.958E-02	78 0.	128 0.	28 3.914E-03	
29 0.	79 0.	129 0.	29 3.245E-03	
30 6.565E-02	80 0.	130 0.	30 2.598E-03	
31 3.200E-01	81 0.	131 0.	31 1.988E-03	
32 0.	82 0.	132 0.	32 1.430E-03	
33 0.	83 0.	133 0.	33 9.391E-04	
34 1.276E-02	84 0.	134 0.	34 5.337E-04	
35 0.	85 0.	135 0.	35 2.313E-04	
36 0.	86 0.	136 0.	36 5.035E-05	
37 0.	87 0.	137 0.	37 5.010E-07	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 8.008E-03	94 0.	144 0.	44 0.	
45 1.118E-02	95 0.	145 0.	45 0.	
46 2.244E-02	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 1.443E-02	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	0.	51	0.	101	0.	1	5.739E-02	51	0.
2	1.556E-01	52	0.	102	0.	2	6.683E-02	52	0.
3	9.076E-02	53	0.	103	0.	3	7.460E-02	53	0.
4	1.361E-02	54	0.	104	0.	4	8.004E-02	54	0.
5	0.	55	0.	105	0.	5	8.290E-02	55	0.
6	0.	56	0.	106	0.	6	8.316E-02	56	0.
7	3.092E-01	57	0.	107	0.	7	8.098E-02	57	0.
8	1.945E-02	58	0.	108	0.	8	7.667E-02	58	0.
9	1.491E-02	59	0.	109	0.	9	7.069E-02	59	0.
10	9.012E-02	60	0.	110	0.	10	6.364E-02	60	0.
11	0.	61	0.	111	0.	11	5.608E-02	61	0.
12	2.950E-01	62	0.	112	0.	12	4.800E-02	62	0.
13	2.133E-01	63	0.	113	0.	13	3.985E-02	63	0.
14	0.	64	0.	114	0.	14	3.232E-02	64	0.
15	0.	65	0.	115	0.	15	2.611E-02	65	0.
16	0.	66	0.	116	0.	16	2.080E-02	66	0.
17	0.	67	0.	117	0.	17	1.561E-02	67	0.
18	0.	68	0.	118	0.	18	1.077E-02	68	0.
19	7.585E-02	69	0.	119	0.	19	6.576E-03	69	0.
20	5.576E-02	70	0.	120	0.	20	3.346E-03	70	0.
21	0.	71	0.	121	0.	21	1.429E-03	71	0.
22	0.	72	0.	122	0.	22	8.737E-04	72	0.
23	2.982E-02	73	0.	123	0.	23	6.258E-04	73	0.
24	2.400E-02	74	0.	124	0.	24	4.045E-04	74	0.
25	0.	75	0.	125	0.	25	2.207E-04	75	0.
26	7.779E-02	76	0.	126	0.	26	8.604E-05		
27	3.761E-02	77	0.	127	0.	27	1.275E-05		
28	0.	78	0.	128	0.	28	0.		
29	0.	79	0.	129	0.	29	0.		
30	0.	80	0.	130	0.	30	0.		
31	0.	81	0.	131	0.	31	0.		
32	0.	82	0.	132	0.	32	0.		
33	0.	83	0.	133	0.	33	0.		
34	0.	84	0.	134	0.	34	0.		
35	0.	85	0.	135	0.	35	0.		
36	0.	86	0.	136	0.	36	0.		
37	0.	87	0.	137	0.	37	0.		
38	0.	88	0.	138	0.	38	0.		
39	0.	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	0.	91	0.	141	0.	41	0.		
42	0.	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	0.	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	0.	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.620E-03	51 0.
2 0.	52 0.	102 0.	2 9.711E-03	52 0.
3 0.	53 0.	103 0.	3 1.195E-02	53 0.
4 0.	54 0.	104 0.	4 1.427E-02	54 0.
5 0.	55 0.	105 0.	5 1.660E-02	55 0.
6 1.000E+00	56 0.	106 0.	6 1.892E-02	56 0.
7 0.	57 0.	107 0.	7 2.119E-02	57 0.
8 0.	58 0.	108 0.	8 2.337E-02	58 0.
9 0.	59 0.	109 0.	9 2.545E-02	59 0.
10 0.	60 0.	110 0.	10 2.740E-02	60 0.
11 0.	61 0.	111 0.	11 2.921E-02	61 0.
12 0.	62 0.	112 0.	12 3.085E-02	62 0.
13 0.	63 0.	113 0.	13 3.231E-02	63 0.
14 0.	64 0.	114 0.	14 3.359E-02	64 0.
15 0.	65 0.	115 0.	15 3.466E-02	65 0.
16 0.	66 0.	116 0.	16 3.552E-02	66 0.
17 0.	67 0.	117 0.	17 3.617E-02	67 0.
18 0.	68 0.	118 0.	18 3.661E-02	68 0.
19 0.	69 0.	119 0.	19 3.682E-02	69 0.
20 0.	70 0.	120 0.	20 3.681E-02	70 0.
21 0.	71 0.	121 0.	21 3.659E-02	71 0.
22 0.	72 0.	122 0.	22 3.615E-02	72 0.
23 0.	73 0.	123 0.	23 3.550E-02	73 0.
24 0.	74 0.	124 0.	24 3.465E-02	74 0.
25 0.	75 0.	125 0.	25 3.361E-02	75 0.
26 0.	76 0.	126 0.	26 3.239E-02	
27 0.	77 0.	127 0.	27 3.099E-02	
28 0.	78 0.	128 0.	28 2.945E-02	
29 0.	79 0.	129 0.	29 2.776E-02	
30 0.	80 0.	130 0.	30 2.594E-02	
31 0.	81 0.	131 0.	31 2.403E-02	
32 0.	82 0.	132 0.	32 2.202E-02	
33 0.	83 0.	133 0.	33 1.996E-02	
34 0.	84 0.	134 0.	34 1.786E-02	
35 0.	85 0.	135 0.	35 1.574E-02	
36 0.	86 0.	136 0.	36 1.363E-02	
37 0.	87 0.	137 0.	37 1.156E-02	
38 0.	88 0.	138 0.	38 9.566E-03	
39 0.	89 0.	139 0.	39 7.666E-03	
40 0.	90 0.	140 0.	40 5.898E-03	
41 0.	91 0.	141 0.	41 4.294E-03	
42 0.	92 0.	142 0.	42 2.890E-03	
43 0.	93 0.	143 0.	43 1.722E-03	
44 0.	94 0.	144 0.	44 8.276E-04	
45 0.	95 0.	145 0.	45 2.459E-04	
46 0.	96 0.	146 0.	46 1.392E-05	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.425E-02	51 0.
2 2.500E-02	52 0.	102 0.	2 2.990E-02	52 0.
3 2.800E-01	53 0.	103 0.	3 3.552E-02	53 0.
4 1.600E-01	54 0.	104 0.	4 4.083E-02	54 0.
5 0.	55 0.	105 0.	5 4.564E-02	55 0.
6 0.	56 0.	106 0.	6 4.981E-02	56 0.
7 1.000E-01	57 0.	107 0.	7 5.326E-02	57 0.
8 6.000E-02	58 0.	108 0.	8 5.589E-02	58 0.
9 0.	59 0.	109 0.	9 5.768E-02	59 0.
10 8.000E-02	60 0.	110 0.	10 5.859E-02	60 0.
11 0.	61 0.	111 0.	11 5.863E-02	61 0.
12 8.000E-02	62 0.	112 0.	12 5.779E-02	62 0.
13 0.	63 0.	113 0.	13 5.613E-02	63 0.
14 0.	64 0.	114 0.	14 5.369E-02	64 0.
15 7.000E-02	65 0.	115 0.	15 5.054E-02	65 0.
16 0.	66 0.	116 0.	16 4.676E-02	66 0.
17 0.	67 0.	117 0.	17 4.248E-02	67 0.
18 0.	68 0.	118 0.	18 3.780E-02	68 0.
19 0.	69 0.	119 0.	19 3.286E-02	69 0.
20 0.	70 0.	120 0.	20 2.782E-02	70 0.
21 0.	71 0.	121 0.	21 2.285E-02	71 0.
22 0.	72 0.	122 0.	22 1.813E-02	72 0.
23 0.	73 0.	123 0.	23 1.386E-02	73 0.
24 0.	74 0.	124 0.	24 1.026E-02	74 0.
25 0.	75 0.	125 0.	25 7.532E-03	75 0.
26 0.	76 0.	126 0.	26 5.352E-03	
27 0.	77 0.	127 0.	27 3.438E-03	
28 0.	78 0.	128 0.	28 1.865E-03	
29 0.	79 0.	129 0.	29 7.233E-04	
30 0.	80 0.	130 0.	30 1.067E-04	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.787E-01	51 0.
2 2.800E-01	52 0.	102 0.	2 2.302E-01	52 0.
3 6.300E-03	53 0.	103 0.	3 1.782E-01	53 0.
4 6.048E-03	54 0.	104 0.	4 1.333E-01	54 0.
5 0.	55 0.	105 0.	5 9.748E-02	55 0.
6 4.872E-03	56 0.	106 0.	6 6.014E-02	56 0.
7 1.946E-02	57 0.	107 0.	7 2.636E-02	57 0.
8 6.300E-03	58 0.	108 0.	8 4.528E-03	58 0.
9 1.512E-02	59 0.	109 0.	9 1.628E-05	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 1.315E-01	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 7.112E-03	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.028E-01	51 0.
2 4.904E-02	52 0.	102 0.	2 1.131E-01	52 0.
3 1.700E-01	53 0.	103 0.	3 1.186E-01	53 0.
4 8.879E-02	54 0.	104 0.	4 1.187E-01	54 0.
5 3.111E-01	55 0.	105 0.	5 1.137E-01	55 0.
6 1.744E-01	56 0.	106 0.	6 1.040E-01	56 0.
7 6.229E-02	57 0.	107 0.	7 9.014E-02	57 0.
8 1.246E-02	58 0.	108 0.	8 7.347E-02	58 0.
9 9.790E-02	59 0.	109 0.	9 5.573E-02	59 0.
10 2.150E-03	60 0.	110 0.	10 3.903E-02	60 0.
11 6.846E-02	61 0.	111 0.	11 2.556E-02	61 0.
12 1.210E-02	62 0.	112 0.	12 1.546E-02	62 0.
13 2.860E-03	63 0.	113 0.	13 7.922E-03	63 0.
14 8.743E-02	64 0.	114 0.	14 2.813E-03	64 0.
15 1.460E-03	65 0.	115 0.	15 4.928E-04	65 0.
16 1.680E-03	66 0.	116 0.	16 2.643E-05	66 0.
17 3.040E-03	67 0.	117 0.	17 0.	67 0.
18 9.450E-04	68 0.	118 0.	18 0.	68 0.
19 1.544E-03	69 0.	119 0.	19 0.	69 0.
20 1.516E-03	70 0.	120 0.	20 0.	70 0.
21 1.419E-03	71 0.	121 0.	21 0.	71 0.
22 8.270E-04	72 0.	122 0.	22 0.	72 0.
23 9.990E-04	73 0.	123 0.	23 0.	73 0.
24 2.130E-04	74 0.	124 0.	24 0.	74 0.
25 2.970E-04	75 0.	125 0.	25 0.	75 0.
26 1.640E-04	76 0.	126 0.	26 0.	
27 6.800E-05	77 0.	127 0.	27 0.	
28 4.200E-05	78 0.	128 0.	28 0.	
29 4.000E-06	79 0.	129 0.	29 0.	
30 2.200E-05	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 5.000E-06	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1	2.592E-03	51 0.	101 0.	1	8.652E-02	51 0.
2	5.491E-02	52 0.	102 0.	2	9.249E-02	52 0.
3	5.376E-01	53 0.	103 0.	3	9.424E-02	53 0.
4	1.414E-01	54 0.	104 0.	4	9.217E-02	54 0.
5	2.011E-02	55 0.	105 0.	5	8.762E-02	55 0.
6	2.265E-01	56 0.	106 0.	6	8.199E-02	56 0.
7	6.629E-02	57 0.	107 0.	7	7.595E-02	57 0.
8	9.697E-03	58 0.	108 0.	8	6.902E-02	58 0.
9	1.082E-01	59 0.	109 0.	9	6.099E-02	59 0.
10	1.286E-02	60 0.	110 0.	10	5.234E-02	60 0.
11	1.699E-02	61 0.	111 0.	11	4.385E-02	61 0.
12	2.933E-02	62 0.	112 0.	12	3.638E-02	62 0.
13	5.580E-03	63 0.	113 0.	13	3.008E-02	63 0.
14	2.976E-02	64 0.	114 0.	14	2.419E-02	64 0.
15	7.333E-02	65 0.	115 0.	15	1.884E-02	65 0.
16	6.736E-02	66 0.	116 0.	16	1.437E-02	66 0.
17	1.643E-02	67 0.	117 0.	17	1.090E-02	67 0.
18	1.809E-02	68 0.	118 0.	18	7.924E-03	68 0.
19	1.807E-02	69 0.	119 0.	19	5.303E-03	69 0.
20	1.255E-02	70 0.	120 0.	20	3.179E-03	70 0.
21	3.550E-02	71 0.	121 0.	21	1.579E-03	71 0.
22	7.217E-03	72 0.	122 0.	22	5.556E-04	72 0.
23	5.082E-02	73 0.	123 0.	23	1.235E-04	73 0.
24	1.311E-01	74 0.	124 0.	24	5.196E-06	74 0.
25	4.563E-03	75 0.	125 0.	25	0.	75 0.
26	8.668E-03	76 0.	126 0.	26	0.	
27	1.218E-02	77 0.	127 0.	27	0.	
28	8.010E-03	78 0.	128 0.	28	0.	
29	1.835E-03	79 0.	129 0.	29	0.	
30	4.786E-03	80 0.	130 0.	30	0.	
31	3.646E-03	81 0.	131 0.	31	0.	
32	4.030E-03	82 0.	132 0.	32	0.	
33	4.786E-03	83 0.	133 0.	33	0.	
34	1.910E-03	84 0.	134 0.	34	0.	
35	3.187E-03	85 0.	135 0.	35	0.	
36	5.158E-03	86 0.	136 0.	36	0.	
37	2.282E-03	87 0.	137 0.	37	0.	
38	2.716E-03	88 0.	138 0.	38	0.	
39	1.128E-03	89 0.	139 0.	39	0.	
40	0.	90 0.	140 0.	40	0.	
41	8.308E-04	91 0.	141 0.	41	0.	
42	0.	92 0.	142 0.	42	0.	
43	1.488E-04	93 0.	143 0.	43	0.	
44	0.	94 0.	144 0.	44	0.	
45	0.	95 0.	145 0.	45	0.	
46	0.	96 0.	146 0.	46	0.	
47	0.	97 0.	147 0.	47	0.	
48	0.	98 0.	148 0.	48	0.	
49	0.	99 0.	149 0.	49	0.	
50	0.	100 0.	150 0.	50	0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.900E-01	51 0.
2 0.	52 0.	102 0.	2 2.080E-01	52 0.
3 8.000E-04	53 0.	103 0.	3 1.964E-03	53 0.
4 0.	54 0.	104 0.	4 0.	54 0.
5 0.	55 0.	105 0.	5 0.	55 0.
6 0.	56 0.	106 0.	6 0.	56 0.
7 0.	57 0.	107 0.	7 0.	57 0.
8 0.	58 0.	108 0.	8 0.	58 0.
9 0.	59 0.	109 0.	9 0.	59 0.
10 0.	60 0.	110 0.	10 0.	60 0.
11 0.	61 0.	111 0.	11 0.	61 0.
12 0.	62 0.	112 0.	12 0.	62 0.
13 0.	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 7.551E-02	51 0.
2 0.	52 0.	102 0.	2 8.372E-02	52 0.
3 0.	53 0.	103 0.	3 8.841E-02	53 0.
4 0.	54 0.	104 0.	4 8.905E-02	54 0.
5 0.	55 0.	105 0.	5 8.580E-02	55 0.
6 0.	56 0.	106 0.	6 7.924E-02	56 0.
7 0.	57 0.	107 0.	7 7.033E-02	57 0.
8 0.	58 0.	108 0.	8 6.033E-02	58 0.
9 0.	59 0.	109 0.	9 5.082E-02	59 0.
10 0.	60 0.	110 0.	10 4.370E-02	60 0.
11 0.	61 0.	111 0.	11 4.049E-02	61 0.
12 2.570E-01	62 0.	112 0.	12 3.833E-02	62 0.
13 1.250E-02	63 0.	113 0.	13 3.555E-02	63 0.
14 0.	64 0.	114 0.	14 3.225E-02	64 0.
15 0.	65 0.	115 0.	15 2.855E-02	65 0.
16 0.	66 0.	116 0.	16 2.459E-02	66 0.
17 0.	67 0.	117 0.	17 2.053E-02	67 0.
18 0.	68 0.	118 0.	18 1.655E-02	68 0.
19 1.370E-01	69 0.	119 0.	19 1.286E-02	69 0.
20 0.	70 0.	120 0.	20 9.630E-03	70 0.
21 0.	71 0.	121 0.	21 6.736E-03	71 0.
22 0.	72 0.	122 0.	22 4.180E-03	72 0.
23 0.	73 0.	123 0.	23 2.108E-03	73 0.
24 0.	74 0.	124 0.	24 6.770E-04	74 0.
25 0.	75 0.	125 0.	25 4.852E-05	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 2.430E-01	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.828E-01	51 0.
2 1.010E-01	52 0.	102 0.	2 2.841E-01	52 0.
3 0.	53 0.	103 0.	3 1.652E-01	53 0.
4 1.500E-02	54 0.	104 0.	4 6.706E-02	54 0.
5 0.	55 0.	105 0.	5 2.626E-02	55 0.
6 1.320E-01	56 0.	106 0.	6 1.056E-02	56 0.
7 4.000E-02	57 0.	107 0.	7 2.535E-03	57 0.
8 0.	58 0.	108 0.	8 9.610E-04	58 0.
9 2.410E-01	59 0.	109 0.	9 4.405E-04	59 0.
10 0.	60 0.	110 0.	10 9.336E-05	60 0.
11 6.900E-02	61 0.	111 0.	11 4.149E-07	61 0.
12 1.079E+00	62 0.	112 0.	12 0.	62 0.
13 9.530E-01	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 3.250E-01	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 1.870E-01	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 2.020E-01	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.402E-01	51 0.
2 0.	52 0.	102 0.	2 1.493E-01	52 0.
3 0.	53 0.	103 0.	3 1.510E-01	53 0.
4 0.	54 0.	104 0.	4 1.442E-01	54 0.
5 0.	55 0.	105 0.	5 1.292E-01	55 0.
6 3.910E-02	56 0.	106 0.	6 1.075E-01	56 0.
7 0.	57 0.	107 0.	7 8.165E-02	57 0.
8 0.	58 0.	108 0.	8 5.458E-02	58 0.
9 0.	59 0.	109 0.	9 2.971E-02	59 0.
10 0.	60 0.	110 0.	10 1.036E-02	60 0.
11 2.000E-04	61 0.	111 0.	11 8.460E-04	61 0.
12 1.200E-03	62 0.	112 0.	12 0.	62 0.
13 2.000E-04	63 0.	113 0.	13 0.	63 0.
14 0.	64 0.	114 0.	14 0.	64 0.
15 0.	65 0.	115 0.	15 0.	65 0.
16 0.	66 0.	116 0.	16 0.	66 0.
17 1.000E-03	67 0.	117 0.	17 0.	67 0.
18 1.500E-03	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.105E-01	51 0.
2 2.700E-02	52 0.	102 0.	2 1.947E-01	52 0.
3 5.910E-02	53 0.	103 0.	3 1.696E-01	53 0.
4 1.759E-01	54 0.	104 0.	4 1.414E-01	54 0.
5 9.340E-02	55 0.	105 0.	5 1.136E-01	55 0.
6 8.780E-02	56 0.	106 0.	6 8.349E-02	56 0.
7 2.828E-01	57 0.	107 0.	7 5.312E-02	57 0.
8 1.140E-02	58 0.	108 0.	8 2.821E-02	58 0.
9 6.060E-02	59 0.	109 0.	9 1.349E-02	59 0.
10 4.400E-03	60 0.	110 0.	10 6.028E-03	60 0.
11 2.000E-03	61 0.	111 0.	11 1.659E-03	61 0.
12 3.700E-03	62 0.	112 0.	12 1.455E-04	62 0.
13 1.510E-02	63 0.	113 0.	13 0.	63 0.
14 2.110E-02	64 0.	114 0.	14 0.	64 0.
15 5.210E-02	65 0.	115 0.	15 0.	65 0.
16 2.310E-02	66 0.	116 0.	16 0.	66 0.
17 1.200E-02	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 3.600E-03	69 0.	119 0.	19 0.	69 0.
20 1.000E-03	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	



## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 1.601E-02	51 0.
2 0.	52 0.	102 0.	2 1.990E-02	52 0.
3 2.740E-01	53 0.	103 0.	3 2.388E-02	53 0.
4 0.	54 0.	104 0.	4 2.777E-02	54 0.
5 1.700E-02	55 0.	105 0.	5 3.145E-02	55 0.
6 3.000E-03	56 0.	106 0.	6 3.485E-02	56 0.
7 4.000E-03	57 0.	107 0.	7 3.789E-02	57 0.
8 0.	58 0.	108 0.	8 4.052E-02	58 0.
9 2.000E-03	59 0.	109 0.	9 4.272E-02	59 0.
10 1.000E-03	60 0.	110 0.	10 4.443E-02	60 0.
11 0.	61 0.	111 0.	11 4.566E-02	61 0.
12 3.000E-03	62 0.	112 0.	12 4.639E-02	62 0.
13 2.000E-03	63 0.	113 0.	13 4.662E-02	63 0.
14 3.300E-02	64 0.	114 0.	14 4.636E-02	64 0.
15 0.	65 0.	115 0.	15 4.563E-02	65 0.
16 0.	66 0.	116 0.	16 4.446E-02	66 0.
17 5.330E-02	67 0.	117 0.	17 4.288E-02	67 0.
18 1.600E-02	68 0.	118 0.	18 4.094E-02	68 0.
19 1.900E-02	69 0.	119 0.	19 3.868E-02	69 0.
20 8.800E-02	70 0.	120 0.	20 3.617E-02	70 0.
21 0.	71 0.	121 0.	21 3.348E-02	71 0.
22 1.500E-02	72 0.	122 0.	22 3.066E-02	72 0.
23 0.	73 0.	123 0.	23 2.779E-02	73 0.
24 1.000E-03	74 0.	124 0.	24 2.491E-02	74 0.
25 0.	75 0.	125 0.	25 2.205E-02	75 0.
26 1.700E-02	76 0.	126 0.	26 1.928E-02	
27 1.000E-02	77 0.	127 0.	27 1.661E-02	
28 4.000E-03	78 0.	128 0.	28 1.400E-02	
29 2.000E-03	79 0.	129 0.	29 1.145E-02	
30 0.	80 0.	130 0.	30 9.014E-03	
31 5.000E-05	81 0.	131 0.	31 6.741E-03	
32 0.	82 0.	132 0.	32 4.694E-03	
33 0.	83 0.	133 0.	33 2.939E-03	
34 0.	84 0.	134 0.	34 1.542E-03	
35 0.	85 0.	135 0.	35 5.736E-04	
36 0.	86 0.	136 0.	36 8.311E-05	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 6.323E-02	51 0.
2 0.	52 0.	102 0.	2 7.486E-02	52 0.
3 9.497E-01	53 0.	103 0.	3 8.514E-02	53 0.
4 0.	54 0.	104 0.	4 9.330E-02	54 0.
5 6.070E-01	55 0.	105 0.	5 9.896E-02	55 0.
6 0.	56 0.	106 0.	6 1.019E-01	56 0.
7 2.832E-01	57 0.	107 0.	7 1.020E-01	57 0.
8 2.832E-03	58 0.	108 0.	8 9.937E-02	58 0.
9 1.322E-02	59 0.	109 0.	9 9.414E-02	59 0.
10 0.	60 0.	110 0.	10 8.658E-02	60 0.
11 0.	61 0.	111 0.	11 7.706E-02	61 0.
12 0.	62 0.	112 0.	12 6.602E-02	62 0.
13 0.	63 0.	113 0.	13 5.403E-02	63 0.
14 6.702E-02	64 0.	114 0.	14 4.172E-02	64 0.
15 0.	65 0.	115 0.	15 2.983E-02	65 0.
16 3.304E-02	66 0.	116 0.	16 1.916E-02	66 0.
17 8.590E-02	67 0.	117 0.	17 1.064E-02	67 0.
18 1.510E-02	68 0.	118 0.	18 5.223E-03	68 0.
19 4.059E-02	69 0.	119 0.	19 3.149E-03	69 0.
20 7.552E-02	70 0.	120 0.	20 1.984E-03	70 0.
21 3.965E-02	71 0.	121 0.	21 1.122E-03	71 0.
22 2.398E-01	72 0.	122 0.	22 5.112E-04	72 0.
23 3.210E-02	73 0.	123 0.	23 1.498E-04	73 0.
24 1.699E-02	74 0.	124 0.	24 1.042E-05	74 0.
25 2.077E-02	75 0.	125 0.	25 0.	75 0.
26 1.416E-02	76 0.	126 0.	26 0.	
27 1.510E-02	77 0.	127 0.	27 0.	
28 5.664E-03	78 0.	128 0.	28 0.	
29 1.567E-01	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

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GAMMA SPECTRUM

## BETA SPECTRUM

1	3.300E-01	51	0.	101	0.	1	6.061E-02	51	0.
2	4.600E-02	52	0.	102	0.	2	7.112E-02	52	0.
3	2.230E-01	53	0.	103	0.	3	8.007E-02	53	0.
4	4.700E-02	54	0.	104	0.	4	8.674E-02	54	0.
5	0.	55	0.	105	0.	5	9.077E-02	55	0.
6	0.	56	0.	106	0.	6	9.199E-02	56	0.
7	0.	57	0.	107	0.	7	9.041E-02	57	0.
8	0.	58	0.	108	0.	8	8.614E-02	58	0.
9	0.	59	0.	109	0.	9	7.942E-02	59	0.
10	0.	60	0.	110	0.	10	7.060E-02	60	0.
11	0.	61	0.	111	0.	11	6.015E-02	61	0.
12	0.	62	0.	112	0.	12	4.863E-02	62	0.
13	0.	63	0.	113	0.	13	3.672E-02	63	0.
14	0.	64	0.	114	0.	14	2.517E-02	64	0.
15	0.	65	0.	115	0.	15	1.485E-02	65	0.
16	0.	66	0.	116	0.	16	6.722E-03	66	0.
17	0.	67	0.	117	0.	17	1.781E-03	67	0.
18	0.	68	0.	118	0.	18	1.090E-04	68	0.
19	0.	69	0.	119	0.	19	0.	69	0.
20	0.	70	0.	120	0.	20	0.	70	0.
21	0.	71	0.	121	0.	21	0.	71	0.
22	0.	72	0.	122	0.	22	0.	72	0.
23	0.	73	0.	123	0.	23	0.	73	0.
24	0.	74	0.	124	0.	24	0.	74	0.
25	0.	75	0.	125	0.	25	0.	75	0.
26	0.	76	0.	126	0.	26	0.		
27	0.	77	0.	127	0.	27	0.		
28	0.	78	0.	128	0.	28	0.		
29	0.	79	0.	129	0.	29	0.		
30	0.	80	0.	130	0.	30	0.		
31	0.	81	0.	131	0.	31	0.		
32	0.	82	0.	132	0.	32	0.		
33	0.	83	0.	133	0.	33	0.		
34	0.	84	0.	134	0.	34	0.		
35	0.	85	0.	135	0.	35	0.		
36	0.	86	0.	136	0.	36	0.		
37	0.	87	0.	137	0.	37	0.		
38	0.	88	0.	138	0.	38	0.		
39	0.	89	0.	139	0.	39	0.		
40	0.	90	0.	140	0.	40	0.		
41	0.	91	0.	141	0.	41	0.		
42	0.	92	0.	142	0.	42	0.		
43	0.	93	0.	143	0.	43	0.		
44	0.	94	0.	144	0.	44	0.		
45	0.	95	0.	145	0.	45	0.		
46	0.	96	0.	146	0.	46	0.		
47	0.	97	0.	147	0.	47	0.		
48	0.	98	0.	148	0.	48	0.		
49	0.	99	0.	149	0.	49	0.		
50	0.	100	0.	150	0.	50	0.		

## GAMMA SPECTRUM

## BETA SPECTRUM

1 0.	51 0.	101 0.	1 2.531E-01	51 0.
2 6.560E-02	52 0.	102 0.	2 2.376E-01	52 0.
3 2.830E-01	53 0.	103 0.	3 2.028E-01	53 0.
4 8.500E-04	54 0.	104 0.	4 1.520E-01	54 0.
5 0.	55 0.	105 0.	5 9.420E-02	55 0.
6 0.	56 0.	106 0.	6 4.212E-02	56 0.
7 0.	57 0.	107 0.	7 1.065E-02	57 0.
8 7.000E-05	58 0.	108 0.	8 1.301E-03	58 0.
9 9.500E-05	59 0.	109 0.	9 7.142E-07	59 0.
10 2.169E-04	60 0.	110 0.	10 0.	60 0.
11 1.307E-03	61 0.	111 0.	11 0.	61 0.
12 2.361E-04	62 0.	112 0.	12 0.	62 0.
13 2.051E-04	63 0.	113 0.	13 0.	63 0.
14 6.800E-06	64 0.	114 0.	14 0.	64 0.
15 2.500E-06	65 0.	115 0.	15 0.	65 0.
16 5.600E-07	66 0.	116 0.	16 0.	66 0.
17 0.	67 0.	117 0.	17 0.	67 0.
18 0.	68 0.	118 0.	18 0.	68 0.
19 0.	69 0.	119 0.	19 0.	69 0.
20 0.	70 0.	120 0.	20 0.	70 0.
21 0.	71 0.	121 0.	21 0.	71 0.
22 0.	72 0.	122 0.	22 0.	72 0.
23 0.	73 0.	123 0.	23 0.	73 0.
24 0.	74 0.	124 0.	24 0.	74 0.
25 0.	75 0.	125 0.	25 0.	75 0.
26 0.	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 0.	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 0.	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 0.	88 0.	138 0.	38 0.	
39 0.	89 0.	139 0.	39 0.	
40 0.	90 0.	140 0.	40 0.	
41 0.	91 0.	141 0.	41 0.	
42 0.	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 0.	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 0.	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	

63-EU-156 = ENDF NO. 779

GAMMA SPECTRUM

BETA SPECTRUM

1 0.	51 0.	101 0.	1 3.292E-01	51 0.
2 1.140E-01	52 0.	102 0.	2 2.028E-01	52 0.
3 6.800E-03	53 0.	103 0.	3 1.072E-01	53 0.
4 6.700E-03	54 0.	104 0.	4 5.765E-02	54 0.
5 0.	55 0.	105 0.	5 3.196E-02	55 0.
6 0.	56 0.	106 0.	6 2.899E-02	56 0.
7 0.	57 0.	107 0.	7 2.834E-02	57 0.
8 0.	58 0.	108 0.	8 2.705E-02	58 0.
9 2.400E-03	59 0.	109 0.	9 2.529E-02	59 0.
10 2.000E-03	60 0.	110 0.	10 2.330E-02	60 0.
11 2.000E-03	61 0.	111 0.	11 2.133E-02	61 0.
12 2.260E-02	62 0.	112 0.	12 1.959E-02	62 0.
13 6.900E-02	63 0.	113 0.	13 1.809E-02	63 0.
14 0.	64 0.	114 0.	14 1.672E-02	64 0.
15 7.230E-02	65 0.	115 0.	15 1.516E-02	65 0.
16 0.	66 0.	116 0.	16 1.341E-02	66 0.
17 1.105E-01	67 0.	117 0.	17 1.151E-02	67 0.
18 2.010E-02	68 0.	118 0.	18 9.547E-03	68 0.
19 2.930E-02	69 0.	119 0.	19 7.567E-03	69 0.
20 2.090E-02	70 0.	120 0.	20 5.649E-03	70 0.
21 9.600E-03	71 0.	121 0.	21 3.874E-03	71 0.
22 1.197E-01	72 0.	122 0.	22 2.328E-03	72 0.
23 2.800E-03	73 0.	123 0.	23 1.104E-03	73 0.
24 1.309E-01	74 0.	124 0.	24 3.015E-04	74 0.
25 1.697E-01	75 0.	125 0.	25 1.057E-05	75 0.
26 3.420E-02	76 0.	126 0.	26 0.	
27 0.	77 0.	127 0.	27 0.	
28 1.850E-02	78 0.	128 0.	28 0.	
29 0.	79 0.	129 0.	29 0.	
30 0.	80 0.	130 0.	30 0.	
31 0.	81 0.	131 0.	31 0.	
32 0.	82 0.	132 0.	32 0.	
33 0.	83 0.	133 0.	33 0.	
34 2.200E-03	84 0.	134 0.	34 0.	
35 0.	85 0.	135 0.	35 0.	
36 0.	86 0.	136 0.	36 0.	
37 0.	87 0.	137 0.	37 0.	
38 1.620E-02	88 0.	138 0.	38 0.	
39 2.000E-02	89 0.	139 0.	39 0.	
40 4.000E-02	90 0.	140 0.	40 0.	
41 3.500E-02	91 0.	141 0.	41 0.	
42 4.100E-02	92 0.	142 0.	42 0.	
43 0.	93 0.	143 0.	43 0.	
44 6.100E-02	94 0.	144 0.	44 0.	
45 0.	95 0.	145 0.	45 0.	
46 1.070E-02	96 0.	146 0.	46 0.	
47 0.	97 0.	147 0.	47 0.	
48 0.	98 0.	148 0.	48 0.	
49 0.	99 0.	149 0.	49 0.	
50 0.	100 0.	150 0.	50 0.	