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CALCULATED VALUES OF WING-FONG'S
NUCLIDIC MASS EQUATION

by

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Chemistry Division

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Wing and Fong⁽¹⁾ have developed a semiempirical equation to describe the mass systematics of the atomic nuclides. It was found that their equation agrees fairly well with the available experimental data. Compared with several other existing nuclidic mass formulas, Wing-Fong's equation has the fewest number of large deviations from the experimental values and very few systematic deviations.

Wing-Fong's mass equation expresses the mass excess, M , in terms of the mass number, A , and proton number, Z , of a nuclide, in units of million electron volts and the scale of $C^{12} = 12.000\ 000$ mass units. The equation is

$$\begin{aligned} M(Z,A) = & 0.0089794A^2 - 2.0717A + 33.448 \\ & + [1.629 - (30.11/A^{1/2}) + 215.8/A](Z - Z_A)^2 \\ & + (11.51\delta/A^{1/2}) - S, \end{aligned} \tag{1}$$

where

$$Z_A = (A + 0.003A^2)/(2 + 0.01A);$$

$\delta = 0$ for odd- A nuclides, -1 for even- Z -even- A nuclides,
and $+1$ for odd- Z -even- A nuclides;

and

$$S = \sum_i \frac{a_i b_i^2 + a_i c_i^2}{(A - Z - N_i^*)^2 + b_i^2 + c_i^2} + \sum_j \frac{a_j b_j^2 + a_j c_j^2}{(Z - Z_j^*)^2 + b_j^2 + c_j^2}.$$

The values of the constants a , b , c , N^* , and Z^* are listed in Table 1.

Table 1

VALUES OF THE CONSTANTS IN THE PARAMETER S

N_i^*	$A - Z - N_i^*$	a_i	b_i	c_i
28	+	3.49	4.04	0
	-	3.49	0	1.44
50	+	5.99	5.96	0
	-	5.99	0	2.88
82	+	5.75	2.49	0
	-	5.75	0	5.32
126	+	7.76	2.90	0
	-	7.76	0	5.36
152	+	5.02	6.88	0
	-	5.02	0	5.29

Z_j^*	$Z - Z_j^*$	a_j	b_j	c_j
28	+	3.07	2.27	0
	-	3.07	0	2.77
50	+	2.74	4.31	0
	-	2.74	0	3.10
82	+	4.22	1.51	0
	-	4.22	0	2.35

Equation (1) was used to calculate the mass excesses, neutron and proton binding energies, alpha binding energies, and total beta-decay energies for nuclides with proton numbers from 13 to 110, and with mass numbers from 22 to 315. The calculated values, in units of million electron volts, are tabulated in Table 2 with the following headings:

- Z: Number of protons in the nuclide; atomic number.
- A: Mass number, or total number of nucleons, of the nuclide.
- A - Z: Number of neutrons in the nuclide.
- M(Z,A): Mass excess of the nuclide; nuclidic mass minus the mass number, in the scale of $C^{12} = 12.000\ 000$ mass units.
- NEUTRON: Energy required to separate one neutron from the nuclide.
- PROTON: Energy required to separate one proton from the nuclide.
- ALPHA: Energy required to separate one He^4 particle from the nuclide.
- Q BETA-: Energy available for the nuclide to decay to an isobar of one higher atomic number.

A CDC-3600 computer was used to determine the numerical values of the coefficients in Equation (1) by the metric variable method for minimization,⁽²⁾ and to prepare Table 2. The calculated values of M, together with the Z and A values, were also punched on IBM cards for general uses in the applications of the nuclidic mass equation.⁽³⁾

Table 2

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
13	22	9	24.236	22.367	-4.013	14.198	-24.562
13	23	10	8.776	23.532	-1.590	11.136	-23.423
13	24	11	1.275	15.572	0.834	9.703	-13.324
13	25	12	-8.252	17.598	3.043	8.684	-13.184
13	26	13	-10.900	10.719	5.231	8.736	-4.319
13	27	14	-16.124	13.295	7.213	8.881	-4.911
13	28	15	-15.258	7.205	9.166	9.760	2.987
13	29	16	-17.321	10.133	10.928	10.560	1.853
13	30	17	-13.884	4.635	12.662	11.885	8.978
13	31	18	-13.598	7.785	14.223	13.038	7.436
13	32	19	-8.270	2.742	15.757	14.582	13.934
13	33	20	-6.229	6.031	17.137	15.908	12.083
13	34	21	0.492	1.350	18.495	17.540	18.061
13	35	22	3.840	4.723	19.714	18.940	15.970
13	36	23	11.565	0.347	20.916	20.598	21.501
13	37	24	15.842	3.794	21.993	22.046	19.196
13	38	25	24.171	-0.259	23.057	23.784	24.276
13	39	26	28.818	3.424	24.010	25.504	21.611
13	40	27	36.820	0.069	24.954	27.895	25.882
14	22	8	48.799	34.073	-2.977	20.697	-44.416
14	23	9	32.199	24.671	-0.674	16.042	-32.890
14	24	10	14.599	25.671	1.466	12.427	-31.671
14	25	11	4.932	17.738	3.632	10.427	-21.662
14	26	12	-6.581	19.584	5.618	8.902	-21.395
14	27	13	-11.214	12.704	7.603	8.458	-12.563
14	28	14	-18.245	15.103	9.410	8.172	-13.004
14	29	15	-19.173	8.999	11.204	8.640	-5.104
14	30	16	-22.862	11.760	12.830	9.086	-6.075
14	31	17	-21.035	6.244	14.440	10.078	1.075
14	32	18	-22.204	9.240	15.894	10.947	-0.300
14	33	19	-18.313	4.180	17.332	12.226	6.237
14	34	20	-17.569	7.327	18.629	13.330	4.552
14	35	21	-12.130	2.632	19.911	14.753	10.577
14	36	22	-9.936	5.877	21.065	15.980	8.647
14	37	23	-3.354	1.489	22.208	17.477	14.231
14	38	24	-0.104	4.821	23.235	18.795	12.082
14	39	25	7.207	0.760	24.254	20.409	17.216
14	40	26	10.939	4.339	25.168	22.032	14.702
14	41	27	18.033	0.977	26.077	24.332	19.027
14	42	28	21.865	4.238	26.891	26.099	16.724
14	43	29	30.853	-0.917	27.703	26.058	22.745
14	44	30	36.851	2.073	28.430	25.551	20.618
14	45	31	46.597	-1.675	29.156	26.444	25.146
15	25	10	26.594	27.747	-4.706	14.364	-30.138
15	26	11	14.815	19.850	-2.593	11.847	-20.413
15	27	12	1.350	21.536	-0.642	9.851	-20.215
15	28	13	-5.241	14.662	1.317	8.941	-11.593
15	29	14	-14.070	16.899	3.113	8.243	-12.059
15	30	15	-16.787	10.788	4.902	8.312	-4.317
15	31	16	-22.110	13.394	6.537	8.410	-5.286
15	32	17	-21.904	7.865	8.158	9.070	1.743

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
15	33	18	-24.549	10.717	9.635	9.654	0.389
15	34	19	-22.121	5.642	11.097	10.662	6.831
15	35	20	-22.707	8.657	12.427	11.533	5.178
15	36	21	-18.584	3.948	13.743	12.739	11.129
15	37	22	-17.585	7.072	14.938	13.781	9.239
15	38	23	-12.186	2.673	16.121	15.103	14.762
15	39	24	-10.010	5.894	17.194	16.275	12.657
15	40	25	-3.763	1.824	18.258	17.752	17.743
15	41	26	-0.995	5.303	19.222	19.261	15.274
15	42	27	5.142	1.935	20.180	21.455	19.559
15	43	28	8.108	5.105	21.047	23.135	17.303
15	44	29	16.233	-0.054	21.909	23.013	23.290
15	45	30	21.451	2.853	22.689	22.442	21.210
15	46	31	30.419	-0.897	23.467	23.273	25.709
15	47	32	36.149	2.340	24.170	24.267	23.220
15	48	33	45.334	-1.114	24.873	25.554	27.353
16	25	9	56.732	28.830	-3.173	20.494	-38.614
16	26	10	35.227	29.576	-1.344	15.996	-37.487
16	27	11	21.565	21.733	0.538	13.059	-27.866
16	28	12	6.351	23.285	2.287	10.673	-27.582
16	29	13	-2.010	16.433	4.058	9.368	-19.014
16	30	14	-12.470	18.531	5.689	8.314	-19.368
16	31	15	-16.824	12.425	7.326	8.035	-11.646
16	32	16	-23.647	14.894	8.826	7.826	-12.490
16	33	17	-24.938	9.362	10.324	8.190	-5.459
16	34	18	-28.952	12.085	11.692	8.515	-6.682
16	35	19	-27.885	7.004	13.053	9.276	-0.222
16	36	20	-29.713	9.898	14.295	9.934	-1.741
16	37	21	-26.824	5.182	15.529	10.936	4.236
16	38	22	-26.948	8.196	16.653	11.804	2.479
16	39	23	-22.667	3.790	17.770	12.962	8.036
16	40	24	-21.505	6.909	18.785	13.994	6.061
16	41	25	-16.269	2.834	19.795	15.340	11.184
16	42	26	-14.418	6.220	20.712	16.738	8.842
16	43	27	-9.195	2.849	21.626	18.827	13.166
16	44	28	-7.057	5.933	22.454	20.421	11.031
16	45	29	0.241	0.773	23.281	20.217	17.059
16	46	30	4.710	3.602	24.030	19.580	15.096
16	47	31	12.929	-0.148	24.779	20.349	19.636
16	48	32	17.982	3.018	25.457	21.294	17.260
16	49	33	26.487	-0.435	26.136	22.535	21.432
17	29	12	17.003	25.001	-3.363	12.016	-25.966
17	30	13	6.898	18.176	-1.620	10.341	-17.607
17	31	14	-5.177	20.147	-0.004	8.952	-18.005
17	32	15	-11.157	14.050	1.622	8.340	-10.445
17	33	16	-19.479	16.394	3.121	7.835	-11.305
17	34	17	-22.270	10.862	4.621	7.909	-4.402
17	35	18	-27.663	13.464	6.000	7.978	-5.623
17	36	19	-27.971	8.379	7.375	8.493	0.734
17	37	20	-31.060	11.160	8.637	8.936	-0.771
17	38	21	-29.428	6.439	9.893	9.732	5.123

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
17	39	22	-30.703	9.346	11.043	10.421	3.389
17	40	23	-27.567	4.935	12.189	11.408	8.877
17	41	24	-27.453	7.957	13.236	12.293	6.930
17	42	25	-23.259	3.878	14.279	13.498	11.995
17	43	26	-22.361	7.173	15.232	14.776	9.685
17	44	27	-18.089	3.799	16.183	16.751	13.961
17	45	28	-16.819	6.801	17.050	18.249	11.860
17	46	29	-10.386	1.639	17.916	17.953	17.846
17	47	30	-6.707	4.392	18.706	17.239	15.918
17	48	31	0.722	0.642	19.496	17.936	20.422
17	49	32	5.055	3.738	20.216	18.821	18.081
17	50	33	12.839	0.287	20.937	20.004	22.222
17	51	34	17.515	3.395	21.594	21.059	19.806
17	52	35	25.562	0.025	22.253	22.198	23.807
17	53	36	30.561	3.071	22.854	23.145	21.396
17	54	37	38.865	-0.233	23.458	24.164	25.280
18	28	10	60.101	32.916	-3.381	19.815	-42.151
18	29	11	42.969	25.203	-1.747	16.188	-32.915
18	30	12	24.505	26.536	-0.213	13.147	-32.653
18	31	13	12.827	19.749	1.360	11.163	-24.360
18	32	14	-0.712	21.610	2.824	9.489	-24.674
18	33	15	-8.174	15.533	4.306	8.589	-17.149
18	34	16	-17.868	17.765	5.678	7.823	-17.911
18	35	17	-22.040	12.243	7.059	7.642	-11.021
18	36	18	-28.705	14.736	8.331	7.484	-12.136
18	37	19	-30.290	9.655	9.607	7.777	-5.778
18	38	20	-34.551	12.333	10.780	8.024	-7.173
18	39	21	-34.092	7.612	11.953	8.632	-1.267
18	40	22	-36.443	10.422	13.029	9.156	-2.891
18	41	23	-34.383	6.011	14.105	9.984	2.616
18	42	24	-35.254	8.943	15.091	10.731	0.779
18	43	25	-32.046	4.863	16.076	11.804	5.868
18	44	26	-32.049	8.074	16.977	12.969	3.665
18	45	27	-28.679	4.700	17.879	14.835	7.968
18	46	28	-28.233	7.625	18.703	16.240	5.973
18	47	29	-22.625	2.464	19.528	15.855	11.988
18	48	30	-19.700	5.145	20.282	15.067	10.162
18	49	31	-13.026	1.397	21.037	15.692	14.695
18	50	32	-9.383	4.428	21.726	16.518	12.453
18	51	33	-2.290	0.979	22.419	17.644	16.624
18	52	34	1.754	4.026	23.050	18.652	14.303
18	53	35	9.165	0.660	23.685	19.747	18.335
18	54	36	13.586	3.650	24.264	20.659	16.014
18	55	37	21.307	0.350	24.848	21.645	19.928
18	56	38	26.083	3.295	25.379	22.468	17.602
18	57	39	34.085	0.069	25.917	23.375	21.396
19	33	14	8.975	23.058	-2.398	10.453	-22.988
19	34	15	0.043	17.003	-0.928	9.280	-15.625
19	35	16	-11.019	19.133	0.439	8.266	-16.416
19	36	17	-16.569	13.621	1.818	7.837	-9.657
19	37	18	-24.511	16.013	3.095	7.457	-10.783

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
19	38	19	-27.378	10.937	4.377	7.533	-4.531
19	39	20	-32.825	13.518	5.562	7.587	-5.925
19	40	21	-33.552	8.799	6.749	8.006	-0.107
19	41	22	-36.999	11.517	7.844	8.363	-1.721
19	42	23	-36.034	7.106	8.940	9.031	3.712
19	43	24	-37.914	9.952	9.949	9.637	1.891
19	44	25	-35.715	5.872	10.958	10.573	6.918
19	45	26	-36.647	9.003	11.887	11.620	4.736
19	46	27	-34.205	5.629	12.816	13.371	8.985
19	47	28	-34.613	8.479	13.670	14.677	7.012
19	48	29	-29.861	3.319	14.525	14.197	12.981
19	49	30	-27.721	5.931	15.311	13.328	11.180
19	50	31	-21.835	2.185	16.098	13.874	15.673
19	51	32	-18.915	5.151	16.821	14.633	13.456
19	52	33	-12.548	1.704	17.547	15.695	17.592
19	53	34	-9.170	4.692	18.213	16.650	15.297
19	54	35	-2.428	1.329	18.882	17.692	19.297
19	55	36	1.378	4.265	19.497	18.562	17.003
19	56	37	8.481	0.969	20.115	19.506	20.888
19	57	38	12.689	3.862	20.682	20.297	18.589
19	58	39	20.120	0.641	21.254	21.171	22.356
19	59	40	24.686	3.505	21.779	21.912	20.044
19	60	41	32.394	0.364	22.309	22.744	23.690
19	61	42	37.254	3.210	22.795	23.463	21.356
19	62	43	45.164	0.161	23.287	24.286	24.875
19	63	44	50.219	3.016	23.738	25.028	22.496
19	64	45	58.195	0.095	24.196	25.912	25.853
20	32	12	46.582	29.386	-2.106	15.944	-36.837
20	33	13	31.963	22.690	-0.712	13.432	-28.819
20	34	14	15.668	24.366	0.596	11.262	-29.122
20	35	15	5.397	18.341	1.935	9.855	-21.803
20	36	16	-6.912	20.381	3.183	8.625	-22.516
20	37	17	-13.729	14.887	4.449	7.980	-15.781
20	38	18	-22.847	17.189	5.624	7.403	-16.821
20	39	19	-26.900	12.124	6.811	7.285	-10.578
20	40	20	-33.445	14.616	7.909	7.165	-11.881
20	41	21	-35.278	9.904	9.014	7.413	-6.062
20	42	22	-39.745	12.539	10.036	7.619	-7.583
20	43	23	-39.806	8.131	11.061	8.139	-2.142
20	44	24	-42.633	10.898	12.007	8.614	-3.869
20	45	25	-41.383	6.821	12.957	9.425	1.171
20	46	26	-43.190	9.878	13.832	10.360	-0.918
20	47	27	-41.626	6.507	14.710	12.005	3.349
20	48	28	-42.842	9.287	15.518	13.218	1.467
20	49	29	-38.901	4.130	16.329	12.648	7.456
20	50	30	-37.508	6.677	17.075	11.700	5.744
20	51	31	-32.371	2.935	17.825	12.171	10.259
20	52	32	-30.140	5.840	18.514	12.866	8.129
20	53	33	-24.467	2.398	19.208	13.866	12.287
20	54	34	-21.725	5.329	19.845	14.768	10.076
20	55	35	-15.625	1.971	20.486	15.760	14.100
20	56	36	-12.408	4.854	21.075	16.587	11.887
20	57	37	-5.900	1.563	21.670	17.490	15.796

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
20	58	38	-2.237	4.408	22.215	18.247	13.574
20	59	39	4.642	1.192	22.766	19.089	17.365
20	60	40	8.703	4.010	23.272	19.804	15.127
20	61	41	15.899	0.876	23.784	20.611	18.798
20	62	42	20.290	3.680	24.254	21.311	16.535
20	63	43	27.723	0.637	24.730	22.115	20.077
20	64	44	32.341	3.453	25.167	22.844	17.768
20	65	45	39.873	0.540	25.611	23.714	21.148
20	66	46	44.512	3.432	26.018	24.581	18.729
20	67	47	51.848	0.735	26.433	25.678	21.863
20	68	48	56.165	3.754	26.813	26.827	19.288
20	69	49	63.266	0.970	27.201	27.903	22.482
21	36	15	15.604	19.667	-2.918	10.783	-20.017
21	37	16	2.052	21.623	-1.676	9.348	-20.767
21	38	17	-6.026	16.149	-0.414	8.494	-14.161
21	39	18	-16.321	18.366	0.764	7.728	-15.221
21	40	19	-21.564	13.313	1.953	7.420	-9.087
21	41	20	-29.215	15.723	3.059	7.129	-10.398
21	42	21	-32.162	11.018	4.173	7.209	-4.670
21	43	22	-37.664	13.573	5.208	7.264	-6.189
21	44	23	-38.764	9.171	6.247	7.637	-0.825
21	45	24	-42.554	11.861	7.211	7.981	-2.545
21	46	25	-42.272	7.788	8.178	8.663	2.429
21	47	26	-44.975	10.774	9.074	9.485	0.352
21	48	27	-44.309	7.406	9.973	11.020	4.561
21	49	28	-46.358	10.119	10.804	12.136	2.695
21	50	29	-43.251	4.965	11.639	11.471	8.634
21	51	30	-42.630	7.449	12.411	10.441	6.939
21	52	31	-38.269	3.710	13.187	10.833	11.409
21	53	32	-36.754	6.557	13.903	11.458	9.299
21	54	33	-31.801	3.118	14.623	12.391	13.418
21	55	34	-29.725	5.995	15.289	13.235	11.227
21	56	35	-24.294	2.640	15.958	14.171	15.215
21	57	36	-21.696	5.472	16.577	14.951	13.023
21	58	37	-15.811	2.186	17.200	15.808	16.900
21	59	38	-12.722	4.983	17.775	16.526	14.700
21	60	39	-6.424	1.772	18.355	17.329	18.461
21	61	40	-2.899	4.546	18.891	18.013	16.245
21	62	41	3.755	1.417	19.433	18.790	19.888
21	63	42	7.646	4.180	19.933	19.465	17.647
21	64	43	14.574	1.143	20.438	20.245	21.164
21	65	44	18.725	3.920	20.905	20.954	18.875
21	66	45	25.783	1.013	21.379	21.806	22.233
21	67	46	29.985	3.869	21.816	22.659	19.834
21	68	47	36.877	1.179	22.260	23.743	22.947
21	69	48	40.784	4.164	22.670	24.881	20.391
21	70	49	47.468	1.387	23.087	25.948	23.565
21	71	50	52.196	3.344	23.471	25.918	22.012
21	72	51	60.594	-0.327	23.864	25.009	26.056
22	35	13	54.378	25.298	-2.300	15.944	-32.532
22	36	14	35.621	26.828	-1.132	13.386	-32.844

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
22	37	15	22.819	20.873	0.074	11.569	-25.732
22	38	16	8.135	22.755	1.206	9.957	-26.419
22	39	17	-1.100	17.306	2.363	8.922	-19.844
22	40	18	-12.477	19.448	3.444	7.989	-20.833
22	41	19	-18.817	14.412	4.543	7.514	-14.716
22	42	20	-27.492	16.746	5.566	7.071	-15.950
22	43	21	-31.474	12.053	6.601	7.000	-10.229
22	44	22	-37.938	14.535	7.564	6.919	-11.669
22	45	23	-40.009	10.142	8.535	7.157	-6.304
22	46	24	-44.701	12.762	9.436	7.381	-7.944
22	47	25	-45.326	8.696	10.343	7.945	-2.963
22	48	26	-48.870	11.615	11.185	8.663	-4.961
22	49	27	-49.053	8.253	12.032	10.095	-0.741
22	50	28	-51.885	10.904	12.817	11.120	-2.528
22	51	29	-49.569	5.755	13.607	10.368	3.425
22	52	30	-49.678	8.180	14.337	9.261	1.808
22	53	31	-46.053	4.446	15.073	9.577	6.294
22	54	32	-45.219	7.237	15.754	10.137	4.259
22	55	33	-40.952	3.804	16.440	11.006	8.396
22	56	34	-39.510	6.629	17.074	11.795	6.279
22	57	35	-34.719	3.280	17.713	12.677	10.285
22	58	36	-32.711	6.063	18.304	13.410	8.165
22	59	37	-27.422	2.783	18.901	14.222	12.060
22	60	38	-24.885	5.534	19.452	14.902	9.930
22	61	39	-19.144	2.330	20.009	15.669	13.710
22	62	40	-16.133	5.061	20.523	16.322	11.561
22	63	41	-10.001	1.938	21.044	17.068	15.224
22	64	42	-6.590	4.661	21.525	17.718	13.048
22	65	43	-0.150	1.631	22.013	18.474	16.584
22	66	44	3.550	4.370	22.464	19.164	14.358
22	67	45	10.151	1.471	22.921	19.997	17.734
22	68	46	13.930	4.291	23.343	20.836	15.396
22	69	47	20.393	1.608	23.773	21.905	18.527
22	70	48	23.904	4.561	24.170	23.033	16.030
22	71	49	30.183	1.791	24.574	24.090	19.222
22	72	50	34.538	3.717	24.947	24.052	17.726
22	73	51	42.554	0.054	25.328	23.137	21.787
22	74	52	48.292	2.333	25.680	22.511	19.914
22	75	53	57.001	-0.638	26.040	22.593	23.262
23	40	17	8.356	18.459	-2.167	9.673	-17.986
23	41	18	-4.102	20.529	-1.086	8.579	-19.001
23	42	19	-11.542	15.511	0.014	7.941	-12.991
23	43	20	-21.246	17.774	1.042	7.349	-14.240
23	44	21	-26.269	13.094	2.084	7.130	-8.610
23	45	22	-33.705	15.507	3.055	6.915	-10.056
23	46	23	-36.757	11.123	4.037	7.020	-4.770
23	47	24	-42.363	13.677	4.951	7.124	-6.409
23	48	25	-43.910	9.618	5.872	7.571	-1.497
23	49	26	-48.312	12.473	6.730	8.182	-3.488
23	50	27	-49.358	9.117	7.594	9.511	0.672
23	51	28	-52.994	11.707	8.397	10.444	-1.106
23	52	29	-51.486	6.563	9.206	9.602	4.794
23	53	30	-52.347	8.932	9.958	8.414	3.189

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
23	54	31	-49.479	5.203	10.714	8.652	7.628
23	55	32	-49.348	7.940	11.417	9.143	5.607
23	56	33	-45.789	4.512	12.125	9.945	9.702
23	57	34	-45.004	7.286	12.783	10.675	7.600
23	58	35	-40.875	3.943	13.446	11.499	11.568
23	59	36	-39.483	6.678	14.061	12.183	9.464
23	60	37	-34.815	3.403	14.682	12.946	13.325
23	61	38	-32.854	6.110	15.258	13.584	11.211
23	62	39	-27.695	2.912	15.840	14.309	14.960
23	63	40	-25.224	5.601	16.380	14.927	12.828
23	64	41	-19.638	2.484	16.926	15.639	16.462
23	65	42	-16.734	5.167	17.433	16.260	14.303
23	66	43	-10.808	2.144	17.946	16.987	17.812
23	67	44	-7.583	4.846	18.422	17.654	15.603
23	68	45	-1.465	1.953	18.905	18.464	18.954
23	69	46	1.866	4.740	19.353	19.284	16.633
23	70	47	7.874	2.063	19.808	20.334	19.741
23	71	48	10.962	4.983	20.231	21.448	17.260
23	72	49	16.812	2.221	20.660	22.490	20.430
23	73	50	20.767	4.116	21.059	22.442	18.951
23	74	51	28.378	0.461	21.465	21.516	22.991
23	75	52	33.738	2.710	21.843	20.883	21.134
23	76	53	42.062	-0.253	22.227	20.956	24.463
23	77	54	47.928	2.205	22.585	21.180	22.378
23	78	55	56.517	-0.517	22.950	21.660	25.447
23	79	56	62.556	2.032	23.289	22.177	23.252
23	80	57	71.229	-0.602	23.637	22.799	26.215
24	38	14	58.260	29.026	-2.419	15.771	-35.878
24	39	15	43.178	23.153	-1.334	13.626	-28.972
24	40	16	26.342	24.906	-0.309	11.704	-29.648
24	41	17	14.899	19.515	0.746	10.345	-23.236
24	42	18	1.449	21.521	1.739	9.112	-24.191
24	43	19	-7.006	16.525	2.753	8.331	-18.203
24	44	20	-17.659	18.724	3.702	7.607	-19.387
24	45	21	-23.648	14.060	4.668	7.256	-13.770
24	46	22	-31.987	16.409	5.571	6.919	-15.149
24	47	23	-35.954	12.038	6.486	6.904	-9.867
24	48	24	-42.413	14.530	7.339	6.899	-11.437
24	49	25	-44.823	10.481	8.203	7.239	-6.524
24	50	26	-50.029	13.277	9.007	7.754	-8.446
24	51	27	-51.888	9.929	9.819	8.987	-4.281
24	52	28	-56.280	12.463	10.575	9.835	-5.989
24	53	29	-55.536	7.327	11.339	8.908	-0.081
24	54	30	-57.107	9.642	12.049	7.646	-1.617
24	55	31	-54.955	5.919	12.765	7.811	2.833
24	56	32	-55.490	8.606	13.431	8.237	0.879
24	57	33	-52.604	5.185	14.104	8.976	4.986
24	58	34	-52.444	7.911	14.729	9.650	2.951
24	59	35	-48.947	4.574	15.360	10.420	6.932
24	60	36	-48.140	7.265	15.947	11.056	4.893
24	61	37	-44.066	3.996	16.539	11.772	8.768
24	62	38	-42.655	6.660	17.090	12.369	6.717
24	63	39	-38.053	3.469	17.647	13.055	10.481

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
24	64	40	-36.100	6.118	18.164	13.639	8.410
24	65	41	-31.037	3.008	18.688	14.318	12.059
24	66	42	-28.619	5.654	19.174	14.911	9.959
24	67	43	-23.186	2.638	19.668	15.611	13.483
24	68	44	-20.419	5.304	20.125	16.254	11.332
24	69	45	-14.767	2.418	20.591	17.041	14.698
24	70	46	-11.867	5.171	21.022	17.843	12.433
24	71	47	-6.299	2.502	21.461	18.875	15.556
24	72	48	-3.618	5.391	21.869	19.974	13.129
24	73	49	1.817	2.636	22.284	21.001	16.314
24	74	50	5.387	4.501	22.670	20.942	14.886
24	75	51	12.604	0.854	23.063	20.004	18.941
24	76	52	17.599	3.076	23.428	19.363	17.135
24	77	53	25.550	0.120	23.801	19.429	20.478
24	78	54	31.070	2.551	24.147	19.647	18.441
24	79	55	39.304	-0.163	24.502	20.122	21.524
24	80	56	45.013	2.362	24.831	20.636	19.376
24	81	57	53.349	-0.264	25.169	21.254	22.354
24	82	58	59.180	2.240	25.483	21.801	20.209
24	83	59	67.615	-0.364	25.805	22.386	23.148
25	43	18	11.197	22.513	-2.460	9.972	-22.125
25	44	19	1.728	17.540	-1.445	9.053	-16.243
25	45	20	-9.878	19.678	-0.492	8.201	-17.446
25	46	21	-16.838	15.031	0.479	7.721	-11.919
25	47	22	-26.086	17.319	1.389	7.266	-13.309
25	48	23	-30.976	12.961	2.311	7.132	-8.106
25	49	24	-38.299	15.394	3.175	7.019	-9.680
25	50	25	-41.584	11.355	4.049	7.252	-4.836
25	51	26	-47.607	14.094	4.867	7.669	-6.758
25	52	27	-50.291	10.755	5.693	8.807	-2.654
25	53	28	-55.455	13.235	6.464	9.568	-4.357
25	54	29	-55.490	8.106	7.243	8.557	1.496
25	55	30	-57.787	10.369	7.970	7.219	-0.033
25	56	31	-56.370	6.653	8.704	7.309	4.369
25	57	32	-57.590	9.291	9.389	7.668	2.425
25	58	33	-55.394	5.876	10.080	8.341	6.488
25	59	34	-55.879	8.556	10.724	8.957	4.463
25	60	35	-53.033	5.225	11.375	9.670	8.405
25	61	36	-52.834	7.872	11.982	10.255	6.378
25	62	37	-49.372	4.610	12.596	10.922	10.217
25	63	38	-48.534	7.232	13.168	11.476	8.179
25	64	39	-44.510	4.047	13.746	12.119	11.909
25	65	40	-43.095	6.657	14.285	12.666	9.852
25	66	41	-38.578	3.554	14.830	13.308	13.470
25	67	42	-36.669	6.162	15.339	13.870	11.383
25	68	43	-31.751	3.153	15.854	14.539	14.880
25	69	44	-29.465	5.785	16.335	15.156	12.742
25	70	45	-24.300	2.906	16.822	15.917	16.082
25	71	46	-21.854	5.626	17.276	16.696	13.830
25	72	47	-16.747	2.964	17.737	17.707	16.929
25	73	48	-14.497	5.821	18.168	18.788	14.516
25	74	49	-9.499	3.073	18.605	19.798	17.677
25	75	50	-6.337	4.909	19.013	19.724	16.263

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
25	76	51	0.465	1.269	19.428	18.772	20.297
25	77	52	5.073	3.463	19.816	18.120	18.503
25	78	53	12.628	0.515	20.211	18.174	21.826
25	79	54	17.779	2.920	20.579	18.384	19.803
25	80	55	25.637	0.213	20.956	18.850	22.866
25	81	56	30.995	2.713	21.307	19.358	20.731
25	82	57	38.971	0.095	21.666	19.970	23.689
25	83	58	44.467	2.575	22.002	20.513	21.557
25	84	59	52.559	-0.021	22.345	21.094	24.478
25	85	60	58.217	2.414	22.666	21.582	22.377
25	86	61	66.456	-0.168	22.995	22.100	25.270
26	42	16	46.779	26.854	-1.356	13.906	-32.392
26	43	17	33.322	21.528	-0.394	12.281	-26.142
26	44	18	17.971	23.422	0.515	10.796	-27.076
26	45	19	7.567	18.474	1.450	9.756	-21.220
26	46	20	-4.919	20.557	2.329	8.792	-22.367
26	47	21	-12.778	15.930	3.228	8.197	-16.857
26	48	22	-22.870	18.163	4.072	7.636	-18.188
26	49	23	-28.619	13.820	4.932	7.396	-12.995
26	50	24	-36.747	16.199	5.737	7.185	-14.508
26	51	25	-40.849	12.173	6.555	7.320	-9.668
26	52	26	-47.638	14.860	7.320	7.650	-11.528
26	53	27	-51.098	11.531	8.095	8.699	-7.424
26	54	28	-56.986	13.959	8.820	9.382	-9.066
26	55	29	-57.755	8.840	9.554	8.292	-3.208
26	56	30	-60.738	11.054	10.240	6.883	-4.676
26	57	31	-60.014	7.347	10.934	6.904	-0.269
26	58	32	-61.882	9.939	11.581	7.200	-2.152
26	59	33	-60.342	6.531	12.237	7.812	1.919
26	60	34	-61.438	9.167	12.848	8.373	-0.046
26	61	35	-59.211	5.844	13.467	9.033	3.906
26	62	36	-59.589	8.449	14.044	9.570	1.937
26	63	37	-56.712	5.194	14.629	10.191	5.787
26	64	38	-56.419	7.778	15.174	10.704	3.805
26	65	39	-52.947	4.599	15.726	11.306	7.547
26	66	40	-52.048	7.172	16.242	11.818	5.545
26	67	41	-48.053	4.076	16.764	12.425	9.175
26	68	42	-46.631	6.649	17.251	12.957	7.143
26	69	43	-42.207	3.647	17.745	13.596	10.651
26	70	44	-40.382	6.246	18.206	14.187	8.566
26	71	45	-35.685	3.374	18.674	14.924	11.919
26	72	46	-33.676	6.062	19.110	15.681	9.718
26	73	47	-29.013	3.408	19.554	16.671	12.829
26	74	48	-27.176	6.235	19.969	17.734	10.465
26	75	49	-22.600	3.495	20.390	18.727	13.639
26	76	50	-19.832	5.302	20.784	18.639	12.273
26	77	51	-13.431	1.670	21.185	17.673	16.319
26	78	52	-9.197	3.837	21.559	17.009	14.572
26	79	53	-2.023	0.897	21.941	17.052	17.907
26	80	54	2.771	3.277	22.297	17.253	15.928
26	81	55	10.264	0.578	22.662	17.711	19.004
26	82	56	15.282	3.053	23.002	18.213	16.912
26	83	57	22.910	0.443	23.350	18.818	19.882

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
26	84	58	28.081	2.900	23.675	19.357	17.792
26	85	59	35.840	0.312	24.008	19.934	20.725
26	86	60	41.186	2.725	24.320	20.419	18.664
26	87	61	49.106	0.151	24.639	20.934	21.569
26	88	62	54.655	2.522	24.938	21.364	19.537
26	89	63	62.759	-0.034	25.245	21.827	22.410
26	90	64	68.528	2.303	25.532	22.214	20.399
27	47	20	4.080	21.440	-1.710	9.542	-20.850
27	48	21	-4.682	16.833	-0.807	8.835	-15.430
27	49	22	-15.624	19.013	0.043	8.171	-16.775
27	50	23	-22.239	14.686	0.909	7.826	-11.660
27	51	24	-31.181	17.013	1.723	7.520	-13.181
27	52	25	-36.110	13.000	2.549	7.558	-8.410
27	53	26	-43.674	15.635	3.325	7.800	-10.274
27	54	27	-47.920	12.317	4.112	8.762	-6.230
27	55	28	-54.547	14.697	4.850	9.364	-7.872
27	56	29	-56.062	9.587	5.596	8.196	-2.069
27	57	30	-59.746	11.754	6.296	6.716	-3.534
27	58	31	-59.730	8.055	7.005	6.665	0.824
27	59	32	-62.261	10.602	7.668	6.899	-1.054
27	60	33	-61.392	7.202	8.339	7.448	2.973
27	61	34	-63.117	9.796	8.968	7.953	1.015
27	62	35	-61.526	6.480	9.604	8.556	4.926
27	63	36	-62.499	9.044	10.199	9.045	2.965
27	64	37	-60.224	5.796	10.801	9.616	6.778
27	65	38	-60.494	8.341	11.364	10.086	4.806
27	66	39	-57.593	5.170	11.935	10.646	8.514
27	67	40	-57.228	7.706	12.469	11.119	6.522
27	68	41	-53.774	4.617	13.010	11.689	10.121
27	69	42	-52.859	7.156	13.517	12.188	8.099
27	70	43	-48.948	4.161	14.030	12.795	11.578
27	71	44	-47.603	6.726	14.511	13.359	9.504
27	72	45	-43.394	3.861	14.998	14.067	12.829
27	73	46	-41.841	6.519	15.455	14.801	10.640
27	74	47	-37.642	3.871	15.918	15.767	13.725
27	75	48	-36.240	6.669	16.352	16.810	11.373
27	76	49	-32.105	3.936	16.794	17.783	14.523
27	77	50	-29.750	5.716	17.207	17.678	13.168
27	78	51	-23.769	2.091	17.627	16.695	17.191
27	79	52	-19.930	4.232	18.022	16.018	15.455
27	80	53	-13.157	1.298	18.423	16.047	18.768
27	81	54	-8.739	3.653	18.799	16.237	16.801
27	82	55	-1.630	0.961	19.183	16.683	19.856
27	83	56	3.028	3.413	19.543	17.176	17.775
27	84	57	10.289	0.810	19.910	17.773	20.726
27	85	58	15.115	3.245	20.255	18.305	18.647
27	86	59	22.521	0.665	20.607	18.875	21.560
27	87	60	27.536	3.056	20.938	19.356	19.511
27	88	61	35.118	0.489	21.276	19.866	22.397
27	89	62	40.349	2.840	21.594	20.292	20.375
27	90	63	48.128	0.292	21.920	20.752	23.231
27	91	64	53.591	2.608	22.226	21.138	21.231
27	92	65	61.578	0.084	22.539	21.562	24.052

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
27	93	66	67.277	2.372	22.834	21.919	22.068
27	94	67	75.473	-0.125	23.137	22.319	24.853
28	44	16	69.514	28.618	-2.761	15.610	-36.249
28	45	17	54.220	23.364	-1.884	13.767	-30.157
28	46	18	37.129	25.163	-1.053	12.075	-31.081
28	47	19	24.930	20.270	-0.192	10.817	-25.356
28	48	20	10.748	22.253	0.621	9.648	-26.477
28	49	21	1.151	17.668	1.457	8.842	-21.076
28	50	22	-10.579	19.801	2.244	8.085	-22.370
28	51	23	-18.000	15.492	3.050	7.647	-17.268
28	52	24	-27.699	17.771	3.807	7.255	-18.736
28	53	25	-33.400	13.772	4.580	7.206	-13.972
28	54	26	-41.690	16.361	5.305	7.368	-15.781
28	55	27	-46.675	13.055	6.043	8.250	-11.741
28	56	28	-53.993	15.389	6.735	8.780	-13.327
28	57	29	-56.212	10.290	7.439	7.539	-7.525
28	58	30	-60.554	12.414	8.098	5.993	-8.934
28	59	31	-61.208	8.724	8.767	5.878	-4.573
28	60	32	-64.365	11.229	9.393	6.052	-6.397
28	61	33	-64.132	7.838	10.029	6.543	-2.365
28	62	34	-66.452	10.391	10.624	6.995	-4.269
28	63	35	-65.464	7.083	11.227	7.547	-0.352
28	64	36	-67.002	9.609	11.793	7.989	-2.260
28	65	37	-65.301	6.369	12.366	8.515	1.561
28	66	38	-66.108	8.878	12.902	8.943	-0.359
28	67	39	-63.751	5.714	13.446	9.463	3.357
28	68	40	-63.895	8.215	13.956	9.901	1.416
28	69	41	-60.958	5.134	14.473	10.436	5.024
28	70	42	-60.527	7.640	14.957	10.904	3.051
28	71	43	-57.108	4.652	15.449	11.480	6.540
28	72	44	-56.223	7.186	15.909	12.017	4.514
28	73	45	-52.481	4.329	16.376	12.699	7.849
28	74	46	-51.367	6.957	16.814	13.410	5.707
28	75	47	-47.612	4.317	17.260	14.353	8.802
28	76	48	-46.628	7.086	17.677	15.377	6.495
28	77	49	-42.918	4.361	18.102	16.330	9.656
28	78	50	-40.960	6.114	18.499	16.209	8.345
28	79	51	-35.385	2.496	18.905	15.210	12.378
28	80	52	-31.926	4.611	19.285	14.519	10.686
28	81	53	-25.541	1.686	19.672	14.535	14.009
28	82	54	-21.486	4.016	20.035	14.713	12.084
28	83	55	-14.747	1.332	20.406	15.149	15.149
28	84	56	-10.437	3.761	20.754	15.633	13.108
28	85	57	-3.532	1.166	21.110	16.221	16.069
28	86	58	0.961	3.579	21.443	16.746	14.029
28	87	59	8.026	1.006	21.784	17.310	16.953
28	88	60	12.721	3.376	22.105	17.785	14.941
28	89	61	19.974	0.818	22.433	18.290	17.838
28	90	62	24.897	3.148	22.741	18.713	15.852
28	91	63	32.360	0.608	23.057	19.170	18.718
28	92	64	37.526	2.905	23.354	19.554	16.753
28	93	65	45.208	0.389	23.659	19.976	19.584
28	94	66	50.620	2.659	23.946	20.333	17.635

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
28	95	67	58.522	0.169	24.240	20.731	20.429
28	96	68	64.176	2.417	24.517	21.071	18.491
28	97	69	72.290	-0.043	24.802	21.456	21.246
29	52	23	-8.963	16.303	-1.747	6.707	-15.847
29	53	24	-19.428	18.536	-0.982	6.229	-17.326
29	54	25	-25.909	14.552	-0.202	6.095	-12.630
29	55	26	-34.934	17.096	0.533	6.178	-14.446
29	56	27	-40.665	13.803	1.280	6.981	-10.467
29	57	28	-48.687	16.093	1.983	7.438	-12.056
29	58	29	-51.620	11.004	2.697	6.125	-6.308
29	59	30	-56.634	13.085	3.369	4.513	-7.718
29	60	31	-57.969	9.405	4.050	4.332	-3.406
29	61	32	-61.767	11.869	4.690	4.446	-5.227
29	62	33	-62.183	8.487	5.340	4.878	-1.241
29	63	34	-65.113	11.001	5.949	5.276	-3.141
29	64	35	-64.743	7.701	6.567	5.775	0.736
29	65	36	-66.862	10.190	7.148	6.169	-1.167
29	66	37	-65.748	6.958	7.736	6.647	2.616
29	67	38	-67.108	9.430	8.289	7.034	0.703
29	68	39	-65.311	6.274	8.849	7.512	4.384
29	69	40	-65.982	8.742	9.376	7.912	2.451
29	70	41	-63.578	5.668	9.909	8.410	6.026
29	71	42	-63.648	8.141	10.410	8.845	4.062
29	72	43	-60.737	5.161	10.919	9.388	7.521
29	73	44	-60.330	7.664	11.396	9.897	5.504
29	74	45	-57.073	4.814	11.881	10.550	8.810
29	75	46	-56.414	7.412	12.337	11.236	6.677
29	76	47	-53.123	4.780	12.799	12.154	9.746
29	77	48	-52.573	7.521	13.234	13.157	7.448
29	78	49	-49.305	4.803	13.677	14.088	10.584
29	79	50	-47.763	6.529	14.092	13.949	9.282
29	80	51	-42.611	2.919	14.515	12.931	13.292
29	81	52	-39.550	5.009	14.913	12.225	11.609
29	82	53	-33.569	2.091	15.318	12.225	14.910
29	83	54	-29.896	4.397	15.699	12.391	12.994
29	84	55	-23.545	1.721	16.087	12.813	16.038
29	85	56	-19.601	4.126	16.453	13.286	14.007
29	86	57	-13.068	1.539	16.826	13.864	16.947
29	87	58	-8.927	3.930	17.177	14.380	14.917
29	88	59	-2.221	1.364	17.535	14.934	17.821
29	89	60	2.136	3.714	17.873	15.403	15.818
29	90	61	9.045	1.163	18.218	15.901	18.696
29	91	62	13.642	3.473	18.544	16.319	16.720
29	92	63	20.773	0.941	18.877	16.770	19.568
29	93	64	25.624	3.219	19.191	17.150	17.612
29	94	65	32.985	0.710	19.512	17.568	20.426
29	95	66	38.093	2.963	19.816	17.923	18.485
29	96	67	45.684	0.480	20.127	18.319	21.262
29	97	68	51.044	2.711	20.420	18.657	19.333
29	98	69	58.857	0.258	20.722	19.041	22.072
29	99	70	64.456	2.472	21.006	19.373	20.150
29	100	71	72.474	0.053	21.299	19.754	22.846

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
30	51	21	20.140	19.283	-1.060	7.215	-23.912
30	52	22	6.883	21.328	-0.326	6.290	-25.177
30	53	23	-2.102	17.057	0.428	5.678	-20.167
30	54	24	-13.279	19.247	1.140	5.125	-21.599
30	55	25	-20.488	15.280	1.868	4.913	-16.914
30	56	26	-30.199	17.782	2.554	4.925	-18.680
30	57	27	-36.631	14.503	3.255	5.656	-14.707
30	58	28	-45.312	16.752	3.914	6.047	-16.247
30	59	29	-48.917	11.676	4.586	4.667	-10.502
30	60	30	-54.563	13.717	5.217	2.995	-11.862
30	61	31	-56.540	10.048	5.860	2.753	-7.550
30	62	32	-60.942	12.473	6.464	2.812	-9.322
30	63	33	-61.972	9.101	7.078	3.189	-5.334
30	64	34	-65.479	11.578	7.655	3.538	-7.184
30	65	35	-65.695	8.287	8.241	3.988	-3.304
30	66	36	-68.364	10.740	8.792	4.337	-5.158
30	67	37	-67.811	7.517	9.351	4.771	-1.371
30	68	38	-69.695	9.956	9.877	5.118	-3.236
30	69	39	-68.432	6.808	10.410	5.556	0.451
30	70	40	-69.604	9.243	10.912	5.922	-1.436
30	71	41	-67.710	6.177	11.421	6.384	2.146
30	72	42	-68.258	8.619	11.899	6.788	0.228
30	73	43	-65.834	5.647	12.386	7.301	3.694
30	74	44	-65.884	8.121	12.842	7.782	1.721
30	75	45	-63.091	5.278	13.307	8.408	5.036
30	76	46	-62.869	7.849	13.743	9.071	2.945
30	77	47	-60.021	5.224	14.187	9.965	6.022
30	78	48	-59.889	7.938	14.605	10.947	3.767
30	79	49	-57.046	5.228	15.030	11.858	6.911
30	80	50	-55.903	6.929	15.429	11.701	5.651
30	81	51	-51.159	3.326	15.836	10.666	9.669
30	82	52	-48.479	5.392	16.219	9.944	8.026
30	83	53	-42.890	2.481	16.609	9.930	11.335
30	84	54	-39.583	4.765	16.976	10.083	9.458
30	85	55	-33.608	2.095	17.351	10.492	12.511
30	86	56	-30.016	4.479	17.704	10.955	10.518
30	87	57	-23.844	1.899	18.064	11.522	13.467
30	88	58	-20.042	4.269	18.404	12.030	11.473
30	89	59	-13.682	1.711	18.750	12.575	14.386
30	90	60	-9.652	4.041	19.077	13.037	12.419
30	91	61	-3.078	1.497	19.411	13.528	15.305
30	92	62	1.205	3.789	19.727	13.941	13.363
30	93	63	8.012	1.264	20.049	14.387	16.219
30	94	64	12.559	3.524	20.354	14.763	14.297
30	95	65	19.608	1.022	20.666	15.177	17.119
30	96	66	24.422	3.257	20.960	15.529	15.211
30	97	67	31.711	0.782	21.262	15.922	17.996
30	98	68	36.786	2.996	21.548	16.259	16.099
30	99	69	44.306	0.551	21.840	16.641	18.845
30	100	70	49.628	2.749	22.117	16.973	16.954
30	101	71	57.362	0.337	22.402	17.353	19.658
30	102	72	62.907	2.526	22.671	17.692	17.768
30	103	73	70.824	0.154	22.947	18.085	20.424
30	104	74	76.553	2.342	23.209	18.447	18.527
30	105	75	84.605	0.019	23.478	18.872	21.127

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
30	106	76	90.460	2.216	23.733	19.277	19.213
30	107	77	98.587	-0.056	23.996	19.747	21.755
31	57	26	-21.924	18.476	-0.986	4.921	-16.695
31	58	27	-29.065	15.212	-0.277	5.581	-12.782
31	59	28	-38.415	17.421	0.392	5.906	-14.328
31	60	29	-42.701	12.357	1.073	4.460	-8.637
31	61	30	-48.989	14.359	1.716	2.727	-9.999
31	62	31	-51.620	10.702	2.369	2.425	-5.737
31	63	32	-56.638	13.089	2.985	2.429	-7.509
31	64	33	-58.294	9.727	3.611	2.750	-3.566
31	65	34	-62.391	12.168	4.201	3.049	-5.415
31	66	35	-63.206	8.886	4.800	3.448	-1.576
31	67	36	-66.440	11.305	5.364	3.752	-3.427
31	68	37	-66.459	8.090	5.937	4.141	0.322
31	69	38	-68.883	10.495	6.477	4.447	-1.539
31	70	39	-68.168	7.356	7.025	4.845	2.113
31	71	40	-69.856	9.759	7.541	5.173	0.231
31	72	41	-68.486	6.701	8.065	5.600	3.781
31	73	42	-69.528	9.113	8.558	5.971	1.868
31	74	43	-67.605	6.148	9.060	6.452	5.304
31	75	44	-68.127	8.593	9.532	6.904	3.338
31	76	45	-65.814	5.758	10.012	7.501	6.624
31	77	46	-66.044	8.301	10.464	8.138	4.541
31	78	47	-63.656	5.683	10.924	9.008	7.591
31	79	48	-63.957	8.372	11.357	9.967	5.343
31	80	49	-61.554	5.669	11.798	10.856	8.461
31	81	50	-60.828	7.344	12.213	10.680	7.209
31	82	51	-56.505	3.749	12.636	9.625	11.203
31	83	52	-54.225	5.791	13.035	8.887	9.568
31	84	53	-49.042	2.887	13.441	8.855	12.854
31	85	54	-46.118	5.148	13.824	8.994	10.985
31	86	55	-40.533	2.486	14.215	9.389	14.016
31	87	56	-37.310	4.848	14.584	9.840	12.030
31	88	57	-31.514	2.275	14.960	10.394	14.959
31	89	58	-28.068	4.624	15.315	10.892	12.973
31	90	59	-22.070	2.074	15.677	11.427	15.866
31	91	60	-18.383	4.383	16.020	11.880	13.907
31	92	61	-12.159	1.847	16.370	12.363	16.774
31	93	62	-8.207	4.119	16.701	12.768	14.840
31	94	63	-1.738	1.602	17.039	13.207	17.678
31	95	64	2.490	3.844	17.359	13.578	15.763
31	96	65	9.211	1.349	17.686	13.986	18.567
31	97	66	13.715	3.567	17.996	14.334	16.667
31	98	67	20.687	1.099	18.313	14.723	19.435
31	99	68	25.461	3.297	18.614	15.057	17.545
31	100	69	32.674	0.859	18.921	15.436	20.275
31	101	70	37.704	3.041	19.213	15.766	18.391
31	102	71	45.138	0.636	19.512	16.144	21.079
31	103	72	50.400	2.810	19.796	16.482	19.197
31	104	73	58.026	0.445	20.087	16.874	21.837
31	105	74	63.478	2.618	20.363	17.235	19.947
31	106	75	71.247	0.303	20.647	17.660	22.532
31	107	76	76.832	2.485	20.917	18.065	20.625

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
31	108	77	84.683	0.221	21.193	18.536	23.152
31	109	78	90.355	2.398	21.457	18.974	21.244
31	110	79	98.298	0.128	21.727	19.421	23.771
32	54	22	26.413	22.750	-1.059	7.364	-27.238
32	55	23	15.963	18.521	-0.354	6.601	-22.320
32	56	24	3.401	20.633	0.313	5.907	-23.723
32	57	25	-5.229	16.701	0.999	5.551	-19.117
32	58	26	-16.283	19.125	1.647	5.429	-20.849
32	59	27	-24.087	15.876	2.311	6.024	-16.944
32	60	28	-34.064	18.048	2.938	6.290	-18.444
32	61	29	-38.990	12.997	3.578	4.784	-12.758
32	62	30	-45.882	14.963	4.182	2.995	-14.076
32	63	31	-49.129	11.318	4.798	2.637	-9.816
32	64	32	-54.728	13.670	5.379	2.591	-11.543
32	65	33	-56.976	10.319	5.970	2.861	-7.600
32	66	34	-61.630	12.725	6.528	3.113	-9.404
32	67	35	-63.013	9.454	7.096	3.466	-5.564
32	68	36	-66.781	11.839	7.630	3.728	-7.371
32	69	37	-67.344	8.634	8.174	4.074	-3.618
32	70	38	-70.281	11.008	8.687	4.342	-5.436
32	71	39	-70.087	7.877	9.208	4.702	-1.780
32	72	40	-72.267	10.250	9.700	4.996	-3.619
32	73	41	-71.396	7.200	10.199	5.389	-0.065
32	74	42	-72.909	9.584	10.670	5.729	-1.935
32	75	43	-71.464	6.627	11.149	6.180	1.506
32	76	44	-72.438	9.044	11.600	6.604	-0.419
32	77	45	-70.584	6.217	12.059	7.175	2.873
32	78	46	-71.247	8.734	12.492	7.788	0.830
32	79	47	-69.299	6.124	12.933	8.633	3.886
32	80	48	-70.015	8.787	13.348	9.572	1.678
32	81	49	-68.036	6.092	13.771	10.440	4.803
32	82	50	-67.708	7.743	14.170	10.245	3.589
32	83	51	-63.793	4.155	14.576	9.172	7.590
32	84	52	-61.896	6.174	14.960	8.418	5.992
32	85	53	-57.104	3.278	15.351	8.370	9.286
32	86	54	-54.549	5.517	15.720	8.495	7.453
32	87	55	-49.341	2.863	16.096	8.876	10.490
32	88	56	-46.473	5.203	16.452	9.315	8.540
32	89	57	-41.040	2.638	16.815	9.857	11.476
32	90	58	-37.936	4.967	17.158	10.345	9.524
32	91	59	-32.289	2.424	17.508	10.870	12.425
32	92	60	-28.933	4.714	17.839	11.316	10.499
32	93	61	-23.047	2.185	18.177	11.790	13.373
32	94	62	-19.415	4.439	18.497	12.189	11.472
32	95	63	-13.273	1.929	18.825	12.621	14.317
32	96	64	-9.356	4.154	19.135	12.986	12.434
32	97	65	-2.952	1.667	19.452	13.389	15.245
32	98	66	1.252	3.867	19.752	13.732	13.376
32	99	67	7.916	1.407	20.060	14.117	16.150
32	100	68	12.399	3.588	20.351	14.448	14.291
32	101	69	19.312	1.158	20.650	14.824	17.027
32	102	70	24.059	3.324	20.934	15.152	15.173
32	103	71	31.203	0.927	21.224	15.528	17.867

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
32	104	72	36.188	3.085	21.500	15.865	16.013
32	105	73	43.531	0.728	21.783	16.255	18.660
32	106	74	48.715	2.887	22.052	16.617	16.797
32	107	75	56.207	0.579	22.328	17.041	19.388
32	108	76	61.531	2.748	22.591	17.447	17.508
32	109	77	69.111	0.490	22.860	17.919	20.042
32	110	78	74.527	2.655	23.117	18.358	18.160
32	111	79	82.207	0.391	23.380	18.805	20.693
32	112	80	87.853	2.425	23.631	19.095	18.936
32	113	81	95.970	-0.047	23.889	19.191	21.671
32	114	82	102.379	1.662	24.135	18.937	20.233
32	115	83	112.077	-1.627	24.388	17.879	23.781
32	116	84	120.422	-0.274	24.630	16.440	22.694
32	117	85	130.732	-2.239	24.878	16.341	24.912
33	60	27	-15.620	16.547	-1.179	6.526	-15.123
33	61	28	-26.232	18.683	-0.543	6.733	-16.631
33	62	29	-31.807	13.646	0.106	5.167	-10.999
33	63	30	-39.313	15.577	0.719	3.323	-12.321
33	64	31	-43.185	11.943	1.345	2.909	-8.111
33	65	32	-49.376	14.261	1.937	2.811	-9.840
33	66	33	-52.225	10.921	2.539	3.030	-5.942
33	67	34	-57.449	13.294	3.108	3.235	-7.746
33	68	35	-59.411	10.033	3.687	3.541	-3.947
33	69	36	-63.726	12.386	4.234	3.760	-5.753
33	70	37	-64.845	9.190	4.790	4.064	-2.039
33	71	38	-68.307	11.533	5.315	4.293	-3.854
33	72	39	-68.648	8.411	5.849	4.614	-0.233
33	73	40	-71.331	10.755	6.354	4.873	-2.069
33	74	41	-70.973	7.713	6.866	5.230	1.452
33	75	42	-72.970	10.068	7.351	5.539	-0.414
33	76	43	-72.019	7.119	7.843	5.958	2.996
33	77	44	-73.457	9.509	8.308	6.354	1.076
33	78	45	-72.076	6.690	8.781	6.897	4.339
33	79	46	-73.186	9.180	9.228	7.484	2.302
33	80	47	-71.693	6.578	9.683	8.304	5.331
33	81	48	-72.839	9.217	10.113	9.220	3.128
33	82	49	-71.297	6.529	10.550	10.066	6.228
33	83	50	-71.383	8.157	10.963	9.851	5.020
33	84	51	-67.888	4.576	11.384	8.759	8.996
33	85	52	-66.389	6.572	11.782	7.986	7.405
33	86	53	-62.002	3.684	12.187	7.921	10.675
33	87	54	-59.831	5.900	12.571	8.031	8.849
33	88	55	-55.014	3.253	12.962	8.397	11.865
33	89	56	-52.516	5.573	13.332	8.823	9.921
33	90	57	-47.460	3.015	13.709	9.352	12.836
33	91	58	-44.714	5.324	14.067	9.828	10.890
33	92	59	-39.431	2.789	14.431	10.342	13.771
33	93	60	-36.420	5.060	14.777	10.778	11.852
33	94	61	-30.887	2.538	15.129	11.242	14.707
33	95	62	-27.590	4.774	15.464	11.633	12.812
33	96	63	-21.790	2.271	15.806	12.056	15.638
33	97	64	-18.197	4.478	16.130	12.415	13.762
33	98	65	-12.124	1.998	16.461	12.811	16.555

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
33	99	66	-8.234	4.182	16.775	13.149	14.692
33	100	67	-1.892	1.729	17.097	13.528	17.450
33	101	68	2.285	3.894	17.403	13.855	15.596
33	102	69	8.886	1.470	17.715	14.226	18.316
33	103	70	13.336	3.621	18.012	14.551	16.468
33	104	71	20.175	1.231	18.317	14.923	19.147
33	105	72	24.871	3.375	18.606	15.257	17.299
33	106	73	31.918	1.025	18.903	15.646	19.930
33	107	74	36.819	3.170	19.185	16.006	18.073
33	108	75	44.022	0.868	19.474	16.429	20.649
33	109	76	49.070	3.024	19.750	16.834	18.775
33	110	77	56.368	0.773	20.033	17.304	21.294
33	111	78	61.514	2.924	20.302	17.743	19.417
33	112	79	68.917	0.668	20.579	18.190	21.936
33	113	80	74.299	2.689	20.843	18.481	20.185
33	114	81	82.146	0.224	21.113	18.577	22.906
33	115	82	88.296	1.921	21.372	18.324	21.473
33	116	83	97.729	-1.362	21.638	17.267	25.008
33	117	84	105.820	-0.020	21.891	15.830	23.926
33	118	85	115.869	-1.978	22.152	15.733	26.131
33	119	86	123.525	0.415	22.401	16.663	23.993
33	120	87	133.153	-1.557	22.658	17.593	26.208
34	58	24	21.792	21.933	-0.615	7.046	-25.895
34	59	25	11.825	18.038	0.030	6.563	-21.368
34	60	26	-0.496	20.392	0.641	6.322	-23.071
34	61	27	-9.600	17.175	1.270	6.796	-19.235
34	62	28	-20.807	19.278	1.865	6.950	-20.702
34	63	29	-26.992	14.255	2.474	5.329	-15.077
34	64	30	-35.074	16.154	3.050	3.435	-16.358
34	65	31	-39.536	12.533	3.640	2.971	-12.151
34	66	32	-46.284	14.819	4.197	2.826	-13.839
34	67	33	-49.702	11.490	4.766	2.998	-9.943
34	68	34	-55.463	13.832	5.303	3.160	-11.707
34	69	35	-57.973	10.581	5.852	3.423	-7.908
34	70	36	-62.806	12.904	6.370	3.602	-9.673
34	71	37	-64.454	9.718	6.897	3.866	-5.958
34	72	38	-68.414	12.032	7.396	4.058	-7.733
34	73	39	-69.262	8.919	7.904	4.343	-4.110
34	74	40	-72.426	11.234	8.384	4.570	-5.906
34	75	41	-72.557	8.202	8.872	4.894	-2.382
34	76	42	-75.015	10.529	9.334	5.174	-4.209
34	77	43	-74.533	7.589	9.804	5.563	-0.795
34	78	44	-76.416	9.953	10.248	5.932	-2.677
34	79	45	-75.488	7.143	10.700	6.448	0.591
34	80	46	-77.025	9.608	11.128	7.012	-1.410
34	81	47	-75.967	7.014	11.563	7.808	1.625
34	82	48	-77.525	9.628	11.975	8.703	-0.541
34	83	49	-76.402	6.948	12.394	9.528	2.563
34	84	50	-76.884	8.553	12.791	9.294	1.391
34	85	51	-73.794	4.981	13.195	8.182	5.373
34	86	52	-72.677	6.955	13.577	7.394	3.816
34	87	53	-68.680	4.074	13.967	7.312	7.093
34	88	54	-66.878	6.269	14.336	7.407	5.300

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
34	89	55	-62.437	3.630	14.713	7.759	8.322
34	90	56	-60.296	5.930	15.069	8.172	6.412
34	91	57	-55.604	3.379	15.433	8.688	9.332
34	92	58	-53.202	5.669	15.777	9.154	7.419
34	93	59	-48.272	3.141	16.129	9.657	10.305
34	94	60	-45.594	5.393	16.463	10.083	8.418
34	95	61	-40.402	2.879	16.804	10.538	11.279
34	96	62	-37.428	5.097	17.127	10.921	9.415
34	97	63	-31.959	2.601	17.458	11.337	12.247
34	98	64	-28.679	4.791	17.771	11.689	10.401
34	99	65	-22.927	2.319	18.092	12.078	13.200
34	100	66	-19.342	4.486	18.396	12.411	11.366
34	101	67	-13.311	2.040	18.708	12.784	14.130
34	102	68	-9.430	4.190	19.004	13.107	12.305
34	103	69	-3.133	1.773	19.308	13.474	15.030
34	104	70	1.029	3.910	19.596	13.795	13.210
34	105	71	7.573	1.527	19.891	14.165	15.894
34	106	72	11.988	3.656	20.173	14.496	14.073
34	107	73	18.746	1.313	20.461	14.882	16.710
34	108	74	23.373	3.444	20.735	15.240	14.880
34	109	75	30.295	1.149	21.017	15.662	17.461
34	110	76	35.074	3.292	21.285	16.066	15.612
34	111	77	42.097	1.048	21.560	16.536	18.136
34	112	78	46.981	3.187	21.822	16.975	16.285
34	113	79	54.115	0.937	22.092	17.422	18.809
34	114	80	59.240	2.946	22.349	17.713	17.082
34	115	81	66.822	0.488	22.613	17.810	19.809
34	116	82	72.720	2.173	22.865	17.558	18.399
34	117	83	81.894	-1.103	23.124	16.502	21.939
34	118	84	89.738	0.227	23.371	15.066	20.880
34	119	85	99.532	-1.723	23.626	14.970	23.090
34	120	86	106.945	0.658	23.869	15.902	20.975
34	121	87	116.323	-1.307	24.119	16.834	23.194
34	122	88	123.582	0.812	24.359	17.481	21.337
34	123	89	132.965	-1.312	24.605	17.982	23.712
35	64	29	-18.717	14.873	-0.986	5.522	-13.329
35	65	30	-27.385	16.739	-0.401	3.578	-14.616
35	66	31	-32.445	13.131	0.197	3.063	-10.458
35	67	32	-39.759	15.386	0.764	2.871	-12.150
35	68	33	-43.756	12.068	1.343	2.996	-8.299
35	69	34	-50.065	14.380	1.891	3.114	-10.064
35	70	35	-53.134	11.140	2.449	3.333	-6.307
35	71	36	-58.496	13.433	2.978	3.472	-8.072
35	72	37	-60.682	10.257	3.517	3.696	-4.395
35	73	38	-65.152	12.542	4.027	3.852	-6.169
35	74	39	-66.520	9.438	4.546	4.100	-2.582
35	75	40	-70.175	11.726	5.038	4.292	-4.375
35	76	41	-70.806	8.702	5.539	4.584	-0.884
35	77	42	-73.739	11.003	6.012	4.832	-2.709
35	78	43	-73.739	8.072	6.495	5.191	0.674
35	79	44	-76.078	10.410	6.951	5.533	-1.204
35	80	45	-75.615	7.608	7.416	6.021	2.034
35	81	46	-77.592	10.048	7.857	6.560	0.038

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
35	82	47	-76.983	7.462	8.305	7.332	3.045
35	83	48	-78.965	10.053	8.729	8.204	0.883
35	84	49	-78.275	7.381	9.162	9.006	3.962
35	85	50	-79.167	8.963	9.571	8.753	2.794
35	86	51	-76.493	5.398	9.989	7.621	6.752
35	87	52	-75.773	7.350	10.384	6.815	5.200
35	88	53	-72.178	4.477	10.787	6.716	8.453
35	89	54	-70.759	6.652	11.170	6.795	6.666
35	90	55	-66.708	4.020	11.559	7.131	9.665
35	91	56	-64.936	6.300	11.929	7.530	7.760
35	92	57	-60.621	3.756	12.306	8.033	10.660
35	93	58	-58.577	6.027	12.664	8.486	8.752
35	94	59	-54.012	3.506	13.029	8.977	11.618
35	95	60	-51.681	5.740	13.376	9.392	9.736
35	96	61	-46.843	3.233	13.730	9.837	12.578
35	97	62	-44.206	5.433	14.067	10.211	10.719
35	98	63	-39.080	2.945	14.410	10.617	13.533
35	99	64	-36.127	5.118	14.737	10.961	11.692
35	100	65	-30.708	2.652	15.071	11.343	14.473
35	101	66	-27.441	4.804	15.388	11.669	12.645
35	102	67	-21.735	2.365	15.713	12.036	15.391
35	103	68	-18.163	4.499	16.022	12.353	13.571
35	104	69	-12.181	2.090	16.338	12.714	16.280
35	105	70	-8.321	4.211	16.639	13.032	14.465
35	106	71	-2.085	1.835	16.947	13.396	17.133
35	107	72	2.036	3.950	17.241	13.725	15.317
35	108	73	8.493	1.614	17.542	14.107	17.938
35	109	74	12.834	3.731	17.828	14.463	16.113
35	110	75	19.461	1.443	18.122	14.881	18.679
35	111	76	23.960	3.572	18.403	15.284	16.836
35	112	77	30.696	1.335	18.690	15.751	19.345
35	113	78	35.305	3.461	18.964	16.189	17.499
35	114	79	42.158	1.219	19.246	16.635	20.009
35	115	80	47.014	3.215	19.515	16.925	18.286
35	116	81	54.321	0.764	19.791	17.021	20.999
35	117	82	59.955	2.437	20.055	16.770	19.595
35	118	83	68.858	-0.832	20.325	15.713	23.121
35	119	84	76.442	0.487	20.585	14.279	22.066
35	120	85	85.971	-1.458	20.850	14.183	24.263
35	121	86	93.129	0.913	21.105	15.116	22.152
35	122	87	102.245	-1.045	21.367	16.049	24.359
35	123	88	109.253	1.063	21.618	16.697	22.506
35	124	89	118.379	-1.055	21.875	17.200	24.868
35	125	90	125.517	0.933	22.123	17.560	23.132
35	126	91	134.816	-1.228	22.376	17.891	25.534
36	61	25	30.837	19.296	-0.974	7.242	-23.520
36	62	26	17.321	21.588	-0.397	6.897	-25.199
36	63	27	6.987	18.405	0.197	7.263	-21.432
36	64	28	-5.387	20.445	0.761	7.316	-22.872
36	65	29	-12.768	15.452	1.341	5.593	-17.307
36	66	30	-21.986	17.289	1.890	3.604	-18.556
36	67	31	-27.609	13.694	2.454	3.043	-14.404
36	68	32	-35.458	15.919	2.987	2.808	-16.058

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
36	69	33	-40.001	12.614	3.534	2.890	-12.210
36	70	34	-46.827	14.897	4.051	2.968	-13.938
36	71	35	-50.424	11.668	4.579	3.147	-10.182
36	72	36	-56.287	13.934	5.080	3.249	-11.910
36	73	37	-58.984	10.768	5.591	3.435	-8.233
36	74	38	-63.938	13.026	6.075	3.557	-9.970
36	75	39	-65.799	9.932	6.569	3.771	-6.382
36	76	40	-69.922	12.193	7.036	3.932	-8.139
36	77	41	-71.030	9.179	7.513	4.192	-4.647
36	78	42	-74.413	11.455	7.964	4.413	-6.435
36	79	43	-74.874	8.532	8.424	4.743	-3.049
36	80	44	-77.649	10.846	8.860	5.059	-4.892
36	81	45	-77.630	8.052	9.304	5.522	-1.651
36	82	46	-80.028	10.469	9.725	6.037	-3.612
36	83	47	-79.848	7.891	10.154	6.785	-0.602
36	84	48	-82.236	10.459	10.560	7.637	-2.729
36	85	49	-81.960	7.795	10.975	8.418	0.353
36	86	50	-83.245	9.356	11.367	8.145	-0.781
36	87	51	-80.972	5.798	11.768	6.995	3.181
36	88	52	-80.631	7.730	12.148	6.172	1.662
36	89	53	-77.425	4.864	12.535	6.056	4.920
36	90	54	-76.373	7.019	12.903	6.121	3.164
36	91	55	-72.697	4.395	13.278	6.441	6.169
36	92	56	-71.281	6.655	13.634	6.828	4.295
36	93	57	-67.329	4.119	13.997	7.317	7.199
36	94	58	-65.630	6.372	14.342	7.759	5.322
36	95	59	-61.417	3.858	14.694	8.238	8.193
36	96	60	-59.421	6.075	15.029	8.644	6.341
36	97	61	-54.925	3.575	15.371	9.078	9.188
36	98	62	-52.612	5.758	15.695	9.443	7.358
36	99	63	-47.818	3.277	16.028	9.841	10.177
36	100	64	-45.181	5.434	16.343	10.178	8.364
36	101	65	-40.086	2.975	16.666	10.552	11.150
36	102	66	-37.126	5.111	16.974	10.872	9.350
36	103	67	-31.734	2.679	17.288	11.233	12.101
36	104	68	-28.461	4.798	17.588	11.545	10.308
36	105	69	-22.786	2.396	17.894	11.900	13.022
36	106	70	-19.218	4.503	18.186	12.213	11.233
36	107	71	-13.281	2.134	18.485	12.574	13.906
36	108	72	-9.445	4.235	18.770	12.899	12.116
36	109	73	-3.280	1.906	19.062	13.277	14.742
36	110	74	0.782	4.009	19.341	13.631	12.942
36	111	75	7.124	1.729	19.626	14.047	15.513
36	112	76	11.350	3.845	19.899	14.447	13.694
36	113	77	17.807	1.615	20.178	14.913	16.208
36	114	78	22.149	3.728	20.445	15.350	14.385
36	115	79	28.728	1.492	20.719	15.794	16.899
36	116	80	33.322	3.477	20.981	16.084	15.200
36	117	81	40.360	1.033	21.250	16.180	17.917
36	118	82	45.737	2.694	21.507	15.928	16.535
36	119	83	54.376	-0.568	21.771	14.872	20.066
36	120	84	61.708	0.739	22.023	13.438	19.034
36	121	85	70.977	-1.198	22.283	13.342	21.235
36	122	86	77.886	1.162	22.531	14.276	19.145
36	123	87	86.747	-0.790	22.787	15.210	21.356

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
36	124	88	93.510	1.308	23.032	15.860	19.524
36	125	89	102.385	-0.803	23.283	16.363	21.891
36	126	90	109.281	1.174	23.525	16.725	20.175
36	127	91	118.332	-0.980	23.772	17.058	22.581
36	128	92	125.456	0.947	24.011	17.319	20.913
36	129	93	134.739	-1.212	24.256	17.589	23.320
37	68	31	-19.400	14.265	-0.921	3.108	-12.694
37	69	32	-27.791	16.462	-0.378	2.831	-14.352
37	70	33	-32.889	13.169	0.177	2.869	-10.549
37	71	34	-40.242	15.424	0.704	2.908	-12.280
37	72	35	-44.377	12.206	1.242	3.046	-8.565
37	73	36	-50.750	14.444	1.753	3.110	-10.294
37	74	37	-53.968	11.289	2.274	3.260	-6.656
37	75	38	-59.417	13.520	2.768	3.347	-8.393
37	76	39	-61.782	10.436	3.272	3.526	-4.840
37	77	40	-66.383	12.672	3.750	3.656	-6.597
37	78	41	-67.979	9.666	4.238	3.884	-3.137
37	79	42	-71.825	11.917	4.700	4.075	-4.924
37	80	43	-72.757	9.003	5.172	4.376	-1.569
37	81	44	-75.979	11.293	5.619	4.666	-3.410
37	82	45	-76.416	8.508	6.075	5.102	-0.198
37	83	46	-79.246	10.901	6.507	5.593	-2.156
37	84	47	-79.507	8.332	6.948	6.317	0.827
37	85	48	-82.314	10.878	7.366	7.146	-1.298
37	86	49	-82.464	8.221	7.793	7.906	1.759
37	87	50	-84.153	9.760	8.197	7.613	0.628
37	88	51	-82.293	6.211	8.610	6.444	4.566
37	89	52	-82.344	8.122	9.002	5.603	3.050
37	90	53	-79.537	5.264	9.401	5.469	6.285
37	91	54	-78.865	7.399	9.781	5.517	4.533
37	92	55	-75.576	4.782	10.168	5.822	7.515
37	93	56	-74.529	7.024	10.537	6.194	5.646
37	94	57	-70.952	4.495	10.912	6.670	8.529
37	95	58	-69.610	6.729	11.269	7.099	6.656
37	96	59	-65.762	4.222	11.634	7.565	9.507
37	97	60	-64.112	6.422	11.980	7.960	7.659
37	98	61	-59.970	3.929	12.334	8.383	10.486
37	99	62	-57.995	6.096	12.672	8.739	8.661
37	100	63	-53.545	3.621	13.016	9.127	11.461
37	101	64	-51.236	5.762	13.344	9.455	9.653
37	102	65	-46.475	3.310	13.679	9.821	12.421
37	103	66	-43.835	5.431	13.998	10.133	10.625
37	104	67	-38.770	3.006	14.325	10.487	13.359
37	105	68	-35.808	5.110	14.636	10.792	11.571
37	106	69	-30.452	2.714	14.954	11.142	14.268
37	107	70	-27.187	4.807	15.258	11.450	12.484
37	108	71	-21.561	2.445	15.569	11.805	15.140
37	109	72	-18.022	4.532	15.866	12.125	13.355
37	110	73	-12.160	2.209	16.169	12.500	15.965
37	111	74	-8.388	4.300	16.459	12.849	14.169
37	112	75	-2.343	2.026	16.756	13.261	16.725
37	113	76	1.599	4.129	17.041	13.660	14.910
37	114	77	7.764	1.906	17.331	14.122	17.409

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALP	BETA-
37	115	78	11.828	4.007	17.610	14.557	15.591
37	116	79	18.122	1.778	17.895	14.999	18.091
37	117	80	22.443	3.750	18.168	15.288	16.396
37	118	81	29.201	1.312	18.448	15.382	19.099
37	119	82	34.310	2.963	18.716	15.129	17.721
37	120	83	42.674	-0.293	18.991	14.072	21.238
37	121	84	49.742	1.003	19.254	12.637	20.210
37	122	85	58.741	-0.928	19.525	12.541	22.398
37	123	86	65.391	1.421	19.784	13.476	20.312
37	124	87	73.986	-0.524	20.050	14.409	22.510
37	125	88	80.494	1.563	20.305	15.060	20.682
37	126	89	89.106	-0.541	20.567	15.564	23.036
38	65	27	25.592	19.568	-0.819	7.670	-23.498
38	66	28	12.112	21.551	-0.284	7.634	-24.914
38	67	29	3.593	16.590	0.266	5.819	-19.410
38	68	30	-6.706	18.370	0.790	3.744	-20.633
38	69	31	-13.438	14.803	1.328	3.095	-16.535
38	70	32	-22.340	16.973	1.838	2.779	-18.159
38	71	33	-27.962	13.693	2.362	2.778	-14.360
38	72	34	-35.812	15.921	2.859	2.779	-16.056
38	73	35	-40.456	12.715	3.368	2.880	-12.344
38	74	36	-47.313	14.927	3.851	2.911	-14.039
38	75	37	-51.024	11.783	4.345	3.025	-10.402
38	76	38	-56.942	13.989	4.814	3.081	-12.105
38	77	39	-59.786	10.915	5.293	3.228	-8.552
38	78	40	-64.842	13.126	5.747	3.328	-10.275
38	79	41	-66.901	10.130	6.211	3.527	-6.814
38	80	42	-71.188	12.358	6.652	3.691	-8.568
38	81	43	-72.569	9.453	7.101	3.965	-5.212
38	82	44	-76.218	11.720	7.528	4.230	-7.019
38	83	45	-77.090	8.943	7.963	4.641	-3.805
38	84	46	-80.334	11.315	8.376	5.109	-5.731
38	85	47	-81.016	8.753	8.798	5.811	-2.746
38	86	48	-84.223	11.278	9.198	6.620	-4.838
38	87	49	-84.782	8.630	9.607	7.359	-1.779
38	88	50	-86.859	10.148	9.995	7.048	-2.878
38	89	51	-85.395	6.607	10.390	5.859	1.063
38	90	52	-85.822	8.498	10.766	5.002	-0.422
38	91	53	-83.399	5.648	11.150	4.851	2.816
38	92	54	-83.091	7.764	11.515	4.885	1.095
38	93	55	-80.174	5.154	11.888	5.175	4.081
38	94	56	-79.481	7.378	12.242	5.533	2.241
38	95	57	-76.267	4.856	12.603	5.995	5.128
38	96	58	-75.269	7.073	12.947	6.413	3.284
38	97	59	-71.771	4.574	13.299	6.867	6.138
38	98	60	-70.456	6.756	13.633	7.251	4.319
38	99	61	-66.656	4.271	13.975	7.664	7.150
38	100	62	-65.006	6.421	14.300	8.010	5.353
38	101	63	-60.889	3.954	14.633	8.389	8.157
38	102	64	-58.897	6.079	14.950	8.709	6.375
38	103	65	-54.460	3.634	15.274	9.067	9.148
38	104	66	-52.129	5.740	15.583	9.372	7.378
38	105	67	-47.379	3.322	15.899	9.719	10.116

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
38	106	68	-44.719	5.411	16.200	10.019	8.354
38	107	69	-39.671	3.023	16.508	10.362	11.055
38	108	70	-36.701	5.101	16.803	10.665	9.296
38	109	71	-31.376	2.746	17.104	11.015	11.956
38	110	72	-28.125	4.820	17.392	11.331	10.195
38	111	73	-22.558	2.504	17.687	11.701	12.810
38	112	74	-19.068	4.581	17.968	12.048	11.038
38	113	75	-13.311	2.314	18.257	12.456	13.597
38	114	76	-9.645	4.405	18.533	12.852	11.806
38	115	77	-3.763	2.189	18.816	13.312	14.309
38	116	78	0.031	4.278	19.086	13.745	12.514
38	117	79	6.047	2.055	19.364	14.185	15.018
38	118	80	10.102	4.016	19.629	14.472	13.344
38	119	81	16.588	1.585	19.902	14.564	16.052
38	120	82	21.436	3.224	20.163	14.311	14.696
38	121	83	29.532	-0.026	20.431	13.253	18.216
38	122	84	36.344	1.260	20.688	11.818	17.209
38	123	85	45.079	-0.665	20.951	11.722	19.400
38	124	86	51.476	1.674	21.204	12.656	17.336
38	125	87	59.812	-0.265	21.463	13.590	19.537
38	126	88	66.070	1.813	21.712	14.241	17.729
38	127	89	74.427	-0.286	21.968	14.745	20.087
39	72	33	-19.756	14.225	-0.917	2.781	-12.676
39	73	34	-28.112	16.427	-0.411	2.746	-14.376
39	74	35	-33.274	13.233	0.107	2.810	-10.705
39	75	36	-40.623	15.420	0.599	2.806	-12.402
39	76	37	-44.838	12.286	1.102	2.886	-8.802
39	77	38	-51.234	14.467	1.581	2.909	-10.507
39	78	39	-54.567	11.404	2.069	3.024	-6.990
39	79	40	-60.087	13.591	2.534	3.094	-8.713
39	80	41	-62.620	10.604	3.008	3.263	-5.285
39	81	42	-67.357	12.808	3.459	3.399	-7.038
39	82	43	-69.199	9.912	3.918	3.645	-3.713
39	83	44	-73.285	12.157	4.356	3.885	-5.519
39	84	45	-74.602	9.389	4.801	4.270	-2.334
39	85	46	-78.270	11.739	5.226	4.716	-4.259
39	86	47	-79.385	9.186	5.658	5.394	-1.301
39	87	48	-83.003	11.689	6.069	6.182	-3.391
39	88	49	-83.981	9.049	6.488	6.899	-0.357
39	89	50	-86.458	10.547	6.888	6.569	-1.454
39	90	51	-85.400	7.014	7.294	5.361	2.462
39	91	52	-86.215	8.885	7.682	4.486	0.981
39	92	53	-84.186	6.043	8.077	4.318	4.195
39	93	54	-84.255	8.140	8.453	4.336	2.477
39	94	55	-81.722	5.538	8.837	4.610	5.440
39	95	56	-81.394	7.743	9.202	4.954	3.604
39	96	57	-78.552	5.229	9.575	5.402	6.469
39	97	58	-77.910	7.428	9.930	5.806	4.629
39	98	59	-74.775	4.936	10.293	6.248	7.463
39	99	60	-73.806	7.102	10.639	6.621	5.647
39	100	61	-70.359	4.624	10.992	7.022	8.459
39	101	62	-69.045	6.758	11.328	7.358	6.665
39	102	63	-65.272	4.298	11.672	7.727	9.450

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
39	103	64	-63.608	6.407	12.000	8.038	7.673
39	104	65	-59.507	3.970	12.336	8.387	10.427
39	105	66	-57.495	6.060	12.656	8.684	8.661
39	106	67	-53.073	3.649	12.983	9.023	11.382
39	107	68	-50.726	5.724	13.295	9.316	9.623
39	108	69	-45.997	3.342	13.615	9.652	12.307
39	109	70	-43.333	5.407	13.920	9.949	10.552
39	110	71	-38.320	3.058	14.233	10.293	13.196
39	111	72	-35.367	5.118	14.531	10.605	11.439
39	112	73	-30.106	2.809	14.837	10.970	14.038
39	113	74	-26.909	4.874	15.130	11.312	12.269
39	114	75	-21.451	2.613	15.429	11.716	14.814
39	115	76	-18.072	4.692	15.716	12.108	13.026
39	116	77	-12.483	2.482	16.009	12.564	15.514
39	117	78	-8.971	4.559	16.290	12.994	13.723
39	118	79	-3.242	2.343	16.578	13.431	16.212
39	119	80	0.537	4.292	16.855	13.717	14.543
39	120	81	6.740	1.867	17.137	13.807	17.236
39	121	82	11.316	3.495	17.409	13.552	15.883
39	122	83	19.135	0.252	17.687	12.492	19.391
39	123	84	25.679	1.527	17.954	11.056	18.387
39	124	85	34.141	-0.391	18.227	10.958	20.565
39	125	86	40.275	1.937	18.490	11.892	18.503
39	126	87	48.341	0.005	18.760	12.825	20.692
39	127	88	54.340	2.072	19.019	13.476	18.887
39	128	89	62.432	-0.020	19.285	13.980	21.232
39	129	90	68.575	1.928	19.540	14.344	19.543
39	130	91	76.853	-0.207	19.802	14.678	21.928
40	70	30	10.620	19.399	-0.234	3.917	-22.582
40	71	31	2.829	15.862	0.279	3.189	-18.538
40	72	32	-7.080	17.980	0.767	2.799	-20.136
40	73	33	-13.736	14.727	1.269	2.723	-16.386
40	74	34	-22.569	16.904	1.746	2.654	-18.055
40	75	35	-28.221	13.723	2.236	2.684	-14.387
40	76	36	-36.035	15.886	2.702	2.649	-16.052
40	77	37	-40.727	12.763	3.179	2.696	-12.455
40	78	38	-47.577	14.921	3.632	2.690	-14.128
40	79	39	-51.374	11.868	4.096	2.775	-10.612
40	80	40	-57.335	14.032	4.537	2.818	-12.303
40	81	41	-60.319	11.056	4.988	2.958	-8.876
40	82	42	-65.486	13.237	5.417	3.069	-10.598
40	83	43	-67.765	10.351	5.856	3.289	-7.272
40	84	44	-72.268	12.574	6.272	3.505	-9.048
40	85	45	-74.011	9.814	6.698	3.867	-5.862
40	86	46	-78.084	12.144	7.103	4.291	-7.755
40	87	47	-79.612	9.599	7.516	4.947	-4.796
40	88	48	-83.624	12.083	7.910	5.715	-6.856
40	89	49	-85.004	9.451	8.311	6.413	-3.821
40	90	50	-87.862	10.930	8.694	6.064	-4.888
40	91	51	-87.195	7.404	9.084	4.838	-0.970
40	92	52	-88.381	9.257	9.455	3.947	-2.422
40	93	53	-86.732	6.422	9.835	3.762	0.795
40	94	54	-87.162	8.501	10.196	3.765	-0.895

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
40	95	55	-84.998	5.907	10.565	4.024	2.072
40	96	56	-85.021	8.095	10.916	4.355	0.263
40	97	57	-82.539	5.588	11.275	4.789	3.131
40	98	58	-82.238	7.771	11.617	5.182	1.318
40	99	59	-79.453	5.286	11.967	5.612	4.156
40	100	60	-78.817	7.435	12.300	5.974	2.367
40	101	61	-75.710	4.964	12.641	6.364	5.181
40	102	62	-74.722	7.083	12.966	6.690	3.414
40	103	63	-71.281	4.630	13.298	7.049	6.202
40	104	64	-69.934	6.724	13.615	7.353	4.451
40	105	65	-66.156	4.294	13.939	7.692	7.208
40	106	66	-64.455	6.369	14.248	7.983	5.467
40	107	67	-60.349	3.965	14.565	8.314	8.191
40	108	68	-58.304	6.026	14.867	8.600	6.457
40	109	69	-53.885	3.652	15.177	8.930	9.145
40	110	70	-51.516	5.703	15.473	9.222	7.414
40	111	71	-46.806	3.361	15.775	9.560	10.061
40	112	72	-44.143	5.408	16.065	9.867	8.327
40	113	73	-39.178	3.106	16.361	10.227	10.930
40	114	74	-36.265	5.158	16.645	10.565	9.184
40	115	75	-31.098	2.904	16.936	10.965	11.732
40	116	76	-27.997	4.970	17.214	11.354	9.967
40	117	77	-22.693	2.767	17.499	11.807	12.458
40	118	78	-19.454	4.832	17.773	12.234	10.688
40	119	79	-14.006	2.623	18.053	12.668	13.181
40	120	80	-10.496	4.561	18.321	12.952	11.533
40	121	81	-4.567	2.143	18.597	13.039	14.230
40	122	82	-0.256	3.759	18.861	12.783	12.898
40	123	83	7.292	0.523	19.131	11.721	16.408
40	124	84	13.576	1.787	19.392	10.285	15.424
40	125	85	21.772	-0.125	19.658	10.186	17.606
40	126	86	27.650	2.193	19.914	11.119	15.564
40	127	87	35.453	0.267	20.177	12.051	17.756
40	128	88	41.199	2.325	20.430	12.702	15.971
40	129	89	49.032	0.239	20.689	13.205	18.319
40	130	90	54.925	2.177	20.939	13.570	16.649
40	131	91	62.948	0.048	21.194	13.904	19.036
40	132	92	69.082	1.937	21.441	14.170	17.412
40	133	93	77.349	-0.196	21.694	14.443	19.802
40	134	94	83.755	1.665	21.937	14.669	18.202
41	76	35	-19.983	14.220	-0.949	2.652	-12.723
41	77	36	-28.272	16.360	-0.474	2.585	-14.391
41	78	37	-33.450	13.248	0.011	2.601	-10.832
41	79	38	-40.762	15.383	0.474	2.564	-12.506
41	80	39	-45.032	12.341	0.947	2.619	-9.025
41	81	40	-51.443	14.482	1.397	2.634	-10.718
41	82	41	-54.888	11.516	1.858	2.746	-7.324
41	83	42	-60.493	13.676	2.296	2.831	-9.046
41	84	43	-63.220	10.798	2.744	3.025	-5.751
41	85	44	-68.150	13.000	3.171	3.217	-7.526
41	86	45	-70.328	10.250	3.606	3.555	-4.369
41	87	46	-74.816	12.559	4.021	3.956	-6.262
41	88	47	-76.768	10.023	4.444	4.590	-3.330

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
41	89	48	-81.183	12.486	4.848	5.338	-5.389
41	90	49	-82.974	9.863	5.260	6.015	-2.379
41	91	50	-86.226	11.322	5.652	5.648	-3.445
41	92	51	-85.959	7.804	6.053	4.403	0.449
41	93	52	-87.527	9.639	6.435	3.494	-1.001
41	94	53	-86.267	6.812	6.825	3.292	2.192
41	95	54	-87.069	8.873	7.196	3.280	0.505
41	96	55	-85.284	6.286	7.576	3.523	3.449
41	97	56	-85.670	8.457	7.938	3.840	1.643
41	98	57	-83.557	5.958	8.307	4.260	4.490
41	99	58	-83.609	8.123	8.660	4.640	2.680
41	100	59	-81.184	5.646	9.020	5.056	5.496
41	101	60	-80.892	7.779	9.364	5.407	3.710
41	102	61	-78.136	5.315	9.715	5.786	6.505
41	103	62	-77.483	7.418	10.050	6.102	4.741
41	104	63	-74.384	4.972	10.393	6.450	7.511
41	105	64	-73.365	7.052	10.720	6.744	5.762
41	106	65	-69.922	4.628	11.055	7.075	8.501
41	107	66	-68.540	6.689	11.375	7.357	6.764
41	108	67	-64.761	4.292	11.701	7.680	9.470
41	109	68	-63.029	6.339	12.014	7.959	7.739
41	110	69	-58.930	3.971	12.334	8.282	10.410
41	111	70	-56.868	6.009	12.640	8.567	8.682
41	112	71	-52.471	3.674	12.953	8.899	11.313
41	113	72	-50.108	5.708	13.253	9.200	9.582
41	114	73	-45.449	3.412	13.560	9.554	12.169
41	115	74	-42.830	5.452	13.854	9.888	10.427
41	116	75	-37.964	3.205	14.155	10.283	12.959
41	117	76	-35.151	5.259	14.443	10.668	11.197
41	118	77	-30.143	3.062	14.738	11.116	13.674
41	119	78	-27.187	5.116	15.022	11.540	11.907
41	120	79	-22.029	2.913	15.312	11.971	14.385
41	121	80	-18.797	4.839	15.590	12.251	12.740
41	122	81	-13.154	2.428	15.875	12.336	15.423
41	123	82	-9.116	4.033	16.149	12.078	14.094
41	124	83	-1.848	0.803	16.429	11.013	17.591
41	125	84	4.166	2.057	16.699	9.575	16.610
41	126	85	12.085	0.151	16.975	9.474	18.778
41	127	86	17.697	2.459	17.241	10.406	16.740
41	128	87	25.229	0.539	17.513	11.337	18.918
41	129	88	30.713	2.587	17.776	11.987	17.136
41	130	89	38.277	0.507	18.044	12.490	19.471
41	131	90	43.912	2.436	18.303	12.854	17.804
41	132	91	51.669	0.313	18.568	13.187	20.179
42	74	32	10.162	18.943	-0.223	2.882	-21.988
42	75	33	2.517	15.717	0.258	2.737	-18.287
42	76	34	-7.260	17.848	0.716	2.605	-19.930
42	77	35	-13.881	14.691	1.186	2.570	-16.307
42	78	36	-22.618	16.808	1.635	2.474	-17.946
42	79	37	-28.256	13.709	2.095	2.460	-14.390
42	80	38	-36.006	15.822	2.533	2.396	-16.035
42	81	39	-40.725	12.790	2.982	2.423	-12.556
42	82	40	-47.564	14.910	3.410	2.412	-14.219

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
42	83	41	-51.447	11.954	3.848	2.498	-10.826
42	84	42	-57.469	14.093	4.265	2.559	-12.518
42	85	43	-60.623	11.225	4.692	2.729	-9.224
42	86	44	-65.959	13.407	5.099	2.899	-10.970
42	87	45	-68.554	10.666	5.515	3.214	-7.813
42	88	46	-73.438	12.955	5.911	3.595	-9.677
42	89	47	-75.794	10.427	6.316	4.208	-6.744
42	90	48	-80.595	12.872	6.701	4.936	-8.775
42	91	49	-82.781	10.257	7.096	5.594	-5.764
42	92	50	-86.408	11.698	7.472	5.209	-6.802
42	93	51	-86.525	8.188	7.856	3.947	-2.907
42	94	52	-88.460	10.005	8.222	3.022	-4.330
42	95	53	-87.574	7.186	8.596	2.804	-1.134
42	96	54	-88.733	9.230	8.953	2.777	-2.795
42	97	55	-87.313	6.651	9.317	3.006	0.151
42	98	56	-88.046	8.805	9.665	3.309	-1.629
42	99	57	-86.289	6.313	10.021	3.716	1.221
42	100	58	-86.680	8.463	10.360	4.084	-0.563
42	101	59	-84.602	5.993	10.707	4.488	2.256
42	102	60	-84.641	8.110	11.039	4.828	0.495
42	103	61	-82.224	5.654	11.377	5.196	3.293
42	104	62	-81.895	7.742	11.701	5.502	1.553
42	105	63	-79.126	5.303	12.031	5.841	4.326
42	106	64	-78.423	7.368	12.348	6.126	2.601
42	107	65	-75.304	4.951	12.671	6.448	5.344
42	108	66	-74.231	6.999	12.980	6.723	3.629
42	109	67	-70.769	4.608	13.296	7.037	6.339
42	110	68	-69.340	6.642	13.599	7.310	4.631
42	111	69	-65.549	4.281	13.909	7.626	7.305
42	112	70	-63.784	6.305	14.205	7.905	5.599
42	113	71	-59.690	3.977	14.509	8.231	8.234
42	114	72	-57.618	5.999	14.799	8.527	6.525
42	115	73	-53.257	3.710	15.097	8.876	9.115
42	116	74	-50.923	5.737	15.382	9.205	7.394
42	117	75	-46.348	3.497	15.674	9.595	9.930
42	118	76	-43.816	5.539	15.954	9.976	8.189
42	119	77	-39.094	3.349	16.241	10.421	10.669
42	120	78	-36.414	5.391	16.516	10.842	8.922
42	121	79	-31.537	3.194	16.798	11.269	11.404
42	122	80	-28.576	5.110	17.068	11.547	9.779
42	123	81	-23.210	2.705	17.346	11.629	12.464
42	124	82	-19.439	4.300	17.612	11.368	11.156
42	125	83	-12.444	1.076	17.885	10.302	14.655
42	126	84	-6.693	2.319	18.148	8.862	13.694
42	127	85	0.958	0.420	18.417	8.759	15.865
42	128	86	6.311	2.718	18.676	9.691	13.845
42	129	87	13.577	0.805	18.941	10.620	16.027
42	130	88	18.805	2.843	19.196	11.269	14.263
42	131	89	26.107	0.769	19.458	11.771	16.601
42	132	90	31.490	2.688	19.711	12.134	14.952
42	133	91	38.989	0.572	19.969	12.468	17.330
42	134	92	44.618	2.443	20.219	12.733	15.726
42	135	93	52.368	0.321	20.474	13.006	18.106

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
43	80	37	-19.972	14.177	-0.995	2.414	-12.733
43	81	38	-28.169	16.269	-0.548	2.322	-14.381
43	82	39	-33.346	13.247	-0.090	2.321	-10.936
43	83	40	-40.622	15.347	0.346	2.284	-12.602
43	84	41	-44.951	12.401	0.793	2.344	-9.241
43	85	42	-51.399	14.519	1.219	2.381	-10.935
43	86	43	-54.989	11.661	1.655	2.526	-7.671
43	87	44	-60.741	13.823	2.071	2.673	-9.418
43	88	45	-63.760	11.090	2.495	2.965	-6.289
43	89	46	-69.050	13.360	2.901	3.325	-8.153
43	90	47	-71.820	10.842	3.315	3.917	-5.248
43	91	48	-77.017	13.267	3.711	4.626	-7.278
43	92	49	-79.606	10.661	4.114	5.264	-4.293
43	93	50	-83.619	12.084	4.500	4.861	-5.329
43	94	51	-84.130	8.582	4.893	3.580	-1.459
43	95	52	-86.440	10.381	5.269	2.639	-2.880
43	96	53	-85.938	7.570	5.653	2.404	0.291
43	97	54	-87.464	9.596	6.020	2.362	-1.367
43	98	55	-86.418	7.025	6.394	2.575	1.556
43	99	56	-87.509	9.163	6.752	2.865	-0.221
43	100	57	-86.117	6.678	7.117	3.257	2.607
43	101	58	-86.858	8.812	7.467	3.613	0.824
43	102	59	-85.136	6.349	7.823	4.005	3.623
43	103	60	-85.517	8.452	8.165	4.333	1.865
43	104	61	-83.448	6.002	8.513	4.689	4.643
43	105	62	-83.452	8.075	8.846	4.985	2.906
43	106	63	-81.024	5.643	9.187	5.313	5.659
43	107	64	-80.647	7.694	9.513	5.589	3.937
43	108	65	-77.861	5.284	9.846	5.902	6.661
43	109	66	-77.107	7.318	10.165	6.168	4.950
43	110	67	-73.971	4.934	10.491	6.474	7.642
43	111	68	-72.854	6.955	10.804	6.739	5.937
43	112	69	-69.383	4.600	11.123	7.047	8.594
43	113	70	-67.924	6.612	11.429	7.320	6.891
43	114	71	-64.143	4.290	11.742	7.638	9.509
43	115	72	-62.371	6.299	12.042	7.929	7.803
43	116	73	-58.317	4.017	12.349	8.272	10.376
43	117	74	-56.278	6.032	12.644	8.596	8.659
43	118	75	-52.005	3.798	12.946	8.981	11.179
43	119	76	-49.763	5.828	13.235	9.358	9.441
43	120	77	-45.336	3.645	13.531	9.798	11.906
43	121	78	-42.941	5.676	13.816	10.215	10.162
43	122	79	-38.355	3.485	14.107	10.638	12.629
43	123	80	-35.675	5.390	14.387	10.912	11.007
43	124	81	-30.595	2.991	14.674	10.991	13.678
43	125	82	-27.100	4.576	14.949	10.728	12.372
43	126	83	-20.387	1.358	15.231	9.658	15.858
43	127	84	-14.907	2.591	15.503	8.216	14.900
43	128	85	-7.534	0.698	15.781	8.111	17.057
43	129	86	-2.449	2.986	16.049	9.040	15.040
43	130	87	4.543	1.079	16.323	9.968	17.208
43	131	88	9.507	3.107	16.588	10.616	15.447
43	132	89	16.538	1.040	16.858	11.116	17.772
43	133	90	21.659	2.950	17.120	11.479	16.126
43	134	91	28.891	0.839	17.387	11.811	18.491

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
43	135	92	34.261	2.701	17.645	12.075	16.891
43	136	93	41.747	0.585	17.909	12.347	19.258
43	137	94	47.398	2.420	18.165	12.574	17.681
43	138	95	55.157	0.312	18.426	12.821	20.039
43	139	96	61.101	2.128	18.679	13.031	18.478
43	140	97	69.141	0.031	18.938	13.264	20.822
43	141	98	75.381	1.831	19.188	13.464	19.275
43	142	99	83.706	-0.253	19.444	13.689	21.604
44	78	34	9.938	18.753	-0.222	2.650	-21.662
44	79	35	2.387	15.622	0.230	2.555	-18.084
44	80	36	-7.239	17.697	0.662	2.403	-19.699
44	81	37	-13.788	14.620	1.106	2.333	-16.183
44	82	38	-22.409	16.692	1.529	2.216	-17.803
44	83	39	-28.020	13.682	1.963	2.189	-14.362
44	84	40	-35.710	15.761	2.378	2.129	-15.999
44	85	41	-40.465	12.825	2.803	2.164	-12.641
44	86	42	-47.318	14.925	3.208	2.179	-14.307
44	87	43	-51.323	12.076	3.623	2.301	-11.044
44	88	44	-57.471	14.219	4.019	2.427	-12.764
44	89	45	-60.896	11.496	4.425	2.698	-9.636
44	90	46	-66.572	13.747	4.812	3.038	-11.473
44	91	47	-69.739	11.238	5.208	3.610	-8.567
44	92	48	-75.313	13.645	5.586	4.301	-10.571
44	93	49	-78.289	11.047	5.972	4.920	-7.585
44	94	50	-82.671	12.453	6.341	4.501	-8.596
44	95	51	-83.559	8.959	6.719	3.203	-4.724
44	96	52	-86.230	10.741	7.079	2.247	-6.120
44	97	53	-86.097	7.938	7.447	1.996	-2.947
44	98	54	-87.974	9.948	7.799	1.940	-4.580
44	99	55	-87.288	7.385	8.159	2.139	-1.655
44	100	56	-88.724	9.506	8.503	2.415	-3.408
44	101	57	-87.682	7.030	8.855	2.795	-0.578
44	102	58	-88.760	9.148	9.191	3.138	-2.336
44	103	59	-87.381	6.693	9.534	3.518	0.465
44	104	60	-88.091	8.780	9.863	3.835	-1.270
44	105	61	-86.358	6.338	10.199	4.181	1.511
44	106	62	-86.683	8.397	10.520	4.467	-0.203
44	107	63	-84.584	5.972	10.849	4.785	2.553
44	108	64	-84.522	8.009	11.164	5.052	0.854
44	109	65	-82.057	5.606	11.486	5.356	3.580
44	110	66	-81.612	7.626	11.794	5.614	1.891
44	111	67	-78.791	5.249	12.109	5.912	4.586
44	112	68	-77.977	7.257	12.412	6.170	2.903
44	113	69	-74.815	4.909	12.721	6.471	5.562
44	114	70	-73.652	6.908	13.017	6.737	3.881
44	115	71	-70.174	4.593	13.320	7.050	6.502
44	116	72	-68.694	6.590	13.611	7.335	4.817
44	117	73	-64.937	4.314	13.909	7.672	7.393
44	118	74	-63.184	6.318	14.195	7.991	5.696
44	119	75	-59.203	4.090	14.487	8.372	8.219
44	120	76	-57.242	6.110	14.768	8.744	6.501
44	121	77	-53.103	3.932	15.056	9.180	8.968
44	122	78	-50.984	5.952	15.332	9.593	7.244

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
44	123	79	-46.682	3.768	15.615	10.012	9.714
44	124	80	-44.273	5.662	15.887	10.284	8.111
44	125	81	-39.472	3.270	16.166	10.359	10.785
44	126	82	-36.245	4.844	16.434	10.093	9.498
44	127	83	-29.806	1.633	16.709	9.021	12.986
44	128	84	-24.591	2.856	16.973	7.577	12.046
44	129	85	-17.489	0.969	17.244	7.470	14.206
44	130	86	-12.666	3.247	17.505	8.398	12.207
44	131	87	-5.940	1.346	17.772	9.323	14.378
44	132	88	-1.234	3.365	18.030	9.970	12.635
44	133	89	5.533	1.303	18.294	10.469	14.963
44	134	90	10.400	3.205	18.549	10.831	13.334
44	135	91	17.371	1.100	18.809	11.162	15.701
44	136	92	22.489	2.953	19.061	11.426	14.118
44	137	93	29.717	0.843	19.319	11.697	16.488
44	138	94	35.118	2.670	19.569	11.924	14.927
44	139	95	42.622	0.567	19.824	12.170	17.287
44	140	96	48.319	2.375	20.071	12.380	15.743
44	141	97	56.106	0.283	20.324	12.613	18.089
44	142	98	62.102	2.076	20.568	12.814	16.558
44	143	99	70.175	-0.003	20.819	13.039	18.889
44	144	100	76.471	1.776	21.062	13.234	17.369
44	145	101	84.831	-0.289	21.310	13.454	19.684
45	82	37	-4.606	15.072	-1.894	2.359	-14.469
45	83	38	-13.658	17.123	-1.462	2.217	-16.093
45	84	39	-19.711	14.124	-1.020	2.164	-12.686
45	85	40	-27.824	16.184	-0.597	2.080	-14.326
45	86	41	-33.011	13.258	-0.164	2.091	-10.999
45	87	42	-40.279	15.338	0.250	2.082	-12.667
45	88	43	-44.708	12.500	0.673	2.182	-9.435
45	89	44	-51.260	14.624	1.078	2.286	-11.155
45	90	45	-55.099	11.910	1.492	2.535	-8.056
45	91	46	-61.172	14.143	1.888	2.856	-9.894
45	92	47	-64.743	11.642	2.293	3.407	-7.015
45	93	48	-70.704	14.032	2.680	4.079	-9.018
45	94	49	-74.076	11.442	3.075	4.680	-6.059
45	95	50	-78.835	12.831	3.453	4.244	-7.069
45	96	51	-80.110	9.346	3.839	2.929	-3.221
45	97	52	-83.150	11.111	4.209	1.956	-4.617
45	98	53	-83.394	8.315	4.586	1.689	-1.467
45	99	54	-85.633	10.310	4.948	1.618	-3.099
45	100	55	-85.316	7.754	5.317	1.802	-0.196
45	101	56	-87.104	9.860	5.670	2.065	-1.948
45	102	57	-86.424	7.390	6.030	2.431	0.861
45	103	58	-87.846	9.494	6.376	2.762	-0.895
45	104	59	-86.821	7.046	6.729	3.129	1.885
45	105	60	-87.868	9.118	7.067	3.435	0.152
45	106	61	-86.480	6.683	7.412	3.769	2.913
45	107	62	-87.137	8.728	7.743	4.045	1.201
45	108	63	-85.376	6.310	8.080	4.353	3.938
45	109	64	-85.638	8.333	8.405	4.611	2.241
45	110	65	-83.504	5.937	8.736	4.905	4.949
45	111	66	-83.377	7.944	9.053	5.154	3.263

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
45	112	67	-80.879	5.574	9.378	5.444	5.939
45	113	68	-80.377	7.568	9.689	5.694	4.259
45	114	69	-77.533	5.227	10.007	5.987	6.901
45	115	70	-76.676	7.214	10.313	6.247	5.222
45	116	71	-73.510	4.906	10.625	6.552	7.826
45	117	72	-72.330	6.890	10.925	6.831	6.144
45	118	73	-68.880	4.621	11.232	7.162	8.704
45	119	74	-67.422	6.613	11.527	7.476	7.009
45	120	75	-63.743	4.392	11.828	7.850	9.517
45	121	76	-62.071	6.400	12.118	8.218	7.801
45	122	77	-58.229	4.229	12.415	8.649	10.254
45	123	78	-56.395	6.238	12.700	9.058	8.532
45	124	79	-52.384	4.060	12.992	9.473	10.987
45	125	80	-50.257	5.944	13.273	9.741	9.387
45	126	81	-45.743	3.557	13.560	9.812	12.047
45	127	82	-42.793	5.121	13.837	9.543	10.762
45	128	83	-36.638	1.916	14.120	8.468	14.236
45	129	84	-31.696	3.129	14.393	7.021	13.299
45	130	85	-24.873	1.248	14.673	6.911	15.445
45	131	86	-20.319	3.517	14.942	7.837	13.449
45	132	87	-13.869	1.622	15.218	8.760	15.606
45	133	88	-9.429	3.631	15.484	9.405	13.865
45	134	89	-2.934	1.576	15.756	9.902	16.180
45	135	90	1.669	3.468	16.019	10.262	14.554
45	136	91	8.371	1.369	16.288	10.592	16.909
45	137	92	13.229	3.213	16.549	10.855	15.327
45	138	93	20.191	1.109	16.815	11.125	17.685
45	139	94	25.335	2.927	17.072	11.351	16.127
45	140	95	32.576	0.830	17.336	11.596	18.475
45	141	96	38.017	2.630	17.591	11.806	16.933
45	142	97	45.544	0.544	17.851	12.038	19.267
45	143	98	51.287	2.328	18.104	12.239	17.738
45	144	99	59.102	0.256	18.362	12.464	20.058
45	145	100	65.147	2.026	18.613	12.659	18.540
45	146	101	73.251	-0.033	18.869	12.879	20.844
45	147	102	79.598	1.725	19.118	13.071	19.337
45	148	103	87.989	-0.321	19.372	13.288	21.625
46	80	34	28.789	19.622	-1.029	2.850	-23.200
46	81	35	20.344	16.516	-0.595	2.701	-19.666
46	82	36	9.863	18.551	-0.180	2.499	-21.260
46	83	37	2.435	15.499	0.248	2.376	-17.785
46	84	38	-7.025	17.532	0.656	2.211	-19.383
46	85	39	-13.498	14.544	1.076	2.135	-15.979
46	86	40	-22.013	16.585	1.478	2.028	-17.592
46	87	41	-27.612	13.670	1.889	2.017	-14.268
46	88	42	-35.273	15.732	2.283	1.988	-15.910
46	89	43	-40.105	12.903	2.687	2.066	-12.680
46	90	44	-47.044	15.010	3.072	2.151	-14.375
46	91	45	-51.278	12.305	3.468	2.380	-11.277
46	92	46	-57.728	14.521	3.845	2.682	-13.089
46	93	47	-61.686	12.029	4.232	3.215	-10.211
46	94	48	-68.017	14.402	4.602	3.869	-12.189
46	95	49	-71.767	11.821	4.980	4.453	-9.230

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
46	96	50	-76.888	13.193	5.342	4.000	-10.215
46	97	51	-78.533	9.716	5.712	2.669	-6.367
46	98	52	-81.928	11.465	6.067	1.681	-7.738
46	99	53	-82.534	8.678	6.429	1.400	-4.588
46	100	54	-85.120	10.656	6.776	1.315	-6.195
46	101	55	-85.157	8.108	7.130	1.485	-3.292
46	102	56	-87.285	10.199	7.469	1.735	-5.020
46	103	57	-86.951	7.737	7.816	2.088	-2.210
46	104	58	-88.706	9.826	8.149	2.408	-3.943
46	105	59	-88.020	7.385	8.488	2.763	-1.161
46	106	60	-89.393	9.444	8.814	3.059	-2.871
46	107	61	-88.338	7.016	9.147	3.382	-0.109
46	108	62	-89.314	9.047	9.466	3.648	-1.798
46	109	63	-87.879	6.636	9.792	3.946	0.940
46	110	64	-88.453	8.646	10.105	4.195	-0.735
46	111	65	-86.639	6.257	10.424	4.480	1.975
46	112	66	-86.819	8.251	10.731	4.722	0.310
46	113	67	-84.635	5.888	11.045	5.003	2.989
46	114	68	-84.434	7.870	11.346	5.246	1.329
46	115	69	-81.898	5.535	11.654	5.532	3.973
46	116	70	-81.337	7.510	11.950	5.785	2.315
46	117	71	-78.474	5.208	12.252	6.084	4.922
46	118	72	-77.584	7.181	12.543	6.357	3.259
46	119	73	-74.431	4.918	12.840	6.682	5.822
46	120	74	-73.259	6.899	13.126	6.991	4.147
46	121	75	-69.872	4.684	13.419	7.360	6.656
46	122	76	-68.482	6.681	13.700	7.723	4.960
46	123	77	-64.928	4.516	13.988	8.149	7.415
46	124	78	-63.371	6.515	14.265	8.555	5.712
46	125	79	-59.644	4.343	14.548	8.966	8.170
46	126	80	-57.789	6.217	14.822	9.230	6.588
46	127	81	-53.555	3.836	15.101	9.298	9.250
46	128	82	-50.874	5.390	15.370	9.026	7.983
46	129	83	-44.994	2.191	15.646	7.948	11.460
46	130	84	-40.318	3.395	15.912	6.498	10.540
46	131	85	-33.767	1.520	16.183	6.386	12.689
46	132	86	-29.476	3.779	16.446	7.309	10.710
46	133	87	-23.295	1.890	16.715	8.231	12.870
46	134	88	-19.114	3.891	16.974	8.874	11.146
46	135	89	-12.884	1.841	17.239	9.369	13.463
46	136	90	-8.538	3.724	17.496	9.728	11.853
46	137	91	-2.098	1.631	17.758	10.056	14.210
46	138	92	2.506	3.467	18.012	10.319	12.645
46	139	93	9.208	1.369	18.272	10.587	15.005
46	140	94	14.101	3.179	18.523	10.813	13.462
46	141	95	21.084	1.087	18.780	11.057	15.813
46	142	96	26.277	2.879	19.029	11.267	14.286
46	143	97	33.549	0.799	19.284	11.499	16.623
46	144	98	39.044	2.575	19.531	11.699	15.109
46	145	99	46.607	0.508	19.784	11.924	17.430
46	146	100	52.407	2.271	20.029	12.119	15.927
46	147	101	60.261	0.217	20.279	12.340	18.234
46	148	102	66.364	1.968	20.523	12.532	16.741
46	149	103	74.507	-0.072	20.771	12.749	19.032
46	150	104	80.911	1.667	21.013	12.940	17.549

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
46	151	105	89.342	-0.359	21.260	13.156	19.824
47	88	41	-19.362	14.090	-0.960	2.076	-12.571
47	89	42	-27.425	16.134	-0.559	2.026	-14.216
47	90	43	-32.669	13.315	-0.147	2.083	-11.015
47	91	44	-40.001	15.403	0.247	2.148	-12.712
47	92	45	-44.639	12.709	0.650	2.356	-9.641
47	93	46	-51.475	14.907	1.036	2.639	-11.455
47	94	47	-55.828	12.424	1.431	3.153	-8.604
47	95	48	-62.537	14.780	1.809	3.791	-10.583
47	96	49	-66.674	12.208	2.196	4.356	-7.648
47	97	50	-72.166	13.563	2.567	3.887	-8.634
47	98	51	-74.190	10.095	2.945	2.539	-4.811
47	99	52	-77.947	11.828	3.308	1.536	-6.181
47	100	53	-78.924	9.048	3.679	1.239	-3.054
47	101	54	-81.865	11.012	4.034	1.140	-4.661
47	102	55	-82.265	8.471	4.397	1.296	-1.780
47	103	56	-84.741	10.547	4.745	1.533	-3.507
47	104	57	-84.763	8.093	5.101	1.873	-0.718
47	105	58	-86.859	10.167	5.442	2.180	-2.450
47	106	59	-86.522	7.734	5.790	2.523	0.311
47	107	60	-88.229	9.778	6.125	2.808	-1.398
47	108	61	-87.515	7.357	6.466	3.119	1.345
47	109	62	-88.819	9.374	6.794	3.375	-0.343
47	110	63	-87.718	6.971	7.129	3.663	2.377
47	111	64	-88.615	8.967	7.450	3.903	0.704
47	112	65	-87.129	6.585	7.779	4.178	3.396
47	113	66	-87.624	8.566	8.094	4.411	1.732
47	114	67	-85.763	6.210	8.417	4.684	4.393
47	115	68	-85.871	8.179	8.727	4.920	2.735
47	116	69	-83.652	5.852	9.043	5.198	5.363
47	117	70	-83.395	7.814	9.348	5.444	3.706
47	118	71	-80.843	5.519	9.659	5.735	6.296
47	119	72	-80.253	7.481	9.958	6.002	4.636
47	120	73	-77.406	5.224	10.264	6.321	7.182
47	121	74	-76.529	7.193	10.558	6.624	5.510
47	122	75	-73.442	4.985	10.859	6.987	8.004
47	123	76	-72.342	6.971	11.149	7.345	6.309
47	124	77	-69.084	4.813	11.445	7.766	8.749
47	125	78	-67.813	6.800	11.731	8.167	7.049
47	126	79	-64.377	4.635	12.023	8.574	9.491
47	127	80	-62.805	6.498	12.304	8.834	7.912
47	128	81	-58.857	4.124	12.592	8.898	10.560
47	129	82	-56.455	5.668	12.869	8.623	9.295
47	130	83	-50.859	2.475	13.153	7.541	12.758
47	131	84	-46.456	3.669	13.427	6.088	11.840
47	132	85	-40.186	1.800	13.707	5.973	13.975
47	133	86	-36.164	4.050	13.978	6.894	11.998
47	134	87	-30.260	2.167	14.254	7.812	14.145
47	135	88	-26.347	4.158	14.522	8.453	12.423
47	136	89	-20.390	2.114	14.795	8.946	14.727
47	137	90	-16.308	3.989	15.060	9.304	13.119
47	138	91	-10.139	1.902	15.330	9.630	15.464
47	139	92	-5.796	3.729	15.591	9.891	13.901

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
47	140	93	0.638	1.636	15.859	10.158	16.249
47	141	94	5.272	3.438	16.118	10.383	14.708
47	142	95	11.991	1.352	16.383	10.626	17.047
47	143	96	16.926	3.136	16.640	10.834	15.522
47	144	97	23.936	1.061	16.902	11.065	17.847
47	145	98	29.177	2.830	17.156	11.265	16.335
47	146	99	36.480	0.768	17.417	11.489	18.645
47	147	100	42.027	2.524	17.669	11.684	17.144
47	148	101	49.623	0.475	17.927	11.904	19.439
47	149	102	55.475	2.218	18.178	12.097	17.948
47	150	103	63.363	0.184	18.434	12.314	20.228
47	151	104	69.518	1.915	18.682	12.504	18.746
47	152	105	77.694	-0.105	18.937	12.720	21.011
48	84	36	28.372	19.374	-0.863	2.841	-22.792
48	85	37	20.098	16.346	-0.451	2.671	-19.358
48	86	38	9.826	18.342	-0.057	2.462	-20.935
48	87	39	2.520	15.377	0.349	2.340	-17.568
48	88	40	-6.791	17.383	0.737	2.191	-19.161
48	89	41	-13.209	14.489	1.136	2.136	-15.872
48	90	42	-21.654	16.516	1.518	2.066	-17.492
48	91	43	-27.290	13.707	1.910	2.103	-14.293
48	92	44	-34.997	15.779	2.285	2.150	-15.966
48	93	45	-40.020	13.093	2.670	2.340	-12.897
48	94	46	-47.224	15.275	3.038	2.605	-14.687
48	95	47	-51.955	12.802	3.416	3.102	-11.836
48	96	48	-59.025	15.142	3.777	3.723	-13.791
48	97	49	-63.532	12.578	4.147	4.272	-10.858
48	98	50	-69.379	13.918	4.502	3.787	-11.820
48	99	51	-71.766	10.458	4.865	2.424	-7.997
48	100	52	-75.870	12.176	5.213	1.407	-9.344
48	101	53	-77.204	9.404	5.569	1.095	-6.217
48	102	54	-80.485	11.353	5.910	0.983	-7.801
48	103	55	-81.235	8.820	6.258	1.125	-4.919
48	104	56	-84.045	10.882	6.593	1.351	-6.624
48	105	57	-84.409	8.435	6.935	1.677	-3.835
48	106	58	-86.833	10.495	7.263	1.974	-5.544
48	107	59	-86.832	8.069	7.599	2.305	-2.782
48	108	60	-88.861	10.100	7.920	2.579	-4.469
48	109	61	-88.476	7.686	8.250	2.880	-1.725
48	110	62	-90.095	9.690	8.566	3.127	-3.392
48	111	63	-89.318	7.294	8.889	3.405	-0.671
48	112	64	-90.525	9.277	9.199	3.636	-2.324
48	113	65	-89.356	6.903	9.516	3.903	0.370
48	114	66	-90.156	8.871	9.821	4.128	-1.273
48	115	67	-88.607	6.522	10.133	4.393	1.390
48	116	68	-89.015	8.479	10.432	4.621	-0.248
48	117	69	-87.102	6.158	10.739	4.891	2.381
48	118	70	-87.140	8.109	11.033	5.131	0.744
48	119	71	-84.889	5.820	11.335	5.416	3.336
48	120	72	-84.589	7.771	11.625	5.677	1.695
48	121	73	-82.038	5.521	11.921	5.989	4.243
48	122	74	-81.446	7.479	12.207	6.287	2.589
48	123	75	-78.652	5.277	12.498	6.645	5.085

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
48	124	76	-77.833	7.252	12.780	6.999	3.409
48	125	77	-74.862	5.100	13.067	7.415	5.851
48	126	78	-73.869	7.078	13.344	7.811	4.169
48	127	79	-70.716	4.919	13.628	8.214	6.613
48	128	80	-69.417	6.772	13.901	8.471	5.052
48	129	81	-65.749	4.403	14.181	8.531	7.701
48	130	82	-63.617	5.938	14.451	8.252	6.454
48	131	83	-58.297	2.751	14.727	7.167	9.919
48	132	84	-54.161	3.935	14.994	5.712	9.018
48	133	85	-48.163	2.073	15.266	5.593	11.155
48	134	86	-44.405	4.313	15.530	6.512	9.195
48	135	87	-38.770	2.436	15.799	7.428	11.344
48	136	88	-35.118	4.419	16.060	8.067	9.638
48	137	89	-29.427	2.381	16.326	8.558	11.944
48	138	90	-25.603	4.247	16.584	8.914	10.352
48	139	91	-19.697	2.165	16.848	9.238	12.699
48	140	92	-15.610	3.984	17.103	9.498	11.151
48	141	93	-9.436	1.897	17.364	9.764	13.501
48	142	94	-5.056	3.691	17.617	9.987	11.976
48	143	95	1.404	1.611	17.875	10.229	14.316
48	144	96	6.089	3.386	18.126	10.437	12.806
48	145	97	12.842	1.318	18.382	10.667	15.133
48	146	98	17.835	3.078	18.631	10.867	13.636
48	147	99	24.883	1.022	18.885	11.090	15.948
48	148	100	30.184	2.770	19.132	11.285	14.461
48	149	101	37.527	0.728	19.384	11.505	16.758
48	150	102	43.135	2.463	19.629	11.697	15.281
48	151	103	50.772	0.434	19.880	11.914	17.563
48	152	104	56.684	2.159	20.123	12.105	16.096
48	153	105	64.611	0.144	20.372	12.321	18.361
48	154	106	70.824	1.858	20.614	12.512	16.903
48	155	107	79.038	-0.143	20.862	12.728	19.153
49	90	41	-4.162	14.895	-1.758	2.167	-14.591
49	91	42	-12.996	16.905	-1.368	2.078	-16.214
49	92	43	-19.032	14.107	-0.969	2.094	-13.045
49	93	44	-27.123	16.162	-0.586	2.123	-14.720
49	94	45	-32.538	13.486	-0.193	2.294	-11.679
49	95	46	-40.118	15.652	0.183	2.542	-13.470
49	96	47	-45.234	13.187	0.568	3.020	-10.646
49	97	48	-52.674	15.511	0.938	3.625	-12.603
49	98	49	-57.559	12.956	1.316	4.157	-9.694
49	99	50	-63.769	14.280	1.679	3.657	-10.657
49	100	51	-66.526	10.829	2.050	2.277	-6.858
49	101	52	-70.987	12.532	2.406	1.246	-8.205
49	102	53	-72.684	9.768	2.770	0.920	-5.101
49	103	54	-76.315	11.702	3.119	0.794	-6.685
49	104	55	-77.421	9.177	3.476	0.922	-3.825
49	105	56	-80.575	11.224	3.818	1.135	-5.530
49	106	57	-81.289	8.785	4.169	1.449	-2.761
49	107	58	-84.049	10.831	4.505	1.733	-4.471
49	108	59	-84.391	8.413	4.849	2.053	-1.728
49	109	60	-86.751	10.430	5.179	2.316	-3.415
49	110	61	-86.703	8.024	5.516	2.606	-0.690

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
49	111	62	-88.647	10.015	5.841	2.843	-2.356
49	112	63	-88.201	7.625	6.172	3.111	0.346
49	113	64	-89.726	9.596	6.491	3.332	-1.305
49	114	65	-88.883	7.228	6.816	3.590	1.370
49	115	66	-89.996	9.184	7.129	3.807	-0.271
49	116	67	-88.767	6.841	7.449	4.063	2.374
49	117	68	-89.483	8.787	7.757	4.283	0.737
49	118	69	-87.884	6.472	8.071	4.546	3.350
49	119	70	-88.225	8.412	8.374	4.778	1.714
49	120	71	-86.284	6.130	8.684	5.056	4.290
49	121	72	-86.281	8.069	8.982	5.311	2.650
49	122	73	-84.035	5.825	9.286	5.617	5.183
49	123	74	-83.737	7.773	9.580	5.909	3.530
49	124	75	-81.243	5.577	9.880	6.261	6.011
49	125	76	-80.713	7.542	10.169	6.609	4.337
49	126	77	-78.038	5.396	10.465	7.020	6.763
49	127	78	-77.330	7.363	10.750	7.412	5.083
49	128	79	-74.469	5.210	11.041	7.810	7.513
49	129	80	-73.451	7.053	11.323	8.062	5.953
49	130	81	-70.071	4.691	11.610	8.118	8.588
49	131	82	-68.216	6.216	11.888	7.836	7.343
49	132	83	-63.179	3.035	12.172	6.747	10.794
49	133	84	-59.318	4.210	12.446	5.289	9.895
49	134	85	-53.600	2.353	12.726	5.167	12.019
49	135	86	-50.114	4.585	12.998	6.082	10.060
49	136	87	-44.756	2.713	13.275	6.995	12.196
49	137	88	-41.372	4.687	13.543	7.632	10.492
49	138	89	-35.955	2.655	13.817	8.120	12.785
49	139	90	-32.396	4.512	14.082	8.474	11.195
49	140	91	-26.762	2.436	14.353	8.796	13.530
49	141	92	-22.937	4.247	14.616	9.054	11.984
49	142	93	-17.032	2.166	14.885	9.318	14.321
49	143	94	-12.912	3.951	15.145	9.541	12.798
49	144	95	-6.718	1.877	15.411	9.781	15.126
49	145	96	-2.291	3.644	15.669	9.988	13.618
49	146	97	4.199	1.581	15.932	10.216	15.933
49	147	98	8.936	3.334	16.188	10.415	14.437
49	148	99	15.723	1.284	16.450	10.638	16.738
49	149	100	20.770	3.024	16.704	10.832	15.253
49	150	101	27.854	0.987	16.963	11.051	17.538
49	151	102	33.209	2.716	17.215	11.243	16.063
49	152	103	40.588	0.692	17.472	11.460	18.333
49	153	104	46.250	2.409	17.723	11.651	16.868
49	154	105	53.921	0.399	17.979	11.866	19.123
49	155	106	59.886	2.107	18.227	12.057	17.666
49	156	107	67.846	0.111	18.482	12.273	19.905
49	157	108	74.108	1.809	18.729	12.467	18.456
49	158	109	82.351	-0.172	18.982	12.685	20.679
50	88	38	28.623	19.124	-1.245	2.174	-23.269
50	89	39	20.512	16.182	-0.853	2.011	-19.940
50	90	40	10.429	18.154	-0.478	1.823	-21.513
50	91	41	3.218	15.282	-0.091	1.727	-18.258
50	92	42	-5.987	17.276	0.279	1.620	-19.858

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
50	93	43	-12.403	14.487	0.660	1.619	-16.692
50	94	44	-20.858	16.527	1.025	1.630	-18.343
50	95	45	-26.648	13.860	1.399	1.783	-15.305
50	96	46	-34.588	16.011	1.758	2.015	-17.073
50	97	47	-40.072	13.555	2.127	2.477	-14.251
50	98	48	-47.865	15.864	2.480	3.066	-16.184
50	99	49	-53.112	13.318	2.842	3.583	-13.277
50	100	50	-59.669	14.627	3.189	3.068	-14.217
50	101	51	-62.782	11.184	3.544	1.674	-10.419
50	102	52	-67.583	12.873	3.885	0.629	-11.744
50	103	53	-69.630	10.117	4.235	0.289	-8.640
50	104	54	-73.596	12.037	4.570	0.151	-10.203
50	105	55	-75.045	9.520	4.913	0.266	-7.343
50	106	56	-78.528	11.554	5.242	0.467	-9.026
50	107	57	-79.579	9.122	5.579	0.769	-6.257
50	108	58	-82.663	11.155	5.902	1.043	-7.946
50	109	59	-83.336	8.744	6.233	1.351	-5.203
50	110	60	-86.013	10.748	6.551	1.605	-6.869
50	111	61	-86.291	8.349	6.877	1.884	-4.143
50	112	62	-88.547	10.327	7.189	2.112	-5.789
50	113	63	-88.421	7.945	7.509	2.370	-3.086
50	114	64	-90.253	9.903	7.816	2.583	-4.717
50	115	65	-89.725	7.542	8.131	2.832	-2.041
50	116	66	-91.140	9.487	8.433	3.041	-3.663
50	117	67	-90.220	7.151	8.742	3.289	-1.016
50	118	68	-91.234	9.085	9.040	3.502	-2.633
50	119	69	-89.939	6.777	9.344	3.758	-0.020
50	120	70	-90.573	8.705	9.637	3.983	-1.636
50	121	71	-88.932	6.429	9.937	4.255	0.940
50	122	72	-89.218	8.357	10.226	4.503	-0.680
50	123	73	-87.267	6.120	10.521	4.803	1.853
50	124	74	-87.253	8.057	10.806	5.090	0.219
50	125	75	-85.050	5.868	11.096	5.437	2.701
50	126	76	-84.801	7.822	11.377	5.780	1.045
50	127	77	-82.413	5.683	11.664	6.186	3.473
50	128	78	-81.982	7.640	11.941	6.574	1.810
50	129	79	-79.404	5.493	12.224	6.966	4.242
50	130	80	-78.659	7.327	12.497	7.215	2.699
50	131	81	-75.559	4.970	12.777	7.267	5.336
50	132	82	-73.974	6.486	13.047	6.982	4.107
50	133	83	-69.213	3.311	13.323	5.889	7.560
50	134	84	-65.619	4.477	13.590	4.428	6.677
50	135	85	-60.174	2.626	13.863	4.303	8.803
50	136	86	-56.952	4.849	14.127	5.216	6.860
50	137	87	-51.864	2.983	14.397	6.126	8.997
50	138	88	-48.741	4.948	14.658	6.761	7.309
50	139	89	-43.592	2.922	14.925	7.246	9.604
50	140	90	-40.291	4.771	15.184	7.598	8.030
50	141	91	-34.921	2.701	15.448	7.918	10.365
50	142	92	-31.353	4.503	15.705	8.175	8.835
50	143	93	-25.709	2.428	15.966	8.437	11.174
50	144	94	-21.843	4.205	16.220	8.658	9.665
50	145	95	-15.909	2.136	16.480	8.897	11.995
50	146	96	-11.734	3.896	16.732	9.103	10.502
50	147	97	-5.501	1.839	16.989	9.331	12.818

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
50	148	98	-1.015	3.584	17.239	9.529	11.337
50	149	99	5.517	1.539	17.495	9.750	13.639
50	150	100	10.315	3.272	17.743	9.944	12.168
50	151	101	17.146	1.241	17.997	10.163	14.455
50	152	102	22.255	2.962	18.243	10.354	12.994
50	153	103	29.382	0.944	18.495	10.570	15.265
50	154	104	34.799	2.654	18.740	10.761	13.813
50	155	105	42.220	0.650	18.991	10.977	16.069
50	156	106	47.941	2.350	19.234	11.168	14.626
50	157	107	55.652	0.360	19.483	11.384	16.867
50	158	108	61.671	2.051	19.725	11.578	15.431
50	159	109	69.667	0.076	19.973	11.797	17.655
50	160	110	75.978	1.760	20.214	11.995	16.225
50	161	111	84.249	-0.199	20.461	12.220	18.432
51	96	45	-17.515	14.242	-1.844	0.908	-14.001
51	97	46	-25.821	16.377	-1.478	1.123	-15.772
51	98	47	-31.681	13.931	-1.102	1.568	-12.976
51	99	48	-39.835	16.225	-0.741	2.142	-14.911
51	100	49	-45.451	13.687	-0.372	2.642	-12.028
51	101	50	-52.363	14.982	-0.017	2.113	-12.970
51	102	51	-55.839	11.547	0.346	0.705	-9.195
51	103	52	-60.989	13.222	0.695	-0.354	-10.521
51	104	53	-63.393	10.474	1.052	-0.709	-7.440
51	105	54	-67.702	12.380	1.395	-0.860	-9.003
51	106	55	-69.502	9.871	1.746	-0.758	-6.165
51	107	56	-73.321	11.891	2.083	-0.569	-7.848
51	108	57	-74.717	9.467	2.427	-0.279	-5.100
51	109	58	-78.133	11.486	2.759	-0.017	-6.788
51	110	59	-79.144	9.083	3.098	0.280	-4.065
51	111	60	-82.147	11.074	3.424	0.523	-5.731
51	112	61	-82.758	8.682	3.757	0.792	-3.025
51	113	62	-85.335	10.648	4.077	1.010	-4.670
51	114	63	-85.537	8.272	4.405	1.258	-1.985
51	115	64	-87.684	10.219	4.720	1.462	-3.616
51	116	65	-87.478	7.864	5.042	1.702	-0.957
51	117	66	-89.204	9.797	5.352	1.903	-2.578
51	118	67	-88.600	7.468	5.669	2.142	0.051
51	119	68	-89.919	9.390	5.975	2.348	-1.565
51	120	69	-88.937	7.089	6.287	2.596	1.031
51	121	70	-89.872	9.006	6.588	2.814	-0.584
51	122	71	-88.538	6.737	6.895	3.079	1.977
51	123	72	-89.121	8.654	7.192	3.321	0.357
51	124	73	-87.473	6.423	7.494	3.614	2.875
51	125	74	-87.751	8.349	7.787	3.895	1.242
51	126	75	-85.846	6.166	8.085	4.236	3.709
51	127	76	-85.886	8.111	8.374	4.574	2.054
51	128	77	-83.792	5.977	8.668	4.974	4.467
51	129	78	-83.645	7.924	8.953	5.357	2.806
51	130	79	-81.358	5.784	9.243	5.745	5.223
51	131	80	-80.894	7.608	9.524	5.990	3.681
51	132	81	-78.081	5.257	9.811	6.037	6.304
51	133	82	-76.773	6.764	10.089	5.748	5.077
51	134	83	-72.297	3.594	10.372	4.651	8.516

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
51	135	84	-68.977	4.751	10.647	3.186	7.635
51	136	85	-63.812	2.906	10.927	3.058	9.747
51	137	86	-60.861	5.120	11.198	3.968	7.806
51	138	87	-56.050	3.260	11.475	4.875	9.930
51	139	88	-53.196	5.217	11.744	5.507	8.243
51	140	89	-48.321	3.196	12.018	5.990	10.526
51	141	90	-45.286	5.037	12.284	6.340	8.952
51	142	91	-40.188	2.972	12.556	6.657	11.276
51	143	92	-36.883	4.766	12.819	6.912	9.747
51	144	93	-31.509	2.697	13.088	7.172	12.073
51	145	94	-27.904	4.466	13.349	7.391	10.566
51	146	95	-22.235	2.403	13.616	7.628	12.884
51	147	96	-18.320	4.155	13.875	7.833	11.392
51	148	97	-12.351	2.103	14.139	8.059	13.697
51	149	98	-8.122	3.841	14.396	8.256	12.217
51	150	99	-1.852	1.802	14.658	8.476	14.508
51	151	100	2.691	3.528	14.913	8.670	13.038
51	152	101	9.261	1.501	15.174	8.887	15.314
51	153	102	14.117	3.215	15.427	9.078	13.854
51	154	103	20.985	1.202	15.686	9.293	16.115
51	155	104	26.150	2.906	15.937	9.484	14.664
51	156	105	33.315	0.907	16.194	9.698	16.910
51	157	106	38.785	2.600	16.444	9.890	15.467
51	158	107	46.241	0.615	16.700	10.105	17.698
51	159	108	52.012	2.300	16.949	10.299	16.263
51	160	109	59.753	0.330	17.203	10.518	18.477
51	161	110	65.817	2.007	17.450	10.716	17.048
51	162	111	73.835	0.053	17.703	10.941	19.245
51	163	112	80.180	1.726	17.949	11.148	17.820
51	164	113	88.460	-0.209	18.201	11.385	19.996
52	94	42	12.843	18.013	-1.265	0.011	-21.753
52	95	43	5.669	15.245	-0.896	-0.026	-18.619
52	96	44	-3.513	17.254	-0.541	-0.048	-20.251
52	97	45	-10.049	14.607	-0.177	0.071	-17.243
52	98	46	-18.705	16.727	0.173	0.272	-18.991
52	99	47	-24.924	14.290	0.532	0.701	-16.197
52	100	48	-33.423	16.570	0.877	1.261	-18.111
52	101	49	-39.393	14.041	1.231	1.746	-15.230
52	102	50	-46.644	15.322	1.570	1.204	-16.150
52	103	51	-50.468	11.895	1.918	-0.219	-12.377
52	104	52	-55.953	13.556	2.253	-1.291	-13.682
52	105	53	-58.699	10.817	2.595	-1.658	-10.601
52	106	54	-63.337	12.709	2.924	-1.821	-12.144
52	107	55	-65.474	10.208	3.261	-1.731	-9.306
52	108	56	-69.617	12.215	3.585	-1.554	-10.968
52	109	57	-71.345	9.798	3.916	-1.275	-8.221
52	110	58	-75.079	11.805	4.235	-1.024	-9.889
52	111	59	-76.417	9.409	4.561	-0.737	-7.166
52	112	60	-79.734	11.388	4.875	-0.504	-8.811
52	113	61	-80.666	9.003	5.196	-0.245	-6.105
52	114	62	-83.552	10.957	5.505	-0.036	-7.730
52	115	63	-84.069	8.588	5.821	0.203	-5.045
52	116	64	-86.521	10.523	6.125	0.398	-6.657

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
52	117	65	-86.625	8.176	6.437	0.629	-3.998
52	118	66	-88.651	10.097	6.736	0.823	-5.600
52	119	67	-88.354	7.774	7.043	1.054	-2.970
52	120	68	-89.968	9.685	7.338	1.253	-4.568
52	121	69	-89.288	7.391	7.640	1.493	-1.970
52	122	70	-90.514	9.297	7.931	1.706	-3.567
52	123	71	-89.477	7.034	8.229	1.963	-1.006
52	124	72	-90.348	8.941	8.516	2.199	-2.608
52	125	73	-88.993	6.717	8.810	2.487	-0.089
52	126	74	-89.555	8.633	9.093	2.762	-1.704
52	127	75	-87.940	6.456	9.382	3.097	0.764
52	128	76	-88.259	8.390	9.662	3.430	-0.874
52	129	77	-86.451	6.263	9.948	3.826	1.540
52	130	78	-86.580	8.201	10.224	4.204	-0.104
52	131	79	-84.575	6.066	10.507	4.588	2.314
52	132	80	-84.385	7.880	10.780	4.828	0.789
52	133	81	-81.850	5.536	11.059	4.872	3.413
52	134	82	-80.813	7.033	11.328	4.579	2.202
52	135	83	-76.612	3.870	11.604	3.478	5.643
52	136	84	-73.559	5.018	11.871	2.010	4.777
52	137	85	-68.667	3.179	12.144	1.879	6.891
52	138	86	-65.980	5.384	12.408	2.786	4.965
52	139	87	-61.439	3.530	12.678	3.690	7.091
52	140	88	-58.846	5.478	12.940	4.320	5.419
52	141	89	-54.239	3.463	13.207	4.800	7.703
52	142	90	-51.463	5.296	13.466	5.148	6.145
52	143	91	-46.629	3.237	13.731	5.463	8.469
52	144	92	-43.582	5.023	13.988	5.716	6.955
52	145	93	-38.470	2.959	14.250	5.974	9.283
52	146	94	-35.120	4.721	14.505	6.192	7.790
52	147	95	-29.712	2.663	14.765	6.427	10.110
52	148	96	-26.049	4.408	15.018	6.630	8.632
52	149	97	-20.339	2.361	15.276	6.855	10.938
52	150	98	-16.360	4.092	15.527	7.051	9.472
52	151	99	-10.347	2.058	15.784	7.271	11.764
52	152	100	-6.053	3.777	16.033	7.463	10.308
52	153	101	0.263	1.756	16.288	7.679	12.585
52	154	102	4.870	3.463	16.535	7.870	11.138
52	155	103	11.486	1.455	16.788	8.085	13.400
52	156	104	16.405	3.152	17.034	8.275	11.963
52	157	105	23.318	1.158	17.286	8.489	14.209
52	158	106	28.543	2.845	17.531	8.680	12.780
52	159	107	35.749	0.865	17.781	8.896	15.011
52	160	108	41.276	2.544	18.025	9.089	13.589
52	161	109	48.769	0.579	18.273	9.308	15.804
52	162	110	54.590	2.250	18.516	9.506	14.388
52	163	111	62.360	0.301	18.764	9.732	16.585
52	164	112	68.464	1.967	19.005	9.939	15.173
52	165	113	76.497	0.038	19.252	10.176	17.350
52	166	114	82.865	1.703	19.493	10.400	15.937
52	167	115	91.138	-0.202	19.738	10.658	18.090
53	100	47	-15.312	14.656	-2.323	0.222	-14.682
53	101	48	-24.163	16.922	-1.971	0.767	-16.598

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
53	102	49	-30.494	14.402	-1.610	1.238	-13.741
53	103	50	-38.092	15.669	-1.263	0.682	-14.663
53	104	51	-42.271	12.251	-0.908	-0.755	-10.913
53	105	52	-48.098	13.898	-0.566	-1.840	-12.219
53	106	53	-51.193	11.167	-0.216	-2.221	-9.161
53	107	54	-56.168	13.046	0.120	-2.397	-10.704
53	108	55	-58.649	10.552	0.464	-2.319	-7.887
53	109	56	-63.124	12.546	0.796	-2.153	-9.550
53	110	57	-65.190	10.137	1.135	-1.886	-6.824
53	111	58	-69.251	12.132	1.461	-1.645	-8.492
53	112	59	-70.922	9.742	1.795	-1.370	-5.789
53	113	60	-74.561	11.709	2.116	-1.147	-7.434
53	114	61	-75.821	9.332	2.444	-0.898	-4.747
53	115	62	-79.023	11.273	2.761	-0.699	-6.372
53	116	63	-79.864	8.912	3.084	-0.469	-3.706
53	117	64	-82.628	10.835	3.396	-0.283	-5.317
53	118	65	-83.051	8.494	3.715	-0.061	-2.675
53	119	66	-85.384	10.404	4.022	0.124	-4.277
53	120	67	-85.401	8.088	4.336	0.348	-1.664
53	121	68	-87.318	9.988	4.638	0.539	-3.261
53	122	69	-86.947	7.700	4.948	0.772	-0.681
53	123	70	-88.472	9.596	5.246	0.977	-2.277
53	124	71	-87.740	7.339	5.551	1.278	0.269
53	125	72	-88.904	9.236	5.846	1.457	-1.332
53	126	73	-87.851	7.018	6.147	1.738	1.171
53	127	74	-88.703	8.923	6.437	2.008	-0.443
53	128	75	-87.385	6.753	6.734	2.337	2.009
53	129	76	-87.991	8.677	7.021	2.665	0.373
53	130	77	-86.476	6.556	7.314	3.055	2.772
53	131	78	-86.889	8.484	7.598	3.429	1.129
53	132	79	-85.174	6.355	7.887	3.807	3.532
53	133	80	-85.264	8.161	8.168	4.043	2.009
53	134	81	-83.015	5.822	8.454	4.082	4.619
53	135	82	-82.254	7.310	8.731	3.785	3.409
53	136	83	-78.336	4.153	9.014	2.681	6.836
53	137	84	-75.558	5.292	9.288	1.209	5.972
53	138	85	-70.945	3.459	9.567	1.074	8.072
53	139	86	-68.530	5.655	9.839	1.978	6.147
53	140	87	-64.266	3.807	10.116	2.879	8.260
53	141	88	-61.942	5.747	10.384	3.506	6.590
53	142	89	-57.608	3.737	10.658	3.983	8.861
53	143	90	-55.099	5.562	10.925	4.328	7.304
53	144	91	-50.537	3.509	11.196	4.641	9.616
53	145	92	-47.753	5.287	11.460	4.891	8.103
53	146	93	-42.910	3.228	11.729	5.147	10.419
53	147	94	-39.821	4.982	11.991	5.363	8.927
53	148	95	-34.680	2.930	12.258	5.597	11.235
53	149	96	-31.277	4.667	12.517	5.798	9.758
53	150	97	-25.832	2.626	12.782	6.021	12.053
53	151	98	-22.111	4.350	13.040	6.216	10.588
53	152	99	-16.361	2.321	13.302	6.434	12.868
53	153	100	-12.322	4.033	13.558	6.625	11.414
53	154	101	-6.268	2.017	13.819	6.840	13.680
53	155	102	-1.914	3.717	14.073	7.030	12.234
53	156	103	4.442	1.715	14.333	7.244	14.485

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
53	157	104	9.108	3.405	14.585	7.433	13.049
53	158	105	15.764	1.416	14.843	7.647	15.285
53	159	106	20.738	3.097	15.094	7.837	13.856
53	160	107	27.687	1.122	15.351	8.052	16.077
53	161	108	32.965	2.794	15.601	8.246	14.656
53	162	109	40.202	0.834	15.856	8.464	16.861
53	163	110	45.775	2.499	16.104	8.662	15.446
53	164	111	53.291	0.555	16.358	8.887	17.634
53	165	112	59.147	2.215	16.606	9.095	16.222
53	166	113	66.928	0.290	16.858	9.332	18.389
53	167	114	73.049	1.950	17.105	9.556	16.977
53	168	115	81.071	0.049	17.357	9.814	19.120
54	100	46	-0.630	17.425	-0.808	-0.458	-20.491
54	101	47	-7.565	15.006	-0.458	-0.059	-17.725
54	102	48	-16.753	17.258	-0.121	0.472	-19.620
54	103	49	-23.429	14.747	0.224	0.930	-16.766
54	104	50	-31.359	16.001	0.556	0.361	-17.667
54	105	51	-35.879	12.591	0.897	-1.089	-13.918
54	106	52	-42.033	14.225	1.224	-2.186	-15.205
54	107	53	-45.464	11.502	1.560	-2.579	-12.147
54	108	54	-50.762	13.369	1.883	-2.766	-13.671
54	109	55	-53.574	10.883	2.213	-2.700	-10.855
54	110	56	-58.367	12.864	2.532	-2.545	-12.499
54	111	57	-60.759	10.463	2.858	-2.289	-9.772
54	112	58	-65.134	12.445	3.172	-2.059	-11.421
54	113	59	-67.126	10.064	3.493	-1.793	-8.719
54	114	60	-71.074	12.019	3.802	-1.580	-10.345
54	115	61	-72.651	9.648	4.119	-1.341	-7.658
54	116	62	-76.158	11.578	4.424	-1.150	-9.264
54	117	63	-77.311	9.224	4.736	-0.930	-6.598
54	118	64	-80.376	11.136	5.037	-0.751	-8.190
54	119	65	-81.107	8.802	5.345	-0.537	-5.549
54	120	66	-83.736	10.701	5.641	-0.360	-7.132
54	121	67	-84.056	8.391	5.945	-0.144	-4.519
54	122	68	-86.266	10.281	6.238	0.040	-6.099
54	123	69	-86.195	7.999	6.537	0.266	-3.517
54	124	70	-88.008	9.884	6.826	0.465	-5.096
54	125	71	-87.572	7.635	7.121	0.709	-2.550
54	126	72	-89.022	9.521	7.406	0.933	-4.134
54	127	73	-88.260	7.309	7.698	1.208	-1.630
54	128	74	-89.394	9.205	7.980	1.472	-3.227
54	129	75	-88.364	7.041	8.268	1.796	-0.774
54	130	76	-89.248	8.956	8.546	2.118	-2.394
54	131	77	-88.018	6.841	8.831	2.503	0.007
54	132	78	-88.706	8.759	9.106	2.872	-1.621
54	133	79	-87.272	6.637	9.387	3.246	0.784
54	134	80	-87.634	8.433	9.659	3.478	-0.724
54	135	81	-85.663	6.101	9.937	3.513	1.888
54	136	82	-85.172	7.580	10.207	3.212	0.693
54	137	83	-81.529	4.428	10.482	2.104	4.121
54	138	84	-79.017	5.559	10.749	0.630	3.272
54	139	85	-74.677	3.731	11.021	0.491	5.373
54	140	86	-72.526	5.920	11.285	1.392	3.464

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
54	141	87	-68.532	4.077	11.555	2.290	5.578
54	142	88	-66.469	6.008	11.816	2.914	3.922
54	143	89	-62.403	4.005	12.084	3.388	6.194
54	144	90	-60.153	5.821	12.343	3.731	4.652
54	145	91	-55.855	3.774	12.608	4.042	6.965
54	146	92	-53.329	5.544	12.865	4.290	5.466
54	147	93	-48.749	3.491	13.128	4.544	7.783
54	148	94	-45.915	5.238	13.383	4.758	6.306
54	149	95	-41.035	3.191	13.643	4.990	8.614
54	150	96	-37.885	4.921	13.897	5.190	7.151
54	151	97	-32.698	2.885	14.156	5.412	9.447
54	152	98	-29.229	4.601	14.407	5.605	7.995
54	153	99	-23.736	2.578	14.664	5.822	10.277
54	154	100	-19.947	4.283	14.914	6.012	8.835
54	155	101	-14.148	2.272	15.169	6.226	11.102
54	156	102	-10.043	3.966	15.418	6.415	9.670
54	157	103	-3.940	1.968	15.672	6.628	11.922
54	158	104	0.479	3.652	15.919	6.817	10.498
54	159	105	6.881	1.668	16.171	7.030	12.735
54	160	106	11.610	3.342	16.417	7.220	11.320
54	161	107	18.308	1.373	16.668	7.434	13.541
54	162	108	23.341	3.038	16.913	7.627	12.133
54	163	109	30.329	1.083	17.162	7.845	14.338
54	164	110	35.657	2.742	17.406	8.044	12.935
54	165	111	42.925	0.803	17.655	8.269	15.124
54	166	112	48.538	2.458	17.898	8.477	13.724
54	167	113	56.072	0.538	18.145	8.713	15.892
54	168	114	61.951	2.192	18.387	8.938	14.492
54	169	115	69.726	0.296	18.634	9.196	16.635
54	170	116	75.841	1.956	18.875	9.450	15.227
54	171	117	83.818	0.093	19.121	9.745	17.337
55	106	51	-26.828	12.939	-1.762	-1.241	-12.422
55	107	52	-33.317	14.560	-1.427	-2.350	-13.710
55	108	53	-37.091	11.845	-1.084	-2.755	-10.675
55	109	54	-42.718	13.699	-0.754	-2.954	-12.199
55	110	55	-45.868	11.221	-0.416	-2.900	-9.405
55	111	56	-50.987	13.190	-0.091	-2.756	-11.049
55	112	57	-53.712	10.797	0.242	-2.512	-8.343
55	113	58	-58.408	12.766	0.563	-2.291	-9.993
55	114	59	-60.729	10.392	0.892	-2.036	-7.310
55	115	60	-64.993	12.335	1.208	-1.833	-8.936
55	116	61	-66.894	9.972	1.532	-1.603	-6.268
55	117	62	-70.714	11.891	1.844	-1.422	-7.875
55	118	63	-72.186	9.543	2.163	-1.211	-5.226
55	119	64	-75.558	11.444	2.471	-1.040	-6.819
55	120	65	-76.604	9.117	2.786	-0.835	-4.195
55	121	66	-79.537	11.004	3.090	-0.666	-5.778
55	122	67	-80.168	8.702	3.400	-0.458	-3.182
55	123	68	-82.678	10.581	3.700	-0.281	-4.761
55	124	69	-82.913	8.306	4.007	-0.063	-2.196
55	125	70	-85.022	10.181	4.303	0.129	-3.774
55	126	71	-84.888	7.937	4.605	0.366	-1.244
55	127	72	-86.630	9.813	4.898	0.584	-2.828

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
55	128	73	-86.167	7.608	5.196	0.852	-0.339
55	129	74	-87.590	9.494	5.485	1.111	-1.936
55	130	75	-86.855	7.336	5.780	1.429	0.502
55	131	76	-88.025	9.241	6.065	1.746	-1.117
55	132	77	-87.086	7.132	6.357	2.126	1.269
55	133	78	-88.056	9.042	6.639	2.490	-0.358
55	134	79	-86.910	6.925	6.927	2.859	2.033
55	135	80	-87.551	8.712	7.206	3.087	0.526
55	136	81	-85.866	6.386	7.491	3.117	3.123
55	137	82	-85.650	7.856	7.767	2.812	1.930
55	138	83	-82.290	4.710	8.049	1.700	5.344
55	139	84	-80.051	5.832	8.323	0.221	4.496
55	140	85	-75.990	4.010	8.602	0.079	6.584
55	141	86	-74.109	6.190	8.872	0.977	4.676
55	142	87	-70.391	4.353	9.149	1.871	6.777
55	143	88	-68.597	6.277	9.417	2.492	5.122
55	144	89	-64.805	4.278	9.691	2.964	7.382
55	145	90	-62.821	6.087	9.957	3.304	5.840
55	146	91	-58.795	4.045	10.228	3.612	8.141
55	147	92	-56.532	5.808	10.492	3.858	6.643
55	148	93	-52.221	3.760	10.761	4.109	8.948
55	149	94	-49.649	5.499	11.023	4.321	7.472
55	150	95	-45.036	3.458	11.290	4.551	9.768
55	151	96	-42.145	5.181	11.550	4.749	8.306
55	152	97	-37.224	3.150	11.815	4.969	10.591
55	153	98	-34.013	4.859	12.073	5.161	9.140
55	154	99	-28.783	2.841	12.336	5.376	11.410
55	155	100	-25.251	4.539	12.592	5.565	9.970
55	156	101	-19.713	2.533	12.854	5.777	12.226
55	157	102	-15.862	4.221	13.108	5.965	10.794
55	158	103	-10.020	2.228	13.368	6.177	13.036
55	159	104	-5.854	3.905	13.622	6.365	11.613
55	160	105	0.290	1.927	13.880	6.577	13.839
55	161	106	4.767	3.594	14.132	6.766	12.424
55	162	107	11.208	1.630	14.389	6.980	14.636
55	163	108	15.990	3.289	14.640	7.173	13.228
55	164	109	22.722	1.339	14.895	7.390	15.424
55	165	110	27.801	2.992	15.145	7.588	14.021
55	166	111	34.815	1.058	15.400	7.812	16.200
55	167	112	40.179	2.706	15.648	8.020	14.801
55	168	113	47.459	0.791	15.902	8.257	16.959
55	169	114	53.091	2.439	16.149	8.481	15.560
55	170	115	60.613	0.548	16.402	8.740	17.694
55	171	116	66.481	2.203	16.648	8.993	16.286
55	172	117	74.207	0.345	16.900	9.289	18.387
55	173	118	80.261	2.018	17.146	9.591	16.961
55	174	119	88.127	0.204	17.397	9.948	19.016
56	104	48	1.553	17.930	-0.927	0.242	-21.069
56	105	49	-5.813	15.437	-0.590	0.672	-18.241
56	106	50	-14.406	16.664	-0.266	0.078	-19.125
56	107	51	-19.607	13.272	0.068	-1.397	-15.401
56	108	52	-26.416	14.880	0.388	-2.518	-16.670
56	109	53	-30.519	12.174	0.717	-2.935	-13.636

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
56	110	54	-36.463	14.015	1.034	-3.145	-15.142
56	111	55	-39.938	11.546	1.359	-3.101	-12.348
56	112	56	-45.369	13.503	1.671	-2.967	-13.974
56	113	57	-48.415	11.117	1.992	-2.733	-11.269
56	114	58	-53.419	13.075	2.301	-2.522	-12.900
56	115	59	-56.057	10.708	2.617	-2.278	-10.217
56	116	60	-60.626	12.640	2.922	-2.083	-11.826
56	117	61	-62.839	10.284	3.234	-1.863	-9.158
56	118	62	-66.959	12.191	3.535	-1.690	-10.747
56	119	63	-68.739	9.851	3.843	-1.487	-8.098
56	120	64	-72.409	11.741	4.140	-1.324	-9.673
56	121	65	-73.759	9.421	4.444	-1.127	-7.049
56	122	66	-76.986	11.298	4.738	-0.965	-8.615
56	123	67	-77.917	9.002	5.038	-0.765	-6.019
56	124	68	-80.716	10.871	5.328	-0.595	-7.581
56	125	69	-81.248	8.602	5.624	-0.384	-5.016
56	126	70	-83.644	10.467	5.911	-0.198	-6.577
56	127	71	-83.803	8.230	6.203	0.033	-4.047
56	128	72	-85.828	10.096	6.487	0.245	-5.614
56	129	73	-85.654	7.897	6.776	0.507	-3.125
56	130	74	-87.357	9.774	7.056	0.760	-4.705
56	131	75	-86.908	7.622	7.342	1.073	-2.266
56	132	76	-88.355	9.518	7.619	1.385	-3.870
56	133	77	-87.698	7.415	7.902	1.760	-1.483
56	134	78	-88.943	9.315	8.176	2.119	-3.094
56	135	79	-88.077	7.205	8.456	2.484	-0.703
56	136	80	-88.989	8.983	8.727	2.707	-2.195
56	137	81	-87.580	6.663	9.004	2.733	0.404
56	138	82	-87.634	8.124	9.272	2.425	-0.775
56	139	83	-84.547	4.984	9.546	1.309	2.640
56	140	84	-82.574	6.098	9.812	-0.173	1.807
56	141	85	-78.785	4.282	10.084	-0.319	3.896
56	142	86	-77.168	6.454	10.348	0.576	2.002
56	143	87	-73.719	4.622	10.617	1.467	4.104
56	144	88	-72.186	6.538	10.878	2.085	2.464
56	145	89	-68.661	4.545	11.145	2.554	4.724
56	146	90	-66.936	6.346	11.404	2.892	3.196
56	147	91	-63.175	4.310	11.669	3.197	5.498
56	148	92	-61.169	6.065	11.926	3.441	4.014
56	149	93	-57.121	4.023	12.189	3.690	6.320
56	150	94	-54.804	5.755	12.444	3.901	4.857
56	151	95	-50.452	3.719	12.705	4.128	7.155
56	152	96	-47.815	5.434	12.959	4.325	5.706
56	153	97	-43.153	3.409	13.217	4.543	7.991
56	154	98	-40.193	5.111	13.469	4.733	6.553
56	155	99	-35.220	3.098	13.727	4.947	8.825
56	156	100	-31.939	4.789	13.977	5.135	7.397
56	157	101	-26.657	2.789	14.233	5.346	9.654
56	158	102	-23.055	4.470	14.482	5.533	8.235
56	159	103	-17.467	2.482	14.736	5.744	10.477
56	160	104	-13.549	4.153	14.984	5.931	9.066
56	161	105	-7.657	2.179	15.237	6.142	11.294
56	162	106	-3.427	3.841	15.483	6.331	9.891
56	163	107	2.762	1.881	15.735	6.544	12.103
56	164	108	7.299	3.535	15.981	6.736	10.707

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
56	165	109	13.780	1.589	16.231	6.953	12.904
56	166	110	18.615	3.236	16.476	7.151	11.513
56	167	111	25.379	1.307	16.725	7.375	13.692
56	168	112	30.500	2.950	16.969	7.583	12.305
56	169	113	37.531	1.040	17.217	7.819	14.464
56	170	114	42.920	2.682	17.460	8.044	13.076
56	171	115	50.195	0.796	17.708	8.302	15.210
56	172	116	55.820	2.445	17.950	8.555	13.814
56	173	117	63.300	0.592	18.196	8.851	15.915
56	174	118	69.112	2.259	18.438	9.154	14.500
56	175	119	76.732	0.450	18.684	9.511	16.556
56	176	120	82.656	2.148	18.925	9.887	15.110
56	177	121	90.340	0.386	19.170	10.320	17.117
57	114	57	-40.520	11.444	-0.607	-2.923	-9.869
57	115	58	-45.839	13.391	-0.291	-2.722	-11.500
57	116	59	-48.800	11.031	0.032	-2.488	-8.837
57	117	60	-53.681	12.952	0.344	-2.302	-10.446
57	118	61	-56.213	10.603	0.663	-2.091	-7.797
57	119	62	-60.641	12.499	0.971	-1.927	-9.386
57	120	63	-62.736	10.166	1.286	-1.733	-6.756
57	121	64	-66.710	12.045	1.590	-1.579	-8.331
57	122	65	-68.370	9.732	1.900	-1.390	-5.724
57	123	66	-71.897	11.598	2.201	-1.236	-7.291
57	124	67	-73.135	9.309	2.508	-1.043	-4.711
57	125	68	-76.232	11.168	2.805	-0.880	-6.273
57	126	69	-77.067	8.906	3.108	-0.676	-3.724
57	127	70	-79.756	10.760	3.401	-0.497	-5.285
57	128	71	-80.214	8.530	3.701	-0.273	-2.771
57	129	72	-82.530	10.386	3.991	-0.068	-4.338
57	130	73	-82.652	8.193	4.287	0.189	-1.864
57	131	74	-84.641	10.061	4.573	0.436	-3.444
57	132	75	-84.485	7.914	4.866	0.743	-1.020
57	133	76	-86.215	9.801	5.150	1.050	-2.623
57	134	77	-85.849	7.704	5.439	1.419	-0.251
57	135	78	-87.374	9.596	5.720	1.774	-1.861
57	136	79	-86.794	7.491	6.006	2.133	0.516
57	137	80	-87.984	9.261	6.284	2.353	-0.976
57	138	81	-86.859	6.946	6.568	2.374	1.609
57	139	82	-87.187	8.399	6.843	2.061	0.431
57	140	83	-84.381	5.265	7.123	0.941	3.833
57	141	84	-82.681	6.371	7.396	-0.544	3.001
57	142	85	-79.170	4.560	7.674	-0.695	5.076
57	143	86	-77.823	6.724	7.944	0.197	3.183
57	144	87	-74.650	4.898	8.220	1.085	5.272
57	145	88	-73.385	6.806	8.487	1.700	3.633
57	146	89	-70.132	4.819	8.761	2.166	5.881
57	147	90	-68.673	6.612	9.026	2.501	4.354
57	148	91	-65.183	4.581	9.297	2.803	6.644
57	149	92	-63.440	6.329	9.561	3.045	5.160
57	150	93	-59.661	4.292	9.830	3.292	7.454
57	151	94	-57.606	6.016	10.091	3.500	5.992
57	152	95	-53.521	3.985	10.358	3.725	8.278
57	153	96	-51.144	5.694	10.618	3.920	6.830

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
57	154	97	-46.747	3.674	10.883	4.136	9.104
57	155	98	-44.045	5.370	11.141	4.325	7.667
57	156	99	-39.335	3.361	11.404	4.536	9.927
57	157	100	-36.310	5.046	11.661	4.723	8.500
57	158	101	-31.290	3.051	11.922	4.932	10.746
57	159	102	-27.944	4.725	12.177	5.118	9.328
57	160	103	-22.615	2.743	12.438	5.327	11.559
57	161	104	-18.951	4.407	12.691	5.514	10.149
57	162	105	-13.318	2.438	12.950	5.724	12.366
57	163	106	-9.341	4.094	13.202	5.912	10.964
57	164	107	-3.408	2.139	13.460	6.124	13.166
57	165	108	0.877	3.786	13.711	6.315	11.771
57	166	109	7.102	1.846	13.967	6.531	13.957
57	167	110	11.686	3.487	14.218	6.729	12.567
57	168	111	18.195	1.562	14.473	6.952	14.736
57	169	112	23.067	3.199	14.722	7.160	13.350
57	170	113	29.844	1.294	14.976	7.396	15.499
57	171	114	34.985	2.931	15.224	7.620	14.111
57	172	115	42.006	1.049	15.477	7.878	16.237
57	173	116	47.384	2.693	15.725	8.131	14.841
57	174	117	54.612	0.844	15.977	8.427	16.933
57	175	118	60.177	2.506	16.224	8.730	15.518
57	176	119	67.546	0.702	16.476	9.087	17.565
57	177	120	73.223	2.394	16.722	9.463	16.120
57	178	121	80.657	0.637	16.973	9.896	18.118
57	179	122	86.390	2.337	17.218	10.326	16.664
57	180	123	93.910	0.552	17.469	10.737	18.691
58	108	50	4.188	17.313	-1.104	-0.210	-20.598
58	109	51	-1.679	13.937	-0.778	-1.709	-16.899
58	110	52	-9.129	15.522	-0.465	-2.852	-18.151
58	111	53	-13.890	12.832	-0.142	-3.292	-15.141
58	112	54	-20.468	14.649	0.168	-3.522	-16.630
58	113	55	-24.593	12.196	0.487	-3.501	-13.859
58	114	56	-30.651	14.129	0.794	-3.387	-15.468
58	115	57	-34.339	11.759	1.109	-3.173	-12.784
58	116	58	-39.963	13.694	1.412	-2.981	-14.398
58	117	59	-43.234	11.343	1.723	-2.756	-11.736
58	118	60	-48.415	13.252	2.024	-2.579	-13.327
58	119	61	-51.255	10.910	2.331	-2.377	-10.679
58	120	62	-55.980	12.796	2.628	-2.221	-12.251
58	121	63	-58.378	10.470	2.932	-2.035	-9.621
58	122	64	-62.646	12.338	3.225	-1.889	-11.179
58	123	65	-64.607	10.032	3.525	-1.708	-8.573
58	124	66	-68.424	11.888	3.816	-1.560	-10.122
58	125	67	-69.959	9.606	4.112	-1.375	-7.543
58	126	68	-73.342	11.454	4.399	-1.218	-9.088
58	127	69	-74.470	9.199	4.693	-1.021	-6.539
58	128	70	-77.443	11.044	4.977	-0.848	-8.084
58	129	71	-78.192	8.820	5.267	-0.631	-5.570
58	130	72	-80.788	10.667	5.547	-0.431	-7.120
58	131	73	-81.197	8.480	5.835	-0.180	-4.646
58	132	74	-83.465	10.338	6.112	0.062	-6.211
58	133	75	-83.592	8.198	6.396	0.363	-3.787

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
58	134	76	-85.598	10.076	6.671	0.666	-5.374
58	135	77	-85.512	7.986	6.953	1.030	-3.002
58	136	78	-87.310	9.868	7.225	1.380	-4.597
58	137	79	-87.008	7.770	7.503	1.735	-2.220
58	138	80	-88.468	9.531	7.773	1.950	-3.696
58	139	81	-87.619	7.222	8.049	1.967	-1.111
58	140	82	-88.214	8.667	8.316	1.651	-2.274
58	141	83	-85.682	5.538	8.589	0.526	1.128
58	142	84	-84.246	6.636	8.854	-0.962	0.310
58	143	85	-81.006	4.831	9.125	-1.116	2.386
58	144	86	-79.922	6.987	9.388	-0.227	0.507
58	145	87	-77.017	5.166	9.656	0.657	2.597
58	146	88	-76.013	7.067	9.917	1.270	0.971
58	147	89	-73.027	5.085	10.183	1.733	3.220
58	148	90	-71.826	6.871	10.442	2.065	1.706
58	149	91	-68.600	4.845	10.707	2.365	3.997
58	150	92	-67.115	6.586	10.964	2.604	2.527
58	151	93	-63.598	4.554	11.226	2.848	4.821
58	152	94	-61.799	6.271	11.481	3.055	3.372
58	153	95	-57.973	4.246	11.742	3.278	5.659
58	154	96	-55.850	5.948	11.995	3.471	4.224
58	155	97	-51.712	3.933	12.254	3.685	6.498
58	156	98	-49.262	5.622	12.506	3.872	5.074
58	157	99	-44.810	3.619	12.764	4.082	7.335
58	158	100	-42.036	5.297	13.014	4.268	5.920
58	159	101	-37.271	3.306	13.270	4.476	8.167
58	160	102	-34.174	4.974	13.520	4.661	6.761
58	161	103	-29.100	2.997	13.774	4.869	8.993
58	162	104	-25.684	4.655	14.022	5.054	7.595
58	163	105	-20.305	2.691	14.275	5.263	9.813
58	164	106	-16.574	4.341	14.523	5.450	8.422
58	165	107	-10.894	2.391	14.775	5.662	10.625
58	166	108	-6.855	4.032	15.021	5.853	9.241
58	167	109	-0.881	2.097	15.272	6.068	11.428
58	168	110	3.459	3.732	15.517	6.265	10.050
58	169	111	9.717	1.812	15.767	6.488	12.220
58	170	112	14.345	3.443	16.011	6.695	10.844
58	171	113	20.873	1.543	16.260	6.931	12.994
58	172	114	25.770	3.174	16.504	7.155	11.618
58	173	115	32.543	1.297	16.752	7.413	13.743
58	174	116	37.679	2.936	16.995	7.666	12.358
58	175	117	44.658	1.091	17.242	7.962	14.451
58	176	118	49.981	2.748	17.485	8.264	13.047
58	177	119	57.103	0.949	17.731	8.622	15.094
58	178	120	62.539	2.635	17.973	8.998	13.659
58	179	121	69.726	0.884	18.219	9.431	15.658
58	180	122	75.219	2.579	18.461	9.862	14.214
58	181	123	82.492	0.797	18.706	10.273	16.242
58	182	124	88.232	2.331	18.947	10.513	14.959
58	183	125	96.048	0.255	19.193	10.466	17.281
59	118	59	-35.088	11.660	-0.857	-3.007	-10.379
59	119	60	-40.576	13.559	-0.551	-2.839	-11.971
59	120	61	-43.729	11.224	-0.237	-2.646	-9.341

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
59	121	62	-48.758	13.100	0.067	-2.498	-10.914
59	122	63	-51.467	10.780	0.377	-2.321	-8.302
59	123	64	-56.034	12.638	0.677	-2.182	-9.860
59	124	65	-58.302	10.339	0.984	-2.009	-7.271
59	125	66	-62.416	12.185	1.281	-1.869	-8.871
59	126	67	-64.254	9.909	1.584	-1.691	-6.259
59	127	68	-67.931	11.748	1.878	-1.541	-7.804
59	128	69	-69.359	9.499	2.178	-1.352	-5.271
59	129	70	-72.622	11.334	2.468	-1.185	-6.816
59	130	71	-73.668	9.116	2.765	-0.974	-4.318
59	131	72	-76.551	10.954	3.052	-0.780	-5.868
59	132	73	-77.254	8.774	3.345	-0.536	-3.409
59	133	74	-79.806	10.623	3.630	-0.299	-4.974
59	134	75	-80.223	8.489	3.920	-0.004	-2.564
59	135	76	-82.510	10.358	4.202	0.294	-4.152
59	136	77	-82.712	8.273	4.489	0.653	-1.794
59	137	78	-84.789	10.147	4.768	0.998	-3.389
59	138	79	-84.772	8.054	5.053	1.348	-1.025
59	139	80	-86.508	9.807	5.329	1.559	-2.501
59	140	81	-85.940	7.504	5.611	1.571	0.070
59	141	82	-86.810	8.941	5.884	1.251	-1.092
59	142	83	-84.556	5.818	6.164	0.123	2.297
59	143	84	-83.392	6.907	6.435	-1.370	1.479
59	144	85	-80.429	5.108	6.712	-1.527	3.542
59	145	86	-79.614	7.256	6.981	-0.642	1.664
59	146	87	-76.984	5.441	7.256	0.239	3.741
59	147	88	-76.246	7.334	7.523	0.849	2.116
59	148	89	-73.533	5.357	7.795	1.308	4.352
59	149	90	-72.597	7.136	8.060	1.638	2.839
59	150	91	-69.642	5.115	8.330	1.934	5.118
59	151	92	-68.419	6.849	8.593	2.171	3.648
59	152	93	-65.171	4.822	8.862	2.413	5.931
59	153	94	-63.632	6.533	9.123	2.617	4.482
59	154	95	-60.074	4.512	9.389	2.838	6.757
59	155	96	-58.210	6.207	9.649	3.029	5.323
59	156	97	-54.336	4.197	9.914	3.241	7.586
59	157	98	-52.145	5.880	10.172	3.426	6.162
59	158	99	-47.956	3.882	10.435	3.634	8.412
59	159	100	-45.438	5.553	10.691	3.818	6.998
59	160	101	-40.935	3.568	10.953	4.025	9.234
59	161	102	-38.093	5.229	11.208	4.208	7.828
59	162	103	-33.280	3.257	11.468	4.415	10.050
59	163	104	-30.118	4.909	11.722	4.599	8.653
59	164	105	-24.997	2.950	11.981	4.807	10.860
59	165	106	-21.519	4.593	12.234	4.993	9.470
59	166	107	-16.096	2.648	12.491	5.203	11.663
59	167	108	-12.309	4.284	12.743	5.393	10.279
59	168	109	-6.591	2.353	12.999	5.608	12.456
59	169	110	-2.502	3.982	13.250	5.804	11.078
59	170	111	3.501	2.068	13.505	6.026	13.238
59	171	112	7.879	3.693	13.755	6.233	11.863
59	172	113	14.152	1.797	14.010	6.468	14.004
59	173	114	18.800	3.423	14.259	6.692	12.628
59	174	115	25.320	1.551	14.512	6.949	14.744
59	175	116	30.207	3.184	14.760	7.202	13.360

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
59	176	117	36.934	1.344	15.013	7.497	15.443
59	177	118	42.009	2.996	15.261	7.800	14.039
59	178	119	48.880	1.201	15.513	8.157	16.077
59	179	120	54.068	2.882	15.760	8.533	14.643
59	180	121	61.004	1.135	16.011	8.966	16.633
59	181	122	66.250	2.825	16.257	9.398	15.190
59	182	123	73.273	1.048	16.508	9.809	17.208
59	183	124	78.767	2.577	16.754	10.048	15.926
59	184	125	86.333	0.505	17.004	10.002	18.239
59	185	126	92.783	1.621	17.250	9.533	17.369
59	186	127	102.163	-1.310	17.500	8.213	20.541
60	116	56	-14.158	14.744	-0.108	-3.885	-16.966
60	117	57	-18.477	12.390	0.201	-3.691	-14.303
60	118	58	-24.709	14.303	0.499	-3.517	-15.902
60	119	59	-28.604	11.966	0.805	-3.310	-13.260
60	120	60	-34.388	13.854	1.101	-3.150	-14.835
60	121	61	-37.844	11.527	1.404	-2.965	-12.206
60	122	62	-43.165	13.392	1.696	-2.825	-13.762
60	123	63	-46.174	11.080	1.996	-2.656	-11.151
60	124	64	-51.030	12.928	2.285	-2.524	-12.693
60	125	65	-53.595	10.635	2.582	-2.359	-10.105
60	126	66	-57.995	12.472	2.868	-2.225	-11.638
60	127	67	-60.127	10.203	3.162	-2.055	-9.076
60	128	68	-64.088	12.032	3.446	-1.911	-10.606
60	129	69	-65.806	9.789	3.736	-1.728	-8.073
60	130	70	-69.350	11.615	4.017	-1.567	-9.603
60	131	71	-70.683	9.404	4.304	-1.362	-7.104
60	132	72	-73.844	11.233	4.582	-1.174	-8.639
60	133	73	-74.832	9.058	4.867	-0.935	-6.180
60	134	74	-77.659	10.898	5.143	-0.704	-7.730
60	135	75	-78.359	8.771	5.424	-0.414	-5.320
60	136	76	-80.919	10.631	5.697	-0.121	-6.893
60	137	77	-81.400	8.552	5.977	0.233	-4.535
60	138	78	-83.747	10.418	6.247	0.574	-6.115
60	139	79	-84.006	8.331	6.524	0.919	-3.751
60	140	80	-86.011	10.075	6.792	1.126	-5.213
60	141	81	-85.717	7.778	7.066	1.134	-2.641
60	142	82	-86.853	9.207	7.332	0.810	-3.790
60	143	83	-84.872	6.089	7.604	-0.322	-0.400
60	144	84	-83.971	7.171	7.868	-1.818	-1.204
60	145	85	-81.278	5.377	8.138	-1.979	0.860
60	146	86	-80.725	7.518	8.400	-1.097	-1.005
60	147	87	-78.362	5.708	8.667	-0.219	1.072
60	148	88	-77.885	7.594	8.927	0.388	-0.540
60	149	89	-75.436	5.623	9.193	0.844	1.697
60	150	90	-74.759	7.394	9.451	1.171	0.197
60	151	91	-72.067	5.379	9.714	1.465	2.476
60	152	92	-71.101	7.105	9.971	1.700	1.019
60	153	93	-68.115	5.084	10.233	1.939	3.303
60	154	94	-66.831	6.788	10.488	2.141	1.867
60	155	95	-63.533	4.773	10.748	2.360	4.143
60	156	96	-61.923	6.461	11.001	2.549	2.721
60	157	97	-58.308	4.456	11.260	2.759	4.984

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
60	158	98	-56.368	6.132	11.512	2.943	3.573
60	159	99	-52.436	4.139	11.769	3.149	5.823
60	160	100	-50.169	5.804	12.020	3.332	4.421
60	161	101	-45.922	3.824	12.276	3.537	6.658
60	162	102	-43.330	5.479	12.525	3.719	5.264
60	163	103	-38.770	3.512	12.780	3.924	7.486
60	164	104	-35.857	5.157	13.028	4.107	6.101
60	165	105	-30.989	3.204	13.281	4.314	8.308
60	166	106	-27.759	4.841	13.529	4.499	6.930
60	167	107	-22.588	2.900	13.781	4.709	9.123
60	168	108	-19.047	4.530	14.027	4.898	7.751
60	169	109	-13.581	2.604	14.279	5.112	9.928
60	170	110	-9.738	4.228	14.524	5.308	8.561
60	171	111	-3.985	2.318	14.775	5.529	10.722
60	172	112	0.148	3.938	15.019	5.735	9.358
60	173	113	6.173	2.047	15.269	5.970	11.499
60	174	114	10.576	3.667	15.513	6.193	10.133
60	175	115	16.848	1.800	15.762	6.450	12.250
60	176	116	21.491	3.427	16.005	6.703	10.876
60	177	117	27.970	1.592	16.253	6.998	12.960
60	178	118	32.803	3.239	16.496	7.301	11.567
60	179	119	39.425	1.448	16.743	7.658	13.605
60	180	120	44.372	3.125	16.986	8.034	12.181
60	181	121	51.061	1.382	17.232	8.468	14.171
60	182	122	56.065	3.067	17.474	8.899	12.738
60	183	123	62.841	1.295	17.721	9.310	14.757
60	184	124	68.093	2.819	17.962	9.550	13.484
60	185	125	75.413	0.751	18.208	9.504	15.798
60	186	126	81.622	1.862	18.450	9.035	14.938
60	187	127	90.757	-1.064	18.695	7.716	18.110
60	188	128	99.215	-0.387	18.936	5.954	17.683
60	189	129	109.341	-2.055	19.182	5.458	19.598
61	124	63	-38.337	11.385	-0.547	-2.967	-9.847
61	125	64	-43.490	13.224	-0.251	-2.843	-11.390
61	126	65	-46.357	10.938	0.051	-2.685	-8.818
61	127	66	-51.051	12.765	0.344	-2.558	-10.353
61	128	67	-53.482	10.502	0.644	-2.395	-7.807
61	129	68	-57.732	12.322	0.934	-2.258	-9.337
61	130	69	-59.747	10.086	1.230	-2.082	-6.821
61	131	70	-63.579	11.903	1.518	-1.927	-8.350
61	132	71	-65.205	9.697	1.811	-1.729	-5.867
61	133	72	-68.651	11.517	2.096	-1.546	-7.402
61	134	73	-69.929	9.349	2.387	-1.313	-4.959
61	135	74	-73.039	11.180	2.668	-1.087	-6.508
61	136	75	-74.026	9.059	2.956	-0.803	-4.113
61	137	76	-76.865	10.910	3.236	-0.515	-5.686
61	138	77	-77.632	8.837	3.521	-0.167	-3.342
61	139	78	-80.255	10.695	3.798	0.170	-4.922
61	140	79	-80.798	8.613	4.080	0.510	-2.572
61	141	80	-83.076	10.350	4.355	0.713	-4.034
61	142	81	-83.063	8.058	4.635	0.717	-1.475
61	143	82	-84.471	9.479	4.907	0.389	-2.624
61	144	83	-82.767	6.367	5.185	-0.748	0.752

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
61	145	84	-82.137	7.441	5.455	-2.247	-0.051
61	146	85	-79.719	5.653	5.730	-2.412	2.000
61	147	86	-79.434	7.786	5.998	-1.534	0.135
61	148	87	-77.345	5.982	6.272	-0.659	2.200
61	149	88	-77.133	7.860	6.538	-0.056	0.589
61	150	89	-74.957	5.894	6.809	0.398	2.813
61	151	90	-74.544	7.658	7.073	0.722	1.314
61	152	91	-72.121	5.648	7.343	1.013	3.581
61	153	92	-71.417	7.368	7.605	1.245	2.124
61	154	93	-68.698	5.352	7.873	1.482	4.396
61	155	94	-67.676	7.048	8.133	1.681	2.961
61	156	95	-64.643	5.039	8.399	1.897	5.225
61	157	96	-63.292	6.720	8.658	2.085	3.803
61	158	97	-59.941	4.720	8.923	2.292	6.056
61	159	98	-58.260	6.389	9.180	2.475	4.645
61	160	99	-54.590	4.402	9.443	2.679	6.884
61	161	100	-52.580	6.060	9.700	2.859	5.483
61	162	101	-48.594	4.085	9.961	3.063	7.708
61	163	102	-46.257	5.734	10.216	3.243	6.315
61	164	103	-41.957	3.772	10.476	3.447	8.527
61	165	104	-39.298	5.411	10.730	3.629	7.142
61	166	105	-34.689	3.462	10.989	3.834	9.339
61	167	106	-31.711	5.093	11.241	4.019	7.961
61	168	107	-26.798	3.158	11.499	4.227	10.144
61	169	108	-23.509	4.782	11.751	4.415	8.772
61	170	109	-18.299	2.861	12.007	4.628	10.940
61	171	110	-14.707	4.479	12.258	4.823	9.573
61	172	111	-9.209	2.574	12.514	5.043	11.724
61	173	112	-5.326	4.188	12.764	5.249	10.360
61	174	113	0.443	2.301	13.018	5.483	12.492
61	175	114	4.598	3.916	13.268	5.706	11.127
61	176	115	10.615	2.054	13.522	5.962	13.234
61	177	116	15.010	3.676	13.770	6.215	11.860
61	178	117	21.236	1.845	14.023	6.509	13.935
61	179	118	25.820	3.486	14.271	6.812	12.542
61	180	119	32.191	1.701	14.524	7.168	14.571
61	181	120	36.890	3.372	14.771	7.545	13.148
61	182	121	43.327	1.634	15.023	7.978	15.129
61	183	122	48.084	3.314	15.270	8.409	13.696
61	184	123	54.609	1.546	15.521	8.820	15.706
61	185	124	59.615	3.065	15.767	9.060	14.434
61	186	125	66.684	1.002	16.018	9.014	16.739
61	187	126	72.647	2.108	16.264	8.545	15.879
61	188	127	81.531	-0.814	16.515	7.226	19.043
61	189	128	89.743	-0.141	16.760	5.464	18.616
61	190	129	99.620	-1.805	17.011	4.969	20.522
62	120	58	-7.634	14.902	-0.421	-4.099	-17.398
62	121	59	-12.143	12.579	-0.121	-3.909	-14.776
62	122	60	-18.519	14.447	0.170	-3.765	-16.337
62	123	61	-22.582	12.134	0.468	-3.597	-13.727
62	124	62	-28.490	13.979	0.757	-3.472	-15.268
62	125	63	-32.100	11.681	1.052	-3.319	-12.675
62	126	64	-37.538	13.509	1.337	-3.202	-14.202

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
62	127	65	-40.698	11.230	1.630	-3.051	-11.632
62	128	66	-45.675	13.048	1.913	-2.931	-13.151
62	129	67	-48.395	10.792	2.203	-2.774	-10.605
62	130	68	-52.927	12.602	2.483	-2.644	-12.120
62	131	69	-55.228	10.373	2.770	-2.473	-9.604
62	132	70	-59.338	12.181	3.048	-2.324	-11.119
62	133	71	-61.249	9.982	3.333	-2.132	-8.636
62	134	72	-64.970	11.793	3.608	-1.955	-10.156
62	135	73	-66.530	9.631	3.890	-1.728	-7.713
62	136	74	-69.913	11.453	4.163	-1.507	-9.248
62	137	75	-71.180	9.338	4.443	-1.227	-6.853
62	138	76	-74.290	11.161	4.714	-0.944	-8.411
62	139	77	-75.333	9.114	4.991	-0.600	-6.067
62	140	78	-78.226	10.963	5.259	-0.268	-7.633
62	141	79	-79.043	8.888	5.534	0.068	-5.283
62	142	80	-81.588	10.616	5.801	0.266	-6.731
62	143	81	-81.847	8.330	6.073	0.266	-4.173
62	144	82	-83.520	9.743	6.338	-0.066	-5.307
62	145	83	-82.086	6.638	6.608	-1.206	-1.931
62	146	84	-81.719	7.704	6.871	-2.709	-2.721
62	147	85	-79.569	5.921	7.139	-2.877	-0.670
62	148	86	-79.545	8.047	7.400	-2.002	-2.521
62	149	87	-77.722	6.248	7.666	-1.131	-0.456
62	150	88	-77.770	8.119	7.925	-0.530	-2.055
62	151	89	-75.857	6.159	8.190	-0.080	0.170
62	152	90	-75.702	7.915	8.447	0.242	-1.316
62	153	91	-73.542	5.911	8.710	0.530	0.951
62	154	92	-73.094	7.624	8.966	0.760	-0.493
62	155	93	-70.636	5.613	9.227	0.994	1.779
62	156	94	-69.868	7.303	9.481	1.192	0.356
62	157	95	-67.095	5.298	9.741	1.406	2.621
62	158	96	-65.997	6.973	9.994	1.591	1.211
62	159	97	-62.905	4.978	10.252	1.797	3.464
62	160	98	-61.475	6.641	10.504	1.977	2.065
62	161	99	-58.062	4.659	10.761	2.180	4.305
62	162	100	-56.302	6.311	11.011	2.359	2.915
62	163	101	-52.572	4.341	11.267	2.561	5.141
62	164	102	-50.484	5.983	11.516	2.740	3.759
62	165	103	-46.439	4.026	11.771	2.942	5.971
62	166	104	-44.028	5.660	12.019	3.123	4.597
62	167	105	-39.672	3.716	12.272	3.327	6.795
62	168	106	-36.942	5.341	12.520	3.510	5.428
62	169	107	-32.281	3.410	12.772	3.717	7.612
62	170	108	-29.239	5.028	13.019	3.905	6.251
62	171	109	-24.280	3.112	13.270	4.117	8.419
62	172	110	-20.934	4.724	13.516	4.311	7.063
62	173	111	-15.687	2.824	13.766	4.531	9.214
62	174	112	-12.049	4.433	14.011	4.736	7.861
62	175	113	-6.529	2.551	14.261	4.969	9.993
62	176	114	-2.619	4.161	14.505	5.192	8.638
62	177	115	3.150	2.303	14.754	5.448	10.746
62	178	116	7.301	3.920	14.998	5.700	9.383
62	179	117	13.278	2.094	15.247	5.994	11.457
62	180	118	17.620	3.730	15.490	6.297	10.075
62	181	119	23.742	1.948	15.738	6.653	12.104

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
62	182	120	28.198	3.615	15.980	7.029	10.690
62	183	121	34.388	1.881	16.228	7.462	12.672
62	184	122	38.903	3.556	16.470	7.894	11.249
62	185	123	45.181	1.793	16.717	8.304	13.259
62	186	124	49.945	3.307	16.959	8.545	11.996
62	187	125	56.768	1.248	17.206	8.499	14.302
62	188	126	62.488	2.350	17.447	8.030	13.451
62	189	127	71.127	-0.568	17.694	6.711	16.616
62	190	128	79.097	0.101	17.935	4.950	16.198
62	191	129	88.728	-1.559	18.181	4.455	18.105
62	192	130	96.412	0.386	18.422	5.228	16.409
63	128	65	-32.524	11.529	-0.885	-3.388	-10.356
63	129	66	-37.790	13.337	-0.596	-3.275	-11.876
63	130	67	-40.807	11.088	-0.300	-3.125	-9.347
63	131	68	-45.624	12.889	-0.013	-3.001	-10.862
63	132	69	-48.219	10.666	0.280	-2.837	-8.362
63	133	70	-52.613	12.465	0.564	-2.694	-9.877
63	134	71	-54.814	10.272	0.854	-2.508	-7.410
63	135	72	-58.817	12.074	1.136	-2.336	-8.931
63	136	73	-60.665	9.919	1.424	-2.115	-6.502
63	137	74	-64.327	11.733	1.703	-1.899	-8.037
63	138	75	-65.879	9.623	1.988	-1.625	-5.657
63	139	76	-69.266	11.458	2.265	-1.347	-7.215
63	140	77	-70.592	9.397	2.548	-1.009	-4.885
63	141	78	-73.760	11.238	2.823	-0.681	-6.452
63	142	79	-74.857	9.169	3.103	-0.350	-4.115
63	143	80	-77.675	10.889	3.376	-0.156	-5.563
63	144	81	-78.213	8.609	3.654	-0.160	-3.018
63	145	82	-80.155	10.014	3.925	-0.496	-4.153
63	146	83	-78.998	6.914	4.201	-1.640	-0.789
63	147	84	-78.899	7.972	4.469	-3.147	-1.579
63	148	85	-77.023	6.195	4.743	-3.319	0.459
63	149	86	-77.266	8.313	5.010	-2.447	-1.392
63	150	87	-75.715	6.520	5.282	-1.579	0.660
63	151	88	-76.027	8.383	5.547	-0.982	-0.938
63	152	89	-74.385	6.429	5.817	-0.534	1.275
63	153	90	-74.493	8.179	6.080	-0.215	-0.211
63	154	91	-72.601	6.180	6.349	0.070	2.044
63	155	92	-72.415	7.885	6.610	0.297	0.600
63	156	93	-70.224	5.880	6.877	0.528	2.861
63	157	94	-69.716	7.563	7.137	0.723	1.438
63	158	95	-67.208	5.563	7.402	0.935	3.691
63	159	96	-66.369	7.231	7.661	1.118	2.282
63	160	97	-63.540	5.242	7.924	1.322	4.524
63	161	98	-62.367	6.898	8.181	1.500	3.125
63	162	99	-59.217	4.921	8.444	1.701	5.354
63	163	100	-57.713	6.567	8.700	1.878	3.964
63	164	101	-54.243	4.602	8.960	2.078	6.180
63	165	102	-52.410	6.238	9.215	2.256	4.798
63	166	103	-48.625	4.286	9.475	2.456	7.000
63	167	104	-46.467	5.913	9.729	2.636	5.626
63	168	105	-42.370	3.974	9.987	2.838	7.814
63	169	106	-39.893	5.594	10.240	3.020	6.447

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
63	170	107	-35.490	3.668	10.497	3.226	8.621
63	171	108	-32.699	5.280	10.749	3.413	7.260
63	172	109	-27.997	3.369	11.006	3.623	9.418
63	173	110	-24.901	4.975	11.256	3.817	8.063
63	174	111	-19.910	3.080	11.512	4.036	10.204
63	175	112	-16.522	4.683	11.762	4.240	8.851
63	176	113	-11.257	2.806	12.017	4.472	10.974
63	177	114	-7.596	4.410	12.266	4.694	9.619
63	178	115	-2.081	2.556	12.520	4.949	11.718
63	179	116	1.821	4.168	12.769	5.202	10.355
63	180	117	7.545	2.347	13.022	5.495	12.420
63	181	118	11.638	3.978	13.270	5.797	11.038
63	182	119	17.508	2.201	13.523	6.153	13.058
63	183	120	21.717	3.863	13.771	6.529	11.645
63	184	121	27.654	2.133	14.023	6.961	13.617
63	185	122	31.922	3.803	14.270	7.393	12.195
63	186	123	37.949	2.044	14.522	7.803	14.196
63	187	124	42.465	3.554	14.769	8.044	12.934
63	188	125	49.037	1.500	15.020	7.997	15.231
63	189	126	54.511	2.597	15.266	7.529	14.380
63	190	127	62.899	-0.317	15.517	6.210	17.536
63	191	128	70.623	0.347	15.763	4.449	17.119
63	192	129	80.003	-1.309	16.014	3.953	19.017
63	193	130	87.441	0.632	16.260	4.727	17.322
63	194	131	96.336	-0.824	16.510	5.708	19.020
64	124	60	-0.807	15.030	-0.759	-4.403	-17.825
64	125	61	-5.467	12.732	-0.466	-4.250	-15.235
64	126	62	-11.954	14.558	-0.182	-4.140	-16.762
64	127	63	-16.156	12.273	0.109	-4.001	-14.187
64	128	64	-22.168	14.083	0.391	-3.898	-15.700
64	129	65	-25.914	11.817	0.679	-3.761	-13.147
64	130	66	-31.459	13.616	0.958	-3.654	-14.652
64	131	67	-34.762	11.374	1.244	-3.511	-12.124
64	132	68	-39.857	13.166	1.522	-3.392	-13.624
64	133	69	-42.736	10.950	1.805	-3.235	-11.125
64	134	70	-47.404	12.740	2.080	-3.097	-12.625
64	135	71	-49.887	10.553	2.362	-2.917	-10.158
64	136	72	-54.163	12.347	2.635	-2.750	-11.665
64	137	73	-56.290	10.198	2.914	-2.534	-9.237
64	138	74	-60.222	12.003	3.184	-2.323	-10.758
64	139	75	-62.051	9.900	3.461	-2.054	-8.378
64	140	76	-65.707	11.727	3.730	-1.781	-9.922
64	141	77	-67.308	9.672	4.005	-1.447	-7.592
64	142	78	-70.742	11.505	4.271	-1.123	-9.145
64	143	79	-72.112	9.441	4.544	-0.796	-6.809
64	144	80	-75.195	11.154	4.809	-0.606	-8.243
64	145	81	-76.003	8.879	5.079	-0.615	-5.698
64	146	82	-78.209	10.277	5.342	-0.954	-6.820
64	147	83	-77.320	7.182	5.611	-2.102	-3.456
64	148	84	-77.483	8.233	5.872	-3.612	-4.233
64	149	85	-75.874	6.462	6.139	-3.788	-2.195
64	150	86	-76.375	8.573	6.399	-2.919	-4.033
64	151	87	-75.090	6.785	6.664	-2.054	-1.981

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
64	152	88	-75.660	8.641	6.922	-1.460	-3.566
64	153	89	-74.281	6.692	7.185	-1.015	-1.353
64	154	90	-74.646	8.435	7.442	-0.699	-2.827
64	155	91	-73.016	6.441	7.703	-0.416	-0.572
64	156	92	-73.085	8.140	7.959	-0.192	-2.003
64	157	93	-71.154	6.140	8.219	0.037	0.257
64	158	94	-70.900	7.816	8.473	0.230	-1.153
64	159	95	-68.651	5.822	8.731	0.439	1.100
64	160	96	-68.064	7.484	8.984	0.620	-0.297
64	161	97	-65.492	5.500	9.242	0.822	1.945
64	162	98	-64.571	7.150	9.493	0.999	0.558
64	163	99	-61.677	5.177	9.749	1.197	2.787
64	164	100	-60.423	6.817	9.999	1.373	1.408
64	165	101	-57.209	4.857	10.254	1.571	3.624
64	166	102	-55.625	6.487	10.504	1.748	2.254
64	167	103	-52.094	4.540	10.758	1.947	4.456
64	168	104	-50.184	6.162	11.006	2.125	3.093
64	169	105	-46.340	4.227	11.259	2.326	5.281
64	170	106	-44.110	5.841	11.506	2.508	3.925
64	171	107	-39.959	3.920	11.758	2.712	6.099
64	172	108	-37.415	5.527	12.005	2.898	4.749
64	173	109	-32.964	3.620	12.256	3.107	6.907
64	174	110	-30.114	5.221	12.502	3.300	5.562
64	175	111	-25.373	3.330	12.753	3.518	7.704
64	176	112	-22.231	4.928	12.998	3.722	6.362
64	177	113	-17.215	3.056	13.247	3.954	8.484
64	178	114	-13.799	4.655	13.492	4.175	7.140
64	179	115	-8.534	2.806	13.741	4.430	9.238
64	180	116	-4.875	4.412	13.985	4.681	7.885
64	181	117	0.600	2.596	14.234	4.974	9.951
64	182	118	4.450	4.221	14.477	5.276	8.579
64	183	119	10.072	2.449	14.725	5.632	10.599
64	184	120	14.037	4.106	14.968	6.007	9.195
64	185	121	19.727	2.381	15.216	6.440	11.168
64	186	122	23.752	4.046	15.459	6.871	9.755
64	187	123	29.532	2.292	15.706	7.282	11.757
64	188	124	33.806	3.797	15.948	7.522	10.504
64	189	125	40.131	1.746	16.195	7.476	12.801
64	190	126	45.363	2.839	16.437	7.007	11.960
64	191	127	53.504	-0.070	16.684	5.689	15.116
64	192	128	60.986	0.589	16.926	3.927	14.708
64	193	129	70.120	-1.063	17.172	3.432	16.606
64	194	130	77.316	0.874	17.414	4.206	14.919
64	195	131	85.965	-0.578	17.660	5.187	16.618
65	134	69	-34.779	11.239	-0.668	-3.602	-9.892
65	135	70	-39.729	13.021	-0.387	-3.471	-11.393
65	136	71	-42.498	10.841	-0.100	-3.296	-8.941
65	137	72	-47.053	12.626	0.179	-3.135	-10.448
65	138	73	-49.465	10.482	0.464	-2.925	-8.035
65	139	74	-53.674	12.280	0.740	-2.719	-9.556
65	140	75	-55.785	10.183	1.023	-2.455	-7.190
65	141	76	-59.716	12.001	1.298	-2.186	-8.735
65	142	77	-61.597	9.952	1.578	-1.857	-6.419

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
65	143	78	-65.303	11.777	1.850	-1.538	-7.972
65	144	79	-66.952	9.719	2.129	-1.216	-5.650
65	145	80	-70.305	11.424	2.399	-1.030	-7.084
65	146	81	-71.389	9.156	2.675	-1.043	-4.552
65	147	82	-73.864	10.546	2.944	-1.386	-5.674
65	148	83	-73.249	7.457	3.218	-2.538	-2.324
65	149	84	-73.679	8.500	3.485	-4.052	-3.101
65	150	85	-72.342	6.734	3.758	-4.231	-1.075
65	151	86	-73.109	8.838	4.023	-3.365	-2.913
65	152	87	-72.094	7.056	4.293	-2.504	-0.873
65	153	88	-72.928	8.905	4.557	-1.913	-2.458
65	154	89	-71.818	6.961	4.826	-1.472	-0.258
65	155	90	-72.444	8.697	5.088	-1.158	-1.732
65	156	91	-71.082	6.709	5.355	-0.878	0.512
65	157	92	-71.411	8.401	5.615	-0.656	-0.919
65	158	93	-69.746	6.406	5.881	-0.430	1.330
65	159	94	-69.751	8.076	6.140	-0.240	-0.081
65	160	95	-67.766	6.086	6.405	-0.033	2.162
65	161	96	-67.437	7.742	6.662	0.146	0.764
65	162	97	-65.128	5.762	6.925	0.345	2.995
65	163	98	-64.464	7.406	7.182	0.520	1.608
65	164	99	-61.831	5.439	7.443	0.717	3.827
65	165	100	-60.833	7.072	7.699	0.891	2.449
65	166	101	-57.879	5.117	7.959	1.087	4.654
65	167	102	-56.549	6.742	8.214	1.262	3.284
65	168	103	-53.277	4.799	8.473	1.459	5.475
65	169	104	-51.621	6.415	8.726	1.636	4.113
65	170	105	-48.036	4.485	8.984	1.836	6.290
65	171	106	-46.058	6.093	9.237	2.016	4.935
65	172	107	-42.164	4.177	9.494	2.219	7.098
65	173	108	-39.871	5.778	9.745	2.403	5.749
65	174	109	-35.677	3.876	10.002	2.612	7.897
65	175	110	-33.078	5.472	10.252	2.804	6.553
65	176	111	-28.592	3.586	10.508	3.020	8.685
65	177	112	-25.699	5.178	10.758	3.223	7.342
65	178	113	-20.939	3.310	11.013	3.454	9.456
65	179	114	-17.772	4.904	11.262	3.675	8.111
65	180	115	-12.760	3.060	11.516	3.929	10.201
65	181	116	-9.351	4.661	11.765	4.180	8.848
65	182	117	-4.129	2.849	12.018	4.472	10.904
65	183	118	-0.527	4.470	12.266	4.774	9.532
65	184	119	4.842	2.702	12.519	5.128	11.544
65	185	120	8.559	4.353	12.767	5.504	10.140
65	186	121	13.997	2.633	13.019	5.936	12.104
65	187	122	17.775	4.294	13.267	6.367	10.691
65	188	123	23.303	2.543	13.518	6.777	12.684
65	189	124	27.330	4.044	13.765	7.017	11.431
65	190	125	33.403	1.998	14.017	6.971	13.720
65	191	126	38.388	3.086	14.263	6.502	12.879
65	192	127	46.279	0.181	14.514	5.183	16.026
65	193	128	53.514	0.835	14.761	3.422	15.618
65	194	129	62.397	-0.812	15.012	2.927	17.508
65	195	130	69.347	1.121	15.258	3.701	15.822
65	196	131	77.746	-0.327	15.509	4.682	17.512
65	197	132	84.417	1.400	15.755	5.450	16.031

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
65	198	133	92.729	-0.242	16.005	6.032	17.915
66	132	66	-15.358	14.177	0.009	-4.384	-16.140
66	133	67	-19.235	11.948	0.292	-4.254	-13.629
66	134	68	-24.887	13.723	0.565	-4.147	-15.116
66	135	69	-28.336	11.519	0.846	-4.001	-12.633
66	136	70	-33.557	13.293	1.118	-3.875	-14.120
66	137	71	-36.605	11.119	1.396	-3.706	-11.668
66	138	72	-41.430	12.896	1.666	-3.550	-13.162
66	139	73	-44.118	10.759	1.942	-3.344	-10.749
66	140	74	-48.595	12.548	2.210	-3.143	-12.257
66	141	75	-50.981	10.457	2.484	-2.884	-9.891
66	142	76	-55.177	12.268	2.751	-2.620	-11.423
66	143	77	-57.331	10.224	3.023	-2.295	-9.107
66	144	78	-61.302	12.042	3.288	-1.980	-10.647
66	145	79	-63.221	9.990	3.558	-1.662	-8.325
66	146	80	-66.837	11.687	3.821	-1.480	-9.746
66	147	81	-68.190	9.424	4.090	-1.497	-7.215
66	148	82	-70.926	10.807	4.351	-1.844	-8.323
66	149	83	-70.578	7.723	4.618	-3.000	-4.973
66	150	84	-71.267	8.760	4.878	-4.516	-5.737
66	151	85	-70.196	7.000	5.143	-4.699	-3.712
66	152	86	-71.221	9.096	5.401	-3.837	-5.538
66	153	87	-70.470	7.320	5.665	-2.979	-3.498
66	154	88	-71.560	9.162	5.921	-2.390	-5.071
66	155	89	-70.713	7.223	6.184	-1.952	-2.870
66	156	90	-71.594	8.952	6.439	-1.641	-4.332
66	157	91	-70.492	6.969	6.700	-1.364	-2.088
66	158	92	-71.076	8.655	6.954	-1.144	-3.508
66	159	93	-69.670	6.665	7.213	-0.921	-1.258
66	160	94	-69.928	8.329	7.466	-0.732	-2.657
66	161	95	-68.201	6.344	7.724	-0.528	-0.415
66	162	96	-68.124	7.993	7.976	-0.351	-1.801
66	163	97	-66.072	6.019	8.233	-0.154	0.430
66	164	98	-65.658	7.657	8.483	0.019	-0.946
66	165	99	-63.281	5.694	8.739	0.214	1.273
66	166	100	-62.532	7.322	8.989	0.387	-0.094
66	167	101	-59.833	5.372	9.243	0.581	2.111
66	168	102	-58.752	6.990	9.492	0.755	0.752
66	169	103	-55.734	5.053	9.746	0.950	2.944
66	170	104	-54.326	6.663	9.994	1.126	1.592
66	171	105	-50.993	4.738	10.246	1.324	3.770
66	172	106	-49.262	6.340	10.493	1.503	2.425
66	173	107	-45.620	4.429	10.745	1.705	4.588
66	174	108	-43.574	6.025	10.992	1.889	3.249
66	175	109	-39.630	4.127	11.243	2.096	5.398
66	176	110	-37.277	5.718	11.488	2.287	4.063
66	177	111	-33.042	3.836	11.739	2.503	6.196
66	178	112	-30.394	5.423	11.984	2.705	4.863
66	179	113	-25.883	3.560	12.234	2.935	6.977
66	180	114	-22.961	5.149	12.478	3.155	5.642
66	181	115	-18.199	3.309	12.727	3.408	7.732
66	182	116	-15.033	4.905	12.971	3.659	6.389
66	183	117	-10.059	3.097	13.220	3.951	8.446

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
66	184	118	-6.702	4.713	13.464	4.252	7.083
66	185	119	-1.581	2.950	13.712	4.606	9.094
66	186	120	1.893	4.597	13.955	4.982	7.700
66	187	121	7.084	2.881	14.203	5.413	9.664
66	188	122	10.618	4.537	14.446	5.844	8.261
66	189	123	15.899	2.791	14.693	6.254	10.254
66	190	124	19.683	4.286	14.936	6.494	9.010
66	191	125	25.509	2.245	15.183	6.447	11.299
66	192	126	30.252	3.328	15.425	5.979	10.467
66	193	127	37.896	0.427	15.672	4.660	13.615
66	194	128	44.889	1.078	15.914	2.899	13.215
66	195	129	53.525	-0.565	16.161	2.404	15.105
66	196	130	60.233	1.363	16.403	3.178	13.428
66	197	131	68.385	-0.081	16.649	4.160	15.118
66	198	132	74.814	1.642	16.892	4.927	13.646
66	199	133	82.880	0.005	17.138	5.510	15.530
66	200	134	89.370	1.582	17.380	5.938	14.203
66	201	135	97.573	-0.133	17.626	6.297	16.164
67	140	73	-36.338	11.040	-0.490	-3.735	-9.555
67	141	74	-41.089	12.822	-0.217	-3.539	-11.063
67	142	75	-43.755	10.736	0.063	-3.285	-8.712
67	143	76	-48.224	12.540	0.335	-3.025	-10.244
67	144	77	-50.655	10.502	0.613	-2.705	-7.942
67	145	78	-54.896	12.312	0.883	-2.395	-9.482
67	146	79	-57.091	10.266	1.159	-2.081	-7.173
67	147	80	-60.975	11.956	1.428	-1.903	-8.595
67	148	81	-62.602	9.698	1.702	-1.924	-6.077
67	149	82	-65.605	11.074	1.968	-2.275	-7.186
67	150	83	-65.530	7.996	2.241	-3.434	-3.848
67	151	84	-66.484	9.025	2.506	-4.955	-4.613
67	152	85	-65.683	7.270	2.776	-5.141	-2.599
67	153	86	-66.972	9.360	3.040	-4.282	-4.426
67	154	87	-66.490	7.589	3.309	-3.428	-2.398
67	155	88	-67.843	9.424	3.571	-2.842	-3.971
67	156	89	-67.262	7.491	3.839	-2.407	-1.782
67	157	90	-68.404	9.213	4.099	-2.099	-3.244
67	158	91	-67.569	7.235	4.365	-1.825	-1.012
67	159	92	-68.412	8.914	4.625	-1.607	-2.431
67	160	93	-67.270	6.930	4.889	-1.386	-0.194
67	161	94	-67.786	8.587	5.147	-1.200	-1.593
67	162	95	-66.323	6.608	5.410	-0.999	0.638
67	163	96	-66.502	8.250	5.667	-0.824	-0.747
67	164	97	-64.712	6.281	5.929	-0.629	1.473
67	165	98	-64.554	7.913	6.185	-0.458	0.097
67	166	99	-62.438	5.955	6.446	-0.265	2.305
67	167	100	-61.944	7.577	6.701	-0.095	0.938
67	168	101	-59.504	5.631	6.960	0.098	3.133
67	169	102	-58.678	7.244	7.214	0.270	1.774
67	170	103	-55.918	5.311	7.473	0.464	3.955
67	171	104	-54.763	6.916	7.726	0.638	2.603
67	172	105	-51.687	4.996	7.983	0.835	4.771
67	173	106	-50.209	6.593	8.235	1.012	3.426
67	174	107	-46.823	4.686	8.492	1.213	5.580

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
67	175	108	-45.028	6.276	8.743	1.395	4.241
67	176	109	-41.340	4.383	8.999	1.601	6.380
67	177	110	-39.238	5.968	9.250	1.791	5.046
67	178	111	-35.258	4.091	9.505	2.006	7.168
67	179	112	-32.860	5.673	9.755	2.207	5.836
67	180	113	-28.603	3.814	10.009	2.436	7.940
67	181	114	-25.930	5.398	10.258	2.656	6.606
67	182	115	-21.422	3.562	10.512	2.908	8.686
67	183	116	-18.505	5.154	10.761	3.158	7.343
67	184	117	-13.785	3.351	11.014	3.449	9.391
67	185	118	-10.675	4.962	11.262	3.750	8.028
67	186	119	-5.807	3.203	11.515	4.103	10.031
67	187	120	-2.581	4.845	11.763	4.478	8.637
67	188	121	2.358	3.133	12.015	4.909	10.592
67	189	122	5.645	4.784	12.263	5.340	9.188
67	190	123	10.673	3.042	12.514	5.749	11.173
67	191	124	14.211	4.534	12.762	5.989	9.929
67	192	125	19.785	2.496	13.013	5.942	12.210
67	193	126	24.281	3.575	13.260	5.474	11.378
67	194	127	31.674	0.679	13.511	4.155	14.517
67	195	128	38.420	1.325	13.758	2.393	14.118
67	196	129	46.805	-0.314	14.009	1.898	15.999
67	197	130	53.267	1.610	14.255	2.672	14.322
67	198	131	61.168	0.170	14.506	3.654	16.004
67	199	132	67.351	1.889	14.752	4.422	14.532
67	200	133	75.167	0.255	15.003	5.004	16.408
67	201	134	81.409	1.828	15.249	5.432	15.082
67	202	135	89.363	0.118	15.500	5.791	17.034
68	138	70	-17.809	13.839	0.162	-4.653	-15.600
68	139	71	-21.416	11.678	0.437	-4.495	-13.165
68	140	72	-26.784	13.439	0.704	-4.349	-14.646
68	141	73	-30.026	11.314	0.977	-4.154	-12.248
68	142	74	-35.043	13.088	1.243	-3.962	-13.743
68	143	75	-37.980	11.008	1.514	-3.713	-11.392
68	144	76	-42.713	12.804	1.778	-3.457	-12.911
68	145	77	-45.414	10.772	2.048	-3.142	-10.610
68	146	78	-49.917	12.575	2.310	-2.835	-12.138
68	147	79	-52.380	10.534	2.579	-2.526	-9.829
68	148	80	-56.526	12.216	2.840	-2.351	-11.238
68	149	81	-58.420	9.965	3.106	-2.376	-8.720
68	150	82	-61.682	11.333	3.366	-2.730	-9.817
68	151	83	-61.871	8.261	3.631	-3.893	-6.480
68	152	84	-63.084	9.283	3.889	-5.417	-7.232
68	153	85	-62.546	7.534	4.152	-5.607	-5.219
68	154	86	-64.092	9.617	4.409	-4.750	-7.033
68	155	87	-63.872	7.851	4.671	-3.899	-5.005
68	156	88	-65.480	9.679	4.926	-3.316	-6.567
68	157	89	-65.160	7.751	5.187	-2.884	-4.378
68	158	90	-66.557	9.467	5.441	-2.579	-5.828
68	159	91	-65.981	7.495	5.701	-2.307	-3.596
68	160	92	-67.077	9.167	5.954	-2.092	-5.004
68	161	93	-66.194	7.188	6.212	-1.874	-2.766
68	162	94	-66.961	8.839	6.464	-1.690	-4.154

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
68	163	95	-65.755	6.865	6.721	-1.490	-1.923
68	164	96	-66.185	8.501	6.972	-1.318	-3.298
68	165	97	-64.651	6.537	7.228	-1.125	-1.078
68	166	98	-64.743	8.163	7.478	-0.956	-2.442
68	167	99	-62.882	6.210	7.733	-0.765	-0.235
68	168	100	-62.637	7.826	7.982	-0.596	-1.591
68	169	101	-60.451	5.885	8.236	-0.405	0.604
68	170	102	-59.873	7.492	8.484	-0.235	-0.744
68	171	103	-57.366	5.564	8.737	-0.042	1.437
68	172	104	-56.458	7.163	8.985	0.131	0.096
68	173	105	-53.635	5.248	9.237	0.326	2.264
68	174	106	-52.403	6.839	9.484	0.502	0.929
68	175	107	-49.269	4.937	9.735	0.701	3.083
68	176	108	-47.720	6.522	9.981	0.883	1.754
68	177	109	-44.283	4.634	10.232	1.088	3.893
68	178	110	-42.426	6.214	10.477	1.277	2.569
68	179	111	-38.696	4.341	10.727	1.491	4.691
68	180	112	-36.543	5.918	10.972	1.691	3.369
68	181	113	-32.536	4.064	11.222	1.919	5.473
68	182	114	-30.108	5.642	11.466	2.138	4.148
68	183	115	-25.848	3.811	11.715	2.390	6.229
68	184	116	-23.175	5.398	11.959	2.639	4.895
68	185	117	-18.703	3.599	12.208	2.930	6.943
68	186	118	-15.838	5.205	12.451	3.230	5.589
68	187	119	-11.217	3.451	12.700	3.583	7.592
68	188	120	-8.234	5.088	12.943	3.958	6.208
68	189	121	-3.544	3.380	13.191	4.388	8.163
68	190	122	-0.500	5.027	13.434	4.818	6.768
68	191	123	4.281	3.290	13.681	5.228	8.753
68	192	124	7.576	4.776	13.924	5.468	7.518
68	193	125	12.903	2.743	14.171	5.420	9.798
68	194	126	17.156	3.818	14.414	4.952	8.975
68	195	127	24.302	0.925	14.660	3.632	12.115
68	196	128	30.806	1.567	14.903	1.871	11.724
68	197	129	38.945	-0.068	15.150	1.376	13.606
68	198	130	45.164	1.852	15.392	2.150	11.937
68	199	131	52.818	0.416	15.639	3.132	13.619
68	200	132	58.758	2.131	15.881	3.900	12.155
68	201	133	66.328	0.501	16.128	4.482	14.031
68	202	134	72.328	2.071	16.370	4.911	12.713
68	203	135	80.035	0.364	16.616	5.270	14.666
69	147	78	-42.551	12.842	-0.077	-3.247	-10.979
69	148	79	-45.288	10.807	0.196	-2.942	-8.684
69	149	80	-49.699	12.483	0.463	-2.772	-10.094
69	150	81	-51.865	10.237	0.734	-2.801	-7.589
69	151	82	-55.392	11.598	0.999	-3.158	-8.686
69	152	83	-55.852	8.531	1.269	-4.325	-5.361
69	153	84	-57.328	9.547	1.533	-5.853	-6.114
69	154	85	-57.059	7.802	1.802	-6.046	-4.113
69	155	86	-58.866	9.879	2.064	-5.193	-5.927
69	156	87	-58.913	8.118	2.331	-4.345	-3.912
69	157	88	-60.782	9.940	2.591	-3.765	-5.473
69	158	89	-60.729	8.017	2.857	-3.336	-3.297

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
69	159	90	-62.385	9.727	3.117	-3.033	-4.747
69	160	91	-62.073	7.759	3.381	-2.765	-2.526
69	161	92	-63.427	9.425	3.639	-2.552	-3.934
69	162	93	-62.807	7.451	3.903	-2.337	-1.708
69	163	94	-63.832	9.096	4.160	-2.155	-3.096
69	164	95	-62.888	7.127	4.422	-1.958	-0.876
69	165	96	-63.574	8.757	4.678	-1.787	-2.251
69	166	97	-62.301	6.798	4.939	-1.597	-0.041
69	167	98	-62.648	8.418	5.193	-1.429	-1.406
69	168	99	-61.046	6.470	5.453	-1.241	0.791
69	169	100	-61.055	8.080	5.707	-1.074	-0.565
69	170	101	-59.128	6.144	5.966	-0.885	1.619
69	171	102	-58.803	7.746	6.219	-0.716	0.271
69	172	103	-56.554	5.822	6.477	-0.525	2.442
69	173	104	-55.899	7.415	6.729	-0.354	1.101
69	174	105	-53.332	5.505	6.986	-0.160	3.258
69	175	106	-52.352	7.091	7.238	0.015	1.924
69	176	107	-49.474	5.193	7.494	0.212	4.068
69	177	108	-48.176	6.773	7.745	0.393	2.739
69	178	109	-44.995	4.889	8.000	0.596	4.868
69	179	110	-43.388	6.464	8.250	0.784	3.544
69	180	111	-39.912	4.596	8.505	0.997	5.657
69	181	112	-38.009	6.168	8.755	1.197	4.335
69	182	113	-34.256	4.318	9.009	1.423	6.430
69	183	114	-32.077	5.892	9.258	1.642	5.105
69	184	115	-28.070	4.065	9.511	1.892	7.176
69	185	116	-25.646	5.647	9.760	2.141	5.843
69	186	117	-21.427	3.852	10.013	2.431	7.881
69	187	118	-18.810	5.454	10.261	2.730	6.528
69	188	119	-14.442	3.703	10.514	3.082	8.522
69	189	120	-11.707	5.336	10.761	3.456	7.137
69	190	121	-7.268	3.632	11.013	3.886	9.084
69	191	122	-4.472	5.275	11.261	4.316	7.689
69	192	123	0.058	3.541	11.513	4.725	9.666
69	193	124	3.105	5.024	11.760	4.965	8.431
69	194	125	8.181	2.995	12.011	4.917	10.703
69	195	126	12.187	4.065	12.258	4.448	9.879
69	196	127	19.082	1.177	12.509	3.129	13.010
69	197	128	25.339	1.814	12.756	1.367	12.620
69	198	129	33.227	0.183	13.007	0.872	14.493
69	199	130	39.199	2.099	13.254	1.646	12.825
69	200	131	46.603	0.667	13.504	2.627	14.499
69	201	132	52.297	2.378	13.751	3.395	13.035
69	202	133	59.615	0.752	14.001	3.978	14.903
69	203	134	65.369	2.317	14.248	4.406	13.585
69	204	135	72.826	0.615	14.499	4.766	15.530
70	143	73	-14.032	11.863	0.021	-4.959	-13.732
70	144	74	-19.582	13.621	0.283	-4.777	-15.215
70	145	75	-23.065	11.554	0.552	-4.537	-12.879
70	146	76	-28.328	13.335	0.814	-4.290	-14.386
70	147	77	-31.572	11.315	1.081	-3.983	-12.099
70	148	78	-36.604	13.102	1.341	-3.684	-13.615
70	149	79	-39.606	11.073	1.607	-3.383	-11.320

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
70	150	80	-44.276	12.742	1.866	-3.216	-12.717
70	151	81	-46.706	10.501	2.130	-3.249	-10.213
70	152	82	-50.491	11.855	2.388	-3.610	-11.298
70	153	83	-51.214	8.794	2.651	-4.781	-7.974
70	154	84	-52.946	9.803	2.907	-6.311	-8.714
70	155	85	-52.939	8.064	3.169	-6.507	-6.714
70	156	86	-55.002	10.134	3.424	-5.657	-8.517
70	157	87	-55.309	8.378	3.685	-4.812	-6.501
70	158	88	-57.432	10.194	3.939	-4.235	-8.051
70	159	89	-57.638	8.277	4.198	-3.809	-5.875
70	160	90	-59.546	9.980	4.451	-3.509	-7.314
70	161	91	-59.493	8.017	4.709	-3.243	-5.093
70	162	92	-61.099	9.677	4.961	-3.033	-6.490
70	163	93	-60.736	7.708	5.218	-2.820	-4.264
70	164	94	-62.012	9.347	5.469	-2.640	-5.641
70	165	95	-61.323	7.383	5.725	-2.445	-3.421
70	166	96	-62.260	9.007	5.975	-2.277	-4.785
70	167	97	-61.242	7.053	6.230	-2.088	-2.576
70	168	98	-61.837	8.667	6.479	-1.923	-3.930
70	169	99	-60.490	6.724	6.733	-1.736	-1.733
70	170	100	-60.748	8.328	6.981	-1.571	-3.079
70	171	101	-59.074	6.397	7.234	-1.383	-0.894
70	172	102	-58.996	7.993	7.482	-1.216	-2.232
70	173	103	-56.999	6.074	7.734	-1.027	-0.061
70	174	104	-56.591	7.662	7.981	-0.857	-1.392
70	175	105	-54.276	5.756	8.233	-0.665	0.765
70	176	106	-53.542	7.337	8.479	-0.491	-0.559
70	177	107	-50.915	5.444	8.730	-0.295	1.585
70	178	108	-49.863	7.019	8.976	-0.115	0.266
70	179	109	-46.931	5.140	9.226	0.087	2.395
70	180	110	-45.570	6.709	9.471	0.274	1.080
70	181	111	-42.344	4.845	9.721	0.486	3.194
70	182	112	-40.686	6.413	9.965	0.685	1.881
70	183	113	-37.182	4.567	10.215	0.911	3.975
70	184	114	-35.247	6.136	10.459	1.128	2.660
70	185	115	-31.489	4.313	10.708	1.378	4.731
70	186	116	-29.309	5.891	10.951	1.626	3.407
70	187	117	-25.338	4.100	11.200	1.915	5.446
70	188	118	-22.964	5.697	11.443	2.214	4.102
70	189	119	-18.844	3.951	11.691	2.566	6.096
70	190	120	-16.352	5.579	11.934	2.939	4.720
70	191	121	-12.161	3.880	12.182	3.369	6.667
70	192	122	-9.608	5.518	12.425	3.799	5.281
70	193	123	-5.326	3.789	12.672	4.207	7.257
70	194	124	-2.521	5.267	12.915	4.446	6.031
70	195	125	2.308	3.242	13.162	4.398	8.303
70	196	126	6.071	4.308	13.405	3.929	7.488
70	197	127	12.719	1.423	13.652	2.610	10.619
70	198	128	18.733	2.057	13.895	0.848	10.237
70	199	129	26.374	0.430	14.141	0.353	12.111
70	200	130	32.104	2.341	14.384	1.127	10.450
70	201	131	39.262	0.914	14.630	2.108	12.124
70	202	132	44.713	2.620	14.873	2.876	10.668
70	203	133	51.785	0.999	15.120	3.459	12.537
70	204	134	57.296	2.560	15.362	3.887	11.226

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
70	205	135	64.506	0.861	15.609	4.247	13.171
70	206	136	70.214	2.363	15.851	4.539	11.920
70	207	137	77.644	0.641	16.098	4.816	13.888
71	153	82	-43.240	12.118	0.039	-4.034	-10.171
71	154	83	-44.232	9.062	0.307	-5.208	-6.860
71	155	84	-46.225	10.064	0.568	-6.742	-7.601
71	156	85	-46.485	8.331	0.835	-6.942	-5.613
71	157	86	-48.808	10.394	1.095	-6.095	-7.416
71	158	87	-49.381	8.644	1.361	-5.253	-5.412
71	159	88	-51.763	10.453	1.620	-4.679	-6.963
71	160	89	-52.233	8.541	1.884	-4.256	-4.798
71	161	90	-54.399	10.238	2.142	-3.958	-6.237
71	162	91	-54.609	8.280	2.405	-3.695	-4.028
71	163	92	-56.472	9.934	2.662	-3.488	-5.425
71	164	93	-56.371	7.970	2.924	-3.277	-3.210
71	165	94	-57.902	9.602	3.180	-3.100	-4.587
71	166	95	-57.475	7.643	3.440	-2.908	-2.378
71	167	96	-58.666	9.262	3.695	-2.741	-3.742
71	168	97	-57.908	7.313	3.955	-2.555	-1.544
71	169	98	-58.757	8.921	4.209	-2.391	-2.898
71	170	99	-57.669	6.983	4.468	-2.207	-0.712
71	171	100	-58.179	8.581	4.721	-2.043	-2.058
71	172	101	-56.764	6.655	4.979	-1.858	0.116
71	173	102	-56.938	8.245	5.231	-1.692	-1.222
71	174	103	-55.199	6.331	5.488	-1.505	0.939
71	175	104	-55.042	7.914	5.740	-1.336	-0.392
71	176	105	-52.983	6.013	5.996	-1.146	1.756
71	177	106	-52.500	7.588	6.247	-0.973	0.431
71	178	107	-50.129	5.700	6.502	-0.779	2.565
71	179	108	-49.327	7.269	6.753	-0.601	1.246
71	180	109	-46.650	5.394	7.007	-0.399	3.366
71	181	110	-45.538	6.959	7.257	-0.213	2.051
71	182	111	-42.566	5.100	7.511	-0.003	4.155
71	183	112	-41.157	6.662	7.761	0.195	2.842
71	184	113	-37.907	4.821	8.014	0.420	4.928
71	185	114	-36.220	6.385	8.263	0.636	3.613
71	186	115	-32.716	4.567	8.516	0.885	5.674
71	187	116	-30.784	6.139	8.764	1.132	4.350
71	188	117	-27.066	4.353	9.017	1.420	6.380
71	189	118	-24.940	5.945	9.265	1.719	5.036
71	190	119	-21.072	4.203	9.517	2.070	7.021
71	191	120	-18.828	5.827	9.765	2.443	5.645
71	192	121	-14.889	4.132	10.017	2.872	7.583
71	193	122	-12.583	5.765	10.264	3.301	6.197
71	194	123	-8.552	4.040	10.515	3.709	8.165
71	195	124	-5.995	5.514	10.762	3.948	6.939
71	196	125	-1.417	3.493	11.014	3.899	9.202
71	197	126	2.100	4.555	11.261	3.430	8.388
71	198	127	8.496	1.674	11.512	2.110	11.510
71	199	128	14.264	2.303	11.758	0.348	11.128
71	200	129	21.654	0.681	12.009	-0.148	12.994
71	201	130	27.137	2.588	12.256	0.626	11.333
71	202	131	34.044	1.164	12.507	1.608	12.999

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
71	203	132	39.248	2.867	12.753	2.376	11.543
71	204	133	46.070	1.249	13.004	2.958	13.404
71	205	134	51.335	2.806	13.250	3.387	12.093
71	206	135	58.294	1.112	13.501	3.746	14.030
71	207	136	63.756	2.609	13.747	4.038	12.779
71	208	137	70.935	0.892	13.998	4.316	14.740
71	209	138	76.643	2.364	14.245	4.559	13.514
71	210	139	84.070	0.644	14.495	4.808	15.477
71	211	140	90.036	2.105	14.742	5.039	14.263
71	212	141	97.713	0.394	14.992	5.286	16.216
72	149	77	-15.825	11.852	0.125	-4.815	-13.570
72	150	78	-21.380	13.626	0.383	-4.524	-15.074
72	151	79	-24.916	11.608	0.646	-4.231	-12.793
72	152	80	-30.108	13.262	0.903	-4.071	-14.179
72	153	81	-33.069	11.033	1.165	-4.111	-11.688
72	154	82	-37.372	12.374	1.421	-4.479	-12.761
72	155	83	-38.625	9.323	1.682	-5.657	-9.450
72	156	84	-40.872	10.319	1.936	-7.193	-10.180
72	157	85	-41.392	8.591	2.196	-7.397	-8.192
72	158	86	-43.969	10.647	2.450	-6.552	-9.984
72	159	87	-44.800	8.903	2.709	-5.714	-7.981
72	160	88	-47.435	10.706	2.961	-5.142	-9.520
72	161	89	-48.162	8.798	3.219	-4.722	-7.356
72	162	90	-50.581	10.489	3.470	-4.427	-8.784
72	163	91	-51.047	8.537	3.727	-4.166	-6.575
72	164	92	-53.160	10.185	3.978	-3.961	-7.962
72	165	93	-53.315	8.226	4.233	-3.753	-5.747
72	166	94	-55.096	9.852	4.483	-3.578	-7.113
72	167	95	-54.923	7.898	4.738	-3.388	-4.904
72	168	96	-56.364	9.511	4.987	-3.223	-6.258
72	169	97	-55.859	7.567	5.241	-3.039	-4.060
72	170	98	-56.957	9.169	5.489	-2.877	-5.404
72	171	99	-56.122	7.236	5.742	-2.695	-3.217
72	172	100	-56.880	8.829	5.989	-2.533	-4.553
72	173	101	-55.716	6.907	6.242	-2.349	-2.379
72	174	102	-56.138	8.492	6.489	-2.185	-3.707
72	175	103	-54.650	6.583	6.740	-1.999	-1.546
72	176	104	-54.739	8.160	6.986	-1.832	-2.868
72	177	105	-52.931	6.263	7.237	-1.643	-0.720
72	178	106	-52.694	7.834	7.483	-1.472	-2.035
72	179	107	-50.573	5.950	7.733	-1.278	0.099
72	180	108	-50.016	7.514	7.978	-1.101	-1.210
72	181	109	-47.589	5.644	8.228	-0.901	0.910
72	182	110	-46.722	7.204	8.473	-0.716	-0.396
72	183	111	-44.000	5.349	8.722	-0.507	1.708
72	184	112	-42.835	6.906	8.966	-0.310	0.404
72	185	113	-39.833	5.069	9.215	-0.086	2.490
72	186	114	-38.391	6.628	9.459	0.130	1.184
72	187	115	-35.134	4.815	9.707	0.378	3.246
72	188	116	-33.446	6.383	9.951	0.625	1.930
72	189	117	-29.976	4.601	10.199	0.912	3.960
72	190	118	-28.093	6.188	10.442	1.210	2.625
72	191	119	-24.473	4.451	10.690	1.560	4.610

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
72	192	120	-22.472	6.070	10.933	1.933	3.243
72	193	121	-18.780	4.379	11.180	2.361	5.181
72	194	122	-16.717	6.008	11.423	2.790	3.804
72	195	123	-12.934	4.287	11.670	3.197	5.771
72	196	124	-10.619	5.756	11.913	3.436	4.553
72	197	125	-6.288	3.740	12.160	3.387	6.817
72	198	126	-3.014	4.797	12.403	2.918	6.011
72	199	127	3.136	1.921	12.650	1.597	9.133
72	200	128	8.661	2.546	12.892	-0.164	8.759
72	201	129	15.804	0.927	13.139	-0.660	10.625
72	202	130	21.045	2.830	13.382	0.114	8.972
72	203	131	27.705	1.411	13.628	1.095	10.638
72	204	132	32.667	3.109	13.871	1.863	9.190
72	205	133	39.242	1.496	14.117	2.445	11.051
72	206	134	44.264	3.049	14.360	2.874	9.748
72	207	135	50.977	1.358	14.607	3.233	11.685
72	208	136	56.196	2.852	14.849	3.526	10.442
72	209	137	63.128	1.138	15.096	3.803	12.402
72	210	138	68.593	2.606	15.339	4.046	11.184
72	211	139	75.773	0.891	15.586	4.296	13.147
72	212	140	81.496	2.348	15.829	4.527	11.940
72	213	141	88.927	0.641	16.075	4.774	13.894
72	214	142	94.901	2.097	16.319	5.013	12.689
72	215	143	102.564	0.408	16.566	5.277	14.624
72	216	144	108.764	1.872	16.809	5.542	13.411
72	217	145	116.624	0.211	17.056	5.843	15.319
73	158	85	-33.985	8.856	-0.119	-7.822	-7.090
73	159	86	-36.820	10.906	0.140	-6.981	-8.882
73	160	87	-37.915	9.166	0.404	-6.145	-6.891
73	161	88	-40.807	10.963	0.661	-5.576	-8.431
73	162	89	-41.797	9.061	0.923	-5.159	-6.278
73	163	90	-44.471	10.746	1.180	-4.866	-7.706
73	164	91	-45.199	8.798	1.441	-4.609	-5.509
73	165	92	-47.568	10.440	1.697	-4.406	-6.896
73	166	93	-47.983	8.486	1.957	-4.200	-4.692
73	167	94	-50.019	10.107	2.212	-4.028	-6.059
73	168	95	-50.106	8.158	2.471	-3.840	-3.861
73	169	96	-51.800	9.765	2.725	-3.678	-5.215
73	170	97	-51.554	7.825	2.984	-3.496	-3.027
73	171	98	-52.905	9.422	3.236	-3.336	-4.371
73	172	99	-52.327	7.493	3.494	-3.155	-2.195
73	173	100	-53.337	9.081	3.746	-2.995	-3.531
73	174	101	-52.431	7.164	4.003	-2.814	-1.368
73	175	102	-53.103	8.744	4.255	-2.651	-2.696
73	176	103	-51.871	6.839	4.511	-2.467	-0.545
73	177	104	-52.212	8.411	4.762	-2.302	-1.866
73	178	105	-50.659	6.519	5.017	-2.114	0.271
73	179	106	-50.672	8.084	5.267	-1.944	-1.044
73	180	107	-48.806	6.205	5.522	-1.752	1.081
73	181	108	-48.499	7.764	5.772	-1.577	-0.229
73	182	109	-46.326	5.898	6.026	-1.378	1.881
73	183	110	-45.708	7.453	6.275	-1.194	0.576
73	184	111	-43.239	5.602	6.528	-0.986	2.670

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
73	185	112	-42.323	7.155	6.777	-0.790	1.366
73	186	113	-39.574	5.323	7.030	-0.567	3.443
73	187	114	-38.380	6.877	7.278	-0.352	2.137
73	188	115	-35.376	5.067	7.531	-0.105	4.189
73	189	116	-33.936	6.631	7.779	0.141	2.874
73	190	117	-30.718	4.853	8.031	0.427	4.895
73	191	118	-29.083	6.436	8.279	0.724	3.560
73	192	119	-25.715	4.703	8.531	1.074	5.536
73	193	120	-23.961	6.317	8.778	1.446	4.169
73	194	121	-20.521	4.631	9.029	1.874	6.098
73	195	122	-18.705	6.255	9.277	2.302	4.721
73	196	123	-15.172	4.539	9.528	2.709	6.680
73	197	124	-13.105	6.003	9.775	2.947	5.462
73	198	125	-9.025	3.991	10.026	2.898	7.717
73	199	126	-5.998	5.044	10.273	2.428	6.911
73	200	127	-0.099	2.172	10.523	1.107	10.025
73	201	128	5.180	2.793	10.770	-0.655	9.651
73	202	129	12.073	1.178	11.021	-1.151	11.508
73	203	130	17.067	3.077	11.267	-0.378	9.856
73	204	131	23.476	1.661	11.518	0.603	11.514
73	205	132	28.191	3.356	11.764	1.371	10.066
73	206	133	34.516	1.746	12.015	1.953	11.918
73	207	134	39.291	3.295	12.261	2.382	10.616
73	208	135	45.754	1.609	12.512	2.741	12.545
73	209	136	50.726	3.099	12.758	3.034	11.302
73	210	137	57.408	1.389	13.009	3.311	13.254
73	211	138	62.626	2.853	13.255	3.555	12.037
73	212	139	69.556	1.141	13.506	3.804	13.991
73	213	140	75.033	2.595	13.753	4.035	12.785
73	214	141	82.212	0.892	14.003	4.283	14.731
73	215	142	87.940	2.344	14.250	4.521	13.526
73	216	143	95.352	0.658	14.501	4.786	15.454
73	217	144	101.305	2.119	14.748	5.051	14.241
73	218	145	108.914	0.461	14.999	5.351	16.142
73	219	146	115.046	1.939	15.246	5.662	14.911
73	220	147	122.804	0.313	15.497	6.012	16.781
74	155	81	-17.540	11.560	0.218	-4.951	-13.132
74	156	82	-22.357	12.888	0.472	-5.325	-14.195
74	157	83	-24.135	9.848	0.731	-6.510	-10.897
74	158	84	-26.895	10.831	0.983	-8.053	-11.615
74	159	85	-27.937	9.114	1.241	-8.262	-9.641
74	160	86	-31.024	11.158	1.493	-7.424	-11.422
74	161	87	-32.376	9.423	1.750	-6.591	-9.431
74	162	88	-35.519	11.214	2.001	-6.025	-10.960
74	163	89	-36.765	9.317	2.257	-5.610	-8.807
74	164	90	-39.690	10.996	2.507	-5.320	-10.225
74	165	91	-40.672	9.054	2.762	-5.065	-8.028
74	166	92	-43.291	10.690	3.012	-4.865	-9.404
74	167	93	-43.960	8.740	3.266	-4.661	-7.201
74	168	94	-46.245	10.355	3.515	-4.491	-8.557
74	169	95	-46.585	8.411	3.768	-4.305	-6.360
74	170	96	-48.527	10.013	4.016	-4.145	-7.703
74	171	97	-48.533	8.078	4.269	-3.965	-5.516

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
74	172	98	-50.132	9.669	4.516	-3.807	-6.850
74	173	99	-49.806	7.745	4.768	-3.628	-4.674
74	174	100	-51.063	9.328	5.015	-3.470	-6.000
74	175	101	-50.407	7.416	5.266	-3.290	-3.837
74	176	102	-51.326	8.990	5.512	-3.129	-5.155
74	177	103	-50.345	7.090	5.763	-2.946	-3.005
74	178	104	-50.931	8.657	6.008	-2.782	-4.316
74	179	105	-49.629	6.769	6.258	-2.596	-2.179
74	180	106	-49.887	8.329	6.503	-2.427	-3.484
74	181	107	-48.270	6.454	6.753	-2.237	-1.360
74	182	108	-48.207	8.008	6.997	-2.062	-2.660
74	183	109	-46.283	6.147	7.246	-1.865	-0.550
74	184	110	-45.909	7.697	7.491	-1.682	-1.847
74	185	111	-43.689	5.851	7.739	-1.475	0.248
74	186	112	-43.017	7.399	7.983	-1.280	-1.047
74	187	113	-40.517	5.571	8.231	-1.058	1.029
74	188	114	-39.566	7.120	8.475	-0.844	-0.268
74	189	115	-36.810	5.315	8.723	-0.598	1.785
74	190	116	-35.613	6.874	8.966	-0.352	0.478
74	191	117	-32.643	5.101	9.214	-0.067	2.499
74	192	118	-31.251	6.679	9.457	0.230	1.172
74	193	119	-28.130	4.950	9.704	0.579	3.148
74	194	120	-26.619	6.560	9.947	0.950	1.790
74	195	121	-23.426	4.878	10.194	1.377	3.719
74	196	122	-21.852	6.498	10.437	1.805	2.350
74	197	123	-18.567	4.785	10.683	2.212	4.309
74	198	124	-16.742	6.246	10.926	2.450	3.099
74	199	125	-12.908	4.238	11.173	2.400	5.355
74	200	126	-10.124	5.287	11.415	1.930	4.556
74	201	127	-4.472	2.419	11.662	0.609	7.671
74	202	128	0.564	3.035	11.904	-1.153	7.305
74	203	129	7.211	1.425	12.151	-1.650	9.162
74	204	130	11.962	3.320	12.394	-0.876	7.517
74	205	131	18.125	1.908	12.640	0.104	9.175
74	206	132	22.598	3.598	12.883	0.872	7.735
74	207	133	28.676	1.993	13.129	1.454	9.587
74	208	134	33.209	3.538	13.372	1.883	8.292
74	209	135	39.425	1.855	13.618	2.242	10.221
74	210	136	44.154	3.341	13.861	2.535	8.986
74	211	137	50.590	1.635	14.108	2.812	10.938
74	212	138	55.565	3.096	14.351	3.056	9.728
74	213	139	62.248	1.388	14.597	3.305	11.683
74	214	140	67.481	2.838	14.840	3.536	10.483
74	215	141	74.414	1.138	15.087	3.784	12.429
74	216	142	79.898	2.587	15.330	4.023	11.231
74	217	143	87.064	0.905	15.577	4.288	13.160
74	218	144	92.773	2.362	15.821	4.553	11.953
74	219	145	100.135	0.709	16.068	4.854	13.854
74	220	146	106.023	2.183	16.312	5.165	12.631
74	221	147	113.534	0.561	16.559	5.515	14.500
74	222	148	119.564	2.040	16.803	5.864	13.271
74	223	149	127.234	0.401	17.051	6.203	15.158
75	164	89	-29.465	9.578	-0.011	-6.025	-7.714

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
75	165	90	-32.644	11.251	0.243	-5.738	-9.132
75	166	91	-33.887	9.313	0.503	-5.485	-6.946
75	167	92	-36.759	10.944	0.757	-5.287	-8.323
75	168	93	-37.687	8.999	1.016	-5.086	-6.131
75	169	94	-40.225	10.609	1.269	-4.918	-7.487
75	170	95	-40.823	8.669	1.528	-4.735	-5.301
75	171	96	-43.018	10.265	1.780	-4.576	-6.644
75	172	97	-43.282	8.335	2.037	-4.399	-4.468
75	173	98	-45.132	9.921	2.289	-4.243	-5.802
75	174	99	-45.063	8.002	2.546	-4.066	-3.637
75	175	100	-46.570	9.579	2.797	-3.909	-4.963
75	176	101	-46.171	7.671	3.053	-3.731	-2.810
75	177	102	-47.340	9.240	3.303	-3.572	-4.128
75	178	103	-46.614	7.345	3.558	-3.391	-1.988
75	179	104	-47.450	8.907	3.808	-3.229	-3.300
75	180	105	-46.402	7.023	4.063	-3.044	-1.172
75	181	106	-46.910	8.578	4.312	-2.877	-2.478
75	182	107	-45.547	6.708	4.566	-2.688	-0.363
75	183	108	-45.733	8.257	4.815	-2.514	-1.663
75	184	109	-44.063	6.401	5.068	-2.318	0.437
75	185	110	-43.937	7.945	5.317	-2.137	-0.859
75	186	111	-41.970	6.104	5.570	-1.931	1.226
75	187	112	-41.546	7.647	5.818	-1.737	-0.069
75	188	113	-39.298	5.823	6.070	-1.516	1.998
75	189	114	-38.595	7.368	6.318	-1.303	0.701
75	190	115	-36.091	5.567	6.570	-1.058	2.744
75	191	116	-35.142	7.121	6.818	-0.813	1.438
75	192	117	-32.423	5.352	7.069	-0.529	3.450
75	193	118	-31.278	6.926	7.316	-0.233	2.123
75	194	119	-28.408	5.201	7.568	0.115	4.090
75	195	120	-27.145	6.807	7.815	0.486	2.731
75	196	121	-24.202	5.129	8.066	0.913	4.652
75	197	122	-22.876	6.745	8.313	1.340	3.283
75	198	123	-19.841	5.036	8.563	1.746	5.234
75	199	124	-18.263	6.493	8.810	1.983	4.024
75	200	125	-14.680	4.488	9.061	1.933	6.271
75	201	126	-12.142	5.533	9.307	1.463	5.472
75	202	127	-6.741	2.669	9.558	0.141	8.579
75	203	128	-1.951	3.282	9.804	-1.622	8.213
75	204	129	4.445	1.675	10.055	-2.119	10.062
75	205	130	8.950	3.566	10.301	-1.345	8.417
75	206	131	14.863	2.158	10.552	-0.365	10.067
75	207	132	19.089	3.845	10.798	0.403	8.627
75	208	133	24.917	2.243	11.048	0.985	10.471
75	209	134	29.203	3.785	11.295	1.413	9.176
75	210	135	35.169	2.105	11.545	1.772	11.097
75	211	136	39.652	3.588	11.791	2.065	9.861
75	212	137	45.837	1.886	12.042	2.342	11.806
75	213	138	50.565	3.343	12.288	2.586	10.596
75	214	139	56.998	1.638	12.539	2.835	12.543
75	215	140	61.985	3.084	12.786	3.067	11.344
75	216	141	68.667	1.389	13.036	3.314	13.282
75	217	142	73.904	2.834	13.283	3.553	12.084
75	218	143	80.819	1.156	13.534	3.818	14.005
75	219	144	86.281	2.609	13.781	4.084	12.799

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
75	220	145	93.393	0.959	14.031	4.384	14.692
75	221	146	99.034	2.430	14.279	4.696	13.469
75	222	147	106.293	0.812	14.530	5.046	15.331
75	223	148	112.076	2.288	14.777	5.395	14.102
75	224	149	119.495	0.652	15.028	5.734	15.982
76	160	84	-11.079	11.339	0.071	-8.853	-12.979
76	161	85	-12.641	9.632	0.328	-9.069	-11.017
76	162	86	-16.234	11.664	0.578	-8.236	-12.788
76	163	87	-18.103	9.940	0.833	-7.409	-10.809
76	164	88	-21.751	11.719	1.082	-6.848	-12.328
76	165	89	-23.512	9.832	1.336	-6.439	-10.188
76	166	90	-26.940	11.499	1.585	-6.154	-11.596
76	167	91	-28.436	9.567	1.839	-5.904	-9.410
76	168	92	-31.557	11.192	2.087	-5.708	-10.777
76	169	93	-32.738	9.252	2.339	-5.509	-8.585
76	170	94	-35.523	10.856	2.587	-5.343	-9.931
76	171	95	-36.373	8.921	2.839	-5.162	-7.745
76	172	96	-38.814	10.512	3.086	-5.005	-9.079
76	173	97	-39.330	8.587	3.337	-4.830	-6.902
76	174	98	-41.426	10.167	3.583	-4.676	-8.227
76	175	99	-41.608	8.253	3.834	-4.501	-6.062
76	176	100	-43.361	9.824	4.080	-4.345	-7.378
76	177	101	-43.212	7.922	4.330	-4.169	-5.225
76	178	102	-44.626	9.485	4.575	-4.011	-6.535
76	179	103	-44.150	7.595	4.825	-3.832	-4.394
76	180	104	-45.230	9.151	5.070	-3.671	-5.697
76	181	105	-44.432	7.273	5.319	-3.488	-3.569
76	182	106	-45.184	8.823	5.563	-3.322	-4.866
76	183	107	-44.070	6.957	5.812	-3.134	-2.751
76	184	108	-44.500	8.501	6.056	-2.962	-4.043
76	185	109	-43.078	6.649	6.304	-2.767	-1.942
76	186	110	-43.196	8.189	6.548	-2.586	-3.230
76	187	111	-41.477	6.352	6.796	-2.382	-1.145
76	188	112	-41.296	7.890	7.039	-2.189	-2.431
76	189	113	-39.295	6.071	7.287	-1.969	-0.364
76	190	114	-38.836	7.611	7.530	-1.756	-1.653
76	191	115	-36.579	5.815	7.777	-1.512	0.391
76	192	116	-35.872	7.364	8.020	-1.268	-0.907
76	193	117	-33.401	5.599	8.267	-0.984	1.105
76	194	118	-32.499	7.169	8.510	-0.689	-0.214
76	195	119	-29.876	5.448	8.757	-0.342	1.754
76	196	120	-28.855	7.050	8.999	0.029	0.403
76	197	121	-26.159	5.376	9.246	0.454	2.324
76	198	122	-25.075	6.987	9.488	0.881	0.963
76	199	123	-22.287	5.283	9.735	1.286	2.913
76	200	124	-20.951	6.735	9.977	1.524	1.712
76	201	125	-17.615	4.735	10.223	1.473	3.958
76	202	126	-15.319	5.775	10.466	1.002	3.168
76	203	127	-10.164	2.916	10.712	-0.320	6.274
76	204	128	-5.617	3.524	10.955	-2.082	5.916
76	205	129	0.533	1.921	11.201	-2.580	7.765
76	206	130	4.796	3.808	11.443	-1.806	6.128
76	207	131	10.462	2.405	11.690	-0.826	7.778

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
76	208	132	14.446	4.087	11.932	-0.059	6.345
76	209	133	20.027	2.489	12.178	0.523	8.189
76	210	134	24.071	4.027	12.421	0.952	6.901
76	211	135	29.790	2.352	12.667	1.311	8.823
76	212	136	34.031	3.831	12.910	1.603	7.594
76	213	137	39.969	2.132	13.157	1.880	9.539
76	214	138	44.455	3.585	13.399	2.124	8.336
76	215	139	50.641	1.885	13.646	2.374	10.283
76	216	140	55.385	3.327	13.889	2.605	9.091
76	217	141	61.820	1.636	14.136	2.853	11.029
76	218	142	66.814	3.077	14.379	3.092	9.838
76	219	143	73.482	1.403	14.626	3.357	11.759
76	220	144	78.701	2.853	14.870	3.623	10.560
76	221	145	85.565	1.206	15.117	3.924	12.453
76	222	146	90.962	2.674	15.361	4.236	11.236
76	223	147	97.974	1.059	15.608	4.586	13.098
76	224	148	103.513	2.532	15.852	4.935	11.876
76	225	149	110.684	0.900	16.100	5.274	13.756
76	226	150	116.487	2.268	16.344	5.502	12.639
76	227	151	124.117	0.441	16.592	5.542	14.713
76	228	152	130.657	1.531	16.837	5.297	13.875
76	229	153	139.156	-0.427	17.085	4.928	16.081
77	169	92	-24.153	11.444	-0.115	-6.066	-9.629
77	170	93	-25.592	9.510	0.143	-5.870	-7.448
77	171	94	-28.628	11.108	0.395	-5.706	-8.794
77	172	95	-29.735	9.178	0.651	-5.527	-6.619
77	173	96	-32.428	10.763	0.902	-5.372	-7.953
77	174	97	-33.199	8.843	1.158	-5.199	-5.787
77	175	98	-35.546	10.418	1.409	-5.047	-7.112
77	176	99	-35.983	8.508	1.664	-4.874	-4.957
77	177	100	-37.986	10.074	1.914	-4.720	-6.274
77	178	101	-38.092	8.176	2.169	-4.546	-4.131
77	179	102	-39.756	9.735	2.418	-4.390	-5.441
77	180	103	-39.534	7.849	2.673	-4.212	-3.310
77	181	104	-40.863	9.400	2.922	-4.052	-4.613
77	182	105	-40.318	7.526	3.175	-3.871	-2.495
77	183	106	-41.318	9.071	3.424	-3.706	-3.792
77	184	107	-40.457	7.210	3.677	-3.520	-1.687
77	185	108	-41.135	8.749	3.925	-3.349	-2.979
77	186	109	-39.966	6.902	4.177	-3.156	-0.888
77	187	110	-40.332	8.437	4.425	-2.976	-2.175
77	188	111	-38.865	6.604	4.677	-2.773	-0.100
77	189	112	-38.931	8.138	4.925	-2.581	-1.386
77	190	113	-37.183	6.323	5.176	-2.362	0.672
77	191	114	-36.970	7.858	5.424	-2.150	-0.617
77	192	115	-34.965	6.066	5.675	-1.907	1.418
77	193	116	-34.505	7.611	5.922	-1.664	0.119
77	194	117	-32.285	5.850	6.173	-1.381	2.122
77	195	118	-31.630	7.416	6.420	-1.087	0.804
77	196	119	-29.258	5.699	6.671	-0.740	2.763
77	197	120	-28.483	7.296	6.917	-0.370	1.412
77	198	121	-26.038	5.626	7.168	0.054	3.324
77	199	122	-25.200	7.233	7.414	0.481	1.963

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
77	200	123	-22.663	5.533	7.665	0.885	3.905
77	201	124	-21.573	6.981	7.911	1.122	2.703
77	202	125	-18.487	4.985	8.161	1.071	4.942
77	203	126	-16.438	6.022	8.407	0.600	4.151
77	204	127	-11.532	3.166	8.658	-0.723	7.249
77	205	128	-7.232	3.770	8.904	-2.486	6.891
77	206	129	-1.332	2.171	9.154	-2.984	8.731
77	207	130	2.684	4.055	9.400	-2.211	7.094
77	208	131	8.101	2.655	9.650	-1.231	8.736
77	209	132	11.838	4.334	9.896	-0.463	7.304
77	210	133	17.170	2.739	10.146	0.118	9.140
77	211	134	20.967	4.273	10.393	0.546	7.852
77	212	135	26.436	2.602	10.643	0.905	9.766
77	213	136	30.430	4.077	10.889	1.198	8.537
77	214	137	36.119	2.382	11.139	1.474	10.474
77	215	138	40.358	3.832	11.386	1.718	9.271
77	216	139	46.294	2.135	11.636	1.968	11.211
77	217	140	50.791	3.574	11.883	2.199	10.018
77	218	141	56.976	1.886	12.133	2.447	11.949
77	219	142	61.723	3.324	12.380	2.686	10.758
77	220	143	68.141	1.653	12.630	2.951	12.672
77	221	144	73.112	3.100	12.877	3.217	11.472
77	222	145	79.726	1.457	13.128	3.518	13.358
77	223	146	84.876	2.921	13.375	3.830	12.141
77	224	147	91.637	1.310	13.626	4.181	13.996
77	225	148	96.929	2.779	13.874	4.530	12.774
77	226	149	103.849	1.151	14.125	4.870	14.647
77	227	150	109.404	2.516	14.372	5.097	13.530
77	228	151	116.783	0.692	14.624	5.137	15.597
77	229	152	123.075	1.779	14.872	4.893	14.759
77	230	153	131.321	-0.176	15.123	4.524	16.958
78	165	87	-2.168	10.453	0.034	-8.048	-11.974
78	166	88	-6.317	12.220	0.282	-7.492	-13.483
78	167	89	-8.590	10.344	0.534	-7.088	-11.354
78	168	90	-12.518	11.999	0.781	-6.807	-12.752
78	169	91	-14.525	10.077	1.033	-6.562	-10.579
78	170	92	-18.144	11.690	1.280	-6.371	-11.936
78	171	93	-19.834	9.761	1.531	-6.177	-9.755
78	172	94	-23.117	11.354	1.777	-6.015	-11.092
78	173	95	-24.475	9.429	2.028	-5.838	-8.917
78	174	96	-27.412	11.009	2.274	-5.686	-10.241
78	175	97	-28.434	9.093	2.524	-5.514	-8.076
78	176	98	-31.026	10.663	2.769	-5.363	-9.391
78	177	99	-31.712	8.758	3.018	-5.192	-7.237
78	178	100	-33.961	10.319	3.263	-5.040	-8.544
78	179	101	-34.315	8.426	3.512	-4.868	-6.402
78	180	102	-36.223	9.979	3.756	-4.713	-7.702
78	181	103	-36.250	8.097	4.005	-4.537	-5.572
78	182	104	-37.823	9.644	4.249	-4.379	-6.865
78	183	105	-37.526	7.775	4.497	-4.199	-4.748
78	184	106	-38.770	9.315	4.741	-4.035	-6.036
78	185	107	-38.157	7.458	4.989	-3.850	-3.931
78	186	108	-39.078	8.993	5.232	-3.680	-5.214

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
78	187	109	-38.156	7.149	5.479	-3.488	-3.123
78	188	110	-38.765	8.680	5.722	-3.310	-4.402
78	189	111	-37.545	6.851	5.970	-3.107	-2.326
78	190	112	-37.855	8.380	6.212	-2.916	-3.604
78	191	113	-36.353	6.570	6.459	-2.698	-1.547
78	192	114	-36.383	8.101	6.702	-2.488	-2.827
78	193	115	-34.625	6.313	6.949	-2.246	-0.792
78	194	116	-34.407	7.853	7.191	-2.003	-2.082
78	195	117	-32.433	6.097	7.437	-1.721	-0.080
78	196	118	-32.020	7.658	7.680	-1.427	-1.390
78	197	119	-29.895	5.945	7.926	-1.081	0.569
78	198	120	-29.362	7.538	8.168	-0.712	-0.774
78	199	121	-27.163	5.872	8.414	-0.288	1.138
78	200	122	-26.568	7.476	8.656	0.138	-0.215
78	201	123	-24.276	5.779	8.903	0.542	1.727
78	202	124	-23.429	7.223	9.145	0.778	0.533
78	203	125	-20.589	5.231	9.391	0.727	2.771
78	204	126	-18.781	6.264	9.633	0.255	1.988
78	205	127	-14.122	3.412	9.879	-1.068	5.086
78	206	128	-10.063	4.012	10.121	-2.831	4.736
78	207	129	-4.410	2.417	10.367	-3.329	6.576
78	208	130	-0.636	4.297	10.609	-2.556	4.947
78	209	131	4.535	2.901	10.855	-1.577	6.588
78	210	132	8.030	4.576	11.097	-0.809	5.163
78	211	133	13.115	2.986	11.344	-0.228	6.999
78	212	134	16.670	4.516	11.586	0.200	5.719
78	213	135	21.893	2.848	11.832	0.559	7.632
78	214	136	25.645	4.320	12.075	0.851	6.411
78	215	137	31.087	2.629	12.321	1.128	8.348
78	216	138	35.083	4.075	12.564	1.372	7.152
78	217	139	40.773	2.382	12.810	1.622	9.091
78	218	140	45.027	3.817	13.053	1.853	7.906
78	219	141	50.965	2.133	13.300	2.101	9.837
78	220	142	55.469	3.567	13.543	2.340	8.652
78	221	143	61.640	1.900	13.790	2.605	10.566
78	222	144	66.368	3.343	14.033	2.871	9.373
78	223	145	72.735	1.704	14.281	3.173	11.259
78	224	146	77.641	3.165	14.524	3.485	10.049
78	225	147	84.154	1.557	14.772	3.836	11.904
78	226	148	89.202	3.024	15.016	4.185	10.688
78	227	149	95.874	1.399	15.263	4.525	12.560
78	228	150	101.185	2.760	15.508	4.753	11.450
78	229	151	108.316	0.940	15.756	4.793	13.517
78	230	152	114.363	2.024	16.000	4.549	12.685
78	231	153	122.362	0.073	16.249	4.181	14.884
78	232	154	129.185	1.247	16.494	3.897	13.961
78	233	155	137.801	-0.545	16.742	3.780	16.001
79	174	95	-17.171	9.684	-0.015	-5.996	-7.595
79	175	96	-20.358	11.258	0.235	-5.845	-8.920
79	176	97	-21.635	9.347	0.490	-5.676	-6.765
79	177	98	-24.476	10.912	0.739	-5.527	-8.081
79	178	99	-25.416	9.012	0.993	-5.358	-5.936
79	179	100	-27.913	10.568	1.242	-5.208	-7.244

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
79	180	101	-28.521	8.679	1.495	-5.037	-5.112
79	181	102	-30.678	10.228	1.744	-4.884	-6.412
79	182	103	-30.957	8.350	1.997	-4.709	-4.292
79	183	104	-32.778	9.892	2.245	-4.552	-5.586
79	184	105	-32.734	8.027	2.497	-4.374	-3.478
79	185	106	-34.226	9.562	2.745	-4.212	-4.766
79	186	107	-33.865	7.710	2.997	-4.028	-2.671
79	187	108	-35.033	9.240	3.244	-3.860	-3.954
79	188	109	-34.363	7.401	3.496	-3.669	-1.872
79	189	110	-35.219	8.927	3.743	-3.491	-3.152
79	190	111	-34.251	7.103	3.994	-3.290	-1.085
79	191	112	-34.807	8.627	4.241	-3.100	-2.363
79	192	113	-33.556	6.821	4.492	-2.884	-0.315
79	193	114	-33.832	8.347	4.738	-2.674	-1.595
79	194	115	-32.325	6.564	4.989	-2.433	0.430
79	195	116	-32.354	8.100	5.235	-2.191	-0.860
79	196	117	-30.630	6.347	5.486	-1.910	1.134
79	197	118	-30.463	7.904	5.732	-1.617	-0.176
79	198	119	-28.588	6.196	5.982	-1.272	1.774
79	199	120	-28.301	7.784	6.228	-0.903	0.431
79	200	121	-26.353	6.123	6.478	-0.480	2.334
79	201	122	-26.003	7.721	6.724	-0.054	0.981
79	202	123	-23.962	6.029	6.974	0.349	2.915
79	203	124	-23.360	7.469	7.220	0.585	1.721
79	204	125	-20.770	5.481	7.470	0.532	3.951
79	205	126	-19.208	6.510	7.716	0.060	3.168
79	206	127	-14.799	3.662	7.966	-1.263	6.257
79	207	128	-10.986	4.258	8.212	-3.027	5.907
79	208	129	-5.582	2.667	8.461	-3.525	7.739
79	209	130	-2.054	4.543	8.707	-2.753	6.109
79	210	131	2.867	3.150	8.957	-1.774	7.744
79	211	132	6.116	4.822	9.203	-1.006	6.318
79	212	133	10.952	3.235	9.453	-0.426	8.146
79	213	134	14.261	4.762	9.699	0.002	6.866
79	214	135	19.234	3.098	9.948	0.361	8.772
79	215	136	22.739	4.566	10.195	0.653	7.550
79	216	137	27.932	2.878	10.444	0.930	9.480
79	217	138	31.682	4.321	10.691	1.174	8.283
79	218	139	37.121	2.632	10.941	1.423	10.215
79	219	140	41.129	4.063	11.187	1.655	9.030
79	220	141	46.817	2.383	11.437	1.902	10.953
79	221	142	51.074	3.814	11.684	2.142	9.769
79	222	143	56.995	2.151	11.934	2.407	11.675
79	223	144	61.476	3.590	12.181	2.673	10.482
79	224	145	67.592	1.955	12.432	2.974	12.361
79	225	146	72.251	3.412	12.679	3.286	11.150
79	226	147	78.514	1.808	12.930	3.637	12.998
79	227	148	83.314	3.271	13.177	3.987	11.782
79	228	149	89.735	1.650	13.428	4.327	13.648
79	229	150	94.799	3.008	13.676	4.555	12.537
79	230	151	101.678	1.191	13.927	4.595	14.598
79	231	152	107.477	2.272	14.175	4.352	13.765
79	232	153	115.224	0.324	14.426	3.984	15.958
79	233	154	121.800	1.496	14.675	3.700	15.034
79	234	155	130.163	-0.293	14.927	3.583	17.068

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
79	235	156	137.235	1.000	15.175	3.580	16.024
79	236	157	145.966	-0.660	15.427	3.714	17.929
79	237	158	153.322	0.714	15.677	3.923	16.804
80	170	90	3.026	12.496	0.317	-6.918	-13.619
80	171	91	0.513	10.584	0.568	-6.678	-11.457
80	172	92	-3.603	12.186	0.813	-6.491	-12.804
80	173	93	-5.798	10.267	1.062	-6.301	-10.635
80	174	94	-9.576	11.849	1.307	-6.143	-11.963
80	175	95	-11.438	9.933	1.556	-5.971	-9.799
80	176	96	-14.870	11.503	1.801	-5.822	-11.115
80	177	97	-16.395	9.596	2.049	-5.654	-8.960
80	178	98	-19.480	11.156	2.293	-5.507	-10.266
80	179	99	-20.669	9.260	2.542	-5.340	-8.123
80	180	100	-23.410	10.811	2.785	-5.191	-9.421
80	181	101	-24.266	8.927	3.033	-5.022	-7.289
80	182	102	-26.665	10.471	3.276	-4.870	-8.581
80	183	103	-27.192	8.598	3.524	-4.698	-6.461
80	184	104	-29.256	10.135	3.767	-4.542	-7.746
80	185	105	-29.460	8.274	4.014	-4.365	-5.638
80	186	106	-31.194	9.805	4.257	-4.204	-6.917
80	187	107	-31.080	7.957	4.504	-4.022	-4.823
80	188	108	-32.491	9.482	4.746	-3.854	-6.097
80	189	109	-32.067	7.648	4.993	-3.664	-4.016
80	190	110	-33.165	9.169	5.235	-3.488	-5.286
80	191	111	-32.443	7.349	5.482	-3.288	-3.220
80	192	112	-33.241	8.869	5.724	-3.099	-4.490
80	193	113	-32.237	7.067	5.970	-2.883	-2.442
80	194	114	-32.755	8.589	6.212	-2.674	-3.714
80	195	115	-31.494	6.810	6.458	-2.434	-1.689
80	196	116	-31.765	8.342	6.700	-2.193	-2.970
80	197	117	-30.287	6.593	6.946	-1.913	-0.977
80	198	118	-30.362	8.146	7.187	-1.621	-2.279
80	199	119	-28.732	6.441	7.433	-1.276	-0.329
80	200	120	-28.687	8.026	7.675	-0.908	-1.664
80	201	121	-26.984	6.368	7.921	-0.485	0.239
80	202	122	-26.877	7.963	8.162	-0.060	-1.106
80	203	123	-25.081	6.275	8.408	0.342	0.827
80	204	124	-24.721	7.711	8.650	0.578	-0.359
80	205	125	-22.376	5.727	8.895	0.525	1.870
80	206	126	-21.056	6.751	9.137	0.053	1.095
80	207	127	-16.893	3.907	9.383	-1.271	4.185
80	208	128	-13.321	4.500	9.624	-3.035	3.841
80	209	129	-8.163	2.913	9.870	-3.534	5.674
80	210	130	-4.877	4.785	10.112	-2.762	4.051
80	211	131	-0.202	3.396	10.358	-1.783	5.685
80	212	132	2.805	5.064	10.600	-1.016	4.267
80	213	133	7.395	3.481	10.846	-0.435	6.095
80	214	134	10.462	5.004	11.088	-0.007	4.822
80	215	135	15.189	3.344	11.334	0.351	6.727
80	216	136	18.452	4.808	11.576	0.643	5.513
80	217	137	23.398	3.125	11.822	0.920	7.442
80	218	138	26.906	4.564	12.065	1.164	6.253
80	219	139	32.099	2.878	12.311	1.413	8.185

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
80	220	140	35.864	4.306	12.554	1.645	7.006
80	221	141	41.305	2.629	12.800	1.892	8.929
80	222	142	45.320	4.057	13.043	2.132	7.751
80	223	143	50.993	2.397	13.290	2.397	9.657
80	224	144	55.231	3.833	13.534	2.663	8.471
80	225	145	61.100	2.202	13.781	2.965	10.350
80	226	146	65.516	3.656	14.024	3.277	9.146
80	227	147	71.531	2.055	14.271	3.628	10.993
80	228	148	76.088	3.515	14.515	3.978	9.784
80	229	149	82.261	1.897	14.763	4.318	11.649
80	230	150	87.080	3.252	15.007	4.547	10.545
80	231	151	93.712	1.439	15.255	4.587	12.606
80	232	152	99.266	2.517	15.500	4.344	11.779
80	233	153	106.765	0.572	15.748	3.976	13.971
80	234	154	113.095	1.741	15.993	3.693	13.054
80	235	155	121.211	-0.044	16.242	3.576	15.088
80	236	156	128.037	1.245	16.487	3.574	14.050
80	237	157	136.519	-0.411	16.736	3.707	15.955
81	179	98	-12.547	11.404	0.356	-5.387	-9.764
81	180	99	-13.988	9.513	0.608	-5.221	-7.631
81	181	100	-16.977	11.059	0.856	-5.074	-8.930
81	182	101	-18.085	9.179	1.108	-4.907	-6.807
81	183	102	-20.732	10.718	1.355	-4.757	-8.099
81	184	103	-21.511	8.850	1.607	-4.586	-5.989
81	185	104	-23.822	10.382	1.854	-4.431	-7.275
81	186	105	-24.276	8.526	2.106	-4.256	-5.177
81	187	106	-26.257	10.052	2.352	-4.096	-6.456
81	188	107	-26.394	8.208	2.603	-3.915	-4.371
81	189	108	-28.052	9.729	2.850	-3.749	-5.645
81	190	109	-27.879	7.898	3.101	-3.561	-3.573
81	191	110	-29.223	9.415	3.347	-3.385	-4.844
81	192	111	-28.752	7.600	3.597	-3.187	-2.787
81	193	112	-29.796	9.115	3.843	-2.998	-4.057
81	194	113	-29.042	7.317	4.093	-2.784	-2.018
81	195	114	-29.806	8.835	4.339	-2.576	-3.290
81	196	115	-28.794	7.060	4.589	-2.337	-1.274
81	197	116	-29.310	8.587	4.835	-2.097	-2.556
81	198	117	-28.083	6.843	5.085	-1.817	-0.571
81	199	118	-28.403	8.391	5.330	-1.526	-1.874
81	200	119	-27.023	6.691	5.580	-1.182	0.068
81	201	120	-27.223	8.271	5.825	-0.815	-1.268
81	202	121	-25.770	6.618	6.075	-0.393	0.627
81	203	122	-25.908	8.209	6.320	0.031	-0.718
81	204	123	-24.361	6.524	6.570	0.433	1.207
81	205	124	-24.246	7.956	6.815	0.668	0.020
81	206	125	-22.151	5.976	7.064	0.615	2.242
81	207	126	-21.077	6.997	7.310	0.142	1.466
81	208	127	-17.163	4.156	7.559	-1.182	4.548
81	209	128	-13.837	4.745	7.804	-2.947	4.204
81	210	129	-8.928	3.162	8.054	-3.446	6.029
81	211	130	-5.887	5.030	8.299	-2.674	4.406
81	212	131	-1.462	3.646	8.549	-1.696	6.032
81	213	132	1.300	5.309	8.794	-0.929	4.614

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
81	214	133	5.640	3.731	9.044	-0.349	6.434
81	215	134	8.462	5.250	9.289	0.079	5.161
81	216	135	12.939	3.593	9.539	0.437	7.059
81	217	136	15.956	5.054	9.785	0.730	5.844
81	218	137	20.653	3.374	10.034	1.006	7.766
81	219	138	23.914	4.810	10.280	1.250	6.576
81	220	139	28.858	3.127	10.530	1.499	8.5^1
81	221	140	32.376	4.553	10.776	1.730	7.322
81	222	141	37.568	2.879	11.026	1.978	9.238
81	223	142	41.336	4.303	11.273	2.217	8.060
81	224	143	46.760	2.647	11.523	2.482	9.959
81	225	144	50.751	4.080	11.769	2.749	8.772
81	226	145	56.370	2.452	12.020	3.050	10.644
81	227	146	60.538	3.903	12.267	3.363	9.440
81	228	147	66.303	2.306	12.517	3.714	11.280
81	229	148	70.612	3.762	12.764	4.064	10.071
81	230	149	76.535	2.148	13.015	4.404	11.929
81	231	150	81.107	3.500	13.263	4.632	10.825
81	232	151	87.487	1.690	13.514	4.673	12.878
81	233	152	92.794	2.765	13.762	4.430	12.052
81	234	153	100.041	0.824	14.013	4.062	14.237
81	235	154	106.123	1.989	14.261	3.779	13.320
81	236	155	113.987	0.207	14.513	3.662	15.346
81	237	156	120.564	1.494	14.762	3.661	14.308
81	238	157	128.794	-0.159	15.014	3.794	16.207
81	239	158	135.656	1.209	15.263	4.004	15.087
81	240	159	144.115	-0.388	15.515	4.276	16.931
82	178	96	-0.756	11.994	0.610	-6.394	-15.003
82	179	97	-2.782	10.097	0.858	-6.231	-12.859
82	180	98	-6.358	11.646	1.100	-6.087	-14.157
82	181	99	-8.047	9.760	1.347	-5.923	-12.023
82	182	100	-11.277	11.301	1.590	-5.778	-13.313
82	183	101	-12.632	9.426	1.837	-5.612	-11.192
82	184	102	-15.522	10.960	2.079	-5.463	-12.475
82	185	103	-16.547	9.097	2.325	-5.294	-10.365
82	186	104	-19.100	10.624	2.567	-5.141	-11.642
82	187	105	-19.801	8.772	2.814	-4.967	-9.544
82	188	106	-22.023	10.293	3.055	-4.808	-10.815
82	189	107	-22.406	8.454	3.301	-4.628	-8.730
82	190	108	-24.305	9.970	3.543	-4.463	-9.996
82	191	109	-24.379	8.144	3.789	-4.276	-7.925
82	192	110	-25.964	9.657	4.030	-4.102	-9.187
82	193	111	-25.738	7.845	4.276	-3.904	-7.131
82	194	112	-27.024	9.356	4.517	-3.717	-8.392
82	195	113	-26.515	7.563	4.763	-3.503	-6.353
82	196	114	-27.520	9.076	5.004	-3.296	-7.618
82	197	115	-26.754	7.305	5.249	-3.058	-5.602
82	198	116	-27.512	8.828	5.490	-2.819	-6.876
82	199	117	-26.529	7.088	5.736	-2.540	-4.891
82	200	118	-27.091	8.632	5.977	-2.249	-6.186
82	201	119	-25.956	6.936	6.222	-1.906	-4.245
82	202	120	-26.397	8.513	6.463	-1.539	-5.572
82	203	121	-25.189	6.863	6.708	-1.118	-3.678

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
82	204	122	-25.568	8.450	6.949	-0.694	-5.015
82	205	123	-24.267	6.770	7.195	-0.293	-3.090
82	206	124	-24.393	8.198	7.436	-0.058	-4.270
82	207	125	-22.543	6.221	7.681	-0.112	-2.048
82	208	126	-21.710	7.238	7.922	-0.585	-2.816
82	209	127	-18.041	4.402	8.167	-1.910	0.265
82	210	128	-14.957	4.987	8.409	-3.675	-0.071
82	211	129	-10.293	3.407	8.654	-4.174	1.753
82	212	130	-7.494	5.272	8.896	-3.403	0.137
82	213	131	-3.314	3.891	9.141	-2.425	1.763
82	214	132	-0.794	5.551	9.383	-1.658	0.352
82	215	133	3.301	3.976	9.628	-1.078	2.172
82	216	134	5.880	5.492	9.870	-0.650	0.906
82	217	135	10.112	3.839	10.116	-0.292	2.804
82	218	136	12.887	5.296	10.358	-0.000	1.596
82	219	137	17.338	3.620	10.604	0.276	3.517
82	220	138	20.357	5.052	10.846	0.520	2.335
82	221	139	25.055	3.374	11.092	0.769	4.259
82	222	140	28.331	4.795	11.335	1.000	3.086
82	223	141	33.276	3.125	11.581	1.248	5.002
82	224	142	36.801	4.546	11.824	1.487	3.831
82	225	143	41.978	2.894	12.070	1.752	5.730
82	226	144	45.726	4.323	12.314	2.019	4.550
82	227	145	51.098	2.699	12.560	2.320	6.421
82	228	146	55.023	4.146	12.804	2.633	5.223
82	229	147	60.541	2.553	13.051	2.984	7.064
82	230	148	64.606	4.006	13.295	3.334	5.861
82	231	149	70.282	2.395	13.542	3.674	7.719
82	232	150	74.609	3.744	13.786	3.903	6.621
82	233	151	80.742	1.938	14.034	3.944	8.674
82	234	152	85.804	3.009	14.279	3.701	7.853
82	235	153	92.803	1.072	14.527	3.334	10.039
82	236	154	98.640	2.234	14.772	3.051	9.128
82	237	155	106.256	0.456	15.020	2.935	11.154
82	238	156	112.587	1.739	15.266	2.933	10.122
82	239	157	120.568	0.090	15.514	3.067	12.020
82	240	158	127.184	1.455	15.760	3.277	10.906
82	241	159	135.394	-0.139	16.010	3.549	12.749
82	242	160	142.226	1.239	16.256	3.828	11.624
82	243	161	150.645	-0.348	16.506	4.121	13.460
83	190	107	-14.309	8.704	-0.808	-7.542	-7.927
83	191	108	-16.454	10.216	-0.563	-7.378	-9.193
83	192	109	-16.777	8.394	-0.313	-7.192	-7.131
83	193	110	-18.607	9.902	-0.068	-7.019	-8.394
83	194	111	-18.631	8.095	0.182	-6.823	-6.346
83	195	112	-20.162	9.601	0.427	-6.636	-7.608
83	196	113	-19.902	7.812	0.676	-6.424	-5.578
83	197	114	-21.153	9.321	0.922	-6.218	-6.843
83	198	115	-20.636	7.554	1.171	-5.981	-4.835
83	199	116	-21.638	9.073	1.416	-5.742	-6.110
83	200	117	-20.905	7.337	1.665	-5.464	-4.133
83	201	118	-21.711	8.877	1.910	-5.174	-5.429
83	202	119	-20.825	7.185	2.159	-4.832	-3.496

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
83	203	120	-21.512	8.757	2.403	-4.466	-4.824
83	204	121	-20.553	7.112	2.652	-4.045	-2.938
83	205	122	-21.176	8.695	2.897	-3.622	-4.276
83	206	123	-20.124	7.018	3.146	-3.222	-2.359
83	207	124	-20.495	8.442	3.391	-2.988	-3.538
83	208	125	-18.894	6.470	3.640	-3.042	-1.325
83	209	126	-18.306	7.483	3.885	-3.516	-2.094
83	210	127	-14.885	4.650	4.133	-4.841	0.980
83	211	128	-12.046	5.232	4.378	-6.606	0.643
83	212	129	-7.631	3.656	4.627	-7.106	2.460
83	213	130	-5.077	5.517	4.872	-6.335	0.844
83	214	131	-1.146	4.140	5.121	-5.357	2.462
83	215	132	1.129	5.796	5.366	-4.591	1.051
83	216	133	4.975	4.225	5.615	-4.011	2.863
83	217	134	7.309	5.737	5.861	-3.584	1.596
83	218	135	11.292	4.088	6.110	-3.226	3.487
83	219	136	13.821	5.542	6.355	-2.934	2.279
83	220	137	18.023	3.869	6.605	-2.659	4.193
83	221	138	20.796	5.298	6.850	-2.415	3.010
83	222	139	25.244	3.623	7.100	-2.166	4.927
83	223	140	28.274	5.041	7.346	-1.934	3.754
83	224	141	32.970	3.375	7.595	-1.687	5.663
83	225	142	36.249	4.792	7.841	-1.447	4.491
83	226	143	41.176	3.144	8.091	-1.183	6.383
83	227	144	44.677	4.570	8.338	-0.916	5.203
83	228	145	49.800	2.949	8.588	-0.615	7.067
83	229	146	53.478	4.393	8.834	-0.302	5.869
83	230	147	58.746	2.803	9.085	0.049	7.703
83	231	148	62.563	4.253	9.332	0.400	6.499
83	232	149	67.989	2.646	9.582	0.740	8.350
83	233	150	72.068	3.991	9.830	0.969	7.252
83	234	151	77.951	2.189	10.081	1.010	9.299
83	235	152	82.765	3.257	10.328	0.767	8.478
83	236	153	89.513	1.323	10.580	0.400	10.656
83	237	154	95.102	2.482	10.828	0.117	9.745
83	238	155	102.465	0.707	11.079	0.001	11.765
83	239	156	108.549	1.988	11.328	-0.000	10.732
83	240	157	116.278	0.342	11.580	0.134	12.624
83	241	158	122.645	1.704	11.828	0.344	11.510
83	242	159	130.603	0.113	12.081	0.616	13.347
83	243	160	137.185	1.489	12.330	0.896	12.221
83	244	161	145.352	-0.096	12.583	1.188	14.051
83	245	162	152.158	1.265	12.832	1.460	12.940
83	246	163	160.555	-0.326	13.085	1.732	14.777
84	190	106	-6.382	10.780	-0.005	-10.293	-11.700
84	191	107	-7.260	8.949	0.240	-10.115	-9.625
84	192	108	-9.646	10.456	0.481	-9.953	-10.883
84	193	109	-10.213	8.639	0.726	-9.768	-8.821
84	194	110	-12.285	10.142	0.966	-9.596	-10.076
84	195	111	-12.553	8.340	1.211	-9.400	-8.029
84	196	112	-14.324	9.842	1.452	-9.215	-9.283
84	197	113	-14.310	8.057	1.696	-9.003	-7.253
84	198	114	-15.801	9.562	1.937	-8.798	-8.510

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
84	199	115	-15.528	7.799	2.182	-8.562	-6.502
84	200	116	-16.771	9.314	2.422	-8.324	-7.769
84	201	117	-16.282	7.582	2.667	-8.047	-5.793
84	202	118	-17.329	9.118	2.907	-7.757	-7.081
84	203	119	-16.688	7.430	3.152	-7.416	-5.148
84	204	120	-17.615	8.998	3.392	-7.051	-6.468
84	205	121	-16.900	7.356	3.637	-6.631	-4.583
84	206	122	-17.765	8.935	3.877	-6.208	-5.913
84	207	123	-16.957	7.263	4.122	-5.808	-3.997
84	208	124	-17.569	8.683	4.363	-5.574	-5.169
84	209	125	-16.212	6.714	4.607	-5.629	-2.956
84	210	126	-15.865	7.724	4.848	-6.103	-3.717
84	211	127	-12.689	4.895	5.093	-7.429	-0.644
84	212	128	-10.091	5.473	5.334	-9.194	-0.973
84	213	129	-5.921	3.901	5.579	-9.695	0.843
84	214	130	-3.608	5.758	5.820	-8.924	-0.766
84	215	131	0.078	4.385	6.065	-7.946	0.852
84	216	132	2.111	6.038	6.306	-7.180	-0.552
84	217	133	5.712	4.470	6.551	-6.601	1.260
84	218	134	7.805	5.979	6.793	-6.174	-0.000
84	219	135	11.542	4.333	7.038	-5.816	1.890
84	220	136	13.830	5.784	7.280	-5.524	0.689
84	221	137	17.786	4.115	7.526	-5.249	2.603
84	222	138	20.317	5.540	7.768	-5.005	1.426
84	223	139	24.520	3.869	8.013	-4.756	3.343
84	224	140	27.307	5.284	8.256	-4.525	2.177
84	225	141	31.757	3.621	8.502	-4.278	4.086
84	226	142	34.793	5.035	8.744	-4.038	2.921
84	227	143	39.474	3.390	8.991	-3.773	4.812
84	228	144	42.733	4.813	9.234	-3.506	3.638
84	229	145	47.608	3.195	9.480	-3.205	5.502
84	230	146	51.043	4.636	9.724	-2.892	4.311
84	231	147	56.064	3.050	9.970	-2.541	6.144
84	232	148	59.638	4.497	10.214	-2.190	4.947
84	233	149	64.816	2.893	10.461	-1.850	6.797
84	234	150	68.652	4.235	10.705	-1.621	5.705
84	235	151	74.287	2.436	10.953	-1.580	7.751
84	236	152	78.856	3.501	11.197	-1.822	6.937
84	237	153	85.357	1.571	11.445	-2.189	9.115
84	238	154	90.701	2.727	11.690	-2.472	8.210
84	239	155	97.816	0.956	11.938	-2.588	10.229
84	240	156	103.654	2.233	12.184	-2.589	9.203
84	241	157	111.135	0.590	12.432	-2.454	11.094
84	242	158	117.256	1.950	12.678	-2.243	9.986
84	243	159	124.964	0.362	12.927	-1.971	11.822
84	244	160	131.301	1.735	13.173	-1.691	10.702
84	245	161	139.218	0.154	13.423	-1.399	12.532
84	246	162	145.777	1.511	13.670	-1.126	11.427
84	247	163	153.924	-0.076	13.920	-0.854	13.264
84	248	164	160.732	1.263	14.167	-0.606	12.178
84	249	165	169.134	-0.330	14.417	-0.357	14.021
85	198	113	-7.291	8.305	0.270	-8.915	-6.015
85	199	114	-9.026	9.806	0.514	-8.711	-7.272

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
85	200	115	-9.002	8.047	0.763	-8.475	-5.274
85	201	116	-10.489	9.558	1.007	-8.239	-6.541
85	202	117	-10.249	7.830	1.255	-7.962	-4.573
85	203	118	-11.540	9.362	1.499	-7.674	-5.861
85	204	119	-11.147	7.678	1.748	-7.333	-3.937
85	205	120	-12.318	9.242	1.992	-6.968	-5.258
85	206	121	-11.851	7.604	2.240	-6.549	-3.380
85	207	122	-12.960	9.179	2.484	-6.127	-4.711
85	208	123	-12.400	7.511	2.732	-5.728	-2.803
85	209	124	-13.256	8.928	2.977	-5.495	-3.975
85	210	125	-12.148	6.963	3.225	-5.550	-1.770
85	211	126	-12.045	7.968	3.469	-6.025	-2.531
85	212	127	-9.118	5.143	3.717	-7.351	0.534
85	213	128	-6.764	5.717	3.962	-9.117	0.204
85	214	129	-2.842	4.149	4.210	-9.618	2.013
85	215	130	-0.774	6.003	4.455	-8.847	0.404
85	216	131	2.664	4.633	4.703	-7.870	2.014
85	217	132	4.452	6.283	4.948	-7.104	0.609
85	218	133	7.805	4.719	5.197	-6.525	2.414
85	219	134	9.652	6.224	5.442	-6.098	1.153
85	220	135	13.141	4.582	5.690	-5.741	3.036
85	221	136	15.183	6.029	5.935	-5.450	1.835
85	222	137	18.891	4.363	6.184	-5.174	3.741
85	223	138	21.177	5.785	6.430	-4.931	2.565
85	224	139	25.130	4.118	6.679	-4.682	4.474
85	225	140	27.672	5.529	6.924	-4.451	3.308
85	226	141	31.873	3.870	7.174	-4.204	5.209
85	227	142	34.663	5.281	7.420	-3.964	4.044
85	228	143	39.094	3.639	7.669	-3.699	5.928
85	229	144	42.106	5.059	7.915	-3.433	4.754
85	230	145	46.732	3.445	8.165	-3.131	6.611
85	231	146	49.921	4.883	8.411	-2.818	5.419
85	232	147	54.692	3.300	8.661	-2.467	7.245
85	233	148	58.019	4.744	8.908	-2.117	6.048
85	234	149	62.947	3.143	9.159	-1.776	7.892
85	235	150	66.535	4.483	9.406	-1.547	6.800
85	236	151	71.919	2.687	9.656	-1.506	8.839
85	237	152	76.241	3.749	9.904	-1.748	8.024
85	238	153	82.491	1.822	10.155	-2.115	10.196
85	239	154	87.587	2.975	10.403	-2.397	9.290
85	240	155	94.451	1.207	10.654	-2.513	11.303
85	241	156	100.041	2.481	10.902	-2.514	10.276
85	242	157	107.270	0.842	11.154	-2.379	12.161
85	243	158	113.142	2.199	11.403	-2.168	11.053
85	244	159	120.599	0.614	11.655	-1.896	12.883
85	245	160	126.686	1.984	11.904	-1.616	11.762
85	246	161	134.350	0.406	12.156	-1.323	13.586
85	247	162	140.660	1.761	12.406	-1.050	12.481
85	248	163	148.554	0.177	12.659	-0.778	14.311
85	249	164	155.112	1.513	12.909	-0.529	13.225
85	250	165	163.260	-0.077	13.162	-0.280	15.062
85	251	166	170.088	1.243	13.413	-0.053	13.992
85	252	167	178.509	-0.350	13.667	0.178	15.832

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
86	195	109	4.296	9.131	0.784	-9.131	-9.814
86	196	110	1.740	10.626	1.024	-8.961	-11.061
86	197	111	0.979	8.832	1.268	-8.768	-9.023
86	198	112	-1.276	10.326	1.508	-8.584	-10.270
86	199	113	-1.754	8.549	1.752	-8.375	-8.249
86	200	114	-3.728	10.046	1.991	-8.171	-9.499
86	201	115	-3.948	8.291	2.235	-7.936	-7.500
86	202	116	-5.675	9.798	2.475	-7.700	-8.760
86	203	117	-5.678	8.074	2.719	-7.425	-6.793
86	204	118	-7.209	9.602	2.959	-7.137	-8.073
86	205	119	-7.060	7.922	3.203	-6.797	-6.149
86	206	120	-8.471	9.482	3.443	-6.433	-7.462
86	207	121	-8.249	7.848	3.686	-6.014	-5.585
86	208	122	-9.597	9.420	3.927	-5.593	-6.909
86	209	123	-9.281	7.755	4.170	-5.194	-5.001
86	210	124	-10.378	9.168	4.411	-4.961	-6.166
86	211	125	-9.514	7.207	4.655	-5.018	-3.961
86	212	126	-9.652	8.209	4.895	-5.492	-4.715
86	213	127	-6.968	5.388	5.139	-6.819	-1.651
86	214	128	-4.855	5.958	5.380	-8.585	-1.973
86	215	129	-1.178	4.394	5.624	-9.087	-0.165
86	216	130	0.650	6.243	5.865	-8.316	-1.767
86	217	131	3.843	4.878	6.109	-7.339	-0.157
86	218	132	5.391	6.524	6.350	-6.574	-1.555
86	219	133	8.499	4.963	6.595	-5.995	0.249
86	220	134	10.105	6.465	6.836	-5.568	-1.004
86	221	135	13.349	4.827	7.081	-5.211	0.878
86	222	136	15.150	6.270	7.323	-4.920	-0.317
86	223	137	18.612	4.609	7.568	-4.645	1.590
86	224	138	20.656	6.027	7.810	-4.401	0.419
86	225	139	24.364	4.363	8.055	-4.153	2.329
86	226	140	26.664	5.771	8.297	-3.921	1.169
86	227	141	30.619	4.116	8.543	-3.674	3.070
86	228	142	33.167	5.523	8.785	-3.435	1.911
86	229	143	37.352	3.885	9.031	-3.170	3.795
86	230	144	40.122	5.302	9.274	-2.903	2.627
86	231	145	44.501	3.691	9.520	-2.602	4.484
86	232	146	47.446	5.126	9.763	-2.289	3.298
86	233	147	51.971	3.546	10.010	-1.938	5.124
86	234	148	55.055	4.987	10.253	-1.587	3.933
86	235	149	59.736	3.390	10.500	-1.247	5.777
86	236	150	63.080	4.726	10.744	-1.017	4.690
86	237	151	68.217	2.934	10.991	-0.976	6.729
86	238	152	72.295	3.993	11.236	-1.218	5.921
86	239	153	78.297	2.069	11.483	-1.585	8.092
86	240	154	83.148	3.220	11.728	-1.867	7.192
86	241	155	89.764	1.455	11.976	-1.982	9.205
86	242	156	95.108	2.727	12.221	-1.983	8.184
86	243	157	102.089	1.090	12.470	-1.848	10.068
86	244	158	107.716	2.444	12.715	-1.637	8.966
86	245	159	114.923	0.863	12.964	-1.364	10.795
86	246	160	120.764	2.230	13.210	-1.084	9.680
86	247	161	128.180	0.656	13.460	-0.790	11.504
86	248	162	134.243	2.008	13.706	-0.518	10.404
86	249	163	141.888	0.427	13.956	-0.245	12.234

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
86	250	164	148.198	1.760	14.203	0.004	11.154
86	251	165	156.096	0.173	14.453	0.253	12.990
86	252	166	162.676	1.491	14.701	0.481	11.926
86	253	167	170.846	-0.099	14.952	0.713	13.766
87	203	116	1.114	10.041	0.500	-7.715	-7.820
87	204	117	0.864	8.322	0.747	-7.441	-5.862
87	205	118	-0.911	9.845	0.990	-7.153	-7.143
87	206	119	-1.009	8.169	1.238	-6.815	-5.227
87	207	120	-2.664	9.726	1.481	-6.451	-6.541
87	208	121	-2.689	8.096	1.729	-6.033	-4.671
87	209	122	-4.281	9.663	1.972	-5.612	-5.995
87	210	123	-4.212	8.003	2.220	-5.214	-4.095
87	211	124	-5.553	9.411	2.464	-4.982	-5.261
87	212	125	-4.936	7.454	2.711	-5.039	-3.064
87	213	126	-5.317	8.452	2.955	-5.514	-3.819
87	214	127	-2.882	5.635	3.203	-6.841	-0.762
87	215	128	-1.013	6.202	3.447	-8.608	-1.085
87	216	129	2.417	4.641	3.694	-9.110	0.716
87	217	130	4.001	6.488	3.938	-8.340	-0.887
87	218	131	6.946	5.125	4.186	-7.363	0.716
87	219	132	8.249	6.768	4.431	-6.598	-0.683
87	220	133	11.109	5.211	4.679	-6.020	1.114
87	221	134	12.470	6.709	4.923	-5.593	-0.139
87	222	135	15.466	5.075	5.171	-5.237	1.736
87	223	136	17.022	6.515	5.416	-4.945	0.540
87	224	137	20.236	4.857	5.665	-4.670	2.439
87	225	138	22.035	6.272	5.910	-4.427	1.269
87	226	139	25.495	4.612	6.158	-4.179	3.171
87	227	140	27.549	6.017	6.403	-3.948	2.011
87	228	141	31.256	4.364	6.652	-3.701	3.905
87	229	142	33.558	5.769	6.898	-3.461	2.746
87	230	143	37.494	4.134	7.147	-3.197	4.622
87	231	144	40.018	5.548	7.393	-2.930	3.454
87	232	145	44.148	3.940	7.642	-2.629	5.304
87	233	146	46.847	5.372	7.888	-2.316	4.118
87	234	147	51.122	3.796	8.138	-1.964	5.937
87	235	148	53.959	5.234	8.385	-1.614	4.746
87	236	149	58.390	3.640	8.635	-1.273	6.583
87	237	150	61.488	4.973	8.882	-1.044	5.496
87	238	151	66.374	3.184	9.132	-1.002	7.529
87	239	152	70.205	4.241	9.379	-1.244	6.720
87	240	153	75.956	2.320	9.630	-1.611	8.884
87	241	154	80.559	3.467	9.878	-1.893	7.984
87	242	155	86.924	1.706	10.129	-2.009	9.990
87	243	156	92.021	2.975	10.377	-2.009	8.969
87	244	157	98.750	1.342	10.628	-1.874	10.847
87	245	158	104.128	2.693	10.877	-1.662	9.744
87	246	159	111.084	1.115	11.129	-1.389	11.568
87	247	160	116.676	2.479	11.378	-1.109	10.452
87	248	161	123.839	0.908	11.630	-0.816	12.270
87	249	162	129.653	2.257	11.879	-0.542	11.169
87	250	163	137.045	0.679	12.132	-0.269	12.994
87	251	164	143.106	2.010	12.382	-0.020	11.912

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
87	252	165	150.750	0.426	12.635	0.229	13.743
87	253	166	157.080	1.741	12.885	0.458	12.678
87	254	167	164.996	0.155	13.139	0.689	14.512
87	255	168	171.610	1.457	13.390	0.903	13.461
87	256	169	179.811	-0.130	13.644	1.122	15.296
88	200	112	13.071	10.808	0.714	-8.905	-11.654
88	201	113	12.102	9.039	0.957	-8.698	-9.642
88	202	114	9.645	10.528	1.196	-8.496	-10.885
88	203	115	8.935	8.781	1.439	-8.263	-8.895
88	204	116	6.725	10.280	1.678	-8.029	-10.148
88	205	117	6.232	8.565	1.921	-7.755	-8.189
88	206	118	4.218	10.085	2.160	-7.468	-9.463
88	207	119	3.877	8.412	2.403	-7.130	-7.548
88	208	120	1.983	9.965	2.642	-6.767	-8.854
88	209	121	1.715	8.339	2.886	-6.350	-6.985
88	210	122	-0.117	9.903	3.125	-5.929	-8.302
88	211	123	-0.292	8.246	3.369	-5.532	-6.402
88	212	124	-1.872	9.651	3.608	-5.300	-7.561
88	213	125	-1.499	7.698	3.852	-5.358	-5.364
88	214	126	-2.120	8.692	4.091	-5.833	-6.112
88	215	127	0.072	5.879	4.335	-7.161	-3.055
88	216	128	1.701	6.442	4.575	-8.928	-3.371
88	217	129	4.887	4.885	4.819	-9.430	-1.571
88	218	130	6.230	6.728	5.059	-8.660	-3.167
88	219	131	8.932	5.369	5.303	-7.684	-1.565
88	220	132	9.994	7.008	5.544	-6.919	-2.957
88	221	133	12.610	5.456	5.788	-6.341	-1.160
88	222	134	13.731	6.950	6.029	-5.915	-2.407
88	223	135	16.482	5.320	6.273	-5.559	-0.532
88	224	136	17.797	6.756	6.514	-5.267	-1.721
88	225	137	20.766	5.102	6.759	-4.993	0.178
88	226	138	22.324	6.514	7.001	-4.749	-0.986
88	227	139	25.538	4.857	7.246	-4.501	0.915
88	228	140	27.351	6.258	7.487	-4.270	-0.238
88	229	141	30.812	4.610	7.733	-4.023	1.655
88	230	142	32.872	6.011	7.975	-3.783	0.502
88	231	143	36.563	4.380	8.220	-3.519	2.379
88	232	144	38.844	5.790	8.463	-3.252	1.217
88	233	145	42.729	4.186	8.709	-2.951	3.066
88	234	146	45.185	5.615	8.951	-2.638	1.887
88	235	147	49.213	4.042	9.198	-2.287	3.705
88	236	148	51.807	5.477	9.441	-1.936	2.520
88	237	149	55.992	3.887	9.688	-1.595	4.357
88	238	150	58.845	5.217	9.931	-1.366	3.276
88	239	151	63.485	3.431	10.178	-1.324	5.308
88	240	152	67.071	4.485	10.422	-1.566	4.505
88	241	153	72.575	2.567	10.670	-1.933	6.669
88	242	154	76.934	3.712	10.914	-2.214	5.775
88	243	155	83.051	1.954	11.162	-2.330	7.781
88	244	156	87.903	3.220	11.407	-2.330	6.765
88	245	157	94.384	1.590	11.655	-2.195	8.643
88	246	158	99.516	2.938	11.901	-1.983	7.546
88	247	159	106.224	1.364	12.149	-1.710	9.369

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
88	248	160	111.570	2.725	12.395	-1.429	8.259
88	249	161	118.484	1.157	12.644	-1.135	10.076
88	250	162	124.051	2.504	12.891	-0.862	8.981
88	251	163	131.193	0.929	13.140	-0.588	10.805
88	252	164	137.007	2.257	13.387	-0.339	9.729
88	253	165	144.402	0.677	13.637	-0.089	11.559
88	254	166	150.484	1.989	13.885	0.139	10.500
88	255	167	158.150	0.405	14.136	0.371	12.334
88	256	168	164.516	1.705	14.384	0.585	11.288
88	257	169	172.466	0.121	14.635	0.805	13.122
88	258	170	179.127	1.410	14.883	1.009	12.087
88	259	171	187.370	-0.172	15.135	1.221	13.920
89	208	119	10.837	8.659	0.329	-7.548	-6.685
89	209	120	8.700	10.208	0.572	-7.186	-7.992
89	210	121	8.185	8.586	0.819	-6.769	-6.131
89	211	122	6.111	10.146	1.062	-6.349	-7.449
89	212	123	5.689	8.493	1.308	-5.952	-5.557
89	213	124	3.866	9.894	1.551	-5.721	-6.716
89	214	125	3.992	7.945	1.798	-5.779	-4.527
89	215	126	3.128	8.936	2.041	-6.255	-5.275
89	216	127	5.073	6.126	2.288	-7.584	-2.226
89	217	128	6.458	6.685	2.532	-9.351	-2.543
89	218	129	9.397	5.132	2.779	-9.854	-0.750
89	219	130	10.497	6.971	3.023	-9.084	-2.346
89	220	131	12.951	5.617	3.270	-8.109	-0.752
89	221	132	13.770	7.252	3.514	-7.344	-2.144
89	222	133	16.138	5.703	3.761	-6.767	-0.354
89	223	134	17.014	7.194	4.005	-6.340	-1.602
89	224	135	19.518	5.567	4.253	-5.984	0.266
89	225	136	20.589	7.000	4.497	-5.693	-0.924
89	226	137	23.310	5.350	4.745	-5.419	0.968
89	227	138	24.623	6.758	4.990	-5.176	-0.196
89	228	139	27.589	5.105	5.238	-4.928	1.698
89	229	140	29.157	6.503	5.483	-4.697	0.544
89	230	141	32.370	4.858	5.731	-4.450	2.431
89	231	142	34.185	6.256	5.976	-4.210	1.277
89	232	143	37.627	4.629	6.225	-3.946	3.147
89	233	144	39.662	6.036	6.471	-3.680	1.985
89	234	145	43.298	4.435	6.720	-3.378	3.827
89	235	146	45.508	5.861	6.966	-3.065	2.647
89	236	147	49.287	4.292	7.215	-2.714	4.459
89	237	148	51.635	5.723	7.461	-2.363	3.273
89	238	149	55.570	4.136	7.711	-2.023	5.103
89	239	150	58.177	5.464	7.957	-1.793	4.022
89	240	151	62.567	3.681	8.207	-1.752	6.048
89	241	152	65.906	4.732	8.454	-1.993	5.244
89	242	153	71.159	2.818	8.705	-2.360	7.402
89	243	154	75.271	3.959	8.952	-2.641	6.508
89	244	155	81.137	2.204	9.203	-2.757	8.507
89	245	156	85.741	3.468	9.451	-2.757	7.491
89	246	157	91.971	1.841	9.702	-2.621	9.362
89	247	158	96.855	3.187	9.950	-2.409	8.265
89	248	159	103.311	1.615	10.202	-2.136	10.082

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BE1A-
89	249	160	108.408	2.974	10.451	-1.855	8.971
89	250	161	115.070	1.409	10.703	-1.561	10.782
89	251	162	120.388	2.753	10.952	-1.287	9.687
89	252	163	127.278	1.181	11.204	-1.014	11.505
89	253	164	132.842	2.507	11.454	-0.764	10.429
89	254	165	139.984	0.929	11.707	-0.514	12.253
89	255	166	145.816	2.239	11.957	-0.285	11.193
89	256	167	153.228	0.659	12.210	-0.053	13.021
89	257	168	159.344	1.955	12.461	0.161	11.974
89	258	169	167.040	0.375	12.715	0.381	13.803
89	259	170	173.450	1.661	12.966	0.586	12.767
89	260	171	181.439	0.082	13.220	0.798	14.595
89	261	172	188.150	1.360	13.472	0.996	13.569
89	262	173	196.438	-0.217	13.727	1.203	15.394
90	205	115	23.690	9.270	0.472	-9.162	-10.368
90	206	116	20.999	10.761	0.711	-8.929	-11.614
90	207	117	20.017	9.053	0.953	-8.657	-9.664
90	208	118	17.522	10.566	1.191	-8.372	-10.931
90	209	119	16.692	8.901	1.434	-8.035	-9.024
90	210	120	14.316	10.446	1.672	-7.673	-10.324
90	211	121	13.559	8.828	1.915	-7.257	-8.463
90	212	122	11.246	10.384	2.154	-6.838	-9.774
90	213	123	10.581	8.735	2.396	-6.442	-7.882
90	214	124	8.519	10.133	2.636	-6.211	-9.034
90	215	125	8.403	8.187	2.878	-6.270	-6.846
90	216	126	7.299	9.175	3.118	-6.746	-7.587
90	217	127	9.001	6.369	3.361	-8.075	-4.539
90	218	128	10.147	6.925	3.600	-9.842	-4.848
90	219	129	12.843	5.376	3.843	-10.346	-3.056
90	220	130	13.703	7.211	4.083	-9.576	-4.645
90	221	131	15.913	5.860	4.327	-8.601	-3.051
90	222	132	16.492	7.492	4.567	-7.837	-4.437
90	223	133	18.616	5.947	4.810	-7.259	-2.648
90	224	134	19.252	7.435	5.051	-6.833	-3.889
90	225	135	21.512	5.811	5.295	-6.477	-2.022
90	226	136	22.342	7.241	5.536	-6.187	-3.205
90	227	137	24.819	5.594	5.780	-5.912	-1.313
90	228	138	25.891	6.999	6.021	-5.669	-2.471
90	229	139	28.613	5.349	6.265	-5.422	-0.577
90	230	140	29.939	6.745	6.507	-5.191	-1.725
90	231	141	32.907	5.103	6.752	-4.944	0.161
90	232	142	34.480	6.498	6.993	-4.704	-0.986
90	233	143	37.678	4.874	7.239	-4.440	0.883
90	234	144	39.471	6.278	7.481	-4.173	-0.273
90	235	145	42.861	4.681	7.726	-3.872	1.569
90	236	146	44.828	6.104	7.969	-3.559	0.395
90	237	147	48.362	4.537	8.215	-3.208	2.207
90	238	148	50.466	5.966	8.458	-2.857	1.027
90	239	149	54.155	4.383	8.704	-2.517	2.857
90	240	150	56.519	5.707	8.947	-2.286	1.781
90	241	151	60.662	3.928	9.194	-2.245	3.807
90	242	152	63.757	4.976	9.438	-2.486	3.009
90	243	153	68.763	3.065	9.685	-2.853	5.166

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
90	244	154	72.631	4.204	9.929	-3.134	4.277
90	245	155	78.250	2.452	10.177	-3.250	6.276
90	246	156	82.608	3.712	10.422	-3.249	5.266
90	247	157	88.590	2.089	10.670	-3.114	7.137
90	248	158	93.229	3.432	10.915	-2.902	6.045
90	249	159	99.437	1.864	11.163	-2.628	7.862
90	250	160	104.288	3.220	11.409	-2.347	6.757
90	251	161	110.701	1.658	11.658	-2.053	8.567
90	252	162	115.773	2.999	11.904	-1.779	7.478
90	253	163	122.413	1.431	12.154	-1.505	9.295
90	254	164	127.731	2.754	12.400	-1.255	8.224
90	255	165	134.623	1.179	12.650	-1.004	10.048
90	256	166	140.207	2.486	12.897	-0.775	8.994
90	257	167	147.369	0.909	13.148	-0.543	10.821
90	258	168	153.237	2.203	13.396	-0.328	9.780
90	259	169	160.682	0.626	13.647	-0.108	11.608
90	260	170	166.844	1.910	13.895	0.097	10.577
90	261	171	174.581	0.334	14.146	0.310	12.405
90	262	172	181.044	1.609	14.395	0.508	11.384
90	263	173	189.079	0.035	14.647	0.716	13.209
90	264	174	195.848	1.302	14.897	0.910	12.196
90	265	175	204.187	-0.268	15.149	1.114	14.018
91	214	123	17.553	8.981	0.317	-6.943	-7.059
91	215	124	15.249	10.376	0.559	-6.713	-8.211
91	216	125	14.886	8.434	0.806	-6.772	-6.030
91	217	126	13.540	9.417	1.048	-7.249	-6.772
91	218	127	14.996	6.615	1.294	-8.579	-3.731
91	219	128	15.899	7.168	1.537	-10.346	-4.041
91	220	129	18.348	5.622	1.784	-10.850	-2.257
91	221	130	18.965	7.454	2.027	-10.081	-3.846
91	222	131	20.929	6.107	2.274	-9.107	-2.260
91	223	132	21.264	7.736	2.517	-8.342	-3.646
91	224	133	23.141	6.194	2.764	-7.765	-1.864
91	225	134	23.534	7.678	3.007	-7.339	-3.105
91	226	135	25.547	6.058	3.254	-6.984	-1.245
91	227	136	26.133	7.485	3.498	-6.693	-2.429
91	228	137	28.363	5.841	3.746	-6.420	-0.545
91	229	138	29.190	7.243	3.990	-6.177	-1.703
91	230	139	31.664	5.597	4.238	-5.929	0.184
91	231	140	32.746	6.989	4.482	-5.698	-0.964
91	232	141	35.466	5.351	4.730	-5.452	0.915
91	233	142	36.794	6.743	4.975	-5.212	-0.232
91	234	143	39.743	5.122	5.223	-4.949	1.630
91	235	144	41.291	6.523	5.468	-4.682	0.474
91	236	145	44.433	4.929	5.717	-4.381	2.309
91	237	146	46.155	6.349	5.962	-4.067	1.135
91	238	147	49.439	4.786	6.211	-3.716	2.940
91	239	148	51.298	6.212	6.457	-3.365	1.759
91	240	149	54.737	4.632	6.706	-3.025	3.582
91	241	150	56.855	5.953	6.953	-2.795	2.507
91	242	151	60.748	4.178	7.202	-2.753	4.525
91	243	152	63.597	5.222	7.449	-2.995	3.727
91	244	153	68.353	3.315	7.699	-3.361	5.878

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTCN	ALPHA	Q BETA-
91	245	154	71.973	4.451	7.946	-3.642	4.989
91	246	155	77.342	2.702	8.197	-3.758	6.982
91	247	156	81.453	3.960	8.444	-3.757	5.971
91	248	157	87.184	2.340	8.695	-3.622	7.836
91	249	158	91.575	3.680	8.943	-3.409	6.743
91	250	159	97.531	2.115	9.194	-3.135	8.553
91	251	160	102.134	3.468	9.443	-2.854	7.448
91	252	161	108.296	1.909	9.695	-2.560	9.253
91	253	162	113.119	3.248	9.944	-2.286	8.162
91	254	163	119.507	1.683	10.196	-2.012	9.974
91	255	164	124.575	3.003	10.445	-1.761	8.903
91	256	165	131.214	1.432	10.698	-1.511	10.720
91	257	166	136.548	2.736	10.948	-1.281	9.666
91	258	167	143.457	1.162	11.201	-1.049	11.487
91	259	168	149.075	2.454	11.451	-0.834	10.445
91	260	169	156.266	0.879	11.705	-0.613	12.268
91	261	170	162.177	2.161	11.956	-0.408	11.237
91	262	171	169.660	0.588	12.210	-0.195	13.058
91	263	172	175.871	1.860	12.462	0.004	12.037
91	264	173	183.652	0.290	12.716	0.211	13.856
91	265	174	190.169	1.554	12.968	0.406	12.843
91	266	175	198.252	-0.013	13.224	0.610	14.660
92	211	119	31.506	9.389	0.423	-9.064	-10.524
92	212	120	28.651	10.926	0.661	-8.704	-11.816
92	213	121	27.406	9.316	0.903	-8.289	-9.965
92	214	122	24.612	10.865	1.141	-7.871	-11.268
92	215	123	23.460	9.223	1.383	-7.476	-9.385
92	216	124	20.917	10.614	1.621	-7.246	-10.531
92	217	125	20.312	8.676	1.863	-7.306	-8.351
92	218	126	18.727	9.656	2.102	-7.783	-9.086
92	219	127	19.940	6.858	2.344	-9.113	-6.045
92	220	128	20.605	7.407	2.583	-10.881	-6.349
92	221	129	22.811	5.865	2.826	-11.385	-4.565
92	222	130	23.188	7.694	3.065	-10.616	-6.148
92	223	131	24.910	6.350	3.308	-9.642	-4.561
92	224	132	25.005	7.975	3.548	-8.878	-5.941
92	225	133	26.640	6.437	3.791	-8.301	-4.160
92	226	134	26.792	7.918	4.031	-7.875	-5.395
92	227	135	28.562	6.302	4.274	-7.520	-3.535
92	228	136	28.907	7.725	4.515	-7.230	-4.712
92	229	137	30.893	6.085	4.758	-6.956	-2.828
92	230	138	31.480	7.484	4.999	-6.713	-3.981
92	231	139	33.710	5.841	5.243	-6.466	-2.094
92	232	140	34.551	7.230	5.484	-6.235	-3.236
92	233	141	37.027	5.595	5.729	-5.989	-1.357
92	234	142	38.114	6.984	5.970	-5.749	-2.499
92	235	143	40.818	5.367	6.215	-5.485	-0.637
92	236	144	42.124	6.765	6.456	-5.219	-1.787
92	237	145	45.020	5.175	6.702	-4.918	0.048
92	238	146	46.500	6.591	6.944	-4.604	-1.121
92	239	147	49.539	5.032	7.189	-4.253	0.684
92	240	148	51.155	6.455	7.432	-3.902	-0.490
92	241	149	54.348	4.878	7.678	-3.562	1.332

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
92	242	150	56.223	6.197	7.921	-3.331	0.262
92	243	151	59.870	4.424	8.167	-3.290	2.281
92	244	152	62.475	5.466	8.411	-3.531	1.488
92	245	153	66.984	3.562	8.658	-3.898	3.639
92	246	154	70.360	4.695	8.902	-4.178	2.755
92	247	155	75.482	2.950	9.149	-4.294	4.747
92	248	156	79.348	4.205	9.394	-4.293	3.742
92	249	157	84.832	2.588	9.641	-4.157	5.607
92	250	158	88.978	3.925	9.886	-3.945	4.520
92	251	159	94.686	2.363	10.134	-3.671	6.330
92	252	160	99.043	3.714	10.380	-3.389	5.230
92	253	161	104.956	2.158	10.629	-3.095	7.034
92	254	162	109.533	3.494	10.875	-2.820	5.949
92	255	163	115.672	1.932	11.124	-2.546	7.760
92	256	164	120.493	3.250	11.370	-2.295	6.694
92	257	165	126.883	1.682	11.620	-2.044	8.511
92	258	166	131.970	2.983	11.867	-1.815	7.462
92	259	167	138.629	1.412	12.117	-1.582	9.283
92	260	168	143.999	2.701	12.365	-1.366	8.246
92	261	169	150.940	1.130	12.616	-1.145	10.068
92	262	170	156.602	2.409	12.864	-0.940	9.043
92	263	171	163.834	0.839	13.115	-0.727	10.863
92	264	172	169.796	2.109	13.364	-0.527	9.847
92	265	173	177.326	0.541	13.616	-0.320	11.666
92	266	174	183.593	1.804	13.865	-0.124	10.658
92	267	175	191.424	0.240	14.117	0.080	12.474
92	268	176	198.000	1.495	14.367	0.273	11.474
92	269	177	206.137	-0.065	14.620	0.475	13.286
93	220	127	26.953	7.103	0.276	-9.642	-5.251
93	221	128	27.376	7.649	0.518	-11.411	-5.555
93	222	129	29.336	6.111	0.764	-11.915	-3.778
93	223	130	29.471	7.936	1.006	-11.147	-5.361
93	224	131	30.946	6.596	1.252	-10.173	-3.783
93	225	132	30.799	8.218	1.495	-9.409	-5.162
93	226	133	32.187	6.683	1.742	-8.833	-3.388
93	227	134	32.097	8.161	1.985	-8.408	-4.624
93	228	135	33.619	6.548	2.231	-8.053	-2.772
93	229	136	33.722	7.969	2.475	-7.763	-3.949
93	230	137	35.461	6.332	2.721	-7.489	-2.072
93	231	138	35.804	7.728	2.965	-7.246	-3.225
93	232	139	37.787	6.088	3.212	-6.999	-1.345
93	233	140	38.384	7.474	3.456	-6.769	-2.488
93	234	141	40.612	5.843	3.704	-6.523	-0.616
93	235	142	41.454	7.229	3.948	-6.283	-1.758
93	236	143	43.911	5.615	4.196	-6.020	0.098
93	237	144	44.972	7.010	4.441	-5.753	-1.053
93	238	145	47.620	5.423	4.689	-5.452	0.775
93	239	146	48.855	6.836	4.934	-5.139	-0.394
93	240	147	51.646	5.280	5.182	-4.788	1.404
93	241	148	53.016	6.700	5.428	-4.436	0.229
93	242	149	55.960	5.127	5.677	-4.096	2.045
93	243	150	57.589	6.443	5.923	-3.866	0.975
93	244	151	60.987	4.673	6.172	-3.824	2.987

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
93	245	152	63.345	5.712	6.418	-4.065	2.194
93	246	153	67.605	3.811	6.668	-4.432	4.338
93	247	154	70.734	4.942	6.915	-4.713	3.454
93	248	155	75.606	3.200	7.165	-4.828	5.440
93	249	156	79.225	4.452	7.412	-4.827	4.435
93	250	157	84.458	2.838	7.663	-4.691	6.293
93	251	158	88.356	4.173	7.911	-4.478	5.205
93	252	159	93.813	2.614	8.161	-4.204	7.009
93	253	160	97.922	3.962	8.410	-3.922	5.909
93	254	161	103.584	2.409	8.661	-3.628	7.707
93	255	162	107.912	3.743	8.910	-3.353	6.622
93	256	163	113.799	2.184	9.162	-3.079	8.426
93	257	164	118.371	3.499	9.411	-2.828	7.360
93	258	165	124.509	1.934	9.663	-2.577	9.172
93	259	166	129.346	3.233	9.913	-2.347	8.122
93	260	167	135.752	1.665	10.166	-2.114	9.937
93	261	168	140.872	2.952	10.416	-1.898	8.900
93	262	169	147.559	1.383	10.669	-1.677	10.716
93	263	170	152.971	2.660	10.920	-1.471	9.690
93	264	171	159.949	1.093	11.174	-1.258	11.505
93	265	172	165.660	2.360	11.425	-1.058	10.488
93	266	173	172.935	0.796	11.680	-0.850	12.301
93	267	174	178.950	2.056	11.932	-0.654	11.293
93	268	175	186.527	0.495	12.187	-0.450	13.103
93	269	176	192.850	1.747	12.439	-0.256	12.102
93	270	177	200.731	0.190	12.694	-0.054	13.910
93	271	178	207.366	1.436	12.947	0.138	12.916
93	272	179	215.554	-0.117	13.203	0.339	14.720
93	273	180	222.502	1.123	13.457	0.529	13.733
94	218	124	35.361	11.094	0.591	-8.324	-12.038
94	219	125	34.269	9.163	0.832	-8.385	-9.866
94	220	126	32.204	10.136	1.070	-8.862	-10.595
94	221	127	32.930	7.345	1.312	-10.193	-7.562
94	222	128	33.114	7.887	1.551	-11.962	-7.859
94	223	129	34.833	6.353	1.793	-12.467	-6.083
94	224	130	34.729	8.175	2.031	-11.699	-7.660
94	225	131	35.962	6.838	2.274	-10.726	-6.082
94	226	132	35.575	8.457	2.513	-9.962	-7.455
94	227	133	36.721	6.926	2.755	-9.386	-5.682
94	228	134	36.391	8.401	2.995	-8.961	-6.911
94	229	135	37.671	6.791	3.238	-8.606	-5.059
94	230	136	37.533	8.208	3.477	-8.316	-6.230
94	231	137	39.029	6.575	3.721	-8.043	-4.354
94	232	138	39.132	7.968	3.961	-7.800	-5.501
94	233	139	40.872	6.332	4.205	-7.553	-3.621
94	234	140	41.228	7.715	4.445	-7.323	-4.758
94	235	141	43.212	6.087	4.689	-7.077	-2.886
94	236	142	43.813	7.470	4.930	-6.837	-4.022
94	237	143	46.025	5.859	5.174	-6.574	-2.167
94	238	144	46.845	7.251	5.416	-6.307	-3.312
94	239	145	49.249	5.668	5.661	-6.006	-1.484
94	240	146	50.241	7.078	5.902	-5.693	-2.647
94	241	147	52.787	5.526	6.148	-5.342	-0.850

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
94	242	148	53.915	6.943	6.390	-4.990	-2.019
94	243	149	56.614	5.372	6.635	-4.650	-0.203
94	244	150	58.000	6.685	6.878	-4.420	-1.268
94	245	151	61.151	4.919	7.124	-4.378	0.744
94	246	152	63.267	5.956	7.367	-4.619	-0.044
94	247	153	67.280	4.058	7.614	-4.986	2.100
94	248	154	70.166	5.185	7.858	-5.266	1.221
94	249	155	74.790	3.446	8.105	-5.381	3.207
94	250	156	78.165	4.696	8.349	-5.380	2.207
94	251	157	83.151	3.085	8.596	-5.244	4.065
94	252	158	86.804	4.417	8.841	-5.031	2.983
94	253	159	92.013	2.862	9.089	-4.757	4.786
94	254	160	95.877	4.207	9.334	-4.475	3.691
94	255	161	101.291	2.658	9.582	-4.180	5.488
94	256	162	105.373	3.989	9.828	-3.905	4.409
94	257	163	111.011	2.433	10.077	-3.630	6.213
94	258	164	115.337	3.745	10.323	-3.379	5.152
94	259	165	121.225	2.183	10.573	-3.128	6.963
94	260	166	125.816	3.480	10.820	-2.897	5.918
94	261	167	131.972	1.915	11.069	-2.664	7.733
94	262	168	136.844	3.199	11.317	-2.448	6.701
94	263	169	143.281	1.634	11.567	-2.227	8.516
94	264	170	148.444	2.908	11.815	-2.021	7.496
94	265	171	155.172	1.344	12.066	-1.807	9.310
94	266	172	160.634	2.609	12.315	-1.607	8.298
94	267	173	167.657	1.047	12.566	-1.398	10.111
94	268	174	173.424	2.305	12.816	-1.202	9.108
94	269	175	180.748	0.747	13.068	-0.997	10.918
94	270	176	186.822	1.997	13.318	-0.804	9.922
94	271	177	194.450	0.443	13.570	-0.601	11.728
94	272	178	200.834	1.687	13.821	-0.409	10.739
94	273	179	208.769	0.136	14.074	-0.207	12.543
94	274	180	215.466	1.374	14.325	-0.017	11.561
94	275	181	223.709	-0.172	14.579	0.184	13.360
95	226	131	43.031	7.084	0.220	-11.270	-5.313
95	227	132	42.403	8.699	0.462	-10.506	-6.687
95	228	133	43.302	7.171	0.708	-9.931	-4.921
95	229	134	42.730	8.643	0.950	-9.506	-6.151
95	230	135	43.764	7.037	1.196	-9.152	-4.306
95	231	136	43.383	8.451	1.439	-8.862	-5.477
95	232	137	44.633	6.821	1.685	-8.589	-3.608
95	233	138	44.493	8.211	1.928	-8.346	-4.755
95	234	139	45.986	6.578	2.175	-8.100	-2.883
95	235	140	46.098	7.958	2.419	-7.869	-4.020
95	236	141	47.835	6.334	2.666	-7.623	-2.155
95	237	142	48.193	7.714	2.910	-7.384	-3.291
95	238	143	50.158	6.106	3.157	-7.121	-1.443
95	239	144	50.733	7.495	3.401	-6.854	-2.589
95	240	145	52.889	5.915	3.649	-6.553	-0.767
95	241	146	53.637	7.323	3.894	-6.240	-1.931
95	242	147	55.934	5.774	4.142	-5.889	-0.140
95	243	148	56.817	7.188	4.387	-5.538	-1.310
95	244	149	59.268	5.621	4.635	-5.197	0.500

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
95	245	150	60.408	6.931	4.881	-4.967	-0.565
95	246	151	63.311	5.168	5.130	-4.925	1.440
95	247	152	65.180	6.202	5.376	-5.166	0.652
95	248	153	68.944	4.307	5.625	-5.533	2.790
95	249	154	71.583	5.432	5.871	-5.813	1.911
95	250	155	75.958	3.696	6.121	-5.928	3.890
95	251	156	79.086	4.943	6.368	-5.927	2.889
95	252	157	83.822	3.336	6.618	-5.791	4.741
95	253	158	87.228	4.665	6.866	-5.578	3.659
95	254	159	92.186	3.112	7.116	-5.303	5.455
95	255	160	95.802	4.455	7.364	-5.021	4.360
95	256	161	100.964	2.909	7.615	-4.726	6.152
95	257	162	104.798	4.237	7.864	-4.451	5.071
95	258	163	110.185	2.684	8.115	-4.176	6.870
95	259	164	114.262	3.994	8.364	-3.925	5.808
95	260	165	119.898	2.435	8.616	-3.673	7.613
95	261	166	124.239	3.730	8.866	-3.443	6.568
95	262	167	130.143	2.167	9.118	-3.209	8.377
95	263	168	134.764	3.449	9.368	-2.993	7.345
95	264	169	140.949	1.887	9.621	-2.771	9.154
95	265	170	145.861	3.158	9.872	-2.565	8.133
95	266	171	152.335	1.597	10.125	-2.351	9.942
95	267	172	157.546	2.860	10.376	-2.151	8.930
95	268	173	164.316	1.301	10.630	-1.942	10.737
95	269	174	169.830	2.557	10.882	-1.746	9.733
95	270	175	176.900	1.001	11.137	-1.540	11.537
95	271	176	182.722	2.250	11.389	-1.346	10.541
95	272	177	190.095	0.698	11.644	-1.143	12.342
95	273	178	196.226	1.940	11.897	-0.951	11.353
95	274	179	203.905	0.392	12.153	-0.749	13.150
95	275	180	210.349	1.628	12.406	-0.558	12.168
95	276	181	218.336	0.084	12.662	-0.357	13.962
95	277	182	225.093	1.314	12.916	-0.166	12.986
95	278	183	233.390	-0.226	13.173	0.034	14.777
96	224	128	47.696	8.367	0.509	-13.067	-9.377
96	225	129	48.928	6.839	0.750	-13.573	-7.608
96	226	130	48.344	8.655	0.988	-12.805	-9.179
96	227	131	49.090	7.325	1.230	-11.832	-7.609
96	228	132	48.223	8.938	1.468	-11.069	-8.976
96	229	133	48.881	7.413	1.711	-10.494	-7.211
96	230	134	48.069	8.882	1.949	-10.069	-8.434
96	231	135	48.861	7.280	2.192	-9.715	-6.590
96	232	136	48.241	8.691	2.431	-9.425	-7.755
96	233	137	49.248	7.064	2.674	-9.152	-5.887
96	234	138	48.868	8.451	2.914	-8.910	-7.027
96	235	139	50.118	6.821	3.157	-8.664	-5.156
96	236	140	49.990	8.198	3.397	-8.433	-6.286
96	237	141	51.484	6.577	3.640	-8.187	-4.422
96	238	142	51.601	7.954	3.881	-7.948	-5.553
96	239	143	53.322	6.350	4.125	-7.685	-3.705
96	240	144	53.656	7.736	4.366	-7.418	-4.845
96	241	145	55.568	6.160	4.610	-7.117	-3.024
96	242	146	56.074	7.565	4.852	-6.804	-4.182

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
96	243	147	58.127	6.018	5.096	-6.453	-2.391
96	244	148	58.768	7.430	5.338	-6.102	-3.555
96	245	149	60.973	5.866	5.583	-5.761	-1.746
96	246	150	61.871	7.173	5.826	-5.531	-2.806
96	247	151	64.528	5.414	6.071	-5.489	-0.801
96	248	152	66.155	6.445	6.314	-5.730	-1.583
96	249	153	69.673	4.553	6.560	-6.096	0.554
96	250	154	72.068	5.675	6.804	-6.377	-0.320
96	251	155	76.197	3.943	7.050	-6.491	1.659
96	252	156	79.081	5.187	7.294	-6.490	0.664
96	253	157	83.569	3.583	7.541	-6.354	2.515
96	254	158	86.731	4.909	7.786	-6.141	1.438
96	255	159	91.442	3.360	8.033	-5.866	3.235
96	256	160	94.813	4.700	8.278	-5.583	2.145
96	257	161	99.727	3.157	8.526	-5.288	3.936
96	258	162	103.315	4.483	8.772	-5.013	2.860
96	259	163	108.454	2.933	9.020	-4.738	4.658
96	260	164	112.284	4.240	9.267	-4.486	3.602
96	261	165	117.671	2.684	9.516	-4.235	5.407
96	262	166	121.766	3.976	9.762	-4.004	4.367
96	263	167	127.420	2.417	10.012	-3.770	6.175
96	264	168	131.794	3.696	10.259	-3.554	5.148
96	265	169	137.728	2.137	10.509	-3.332	6.957
96	266	170	142.393	3.406	10.757	-3.125	5.940
96	267	171	148.617	1.848	11.008	-2.911	7.749
96	268	172	153.579	3.108	11.256	-2.710	6.742
96	269	173	160.098	1.553	11.507	-2.501	8.548
96	270	174	165.363	2.806	11.756	-2.304	7.549
96	271	175	172.181	1.253	12.008	-2.098	9.353
96	272	176	177.753	2.499	12.258	-1.904	8.361
96	273	177	184.874	0.950	12.510	-1.701	10.162
96	274	178	190.755	2.190	12.760	-1.508	9.177
96	275	179	198.181	0.645	13.013	-1.306	10.975
96	276	180	204.374	1.878	13.264	-1.114	9.997
96	277	181	212.107	0.338	13.518	-0.913	11.791
96	278	182	218.613	1.565	13.769	-0.722	10.819
96	279	183	226.655	0.029	14.023	-0.521	12.610
96	280	184	233.476	1.250	14.276	-0.330	11.644
96	281	185	241.829	-0.282	14.530	-0.130	13.431
97	232	135	55.997	7.525	0.153	-10.269	-5.846
97	233	136	55.135	8.933	0.396	-9.980	-7.012
97	234	137	55.896	7.310	0.641	-9.707	-5.150
97	235	138	55.273	8.693	0.884	-9.465	-6.291
97	236	139	56.277	7.068	1.130	-9.219	-4.426
97	237	140	55.906	8.442	1.373	-8.988	-5.558
97	238	141	57.154	6.824	1.620	-8.743	-3.700
97	239	142	57.027	8.198	1.863	-8.504	-4.831
97	240	143	58.501	6.597	2.110	-8.241	-2.990
97	241	144	58.592	7.980	2.354	-7.974	-4.130
97	242	145	60.256	6.407	2.601	-7.673	-2.316
97	243	146	60.518	7.809	2.845	-7.360	-3.474
97	244	147	62.323	6.266	3.093	-7.009	-1.690
97	245	148	62.720	7.675	3.338	-6.658	-2.855

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
97	246	149	64.677	6.114	3.585	-6.318	-1.052
97	247	150	65.329	7.418	3.831	-6.087	-2.112
97	248	151	67.738	5.662	4.079	-6.045	-0.114
97	249	152	69.119	6.690	4.325	-6.286	-0.897
97	250	153	72.388	4.802	4.574	-6.652	1.234
97	251	154	74.538	5.922	4.820	-6.933	0.360
97	252	155	78.417	4.192	5.069	-7.047	2.333
97	253	156	81.054	5.434	5.316	-7.046	1.337
97	254	157	85.293	3.832	5.565	-6.910	3.182
97	255	158	88.207	5.156	5.813	-6.696	2.105
97	256	159	92.668	3.610	6.063	-6.422	3.895
97	257	160	95.791	4.948	6.310	-6.139	2.805
97	258	161	100.455	3.408	6.561	-5.844	4.590
97	259	162	103.795	4.731	6.809	-5.568	3.514
97	260	163	108.682	3.184	7.060	-5.293	5.306
97	261	164	112.264	4.489	7.309	-5.041	4.250
97	262	165	117.399	2.936	7.561	-4.789	6.048
97	263	166	121.245	4.225	7.810	-4.558	5.008
97	264	167	126.647	2.669	8.062	-4.324	6.810
97	265	168	130.772	3.946	8.312	-4.107	5.783
97	266	169	136.453	2.390	8.565	-3.885	7.586
97	267	170	140.868	3.656	8.815	-3.678	6.569
97	268	171	146.838	2.101	9.068	-3.464	8.372
97	269	172	151.549	3.359	9.319	-3.263	7.364
97	270	173	157.814	1.806	9.573	-3.054	9.165
97	271	174	162.828	3.057	9.824	-2.857	8.166
97	272	175	169.392	1.507	10.078	-2.651	9.964
97	273	176	174.711	2.751	10.330	-2.456	8.972
97	274	177	181.577	1.205	10.585	-2.252	10.767
97	275	178	187.206	2.442	10.838	-2.059	9.782
97	276	179	194.377	0.900	11.093	-1.857	11.574
97	277	180	200.316	2.132	11.347	-1.665	10.596
97	278	181	207.793	0.594	11.603	-1.463	12.384
97	279	182	214.045	1.819	11.856	-1.272	11.412
97	280	183	221.831	0.285	12.113	-1.071	13.197
97	281	184	228.397	1.505	12.367	-0.879	12.232
97	282	185	236.493	-0.025	12.624	-0.679	14.013
98	230	132	62.963	9.417	0.417	-12.194	-10.503
98	231	133	63.134	7.900	0.659	-11.619	-8.745
98	232	134	61.842	9.362	0.897	-11.194	-9.963
98	233	135	62.146	7.767	1.139	-10.841	-8.126
98	234	136	61.046	9.172	1.378	-10.551	-9.286
98	235	137	61.565	7.552	1.620	-10.279	-7.424
98	236	138	60.703	8.933	1.859	-10.037	-8.560
98	237	139	61.464	7.310	2.102	-9.791	-6.695
98	238	140	60.854	8.681	2.342	-9.560	-7.821
98	239	141	61.858	7.067	2.585	-9.315	-5.964
98	240	142	61.491	8.438	2.825	-9.076	-7.089
98	241	143	62.722	6.840	3.068	-8.813	-5.248
98	242	144	62.572	8.221	3.309	-8.546	-6.383
98	243	145	63.992	6.651	3.553	-8.246	-4.569
98	244	146	64.013	8.050	3.794	-7.932	-5.722
98	245	147	65.574	6.510	4.038	-7.581	-3.938

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
98	246	148	65.729	7.916	4.279	-7.230	-5.097
98	247	149	67.442	6.359	4.524	-6.890	-3.295
98	248	150	67.852	7.661	4.766	-6.659	-4.350
98	249	151	70.016	5.907	5.012	-6.617	-2.352
98	250	152	71.154	6.933	5.254	-6.858	-3.129
98	251	153	74.177	5.048	5.500	-7.224	-0.998
98	252	154	76.084	6.165	5.743	-7.504	-1.867
98	253	155	79.717	4.438	5.989	-7.619	0.105
98	254	156	82.110	5.677	6.233	-7.617	-0.885
98	255	157	86.102	4.079	6.479	-7.481	0.959
98	256	158	88.773	5.401	6.723	-7.267	-0.113
98	257	159	92.986	3.857	6.971	-6.992	1.677
98	258	160	95.865	5.192	7.215	-6.709	0.592
98	259	161	100.281	3.655	7.463	-6.414	2.376
98	260	162	103.376	4.976	7.708	-6.138	1.306
98	261	163	108.015	3.432	7.957	-5.863	3.098
98	262	164	111.351	4.735	8.202	-5.611	2.046
98	263	165	116.237	3.185	8.451	-5.359	3.844
98	264	166	119.837	4.472	8.697	-5.127	2.808
98	265	167	124.989	2.919	8.947	-4.893	4.610
98	266	168	128.867	4.193	9.194	-4.676	3.588
98	267	169	134.298	2.639	9.444	-4.454	5.391
98	268	170	138.466	3.904	9.691	-4.246	4.379
98	269	171	144.185	2.352	9.942	-4.032	6.181
98	270	172	148.649	3.607	10.190	-3.830	5.178
98	271	173	154.662	2.057	10.441	-3.621	6.979
98	272	174	159.428	3.306	10.689	-3.423	5.984
98	273	175	165.740	1.759	10.941	-3.217	7.782
98	274	176	170.810	3.000	11.190	-3.022	6.794
98	275	177	177.424	1.457	11.442	-2.818	8.589
98	276	178	182.802	2.692	11.692	-2.625	7.609
98	277	179	189.720	1.153	11.945	-2.422	9.400
98	278	180	195.409	2.382	12.196	-2.229	8.426
98	279	181	202.633	0.847	12.449	-2.027	10.215
98	280	182	208.634	2.070	12.700	-1.836	9.247
98	281	183	216.166	0.539	12.954	-1.634	11.032
98	282	184	222.480	1.757	13.206	-1.443	10.070
98	283	185	230.321	0.230	13.461	-1.241	11.851
98	284	186	236.951	1.442	13.713	-1.050	10.896
98	285	187	245.102	-0.081	13.969	-0.849	12.674
99	238	139	68.674	7.556	0.078	-10.354	-5.975
99	239	140	67.822	8.924	0.321	-10.123	-7.101
99	240	141	68.580	7.313	0.567	-9.878	-5.250
99	241	142	67.970	8.681	0.810	-9.639	-6.376
99	242	143	68.955	7.087	1.056	-9.376	-4.542
99	243	144	68.561	8.464	1.300	-9.109	-5.677
99	244	145	69.735	6.897	1.546	-8.809	-3.870
99	245	146	69.512	8.294	1.790	-8.496	-5.023
99	246	147	70.826	6.757	2.037	-8.145	-3.246
99	247	148	70.737	8.160	2.282	-7.794	-4.405
99	248	149	72.202	6.606	2.529	-7.453	-2.610
99	249	150	72.367	7.905	2.774	-7.223	-3.665
99	250	151	74.283	6.155	3.022	-7.181	-1.673

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
99	251	152	75.176	7.178	3.267	-7.422	-2.451
99	252	153	77.951	5.296	3.515	-7.788	-0.327
99	253	154	79.612	6.410	3.761	-8.068	-1.196
99	254	155	82.996	4.687	4.010	-8.182	0.770
99	255	156	85.143	5.923	4.256	-8.180	-0.220
99	256	157	88.886	4.328	4.506	-8.044	1.618
99	257	158	91.309	5.647	4.752	-7.830	0.545
99	258	159	95.273	4.107	5.002	-7.555	2.329
99	259	160	97.905	5.440	5.250	-7.272	1.244
99	260	161	102.070	3.906	5.500	-6.977	3.022
99	261	162	104.917	5.224	5.748	-6.701	1.951
99	262	163	109.305	3.683	5.998	-6.425	3.737
99	263	164	112.393	4.983	6.247	-6.173	2.685
99	264	165	117.028	3.436	6.498	-5.921	4.477
99	265	166	120.379	4.721	6.747	-5.689	3.441
99	266	167	125.279	3.170	6.999	-5.455	5.238
99	267	168	128.908	4.443	7.248	-5.238	4.214
99	268	169	134.087	2.892	7.501	-5.015	6.012
99	269	170	138.004	4.154	7.751	-4.807	4.999
99	270	171	143.470	2.604	8.004	-4.592	6.796
99	271	172	147.683	3.858	8.254	-4.391	5.793
99	272	173	153.444	2.311	8.508	-4.181	7.588
99	273	174	157.958	3.557	8.759	-3.983	6.592
99	274	175	164.016	2.013	9.013	-3.777	8.385
99	275	176	168.835	3.252	9.265	-3.582	7.397
99	276	177	175.194	1.712	9.519	-3.377	9.186
99	277	178	180.320	2.945	9.771	-3.184	8.205
99	278	179	186.983	1.408	10.027	-2.980	9.991
99	279	180	192.419	2.635	10.280	-2.788	9.017
99	280	181	199.387	1.103	10.535	-2.585	10.800
99	281	182	205.134	2.324	10.789	-2.393	9.832
99	282	183	212.410	0.795	11.045	-2.191	11.611
99	283	184	218.470	2.011	11.299	-2.000	10.649
99	284	185	226.054	0.487	11.556	-1.798	12.425
99	285	186	232.429	1.697	11.811	-1.606	11.470
99	286	187	240.323	0.177	12.068	-1.405	13.242
99	287	188	247.013	1.381	12.324	-1.213	12.292
99	288	189	255.218	-0.134	12.582	-1.011	14.061
100	237	137	75.992	8.039	0.560	-11.420	-8.967
100	238	138	74.649	9.413	0.799	-11.178	-10.097
100	239	139	74.922	7.798	1.041	-10.933	-8.240
100	240	140	73.831	9.163	1.280	-10.702	-9.360
100	241	141	74.346	7.555	1.523	-10.458	-7.510
100	242	142	73.497	8.920	1.762	-10.218	-8.630
100	243	143	74.238	7.330	2.005	-9.956	-6.797
100	244	144	73.605	8.704	2.245	-9.689	-7.926
100	245	145	74.535	7.141	2.489	-9.388	-6.119
100	246	146	74.072	8.534	2.729	-9.075	-7.267
100	247	147	75.142	7.001	2.973	-8.724	-5.490
100	248	148	74.811	8.402	3.214	-8.373	-6.644
100	249	149	76.032	6.850	3.459	-8.033	-4.849
100	250	150	75.956	8.147	3.700	-7.802	-5.899
100	251	151	77.627	6.400	3.945	-7.760	-3.907

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
100	252	152	78.277	7.420	4.187	-8.000	-4.680
100	253	153	80.807	5.541	4.433	-8.367	-2.556
100	254	154	82.225	6.653	4.675	-8.646	-3.420
100	255	155	85.363	4.933	4.921	-8.761	-1.455
100	256	156	87.268	6.167	5.164	-8.759	-2.440
100	257	157	90.764	4.575	5.411	-8.622	-0.602
100	258	158	92.944	5.891	5.655	-8.408	-1.670
100	259	159	96.661	4.354	5.901	-8.133	0.114
100	260	160	99.048	5.684	6.146	-7.850	-0.967
100	261	161	102.966	4.153	6.393	-7.554	0.811
100	262	162	105.568	5.469	6.638	-7.278	-0.254
100	263	163	109.708	3.931	6.886	-7.002	1.531
100	264	164	112.551	5.229	7.131	-6.750	0.484
100	265	165	116.937	3.684	7.380	-6.498	2.276
100	266	166	120.042	4.967	7.626	-6.266	1.244
100	267	167	124.693	3.419	7.875	-6.031	3.040
100	268	168	128.075	4.689	8.122	-5.813	2.022
100	269	169	133.004	3.141	8.371	-5.590	3.819
100	270	170	136.674	4.401	8.618	-5.382	2.811
100	271	171	141.891	2.855	8.869	-5.167	4.608
100	272	172	145.856	4.106	9.116	-4.965	3.609
100	273	173	151.365	2.562	9.367	-4.755	5.403
100	274	174	155.631	3.805	9.616	-4.557	4.413
100	275	175	161.438	2.264	9.867	-4.351	6.205
100	276	176	166.007	3.501	10.116	-4.155	5.221
100	277	177	172.115	1.964	10.368	-3.950	7.010
100	278	178	176.991	3.194	10.618	-3.756	6.034
100	279	179	183.402	1.661	10.870	-3.553	7.820
100	280	180	188.587	2.885	11.121	-3.360	6.850
100	281	181	195.302	1.356	11.374	-3.157	8.632
100	282	182	200.799	2.575	11.625	-2.964	7.669
100	283	183	207.820	1.049	11.878	-2.762	9.447
100	284	184	213.629	2.262	12.130	-2.570	8.490
100	285	185	220.959	0.741	12.384	-2.368	10.265
100	286	186	227.081	1.949	12.637	-2.176	9.314
100	287	187	234.720	0.432	12.892	-1.974	11.086
100	288	188	241.157	1.634	13.144	-1.782	10.141
100	289	189	249.107	0.121	13.400	-1.580	11.909
100	290	190	255.860	1.318	13.654	-1.387	10.969
100	291	191	264.121	-0.191	13.910	-1.185	12.734
101	245	144	80.655	8.947	0.239	-10.259	-7.229
101	246	145	81.339	7.387	0.485	-9.959	-5.429
101	247	146	80.632	8.778	0.729	-9.646	-6.577
101	248	147	81.455	7.248	0.975	-9.295	-4.807
101	249	148	80.881	8.645	1.219	-8.944	-5.961
101	250	149	81.854	7.097	1.466	-8.603	-4.172
101	251	150	81.534	8.391	1.711	-8.372	-5.222
101	252	151	82.957	6.648	1.958	-8.331	-3.237
101	253	152	83.363	7.665	2.203	-8.571	-4.010
101	254	153	85.645	5.789	2.451	-8.937	-1.893
101	255	154	86.818	6.898	2.696	-9.217	-2.757
101	256	155	89.707	5.181	2.945	-9.332	-0.798
101	257	156	91.366	6.413	3.191	-9.329	-1.783

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
101	258	157	94.613	4.824	3.440	-9.193	0.048
101	259	158	96.547	6.138	3.686	-8.979	-1.019
101	260	159	100.014	4.603	3.935	-8.704	0.758
101	261	160	102.154	5.931	4.182	-8.420	-0.323
101	262	161	105.823	4.403	4.432	-8.124	1.449
101	263	162	108.177	5.716	4.680	-7.848	0.383
101	264	163	112.067	4.181	4.930	-7.572	2.162
101	265	164	114.662	5.477	5.178	-7.319	1.115
101	266	165	118.797	3.935	5.429	-7.067	2.901
101	267	166	121.653	5.215	5.678	-6.835	1.869
101	268	167	126.053	3.671	5.929	-6.600	3.659
101	269	168	129.186	4.938	6.178	-6.382	2.640
101	270	169	133.863	3.393	6.430	-6.159	4.432
101	271	170	137.283	4.651	6.680	-5.951	3.424
101	272	171	142.247	3.107	6.933	-5.735	5.214
101	273	172	145.962	4.356	7.183	-5.533	4.215
101	274	173	151.218	2.815	7.436	-5.323	6.004
101	275	174	155.233	4.056	7.687	-5.125	5.013
101	276	175	160.786	2.518	7.941	-4.918	6.800
101	277	176	165.104	3.753	8.192	-4.722	5.816
101	278	177	170.957	2.218	8.446	-4.517	7.599
101	279	178	175.582	3.446	8.698	-4.322	6.622
101	280	179	181.737	1.916	8.953	-4.119	8.403
101	281	180	186.670	3.138	9.206	-3.925	7.433
101	282	181	193.130	1.611	9.461	-3.722	9.209
101	283	182	198.373	2.828	9.715	-3.529	8.246
101	284	183	205.139	1.305	9.971	-3.327	10.019
101	285	184	210.693	2.516	10.225	-3.134	9.061
101	286	185	217.767	0.998	10.481	-2.932	10.831
101	287	186	223.634	2.203	10.736	-2.739	9.880
101	288	187	231.016	0.689	10.993	-2.537	11.646
101	289	188	237.198	1.889	11.248	-2.344	10.701
101	290	189	244.890	0.379	11.506	-2.142	12.464
101	291	190	251.387	1.574	11.762	-1.949	11.524
101	292	191	259.390	0.068	12.020	-1.747	13.283
101	293	192	266.203	1.258	12.277	-1.554	12.349
101	294	193	274.518	-0.244	12.536	-1.351	14.106
102	243	141	88.961	8.042	0.455	-11.614	-9.062
102	244	142	87.630	9.402	0.694	-11.375	-10.177
102	245	143	87.884	7.818	0.936	-11.112	-8.350
102	246	144	86.768	9.187	1.176	-10.846	-9.474
102	247	145	87.209	7.630	1.419	-10.545	-7.675
102	248	146	86.262	9.018	1.659	-10.232	-8.817
102	249	147	86.842	7.491	1.903	-9.881	-7.048
102	250	148	86.027	8.886	2.143	-9.530	-8.196
102	251	149	86.756	7.341	2.387	-9.189	-6.408
102	252	150	86.195	8.633	2.628	-8.958	-7.453
102	253	151	87.374	6.892	2.873	-8.917	-5.469
102	254	152	87.538	7.907	3.115	-9.157	-6.236
102	255	153	89.575	6.034	3.360	-9.523	-4.119
102	256	154	90.505	7.141	3.602	-9.803	-4.978
102	257	155	93.149	5.427	3.847	-9.917	-3.019
102	258	156	94.565	6.655	4.090	-9.915	-4.000

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
102	259	157	97.566	5.070	4.336	-9.778	-2.169
102	260	158	99.256	6.381	4.579	-9.564	-3.232
102	261	159	102.477	4.850	4.826	-9.288	-1.454
102	262	160	104.373	6.175	5.070	-9.005	-2.530
102	263	161	107.795	4.650	5.317	-8.709	-0.759
102	264	162	109.905	5.961	5.562	-8.432	-1.820
102	265	163	113.547	4.429	5.809	-8.156	-0.041
102	266	164	115.896	5.722	6.054	-7.903	-1.084
102	267	165	119.784	4.184	6.302	-7.650	0.702
102	268	166	122.394	5.461	6.548	-7.418	-0.325
102	269	167	126.545	3.920	6.797	-7.183	1.464
102	270	168	129.431	5.185	7.043	-6.965	0.450
102	271	169	133.860	3.643	7.292	-6.742	2.241
102	272	170	137.033	4.898	7.539	-6.533	1.238
102	273	171	141.747	3.357	7.789	-6.317	3.028
102	274	172	145.214	4.604	8.037	-6.115	2.034
102	275	173	150.220	3.065	8.287	-5.904	3.822
102	276	174	153.987	4.304	8.535	-5.706	2.836
102	277	175	159.289	2.769	8.786	-5.498	4.622
102	278	176	163.358	4.002	9.035	-5.302	3.642
102	279	177	168.959	2.470	9.287	-5.097	5.426
102	280	178	173.335	3.696	9.536	-4.902	4.453
102	281	179	179.238	2.168	9.789	-4.698	6.233
102	282	180	183.920	3.388	10.039	-4.504	5.267
102	283	181	190.127	1.864	10.292	-4.301	7.044
102	284	182	195.120	3.079	10.542	-4.108	6.084
102	285	183	201.632	1.559	10.796	-3.905	7.857
102	286	184	206.935	2.768	11.047	-3.712	6.904
102	287	185	213.755	1.252	11.301	-3.509	8.673
102	288	186	219.370	2.455	11.553	-3.316	7.726
102	289	187	226.497	0.944	11.808	-3.114	9.492
102	290	188	232.426	2.142	12.061	-2.920	8.551
102	291	189	239.863	0.634	12.316	-2.718	10.313
102	292	190	246.107	1.828	12.569	-2.524	9.378
102	293	191	253.854	0.324	12.825	-2.322	11.137
102	294	192	260.413	1.512	13.079	-2.128	10.207
102	295	193	268.471	0.012	13.336	-1.925	11.963
102	296	194	275.347	1.195	13.591	-1.731	11.038
102	297	195	283.718	-0.300	13.848	-1.528	12.791
103	251	148	93.165	9.130	0.151	-10.107	-7.522
103	252	149	93.648	7.588	0.398	-9.767	-5.740
103	253	150	92.842	8.876	0.642	-9.536	-6.785
103	254	151	93.774	7.139	0.889	-9.495	-4.807
103	255	152	93.694	8.151	1.133	-9.735	-5.575
103	256	153	95.483	6.282	1.380	-10.101	-3.464
103	257	154	96.169	7.386	1.625	-10.380	-4.323
103	258	155	98.565	5.675	1.873	-10.495	-2.371
103	259	156	99.735	6.901	2.119	-10.492	-3.352
103	260	157	102.488	5.318	2.367	-10.355	-1.526
103	261	158	103.932	6.627	2.613	-10.141	-2.590
103	262	159	106.904	5.099	2.862	-9.866	-0.819
103	263	160	108.554	6.421	3.109	-9.582	-1.895
103	264	161	111.725	4.899	3.358	-9.286	-0.129

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
103	265	162	113.588	6.208	3.606	-9.009	-1.191
103	266	163	116.980	4.679	3.856	-8.733	0.582
103	267	164	119.082	5.969	4.103	-8.480	-0.461
103	268	165	122.719	4.434	4.354	-8.227	1.319
103	269	166	125.081	5.709	4.602	-7.994	0.292
103	270	167	128.981	4.171	4.853	-7.759	2.075
103	271	168	131.618	5.434	5.102	-7.540	1.061
103	272	169	135.795	3.894	5.354	-7.317	2.846
103	273	170	138.719	5.147	5.603	-7.108	1.842
103	274	171	143.181	3.609	5.855	-6.892	3.627
103	275	172	146.398	4.854	6.105	-6.690	2.632
103	276	173	151.151	3.318	6.358	-6.479	4.415
103	277	174	154.667	4.555	6.609	-6.280	3.428
103	278	175	159.716	3.022	6.862	-6.072	5.209
103	279	176	163.534	4.253	7.113	-5.876	4.229
103	280	177	168.881	2.724	7.367	-5.670	6.007
103	281	178	173.005	3.948	7.619	-5.475	5.034
103	282	179	178.653	2.422	7.873	-5.271	6.808
103	283	180	183.084	3.641	8.126	-5.077	5.842
103	284	181	189.036	2.119	8.381	-4.873	7.613
103	285	182	193.775	3.332	8.634	-4.680	6.653
103	286	183	200.032	1.814	8.890	-4.477	8.421
103	287	184	205.081	3.021	9.143	-4.283	7.467
103	288	185	211.644	1.508	9.400	-4.080	9.232
103	289	186	217.005	2.710	9.654	-3.887	8.284
103	290	187	223.876	1.201	9.911	-3.684	10.045
103	291	188	229.550	2.397	10.166	-3.490	9.103
103	292	189	236.729	0.892	10.423	-3.287	10.860
103	293	190	242.717	2.083	10.679	-3.094	9.924
103	294	191	250.206	0.582	10.937	-2.891	11.678
103	295	192	256.509	1.768	11.193	-2.697	10.748
103	296	193	264.308	0.271	11.452	-2.493	12.499
103	297	194	270.927	1.452	11.709	-2.299	11.574
103	298	195	279.039	-0.041	11.968	-2.095	13.321
104	250	146	100.595	9.501	0.583	-11.403	-10.373
104	251	147	100.686	7.980	0.826	-11.052	-8.610
104	252	148	99.387	9.370	1.066	-10.700	-9.754
104	253	149	99.627	7.831	1.310	-10.360	-7.973
104	254	150	98.581	9.117	1.551	-10.129	-9.012
104	255	151	99.269	7.383	1.794	-10.087	-7.035
104	256	152	98.947	8.393	2.036	-10.327	-7.798
104	257	153	100.492	6.526	2.280	-10.693	-5.687
104	258	154	100.935	7.628	2.522	-10.973	-6.542
104	259	155	103.087	5.920	2.767	-11.087	-4.589
104	260	156	104.014	7.143	3.010	-11.084	-5.565
104	261	157	106.522	5.564	3.255	-10.947	-3.741
104	262	158	107.723	6.870	3.498	-10.733	-4.799
104	263	159	110.449	5.345	3.744	-10.457	-3.028
104	264	160	111.854	6.665	3.988	-10.173	-4.100
104	265	161	114.779	5.146	4.235	-9.877	-2.335
104	266	162	116.398	6.452	4.479	-9.600	-3.392
104	267	163	119.543	4.926	4.726	-9.324	-1.619
104	268	164	121.400	6.214	4.971	-9.070	-2.657

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
104	269	165	124.789	4.682	5.219	-8.817	-0.878
104	270	166	126.905	5.955	5.464	-8.584	-1.900
104	271	167	130.557	4.419	5.713	-8.349	-0.117
104	272	168	132.949	5.680	5.959	-8.130	-1.127
104	273	169	136.876	4.143	6.208	-7.906	0.658
104	274	170	139.554	5.394	6.454	-7.697	-0.341
104	275	171	143.766	3.859	6.704	-7.481	1.443
104	276	172	146.736	5.101	6.951	-7.278	0.453
104	277	173	151.239	3.568	7.201	-7.067	2.235
104	278	174	154.507	4.803	7.449	-6.868	1.253
104	279	175	159.305	3.273	7.700	-6.660	3.033
104	280	176	162.875	4.501	7.948	-6.463	2.058
104	281	177	167.971	2.975	8.200	-6.257	3.835
104	282	178	171.845	4.197	8.449	-6.062	2.867
104	283	179	177.242	2.674	8.701	-5.857	4.641
104	284	180	181.422	3.890	8.950	-5.663	3.679
104	285	181	187.122	2.372	9.203	-5.459	5.450
104	286	182	191.610	3.582	9.454	-5.265	4.494
104	287	183	197.614	2.068	9.707	-5.061	6.261
104	288	184	202.412	3.273	9.958	-4.868	5.312
104	289	185	208.721	1.762	10.212	-4.664	7.076
104	290	186	213.831	2.962	10.463	-4.471	6.132
104	291	187	220.447	1.455	10.718	-4.267	7.892
104	292	188	225.868	2.649	10.970	-4.073	6.955
104	293	189	232.793	1.147	11.225	-3.870	8.712
104	294	190	238.527	2.336	11.478	-3.676	7.780
104	295	191	245.761	0.838	11.734	-3.472	9.533
104	296	192	251.810	2.022	11.988	-3.278	8.607
104	297	193	259.353	0.528	12.244	-3.074	10.357
104	298	194	265.717	1.707	12.499	-2.880	9.437
104	299	195	273.572	0.216	12.756	-2.676	11.184
104	300	196	280.252	1.391	13.011	-2.480	10.269
104	301	197	288.419	-0.096	13.269	-2.276	12.012
105	257	152	106.179	8.637	0.057	-10.912	-7.145
105	258	153	107.477	6.773	0.304	-11.278	-5.040
105	259	154	107.676	7.872	0.548	-11.557	-5.895
105	260	155	109.580	6.167	0.796	-11.671	-3.949
105	261	156	110.262	7.388	1.041	-11.669	-4.925
105	262	157	112.522	5.812	1.289	-11.532	-3.106
105	263	158	113.477	7.116	1.535	-11.317	-4.165
105	264	159	115.954	5.594	1.783	-11.041	-2.400
105	265	160	117.114	6.911	2.029	-10.757	-3.473
105	266	161	119.790	5.395	2.278	-10.461	-1.713
105	267	162	121.162	6.699	2.525	-10.184	-2.771
105	268	163	124.057	5.176	2.775	-9.907	-1.004
105	269	164	125.667	6.462	3.022	-9.654	-2.043
105	270	165	128.806	4.932	3.272	-9.400	-0.269
105	271	166	130.674	6.203	3.520	-9.167	-1.292
105	272	167	134.075	4.670	3.771	-8.932	0.486
105	273	168	136.218	5.928	4.019	-8.713	-0.524
105	274	169	139.895	4.395	4.271	-8.489	1.255
105	275	170	142.323	5.643	4.520	-8.279	0.255
105	276	171	146.283	4.111	4.772	-8.063	2.034

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
105	277	172	149.004	5.351	5.021	-7.860	1.043
105	278	173	153.254	3.820	5.274	-7.649	2.820
105	279	174	156.272	5.053	5.524	-7.449	1.837
105	280	175	160.817	3.526	5.777	-7.241	3.612
105	281	176	164.136	4.752	6.028	-7.044	2.636
105	282	177	168.978	3.228	6.281	-6.838	4.408
105	283	178	172.601	4.448	6.533	-6.642	3.440
105	284	179	177.743	2.928	6.787	-6.437	5.208
105	285	180	181.672	4.142	7.039	-6.242	4.246
105	286	181	187.116	2.627	7.294	-6.038	6.011
105	287	182	191.353	3.835	7.547	-5.844	5.055
105	288	183	197.101	2.323	7.802	-5.640	6.817
105	289	184	201.646	3.526	8.055	-5.446	5.867
105	290	185	207.699	2.018	8.311	-5.242	7.626
105	291	186	212.554	3.216	8.565	-5.048	6.682
105	292	187	218.914	1.712	8.822	-4.845	8.438
105	293	188	224.081	2.904	9.077	-4.650	7.499
105	294	189	230.748	1.404	9.334	-4.447	9.251
105	295	190	236.227	2.591	9.589	-4.252	8.319
105	296	191	243.202	1.096	9.847	-4.049	10.067
105	297	192	248.996	2.278	10.103	-3.854	9.141
105	298	193	256.280	0.786	10.362	-3.650	10.886
105	299	194	262.388	1.963	10.618	-3.455	9.965
105	300	195	269.983	0.476	10.877	-3.250	11.707
105	301	196	276.407	1.648	11.134	-3.055	10.791
105	302	197	284.314	0.164	11.394	-2.850	12.530
105	303	198	291.053	1.331	11.652	-2.654	11.620
105	304	199	299.273	-0.148	11.913	-2.449	13.356
106	256	150	113.126	9.601	0.467	-11.313	-10.577
106	257	151	113.324	7.873	0.710	-11.272	-8.606
106	258	152	112.517	8.878	0.951	-11.512	-9.364
106	259	153	113.571	7.017	1.195	-11.877	-7.261
106	260	154	113.528	8.114	1.437	-12.156	-8.111
106	261	155	115.188	6.412	1.681	-12.271	-6.165
106	262	156	115.628	7.631	1.923	-12.268	-7.136
106	263	157	117.642	6.057	2.168	-12.131	-5.318
106	264	158	118.355	7.358	2.411	-11.916	-6.372
106	265	159	120.587	5.839	2.657	-11.640	-4.608
106	266	160	121.503	7.155	2.900	-11.355	-5.675
106	267	161	123.933	5.641	3.146	-11.059	-3.916
106	268	162	125.061	6.943	3.390	-10.781	-4.968
106	269	163	127.709	5.423	3.637	-10.505	-3.202
106	270	164	129.074	6.706	3.882	-10.251	-4.236
106	271	165	131.966	5.180	4.129	-9.998	-2.463
106	272	166	133.589	6.448	4.374	-9.764	-3.481
106	273	167	136.742	4.918	4.622	-9.528	-1.704
106	274	168	138.640	6.174	4.868	-9.309	-2.709
106	275	169	142.067	4.643	5.116	-9.085	-0.931
106	276	170	144.249	5.889	5.363	-8.875	-1.926
106	277	171	147.960	4.360	5.612	-8.659	-0.148
106	278	172	150.434	5.598	5.859	-8.455	-1.134
106	279	173	154.435	4.070	6.109	-8.244	0.643
106	280	174	157.205	5.301	6.356	-8.044	-0.336

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
106	281	175	161.499	3.776	6.607	-7.835	1.439
106	282	176	164.570	5.000	6.855	-7.638	0.467
106	283	177	169.161	3.480	7.106	-7.432	2.239
106	284	178	172.535	4.697	7.355	-7.236	1.274
106	285	179	177.426	3.180	7.606	-7.030	3.043
106	286	180	181.105	4.392	7.856	-6.835	2.084
106	287	181	186.297	2.879	8.108	-6.631	3.850
106	288	182	190.283	4.085	8.358	-6.436	2.898
106	289	183	195.778	2.576	8.611	-6.232	4.659
106	290	184	200.073	3.777	8.862	-6.037	3.714
106	291	185	205.872	2.271	9.116	-5.833	5.472
106	292	186	210.476	3.467	9.367	-5.639	4.532
106	293	187	216.581	1.966	9.621	-5.435	6.287
106	294	188	221.496	3.156	9.874	-5.240	5.353
106	295	189	227.908	1.659	10.128	-5.036	7.104
106	296	190	233.135	2.844	10.381	-4.841	6.176
106	297	191	239.855	1.351	10.637	-4.637	7.924
106	298	192	245.394	2.531	10.890	-4.442	7.001
106	299	193	252.423	1.042	11.146	-4.238	8.746
106	300	194	258.277	2.218	11.400	-4.042	7.829
106	301	195	265.615	0.732	11.657	-3.837	9.571
106	302	196	271.783	1.903	11.912	-3.641	8.659
106	303	197	279.433	0.421	12.170	-3.436	10.397
106	304	198	285.917	1.587	12.425	-3.240	9.491
106	305	199	293.878	0.110	12.683	-3.035	11.226
107	264	157	124.727	6.304	0.205	-12.722	-4.692
107	265	158	125.194	7.604	0.450	-12.507	-5.746
107	266	159	127.178	6.087	0.698	-12.231	-3.988
107	267	160	127.848	7.400	0.944	-11.947	-5.055
107	268	161	130.029	5.890	1.192	-11.650	-3.302
107	269	162	130.911	7.189	1.439	-11.372	-4.355
107	270	163	133.310	5.672	1.688	-11.096	-2.595
107	271	164	134.428	6.953	1.935	-10.841	-3.629
107	272	165	137.070	5.429	2.185	-10.588	-1.861
107	273	166	138.446	6.695	2.432	-10.354	-2.880
107	274	167	141.349	5.168	2.682	-10.118	-1.109
107	275	168	142.998	6.422	2.931	-9.899	-2.115
107	276	169	146.175	4.894	3.181	-9.675	-0.341
107	277	170	148.108	6.138	3.430	-9.465	-1.337
107	278	171	151.568	4.611	3.682	-9.248	0.436
107	279	172	153.792	5.847	3.931	-9.044	-0.551
107	280	173	157.540	4.322	4.183	-8.832	1.220
107	281	174	160.061	5.551	4.433	-8.632	0.241
107	282	175	164.103	4.029	4.686	-8.424	2.010
107	283	176	166.923	5.251	4.936	-8.226	1.038
107	284	177	171.261	3.733	5.189	-8.019	2.804
107	285	178	174.384	4.948	5.441	-7.823	1.839
107	286	179	179.021	3.434	5.694	-7.617	3.602
107	287	180	182.448	4.644	5.946	-7.422	2.644
107	288	181	187.386	3.133	6.201	-7.217	4.404
107	289	182	191.119	4.338	6.453	-7.022	3.451
107	290	183	196.359	2.831	6.708	-6.818	5.208
107	291	184	200.400	4.030	6.961	-6.623	4.262

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
107	292	185	205.944	2.527	7.217	-6.419	6.015
107	293	186	210.295	3.721	7.471	-6.224	5.075
107	294	187	216.144	2.222	7.727	-6.020	6.824
107	295	188	220.804	3.411	7.981	-5.825	5.890
107	296	189	226.959	1.916	8.238	-5.620	7.636
107	297	190	231.931	3.099	8.493	-5.425	6.707
107	298	191	238.393	1.609	8.751	-5.220	8.451
107	299	192	243.677	2.787	9.006	-5.025	7.527
107	300	193	250.448	1.300	9.265	-4.820	9.267
107	301	194	256.045	2.474	9.521	-4.624	8.350
107	302	195	263.124	0.991	9.780	-4.419	10.086
107	303	196	269.036	2.160	10.037	-4.223	9.174
107	304	197	276.426	0.681	10.296	-4.017	10.908
107	305	198	282.652	1.845	10.554	-3.821	10.001
107	306	199	290.353	0.370	10.814	-3.615	11.731
107	307	200	296.896	1.529	11.072	-3.418	10.830
107	308	201	304.909	0.058	11.333	-3.211	12.557
108	262	154	128.296	8.599	0.345	-13.354	-9.685
108	263	155	129.464	6.903	0.589	-13.468	-7.745
108	264	156	129.418	8.117	0.831	-13.465	-8.713
108	265	157	130.940	6.549	1.075	-13.328	-6.901
108	266	158	131.165	7.846	1.318	-13.112	-7.950
108	267	159	132.904	6.333	1.563	-12.837	-6.192
108	268	160	133.332	7.643	1.806	-12.552	-7.255
108	269	161	135.267	6.136	2.052	-12.255	-5.502
108	270	162	135.905	7.433	2.295	-11.977	-6.551
108	271	163	138.058	5.918	2.542	-11.700	-4.790
108	272	164	138.932	7.197	2.786	-11.446	-5.821
108	273	165	141.326	5.676	3.033	-11.192	-4.053
108	274	166	142.457	6.940	3.278	-10.958	-5.067
108	275	167	145.113	5.416	3.525	-10.722	-3.296
108	276	168	146.516	6.667	3.771	-10.502	-4.298
108	277	169	149.445	5.142	4.019	-10.278	-2.525
108	278	170	151.132	6.384	4.265	-10.067	-3.516
108	279	171	154.343	4.860	4.514	-9.851	-1.744
108	280	172	156.320	6.094	4.760	-9.646	-2.726
108	281	173	159.820	4.572	5.010	-9.434	-0.955
108	282	174	162.093	5.798	5.257	-9.234	-1.930
108	283	175	165.884	4.279	5.507	-9.025	-0.162
108	284	176	168.457	5.499	5.755	-8.827	-1.129
108	285	177	172.544	3.983	6.006	-8.620	0.637
108	286	178	175.418	5.197	6.254	-8.423	-0.324
108	287	179	179.804	3.685	6.506	-8.217	1.439
108	288	180	182.982	4.893	6.755	-8.022	0.484
108	289	181	187.668	3.385	7.007	-7.817	2.244
108	290	182	191.151	4.587	7.257	-7.621	1.296
108	291	183	196.139	3.083	7.509	-7.416	3.052
108	292	184	199.929	4.280	7.760	-7.221	2.109
108	293	185	205.220	2.780	8.013	-7.017	3.862
108	294	186	209.319	3.972	8.264	-6.821	2.926
108	295	187	214.914	2.476	8.518	-6.617	4.675
108	296	188	219.323	3.662	8.770	-6.421	3.745
108	297	189	225.223	2.170	9.025	-6.217	5.491

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
108	298	190	229.942	3.352	9.277	-6.021	4.566
108	299	191	236.149	1.864	9.533	-5.816	6.309
108	300	192	241.180	3.040	9.786	-5.620	5.390
108	301	193	247.695	1.556	10.042	-5.415	7.129
108	302	194	253.038	2.728	10.296	-5.219	6.215
108	303	195	259.861	1.248	10.552	-5.013	7.952
108	304	196	265.518	2.414	10.807	-4.816	7.043
108	305	197	272.651	0.938	11.064	-4.611	8.776
108	306	198	278.622	2.100	11.319	-4.413	7.874
108	307	199	286.065	0.628	11.577	-4.207	9.603
108	308	200	292.352	1.785	11.833	-4.010	8.706
108	309	201	300.106	0.316	12.092	-3.803	10.433
108	310	202	306.709	1.469	12.348	-3.605	9.541
108	311	203	314.776	0.004	12.607	-3.398	11.264
109	270	161	142.456	6.384	0.100	-12.853	-4.897
109	271	162	142.848	7.679	0.346	-12.575	-5.946
109	272	163	144.752	6.167	0.595	-12.298	-4.191
109	273	164	145.380	7.444	0.841	-12.043	-5.222
109	274	165	147.525	5.926	1.091	-11.789	-3.460
109	275	166	148.409	7.187	1.338	-11.555	-4.475
109	276	167	150.814	5.666	1.588	-11.319	-2.709
109	277	168	151.970	6.915	1.835	-11.099	-3.711
109	278	169	154.648	5.393	2.086	-10.874	-1.944
109	279	170	156.087	6.632	2.334	-10.664	-2.935
109	280	171	159.047	5.111	2.585	-10.447	-1.168
109	281	172	160.775	6.342	2.834	-10.242	-2.151
109	282	173	164.023	4.823	3.086	-10.030	-0.386
109	283	174	166.046	6.048	3.336	-9.829	-1.361
109	284	175	169.586	4.532	3.588	-9.620	0.402
109	285	176	171.907	5.749	3.838	-9.422	-0.566
109	286	177	175.742	4.236	4.091	-9.214	1.195
109	287	178	178.365	5.448	4.342	-9.018	0.234
109	288	179	182.498	3.939	4.595	-8.811	1.991
109	289	180	185.424	5.145	4.847	-8.615	1.036
109	290	181	189.856	3.639	5.101	-8.410	2.790
109	291	182	193.087	4.840	5.353	-8.214	1.842
109	292	183	197.820	3.338	5.608	-8.009	3.593
109	293	184	201.358	4.533	5.861	-7.814	2.650
109	294	185	206.393	3.036	6.116	-7.609	4.398
109	295	186	210.239	4.225	6.369	-7.413	3.461
109	296	187	215.578	2.732	6.625	-7.209	5.205
109	297	188	219.732	3.917	6.879	-7.013	4.274
109	298	189	225.376	2.427	7.136	-6.808	6.016
109	299	190	229.841	3.607	7.391	-6.612	5.090
109	300	191	235.791	2.121	7.648	-6.406	6.828
109	301	192	240.566	3.296	7.903	-6.210	5.908
109	302	193	246.823	1.814	8.161	-6.005	7.643
109	303	194	251.910	2.984	8.417	-5.808	6.729
109	304	195	258.475	1.506	8.676	-5.602	8.460
109	305	196	263.875	2.671	8.932	-5.405	7.551
109	306	197	270.748	1.197	9.192	-5.199	9.280
109	307	198	276.462	2.357	9.449	-5.001	8.376
109	308	199	283.646	0.887	9.709	-4.795	10.101

Z	A	A-Z	M(Z,A)	NEUTRON	PROTON	ALPHA	Q BETA-
109	309	200	289.674	2.043	9.967	-4.597	9.204
109	310	201	297.168	0.577	10.227	-4.390	10.925
109	311	202	303.512	1.727	10.486	-4.191	10.033
109	312	203	311.318	0.265	10.747	-3.984	11.752
109	313	204	317.978	1.411	11.006	-3.785	10.865
109	314	205	326.097	-0.048	11.268	-3.577	12.581
110	269	159	147.413	6.825	0.463	-14.047	-7.782
110	270	160	147.352	8.131	0.705	-13.762	-8.841
110	271	161	148.794	6.630	0.951	-13.465	-7.094
110	272	162	148.943	7.922	1.194	-13.187	-8.139
110	273	163	150.601	6.413	1.440	-12.909	-6.385
110	274	164	150.985	7.687	1.684	-12.655	-7.410
110	275	165	152.883	6.172	1.931	-12.401	-5.649
110	276	166	153.523	7.432	2.175	-12.166	-6.659
110	277	167	155.681	5.913	2.422	-11.929	-4.894
110	278	168	156.592	7.160	2.667	-11.709	-5.892
110	279	169	159.022	5.641	2.915	-11.484	-4.125
110	280	170	160.215	6.878	3.161	-11.274	-5.112
110	281	171	162.926	5.360	3.409	-11.056	-3.346
110	282	172	164.409	6.589	3.656	-10.851	-4.324
110	283	173	167.407	5.073	3.905	-10.639	-2.559
110	284	174	169.183	6.295	4.152	-10.438	-3.530
110	285	175	172.473	4.781	4.401	-10.228	-1.767
110	286	176	174.547	5.997	4.649	-10.030	-2.731
110	287	177	178.132	4.487	4.899	-9.822	-0.971
110	288	178	180.507	5.696	5.148	-9.625	-1.928
110	289	179	184.388	4.190	5.399	-9.419	-0.171
110	290	180	187.065	5.394	5.648	-9.222	-1.122
110	291	181	191.245	3.891	5.899	-9.017	0.632
110	292	182	194.227	5.089	6.149	-8.820	-0.312
110	293	183	198.708	3.590	6.401	-8.615	1.438
110	294	184	201.995	4.783	6.651	-8.419	0.500
110	295	185	206.778	3.289	6.904	-8.214	2.247
110	296	186	210.372	4.476	7.155	-8.018	1.314
110	297	187	215.458	2.986	7.409	-7.813	3.058
110	298	188	219.361	4.168	7.661	-7.617	2.131
110	299	189	224.751	2.681	7.915	-7.411	3.872
110	300	190	228.963	3.859	8.167	-7.215	2.950
110	301	191	234.658	2.376	8.422	-7.009	4.688
110	302	192	239.180	3.549	8.675	-6.813	3.772
110	303	193	245.181	2.070	8.931	-6.607	5.506
110	304	194	250.015	3.238	9.184	-6.409	4.596
110	305	195	256.323	1.762	9.440	-6.203	6.326
110	306	196	261.469	2.925	9.695	-6.006	5.422
110	307	197	268.086	1.454	9.952	-5.799	7.149
110	308	198	273.544	2.612	10.207	-5.601	6.250
110	309	199	280.470	1.145	10.464	-5.394	7.974
110	310	200	286.243	2.299	10.720	-5.196	7.080
110	311	201	293.479	0.835	10.978	-4.989	8.802
110	312	202	299.566	1.984	11.235	-4.790	7.913
110	313	203	307.113	0.524	11.494	-4.582	9.632
110	314	204	313.516	1.668	11.751	-4.382	8.748
110	315	205	321.376	0.212	12.010	-4.174	10.464

Z	A	A-Z	M(Z,A)	NEUTRON	PRCTON	ALPHA	Q BETA-
110	316	206	328.095	1.351	12.268	-3.974	9.585
110	317	207	336.267	-0.101	12.529	-3.766	11.298

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