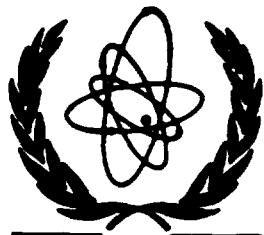




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**HISTOGRAM PLOTS AND CUTOFF ENERGIES
FOR NUCLEAR DISCRETE LEVELS**

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Abstract

Discrete level schemes for 1277 nuclei, from ^6Li through ^{251}Es , extracted from the Evaluated Nuclear Structure Data File were analysed. Cutoff energies (U_{\max}), indicating the upper limit of level scheme completeness, were deduced from the inspection of histograms of the cumulative number of levels. Parameters of the constant-temperature level density formula (nuclear temperature T and energy shift U_0) were obtained by means of the least square fit of the formula to the known levels below cutoff energy. The results are tabulated for all 1277 nuclei allowing for an easy and reliable application of the constant-temperature level density approach. A complete set of cumulative plots of discrete levels is also provided.

May 1997

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1. Introduction

Information concerning low-lying (bound) discrete levels is required for two main purposes. First, a complete set of discrete levels with full characteristics, i.e., spins and parities, is needed to specify outgoing channels in nuclear reaction model calculations. Second, the cumulative number of discrete levels and the corresponding cutoff energies have to be established for testing level density models and determining their parameters. Setting up a library of discrete levels on the basis of all information available in the *Evaluated Nuclear Structure Data File (ENSDF)*¹, is part of the Agency's Co-ordinated Research Project "Development of Reference Input Parameter Library For Nuclear Model Calculations of Nuclear Data", RIPL in short.^{2,3}

The work we report here is connected to the RIPL project. Discrete level data were obtained from *ENSDF*. From this file we have used the data set *Adopted Levels* as of 23 February 1996 to plot the cumulative number of levels of nuclei in the form of histograms. The histograms were then fitted with the back-shifted exponential formula. Based on these fits the T , U_0 , U_{\max} and U_c parameters have been determined for 1277 nuclei. Details of the work are presented in the next sections.

2. Procedures and results

The *ENSDF Adopted Levels* data have been retrieved on-line, using *NUDAT*.⁴ A FORTRAN code has been written to carry out the fit and create the histogram plots of cumulative level numbers in PostScript format. In the generation of level density plots and fits at least 10 known levels have been required, including the ground state. This constraint has left us with 1422 cases. For 145 nuclei out of this selection the database contains more than one zero-energy level, rendering the level scheme ambiguous. Hence those 145 nuclei also had to be excluded from the procedure.

For the remaining 1277 nuclei the cumulative number of levels as a function of excitation energy has been fitted with the back-shifted exponential level density formula:

$$N(E) = \exp\left(\frac{E - U_0}{T}\right),$$

where T is the nuclear temperature, and U_0 is the backshift energy. The excitation energy has been used as a weighting factor, in order to minimize the influence of $N(E)$ values at the high-energy end where our knowledge becomes incomplete.

To find the linear part of the $\ln(N(E))$ function we have calculated the sum of least squares, χ^2 , against $N(E)$, starting from $N(E)=10$. The level number associated with the minimal value of χ^2 determines in turn the cutoff energy, U_{\max} , above which the level scheme becomes incomplete. For $N(E)$ lower than 10 the χ^2 analysis is quite meaningless and produces false minima. Also, the ground and first excited states had to be excluded from the fit due to their irregular behavior. Hence the complete χ^2 function is:

$$\chi^2(m) = \sum_{i=3}^{m>9} \frac{[\ln(N(E_i)) - (aE_i + b)]^2}{E_i},$$

with $9 < m \leq n$, where n is the total number of levels. The relations between the fitted quantities a, b and the nuclear parameters in the exponential formula are

$$T = \frac{1}{a}; \quad U_0 = \frac{b}{a}.$$

Even with the $n>9$ requirement the fits do not always provide acceptable results, in that in a few percent of the cases already the first 10 levels provide the deepest minimum but a large number of data points lies above the fitted line. Thus we have decided to accept only those fits where the local minimum belongs to the largest slope, a . In many cases this coincides with the absolute minimum. If not, we indicate the fit associated with the latter as a dotted straight line, to illustrate the badness of the absolute minimum choice (see plots).

3. Tables and plots

The results of this work are presented in the form of tables and plots. A description is given in the following subsection.

Table 1 presents the parameters obtained from the fits to the cumulative level numbers for 1277 nuclei. The organization of the table is the following: for increasing mass and charge numbers (A and Z) we have printed the results of the least-square fits for the accepted minimum and other relevant quantities in one line. For a detailed description of column headings see the caption to *Table 1*.

In 111 cases out of the 1277 fits the U_{\max} value is larger than the lowest of the two single-nucleon separation energies. In other words, these fits include unbound states as well. The list of these nuclei, along with their separation energy values, can be found in *Table 2*.

Plots of nuclear temperature, T , against mass number have been created separately for even-even, odd-even, even-odd and odd-odd nuclei using the fit results from *Table 1*. They are shown in *Figures 1 to 4*. The data points have been fitted with power trend lines. The parameters of these unweighted fits are also indicated in the figures.

Finally, *Figure 5* contains the histograms of the cumulative number of levels, $N(E)$, for all the 1277 nuclei considered. In the plots the continuous line always represents the accepted level density fit as explained above. The diamond symbol (\diamond) marks the cutoff energy, U_{\max} , and the associated cumulative level number, n_m , corresponding to that local minimum of χ^2 which is characterized by the maximal slope of $\ln(N(E))$. The other cutoff energy, U_c , is determined by the energy of the highest level up to (and including) which both the spin and parity are unambiguously established, while n_c is the corresponding level number. The numerical values of U_{\max} , and U_c are also indicated in the plots.

The full energy scale has been limited as follows:

0 < A < 11	32 MeV
10 < A < 31	16 MeV
30 < A < 215	10 MeV
214 < A	6 MeV

Plots for eight nuclides have been grouped to fit in one page. The original PostScript files containing the plots mentioned above have been named as A_Z.PS, where A and Z are the mass and charge number respectively, and A_Z corresponds to the first of the eight nuclei included in one page. The PostScript files are available on request but they may be reproduced only with reference to the present publication. Those who are interested may contact the authors via e-mail: Belgya@alpha0.iki.kfki.hu.

4. Conclusion

The U_{\max} and U_c energy cutoff parameters could be determined for 1277 nuclei out of the total number of 2806 nuclei, found in the ENDSF library. No attempts have been made regarding the interpretation of mass dependence of the level density parameters T and U_0 for two reasons. First, for nuclides with a total number of levels only slightly exceeding our lower limit of 9 the fits may still be ambiguous due to the high probability that some low-lying states are still missing. Secondly, an accurate description of the level density definitely should involve other parameters as well, reflecting the complexity of nuclear structure. Despite of these shortcomings, the U_{\max} cutoff parameters determined in this simple way indicate approximately where the decreasing amount of experimental information starts to cause significant deviations from the expected exponential trend.

References

1. Evaluated Nuclear Structure Data File (ENSDF), produced by members of the International Nuclear Structure and Decay Data Network, and maintained by the National Nuclear Data Center, BNL, USA
2. Summary Report of the First Research Co-ordination Meeting on Development of Reference Input Parameter Library for Nuclear Model Calculations of Nuclear Data, Cervia (Ravenna), Italy, 19-23 September 1994, INDC(NDS)-312 (IAEA Vienna, 1994)
3. Summary Report of the Second Research Co-ordination Meeting on Development of Reference Input Parameter Library for Nuclear Model Calculations of Nuclear Data, IAEA Vienna, 30 October - 4 November 1995, INDC(NDS)-350 (IAEA Vienna, 1996)
4. NUDAT database, version (23 February 1996), maintained by the National Nuclear Data Center, BNL, USA
5. G. Audi and A.H. Wapstra, "The 1995 update to the atomic mass evaluation," Nucl. Phys. **A595** (1995) 409

Table 1

Table 1. Results of fits to cumulated level number histograms for 1277 nuclei. The letters A , Z are mass and charge numbers, respectively. n_m and U_{\max} are the cutoff level number and level energy, respectively, while n_c and U_c denote similar cutoffs with regard to unique spin and parity. Finally, n is the total number of levels in the database for the corresponding nucleus.

A	Z	n	n_c	n_m	U_c (MeV)	U_{\max} (MeV)	U_0 (MeV)	T (MeV)	χ^2
6	3	13	12	13	26.6000	31.0000	-25.1674	21.0271	.0255
8	3	11	4	10	3.2100	9.0000	-4.0066	5.5268	.0045
8	4	26	15	22	20.9000	24.0000	7.0095	5.3495	.0275
9	4	31	5	29	3.0490	22.4000	-10.6435	9.6231	.0100
9	5	18	1	15	.0000	17.0760	-10.8407	10.6205	.0141
10	4	16	8	11	7.5420	10.5700	-.3278	4.2515	.0456
10	5	38	12	25	6.1272	8.8940	-2.0409	3.3700	.0086
11	4	15	2	12	.3200	7.0300	-2.7056	3.8417	.0089
11	5	41	8	23	7.9778	12.0000	.1815	3.7403	.0027
11	6	36	13	17	9.2000	10.0830	.3126	3.4810	.0032
12	5	50	16	11	7.0600	5.0000	-1.0908	2.5142	.0039
12	6	56	4	10	9.6410	13.3520	2.9871	4.4127	.0059
12	7	19	5	10	2.4390	5.6000	-3.0087	3.5582	.0117
13	5	23	1	11	.0000	5.5570	1.0752	1.8613	.0168
13	6	73	5	33	6.8640	14.5820	-1.4843	4.5089	.0083
13	7	54	12	24	9.4760	12.9370	-2.1319	4.7147	.0067
14	6	46	11	23	10.4250	12.9630	1.1798	3.6862	.0189
14	7	120	23	10	9.7030	7.0291	1.3991	2.3579	.0050
14	8	18	5	15	6.5900	13.0100	-1.1410	5.0162	.0221
15	6	31	6	21	4.7800	8.1100	.6630	2.4101	.0097
15	7	113	22	36	10.8040	12.5510	2.1969	2.8669	.0031
15	8	85	12	39	8.9220	12.4710	2.0241	2.8111	.0031
16	7	66	4	45	.3973	9.4590	-3.6002	3.3235	.0255
16	8	134	12	39	11.0967	15.4080	2.0369	3.6302	.0043
16	9	28	8	25	4.6540	7.9000	-3.6529	3.5927	.0335
17	7	35	7	13	3.2042	4.4150	-.4754	1.9065	.0060
17	8	118	9	32	5.6973	8.6870	.6176	2.3045	.0041
17	9	77	9	31	5.6720	8.4360	.7264	2.2553	.0042
18	8	92	12	37	6.1982	9.8900	-.4097	2.7613	.0110
18	9	96	24	74	5.2976	8.1150	-2.2855	2.3808	.0040
18	10	19	7	10	4.5900	5.4530	.8360	1.9900	.0147
19	8	55	10	22	4.1093	5.7050	-.7174	2.0685	.0038
19	9	190	16	96	5.1066	9.9260	-2.7724	2.7362	.0096
19	10	69	8	39	4.0329	8.0690	-2.9763	2.9330	.0122
20	8	21	6	11	4.8500	5.6140	1.8970	1.5715	.0029
20	9	130	8	52	1.8440	5.9361	-1.9160	1.9300	.0086
20	10	227	17	115	8.8000	14.3700	.9241	2.8051	.0029
20	11	18	1	16	.0000	3.1600	-1.5860	1.6712	.0243
21	9	34	2	28	.2799	5.8810	-1.6705	2.2073	.0102
21	10	88	14	63	5.3357	8.5220	-.7293	2.2046	.0031
21	11	45	2	12	.3319	4.4130	-.4470	1.9800	.0039

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	χ^2
22	9	23	0	13	.0000	3.5900	-2.2667	2.2705	.0030
22	10	79	14	33	6.3452	8.1620	1.7324	1.8110	.0081
22	11	143	16	115	4.0713	8.6740	-2.2903	2.2769	.0033
22	12	17	2	15	1.2463	6.7800	1.4136	1.9335	.0154
23	10	23	2	22	1.0170	5.2260	-.6166	1.8643	.0077
23	11	162	16	160	5.7660	10.7040	-.9224	2.2659	.0039
23	12	77	4	57	2.3590	8.6170	-1.0966	2.3621	.0065
24	11	103	4	53	1.3414	5.4790	-1.4621	1.7136	.0069
24	12	183	11	169	7.7477	14.0990	1.7402	2.3901	.0033
25	11	43	4	31	2.2020	5.8760	-.8701	1.9501	.0043
25	12	130	16	93	4.7114	8.7050	-1.6155	2.2663	.0011
25	13	61	3	15	.9448	4.1960	-1.3087	2.0335	.0031
25	14	13	1	10	.0000	3.8200	-1.8217	2.4925	.0063
26	11	25	3	22	.2336	4.4400	-2.1828	2.1120	.0155
26	12	187	13	125	5.4737	10.5920	.2899	2.1040	.0038
26	13	183	24	37	3.7536	4.7734	-1.3400	1.6577	.0065
26	14	29	4	10	3.3325	4.4460	1.3978	1.3456	.0085
27	12	32	4	32	1.9400	6.0090	-.3756	1.8479	.0098
27	13	244	17	231	5.4199	10.9390	-1.1210	2.2028	.0014
27	14	81	5	76	2.6476	8.3580	-1.1388	2.1808	.0028
28	12	22	8	14	5.1718	5.7023	2.4136	1.2483	.0070
28	13	107	11	29	2.4862	4.1150	-.9760	1.4691	.0081
28	14	196	17	194	8.5887	13.9833	2.4425	2.1920	.0011
28	15	33	2	19	.1056	3.3000	-.7952	1.3545	.0077
29	12	14	1	11	.0000	3.2274	-1.7316	2.0327	.0067
29	13	50	8	31	3.4329	5.7330	-.0827	1.6636	.0053
29	14	132	16	129	5.9491	10.2620	-.1794	2.1386	.0034
29	15	66	8	49	4.3430	8.9150	-.9971	2.4817	.0071
30	12	12	2	12	1.4822	5.4127	-2.1170	3.0661	.0105
30	13	22	1	11	.0000	2.8920	-1.5508	1.7975	.0166
30	14	136	30	91	7.6340	10.1160	.8861	2.0234	.0027
30	15	142	16	125	4.2322	8.4580	-1.4638	2.0249	.0042
31	13	14	0	10	.0000	4.3200	-.7695	2.0598	.0085
31	14	69	4	44	2.3168	6.9880	-.3151	1.9674	.0046
31	15	168	13	46	4.7831	7.2140	.3106	1.7806	.0031
31	16	59	4	26	3.0790	5.9850	.4602	1.6799	.0044
32	14	32	4	17	4.9840	6.4770	3.1219	1.1791	.0089
32	15	146	9	45	2.2297	5.1260	-1.3293	1.6670	.0044
32	16	120	12	44	6.4110	8.7280	1.5390	1.8852	.0025
32	17	48	1	15	.0000	3.2900	-1.4378	1.7618	.0026
33	15	36	4	33	2.5386	6.8200	-.1173	1.9565	.0088
33	16	152	13	62	4.0940	6.7880	.0643	1.6048	.0037
33	17	82	4	34	2.3518	5.7380	.0953	1.5699	.0073
34	15	13	3	10	1.6076	3.5600	-.2324	1.6740	.0034
34	16	134	13	36	5.3810	6.9542	1.6467	1.4899	.0025
34	17	119	18	118	3.6314	7.2501	-1.7494	1.8370	.0120
34	18	21	4	13	3.8710	5.6200	1.6322	1.5556	.0014
35	15	20	3	10	3.8597	5.5599	2.2807	1.3546	.0047
35	16	53	7	10	3.4210	3.6750	.2579	1.5393	.0046

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
35	17	235	15	219	4.3477	9.4000	-.1424	1.7532	.0033
35	18	38	2	23	1.1840	5.5910	-.2723	1.8638	.0056
36	16	19	6	15	4.5752	6.2252	1.6684	1.6593	.0081
36	17	128	13	31	2.8964	4.1389	-.1501	1.2289	.0044
36	18	174	3	172	4.1783	11.0530	1.2584	1.8922	.0064
36	19	12	1	10	.0000	2.8500	-.4317	1.3745	.0055
37	16	37	2	13	.6462	3.4421	-.1051	1.4024	.0032
37	17	83	4	45	3.1035	5.7263	1.8785	.9957	.0044
37	18	101	14	35	3.9367	5.2590	.1532	1.4292	.0024
37	19	44	4	41	2.1702	5.7890	-.2241	1.6080	.0019
38	16	14	2	12	1.2920	5.2800	.1524	2.0144	.0142
38	17	40	5	33	1.6174	4.5060	-1.1155	1.5506	.0120
38	18	191	10	69	4.8768	7.5380	1.9047	1.3290	.0013
38	19	87	6	83	2.6129	6.0220	-.8507	1.5503	.0163
38	20	25	5	15	3.6950	5.8100	1.0919	1.7429	.0027
39	17	25	2	14	.3964	2.5860	.3007	.8561	.0185
39	18	72	4	27	2.0928	3.7400	.5416	.9337	.0203
39	19	81	11	56	4.1260	6.6530	1.1815	1.3278	.0074
39	20	23	4	16	3.0260	4.7100	1.5853	1.1116	.0174
40	17	14	1	10	.0000	1.1600	-.4933	.6872	.0161
40	18	74	7	51	3.4645	5.6750	.9134	1.2056	.0042
40	19	94	17	54	2.6260	3.9238	-.3048	1.0429	.0136
40	20	252	20	73	6.9087	8.8100	2.0744	1.5565	.0029
41	18	36	7	26	1.8690	3.7320	-1.0717	1.4909	.0011
41	19	107	11	55	2.3167	3.9117	-.0465	.9683	.0108
41	20	138	9	28	2.9594	4.0943	1.0135	.9200	.0043
41	21	68	8	10	2.8823	3.0130	1.3136	.7524	.0041
42	18	16	2	15	1.2082	4.6337	.3335	1.5332	.0124
42	19	127	4	30	.6387	1.8619	-.4449	.6638	.0104
42	20	138	13	86	3.9544	6.2480	.6715	1.2469	.0021
42	21	65	2	45	.6111	3.6000	-.3087	1.0096	.0113
42	22	26	5	15	2.6764	3.8500	.6604	1.1652	.0039
43	19	65	5	22	1.1103	2.5480	-.2956	.9020	.0048
43	20	113	13	43	2.1027	3.5053	-.4036	1.0218	.0094
43	21	104	13	39	1.8299	2.9874	-.7371	.9957	.0066
43	22	15	1	11	.0000	2.4380	-1.1188	1.4622	.0019
44	19	18	1	13	.0000	1.4800	-.4777	.7607	.0068
44	20	85	9	59	3.3079	5.4040	.8019	1.1146	.0058
44	21	63	7	10	.4248	.6667	-.3611	.4264	.0132
44	22	60	8	13	3.3640	3.9800	.3453	1.4300	.0023
45	19	27	2	21	.4745	4.0440	-1.3899	1.7213	.0197
45	20	102	3	42	1.4347	3.7832	-.1338	1.0101	.0178
45	21	211	10	14	1.3032	1.5562	-.5109	.7822	.0020
45	22	44	8	28	1.4682	3.2000	-1.5076	1.3998	.0043
46	19	16	0	10	.0000	2.9690	-.15791	1.8904	.0094
46	20	85	9	54	3.8597	6.3090	.7534	1.3824	.0020
46	21	208	15	61	1.1242	2.5900	-1.0675	.8593	.0144
46	22	240	7	39	3.1682	4.3160	1.5437	.7322	.0255
46	23	38	4	10	.9937	1.5407	.3208	.5100	.0056

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
47	19	26	2	14	.3590	5.4650	-.0492	2.0307	.0161
47	20	136	4	32	2.5996	5.0530	1.0171	1.1383	.0068
47	21	145	1	18	.0000	2.0023	.0752	.6404	.0145
47	22	200	2	40	.1594	3.0515	.3265	.7274	.0099
47	23	144	14	75	2.2118	4.6130	-1.5030	1.4082	.0019
47	24	21	1	10	.0000	2.1310	-1.5690	1.5526	.0041
48	20	235	5	71	4.5070	8.6980	2.0455	1.5330	.0075
48	21	102	3	63	.2524	3.8790	-1.1251	1.1876	.0069
48	22	290	4	46	2.4210	4.5890	1.2692	.8714	.0051
48	23	82	9	10	.7650	.7762	-.0245	.3532	.0109
48	24	39	3	24	1.8584	6.1000	.1325	1.8223	.0168
49	20	58	2	11	2.0232	4.4160	2.4997	.7926	.0053
49	21	214	4	27	3.0845	4.8100	1.5732	.9571	.0135
49	22	109	4	48	1.5860	4.3400	-.3216	1.1631	.0162
49	23	255	7	90	1.1553	4.0640	-1.0302	1.1132	.0056
49	24	159	7	12	1.9822	2.5783	-.1155	1.1095	.0064
50	20	34	2	10	1.0260	4.8800	1.2805	1.5958	.0036
50	21	50	1	40	.0000	5.6300	-1.7918	1.9738	.0080
50	22	260	4	57	3.1987	6.3998	1.4799	1.1962	.0082
50	23	179	6	46	.8363	2.6470	-.8233	.8813	.0127
50	24	146	7	95	3.3246	6.3760	.4498	1.2353	.0438
50	25	11	2	11	.2290	1.9200	-.7354	1.1493	.0137
51	20	17	0	16	.0000	7.4500	-4.6680	4.1621	.0144
51	21	16	0	15	.0000	3.3906	-.9936	1.6246	.0091
51	22	34	3	15	1.4373	3.2374	.0871	1.1775	.0063
51	23	216	7	106	2.5474	4.9640	.2308	.9781	.0444
51	24	281	2	110	.7491	4.5830	-.2616	1.0155	.0067
51	25	122	2	30	.2371	3.2931	.2201	.8957	.0034
51	26	12	0	10	.0000	3.3100	-.9579	1.8232	.0079
52	22	25	5	20	2.4316	4.4779	.6204	1.2910	.0080
52	23	132	1	40	.0000	2.9104	-1.2649	1.0919	.0128
52	24	272	12	10	3.7717	3.4722	1.3436	.9134	.0031
52	25	93	6	56	.8699	3.7760	-1.2646	1.2130	.0162
52	26	98	6	41	4.1458	7.1240	.6819	1.7167	.0070
53	23	56	1	40	.0000	3.8410	-1.0846	1.3107	.0107
53	24	167	9	74	2.3207	4.9060	-.3844	1.2045	.0059
53	25	205	7	66	2.4070	4.4563	.0888	1.0042	.0226
53	26	77	6	16	1.6963	2.8920	-.5720	1.2660	.0028
54	23	27	1	11	.0000	.8470	-.3344	.4814	.0073
54	24	121	7	39	3.1596	4.7400	1.0816	.9767	.0145
54	25	147	9	35	1.1367	2.3545	-.8668	.8993	.0063
54	26	217	9	68	3.3448	6.2850	.5940	1.3208	.0082
54	27	80	1	15	.0000	2.3900	.0870	.8638	.0082
55	24	105	5	33	.8807	3.3510	-1.0935	1.2505	.0058
55	25	215	3	77	.9843	3.7035	.0481	.8271	.0094
55	26	186	6	29	1.9183	3.3620	-.1390	1.0178	.0070
55	27	431	7	29	2.9391	3.9800	1.5858	.7019	.0239
55	28	21	1	11	.0000	4.0460	1.0870	1.2057	.0047
56	24	36	3	31	1.8316	4.9890	.3049	1.3307	.0078

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
56	25	259	4	10	.2120	.5410	-.2916	.3490	.0100
56	26	248	6	75	2.9599	5.3066	1.0826	.9701	.0070
56	27	111	8	54	1.4507	3.7170	-.8371	1.1299	.0054
56	28	82	4	25	3.9566	6.7300	2.4386	1.3571	.0100
57	25	72	1	15	.0000	1.8354	.1732	.6027	.0037
57	26	180	6	66	1.0071	3.6085	-.11076	1.1213	.0024
57	27	200	8	10	1.9196	2.1331	.6157	.6583	.0050
57	28	156	6	55	3.0071	6.1150	-.2453	1.5534	.0114
58	26	188	8	66	2.7819	4.8339	.5779	1.0114	.0018
58	27	177	7	43	.4573	2.0070	-.8077	.7326	.0129
58	28	240	15	19	3.7744	4.0200	1.5368	.8280	.0057
58	29	22	2	15	.2030	2.9400	-.11885	1.5064	.0092
59	26	77	4	52	.5709	3.7378	-.14802	1.2716	.0176
59	27	164	9	69	2.0618	3.6672	.1479	.8183	.0094
59	28	258	8	70	1.6797	3.9440	-.7113	1.0809	.0054
59	29	201	5	57	1.8652	4.3489	-.1378	1.0939	.0065
60	26	45	8	26	2.7560	4.0530	.6906	1.0167	.0051
60	27	286	10	42	.7857	1.9835	-.6930	.6958	.0096
60	28	191	8	47	3.1240	4.5791	1.1568	.8746	.0052
60	29	89	3	11	.2872	.6702	-.0892	.3112	.0096
60	30	33	3	14	2.1933	4.4000	.8630	1.3812	.0098
61	27	113	2	76	1.0275	3.8273	-.2130	.9131	.0084
61	28	162	16	75	2.0180	3.8690	-.10151	1.1202	.0037
61	29	93	10	36	1.9425	3.0921	.0742	.8486	.0017
61	30	37	8	10	1.2648	1.4022	-.11044	1.1169	.0024
62	27	42	2	12	.0220	.9200	-.4432	.5513	.0085
62	28	146	10	48	3.2577	4.5030	1.1466	.8543	.0117
62	29	126	8	13	.6375	.7558	-.2171	.3853	.0063
62	30	60	10	24	3.0600	4.0900	.5387	1.1085	.0026
63	27	21	0	11	.0000	2.3290	.2176	.8391	.0278
63	28	101	5	61	1.0011	4.1060	-.13083	1.2915	.0051
63	29	243	8	78	2.0113	3.6070	.2265	.7657	.0087
63	30	56	12	20	1.3954	1.9093	-.6983	.8443	.0090
64	27	17	1	10	.0000	1.1440	-.4640	.6956	.0019
64	28	106	2	19	1.3458	3.8490	1.2494	.8842	.0017
64	29	173	5	85	.3622	2.4170	-.6657	.6782	.0074
64	30	187	11	68	3.0057	4.1590	1.2242	.6767	.0201
64	31	57	1	17	.0000	.8520	-.3834	.4382	.0044
64	32	14	1	10	.0000	3.7170	-.5472	1.8312	.0053
65	28	109	5	25	1.0130	2.8290	-.9615	1.1659	.0021
65	29	194	6	63	1.7250	3.5950	.4523	.7467	.0076
65	30	138	1	49	.0000	2.5750	-.9048	.8841	.0065
65	31	131	1	10	.0000	1.2873	-.8111	.9393	.0125
66	28	64	3	18	2.4450	3.7820	1.4818	.8069	.0044
66	29	121	2	19	.1860	1.2472	-.4917	.5743	.0061
66	30	169	5	54	2.4511	4.1191	1.2423	.7178	.0054
66	31	58	2	23	.0438	.6208	-.2839	.2817	.0091
66	32	26	4	10	2.1741	3.2422	.3516	1.2785	.0033
67	29	19	1	13	.0000	2.9300	-.1445	1.1992	.0031

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
67	30	130	6	40	.8148	2.1753	-.6540	.7602	.0059
67	31	128	7	62	1.2023	3.1607	-.5549	.8881	.0039
67	32	35	2	17	.0182	1.4318	-.7212	.7548	.0101
67	33	13	0	10	.0000	3.8847	-2.4625	2.6527	.0108
68	30	117	5	58	2.3383	4.1480	.9101	.7824	.0074
68	31	81	7	10	.5143	.5838	.0232	.2498	.0110
68	32	85	5	32	2.2681	3.8834	.7083	.9023	.0042
68	33	25	2	13	.1114	.5737	-.2654	.3247	.0128
69	29	19	2	17	1.0960	3.3403	-.6938	1.3766	.0183
69	30	70	3	15	.5313	1.4583	-.0429	.5586	.0050
69	31	106	4	41	.8721	2.8610	-.4154	.8706	.0028
69	32	95	9	33	.9949	1.7671	-.5007	.6501	.0103
69	33	71	1	10	.0000	1.3067	-.7382	.8810	.0101
69	34	22	0	10	.0000	1.6528	-1.1789	1.2052	.0133
70	30	42	3	36	1.0683	4.0630	-.2549	1.1956	.0023
70	31	98	2	31	.5082	1.3717	.3211	.3013	.0132
70	32	154	15	104	3.0589	4.5550	.6429	.8267	.0114
70	33	41	0	12	.0000	.3901	-.2668	.2659	.0080
70	34	35	3	17	1.6007	4.0352	-.1206	1.4232	.0076
71	30	39	2	10	.1577	1.2613	-.6527	.7898	.0117
71	31	80	4	20	.5115	1.9950	-.5888	.8384	.0075
71	32	181	8	40	.7473	1.5661	-.3208	.5073	.0048
71	33	64	1	26	.0000	1.7517	-.5675	.7040	.0169
71	34	27	1	11	.0000	1.2980	-.9329	.8807	.0167
71	35	12	0	11	.0000	2.5180	-1.9081	1.6594	.0476
72	30	15	4	10	1.6574	2.9780	-.0718	1.3593	.0063
72	31	111	2	10	.0164	.2489	-.0164	.1104	.0094
72	32	151	8	111	2.0649	4.2570	.3186	.8269	.0103
72	33	67	3	14	.2137	.4400	.0640	.1405	.0095
72	34	53	5	28	1.6369	3.5220	-.2707	1.1397	.0044
72	35	37	2	13	.1009	.4150	-.1738	.2281	.0124
73	31	31	1	28	.0000	2.4980	-.8433	.9883	.0039
73	32	119	3	27	.0667	1.0432	-.5077	.4680	.0071
73	33	144	2	18	.0670	.9289	-.3988	.4527	.0053
73	34	76	2	21	.0257	.8054	-.4389	.4003	.0082
73	35	40	3	11	.1778	.4811	-.1109	.2472	.0114
74	30	13	1	13	.0000	2.9691	-1.1284	1.6069	.0037
74	31	12	0	10	.0000	.4551	-.2697	.2532	.0882
74	32	215	5	115	1.4828	4.0430	.3256	.7727	.0050
74	33	78	1	12	.0000	.3355	.0345	.1195	.0129
74	34	102	5	46	1.3632	3.6245	-.1527	.9792	.0029
74	35	94	0	15	.0000	.2393	-.1454	.1448	.0090
74	36	27	3	12	1.0139	3.3689	-1.1664	1.8074	.0083
75	31	46	1	43	.0000	2.9988	-1.2052	1.0956	.0051
75	32	97	1	33	.0000	1.6030	-.7848	.6476	.0208
75	33	116	6	31	.4007	1.4303	-.5171	.5485	.0137
75	34	115	4	34	.2866	1.1993	-.3513	.4397	.0040
75	35	66	1	10	.0000	.3740	-.1314	.2105	.0133
75	36	34	0	15	.0000	1.0679	-.4365	.5528	.0046

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
76	31	23	0	21	.0000	2.1666	-1.3488	1.1003	.0289
76	32	112	4	62	1.4101	3.7480	.3735	.8043	.0083
76	33	157	1	19	.0000	.3774	-.1169	.1661	.0069
76	34	167	7	65	1.7876	3.4750	.2078	.7813	.0028
76	35	69	1	12	.0000	.3568	-.1071	.1907	.0033
76	36	59	5	27	1.2217	3.0242	-.3688	1.0247	.0027
77	31	35	0	27	.0000	2.4257	-1.2058	1.0963	.0044
77	32	51	3	10	.2250	.7784	-.2150	.4158	.0138
77	33	80	5	12	.4754	.8890	-.3780	.5011	.0097
77	34	119	10	29	.6801	1.2529	-.5085	.5169	.0084
77	35	83	3	25	.1296	.9695	-.4834	.4345	.0201
77	36	60	2	25	.0665	1.1089	-.3875	.4610	.0049
77	37	32	1	11	.0000	.9429	-.5909	.6220	.0164
78	31	20	0	10	.0000	1.0311	-.3547	.6124	.0023
78	32	49	1	25	.0000	3.3898	-.0591	1.0459	.0084
78	33	33	1	10	.0000	.6640	-.1482	.3403	.0092
78	34	186	9	72	2.1906	3.5501	.5166	.7023	.0039
78	35	70	1	19	.0000	.3378	-.0899	.1418	.0164
78	36	98	6	40	1.5648	3.2878	-.1824	.9241	.0049
78	37	15	0	10	.0000	1.1071	-.7097	.7143	.0134
79	31	20	0	12	.0000	1.9195	-1.0103	1.1272	.0215
79	32	40	0	31	.0000	3.4405	-1.7640	1.4846	.0225
79	33	38	1	13	.0000	1.1430	-.6985	.7149	.0034
79	34	114	2	27	.0958	1.1560	-.4672	.4859	.0100
79	35	111	4	36	.2613	1.3904	-.4533	.5021	.0077
79	36	87	11	32	.6358	1.0791	-.4316	.4245	.0093
79	37	69	1	19	.0000	.7744	-.4675	.3934	.0333
79	38	30	0	12	.0000	1.3392	-.8477	.8403	.0181
80	31	14	0	12	.0000	1.5039	-.6216	.8178	.0133
80	32	32	1	21	.0000	4.4131	-.2662	1.5020	.0081
80	33	23	1	14	.0000	1.0450	-.4276	.5319	.0151
80	34	81	5	42	1.7012	3.4910	.4725	.8047	.0052
80	35	101	3	26	.0858	.5496	-.1047	.1933	.0324
80	36	36	3	25	1.2563	3.6993	-.3905	1.2820	.0064
80	37	14	1	13	.0000	.5537	.0361	.1992	.0123
80	38	43	3	10	.9809	1.8329	-.1820	.9153	.0167
81	32	37	0	14	.0000	1.8162	-.0952	.7426	.0061
81	33	44	1	12	.0000	1.1950	-.5793	.7383	.0102
81	34	75	4	11	.4678	1.1090	-.4181	.6002	.0177
81	35	113	3	27	.5362	1.4010	-.1092	.4495	.0108
81	36	102	5	28	.5489	1.3511	-.3087	.4871	.0124
81	37	77	3	14	.1535	.6306	-.2399	.3212	.0113
81	38	58	1	12	.0000	.3793	-.1977	.2215	.0247
81	39	19	0	10	.0000	1.1682	-.7776	.7621	.0221
82	34	36	5	32	1.7350	4.5840	-.0762	1.3250	.0136
82	35	68	2	32	.0459	1.1098	-.3788	.4248	.0040
82	36	65	5	30	1.8205	3.3553	.3363	.8751	.0054
82	37	24	3	12	.0889	.3403	-.0889	.1713	.0109
82	38	86	16	31	2.8363	3.6861	-.3324	1.1524	.0055

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
82	39	57	8	11	.4058	.5119	.0197	.2039	.0088
82	40	14	1	10	.0000	5.2173	-2.7047	3.0137	.0332
83	33	28	0	12	.0000	1.8048	.0092	.6904	.0254
83	34	52	2	12	.2285	1.3308	-.5848	.7413	.0138
83	35	72	2	11	.3567	1.1137	.5017	.2571	.0075
83	36	76	4	25	.5620	1.8889	-.8601	.8345	.0105
83	37	76	3	19	.0421	1.0862	-.6569	.6053	.0085
83	38	43	1	16	.0000	.9628	-.1491	.4117	.0082
83	39	44	0	17	.0000	.7367	-.4479	.4075	.0164
83	40	71	0	13	.0000	.7690	-.5120	.4690	.0199
84	34	42	1	10	.0000	3.0220	.8167	.9645	.0083
84	36	61	6	31	2.3455	3.6520	.8934	.7928	.0049
84	37	22	1	11	.0000	.8320	.1250	.2882	.0041
84	38	52	2	28	.7933	3.5129	.2399	.9742	.0032
84	40	45	1	10	.0000	2.3356	-.0725	.9744	.0159
85	35	26	4	10	1.1913	1.9438	.0380	.8429	.0013
85	36	77	2	39	.3049	2.8664	-.0943	.7790	.0187
85	37	98	7	18	.8858	1.4963	-.4306	.6632	.0100
85	38	107	5	44	.7673	2.2040	-.4203	.6800	.0104
85	39	93	0	15	.0000	1.0106	-.2806	.4718	.0075
86	36	54	5	27	2.7240	4.3990	.9718	1.0437	.0051
86	37	89	3	22	.5560	1.5017	-.0334	.4860	.0079
86	38	62	6	12	2.2297	2.6728	1.2619	.5624	.0048
86	39	30	1	10	.0000	.5360	-.1722	.2966	.0248
86	40	35	1	20	.0000	3.6463	.1592	1.1569	.0048
87	36	344	2	28	.5320	2.6417	.7624	.5630	.0055
87	37	105	2	20	.4026	2.5548	-.1288	.8998	.0120
87	38	202	5	88	1.2539	3.7760	.0748	.8095	.0097
87	39	124	4	14	.9810	1.6090	.2173	.5365	.0049
87	40	42	0	13	.0000	1.1249	-.3573	.5829	.0081
88	36	71	3	29	1.5774	3.3998	.6479	.8246	.0042
88	37	53	1	24	.0000	1.9640	-1.0251	.9034	.0189
88	38	205	5	39	3.2185	4.8732	2.0016	.7761	.0058
88	39	79	1	27	.0000	1.5959	-.2768	.5468	.0234
88	40	81	3	28	1.5214	3.5682	.6461	.8634	.0038
89	36	37	0	23	.0000	2.4693	-.6704	1.0000	.0087
89	37	58	1	13	.0000	1.5302	-.5095	.7749	.0136
89	38	128	5	72	2.0076	4.4060	.3767	.9309	.0040
89	39	162	5	72	2.2224	4.9540	.4135	1.0478	.0035
89	40	92	4	12	1.4512	2.0999	.3707	.7023	.0049
89	42	12	0	10	.0000	2.1100	-1.3545	1.3910	.0179
90	36	35	1	21	.0000	2.9873	.6403	.7601	.0079
90	37	32	4	13	.2278	.8382	-.4686	.4979	.0096
90	38	84	5	31	2.2070	3.8450	.6841	.9053	.0050
90	39	76	4	11	.7768	1.4167	-.0020	.5929	.0020
90	40	241	4	62	2.3190	5.5042	1.0074	1.0675	.0109
90	41	70	5	28	.2853	1.5580	-.7634	.6643	.0194
90	42	46	7	23	2.4500	3.2938	1.0212	.7093	.0075
91	37	61	0	22	.0000	1.7790	-.5359	.7368	.0156

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	χ^2
91	38	38	1	13	.0000	2.2369	-.8561	1.2370	.0051
91	39	49	4	25	.9258	2.8270	-.5219	1.0213	.0058
91	40	159	5	41	2.0423	3.1673	.9295	.5876	.0121
91	41	143	2	24	.1045	2.4135	.2753	.6755	.0027
91	42	118	3	44	1.1561	3.0850	.1654	.7565	.0069
91	43	32	0	10	.0000	2.1368	-1.2912	1.5398	.0032
92	36	20	2	10	.7690	2.1650	.4460	.7945	.0127
92	37	27	2	12	.1423	.9280	-.3152	.4870	.0197
92	38	21	3	11	1.3848	2.8496	.0693	1.1782	.0093
92	39	17	1	11	.0000	1.4900	-.7522	.9132	.0069
92	40	135	6	57	2.0667	3.9020	.5229	.8249	.0050
92	41	165	0	72	.0000	2.4630	-.7663	.7327	.0168
92	42	97	8	42	2.8497	4.5540	1.0832	.9094	.0073
92	43	48	0	22	.0000	1.6130	-.5973	.6868	.0150
92	44	37	2	11	.8646	4.3631	-.3408	1.9209	.0081
93	37	56	1	21	.0000	2.2857	-1.1924	1.1801	.0136
93	38	74	1	25	.0000	2.5538	-.5396	.9469	.0055
93	39	39	4	20	.8759	2.1291	-.1591	.7780	.0048
93	40	68	6	12	1.2220	1.6420	.3221	.5278	.0077
93	41	100	9	31	1.0827	1.6932	.0586	.4726	.0096
93	42	131	7	82	1.6951	3.2416	.7503	.5528	.0217
93	43	119	2	27	.3918	2.6311	-.1981	.8396	.0102
94	38	64	1	12	.0000	2.7039	.8264	.7672	.0036
94	39	25	1	10	.0000	1.5300	-.4020	.8620	.0085
94	40	53	9	33	2.3661	3.4820	.3555	.8758	.0078
94	41	370	0	51	.0000	1.4280	-.6383	.5076	.0125
94	42	104	6	43	2.0675	3.5126	.7532	.7263	.0018
94	43	87	1	27	.0000	1.5425	-.8670	.7064	.0199
94	44	38	2	12	1.4305	3.2549	1.2777	.7873	.0112
95	38	58	1	11	.0000	1.4393	-.2023	.6770	.0091
95	39	37	4	20	1.0875	3.1168	-.4033	1.1505	.0072
95	40	63	1	10	.0000	1.8927	.0469	.8106	.0046
95	41	75	3	20	.7242	1.8130	-.2353	.6670	.0145
95	42	98	9	27	1.0737	1.8082	.0060	.5337	.0127
95	43	108	9	21	.9571	1.4332	-.2224	.5346	.0070
95	44	52	2	31	.7877	2.9910	-.2770	.9310	.0079
95	45	22	0	18	.0000	4.4579	-.5773	1.6968	.0091
96	38	40	5	22	1.5069	2.5278	.5215	.6397	.0029
96	40	126	9	54	2.7500	4.0550	.9967	.7611	.0067
96	41	37	1	26	.0000	1.6520	-.7997	.7428	.0065
96	42	84	12	58	2.2346	3.4730	.2418	.7788	.0079
96	43	112	2	35	.0343	.6560	-.3763	.2819	.0230
96	44	71	7	38	2.2842	3.3805	.9347	.6653	.0090
96	45	41	0	16	.0000	1.6567	-.9945	.9427	.0098
97	38	22	1	16	.0000	.9164	-.1312	.3695	.0106
97	39	25	0	14	.0000	1.9049	-.1207	.7867	.0070
97	40	23	3	12	1.2644	2.5085	.2629	.8825	.0070
97	41	63	7	19	1.4339	2.1130	.2844	.6163	.0129
97	42	164	6	57	.7209	2.0921	-.2927	.5695	.0217

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
97	43	150	6	45	.6569	1.4803	-.2413	.4434	.0110
97	44	71	4	56	.5278	2.7971	-.8232	.8973	.0089
97	45	69	2	43	.2589	2.3728	-.5968	.7814	.0046
97	46	28	0	11	.0000	2.2437	.4419	.7570	.0039
98	38	23	4	15	.4337	2.1308	-1.2022	1.2441	.0034
98	40	47	7	11	1.8062	2.1040	.5165	.6548	.0051
98	41	17	1	10	.0000	1.0340	-.4443	.6312	.0088
98	42	137	6	81	1.7585	3.3661	.3274	.6767	.0142
98	43	94	0	10	.0000	.1521	-.0390	.0807	.0211
98	44	60	6	28	1.7970	2.8092	.4960	.6783	.0110
98	46	23	1	12	.0000	2.7730	.6769	.8715	.0146
99	38	16	4	12	.3774	1.1515	-.6243	.7078	.0098
99	39	34	0	10	.0000	.7061	-.0717	.3435	.0110
99	40	32	0	24	.0000	1.1539	-.1228	.3942	.0202
99	41	22	2	12	.3653	1.0153	-.2024	.4929	.0054
99	42	128	9	22	.6845	1.0485	-.1814	.3926	.0055
99	43	98	5	32	.5091	1.3299	-.4574	.5028	.0157
99	44	72	2	10	.0897	.7341	-.1564	.3902	.0092
99	45	82	2	37	.0643	1.8814	-.5885	.6695	.0074
99	46	50	0	11	.0000	1.1828	-.5158	.6910	.0057
99	47	15	0	10	.0000	1.9798	-.8730	1.2419	.0034
100	40	25	3	10	.3311	1.4080	-.6467	.8839	.0015
100	42	80	7	56	1.5046	3.0850	-.0752	.7758	.0071
100	43	45	2	10	.1722	.3195	.0884	.0990	.0022
100	44	119	6	59	1.7411	3.0700	.4788	.6204	.0126
100	46	42	3	22	1.4163	2.9880	.4213	.8196	.0044
100	47	16	0	13	.0000	1.3932	-1.0635	.9031	.0230
101	39	35	0	12	.0000	.8906	-.1597	.4237	.0051
101	40	19	0	14	.0000	.8700	-.4124	.4870	.0110
101	41	40	0	22	.0000	.9528	-.3527	.4113	.0105
101	42	58	4	10	.1710	.2946	-.1910	.2347	.0248
101	43	66	0	24	.0000	.9470	-.4436	.4245	.0213
101	44	106	3	17	.3069	.7200	-.0979	.2855	.0182
101	45	67	2	11	.1573	.8933	-.5322	.6069	.0116
101	46	54	0	16	.0000	1.4035	-.6562	.7319	.0099
101	47	81	4	26	.6865	1.8947	-.4879	.7216	.0063
102	40	13	2	10	.1518	1.2431	-.2118	.6432	.0069
102	42	32	5	30	.8481	2.8750	-.7021	1.0227	.0116
102	44	91	7	53	1.5806	3.0856	.0795	.7493	.0033
102	45	62	0	11	.0000	.2087	-.0366	.0999	.0069
102	46	69	6	36	1.6582	2.7990	.6288	.6081	.0047
102	47	33	3	11	.0974	.3820	-.2348	.2433	.0527
102	48	12	3	10	1.6377	3.9082	-.3152	1.6413	.0206
103	41	34	0	12	.0000	.6200	-.2261	.3307	.0103
103	42	22	0	10	.0000	.5261	-.0149	.2404	.0055
103	43	33	6	11	.2590	.5192	-.3267	.3449	.0084
103	44	81	6	12	.2382	.4321	-.1257	.2178	.0090
103	45	93	6	16	.5368	.9201	-.4455	.5050	.0079
103	46	72	4	18	.2669	.9134	-.2372	.4018	.0092

Table I

A	Z	n	n _c	n _m	U _c (MeV)	U _{max} (MeV)	U ₀ (MeV)	T (MeV)	χ^2
103	47	74	3	44	.1344	2.3561	-.7300	.8044	.0036
103	48	20	0	10	.0000	1.3648	-.7904	.8764	.0113
104	42	28	3	18	.5606	1.7902	-.1799	.6767	.0042
104	43	20	0	10	.0000	.3988	-.2055	.2499	.0115
104	44	44	6	27	1.2424	2.8234	-.4151	.9686	.0079
104	45	193	9	10	.2131	.2244	-.0183	.1075	.0086
104	47	65	3	11	.0906	.2848	-.1098	.1627	.0093
104	48	55	3	31	1.4921	3.3918	.9394	.6955	.0220
104	49	41	0	25	.0000	2.0310	-1.3371	1.0111	.0278
105	42	18	0	10	.0000	.4642	.0080	.1836	.0129
105	43	31	0	11	.0000	.3457	-.1465	.2046	.0053
105	44	56	1	10	.0000	.2727	-.0409	.1360	.0049
105	45	69	6	25	.4694	1.0240	-.2644	.3963	.0124
105	47	130	5	88	.4332	2.4291	-.6854	.6862	.0037
105	48	54	2	28	.1311	1.8228	-.6884	.7262	.0142
106	42	12	1	10	.0000	1.4358	-.2578	.6908	.0098
106	43	17	0	10	.0000	.2430	-.0818	.1320	.0116
106	44	31	2	15	.2701	2.2394	-.5629	1.0002	.0091
106	46	133	8	83	1.7064	3.1767	.3900	.6283	.0054
106	47	117	2	15	.0897	.4688	-.1168	.2124	.0039
106	48	95	7	54	2.1441	3.3293	.8236	.6098	.0153
106	49	23	1	10	.0000	.5063	-.2366	.2810	.0399
106	50	23	6	20	4.1280	9.0890	-2.7178	3.8786	.0052
107	42	17	0	10	.0000	.7308	-.3195	.4238	.0128
107	44	38	0	10	.0000	.3603	-.1398	.2060	.0093
107	45	58	3	13	.2684	.5889	.0258	.2258	.0067
107	46	76	5	10	.3128	.4120	.0500	.1618	.0086
107	47	102	2	40	.0931	1.9757	-.6491	.7009	.0078
107	48	146	6	26	.5055	1.3774	-.3231	.5094	.0091
107	49	46	3	22	1.0013	2.0040	.2606	.5618	.0131
107	50	25	0	12	.0000	2.2065	.2476	.7929	.0073
108	44	23	2	10	.2422	1.4862	-.1628	.6775	.0127
108	46	44	6	37	1.3142	2.7900	-.0814	.7783	.0063
108	47	117	3	14	.1094	.3792	-.0942	.1768	.0064
108	48	159	9	59	2.2023	3.3260	.8392	.6040	.0058
108	49	75	2	56	.0298	1.6296	-.6700	.5499	.0167
108	50	65	4	15	2.3651	4.6012	.1044	1.6336	.0059
108	51	39	4	10	.4096	1.4679	-1.0394	1.1753	.0238
109	44	16	0	10	.0000	.5146	-.2994	.3045	.0645
109	45	59	2	10	.2063	.5307	-.0641	.2481	.0072
109	46	125	3	12	.1890	.3395	.0804	.1030	.0103
109	47	63	2	10	.0880	.7243	-.4777	.5510	.0147
109	48	96	4	21	.3475	1.2193	-.4101	.5326	.0032
109	49	82	2	13	.6501	1.5739	.4233	.4491	.0110
109	50	20	0	12	.0000	1.3437	.0295	.5101	.0103
110	46	72	6	55	1.1707	2.8930	-.2604	.7765	.0061
110	47	76	4	14	.1187	.3045	-.0452	.1326	.0103
110	48	125	7	42	1.7835	2.9845	.6312	.6225	.0053
110	49	85	2	43	.0621	1.3033	-.4453	.4487	.0196

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
110	50	56	2	23	1.2119	3.0600	1.5458	.4749	.0045
111	45	14	0	11	.0000	.6819	-.0671	.3072	.0110
111	46	42	3	18	.1722	.6638	-.2640	.3020	.0251
111	47	122	5	46	.3767	1.3018	-.3870	.4337	.0094
111	48	73	6	24	.6202	1.1300	-.1496	.3997	.0083
111	49	112	7	44	1.2175	2.3403	.1327	.5707	.0095
111	50	85	6	44	.9796	2.3860	-.5215	.7628	.0045
111	51	15	0	11	.0000	2.8530	-.5256	1.3683	.0111
112	46	19	2	12	.3488	1.4234	.0964	.5180	.0186
112	48	78	9	56	2.0052	3.1309	.3967	.6661	.0089
112	49	62	5	30	.3508	.9550	-.2221	.3418	.0075
112	50	100	6	26	2.3545	3.1494	1.4677	.5085	.0072
112	51	14	1	10	.0000	.5017	-.1038	.2427	.0126
113	45	11	0	11	.0000	1.0090	-.4429	.5848	.0105
113	47	16	4	10	.2221	.4767	-.1376	.2429	.0233
113	48	78	5	25	.4584	1.0499	-.1828	.3856	.0041
113	49	128	4	37	1.0243	1.8651	.2459	.4405	.0098
113	50	144	5	41	.7384	2.1764	-.3480	.6712	.0035
113	51	60	4	10	1.0186	1.7165	.0404	.6956	.0035
114	46	33	2	10	.3325	1.5002	-.1344	.6823	.0123
114	48	116	8	62	1.7322	3.0529	.2307	.6725	.0055
114	49	55	2	19	.1903	.8357	-.1279	.3268	.0130
114	50	157	9	48	2.4543	3.5664	1.1734	.6150	.0052
114	51	129	2	28	.0273	.8092	-.4732	.3644	.0312
114	52	50	2	15	.7089	2.2961	.3211	.7357	.0163
114	54	11	3	11	1.0680	3.2462	-1.1932	1.7782	.0160
115	47	15	3	13	.1666	.6642	-.2450	.3497	.0113
115	48	53	4	10	.3605	.5073	-.0044	.2275	.0149
115	49	55	10	24	1.1326	1.6500	.0565	.4883	.0067
115	50	102	7	56	1.4168	2.8600	-.1480	.7315	.0140
115	51	36	8	29	1.3806	2.8384	-.4225	.9591	.0081
115	52	11	1	10	.0000	2.6413	-1.7557	1.8700	.0022
115	53	36	0	10	.0000	1.5407	-.4828	.7976	.0310
116	46	13	2	10	.3406	2.3410	-.7491	1.2038	.0211
116	48	68	7	55	1.6425	2.9730	.3981	.6286	.0091
116	49	78	5	10	.2897	.4259	.0484	.1546	.0071
116	50	194	10	73	2.5292	3.7479	1.1254	.6044	.0027
116	51	83	7	49	.4661	1.3123	-.3553	.4136	.0169
116	52	49	2	11	.6789	2.3399	-.1479	1.0090	.0050
116	54	19	3	13	.9178	2.2103	-.2031	.9280	.0074
117	48	50	1	12	.0000	.5221	-.1723	.2829	.0116
117	49	62	7	19	.8807	1.4687	-.0891	.5228	.0117
117	50	100	7	46	1.1797	2.5450	-.4051	.7513	.0135
117	51	79	4	13	.9239	1.5346	.1471	.5544	.0062
117	52	47	2	20	.2744	1.1869	-.4388	.5202	.0182
117	53	89	0	13	.0000	.6605	-.3933	.4158	.0107
117	54	58	0	10	.0000	.3140	.0959	.0881	.0145
118	47	15	0	11	.0000	.3965	-.2384	.2544	.0230
118	48	35	3	24	1.1649	2.6406	.0321	.8018	.0170

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
118	49	19	2	12	.0600	.7110	-.3830	.4102	.0282
118	50	149	5	41	2.0569	3.1375	1.2141	.5085	.0058
118	51	132	1	12	.0000	.3246	-.1981	.2118	.0062
118	52	88	2	34	.6057	2.6224	-.1364	.7823	.0063
118	54	62	6	22	1.2283	2.1637	-.1607	.7570	.0056
119	48	27	1	10	.0000	.5708	-.2818	.3580	.0123
119	49	59	3	12	.6042	1.2037	.0240	.4631	.0094
119	50	144	6	50	.9214	2.4700	-.7105	.7895	.0203
119	51	73	3	48	.6440	2.4550	-.2047	.6569	.0216
119	52	81	7	25	.5011	.9060	-.1053	.3125	.0054
119	53	82	1	12	.0000	.6869	-.3720	.4234	.0039
119	54	45	0	10	.0000	.3140	.0558	.1013	.0268
120	50	83	5	15	2.1592	2.4816	1.5436	.3475	.0100
120	52	44	2	29	.5604	3.1422	-.2914	1.0253	.0087
120	54	25	3	13	.7959	1.8168	-.3214	.8042	.0273
121	48	56	0	28	.0000	1.4007	-.6106	.5846	.0214
121	49	53	3	17	.6379	1.6140	.0807	.5240	.0184
121	50	136	3	56	.0603	2.5580	-.7961	.8120	.0140
121	51	65	7	25	1.0354	1.8109	-.1521	.6020	.0116
121	52	106	3	26	.2940	.9940	-.0794	.3217	.0081
121	53	99	6	36	.3106	1.3393	-.5227	.5133	.0078
121	54	71	0	31	.0000	.7374	-.1922	.2702	.0096
121	56	61	0	10	.0000	.3794	-.1019	.2019	.0110
122	50	86	6	24	2.2459	2.8800	1.4994	.4241	.0103
122	52	70	5	41	1.3574	2.9800	.3062	.7109	.0047
122	54	83	3	12	.8283	1.8822	-.1779	.8060	.0084
123	50	86	3	31	.1504	2.1620	-.7252	.8059	.0336
123	51	58	5	16	1.0302	1.7450	-.2579	.7320	.0041
123	52	148	4	16	.4397	.9196	-.1804	.3953	.0081
123	53	116	3	31	.1489	1.4930	-.6338	.6012	.0067
123	54	45	0	22	.0000	.7981	-.3390	.3547	.0205
123	55	39	1	10	.0000	.7231	-.5329	.4851	.0376
124	50	115	3	19	2.1016	2.7029	1.4822	.4085	.0275
124	51	61	3	10	.0368	.1801	-.0989	.1095	.0199
124	52	141	2	69	.6027	2.8700	.5927	.5299	.0061
124	53	41	2	15	.0555	.2970	-.0260	.1213	.0129
124	54	32	8	10	1.5487	1.6284	-.0820	.7727	.0091
125	50	66	3	13	.2151	1.5403	-.6697	.8419	.0137
125	51	51	2	30	.3321	2.2990	-.1031	.7063	.0042
125	52	205	7	15	.5252	.8409	-.2961	.4188	.0052
125	53	138	8	10	.5955	.7043	-.3230	.4373	.0030
125	54	105	0	12	.0000	.5968	-.0832	.2664	.0154
125	55	55	0	12	.0000	.8505	-.6369	.5613	.0357
126	50	83	4	11	2.1108	2.2980	1.8329	.1904	.0032
126	52	106	4	54	1.4202	2.8772	.7506	.5248	.0040
126	55	28	1	15	.0000	.5895	-.1261	.2540	.0221
127	49	16	0	15	.0000	2.8939	-1.3573	1.6004	.0454
127	50	16	0	12	.0000	1.7023	-.8219	.9771	.0186
127	51	61	1	60	.0000	2.8811	.0257	.6874	.0096

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
127	52	199	3	13	.0883	.7834	-.4216	.4807	.0084
127	53	116	3	12	.2029	.7447	-.2565	.3985	.0055
127	55	85	1	15	.0000	.7131	-.3548	.3978	.0098
127	56	99	3	11	.0803	.4157	-.2630	.2714	.0100
127	57	83	0	12	.0000	.7111	-.4308	.4231	.0346
128	50	42	1	15	.0000	2.6423	1.4062	.4503	.0143
128	52	85	3	45	1.4973	2.8206	.9841	.4748	.0073
128	53	175	3	11	.0855	.1804	.0172	.0675	.0161
128	54	58	6	49	1.5830	3.1154	.1528	.7539	.0088
128	56	39	3	29	.7634	2.7463	-.1876	.8598	.0084
128	58	25	1	14	.0000	3.3246	-1.2052	1.6861	.0057
129	50	14	0	10	.0000	1.8650	-.8665	1.0585	.0267
129	51	14	1	14	.0000	3.4840	-1.6517	1.9295	.0247
129	52	108	3	11	.1808	.8760	-.4647	.5397	.0068
129	53	38	5	10	.5598	.8448	-.2443	.4961	.0058
129	54	34	4	11	.3182	.6654	-.1840	.3518	.0083
129	55	41	4	15	.1889	.7552	-.4079	.4204	.0197
129	56	72	3	10	.1106	.3184	-.0850	.1861	.0151
129	57	15	1	13	.0000	3.2558	-2.8532	2.1927	.0387
130	50	21	1	12	.0000	2.4930	1.3304	.4654	.0149
130	52	78	4	22	1.6330	2.5271	1.0035	.4902	.0032
130	53	50	2	13	.0400	.0937	-.0195	.0440	.0245
130	54	103	4	45	1.2046	2.8416	.5254	.6012	.0077
130	56	58	2	25	.3574	2.4751	-.2022	.8230	.0091
130	58	67	3	23	.7104	2.8086	-.5818	1.0716	.0032
131	50	16	0	10	.0000	4.5151	-4.1242	4.0800	.0144
131	51	49	0	27	.0000	2.0863	.5154	.4921	.0210
131	52	129	3	27	.2959	1.8764	-.4568	.6980	.0097
131	53	84	2	21	.1497	1.5006	-.0904	.5185	.0021
131	54	43	6	20	.4048	1.1133	-.3989	.4935	.0062
131	55	38	8	16	.5850	.7753	-.4458	.4551	.0117
131	56	130	7	22	.3652	.9742	-.3480	.4176	.0116
131	57	121	2	10	.0262	.4599	-.2042	.2948	.0103
131	59	30	0	10	.0000	1.2402	-.8257	.8076	.0237
132	52	22	4	11	1.7741	2.4873	.8618	.6766	.0047
132	54	75	5	32	1.8037	2.7544	.7209	.5799	.0090
132	55	19	1	12	.0000	.3270	-.0900	.1630	.0071
132	56	80	9	23	1.9322	2.5674	.1949	.7421	.0059
132	57	29	7	11	.2791	.4069	-.1397	.2257	.0201
132	60	52	3	10	.6098	1.8826	-.5983	1.0466	.0057
133	51	31	0	31	.0000	6.3155	.7216	1.6315	.0066
133	52	19	0	17	.0000	2.3321	-.7588	1.0888	.0274
133	53	88	1	38	.0000	2.0535	.0512	.5504	.0064
133	54	29	4	13	.5299	1.1695	-.3558	.5831	.0045
133	55	35	8	10	.7055	.7677	-.4211	.5429	.0087
133	56	47	3	18	.2882	1.0216	-.3478	.4754	.0129
133	57	142	4	18	.1308	.9800	-.5300	.5021	.0156
133	58	78	4	13	.2071	.6566	-.3122	.3684	.0119
133	60	174	0	19	.0000	.5238	-.0833	.2072	.0046

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
134	54	24	8	11	2.2720	2.4085	.8549	.6549	.0034
134	55	112	2	16	.0112	.2910	-.0705	.1276	.0247
134	56	92	10	51	2.0883	2.9572	.6747	.5691	.0110
134	58	58	4	25	1.0487	2.5658	.1272	.7499	.0046
134	60	59	2	16	.2943	2.1265	-.2699	.8406	.0068
135	52	11	0	10	.0000	6.3400	-5.5036	5.7295	.0356
135	53	18	1	13	.0000	2.3124	-.4753	1.0556	.0113
135	54	30	3	30	.5266	2.4779	-.2098	.8144	.0106
135	56	30	5	17	.5878	1.2384	-.3264	.5632	.0048
135	57	45	6	17	.5838	1.0385	-.4034	.4996	.0109
135	58	22	0	12	.0000	1.1452	-.5360	.6479	.0119
135	59	52	0	13	.0000	.7992	-.3051	.4257	.0057
136	53	11	0	11	.0000	3.2352	-3.0496	2.3570	.1055
136	54	67	4	11	1.8917	2.5599	.9787	.6746	.0055
136	56	84	4	29	1.5790	2.5620	1.0714	.4323	.0108
136	59	41	1	24	.0000	1.1840	-.7223	.5952	.0147
136	62	44	6	29	1.2214	3.9913	-1.4207	1.5888	.0077
137	54	164	2	15	.6010	1.7961	.4348	.5110	.0043
137	55	51	2	17	.4555	2.2168	.0627	.7412	.0093
137	56	60	3	33	.6617	2.9110	-.4915	.9513	.0053
137	57	62	3	11	.4471	.9263	-.0110	.3934	.0042
137	58	69	1	18	.0000	1.3374	-.4275	.6161	.0052
137	59	94	3	15	.2299	1.0013	-.3518	.4874	.0065
137	60	43	2	11	.1086	1.1000	-.5535	.6682	.0081
137	61	39	1	11	.0000	1.0571	-.5511	.6589	.0193
137	62	42	0	25	.0000	3.4924	-.9822	1.3579	.0102
138	54	33	1	25	.0000	2.9721	.2043	.8405	.0112
138	55	29	2	11	.0108	.5560	-.4645	.4303	.0055
138	56	89	4	11	2.0905	2.4456	1.4892	.3989	.0087
138	57	63	1	37	.0000	1.3020	-.5648	.4988	.0112
138	58	62	7	33	2.1368	3.1090	.7038	.6707	.0115
138	59	48	1	15	.0000	.7180	-.1840	.3199	.0198
138	60	46	4	24	1.2499	2.9610	.0168	.9140	.0072
138	64	16	1	10	.0000	3.2960	-1.8835	2.2200	.0023
139	54	17	1	17	.0000	1.6843	-.9553	.9001	.0165
139	55	60	1	15	.0000	1.1392	-.3937	.5454	.0106
139	56	99	2	39	.6273	2.2499	.5790	.4545	.0031
139	57	92	4	14	1.2190	1.5780	.8403	.2893	.0101
139	58	53	6	30	1.5783	2.6310	.0852	.7332	.0142
139	59	69	7	24	.8519	1.6243	-.2207	.5755	.0050
139	60	36	1	13	.0000	1.1050	-.4439	.6043	.0023
139	61	71	0	18	.0000	.9296	-.3073	.4321	.0063
139	62	14	0	10	.0000	.9201	-.4816	.5902	.0057
140	55	33	1	11	.0000	.2319	-.1134	.1378	.0317
140	56	54	4	17	1.5107	2.5218	.3713	.7599	.0039
140	57	231	6	124	.0632	1.8231	-.7785	.5180	.0226
140	58	126	10	10	2.4809	2.4809	1.3323	.5198	.0088
140	59	38	7	10	.2871	.4199	-.3232	.3216	.0014
140	60	48	3	10	1.4133	2.3300	.3551	.8990	.0115

Table I

- 25 -

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
140	62	71	2	14	.5307	2.4823	-.1134	.9657	.0037
140	63	23	1	15	.0000	.6110	-.2032	.2893	.0181
140	64	24	11	10	2.4120	2.1397	-.7155	1.1659	.0100
141	55	23	1	11	.0000	.5571	-.3755	.3732	.0176
141	56	72	1	36	.0000	2.0102	-.7297	.7457	.0174
141	57	33	0	13	.0000	1.0666	-.2664	.5170	.0026
141	58	85	5	37	1.3687	2.3363	.6112	.4793	.0042
141	59	104	4	19	1.1268	1.6576	.7596	.3087	.0118
141	60	86	5	49	1.3455	2.5393	.2724	.5718	.0087
141	61	67	3	16	.4038	1.2425	-.2155	.5158	.0041
141	62	29	4	17	.3845	1.1800	-.4794	.5762	.0069
141	63	37	2	12	.0964	.6717	-.1580	.3288	.0068
141	64	17	0	12	.0000	.7583	-.2921	.4215	.0040
142	55	32	1	10	.0000	.3047	-.2299	.2254	.0139
142	56	29	2	18	.3596	2.2296	.0932	.7124	.0168
142	57	24	1	14	.0000	.4323	-.1074	.2047	.0064
142	58	62	5	33	1.6526	3.0107	.4418	.7197	.0093
142	59	171	6	10	.0850	.1535	-.1022	.1091	.0110
142	60	148	6	12	2.2172	2.5833	1.5600	.4053	.0099
142	61	24	1	11	.0000	.7068	-.1266	.3400	.0158
142	64	30	2	12	.5152	2.3440	-.3151	1.0899	.0082
143	56	30	1	17	.0000	.8341	-.4323	.4412	.0155
143	57	47	0	20	.0000	1.1103	-.4968	.5242	.0124
143	58	77	3	56	.0423	2.3480	-.7693	.7597	.0106
143	59	30	2	11	.0574	.9378	-.3018	.5060	.0044
143	60	207	6	10	1.4312	1.6083	.8717	.3209	.0025
143	61	74	5	12	1.1732	1.5658	.4257	.4653	.0022
143	62	90	6	42	1.3691	2.6859	.1245	.6765	.0035
144	56	22	8	10	1.0386	1.3556	-.2039	.6558	.0114
144	57	26	0	10	.0000	.3115	-.1011	.1787	.0186
144	58	57	3	21	.9387	2.2208	.3219	.6241	.0037
144	60	118	6	77	1.7914	3.1464	.8455	.5204	.0084
144	61	37	1	10	.0000	.2793	-.1588	.1911	.0082
144	62	106	3	19	1.8101	2.8840	1.2413	.5630	.0055
144	63	36	1	21	.0000	1.2014	-.1204	.4279	.0096
144	64	35	2	13	.7430	2.4719	.8669	.6524	.0154
144	66	15	1	11	.0000	3.1750	-.4228	1.5059	.0064
145	56	31	4	16	.1987	.6725	-.2152	.3159	.0050
145	57	19	0	12	.0000	.6375	-.3579	.3999	.0050
145	58	31	0	13	.0000	.7087	-.4758	.4650	.0044
145	59	25	2	16	.0627	.9484	-.3134	.4492	.0074
145	60	138	9	69	.9370	2.2230	-.5745	.6466	.0168
145	61	53	3	13	.4923	.8838	.2601	.2408	.0152
145	62	88	12	21	1.7292	1.9970	.7604	.3942	.0158
145	63	205	6	60	1.3680	2.6422	.0902	.6173	.0081
145	64	40	7	11	1.4980	1.8099	-.1093	.8102	.0047
145	66	13	0	10	.0000	1.2834	-.8502	.8620	.0158
146	56	17	3	10	.5134	1.2562	-.1026	.5760	.0041
146	58	66	8	42	1.1831	2.4465	-.1534	.6938	.0034

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
146	60	124	12	79	1.7451	2.7140	.3102	.5455	.0022
146	62	143	9	73	2.1556	3.2592	.7170	.5826	.0124
146	63	33	6	11	.3165	.4360	-.1459	.2505	.0073
147	56	20	0	18	.0000	.5135	-.2714	.2650	.0106
147	57	36	0	13	.0000	.3425	-.1229	.1795	.0017
147	58	27	0	10	.0000	.4330	-.0703	.2193	.0038
147	59	21	0	19	.0000	.7481	-.4029	.3845	.0029
147	60	126	3	24	.1279	1.0415	-.4428	.4587	.0052
147	61	42	2	18	.0911	.7307	.0442	.2333	.0137
147	62	94	4	42	.7166	1.6010	-.2249	.4752	.0316
147	63	60	3	28	.6253	1.4746	.0906	.4088	.0132
147	65	85	0	53	.0000	2.8146	-.6691	.8538	.0216
147	66	21	3	10	.7505	2.0634	-.5600	1.1149	.0043
148	57	26	0	12	.0000	.2305	-.1038	.1312	.0074
148	58	34	3	24	.4534	1.7283	-.2314	.6064	.0098
148	59	17	1	13	.0000	.3906	-.2401	.2373	.0265
148	60	45	12	11	1.5115	1.2797	.2902	.4159	.0095
148	61	44	2	19	.0757	.4620	-.0984	.1885	.0073
148	62	239	5	53	1.4244	2.4730	.5625	.4729	.0059
148	65	48	11	13	.4060	.4450	-.1512	.2333	.0045
148	66	57	11	19	2.9696	3.4050	.9492	.8585	.0198
149	59	14	0	11	.0000	.6600	-.4941	.4576	.0112
149	60	83	3	13	.1384	.3406	-.0345	.1474	.0027
149	61	73	13	20	.4622	.5583	-.0949	.2179	.0082
149	62	194	5	22	.3500	.8819	-.1527	.3347	.0056
149	63	129	3	26	.4580	1.0126	.0763	.2864	.0097
149	65	105	2	36	.0358	1.5085	-.4919	.5440	.0207
149	66	59	0	10	.0000	1.6635	.3603	.5992	.0164
149	67	82	0	51	.0000	2.7380	-.6098	.8474	.0087
149	68	15	0	15	.0000	3.2427	-1.4244	1.7367	.0161
150	60	134	12	30	1.1378	1.6480	-.1320	.5175	.0046
150	62	180	15	66	1.6425	2.3281	.1429	.5154	.0037
150	63	85	0	11	.0000	.2690	-.1636	.1799	.0051
150	66	86	2	13	.8030	3.2434	-.3214	1.3493	.0107
150	67	17	1	10	.0000	2.1596	-.9787	1.2678	.0116
150	68	29	1	12	.0000	3.1870	.8357	.9229	.0097
151	60	75	0	28	.0000	.7660	-.4306	.3445	.0242
151	61	114	6	19	.2557	.6401	-.2366	.2852	.0111
151	62	154	4	12	.0697	.2200	-.0895	.1200	.0144
151	63	113	3	15	.1962	.3536	.0464	.1143	.0122
151	64	108	6	25	.5756	.9388	-.0008	.2850	.0168
151	67	37	0	10	.0000	1.2798	-.7200	.7802	.0250
151	68	14	0	14	.0000	3.0324	-.8042	1.4046	.0151
152	60	21	3	11	.2366	1.2512	-.7349	.8493	.0085
152	62	123	14	74	1.2339	2.2148	-.1933	.5556	.0030
152	63	163	21	14	.1609	.1245	.0179	.0405	.0081
152	64	99	13	34	1.4340	2.0116	-.0346	.5767	.0021
152	65	28	9	18	.8061	1.9203	-1.3307	1.0690	.0394
152	68	31	2	25	.8079	6.8809	-2.8602	3.0111	.0137

Table 1

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<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U_{ff}</i> (MeV)	<i>T</i> (MeV)	χ^2
153	61	43	7	10	.2550	.4530	-.2832	.2906	.0186
153	62	180	7	14	.0984	.1959	-.1033	.1127	.0173
153	63	99	4	44	.1032	.7971	-.3020	.2843	.0089
153	64	131	3	14	.0933	.2213	-.0404	.0996	.0150
153	65	99	2	11	.0807	.2747	.0329	.1017	.0065
153	67	43	2	15	.0680	2.3580	-.8275	1.1855	.0039
153	68	39	0	12	.0000	1.7311	-.8457	1.0574	.0124
153	69	30	0	20	.0000	1.1522	-.5328	.5620	.0057
154	62	101	8	59	1.0994	2.0691	-.2364	.5618	.0121
154	63	157	12	13	.1367	.1453	.0036	.0546	.0105
154	64	228	9	127	1.1278	2.5146	-.2535	.5533	.0182
154	66	126	20	16	1.7478	1.5460	.0362	.5409	.0022
154	68	55	15	10	4.4990	3.0160	-.5221	1.5558	.0048
155	61	37	0	10	.0000	.5446	-.2733	.3505	.0066
155	62	142	7	34	.2207	1.0430	-.5102	.4198	.0177
155	63	67	14	10	.5010	.3572	-.1196	.1995	.0058
155	64	155	22	32	.4234	.4887	-.2055	.1955	.0209
155	65	87	14	22	.4986	.6160	-.1306	.2329	.0106
155	66	159	13	12	.3210	.2478	-.0538	.1255	.0093
155	67	68	3	17	.1420	.5828	-.2050	.2722	.0147
155	68	63	1	10	.0000	.5845	-.2804	.3809	.0016
156	62	34	4	20	.5171	1.7920	-.5745	.7711	.0082
156	63	33	24	11	.3534	.1842	-.0642	.1045	.0020
156	64	221	14	112	1.2978	2.3830	-.1048	.5201	.0126
156	65	58	1	10	.0000	.1880	-.0876	.1154	.0244
156	68	114	6	21	1.2208	1.7105	.2773	.4626	.0106
156	70	21	7	10	3.0283	4.4751	-1.8054	2.5976	.0045
157	63	34	5	10	.2631	.4570	-.1353	.2547	.0082
157	64	121	8	12	.2760	.3720	-.2090	.2321	.0074
157	65	65	26	22	.8607	.7091	-.1688	.2808	.0080
157	66	102	7	10	.2112	.2576	.0400	.0915	.0043
157	67	125	4	10	.0834	.2150	-.0971	.1334	.0126
158	64	164	21	72	1.4066	2.2215	-.2456	.5656	.0150
158	65	38	4	10	.1100	.2173	-.0609	.1175	.0129
158	66	71	12	43	1.3147	2.1077	-.2638	.6154	.0151
158	67	27	2	10	.0672	.2330	-.0366	.1139	.0132
158	68	94	8	32	1.0434	1.7696	.0353	.4985	.0039
158	70	52	5	23	2.0454	4.0822	-.7328	1.5076	.0111
159	63	32	10	10	.4420	.4420	-.0980	.2218	.0092
159	64	134	9	10	.2275	.2730	-.1116	.1559	.0119
159	65	66	9	16	.4280	.6176	-.1500	.2722	.0081
159	66	92	11	14	.3611	.4170	-.0805	.1834	.0070
159	67	99	7	13	.2526	.3820	-.0330	.1594	.0136
159	68	147	5	10	.2202	.3070	-.0078	.1369	.0028
160	64	84	5	43	.8708	1.7793	-.2136	.5246	.0203
160	65	99	18	13	.2442	.1768	-.0335	.0794	.0097
160	66	121	25	74	1.5351	2.1880	-.1330	.5260	.0239
160	67	34	5	10	.1184	.3359	-.1644	.1914	.0293
160	68	106	5	25	.8544	1.7611	-.2248	.6174	.0053

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
160	70	89	4	16	.8204	1.6764	.0211	.5815	.0084
160	72	20	5	12	2.1478	3.5301	-.11321	1.8879	.0062
161	64	52	13	11	.6040	.5290	-.1263	.2710	.0039
161	65	58	15	10	.6030	.4990	-.2256	.3306	.0041
161	66	119	21	10	.5081	.2130	-.1203	.1398	.0152
161	67	107	6	13	.2527	.3733	.0266	.1363	.0172
161	68	76	20	10	.5087	.2674	.0212	.1075	.0047
161	69	61	5	11	.0782	.2109	-.1767	.1608	.0172
161	70	58	1	10	.0000	.4437	-.2083	.2525	.0677
162	64	17	5	13	.8640	1.7490	-.9716	1.0838	.0053
162	66	147	24	89	1.5302	2.2140	-.1285	.5122	.0147
162	67	17	4	11	.1060	.3853	-.2035	.2297	.0338
162	68	111	13	49	1.3568	2.1338	-.2049	.5878	.0128
162	70	73	3	10	.4875	1.1503	-.1670	.5850	.0036
162	72	53	18	16	3.2475	3.0306	-.5958	1.2827	.0056
163	65	30	2	10	.0570	.5751	-.2840	.3735	.0019
163	66	180	6	19	.2856	.5146	-.0246	.1830	.0042
163	67	78	11	12	.4405	.4712	.0357	.1748	.0046
163	68	171	11	33	.2495	.6408	-.2980	.2575	.0203
163	69	69	6	12	.1444	.2584	-.1556	.1654	.0108
163	70	60	2	10	.0539	.2345	-.0966	.1364	.0129
163	71	26	0	14	.0000	.8667	-.5462	.4971	.0342
164	66	119	13	77	1.1555	2.5155	-.4914	.6797	.0063
164	67	36	4	10	.1400	.2750	-.0680	.1464	.0025
164	68	143	15	82	1.4340	2.2880	-.1239	.5370	.0141
164	70	64	4	25	.7597	1.7990	-.2078	.6129	.0090
164	72	57	3	15	.5878	1.6761	-.3548	.7650	.0051
165	66	135	9	12	.2977	.3606	-.1138	.1822	.0206
165	67	86	3	17	.2098	.6013	-.0544	.2296	.0055
165	68	105	5	16	.0980	.3843	-.2048	.2103	.0105
165	69	86	4	10	.1295	.2524	-.0578	.1245	.0219
165	70	98	2	10	.0875	.2546	-.0360	.1194	.0183
165	72	53	0	10	.0000	.9550	-.6816	.6800	.0157
166	66	32	1	23	.0000	1.7700	-.4416	.6794	.0212
166	67	327	1	29	.0000	.4819	-.1737	.1919	.0044
166	68	159	12	132	1.3760	2.6560	-.2110	.5756	.0159
166	70	115	6	46	1.0391	2.0730	-.1741	.5737	.0132
166	72	65	3	13	.4703	1.2130	-.0097	.4670	.0088
166	74	22	4	10	1.2256	2.7422	-.1.1487	1.6714	.0023
167	67	32	5	11	.3198	.5697	-.1077	.2732	.0100
167	68	164	8	40	.3466	.8783	-.2082	.2866	.0075
167	69	138	4	13	.1425	.3266	-.0787	.1574	.0203
167	70	101	5	13	.0787	.2586	-.1451	.1527	.0096
168	68	252	13	136	1.2639	2.4272	-.1745	.5240	.0049
168	69	141	1	20	.0000	.2450	-.1354	.1251	.0117
168	72	85	4	14	.7569	1.4073	-.2602	.6459	.0103
168	74	68	3	10	.5623	1.5868	-.4211	.8972	.0044
169	67	30	6	10	.3590	.5180	-.0945	.2601	.0062
169	68	135	3	10	.0746	.3172	-.1755	.2123	.0076

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
169	69	65	6	22	.3321	.6912	-.2198	.2824	.0171
169	70	174	13	11	.4050	.2786	-.1672	.1887	.0130
169	71	57	2	10	.0290	.2251	-.1022	.1322	.0130
169	72	40	0	10	.0000	.1772	-.1257	.1246	.0208
169	73	11	0	10	.0000	4.0419	-2.9905	2.7938	.0200
170	68	85	4	50	.5407	1.8246	-.1422	.4883	.0342
170	69	144	1	10	.0000	.2471	-.0033	.1086	.0033
170	70	172	8	82	1.1457	2.2755	-.1735	.5375	.0305
170	71	24	2	12	.0445	.2125	-.0526	.1019	.0325
170	72	79	3	15	.3220	1.5052	-.3910	.6959	.0120
170	74	53	2	19	.1569	2.6102	-.7901	1.1718	.0027
170	76	29	2	18	.2867	3.2801	-.7077	1.4232	.0063
171	68	74	1	12	.0000	.4550	-.0761	.2075	.0060
171	69	42	8	28	.5203	1.0574	-.4050	.4313	.0063
171	70	120	14	10	.4872	.2591	-.1256	.1672	.0065
171	71	88	7	10	.2082	.2956	-.1220	.1756	.0056
171	72	93	0	12	.0000	.2780	-.1824	.1789	.0293
171	76	38	0	10	.0000	1.1119	-.7758	.7624	.0221
172	68	39	1	19	.0000	1.9830	-.7175	.9676	.0182
172	69	14	1	12	.0000	.6101	-.2178	.3390	.0185
172	70	307	14	128	1.3307	2.4114	-.1301	.5147	.0164
172	71	40	2	22	.0419	.2522	-.0851	.1064	.0150
172	72	110	6	41	.9524	1.8782	-.1625	.5431	.0157
172	74	50	5	19	1.1468	2.8489	-1.0585	1.3229	.0029
172	76	79	3	10	.6062	1.1379	.0338	.4737	.0100
173	69	34	0	13	.0000	.8561	-.5448	.5277	.0104
173	70	113	10	17	.4820	.6594	-.1002	.2672	.0047
173	71	82	1	14	.0000	.4490	-.1906	.2505	.0108
173	72	130	17	11	.6137	.3360	-.1458	.1965	.0078
174	70	190	7	118	1.3360	2.8454	-.2773	.6375	.0275
174	71	169	0	10	.0000	.3112	-.0711	.1698	.0011
174	72	106	9	46	1.2268	2.0303	-.2410	.5886	.0157
174	74	30	5	18	1.1389	2.3964	-.7870	1.0833	.0133
174	76	49	1	18	.0000	2.2720	-.6236	1.0008	.0073
175	69	29	0	10	.0000	.8700	-.0996	.3938	.0078
175	70	80	3	16	.2315	.8717	-.2378	.3928	.0045
175	71	72	5	11	.3536	.4328	.1181	.1351	.0188
175	72	65	9	14	.3125	.4061	-.0928	.1812	.0159
175	73	40	1	14	.0000	.3392	-.1839	.1855	.0279
176	70	40	5	28	.9540	1.9850	-.4083	.6993	.0174
176	71	101	2	20	.1230	.4639	-.0301	.1584	.0141
176	72	146	12	100	1.3413	2.3187	-.0493	.4983	.0372
176	74	36	4	18	.7005	1.6746	-.4041	.7330	.0170
176	75	19	0	10	.0000	.7172	-.5747	.5353	.0616
176	76	45	5	21	1.1574	2.8177	-.8844	1.1933	.0052
176	78	11	2	10	.2639	3.4235	-2.4841	2.3162	.0267
177	70	114	0	10	.0000	.5264	-.2149	.3066	.0041
177	71	126	15	23	.7096	.8543	-.2376	.3503	.0037
177	72	71	4	10	.3213	.5081	.0395	.1959	.0065

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U_b</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
177	73	58	1	11	.0000	.3003	-.1079	.1669	.0049
177	76	57	0	11	.0000	.3757	-.1489	.2212	.0053
177	78	52	0	10	.0000	.2649	-.0573	.1365	.0055
178	70	28	3	24	.2780	2.4050	-.9984	1.0545	.0188
178	71	42	0	13	.0000	.4060	-.2034	.2344	.0132
178	72	134	17	86	1.4094	2.2030	-.0333	.4856	.0363
178	74	76	5	38	.9970	2.1341	-.3007	.6519	.0150
178	76	61	11	16	1.2130	1.4698	-.2879	.6265	.0046
178	78	11	1	10	.0000	3.4575	-2.7763	2.4383	.0325
179	71	35	0	21	.0000	1.3540	-.6849	.6466	.0086
179	72	183	9	11	.4763	.5183	-.0497	.2371	.0009
179	73	99	1	25	.0000	.8211	-.2738	.3314	.0050
179	74	185	0	13	.0000	.4773	.0098	.1776	.0103
179	76	135	0	14	.0000	.3450	-.1110	.1715	.0046
179	78	60	1	11	.0000	.4175	-.1896	.2484	.0055
180	72	179	5	71	1.0839	2.0344	-.0342	.4732	.0342
180	73	45	6	11	.1870	.3200	-.1464	.1945	.0023
180	74	71	5	41	1.0063	2.0825	-.1823	.5979	.0180
180	76	120	4	23	.7954	1.9562	-.4074	.7479	.0060
180	78	89	3	14	.4108	1.3512	-.3649	.6474	.0032
181	72	93	2	10	.0459	.4405	-.2564	.2715	.0174
181	73	35	3	11	.1363	.6190	-.3707	.4179	.0072
181	74	73	19	14	.6752	.5605	.0692	.1831	.0116
181	75	61	2	10	.1180	.5467	-.0262	.2315	.0178
181	76	133	1	17	.0000	.4409	-.1747	.2124	.0094
181	77	78	0	17	.0000	.5217	-.1321	.2266	.0065
181	78	138	3	15	.0939	.3808	-.1273	.1884	.0097
182	72	20	4	11	.6663	1.2650	-.4330	.7273	.0082
182	73	155	8	20	.2373	.4113	-.1315	.1768	.0108
182	74	118	16	76	1.6213	2.4931	-.1281	.5947	.0187
182	77	42	0	10	.0000	.2664	-.0821	.1414	.0210
182	78	86	7	15	.8554	1.3109	-.2749	.5902	.0021
182	80	44	4	19	.6132	2.0139	-.4732	.8509	.0053
183	73	20	1	18	.0000	1.1508	-.4347	.5407	.0039
183	74	136	11	17	.4754	.6312	-.2500	.3028	.0092
183	75	65	19	30	.9995	1.1270	-.1207	.3715	.0038
183	76	71	7	18	.3755	.5822	-.1187	.2433	.0063
183	77	39	2	10	.0162	.6455	-.3541	.4072	.0081
183	78	104	1	14	.0000	.3752	-.1727	.2105	.0059
183	79	25	0	12	.0000	.3179	-.2325	.2204	.0045
184	74	181	12	48	1.2523	1.8942	-.0237	.4875	.0145
184	75	48	0	10	.0000	.3110	-.1465	.1888	.0074
184	76	50	6	31	1.0420	2.0459	-.2308	.6555	.0070
184	77	72	1	18	.0000	.3679	-.2225	.2039	.0085
184	78	44	7	14	.8441	1.3071	-.3135	.6174	.0056
184	79	11	3	11	.1593	.5516	-.1765	.2910	.0129
184	80	19	5	10	.6533	1.7796	-.8758	1.0288	.0255
185	73	22	0	10	.0000	.8900	-.1997	.4578	.0033
185	74	104	1	10	.0000	.3340	-.1852	.2137	.0120

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
185	75	39	3	22	.2841	1.0450	-.1349	.3809	.0023
185	76	68	2	20	.0374	.5395	-.2373	.2499	.0105
185	77	91	3	17	.1353	.5560	-.1696	.2482	.0061
185	78	162	1	45	.0000	.8171	-.2135	.2686	.0037
185	80	51	2	16	.0261	.6338	-.3890	.3437	.0248
186	74	43	5	25	.8086	1.5456	-.0833	.4923	.0126
186	75	106	4	18	.1463	.3784	-.0932	.1588	.0117
186	76	72	12	40	1.4209	2.0815	-.1477	.5966	.0058
186	78	30	8	15	.9565	1.4178	-.3970	.6720	.0088
186	79	39	3	16	.1139	.4642	-.1028	.2019	.0030
186	80	32	5	15	.8082	1.6784	-.3928	.7722	.0106
187	74	111	3	10	.1457	.4322	-.1297	.2339	.0099
187	75	63	3	29	.2062	1.0031	-.1612	.3452	.0050
187	76	66	5	32	.1006	.6845	-.3300	.2818	.0163
187	77	69	18	15	.6883	.4865	-.1916	.2512	.0103
187	78	74	1	13	.0000	.2883	-.2048	.1851	.0182
187	79	92	3	24	.1205	.8404	-.3740	.3637	.0202
187	81	11	0	11	.0000	2.1050	-1.2642	1.3822	.0103
188	74	24	1	22	.0000	2.3140	-.7090	.9600	.0038
188	75	81	1	12	.0000	.2309	-.0660	.1171	.0048
188	76	115	5	56	.7900	2.1698	-.1009	.5622	.0038
188	77	20	1	10	.0000	.3542	-.1209	.1811	.0396
188	78	73	5	23	.7988	1.8107	-.1843	.6372	.0036
188	80	82	6	27	1.2078	2.5669	-.2743	.8399	.0059
188	82	12	1	10	.0000	2.9265	-1.1486	1.7672	.0114
189	75	23	1	12	.0000	.6970	-.3499	.4185	.0115
189	76	63	9	12	.2759	.3658	-.2465	.2393	.0110
189	77	85	9	34	.4648	.9586	-.3013	.3605	.0024
189	78	48	2	11	.0062	.2850	-.1609	.1877	.0071
189	79	74	17	19	.8127	.8619	-.3477	.4004	.0174
189	81	17	0	10	.0000	1.9940	-.5122	1.0626	.0015
190	76	115	7	68	.9554	2.2240	-.0834	.5414	.0049
190	78	56	6	18	.9209	1.6256	-.0735	.5990	.0037
191	75	40	0	16	.0000	.6270	-.3239	.3348	.0268
191	76	78	2	23	.0744	.5194	-.1828	.2210	.0060
191	77	72	5	26	.1789	.8324	-.3065	.3474	.0076
191	78	62	1	13	.0000	.3063	-.1778	.1897	.0117
192	76	83	15	60	1.4099	2.2235	-.1915	.5864	.0048
192	77	129	0	14	.0000	.2409	-.0742	.1155	.0077
192	78	134	5	25	.9209	1.6665	.1690	.4567	.0141
192	79	33	1	13	.0000	.2626	-.0689	.1252	.0107
193	76	56	1	10	.0000	.4558	-.3313	.3436	.0058
193	77	78	9	14	.4605	.5573	-.3003	.3276	.0057
193	78	90	4	13	.1142	.3400	-.2213	.2151	.0081
193	79	75	1	17	.0000	1.0039	-.4087	.4825	.0104
194	76	16	1	16	.0000	2.1680	-.7620	1.0461	.0085
194	77	109	1	12	.0000	.1955	-.0361	.0918	.0122
194	78	117	7	73	1.2672	2.3562	.1755	.4990	.0093
194	79	25	1	14	.0000	.7201	-.4320	.4240	.0059

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	χ^2
195	77	44	6	11	.2865	.5392	-.2781	.3315	.0045
195	78	83	10	28	.4197	.6953	-.2111	.2638	.0131
195	79	46	5	41	.3186	1.5850	-.4962	.5441	.0083
195	80	90	5	10	.2792	.5469	-.3577	.3764	.0061
195	82	33	1	27	.0000	1.7800	-.5525	.6963	.0265
196	78	124	11	64	1.4027	2.3242	.1894	.5078	.0028
196	79	65	1	20	.0000	.4207	-.1007	.1726	.0069
196	80	69	2	25	.4260	2.0978	.2356	.5952	.0093
196	81	36	4	16	.2532	.9542	-.4263	.4777	.0208
196	84	11	1	10	.0000	2.2371	-.7019	1.2601	.0096
197	77	24	3	12	.1150	.7610	-.4339	.4757	.0054
197	78	82	5	16	.1310	.5290	-.2967	.2997	.0066
197	79	48	7	22	.5475	1.2630	-.4631	.5565	.0094
197	80	61	2	16	.1340	.7154	-.2652	.3489	.0124
197	81	59	6	33	1.1560	2.2183	-.0959	.6556	.0031
197	83	17	0	15	.0000	2.9295	-.7160	1.3176	.0104
198	78	65	5	29	.9851	1.8920	.2388	.4907	.0024
198	79	136	13	18	.3467	.4058	-.0754	.1656	.0104
198	80	97	5	41	1.4015	2.2962	.5726	.4558	.0087
198	81	32	1	13	.0000	.7423	-.2773	.3941	.0219
198	84	18	9	11	1.8538	2.1145	-.3557	1.0153	.0060
199	78	47	1	15	.0000	.6460	-.4730	.3950	.0183
199	79	70	4	36	.3236	1.7705	-.5292	.6237	.0068
199	80	85	5	17	.4138	.8239	-.1571	.3483	.0071
199	81	35	2	31	.3669	2.1593	.0137	.6135	.0057
199	83	34	1	19	.0000	2.0543	-.2954	.7773	.0251
200	78	39	2	30	.4701	2.2990	.1611	.6226	.0058
200	79	12	0	10	.0000	.3902	-.2138	.2446	.0105
200	80	99	23	48	1.9723	2.4118	.4204	.5031	.0123
200	81	17	1	10	.0000	.6054	-.1958	.3365	.0274
200	82	70	4	14	1.6255	2.3550	.7804	.5889	.0094
200	84	29	6	16	1.8115	2.9626	.1153	1.0032	.0156
201	79	21	3	17	.3590	1.7600	-.6928	.8353	.0147
201	80	80	8	14	.4644	.7662	-.5966	.5076	.0100
201	81	64	3	26	.6925	1.7124	.3056	.4222	.0102
201	82	70	2	19	.0885	1.7372	-.6943	.8076	.0076
201	83	59	3	33	.8903	2.0659	.0884	.5508	.0113
201	84	24	2	23	.0070	3.3340	-1.6769	1.5835	.0105
202	80	43	4	31	1.1197	1.9914	.4878	.4361	.0026
202	81	16	1	10	.0000	1.0990	-.4894	.6438	.0129
202	82	35	3	11	1.3828	1.9651	.9248	.4331	.0053
202	83	21	1	17	.0000	2.6071	-1.7866	1.5209	.0110
202	84	13	1	12	.0000	3.6380	-.9716	1.8609	.0067
203	79	12	5	10	.7600	1.4600	-.5254	.8068	.0091
203	80	79	1	10	.0000	.7555	-.6483	.6359	.0030
203	81	102	4	43	1.0441	1.9352	.1820	.4461	.0295
203	82	60	4	16	.5951	1.2031	-.4595	.6397	.0261
203	83	47	11	23	1.2485	1.5755	.4035	.3640	.0108
203	84	54	1	27	.0000	1.7209	-.6038	.6879	.0105

Table 1

A	Z	n	n _c	n _m	U _c (MeV)	U _{max} (MeV)	U ₀ (MeV)	T (MeV)	χ ²
203	85	21	7	20	1.6334	2.5360	-.3730	.9455	.0083
204	80	64	4	28	1.6358	2.5689	.7106	.5443	.0207
204	81	39	1	12	.0000	.5359	-.1309	.2690	.0107
204	82	105	9	15	1.6653	1.8721	.8999	.3491	.0146
204	83	42	5	26	.0782	1.6397	-.8759	.7202	.0391
204	84	71	6	28	1.6269	2.7279	.2410	.7171	.0175
204	86	21	3	13	1.1314	2.8844	.0137	1.0956	.0091
205	80	51	1	46	.0000	4.6600	-1.0473	1.4744	.0038
205	81	88	5	23	1.1408	1.8659	.0949	.5548	.0104
205	82	182	6	32	.7614	2.0206	-.5329	.7273	.0090
205	83	75	6	14	1.0012	1.3439	.3442	.3763	.0119
205	84	55	3	25	.1542	1.7613	-.6422	.7111	.0207
205	85	32	1	18	.0000	2.0626	-.8317	.9743	.0292
206	81	95	5	24	.6494	1.6500	-.3410	.6239	.0041
206	82	286	10	91	2.1479	4.3470	-.1565	.9823	.0046
206	83	46	0	10	.0000	.4092	-.2742	.2708	.0282
206	84	45	2	22	.7007	2.7681	-.0427	.8722	.0167
206	86	19	2	14	.5753	2.5853	.1895	.9037	.0045
207	81	43	4	34	1.6827	4.7370	.0728	1.2808	.0228
207	82	199	7	114	2.6624	5.4540	.1768	1.0858	.0226
207	83	62	6	29	.9923	1.9020	.1266	.5178	.0040
207	84	64	9	24	1.1151	1.7818	-.6357	.7633	.0024
207	85	35	3	20	.6434	1.2841	.1634	.3688	.0173
208	82	528	5	10	3.7084	4.0370	2.4098	.7607	.0163
208	83	192	0	42	.0000	1.9380	-.4096	.6306	.0172
208	84	53	7	10	1.5242	1.5832	.8669	.3151	.0115
208	85	40	1	10	.0000	.2839	-.1658	.1835	.0134
208	86	42	4	10	1.4143	1.9057	.5664	.5973	.0041
209	82	218	6	177	2.1494	4.9230	.5774	.8319	.0027
209	83	204	5	90	2.4928	4.1761	1.1044	.6665	.0190
209	84	40	4	24	1.1753	2.3630	-.0002	.7355	.0101
209	85	63	2	20	.4083	1.4277	-.0031	.4713	.0099
209	86	34	2	19	.1101	3.1575	-1.7697	1.6484	.0082
210	82	53	5	30	1.2790	3.5600	-.3261	1.1253	.0038
210	83	96	9	11	.5500	.5825	-.0348	.2572	.0059
210	84	62	15	31	2.6086	3.2190	.4260	.8279	.0187
210	85	44	0	16	.0000	1.1290	-.1329	.4310	.0255
210	86	32	2	16	.6438	3.9196	-.9684	1.7138	.0217
211	82	21	1	21	.0000	2.7170	-.9120	1.2198	.0053
211	83	51	2	25	.4049	1.3070	.4043	.2755	.0082
211	84	73	5	26	1.1218	1.6377	.6734	.2932	.0180
211	85	24	1	11	.0000	1.4166	.3581	.4319	.0063
211	86	32	2	11	.5399	2.1790	-.2707	1.0722	.0135
211	87	27	1	10	.0000	2.4232	-1.0434	1.5267	.0017
212	82	19	1	18	.0000	3.8440	-.9709	1.6170	.0088
212	84	31	3	19	1.1325	1.8339	.7501	.3671	.0070
212	85	38	0	22	.0000	.9208	-.4626	.4482	.0238
212	86	34	3	14	1.5015	2.9673	.1777	1.0591	.0092
212	87	44	1	16	.0000	3.2562	-1.5407	1.7028	.0083

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	χ^2
212	88	14	4	14	1.8951	3.9294	-.6947	1.7387	.0122
213	86	54	0	24	.0000	2.3271	.3183	.6229	.0157
213	87	42	1	28	.0000	6.1025	-2.3293	2.4243	.0137
214	83	12	1	12	.0000	.8880	-.6177	.5537	.0438
214	84	82	2	25	.6093	2.2933	.4085	.5779	.0039
214	85	21	1	10	.0000	.4110	-.2029	.2492	.0061
214	86	49	3	12	1.1412	2.2086	.2516	.7792	.0023
214	87	59	0	10	.0000	1.6360	-1.2780	1.3319	.0040
214	88	51	17	26	4.2372	5.2438	-.7978	1.8140	.0074
215	84	12	2	10	.2712	.8344	-.1862	.4328	.0032
215	87	22	1	11	.0000	1.8136	-.3077	.8650	.0047
215	88	21	0	15	.0000	4.0520	-.8506	1.7385	.0313
216	85	16	0	11	.0000	.2520	-.0994	.1448	.0052
216	88	22	9	14	3.2927	3.7120	-1.0954	1.8630	.0101
217	85	14	3	10	.2182	.5370	-.0541	.2327	.0161
217	87	19	1	15	.0000	2.1545	-1.2892	1.2292	.0118
217	88	36	0	10	.0000	1.3375	-.1964	.6262	.0076
217	89	11	7	11	1.5285	2.0130	-.4203	1.0220	.0056
218	88	51	3	18	.7413	2.1094	-.2388	.8059	.0056
219	86	29	1	19	.0000	.6463	-.3470	.3290	.0073
219	87	31	1	11	.0000	.2160	-.1131	.1320	.0234
219	88	43	0	10	.0000	.2343	-.1048	.1358	.0167
219	89	26	1	13	.0000	1.1832	-.4063	.6034	.0060
220	87	30	1	23	.0000	.3801	-.2093	.1871	.0099
220	88	21	3	10	.4093	1.1620	-.4981	.6685	.0278
220	90	12	10	10	2.1590	2.1590	-.5851	1.1392	.0078
221	87	45	1	10	.0000	.1500	-.0938	.1062	.0216
221	88	11	1	11	.0000	.4854	-.3090	.3119	.0253
221	90	14	0	10	.0000	1.4720	-.8520	.9526	.0115
222	88	25	5	25	.3173	1.8412	-.8257	.8228	.0164
222	90	26	24	10	4.5779	1.4611	-.6575	.8536	.0183
223	87	19	0	10	.0000	.2190	-.0952	.1300	.0052
223	88	58	1	10	.0000	.1746	-.0835	.1088	.0144
223	89	11	0	10	.0000	.1410	-.0623	.0858	.0083
223	90	28	0	11	.0000	.3241	-.0563	.1590	.0105
224	88	46	3	41	.2160	2.0773	-.8030	.7589	.0087
224	89	26	1	12	.0000	.1460	-.0780	.0894	.0048
224	90	11	2	10	.0980	.9960	-.5928	.6319	.0298
225	87	22	1	10	.0000	.2440	-.0521	.1216	.0076
225	88	71	4	10	.0428	.1204	-.0623	.0785	.0092
225	89	17	0	10	.0000	.1708	-.0838	.1075	.0044
226	88	56	6	25	.4166	1.3300	-.5217	.5572	.0093
226	89	18	0	10	.0000	.1650	-.1042	.0994	.0575
226	90	11	5	11	.3075	.8478	-.4799	.4966	.0702
227	88	85	1	11	.0000	.1611	-.0841	.1009	.0043
227	89	46	4	10	.0463	.1600	-.0943	.1064	.0061
228	88	39	3	25	.2047	1.2384	-.3113	.4893	.0022
228	90	72	13	31	.9209	1.2387	-.3496	.4696	.0100
229	89	27	0	10	.0000	.1910	-.1133	.1264	.0055

Table 1

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	<i>χ²</i>
229	90	64	1	21	.0000	.2172	-.1108	.1026	.0152
230	88	24	2	19	.0574	1.3411	-.4449	.5962	.0153
230	89	19	0	10	.0000	.2929	-.1554	.1957	.0040
230	90	79	23	30	1.0656	1.2078	-.2616	.4277	.0042
230	92	16	4	10	.3471	.8564	-.4081	.5072	.0158
231	89	19	0	10	.0000	.3500	-.2609	.2482	.0196
231	90	71	15	17	.3171	.3340	-.0338	.1282	.0067
231	91	50	7	14	.1023	.1932	-.0627	.0951	.0216
232	90	95	11	59	.8270	1.6180	-.2914	.4542	.0185
232	92	34	9	27	.7346	1.2118	-.3332	.4746	.0046
233	90	191	1	27	.0000	.4430	-.2270	.1911	.0267
233	91	75	8	13	.1091	.1796	-.0554	.0892	.0194
233	92	88	4	19	.1553	.4560	-.1128	.1921	.0053
233	93	15	0	15	.0000	1.2433	-.7109	.7040	.0193
234	90	13	5	10	.5648	1.1602	-.7596	.8183	.0066
234	92	151	26	113	1.1276	1.8913	-.2876	.4525	.0129
235	91	25	0	10	.0000	.1920	-.1306	.1263	.0301
235	92	151	18	11	.3385	.1714	-.1245	.1212	.0091
235	93	36	1	31	.0000	1.0640	-.5834	.4505	.0283
236	92	109	10	53	.9192	1.4717	-.2419	.4301	.0319
236	94	11	9	10	1.7860	3.0000	-1.9304	1.6972	.0823
237	91	21	0	11	.0000	.3930	-.2224	.2402	.0254
237	92	182	9	10	.2609	.2740	-.1556	.1840	.0076
237	93	80	13	21	.3051	.3955	-.1701	.1817	.0064
237	94	59	19	10	.4735	.2802	-.0547	.1376	.0106
238	92	79	9	43	.8267	1.4820	-.2975	.4625	.0240
238	93	101	1	10	.0000	.1829	-.0562	.1034	.0045
238	94	42	7	30	.6614	1.4583	-.4323	.5465	.0096
239	92	84	5	12	.1458	.3078	-.0914	.1558	.0163
239	93	64	5	19	.1178	.3590	-.1413	.1637	.0096
239	94	85	12	26	.3916	.6200	-.2589	.2656	.0038
239	95	12	0	11	.0000	.5860	-.3379	.3443	.0468
240	92	14	3	10	.1510	1.7560	-1.6019	1.6266	.0289
240	94	70	8	42	.7423	1.4882	-.3447	.4835	.0096
240	95	61	0	11	.0000	.2520	-.1256	.1510	.0086
241	94	97	3	11	.0957	.2427	-.0296	.1168	.0171
241	95	38	5	11	.2059	.3200	-.0776	.1624	.0119
242	95	87	1	12	.0000	.1976	-.0985	.1157	.0108
243	93	23	0	10	.0000	.4220	-.1943	.2715	.0007
243	94	64	3	11	.1246	.4468	-.1497	.2564	.0101
243	95	30	5	11	.1092	.2660	-.1100	.1501	.0178
243	96	31	4	11	.0940	.2280	-.0789	.1228	.0226
245	94	22	0	17	.0000	.8020	-.1941	.3415	.0115
245	95	22	0	10	.0000	.3274	-.2005	.1814	.0883
245	96	63	8	11	.3559	.4166	-.1253	.2301	.0046
246	96	64	7	61	.8764	1.9833	-.4486	.5721	.0244
247	96	57	5	19	.2270	.4490	-.0344	.1633	.0028
247	97	25	0	17	.0000	.5870	-.3792	.3167	.0346
247	98	13	0	13	.0000	.7380	-.3419	.4164	.0044

Table I

<i>A</i>	<i>Z</i>	<i>n</i>	<i>n_c</i>	<i>n_m</i>	<i>U_c</i> (MeV)	<i>U_{max}</i> (MeV)	<i>U₀</i> (MeV)	<i>T</i> (MeV)	χ^2
248	96	33	6	25	.7619	1.6490	-.6018	.6907	.0266
248	98	19	4	11	.2850	.9790	-.5812	.6519	.0079
249	96	43	0	12	.0000	.3000	-.1996	.1927	.0168
249	97	35	1	10	.0000	.2292	-.1635	.1591	.0207
249	98	55	2	18	.0625	.5007	-.1472	.2186	.0096
250	97	41	1	17	.0000	.1671	-.0398	.0721	.0068
250	98	45	10	43	1.0319	1.7350	-.4302	.5685	.0321
251	97	12	0	11	.0000	.5625	-.4462	.4044	.0139
251	98	24	5	12	.1063	.2584	-.1179	.1491	.0055
251	99	24	0	15	.0000	.6610	-.4569	.3774	.0326

Table 2

Table 2. List of those 111 nuclei for which either the neutron or the proton separation energy (S_n, S_p) is less than U_{\max} . Energies are in MeV.

A	Z	U_{\max}	S_n	S_p	A	Z	U_{\max}	S_n	S_p
6	3	31.00	5.66	4.58	37	19	5.78	15.44	1.85
8	3	9.00	2.03	12.45	38	19	6.02	12.07	5.14
8	4	24.00	18.89	17.25	38	20	5.81	16.96	4.54
9	4	22.40	1.66	16.88	39	19	6.65	13.07	6.38
9	5	17.07	18.57	-0.18	40	20	8.81	15.64	8.32
10	4	10.57	6.81	19.63	41	21	3.01	16.18	1.08
10	5	8.89	8.43	6.58	42	22	3.85	17.47	3.76
11	4	7.03	0.50	20.16	51	20	7.45	4.38	17.82
11	5	12.00	11.45	11.22	58	29	2.94	12.42	2.87
11	6	10.08	13.11	8.68	59	29	4.34	12.76	3.41
12	5	5.00	3.37	14.09	67	33	3.88	12.89	2.31
12	7	5.60	15.69	0.60	71	35	2.51	13.07	1.94
13	5	5.55	4.87	15.80	95	45	4.45	13.47	3.06
13	6	14.58	4.94	17.53	106	50	9.08	12.27	5.23
13	7	12.93	20.06	1.94	108	51	1.46	9.92	1.24
14	6	12.96	8.17	20.83	111	51	2.85	11.38	2.29
14	8	13.01	23.17	4.62	114	54	3.24	12.95	3.09
15	6	8.11	1.21	21.07	129	57	3.25	10.66	3.22
15	7	12.55	10.83	10.20	135	52	6.34	3.49	11.10
15	8	12.47	13.22	7.29	136	62	3.99	11.84	3.85
16	7	9.45	2.48	11.47	138	64	3.29	12.43	2.85
16	8	15.40	15.66	12.12	147	65	2.81	10.99	1.94
16	9	7.90	14.16	-0.53	149	67	2.73	11.31	1.12
17	8	8.68	4.14	13.78	149	68	3.24	10.18	2.72
17	9	8.43	16.79	0.60	150	67	2.15	8.47	1.68
18	8	9.89	8.04	15.94	152	68	6.88	10.29	4.12
18	9	8.11	9.14	5.60	153	67	2.35	9.51	2.18
18	10	5.45	19.24	3.93	153	69	1.15	10.18	0.81
19	8	5.70	3.95	17.07	156	70	4.47	10.81	3.88
19	9	9.92	10.43	7.99	160	72	3.53	11.13	3.47
19	10	8.06	11.62	6.41	169	73	4.04	9.81	2.36
20	10	14.37	16.86	12.84	170	76	3.28	11.33	2.87
20	11	3.16	14.15	2.19	176	78	3.42	11.12	2.89
21	10	8.52	6.76	13.00	178	78	3.45	10.62	3.06
21	11	4.41	17.10	2.43	187	81	2.10	10.28	1.03
22	11	8.67	11.06	6.73	188	82	2.92	10.83	2.73
22	12	6.78	19.37	5.50	189	81	1.99	10.14	1.57
23	10	5.22	5.20	15.23	194	76	2.16	7.11	-1.0e-05
23	11	10.70	12.41	8.79	197	83	2.92	9.63	1.49
23	12	8.61	13.14	7.57	203	85	2.53	9.56	1.56
24	12	14.09	16.53	11.69	205	85	2.06	9.21	1.95
24	13	3.92	14.89	1.87	209	82	4.92	3.93	8.15
25	12	8.70	7.33	12.06	209	83	4.17	7.45	3.79
25	13	4.19	16.93	2.27	211	87	2.42	8.88	1.84
25	14	3.82	15.00	3.40	212	82	3.84	5.13	-1.0e-05
27	13	10.93	13.05	8.27	212	87	3.25	7.45	2.06
27	14	8.35	13.31	7.46	212	88	3.92	9.10	3.32
28	14	13.98	17.17	11.58	213	87	6.10	8.09	2.17
28	15	3.30	14.47	2.06	214	88	5.24	8.30	3.64
29	14	10.26	8.47	12.33	215	88	4.05	5.63	3.79
29	15	8.91	17.86	2.74	217	89	2.01	7.50	1.87
30	15	8.45	11.31	5.59					
31	14	6.98	6.58	14.36					
32	17	3.29	14.33	1.57					
33	17	5.73	15.74	2.27					
34	17	7.25	11.50	5.14					
34	18	5.62	17.06	4.66					
35	17	9.40	12.64	6.37					
36	18	11.05	15.25	8.50					
36	19	2.85	14.32	1.66					

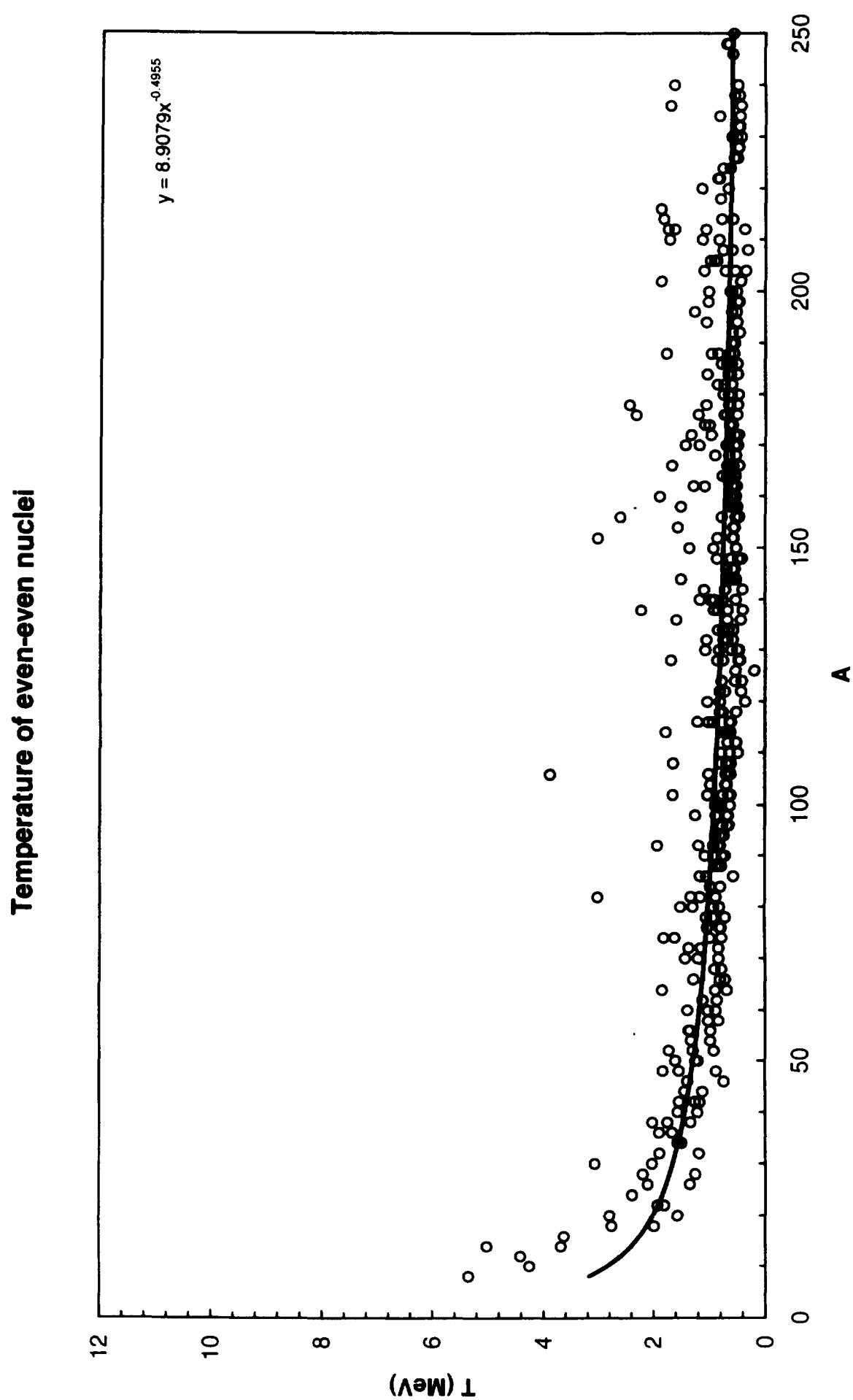


Figure 1. Temperature of even-even nuclei as a function of mass number

Temperature of even-odd nuclei

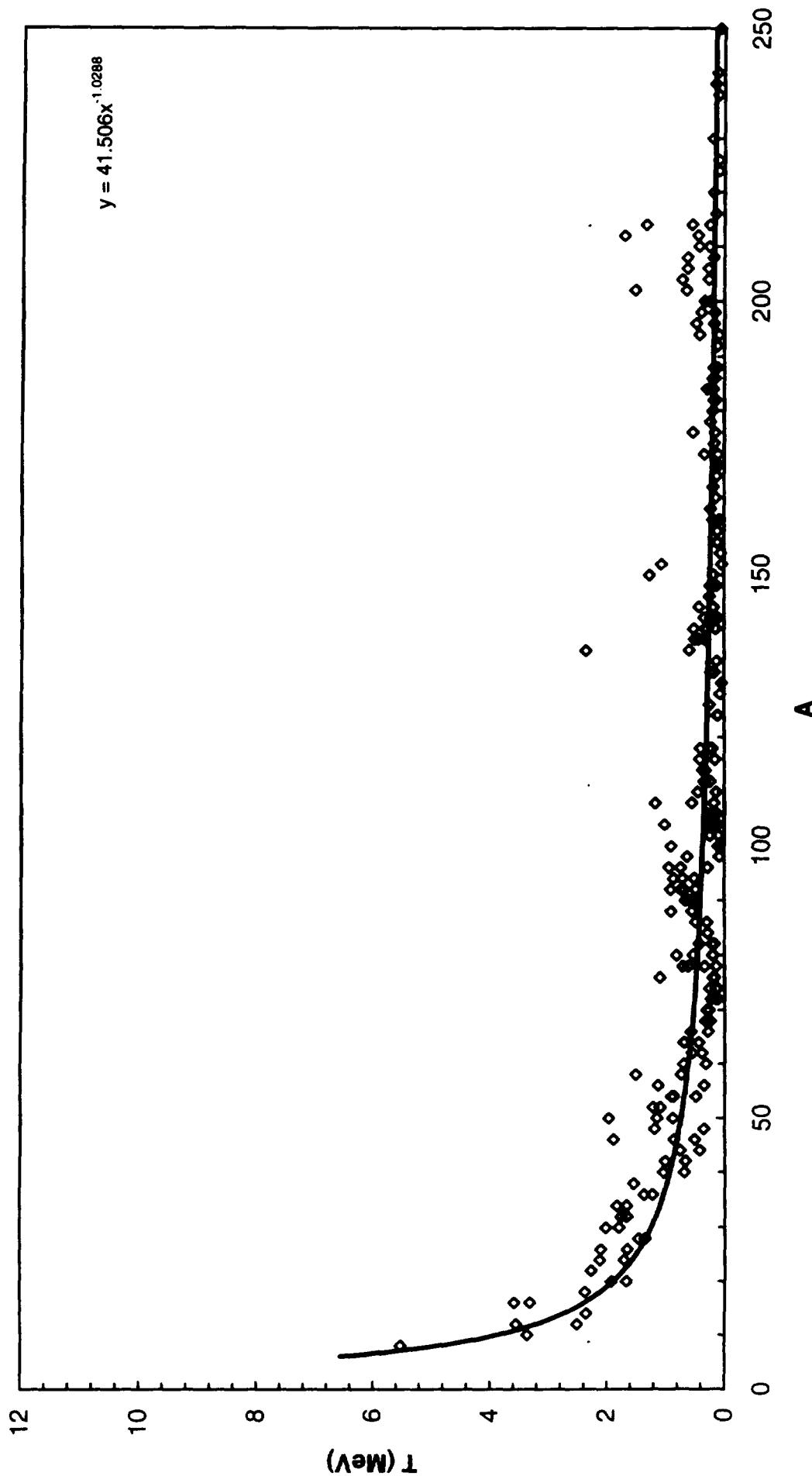


Figure 2. Temperature of even-odd nuclei as a function of mass number

Temperature of odd-even nuclei

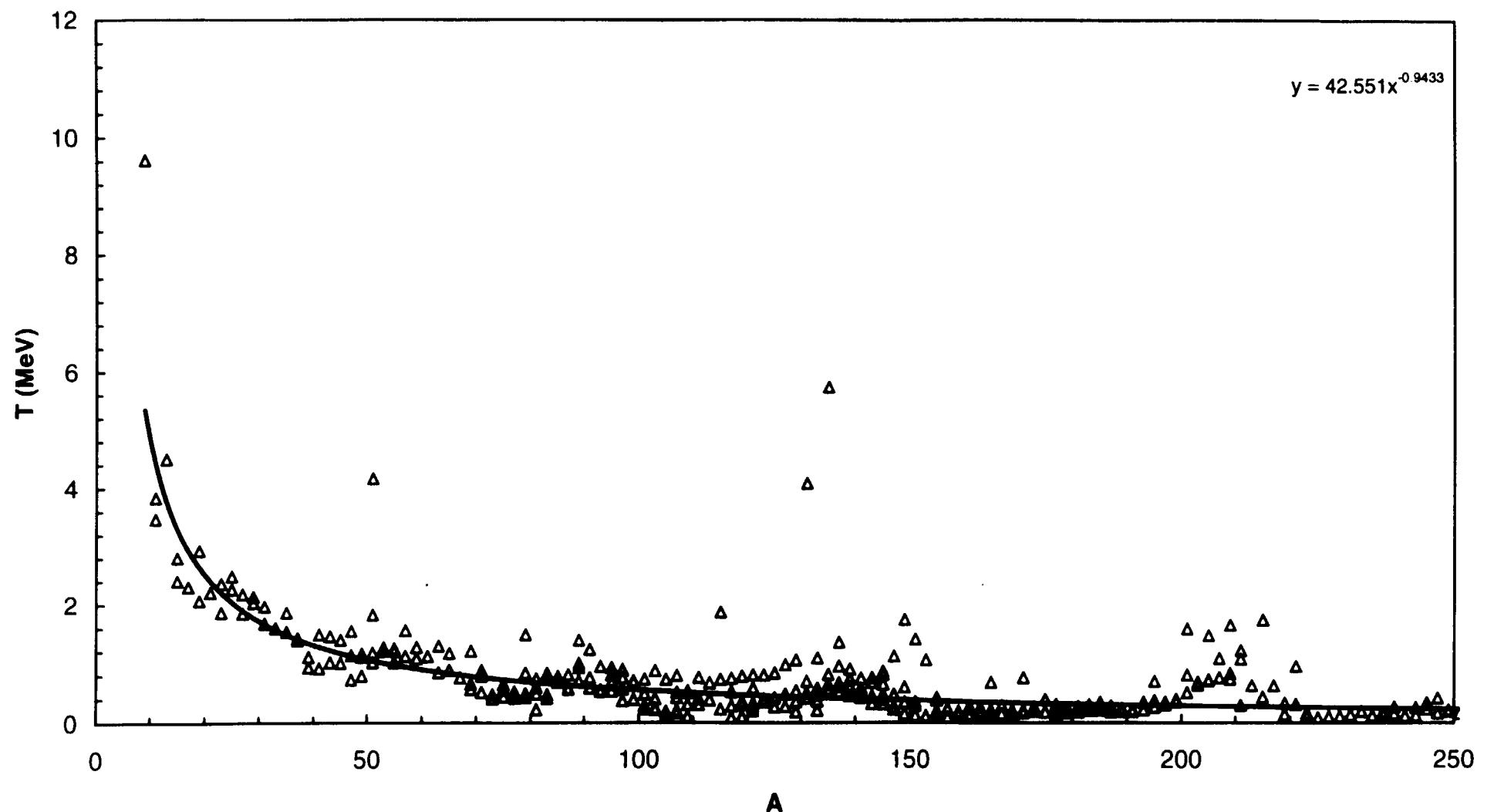


Figure 3. Temperature of odd-even nuclei as a function of mass number

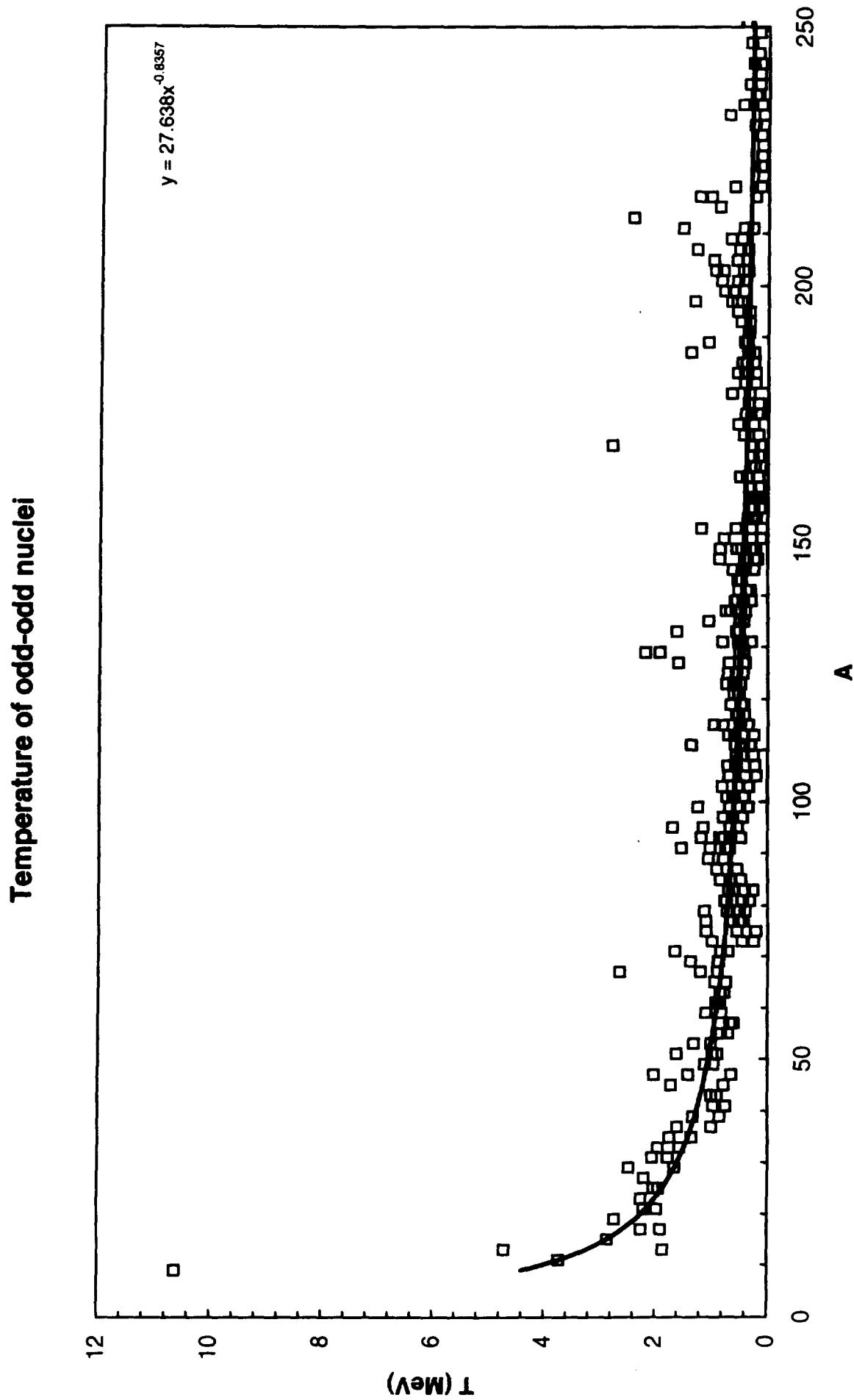
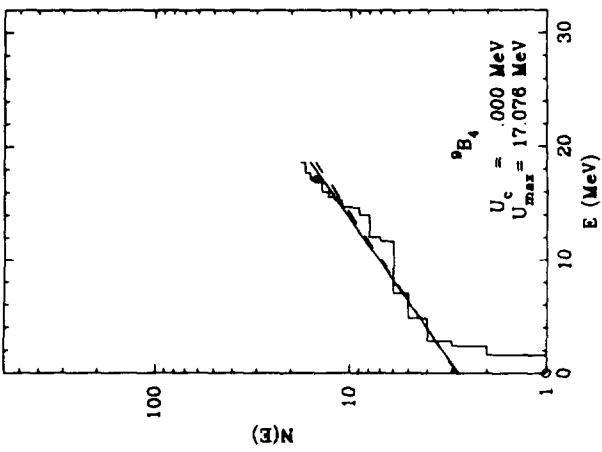
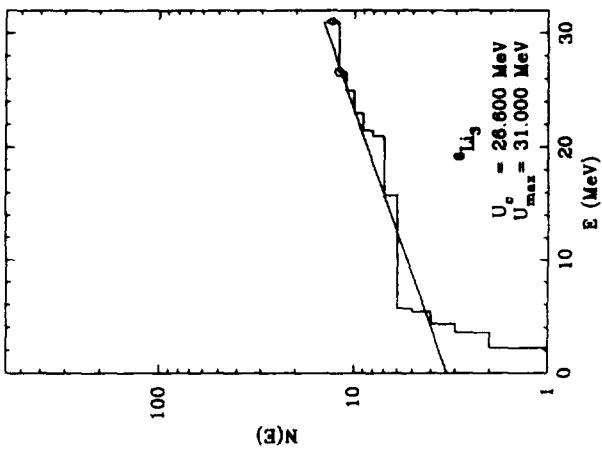
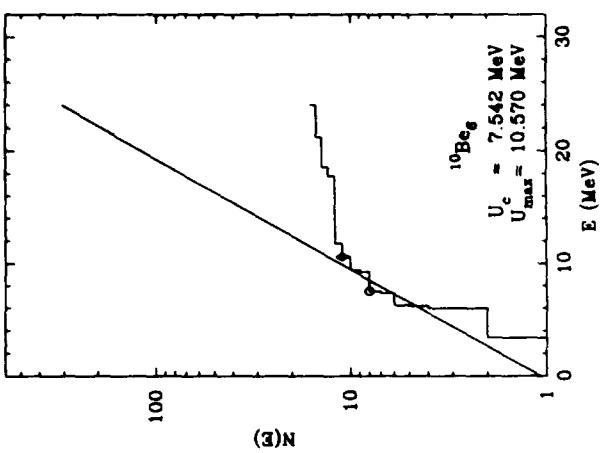
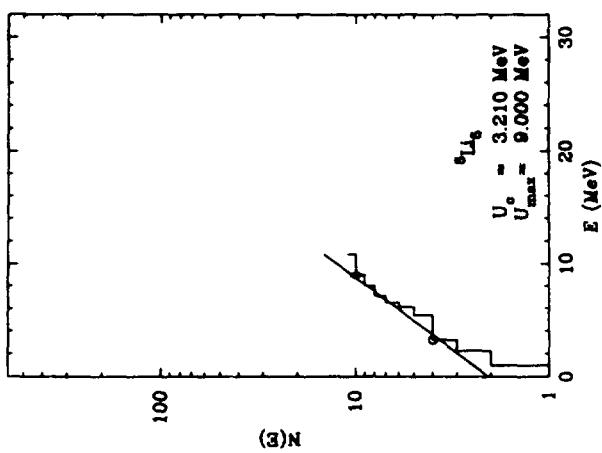
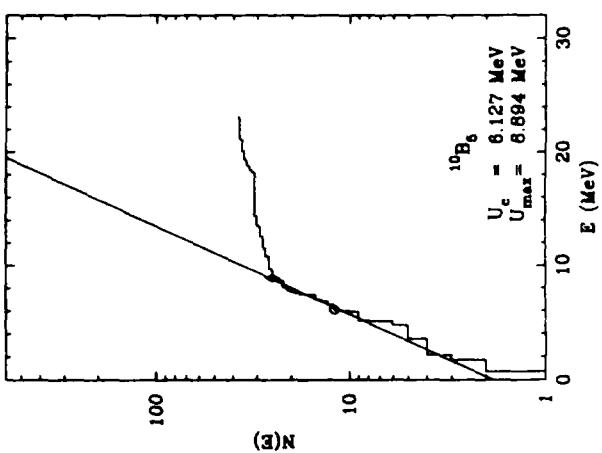
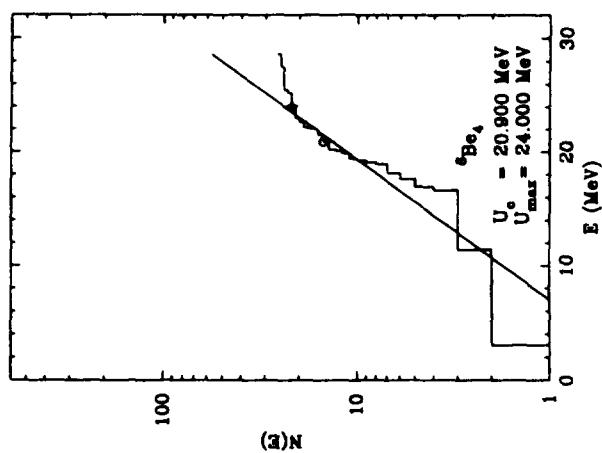
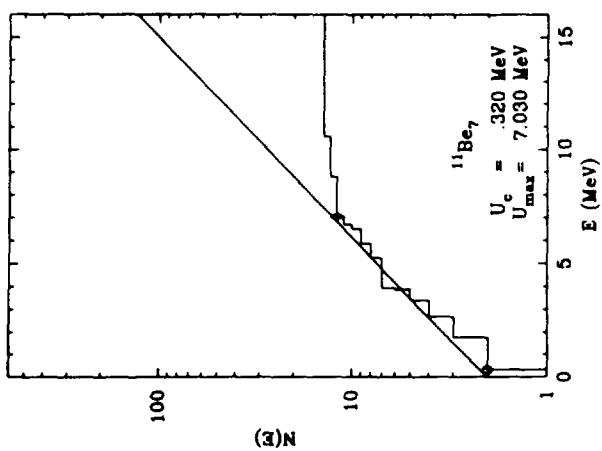
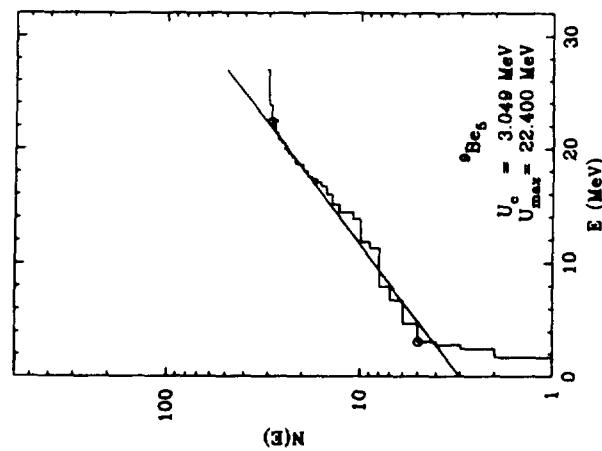


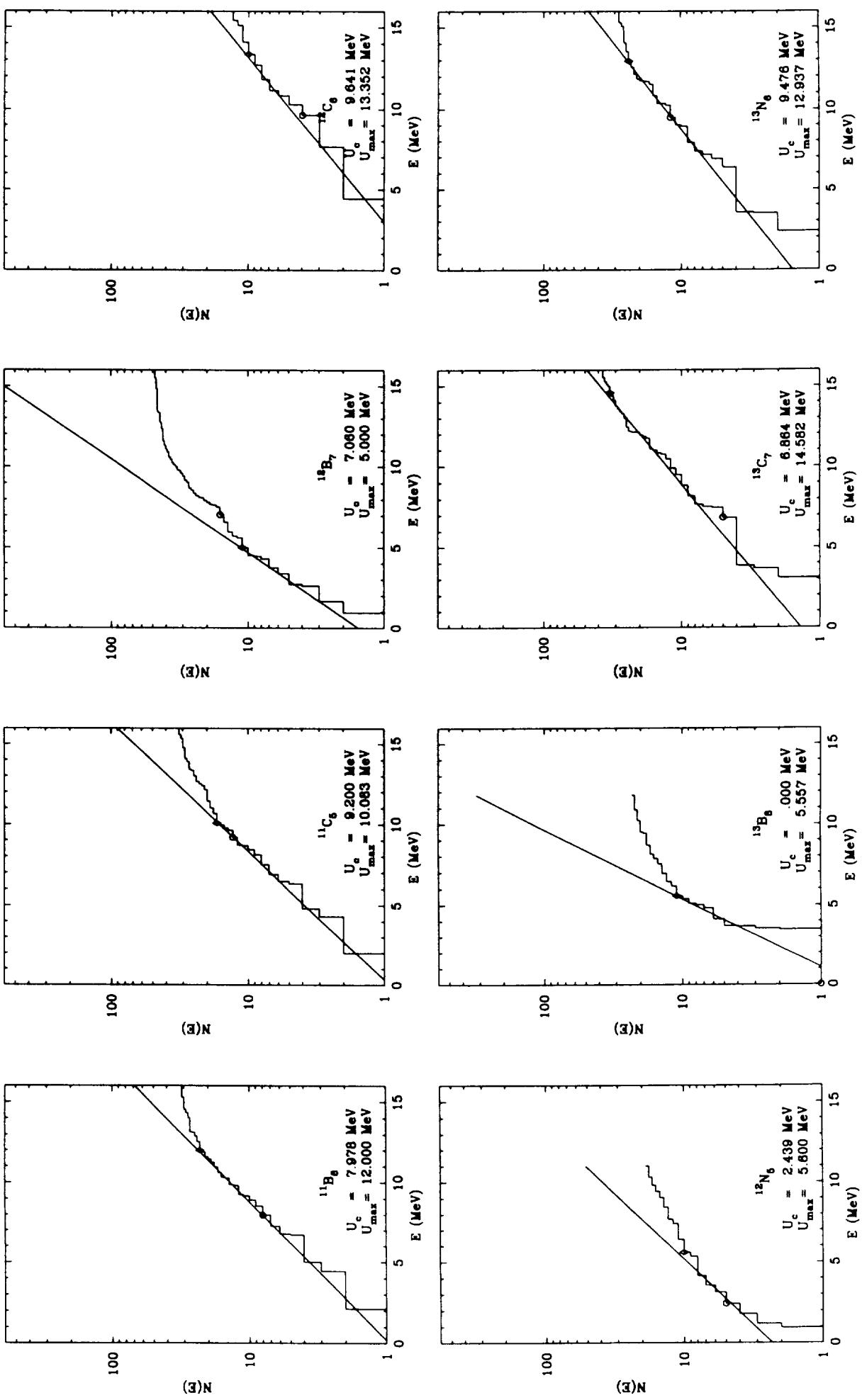
Figure 4. Temperature of odd-odd nuclei as a function of mass number

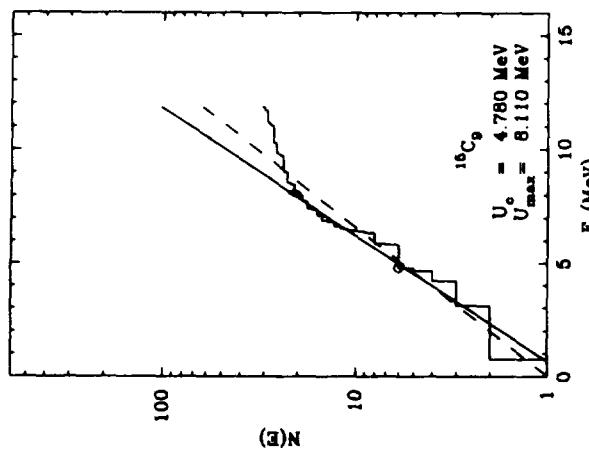
Figure 5

Histogram plots of the cumulative number of levels against excitation energy for 1277 nuclei, from ${}^6\text{Li}_3$ to ${}^{251}\text{Es}_{152}$.

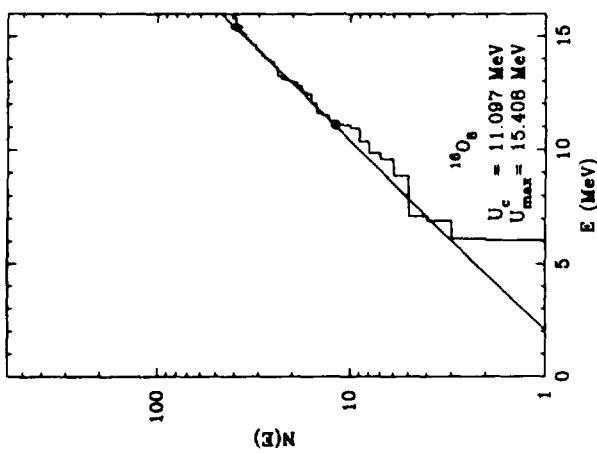
In the plots the continuous line always represents the accepted level density fit. The diamond symbol (\diamond) marks the cutoff energy, U_{\max} , and the associated cumulative level number, n_m , corresponding to that local minimum of χ^2 which is characterized by the maximal slope of $\ln(N(E))$. The other cutoff energy, U_c , is determined by the energy of the highest level up to (and including) which both the spin and parity are unambiguously established, while n_c is the corresponding level number. The numerical values of U_{\max} , and U_c are also indicated in the plots.



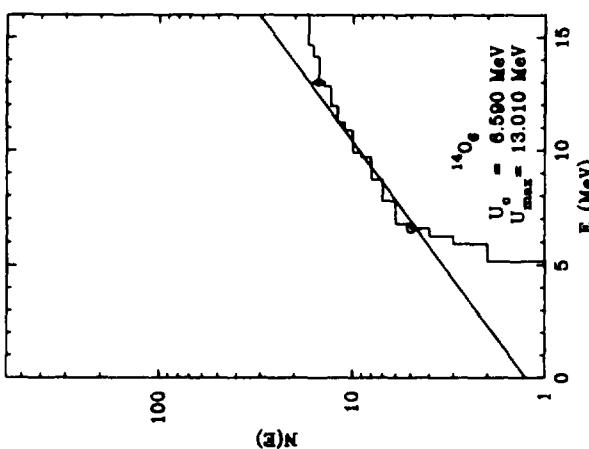




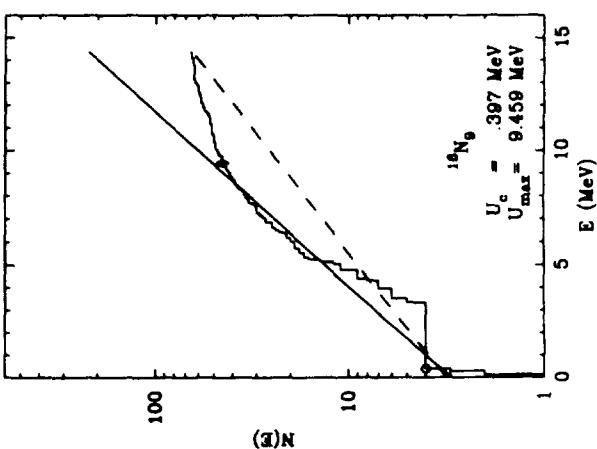
(3)N



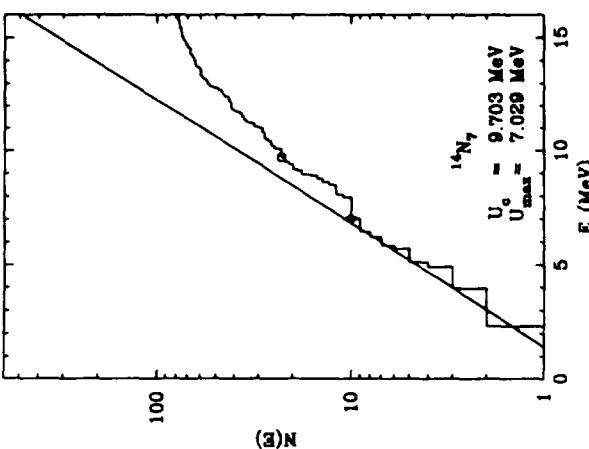
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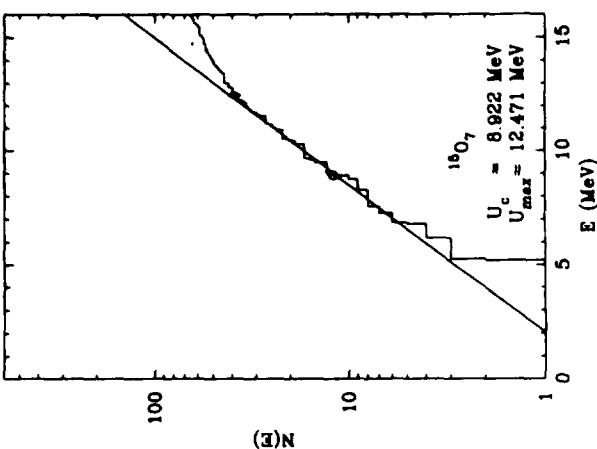
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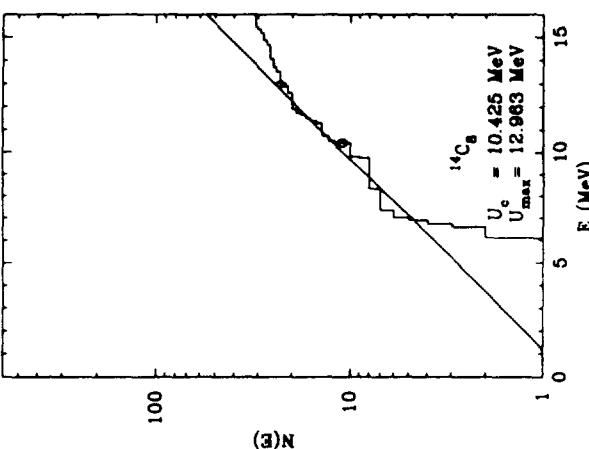
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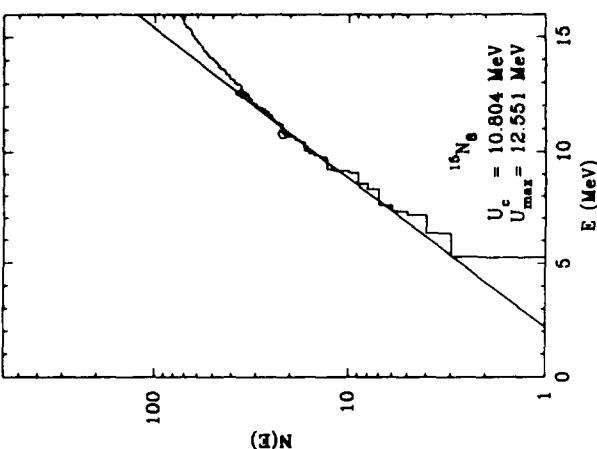
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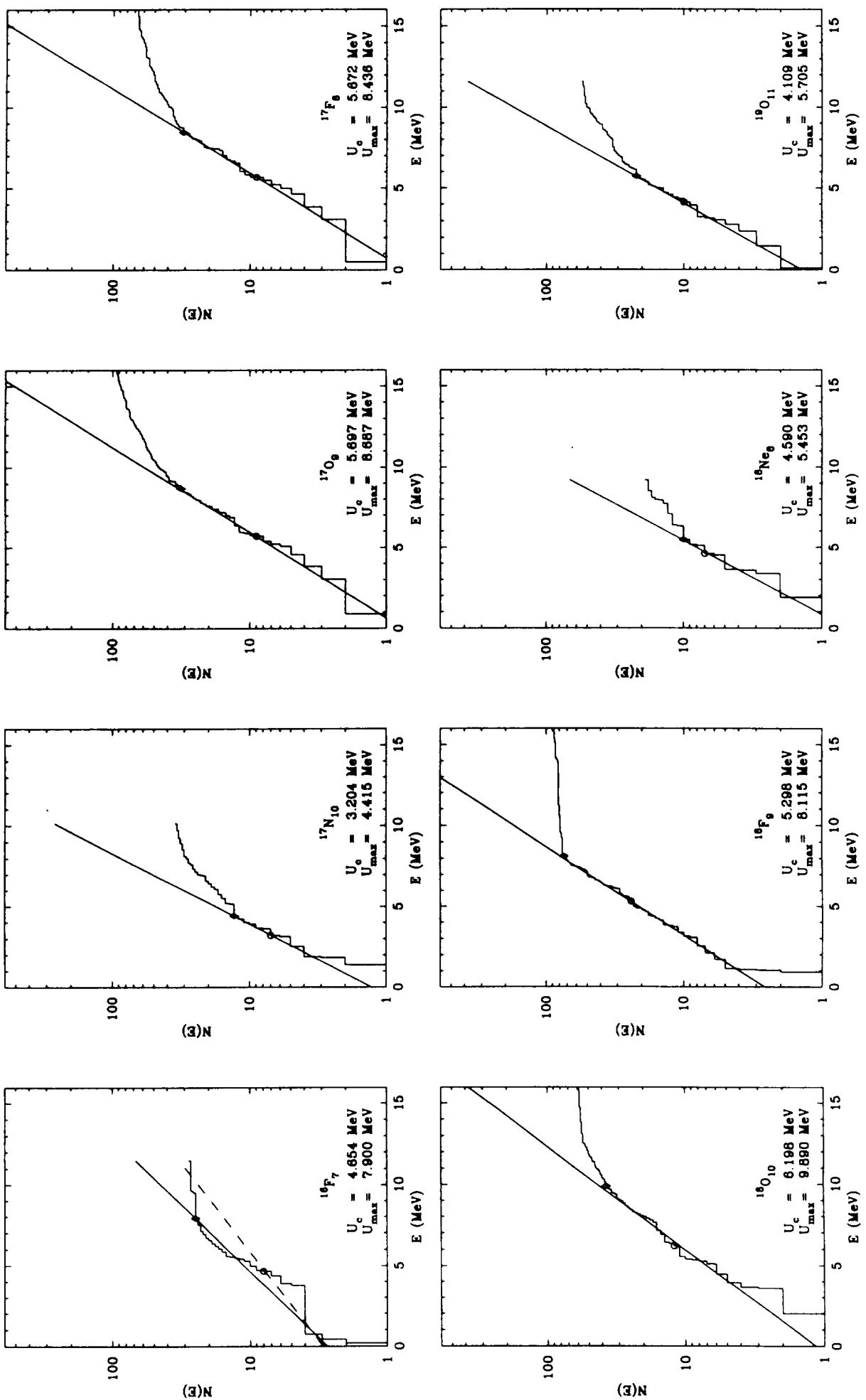
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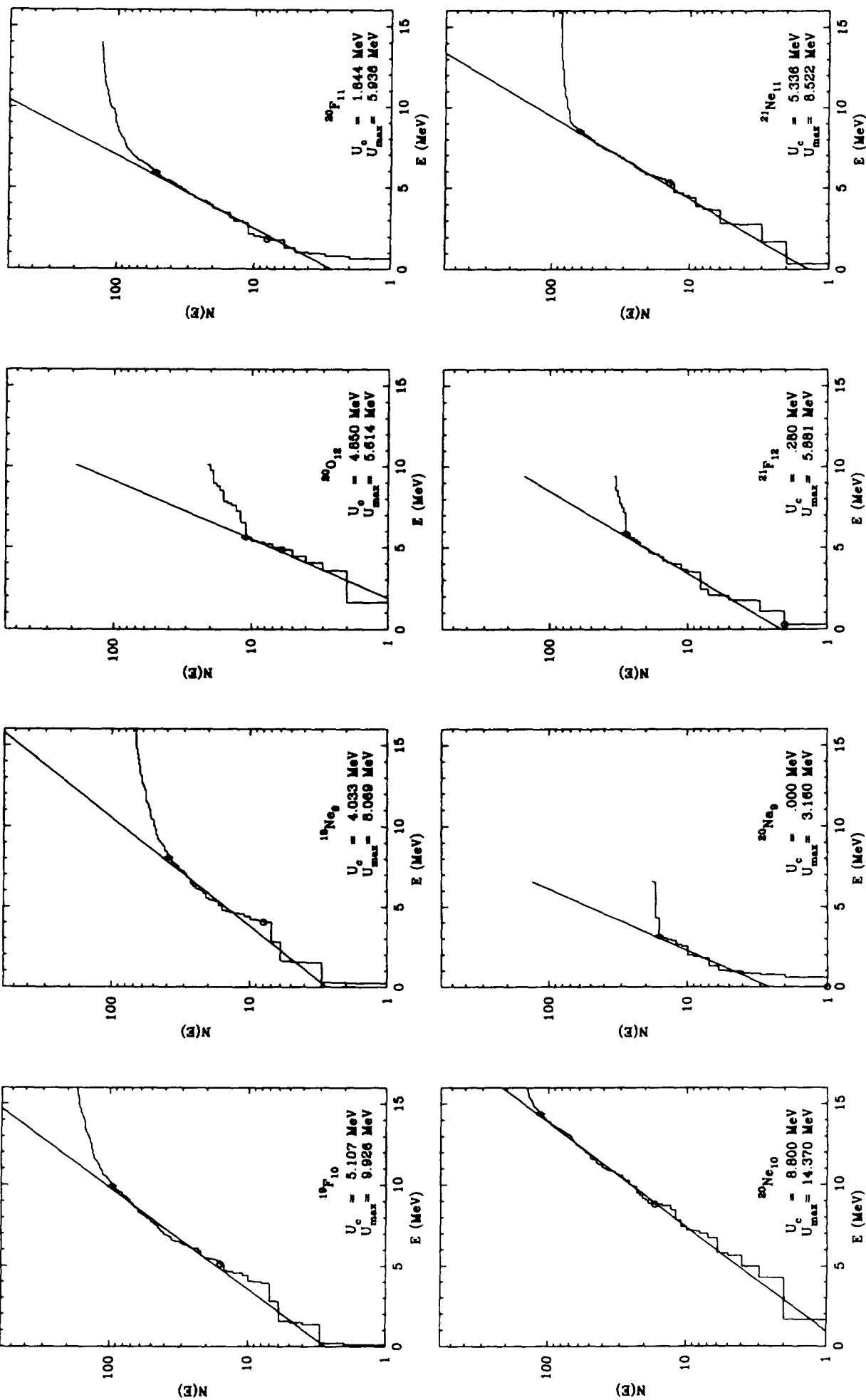


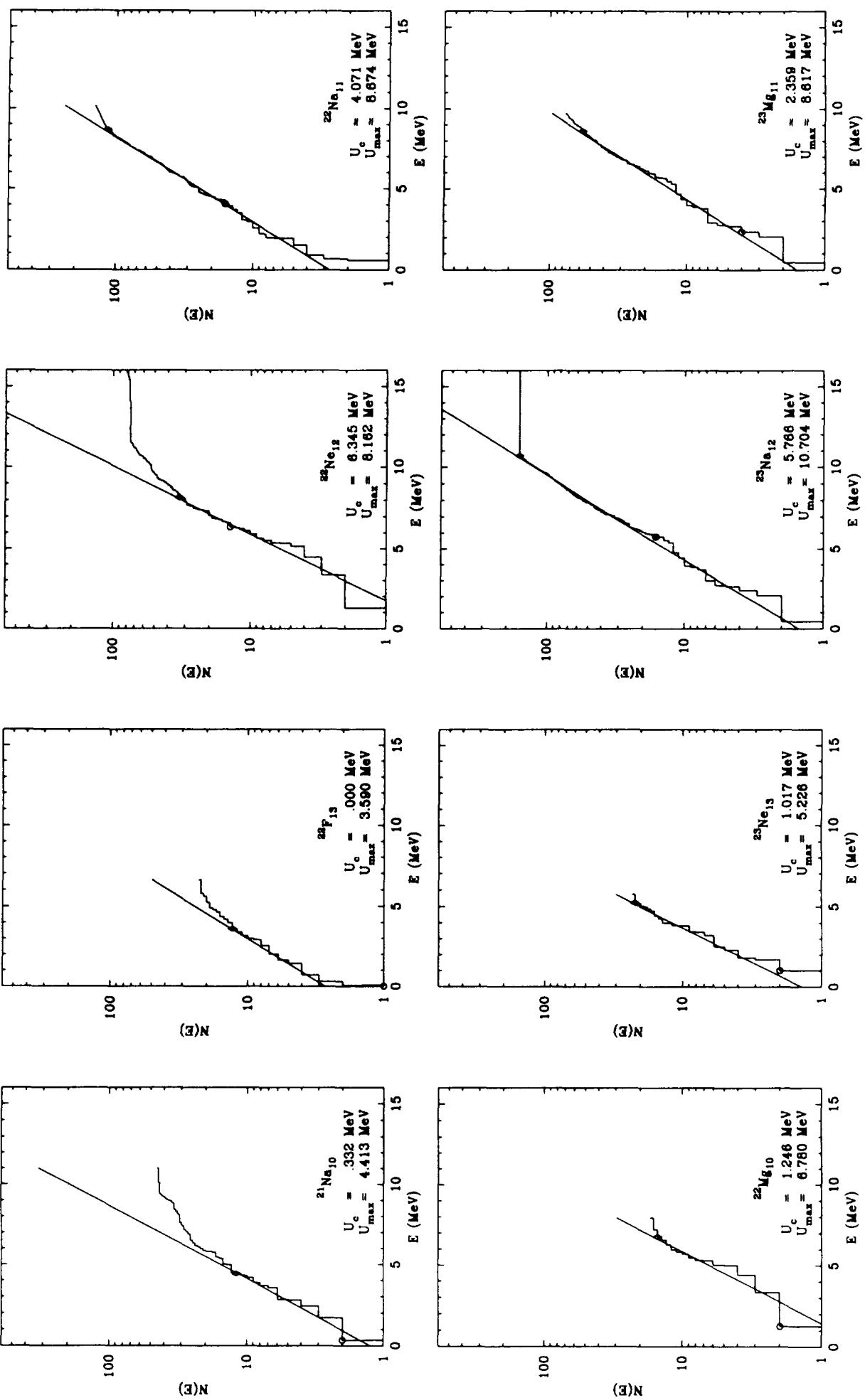
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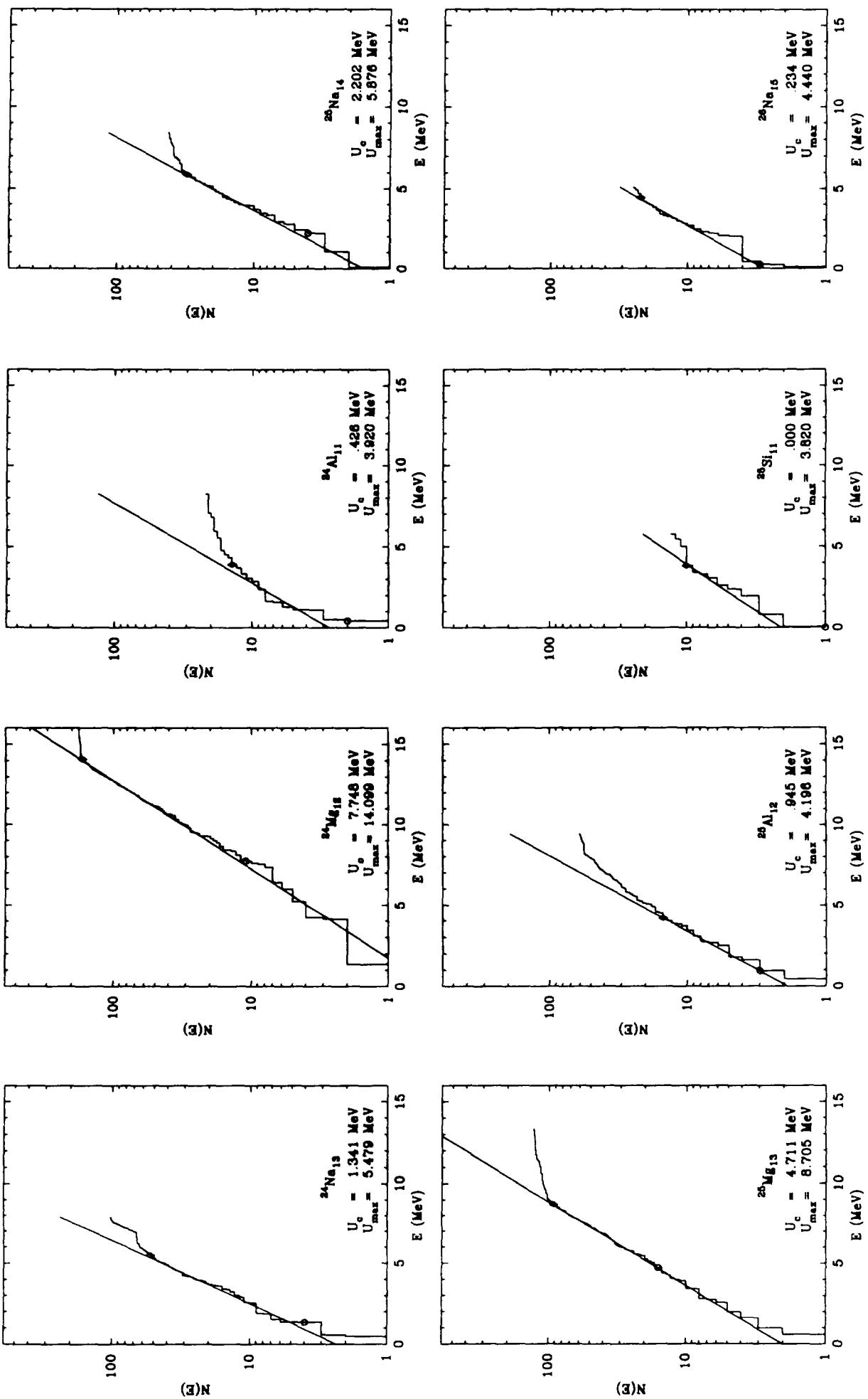


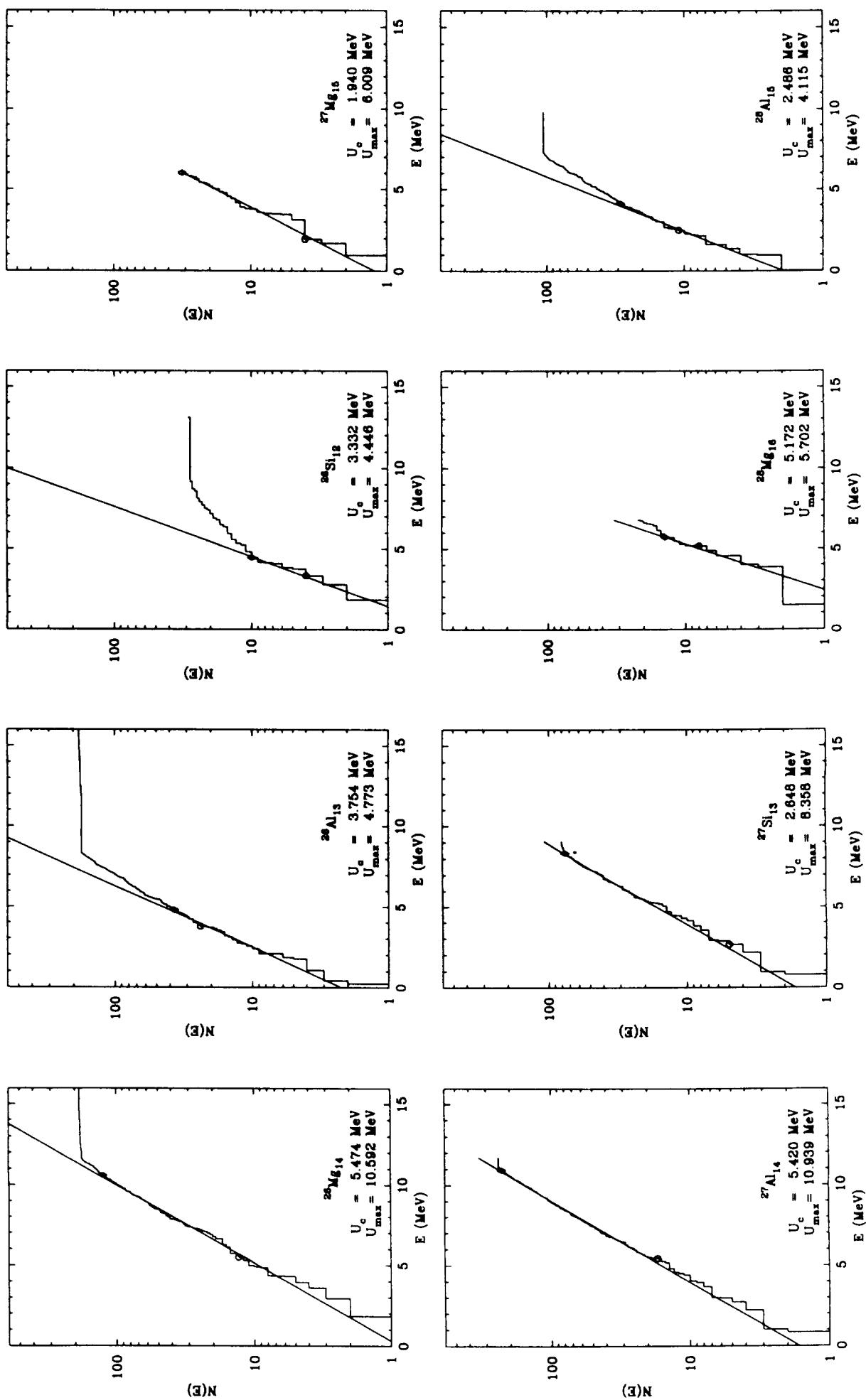
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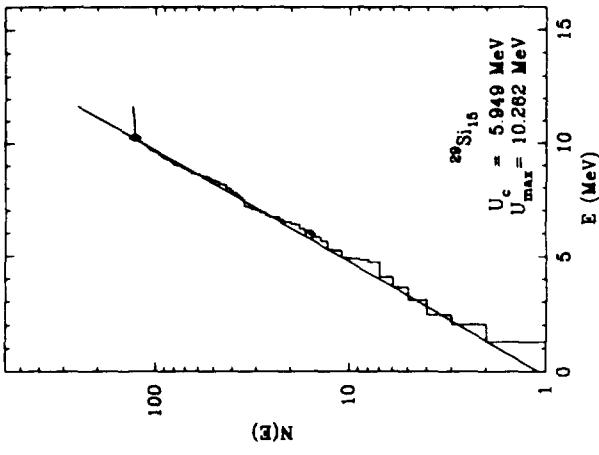
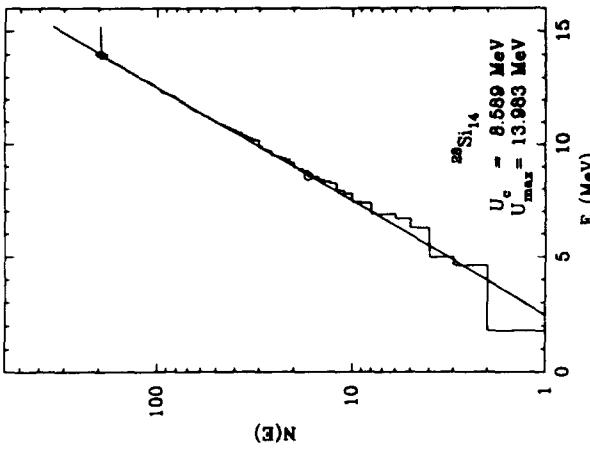
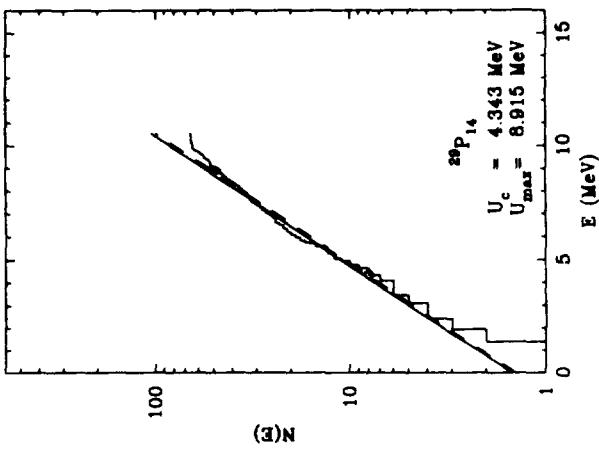
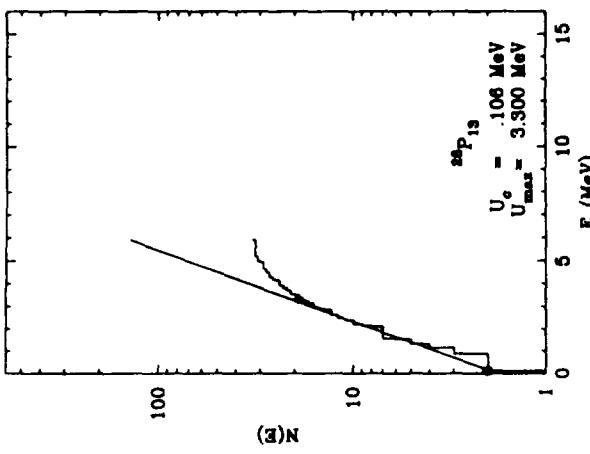
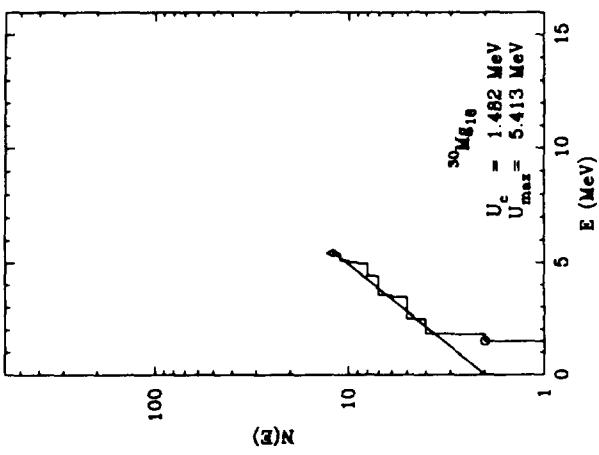
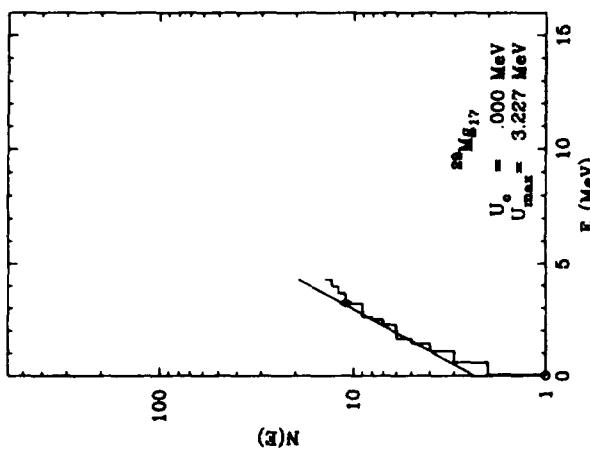
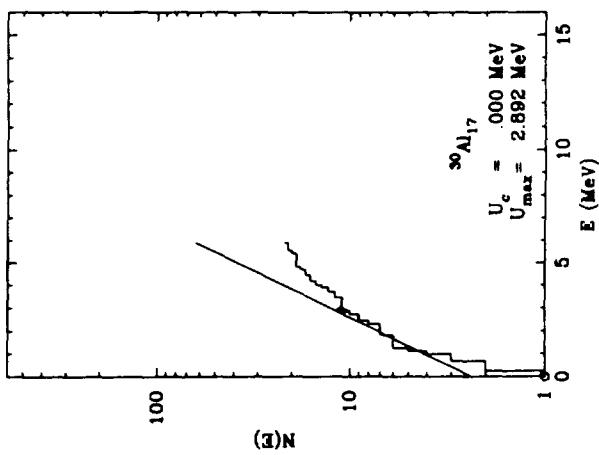
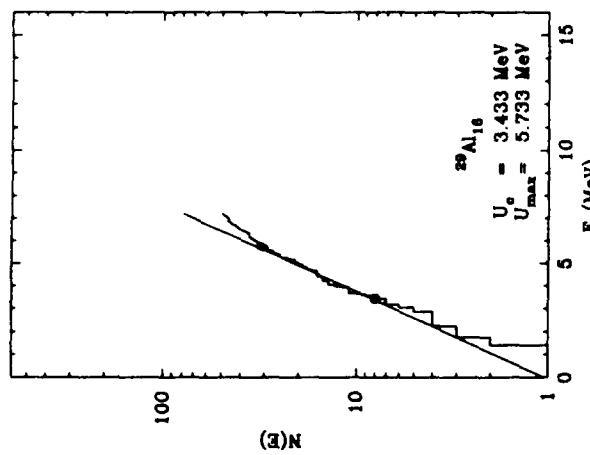


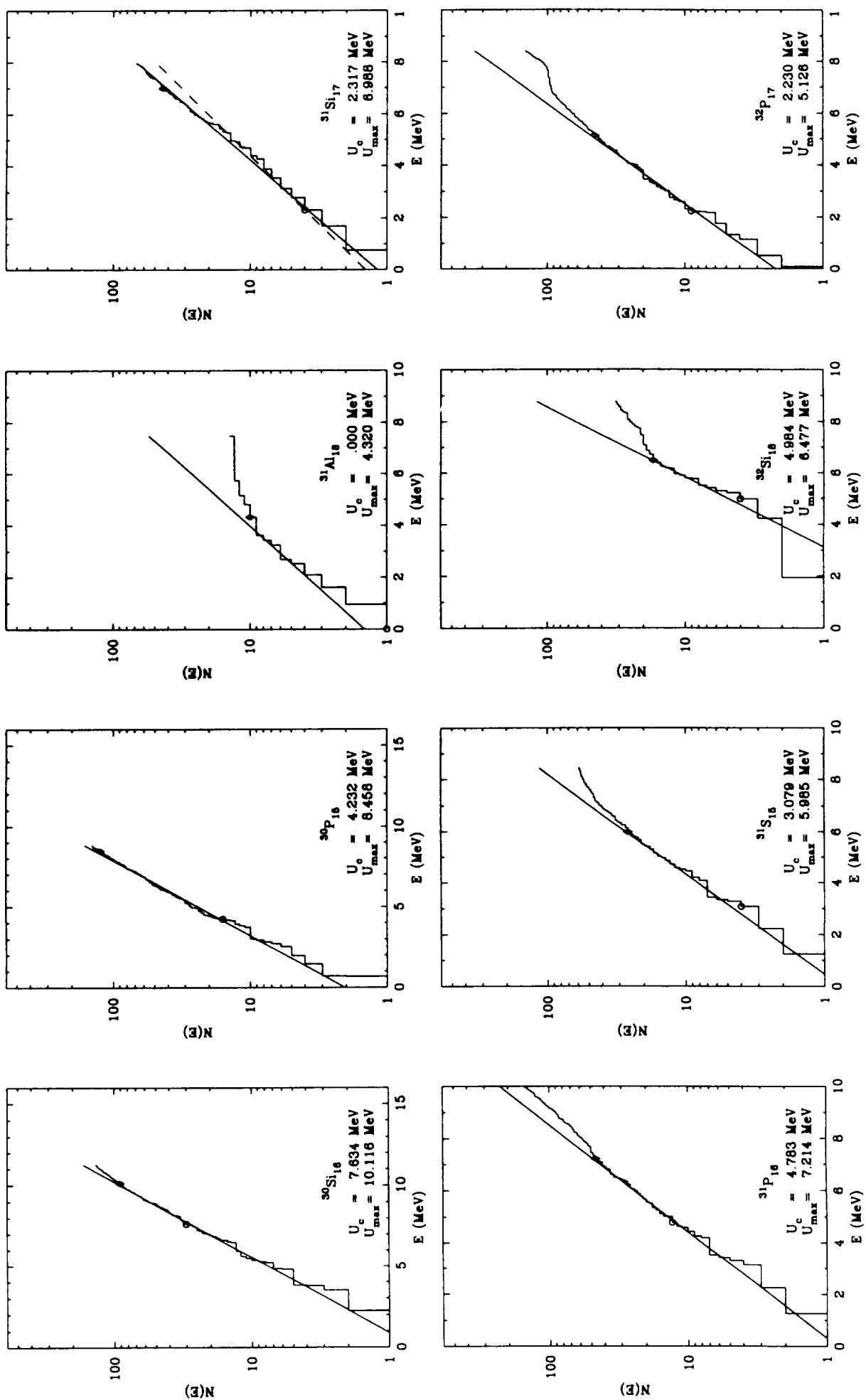


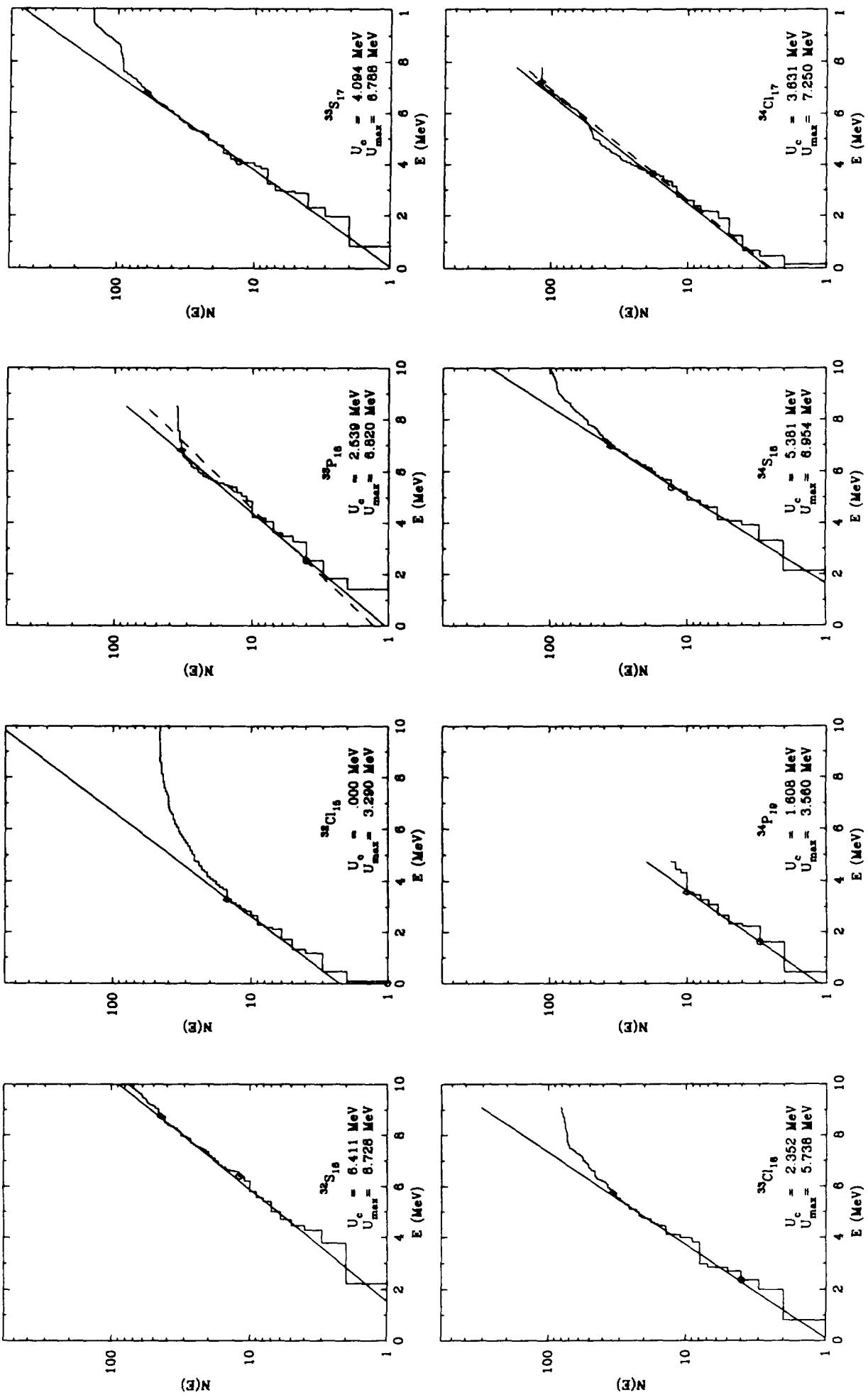


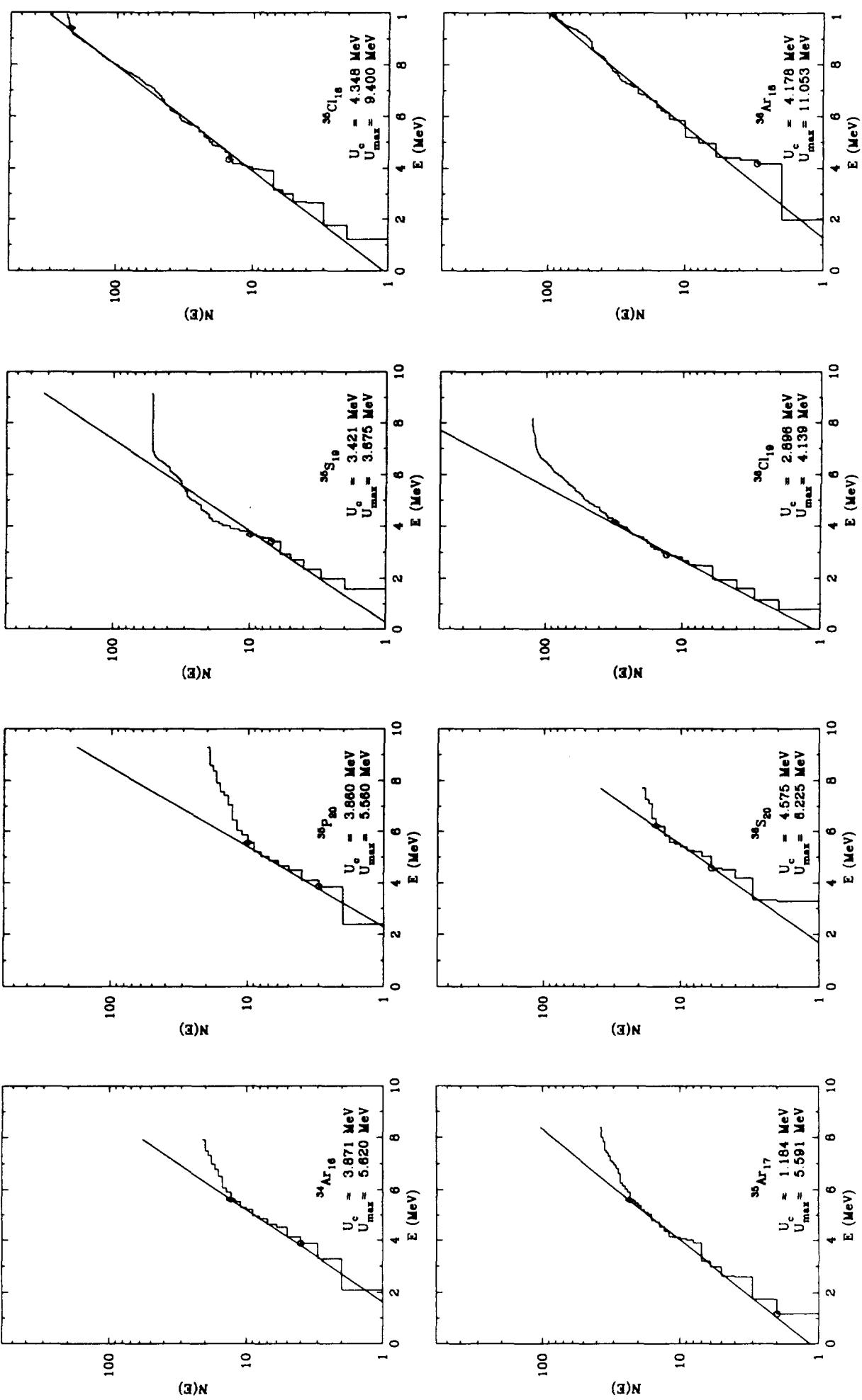


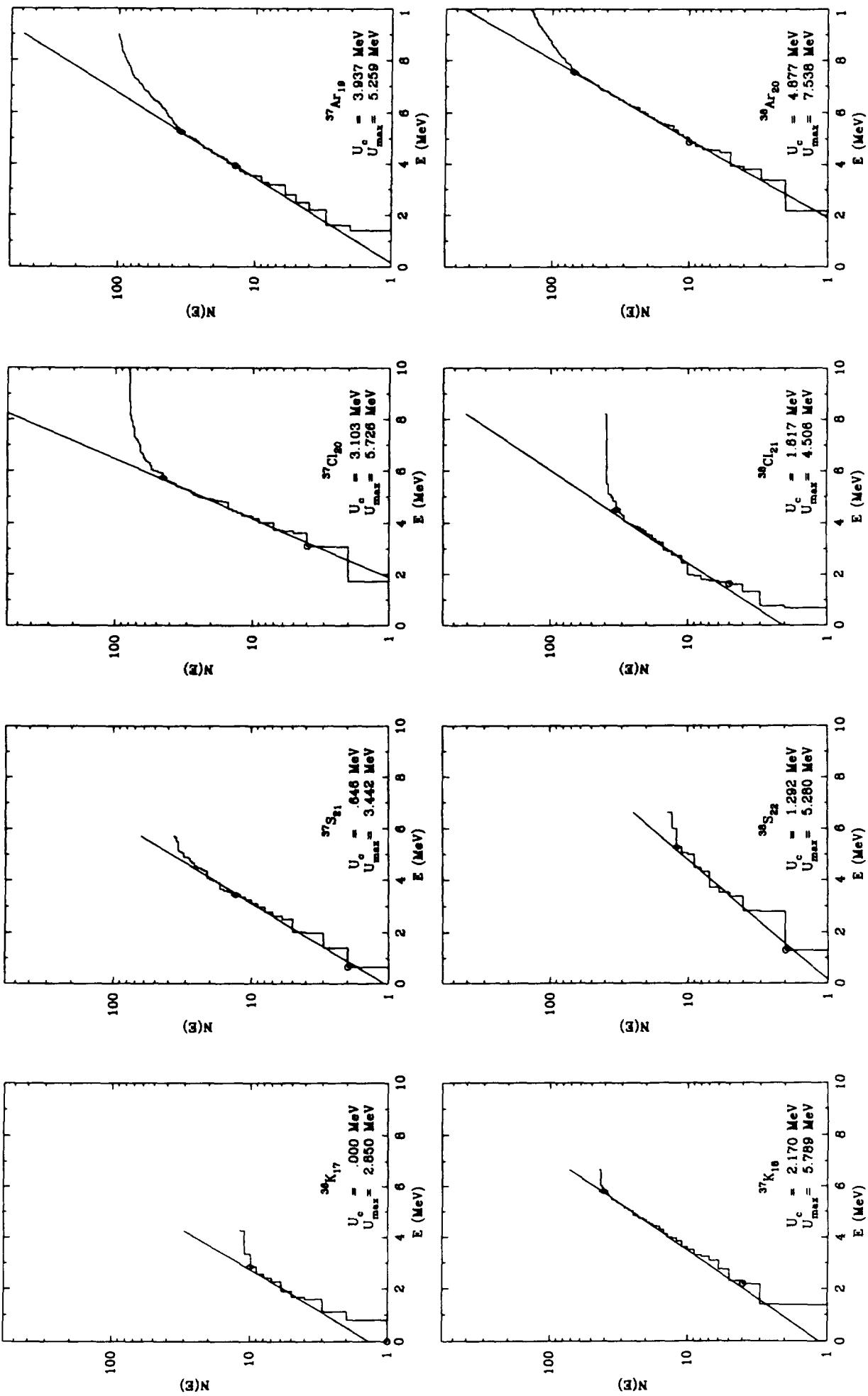


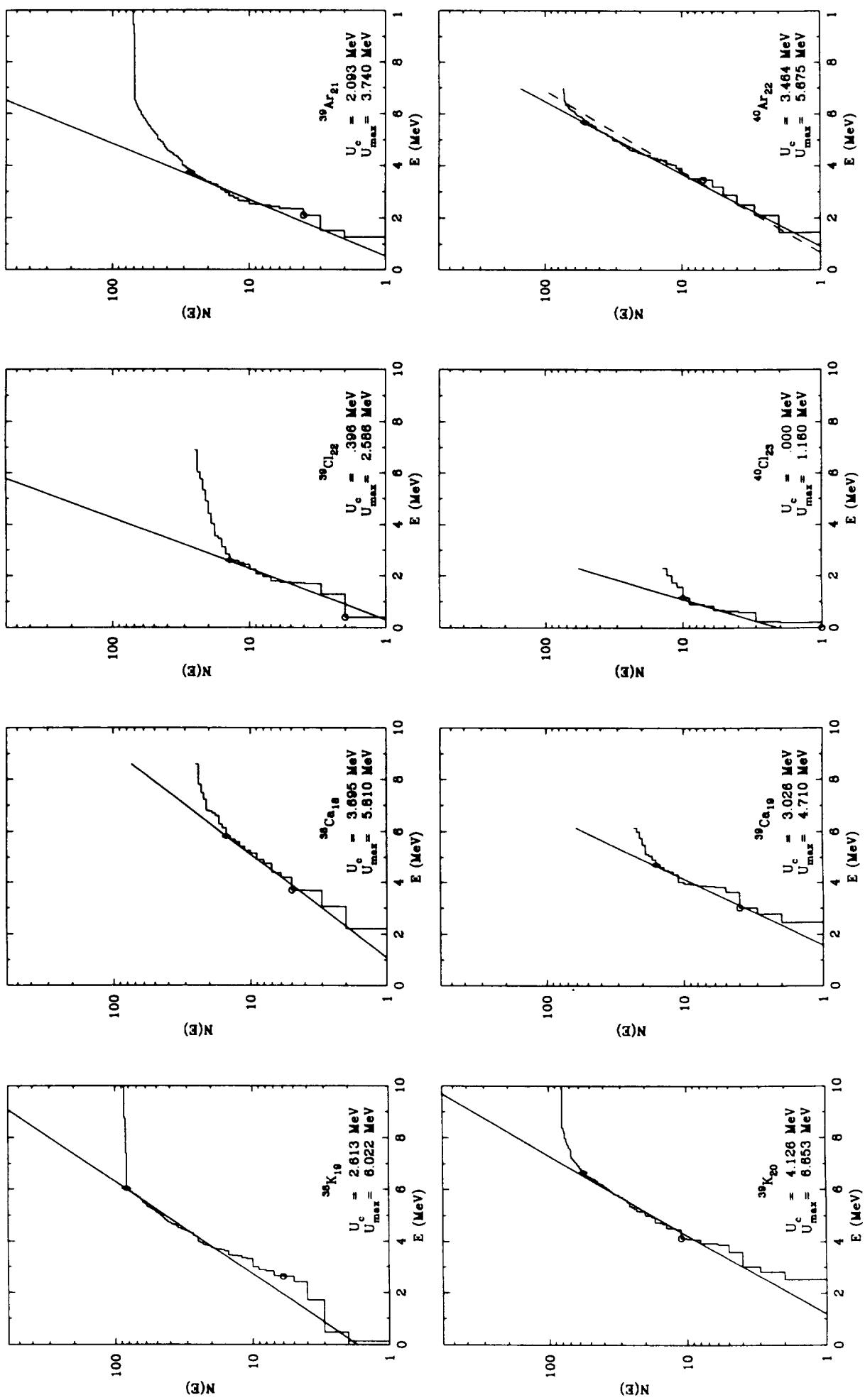


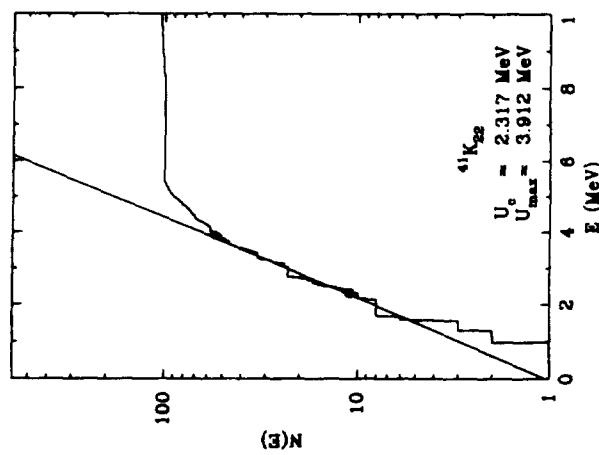




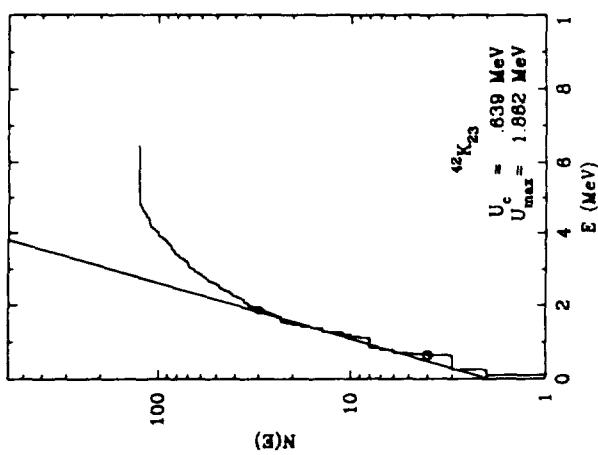




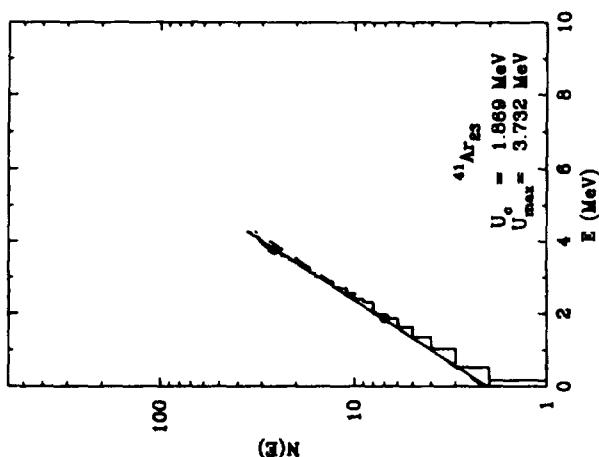




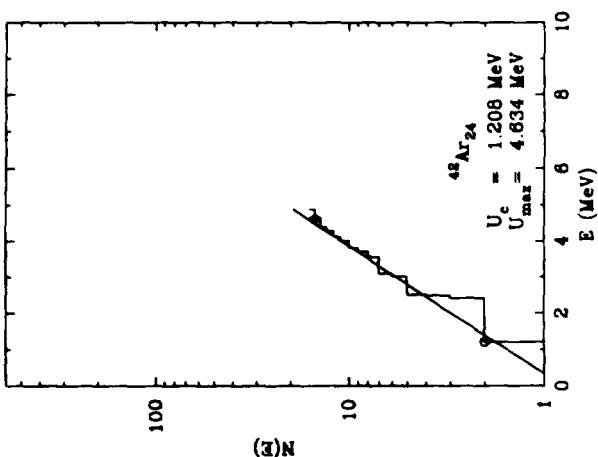
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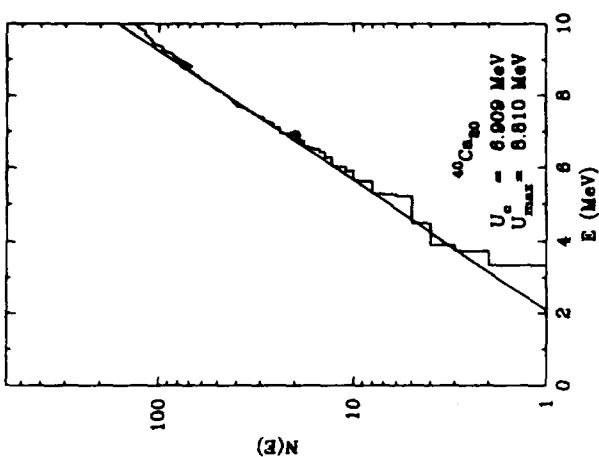
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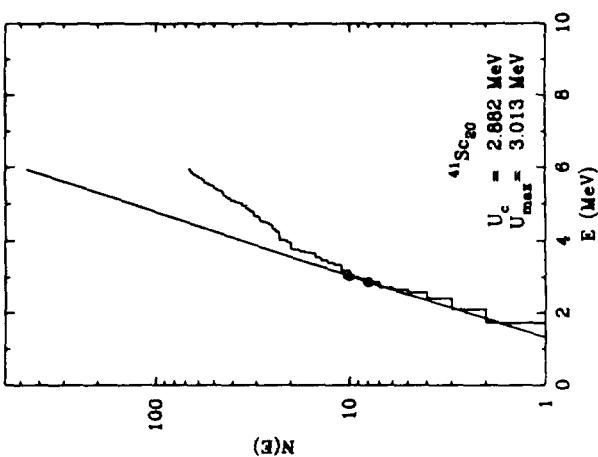
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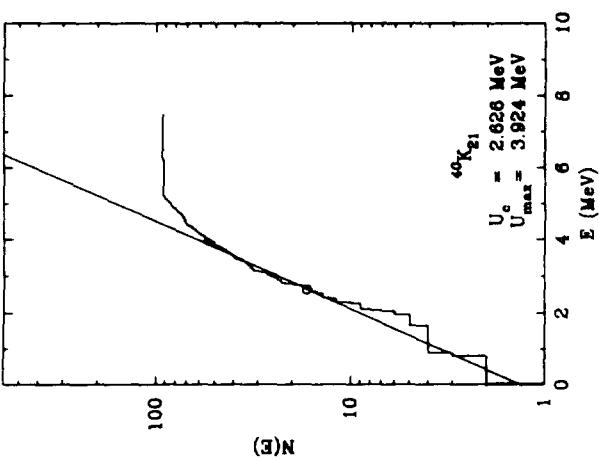
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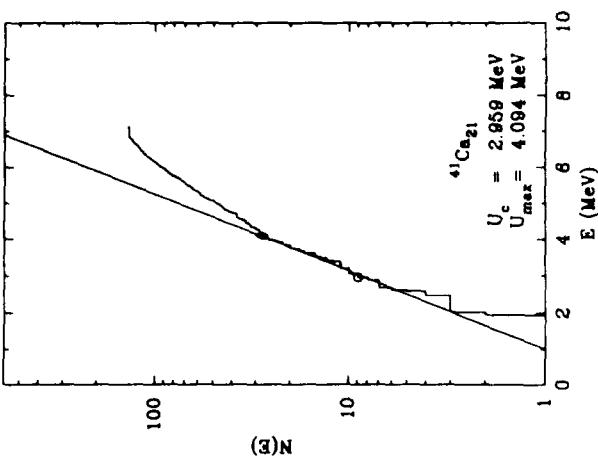
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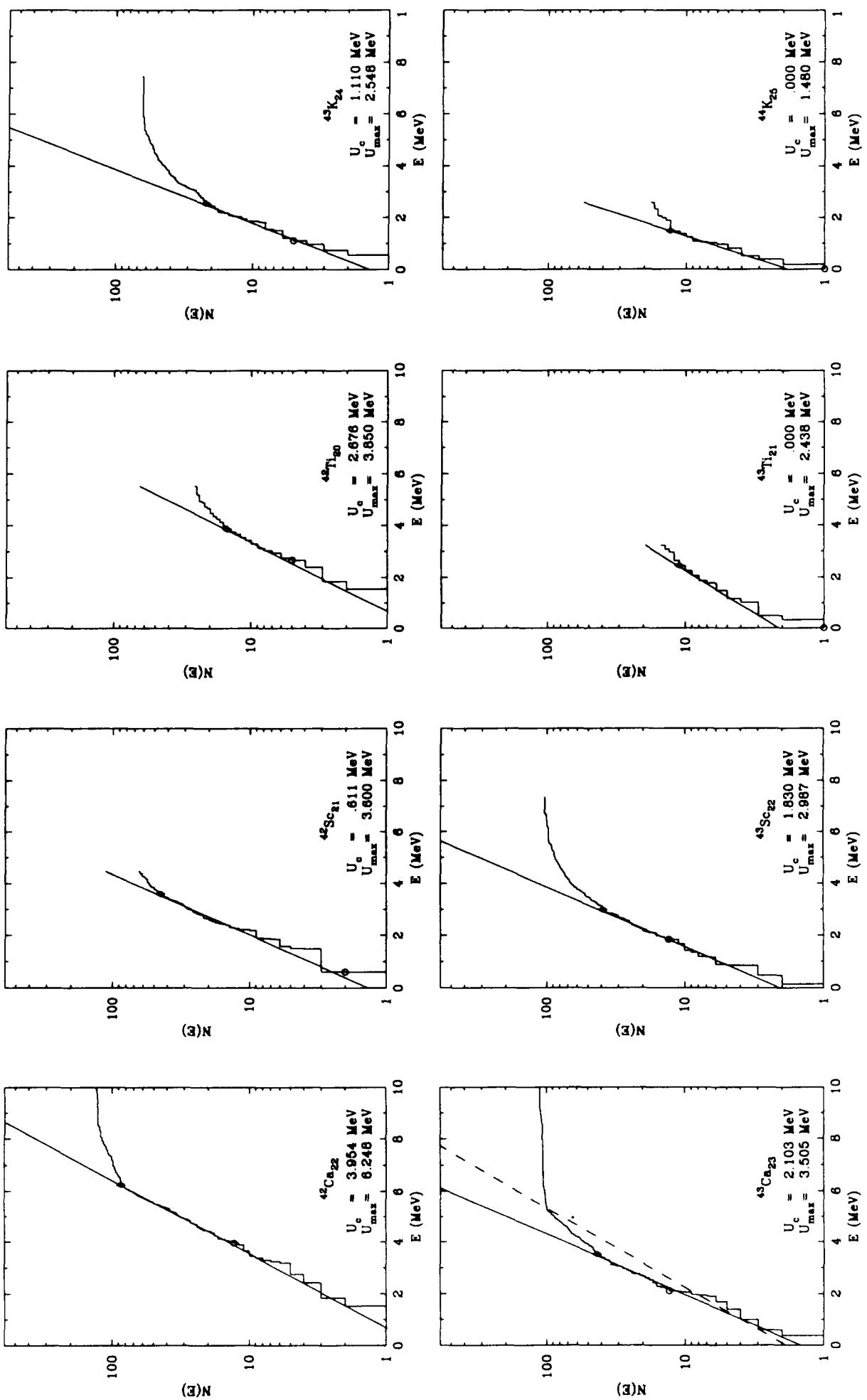
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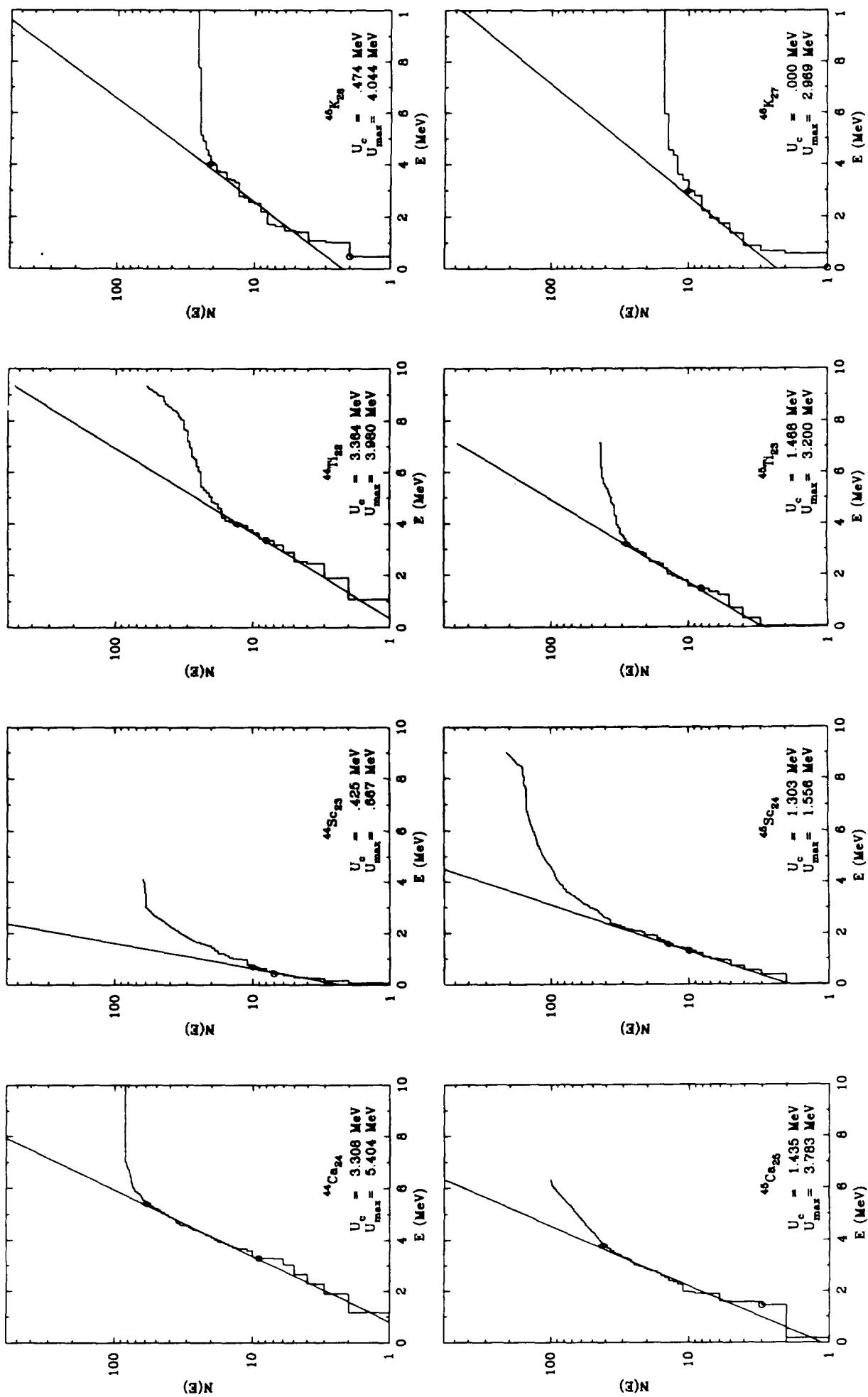


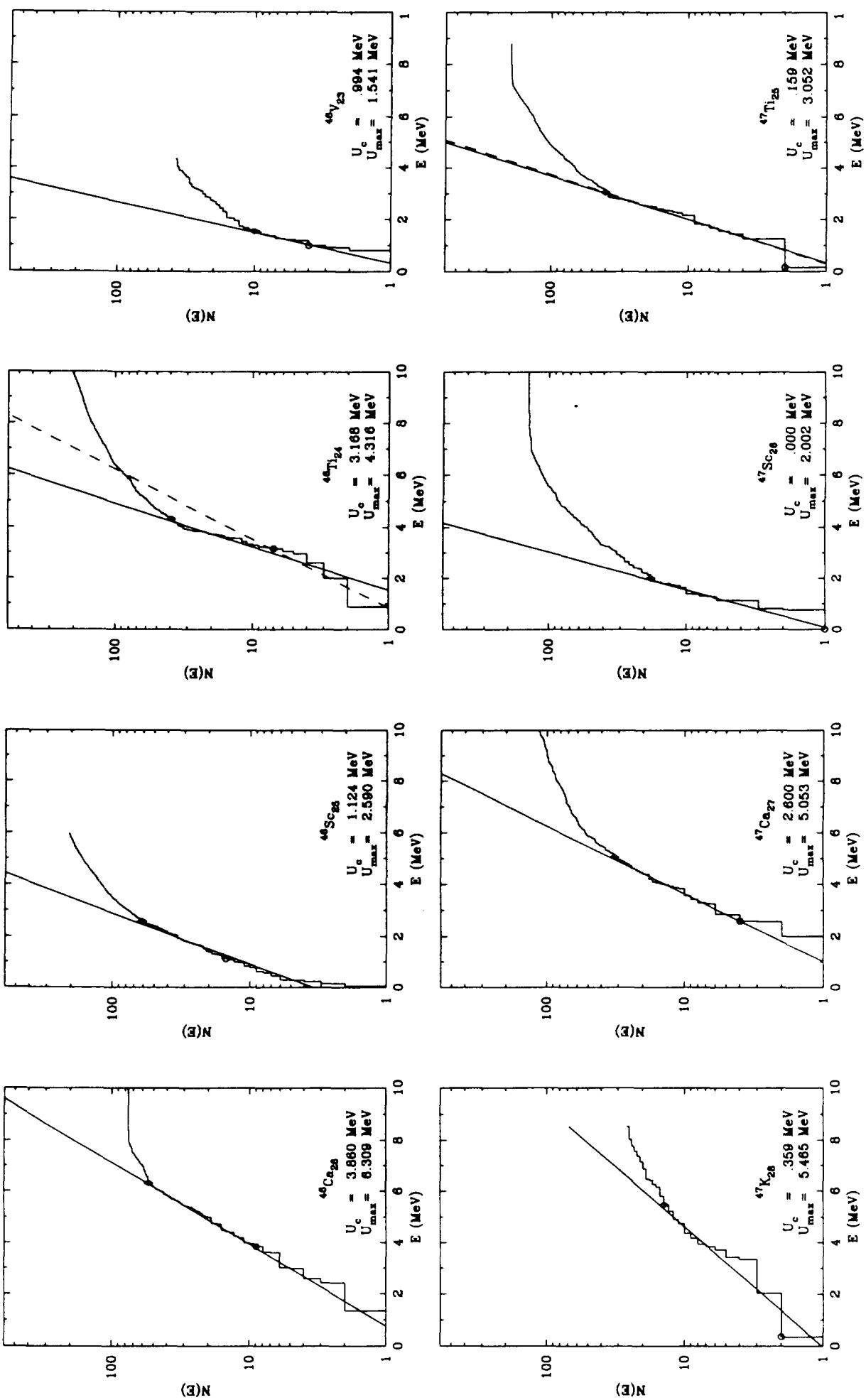
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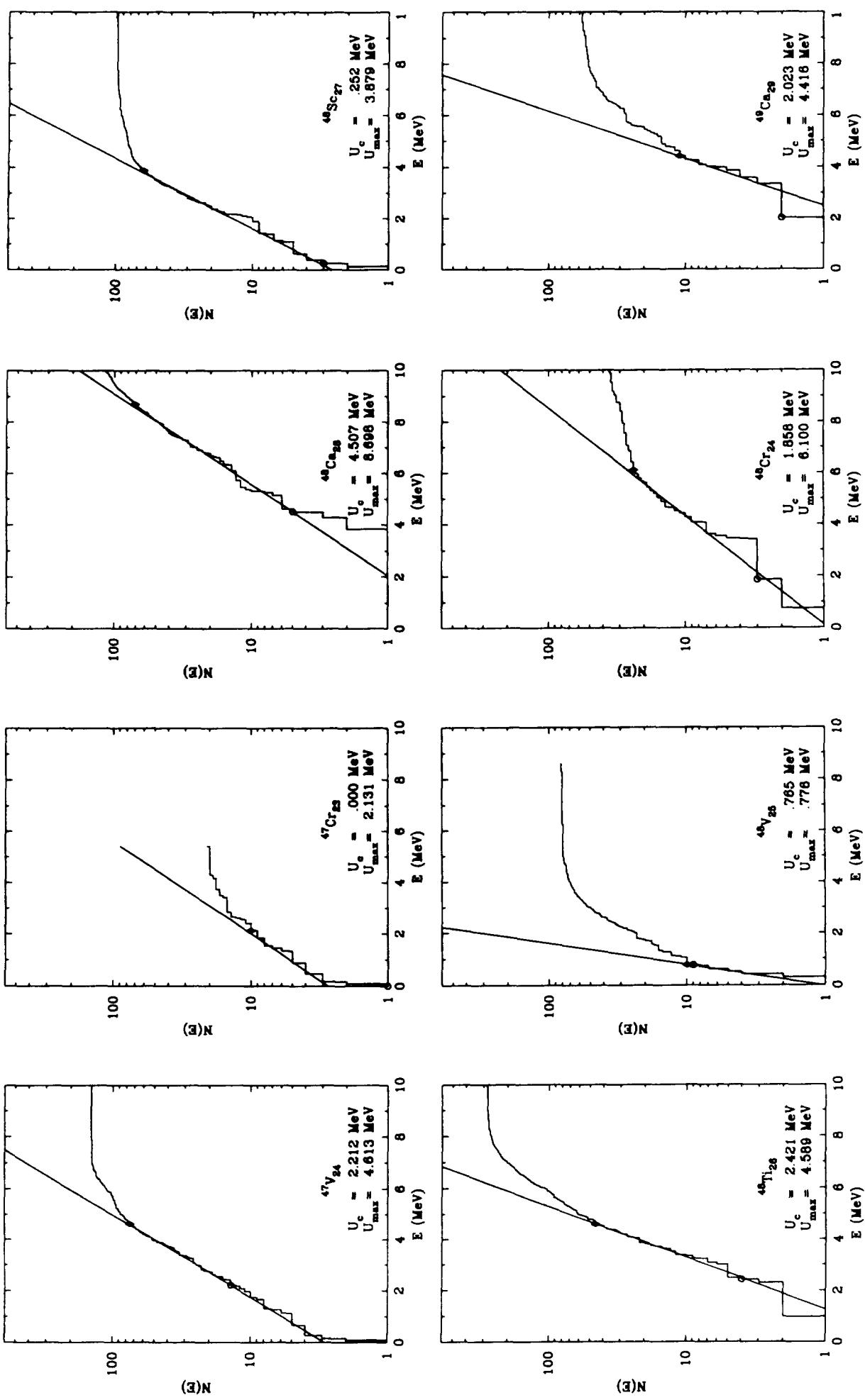


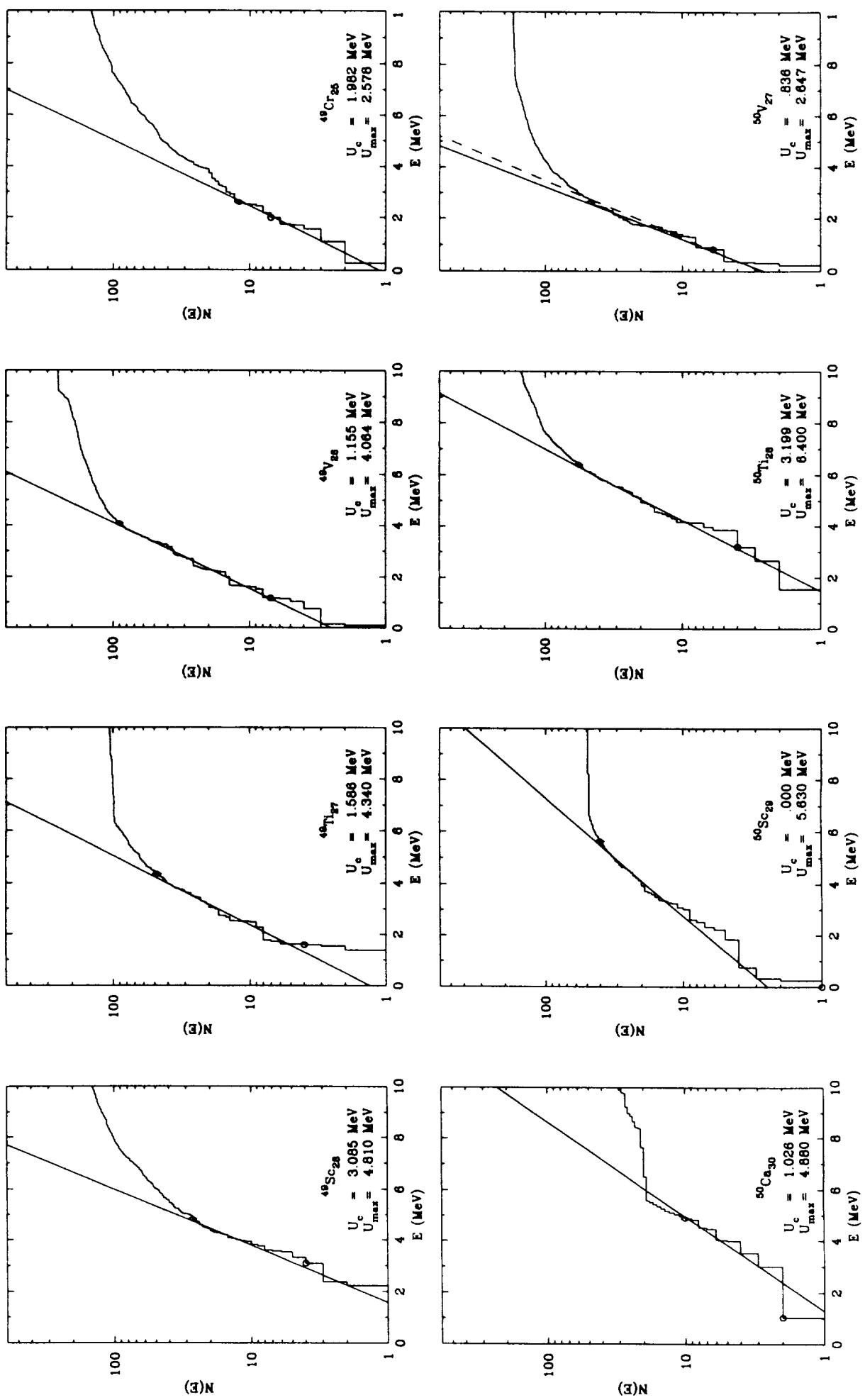
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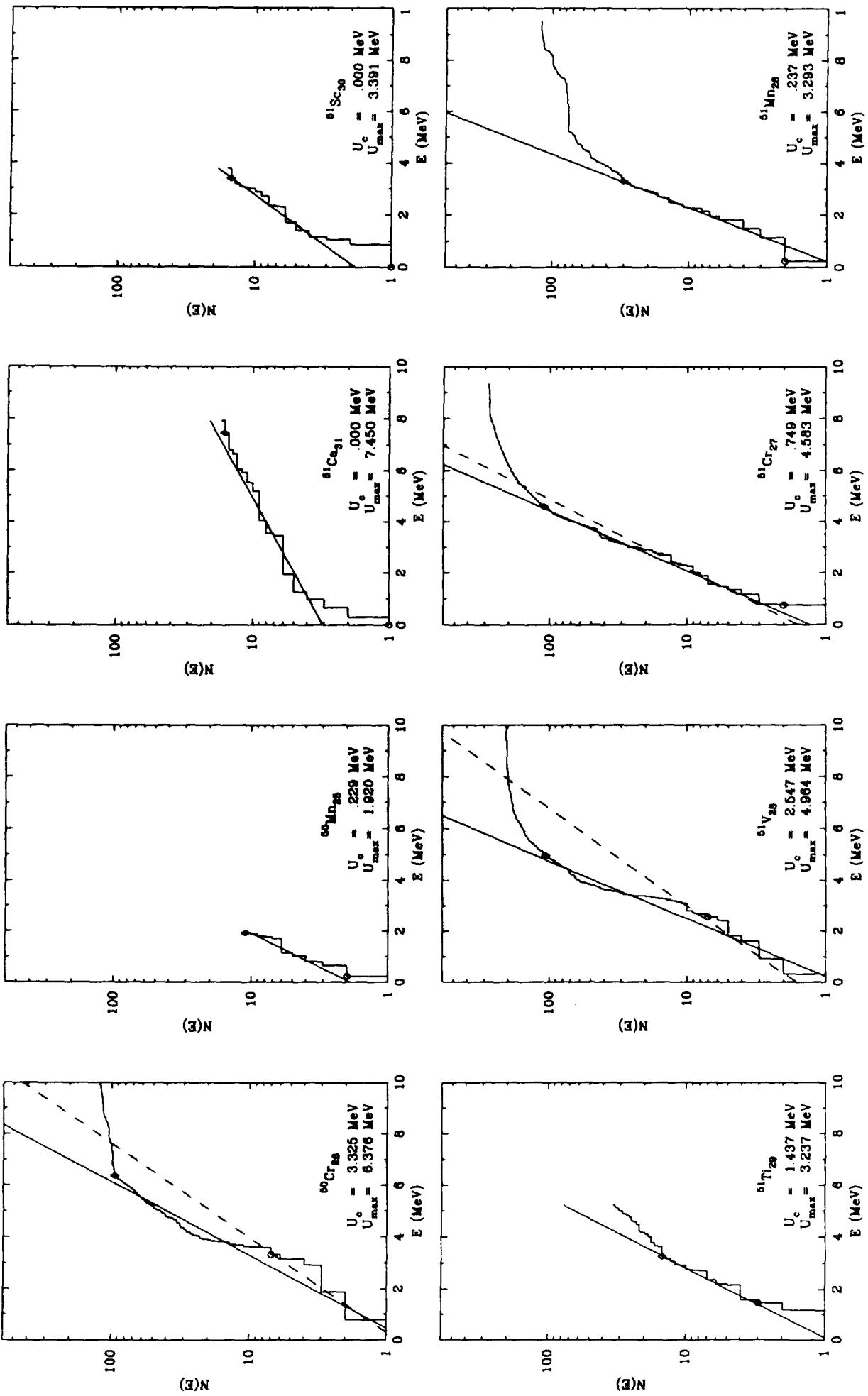


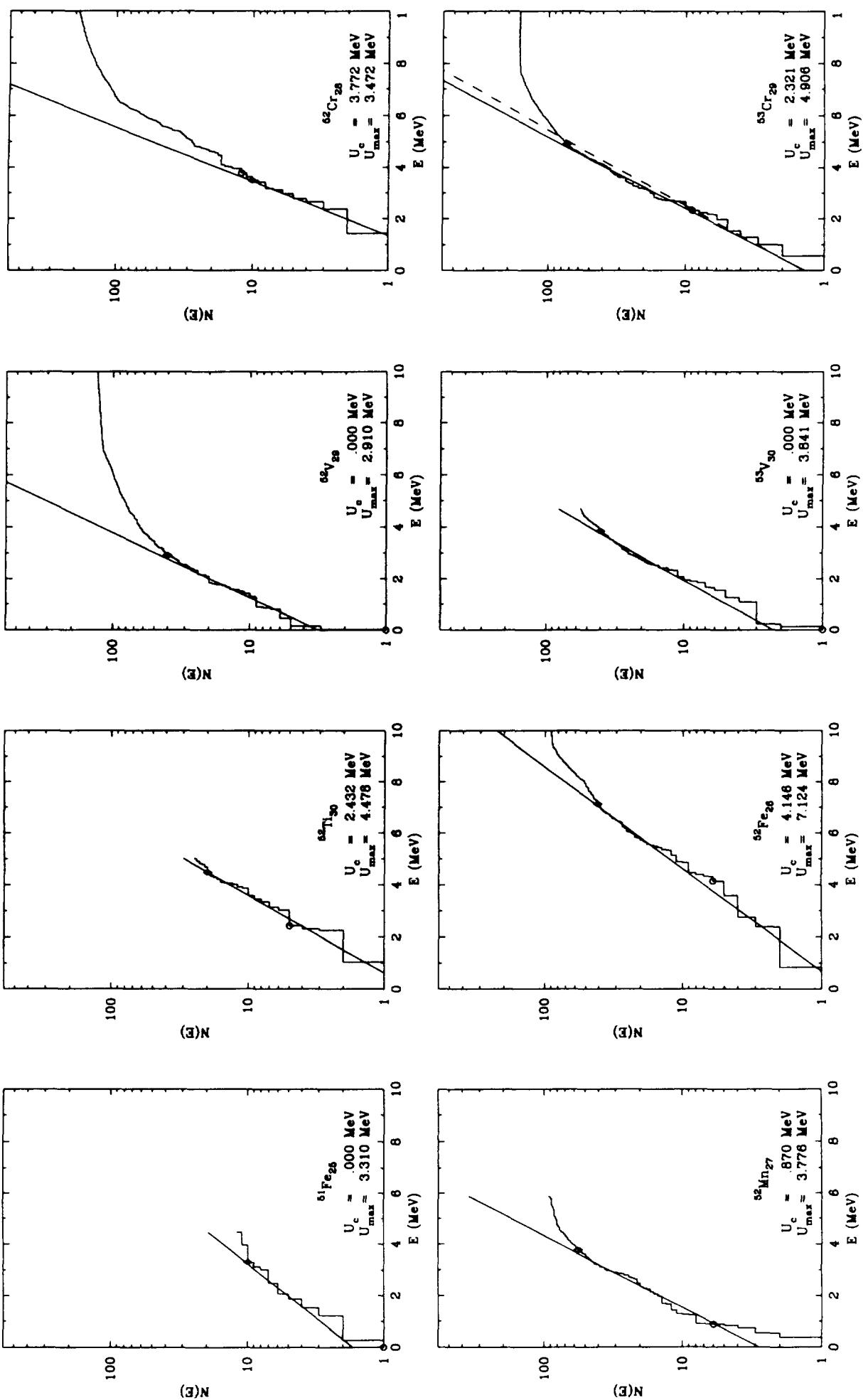


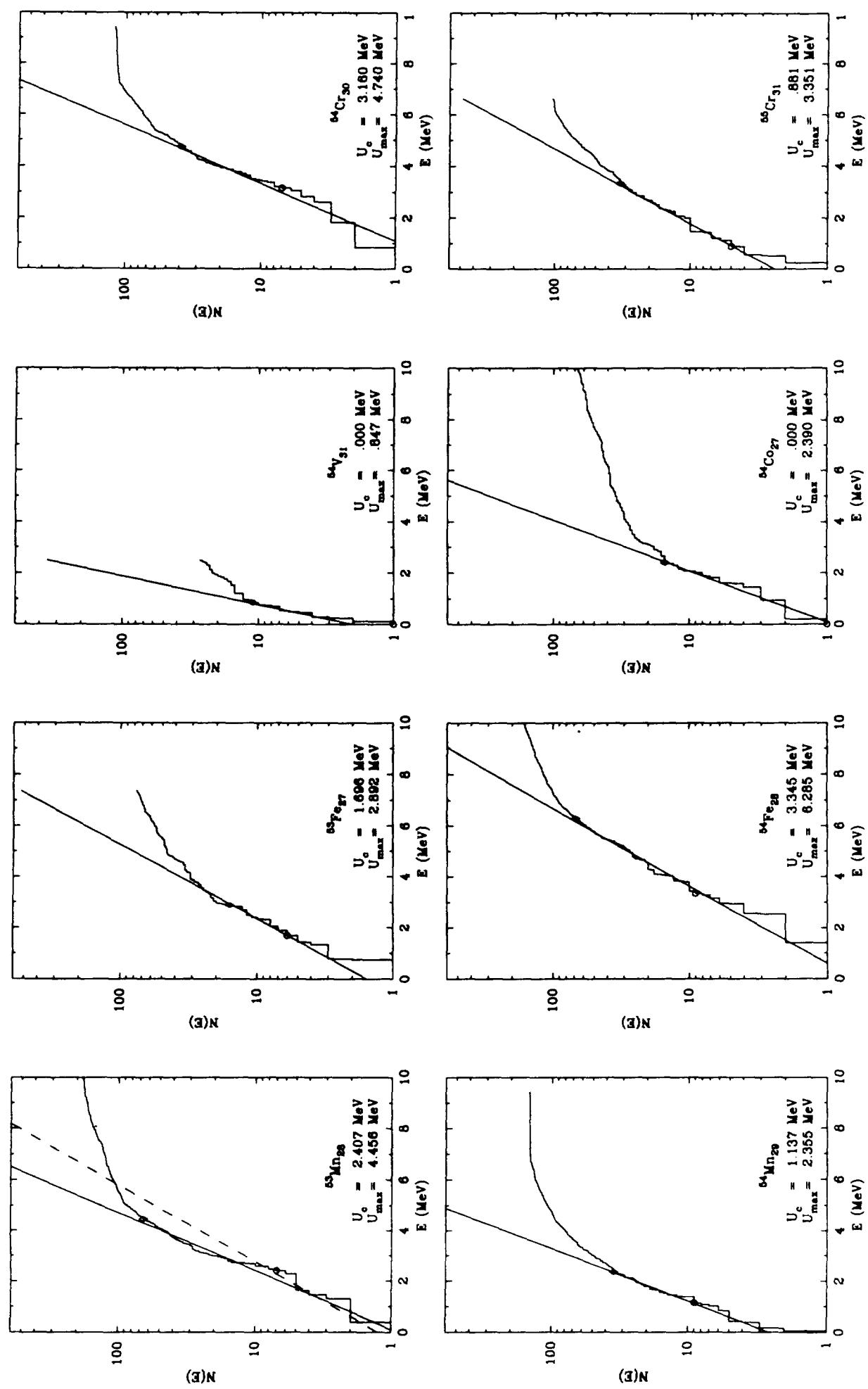


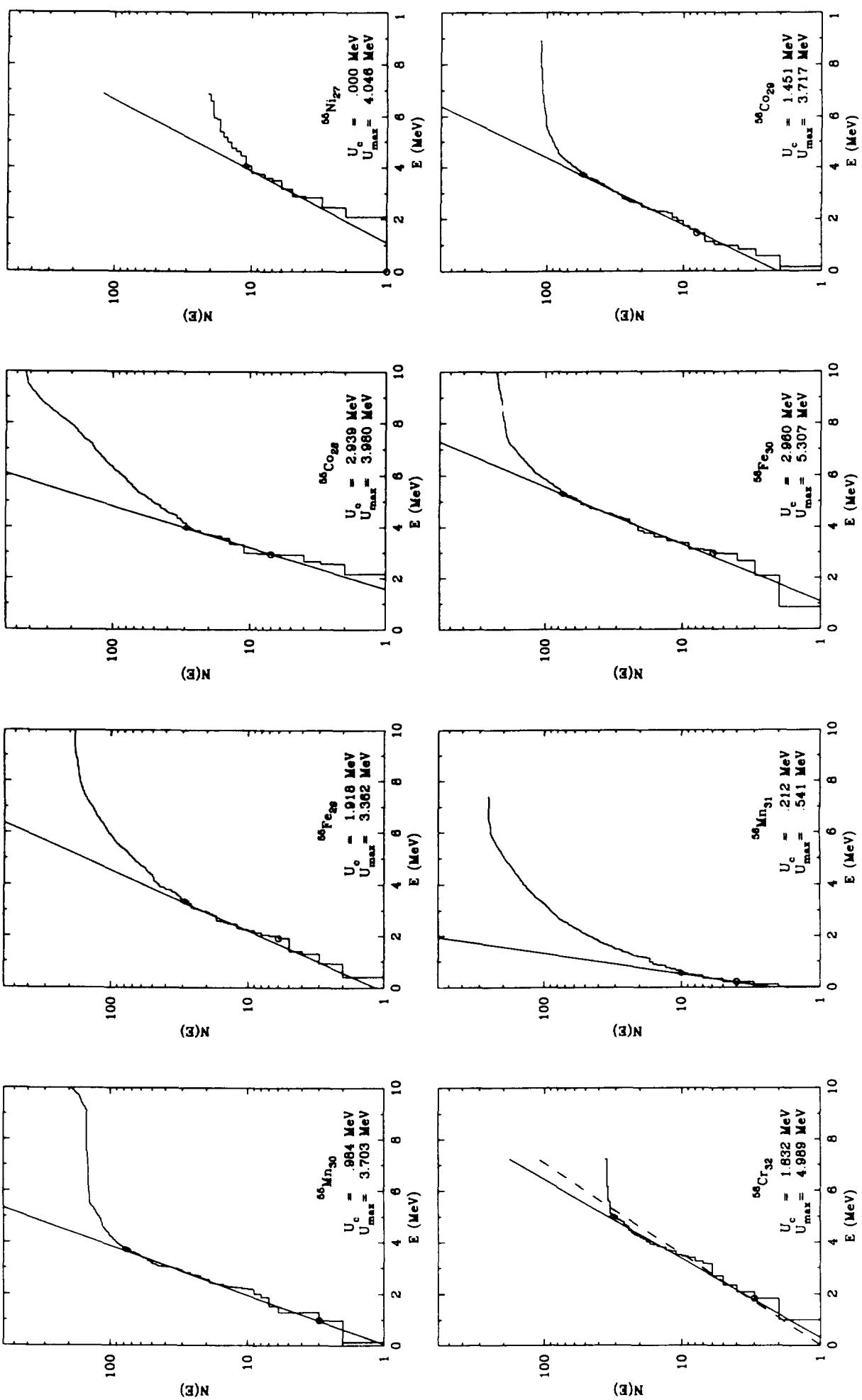


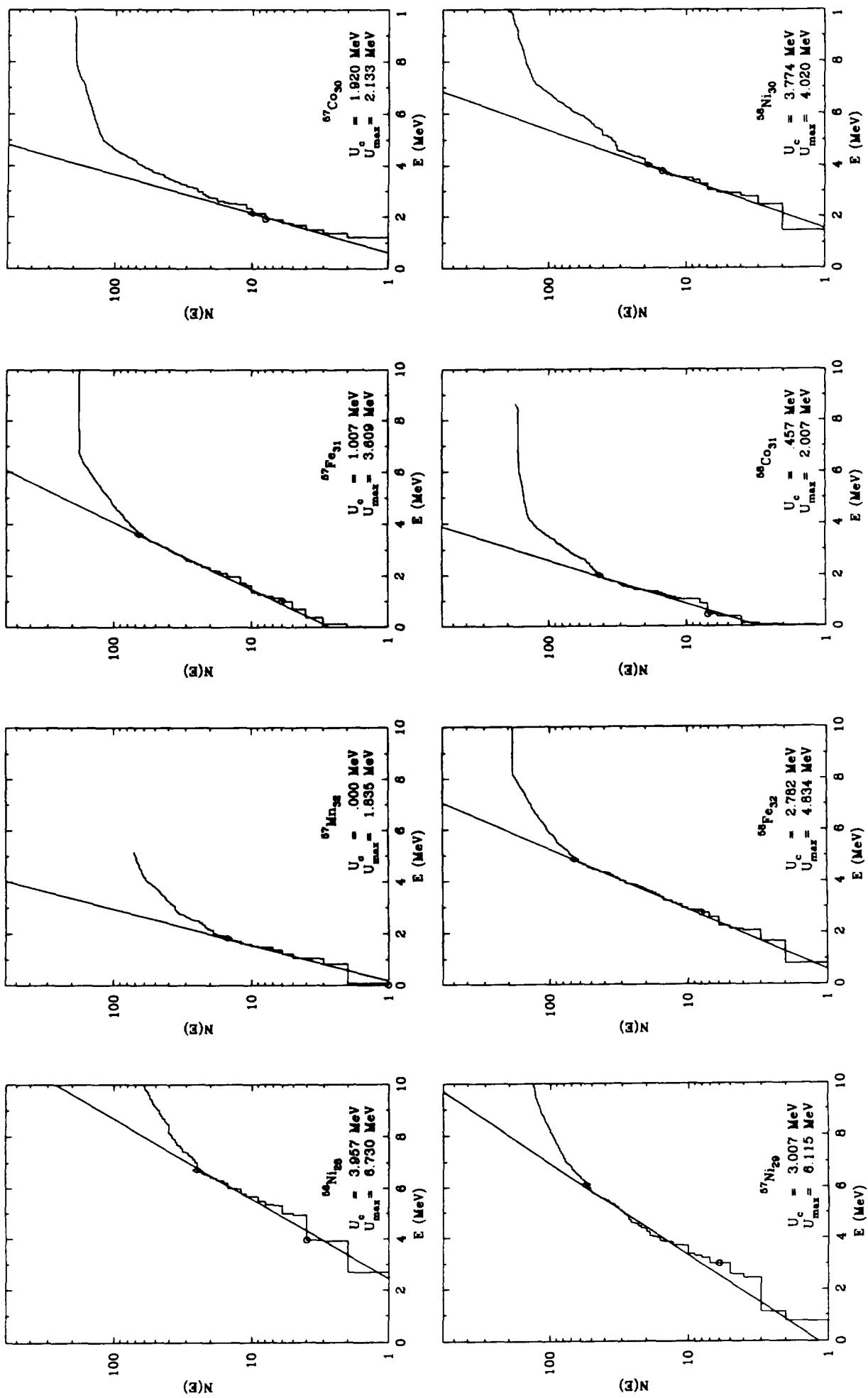


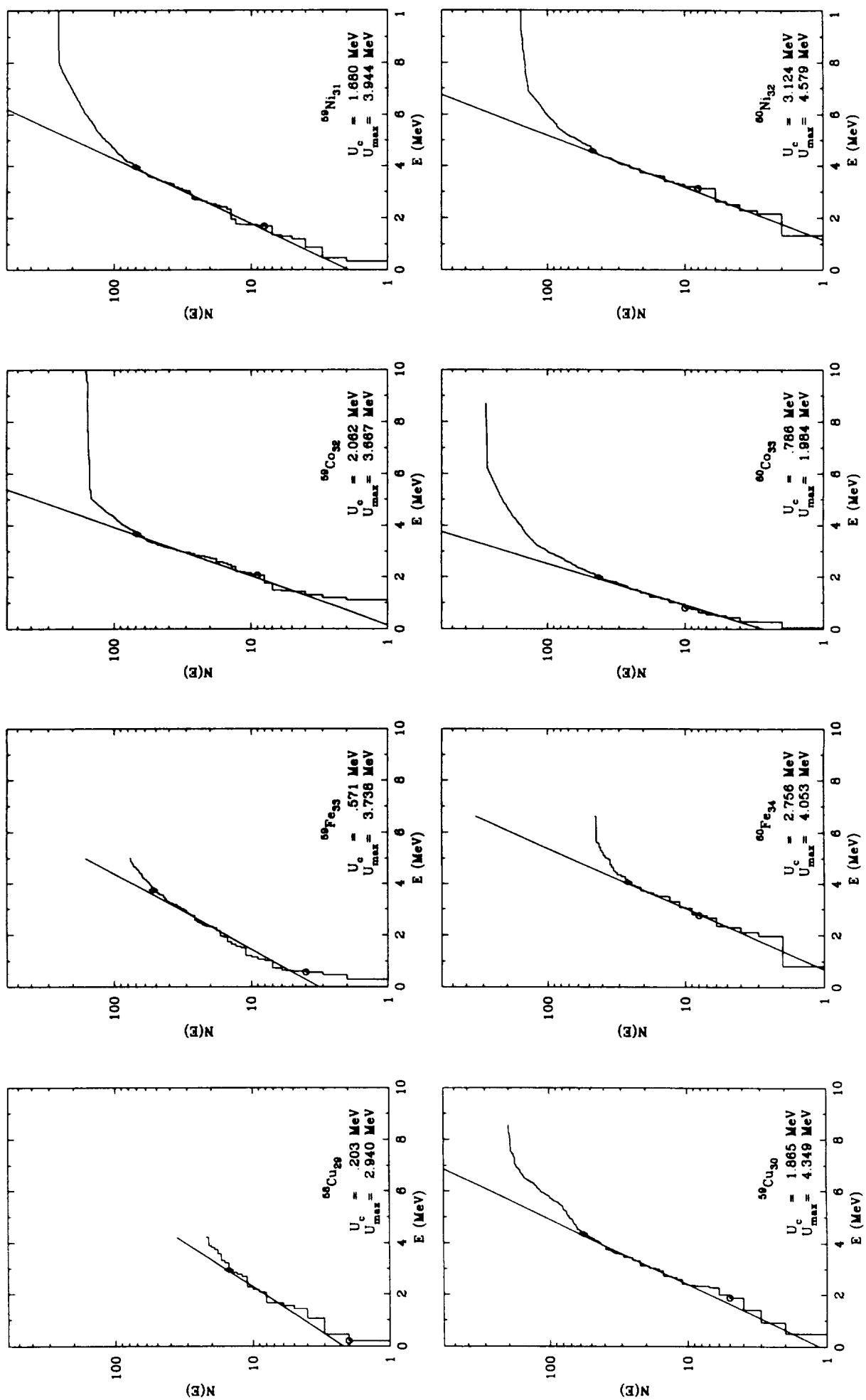


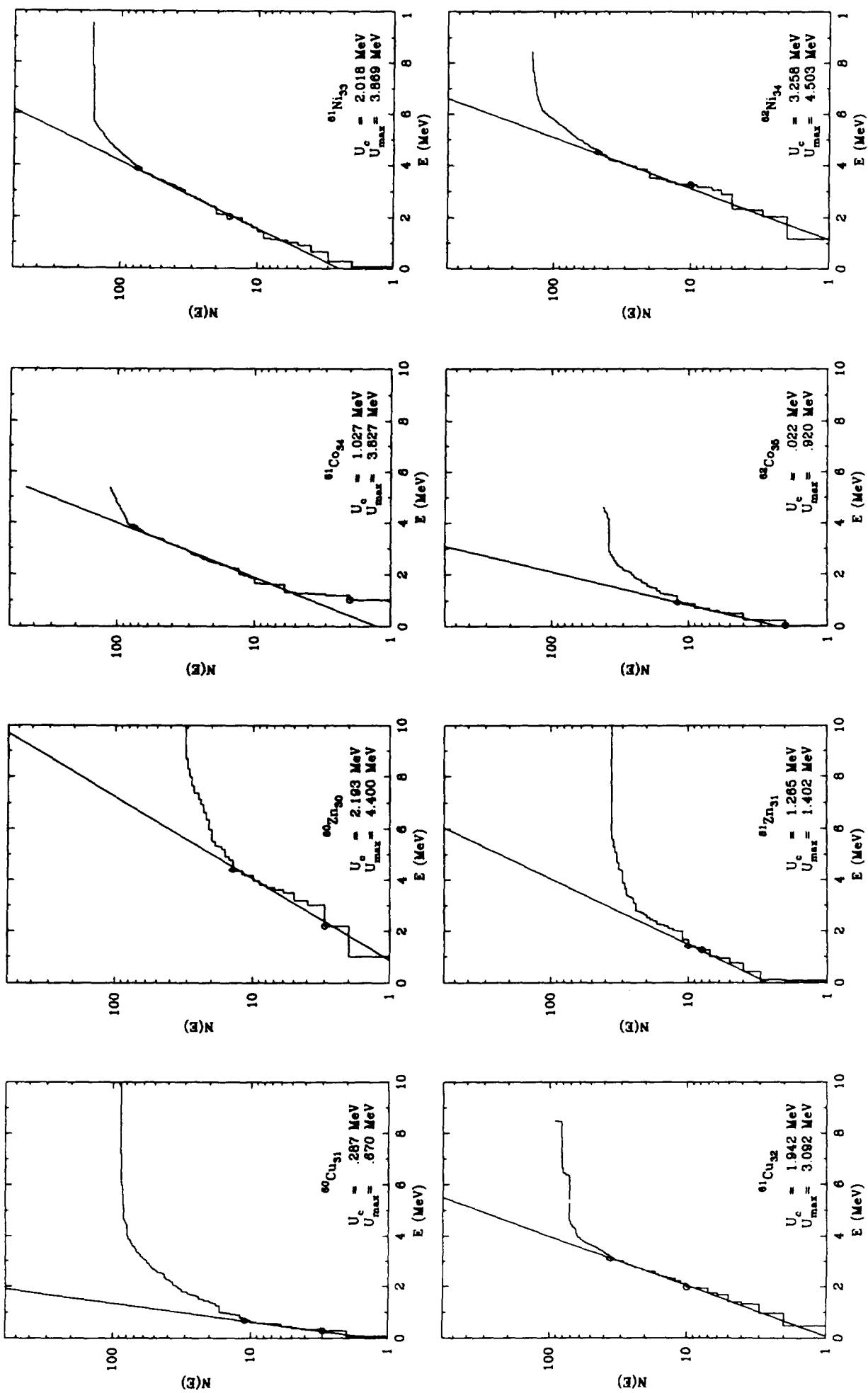


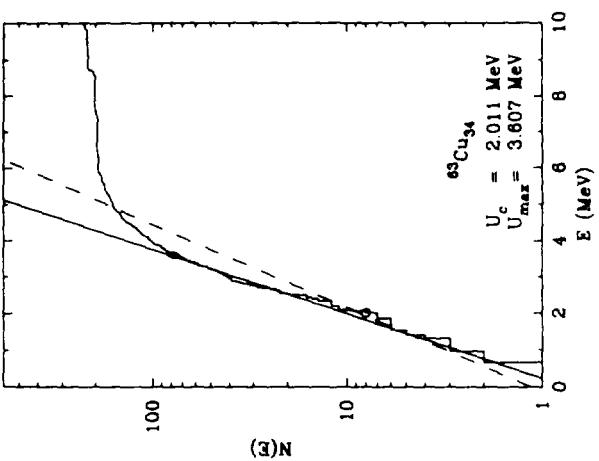
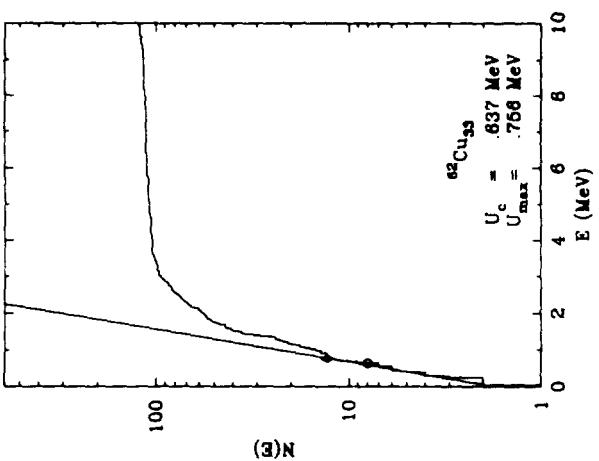
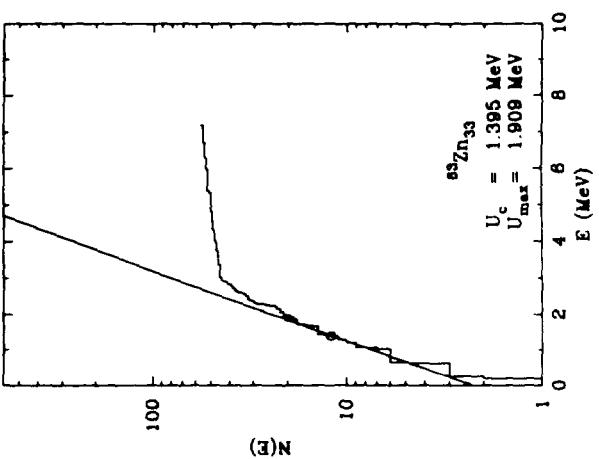
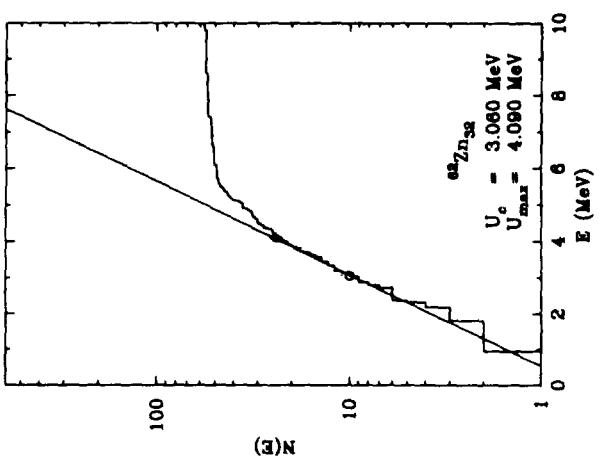
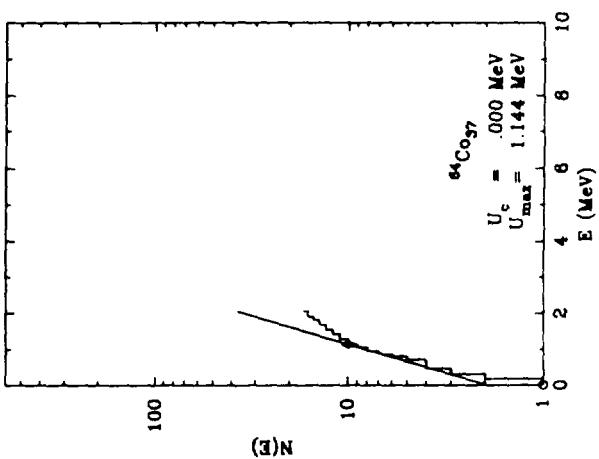
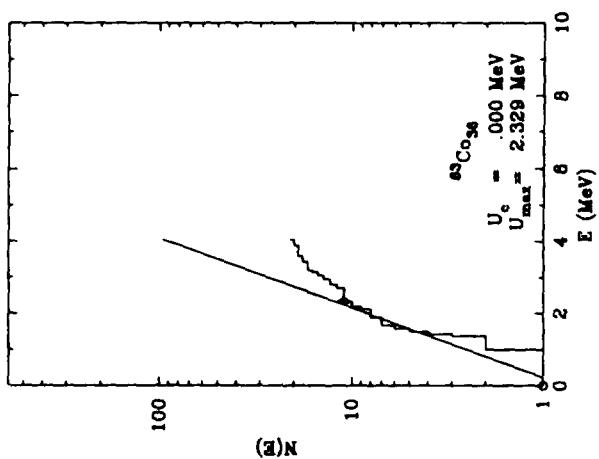
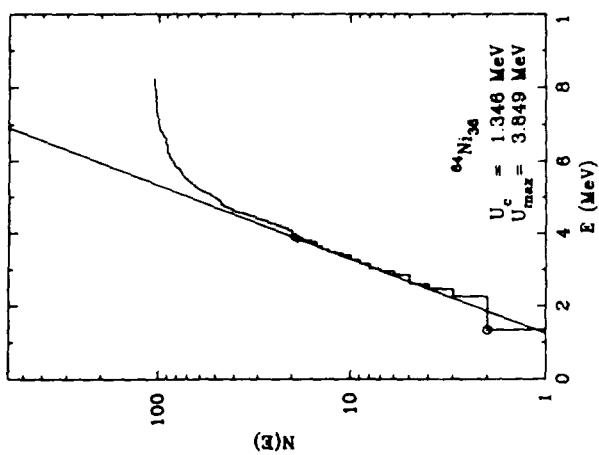
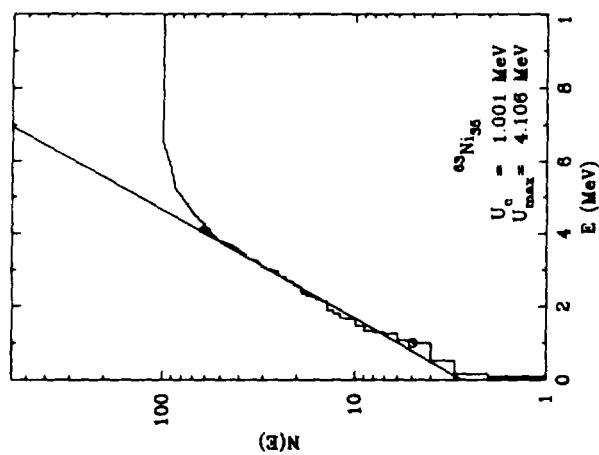


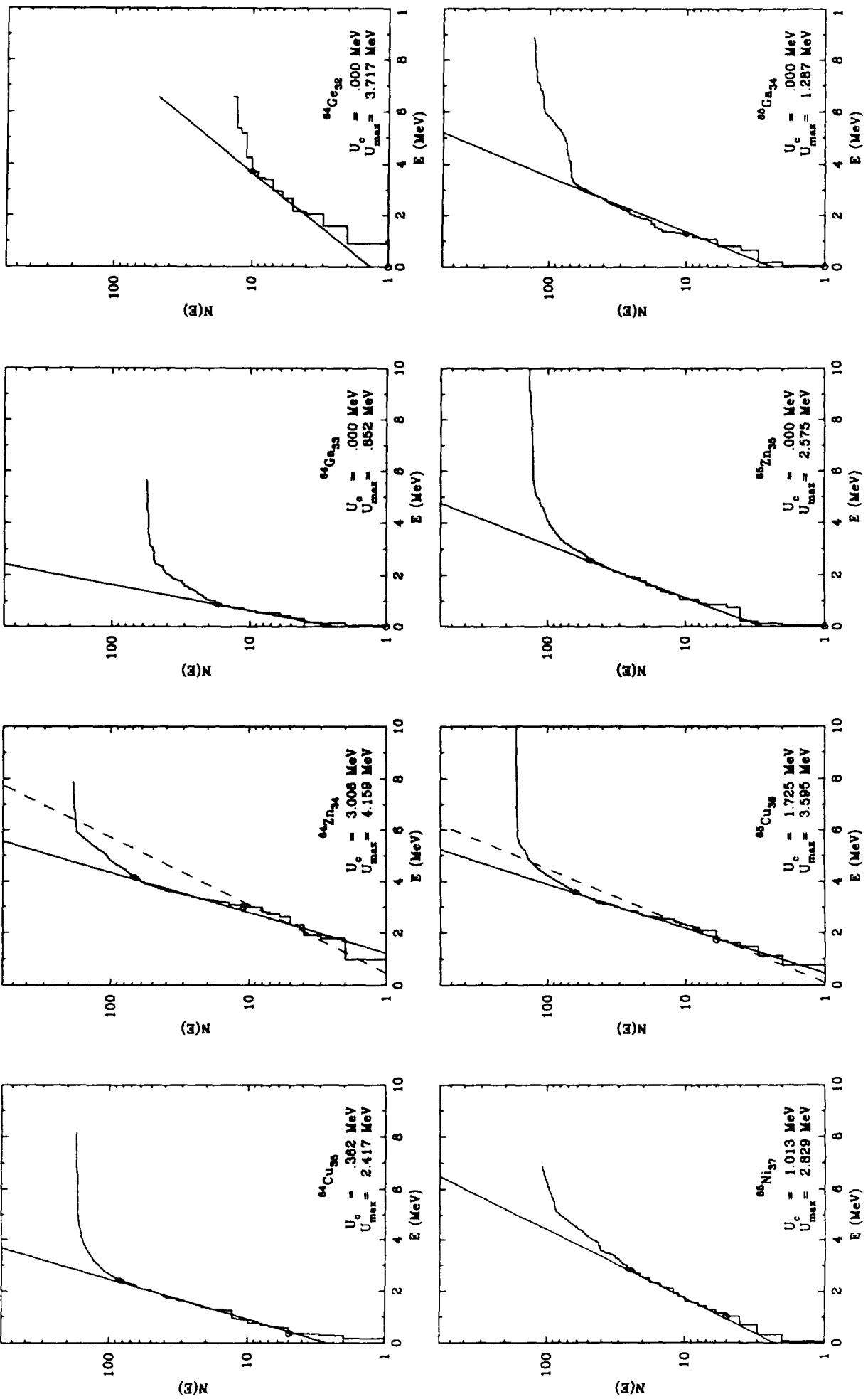


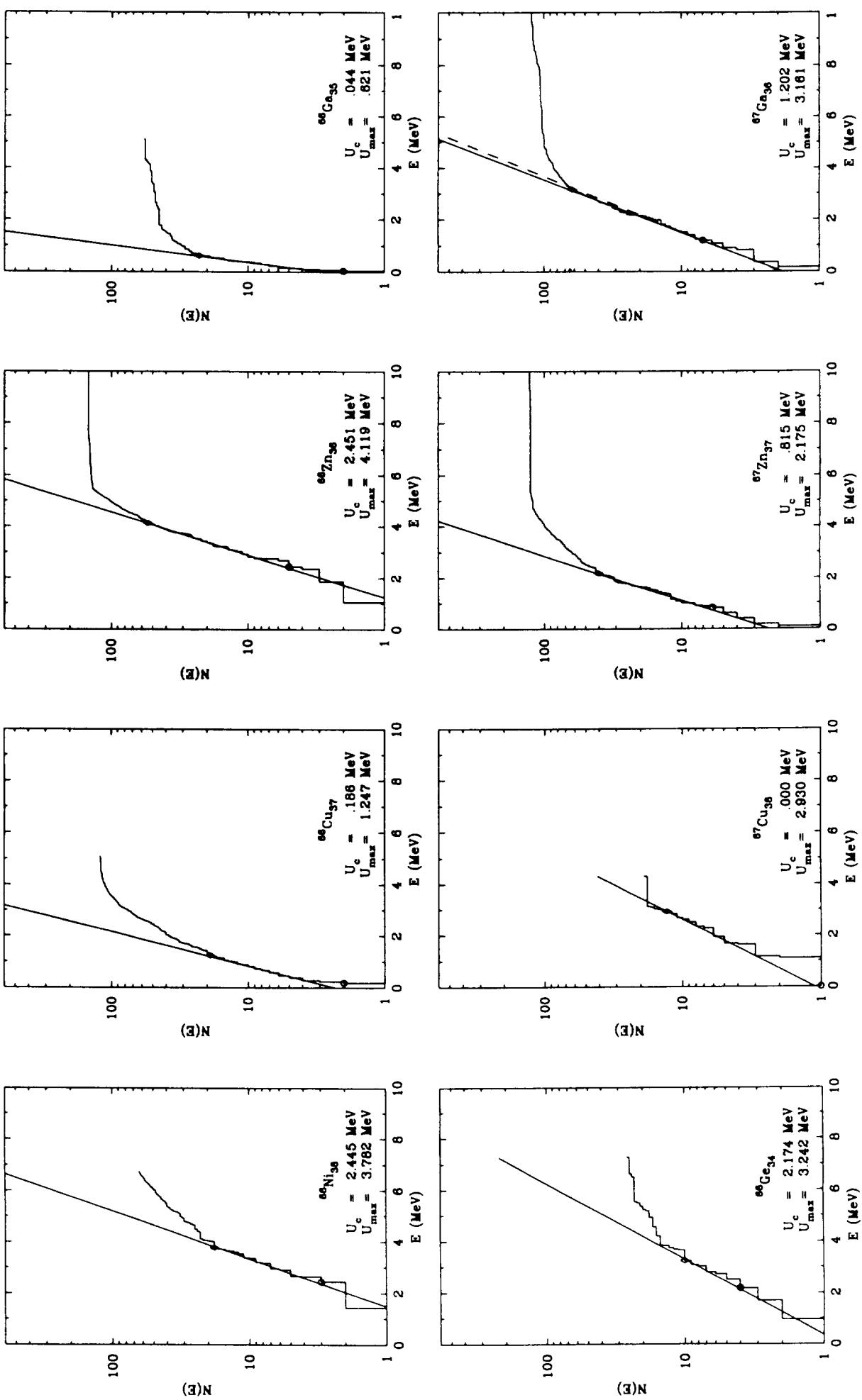


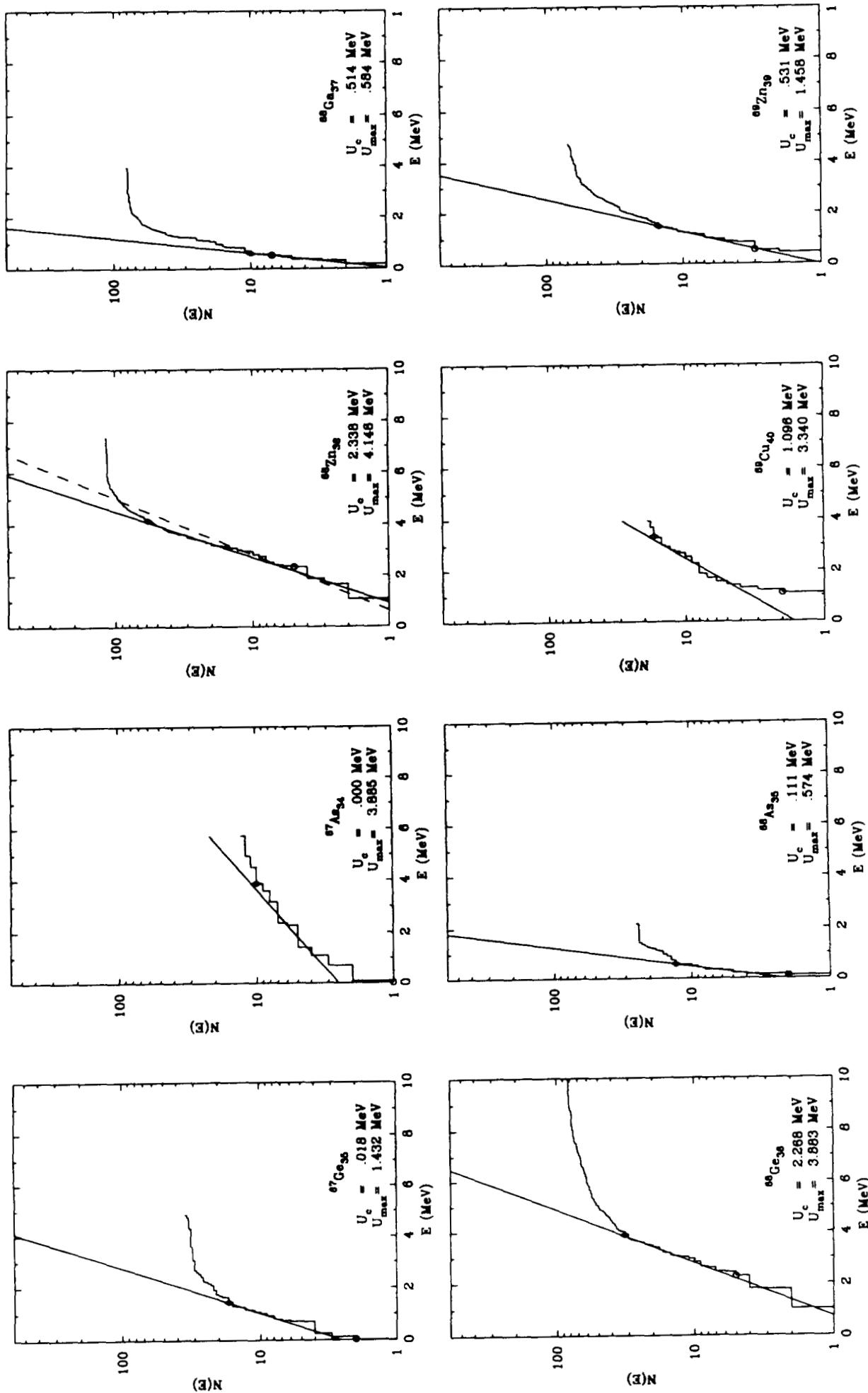


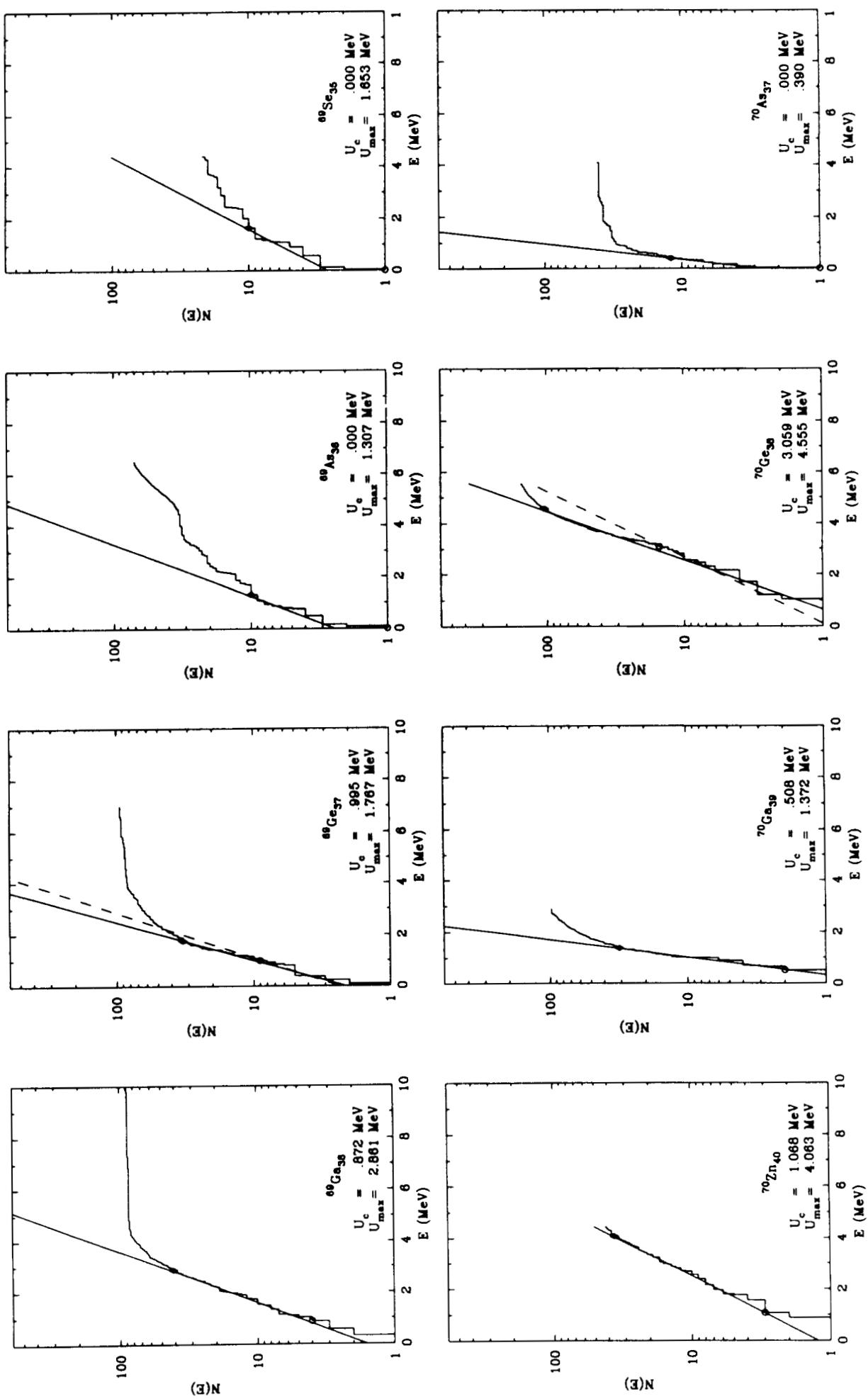


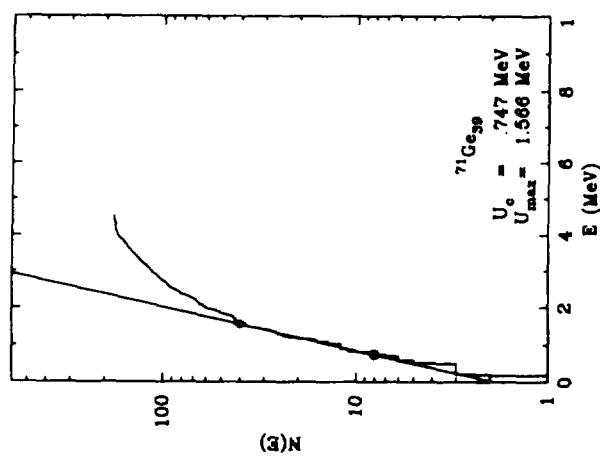




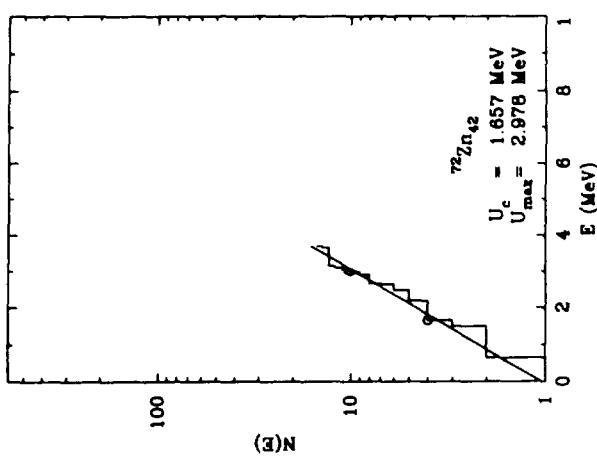




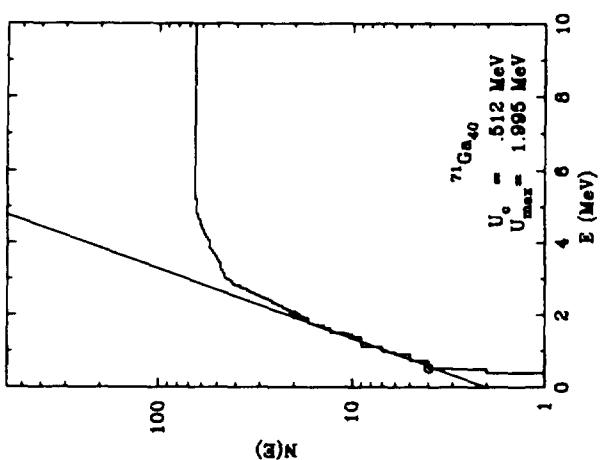




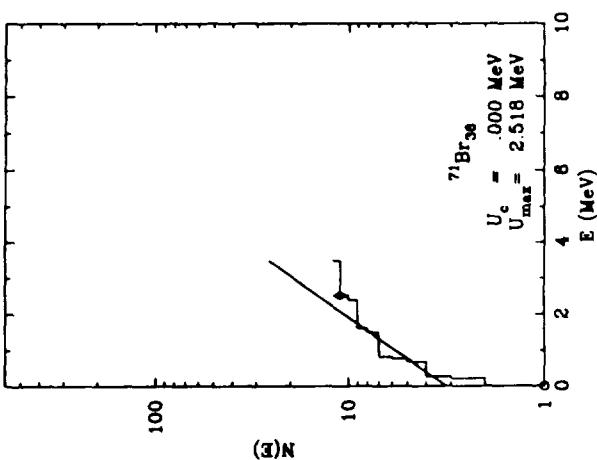
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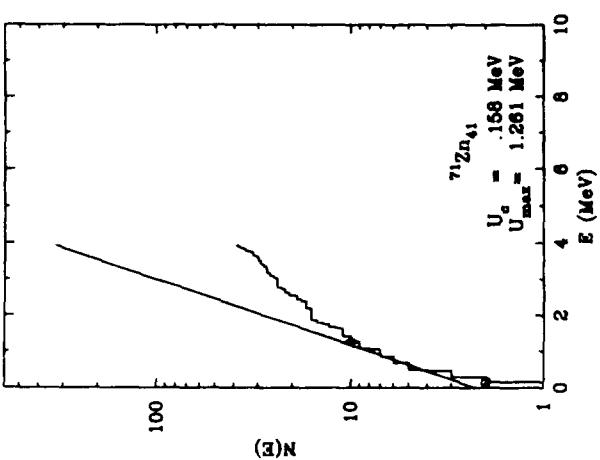
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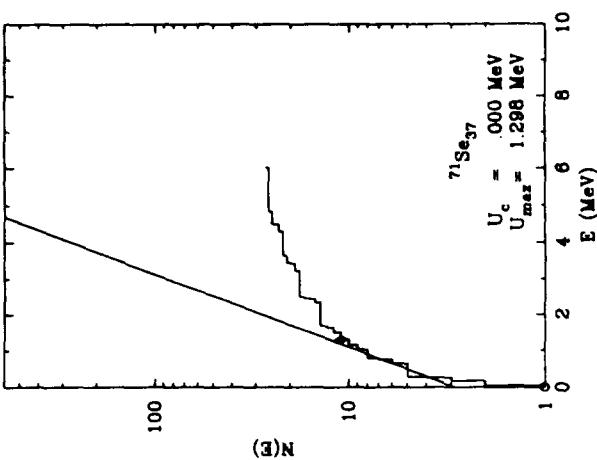
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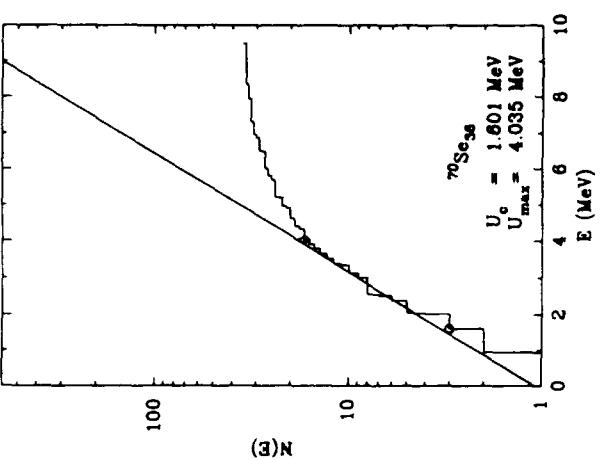
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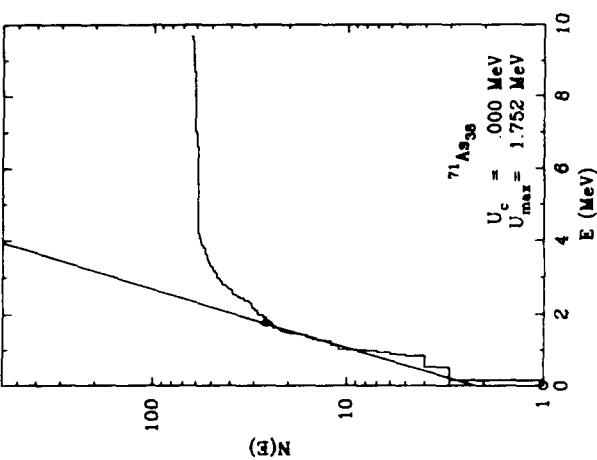
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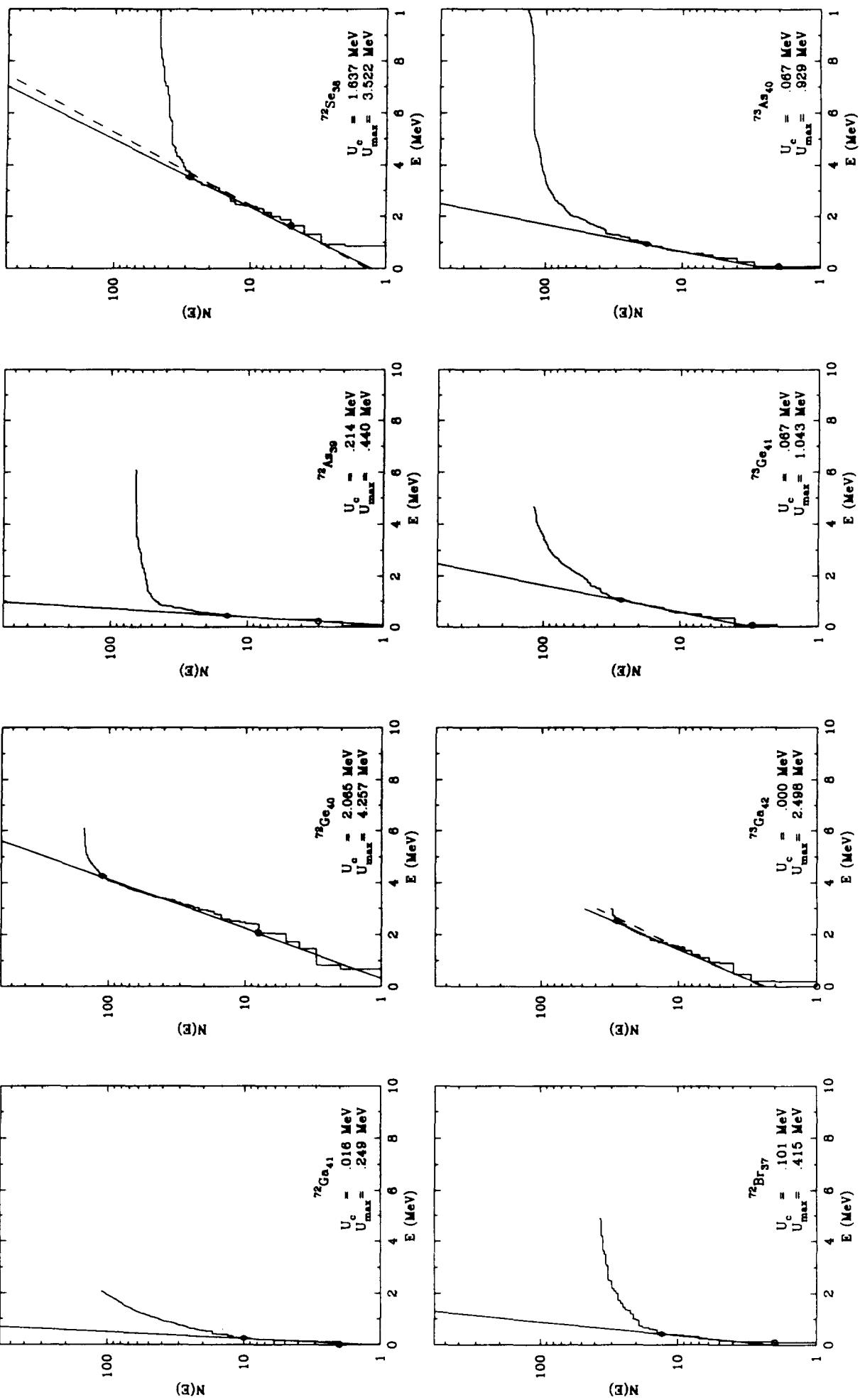
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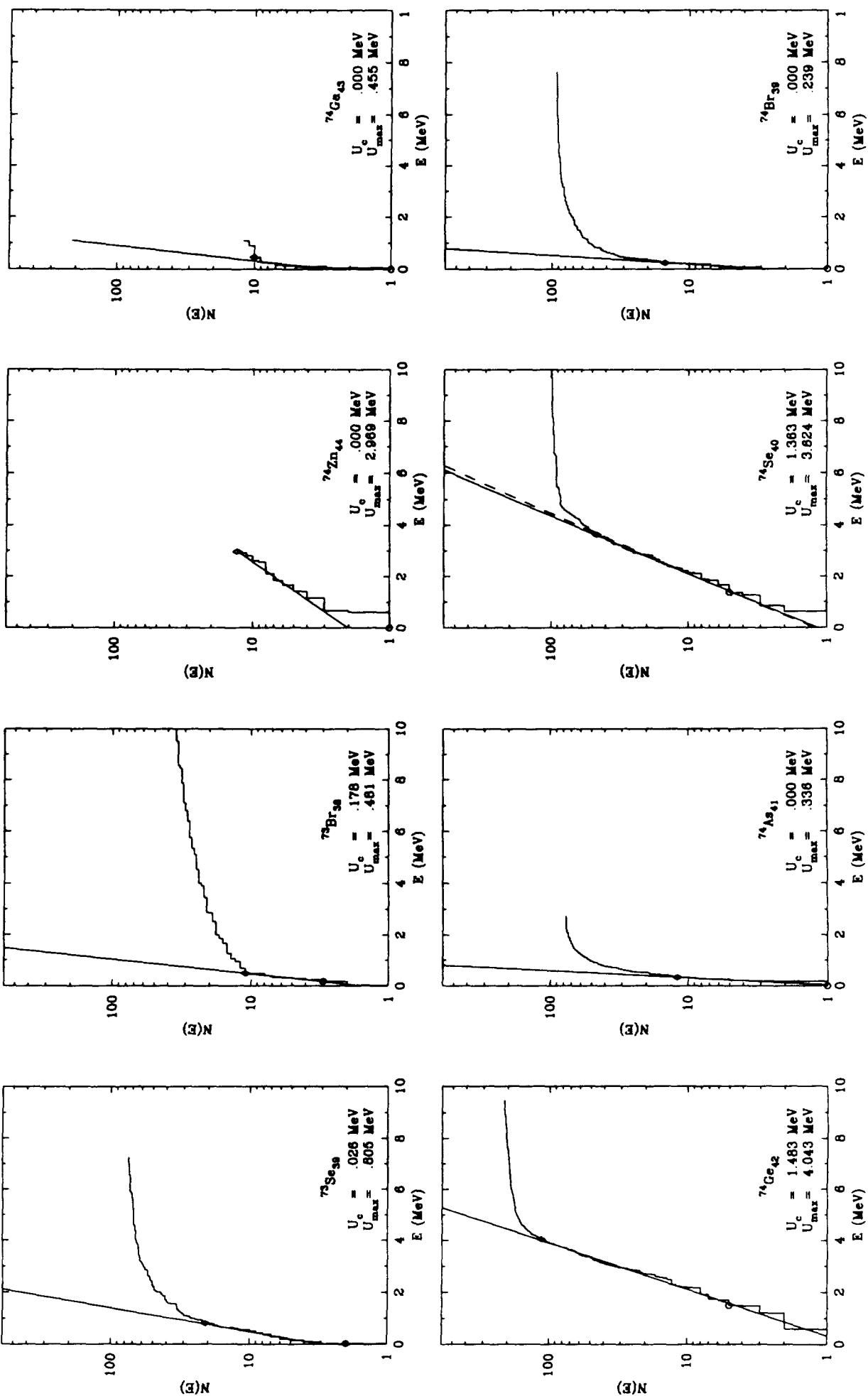


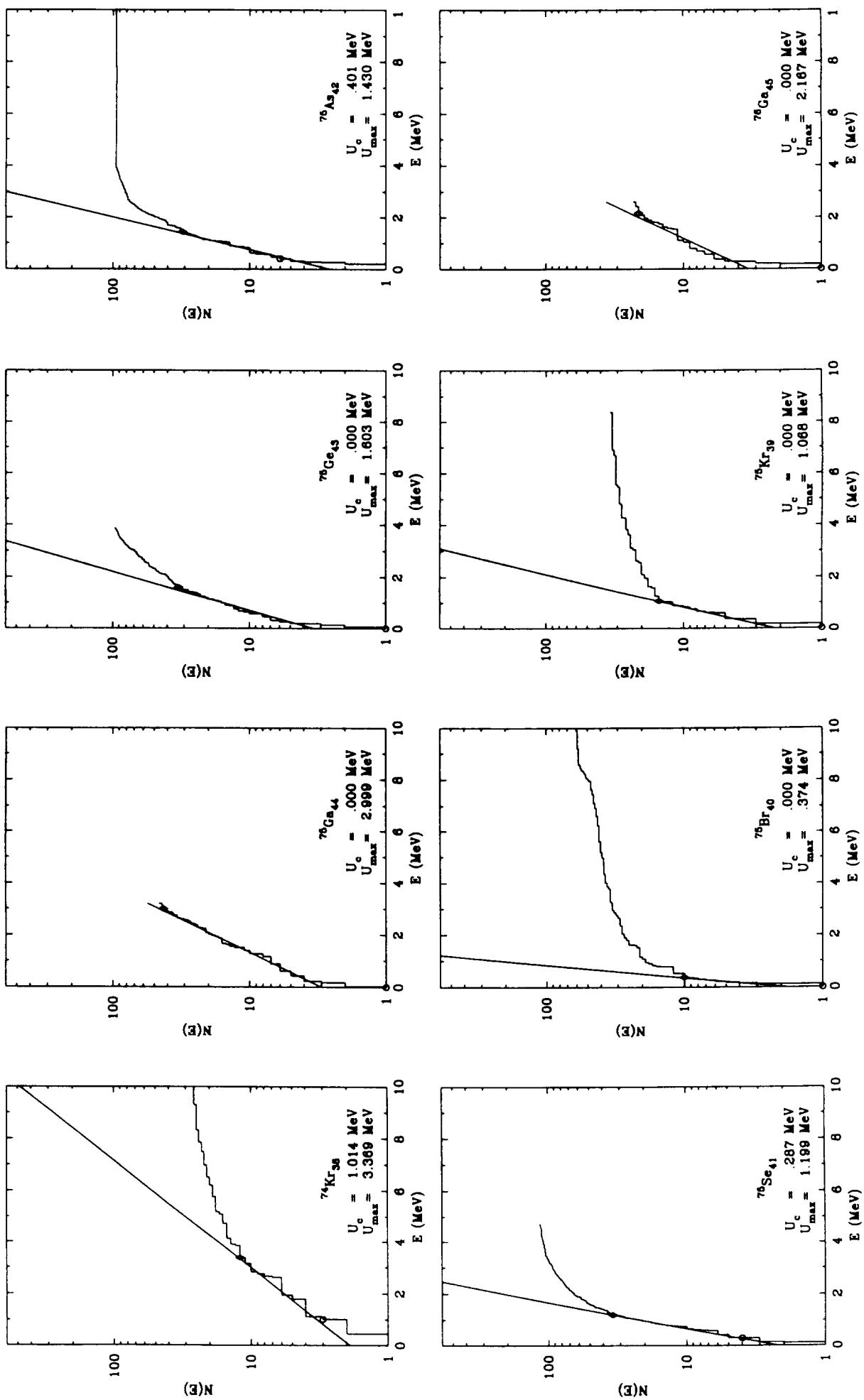
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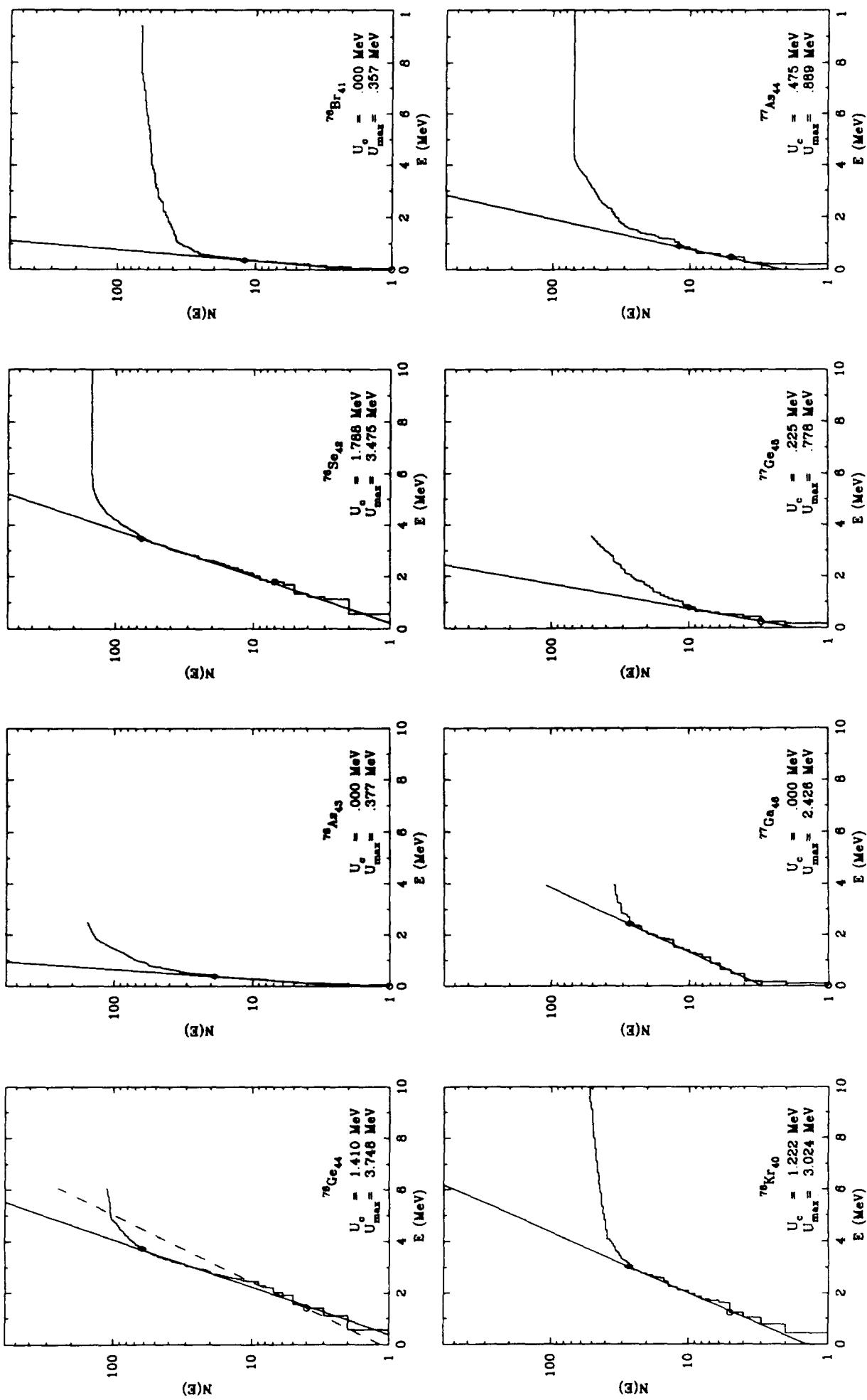


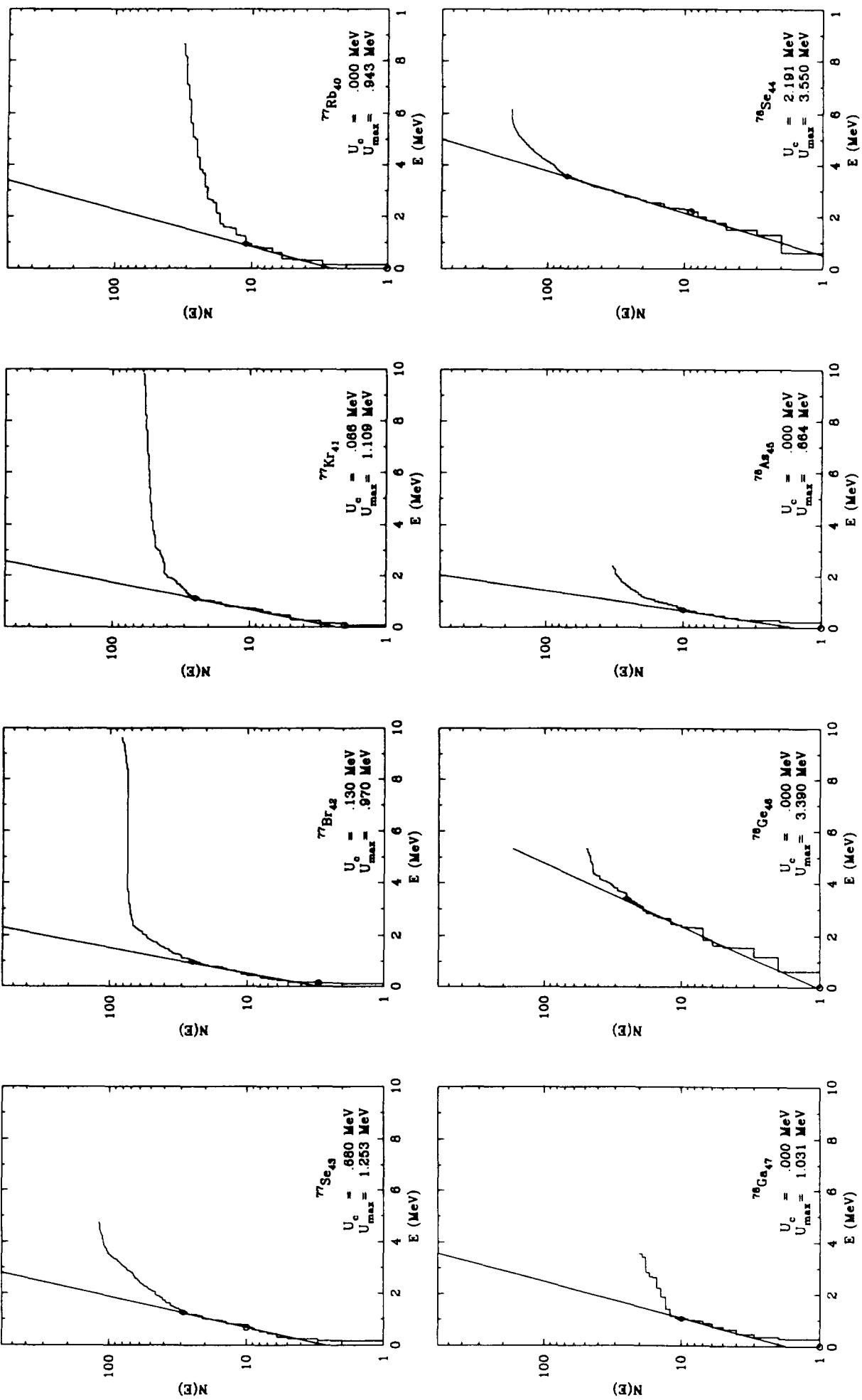
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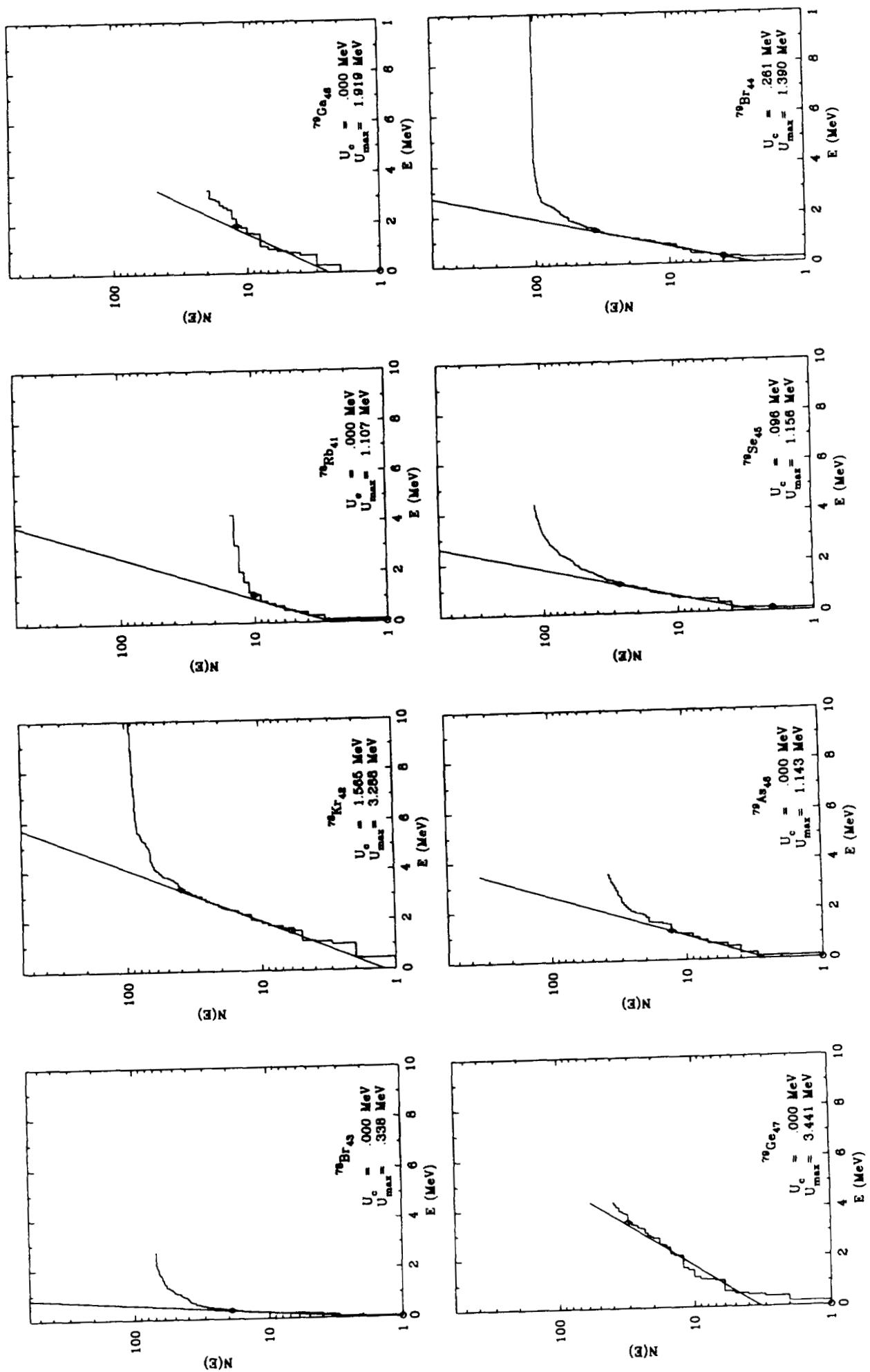


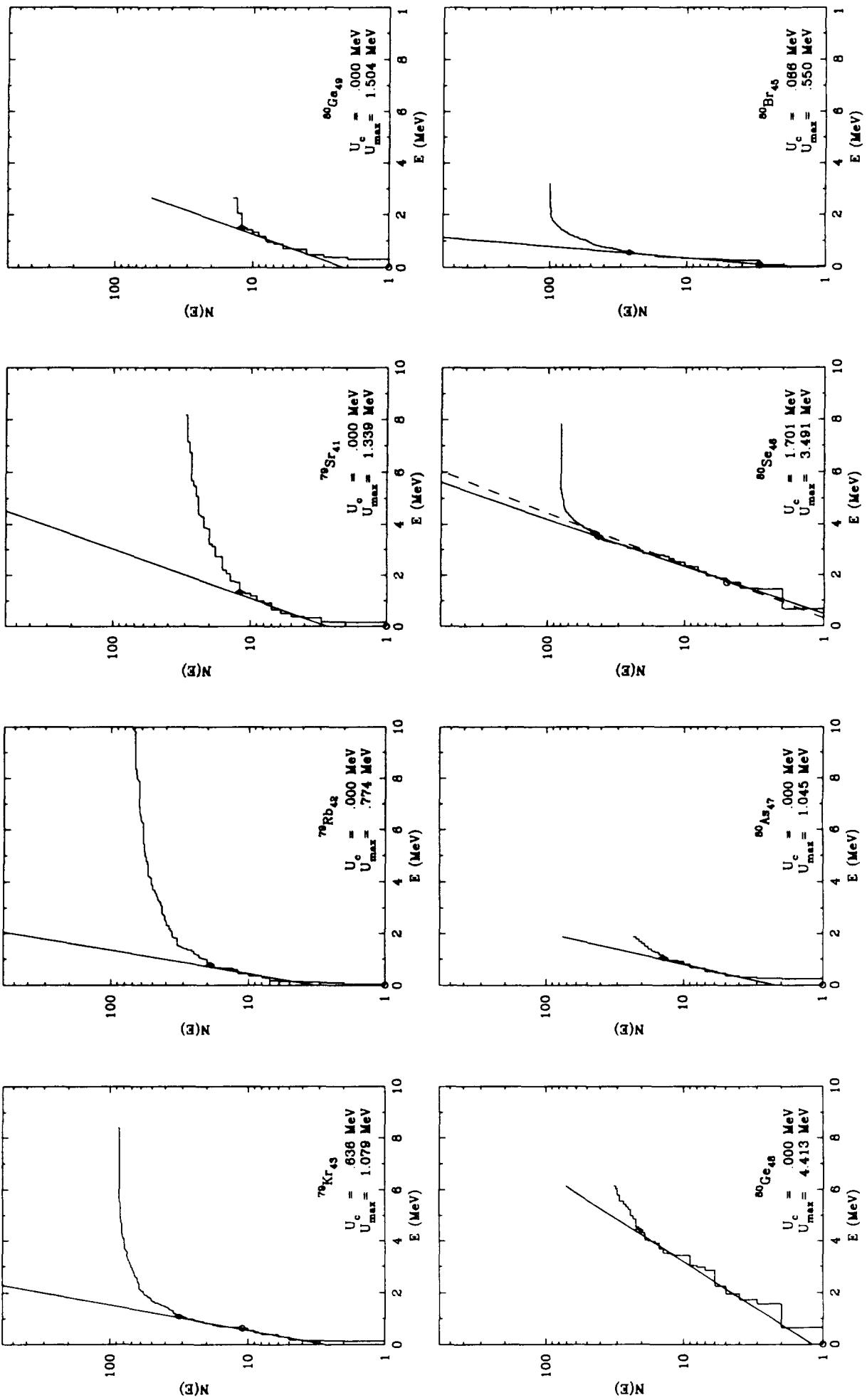


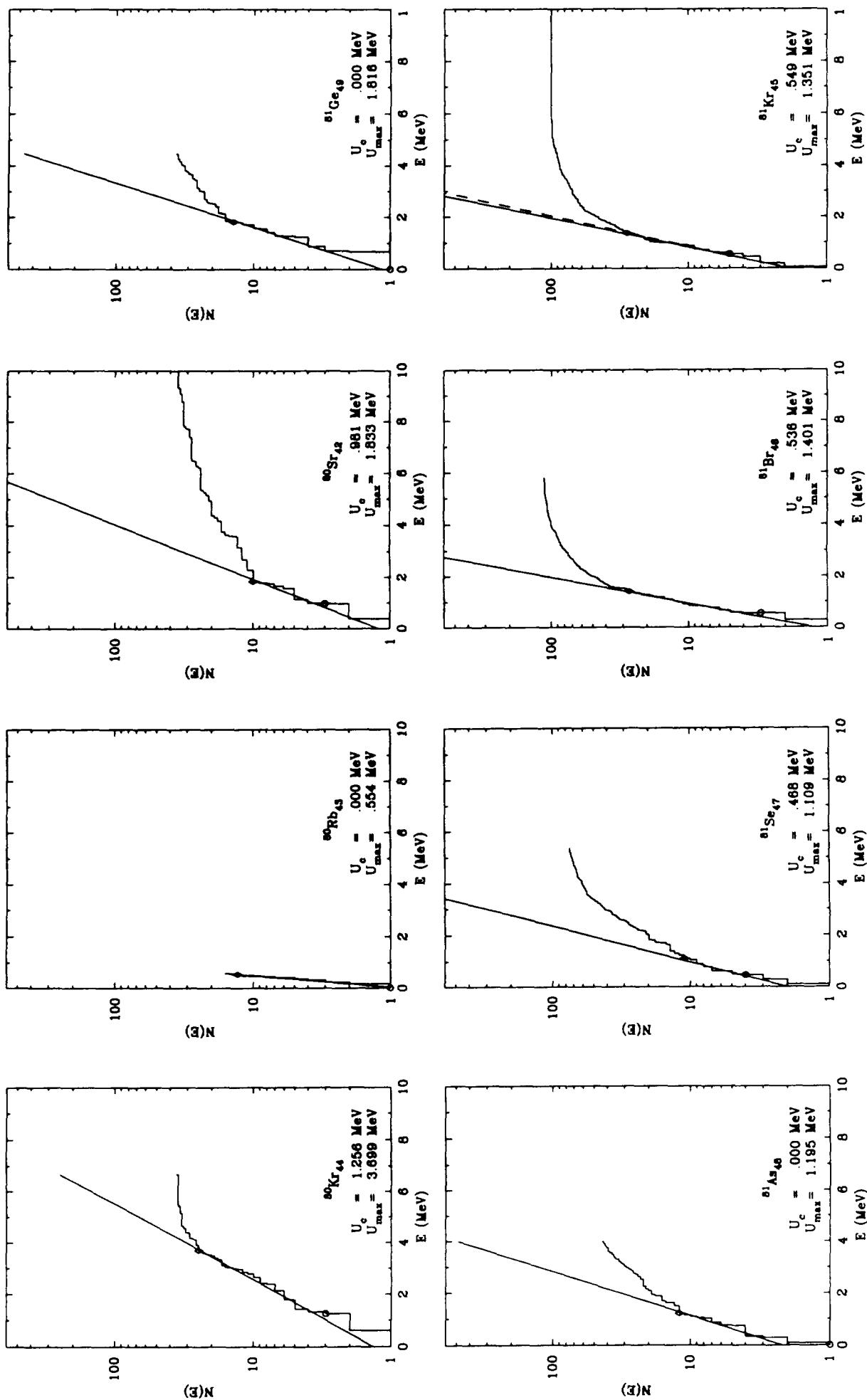


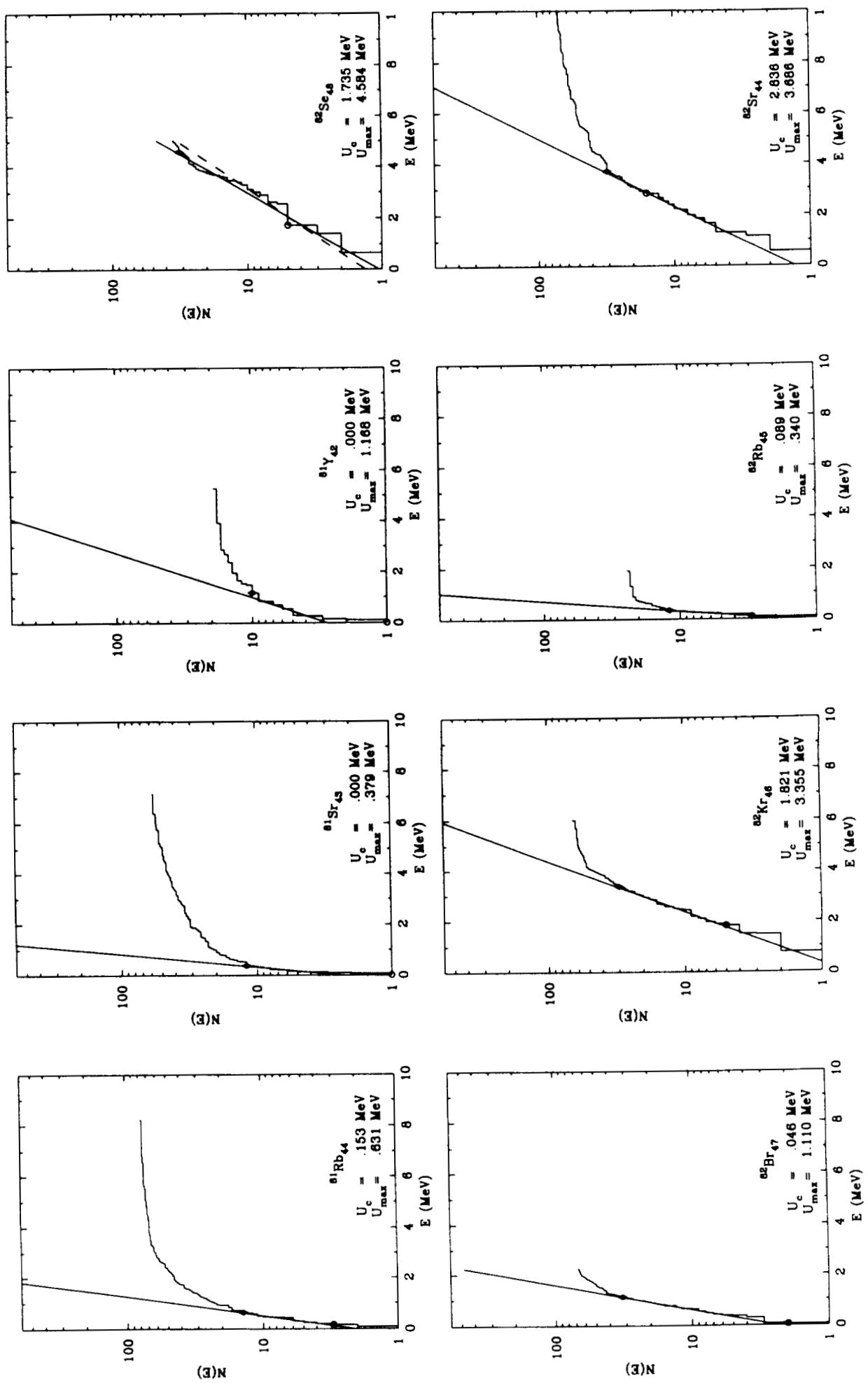


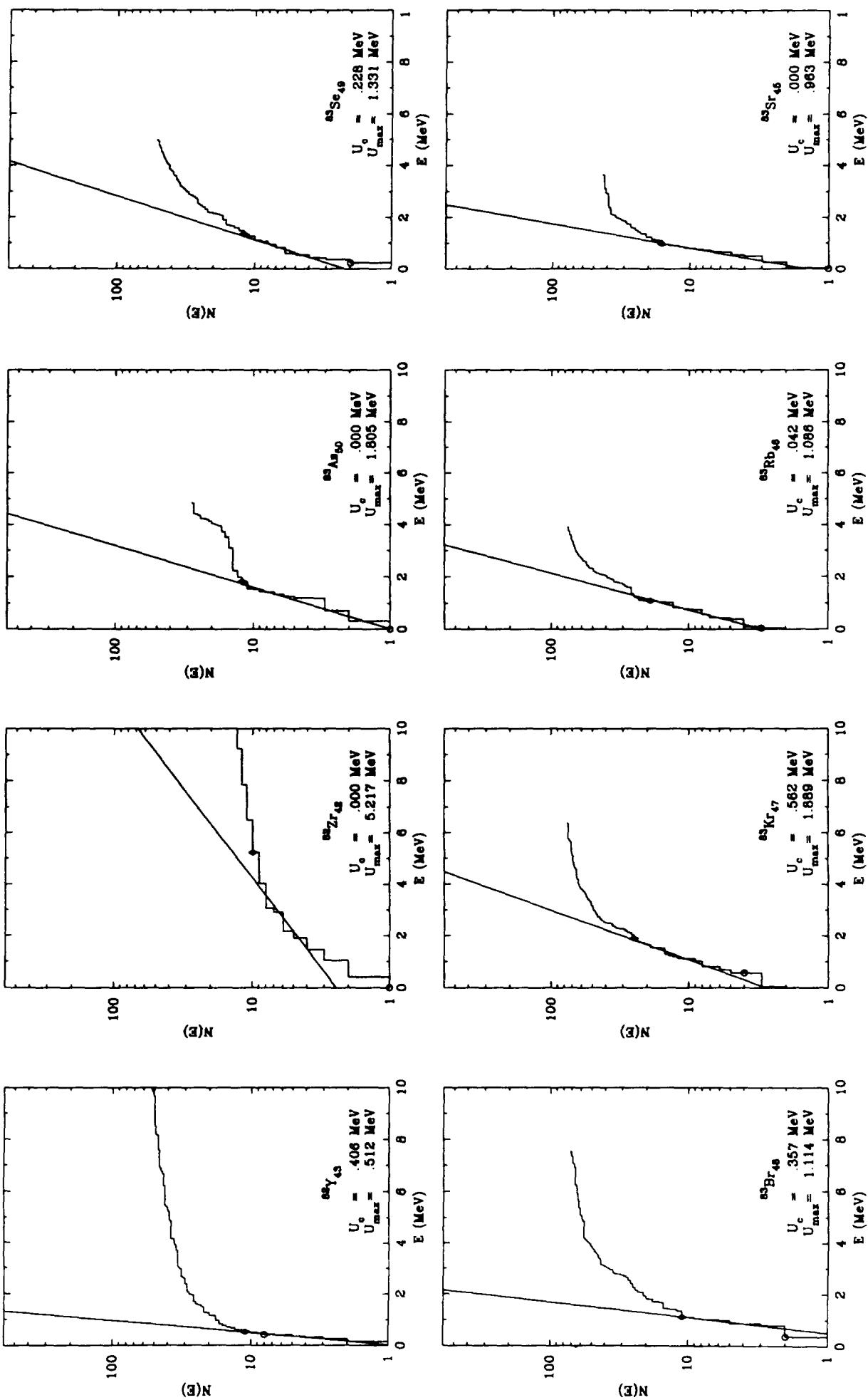


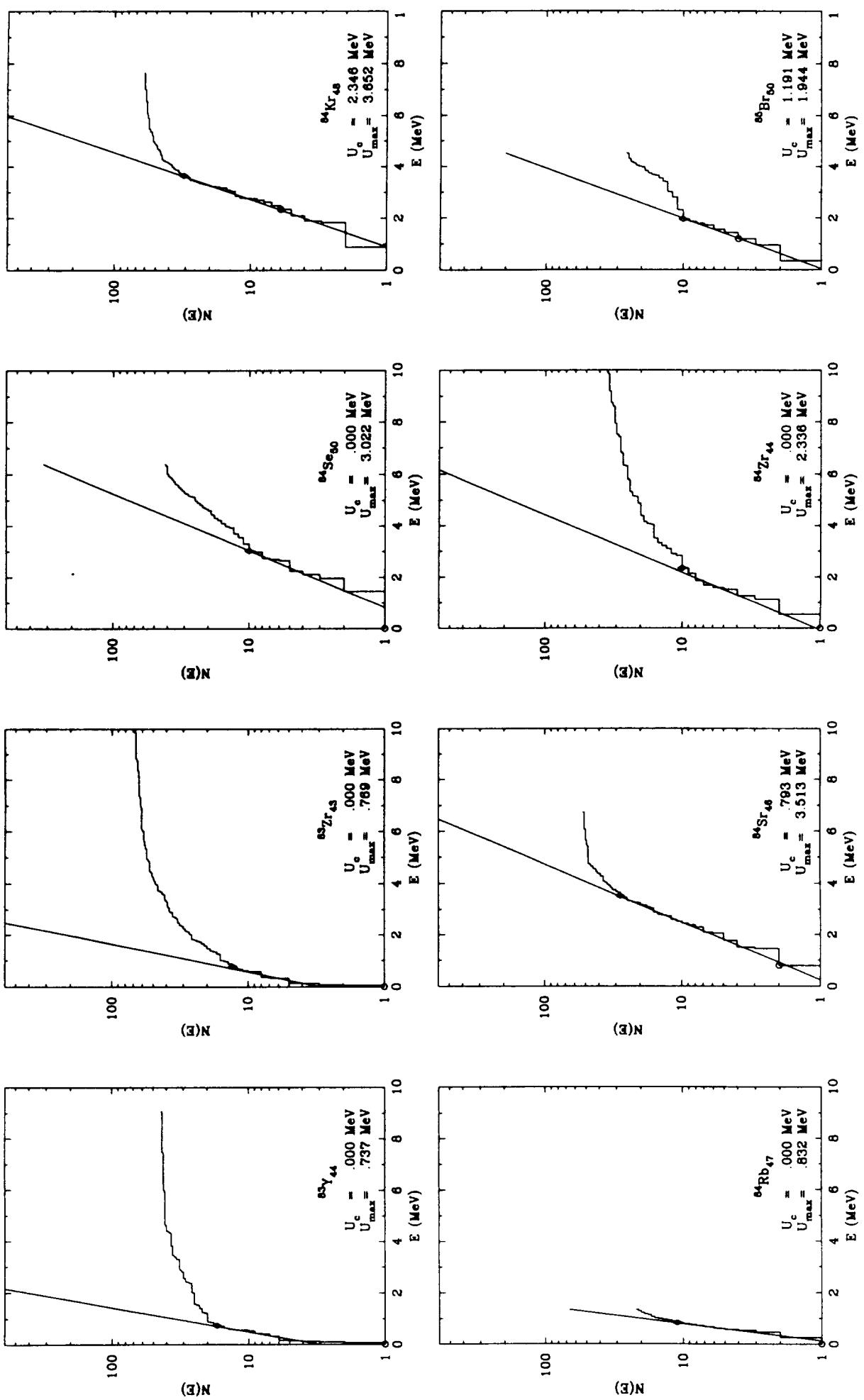


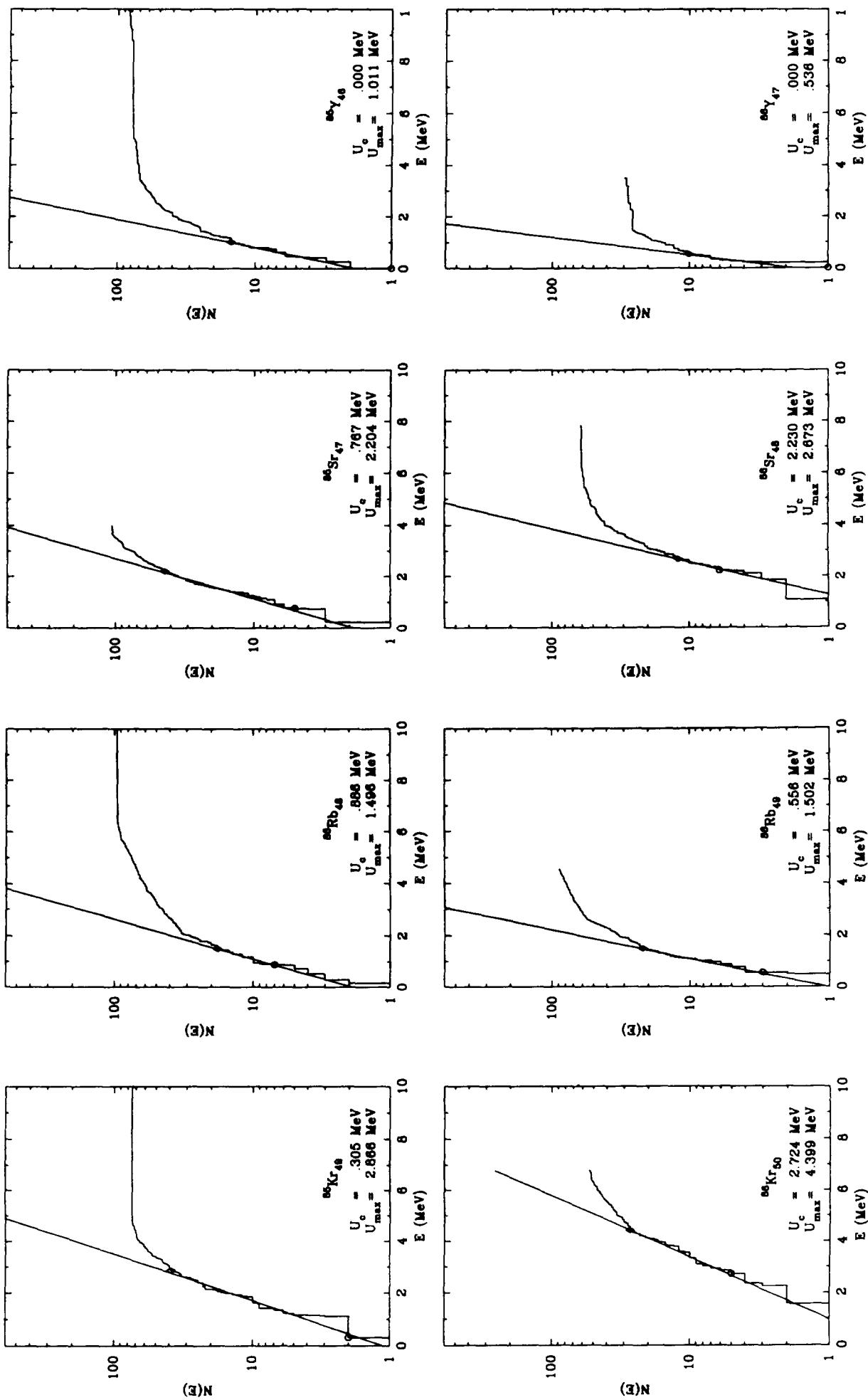


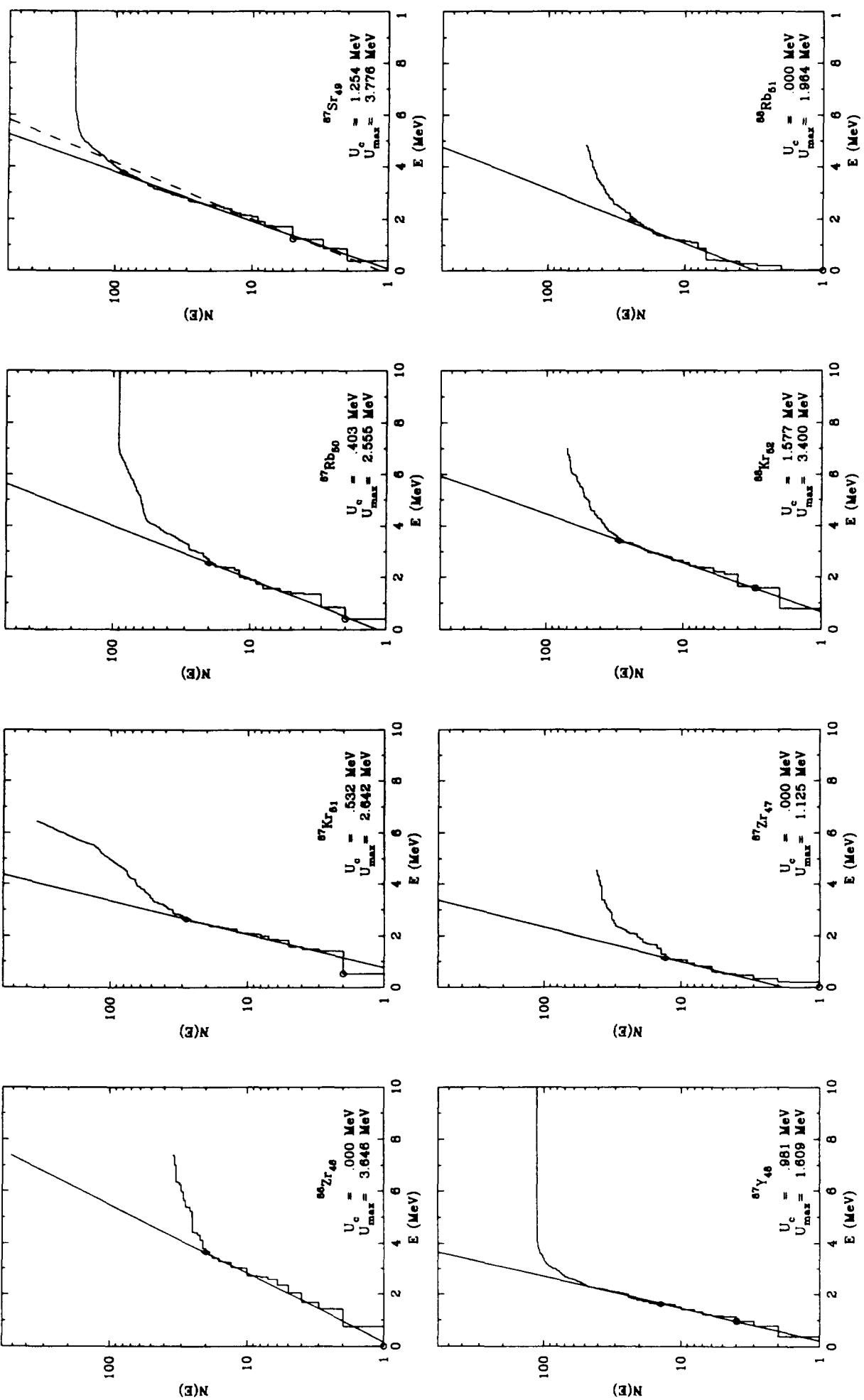


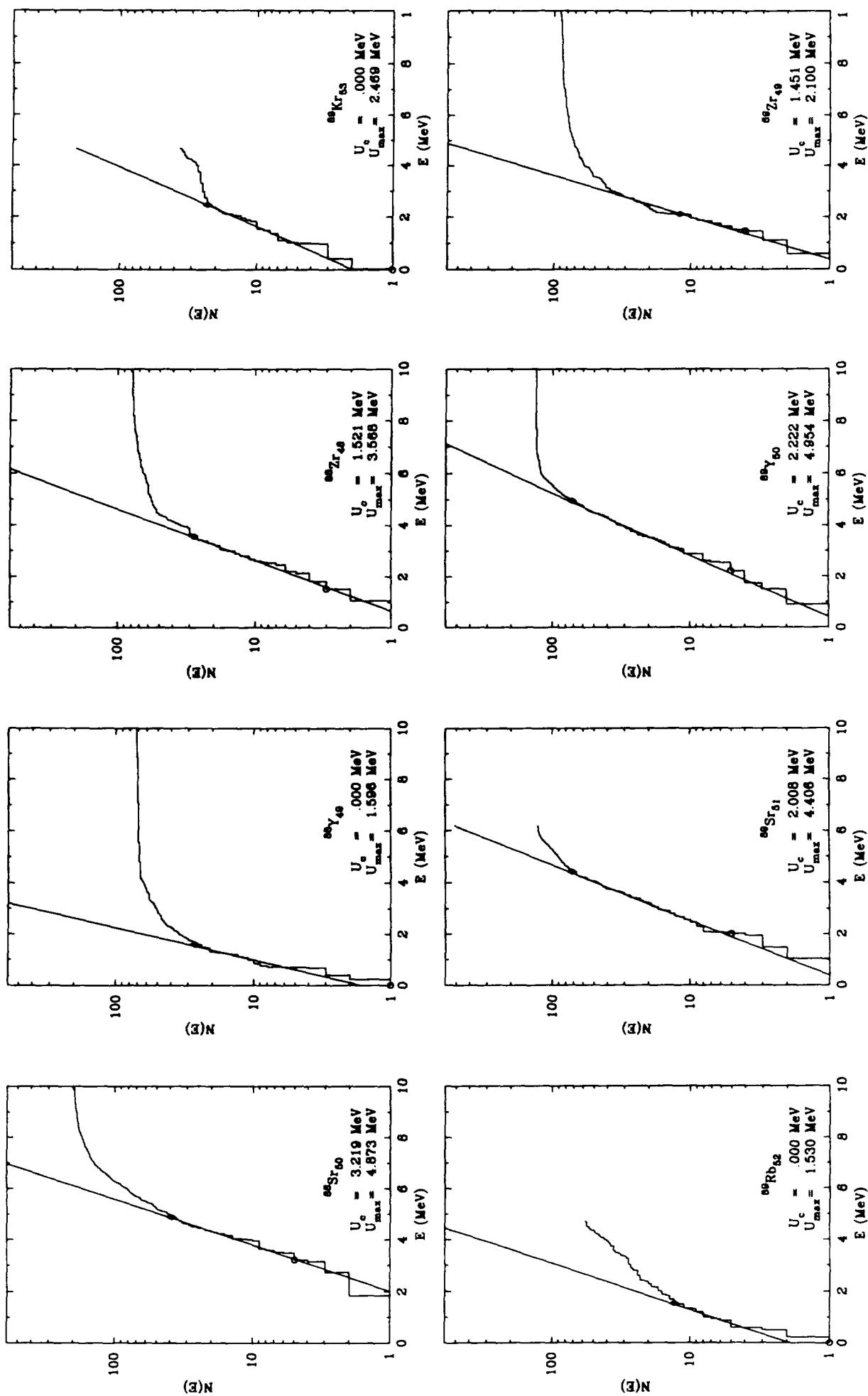


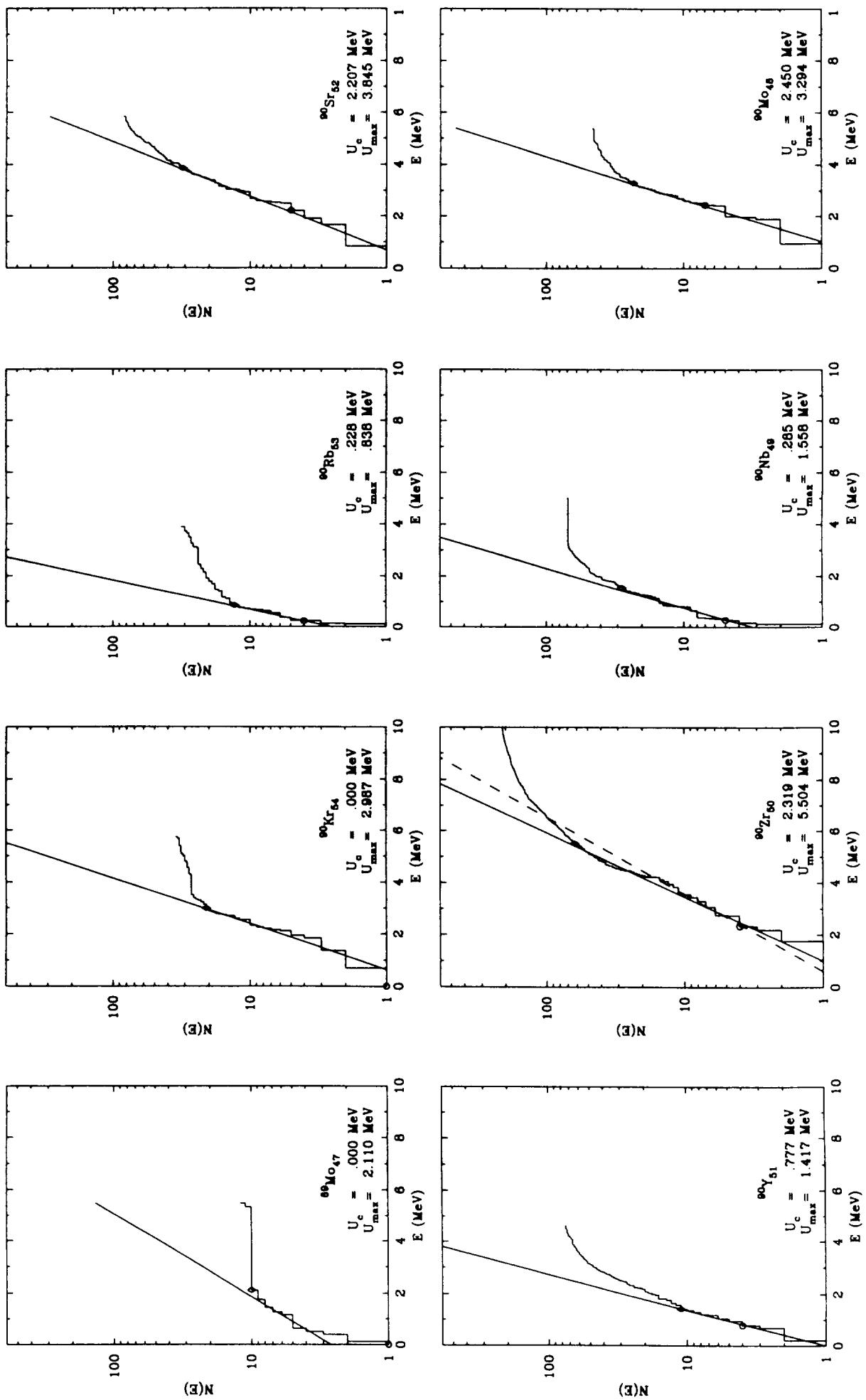


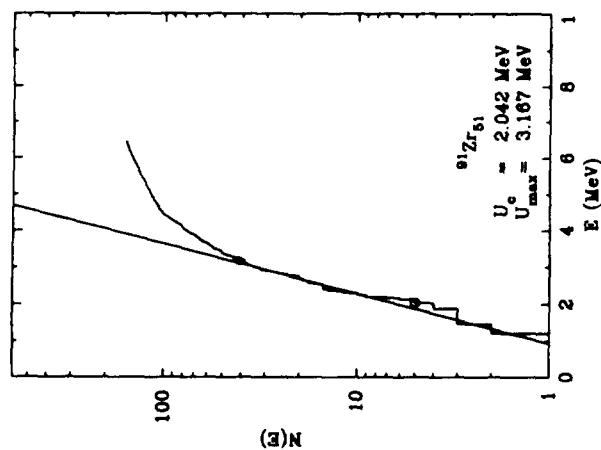




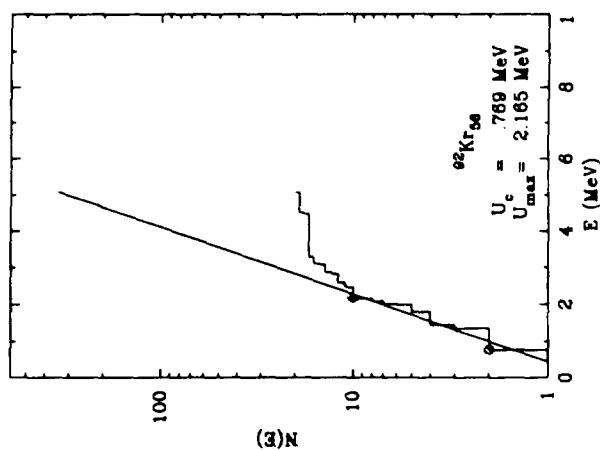




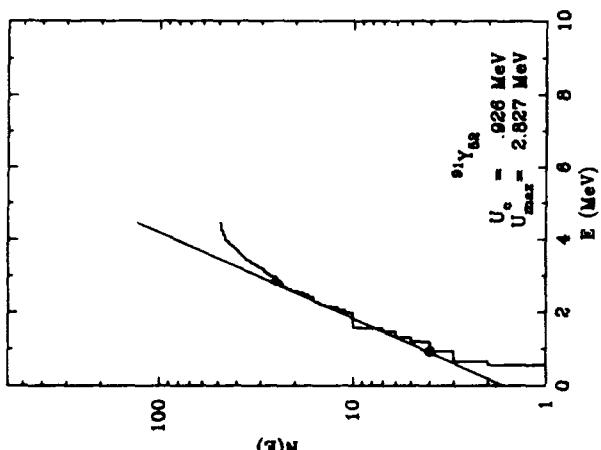




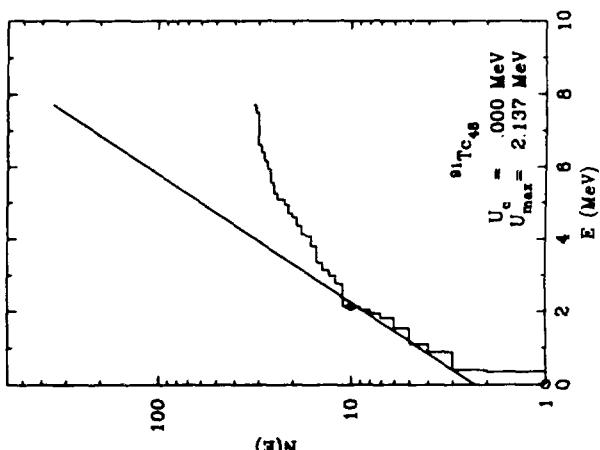
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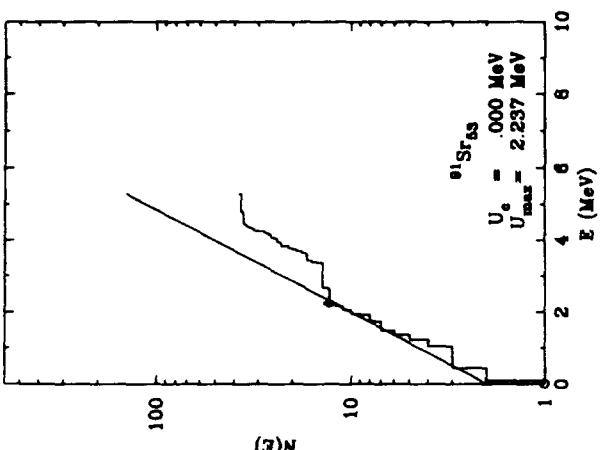
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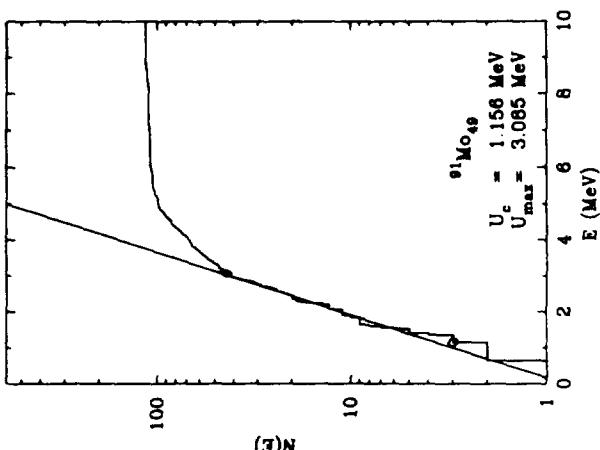
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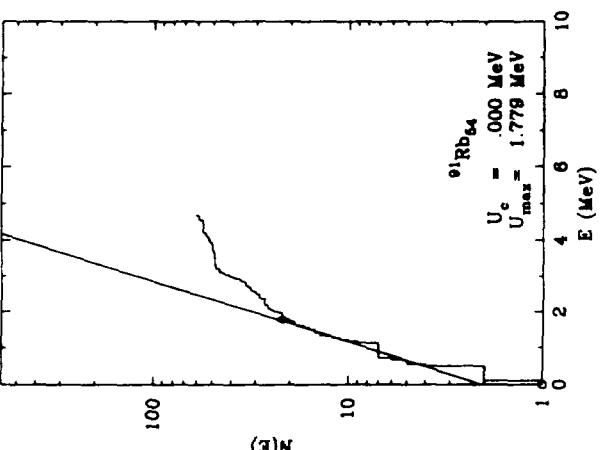
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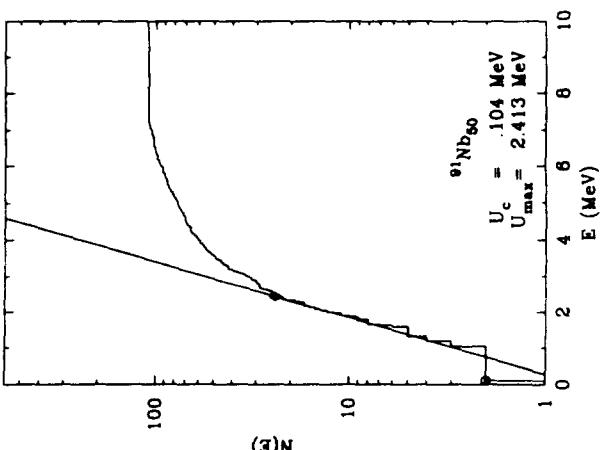
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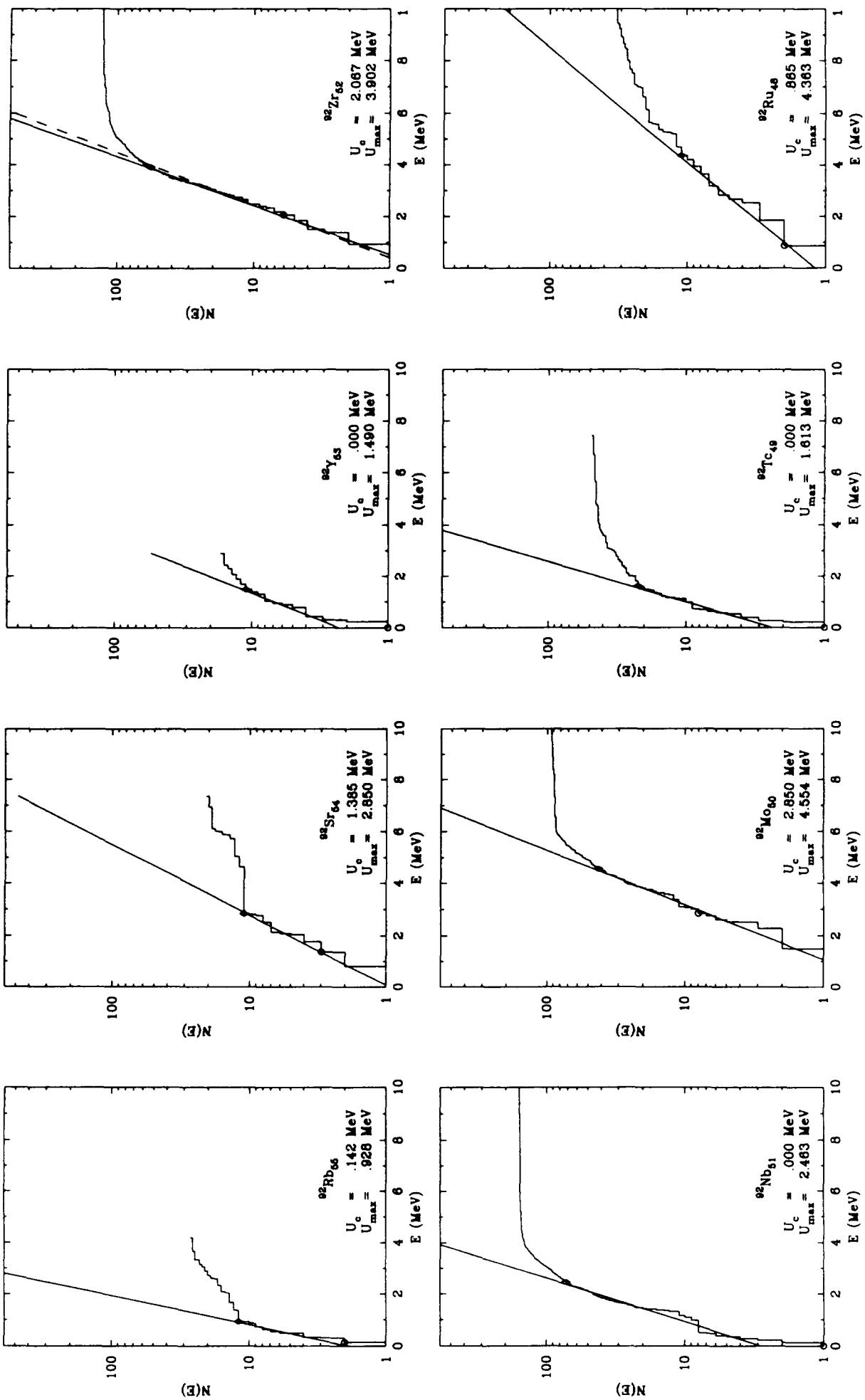
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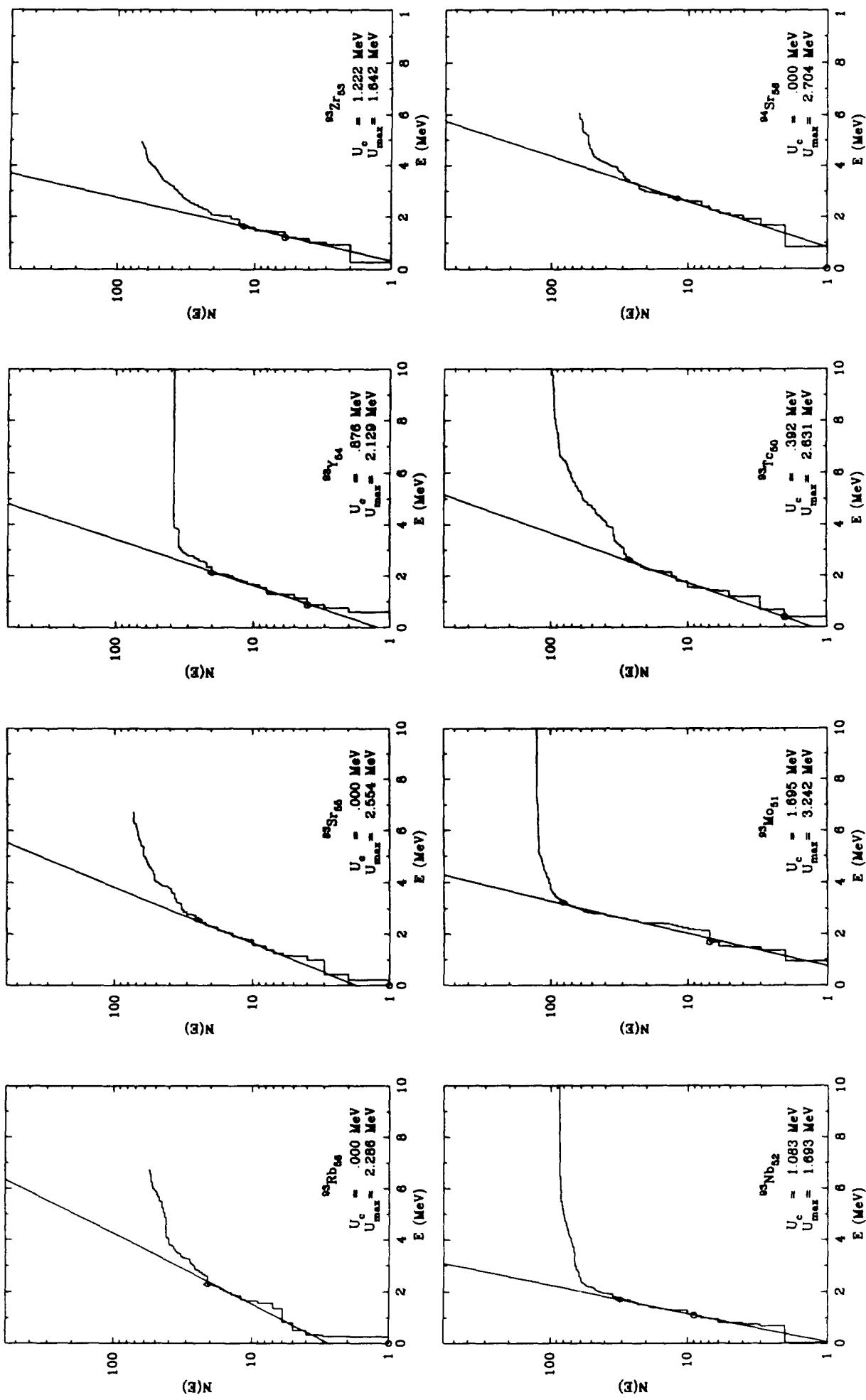


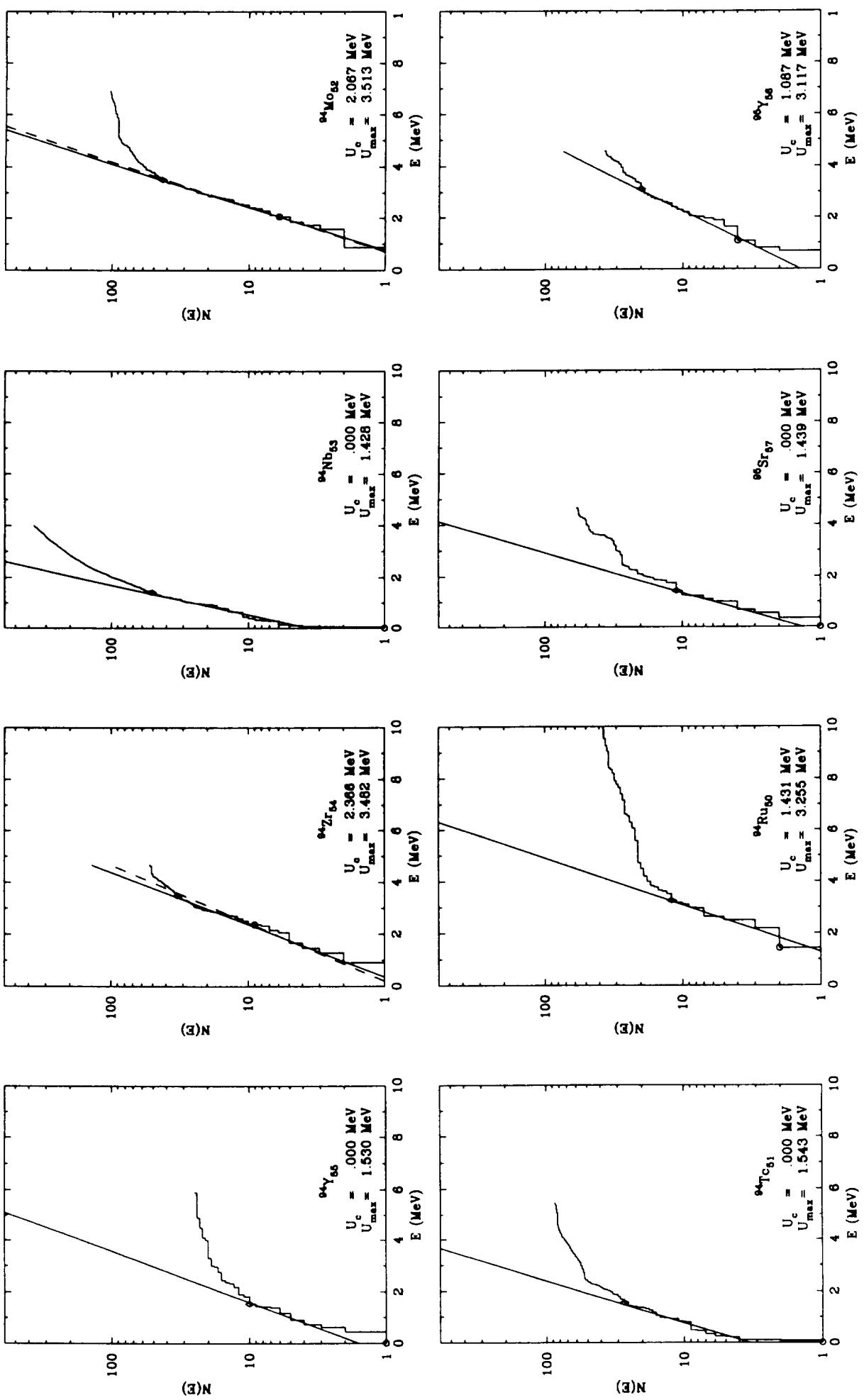
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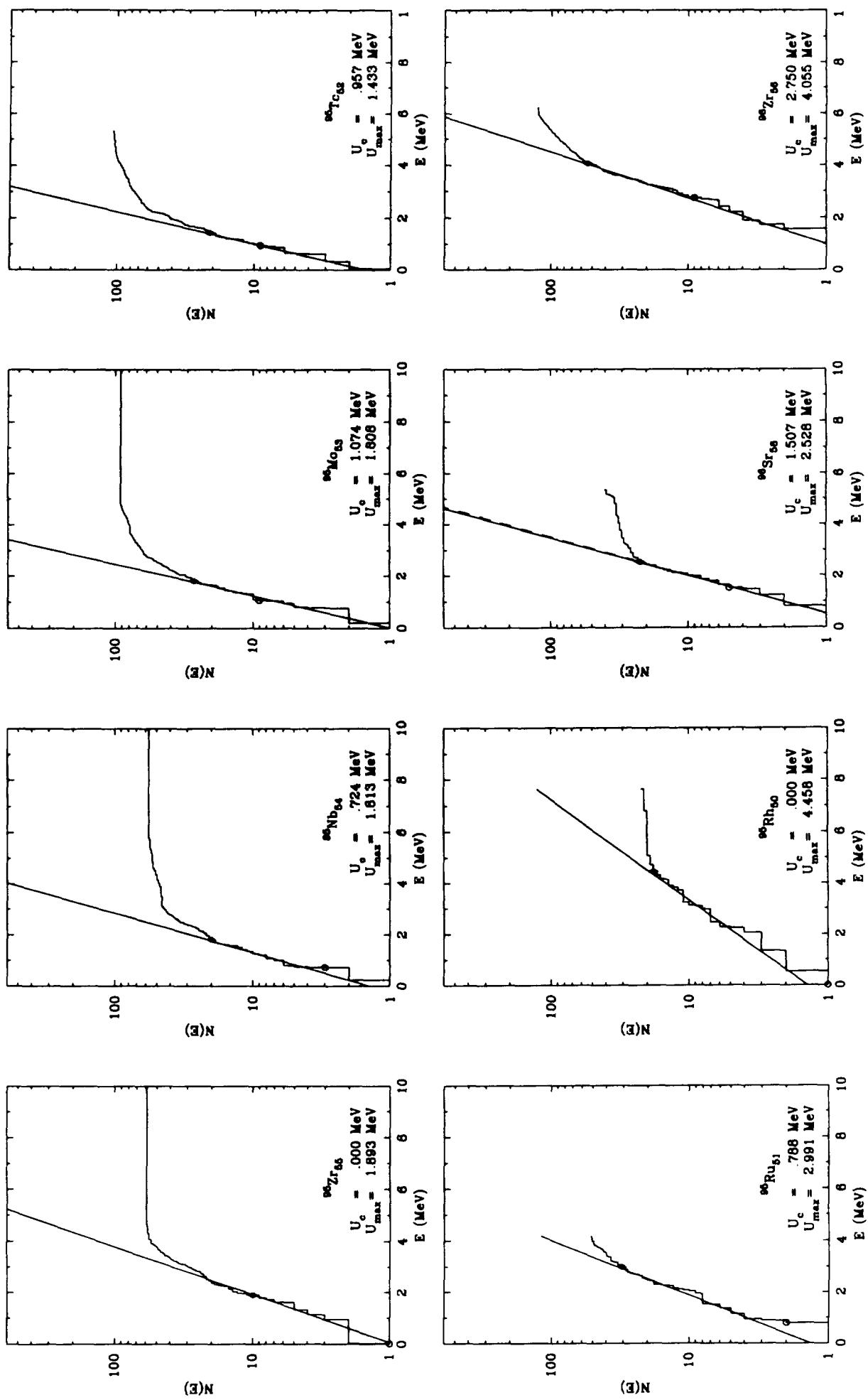


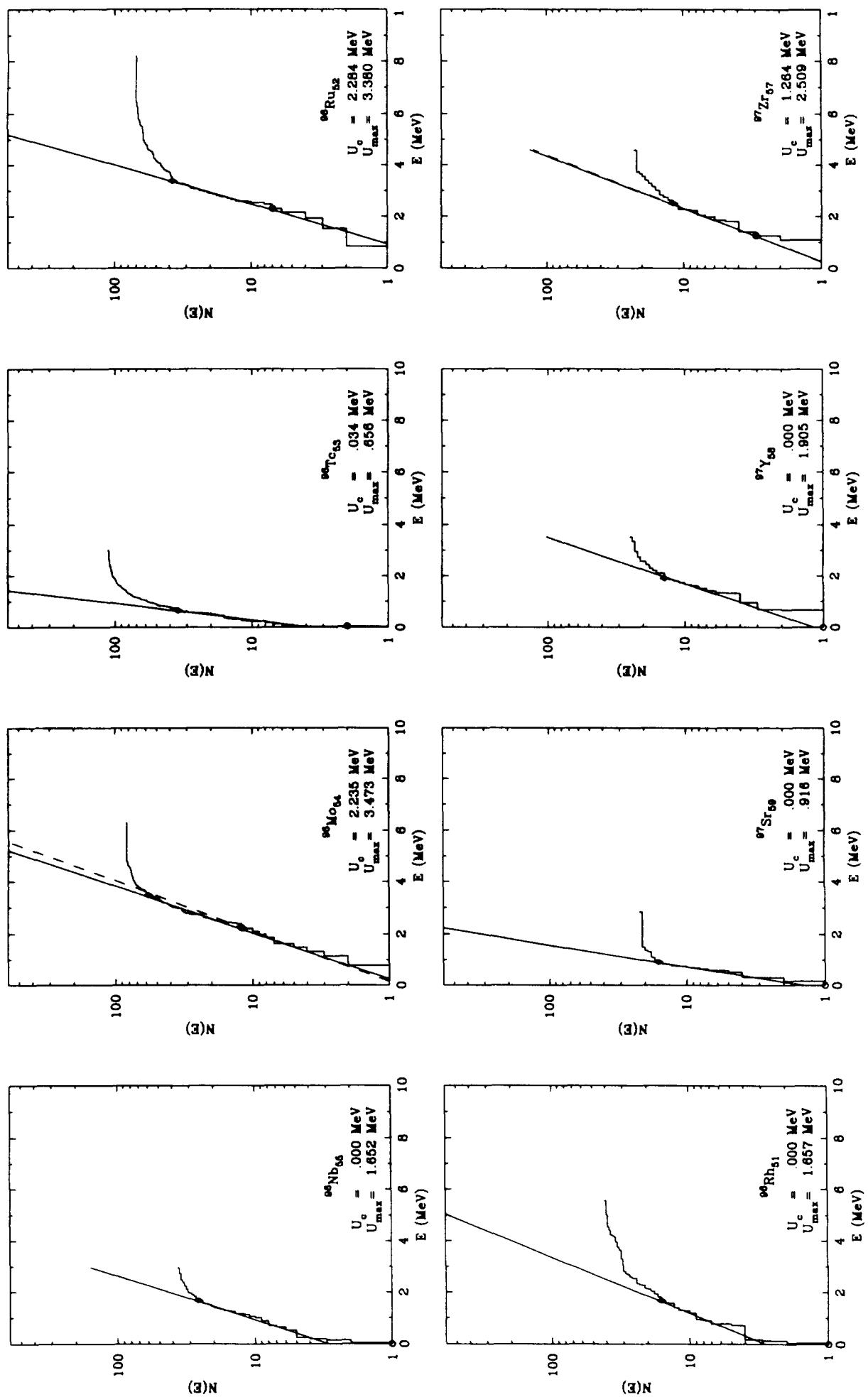
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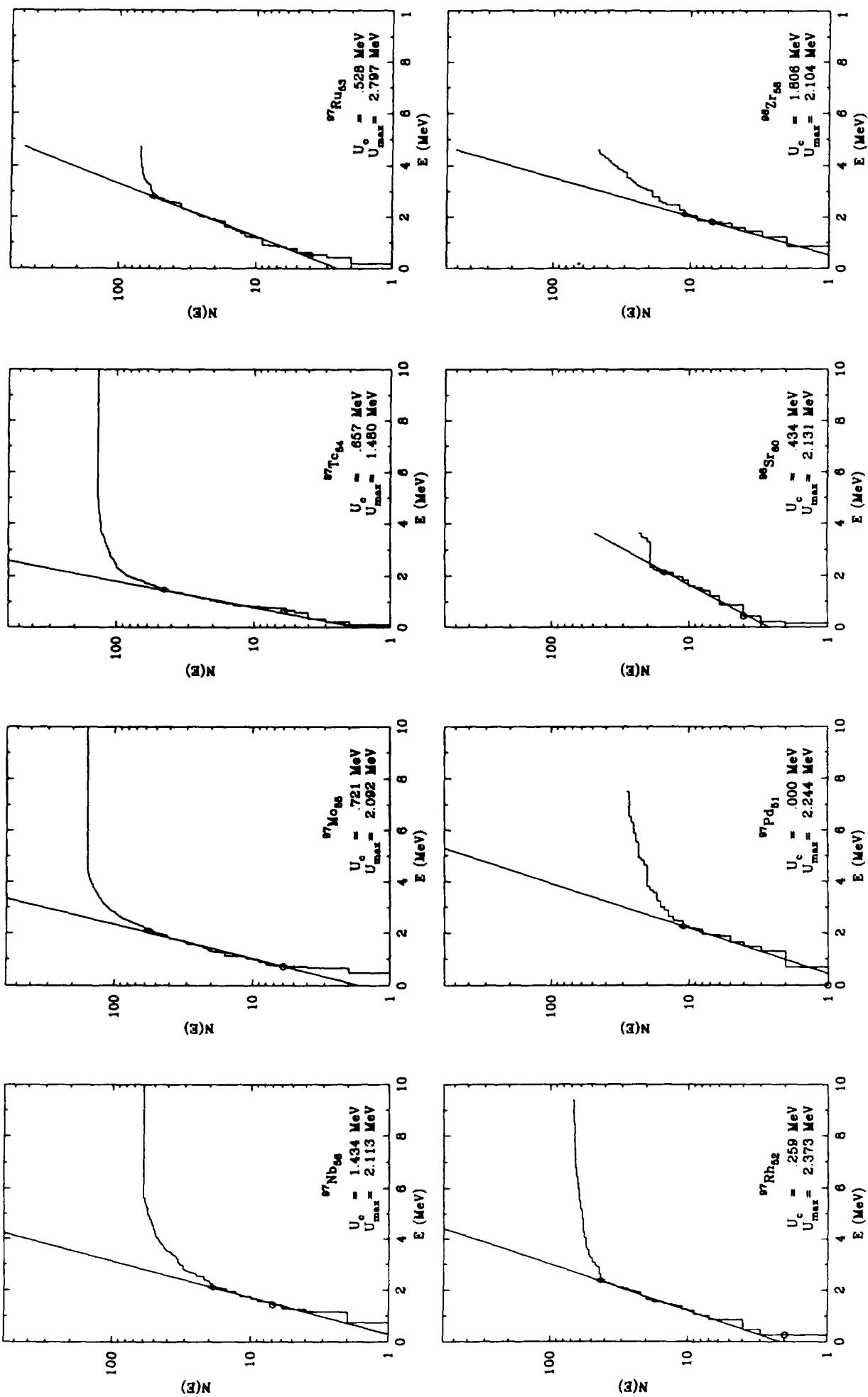


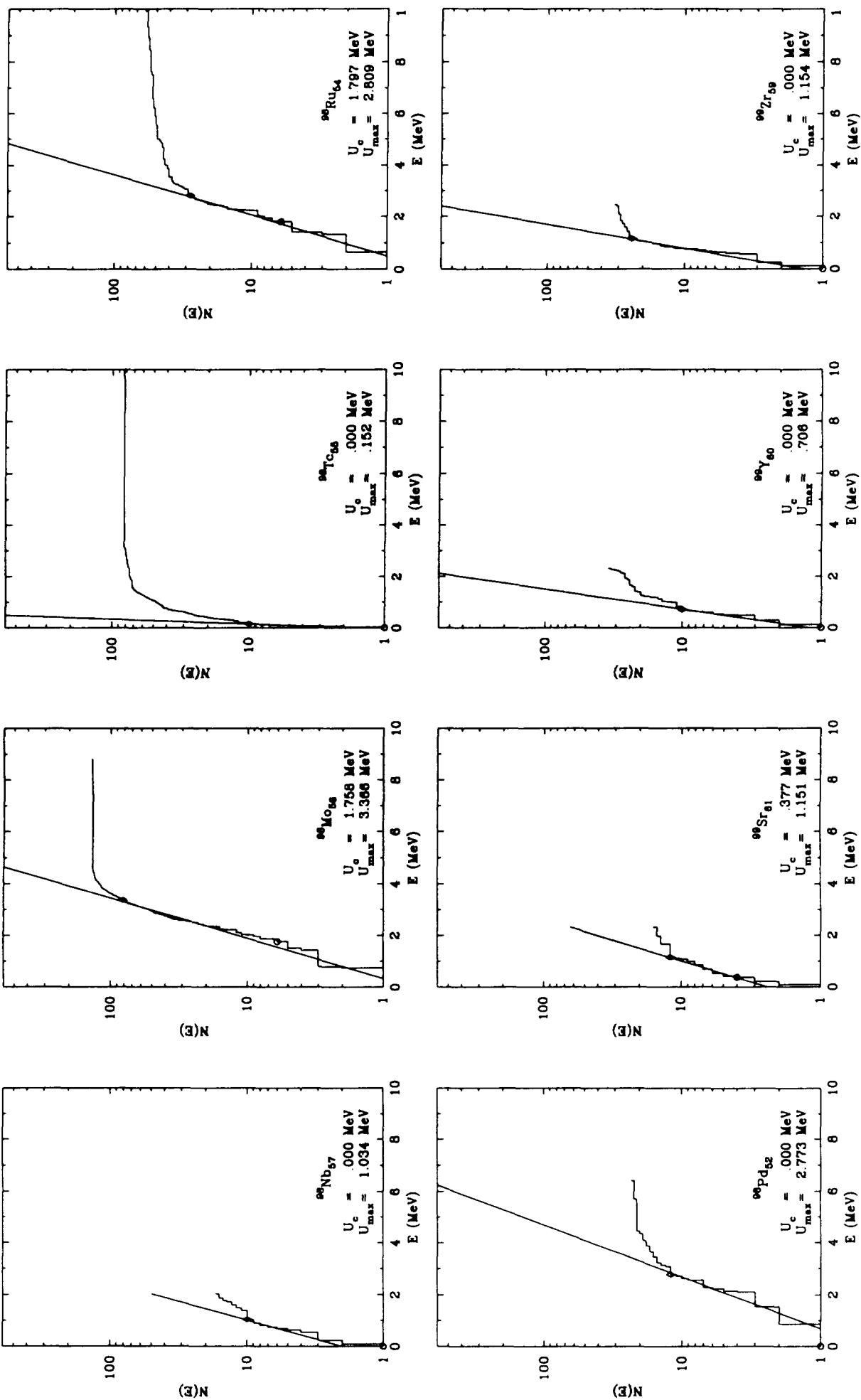


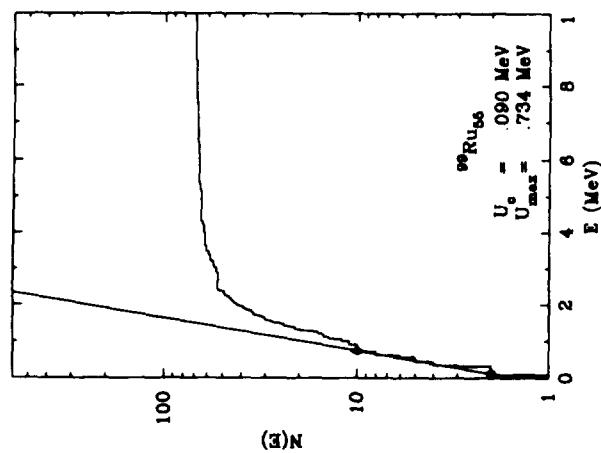




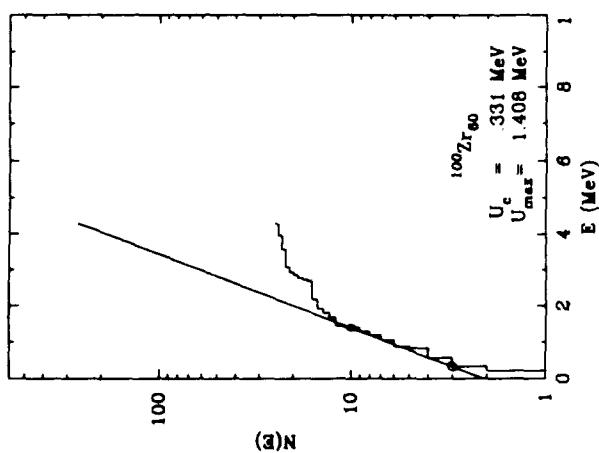




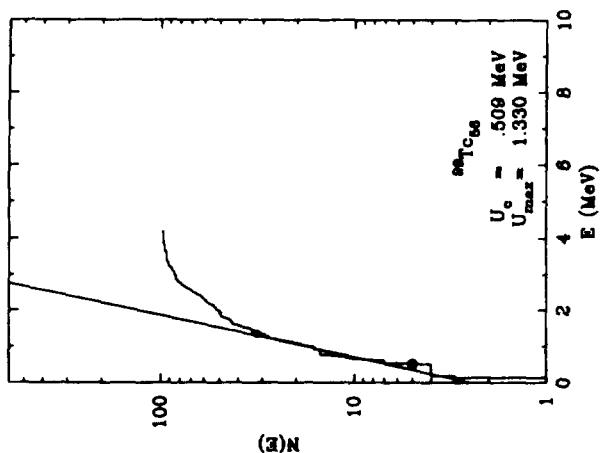




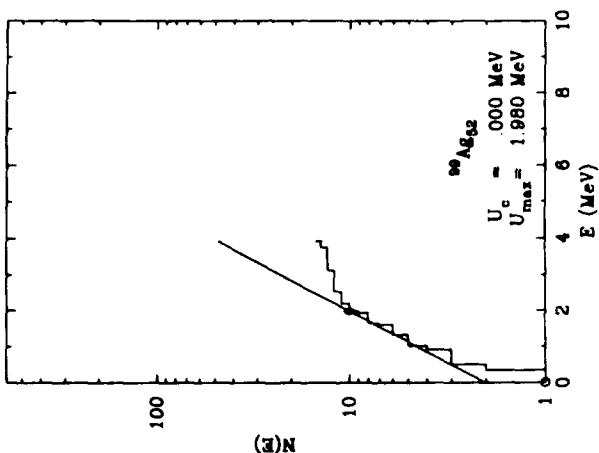
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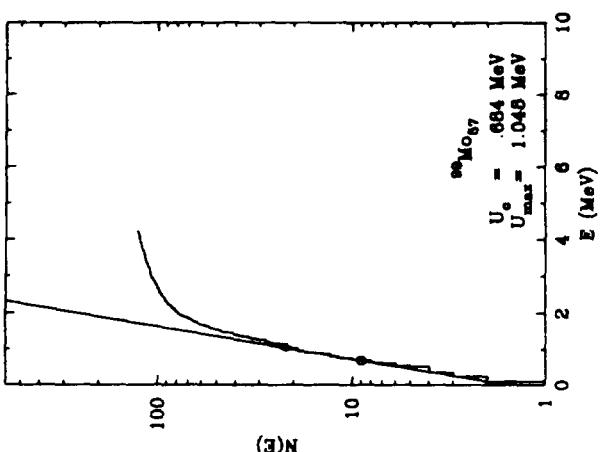
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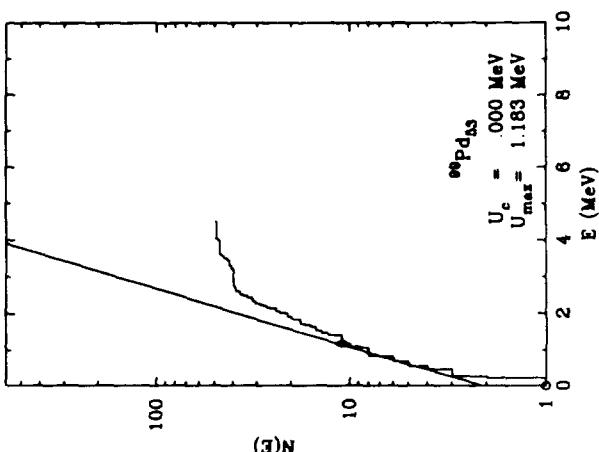
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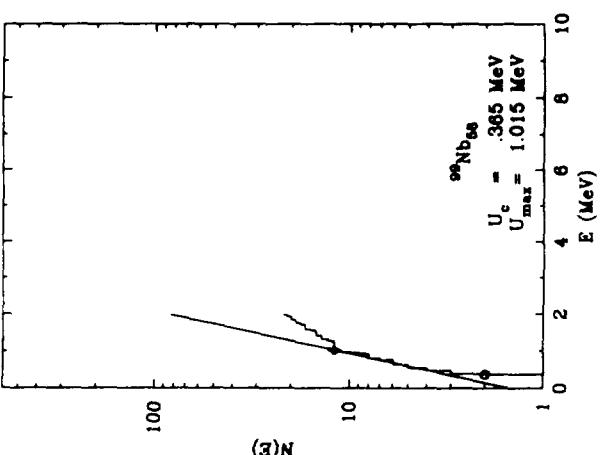
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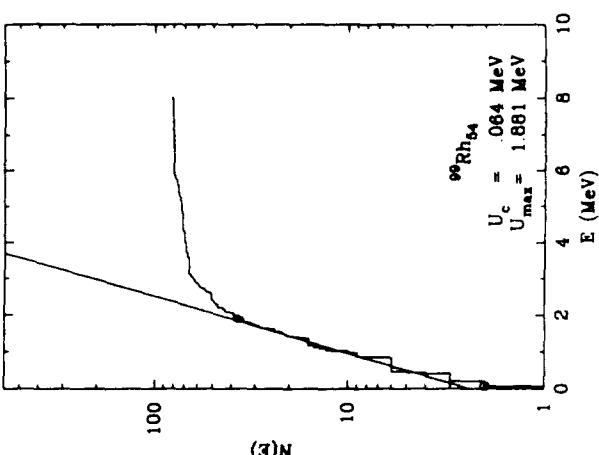
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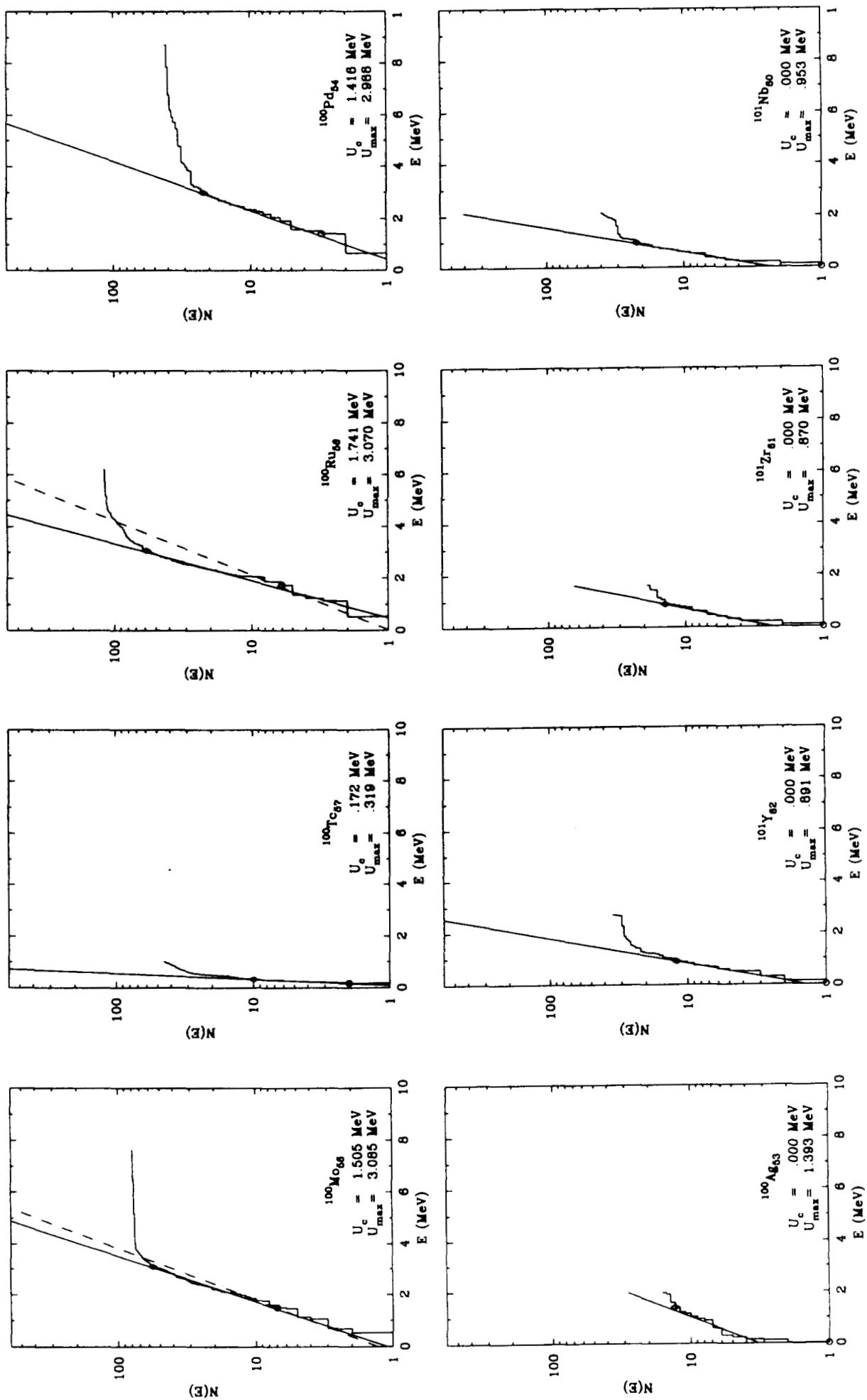
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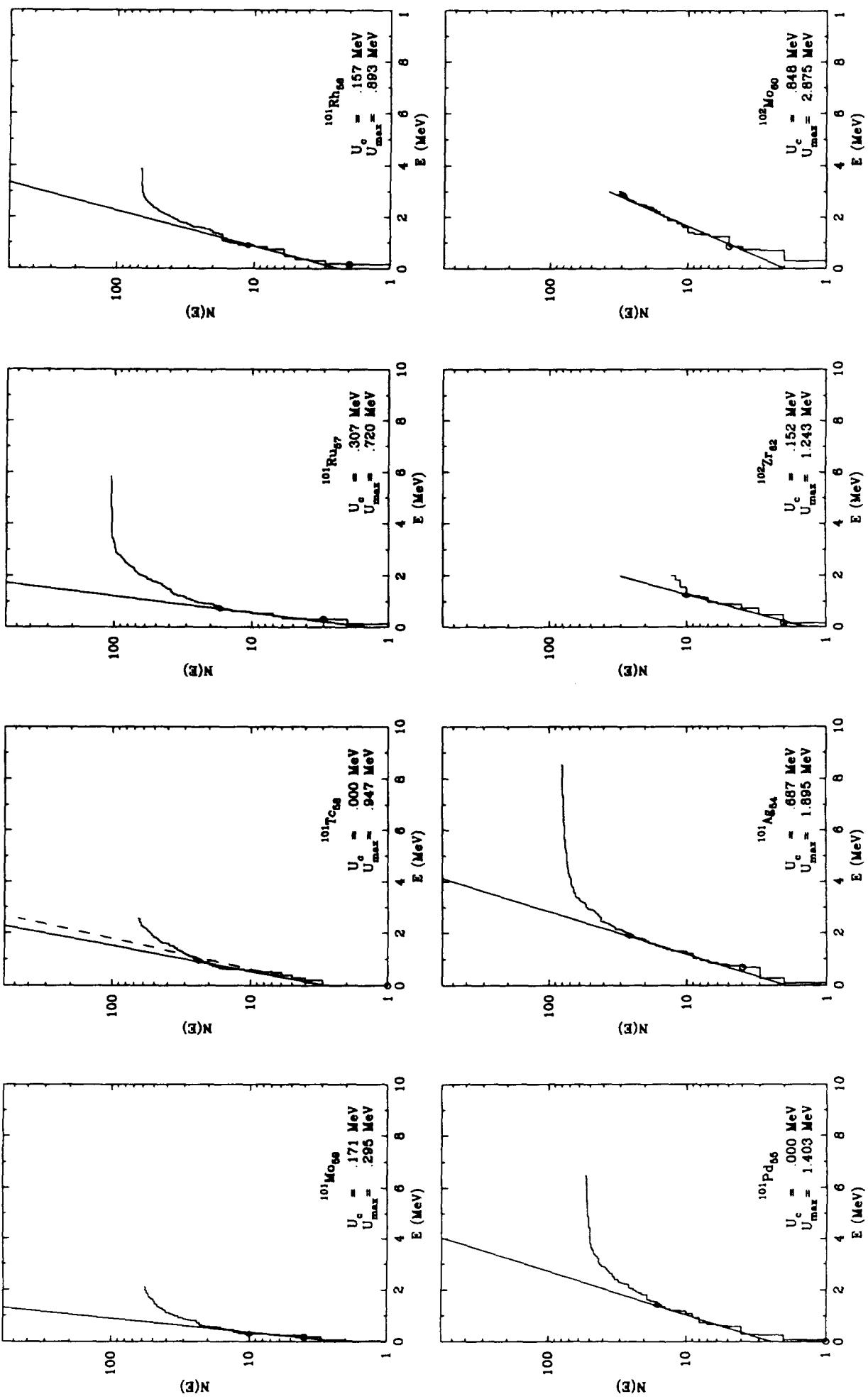


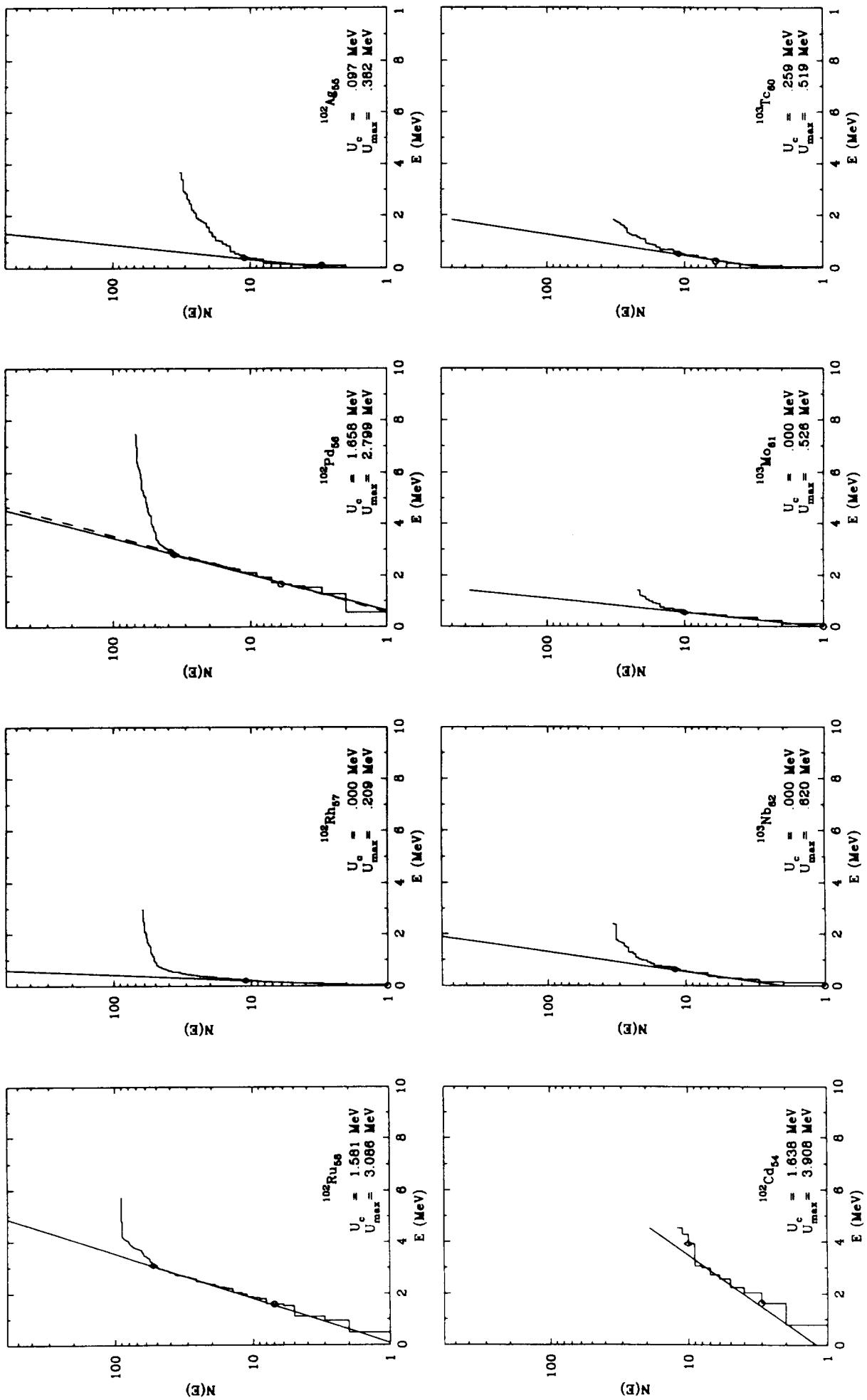
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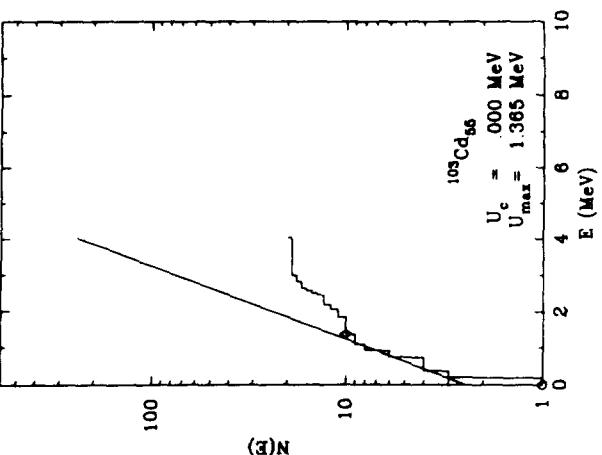
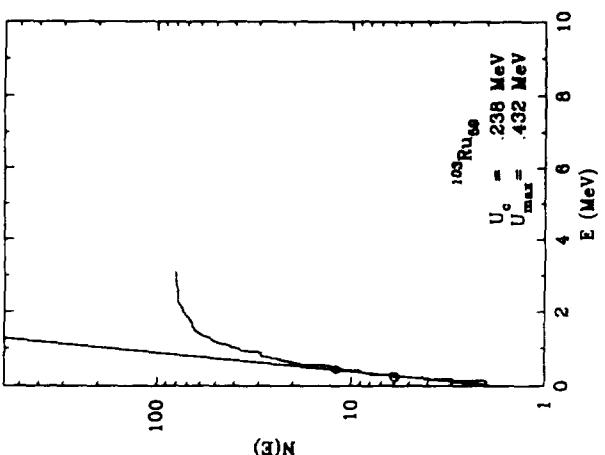
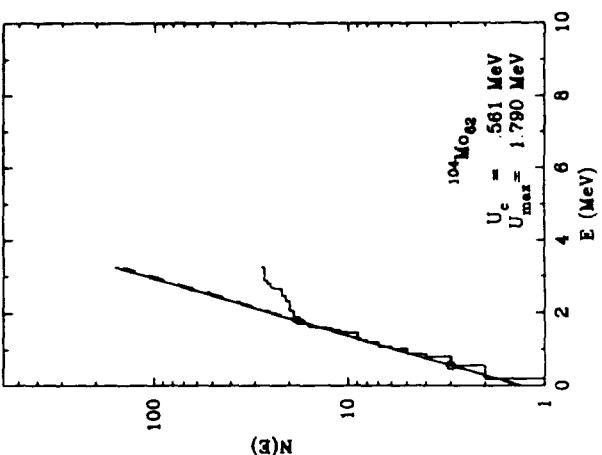
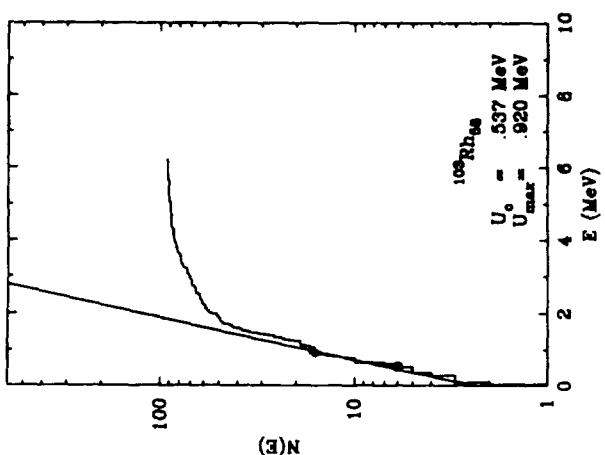
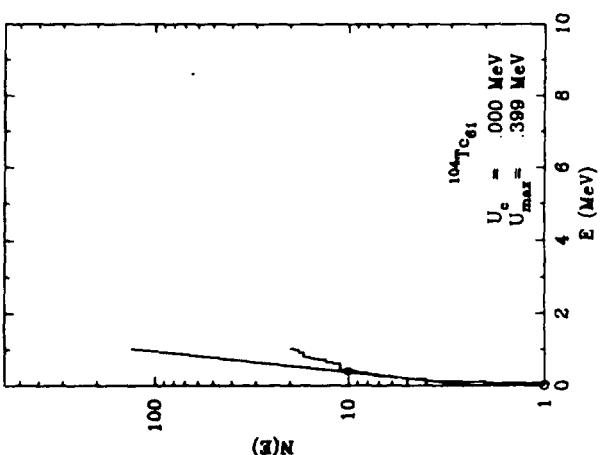
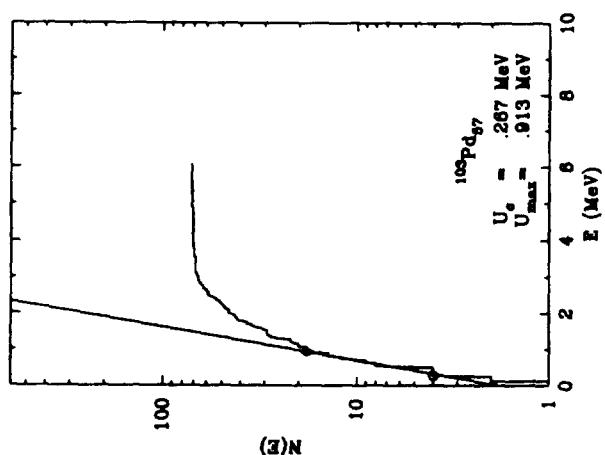
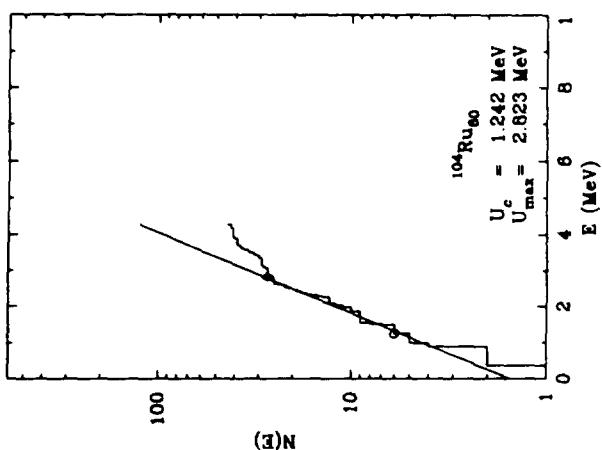
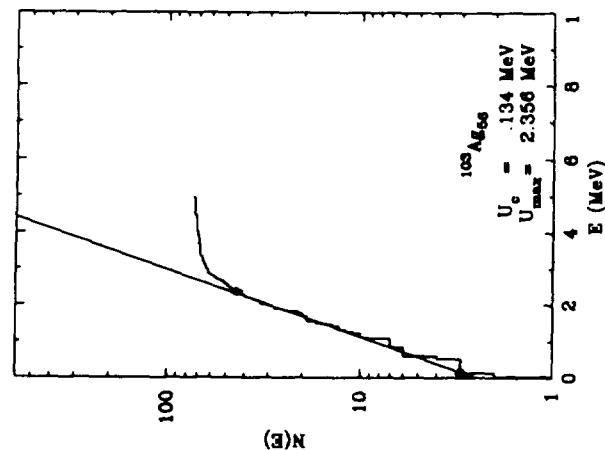


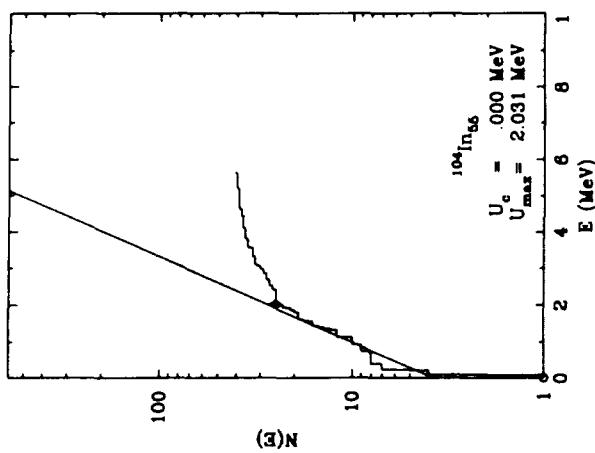
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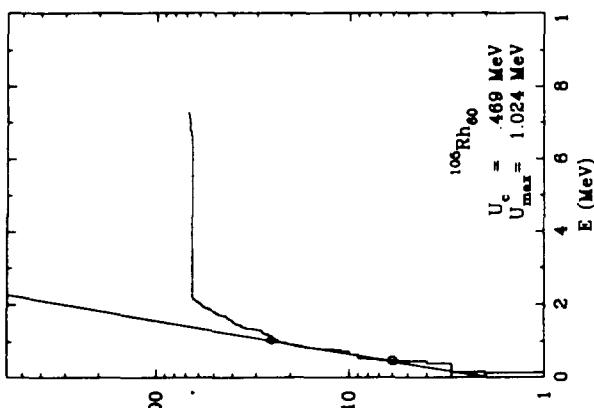




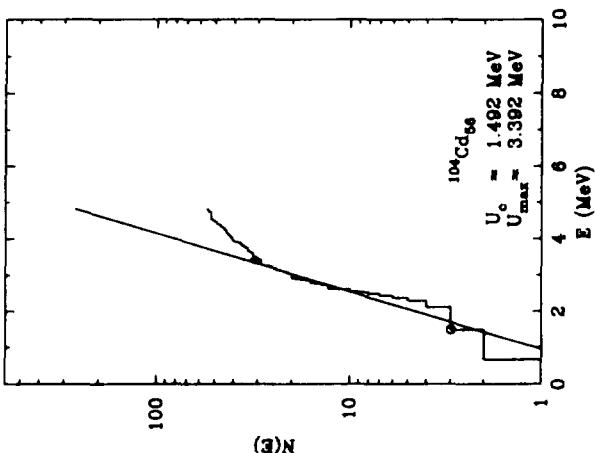




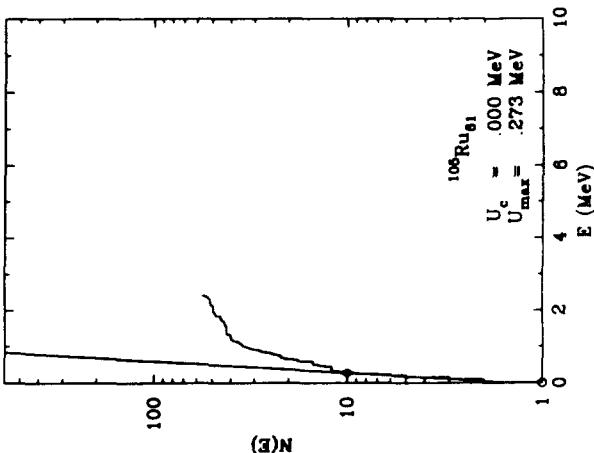
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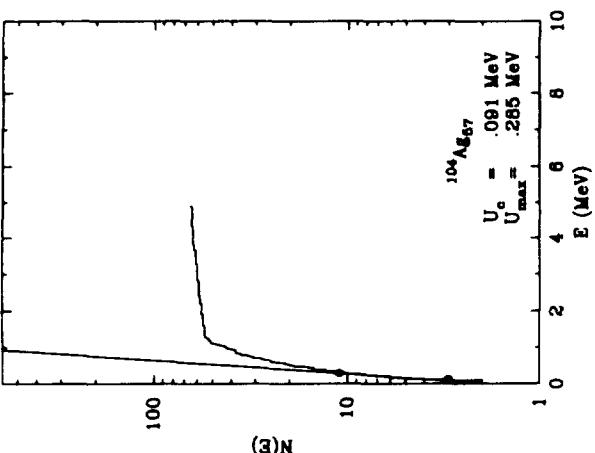
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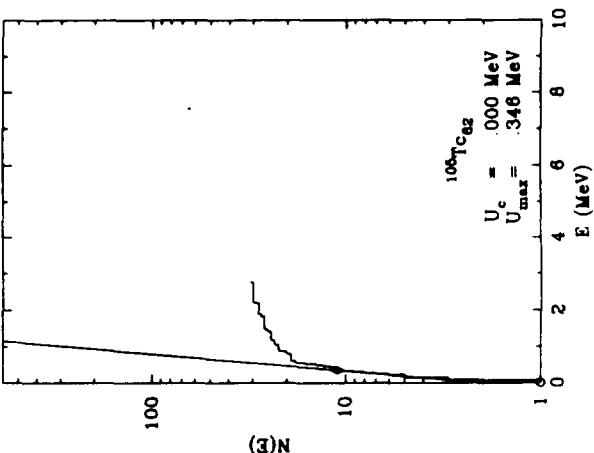
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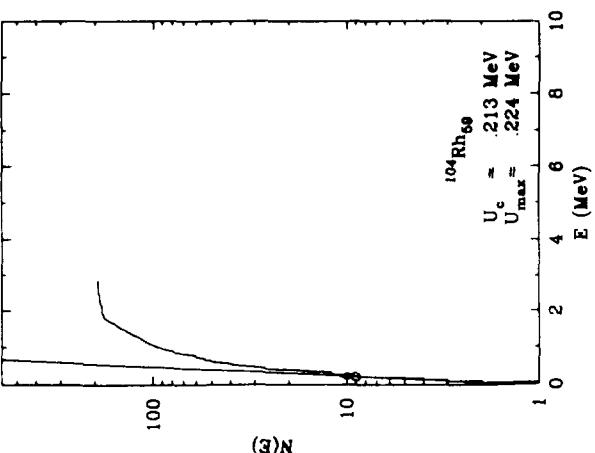
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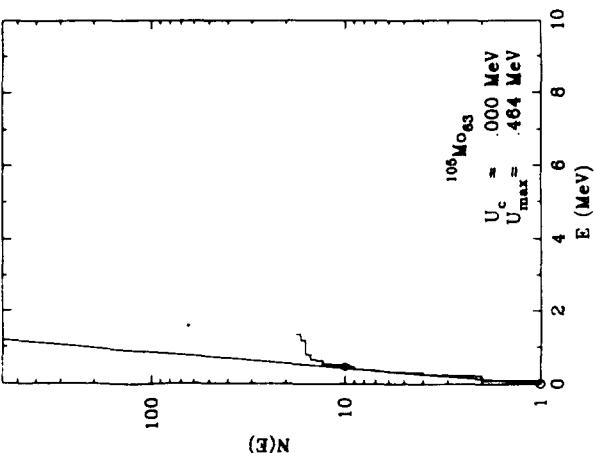
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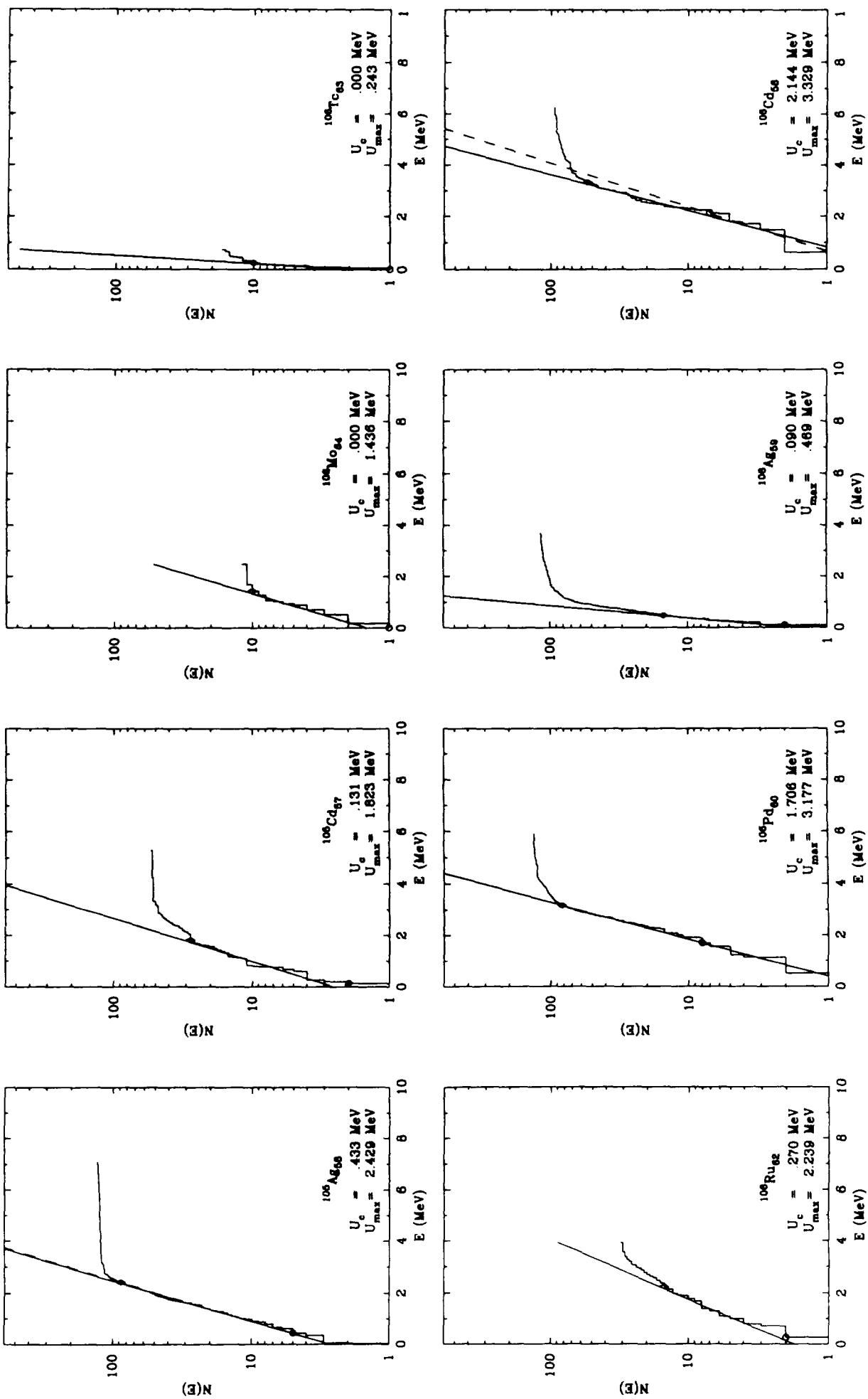
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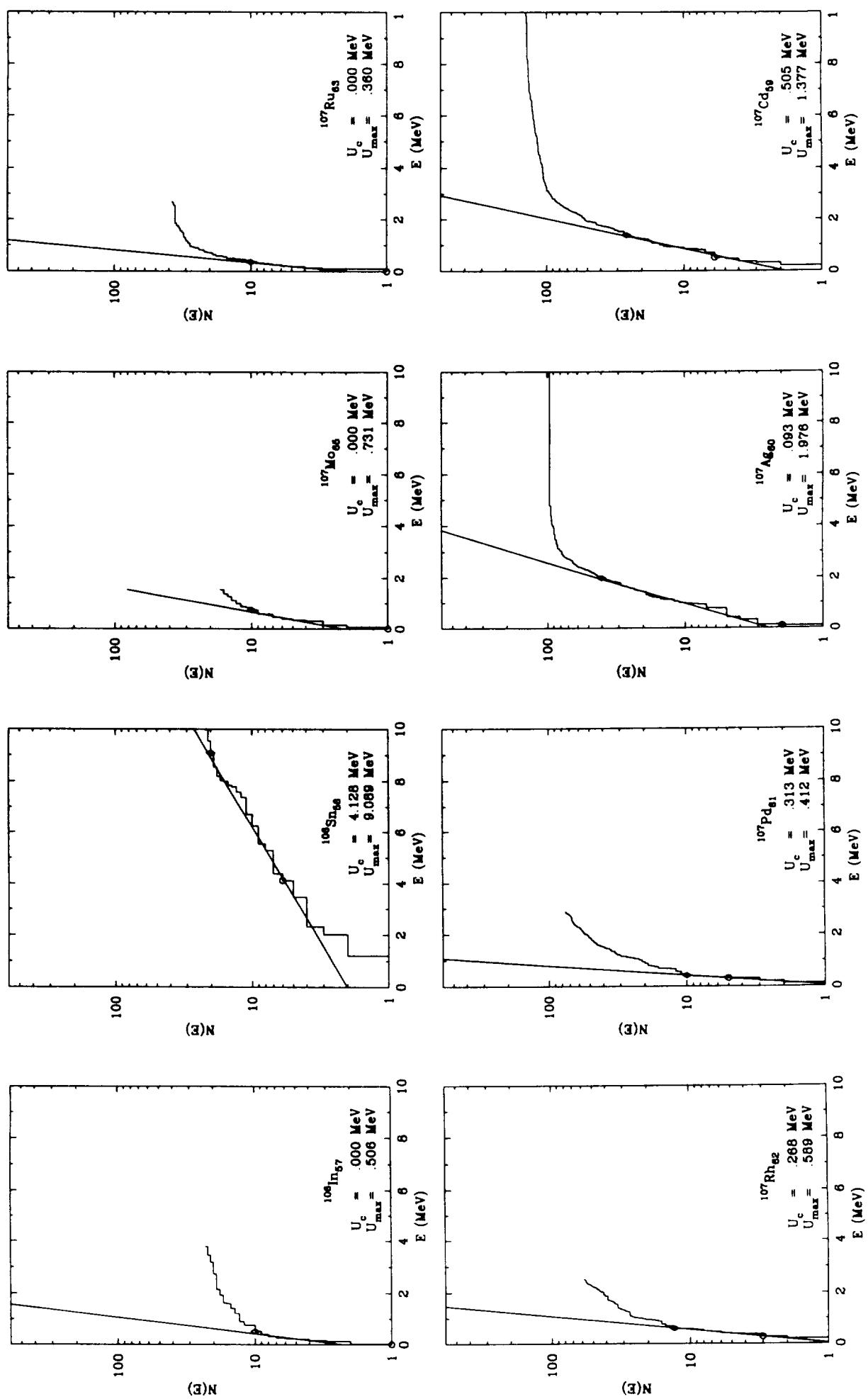


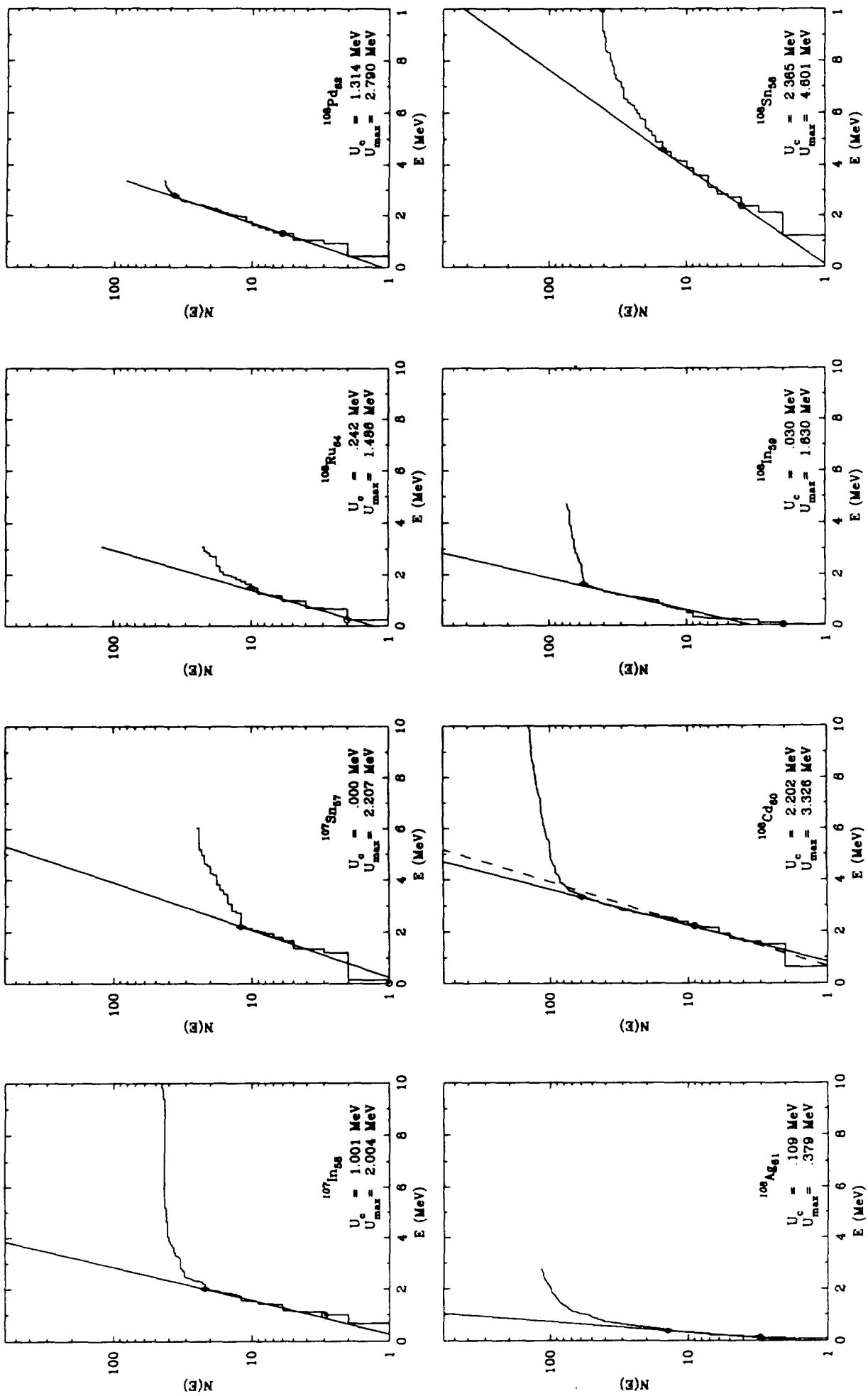
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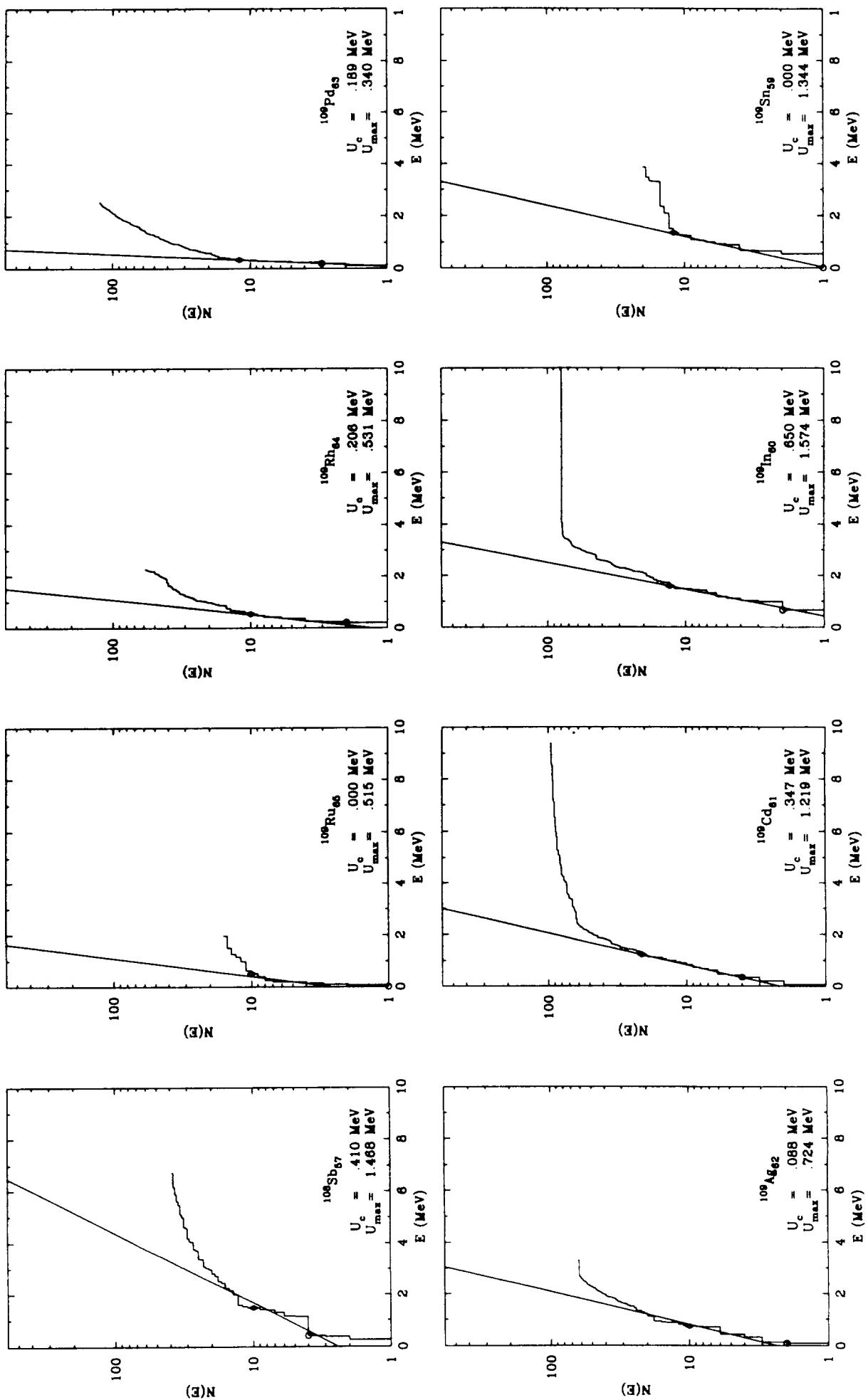


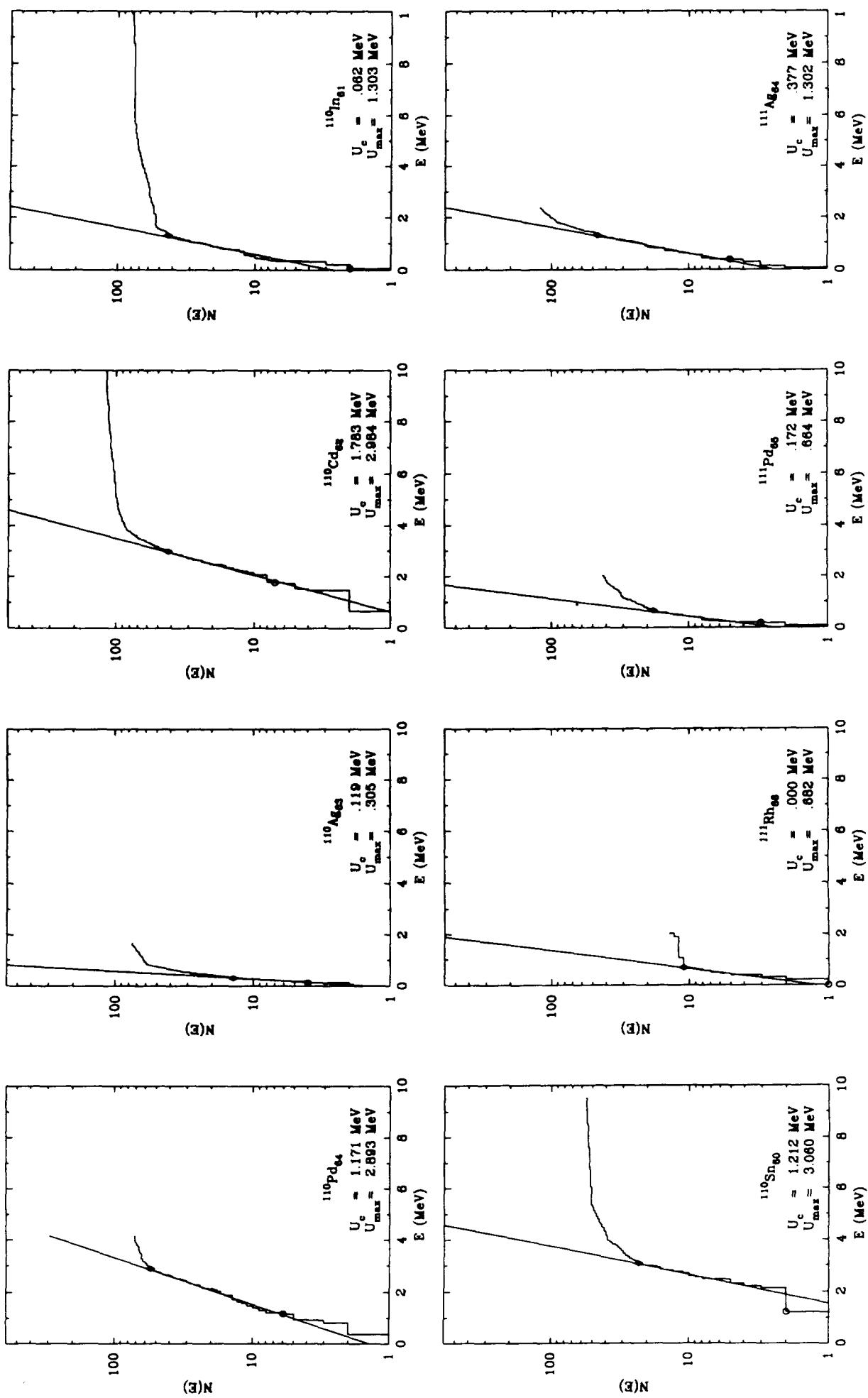
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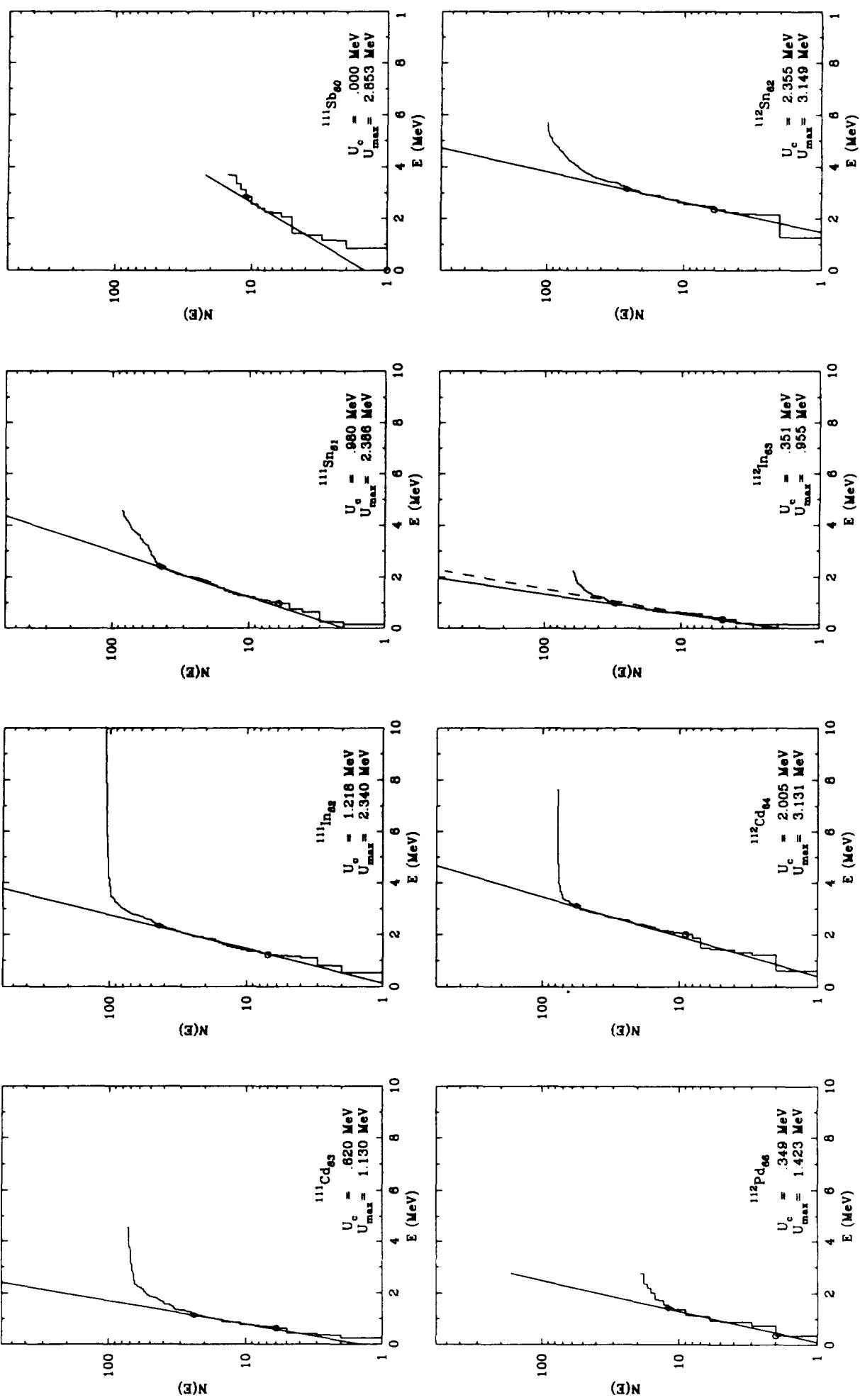


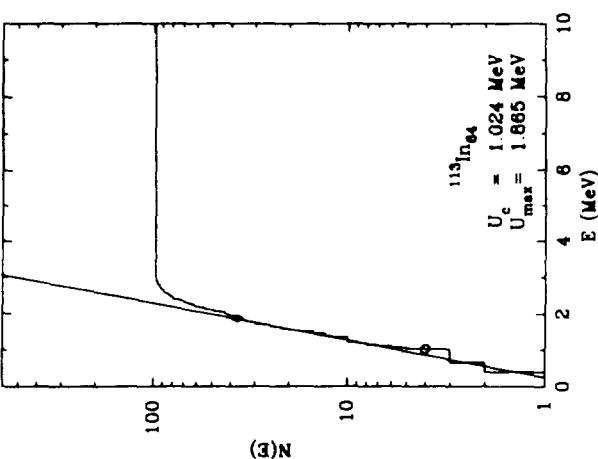
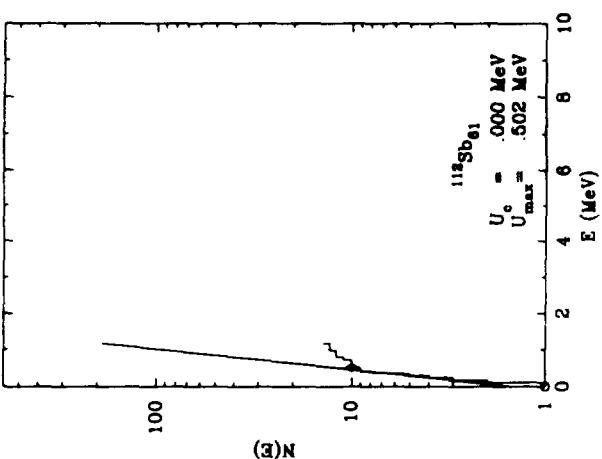
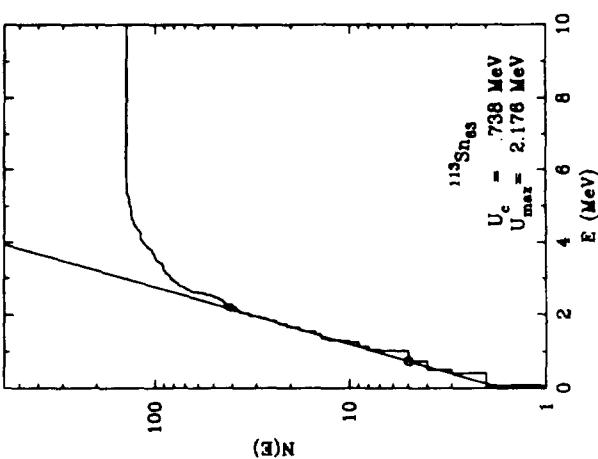
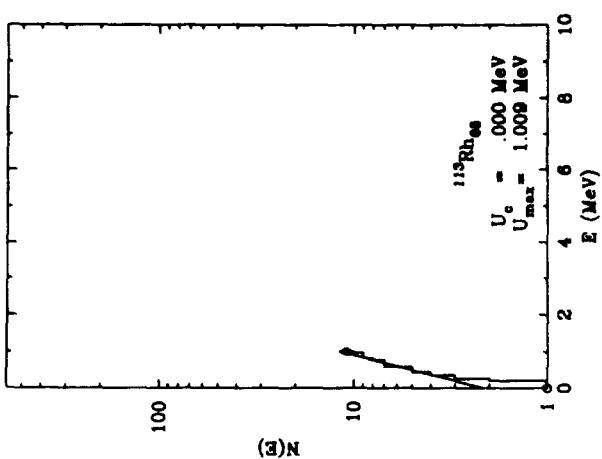
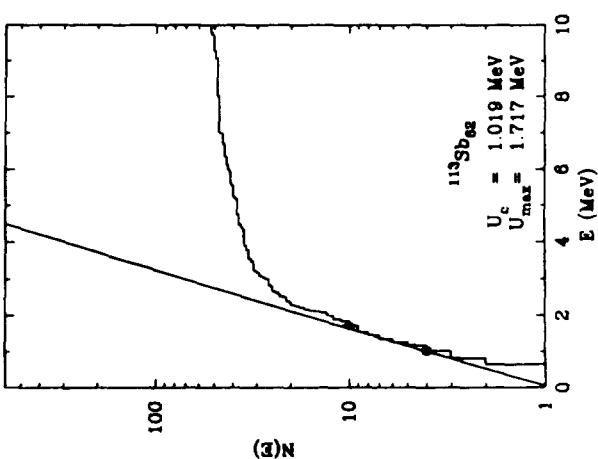
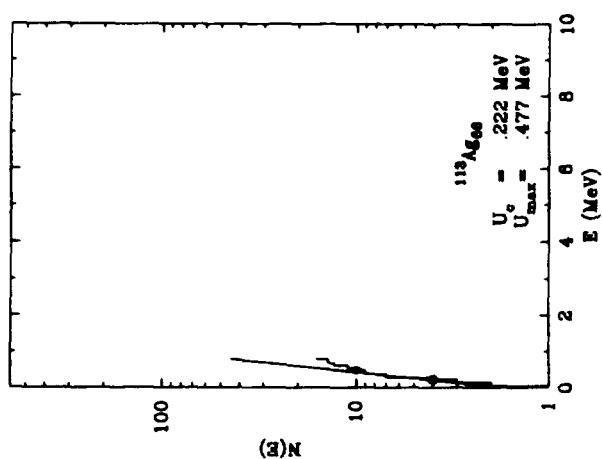
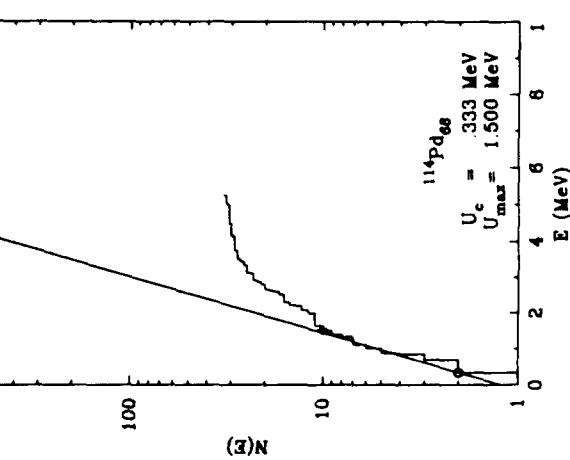
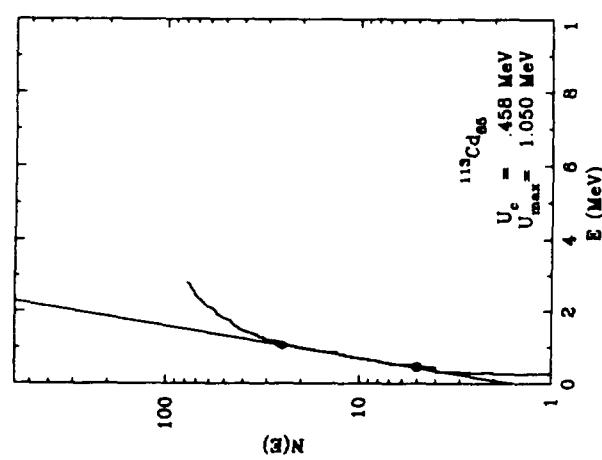


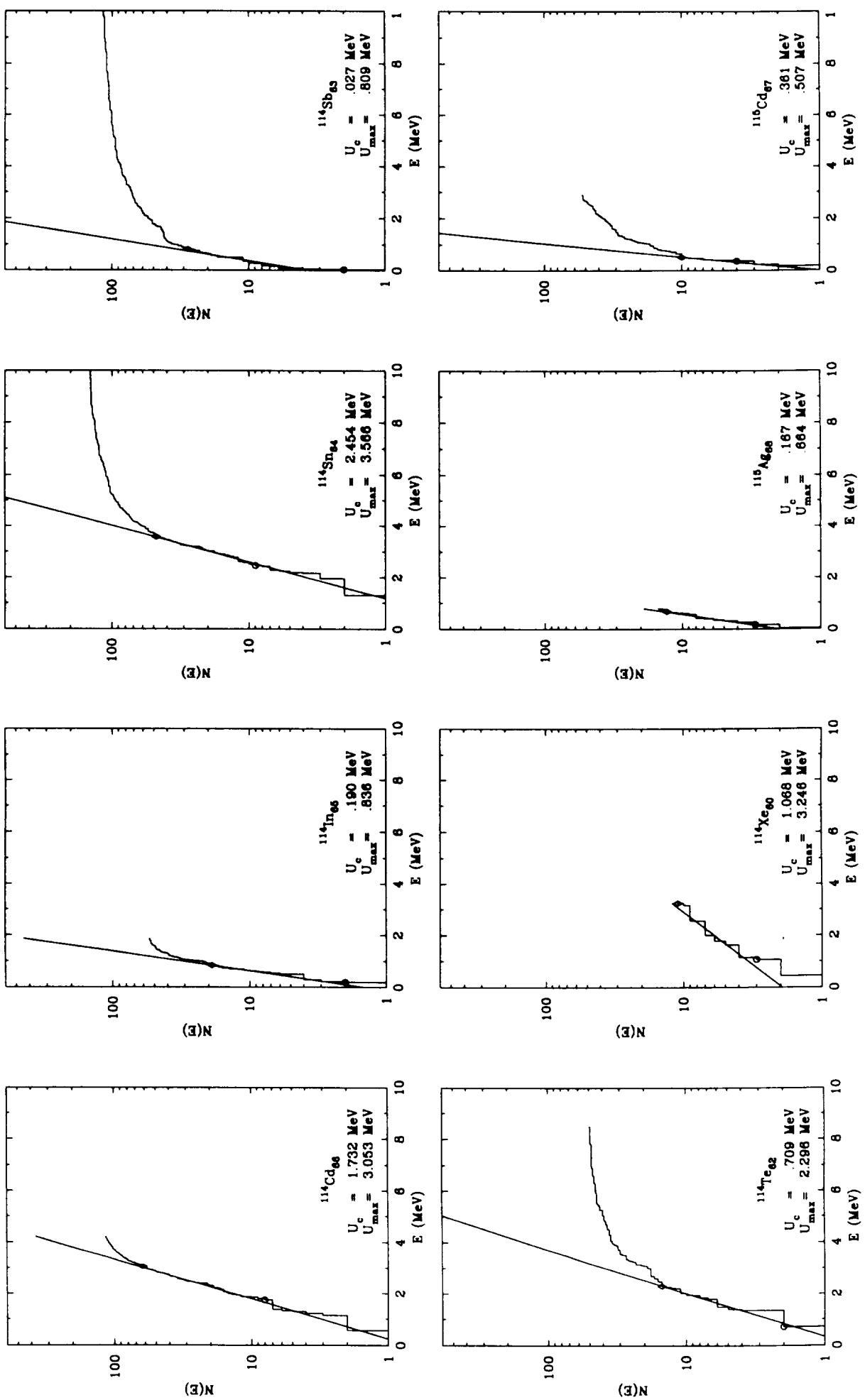


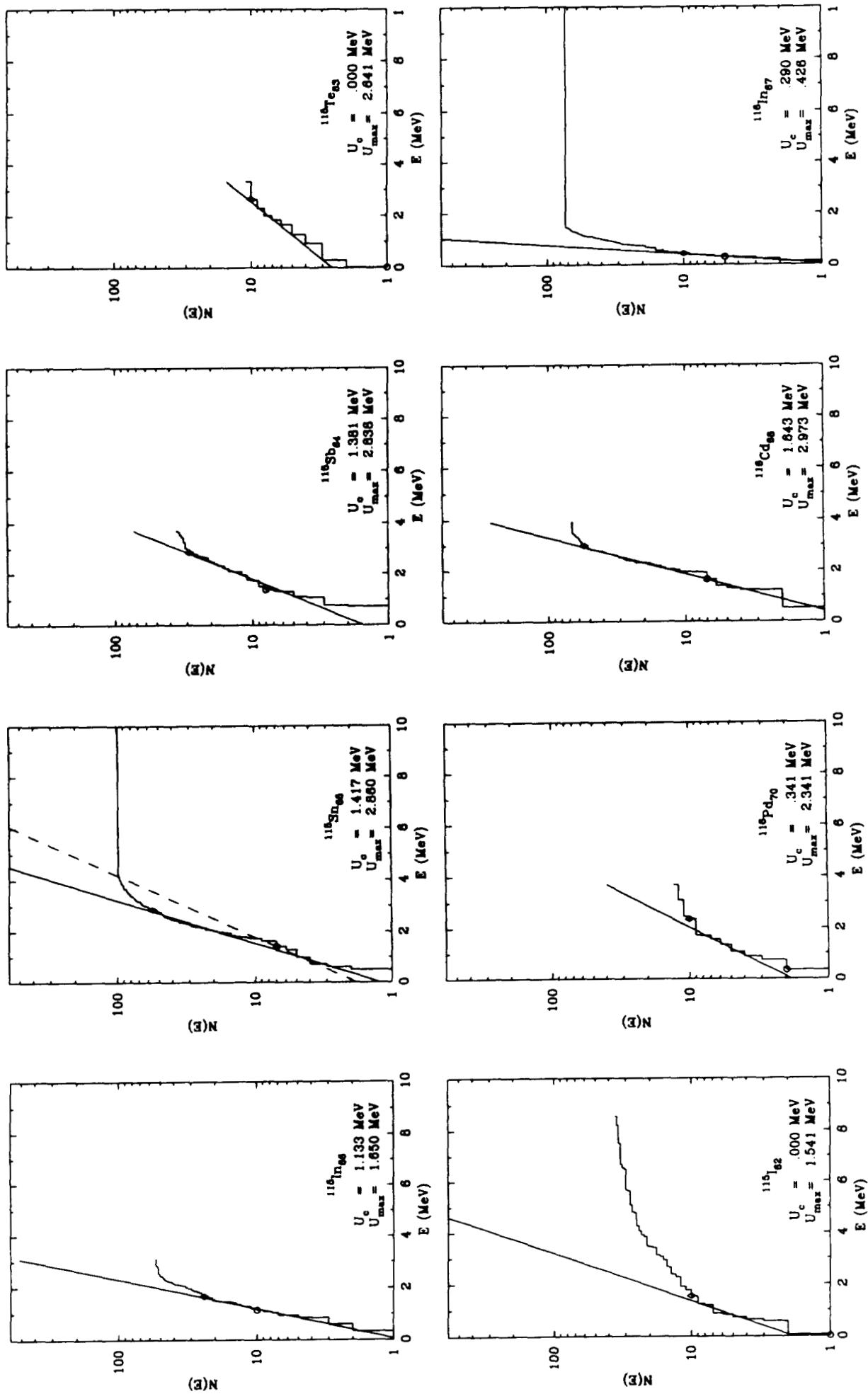


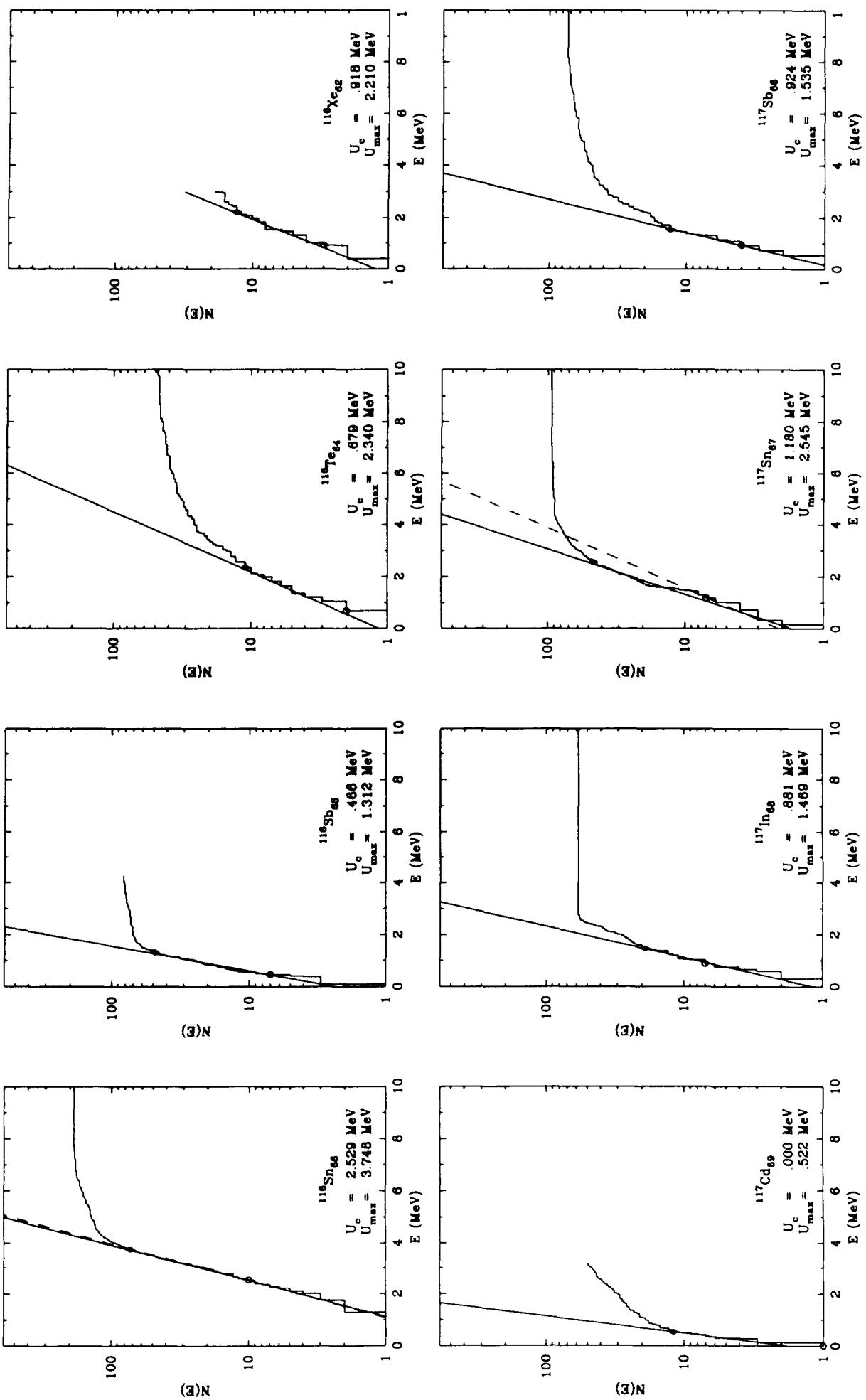


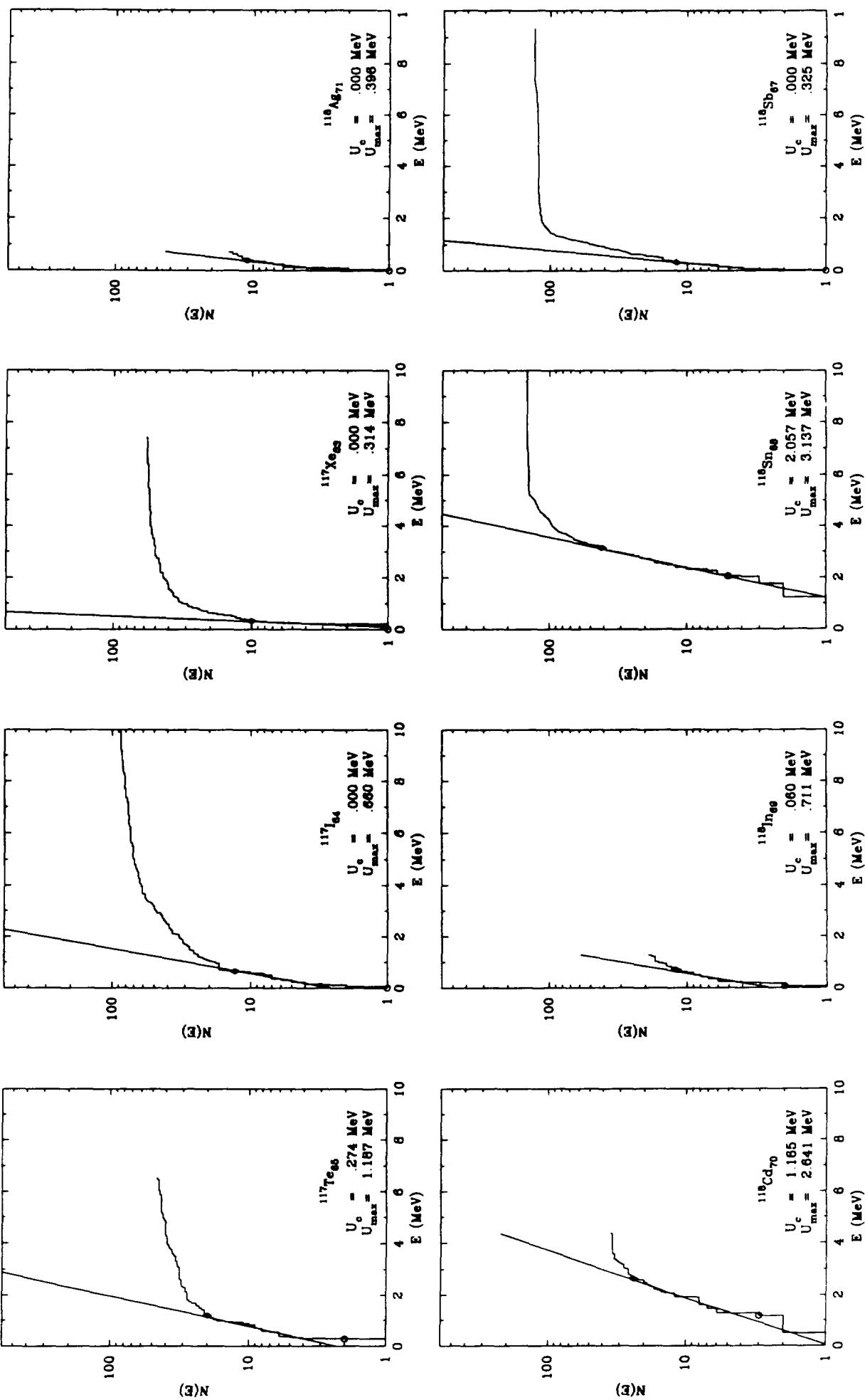


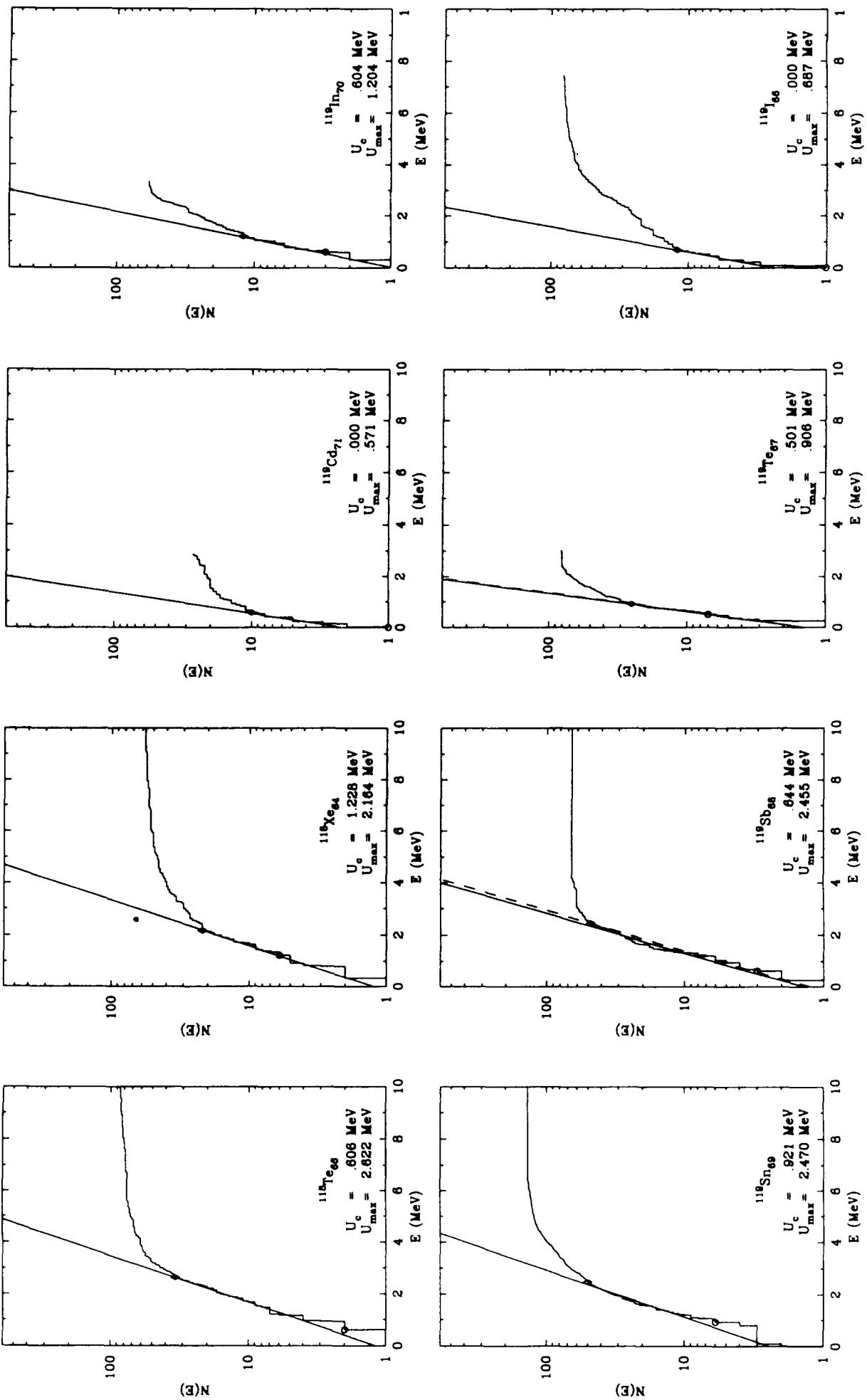


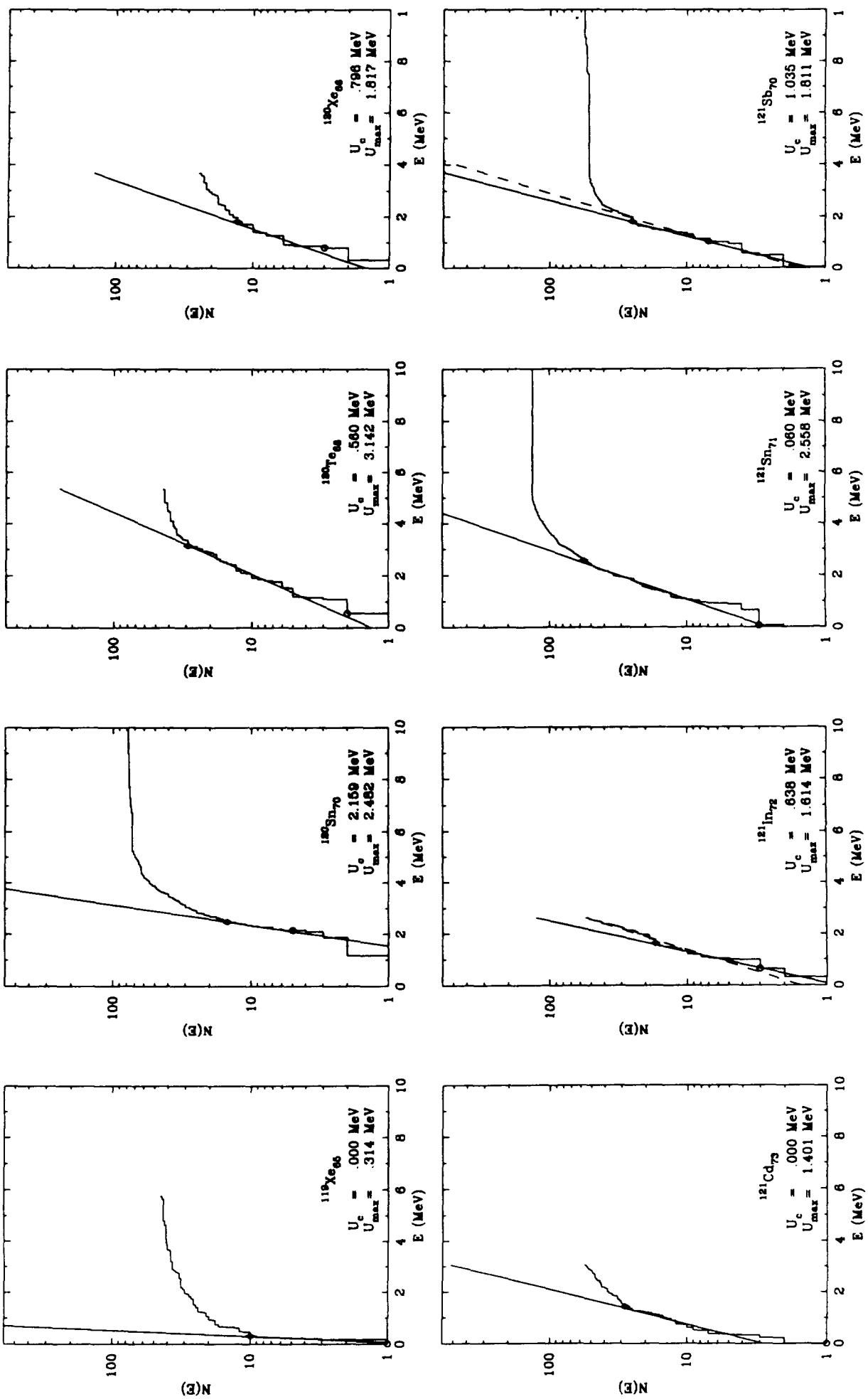


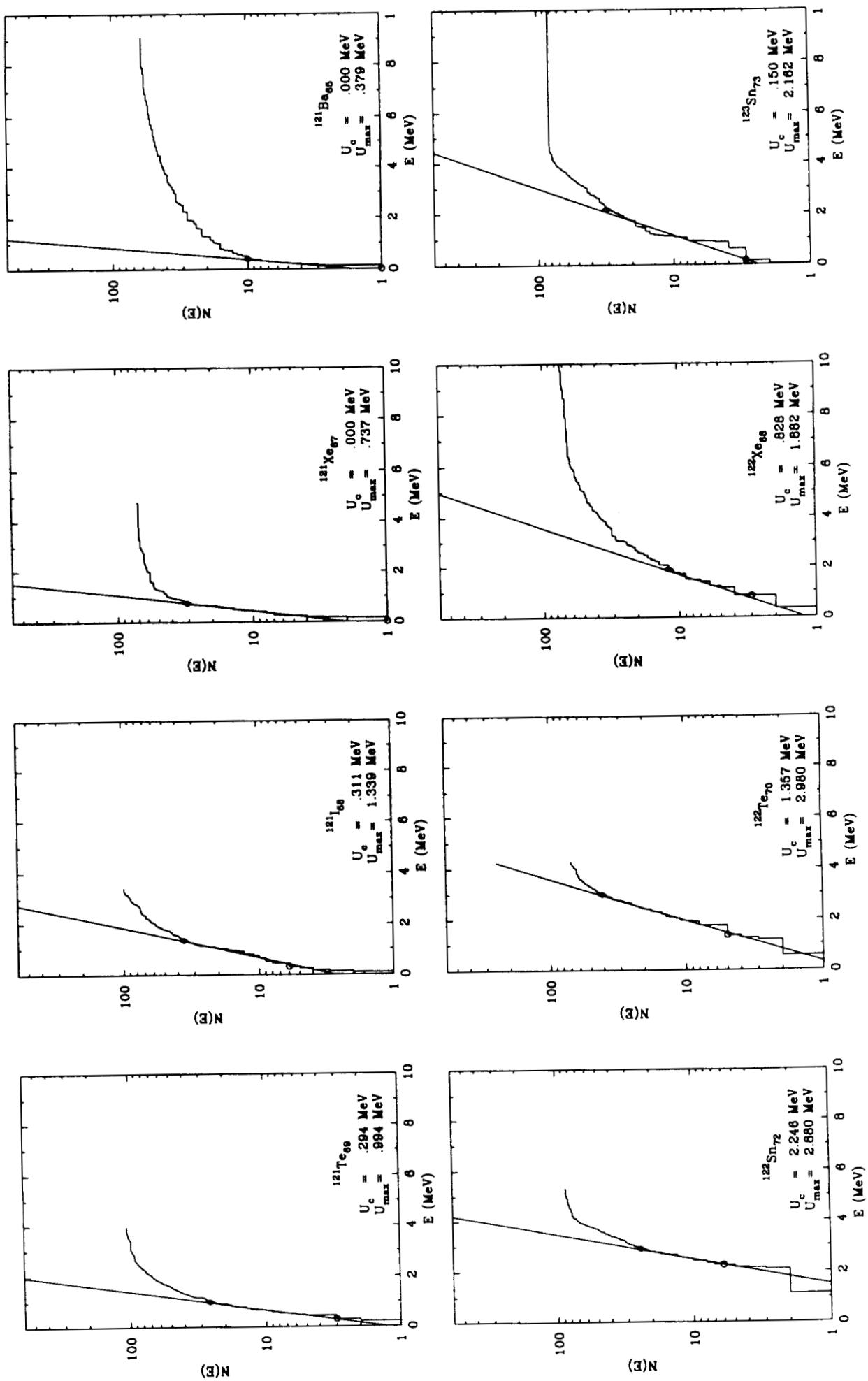


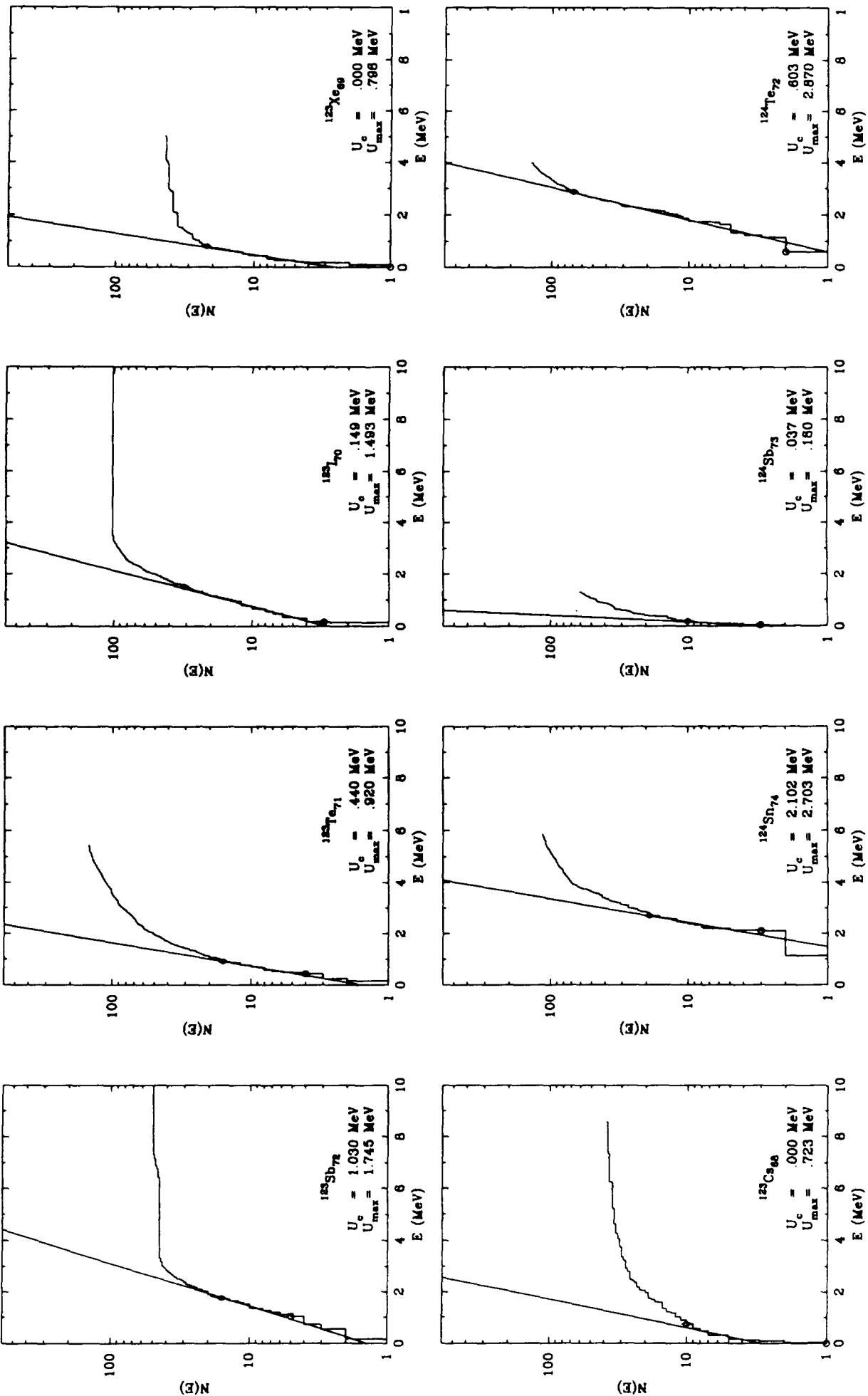


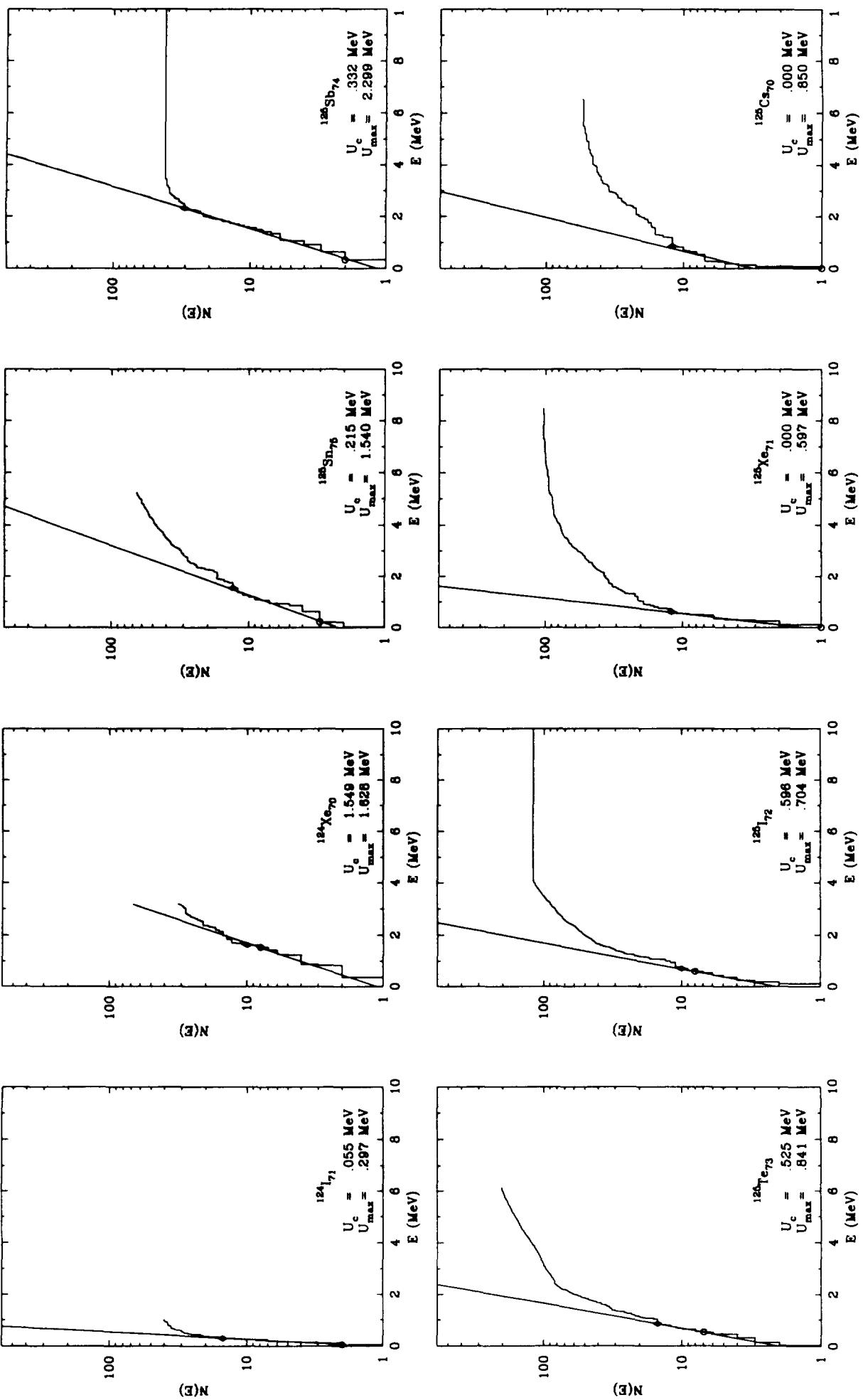


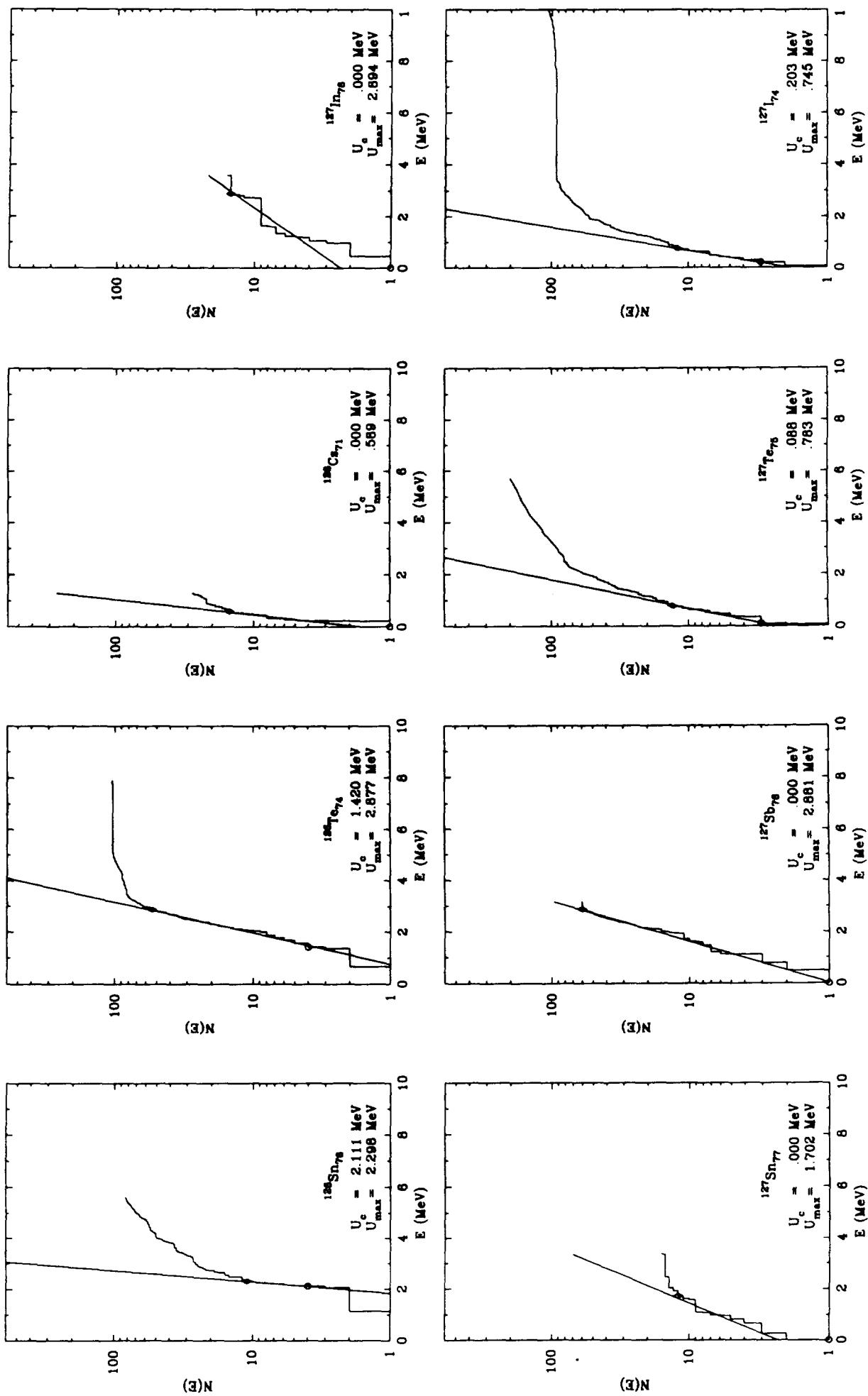


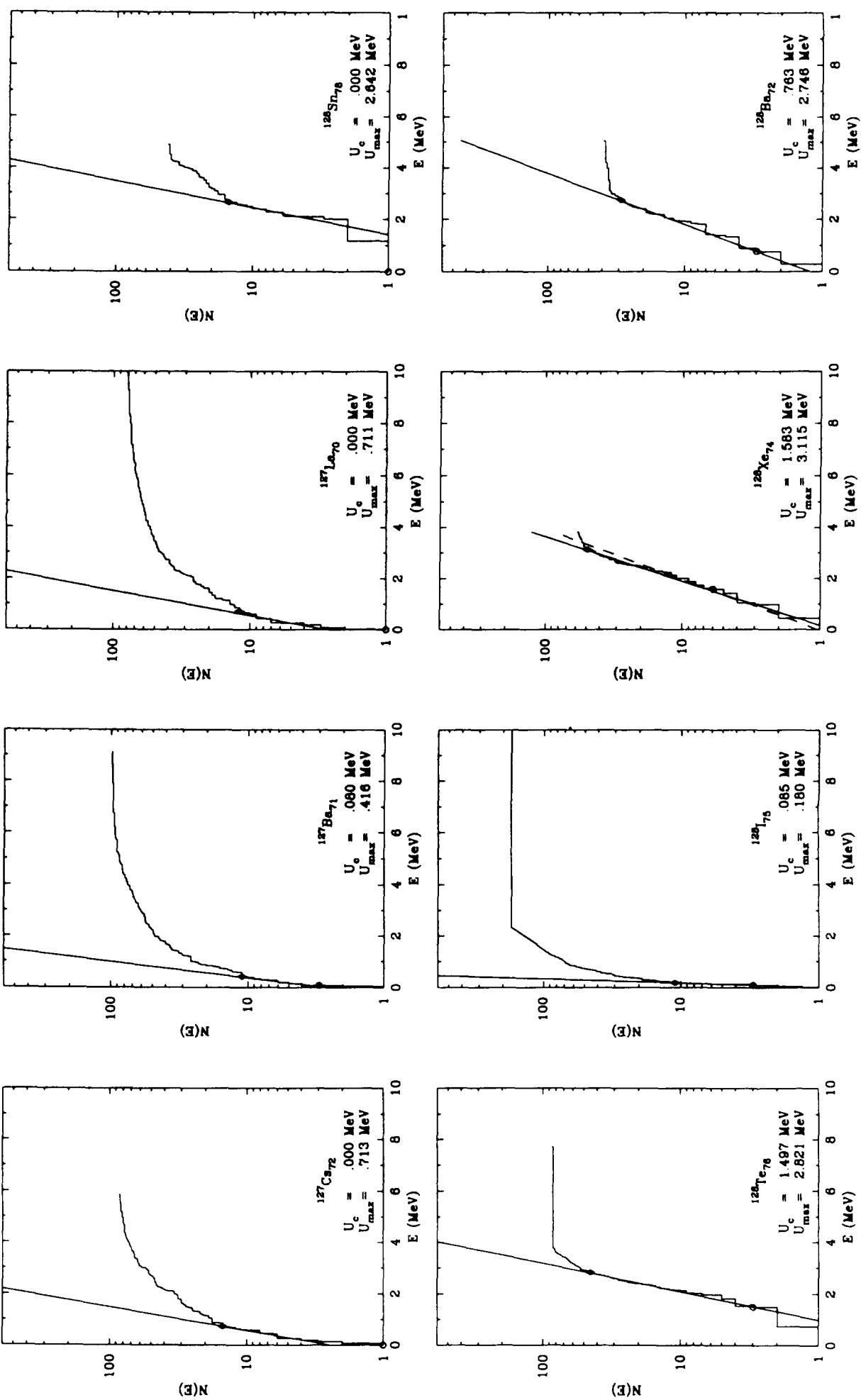


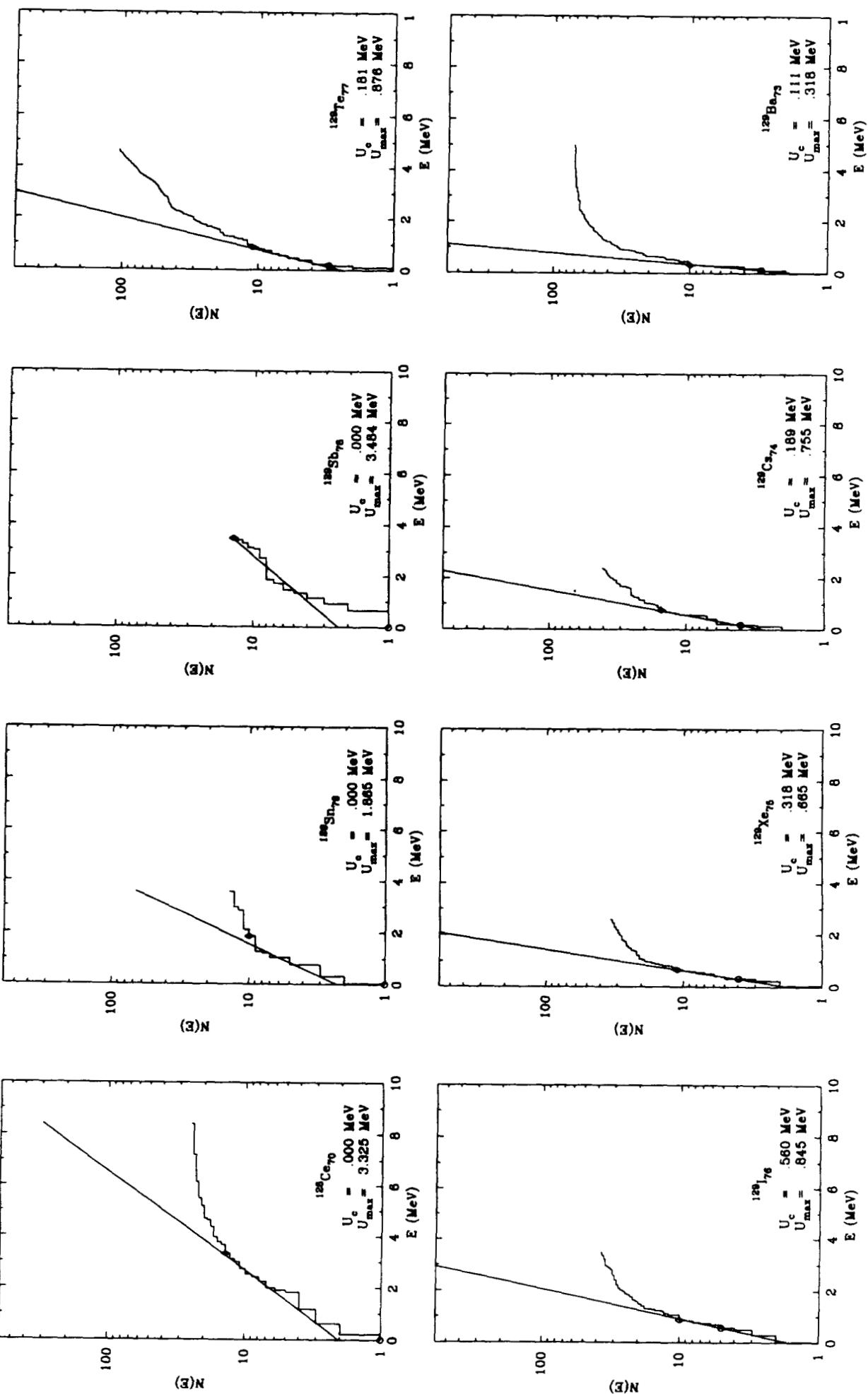


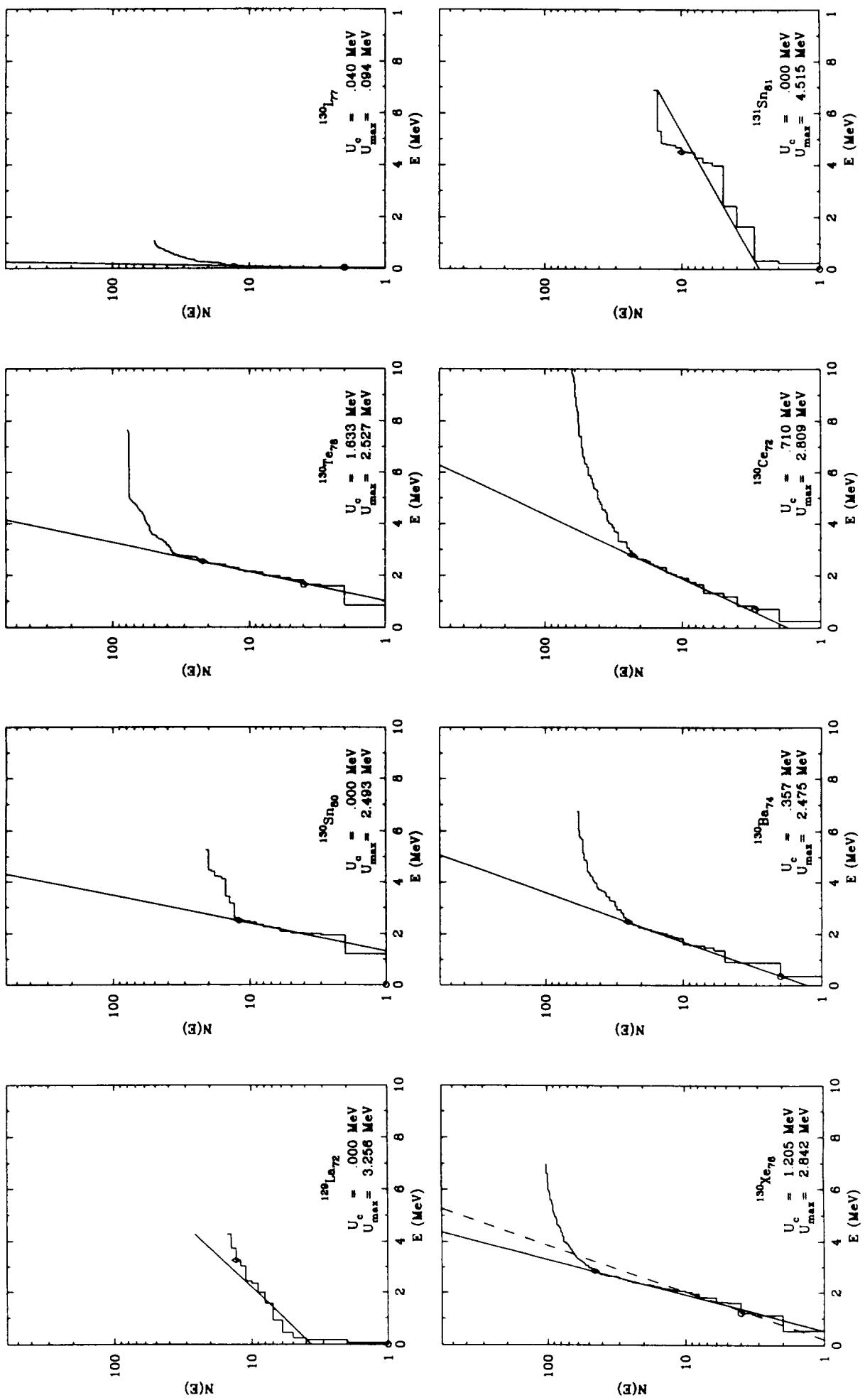


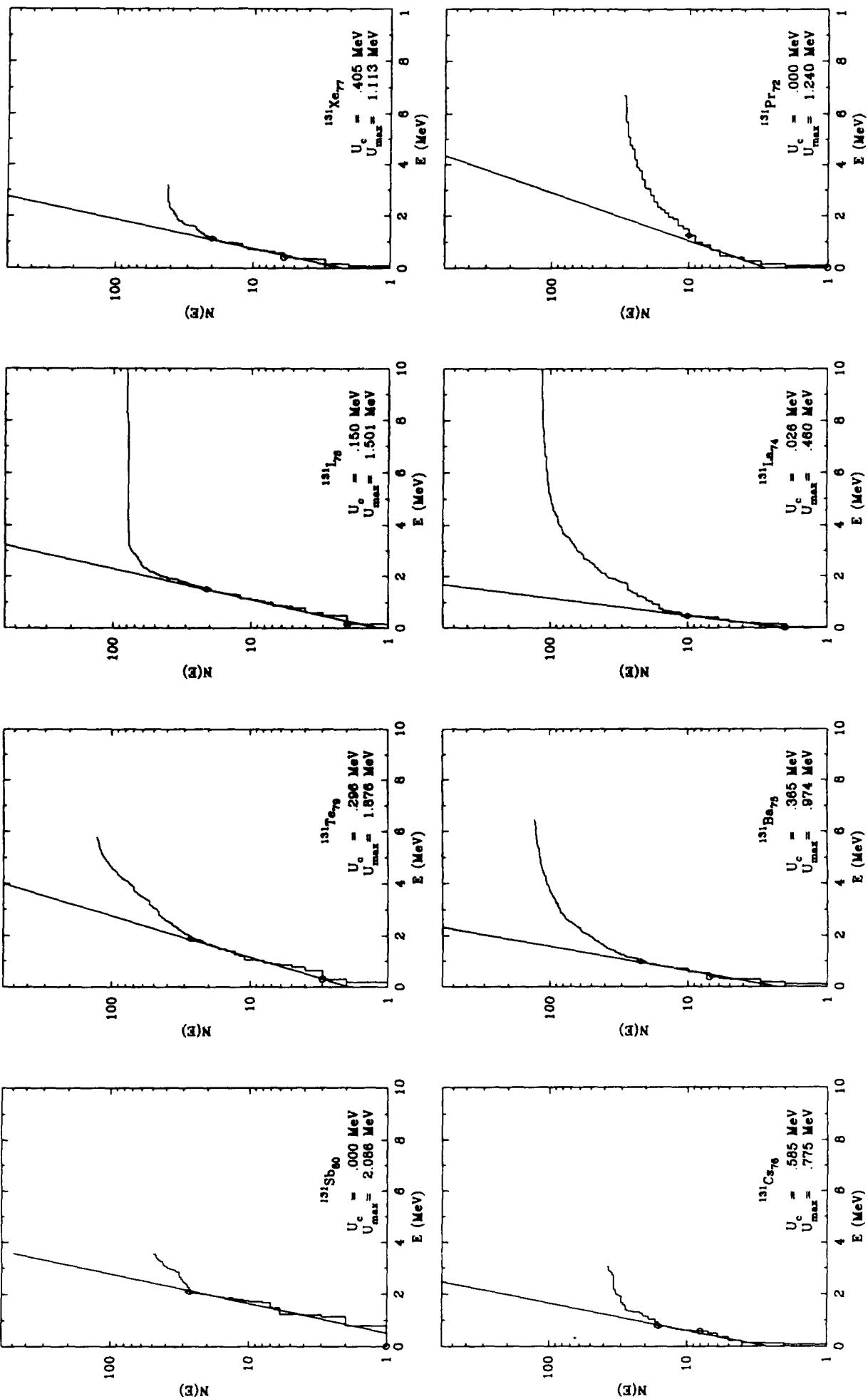


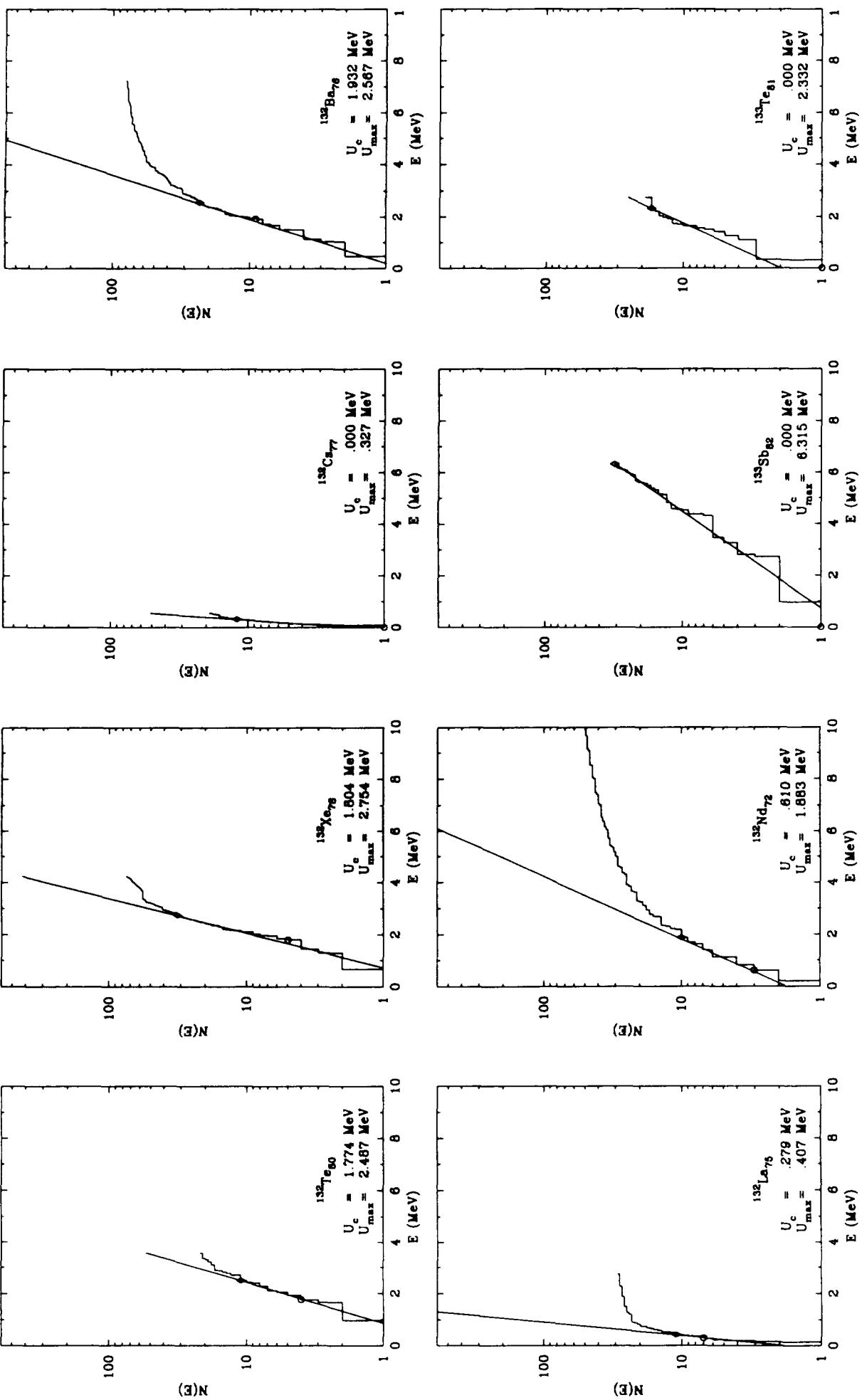


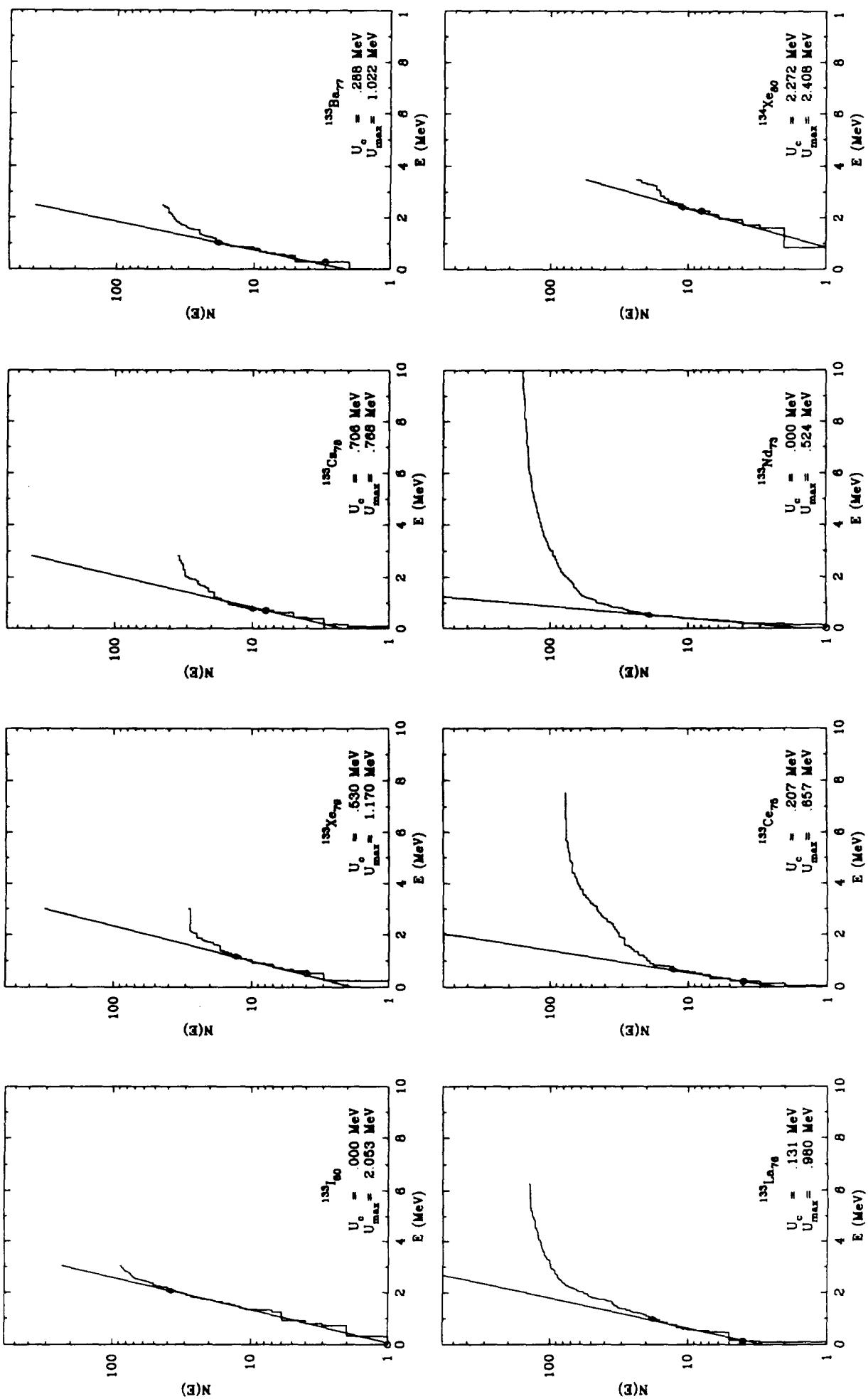


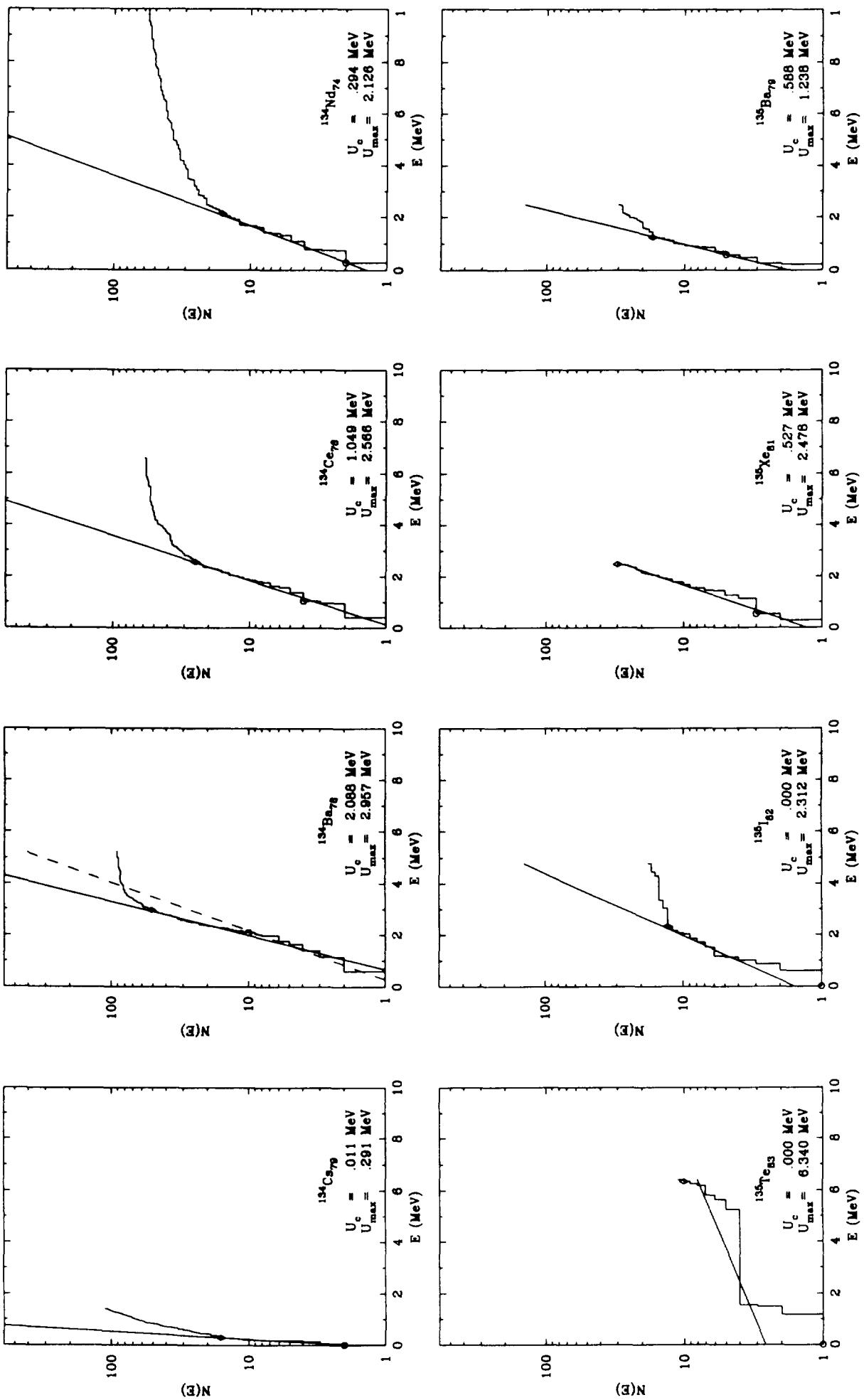


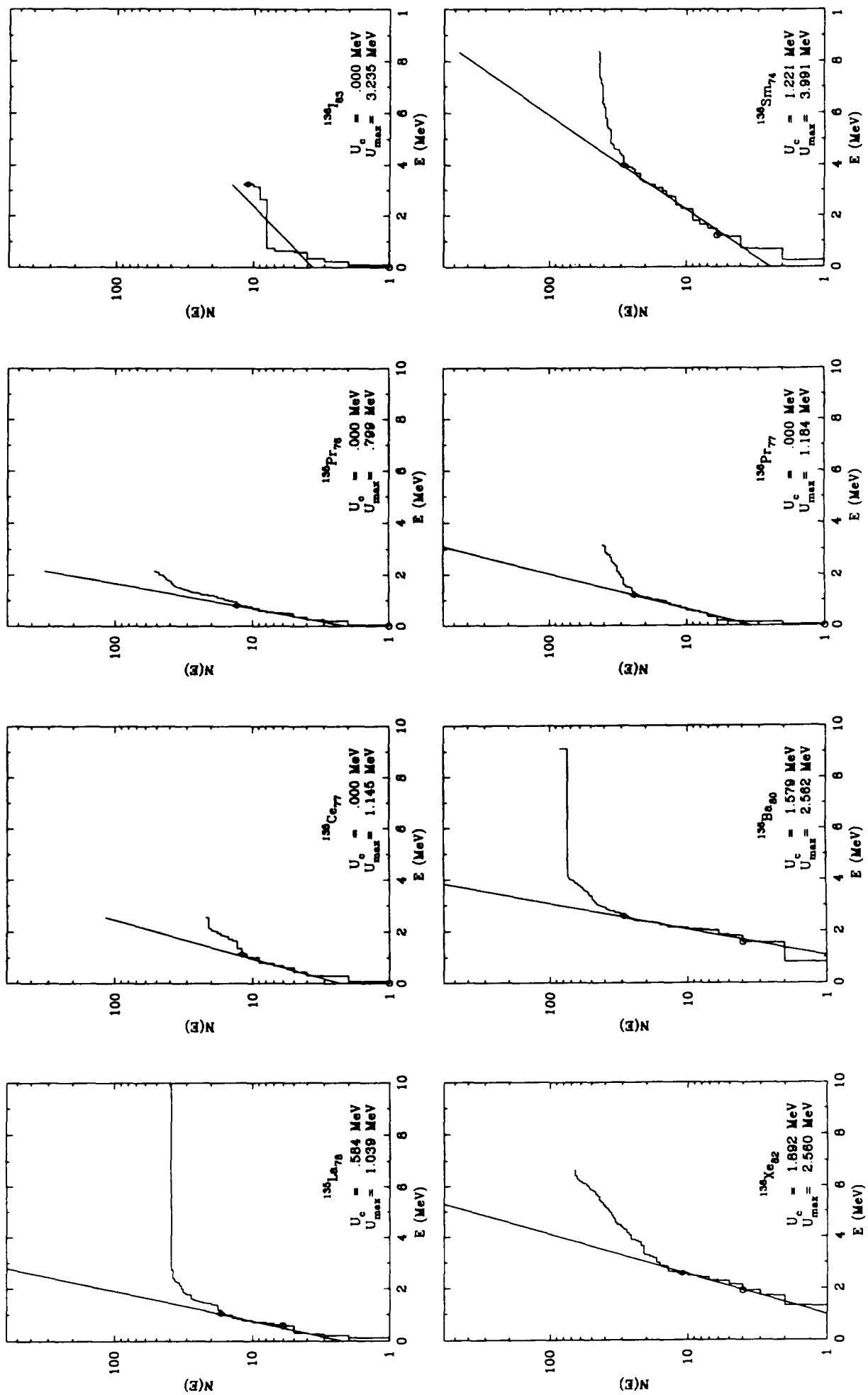


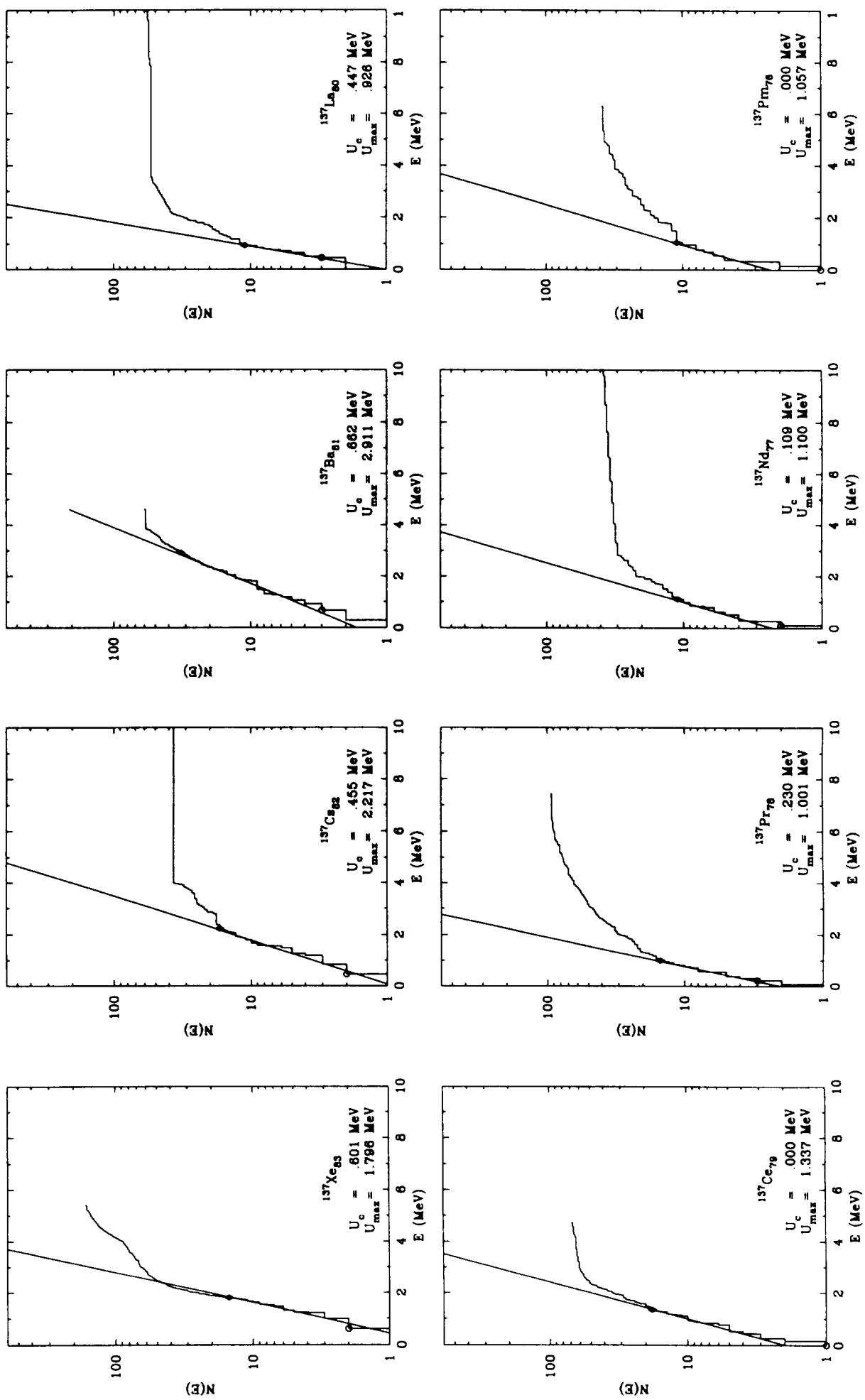


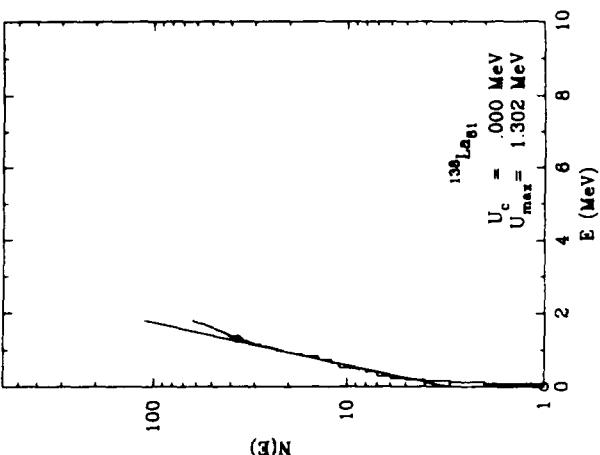
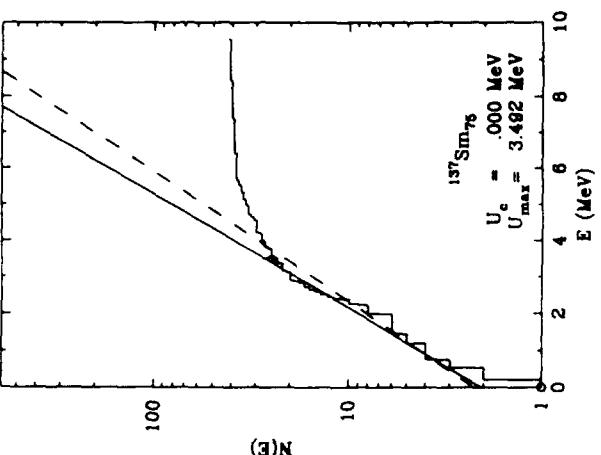
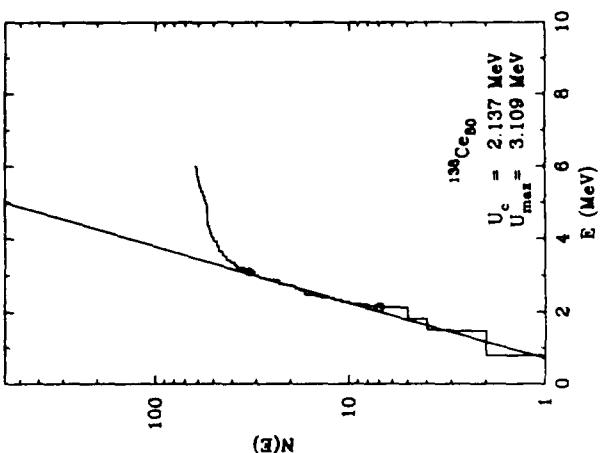
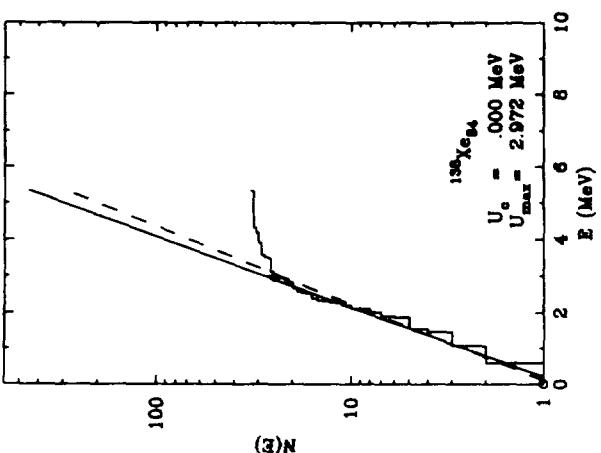
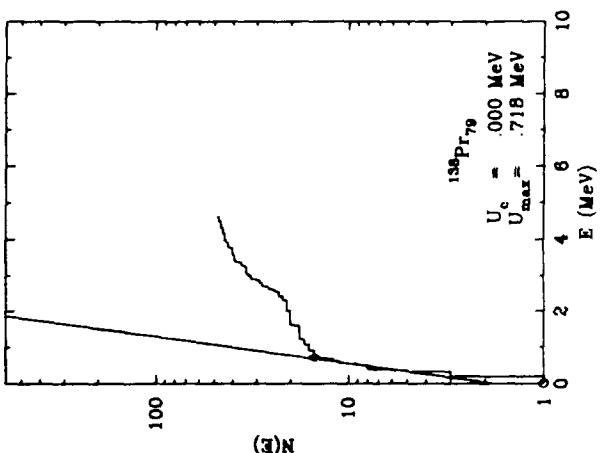
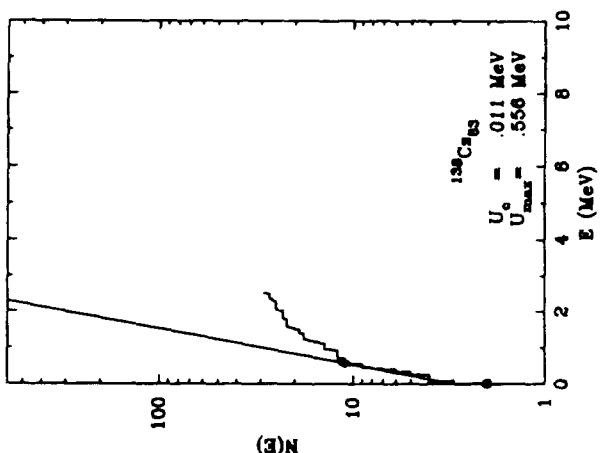
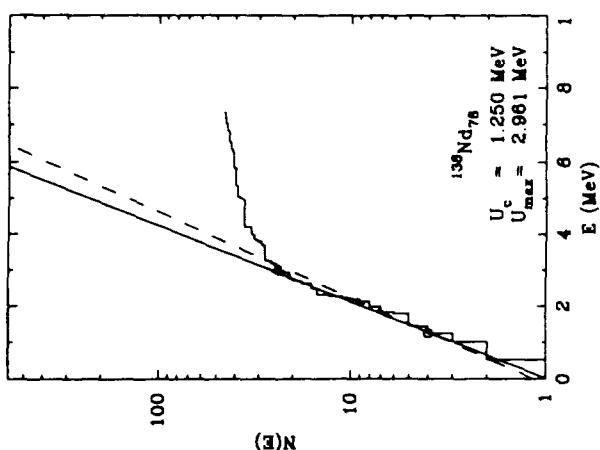
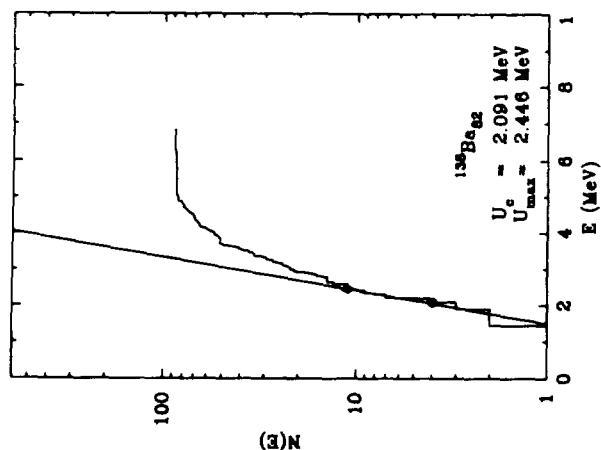


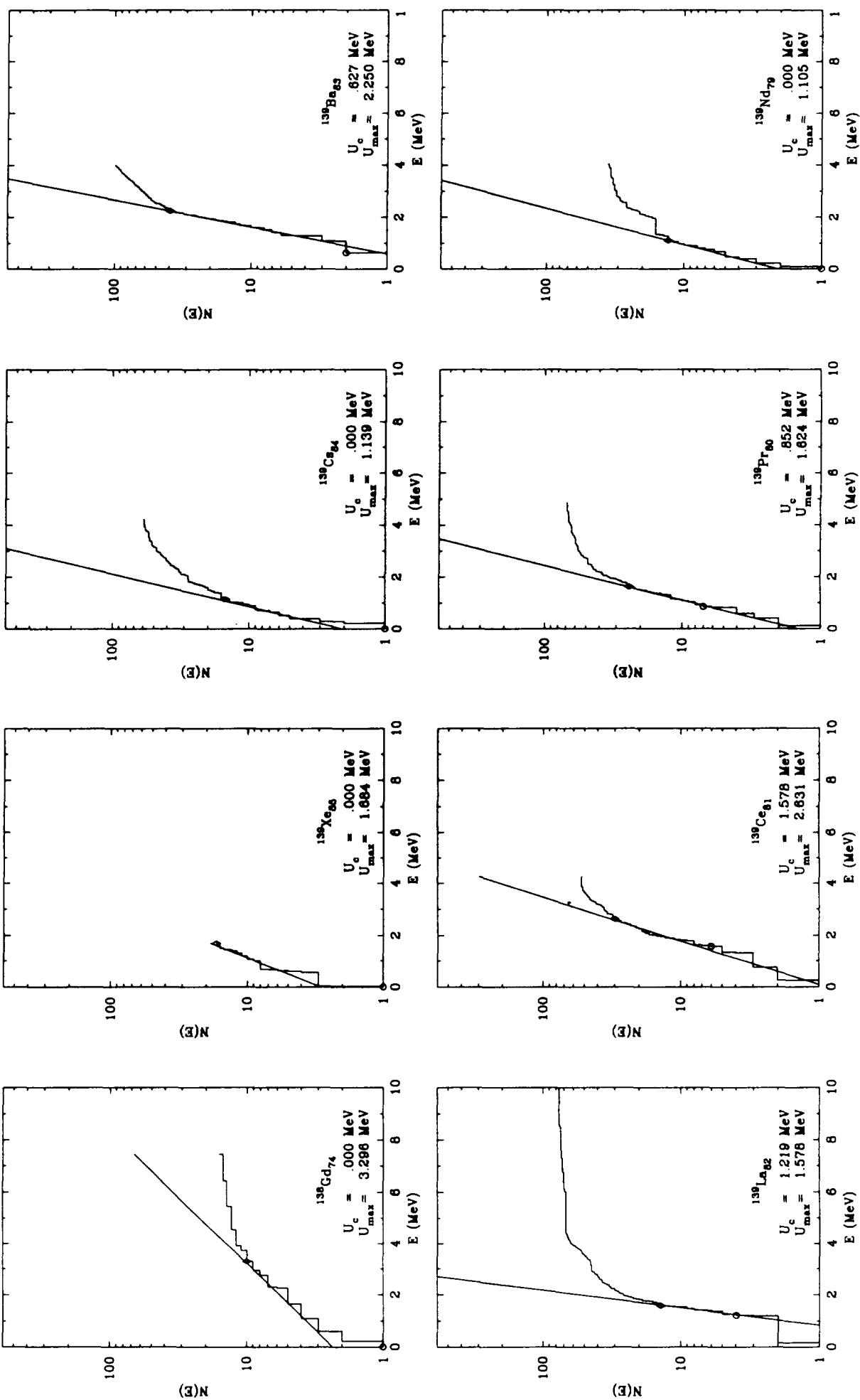


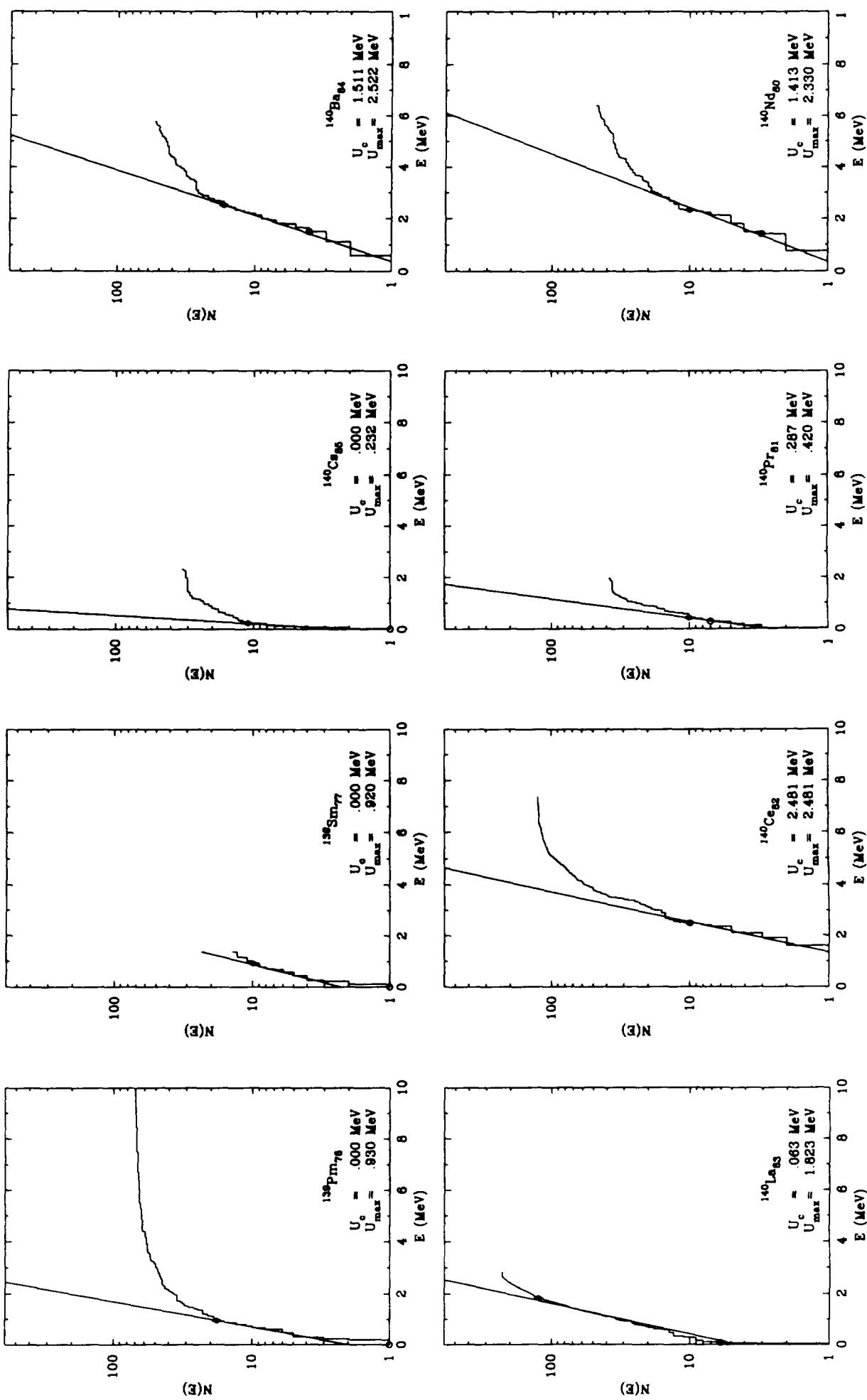


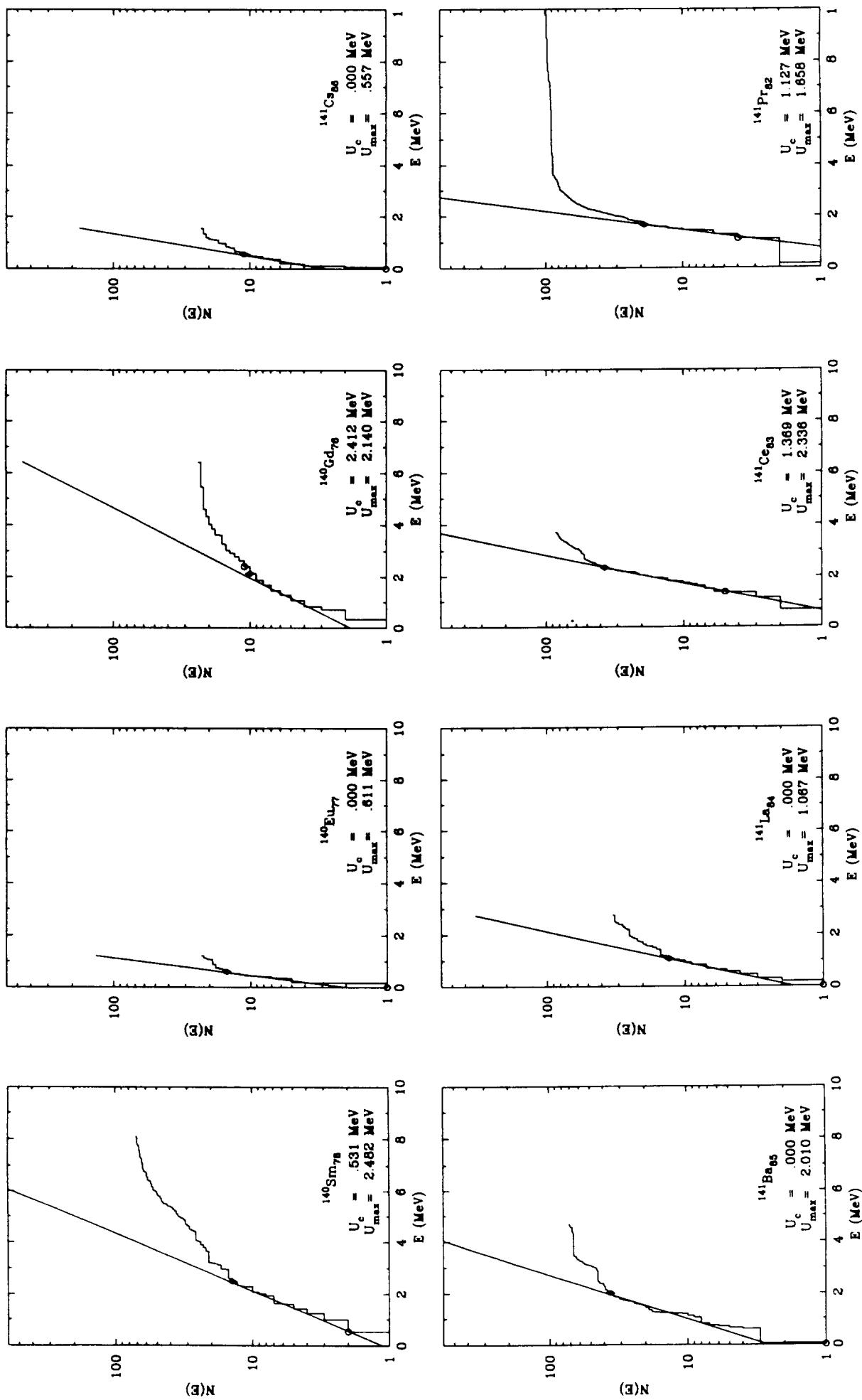


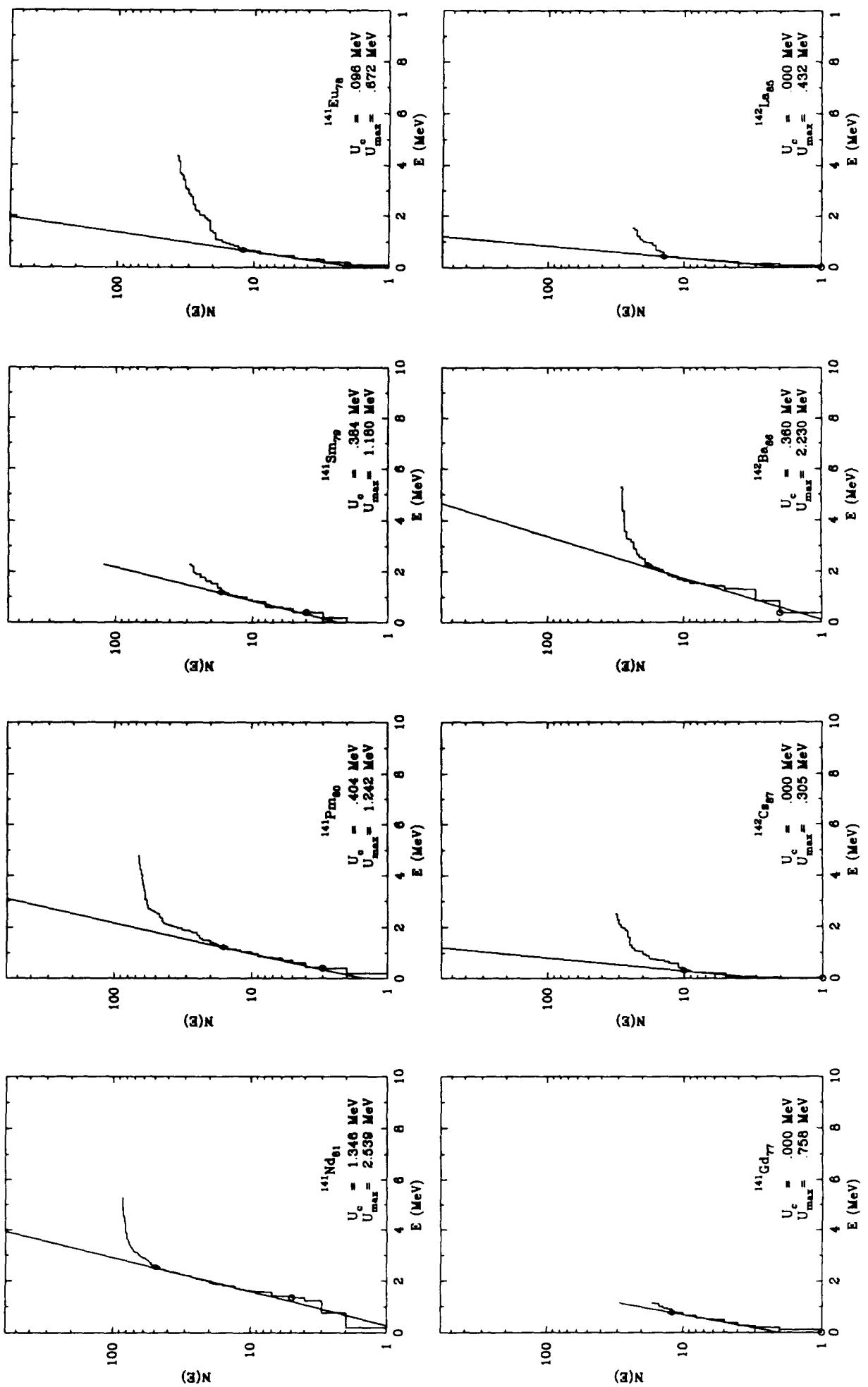


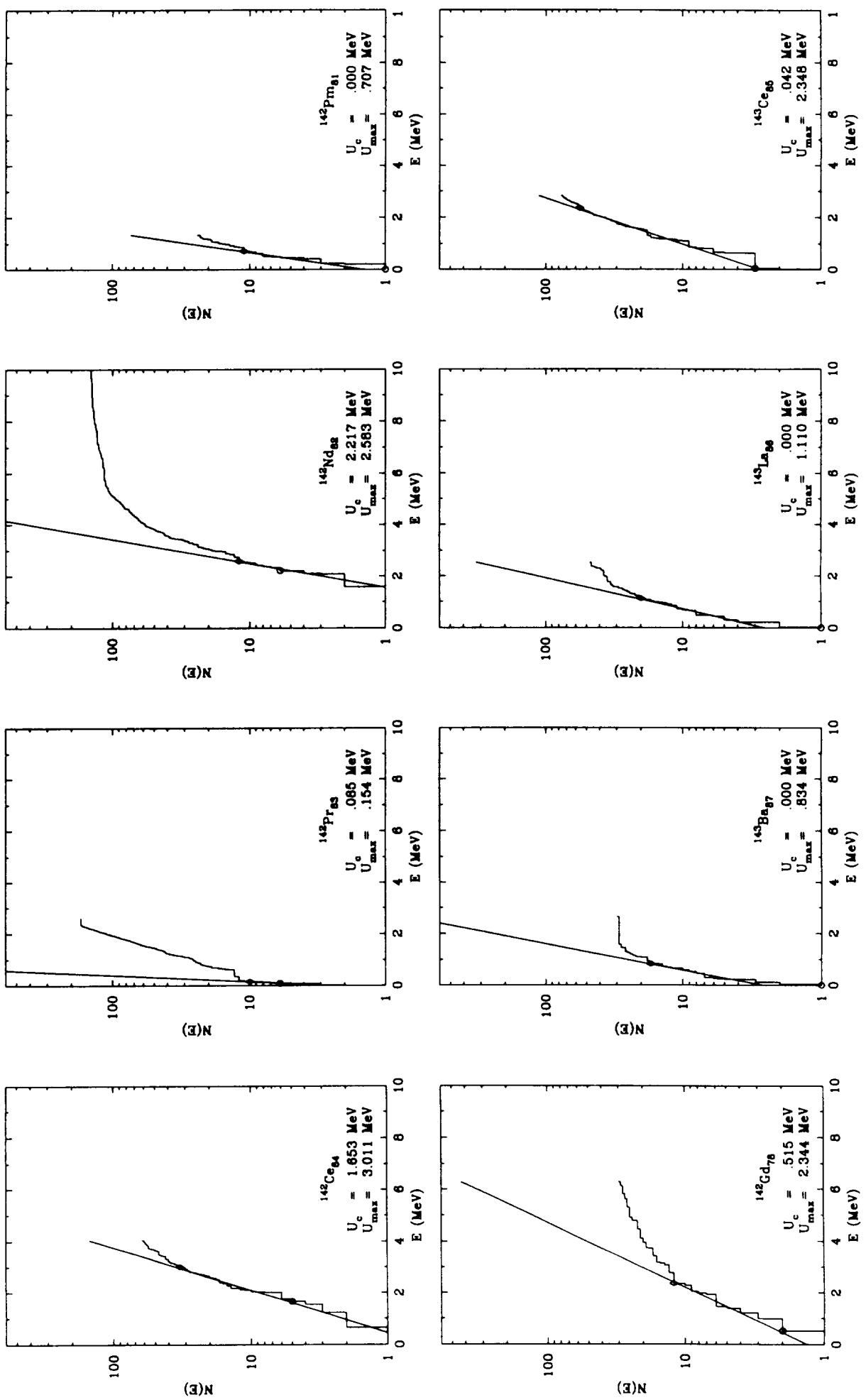


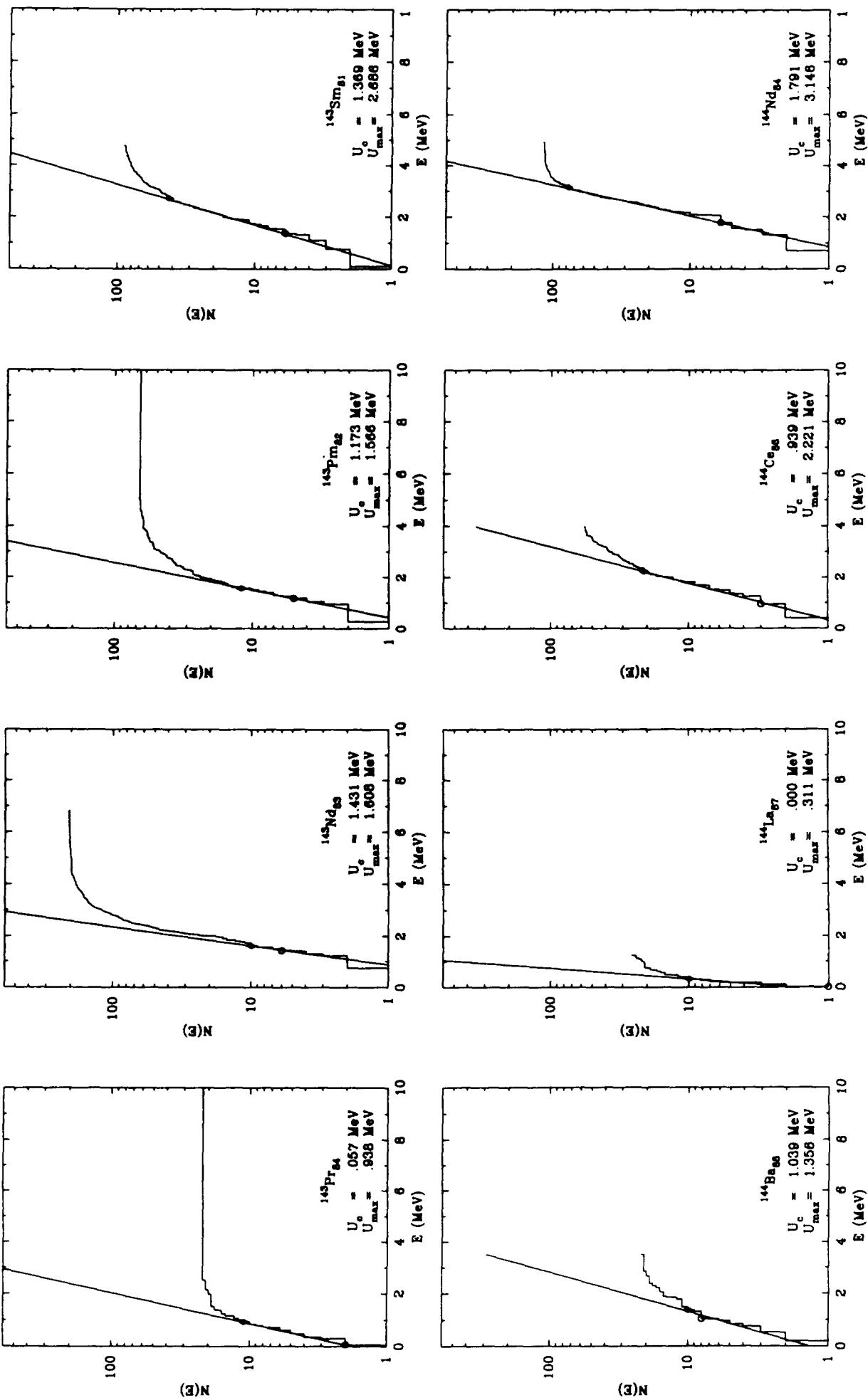


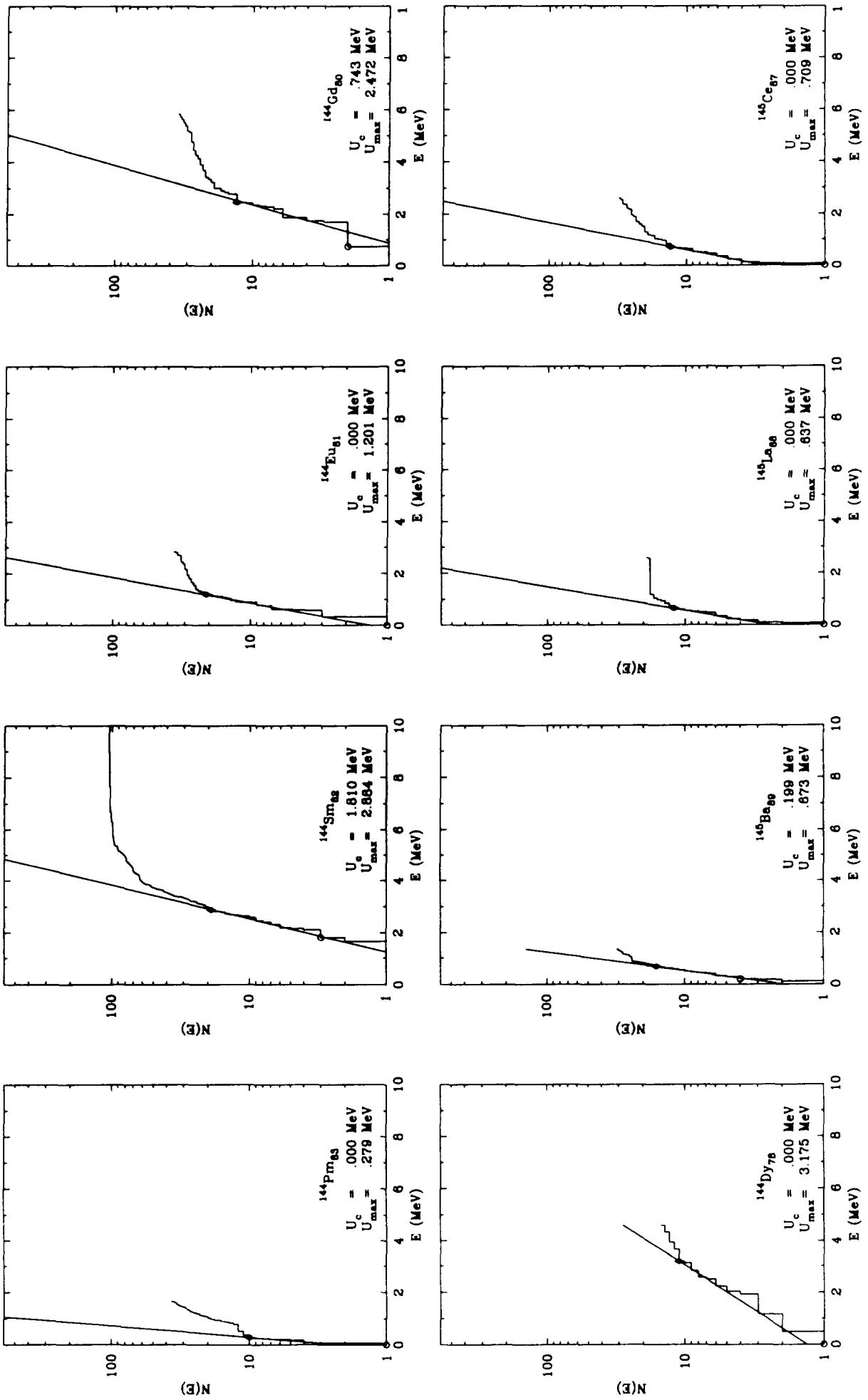


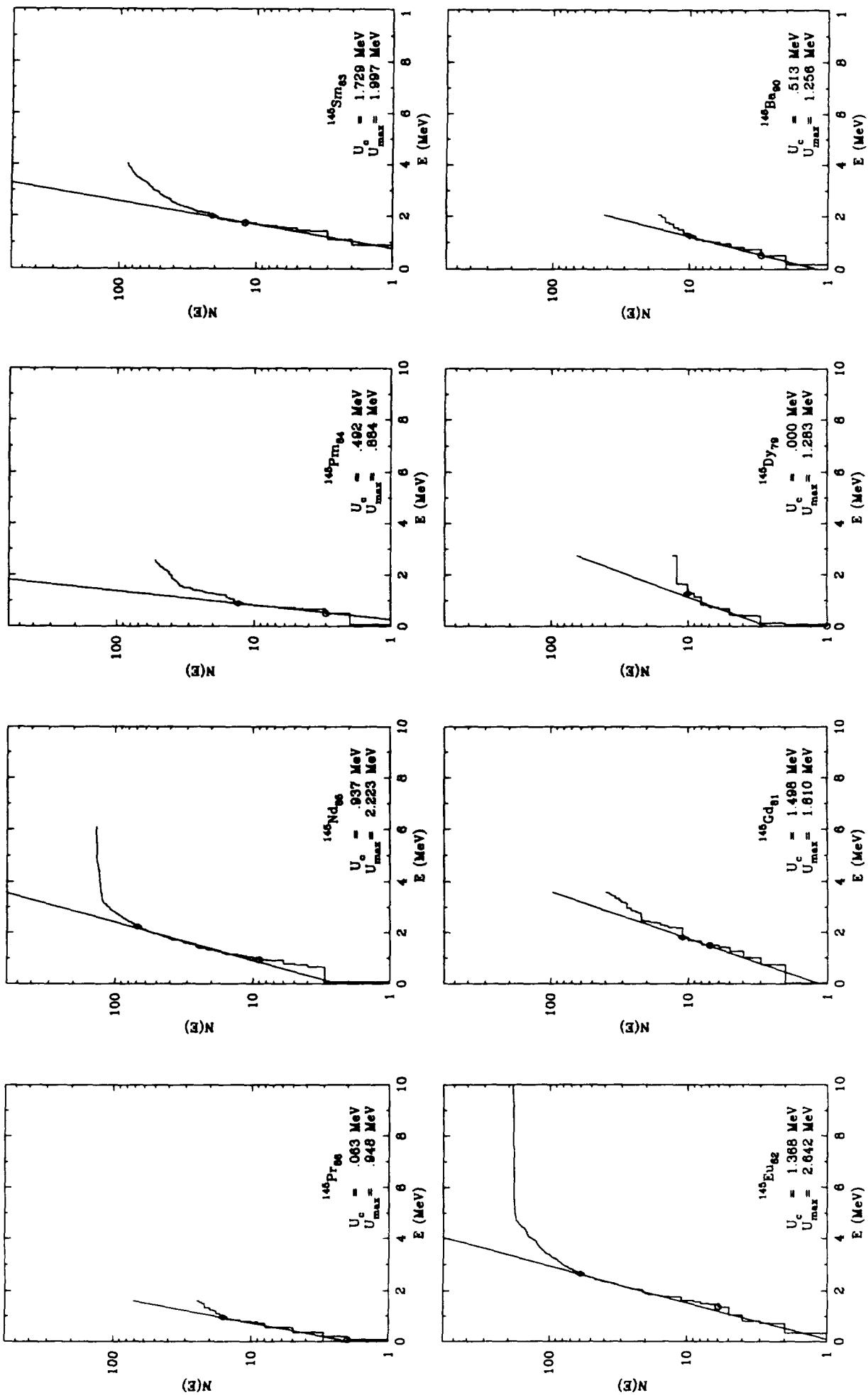


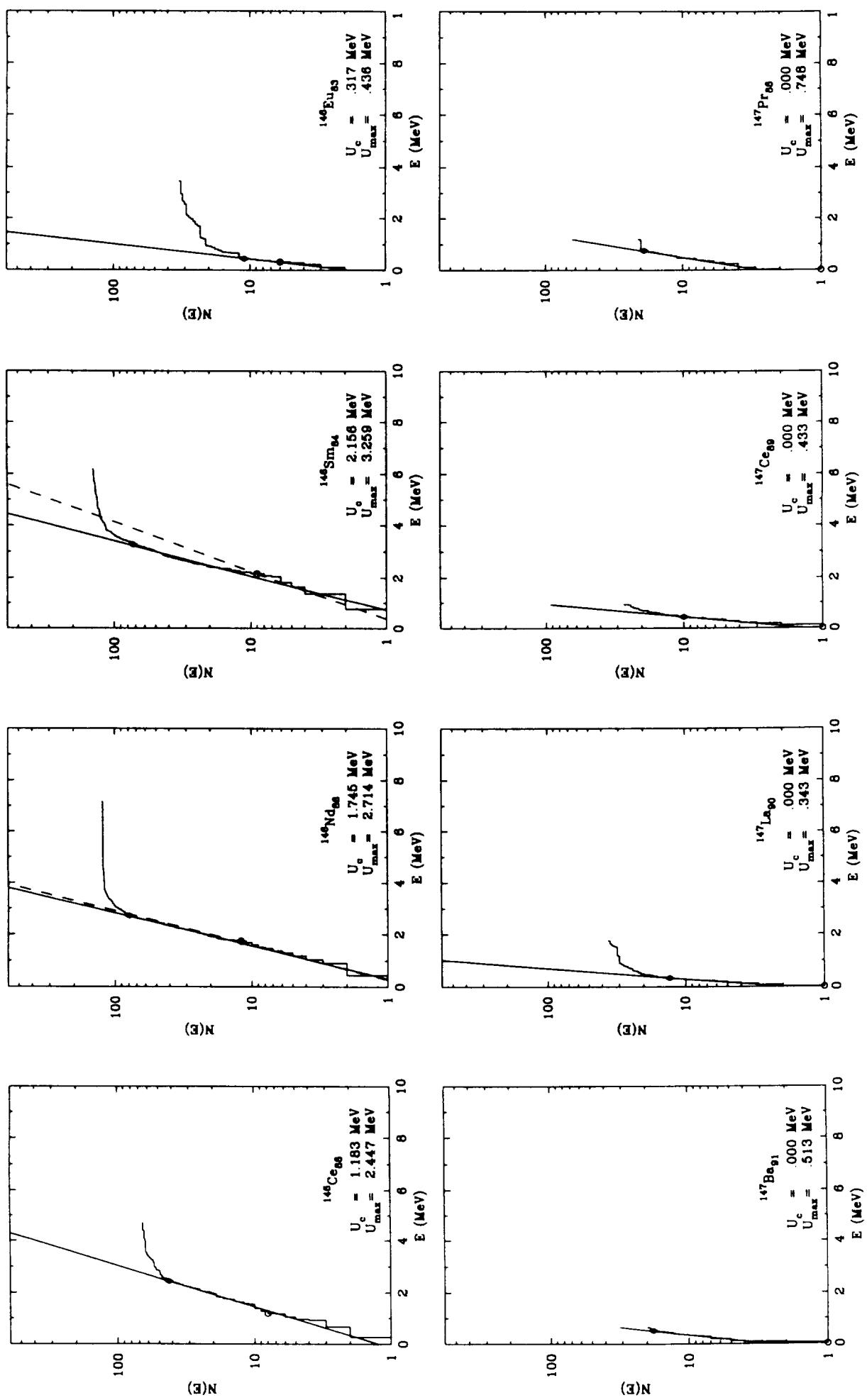


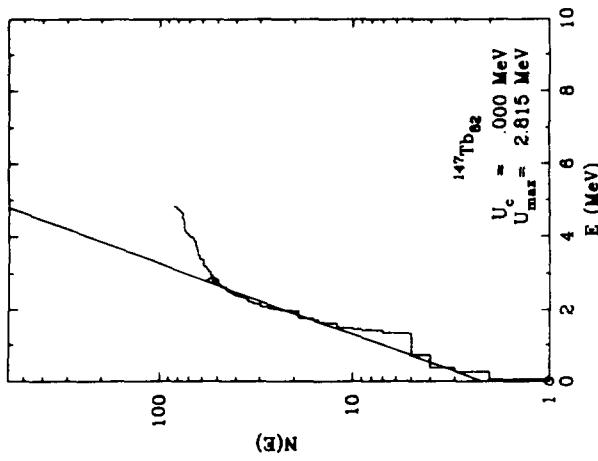
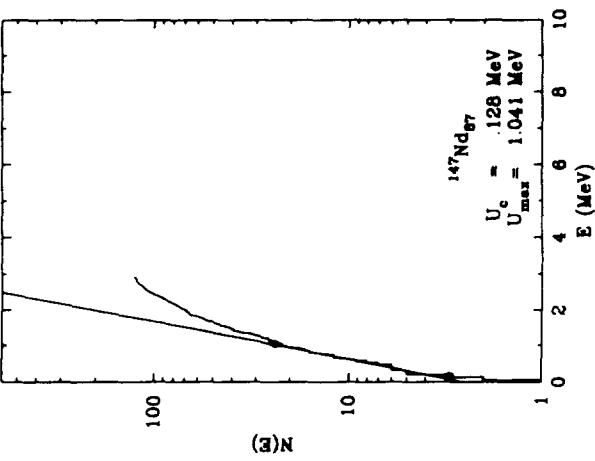
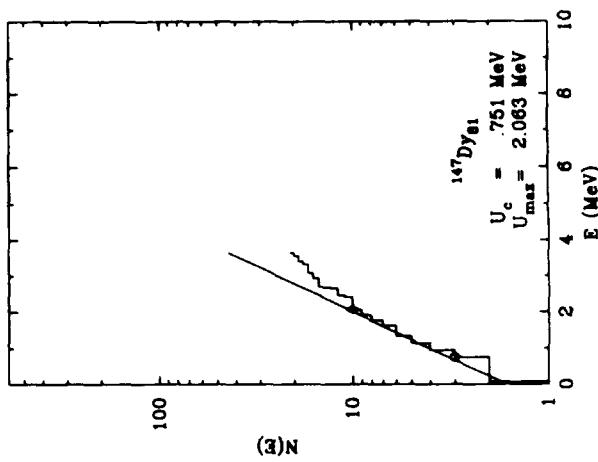
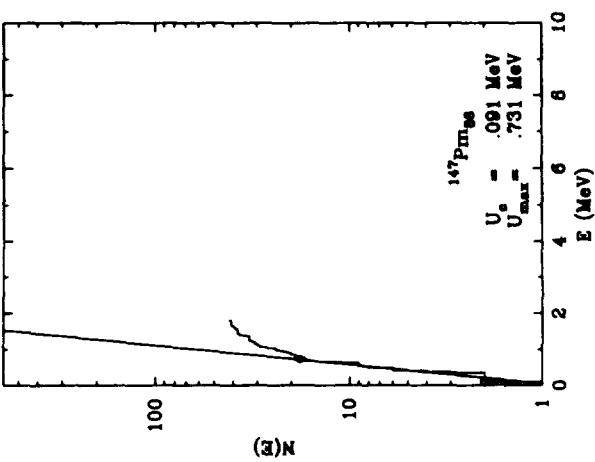
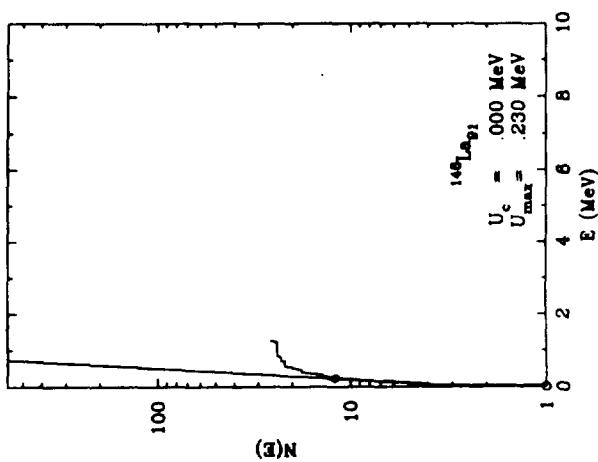
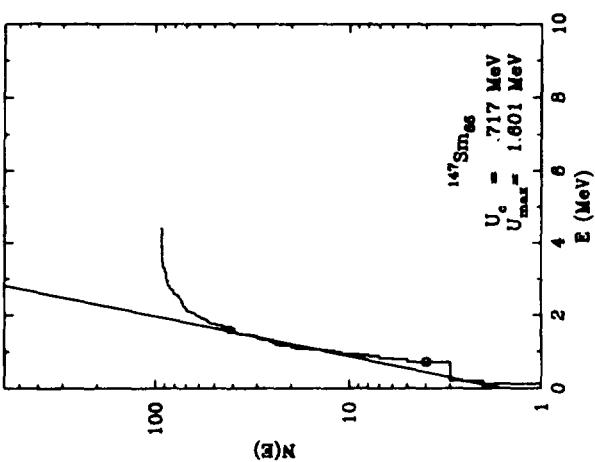
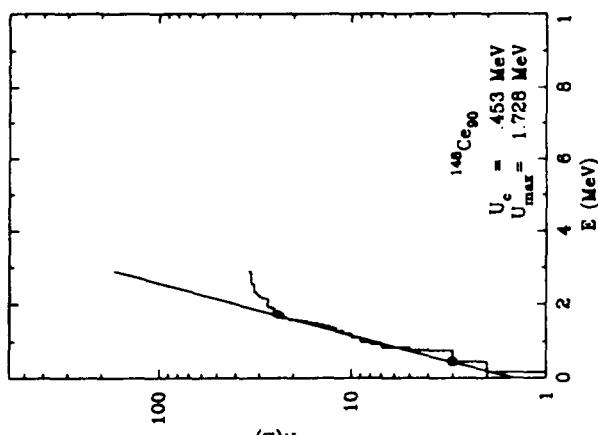
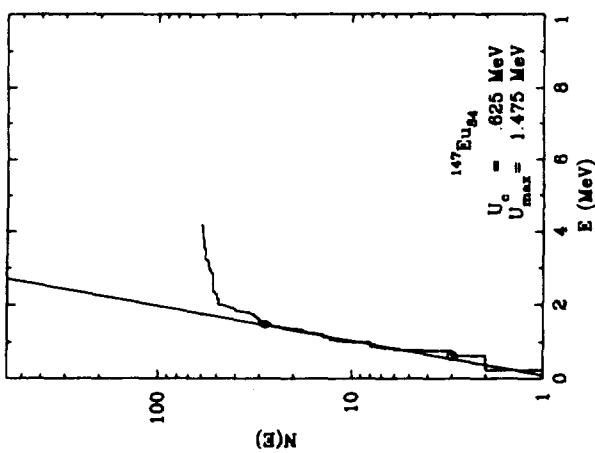


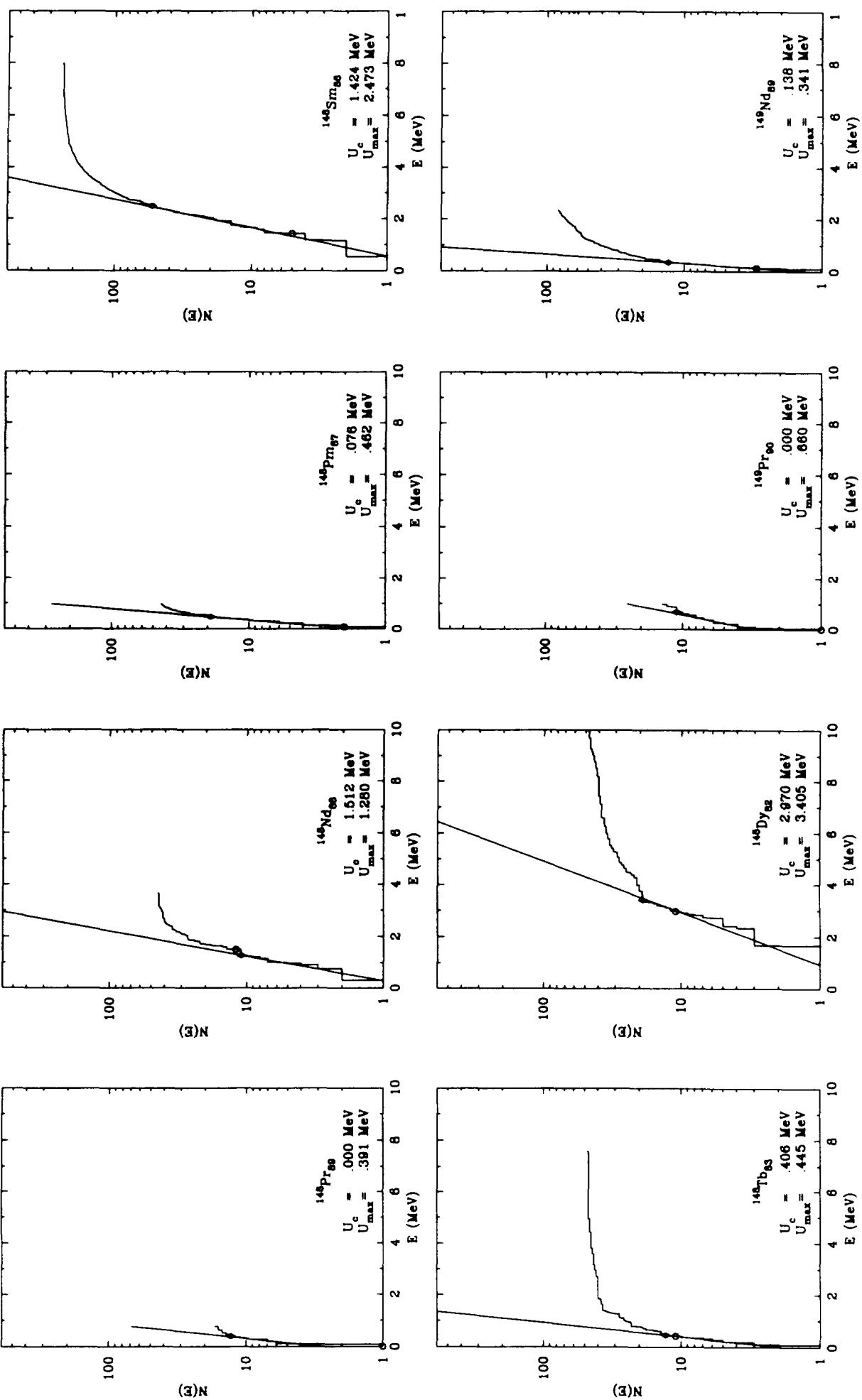


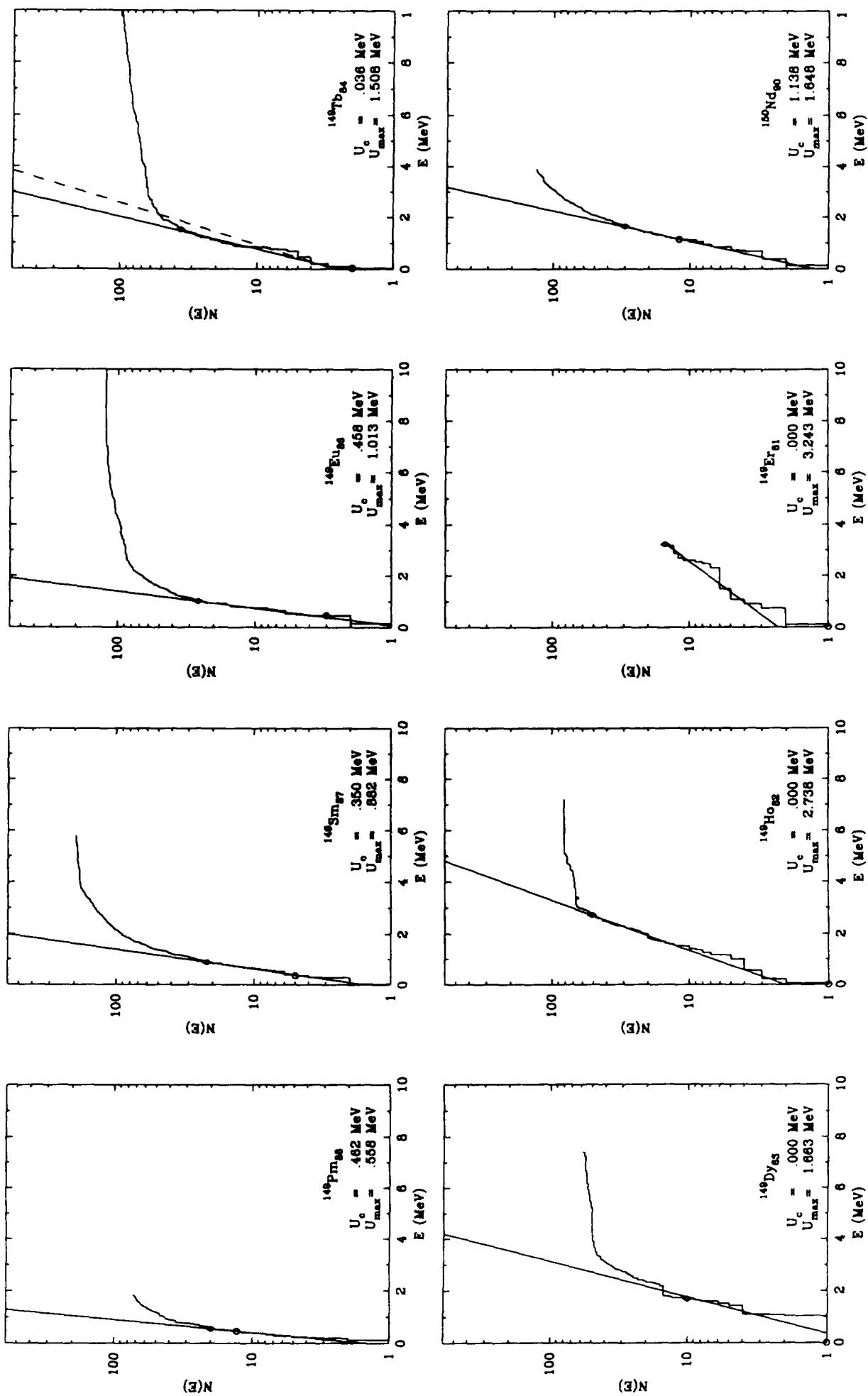


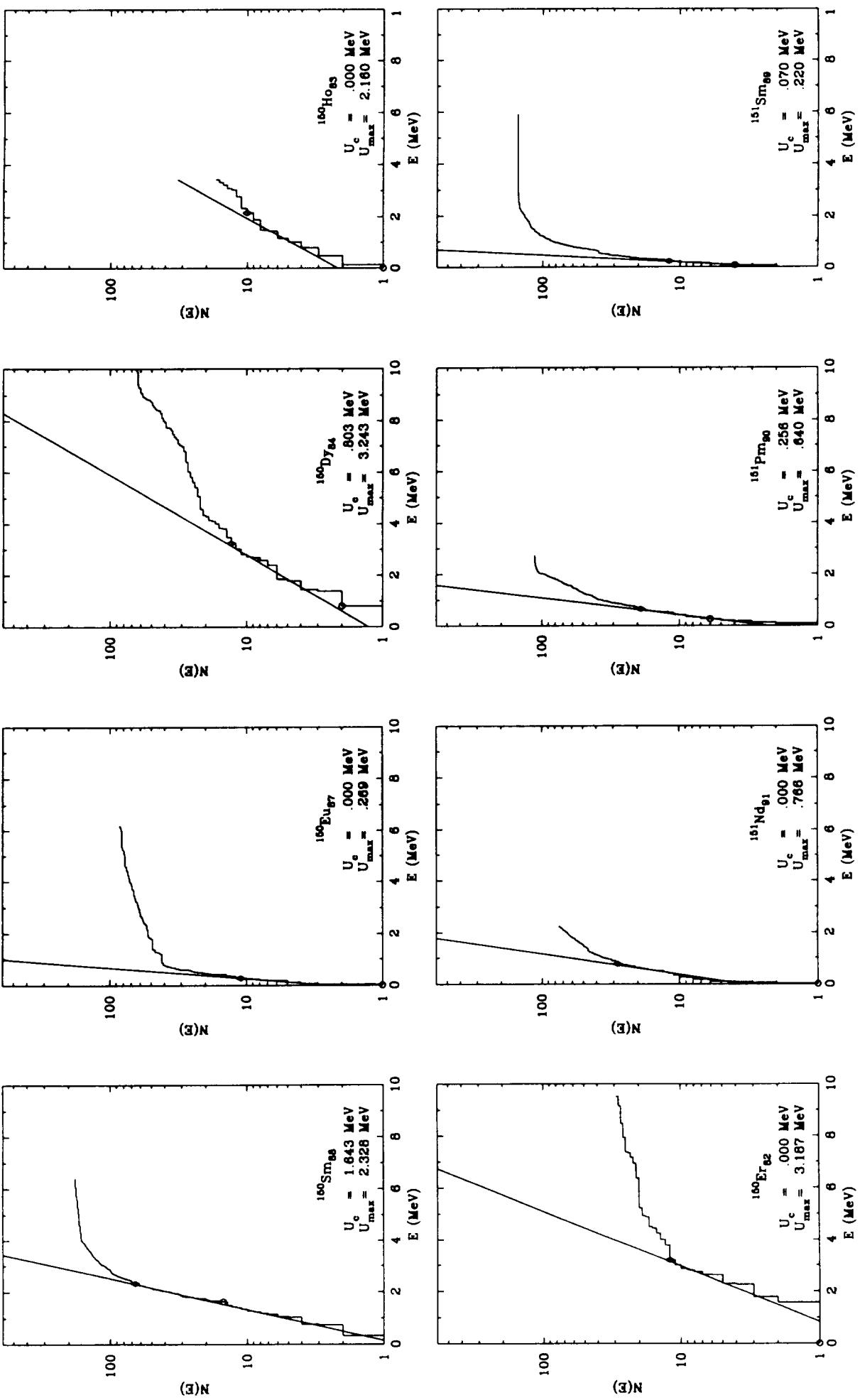


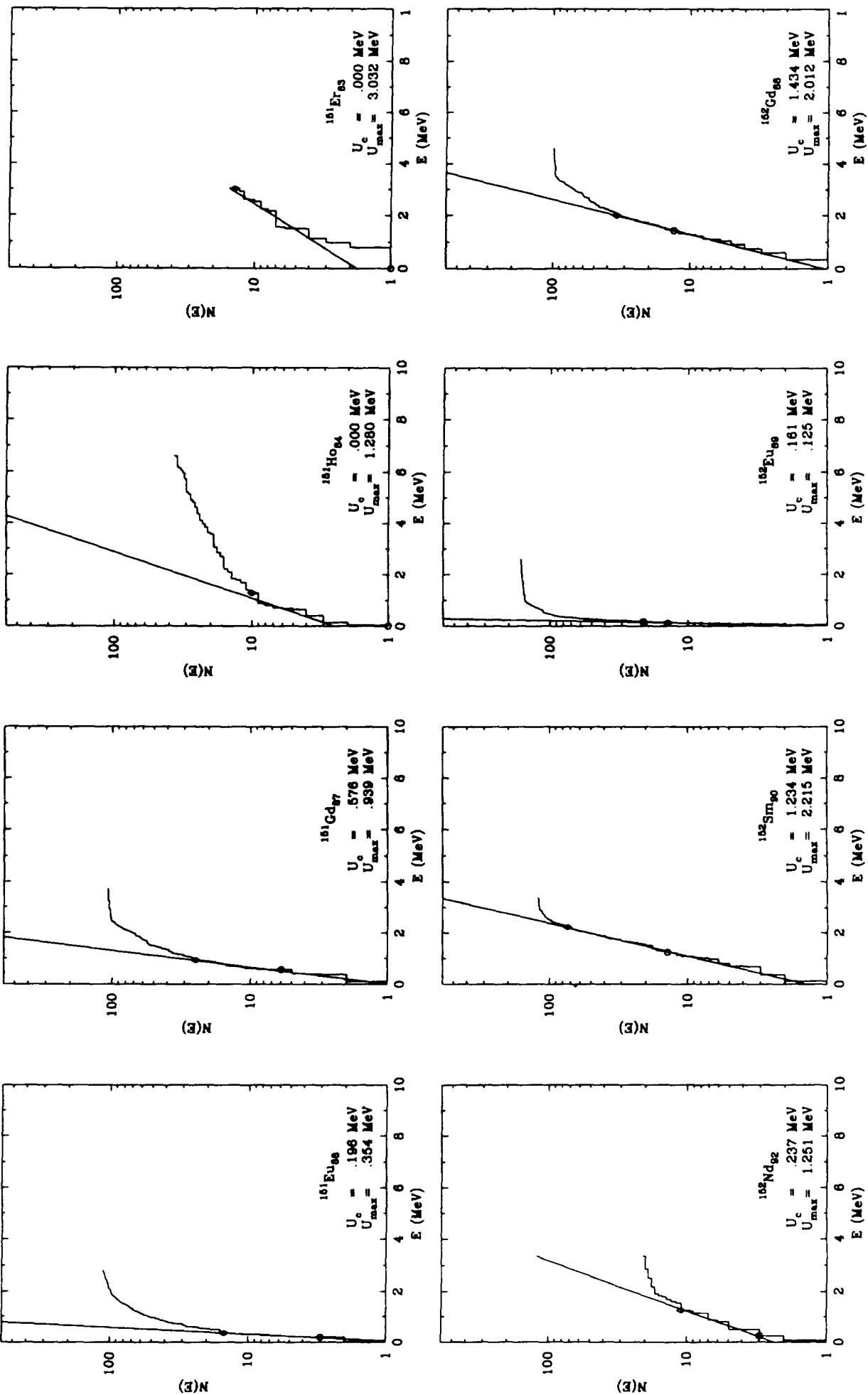


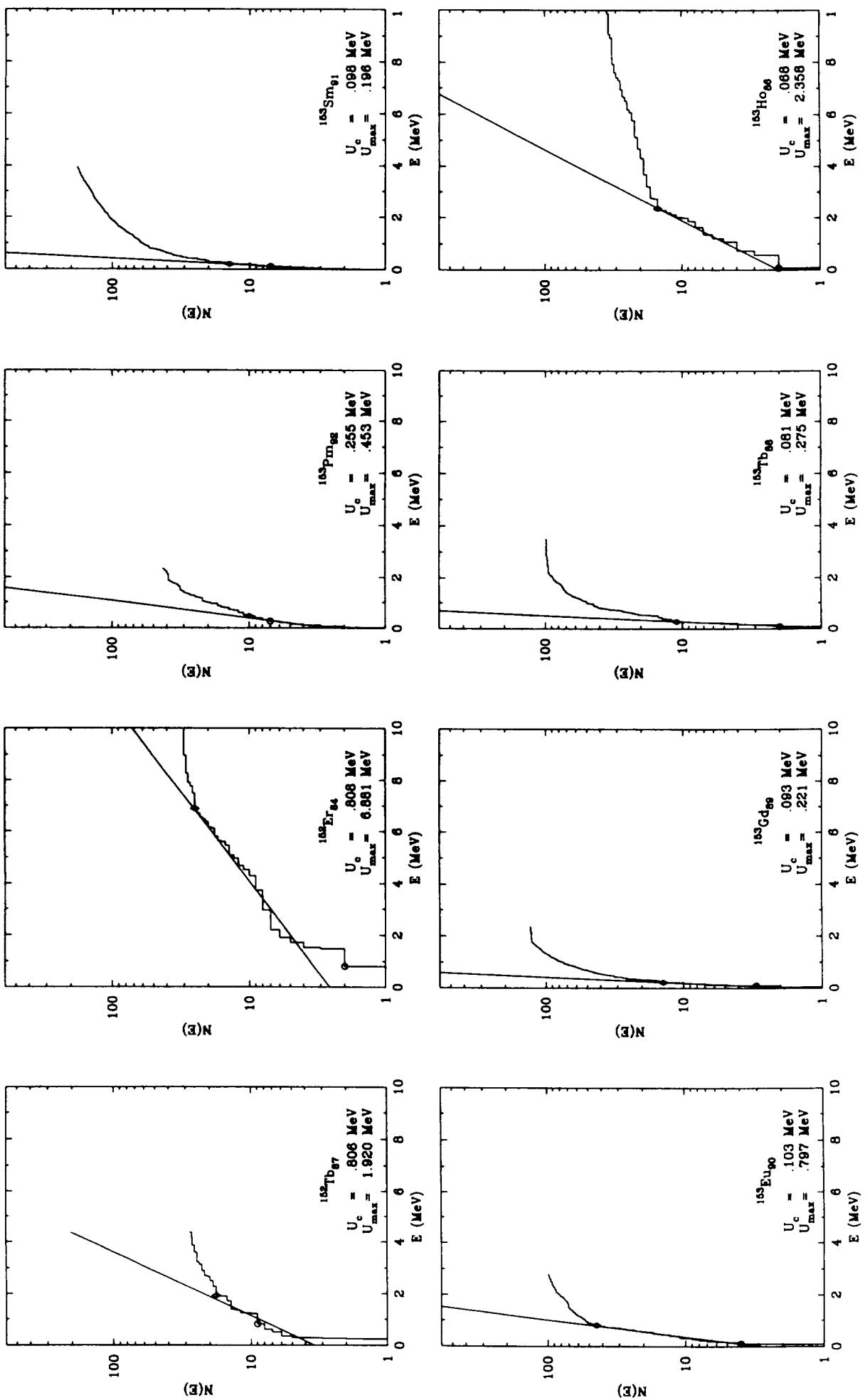


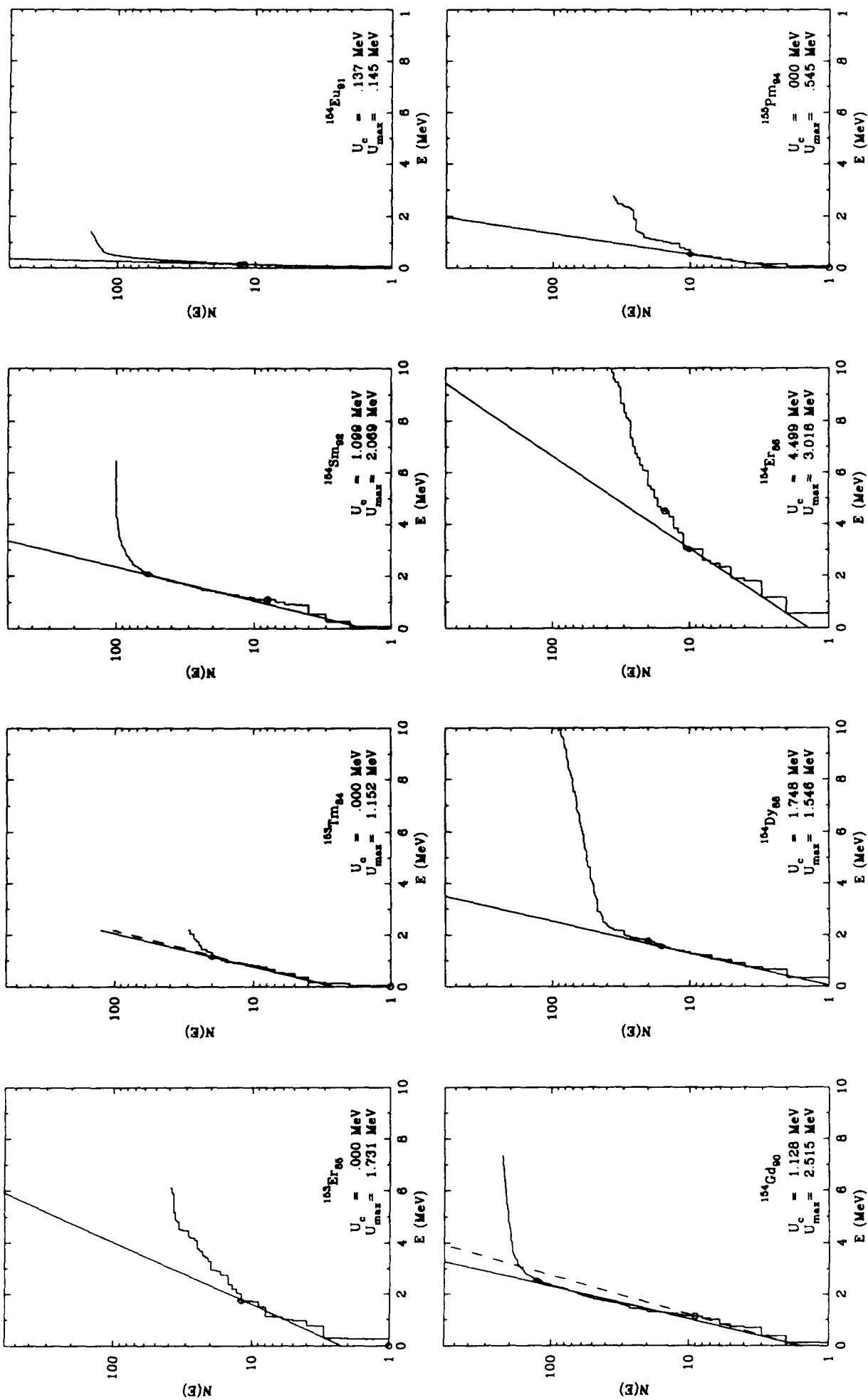


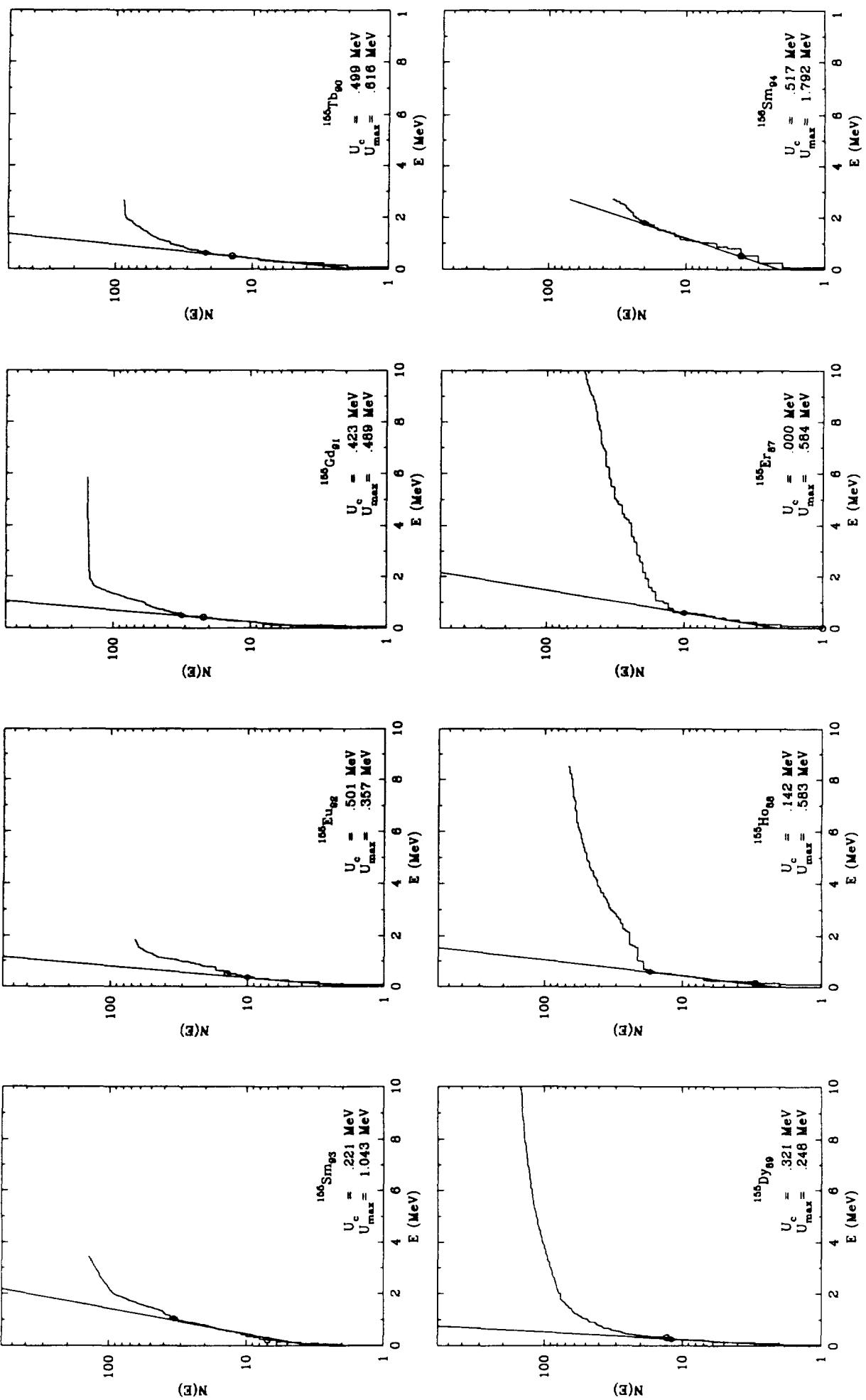


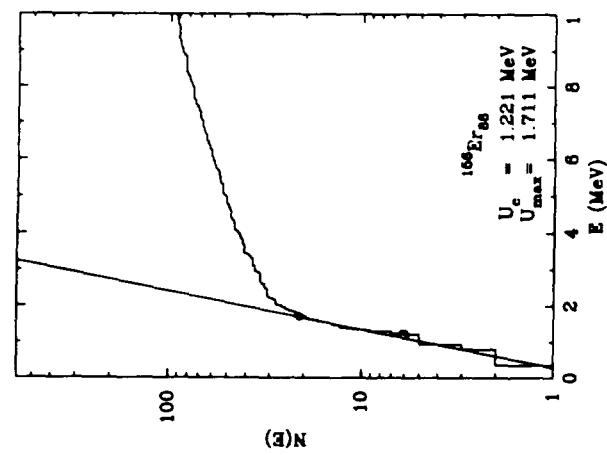




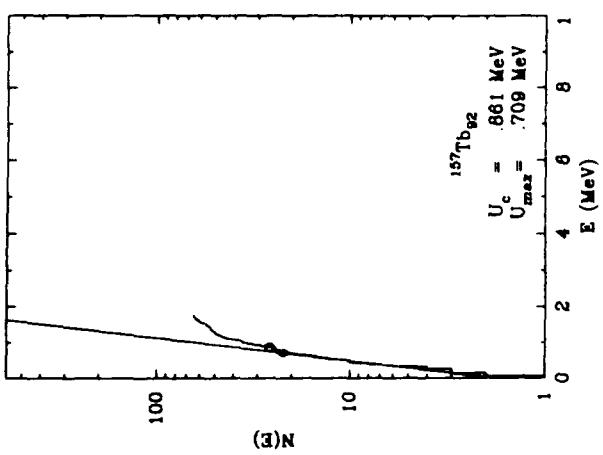




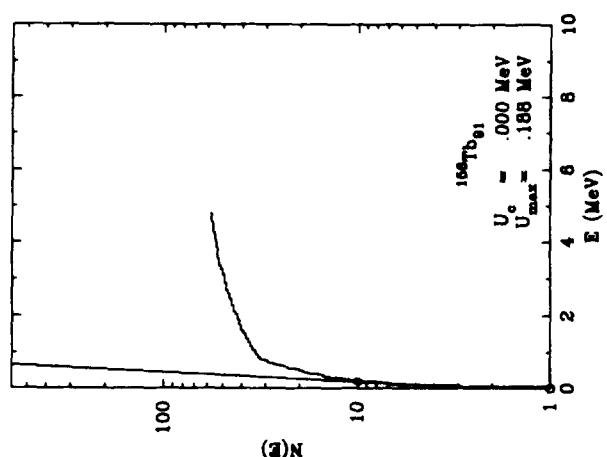




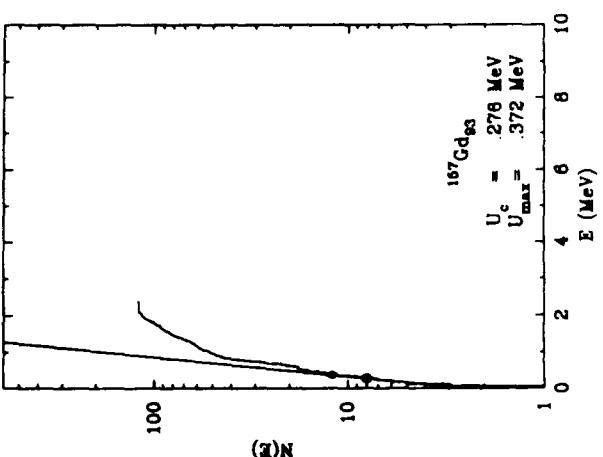
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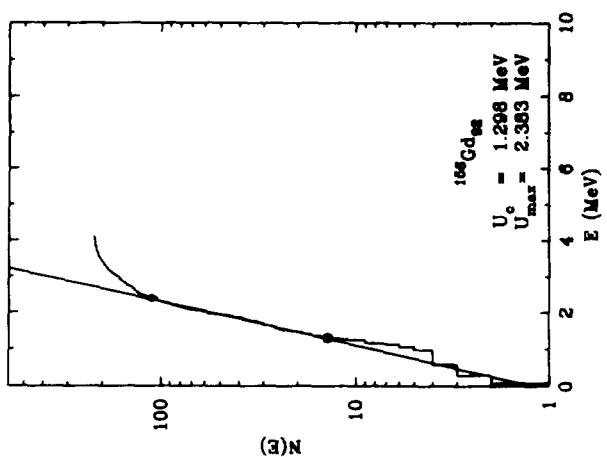
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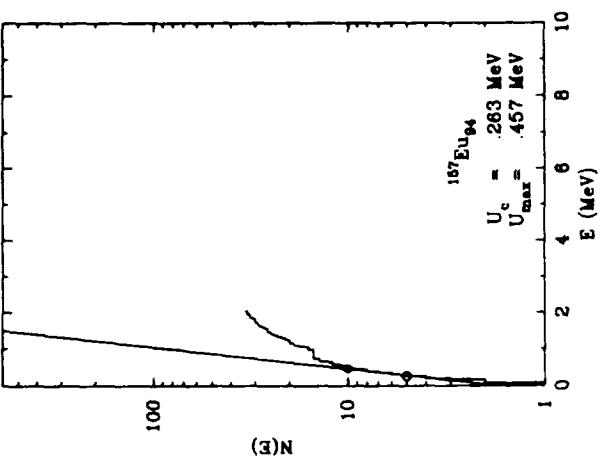
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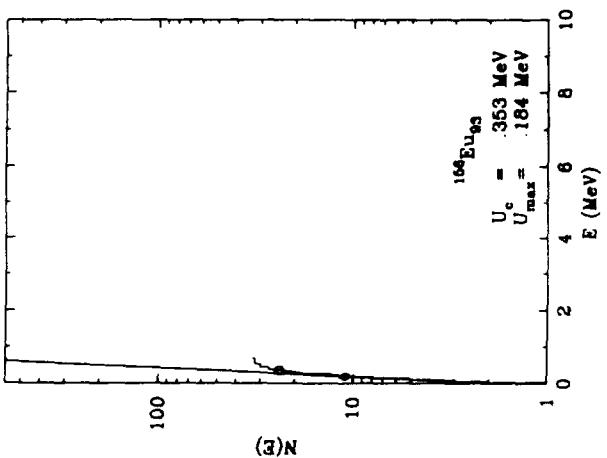
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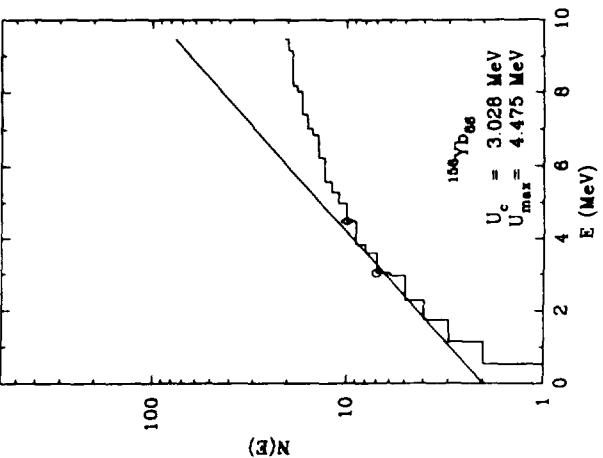
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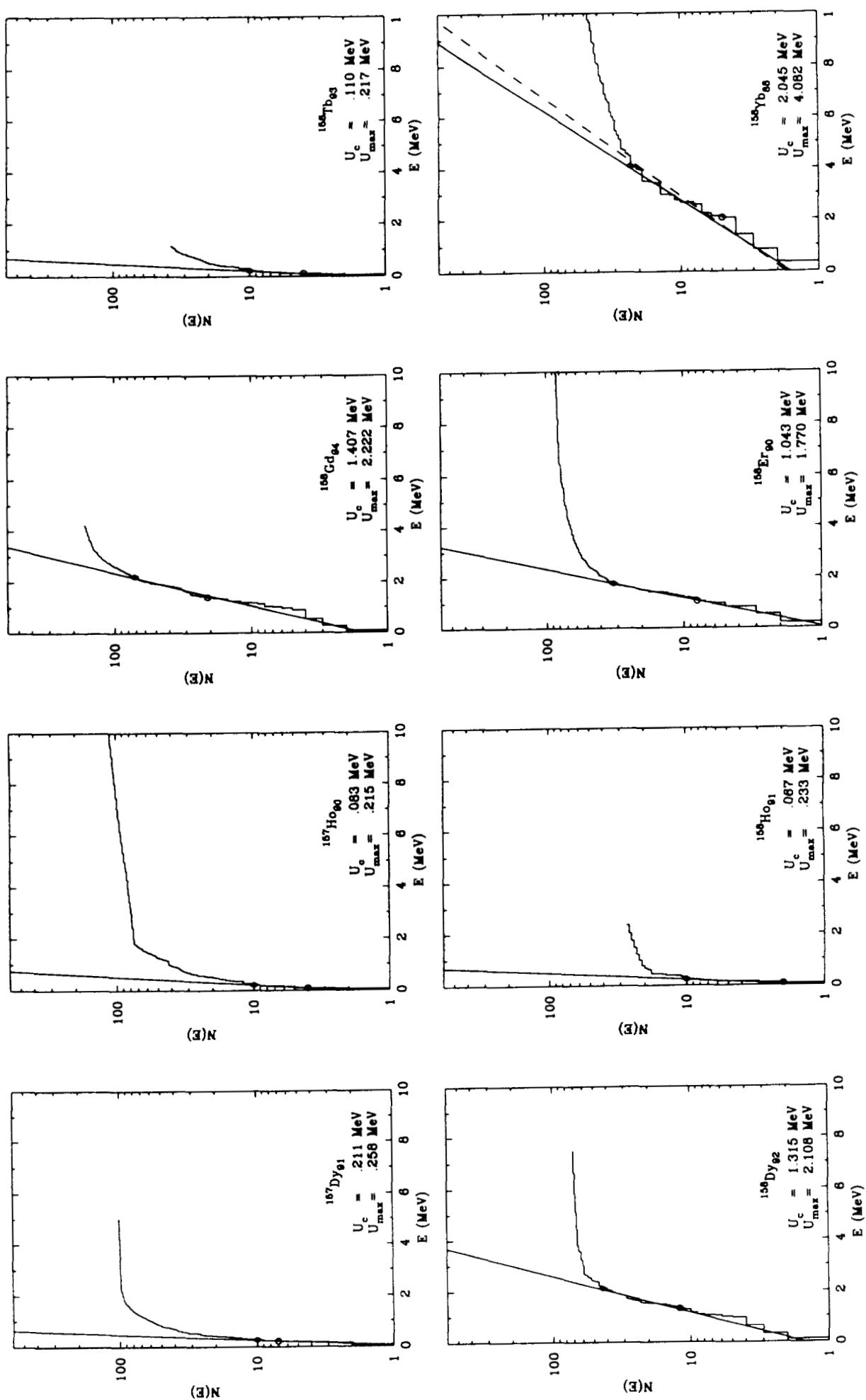
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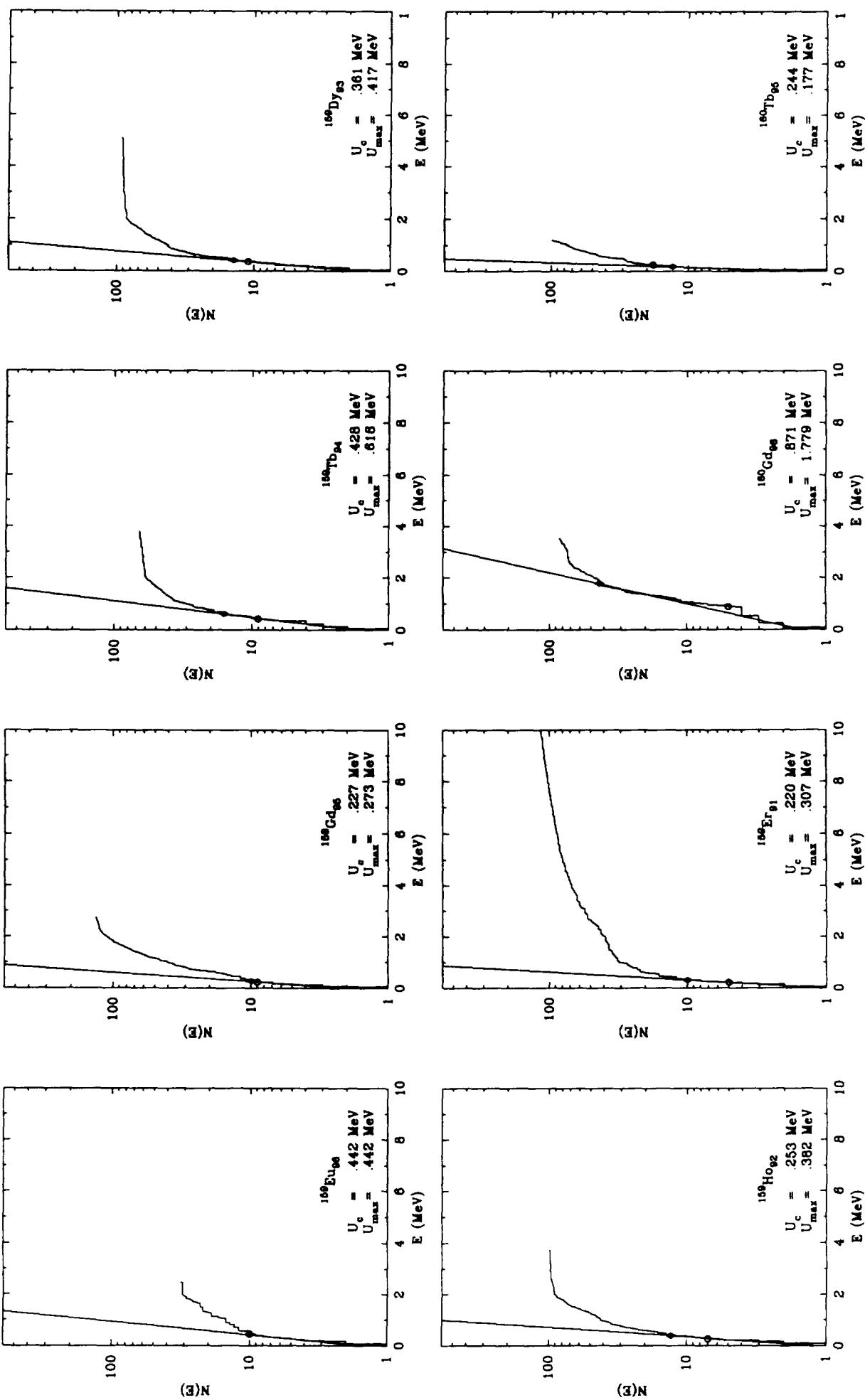


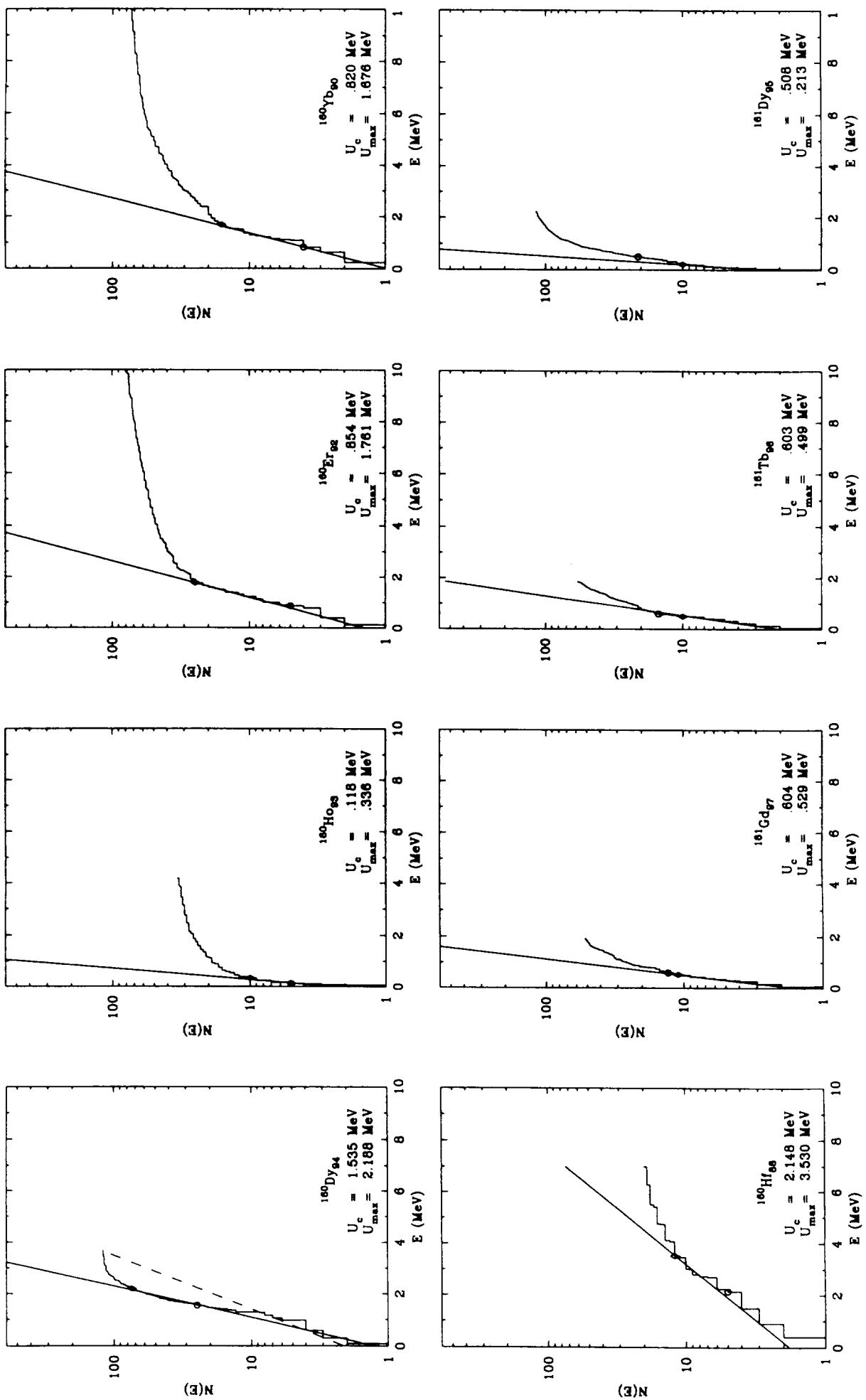
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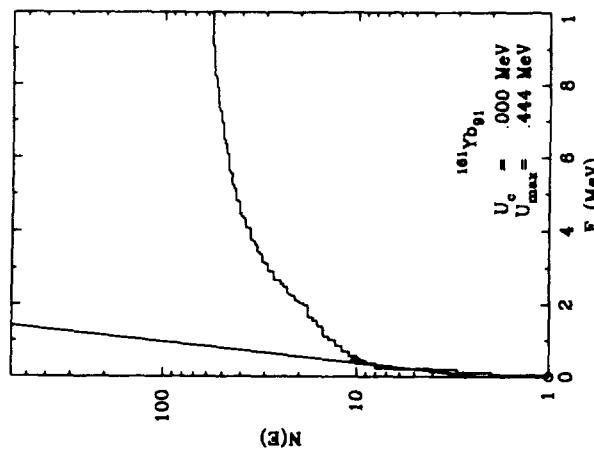


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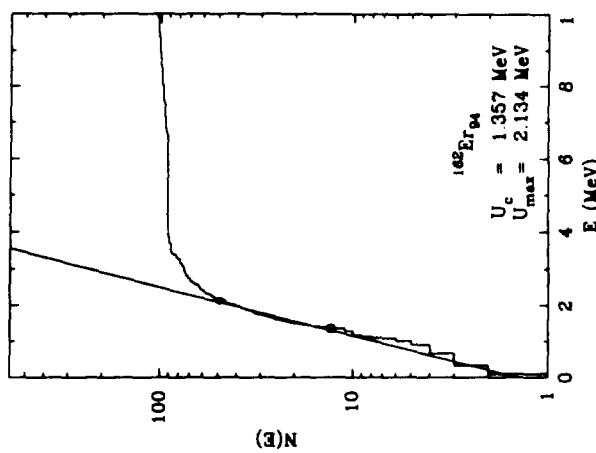




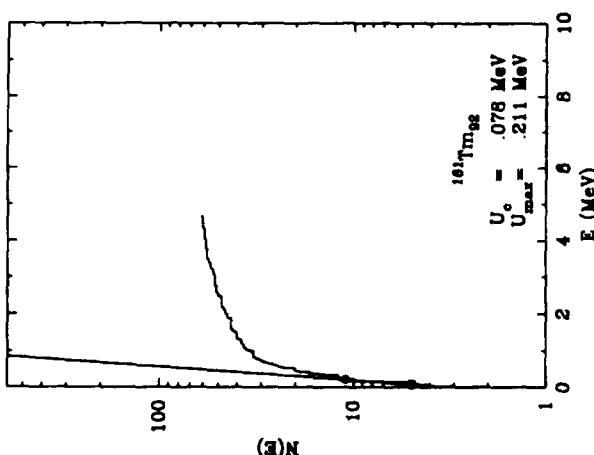




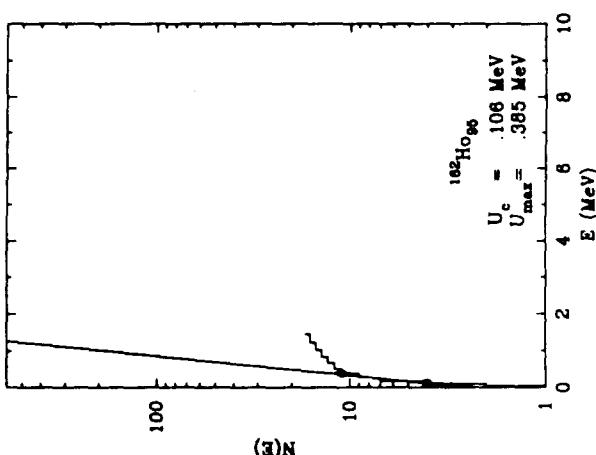
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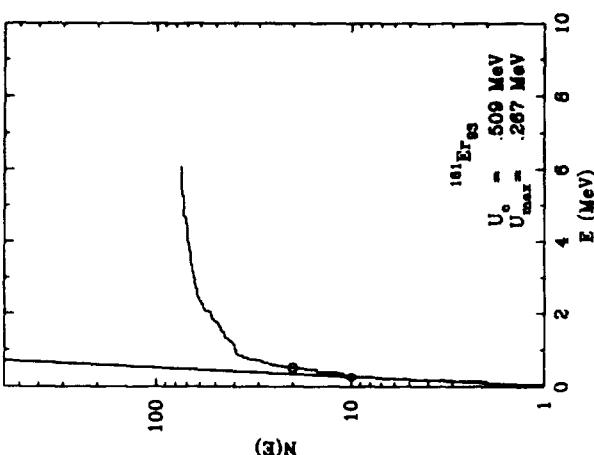
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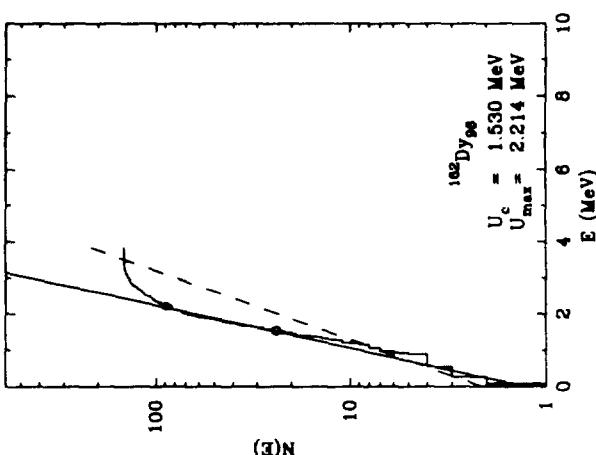
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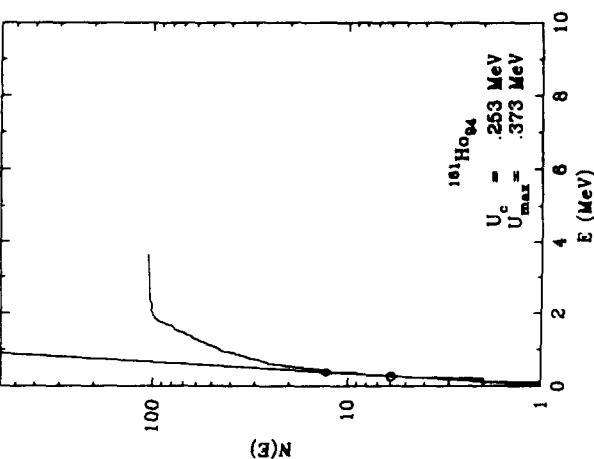
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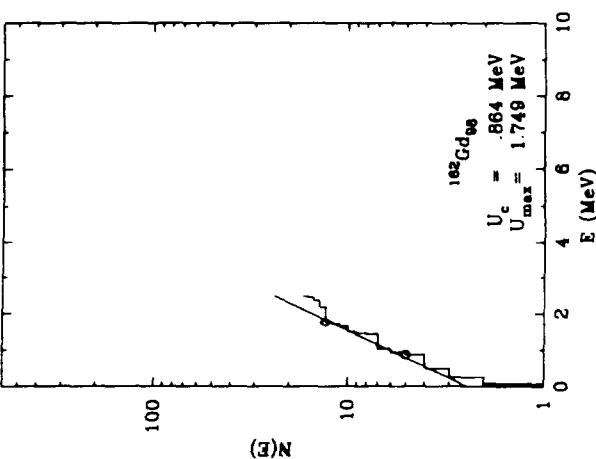
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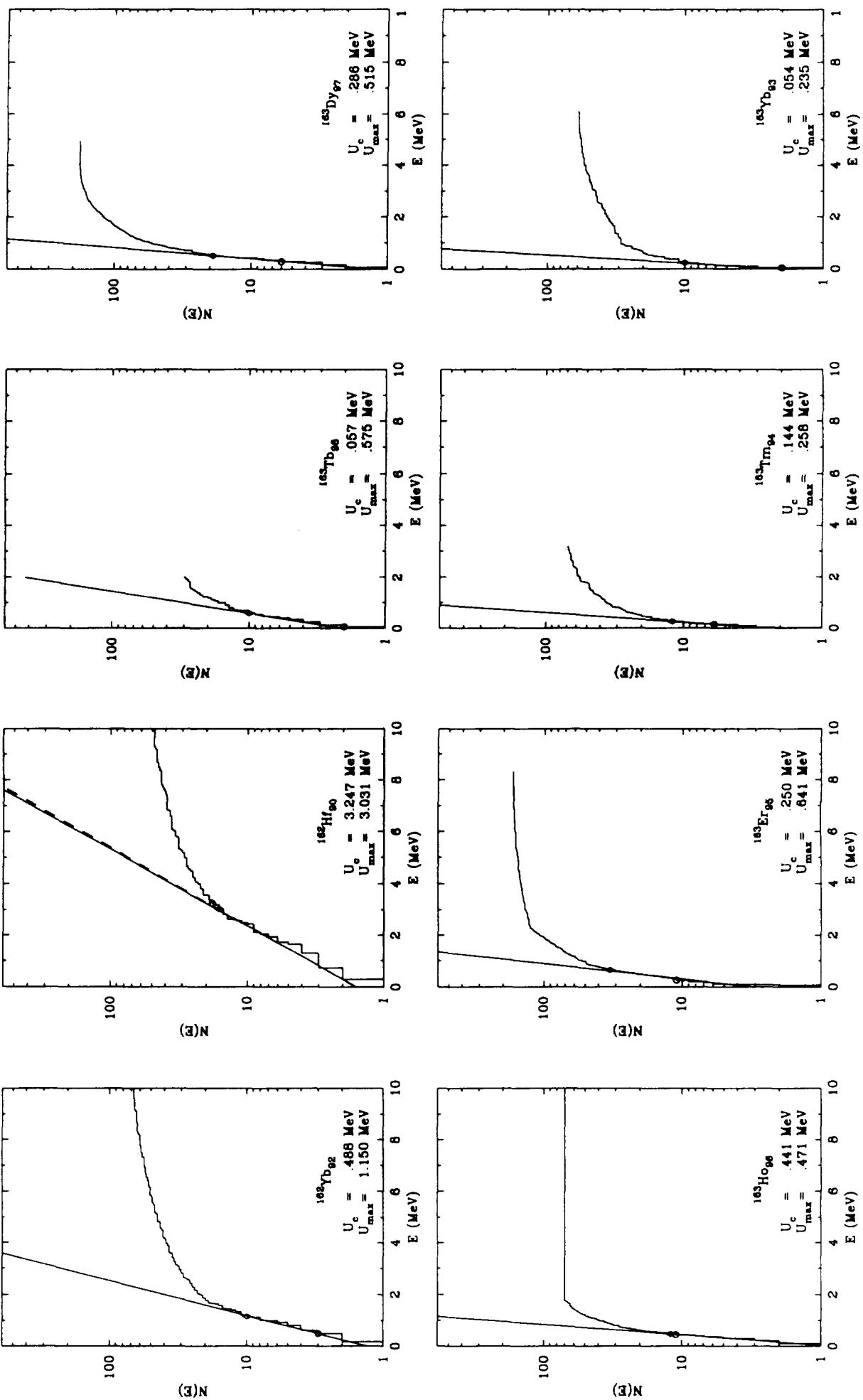
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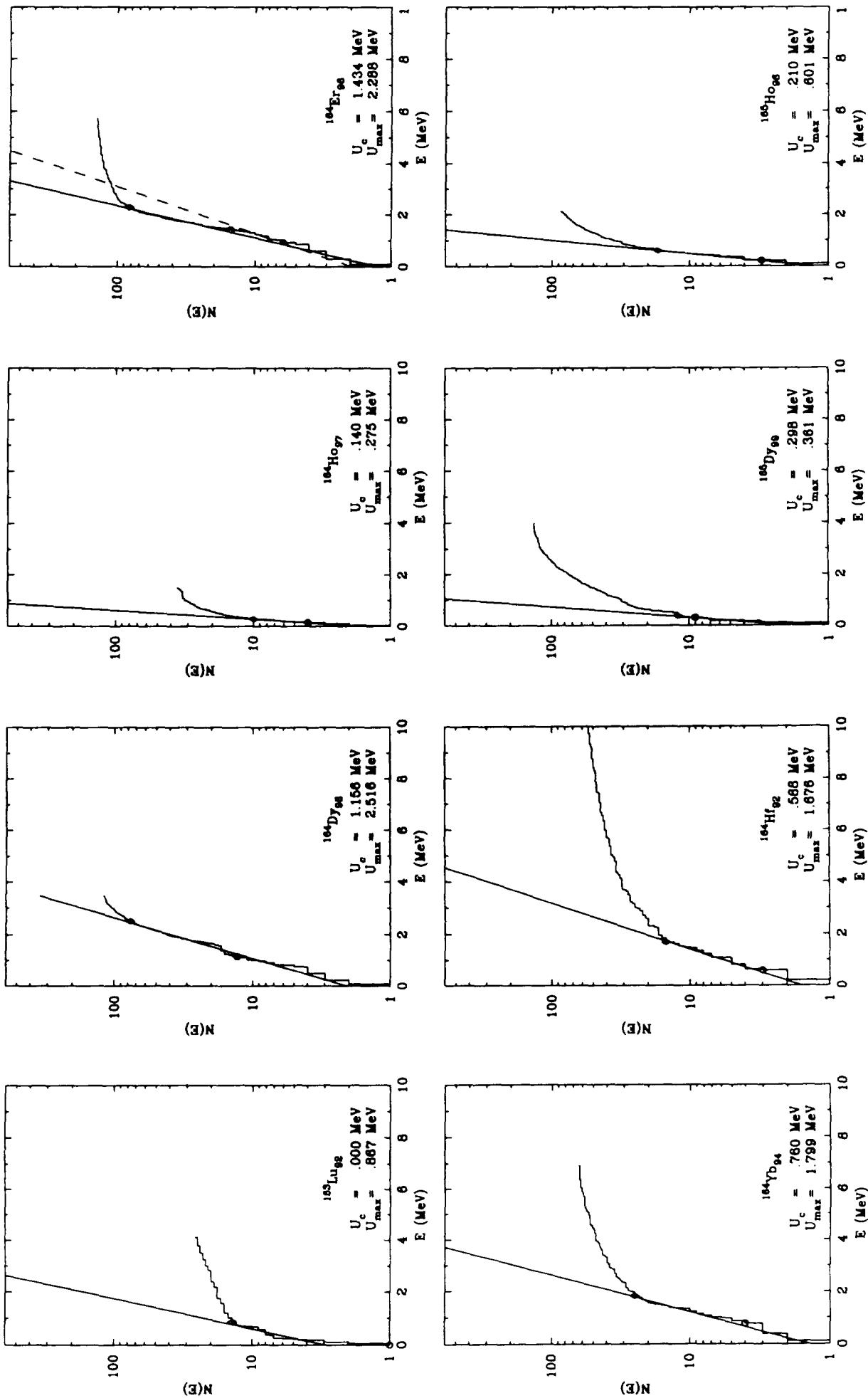


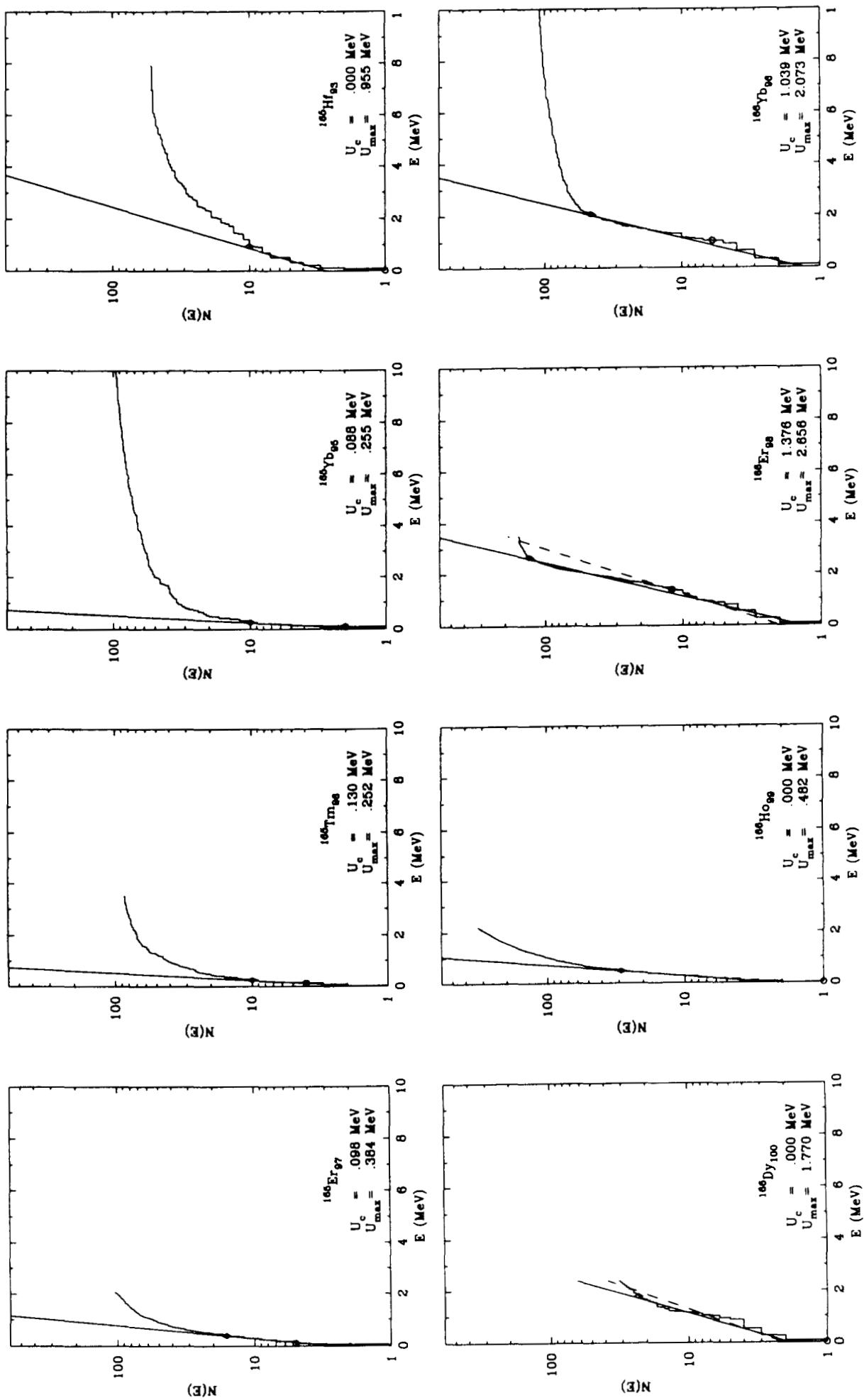
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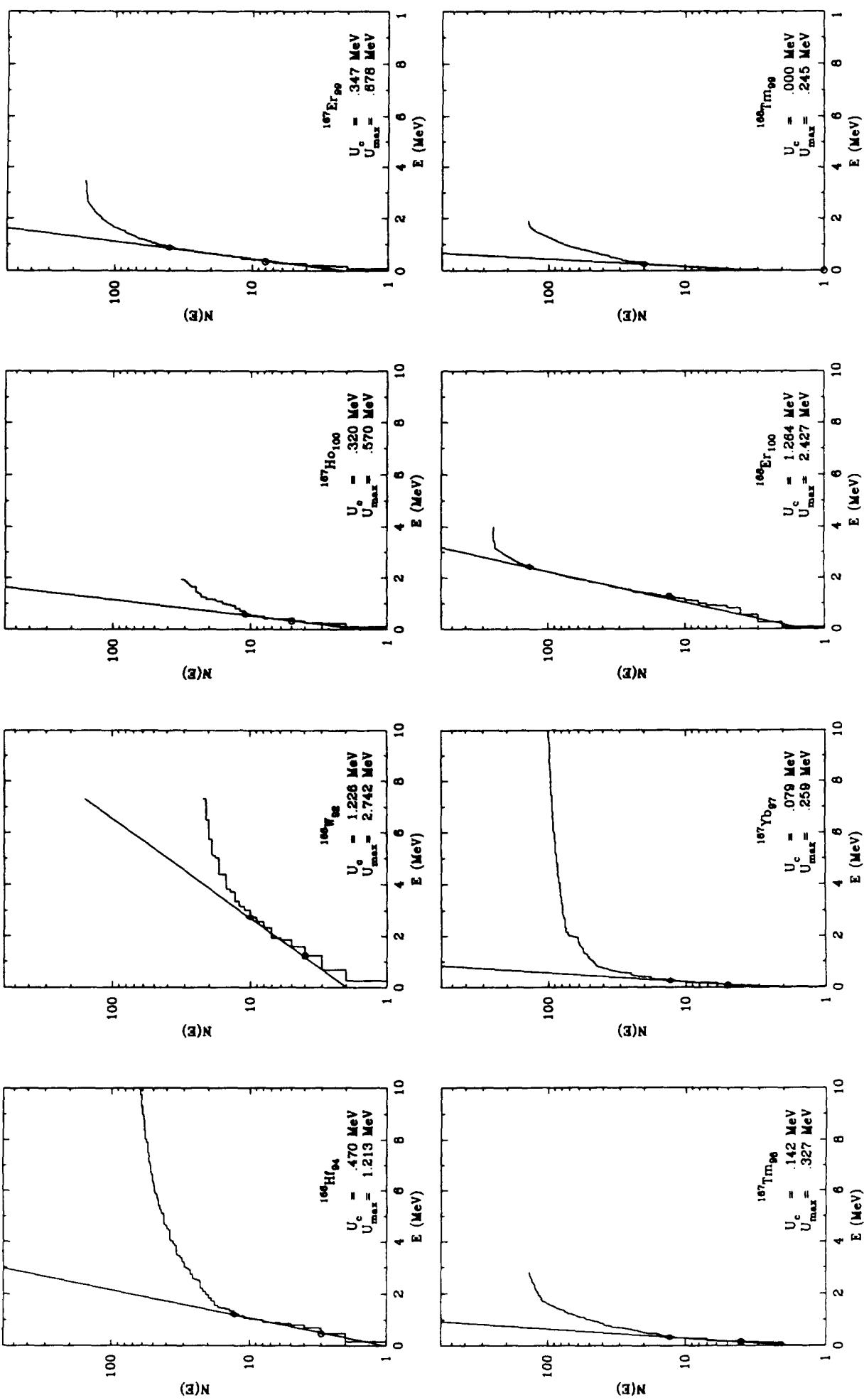


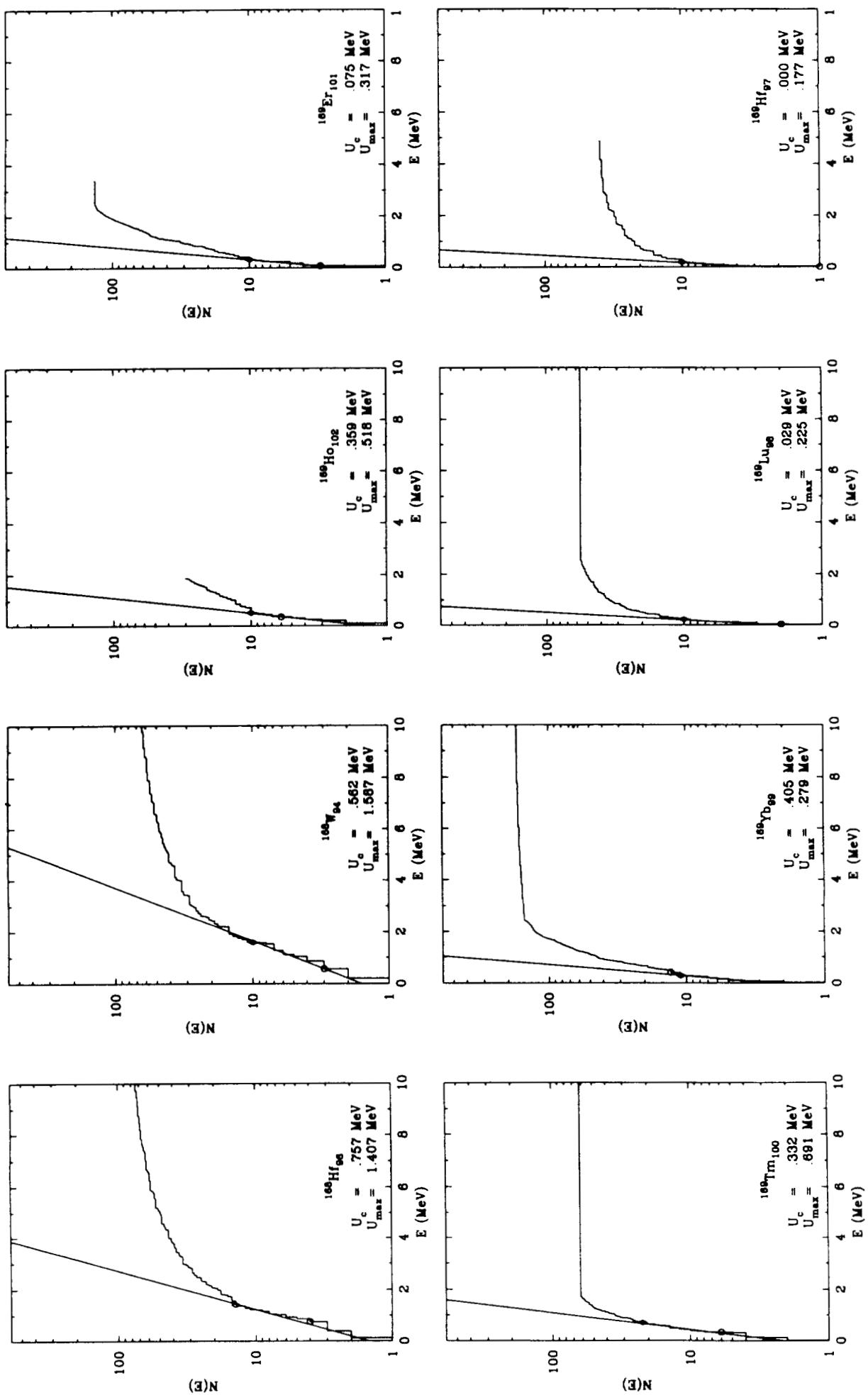
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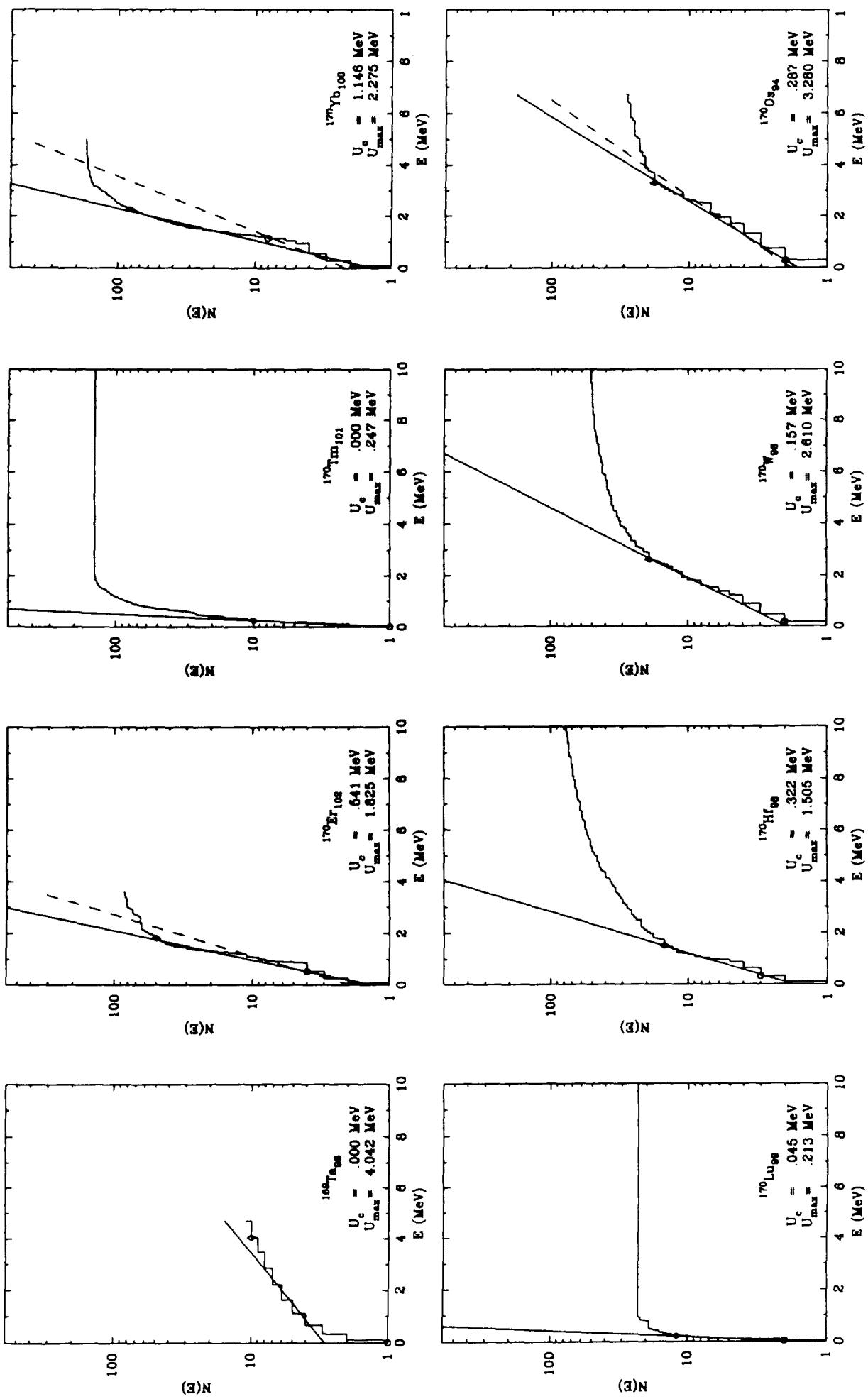


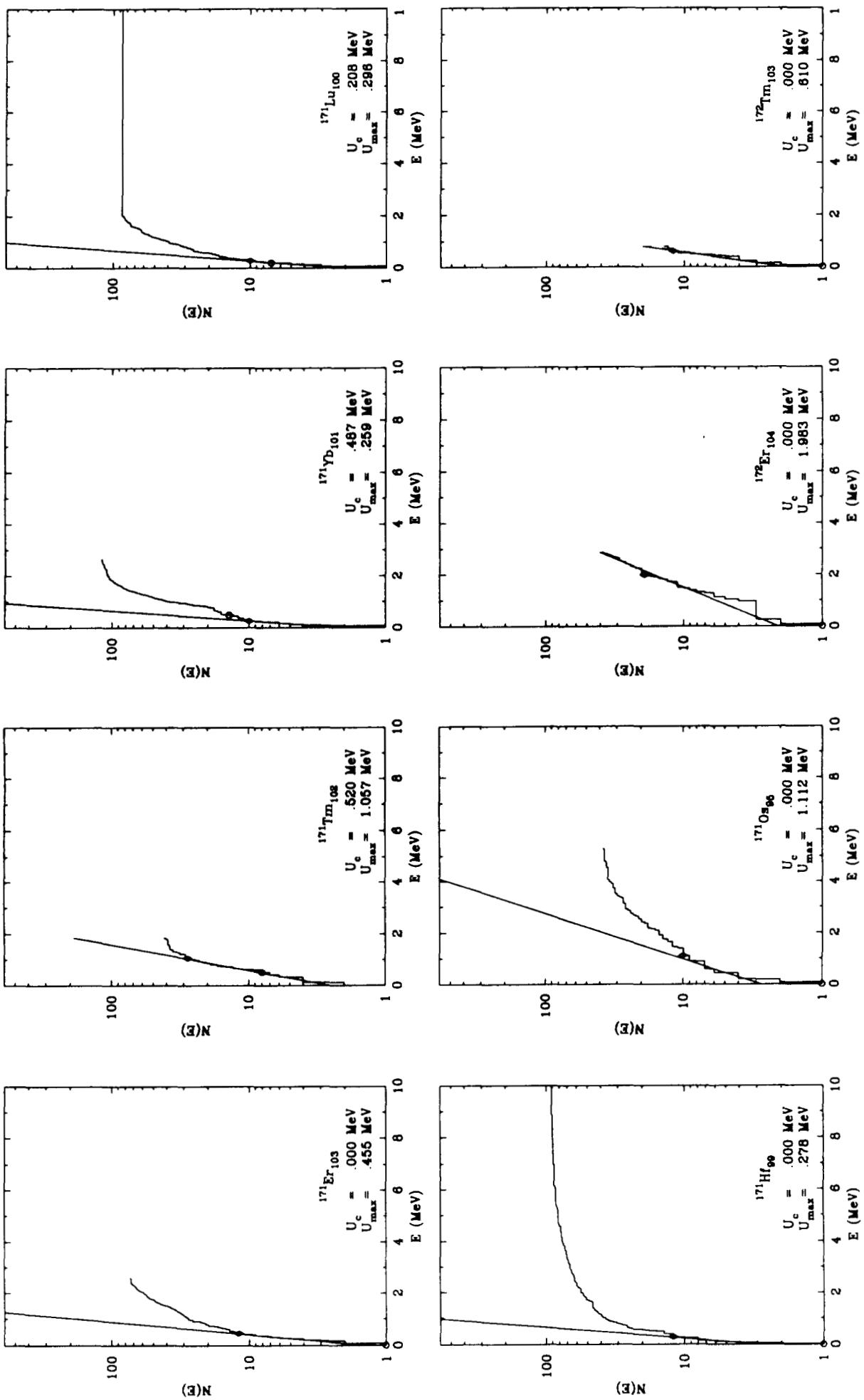


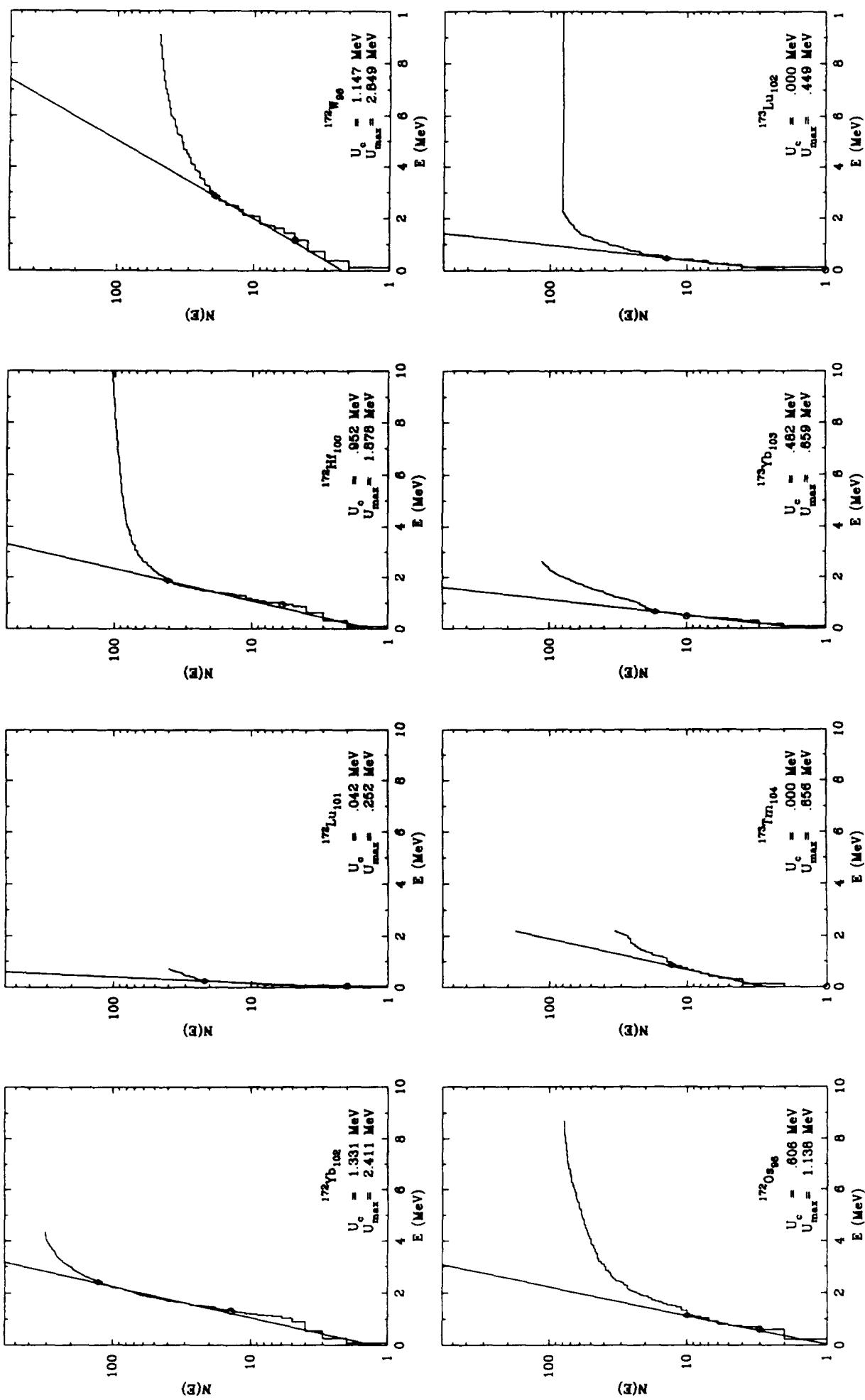


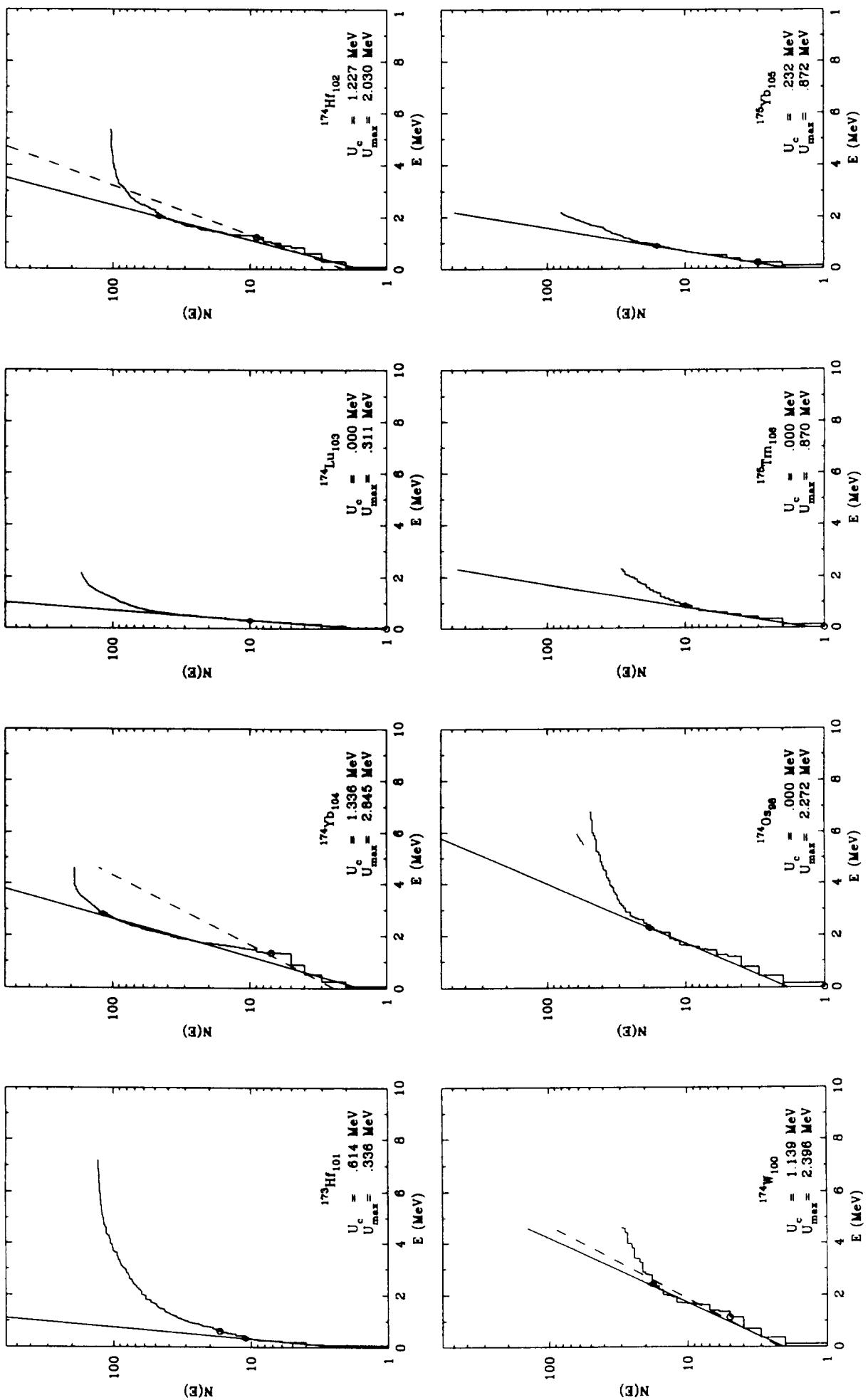


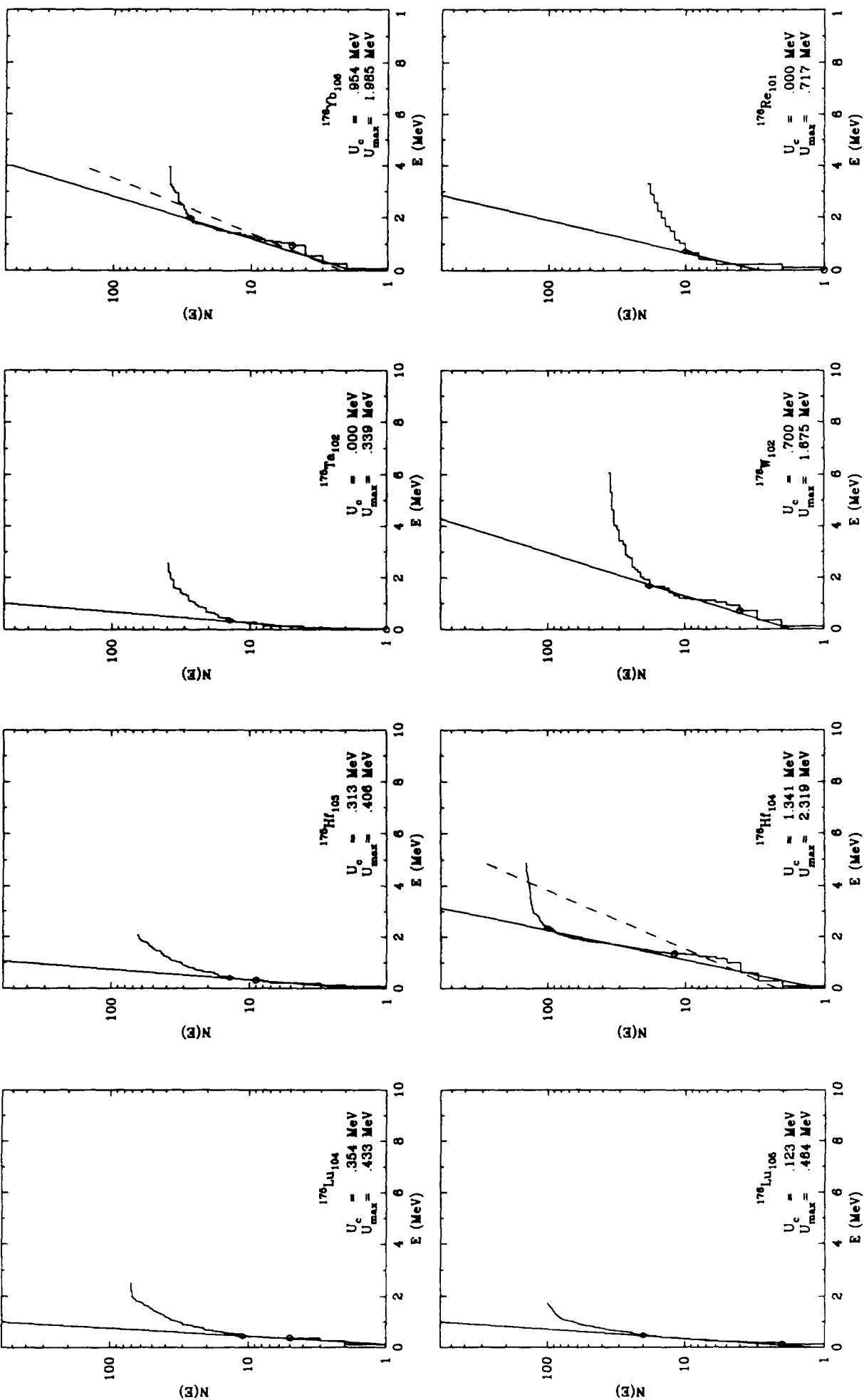


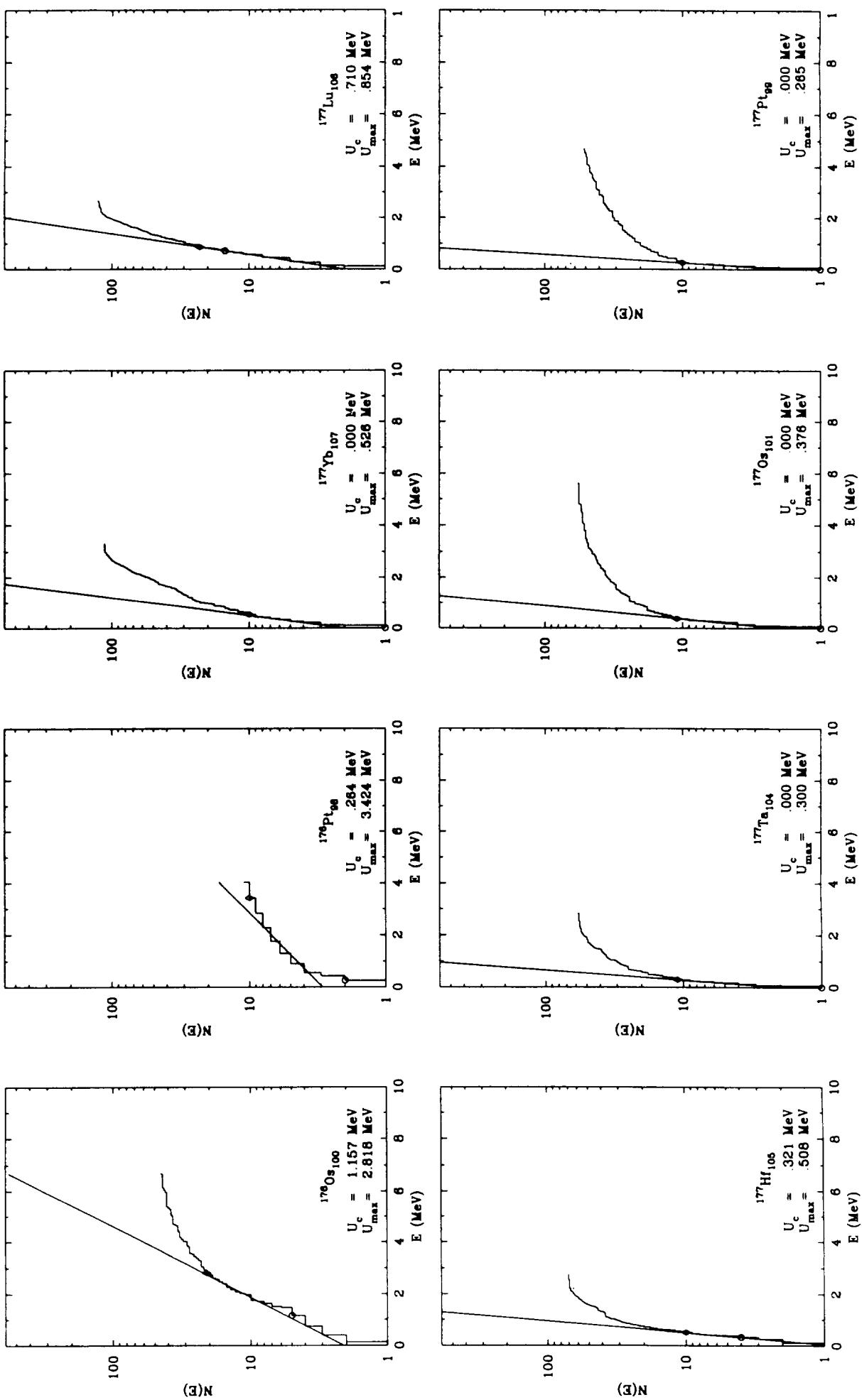


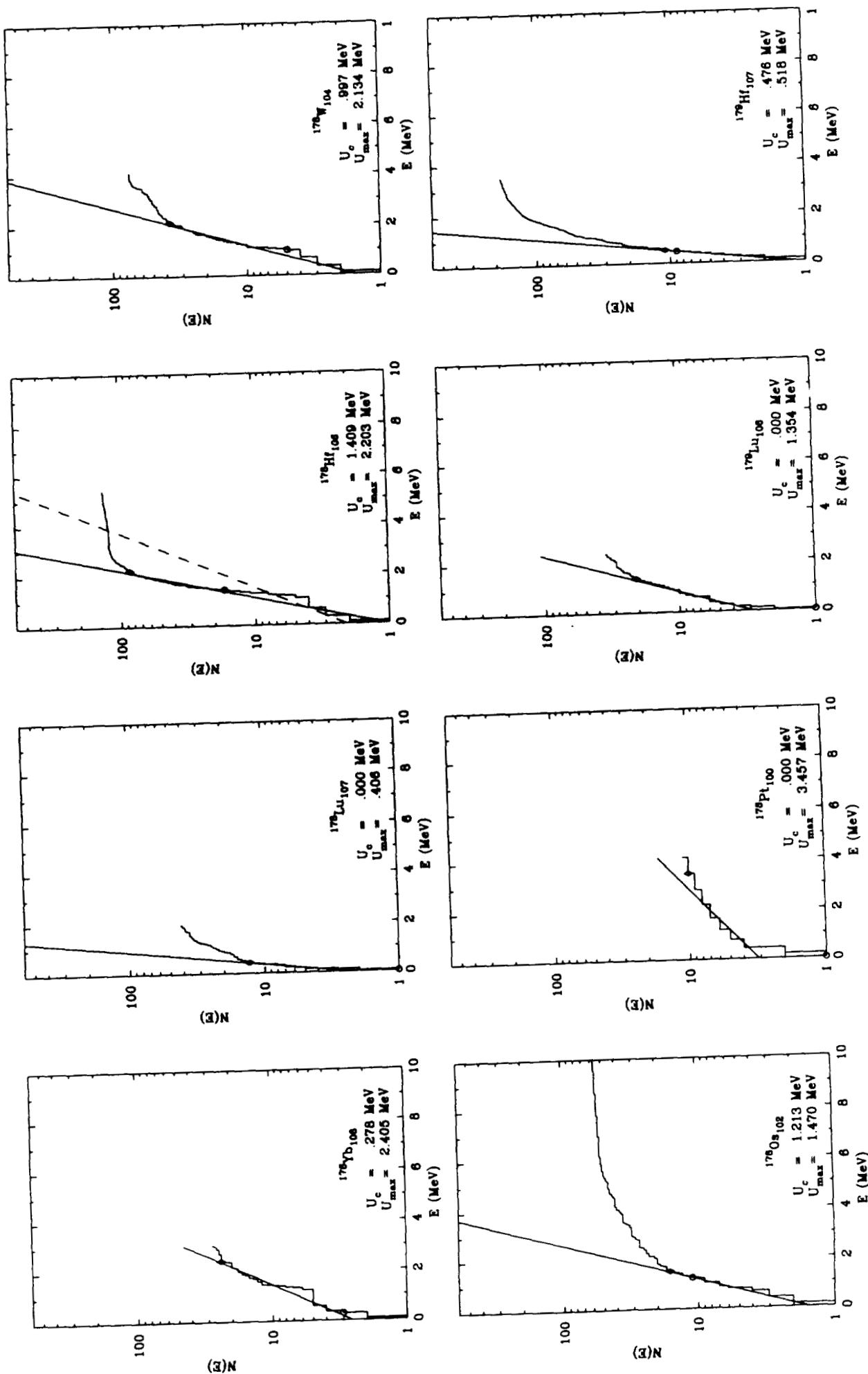


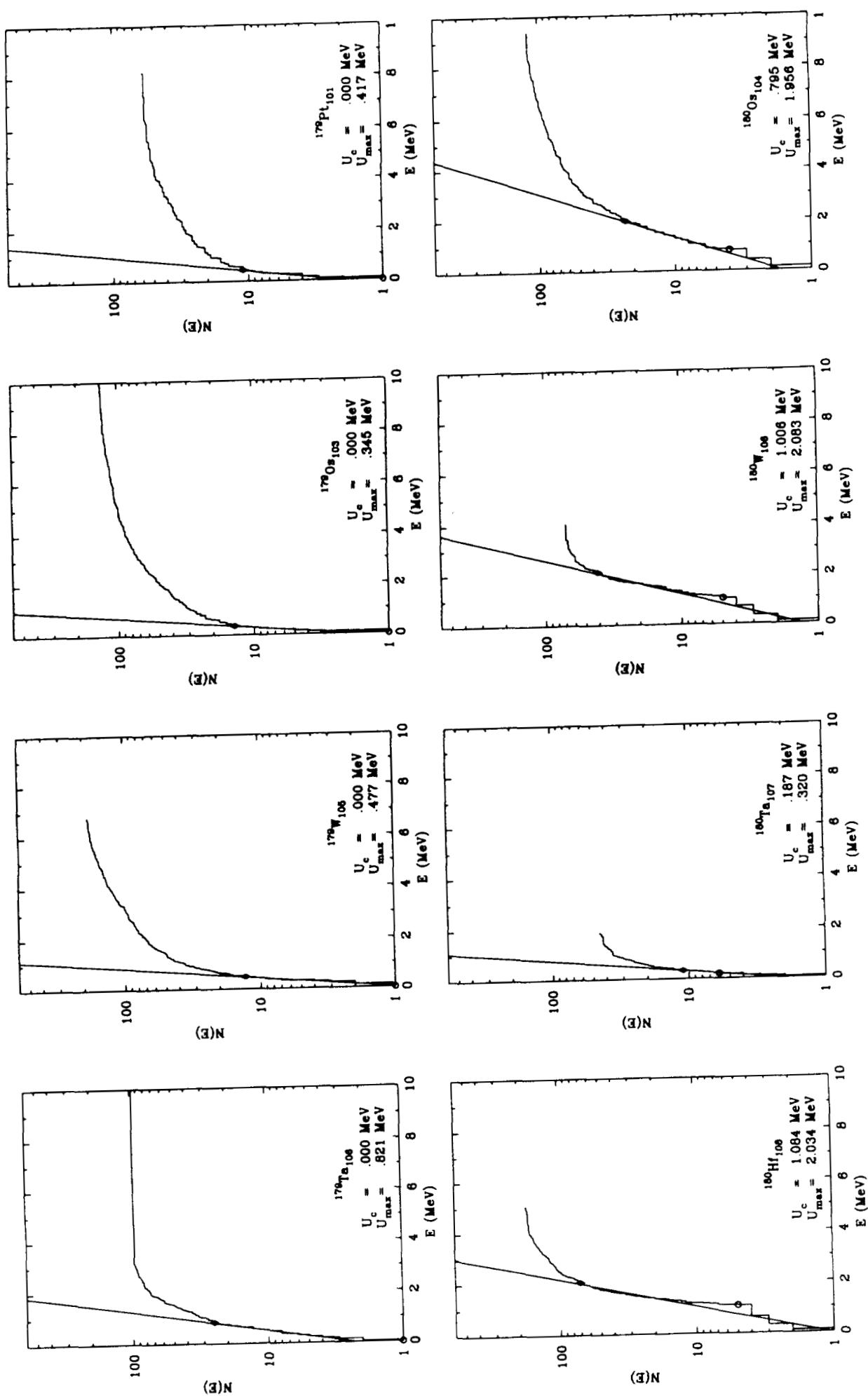


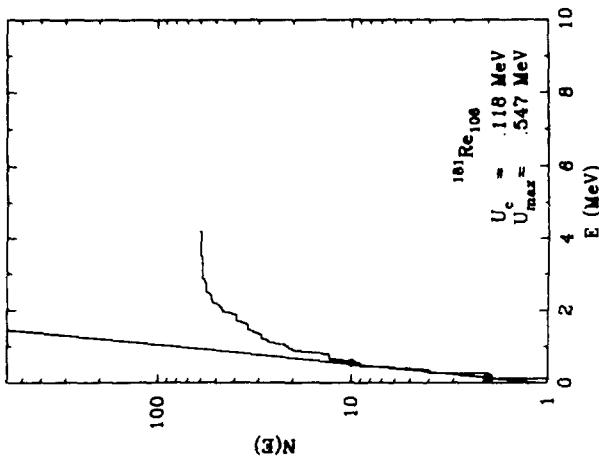
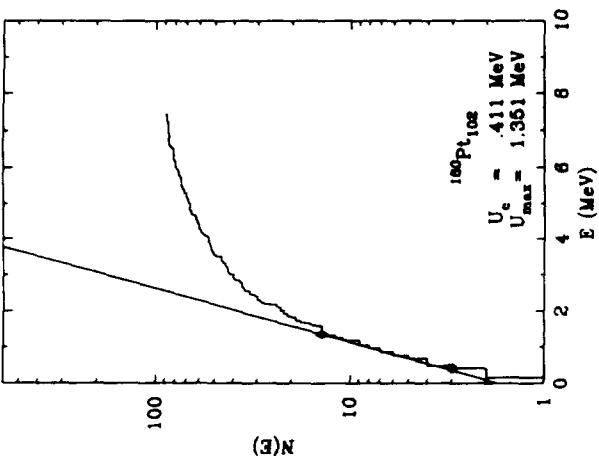
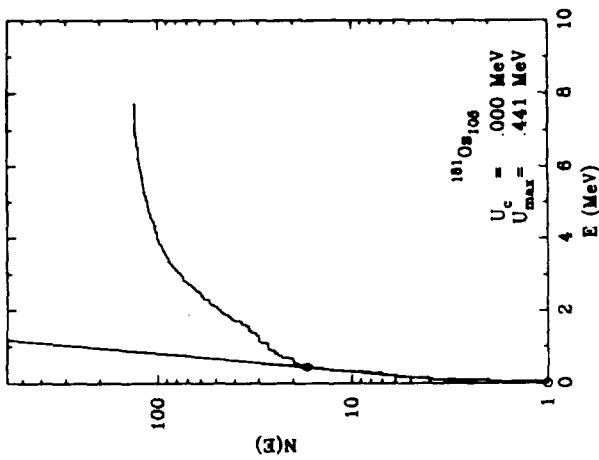
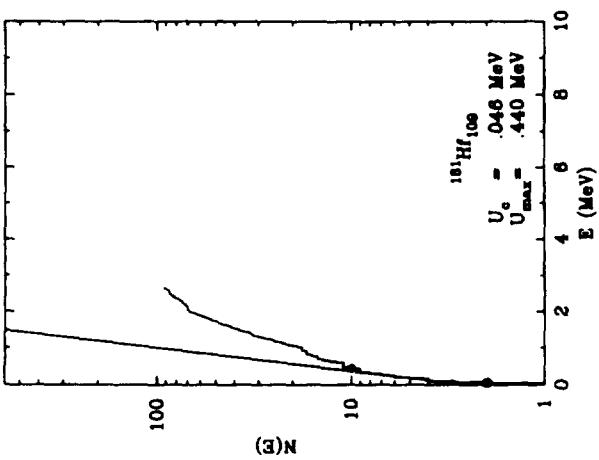
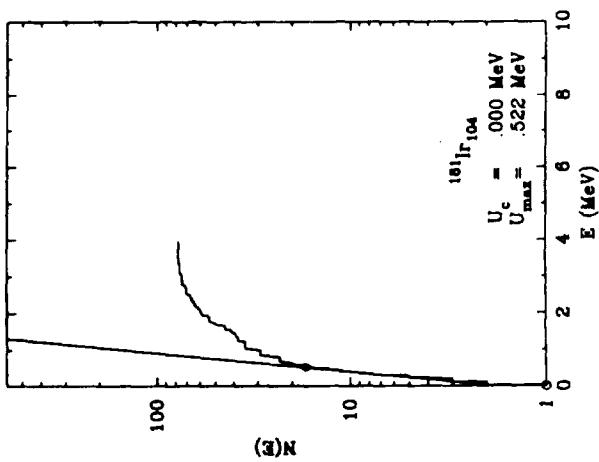
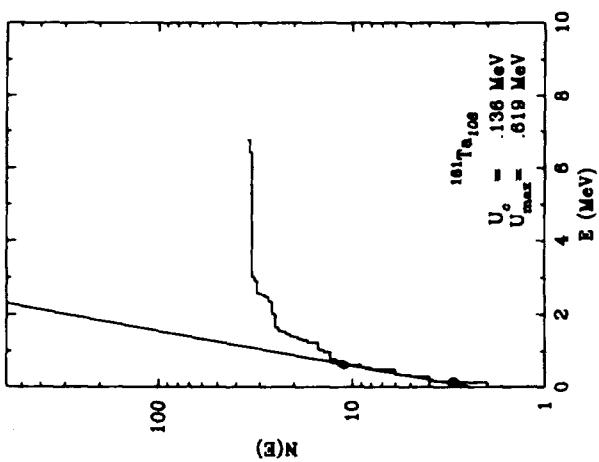
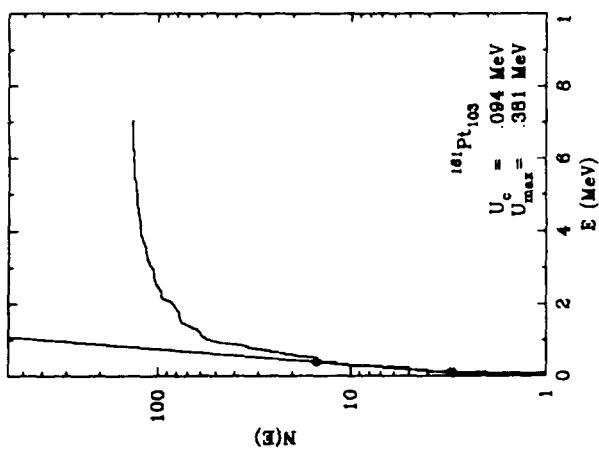
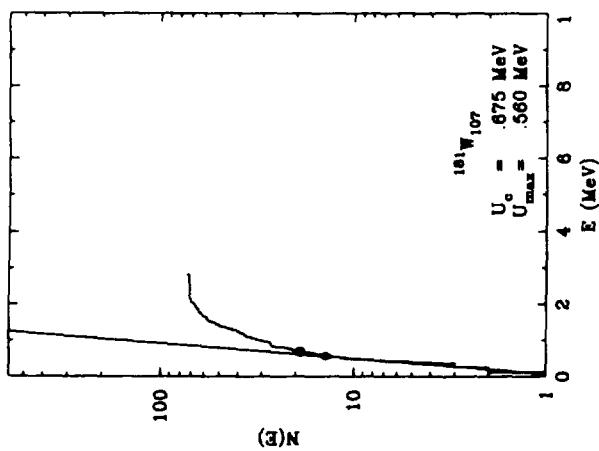


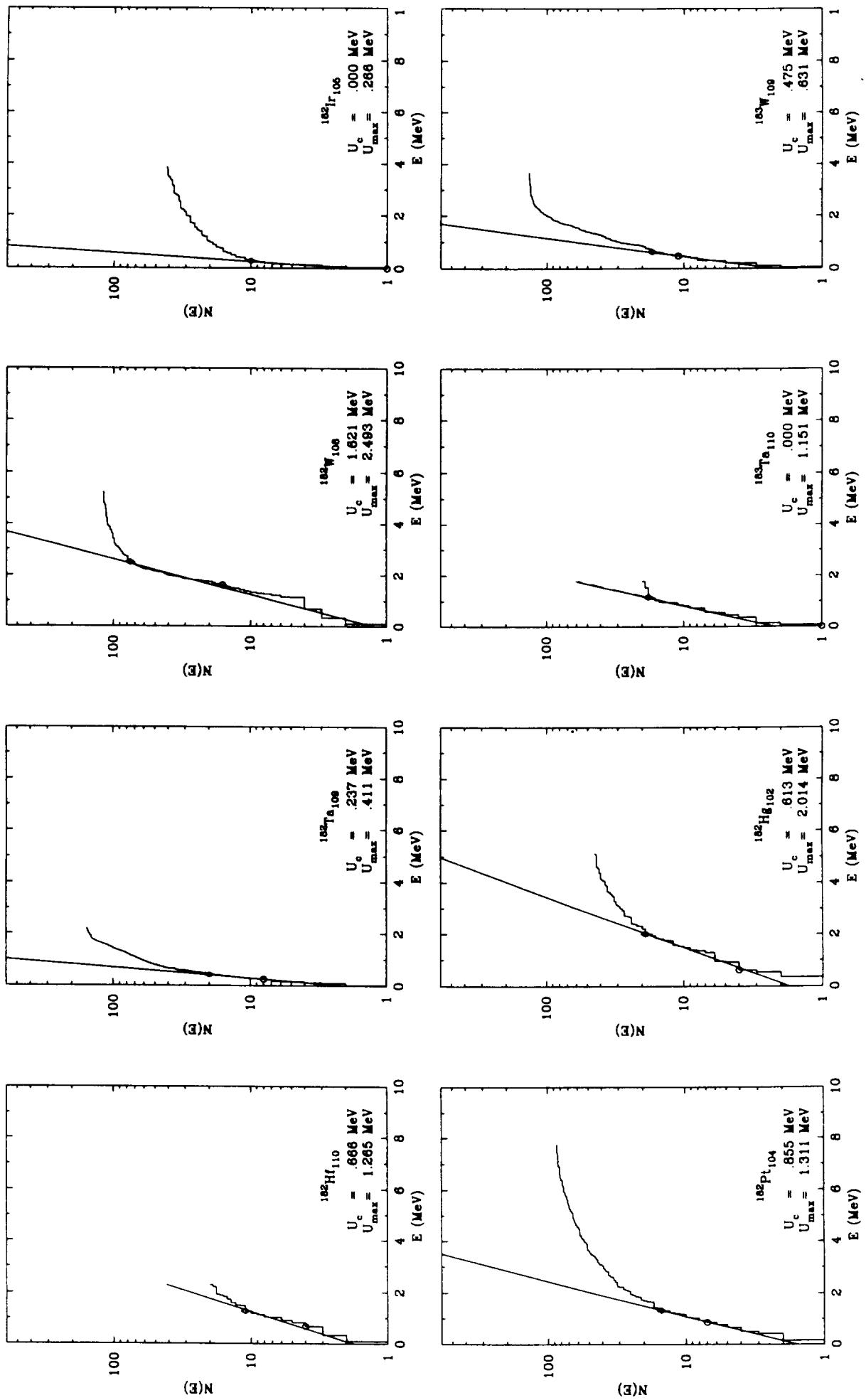


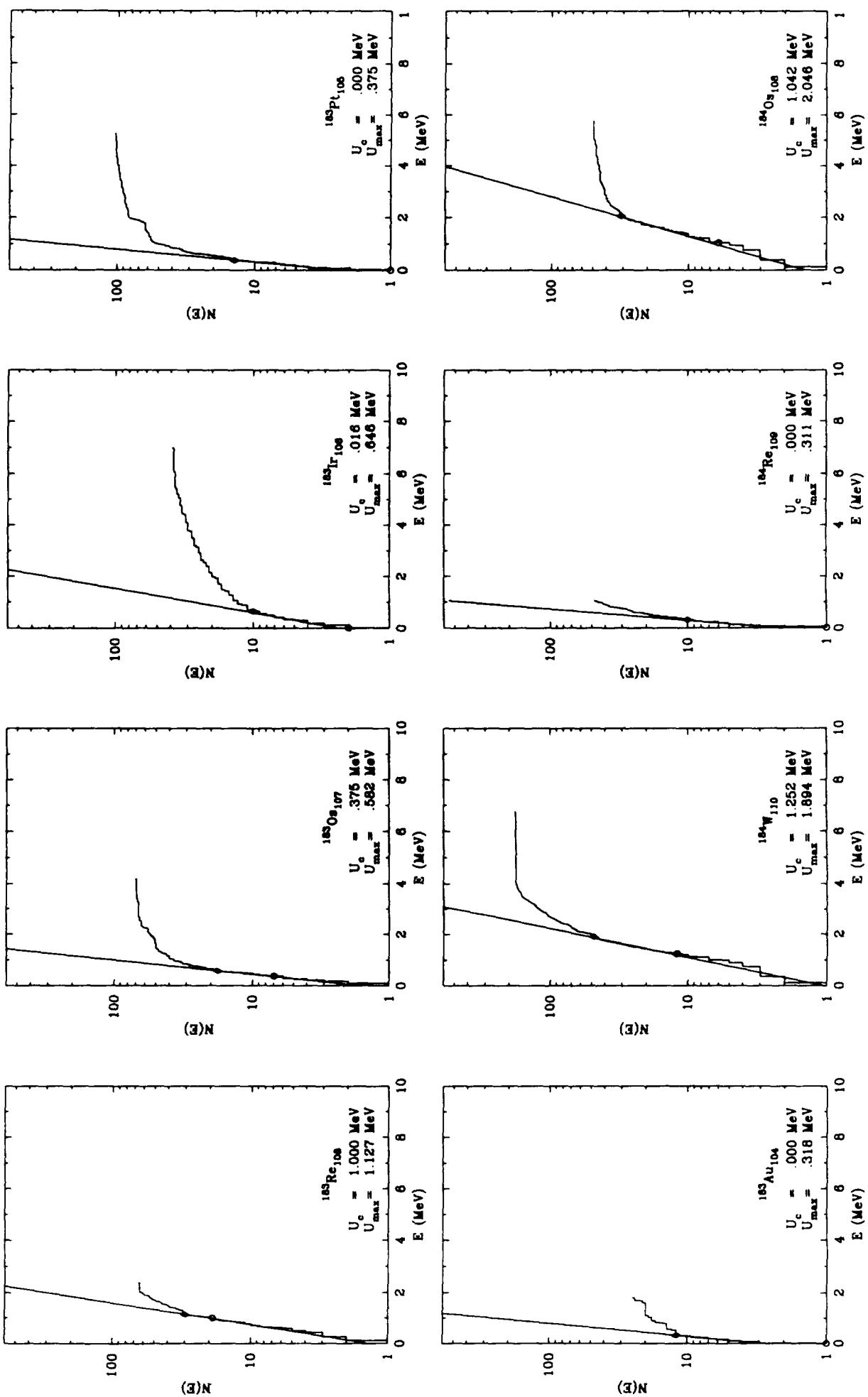


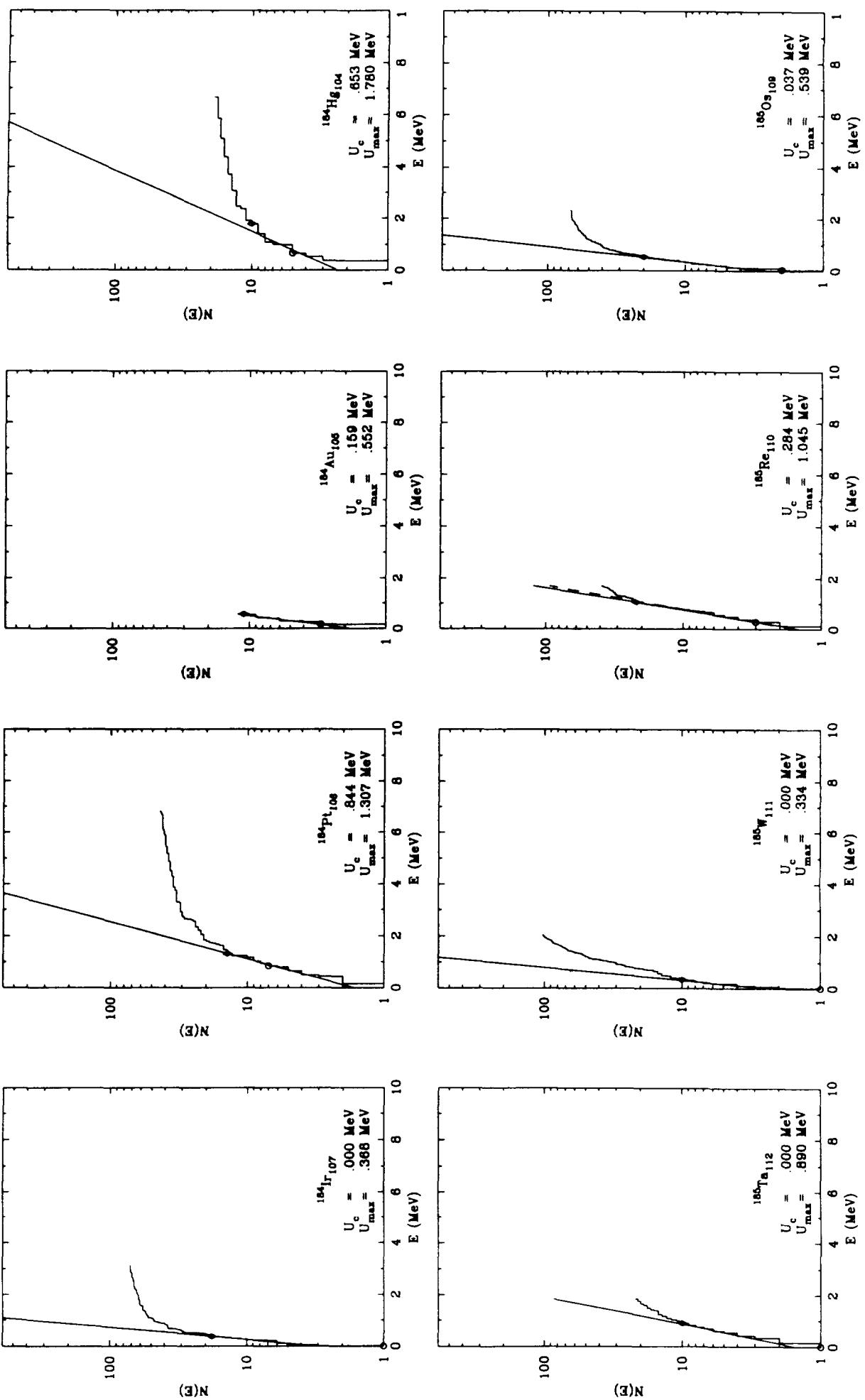


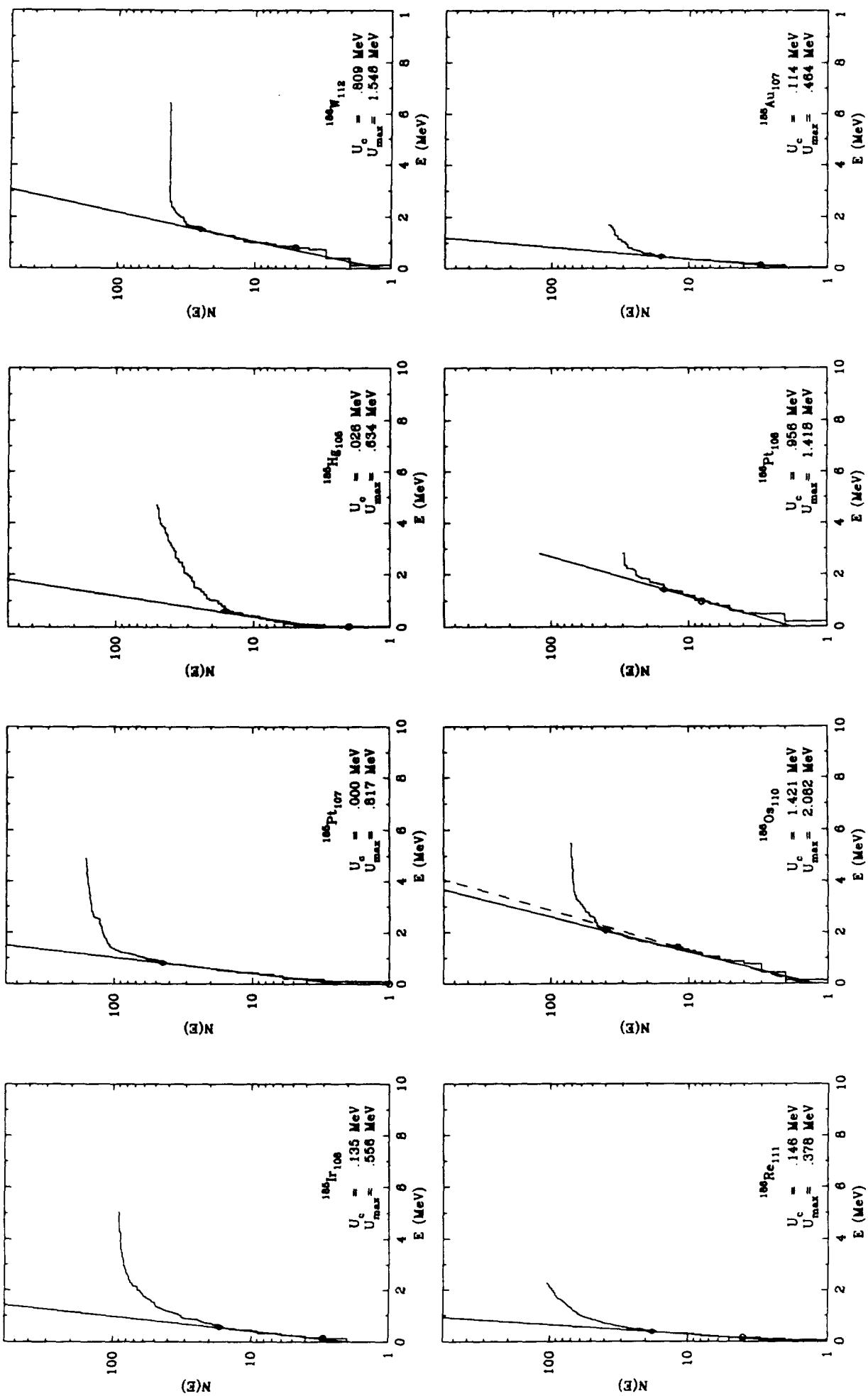


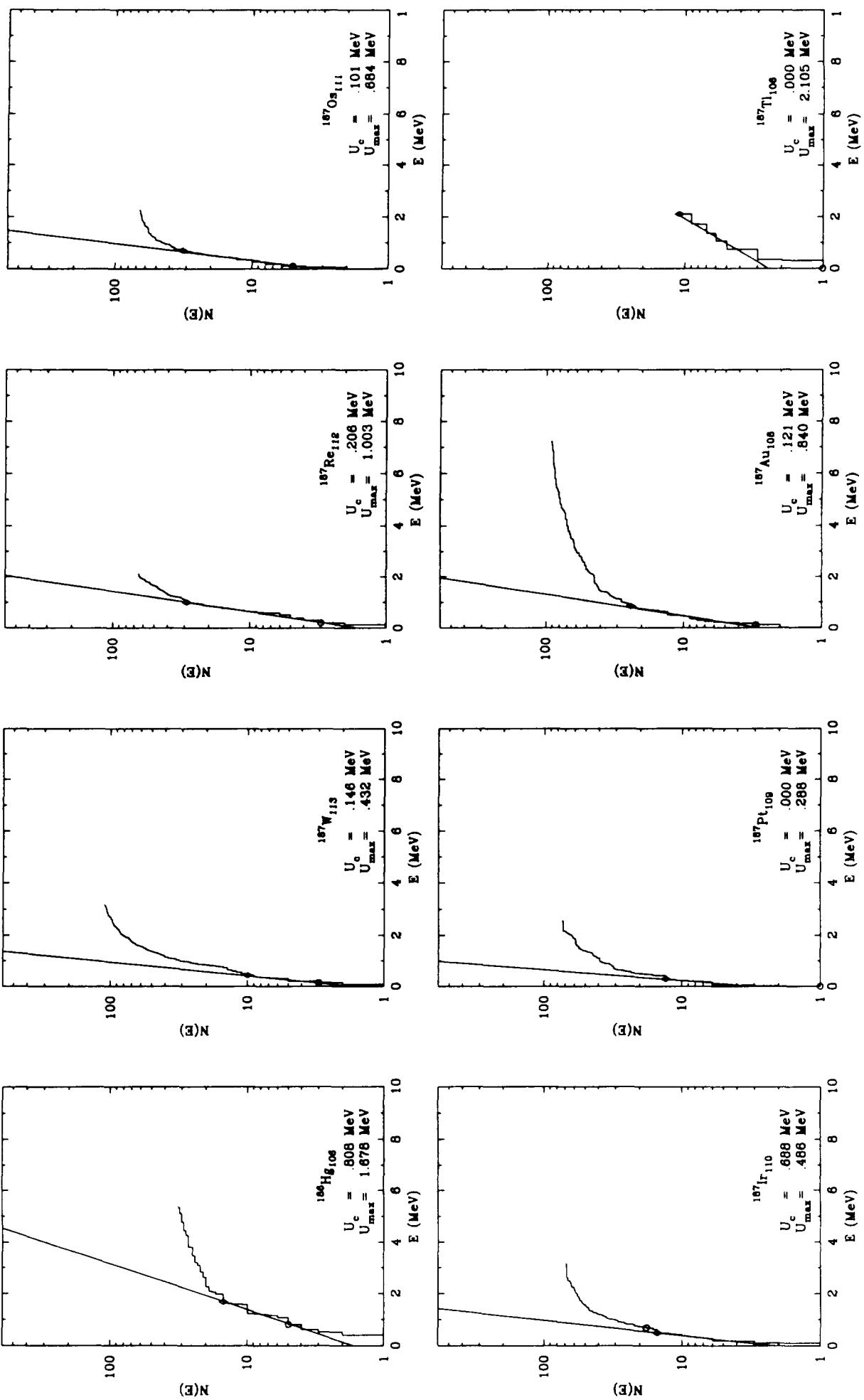


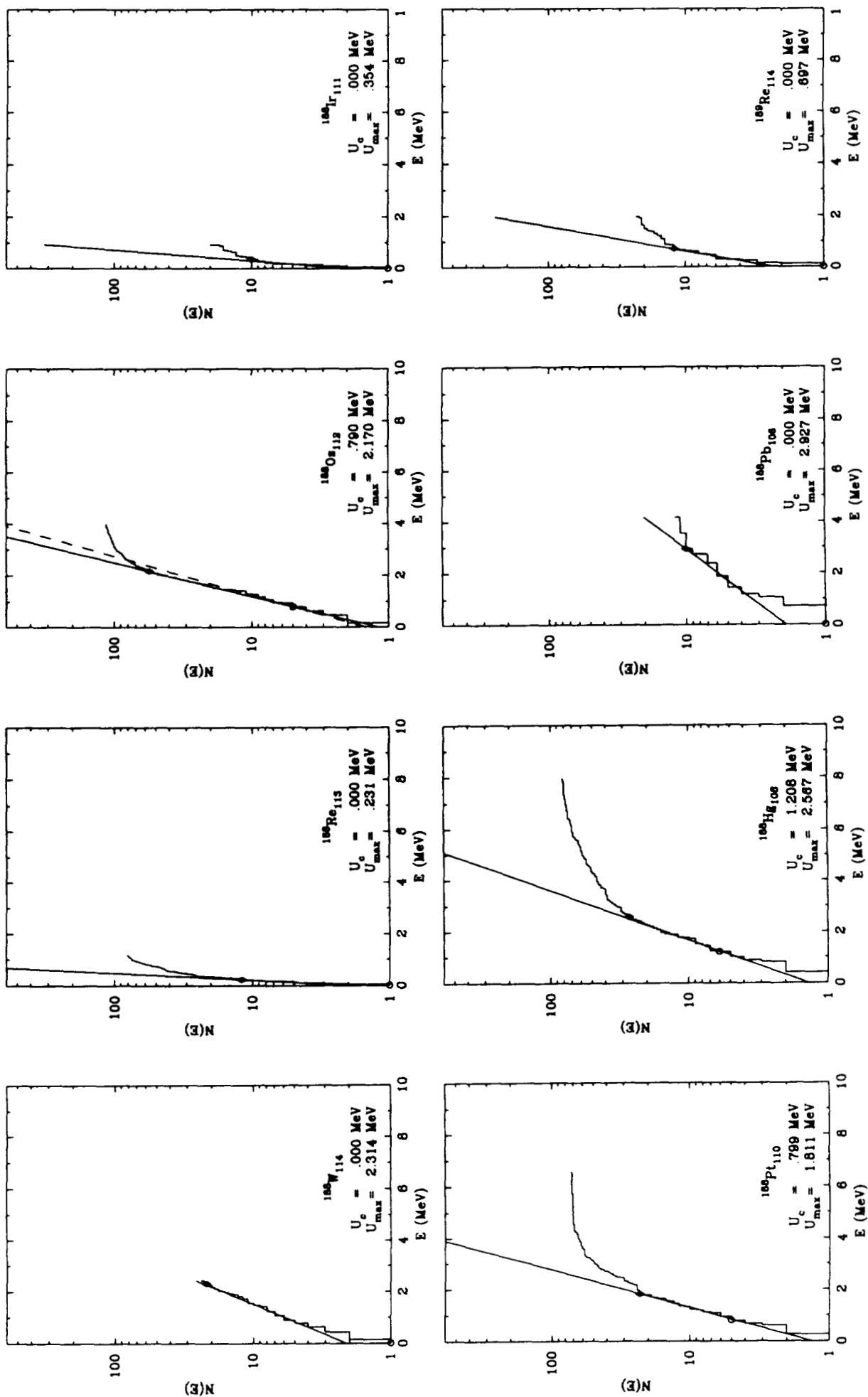


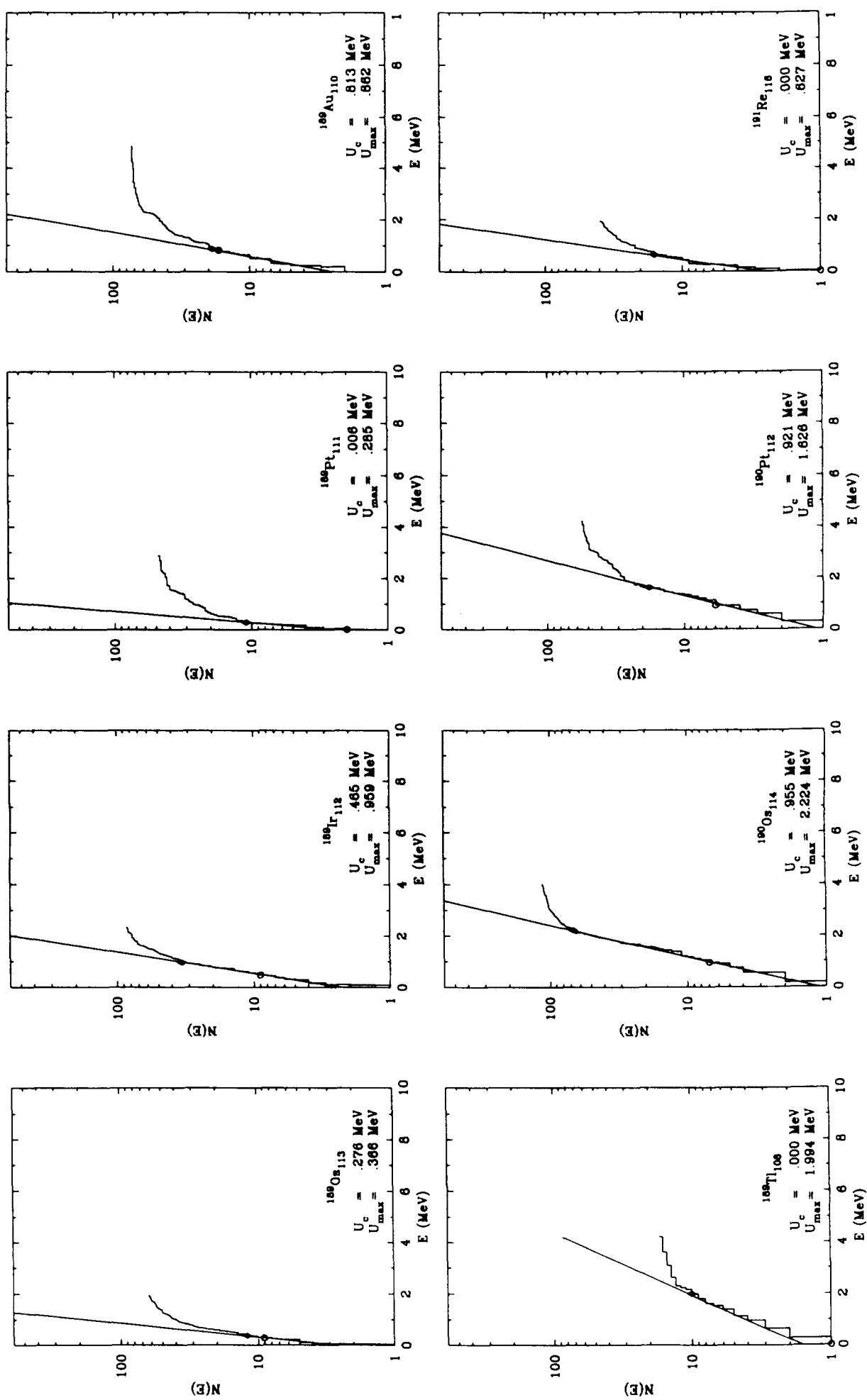


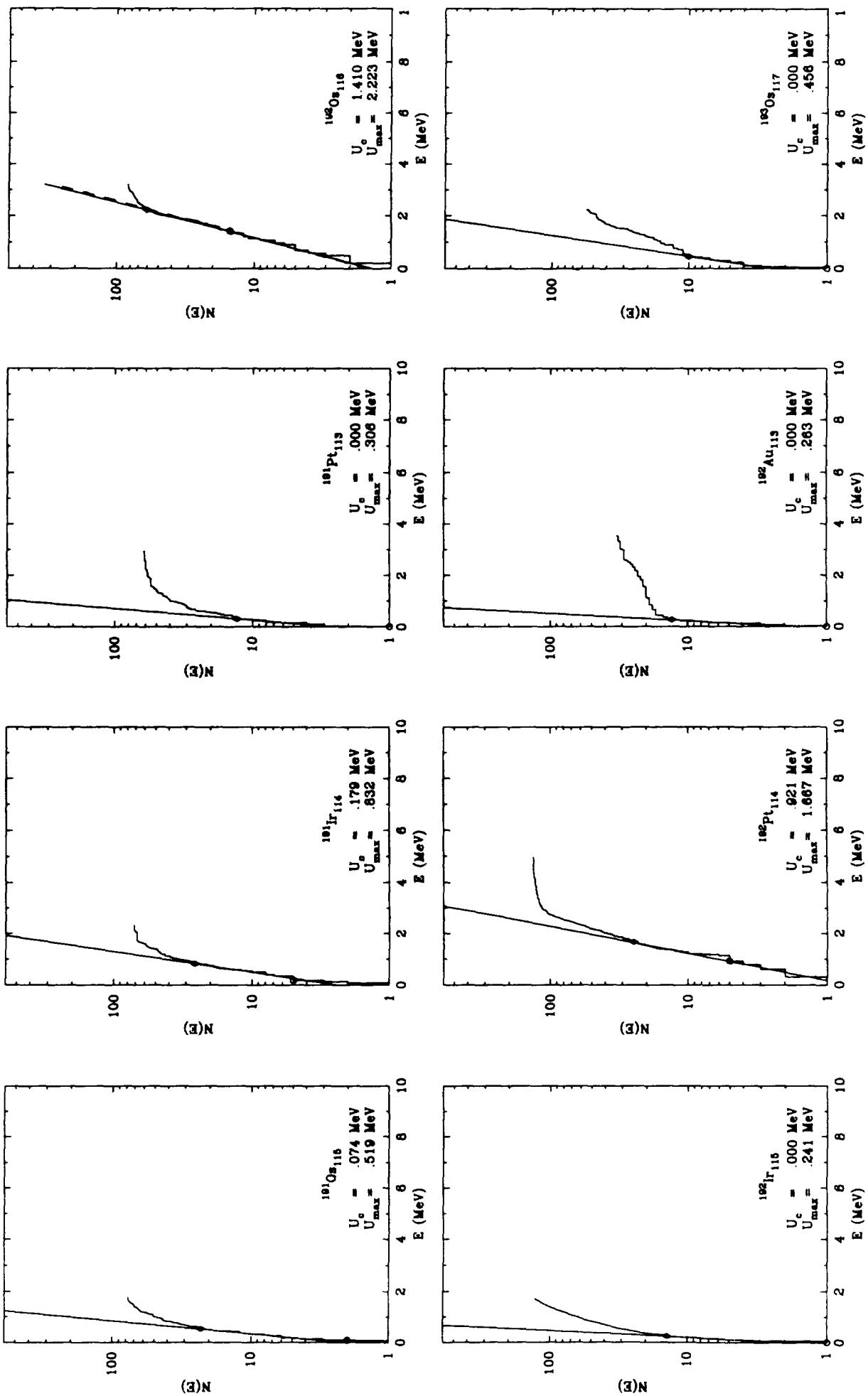


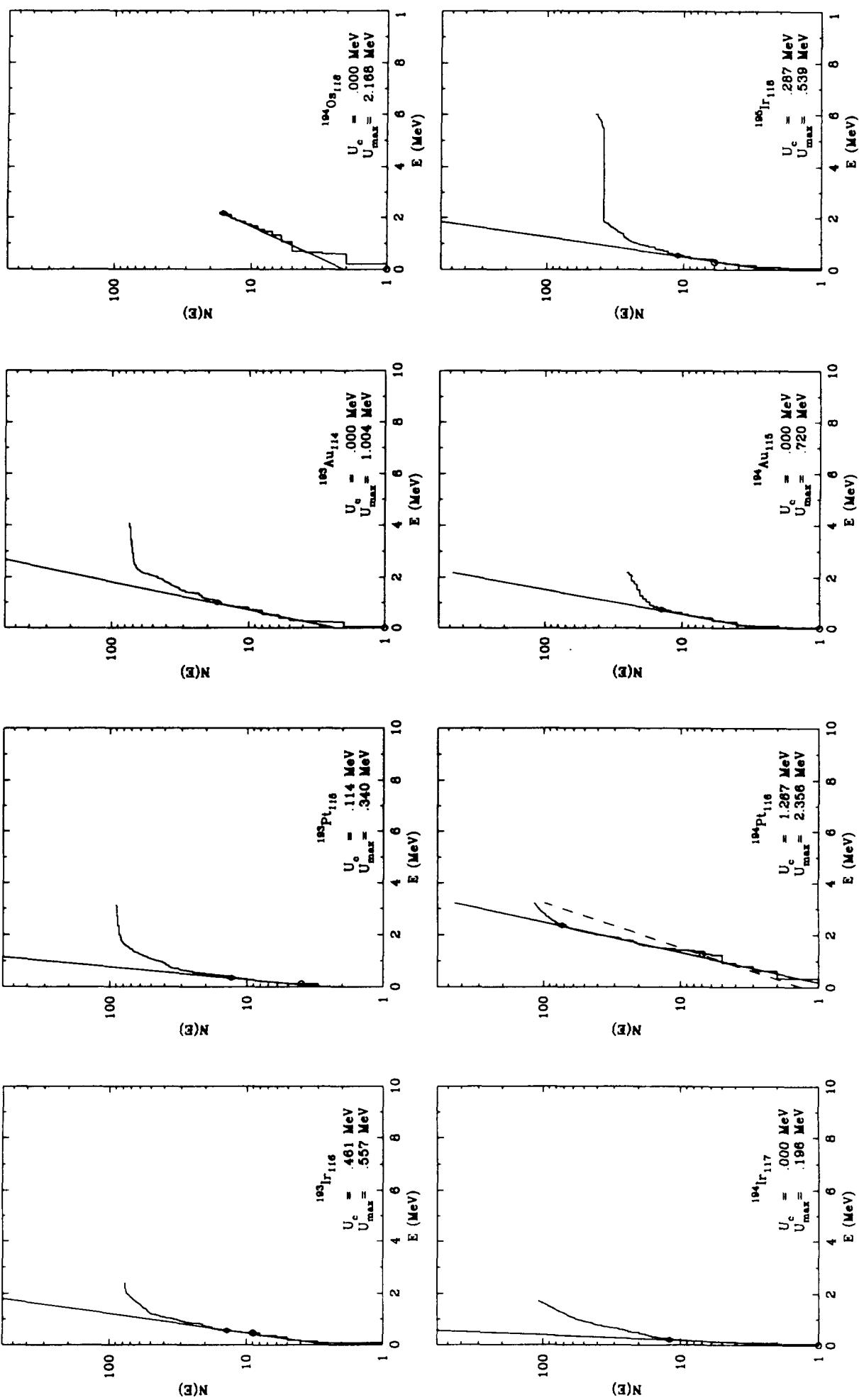


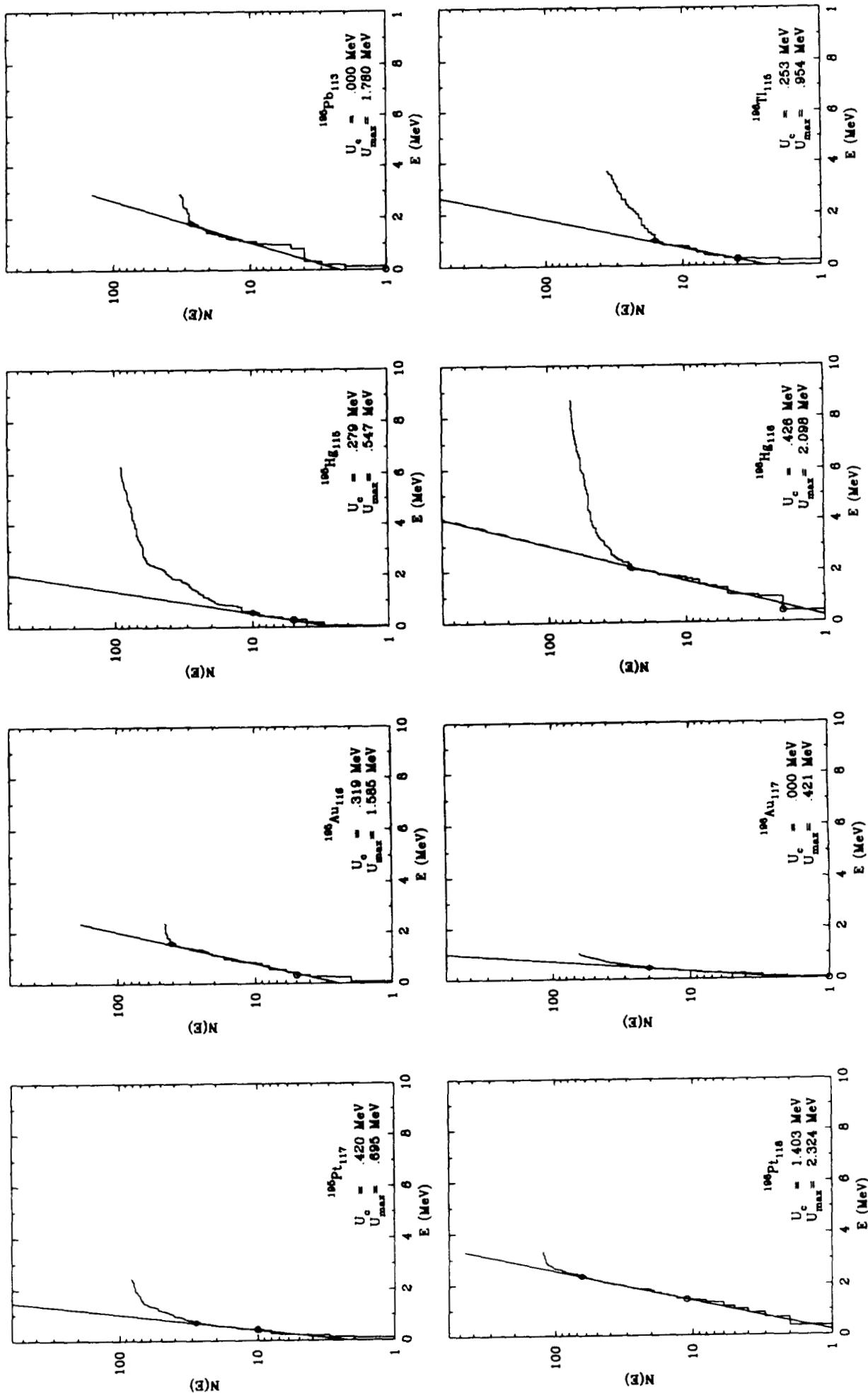


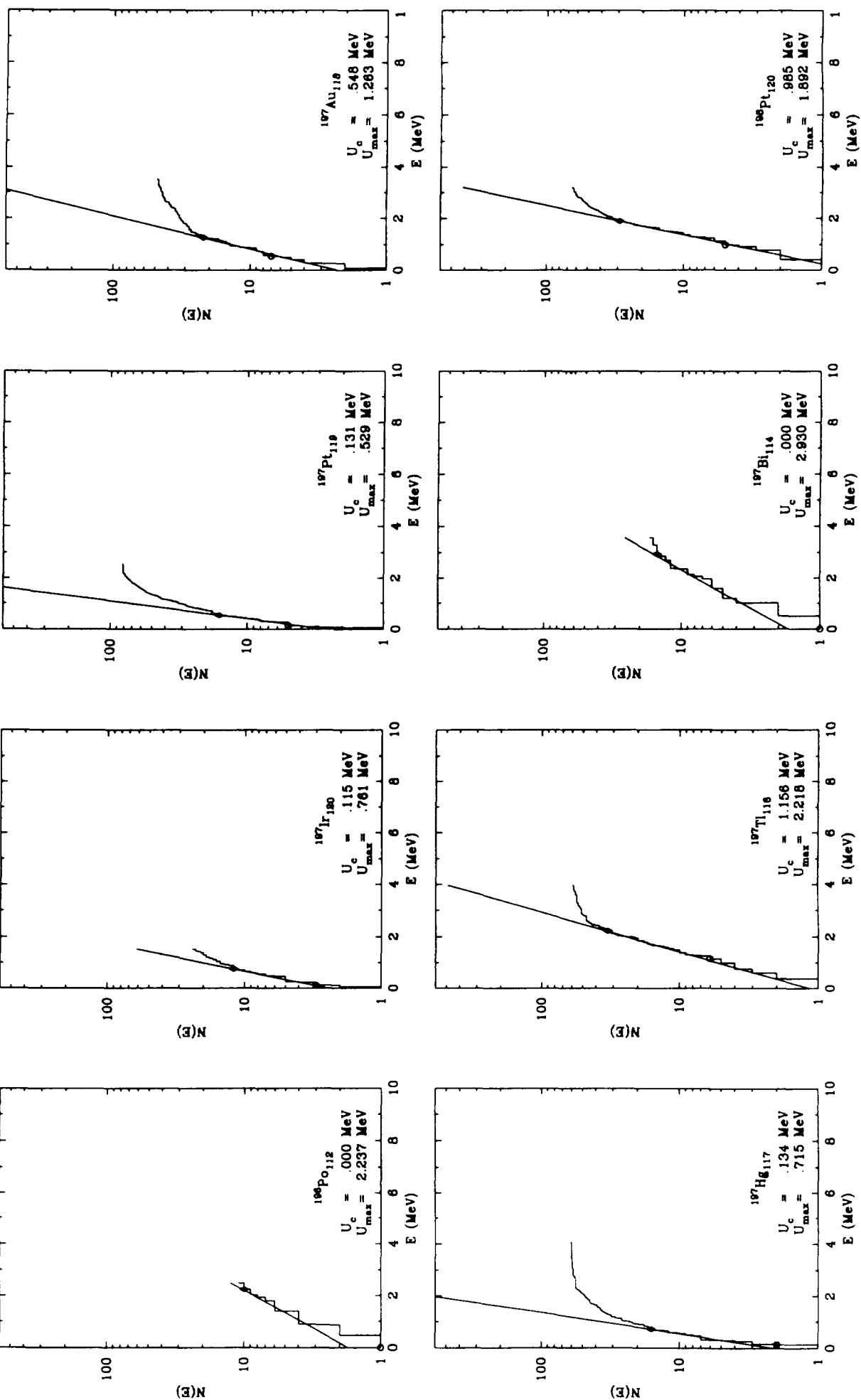


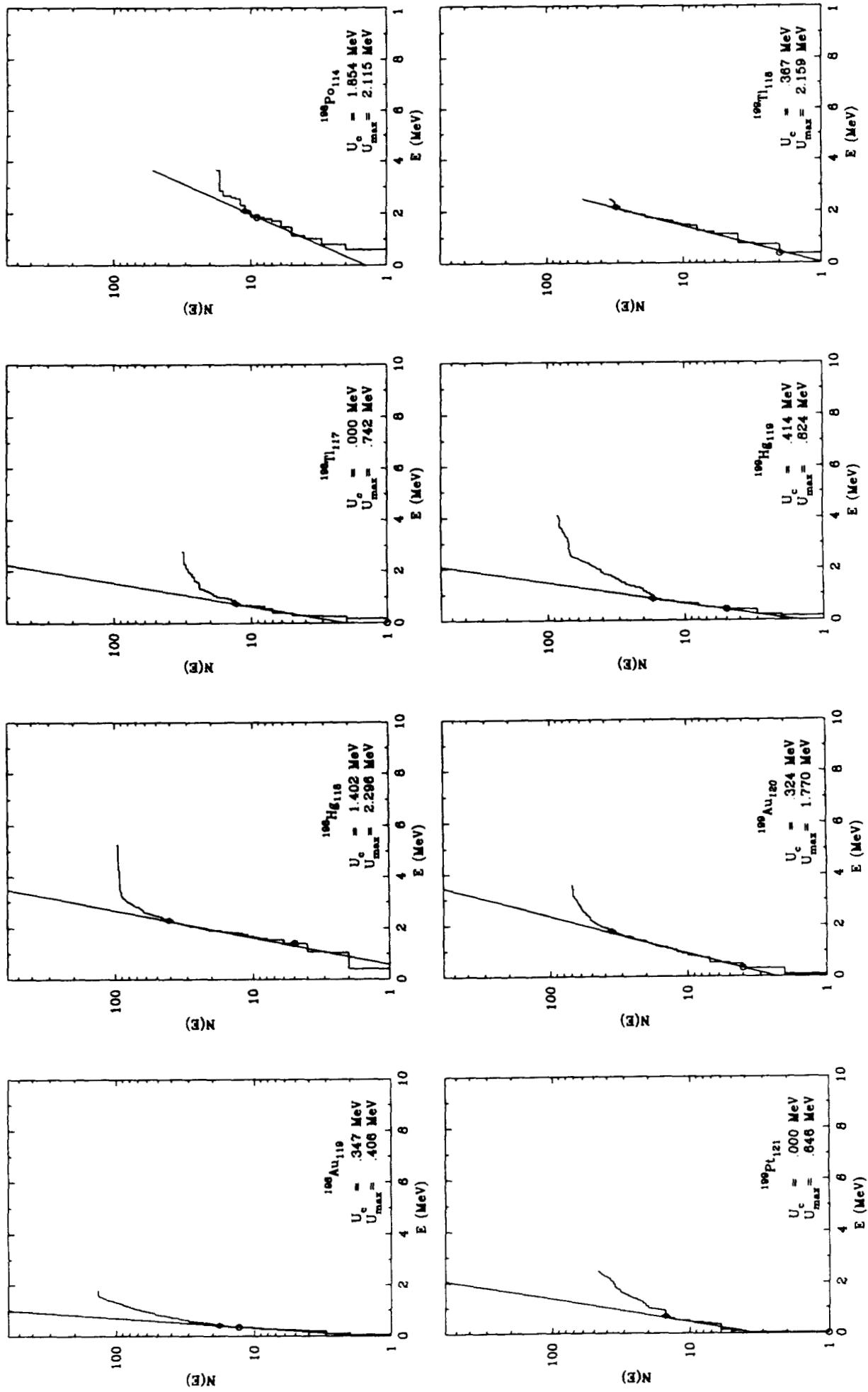


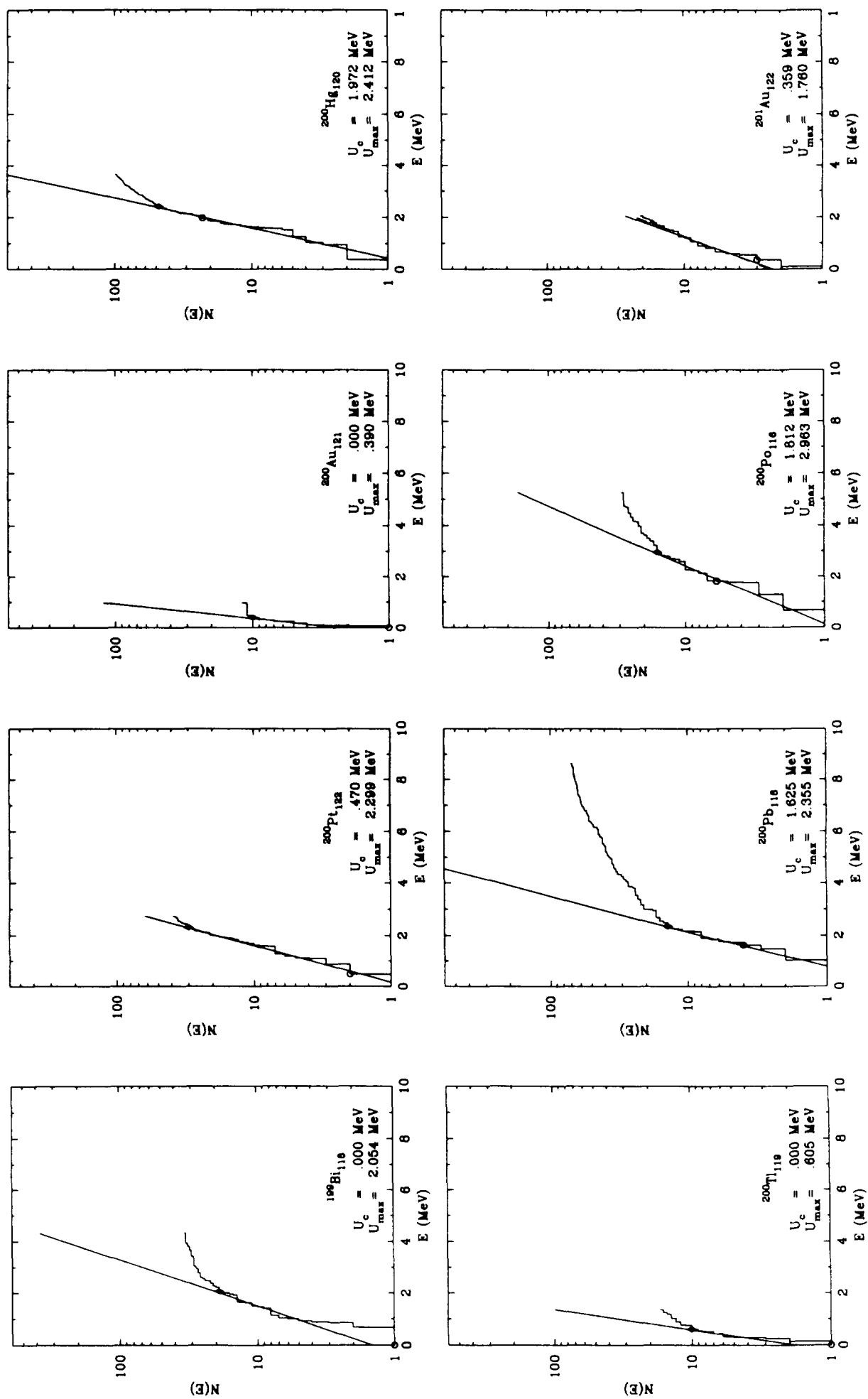


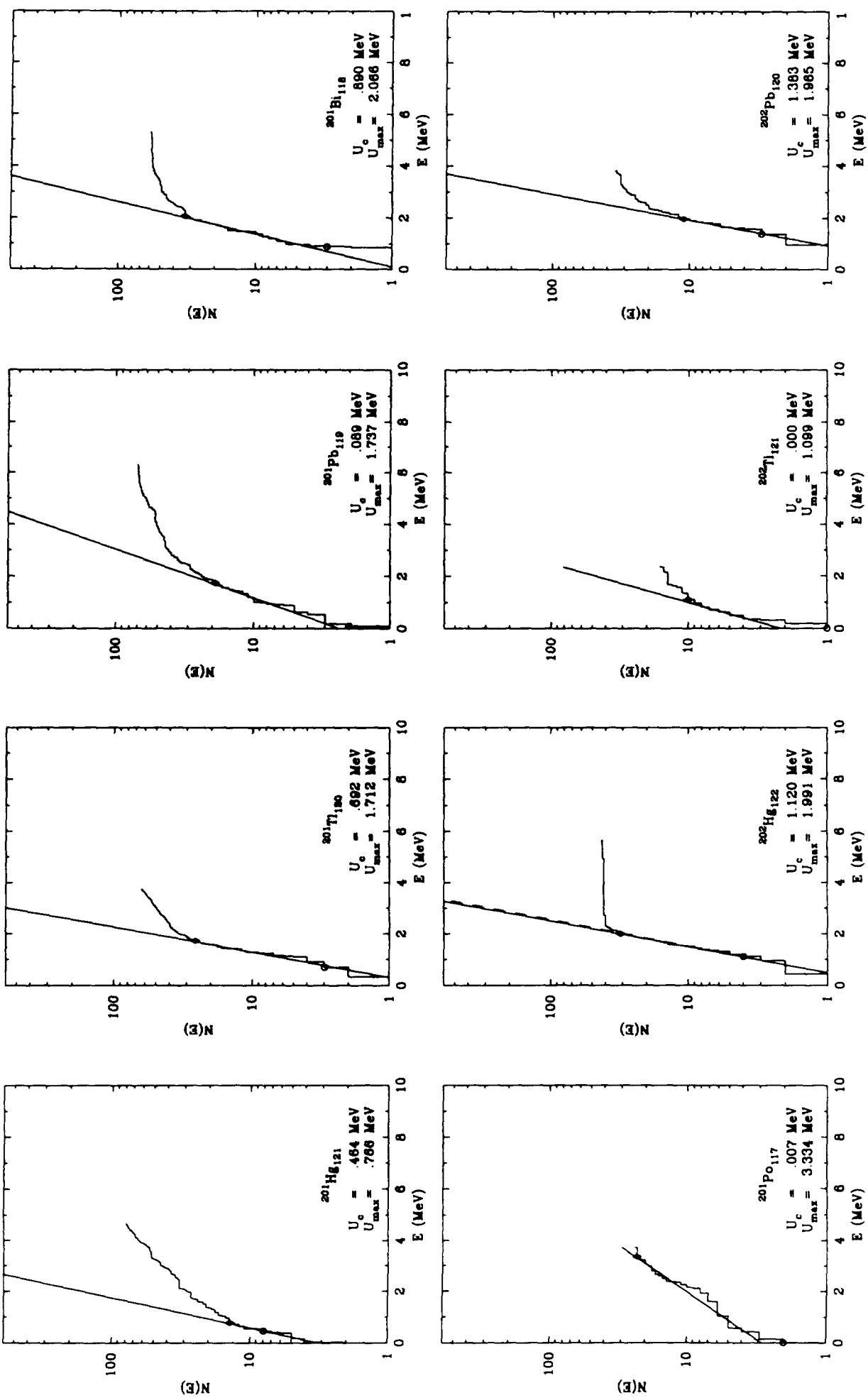


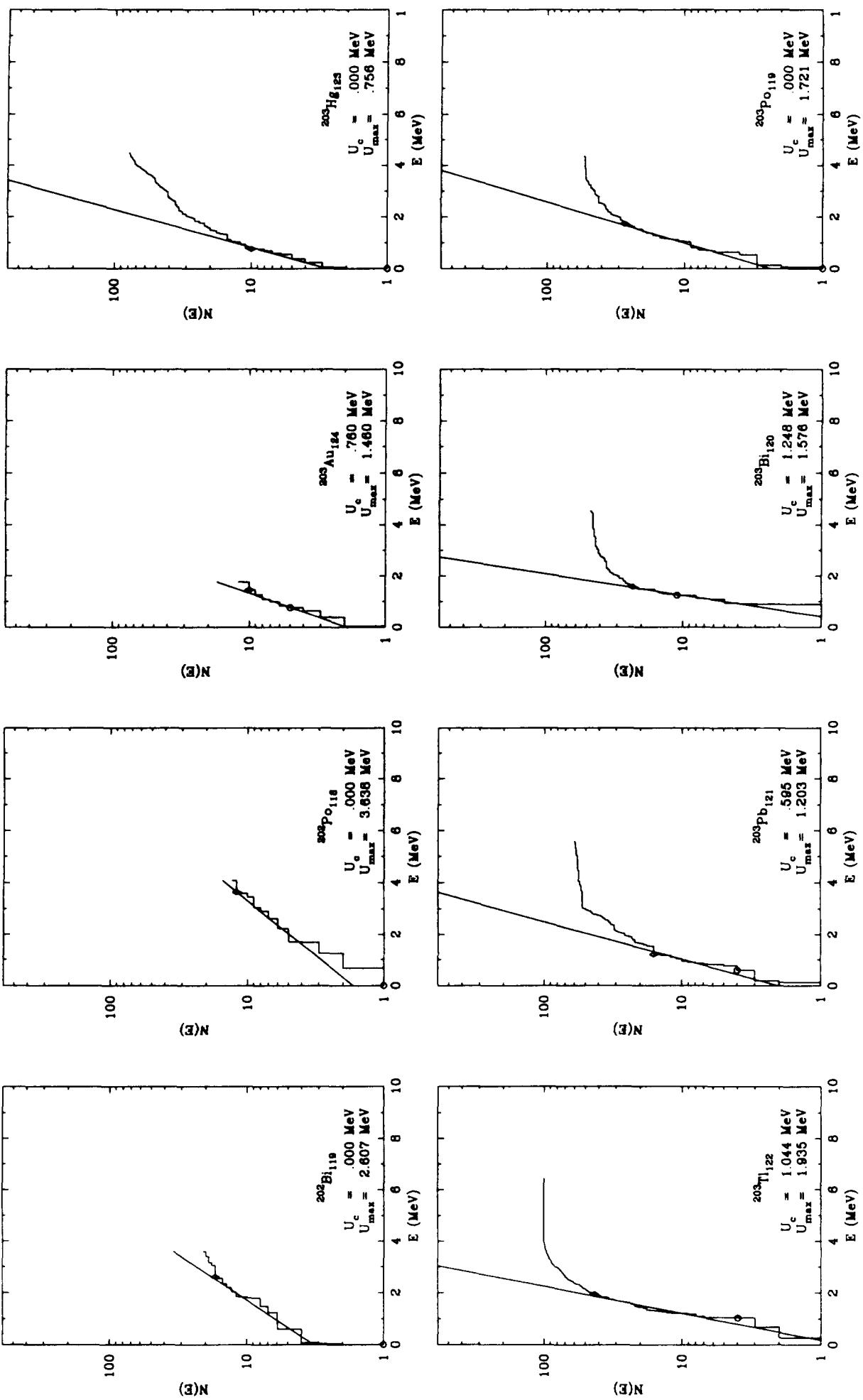


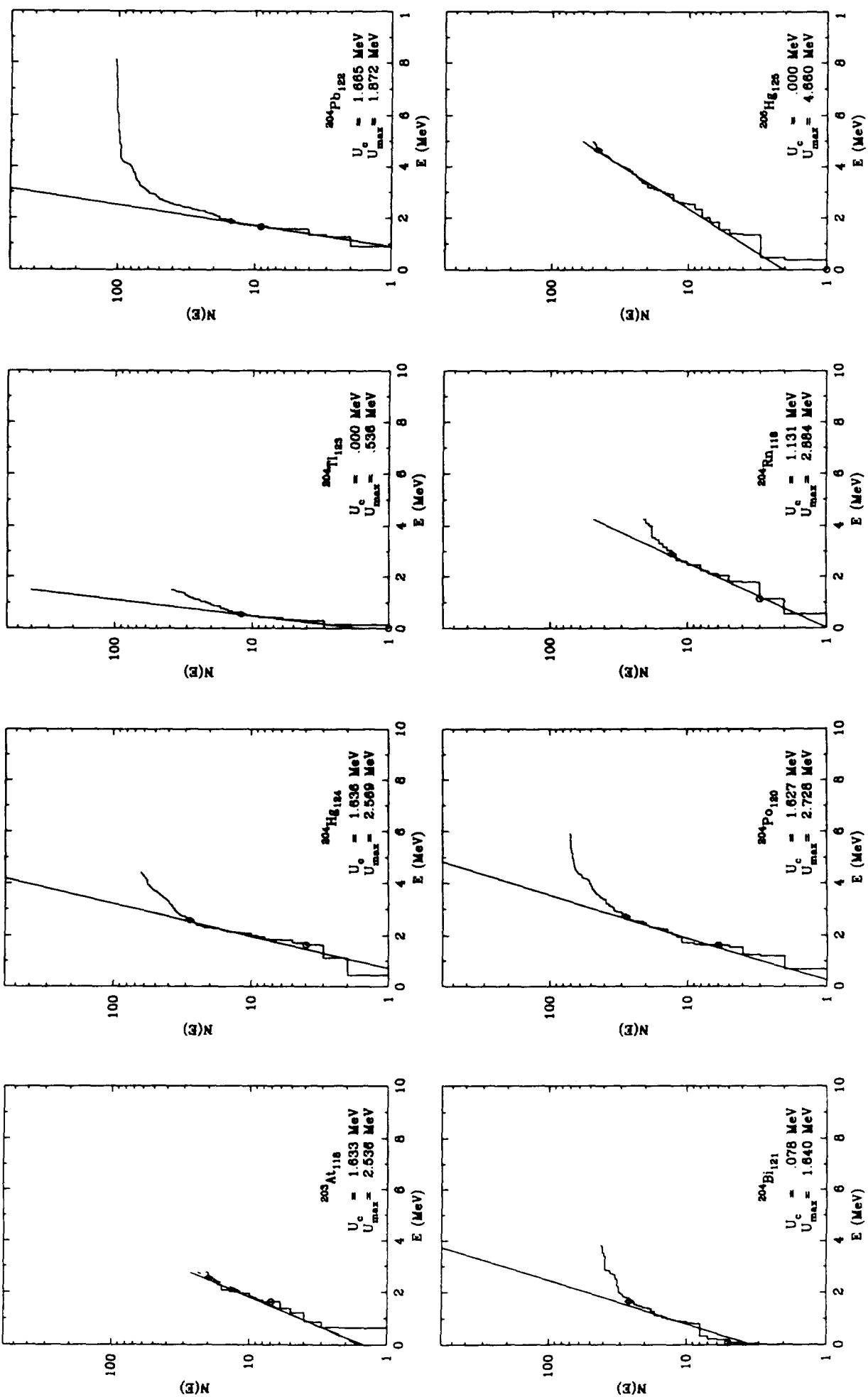


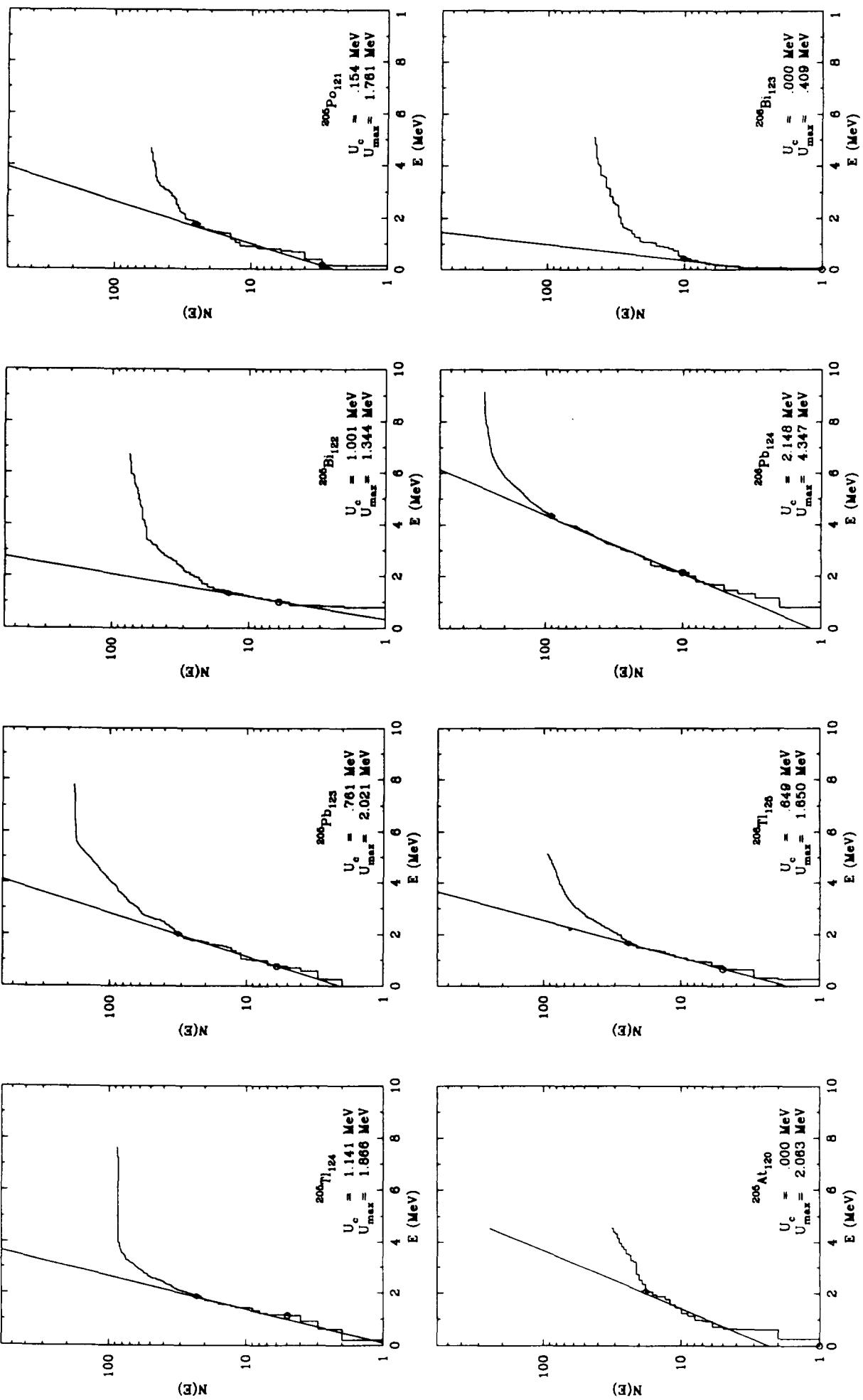


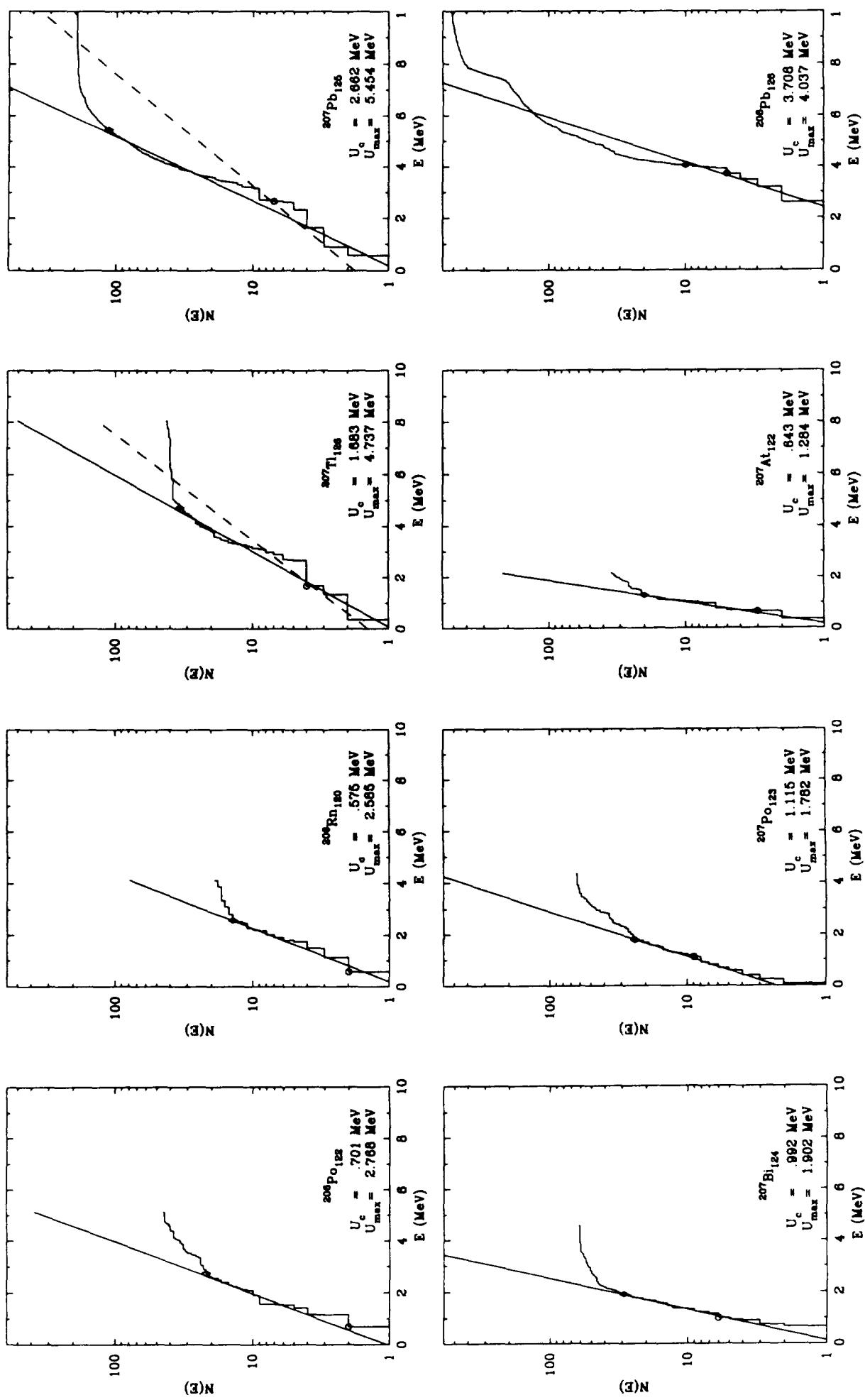


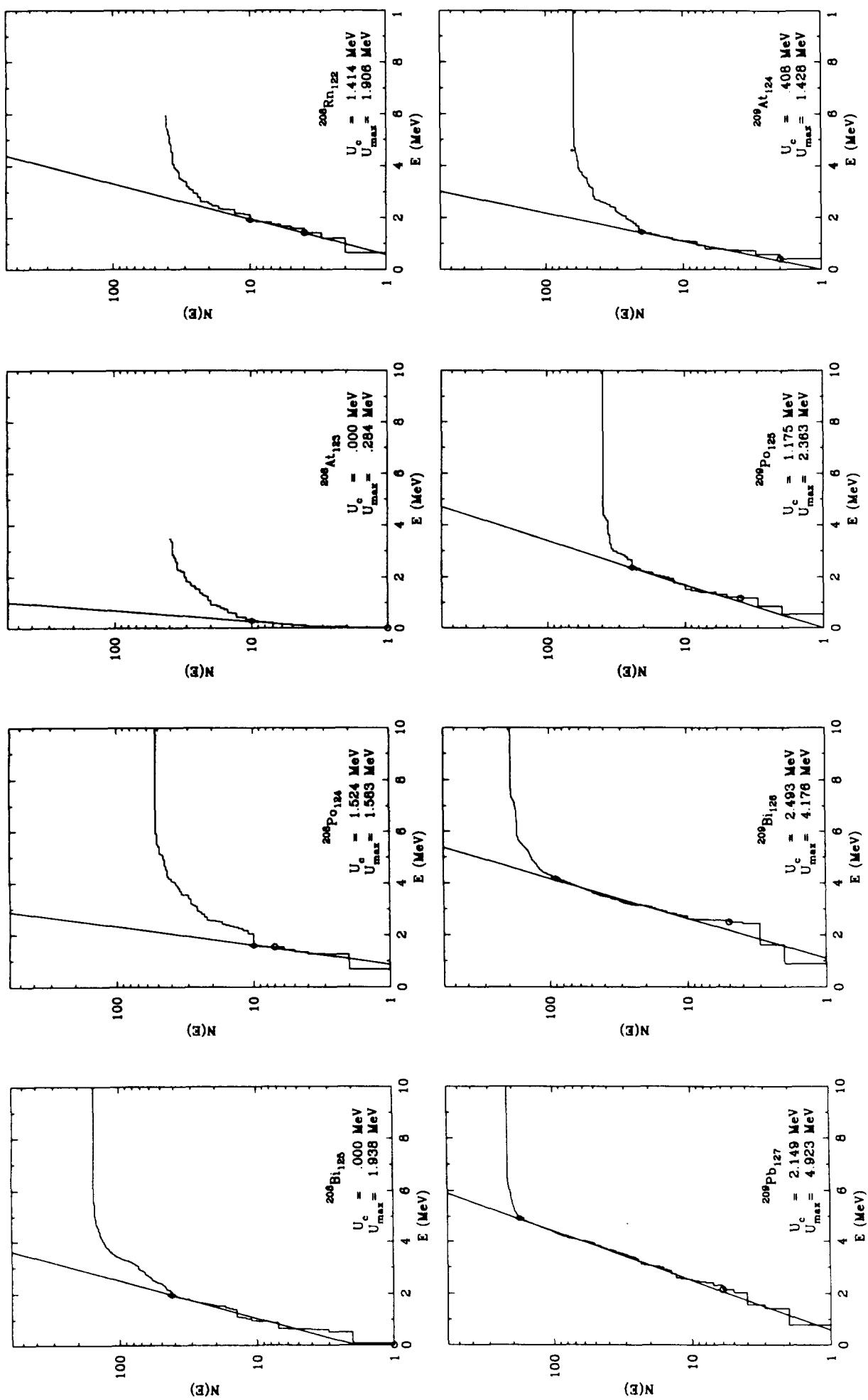


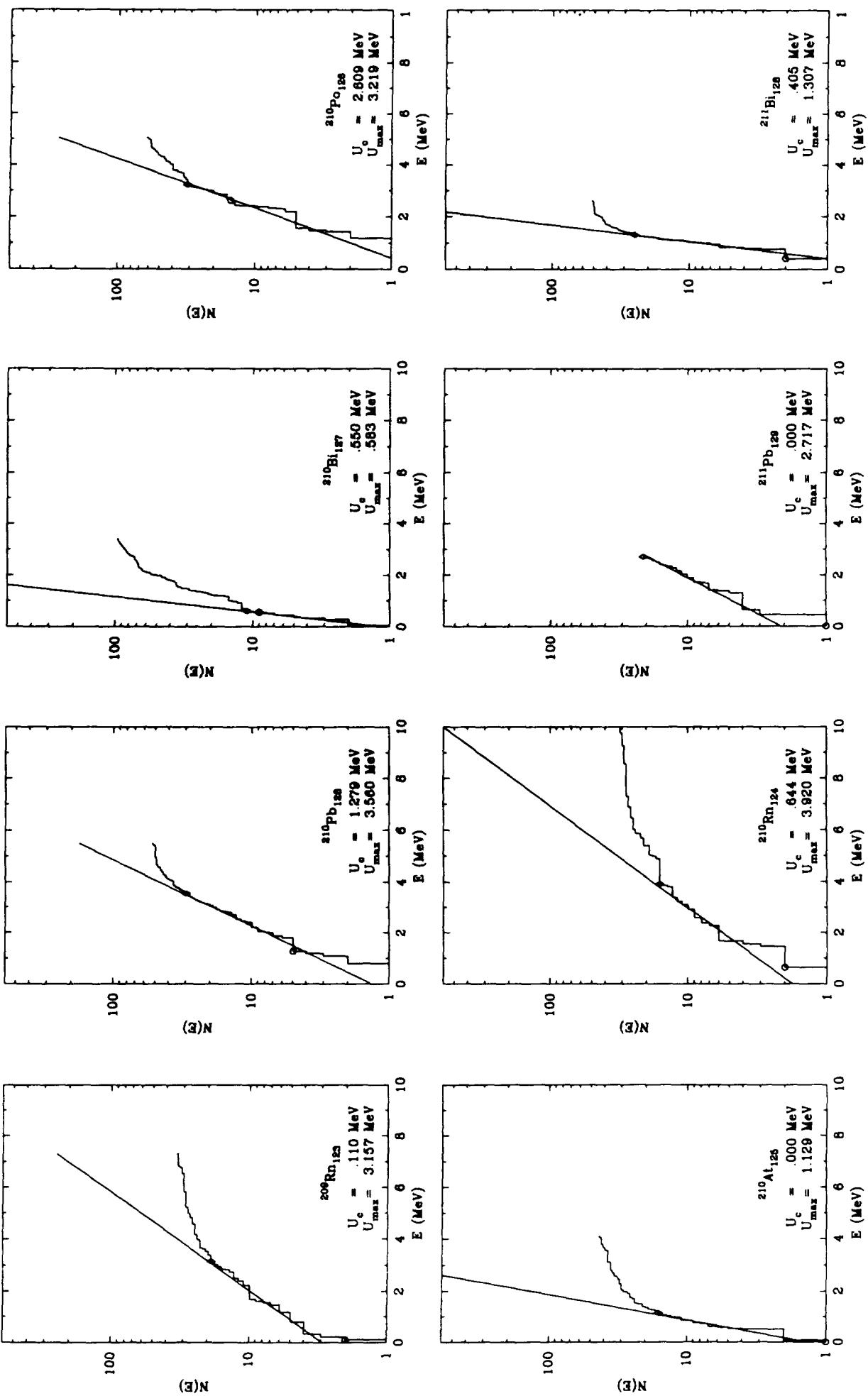


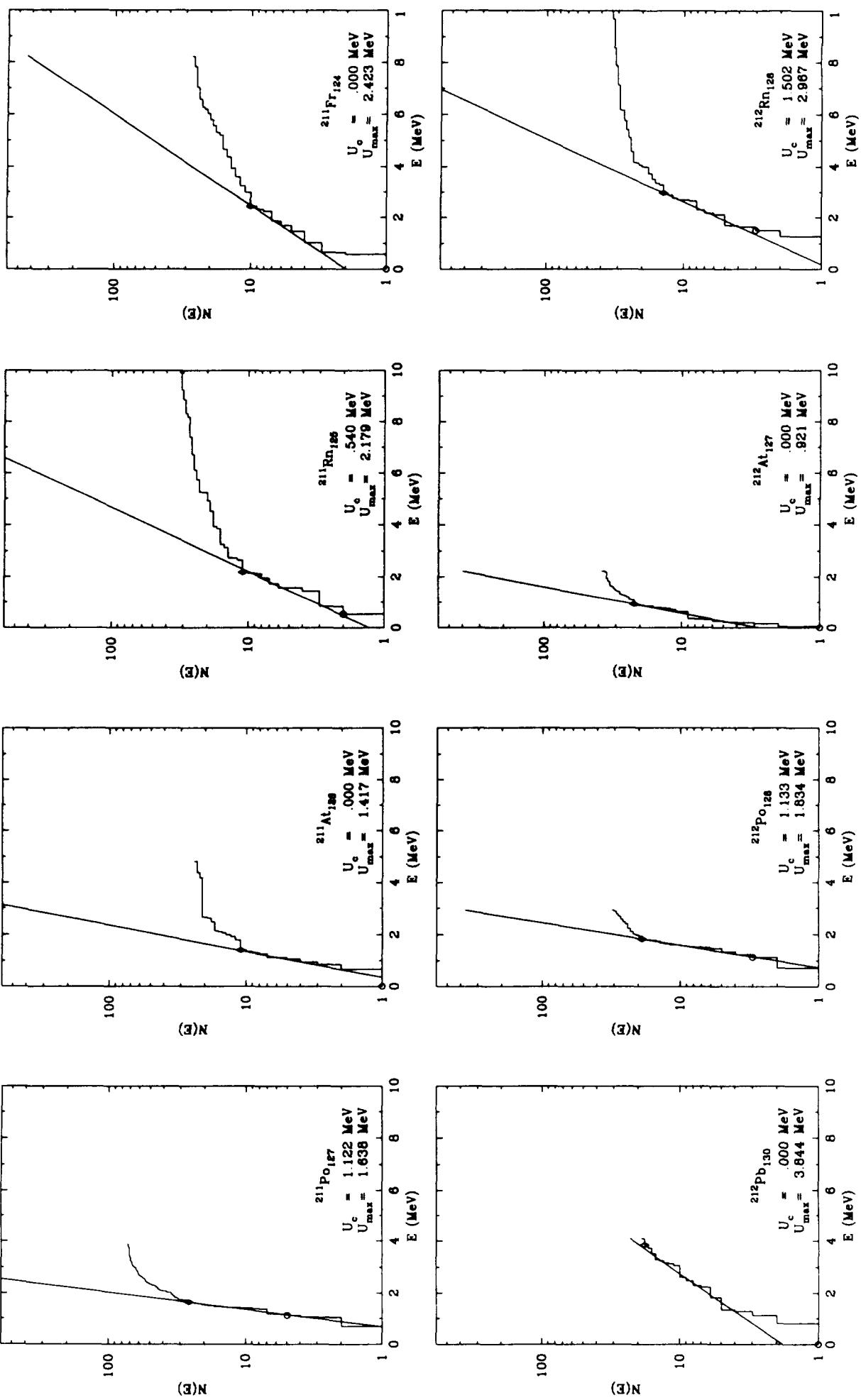


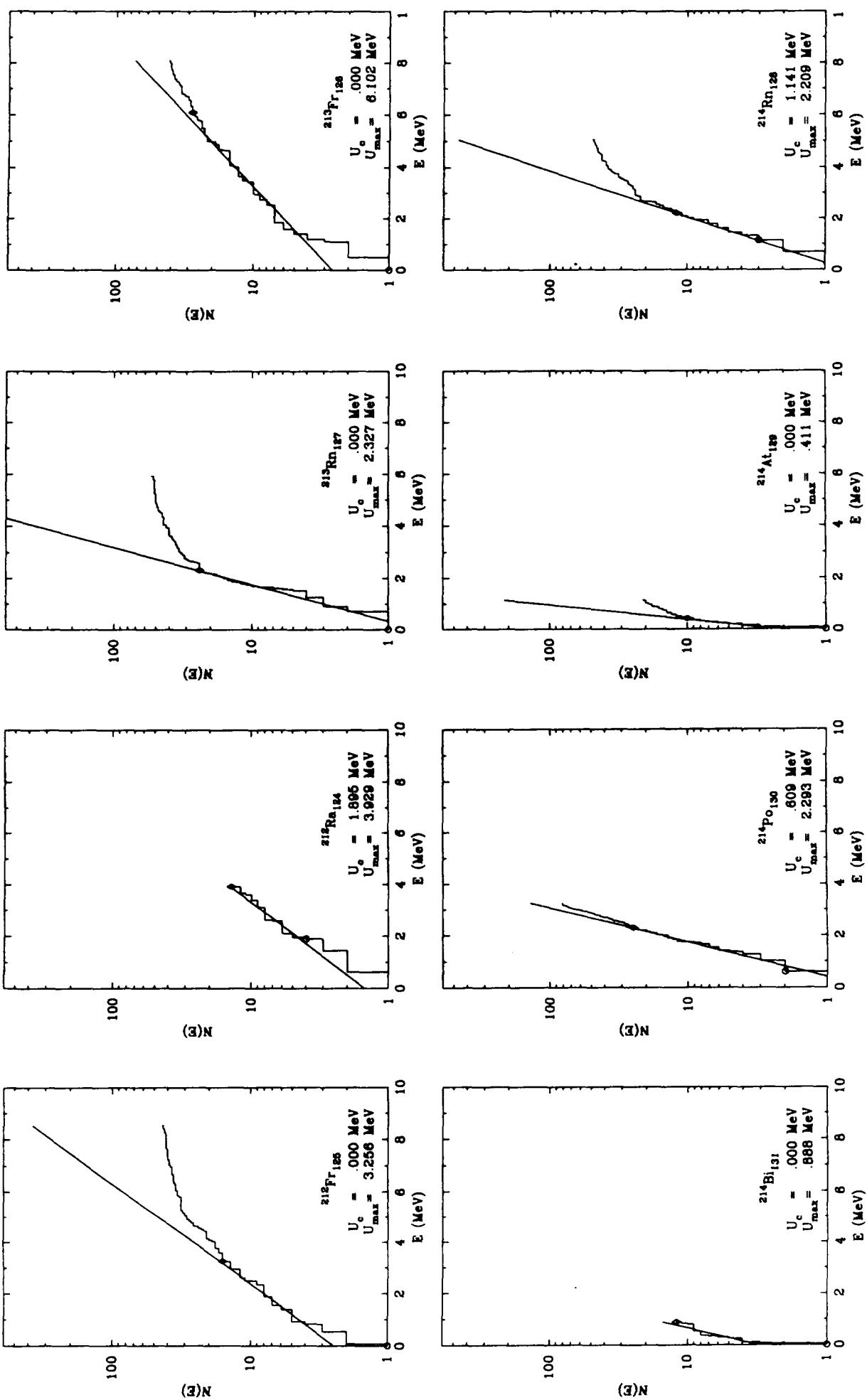


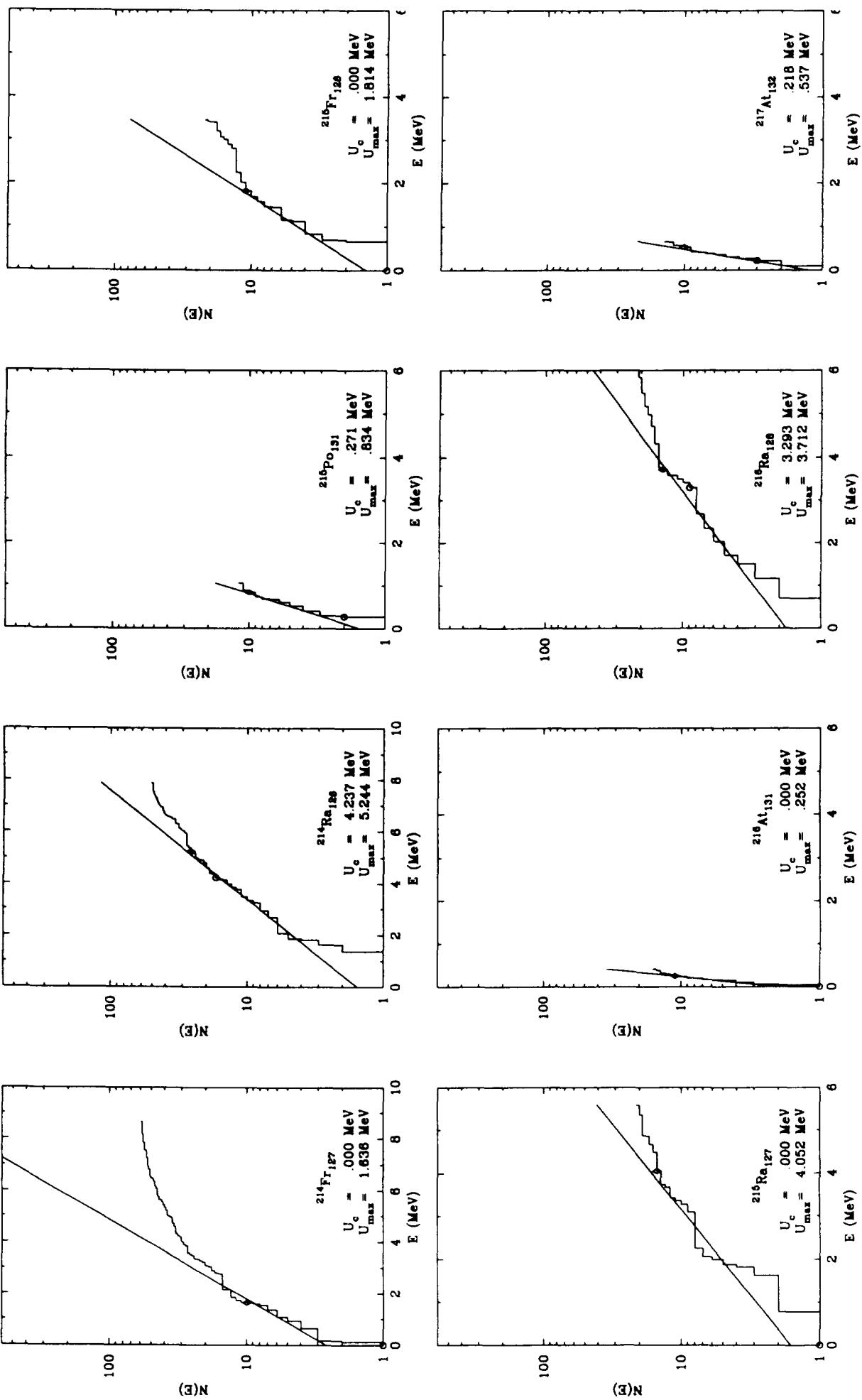


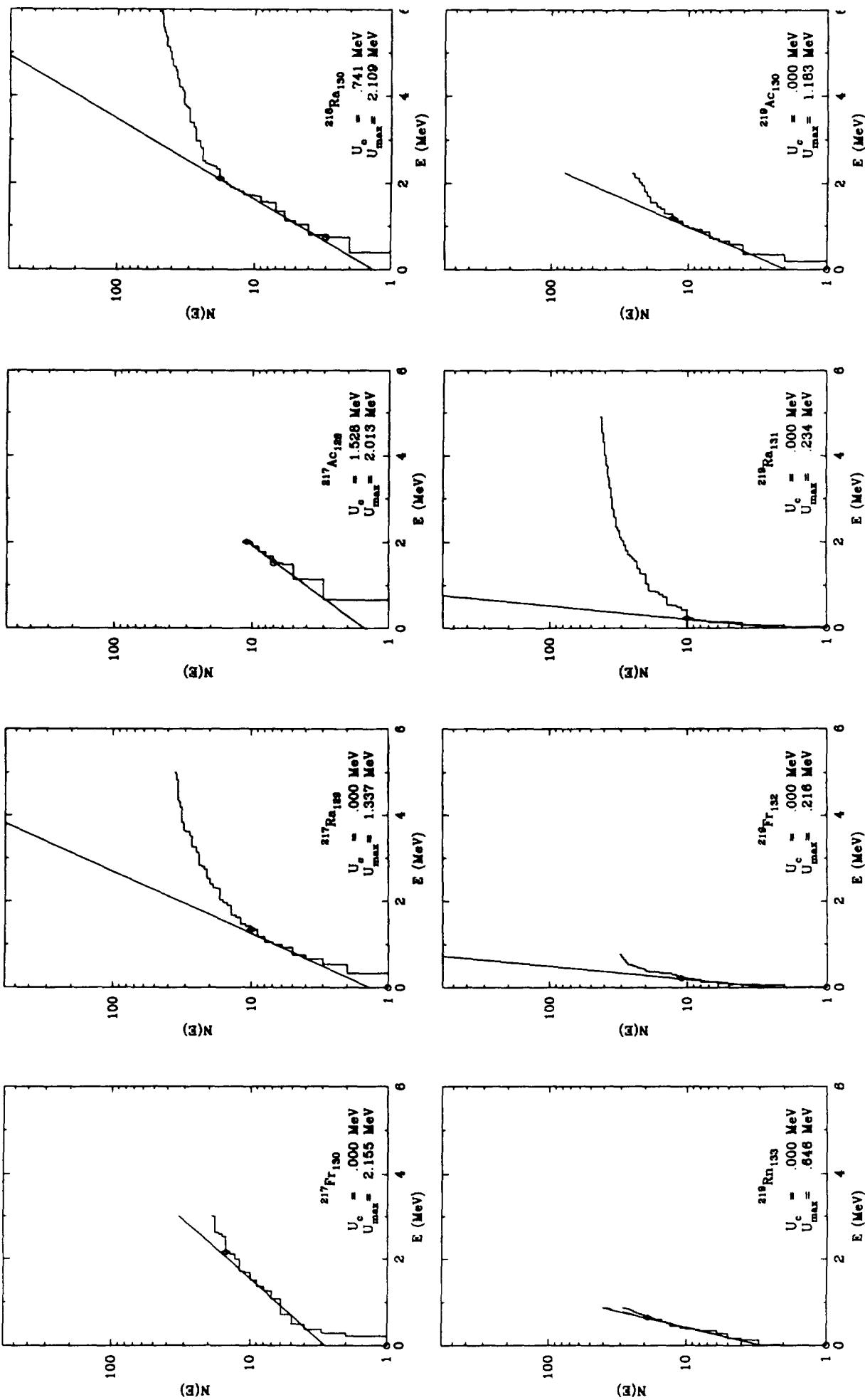


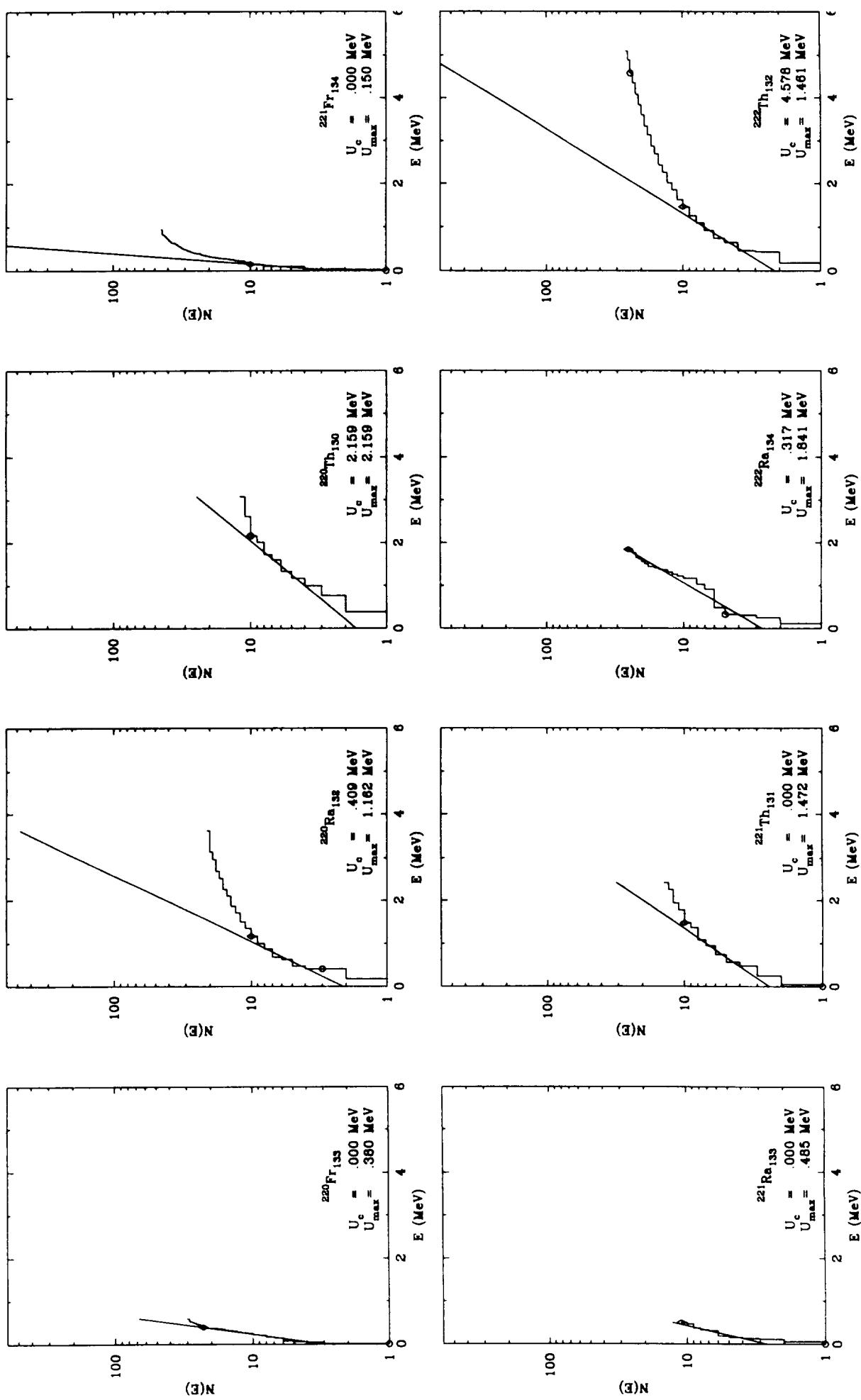


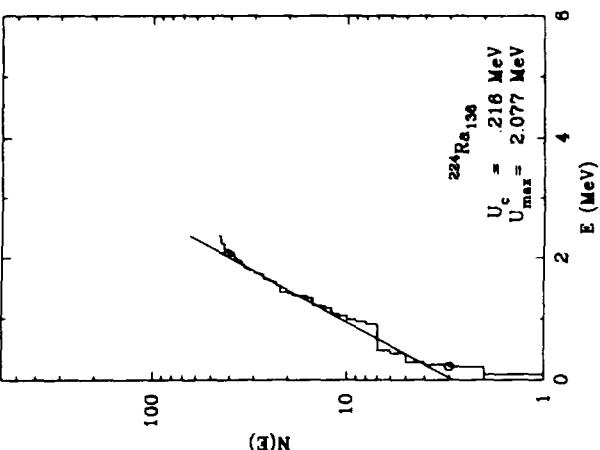
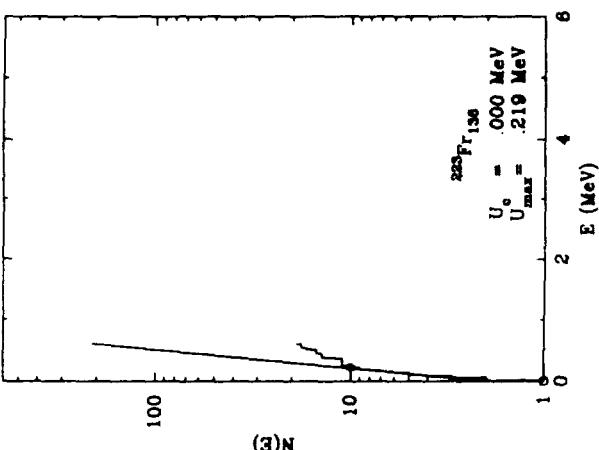
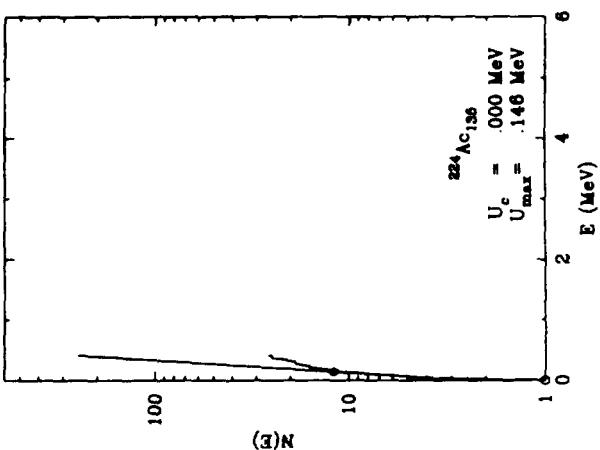
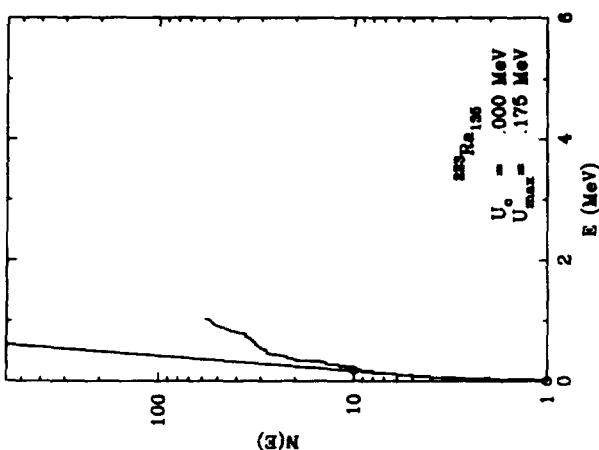
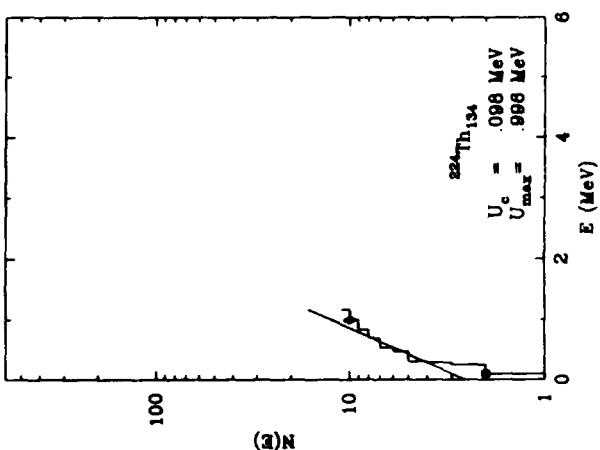
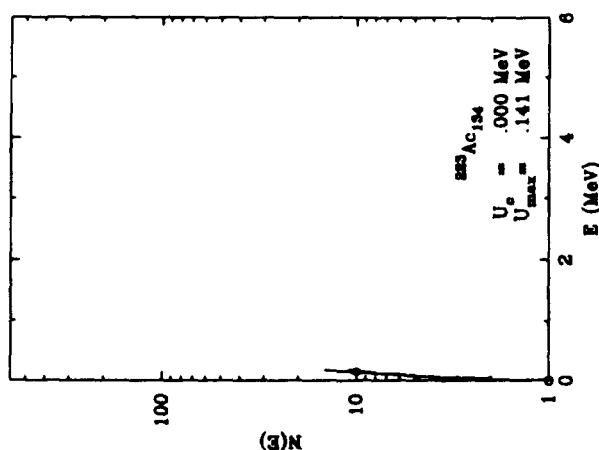
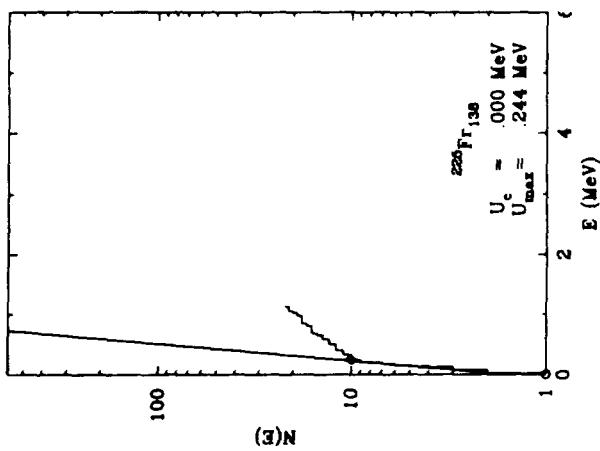
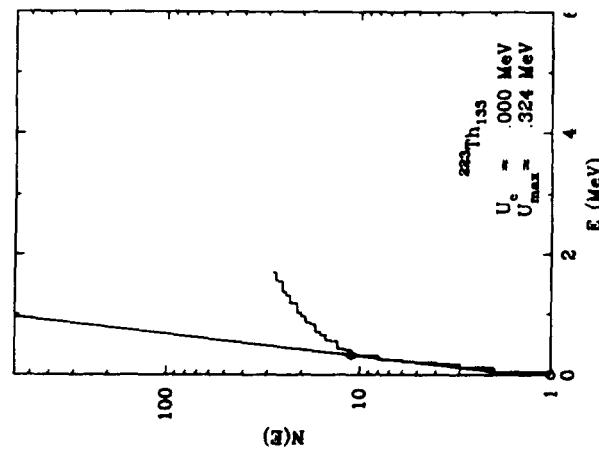


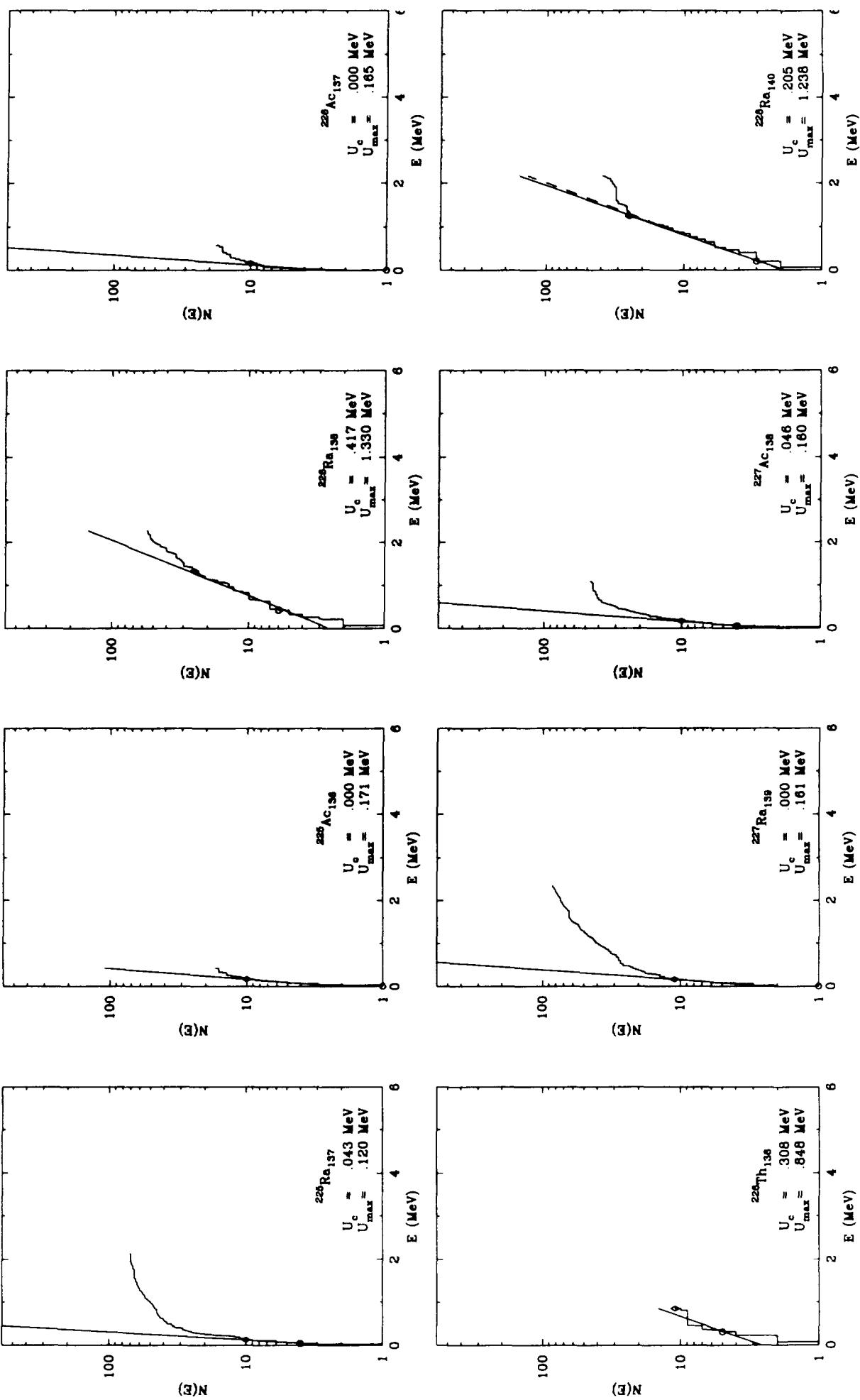


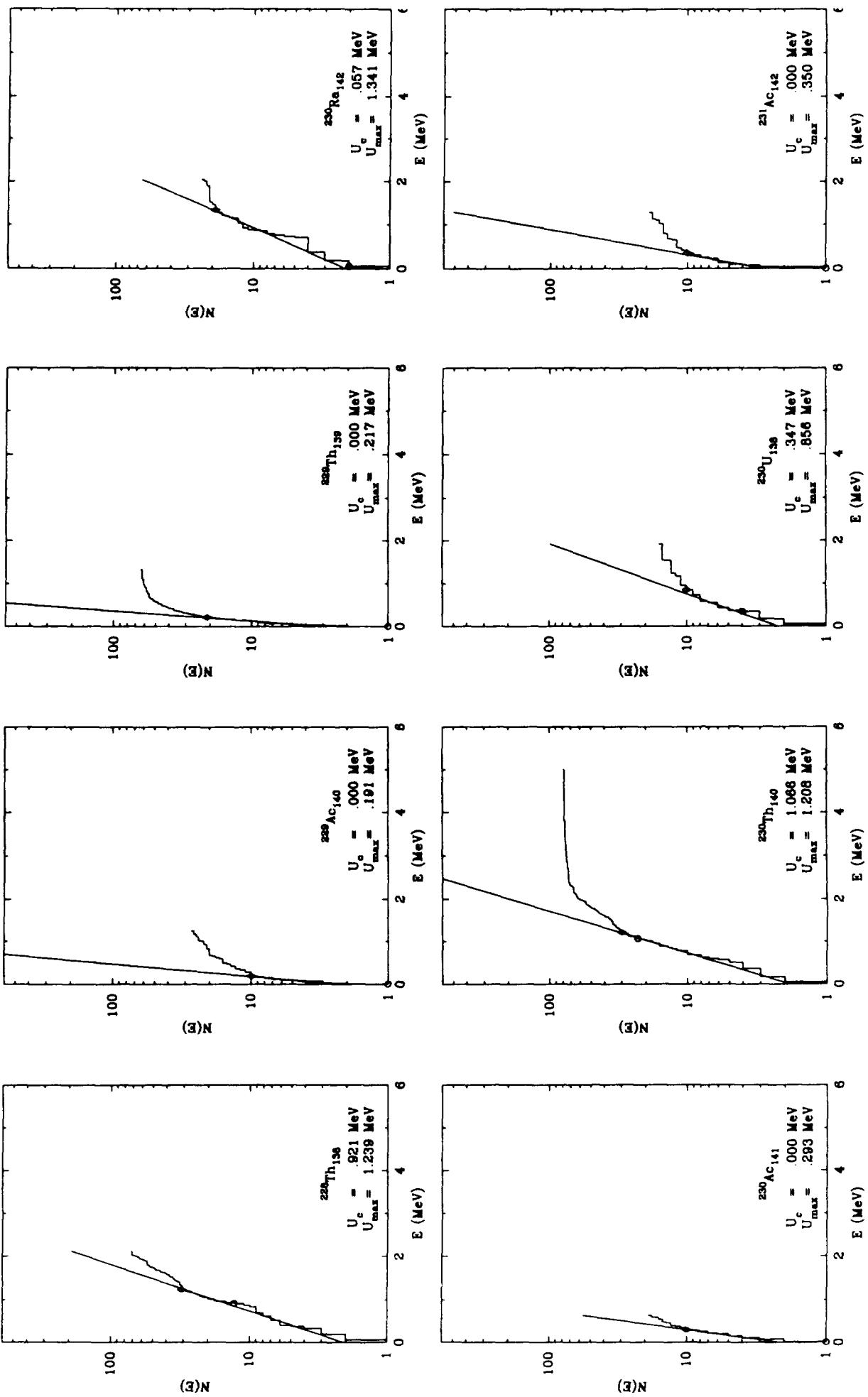


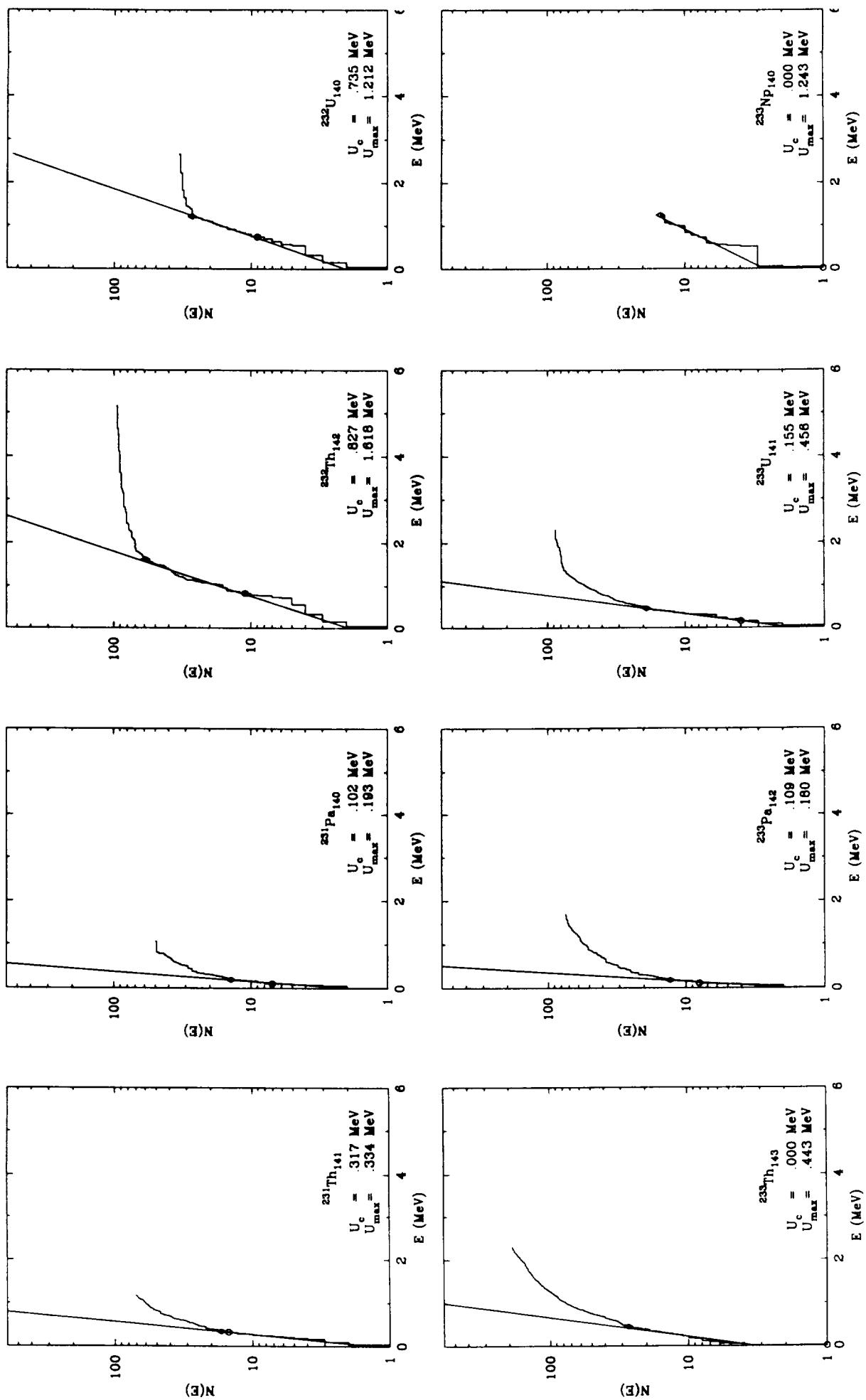


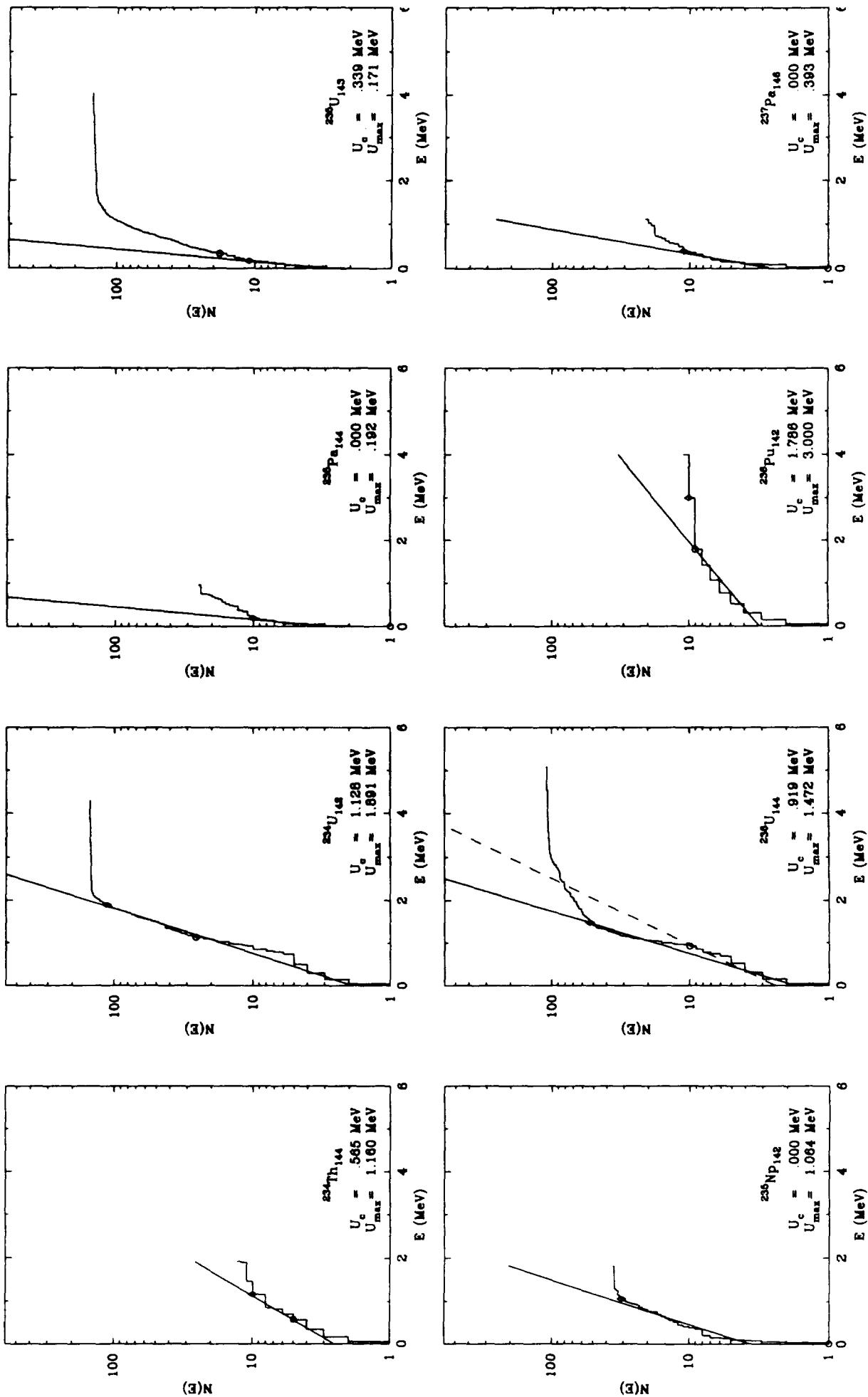


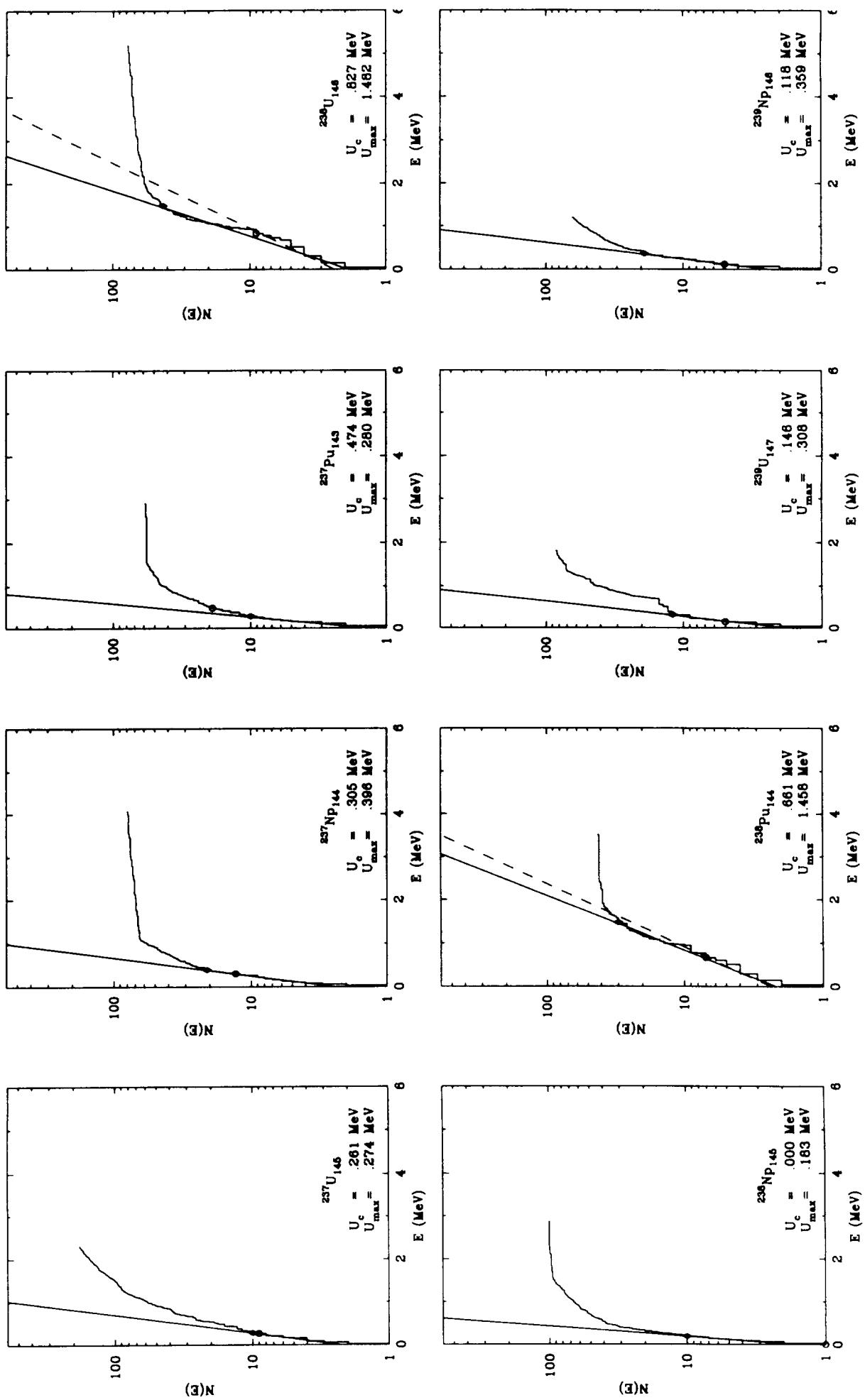


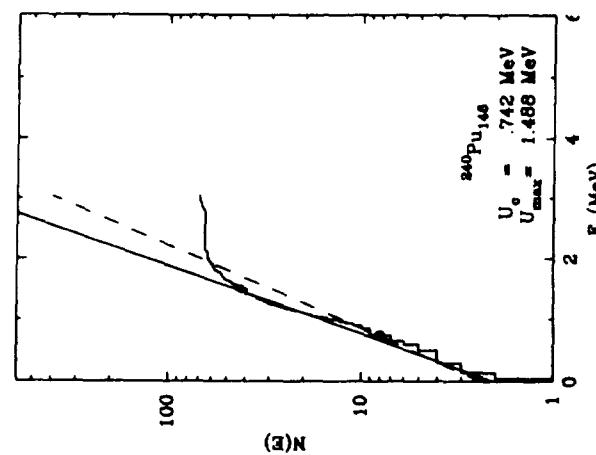




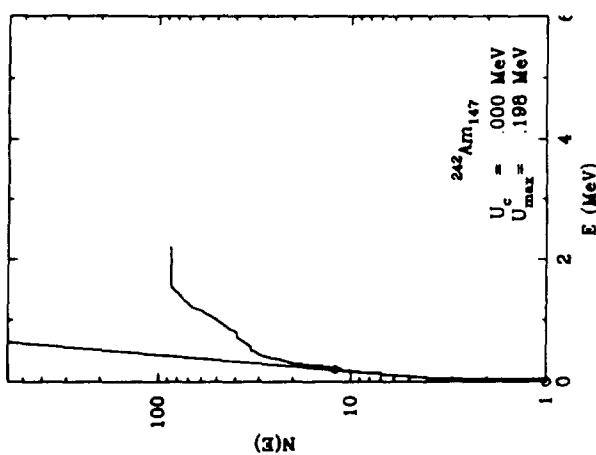




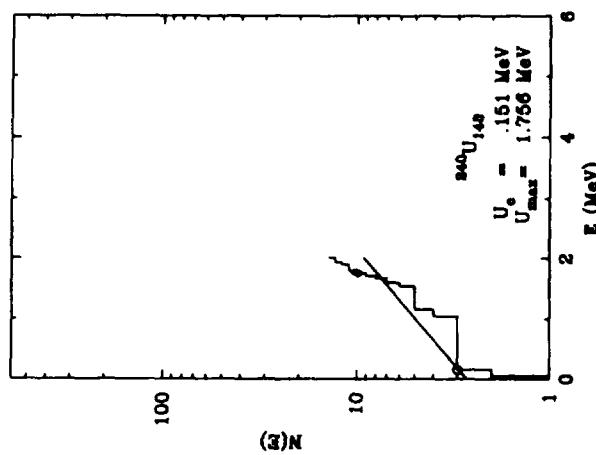




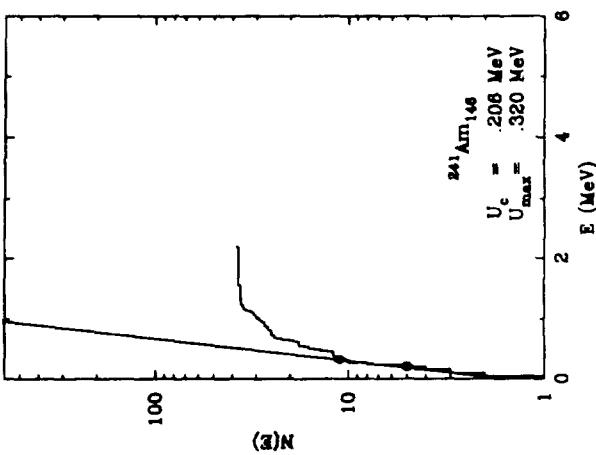
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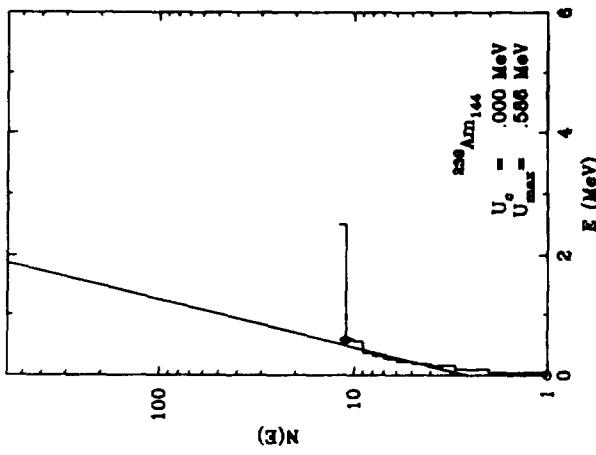
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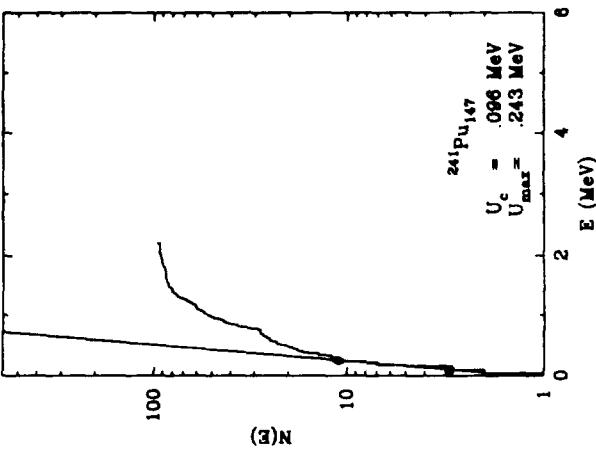
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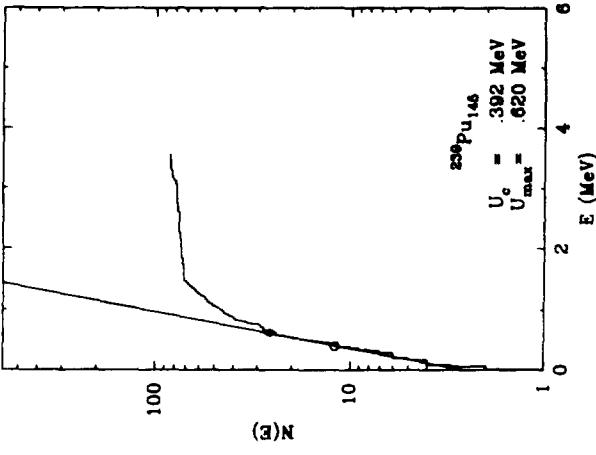
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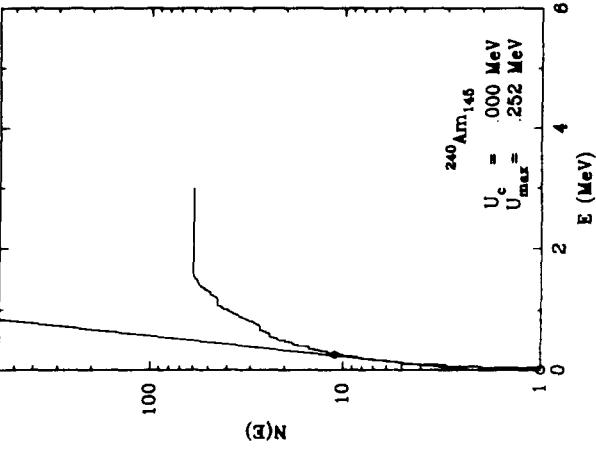
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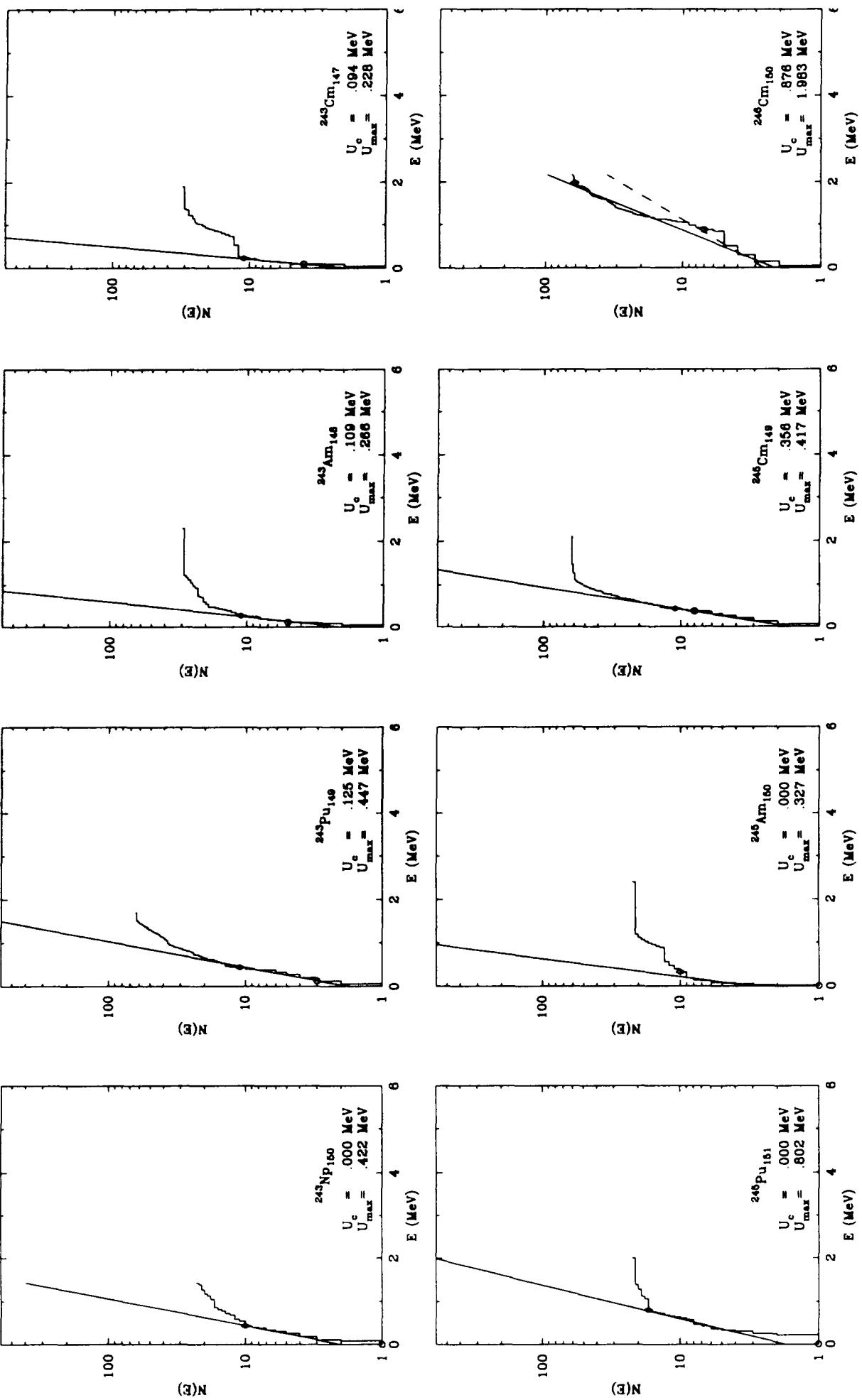
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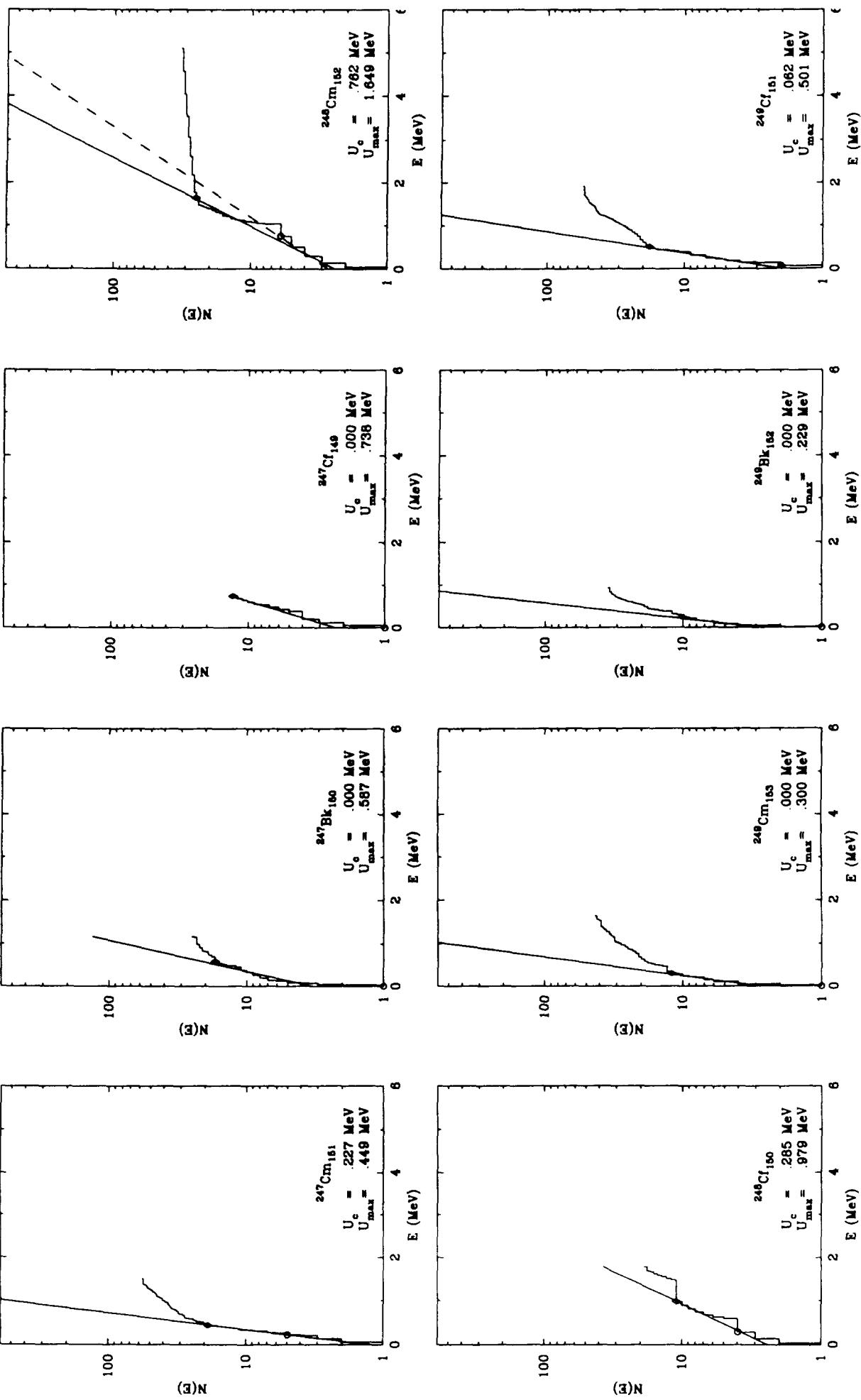


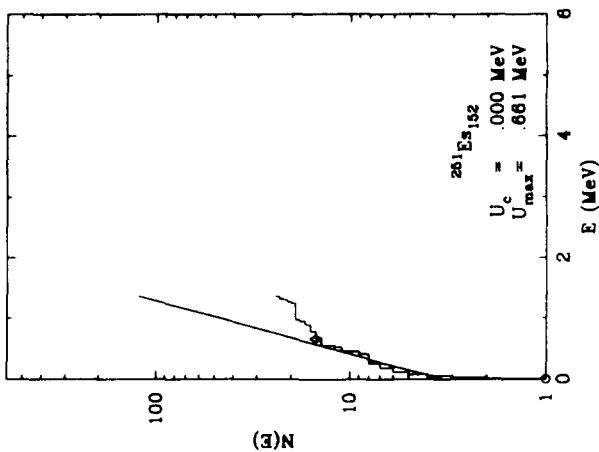
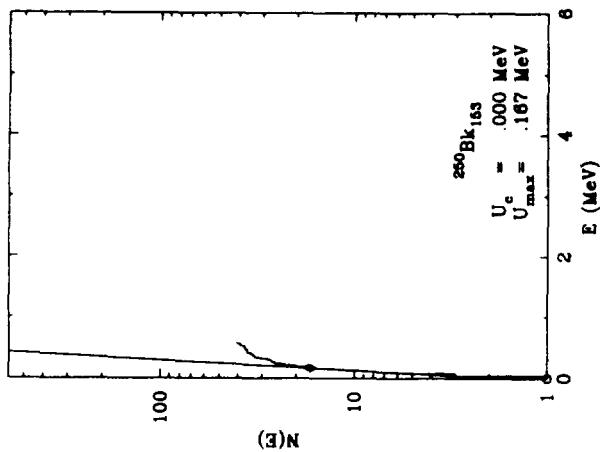
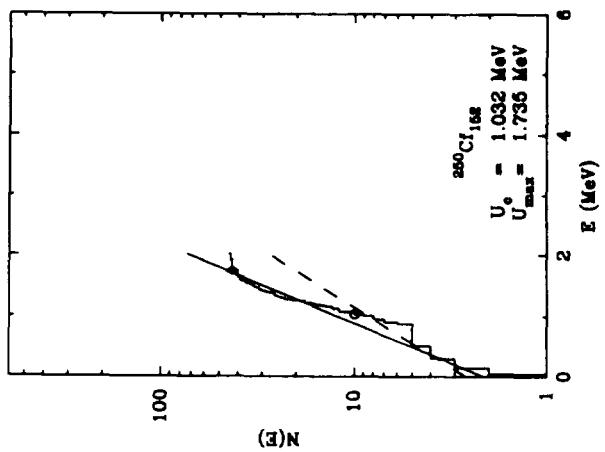
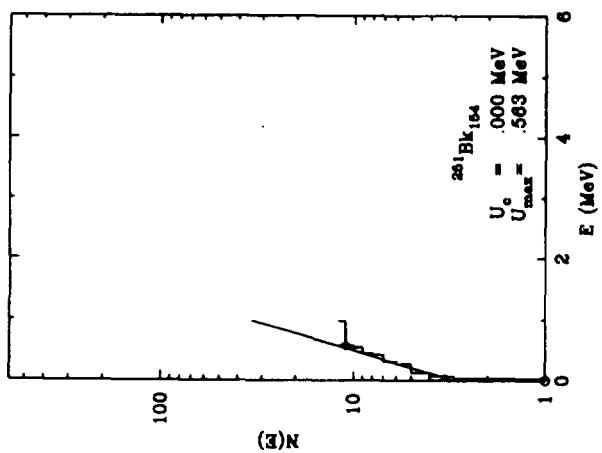
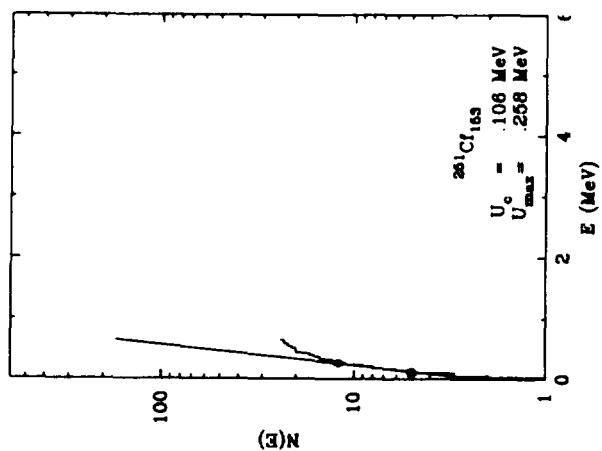
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