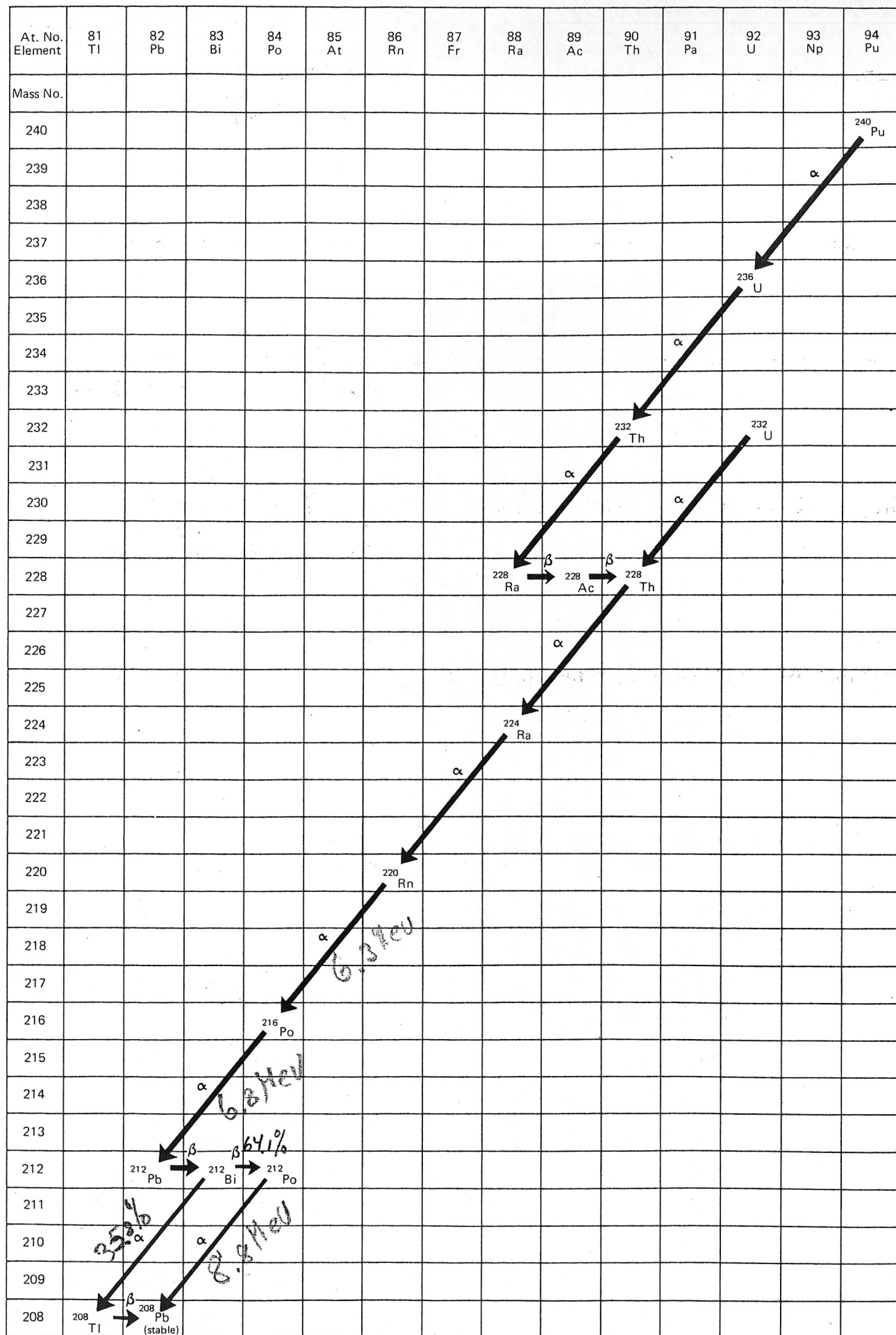
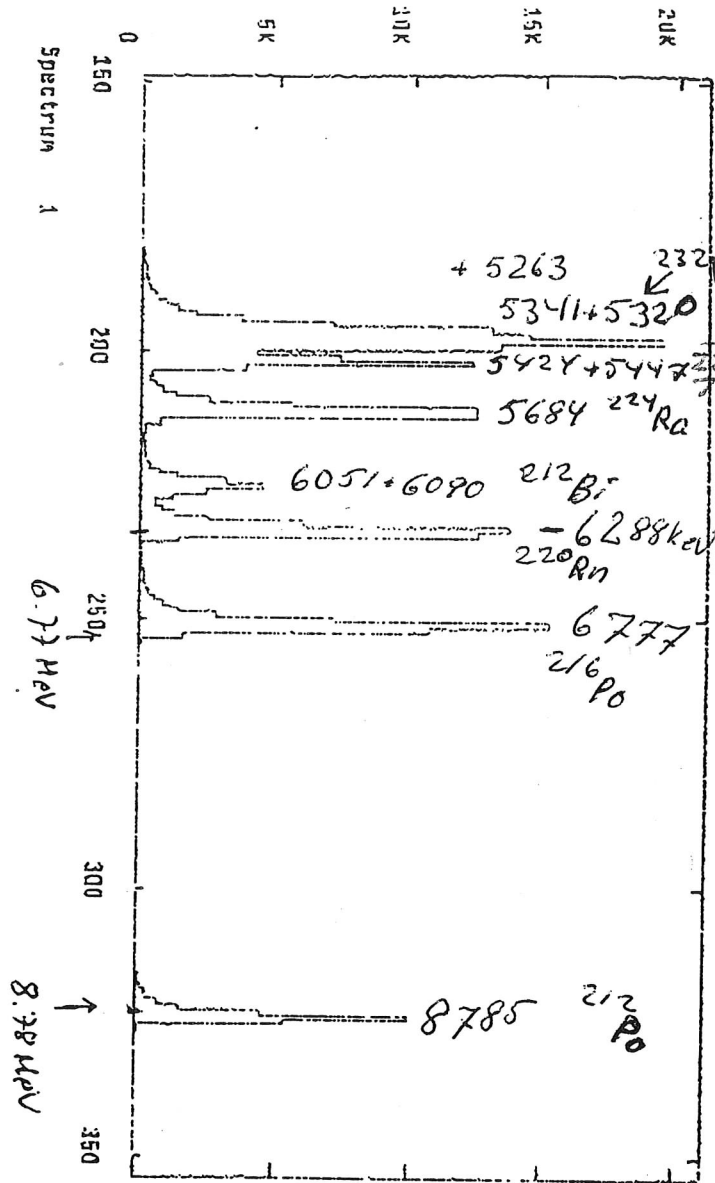




nuclide	half life	type of decay	particle energies and transition probabilities		electromagnetic transitions					
			energy MeV	transition probability	photon energy MeV	photons emitted	transitions internally converted	photon energy MeV	photons emitted	transitions internally converted
Plutonium-240	6537y	α	5.014 5.123 5.168	~0.09% ~24% ~76%	0.045	0%	24%			
Uranium-236	2.40 x 10 ⁷ y	α	4.331 4.443 4.493	~0.3% ~26% ~74%	0.050 0.113	0% 0%	26% 0.3%			
Thorium-232	1.405 x 10 ¹⁰ y	α	3.830 3.963 4.012	~0.2% ~23% ~77%	0.059 0.124	0% 0%	22% 0.2%			
Radium-228	5.75y	β ⁻	0.048	100%	0.007	0%	100%			
Actinium-228	6.13h	β ⁻	0.45 0.49 0.62 0.99 1.02 1.12 1.17 1.76 2.10	4.9% 5.6% 5.7% 7.3% 4.0% 6.5% 33% 20% 13%	0.058 0.099 0.129 0.184 0.209 0.270 0.328 0.338 0.410 0.463	0.6% 0% 2.8% 1.7% 4.3% 4.1% 5.3% 15% 2.5% 3.6%	79.4% 5% 7.2% 5.6% 0.2% 0.2% 0.2% 1% 0.5% 0.6%	0.783 0.796 0.836 0.912 0.966 0.970 1.464 1.503 1.593 1.642	1.4% 4% 2.5% 23% 7% 13% 1.1% 2.5% 4.5% 2.4%	
Uranium-232	72y	α	5.137 5.263 5.320	0.3% 31.7% 68%	0.058 0.129	0.2% 0.08%	31.8% 0.22%			
Thorium-228	1.913y	α	5.140 5.176 5.211 5.341 5.424 others	0.03% 0.2% 0.4% 28% 71% low	0.085 0.132 0.167 0.216	1.6% 0.19% 0.12% 0.29%	27.4% 0.01% 0.18% 0.01%			
Radium-224	3.64d	α	5.447 5.684	5.2% 94.8%	0.241	4.2%	1.0%			
Radon-220	55.3s	α	5.747 6.288	0.07% 99.93%	0.542	0.07%				
Toron									Toron	
Polonium-216	0.15s	α	5.984 6.777	~0.002% ~100%	0.808	0.002%				
Lead-212	10.6h	β ⁻	0.155 0.332 0.571	5% 82% 13%	0.115 0.239 0.300	0.6% 44.8% 3.4%	4.1% 37.5% 1.5%			
ThB									ThB	
Bismuth-212	60.6m	α	5.607 5.768 6.051 6.090 others	0.4% 0.6% 25.2% 9.6% low	0.040 0.288 0.328 0.453 0.727 0.785 0.893 0.952 1.079 1.513 1.621 1.680 1.806	1% 0.3% 0.1% 0.4% 6.6% 1.1% 0.4% 0.2% 0.5% 0.3% 1.5% 0.1% 0.1%	28% 0.1%			
		β ⁻	0.445 0.572 0.630 0.738 1.524 2.251 others	0.7% 0.3% 1.9% 1.5% 4.5% 55.2% low						
Polonium-212	3.05 x 10 ⁻⁷ s	α	8.785	100%						
Thallium-208	3.07m	β ⁻	1.032 1.073 1.285 1.518 1.795	3.4% 0.6% 24% 22% 50%	0.253 0.277 0.511 0.583 0.763	0.8% 6.9% 23.0% 85.8% 1.8%	0.6% 3.7% 2.0% 2.2% 0.1%	0.860 1.093 2.615	12.3% 0.4% 99.8%	0.3% 0.2%
Lead-208	stable									

Percentages relate to the disintegrations of the individual nuclides.



8.78 MeV $\Delta E = 59 \text{ keV}$

^{232}U - preparat (8 kBq) mit einer PIPS 300 mm²
 Abstand ca 100 mm

1.