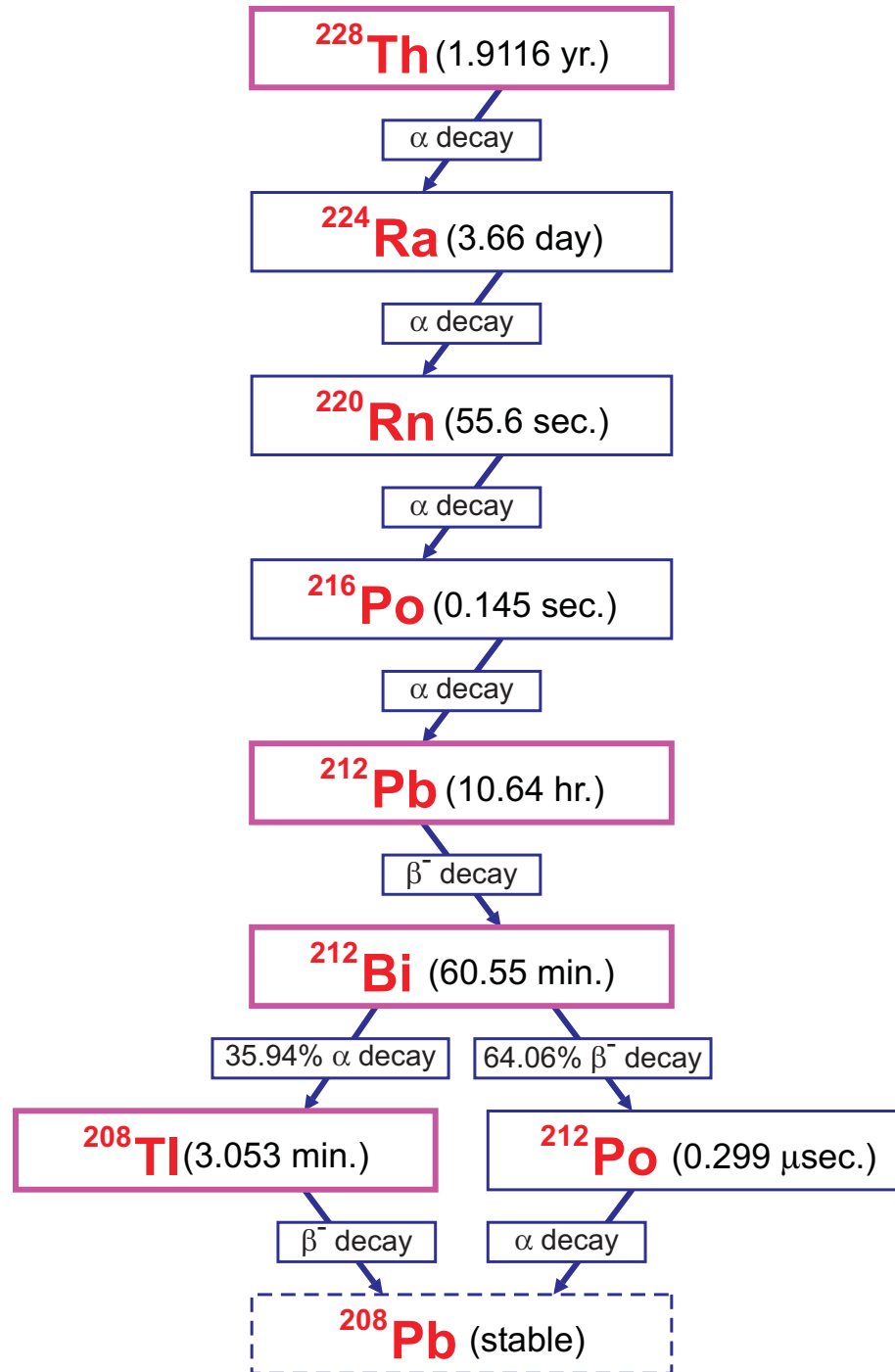
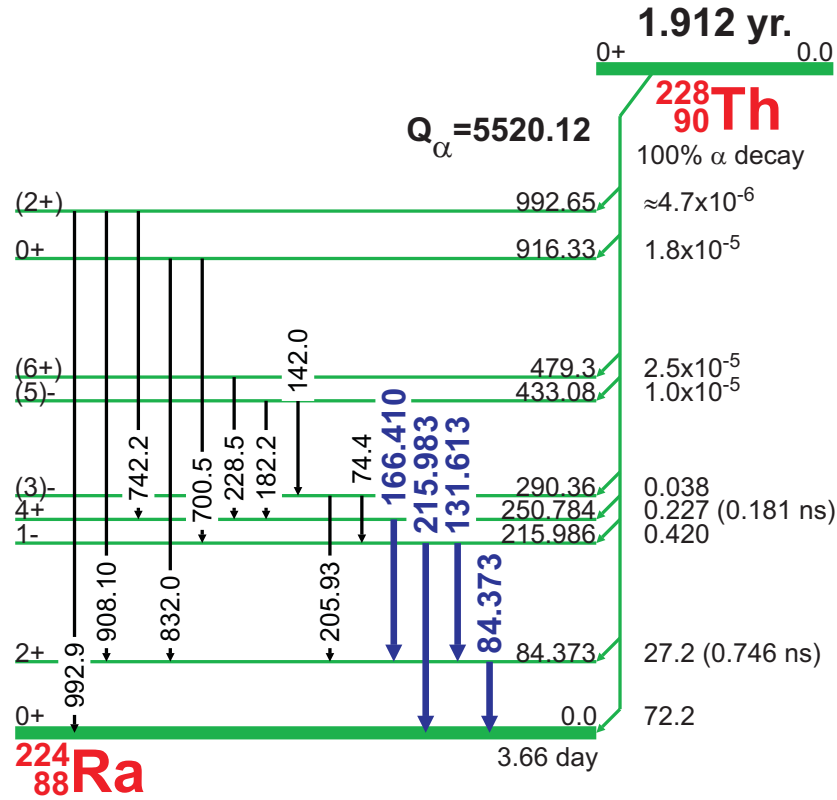


²²⁸Th Decay Chain



²²⁸Th (1.9 yr.) Decay Scheme



Based on 3/17/2000 NNDC/BNL Data

GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide: ²²⁸Th

Half Life: 1.9116(16) yr.

E_{γ} (keV)	σE_{γ}	I_{γ}	σI_{γ}	Level	
74.4	0.1	0.000 40	0.000 15	290.36	α
84.373	0.003	1.220	0.020	84.373	α
131.613	0.004	0.130 5	0.001 8	215.986	α
142.0	0.5	0.000 001 3	0.000 000 5	433.08	α
166.410	0.004	0.103 6	0.001 5	250.784	α
182.2	0.2	0.000 005 2	0.000 001 8	433.08	α
205.93	0.05	0.019 6	0.000 6	290.36	α
215.983	0.005	0.253	0.003	215.986	α
228.5	0.2	0.000 018	0.000 004	479.3	α
700.5	0.5	0.000 003 1	\approx	916.33	α
742.2	0.5	0.000 001 5	0.000 000 5	992.65	α
832.0	0.2	0.000 015	0.000 002	916.33	α
908.10	0.10	0.000 001 7	\approx	992.65	α
992.9	1.0	0.000 001 5	\approx	992.65	α

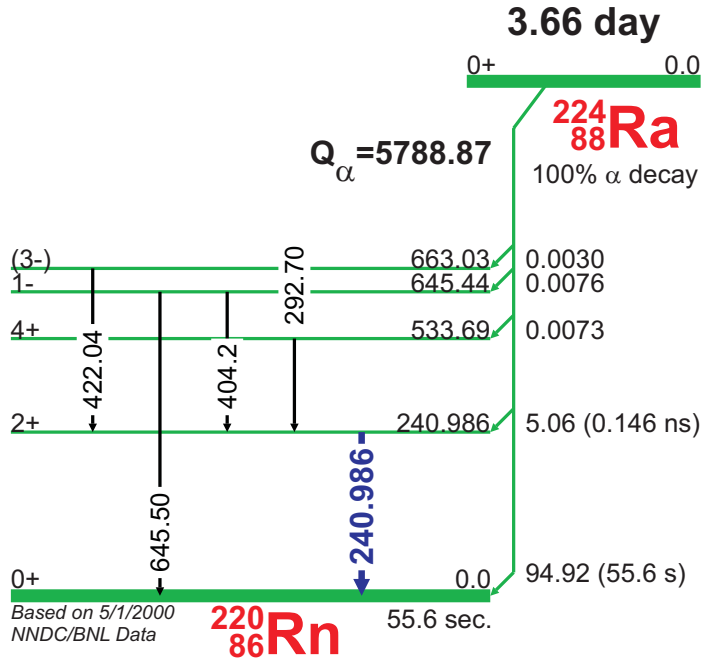
E_{γ} , σE_{γ} , I_{γ} , σI_{γ} , Levels from ENSDF Database as of March 17, 2000

① These I_{γ} are per 100 Decays of ²²⁸Th.

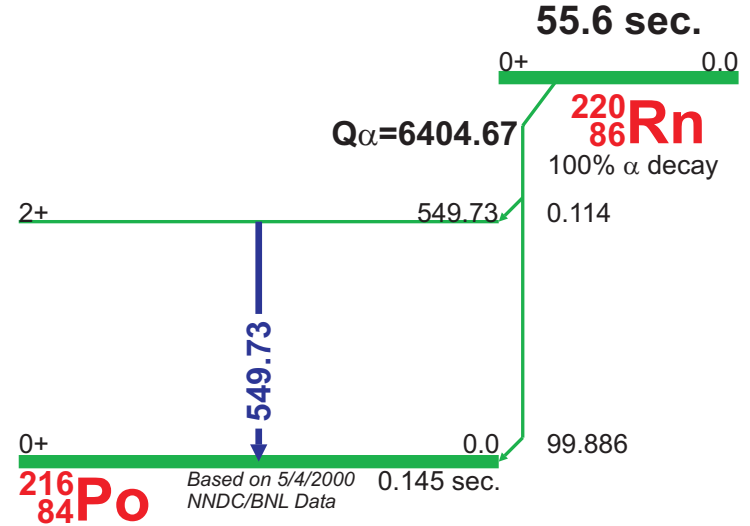
② Normalization factor is 0.00122, and its uncertainty is taken to be 0.0.



²²⁴Ra (3.66 day) Decay Scheme



²²⁰Rn (55 sec.) Decay Scheme



GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide: **²²⁴Ra** Half Life: 3.66(4) day

E_{γ} (keV)	σE_{γ}	I_{γ}	σI_{γ}	Level	
240.986	0.006	4.10	0.05	240.986	α
292.70	0.10	0.006 2	0.000 7	533.69	α
404.2	0.2	0.002 2	0.000 5	645.44	α
422.04	0.10	0.003 0	0.000 5	663.03	α
645.50	0.10	0.005 4	0.000 9	645.44	α

E_{γ} , σE_{γ} , I_{γ} , σI_{γ} , Levels from ENSDF Database as of May 4, 2000

① These I_{γ} are per 100 Decays of ²²⁴Ra.

② Normalization factor is 1.0, and its uncertainty is taken to be 0.0

GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide: **²²⁰Rn** Half Life: 55.6(1) sec

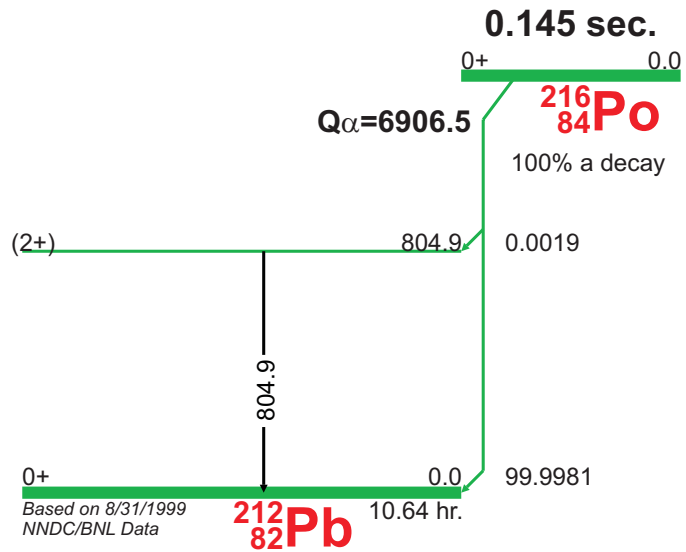
E_{γ} (keV)	σE_{γ}	I_{γ}	σI_{γ}	Level	
549.73	0.05	0.114	0.017	549.73	α

E_{γ} , σE_{γ} , I_{γ} , σI_{γ} , Levels from ENSDF Database as of May 4, 2000

① These I_{γ} are per 100 Decays of ²²⁰Rn.

② Normalization factor is 1.0, and its uncertainty is taken to be 0.0



^{216}Po (0.145 sec.) Decay Scheme**GAMMA-RAY ENERGIES AND INTENSITIES**Nuclide: ^{216}Po

Half Life: 0.145(2) sec

E_γ (keV)	σE_γ	I_γ	σI_γ	Level
804.9	0.5	0.001 9	0.000 3	804.9 α

 E_γ , σE_γ , I_γ , σI_γ Levels from ENSDF Database as of May 4, 2000① These I_γ are per 100 Decays of ^{216}Po .

② Normalization factor is 1.0, and its uncertainty is taken to be 0.0.

