^{212}Po α decay (45.1 s) 1976FrZO,1962Pe15

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 108,1583 (2007)	1-Jun-2007

Parent: ^{212}Po: E=2930 *10*; $J^{\pi}=(18^+)$; $T_{1/2}$=45.1 s *6*; Q(α)=8954.12 *11*; %α decay=99.93 *2*

^{212}Po-E: From Eα to g.s. of 1976FrZO and ^{212}Po g.s. Q(α) value.

^{212}Po-%α decay: %α=99.93 *2*, %IT=0.07 *2* (1989Ku08). Measured Iα(8.784 MeV)/Iα(11.65 MeV); Iα(8.784 MeV) was measured In coincidence with γ's following isomeric state decay. IT was assumed that 6.5 *10* gammas (allowing for the internal conversion of the nine gammas In the decay chain) followed each IT decay.

^{208}Pb Levels

E(level)[†]	J^{π}[‡]
0.0	0^+
2607 *14*	3^-
3195 *13*	5^-

[†] From ΔQ(α).
[‡] From Adopted Levels.

α radiations

Eα[†]	E(level)	Iα[‡#&]	HF[@]
8525 *8*	3195	2.05 *9*	1.7×10^{9} *3*
9102 *10*	2607	1.00 *4*	7.5×10^{10} *10*
11660 *10*	0.0	96.9 *1*	4.0×10^{13} *4*

[†] From 1976FrZO. Other: 1962Pe15.
[‡] From 1962Pe15. Other: 1976FrZO.
[#] The following α groups were looked for but not seen: 7699 Iα<0.5, 7137 Iα<3, 6857 Iα<5 (1976FrZO).
[@] $r_0(^{208}Pb)$=1.5212 *4*.
[&] For absolute intensity per 100 decays, multiply by 0.9993 *2*.

$\gamma(^{208}Pb)$

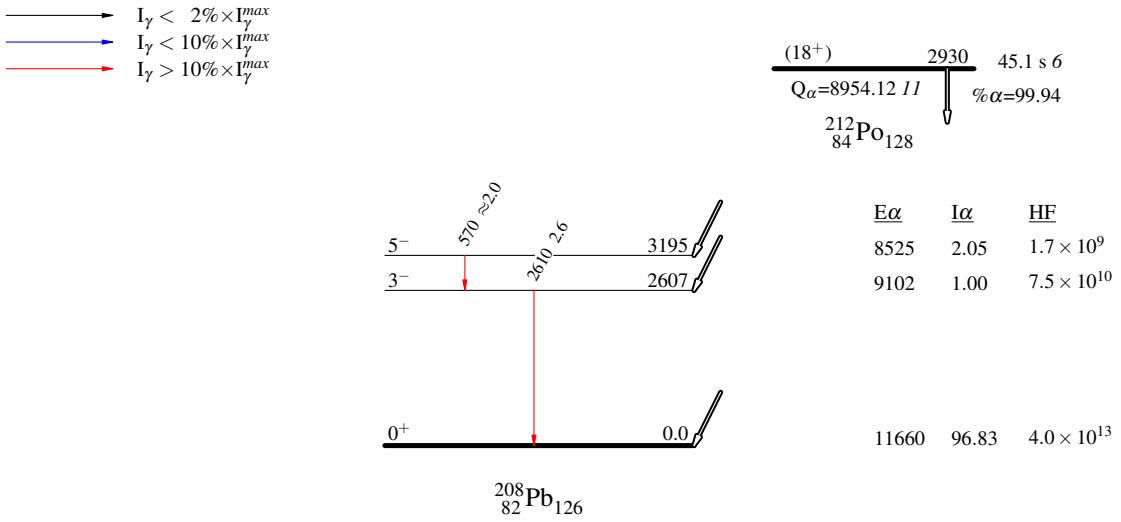
E$_\gamma$	I$_\gamma$[†]	E$_i$(level)	J_i^{π}	E$_f$	J_f^{π}
570 *15*	≈2	3195	5^-	2607	3^-
2610 *20*	2.6 *3*	2607	3^-	0.0	0^+

[†] For absolute intensity per 100 decays, multiply by 0.9993 *2*.

^{212}Po α decay (45.1 s) 1976FrZO,1962Pe15

Decay Scheme

Intensities: I_γ per 100 parent decays



Eα	Iα	HF
8525	2.05	1.7×10^9
9102	1.00	7.5×10^{10}
11660	96.83	4.0×10^{13}