^{214}Bi α decay (19.9 min) 1960Wa14

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 121, 561 (2014)	31-Mar-2014

Parent: ^{214}Bi: E=0.0; $J^\pi=1^-$; $T_{1/2}$=19.9 min *4*; Q(α)=5621 *3*; %α decay=0.021 *1*

1960Wa14: Measured Eα, Iα. Decay scheme from an earlier evaluation (Nuclear Data – BI-5-13 (1966). Other measurements: 1948Ch22 and 1934Le01.

^{210}Tl Levels

E(level)	J^π[†]	$T_{1/2}$[†]
0.0	(5^+)	1.30 min *3*
62.5	(4^+)	
253.6	(4^+,5^+)	
334	(6^+)	
498	(4^+,5^+)	
582	(3^+)	

[†] From Adopted Levels.

α radiations

Eα	E(level)	Iα[‡@]	HF[#]	Comments
4941	582	0.25 *5*	129	
5023	498	0.21 *4*	464	
5184	334	0.61 *6*	1290	
5273[†] *9*	253.6	5.8 *1*	363	Iα: Other: 5.8 *3* (1991Ry01).
5452[†] *3*	62.5	53.9 *3*	372	Iα: Other: 53.7 *20* (1991Ry01).
5516[†] *3*	0.0	39.2 *3*	1040	Iα: Other: 40.5 *15* (1991Ry01).

[†] Recommended by 1991Ry01 from measured values in 1960Wa14, 1948Ch22, and 1934Le01.
[‡] From 1960Wa14. Intensities are per 100 α decays. Other measurements: 1948Ch22, 1934Le01.
[#] Using $r_0(^{210}Tl)$=1.5394, from ^{214}Po α decay (1998Ak04).
[@] For absolute intensity per 100 decays, multiply by 0.00021 *1*.

$\gamma(^{210}Tl)$

E$_\gamma$[†]	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.	α[‡]	Comments
62.5	62.5	(4^+)	0.0	(5^+)	(M1)	6.20	α(L)=4.75 *7*; α(M)=1.110 *16* α(N)=0.280 *4*; α(O)=0.0544 *8*; α(P)=0.00514 *8* Mult.: observation of dominant L1-subshell conversion line suggests M1 multipolarity (1951Co15).
191.1	253.6	(4^+,5^+)	62.5	(4^+)			

[†] From ce data in 1951Co15.
[‡] Additional information 1.

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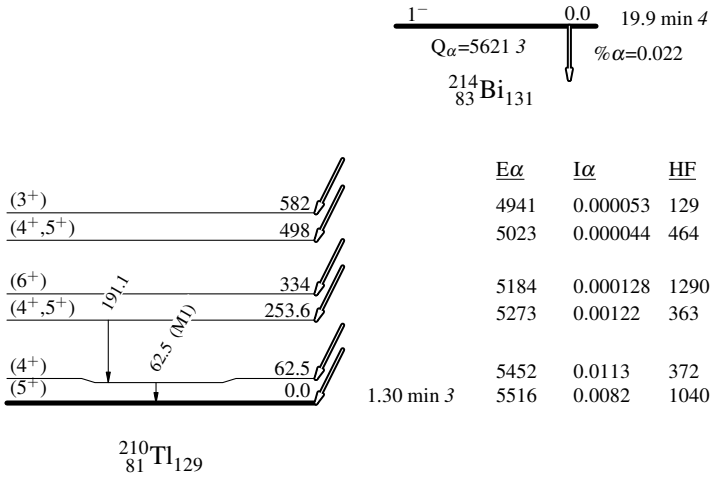
Decay Scheme



	Eα	Iα	HF
	4941	0.000053	129
	5023	0.000044	464
	5184	0.000128	1290
	5273	0.00122	363
	5452	0.0113	372
1.30 min 3	5516	0.0082	1040