
 ^{203}Pb IT decay (6.21 s) [1968Do11](#),[1977Li04](#),[1977Sa18](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 177, 509, 2021	4-Jul-2021

Parent: ^{203}Pb : E=825.11 10; $J^\pi=13/2^+$; $T_{1/2}=6.21$ s 8; %IT decay=100.0

^{203}Pb -E, J^π , $T_{1/2}$: From Adopted Levels.

 ^{203}Pb Levels

E(level) [†]	J^π [‡]	$T_{1/2}$ [‡]	Comments
0	$5/2^-$		
820.2 5	$7/2^-$		
825.11 10	$13/2^+$	6.21 s 8	E(level): From Adopted Levels. $T_{1/2}$: Weighted average of 6.7 s 4 (1955Fi30), 6.5 s 5 (1956St05), 6.09 s 10 (1957As65), 7.1 s 5 (1958Fr53), 6.4 s 2 (1977Li04).

[†] From a least-squares fit to $E\gamma$, unless otherwise stated.

[‡] From Adopted Levels.

203Pb IT decay (6.21 s) 1968Do11,1977Li04,1977Sa18 (continued) $\gamma(^{203}\text{Pb})$

I γ normalization: From I(γ +ce)(820.2 γ) + I(γ +ce)(825.2 γ) = 100.

E_γ [†]	I_γ [#]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]	δ [†]	α [‡]	$I_{(\gamma+ce)}$ [#]	Comments
(5.0 7)	2.02×10 ⁻⁹ 13	825.11	13/2 ⁺	820.2	7/2 ⁻	[E3]		3.92×10 ⁹	7.9 5	%I γ =1.463×10 ⁻⁹ 8 α (M)=2.94×10 ⁹ 5 α (N)=8.37×10 ⁸ 12; α (O)=1.355×10 ⁸ 19; α (P)=3.29×10 ⁶ 5 E γ : From level energy difference. I $_{(\gamma+ce)}$: From intensity balance at the 820-keV level. %I γ =5.7 4 α (N)=0.0001053 16; α (O)=2.05×10 ⁻⁵ 3; α (P)=1.91×10 ⁻⁶ 3 α (K)=0.00826 14; α (L)=0.00173 3; α (M)=0.000416 7 I γ : From I γ (820.0 γ)/I γ (825.3 γ)=7.8% 5 (1977Li04). Others: 9.3% 13 (1988Ro08) and 11.86% 17 (1968Do11). %I γ =72.6 4 α (K)=0.216 3; α (L)=0.0628 9; α (M)=0.01586 23 α (N)=0.00407 6; α (O)=0.000795 12; α (P)=7.35×10 ⁻⁵ 11 Mult.: α (K)exp=0.24 2 from 0.22 2 in 1961Pe11; α (K)exp=0.22 2 (1979Mc02); K/L=3.3 3 and α (K)exp=0.22 (1977Li04).
820.2 5	7.8 5	820.2	7/2 ⁻	0	5/2 ⁻	E2+M1	5.4 3	0.01053 17		
825.1 1	100	825.11	13/2 ⁺	0	5/2 ⁻	M4		0.299		

[†] From adopted gammas.

[‡] Additional information 1.

[#] For absolute intensity per 100 decays, multiply by 0.726 4.

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