^{198}Bi IT decay (7.7 s) 1972Ha73,1977Ha26

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao	NDS 133, 221 (2016)	1-Dec-2015

Parent: ^{198}Bi: E=248.5+x *5*; $J^{\pi}=10^{-}$; $T_{1/2}$=7.7 s *5*; %IT decay=100.0
Identification: ^{191}Ir(^{12}C,5nγ) γ(t) E=81 MeV, excit. ^{181}Ta(^{22}Ne,5nγ) γ(t) E=120 MeV, excit.
Sources produced by ^{191}Ir(^{12}C,5n) (1972Ha73) and ^{181}Ta(^{22}Ne,5n) (1972Ha73).

^{198}Bi Levels

E(level)	J^{π}[†]	$T_{1/2}$	Comments
0.0[†]	$(2^+,3^+)$	10.3[†] min *3*	
0.0+x[†]	7^+	11.6[†] min *3*	
248.5+x *5*	10^-	7.7 s *5*	%IT=100 $T_{1/2}$: From 248.5γ decay curve (1972Ha73). Half-life confirmed in ^{191}Ir(^{12}C,5nγ) (1974HaWH).

[†] From Adopted Levels.

$\gamma(^{198}Bi)$

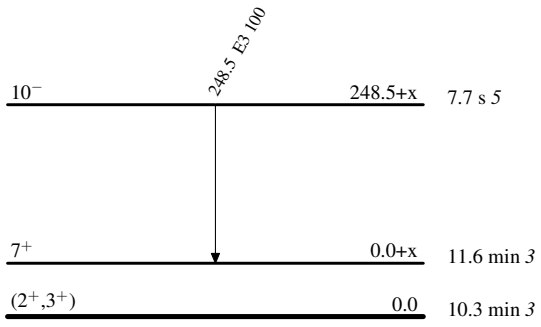
E_γ	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α[‡]	$I_{(\gamma+ce)}$[†]	Comments
248.5 *5*	39 *1*	248.5+x	10^-	0.0+x	7^+	E3	1.54 *3*	100	α(K)= 0.1645; α(L)= 0.5652; α(M)= 0.1546; α(N+..)= 0.04774 I_γ: Deduced from I(γ+ce) and α. Mult.: From α(K)exp=0.24 *5* (1972Ha73) K x-ray/Iγ.

[†] Absolute intensity per 100 decays.
[‡] Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

^{198}Bi IT decay (7.7 s) 1972Ha73,1977Ha26

Decay Scheme

Intensities: Relative $I_{(\gamma+ce)}$
%IT=100.0



$^{198}_{83}Bi_{115}$