^{209}Bi α decay 2003De11

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 166, 1 (2020)	20-Apr-2020

Parent: ^{209}Bi: E=0.0; $J^{\pi}=9/2^{-}$; $T_{1/2}=2.01\times10^{19}$ y *8*; Q(α)=3137.3 *8*; %α decay=100.0
^{209}Bi-$T_{1/2}$ is from 2015Ch30 and Q(α) is from 2017Wa10.

^{205}Tl Levels

E(level)	J^{π}[†]	Comments
0.0	$1/2^{+}$	
204	$3/2^{+}$	E(level): From Eγ.

[†] From Adopted Levels.

α radiations

Eα[‡]	E(level)	Iα[#@]	HF[†]	Comments
(2877)	204	1.2 *3*	121 *35*	Eα: Not observed experimentally, but the existence of this branch was confirmed from calorimetric studies in 2012Be06. The values deduced by the evaluator from Eα to g.s. and 204γ, depopulating the $3/2^{+}$ level.
3077.0 *22*	0.0	98.8 *3*	559 *82*	Eα: From Q(α)=3137 *1* (stat) *2* (syst) in 2003De11.

[†] Using r_0=1.449 *42*, value for the neighboring ^{206}Hg isotope (1998Ak04).
[‡] From 2003De11, unless otherwise stated.
[#] From 2012Be06.
[@] Absolute intensity per 100 decays.

$\gamma(^{205}Tl)$

E$_\gamma$	E$_i$(level)	J_i^{π}	E$_f$	J_f^{π}	Comments
204	204	$3/2^{+}$	0.0	$1/2^{+}$	E$_\gamma$: Rounded off value from adopted gammas. Eγ=192 keV *8* was determined from calorimetric measurements in 2012Be06.

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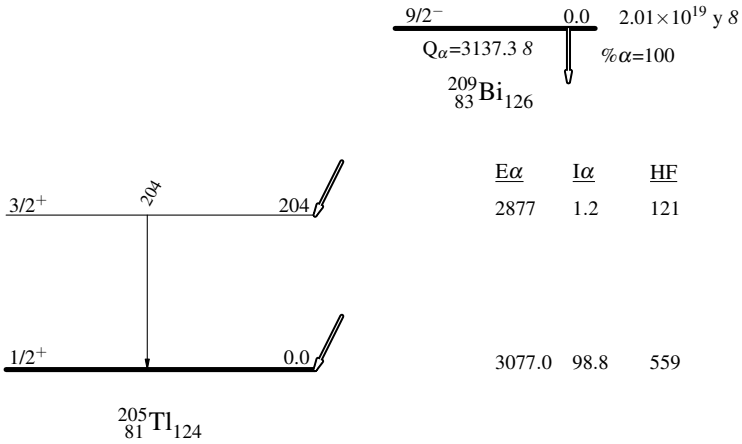
Decay Scheme



Eα	Iα	HF
2877	1.2	121
3077.0	98.8	559