^{189}Po α decay (3.5 ms) 2005Va04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 619 (2005)	1-Nov-2005

Parent: ^{189}Po: E=0.0; $T_{1/2}$=3.5 ms *5*; Q(α)=7701 *15*; %α decay≤100.0

Q(α)=7698 *11* from 2005Va04; 7701 *15* from 2003Au03.

2005Va04: Activity produced by ^{142}Nd(^{52}Cr,5n) at 5.27 MeV/A; ^{142}Nd(^{50}Cr,3n) at 5.04 MeV/A; 99.8% enriched $^{142}Nd_2F_3$ target; Detectors: velocity filter (SHIP), 16-strip position sensitive silicon detector for α-particles; 6 silicon detectors for conversion electrons; four-fold segmented Clover detector for γ's. measured E(α), I(α), E(γ), α-γ-coin., α-e coin., α_{tot}.

1999An52: Activity produced by ^{142}Nd(^{52}Cr,5n) at 239-307 MeV; Detectors: velocity filter (SHIP), 16-strip position sensitive silicon detector for α-particles; four-fold segmented Clover detector for X-rays and γ's; measured E(α), I(α), E(γ), $\alpha\gamma$-coin., α-decay hindrance factors; data superseded by 2005Va04.

^{185}Pb Levels

E(level)	J^π†	$T_{1/2}$	Comments
0.0	$3/2^-$	6.3 s *4*	
224 *1*			
278 *1*	$(5/2^-)$		$T_{1/2}$: longer than the $T_{1/2}$ of the 184 keV state of ^{186}Tl, 200 ns *+100−50*.

† From 2005Va04.

α radiations

Eα†	E(level)	Iα†‡
7259 *15*	278	80 *12*
7309 *20*	224	12 *5*
7532 *20*	0.0	8 *6*

† From 2005Va04.
‡ For absolute intensity per 100 decays, multiply by ≤1.00.

γ(^{185}Pb)

E$_\gamma$†	E$_i$(level)	J_i^π	E$_f$	J_f^π	Comments
224 *1*	224		0.0	$3/2^-$	α(exp)=0.13 *8* from 2005Va04, ΔL≤2 transition.
278 *1*	278	$(5/2^-)$	0.0	$3/2^-$	α_{tot}(exp)=0.4 *1* from 2005Va04, either M1 or E0-M1-E2 transition.

† From 2005Va04.

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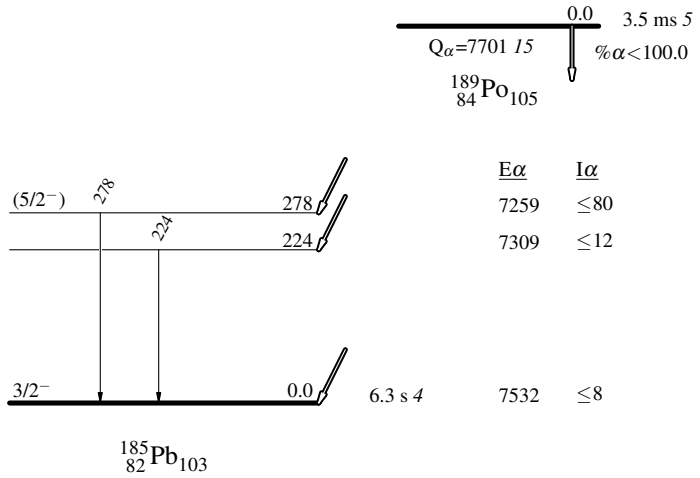
Decay Scheme



Eα	Iα
7259	≤80
7309	≤12
7532	≤8