

^{197}Po α decay (53.6 s)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 143, 1 (2017)	31-Mar-2017

Parent: ^{197}Po : $E=0.0$; $J^\pi=(3/2^-)$; $T_{1/2}=53.6$ s 10; $Q(\alpha)=6412$ 3; $\% \alpha$ decay=44 7

^{197}Po - $T_{1/2}$: Weighted average of 53 s 1 ([1993Wa04](#)), 58 s 3 ([1967Le21](#)), 52 s 4 ([1967Si09](#)), and 60 s 6 ([1971Ho01](#)). Other value: 84 s 16 ([1996Ta18](#)).

[1981Sc01](#): sources from decay of ^{201}Rn parent; measured evaporation-residue α spectra (E and gas ΔE detectors), yields and angular distributions of fusion products. Deduced $\% \alpha$.

[1971Ho01](#): sources from decay of ^{201}Rn parent, mass separation; measured $E\alpha$, $I\alpha$ (silicon surface-barrier detectors, multispectrum analysis).

[1967Si09](#): sources from $^{185,187}\text{Re}(^{19}\text{F},\text{xn})$, $^{194}\text{Pt}(^{12}\text{C},\text{xn})$, helium-jet transport; measured $E\alpha$, $I\alpha$ (solid-state detectors).

[1967Tr06](#): sources from decay of ^{197}At parent, helium-jet transport; measured $E\alpha$, $I\alpha$ (silicon surface-barrier detectors).

Other: [1967Le21](#).

 ^{193}Pb Levels

<u>E(level)</u>	<u>J^π[†]</u>
0.0	(3/2 ⁻)

[†] From Adopted Levels.

 α radiations

<u>$E\alpha$</u>	<u>E(level)</u>	<u>$I\alpha$[‡]</u>	<u>HF[†]</u>	Comments
6281 4	0.0	100	1.8	$E\alpha$: from 1991Ry01 (based on recalibrated values of: 1971Ho01 (6279 9), 1967Si09 (6290 10), 1967Tr06 (6280 5)). Other: 6326 keV 27 (2015We13).

[†] $r_0(^{193}\text{Pb})=1.501$ Average of $r_0(^{192}\text{Pb})=1.506$ 6 and $r_0(^{194}\text{Pb})=1.496$ 3 ([1998Ak04](#)).

[‡] For absolute intensity per 100 decays, multiply by 0.44 7.