Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 134, 149 (2016)	15-Apr-2015

S(n)=8820 *30*; S(p)=1550 *70*; Q(α)=6928 *7* 2012Wa38

Q(α): 6928 *6* from Eα=6777 *6* (weighted average of 6798 *25* (1980Sc09), 6781 *15* (1989To01), 6775 *7* (2002Je09)) for g.s. to g.s. transition cf. Q(α)=6928 *7* In 2012Wa38.

Q(εp)=8717 *30* (2012Wa38).

Production: ^{144}Sm(^{42}Ca,3n), E=200 MeV (2002Je09); ^{147}Sm(^{40}Ca,4n), E=212 MeV (1989To01).

^{183}Pb Levels

Cross Reference (XREF) Flags

A ^{187}Po α decay
B U(p,X)

E(level)	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0	(3/2$^-$)	535 ms *30*	AB	%α≈90 μ=−1.158 *5* (2009Se13); Q=+0.6 *18* (2009Se13) Δ<r^2>(^{183}Pb−^{208}Pb)=−1.215 fm^2 13 (2007De09, 2009Se13); uncertainty from isotope shift alone is 0.008 fm^2 (2007De09). %α≈90 if %(ε+β^+)≈10 (as estimated from gross β-decay theory (1973Ta30)); only α decay has been observed. T$_{1/2}$: from 2002Je09. J$^\pi$: by analogy with ^{185}Pb and ^{187}Pb.
97 *9*	(13/2$^+$)	415 ms *20*	B	%α≈100; %IT=? μ=−1.245 *6* (2009Se13); Q=+1.7 *35* (2009Se13) Δ<r^2>(^{183m}Pb−^{208}Pb)=−1.246 fm^2 13 (2007De09,2009Se13); uncertainty from isotope shift alone is 0.008 fm^2 (2007De09). T$_{1/2}$: from 2002Je09. others: 1987To09 (300 ms *80*, 6718α); 1984ScZQ. E(level): from Eα=6704 *6* from this level to 171 level In ^{179}Hg (weighted average of 6718 *10* (1987To09), 6712 *10* (1989To01) and 6698 *5* (2002Je09)) and Eα=6777 *6* from ^{183}Pb g.s. to ^{179}Hg g.s. (weighted average of 6798 *25* (1980Sc09), 6781 *15* (1989To01), 6775 *7* (2002Je09)). J$^\pi$: unhindered α decay to (13/2$^+$) 171 level In ^{179}Hg. Note that ^{185}Pb and ^{187}Pb also have 13/2$^+$ isomeric states.
286 *1*	(1/2$^-$,5/2$^-$)		A	J$^\pi$: structure of this state is predicted from calculations to be similar to that of ^{187}Po g.s., i.e., prolate, 5/2$^-$[512] state of mixed origin or 1/2[521] from 2f$_{5/2}$ orbital. E(level): from Eγ.

γ(^{183}Pb)

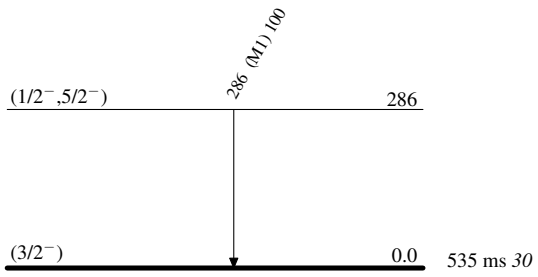
E$_i$(level)	J$_i^\pi$	E$_\gamma$	I$_\gamma$	E$_f$	J$_f^\pi$	Mult.	$\alpha^\dagger$	Comments
286	(1/2$^-$,5/2$^-$)	286 *1*	100	0.0	(3/2$^-$)	(M1)	0.486 *9*	E$_\gamma$: from α decay. Mult.: from α(K)exp In ^{187}Po α decay.

† Additional information 1.

Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level



$^{183}_{82}Pb_{101}$