Adopted Levels, Gammas

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

S(n)=12050 *80*; S(p)=940 *40*; Q(α)=7419 *5* 2012Wa38
Q(εp)=7710 *30*; S(2n)=21641 *28*; S(2p)=191 *18* (2012Wa38).
1996To08: ^{144}Sm(^{40}Ca,4n), E=230 MeV. Measured Eα, Iα; deduced evidence for ^{180}Pb.
1999To11: ^{90}Zr(^{92}Mo,2n), E=410 MeV. Measured Eα, $T_{1/2}$; deduced α-branching ratio.
2009An20: ^{144}Sm(^{40}Ca,4n), E=196 MeV. Measured Eα, (recoil)α, $\alpha\alpha$ correlations, $T_{1/2}$, α-branching ratios.
α: Additional information 1.

^{180}Pb Levels

Cross Reference (XREF) Flags

A ^{92}Mo(^{90}Zr,2nγ)

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	XREF	Comments
0	0$^+$	4.1 ms *3*	A	%α≈100 $T_{1/2}$: weighted average of 4.1 ms *3* (2010Ra12) and 4.2 ms *5* (2009An20), both from (recoil)α correlations. Others: 4.5 ms *11* (1999To11) and 4 ms *+4−2* (1996To08).
1168[#] *1*	(2$^+$)		A	
1446[#] *1*	(4$^+$)		A	
1758[#] *2*	(6$^+$)		A	
2138[#] *2*	(8$^+$)		A	

[†] From Eγ.
[‡] From yrast structure and systematics of even A=182-188 Pb nuclei.
[#] Band(A): Band based on (2$^+$). Prolate structure based on systematics of heavier Pb isotopes and beyond-mean-field calculations (2010Ra12).

γ(^{180}Pb)

E$_i$(level)	J$_i^\pi$	E$_\gamma$	I$_\gamma$	E$_f$	J$_f^\pi$	Mult.	α	Comments
1168	(2$^+$)	1168 *1*	100	0	0$^+$	[E2]	0.00494	α(K)=0.00398 *6*; α(L)=0.000730 *11*; α(M)=0.0001727 *25*; α(N)=4.38×10^{-5} *7* α(O)=8.60×10^{-6} *13*; α(P)=8.51×10^{-7} *12*
1446	(4$^+$)	278 *1*	100	1168	(2$^+$)	[E2]	0.145 *3*	α(K)=0.0777 *13*; α(L)=0.0507 *10*; α(M)=0.0131 *3*; α(N)=0.00331 *7*; α(O)=0.000605 *12* α(P)=3.56×10^{-5} *7*
1758	(6$^+$)	312 *1*	100	1446	(4$^+$)	[E2]	0.1029 *18*	α(K)=0.0593 *10*; α(L)=0.0327 *6*; α(M)=0.00837 *16*; α(N)=0.00212 *4*; α(O)=0.000390 *8* α(P)=2.43×10^{-5} *5*
2138	(8$^+$)	380 *1*	100	1758	(6$^+$)	[E2]	0.0591 *10*	α(K)=0.0378 *6*; α(L)=0.0160 *3*; α(M)=0.00405 *7*; α(N)=0.001025 *18*; α(O)=0.000191 *4* α(P)=1.314×10^{-5} *22*

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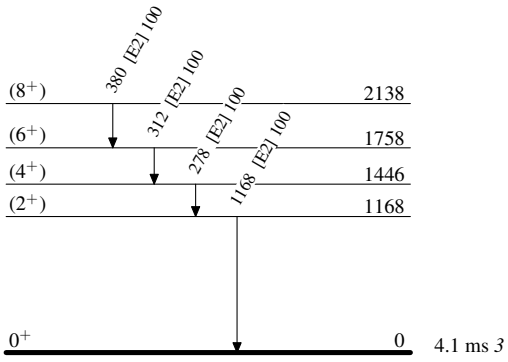
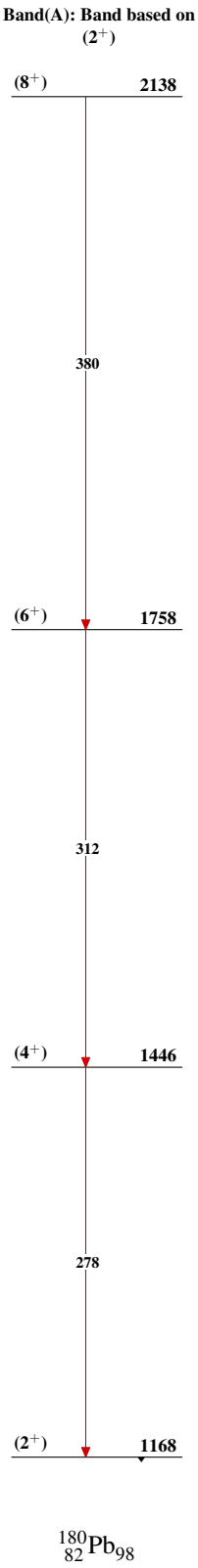
Level Scheme

Intensities: Relative photon branching from each level



$^{180}_{82}Pb_{98}$

Adopted Levels, Gammas



$^{180}_{82}Pb_{98}$