^{206}Pb(α,d) 1984Sp04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. J. Martin	NDS 108,1583 (2007)	1-Jun-2007

E=48.2 MeV, FWHM=25 keV, θ=10°−40°.

^{208}Bi Levels

Data are from 1984Sp04. They supersede those of 1977Da05.

E(level)‡	Jπ	L†	Comments
0		6	
62 *3*		4	
510			
632 *3*			
657@ *3*			
888@ *3*			
943 *3*		(4)	
1040 *3*		4	
1474 *3*			
1535 *4*		(3)	
1578 *4*			
1626 *4*		5	
1669 *4*		7	
1717 *4*		(6-9)	
1807			
1840 *4*		(6)	
1885 *4*		(5)	
2250 *5*		(5)	
2417 *5*		(6-9)	
2477 *5*	(9$^-$)#	9	configuration=^{206}Pb(0$^+$)ν2g$_{9/2}$$\pi$1h$_{9/2}$.
2514 *5*			
2609 *6*			
2641 *6*			
2723 *6*		(5+7)	
2808 *6*	(10$^-$)#	11	configuration=^{206}Pb(0$^+$)ν1i$_{11/2}$$\pi$1h$_{9/2}$.
2830 *6*		(7)	
2892 *6*			
3096 *6*	(8$^-$)#	7	configuration=^{206}Pb(0$^+$)ν2g$_{9/2}$$\pi$2f$_{7/2}$.
3176 *7*			
3211 *7*			
3250 *7*			
3303 *7*			
3334@ *7*			
3383 *7*			
3454@ *7*			
3508 *7*	(11$^+$)#	10	configuration=^{206}Pb(0$^+$)ν2g$_{9/2}$$\pi$1i$_{13/2}$.
3551 *7*			
3609 *7*	(12$^+$)#	(12)	configuration=^{206}Pb(0$^+$)ν1j$_{15/2}$$\pi$1h$_{9/2}$.
3799@ *8*			
3858 *8*			
3909 *8*			
3971 *8*			
4019 *8*			

Continued on next page (footnotes at end of table)

^{206}Pb(α,d) 1984Sp04 (continued)

^{208}Bi Levels (continued)

E(level)‡	Jπ	L†	Comments
4053 *8*			
4160@ *9*			
4240@ *9*			
4288 *9*			
4361 *9*			
4403 *9*			
4452 *9*			
4656 *10*			
4701?&			
4848 *10*	(14⁻)#	(13)	configuration=^{206}Pb(0⁺)ν1j$_{15/2}$π1i$_{13/2}$.
4889 *10*			
5012 *10*			
5071 *10*			
5467@ *11*			
5556?& *11*			

† Determined only within one or two units from σ(θ). L transfers of 6-10 are dynamically favored. Data are compared with empirical shapes for levels with known Jπ.

‡ Values shown are those of the authors. Note, however, that from a comparison with energies from (p,nγ), the energies In (α,d) above 500 keV show an average deviation of +4 keV. Where used In Adopted Levels, and for correlation with levels from other reactions, the evaluator has lowered the (α,d) values by 4 keV.

Interpreted by 1977Da05 As a two-particle+(^{206}Pb core) state with J(π)+J(ν)=J(max). The authors′ suggested configuration is given here. A state with the same configuration appears At nearly the same Q value and with nearly the same σ In ^{206}Bi and ^{210}Bi. The Jπ assignment is that of the authors and is based on these arguments and known Jπ for some of the corresponding states In ^{210}Bi.

@ Doublet.

& Seen only At three angles.