^{206}Pb(^{3}He,d),(α,t) **1973Er08,1969RiZX**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Lalkovski	NDS 112, 707 (2011)	1-Aug-2010

1973Er08: Facility: Univ. Michigan cyclotron; Beam: E(α)=45 MeV, E(^{3}He)=44.2-44.0 MeV; Targets: 100 μg/cm^2 self-supporting ^{206}Pb; Set Up: three stage magnet separation; Detectors: 100 μm Ilford K2 photo-emulsion; Measured: E, dσ/dΩ, FWHM=15-40 keV; Deduced: DWBA, level energies, J and S.

1969RiZX: Facility: Emperor tandem at Heidelberg; Beam: E(^{3}He)=28 MeV; Detectors: solid state telescopes, FWHM=38 keV; Measured: E, dσ/dΩ; Deduced: level energies, L-values.

Others: 1969McZT, 1971Gl04;

^{207}Bi Levels

E(level)[†]	J$^{\pi}$[‡]	L[#]	S[#]	Comments
0	9/2$^-$	5	0.90	configuration: $\pi(1h_{9/2})^{+1}$.
742 *5*	7/2$^-$	3	0.07	
890[&] *15*	9/2$^-$	>3	≈0.11	
992 *5*	7/2$^-$	3	0.82	
1147? *5*				E(level): Not reported by 1973Er08. However, a weak transition is seen at 1150 keV in several spectra, but not at enough angles to warrant firm association with a level in ^{207}Bi.
1603 *5*	13/2$^+$	6	0.90	configuration: $\pi(1i_{13/2})^{+1}$.
1756 *5*				
1861 *5*				
1949 *5*	(5/2)$^-$	3	0.11	
2120 *5*	3/2$^-$	1	0.07	
2221 *5*				
2335 *5*				
2546 *5*		>3		
2650[a] *25*		>3		
2699 *5*				
2801 *5*	5/2$^-$	3	0.4	
2931[@] *5*	(3/2$^-$)	(3+1)	0.09	L: 1+3 with S(3p$_{3/2}$)=0.09 and S(2f$_{5/2}$)=0.27 for the doublet at 2931 keV and 2949 keV.
2949[@] *5*	(5/2$^-$)	(3)	0.27	L: 1+3 with S(3p$_{3/2}$)=0.09 and S(2f$_{5/2}$)=0.27 for the doublet at 2931 keV and 2949 keV.
3030[&] *15*	(1/2$^-$)	(1)	<0.18	L: 1 with S(3p$_{3/2}$)=0.18 for the doublet at 3030 keV and 3060 keV.
3060[a] *35*	(1/2$^-$)	(1)	<0.18	L: 1 with S(3p$_{3/2}$)=0.18 for the doublet at 3030 keV and 3060 keV.
3134 *5*	3/2$^-$	1	0.19	
3310[a] *35*	3/2$^-$	1	<0.61	E(level): unresolved doublet in 1973Er08. L: L=1 with S=0.61 for the doublet at 3310 keV and 3345 keV.
3345 *5*	3/2$^-$	1	<0.61	L: L=1 with S=0.61 for the doublet at 3310 keV and 3345 keV.
3468 *5*	(3/2$^-$)	(1)	0.19	
3530 *5*	(3/2$^-$)	(1)	0.11	

[†] From 1969RiZX, unless otherwise stated.
[‡] From deduced L values, unless otherwise stated.
[#] From 1973Er08, based on DWBA calculations using the DWUCK code.
[@] Unresolved doublet in 1969RiZX. Values are from Alford et al. (University of Rochester), as quoted by 1969RiZX.
[&] From 1971Gl04.
[a] From 1973Er08.