^{208}Pb(d,t),(pol d,t) 1970Mo21

History

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

1970Mo21:Facility: Univ. of Pittsburgh Van de Graaff accelerator; Beam: E(d)=17 MeV; Target: enriched to 99.47% in ^{208}Pb evaporated on 30 μg/cm^2 carbon foil; Detectors: Enge split-pole spectrograph, photo-emulsions, FWHM=16-28 keV; Measured: E(t), dσ/dΩ; DWBA analysis; Deduced: J^π, ^{208}Pb level energies.

1967Mu16: E=14.8, 21.1, 24.8 MeV.

1969Pa04: E=50 MeV, FWHM=180 keV.

1973Vi06: E(pol d)=12.3 MeV, FWHM=105 keV.

1974Ma19: E(pol d)=30 MeV.

1977VaZA: E=47 MeV.

1981Kn08: E(pol d)=10, 12.3 MeV.

1985SaZK: E(pol d)=17 MeV, FWHM=70 keV.

1992Va13, 1993La04, 1994Va28, 1993LaZV, 1998La24, 1998LaZY : E(pol d)=200,300 MeV, FWHM=120, 140 keV.

1993Ge04: E(pol d)=9.0 MeV.

Vector-analyzing power studied by 1973Vi06 for the $p_{1/2}$, f5/2, and p3/2 levels, and by 1974Ma19, 1992Va13, and 1993La04 for the $p_{1/2}$, f5/2, p3/2, i13/2, and f7/2 levels.

Tensor-analyzing power measured by 1981Kn08 for the $p_{1/2}$, f5/2, and p3/2 levels, and by 1985SaZK, 1992Va13, and 1993La04 for the $p_{1/2}$, f5/2, p3/2, i13/2, and f7/2 levels.

1993La04 study the distribution of single-particle strength of the i13/2, h9/2, h11/2, and g7/2 hole states up to 14.5 MeV.

^{207}Pb Levels

E(level)[†]	J^π[‡]	L[#]	S[&]	Comments
0	1/2$^-$	1	2.14	L,S: From 1967Mu16. configuration: $\nu(3p_{1/2})^{-1}$.
575 *3*	5/2$^-$	3	6.8	configuration: $\nu(2f_{5/2})^{-1}$.
899 *4*	3/2$^-$	1	4.0	configuration: $\nu(3p_{3/2})^{-1}$.
1634 *7*	13/2$^+$	6	14.5	configuration: $\nu(1i_{13/2})^{-1}$.
2339	7/2$^-$	3	7.1	E(level): used for calibration. configuration: $\nu(2f_{7/2})^{-1}$.
2623 *1*	5/2$^+$[@]		0.014	
2659 *1*	7/2$^+$[@]		0.006	
2726 *2*	9/2$^+$	4	0.091	
3181 *4*				
3203 *4*				
3225 *4*				
3305 *4*	(1/2$^+$)	(0)	0.055	
3416 *5*	9/2$^-$	5	9.8	configuration: $\nu(1h_{9/2})^{-1}$.
3479? *5*				
3521 *5*				
3585 *5*				
3646 *5*				
3727 *6*				
3861? *6*				
3894? *6*				
3932 *7*				
4110 *7*				
4134 *7*				
4214 *8*				
4312 *8*				
4387? *8*	5/2$^+$[@]		0.072	
4547 *9*	(7/2)$^-$	(3)	1.4	

Continued on next page (footnotes at end of table)

^{208}Pb(d,t),(pol d,t) 1970Mo21 (continued)

^{207}Pb Levels (continued)

E(level)[†]	Jπ[‡]	S[&]	E(level)[†]	E(level)[†]
4627 *9*	1/2+[@]	0.028	5035 *11*	5253 *12*
4712 *10*			5094? *11*	5330 *12*
4761 *10*			5115 *11*	5418 *13*
4977 *11*			5186 *12*	5527 *13*
				5611? *13*

[†] From 1970Mo21 with ΔE=0.4% reported by the authors. The 2339 keV level was held fixed, and uncertainties above this level are relative to this value. 1970Mo21 adopted E=2339 keV, and the evaluator has accordingly increased all the authors′ energies by 1 keV.
[‡] From L, unless otherwise noted.
[#] From DWBA in 1970Mo21, unless otherwise noted.
[@] From the Adopted Levels.
[&] From 1970Mo21. S=N*(dσ/dΩ)(exp)/(dσ/dΩ)(DWBA). N=1/3.33.