

**<sup>208</sup>Pb(p,d),(pol p,d) 1971Sm04,1982Di17,1997Ma28**

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

- 1971Sm04:** Facility: Oak Ridge Isochronous Cyclotron; Beam: E(p)=40.7 MeV; Target: enriched in <sup>208</sup>Pb; Detectors: Broad range spectrograph; Measured: E(d), dσ/dΩ, FWHM=40 keV; Deduced: level energies, DWBA with JULIE, spectroscopic factors.
- 1982Di17:** Facility: Univ. Colorado AVF cyclotron; Beam: E(p)=26.3 MeV; Target: 200 μg/cm<sup>2</sup> enriched to 99.1% in <sup>208</sup>Pb, 20 μg/cm<sup>2</sup> backing; Detectors: energy-loss spectrograph, proportional counter, plastic scintillator; Measured: E(d), dσ/dΩ; Deduced: level energies, DWBA with DWUCK, spectroscopic factors.
- 1997Ma28:** Facility: AVF cyclotron at Osaka Univ; E(pol P)=65 MeV; Detectors: RAIDEN spectrograph; Measured: E(d), FWHM=35 keV, dσ/dΩ; Deduced: level energies, DWBA with DWUCK, spectroscopic factors.
- 1968Ya07:** E=55 MeV, FWHM=0.16%.
- 1969Wh06:** E=22 MeV, FWHM=50 keV (estimated by evaluator).
- 1974La01:** E=35 MeV, FWHM=50 keV (data given in spectrum only).
- 1978An19:** E=121 MeV, FWHM=125 keV.
- 1981To05:** E(pol p)=22 MeV, FWHM=40 keV.
- 1982Di17:** E=26.3 MeV, FWHM=40 keV.
- 1983Kr02:** E(pol p)=123 MeV, FWHM=135 keV.
- 1983Na01:** E(pol p)=94 MeV, FWHM=55 keV.

<sup>207</sup>Pb Levels

E(level) <sup>†</sup>	Jπ <sup>‡</sup>	L <sup>#</sup>	C <sup>2</sup> S <sup>@</sup>	Comments
0	1/2 <sup>-</sup>	1	2.15	C <sup>2</sup> S: 2.7 (1982Di17); 2.2 (1997Ma28).
570 20	5/2 <sup>-</sup>	3	6.3	C <sup>2</sup> S: 4.5 (1982Di17); 5.28 (1997Ma28). configuration: ν(2f <sub>5/2</sub> ) <sup>-1</sup> .
890 20	3/2 <sup>-</sup>	1	3.8	C <sup>2</sup> S: 6.0 (1982Di17); 3.84 (1997Ma28). configuration: ν(3p <sub>3/2</sub> ) <sup>-1</sup> .
1630 20	13/2 <sup>+</sup>	6	8.5	C <sup>2</sup> S: 4.1 (1982Di17); 6.86 (1997Ma28). configuration: ν(1i <sub>13/2</sub> ) <sup>-1</sup> .
2340 20	7/2 <sup>-</sup>	3	5.1	C <sup>2</sup> S: 8.0 (1982Di17); 4.4 (1997Ma28). configuration: ν(2f <sub>7/2</sub> ) <sup>-1</sup> .
2640 20				
2707	(7/2 <sup>+</sup> , 9/2 <sup>+</sup> )	(4)&	0.1	E(level), C <sup>2</sup> S: from 1982Di17.
2740 20	9/2 <sup>+</sup>	4	0.05	
3190 20				
3223	(11/2 <sup>+</sup> , 13/2 <sup>+</sup> )	(6)&	0.05	E(level), C <sup>2</sup> S: from 1982Di17.
3290 20	1/2 <sup>+</sup>	0	0.10	configuration: ν(2f <sub>5/2</sub> ) <sup>-1</sup> ⊗3 <sup>-</sup> .
3400 20	9/2 <sup>-</sup>	5	6.8	C <sup>2</sup> S: 2.0 (1982Di17); 5.6 (1997Ma28).
3580 20	9/2 <sup>-</sup> , 11/2 <sup>-</sup>	5&		E(level): 3560 in 1982Di17.
3640 20	(9/2 <sup>-</sup> , 11/2 <sup>-</sup> )	(5)&		
3910 20				
4100 20				
4200 20	(11/2 <sup>+</sup> , 13/2 <sup>+</sup> )	(6)&		
4290 20				
4520 20	5/2 <sup>-</sup> , 7/2 <sup>-</sup>	3	0.51	configuration: ν(1i <sub>13/2</sub> ) <sup>-1</sup> ⊗3 <sup>-</sup> .
4765	(11/2 <sup>+</sup> , 13/2 <sup>+</sup> )	(6)&		E(level): from 1982Di17.
5060 20				
5080	(9/2 <sup>-</sup> , 11/2 <sup>-</sup> )	(5)&		E(level): from 1982Di17.
5290 20	3/2 <sup>+</sup> , 5/2 <sup>+</sup>	2	0.12	configuration: ν(2f <sub>7/2</sub> ) <sup>-1</sup> ⊗3 <sup>-</sup> or ν(1h <sub>9/2</sub> ) <sup>-1</sup> ⊗3 <sup>-</sup> .
5360 20				
5390	(9/2 <sup>-</sup> , 11/2 <sup>-</sup> )	(5)&		E(level): from 1982Di17.
5470 20	(5/2 <sup>-</sup> , 7/2 <sup>-</sup> )	(3)	0.31	

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 $^{208}\text{Pb}(\text{p,d}),(\text{pol p,d})$  [1971Sm04](#),[1982Di17](#),[1997Ma28](#) (continued)

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 $^{207}\text{Pb}$  Levels (continued)E(level)<sup>†</sup>

5600 20

5690 20

6780 20

<sup>†</sup> From [1971Sm04](#), unless otherwise noted.<sup>‡</sup> Based on L.# Based on DWBA in [1971Sm04](#), unless otherwise noted.@ From [1971Sm04](#), unless otherwise noted.  $C^2S=(1/N)\sigma_{\text{exp}}/\sigma_{\text{DWBA}}$ ,  $N=2.43$ .& From DWBA in [1982Di17](#).