

<sup>198</sup>Pt(pol d,p),(d,p) 1990Bu26,1965Mu05,1980AtZZ

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 108, 79 (2007)	15-Oct-2006

**1990Bu26:** (pol d,p); E=18 MeV; measured  $\sigma(\theta)$  ( $\theta$  20° to 60°), analyzing powers, FWHM≈20 keV; DWBA analysis with DWUCK4. Comparison with U(6/12) supersymmetry model.

**1965Mu05:** (d,p) E=15 MeV; measured  $\sigma(\theta)$ , magnetic spectrometer, resolution 50 7070 keV.

**1980AtZZ:** (d,p) E(d)=13.5 MeV, magnetic spectrometer, 29 groups reported up to 2393 excitation energy.

<sup>199</sup>Pt Levels

Relative intensities (**1980AtZZ**) at 70° (lab)

Level	Intensity	Level	Intensity
0	36	1336	5.9
37	100	1366	2.8
86	3.0	1395	3.3
132	27	1440	1.9
349	2.1	1688	4.9
379	3.5	1718	90
425	0.85	1923	1.1
472	8.8	2009	1.6
509	11.4	2052	3.1
576	4.5	2136	4.5
906	3.0	2164	5.8
955	15.1	2206	45
974	7.8	2356	21
1054	11.9	2393	6.3

Uncertainties: 5-10% for strong peaks, 10-20% for weak peaks.

E(level) <sup>†</sup>	J <sup>π‡</sup>	L <sup>#</sup>	S <sup>@</sup>	Comments
0	5/2 <sup>-</sup>	3	1.42	dσ/dΩ(60°)=1.42 mb/sr ( <b>1965Mu05</b> ) for 0+36 levels.
36.5 10	(3/2) <sup>-</sup>	1	0.87	
87 1	(3/2) <sup>-</sup>	1	0.041	
132 1	1/2 <sup>-</sup>	1	0.27	dσ/dΩ(60°)=0.23 mb/sr ( <b>1965Mu05</b> ).
351 1	5/2 <sup>-</sup> ,7/2 <sup>-</sup>	3	0.073	
384 1	3/2 <sup>-</sup>	1	0.041	
431 3				
475 2	3/2 <sup>-</sup>	1	0.070	dσ/dΩ(60°)=0.14 mb/sr ( <b>1965Mu05</b> ) for 430 to 514 levels.
495 1	(11/2 <sup>+</sup> ,13/2 <sup>+</sup> )	(6)	0.98	
514 1	(7/2 <sup>-</sup> ) <sup>b</sup>	(3)	0.19	
582 1	(7/2 <sup>-</sup> ) <sup>b</sup>	(3)	0.091	
646 2	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	(1)		
912 3	(1/2 <sup>-</sup> ,3/2 <sup>-</sup> )	(1)		dσ/dΩ(60°)=0.13 mb/sr ( <b>1965Mu05</b> ) for 912 to 980 levels.
935 3				
960 2	1/2 <sup>-</sup> ,3/2 <sup>-</sup>	1	0.090	
980 2		(3)	0.13	
1058 2		(1)	0.10	dσ/dΩ(60°)=0.11 mb/sr ( <b>1965Mu05</b> ).
1162 3				
1243 3		(3)		
1278 4				
1341 4				
1367 4				
1403 3				
1442 3				
1499 4				

Continued on next page (footnotes at end of table)

$^{198}\text{Pt}(\text{pol d,p}),(\text{d,p})$  [1990Bu26](#),[1965Mu05](#),[1980AtZZ](#) (continued) $^{199}\text{Pt}$  Levels (continued)

E(level) <sup>†</sup>	L <sup>#</sup>	S <sup>@</sup>	Comments
1527 <sup>4</sup>	(3)		
1578 <sup>4</sup>			
1691 <sup>4</sup>			
1717 <sup>&amp; 4</sup>	(3)	1.3 <sup>&amp;</sup>	L: L=4 suggested from $\sigma(\theta)$ data for a 1740 group ( <a href="#">1965Mu05</a> ) is questionable according to <a href="#">1990Bu26</a> .
1781 <sup>4</sup>			
1923 <sup>a 6</sup>			
2009 <sup>a 7</sup>			
2052 <sup>a 4</sup>			
2136 <sup>a 5</sup>			
2164 <sup>a 5</sup>			
2206 <sup>a 3</sup>			
2356 <sup>a 5</sup>			
2393 <sup>a 6</sup>			
$2.43 \times 10^3$ <sup>2</sup>			
$2.48 \times 10^3$ <sup>2</sup>			
$2.55 \times 10^3$ <sup>2</sup>			
$2.70 \times 10^3$ <sup>2</sup>			
$2.76 \times 10^3$ <sup>2</sup>			
$2.83 \times 10^3$ <sup>2</sup>			
$2.88 \times 10^3$ <sup>2</sup>			
$2.99 \times 10^3$ <sup>2</sup>			
$3.08 \times 10^3$ <sup>2</sup>			
$3.15 \times 10^3$ <sup>2</sup>			
$3.23 \times 10^3$ <sup>2</sup>			
$3.31 \times 10^3$ <sup>2</sup>			
$3.41 \times 10^3$ <sup>2</sup>			
$3.56 \times 10^3$ <sup>2</sup>			
$3.67 \times 10^3$ <sup>2</sup>			
$3.73 \times 10^3$ <sup>2</sup>			
$3.80 \times 10^3$ <sup>2</sup>			

<sup>†</sup> From [1990Bu26](#) for E<1800, from [1980AtZZ](#) from 1923 to 2393, and from [1965Mu05](#) for E>2400.

<sup>‡</sup> From [1990Bu26](#); based on L transfer and vector analyzing powers. The assignments are consistent with those in 'Adopted Levels'.

<sup>#</sup> Based on the results of both (pol d,p) and (t,d) experiments.

<sup>@</sup>  $S = [d\sigma/d\Omega(\text{exp})]/N[d\sigma/d\Omega(\text{DWBA})]$ ,  $N=1.53$ . The S factor given here is equivalent to  $C^2S$  given by other authors. Values given here are from [1990Bu26](#).

<sup>&</sup> Intense peak is a multiplet. Strength given is obtained by assuming that all the observed cross section is from L=3 transition.

<sup>a</sup> From [1980AtZZ](#).

<sup>b</sup> L+1/2 from analyzing power is more certain than L value from  $\sigma(\theta)$ .