

$^{194}\text{Pt}(\text{pol } t, \alpha), (t, \alpha)$  **1983Ci01,1978Ya03**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 143, 1 (2017)	31-Mar-2017

**1983Ci01**: E(t)=17 MeV (typical polarization of  $\approx 0.77$ ),  $\theta=10^\circ$  to  $45^\circ$  ( $5^\circ$  intervals); measured  $E(\alpha)$  (Q3D mag spect, FWHM=18 keV), differential cross sections, angular distributions, analyzing powers. Compared results with predictions of the supersymmetry scheme in Ir-Pt nuclei.

**1981Ci02**: preliminary report by **1983Ci01**.

**1978Ya03**: E(t)=15 MeV; measured  $E(\alpha)$ ,  $\sigma$ ; DWBA analysis.

 $^{193}\text{Ir}$  Levels

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	S <sub>ij</sub> <sup>#</sup>	Comments
0.0	3/2 <sup>+</sup>	1.6	Ay(30°)=-0.69 3.
73.0 @&	1/2 <sup>+</sup> <sup>c</sup>	0.5 <sup>e</sup> 3	
80.2 @&	11/2 <sup>-</sup>	4.0 <sup>e</sup>	
137.5 30	5/2 <sup>+</sup> <sup>c</sup>	0.12	Ay(30°)=-0.02 11 ( <b>1983Ci01</b> ).
178 3	3/2 <sup>+</sup>	0.11	Ay(30°)=-0.26 14 ( <b>1983Ci01</b> ).
298 3	7/2 <sup>-</sup> <sup>c</sup>	$\approx 0.16$	J <sup>π</sup> : J=L+1/2; Ay=+0.39 9 ( <b>1983Ci01</b> ).
357.8 @a	7/2 <sup>+</sup> <sup>c</sup>	0.22 <sup>e</sup>	
361.9 @a	5/2 <sup>+</sup>	0.27 <sup>e</sup>	
459 3	3/2 <sup>+</sup>	1.1	Ay(30°)=-0.52 4 ( <b>1983Ci01</b> ).
558 3	5/2 <sup>+</sup>	1.8	Possibly includes unresolved 557.3 level. Ay(30°)=+0.31 3.
621 3	7/2 <sup>+</sup> <sup>c</sup>	0.45	J <sup>π</sup> : J=L-1/2; Ay(30°)=-0.61 9 ( <b>1983Ci01</b> ).
694 3	5/2 <sup>+</sup>	0.55	Ay(30°)=+0.30 6 ( <b>1983Ci01</b> ).
712 3	3/2 <sup>+</sup>	0.33	Ay(30°)=-0.88 5 ( <b>1983Ci01</b> ).
830 3			Ay(30°)=+0.12 14 ( <b>1983Ci01</b> ).
849 3	5/2 <sup>+</sup>	0.91	Ay(30°)=+0.35 4 ( <b>1983Ci01</b> ).
873 3			Ay(30°)=-0.14 14 ( <b>1983Ci01</b> ).
970 3	(5/2 <sup>+</sup> ) <sup>d</sup>		
975 <sup>b</sup>	11/2 <sup>-</sup>	6.9	Ay(30°)=+0.31 3 ( <b>1983Ci01</b> ).
1032 10			Ay(30°)=+0.21 17 ( <b>1983Ci01</b> ).
1063 10			Ay(30°)≤-0.32 ( <b>1983Ci01</b> ).
1080 5			Ay(30°)=+0.18 7 ( <b>1983Ci01</b> ).
1146 10			Complex peak; probably includes 1131.2, 1145.7, and 1163 levels seen in $^{193}\text{Os}$ decay ( <b>1978Ya03</b> ).
1202 10			
1250 10			
1285 10			
1344 10			
1398 10			
1504 5	(3/2 <sup>+</sup> )	0.22 <sup>f</sup>	Ay(30°)=-0.16 9 ( <b>1983Ci01</b> ).
1552 10			
1583 10			
1609 5			
1639 5			
1690 5			
1744 5			
1826 5			J <sup>π</sup> : J=L+1/2; Ay(30°)=+0.06 4 ( <b>1983Ci01</b> ).
1866 5			Ay(30°)=+0.18 7 ( <b>1983Ci01</b> ).
1898 5			Ay(30°)=+0.25 6 ( <b>1983Ci01</b> ).
1935 5	(5/2 <sup>+</sup> )	0.35 <sup>f</sup>	Ay(30°)=+0.13 7 ( <b>1983Ci01</b> ).

<sup>†</sup> From **1978Ya03**, unless otherwise noted. Uncertainties are 3 keV for E(level)<1 MeV (5 keV for E(level)>1 MeV) for strongly

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 $^{193}\text{Ir}$  Levels (continued)

populated levels (estimated by evaluator to be those with  $d\sigma/d\Omega > 10$ ).

‡ From **1983Ci01**, based on angular distribution and analyzing power, unless otherwise noted.

# From DWBA analysis, with  $S_{lj} = (d\sigma/d\Omega)_{\text{exp}} / (N (d\sigma/d\Omega)_{\text{DWBA}})$  where  $N=23$  (**1983Ci01**); typical uncertainties are less than 20%.

@ Rounded-off value from Adopted Levels.

&  $E(\text{level})=79$  for unresolved 73.0 and 80.2 levels.  $A_y(30^\circ)=+0.34$  3 for the doublet.

<sup>a</sup>  $E(\text{level})=362$  for unresolved 357.7 and 361.9 levels.  $A_y(30^\circ)=+0.07$  7 for the doublet.

<sup>b</sup> From **1983Ci01**.

<sup>c</sup> From Adopted Levels.

<sup>d</sup> From **1978Ya03**.

<sup>e</sup> Strength extracted by determining individual values consistent with the analyzing powers and cross sections for complex peak.

<sup>f</sup> Strength obtained assuming the  $J^\pi$  value indicated.