

<sup>188</sup>Os(t,α),(pol t,α) **1977Hi06,1976Hi08**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 110, 999 (2009)	1-Nov-2008

**1976Hi08**: E(t)=15 MeV, FWHM=8-12 keV.

**1977Hi06**: E(pol t)=17 MeV, FWHM≈20 keV, triton beam with a polarization of 0.75 was used.

Q(t,α)=12604 10 (**1976Hi08**).

Data were taken at lab angles from 15° to 50° in 5° steps and at 60° (**1977Hi06**).

<sup>187</sup>Re Levels

E(level) <sup>‡</sup>	J <sup>π</sup> <sup>†</sup>	NSF <sup>#</sup>	Comments
0 <sup>@</sup>	5/2 <sup>+</sup>	0.56	
133 <sup>@</sup> 3	7/2 <sup>+</sup>	0.04	
207 <sup>&amp;</sup> 3	9/2 <sup>-</sup>	0.03	
303 <sup>@</sup> 3	9/2 <sup>+</sup>	0.02	
389 <sup>&amp;</sup> 3	11/2 <sup>-</sup>	1.28	
514 <sup>a</sup> 3	1/2 <sup>+</sup>	0.06	
591 <sup>a</sup> 3	3/2 <sup>+</sup>	0.06	
621 <sup>b</sup> 3	3/2 <sup>+</sup>		
625 <sup>b</sup> 6	1/2 <sup>+</sup>		E(level): from <b>1977Hi06</b> , uncertainty assigned by the evaluator. Unresolved in <b>1976Hi08</b> .
771 <sup>c</sup> 3	7/2 <sup>+</sup>		
771 <sup>d</sup> 3	(3/2 <sup>+</sup> )		
817 <sup>b</sup> 3	5/2 <sup>+</sup>		
817 <sup>b</sup> 3	(7/2 <sup>+</sup> )		
864 <sup>e</sup> 3	3/2 <sup>+</sup>		
878 3	(5/2 <sup>+</sup> )		
948 3	(1/2 <sup>+</sup> )		
979 <sup>e</sup> 3	(5/2 <sup>+</sup> )	0.06	
1189 3			
1200 <sup>f</sup> 3	(9/2 <sup>-</sup> )		
1211 <sup>g</sup> 3	(11/2 <sup>-</sup> )		
1232 <sup>f</sup> 3	(5/2 <sup>-</sup> )	0.04	
1458 6			
1484 6	(5/2 <sup>+</sup> )	0.12	
1661 6	(1/2 <sup>-</sup> , 3/2 <sup>+</sup> , 5/2 <sup>-</sup> )	0.14	J <sup>π</sup> : 3/2 <sup>+</sup> assignment is regarded by <b>1977Hi06</b> as the most likely J <sup>π</sup> value from analyzing power, angular distributions, and the moderate cross section.
1790 <sup>h</sup> 6	11/2 <sup>-</sup>	1.14	

<sup>†</sup> Assignments are based on angular distributions, analyzing powers, comparisons of experimental cross sections with the theoretical values, and the previous assignments (**1977Hi06** and **1976Hi08**).

<sup>‡</sup> From **1976Hi08**, except where noted.

<sup>#</sup> Nuclear Structure Factor (NSF) (**1977Hi06**).

<sup>@</sup> 5/2<sup>+</sup>[402] Band.

<sup>&</sup> 9/2<sup>-</sup>[514] Band.

<sup>a</sup> (1/2<sup>+</sup>[400]+5/2<sup>+</sup>[402], 2<sup>+</sup>) Band.

<sup>b</sup> 1/2<sup>+</sup>[411] Band.

<sup>c</sup> 7/2<sup>+</sup>[404] Band.

<sup>d</sup> (3/2<sup>+</sup>[402]) Band.

<sup>e</sup> (3/2<sup>+</sup>[411]+1/2<sup>+</sup>[411], 2<sup>+</sup>) Band.

---

$^{188}\text{Os}(t,\alpha),(\text{pol } t,\alpha)$  **1977Hi06,1976Hi08** (continued)

---

$^{187}\text{Re}$  Levels (continued)

*f* 1/2<sup>-</sup>[541] Band.  
*g* 11/2<sup>-</sup>[505] Band.  
*h* 7/2<sup>-</sup>[523] Band.