¹⁸⁶W(α ,t), ¹⁸⁶W(3 He,d) **1971Lu01**

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Full Evaluation M. S. Basunia NDS 110, 999 (2009) 1-Nov-2008

 $E(\alpha)=30$ MeV, FWHM=11 keV; $E(^{3}He)=28$ MeV, FWHM=25 keV.

¹⁸⁷Re Levels

E(level)#	L^{\dagger}	C^2S^a	Comments
0 3	2	1.48,1.48 ^b	
136 [@] 3		0.07	
211 [@] 3		0.026	
302 [@] 3		0.02	
390 <i>3</i>	5	1.08,1.50	
513 <i>3</i> 592 <i>3</i>	0 2	0.50,0.40 0.15,0.20	
621 ^{&} 3	2	0.19,0.28	
648 3	2	0.086,0.10	
775 <i>3</i>	2	1.38,0.90 ^c	L: 2,3 from $d\sigma(\alpha,t)/d\sigma(^3He,d)$.
818 3	2		L: 1,2 from $d\sigma(\alpha,t)/d\sigma(^3He,d)$.
882 [@] 3		0.08	
1079 <i>3</i>	$(0,1)^{\ddagger}$	0.42,0.40 ^c	
1126 <i>3</i>	(2) [‡]	0.18,0.18	
1163 <i>3</i>	(2)‡	0.34,0.38	
1201 3	(5) [‡]	3.04,4.5 ^d	
1208 [@] 3	(5)‡	1.76,4.5 ^d	
1233 3	$(3)^{\ddagger}$	0.78,0.56	
1266 <i>3</i> 1286 <i>3</i>			
1343 3			
1380 <i>3</i>			
1423 <i>3</i>	4		
1488 <i>3</i>	(2)‡	0.32,0.32	
1506 3	$(2,3)^{\ddagger}$		
1546 <i>3</i> 1608 <i>3</i>			
1683 3			
1713 <i>3</i>			
1736 <i>3</i>	+		
1789 <i>3</i> 1808 <i>3</i>	$(2)^{\ddagger}$	0.28,0.28	
1836 <i>3</i>			
1876 <i>3</i>	(2) [‡]	0.70,0.52	
1905 3	$(2)^{\ddagger}$ $(2)^{\ddagger}$	0.72,0.64	
1922 3	$(2)^{\ddagger}$	1.12,0.82	
1948 <i>3</i>	$(0)^{\ddagger}$	0.38,0.32	
1963 <i>3</i>	$(2)^{\ddagger}$	0.64,0.50	
1990 <i>3</i>	(2) [‡]	0.32,0.28	
2019 3			

 $^{^\}dagger$ Deduced by 1971Lu01 from angular distributions in the (3 He,d) reaction, except otherwise noted.

186 W(α ,t), 186 W(3 He,d) 1971Lu01 (continued)

¹⁸⁷Re Levels (continued)

- [‡] Only from $d\sigma(\alpha,t)/d\sigma(^3He,d)$ reactions at θ =45°.
- # Average of values from (α,t) and $(^{3}\text{He,d})$, except otherwise noted.
- [@] Populated only in (α,t) .
- & Doublet.
- ^a The first value is from (α,t) , the second from (³He,d).

- b Normalized to DWBA value.

 c Value for lower L.

 d These levels are not resolved in (³He,d). C²S is for a single L=5 level assuming J=9/2.