^{183}W(d,p) 1973Kl06

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111,275 (2010)	1-Oct-2009

Others: 1972Is05.
J^π(target)=1/2$^-$.
1973Kl06: E=12.08 MeV; >95% enriched ^{183}W target; broad range magnetic spectrograph with photographic emulsions (FWHM=10-12 keV); measured dσ/dΩ At 60°, 90°, 125°.
1972Is05: E=15 MeV; 82.5% ^{183}W enriched target; broad-range magnetic spectrograph + nuclear emulsions (FWHM≈28 keV); measured $\sigma(\theta)$(lab)=10°−90° (13 angles).

^{184}W Levels

E(level)[†]	J$^\pi$[@]	L[‡]	dσ/dΩ(60°) μb/sr[#]	Comments
0[a]	0$^+$	1	0.3	L: from 1972Is05.
111[a] 2	2$^+$	1+3	74	
363[a] 2	4$^+$	3	8	L: from 1972Is05.
902[b] 2	2$^+$	1+3	37	
1005[b] 2	3$^+$		73	L: 3 for doublet (1972Is05).
1120[&g]	2$^+$	3+1	18	
1132[bg]	4$^+$		≈2	
1295[b] 3	(5$^+$)		1.9	
1358[&] 3	(4$^+$)		6	
1386[c] 3	(2$^+$)	1+3	39	
1425[d] 3	3$^+$	3	125	
1444[f] 3	6$^-$	3+>3	13	
1478[b] 3	(6$^+$)		≤2	
1522[ch]	(3$^+$)	1+3	32	
1535[dh]	4$^+$	1+3	27	
1583[e] 4	(6$^-$)	>3		
1613 4		1+3	88	
1627 4		1	54	other L: 3 for 1623 level In 1972Is05.
1637[e] 4	(7$^-$)			
1676[d] 4	5$^+$		7	
1696[c] 4	(4$^-$)		4	
1722 4			7	
1754[d] 5	(4$^+$)	3	76	possible configuration: K$^\pi$=4$^+$ ((ν 7/2[503])+(ν 1/2[510])) (1973Kl06).
1772 5	(2$^+$)	1+3	151	
1796[i] 5	(7$^-$)	3+>3	75	
1810 5		1	38	
1901 5			9	
1921 5			≈8	
2022 6			≤6	
2044 6		3	27	
2066 6		1	17	
2104 6			10	
2127 6		1+3	19	
2172 7		1+3	104	
2226 7		1	58	
2247 7			10	
2300 7			13	
2325 7			14	
2349 7			≈7	

Continued on next page (footnotes at end of table)

^{183}W(d,p) 1973Kl06 (continued)

^{184}W Levels (continued)

E(level)[†]	dσ/dΩ(60°) μb/sr[#]	E(level)[†]	dσ/dΩ(60°) μb/sr[#]
2371 *7*	31	2533 *8*	45
2394 *8*	70	2576 *8*	41
2420 *8*	28	2600 *8*	43
2442 *8*	31	2634 *9*	36
2485 *8*	24	2677 *9*	70
2519 *8*	69		

† From 1973Kl06. Energy uncertainties range from 2 keV for well-resolved peaks with E≤1200 keV to about 8 keV at E=2500 keV. For E>1200, the evaluator assigns uncertainties ranging from 2 to 8 keV assuming ΔE increases smoothly with excitation energy.

‡ Approximate L-transfer from 1973Kl06 based on ratios of dσ/dΩ data at 60°, 90° and 125°; reliable to within 1 unit.

dσ/dΩ (μb/sr) At θ(lab)=60°; authors estimate an uncertainty of≈20% if dσ/dΩ>20 μb/sr. see 1973Kl06 for dσ/dΩ data At 90° and 125°.

@ Authors′ suggested values, based on σ(θ) and supported by calculated σ footprint for suggested configurations. These are consistent with adopted values, apart from the adoption of parentheses In some cases.

& Band(A): $K^{\pi}=0^{+}$ β band.

a Band(B): $K^{\pi}=0^{+}$ g.s. band.

b Band(C): $K^{\pi}=2^{+}$ γ band.

c Band(D): $K^{\pi}=2^{+}$ ((ν 3/2[512])+(ν 1/2[510])) band.

d Band(E): $K^{\pi}=3^{+}$ ((ν 7/2[503])-(ν 1/2[510])) band.

e Band(F): $K^{\pi}=5^{-}$ ((ν 11/2[615])-(ν 1/2[510])) band.

f Band(G): $K^{\pi}=6^{-}$ ((ν 11/2[615])+(ν 1/2[510])) band.

g Complex peak; 1120 and 1132 levels resolved with difficulty.

h Complex peak; 1522 and 1535 levels resolved with difficulty.

i Composite peak.

^{183}W(d,p) 1973Kl06

Band(A): $K^{\pi}=0^{+}$ β band

(4^{+})	1358
2^{+}	1120

Band(B): $K^{\pi}=0^{+}$ g.s. band

4^{+}	363
2^{+}	111
0^{+}	0

Band(C): $K^{\pi}=2^{+}$ γ band

(6^{+})	1478
(5^{+})	1295
4^{+}	1132
3^{+}	1005
2^{+}	902

Band(D): $K^{\pi}=2^{+}$ ((ν 3/2[512])+(ν 1/2[510])) band

(4^{-})	1696
(3^{+})	1522
(2^{+})	1386

Band(E): $K^{\pi}=3^{+}$ ((ν 7/2[503])-(ν 1/2[510])) band

(4^{+})	1754
5^{+}	1676
4^{+}	1535
3^{+}	1425

Band(F): $K^{\pi}=5^{-}$ ((ν 11/2[615])-(ν 1/2[510])) band

(7^{-})	1637
(6^{-})	1583

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^{183}W(d,p) 1973Kl06 (continued)

Band(G): $K^{\pi}=6^{-}$ ((ν 11/2[615])+(ν 1/2[510])) band

6^{-}	1444

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