

$^{183}\text{W}(n,\gamma) E=300 \text{ eV}$  1975Bu01

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

1975Bu01: average resonance capture; centroid of n spectrum $\approx$ 300 eV obtained at oxide target enclosed in a B sheath; Compton-suppressed pair spectrometer (FWHM=4.0 At 5 MeV, 5.3 At 7.4 MeV), only s-wave capture observed.

 $^{184}\text{W}$  Levels

E(level) <sup>†</sup>	$J^{\pi}$ <sup>‡</sup>	Comments
0.0	0 <sup>+</sup>	
111.90 15	2 <sup>+</sup>	
903.6 4	2 <sup>+</sup>	
1002.74 15	0 <sup>+</sup>	
1121.94 15	2 <sup>+</sup>	
1130.1 5	0 <sup>-</sup> ,2 <sup>-</sup>	
1221.1 5	(1 <sup>-</sup> ,2 <sup>-</sup> ,3 <sup>-</sup> )	
1283.7 4	0 <sup>-</sup> ,1 <sup>-</sup> ,2 <sup>-</sup>	
1322.45 23	0 <sup>+</sup> ,2 <sup>+</sup>	
1386.95 23	1 <sup>-</sup> ,2 <sup>+</sup>	
1431.26 15	0 <sup>+</sup> ,2 <sup>+</sup>	
1613.9 7	0 <sup>+</sup> ,2 <sup>+</sup>	
1615.46 23	1 <sup>+</sup>	
1628.26 15	1 <sup>+</sup>	
1714.7 5	0 <sup>+</sup> ,2 <sup>+</sup>	
1722?		
1775.47 23	(0 <sup>+</sup> ),2 <sup>+</sup>	$J^{\pi}$ : adopted value is (2) <sup>+</sup> .
1808.7 5	(1 <sup>-</sup> )	$J^{\pi}$ : adopted $J^{\pi}$ is (2) <sup>+</sup> from $\gamma$ deexcitation pattern.
1877.3 5	0 <sup>+</sup> ,1 <sup>+</sup> ,2 <sup>+</sup>	
1994.4 6	( <sup>-</sup> )	$J^{\pi}$ : 1975Bu01 give (0 <sup>-</sup> ,2 <sup>-</sup> ) in table VII based on contaminated $\gamma$ but adopt (1 <sup>-</sup> ) in tables VI and X.
2013.4 4	0 <sup>+</sup> ,2 <sup>+</sup>	$J^{\pi}$ : 0 <sup>+</sup> and (2) <sup>+</sup> doublet In Adopted Levels.
2031.1 4	0 <sup>+</sup> ,2 <sup>+</sup>	
2035.8 4	0 <sup>+</sup> ,2 <sup>+</sup> ,1 <sup>+</sup>	
2055.5 6	0 <sup>-</sup> ,1 <sup>-</sup> ,2 <sup>-</sup>	
2063.5 4	0 <sup>+</sup> ,2 <sup>+</sup>	
2074.1? 6	(0 <sup>-</sup> ,2 <sup>-</sup> )	
2084.9 5	0 <sup>-</sup> ,2 <sup>-</sup>	
2090.1 5	1 <sup>-</sup>	
2097.88 23	1 <sup>+</sup>	
2104.28 23	0 <sup>+</sup> ,1 <sup>+</sup> ,2 <sup>+</sup>	$J^{\pi}$ : from table X of 1975Bu01; evaluator assumes a typographical error In entry of 0 <sup>+</sup> ,2 <sup>+</sup> ,3 <sup>+</sup> In table VII of 1975Bu01.
2111.3 5	0 <sup>+</sup> ,2 <sup>+</sup>	
2126.6 5	0 <sup>+</sup> ,2 <sup>+</sup>	
2168.08 15	1 <sup>+</sup>	
2222.3 4	0 <sup>+</sup> ,2 <sup>+</sup>	
2246.7 4	0 <sup>+</sup> ,2 <sup>+</sup>	
2294.8 4	0 <sup>+</sup> ,2 <sup>+</sup>	
2321.5? 9	0 <sup>-</sup> ,2 <sup>-</sup>	
2352.7 5	(1 <sup>-</sup> )	
2370.1 4	(1 <sup>+</sup> )	
2389.4 4	(1 <sup>+</sup> )	
2395.6 4	(1 <sup>+</sup> )	
2404.0 5	0 <sup>+</sup> ,2 <sup>+</sup>	
7412.26 10	1 <sup>-</sup> ,0 <sup>-</sup> #	

<sup>†</sup> From primary transition  $E_{\gamma}$ .

$^{183}\text{W}(n,\gamma) E=300 \text{ eV}$  **1975Bu01** (continued) $^{184}\text{W}$  Levels (continued)

‡ Values proposed by **1975Bu01** on the basis of measured reduced primary transition intensities, except As noted. these are compatible with adopted values except As noted.

# s-wave capture only on  $1/2^-$  target.

$\gamma(^{184}\text{W})$						
$E_\gamma$	$I_\gamma^\dagger$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.‡
5008.2 4	48 9	7412.26	$1^-,0^-$	2404.0	$0^+,2^+$	E1
5016.6 3	71 9	7412.26	$1^-,0^-$	2395.6	( $1^+$ )	E1
5022.8 3	70 10	7412.26	$1^-,0^-$	2389.4	( $1^+$ )	E1
5042.1 3	65# 9	7412.26	$1^-,0^-$	2370.1	( $1^+$ )	E1
5059.5 4	16 6	7412.26	$1^-,0^-$	2352.7	( $1^-$ )	M1
5090.7 9	7 4	7412.26	$1^-,0^-$	2321.5?	$0^-,2^-$	(M1)
5117.4 3	42 7	7412.26	$1^-,0^-$	2294.8	$0^+,2^+$	E1
5165.5 3	49@ 10	7412.26	$1^-,0^-$	2246.7	$0^+,2^+$	E1
5189.9 3	46 6	7412.26	$1^-,0^-$	2222.3	$0^+,2^+$	E1
5244.1 1	94 8	7412.26	$1^-,0^-$	2168.08	$1^+$	E1
5285.6 4	41 6	7412.26	$1^-,0^-$	2126.6	$0^+,2^+$	E1
5300.9 5	34 5	7412.26	$1^-,0^-$	2111.3	$0^+,2^+$	E1
5307.9 2	63 6	7412.26	$1^-,0^-$	2104.28	$0^+,1^+,2^+$	E1
5314.3 2	77 7	7412.26	$1^-,0^-$	2097.88	$1^+$	E1
5322.1 4	19# 5	7412.26	$1^-,0^-$	2090.1	$1^-$	M1
5327.3& 5	8 5	7412.26	$1^-,0^-$	2084.9	$0^-,2^-$	M1
5338.1& 6	5 5	7412.26	$1^-,0^-$	2074.1?	( $0^-,2^-$ )	M1
5348.7 3	45 6	7412.26	$1^-,0^-$	2063.5	$0^+,2^+$	E1
5356.7 6	12 5	7412.26	$1^-,0^-$	2055.5	$0^-,1^-,2^-$	M1
5376.4 3	57 6	7412.26	$1^-,0^-$	2035.8	$0^+,2^+,1^+$	E1
5381.1 3	43 <sup>a</sup> 6	7412.26	$1^-,0^-$	2031.1	$0^+,2^+$	E1
5398.8 3	50 6	7412.26	$1^-,0^-$	2013.4	$0^+,2^+$	E1
5417.8 6	6# 5	7412.26	$1^-,0^-$	1994.4	( $-$ )	(M1)
5534.9 5	42 6	7412.26	$1^-,0^-$	1877.3	$0^+,1^+,2^+$	E1
5603.5 4	23 4	7412.26	$1^-,0^-$	1808.7	( $1^-$ )	(M1)
5636.7 2	54 5	7412.26	$1^-,0^-$	1775.47	( $0^+$ ), $2^+$	E1
5697.5 4	48 5	7412.26	$1^-,0^-$	1714.7	$0^+,2^+$	E1
5783.9 1	84 4	7412.26	$1^-,0^-$	1628.26	$1^+$	E1
5796.7 2	84 3	7412.26	$1^-,0^-$	1615.46	$1^+$	E1
5798.3 7	45 9	7412.26	$1^-,0^-$	1613.9	$0^+,2^+$	E1
5980.9 1	68@ 3	7412.26	$1^-,0^-$	1431.26	$0^+,2^+$	E1
6025.2 2	30 3	7412.26	$1^-,0^-$	1386.95	$1^-,2^+$	D
6089.7 2	45.0 23	7412.26	$1^-,0^-$	1322.45	$0^+,2^+$	E1
6128.5& 3	12.0 19	7412.26	$1^-,0^-$	1283.7	$0^-,1^-,2^-$	M1
6191.0 4	$\approx 4.5$ @	7412.26	$1^-,0^-$	1221.1	( $1^-,2^-,3^-$ )	(E2)
6282.0 5	9.2 16	7412.26	$1^-,0^-$	1130.1	$0^-,2^-$	M1
6290.2 1	79 3	7412.26	$1^-,0^-$	1121.94	$2^+$	E1
6409.4 1	65 3	7412.26	$1^-,0^-$	1002.74	$0^+$	E1
6508.5 3	41.0 21	7412.26	$1^-,0^-$	903.6	$2^+$	E1
7300.2 1	100 3	7412.26	$1^-,0^-$	111.90	$2^+$	E1
7412.1 1	78.0 23	7412.26	$1^-,0^-$	0.0	$0^+$	E1

† Reduced intensities from 300 eV average resonance capture (**1975Bu01**), defined as  $I_\gamma(E_0/E_\gamma)^4$  where  $E_0=7411.9 3$ , except As noted. The uncertainties are statistical and do not include contributions from the calibration process.

‡ From **1975Bu01**, based on reduced  $I_\gamma$ .

Continued on next page (footnotes at end of table)

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${}^{183}\text{W}(\text{n},\gamma)$  E=300 eV **1975Bu01** (continued)

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$\gamma({}^{184}\text{W})$  (continued)

# Not corrected for contribution from another isotope.

@ Corrected by authors for contribution from another isotope.

& Isotopic identification uncertain.

<sup>a</sup> May include a small contribution from  ${}^{186}\text{W}(\text{n},\gamma){}^{187}\text{W}$ .

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Legend

Level Scheme

Intensities: Relative reduced  $I_\gamma$

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

