^{184}W(d,t) 1972Ca01,1973Kl07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 134, 149 (2016)	15-Apr-2015

$J^\pi(^{184}W)=0^+$.

1972Ca01: ED=12.08 MeV; FWHM=7-8 keV; θ(lab)=60°, 90°, 125°;≥95% isotopically enriched target; broad range magnetic spectrograph with photographic plates (FWHM≈8 keV); measured triton spectra and $\sigma(\theta)$ (3 angles) and deduced L; DWBA calculations. see also 1973Kl07.

^{183}W Levels

E(level)†	Jπ#	L‡	Comments
0&			dσ/dΩ(μb/sr): 9 (60°), 9 (90°), 3 (125°) (1972Ca01).
47@&			dσ/dΩ(μb/sr): 304 (60°), 266 (90°), 104 (125°) (1972Ca01).
99@&			dσ/dΩ(μb/sr): 154 (60°), 177 (90°), 83 (125°) (1972Ca01).
207@&			dσ/dΩ(μb/sr): 112 (60°), 116 (90°), 51 (125°) (1972Ca01) for 207+209 doublet.
209@a			dσ/dΩ(μb/sr): 112 (60°), 116 (90°), 51 (125°) (1972Ca01) for 207+209 doublet.
292@a			dσ/dΩ(μb/sr): 37 (60°), 50 (90°), 23 (125°) (1972Ca01).
309@&			dσ/dΩ(μb/sr): 3 (60°), 10 (90°), 9 (125°) (1972Ca01).
412@a			dσ/dΩ(μb/sr): 40 (60°), 62 (90°), 36 (125°) (1972Ca01).
453@c			dσ/dΩ(μb/sr): 68 (60°), 98 (90°), 58 (125°) (1972Ca01).
487b			dσ/dΩ(μb/sr): 9 (60°), 35 (90°), 33 (125°) (1972Ca01).
≈553a			dσ/dΩ(μb/sr): <1 (60°), <1.3 (90°), 1 (125°) (1972Ca01).
596a			dσ/dΩ(μb/sr): 1 (125° (1972Ca01).
623d			dσ/dΩ(μb/sr): 8 (60°), 16 (90°), 10 (125°) (1972Ca01).
742			dσ/dΩ(μb/sr): 1.4 (90°), 2.8 (125°) (1972Ca01).
906e			dσ/dΩ(μb/sr): 10 (60°), 18 (90°), 11 (125°) (1972Ca01).
936f			dσ/dΩ(μb/sr): 285 (60°), 342 (90°), 158 (125°) (1972Ca01).
960d			dσ/dΩ(μb/sr): 11 (60°), 38 (90°), 29 (125°) (1972Ca01).
1002e			dσ/dΩ(μb/sr): 112 (60°), 207 (90°), 128 (125°) (1972Ca01).
1029f			dσ/dΩ(μb/sr): 45 (60°), 46 (90°), 27 (125°) (1972Ca01).
1056f	5/2⁻,7/2⁻	3	dσ/dΩ(μb/sr): 37 (60°), 56 (90°), 35 (125°) (1972Ca01).
1072g			dσ/dΩ(μb/sr): 47 (60°), 79 (90°), 52 (125°) (1972Ca01).
1128e			dσ/dΩ(μb/sr): 4 (60°), 14 (90°), 15 (125°) (1972Ca01).
1154			dσ/dΩ(μb/sr): 11 (60°), 16 (90°), 10 (125°) (1972Ca01).
1219g			dσ/dΩ(μb/sr): 4 (60°), 21 (90°), 16 (125°) (1972Ca01).
1233			dσ/dΩ(μb/sr): 1.4 (60°), 4 (90°), 1.8 (125°) (1972Ca01).
1265f	(5/2⁻,7/2⁻)	(3)	dσ/dΩ(μb/sr):≈15 (60°), 47 (90°), 31 (125°) (1972Ca01).
1281e			dσ/dΩ(μb/sr):≈3 (60°),≈3 (90°), 4 (125°) (1972Ca01).
≈1314f			dσ/dΩ(μb/sr): <2 (60°), 5 (90°), 5 (125°) (1972Ca01).
1339			dσ/dΩ(μb/sr):≈3 (60°), 5 (90°),≈3 (125°) (1972Ca01).
≈1375	5/2⁻,7/2⁻	3	dσ/dΩ(μb/sr): 7 (60°), 11 (90°), 9 (125°) (1972Ca01).
1397g	≥9/2	≥5	dσ/dΩ(μb/sr):≈3 (60°), 9 (90°), 7 (125°) (1972Ca01).
1441			dσ/dΩ(μb/sr): 2.7 (90°), 2.2 (125°) (1972Ca01).
1468			dσ/dΩ(μb/sr):≈5 (60°),≈2 (90°), 1.2 (125°) (1972Ca01).
1476			dσ/dΩ(μb/sr): 7 (60°), 13 (90°), 6 (125°) (1972Ca01).
1489			dσ/dΩ(μb/sr): 2.2 (60°), 2.3 (125°) (1972Ca01).
1550			dσ/dΩ(μb/sr): 7 (60°), 13 (90°), 13 (125°) (1972Ca01).
1562	≥5/2	≥3	dσ/dΩ(μb/sr): 11 (60°), 21 (90°), 23 (125°) (1972Ca01).
1592	5/2⁻,7/2⁻	3	dσ/dΩ(μb/sr): 19 (60°), 32 (90°), 21 (125°) (1972Ca01).
1650			dσ/dΩ(μb/sr): <4 (60°), 9 (90°), 7 (125°) (1972Ca01).
1679	5/2⁻,7/2⁻	3	dσ/dΩ(μb/sr): 4 (60°), 8 (90°), 7 (125°) (1972Ca01).
1692			dσ/dΩ(μb/sr): 4 (60°), 8 (90°), 3 (125°) (1972Ca01).

Continued on next page (footnotes at end of table)

^{184}W(d,t) 1972Ca01,1973Kl07 (continued)

^{183}W Levels (continued)

E(level)[†]	Jπ[#]	L[‡]	Comments
1711			dσ/dΩ(μb/sr): 3 (60°), 7 (90°), 11 (125°) (1972Ca01).
1737	1/2⁻,3/2⁻	1	dσ/dΩ(μb/sr): 6 (60°), 7 (90°), 5 (125°) (1972Ca01).
1763	5/2⁻,7/2⁻	3	dσ/dΩ(μb/sr): 7 (60°), 12 (90°), 11 (125°) (1972Ca01).
1792			dσ/dΩ(μb/sr):≈3 (60°), 7 (90°), 5 (125°) (1972Ca01).
1822	5/2⁻,7/2⁻	3	dσ/dΩ(μb/sr): 7 (60°), 16 (90°), 8 (125°) (1972Ca01).
1967	≥5/2	≥3	dσ/dΩ(μb/sr): 1.9 (60°), 5 (90°), 5 (125°) (1972Ca01).
1989			dσ/dΩ(μb/sr): 3 (60°), 7 (90°), 4 (125°) (1972Ca01).
2016	≤7/2⁻	3,1	dσ/dΩ(μb/sr): 9 (60°), 15 (90°), 11 (125°) (1972Ca01).
2137			dσ/dΩ(μb/sr):≈15 (90°), 10 (125°) (1972Ca01).
2216			dσ/dΩ(μb/sr):≈12 (90°), 5 (125°) (1972Ca01).

[†] From 1972Ca01, except As noted.
[‡] From 1972Ca01. however, for levels excited In both (d,p) and (d,t), it is not clear whether L was determined In both or just one of the reactions; consequently, L is entered here for only those levels seen In (d,t) alone.
[#] Based on L.
[@] Rounded value from Adopted Levels.
[&] Band(A): 1/2[510] band.
[a] Band(B): 3/2[512] band.
[b] Band(C): 11/2[615] band.
[c] Band(D): 7/2[503] band.
[d] Band(E): 9/2[624] band.
[e] Band(F): 5/2[512] band.
[f] Band(G): 1/2[521] band.
[g] Band(H): 7/2[514] band.

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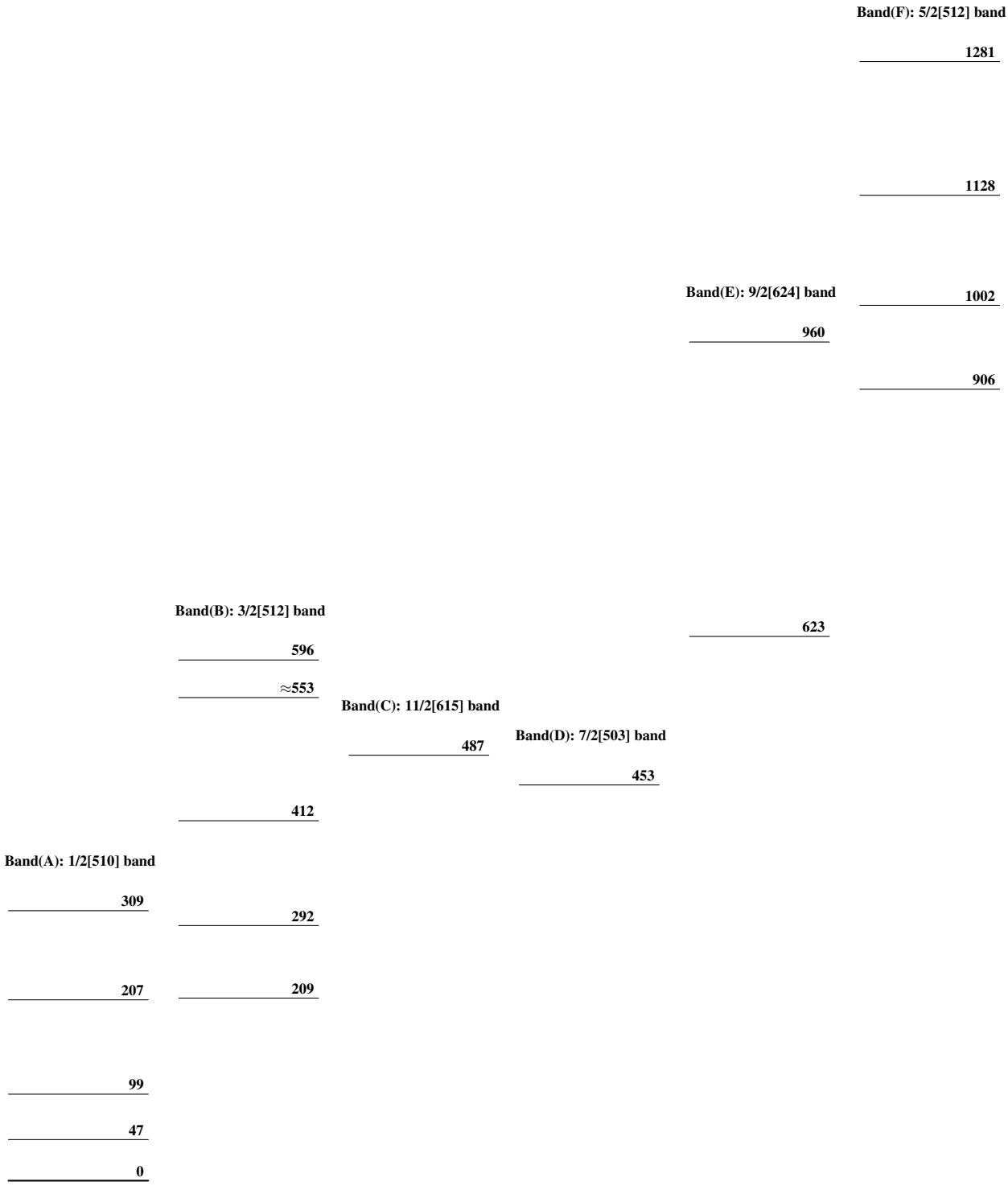

$^{183}_{74}W_{109}$

^{184}W(d,t) 1972Ca01,1973Kl07 (continued)

Band(H): 7/2[514] band

≥9/2	1397

Band(G): 1/2[521] band

	≈1314
(5/2⁻,7/2⁻)	1265
	1219
	1072
5/2⁻,7/2⁻	1056
	1029
	936

$^{183}_{74}W_{109}$