^{197}Au(d,p) 1997Be07,1996Ma70,1989Ma11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao	NDS 133, 221 (2016)	1-Dec-2015

Target $J^\pi=3/2^+$.

1989Ma11: E=20 MeV. Measured E(p), σ(E(p)) at θ(lab)=35° with Q3D (FWHM=2.3-3.5 keV). Compared with calculation using the interacting boson-fermion-fermion model. Only negative parity levels given.

1996Ma70: E=22 MeV. Measured E(p), σ(E(p)) at θ(lab)=15°, 30°, and 45° with Q3D spectrograph with resolution of 5 keV FWHM. Analyzed with DWBA. Deduced angular momentum transfer value.

1997Be07: E=22 MeV. Measured E(p), σ(E(p)) at θ(lab)=10 angles between 5°−50°. Analyzed with split-pole magnetic spectrometer and detected in focal plane by position- and angle-sensitive drift gas counter. Calculated using DWBA and DWUCK codes.

Others: 1984Go10 (pol d,p), 1986An33, 1986Ig01, 1986Ya13, 1987Ba61.

^{198}Au Levels

E(level)[‡]	J$^\pi$[c]	L[d]	dσ/dΩ (35°)[g]
0.0[†]	2^-	3	100 *5*
55.19 *18*	1^-	(1,3)	11.8 *11*
90.82 *23*	0^-	(1,3)	6.0 *8*
193.07 *13*	1^-	(1,3)	25.6 *16*
214.92 *10*	4^-	(1,3)	88 *3*
235.8 *2*	3^-	(1,3)	3.6 *5*
247.55 *10*	1^-,2^-	1	68 *3*
259.26 *16*	1^-		68 *7*
261.45 *18*	2^-	(1,3)[e]	67 *7*
311.95 *19*	5^+		1.1 *4*
328.26 *8*	3^-	1	26 *2*
339.08 *12*	0^-	(1,3)	6.2 *10*
346.64 *8*	1^-,2^-	1	29 *3*
359.4 *4*		(1,3)	1.9 *6*
362.65 *15*	$(2)^-$	(1,3)	6.7 *14*
368.09 *14*	1^-		11.3 *18*
405.74 *9*	2^-	(1,3)	7.8 *8*
449.36 *7*	3^-	(1,3)[e]	94 *5*
453.41 *13*	1^-,2^-		19.3 *24*
494.90 *18*	1^-,2^-	(1,3)	1.9 *5*
511.0 *3*	3^-	(1,3)	1.7 *4*
529.90 *22*	1^-	(1)[e]	7.9 *13*
543.66 *11*	4^-	1	6.4 *6*
548.46 *22*	$(0,1,2)^-$		1.8 *3*
570.93 *18*	1^-		1.8 *2*
573.3 *3*			2.6 *4*
595.7[#] *8*			
625.07 *14*	3^-	1	3.5 *2*
632.16 *16*	1^-,2^-	(1,3)	3.3 *2*
638.67 *24*	$(4,5)^+$	(2,4)	1.42 *17*
645.54 *23*	0^+		1.24 *16*
663.76 *18*			2.20 *20*
672.31 *10*	$(1^-,2^-),3^-$	1	14.5 *7*
694.34 *12*	$(3)^+$	(4,6)	4.9 *4*
702.40 *13*	2^-	(1,3)[e]	6.2 *6*
728.29 *10*	$(0,3)^-$	(1,3)	11.2 *8*
745.13 *16*	1^-,2^-	(1,3)	1.7 *2*
763.94 *13*	4^-	(1,3)	3.3 *4*
786.56 *19*	1^-,2^-	(1,3)	2.4 *3*

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^{197}Au(d,p) 1997Be07,1996Ma70,1989Ma11 (continued)

^{198}Au Levels (continued)

E(level)[‡]	Jπ[c]	L[d]	dσ/dΩ (35°)[g]
789.0 *4*	1⁻,2⁻		1.2 *2*
801.0 *3*	1⁻,2⁻		1.06 *20*
809.78 *17*	3⁺	1	6.0 *4*
826.2 *3*	(1⁺,2⁺)		0.91 *18*
833.24 *19*	3⁻		7.7 *4*
890.6 *2*	1⁻,2⁻		2.3 *4*
894.84 *10*	(3⁻)		28.5 *11*
915.5 *6*	1⁻,2⁻		2.5 *8*
919.07 *18*	1⁻,2⁻		11.7 *10*
948.9 *4*			1.4 *3*
956.7 *2*	1⁻,2⁻	(1,3)[e]	4.6 *6*
983.3[#] *10*		(1,3)[e]	
987.29 *14*	3⁻		5.9 *3*
998.5 *4*	1⁻,2⁻		1.07 *20*
1018.05 *15*	1⁻,2⁻	(1,3)	4.5 *3*
1030.44 *23*	(3)⁻		1.74 *18*
1037.4 *5*	(3)⁻		0.89 *21*
1045.92 *14*	1⁻,2⁻		4.9 *8*
1055.32 *15*	1⁻,2⁻	(1,3)	5.7 *10*
1060.84 *18*		(1,3)	4.4 *9*
1075.02 *10*		1	28.1 *21*
1092.91 *13*	0⁻	*f*	7.3 *1*
1105.08 *22*		(1,3)	3.9 *7*
1109.3 *3*			8.3 *13*
1115.51 *13*	3⁻	3	8.0 *7*
1124.51 *11*		3	15.3 *10*
1134.8 *8*			0.8 *3*
1146.6 *3*			3.1 *13*
1157.56 *14*		3	25 *3*
1166.45 *18*		(3,5)	13.0 *25*
1175.63 *16*		3	16 *2*
1199.4[#] *7*		3	
1203.06 *22*			21 *8*
1208.6 *4*		(1,3)	6 *5*
1255.36 *20*		(1,3)	13.8 *11*
1266.23 *19*		(1,3)	7.1 *8*
1271.5 *3*		(1,3)	3.1 *5*
1285.8 *2*			2.9 *8*
1293.0 *2*			4.9 *12*
1296.8 *5*			12.6 *25*
1301.36 *15*		5	20.9 *22*
1305.7 *7*		(1,3)	6 *2*
1318.97 *16*			4.0 *8*
1326.74 *15*			5.5 *9*
1336.69 *23*			3.5 *15*
1359.2 *4*			6.7 *14*
1363.2 *6*			3.8 *13*
1371.6 *2*			10.9 *14*
1376.2 *5*			9.0 *19*
1380.17 *21*			32 *2*
1386.0[#] *10*			
1395.1 *4*			6.1 *16*
1399.8 *6*		(1,3)[e]	12 *3*
1403.5 *3*			32 *4*
1408.4 *5*			7.7 *21*

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^{197}Au(d,p) 1997Be07,1996Ma70,1989Ma11 (continued)

^{198}Au Levels (continued)

E(level)‡	L[d]	dσ/dΩ (35°)[g]	E(level)‡
1419.2 *3*		6.4 *13*	2224@&
1424.2 *2*	(3,5)[e]	18.0 *19*	2245@&
1430.8 *5*		7.4 *18*	2266@
1435.1 *2*	(1,3,5)[e]	21.8 *24*	2283@
1444.3 *5*	(1,3)	3.3 *9*	2296@
1450.5 *4*	3	4.7 *9*	2304@&
1457.6# *8*			2326@&
1472.1[a] *4*	(5)[e]	7.6 *22*	2343@
1476.5[a] *2*	(5)[e]	23 *3*	2361?@
1488.01[b] *19*	3	54 *3*	2381@
1497.67 *21*	(1,3)	37 *3*	2393@
1506.0 *2*	(1,3)	26 *2*	2469@&
1513.58 *18*	(1,3)	66 *4*	2479@
1517.9# *5*	1		2490@
1532.69 *18*		43 *2*	2505@
1542.59 *19*	(5,7)	47 *3*	2520?@&
1554.5 *4*		7.5 *15*	2598@&
1560.1 *2*	(1,3)	13.5 *18*	2610@&

† Energy determined as −0.01 *12*.
‡ From 1989Ma11, except as noted.
# From 1996Ma70.
@ From 1987Be07.
& Probable unresolved multiplet.
[a] E=1474.6 *6* (1996Ma70) may be doublet.
[b] E=1482.1 *14* (1996Ma70).
[c] From dσ/dΩ(35°) compared with calculated value using DWUCK code.
[d] From DWBA calculation (1996Ma70).
[e] Doublet structure.
[f] L=(2,4) (1996Ma70).
[g] Relative cross section normalized to dσ/dΩ(35°)=100 for g.s. (1989Ma11).