^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 130, 21 (2015)	15-Jul-2015

$J^{\pi}(^{181}\text{Ta g.s.})=7/2^{+}$.

1969Wa05: Measured primary γ spectra at several resonances: <0.4 eV, 4.3 eV, 10 eV, 14 eV, 20.4 eV, 23.9 eV, 30 eV, 35.1+35.9 eV, 39.2 eV and 49.2 eV.

1972Ri14: E(n)=4-200 eV. Measured intensities of 173, 270, 297 and 403 γ rays for 30 resonances including the ones at 4.3, 10.3, 13.9, 20.3, 22.7, 23.9, 30.0, 35.1, 35.9, 39.1, 49.1, 63.1, 82.9, 85.1, 99.3, 105.5, 115.1, 126.5, 137, 138, 144, 166, 175, 195 and 200 eV. Spins are proposed for all these resonances.

1970Bu04: E(n)=epithermal, deduced levels and spins for 13 levels on the basis of 13 primary γ rays observed between 5432 and 6074 keV.

Additional information 1.

^{182}Ta Levels

E(level)	J^{π} †
0.0	3^-
97.9 *6*	4^-
114.2 *6*	4^-
173.5 *7*	5^-
238.0 *6*	5^-
251.0 *7*	
270.1 *6*	
293.2 *6*	5^-
361.8 *10*	
478.7 *6*	4^-
491.5 *6*	2^-
506.4 *8*	5^+
547.5 *6*	
567.0 *8*	
629.3 *8*	5^-
651.5 *14*	
659.2 *8*	
665.0 *8*	2^-
701.0 *8*	3^-
720.5 *6*	
740.7 *8*	
782.6 *6*	
817.7 *6*	
836.2 *8*	3^-
844.3 *12*	
857.0 *8*	
881.4 *12*	
899.1 *6*	
912.7 *8*	
940.0 *6*	5^-
961.8 *8*	
987.0 *6*	
1029.4 *12*	
1054.2 *12*	
1057.1 *10*	
1082.9 *11*	
1101.5 *11*	5^-
1114.3 *12*	5^-
1126.3 *12*	
1138.1 *12*	

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

^{182}Ta Levels (continued)

E(level)	J$^{\pi}$ †	Comments
1151.2 *9*		
1170.5 *10*		
1197.8 *12*		
1230.6 *10*		
1242.2 *10*		
1260.3 *12*		
1270.3 *10*		
1281.1 *10*		
1304.9 *15*		
1323.2 *10*		
(S(n)+0.0004)	3$^+$,4$^+$	E(level): E(n)<0.0004 keV, S(n)=6062.94 *11* (2012Wa38).
(S(n)+0.0043)	4$^+$	E(level): E(n)=4.3 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 2006MuZX.
(S(n)+0.010)	3$^+$	E(level): E(n)=10 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.
(S(n)+0.014)	4$^+$	E(level): E(n)=14 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.
(S(n)+0.0204)	3$^+$	E(level): E(n)=20.4 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.
(S(n)+0.0239)	4$^+$	E(level): E(n)=23.9 eV (+22.8 eV), S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.
(S(n)+0.030)	3$^+$	E(level): E(n)=30 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.
(S(n)+0.0355)	3$^+$,4$^+$	E(level): E(n)=35.1+35.9 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: 3 for 35.1 and 4 for 35.9 eV (1972Ri14).
(S(n)+0.0392)	4$^+$	E(level): E(n)=39.2 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.
(S(n)+0.0492)	3$^+$	E(level): E(n)=49.2 eV, S(n)=6062.94 *11* (2012Wa38). J$^{\pi}$: from 1972Ri14.

† From Adopted Levels.

γ(^{182}Ta)

E$_\gamma$	I$_\gamma$ †	E$_i$(level)	J$_i^{\pi}$	E$_f$	E$_\gamma$	I$_\gamma$ †	E$_i$(level)	J$_i^{\pi}$	E$_f$
4739.8 *12*	3.5 *7*	(S(n)+0.0004)	3$^+$,4$^+$	1323.2	4758.1 *16*	<1.1	(S(n)+0.0355)	3$^+$,4$^+$	1304.9
4739.8 *12*	<0.7	(S(n)+0.0043)	4$^+$	1323.2	4758.1 *16*	<1.1	(S(n)+0.0392)	4$^+$	1304.9
4739.8 *12*	2.8 *6*	(S(n)+0.010)	3$^+$	1323.2	4758.1 *16*	<1.8	(S(n)+0.0492)	3$^+$	1304.9
4739.8 *12*	4.8 *11*	(S(n)+0.014)	4$^+$	1323.2	4781.9 *12*	10.7 *6*	(S(n)+0.0004)	3$^+$,4$^+$	1281.1
4739.8 *12*	8.0 *11*	(S(n)+0.0204)	3$^+$	1323.2	4781.9 *12*	19.0 *11*	(S(n)+0.0043)	4$^+$	1281.1
4739.8 *12*	2.9 *9*	(S(n)+0.0239)	4$^+$	1323.2	4781.9 *12*	3.4 *9*	(S(n)+0.010)	3$^+$	1281.1
4739.8 *12*	4.5 *12*	(S(n)+0.030)	3$^+$	1323.2	4781.9 *12*	5.4 *9*	(S(n)+0.014)	4$^+$	1281.1
4739.8 *12*	3.1 *8*	(S(n)+0.0355)	3$^+$,4$^+$	1323.2	4781.9 *12*	<1.2	(S(n)+0.0204)	3$^+$	1281.1
4739.8 *12*	7.5 *8*	(S(n)+0.0392)	4$^+$	1323.2	4781.9 *12*	<0.8	(S(n)+0.0239)	4$^+$	1281.1
4739.8 *12*	13.7 *14*	(S(n)+0.0492)	3$^+$	1323.2	4781.9 *12*	<1.8	(S(n)+0.030)	3$^+$	1281.1
4758.1 *16*	<0.7	(S(n)+0.0004)	3$^+$,4$^+$	1304.9	4781.9 *12*	<1.1	(S(n)+0.0355)	3$^+$,4$^+$	1281.1
4758.1 *16*	<0.7	(S(n)+0.0043)	4$^+$	1304.9	4781.9 *12*	3.9 *7*	(S(n)+0.0392)	4$^+$	1281.1
4758.1 *16*	1.2 *6*	(S(n)+0.010)	3$^+$	1304.9	4781.9 *12*	<1.8	(S(n)+0.0492)	3$^+$	1281.1
4758.1 *16*	<0.7	(S(n)+0.014)	4$^+$	1304.9	4792.7 *12*	5.9 *5*	(S(n)+0.0004)	3$^+$,4$^+$	1270.3
4758.1 *16*	13.4 *11*	(S(n)+0.0204)	3$^+$	1304.9	4792.7 *12*	4.5 *8*	(S(n)+0.0043)	4$^+$	1270.3
4758.1 *16*	2.4 *9*	(S(n)+0.0239)	4$^+$	1304.9	4792.7 *12*	1.6 *8*	(S(n)+0.010)	3$^+$	1270.3
4758.1 *16*	<1.8	(S(n)+0.030)	3$^+$	1304.9	4792.7 *12*	4.6 *9*	(S(n)+0.014)	4$^+$	1270.3

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

γ(^{182}Ta) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
4792.7 *12*	2.5 *12*	(S(n)+0.0204)	3^+	1270.3	4911.8 *11*	<0.7	(S(n)+0.0004)	3^+,4^+	1151.2	
4792.7 *12*	<0.8	(S(n)+0.0239)	4^+	1270.3	4911.8 *11*	7.0 *4*	(S(n)+0.0043)	4^+	1151.2	
4792.7 *12*	<1.8	(S(n)+0.030)	3^+	1270.3	4911.8 *11*	6.0 *6*	(S(n)+0.010)	3^+	1151.2	
4792.7 *12*	<1.1	(S(n)+0.0355)	3^+,4^+	1270.3	4911.8 *11*	<1.1	(S(n)+0.014)	4^+	1151.2	
4792.7 *12*	18.7 *7*	(S(n)+0.0392)	4^+	1270.3	4911.8 *11*	<1.4	(S(n)+0.0204)	3^+	1151.2	
4792.7 *12*	<1.8	(S(n)+0.0492)	3^+	1270.3	4911.8 *11*	10.7 *5*	(S(n)+0.0239)	4^+	1151.2	
4802.7 *13*	4.8 *5*	(S(n)+0.0004)	3^+,4^+	1260.3	4911.8 *11*	<1.8	(S(n)+0.030)	3^+	1151.2	
4802.7 *13*	4.5 *8*	(S(n)+0.0043)	4^+	1260.3	4911.8 *11*	<1.1	(S(n)+0.0355)	3^+,4^+	1151.2	
4802.7 *13*	1.9 *6*	(S(n)+0.010)	3^+	1260.3	4911.8 *11*	<1.1	(S(n)+0.0392)	4^+	1151.2	
4802.7 *13*	<0.7	(S(n)+0.014)	4^+	1260.3	4911.8 *11*	3.5 *15*	(S(n)+0.0492)	3^+	1151.2	
4802.7 *13*	<1.1	(S(n)+0.0204)	3^+	1260.3	4924.9 *13*	<0.4	(S(n)+0.0004)	3^+,4^+	1138.1	
4802.7 *13*	2.5 *10*	(S(n)+0.0239)	4^+	1260.3	4924.9 *13*	<0.9	(S(n)+0.0043)	4^+	1138.1	
4802.7 *13*	<1.8	(S(n)+0.030)	3^+	1260.3	4924.9 *13*	4.4 *6*	(S(n)+0.010)	3^+	1138.1	
4802.7 *13*	<1.1	(S(n)+0.0355)	3^+,4^+	1260.3	4924.9 *13*	<1.1	(S(n)+0.014)	4^+	1138.1	
4802.7 *13*	<1.4	(S(n)+0.0392)	4^+	1260.3	4924.9 *13*	2.0 *10*	(S(n)+0.0204)	3^+	1138.1	
4802.7 *13*	<1.8	(S(n)+0.0492)	3^+	1260.3	4924.9 *13*	2.1 *5*	(S(n)+0.0239)	4^+	1138.1	
4820.8 *13*	2.3 *4*	(S(n)+0.0004)	3^+,4^+	1242.2	4924.9 *13*	<1.8	(S(n)+0.030)	3^+	1138.1	
4820.8 *13*	5.8 *5*	(S(n)+0.0043)	4^+	1242.2	4924.9 *13*	2.1 *11*	(S(n)+0.0355)	3^+,4^+	1138.1	
4820.8 *13*	<1.1	(S(n)+0.010)	3^+	1242.2	4924.9 *13*	9.0 *7*	(S(n)+0.0392)	4^+	1138.1	
4820.8 *13*	2.8 *14*	(S(n)+0.014)	4^+	1242.2	4924.9 *13*	2.8 *15*	(S(n)+0.0492)	3^+	1138.1	
4820.8 *13*	5.8 *11*	(S(n)+0.0204)	3^+	1242.2	4936.7 *13*	<0.7	(S(n)+0.0004)	3^+,4^+	1126.3	
4820.8 *13*	<0.7	(S(n)+0.0239)	4^+	1242.2	4936.7 *13*	1.1 *4*	(S(n)+0.0043)	4^+	1126.3	
4820.8 *13*	<1.8	(S(n)+0.030)	3^+	1242.2	4936.7 *13*	<0.9	(S(n)+0.010)	3^+	1126.3	
4820.8 *13*	<1.1	(S(n)+0.0355)	3^+,4^+	1242.2	4936.7 *13*	7.6 *10*	(S(n)+0.014)	4^+	1126.3	
4820.8 *13*	<1.1	(S(n)+0.0392)	4^+	1242.2	4936.7 *13*	<1.2	(S(n)+0.0204)	3^+	1126.3	
4820.8 *13*	<1.8	(S(n)+0.0492)	3^+	1242.2	4936.7 *13*	<0.7	(S(n)+0.0239)	4^+	1126.3	
4832.4 *12*	3.8 *4*	(S(n)+0.0004)	3^+,4^+	1230.6	4936.7 *13*	<1.8	(S(n)+0.030)	3^+	1126.3	
4832.4 *12*	13.2 *5*	(S(n)+0.0043)	4^+	1230.6	4936.7 *13*	5.4 *8*	(S(n)+0.0355)	3^+,4^+	1126.3	
4832.4 *12*	<1.1	(S(n)+0.010)	3^+	1230.6	4936.7 *13*	5.7 *7*	(S(n)+0.0392)	4^+	1126.3	
4832.4 *12*	3.5 *17*	(S(n)+0.014)	4^+	1230.6	4936.7 *13*	<1.8	(S(n)+0.0492)	3^+	1126.3	
4832.4 *12*	<1.4	(S(n)+0.0204)	3^+	1230.6	4938.7 *13*	<1.1	(S(n)+0.0004)	3^+,4^+		
4832.4 *12*	16.0 *8*	(S(n)+0.0239)	4^+	1230.6	4938.7 *13*	2.5 *7*	(S(n)+0.0043)	4^+		
4832.4 *12*	<1.8	(S(n)+0.030)	3^+	1230.6	4938.7 *13*	<0.7	(S(n)+0.010)	3^+		
4832.4 *12*	<1.1	(S(n)+0.0355)	3^+,4^+	1230.6	4938.7 *13*	11.7 *10*	(S(n)+0.014)	4^+		
4832.4 *12*	<1.1	(S(n)+0.0392)	4^+	1230.6	4938.7 *13*	<1.0	(S(n)+0.0204)	3^+		
4832.4 *12*	<1.8	(S(n)+0.0492)	3^+	1230.6	4938.7 *13*	<0.7	(S(n)+0.0239)	4^+		
4865.2 *13*	<0.7	(S(n)+0.0004)	3^+,4^+	1197.8	4938.7 *13*	<1.6	(S(n)+0.030)	3^+		
4865.2 *13*	<0.7	(S(n)+0.0043)	4^+	1197.8	4938.7 *13*	<1.1	(S(n)+0.0355)	3^+,4^+		
4865.2 *13*	<1.1	(S(n)+0.010)	3^+	1197.8	4938.7 *13*	<1.1	(S(n)+0.0392)	4^+		
4865.2 *13*	<0.7	(S(n)+0.014)	4^+	1197.8	4938.7 *13*	<1.8	(S(n)+0.0492)	3^+		
4865.2 *13*	<1.5	(S(n)+0.0204)	3^+	1197.8	4961.5 *13*	<0.7	(S(n)+0.0004)	3^+,4^+	1101.5	5^-
4865.2 *13*	<0.7	(S(n)+0.0239)	4^+	1197.8	4961.5 *13*	<0.9	(S(n)+0.0043)	4^+	1101.5	5^-
4865.2 *13*	4.8 *15*	(S(n)+0.030)	3^+	1197.8	4961.5 *13*	4.0 *6*	(S(n)+0.010)	3^+	1101.5	5^-
4865.2 *13*	<1.1	(S(n)+0.0355)	3^+,4^+	1197.8	4961.5 *13*	<0.7	(S(n)+0.014)	4^+	1101.5	5^-
4865.2 *13*	<1.1	(S(n)+0.0392)	4^+	1197.8	4961.5 *13*	<1.0	(S(n)+0.0204)	3^+	1101.5	5^-
4865.2 *13*	<1.8	(S(n)+0.0492)	3^+	1197.8	4961.5 *13*	<0.7	(S(n)+0.0239)	4^+	1101.5	5^-
4892.5 *12*	<0.7	(S(n)+0.0004)	3^+,4^+	1170.5	4961.5 *13*	<1.6	(S(n)+0.030)	3^+	1101.5	5^-
4892.5 *12*	1.8 *7*	(S(n)+0.0043)	4^+	1170.5	4961.5 *13*	<1.1	(S(n)+0.0355)	3^+,4^+	1101.5	5^-
4892.5 *12*	<0.9	(S(n)+0.010)	3^+	1170.5	4961.5 *13*	<1.1	(S(n)+0.0392)	4^+	1101.5	5^-
4892.5 *12*	9.7 *11*	(S(n)+0.014)	4^+	1170.5	4961.5 *13*	<1.8	(S(n)+0.0492)	3^+	1101.5	5^-
4892.5 *12*	2.2 *12*	(S(n)+0.0204)	3^+	1170.5	4980.1 *13*	2.7 *6*	(S(n)+0.0004)	3^+,4^+	1082.9	
4892.5 *12*	<0.7	(S(n)+0.0239)	4^+	1170.5	4980.1 *13*	10.5 *6*	(S(n)+0.0043)	4^+	1082.9	
4892.5 *12*	<1.8	(S(n)+0.030)	3^+	1170.5	4980.1 *13*	<0.7	(S(n)+0.010)	3^+	1082.9	
4892.5 *12*	3.0 *6*	(S(n)+0.0355)	3^+,4^+	1170.5	4980.1 *13*	4.1 *7*	(S(n)+0.014)	4^+	1082.9	
4892.5 *12*	1.4 *6*	(S(n)+0.0392)	4^+	1170.5	4980.1 *13*	<1.0	(S(n)+0.0204)	3^+	1082.9	
4892.5 *12*	<1.8	(S(n)+0.0492)	3^+	1170.5	4980.1 *13*	<0.7	(S(n)+0.0239)	4^+	1082.9	

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

γ(^{182}Ta) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
4980.1 *13*	4.6 *11*	(S(n)+0.030)	3^+	1082.9	
4980.1 *13*	3.5 *14*	(S(n)+0.0355)	$3^+,4^+$	1082.9	
4980.1 *13*	6.2 *5*	(S(n)+0.0392)	4^+	1082.9	
4980.1 *13*	<1.8	(S(n)+0.0492)	3^+	1082.9	
5005.9 *12*	<0.7	(S(n)+0.0004)	$3^+,4^+$	1057.1	
5005.9 *12*	8.3 *5*	(S(n)+0.0043)	4^+	1057.1	
5005.9 *12*	6.0 *6*	(S(n)+0.010)	3^+	1057.1	
5005.9 *12*	<0.7	(S(n)+0.014)	4^+	1057.1	
5005.9 *12*	<2.0	(S(n)+0.0204)	3^+	1057.1	
5005.9 *12*	7.5 *10*	(S(n)+0.0239)	4^+	1057.1	
5005.9 *12*	<1.7	(S(n)+0.030)	3^+	1057.1	
5005.9 *12*	4.5 *9*	(S(n)+0.0355)	$3^+,4^+$	1057.1	
5005.9 *12*	<1.2	(S(n)+0.0392)	4^+	1057.1	
5005.9 *12*	1.7 *13*	(S(n)+0.0492)	3^+	1057.1	
5008.8 *13*	4.5 *5*	(S(n)+0.0004)	$3^+,4^+$	1054.2	
5008.8 *13*	1.2 *10*	(S(n)+0.0043)	4^+	1054.2	
5008.8 *13*	<0.7	(S(n)+0.010)	3^+	1054.2	
5008.8 *13*	4.2 *7*	(S(n)+0.014)	4^+	1054.2	
5008.8 *13*	<2.0	(S(n)+0.0204)	3^+	1054.2	
5008.8 *13*	2.6 *10*	(S(n)+0.0239)	4^+	1054.2	
5008.8 *13*	<1.7	(S(n)+0.030)	3^+	1054.2	
5008.8 *13*	4.8 *8*	(S(n)+0.0355)	$3^+,4^+$	1054.2	
5008.8 *13*	3.9 *5*	(S(n)+0.0392)	4^+	1054.2	
5008.8 *13*	<1.8	(S(n)+0.0492)	3^+	1054.2	
5033.6 *13*	<0.7	(S(n)+0.0004)	$3^+,4^+$	1029.4	
5033.6 *13*	<0.7	(S(n)+0.0043)	4^+	1029.4	
5033.6 *13*	2.6 *4*	(S(n)+0.010)	3^+	1029.4	
5033.6 *13*	3.0 *6*	(S(n)+0.014)	4^+	1029.4	
5033.6 *13*	1.7 *11*	(S(n)+0.0204)	3^+	1029.4	
5033.6 *13*	<0.7	(S(n)+0.0239)	4^+	1029.4	
5033.6 *13*	4.6 *11*	(S(n)+0.030)	3^+	1029.4	
5033.6 *13*	9.5 *6*	(S(n)+0.0355)	$3^+,4^+$	1029.4	
5033.6 *13*	0.9 *7*	(S(n)+0.0392)	4^+	1029.4	
5033.6 *13*	<1.8	(S(n)+0.0492)	3^+	1029.4	
5076.0 *8*	<0.7	(S(n)+0.0004)	$3^+,4^+$	987.0	
5076.0 *8*	<0.7	(S(n)+0.0043)	4^+	987.0	
5076.0 *8*	7.4 *5*	(S(n)+0.010)	3^+	987.0	
5076.0 *8*	9.0 *8*	(S(n)+0.014)	4^+	987.0	
5076.0 *8*	<0.7	(S(n)+0.0204)	3^+	987.0	
5076.0 *8*	<0.7	(S(n)+0.0239)	4^+	987.0	
5076.0 *8*	<1.7	(S(n)+0.030)	3^+	987.0	
5076.0 *8*	0.6 *8*	(S(n)+0.0355)	$3^+,4^+$	987.0	
5076.0 *8*	4.0 *5*	(S(n)+0.0392)	4^+	987.0	
5076.0 *8*	<1.8	(S(n)+0.0492)	3^+	987.0	
5101.2 *10*	0.9 *4*	(S(n)+0.0004)	$3^+,4^+$	961.8	
5101.2 *10*	<0.5	(S(n)+0.0043)	4^+	961.8	
5101.2 *10*	1.8 *5*	(S(n)+0.010)	3^+	961.8	
5101.2 *10*	<0.7	(S(n)+0.014)	4^+	961.8	
5101.2 *10*	<0.7	(S(n)+0.0204)	3^+	961.8	
5101.2 *10*	<0.7	(S(n)+0.0239)	4^+	961.8	
5101.2 *10*	3.5 *17*	(S(n)+0.030)	3^+	961.8	
5101.2 *10*	2.0 *8*	(S(n)+0.0355)	$3^+,4^+$	961.8	
5101.2 *10*	0.8 *6*	(S(n)+0.0392)	4^+	961.8	
5101.2 *10*	<1.8	(S(n)+0.0492)	3^+	961.8	
5123.0 *8*	0.6 *3*	(S(n)+0.0004)	$3^+,4^+$	940.0	5^-
5123.0 *8*	1.5 *3*	(S(n)+0.0043)	4^+	940.0	5^-
5123.0 *8*	0.8 *4*	(S(n)+0.010)	3^+	940.0	5^-
5123.0 *8*	<0.7	(S(n)+0.014)	4^+	940.0	5^-
5123.0 *8*	<1.2	(S(n)+0.0204)	3^+	940.0	5^-
5123.0 *8*	<0.7	(S(n)+0.0239)	4^+	940.0	5^-
5123.0 *8*	<1.4	(S(n)+0.030)	3^+	940.0	5^-
5123.0 *8*	1.2 *8*	(S(n)+0.0355)	$3^+,4^+$	940.0	5^-
5123.0 *8*	8.2 *5*	(S(n)+0.0392)	4^+	940.0	5^-
5123.0 *8*	<1.8	(S(n)+0.0492)	3^+	940.0	5^-
5150.3 *10*	1.3 *4*	(S(n)+0.0004)	$3^+,4^+$	912.7	
5150.3 *10*	3.3 *4*	(S(n)+0.0043)	4^+	912.7	
5150.3 *10*	9.5 *4*	(S(n)+0.010)	3^+	912.7	
5150.3 *10*	10.9 *6*	(S(n)+0.014)	4^+	912.7	
5150.3 *10*	<0.8	(S(n)+0.0204)	3^+	912.7	
5150.3 *10*	13.3 *7*	(S(n)+0.0239)	4^+	912.7	
5150.3 *10*	5.0 *9*	(S(n)+0.030)	3^+	912.7	
5150.3 *10*	1.9 *8*	(S(n)+0.0355)	$3^+,4^+$	912.7	
5150.3 *10*	2.7 *5*	(S(n)+0.0392)	4^+	912.7	
5150.3 *10*	<1.8	(S(n)+0.0492)	3^+	912.7	
5163.9 *8*	<0.7	(S(n)+0.0004)	$3^+,4^+$	899.1	
5163.9 *8*	<0.5	(S(n)+0.0043)	4^+	899.1	
5163.9 *8*	13.2 *5*	(S(n)+0.010)	3^+	899.1	
5163.9 *8*	1.8 *6*	(S(n)+0.014)	4^+	899.1	
5163.9 *8*	2.9 *9*	(S(n)+0.0204)	3^+	899.1	
5163.9 *8*	<1.4	(S(n)+0.0239)	4^+	899.1	
5163.9 *8*	<1.6	(S(n)+0.030)	3^+	899.1	
5163.9 *8*	<0.8	(S(n)+0.0355)	$3^+,4^+$	899.1	
5163.9 *8*	15.5 *7*	(S(n)+0.0392)	4^+	899.1	
5163.9 *8*	<1.8	(S(n)+0.0492)	3^+	899.1	
5181.6 *13*	<0.7	(S(n)+0.0004)	$3^+,4^+$	881.4	
5181.6 *13*	1.1 *4*	(S(n)+0.0043)	4^+	881.4	
5181.6 *13*	<0.7	(S(n)+0.010)	3^+	881.4	
5181.6 *13*	<0.4	(S(n)+0.014)	4^+	881.4	
5181.6 *13*	<0.7	(S(n)+0.0204)	3^+	881.4	
5181.6 *13*	<0.7	(S(n)+0.0239)	4^+	881.4	
5181.6 *13*	<1.2	(S(n)+0.030)	3^+	881.4	
5181.6 *13*	<0.8	(S(n)+0.0355)	$3^+,4^+$	881.4	
5181.6 *13*	1.6 *6*	(S(n)+0.0392)	4^+	881.4	
5181.6 *13*	<1.8	(S(n)+0.0492)	3^+	881.4	
5206.0 *10*	3.5 *3*	(S(n)+0.0004)	$3^+,4^+$	857.0	
5206.0 *10*	3.7 *4*	(S(n)+0.0043)	4^+	857.0	
5206.0 *10*	<0.7	(S(n)+0.010)	3^+	857.0	
5206.0 *10*	<0.7	(S(n)+0.014)	4^+	857.0	
5206.0 *10*	5.7 *9*	(S(n)+0.0204)	3^+	857.0	
5206.0 *10*	<1.1	(S(n)+0.0239)	4^+	857.0	
5206.0 *10*	<1.6	(S(n)+0.030)	3^+	857.0	
5206.0 *10*	<0.7	(S(n)+0.0355)	$3^+,4^+$	857.0	
5206.0 *10*	<0.7	(S(n)+0.0392)	4^+	857.0	
5206.0 *10*	<1.8	(S(n)+0.0492)	3^+	857.0	
5218.7 *13*	<0.9	(S(n)+0.0004)	$3^+,4^+$	844.3	
5218.7 *13*	<0.5	(S(n)+0.0043)	4^+	844.3	
5218.7 *13*	<0.7	(S(n)+0.010)	3^+	844.3	
5218.7 *13*	<1.1	(S(n)+0.014)	4^+	844.3	
5218.7 *13*	<1.0	(S(n)+0.0204)	3^+	844.3	
5218.7 *13*	<1.4	(S(n)+0.0239)	4^+	844.3	
5218.7 *13*	7.3 *9*	(S(n)+0.030)	3^+	844.3	
5218.7 *13*	1.7 *5*	(S(n)+0.0355)	$3^+,4^+$	844.3	

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

γ(^{182}Ta) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
5218.7 *13*	1.9 *6*	(S(n)+0.0392)	4^+	844.3	
5218.7 *13*	<1.4	(S(n)+0.0492)	3^+	844.3	
5226.8 *10*	<0.9	(S(n)+0.0004)	3^+,4^+	836.2	3^-
5226.8 *10*	1.7 *4*	(S(n)+0.0043)	4^+	836.2	3^-
5226.8 *10*	1.3 *5*	(S(n)+0.010)	3^+	836.2	3^-
5226.8 *10*	10.6 *7*	(S(n)+0.014)	4^+	836.2	3^-
5226.8 *10*	<1.0	(S(n)+0.0204)	3^+	836.2	3^-
5226.8 *10*	4.6 *5*	(S(n)+0.0239)	4^+	836.2	3^-
5226.8 *10*	<1.4	(S(n)+0.030)	3^+	836.2	3^-
5226.8 *10*	<0.9	(S(n)+0.0355)	3^+,4^+	836.2	3^-
5226.8 *10*	<0.9	(S(n)+0.0392)	4^+	836.2	3^-
5226.8 *10*	2.9 *8*	(S(n)+0.0492)	3^+	836.2	3^-
5245.3 *8*	3.8 *4*	(S(n)+0.0004)	3^+,4^+	817.7	
5245.3 *8*	11.6 *5*	(S(n)+0.0043)	4^+	817.7	
5245.3 *8*	1.7 *5*	(S(n)+0.010)	3^+	817.7	
5245.3 *8*	1.8 *6*	(S(n)+0.014)	4^+	817.7	
5245.3 *8*	3.4 *8*	(S(n)+0.0204)	3^+	817.7	
5245.3 *8*	4.1 *5*	(S(n)+0.0239)	4^+	817.7	
5245.3 *8*	11.1 *10*	(S(n)+0.030)	3^+	817.7	
5245.3 *8*	4.9 *6*	(S(n)+0.0355)	3^+,4^+	817.7	
5245.3 *8*	3.6 *6*	(S(n)+0.0392)	4^+	817.7	
5245.3 *8*	<1.7	(S(n)+0.0492)	3^+	817.7	
5280.4 *8*	<0.5	(S(n)+0.0004)	3^+,4^+	782.6	
5280.4 *8*	7.5 *4*	(S(n)+0.0043)	4^+	782.6	
5280.4 *8*	<0.5	(S(n)+0.010)	3^+	782.6	
5280.4 *8*	1.4 *7*	(S(n)+0.014)	4^+	782.6	
5280.4 *8*	<1.0	(S(n)+0.0204)	3^+	782.6	
5280.4 *8*	2.5 *5*	(S(n)+0.0239)	4^+	782.6	
5280.4 *8*	<1.4	(S(n)+0.030)	3^+	782.6	
5280.4 *8*	3.9 *5*	(S(n)+0.0355)	3^+,4^+	782.6	
5280.4 *8*	11.2 *6*	(S(n)+0.0392)	4^+	782.6	
5280.4 *8*	3.5 *10*	(S(n)+0.0492)	3^+	782.6	
5322.5 *10*	<0.5	(S(n)+0.0004)	3^+,4^+	740.7	
5322.5 *10*	<0.4	(S(n)+0.0043)	4^+	740.7	
5322.5 *10*	<0.5	(S(n)+0.010)	3^+	740.7	
5322.5 *10*	<0.8	(S(n)+0.014)	4^+	740.7	
5322.5 *10*	2.4 *6*	(S(n)+0.0204)	3^+	740.7	
5322.5 *10*	<0.8	(S(n)+0.0239)	4^+	740.7	
5322.5 *10*	8.6 *14*	(S(n)+0.030)	3^+	740.7	
5322.5 *10*	<0.9	(S(n)+0.0355)	3^+,4^+	740.7	
5322.5 *10*	<0.9	(S(n)+0.0392)	4^+	740.7	
5322.5 *10*	<1.7	(S(n)+0.0492)	3^+	740.7	
5342.5 *8*	4.4 *4*	(S(n)+0.0004)	3^+,4^+	720.5	
5342.5 *8*	7.3 *5*	(S(n)+0.0043)	4^+	720.5	
5342.5 *8*	3.0 *4*	(S(n)+0.010)	3^+	720.5	
5342.5 *8*	<0.8	(S(n)+0.014)	4^+	720.5	
5342.5 *8*	7.4 *8*	(S(n)+0.0204)	3^+	720.5	
5342.5 *8*	<0.8	(S(n)+0.0239)	4^+	720.5	
5342.5 *8*	5.7 *12*	(S(n)+0.030)	3^+	720.5	
5342.5 *8*	2.1 *7*	(S(n)+0.0355)	3^+,4^+	720.5	
5342.5 *8*	3.5 *5*	(S(n)+0.0392)	4^+	720.5	
5342.5 *8*	<1.4	(S(n)+0.0492)	3^+	720.5	
5362.0 *10*	<0.7	(S(n)+0.0004)	3^+,4^+	701.0	3^-
5362.0 *10*	<0.7	(S(n)+0.0043)	4^+	701.0	3^-
5362.0 *10*	0.9 *4*	(S(n)+0.010)	3^+	701.0	3^-
5362.0 *10*	2.0 *6*	(S(n)+0.014)	4^+	701.0	3^-

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

γ(^{182}Ta) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
5362.0 *10*	<1.0	(S(n)+0.0204)	3^+	701.0	3^-	
5362.0 *10*	<0.8	(S(n)+0.0239)	4^+	701.0	3^-	
5362.0 *10*	<1.4	(S(n)+0.030)	3^+	701.0	3^-	
5362.0 *10*	<0.9	(S(n)+0.0355)	3^+,4^+	701.0	3^-	
5362.0 *10*	1.2 *5*	(S(n)+0.0392)	4^+	701.0	3^-	
5362.0 *10*	<1.4	(S(n)+0.0492)	3^+	701.0	3^-	
5398.0 *10*	<0.4	(S(n)+0.0004)	3^+,4^+	665.0	2^-	
5398.0 *10*	<0.7	(S(n)+0.0043)	4^+	665.0	2^-	
5398.0 *10*	<0.7	(S(n)+0.010)	3^+	665.0	2^-	
5398.0 *10*	2.0 *8*	(S(n)+0.014)	4^+	665.0	2^-	
5398.0 *10*	<1.2	(S(n)+0.0204)	3^+	665.0	2^-	
5398.0 *10*	<0.8	(S(n)+0.0239)	4^+	665.0	2^-	
5398.0 *10*	7.4 *7*	(S(n)+0.030)	3^+	665.0	2^-	
5398.0 *10*	<0.9	(S(n)+0.0355)	3^+,4^+	665.0	2^-	
5398.0 *10*	<0.9	(S(n)+0.0392)	4^+	665.0	2^-	
5398.0 *10*	7.0 *25*	(S(n)+0.0492)	3^+	665.0	2^-	
5403.8 *10*	0.7 *3*	(S(n)+0.0004)	3^+,4^+	659.2		
5403.8 *10*	5.8 *4*	(S(n)+0.0043)	4^+	659.2		
5403.8 *10*	<0.7	(S(n)+0.010)	3^+	659.2		
5403.8 *10*	<0.8	(S(n)+0.014)	4^+	659.2		
5403.8 *10*	12.6 *8*	(S(n)+0.0204)	3^+	659.2		Additional information 2.
5403.8 *10*	5.6 *5*	(S(n)+0.0239)	4^+	659.2		
5403.8 *10*	<1.4	(S(n)+0.030)	3^+	659.2		
5403.8 *10*	3.5 *9*	(S(n)+0.0355)	3^+,4^+	659.2		
5403.8 *10*	<1.1	(S(n)+0.0392)	4^+	659.2		
5403.8 *10*	7.0 *25*	(S(n)+0.0492)	3^+	659.2		
5411.5 *15*	1.0 *3*	(S(n)+0.0004)	3^+,4^+	651.5		
5411.5 *15*	<0.7	(S(n)+0.0043)	4^+	651.5		
5411.5 *15*	<0.5	(S(n)+0.010)	3^+	651.5		
5411.5 *15*	12.5 *7*	(S(n)+0.014)	4^+	651.5		
5411.5 *15*	2.9 *6*	(S(n)+0.0204)	3^+	651.5		
5411.5 *15*	1.8 *5*	(S(n)+0.0239)	4^+	651.5		
5411.5 *15*	5.2 *7*	(S(n)+0.030)	3^+	651.5		
5411.5 *15*	4.9 *8*	(S(n)+0.0355)	3^+,4^+	651.5		
5411.5 *15*	11.9 *8*	(S(n)+0.0392)	4^+	651.5		
5411.5 *15*	5.4 *28*	(S(n)+0.0492)	3^+	651.5		
5433.7 *10*	1.4 *5*	(S(n)+0.0004)	3^+,4^+	629.3	5^-	
5433.7 *10*	3.7 *4*	(S(n)+0.0043)	4^+	629.3	5^-	
5433.7 *10*	<0.7	(S(n)+0.010)	3^+	629.3	5^-	
5433.7 *10*	8.8 *7*	(S(n)+0.014)	4^+	629.3	5^-	
5433.7 *10*	<1.0	(S(n)+0.0204)	3^+	629.3	5^-	
5433.7 *10*	<0.8	(S(n)+0.0239)	4^+	629.3	5^-	
5433.7 *10*	<0.9	(S(n)+0.030)	3^+	629.3	5^-	
5433.7 *10*	<0.9	(S(n)+0.0355)	3^+,4^+	629.3	5^-	
5433.7 *10*	0.7 *6*	(S(n)+0.0392)	4^+	629.3	5^-	
5433.7 *10*	2.5 *9*	(S(n)+0.0492)	3^+	629.3	5^-	
5496.0 *10*	1.3 *3*	(S(n)+0.0004)	3^+,4^+	567.0		
5496.0 *10*	2.0 *7*	(S(n)+0.0043)	4^+	567.0		
5496.0 *10*	12.2 *6*	(S(n)+0.010)	3^+	567.0		
5496.0 *10*	<0.8	(S(n)+0.014)	4^+	567.0		
5496.0 *10*	<1.0	(S(n)+0.0204)	3^+	567.0		
5496.0 *10*	2.3 *5*	(S(n)+0.0239)	4^+	567.0		
5496.0 *10*	<1.2	(S(n)+0.030)	3^+	567.0		
5496.0 *10*	10.0 *10*	(S(n)+0.0355)	3^+,4^+	567.0		
5496.0 *10*	2.9 *6*	(S(n)+0.0392)	4^+	567.0		
5496.0 *10*	<1.4	(S(n)+0.0492)	3^+	567.0		

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

γ(^{182}Ta) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π
5515.5 *8*	2.2 *3*	(S(n)+0.0004)	3^+,4^+	547.5	
5515.5 *8*	4.7 *4*	(S(n)+0.0043)	4^+	547.5	
5515.5 *8*	7.6 *10*	(S(n)+0.010)	3^+	547.5	
5515.5 *8*	<0.8	(S(n)+0.014)	4^+	547.5	
5515.5 *8*	2.0 *8*	(S(n)+0.0204)	3^+	547.5	
5515.5 *8*	2.5 *5*	(S(n)+0.0239)	4^+	547.5	
5515.5 *8*	<1.0	(S(n)+0.030)	3^+	547.5	
5515.5 *8*	6.4 *6*	(S(n)+0.0355)	3^+,4^+	547.5	
5515.5 *8*	4.3 *6*	(S(n)+0.0392)	4^+	547.5	
5515.5 *8*	2.7 *6*	(S(n)+0.0492)	3^+	547.5	
5556.6 *10*	0.9 *2*	(S(n)+0.0004)	3^+,4^+	506.4	5^+
5556.6 *10*	2.3 *2*	(S(n)+0.0043)	4^+	506.4	5^+
5556.6 *10*	<0.5	(S(n)+0.010)	3^+	506.4	5^+
5556.6 *10*	1.6 *5*	(S(n)+0.014)	4^+	506.4	5^+
5556.6 *10*	<1.0	(S(n)+0.0204)	3^+	506.4	5^+
5556.6 *10*	2.1 *5*	(S(n)+0.0239)	4^+	506.4	5^+
5556.6 *10*	2.1 *9*	(S(n)+0.030)	3^+	506.4	5^+
5556.6 *10*	1.8 *5*	(S(n)+0.0355)	3^+,4^+	506.4	5^+
5556.6 *10*	<0.9	(S(n)+0.0392)	4^+	506.4	5^+
5556.6 *10*	<1.4	(S(n)+0.0492)	3^+	506.4	5^+
5571.5 *8*	<0.5	(S(n)+0.0004)	3^+,4^+	491.5	2^-
5571.5 *8*	<0.4	(S(n)+0.0043)	4^+	491.5	2^-
5571.5 *8*	1.7 *4*	(S(n)+0.010)	3^+	491.5	2^-
5571.5 *8*	<0.8	(S(n)+0.014)	4^+	491.5	2^-
5571.5 *8*	6.7 *6*	(S(n)+0.0204)	3^+	491.5	2^-
5571.5 *8*	<0.8	(S(n)+0.0239)	4^+	491.5	2^-
5571.5 *8*	<1.0	(S(n)+0.030)	3^+	491.5	2^-
5571.5 *8*	<0.9	(S(n)+0.0355)	3^+,4^+	491.5	2^-
5571.5 *8*	<0.9	(S(n)+0.0392)	4^+	491.5	2^-
5571.5 *8*	4.9 *8*	(S(n)+0.0492)	3^+	491.5	2^-
5584.3 *8*	1.0 *2*	(S(n)+0.0004)	3^+,4^+	478.7	4^-
5584.3 *8*	1.0 *3*	(S(n)+0.0043)	4^+	478.7	4^-
5584.3 *8*	2.6 *8*	(S(n)+0.010)	3^+	478.7	4^-
5584.3 *8*	1.0 *10*	(S(n)+0.014)	4^+	478.7	4^-
5584.3 *8*	4.2 *6*	(S(n)+0.0204)	3^+	478.7	4^-
5584.3 *8*	4.8 *5*	(S(n)+0.0239)	4^+	478.7	4^-
5584.3 *8*	13.4 *11*	(S(n)+0.030)	3^+	478.7	4^-
5584.3 *8*	<0.9	(S(n)+0.0355)	3^+,4^+	478.7	4^-
5584.3 *8*	2.1 *5*	(S(n)+0.0392)	4^+	478.7	4^-
5584.3 *8*	8.5 *8*	(S(n)+0.0492)	3^+	478.7	4^-
5701.2 *12*	0.7 *4*	(S(n)+0.0004)	3^+,4^+	361.8	
5701.2 *12*	<0.4	(S(n)+0.0043)	4^+	361.8	
5701.2 *12*	<0.5	(S(n)+0.010)	3^+	361.8	
5701.2 *12*	3.4 *5*	(S(n)+0.014)	4^+	361.8	
5701.2 *12*	<1.0	(S(n)+0.0204)	3^+	361.8	
5701.2 *12*	2.4 *5*	(S(n)+0.0239)	4^+	361.8	
5701.2 *12*	2.7 *12*	(S(n)+0.030)	3^+	361.8	
5701.2 *12*	<0.9	(S(n)+0.0355)	3^+,4^+	361.8	
5701.2 *12*	1.2 *4*	(S(n)+0.0392)	4^+	361.8	
5701.2 *12*	2.1 *7*	(S(n)+0.0492)	3^+	361.8	
5769.8 *8*	0.7 *2*	(S(n)+0.0004)	3^+,4^+	293.2	5^-
5769.8 *8*	8.8 *6*	(S(n)+0.0043)	4^+	293.2	5^-
5769.8 *8*	<0.7	(S(n)+0.010)	3^+	293.2	5^-
5769.8 *8*	1.1 *4*	(S(n)+0.014)	4^+	293.2	5^-
5769.8 *8*	2.5 *5*	(S(n)+0.0204)	3^+	293.2	5^-
5769.8 *8*	5.1 *5*	(S(n)+0.0239)	4^+	293.2	5^-

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

γ(^{182}Ta) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
5769.8 *8*	<0.9	(S(n)+0.030)	3^+	293.2	5^-	
5769.8 *8*	<0.9	(S(n)+0.0355)	3^+,4^+	293.2	5^-	
5769.8 *8*	<0.9	(S(n)+0.0392)	4^+	293.2	5^-	
5769.8 *8*	<1.1	(S(n)+0.0492)	3^+	293.2	5^-	
5792.9 *8*	2.2 *2*	(S(n)+0.0004)	3^+,4^+	270.1		
5792.9 *8*	<0.4	(S(n)+0.0043)	4^+	270.1		
5792.9 *8*	4.2 *3*	(S(n)+0.010)	3^+	270.1		
5792.9 *8*	<0.6	(S(n)+0.014)	4^+	270.1		
5792.9 *8*	0.2 *6*	(S(n)+0.0204)	3^+	270.1		Additional information 3.
5792.9 *8*	3.1 *5*	(S(n)+0.0239)	4^+	270.1		
5792.9 *8*	8.3 *11*	(S(n)+0.030)	3^+	270.1		
5792.9 *8*	3.8 *6*	(S(n)+0.0355)	3^+,4^+	270.1		
5792.9 *8*	0.4 *5*	(S(n)+0.0392)	4^+	270.1		
5792.9 *8*	<1.1	(S(n)+0.0492)	3^+	270.1		
5812.0 *9*	1.0 *2*	(S(n)+0.0004)	3^+,4^+	251.0		
5812.0 *9*	<0.4	(S(n)+0.0043)	4^+	251.0		
5812.0 *9*	0.8 *3*	(S(n)+0.010)	3^+	251.0		
5812.0 *9*	0.5 *5*	(S(n)+0.014)	4^+	251.0		
5812.0 *9*	<1.0	(S(n)+0.0204)	3^+	251.0		
5812.0 *9*	<0.6	(S(n)+0.0239)	4^+	251.0		
5812.0 *9*	<0.9	(S(n)+0.030)	3^+	251.0		
5812.0 *9*	<0.9	(S(n)+0.0355)	3^+,4^+	251.0		
5812.0 *9*	<0.9	(S(n)+0.0392)	4^+	251.0		
5812.0 *9*	2.1 *6*	(S(n)+0.0492)	3^+	251.0		
5825.0 *8*	<0.4	(S(n)+0.0004)	3^+,4^+	238.0	5^-	
5825.0 *8*	1.6 *6*	(S(n)+0.0043)	4^+	238.0	5^-	
5825.0 *8*	<0.5	(S(n)+0.010)	3^+	238.0	5^-	
5825.0 *8*	16.7 *8*	(S(n)+0.014)	4^+	238.0	5^-	
5825.0 *8*	<1.0	(S(n)+0.0204)	3^+	238.0	5^-	
5825.0 *8*	<0.6	(S(n)+0.0239)	4^+	238.0	5^-	
5825.0 *8*	<0.9	(S(n)+0.030)	3^+	238.0	5^-	
5825.0 *8*	1.1 *5*	(S(n)+0.0355)	3^+,4^+	238.0	5^-	
5825.0 *8*	<0.9	(S(n)+0.0392)	4^+	238.0	5^-	
5825.0 *8*	<1.1	(S(n)+0.0492)	3^+	238.0	5^-	
5889.5 *9*	0.8 *2*	(S(n)+0.0004)	3^+,4^+	173.5	5^-	
5889.5 *9*	4.1 *2*	(S(n)+0.0043)	4^+	173.5	5^-	
5889.5 *9*	<0.5	(S(n)+0.010)	3^+	173.5	5^-	
5889.5 *9*	1.0 *3*	(S(n)+0.014)	4^+	173.5	5^-	
5889.5 *9*	0.3 *6*	(S(n)+0.0204)	3^+	173.5	5^-	Additional information 4.
5889.5 *9*	0.5 *5*	(S(n)+0.0239)	4^+	173.5	5^-	
5889.5 *9*	<0.9	(S(n)+0.030)	3^+	173.5	5^-	
5889.5 *9*	1.6 *5*	(S(n)+0.0355)	3^+,4^+	173.5	5^-	
5889.5 *9*	<0.9	(S(n)+0.0392)	4^+	173.5	5^-	
5889.5 *9*	<1.1	(S(n)+0.0492)	3^+	173.5	5^-	
5948.8 *8*	1.1 *4*	(S(n)+0.0004)	3^+,4^+	114.2	4^-	
5948.8 *8*	<0.4	(S(n)+0.0043)	4^+	114.2	4^-	
5948.8 *8*	9.0 *5*	(S(n)+0.010)	3^+	114.2	4^-	
5948.8 *8*	1.1 *6*	(S(n)+0.014)	4^+	114.2	4^-	
5948.8 *8*	6.4 *7*	(S(n)+0.0204)	3^+	114.2	4^-	
5948.8 *8*	9.9 *6*	(S(n)+0.0239)	4^+	114.2	4^-	
5948.8 *8*	4.9 *6*	(S(n)+0.030)	3^+	114.2	4^-	
5948.8 *8*	5.2 *5*	(S(n)+0.0355)	3^+,4^+	114.2	4^-	
5948.8 *8*	3.1 *5*	(S(n)+0.0392)	4^+	114.2	4^-	
5948.8 *8*	21.6 *12*	(S(n)+0.0492)	3^+	114.2	4^-	
5965.1 *6*	10.1 *4*	(S(n)+0.0004)	3^+,4^+	97.9	4^-	
5965.1 *6*	10.7 *4*	(S(n)+0.0043)	4^+	97.9	4^-	

Continued on next page (footnotes at end of table)

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05 (continued)

$\gamma(^{182}Ta)$ (continued)

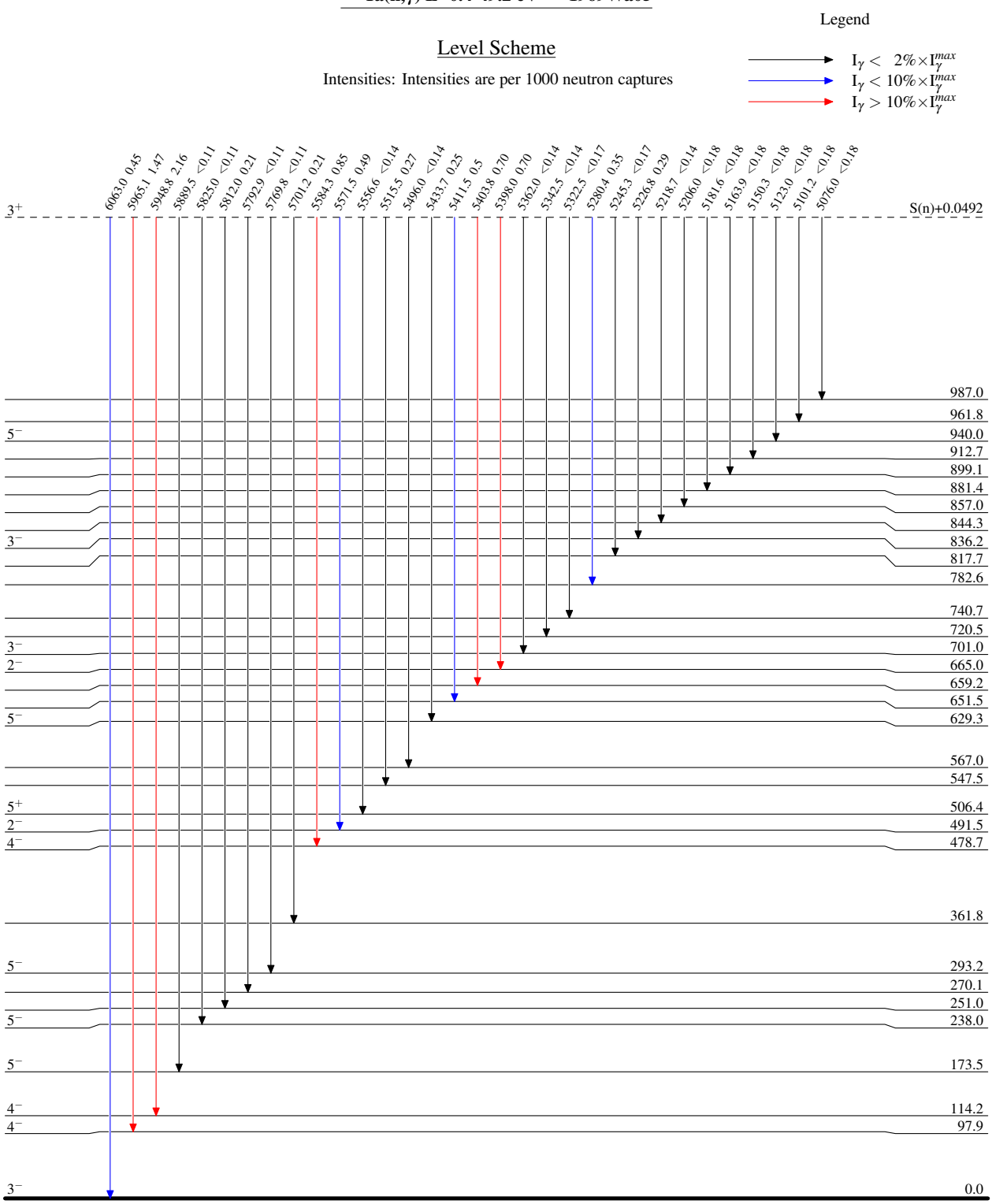
E_γ	I_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	Comments
5965.1 *6*	2.9 *3*	(S(n)+0.010)	3^+	97.9	4^-	
5965.1 *6*	3.3 *7*	(S(n)+0.014)	4^+	97.9	4^-	
5965.1 *6*	24.8 *20*	(S(n)+0.0204)	3^+	97.9	4^-	
5965.1 *6*	3.7 *5*	(S(n)+0.0239)	4^+	97.9	4^-	
5965.1 *6*	24.5 *25*	(S(n)+0.030)	3^+	97.9	4^-	
5965.1 *6*	17.0 *8*	(S(n)+0.0355)	3^+,4^+	97.9	4^-	
5965.1 *6*	9.5 *6*	(S(n)+0.0392)	4^+	97.9	4^-	
5965.1 *6*	14.7 *11*	(S(n)+0.0492)	3^+	97.9	4^-	
6063.0 *6*	6.2 *4*	(S(n)+0.0004)	3^+,4^+	0.0	3^-	
6063.0 *6*	2.2 *2*	(S(n)+0.0043)	4^+	0.0	3^-	
6063.0 *6*	5.9 *5*	(S(n)+0.010)	3^+	0.0	3^-	
6063.0 *6*	<0.4	(S(n)+0.014)	4^+	0.0	3^-	
6063.0 *6*	8.0 *10*	(S(n)+0.0204)	3^+	0.0	3^-	Additional information 5.
6063.0 *6*	9.9 *5*	(S(n)+0.0239)	4^+	0.0	3^-	
6063.0 *6*	4.5 *6*	(S(n)+0.030)	3^+	0.0	3^-	
6063.0 *6*	31.2 *12*	(S(n)+0.0355)	3^+,4^+	0.0	3^-	
6063.0 *6*	5.4 *4*	(S(n)+0.0392)	4^+	0.0	3^-	
6063.0 *6*	4.5 *7*	(S(n)+0.0492)	3^+	0.0	3^-	

[†] For intensity per 100 neutron captures, multiply by 0.1.

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme

Intensities: Intensities are per 1000 neutron captures

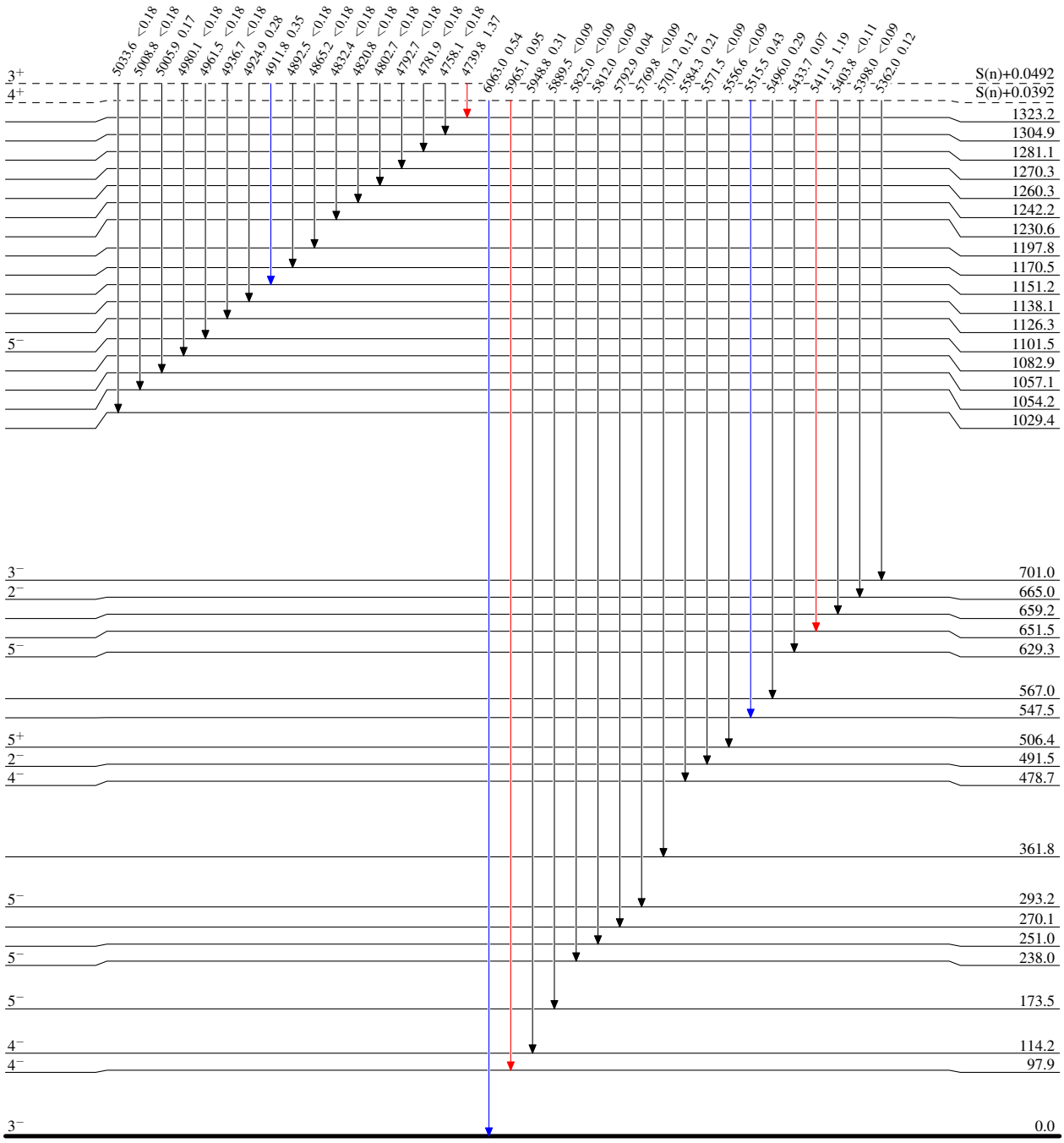


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

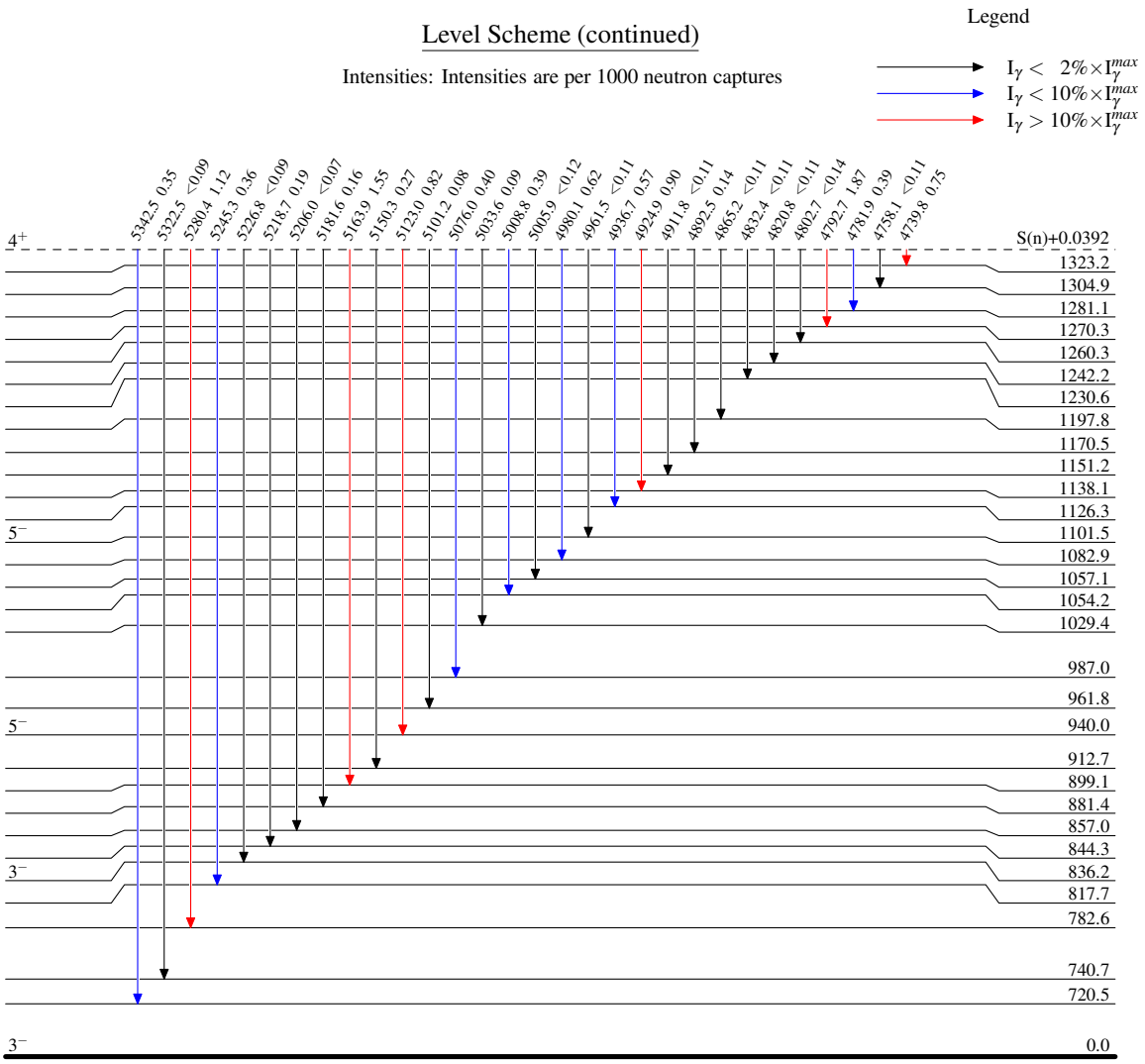


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

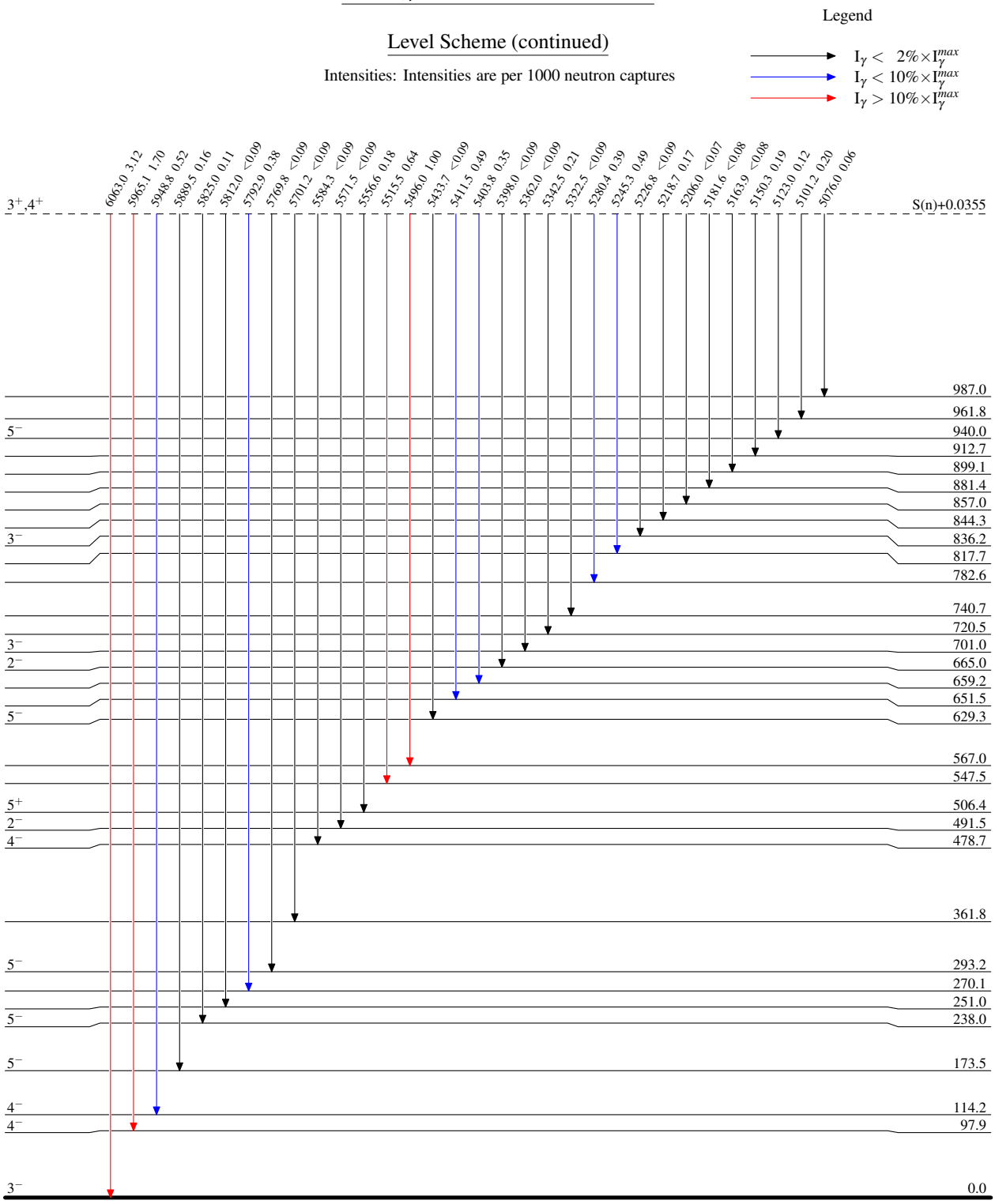


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

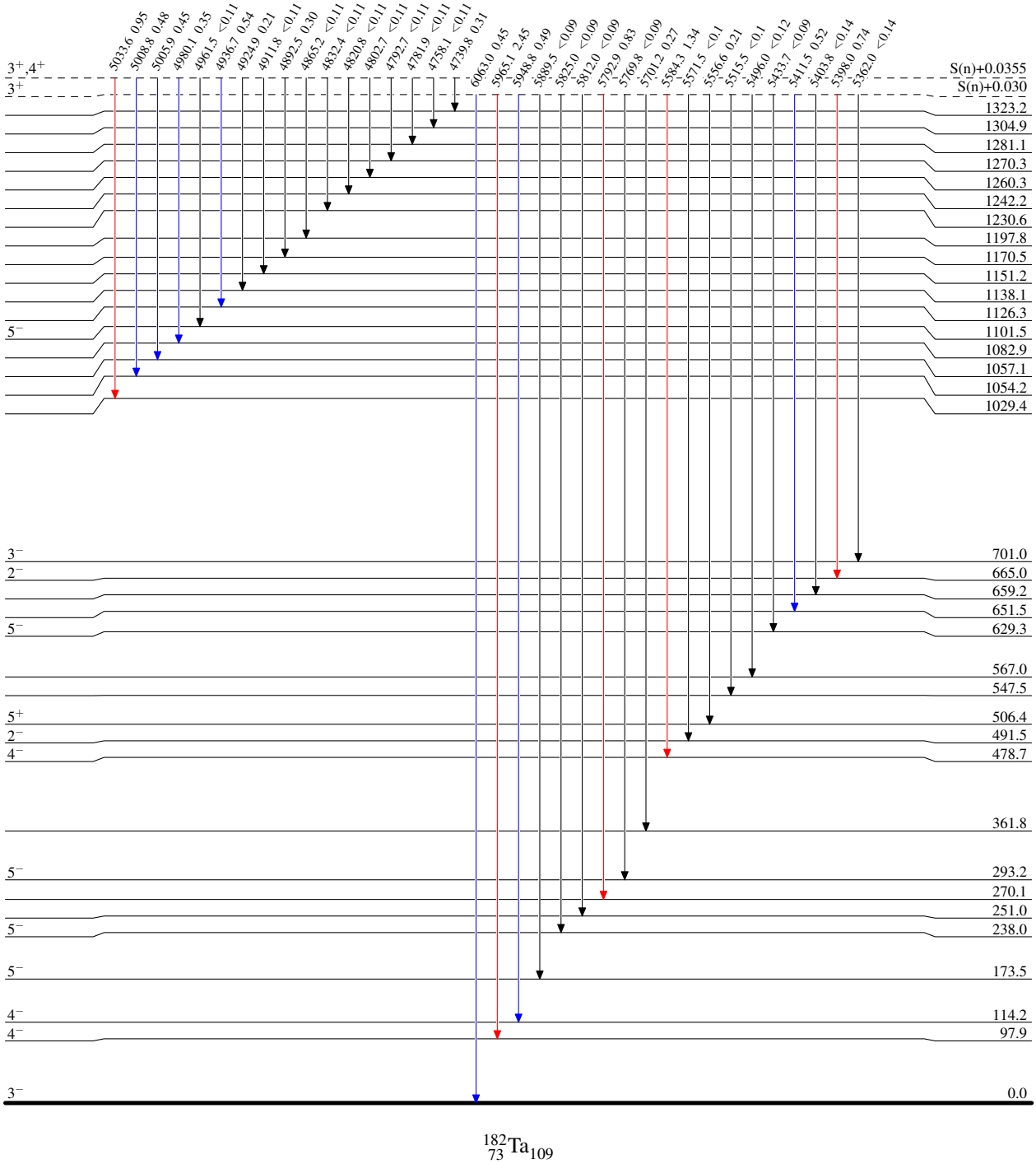


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

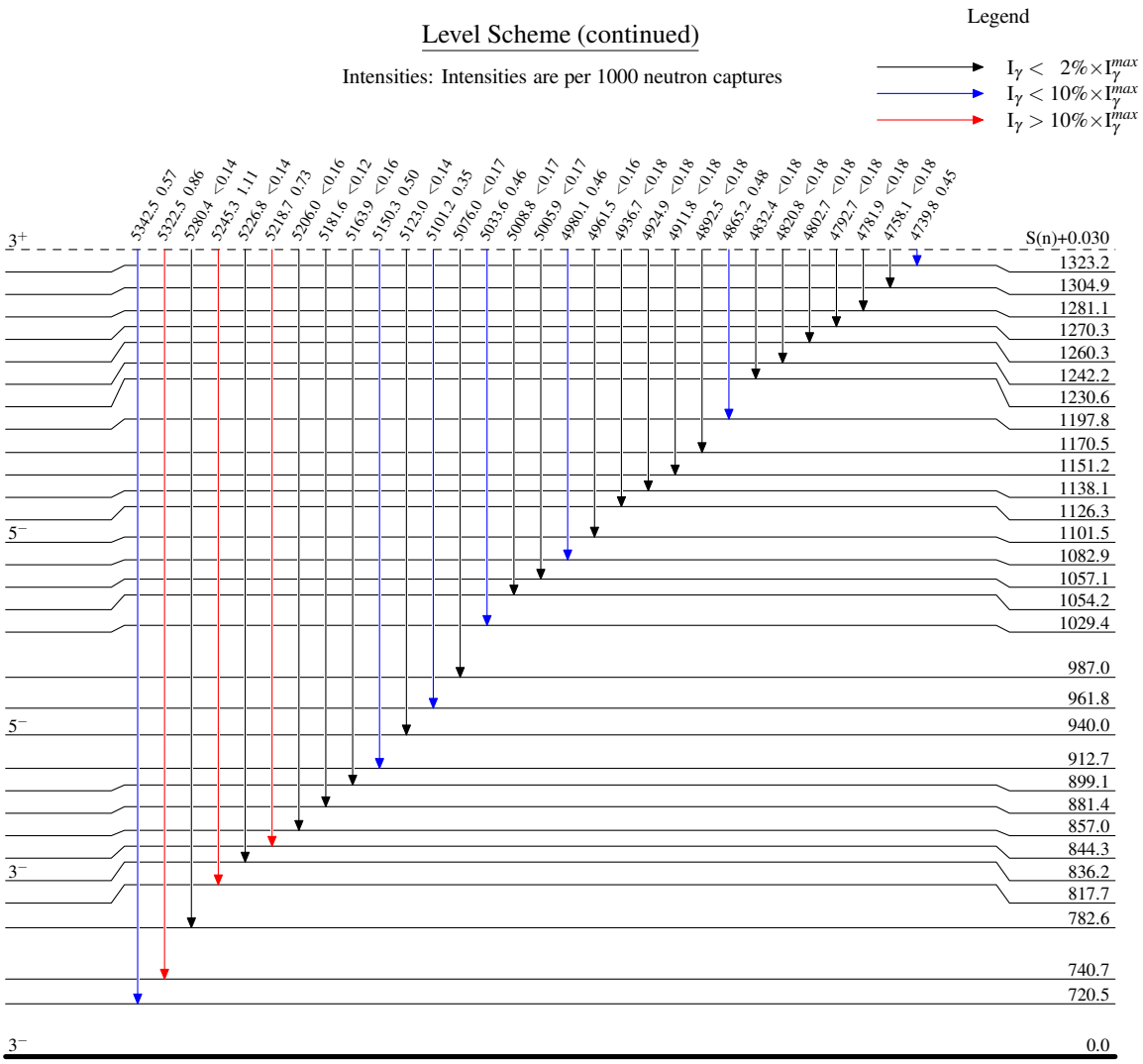


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

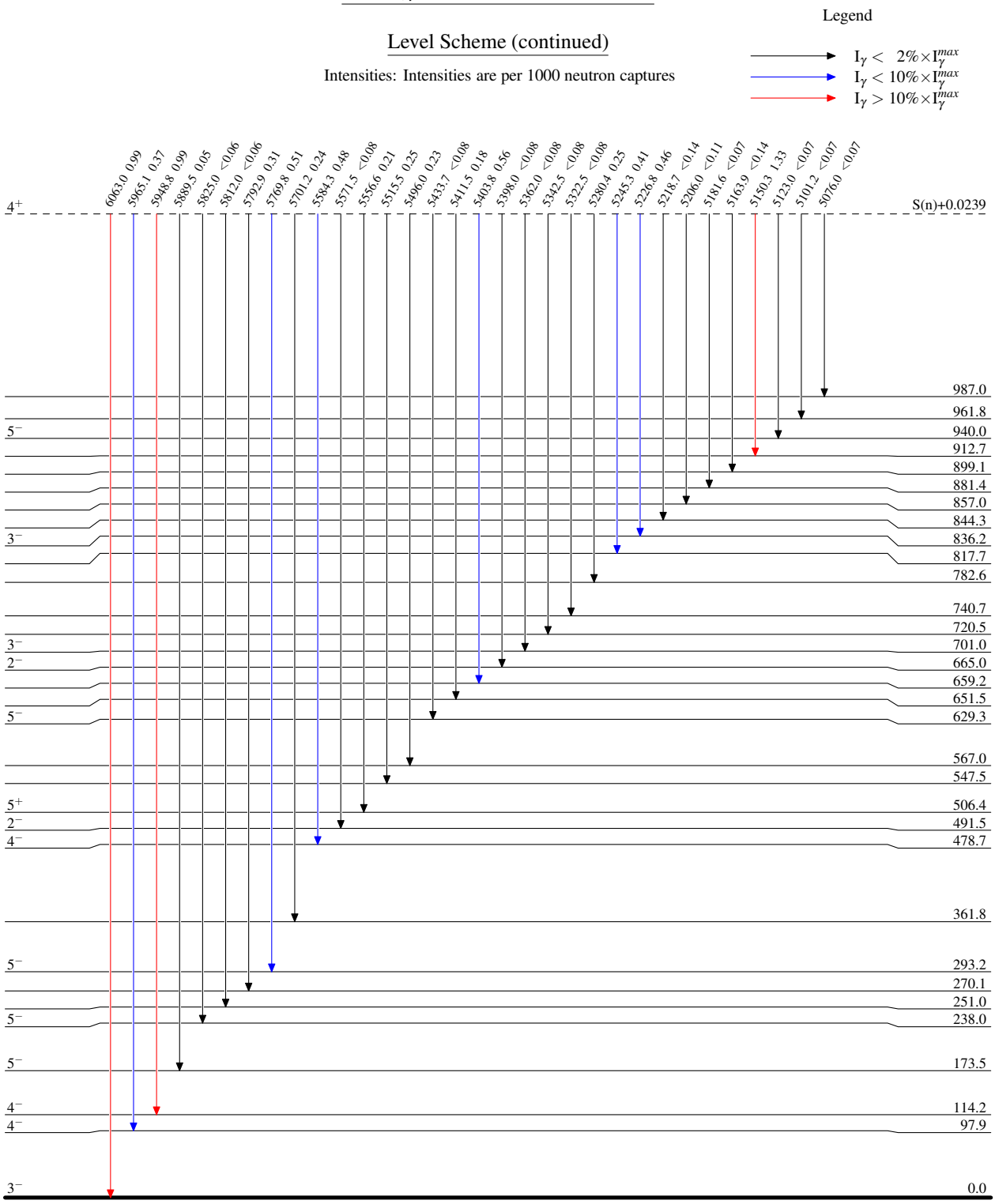


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

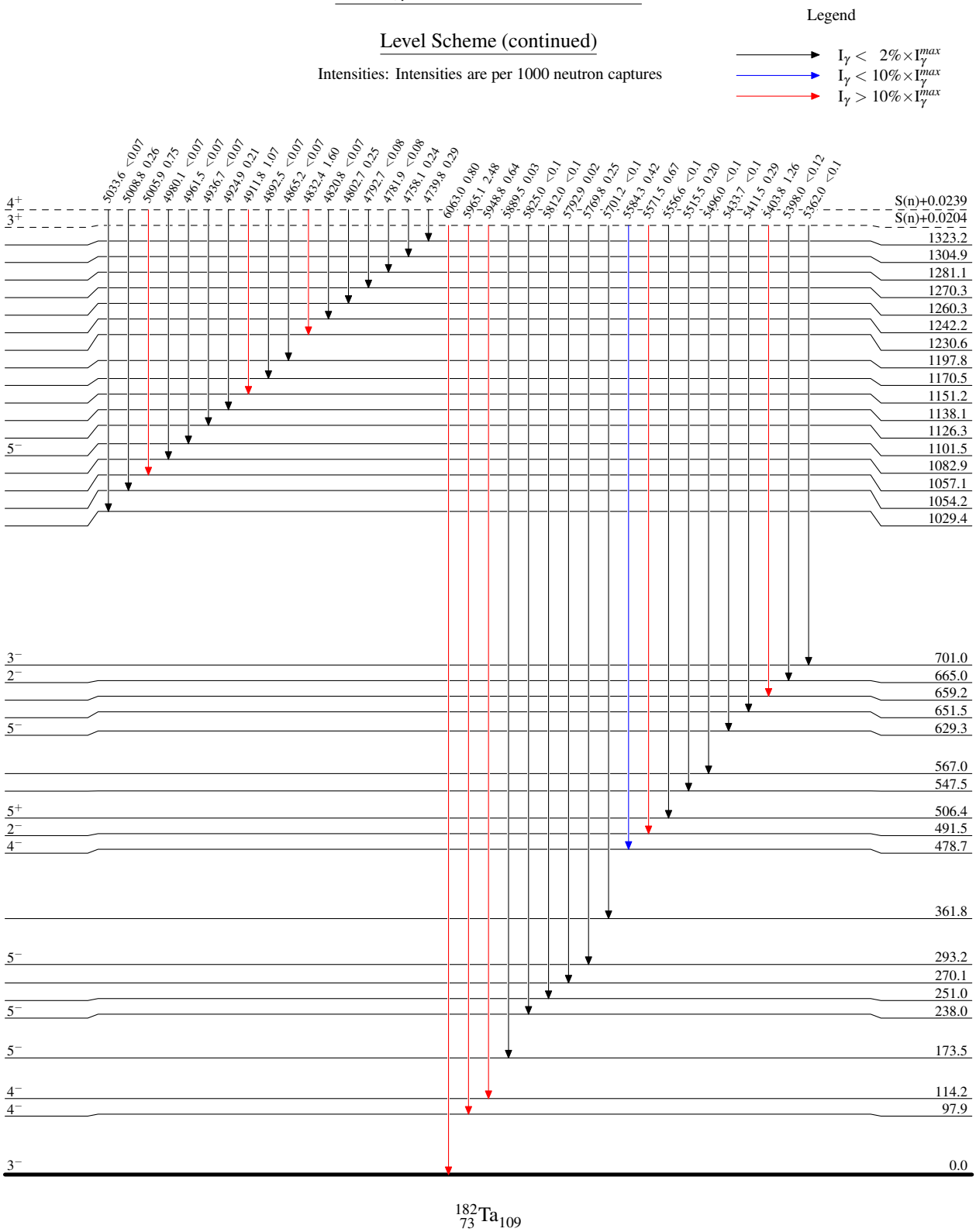


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

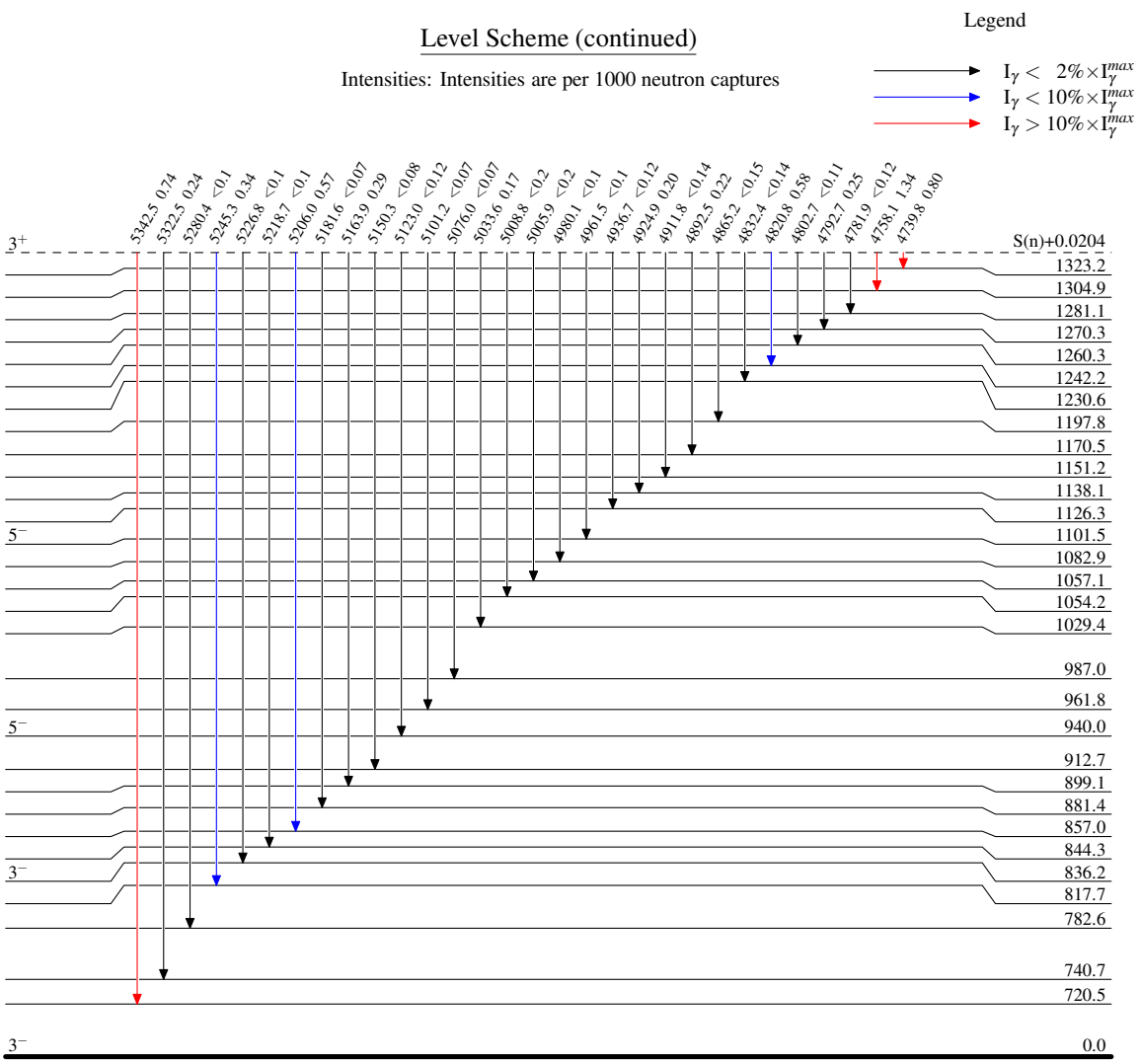


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

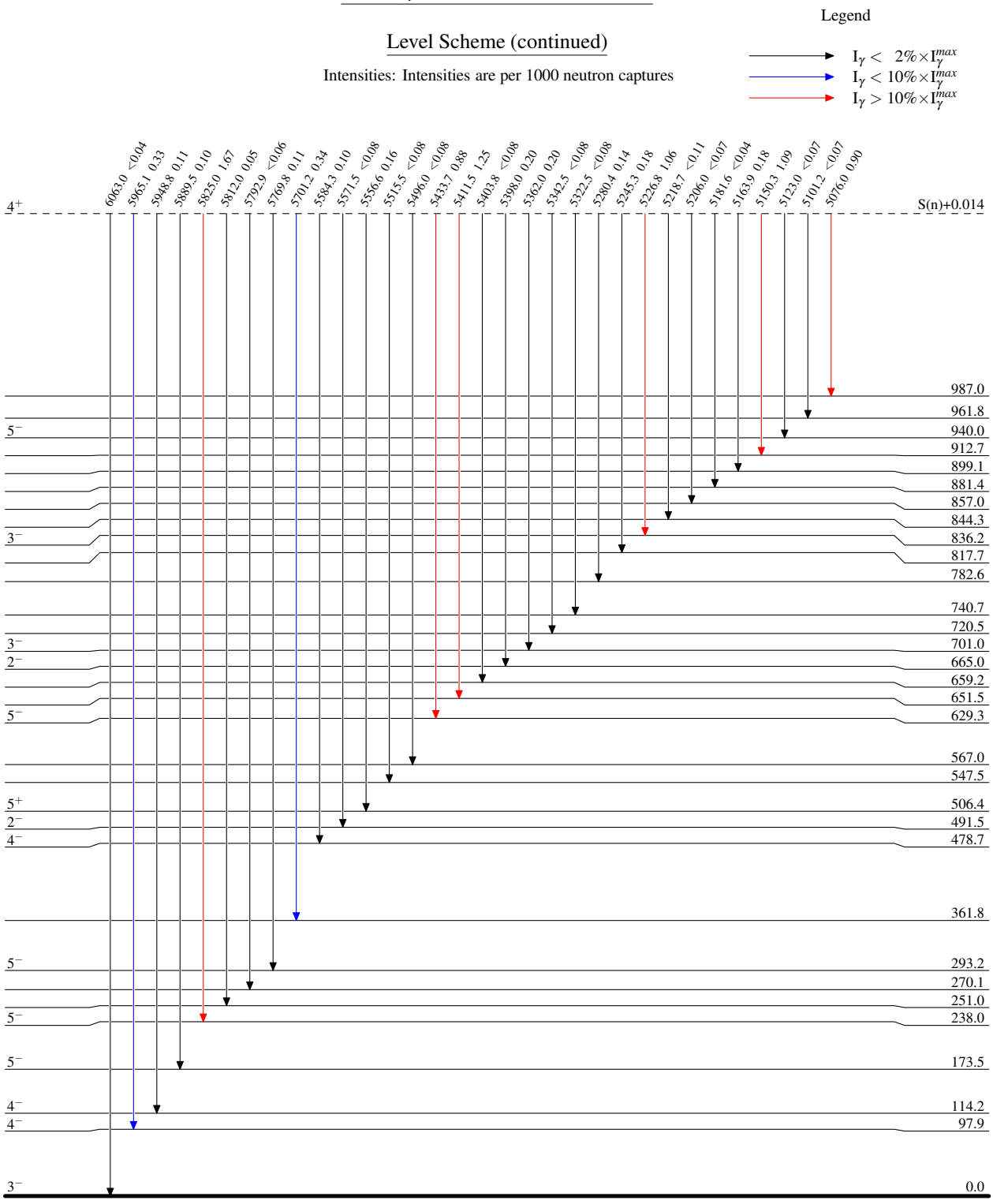


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

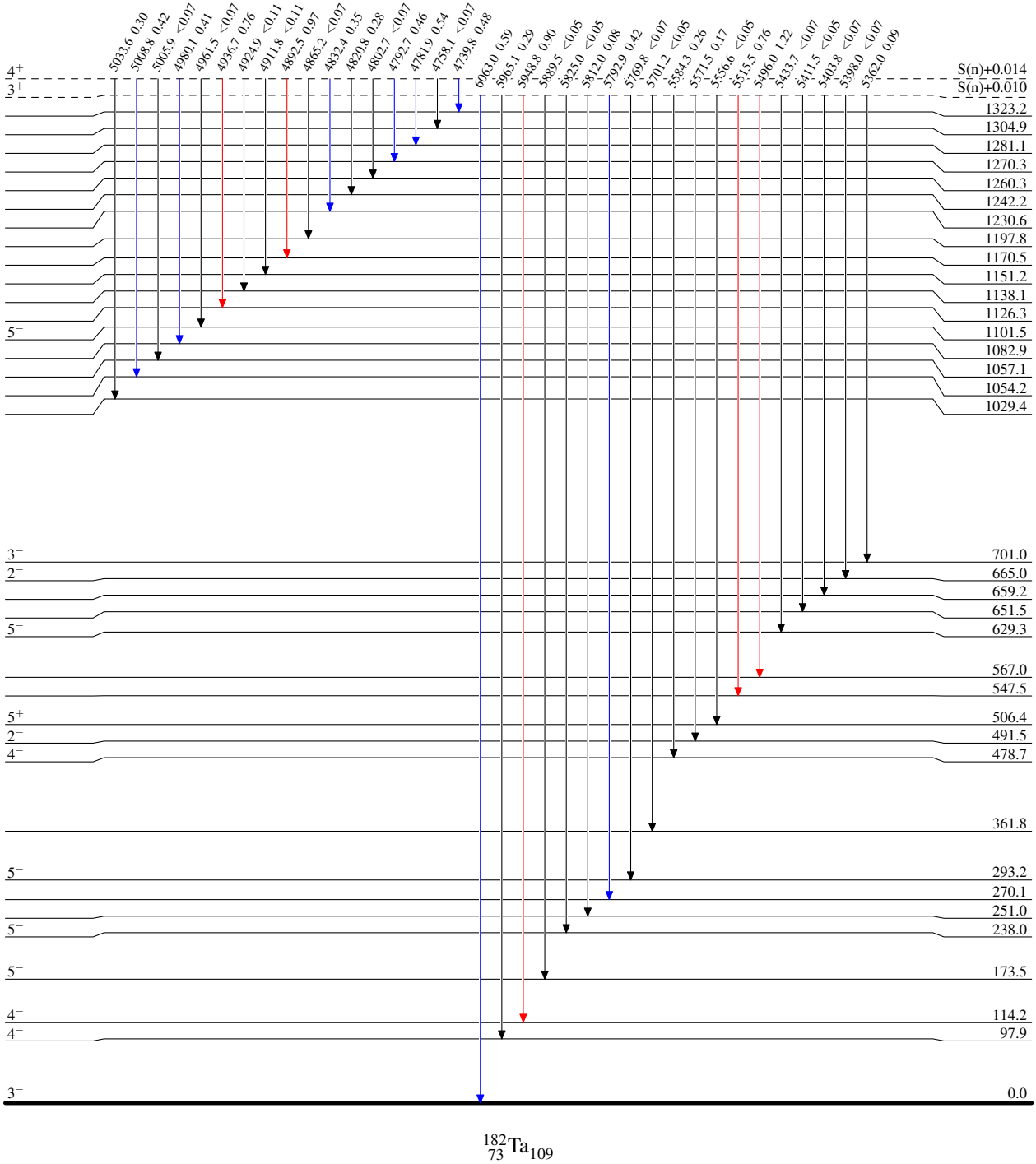


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

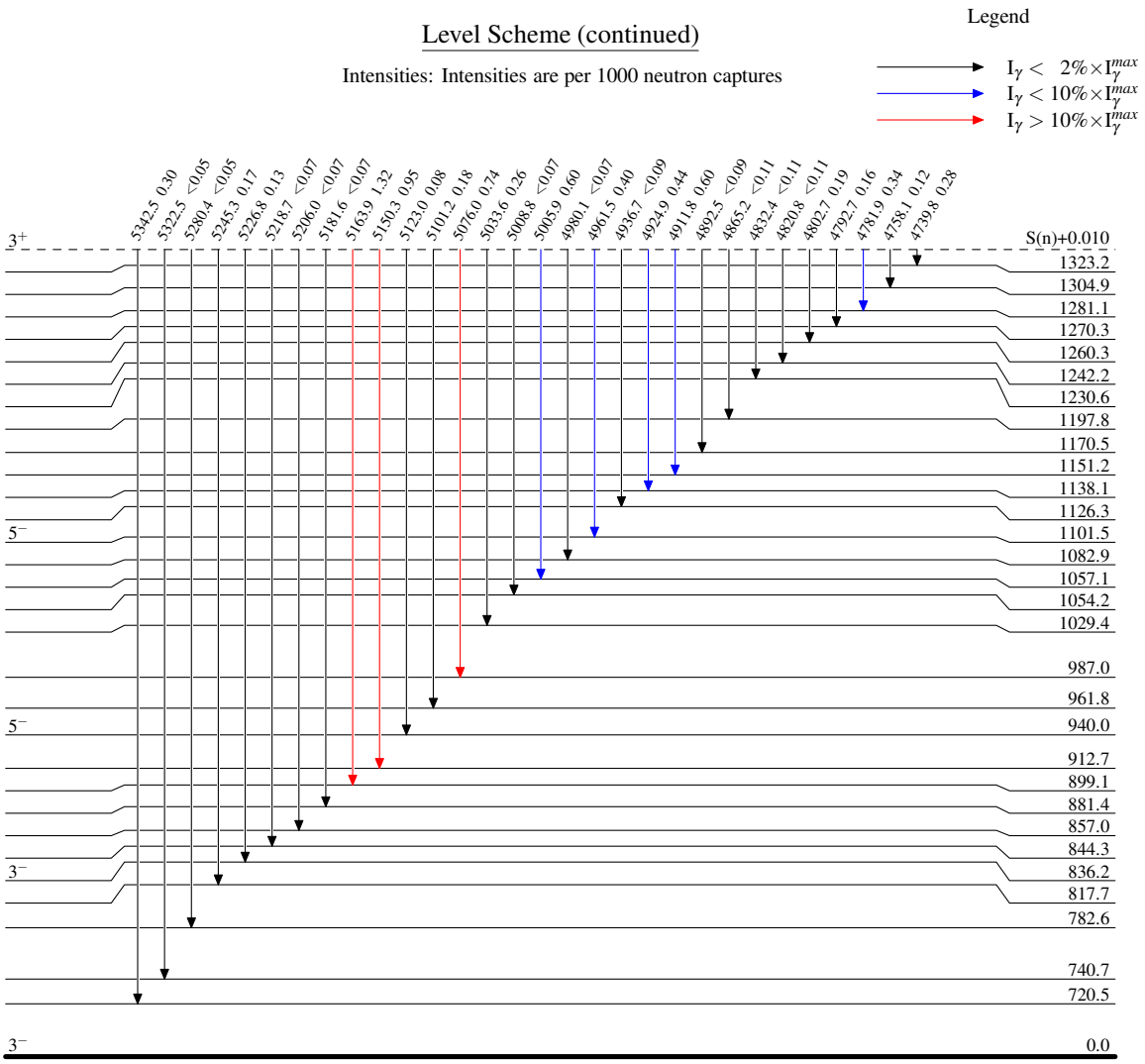


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

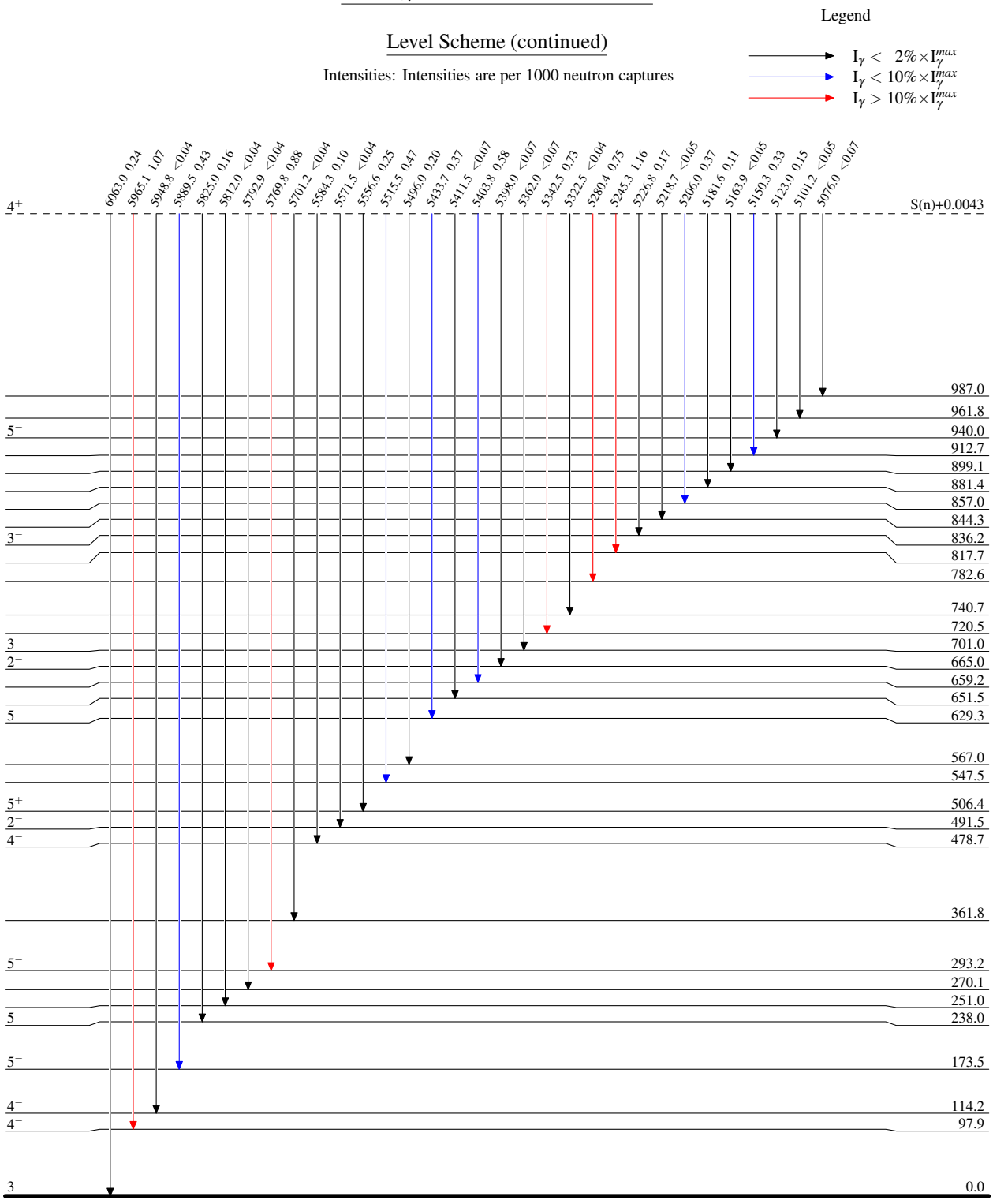


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

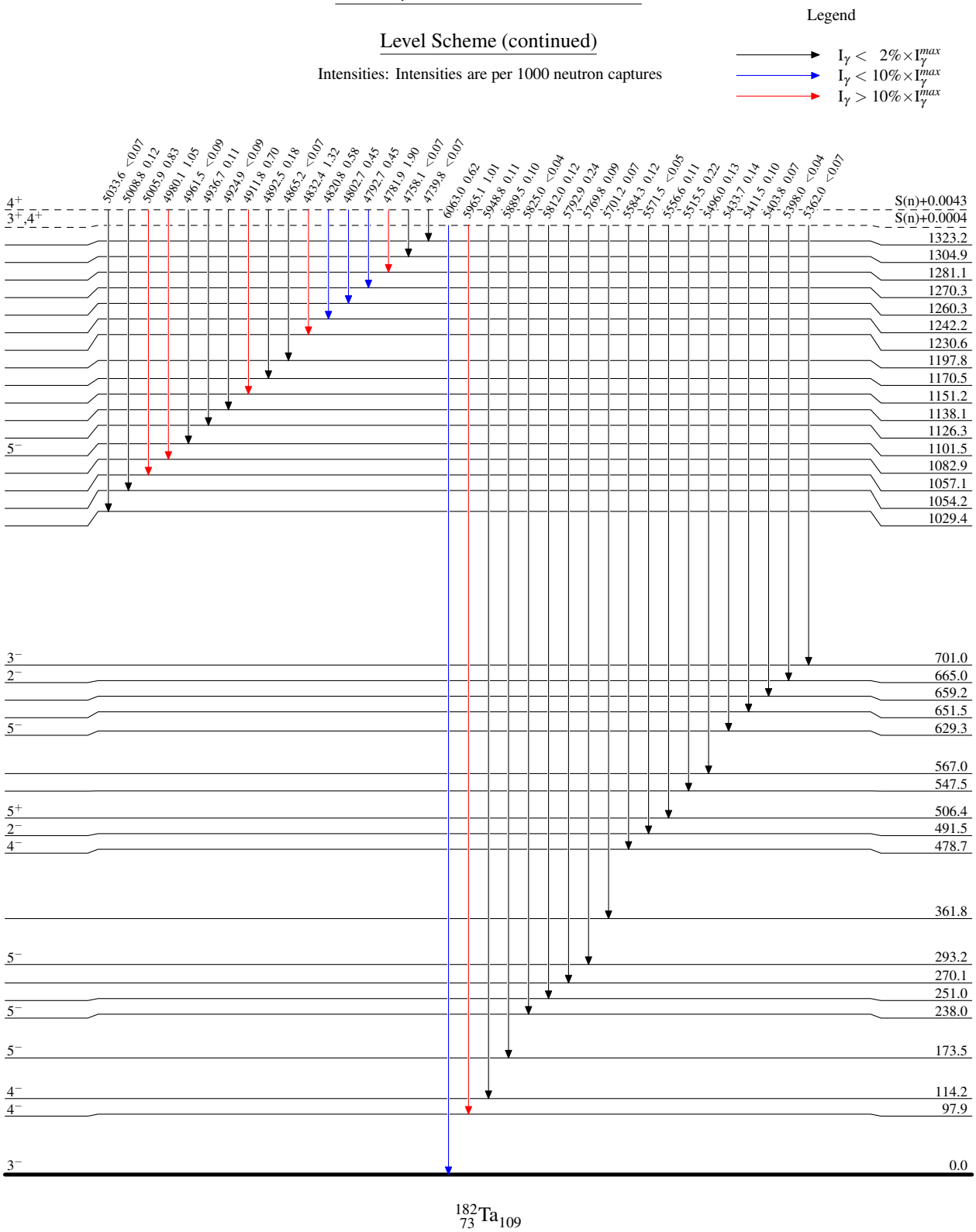


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures

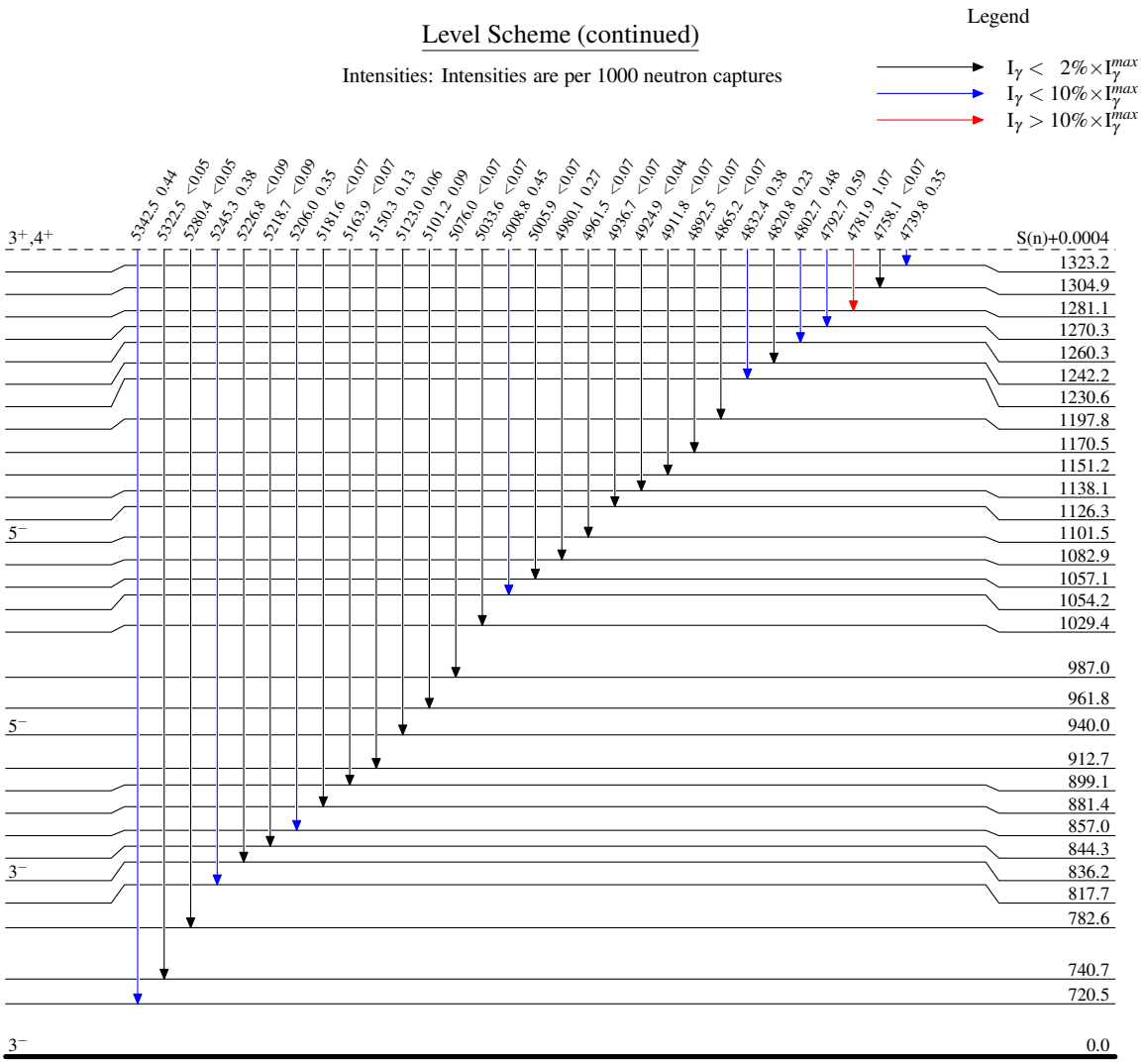


$^{182}_{73}Ta_{109}$

^{181}Ta(n,γ) E=0.4-49.2 eV 1969Wa05

Level Scheme (continued)

Intensities: Intensities are per 1000 neutron captures



$^{182}_{73}Ta_{109}$