^{108}Pd(n,n′γ) 1975Go11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2008

Used reactor fast neutrons.

^{108}Pd Levels

E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†	E(level)	Jπ†
0.0	0^+	1335.27 *9*	(3^+)	2098.69? *24*	$(1,2^+)$	2477.6 *3*	(2^+)
434.00 *6*	2^+	1441.39 *9*	2^+	2218.06 *12*	2^+	2540.2 *3*	
931.20 *7*	2^+	1539.99 *8*	(2^+)	2281.26? *16*		2720.0 *3*	2^+
1048.21 *12*	4^+	1770.97 *17*	6^+	2282.52 *16*		2888.2 *5*	
1052.73 *14*	0^+	1989.90? *15*	(4^+)	2391.6? *3*	2^+		
1314.31 *11*	0^+	2046.73 *15*	3^-	2404.3? *3*			

† Adopted values given.

γ(^{108}Pd)

E_γ	I_γ†	E_i(level)	J_i^π	E_f	J_f^π	Comments
x145.5 *2*	0.41 *4*					
204.5@ *3*	0.28 *3*	1539.99	(2^+)	1335.27	(3^+)	
225.6@ *2*	0.35 *4*	1539.99	(2^+)	1314.31	0^+	
x263.0 *3*	0.19 *3*					
x276.1 *3*	0.20 *4*					
x286.8 *3*	0.16 *3*					
x325.9 *5*	0.50 *2*					
x366.0 *3*	0.16 *3*					
383.2 *2*	0.35 *3*	1314.31	0^+	931.20	2^+	
404.07 *9*	4.8 *5*	1335.27	(3^+)	931.20	2^+	I_γ: author's value of 4.80 *5* assumed by the evaluator to be a misprint.
433.93 *8*	100.0 *1*	434.00	2^+	0.0	0^+	
x481.9 *6*	0.11 *2*					
497.22 *7*	20.5 *3*	931.20	2^+	434.00	2^+	
x526.2 *6*	0.05 *2*					
x531.1 *8*	0.05 *2*					
548.2 *3*	0.18 *2*	1989.90?	(4^+)	1441.39	2^+	
x572.1 *3*	0.20 *4*					
x575.7 *2*	0.50 *5*					
608.73 *13*	0.70 *8*	1539.99	(2^+)	931.20	2^+	
614.19 *12*	9.4 *7*	1048.21	4^+	434.00	2^+	
618.72 *12*	4.7 *4*	1052.73	0^+	434.00	2^+	
x634.6 *6*	0.078 *13*					
655.1 *3*	0.13 *2*	1989.90?	(4^+)	1335.27	(3^+)	
677.99 *13*	0.42 *3*	2218.06	2^+	1539.99	(2^+)	
722.76 *12*	0.56 *4*	1770.97	6^+	1048.21	4^+	
x743.35 *13*	0.46 *3*					
x747.9 *2*	0.28 *3*					
x791.6 *8*	0.050 *12*					
880.26 *11*	1.7 *1*	1314.31	0^+	434.00	2^+	
901.31 *10*	4.6 *3*	1335.27	(3^+)	434.00	2^+	
x908.3 *3*	0.29 *3*					
x919.2 *2*	0.33 *3*					
931.15 *10*	4.5 *3*	931.20	2^+	0.0	0^+	

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^{108}Pd(n,n′γ) 1975Go11 (continued)

γ(^{108}Pd) (continued)

E_γ	I_γ †	E_i(level)	J_i^π	E_f	J_f^π	Comments
941.65 *15*	0.49 *4*	1989.90?	(4^+)	1048.21	4^+	
947.27 *14*	0.64 *5*	2282.52		1335.27	(3^+)	
x985.3 *8*	0.060 *13*					
1007.21 *10*	3.3 *2*	1441.39	2^+	434.00	2^+	
x1025.9 *2*	0.21 *2*					
x1034.5 *6*	0.088 *14*					
1058.6 *5*	0.10 *2*	1989.90?	(4^+)	931.20	2^+	
x1082.5 *3*	0.15 *2*					
1106.04 *11*	2.1 *2*	1539.99	(2^+)	434.00	2^+	
x1120.4 *2*	0.21 *2*					
x1147.6 *4*	0.122 *15*					
x1160.1 *10*	0.040 *11*					
1164.9 *9*	0.048 *12*	2218.06	2^+	1052.73	0^+	
x1194.7 *5*	0.100 *14*					
x1212.5 *5*	0.100 *14*					
1234.1 *4*	0.140 *16*	2282.52		1048.21	4^+	
x1251.9 *8*	0.057 *12*					
x1271.8 *5*	0.11 *2*					
x1276.04 *14*	0.70 *5*					
1287.7 *6*	0.079 *13*	2218.06	2^+	931.20	2^+	
x1313.6 *3*	0.19 *2*					
x1319.5 *5*	0.094 *13*					
x1340.5 *2*	0.021 *10*					
1350.1 *2*	0.21 *2*	2281.26?		931.20	2^+	
x1362.9 *3*	0.140 *16*					
x1409.3 *3*	0.150 *17*					
1429.5 *3*	0.15 *2*	2477.6	(2^+)	1048.21	4^+	
1441.14 *10*	1.10 *8*	1441.39	2^+	0.0	0^+	E_γ: from ε decay. The value of 1441.60 *12* given by 1975Go11 appears to be a misprint. The author′s value of Eγ=1007.21 for the γ to the 434 level (1007.22 *6* in ε decay) gives E(level)=1441.14.
x1451.1 *3*	0.18 *2*					
1460.4 *3*	0.18 *2*	2391.6?	2^+	931.20	2^+	
x1481.0 *2*	0.37 *3*					
x1500.9 *6*	0.073 *13*					
x1508.9 *8*	0.06 *2*					
1540.04 *14*	0.98 *7*	1539.99	(2^+)	0.0	0^+	
1555.9 *6*	0.077 *13*	1989.90?	(4^+)	434.00	2^+	
x1579.4 *2*	0.25 *3*					
x1600.0 *8*	0.054 *10*					
1608.5 *5*	0.19 *4*	2540.2		931.20	2^+	
1612.72 *14*	1.64 *16*	2046.73	3^-	434.00	2^+	
x1632.3 *16*	0.026 *10*					
x1645.2 *3*	0.22 *2*					
1664.8 *4*	0.14 *2*	2098.69?	$(1,2^+)$	434.00	2^+	
x1695.4 *5*	0.086 *15*					
x1710.9 *3*	0.19 *2*					
x1717.4 *6*	0.07 *2*					
x1738.1 *5*	0.09 *2*					
x1742.5 *12*	0.034 *10*					
x1760.4 *7*	0.08 *2*					
1784.1 *2*	0.59 *6*	2218.06	2^+	434.00	2^+	
x1803.4 *4*	0.14 *2*					
x1811.3 *6*	0.06 *2*					
x1815.5 *4*	0.12 *2*					
x1831.6 *7*	0.073 *15*					

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^{108}Pd(n,n′γ) 1975Go11 (continued)

γ(^{108}Pd) (continued)

E_γ	I_γ [†]	E_i(level)	J_i^π	E_f	J_f^π	Comments
1847.2 *2*	0.37 *4*	2281.26?		434.00	2^+	
x1906.4 *8*	0.058 *13*					
x1920.2 *8*	0.057 *13*					
x1930.6 *8*	0.057 *13*					
x1939.8 *4*	0.13 *2*					
x1951.4 *8*	0.054 *13*					
1957.2#@ *4*	0.11# *2*	2391.6?	2^+	434.00	2^+	E_γ: authors place 1957γ deexciting the 2889 level and alternatively, from the 2391 level. However, the energy fit is bad for the former placement.
1957.2#@ *4*	0.11# *2*	2888.2		931.20	2^+	
x1963.1 *14*	0.031 *12*					
1970.1 *3*	0.32 *3*	2404.3?		434.00	2^+	
x1977.4 *8*	0.058 *15*					
x2014.3 *8*	0.058 *13*					
x2025.8 *12*	0.040 *12*					
2044.4 *8*	0.063 *16*	2477.6	(2^+)	434.00	2^+	
x2049.2 *9*	0.045 *15*					
x2079.5 *8*	0.052 *13*					
2098.6 *3*	0.26 *3*	2098.69?	$(1,2^+)$	0.0	0^+	
2106.4 *3*	0.44 *5*	2540.2		434.00	2^+	
x2139.4 *8*	0.055 *13*					
x2159.7 *5*	0.11 *2*					
x2213.4 *12*	0.036 *12*					
x2236.2 *5*	0.12 *3*					
x2239.9 *5*	0.13 *3*					
x2260.0 *16*	0.026 *12*					
2286.0 *3*	0.58 *6*	2720.0	2^+	434.00	2^+	
x2292.3 *6*	0.073 *15*					
x2347.9 *5*	0.100 *16*					
x2364.8 *7*	0.072 *15*					
x2377.1 *10*	0.044 *13*					
2391.4 *7*	0.073 *15*	2391.6?	2^+	0.0	0^+	
x2428.9 *9*	0.058 *14*					
x2433.2 *6*	0.084 *16*					
2454.2‡ *5*	0.12 *2*	2888.2		434.00	2^+	
2476.8 *5*	0.19 *2*	2477.6	(2^+)	0.0	0^+	
x2571.0 *10*	0.042 *13*					
x2699.5 *6*	0.080 *16*					
x2726.3 *7*	0.071 *15*					
x2822.1 *17*	0.028 *13*					
x2849.3 *9*	0.058 *15*					
x2876.4 *10*	0.047 *14*					
x2887.1 *17*	0.027 *13*					
x2940.4 *10*	0.052 *15*					
x2964.1 *8*	0.081 *20*					
x2981.8 *9*	0.069 *20*					
x3262.3 *14*	0.035 *15*					
x3315.3 *13*	0.046 *16*					

[†] Relative photon intensity normalized to I(433.93γ)=100.
[‡] The authors′ value of 2445.2 *5* is assumed by the evaluator to be a misprint since its placement is from 2888.2 to 434.0, giving Eγ=2454.2.
[#] Multiply placed with undivided intensity.

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^{108}Pd(n,n′γ) 1975Go11 (continued)

γ(^{108}Pd) (continued)

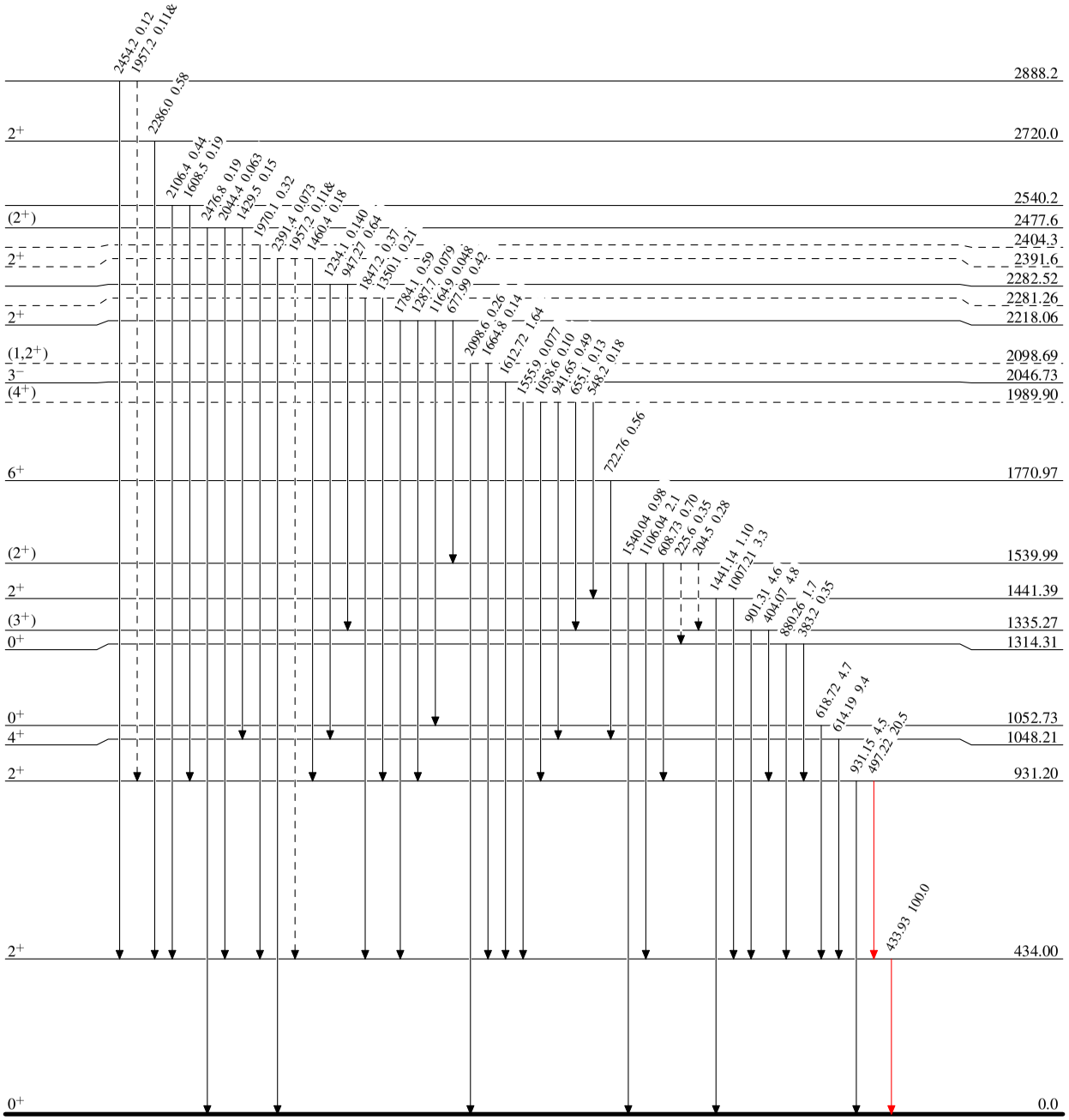
@ Placement of transition in the level scheme is uncertain.
x γ ray not placed in level scheme.

^{108}Pd(n,n′γ) 1975Go11

Level Scheme

Intensities: Type not specified
& Multiply placed: undivided intensity given

Legend
- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$
- γ Decay (Uncertain)



$^{108}_{46}Pd_{62}$