

$^{104}\text{Pd}(n,n'\gamma)$ **1975GoZX,1978AhZX**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 108,2035 (2007)	30-Mar-2007

E=reactor fast neutrons, **1975GoZX**.Measured: γ , semi, I_γ measured at $\theta=90^\circ$. ^{104}Pd Levels

E(level)	J^π^\dagger	E(level)	J^π^\dagger	E(level)	J^π^\dagger	E(level)	J^π^\dagger
0.0	0 ⁺	2244.7	2 ⁺	2613.3	2 ⁺ ,3 ⁺	3000.3	
555.74	2 ⁺	2249.4	6 ⁺	2625.7	(1,2 ⁺)	3007.7	(1,2 ⁺)
1323.5	4 ⁺	2265.3	4 ⁺	2641.7	(1,2,3)	3013.5	
1333.7	0 ⁺	2276.7	1 ⁺ ,2 ⁺	2694.44	2 ⁺	3020.3	
1341.6	2 ⁺	2298.0 5	4 ⁻	2714.5	(4,5,6)	3079.3	2 ⁺ ,3 ⁺
1793?	0 ⁺	2338.3	1 ⁺ ,2 ⁺	2766.3	4 ⁺	3086	(2 ⁺ to 5 ⁺)
1793.8	2 ⁺	2351.6		2774.0	(4,5,6)	3096.1	1,2
1820.8	3 ⁺	2445.4	4 ⁺ ,5 ⁺ ,6 ⁺	2799.1	4 ⁺	3104.9	4 ⁺
1941.2		2456.6	(1,2,3)	2866		3135.8	4 ⁺ ,5 ⁺ ,6 ⁺
2082.2	4 ⁺	2465.8		2874.5	(4,5,6)	3179.3	
2138.7	0 ⁺	2521.1	2 ⁺	2917.9	(1,2,3)	3281.5	4,5,6
2178.5		2533.1	(1,2,3)	2923.4	(4,5,6)		
2181.6	4 ⁺	2570.9	(4,5) ⁺	2976	(1,2,3)		
2193.2	(4 ⁺)	2572.5		2992.4	(2 ⁺ ,3 ⁺)		

[†] From Adopted Levels. $\gamma(^{104}\text{Pd})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
215.6 2	0.7 2	2298.0	4 ⁻	2082.2	4 ⁺
460.0 5	0.16 3	1793.8	2 ⁺	1333.7	0 ⁺
478.8 3	1.4 2	1820.8	3 ⁺	1341.6	2 ⁺
497.8 [†] 10	0.07 4	1820.8	3 ⁺	1323.5	4 ⁺
^x 539.4 5	0.15 2				
555.74 7	100	555.74	2 ⁺	0.0	0 ⁺
617	0.32 10	1941.2		1323.5	4 ⁺
623	0.14 6	2445.4	4 ⁺ ,5 ⁺ ,6 ⁺	1820.8	3 ⁺
^x 727.4 5	0.16 4				
740.62 12	0.79 7	2082.2	4 ⁺	1341.6	2 ⁺
758.69 12	0.84 7	2082.2	4 ⁺	1323.5	4 ⁺
767.77 10	12.1 6	1323.5	4 ⁺	555.74	2 ⁺
777.93 10	4.2 2	1333.7	0 ⁺	555.74	2 ⁺
785.81 10	9.2 5	1341.6	2 ⁺	555.74	2 ⁺
^x 818.5 9	0.059 15				
841.0 7	0.11 3	2181.6	4 ⁺	1341.6	2 ⁺
858.01 15	0.80 7	2181.6	4 ⁺	1323.5	4 ⁺
^x 879.3 8	0.067 16				
^x 889.4 6	0.12 4				
^x 895.1 7	0.05 2				
902.4 6	0.13 3	2244.7	2 ⁺	1341.6	2 ⁺
910.2 4	0.22 3	2992.4	(2 ⁺ ,3 ⁺)	2082.2	4 ⁺
922.5 8	0.13 5	2265.3	4 ⁺	1341.6	2 ⁺
925.9 2	0.65 9	2249.4	6 ⁺	1323.5	4 ⁺
934.8 9	0.062 15	2276.7	1 ⁺ ,2 ⁺	1341.6	2 ⁺

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$^{104}\text{Pd}(n,n'\gamma)$ **1975GoZX,1978AhZX** (continued) $\gamma(^{104}\text{Pd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
941.78 15	0.74 6	2265.3	4 ⁺	1323.5	4 ⁺
953.9 7	0.076 16	3135.8	4 ⁺ ,5 ⁺ ,6 ⁺	2181.6	4 ⁺
974.4 2	0.40 5	2298.0	4 ⁻	1323.5	4 ⁺
978.3 4	0.22 3	2799.1	4 ⁺	1820.8	3 ⁺
996.0 7	0.10 3	2338.3	1 ⁺ ,2 ⁺	1341.6	2 ⁺
1028.1 9	0.09 3	2351.6		1323.5	4 ⁺
^x 1077.2 10	0.08 3				
^x 1088.1 5	0.14 3				
^x 1121.6 6	0.30 10				
1132.1 3	0.38 4	2465.8		1333.7	0 ⁺
^x 1167.56 13	1.00 7				
1179.3 2	0.49 5	2521.1	2 ⁺	1341.6	2 ⁺
1230.7 2	0.41 8	2572.5		1341.6	2 ⁺
1238.0 [†]		1793?	0 ⁺	555.74	2 ⁺
1238.05 9	4.9 3	1793.8	2 ⁺	555.74	2 ⁺
1247.4 5	0.24 5	2570.9	(4,5) ⁺	1323.5	4 ⁺
1265.09 10	4.0 3	1820.8	3 ⁺	555.74	2 ⁺
1271.69	0.59 5	2613.3	2 ⁺ ,3 ⁺	1341.6	2 ⁺
1284.1 4	0.18 3	3104.9	4 ⁺	1820.8	3 ⁺
1300.0 8	0.10 3	2641.7	(1,2,3)	1341.6	2 ⁺
1318.2 3	0.30 3	2641.7	(1,2,3)	1323.5	4 ⁺
1341.73 9	6.0 4	1341.6	2 ⁺	0.0	0 ⁺
1372.6 9	0.09 3	2714.5	(4,5,6)	1341.6	2 ⁺
1381.4 8	0.10 3	2714.5	(4,5,6)	1333.7	0 ⁺
1390.1 11	0.07 3	2714.5	(4,5,6)	1323.5	4 ⁺
^x 1397	0.26 3				
^x 1409	0.26 3				
1450.5 4	0.19 3	2774.0	(4,5,6)	1323.5	4 ⁺
^x 1480.4 10	0.08 3				
^x 1514.9 10	0.08 3				
1526.4 2	0.60 5	2082.2	4 ⁺	555.74	2 ⁺
1542	0.16 3	2866		1323.5	4 ⁺
1551.0 7	0.11 3	2874.5	(4,5,6)	1323.5	4 ⁺
1583.0 2	0.77 7	2138.7	0 ⁺	555.74	2 ⁺
1599.9 4	0.18 3	2923.4	(4,5,6)	1323.5	4 ⁺
^x 1612.6 14	0.04 2				
1622.8 2	1.36 14	2178.5		555.74	2 ⁺
1625.9 4	0.34 6	2181.6	4 ⁺	555.74	2 ⁺
1637.50 14	3.2 3	2193.2	(4 ⁺)	555.74	2 ⁺
1676.6 5	0.15 3	3000.3		1323.5	4 ⁺
1688.92 14	1.38 14	2244.7	2 ⁺	555.74	2 ⁺
1696.8 6	0.13 3	3020.3		1323.5	4 ⁺
1720.7 3	0.35 4	2276.7	1 ⁺ ,2 ⁺	555.74	2 ⁺
1762	0.18 3	3086	(2 ⁺ to 5 ⁺)	1323.5	4 ⁺
1782	0.59 10	2338.3	1 ⁺ ,2 ⁺	555.74	2 ⁺
1782 [†]	<0.59	3104.9	4 ⁺	1323.5	4 ⁺
1794	0.48 6	1793.8	2 ⁺	0.0	0 ⁺
1794 [†]		2351.6		555.74	2 ⁺
1812.5 7	0.12 3	3135.8	4 ⁺ ,5 ⁺ ,6 ⁺	1323.5	4 ⁺
^x 1889.7 8	0.10 3				
^x 1895.8 6	0.13 3				
1900.8 2	0.55 6	2456.6	(1,2,3)	555.74	2 ⁺
1909.8 10	0.08 3	2465.8		555.74	2 ⁺
1966.2 5	0.16 3	2521.1	2 ⁺	555.74	2 ⁺
1977.4 3	0.52 6	2533.1	(1,2,3)	555.74	2 ⁺

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$^{104}\text{Pd}(n,n'\gamma)$ **1975GoZX,1978AhZX** (continued) $\gamma(^{104}\text{Pd})$ (continued)

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
2016.9 3	0.33 4	2572.5		555.74	2 ⁺	2540.4 6	0.15 3	3096.1	1,2	555.74	2 ⁺
2070.0 3	0.43 5	2625.7	(1,2 ⁺)	555.74	2 ⁺	^x 2593.1 6	0.15 4				
^x 2108.5 7	0.14 3					^x 2598.8 10	0.10 4				
2138.7 3	0.35 4	2694.44	2 ⁺	555.74	2 ⁺	2623.6 4	0.54 6	3179.3		555.74	2 ⁺
^x 2184.7 14	0.05 2					^x 2705.5 7	0.13 3				
2210.6 3	0.43 5	2766.3	4 ⁺	555.74	2 ⁺	^x 2715.8 6	0.17 4				
^x 2232.8 11	0.07 2					2726.1 11	0.09 3	3281.5	4,5,6	555.74	2 ⁺
2276.9 3	0.46 5	2276.7	1 ⁺ ,2 ⁺	0.0	0 ⁺	^x 2916.2 10	0.11 3				
2338.3 3	0.31 4	2338.3	1 ⁺ ,2 ⁺	0.0	0 ⁺	3001.6 12	0.08 3	3000.3		0.0	0 ⁺
2362.4 4	0.31 6	2917.9	(1,2,3)	555.74	2 ⁺	3007.6 10	0.10 3	3007.7	(1,2 ⁺)	0.0	0 ⁺
2420	0.21 3	2976	(1,2,3)	555.74	2 ⁺	3013.5 9	0.12 3	3013.5		0.0	0 ⁺
2452.2 7	0.14 3	3007.7	(1,2 ⁺)	555.74	2 ⁺	^x 3032.0 8	0.14 4				
2523.6 7	0.12 3	3079.3	2 ⁺ ,3 ⁺	555.74	2 ⁺	3281.3 11	0.07 2	3281.5	4,5,6	0.0	0 ⁺
^x 2534.4 7	0.14 3										

† Placement of transition in the level scheme is uncertain.

^x γ ray not placed in level scheme.

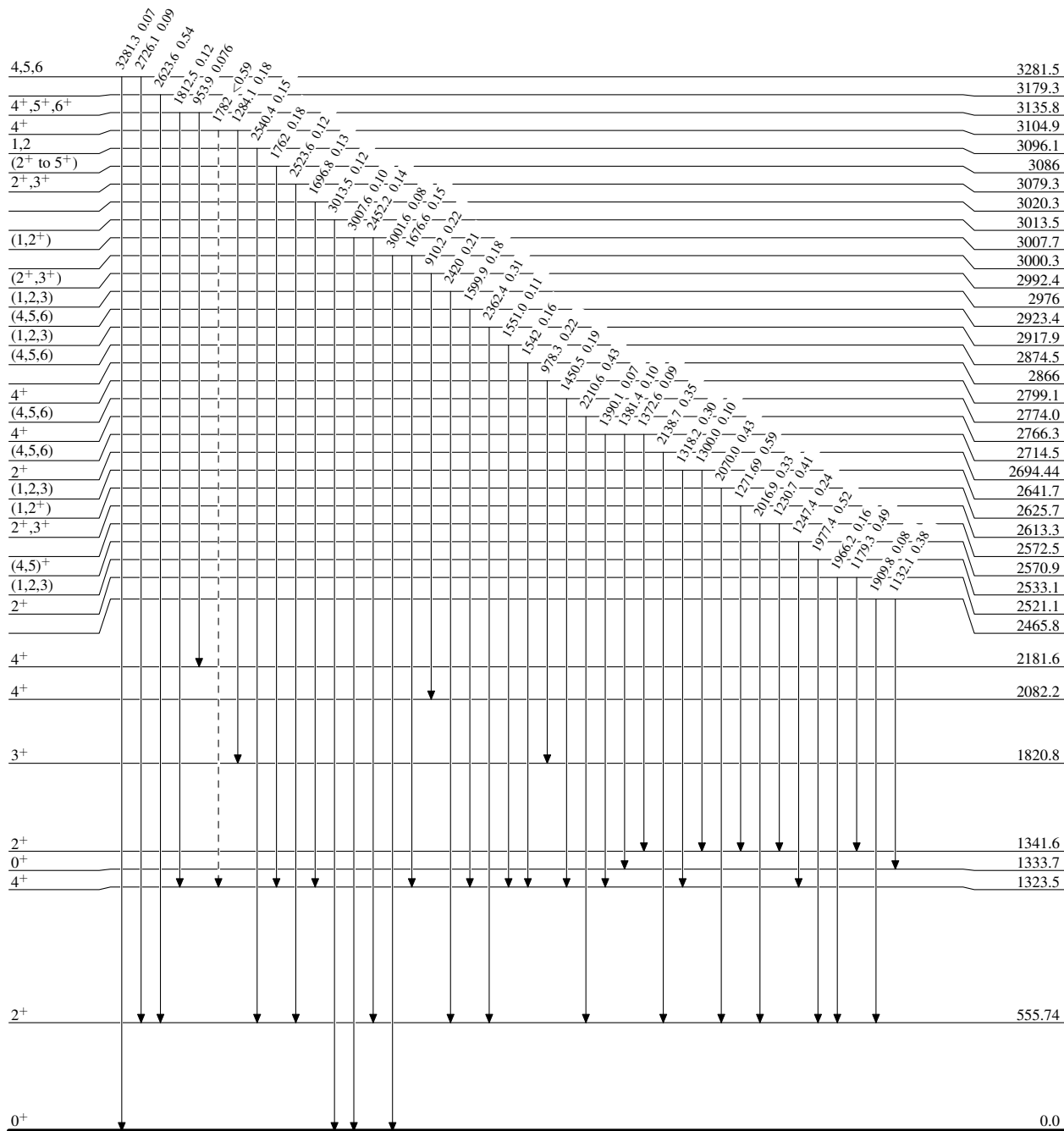
$^{104}\text{Pd}(n,n'\gamma)$ 1975GoZX,1978AhZX

Legend

Level Scheme

Intensities: Type not specified

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



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Legend

Level Scheme (continued)

Intensities: Type not specified

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

