

$^{144}\text{Nd}(n,\gamma)$ E=resonance 1977Mc09

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 110, 507 (2009)	1-Oct-2008

Measured: G.

 ^{145}Nd Levels

E(level) [‡]	J ^π ^{†#}	E(level) [‡]	J ^π ^{†#}	E(level) [‡]	J ^π ^{†#}	E(level) [‡]	J ^π ^{†#}
0.0	7/2 ⁻	780.3 6	3/2 ⁻	1318.4 12	(3/2) ⁻	S(n)+0.734	1/2 ⁺
67.2 2	3/2 ⁻	919.6 10	1/2 ⁻	1744.8 12	3/2 ⁻	S(n)+1.298	1/2 ⁺
72.4 1	5/2 ⁻	1213.3 15	(1/2) ⁻	S(n)+0.374	1/2 ⁺	S(n)+1.628	1/2 ⁺

† Adopted values.

‡ S(n)=5755.4 7.

For L=0 resonances.

 $\gamma(^{145}\text{Nd})$

E _γ	I _γ ^{†‡}	E _i (level)	J _i ^π	E _f	J _f ^π	E _γ	I _γ ^{†‡}	E _i (level)	J _i ^π	E _f	J _f ^π
709.4 20	32 4	780.3	3/2 ⁻	72.4 5/2 ⁻		4543.3 20	26 6	S(n)+0.374	1/2 ⁺	1213.3 (1/2) ⁻	
712.9 20	17 3	780.3	3/2 ⁻	67.2 3/2 ⁻		4543.3 20	80 4	S(n)+0.734	1/2 ⁺	1213.3 (1/2) ⁻	
779.5 10	7 3	780.3	3/2 ⁻	0.0 7/2 ⁻		4836.6 20	95 30	S(n)+0.374	1/2 ⁺	919.6 1/2 ⁻	
852.2 10	96 3	919.6	1/2 ⁻	67.2 3/2 ⁻		4836.6 20	55 14	S(n)+0.734	1/2 ⁺	919.6 1/2 ⁻	
1145.8 10	26 2	1213.3	(1/2) ⁻	67.2 3/2 ⁻		4836.6 20	70 22	S(n)+1.628	1/2 ⁺	919.6 1/2 ⁻	
1246.0 20	15 2	1318.4	(3/2) ⁻	72.4 5/2 ⁻		4978.1 20	59 23	S(n)+1.298	1/2 ⁺	780.3 3/2 ⁻	
1251.6 20	19 2	1318.4	(3/2) ⁻	67.2 3/2 ⁻		4978.1 20	58 18	S(n)+1.628	1/2 ⁺	780.3 3/2 ⁻	
1671.8 20	18 4	1744.8	3/2 ⁻	72.4 5/2 ⁻		5689.1 20	23 4	S(n)+0.374	1/2 ⁺	67.2 3/2 ⁻	
1677.4 20	14 3	1744.8	3/2 ⁻	67.2 3/2 ⁻		5689.1 20	46 17	S(n)+1.298	1/2 ⁺	67.2 3/2 ⁻	
4011.3 20	19 2	S(n)+0.374	1/2 ⁺	1744.8 3/2 ⁻							

† Relative I_γ in the decay of 0.374-eV resonance.

‡ Intensity per 100 neutron captures.

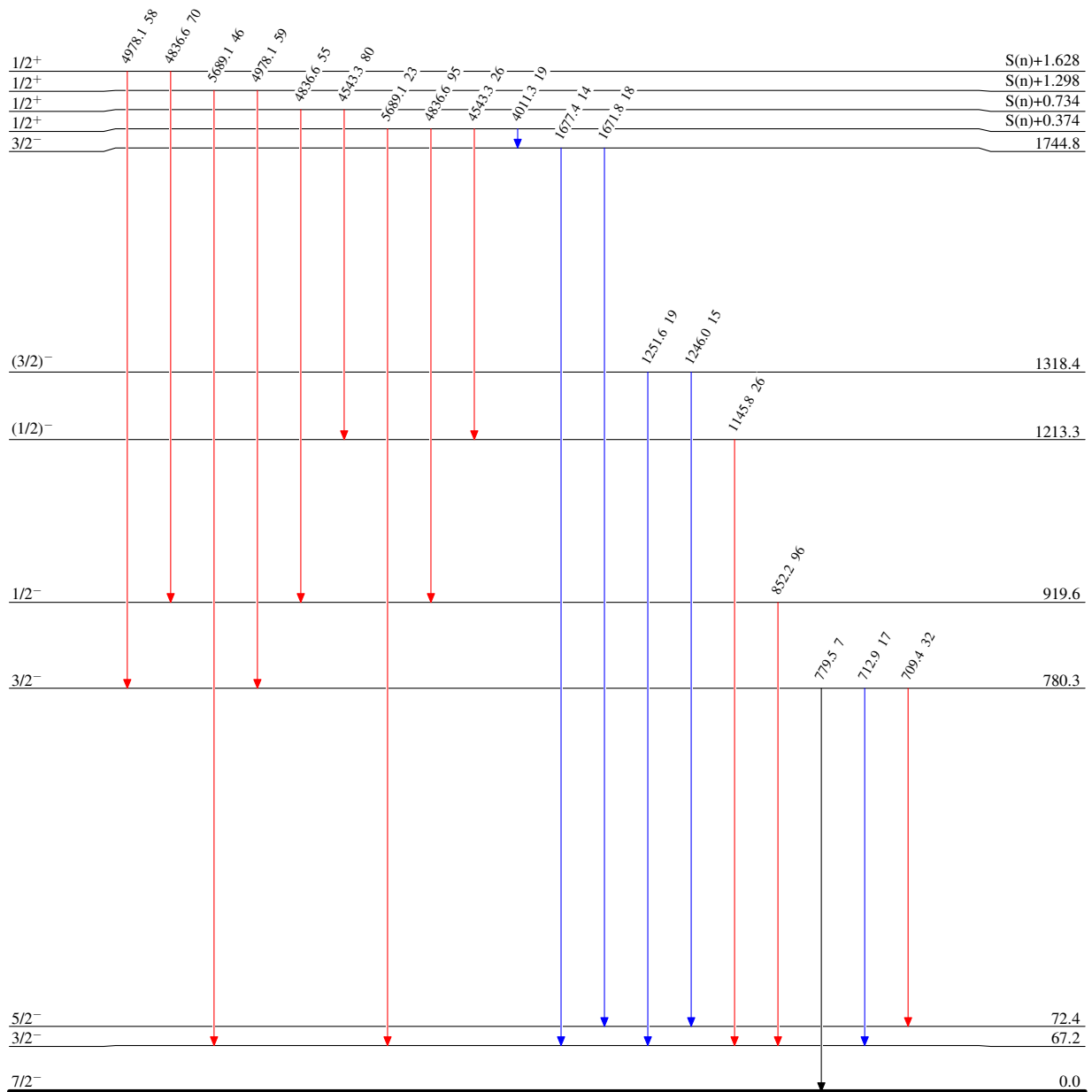
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Level Scheme

Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$

 $^{145}\text{Nd}_{85}$