

$^{60}\text{Ni}(\text{n},\gamma)$ E=0.01-90 keV 1974Br39,1978Be04

Type	Author	Citation	History Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	20-Jan-2020

1978Be04: E=7-70 keV, time of flight. Measured $E\gamma$, $I\gamma$, semi, natural target, 47.6 keV resonance.

1974Br39: E=thermal–17 keV, time of flight. Measured $\sigma(E(n),E\gamma)$, semi, enriched target , 2.2 and 12 keV resonance.

Others: 1968Al18 (E=10-90 keV), 1973Bi11 (E≈5-60 keV).

For giant resonance, see 1984So16.

 ^{61}Ni Levels

E(level) [†]	J [‡]	Comments
0.0	3/2 ⁻	
67.0 14	5/2 ⁻	
283.0 10	1/2 ⁻	
7822.5 9	3/2 ⁻	E(level): p-wave res. 2.249 keV (2018MuZY).
7832.5 9	1/2 ⁺	E(level): s-wave resonance of E(n)=12.423 keV from (2018MuZY).
7868.5 10	1/2 ⁻	E(level): p-wave res. 47.6 keV from (1978Be04).

[†] From Adopted Levels for bound levels, deduced by E(n)+ S(n) for resonances.

[‡] From Adopted Levels.

 $\gamma(^{61}\text{Ni})$

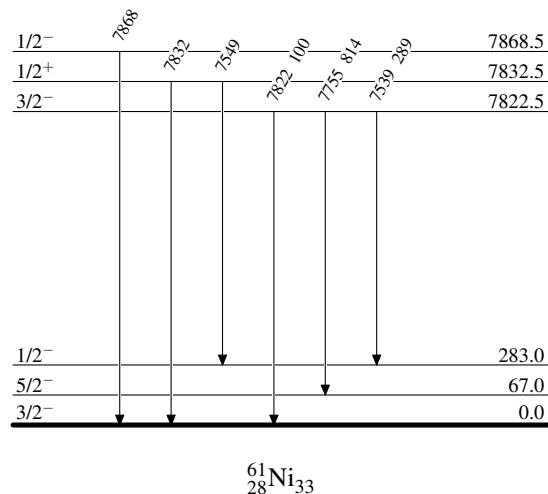
E _i (level)	J ^π _i	E _γ [†]	I _γ [‡]	E _f	J ^π _f	Comments
7822.5	3/2 ⁻	7539	289	283.0	1/2 ⁻	Partial radiation $\Gamma_\gamma=0.29$ eV 5 (1978Be04).
		7755	814	67.0	5/2 ⁻	
		7822	100	0.0	3/2 ⁻	
7832.5	1/2 ⁺	7549		283.0	1/2 ⁻	Partial radiation $\Gamma_\gamma=10.51$ eV 8 (1978Be04).
		7832		0.0	3/2 ⁻	
7868.5	1/2 ⁻	7868		0.0	3/2 ⁻	Partial radiation $\Gamma_\gamma=0.28$ eV 7 (1978Be04).

[†] From level-energy differences.

[‡] Relative intensities normalized to 100 for the g.s. transition (1974Br39).

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Intensities: Relative photon branching from each level

 $^{61}_{28}\text{Ni}_{33}$