

$^{89}\text{Y}(\text{p},\text{n}),(\text{p},\text{n}\gamma)$ 1967Bi07,1968Jo01,1969Li17

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, E. A. Mccutchan		NDS 165,1 (2020)	1-Mar-2020

1967Bi07: E=4.7-6.5 MeV. Measured $\sigma(E)$, BF_3 -counter, scin.

1968Jo01: E=3.6-5.8 MeV. Measured $\sigma(E)$, 4π flat-response neutron detector.

1969Li17: E=5.4-7.8 MeV. Measured $\Sigma(E,E\gamma)$, semi.

Other: 1995Ka51.

 ^{90}Zr Levels

E(level) [†]	Comments
13108 [‡] 4	E(level): Probable analog of $^{90}\text{Y}(\text{g.s.})$. E(p)(lab)=4807 4.
13309 [‡] 4	E(level): Probable analog of $^{90}\text{Y}(203)$. Not observed in (p,n) to the first excited state in ^{89}Zr (1967Bi07). E(p)(lab)=5010 4.
13940	E(level): Possible analog of $^{90}\text{Y}(777)$. E(p)(lab)=5645.
14090	E(level): Possible analog of $^{90}\text{Y}(954)$. E(p)(lab)=5800.
14220	E(level): Possible analog of $^{90}\text{Y}(1048)$. E(p)(lab)=5930.
14270	E(level): Probable analog of $^{90}\text{Y}(1212)$. E(p)(lab)=5980.
14310	E(level): E(p)(lab)=6025.
14410	E(level): E(p)(lab)=6120.
14440	E(level): Probable analog of $^{90}\text{Y}(1371)$. For resonance parameters see 1969Li17. E(p)(lab)=6150.
15510 [#]	E(level): Probable analog of $^{90}\text{Y}(2474)$. E(p)(lab)=7230.
15690 [#]	E(level): Probable analog of $^{90}\text{Y}(2624)$. E(p)(lab)=7420.

[†] Calculated from E(p) using S(p)=8353.1 keV 16 (2017Wa10).

[‡] From 1968Jo01. For resonance parameters, see 1968Jo01, 1965Ma20. For angular distribution of neutrons, see 1966Ki08, 1965Ma20.

[#] From 1969Li17.