

$^9\text{Be}(\text{p},\text{n})$ res **1974Aj01**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu and J. L. Godwin, et al.		NP A745 155 (2004)	31-Mar-2004

- 1964Ba29: $^9\text{Be}(\text{p},\text{n})$ $E_{\text{p}}=6.3\text{-}7.4$ MeV, measured N-, α -spectra (θ, E_{p}). ^{10}B deduced level breakup.
- 1966Da18: $^9\text{Be}(\text{p},\text{n})$ $E=7.5$ MeV, measured $\sigma(E_{\text{N}}, \theta)$.
- 1969Si20: $^9\text{Be}(\text{p},\text{n})$ $E=2.06\text{-}2.10$ MeV, measured $\sigma(E)$.
- 1970An07: $^9\text{Be}(\text{p},\text{n})$ $E=20$ MeV, measured $\sigma(E_{\text{N}}, \theta)$.
- 1970Cl01: $^9\text{Be}(\text{p},\text{n})$ $E=30, 50$ MeV, measured $\sigma(E, E_{\text{N}}, \theta)$.
- 1970Si12: $^9\text{Be}(\text{p},\text{n})$ $E=2\text{-}2.1$ MeV, measured $\sigma(E, \theta)$. ^{10}B deduced resonances.
- 1971Be46: $^9\text{Be}(\text{p},\text{n})$ $E=23$ MeV, measured $\sigma(E_{\text{N}}, \theta)$.
- 1972Ar22: $^9\text{Be}(\text{p},\text{n})$ $E=17.8$ MeV, measured $\sigma(E_{\text{N}})$.
- 1972Vo17: $^9\text{Be}(\text{p},\text{n})$ $E=6\text{-}8$ MeV, analyzed $\sigma(E)$. Deduced excited state-threshold resonance effects. ^{10}B deduced resonance parameters.
- 1975Ca18: $^9\text{Be}(\text{p},\text{n})$ $E=22.8$ MeV, measured $\sigma(E_{\text{N}}, \theta)$. DWBA analysis.
- 1975Mc18: $^9\text{Be}(\text{p},\text{n})$ $E=15, 20, 30$ MeV, measured σ .
- 1976Ca17: $^9\text{Be}(\text{p},\text{n})$ $E=647, 800$ MeV, measured $\sigma(\text{N})$.
- 1976Li08: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=7\text{-}15$ MeV, measured transverse polarization transfer coefficients.
- 1976Ro05: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=2.4\text{-}2.9$ MeV, measured analyzing power $A(\theta)$.
- 1977Lo10: $^9\text{Be}(\text{p},\text{n})$ $E=15, 18, 23$ MeV, measured thick target yields.
- 1978Ch07: $^9\text{Be}(\text{p},\text{n})$ $E=5.5$ MeV, measured σ , pn-coin In In kinematically complete experiment.
- 1979Ba68: $^9\text{Be}(\text{p},\text{n})$ $E=1$ GeV, measured $\sigma(E_{\text{N}}, \theta)$.
- 1980Ba62: $^9\text{Be}(\text{p},\text{n})$ $E=14.9, 17.8$ MeV, measured $\sigma(\theta)$.
- 1980Ma33, 1983By01: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=8.1\text{-}15$ MeV, measured analyzing power $A(E, \theta)$.
- 1981Lo13: $^9\text{Be}(\text{p},\text{n})$ $E=9, 12, 14.8, 18, 23$ MeV, measured $\sigma(E_{\text{N}})$, thick target yields.
- 1981Ri06: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=800$ MeV, measured polarization transfer parameters.
- 1982Gu13: $^9\text{Be}(\text{p},\text{n})$ $E=14.9, 17.8$ MeV, measured $\sigma(\theta)$. Deduced optical model parameters.
- 1983By02: $^9\text{Be}(\text{p},\text{n}), (\text{pol. p}, \text{N})$ $E=2.7, 2.9, 8.1, 9.1, 10$ MeV, measured $P(\theta)$, $A(\theta)$ vs. E .
- 1986Gy03: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=55\text{-}72$ MeV, measured polarization transfer, $\theta=0$ degree.
- 1986Mu07: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=18\text{-}17.57$ MeV, measured $\sigma(\theta)$, $A(\theta)$; $^9\text{Be}(\text{p},\text{n})$ $E=11\text{-}17$ MeV, analyzed data. Deduced potential parameters.
- 1987Ra23: $^9\text{Be}(\text{p},\text{n})$ $E=7\text{-}9$ MeV, measured absolute thick target γ yield, relative neutron yield.
- 1988He08: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=54, 72$ MeV, measured neutron polarization At 0 degree. Deduced transverse, longitudinal polarization transfer coefficient.
- 1990Br24: $^9\text{Be}(\text{p},\text{n})$ $E=39.3$ MeV, compiled σ , $\sigma(\theta_{\text{N}}, E_{\text{N}})$ data.
- 1994Sa43: $^9\text{Be}(\text{pol. p}, \text{N})$ $E=300, 400$ MeV, measured $\sigma(\theta)$ vs. Energy transfer, polarization transfer coefficients vs. θ .
- 1996Sh29: $^9\text{Be}(\text{p},\text{n})$ $E=20\text{-}40$ MeV, measured neutron spectra.
- 1998Io03: $^9\text{Be}(\text{p},\text{n})$ $E=647$ MeV, analyzed neutron spectra. Deduced pion production medium effects.
- 2000Jo17: $^9\text{Be}(\text{p},\text{n})$ $E=35$ MeV, measured $\sigma(\theta)$. Deduced isovector optical potential parameters.
- 2001Ho13: $^9\text{Be}(\text{p},\text{n})$ $E=3.0, 3.4, 3.7, 4.0, 5.0$ MeV, measured thick-target neutron spectra, angular distributions.

 ^{10}B Levels

E(level)	J^{π}	$T_{1/2}$	σ (mb) (1959Gi47)	Comments
8891 5	3^{-}	83 keV 6	160	T=(1). E(level): from $E_{\text{res}}=2562$ keV 6 (1956Ma55) and $Q=6585.9$ keV. Γ : from $\Gamma_{\text{lab}}=85$ keV 10 (1956Ma55) and $\Gamma_{\text{lab}}=100$ keV 10 (1959Gi47). Also see (Altman et al. NPA 35 (1962) 85). 1979Aj01 gives $E_{\text{cm}}=85$ keV 7, but without further justification.
9.7×10^3		≈ 630 keV	240	E(level): from $E_{\text{res}}=3.5$ MeV (1959Ma20); also $E_{\text{res}}=3.2$ MeV

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$^9\text{Be}(\text{p},\text{n})$ res [1974Aj01](#) (continued)

^{10}B Levels (continued)

<u>E(level)</u>	<u>T_{1/2}</u>	<u>σ (mb) (1959Gi47)</u>	<u>Comments</u>
			(1956Ma55).
10825 9	450 keV	470	Γ : from $\Gamma_{\text{lab}} \approx 700$ keV (1956Ma55). E(level): from $E_{\text{res}} = 4.71$ MeV <i>I</i> , which is the weighted average of $E_{\text{res}} = 4.72$ MeV <i>I</i> (1952Ha10), 4.68 MeV <i>3</i> (1955Ma84), and 4.62 MeV <i>6</i> (1959Ma20).
11014 27	≈ 90 keV	510	Γ : from $\Gamma_{\text{lab}} = 500$ (1952Ha10). E(level): from $E_{\text{res}} = 4.92$ MeV <i>3</i> , which is the weighted average of $E_{\text{res}} = 4.94$ MeV <i>3</i> (1955Ma84) and 4.82 MeV <i>6</i> (1959Ma20). Γ : from $\Gamma_{\text{lab}} \approx 100$ (1955Ma84).