

$^9\text{Be}(n,n),(n,n'),(n,2n)$  1988Aj01

| 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            |
| 1966Sc16: $^9\text{Be}(n,n)$ E=2.60-2.77 MeV, measured polarization(E). $^{10}\text{Be}$ level deduced J, $\pi$ .  |   |         |                    |                        |
| 1972Ri01: $^9\text{Be}(n,n)$ E=4.8 GeV/c, measured $\sigma(\theta)$ .  |   |         |                    |                        |
| 1974Hy01: $^9\text{Be}(n,n),(n,n')$ E=14.1 MeV, measured $\sigma(E_{N'},\theta)$ . Deduced optical parameters.   |   |         |                    |                        |
| 1978Ho23: $^9\text{Be}(n,n),(n,n')$ E=7-15 MeV, measured $\sigma(\theta)$ .  |   |         |                    |                        |
| 1981Ch36: $^9\text{Be}(n,n)$ E=14.7 MeV, measured $\sigma(\theta)$ . Deduced optical model parameters.   |   |         |                    |                        |
| 1981Mu07: $^9\text{Be}(n,n)$ E=14 MeV, analyzed $\sigma(\theta)$ , $\sigma(\text{nonelastic})$ , $\sigma(\text{total})$ .  |   |         |                    |                        |
| 1983By01: $^9\text{Be}(n,n)$ E=8-16 MeV, analyzed data.  |   |         |                    |                        |
| 1983Da22: $^9\text{Be}(n,n)$ E=7-15 MeV, measured $\sigma(\theta)$ . Deduced spherical optical model parameters.   |   |         |                    |                        |
| 1984By03: $^9\text{Be}(\text{pol. } n,N)$ E=9-17 MeV, measured analyzing power vs. $\theta$ , $\sigma(\theta)$ . Deduced Legendre coefficients.                                      |   |         |                    |                        |
| 1984Sh01: $^9\text{Be}(n,n),(n,n')$ E=14.7 MeV, measured $\sigma(\theta)$ . Deduced optical model parameters.  |   |         |                    |                        |
| 1984Ta19: $^9\text{Be}(n,n)$ E=0.5-14 MeV, measured $\sigma(\theta_N, E_N)$ .  |   |         |                    |                        |
| 1985Ha02: $^9\text{Be}(n,n)$ E=14.6 MeV, measured $\sigma(\theta)$ .   |   |         |                    |                        |
| 1985Te01: $^9\text{Be}(n,n),(n,n')$ E=11,14,17 MeV, measured $\sigma(\theta)$ . Deduced optical model parameters, Coulomb correction terms.  |   |         |                    |                        |
| 1986Ha31: $^9\text{Be}(n,n)$ E=14.6 MeV, measured $\sigma(\theta)$ . Deduced optical model parameters.   |   |         |                    |                        |
| 1986Mu07: $^9\text{Be}(n,n)$ E=11-17 MeV, analyzed data. Deduced potential parameters.   |   |         |                    |                        |
| 1986Sh33: $^9\text{Be}(n,n),(n,n')$ E=threshold-20 MeV, compiled, evaluated neutron induced reaction data.   |   |         |                    |                        |
| 1987GI06: $^9\text{Be}(n,n)$ E=slow, measured spin-dependent scattering lengths.   |   |         |                    |                        |
| 1989Su13: $^9\text{Be}(n,n)$ E=1-10 MeV, measured $\sigma(E)$ , $\sigma(\theta)$ . $^9\text{Be}(n,n')$ E=4.5-10 MeV, measured $\sigma(\theta)$ . Deduced angle-integrated $\sigma$ . |   |         |                    |                        |
| 1990O101: $^9\text{Be}(n,n),(n,n')$ E=21.6 MeV, measured $\sigma(E,\theta)$ . Deduced optical model potential parameters. DWBA.  |   |         |                    |                        |
| 1996Ch33 $^9\text{Be}(n,n)$ E $\leq$ 200 MeV, analyzed reaction, total $\sigma(E)$ .   |   |         |                    |                        |
| 1969Ho45: $^9\text{Be}(n,2n)$ E=2.0-6.4 MeV, measured $\sigma(E)$ .  |   |         |                    |                        |
| 1969Pr17: $^9\text{Be}(n,2n)$ E=14 MeV, measured $\sigma(\theta_{n1}, \theta_{n2})$ .  |   |         |                    |                        |
| 1972Zh05: $^9\text{Be}(n,2n)$ E=fission spectrum, measured multiplication factor for fission neutrons In Be.   |   |         |                    |                        |
| 1973BI03: $^9\text{Be}(n,2n)$ E=2.37-3.34, measured $\sigma(E)$ .  |   |         |                    |                        |
| 1985Pe06: $^9\text{Be}(n,2n)$ E=threshold-20 MeV, analyzed data. Deduced $\sigma(E)$ .   |   |         |                    |                        |
| 1988Be04: $^9\text{Be}(n,2n)$ E=5.9 MeV, analyzed $\sigma(\theta_N, E_N)$ . Deduced reaction mechanism.  |   |         |                    |                        |
| 1990Bo43: $^9\text{Be}(n,2n)$ E=10.3 MeV, measured absolute $\sigma(\theta)$ . Deduced nn-scattering length.   |   |         |                    |                        |
| 1994Me08: $^9\text{Be}(n,2n)$ E=fast, measured $\alpha$ -production $\sigma$ following $^8\text{Be}$ breakup, reaction $\sigma$ .  |   |         |                    |                        |

 $^{10}\text{Be}$  Levels

| E(level)           | $J^\pi$  | $T_{1/2}$         | L   | Comments  |
|--------------------|----------|-------------------|-----|---|
| 7371 I             | $3^-$    | 15.7 keV 5        | 2   | $\theta^2\% = 7.5$ .<br>E(level): $\Gamma$ : from $E_{\text{res}} = 6220$ keV 8 [from private communication to Fay Ajzenberg-Selove and Schwartz et al. Bull. APS 16 (1971) 495]. Also see (1964La04).                                |
| 7542 I             | $2^+$    | 6.3 keV 8         | 1   | $J^\pi$ : from (1964La04).<br>$\theta^2\% = 0.28$ .<br>E(level): $\Gamma$ : from $E_{\text{res}} = 8118$ keV 7 [from private communication to Fay Ajzenberg-Selove and Schwartz et al. Bull. APS 16 (1971) 495]. Also see (1964La04). |
| $9.27 \times 10^3$ | $(4^-)$  | $\approx 100$ keV | (2) | $J^\pi$ : from (1951Bo45).  |
| $9.4 \times 10^3?$ | $(2^+)$  | $\approx 400$ keV | (1) | $\Gamma$ : $J^\pi$ : from (1951Bo45).   |
| $10.7 \times 10^3$ | $\geq 1$ |                   |     | $\Gamma$ : $J^\pi$ : from (1961Fo07).   |