

$^9\text{Be(p,d),(p,\alpha)}$ 1979Aj01

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
1966La20: $^9\text{Be(p,d)}$, (P,α) E=7.0, 8.0, 9.0 MeV, measured $\sigma(E, E_d)$, $\sigma(E, E_\alpha)$. 1967Iv01: $^9\text{Be(p,d)}$ E=4.9 to 9.8 MeV, measured tensor polarization (E,θ). 1967Ro07: $^9\text{Be(p,d)}$ E=330 keV, measured polarization of deuterons. 1968Fr10: $^9\text{Be(p,d)}$ E_p=1.6-3.8 MeV, measured tensor polarization T(2q)(θ(lab)<90 degrees). 1968In02: $^9\text{Be(p,d)}$ E=185 MeV, measured asymmetry, P(θ). 1968Le01: $^9\text{Be(p,d)}$ E=100 MeV, measured $\sigma(E_d, \theta)$. 1968Si07: $^9\text{Be(p,d)}$, (P, α) E=2-2.1 MeV, measured $\sigma(E_p, \theta)$ for elastic scattering. 1969Ba05: $^9\text{Be(p,d)}$ E=155.6 MeV, measured $\sigma(E_d, \theta)$. ^{10}B deduced levels, J, π, L, S. 1969Co06: $^9\text{Be(p,d)}$ E=12, 17 MeV, measured $\sigma(E, \theta)$. 1969Ed02: $^9\text{Be(p,d)}$ E=1, 2, 3 GeV, measured $\sigma(E, \theta, E_d)$. Deduced reaction mechanism. 1969Su02: $^9\text{Be(p,d)}$ E=185 MeV, measured $\sigma(E_d, \theta)$. 1971Sc26: $^9\text{Be(p,d)}$ E=46, 100 MeV, analyzed $\sigma(\theta)$. DWBA, local-energy approximation. 1972Hu03: $^9\text{Be(P,d}_0)$ E=5, 6, 7, 8, 9, 10, 11 MeV, measured $\sigma(\theta)$. 1973Si27: $^9\text{Be(p,d)}$, (P, α) E=30-700 keV, measured $\sigma(E)$; E=100-600 keV, measured $\sigma(E, \theta)$. ^{10}B deduced resonance parameters. 1973Vo02: $^9\text{Be(P,d}_0)$ E=13.0, 14.0, 15.0, 21.35, 30.3 MeV, measured $\sigma(\theta)$; E=8.0, 11.0, 12.0, 13.0, 15.0 MeV, measured A(θ). 1976Da15: $^9\text{Be(pol. p,d)}$ E=15 MeV, measured $\sigma(\theta)$, Ay(θ). DWBA, ICC analyses. 1977Av01: $^9\text{Be(p,d)}$, (P,α) E=660 MeV, measured absolute σ. 1977Gu14: $^9\text{Be(p,d)}$ E=17.7 MeV, measured $\sigma(E_d, \theta)$. 1981Be53: $^9\text{Be(p,d)}$ E=14.3, 26.2 MeV, measured $\sigma(\theta, E_d)$. Finite-range DWBA, line shape analyses. 1981Ov02: $^9\text{Be(p,d)}$ E=33 MeV, measured $\sigma(E_d)$. 1984Za07: $^9\text{Be(p,d)}$ E=50, 72 MeV, measured $\sigma(\theta)$. Deduced reaction mechanism. 1985Se15: $^9\text{Be(p,d)}$, (P,α) E=150 MeV, measured $\sigma(E_p, \theta_p)$, charged particle yields. 1987Go27: $^9\text{Be(p,d)}$ E=18.6 MeV, analyzed $\sigma(\theta)$. Deduced model parameters. 1987Ka25: $^9\text{Be(pol. p, d)}$ E=60 MeV, measured inclusive spectra, analyzing power vs θ. Deduced continuum final state matrix element amplitudes. 1991Ab04: $^9\text{Be(p,d)}$ E=33.6 MeV, analyzed $\sigma(\theta)$. 1997Za06: $^9\text{Be(p,d)}$, (P,α) E=16-390 keV, measured astrophysical S-factors, $\sigma(\theta)$. ^{10}B deduced resonances E, Γ. 1998Br10: $^9\text{Be(pol. p,d)}$, (pol. p,α) E=77-321 keV, measured $\sigma(\theta)$, Ay(θ). Deduced reaction mechanism. R-matrix, DWBA analyses. 2001Ba47: $^9\text{Be(p,d)}$, (P,α) E=16-700 keV, analyzed σ, $\sigma(\theta)$, astrophysical S-factors, analyzing powers. Deduced R-matrix parameters. 1965Br28: $^9\text{Be(P,\alpha)}$ E=3.0-4.5 MeV, measured Q. 1969Ga03: $^9\text{Be(P,\alpha)}$ E_p=38 MeV, measured $\sigma(E_\alpha, \theta)$. PWBA analysis. 1970Gu06: $^9\text{Be(P,\alpha)}$ E=26.7 MeV, measured $\sigma(\theta)$, $\sigma(E, \theta)$. 1970Ko25: $^9\text{Be(P,\alpha)}$ E=665 MeV, measured $\sigma(E)$. 1972De01: $^9\text{Be(P,\alpha)}$ E_p=45.0 MeV, measured $\sigma(\theta=20-160$ degrees cms). 1972De02: $^9\text{Be(P,\alpha)}$ E=45 MeV, analyzed $\sigma(\theta)$. Finite-range DWBA. 1973Ma59: $^9\text{Be(P,\alpha)}$ E=2.2-2.8 MeV, measured $\sigma(E, \theta)$, P_p(THETA). 1976Ki17: $^9\text{Be(P,\alpha)}$, measured $\sigma(E_\alpha, \theta)$. 1977Ki04: $^9\text{Be(p,\alpha\gamma)}$ E=2.49-2.64 MeV, measured $\sigma(E)$. ^{10}B deduced levels, J, π, Γ, T_{1/2}. 1977Sz07: $^9\text{Be(p,\alpha\gamma)}$, analyzed Doppler broadened line shape. 1983De14: $^9\text{Be(P,\alpha)}$ E=30, 50, 75 MeV, measured inclusive $\sigma(\theta, E_t)$, $\sigma(\theta, E(^6\text{Li}))$. Dependence, competing deduced exit channel mechanism role. 1986Ha27: $^9\text{Be(P,\alpha)}$ E=18-45 MeV, measured $\sigma(E, \theta)$. 1989Gu05: $^9\text{Be(P,\alpha)}$ E=50 MeV, measured $\sigma(\theta)$. Deduced model parameters, structure effects. 1992Pe12: $^9\text{Be(P,\alpha)}$ E=25, 30 MeV, measured $\sigma(\theta)$. Deduced $\sigma(E)$, model parameters. 1996Ya09: $^9\text{Be(P,\alpha)}$ E=45, 50 MeV, analyzed $\sigma(\theta)$. Finite-range DWBA, cluster-coupling shell model spectroscopic factors. 1999An35: $^9\text{Be(P,\alpha)}$ E<10 MeV, compiled, analyzed σ, S-factors.				

$^9\text{Be}(\text{p,d}),(\text{p},\alpha)$ **1979Aj01 (continued)**

[2004Ti06](#): the results of an unpublished R-matrix analysis are given In Table 10.26.

<u>^{10}B Levels</u>				
E(level)	J^π	$T_{1/2}$	E_p (keV)	Comments
6.89×10^3	1^-		340	$\Gamma_p/\Gamma=0.3$; $T=0$ E(level): from (1956Mo90 , 1973Si27).
7.00×10^3	$1^+, (2^+, 3^+)$		460	E(level): from (1949Th05 , 1951Ne03 , 1973Si27).
$7.20 \times 10^3?$			680	E(level): from (1949Th05 , 1951Ne03).
7.43×10^3	(2^-)	140 keV	940	$T=(0)$. E(level): Γ : from (1964Ho02) analysis of (1956We37) data.
7.62×10^3	(1^+)	225 keV 50	1150	$\Gamma_p/\Gamma \approx 0.4$ $T=(0)$. E(level): Γ : from (1964Ho02) analysis of (1956We37) data.
8.07×10^3	(2^-)	0.80 MeV 20	1650	$\Gamma_p/\Gamma \approx 0.07$ $T=(0)$. E(level): Γ : from (1964Ho02) analysis of (1956We37) data.
$8.7 \times 10^3?$		≈ 220 keV	2300	E(level): Γ : from (1956We37) and Morita et al., Nuclear Physics 66 (1965) 17.
8891 9	3^-	100 keV 20		$T=1$ E(level): Γ : from R-matrix analysis $E_{\text{res}} = 2561$ keV $+10-2$ (1977Ki04). Also see (1956We37 , 1973Ma59).
8895 1	2^+	40 keV 1	2566 1	$T=1$ E(level): Γ : from R-matrix analysis $E_{\text{res}} = 2566$ keV 1 (1977Ki04). Also see (1956We37 , 1973Ma59).
9.7×10^3			3500	$T=1$ E(level): from (1959Ma20).
$10.62 \times 10^3?$		200 keV	4490	$T=1$ E(level): from (1959Ma20). Γ : In (2004Ti06) $\Gamma=200$ keV is given with reference to (Yasu, Bull. Inst. Chem. Res, Kyoto Univ. 52 (1974) 177).
$10.8 \times 10^3?$		300 keV	4700	E(level): Γ : from (Yasu) see (2004Ti06).
$11.5 \times 10^3?$		500 keV	5500	E(level): Γ : from (Yasu) see (2004Ti06).