^{9}Be(p,γ) res 1988Aj01

History

Type	Author	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

1964Bi18: ^{9}Be(P,γ) E=336 keV, measured σ(E$_\gamma$,θ_γ,$\theta(\gamma\text{-}\gamma)$). ^{10}B level deduced J, π.
1968Si07: ^{9}Be(P,γ) E=2-2.1 MeV.
1970BeYS: ^{9}Be(P,γ) E not given, measured γ-$\gamma(\theta$,H). ^{10}B level deduced g.
1972Av01: ^{9}Be(P,γ-γ) E=1.084 MeV, H=17.6 Kg, measured γ-$\gamma(\theta$,H). ^{10}B deduced g-factor 1^+ first excited state.
1972Ha63: ^{9}Be(P,γ) E=1.083 MeV, measured E$_\gamma$. ^{10}B deduced γ-branching, isospin impurity fo 6.88-MeV state.
1972Re07: ^{9}Be(P,γ) E=0.20-0.85 MeV, measured σ(E). ^{10}B deduced γ-branching, isospin impurity of 6.88-MeV state.
1973Sz07: ^{9}Be(P,γ) E=200-750 keV, measured σ(E,E$_\gamma$).
1975Au02: ^{9}Be(P,γ) E=0.22-1.2 MeV, measured σ(E,E$_\gamma$,θ=0 degree). ^{10}B deduced levels Γ-level, J, π, T.
1977Ki17: ^{9}Be(P,γ) E=1.29 MeV, measured σ(E$_\gamma$), Doppler broadening. ^{10}B level deduced T$_{1/2}$.
1982Ri04: ^{9}Be(P,γ) E=320 keV, measured σ(E$_\gamma$), I$_\gamma$. ^{10}B deduced isoscalar E2 transition strength upper limit, γ-branching ratio.
1985Ki07: ^{9}Be(P,γ) E=2.4-4.2 MeV, measured thick target relative γ yields, E$_\gamma$, I$_\gamma$.
1986CaZV: ^{9}Be(P,γ) E=193-407 keV, measured γ yield vs. E,$\gamma(\theta)$. ^{10}B deduced isospin mixed state characteristics.
1987Ra23: ^{9}Be(P,γ) E=7-9 MeV, measured absolute thick target γ yield, relative neutron yield.
1992Ce02: ^{9}Be(P,γ) E=40-180 keV, measured capture E$_\gamma$, I$_\gamma$, $\gamma(\theta)$. Deduced astrophysical S-factor. ^{10}B levels deduced γ-ray to charged particle branching ratio.
1995Za04: ^{9}Be(P,γ) E=75-1800 keV, measured E$_\gamma$, I$_\gamma$. Deduced σ(E), thermonuclear reaction rates, astrophysical S-factor.
1998Wu05: ^{9}Be(pol. p,γ) E=100 keV, measured E$_\gamma$, I$_\gamma$, A$_Y$(THETA). Deduced astrophysical S-factor.
1999Ga21: ^{9}Be(pol. p,γ) E=280 keV, measured A$_Y$(THETA). Deduced ground-state capture S-factor. ^{10}B level deduced J, π.
2002Ba09: ^{9}Be(P,γ) E=75-1800 keV, analyzed σ(E), A$_Y$(THETA). Deduced R-matrix parameters.
2002Ga11: ^{9}Be(P,γ) E$_{C.M.}$=0-1.6 MeV, analyzed S-factor.

^{10}B Levels

E(level)	J$^\pi$	T$_{1/2}$	ω-γ (eV)	Comments
0				
720				
1.74×10^3				
2.15×10^3				
3.59×10^3		133 fs *21*		Γ: from T$_{mean}$=192 fs *+35−29* (1977Ki17).
5.11×10^3				
5.16×10^3				
5.18×10^3				
5.92×10^3				
6873 *5*	1$^-$	120 keV *5*	0.14 *4*	Γ_p/Γ=0.30; Γ_γ=4.8 eV E(level): Γ: from E$_P$=319 keV *5* (1975Au02).
7427 *5*	2$^{(-)}$	140 keV *30*	1.25 *18*	Γ_p/Γ=0.7; Γ_γ=2.4 eV E(level): from E$_{res}$=934 keV *6*, the weighted average of E$_P$= 932 keV *8* (1962El06) and 938 keV *10* (1964Ho02). Γ: from (1964Ho02).
7472? *5*	(1$^+$,2$^+$)	≈80 keV		E(level): Γ: from E$_P$=985 keV *5* (1962El06).
7480 *2*	2$^-$	72 keV *4*		T=1; Γ_p/Γ≈0.65; Γ_γ=25.6 eV E(level): from E$_P$=993 keV *2*, the weighted average of E$_P$= 992 keV *2* (1964Ho02) and E$_{res}$=998 keV *5* (1962El06). Γ: from (1964Ho02). Also see (1962El06) Γ≈80 keV.
7559.9 *4*	0$^+$	2.65 keV *18*		T=1; Γ_p/Γ=1.0; Γ_γ=8.5 eV E(level): from E$_P$=1083.2 keV *4* (1964Bo13). Γ: from Γ_{lab}=2.94 keV *20* (1972Ha63). Other

Continued on next page (footnotes at end of table)

^{9}Be(p,γ) res 1988Aj01 (continued)

^{10}B Levels (continued)

E(level)	J^{π}	$T_{1/2}$	Comments
			discrepant values are $\Gamma_{C.M.}$=3.25 keV *33* (1964Bo13) and $\Gamma_{C.M.}$=3.4 keV *5* (1964Ho02).
7.75×10^3 *3*	2^-	210 keV *60*	$\Gamma_p/\Gamma\approx0.65$; Γ_γ=8.5 eV E(level): Γ: from E_P= 1290 keV *30* (1964Ho02). T=(1).
8894 *2*	2^+	36 keV *2*	T=1 E(level): Γ: from E_P= 2567 keV *2* (1956Ma55) and (Mackin Thesis, Cal Tech, 1953 see (1974Aj01)).
10.83×10^3	$2^+,3^+,4^+$	≈500 keV	E(level): from E_P= 4.72×10^3 keV (1952Ha10) and (Fisher Thesis, Stanford 1970, see (1974Aj01)). Γ: from (1952Ha10).
12.6×10^3	$0^+,1^+,2^+$	<200 keV	E(level): Γ: from E_P= 6.7×10^3 keV (Fisher Thesis, Stanford 1970, see 1974Aj01)).
12.9×10^3?	$^+$	≈100 keV	E(level): Γ: from E_P= 7.0×10^3 keV (Fisher Thesis, Stanford 1970, see (1974Aj01)).
13.3×10^3	$0^+,1^+,2^+$	≈300 keV	E(level): Γ: from E_P= 7.5×10^3 keV (Fisher Thesis, Stanford 1970, see (1974Aj01)).
14.1×10^3	$0^+,1^+,2^+$	≈250 keV	E(level): Γ: from E_P= 8.4×10^3 keV (Fisher Thesis, Stanford 1970, see (1974Aj01)).
14.6×10^3?	$2^+,3^+,4^+$	≈150 keV	E(level): Γ: from E_P= 8.9×10^3 keV (Fisher Thesis, Stanford 1970, see (1974Aj01)).
15.6×10^3?	$2^+,3^+,4^+$	≈400 keV	E(level): Γ: from E_P= 10.0×10^3 keV (Fisher Thesis, Stanford 1970, see (1974Aj01)).
19.7×10^3?	$2^-,3^-,4^-$	≈50 keV	E(level): Γ: from E_P= 14.6×10^3 keV (Fisher Thesis, Stanford 1970, see (1974Aj01)).