

${}^7\text{Be}(p,\gamma)$  2004Ti06

Type	Author	History	Citation	Literature Cutoff Date
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- 1970Va26:  ${}^7\text{Be}(p,\gamma)$   $E=0.953\text{-}3.281$  MeV, measured  $\sigma(E)$ , delayed- $\alpha$  spectrum.  ${}^8\text{B}$  deduced resonance,  $\Gamma$ -level.
- 1973Ro08:  ${}^7\text{Be}(p,\gamma)$   $E<1.5$  MeV. Analyzed  $\sigma(E)$ .
- 1977Wi05:  ${}^7\text{Be}(p,\gamma)$   $E=360$  keV, measured  $\sigma$ .
- 1980Ba35:  ${}^7\text{Be}(p,\gamma)$   $E=175\text{-}4000$  keV. Calculated nonresonant  $\sigma(E)$ . Deduced spectroscopic factors. Direct-capture potential model.
- 1983Ba45:  ${}^7\text{Be}(p,\gamma)$   $E<100$  keV. Analyzed earlier S-factor estimates of capture  $\sigma$ .
- 1983Fi01:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=117\text{-}1230$  keV, measured absolute total  $\sigma$  vs.  $E$ . Deduced zero energy.
- 1983Fi13:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}\approx 100\text{-}1200$  keV, measured  $\beta$ -delay  $\sigma(E_\alpha)$ . Deduced  $\sigma(E)$ , zero-energy astrophysical S-factor.  ${}^8\text{B}$  deduced resonance parameters.
- 1986Ba38:  ${}^7\text{Be}(p,\gamma)$   $E=0.1\text{-}4$  MeV. Analyzed  $\sigma$ , ratio to  ${}^7\text{Li}(d,p)$ , S-factor vs.  $E$  data.
- 1995Ba36:  ${}^7\text{Be}(p,\gamma)$   $E\leq 2$  MeV. Analyzed astrophysical S-factor vs.  $E$ .
- 1995MoZU:  ${}^{208}\text{Pb}({}^8\text{B}, {}^7\text{Be } p)$   $E\approx 50$  MeV/nucleon, interpreted  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=0.5\text{-}1.7$  MeV. Deduced astrophysical S-factor.
- 1997Sc46:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=0.35\text{-}1.4$  MeV, measured  $\sigma$ . Deduced astrophysical S-factors, extrapolated zero-energy S-factor.
- 1998Ga02:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=5.8$  MeV. Analyzed previous analysis. Deduced uncertainties.
- 1998Ha05:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=0.35\text{-}1.4$  MeV, measured  $\sigma$ . Deduced astrophysical S-factor, extrapolated zero-energy S-factor.
- 1998Ki19:  ${}^{208}\text{Pb}({}^8\text{B}, {}^7\text{Be } p)$   $E\approx 52$  MeV/nucleon.  ${}^7\text{Be}(p,\gamma)$   $E<3000$  keV. Deduced astrophysical S-factor.
- 1999Az02:  ${}^{10}\text{B}({}^7\text{Be}, {}^8\text{B})$   $E=84$  MeV.  ${}^7\text{Be}(p,\gamma)$   $E=\text{solar}$ . Deduced astrophysical S-factor.
- 1999Az04:  ${}^{14}\text{N}({}^7\text{Be}, {}^8\text{B})$   $E=85$  MeV.  ${}^7\text{Be}(p,\gamma)$   $E$  not given. Deduced astrophysical S-factor.
- 1999Ha51:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=1.09, 1.29$  MeV, measured  $\sigma$ . Deduced astrophysical S-factor.
- 1999Iw03:  ${}^{208}\text{Pb}({}^8\text{B}, {}^7\text{Be } p)$   $E\approx 254$  MeV/nucleon.  ${}^7\text{Be}(p,\gamma)$   $E=\text{low}$ . Deduced astrophysical S-factor.
- 2000StZZ:  ${}^7\text{Be}(p,\gamma)$   $E=0.3\text{-}3$  MeV, measured  $\sigma$ , astrophysical S-factor. Deduced No recoil loss effect.
- 2001Az01:  ${}^{10}\text{B}, {}^{14}\text{N}({}^7\text{Be}, {}^8\text{B})$   $E=85$  MeV. Deduced asymptotic normalization coefficients.  ${}^7\text{Be}(p,\gamma)$   $E=\text{low}$ . Deduced astrophysical S-factor.
- 2001Da03:  $\text{Pb}({}^8\text{B}, {}^7\text{Be } p)$   $E=83$  MeV/nucleon.  ${}^7\text{Be}(p,\gamma)$   $E=\text{low}$ . Deduced astrophysical S-factor.
- 2001Da11:  $\text{Ag}, \text{Pb}({}^8\text{B}, {}^7\text{Be } p)$   $E=44, 81, 83$  MeV/nucleon. Deduced Coulomb dissociation  $\sigma$ .  ${}^7\text{Be}(p,\gamma)$   $E=\text{low}$ . Deduced astrophysical S-factor.
- 2001Ha26:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=111.7, 134.7, 185.8$  keV, measured  $\alpha$  spectra,  $\sigma$ . Deduced astrophysical S-factor.
- 2001St27:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=0.32\text{-}2.61$  MeV, measured delayed  $E_\alpha$ ,  $\sigma(E)$ . Deduced astrophysical S-factor.
- 2002BaZS:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}\approx 300\text{-}1100$  keV, measured delayed  $E_\alpha$ ,  $\sigma$ . Deduced astrophysical S-factor.
- 2002Ju01:  ${}^7\text{Be}(p,\gamma)$   $E_{\text{C.M.}}=186\text{-}1200$  keV, measured  $\sigma$ . Deduced astrophysical S-factor.
- 2003Ba04:  ${}^7\text{Be}(p,\gamma)$   $E=504.9, 632.6, 773.7, 991.2$  keV, measured  $\sigma$ , astrophysical S-factors, resonance features.
- 2003Ba51:  ${}^7\text{Be}(p,\gamma)$   $E(\text{C.M.})=302\text{-}1078$  keV, measured  $\sigma$ . Deduced astrophysical S-factors.
- 2003Ba84:  ${}^7\text{Be}(p,\gamma)$   $E(\text{C.M.})=302\text{-}1078$  keV, measured S-factor.
- 2003Ju04:  ${}^7\text{Be}(p,\gamma)$   $E(\text{C.M.})=116\text{-}2460$  keV, measured  $\sigma$ . Deduced astrophysical S-factors.
- 2003Pa33:  ${}^7\text{Be}(p,\gamma)$   $E=221, 1379$  keV, measured  $\sigma$ . Deduced astrophysical S-factor.

 ${}^8\text{B}$  Levels

E(level)	$J^\pi$	$T_{1/2}$	Comments
0.0			
767.7 29		35.7 keV 6	$\Gamma_\gamma=2.52\times 10^{-2}$ eV 11; $\Gamma_p=35.7$ keV 6 E(level): from weighted average of $E=769.5$ keV 100 ${}^7\text{Be}(p,\gamma)$ (1983Fi13) and 767.5 keV 30 ${}^7\text{Be}(p,\gamma)$ (2003Ju04). $\Gamma_\gamma$ : average of 24.8 meV 29 (2003Ba51), 25.3 meV 12 (2003Ju04) and 24.7 meV 42 (1983Fi13). $\Gamma_p$ : from (2003Ju04).
$2.32\times 10^3$ 2	$3^+$		$\Gamma_\gamma=0.10$ eV 5; $\Gamma_p\approx 350$ keV $\Gamma_\gamma$ : from reanalysis of (2003Ju04).
$\approx 3.5\times 10^3$	$2^-$		