

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Update	J. H. Kelley, J. L. Godwin, C. G. Sheu		ENSDF	31-Mar-2004

$Q(\beta^-) = -12143$ 19; $S(n) = 1.283 \times 10^4$ 3; $S(p) = 136.4$ 10; $Q(\alpha) = -4.83 \times 10^3$ 22 [2012Wa38](#)

Note: Current evaluation has used the following Q record -12173 2313020 70 137.5 10-4.82e+321 [2003Au02](#).

 ${}^8\text{B}$ LevelsCross Reference (XREF) Flags

A	${}^6\text{Li}(d,\pi^-)$	E	${}^7\text{Be}(p,p)$
B	${}^6\text{Li}({}^3\text{He},n)$	F	${}^9\text{Be}({}^7\text{Li},{}^8\text{He})$
C	${}^7\text{Li}(p,\pi^-)$	G	${}^{10}\text{B}(p,t)$
D	${}^7\text{Be}(p,\gamma)$	H	${}^{11}\text{B}({}^3\text{He},{}^6\text{He})$

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	2^+	770 ms 3	ABCD FGH	$\% \epsilon + \% \beta^+ = 100$; $\% \beta^+ \alpha = 100$ $T = 1$; $\mu = 1.0355$ 3; $Q = 0.0683$ 21 $T_{1/2}$: from weighted average of $T_{1/2} = 774$ ms 4 (1964Ma35), $T_{1/2} = 762$ ms 5 (1971Wi05), and $T_{1/2} = 772$ ms 4 (mcclenahan et al., baps 18 (1973) 651). Excluding mcclenahan the average $T_{1/2} = 769$ ms 3. μ from (1996FiZY), Q from (1992Mi18,1993Mi35).
769.5 25	1^+	35.6 keV 6	ABCDEFGH	$\% \Gamma \approx 7 \times 10^{-5}$; $\% p \approx 100$ $\Gamma_p = 35.7$ keV 6 E(level): from weighted average of $E = 767$ keV 12 and 783 keV 10 ${}^6\text{Li}({}^3\text{He},n)$ (2004Ti06), 769.5 keV 100 ${}^7\text{Be}(p,\gamma)$ (1983Fi13), 767.5 keV 30 ${}^7\text{Be}(p,\gamma)$ (2003Ju04), 771.5 keV 50 ${}^7\text{Be}(p,p)$ (2003An29). Γ : From weighted average of $\Gamma = 40$ keV 10 ${}^6\text{Li}({}^3\text{He},n)$ (2004Ti06), 37 keV 5 ${}^7\text{Be}(p,\gamma)$ (1983Fi13), 35 keV 3 ${}^7\text{Be}(p,\gamma)$ (2003Ba51), 35.7 keV 6 ${}^7\text{Be}(p,\gamma)$ (2003Ju04), 31 keV 4 ${}^7\text{Be}(p,p)$ (2003An29). J^π from 2003Ta17 .
2320 20	3^+	350 keV 30	A CDEFGH	$\% \Gamma \approx 2.9 \times 10^{-5}$; $\% p \approx 100$ $T = 1$ $\Gamma_p \approx 350$ keV E(level): from ${}^7\text{Be}(p,p)$ (1998Go16). Γ : From ${}^7\text{Be}(p,p)$ (1998Go16).
3.5×10^3 5	2^-	8 MeV 4	DE	E(level): from ${}^7\text{Be}(p,p)$ (2001Ro32). Γ : From ${}^7\text{Be}(p,p)$ (2001Ro32).
10619 9	0^+	<60 keV	H	$T = 2$ E(level): from ${}^7\text{B}({}^3\text{He},{}^6\text{He})$ (1975Ro01). Γ : From ${}^7\text{B}({}^3\text{He},{}^6\text{He})$ (1975Ro01).

 $\gamma({}^8\text{B})$

$E_i(\text{level})$	J_i^π	E_γ^\dagger	E_f	J_f^π	Mult.	Comments
769.5	1^+	769.5 24	0.0	2^+	M1	$\Gamma_\gamma = 2.52 \times 10^{-2}$ eV 11; $B(M1)(W.u.) = 2.63$ 12 Γ_γ : From weighted average of 2.48×10^{-2} eV 29 (2003Ba51) and 2.53×10^{-2} eV 12 (2003Ju04). Other values are 2.47×10^{-2} eV 42 (1983Fi13) 5.0×10^{-2} eV 25 (1966Pa16). E(γ) from E(level).

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Adopted Levels, Gammas (continued) $\gamma({}^8\text{B})$ (continued)

<u>$E_i(\text{level})$</u>	<u>J_i^π</u>	<u>E_γ^\dagger</u>	<u>E_f</u>	<u>J_f^π</u>	<u>Mult.</u>	<u>Comments</u>
2320	3 ⁺	2320 30	0.0	2 ⁺	M1	$\Gamma_\gamma=0.10$ eV 5; B(M1)(W.u.)=0.38 19 E(γ) from E(level), Γ_γ from (2003Ju04).

† From level energy difference; recoil correction applied.

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