

Table 9.9 from (1988AJ01): Energy levels of ${}^9\text{B}$

| E_x (MeV \pm keV) ^a | $J^\pi; T$ | $\Gamma_{\text{c.m.}}$ (keV) | Decay | Reactions |
|------------------------------------|---------------------------------------------|------------------------------|----------------------------------|----------------------------------------------------|
| g.s. | $\frac{3}{2}^-; \frac{1}{2}$ | 0.54 ± 0.21 | p, α | 1, 2, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |
| (1.6) ^b | | ≈ 700 | (p, α) | 4, 7, 12 |
| 2.361 ± 5 | $\frac{5}{2}^-; \frac{1}{2}$ | 81 ± 5 | α | 1, 2, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 |
| 2.788 ± 30 ^c | $(\frac{3}{2}, \frac{5}{2})^+; \frac{1}{2}$ | 550 ± 40 | p | 4, 6, 9, 10, 12, 14 |
| 4.8 ± 100 | | 1200 ± 200 | α | 4, 7, 12 |
| 6.97 ± 60 | $\frac{7}{2}^-; \frac{1}{2}$ | 2000 ± 200 | p | 4, 6, 10, 13, 14 |
| 11.70 ± 70 | $(\frac{7}{2})^-; \frac{1}{2}$ | 800 ± 50 | p | 10, 12 |
| 12.06 ± 60 | $;$ $\frac{1}{2}$ | 800 ± 200 | p | 4, 9, 13 |
| 14.01 ± 70 | $;$ $\frac{1}{2}$ | 390 ± 110 | | 4, 13 |
| 14.6550 ± 2.5 | $\frac{3}{2}^-; \frac{3}{2}$ | 0.395 ± 0.042 | γ , p | 4, 7, 13 |
| 14.7 ± 180 | $(\frac{5}{2})^-; \frac{1}{2}$ | 1350 ± 200 | | 10 |
| 15.29 ± 40 | $;$ $\frac{1}{2}$ | | | 13 |
| 15.58 ± 40 | $;$ $\frac{1}{2}$ | | | 13 |
| 16.024 ± 25 | $;$ $(\frac{1}{2})$ | 180 ± 16 | | 4, 13 |
| 17.076 ± 4 | $T = \frac{3}{2}$ | 22 ± 5 | $(\gamma, {}^3\text{He})$ | 1, 13 |
| 17.190 ± 25 | | 120 ± 40 | p, d, ${}^3\text{He}$ | 4, 5, 13 |
| 17.637 ± 10 | | 71 ± 8 | p, d, ${}^3\text{He}$, α | 1, 4, 5, 13 |
| (18.6) | | 1000 | p, ${}^3\text{He}$ | 1, 7, 10 |

^a See reactions 6 and 7 for additional states and other values.

^b See the discussion in (1987BA54; theor.). See also reaction 7.

^c See also reactions 6 and 9 for the possible existence of a $\frac{1}{2}^-$ state at $E_x \approx 2.8$ MeV [the analog to ${}^9\text{Be}^*(2.78)$], and see (1988MI03).