

Table 11.3 from (1980AJ01): Energy Levels of ^{11}B ^a

E_x (MeV \pm keV)	$J^\pi; T$	$\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
g.s.	$\frac{3}{2}^-; \frac{1}{2}$	stable		1, 2, 8, 9, 10, 14, 15, 16, 17, 18, 19, 20, 27, 28, 29, 30, 31, 33, 34, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74
2.1248 ± 0.4	$\frac{1}{2}^-$	$\Gamma = 0.128 \pm 0.010$ eV	γ	1, 8, 9, 10, 14, 15, 16, 17, 19, 20, 27, 28, 29, 36, 37, 39, 40, 41, 44, 45, 49, 53, 55, 57, 58, 59, 65, 66, 67, 69, 70, 72, 73
4.4451 ± 0.5	$\frac{5}{2}^-$	0.61 ± 0.04 eV	γ	1, 2, 8, 9, 10, 14, 15, 16, 20, 27, 28, 29, 31, 32, 37, 39, 40, 41, 44, 45, 49, 53, 54, 55, 57, 58, 59, 66, 67, 69, 70, 72, 73
5.0208 ± 0.5	$\frac{3}{2}^-$	2.16 ± 0.10 eV	γ	1, 8, 9, 10, 15, 16, 27, 28, 29, 31, 36, 37, 39, 40, 41, 44, 45, 53, 57, 58, 59, 66, 67, 69, 70, 73
6.7429 ± 0.6	$\frac{7}{2}^-$	0.043 ± 0.007 eV	γ	1, 2, 8, 15, 20, 28, 29, 31, 32, 40, 41, 44, 45, 53, 58, 66, 67, 70, 72
6.7929 ± 1.0	$\frac{1}{2}^+$	0.47 ± 0.06 eV	γ	1, 8, 15, 28, 29, 36, 40, 41, 45, 49, 57, 58, 67, 70, 73
7.2856 ± 1.5	$(\frac{3}{2}, \frac{5}{2})^+$	1.46 ± 0.20 eV ^b	γ	1, 8, 14, 15, 28, 29, 39, 41, 45, 58, 73
7.9780 ± 1.3	$\frac{3}{2}^+$	1.46 ± 0.22 eV	γ	1, 15, 28, 36, 41

Table 11.3 from (1980AJ01): Energy Levels of ^{11}B ^a (continued)

E_x (MeV \pm keV)	$J^\pi; T$	$\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
8.5594 \pm 1.9	$\leq \frac{5}{2}^-$	1.04 \pm 0.16 eV ^c	γ	1, 14, 15, 28, 39, 41, 45, 67
8.920 \pm 1.5	$\frac{5}{2}^-$	4.78 \pm 0.29 eV	γ, α	1, 2, 14, 15, 20, 28, 31, 39, 41, 66, 67
9.185 \pm 1.5	$\frac{7}{2}^+$	0.3 \pm 0.1 eV	γ, α	1, 2, 12, 28, 41, 70
9.274 \pm 1.5	$\frac{5}{2}^+$	7 keV	γ, α	1, 2, 15, 28, 41, 70
9.875 \pm 10	$\frac{3}{2}^+$	130 \pm 30	α	7, 15, 36
10.26 \pm 20	$\frac{3}{2}^{(-)}, \frac{1}{2}$	150 \pm 40	γ, α	2, 7
10.33 \pm 20	$(\frac{5}{2}, \frac{7}{2})^-$	70 \pm 20	γ, α	2, 7, 28
(10.45 \pm 50)		\approx 140	γ, α	2, 41
10.601 \pm 10	$\frac{7}{2}^+$	70 \pm 10	γ, α	2, 7
10.96 \pm 50	$\frac{5}{2}^-$	4500	α	7
11.29 \pm 30	$\frac{9}{2}^+$	90 \pm 50	α	7
11.49 \pm 50			α	7
11.61 \pm 50	$\frac{5}{2}^+$	150 \pm 30	n, α	3, 7, 21, 26, 27, 41
11.8	$\frac{7}{2}^+$	880	n, α	26
11.90 \pm 20	$\frac{5}{2}^-$	150 \pm 30	n, α	3, 7, 26
(12.18 \pm 40)			γ, p	19
12.56 \pm 30	$\frac{1}{2}^+(\frac{3}{2}^+); T = \frac{3}{2}$	240 \pm 50	γ, p, α	7, 17, 19, 44
12.91 \pm 20	$\frac{1}{2}^-; T = \frac{3}{2}$	240 \pm 30	γ, p	19, 41, 44, 66
13.03 \pm 60		270 \pm 50	α	7
13.12	$\frac{9}{2}^-$	425	n, α	3, 21, 26
13.16	$\frac{5}{2}^+, \frac{7}{2}^+$	430	n, α	3, 21, 26
14.04 \pm 100	$\frac{11}{2}^+$	500 \pm 200	n, α	3, 7, 21, 26
14.33 \pm 20	$\frac{5}{2}^{(+)}, (\frac{3}{2}^-); T = \frac{3}{2}$	250 \pm 40	γ, p	19, 44
14.53 \pm 50		< 120	n, t, α	3, 25, 26, 44
15.32 \pm 100	$(\frac{3}{2}, \frac{5}{2}, \frac{7}{2})^+; T = \frac{3}{2}$	635 \pm 180	γ, p	19, 21, 26, 41
15.8 \pm 200			n, α	3, 7, 22
(16.43 \pm 15)		\approx 40	p, d, α	12, 41
(16.7 \pm 300)		broad	n, t, α	3, 25, 26, 41
17.33		\approx 1000	n, p, d, t, α	12, 25, 26

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E_x (MeV \pm keV)	$J^\pi; T$	$\Gamma_{\text{c.m.}}$ (keV)	Decay	Reactions
17.50 \pm 50		180 \pm 40	$\gamma, \text{n, p, d, } \alpha$	3 , 10 , 12
18.37 \pm 50	$(\frac{1}{2}, \frac{3}{2}, \frac{5}{2})^+$	260 \pm 80	γ, d	10
(19.6)	$(\frac{1}{2}^+)$	broad	γ, d	10 , 38 , 57
23.7	$(\frac{1}{2}, \frac{3}{2}, \frac{5}{2})^+$		γ, d	10
26.5		broad	γ, n	38

^a See also Tables [11.4](#), [11.5](#) and [11.16](#).

^b Assuming $J^\pi = \frac{5}{2}^+$: see [Table 11.16](#).

^c Assuming $J^\pi = \frac{3}{2}^-$: see [Table 11.16](#).