

Table 11.13 from (1980AJ01): R -matrix analysis of resonant states in $^{10}\text{B} + \text{n}$ ^a

E_{n} (MeV)	E_{x} (MeV)	J^{π}	l_{n}	Γ_{n}	Γ_{α_0}	Γ_{α_1}	$\Gamma_{\text{c.m.}}$ (keV)
	10.60	$\frac{7}{2}^{+}$	0		0.030	0.070	100
0.17	11.61	$\frac{5}{2}^{+}$	0	0.004	0.296	0.0	300
0.37 ^b	11.79	$\frac{7}{2}^{+}$	0	0.770	0.001	0.113	884
0.53 ^c	11.94	$\frac{5}{2}^{-}$	1	0.031	0.080	0.090	201
1.83	13.12	$\frac{9}{2}^{-}$	1	0.100	0.275	0.050	425
1.88	13.16	$\frac{5}{2}^{+}, \frac{7}{2}^{+}$	2	0.080	0.200	0.150	430
2.82	14.02	$\frac{11}{2}^{+}$	2	0.800	0.045	0.010	855
4.2	15.3	$(\frac{3}{2}, \frac{3}{2}, \frac{7}{2})^{+}$	2	0.500	0.100	0.100	700

^a (1971LA10, 1972HA04, 1973CO05, 1973HA64): analysis based on polarization and differential cross-section measurements of the elastic scattering, and on results from $^{10}\text{B}(\text{n}, \alpha_0)$ and (n, α_1) . The analysis used a two-level, four-channel R -matrix formalism with a non-diagonal background R^0 matrix: see (1973HA64). This analysis does not include $^{11}\text{B}^*(14.53)$ because the resonance is weak, narrow and almost entirely in the α -channel (1973CO05). See also Table 11.12.

^b See also (1976SE06).

^c (1978SC31) report $E_{\text{res}} = 495 \pm 5$ keV, $\Gamma = 140 \pm 15$ keV, σ_{max} [in $(\text{n}, \alpha_1\gamma)$] = 94 ± 6 mb.