

$^{11}\text{B}(\alpha, \text{He})$ 1988Aj01

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu and J. L. Godwin, et al.		NP A745 155 (2004)	31-Mar-2004

- 1965Fo06: $^{11}\text{B}(\alpha, \text{He})$ E=2.2-5.5 MeV, measured $\sigma(E, E_\alpha, \theta)$. ^{10}B deduced reduced widths.
 1966Lo15: $^{11}\text{B}(\alpha, \text{He})$ E=1.00-2.15 MeV, measured $\sigma(E(\alpha, \text{He}))$, $\sigma(E_\alpha, \theta)$.
 1969De10: $^{11}\text{B}(\alpha, \text{He})$ E=33 MeV, measured $\sigma(E_\alpha, \theta)$. ^{10}B levels deduced S.
 1969Yo01: $^{11}\text{B}(\alpha, \text{He}, \gamma)$ E=2 MeV, measured $\sigma(E_\alpha, E_\gamma)$. ^{10}B deduced γ -branching ratios.
 1971Yo05: $^{11}\text{B}(\alpha, \text{He})\alpha + {}^6\text{Li}$ E=5.0, 4.55, 2.8 MeV, measured $\sigma(E_\alpha, E(\alpha\alpha), \theta(\alpha\alpha))$, $\sigma(E_\alpha, E({}^6\text{Li}), \theta({}^6\text{Li}))$. ^{10}B deduced levels, J, π .
 1973Co19: $^{11}\text{B}(\alpha, \text{He})$ E=8.0, 10.0, 12.0 MeV, measured $\sigma(\theta)$. ^{10}B levels deduced S.
 1976Aj01: $^{11}\text{B}(\alpha, \text{He})$ E=49.3 MeV, measured $\sigma(E_\alpha, \theta)$. ^{10}B deduced levels, Γ .

 ^{10}B Levels

E(level)	$T_{1/2}$	L	S_{relative} (1969De10)	Comments
0		1	1.0	
718 7		1	0.22	E(level): from (1965Go05).
1744 7	<15.2 fs	1	0.73	E(level): from (1965Go05). Γ : from $T_{\text{mean}} < 22$ fs (Jackson Thesis, U. Toronto, 1969, unpublished – Phys Abs 39107 (1970)). Also see $T_{\text{mean}} < 40$ fs (1968Do01).
2157 6	1.38 ps 17	1	0.44	E(level): from (1965Go05). Γ : from $T_{\text{mean}} = 2.00$ ps 25 (Jackson Thesis, U. Toronto, 1969, unpublished – Phys Abs 39107 (1970)). Also see $T_{\text{mean}} = 2.1$ ps +8–5 (1968Do01).
3587 6	106 fs 14	1	0.09	E(level): from (1965Go05). Γ : from weighted average of $T_{\text{mean}} = 152$ fs 21 (Jackson Thesis, U. Toronto, 1969, unpublished – Phys Abs 39107 (1970)) and $T_{\text{mean}} = 170$ fsec 70 (1968Do01).
4777 5		1	0.09	E(level): from (1965Go05).
5114 5				E(level): from (1965Go05).
5166 5		1	1.81	E(level): from (1965Go05).
5923 5				$\% \alpha = 100$ E(level): from (1965Go05).
6028 5				$\% \alpha = 99.79$ E(level): from (1965Go05).
6131 5				$\% \alpha > 95.5$ E(level): from (1965Go05).
6570 7	30 keV 10			$\% \alpha \approx 100$ E(level): from weighted average of 6573 keV 8 (1965Go05) and 6566 keV 10 (1967Pu04). Γ from (1965Go05, 1976Aj01).
7002 10	95 keV 10			$\% \alpha > 0$ E(level): Γ : from (1967Pu04).
7475 10				E(level): from (1965Go05).
7567 10				E(level): from (1965Go05).
7.87×10^3 1	240 keV 50			E(level): Γ : from (1967Pu04).
10.85×10^3 10	0.30 MeV 10			E(level): Γ : from (1976Aj01).
11514 30	316 keV 44			E(level): from weighted average of 11.52 MeV 4 (1967Pu04) and 11505 keV 50 (1976Aj01). Γ : from weighted average of 270 keV 50 (1967Pu04) and 0.50 MeV 10 (1976Aj01).
12564 26	106 keV 26			E(level): from weighted average of 12.57 MeV 3 (1967Pu04) and 12549 keV 50 (1976Aj01). Γ : from weighted average of 90 keV 30 (1967Pu04) and 0.150 MeV 50 (1976Aj01).
13494 50	300 keV 50			E(level): Γ : from (1976Aj01).

Continued on next page (footnotes at end of table)

 $^{11}\text{B}(^3\text{He},\alpha)$ **1988Aj01 (continued)**

 ^{10}B Levels (continued)

<u>E(level)</u>	<u>T_{1/2}</u>	<u>Comments</u>
14.4×10 ³ 1	0.80 MeV 20	E(level): Γ: from (1976Aj01).
18.2×10 ³ ? 2	1.50 MeV 30	E(level): Γ: from (1976Aj01).