

${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B}), ({}^{11}\text{B}, \alpha {}^7\text{Li})$ 2003Me36,1994Wo02

| Type | Author | History | Citation | Literature Cutoff Date |
|-----------------|--------------------------|---------|-------------------|------------------------|
| Full Evaluation | J. H. Kelley, C. G. Sheu | | NP A880,88 (2012) | 1-Jan-2011 |

- 1969Vo10: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=28$ MeV; measured $\sigma(\theta)$. Deduced optical model parameters.
- 1971Li11: ${}^{11}\text{B}({}^{12}\text{C}, {}^{11}\text{B})$, $E=87$ MeV; measured $\sigma(\theta)$. Deduced optical model parameters.
- 1978Fr20: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=18.8-34.1$ MeV; measured $\sigma(E)$.
- 1979Fr05: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, (${}^{11}\text{B}$, ${}^{11}\text{B}'$), $E_{\text{C.M.}}=9.4-17.8$ MeV; measured $\sigma(E, \theta)$.
- 1982Ma20: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=25, 40, 50$ MeV; measured $\sigma(\text{fragment } \theta, E)$ for $\alpha=9-22$; deduced fusion σ vs E .
- 1985Ja01: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=10.4, 12.4, 14.57$ MeV; measured $\sigma(\theta)$. Exact finite-range DWBA.
- 1985Ma10: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=4-9$ MeV/nucleon; measured $\sigma(\theta)$, $\sigma(\text{fragment } E)$ for fragment mass=11, fusion σ vs E .
- 1986Ma13: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=48$ MeV; measured $\sigma(\theta)$.
- 1988Ma07: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=18.8-34.1$ MeV; measured $\sigma(\theta)$ vs E . Deduced model parameters.
- 1991Al12: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E_{\text{C.M.}}=14.6-41.7$ MeV; measured $\sigma(E, \theta)$. Deduced model parameters.
- 1991Ja09: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B}')$, $E_{\text{C.M.}}=15-40$ MeV; measured $\sigma(\theta)$. ${}^{11}\text{B}$ levels deduced spectroscopic factors.
- 1992Ja12: ${}^{11}\text{B}({}^{12}\text{C}, {}^{11}\text{B})$, $E=344.5$ MeV; measured $\sigma(\theta)$. DWBA analysis.
- 1994Wo02: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=87$ MeV; measured $\sigma(\theta)$ elastic, (fragment)(fragment)-relative energy spectra. Deduced sequential breakup σ , reaction mechanism. DWBA analysis.
- 2001Oz03: $\text{C}({}^{11}\text{B}, \text{X})$, $E \approx 950$ MeV/nucleon; measured interaction σ . ${}^{11}\text{B}$ deduced radii.
- 2001Ru14: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, $E=49$ MeV; measured $\sigma(\theta)$; deduced optical model parameters, energy dependence. ${}^{11}\text{B}$ deduced deformation parameters.
- 2003Me36: ${}^{12}\text{C}({}^{11}\text{B}, {}^{11}\text{B})$, (${}^{11}\text{B}$, ${}^{11}\text{B}'$), $E=49$ MeV; analyzed $\sigma(\theta)$, deduced target excitation effect. ${}^{11}\text{B}$ deduced deformation length for ground and excited states.

 ${}^{11}\text{B}$ Levels

| E(level) | $T_{1/2}$ | Comments |
|--------------------|------------|---|
| 0 | | $\delta_2=1.0$ (2003Me36). $R_{\text{rms}}=2.09$ fm I_2 (2001Oz03,2001Oz04). |
| 2.12×10^3 | | |
| 4.44×10^3 | | |
| 5.02×10^3 | | $\delta_2=0.8$ (2003Me36). |
| 9191 10 | 30 keV 11 | E(level): Γ : from $E_{\text{rel}}=527$ keV 10 (1994Wo02). |
| 9268 10 | 37 keV 9 | E(level): Γ : from $E_{\text{rel}}=604$ keV 10 (1994Wo02). |
| 10274 14 | 337 keV 44 | E(level): Γ : from $E_{\text{rel}}=1610$ keV 14 (1994Wo02). |
| 10612 7 | 83 keV 22 | E(level): Γ : from $E_{\text{rel}}=1948$ keV 7 (1994Wo02). |