

$^6\text{Li}(\alpha,\alpha),(\alpha,\alpha')$ 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

[1967Me08](#): $^6\text{Li}(\alpha,\alpha)$ E=1.4-3.7 MeV, measured $\sigma(E)$, $\sigma(\theta)$. ^{10}B deduced levels, Γ -level, L, π , J.
[1969Ha14](#): $^6\text{Li}(\alpha,\alpha)$ E=104 MeV, measured $\sigma(\theta)$. Deduced phase shifts, optical potentials.
[1969Ma13](#): $^6\text{Li}(\alpha,\alpha),(\alpha,\alpha')$ E=29.4 MeV, measured $\sigma(E_{\alpha'},\theta)$. Deduced optical model parameters.
[1971Ba41](#): $^6\text{Li}(\alpha,\alpha)$ E=3.3-5.0 MeV, measured $\sigma(E,\theta)$. ^{10}B deduced resonances, J, π , Γ -level.
[1971Bi12](#): $^6\text{Li}(\alpha,\alpha_0)$ E=12.0-18.5 MeV, measured $\sigma(E_{\alpha},\theta)$. Deduced optical model parameters.
[1971Da33](#): $^6\text{Li}(\alpha,\alpha)$ E=36.6 MeV, measured $\sigma(\theta)$. Deduced optical model parameters.
[1972Ba89](#): $^6\text{Li}(\alpha,\alpha)$ E $_{\alpha}$ =166 MeV, measured angular distribution $\sigma(\theta)$. Analyzed pick-up contribution.
[1972Bo07](#): $^6\text{Li}(\alpha,\alpha)$ E=2.5-4.5 MeV, (α,α') E=3.0,3.6,4.0 MeV, measured $\sigma(E)$, $\sigma(\theta)$. Analyzed deuteron exchange. Deduced deuteron width.
[1975Be11](#): $^6\text{Li}(\alpha,\alpha),(\alpha,\alpha')$ E=34.75,39.75,45 MeV, measured angular distributions.
[1979Fo21](#), [1979Fo24](#): $^6\text{Li}(\alpha,\alpha),(\alpha,\alpha')$ E=59 MeV, measured $\sigma(\theta)$.
[1981He05](#): $^6\text{Li}(\alpha,\alpha)$ E=1.39-2.98 MeV, measured $\sigma(\theta,E)$. Deduced phase shifts.
[1986Br31](#): $^6\text{Li}(\alpha,\alpha)$ E=36.6,50.5 MeV, measured $\sigma(\theta)$. Deduced cluster transfer mechanism contribution.
[1992Sa01](#): $^6\text{Li}(\alpha,\alpha),(\alpha,\alpha')$ E=50 MeV, measured $\sigma(\theta)$, $\sigma(\theta_{\alpha},E_{\alpha})$. DWBA analysis.
[1996Bu06](#): $^6\text{Li}(\alpha,\alpha),(\alpha,\alpha')$ E=50.5 MeV, measured $\sigma(\theta)$. DWBA model analyses.
[1999Og09](#): $^6\text{Li}(\alpha,\alpha)$ E=166 MeV, analyzed $\sigma(\theta)$. Deduced optical model parameters.

 ^{10}B Levels

E(level)	J $^{\pi}$	T $_{1/2}$	Comments
5187 18	1 $^{+}$	105 keV	T=0 E(level): Γ : from E $_{\text{res}}$ =1210 keV 30 (1962De10).
5925	2 $^{+}$	5.82 keV 6	T=0 E(level): from E $_{\text{res}}$ =2440 keV. Γ : from (1981He05).
6024.6 9	4 $^{+}$	54 eV 24	T=0 E(level): Γ : from E $_{\text{res}}$ =2606.0 keV 15 (1967Me08).
6132.3 9	3 $^{-}$	1.52 keV 8	T=0; Γ_{α} =1.47 keV 7 Γ_d =48 eV 30. E(level): from E $_{\text{res}}$ =2785.5 keV 15 (1967Me08). Widths from (1981He05). Also see Γ =2.36 keV 3 (1967Me08).
6560.1 10	(4 $^{-}$,2 $^{-}$)	25.1 keV 11	T=0 E(level): from E $_{\text{res}}$ =3498.5 keV 16 (1971Ba41). Γ from (1971Ba41).
7011 9	(2) $^{+}$	110 keV 15	T=0 E(level): from E $_{\text{res}}$ =4250 keV 15 (1971Ba41).
14.06 $\times 10^3$			E(level): from E $_{\text{res}}$ =16.0 MeV (1971Bi12).