^{6}Li(^{3}He,d),(^{3}He,t),(^{3}He,^{3}He) 1988Aj01

History

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

1968Lu02: ^{6}Li(^{3}He,d) E=8, 10, 14, 18 MeV, measured σ(E,θ). DWBA calculations, deduced ratio of S.
1970Al25: ^{6}Li(^{3}He,dγ) E=0.5-1.3 MeV, measured σ(E,E$_\gamma$). ^{9}B deduced resonance, J, π, T, Γ.
1979Bu17: ^{6}Li(^{3}He,d) E=0.7-2 MeV, measured σ(E,θ). ^{9}B deduced No levels.
1981Ba38: ^{6}Li(pol. ^{3}He,d) E=33.3 MeV, measured $\sigma(\theta)$, A(θ). DWBA, coupled-channels analyses.
1966Ma36: ^{6}Li(^{3}He,t) E=30, 40 MeV, measured σ(E$_t$,θ).
1972Gi07: ^{6}Li(^{3}He,t) E=24.6, 27.0 MeV, measured σ(E(^{3}He),θ), σ(inel)(θ)/σ(^{3}He)-t(θ).
1973Ha45: ^{6}Li(^{3}He,t) E=46.3 MeV, measured σ(E$_t$,θ=5 degree).
1981Ba37: ^{6}Li(pol. ^{3}He,t) E=33.3 MeV, measured $\sigma(\theta)$, A(θ). Deduced optical-model parameters, reaction mechanism.
1983De14: ^{6}Li(^{3}He,t) E=40 MeV, measured inclusive σ(θ,E$_t$). Deduced exit channel dependence, competing mechanisms role.
1984Bo49, 1985Bo56, 1987Bo39, 1988Bo38, 1989Bo25, 1989Bo42, 1992Bo25: E=38.7, 40 MeV, measured $\sigma(\theta_t,\theta\text{-}\alpha,E_\alpha)$, αt-coin, σ(E(^{3}He),θ(^{3}He),θ-α), σ(E$_t$,θ_t,θ-α), σ(E$_\alpha$), $\sigma(E_\alpha,\theta\text{-}\alpha,\theta_t)$, residual breakup product spectra.
2004Ak07, 2004Ak18, 2004Ya12, 2004Ya21: ^{6}Li(^{3}He,t) E=450 MeV, measured particle spectra, angular correlations and coincidences following residual nucleus decay, σ(E,θ).
1968Lu02: ^{6}Li(^{3}He,^{3}He) E=8-20 MeV, measured σ(E,θ). Deduced optical parameters.
1972Gi07: ^{6}Li(^{3}He,^{3}He) E=24.6, 27.0 MeV, measured σ(E(^{3}He),θ), σ(inel)(θ)/σ(^{3}He)-t(θ).
1973Wi07: ^{6}Li(^{3}He,^{3}He) E=217 MeV, measured σ(E(^{3}He),θ). Deduced optical model parameters.
1979Bu17: ^{6}Li(^{3}He,^{3}He) E=0.7-2 MeV, measured σ(E,θ). ^{9}B deduced No levels.
1979Go07: ^{6}Li(^{3}He,^{3}He) E=44.04 MeV, measured $\sigma(\theta)$. Optical model analysis.
1981Ba37: ^{6}Li(pol. ^{3}He,^{3}He), (pol. ^{3}He,^{3}He′) E=33.3 MeV, measured $\sigma(\theta)$, A(θ). Deduced optical-model parameters, reaction mechanism.
1986Br31: ^{6}Li(^{3}He,^{3}He) E=34, 50, 60, 72 MeV, measured $\sigma(\theta)$. Deduced cluster transfer mechanism contribution. Optical model, distorted wave analyses.
1994Do32: ^{6}Li(^{3}He,^{3}He) E=93 MeV, measured proton, deuteron, α, triton, ^{3}He yields vs θ, σ(θ,E). Deduced breakup mechanism dominance.
1995Bu20: ^{6}Li(^{3}He,^{3}He), (^{3}He,^{3}He′) E=50-72 MeV, measured $\sigma(\theta)$. Deduced model parameters, cluster transfer features. DWBA analysis.
1995Mi16: ^{6}Li(^{3}He,^{3}He) E not given, compiled, analyzed $\sigma(\theta)$, energy spectra.
1972Ba30: ^{6}Li(^{3}He,α) E=25.5 MeV, measured σ(E$_\alpha$,θ).
1975Ga14: ^{6}Li(^{3}He,α) E=1.8 MeV, measured α-α-coin.
1981Ba38: ^{6}Li(pol. ^{3}He,α) E=33.3 MeV, measured $\sigma(\theta)$, A(θ). DWBA, coupled-channels analyses.
1988Bu04: ^{6}Li(^{3}He,α) E=1.5-3.5 MeV, measured $\sigma(\theta(\alpha),\theta(^{5}\text{Li}),E(\alpha))$, $\sigma(\theta(\alpha),\theta(P))$.
1990Ar17: ^{6}Li(^{3}He,α) E=8-14 MeV, measured σ(E$_\alpha$).
1978Gu15: ^{6}Li(^{3}He,2α) E=1.4-1.8 MeV, measured σ(E,E$_{\alpha_1}$, E$_{\alpha_2}$). ^{9}B deduced level.

^{9}B Levels

E(level)	J$^\pi$	T$_{1/2}$	Comments
17.20×10^3 *20*	1/2$^+$,3/2$^+$	110 keV *30*	T=1/2 E(level): Γ,J$^\pi$: from (1970Al25) ^{6}Li(^{3}He,d γ).
17.63×10^3 *2*		70 keV *20*	E(level): from E(^{3}He)=1.57 MeV *2* ^{6}Li(^{3}He,2α) (1978Gu15). In this case the α energies correspond to decay via ^{5}Li. Γ: from ^{6}Li(^{3}He,2α) (1978Gu15). resonance is also observed In deuterons (1978Bu17).