

${}^4\text{He}(\alpha,\gamma)$ 2004Ti06

Type	Author	History	Citation	Literature Cutoff Date
Update	J. H. Kelley, J. L. Godwin, C. G. Sheu		ENSDF	31-Mar-2004

- 1975Na12: ${}^4\text{He}(\alpha,\gamma)$ E=33-38 MeV, measured $\sigma(E,E_\gamma)$. ${}^8\text{Be}$ levels deduced M1 Γ .
 1977Pa26: ${}^4\text{He}(\alpha,\gamma)$ E=33.4-35 MeV, measured E_γ , $I_\gamma(E)$ ${}^8\text{Be}$ level deduced Γ_γ .
 1978Bo30: ${}^4\text{He}(\alpha,\gamma)$ E=32-36 MeV, measured $\sigma(E,\theta)$. ${}^8\text{Be}$ resonances deduced radiative widths, δ .
 1979LoZU: ${}^4\text{He}(\alpha,\gamma)$ E not given, measured $\sigma(E_\gamma,\theta)$. ${}^8\text{Be}$ levels deduced Γ_γ for T=1, M1 transition.
 1994De30: ${}^4\text{He}(\alpha,\gamma)$ E \approx resonance, measured $\gamma(\theta,E)$. ${}^8\text{Be}$ deduced resonances δ , mixing parameter, $\Gamma(\text{M1})$, $\Gamma(\text{E2})$.
 1995De18: ${}^4\text{He}(\alpha,\gamma)$ E=33-34.7 MeV, measured γ yield vs. E, $I_\gamma(\theta)$. ${}^8\text{Be}$ deduced doublet decay features, $\delta(\text{E2/M1})$, Γ_γ , $\beta(\lambda)$.
 2001HaZZ: ${}^4\text{He}(\alpha,\gamma)$ E=33-35 MeV, measured $\sigma(\theta)$.

 ${}^8\text{Be}$ Levels

E(level)	Comments
0.0	
3.18×10^3	5
11.4×10^3	
16.6×10^3	Unresolved.
16.9×10^3	Unresolved.

 $\gamma({}^8\text{Be})$

E_γ	$E_i(\text{level})$	E_f	Comments
3.18×10^3	3.18×10^3	0.0	Γ_γ : 8.3×10^{-3} eV (calculated in 1986La05).
11.4×10^3	11.4×10^3	0.0	Γ_γ : 0.46×10^{-3} eV (calculated in 1986La05).
16.6×10^3	16.6×10^3	0.0	$\Gamma_{\gamma 0} = 7.0 \text{E-}2$ eV 25 (1995De18).
16.9×10^3	16.9×10^3	0.0	$\Gamma_{\gamma 0} = 8.4 \text{E-}2$ eV 14 (1995De18).

${}^4\text{He}(\alpha,\gamma)$ 2004Ti06Level Scheme