$^{12}C(\alpha,2\alpha)$, $^{12}C(\alpha,^{8}Be)$ 2004Ti06

History

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

1969Do02: $^{12}C(\alpha,2\alpha)$ E=25 MeV, measured $\sigma(E_{\alpha_1},E_{\alpha_2},\theta_1,\theta_2)$.
1970Ja06: $^{12}C(\alpha,2\alpha)$ E_α=90 MeV, measured $\sigma(E_\alpha,E(^{8}Be))$.
1973Wo06: $^{12}C(\alpha,^{8}Be)$ E=65 MeV, measured $\sigma(E(^{8}Be)),\sigma(\theta)$.
1976Sh02: $^{12}C(\alpha,2\alpha)$ E=90 MeV, measured $\sigma(\theta)$, α-$\alpha(\theta)$. ^{8}Be levels deduced α-S.
1976Wo11: $^{12}C(\alpha,^{8}Be)$ E=65-72.5 MeV, measured $\sigma(E(^{8}Be),\theta)$ ^{8}Be levels deduced absolute, relative S_α, L. DWBA analysis.
1980Wa07 $^{12}C(\alpha,2\alpha)$ E=140 MeV, measured $\sigma(E_{\alpha_1},E_{\alpha_2},\theta_{\alpha_1},\theta_{\alpha_2})$. ^{8}Be levels deduced S.
1981Ru10: $^{12}C(\alpha,^{8}Be)$ E=20-50 MeV, measured $\sigma(E_{\alpha_1},E_{\alpha_2})$. Deduced reaction mechanism.
1989Ko55: $^{12}C(\alpha,2\alpha)$ E=20-30 MeV, measured $\alpha\alpha$-correlation function.
1999Na05: $^{12}C(\alpha,2\alpha)$ E=580 MeV, measured $\sigma(\theta_1,\theta_2,E)$. Deduced dominance of quasifree knockout mechanism. DWIA calculations.
1999St06: $^{12}C(\alpha,2\alpha)$ E=200 MeV, measured E_α, $\alpha\alpha$-coin, $\sigma(E,\theta)$. Deduced α-cluster spectroscopic factors. DWIA analysis.

^{8}Be Levels

E(level)
0.0
3.0×10^{3}
11.4×10^{3}