

${}^3\text{He}({}^3\text{He},\text{X})$  2002Ti10

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Hu, Tilley, Kelley et al.		NP A708, 3 (2002)	23-Aug-2001

- 1965Zu02:  ${}^3\text{He}({}^3\text{He},2\text{p})$  E=15 MeV, measured  $\text{p}^4\text{He}$ -coin( $E_p$ ).
- 1968Iv01:  ${}^3\text{He}({}^3\text{He},{}^3\text{He})$  E=3-11 MeV, measured  $\sigma(E,\theta)$ .
- 1970Je02:  ${}^3\text{He}({}^3\text{He},{}^3\text{He})$  E=17.9-32 MeV, measured  $\sigma(E,\theta)$ .  ${}^6\text{Be}$  deduced resonance.
- 1971Dw01:  ${}^3\text{He}({}^3\text{He},2\text{p})$  E=0.08-1.1 MeV C.M., measured  $\sigma_{\text{tot}}(E)$ ,  $\sigma(E,\theta)$ .
- 1972Bo42:  ${}^3\text{He}({}^3\text{He},{}^3\text{He})$  E=4.33-9.83 MeV, measured polarization analyzing power.
- 1972Ha64:  ${}^3\text{He}({}^3\text{He},{}^3\text{He})$  E=9.3-17.5 MeV, measured polarization analyzing power.
- 1974Dw01:  ${}^3\text{He}({}^3\text{He},2\text{p})$  E=30-150 keV, measured  $\sigma(E)$ .  ${}^6\text{Be}$  deduced No resonance.
- 1974Ve01:  ${}^3\text{He}({}^3\text{He},\gamma)$  E=12-27 MeV, measured  $\sigma(E,\theta)$ .  ${}^6\text{Be}$  deduced resonances, J,  $\pi$ , L.
- 1976Ir02:  ${}^3\text{He}({}^3\text{He},\text{p})$  E=14 MeV, measured  $\sigma(\theta)$ , proton polarization.
- 1977Ka10:  ${}^3\text{He}(\text{pol } {}^3\text{He},{}^3\text{He})$  E=33.3 MeV, measured  $A(\theta)$ .
- 1978Vl01:  ${}^3\text{He}(\text{pol } {}^3\text{He},{}^3\text{He})$  E=18-33 MeV, measured  $A(E,\theta)$ . Phase shift analysis, excitation in  ${}^6\text{Be}$ .
- 1979La14:  ${}^3\text{He}({}^3\text{He},\text{p})$  E=50, 60, 78 MeV, measured breakup  $\sigma(E,\theta_{\alpha 1},\theta_{\alpha 2})$ , deduced Fourier transforms, energy, angle dependence. PWIA analysis.
- 1981Ko34:  ${}^3\text{He}({}^3\text{He},\text{p})$ , E=14 MeV, measured  $A(\theta)$ .
- 1983Ki10:  ${}^3\text{He}({}^3\text{He},\text{p})$  E=17-30 MeV, measured  $\sigma(\theta)$ ,  $A(E,\theta)$ . Polarization target.
- 1987Br02:  ${}^3\text{He}({}^3\text{He},2\text{p}),({}^3\text{He},\text{pd}),({}^3\text{He},\text{X})$  E=17.9, 21.7, 24 MeV, measured  $\sigma$ .
- 1996Ar16:  ${}^3\text{He}({}^3\text{He},2\text{p})$  E=20.7-91.7 keV, measured astrophysical S-factor vs E, deduced No evidence for hypothetical resonance.
- 1998Ju03:  ${}^3\text{He}({}^3\text{He},2\text{p})$  E=20.76-91.70 keV, measured  $\sigma$ , deduced astrophysical S factor, electron screening effect, No evidence for low-energy resonance.
- 1999Bo23:  ${}^3\text{He}({}^3\text{He},2\text{p})$   $E_{\text{c.m.}}=16.5\text{-}24.4$  keV, measured  $\sigma$ , astrophysical S-factor, deduced electron screening effect, No narrow resonance.

 ${}^6\text{Be}$  Levels

E(level)	$J^\pi$	$T_{1/2}$
$1.7 \times 10^3$		
$23.0 \times 10^3$	5 $^-$	$\approx 5$ MeV
$26. \times 10^3$	2 $^-$	
$27. \times 10^3$	3 $^-$	