^{1}H(^{12}Be,^{12}Be),(^{12}Be,^{12}Be′) 1995Ko27,2001Fr02,2007Ch81

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, J. E. Purcell and C. G. Sheu	NP A968, 71 (2017)	1-Jan-2017

1995Ko10,1995Ko27: ^{1}H(^{12}Be,P) E=55 MeV/nucleon, analyzed proton, invariant mass spectra. ^{12}Be deduced possible level schemes.

1999Fr04,2001Fr02: ^{1}H, ^{12}C(^{12}Be,2^{6}He), (^{12}Be,α^{8}He), E=378 MeV; measured particle spectra, angular distributions. Deduced levels.

2000Iw02: ^{1}H(^{12}Be,^{12}Be′) E=53.8 MEV/nucleon, measured E$_\gamma$, Iγ following projectile excitation, angle-integrated σ. ^{12}Be deduced deformation, shell effects.

2002Iw01: ^{1}H(^{12}Be,^{12}Be′) E=54.6 MeV/nucleon, measured E$_\gamma$, I$_\gamma$, (particle)γ-coin. ^{12}Be deduced levels, J, π, transition probabilities, quadrupole collectivity.

2007Ch81: ^{1}H, ^{12}C(^{12}Be,X); measured breakup cross sections for α+^{8}He, ^{6}He+^{6}He, ^{3}H+^{9}Li, p+^{11}Li decay modes; deduced excitation energies.

2012Il01: ^{1}H(^{12}Be,^{12}Be) E≈700 MeV/nucleon, measured amall angle scattering, Deduced matter radii via Glauber model analysis. R=2.71 fm *6*.

^{12}Be Levels

E(level)	Jπ	Γ	Comments
0			R$_{rms}$=2.71 fm *6*.
2.1×10^3	2$^+$		
2.7×10^3			
4.56×10^3			
5.7×10^3			
8.60×10^3† *15*		≤0.5 MeV	
10.00×10^3† *15*		≤0.5 MeV	
13.2×10^3‡ *5*	(4$^+$)	≈1 MeV	Decays via α+^{8}He and ^{6}He+^{6}He.
≈14.0×10^3†			
14.9×10^3‡ *5*			Decays via α+^{8}He and ^{6}He+^{6}He.
15.5×10^3		≈1.5# MeV	Decays via α+^{8}He and ^{6}He+^{6}He.
16.1×10^3‡ *5*	6		Decays via α+^{8}He.
17.8×10^3‡ *5*	6	350# keV	Decays via α+^{8}He and ^{6}He+^{6}He.
18.6×10^3‡ *5*	6		Decays via α+^{8}He and ^{6}He+^{6}He.
19.3×10^3‡ *5*	6		Decays via α+^{8}He and ^{6}He+^{6}He.
22.8×10^3‡ *5*			Decays via α+^{8}He and ^{6}He+^{6}He.
24×10^3?‡			Decays via α+^{8}He and ^{6}He+^{6}He.
25×10^3		370# keV	Decays via p+^{11}Li.
28×10^3		2.7# MeV	Decays via p+^{11}Li.

† from (1995Ko10,1995Ko27).
‡ from (1999Fr04,2001Fr02).
# from (2007Ch81).