^{48}Ca(^{16}O,^{14}C),(^{18}O,^{16}C) 1978Ko01,1976Ei02,1989Og01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 157, 1 (2019)	15-Apr-2019

1978Ko01,1976Ei02: E(^{16}O)=56 MeV beam from Argonne FN tandem. Measured $\sigma(\theta=4°-70°)$ and σ; ΔE-E TOF telescope. FWHM≈200 keV; DWBA.

1989Og01: E(^{16}O)=120 MeV beam from the NSF tandem, Daresbury. Measured $\sigma(\theta=6°-10°)$; magnetic spectrograph with position-sensitive detectors and ionization chambers, FWHM=100 keV. Distorted-wave exact-finite-range calculations reproduced $\sigma(\theta)$ for the 0^+, g.s., but underpredicted $\sigma(\theta)$ for the 2^+, 1554; 4^+, 2675; and 6^+, 3199 states. The shape was also poorly reproduced.

Others:

1979De16: E(^{18}O)=102 MeV from Heidelberg MP tandem. Measured $\sigma(\theta\approx5°-28°)$; magnetic spectrograph, proportional counter telescope, FWHM≈200 keV. Diproton cluster DWBA reproduces the data poorly. Microscopic DWBA reproduces $\sigma(\theta$, g.s.).

1983Os07 and 1994Os01 analyzed the data of 1976Ei02; DWBA.

1971Le07.

^{50}Ti Levels

E(level)[†]	Jπ[#]	L[‡]	E(level)[†]	L[‡]	E(level)[†]	L[‡]	E(level)[†]	Jπ[#]	L[‡]
0	0^+	0	4180	(2)[&]	5282[@]		5919[@]		
1550	2^+	2	4226[@]		5420	(4)[&]	7190	0^+	0
2680	4^+	4	4320	(2)	5510[@]				
3200	6^+	6	4800	(2,4)	5850	(2,4)[&]			

[†] From 1978Ko01 and 1976Ei02, except as noted. 1979De16 and 1989Og01 are consistent, except as noted.
[‡] From DWBA in (^{16}O,^{14}C) (1978Ko01,1976Ei02), except as noted.
[#] From DWBA in (^{16}O,^{14}C) (1978Ko01,1976Ei02).
[@] From 1989Og01 only.
[&] From the shape of $\sigma(\theta)$ in (^{16}O,^{14}C) (1978Ko01,1976Ei02).