^{44}Ca(^{3}He,^{3}He′),(pol ^{3}He,^{3}He′) 1971Mo39,1974Mo13,1985Ha08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 190,1 (2023)	20-Jun-2023

1974Mo13,1972Mo04,1971Mo39: (^{3}He,^{3}He′),(^{3}He,^{3}He) E=29 MeV ^{3}He beam was produced from the Heidelberg MP-Tandem Van de Graaff. Target was 1mg/cm^{2} enriched ^{44}Ca. Scattered particles were detected with surface barrier counter telescopes (FWHM=70 keV). Measured σ(E(^{3}He),θ). Deduced β_2, strength for first excited 0^+ from DWBA analysis.

1985Ha08,1984Ha42: (pol ^{3}He,^{3}He′) E=33.1 MeV polarized ^{3}He beam was produced from the University of Birmingham Radial Ridge Cyclotron. Target was self-supporting ^{44}Ca. Scattered particles were detected with ΔE-E telescopes. Measured σ(E(^{3}He),θ). Deduced J^{π} for the level of 1570 keV.

Others: 1994NaZX (E=50 MeV), 1971Ra35 (E=13.0 MeV), 1981Gr05 (E=50.4 MeV).

^{44}Ca Levels

E(level)	J^{π}	Comments
0	0^+	J^{π}: from the Adopted Levels.
1160	2^+	E(level),J^{π}: from 1971Mo39. β_2=0.19 (1971Mo39).
1570	2^+	E(level): from 1985Ha08. J^{π}: from analyzing power in 1985Ha08.
1890	0^+	E(level),J^{π}: from 1974Mo13.