^{248}Cm(α,^{3}He) 2009Ah03,1999Ah01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 195,718 (2024)	12-Oct-2023

2009Ah03: Analysis of data presented in 1999Ah01. DWBA analysis and band assignments presented in 2009Ah03.

1999Ah01: E(α)=98.5 MeV beam from the Indiana University Cyclotron bombarded the ^{248}Cm target. ^{3}He ions were measured with the K600 magnetic spectrometer with the experimental FWHM=45 keV. Angular distributions were measured at θ=4.1°, 6.1°,10.2°, 12,2° and 16.2°. Measured cross sections were compared to DWBA calculations using the DWUCK4 code. Deduced levels and J^{π}.

^{249}Cm Levels

E(level)[†]	J^{π}[‡]	Comments
109 *5*	9/2^{+}	Configuration=7/2[613].
350 *5*		
452 *5*		
533 *5*	(15/2^{-})	Additional information 1. Configuration=11/2[725].
604 *5*	(11/2^{+})	Additional information 2. Configuration=9/2[615].
718 *5*		
1026 *5*		
1090 *5*		
1276 *5*		
1360 *5*	13/2^{+}	Configuration=1/2[880].
1500 *5*	(17/2^{+})	Additional information 3. Configuration=1/2[880].
1838 *5*	(15/2^{-})	Additional information 4. Configuration=13/2[716].

[†] From recalibration in 2009Ah03 of their original ^{3}He spectrum in 1999Ah01, relative to the energy of the 109-keV level. The recalibration procedure gives energy of 1500 keV for a previous level at 1560 keV (1999Ah01) with a large uncertainty, which is in agreement with 1504.8 *6* (2008Is05). Energy uncertainty is assigned in 2009Ah03.

[‡] As in 2009Ah03 based on angular distributions and DWBA analysis.