Coulomb excitation   1973Be44,1974Mc15

		History	
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja	NDS 198,449 (2024)	31-Jul-2022

1973Be44,1974Mc15,1971Fo17 : ^{246}Cm(α,α'), E(α)=17 MeV.

^{4}He ions from the E(n) tandem Van de Graaf at Oak Ridge National Laboratory bombarded a 20-30 μg/cm^2 ^{244}Cm target. Elastic and inelastically scattered ions were observed at θ_{lab}=150° using the Enge split-pole magnetic spectrometer equipped with a position-sensitive proportional detector at the focal plane with FWHM=15 keV. Determined E2 and E4 from the experimental excitation probabilities of the 0^+, 2^+, and 4^+ states in the g.s rotational band.

Deformation parameters were extracted by 1973Be44 from the E2 and M4 transition matrix elements. The authors (1973Be44) calculated β_2=0.286 *11*, β_4= −0.094 *445* for homogeneous distribution, β_2=0.324 *13*, β_4= −0.057 *52* for a modified Fermi distribution.

^{246}Cm Levels

E(level)	J^π	Comments
0	0^+	
42	2^+	B(E2)↑=14.94 *19*
1124	2^+	B(E2)↑<0.224