

Abstract Submitted
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Coulomb Excitation of 78,80Se and the radioactive 84Se (N=50) isotopes¹ A. GALINDO-URIBARRI, ORNL, E. PADILLA-RODAL, R.F. GARCIA-RUIZ, ICN-UNAM, J.M. ALLMOND, JIHIR, J.C. BATCHELDER, UNIRIB, J.R. BEENE, ORNL, K.B. LAGERGREN, JIHIR, P.E. MUELLER, D.C. RADFORD, D.W. STRACENER, ORNL, J.P. URREGO-BLANCO, UTK, R.L. VARNER, C.-H. YU, ORNL — Coulomb excitation is a purely electromagnetic excitation process of nuclear states due to the Coulomb field of two colliding nuclei. It is a very precise tool to measure excitation probabilities and provide insight on the collectivity of nuclear excitations and in particular on nuclear shapes. We have measured the $B(E2)$ value of various nuclei in the mass $A \sim 80$ region using particle-gamma coincidences with the HyBall and Clarion arrays at HRIBF. The Coulomb excitation of various projectile-target combinations (ASe on ^{12}C , ^{24}Mg , ^{27}Al and ^{50}Ti) allow the use of consistency cross checks and the systematic study of isotopic and isotonic chains using both stable and radioactive nuclei under almost identical experimental conditions. We present new results for ^{78}Se , ^{80}Se and the radioactive nucleus ^{84}Se (N=50).

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