

Abstract Submitted
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Sub-Barrier Coulomb Excitation of ^{106}Cd with the JANUS setup at ReA3¹ D. RHODES, A. GADE, J. ASH, MSU, P. C. BENDER, UMass Lowell, B. ELMAN, MSU, J. HENDERSON, LLNL, M. GRINDER, H. IWASAKI, B. LONGFELLOW, MSU, T. MIJATOVIC, RBI, M. SPIEKER, FSU, D. WEISSHAAR, NSCL, C. Y. WU, LLNL — Describing the evolution of B(E2) strengths with decreasing neutron number in the Sn isotopes from ^{130}Sn to ^{104}Sn is challenging for the shell model. This renders measures of collectivity near ^{100}Sn (N=Z=50) particularly interesting. We will explore the collectivity of Z=48, N=58 ^{106}Cd using Coulomb excitation. Previous measurements of ^{106}Cd are contradictory: a recent lifetime measurement disagrees with NNDC values, which originate from 40 year old CoulEx. The B(E2) values determined from the new lifetime disagree with recent large-scale shell model calculations, questioning the earlier good reproduction of collectivity in ^{106}Cd by the shell model. The results of an inverse-kinematics CoulEx measurement of ^{106}Cd using the JANUS setup at the NSCL ReA3 facility will be presented. The goal of the measurement is to clarify quadrupole transition strengths in this nucleus, extend the available data to states previously out of reach, and add understanding of quadrupole collectivity approaching N=Z=50 ^{100}Sn .

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