

Abstract Submitted
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Inverse-kinematics proton scattering from ^{46}Ar with a liquid hydrogen target and GRETINA MATT GLOWACKI, Ursinus College Nuclear Structure Group, URSINUS COLLEGE NUCLEAR STRUCTURE GROUP TEAM — The Ursinus College nuclear structure group performed an experiment at the National Superconducting Cyclotron Laboratory at Michigan State University in May. We sent a super-cocktail beam of exotic nuclei through a liquid hydrogen target that was cooled to 16 K. We measured these gamma rays in coincidence with outgoing beam nuclei. Then, we compared the gamma-ray spectra with simulations to determine gamma-ray intensities, which are related to the cross sections of populating collective excited states of the nucleus in these collisions. These will help us better understand nuclear shell structure. My work is focused on ^{46}Ar , a test case for which a similar measurement for cross sections have already been made. Preliminary results will be presented.

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