

Abstract Submitted
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Analysis of $^{36,38,40}\text{Si}$ by Gamma Ray Spectroscopy of Fragmentation Reactions¹ B.A. HARTL, K.E. HOSIER, L.A. RILEY, D.C. STOKEN, Department of Physics and Astronomy, Ursinus College, P.D. COTTLE, K.W. KEMPER, Department of Physics, Florida State University, P. ADRICH, T.R. BAUGHER, D. BAZIN, J.M. COOK, C. AA. DIGET, A. GADE, D.A. GARLAND, T. GLASMACHER, A. RATKIEWICZ, K.P. SIWEK, D. WEISSHAAR, National Superconducting Cyclotron Laboratory, Michigan State University — We report the results of an experiment performed at the National Superconducting Cyclotron Laboratory (NSCL) where a ≈ 100 MeV/nucleon exotic cocktail beam with primary components ^{44}S and ^{45}Cl was fragmented in a ^9Be reaction target to produce $^{36,38,40}\text{Si}$. The Gamma rays emitted by the reaction products were detected with the Segmented Germanium Array (SeGA), and the exotic nuclei produced were identified by the S800 magnetic spectrograph. The gamma-ray energy spectra observed are consistent with prior measurement [1]. In addition, we observed three additional gamma rays in ^{40}Si . [1] C.M.Campbell et al., Phys.Lett. B 652, 169 (2007); C.M.Campbell et al., Phys.Rev.Lett. 97, 112501 (2006).

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