Abstract Submitted
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One-neutron knockout from ^{45}Cl[1] L.A. RILEY, B.A. HARTL, K.E. HOSIER, 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 — Single-neutron structure near the $N = 28$ nucleus ^{45}Cl has been studied via the one-neutron removal reaction ^{9}Be(^{45}Cl,^{44}Cl)X. Three gamma-rays de-exciting states in ^{44}Cl have been observed. A proposed level scheme is presented. The angular momentum of the neutron removed has been extracted from measured parallel momentum distributions of the beam-like reaction product. A comparison of measured cross sections with shell-model spectroscopic factors highlights the selectivity of the one-nucleon knockout reaction.

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