

Abstract Submitted  
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**One Neutron Knockout from  $^{45}\text{Cl}$** <sup>1</sup> D.C. STOKEN, B.A. HARTL, K.E. HOSIER, L.A. RILEY, 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 a one neutron knockout measurement from  $^{45}\text{Cl}$  conducted at the Coupled Cyclotron Facility of the NSCL at Michigan State University. The one-neutron knockout reaction  $^9\text{Be}(^{45}\text{Cl}, ^{44}\text{Cl})\text{X}$  was studied using gamma-ray spectroscopy. Gamma rays were detected using the Segmented Germanium Array (SeGA). Three gamma rays were observed that have not previously been reported. We present a proposed level scheme for  $^{44}\text{Cl}$ . Parallel momentum distributions were used to establish the angular momentum removed in populating two of the excited states and the ground state.

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