

Abstract Submitted
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Determination of l-values for States in ^{39}S and ^{41}S via One-Neutron Knockout Reactions* B.T. ROEDER, K.W. KEMPER, V. TRIPATHI, Florida State University, D. BAZIN, M. BOWEN, C.M. CAMPBELL, J.M. COOK, D.C. DINCA, A. GADE, T. GLASMACHER, P.G. HANSEN, W.F. MUELLER, H. OLLIVER, J.R. TERRY, K. YONEDO, NSCL, Michigan State University, N. AOI, T. MOTOBAYASHI, S. TAKEUCHI, RIKEN, H. IWASAKI, H. SAKURAI, H. SUZUKI, Univ. of Tokyo, S. KANNO, Rikkyo Univ., T. NAKAMURA, Tokyo Inst. of Tech. — One-nucleon knockout reactions have been used extensively to study exotic nuclei in inverse kinematics at intermediate energies. In this work, momentum distributions for ^{47}Ca , ^{47}K , ^{39}S , and ^{41}S were obtained by using ^{48}Ca , ^{40}S and ^{42}S beams at 100 MeV/nuc to bombard a liquid deuterium target. γ -decays from the reaction products were detected in-flight by the SeGA array and the particles were detected by the S800 mass spectrometer at NSCL. Coincidences between the particles and the gamma rays are used to identify specific reaction products and to reconstruct momentum distributions for specific states. The resulting momentum distributions observed from these experiments will be compared to calculations in order to identify the angular momentum l-value carried by the knocked-out nucleon. Values for "l" for states in ^{47}Ca and ^{47}K will be compared to previous work and proposed l-values for new states in ^{39}S and ^{41}S will be presented. *Work supported by the U.S. National Science Foundation, the State of Florida, and the Japan Society for the Promotion of Science.

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