

Abstract Submitted  
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**Identifying spins and configurations of states in  $^{13}\text{B}$**  A.H. WUOSMAA, J.C. LIGHTHALL, S.T. MARLEY, Western Michigan University, J.P. SCHIFFER, C.L. JIANG, H.Y. LEE, M. NOTANI, R.C. PARDO, K.E. REHM, I. TANIHATA, Argonne National Laboratory, X.D. TANG, University of Notre Dame, N. PATEL, Colorado School of Mines — The  $^{12}\text{B}(d,p)^{13}\text{B}$  reaction has been studied for the first time, in an effort to narrow down the spin and parity assignments of the excited states in this nucleus. The particular aim of the measurement is to establish the odd-parity states arising from  $s_{1/2}$  and  $d_{5/2}$  neutrons coupled to the  $p_{3/2}$  proton in this nucleus. A  $^{12}\text{B}$  beam produced at the ATLAS In-Flight facility, with an energy of 7 MeV/u and intensity of approximately  $3 \times 10^5$  particles per second, bombarded a  $(\text{CD}_2)_n$  target with an areal density of  $100 \mu\text{g}/\text{cm}^2$ . Protons were detected at backward laboratory angles in coincidence with  $^{12,13}\text{B}$  recoils identified at forward angles in an array of silicon  $\Delta\text{E}$ -E telescopes. Data analysis is in progress and the current status of the results will be reported. Work supported by the U. S. Department of Energy, Office of Nuclear Physics, under contract numbers DE-FG02-04ER41320 (WMU) and DE-AC02-06CH11357 (ANL).

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