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Search for the states in ^{8}B via ^{7}Be + d LEIF SEGEN, Rutgers, KYUNG YUK CHAE, ORNL, U of TN, DANIEL BARDAYAN, ORNL, JEFF BLACKMON, ONRL, ART CHAMPAGNE, U of NC, J.J. DAS, IUAC, India, RYAN FITZGERALD, U of NC, VALDIR GUIMARÃES, U of São Paulo, KATE JONES, Rutgers, MICAH JOHNSON, ORAU, RAYMOND KOZUB, TTU, RONALD LIVESAY, CO School of Mines, ZHANWEN MA, CAROLINE NESARAJA, ORNL, U of TN, STEVEN PAIN, Rutgers, MICHAEL SMITH, ORNL, JEFF THOMAS, Rutgers, DALE VISSER, U of NC — The spectroscopy of the light drip-line nuclei provides an important test of nuclear models (e.g., no-core shell models and cluster models) at the extremes of isospin. Few excited states have been observed [1] in the ^{8}B nucleus, including the mirror of states in ^{8}Li (e.g., the 4+ ^{8}Li state at 6.53 MeV) that may have exotic configurations. We have searched for states in ^{8}B by bombarding a CD_2 target with a ^{7}Be radioactive ion beam at ORNL's Holifield Radioactive Ion Beam Facility. The light charged particles (p, ^{3}He, and ^{4}He) emitted from the decay of ^{8}B were detected in triple coincidence to reconstruct possible excited states in ^{8}B. The present focus is on the analysis of the triple coincidence data. Preliminary results and implications for the ^{8}B level structure will be reported. This work supported in part by the U.S. Department of Energy and the National Science Foundation. [1] D. R. Tilley *et al.*, Nucl. Phys. A 745, 155 (2004)

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