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Quasielastic Neutron-Induced Deuteron Breakup. KATRINA KOEHLER, PETER KROENING, JONATHON SLYE, Houghton College, JARED TURKEWITZ, SHO UEMURA, VLAD HENZL, JUNE MATTHEWS, MIT, STEVE WENDER, Los Alamos National Laboratory, MARK YULY, Houghton College — An experiment to measure the quasielastic d(n,np)n scattering cross-section was conducted at the Los Alamos Neutron Science Center (LANSCE) at intermediate incident neutron energies, ranging up to 800 MeV. Scattered protons from deuteron breakup travel through a magnetic spectrometer on beam right, consisting of a thin ΔE scintillator, three drift chambers, two permanent magnets, and two thin E scintillators. An array of nine two-meter high plastic scintillators detects scattered neutrons on beam left. Analysis of the data from this experiment is underway to determine the scattered angles and energies of the particles, and subsequently the scattering cross-section for the n-d breakup reaction.

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