

Abstract Submitted
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Two-and three- body breakup of ^3He at low energies¹ W. TORNOW, A.P. TONCHEV, J.H. ESTERLINE, C.R. HOWELL, Duke University and TUNL, H.J. KARWOWSKI, UNC and TUNL, J.H. KELLEY, NCSU and TUNL, J. LI, S.F. MIKHAILOV, I.V. PINAYEV, Y.K. WU, Duke University and DFELL, H. WITALA, Jagiellonian University — We report on measurements of the two-body breakup cross section of ^3He for gamma-ray energies between 8 and 16 MeV, and of the analyzing power of the kinematically incomplete three-body breakup at 15 MeV. The monoenergetic gamma-ray beams were produced via Compton backscattering of FEL photons from high-energy electrons at the High-Intensity Gamma-ray Source at Duke University. The ^3He target consisted of a high-pressure gas scintillator. The data are compared to rigorous three-nucleon calculations using realistic nucleon-nucleon and three-nucleon interactions.

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