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Neutron-Induced Partial Gamma-Ray Cross-Section Measurements on Uranium at TUNL[1] A. HUTCHESON, A.S. CROWELL, B. FALLIN, C.R. HOWELL, M. KISER, E. KWAN, A.P. TONCHEV, W. TORNOW, Duke University/TUNL, J.H. KELLEY, North Carolina State University/TUNL, C.T. ANGELL, H.J. KARWOWSKI, University of North Carolina/TUNL, R.S. PEDRONI, North Carolina A&T, G.J. WEISEL, Penn State Altoona, J.A. BECKER, D. DASHDORJ, R.A. MACRI, Lawrence Livermore National Laboratory, N. FOTIADES, R.O. NELSON, Los Alamos National Laboratory — Precision measurements of (n,n') and (n,2n) reaction cross sections have been performed on ^{235,238}U targets at Triangle Universities Nuclear Laboratory using a pulsed and monoenergetic neutron beam. The excitation function has been studied with incident neutron energies between 5 and 14 MeV and beam flux of 10^4 n s^{-1} cm^{-2} at target position. Multiple partial cross sections have been determined observing gamma rays in clover and planar HPGe detectors. The results will be compared with calculations using Hauser-Feshbach model.

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