

Abstract Submitted  
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**Measurement of the  $^{241}\text{Am}(n,2n)$  reaction cross section from 7.6 to 14.5 MeV**<sup>1</sup> A. TONCHEV, Duke and TUNL, C. ANGELL, UNC and TUNL, J. BECKER, LLNL, E. BOND, LANL, D. DASHDORJ, LLNL, B. FALLIN, Duke and TUNL, J. FITZPATRICK, LANL, C. HOWELL, A. HUTCHESON, Duke and TUNL, H. KARWOWSKI, UNC and TUNL, J. KELLEY, NCSU and TUNL, R. MACRI, LLNL, R. PEDRONI, NC A&T and TUNL, A. SLEMMONS, LANL, M. STOYER, LLNL, W. TORNOW, Duke and TUNL, D. VIEIRA, LANL, J. WILHELMY, LANL AND LLNL, C. WU, LLNL — High-precision measurements of the  $^{241}\text{Am}(n,2n)^{240}\text{Am}$  reaction have been performed with neutron energies from 7.6 to 14.5 MeV. The monoenergetic neutron beams were produced via the  $^2\text{H}(d,n)^3\text{He}$  reaction using the 10 MV Tandem accelerator at TUNL. The radioactive targets consisted of 1mg highly-enriched  $^{241}\text{Am}$ , sandwiched between three different thin monitor foils. They were irradiated with a neutron flux of  $3 \times 10^7 \text{ n cm}^{-2}\text{s}^{-1}$ . After each irradiation the induced activity in the targets and monitors was measured off-line with 60% HPGe detectors. Our neutron induced cross sections will be compared with recent literature results and statistical model calculations.

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