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Neutron Capture Cross Section of ²³⁹Pu¹ S. MOSBY, C. ARNOLD, T.A. BREDEWEG, LANL, A. CHYZH, LLNL, A. COUTURE, LANL, J.M. GOS-TIC, R.A. HENDERSON, LLNL, M. JANDEL, LANL, E. KWAN, LLNL, J.M. O'DONNELL, G. RUSEV, J.L. ULLMANN, LANL, C-Y. WU, LLNL — The ²³⁹Pu(n, γ) cross section has been measured at the Los Alamos Neutron Science Center (LANSCE). The Detector for Advanced Neutron Capture Experiments (DANCE) provided a highly segmented 4π measurement of the energy and multiplicity distributions for emitted γ -rays, while a PPAC detected coincidence fission fragments. The simultaneous measurement of (n, γ) and (n,f) events resulting from a single sample allowed the (n, γ) cross section to be measured as a ratio to fission with reduced systematic uncertainty. Results from the current analysis will be presented.

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