EXPERIMENTAL OPPORTUNTIES AT THE PULSED NEUTRON SOURCE ORELA

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We have developed an improved C_6D_6 detector system, a high-purity germanium n-type detector system, and a new BaF_2 system for capture and fission measurements at ORELA. With our set of different detectors, we are able to measure high-precision data for total cross-section measurements, as well as fission, elastic scattering, γ-ray, and neutron-production cross section data. Additional capabilities at ORELA include an intense, pulsed positron, source of ~ 10^8 e^+/sec.

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