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Deuteron Formation for Big Bang Nucleosynthesis Models JENNIFER FRENCH, KATRINA KOEHLER, JUNE MATTHEWS, BRIAN DAUB, MARK YULY, STEPHEN WENDER, VLAD HENZL, MIKE KOVASH — A measurement of the H(n, dγ) cross section at low energy is being performed at the WNR facility at Los Alamos National Laboratory. This deuteron formation experiment is key to improving calculations of the baryon density in Big Bang Nucleosynthesis models. Incident neutron energies are between 100 keV and 1 MeV. The deuterons are created and detected in a plastic scintillator active target. Gamma rays released by the neutron-proton capture reaction are detected in a BrilLanCe detector. Scattered neutrons from n-p elastic scattering detected in two neutron detectors are used for calibrating the active target ADC spectrum.

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