

Abstract Submitted
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The UCN Source at LANSCE M. MAKELA, T. BOWLES, R. HILL, G. HOGAN, S. LAMOREAUX, C. MORRIS, A. SAUNDERS, LANL, T. KAWAI, U of Kyoto, B. FILIPPONE, B. PLASTER, J. YUAN, Caltech, P. GELTENBORT, ILL, K. SOYAMA, Japan Atomic Energy Research Institute, A.R. YOUNG, Y.-P XU, NCSU, A. SEREBROV, PNPI, T. KITAGAKI, Tohoku U., A. GARCIA, S. HOEDEL, A. SALLASKA, S. SJUE, U. of Washington, T.M. ITO, UTK, R.B. VOGELAAR, R.R. MAMMEI, M. PITT, Virginia Tech — A new source of ultracold neutrons (UCN), using on a solid deuterium moderator has been built at the Los Alamos Neutron Science Center (LANSCE). Closely based on a prototype that was tested at Los Alamos, the new source supplies two UCN beam lines: one for the UCNA experiment and the other for development of the Los Alamos UCN EDM experiment and a neutron lifetime experiment. The LANSCE 800 MeV proton beam creates spallation neutrons from a tungsten target. The spallation neutrons are cooled with a cold polyethylene moderator. These cool neutrons then interact with solid deuterium and become UCN. This talk will present a summary of the current source design, its UCN production capabilities, and some aspects of UCN delivery to planned experiments

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