

Abstract Submitted  
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**Status of the Ultracold Neutron Source at Los Alamos National Lab**  
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— The ultracold neutron (UCN) source at Los Alamos (LANL) is currently in its third year of operation. High energy neutrons are produced via spallation from the LANSCE 800 MeV proton beam directed onto a tungsten target. These neutrons are then reflected and partially moderated in a Be “flux trap” (surrounded also by a layer of graphite), within which is located a cold polyethylene moderator. A small percentage of the cold neutrons are downscattered within solid deuterium to colder temperatures (1-4 mK) and are then guided to the experimental area through 4-in diameter stainless steel guides. Modifications were made to the source for the 2006 and 2007 run cycles to increase UCN production. This talk will give an overview of the LANL UCN source, it’s current status, and results from the 2006 and 2007 source test runs.

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