

Abstract Submitted  
for the APR08 Meeting of  
The American Physical Society

**The Mini-CLEAN dark matter experiment** DAN MCKINSEY, Yale University, DEAP/CLEAN COLLABORATION — The design and current status of the Mini-CLEAN experiment are presented. Mini-CLEAN is an experiment designed to search for nuclear recoils produced by elastic scattering of dark matter particles in a 360 kg noble liquid target. The apparatus may be operated with either liquid argon or liquid neon as the detection material, providing different responses to signal and background. Ionizing radiation events in the noble liquid produce intense scintillation light, which is captured in a spherical array of photomultipliers immersed in the cryogen. Reduction of beta and gamma backgrounds is accomplished through pulse-shape discrimination, which has been shown to be highly effective in both liquid argon and liquid neon. Mini-CLEAN will be installed in SNOLAB in late 2008.

Dan McKinsey  
Yale University

Date submitted: 11 Jan 2008

Electronic form version 1.4