

Abstract Submitted  
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**A Low Background Counting Facility for the Deep Underground Science and Engineering Laboratory (DUSEL) at Homestake Y.** CHAN, Lawrence Berkeley National Laboratory, A. ALTON, Augustana College, C. KELLER, Univ. of S. Dakota, K. LESKO, LBNL, D. MEI, Univ. of S. Dakota, R. MCTAGGART, S. Dakota State Univ., G. PRIOR, LBNL, W. ROGGENTHEN, S. Dakota Sch. of Mines & Tech, A. SMITH, LBNL, Y. SUN, Univ. of S. Dakota, B. SZCZERBINSKA, Dakota State Univ., Z. YIN, Univ. of S. Dakota — A versatile radioactivity-screening facility is crucial to the DUSEL program, as most of the proposed physics experiments will deal with rare-occurring processes that could be concealed by natural or induced radioactivity from the experimental devices and environment. A State of South Dakota EPSCOR proposal has been submitted to establish a counting facility in the Homestake mine, at the 4,800 ft u.g. level, as part of the early implementation program (SUSEL, Sanford Laboratory). The facility will have dedicated stations for ultra-low level gamma counting, as well as general purpose and high throughput screening stations. The facility will also couple to other underground science initiatives such as underground manufacturing, clean material selection and stockpile etc. The detector resources can be utilized for certain physics measurements as well.

Yuen-dat Chan  
Lawrence Berkeley National Laboratory

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