Abstract Submitted for the HAW14 Meeting of The American Physical Society

Looking at Low-Background Nuclear Astrophysics Measurements using CASPAR¹ DANIEL ROBERTSON, MANOEL COUDER, University of Notre Dame, UWE GREIFE, Colorado School of Mines, HYO SOON JUNG, KIANA SETOODEHNIA, MICHAEL WIESCHER, University of Notre Dame, DOUG WELLS, South Dakota School of Mines and Technology, CASPAR COLLABORATION — An accelerator laboratory (CASPAR) to be installed at the Sanford Underground Research Facility (SURF) is being constructed by a collaboration lead by South Dakota School of Mines and Technology. The study of alpha induced reactions of astrophysical interest in a quasi-background free environment is the goal of the laboratory. Specifically, neutron producing reactions for the s-process will be investigated. This process is responsible for the nucleosynthesis of half of the elements heavier than iron. An outline of CASPAR, its timeline and scientific goals will be presented.

¹Funding provided by SDSTA

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Date submitted: 01 Jul 2014 Electronic form version 1.4