

Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

Commissioning of HECTOR at CASPAR: $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$ resonance strength measurements 4,850 feet underground¹ ORLANDO OLIVAS-GOMEZ, DAN ROBERTSON, ALEX DOMBOS, ANNA SIMON, REBEKA KELMAR, University of Notre Dame, TOM KADLECEK, South Dakota School of Mines and Technology, JOACHIM GOERRES, University of Notre Dame, MARK HANHARDT, South Dakota School of Mines and Technology, EDWARD STECH, University of Notre Dame, FRANK STRIEDER, South Dakota School of Mines and Technology, MANOEL COUDER, MICHAEL WIESCHER, University of Notre Dame — The High Efficiency Total Absorption Spectrometer (HECTOR), is a 4π γ -summing detector which specializes in measuring radiative-capture cross sections — e.g. (p, γ) , (α, γ) — for reactions related to astrophysical processes. Recently, HECTOR was moved to the Compact Accelerator System for Performing Astrophysical Research (CASPAR) laboratory, which is located at the Sanford Underground Research Facility, 4850-feet underground. The underground environment provides an optimal background shielding needed to study several radiative-capture processes at low energies related to the s-process. The commissioning of HECTOR at CASPAR, along with several measurements of resonance strengths below 1 MeV for the $^{27}\text{Al}(p, \gamma)^{28}\text{Si}$ reaction will be presented.

¹This work was supported by the National Science Foundation (NSF) under grant numbers PHY- 1713857, PHY-1614442, and PHY-1430152 (JINA Center for the Evolution of the Elements), and the Sanford Underground Research Facility (SURF) under Award Number DE-SC0020216.

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Date submitted: 06 Jul 2020

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