

Abstract Submitted  
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**Measurement of the  $^{40}\text{Ca}(\alpha,\gamma)^{44}\text{Ti}$  reaction for supernovae nucleosynthesis** STEVEN SHEETS, JASON BURKE, DARREN BLEUEL, TOM BROWN, PATRICK GRANT, ROB HOFFMAN, ERIC NORMAN, Lawrence Livermore National Laboratory, LARRY PHAIR, Lawrence Berkeley National Laboratory, NICK SCIELZO, SCOTT TUMEY, Lawrence Livermore National Laboratory — The  $^{40}\text{Ca}(\alpha,\gamma)^{44}\text{Ti}$  reaction is the main production reaction for the radioactive nucleus  $^{44}\text{Ti}$ , which serves as an important diagnostic for understanding explosive nucleosynthesis. A new self-consistent measurement of this reaction was performed to determine the integral cross section below  $E_\alpha = 5.2$  MeV. An in-beam measurement using the LLNL CAMS FN Tandem Van de Graaf was performed followed by a low-background counting of the activation product. A report on the progress of this experiment is given.

Steven Sheets  
Lawrence Livermore National Laboratory

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