Abstract Submitted
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Constraining i-process Nucleosynthesis via the Neutron-Capture Cross sections of 102,103Mo[1] ANDREA L. RICHARD, S. N. LIDDICK, A. C. DOMBOS, A. SPYROU, T. BAUMANN, K. CHILDERS, T. GINTER, E. KWAN, R. LEWIS, S. LYONS, F. NAQVI, W.-J. ONG, A. PALMISANO, J. PEREIRA, C. PROKOP, S. J. QUINN, M. K. SMITH, C. S. SUMITHRARACHCHI, Michigan State University, A. SIMON, University of Notre Dame, P. A. DEYOUNG, J. GOMBAS, Hope College, O. CLARKSON, F. HERWIG, University of Victoria, B. P. CRIDER, Mississippi State University, A. ALGORA, Instituto de Fisica Corpuscular — Recent observations and stellar evolution models suggest that an intermediate process, known as the i-process, exists between the s- and r-processes, and is necessary to explain observed abundances in the Ge-Te region. Uncertainties associated with nuclear physics inputs, especially neutron-capture cross sections limit the predictive power of i-process simulations. In this work the β-Oslo method was used to study ^{103,104}Mo at the NSCL via the β-decay of ^{103,104}Nb which were detected using the Summing NaI(Tl) (SuN) total absorption spectrometer. Results on the NLD, γSF, neutron-capture cross sections of ^{102}Mo and ^{103}Mo, and i-process calculations from the Nucleosynthesis Grid (NuGrid) Collaboration will be presented.

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