

Abstract Submitted
for the DNP13 Meeting of
The American Physical Society

Beta-decay spectroscopy of neutron-rich 84-86Ga isotopes¹

FARHEEN NAQVI, Wright Nuclear Structure Laboratory, Yale University, New Haven, CT 06511, USA, ZHENGYU XU, RIKEN-Nishina Center, Wako, Saitama, 351-0198 Japan, VOLKER WERNER, Wright Nuclear Structure Laboratory, Yale University, New Haven, CT 06511, USA, MEGUMI NIIKURA, Institut de Physique Nucleaire d'Orsay (IPNO), 91406 Orsay Cedex, France, SHUNJI NISHIMURA, RIKEN-Nishina Center, Wako, Saitama, 351-0198 Japan, EURICA COLLABORATION — The low lying excited states in 84-86Ge were studied via the beta-gamma spectroscopy of 84-86Ga nuclei. The study focused on the beta-delayed neutron emission probabilities and the beta-decay lifetimes, relevant for the astrophysical r process path in the region. The neutron-rich Ga isotopes were produced by in-flight fragmentation of 238U beam on a 9Be target. The experiment was performed at the Radioactive Ion Beam Facility (RIBF) at RIKEN, Japan. The BigRIPS spectrometer was utilized to identify and separate the reaction residues and the ions of interest were implanted in a segmented Si detector array called WASABI. Gamma rays emitted after the beta decay were identified by the EURICA array. Results of the ongoing analysis will be presented.

¹Work supported by DOE grant no. DE-FG02-91ER-40609

Farheen Naqvi
Yale University

Date submitted: 01 Jul 2013

Electronic form version 1.4