Abstract Submitted for the DNP17 Meeting of The American Physical Society

 β -delayed spectroscopy of neutron-hole single particle states in ¹³³Sn¹ MIGUEL MADURGA FLORES, ROBERT GRZYWACZ, RIN YOKOYAMA, THOMAS KING, MANINDER SINGH, University of Tennessee, IDS COLLABORATION, ISOLDE COLLABORATION — The nuclear beta-decay offers a well understood and selective probe to study the structure of the daughter. Close to magic nuclei, this selectivity can be exploited to study the properties of states involving specific single-particle orbitals. Neutron single-hole states in ¹³³Sn were studied for the first time in the beta-delayed neutron emission of ¹³³In at the ISOLDE facility, CERN. Neutron energies and intensities were observed using the IDS Neutron Detector, a time-of-flight detector array consisting of 26 plastic scintillator bars [1]. Preliminary results will be discussed.

[1] W.A. Peters et al., Nucl. Instr. and Meth. A836, 122 (2016).

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