Abstract Submitted for the HAW09 Meeting of The American Physical Society

Discovery of Cadmium, Indium, and Tin Isotopes STEPHANIE AMOS, North Georgia College and State University and NSCL/MSU, MICHAEL THOENNESSEN, NSCL/MSU — As of today, no comprehensive study has been made covering the initial observations and identifications of isotopes. A project has been undertaken at MSU to document the discovery of all the known isotopes. The criteria defining discovery of a given isotope is the publication of clear mass and element assignment in a refereed journal. Prior to the current work the documentation of the discovery of eleven elements had been completed¹. These elements are cerium², arsenic, gold, tungsten, krypton, silver, vanadium, einsteinium, iron, barium, and cobalt. We will present the new documentation for the cadmium, indium, and tin isotopes. Thirty-seven cadmium isotopes, thirty-eight indium isotopes, and thirty-eight tin isotopes have been discovered so far. The description for each discovered isotope includes the year of discovery, the article published on the discovery, the article's author, the method of production, the method of identification, and any previous information concerning the isotope discovery. A summary and overview of all \sim 500 isotopes documented so far as a function of discovery year, method and place will also be presented. ¹http://www.nscl.msu.edu/~thoennes/2009/discovery.htm ²J.Q. Ginepro, J. Snyder, and M. Thoennessen, At. Data Nucl. Data. Tables, in press (2009), doi:10.1016/j.adt.2009.06.002

> Stephanie Amos North Georgia College and State University, and NSCL/MSU

Date submitted: 31 Jul 2009

Electronic form version 1.4