

Abstract Submitted
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Spectroscopy of the N=126 Nucleus ^{215}Ac ¹ ANDREAS HEINZ, WNSL, Yale Universtiy, R. WINKLER, J. QIAN, J.R. TERRY, WNSL, Z. BERANT, Nucl. Res. Cent. Negev, M. BUNCE, University of Surrey, R.J. CASPERSON, R.F. CASTEN, WNSL, G. HENNING, Dep. Physics, Ecole Normale Supérieure de Cachan, A. SCHMIDT, V. WERNER, E. WILLIAMS, WNSL — The investigation of heavy nuclei becomes increasingly difficult because of the fact that cross sections for the production of fusion-evaporation residues decrease while the probabilities for background channels like fission increase dramatically. This is the reason for the lack of data on prompt gamma radiation of many heavy nuclei. Here we report on an experiment which used the gas-filled recoil separator SASSYER and recoil-decay tagging to study the semi-magic nucleus ^{215}Ac in order to improve our understanding of the evolution of single-particles energies along the N=126 neutron shell. Results linking prompt gamma transitions with isomeric ones are presented and discussed in the framework of the shell model.

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