

Abstract Submitted
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Heavy Element Spectroscopy: $^{244,245,246}\text{Pu}$ ($Z=94$)¹ SANKHA HOTA, P. CHOWDHURY, S. LAKSHMI, S.K. TANDEL, T. HARRINGTON, E. JACKSON, K. MORAN, U. SHIRWADKAR, UMass Lowell, I. AHMAD, M.P. CARPENTER, C.J. CHIARA, J. GREENE, C.R. HOFFMAN, R.V.F. JANSSENS, T.L. KHOO, F.G. KONDEV, T. LAURITSEN, C.J. LISTER, E.A. MCCUTCHAN, D. SEWERYNIAK, I. STEFANESCU, S. ZHU, ANL, IL — We report new spectroscopic observations in the $N=150,151,152$ nuclei $^{244,245,246}\text{Pu}$ ($Z=94$) in continuation of our exploration of heavy elements using deep-inelastic and transfer reactions. High-spin states in $^{244,245,246}\text{Pu}$ were populated using a ^{208}Pb beam from the ATLAS superconducting LINAC at Argonne National Laboratory, incident on a ^{244}Pu target, with gamma rays detected by 101 high resolution high-purity Ge detectors of the Gammasphere array. New bands are observed in $^{244,245}\text{Pu}$ and the ground state band in ^{246}Pu has been extended to higher spins. The new results will be discussed in the context of the physics of neighboring $N=150,151$ and 152 even- Z isotones, along with expected high- K configurations and their decay modes in this region. The results help constrain theoretical models that attempt to describe the stability and structure of superheavy nuclei.

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