

Abstract Submitted
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Spectroscopy of $^{244,245,246}\text{Pu}$ ¹ S. HOTA, P. CHOWDHURY, S. LAKSHMI, S.K. TANDEL, T. HARRINGTON, E.G. JACKSON, K. MORAN, U. SHIRWADKAR, University of Massachusetts 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, Argonne National Laboratory — In continuation of high-spin studies in the $A\sim 250$ region via inelastic and transfer reactions, new spectroscopic measurements have been performed in the neutron rich $^{244,245,246}\text{Pu}$. High-spin states in these $N=150,151,152$ nuclei were populated using a ^{208}Pb beam incident on a ^{244}Pu target, with gamma rays detected by the Gammasphere array. In ^{244}Pu , two new bands are observed which follow vibrational characteristics. In ^{245}Pu , new rotational bands are observed through coincidences with the binary reaction partner ^{207}Pb as well as transitions identified in light-ion transfer reactions. The ground state band in ^{246}Pu is extended to $J^\pi = 20^+$. The new results will be discussed in the context of emerging systematics of high-spin spectroscopic data in the $Z<100$ Cm_{96} [1] and Cf_{98} [2] isotones. 1. U. Shirwadkar, Ph.D. Thesis, U. Massachusetts Lowell, 2009. 2. S. K. Tandel et. al., Phys. Rev. C 82, 041301(R) (2010).

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