

Abstract Submitted
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Investigating High Spin States in Transplutonium nuclei with Ultimate Cranker¹ Y. QIU, P. CHOWDHURY, S. HOTA, S. LAKSHMI, University of Massachusetts Lowell — Total Routhian Surface calculations have been performed with the Ultimate Cranker program (modified harmonic oscillator potential) as a function of ϵ_2 , ϵ_4 and γ deformation parameters on actinide nuclei with $94 \leq Z \leq 98$ and $150 \leq N \leq 152$. The equilibrium deformation trend is investigated with increasing frequencies. Nucleon alignments as a function of rotational frequency deduced from the calculations are compared with previous results reported in literature, both experimental as well as theoretical (Woods-Saxon potential). Results from the calculations will be presented and discussed in the context of new spectroscopic information in this region.

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