

Abstract Submitted
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Non-yrast states in ^{221}Th ¹ W. REVIOL, D.G. SARANTITES, C.J. CHIARA, O.L. PECHENAYA, J. SNYDER, Washington University, K. HAUSCHILD, A. LOPEZ-MARTENS, CSNSM Orsay, France, D.J. HARTLEY, US Naval Academy, M.P. CARPENTER, R.V.F. JANSSENS, T. LAURITSEN, D. SEWERYNIAK, S. ZHU, Argonne National Lab. — The nucleus ^{221}Th has been studied, using the $^{207}\text{Pb}(^{18}\text{O},4n)$ $E_{lab}=96$ MeV fusion-evaporation reaction and the Gammasphere + HERCULES detector combination. The ^{18}O beam, provided by the ATLAS accelerator, had a 247.5-ns pulse structure. Based on evaporation-residue selected γ -ray coincidence data, the previously reported [1] octupole band (yrast) has been extended to higher spin, but also the non-yrast structure of ^{221}Th has been delineated. The latter includes another octupole-type band. A comparison with the neighboring nuclei ^{223}Th and ^{219}Ra will be presented. [1] M. Dahlinger et al., Nucl. Phys. A 484, 337 (1988).

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