

Abstract Submitted
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Transition rates of high spin bands in ^{136}Nd ¹ S. MUKHOPADHYAY, University of Notre Dame, IN, USA; UGC-DAE CSR, Kolkata Centre, India, D. ALMEHED, U. GARG, S. FRAUENDORF, T. LI, P. V. MADHUSUDHANA RAO, X. WANG, University of Notre Dame, IN, USA, S.S. GHUGRE, UGC-DAE CSR, Kolkata Centre, India, M.P. CARPENTER, S. GROS, A. HECHT, R.V.F. JANSSENS, F.G. KONDEV, T. LAURITSEN, D. SEWERYNIAK, S. ZHU, Argonne National Laboratory, Argonne, IL, USA — Electromagnetic transition probabilities have been measured for the transitions in the two multi-quasiparticle rotational bands in the nucleus ^{136}Nd . Lifetimes were obtained in a DSAM measurement at Gammasphere, using the $^{100}\text{Mo}(^{40}\text{Ar}, 4n)^{136}\text{Nd}$ reaction. The measurements are compared with new results of TAC and RPA calculations. The bands are identified as being built on two different quasiparticle configurations, with very different transition rates. These results contradict the speculation of a chiral-band pair [1] in this even-even nucleus. [1] E. Mergel *et al.*, *Eur. Phys. J. A* **15**, 417 (2002).

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