

Abstract Submitted
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Low-Spin TSD Bands in Even-Z nuclei: Hiding in Plain Sight?¹

SCOTT MILLER, M. RILEY, X. WANG, Florida State Univ., D.J. HARTLEY, E.E. PEDICINI, J. CAVEY, J. VANHOY, US Naval Academy, R.V.F. JANSSENS, M.P. CARPENTER, F.G. KONDEV, T. LAURITSEN, S. ZHU, Argonne National Laboratory, L.L. RIEDINGER, Univ. of Tennessee, A.D. AYANGEAKAA, U. GARG, J. MATTA, Univ. of Notre Dame, C.J. CHIARA, Univ. of Maryland, P. CHOWDHURY, S. HOTA, E.G. JACKSON, Univ. of Massachusetts-Lowell, W.C. MA, Mississippi State Univ., E.S. PAUL, Univ. of Liverpool, J. SIMPSON, Darresbury Laboratory, J.J. CARROLL, M. LITZ, Army Research Laboratory — Many TSD bands have been reported in the high-spin regime for Dy, Er, Yb, Hf, and W isotopes. However, the low-spin TSD bands, built off the $\pi i_{13/2}$ intruder orbital, have gone unreported in these even-Z nuclei, while appearing repeatedly in the nearby Lu, Ta, and Re isotopes. Recent data on ^{169}W and ^{171}W , obtained through the $^{118}\text{Sn}(^{55}\text{Mn},p3n)$ and $^{120}\text{Sn}(^{55}\text{Mn},p3n)$ reactions respectively, presents evidence for possible low-spin, 2-quasiproton bands, where one of the proton orbitals is suggested to be the $\pi i_{13/2}$ intruder. The properties of these two bands are compared to similar structures observed in ^{167}Hf and ^{169}Hf , and to $\pi i_{13/2}$ bands observed in nearby Ta and Re isotopes.

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