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Systematic Features Indicative of Shape Coexistence in the Doubly-Even $N=90$ Isotones¹ W.D. KULP, J.L. WOOD, Georgia Institute of Technology, P.E. GARRETT, University of Guelph — The $N = 90$ nuclei near stability (^{150}Nd , ^{152}Sm , ^{154}Gd , and ^{156}Dy) are at the onset of stable nuclear deformation and have often been labeled as “soft” nuclei. Results from recent experimental and theoretical studies of these nuclei challenge this interpretation, however, and indicate instead strong mixing of near-degenerate coexisting quasi-rotational bands with different deformations. Details of these studies and data from recent experiments focused on ^{156}Dy , ^{158}Er , and ^{160}Yb using the 8π Spectrometer at TRIUMF/ISAC will be presented.

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