

SUPERDEFORMED BANDS IN ^{80}Sr AND THE EVOLUTION OF DEFORMATION IN Sr ISOTOPES¹

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Four superdeformed bands are reported in ^{80}Sr , extending known superdeformation in the $_{38}\text{Sr}$ series down to $N = 42$. The characteristics of these bands are discussed. Residual Doppler shifts were measured and average transition quadrupole moments (Q_t) inferred for these new bands. These Q_t values are compared to Q_t values obtained for previously identified superdeformed bands in $^{81-83}\text{Sr}$. The low Q_t of $2.7^{+0.7}_{-0.6}$ eb obtained for the yrast band in ^{80}Sr indicates a reduction in the deformation of yrast superdeformed bands in the series $^{80-83}\text{Sr}$ with decreasing N , and possibly the onset of triaxiality in superdeformed shapes.

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