SUPERDEFORMATION IN ^{147,148}EU: IDENTICAL BANDS AND $\pi 6^1$ - $\pi 6^3$ CROSSINGS[1]

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Eight superdeformed bands have been observed in the nuclei ^{147,148}Eu. Some of these are identical to bands in the Z+ 1 nuclei ^{148,149}Gd, and are interpreted as having the same single-particle configurations with the exception of a hole in one of the [301]1/2 proton orbitals. Some of the bands in ^{147}Eu exhibit either upbends or downbends in their moments of inertia which are related to the crossing of $\pi 6^1$ and $\pi 6^3$ proton intruder configurations. These results constitute the first evidence of this crossing.

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