Identification of new negative-parity levels in ^{152,154}Nd*

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From an experiment with Gammasphere and a ^{252}Cf spontaneous fission source, a new negative-parity band in ^{154}Nd and new negative-parity levels in ^{152}Nd were identified and the yrast bands were extended to 18 + in ^{154}Nd and 20 + in ^{152}Nd in triple gamma coincidence study. These new negative-parity bands are consistent with octupole vibrational mode. There is a constant difference as a function of spin between the J_1 , values for the negative-parity band in ^{152}Nd and J_1 for the similar negative-parity band in ^{154}Nd, however, their J_1 values are essentially identical. These bands indicate a new kind of identical band.

Footnotes and References

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