

**EXCITED COLLECTIVE STATES OF "YRAST" AND
"NON-YRAST" BANDS WITH ALTERNATING PARITY
OF LANTHANIDE AND ACTINIDE NUCLEI**

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Excited collective states of even-even nuclei with quadrupole and octupole deformations are studied in the frameworks on the nonadiabatic collective model with the Gauss shape of potential energy. The rotational states of yrast-band and vibrational-rotational states of non-yrast-band are considered in detail. The energies of excited states of alternating parity of the yrast band of ^{146}Ba , ^{154}Sm , ^{164}Er , ^{220}Ra , ^{224}Th nuclei; of the yrast- and the first-non-yrast bands of ^{150}Nd , ^{154}Sm , ^{160}Gd nuclei; and also of the yrast- and the first and second-non-yrast bands of ^{158}Gd , ^{224}Ra , ^{240}Pu nuclei are well described in the framework of proposed model.