Reduced E2-Transition Probabilities in Excited Collective States of Triaxial Even-Even Nuclei

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An intra-/inter-band reduced $E2$-transition probabilities in the excited states of lanthanide and actinide even-even nuclei has been considered within a free triaxiality approximation. They are studied in detail in the spectra of nuclei: ^{154}Sm, ^{156}Gd, ^{158}Dy, ^{162,164}Er, ^{230,232}Th, ^{232,234,236,238}U. Comparison of the calculation results with the corresponding experimental data shows a very good agreement, including high angular momentum states. A comparison of the ratios reduced $E2$- transition probabilities with results of Alaga rules are pointed out. These comparisons allows to determine a sensitivity of $E2$-transition probabilities to surface multipole deformations.