

ROTATION OF SUPERDEFORMED EVEN-EVEN NUCLEI

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Starting from the microscopic Hamiltonian of the nucleus we derived an equation to describe the rotation and quadrupole vibrations of even-even axially symmetrical nuclei, having arbitrary deformation β . In case of small β it reduces to the Bohr - Mottelson equation with $\gamma \sim 0$. Such an equation is used for calculations of vibrational-rotational energies of superdeformed nuclei.