

6. VIBRATIONAL ENHANCEMENT OF NUCLEAR LEVEL DENSITY

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Effect of vibrational state damping on enhancement of nuclear level density due to vibrational states is analysed. The coefficient of the nuclear level density enhancement due to the collective vibrations with allowance for quadrupole and octupole states is studied, as a function of the nuclear excitation energy. The comparison of different methods with account of vibrational state effect in nuclear level density is performed. The calculations are rather strongly dependent on collective relaxation time value.