Electric Quadrupole E2-Transitions of Yb170-174 Isotopes

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Abstract

The non-adiabatic effects which is manifested in the electric properties of low-lying states of even-even deformed nuclei are studied. A simple phenomenological model which takes into account the Coriolis mixing of K-pi = 0(n)(+), 2(n)(+) and K-pi = 1(nu)(+) state bands.

The Calculations for isotopes Yb170-174, are carried out. The reduced probability of electric quadrupole transitions from the states 0(nu)(+) and 2(nu)(+) - bands to the ground (gr) state band is calculated and non adiabatic effect is discussed. The ratio of E2- transitions R-IK from 0(2)(+), 0(3)(+), 2(1)(+), and 2(2)(+) bands are calculated and compared with the experimental data.

Keywords

KeyWords Plus: DEFORMED-NUCLEI; YB-172; DECAY

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