

ON THE STRUCTURE
OF $K^\pi = 3/2^+$ 362-keV LEVEL IN ^{165}Ho

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S u m m a r y

High-precision measurements are carried out on a $\pi\sqrt{2}$ magnetic β -spectrometer for the relative intensities of the electron lines of internal conversion on the K- and L-shells of ^{165}Ho nucleus, with the 362-keV γ -transition being used. The penetration parameter λ for the M2-component of this transition and the multipole mixing ratio $\delta(E3/M2)$ are determined for the first time. The value of $E3$ -multipolarity admixture corresponds to the probability of radiative transition $B(E3)(362 \text{ keV}) = (46 \pm 6) \text{ W.u.}$, which testifies to its collective nature and a probable octupole deformation of ^{165}Ho nucleus.