

The $9/2_1^+$ Band in ^{111}In

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The level structure of ^{111}In was studied using the $^{109}\text{Ag}(\alpha, 2n\gamma)^{111}\text{In}$ reaction. The experiments included γ -ray excitation function, γ - γ coincidence, γ -ray angular distribution and conversion-electron measurements. The structure of the cascade of positive-parity states with spins in the range $9/2^+$ to $17/2^+$ is well described by a $g_{9/2}$ proton hole coupled to quadrupole vibrations of ^{112}Sn . The branching and mixing ratios of γ -rays decaying within this band are reproduced satisfactorily by the calculation. The prediction of leading-order diagrams is in agreement with experiment¹⁾.

- 1) W.H.A. Hesselink, J. Bron, P.M.A. van der Kam, V. Paar, A. van Poelgeest and A.G. Zephat, Nucl. Phys. A299 (1978) 60