

RDM Lifetime Measurements in ^{107}Cd and ^{103}Pd .

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Lifetimes for decays linking near-yrast states in ^{107}Cd and ^{103}Pd have been measured using the Differential Decay Curve Method and, for the higher-spin transitions, the Doppler Shift Attenuation Method. The nuclei of interest were populated via the $^{98}\text{Mo}(^{12}\text{C}, 3n \alpha)^{107}\text{Cd}, ^{103}\text{Pd}$ fusion-evaporation reactions at an incident beam energy of ~ 60 MeV, using the WNSL Yale Tandem Accelerator. From the measured lifetimes, transition probabilities have been deduced and compared with the theoretical $B(E2)$ values for the limiting cases of harmonic vibrational and axially deformed rotational systems. Our initial results suggest a rotor-like behaviour for the structure based on the $h_{\frac{11}{2}}$ orbital in ^{107}Cd and ^{103}Pd . A comparison of the obtained transition probabilities to the values in the even-even ^{106}Cd and ^{102}Pd isotopes will be made, and the deformation driving properties of the $h_{\frac{11}{2}}$ orbital will be discussed.