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Lifetime Measurements in ^{162}Dy CLARK CASARELLA, A. APRAHAMIAN, University of Notre Dame, S. LESHER, University of Wisconsin - La Crosse, B. CRIDER[1], University of Kentucky, M. LOWE, University of Wisconsin - La Crosse, E. PETERS, F. PRADOS-ESTEVEZ, T. ROSS, University of Kentucky, Z. TULLY, University of Wisconsin - La Crosse, S. YATES, University of Kentucky
— Historically, the rare-earth region of nuclei has been a fountainhead for nuclear structure phenomena. One of the more debated structure effects is the nature of excited 0+ bands in nuclei, and continues to be an oustanding challenge in nuclear structure physics; several interpretations exist, and we hope that lifetime measurements can help distinguish between them. ^{162}Dy has an abundance of 0+ states with limited lifetime data; we have measured excitation functions, mean lifetimes, and angular distributions of gamma rays for excited states in ^{162}Dy at the University of Kentucky Accelerator Laboratory. Low lying excited states were populated up to an excitation energy of E ¡ 3.2 MeV, where we will discuss the implications of the lifetimes under this energy threshold. This work was supported by the NSF under contract numbers PHY-1068192, PHY-1205412, and PHY-0956310.

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