

Abstract Submitted  
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**Lifetime Measurements in  $^{162}\text{Dy}$**  CLARK CASARELLA, A. APRAHAMIAN, University of Notre Dame, S. LESHER, University of Wisconsin La-Crosse, B. CRIDER, 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 outstanding challenge in nuclear structure physics; several interpretations exist, and we hope that lifetime measurements can help distinguish between them.  $^{162}\text{Dy}$  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  $^{162}\text{Dy}$  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.

Clark Casarella  
University of Notre Dame

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