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Lifetime Measurement of the 2_1^+ state in ^{180}Os M. BUNCE, V. WERNER, WNSL, Yale University, Z. BERANT, WNSL, Yale University and Nuclear Research Center Negev, R.J. CASPERSON, R.F. CASTEN, A. HEINZ, G. HENNING, M. MARSHALL, J. QIAN, A. SCHMIDT, WNSL, Yale University, M. SMITH, WNSL, Yale University and Central Connecticut State University, J.R. TERRY, WNSL, Yale Univesity, E. WILLIAMS, R. WINKLER, WNSL, Yale University — The lifetime of the excited 2_1^+ state in ^{180}Os, was measured using the delayed coincidence timing technique. The ^{169}Tm(^{16}O,5n)^{180}Ir reaction was used which subsequently β-decay to populate excited states in ^{180}Os. The Moving Tape Collector (MTC) at the Wright Nuclear Structure Laboratory (WNSL) at Yale University was used to collect the ^{180}Ir recoil nuclei and transport them to an arrangement of four Barium Fluoride (BaF_2) scintillator detectors and one clover HPGe detector. The gamma rays emitted in transitions from the 4_1^+ to 2_1^+ and 2_1^+ to 0_{gs}^+ states were observed using BaF_2 detectors. The detectors were used in conjunction with fast electronic scintillation timing (FEST) techniques. The 2_1^+ lifetime will be input for a future g-factor measurement. First results will be presented and discussed within the study of the systematics of 2_1^+ states [1] in the region. This work is supported by U.S. DOE Grant No. DE-FG02-91ER-40609. References 1. Bao-An Bian et al., Phys. Rev. C **75**, 014312 (2007)

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