

Abstract Submitted
for the DNP15 Meeting of
The American Physical Society

Study of ^{162}Er via the (p, t) and (p, p') reactions D. KISLIUK, P.E. GARRETT, A. FINLAY, L. BIANCO, V. BILDSTEIN, C. BURBADGE, S. CHAGNON-LESSARD, A. DIAZ VARELA, M.R. DUNLOP, R. DUNLOP, P. FINLAY, D. JAMIESON, B. JIGMEDDORJ, A.D. MACLEAN, J. MICHETTI-WILSON, K.G. LEACH, A.J. RADICH, E. RAND, C.E. SVENSSON, J. WONG, University of Guelph, G.C. BALL, S. TRIAMBAK, Triumph, T. FAESTERMANN, Technische Universität München, R. HERTENBERGER, H.-F. WIRTH, Ludwig-Maximilian-Universität München — The nature of excited states in well-deformed nuclei pose a challenge in nuclear structure. In light of this, the study of ^{162}Er via the $^{164}\text{Er}(p, t)$ and $^{162}\text{Er}(p, p')$ reactions has been initiated to shed light on the structure of these excited states. The experiments were performed at the Maier-Leibnitz Laboratory using a 22 MeV proton beam on highly-enriched targets of $^{162,164}\text{Er}$ and the reaction was analyzed with the Q3D spectrograph. Strong population in the (p, t) reaction of the 0_2^+ state, far greater than other 0^+ states, has been observed. Transition matrix elements for population of low-lying states in the (p, p') reaction have also been extracted. Initial results from these experiments will be presented.

Paul Garrett
University of Guelph

Date submitted: 30 Jul 2015

Electronic form version 1.4