Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Investigating g-bosons in low-lying mixed symmetry states of ^{140}Nd R.J. CASPERSON, E. WILLIAMS, V. WERNER, H. AI, R.F. CASTEN, A. HEINZ, E.A. MCCUTCHAN, J. QIAN, R. WINKLER, WNSL, Yale University, New Haven, CT 06520, G. GÜRDAL, Clark University, Worcester, MA 01610, M. CHAMBERLAIN, Department of Physics, University of Surrey, Guildford, Surrey, UK — ^{140}Nd was produced through the ^{141}Pr(p,2n)^{140}Nd reaction using a 16 MeV proton beam from the Yale ESTU tandem accelerator. Angular correlation measurements were made in-beam using the newly reconfigured YRAST ball detector array, and will be used to identify the multipolarities of transitions between low-lying states. Low-lying mixed symmetry states in ^{140}Nd will be identified, and the role of quadrupole and eventually hexadecapole degrees of freedom in these states will be investigated. Preliminary results will be presented. Work supported by US DOE under Grant Numbers DE-FG02-91ER-40609, DE-FG02-05ER-41379, and DE-FG02-88ER-40417.

R.J. Casperson
WNSL, Yale University, New Haven, CT 06520

Date submitted: 02 Jul 2007 Electronic form version 1.4