Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Microscopic formation of mixed-symmetry states[1] V. WERNER, WNSL, Yale University, N. BENCZER-KOLLER, P. BOUTACHKOV, G. KUMBARTZKI, E. STEFANOVA, Rutgers Univ., J. HOLT, TRIUMF, Canada, N. PIETRALLA, TU Darmstadt, Germany, M. PERRY, WNSL, FSU, H. AI, R.F. CASTEN, S. ECKEL, A. HEINZ, C. LAMBIE-HANSON, E.A. MCCUTCHAN, D.A. MEYER, J. QIAN, A. SCHMIDT, E. WILLAMS, R. WINKLER, WNSL, G. GÜRDAL, WNSL, Clark Univ., M. CHAMBERLAIN, C.R. FITZPATRICK, A.B. GARNSWORTHY, N.J. THOMPSON, WNSL, Univ. Surrey, UK, R.B. CAKIRLI, WNSL, Istanbul Univ., Turkey — One-phonon fully symmetric (FS) and mixed-symmetry (MS) states have been found to have pure F-spin near the N=50 shell closure. In Zr isotopes the proton and neutron contributions forming FS and MS states are isopolarized. Hence, the 2_1^+ states in ^{92,94}Zr have negative g factors due to dominant neutron configurations. The isopolarization was experimentally proven measuring the g factors of the 2_2^+ states in ^{92,94}Zr to be large and positive. Final values will be presented, and brought into context of the formation of FS and MS states near shell closures.

[1]Supported by USDOE grant nos. DE-FG02-91ER40609 and DE-FG52-06NA26206, and by NSF.

V. Werner
WNSL, Yale University

Date submitted: 02 Jul 2007 Electronic form version 1.4