Measurements of the $g$ factors of the low-lying excited states in stable even-even Ge nuclei

G. GÜRDAL, G. KUMBARTZKI, N. BENCZER-KOLLER, Rutgers University, S.J.Q. ROBINSON, Millsaps College, Y.Y. SHARON, L. ZAMICK, Rutgers University, Z. BERANT, Yale University; Nuclear Research Center, Negev, Israel, T. AHN, R. CASPERSON, R. CHEVRIER, A. HEINZ, G. HENNING, G. ILIE, D. MCCARTHEY, J. QIAN, A. SCHMIDT, J.R. TERRY, W. VERNER, E. WILLIAMS, R. WINKLER, Yale University — The $g$ factors of the low-lying excited states of $^{72,74,76}$Ge were measured using the Transient Field (TF) technique, and the results will be presented. The states of interest were populated by projectile Coulomb excitation in inverse kinematics. The Ge nuclei were accelerated at the Yale ESTU Tandem Van de Graaff accelerator and impinged on C or Mg/gadolinium/copper targets. The measured $g$ factor results will be compared to the predictions of large-scale shell model calculations in the $p_3/2f_5/2p_1/2g_9/2$ space for both protons and neutrons. A summary of the $g$ factors of $2^+_1$, $4^+_1$ and $2^+_2$ states in the mass $A \sim 70$ region will also be presented.

$^1$Work supported by the U.S. National Science Foundation and U.S.D.O.E under grant DE-FG02-91ER-40609.