Measurements of the magnetic moments of the excited $2^+_1$, $4^+_1$ and $2^+_2$ states in $^{106}$Pd

G. KUMBARTZKI, Rutgers University, G. GÜRDAL, N. BENZCZER-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, A. HEINZ, G. ILIE, D. MCCARTHEY, J. QIAN, A. SCHMIDT, J.R. TERRY, E. WILLIAMS, R. WINKLER, Yale University — The magnetic moments of the low-lying excited states of $^{106}$Pd were measured using the Transient Field (TF) technique, in order to compare the results with predictions from either collective model or shell model calculations. The states of interest were populated by projectile Coulomb excitation in inverse kinematics. The $^{106}$Pd beam was accelerated at the Yale ESTU Tandem Van de Graaff accelerator and impinged on a multilayer C/gadolinium/copper target. The measured magnetic moment of the excited $2^+_1$ state in $^{106}$Pd was compared to the results of previous measurements in the literature and of magnetic moment measurements in the neighboring Ru and Mo nuclei as a test of the Rutgers parametrization of the transient field in this region.

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

G. Kumbartzki
Rutgers University

Date submitted: 06 Jul 2009
Electronic form version 1.4