Abstract Submitted
for the HAW05 Meeting of
The American Physical Society

**Ground-state magnetic moment of $^{35}$K** P.F. MANTICA, T.J. MERTZIMEKIS, A.D. DAVIES, D.E. GROH, S.N. LIDDICK, B.E. TOMLIN, NSCL, Michigan State University — Spin-polarized $^{35}$K fragments were produced at the NSCL using a single-proton pickup, two-neutron removal reaction from an $^{36}$Ar primary beam at an energy of 150 MeV/A incident on a $^{9}$Be target. The polarized $^{35}$K nuclei were implanted into a KBr crystal placed at the center of a beta-NMR magnet for magnetic moment analysis. The new value of the $^{35}$K magnetic moment improves on the precision of the previously measured value by an order of magnitude. The isoscalar magnetic moment of the T = 3/2 mirror pair $^{35}$K-$^{35}$S was found to compare well with the systematic variation of isoscalar moments extracted for heavy, T = 1/2 mirror pairs. Work supported in part by the NSF Grant Nos. PHY-01-10253 and PHY-99-83810.

Paul Mantica
NSCL, Michigan State University

Date submitted: 23 May 2005 Electronic form version 1.4