Abstract Submitted
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Short-lived excited-state g factors of fast ^{38,40}S fragments.[1] A.D. DAVIES, NSCL/Michigan State University, A.E. STUCHBERY, The Australian National University, A. BECERRIL, C.M. CAMPBELL, J.M. COOK, D.C. DINCA, A. GADE, S.N. LIDDICK, P.F. MANTICA, W.F. MUELLER, H. OLLIVER, J.R. TERRY, B.E. TOMLIN, K. YONEDA, NSCL/Michigan State University, P.M. DAVIDSON, A.N. WILSON, The Australian National University — The transient field technique for measuring short-lived excited-state magnetic dipole moments generally requires ion velocities comparable to Zv_0 ($v_0 = c/137$) or lower, which, at face value, would preclude the study of the wide range of isotopes available at fragmentation facilities. However, stringent testing of nuclear models far from stability can be realized with g-factor measurements on these isotopes, once the experimental challenges are overcome. Measurements performed at the NSCL's Coupled Cyclotron Facility have extended the transient field technique to radionuclides produced as in-flight fast fragments. The high velocity transient field technique was applied to intermediate-energy beams of ^{38}S and ^{40}S. The signs of their first-excited 2^+ state g factors were obtained, and with a parametrization of the transient field strength at high velocities, the g-factor magnitudes were extracted. Results, experimental details, and future outlook will be presented.

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