Abstract Submitted
for the MAR10 Meeting of
The American Physical Society

μ^+SR Investigation of $CaCrO_3$ OREN OFER, TRIUMF, 4004 Wesbrook Mall, Vancouver BC, V6T1A3 Canada, JUN SUGIYAMA, Toyota CRDL Inc, Nagakute, Aichi 480-1192, Japan, MARTIN MÅNSSON, Laboratory for Neutron Scattering, ETH Zürich and Paul Scherrer Institute, CH-5232 Villigen PSI, Switzerland, KIM H. CHOW, Department of Physics, University of Alberta, Edmonton, AB, T6G 2G7 Canada, EDUARDO J. ANSALDO, TRIUMF, 4004 Wesbrook Mall, Vancouver, BC, V6T 2A3 Canada, JESS H. BREWER, TRIUMF, CIfAR and Department of Physics and Astronomy, University of British Columbia, Vancouver, BC, V6T 1Z1 Canada, MASAHIKO ISOBE, YUTAKA UEDA, Materials Design and Characterization Laboratory, Institute for Solid State Physics, University of Tokyo, Kashiwa, Chiba 277-8581, Japan — We investigated the magnetic phase of the perovskite $CaCrO_3$ by using the muon spin relaxation technique. A static antiferromagnetic order is revealed with distinct multiple internal fields which are experienced in the muon interstitial sites. Above T_N, lattice deformations are indicated by field μSR suggesting a magneto-elastic mechanism.

Oren Ofer
TRIUMF, 4004 Wesbrook Mall, Vancouver BC, V6T1A3 Canada

Date submitted: 29 Dec 2009 Electronic form version 1.4