\textit{\mu^+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 ISOBÉ, 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 $\mu$SR suggesting a magneto-elastic mechanism.

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