

Abstract Submitted
for the MAR06 Meeting of
The American Physical Society

Current Status of LANSCE Single Crystal Diffractometer - SCD

ALICE I. ACATRINEI, LUKE L. DAEMEN, MONIKA A. HARTL, Los Alamos National Laboratory, LANSCE-12, MS H805, Los Alamos, NM 87545 , JACOB URQUIDI¹, New Mexico State University, Department of Physics, MSC 3D, Las Cruces, NM 88003 — The Single Crystal Diffractometer (SCD) at LANSCE, Los Alamos National Laboratory, represents a powerful tool for many crystallographic and magnetic structure determinations. The instrument is located at the Lujan Neutron Scattering Center and utilizes the time-of-flight (TOF) Laue technique for neutron scattering data collection. This technique, combined with a 25 cm × 25 cm multi-wire ³He position-sensitive detector and the possibility of two axis of rotation for sample orientation yield to an 80% sphere of coverage in reciprocal space. The redesign and status of the Single Crystal Diffractometer at LANSCE are reported. We give an overview of the instrument characteristics and of the of calibration and data evaluation activities (higher intensity, lower background, better profile shape, improved resolution).

¹Los Alamos National Laboratory, LANSCE-12, MS H805, Los Alamos, NM 87545

Alice I. Acatrinei
Los Alamos National Laboratory, LANSCE-12, MS H805,
Los Alamos, NM 87545

Date submitted: 29 Nov 2005

Electronic form version 1.4