Abstract Submitted
for the MAR05 Meeting of
The American Physical Society

Ferroelectric switching simultaneously studied by the epr and Mertz methods[1] FRANCISCO RODRIGUEZ, MARISELA APARICIO, KENNITH ULIBARRI, MONICA MARCIAL-ARMENTA, TIMOTHY USHER, California State University San Bernardino — Ferroelectric materials are characterized by spontaneous electric dipole moments. Memory applications will benefit from a more fundamental understanding. The goal of this experiment is to reconcile the differences in previous ferroelectric experiments: electron paramagnetic resonance (epr) which monitors the bulk of the material and the Mertz technique, which monitors the surface. In this study both methods will be employed simultaneously in order to eliminate any experimental differences. If the differences between the two experimental results persist then, the epr results may be reveling new physics that the Mertz technique is not sensitive to. We will present some early results on the simple ferroelectric crystal KH_2PO_4.

[1]NASA Grant No. 0051-0078, DOD Control No.ISP02-EUG15, ISP02-EUG15, NSF DMR-0116744

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Date submitted: 30 Nov 2004 Electronic form version 1.4