Abstract Submitted for the MAR05 Meeting of The American Physical Society

Vortex vibrations and NMR T_2 relaxation in YBCO RACHEL WORTIS, TING LU, Trent University — The similarity of spin echo decay rates for planar and apical oxygen in the vortex state of YBCO suggest that T_2 is dominated by vortex motion. We present a calculation of T_2 assuming overdamped harmonic vibrations in an anisotropic 3D superconductor with the field applied parallel to the c axis. The resulting field, temperature and position dependence is compared with available data.

Rachel Wortis Trent University

Date submitted: 01 Dec 2004 Electronic form version 1.4