Mechanisms of DC and AC Conduction in PLZT/Paint Nanocomposite Films

A. K. Batra, B. B. Bohara and J. Mills
AAMU, U.S.A.
e-mail: ashok.batra@aamu.edu

***Abstract*—Electrical transport mechanisms in dielectric films are critical to their successful applications in various devices. The conventional cost-effective paint-brushing technique was utilized to fabricate nanocomposite films on copper substrate. A metal-insulator-metal capacitor (DUT) was fabricated and the leakage current across was measured with varying voltage and temperature. DC and AC conduction mechanisms in lead lanthanum zirconate titanate (PLZT)/paint nanocomposite films are presented and discussed based on existing models.**