

Abstract Submitted  
for the MAR05 Meeting of  
The American Physical Society

**Measurements piezoelectricity and electromechanical effects of ferroelectric liquid crystals** ANTAL JAKLI, Liquid Crystal Institute, Kent State University, CLINTON BRAGANZA, Liquid Crystal Institute, Kent State University — The voltages across a load resistor connected to a commercially available cell filled with room temperature ferroelectric liquid crystal mixtures, CS2003, FA 006 and ZLI 3775, were measured by a lock-in amplifier using periodic applied air pressure as a reference frequency. Periodic pressure induced electric current (pressure electricity) was measured. The electromechanical effects were studied by varying periodic pressure with no applied voltage and at fixed applied periodic pressure amplitude as a function of applied external voltage. It was observed that the effect of applied pressure is similar to that of applied voltage in that the amount of unwinding of the helix increases with increasing pressure or voltage. The effect is largest when the pressure induces helix unwinding.

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Date submitted: 01 Dec 2004

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