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Dr. Michael Wand

LC Vision & Displaytech Inc.

Germanium Liquid Crystals: a New Class of De Vries Ferroelectrics

Abstract: We have discovered a new class of liquid crystals based on Germanium. Exploration of this novel class of liquid crystals afforded to our surprise, very broad Sm C phases (over 100°C width) and, even more unusual, a very strong induction effect of de Vries behavior- the ability to minimize layer shrinkage in FLC mixtures showing a SmA-SmC transition. We will show examples and data of a variety of compounds and mixtures demonstrating this beneficial property. In addition, we present evidence of the first FLC compound to possess both a nematic phase and a de Vries SmC phase.

Wednesday, March 30 at 11:00 a.m.
Duane Physics 11th Floor Commons Room



Sponsored by the Liquid Crystal Materials Research Center, Department of Physics.

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