

Condensed Matter Seminar

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LIQUID CRYSTAL SCIENCE AT CSUS: FROM BASICS TO APPLICATIONS

Liquid Crystals (LCs) are materials of growing importance to both science and technology. Liquid crystal research performed in the United States is the basis of modern technology. The application of liquid crystalline devices can be found in video displays and monitors, hand-held computers, cell phones, fiber-optic switches, beam-steering and targeting devices, microelectronic mechanical systems (MEMs) and biological pathogen detectors.

We will report on our work in the development of new Liquid Crystal Display (LCD) modes and the design of engineered optical components for LCDs. We will also describe our recent advances in the development of automated Electro-Optical Measurement (EOM) system for characterization of LCDs, which, in conjunction with modeling, allows for faster, more effective engineering of improved LCDs.

We will also report on our progress in the development of mono- and multilayered nanostructures to create optical elements with a complex distribution of the optical axis.

Thursday January 24, 2008
4:10 PM - Room 416 PHY/GEO