Sheared Polymer-Stabilized Nematic Liquid Crystal Technology for Use in Precision Polarization Control Devices

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A new class of nematic liquid crystal devices allowing for the precision control of polarization has been fabricated. These devices have response times of less than 100 microseconds and transmissions of over ninety percent from 400 nanometers to two microns. A broad overview of the fabrication of these devices will be discussed along with an overview of the research and development of these devices, paying attention to the challenges and obstacles in taking this technology from intellectual property concept to a finished device ready for the marketplace. Current available products with specific applications will be shown including variable retarders, attenuators and shutters. Designs and plans for a spatial light modulator based on this technology will be introduced.

Wednesday, February 25th at 1:30 p.m.
Duane Physics Room G1B31

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