

24.1-23 OPTICAL PROPERTIES OF CHOLESTERIC LIQUID CRYSTALS AND THEIR USE IN VISUAL ARTS.  
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Liquid crystals, when used as a new medium in arts, exhibit at least four properties that offer to artists new dimensions for expression. These are the highly saturated colors and increased color gamut, the additive color properties, the dependence of perceived colors on angle viewing and illumination and the dependence on ambient temperature. Results of measurements are shown that confirm the above characteristics (D. Makow: Color Research and Application (Spring 1974), 4,25). The reflected and transmitted wavelength are circularly polarized which limits the peak values of the respective spectra to 0.5. Methods are shown that permit to approach values of 1.0 (D. Makow: Applied Optics (1980), 19,8). Several paintings demonstrating the above mentioned properties and ways of utilising them will be on display.