

Oral Presentation

[LCT3]Advanced LCD Technologies

Chair: Hiroyuki Okada (University of Toyama)

Co-Chair: Koichi Miyachi (JSR)

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[LCT3-2]Optimization of color and transmittance in a dye-doped chiral-nematic liquid crystal cell

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Keywords:liquid crystal, dichroic dye, dye-doped liquid crystal, transmittance-control device

Among various dye-doped liquid crystal (LC) devices, a chiral-nematic LC cell provides the highest transmittance difference between its transparent and opaque states. We propose a systematic approach to find the optimal dye mixing for black color in the opaque state and optimization method in the parameter space for the maximum transmittance difference.