

P-104: Shearing Effects of Stressed Liquid Crystals with Various Liquid Crystal Domain Sizes

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Abstract

Stressed liquid crystals (SLCs) are fast light modulating materials based on polymeric liquid crystal composites. We used polarizing

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Shearing was applied by fixing one substrate of the cell to a

the samples at different shearing distances are shown in Fig. 4b. Relaxation time decreases when shearing distance increases except sample #1. Comparing the results across these four samples, sample #4, with 2 μm liquid crystal domain, has the shortest τ_{off} (1.26 μm phase shift in 2 ms at 100 μm 's shearing distance).