Title (en)

ELECTRICALLY CONTROLLABLE LIQUID CRYSTAL MICROSTRUCTURES

Title (de)

ELEKTRISCH STEUERBARE FLÜSSIGKRISTALLMIKROSTRUKTUR

Title (fr)

MICROSTRUCTURES A CRISTAUX LIQUIDES ELECTRIQUEMENT REGLABLES

Publication

EP 1161706 A4 20040707 (EN)

Application

EP 00914593 A 20000216

Priority

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Abstract (en)

[origin: WO0049452A1] This invention relates to methods of building rigid or flexible arrays of electro-optic devices. A phase separated composite structure technique yields adjacent regions of polymer and liquid crystal (LC) of specific architecture instead of a random dispersion of LC droplets. The above devices can be prepared by producing volumes of LC structure (56) next to a polymer area (58) using anisotropic phase separation of LC from a photopolymer, initial by UV exposure. The shape, size and placement of these regions inside a cell becomes easily controllable with using optical mask or laser beam. The boundaries of LC volume can be controlled by controlling the chemical composition of the polymer and using an alignment layer (28).

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Citation (search report)

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- See references of WO 0049452A1

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