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Liquid Crystal Systems for Display Application

Ivanka MONEVA
Institute of Polymers

Bulgarian Academy of Sciences
1113 Sofia
BULGARIA

LIQUID CRYSTAL SYSTEMS FOR DISPLAY APPLICATION
Design and Functional Properties

Dr. Ivanka Moneva
Institute of Polymers, Bulgarian Academy of Sciences
E-mail: itmoneva@bas.bg

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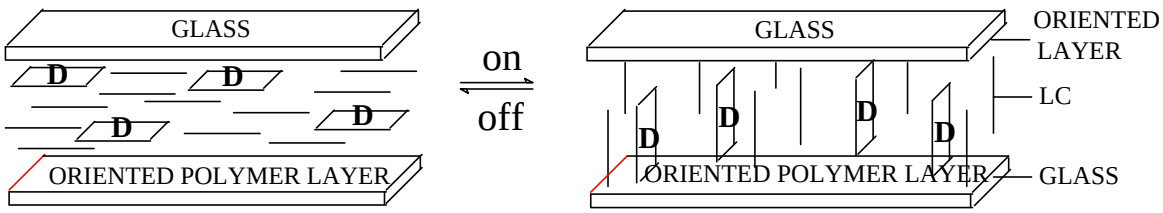

Schematic representation of the orientation of dye (D)/ LC mixtures in Heilmeier display cell under switching-on and -off of electric voltage

Requirements to dyes for display application

- Liquid crystal displays of the “guest-host” type (**GH LCDs)** with different design of the LC system involving

  *** Conventional GH LCDs**, with novel fluorescent dyes or with their fluorescent side-group copolymers,

  *** Black-white GH LCDs** (with optical brighteners and other lumophores),

  *** Hybrid of polymer-dispersed GH LCDs** using a special polymer membrane matrix,

  - **Black-white GH LCDs** supplied with external circular polarizers

- Phenomenological approach to optimization of GH LC display design

Closing Remarks