



Electronic Conduction in Liquid Crystals

Junichi HANNA

Keywords : Organic semiconductor, Electronic conduction, Ionic conduction, Mobility, Smectic phase, Columnar phase, Nematic phase, Hopping conduction, Viscosity, Impurity, Purity, Ambipolar charge carrier transport, Molecular alignment, Conduction mechanism, Microphase separation

Photoresponsive Liquid Crystals

Tomiki IKEDA

Keywords : Photoisomerization, Photocrosslinking, Janosky effect, Photorefractive effect, Hologram, Photochemical phase transition, Photoinduced change in alignment, Surface relief, Grating, Polymer, Photomechanical effect

Photonic Liquid Crystal

Katsumi YOSHINO, Ryotaro OZAKI and Hiroyuki TAKEDA

Keywords : Photonic crystal, Photonic band gap, Defect state, Nano-scale periodic structure, Cholesteric liquid crystal, Chiral smectic liquid crystal, Laser, Optical waveguide, Negative refractive index, Tunable photonic crystal

Liquid Crystal Spatial Light Modulator

Seiji FUKUSHIMA

Keywords : Spatial light modulation, Light modulator, Optical signal Processing, Holography, Millimeter wave

Alignment Technologies of Liquid Crystal Display : Previous and Next Ten Years

Masaki HASEGAWA

Keywords : Rubbing, Oblique angle deposition, Photo alignment, Ion-beam alignment, Nanoimprint lithography, Photonics device

Optical Films

Takahiro ISHINABE

Keywords : Liquid crystal display, Retardation film, Uniaxial film, Biaxial film, Liquid crystal polymer

Nematic Liquid Crystal Displays

Tatsuo UCHIDA

Keywords : Nematic liquid crystal, Display, Viewing angle, Fast response, Field sequential

Ferroelectric Liquid Crystal Displays and related New Technologies : Beginning, Past, Today and Future

Syunsuke KOBAYASHI

Keywords : Ferroelectric liquid crystal, Polymer stabilized LCD, PSV-LCD, Field sequential full color LCD

Computer Simulations for Liquid Crystals

Ryoichi YAMAMOTO, Makoto YONEYA, Tohru OKUZONO and Jun-ichi FUKUDA

Keywords : Molecular simulation, Continuum simulation, Hybrid simulation, Multi-scale simulation

Chirality in Banana-shaped Liquid Crystals

Hideo TAKEZOE

Keywords : Banana-shaped liquid crystal, Chirality, Chirality control, Axial chirality, Ester group, Circular dichroism

Universality and Diversity in Novel Liquid-crystalline Phases

Isa NISHIYAMA, Jun YAMAMOTO and Atsushi YOSHIKAWA

Keywords : Soft matter, Molecular design, Chirality, Frustration, Segregation, Nano-structure, Smectic phase, TGB phase, Blue phase, Hierarchical structure, Bicontinuous structure

Development of Supramolecular Liquid Crystals

Takashi KATO

Keywords : Supramolecular liquid crystal, Self-assembly, Molecular self-assembling, Hydrogen bond, Interaction