

Poster Contributions

Monday, July 3

Poster Session 1, 3:00 PM - 4:00 PM

CHROP **Posters - Chromonic LCs**

Room: *Crestone/Colorado Rockies*

- CHROP-1 NMR study of sunset yellow - a lyotropic chromonic liquid crystal
L. Eshdat, M. Nakata, R. K. Shoemaker, N. A. Clark, D. M. Walba
University of Colorado, USA
- CHROP-2 Optical investigations of the liquid crystal phases of nano-scale duplex DNA
M. Nakata, G. Zanchetta, C. D. Jones, B. D. Chapman, R. Pindak, T. Bellini, N. A. Clark
University of Colorado, USA
- CHROP-3 Aggregation of dye molecules behind the enhanced light-induced director reorientation in a nematic liquid crystal: Experiment and theory
V. M. Pergamenshchik, V. Nazarenko, V. Y. Gayvoronsky, S. V. Yakunin, V. Uzunova, R. B. Vasjuta, O. D. Lavrentovich
National Academy of Sciences of Ukraine, Ukraine

NP RTP **Posters - Nanoparticles in LCs**

Room: *Crestone/Colorado Rockies*

- NP RTP-1 Organic-inorganic hybrid liquid crystals: Hybridization of thermotropic liquid crystals with monodispersed iron oxide nanoparticles by modification of the solid surfaces
K. Kanie, A. Muramatsu, S. Hatayama
Tohoku University, Japan
- NP RTP-2 Formation of a smectic phase by doping of nematic with ferroelectric nanoparticles
Y. Reznikov, F. Li, O. Buchnev, C. I. Cheon, A. Glushchenko, V. Y. Reshetnyak, T. J. Sluckin, A. Tolochko, J. L. West
National Academy of Sciences of Ukraine, Ukraine
- NP RTP-3 A phenomenological model of the effect of magnetic nanoparticles and their surface coating on smectic-A liquid crystal order
L. J. Martinez-Miranda, L. K. Kurihara, K. McCarthy, R. L. Bruce, J. J. Harry
University of Maryland, USA
- NP RTP-4 Nanoparticles and nanotubes dispersed liquid crystal materials: Novel opportunities to improve LCD parameters
V. Bezbzorodov, V. Lapanik, W. Haase
Belarussian State University, Belarus
- NP RTP-5 Change in rotational viscosity in a nematic liquid crystal caused by carbon nanotubes as a dopant
H. Y. Chen, W. Lee
Chung Yuan Christian University, Taiwan
- NP RTP-6 Carbon nanotubes in lyotropic liquid crystals
J. P. F. Lagerwall, G. Scalia, M. Haluska, U. Dettlaff-Weglikowska, S. Roth, F. Giesselmann
University of Stuttgart, Germany



- NPRTTP-7 Electrical actuation of liquid single crystal elastomers reprocessed with carbon nanoparticles
S. Zumer, M. Chambers, B. Zalar, H. Finkelmann, M. Remskar
University of Ljubljana & Jozef Stefan Institute, Slovenia
- NPRTTP-8 Single-wall carbon nanotube alignment in thermotropic LCs studied by Raman spectroscopy
G. Scalia, J. P. F. Lagerwall, M. Haluska, U. Dettlaff-Weglikowska, F. Giesselmann, S. Roth
Max Planck Institute for Solid State Research, Germany
- NPRTTP-9 Electro-optical response of a carbon-nanotube suspension in a polymer-stabilized liquid-crystal cell
W. Lee, W. H. Huang
Chung Yuan Christian University, Taiwan

SYNTP Posters - Design and synthesis

Room: *Crestone/Colorado Rockies*

- SYNTP-1 Siloxane-terminated phenylpyrimidine hosts for ferroelectric liquid crystals
R. P. Lemieux, L. Li
Queen's University, Canada
- SYNTP-2 Synthesis and characterization of N(4-n-butyloxy) salicylidene-4-n-alkylaniline and its mono nuclear Cu (II) complexes
T. Francis, N. V. S. Rao, M. K. Paul, C. Lopamudra
Jackson State University, USA
- SYNTP-3 Design and synthesis of chiral nematic liquid crystal twist agents
J. A. Rego, J. Harvey, A. L. MacKinnon, M. L. Hughs
California State Polytechnic University, USA
- SYNTP-4 The design and the investigation of dipyrromethene based LC systems
G. H. Mehl, C. Wilson, L. James, R. W. Boyle
University of Hull, United Kingdom
- SYNTP-5 Ionic liquid crystals – bridging the gap between ionic liquids and liquid crystals
P. H. Kouwer, T. M. Swager
MIT, USA
- SYNTP-6 A library of mesomorphic materials for the systematic study of structure and physical properties: The smectogenic 2,7 diacylfluorenes
G. R. Van Hecke, R. N. Harris, L. Baker, K. A. Dallas, A. Pribram-Jones
Harvey Mudd College, USA
- SYNTP-7 Phase diagrams and physical properties of induced smectic A phase in binary mixtures of nematogenic calamitic liquid crystals
P. K. Mandal, B. R. Jaishi
University of North Bengal, India
- SYNTP-8 Synthesis and characterization of mesomorphic properties of Schiff's base having intramolecular hydrogen bonding
P. Vediappen, S. Nagarajan, N. Rao
National Institute of Technology, India
- SYNTP-9 One-dimensional ion transportation of ionic columnar liquid crystals
M. Yoshio, T. Ichikawa, T. Mukai, H. Ohno, T. Kato
The University of Tokyo, Japan
- SYNTP-10 Highly birefringent nematics for optoelectronic applications
A. B. Golovin, C. O. Catanescu, L. C. Chien
Kent State University, USA



- SYNTP-11 Orthoconic antiferroelectrics with biphenyl, terphenyl or naphthyl moiety
R. Dabrowski, J. Dziaduszek, P. A. Henderson, P. Kula, J. M. Oton, N. Bennis
Military University of Technology, Poland
- SYNTP-12 Compounds and mixtures with high positive dielectric and optical anisotropy
R. Dabrowski, J. Dziaduszek, A. Ziolk, L. Szczucinski, Z. Stolarz, G. Sasnouski, V. Bezborodov,
W. Lapanik, S. Gauza, S. T. Wu
Military University of Technology, Poland
- SYNTP-13 Dielectric properties of the phenyl 4-(5-alkyl-1,3,2-dioxaborin-2-yl) benzoates with different
terminal and lateral substitutes
S. Urban, J. Czub, R. Dabrowski
Institute of Physics, Poland
- SYNTP-14 First cuneane-caged liquid crystals. Structure property relationship study
K. Fodor-Csorba, G. Bényei, I. Jalsovszky, A. Vajda, D. Demus, D. S. Rao, S. K. Prasad, A. Jákl
Hungarian Academy of Sciences, Hungary
- SYNTP-15 Induction and stabilization of columnar and smectic mesophases in benzo[15]crown-5 ethers by
metal salts
S. Laschat, N. Steinke
Universität Stuttgart, Germany
- SYNTP-16 Liquid crystal tetramers
C. T. Imrie
University of Aberdeen, United Kingdom
- SYNTP-17 Ferroelectric properties of novel chiral organic radical liquid crystals
Y. Uchida, R. Tamura, N. Ikuma, S. Shimono, K. Masaki, J. Yamauchi, Y. Aoki, H. Nohira
Kyoto University, Japan
- SYNTP-18 Synthesis and properties of new chiral liquid crystalline esters, containing twistane and
bicyclo[2.2.2]octane units
R. C. Geivandov, T. Geivandova
INCORFIN, Russia
- SYNTP-19 Synthesis and mesomorphic properties of bicyclo[2.2.2]octylacetylenes
R. C. Geivandov, T. Geivandova, V. G. Chigrinov
INCORFIN, Russia
- SYNTP-20 New liquid crystalline derivatives of cyclohexylbicyclo[2.2.2]octanes
R. C. Geivandov, T. Geivandova, V. G. Chigrinov
INCORFIN, Russia
- SYNTP-21 Novel fluorine-substituted liquid crystals containing the central bicyclo[2.2.2]octane mesogenic
core
R. C. Geivandov, T. Geivandova, V. G. Chigrinov
INCORFIN, Russia
- SYNTP-22 New liquid crystalline fluorine-substituted biphenyles, containing terminal bicyclo[2.2.2]octane
moiety
R. C. Geivandov, T. Geivandova, V. G. Chigrinov
INCORFIN, Russia
- SYNTP-23 Phase polarity and field induced transitions in biaxial nematics: Molecular theory and
phenomenology
D. J. Photinos, A. G. Vanakaras
University of Patras, Greece



- SYNTP-24 Synthesis and phase transition behavior of non-symmetrical dimeric liquid crystals containing fluorinated mesogenic group and cholesteryl one
T. Hanasaki, H. Omura, N. Nakamura
Ritsumeikan University, Japan
- SYNTP-25 Synthesis and characterization of novel imidazolium-based ionic liquid crystalline dimers
S. Kumar, S. K. Pal
Raman Research Institute, India
- SYNTP-26 Green chemistry approach to the synthesis of liquid crystalline materials
S. Kumar, H. K. Bisoyi
Raman Research Institute, India
- SYNTP-27 New liquid crystalline compound with 1, 3, 5- trisubstituted pyrazole in the mesogenic core: Synthesis, characterization and mesomorphic behavior
B. Thaker, A. Vansadia, P. Patel
Veer Narmad South Gujarat University, India
- SYNTP-28 Well-defined light-harvesting discotic liquid crystalline porphyrins for nanostructured organic photovoltaics
Q. Li, L. Li, X. Zhou, J. Harden, A. Jakli, S. Kang, S. Z. D. Cheng, S. Kumar
Kent State University, USA
- SYNTP-29 Star-shaped oligobenzoates: Programming supramolecular aggregation in liquid crystalline phases
M. Lehmann, M. Jahr, S. Gemming, B. Donnio
Chemnitz University of Technology, Germany
- SYNTP-30 Light absorbing room temperature columnar LCs
H. Bock, S. Alibert-Fouet, S. Saïdi-Besbes, E. Grelet, S. Dardel, I. Seguy, S. Archambeau, M. Oukachmih, P. Destruel
CNRS, France
- SYNTP-31 A novel liquid crystal trimer with a frustrated phase
A. Yoshizawa, M. Kurauchi
Hirosaki University, Japan
- SYNTP-32 The properties of homeotropic alignment materials as the side chain molecular structure in polyimides
J. Park, Y. B. Kim, K. C. Son, D. J. Park, J. W. Choi
Dongjin Semichem, South Korea
- SYNTP-33 Synthesis and mesomorphic properties of fluoro substituted chiral liquid crystals containing thioester linking group
S. L. Wu, K. T. Chen, S. L. Chang
Tatung University, Taiwan
- SYNTP-34 Triarylamine derivatives: New hole-transport mesogens
Y. J. Wang, C. K. Lai
National Central University, Taiwan
- SYNTP-35 Synthesis, characterization and phase transition studies of heterocyclic schiff base liquid crystals
M. Srinivasulu, S. R. Girish, P. Shetty, P. V. Datta Prasad, M. Rama Krishna N. Rao, D. M. Potukuchi, V. G. K. M. Pisipati
Manipal Institute of Technology, India
- SYNTP-36 Synthesis and mesomorphic properties of semi-fluorinated chiral liquid crystals with phenylethanoate in the core
C. Y. Lin, S. L. Wu, W. T. Chen
Tatung University, Taiwan



- SYNTP-37 Rod-disc amphiphiles as candidate biaxial mesogens
P. J. Martin, R. W. Date, J. J. Hunt, B. Timimi, A. Mainal, G. Luckhurst, M. Bates, D. Bruce
University of York, England
- SYNTP-38 Synthesis, structural organization, mesomorphic behaviour, and self-assembly of fluorenone-based liquid crystals
F. Mathevet, R. Demadrille, L. Scifo, M. Brun, B. Donnio, H. Janeczek, J. Pecaut, A. J. Attias, B. Grevin, P. Rannou, A. Pron
CEA-Grenoble, France
- SYNTP-39 Pi-conjugated supramolecular and twin liquid crystals: Syntheses, self-assembly, mesomorphic behaviours, and (opto)electronic properties
F. Mathevet, H. Janeczek, O. Redon, R. Baptist, P. Rannou
CEA-Grenoble, France
- SYNTP-40 Synthesis, characterisation and phase transition studies in hydrogen bonded liquid crystal p-propoxy benzoic acid:p-chloro benzoic acid (3OBA:CIBA)
S. Sreehari Sastry, G. Srinivas, K. Vijayalakshmi
Acharya Nagarjuna University, India
- SYNTP-41 Inducement of new smectic-G phase through intermolecular hydrogen bonding: Impact of a nematogen on phase behaviour of hydrogen-bonded liquid crystals
S. Sreehari Sastry, K. Vijayalakshmi, A. Ashok Kumar, N. Rajyalakshmi
Acharya Nagarjuna University, India
- SYNTP-42 Induced smectic-G phase through intermolecular hydrogen bonding: Influence of alkyl chain length of n-alkyl p-hydroxy benzoates on thermal and phase behaviour of hydrogen-bonded liquid crystals
S. Sreehari Sastry, K. Vijayalakshmi, V. Venkata Rao, V. Murthy
Acharya Nagarjuna University, India
- SYNTP-43 New double-decker phthalocyanine metallomesogens
F. Nekelson, Y. Shimizu
National Institute of Advanced Industrial Science and Technology (AIST), Japan
- SYNTP-44 Synthesis and mesomorphic characterization of homologous series with chiral sec. Butyl terminal substituent
J. S. Dave, P. R. Patel
M. S. University of Baroda, India
- SYNTP-45 Properties of germanium liquid crystals
W. N. Thurmes, K. M. More, S. Yang, M. D. Wand
Displaytech, Inc., USA
- SYNTP-46 Induced smectic-G phase through intermolecular hydrogen bond: Influence of p-n-alkyl benzoic acids on thermal and phase behaviour of hydrogen bonded liquid crystals
K. Vijayalakshmi, M. Srinivas Prasad, S. Sreehari Sastry, V. Murthy
Acharya Nagarjuna University, India
- SYNTP-47 Cyclotriphosphazenes as dendritic scaffolds for the preparation of columnar liquid crystals
L. Oriol, J. Barberá, J. Jiménez, A. Laguna, A. Molter, S. Pérez, J. A. Sanz, J. L. Serrano
Instituto de Ciencia de Materiales de Aragón, UZ-CSIC, Spain
- SYNTP-48 Synthesis and mesomorphism of discotic star-shaped hetero-heptamers
S. H. Eichhorn, A. Bari, S. Mahoney, N. Fox, A. Adavelli
University of Windsor, Canada
- SYNTP-49 Volume effect of peripheral alkyl chains on stability of supramolecular columnar mesophases
T. Noguchi, K. Kishikawa, S. Kohmoto
Chiba University, Japan
- SYNTP-50 Synthesis and characterization of 2,5-disubstituted pyridine based liquid crystals



- Y. A. Getmanenko**, R. J. Twieg, B. D. Ellman
Kent State University, USA
- SYNTP-51 Liquid crystals with conjugated thiophene and pyridine ring core combinations
Y. A. Getmanenko, R. J. Twieg
Kent State University, USA
- SYNTP-52 Color changing environmentally responsive chiral liquid crystalline polymers
P. V. Shibaev, R. L. Sanford, D. Chiappetta, P. Rivera
Fordham University, USA
- SYNTP-53 Supramolecular assembly of amino acid derivatives as a route to new and rich class of oligopeptide liquid crystals with chirality directed hierarchical 2d-ordering
C. V. Yelamaggad, G. Shanker, R. V. Ramana Rao, D. S. Shankar Rao, S. Krishna Prasad, V. V. Suresh Babu
Centre for Liquid Crystal Research, India
- SYNTP-54 Self-assembly of tris(N-salicylideneanilines) [TSANs] into columnar phases : A new family of discotic liquid crystals
C. V. Yelamaggad, A. S. Achalkumar, D. S. Shankar Rao, S. Krishna Prasad
Centre for Liquid Crystal Research, India
- SYNTP-55 Effect of fluoro substituents on the chiral liquid crystal materials derived from (S)-1-methyl-2-(2'-methylsulfanylethoxy)ethanol
M. C. Yu, S. L. Wu, H. Y. Chang
Tatung University, Taiwan
- SYNTP-56 Nematic and smectic mesophase formation by a novel triphenylene-azobenzene hybride molecule
M. L. Rahman, J. Asik, C. Tschierske
University Malaysia Sabah, Malaysia
- SYNTP-57 Chiral dopants for induced cholesteric liquid crystals derived form menthopyridine and menthopyrone
V. V. Vashchenko, A. I. Krivoshey, O. V. Shishkin, S. V. Shishkina, M. F. Prodanov, V. I. Musatov
National Academy of Sciences of Ukraine, Ukraine
- SYNTP-58 High figure-of-merit laterally fluorinated biphenyltolane-isothiocyanates
S. Gauza, Y. Zhao, S. T. Wu, A. Ziolek, R. Dabrowski
University of Central Florida, USA
- SYNTP-59 Mono and binuclear complexes of homo and hetero ligands of salicylidene schiff bases: Synthesis and mesogenic properties
N. V. S. Rao, T. D. Choudhury, M. K. Paul
Assam University, India
- SYNTP-60 Fabricated transparent indium zinc oxide thin film transistor
J. W. Han, H. J. Kang, H. C. Moon, J. Y. Hwang, D. S. Seo
Yonsei University, South Korea
- SYNTP-61 The effect of carborane, bicyclo[2.2.2]octane and benzene on mesogenic and dielectric properties of laterally fluorinated three-ring mesogens
K. L. Glab, A. Januszko, P. Kaszynski, R. A. Lewis, G. H. Mehl, M. D. Wand
Vanderbilt University, USA
- SYNTP-62 In search of new high-tilt materials: Induction of smectic behavior in carborane derivatives by fluorination of alkyl chains
K. L. Glab, W. Piecek, A. Januszko, P. Kaszynski, G. H. Mehl
Vanderbilt University, USA



- SYNTP-63 Thermal, electrooptical, and photophysical characterization of a mesogenic quadrupolar derivative of $B_{10}H_{10}^{-2}$
P. Kaszynski, A. Balinski, A. Januszko, A. Miniewicz, V. G. Young, I. Asselberghs, A. Persoons
Vanderbilt University, USA
- SYNTP-64 Comparative studies of series of isostructural mesogens containing p-carborane, bicyclo[2.2.2]octane, cyclohexane, and benzene
A. Januszko, P. Kaszynski
Vanderbilt University, USA
- SYNTP-65 Mesogenic and dielectric properties of 5-substituted 2-[12-(4-pentyloxyphenyl)-p-carboran-1-yl] [1,3]dioxanes
A. Januszko, T. Nagamine, P. Kaszynski, K. Ohta, Y. Endo
Vanderbilt University, USA
- SYNTP-66 Columnar mesophases from discoid platinum cyclometallated metallomesogens
K. Venkatesan, T. M. Swager, P. H. Kouwer
Massachusetts Institute of Technology, USA
- SYNTP-67 Synthesis of novel kekulene-type torands
J. M. W. Chan, T. M. Swager
Massachusetts Institute of Technology, USA
- SYNTP-68 Phase transition behaviour of amphiphilic supermolecules based on cyanobiphenyl mesogen possessing a semiperfluorinated alkyl chain
A. Yamaguchi, A. Yoshizawa
Hirosaki University, Japan
- SYNTP-69 The preparation and characterization of zwitterionic mesogens derived from the $CB_9H_{10}(-)$ and $CB_{11}H_{12}(-)$ clusters
B. Ringstrand, S. Pakhomov, A. Januszko, A. Franken, P. Kaszynski, V. G. Young
Vanderbilt University, USA
- SYNTP-70 Mesomorphism of hybrid siloxane-triphenylene star-shaped oligomers
D. Guillon, A. Zelcer, B. Donnio, F. D. Cukiernik
IPCMS, France
- SYNTP-71 Synthesis and mesomeric properties of 2-amino-5-alkyloxyphenyl-1,3,4-oxadiazoles
J. Mahadeva, K. B. Umesh, K. M. L. Rai, N. Nagappa, R. Somashekar
PES College of Science, India
- SYNTP-72 Synthesis and thermal properties of liquid crystals having a lactone skeleton at the terminal position
H. Okamoto, Y. Morita, H. Uemura, K. Kasatani, K. Era, S. Takenaka
Yamaguchi University, Japan
- SYNTP-73 Synthesis and liquid crystal properties of ferrocene-containing triphenylene based discotic metallomesogens
K. Q. Zhao, B. Q. Wang, P. Hu, X. L. Wang
Sichuan Normal University, China
- SYNTP-74 Synthesis and self-assembly behavior of large triphenylene based discotic liquid crystals
K. Q. Zhao, B. Q. Wang, P. Hu, H. M. Chen
Sichuan Normal University, China
- SYNTP-75 The generation of polarised fluorescence by fluorescent nematic liquid crystal based on bis-vinyl units
D. Janietz, J. Buchs, H. Sawade
Fraunhofer Institute for Applied Polymer Research, Germany
- SYNTP-76 Mesomorphic hydrogen-bonded complexes of complementary semiperfluorinated components
D. Janietz, A. Kohlmeier



- Fraunhofer Institute for Applied Polymer Research, Germany*
- SYNTP-77 Tailoring mesophase morphologies by molecular recognition and fluorophobic effect
D. Janietz, A. Kohlmeier
Fraunhofer Institute for Applied Polymer Research, Germany
- SYNTP-78 Simplest molecule forming thermotropic liquid crystal?
K. Trzcinska, A. Krowczynski, E. Gorecka, D. Pocięcha
Warsaw University, Poland
- SYNTP-79 Liquid-crystalline properties of bromoalkoxy substituted terphenylenes and their corresponding N-alkylpyridinium salts
D. Navarro-Rodríguez, L. Larios-López, A. Cenicerós-Olguín, C. V. Reyes-Castañeda, D. Guillón
Centro de Investigación en Química Aplicada, Mexico
- SYNTP-80 Carbazole based bis-triphenylene and biphenylene mesogens
M. Mayandithevar, J. A. Preece, P. Iqbal
The University of Birmingham, England
- SYNTP-81 Structure design of methacryloylaminoarylmethacrylates as new materials for liquid crystal photoalignment
L. O. Vretik, O. V. Yaroshchuk, V. G. Syromyatnikov, V. Zagniy, L. P. Pascal, L. Dolgov, C. D. Lee
National Taras Shevchenko University of Kyiv, Ukraine
- SYNTP-82 Studies of the orientational disorder at the isotropic to smectic-F interface
P. Datta Prasad, S. Padmaja, M. Rama Krishna N. Rao, V. G. K. M. Pisipati
The Hindu College, India
- SYNTP-83 Phase transitions and pre-transitional effects in n-(p-n-pentylbenzylidene)-p-n-pentylaniline (5.5) and its oxygen derivatives - a dilatometric study
M. Rama Krishna N. Rao, N. Ajeetha, P. Datta Prasad, V. G. K. M. Pisipati
A.J. Kalasala, India
- SYNTP-84 From 3, 6-disubstituted cyclohex-2-enones and 3, 5-disubstituted 2-isoxazolines to advanced nematic LC compounds
V. Bezborodov, V. Lapanik
Belarussian State University, Belarus
- SYNTP-85 Ambipolar fast charge carrier transport in discotic and calamitic liquid crystals
J. I. Hanna, H. Iino, Y. Takayashiki, K. Tokunaga
Tokyo Institute of Technology, Japan
- SYNTP-86 1,3,4-Thiadiazole-2-carboxylate esters. Optimization of synthetic methodology and synthesis of a new class of liquid crystals for electrooptic applications
A. J. Seed, B. Sybo, P. Sampson
Kent State University, USA
- SYNTP-87 Synthesis of azobenzene liquid-crystalline polymers with a thienylacetylene moiety and their holographic applications
Y. Hachisuka, K. Okano, A. Shishido, T. Ikeda
Tokyo Institute of Technology, Japan
- SYNTP-88 Materials for aging resistant particle beam alignment of liquid crystals
O. V. Yaroshchuk, R. M. Kravchuk, A. M. Dobrovolsky, M. I. Klyui, J. Brill, N. Fruehauf
National Academy of Sciences of Ukraine, Ukraine
- SYNTP-89 Synthesis and physical properties of rod / disc star-shaped liquid crystals
Z. Lu, C. T. Imrie, S. J. Picken
University of Aberdeen, United Kingdom



- SYNTP-90 A new family of liquid crystalline monomers and polymers: Phase characterization in monomer, polymer and composites of azo-aromatic methacrilates
C. M. González-Henríquez, E. A. Soto-Bustamante, D. A. Waocels-Gordillo, G. A. Rodriguez-Leyht
Universidad de Chile, Chile
- SYNTP-91 Synthesis of new vulcan-shape aromatic polyimides for in plane swiching mode and their alignment properties
K. C. Son, Y. B. Kim, J. C. Park, D. J. Park
Konkuk University, South Korea

Poster Session 2, 4:00 PM - 5:00 PM

COLLP Posters - Colloids and composite systems

Room: *Crestone/Colorado Rockies*

- COLLP-1 Synthesis and electro-optical studies on composite materials polymer particles/nematic liquid crystals
D. Manaila-Maximean, C. Rosu, D. Donescu, S. Frunza, T. Beica
University Politehnica Bucharest, Romania
- COLLP-2 Chains of colloidal particles in nematic liquid crystal
D. Manaila-Maximean, G. Bossis, F. Giulieri
University Politehnica Bucharest, Romania
- COLLP-3 Electrooptical properties of diacrylate based polymer network stabilized ferroelectric liquid crystals
W. Zheng
National Sun Yat-Sen University, Taiwan
- COLLP-4 Biphotonic Z-scan studies of the nonlinear optical effects in azo-dye doped liquid crystal films
H. C. Lin, A. Y. -. G. Fuh, T. S. Mo, C. H. Chen
National Cheng Kung University, Taiwan
- COLLP-5 Tensor order parameter of elongated liquid crystal droplets: Optical method of retrieval
V. A. Loiko, A. V. Konkolovich, A. A. Miskevich
National Academy of Sciences of Belarus, Belarus
- COLLP-6 Shear flow of a ferronematic in magnetic field
A. N. Zakhlevnykh, D. V. Makarov
Perm State University, Russia
- COLLP-7 Inverse Frederiks effect and bistability in ferronematic cells
T. J. Sluckin, V. Y. Reshetnyak, K. S. Thomas, V. I. Zadorozhnyi
University of Southampton, United Kingdom
- COLLP-8 Liquid crystal colloids studied by THz time-domain spectroscopy
M. Oh-e, M. Koeberg, E. Hendry, M. Bonn, H. Yokoyama
Japan Science & Technology Agency, Japan
- COLLP-9 Energetics of colloids in free-standing smectic-C films
R. Stannarius, C. Bohley
Otto von Guericke University of Magdeburg, Germany
- COLLP-10 Mullins-Sekerka instability of the nematic-isotropic interface in liquid crystals colloids
V. Popa-Nita, P. P.A.M. van der Schoot
Faculty of Physics, University of Bucharest, Romania



- COLLP-11 Light-induced transformation of defect structures in photochromic liquid-crystal emulsions
T. Yamamoto, Y. Tabe, H. Yokoyama
National Institute of Advanced Industrial Science and Technology, Japan
- COLLP-12 Air tube formation at the freezing transition in nematic liquid crystals
C. Voeltz, Y. Maeda, Y. Tabe, H. Yokoyama
Japan Science and Technology Agency, Japan
- COLLP-13 Electric field-induced spinning, translation and circling of solid particles in liquid crystals
A. Jáklí, G. Liao, E. Dorjgotov, I. Smalyukh, O. D. Lavrentovich
Kent State University, USA
- COLLP-14 Lyotropic mesophases in the thermotropic 5CB liquid crystal
G. Toquer, G. Porte, M. Nobili, J. Appell, C. Blanc
Université Montpellier II/CNRS, France
- COLLP-15 Site-selective assembly of colloidal particles into a two-dimensional microarray by the liquid crystal/polymer phase separation process
S. W. Lee, Y. Choi, S. D. Lee
Seoul National University, South Korea
- COLLP-16 Magneto-optical tweezers measurement of interparticle potential and drag coefficient in nematic colloids
M. Vilfan, J. Kotar, N. Osterman, D. Babic, M. Copic, I. Poberaj
J. Stefan Institute, Slovenia
- COLLP-17 Temperature-dependent electric characteristics in an E7/CNT colloid
K. X. Yang, W. Lee
Chung Yuan Christain University, Taiwan
- COLLP-18 Band structure of coupled orientational modes in a quasi-periodic H-PDLC
M. Copic, M. Avsec, I. Drevenšek-Olenik, A. Mertelj, G. P. Crawford, S. P. Gorkhali
Jozef Stefan Institute and University of Ljubljana, Slovenia
- COLLP-19 Dynamics of colloidal particles in nematic liquid crystals
K. Takahashi, Y. Fujiwara, M. Ichikawa, Y. Kimura
Kyushu University, Japan
- COLLP-20 Aggregation kinetics of colloids suspended in a nematic liquid crystal
T. Araki, H. Tanaka
University of Tokyo, Japan
- COLLP-21 Synthesis and physico-chemical properties for 4-(4-perfluorooctyl-3-X-butoxy)alkoxybenzenes
H. Okamoto, Y. Morita, Y. Matsue, S. Takenaka, H. Kita
Yamaguchi University, Japan
- COLLP-22 Gelation of nematic liquid crystals: An ESR investigation
C. R. Mamat, G. R. Luckhurst, S. Marchant-Lane, D. A. Dunmur, T. Kato
University of Southampton, United Kingdom
- COLLP-23 The pretilt angle control in the tilted homeotropic alignment using SiC films with various Si/C ratio
J. Kim, K. C. Kim, H. J. Ahn, B. H. Hwang, D. C. Hyun, H. K. Baik
Yonsei University, South Korea
- COLLP-24 Dielectric constants and energy storage in liquid crystal emulsions
C. Braganza, L. Chien, M. Fisch, R. G. Petschek, L. Guo
Kent State University, USA
- COLLP-25 Dispersions of pyrogenic aluminum oxides in a liquid crystal solvent
C. T. Yim, F. G. Morin, L. Reven
Dawson College, Canada



- COLLP-26 Liquid crystal directed assembly of metallic nanoparticle waveguides in capillaries
P. Kossyrev, M. Ravnik, G. Withey, J. Xu, S. Zumer
Brown University, USA
- COLLP-27 Periodic stripe patterns in nematic liquid crystals doped with gold nanoparticles
H. Qi, T. Hegmann
University of Manitoba, Canada
- COLLP-28 Translational motion of colloidal particles in nematic liquid crystals controlled by the frequency and amplitude of the applied electric field
O. Pishnyak, S. Shiyanovskii, O. D. Lavrentovich
Kent State University, USA
- COLLP-29 Nanoparticle doped polymer dispersed liquid crystals: Composites with reduced off-axis haze
O. V. Yaroshchuk, L. Dolgov
National Academy of Sciences of Ukraine, Ukraine
- COLLP-30 The morphology of liquid crystal – polymer composites and its modification by nanoparticles
O. V. Yaroshchuk, L. Dolgov, L. Qiu
National Academy of Sciences of Ukraine, Ukraine
- COLLP-31 Coexistence of hexagonal and dense quasi-hexagonal colloid lattices at the nematic-air interface
V. Nazarenko, U. M. Ognysta, A. Nych, V. M. Pergamenshchik, B. I. Lev, M. Skarabot, I. Musevic, I. Smalyukh, O. D. Lavrentovich
National Academy of Sciences of Ukraine, Ukraine
- COLLP-32 Soft repulsion as effective attraction: Exotic ordering in soft colloids
Z. Smith, J. Santos, S. Kadlec, J. Hausinger, P. Beale, N. A. Clark, M. Glaser
University of Colorado, USA
- COLLP-33 Photopolymerization of self-assembled fibers in liquid crystalline gels for stable electrooptical switching in light scattering mode
Y. Hirai, N. Mizoshita, M. Moriyama, T. Kato
The University of Tokyo, Japan
- COLLP-34 Structure of a liquid crystalline fluid around a macroparticle: Density functional theory study
D. L. Cheung, M. P. Allen
University of Warwick, United Kingdom

LASEP

Posters - LC lasers

Room:

Crestone/Colorado Rockies

- LASEP-1 Wide tunable cholesteric liquid crystal lasers: New approaches and development
G. Chilaya, A. Chanishvili, G. Petriashvili, R. Barberi, R. Bartolino, G. Cipparrone, A. Mazzulla, L. Oriol, P. Shibaev
Academy of Sciences of Georgia, Georgia
- LASEP-2 Light controllable tuning of lasing and structural changes in chiral liquid crystals
P. V. Shibaev, R. L. Sanford, D. Chiappetta, P. Rivera, V. A. Belyakov
Fordham University, USA
- LASEP-3 Tunable lasing characteristics in cholesteric liquid crystals
K. Sonoyama, Y. Takanishi, K. Ishikawa, H. Takezoe
Tokyo Institute of Technology, Japan
- LASEP-4 Wavelength-variable laser in a hybrid photonic crystal containing ferroelectric liquid crystal
Y. Matsuhisa, W. Haase, K. Yoshino, M. Ozaki
Osaka University, Japan
- LASEP-5 Lasing thresholds of obliquely pumped cholesteric liquid crystal lasers
M. F. Moreira, B. Taheri, P. Palffy-Muhoray, V. A. Belyakov



Kent State University, USA

- LASEP-6 Tunable Chiral Photonic Defect Modes in Locally Polymerized Cholesteric Liquid Crystals
H. Yoshida, L. Chee Heng, A. Fujii, M. Ozaki
Osaka University, Japan
- LASEP-7 Single- and two-photon lasing properties of dye-doped chiral nematic liquid crystals
K. Shiota, S. Kawata
RIKEN (The Institute of Physical and Chemical Research), Japan
- LASEP-8 Electro-tunable non-reciprocal laser emission in a liquid crystal photonic device
M. H. Song
Korea Advanced Institute of Science and Technology, South Korea
- LASEP-9 Distributed feedback micro-laser array: Helixed liquid crystals embedded in holographically sculptured polymeric microcavities
V. Barna, G. Strangi, R. Caputo, A. De Luca, C. Versace, N. Scaramuzza, C. Umeton, R. Bartolino, G. N. Price
University of Calabria, Italy
- LASEP-10 Phenomenon of selective reflection in one-dimensional photonic crystals in feedback lasers
Z. Mykytyuk, I. Ilchyshyn, A. Fechan, V. Gural
Lviv Polytechnic National University, Ukraine
- LASEP-11 Photonic bandgap effect on lasing threshold in liquid crystalline structure
C. Mu Guen, C. In Jae
Korea Advanced Institute of Science and Technology, South Korea
- LASEP-12 Dynamic lasing from holographic polymer dispersed liquid crystals (H-PDLCs)
T. J. Bunning, R. Jakubiak, D. Brown, R. Vaia, P. Lloyd, V. Tondiglia, L. Natarajan, R. L. Sutherland
AFRL, USA

SURFP *Posters - Interfaces and surfaces*

Room: *Crestone/Colorado Rockies*

- SURFP-1 Electrohydrodynamic instability in cholesteric liquid crystals under controlling helical pitch
J. H. Huh
Kyushu Institute of Technology, Japan
- SURFP-2 Dependence of the pretilt angle in a discotic liquid crystal on the rubbing strength and the phase temperature
K. V. Le, K. Amemiya, Y. Takanishi, K. Ishikawa, H. Takezoe
Tokyo Institute of Technology, Japan
- SURFP-3 Randomness and confinement driven glassy behaviour in nematic liquid crystals
M. Forjan, V. Popa Nita, M. Ambrozic, S. Kralj
University of Maribor, Slovenia
- SURFP-4 Electro-optical properties of nematic liquid crystal emulsion
A. G. Maksimochkin, S. V. Pasechnik, G. I. Maksimochkin, V. A. Tsvetkov, V. G. Chigrinov
Moscow State University of Instrument Engineering and Computer Sciences, Russia
- SURFP-5 Light induced changes of helix pitch in cholesteric liquid crystal cells
T. N. Orlova, A. D. Kiselev, R. I. Egorov
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine



- SURFP-6 A comparative study of heptyloxycyanobiphenyl (7OCB) and nonyloxycyanobiphenyl (9OCB) under sub-micrometer cylindrical confinement
M. R. De la Fuente, S. Diez, M. A. Perez-Jubindo, D. O. Lopez, J. Salud, M. Barrio, J. L. Tamarit
Universidad del Pais Vasco, Spain
- SURFP-7 Enhancement of Freedericksz threshold voltage of nematic liquid crystals in thin cells
S. Dhara
Birla Institute of Technology and Science, India
- SURFP-8 Experimental investigations on weakly polar liquid crystal-aerosil composites
S. K. Prasad, C. V. Lobo, C. V. Yelamaggad
Centre for Liquid Crystal Research, India
- SURFP-9 Investigations on the smectic A–smectic-C transition of conventional and ‘de Vries’ types of materials in bulk and confined geometries
S. K. Prasad, C. V. Lobo, K. L. Sandhya, D. S. S. Rao, C. Bahr
Centre for Liquid Crystal Research, India
- SURFP-10 Quasi-divergent nematic surface electroclinic effect
M. H. Zhu, G. Carbone, C. Rosenblatt
Case Western Reserve University, USA
- SURFP-11 Intermediate-rigid regime crossover for an aerosil network dispersed in liquid-crystal
S. Kralj, G. Cordoyiannis, G. Nounesis, Z. Kutnjak, S. Zumer
Jozef Stefan Institute, Slovenia
- SURFP-12 Smectic tilt susceptibility: Anharmonic behavior in surface-induced smectic layers above the nematic—smectic-A transition temperature
Z. Huang, G. Carbone, C. Xia, G. P. Sinha, C. Rosenblatt
Case Western Reserve University, USA
- SURFP-13 Polarization characteristics of twist nematic LC grating fabricated from polarization hologram
A. Y. -. G. Fuh, S. T. Wu
National Cheng Kung University, Taiwan
- SURFP-14 Study of liquid crystal in contact with aqueous solutions for detection of biomolecules
K. Neyts, J. Da Sylva, H. Desmet, H. Azarinia, I. Bartolozzi, E. Schacht
Ghent University, Belgium
- SURFP-15 The nature of prolate shape of nematic drops (tactoids) in lyotropic liquid crystals
A. Kaznacheev
Institute of Organo-Element Compounds RAS, Russia
- SURFP-16 Azo-dye layer property and cladding in silicon waveguide & resonator
Z. Liu, A. A. Muravsky, V. G. Chigrinov
The Hong Kong University of Science and Technology, Hong Kong
- SURFP-17 Anchoring transition and influence of director fluctuations in liquid crystal droplets
V. S. S. Sastry, G. Saipreeti, N. Satyavathi, K. P. N. Murthy
University of Hyderabad, India
- SURFP-18 Structural transition in thin nematic films on curved surfaces: Role of surface anchoring
V. S. S. Sastry, D. Jayasri, T. Sairam, K. P. N. Murthy
University of Hyderabad, India
- SURFP-19 Dependence of the anchoring energy on the applied voltage in a nematic cell
L. R. Evangelista, R. S. Zola, G. Barbero
Universidade Estadual de Maringá, Brazil



- SURFP-20 An intrinsic unified surface anchoring strength at interfaces of a thin nematic slab
K. Heo, S. Takayama, K. Usami, A. Sugimura
Osaka Sangyo University, Japan
- SURFP-21 Cano-Granjean wedge at weak surface anchoring
V. A. Belyakov
Russian Academy of Sciences, Russia
- SURFP-22 Structure transformations of confined chiral LC influenced by surface anchoring
V. A. Belyakov
L.D. Landau Institute for Theoretical Physics, Russia
- SURFP-23 Orientational order in 12CB – aerosil gels
D. Finotello, V. Pandya
Kent State University, USA
- SURFP-24 High twist angles for NLC without chiral dopants
A. Muravsky, A. Murauski, X. Li, V. Chigrinov
Center for Display Research, Hong Kong
- SURFP-25 Novel liquid crystal alignment method: Ion beam technique and its applications
H. J. Ahn, K. C. Kim, J. B. Kim, B. H. Hwang, D. C. Hyun, H. K. Baik
Yonsei University, South Korea
- SURFP-26 Acoustic study of N-I phase transition in liquid crystal-silicon oil emulsion
G. I. Maksimochkin, S. V. Pasechnik, A. G. Maksimochkin, V. A. Tsvetkov, M. Svetec, S. Kralj
Moscow State University of Instrument Engineering and Computer Sciences, Russia
- SURFP-27 Weak anchoring effects in electrically driven Freedericksz transitions
G. Napoli
Politecnico di Milano, Italy
- SURFP-28 Finite-size effects and quenched random disorder in liquid crystal microemulsions and confined systems
Z. Kutnjak, G. Cordoyiannis, G. Nounesis, S. Kralj, S. Zumer
Jozef Stefan Institute, Slovenia
- SURFP-29 Photoalignment of cholesteric liquid crystals
E. Ouskova, O. Kurochkin, Y. Reznikov, Y. Kurioz, O. Tereshchenko, R. Vovk, D. H. Kim, S. K. Park, S. B. Kwon
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- SURFP-30 Magnetically-induced drift of easy orientation axis over polymer surface with a weak anchoring
Y. Reznikov, O. Buluy, K. Slyusarenko
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- SURFP-31 Thermal desorption of the surface monolayer
M. Reznikov, C. Chen, A. Nych, V. Nazarenko, M. O'Callaghan, P. Bos
Kent State University, USA
- SURFP-32 Changing of contact angle of nematic with photoaligning surface at anchoring transition of liquid crystal from homeotropic to planar state
Y. Reznikov, O. Bukaraseva, I. Gvozдовskyy, Y. Kurioz, D. Kurysh
National Academy of Sciences of Ukraine, Ukraine
- SURFP-33 Gray-scale improvement by hysteresis reduction of dichroic polymer dispersed liquid crystal (PDLC)
A. Masutani, T. Roberts, B. Schüller, N. Hollfelder, P. Kilickiran, G. Nelles, A. Yasuda, A. Sakaigawa
Sony Deutschland GmbH, Germany,



- SURFP-34 Intermolecular interactions in langmuir and langmuir-blodgett films of azo dye/liquid crystal mixtures
D. A. Bauman, K. Ingot, T. Martynski
Poznan University of Technology, Poland
- SURFP-35 Analysis of the orientational ordering process of depositing 4-n-pentyl-4'-cyanobiphenyl molecules onto polyimide Langmuir-Blodgett films
D. Taguchi, M. Hamatsu, T. Manaka, M. Iwamoto
Tokyo Institute of Technology, Japan
- SURFP-36 Monolayer films of novel imidazolium-based and pyridinium-based ionic discotic mesogenic molecules at liquid-air and solid-air interfaces
K. A. Suresh, A. Nayak, S. Kumar, S. K. Pal
Raman Research Institute, India
- SURFP-37 Aligning properties of surfaces with DVD structures
V. A. Tsvetkov, S. V. Pasechnik, G. I. Maksimochkin, V. M. Kozenkov, G. N. Dorozhkina, A. A. Angelutz, A. V. Lezhnev
Moscow State Academy of Instrument Engineering and Computer Sciences, Russia
- SURFP-38 Aerosil dispersed liquid crystals: The picture from dielectric spectroscopy
J. Leys, G. Sinha, A. Oka, A. Hourri, C. Glorieux, J. Thoen
Laboratorium voor Akoestiek en Thermische Fysica, Belgium
- SURFP-39 Liquid crystal in rectangular channels: new possibilities for three dimensional studies
S. V. Pasechnik, .. D. V. Shmeliova, V. G. Chigrinov, V. A. Tsvetkov, A. V. Dubtsov
Moscow State Academy of Instrument Engineering and Computer Sciences, Russia
- SURFP-40 Non-stable orientational structures in the nematic droplets
O. O. Prishchepa, V. Y. Zyryanov, V. F. Shabanov, A. V. Shabanov
L.V. Kirensky Institute of Physics SB RAS, Russia
- SURFP-41 Ordered structures in hybrid liquid crystal films: A non-Boltzmann Monte Carlo study
V. S. S. Sastry, G. Saipreeti, K. P. N. Murthy
University of Hyderabad, India
- SURFP-42 Simulation of phase separation in confined polymer-liquid-crystal mixtures
M. Bazec, S. Zumer
University of Ljubljana, Slovenia
- SURFP-43 Measuring the surface order parameter of a liquid crystal cell using the phase transition droplet method and polarized IR absorption
S. J. Oh, K. Kuboki, T. Miyashita, T. Uchida
Tohoku University, Japan
- SURFP-44 Nematic director configurations in patterned planar and homeotropic anchored surfaces
T. J. Spencer, C. M. Care
Sheffield Hallam University, United Kingdom
- SURFP-45 Dynamics of dislocation loops in one and two layer freely suspended films of fluorinated SmA liquid crystals
C. S. Park, N. A. Clark
University of Colorado, USA
- SURFP-46 Small - angle X-ray scattering study in liquid crystals drops
L. S. Gomes, N. R. Demarquette, I. Torriani
Escola Politecnica da Universidade de Sao Paulo, Brazil



- SURFP-47 Striped patterns in smectic A liquid crystals in mixtures of compounds made of rod-like and bent-core molecules
R. Pratibha, N. V. Madhusudana, B. K. Sadashiva
Raman Research Institute, India
- SURFP-48 Precise method for determination of polar anchoring energy
A. Murauski, V. Chigrinov
Center for Display Research, Hong Kong
- SURFP-49 Surface anchoring energy of nematic liquid crystals on perfluoropolyether Langmuir-Blodgett films
J. M. Russell-Tanner, S. Takayama, A. Sugimura, J. M. DeSimone, E. T. Samulski
University of North Carolina at Chapel Hill, USA
- SURFP-50 Exact results for the reorientation of the director field in nematic liquid crystals: Green's function approach
C. A. R. Yednak, R. N. Igarashi, E. K. Lenzi, L. R. Evangelista
Universidade Estadual de Maringá, Brazil
- SURFP-51 Compression induced achiral-chiral phase transition of monolayers comprised of banana-shaped achiral molecules at the air-water interface: analysis of geometry effect based on Williams-Bragg approach
T. Yamamoto, T. Manaka, D. Taguchi, M. Iwamoto
Tokyo Institute of Technology, Japan
- SURFP-52 Contribution of electrostatic energy to curvature and Frank elastic energy of monolayer domains comprised of polar molecules: Shape of domains with orientational deformation
T. Yamamoto, T. Manaka, M. Iwamoto
Tokyo Institute of Technology, Japan
- SURFP-53 High-precision measurement of polar anchoring strength using psi delta HAN cell (PDH) method
Y. Ohno, T. Ishinabe, T. Miyashita, T. Uchida
Tohoku University, Japan
- SURFP-54 Excimer formation in Langmuir-Blodgett films of liquid crystalline perylene derivatives
R. Hertmanowski, T. Martynski, R. Stolarski, D. A. Bauman
Poznan University of Technology, Poland
- SURFP-55 Patterned surfaces obtained via surface memory effect
M. Krasna, R. Repnik, M. Kokole, Z. Bradac, J. Pirs, I. Gerlic, S. Kralj
Faculty of Education, Slovenia
- SURFP-56 Electro-optical characteristics of vertical alignment cell by ion-beam exposure on the SiC thin film layer
J. Y. Hwang, S. H. Choi, Y. H. Kim, J. H. Ryu, J. Jang, D. S. Seo
Yonsei University, South Korea
- SURFP-57 Electro-optical characteristics of flexible liquid crystal display using photopolymer surface
J. Y. Hwang, S. H. Choi, B. Y. Kim, Y. P. Park, D. S. Seo
Yonsei University, South Korea
- SURFP-58 Effect of mechanical rubbing on surface energy of poly(vinyl) alcohol thin films and the observation of the contact angle of a liquid crystal on the rubbed polymer surface
W. Zheng, G. Y. Lin
National Sun Yat-Sen University, Taiwan
- SURFP-59 Surface anchoring energy of nematic liquid crystals with negative dielectric anisotropy determined by saturation voltage method
Y. Sasaki, H. Ichinose, H. Naito
Osaka Prefecture University, Japan



- SURFP-60 Ultra-weak azimuthal anchoring of a nematic liquid crystal on a planar orienting photopolymer
M. Nobili, M. Nespoulous, C. Blanc
Université Montpellier II/CNRS, France
- SURFP-61 Surface quenched disorder of a nematic liquid crystal
M. Nobili, M. Nespoulous, C. Blanc
Université Montpellier II/CNRS, France
- SURFP-62 Control of the flow of a nematic liquid crystal in a confined micro-channel
Y. J. Na, H. Pae, S. D. Lee
Seoul National University, South Korea
- SURFP-63 Surface effects on 2-dimensional anisotropic phase separation from liquid crystal and polymer composites
Y. J. Lee, M. Y. Jin, J. W. Jung, H. R. Kim, Y. Choi, J. H. Kim, K. S. Bae
Hanyang University, South Korea
- SURFP-64 Study of the phase transitions in nematic liquid crystals under ultrasound field
L. S. Bezhanova, A. R. Mkrtychyan, M. L. Baburyan, Z. V. Baghdasaryan
National Academy of Sciences of Armenia, Armenia
- SURFP-65 Precision temperature measurements on thin liquid crystal cell
I. A. Khan, S. Akhtar, R. Mahmood
University of Karachi, Pakistan
- SURFP-66 Nonsingular wall motion in twisted nematic layers
V. A. Belyakov, W. Kuczynski
L.D. Landau Institute for Theoretical Physics, Russia
- SURFP-67 Nonsingular walls in plane cholesteric layers
V. A. Belyakov, M. A. Osipov, I. W. Stewart
L.D. Landau Institute for Theoretical Physics, Russia
- SURFP-68 A simple model for blade coating of a nematic
J. Quintans Carou, S. K. Wilson, N. J. Mottram, B. R. Duffy
University of Strathclyde, United Kingdom

Poster Session 3, 9:40 PM - 10:40 PM

BENTP Posters - Bent-core LCs

Room: *Crestone/Colorado Rockies*

- BENTP-1 Banana shaped mesogens with lateral methyl substituents
R. R. Mahajan, A. R. Vora
M.S. University of Baroda, India
- BENTP-2 N,N'-bis[4-(4-n-alkyloxybenzoyloxy)salicylidene]-phenylene-4-substituted-1,3-diamines: Mesomorphism and physical properties
N. V. S. Rao, D. Rajdeep
Assam University, India
- BENTP-3 Guiding of optical fields in a liquid crystal cylindrical fiber consisting of banana-shaped molecules
L. O. Palomares Hernández, J. A. Reyes Cervantes
Universidad Nacional Autónoma de México, Mexico



- BENTP-4 A bi-layer model for combined Goldstone mode and chirality switching in the four B2 SmCP structures of bent-core liquid crystals
M. J. O'Callaghan, Y. Zhang
Displaytech Inc, USA
- BENTP-5 Optical, dielectric and curvature elastic constant measurements on mixtures made of bent-core and rod-like molecules
B. Kundu, R. Pratibha, N. V. Madhusudana
Raman Research Institute, India
- BENTP-6 Preferential chirality prepared from achiral banana-shaped molecule using twisted cell configurations
S. W. Choi, S. Kang, Y. Takanishi, K. Ishikawa, J. Watanabe, H. Takezoe
Tokyo Institute of Technology, Japan
- BENTP-7 Polar structures in the binary mixtures of bent-core liquid crystals showing ferroelectric and antiferroelectric B2 phases
Y. Niigawa, K. Nishida, W. J. Kim, S. K. Lee, S. Heo, J. G. Lee, Y. Takanishi, K. Ishikawa, K. T. Kang, H. Takezoe
Tokyo Institute of Technology, Japan
- BENTP-8 Effect of large electric field on the electrical conductivity of banana-like molecule (B14) in the isotropic phase
A. M. Figueiredo Neto, O. G. Martins, G. Barbero, A. M. Pedreira, A. Jákli, S. Rauch
Universidade de São Paulo, Brazil
- BENTP-9 Doping calamitic smectic phases with banana-shaped molecules - a way to orthoconic antiferroelectric liquid crystals?
C. Selbmann, F. Goc, G. Heppke, S. Rauch
Technische Universität Berlin, Germany
- BENTP-10 Ambidextrous chirality and splay-bend textures in banana liquid crystals are less energetic than a uniform state when quadrupolar and tetrahedral order coexist
H. Pleiner, P. E. Cladis, H. R. Brand
Max Planck Institute for Polymer Research, Germany
- BENTP-11 Achiral bent-core liquid crystals with azo and azoxy linkages: Structural, nonlinear optical properties and photoisomerization
J. Ortega, J. Etxebarria, C. Folcia, I. Alonso, B. Ros, I. Pintre
Universidad del Pais Vasco, Spain
- BENTP-12 Orientational properties of banana-shaped molecules in the magnetic field by ^2H NMR
V. Domenici, C. A. Veracini, K. Fodor-Csorba, B. Zalar
Universita' di Pisa, Italy
- BENTP-13 Dielectric and polarization reversal studies in a bent-core liquid crystal with a glassy B2 phase
M. R. De la Fuente, M. A. Perez-Jubindo, B. Ros, N. Gimeno
Universidad del Pais Vasco, Spain
- BENTP-14 Polymorphism of the nematic and SmCP phases observed in new series of hockey stick mesogens
V. Novotna, J. Svoboda, J. Zacek, V. Kozmik, M. Glogarova
Academy of Science of the Czech Republic, Czech Republic
- BENTP-15 Structural study of a bent-core liquid crystal showing the B1-B2 transition
J. Ortega, J. Etxebarria, C. Folcia, B. Ros
Universidad del Pais Vasco, Spain
- BENTP-16 Optically isotropic phases in a bent-core liquid crystal: Origin, structure and applications
J. Ortega, J. Martinez-Perdiguero, I. Alonso, C. Folcia, J. Etxebarria
Universidad del Pais Vasco, Spain



- BENTP-17 Interesting new ester-based banana phase materials
E. Tsai, M. Nakata, C. Venditto, N. A. Clark, D. M. Walba
University of Colorado, USA
- BENTP-18 Banana-shaped liquid crystals with carbonate end groups
K. Fodor-Csorba, A. Jákli, A. Vajda, E. Gács-Baitz, S. K. Prasad, D. S. Rao, J. Xu, R. Dong, G. Galli
Hungarian Academy of Sciences, Hungary
- BENTP-19 Synthesis of bent shaped liquid crystals containing azobenzene chromophores
M. L. Rahman, J. Asik, C. Tschierske
University Malaysia Sabah, Malaysia
- BENTP-20 A room-temperature banana-shaped SmC_AP_F material for electro-optic modulators
Y. Zhang, M. J. O'Callaghan, M. D. Wand, W. N. Thurmes
Displaytech Inc, USA
- BENTP-21 Synthesis, characterization, spontaneous polarization and dielectric relaxation studies in the ferroelectric phase of bent (banana or bow) liquid crystal: Bent-11
M. Srinivasulu, V. C. Pallavajhula, D. Potukuchi, V. G. K. M. Pisipati
Manipal Institute of Technology, India
- BENTP-22 Towards novel banana-shaped triple helical liquid crystal by metal coordination
M. Manickam, J. A. Preece, P. Iqbal
The University of Birmingham, England
- BENTP-23 Spectroscopy investigation of antiferroelectric liquid crystals composed of banana-shaped molecules
A. Dobrowolska, W. Otowski, W. J. Witko, K. Fodor-Csorba
Cracow University of Technology, Poland
- BENTP-24 Synthesis and textural characterization of a new class of bent core azo benzene achiral liquid crystals
M. L. N. Madhu Mohan, N. Sivakumar
Bannari Amman Institute of Technology, India

OPTIP **Posters - LC optics and photonics**

Room: *Crestone/Colorado Rockies*

- OPTIP-1 Mechanical shear in HPDLC thiol-ene reflection gratings
V. Tondiglia, L. Natarajan, T. J. Bunning, R. L. Sutherland
SAIC, USA
- OPTIP-2 A simple method to determine the pitch of chiral nematic liquid crystal
T. T. Tang, H. Y. Wu, C. J. Lin, R. P. Pan
National Chiao Tung University, Taiwan
- OPTIP-3 An alternative description of multi-dimensional optics in liquid crystals and uniaxial media solved by operators and sparse linear systems
S. Tang, J. Kelly
Kent State University, USA
- OPTIP-4 Theoretical and experimental analysis of cholesteric broadband reflectors with thermally induced pitch gradients
M. Mitov, D. C. Zografopoulos, E. E. Kriezis, C. Binet
CNRS, France



- OPTIP-5 Going beyond the reflectance limit of cholesteric liquid crystals
M. Mitov, N. Dessaud
CNRS, France
- OPTIP-6 Rewritable liquid crystal gratings fabricated by the photo-alignment effect in a cell with dye-doped PVA film
W. Y. Wu, A. Y. -. G. Fuh
National Cheng Kung University, Taiwan
- OPTIP-7 Electro-optic properties of holographic polymer-stabilized cholesteric liquid crystals patterned with reflection-type gratings
E. R. Beckel, L. V. Natarajan, V. Tondiglia, R. L. Sutherland, T. J. Bunning
Air Force Research Laboratory, USA
- OPTIP-8 An inverse problem: Characterisation of liquid crystal cells by waveguide experiments
S. L. Cornford, J. R. Sambles
University of Exeter, United Kingdom
- OPTIP-9 Temperature dependence of optical anisotropy of transmission gratings made from holographic polymer-dispersed liquid crystals
M. Copic, I. Drevenšek-Olenik, M. Fally, M. A. Ellabban
Jozef Stefan Institute and University of Ljubljana, Slovenia
- OPTIP-10 Photo-neutronrefractive effect in holographic polymer dispersed liquid crystals
M. Copic, I. Drevenšek-Olenik, H. Uršič, M. Fally, M. A. Ellabban, P. K. Pranzas, J. Vollbrandt
Jozef Stefan Institute and University of Ljubljana, Slovenia
- OPTIP-11 Theoretical studies of photorefraction in hybrid liquid crystal cells
V. Y. Reshetnyak, T. J. Sluckin, G. Cook, D. R. Evans
Kyiv National Taras Shevchenko University, Ukraine
- OPTIP-12 Pressure driven liquid crystal fiber
A. Corella, J. A. Reyes
Universidad de Sonora, Mexico
- OPTIP-13 Fabry Perot scattering studies of binary cholesteryl liquid crystal mixtures
S. J. Gupta, A. S. Kanwar, R. S. Shukla, L. Mathew, T. S. George.
University of Mumbai, India
- OPTIP-14 The effect of fluorinated molecules on electro-optical properties of polymer dispersed liquid crystals
V. Presnyakov, L. Simonyan, A. Ritcey, T. Galstian
Laval University, Canada
- OPTIP-15 Controlling photo polymerization-induced phase separation for structured polymer dispersed liquid crystals
C. Kjellander, A. Prenen, L. J. IJzendoorn, D. J. Broer
Eindhoven University of Technology and Dutch Polymer Institute, Netherlands
- OPTIP-16 Modelling and analysis of integrated liquid crystal devices
Q. Wang, G. Farrell, Y. Semenova
Dublin Institute of Technology, Ireland
- OPTIP-17 Liquid crystal anisotropic properties in microwave frequency range
J. Parka, J. Krupka, R. Dabrowski, J. Wosik
Institute of Applied Physics, Poland
- OPTIP-18 Laser-induced surface-assisted photoalignment in dye-doped liquid crystal films
C. R. Lee, Y.-S. Huang
National Cheng Kung University, Taiwan
- OPTIP-19 Polarization of light transmitted through cholesteric cells: singular optics approach
I. O. Buinyi, R. I. Egorov, R. G. Vovk, A. D. Kiselev, M. S. Soskin



- Institute of Physics, National Academy of Sciences of Ukraine, Ukraine*
- OPTIP-20 Gap material study for holographically formed polymer liquid crystal composite film stacks
A. E. Fox, A. K. Fontecchio
Drexel University, USA
- OPTIP-21 Surface-mediated non-linear optical effects in liquid crystals
T. J. Sluckin, V. Y. Reshetnyak
University of Southampton, United Kingdom
- OPTIP-22 Optical properties of cholesteric liquid crystals with periodic helix deformations
H. Yoshida, A. Fujii, K. Yoshino, M. Ozaki
Osaka University, Japan
- OPTIP-23 Scattering of light in helical liquid crystals with large pitch
E. Aksenova
Saint Petersburg State University, Russia
- OPTIP-24 Light propagation in helical media with large periodicity in the turning point vicinity
E. Aksenova, E. Kryukov, V. Romanov
Saint Petersburg State University, Russia
- OPTIP-25 Determination of liquid crystal pre-tilt in cells with anisotropic photorefractive windows
R. L. Sutherland, G. Cook, D. R. Evans
SAIC, USA
- OPTIP-26 Interaction of nematic liquid crystals with simultaneously applied light and DC electric fields
A. S. Zolot'ko, I. A. Budagovsky, V. N. Ochkin, A. V. Shakun, M. P. Smayev, M. I. Barnik
P.N. Lebedev Physical Institute, Russian Academy of Sciences, Russia
- OPTIP-27 Orientational optical nonlinearity of nematic liquid crystal doped with comb-like polymer
A. S. Zolot'ko, I. A. Budagovsky, N. I. Lyukhanov, M. P. Smayev, A. Y. Bobrovsky, V. P. Shibaev, M. I. Barnik
P.N. Lebedev Physical Institute, Russian Academy of Sciences, Russia
- OPTIP-28 Model of light-induced anchoring evolution in nematic phase of liquid crystal doped with azo-dye
E. Ouskova, N. Aryasova, D. Fedorenko
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- OPTIP-29 Optical properties of parabolic and spherical holographic mirrors formed in polymer-dispersed liquid crystal films
A. K. Fontecchio, M. L. Ermold
Drexel University, USA
- OPTIP-30 Ideal polarization conversion in liquid crystal devices by Mueller matrices and Poincaré sphere
F. Zhou, D. K. Yang
Kent State University, USA
- OPTIP-31 Single gap transfective fringe-field switching display
M. O. Choi, Y. J. Lim, E. Jung, S. H. Lee
Chonbuk National University, South Korea
- OPTIP-32 A biphotonic recording effect of polarization gratings based on dye-doped liquid crystal films
K. T. Cheng, C. R. Lee, A. Y.-G. Fuh
National Cheng Kung University, Taiwan
- OPTIP-33 Planar-periodic alignment of liquid crystals using azo-dye command layer for tunable polarization gratings
V. Presnyakov, K. Asatryan, T. Galstian, V. Chigrinov
Laval University, Canada



- OPTIP-34 Surface-mediated photorefraction of nematic liquid crystals; association with electrical characteristics of the cell
Y. Reznikov, P. Korniychuk, O. Tereshchenko
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- OPTIP-35 Photo-galvanic effect in 5CB doped with azo-dye
Y. Reznikov, S. Kucheev, D. Fedorenko
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- OPTIP-36 Optical tweezers system by using a liquid crystal optical device
M. Kawamura, M. Ye, S. Sato
Akita University, Japan
- OPTIP-37 Defect mode analysis in one-dimensional dual photonic crystal with helix
Y. Matsuhisa, Y. Takao, R. Ozaki, K. Yoshino, M. Ozaki
Osaka University, Japan
- OPTIP-38 Simplified Poincaré sphere representation for the viewing angle characteristics of liquid crystal displays
S. R. Lee, T. H. Yoon, J. C. Kim
Pusan National University, South Korea
- OPTIP-39 Photorefractive gratings in suspension of ferroelectric particles in nematic liquid crystals
O. Buchnev, A. Dyadyusha, M. Kaczmarek, Y. Reznikov, V. Y. Reshetnyak, O. Tereshchenko
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- OPTIP-40 High resolution, optical patterning of liquid crystal-polymer structures
G. Gilchrist, G. D'Alessandro, M. Kaczmarek, A. Dyadyusha
University of Southampton, United Kingdom
- OPTIP-41 Photoluminescence of porous silicon filled with liquid crystal n-pentyl-n'-cyanobiphenyl
O. V. Yaroshchuk, Y. P. Piryatinskiy, S. K. Lazarouk
Institute of Physics of National Academy of Sciences of the Ukraine, Ukraine
- OPTIP-42 Electrically controlled liquid crystal 2π terahertz phase shifter
C. F. Hsieh, R. P. Pan, H. Y. Wu, T. T. Tang, C. L. Pan
National Chiao Tung University, Taiwan
- OPTIP-43 The enhancement of diffraction in liquid crystals on dye-doped polymer films
S. Y. Huang
National Sun Yat-sen University, Taiwan
- OPTIP-44 Visible laser light initiated thiol-ene based reflection H-PDLCs
L. V. Natarajan, J. Wofford, V. Tondiglia, R. L. Sutherland, P. Lloyd, T. J. Bunning, D. Brown
SAIC, USA
- OPTIP-45 Light scattering in liquid crystals - an algorithm for the automation of light scattering system
K. Sobczak, R. Mahmood, H. Fellner, D. R. Hemphill, E. J. Hardin
Slippery Rock University, USA
- OPTIP-46 Finite-difference time-domain method simulation of light propagation through H-PDLC film
V. O. Kubytzkyi, V. Y. Reshetnyak, T. Galstian
Kyiv National Taras Shevchenko University, Ukraine

SUPRP **Posters - Supramolecular assembly**

Room: *Crestone/Colorado Rockies*

SUPRP-1 Tailoring lamellar and columnar mesophases with C60 containing liquid crystals
D. Guillon, J. Lenoble, S. Campidelli, B. Donnio, R. Deschenaux
IPCMS, France

SUPRP-2 How important is symmetry, anyway?



V. E. Williams

Simon Fraser University, Canada

- SUPRP-3 Comparison of two thermotropic cubic mesogens ANBCs and BABHs
S. Kutsumizu, H. Mori, M. Fukatami, K. Saito
Gifu University, Japan
- SUPRP-4 Columnar mesophase with the intracolumnar nano-segregation induced by fluorophilic and fluorophobic effects in perfluoroalkylated triphenylenes
Y. Shimizu, H. Monobe, N. Terasawa, K. Kiyohara
National Institute of Advanced Industrial Science and Technology (AIST), Japan
- SUPRP-5 H-Bond-stabilized triphenylene-based columnar discotic liquid crystals
I. Paraschiv, M. Giesbers, A. T. M. Marcelis, H. Zuilhof, E. J. R. Sudhölter
Wageningen University, Netherlands
- SUPRP-6 Hydrogen bonding in 4-pyridone liquid crystalline materials
D. J. Dyer, C. Li, J. Wolf, E. Conlin
Southern Illinois University, USA
- SUPRP-7 Two-stage self-assembly of star-shaped mesogens in double helices
I. R. Gearba, D. A. Ivanov, D. V. Anokhin, S. Magonov, M. Lehmann
Institut de Chimie des Surfaces et Interfaces, France
- SUPRP-8 Molecular dynamic simulation of self-assembled chiral membranes
Z. Lu, R. L. B. Selinger, J. V. Selinger
Kent State University, USA
- SUPRP-9 Supramolecular chirality in liquid-crystalline folic acid derivatives: Effects of intermolecular hydrogen bonds at dendritic oligopeptide moieties
Y. Kamikawa, T. Kato
The University of Tokyo, Japan
- SUPRP-10 Columnar liquid crystals having an ethylenecarbonate moiety for anisotropic ion conductors
H. Shimura, M. Yoshio, T. Mukai, H. Ohno, T. Kato
The University of Tokyo, Japan
- SUPRP-11 Liquid crystalline oligothiophene-based block molecules containing a tetra(ethylene oxide) moiety
M. Kimura, K. Kishimoto, T. Yasuda, G. Goetz, P. Baeuerle, T. Kato
The University of Tokyo, Japan
- SUPRP-12 Landau theory for orientational states of a self-assembled system
L. R. Evangelista, P. A. A. Pereira, J. C. Dias, G. Barbero
Universidade Estadual de Maringá, Brazil
- SUPRP-13 Structure of porous columns self-assembled from dendritic dipeptides
P. A. Heiney, M. Peterca, V. Balagurusamy, A. Dulcey, V. Percec, S. Hudson
University of Pennsylvania, USA
- SUPRP-14 Hollow rectangular columnar structure in dendritic supramolecular assemblies
P. A. Heiney, M. Peterca, M. Ilies, A. Dulcey, S. Nummelin, V. Percec
University of Pennsylvania, USA



Tuesday, July 4

Poster Session 4, 2:30 PM - 3:30 PM

EXOTP Posters - Exotic soft materials

Room: *Crestone/Colorado Rockies*

- EXOTP-1 Nets, nodes and tilings: new challenges in LC research
C. Tschierske, G. Ungar, U. Baumeister, B. Chen, R. Kieffer, M. Prehm, X. Zeng
University Halle, Germany
- EXOTP-2 Mesomorphic properties and gelling abilities of mono-, di-, and tri-alkoxybenzoylamino triphenylamine derivatives
A. Mori, Y. Moriyama, K. Kubo, S. Ujiie
Kyushu University, Japan
- EXOTP-3 Phase transition in benzylalcohol derivatives: The effects of molecular shapes on the mesogenicity and hydrogen bonding
K. Moriya, R. Kuzumi, S. Yano, S. Kutsumizu, B. Donnio, D. Guillon, J. Malthele
Gifu University Yanagido, Japan
- EXOTP-4 Uni-lamellar sponge phase in thermotropic liquid crystals
J. Yamamoto, I. Nishiyama
Kyoto University, Japan
- EXOTP-5 Phase biaxiality and its characterization via nuclear magnetic resonance spectroscopy
A. Mainal, R. Dabrowski, G. R. Luckhurst, B. A. Timimi
University of Southampton, United Kingdom
- EXOTP-6 Phase behavior of a dichiral liquid crystal with an optically isotropic cubic phase under pressure : 2-{4-[(R)-2-fluorohexyloxy]phenyl}-5-{4-[(S)-2-fluoro-2-methyldecanoyloxy]phenyl}pyrimidine
Y. Maeda, H. Yokoyama, A. Yoshizawa, T. Kusumoto
Liquid Crystal Nano-system Project, Japan
- EXOTP-7 Activated rate kinematics of phase transitions of bulk octylcyanobiphenyl
D. Sharma, J. C. MacDonald, G. S. Iannacchione
Worcester Polytechnic Institute, USA

FERRP Posters - Ferroelectric and antiferroelectric LCs

Room: *Quandary*

- FERRP-1 Dielectric behavior of the deVries-type liquid crystal W530
C. D. Jones, L. Wang, R. F. Shao, D. Coleman, M. Nakata, D. Nguyen, J. MacLennan, P. Rudquist, D. M. Walba, N. A. Clark
University of Colorado, USA
- FERRP-2 Electrooptic response of smectic A materials of 3 types: Standard, orthoconic, and deVries
C. D. Jones, U. C. Dawin, F. Giesselmann, P. Rudquist, N. A. Clark
University of Colorado, USA
- FERRP-3 Modifying the guest in polar achiral polymeric composites
E. A. Soto-Bustamante, R. O. Vergara-Tolozá, C. M. González-Henríquez, G. A. Rodríguez-Leyht
Universidad de Chile, Chile
- FERRP-4 Optical and resonant x-ray diffraction studies confirm a $\text{SmC}_{\text{F12}}^*$ - SmC^* liquid crystal phase sequence reversal
S. Wang, Z. Liu, B. McCoy, R. Pindak, W. Caliebe, T. H. Nguyen, C. C. Huang
University of Minnesota, USA



- FERRP-5 Experimental studies of the conditions for V-shaped switching
V. Manjuladevi, Y. P. Panarin, J. K. Vij
Trinity College, Ireland
- FERRP-6 Molecular alignment structure of polymer-stabilized ferroelectric liquid crystals
H. Furue, H. Miyaura, J. Hatano
Tokyo University of Science, Japan
- FERRP-7 Molecular reorientational motion of a polymer-stabilized ferroelectric liquid crystal
H. Furue, Y. Hiyama, J. Hatano
Tokyo University of Science, Japan
- FERRP-8 Unusual X-ray signature of the antiferroelectric phase in a dimesogenic liquid crystal siloxane
C. Blanc, F. Goc, V. L. Lorman, W. Kuczynski, M. Nobili, S. Samaritani, G. Galli
Université Montpellier II/CNRS, France
- FERRP-9 Investigating mixtures of the smectic C* sub-phases
L. S. Hirst, J. Kirchoff
Florida State University, USA
- FERRP-10 Structure elucidation of novel chiral schlieren-like texture observed in a liquid crystal phase of an achiral W-shaped compound
K. Ishikawa, I. Miyake, Y. Takanishi, H. Takezoe, N. Rao, M. K. Paul
Tokyo Institute of Technology, Japan
- FERRP-11 The B4 phase: A twist grain boundary phase driven by intrinsic saddle splay layer curvature
L. E. Hough, D. Krüerke, C. D. Jones, G. Heppke, H. Jung, J. Zasadzinski, J. Rabe, W. Stocker, E. Körblova, D. Walba, N. A. Clark
University of Colorado, USA
- FERRP-12 Optical rotation in the B2 and dark conglomerate phases
L. E. Hough, M. Nakata, E. Körblova, D. Walba, G. Dantlgraber, C. Tschierske, W. Weissflog, G. Pelzl, N. A. Clark
University of Colorado, USA
- FERRP-13 The observation of a 5-layer biaxial subphase in between SmC_A^* and the 3 layer ferrielectric subphase
J. K. Vij, A. D. L. Chandani, N. M. Shtykov, V. P. Panov, A. V. Emelyanenko, A. Fukuda
Trinity College, Ireland
- FERRP-14 Some peculiarities of the smectic liquid crystals with high electroclinic coefficient
J. K. Vij, O. E. Panarina
Trinity College, Ireland
- FERRP-15 Modulated SmBhex* phase with giant electroclinic effect observed below SmC_A^* instead of the anticlinic hexatic Sml_A^* designated so far- a novel mechanism for stabilizing antiferroelectricity
J. K. Vij, R. Korlacki, A. Fukuda
Trinity College, Ireland
- FERRP-16 Theoretical modeling of the polarization modulated and layer undulated structure in bent-core liquid crystals
N. Vaupotic, M. Copic
Jozef Stefan Institute and University of Maribor, Slovenia
- FERRP-17 Effect of dye doping on dielectric behaviour of ferroelectric liquid crystals
R. Manohar, J. P. Shukla
Lucknow University, India



- FERRP-18 Amplitude and phase fluctuation modes in the smectic-C
M. B. Pandey, R. Dhar, R. Dabrowski
Faculty of Science, India
- FERRP-19 Possibility of a new dielectric mode near the transition temperature of SmC*-SmA* phase in electroclinic liquid crystal material
S. Kaur, A. K. Thakur, A. Choudhary, S. S. Bawa, A. M. Biradar
National Physical Laboratory, India
- FERRP-20 Synthesis and characterization of some new homologous series of ferroelectric liquid crystalline compounds
J. Mahadeva, K. R. Prasad, K. M. L. Rai, N. Nagappa
PES College of Science, India
- FERRP-21 Photoaligned ferroelectric liquid crystal passive matrix display with memorized gray scale
X. Li, A. Murauski, A. Muravsky, H. L. Cheung, P. Xu, E. Pozhidaev, E. Gukasjan, V. Chigrinov
Center for Display Research, Hong Kong
- FERRP-22 Tunable wide-band color filters on a ferroelectric liquid-crystal cell
P. Xu, S. Valyukh, X. Li, V. Chigrinov
Center for Display Research, Hong Kong
- FERRP-23 Interlayer interaction and translation ordering of ferro- and antiferroelectric phases
A. Murauski, V. Chigrinov
Center for Display Research, Hong Kong
- FERRP-24 Interlayer interactions in ferroelectric liquid crystals
P. L. Taylor, M. B. Hamaneh
Case Western Reserve University, USA
- FERRP-25 Application of boundary conditions to the helix unwinding process in ferroelectric liquid crystals
S. Uto
Osaka Institute of Technology, Japan
- FERRP-26 Switching dynamics of surface stabilized ferroelectric liquid crystal cells: Effects of anchoring energy asymmetry
A. D. Kiselev, V. Chigrinov, E. Pozhidaev
Institute of Physics of NASU, Ukraine
- FERRP-27 Study of the influence of molecular structure features on the size of spontaneous polarization induced by chiral addings in smectic matrixes
L. S. Bezhanova, Z. V. Baghdasaryan, M. L. Baburyan
National Academy of Sciences of Armenia, Armenia
- FERRP-28 Temperature-induced sign reversal of biaxiality observed by conoscopy in so-called ferroelectric liquid crystals developed for V-shaped switching materials
J. Song, A. Fukuda, J. K. Vij, Y. Motoyama, M. Johnno
Trinity College, Ireland
- FERRP-29 Field induced unwinding process of helix and inter-layer interaction in ferroelectric liquid crystals
J. Song, J. K. Vij, A. Fukuda
Trinity College, Ireland
- FERRP-30 Nonlinear dielectric spectroscopy of antiferroelectric liquid crystals
K. Tanaka, M. Ichikawa, Y. Kimura
Kyushu University, Japan
- FERRP-31 Ferroelectric liquid crystals versus dye doped ferroelectric liquid crystals: A dielectric study
A. K. Srivastava, R. Manohar, J. P. Shukla
Lucknow University, India



- FERRP-32 Discontinuous change of the tilt angle in intermediate phases
V. P. Panov, Y. P. Panarin, J. K. Vij, J. W. Goodby
Trinity College, Ireland
- FERRP-33 The dependency of the switching behaviour of chiral smectic materials on thermodynamic properties and molecular structural features
V. Gortz, S. J. Cowling, J. W. Goodby
The University of York, United Kingdom
- FERRP-34 Detailed characterization of five surface transitions in one liquid crystal compound
B. McCoy, Z. Liu, S. Wang, V. P. Panov, J. W. Goodby, C. C. Huang
University of Minnesota, USA
- FERRP-35 Attachment of bent-shaped mesogens to siloxane oligomers and silicon surfaces
A. T. M. Marcelis, R. Achten, M. Giesbers, E. J. R. Sudhölter
Wageningen University, Netherlands
- FERRP-36 X-ray diffraction study of a hockey stick shaped compound
B. Das, M. K. Das, R. Paul, W. Weissflog
Siliguri Institute of Technology, India
- FERRP-37 Mechanically stabilized photo-alignment bistable FLC cells by polymer wall
A. Ping Tong, V. Chigrinov, A. Zhukov
Hong Kong University of Science and Technology, Hong Kong
- FERRP-38 Dynamics of the domain walls motion in ferroelectric liquid crystals
T. B. Andreeva, A. L. Andreev, E. P. Pozhidaev, J. Shumkina, I. N. Kompanets
P.N. Lebedev Physical Institute, Russia
- FERRP-39 Molecular structure and physical properties of chiral liquid crystalline compounds
M. Marzec, A. Mikulko, S. Wrobel, A. Szymanska, R. Dabrowski
Jagiellonian University, Poland
- FERRP-40 Ferroelectricity of hexatic phases
S. Wróbel, A. Mikulko, M. Marzec, M. Wierzejska, J. Przedmojski, W. Haase
Jagiellonian University, Poland
- FERRP-41 The origin of helical sense inversion at transitions between synclinc and anticlinc smectic C phases
M. A. Osipov, J. P. F. Lagerwall, F. Giesselmann
University of Strathclyde, United Kingdom
- FERRP-42 Bent core fibers: stability, structure and polarization
C. A. Bailey, A. Jákli, W. Weissflog
Kent State University, USA
- FERRP-43 The influence of cooling rate on the alignment of ferroelectric liquid crystal in N*-SmC* phase transition
J. J. Wu, P. C. Wu, F. C. Sie
National Taipei University of Technology, Taiwan
- FERRP-44 Properties of polymer-stabilized orthoconic antiferroelectric liquid crystals
P. Rudquist, D. Engström, R. Dabrowski, S. T. Lagerwall
Chalmers University of Technology, Sweden
- FERRP-45 The use of Raman scattering in the determination of the phases formed by bent-core molecules
C. Southern, V. Gortz, J. W. Goodby, H. F. Gleeson
The University of Manchester, United Kingdom



- FERRP-46 Siloxane AFLC bi-mesogens with molecular tilt close to 45°
L. Komitov, H. J. Coles
Göteborg University, Sweden
- FERRP-47 TGB phases in lactic acid derivatives
V. Novotna, V. Domenici, V. Hamplova, M. Kaspar, M. Glogarova, D. Pociecha, P. Bilkova
Institute of Physics, Czech Republic
- FERRP-48 Improvement of EO characteristics of V-shaped PSFLC cell by irradiating UV light blinked on and off by synchronizing with applied AC voltage
T. Takahashi, A. Tanaka, Y. Asakawa, S. Saito
Kogakuin University, Japan
- FERRP-49 Dynamic response of local layer and molecular orientation in the electroclinic effect by time resolved X-ray micro-diffraction
Y. Takahashi, A. Iida, Y. Takanishi, Y. Ohtsuka, K. Ishikawa, H. Takezoe
Nihon University, Japan
- FERRP-50 New chiral liquid crystalline siloxane dimers and polymers
V. Hamplova, N. Olsson, A. Bubnov, M. Kaspar, B. Helgee, M. Glogarova
Institute of Physics, Czech Republic
- FERRP-51 Large chiral B4 domains formed by mixtures of achiral bent-core and rod molecules
Y. Takanishi, H. Takezoe, K. Ishikawa, S. W. Choi, J. Watanabe, P. Toledano, G. J. Shin, J. C. Jung
Tokyo Institute of Technology, Japan
- FERRP-52 Effects of electric-field shape and frequency on smectic layer rotation of siloxane ferroelectric liquid crystals
J. N. Jang, H. Xu, A. B. Davey, W. A. Crossland, T. Clapp, J. Hannington, F. Nishida
University of Cambridge, United Kingdom
- FERRP-53 Critical behavior at the isotropic to nematic phase transition in a bent-core liquid crystal
D. Wiant, S. Stojadinovic, K. Neupane, S. Sharma, K. Fodor-Csorba, A. Jakli, J. Gleeson, S. Sprunt
Kent State University, USA
- FERRP-54 Investigation of the electroclinic effect and phase transitions in mixtures of liquid crystal W317 and achiral analogues
J. C. Roberts, C. Hart, A. Lau, R. P. Lemieux
Queen's University, Canada
- FERRP-55 Study of the entire sequence of (anti)ferroelectric smectic phases
A. Emelyanenko, A. Fukuda, J. K. Vij
Moscow State University, Russia
- FERRP-56 A simple molecular theory of de Vries smectic C liquid crystals
J. H. Murray, M. A. Osipov, N. J. Mottram
University of Strathclyde, United Kingdom
- FERRP-57 Light scattering on ferroelectric domains in helix-free FLC
A. L. Andreev, Y. P. Bobylev, D. N. Davtyan, T. B. Andreeva
P.N. Lebedev Physical Institute, Russia
- FERRP-58 Investigations of nano-scale helical pitch in (S)-12OF1M7 using differential optical reflectivity measurements
V. P. Panov, B. McCoy, Z. Liu, J. K. Vij, J. W. Goodby, C. C. Huang
Trinity College, Ireland



- FERRP-59 Electric field induced mechanical vibration characteristics in freely suspended films of ferroelectric liquid crystal
S. Morita, H. Moritake, R. Ozaki, K. Toda, M. Ozaki, K. Yoshino
National Defense Academy, Japan
- FERRP-60 Model independent structures and resonant X-ray spectra of intermediate smectic phases
M. A. Osipov, M. Gorkunov
University of Strathclyde, United Kingdom
- FERRP-61 The effect of the anisotropic polymer network on the soft and goldstone modes of a polymer stabilized ferroelectric liquid crystal cells
M. Petit, A. Daoudi, M. Ismail, J. M. Buisine
Université du Littoral Côte d'Opale, France
- FERRP-62 Structure and orientational order of the polar smectogen ZLL7/* by means of ^2H and ^{13}C NMR spectroscopy
A. Marini, V. Domenici, D. Catalano, C. A. Veracini, M. Glogarova, A. Bubnov
Università di Pisa, Italy
- FERRP-63 On the importance of the molecular core interactions on the induction of the high optical tilt angle
Z. Raszewski, W. Piecek, P. Perkowski, J. Kedzierski, J. Rutkowska, J. Zielinski, R. Dabrowski, X. W. Sun
Military University of Technology, Poland
- FERRP-64 Computer simulation of refractive indices in orthoconic SmC_A^* : Is it possible to obtain "isotropic" antiferroelectric liquid crystal (IAFLC)?
Z. Raszewski, P. Perkowski, W. Piecek, J. Kedzierski, J. Rutkowska, J. Zielinski, X. W. Sun
Military University of Technology, Poland
- FERRP-65 Low-frequency dielectric studies in the chiral nematic and smectic- C^* phases of hydrogen bonded ferroelectric liquid crystals, BHFLCs, 11bpa and 12bpa
D. Potukuchi, B. Sreedevi, P. Chalapathi, V. Pisipati
Jawaharlal Nehru Technological University, India
- FERRP-66 Different methods for switching time measurement
N. Sood, S. Khosla, J. Sohal
Punjab Technical University, India

LYOTP Posters - Lyotropics

Room: *Crestone/Colorado Rockies*

- LYOTP-1 Influence of added electrolytes on the stability of lyotropic liquid crystal phases
F. Giesselmann, U. C. Dawin, J. P. F. Lagerwall
University of Stuttgart, Germany
- LYOTP-2 Magnetic susceptibility studies on a lyotropic liquid crystal system - the role of bound water
V. Desikan, . K. A. Suresh
Raman Research Institute, India
- LYOTP-3 High-resolution structural studies of biological membranes
A. Ramamoorthy
University of Michigan, USA
- LYOTP-4 Microrheology of a swollen lyotropic lamellar phase
Y. Kimura
Kyushu University, Japan



- LYOTP-5 A new hexatic liquid phase observed in biomembrane-like films
C. Y. Chao, W. J. Hsieh, I. J. B. Lin
National Taiwan University, Taiwan
- LYOTP-6 Reentrant isotropic - calamitic nematic phase transition in potassium laurate/1-decanol/D₂O mixture
A. Palangana, W. S. Braga, P. A. Santoro, A. Sampaio, N. M. Kimura, D. D. Luders
Universidade Estadual de Maringa, Brazil
- LYOTP-7 Lyotropic liquid crystals from designed helical α -peptides
W. C. Pomerantz, S. H. Gellman, N. L. Abbott
University of Wisconsin, USA
- LYOTP-8 Shear-induced birefringence in the isotropic phase of discotic lyomesophases
G. Hauck, G. Heppke
Technische Universität Berlin, Germany
- LYOTP-9 Interfacing novel ionic lyotropic liquid crystals with room-temperature ionic liquids
J. E. Bara, X. Zeng, S. Lessmann, R. Noble, D. Gin
University of Colorado, USA
- LYOTP-10 Determination of biologically relevant binary lyotropic liquid crystalline phase diagrams formed by alkyl-glucosides and alkyl-thioglucosides in water
G. R. Van Hecke, W. C. Duim, K. K. Karukstis
Harvey Mudd College, USA
- LYOTP-11 Two dimensional confinement of 5CB between lipid bilayers
R. Mahmood, M. Caggioni, L. E. Hough, T. Bellini, N. A. Clark, K. Sobczak, D. R. Hemphill
Slippery Rock University, USA
- LYOTP-12 Selective reflection of hydroxypropyl cellulose prepared with autoclave
S. Uto, S. Yuji, Y. Yuno
Osaka Institute of Technology, Japan
- LYOTP-13 Characterization of interactions between β -peptides that form lyotropic liquid crystals
C. Pizzey, W. C. Pomerantz, S. H. Gellman, N. L. Abbott
University of Wisconsin, USA
- LYOTP-14 Nonlinear refractive index in discotic and calamitic nematic lyotropic phases
N. M. Kimura, R. Viscovini, P. A. Santoro, P. Fernandes, S. Gomez, A. Palangana
Universidade Estadual de Maringa, Brazil
- LYOTP-15 Observation of an intermediate mesh phase in a mixed surfactant system
S. K. Ghosh, R. Ganapathy, R. Krishnaswamy, V. A. Raghunathan, A. K. Sood
Raman Research Institute, India

Poster Session 5, 3:30 PM - 4:30 PM

BIAXP **Posters - Biaxial nematics**

Room: *Crestone/Colorado Rockies*

- BIAXP-1 New deuterium NMR investigations on the nematic biaxial ordering and reorientational dynamics of organosiloxane tetrapodes
C. R. Cruz, A. Van-Quynh, G. Feio, A. C. Ribeiro, J. P. Casquilho, J. L. Figueirinhas, T. Meyer, D. Apreutesei, G. H. Mehl
Universidade de Lisboa, Portugal
- BIAXP-2 Theoretical estimates for elasticity in biaxial nematics
D. W. Allender
Kent State University, USA



- BIAXP-3 A phenomenological theory for biaxial nematic liquid crystals
G. De Matteis, A. Sonnet, E. G. Virga
University of Strathclyde, United Kingdom
- BIAXP-4 Light scattering study of biaxial nematic phases reported in thermotropic liquid crystals
K. Neupane, S. Sharma, M. Majumdar, S. Kang, S. Kumar, S. Sprunt, V. Prasad, G. H. Mehl
Kent State University, USA
- BIAXP-5 The investigation of fully miscible nematic rod disc mixtures
G. H. Mehl, D. Apreutesei
University of Hull, United Kingdom

BLUEP *Posters - Blue phases*

Room: *Crestone/Colorado Rockies*

- BLUEP-1 Blue phase of the cholesteryl nonanoate investigated by means of digital image processing
A. Sampaio, R. Viscovini, A. Palangana
Universidade Estadual de Maringa, Brazil
- BLUEP-2 Stabilising the blue phases
G. Alexander, J. M. Yeomans
University of Oxford, United Kingdom
- BLUEP-3 Novel T-shaped chiral oligomers with a wide temperature range of a blue phase
M. Sato, A. Yoshizawa
Hirosaki University, Japan

DEVIP *Posters - Devices and applications*

Room: *Quandary*

- DEVIP-1 Effect of twist angle on back-flow profile in nematic cell
T. Matsumi, T. Tsuji, S. Chono
Kochi University of Technology, Japan
- DEVIP-2 Development of micro-actuators driven by liquid crystals
K. Ishimaru, T. Tsuji, S. Chono
Kochi University of Technology, Japan
- DEVIP-3 Electro-optic effects for telecoms phase switches
A. B. Davey, M. M. Redmond, W. A. Crossland
University of Cambridge, United Kingdom
- DEVIP-4 Microwave variable phase shifter of microstrip and coplanar waveguide structures using ferroelectric liquid crystal
H. Moritake, S. Morita, R. Ozaki, T. Kamei, Y. Utsumi
National Defense Academy, Japan
- DEVIP-5 Photonic crystals based on polymer-dispersed liquid crystals and applications
A. Y. -. G. Fuh, S. T. Wu, M. -. S. Lee
National Cheng Kung University, Taiwan
- DEVIP-6 Magnetic field and surface memory effect controlled anchoring on isotropic surfaces
J. Pirs, S. Kralj, M. Kokole, A. Vrecko, D. Ponikvar
Jozef Stefan Institute, Slovenia
- DEVIP-7 The application of nematic liquid crystals in grippe viruses detection
M. G. Tomilin
S.I.Vavilov State Optical Institute, Russia
- DEVIP-8 Ideal liquid crystal display mode using achiral banana-shaped liquid crystals
Y. Shimbo, Y. Takanishi, K. Ishikawa, E. Gorecka, D. Pocięcha, J. Mieczkowski, K. Gomola,



- H. Takezoe
Tokyo Institute of Technology, Japan
- DEVIP-9 The BiNem® display: surface anchoring breaking and nematic bistability
P. Martinot-Lagarde, I. Dozov, D. Stoenescu, S. Joly
Nemoptic, France
- DEVIP-10 Modulation of optical phase retardation using dual-frequency nematic liquid crystals
A. R. Geivandov, M. I. Barnik, V. V. Lazarev, S. P. Palto, S. V. Yakovlev
A.V. Shubnikov Institute of Crystallography of Russian Academy of Sciences, Russia
- DEVIP-11 Electric field sensor using smectic A liquid crystals
S. M. Chandani, N. A. F. Jaeger, R. F. Shao, J. E. Maclennan
University of British Columbia, Canada
- DEVIP-12 An analog, 1-D liquid crystal beam-steerer with an 80 degree field of regard
S. D. Rommel, M. H. Anderson, S. R. Davis
Vescent Photonics, USA
- DEVIP-13 Liquid crystal waveguide external-cavity semiconductor lasers
M. H. Anderson, S. R. Davis, S. D. Rommel
Vescent Photonics, USA
- DEVIP-14 Reduction of grey scale inversion in a film-compensated twisted nematic liquid crystal display using beam steering optical film
C. H. Park, S. H. Lee, H. C. Choi
LG Philips LCD, South Korea
- DEVIP-15 Design of the transfective dual-mode liquid crystal display
C. P. Chen, C. G. Jhun, T. H. Yoon, J. C. Kim
Pusan National University, South Korea
- DEVIP-16 Fabrication of ultra low temperature polycrystalline silicon thin film transistors on plastic substrates
J. W. Han, S. H. Kang, H. J. Kang, J. Y. Kim, D. S. Seo
Yonsei University, South Korea
- DEVIP-17 The study of electro-optic effect of hybrid twisted liquid crystal films
J. Y. Lee, K. N. Chang
National Taiwan University of Science and Technology, Taiwan
- DEVIP-18 All aromatic, nonlinear mesogens with heterocyclic units
N. A. Zafiropoulos, T. J. Dingemans, E. J. Choi, W. Lin, E. T. Samulski
University of North Carolina at Chapel Hill, USA
- DEVIP-19 Electrical field and optical phase retardation spatial distribution in DH FLC modulators with in-plane electrodes
F. Podgornov, W. Haase, I. Chernyaev, A. Suvorova
South Ural State University, Russia
- DEVIP-20 Focused ion beam technology for aligning and switching liquid crystals
H. Desmet, K. Neyts, D. Van Thourhout, R. Baets
Ghent University, Belgium
- DEVIP-21 Infinite memory time of bistable chiral splay nematic liquid crystal device with multidomain structure
C. G. Jhun, C. P. Chen, T. H. Yoon, J. C. Kim
Pusan National University, South Korea
- DEVIP-22 Influence of ionic contamination on LC displays performance
T. Kranjc, M. Kokole, J. Pirs, M. Bazec, A. Vrecko, D. Ponikvar
University of Ljubljana, Slovenia



- DEVIP-23 Microwave applications based on liquid crystals
S. Mueller, F. Goelden, R. Jakoby
Darmstadt University of Technology, Germany
- DEVIP-24 Control of splay-to-bend transition using multi-rubbing (MR) method for OCB-mode LCDs
K. Kuboki, T. Miyashita, T. Ishinabe, T. Uchida
Tohoku University, Japan
- DEVIP-25 Wide viewing angle LCD light intensity modulator
A. Vrecko, J. Pirs, S. Pirs, D. Ponikvar
Jozef Stefan Institute, Slovenia
- DEVIP-26 Inner-patterned retarder for a single driving transmissive liquid crystal display
Y. W. Lim, J. Kim, D. W. Kim, S. D. Lee
Seoul National University, South Korea
- DEVIP-27 Application of lyotropic liquid crystals for producing nanostructural materials
V. A. Levchenko, V. N. Matveenko, A. A. Karyakin, E. A. Puganova
Lomonosov Moscow State University, Russia
- DEVIP-28 Polymer stabilized bimesogenic mixtures for improved flexoelectro-optic devices
C. J. K. Evans, S. M. Morris, B. J. Broughton, H. J. Coles
University of Cambridge, United Kingdom
- DEVIP-29 Patterned vertical alignment liquid crystal device with crossed stripe-electrode patterns
J. I. Baek, J. C. Kim, T. H. Yoon
Pusan National University, South Korea
- DEVIP-30 Development of a tunable liquid crystal filter for fibre Bragg grating demodulation system
Y. Semenova, G. Farrell, Q. Wang, G. Rajan
Dublin Institute of Technology, Ireland
- DEVIP-31 Highly sensitive photoaligning materials on a base of cellulose-cinnamates
Y. Reznikov, O. Buluy, I. Gerus, Y. Kurioz, O. Tereshchenko, K. Ha, D. H. Kim, S. B. Kwon,
S. K. Park
Institute of Physics of National Academy of Sciences, Ukraine
- DEVIP-32 Electrically tunable chiral materials for spatial light modulators
S. Y. Lu, L. C. Chien
Kent State University, USA
- DEVIP-33 Microwave high-speed polymer dispersed liquid crystal loaded variable phase shifter
T. Kamei, T. Maeda, Y. Utsumi
National Defense Academy, Japan
- DEVIP-34 The ordering of pentacene molecules on a photoaligning polymeric insulator layer for organic thin
film transistors
J. H. Bae, J. Kim, W. H. Kim, J. H. Na, S. D. Lee
Seoul National University, South Korea
- DEVIP-35 Holographically formed polymer dispersed liquid crystal films for compact transmission
spectrometer applications
K. Rai, A. E. Fox, A. K. Fontecchio
Drexel University, USA
- DEVIP-36 Operation voltage reduction of a polymer electroluminescence device by chain ordering on a
photoalignment layer
J. H. Na, J. Kim, J. H. Bae, S. D. Lee
Seoul National University, South Korea



- DEVIP-37 Improvement of light efficiency and response time in the fringe-field switching liquid crystal cell
J. W. Ryu, J. Y. Lee, T. H. Kim, S. H. Lee
Chonbuk National University, South Korea
- DEVIP-38 Flow induced flexoelectric effect for tumbling nematic liquid crystals
J. I. Nishimori, T. Tsuji, S. Chono
Kochi University of Technology, Japan
- DEVIP-39 UV-LED switching of optically re-writable LC display
A. Muravsky, A. Murauski, X. Li, V. Chigrinov
Center for Display Research, Hong Kong
- DEVIP-40 Polarization-insensitive liquid crystal Fresnel lens in an orthogonally alternating hybrid configuration
D. W. Kim, C. J. Yu, H. R. Kim, S. D. Lee
Seoul National University, South Korea
- DEVIP-41 Ambipolar charge carrier transport properties in the homologous series of 2,3,6,7,10,11-hexaalkoxytriphenylene
S. Okamoto, H. Monobe, H. Enomoto, Y. Shimizu
National Institute of Advanced Industrial Science and Technology (AIST), Japan
- DEVIP-42 Organic field-effect transistors fabricated with poly 3-hexylthiophene active channel layer and NiOx electrodes
H. J. Kang, J. W. Han, H. C. Moon, D. S. Seo
Yonsei University, South Korea
- DEVIP-43 Electric field sensor using a distortion of helical structure of ferroelectric liquid crystal
S. Uto, Y. Tsuji, H. Morita
Osaka Institute of Technology, Japan
- DEVIP-44 Vertically-aligned transfective liquid crystal cell driven by the lateral electric field
G. S. Lee, J. C. Kim, T. H. Yoon
Pusan National University, South Korea
- DEVIP-45 Numerical study on liquid crystalline actuators using back-flow effect
C. Liu, T. Tsuji, S. Chono
Kochi University of Technology, Japan
- DEVIP-46 Using the enzymes' property of selective interaction in registration of little quantity of substances
H. G. Badalyan, L. H. Sedrakyan, L. Arushanyan
Yerevan State University, Armenia
- DEVIP-47 Rapid evaluation of nematic materials using LCAS-II
A. Januszko, M. D. Wand, P. Kaszynski, A. Balinski
Vanderbilt University, USA
- DEVIP-48 Image sticking properties of IPS-LCDs fabricated by newly developed cellulose-based photopolymer
D. H. Kim, S. K. Park, Y. Kurioz, Y. Reznikov, A. Tereshchenko, I. Gerus, S. B. Kwon
Hoseo University, South Korea
- DEVIP-49 Pure non-blocking matrix LC optical switch for all-optical fibre networks
Y. P. Panarin, V. Alex
Dublin Institute of Technology, Ireland
- DEVIP-50 Polymer dispersed cholesteric LCDs with low driving voltage cholesteric LCs
B. Y. Lee, J. H. Han, S. H. Park, K. S. Min, Y. Reznikov, S. B. Kwon
Hoseo University, South Korea
- DEVIP-51 Vivid full color reflective cholesteric LCDs with bistable switching
H. S. Yoon, H. S. Cho, Y. J. Kim, Y. Reznikov, S. B. Kwon
School of Display Engineering, South Korea



- DEVIP-52 Mirage effect technique for the determination of phase transitions of liquid crystals
S. Lakshminarayana, P. Padma
Acharya Nagarjuna University, India
- DEVIP-53 Flexible liquid crystal display using a stamping process
Y. T. Kim, J. H. Hong, S. Hwang, S. D. Lee
Seoul National University, South Korea
- DEVIP-54 Electro-optical characteristics of in-plane switching cholesteric LCDs
D. Kang, S. K. Kim
Soongsil University, South Korea
- DEVIP-55 Microwave high-speed liquid crystal devices using CPW with floating electrode
Y. Utsumi, T. Kamei, T. Maeda
National Defense Academy, Japan
- DEVIP-56 Flexoelectric switching in the zenithal bistable display: Comparison between theoretical modelling and experimental results
N. J. Mottram, C. J. P. Newton
University of Strathclyde, United Kingdom
- DEVIP-57 Luminescent liquid crystalline compounds and displays
V. Lapanik, V. Bezborodov, G. Sasnouski, A. Lugousky, W. Haase, S. Timofeev
Institute of Applied Physics Problems, Belarus
- DEVIP-58 Influence of the surface treatment on the electrical response of a liquid crystal cell
A. M. Figueiredo Neto, P. Pagliusi, G. Barbero
Universidade de São Paulo, Brazil
- DEVIP-59 Design of electrodes in the patterned vertical aligned liquid crystal cell for high optical performance
W. R. Lee, S. W. Choi, J. H. Son, K. M. Kim, T. K. Huh, G. D. Lee
Dong-A University, South Korea
- DEVIP-60 Nonchiral smectic C liquid crystal display mode in an antiparallel planar geometry
C. Jeong, J. H. Na, C. J. Yu, S. D. Lee
Seoul National University, South Korea
- DEVIP-61 Transient properties during positive-negative switching of liquid crystal lens
M. Ye, B. Wang, Y. Sato, S. Sato
Akita University, Japan
- DEVIP-62 Liquid crystal microlens driven by two voltages
M. Ye, T. Sakamoto, S. Sato
Akita University, Japan
- DEVIP-63 Numerical and experimental study of liquid crystal lens with stacked structure of two liquid crystal layers
B. Wang, M. Ye, S. Sato
Akita University, Japan
- DEVIP-64 White fluorescent display properties in guest-host mode liquid crystal cells
R. Yamaguchi, K. Moriyama, S. Sato
Akita University, Japan
- DEVIP-65 Electrically controllable microlens array using a birefringent bilayer system of liquid crystalline polymer and liquid crystal
H. R. Kim, K. H. Lee, Y. Choi, J. Y. Song, J. H. Kim
Hanyang University, South Korea

- DEVIP-66 Microspectrometer based on vertically aligned deformed helix ferroelectric liquid crystal
J. W. McMurdy, J. N. Eakin, G. P. Crawford
Brown University, USA
- DEVIP-67 Dual-frequency addressable cholesteric based flexoelectric devices
L. C. Chien, L. Shi, S. H. Kim
Kent State University, USA
- DEVIP-68 Passive matrix liquid crystal display with internal volume electrodes
S. Studentsov, V. A. Brezhnev, V. Chigrinov, A. Muravsky
Research and Development Institute "Volga", Russia
- DEVIP-69 Switching properties and lifetime extension of the symmetric H state in splayed nematic devices
P. D. Brimicombe, E. P. Raynes
University of Oxford, United Kingdom
- DEVIP-70 Transflective liquid crystal display with a single cell gap in a patterned vertically aligned mode
Y. J. Lee, T. H. Lee, J. W. Jung, H. R. Kim, Y. Choi, J. H. Bae, J. H. Kim
Hanyang University, South Korea
- DEVIP-71 Flow-induced dynamic optical crosstalk between pixels in liquid crystal devices
J. Kelly, S. Tang
Kent State University, USA
- DEVIP-72 Relationship between optical retardation and pattern density of liquid crystal alignment film
S. Yanase, M. Kawamura, T. Takahashi, R. Yamaguchi, S. Sato
Akita Prefectural R&D Center, Japan
- DEVIP-73 Stability of liquid crystal director upon cell structure in a homeotropic cell surrounded by polymer wall
S. G. Kim, Y. M. Jeon, Y. S. Kim, S. T. Oh, S. H. Lee
Chonbuk National University, South Korea
- DEVIP-74 A photodriven dual-frequency addressable optical device
G. G. Nair, G. Hegde, S. K. Prasad, C. V. Yelamaggad
Centre for Liquid Crystal Research, India
- DEVIP-75 Tilt-angle variation of liquid crystal layer as a function of temperature
I. A. Khan, S. Akhtar, R. Mahmood
University of Karachi, Pakistan
- DEVIP-76 Optimization of polymer stabilization condition of bend alignment in pi-cell
Y. Asakawa, N. Takatuka, T. Takahashi, S. Saito
Kogakuin University, Japan
- DEVIP-77 Electrical properties in bulk and at the interface of ferroelectric liquid crystalline semiconductor
J. I. Hanna, Y. Ishimatsu, Y. Takayashiki
Tokyo Institute of Technology, Japan
- DEVIP-78 Temperature-dependent complex refractive indices and birefringence of nematic liquid crystal 5CB in the terahertz frequency range
C. Y. Chen, R. P. Pan, C. F. Hsieh, C. L. Pan
National Chiao Tung University, Taiwan
- DEVIP-79 New high-yield low-cost high-contrast symmetrical wide-viewing angle MVA LCD
H. L. Ong, J. Chou
Kyoritsu Optronics Corp, Taiwan



Thursday, July 6

Poster Session 6, 3:00 PM - 4:00 PM

DFCTP **Posters - Structure, ordering, and defects**

Room: *Quandary*

- DFCTP-1 NMR of TGBA* phase in chiral liquid crystals
R. Dong, J. Zhang, V. Domenici
University of Manitoba, Canada
- DFCTP-2 Riverbottom texture: Patterns of compressional stress obtained on cooling an SSFLC cell from the nematic phase
C. D. Jones, D. Coleman, M. D. Wand, N. A. Clark
University of Colorado, USA
- DFCTP-3 Smectic order parameters from diffusion data
M. Cifelli, G. Cinacchi, L. De Gaetani
Università degli Studi di Pisa, Italy
- DFCTP-4 Contribution of Raman mapping for the study of the pitch gradient in cholesteric polysiloxanes
M. Mitov, D. Bormann, C. Bourgerette, M. Belalia, A. Krallafa, M. Belhakem
CNRS, France
- DFCTP-5 Random anisotropy nematic model
V. Popa Nita, S. Kralj
University of Bucharest, Romania
- DFCTP-6 Numerical simulation of the TGB phase of chiral liquid crystals
H. Ogawa, N. Uchida
Tohoku University, Japan
- DFCTP-7 Refractive index density and orientational order parameter of propoxy-4-heptyl-4'-tolane
S. Mohyeddine, R. Somashekar, D. Revannasiddaiah
University of Mysore, India
- DFCTP-8 Simple experimental assessment of smectic translational order parameters
F. Giesselmann, N. Kapernaum
University of Stuttgart, Germany
- DFCTP-9 Static and Dynamic studies of nonyloxycyanobiphenyl (9OCB) in the vicinity of first order N-to-I and weakly first order SmA-to-N phase transitions
J. Salud, P. Cusmin, M. R. De la Fuente, M. A. Perez-Jubindo, D. O. Lopez, S. Diez, M. Barrio, J. L. Tamarit
Universitat Politècnica de Catalunya, Spain
- DFCTP-10 Evidences for a reentrant nematic behaviour and a nematic- smectic-A_d tricritical point in binary mixtures of heptyloxycyanobiphenyl (7OCB) and nonyloxycyanobiphenyl (9OCB)
J. Salud, P. Cusmin, D. O. Lopez, S. Diez, M. A. Perez-Jubindo, M. R. De la Fuente, M. Barrio, J. L. Tamarit
Universitat Politècnica de Catalunya, Spain
- DFCTP-11 Energy transfer in high ordered liquid crystalline small molecule with two chromophores
Y. H. Kim, D. K. Yoon, Y. K. Ko, H. T. Jung
Korea Advanced Institute of Science and Technology (KAIST), South Korea



- DFCTP-12 Polarization-enhanced interaction between islands on freely-suspended smectic C* liquid crystal films
A. Pattanaporkratana, C. S. Park, J. Maclennan, N. A. Clark
University of Colorado, USA
- DFCTP-13 Twist-grain boundary phases and Schnerk's surface
C. Santangelo, R. Kamien
University of Pennsylvania, USA
- DFCTP-14 Molecular ordering and defect of small liquid crystal molecule
D. K. Yoon, M. C. Choi, Y. H. Kim, M. W. Kim, H. T. Jung
Korea Advanced Institute of Science & Technology (KAIST), South Korea
- DFCTP-15 Interaction of silica beads with disclination lines
D. Pires, J. B. Fleury, Y. Galerne
Institut de Physique et Chimie des Matériaux de Strasbourg, France
- DFCTP-16 Atomistic-level characterization of a novel thiophene-based two and three phenyl ring mesogens by solid-state NMR
A. Ramamoorthy, T. Narasimhaswamy, N. Somanathan
University of Michigan, USA
- DFCTP-17 Expulsion of bend deformation from the smectic-A phase: analogy to type I superconducting meissner effect
R. Wang, I. M. Syed, G. Carbone, R. G. Petschek, C. Rosenblatt
Case Western Reserve University, USA
- DFCTP-18 An adiabatic scanning calorimetry study of the effect of nonmesogenic solutes on the nematic-to-smectic A phase transition in a liquid crystal
K. Denolf, B. Van Roie, C. Glorieux, J. Thoen
Katholieke Universiteit Leuven, Belgium
- DFCTP-19 Annihilation of point defects in smectic-C liquid crystal films
C. Zhu, C. Muzny, A. Tewary, D. R. Link, A. Fritz, D. Coleman, J. Maclennan, N. Clark
University of Colorado, USA
- DFCTP-20 Orientational transition in a nematic liquid crystal at a patterned surface
T. J. Atherton, J. R. Sambles
University of Exeter, United Kingdom
- DFCTP-21 Undulations of lamellar liquid crystals in cells with finite surface anchoring
B. I. Senyuk, I. I. Smalyukh, O. D. Lavrentovich
Kent State University, USA
- DFCTP-22 Universalities in nematic liquid crystals
M. Simões, A. D. Campos, F. D. S. Alves, D. Simeão
Universidade Estadual de Londrina, Brazil
- DFCTP-23 Fluctuations in liquid crystal films probed by subnanosecond photon correlation spectroscopy
S. Sharma, K. Neupane, A. Baldwin, S. Sprunt
Kent State University, USA
- DFCTP-24 Properties of discotic-nematic to isotropic transition: Influence of dispersion interaction
T. K. Lahiri
Central Hindu Boys' School, India
- DFCTP-25 Raman mapping of the orientation of nematic and smectic liquid crystals
E. A. Buyuktanir, K. Zhang, A. Gericke, J. L. West
Kent State University, USA



- DFCTP-26 Phase transition and physical properties of a binary mixture of bicyclohexane compounds by x-ray diffraction measurements
M. K. Das
North Bengal University, India
- DFCTP-27 Theory of the heat capacity and other fluctuation phenomena at the nematic – isotropic transition
P. H. Keyes
Wayne State University, USA
- DFCTP-28 An adiabatic scanning calorimetry study of the nematic-smectic A and nematic-isotropic phase transitions in 4-butyloxyphenyl-4'-decyloxybenzoate
K. Denolf, B. Van Roie, C. Glorieux, S. Yildiz, H. Özbek, J. Thoen
Katholieke Universiteit Leuven, Belgium
- DFCTP-29 Field-induced motion of nematic disclinations
P. Biscari, T. J. Sluckin
Politecnico di Milano, Italy
- DFCTP-30 Studies on typical phase transitions in 4,4'-di-n-pentyloxyazoxybenzene
K. Vijayalakshmi, V. Venkata Rao, S. Sreehari Sastry
Acharya Nagarjuna University, India
- DFCTP-31 Linear disclination of integer force in a homogenous magnetic field
I. I. Klebanov, P. Gritzay
Cheliabinsk State university of Pedagogic, Russia
- DFCTP-32 Order measurements on a rodlike mesogen: Rewriting nematic theories?
L. A. Madsen, T. J. Dingemans, E. T. Samulski
University of North Carolina at Chapel Hill, USA
- DFCTP-33 Anisotropic and isotropic electroconvection
Á. Buka, N. Eber, W. Pesch, A. A. Krekhov, L. Kramer
Research Institute for Solid State Physics and Optics, Hungary
- DFCTP-34 Terahertz time-domain spectroscopy studies of nematic liquid crystals
S. Tanaka, Y. Okada, K. Yamamoto, Y. Takanishi, M. Tani, K. Ishikawa, M. Hangyo, H. Takezoe
Tokyo Institute of Technology, Japan
- DFCTP-35 Dislocation climb in cholesteric lamellae controlled by electric field
B. I. Senyuk, I. I. Smalyukh, O. D. Lavrentovich
Kent State University, USA
- DFCTP-36 Determination of the nematic order parameter of 4-butyloxyphenyl-4'-decyloxybenzoate liquid crystal from refractive index data
S. Yildiz, H. Ozbek, C. Glorieux, J. Thoen
Istanbul Technical University, Turkey
- DFCTP-37 Bistable anchoring transitions in ferronematic liquid crystal
O. Semyonova, A. Zakhlevnykh
Perm State University, Russia
- DFCTP-38 Elastic actions exchanged by eccentric cylinders in liquid crystals
R. Rosso, S. Kralj, E. G. Virga
University of Pavia, Italy
- DFCTP-39 Effect of different surfaces on nematic-smectic A phase transition of 4-butyloxyphenyl-4'-decyloxybenzoate liquid crystal
H. Ozbek, S. Yildiz, E. Ozkan Zayim, O. Pekcan
Istanbul Technical University, Turkey



- DFCTP-40 Molecular ordering in a SmA_b phase studied by scanning transmission X-ray microscopy (STXM)
T. Hegmann, K. Kaznatcheev
University of Manitoba, Canada
- DFCTP-41 Influence of quenched disorder on the second order continuous symmetry breaking phase transition
M. Svetec, V. Popa-Nita, S. Kralj
RRA Mura, d.o.o., Slovenia
- DFCTP-42 The critical point in the smectic-C* - smectic-C*-alpha phase transition
Z. Liu, S. Wang, A. Cady, C. C. Huang, R. Pindak, W. Caliebe, T. H. Nguyen
University of Minnesota, USA
- DFCTP-43 Pressure – temperature phase diagrams for long members of two homologous series of liquid crystals: nCB and nBT
S. Urban, J. Czub, A. Würflinger
Institute of Physics, Poland
- DFCTP-44 Pretilt control of a nematic liquid crystal on a selectively etched homeotropic layer over a homogeneous layer
H. Pae, Y. Choi, S. D. Lee
Seoul National University, South Korea
- DFCTP-45 Wide angle X-ray studies of 1-(4-Hexylcyclohexyl)-4-[2-(4-isothiocyanatophenyl) ethyl]benzene in nematic phase
S. Mohyeddine, R. Somashekar, D. Revannasiddaiah
University of Mysore, India
- DFCTP-46 Investigation of structural effects in liquid crystals by experimental infrared spectroscopy and computer modelling
S. I. Tatarinov
N.G.Chernyshevsky State University, Russia
- DFCTP-47 Defects in liquid crystals and in the cosmos: A geometrical optics analogy
F. Moraes, C. Satiro
Universidade Federal da Paraiba, Brazil
- DFCTP-48 Kinked focal conic domains in a smectic A
C. Meyer, Y. Nastyshyn, M. Kleman
Université de Picardie, France
- DFCTP-49 ¹³C NMR and dielectric studies of two fluorinated nematogens
A. Marini, D. Catalano, M. Geppi, C. A. Veracini, S. Urban, J. Czub, R. Dabrowski, W. Kuczynski
Università di Pisa, Italy
- DFCTP-50 ¹³C NMR and DFT studies of chemical shielding tensors of two fluorinated nematogens
A. Marini, D. Catalano, M. Geppi, B. Mennucci, C. A. Veracini, S. Urban
Università di Pisa, Italy

ELASP Posters - LC elastomers

Room: *Quandary*

- ELASP-1 Main-chain chiral smectic polymers for electro-mechanical and NLO application
H. Yang, P. Keller, R. K. Shoemaker, R. F. Shao, D. Coleman, C. D. Jones, M. Nakata, N. Clark, D. Walba
University of Colorado, USA
- ELASP-2 Wang-Landau Monte Carlo simulation of isotropic-nematic transition in liquid crystal elastomers
V. S. S. Sastry, D. Jayasri, N. Satyavathi, K. P. N. Murthy
University of Hyderabad, India



- ELASP-3 Cholesteric elastomers as mechanically tunable photonic band gap materials
J. Schmidtke, W. Stille, B. Chen, S. Kriesel, H. Finkelmann
Albert-Ludwigs-University Freiburg, Germany
- ELASP-4 Scattering in thiol-ene–based HPDLC reflection gratings
R. L. Sutherland, V. Tondiglia, L. Natarajan, P. Lloyd, T. J. Bunning
SAIC, USA
- ELASP-5 Electromechanical and electrooptical effects of liquid crystal elastomers swollen with a low molecular weight liquid crystal
Y. Yusuf, S. Hashimoto, D. U. Cho, P. E. Cladis, H. R. Brand, H. Finkelmann, S. Kai
Kyushu University, Japan
- ELASP-6 Coupling effects between the liquid crystalline phase and the network in nematic elastomers
S. Mueller, H. Finkelmann
Albert-Ludwigs-Universität Freiburg, Germany
- ELASP-7 Mechanical properties of nematic liquid crystal main chain elastomers
S. Krause, H. Finkelmann
Albert-Ludwigs-Universität Freiburg, Germany
- ELASP-8 Rheological properties of side-chain liquid crystalline polymers in the melt state: Low-frequency gel-like response
P. Martinoty, D. Collin
Institut de Mécanique des Fluides et des Solides, France
- ELASP-9 Shear mechanical properties of main chain liquid crystalline elastomers
P. Martinoty, D. Rogez, H. Brandt, H. Finkelmann
Institut de Mécanique des Fluides et des Solides, France
- ELASP-10 Semi-soft and martensitic response in model nematic elastomers
F. Ye, T. C. Lubensky
University of Pennsylvania, USA
- ELASP-11 Solvent vapor induced shape changes in liquid crystal elastomers
P. Palfy-Muhoray, T. Toth-Katona, H. Finkelmann, M. Shelley
Kent State University, USA
- ELASP-12 All-aromatic main-chain liquid crystal thermosets
T. J. Dingemans, A. Knijnenberg, E. S. Weiser
Delft University of Technology, Netherlands
- ELASP-13 In-situ observation of pattern formation of helical-polyacetylene synthesized using chiral nematic liquid crystal solvent
K. Ishikawa, Y. Takano, Y. Houkawa, M. Ofuji, Y. Takanishi, H. Takezoe, K. Akagi, S. Matsushita, M. Goh, T. Mori
Tokyo Institute of Technology, Japan
- ELASP-14 Self-organization and liquid crystalline properties of ionic polymers and their nonionic family
S. Ujiie, K. Hayashi, Y. Yano, A. Mori
Oita University, Japan
- ELASP-15 Mechanical and optical properties of monodomain cellulose derivatives liquid crystalline elastomers
D. Filip, M. H. Godinho, J. L. Figueirinhas, I. Costa
Universidade Nova de Lisboa, Portugal
- ELASP-16 Collective fluctuation in chiral smectic phases of main-chain liquid crystalline polymers studied by dynamic electrooptic measurements
K. Hiraoka
Tokyo Polytechnic University, Japan



- ELASP-17 Patterning conductive polythiophenes using anisotropic polymer networks
C. O. Catanescu, L. C. Chien
Kent State University, USA
- ELASP-18 Helical order in polymers with fixed vs. variable sequences of chiral units
L. Lopatina, J. V. Selinger
Kent State University, USA
- ELASP-19 Pattern formation in a eutectic mixture containing a reactive nematic liquid crystal
H. S. R. Kitzerow, N. Stich, M. Zöller
University of Paderborn, Germany
- ELASP-20 Liquid crystalline behaviour of cellulose in ionic liquid
M. J. Granström, I. Kilpeläinen
University of Helsinki, Finland
- ELASP-21 Effect of bias field on dielectric behaviours of polymer stabilized short pitch ferroelectric liquid crystals
M. Petit, A. Daoudi, M. Ismaili, J. M. Buisine
Université du Littoral Côte d'Opale, France
- ELASP-22 Novel technique, pre-shearing, for the ER effect measurement of liquid crystalline polymer
K. Kaneko, N. Nakamura
Ritsumeikan University, Japan
- ELASP-23 The molecular mechanism of strain induced layer compression in free standing smectic elastomer films
R. Stannarius, V. Aksenov, F. Kremer, R. Zentel
Otto von Guericke University of Magdeburg, Germany
- ELASP-24 Unexpected mechanical behavior of smectic A elastomers
A. Komp, H. Finkelmann
Albert-Ludwigs-Universität Freiburg, Germany
- ELASP-25 Three techniques for micro-patterning liquid crystalline polymers
A. L. Elias, K. D. Harris, C. W. M. Bastiaansen, D. J. Broer, M. J. Brett
University of Alberta, Canada

NANOP **Posters - LC nanoscience**

Room: *Quandary*

- NANOP-1 Calculation of the optical properties of liquid crystal-like assemblies of metallic nanostructures
J. Neal, B. Taheri, P. Palfy-Muhoray
Kent State University, USA
- NANOP-2 Dielectric properties of FLC/SWCNTs composite materials
W. Haase, A. Suvorova, F. Podgornov
Darmstadt University of Technology, Germany
- NANOP-3 Synthesis of hybrid metal-mesogenic nanosystems and their thermal behavior in the solid and liquid crystalline phases
T. I. Shabatina
Lomonosov Moscow State University, Russia
- NANOP-4 Successes in investigation Elc: Surface phenomena in epitropic liquid crystals
V. A. Levchenko, V. N. Matveenکو
Lomonosov Moscow State University, Russia
- NANOP-5 Maskless nano-lithography using self-organization of cholesteric liquid crystals
B. Serrano-Ramon, C. Bastiaansen, D. Broer
Eindhoven University of Technology, Netherlands



- NANOP-6 Nanoimprint lithography for the study of liquid crystals confined by nano-scale topography
Y. Yi, L. E. Hough, A. R. Martin, M. Nakata, N. A. Clark
University of Colorado, USA
- NANOP-7 Polarized luminescence of mesogenic oligo p-(phenylene vinylene) derivatives
H. S. R. Kitzerow, M. W. Lauhof, S. A. Benning, F. Scheliga, E. Thorn-Csanyi
University of Paderborn, Germany
- NANOP-8 Nanotomography of liquid crystals using polarized near field scanning optical microscopy
G. Carbone, C. Rosenblatt
Case Western Reserve University, USA
- NANOP-9 A chemically amplified triphenylene discotic derivative as a high sensitivity and high resolution electron-beam resist
M. MayandiThevar, A. Robinson, J. A. Preece, R. E. Palmer, H. M. Zaid
The University of Birmingham, England
- NANOP-10 Infra red spectroscopy and electrooptic analysis of nanocomposite: organomodified montmorillonite clay and liquid crystal ZLI-2293
L. Osinkina, L. Dolgov, Y. Shaydyuk, T. Gawrilko, G. Puchkovska, J. Baran
National University "Kyiv-Mohyla Academy", Ukraine

Poster Session 7, 4:00 PM - 5:00 PM

CHIRP *Posters - Chirality*

Room: *Longs Peak Foyer*

- CHIRP-1 Antichiroclinic effect
M. Cepic, D. Pociеча, E. Gorecka, N. Vaupotic, W. Weissflog
Jozef Stefan Institute and University of Ljubljana, Slovenia
- CHIRP-2 Dielectric spectroscopy of twist grain boundary phases
A. Khandelwal
S.D. (PG) College, India
- CHIRP-3 On predicting ferroelectric liquid crystal reduced spontaneous polarization or polarization power
M. P. Neal, H. Kamberaj, R. J. Low
Manchester Metropolitan University, United Kingdom
- CHIRP-4 Lasing in chiral reactive mesogen nanofibrils
E. Kulla, S. J. Woltman, G. P. Crawford, G. D. Jay
Brown University, USA
- CHIRP-5 Rotation of single crystals of chiral dopants at the top of a nematic droplet: Analogy with Reynolds number
L. Lysetskiy, I. Gvozдовskyy
STC "Institute for Single Crystals", NAS of Ukraine, Ukraine
- CHIRP-6 Chirality and polarity transfers between bent-core smectic liquid crystal substances
G. Liao, U. S. Hiremath, C. V. Yelamaggad, A. I. Jakli
Kent State University, USA
- CHIRP-7 Electrical and electro-optical properties and Landau coefficients of short pitch bistable ferroelectric (SBF) liquid crystal mixtures
A. Mukherjee, S. L. Srivastava, L. A. Beresnev
Allahabad University, India



- CHIRP-8 Chiral free-standing film micromotor
C. Blanc, F. Goc, M. Nobili, V. L. Lorman
Université Montpellier II/CNRS, France
- CHIRP-9 Detailed adiabatic scanning calorimetry investigation of a TGB phase diagram
J. Thoen, B. Van Roie, K. Denolf, C. Glorieux, H. T. Nguyen, G. Sigaud
Katholieke Universiteit Leuven, Belgium
- CHIRP-10 Chiral molecular rotors: Phase winding in liquid-crystalline monolayers
D. Svensek, H. Pleiner, H. R. Brand
Faculty of Mathematics and Physics, University of Ljubljana, Slovenia
- CHIRP-11 A novel frustrated phase in achiral bent core materials
V. Gortz, C. Southern, N. W. Roberts, H. F. Gleeson, J. W. Goodby
The University of York, United Kingdom
- CHIRP-12 Chirality in bent shaped liquid crystalline compounds
N. V. S. Rao, M. K. Paul, R. Deb, A. G. Choudhury, S. Choudhury
Assam University, India
- CHIRP-13 Dielectric pretransitional effects in the isotropic phase of chiral liquid crystals
J. Leys, J. Thoen
Katholieke Universiteit Leuven, Belgium
- CHIRP-14 Chirality and molecular dynamics in smectic compounds studied by ^{13}C -NMR spin lattice relaxation time observation
K. Hiraoka, H. Shiroshita, H. Hara, A. Iwahori
Tokyo Polytechnic University, Japan
- CHIRP-15 Amplification of chiral power in chiral mesophase by introducing achiral rodlike compound with ester group
S. W. Choi, K. Fukuda, S. Nakahara, K. Kishikawa, Y. Takanishi, K. Ishikawa, J. Watanabe, H. Takezoe
Tokyo Institute of Technology, Japan
- CHIRP-16 X-ray investigation of smectic layers in homologous series of chiral three ring esters
R. Dabrowski, W. Piecek, P. Kula, M. Tykarska, J. Przedmojski
Military University of Technology, Poland
- CHIRP-17 Bridged biphenyl dopants for ferroelectric liquid crystals: Induction of TGB phases and short pitch chiral nematic phases
R. P. Lemieux, M. P. Thompson
Queen's University, Canada
- CHIRP-18 Induced cholesteric or nematic-cholesteric mixture?
Z. Mykytyuk, A. Fechan, O. Sushynskyy, V. Gural, V. Dmytrah
Lviv Polytechnic National University, Ukraine
- CHIRP-19 TGB phase in the binary mixture of liquid crystalline compounds
J. Mahadeva, K. Hemalatha, T. N. Govindaiah, N. Nagappa
PES College of Science, India

MODLP *Posters - Modeling and simulation*

Room: *Quandary*

- MODLP-1 Surface anchoring of rod-like molecules on corrugated substrates
K. Kiyohara, K. Asaka, H. Monobe, N. Terasawa, Y. Shimizu
National Institute of Advanced Industrial Science and Technology (AIST), Japan



- MODLP-2 Weak anchoring of twisted nematic liquid crystals
G. McKay, K. J. Kidney, I. W. Stewart
University of Strathclyde, United Kingdom
- MODLP-3 Effect of flexoelectricity on nematic electroconvection under asymmetric excitation
J. K. S. Low, J. Hogan
University of Bristol, United Kingdom
- MODLP-4 An efficient and scalable domain decomposition algorithm for Markov chain Monte Carlo simulation of lattice-based liquid crystal models
V. S. S. Sastry, T. Niranjana, D. Jayasri, A. Agarwal
University of Hyderabad, India
- MODLP-5 Analysis of experimental and simulated vibrational spectra for two liquid crystalline multipodes based on siloxane core
A. Kocot, K. Merkel, R. Wrzalik, J. K. Vij, G. H. Mehl
University of Silesia, Poland
- MODLP-6 Phase transition studies in liquid crystals using molecular dynamics
E. A. Soto-Bustamante, G. A. Rodriguez-Leyht, R. O. Vergara-Tolosa
Universidad de Chile, Chile
- MODLP-7 Molecular dynamics simulations of spherical nanoparticles in dense isotropic nematogens: The role of matrix-induced long-range repulsive interactions
G. D. Smith, P. Tian
University of Utah, USA
- MODLP-8 Quadrupolar projection of biaxial excluded-volume interactions
R. Rosso, E. G. Virga
University of Pavia, Italy
- MODLP-9 Molecular dynamics simulation study of the SmQ phase showing dichiral molecule, M7BBM7
M. Yoneya, I. Nishiyama, H. Yokoyama
Japan Science and Technology Agency, Japan
- MODLP-10 Atomistic simulation of a thermotropic biaxial liquid crystal
M. R. Wilson, J. Pelaez
University of Durham, United Kingdom
- MODLP-11 Theoretical analysis of the magnetic Fredericksz transition in the presence of flexoelectricity and ionic contamination
A. A. Smith, C. V. Brown, N. J. Mottram
Nottingham Trent University, United Kingdom
- MODLP-12 Orientational order and the eigenvalue problem for third rank tensors
P. Palfy-Muhoray
Kent State University, USA
- MODLP-13 Molecular dynamics for the simple cylindrical particles
K. Satoh
Osaka Sangyo University, Japan
- MODLP-14 Model for inhomogeneous photo-polymerization processes in multicomponent media
A. Veltri, R. Caputo, A. Sukhov, C. Umeton
University of Calabria, Italy
- MODLP-15 Simulations of liquid crystals using soft-core potentials
Z. E. Hughes, M. R. Wilson
University of Durham, United Kingdom



- MODLP-16 Effect of surface tension on the alignment of liquid crystal phases
K. M. Aoki
Institute of Computational Fluid Dynamics, Japan
- MODLP-17 Nanoparticle aggregation/dispersion behaviors: Controlled by liquid crystalline matrix phase transition
J. Xu, G. D. Smith
University of Utah, USA
- MODLP-18 On the concept of electrical impedance for an electrolytic cell
G. Barbero, F. C. Freire, M. Scalerandi
Instituto de Física, Universidade de São Paulo, Brazil
- MODLP-19 Finite element elastodynamics modeling of shape evolution in nematic liquid crystal elastomers
B. Mbanga, R. L. B. Selinger, J. V. Selinger
Kent State University, USA
- MODLP-20 Quantum modeling of geometric and electronic structures of some mesogenic systems
W. J. Witko, R. Tokarz-Sobieraj
The Henryk Niewodniczanski Institute of Nuclear Physics, Polish Academy of Sciences, Poland
- MODLP-21 Effect of an external field on the director profile of a nematic liquid crystal around a spherical particle
J. I. Fukuda, H. Yokoyama
National Institute of Advanced Industrial Science and Technology (AIST), Japan
- MODLP-22 Multidimensional modeling of liquid crystal director field in the patterned vertical aligned cell using the fast Q-tensor method
J. H. Son, W. R. Lee, S. W. Choi, Y. H. Choi, G. D. Lee
Dong-A University, South Korea
- MODLP-23 Process optimization for fabricating a TFT- LCD panel with 3-D numerical simulator: How accurate and predictive is the FEM simulator?
S. H. Yoon, S. I. Yoon, T. Y. Won
Sanayi System Co., Ltd., South Korea
- MODLP-24 Calculation of material properties for a liquid crystal mixture via atomistic simulation
J. Pelaez, M. R. Wilson
University of Durham, United Kingdom
- MODLP-25 The role of flexible chains in liquid crystal formation – a simulation and theoretical study
A. J. Masters, A. B. Thomas, M. R. Wilson
University of Manchester, United Kingdom
- MODLP-26 Going beyond Onsager - the prediction of liquid crystalline properties via high level virial expansions and integral equation theory
A. J. Masters, Y. Xiaomei, A. Y. Vlasov, L. Anton, M. P. Allen, D. L. Cheung
University of Manchester, United Kingdom
- MODLP-27 Modeling focal length of lens generated by liquid crystal with polymer network
S. P. Pavljuchenko, V. Y. Reshetnyak, S. L. Subota, T. V. Galstian
Kyiv National Taras Shevchenko University, Ukraine
- MODLP-28 Automatic extraction of an equivalent circuit from a TFT-LCD unit cell for LCD TV application
S. I. Yoon, S. H. Yoon, T. Y. Won
Sanayi System Co., Ltd., South Korea
- MODLP-29 DFT and MD studies on mesogenic compounds with ester linkage groups. Bent-core vs. linear isomers
S. Ananda Rama Krishnan, W. Weissflog, R. Friedemann
Martin-Luther-University Halle-Wittenberg, Germany



- MODLP-30 Interaction between different nematic liquid crystal molecules
D. K. Yang, Y. Yin, H. Liu
Kent State University, USA
- MODLP-31 Globally coupled Ginzburg Landau equations for electroconvection in nematic liquid crystals
G. Dangelmayr, I. Oprea
Colorado State University, USA
- MODLP-32 Structure formation and fractionation in systems of polydisperse attractive rods
A. Richter, T. Gruhn
Max Planck Institute of Colloids and Interfaces, Germany
- MODLP-33 Liquid crystal display simulation software: Comparison of 1D and 2D optics solutions
V. G. Chigrinov, D. A. Yakovlev
Hong Kong University of Science and Technology, Hong Kong
- MODLP-34 Pressure dependence of reorientational dynamics in the nematic phase by a molecular dynamics simulation
K. Satoh
Osaka Sangyo University, Japan
- MODLP-35 On the dynamics of the dipolar Gay-Berne mesogenic model
K. Satoh
Osaka Sangyo University, Japan
- MODLP-36 Computer simulation study of some smectic C liquid crystals
S. M. Yayloyan
National Academy of Sciences of Armenia, Armenia
- MODLP-37 Electric field driven expulsion of a nematic line defect
M. Ambrozic, S. Kralj, E. G. Virga
Jozef Stefan Institute, Slovenia
- MODLP-38 Computational fluid dynamics of nematic liquid crystals
A. M. Sonnet, A. Ramage
University of Strathclyde, United Kingdom
- MODLP-39 NMR spectra simulation of the magnetic reorientation of a lyotropic nematic polymer cell in the Freedericksz and a non-Freedericksz twist geometry
J. P. Casquilho, A. Véron, A. F. Martins
Universidade Nova de Lisboa, Portugal
- MODLP-40 Models of bent-core systems utilizing Gay-Berne type of interactions
W. Jozefowicz, P. Grzybowski, L. Longa
Jagellonian University, Poland
- MODLP-41 Hexagonal vs. tetragonal ordering for polar GB systems
W. Jozefowicz, L. Longa
Jagellonian University, Poland
- MODLP-42 Statistical modeling of the pretilt angle control using in-situ photoalignment method on plastic substrate
H. J. Kang, J. H. Kim, J. H. Lee, J. Y. Hwang, Y. P. Park, I. Yun, D. S. Seo
Yonsei University, South Korea
- MODLP-43 Optimization of LCD pixel structure for continuous pinwheel alignment mode
S. Y. Cho, T. Y. Won, C. S. Lee
Inha Univ, South Korea



- MODLP-44 Multi-domain PVA LCD cell: Pros and cons
W. J. Shin, C. S. Lee, T. Y. Won
Inha University, South Korea
- MODLP-45 Molecular dynamics simulation on alkyl glycoside bilayers
R. Hashim, T. T. Chong, T. Heidelberg
University of Malaya, Malaysia
- MODLP-46 Building a simulation model for xenon solutes in thermotropic liquid crystals
J. Lintuvuori, M. Straka, J. Vaara
University of Helsinki, Finland
- MODLP-47 Numerical investigation of selective reflection spectra under various device conditions
H. G. Yoon, H. F. Gleeson
University of Manchester, United Kingdom
- MODLP-48 Static configuration of the super in-plane switching liquid crystal director on the electrode
J. H. Lee, S. W. Choi, W. R. Lee, J. H. Son, J. S. Yang, H. C. Choi, G. D. Lee
LG. Philips LCD, South Korea
- MODLP-49 Optical and structural modeling of liquid crystalline PPI dendrimers
J. L. Serrano, R. Vaisnoras, M. Marcos, R. Martin-Rapun, J. Tamuliene, A. Kulbickas, L. Rasteniene, M. Franckevicius, B. Jaskorzynska, L. Wosinski
Instituto de Ciencia de Materiales de Aragon, Spain
- MODLP-50 Adaptive grid methods for Q-tensor theory of liquid crystals
A. Ramage, C. J. P. Newton
University of Strathclyde, United Kingdom
- MODLP-51 Modelling polarization effects in a freely suspended smectic liquid crystal film
H. Millar, G. McKay
University of Strathclyde, United Kingdom
- MODLP-52 Periodic disturbances in cylindrically layered smectic A
A. J. Walker, I. W. Stewart
University of Strathclyde, United Kingdom
- MODLP-53 A novel method for measuring compression constants in smectics
F. Stewart, I. W. Stewart
University of Strathclyde, United Kingdom

PHREP **Posters - Photoresponsive materials**

Room: *Quandary*

- PHREP-1 Photoinduced effects in the vicinity of the smectic-A–smectic-C_A* transition – polarization, tilt angle and response time studies
G. G. Nair, G. Hegde, S. K. Prasad, C. V. Lobo, Y. S. Negi
Centre for Liquid Crystal Research, India
- PHREP-2 A novel method to form macroscopic arrays of nano-cylinder domains in an amphiphilic diblock liquid-crystalline copolymer
H. Yu, T. Ikeda, K. Kamata, A. Shishido, T. Iyoda
Tokyo Institute of Technology, Japan
- PHREP-3 A semiclassical model of ultrafast photoisomerization reactions
E. Kats, V. Benderskii, E. Vetoshkin, P. Trommsdorff
Landau Institute for Theoretical Physics (Russia), and Laue-Langevin Institute (France)
- PHREP-4 Dynamic self-assembly of the smectic A phase
S. K. Prasad, G. G. Nair, G. Hegde
Centre for Liquid Crystal Research, India



- PHREP-5 Stable two-dimensional grating recorded in azo-dye doped liquid crystal
S. P. Gorkhali, S. G. Cloutier, G. P. Crawford
Brown University, USA
- PHREP-6 Space charge field and dynamics of the grating formation in a photorefractive polymer-dispersed liquid crystal
H. S. R. Kitzerow, L. Paelke
University of Paderborn, Germany
- PHREP-7 Anchoring and gliding of a nematic liquid crystal on photoaligned PVCN-F surfaces
M. Nobili, O. Buluy, A. Iljin, E. Ouskova, Y. Reznikov, C. Blanc, K. Antonova
Université Montpellier II/CNRS, France
- PHREP-8 Phototunable photonic crystal structures formed by monodisperse polymer particles
A. Shishido, T. Tsuruma, E. Miyamoto, T. Ikeda
Tokyo Institute of Technology, Japan
- PHREP-9 Photoresponsive behavior of highly birefringent liquid-crystalline polymers with a long azotolane side group
K. Okano, A. Shishido, T. Ikeda
Tokyo Institute of Technology, Japan
- PHREP-10 Photoinduced anisotropy in diblock copolymers with mesogenic azobenzene groups and poly(methyl methacrylate)
C. Sanchez, R. Alcalá, P. Forcén, L. Oriol, M. Piñol, F. J. Rodríguez, J. L. Serrano
Instituto de Ciencia de Materiales de Aragón, UZ-CSIC, Spain
- PHREP-11 High pressure studies on the photo-stimulated nematic-isotropic transition
S. K. Prasad, D. S. S. Rao, V. K. Gupta, C. V. Lobo, C. V. Yelamaggad
Centre for Liquid Crystal Research, India
- PHREP-12 Effect of free ions on time-of flight mobility measurements in a discotic liquid crystal
C. P. Pokhrel, N. M. Shakya, A. N. Semyonov, B. D. Ellman, R. J. Twieg
Kent State University, USA
- PHREP-13 Dynamics in dye-doped liquid crystal systems
O. Trushkevych, N. Collings, W. A. Crossland, T. D. Wilkinson, W. I. Milne
University of Cambridge, United Kingdom
- PHREP-14 Incorporation of photochromic dithienylethene dopants into ferroelectric smectic C liquid crystals
J. C. Roberts, P. Zhang, E. Buncel, R. P. Lemieux
Queen's University, Canada
- PHREP-15 Fractal dynamics of a photo-addressed azo-SAM for liquid crystal alignment
G. Fang, N. Clark, J. MacLennan, Y. Yi, M. Farrow, D. Walba, T. Furtak
University of Colorado, USA
- PHREP-16 High sensitivity aminoazobenzene photoactive monolayers: Properties and applications
T. Furtak, Y. Yi, J. Dahdah, M. Farrow, D. Walba, G. Fang, J. MacLennan, N. A. Clark
Colorado School of Mines, USA
- PHREP-17 Preparation and photoinduced bending behavior of crosslinked azobenzene liquid-crystalline polymer films with poly(oxyethylene) backbone
J. I. Mamiya, W. Wang, M. Kinoshita, Y. Yu, T. Ikeda
Tokyo Institute of Technology, Japan
- PHREP-18 Actuation behavior of crosslinked azobenzene liquid-crystalline polymer fibers by light
T. Yoshino, J. I. Mamiya, M. Kinoshita, Y. Yu, T. Ikeda
Tokyo Institute of Technology, Japan



- PHREP-19 Photoinduced deformation behavior of crosslinked azobenzene liquid-crystalline polymer films of unimorph and bimorph structure
M. Kondo, J. I. Mamiya, M. Kinoshita, Y. Yu, T. Ikeda
Tokyo Institute of Technology, Japan
- PHREP-20 Photochromic macrocyclic metallomesogens for nanoporous materials with photo-tunable porosity
C. S. Pecinovsky, E. M. Karp, D. Gin
University of Colorado, USA

Poster Session 8, 9:40 PM - 10:40 PM

ALGNP Posters - LC alignment

Room: *Longs Peak Foyer*

- ALGNP-1 Nano imprinting lithography for liquid crystal alignment using a new polyimide imprinting material
J. S. Gwag, M. Yoneya, H. Yokoyama
Japan Science and Technology Agency, Japan
- ALGNP-2 Ion beam processes for LC alignment on the large-area substrates
O. V. Yaroshchuk, R. M. Kravchuk, A. M. Dobrovolsky, A. E. Khokhlov, E. Telesh
Institute of Physics, NASU, Ukraine
- ALGNP-3 Liquid crystal alignment on the azodye films: Optimization of molecular structure
O. V. Yaroshchuk, L. Dolgov, D. V. Kravchenko, L. A. Olkhovyk, V. G. Syromyatnikov, V. Chigrinov
National Academy of Sciences of Ukraine, Ukraine
- ALGNP-4 Synthesis and characterization of a novel LC alignment layer with coumarin derivatives
D. Kang, H. Kang, J. S. Park, J. C. Lee
Soongsil University, South Korea
- ALGNP-5 Alignment of liquid crystals infiltrated into porous thin films with tailored nanostructure grown by glancing angle deposition
N. G. Wakefield, A. L. Elias, M. J. Brett, D. J. Broer, J. C. Sit
University of Alberta, Canada
- ALGNP-6 Interplay of surface chemistry and groove shape to LC alignment
J. Zhang, A. A. Rowan, T. Rasing
Radboud University Nijmegen, Netherlands
- ALGNP-7 Alignment layer micropatterning combined with planar degenerate alignment
C. Rosenblatt, I. M. Syed, G. Carbone
Case Western Reserve University, USA
- ALGNP-8 Alignment of nematic liquid crystals on embossed perfluoropolyether
J. M. Russell-Tanner, J. M. DeSimone, E. T. Samulski
University of North Carolina at Chapel Hill, USA
- ALGNP-9 Ion beam alignment of liquid crystal on amorphous SiO_x film
T. H. Yoon, P. K. Son, J. H. Park, S. S. Cha, J. H. Seo, J. C. Kim
Pusan National University, South Korea
- ALGNP-10 Micropatterning of aligning surfaces using photoalignment method
J. I. Niitsuma, Y. Mitsuhashi, M. Yoneya, H. Yokoyama
Japan Science and Technology Agency, Japan
- ALGNP-11 Liquid crystal alignment on a plasma-exposed substrate under atmospheric pressure
E. Jang, H. Song, S. D. Lee
Seoul National University, South Korea



- ALGNP-12 Memory effects and multistability in the alignment of nematics at surfaces with inhomogeneous random anchoring
N. Arysova
Institute of Physics, National Academy of Sciences of Ukraine, Ukraine
- ALGNP-13 Simultaneous characterization of a liquid crystal and a liquid crystal - alignment film interface by means of transmission ellipsometry
T. Akahane, H. Sakamoto, R. Banshou, M. Kimura
Nagaoka University of Technology, Japan
- ALGNP-14 Alignment of poly[9,9-dioctylfluorenyl-2,7-diyl]-co-(bithiophene)] induced by photo-aligned polyimide films
K. Sakamoto, K. Usami, K. Miki
National Institute for Materials Science, Japan
- ALGNP-15 Alignment capabilities and EO performances of VA-LCD using transparent conductive Al-doped ZnO films
S. H. Kim, J. Y. Hwang, J. H. Kim, Y. H. Kim, J. W. Han, B. Y. Oh, J. M. Myoung, D. S. Seo
Yonsei University, South Korea
- ALGNP-16 Liquid crystal alignment effect of the NDLC thin film deposited by PECVD and sputtering method
S. H. Choi, J. Y. Hwang, Y. H. Kim, B. Y. Oh, J. M. Myoung, D. S. Seo
Yonsei University, South Korea
- ALGNP-17 A study of electro-optical characteristics of the UV aligned FFS cell on the organic layer
J. M. Han, J. W. Lee, J. Y. Hwang, D. H. Kang, J. H. Kim, Y. H. Kim, Y. P. Park, B. M. Moon, D. S. Seo
Yonsei University, South Korea
- ALGNP-18 Homeotropic alignment effect of a nematic liquid crystal on oblique deposited SiO_x thin-film using ion-beam
J. H. Kim, S. H. Choi, J. Y. Hwang, B. Y. Kim, J. W. Han, Y. H. Kim, J. M. Han, D. S. Seo
Yonsei University, South Korea
- ALGNP-19 Polyimide photo-alignment layers for inclined homeotropic alignment of liquid crystal molecules
K. Usami, K. Sakamoto, Y. Uehara, S. Ushioda
Osaka Sangyo University, Japan
- ALGNP-20 Novel alignment property and mechanism of liquid crystal on a various amorphous silicon oxides
K. C. Kim, H. J. Ahn, J. B. Kim, B. H. Hwang, D. C. Hyun, H. K. Baik, S. J. Lee
Yonsei University, South Korea
- ALGNP-21 Investigation of polarization profiles in ferroelectric polymers for LC alignment
H. J. Shah, A. K. Fontecchio, D. A. Delaine
Drexel University, USA
- ALGNP-22 Method to obtain large negative dielectric anisotropy compatible with homeotropic alignment
C. Chen, J. Anderson, P. Bos
Kent State University, USA
- ALGNP-23 Non-contact liquid crystal alignment by a magnetic field and the associated surface memory effect
R. Guo, K. Slyusarenko, Y. Reznikov, S. Kumar
Kent State University, USA
- ALGNP-24 Patterned alignment layers by capillary force lithography for multi-domain liquid crystal structures
H. R. Kim, M. S. Shin, Y. J. Lee, M. E. Kim, J. I. Jung, J. H. Kim
Hanyang University, South Korea



- ALGNP-25 The vertical alignment of nematic liquid crystals on the amorphous silicon oxide thin films
B. H. Hwang, K. C. Kim, H. J. Ahn, J. B. Kim, D. C. Hyun, H. K. Baik
Yonsei University, South Korea
- ALGNP-26 Controllable alignment modes of nematic liquid crystal on argon ion beam bombarded polyimide films
H. Y. Wu, T. T. Tang, C. C. Wang, R. P. Pan, S. J. Chang, J. C. Hwang
National Chiao Tung University, Taiwan

BIOLP **Posters - LC bioscience and biotechnology**

Room: *Longs Peak Foyer*

- BIOLP-1 On the physics of lipid membranes and built-in bio-motors
S. A. Pikin, E. B. Loginov, E. S. Pikina
Russian Academy of Sciences, Russia
- BIOLP-2 A structural study of the ordering of single stranded DNA on GaAs
L. J. Martinez-Miranda, D. Sweet, J. C. An, L. G. Salamanca-Riba, J. Silverman, A. Christou, M. Al-Sheikhly
University of Maryland, USA
- BIOLP-3 Lyotropic liposomes towards MRI/fluorescence localization and thermal ablation of tumours
E. Bravo-Grimaldo, M. Jackson, C. Fulton, P. Latta
NRC-IBD, Canada
- BIOLP-4 Liquid crystalline bioequivalent materials: General concepts, physico-chemical studies and fields of possible applications
L. Lysetskiy
STC "Institute for Single Crystals", NAS of Ukraine, Ukraine
- BIOLP-5 Vertebrate photoreceptor cells: A biological guest host device
N. W. Roberts, H. F. Gleeson, M. R. Dickinson
University of Manchester, United Kingdom
- BIOLP-6 Conformity of a thermotropic liquid crystal membrane underwater to living cells
S. Okuda, S. Uto
Osaka Institute of Technology, Japan
- BIOLP-7 Liquid crystalline structure in polymers with different macromolecular rigidity
O. A. Khanchich
Moscow State University of Applied Biotechnology, Russia
- BIOLP-8 Form birefringence in biological lamellar cellular structures
N. W. Roberts
University of Manchester, United Kingdom
- BIOLP-9 Electron diffraction of biological membranes in water
C. Y. Chao, W. J. Hsieh
National Taiwan University, Taiwan
- BIOLP-10 Detection of viruses using liquid crystals
B. R. Acharya, K. M. Anhalt, N. L. Abbott, B. A. Israel
Platypus Technologies, USA



DYNAP **Posters - Dynamic properties**

Room: *Longs Peak Foyer*

- DYNAP-1 Dynamics and the orientational order of the organo-siloxane tetrapodes determined using dielectric spectroscopy
A. Kocot, K. Merkel, J. K. Vij, G. H. Mehl
University of Silesia, Poland
- DYNAP-2 Molecular rotational motion in chiral LC monolayers
Y. Tabe, G. Watanabe, H. Yokoyama
Waseda University, Japan
- DYNAP-3 Interpretation of the transient rheology of 8CB in the nematic phase
A. F. Martins, A. Véron
Universidade Nova de Lisboa, Portugal
- DYNAP-4 Nonlinear reorientation dynamics of liquid crystals generated by light: Towards a model system for testing nonlinear dynamics concepts
E. Brasselet, D. O. Krimer
Ecole Normale Supérieure de Lyon, France
- DYNAP-5 Surface anchoring energy of 8CB derived from the shear stress response
A. Véron, A. F. Martins
Universidade Nova de Lisboa, Portugal
- DYNAP-6 2D IR of sub molecular reorientation dynamics in surface stabilized ferroelectric liquid crystals with and without doping of ZnO nanocrystals
J. Y. Huang
Chiao Tung University, Togo
- DYNAP-7 Effects of dielectric relaxation on the dynamics and dielectric heating of nematic liquid crystals
S. V. Shiyonovskii, Y. Yin, A. B. Golovin, O. D. Lavrentovich
Kent State University, USA
- DYNAP-8 Scaling properties of the Miesowicz's coefficients
F. D. S. Alves, M. Simões, S. M. Domiciano
Universidade Estadual de Londrina, Brazil
- DYNAP-9 Measurement of azimuthal backflow in a dual-frequency chiral HAN cell
S. A. Jewell, J. R. Sambles
University of Exeter, England
- DYNAP-10 Director profiles for a thin nematic slab determined by the time-resolved deuterium NMR spectra
H. Ohgaki
Osaka Sangyou University, Japan
- DYNAP-11 Transient capacitance study of switching in a two-frequency nematic liquid crystal
J. M. Hind, C. V. Brown, A. A. Smith
Nottingham Trent University, United Kingdom
- DYNAP-12 Pressure driven re-entrant phenomena in liquid crystal
S. Amit, S. Debanand, S. Shri
Banaras Hindu University, India
- DYNAP-13 Slow dynamics in banana-shaped mesophases: A theoretical approach to the analysis of NMR relaxation times
V. Domenici, C. A. Veracini, D. Frezzato, G. Moro
Universita' di Pisa, Italy
- DYNAP-14 Dielectric and X-ray studies of substances with the smectic B polymorphism
S. Urban, J. Przedmojski, J. Czub, R. Dabrowski



- Jagiellonian University, Poland*
- DYNAP-15 Thermodynamic features and dynamics in (S)-4-(2-methylbutanol)-4'-cyanobiphenyl (5*CB) glass former as studied by complementary methods
M. Massalska-Arodz, A. Inaba, J. Krawczyk, I. Natkaniec, H. Suzuki
Polish Academy of Sciences, Poland
- DYNAP-16 The enhancement of diffraction of dye-doped polymer film assisted with nematic liquid crystals
C. T. Kuo, S. Y. Huang
National Sun Yat-Sen University, Taiwan
- DYNAP-17 Two dimensional dynamic modeling of the splay to bend transition
Y. Zhang, B. Wang, D. Chung, J. Colegrove, P. Bos
Kent State University, USA
- DYNAP-18 Optical characterization of switching in a hybrid aligned negative dielectric anisotropy nematic cell
T. S. Taphouse, J. R. Sambles
University of Exeter, United Kingdom
- DYNAP-19 On the stability of a nematic film flowing down an inclined plane
A. G. Kalugin, A. N. Golubiatnikov
Moscow State University, Russia
- DYNAP-20 Micromanipulation method using backflow effect of liquid crystals
Y. Mieda, K. Furutani
Toyota Technological Institute, Japan
- DYNAP-21 Calculation of rotational viscosity of binary liquid crystals by molecular-dynamic simulations
J. H. Sung, H. Sato, H. Ichinose
TC Atsugi, Japan
- DYNAP-22 Dynamics of evolution of pi-wall disclinations in cholesteric liquid crystals
D. K. Yang, C. Braganza, T. Palermo
Kent State University, USA
- DYNAP-23 Chaotic collective molecular rotations generated by light in a nematic liquid crystal film
E. Brasselet, L. J. Dubé
Ecole Normale Supérieure de Lyon, France
- DYNAP-24 Competing intrinsic and light-induced helical patterns in optically excited long-pitch cholesterics
E. Brasselet, D. O. Krimer, L. Kramer
Ecole Normale Supérieure de Lyon, France
- DYNAP-25 Anomalous dynamics in bent-core nematic liquid crystals
J. Gleeson, K. Fodor-Csorba, M. Majumdar
Kent State University, USA
- DYNAP-26 Dielectric studies under high pressure on strongly polar liquid crystals exhibiting monolayer smectic A phase
D. S. Shankar Rao, K. Sandhya, S. K. Prasad, U. S. Hiremath, C. V. Yelamaggad
Centre for Liquid Crystal Research, India
- DYNAP-27 Re-entrance of normal hysteresis behavior due to molecular relaxation in SmC* phase
M. Rahman
Indian Association for the Cultivation of Science, India
- DYNAP-28 Dielectric studies on some hydrogen bonded binary liquid crystals
S. S. S., V. R. V., M. Vrk, V. K
Acharya Nagarjuna University, India
- DYNAP-29 Decay of spatially periodic patterns in nematic liquid crystals
N. Éber, Á. Buka, W. Pesch, L. Kramer
Research Institute for Solid State Physics and Optics, Hungary
- DYNAP-30 The investigation of the pre-tilt angle of the LC mixture for LC display
T. Takeda, H. Ichinose



- TC Atsugi, Japan*
- DYNAP-31 Surface anchoring effect on the response time of liquid crystal displays
H. J. Youn, S. H. Yoon, T. Y. Won
Sanayi System Co., Ltd., South Korea
- DYNAP-32 Stick-slip dynamics of c-director relaxation in free-standing films with central $S=+1$ defect
R. Stannarius, A. Eremin, C. Bohley
Otto von Guericke University of Magdeburg, Germany
- DYNAP-33 Free standing filaments formed by bent-shaped molecules
R. Stannarius, A. Nemes, A. Eremin
Otto von Guericke University of Magdeburg, Germany
- DYNAP-34 Nonlinear dielectric study of critical behavior near isotropic–nematic phase transition
Y. Kimura, K. Tsutsumi, K. Tanaka, M. Ichikawa
Kyushu University, Japan
- DYNAP-35 Influence of the adsorption phenomenon on ion equilibrium and on the transient
F. C. Freire, G. Barbero, M. Scalerandi, A. L. Alexe-Ionescu
Universidade estadual de Maringá, Brazil
- DYNAP-36 On the shear and magnetic field induced pattern formation in nematic polymer liquid crystals
J. P. Casquilho, J. L. Figueirinhas
Universidade Nova de Lisboa, Portugal
- DYNAP-37 Field-induced director alignment for 4-octyl-4'-cyanobiphenyl near the smectic A – nematic transition
H. Inoue, G. R. Luckhurst, A. Sugimura, B. Timimi, H. Zimmermann, K. Usami, H. Ohgaki
Osaka Sangyo University, Japan
- DYNAP-38 Dielectric relaxation studies of two nematic compounds
S. Mohyeddine, R. Somashekar, . M. B. Pandey, D. Revannasiddaiah
University of Mysore, India
- DYNAP-39 The dynamical analysis on the photoexcitation of azo-dye doped liquid crystal
C. Y. Huang, K. Y. Lo, C. Y. Chen, Y. R. Lin
National ChiaYi University, Taiwan
- DYNAP-40 Fluid flow effects on director response in homogeneous and homeotropic nematic liquid crystal cells, probed by transient current measurements
Y. Sasaki, Y. Iwata, H. Naito, M. Inoue, H. Ichinose, M. K. Memmer, K. Tarumi
Osaka Prefecture University, Japan
- DYNAP-41 Molecular dynamics in a smectic phase in the presence of organic solvent additions
D. Sokolowska, J. Janik, K. Smigielski, J. K. Moscicki
Jagiellonian University, Poland
- DYNAP-42 Deuterium NMR investigation of a two-dimensional powder pattern in the nematic director dynamics
T. Tanaka, H. Ohgaki, A. Sugimura, K. Usami, G. Luckhurst, B. Timimi, H. Zimmermann
Osaka Sangyou University, Japan
- DYNAP-43 Molecular direction dependence of shear horizontal wave propagation in nematic liquid crystal
R. Ozaki, M. Aoki, H. Moritake, K. Toda, K. Yoshino
National Defense Academy, Japan
- DYNAP-44 Raman spectroscopy studies in 4-n-pentyl-4'-cyanobiphenyl nematic liquid crystal
D. Kang, S. W. Joo
Soongsil University, South Korea
- DYNAP-45 Viscosity response measurement of nematic liquid crystal under application of electric field using shear horizontal wave
M. Aoki, R. Ozaki, H. Moritake, K. Toda, K. Yoshino
National Defense Academy, Japan



- DYNAP-46 Theoretical investigation of the chiral flexoelectro-optic effect in cholesteric liquid crystals
L. Parry-Jones, S. J. Elston, G. Alexander
University of Oxford, United Kingdom
- DYNAP-47 Relaxation processes in liquid crystal mixtures with wide nematic range
A. N. Larionov, S. V. Pasechnik, N. N. Larionova
Voronezh State University, Russia
- DYNAP-48 Ultrasonic properties of nematics in conic rotating magnetic field
A. N. Larionov, O. A. Tiniakov, Y. F. Melikhov, E. V. Gevorkian, A. A. Dementeva
Voronezh State University, Russia
- DYNAP-49 The short range order fluctuations in the isotropic phase of liquid crystals detected by nonlinear dielectric spectroscopy
P. Kedziora, J. Jadzyn, L. Hellemans
Polish Academy of Sciences, Poland

