

25th National Conference on Liquid Crystals

(NCLC – 2018)

December 19-21, 2018

SCIENTIFIC PROGRAMME

WEDNESDAY, DECEMBER 19, 2018	
8:30 – 9:30 AM	Breakfast Venue: NASI Lawn
9:30 – 10:00 AM	Registration Venue: NASI Lounge
10:00 – 11:00 AM	Inaugural Function Venue: NASI Auditorium
11:00 – 11:30 AM	High Tea
11:30 – 12:10 AM	Keynote Address: <i>Shri Singh</i> Phase Transition Properties in Liquid Crystals: Application and Development of Landau de Gennes Type formulism
Technical Session I Chairperson: Venue: NASI Auditorium	
12:10 – 12:40 PM	IL-1: <i>K.A. Suresh</i> Studies On Nickel OctabutoxyPhthalocyanine and Nickel OctabutoxyPhthalocyanine/Graphene Oxide Ultrathin Films: Enhancement of Negative Differential Resistance
12:40 – 01:00 PM	OP-1: <i>Banani Das</i> Electro-Optic Properties and Structure Property Correlations in Ferroelectric Liquid Crystals
01:00 - 01:15 PM	OP-2: <i>Yuvaraj A. R.</i> Enhanced Stability of Columnar Mesomorphism Achieved by Charge Transfer Complex
01:15-01:30PM	OP-3: <i>Ashwathanarayana Gowda M.</i> Dibenzophenazine Based II– Extended Discotic Liquid Crystals: Synthesis and Mesomorphic Properties
01:30 – 2:30 PM	Lunch Break Venue: NASI Lawn

Technical Session II Chairperson: Venue: NASI Auditorium	
2:30 – 3:00 PM	IL-2: S. K. Prasad Anisotropic Fast Electrically Switchable Emission from Composites of CsPbBr ₃ Perovskite Quantum Cuboids in a Nematic Liquid Crystal
3:00 – 3:30 PM	IL-3: Rajiv Manohar Impact of Nanomaterials on Liquid Crystal Applications
3:30 - 3:50 PM	OP-4: Bharat Kumar Kinetics of Adsorption of Antimicrobial Peptide Nisin on the Lipid Monolayers: Role of Electrostatic Interactions
3:50 - 4:10 PM	OP-5: Amitabha Bhattacharyya One-shot Two Dimensional Forced Drainage in Natural Surfactant Systems
4:10 - 4:25 PM	OP-6: Suraj Kumar Temperature Dependent Studies of Surface Induced Helical Unwound Structure in Ferroelectric Liquid Crystal
4:25-4:40PM	OP-7: Ambika Bawa Sample Cell Thickness Dependency of Partially Unwound Helical Mode of Ferroelectric Liquid Crystals
4:40 – 5:00PM	Tea/Coffee Break Venue: NASI lounge
Technical Session III Chairperson: Venue: NASI Auditorium	
5:00-5:30PM	IL-4: C. V. Yelamaggad pseudo-Triphenylene Boron(III) Complexes with N ₃ B ₃ O ₃ Core: Tris(boranyl), n-Type Columnar Liquid Crystals –The First Examples
5:30-5:45PM	OP-8: Susanta Kumar Nayak Halogen Bonding for Liquid Crystalline Property Study
5:45-6:00PM	OP-9: Dinesh Kumar Sahu Non-Spherical Magnetic Nematic Colloids
6:00 - 7:00 PM	AGB Meeting
7:00-7:45PM	Poster Session (P-1 to P-32) Venue: NASI Lounge and Lawn
7:45-8:45PM	Dinner Venue: NASI

THURSDAY, DECEMBER 20, 2018	
8:00 – 9:00 AM	Breakfast Venue: NASI Lawn
Technical Session IV Chairperson: Venue: NASI Auditorium	
9:00 – 09:30AM	IL-5: <i>A. M. Biradar</i> Dynamics of Helix in Ferroelectric Liquid Crystals
9:30 – 10:00 AM	IL-6: <i>Sandeep Kumar</i> Hetero Annulated Triphenylene Discotic Liquid Crystals
10:00 – 10:20 AM	OP-10: <i>Praveen Malik</i> Stabilization of Blue Phase Liquid Crystals by Nanoparticles and Polymer
10:20 – 10:35 AM	OP-11: <i>Govind Pathak</i> Analysis of Three Different Birefringent Materials Dispersed with TiO ₂ Nanoparticle and Fluorescent Dye
10:35 – 10:50 AM	OP-12: <i>Hemant Kumar Singh</i> Mesomorphic Behavior of Aroylhydrazone based Hexacatenars: A Structure-Property Relationship Study
10:50 – 11:05 AM	OP-13: <i>K. Mohana</i> New Side-Chain Photoresponsive Polysiloxane Liquid Crystalline Elastomers with Two Different Crosslinkers
11:05 – 11:30 AM	Tea/Coffee Break Venue: NASI Lounge
Technical Session V Chairperson: Venue: NASI Auditorium	
11:30 – 12:00 PM	IL-7: <i>D.S. Shankar Rao</i> Nanophase Segregation of Nanostructures: Induction of Smectic A and Re-entrance in a Carbon Nanotube/Nematic Liquid Crystal Composite
12:00 – 12:30 PM	IL-8: <i>Santanu Pal</i> Discotic Liquid Crystals as Highly Efficient Emitter for OLEDs

12:30 – 12:50 PM	OP-14: <i>Neelam Yadav</i> de Vries Characteristics in Chiral Smectic A and C phases
12:50-01:05 PM	OP-15: <i>Lokesh Kr. Gangwar</i> Appearance of Three Dielectric Relaxation Processes near Sm-C* And Sm-A* Phase Transition Originating the Dielectric Response of Ferroelectric Liquid Crystal Materials
01:05-01:20PM	OP-16: <i>M.Ramakrishna N. Rao</i> Characterization and SPIE Analysis in Pure and Nano-dispersed N-(p-n hexyloxybenzylidene)-p-n-alkyloxy Anilines
1:20-01:35 PM	OP-17: <i>Pankaj Kumar Tripathi</i> Enhancement of Birefringence and Molecular Alignment of 4-octyloxy-4' cyanobiphenyl Liquid Crystal with Dispersed Fe ₂ O ₃ Nanoparticles
01:35 – 2:30 PM	Lunch Break Venue: NASI Lawn
Technical Session VI Chairperson: Venue: NASI Auditorium	
2:30 – 3:00 PM	IL-9: <i>B. T. Thaker</i> Thermotropic Liquid Crystal Polymers
3:00-3:30 PM	IL-10: <i>M.Srinivasulu</i> Self-Assembled Liquid Crystalline Materials with Fatty Acids
3:30-3:50PM	OP-18: <i>Anoop Kr. Srivastava</i> Exploration of Origin of Dielectric Relaxation Modes Observed in PhotochromaticDendric Liquid Crystal
3:50-4:05 PM	OP-19: <i>Pragnya Satapathy</i> Soft Photomechanical Actuation in PDMS – Porous Nanocarbon Composites: Fast Response for Flexible Robotic Applications
4:05-4:20 PM	OP-20: <i>Ravindra Kumar Gupta</i> Columnar Self-assembly of Bay-Annulated Perylenebisimides

4:20-4:35 PM	OP-21: <i>Sachin Ashok Bhat</i> Photoresponsive Gold Nanoparticles: Synthesis and Characterization of Liquid Crystal-Nanoparticle Composites
4:35 – 5:00 PM	Tea/Coffee Break Venue: NASI Lounge
Technical Session VII Chairperson: Venue: NASI Auditorium	
5:00-5:30PM	IL-11: <i>Malay Kumar Das</i> Critical Behaviour of Birefringence at the Smectic-A-Smectic-C* and Smectic-C* - Smectic-C _A * Phase Transitions in Liquid Crystals
5:30-5:45 PM	OP-22: <i>Santosh Mani</i> Comparative Study of Transition Temperatures of Pure and Mixtures of Liquid Crystals
5:45-6:00 PM	OP-23: <i>Sidra Khan</i> Low Frequency Dielectric Relaxation Process in BiFeO ₃ Nanoparticles/ Ferroelectric Liquid Crystal Composites
6:00 - 6:15 PM	OP-24: <i>Pawan Singh</i> Tunable Optical Properties of Liquid Crystal Nanocomposite as Defect in 1D Periodic Structure
6:15 – 6:30 PM	OP-25: <i>Supreet Kaur</i> Structure-Property Relationship of Short-Core Hockey-Stick-Shaped Mesogens Tethered with Terminal Halogen Moieties
6:30-7:45PM	Poster Session (P-33 to P-65) Venue: NASI
7:45 - 8:45 PM	Cultural Program
8:45-9:45PM	Dinner Venue: NASI Lawn

FRIDAY, DECEMBER 21, 2018	
8:00 – 9:00 AM	Breakfast Venue: NASI Lawn
Technical Session VIII Chairperson: Venue: NASI Auditorium	
9:00 – 9:30 AM	IL-12: <i>M. B. Pandey</i> Optical Tweezers: A Versatile Tools for Manipulation and Investigation of Micro-Particles in Liquid Crystals
9:30 – 9:50 AM	OP-26: <i>Pankaj Kumar</i> Enhancement of Birefringence and Molecular Alignment of 4-octyloxy-4' cyanobiphenyl Liquid Crystal with Dispersed Fe ₂ O ₃ Nanoparticles
9:50 – 10:10 AM	OP-27: <i>Gautam Singh</i> Enhanced Electrical Tunability of Optical Transmission of Gold Nanoparticles Dispersed Ferroelectric Liquid Crystal Nanocomposites
10:10 – 10:30 AM	OP-28: <i>Abhay Shanker Pandey</i> Functionalized Single-Walled Carbon Nanotubes Dispersed in Liquid Crystal: Interplay with Molecular Dynamics
10:30 – 10:45AM	OP-29: <i>Mukesh Mishra</i> High Concentration (3wt %) of Colloidal Gold Nanoparticles Dispersed With Discotic Liquid Crystalline Material For Photovoltaic Applications
10:45 – 11:00 AM	OP-30: <i>Sujeet Dutta</i> Radical Enhancement in Electrical Conductivity and Thermal Stability of Nematic Liquid Crystals by POSS-Gold Nanoparticle Networks
11:00 – 11:30 AM	Tea/Coffee Break Venue:NASI Lounge
Technical Session IX Chairperson: Venue: NASI Auditorium	
11:30 – 12:00 AM	IL-13: <i>Ravi Kr. Shukla</i> Lyotropic Mesophases as Green/Chemical Soft Templates, Anisotropic Host and Gel Electrolytes

12:00 – 12:20 AM	OP-31: <i>Prashant Dubey</i> Hydrothermally Synthesized Water-Soluble Carbon Dots From Natural Source for Imaging Application
12:20– 12:35 PM	OP-32: <i>Akhilesh Kumar Maurya</i> Synthesis of Nano Composite Hydroxyapatite using Polymer Matrix of “PNIPAM” and its Use in Drug Delivery
12:35 – 12:50 PM	OP-33: <i>Ayushi Rastogi</i> Nematic Liquid Crystal Dispersed with Nanoparticles for Futuristic Biological Applications
12:50 - 01:05 PM	OP-34: <i>Upendra Bahadur Singh</i> Dielectric and Display Parameters of Liquid Crystalline Material Dispersed with SWCNTs under Bias Electric Field
01:05 - 01:20 PM	OP-35: <i>Vidhika Punjani</i> Polar Order and Thermochromic Behaviour in a Chiral Bent-Core System Exhibiting Exotic Mesophases due to Superstructural Frustrations
01:20 - 01:35 PM	OP-36: <i>Abhishek Kumar Mishra</i> UV Absorbance and Photoluminescence Study of Sr-Hardystonite Doped Nematic Liquid Crystal
01:35 - 2:30 PM	Lunch Break Venue: NASI Lawn
2:30 - 3:30 PM	Childrens’ Meet Speakers: Prof Sandeep Kumar and Prof. K. A. Suresh
3:30 - 3:45 PM	Tea/Coffee Break
3:45 – 4:15 PM	Valedictory Function Venue: NASI Auditorium
4:15 – 4:30 PM	High Tea