

International Liquid Crystal Elastomer Conference

11-15 August 2025

Tampere, Finland

POSTER SESSION

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- P-1** **Biaxial Deformations in Monodomain Liquid Crystal Elastomers**
Stuart Berrow, University of Leeds, UK
 - P-2** **Reactive Fluid Ferroelectrics: Towards the Next Generation of Ferroelectric Liquid Crystal Networks**
Stuart Berrow, University of Leeds, UK
 - P-3** **Shape Programming of Liquid Crystal Elastomers by Two-Stage Wavelength-Selective Photopolymerization**
Tom Bruining, Eindhoven University of Technology, The Netherlands
 - P-4** **Liquid Crystal Elastomer Hollow Fibers as Artificial Muscles with Large and Rapid Actuation Enabled by Thermal-Pneumatic Enhanced Effect**
Jiazhe Ma, Tsinghua University, China
 - P-5** **Harnessing the Orders of Liquid Crystal Molecules at the Microdroplet Interfaces for Bio-Inspired Intelligent Materials**
Mingzhu Liu, Beihang University, China
 - P-6** **Welding Complex-Shaped Actuators from Dynamic Liquid Crystal Elastomers**
Jie Jiang, Tampere University, Finland
 - P-7** **Dual Physically Crosslinked Azobenzene Liquid Crystal Elastomers Programmable for Multi-Modal Information Encryption**
Jia-xin Yang, Dalian University of Technology, China
 - P-8** **Plant Tendril Inspired Liquid Crystal Elastomer Fiber Actuators**
Xili Lu, Sichuan University, China
 - P-9** **Multi-Functional Liquid Crystal Polymers via Combining Ring-Opening Metathesis Polymerization and Post-Polymerization Modification**
Xiaoyu Zhang, Fudan University, China
 - P-10** **PEDOT Impregnated Liquid Crystal Elastomers for Multimodal Sensing**
Altti Mäkelä, Tampere University, Finland
 - P-11** **Temperature Controlled Adhesion in Monodomain Liquid Crystal Elastomers**
Aidan Street, University of Leeds, UK

- P-12 Electrically Responsive Knitted Structural Liquid Crystal Elastomers for Underwater Drives**
Zhibing Chen, Tsinghua University, China
- P-13 Multidimensional, Multilevel Information Storage and Encryption Based on Intrinsic Auxetic Liquid Crystal Elastomers**
Zhenming Wang, University of Leeds/Southern University of Science and Technology, UK/China
- P-14 Photo-Responsive Biomimetic Functions by Light-Driven Molecular Motors in 3D Printed Liquid Crystal Elastomers**
Yanping Deng, South China Normal University, China
- P-15 Photoinduced Deformation of Polyurethane Fibers with Bridged Azobenzene Crosslinked by Hydrogen Bonds**
Tomoka Ishikawa, Chuo University, Japan
- P-16 Sunlight-Driven Smart Windows Combining Polymer Network Liquid Crystals and Chiral Azobenzene**
Kohei Matsumoto, Chuo University, Japan
- P-17 An Effective Strategy to Improve the Scalability of Liquid Crystal Elastomers**
Jiancong Xu, University of Leeds, UK
- P-18 4D Printed Adaptive Soft Actuators Enabled by Gradient Deformation of Liquid Crystal Elastomers**
Feng Pan, Fudan University, China
- P-19 Synthesizing Asymmetric Monodisperse Mesogenic Oligomers Towards Ordered and Tunable Liquid Crystalline Networks**
Chun Lam Clement Chan, University of Groningen, The Netherlands
- P-20 Development of a Dynamic Alveolar Cell Culture Platform Using Light-Controllable Liquid Crystal Elastomer Materials**
Hanna-Kaarina Juppi, Tampere University, Finland
- P-21 Investigating Motion of Coupled Structures with Liquid Crystal Elastomers**
Bingnan Zhou, Tampere University, Finland
- P-22 Micron Waveguide Arrays Enabled by Direct Laser Writing for Efficient Light-Driven Liquid Crystal Elastomer Soft Robots**
Leilei Song, Tampere University, Finland

- P-23 Visible Light Actuation in 3D-Printed Liquid Crystal Elastomers Using Donor Acceptor Stenhouse Adducts**
Sophie Paul, University of California, USA
- P-24 A Soft, Isotropic Mesogenic Material with Reversible Electricity-Responsive Molecular Alignment and Corresponding Shape Deformation**
Laurens Theobald de Haan, South China Normal University, China
- P-25 Liquid Crystal Semi-Interpenetrating Polymer Network for Energy-Dissipation**
Zhijun Yang, Tsinghua University, China
- P-26 Modulating Polymerization Stresses via Backbone Modifications in Liquid Crystalline Elastomers**
Foteini Trigka, University of Groningen, The Netherlands
- P-27 Creation of Visible Light-Responsive Smart Windows with Chiral Bridged Azobenzene**
Yumeka Ogawa, Chuo University, Japan
- P-28 Photomobile Materials Responsive to Near Infrared Light with BF₂-Coordinated Azo Compounds**
Ryu Ushiyama, Chuo University, Japan
- P-29 Liquid Crystal Fibers for Remote Haptic Interaction**
Samuël Weima, Eindhoven University of Technology, The Netherlands
- P-30 Viscoelastic Relaxation of Stress and Orientation in Nematic LCE**
Patrick Thomas, University of Cambridge, UK
- P-31 Architected LCE Structures with Programmed Alignment: Recent Advances in 3D Printing Techniques**
Peter Miller, Lawrence Livermore National Laboratory, USA
- P-32 Dependence of Elastic Characteristics of Acrylate-Based Liquid Crystal Elastomers on Mesogenic Content**
Gevorg Gevorgyan, Yerevan State University, Armenia
- P-33 Switchable Whiteness in Liquid Crystal Polymer Networks**
Roshan Nasare, Tampere University, Finland
- P-34 Nematic Liquid Crystal-Carbon Dot Composites: Role of Functionalization of Carbon Dot**
Shweta Mishra, Tampere University, Finland

- P-35 The Fabrication of Liquid Crystal Networks Microstructures Using Two-Photon Polymerization**
Wei-Ting Hsu, National Taipei University of Technology, Taiwan
- P-36 Magneto-Photochemically Responsive Liquid Crystal Elastomer**
Yasaman Nemati, Tampere University, Finland
- P-37 Reprogrammable All-Solid-State Ionic Liquid Crystal Elastomers as Electroactive Actuators**
Wei Ji, ChimieParisTech-PSL, France
- P-38 Modulation of Domain Sizes of Polydomain Nematic Elastomers**
Takuya Ohzono, AIST, Japan
- P-39 Programming Mechanochromic Responses in Spiropyran-Incorporated Liquid Crystal Elastomers via Direct-Ink-Writing**
Kyeong-wan Kim, Pusan National University, South Korea
- P-40 Encoding Actuation Modes in Smectic Liquid Crystal Elastomers**
Jin-Hyeong Lee, Pusan National University, South Korea
- P-41 Light-Fueled Self-Sustained Soft Robotics**
Zixuan Deng, Tampere University, Finland
- P-42 Studying the Structure of Liquid Crystal Elastomers Using Small- and Wide- Angle X-ray Scattering**
Emily Cooper, University of Leeds, UK
- P-43 Low-Energy-Driven Autonomous Actuators Enabled by Diels-Alder Crosslinked Liquid Crystal Elastomers**
Yao-Yu Xiao, Sichuan University, China
- P-44 Oligomer-Derived Photoresponsive Liquid Crystal Elastomers with Biocompatible Operating Temperature**
Jan Lagerwall, University of Luxembourg, Luxembourg
- P-45 Investigation of the Photomechanical Effect in Guest-Host Azopolymers**
Abdallah Guerchi, Nicolaus Copernicus University in Toruń, Poland
- P-46 Encoding Actuation Anisotropies in Magneto-Active LCE Nanocomposite Resins for Digital Light Processing 3D Printing**
Eléonore Aïdonidis, Ecole Polytechnique, France

- P-47 Liquid Crystal Elastomer Actuator Matrix for Large-Area Applications**
Giulia Spallanzani, Holst Centre - TNO / TU Eindhoven, The Netherlands
- P-48 Shape-Morphing Printed Electronics Enabled by Liquid Crystal Elastomers**
Giulia Spallanzani, Holst Centre - TNO / TU Eindhoven, The Netherlands
- P-49 When Liquid Crystal Networks Meet Chromonic Lyotropic Liquid Crystal Hydrogels**
Irving Tejedor, University of Waterloo, Canada
- P-50 Photo-Switchable Ferronematic Liquid Crystal Materials**
Anjali Devi Das, TU Eindhoven, The Netherlands
- P-51 Design and Formulation of Liquid Crystal Elastomer Photopolymer Resins for Digital Light Projection Additive Manufacturing**
Dominique Porcincula, Lawrence Livermore National Laboratory, USA
- P-52 High Power Photo-Actuators for Bio-inspired Flapping Wing Motion**
Fan Liu, Tampere University, Finland
- P-53 Self-Oscillating Propulsion Discovered via Evolutionary Optimization of Light-Powered Swimming Soft Robots**
Mikołaj Rogóż, University of Warsaw, Poland
- P-54 Microscale Photolithography of LCE Soft Actuators and Robots with Magnetically Driven, Discretized Alignment Domains**
Matthew Scarfo, University of Waterloo, Canada
- P-55 Optical Sensing Enabled by Azobenzene Isomerisation Kinetics**
Sami Vesamäki, Tampere University, Finland
- P-56 Phototunable Polarization Volume Gratings via Hydrazone-Based Molecular Chiral Switches**
Artem Boichuk, Tampere University, Finland
- P-57 A Computational Model for Halogen Bond-Based Stimuli-Responsive Polymer Networks**
Artem Glova, Aalto University, Finland
- P-58 Leveraging Catechol Chemistry to Tackle Toughness-Softness-Work Capacity Tradeoff in Reprogrammable Liquid Crystal Actuators**
Enjian He, Tsinghua university, China
- P-59 Thermally Gated Covalent Adaptivity in Liquid Crystal Elastomers for Stable Actuation**
Yixuan Wang, Tsinghua University, China

