

CeSMS2024 Program

October 30, 2024 (Wed)

	Room A (International Conference Room)	Room B (Conference Room #21)
8:50	Opening Address (Kazuo Sakurai)	
	Chair : Isamu Akiba	
9:00 – 9:30	<b><u>Reidar Lund</u></b> <u>Mechanism for Molecular Exchange Kinetics in Block Copolymer Micelles with Amorphous and Crystalline Cores</u>	
9:30 – 10:00	<b><u>Quan Chen</u></b> <u>Nonlinear Rheology of Associative Polymers: Role of Strain-induced Dissociation and Reassociation</u>	
10:00 – 10:20	Coffee Break	
	Chair : Shinichi Sakurai	Chair : Tomoki Nishimura
10:20 – 10:50	<b><u>Cecilia Leal</u></b> <u>Structural and Mechanical Properties of Phospholipid Membranes Hybridized with Synthetic Polymer Rafts</u>	<b><u>Kazunori Sugiyasu</u></b> <u>Precision Supramolecular Polymerization</u>
10:50 – 11:20	<b><u>Shintaro Nakagawa</u></b> <u>Structure-Mechanical Property Relationship in Highly Homogeneous Polymer Networks</u>	<b><u>Kazuo Sakurai (10:50~11:10)</u></b> <u>Monodisperse Micelles with Discrete Aggregation Numbers: Discovering the Platonic Micelle</u>
11:20 – 11:40	<b><u>Atsushi Takano</u></b> <u>Helical Microphase-Separated Structures formed from Multiblock copolymers</u>	<b><u>Ramanathan Nagarajan (Invited 11:10~11:40)</u></b> <u>Criterion for Forming Structurally Precise Nanoparticle by Self-assembly</u>
11:40 – 12:00	<b><u>Ken Kojio</u></b> <u>Deformation Behavior of Body-Centered Cubic Lattice Formed in ABA-type Triblock Copolymer</u>	<b><u>Nobuyoshi Miyamoto</u></b> <u>Monodisperse Nanosheet Mesophases</u>
12:00 – 14:00	Lunch & Poster Session	
	Chair : Ken Kojio	Chair : Kazuo Sakurai
14:00 – 14:30	<b><u>Hironori Marubayashi</u></b> <u>Structure and Dynamics of Crystalline Soft Materials Revealed by Diffraction and Scattering Techniques</u>	<b><u>Byeongdu Lee</u></b> <u>SAXS and SANS Studies on Competitive Adsorption of Polymer Chains onto Polymer Upcycling Catalysts</u>
14:30 – 15:00	<b><u>Katsumi Hagita</u></b> <u>MD Simulations of Spontaneous Crystallization and Scattering Images of Semicrystalline Polymers</u>	<b><u>Emiko Mouri</u></b> <u>Time Evolution of the Inner Structure of Colloidal Nanosheets Developing Structural Color</u>
15:00 – 15:20	<b><u>Shinichi Sakurai</u></b> <u>Synchrotron WAXD Studies on Strain-Induced Crystallization of Vulcanized Natural Rubber</u>	<b><u>Mina Sakuragi</u></b> <u>Deformation Behavior of Transferrins Dispersed in Deep Eutectic Solvent during Stratum Corneum Penetration</u>
15:20 – 15:40	<b><u>Yukiko Tamura</u></b> <u>Selectively Remaining Outer Adsorption Layer on Top of Inner Adsorption Layer of SBR</u>	<b><u>Yusuke Sanada</u></b> <u>Reentrant Behavior of Bovine Serum Albumin with Multi-Valent Cation: Effects of Coexistence of Monovalent Cation</u>
15:40 – 16:00	Coffee Break	
	Chair : Hironori Marubayashi	Chair : Isamu Akiba
16:00 – 16:20	<b><u>Yuichi Masubuchi</u></b> <u>Phantom Chain simulations for the Rupture of Star-Polymer Networks</u>	<b><u>Yuji Higaki</u></b> <u>Double Hydrophilic Nano-Scale Compartment Produced by Microphase Separation of Zwitterionic Block Copolymers</u>
16:20 – 16:40	<b><u>Filip Uhlik</u></b> <u>Theory and Simulations of Branched Gels</u>	<b><u>Shunji Kosaka</u></b> <u>Synthesis and Function of Artificial Ion Channels Based on Thermoresponsive Amphiphilic Block Copolymers</u>
16:40 – 17:00	<b><u>Ken Terao</u></b> <u>Nanostructure Formation Behavior of Branched Poly(N-isopropylacrylamide)s in Water</u>	<b><u>Akihito Hashidzume</u></b> <u>Synthesis and Functions of Dense Triazole Polymers</u>
18:00 –	Banquet (Mikuni World Stadium)	

October 31, 2024 (Thr)

	Room A (International Conference Room)	Room B (Conference Room #21)
	Chair : Kazuo Sakurai	
9:00 – 9:30	<b><u>Takaya Terashima</u></b> <u>Precise yet Dynamic Self-Assembly of Amphiphilic Polymers into Nanostructured Soft Matter</u>	
9:30 – 10:00	<b><u>Duyeol Ryu</u></b> <u>Photoplastic and Photodielectric Properties in Microdomain Orientation using Self-healable Block Copolymer</u>	
10:00 – 10:20	Coffee Break	
	Chair : Yuichi Masubuchi	Chair : Maiko Nishibori
10:20 – 10:50	<b><u>Ryohei Seto</u></b> <u>Particle Simulation and Continuum Modeling for Dense Suspension Flows</u>	<b><u>Arthi Jayaraman</u></b> <u>Machine Learning-based Computational Analyses of Small-angle Scattering Results</u>
10:50 – 11:20	<b><u>Qian Huang</u></b> <u>The Influence of Chemical Side Groups and Molecular Architecture on Extensional Rheology of Polymer Melts</u>	<b><u>Tsuyoshi Koga</u></b> <u>Theoretical, Computational and Data Science Studies on Structure Formation of Polymers</u>
11:20 – 11:40	<b><u>Satoshi Sawada</u></b> <u>Evaluating crosslinking structures by small-angle neutron scattering measurement of sulfur crosslink-controlled rubber</u>	<b><u>Daichi Ida</u></b> <u>Wide-angle X-ray Scattering from Aqueous Solutions of Non-ionic Polymers</u>
11:40 – 12:00	<b><u>Shigeru Deguchi</u></b> <u>Baroplastics: Pressure-Resnponsive Block Copolymers as Sustainable Plastics</u>	<b><u>Ying-Jen Shiu</u></b> <u>Revealing the Solution Conformation and Hydration Structure of Type I Tropocollagen using X-ray Scattering and Molecular Dynamics Simulation</u>
12:00 – 12:20	<b><u>Kakeru Obayashi</u></b> <u>Analysis of Multiscale Structure of Epoxy Adhesive with Various Crosslink Density in the Single-lap Joint</u>	<b><u>Hai Huang</u></b> <u>Conformational Studies on Arabinogalactan by SAXS</u>
12:20 – 14:00	Lunch & Poster Session	
	Chair : Mikihito Takenaka	Chair : Isamu Akiba
14:00 – 14:30	<b><u>Jaewook Nam</u></b> <u>Rheological Insights and Coating Challenges in Battery Electrode Manufacturing</u>	<b><u>Yoshinori Nishino</u></b> <u>Damage-free 100-nm-Localized SAXS Analysis of Ionomers using X-ray Free-Electron Lasers</u>
14:30 – 15:00	<b><u>Masanobu Naito</u></b> <u>Data-driven Polymer Development toward Circular Economy</u>	<b><u>Jia-Jhen Kang</u></b> <u>Optimization of the in-line SEC-MALS-RI at the Small-Angle Neutron Diffractometer KWS-2</u>
15:00 – 15:20	<b><u>Yu-Hung Cheng</u></b> <u>Tuning the Complex Spherical Phase of Sugar-based Block Co-oligomer via Physical Blending</u>	<b><u>Yuichi Takasaki</u></b> <u>Introduction of Stat-of-the-art Laboratory SAXS System</u>
15:20 – 15:40	<b><u>Mikihito Takenaka</u></b> <u>Strain-Induced Enhancement of Density Fluctuation in Glassy Materials</u>	<b><u>Maiko Nishibori</u></b> <u>Structural Characterization of Food Materials through Small-angle X-ray Scattering at NanoTerasu</u>
15:40 – 16:00	Closing & Poster Award Ceremony (Kazuo Sakurai)	

## Poster Presentation

(Oct 30 12:00-14:00, Oct 31 12:20-14:00 at Hall next to the RoomA)

- P01 Junsu Kim  
Silicon- and fluorine-containing block copolymer films featuring sub-10 nm perpendicular lamellae and electric field induced directed assembly
- P02 Mingeun Park  
Defect-Free Block Copolymer Self-Assembly Facilitated by Structural Coloration for Providing Solar Cell Distributed Bragg Reflectors
- P03 Kazuki Ito
- P04 Yuki Nakama  
Solvent Induced Chain Orientation of Cyclo Olefin Polymer Film
- P05 Yasuhiro Eguchi  
Microphase Separation of Dual Polysulfobetaine Diblock Copolymer Aqueous Solutions
- P06 Miyu Sato  
Phase behavior of aqueous solution of poly(N-vinylpyrrolidone-co-acrylic acid)
- P07 Yasuyuki Maki  
Preferential Solvation of Lysozyme in Aqueous Solutions of Sugars or Polyols Studied by Small-Angle X-ray Scattering
- P08 Yuri Tanimura  
Activation of Macrophage Glucose Metabolism by Cocktail Administration of Nucleic Acid Drugs
- P09 Shotaro Shinoda  
Evaluating Skin Permeation Mechanisms of Microemulsions Dispersed in Thymol-based Deep Eutectic Solvents
- P10 Sota Yoshitake  
Physical property evaluation of a polysaccharide-nucleic acid complex containing two DNA molecules by Small-Angle X-ray Scattering (SAXS)
- P11 Yusuke Hayashida  
Analysis of structural change of the skin lamellae induced by bicelle using small-angle X-ray scattering
- P12 Takuma Kojima  
Characterization of drug-loaded monodisperse nanoparticles using small-angle X-ray scattering (SAXS)
- P13 Mina Tanigawa  
Structural analysis of PEG-modified bicelles and their stratum corneum penetration mechanism
- P14 Nanako Shimada  
Fractionation analysis of micelles composed of polyglycerol mono fatty acid esters by field flow fractionation and small-angle X-ray scattering
- P15 Aya Fujimoto  
A microdomain Structure of Polystyrene-b-polyisoprene-b-polystyrene Copolymers Prepared by Shear Press and Injection Molding during Mechanical Deformation
- P16 Tomoki Kosugi  
Development of Nanoparticles Capable of Encapsulating Large Amount of Drugs and Elucidation of the Encapsulation Mechanism