IRC2026 AICHI - Poster Program -

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-01	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	15:00-16:00	Mr. Yogesh Jadhav	Application of Marine Phlorotannin as a Sustainable Alternative to 6PPD in Tyre Rubber Compounds
P-02	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	16:00-17:00	Mr. BARKAT AZIZ	A Vitrimer-Integrated Circular TPV from Biobased EPDM and Recycled Polypropylene
P-04	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	16:00-17:00	Mr. Hokuto Ohura	1,2-Epoxidized Polybutadiene for Sustainable and High-Performance GECO Rubber Compounds
P-05	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	15:00-16:00	Dr. Keisuke Chino	Recyclability of Ester-Crosslinked Hydrogenated SBR through Hydrolysis and Re-crosslinking
P-06	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	16:00-17:00	Ms. Biying Ye	Dynamic/Static Hybrid Network Enabling Elastomeric Vitrimers with Accelerated Network Relaxation and Superior Creep Resistance
P-07	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	15:00-16:00	Mr. Toshiaki Sumi	A Resource-Circulating Approach to Silicone Rubber Precursors via Aluminothermic Reaction of Waste-Derived SiO_2 and Aluminum
P-08	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	16:00-17:00	Mr. Ryohei Matsumoto	Recycling of Carbon Black from Waste Tires by Subcritical Water Treatment
P-09	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	15:00-16:00	Mr. Woojin Seo	Inorganic Fillers filled Polyurethane Foams for Enhanced High-Frequency Sound Absorption
P-10	Special Topics: Elastomers for Environment and Sustainability	November 4 (Wed)	16:00-17:00	Mr. Yudai Tachi	Effect of petroleum resin additives on the friction and wear of rubber
P-11	Special Topics: Gel and Related Soft Materials	November 4 (Wed)	15:00-16:00	Mr. Yuto Inamae	Micromechanics-Based Control of Asymmetric Mechanical Properties in Nanosheet-Reinforced Soft Composites
P-12	Special Topics: Gel and Related Soft Materials	November 4 (Wed)	16:00-17:00	Ms. Thanigan Nakkhong	Freeze–Thaw Assembled TEMPO-Oxidized Cellulose Nanofiber Hydrogel Electrolytes for Rechargeable Zinc Batteries
P-13	Special Topics: Gel and Related Soft Materials	November 4 (Wed)	15:00-16:00	Mr. Ritsuki Tomiyama	The Effect of Guest Chains on the Elasticity and Osmotic Pressure of Polymer Gels
P-14	Special Topics: Gel and Related Soft Materials	November 4 (Wed)	16:00-17:00	Mr. Takaki Kohama	Negative Energetic Elasticity of Single Poly(ethylene glycol) Chains Investigated by AFM Nanofishing
P-15	Special Topics: Gel and Related Soft Materials	November 4 (Wed)	15:00-16:00	Ms. Chatchaya Lekdee	Study of Low-Acyl Gellan Gum Biogels Prepared via Multiple Gelation Techniques for Pharma-Cosmetic Applications
P-16	Special Topics: Gel and Related Soft Materials	November 4 (Wed)	16:00-17:00	Prof. Noboru Osaka	Simultaneous Improvement of Mechanical Properties and Ionic Conductivity in Ionogels Based on Interpenetrating Polymer Networks Containing Crystalline Ultra-High-Molecular-Weight PVDF

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-17	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	15:00-16:00	Mr. Taiki Sekoguchi	Evolution of Mechanical Properties and Crystalline Structure of Ethylene-Based Thermoplastic Elastomers during Cyclic Deformation
P-18	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	16:00-17:00	Dr. Keisuke Chino	Energy Dissipation Mechanism in Multinetwork Vulcanized Rubber with Hydrogen Bonding and Ionic Coordination
P-19	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	15:00-16:00	Mr. TAKUMI KATO	Deformation Dynamics of a Circular Defect in Liquid Crystal Elastomer Membrane
P-20	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	16:00-17:00	Mr. Koji Natsume	Development of PDMS elastomer crosslinked with CO2
P-21	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	15:00-16:00	Ms. SHAFAN XIONG	Frequency-Adaptive Elastomers through Cooperative Dynamics of Liquid Crystalline Domains and a Rubber Matrix
P-22	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	16:00-17:00	Mr. Itsuki Takashima	Block Copolymer Electrolyte Membranes Based on Rubbery Polymer-b-Phosphonic Acid-Functionalized Polystyrene
P-23	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	15:00-16:00	Dr. Takato Kajita	Ionically Functionalized Block Polymer-Based Thermoplastic Elastomers Exhibiting High Toughness and Impact Resistance
P-24	Special Topics: Novel Elastomeric Materials / Transient crosslinks	November 4 (Wed)	16:00-17:00	Ms. Ayaka Asai	Strong and Tough Homopolymer-Based Elastomers via Ionic Functionalization of Polyisoprene
P-25	Special Topics: Progress in Evaluation and Testing Methods	November 4 (Wed)	15:00-16:00	Mr. Yogun Kida	Water Resistance in Self-Healing Brominated Butyl Rubber/Imidazole Systems through Extraction Analysis
P-26	Special Topics: Progress in Evaluation and Testing Methods	November 4 (Wed)	16:00-17:00	Ms. Maytawee Malineerat	Study on Mechanical Behavior of Silica-filled Styrene-butadiene Rubber under Large Deformation using AFM-based In-situ Stretching Measurement
P-27	Special Topics: Progress in Evaluation and Testing Methods	November 4 (Wed)	15:00-16:00	Mr. Yuji Funado	Evaluation of Local Viscoelastic Properties in Filler-Filled Rubber Under Tensile Strain Using Nanorheological AFM
P-28	Special Topics: Automobile industry and related technologies	November 4 (Wed)	16:00-17:00	Mr. Yohei Shiomoto	Coating of Rubber/Nanocellulose Composite Layer on Metal Plate for Improving Sealing Performance of Gasket

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-29	General Topics: Synthesis and Chemical Modification of Rubbers	November 4 (Wed)	15:00-16:00	Mr. Hiroaki Nakano	Development of novel high activity neodymium catalyst, using phosphate as the new ligand, that works efficiently to butadiene polymerization
P-30	General Topics: Synthesis and Chemical Modification of Rubbers	November 4 (Wed)	16:00-17:00	Mr. Issei Mizushima	Synthesis of Sulfur-Containing Polymers Bearing Carbon–Carbon Multiple Bonds in the Side Chains and Evaluation of Their Properties
P-31	General Topics: Synthesis and Chemical Modification of Rubbers	November 4 (Wed)	15:00-16:00	Dr. Kosuke Miyaji	Development of Non-Post-Cure Acrylic Rubber
P-32	General Topics: Synthesis and Chemical Modification of Rubbers	November 4 (Wed)	16:00-17:00	Mr. Shinji Amano	Synthesis and Characterization of Bio-based Liquid-Crystalline Polymers toward Sequence-Controlled Thermoplastic Elastomers
P-33	General Topics: Natural Rubber and Related Materials	November 4 (Wed)	15:00-16:00	Dr. Nantapat Soontornnon	Rubber Seed-derived Pulp Fiber Sheets for Lithium-Ion Battery Application
P-34	General Topics: Natural Rubber and Related Materials	November 4 (Wed)	16:00-17:00	Mr. Shoei Okamoto	Wide-angle X-ray diffraction study on the thermal melting and recrystallization behaviors during heating and cooling of a strained vulcanizate of natural rubber
P-35	General Topics: Natural Rubber and Related Materials	November 4 (Wed)	15:00-16:00	Ms. Maho Nakada	Melting Behavior of Crystallites during High-Speed Shrinkage from a Highly Elongated State in Carbon Black-Filled Vulcanized Natural Rubber
P-36	General Topics: Natural Rubber and Related Materials	November 4 (Wed)	16:00-17:00	Mr. Hiroto Okumura	A Study on Strain-Induced Crystallization in Carbon Black-Reinforced Vulcanized Natural Rubber Upon Biaxial Stretching
P-37	General Topics: Natural Rubber and Related Materials	November 4 (Wed)	15:00-16:00	Ms. Sema Ayas Bütün	Effects of Natural Rubber Grade and Advanced Carbon Blacks on the Network Structure, Mechanical and Dynamic Performance of NR/CBR Elastomers
P-38	General Topics: Natural Rubber and Related Materials	November 4 (Wed)	16:00-17:00	Dr. Katsuhiro Watanabe	Preparation and Microstructural Analysis of Natural Rubber Elastomers Reinforced with Rice Husk Ash

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-39	General Topics: Blends and TPE	November 4 (Wed)	15:00-16:00	Dr. Jabulani Innocent Mnyango	Virgin Chloroprene Rubber/Chlorinated Polyethylene Pre-Consumer Waste Blends: Cure, Mechanical, and Morphological Behavior
P-40	General Topics: Blends and TPE	November 4 (Wed)	16:00-17:00	Mr. Hiroki Yoshinaga	Influence of Neutralization Degrees on Microscopic Structural Changes in Ethylene Ionomers under Tensile Deformation
P-41	General Topics: Blends and TPE	November 4 (Wed)	15:00-16:00	Prof. Junji WATANABE	Interconnected Porous Structure on PDMS Matrix for Polymer Alloy
P-42	General Topics: Blends and TPE	November 4 (Wed)	16:00-17:00	Mr. XIANG GUANGYU	A Skin-Comfortable and Service Durable SiR/POE TPV for Intelligent Wearable
P-43	General Topics: Blends and TPE	November 4 (Wed)	15:00-16:00	Mr. Hirotaka Akiyama	Mechanical Behavior Analysis of PP / EPDM Thermoplastic Vulcanizates Using AFM Nanomechanics and Finite Element Method
P-44	General Topics: Blends and TPE	November 4 (Wed)	16:00-17:00	Mr. Kota Tamura	Study of PP/SEBS Blends Using AFM Nanomechanics
P-45	General Topics: Filler and Additives	November 4 (Wed)	15:00-16:00	Mr. Rajarshi Das	Sustainable, Biodegradable Static Antiozonant for Natural Rubber: Balancing Ozone Protection with Environmental Responsibility
P-46	General Topics: Filler and Additives	November 4 (Wed)	16:00-17:00	Mr. 正吾 小林	Chloroprene rubber reinforced with cellulose nanofibers
P-47	General Topics: Filler and Additives	November 4 (Wed)	15:00-16:00	Dr. Zuhra Cinar Esin	Effect of Peroxide Content, Co-Agent Incorporation, and Silica Reinforcement on the performance of PVMQ Elastomers
P-48	General Topics: Filler and Additives	November 4 (Wed)	16:00-17:00	Assoc. Prof. Keon-Soo Jang	Effect of a Silanized Mica/CB Hybrid Filler System on the Mechanical, Thermal, and Dynamic Properties of Elastomeric Materials
P-49	General Topics: Vulcanization	November 4 (Wed)	15:00-16:00	Mr. Yuki Matsunami	Novel High Performance Alkylphenol Resin Type Crosslinking Agent
P-50	General Topics: Vulcanization	November 4 (Wed)	16:00-17:00	Ms. Jing Wang	Application and Mechanistic Study of Bis(citraconimide) Functional Additives in Natural Rubber
P-51	General Topics: Vulcanization	November 4 (Wed)	15:00-16:00	Mr. Krittidech Pamanuluk	Preparation of Protein-Free Natural Rubber Vulcanizate with Outstanding Mechanical Properties by Forming Polyacrylonitrile Island-Nanomatrix Structure

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-52	General Topics: Adhesion	November 4 (Wed)	16:00-17:00	Dr. Jan Oravec	Evaluation Test of Interface between Natural Rubber Blend and Cu-Sn Wire
P-53	General Topics: Adhesion	November 4 (Wed)	15:00-16:00	Mr. Yoshitaka Miki	Applications of a Novel Modified Phenolic Resin as a Vulcanizing Adhesive
P-54	General Topics: Adhesion	November 4 (Wed)	16:00-17:00	Ms. Xueyan Lei	Bis-citraconimide Functional Additives for Enhancing the Adhesion Performance of Natural Rubber/Brass-Plated Steel Cord
P-55	General Topics: Modeling and Simulation	November 4 (Wed)	15:00-16:00	Mr. HIO KONISHI	Finite Element Analysis using an Anisotropic Hyperelastic Model Incorporating Fiber Microbuckling in Soft Composites
P-56	General Topics: Modeling and Simulation	November 4 (Wed)	16:00-17:00	Mr. Takeru Noda	ReaxFF MD study on Pyrolysis of Polystyrene derivatives
P-57	General Topics: Modeling and Simulation	November 4 (Wed)	15:00-16:00	Dr. Kazuyoshi Kaneko	Elucidating the Origin of Mechanical Property Differences between SBR and Hydrogenated SBR Using All-Atom Molecular Dynamics Simulations
P-58	General Topics: Modeling and Simulation	November 4 (Wed)	16:00-17:00	Mr. Nishank Verma	FDM-Printed TPU/PLA Metamaterial Architecture for Lightweight Stiffness and Energy Absorption
P-59	General Topics: Modeling and Simulation	November 4 (Wed)	15:00-16:00	Mr. Daiki Okamura	Theoretical and Numerical Analyses of Surface Instability in the Monolayer of Hyperelastic Materials
P-60	General Topics: Application of Rubber	November 4 (Wed)	16:00-17:00	Mr. Hiroto Ito	Enhancement of Fatigue Properties of Rubber Materials by Incorporating Self-Healing Polyisoprenes
P-61	General Topics: Application of Rubber	November 4 (Wed)	15:00-16:00	Prof. Tetsu MITSUMATA	Negative and Reversible Elasticity Changes for Magnetic Rubbers
P-62	General Topics: Application of Rubber	November 4 (Wed)	16:00-17:00	Prof. Ján Kruželák	EMI Absorption Shielding and Degradation Stability of NBR Composites Filled with MnZn Ferrite

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-63	General Topics: Fatigue and Fracture	November 4 (Wed)	15:00-16:00	Dr. Changsu Woo	Fatigue Lifetime Prediction of Rubber Materials
P-64	General Topics: Fatigue and Fracture	November 4 (Wed)	16:00-17:00	Ms. Mutsumi Sayama	Cryogenic Interfacial Separation of Rubber–Iron Composites Using Liquid Nitrogen: Mechanism and Role of Rubber Thickness
P-65	General Topics: Fatigue and Fracture	November 4 (Wed)	15:00-16:00	Mr. Tomoki Mishima	Impact of Strain-Induced Crystallization on Mixed-Mode Crack Growth Criterion in Elastomers
P-66	General Topics: Fatigue and Fracture	November 4 (Wed)	16:00-17:00	Ms. Honoka Ogata	Suppression Mechanism of Creep-Induced Degradation in Vulcanized Isoprene Rubber by Antioxidant Addition
P-67	General Topics: Fatigue and Fracture	November 4 (Wed)	15:00-16:00	Mr. Yui Shimotsu	Effect of a Coupling Agent on Structural Distribution Changes during Fracture Process of Filled Rubber
P-68	General Topics: Tribology	November 4 (Wed)	16:00-17:00	Mr. Daiki Imamura	The Relationship Between Changes in the Coefficient of Friction of Rubber During Sliding
P-69	General Topics: Tribology	November 4 (Wed)	15:00-16:00	Mr. Takeshi Kodama	FT-IR Spectroscopic Investigation of 6PPD Exposed to Ultraviolet Light and Ozon
P-70	General Topics: Tribology	November 4 (Wed)	16:00-17:00	Mr. Tsuyoshi Yamashita	Abrasive Wear Characteristics of Elastomers in Three-Body Abrasion
P-71	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Mr. Subhendu Pramanik	Design of Functional Nano-Carbon Hybrid-filled Specialty Chloroprene Elastomer Composite
P-72	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Dr. Hitoshi Iwabuki	Prediction of Mechanical Properties of Thermally Oxidized Vulcanized Isoprene Rubber Using Statistical Indicators of Molecular Mobility Distribution: Spin–Spin Relaxation Time Analysis
P-73	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Mr. Suguru Yagi	Prediction of Mechanical Properties of Thermally Oxidized Vulcanized Isoprene Rubber Using Statistical Indicators of Molecular Mobility Distribution: Residual Dipolar Coupling Constant Analysis
P-74	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Dr. Takuya Ishida	Surface Epoxidation of Vulcanized Butadiene Rubber with Sodium Hypochlorite for Improved Ozone Resistance
P-75	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Mr. Nobuyuki Sakuda	Study on the sulfur crosslinked structure of EPDM
P-76	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Mr. Shintaro Saeki	Characterization of Interfacial Width between Styrene-Butadiene Rubber and Polyisoprene Rubber Using X-ray Photoelectron Spectroscopy with Gas Cluster Ion Beam
P-77	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Ms. Lynn Bekki	Surface Free Energy Change of Poly(dimethylsiloxane) under Tensile Deformation

Poster Number	Session Name	Session Date	Session Time	Presenter	Presentation Title
P-79	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Ms. SEVDA BAGHERZADEH KHIAVI	Effect of Plasticizer Type and Content on the Network Structure, Mechanical and Thermomechanical Performance of Peroxide-Cured P(ECH-co-AGE) Elastomers
P-80	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Mr. Yuki Tokudome	Full-Field Mapping of Internal Damage Induced by Stress Softening in Filled Elastomers under Inhomogeneous Deformation
P-81	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Mr. Chending Wang	AFM-Based Nanomechanical Characterization of Polyurethane Elastomers with Different Diisocyanate Architectures
P-82	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Ms. Yuriko Kashihara	Investigation of Crosslink Density and Microstructure in Localized Regions of Rubber Using AFM-Based Elastic Modulus Mapping
P-83	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Dr. Yuichiro Nishizawa	Direct visualization of microparticle-based polymer films during elongation using AFM equipped with a stretching device
P-84	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Mr. Tetsuya Nagafuchi	A Study on Heterogeneous Cross-linked Structure in Isoprene Rubber Using Nano-rheological Atomic Force Microscopy
P-85	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Mr. Takumi Hirose	Viscoelastic Analysis of a Single Polymer Chain Using AFM Dynamic Nanofishing Method
P-86	General Topics: Structure, Property and Characterization	November 4 (Wed)	16:00-17:00	Mr. Kotaro Nagai	Development of Nanodiamond-Reinforced Polyurethane Nanocomposites
P-87	General Topics: Structure, Property and Characterization	November 4 (Wed)	15:00-16:00	Mr. Takahiro Anzai	Study of the Mullins Effect in Carbon Black-Filled Rubber by Atomic Force Microscopy