
Room D, AIM Building 3F
Poster Session (17:30-19:30)

Obligation Time:

Odd Poster Program Number: from 17:45 to 18:30

Even Poster Program Number: from 18:30 to 19:15

G1: Polymer Synthesis

- P-1** **Synthesis and Characterization of Polyurethanes Crosslinked by Polyrotaxanes with Different Chain Length**
Yoshimi Tanaka, Naoya Tabata, Hiroto Murakami*
Nagasaki University, Japan
- P-2** **Controlled Polymerization and Copolymerization of Olefins by Diimine Pd Catalysts**
Daisuke Takeuchi*, Yuki Tokura, Keisuke Ito, Kohtaro Osakada*
Tokyo Institute of Technology, Japan
- P-3** **Polymerization of 1,3-Butadiene by Iron Catalysts with Tridentate Ligands**
Fukutaro Iijima, Chee Tuck Ho, Daisuke Takeuchi*, Kohtaro Osakada
Tokyo Institute of Technology, Japan
- P-4** **Synthesis of Crystalline Alternating Copolymer of Butadiene and Propylene**
Shouichi Matsumoto*, Ayumi Hashimoto, Takuo Sone
JSR Corporation, Japan
- P-5** **Synthesis of Fluorescent and Temperature-Responsive Poly (N-isopropyl acrylamide)-Block-Butadiene-Acrylonitrile-Rubber Copolymer and Its Properties**
Dongmei Yue^{1,2}, Zhongyu Yin², Qiang Zhou², Liqun Zhang^{1,2*}
¹State Key Laboratory of Organic-inorganic Composites, China, ²Beijing University of Chemical Technology, China

G2: Natural Rubber and Related Materials

- P-6** **Genome Sequence of a Para Rubber Tree *Hevea Brasiliensis***
Norie Watanabe^{1*}, Hideki Nagasaki², Tanizawa Yasuhiro², Teppei Mori¹, Yasukazu Nakamura²
¹Bridgestone Corporation, Japan, ²National Institute of Genetics, Japan

G3: Blends and TPE (Rubber Blend)

- P-7** **Study on the Mixing Conditions of the NR/SBR Blend Rubber**
Katsuhiro Watanabe^{1*}, Misaki Oka¹, Misaki Kojima¹, Yukari Shiraishi¹, Takuya Kamino¹, Toyohiko Gondoh¹, Michiharu Toh²
¹National Institute of Technology, Kurume College, Japan, ²Kurume Research Park Co., Ltd., Japan
- P-8** **Improvement of Mechanical Properties of Silicone Rubber by Reactive Blending**
Kana Matsuura*, Hiromu Saito
Tokyo University of Agriculture and Technology, Japan
- P-9** **Effect of Blend Composition and Dynamic Vulcanization using Peroxide on Morphology, Dynamic Mechanical and Thermal Properties of Ethylene Vinyl Acetate Copolymer and Natural Rubber Blends**
Nappaphan Kunanusont, Chavakorn Samthong, Anongnat Somwangthanaroj*
Chulalongkorn University, Thailand

G4: Filler and Additives

- P-10** **Controlled Radical Polymerizations Mediated by Bis(dodecylsulfanylthiocarbonyl) disulfide (BisRAFT): for Functional Silica Fillers Produced by Polymerization with Particle (PwP)**
Toshihiko Arita^{1*}, Yu Osaki² and Kyouji Okawa²
¹*Tohoku University, Japan*, ²*Ouchi Shinko Chemical Industrial Co., Ltd., Japan*
- P-11** **Surface Property of Block Copolymer-Modified Silica Nanoparticle Prepared by Controlled Radical Polymerization with Particle (CRPwP) and Improved Physical Properties of the Modified Silica Reinforced Rubber Composites**
Takahiro Okamatsu^{1*}, Toshihiko Arita²
¹*The Yokohama Rubber Co., Ltd, Japan*, ²*Tohoku University, Japan*
- P-12** **Novel Coupling Agents for NR Compositions with Carbon Black (CB) Filler**
Hironobu Iyama, Yosuke Watanabe, Orhan Ozturk, Yasuo Uekita, Osamu Tokuda^{*}, Shinzo Seko
Sumitomo Chemical Co., Ltd, Japan
- P-13** **The Modification of Microcrystalline Cellulose with Sol-gel ZnO and Its Application in Rubber Composites**
Sun Ju-tao^{1,2*}, Liu Xiao-ling¹, Liang Yunhao¹
¹*Qingdao University of Science & Technology, China*, ²*State Key Laboratory for Conservation and Utilization of Subtropical Agro-bioresources, China*
- P-14** **Application of Bismaleimides in the Natural Rubber and Styrene-Butadiene Rubber**
Seiichi Aoyagi, Jionghao He^{*}, Weirong Chen, Handong Qian, Hongqi Shao
Otsuka Material Science and Technology (Shanghai) Co., Ltd., China
- P-15** **The Synthesis of Multifunctional Rubber Additive Based on Tea Polyphenols and Its Effects on the Rubber Compounds**
Sun Xue-hong^{1,2*}, Cui Bao-pin¹, Yao Bin-bin¹, Sun Ju-tao¹
¹*Qingdao University of Science & Technology, China*, ²*Key Laboratory of Biomass Energy and Material, China*
- P-16** **Effect of OLS (Organically Modified Layered Silicate) on Physical and Mechanical Properties of Epichlorohydrin Nanocomposites**
Jin Hyok Lee^{1,2}, Jong Woo Bae¹, Yu Mi Yoon¹, Myung-Chan Choi¹, Nam-ju Jo^{2*}
¹*Korea Institute of Footwear and Leather Technology, Korea*, ²*Pusan National University, Korea*
- P-17** **Preparation of Cerium Iron Oxide-Graphene Nanocomposites and Photocatalytic Degradation of Organic Dyes**
Jeong Won Ko, Jiulong Li, Huaqiang Li, Fuyong Zhang, Weon Bae Ko^{*}
Sahmyook University, Korea

G5: Vulcanization

- P-18** **Novel Alkylphenol Sulfur Chloride Condensate Used as Vulcanizing Agent**
Fumiya Ozaki^{1*}, Nobuyuki Sato¹
¹*Taoka Chemical Co., Ltd., Japan*
- P-19** **In Situ Characterization of Sulfur Cross-Linking Reaction of Isoprene Rubber : Effects of Aliphatic Acids**
Kosuke Miyaji¹, Rie Morimoto¹, Atitaya Tohsan², Yuko Ikeda^{1*}
¹*Kyoto Institute of Technology, Japan*, ²*King Mongkut's University of Technology North Bangkok, Thailand*

P-20 Study on the Intermediate Generated during Vulcanization of Isoprene Rubber
Tomoyuki Sato, Takumi Ohashi, Yuta Sakaki, Yuko Ikeda*
Kyoto Institute of Technology, Japan

P-21 Kinetic Study of Natural Rubber Foam Product
Pollawat Charoeythornkhajhornchai, Anongnat Somwangthanaroj*
Chulalongkorn University, Thailand

G6: Adhesion

P-22 "Cool-Off" Function of a Novel Silicone Pressure Sensitive Adhesive
Satoshi Yamaguchi^{1,2}, Shin'ichiro Kawahara¹, Hiroto Murakami^{2*}
¹*Nitta Corporation, Japan*, ²*Nagasaki University, Japan*

P-23 Study on the Heat-Fusion Properties between PE and PET with/without Compatibilizers
Hiroki Yamahana¹, Katsuhisa Tokumitsu^{1*}, Hiroki Takeshita^{1*}
¹*University of Shiga Prefecture, Japan*

P-24 Impact of Adhesion Promoters on Green Adhesion of Natural Rubber to Metal Surfaces
Oravec Jan^{1*}, Preto Jozef¹, Melus Pavol¹, Hirahara Hidetoshi², Jing Sang², Miura Katsuya²
¹*VIPO a.s., Slovakia*, ²*Iwate University, Japan*

G7: Structure, Property and Characterization

P-25 Stress Relaxation in HNBR at Low Temperatures
Anton Akulich^{1*}, Andreas Echtermeyer¹, Ben Alcock²
¹*The Norwegian University of Science and Technology, Norway*, ²*SINTEF Materials and Chemistry, Norway*

P-26 Structural Change during Stretching Silicone Elastomers with Different Cross-Linking Characteristics
Ayako Masuda¹, Yukiko Isogai¹, Hiroki Uehara^{1*}, Takeshi Yamanobe¹, Hiroyasu Masunaga²
¹*Gunma University, Japan*, ²*JASRI, Japan*

P-27 The Morphology and Mechanical Properties of Rigid Poly (Vinyl Chloride) (PVC) Foam with Semi-Interpenetrating Polymer Network
Myung Chan Choi, Jin Hyok Lee, Jung Su Kim, Jong Woo Bae*
Korea Institute of Footwear and Leather Technology, Korea

P-28 Mechanical Properties of Polyurethane-Based Function-Graded Rubbers
Makoto Fujio, Takuya Matsumoto, Chizuru Hongo, Takashi Nishino*
Kobe University, Japan

P-29 Morphology and Stretching Behavior of Polyurethane Spherulites
Akiko Suenaga*, Yu Yanagihara, Hiromu Saito
Tokyo University of Agriculture and Technology, Japan

P-30 Influence of Curing System on Dynamic Mechanical Behaviors of Magneto-Rheological Elastomer Based on EPDM
Yonggyun Lee*, Bokgyung Na, Kyungho Chung
The University of Suwon, Korea

P-31 Effect of Particle Size on Magnetic-Field Sensitivity for Polyurethane Magnetic Elastomers
Jinta Nanpo^{1,2}, Mika Kawai^{1,2}, Tetsu Mitsumta^{1,2*}
¹*Niigata University, Japan*, ²*JST-ALCA, Japan*

- P-32** **Ultrasound Property for Polyurethane Elastomers Containing Magnetic Particles**
Yuri Tsujiei^{1,2}, Mika Kawai^{1,2}, Tetsu Mitsumata^{1,2*}
¹Niigata University, Japan, ²JST-ALCA, Japan
- P-33** **Reinforcement Mechanism of Carbon Black-Filled Rubber Nanocomposite as Revealed by Atomic Force Microscopy Nanomechanics**
Xiaobin Liang^{1*}, Makiko Ito², Shuichi Akasaka¹, Yoshihiro Sato³, Ken Nakajima^{1,2}
¹Tokyo Institute of Technology, Japan, ²Tohoku University, Japan, ³Sophia University, Japan
- P-34** **Influence of Wet Silica on Plastic Deformation Characteristics of Non-Crosslinked Rubber**
Taiki Tobusawa^{*}, Rumi Konuma, Yuichi Murakami
Tokyo Metropolitan Industrial Technology Research Institute, Japan
- P-35** **Role of Filler Network on Strain-Induced Crystallization of *In Situ* Silica Filled Cross-Linked Natural Rubber**
Yuki Matsushima, Takumi Ohashi, Ryota Kishi, Yuko Ikeda^{*}
Kyoto Institute of Technology, Japan

G7: Structure, Property and Characterization

- P-36** **The Study of the Dispersion in SBR/Silica by Simultaneous Measurement of the Stress and Ultra Small Angle X-ray Scattering**
Takashi Kitabayashi¹, Sho Suzuki¹, Shotaro Nishitsuji^{1*}, Junhyeok Jang², Mikihiro Takenaka²
¹Yamagata University, Japan, ²Kyoto University, Japan
- P-37** **Comprehensive Two-Dimensional LC Analysis with MS Detection for Elucidation of the Unit Sequence of Styrene-Butadiene Rubber**
Tetsuo Iida¹, Junichi Masuda¹, Satoshi Yamaki^{1*}, Yuko Sekine², Makoto Ashiura²,
Fumito Yatsuyanagi²
¹Shimadzu Corporation, Japan, ²The Yokohama Rubber Co., Ltd, Japan
- P-38** **Interfacial Conformation of Polyisoprene by Sum-frequency Generation Spectroscopy**
Shin Sugimoto, Manabu Inutsuka, Keiji Tanaka^{*}
Kyushu University, Japan
- P-39** **Analysis of Rubber Materials by Multinuclear Solid State NMR**
Jinta Ukawa
Toyo Tire & Rubber Co., Ltd., Japan
- P-40** **Phase Behavior of Liquid Crystal Blends in Block Copolymers**
Satoshi Inahata, Hiroki Takeshita^{*}, Yoshihiro Yamashita, Katsuhisa Tokumitsu
The University of Shiga Prefecture, Japan
- P-41** **Effects of Liquid-Type Nucleation Agents on Crystallization of Poly (L-Lactic Acid) as Analyzed by Time-Resolved Wide-Angle X-Ray Scattering**
Pham Thi Ngoc Diep¹, Masatsugu Mochizuki², Mikio Doi², Sono Sasaki¹, Shinichi Sakurai^{1*}
¹Kyoto Institute of Technology, Japan, ²Taiyo Kagaku Co., Ltd, Japan
- P-42** **Fabrication of Superhydrophobic Nano-Textured Rubber Sheets**
Yuji Hirai^{1*}, Riku Tamura¹, Masatsugu Shimomura¹, Yasutaka Matsuo², Takahiro Okamatsu³,
Toshihiko Arita⁴
¹Chitose Institute of Science and Technology, Japan, ²RIES, Hokkaido University, Japan, ³The Yokohama Rubber Co., Ltd, Japan, ⁴IMRAM, Tohoku University, Japan
- P-43** **A First Approach to Visualize the Flow Behavior in the Screw Channel for a CSM-Rubber Compound**
R. Kerschbaumer^{1*}, B. Lechner^{1,2}, G. Graninger¹, M. Haselmann¹, W. Friesenbichler²
¹Polymer Competence Center Leoben, Austria, ²Montanuniversitaet Leoben, Austria

- P-44** **Modification of Peroxide-Curing Type Elastomers by Porous-Metal Mold**
Tsuyoshi Noguchi¹, Seiichi Hirano¹, Syouma Hosoi², Eisuke Yamada^{2*}
¹*Daikin Industries, Ltd., Japan*, ²*Aichi Institute of Technology, Japan*
- P-45** **Thermal Degradation Mechanism of Perfluoroelastomers**
Tsuyoshi Noguchi^{1,2*}, Fumihiro Kamiya¹, Misaki Minatoyama², Kyoichiro Hombo², Nobuyuki Akai²,
Munetaka Nakata²
¹*Daikin Industries, Ltd., Japan*, ²*Tokyo University of Agriculture and Technology, Japan*
- P-46** **Kneading Time Dependence of the Physical Properties and the Morphology of TPV**
R. Iwabuchi¹, H. Uehara¹, T. Yamanobe^{1*}, M. Manaka¹, H. Masunaga²
¹*Gunma University, Japan*, ²*Japan Synchrotron Radiation Research Institute, Japan*
- P-47** **Control of the Surface Properties of Rubber Materials due to the Addition of the Fluorine-Containing Copolymer**
Koji Honda^{*}, Asahiro Nagatani
Hyogo Prefectural Institute of Technology, Japan
- P-48** **Electrical Properties and Morphological Analysis of NBR/Polyether Electrolyte Blends for Novel Antistatic Materials**
Yuki Kubota and Yoichi Tominaga^{*}
Tokyo University of Agriculture and Technology, Japan

G9: Simulation

- P-49** **Prediction of the Viscoelasticity of Composites by Dissipative Particle Dynamics Simulation with Slip-Springs**
Kenta Chaki^{*}, Kosuke Ohata, Hiroya Nitta, Taku Ozawa
JSOL Corporation, Japan
- P-50** **Prediction of Mechanical Properties of Natural Rubber and Its Nanocomposites by Monte Carlo Simulation**
Panithan Sriboriboon, Visit Vao-soongnern^{*}
Suranaree University of Technology, Thailand
- P-51** **Coarse-Grained Molecular Dynamics Simulation of the Effect of Aggregation of Filler and Filler-Rubber Bond on Elongation Behavior of Filled Cross-Linked Rubber**
Hikomasa Yagyu
Kanto Gakuin University, Japan
- P-52** **Coarse-Grained MD Simulations of Ideal Networks**
Masatoshi Toda^{*}, Hiroshi Morita
MSSM, CD-FMat, AIST, Japan

G10: Technology of Tire

- P-53** **The Simulation of the Tire Rolling Noise Based on the Mixed Lagrange Euler Method**
Dabing Xiang¹, Yintao Wei^{2*}
¹*Conature Technology Co.Ltd, China*, ²*Tsinghua University, China*
- P-54** **Estimation of Tangential Force Coefficient between Tire and Road Surface by Measuring the Surface Deformation of Tire during Running a Car.**
Ryota Imaizumi^{*}, Tomoaki Iwai, Yutaka Shoukaku
Kanazawa University, Japan
- P-55** **New Equations for Describing the Contact Area between Tire and Ground**
Zhibo Cui¹, Jian Wu¹, Yue Liu¹, Benlong Su¹, Zhengong Zhou¹, Youshan Wang^{1*}
¹*Harbin Institute of Technology, China*

G11: Fatigue and Fracture

- P-56 Characterising and Modelling the Fatigue Life Performance of HNBR for Dynamic Rubber Seals**
Barnabas HK Shaw*, James JC Busfield
Queen Mary University of London, UK

G12: Application of Rubber and Rubber Processing

- P-57 EPDM's Outdoor Exposure Test under Real Environmental Conditions over a Forty Year Period**
Kenta Watanabe*, Sadayuki Nakano
Sumitomo Chemical Co., Ltd., Japan
- P-58 New Testing Method for the Thermoplastic Vulcanization Processing Analysis by Dynamic Viscoelastic Properties**
Masakazu Manaka^{1*}, Yuriko Kashihara¹, Ryunosuke Iwabuchi², Hiroki Uehara², Takeshi Yamanobe²
¹*Kinugawa Rubber Industrial, Co., Ltd., Japan*, ²*Gunma University, Japan*.
- P-59 A New Usage of Tire Rubber as Potential Asphalt Alternative**
Xiaoyu Wu¹, Shuo Li¹, Hongru Yao², Siyuan Yang³, Shifeng Wang^{1*}
¹*Shanghai Jiao Tong University, China*, ²*Shanghai Urban Construction NichiReki Special Asphalt Co., Ltd., China*, ³*Tongji University, China*
- P-60 A New Magneto-Responsive Elastomer and Its Application to Railway Actuators**
Yasuhiro Umehara^{1,2}, Tsubasa Oguro^{1,3}, Shogo Kamoshita², Mika Kawai^{1,3}, Takeshi Yamauchi¹, Tetsu Mitsumata^{1,3*}
¹*Niigata University, Japan*, ²*Railway Technical Research Institute, Japan*, ³*JST-ALCA, Japan*
- P-61 Effect of Magnetic Fields on Damping Property for Polyurethane Magnetic Elastomers**
Hiroyuki Endo^{1,2}, Mika Kawai^{1,2}, Tetsu Mitsumata^{1,2*}
¹*Niigata University, Japan*, ²*JST-ALCA, Japan*
- P-62 High Performance Thermoplastic Polyurethane with High Transparent using New Aliphatic Diisocyanate FORTIMO™**
Naoki Shinohara¹, Masakazu Kageoka¹, Hirokazu Morita¹, Daisuke Hasegawa¹ Satoshi Yamasaki^{1*}, Ken Kojio²
¹*Mitsui Chemicals, Inc., Japan*, ²*Kyushu University, Japan*
- P-63 Synthesis and Mechanochromic Properties of Tetraarylsuccinonitrile-Containing Segmented Polyurethanes**
Marina Nukui¹, Toshikazu Sumi¹, Raita Goseki¹, Hideyuki Otsuka^{1*}
¹*Tokyo Institute of Technology, Japan*
- P-64 Mechanical Activation of Dynamic Covalent Mechanochromophore in Polymer/Silica Nanocomposite Elastomers**
Takahiro Kosuge, Keiichi Imato, Raita Goseki, Hideyuki Otsuka*
Tokyo Institute of Technology, Japan
- P-65 Property-Tuning of Elastomers Synthesized using Rotaxane Cross-Linker**
Jun Sawada, Daisuke Aoki, Toshikazu Takata*
Tokyo Institute of Technology, Japan

P-66 Sythesis of Nitrile N-oxide Moiety-Containing Rotaxane Linkers Directed forward Rubber Modification
Misako Tani, Hiromitsu Sogawa, Toshikazu Takata*
Tokyo Institute of Technology, Japan

P-67 Rubbery-Like Behavior of Solid Films of Deoxyribonucleic Acid
Yuma Morimitsu¹, Hisao Matsuno¹, Noboru Ohta², Hiroshi Sekiguchi², Atsushi Takahara¹, Keiji Tanaka^{1*}
¹*Kyushu University, Japan, ²Japan Synchrotron Radiation Research Institute, Japan*

S2: Gel and Related Soft Materials

P-68 Hierarchical Heterogeneity in Sol-Gel Transition of a Supramolecular Network
Atsuomi Shundo¹, Yuji Matsumoto¹, Nobutomo Tsuruzoe², Masahiro Goto¹, Keiji Tanaka^{1*}
¹*Kyushu University, Japan, ²Nissan Chemical Industries, Ltd., Japan*

P-69 Fracture Behaviors and Mechanisms: Slide-ring Gels vs. Chemical Gels
Chang Liu^{*}, Hirokazu Kadono, Koichi Mayumi, Kazuaki Kato, Hideaki Yokoyama, Kohzo Ito
The University of Tokyo, Japan

P-70 Colloidal Crystallization Kinetics of Thermosensitive Polymer Microgel Dispersion
Kohei Sonoda, Hiroki Takeshita^{*}, Yoshihiro Yamashita, and Katsuhisa Tokumitsu
The University of Shiga Prefecture, Japan

P-71 Electrochemical Properties of Mg Ion-Conductive Gel Polymer Electrolytes
Maito Koga, Ryoichi Yagisawa, Hideaki Oike, Yoichi Tominaga^{*}
Tokyo University of Agriculture and Technology, Japan

S3: Progress in Evaluation and Testing Methods

P-72 Spin-Trapping Analysis for Thermal Degradation of Poly (butyleneterephthalate)
Masayo Sono, Kenji Kinashi, Wataru Sakai^{*}, Naoto Tsutsumi
Kyoto Institute of Technology, Japan

P-73 Spin-Trapping Analysis for Degradation of Rubber Materials
Kaori Kurosaka¹, Kenji Kinashi¹, Wataru Sakai^{1*}, Naoto Tsutsumi¹, Fumito Yatsuyanagi², Yu Shinke²
¹*Kyoto Institute of Technology, Japan, ²The Yokohama Rubber Co., Ltd., Japan*

S4: Soft Materials in Automobile Industry

P-74 Effect of Water Repellent Surface on Corrosion at Sealing Gap between Aluminum Alloy and Rubber Gasket
Norihiro Hamada^{*}, Kiyohiro Suzuki, Yutaka Koda, Nan Yu
NOK Corporation, Japan

S6: Elastomers for Environment and Sustainability

P-75 High Performance Lignin/Natural Rubber Green Bio-Composite
Treethip Phakkeeree, Takumi Ohashi, Yuko Ikeda^{*}
Kyoto Institute of Technology, Japan

- P-76 Hydrolysis of Aliphatic Polyurethane under High Pressure Carbon Dioxide**
Suguru Motokucho*, Yu Nakayama, Kouhei Hayashi, Hisayuki Nakatani
Nagasaki University, Japan
- P-77 Photo Degradation Behavior of Water Born Polyurethane**
Toshihiro Kishida, Hirotake Ohike, Suguru Motokucho*, Hisayuki Nakatani
Nagasaki University, Japan
- P-78 Polyurethane as Organocatalyst for the Synthesis of Cyclic Carbonate**
Kouhei Hayashi, Yuta Yamada, Yu Nakayama, Suguru Motokucho*, Hisayuki Nakatani
Nagasaki University, Japan
- P-79 Analysis of Degraded Natural Rubber using Thermal Desorption and Pyrolysis /Direct Analysis in Real Time - Mass Spectrometry (TDP/DART-MS)**
Chikako Take*, Haruo Shimada², Katsuyuki Maeno², Yasuo Shida¹
¹*BioChromato, Inc., Japan*, ²*Shiseido Global Innovation Center, Japan*
- P-80 Thermally Driven Surface Undulation of Cholesteric Elastomers**
Hama Nagai¹, Xiaobin Liang², Yukihiro Nishikawa¹, Ken Nakajima², Kenji Urayama¹
¹*Kyoto Institute of Technology, Japan*, ²*Tokyo Institute of Technology, Japan*
- P-81 Study of PP/EPDM Thermoplastic Elastomer by Nano-Palpatation AFM**
Rena Dejima¹, Xiaobin Liang¹, Kazuko Fujiwara², Hitoshi Iwabuki², Sungmin Kang¹,
Ken Nakajima¹
¹*Tokyo Institute of Technology, Japan*, ²*Industrial Technology Center of Okayama Prefecture, Japan*
- P-82 Crack Arrest in Thermoplastic Polyurethane Elastomers by Spontaneous Local Ordered Structure Growth**
Yuji Higaki¹⁻³, Ken Suzuki², Noboru Ohta⁴, Atsushi Takahara^{1-3*}
Kyushu University, Japan
- P-83 Loss Tangent Mapping at the Interface between SBR Matrix and Silica Particles by Nanorheological Atomic Force Microscope**
Eijun Ueda^{1,2}, Misako Asada¹, Takuji Kishimoto¹, Xiaobin Liang², Makiko Ito³, Sungmin Kang²,
Ken Nakajima^{2,3}
¹*Zeon Corporation, Japan*, ²*Tokyo Institute of Technology, Japan*, ³*Tohoku University, Japan*
- P-84 Efficient Conversion of Rubbers Using Cascade Functionalization Tool Containing Masked-Ketene and Nitrile N-Oxide Functions**
Sumitra Cheawchan, Hiromitsu Sogawa, Toshikazu Takata*
Tokyo Institute of Technology, Japan
- P-85 Molecular Aggregation State and Mechanical Properties of Thiourethane Elastomers**
Rahmawati Sugiawan, Shuhei Nozaki, Tomoyasu Hirai, Yuji Higaki, Ken Kojio, Atsushi Takahara
Kyushu University, Japan
- P-86 Effect of Surface Free energy for Adhesion of Micro-sphere onto Rubber Film and Following Sedimentation**
Shoko Mishima, Toshiaki Ougizawa*
Tokyo Institute of Technology, Japan
- P-87 Effect of Interfacial Physical Properties of Poly(vinyl ether) Hydrogel Films on Their Bio-inertness**
Nozomi Itagaki, Yukari Oda, Nguyen Kim Hung, Daisuke Kawaguchi, Hisao Matsuno,
Keiji Tanaka
Kyushu University, Japan

- P-88** **Effect of Nanomatrix Structure on Mechanical Properties for Natural Rubber Grafted with Polystyrene**
Kota Endo, Keinichiro Kosugi, Seiichi Kawahara
Nagaoka University of Technology, Japan
- P-89** **Preparation and Mechanical Properties of Phenyl-modified Natural Rubber**
Choothong Nuorn, Shintaro Shioyama, Kenichiro Kosugi, Seiichi Kawahara
Nagaoka University of Technology, Japan
- P-90** **Prevulcanization of isoprene rubber latex**
Kewwarin Sae-heng, Seiichi Kawahara
Nagaoka University of Technology, Japan