

ATC-16 PROGRAM (UTC+9)**[Opening Ceremony] 13:00-13:30 July 27 (Wed.) Room A****[Closing Ceremony] 15:20-16:20 July 29 (Fri.) Room A****[Plenary Lectures]****July 27 (Wed.) Room A**

Chair: Hiroki Murase / Kyoritsu Women's University

PL1	13:30 - 14:20	The Present and Future of Fiber Science and Technology in Japan	Kenji Ogino	Tokyo University of Agriculture and Technology
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July 28 (Thu.) Room A

Chair: Kunio Kimura / Okayama University

PL2	13:00 - 13:40	Toward Human and Planetary Health: Synergies between the SDGs and Climate Action	Atsufumi Yokoi	Okayama University
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Chair: Kenji Ogino / Tokyo University of Agriculture and Technology

PL3	13:50 - 14:40	Wearable Technology for Personal Thermal Management	Jintu Fan	Hong Kong Polytechnic University
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[Oral] July 27 (Wed.) Room A**G1: Fibers and Polymer Materials**

Chair: Masatoshi Tokita / Tokyo Institute of Technology

Materials science on mille-feuille structure (MFS) - Development of next-generation structural materials guided by a new strengthen principle -				
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1A01 Keynote	14:30 - 15:10	New Concept for Mechanical Strengthening for Polymers Prepared and Controlled by Millefeuille Structure and Kink Deformation	Hiroshi Ito	Yamagata University
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1A03	15:10 - 15:30	Mechanical Properties of SBS Triblock Copolymer Film Containing Kinked Lamellar Microdomains	Shinichi Sakurai	Kyoto Institute of Technology
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Chair: Hiromu Saito / Tokyo University of Agriculture and Technology

1A04	15:40 - 16:00	Folded lamellar structures increase compressive modulus of poly(styrene)-poly(butadiene)-poly(styrene) (SBS) triblock copolymer elastomer sheet	Kentaro Taki	Kanazawa University
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1A05	16:00 - 16:20	Effect of Smectic Layer Deformation on Mechanical Properties of Glassy Liquid Crystal Polymer Fibers	Masatoshi Tokita	Tokyo Institute of Technology
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1A06	16:20 - 16:40	Effect of High-Pressure Pressing of Co-Extruded PS/PBT Multilayered Film on Crystal Structure and Mechanical Properties	Akinori Iwamura	Yamagata University
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Chair: Kentaro Taki / Kanazawa University

1A07	16:50 - 17:10	Strengthening of Mille-feuille Structured High-density Polyethylene	Hiromu Saito	Tokyo University of Agriculture and Technology
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1A08	17:10 - 17:30	High strength of PP by compression with a high-pressure press	Yukino Ito	Yamagata University
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[Oral] July 27 (Wed.) Room B**S1: New Fiber and Textile Technology after / with COVID-19**

Chair: Hiroki Murase / Kyoritsu Women's University

1B01	14:30 - 14:50	Network pharmacology-based analysis of rancid Tannin dye and copper sulfate for the treatment of COVID-19	Zhang Yingchen	Zhongyuan University of Technology
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1B02 Keynote	14:50 - 15:10	Commitment to infection-prevention masks with comfort in an era of widespread coronavirus	Yoshihiro Yamashita	University of Fukui
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G3: Chemical Treatments (including Dyeing and Finishing)

1B03	15:10 - 15:30	The effect of adding acrylate monomers containing alkyl groups on fluorine-based water and oil repellent treatments	Eriko Shohbuke	Kyoto Institute of Technology
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G7: Fashion and Clothing Science

Chair: Masayuki Takatera / Shinshu University

1B04	15:40 - 16:00	Relationship among mechanical properties, hand and price evaluation of shirt fabrics	KyoungOk Kim	Shinshu University
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1B05 Keynote	16:00 - 16:40	Design and Evaluation of Clothing Comfort for Men's Suit	Hiroyuki Kanai	Shinshu University
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G3: Chemical Treatments (including Dyeing and Finishing)

Chair: Satoko Okubayashi / Kyoto Institute of Technology

1B07 Keynote	16:50 - 17:30	Hydrophobic cotton fabric for self-cleaning applications	Jaewoong Lee	Yeungnam University
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[Oral] July 28 (Thu.) Room A**G1: Fibers and Polymer Materials**

Chair: Wataru Takarada / Tokyo Institute of Technology

2A02	10:20 - 10:40	Crystalline Gels and Their Processing Techniques	Jin Gong	Yamagata University
2A03	10:40 - 11:00	Melt-Electrowritten Poly (L-lactic acid)-and Bioglass-Reinforced Biomimetic Hydrogel for Bone Regeneration	Jie Meng	Kyoto Institute of Technology

Chair: Jin Gong / Yamagata University

2A04	11:10 - 11:30	The preparation of high performance gelatin/hyaluronic acid porous composite bone scaffold by freeze-drying method	Ming-Huang Lin	Feng Chia University
2A05	11:30 - 11:50	Influence of processing history on the melt-spinning behavior and crystalline structure of fibers from recycled Polypropylene copolymers	Mohammad A. Barique	Tokyo Institute of Technology

Chair: Masatoshi Tokita / Tokyo Institute of Technology

2A07 Keynote	15:00 - 15:40	The Effect of High Molecular Weight Component of Crystallization and Melting Uni-axial Drawing Polyethylene	Go Matsuba	Yamagata University
2A09	15:40 - 16:00	A Study of Primary and Secondary Crystallization in the Blend of Poly(L-lactic acid) and Poly(D-lactic acid)	Neimatallah Hosni Mohammed Mahmoud	Helwan University
2A10	16:00 - 16:20	Orientation Control of Aromatic Polyester Whiskers by using Substrates	Kunio Kimura	Okayama University

Chair: Shinichi Sakurai / Kyoto Institute of Technology

2A11	16:30 - 16:50	Liquid crystalline structures of poly(substituted methylene)s bearing 4-butoxyphenyl benzoate moieties at the side-chain ends	Masamichi Kiyoura	Tokyo Institute of Technology
2A12	16:50 - 17:10	Effects of polymer morphology and size on the mechanical properties of regenerated cellulose thin film	Tessei Kawano	Kyushu Institute of Technology
2A13	17:10 - 17:30	Preparation and Properties of partially miscible semi-interpenetrating polymer networks composed of rubber and semi-crystalline polymer	Noboru Osaka	Okayama University of Science

[Oral] July 28 (Thu.) Room B**S2: Fibers and Textiles contributing Sustainable Development (SDGs)**

Chair: Hiroki Uehara / Gunma University

2B07 Keynote	15:00 - 15:40	Development of Novel Upcycle System of PET and Polyethylene	Kunio Kimura	Okayama University
2B09	15:40 - 16:00	A consciousness survey on SDGs efforts: From the perspective of clothing environment and genderless efforts	Manami Fukumura	Gifu City Women's College
2B10	16:00 - 16:20	Synthesis and characterization of bio-based polymers bearing bifuran structure	Yuya Tachibana	Gunma University

Chair: Yuya Tachibana / Gunma University

2B11	16:30 - 16:50	Green processing for preparation of ultrahigh-molecular-weight polyethylene fibers	Masaki Kakiage	Gunma University
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[Oral] July 28 (Thu.) Room C**G6: Green Materials and Technology**

Chair: Shinji Kanehashi / Tokyo University of Agriculture and Technology

2C01	10:00 - 10:20	Wicking Phenomenon of Interlaced Silk Yarns	Jiawei Yan	Shinshu University
2C02	10:20 - 10:40	Grafting Carboxylic Acid Groups onto Electrospun Polycaprolactone Scaffold via Atmospheric Pressure Argon Plasma	Shao-Yun Wei	Feng Chia University
2C03	10:40 - 11:00	Electrospinning and Property Characterization of P(3HB)/PLLA blend nanofiber	Daisuke Ishii	Tokyo University of Agriculture

Chair: Hideaki Morikawa / Shinshu University

2C04	11:10 - 11:30	Preparation and evaluation of microalgae-embedded PVA nanofibers with faculty of generating oxygen	Ryota Haraguchi	Saga University
2C05 Keynote	11:30 - 12:10	Future Prospects of Eco-friendly Plastics -Biodegradable Plastics and Biomass Plastics-	Tadahisa Iwata	The University of Tokyo

Chair: Daisuke Ishii / Tokyo University of Agriculture

2C07	15:00 - 15:20	A Study of Electromagnetic Interference Shielding Effectiveness in different proportions Recycled Aluminum-coated Polyethylene Terephthalate Foil in PU base Flexible Cellular Polymeric	Sheng Feng James Lu	Feng Chia University
2C08	15:20 - 15:40	Development of polyimide-based Mixed Matrix Membranes for CO ₂ separation	Shinji Kanehashi	Tokyo University of Agriculture and Technology
2C09	15:40 - 16:00	Degradable Block Copolymers with Low-Temperature Formability: Potential of Matrices for Drug Delivery in Agriculture	Ikuo Taniguchi	Kyoto Institute of Technology
2C10	16:00 - 16:20	Effective utilization of non-edible phenolic plant oil for novel green polymers	Shinji Kanehashi	Tokyo University of Agriculture and Technology

G4: Technical Textiles

Chair: Yoshitaka Aranishi / Toray Industries, Inc.

2C11 Keynote	16:30 - 17:10	Development of Textile Preforms for c-FRTP using Commingled Fiber and Tailored Fiber Placement Technologies	Asami Nakai	Gifu University
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[Oral] July 29 (Fri.) Room A

G1: Fibers and Polymer Materials

Chair: Shinichi Yamazaki / Okayama University

3A01	10:00 - 10:20	Changes in Length and Structure of Polyamide Fibers as a Function of Temperature	Wataru Takarada	Tokyo Institute of Technology
3A02	10:20 - 10:40	Highly functional fibers and textiles with innovative conjugate spinning technology NANODESIGN	Tatsuya Ishikawa	Toray Industries, Inc.
3A03	10:40 - 11:00	Designing with Circular Arc Toolpaths to Increase the Complexity of Melt Electrowriting	Huaizhong Xu	Kyoto Institute of Technology

Chair: Masatoshi Tokita / Tokyo Institute of Technology

3A04	11:10 - 11:30	Control and Characterization of Internal Structure in Injection Molding of Co-Continuous Polymer Blends	Arata Saito	Yamagata University
3A05	11:30 - 11:50	Melt electrowriting: a study of jet diameters and jet speeds along the spinline	Sherry Ashour	Kyoto Institute of Technology
3A06	11:50 - 12:10	Preparation of Bio-based Microsphere with Dimple Morphology	Hironori Atarashi	Graduate School of Environmental and Life Science

Chair: Huaizhong Xu / Kyoto Institute of Technology

3A07	13:00 - 13:20	Permanently hydrophilized polyester spun-bonded nonwoven fabric enabled by copolymerization	Shohei Tsuchiya	Toray Industries, Inc.
3A08	13:20 - 13:40	Size and porosity control of aramide hollow spheres prepared by phase separation during polymerization	Hirofumi Nakayama	Okayama University
3A09	13:40 - 14:00	Electrospun nanofibers for tissue repair and regeneration	Tong Wu	Qingdao University

Chair: Hironori Atarashi / Okayama University

3A10	14:10 - 14:30	Dental repairable composite resin analyzed by thermocycling in extraoral experiment	Po-Jen Cheng	Kaohsiung Municipal Min-Sheng Hospital
3A11	14:30 - 14:50	In vitro evaluation of calcium phosphate bone cement compo-site hydrogel beads of cross-linked gelatin-alginate with gen-tamicin-impregnated porous scaffold	Shih-Ming Liu	Feng Chia University
3A12	14:50 - 15:10	Evaluation of the Grafting Efficacy of Active Biomolecules of Phosphatidylcholine and Type I Collagen on Polyether Ether Ketone: In Vitro and In Vivo	Jian Chih Chen	Kaohsiung Medical University

[Oral] July 29 (Fri.) Room B

G2: Textile Processing and Properties

Chair: Shuichi Tanoue / University of Fukui

3B04 Keynote	11:10 - 11:50	Effect of processing conditions on internal structure of nonwoven fabrics	KyoungHou Kim	Shinshu University
3B06	11:50 - 12:10	Numerical simulation of the air flow generated by accompanying the running yarn with high speed in a yarn guide	Shuichi Tanoue	University of Fukui

G5: Smart Textile and Materials

Chair: Chunhong Zhu / Shinshu University

3B07	13:00 - 13:20	Verification of radial artery strain detection area using by FBG sensor	Tatsuya Yoda	Shinshu University
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G8: Managing and Marketing

Chair: Hiroki Murase / Kyoritsu Women's University

3B10 Keynote	14:10 - 14:50	A Project-Based Learning Practice and its Project Success Factors: From Viewpoints of Teaching Management	Masatoshi Kaimasu	Kobe Women's University
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[Oral] July 29 (Fri.) Room C**G4: Technical Textiles**

Chair: Keishi Naito / Gifu University

3C02	10:20 - 10:40	Persistence of Crazed Fibers with Functional Reagents Encapsulated in Nano-voids	Shunya Chosokabe	Gifu University
3C03	10:40 - 11:00	A new approach for measuring the air gap between diaper and baby skin	Daiwei Wu	Donghua University

Chair: Toshihira Irisawa / Gifu University

3C04	11:10 - 11:30	Periodic crazing on polyacrylonitrile film and fabrication of carbon film with periodic porous layers	Keishi Naito	Gifu University
3C05	11:30 - 11:50	The study about the sustainable CF RTP with practical application	Toshihira Irisawa	Gifu University
3C06	11:50 - 12:10	Manufacturing Method of Composite Materials with Buffering and Electromagnetic Shielding Effects	Jia-Hong Lin	Feng Chia University

[Poster] July 27 (Wed.) Room P**G1: Fibers and Polymer Materials**

1P01	17:40 - 18:40	Fabrication of Multi-Core Gelatin Gel Fibers by Dynamic Gelation of Shear-Induced Multiple Parallel Domains	Meina Kishida	Utsunomiya University
1P02	17:40 - 18:40	High-precision Scaffold with Nonlinear Patterns Printed by Melt Electrowriting	Huaizhong Xu	Kyoto Institute of Technology
1P03	17:40 - 18:40	Gas Permeability Properties of P(MMA-co-SA) Gel	Koh Yoshida	Yamagata University
1P04	17:40 - 18:40	Synthesis of new semi-aromatic alternating poly(ester amide)s	Tao Liu	Donghua University
1P05	17:40 - 18:40	Role of entanglement species in the formation of shish-like fibril crystals -Topological effect of cyclic, linear polyethylene and their blends-	Keiko Kobayashi	Okayama University
1P06	17:40 - 18:40	Spontaneous perpendicular orientation of lamellar microdomains and subsequent kink formation during solvent evaporation from block copolymer solution	Yaeko Kokuryo	Kyoto Institute of Technology
1P07	17:40 - 18:40	Enhancement of Spherulite Growth of Poly (L-lactic acid) by Liquid-Type Additive	Hiroto Tanaka	Kyoto institute of Technology

G2: Textile Processing and Properties

1P08	17:40 - 18:40	Exothermicity of Moisture Absorption and Endothermicity of Moisture Release of Various Textile Materials Using Infrared Thermography	Maika Tamari	Wayo Women's University
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G5: Smart Textile and Materials

1P09	17:40 - 18:40	The photo-sensitive functional modification of polylactic acid (PLA) as a smart fiber material	Suju Fan	The Hong Kong Polytechnic University
1P10	17:40 - 18:40	Catechol-based UV shield for photochromic electrospun materials	Yintung Lam	The Hong Kong Polytechnic University
1P11	17:40 - 18:40	Structure and sensing properties of weft-knitted shaped concave-convex conductive fabrics	Fei Sun	Jiangnan University

S1: New Fiber and Textile Technology after / with COVID-19

1P12	17:40 - 18:40	Network pharmacology-based analysis of Calcium oxide for the treatment of COVID-19	Zhang Yingchen	Zhongyuan University of Technology
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[Poster] July 28 (Thu.) Room P**G1: Fibers and Polymer Materials**

2P01	17:40 - 18:40	Mechanical and thermal properties of chitosan/fibroin nanofibers composite fibers	Shohei Fujita	Kyoto Institute of Technology
2P02	17:40 - 18:40	Development of a novel gel-forming peptide with helix-to-strand transition capability for injured brain regeneration	Atsuya Yaguchi	Tokyo University of Agriculture and Technology
2P03	17:40 - 18:40	Synthesis of CNTs-added self-healing polymer gels	Tomoyuki Takata	Yamagata University
2P04	17:40 - 18:40	Self-healable Gels with Heat-reversible Crosslinking Points	Satoshi Aoki	Yamagata university
2P05	17:40 - 18:40	Studies on Strain-Induced Crystallization of Natural Rubber Using Synchrotron Radiation ~Effects of Difference in the Stretching Mode on SIC~	Ruito Tanaka	Graduate School of Kyoto Institute of Technology
2P06	17:40 - 18:40	Study on Strain-Induced Crystallization Near Crack Tip of Natural Rubber by Wide-Angle X-ray Diffraction Mapping Using Microbeam	Tomohiro Yasui	Kyoto institute of Technology
2P07	17:40 - 18:40	Characteristics and hole transporting properties of cyclic oligomers consisting of 4-octyltriphenylamine	Taehee Jang	Tokyo University of Agriculture and Technology
2P08	17:40 - 18:40	Preparation of ultrahigh-molecular-weight polyethylene fibers by melt-processing	Ayaka Takazawa	Gunma University

G3: Chemical Treatments (including Dyeing and Finishing)

2P09	17:40 - 18:40	Preparation of lignocellulose nanofibers modified with brominated flame retardants and their application to water-soluble urethane	Daisuke Todome	Okayama University of Science
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G6: Green Materials and Technology

2P10	17:40 - 18:40	Enhanced electrochemical properties of composite polymer electrolytes filled with plant biomass material "lignin"	Zitong Liu	Tokyo University of Agriculture and Technology
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G7: Fashion and Clothing Science

2P11	17:40 - 18:40	Evaluation of garment motion comfort using clothing pressure measurement and musculoskeletal simulation	Yosuke Horiba	Shinshu University
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