

# 16<sup>th</sup> Japan-China-Korea International Symposium on High-Tech Fiber Engineering for Young Researchers

## September 15 (Mon)

(15:00-18:00) **Conference Registration** (POSTECH - Environmental Engineering Building Auditorium #101)

(18:00-21:00) **Welcome Reception** (POSTECH - POSCO International Center)

## September 16 (Tue)

(08:30~09:00) **Conference Registration** (POSTECH - Environmental Engineering Building Auditorium #101)

(09:00~09:30) **Opening Ceremony** (09:00~09:30)

Welcoming Remarks: [Hyung Joon Cha](#) (POSTECH, Korea)

Congratulatory Remarks: [Ick Soo Kim](#) (Shinshu University, Japan)

[Keqin Zhang](#) (Soochow University, China)

(09:30~11:00) **Keynote Session**

(09:30-10:00) [Ding Bin](#) (Shanghai Polytechnic University, China) Flexible/elastic ceramic nanofibrous materials

(10:00-10:30) [Chun Hong Zhu](#) (Shinshu University, Japan) Study on wearable smart textiles for sensing

(10:30-11:00) [Ki Hoon Lee](#) (Seoul National University, Korea) Silk protein fabrication at the interface of biology and polymer science

(11:00~12:15) **PI Session - I**

(11:00-11:25) [Keqin Zhang](#) (Soochow University, China) Radiative heat regulation and integration of thermal energy harvesting textiles from an interdisciplinary perspective

(11:25-11:50) [Soyoung Park](#) (Osaka University, Japan) Functionalized nucleic acids as designable biohybrid materials for advanced bioscience

(11:50-12:15) [Seung Pil Park](#) (Korea University, Korea) Biomineralization: bio-inspired approaches and applications

(12:15-13:10) **Lunch**

(13:10~14:25) **PI Session - II**

(13:10-13:35) [Xuehong Ren](#) (Nantong University, China) Biomimetic nanocatalyst doped in bacterial cellulose-based composites with biocatalytic function for antibacterial therapy

(13:35-14:00) [Noriko Miyamoto](#) (Aichi Institute of Technology, Japan) Nanotechnology-based therapeutic nucleic acids for cancer treatment

(14:00-14:25) [Junmin Lee](#) (POSTECH, Korea) Biopolymer-based platforms for high-throughput and personalized tissue modeling

(14:25~15:25) **Student Session – I**

(14:25-14:35) [Jiajia Wu](#) (Donghua University, China) A breathable fibrous membrane with coaxially hetero-structured fibers for personal thermal management and electromagnetic interference shielding

(14:35-14:45) [Adnan Muhammad](#) (Shinshu University, Japan) Efficient synthesis of FeCoNiP@Graphene-CNT nanocomposite for enhanced supercapacitor performance

- (14:45-14:55) Muchen Liang (Nantong University, China) Humidity-responsive actuator-based smart personal thermal management fabrics achieved by solar thermal heating and sweat-evaporation cooling
- (14:55-15:05) Hee Jin Kim (Seoul National University, Korea) Development of hybrid nanogenerators based on silk fibroin
- (15:05-15:15) Xing Yi (Donghua University, China) Fabrication of piezoelectric nanofibrous spider-web structures via nonsolvent-induced phase separation for high-efficiency PM0.3 air filtration
- (15:15-15:25) Dandan Xie (Shinshu University, Japan) Construction of flexible conductive bio-based aerogel and Its applications for multifunctional sensing
- (15:25~16:30) **Poster Session - I**
- (16:30~17:30) **Student Session - II**
- (16:30-16:40) Qiqi Song (Donghua University, China) Ultralight and superelastic curly ultrafine fiber aerogels for high-performance warmth retention
- (16:40-16:50) Sorami Yamagiwa (Shinshu University, Japan) Size control of one-dimensional macromolecular assemblies via crystallization-driven self-assembly of amphiphilic graft copolymers
- (16:50-17:00) Yajie Zhang (Nantong University, China) Fiber composites for enhancing methyl iodine adsorption under high humidity
- (17:00-17:10) Xujing Wang (Soochow University, China) Design and application of PVDF/PVP passive radiation cooling nanofiber membrane
- (17:10-17:20) Chen Ziwei (Shinshu University, Japan) Crack to sense: multi-wall fiber sensor exhibiting resistance increase under partial compression
- (17:20-17:30) Rongjia Zhang (Donghua University, China) Flexible barium aluminate nanofibrous membranes via confined-gelation electrospinning for high-temperature thermal insulation
- (18:00~21:00) **Dinner**

### **September 17 (Wed)**

- (09:00~10:15) **PI Session - III**
- (09:00-09:25) Jianlong Ge (Nantong University, China) Carbon nanofibrous materials for efficient adsorptive removal of volatile organic compounds from air
- (09:25-09:50) Dong Soo Hwang (POSTECH, Korea) Structurally golden colored sustainable luxury sea silk from *Atrina pectinate*
- (09:50-10:15) Fan Wu (Shanghai University of Engineering Science, China) Breaking the thermo-mechanical trade-off in aluminum-based ceramic nanofibers for extreme thermal management
- (10:15~11:15) **Student Session - III**
- (10:15-10:25) Miah Md Sumon (Shinshu University, Japan) Synthesized bioactive lignin nanoparticles/polycaprolactone nanofibers: A novel nanobiocomposite for bone tissue engineering
- (10:25-10:35) Dayae Kang (Chungnam National University, Korea) Drug release behavior and anticancer evaluation of Fe<sub>2</sub>O<sub>3</sub> - and Fe<sub>3</sub>O<sub>4</sub>- loaded cellulose acetate nanofibers
- (10:35-10:45) Baojie Chen (Nantong University, China) Durable antibacterial Cu<sub>x</sub>O nanoparticle-coated cotton textiles with improved hydrophobic and mechanical performance through adhesion and in-situ oxidation of nano-Cu glue

- (10:45-10:55) In Ho Nam (POSTECH, Korea) Electrospun nanofibrous patch embedded with quantum dots for light-driven antibacterial therapy
- (10:55-11:05) Yamamoto Miura (Hiroshima University, Japan) Supramolecular ferritin-tannic acid nanocomplex as a ferroptosis-inducing platform for cancer treatment
- (11:05-11:15) Seung Kyeum Cho (POSTECH, Korea) Redesigned elastin domain-derived proteins as biomaterials for nanofiber applications
- (11:15~12:15) **Poster Session - II**
- (12:15~13:10) **Lunch**
- (13:10~14:10) **Student Session - IV**
- (13:10-13:20) Xuemei Li (Donghua University, China) One-step fabrication of mechanically robust and fluorine-free nanofiber membranes for waterproofness and breathability
- (13:20-13:30) Siemeng Liu (Shinshu University, Japan) Graphene oxide embedded polyvinylidene fluoride nanofibers with wet-adhesion for mask cartridge materials
- (13:30-13:40) Yan Wang (Soochow University, China) Dual-mode hierarchical energy management fabric for raindrop energy harvesting and radiative cooling in sustainable outdoor energy management
- (13:40-13:50) Jungkyu Kim (Seoul National University, Korea) Comparative biodegradation study of polybutylene succinate fibers for fishing gear in diverse environmental conditions
- (13:50-14:00) Guojin Gao (Donghua University, China) Preparation of PLA fiber based aerogels and study on filtration and separation performance
- (14:00-14:10) Nuo Liu (Shinshu University, Japan) Donnan effect-enhanced double-network aerogel for high-salinity solar interfacial evaporation desalination
- (14:10~15:25) **PI Session - IV**
- (14:10~14:35) Fei Wang (Donghua University, China) Fabrication strategies and functionality of superelastic electrospun nanofibrous aerogels
- (14:35~15:00) Keita Yamana (Hiroshima University, Japan) Dopasomes: novel inner cross-linked liposomes with enhanced colloidal stability
- (15:00~15:25) Xiaota Cheng (Shanghai University of Engineering Science, China) Direct synthesis of highly stretchable ceramic nanofibrous aerogels via 3D reaction electrospinning
- (15:30~16:00) **Awarding Ceremony**
- (16:00~18:00) **POSTECH Campus Tour**
- (18:30~21:30) **Dinner**

**Keynote Session:** 30 min (25 min talk + 5 min Q&A)

**PI Session:** 25 min (20 min talk + 5 min Q&A)

**Student Session:** 10 min (8 min talk + 2 min Q&A)