

[TS01F7]**Nanotechnology for Energy Harvesting 7**

Date & Time	July 5(Fri.), 2024 / 14:00-16:15
Place	Room 205
Session Chair(s)	Jae Won Lee (Kangwon Nat'l Univ.)

TS01F7_O_1 14:00-14:15**Fully Self-Powered Wind Speed Indicator based on Complementary Integration of Triboelectric-Optical Responsive System**

Sumin Cho, Jun-Sung Park, Soban Ali Shah, Tae-Woong Moon, Sunmin Jang, Donghan Lee, Suk-Won Choi, and Dongwhi Choi
(*Kyung Hee University*)

TS01F7_O_2 14:15-14:30**Self-Adaptive Bidirectional Direct-Current Triboelectric Nanogenerator based on Mechanical Switching for Harvesting Reciprocating Motions**

Donghan Lee, Joon Min Chae, Sumin Cho, and Dongwhi Choi
(*Kyung Hee University*)

TS01F7_O_3 14:30-14:45**Novel Approaches toward the Highly Functional Droplet-Based Electricity Generator for Seamless Integration to Broad Applications**

Sunmin Jang¹, Soban Ali Shah¹, Sangeun Lee¹, Sumin Cho¹, Dongik Kam¹, Yoonsang Ra¹, Donghan Lee¹, Muhammad Ramzan Khawar¹, Donghyeon Yoo², Younghoon Lee³, and Dongwhi Choi¹
(¹*Kyung Hee University*, ²*University of Illinois Urbana-Champaign*, ³*Gachon University*)

TS01F7_O_4 14:45-15:00**Moisture-Driven Energy Generation by Vertically Structured Polymer Aerogel on Water-Collecting Gel**

Kaiying Zhao, Shengyou li, and Cheolmin Park
(*Yonsei University*)

TS01F7_O_5 15:00-15:15**Computational Analysis of Starch for Sustainable Power Generation towards Integrated Wearable IoT**

Thanjan Shaji Bincy and Sang-Jae Kim
(*Jeju National University*)

TS01F7_O_6 15:15-15:30**Augmented Neuromuscular Transmission: Bridging Physical and Cognitive Practices through Intrinsic Hybrid Nanogenerator-Integrated Conformation Analysis System**

Asokan Poorani Sathya Prasanna and Sang-Jae Kim
(*Jeju National University*)

TS01F7_O_7

15:30–15:45

Polydopamine-Treated Ag/TiO₂ Nanostructures Embedded Nylon Fibers-Based Triboelectric Nanogenerators for Mechanical Energy Harvesting

Punnarao Manchi, Mandar Vasanth Paranjape, Sontyana Adonijah Graham, Anand Kurakula, Ventaka Siva Kavarthapu, and Jae Su Yu

(Kyung Hee University)

TS01F7_O_8

15:45–16:00

Segregation-Structured Sulfur-Rich Polymer/MXene Composites for Sustainable, Reuseable and High-Performance Triboelectric Nanogenerator

Woongbi Cho¹, Sungsu Kim¹, Hyeonhoo Lee¹, Nara Han², Hyunki Ki², Minbaek Lee², TaeHee Han¹, and Jeong Jae Wie¹

(¹Hanyang University, ²Inha University)

TS01F7_O_9

16:00–16:15

High Voltage S-TENG for Next-Generation Energy Autonomous IoTs and Self-Powered Actuation System

Jyoti Prakash Das, Swapnil Shital Nardekar, Vishwanathan Ravichandran, and Sang-Jae Kim

(Jeju National University)

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