

Conference Timetable

18th Monday

15:00 – 17:30 *Registration*

17:00 – 18:30 *Welcome Reception* *Restaurant SUZAKU, Kyoto TERRSA (Free for all participants)*

19th Tuesday

Registration will be started at 8:20

Room A, Main Hall

Room B

9:00-9:10 *Opening Remarks*

9:10-10:00 PL01 *Plenary Lecture*

(Chair; Prof. Naoki Toshima)

Xavier Crispin, *Linkoping University*

Electronic and Ionic Thermoelectric Effects in Poly(3,4-ethylenedioxythiophene) –PEDOT- Derivatives

10:00-10:20 *Coffee Break*

Conducting Polymer 1

(Chair; Dr. Takao Ishida)

10:20-10:50 IA01

Michael Chabinyk, *University of California Santa Barbara*

The Role of Dopants on the Thermoelectric Properties of Semiconducting Polymers

10:50-11:10 OA01

Qingshuo Wei, *National Institute of Advanced Industrial Science and Technology (AIST)*

Photoinduced Dedoping of Conducting Polymers - An Approach to Understanding Transport Properties

11:10-11:30 OA02

Jingkun Xu, *Jiangxi Science and Technology Normal University*

Thermoelectric Performance of Conducting Polymer and Its Development

11:30-11:50 OA03

Wei Xu, *Institute of Chemistry, Chinese Academy of Sciences*

Investigations on the Thermoelectric Properties of Several Typical Semiconducting Polymers

Device and Module Design

(Chair; Prof. Davide Donadio)

10:20-10:50 IB01

Tsutomo Kanno, *Panasonic Corporation*

Module Design and Application Using Effective Thermoelectric Properties of Composite Media

10:50-11:10 OB01

Kazuaki Yazawa, *Purdue University*

Woven Thermoelectric Generators for Body Heat Recovery

(Chair; Prof. Masakazu Nakamura)

11:10-11:30 OB02

Masatoshi Takeda, *Nagaoka University of Technology*

A Concept of Thin Film Based Flexible Thermoelectric Module

11:30-11:50 OB03

Je-Hyeong Bahk, *University of Cincinnati*

Device Optimization for Wearable Thermoelectric Energy Harvesting with Organic-based Flexible Materials

11:50-13:50 *Lunch & Poster Viewing*

Display of Posters by 12:00

Carbon Nanotubes

(Chair; Prof. Li Shi)

13:50-14:20 IA02

Tsuyohiko Fujigaya, *Kyushu University*

n-Doping of Single-walled Carbon Nanotubes via Cobaltocene Encapsulation and their Thermoelectric Property

14:20-14:40 OA04

Andrew Ferguson, *National Renewable Energy Laboratory*

Thermoelectric Properties of Semiconducting Single-walled Carbon Nanotube Networks

14:40-15:00 OA05

Kazuhiro Yanagi, *Tokyo Metropolitan University*

Tuning of Thermoelectric Properties of Chiralities Selected Single Wall Carbon Nanotubes by Electrochemical Doping Techniques

(Chair; Prof. Kunihito Koumoto)

15:00-15:20 OA06

Yoshiyuki Nonoguchi, *Nara Institute of Science and Technology*

Simple Salt-coordinated n-Type Nanocarbon Materials Stable in Air

15:20-15:40 OA07

Mariano Campoy-Quiles, *Institute of Materials Science of Barcelona*

n-Type Flexible Thermoelectrics Based on Composites of Semiconducting Polymers and Nitrogen Doped Carbon Nanotubes

Conducting Polymer 2

(Chair; Prof. Michael Chabinyc)

13:50-14:20 IB02

Alexandre Carella, *CEA-Grenoble*

Improvement of Thermoelectric Properties of PEDOT: from Materials to Devices

14:20-14:40 OB04

Qin Yao, *Shanghai Institute of Ceramics, Chinese Academy of Sciences*

The Enhanced TE Properties of Conducting Polymers by Regulating the Molecular Structure

14:40-15:10 IB03

Dong Wang, *Tsinghua University*

Unravelling Doping Effects on PEDOT at the Molecular Level

(Chair; Dr. Tsutomu Kanno)

15:10-15:30 OB05

Kazuhiro Kirihara, *National Institute of Advanced Industrial Science and Technology*

Nonwoven-fabric Thermoelectric Module Impregnated With Conducting Polymer PEDOT:PSS

15:30-15:50 OB06

Chong-an Di, *Institute of Chemistry, Chinese Academy of Sciences*

Photothermoelectric Effect of Organic Semiconductors in Enabling NIR Detection

15:50-17:50 Poster Session

15:50 – 16:50 Authors of **odd** numbered posters present

16:50 – 17:50 Authors of **even** numbered posters present

18:20- **Conference Dinner**, (New Miyako Hotel / YOMEI-DEN Hall) * 15-min walk from Kyoto TERRSA

20th Wednesday

Room A, Main Hall

Room B

9:00-9:50 PL02 Plenary Lecture

(Chair; Prof. Tsuyoshi Kawai)

Dao-ben Zhu, Institute of Chemistry, Chinese Academy of Sciences

Strategies towards High Performance Organic Thermoelectric Materials and Functional Devices

9:50-10:10 Coffee Break

Mechanism and Prospect

(Chair; Prof. Dong Wang)

10:10-10:40 IA03

Rachel Segalman, University of California Santa Barbara

Electrochemical Effects in Thermoelectric Polymers

10:40-11:00 OA08

Ling Li, Institute of Microelectronics, Chinese Academy of Sciences

Temperature-independence Seebeck Coefficient Induced by Energetic Disorder in Organic Semiconductors

11:00-11:20 OA09

Ichiro Terasaki, Nagoya University

Thermoelectrics in Nonequilibrium Steady States

Nanofiber and Composite

(Chair; Dr. Tsuyohiko Fujigaya)

10:10-10:40 IB04

Li Shi, University of Texas at Austin

Probing Thermal and Thermoelectric Transport in Organic Nanofibers and Thin Films

10:40-11:00 OB07

Clara Maria Gómez, University of Valencia

PEDOT Nanoparticles/DWCNT Composites for Thermoelectric Applications

11:00-11:20 OB08

Guangming Chen, Institute of Chemistry, Chinese Academy of Sciences

Conducting Polymer/Graphene or Carbon Nanotube Thermoelectric Composites

11:20-11:30 Short Break

(Chair: Prof. Rachel Segalman)

11:30-12:00 IA04

Andres Cantarero, University of Valencia

Full Organic Thermoelectric Materials, The Near Future of Thermoelectricity

12:00-12:20 OA10

Masakazu Nakamura, Nara Institute of Science and Technology

A Broad Survey of Organic-Based Thermoelectric Materials: Discussion on the Materials Strategy for Flexible Thermoelectrics

(Chair; Alexandre Carella)

11:30-11:50 OB09

Kouji Suemori, National Institute of Advanced Industrial Science and Technology

Thermoelectric Characteristics of CNT-based Flexible Thermoelectric Devices with Uni-leg Structure

11:50-12:10 OB10

Hiroaki Anno, Tokyo University of Science, Yamaguchi
Output Power Characteristics of Thermoelectric Device Based on Three-Component Hybrid Films Consisting of a Nanoparticle Polymer Complex, Carbon Nanotubes, and Vinyl Polymer

12:20-14:10 Lunch & Poster Viewing (14:00 Poster Removal)	
<p><i>Inorganic/Organic Nanohybrid</i> (Chair: Prof. Andres Cantarero)</p> <p>14:20-14:40 OA11 Ziqi Liang, Fudan University Development of High-Performance Organic/Inorganic Hybrid Thermoelectric Materials</p> <p>14:40-15:00 OA12 Bin Hu, University of Tennessee Exploring New Driving Force To Develop Seebeck and Cooling Effects by Using Temperature-Dependent Surface Polarization Based on Semiconducting Organic and Perovskite Materials with Hybrid Conductor/Semiconductor/Conductor Thin-Film Design</p> <p>15:00 -15:20 OA13 Tomoyuki Hata, The University of Tokyo Origin of Low Thermal Conductivity in Organic-inorganic Thermoelectric Materials</p>	<p><i>Nanostructure and Nanomaterial</i> (Chair: Prof. Hiroaki Anno)</p> <p>14:10-14:40 IB05 Davide Donadio, University of California, Davis Thermoelectric Properties of Nanostructured Silicon Membranes</p> <p>14:40-15:00 OB11 Tetsumi Izawa, Tokyo University of Science Optimization of Thermoelectric Performance on Graphene Nanoribbons by Engineering Edge Disorder and Ribbon Length</p> <p>15:00-15:20 OB12 Heesuk Kim, Korea Institute of Science and Technology Rational Design of Nanocarbon/Te Nanowire Composites for Flexible and Stable Thermoelectric Materials</p>
15:20-15:30 Short Break	
<p>(Chair: Prof. Xavier Crispin)</p> <p>15:30-16:00 IA05 Kunihito Koumoto, Toyota Physical and Chemical Research Institute Inorganic/Organic Nanohybridization for Thermoelectric Materials Design</p>	
16:00-16:25 Closing Remarks	
16:30 Close	