

2021/09/30 10:00

Sp03	2021/09/30	10:00 – 12:00	Rm1
4Rm101-05	Sp03. Perovskite solar cells (Organizer: M.Chikamatsu)		
Chairperson: Masayuki Chikamatsu(AIST), Tetsuya Taima(Kanazawa University)			

4Rm101-05-01 10:00 – 10:25 Invited
Crystal Growth Dynamics of Organolead Halide Perovskite

*Tetsuhiko Miyadera[1]

1. AIST (Japan)

4Rm101-05-02 10:25 – 10:50 Invited
Interfacial Passivation for Improving the Open Circuit Voltage to Achieve High Performance Perovskite Solar Cells

*Qing Shen[1], Fan Zhang[1,2], Shuzi Hayase[1]

1. The University of Electro-Communications (Japan), 2. Shenzhen University (China)

4Rm101-05-03 10:50 – 11:15 Invited
Efficient and Stable Perovskite Solar Cells using Ionic-Liquid-Aided MAPbI₃ Nanoparticle-Seeded Growth

*Md. Shahiduzzaman[1], Tetsuya Taima[1]

1. Nanomaterials Research Institute, Kanazawa University (Japan)

4Rm101-05-04 11:15 – 11:40 Invited
Degradation Mechanism of Spiro-OMeTAD-Based Perovskite Solar Cells at High Temperature

*Toshinori Matsushima[1], Ganbaatar Tumen-Ulzii[1], Chihaya Adachi[1]

1. Kyushu University (Japan)

4Rm101-05-05 11:40 – 11:55
NiO_x Hole Transport Material for Perovskite Solar Cells

*Ersan Yudhapratama Muslih[1], Md Shahiduzzaman[2], M Shahinuzzaman[2], LiangLe Wang[3], Masahiro Nakano[3], Makoto Karakawa[2,3], Jean Michel Nunzi[2], Md. Akhtaruzzaman[4], Tetsuya Taima[1,2,3]

1. Kanazawa University (Japan), 2. Nanomaterials Research Institute, (Japan), 3. Graduate School of Frontier Science Initiative (Japan), 4. Solar Energy Research Institute (Malaysia)

Break

Sp20	2021/09/30	10:00 - 12:00	Rm2
4Rm201-05	Sp20. Emerging printed scalable sensor technology for smart home, robotics, healthcare, and medical applications		
Chairperson: Vincent C. Lee (National University of Singapore)			

4Rm201-05-01 10:00 - 10:25 Invited
Self-Powered Medical Electronics

*Zhou Li[1]

1. Institute of Nanoenergy and Nanosystems of Beijing, Chinese Academy of Sciences (China)

4Rm201-05-02 10:25 - 10:50
Large Format Printed Sensor Arrays for Smart Homes and Healthcare Applications

*Xuechuan SHAN[1], Qiongfeng Shi[2], Chengkuo Lee[3], Budiman Salam[4], Boon Keng Lok [5], Zhongda Sun[6]

1. Senior Scientist, Section Manager, SIMTech (Singapore), 2. Research Scientist, National University of Singapore (Singapore), 3. Professor, National University of Singapore (Singapore), 4. Senior Scientist, SIMTech (Singapore), 5. Senior

4Rm201-05-03 10:50 - 11:15 Invited
Printed Flexible Sensing Electronics

*Ting Zhang[1], MingMing Hao[1], Xianqing Yang[1], Yue Li[1], Sijia Feng[1]

1. Suzhou Institute of Nanotech and Nanobionics, Chinese Academy of Sciences (China)

4Rm201-05-04 11:15 - 11:40 Invited
Energy Harvesting and Self-powered Sensing Techniques

*Huicong Liu[1]

1. Soochow University (China)

4Rm201-05-05 11:40 - 12:00
Triboelectric-Based Disk for Smart Home Control

*Mehmet Yuce[1], Chunkai Qiu[1]

1. Department of Electrical and Computer Systems, Monash University (Australia)

Sp13	2021/09/30	10:00 - 12:00	Rm4
4Rm401-04	Sp13. Nano-enabled thermal management for flexible devices (Organizer: T.Takenobu, S.Maruyama)		
Chairperson: Taishi Takenobu(Nagoya University), Takashi Yagi(AIST)			

4Rm401-04-01 10:00 - 10:30 Invited
A Semi-Localized Transport (SLoT) Model for Chemically Doped Semiconducting Polymers

*Shannon Yee[1]

1. Georgia Institute of Technology (United States of America)

4Rm401-04-02 10:30 - 11:00 Invited
Theory of Thermoelectric and Thermal Responses based on Linear Response Theory

*Hiroyasu Matsuura[1]

1. University of Tokyo (Japan)

4Rm401-04-03 11:00 - 11:30 Invited
Micro/Nano-Enabled Thermal Ground Planes for Thermal Management of High Power and Flexible Electronics

*Ronggui Yang[1]

1. Huazhong University of Science and Technology (China)

4Rm401-04-04 11:30 - 12:00 Invited
Machine Learning for Inverse Materials Design

*Ryo Yoshida[1]

1. The Institute of Statistical Mathematics (Japan)

2021/09/30 14:00

Sp13	2021/09/30	14:00 - 16:00	Rm4
4Rm405-08	Sp13. Nano-enabled thermal management for flexible devices (Organizer: T.Takenobu, S.Maruyama)		
Chairperson:Kazuhiro Yanagi(Tokyo Metropolitan University), Shigeo Maruyama(The University of Tokyo)			

4Rm405-08-01 14:00 - 14:30 Invited
Carbon Nanotube-based Analog/Digital Mixed-signal Integrated Circuits for Flexible Sensors

*Yutaka Ohno[1]

1. Nagoya University (Japan)

4Rm405-08-02 14:30 - 15:00 Invited
Highly thermal conductive graphene/polymer composites and thermal interface materials

*Cheng-Te Lin[1]

1. Chinese Academy of Sciences (China)

4Rm405-08-03 15:00 - 15:30 Invited
Theoretical Prediction of Optimal Thermoelectric Properties of Low-Dimensional Nanomaterials

*Manaho Matsubara[1], Junei Kobayashi[1], Hikaru Horii[1], Kenji Sasaoka[1], Takahiro Yamamoto[1], Hidetoshi Fukuyama[1]

1. Tokyo Univ. of Sci. (Japan)

4Rm405-08-04 15:30 - 15:45
Electrical Conduction of Mixed Semiconducting and Metallic Single-Walled Carbon Nanotube Thin Films in Magnetic Field

*Hiroki Date[1], Takenori Fujii[2], Taiki Inoue[3], Esko I Kauppinen[4], Shigeo Maruyama[1], Shohei Chiashi[1]

1. Department of Mechanical Engineering, The University of Tokyo (Japan), 2. Cryogenic Research Center, The University of Tokyo (Japan), 3. Department of Applied Physics, Osaka University (Japan), 4. Department of Applied Physics, Aalto University

15:45 - 16:00

Break

2021/09/30 16:00

Sp15	2021/09/30	16:00 – 18:00	Rm1
4Rm106-09	Sp15. Flexible solar cells and modules for advanced applications (Organizer: A.Masuda)		
	Chairperson:Atsushi Masuda(Niigata University)		

4Rm106-09-01 16:00 – 16:30 Invited
Technical Trends and Future Perspectives for Flexible Solar Cells

*Atsushi Masuda[1]

1. Niigata University (Japan)

4Rm106-09-02 16:30 – 17:00 Invited
Production Techniques for Flexible-Lightweight $\text{Cu}(\text{In,Ga})\text{Se}_2$ Solar Cells

*Takahito Nishimura[1], Abdurashid Mavlonov[1], Jakapan Chantana[1], Yu Kawano[1], Takayuki Negami[1], Takashi Minemoto[1]

1. Ritsumeikan University (Japan)

4Rm106-09-03 17:00 – 17:30 Invited
Ultraflexible organic photovoltaics based on a polymer-based electron-transporting layer

*Yinhua Zhou[1]

1. Huazhong University of Science and Technology (China)

4Rm106-09-04 17:30 – 18:00 Invited
Development of a Polymer Film-Based Large-Area Perovskite Photovoltaic Module Using a Meniscus Coating Method at a Speed of over 5 m/min

*Shunsuke Shimo[1], Shigehiko Mori[1], Akio Amano[1], Haruhi Oooka[1], Kenji Todorii[1]

1. Toshiba corporation (Japan)

Sp14	2021/09/30	16:00 – 18:00	Rm2
4Rm206-11	Sp14. Thin film processing (Organizer: S.Umezu)		

Chairperson:Shinjiro Umezu(Waseda University), Kazuyoshi Tsuchiya(Tokai University)

16:00 – 16:05

Break

4Rm206-11-01 16:05 – 16:30 Invited
Engineering Thin Cell Sheets based on Vibration Mechanics and Fluid Mechanics

*Chikahiro Imashiro[1]

1. Tokyo Women's Medical University (Japan)

4Rm206-11-02 16:30 – 16:55 Invited
Web Handling Technology

*Yuta Sunami[1]

1. Tokai University (Japan)

4Rm206-11-03 16:55 – 17:10
Evaluation of Stretching Resistance of CNT-Based Flexible pH Sensor

*Hiroshi Kobayashi[1], Hisashi Sugime[2], Suguru Noda[3], Kayo Hirose[4], Shinjiro Umezu[3]

1. Waseda University Graduate School of Creative Science and Engineering (Japan), 2. KINDAI University (Japan), 3. Waseda University (Japan), 4. The University of Tokyo (Japan)

4Rm206-11-04 17:10 – 17:25
Establishment of ABS Resin Electrospinning Method Utilizing Acetone as Solvents

*YUE CUI[1], Kewei Song[1], Kayo Hirose[2], Md Shahiduzzaman[3], Shinjiro Umezu[1]

1. Waseda University (Japan), 2. The University of Tokyo Hospital (Japan), 3. Kanazawa University (Japan)

4Rm206-11-05 17:25 – 17:40
The manufacturing of PDLLA nanosheets using micro-gravure printing method for the roll-to-roll production

*Shunsuke Nakano[1], Yuta Sunami[1]

1. Tokai University (Japan)

4Rm206-11-06 17:40 – 17:55
Experimental Study on Static Characteristics of Air Turn Bar

*Wataru Shimoji[1], Kenshiro Ito[2], Kyouhei Kawasaki[2], Tadahiro Nagatsuma[2], Yuta Sunami[1]

1. Tokai Univ (Japan), 2. Tanken Seal Seiko Co.,Ltd (Japan)

Break

Sp13	2021/09/30	16:00 - 18:00	Rm4
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4Rm409-13 Sp13. Nano-enabled thermal management for flexible devices (Organizer: T.Takenobu, S.Maruyama)
Chairperson:Koji Miyazaki(Kyushu Institute of Technology), Yuichiro Yamashita(AIST)

4Rm409-13-01 16:00 - 16:30 Invited
Compact and high power density wearable thermoelectric generator for continuous health monitoring
*Woochul Kim[1]

1. Yonsei University (Korea)

4Rm409-13-02 16:30 - 16:45
Charge Transport and Thermoelectric Properties of Electrochemically Doped Conducting Polymer Thin Films
*Hisaaki Tanaka[1], Kaito Kanahashi[2], Hiroshi Ito[1], Hiromichi Ohta[3], Taishi Takenobu[1]

1. Nagoya Univ. (Japan), 2. Waseda Univ. (Japan), 3. Hokkaido Univ. (Japan)

4Rm409-13-03 16:45 - 17:00
Effect of side chain density on structure and thermoelectric properties of doped polythiophene films
*Shunichiro Ito[1], Kaito Kanahashi[2], Hisaaki Tanaka[1], Hiromichi Ohta[3], Taishi Takenobu[1]

1. Nagoya Univ. (Japan), 2. Waseda Univ. (Japan), 3. Hokkaido Univ. (Japan)

4Rm409-13-04 17:00 - 17:30 Invited
Thermoelectrics, Spintronics and Nanomechanics of Organic Semiconducting Polymers
*Deepak Venkateshvaran[1]

1. University of Cambridge (UK)

4Rm409-13-05 17:30 - 17:45

Hybrid-halide perovskites for thermoelectric applications

*Shrikant Saini Saini[1], Izuki Matsumoto[1], Sakura Kishishita[1], Ajay Kumar Baranwal[2], Tomohide Yabuki[1], Shuzi Hayase[2], Koji Miyazaki[1]

1. Department of Mechanical Engineering, Kyushu Institute of Technology, Kitakyushu, Fukuoka, Japan (Japan), 2. i-Powered Energy System Research Centre, The University of Electro-communications, Chofu, Tokyo, Japan. (Japan)

17:45 - 18:00

Break