

Wednesday Nov.4		
Room A		
7:00-8:00A M	Breakfast	
Session: Sensors I Chair: Michihisa Koyama		
8:00-8:25AM	A01: A new detection method for characterizing intermediate states of protein reactions	Masahide Terazima Kyoto University, Japan
8:25-8:50AM	A02: Metal ion detection by twist-induced charge transfer within a fluoro-ionophore: molecular photovoltaics and mechanics for IoT lab-in-a-phone	John Canning The University of Sydney, Australia
8:50-9:15AM	A03: Assay of tumor marker protein by using peptide as a new kind of recognition element	Genxi Li Nanjing University, China
9:15-9:40AM	A04: RNA detection in living cell with super-sensitive linear probe	Hiroyuki Asanuma Nagoya University, Japan
9:40-10:05 AM	A05: Microsensors and systems for water pollution monitoring	Chao Bian Institute of Electronics, CAS, China
10:05-10:20AM	Session Break	
Session: Energy Materials I Chair: John Canning		
10:20 -10:45 AM	A06: All Solid State Lithium Thin Film Batteries	Ji-Won Choi Korea Institute of Science and Technology (KIST), Korea
10:45-11:10 AM	A07: Computational Chemistry Study on Functional Materials for Future Energy Systems	Michihisa Koyama Kyushu University, Japan
11:10-11:35 AM	A08: The Application of Room-Temperature Ionic Liquids in Supercapacitors	Guang Feng Huazhong University of Science and Technology, China
11:35-12:00 PM	A09: Ion-Conductive Nanostructured Liquid-Crystalline Assemblies for Battery Applications	Masafumi Yoshio The University of Tokyo, Japan
12:00-12:25 PM	A10: Promotion Effect of Pd Nano Catalysts on Performance of SOFC Anodes Fueled by Hydrocarbons	Erjia Liu Nanyang Technological University, Singapore
12:30-14:00 PM	Lunch Break	

Wednesday Nov.4

Room B

Session: Advance Processing of Materials/Nano-composites Chair: Satoshi Habuchi

14:00-14:25 PM	B01: Artificial One-Dimensional Conductors inside Carbon Nanotubes	Toshihiko Fujimori Shinshu University, Japan
14:25 -14:50 PM	B02: Micro 3D Design of Polymer and Ceramics Hybrid Materials for Thermal Management System	Tadachika Nakayama Nagaoka University of Technology, Japan
14:50 -15:15 PM	B03: Low temperature deposition of SiO _x insulator film with newly developed facing electrodes chemical vapor deposition	Tokiyoshi Matsuda Ryukoku University, Japan
15:40-16:00 PM	Session Break	
Session: Nanostructures I Chair: Toshihiko Fujimori		
16:00-16:25 PM	B04: Molecular imaging and microscopy techniques for characterizing conjugated polymer nanoparticles	Satoshi Habuchi King Abdullah University of Science and Technology, Kingdom of Saudi Arabia
16:25-16:50 PM	B05: Scattering of excitons from impurities and phonons in carbon nanotubes	Seiji Uryu Iwate University, Japan
17:30 PM	Dinner Social	

Wednesday Nov.4

Room C

Session: Micro and Nano Engineering I Chair: Osamu Tsutsumi

14:00-14:25 PM	C01: Holographic control of nanoparticle-distribution morphology in polymer and its applications	Yasuo Tomita University of Electro-Communications, Japan
14:25 -14:50 PM	C02: Fabrication of patterned nanofibers using an advanced electrospinning	Young Hun Jeong Kyungpook National University, Korea
14:50 -15:15 PM	C03: Supramolecular gel-based polymer materials and their applications	Yutaka Kuwahara Kumamoto University, Japan
15:15-15:40 PM	C04: Investigation on microstructure and tribological properties of Plasma Immersion Ion Implantation and Deposition Ti-B-N multilayer coatings	Yongzhi Cao Harbin Institute of Technology, China
15:40-16:00 PM	Session Break	

Session: Micro and Nano Engineering II Chair: Yasuo Tomita

16:00-16:25 PM	C05: Aggregation Controlled Luminescence of Liquid-Crystalline Gold Complexes	Osamu Tsutsumi Ritsumeikan University, Japan
16:25-16:50 PM	C06: Control of pyrene emission by silicon	Masafumi Unno Gunma University, Japan
16:50-17:15 PM	C07: Effective excitation of copper surface plasmon resonance and fluorescence enhancement application	Kosuke Sugawa Nihon University, Japan
17:30 PM	Dinner Social	

Wednesday Nov.4**Room D****Session: Energy Materials II Chair: Guang Feng**

14:00-14:25 PM	D01: High-throughput Screening of Multivariate Metal-Organic Frameworks for CO ₂ /Methane Separation	Song Li Huazhong University of Science and Technology, China
14:25 -14:50 PM	D02: Spin Seebeck Thermoelectrics	Oleg Tretiakov Tohoku University, Japan
14:50 -15:15 PM	D03: Advances in energy storage by integrating Silicon nanowires to Li based battery systems	Matthias Grube NaMLab GmbH, Germany
15:15-15:40 PM	D04: Bacteriogenic nanometric amorphous iron-based oxide material as an anode material for lithium-ion battery	Hideki Hashimoto Kogakuin University, Japan
15:40-16:00 PM	Session Break	
Session: General I Chair: Song Li		
16:00-16:25 PM	D05: Localized Manipulation of Magnetic Micro-Particles	Peter C. Y. Chen National University of Singapore, Singapore
16:25-16:50 PM	D06: Growth of Co-doped ZnO films under high magnetic field	Guojian Li Northeastern University, China
16:50-17:15 PM	D07: Continuous fabrication method of acoustic metamaterials via R2R NIL	Moon Kyu Kwak Kyungpook National University, Korea
17:30 PM	Dinner Social	

Thursday Nov.5		
Room B		
7:00-8:00 A M	Breakfast	
Session: Nanomaterials and Biomedical Nanotechnology Chair: Shengyong Xu		
8:00-8:25 AM	B06: Preparation of chitin nanofiber from crab shell and the applications	Shinsuke Ifuku Tottori University, Japan
8:25-8:50 AM	B07: The effects of interfacial potential on antimicrobial propensity of ZnO nanoparticle	Suman Jha National Institute of Technology, India
8:50-9:15 AM	B08: Layer-by-Layer assembly of micro and nanomaterials for therapeutical applications and diagnostics	Uta Reibetanz University of Leipzig, Germany
9:15-9:40 AM	B09: Functional "bottom-up" metal complex nanosheets	Ryota Sakamoto The University of Tokyo, Japan
9:40-10:05 AM	B10: The Long and Winding Road Towards Single-Walled Carbon Nanotube Industrialization	Kenji Hata National Institute of Advanced Industrial Science and Technology(AIST), Japan
10:05-10:20 AM	Session Break	
Session: Microfluidics and Nanofluidics Chair: Suman Jha		
10:20 -10:45 AM	B11: A Prototype of Electrostatic Micro-Tweezers in Fluid	Shengyong Xu Peking University, China
10:45-11:10 AM	B12: Fabrication of All-aqueous Core-shell Microfibers Based on Microfluidic Devices	Shicheng Zhao East China University of Science and Technology, China
11:10-11:35 AM	B13: Fluid science in extended-nano space for novel chemical devices	Yutaka Kazoe The University of Tokyo, Japan
12:00-13:30 PM	Lunch Break	
Session: Micro and Nano Engineering III Chair: Takeshi Tanaka		
13:30 -13:55 PM	B14: Fabrication of complex three-dimensional nanostructures by controlling tip reciprocating motion frequency of atomic force microscope	Yongda Yan Harbin Institute of Technology, China
13:55 -14:20 PM	B15: Photocontrol of molecular alignment in liquid crystal systems for photonic and mechanical applications	Atsushi Shishido Tokyo Institute of Technology, Japan

14:20 -14:45 PM	B16: Effect of Multiwalled Carbon Nanotubes on Co-Mn Ferrite Prepared by Co-precipitation Technique	Ghulam Murtaza Bahauddin Zakariya University, Pakistan
14:45-15:45 PM	Poster Session	
Session: Micro and Nano Engineering IV Chair: Yongda Yan		
15:45-16:10 PM	B17: Structure separation and application of single-wall carbon nanotubes	Takeshi Tanaka National Institute of Advanced Industrial Science and Technology (AIST), Japan
16:10-16:35 PM	B18: A New Approach to Monitor Cellular Internalization of Gold Nanoparticles	Cristina Coman University of Agricultural Sciences and Veterinary Medicine, Romania
16:35-17:00 PM	B19: Process Development for Direct 3D Writing Elastomeric Complexity	Yanqiu Chen Chengdu Green Energy and Green Manufacturing Technology R&D Center, China
17:30 PM	Dinner Social	

Thursday Nov.5 Room C		
7:00-8:00 A M	Breakfast	
Session: Nanoelectronics I Chair: Takeshi Ishiyama		
8:00-8:25 AM	C08: VCRO design in 28 nm FDSOI technology using fully complementary inverters	Gilles Jacquemod Polytech'Nice-Sophia, France
8:25-8:50 AM	C09: Atomic and molecular effects based on dopants in silicon nanodevices	Daniel Moraru Shizuoka University, Japan
8:50-9:15 AM	C10: Fault Tolerance in Systems Manufactured using Deep Submicron Technologies	Nor Muzlifah Mahyuddin University of Sains Malaysia, Malaysia
9:15-9:40 AM	C11: Recombination Dynamics of Neutral, Charged, and Bi-excitons in Single Semiconductor Nanocrystals	Toshiyuki Ihara Kyoto University, Japan
10:05-10:20 AM	Session Break	
Session: Nanostructures II Chair: Gilles Jacquemod		
10:20 -10:45 AM	C12: Structural and optical properties of semiconductor nanowires grown by VLS method	Takeshi Ishiyama Toyohashi University of Technology, Japan
10:45-11:10 AM	C13: Effect of line tension on a droplet placed on a spherical substrate	Masao Iwamatsu Tokyo City University, Japan
11:10-11:35 AM	C14: Nanoparticle Studies using Synchrotron-based X-ray Techniques of Hard X-ray Photoelectron Spectroscopy and High-energy X-ray Scattering	Osami Sakata National Institute for Materials Science (NIMS), Japan
11:35-12:00 PM	C15: Engineering and scaling the spontaneous magnetization reversal and relaxation slowdown of Faraday induced magnetic relaxation in nano-sized amorphous Ni shells coated on crystalline Au nanoparticles	Wen-Hsien Li National Central University, Taiwan
12:00-13:30 PM	Lunch Break	
Session: Smart Locomotion of Small Objects Chair: Minato Egashira		

13:30 -13:55 PM	C16: Stimuli-responsive Locomotion of Smart Devices through Functionally Cooperating System	Feng Shi Beijing University of Chemical Technology, China
13:55 -14:20 PM	C17: Cooperative Deprotonation Induced Macroscopic Morphological Transformation of Multi-Component Molecular Assembly Actuated by Azobenzene-Photoisomerization	Yoshiyuki Kageyama Hokkaido University, Japan
14:20 -14:45 PM	C18: pH-responsive round-way motions of a smart device through integrating two types of chemical actuator in one smart system	Lingling Yu Beijing University of Chemical Technology, China
14:45-15:45 PM	Poster Session	
Session: Energy Materials III Chair: Javad Mostaghimi		
15:45-16:10 PM	C19: On the design of iron/fibrous nano-carbon composite electrodes for alkaline secondary batteries	Minato Egashira Nihon University, Japan
16:10-16:35 PM	C20: Conductive oxide cluster-surfactant hybrid crystals toward solid electrolyte	Takeru Ito Tokai University, Japan
16:35-17:00 PM	C21: Bulk and composite piezoelectric energy harvesters	Jung-Hyuk Koh Chung-Ang University, Korea
17:30 PM	Dinner Social	

Thursday Nov.5		
Room D		
7:00-8:00 A M	Breakfast	
Session: Sensors II Chair: Zhijun Liu		
8:00-8:25 AM	D08: Tailoring the plasmonic evanescent wave to detect large and small bioentities at once	Ibrahim Abdulhalim Ben Gurion University, Israel
8:25-8:50 AM	D09: Design and characterization of miniaturized remote current sensors	Cyril Jacquemod Qualiteo, France
8:50-9:15 AM	D10: Synthesis of semiconductive nanowires and their applications on flexible light-sensitive sensors	Hsueh-Shih Chen National Tsing Hua University, Taiwan
9:15-9:40 AM	D11: Converting a total internal reflection sensor from edge into dip detection with theoretically unlimited figure of merit	Ibrahim Watad Ben Gurion University of the Negev, Israel
9:40-10:05 AM	D12: High figure of merit photonic crystal nanoscale sensor for biochemical sensing	Daquan Yang Beijing University of Posts and Telecommunications, China
10:05-10:20 AM	Session Break	
Session: General II Chair: Ibrahim Abdulhalim		
10:20 -10:45 AM	D13: Broadband Nearly Perfect Absorber for Mid-infrared Applications	Zhijun Liu University of Electronic Science and Technology of China, China
10:45-11:10 AM	D14: Practical applications of bioinspired microstructures	Hoon Eui Jeong Ulsan National Institute of Science and Technology (UNIST), Korea
11:10-11:35 AM	D15: Film Growth Monitoring using Electrodeless Quartz Oscillator	Nobutomo Nakamura Osaka University, Japan
11:35-12:00 AM	D16: Recent Advances in the Moiré Technique for Micro- and Nanoscale Deformation Measurement of Materials	Qinghua Wang National Institute of Advanced Industrial Science and Technology (AIST), Japan
12:00-13:30 PM	Lunch Break	
Session: Nanostructures III Chair: Daisuke Hirai		

13:30 -13:55 PM	D17: The thermal stability of thin nanowires	Eugene B. Gordon Institute of Problems of Chemical Physics RAS, Russia
13:55 -14:20 PM	D18: Sol-gel synthesis and characterization of MA12O4 (M = Zn, Mg) spinels doped, co-doped and triply doped nano-phosphor	Setumo Motloun University of the Free State, The Republic of South Africa
14:20 -14:45 PM	D19: Mechanical properties of silicon nanowires: The role of side surface orientation	Xiao Ru Zhuo Inha University, Republic of Korea
14:45-15:45 PM	Poster Session	
Session: General III Chair: Eugene B. Gordon		
15:45-16:10 PM	D20: Rare-metal-free magnetic materials with high coercivity	Daisuke Hirai The University of Tokyo, Japan
16:10-16:35 PM	D21: Luminescence of ns ² -type center in oxide glasses	Hirokazu Masai Kyoto University, Japan
16:35-17:00 PM	D22: Electronic coupling/communication of π -conjugated system with small gold clusters	Katsuaki Konishi Hokkaido University, Japan
17:00-17:25 PM	D23: Gaussian Process based intelligent sampling for measuring nano-structured surfaces on scanning probe microscopy	Lijian Sun Shanghai Jiao Tong University, China
17:30 PM	Dinner Social	

Friday Nov.6		
Room B		
7:00-8:00 A M	Breakfast	
Session: Nanoelectronics II Chair: Shanshan Chen		
8:00-8:25 AM	B20: Flexible bio-electronics applications of carbon nanotube thin films	Yutaka Ohno Nagoya University, Japan
8:25-8:50 AM	B21: Electrical Detection of Millimeter-Wave By Using Magnetic Materials	Koki Mukaiyama Tohoku University, Japan
8:50-9:15 AM	B22: CNT-based thermoelectric devices printed on film substrate	Kouji Suemori National Institute of Advanced Industrial Science and Technology (AIST), Japan
9:15-9:40 AM	B23: Colloidal Quantum Dots: A Path for Solid-State Lighting and Displays	Wengang Bi Hebei University of Technology, China
9:40-10:05 AM	B24: Atomic-scale characterization of iron nitride ultrathin films	Koichiro Ienaga The University of Tokyo, Japan
10:05-10:20 AM	Session Break	
Session: Two-dimensional Materials Chair: Yutaka Ohno		
10:20 -10:45 AM	B25: Raman Measurements of Thermal Transport in Suspended Monolayer and bilayer graphene	Shanshan Chen Xiamen University, China
10:45-11:10 AM	B26: Energetics and Electronic Properties of B and N Defects in Graphene Layered Materials	Yoshitaka Fujimoto Tokyo Institute of Technlogy, Japan
11:10-11:35 AM	B27: Artificial light-harvesting system in 2D porphyrin assembly	Yohei Ishida Hokkaido University, Japan
12:00-13:30 PM	Lunch Break	
Session: Micro and Nano Engineering V Chair: Nobuaki Terakado		
14:00 -14:25 PM	B28: Fabrication of Ag Nanowire Transparent Conductive films by Organic Precursor Painting Reduction Method	Yamato Hayashi Tohoku University, Japan

14:25 -14:50 PM	B29: SiO ₂ optical window capable of the integration of an image sensor for application of optical modulator	Nguyen Van Toan Tohoku University, Japan
14:50 -15:15 PM	B30: Research of High-Precision Balancing Technology for Spindle of Ultra-Precision Machine Tool	Xuesen Zhao Harbin Institute of Technology, China
15:15-15:30 PM	Session Break	
Session: General IV Chair: Yamato Hayashi		
15:30-15:55 PM	B31: Theory for Ultrafast Carrier Relaxation in the Conduction Band of Semiconductors	Hiromasa Ohnishi National Institute of Technology, Tsuruoka College, Japan
15:55-16:20 PM	B32: Preparation of layer-type SrCuO ₂ by rf-magnetron sputtering and its laser-induced structure change to chain-type	Nobuaki Terakado Tohoku University, Japan
16:20-16:45 PM	B33: Recent development of poly(ortho-phenylene) chemistry	Koichiro Mikami Sagami Chemical Research Institute (SCRI), Japan
17:30 PM	Dinner Social	

Friday Nov.6		
Room C		
7:00-8:00 A M	Breakfast	
Session: Energy Materials IV Chair: Tomohisa Kumagai		
8:00-8:25 AM	C22: Coaxial MnO ₂ @carbon nanofibers nanocomposites as freestanding electrodes for high-performance electrochemical capacitors	Ying Yang Tsinghua University, China
8:25-8:50 AM	C23: Solution Precursor Plasma Sprayed Superhydrophobic Surface	Javad Mostaghimi University of Toronto, Canada
8:50-9:15 AM	C24: Mechanical generation of spin current	Kazuya Harii Advanced Science Research Center (ASRC), Japan Atomic Energy Agency (JAEA), Japan
9:15-9:40 AM	C25: Synthesis of polyimide nano-particles and application to catalysis	Yuta Nabae Tokyo Institute of Technology, Japan
9:40-10:05 AM	C26: Electrode-electrolyte interface of polymer Li-ion batteries	Miguel Ángel Muñoz CIC energIGUNE, Spain
10:05-10:20 AM	Session Break	
Session: General V Chair: Ying Yang		
10:20 -10:45 AM	C27: The Effects of Guest Atomic Species in Silicon Clathrates on the Thermal Conductivity Studied by using Classical Molecular Dynamics Simulations	Tomohisa Kumagai CRIEPI, Japan
10:45-11:10 AM	C28: Characterization of nanomaterial suspension using pulsed field gradient nuclear magnetic resonance (PFG-NMR) for nano toxicity assessment	Haruhisa Kato National Institute of Advanced Industrial Science and Technology (AIST), Japan
12:00-13:30 PM	Lunch Break	
Session: Energy Materials V Chair: Kohei Yamanoi		
14:00 -14:25 PM	C29: A chemical approach to improving the air-stability of n-type carbon nanotubes	Yoshiyuki Nonoguchi Nara Institute of Science and Technology, Japan
14:25 -14:50 PM	C30: Energy and Environmental devices using Doped Tin Phosphates as a Solid State Electrolyte	Masahiro Nagao Nagoya University, Japan

14:50 -15:15 PM	C31: High-pressure torsion, a new route for synthesizing Mg-based hydrogen storage compounds: Experiments and DFT calculations	Hoda Emami Kyushu University, Japan
15:15-15:30 PM	Session Break	
Session: General VI Chair: Yoshiyuki Nonoguchi		
15:30-15:55 PM	C32: Radiation Resistance and Improved Response Times of ZnO Scintillator after Gamma-Ray Irradiation	Kohei Yamanoi Osaka University, Japan
15:55-16:20 PM	C33: Multiple-probe AFM/KFM for electrical characterization of complex network systems	Yoshitaka Shingaya National Institute for Materials Science (NIMS), Japan
16:20-16:45 PM	C34: Thermoelectric properties of Heusler type Fe ₂ VAl thin-films deposited at high-temperature	Satoshi Hiroi Toyota Technological Institute(TTI), Japan
17:30 PM	Dinner Social	

Friday Nov.6		
Room D		
7:00-8:00 A M	Breakfast	
Session: Sensors III Chair: Yi-Shao Liu		
8:00-8:25 AM	D24: Immuno-opto-fluidic biochip for point-of-care transfusion safety	Bruno Wacogne FEMTO-ST Institute UMR CNRS, INSERM, France
8:25-8:50 AM	D25: Application of as grown carbon nanotube to gas sensor	Shuhei Inoue Hiroshima University, Japan
8:50-9:15 AM	D26: The opportunities and challenges of integration of silicon biosensor with polymer microfluidics	Yi-Shao Liu Purdue University, USA
9:15-9:40 AM	D27: Spectral and Angular Self-referenced Plasmonic Biosensor based on Thin Dielectric Grating Combined with Thin Metal Film	Mohammad Awesat Ben Gurion University of the Negev, Israel
9:40-10:05 AM	D28: Role of size and shape of nanostructures in the field gas-sensors	Shahid Hussain Chongqing University, China
10:05-10:20 AM	Session Break	
Session: General VII Chair: Bruno Wacogne		
10:20 -10:45 AM	D29: Interdiffusion and magnetic properties of Co/Cu/Co trilayers produced by high magnetic field annealing	Kai Wang Northeastern University, China
10:45-11:10 AM	D30: Effect of 1 keV ion bombardment on the optical characteristics of sapphire in VUV region	Keisuke Iwano Osaka University, Japan
12:00-13:30 PM	Lunch Break	
Session: General VIII Chair: Seungtae Choi		
14:00 -14:25 PM	D31: High-Resolution Optical Nanoimaging with Tip-Enhanced Raman Spectroscopy	Prabhat Verma Osaka University, Japan
14:25 -14:50 PM	D32: Introducing high gravity field to enhance infiltration of small molecules into polyelectrolyte multilayer	Kun Zhao Beijing University of Chemical Technology, China

14:50 -15:15 PM	D33: Converting Chemical Energy into Electricity through a Functionally Cooperating Device with Diving-Surfacing Cycles	Mengmeng Song Beijing University of Chemical Technology, China
15:15-15:30 PM	Session Break	
Session: General IX Chair: Prabhat Verma		
15:30-15:55 PM	D34: Electromechanical Design and Microfabrication of Relaxor Ferroelectric Polymer-Based Actuators	Seungtae Choi University of Ulsan, Korea
15:55-16:20 PM	D35: Micro- and Nanodevices for cell biology study	Noritada Kaji Nagoya University, Japan
16:20-16:45 PM	D36: Tribological properties of thermally stable ultra-thin organic films	Hirofumi Kondo Dexerials Corporation, Japan
17:30 PM	Dinner Social	

Thursday Nov.5

14:45-15:45PM

Poster Session

P1	Thermal stability enhancement of perpendicularly magnetized CoFeB/MgO-based free and double recording frames via incorporation of W layer	Jin Pyo Hong Hanyang University, Korea
P2	Characteristics of Small Hybrid Over Current and Temperature Limiting Device Using Shape Memory Alloy and Ceramic Positive Temperature Coefficient	Min-Seok Jeon Korea Testing Laboratory, Material&Components Technology Center, Korea
P3	Ultra-precision cutting of micro acute-angled V-groove arrays	Bing Guo Harbin Institute of Technology, China
P4	Shape Instability Life Prediction of Tempered 40Cr Steel: Damage-Coupled Crystal Plastic Probabilistic Finite Element Method	Yuefeng Li Harbin Institute of Technology, China
P5	Molecular dynamics simulation of high frequency vibration nanoindentation of single crystalline Cu	Zhenjiang Hu Harbin Institute of Technology, China
P6	Anisotropic bending behavior of gold nanowires with tilted twins	Junjie Zhang Harbin Institute of Technology, China
P7	Microfluidics Based-on-Chip Impinger for Airborne Particle Collection	Majid Charmchi University of Massachusetts Lowell, USA
P8	Investigation of Electrical Transport Properties in Heterojunctions Comprising Silicon Substrate and Nanocrystalline Iron Disilicide Films	Nathaporn Promros King Mongkut's Institute of Technology Ladkrabang, Thailand