

Monday April. 20		
Room A		
8:30-9:30 AM	Breakfast	
9:30-9:45 AM	Introduction	
Session: Plenary Speaker I		
9:45-10:30 AM	A01: Confinement effects in large bandgap oxide semiconductors	Lionel Vayssieres Xian Jiaotong University, China
10:30-11:00 AM	Session Break	
Session: Plenary Speaker II		
11:00-11:45 AM	A02: Scanning the photovoltaic efficiency of solar cells at the nanoscale	Andreas Ruediger INRS-EMT, Université du Québec, Canada
12:30-13:30 PM	Lunch Break	

Monday April. 20
Room B

Session: Semiconductor Materials and Devices I Chair: Thibaut Gutel

13:30-14:00 PM	B01: High Dielectric Constant (K) Materials for Bio-Sensor Applicationn	Chyuan Haur Kao Chang Gung University,Taiwan
14:00 -14:30 PM	B02: The integration of oxide with 2D MoS ₂ materials	Shijie Wang Institute of Materials Research and Engineering (IMRE), A*STAR, Singapore
14:30 -15:00 PM	B03: CMOS Process Compatible GaN HEMT Devices	HongYu Yu South University of Science and Technology of China, China
15:00 -15:30 PM	B04: Hydrogenated-diamond Logic Inverter	Jiangwei Liu National Institute for Materials Science (NIMS),Japan

15:30-16:00 PM

Session Break

Session: Battery and Cell Chair: Chyuan Haur Kao

16:00-16:30PM	B05: Organic electrode materials, a new opportunity for low cost and sustainable lithium battery?	Thibaut Gutel Commissariat à l'énergie atomique et aux énergies alternatives (CEA), France
16:30-17:00 PM	B06: Highly Cyclable Nanowire Anodes for Li-ion and Li-S Batteries	Walter M. Weber NaMLab GmbH, Germany
17:00-17:30 PM	B07: Multi-dimensional nanocarbons: their synthesis, unique nanostructures and application to supercapacitor electrodes	JoonHo Bae Gachon University, Korea
17:30-18:00 PM	B08: Sodium secondary batteries with ionic liquid electrolytes	Changsheng Ding Kyoto University, Japan

18:00 PM

Dinner Social

Monday April. 20
Room C

Session: Solar Cell I Chair: Shuhui Sun

13:30-14:00 PM	C01: Large-area polymer solar cell by blade coating and high-efficiency hybrid solar cell	Hsin-Fei Meng National Chiao Tung University, Taiwan
14:00 -14:30 PM	C02: Hybrid Solar Cells Based on Silicon Nanostructure	Meicheng Li North China Electric Power University, China
14:30 -15:00 PM	C03: Molecular Engineering of Organic Sensitizers for Efficient Dye-Sensitized Solar Cells	Gang Zhou Fudan University, China
15:00 -15:30 PM	C04: Effectively Utilizing NIR Light Using Direct Electron Injection from Up-Conversion Nanoparticles to the TiO ₂ Photoanode in Dye-Sensitized Solar Cells	Suli Wu Dalian University of Technology, China
15:30-16:00 PM	Session Break	

Session: Fuel Cell I Chair: Meicheng Li

16:00-16:30PM	C05: Novel Nanostructured Electrocatalysts for Polymer Electrolyte Membrane (PEM) Fuel Cells	Shuhui Sun Centre Énergie Matériaux Télécommunications, INRS, Canada
16:30-17:00 PM	C06: Carbon and Graphene-supported Pt-based Nanorods with Enhanced Electrocatalytic Performance for Oxygen Reduction Reaction	Kuan-Wen Wang National Central University, Taiwan
17:00-17:30 PM	C07: Direct electron transfer of hemoglobin on ITO electrodes and their application to a biofuel cell cathode	Yusuke Ayato Shinshu University, Japan
18:00 PM	Dinner Social	

Monday April. 20
Room D

Session: Nanomaterials and Nanotechnology I Chair: Ge Tian

14:00 -14:30 PM	D01: A Promising Path towards Precisely Tuning Chemical Activity, Selectivity, and Stability of Nano-materials	Sondan Durukanoglu Sabanci University, Turkey
14:30 -15:00 PM	D02: Oxygen reduction reaction on nanostructured Pt/TiO ₂ catalysts: Effect of TiO ₂ annealing on the electrocatalytic activity	Youling Wang Institut National de la Recherche Scientifique (INRS), Université d'Avant-garde, Canada
15:00 -15:30 PM	D03: 1-D metal oxide nanomaterials for efficient solar water splitting	Shaohua Shen Xi'an Jiaotong University, China
15:30-16:00 PM	Session Break	
Session: General I Chair: Sondan Durukanoglu		
16:00-16:30PM	D04: The amino-carboxylic interaction as a tool for driving the formation of hetero-organic architectures at surfaces.s	Albano Cossaro CNR-IOM, Trieste, Italy
16:30-17:00 PM	D05: A Spontaneous Route to Porous Polymers	Ge Tian Wuhan University of Technology, China
17:00-17:30 PM	D06: Carbonized Su8 for three dimensional micro supercapacitor	Gang Li Taiyuan University of Technology, China
18:00 PM	Dinner Social	

Tuesday April. 21		
Room A		
8:30-9:30 AM	Breakfast	
Session: Plenary Speaker III		
9:30-10:15 AM	A03: Harvesting Near-infrared Photons: Solar Cells based on Semiconductor and Plasmonic Nanostructures	Dongling Ma Centre Énergie Matériaux Télécommunications, INRS, Canada
Session: Plenary Speaker IV		
10:15-11:00 AM	A04: High performance all-carbon thin film supercapacitors	Jinzhong Liu Beihang University, China
11:00-11:30 AM	Session Break	
Session: Plenary Speaker V		
11:30-12:15 PM	A05: Next-generation Bent-shaped pi-Cores for Organic Electronics	Toshihiro Okamoto The University of Tokyo, Japan
12:30-13:30 PM	Lunch Break	

Tuesday April. 21
Room B

Session: Fuel Cell II Chair: Jyh-Chiang Jiang

13:30-14:00 PM	B09: Bio-inspired Non-Precious-Metal Electrocatalysts for Oxygen Reduction Reaction	Jin-Gang Liu East China University of Science and Technology (ECUST), China
14:00 -14:30 PM	B10: Recent advances in the development of nano catalysts/catalyst supports for direct ethanol fuel cells	Mohamed Mohamedi Centre Énergie Matériaux Télécommunications, INRS, Canada
14:30 -15:00 PM	B11: Development of Composite Proton Exchange Membranes for Fuel Cells Operating at Low Humidity	Sangaraju Shanmugam Daegu Gyeongbuk Institute of Science and Technology, Korea
15:00 -15:30 PM	B12: Copper palladium core shell as an anode in a multi-fuel membraneless fuel cell	Luis Gerardo Arriaga Hurtado Centro de Investigación y Desarrollo Tecnológico en Electroquímica, Mexico
15:30-16:00 PM	Poster Session	
Session: Hydrogen Energy Chair: Jin-Gang Liu		
16:00-16:30PM	B13: Theoretical study on Hydrogen Production and Storage	Jyh-Chiang Jiang National Taiwan University of Science and Technology, Taiwan
16:30-17:00 PM	B14: TiO ₂ -based photocatalyst for hydrogen production: dopant and defect	Hui Pan University of Macau, Macau, China
17:00-17:30 PM	B15: Novel Route to Prepare HoN Nanoparticles as Magnetic Refrigerant for Hydrogen Re-Liquefaction	Dongsoo Kim Korea Institute of Materials Science, Korea
17:30-18:00 PM	B16: Kinetics of hydrogen adsorption and solubility of hydrogen in nanoporous palladium prepared by dealloying	Yuzeng Chen Northwestern Polytechnical University, China
18:00 PM	Dinner Social	

Tuesday April. 21
Room C

Session: Semiconductor Materials and Devices II Chair: Jenn-Gwo Hwu

13:30-14:00 PM	C08: Promising features of the group-IV-based ferromagnetic semiconductor Ge _{1-x} Fex	Shinobu Ohya The University of Tokyo, Japan
14:00 -14:30 PM	C09: Nanoscale Memristor-Based Crossbar Memories for Neuromorphic Applications	Kyeong-Sik Min Kookmin University, Korea
14:30 -15:00 PM	C10: Patterned growth of zinc oxide nanowires	Pablo Bianucci Concordia University, Canada
15:00 -15:30 PM	C11: Laser induced ultrafast transient current in quasi-one-dimensional nanowires	Tokuei Sako Nihon University, Japan
15:30-16:00 PM	Poster Session	

Session: Semiconductor Materials and Devices III Chair: Shinobu Ohya

16:00-16:30PM	C12: Photo Sensitivity Enhancement through Oxide Voltage Drop Modulation Mechanism in MOS Tunneling Diode	Jenn-Gwo Hwu National Taiwan University, Taiwan
16:30-17:00 PM	C13: Ageing of GaN HEMT devices: which degradation indicators?	Olivier Latry Université de Rouen, France
18:00 PM	Dinner Social	

Tuesday April. 21
Room D

Session: Solar Cell II Chair: Victor Aristov

14:00 -14:30 PM	D07: Two-step photocurrent generation in quantum nanostructure solar cells	Takeshi Noda National Institute for Materials Science (NIMS),Japan
14:30 -15:00 PM	D08: Carbon Nanotube and Graphene-based Nanocomposites for Enhanced Solar Cells	Yangqiao Liu Shanghai Institute of Ceramics, CAS, China
15:00 -15:30 PM	D09: High Efficiency Silicon Nanowire/Organic Hybrid Solar Cell with Surface Treatment	Rusli Nanyang Technological University, Singapore
15:30-16:00 PM	Poster Session	

Session: Nanomaterials and Nanotechnology II Chair: Takeshi Noda

16:00-16:30PM	D10: Atomic structure and electronic properties of nanostructured few layer graphene on SiC (001)	Victor Aristov Russian Academy of Sciences, Russia
16:30-17:00 PM	D11: Engineering 2D porous organic nanoarchitectures taking advantage of star-shaped molecule self-assembly	Fabien Silly CEA, IRAMIS, SPCSI, France
17:00-17:30 PM	D12: Stabilizing effect of porous support on nickel nanoparticles used as catalytic active sites for dry reforming of methane	Nissrine El Hassan University Of Balamand, Lebanon
18:00 PM	Dinner Social	

Tuesday April. 21
Room E

Session: Advanced Organic Electronics I Chair: Takafumi Kamimura

13:30-14:00 PM	E01: Selective metal deposition on organic surfaces for organic electronics/photronics	Tsuyoshi Tsujioka Osaka Kyoiku University, Japan
14:00 -14:30 PM	E02: Organic Transistor and Sensor with Nanogrid Controlled Performance	Hsiao-Wen Zan National Chiao Tung University, Taiwan
14:30 -15:00 PM	E03: Fully-printed organic integrated circuits with high mobility, exceptional uniformity and ultra-flexibility	Kenjiro Fukuda Yamagata University, Japan
15:00 -15:30 PM	E04: Spin electron transport properties in organic spin valve devices	Xianmin Zhang Northeastern University of China, China
15:30-16:00 PM	Poster Session	
Session: General II Chair: Tsuyoshi Tsujioka		
16:00-16:30 PM	E05: Study of concentrating solar photovoltaic-thermal hybrid system	Jinjia Wei Xi'an Jiaotong University, China
16:30-17:00 PM	E06: Band alignment of Au/Al ₂ O ₃ /Ga ₂ O ₃ MOS structure determined by XPS and tunneling current analysis	Takafumi Kamimura National Institute of Information and Communications Technology (NICT), Japan
17:00-17:30 PM	E07: Single-molecule study on plasmonic structures: the fundamental for energy harvesting	Gang Lu Katholieke Universiteit Leuven, Belgium
18:00 PM	Dinner Social	

Wednesday April. 22		
Room A		
8:30-9:30 AM	Breakfast	
Session: Plenary Speaker VI		
9:30-10:15 AM	A06: Mechanisms of Molecular Machines	M.A. Van Hove Hong Kong Baptist University, Hong Kong
Session: Plenary Speaker VII		
10:15-11:00 AM	A07: Soft X-ray Resonant, Nano and Operando Spectroscopy for Lithium Ion Batteries	Masaharu Oshima The University of Tokyo, Japan
11:00-11:30 AM	Session Break	
Session: Plenary Speaker VIII		
11:30-12:15 PM	A08: Excitation, Diffusion and Dissociation of Excitons in Optimizing the Performance of PTB7:PCBM Bulk-Heterojunction Organic Solar Cells	Monishka Narayan Charles Darwin University, Australia
12:30-13:30 PM	Lunch Break	

Wednesday April. 22
Room B

Session: Semiconductor Materials and Devices IV Chair: Kas Hemmes

14:00 -14:30 PM	B17: Optical Polarization Properties in Nonpolar InGaN Quantum Wells	Atsushi A. Yamaguchi Kanazawa Institute of Technology, Japan
14:30 -15:00 PM	B18: Prospective and challenges of RRAM devices	Siddheswar Maikap Chang Gung University, Taiwan
15:00 -15:30 PM	B19: Ultrashort and Low-loss Si based multiplexing devices	Xingjun Wang Peking University, China
15:30-16:00 PM	Session Break	
Session: General III Chair: Siddheswar Maikap		
16:00-16:30 PM	B20: Guiding Discharges Around Obstacles and Arbitrary Trajectories	Roberto Morandotti Centre Énergie Matériaux Télécommunications, INRS, Canada
16:30-17:00 PM	B21: From material properties to energy components and systems or vice versa?	Kas Hemmes Delft University of Technology, Netherlands
18:00 PM	Dinner Social	

Wednesday April. 22

Room C

Session: Solar Cell III Chair: Guosong Wu

13:30 -14:00 PM	C14: Dipicolinic Acid as a Strong and Stable Anchoring Group for Dye-Sensitized Solar Cell	Haining Tian Uppsala University, Sweden
14:00 -14:30 PM	C15: Growth of Nanomaterials for Highly Efficient Solar Cells of Third Generation	Marianna Barberio University of Calabria, Italy
14:30 -15:00 PM	C16: 1.7eV GaAsP nanowire and nanowire solar cells	Huiyun Liu University College London, UK
15:00 -15:30 PM	C17: Carbon Nanomaterials as Counter Electrode for High-Efficiency Dye-Sensitized Solar Cells	Yongfeng Li China University of Petroleum, China
15:30-16:00 PM	Session Break	
Session: General IV Chair: Marianna Barberio		
16:00-16:30 PM	C18: Surface Design of Magnesium Alloys: Control Galvanic Corrosion	Guosong Wu City University of Hong Kong, Hong Kong
16:30-17:00 PM	C19: Modeling of current crowding and contact resistance at interfaces between dissimilar materials	Peng Zhang University of Michigan, USA
17:00-17:30 PM	C20: Modeling of ballistic diode based on asymmetric geometry	Y. Y. Lau University of Michigan, USA
18:00 PM	Dinner Social	

Wednesday April. 22
Room D

Session: Advanced Organic Electronics II Chair: Junqiao Ding

13:30 -14:00 PM	D13: High-mobility fully-printed organic thin-film transistors	Takeo Minari National Institute for Materials Science (NIMS), Japan
14:00 -14:30 PM	D14: Ion dependent frequency filtering and learning of semiconducting polymer/electrolyte composite	Fei Zeng Tsinghua University, China
14:30 -15:00 PM	D15: Tunable Charge Transfer Effect in Alkyloxy-Functionalized Poly(spirobifluorene)s	Junqiao Ding Changchun Institute of Applied Chemistry, CAS, China
15:00 -15:30 PM	D16: Hybrid organic-inorganic systems: metal nanoparticles self-assembled in an organic wide gap semiconductor matrix	Olga Molodtsova Deutsches Elektronen-Synchrotron DESY, Germany
15:30-16:00 PM	Session Break	
Session: General V Chair: Takeo Minari		
16:00-16:30 PM	D17: Characterization of Low Transition Temperature Mixtures derived from Natural Organic Compounds	Yiin Chung Loong Universiti Teknologi Petronas, Malaysia
16:30-17:00 PM	D18: CO ₂ Adsorption onto Activated Carbon Produced from Single-Step Activation: A study of Adsorption Equilibrium Isotherm	Suzana Yusup University Teknologi Petronas, Malaysia
17:00-17:30 PM	D19: 1 Dehydrogenation and regeneration of Ammonia borane in Ionic liquids	Tessui Nakagawa University of the Ryukyus, Japan
18:00 PM	Dinner Social	

Wednesday April. 22

Room E

Session: Nanomaterials and Nanotechnology III Chair: Tingzhen Ming

14:00 -14:30 PM	E08: Architectural design of porous carbon nanocomposites for electrochemical applications	Ruey-an Doong National Tsing Hua University, Taiwan
14:30 -15:00 PM	E09: Morphology Controlled Self-assembled Nanostructures of TiO ₂ -based Materials	Xiao-Yu Yang Wuhan University of Technology, China
15:00 -15:30 PM	E10: Multi-Modal Lanthanide-Doped Core@Shell Nanostructures	Fiorenzo Vetrone University of Quebec, Canada
15:30-16:00 PM	Session Break	
Session: General VI Chair: Xiao-Yu Yang		
16:00-16:30 PM	E11: Solar-wind hybrid system: using solar chimney technology to smooth wind power	Tingzhen Ming Huazhong University of Science and Technology, China
16:30-17:00 PM	E12: Solar Fuel: CO ₂ conversion into hydrocarbon fuels	Su-II In Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea
18:00 PM	Dinner Social	

Tuesday April. 21

15:30-16:00 PM

Poster Session

P1	A simple synthesis of copper oxide on activated carbon using liquid phase plasma method for supercapacitor application	Sang-Chul Jung Suncheon National University, Korea
P2	Hydrodeoxygenation of Guaiacol over Pt Loaded Zeolitic Materials	Young-Kwon Park The University of Seoul, Korea
P3	Electronic Properties of Barium Titanate with Non-Metal Dopants and Defects	Zi-Qian Ma University of Macau, Macau, China
P4	Effect of Doping on Hydrogen Evolution Reaction of Vanadium Disulfide Monolayer	Yuanju Qu University of Macau, Macau, China
P5	Bendable solid-state supercapacitors based on films of carbon nanomaterials	Jinzhang Liu Beihang University, China