

Monday April. 20		
Room A		
8:00-9:00 AM	Breakfast	
Session: Solar Cell I Chair: Ruey-an Doong		
9:00-9:25 AM	A01: Harvesting Near-infrared Photons: Solar Cells based on Semiconductor and Plasmonic Nanostructures	Dongling Ma Centre Énergie Matériaux Télécommunications, INRS, Canada
9:25-9:50 AM	A02: Two-step photocurrent generation in quantum nanostructure solar cells	Takeshi Noda National Institute for Materials Science (NIMS), Japan
9:50-10:15 AM	A03: Growth of Nanomaterials for Highly Efficient Solar Cells of Third Generation	Marianna Barberio University of Calabria, Italy
10:15-10:40 AM	A04: High Efficiency Silicon Nanowire/Organic Hybrid Solar Cell with Surface Treatment	Rusli Nanyang Technological University, Singapore
10:40-10:55 AM	Session Break	
Session: Battery and Cell I Chair: Dongling Ma		
10:55-11:20 AM	A05: Architectural design of porous carbon nanocomposites for electrochemical applications	Ruey-an Doong National Tsing Hua University, Taiwan
11:20-11:45 AM	A06: Organic electrode materials, a new opportunity for low cost and sustainable lithium battery?	Thibaut GUTEL Commissariat à l'énergieatomique et aux énergies alternatives (CEA), France
11:45-12:10 PM	A07: Sodium secondary batteries with ionic liquid electrolytes	Changsheng Ding Kyoto University, Japan
12:10-13:10 PM	Lunch Break	

Monday April. 20

Room B

Session: Semiconductor Materials and Devices I

Chair: Xiao-Yu Yang

13:25-13:50 PM	B01: Prospective and challenges of RRAM devices	Siddheswar Maikap Chang Gung University, Taiwan
13:50 -14:15 PM	B02: Confinement effects in large bandgap oxide semiconductors	Lionel Vayssieres Xian Jiaotong University, China
14:15 -14:40 PM	B03: Crossbar memories for neuromorphic applications	Kyeong-Sik Min Kookmin University, Korea
14:40 -15:05 PM	B04: Promising features of the group-IV-based ferromagnetic semiconductor Ge _{1-x} Fe _x	Shinobu Ohya The University of Tokyo, Japan
15:05-15:20 PM	Session Break	
Session: Nanomaterials and Nanotechnology I		Chair: Siddheswar Maikap
15:20-15:45PM	B05: A Promising Path towards Precisely Tuning Chemical Activity, Selectivity, and Stability of Nano-materials	Sondan Durukanoglu Sabanci University, Turkey
15:45-16:10 PM	B06: Atomic structure and electronic properties of nanostructured few layer graphene on SiC (001)	Victor Aristov Russian Academy of Sciences, Russia
16:10-16:35 PM	B07: Morphology Controlled Self-assembled Nanostructures of TiO ₂ -based Materials	Xiao-Yu Yang Wuhan University of Technology, China
16:35-17:00 PM	B08: 1-D metal oxide nanomaterials for efficient solar water splitting	Shaohua Shen Xi'an Jiaotong University, China
17:30 PM	Dinner Social	

Monday April. 20

Room C

Session: Solar Cell II Chair: Hsiao-Wen Zan

13:25-13:50 PM	C01: Large-area polymer solar cell by blade coating and high-efficiency hybrid solar cell	Hsin-Fei Meng National Chiao Tung University, Taiwan
13:50 -14:15 PM	C02: Hybrid Solar Cells Based on Silicon Nanostructure	Meicheng Li North China Electric Power University, China
14:15 -14:40 PM	C03: Molecular Engineering of Organic Sensitizers for Efficient Dye-Sensitized Solar Cells	Gang Zhou Fudan University, China
14:40 -15:05 PM	C04: The application of UCNPs in solar cell	Suli Wu Dalian University of Technology, China
15:05-15:20 PM	Session Break	

Session: Advanced Organic Electronics I Chair: Hsin-FeiMeng

15:20-15:45 PM	C05: Organic Transistor and Sensor with Nanogrid Controlled Performance	Hsiao-Wen Zan National Chiao Tung University, Taiwan
15:45-16:10 PM	C06: High-mobility fully-printed organic thin-film transistors	Takeo Minari National Institute for Materials Science (NIMS), Japan
16:10-16:35 PM	C07: Ion dependent frequency filtering and learning of semiconducting polymer/electrolyte composite	Fei Zeng Tsinghua University, China
17:30 PM	Dinner Social	

Monday April. 20

Room D

Session: General I Chair: Jin-Gang Liu

13:25-13:50 PM	D01: Mechanisms of Molecular Machines	M.A. Van Hove Hong Kong Baptist University, Hong Kong
13:50 -14:15 PM	D02: Patterning on the Nanoscale by Inhibiting Cation Exchange via Electron-Beam Lithography	Roman Krahne IIT - Istituto Italiano di Tecnologia, Italy
14:15 -14:40 PM	D03:A Spontaneous Route to Porous Polymers	Ge Tian Wuhan University of Technology, China
14:40 -15:05 PM	D04: Carbonized Su8 for three dimensional micro supercapacitor	Gang Li Taiyuan University of Technology, China
15:05-15:20 PM	Session Break	

Session: Fuel Cell I Chair: Ge Tian

15:20-15:45 PM	D05: Bio-inspired Non-Precious-Metal Electrocatalysts for Oxygen Reduction Reaction	Jin-Gang Liu East China University of Science and Technology (ECUST), China
15:45-16:10 PM	D06: Carbon and Graphene-supported Pt-based Nanorods with Enhanced Electrocatalytic Performance for Oxygen Reduction Reaction	Kuan-Wen Wang National Central University, Taiwan
16:10-16:35 PM	D07: Development of Composite Proton Exchange Membranes for Fuel Cells Operating at Low Humidity	Sangaraju Shanmugam Daegu Gyeongbuk Institute of Science and Technology, Korea
16:35-17:00 PM	D08: Direct electron transfer of hemoglobin on ITO electrodes and their application to a biofuel cell cathode	Yusuke Ayato Shinshu University, Japan
17:30 PM	Dinner Social	

Tuesday April. 21 Room A		
8:00-9:00 AM	Breakfast	
Session: Semiconductor Materials and Devices II Chair: Tsuyoshi Tsujioka		
9:00-9:25 AM	A08: High Dielectric Constant (K) Materials for Bio-Sensor Application	Chyuan Haur Kao Chang Gung University, Taiwan
9:25-9:50 AM	A09: The integration of oxide with 2D MoS ₂ materials	Shijie Wang Institute of Materials Research and Engineering (IMRE), A*STAR, Singapore
9:50-10:15 AM	A10: Hydrogenated-diamond Logic Inverter	Jiangwei Liu National Institute for Materials Science (NIMS), Japan
10:15-10:40 AM	A11: Patterned growth of zinc oxide nanowires	Pablo Bianucci Concordia University, Canada
10:40-10:55 AM	Session Break	
Session: Advanced Organic Electronics II Chair: Chyuan Haur Kao		
10:55-11:20 AM	A12: Selective metal deposition on organic surfaces for organic electronics/photronics	Tsuyoshi Tsujioka Osaka Kyoiku University, Japan
11:20-11:45 AM	A13: Fully-printed organic integrated circuits with high mobility, exceptional uniformity and ultra-flexibility	Kenjiro Fukuda Yamagata University, Japan
11:45-12:10 PM	A14: Tunable Charge Transfer Effect in Alkyloxy-Functionalized Poly(spirobifluorene)s	Junqiao Ding Changchun Institute of Applied Chemistry, CAS, China
12:10-13:10 PM	Lunch Break	

Tuesday April. 21

Room B

Session: Hydrogen Energy Chair: Albano Cossaro

13:25-13:50 PM	B09: Theoretical study on Hydrogen Production and Storage	Jyh-Chiang Jiang National Taiwan University of Science and Technology, Taiwan
13:50 -14:15 PM	B10: Design and fabrication of TiO ₂ -based Photocatalyst for Hydrogen Production	Hui Pan University of Macau, Macau, China
14:15 -14:40 PM	B11: Novel Route to Prepare HoN Nanoparticles as Magnetic Refrigerant for Hydrogen Re-Liquefaction	Dongsoo Kim Korea Institute of Materials Science, Korea
14:40 -15:05 PM	B12: Kinetics of hydrogen adsorption and solubility of hydrogen in nanoporous palladium prepared by dealloying	Yuzeng Chen Northwestern Polytechnical University, China
15:05-15:45 PM	Poster Session	
Session: General II Chair: Jyh-Chiang Jiang		
15:45-16:10 PM	B13: The amino-carboxylic interaction as a tool for driving the formation of hetero-organic architectures at surfaces	Albano Cossaro CNR-IOM, Trieste, Italy
16:10-16:35 PM	B14: From material properties to energy components and systems or vice versa?	Kas Hemmes Delft University of Technology, Netherlands
16:35-17:00	B15: Modeling of current crowding and contact resistance at interfaces between dissimilar materials	Peng Zhang University of Michigan, USA
17:00-17:25	B16: To be determined	Victor Castano National Autonomous University of Mexico, Mexico
17:30PM	Dinner Social	

Tuesday April. 21

Room C

Session: Solar Cell III Chair: Victor Castano

13:25-13:50 PM	C08: Highly Efficient Natural Dye-Sensitized Photoelectrochemical Solar Cells Based on Cu-Doped Zinc Oxide Thin Film Electrodes.	F.I. Ezema University of Nigeria, Nigeria
13:50 -14:15 PM	C09: Scanning the photovoltaic efficiency of solar cells at the nanoscale	Andreas Ruediger INRS-EMT, Université du Québec, Canada
14:15 -14:40 PM	C10: Excitation, Diffusion and Dissociation of Excitons in Optimizing the Performance of PTB7:PCBM	Monishka Narayan Charles Darwin University, Australia
14:40 -15:05 PM	C11: Dipicolinic Acid as a Strong and Stable Anchoring Group for Dye-Sensitized Solar Cell	Haining Tian Uppsala University, Sweden
15:05-15:45 PM	Poster Session	
Session: Nanomaterials and Nanotechnology II Chair: F.I. Ezema		
15:45-16:10 PM	C12: Nanostructure of Mutiple Metal Oxides for Overall Water Splitting with High Efficiency	Liping Zhu Zhejiang University, China
16:10-16:35 PM	C13: 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
16:35-17:00	C14: Nanostructured photocatalysts prepared by atomic layer deposition (ALD)	Imre Miklos Szilagy Budapest University of Technology and Economics, Hungary
17:30	Dinner Social	

Tuesday April. 21

Room D

Session: Fuel Cell II Chair: Takafumi Kamimura

13:25-13:50 PM	D09: Novel Nanostructured Electrocatalysts for Polymer Electrolyte Membrane (PEM) Fuel Cells	Shuhui Sun Centre Énergie Matériaux Télécommunications, INRS, Canada
13:50 -14:15 PM	D10: Oxygen reduction reaction in doped graphene for fuel cell	Xiaofeng Fan Jilin University, China
14:15 -14:40 PM	D11: Recent advances in the development of nano catalysts/catalyst supports for direct ethanol fuel cells	Mohamed Mohamedi Centre Énergie Matériaux Télécommunications, INRS, Canada
14:40 -15:05 PM	D12: 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
15:05-15:45 PM	Poster Session	

Session: General III Chair: Shuhui Sun

15:45-16:10 PM	D13: Modeling of ballistic diode based on asymmetric geometry	Y. Y. Lau University of Michigan, USA
16:10-16:35 PM	D14: 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
16:35-17:00	D15: Surface Design of Magnesium Alloys: Control Galvanic Corrosion	Guosong Wu City University of Hong Kong, Hong Kong
17:00-17:25	D16: Cost effective energy efficient systems for developing countries	Dilip K. De Covenant University, Nigeria
17:30 PM	Dinner Social	

Wednesday April. 22		
Room A		
8:00-9:00 AM	Breakfast	
Session: Semiconductor Materials and Devices III Chair: Yangqiao Liu		
9:00-9:25 AM	A15: Optical Polarization Properties in Nonpolar InGaN Quantum Wells	Atsushi A. Yamaguchi Kanazawa Institute of Technology, Japan
9:25-9:50 AM	A16: Photo Sensitivity Enhancement through Oxide Voltage Drop Modulation Mechanism in MOS Tunneling Diode	Jenn-Gwo Hwu National Taiwan University, Taiwan
9:50-10:15 AM	A17: Ageing of GaN HEMT devices: which degradation indicators?	Olivier Latry Université de Rouen, France
10:15-10:40 AM	A18: Laser induced ultrafast transient current in quasi-one-dimensional nanowires	Tokuei Sako Nihon University, Japan
10:40-10:55 AM	Session Break	
Session: Solar Cell IV Chair: Atsushi A. Yamaguchi		
10:55-11:20 AM	A19: Carbon Nanotube and Graphene-based Nanocomposites for Enhanced Solar Cells	Yangqiao Liu Shanghai Institute of Ceramics, CAS, China
11:20-11:45 AM	A20: 1.7-eV GaAsP nanowire and nanowire solar cells	Huiyun Liu University College London, UK
11:45-12:10 PM	A21: Carbon Nanomaterials as Counter Electrode for High-Efficiency Dye-Sensitized Solar Cells	Yongfeng Li China University of Petroleum, China
12:10-13:10 PM	Lunch Break	

Wednesday April. 22

Room B

Session: General IV Chair: Toshihiro Okamoto

13:50 -14:15 PM	B17: Study of concentrating solar photovoltaic-thermal hybrid system	Jinjia Wei Xi'an Jiaotong University, China
14:15 -14:40 PM	B18: 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
14:40 -15:05 PM	B19: Characterization of Low Transition Temperature Mixtures derived from Natural Organic Compounds	Yiin Chung Loong Universiti Teknologi PETRONAS, Malaysia
15:05-15:20 PM	Session Break	
Session: Advanced Organic Electronics II Chair: Jinjia Wei		
15:20-15:45 PM	B20: Next-generation Bent-shaped pi-Cores for Organic Electronics	Toshihiro Okamoto The University of Tokyo, Japan
15:45-16:10 PM	B21: Spin electron transport properties in organic spin valve devices	Xianmin Zhang Northeastern University of China, China
16:10-16:35 PM	B22: Hybrid organic-inorganic systems: metal nanoparticles self-assembled in an organic wide gap semiconductor matrix	Olga Molodtsova Deutsches Elektronen-Synchrotron DESY, Germany
17:30PM	Dinner Social	

Wednesday April. 22

Room C

Session: Semiconductor Materials and Devices IV Chair: Nunzio Motta

13:25-13:50 PM	C15: CMOS process compatible GaN HV HEMT devices	HongYu Yu South University of Science and Technology of China, China
13:50 -14:15 PM	C16: Ultrashort and Low-loss Si based multiplexing devices	Xingjun Wang Peking University, China
14:15 -14:40 PM	C17: High density packaging and materials for wide band-gap power devices	Yunhui Mei Tianjin University, China
14:40 -15:05PM	C18: The photodetectors based on layered (III,Se) and their heterostructures	Kaiyou Wang Institute of Semiconductors, CAS, China
15:05-15:20 PM	Session Break	
Session: General V Chair: HongYu Yu		
15:20-15:45PM	C19: High performance all-carbon thin film supercapacitors	Nunzio Motta Queensland University of Technology, Australia
15:45-16:10PM	C20: CO ₂ Adsorption onto Activated Carbon Produced from Single-Step Activation: A study of Adsorption	Suzana Yusup University Teknologi Petronas, Malaysia
16:10-16:35PM	C21: Jahn-Teller Cu(II) ion induced mm wave energy levels in Ferroelectric crystal Cd ₂ (NH ₄) ₂ SO ₄ .6H ₂ O	J. B. Yerima Covenant University, Nigeria
17:30PM	Dinner Social	

Wednesday April. 22**Room D****Session: Battery and Cell II Chair: Olukunle Olawole**

13:25-13:50 PM	D17: Synchrotron Radiation Nano and operando spectroscopy for Li ion batteries	Masaharu Oshima The University of Tokyo, Japan
13:50 -14:15 PM	D18: Cost Effective Lithium-Ion Batteries for Automobile Applications	Zonghai Chen Argonne National Laboratory, USA
14:15 -14:40 PM	D19: Highly Cyclable Nanowire Anodes for Li-ion and Li-S Batteries	Walter M. Weber NaMLab GmbH, Germany
14:40 -15:05PM	D20: Multi-dimensional nanocarbons: their synthesis, unique nanostructures and application to supercapacitor	Joon Ho Bae Gachon University, Korea
15:05-15:20 PM	Session Break	
Session: General VI Chair: Masaharu Oshima		
15:20-15:45PM	D21: Theoretical study of a large scale solar energy storage system design	Olukunle Olawole Covenant University, Nigeria
15:45-16:10PM	D22: Solar-wind hybrid system: using solar chimney technology to smooth wind power	Tingzhen Ming Huazhong University of Science and Technology, China
16:10-16:35PM	D23: Single-molecule study on plasmonic structures: the fundamental for energy harvesting	Gang Lu Katholieke Universiteit Leuven, Belgium
16:35-17:00 PM	D24: 1 Dehydrogenation and regeneration of Ammonia borane in Ionic liquids	Tessui Nakagawa University of the Ryukyus, Japan
17:30PM	Dinner Social	

Tuesday April. 21

15:05-15:45 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	Magnetic transition metal phthalocyanine thin films: morphology, ordering, electronic structure and tuning of electronic properties via alkali metal doping	Olga Molodtsova Deutsches Elektronen-Synchrotron DESY, Germany
P6	Bendable solid-state supercapacitors based on films of carbon nanomaterials	Jinzhong Liu Beihang University, China