Program for EMN Orlando Meeting 2017

Monday December 4

14:00-18:00	**Onsite registration & Sign up**

Tuesday December 5

Room A

08:20-08:30	**Opening Ceremony**	
Session: Polymer Ⅰ Chair: Jacob Eapen		
08:30-08:55	A1: The Potential of Electron Beam Irradiation for Directed Functionalization of Polymer Membranes	**Agnes Schulze** Leibniz Institute of Surface Modification, Germany P1
08:55-09:20	A2: Formation of Colloidal Chain Using Hydrogen-bonding Interaction	**Hideto Minami** Kobe University, Japan P1
09:20-09:45	A3: High-performance polymer hydrogel strengthened by cement-released nanoparticles at low-content	**Guoxing SUN** University of Macau, Macao P2
09:45-10:10	A4: Polymer materials for highly functional optical waveguide devices	**Takaaki ISHIGURE** Keio University, Japan P3
10:10-10:25	**Session Break**	
Session: New Materials for Fuel Cell Technology and Li-ion Battery Ⅰ Chair: Ram Gupta		
10:25-10:50	A5: Can ion jamming drive superionicity?	**Jacob Eapen** North Carolina State University, USA P4
10:50-11:20	A6: Potential tuning in redox active organic materials – Toward an all-organic Li-ion battery	**Franck DOLHEM** Laboratoire de Glycochimie, des Antimicrobiens et des Agroressources LG2A UMR CNRS, France P5
11:20-11:45	A7: Architecting high performance materials for Li-ion supercapacitors	**Ram Gupta** Pittsburg State University, USA P6
12:00	**Lunch Break**	
Session: Perovskite solar cell Ⅰ Chair: Marco Rahm		

14:00-14:25	A8: Highly stable low-dimensional perovskite solar cells processed from solutions at low temperature	**Ricardo Izquierdo** Université du Québec, Canada P7
14:25-14:50	A9: Growth of Methylammonium Lead Halide Perovskites for Solar Cells	**Muge Acik** Argonne National Laboratory, USA P8
14:50-15:15	A10: Organic and Perovskite-based Photovoltaics on Flexible substrates: Fabrication and Encapsulation	**Hasitha Weerasinghe** CSIRO, Australia P9
15:15-15:30	**Session Break**	
Session: General Ⅰ Chair: Muge Acik		
15:30-15:55	A11: Molecular Dynamics Simulation for Artificial Water Channel Design	**Moon Ki Kim** Sungkyunkwan University (SKKU), Korea P10
15:55-16:20	A12: Grating modulators for terahertz coded aperture imaging	**Marco Rahm** University of Kaiserslautern, Germany P10
16:20-16:45	A13: In Situ Synthesis of Metal/Polymer Nanocomposites and Control of Particle Size and Thermal Properties	**Kensuke Akamatsu** Konan University, Japan P11
16:45-17:10	A14: Interface modification and mechanical enhancement of cement-based composite	**Rui LIANG** The Hong Kong University of Science and Technology, Hong Kong P11
17:10-17:35	A15: Application of metamaterial nano-engineering for increasing the superconducting critical temperature	**Mike Osofsky** Naval Research Laboratory, USA P12
18:00	**Dinner Social**	

Wednesday December 6 Room A		
Session: Quantum Ⅰ Chair: Yasuo Tomita		
08:00-08:30	A16: Ultrafast demagnetization after femtosecond laser pulses: A complex interaction of light with quantum matter	**Manfred Fähnle (Keynote)** Max Planck Institute for Intelligent Systems, Germany P13
08:30-08:55	A17: Quantum Monte Carlo studies of Mott insulators	**Olle Heinonen** Argonne National Laboratory, USA P13
08:55-09:20	A18: Quantum Transport Studies in Dirac Semimetal Cd3As2	**Wei Pan** Sandia National Labs, USA P14
09:20-09:35	**Session Break**	
Session: Functional Hybrid Nanomaterials, Nanocomposites and their Applications Ⅰ Chair: Wei Pan		
09:35-10:00	A19: Porous Coordination Polymer Nano/Micromaterials and Their Adsorption and Sensing Properties	**Wei-Yin Sun** Nanjing University, China P15
10:00-10:25	A20: How does a catalyst work?	**Katharina Al-Shamery （Mohrhusen Lars）** Carl von Ossietzky University Oldenburg, Germany P16
10:25-10:50	A21: Photopolymerizable Nanocomposite Materials for Light and Quantum Beam Control and Processing	**Yasuo Tomita** University of Electro-Communications, Japan P16
10:50-11:15	A22: Engineering oxide-based hybrid nanomaterials for solar fuels	**Yan-Gu Lin** National Synchrotron Radiation Research Center, Taiwan P17
11:15-11:40	A23: Self-healing polymers: extending their lifetime	**Marianella Hernández Santana** Institute of Polymer Science and Technology (ICTP-CSIC), Spain P18
12:00	**Lunch Break**	

Session: Catalysis Ⅰ Chair: Piotr Cyganik		
13:30-13:55	A24: Microkinetic Rate Theory: Generalization, Application to Catalysis, Prospects as Basis for Continuum Rate Theory	**Michael Frederick Francis** Los Alamos National Laboratories (LANL), USA P18
13:55-14:20	A25: Control of Catalytic Activity through Surface Interactions between Metal Nanoparticle and Metal-Organic Framework	**Masaaki Sadakiyo** Kyushu University, Japan P19
14:20-14:45	A26: Combining Experiment and Theory to Design Electrochemical CO2 Conversion Nanocatalysts	**Douglas. R Kauffman** National Energy Technology Laboratory, United States Department of Energy, USA P20
14:45-15:10	A27: Poly-Amine Modified Copper Foam Electrodes for Enhanced Electrochemical Reduction of Carbon Dioxide	**Enrico Andreoli** Swansea University, UK P21
15:10-15:25	**Session Break**	
Session: Molecular Electronics Ⅰ Chair: Douglas. R Kauffman		
15:25-15:50	A28: Computational Exploration and Design of Nanoscale Sensors and Devices	**Jerry Bernholc** North Carolina State University, USA P21
15:50-16:15	A29: Toner-type Printed Electronics	**Masatoshi Sakai** Chiba University, Japan P22
16:15-16:40	A30: Self-assembled monolayers – correlating binding strength, thermal stability and charge transfer properties	**Piotr Cyganik** Jagiellonian University, Poland P23
16:40-17:05	A31: Series-Sequential Multifunction Dye-Sensitized Solar Cells (SSM-DSC): High Voltages from Photon-Management Strategies	**Jared Delcamp** University of Mississippi, USA P23
17:05-17:30	A32: The Linear Response Function of Conceptual Density Functional Theory: from Mathematical Properties to Applications in Single Molecule Electronics	**Paul Geerlings** Vrije Universiteit Brussel, Belgium P24

17:30-17:55	A33: Molecular Interface Engineering for Future Computing Technologies	**Christina A. Hacker** National Institute of Standards and Technology, USA P25
18:00	**Dinner Social**	

Thursday December 7 Room A		
Session: 2D Materials/Nanomaterials Ⅰ		**Chair: Věra Cimrová**
08:00-08:25	A34: Electrodeposition from supercritical fluids into mesoporous materials to produce few nanometer nanowires	**David Smith** University of Southampton, United Kingdom P26
08:25-08:50	A35: Complex Nanostructured Plasmonic Materials for Record Efficient Hot-Carriers Based Photocatalysis	**Yi Tian** King Abdullah University of Science and Technology (KAUST), Kingdom of Saudi Arabia P27
08:50-09:15	A36: Photon Management for >20x Quantum Efficiency Enhancement in 2D Infrared Photonic Devices	**Jifeng Liu** Dartmouth College, USA P28
09:15-09:40	A37: Chemistry of carbon nanotubes and graphene, a step towards nanocarbon processing	**Brigitte Vigolo-Greffier** Faculté des Sciences et Technologies, France P29
09:40-10:05	A38: Scanning Spectroscopy and the 2D world: Investigating electronic, structural and chemical variation in-situ and simultaneously	**Andrew Walter** Brookhaven National Laboratory, USA P29
10:05-10:30	A39: Extended Ordered Domains of Polymers on Surfaces by Reversible Reaction Steps	**Giorgio Contini** Istituto di Struttura della Materia, CNR, Roma, Italy P30
10:30-10:45	**Session Break**	
Session: Polymer Ⅱ		**Chair: Jifeng Liu**
10:45-11:10	A40: Resonance Energy Transfer from Quinolinone Modified Polystyrene-block-poly(styrene-alt-maleic anhydride) Copolymer to Terbium(III) Metal Ions	**Drahomír Výprachtický** Institute of Macromolecular Chemistry, The Czech Academy of Sciences, Czech Republic P31
11:10-11:35	A41: Microscopic Properties of Charge Carriers in Thin-Film Transistors of Semicrystalline Conducting Polymers and Small Molecules: An Electron Spin	**Hisaaki Tanaka** Nagoya University, Japan P32

	Resonance Study	
11:35-12:00	A42: Donor-acceptor copolymer series for photonics	**Věra Cimrová** Institute of Macromolecular Chemistry, Academy of Sciences of the Czech Republic, Czech Republic P31
12:00	**Lunch Break**	
Session: General Ⅱ Chair: Weishi Li		
14:00-14:25	A43: Preparation of Fluoroalkyl End-Capped Oligomeric Composites Possessing Superoleophilic/Superhydrophobic and Superoleophobic/Superhydrophilic Characteristics – Application to the Oil/Water Separation	**Hideo Sawada** Hirosaki University, Japan P34
14:25-14:50	A44: Colloidal Dispersions of Core-Shell Nanoparticles as Precursors to Porous Thin Film Coatings in PV Applications	**Damien Reardon** DSM Materials Science Centre, USA P35
14:50-15:15	A45: Particularities of the synthesis of (Bi0.5Na0.5) TiO3 at nanometric scale and properties of ceramics	**Ciceron Berbecaru** University of Bucharest, Romania P36
15:15-15:40	A46: Direct Bonding of Magneto-optical Materials for Optical Nonreciprocal Devices	**Tetsuya Mizumoto** Tokyo Institute of Technology, Japan P37
15:40-16:05	A47: Smart Ceramics for Waste Remediation	**Ajay Kumar Mishra** University of South Africa, Africa P38
16:05-16:20	**Session Break**	
Session: General Ⅲ Chair: Damien Reardon		
16:20-16:45	A48: Intelligent Acoustic Spectrometer for On-line Real-time Characterisation of Nanoparticle Size Distribution and Process Modelling in processing of nanomaterials in slurries	**Xue Wang** University of Leeds, UK P38
16:45-17:10	A49: Poly(rod-coil) Polymeric Semiconductors: a Material Concept between Conjugated Polymers and	**Weishi Li** Shanghai Institute of Organic Chemistry, CAS, China P

	Small Molecules	
17:10-17:35	A50: Metal MRI	**Srinivasan Chandrashekar** Polymers for advanced energy sustainability, College of Engineering, USA P39
17:35-18:00	A51: Synthesis and manufacturing of drug-eluting hybrid scaffolds for dental applications by 3D printing process	**Elnaz Tamjid** Tarbiat Modares University, Iran P40
18:00	**Dinner Social**	

Wednesday December 5 **09:45-10:20**	
Poster Session	
P1: Solution-Processed Indium Zinc Oxide Thin-Film Transistors by Different Spin Coating Speed	**Sung-Jin Kim (Zi-Tong Ao)** Chungbuk National University, Korea P41
P2: Efficient Interface Treatment using Polymer Nanolayer for High Performance Inverted Polymer Solar Cells	**Sungho Woo** DGIST, South Korea P42

Friday December 8
One day Academic exchange & Excursion