Program for EMN Summer Meeting 2017		
15:00-17:30	**Wednesday May 3** **Onsite registration & Sign up**	
Thursday May 4 **Room A**		
08:30-08:35	Opening Ceremony	
Session: Keynote Chair: Ivo Stachiv		
08:35-09:10	A01: Memristors -- A Post Moore's Law Era Intelligent Nano Device	**Leon Ong Chua** EECS at UC Berkeley, USA
09:10-09:45	A02: Hyper-transmitters and perfect absorbers, based on metamaterials, for electromagnetic waves	**YoungPak Lee** Hanyang University, Korea
09:45-10:20	A03: Similarities between density maps of molecular excitons for understanding singlet fission	**Luis A. Montero-Cabrera** Universidad de La Habana, Cuba
10:20-10:55	A04: Zirconium Phosphate, an all-purpose, layered Nano Material	**Abraham Clearfield** Texas A&M University, USA
10:55-11:15	Session Break	
Session: Advanced Nanomaterials and Devices in Nanomedicine and Nanobiotechnology & 2D Materials and Heterostructures Chair: Luis A. Montero-Cabrera		
11:15-11:40	A05: Using Fluorescent Nanoparticles in Labeling Sperm and Cancer Stem Cell	**Jim-Min Fang** National Taiwan University, Taiwan
11:40-12:05	A06: Correlation between structural properties and encapsulation efficiency in polymersomes as nanocarriers	**Albena Lederer** Leibniz-Institut für Polymerforschung Dresden e.V., Germany
12:05-12:30	A07: Continuum model of phonons in 2D materials	**Lok C. Lew Yan Voon** University of West Georgia, USA
12:30-12:55	A08: Shall we resort to an insulator-2D metal transition to implement bio-inspired electronics?	**Isao H. Inoue** National Institute of Advanced Industrial Science and Technology, Japan
13:00	Lunch Break	

Thursday May 4 Room A		
Session: Keynote: Advanced Composites I		**Chair: Di Zhang, Qiubao Ouyang**
14:25 -14:55	A09: Interface engineering for charge carrier behavior modulation in ZnO photoelectrochemical water splitting: from understanding to designing	**Yue Zhang** University of Science & Technology Beijing, China
14:55 -15:25	A10: Fabrication of high-performance aluminum matrix nanocomposites via friction stir processing	**Zongyi Ma** Institute of Metal Research, CAS, China
15:25-15:55	A11: The in-situ synthesis of 3D network nano carbon in metals and their applications in structural and functional materials	**Naiqin Zhao** Tianjin University,China
15:55-16:15	Session Break	
Session: Advanced Composites II		**Chair: Yue Zhang, Bo-Lyu Xiao**
16:15-16:40	A12: High frequency operating nanomechanical resonators with significantly changeable mechanical properties and tunable resonant frequencies utilizing phase transforming NiTi films	**Ivo Stachiv** Czech Academy of Sciences, Czech Republic; Harbin Institute of Technology, Shenzhen Graduate School, China
16:40-17:05	A13: TBA	**Qiubao Ouyang** Shanghai Jiao Tong University, China
17:05-17:30	A14: 3D network reinforced nanocomposites	**Jianli Kang** Tianjin Polytechnic University, China
17:30-17:55	A15: Fabrication of Optical Glass-Based Composites from Mesoporous Powder by SPS	**Lianjun Wang** Donghua University, China
18:10	Dinner Social	

Friday May 5 Room B		
Session: Spintronics and Photonics Chair: Tokuei Sako		
08:35-09:00	B01: Resistance of the edge mode of a 2D topological insulator	**Peter Stano** RIKEN, Japan
09:00-09:25	B02: Reconfigurable Magnetic Logic Combined with Non-volatile Memory Writing	**Xiaozhong Zhang** Tsinghua University, China
09:25-09:50	B03: Alternating superlattice textures in driven nanomagnets	**David Laroze** Universidad de Tarapacá, Chile
09:50-10:15	B04: Topological edge modes in broken inversion 3D photonic crystals	**Shuhei Oono** University of Tsukuba, Japan
10:15-10:40	B05: Development of a real-time spectroscopic complex using high-energy electron scattering for studying photochemical reaction dynamics	**Masahiko Takahashi** Tohoku University, Japan
10:40 -11:00	Session Break	
Session: General I Chair: Peter Stano		
11:00-11:25	B06: Spin-orbit torques in noncollinear magnets from first-principles density-functional theory	**Frank Freimuth** Forschungszentrum Juelich GmbH, Germany
11:25-11:50	B07: Structural Effect on the Piezoelectric Properties of Lead- free Piezoelectrics for Energy Harvest Devices	**Won-Jeong KIM** Changwon National University, Korea
11:50-12:15	B08: Is antiferroelectricity a physical property ?	**Pierre-Eymeric Janolin** CNRS-École Centrale Paris, France
12:15-12:40	B09: Ge/Si(001) quantum dot arrays: effect of nanoscale defects of the Si(001) buffer, room temperature Ge deposition and Ge film annealing on structural properties of quantum dot ensembles	**Larisa V. Arapkina** Prokhorov General Physics Institute of RAS, Moscow, Russia
13:00	Lunch Break	

Friday May 5 Room B		
Session: Light-matter interaction		**Chair: László Forró**
14:25 -14:50	B10: Light scattering strategies for the investigation of time-evolving heterogeneous supramolecular self-assemblies	**Eric Buhler** University Paris Diderot, France
14:50 -15:15	B11: Radiation reaction in the coupled Maxwell-Schrödinger simulation	**Tokuei Sako** Nihon University, Japan
15:15-15:40	B12: Soliton creation during extreme events in the noiselike pulsing regime of a fiber laser	**Olivier Pottiez** Centro de Investigaciones en Óptica (CIO), Mexico
15:40-16:20	Poster Session	
Session: Engineering and Nanotechnology for Solar, Thermal and Other Energy Applications Chair: Eric Buhler		
16:20-16:45	B13: From synthesis to applications of photovoltaic perovskite nanowires	**László Forró** Ecole Polytechnique Fédérale de Lausanne, Switzerland
16:45-17:10	B14: III-V heterogeneous integration on Si at the nanoscale : toward multijunction solar cell on Si	**Charles Renard** Université Paris-Sud, France
17:10-17:35	B15: Electrochemical performance of an amorphous Co-base alloy as negative electrode for Nickel-Metal hydride (Ni-MH) batteries	**John Henao** Universidad Nacional Autonoma de Mexico, Mexico
17:35-18:00	B16: Binder-free phenyl sulfonated graphene/sulfur electrodes with excellent cyclability for lithium sulfur batteries	**Aishui Yu** Fudan University, China
18:10	Dinner Social	

Friday May 5 Room C		
Session: Advanced Composites III Chair: Zongyi Ma, Cheng Zhang		
08:35-09:00	C01: Morphology-genetic Materials Inspired from Nature Species	**Di Zhang** Shanghai Jiao Tong University, China
09:00-09:25	C02: Flake Powder Metallurgy as A bioinspired and Smart Processing of Aluminum Nanocomposites	**Zhiqiang Li** Shanghai Jiao Tong University, China
09:25-09:50	C03: Novel Hierarchical Energy Conversion Nanomaterials: Synthesis, Structure and Application	**Chunzhong Li** East China University of Science and Technology, China
09:50-10:15	C04: Microstructure and Properties of Micron/Nano Particulates Co-reinforced Cast Aluminum Based Composites	**Jianping Li** Xi'an Technological University, China
10:15-10:40	C05: Advanced Composite Materials in High Speed Railways Equipment	**Xiaohui Zhang** CRRC Institute, China
10:40 -11:00	Session Break	
Session: Advanced Composites IV Chair: Naiqin Zhao, Yihua Zhu		
11:00-11:25	C06: Develop nano reinforced aluminum matrix composites to meet structural application	**Bo-Lyu Xiao** Institute of Metal Research, CAS, China
11:25-11:50	C07: Bioinspired optical structure for enhancement infrared absorption	**Wang Zhang** Shanghai Jiao Tong University, China
11:50-12:15	C08: Effects of welding parameters on the multiscale residual stresses in friction stir welded metal matrix composites	**XingXing Zhang** Institute of Metal Research, Chinese Academy of Sciences, China
12:15-12:40	C09: Architecture and Interface Design for High Conductive Graphene/Copper Composites	**Ding-Bang Xiong** Shanghai Jiao Tong University, China
12:40-13:05	C10: Structural Modeling and Mechanical Behavior of Nanocarbon Reinforced Aluminum Matrix Composites Inspired by Nacre	**Yishi Su** Shanghai Jiao Tong University, China
13:05	Lunch Break	

Friday May 5 Room C		
Session: Advanced Composites V Chair: Zhiqiang Li, Dingbang Xiong		
14:25 -14:50	C11: Conjugated polymers as cathode materials for lithum-ion batteries	**Cheng Zhang** Zhejiang University of Technology, China
14:50 -15:15	C12: Bioinspired Fabrication of Carbon Nanotube/Aluminum Alloy Composites by Flake Powder Metallurgy	**Zhanqiu Tan** Shanghai Jiao Tong University, China
15:15-15:40	C13: The research on composite wear-resistance materials for rail transit vehicle	**Hongbin Zhu** CRRC Institute, China
15:40-16:20	Poster Session	
Session: Advanced Composites VI Chair: Jianli Kang, Xiaohui Zhang		
16:20-16:45	C15: Fabrication of the silicon carbide nanofibers and its surface modification with ultrathin tin dioxide nanosheets	**Bing Wang** National University of Defense Technology, China
16:45-17:10	C16: Bioinspired highly reversible SnO2-C lithium ion battery anode material	**Yao Li** Shanghai Jiao Tong University, China
17:10-17:35	C17: Carbon nanotube distribution, interface reaction controlling and strengthening of Carbon nanotube reinforced Al-5Mg composites	**Zhenyu Liu** Institute of Metal Research, Chinese Academy of Sciences, China
17:35-18:00	C18: The formation mechanisms of TiB whisker and TiB_2 particle in copper matrix composites	**Yihui Jiang** Xi'an University of Technology, China
18:00-18:25	TBA	**Yubai Pan** Shanghai Normal University, China
18:30	Dinner Social	

Saturday May 6 Room A		
Session: Frontiers of Nanomaterials and Devices I Chair: Milan Sykora		
09:00-09:25	A16: Computational Materials Design for molecular bridge devices	**Hiroshi Nakanishi** National Institute of Technology, Akashi College, Japan
09:25-09:50	A17: Self-organization of Nanocrystals with a Complex Shape: from the Synthesis to their Integration with Polymers	**Milena P. Arciniegas** Istituto Italiano di Tecnologia, Italy
09:50-10:15	A18: Supramolecular coupled light harvesting and charge separation systems	**Joe Otsuki** Nihon University, Japan
10:15-10:40	A19: Synthesis and properties f polytype heterostructured Si and Ge nanowires	**Laetitia Vincent** Universit éParis Sud, France
10:40 -11:00	Session Break	
Session: Frontiers of Nanomaterials and Devices II Chair: Hiroshi Nakanishi		
11:00-11:25	A20: A theoretical study of hydrogen-related materials	**Taku Onishi** Mie University, Japan
11:25-11:50	A21: Controlling the Generation and Fate of Photons in Semiconductor Nanocrystals	**Jennifer A. Hollingsworth** Los Alamos National Laboratory, USA
11:50-12:15	A22: Surface-assisted Synthesis of Nanographenes, their Electronic Properties and Potential in Applications	**Milan Sykora** Los Alamos National Laboratory, USA
12:15-12:40	A23: What does graphene mean graphene for energy storage	**Quan-Hong Yang** Tianjin University, China
13:00	Lunch Break	

Saturday May 6 Room A		
Session: Magnetic and Superconductor Materials		**Chair: Jennifer A. Hollingsworth**
14:25 -14:50	A24: Low-dimensional Heisenberg antiferromagnets and spintronics	**Mohamed Azzouz** Laurentian University, Canada
14:50 -15:15	A25: Electronic, magnetic and superconducting properties of boron based nanostructures	**Jun Ni** Tsinghua University, China
15:15-15:40	A26: Valence state reflectometry of complex oxide heterointerfaces	**Jorge Enrique Hamann Borrero** Leibniz Institute for Solid State and Materials Research Dresden, Germany
15:40-16:05	A27: Magnetic materials design from first-principles DFT studies	**Attila Szilva** Uppsala University, Sweden
16:05-16:25	**Session Break**	
18:00	Dinner Social	
Sunday May 7	**One-Day Excursion: Nature, Culture, and Collaboration**	

Friday May 5 15:40-16:20		
Poster Session		
P01	Novel Photo-Sintering Method of Silver Nanoparticle Inks for Flexible Electronics	**Jaehyeong Lee** Sungkyunkwan University, Korea
P02	Fabrication of polyborosilazane-derived SiBNC ceramic: effect of the Si/B atom ratios	**Hao Wang** National University of Defense and Technology, P. R. China
P03	Free-standing Ni-Mo/Cu nanowires as Non-noble Bifunctional Electrocatalysts for Overall Water Splitting	**Yihua Zhu** East China University of Science and Technology, China
P04	The Electrochemical Property of Graphene/LiFePO4 in the Presence of Interfacial Lithium Storage	**Enzuo Liu** Tianjin University, China
P05	Facile synthesis of FeCo@NC core-shell nanospheres supported on graphene as an efficient bifunctional oxygen electrocatalyst	**Jun Wang** National University of Defense Technology, China
P06	Hierarchical SiC nanofibers derived from polycarbosilane by electrospinning	**Yingde Wang** National University of Defense Technology, China
P08	TBA	**Shuhua Liang** Xi'an University of Technology, China
P10	Flexible All-solid-state Supercapacitor Based on Three-dimensional Porous Graphene/Titanium-containing copolymer composite porous film	**Yaokang Lyu** Zhejiang University of Technology, China
P11	TBA	**Peng Xiao** Xi'an University of Technology, China
P12	Relation between Ferroelectric and Piezoelectric Hysteresis Loops	**Tae Kwon Song** Changwon National University, Korea