

<b>Program for EMN Croatia Meeting 2016</b>		
14:00-18:00	<b>Tuesday May 3</b> <b>Onsite registration &amp; Sign up</b>	
<b>Wednesday May 4</b> <b>Room A</b>		
08:00-08:10	Opening Ceremony	
<b>Session: Keynote talk    Chair: Xiao Hu</b>		
08:10-08:40	A01: Frontier of Quantum Molecular Spintronics Based on Single-Molecule Magnets: Toward Green IT Innovation	<b>Masahiro Yamashita</b> Tohoku University, Japan
08:40-09:10	A02: Broadband and perfect metamaterial absorbers for electromagnetic wave, based on very ordinary materials	<b>YoungPak Lee</b> Hanyang University, Korea
09:10-09:40	A03: Polar Metals by Geometric Design	<b>Chang-Beom Eom</b> University of Wisconsin-Madison, USA
09:40-10:10	A04: Advances in the field of shape memory polymers	<b>Abbas Tcharkhtchi</b> PIMM Laboratory, France
10:10-10:25	Session Break	
<b>Session: Novel Superconducting and Quantum Oscillation Phenomena in Superconductor Nanostructures    Chair: YoungPak Lee</b>		
10:25-10:50	A05: Detection and Manipulation of Majorana Bound States in Topological Superconductors	<b>Xiao Hu</b> National Institute for Materials Science, Japan
10:50-11:15	A06: Quantum fluctuations in superconducting nanostructures	<b>Konstantin Arutyunov</b> National Research University High School of Economics, Russia
11:15-11:40	A07: Anisotropy and phase separation in iron-based superconductors	<b>Roman Puzniak</b> Institute of Physics of the Polish Academy of Sciences, Poland
11:40-12:05	A08: Quantum Oscillations in Topological Insulator Microwires Contacted with Superconducting Electrodes	<b>Leonid Konopko</b> Ghitu Institute of Electronic Engineering and Nanotechnologies, Moldova
12:05-13:30	Lunch Break	

**Wednesday May 4****Room A****Session: Spintronics and Photonics I****Chair: Teruo Ono**

14:00-14:25	A09: Spin Current, its physics and application	<b>Sadamichi Maekawa</b> Japan Atomic Energy Agency, Japan
14:25 -14:50	A10: Time dependent transient current dynamics in one-dimensional nanostructures fabricated with multi-terminals	<b>Tokuei Sako</b> Nihon University, Japan
14:50 -15:15	A11: Pure spin currents manipulation in lateral nanostructures	<b>Gilles Zahnd</b> CEA Grenoble, France
15:15-15:40	A12: Tailoring perpendicular magnetic anisotropy of Co layer in polycrystalline Au/Co/NiO system with exchange bias	<b>Piotr Kuswik</b> Institute of Molecular Physics, Polish Academy of Sciences, Poland
15:40-15:55	Session Break	
<b>Session: Spin Orbitronics I</b>		
<b>Chair: Sadamichi Maekawa</b>		
15:55-16:20	A13: Orbital Magnetism on Dzyaloshinskii-Moriya Interaction	<b>Teruo Ono</b> Kyoto University, Japan
16:20-16:45	A14: Relativistic motion of antiferromagnetic domain wall driven by spin-orbit torque	<b>Kyung-Jin Lee</b> Korea University, Korea
16:45-17:10	A15: Imaging and tailoring chiral magnetism	<b>Andreas Schmid</b> Lawrence Berkeley National Laboratory, USA
17:10-17:35	A16: Room-temperature chiral magnetic skyrmions in ultrathin magnetic nanostructures	<b>Olivier Boulle</b> SPINTEC, Univ. Grenoble Alpes, France
17:35-18:00	A17: Magnetic x-ray spectromicroscopy of the static and dynamic behavior of novel spin textures	<b>Peter Fischer</b> Lawrence Berkeley National Laboratory, USA
18:00	Dinner Social	

**Wednesday May 4****Room B****Session: Engineering and Nanotechnology for Solar, Thermal and Other Energy Applications I****Chair: Eunyoung Kim**

14:00-14:25	B01: The role of defects in Nb <sub>3</sub> O <sub>7</sub> (OH) and TiO <sub>2</sub> nanoarrays	<b>Christina Scheu</b> Max-Planck-Institut für Eisenforschung GmbH, Germany
14:25 -14:50	B02: Free standing nickel nanowire structures for super capacitor applications	<b>Mustafa Ürgen</b> İstanbul Teknik Üniversitesi, Turkey
14:50 -15:15	B03: Nano-technology for electrochemical energy storage (batteries & supercapacitors)	<b>Doron Aurbach</b> Bar Ilan University, Israel
15:15-15:40	B04: Using nanoscale confinement to manipulate microstructure of organic semiconductors	<b>Jaime Martin Perez</b> Imperial College London, UK
15:40-15:55	Session Break	
<b>Session: Engineering and Nanotechnology for Solar, Thermal and Other Energy Applications II</b>		
<b>Chair: Ana Vera Machado</b>		
15:55-16:20	B07: Utilizing light energy via artificial photosystem I CdTe hybrid systems on graphene electrodes - Applications in power generation and synthesis of natural products	<b>Sven C. Feifel</b> University of Applied Sciences Wildau, Germany
16:20-16:45	B08: Inorganic Surface Ligands for Quantum Dot Solar Cells	<b>Sungjee Kim</b> Pohang University of Science and Technology, Korea
16:45-17:10	B09: Solution processed p- and n-type thin film transistors employing metal oxide-based semiconducting channels	<b>George Adamopoulos</b> Lancaster University, UK
17:10-17:35		
17:35-18:00		
18:00	Dinner Social	

**Wednesday May 4**

**Room C**

**Session: Advanced Nanomaterials and Devices in Nanomedicine and Nanobiotechnology I**

**Chair: Fabien Silly**

13:35-14:00	C01: Self-assembled titanium nanostructures in nanomedicine	<b>Aleš Iglíč</b> University of Ljubljana, Slovenia
14:00-14:25	C02: Magnetic relaxation of intercellular magnetic nanoparticles for biomedical applications	<b>Yasushi Takemura</b> Yokohama National University, Japan
14:25 -14:50	C03: On irradiation dynamics in materials	<b>Eric Suraud</b> Université Paul Sabatier, France
14:50 -15:15	C04: Adaptive Nanoparticles: Inhibiting Pain Transmission	<b>Michael Whittaker</b> Monash University, Australia
15:15-15:40	C05: An ultrasonically assisted sol-gel method for production of antibacterial coatings on textiles	<b>Anna Abramova</b> Institute of general and inorganic chemistry of the Russian Academy of Sciences, Russia
15:40-15:55	Session Break	
<b>Session: Graphene and Carbon-based Nanomaterials I Chair: Aleš Iglíč</b>		
15:55-16:20	C06: Mechanisms of the perpendicular magnetic anisotropy of cobalt-graphene heterostructures	<b>Mairbek Chshiev</b> Joseph Fourier University, France
16:20-16:45	C07: Strategies to engineer self-assembled porous organic and hybrid nanoarchitectures on surfaces	<b>Fabien Silly</b> CEA Saclay, France
16:45-17:10	C08: Organic thin film growth on graphene and other 2D materials	<b>Markus Kratzer</b> University of Leoben, Austria
17:10-17:35	C09: Cooperative Mechanisms in Large-Area Single-Crystal Graphene Growth	<b>Gyula Eres</b> Oak Ridge National Laboratory, USA
17:35-18:00	B38: Characteristics of thin-film and single crystal field-effect transistors based on phenacene molecules	<b>Ritsuko Eguchi</b> Okayama University, Japan
18:00	Dinner Social	

**Wednesday May 4****Room D****Session: Magnetic and Superconductor Materials I Chair: Roman Puzniak**

13:35-14:00	D01: Can Rotating Antiferromagnetism Theory be the Theory for the High-TC cuprates?	<b>Mohamed Azzouz</b> Laurentian University, Canada
14:00-14:25	D02: In situ angle-resolved photoemission study on manganite thin films	<b>Koji Horiba</b> High Energy Accelerator Research Organization (KEK), Japan
14:25 -14:50	D03: Resonant X-ray Reflectivity as a tool to study emergent phenomena at interfaces of complex matter	<b>Jorge Enrique Hamann Borrero</b> Leibniz Institute for Solid State and Materials Research Dresden, Germany
14:50 -15:15	D04: Fabrication of novel superconductor materials by electron-doping of 2D-layered inorganic and organic materials	<b>Yoshihiro Kubozono</b> Okayama University, Japan
15:15-15:40	D05: Molecular magnetic materials with flexible coordination frameworks	<b>Beata Nowicka</b> Jagiellonian University, Poland
15:40-15:55	Session Break	

**Session: Magnetic and Superconductor Materials II Chair: Mohamed Azzouz**

15:55-16:20	D06: Exploring the magnetic properties of ferrite nanoparticles for the development of rare-earth-free permanent magnet	<b>Alberto López-Ortega</b> The nanoGUNE Cooperative Research Center, Spain
16:20-16:45	D07: Magnetic Properties of Hybrid Nanoparticles Stemming from an Oxide Interface	<b>Verónica Salgueiriño</b> Universidade de Vigo, Spain
16:45-17:10	D08: Femtosecond dynamics in iron-based pnictides and charge-density wave systems: new observations	<b>Ljupka Stojcevska Malbasic</b> Jozef Stefan Institute, Slovenia
17:10-17:35	D09: Electronic, magnetic, and superconducting properties of boron based nanostructures	<b>Jun Ni</b> Tsinghua University, China
17:35-18:00	D10: Progress in Fe pnictide thin film fabrication	<b>Silvia Haindl</b> University of Tuebingen, Germany
18:00	Dinner Social	

<b>Thursday May 5 Room B</b>		
	<b>Session: Keynote talk</b>	<b>Chair: Jaroslav Fabian</b>
08:00-08:30	B10: Novel electronic and optical phenomena in atomically thin two-dimensional materials	<b>Steven G. Louie</b> University of California, USA
<b>Session: 2D Materials and Heterostructures I Chair: Steven G. Louie</b>		
08:30-08:55	B11: Proximity orbital, spin-orbital, and exchange effects in graphene	<b>Jaroslav Fabian</b> University of Regensburg, Germany
08:55-09:20	B12: Effective Gating and Tunable Magnetic Proximity Effects in Two-Dimensional Heterostructures	<b>Igor Zutic</b> University at Buffalo, USA
09:20-09:45	B13: Spin relaxation anisotropy in graphene	<b>Sergio O. Valenzuela</b> ICREA and Catalan Institute of Nanoscience and Nanotechnology, Spain
09:45-10:10	B14: On the quest for intrinsic spin lifetimes in graphene spin-valves	<b>Bernd Beschoten</b> RWTH Aachen University, Germany
10:10-10:25	Session Break	
<b>Session: Polymers from Renewable Resources Chair: Igor Zutic</b>		
10:25-10:50	B15: Vegetable plant oils as a versatile source of greener thermoplastics: example of non-isocyanate polyurethanes	<b>Etienne Grau</b> Université de Bordeaux/CNRS/IPB, France
10:50-11:15	B16: Characterization and applications of iron –chitosan-complexes	<b>Krystyna Jablonska</b> Institute of Physics, Polish Academy of Science, Poland
11:15-11:40	B17: Eco-friendly strategy: from bioresourced polymers obtained via microwave-assisted process to their application in photoresists or drug depots	<b>Stephanie Reynaud</b> UPPA/CNRS, France
11:40-12:05		
12:05-13:30	Lunch Break	

**Thursday May 5**

**Room B**

**Session: Engineering and Nanotechnology for Solar, Thermal and Other Energy Applications III**

**Chair: Christina Scheu**

13:35-14:00	B18: Promising Photocathodes Based on Heterostructure of Si and Non-noble Metal Catalysts of CoSe <sub>2</sub> or CoS <sub>2</sub> for Photoelectrochemical Hydrogen Evolution	<b>Ru-Shi Liu</b> National Taiwan University, Taiwan
14:00-14:25	B19: New Hybrid Materials for Light Harvesting Applications	<b>Ana Vera Machado</b> Universidade do Minho, Portugal
14:25 -14:50	B20: Strategies for GaAs integration on Si at the nanoscale : toward GaAs/Si tandem solar cell	<b>Charles Renard</b> Université Paris-Sud, France
14:50 -15:15	B21: Piezo-generator based on vertical array of GaN nanowires: a new alternative energy source for wireless sensors	<b>Noelle Gogneau</b> Laboratoire de Photonique et de Nanostructures, CNRS, France
15:15-16:05	Poster Session	
<b>Poster Session</b>		
16:05-16:30		
16:30-16:55		
16:55-17:20		
17:20-17:45		
17:45-18:00		
18:00	Dinner Social	

**Thursday May 5**

**Room C**

**Session: Advanced Nanomaterials and Devices in Nanomedicine and Nanobiotechnology II**

**Chair: Won Jong Kim**

08:00-08:25	C10: High Coverage Assembly of Mid-Nanometer-Sized Au Particles for SERS type Immunosensor	<b>Kazushi Miki</b> National Institute for Materials Science, Japan
08:25-08:50	C11: Enhancing the efficacy of antimicrobial drugs by the use of nano drug delivery systems	<b>Paul Catalin Balaure</b> Politehnica University of Bucharest, Romania
08:50-09:15	C12: Formulation of carrier nanoparticles: Towards highly stable delivery systems	<b>Istvan Szilagyi</b> University of Geneva, Switzerland
09:15-09:40	C13: Thermo-responsive Polyion Complex Micelles	<b>Shin-ichi Yusa</b> University of Hyogo, Japan
09:40-10:05	C14: New Polymeric Materials for Organic Electrochemical Transistor Applications	<b>Christian B.Nielsen</b> Imperial College London, UK
10:05-10:20	Session Break	
<b>Session: Advanced Nanomaterials and Devices in Nanomedicine and Nanobiotechnology III</b>		
<b>Chair: Kazushi Miki</b>		
10:20 -10:45	C15: Hierarchical Plasmonic Nanostructured Materials: Synthesis and Applications	<b>Miguel A. Correa-Duarte</b> Universidade de Vigo, Spain
10:45-11:10	C16: Polymer-based Stimuli-Sensitive Nanoparticles for Nanomedicine	<b>Won Jong Kim</b> Pohang University of Science and Technology, Korea
11:10-11:35	C17: Elongated nanostructures for surface-assisted laser desorption/ionization mass spectrometry: efficient analytical platforms for the detection of low molecular weight compounds	<b>Rosaria Anna Picca</b> University of Bari "Aldo Moro", Italy
11:35-12:00	C18: Design of Soft Bionanomaterials Through Self-assembly and Complexation	<b>Eric Buhler</b> University Paris Diderot, France
12:00-13:30	Lunch Break	

**Thursday May 5****Room C****Session: New Photovoltaic Materials, Devices and Technologies I Chair: Thierry Pauport é**

13:35-14:00	C19: Advanced Strategies for High Performance Perovskite and Plasmonic Solar Cells	<b>Dong Ha Kim</b> Ewha Womans University, Korea
14:00-14:25	C20: A Detailed Electrical Characterization of Energy Levels in Silicon Wafers for Incoming Solar Cells	<b>Salvador Duenas</b> University of Valladolid, Spain
14:25 -14:50	C21: Fundamental studies and new applications of hybrid lead halide perovskites	<b>Riccardo Comin</b> University of Toronto, Canada
14:50 -15:15	C22: Charge collection microscopy applied to nanoscale analyses of nanowire LEDs and solar cells	<b>Maria Tchernycheva</b> Universite Paris-Sud XI, France
15:15-16:05	Poster Session	
<b>Session: New Photovoltaic Materials, Devices and Technologie II Chair: Salvador Duenas</b>		
16:05-16:30	C23: Advanced Transmission Electron Microscopy on III-V semiconductor nanowires	<b>Sriram Venkatesan</b> Max-Planck-Institut für Eisenforschung GmbH, Germany
16:30-16:55	C24: Roles of the n-type oxide layer in hybrid perovskite solar cells	<b>Thierry Pauport é</b> Ecole Nationale Supérieure de Chimie de Paris, France
16:55-17:20	C25: Semiconductor Nanostructures used in dye/quantum dot sensitized solar cells	<b>Xiaodong Fang</b> Anhui Institute of Optics and Fine Mechanics, CAS, China
17:20-17:45	C26: Study of the Passivation Effect of Residual PbI <sub>2</sub> in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Based Solar Cells	<b>Shimao Wang</b> Anhui Institute of Optics and Fine Mechanics, CAS, China
17:45-18:00	B06: Controlling interfacial charge transport in conjugated polymer films for solar energy driven smart windows	<b>Eunyoung Kim</b> Yonsei University, Korea
18:00	Dinner Social	

**Thursday May 5**

**Room D**

**Session: Frontiers of Nanomaterials and Devices I Chair: Jos éAntonio Souza**

08:25-08:50	D11: Integrated-optic Spectrum Synthesizer for Advanced Optical Communication	<b>Koichi Takiguchi</b> Ritsumeikan University, Japan
08:50-09:15	D12: Effective nanostructure production and relativistic particle generation by intense ultra-short laser pulses interacting with foil in vacuum	<b>Alexander Andreev</b> Max Born Institute for Nonlinear Optics and Short Pulse Spectroscopy, Germany
09:15-09:40	D13: 2D Lanthanide-Directed Architectures on Surfaces	<b>David Ecija</b> IMDEA Nanoscience, Spain
09:40-10:05	D14: Light-assisted synthesis of metal nanoparticles and nanocomposites: an efficient green approach to design smart nanomaterials	<b>Lavinia Balan</b> CNRS Institute of Materials Science of Mulhouse -IS2M, France
10:05-10:20	Session Break	

**Session: Frontiers of Nanomaterials and Devices II Chair: Koichi Takiguchi**

10:20 -10:45	D15: Hierarchically structured nanowires on and nanosticks in ZnO microtubes	<b>Jos éAntonio Souza</b> Universidade Federal do ABC, Brazil
10:45-11:10	D16: Self-Assembled Single-Molecule and Single-Nanoparticle Sensors and Devices	<b>Kasper Moth-Poulsen</b> Chalmers University of Technology, Sweden
11:10-11:35	D17: Making Switchable Magnets from Biomolecules on a Metal Surface	<b>Sujoy Karan</b> University of Regensburg, Germany
11:35-12:00	D18: Key role of the liquid-surface interaction to reveal hidden solid-like correlations from polymer melts to simple liquids	<b>Laurence Noirez</b> CEA-CNRS, France
12:00-13:30	Lunch Break	

**Thursday May 5**

**Room D**

**Session: Spintronics and Photonics II**

**Chair: Germar Hoffmann**

13:35-14:00	D19: Perpendicular magnetic anisotropy and electric field effects in magnetic tunnel junctions	<b>H ã è ne B á</b> SPINTEC, France
14:00-14:25	D20: Study of FM/Pt,Ta bilayers for spin pumping by ferromagnetic resonance spectroscopy	<b>Andr é Conca Parra</b> Technische Universit ät Kaiserslautern, Germany
14:25 -14:50	D21: Spin hydrodynamic generation in liquid metal flow	<b>Ryo Takahashi</b> Tohoku University, Japan
14:50 -15:15	D22: Spectroscopic in operando study of spintronic devices: a galfenol-based magnetic tunnel junction	<b>Benoit Gobaut</b> Elettra Sincrotrone Trieste, Italy
15:15-16:05	Poster Session	
<b>Session: Spintronics and Photonics III</b>		<b>Chair: H ã è ne B á</b>
16:05-16:30	D23: Spin currents and thermomagnetic effects in ordered alloys	<b>Masaki Mizuguchi</b> Tohoku University, Japan
16:30-16:55	D24: Spin injection in antiferromagnets	<b>Lamprini Frangou</b> SPINTEC, France
16:55-17:20	D25: Local insight into molecular magnetism	<b>Germar Hoffmann</b> National Tsing Hua University, Taiwan
17:20-17:45	D27: Coexistence of tunneling magnetoresistance and Josephson effects in SFIFS junctions	<b>Ondrej Vavra</b> University of Regensburg, Germany
17:45-18:00		
18:00	Dinner Social	

<b>Thursday May 5</b>		
<b>Room E</b>		
<b>Session: Spin Orbitronics II</b>		<b>Chair: Teruo Ono</b>
13:35-14:00	E01: Engineering Dzyaloshinskii-Moriya Interaction, by Design	<b>Hongxin Yang</b> Unit éMixte de Physique CNRS/Thales, France
14:00-14:25	E02: Impurity scattering for spin-orbit transport: from Hall effects to spin-orbit torques by ab-initio theory	<b>Bernd Zimmermann</b> <b>Frank Freimuth</b> Forschungszentrum J ülich GmbH, Germany
14:25 -14:50	E03: Room temperature chiral skyrmions and skyrmion bubble dynamics in nanostructures	<b>Christoforos Moutafis</b> University of Manchester, UK
14:50 -15:15	E04: Towards antiferromagnetic spintronics: Large magnitude magneto-resistance effects and current controlled switching	<b>Joerg Wunderlich</b> Hitachi Cambridge Laboratory, UK
15:15-15:55	Poster Session	
<b>Session: Semiconductor, Thermoelectric Materials and Devices I</b>		<b>Chair: Kensuke Ota</b>
15:55-16:20	E05: Top-down fabrication of InGaN/GaN core shells nanowire devices and their optical and electrical properties	<b>Duncan Allsopp</b> University of Bath, UK
16:20-16:45	E06: Germanium/Silicon core/shell quantum dots in alumina matrix: fabrication, characterization and absorption properties	<b>Maja Buljan</b> Ruđer Bošković Institute, Croatia
16:45-17:10	E07: Enhanced thermoelectric properties of chimney-ladder higher manganese silicides	<b>Yuzuru Miyazaki</b> Tohoku University, Japan
17:10-17:35	E08: Different approaches for higher thermoelectric conversion efficiency: a journey from bulk materials to thin films	<b>Biplab Paul</b> Link öping University, Sweden
17:35-18:00	E09: Versatility of carbazolocarbazoles as hole transporting materials	<b>David Curiel Casado</b> University of Murcia, Spain
18:00	Dinner Social	

<b>Friday May 6 Room B</b>		
<b>Session: Nanotechnology in Materials Science I    Chair: Cheolmin Park</b>		
08:00-08:25	B22: Nanostructured Rare Earth-Free Permanent Magnets for Nowadays and New Technological Applications	<b>Alberto Bollero</b> IMDEA Nanociencia, Spain
08:25-08:50	B23: Improved Light Extraction Efficiency of OLEDs by Nanoparticle Scattering Film	<b>Yoonseuk Choi</b> Hanbat National University, Korea
08:50-09:15	B24: Ultrahigh Resolution Imaging of Molecular Assemblies	<b>Samuel Jarvis</b> University of Nottingham, UK
09:15-09:40	B25: Atomic scale characterization of semiconductor non-planar nanostructures	<b>Mar á de la Mata</b> Lund University, Sweden
09:40-10:05	B26: Ab Initio Electro-Structural Strategies for Atomic Scale Materials Design	<b>Antonio Cammarata</b> Czech Technical University in Prague, Czech Republic
10:05-10:20	Session Break	
<b>Session: Frontiers of Nanomaterials and Devices III    Chair: Yoonseuk Choi</b>		
10:20 -10:45	B27: 2D Nanomaterials Solution-processed with Self-assembled Polymers for Printed Electronics	<b>Cheolmin Park</b> Yonsei University, Korea
10:45-11:10	B28: Development of epitaxial functional oxide nanomaterials on silicon based on chemical strategies	<b>Adrien Carretero Genevrier</b> Lyon Institute of Nanotechnology INL-CNRS, France
11:10-11:35	B29: SbSI nanosensors: from gel to single nanowire devices	<b>Krystian Mistewicz</b> Silesian University of Technology, Poland
11:35-12:00	D26: Acoustic phonon modes and dispersion relations of nanowire superlattices	<b>Seiji Mizuno</b> Hokkaido University, Japan
12:00-13:30	Lunch Break	

<b>Friday May 6</b>		
<b>Room B</b>		
<b>Session: Nanotechnology in Materials Science II</b>		<b>Chair: Martin Steinhart</b>
13:35-14:00	B30: Gold/Polypyrrole Coaxial Nanowire Electrodes for Electrochemical Energy Storage	<b>Hideyuki Nakanishi</b> Kyoto Institute of Technology, Japan
14:00-14:25	B31: MOCVD Grown InGaN/GaN Three-Dimensional Islands: Growth Approaches, Strain-Composition Characterization, Exploitation for LEDs	<b>Nikolay Cherkashin</b> CEMES - CNRS, France
14:25 -14:50	B32: Strategies for the utilization of carbon dioxide with novel catalysts	<b>Ewa Nowicka</b> Cardiff University, UK
14:50 -15:15	B33: 3D oxidation state characterization in magnetic nanoparticles	<b>Sonia Estrade</b> Universitat de Barcelona, Spain
15:15-15:40	B34: In-situ IR and Raman spectroscopy for molecular charactering of deformation process in polymers	<b>Koh-hei Nitta</b> Kanazawa University, Japan
15:40-15:55	Session Break	
<b>Session: Nanotechnology in Materials Science III</b>		<b>Chair: Nikolay Cherkashin</b>
15:55-16:20	B35: Insect-inspired capillary nanostamping	<b>Martin Steinhart</b> Osnabrück University, Germany
16:20-16:45	B36: Imaging Dynamic Materials Processes in Liquids by Scanning Transmission Electron Microscopy (STEM)	<b>Nigel D. Browning</b> Pacific Northwest National Laboratory, USA
16:45-17:10	B37: Understanding the Effect of Additives in Li-ion and Li-Sulfur Batteries by Operando ec- (S)TEM	<b>B. Layla Mehdi</b> Pacific Northwest National Laboratory, USA
17:10-17:35	B39: Magnetic and structural transitions as the consequences of orbital ordering in Fe-based superconductors	<b>Wei Bao</b> Renmin University of China, China
17:35-18:00		
18:00	Dinner Social	

<b>Friday May 6 Room C</b>		
<b>Session: Multiferroics and Ferroelectrics Explicitly I</b>		<b>Chair: Nicholas Bristowe</b>
08:00-08:25	C27: Magnetic and Structural Properties of Rare Earth Borates in Applied Magnetic Field	<b>Christie Nelson</b> Brookhaven National Laboratory, USA
08:25-08:50	C28: Wrinkling and Folding in Multiferroic Domains: Fluid Mechanics of Domain Walls	<b>James F. Scott</b> St. Andrews University, UK
08:50-09:15	C29: Electrical conduction at domain walls in polycrystalline BiFeO <sub>3</sub> : From atomic to macroscopic view	<b>Tadej Rojac</b> Jozef Stefan Institute, Slovenia
09:15-09:40	C30: Probing the Internal Structure of Ferroelectric Domain Walls with Second Harmonic Generation	<b>Salia Cherifi-Hertel</b> University of Strasbourg, France
09:40-10:05	C31: Direct coupling between FM and AFM layers, a designed handle to control spin-based multiferroics?	<b>Artur Glavic</b> Paul Scherrer Institut, Switzerland
10:05-10:20	Session Break	
<b>Session: Multiferroics and Ferroelectrics Explicitly II</b>		<b>Chair: Christie Nelson</b>
10:20 -10:45	C32: Novel improper ferroelectrics for electrical control of electronic and magnetic properties	<b>Nicholas Bristowe</b> Imperial College London, UK
10:45-11:10	C33: Dynamical processes in composite multiferroics at zero and finite temperatures	<b>Levan Chotorlishvili</b> Martin Luther University Halle-Wittenberg, Germany
11:10-11:35	C34: Multiferroicity in olivine-type manganese orthogermanate Mn <sub>2</sub> GeO <sub>4</sub>	<b>Takashi Honda</b> Institute of Materials Structure Science, Japan
11:35-12:00	C35: Magnetic Chiral Skyrmions and Electric 'Footprint Skyrmions' in Composite Multiferroics	<b>Zidong Wang</b> University of Auckland, New Zealand
12:00-13:30	Lunch Break	

<b>Friday May 6</b>		
<b>Room C</b>		
<b>Session: Graphene and Carbon-based Nanomaterials II    Chair: Jaroslav Fabian</b>		
13:35-14:00	C36: Ultra-Lightweight and Strong Nanocarbon Foam - Fabrication and Properties	<b>Mei Zhang</b> Florida State University, USA
14:00-14:25	C37: Purification of semiconducting CNT by conjugated polymer wrapping for high performance printed transistors and gas sensor	<b>Yong-Young Noh</b> Dongguk University, Korea
14:25 -14:50	C38: Graphene Based Nanomaterials: Nanoscale Assembly & Chemical Modification	<b>Sang Ouk Kim</b> Korea Advanced Institute of Science and Technology, Korea
14:50 -15:15	C39: Towards an atomistic scale understanding of CNT growth from hydrocarbons	<b>Umedjon Khalilov</b> University of Antwerp, Belgium
15:15-15:40	C40: Multi Graphene on 10B Pencil Drawing Print Paper Irradiated by Femtosecond Laser	<b>Satoru Kaneko</b> Kanagawa Industrial Technology Center, Japan
15:40-15:55	Session Break	
<b>Session: Frontiers of Nanomaterials and Devices IV    Chair: Mei Zhang</b>		
15:55-16:20	C41: Controlled Formation of Hybrid Metal-Organic Framework or Coordination Polymer Particles	<b>Moonhyun Oh</b> Yonsei University, Korea
16:20-16:45	C42: Solution processed dielectrics for metal oxide based thin film transistors	<b>Rita Branquinho</b> FCT-UNL, Portugal
16:45-17:10	C43: Twin Deformation Mechanisms in Nanostructured Materials	<b>Nikolai Skiba</b> Institute of Problems of Mechanical Engineering, Russian Academy of Sciences, Russia
17:10-17:35	C44: Strain engineering of thin polymer films and its application to the development of novel microstructured materials	<b>Valeriy Luchnikov</b> Institut de Science des Matériaux de Mulhouse, CNRS, France
17:35-18:00	C45: In Situ Fabrication and Novel Characteristics of Graphene-based Transistors	<b>Guang Wang</b> National University of Defense Technology, China
18:00	Dinner Social	

**Friday May 6**  
**Room D**

**Session: Magnetic and Superconductor Materials III Chair: Leonardo Degiorgi**

08:00-08:25	D28: Effect of electron irradiation in iron pnictides	<b>Yuta Mizukami</b> The University of Tokyo, Japan
08:25-08:50	D29: Laser and impurity driven impurity states and intraband optical properties of quantum dots and quantum rings	<b>David Laroze</b> Universidad de Tarapac á Chile
08:50-09:15	D30: High resolution x-ray imaging of nontrivial spin phenomena in magnetic nanostructures	<b>Mi-Young Im</b> Lawrence Berkeley National Laboratory, USA
09:15-09:40	D31: Orbital dependent Fermi surface renormalization across the nematic transition in iron superconductors	<b>Bel én Valenzuela</b> Instituto de Ciencia de Materiales de Madrid, CSIC, Spain
09:40-10:05	D32: Dendritic flux instabilities in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> films exposed to ultra-fast field ramp	<b>Yosef Yeshurun</b> Bar-Ilan University, Israel
10:05-10:20	Session Break	
<b>Session: Magnetic and Superconductor Materials IV Chair: Yuta Mizukami</b>		
10:20 -10:45	D33: Origin of the resistive anisotropy in the electronic nematic phase of BaFe <sub>2</sub> As <sub>2</sub> revealed by optical spectroscopy	<b>Leonardo Degiorgi</b> Laboratorium für Festkörperphysik, ETH Zurich, Switzerland
10:45-11:10	D34: Rare-earth Magnets: the Past, the Present and the Future	<b>Ping Liu</b> Ningbo Institute of Materials Engineering and Technology, CAS, China
11:10-11:35	D35: The role of Hund's coupling in the nematicity of iron superconductors	<b>Elena Bascones</b> Instituto de Ciencia de Materiales de Madrid, CSIC, Spain
11:35-12:00	D36: Effects of pressures Spin Orbital Coupling system	<b>Changqing Jin</b> Institute of Physics, CAS, China
12:00-13:30	Lunch Break	

<b>Friday May 6</b>		
<b>Room D</b>		
<b>Session: Semiconductor, Thermoelectric Materials and Devices II Chair: Maja Buljan</b>		
13:35-14:00	D37: Polytype heterostructured nanowires for thermoelectric applications	<b>Laetitia Vincent</b> Université Paris Sud, France
14:00-14:25	D38: Flexible thermoelectric power generators using thin films	<b>Seungwoo Han</b> Korea Institute of Machinery & Materials, Korea
14:25 -14:50	D39: Novel technologies for high-performance top-gate self-aligned InGaZnO TFTs	<b>Kensuke Ota</b> Toshiba Corporation, Japan
14:50 -15:15	D40: Blistering of silicon surfaces due to very low energy H and He co-implantation	<b>Alain Claverie</b> CEMES - CNRS, France
15:15-15:40	D41: Disparity of p- and n-doped states in donor-acceptor polymers of thiophene and benzothiadiazole studied by in situ EPR-UV-Vis-NIR spectroelectrochemistry	<b>Wojciech Domagala</b> Silesian University of Technology, Poland
15:40-15:55	Session Break	
<b>Session: 2D Materials and Heterostructures II Chair: Sergio O. Valenzuela</b>		
15:55-16:20	D42: Strain, Curvature, and electron spins in 2D materials	<b>Guido Burkard</b> University of Konstanz, Germany
16:20-16:45	D43: Spin dynamics, dephasing, and relaxation in graphene	<b>Aron W. Cummings</b> Institut Català de Nanociència i Nanotecnologia, Spain
16:45-17:10	D44: Local Strain Engineering in Transition Metal Dichalcogenides and Black Phosphorus	<b>Rafael Roldán</b> Instituto de Ciencia de Materiales de Madrid CSIC, Spain
17:10-17:35	D45: Electronic structures of atomically thin epitaxially grown transition metal dichalcogenides	<b>Sung-Kwan Mo</b> Lawrence Berkeley National Laboratory, USA
17:35-18:00		
18:00	Dinner Social	

**Thursday May 5**

**15:15-15:55**

**Poster Session**

P1	Electrical Characterization of amorphous silicon MIS based structures for photovoltaic applications	<b>Helena Castan</b> University of Valladolid, Spain
P2	Palladium Nanoribbon Array for Fast Hydrogen Gas Sensing with Ultrahigh Sensitivity	<b>Gun-Young Jung</b> Gwangju Institute of Science and Technology, Korea
P3	Electroluminescent paper	<b>Nae-Man Park</b> Electronics and Telecommunications Research Institute, Korea
P4	Polyol-mediated Synthesis of Nanostuctured Phosphate-based Electrode Materials	<b>Jaekook Kim</b> Chonnam National University, Korea
P5	Effect of Nonlinearity with Ball to the Frequency Response of the Cantilever Beam Structure Piezoelectric Energy Harvesting System	<b>JungHwan Ahn</b> Hanyang University, Korea
P6	Multilayer Piezoelectric Device for Ventilator Energy Harvesting System	<b>MinSik Woo</b> Hanyang University, Korea
P7	Designing and manufacturing a piezoelectric energy-harvesting smart pencil	<b>Jong Hyuk Eom</b> Hanyang University, Korea
P8	Design of Hydro Electromagnetic Generator for Ultrasonic Water Meter	<b>JaeYong Cho</b> Hanyang University, Korea
P9	Morphological and Structural Evolutions of Micro-sized Metal-Organic Frameworks	<b>Dooyoung Kim</b> Yonsei University, Korea
P10	Hollow Porous Carbon Prepared by Pyrolysis of Core-Shell Type Metal-Organic Framework	<b>Jeehyun Park</b> Yonsei University, Korea
P11	Magnetic Particles-Embedded Porous Carbon Materials Prepared from Metal-Organic Frameworks	<b>Eunji Lee</b> Yonsei University, Korea
P12	Construction of Hollow Metal-Organic Framework Particles	<b>Hoyeon Ji</b> Yonsei University, Korea

P13	New approach on signal control of two dimensional cell elements array in an ultrasonic transducer	<b>ChangGeun Ahn</b> Electronics and Telecommunications Research Institute, Korea
P14	Surface patterning using nanoimprint lithography and chemical surface functionalization for triboelectric generators	<b>Junghyo Nah</b> Chungnam National University, Korea
P15	Effect of substrate surface energy control by Ultraviolet-Ozone treatment and seed layer annealing condition on ZnO seed layer formation and hydrothermally grown ZnO nanowires	<b>Hak-Rin Kim</b> Kyungpook National University, Korea
P16	Synthesis of Li-Ni-Mn-Al oxide for cathode material of lithium-ion batteries by flux method	<b>Ai Serizawa</b> Shibaura Institute of Technology, Japan
P17	Preparation of hydrophobic surface showing low contact angle hysteresis using organic silane molecules with different molecular configuration	<b>Takahiro Ishizaki</b> Shibaura Institute of Technology, Japan
P18	Spontaneously Polarized Lithium-doped Zinc Oxide Nanowires as Photoanodes for Electrical Water Splitting	<b>Min Hyung Lee</b> Kyung Hee University, Korea
P19	Reversible two-phase lithiation/delithiation of silicon nanopillar-patterned electrode assisted by crystal phase linking for lithium ion secondary battery	<b>Byung Dae Son</b> Korea University, Korea
P20	InGaN/GaN Nanowires for photovoltaic applications: Growth and characterization	<b>Martina Morassi</b> Institut d'Electronique Fondamentale, CNRS, France
P21	Embedded Copper nano/micro mesh structure for flexible transparent conducting electrode	<b>Heon Lee</b> Korea University, Korea
P22	Thermoelectric Properties and High Mobilities in the Topological Insulator Bi <sub>2</sub> Te <sub>3</sub> Layers	<b>A.A. Nikolaeva</b> Ghitu Institute of Electronic Engineering and Nanotechnologies, Moldova
P23	TBA	<b>Francesca Peiró</b> University of Barcelona, Spain