<table>
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<tr>
<th>Time</th>
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<tbody>
<tr>
<td>08:30-09:00</td>
<td>Registrations</td>
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<tr>
<td>09:00-09:30</td>
<td>Introduction</td>
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<tr>
<td>09:30-09:50</td>
<td>Coffee Break</td>
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<tr>
<td>09:50-11:50</td>
<td>Keynote Lectures</td>
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<tr>
<td>11:50-13:10</td>
<td>Talks on:</td>
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<tr>
<td>13:10-13:15</td>
<td>Group Photo</td>
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<td>13:15-14:00</td>
<td>Lunch Break</td>
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<td>14:00-16:00</td>
<td>Talks on:</td>
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<td>16:00-16:20</td>
<td>Coffee Break</td>
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MEETING HALL 01 (16:20-17:00)

- Young Researchers in Emerging Materials and Nanotechnology
### SCIENTIFIC PROGRAM

**DAY 2**

Friday, 8\textsuperscript{th} March

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<td>Graphene and Carbon Nanotubes</td>
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<td>12:50-13:35</td>
<td><strong>LUNCH BREAK</strong></td>
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<td>Materials Characterization and Applications</td>
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<tr>
<td>15:55-16:15</td>
<td><strong>COFFEE BREAK</strong></td>
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**MEETING HALL 01 (16:15-17:00)**

*Poster Presentations*
Previous Organizing Committee

Dimitris Drikakis  
University of Strathclyde  
UK

Sumsun Naher  
City University London  
UK

Bharat Bhushan  
The Ohio State University  
USA

Alireza Heidari  
California South University  
USA

Abbas Amini  
Western Sydney University  
Australia

Tong Lin  
Deakin University  
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Northeastern University  
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Chinese Academy of Sciences
China

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National Chiao Tung University
Taiwan

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University of Bahrain
Bahrain

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Christian Medical College Campus
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- Berlin Cathedral
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- Tiergarten
- Potsdamer Platz
- Reichstag Building
- Berlin wall
- Olympiastadion
Glimpses of Emerging Materials Congress 2018

Visit: https://emergingmaterials.materialsconferences.com/
## Keynote Forum

### Day 1    March 22, 2018

**Registration**

**Hall @ Atlantis 2**

**Opening Ceremony**

**Keynote Forum**

**Introduction**

**Title:** Polymer-enhanced biomacromolecular systems  
**Alan J. Russell,** Carnegie Mellon University, USA

### Networking and Refreshments Break

**Title:** Dielectrophores: Non-linear capacitor materials. Experiment and theory  
**Pavel Lazarev,** Capacitor Sciences Inc., USA

**Title:** Carbon overlayer from hydrocarbon precursors: Electron-beam-induced deposition/removal  
**Ludek Frank,** Czech Academy of Sciences, Czech Republic

**Sessions:** Surface Science and Engineering | Energy Materials | Materials and Devices

**Session Chair:** Alberto Tagliaferro, Politecnico Torino, Italy

**Session Co-Chair:** Yukishige Kondo, Tokyo University of Science, Japan

### Session Introduction

**Title:** Active demulsification of stable emulsions using light  
**Yukishige Kondo,** Tokyo University of Science, Japan

**Title:** Morphogenic mussel inspired self-construction of versatile enzymatic biosensors by electrochemistry  
**Janwa El-Maiss,** Université de Strasbourg, France

### Group photo

**Lunch Break**

**Title:** Photoelectrochemical characterization of lead-based hybrid perovskite semiconductors  
**Sam HY HSU,** City University of Hong Kong, China

**Title:** A redox active self-assembled monolayer both a sensor and actuator  
**Cesar Pascual Garcia,** Luxembourg Institute of Science and Technology (LIST), Luxembourg

**Sessions:** Advanced Materials | Next-Generation Materials | Emerging Materials for Energy Storage

**Session Chair:** Hemalatha Parangusan, Qatar University, Qatar

### Session Introduction

**Title:** Enhanced dielectric properties and energy storage performance of PVDF nanocomposites containing ferromagnetic metals doped ZnO nanoflowers  
**Hemalatha Parangusan,** Qatar University, Qatar

**Title:** Discrete element simulation on the ordered array of carbon fiber with ultrasonic vibration assisting in SLS  
**Yuanqiang Tan,** Huaqiao University, China

**Title:** Application of cyclohexeno-1, 2, 3-selenadiazole via extrusion of selenium in synthesis of copper indium diselenide  
**Pawan K Khanna,** Defence Institute of Advanced Technology, India

**YRF:** Molecule doping strategy and its application for Mn doped CsPbClxBr3-x nanocrystals  
**Guangguang Huang,** Southeast University, P. R. China

### Networking and Refreshments Break

**Panel Discussion**

**Day 2    March 23, 2018**

**Hall @ Atlantis 2**

**Keynote Forum**
Title: Nonlinear polarizability in dielectrophores
Pavel Lazarev, Capacitor Sciences Inc., USA

Title: Fluid/solid interface processes associated with emerging materials
Dimitris Drikakis, University of Strathclyde, UK

Title: Biochar as a green filler improving polymer composite properties
Alberto Tagliaferro, Politecnico Torino, Italy

Networking and Refreshments Break

Sessions: Nanotechnology in Materials Science | Biomaterials and Tissue Engineering | Materials Chemistry and Physics
Session Chair: Frederic Dumur, Aix Marseille University, France

Session Introduction

Title: On-surface synthesis of aligned functional nanoribbons monitored by scanning tunnelling microscopy and vibrational spectroscopy
Frederic Dumur, Aix Marseille University, France

Title: The Influence of tuning the particle size of titania-supported palladium nanoparticles on their catalytic activity for liquid phase transfer dehydrogenation of 1-phenylethanol
Reem AlBilali, Imam Abdulrahman Bin Faisal University, Saudi Arabia

Title: A review on the characterization of the enthesis (osteotendon junction)- from classic histology to approaches in materials science and engineering
Mary E. Craig, Oakland University, USA

Title: The effect of SiO₂ particle size on hemostatic properties of a novel hybrid as a styptic for severe bleeding
Maryam Chenani, Islamic Azad University, Iran

Title: Antimicrobial activity of electrodeposited copper coating on double zincated aluminium plate
Rajendra Udupa, National Institute of Technology Karnataka, India

Lunch Break

Title: Investigation of structural and electrical properties of manganese doped ZnO varistors prepared from nanopowders
Kamel Guergouri, University Larbi Ben M'Hidi of Oum El Bouaghi, Algeria

Title: Carbon nanocoils: Synthesis, properties and applications
Lujun Pan, Dalian University of Technology, China

Young Research Forum
Title: (PANI-PTSA) & CoFe₂O₄/Co₀.₅Zn₀.₅Fe₂O₄ - Nanocomposite absorption materials prepared for EMI shielding in microwave X-band
Jameel M. A. Sulaiman, University of Mosul, Iraq

Title: Size-tunable CsPbBr₃ perovskite ring arrange for stable and ultralow threshold laser
Jingkun Xu, Southeast University, China

Title: Organomineral sorbents based on chitosanferrocyanide for extraction and concentration of Cs-137 from seawater
Tokar Eduard, Far Eastern Federal University, Russia

Sessions: Materials Applications
Session Chair: Zheng Cui, Suzhou Institute of Nanotech and Nanobionics, China

Session Introduction

Title: Potential use of quarry waste as construction and building material: A review
Ajay Singh Jethoo, Malaviya National Institute of Technology, India

Networking and Refreshments Break
Title: Applications of inorganic nanomaterials for printed electronics
Zheng Cui, Suzhou Institute of Nanotech and Nanobionics, China

Title: Processing & characterization of eco-friendly interlock construction blocks for earthquake regions
Safeer Ahmad Arbab, Islamia College Peshawar, Pakistan

Title: Influence of rare earths on the electromechanical coupling factor and operating temperature of strontium bismuth titanate
P. Sarah, Vardhaman College of Engineering, India

**Poster Presentations**

EMC-01
Title: Stress modification in praseodymium fluoride thin films through admixture with barium fluoride
Bin Li, Shanghai Institute of Technical Physics, Chinese Academy of Sciences, China

EMC-02
Title: Preparation of graphene oxide reinforced sol-gel polishing film with enhanced mechanical strength
Jing Lu, Huaqiao University, China

EMC-03
Title: Review of ultrasonic additive manufactured metal composite materials
Changcai Cui, Huaqiao University, China

EMC-04
Title: Nanodiamond-supported crystalline TiO2 nanoparticles synthesized via one-step isothermal hydrolyzing method and its nitrite electrooxidation
Xipeng Xu, Huaqiao University, China

EMC-05
Title: Tensile property and deformation mechanism of novel γ′-Co3(Al, W) strengthened Co-Al-W-Mo-Ta-B-Ce alloys
Jiangbo Sha, Beihang University, China

EMC-06
Title: Microstructure and properties of aluminium elements selected for the medical cabin construction
Agata Sotniczuk, Warsaw University of Technology, Poland

EMC-07
Title: The effect of the microstructure and surface topography on acoustic properties of the composites for the lightweight medical cabins
Donata Kuczynska, Warsaw University of Technology, Poland

EMC-08
Title: Fabrication of high thermal conductive diamond/copper composites and their joining with substrates
Cheng-Ying Lee, National Tsing Hua University, Taiwan

EMC-09
Title: A wearable strain sensor based on carbon nanocoils
Chenghao Deng, Dalian University of Technology, China

**Awards & Closing Ceremony**

E-mail: emergingmaterialscongress@annualconferences.org; emergingmaterialscongress@materialsconferences.org
Website: emergingmaterials.materialsconferences.com

Bookmark your dates

17th International Conference on

Emerging Materials and Nanotechnology

March 07-08, 2019 Berlin, Germany
Day 1 | February 20, 2017 | Monday

Registrations

Sylt 3

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Opening Ceremony

Keynote Forum

Introduction

Title: Investigating materials formation with liquid-phase TEM
Jim De Yoreo, University of Washington, USA

Title: ISO-standards 14577 violate the first energy law: Can we further live with that?
Gerd Kaupp, University of Oldenburg, Germany

Title: New concept of bioresorbable polymer-based ceramic hybrids for cardiovascular stent applications
Xiang Zhang, University of Cambridge, UK

Title: Graphene flake and graphene quantum dot-receptor sensor for detecting nerve agents
Hyoyoung Lee, Sungkyunkwan University, Republic of Korea

Coffee Break

Sessions:
Materials Science and Engineering | Materials in Industry

Session Chair: Hyoyoung Lee, Sungkyunkwan University, Republic of Korea
Session Co-Chair: Nekane Guarrotxena, Spanish National Research Council, Spain

Session Introduction

Title: Smart functional nanoscale-hybrid materials: Surface modification and applications
Nekane Guarrotxena, Spanish National Research Council, Spain

Title: Ductile behavior of hard MoBC and WBC nanolaminated coatings
Petr Vasina, Masaryk University, Czech Republic

Title: Dynamics of single ions and molecules at the surface of solids in solution
Kislon Voitchovsky, Durham University, UK

Title: Design and evaluation of new ligands with highly extractability and selectivity for palladium from secondary raw material
Emad Mowafy, University of Hail, Saudi Arabia

Title: Evaluating mechanical properties of complex material structures from a new combination of calotte grinding and indentation tests
Nick Bierwisch, Saxonian Institute of Surface Mechanics, Germany

Title: Optimizing electrical conductivity and optical transparency of IZO thin film deposited by radio frequency (RF) magnetron sputtering
Lei Zhang, Winston Salem State University, USA

Title: Fabrication, optical and thermal properties of glass and crystalline rare-earth aluminates
Vijaya Kumar, University of Mysore, India

Title: Effect of process parameters and post heat treatment in the development of microalloyed HSLA tubes for torsional applications
Thendralarasu Udhayakumar, Tube Investments of India Ltd, India

Lunch Break

Title: Effect of process parameters and post heat treatment in the development of microalloyed HSLA tubes for torsional applications
Elakkiya Mani, Tube Investments of India Ltd, India

Title: Graphite based minimum quantity dry lubrication at drilling CFRP
Robert Beckenlechner, University of Stuttgart, Germany
Title: Insights into linear supramolecular polymer formation via TPE and BODIPY containing host-guest interaction
Chinmayananda Gouda, National Chiao Tung University, Taiwan

Sessions:
**Nanomaterials | Biomaterials and Healthcare**

Session Chair: Nikolay Ledentsov, VI Systems GmbH, Germany
Session Co-Chair: Yongmei Zheng, Beihang University, China

Session Introduction

Title: Recent progress in epitaxial quantum dots for lasers and light emitting diodes
Nikolay Ledentsov, VI Systems GmbH, Germany

Title: Functional metal-ceramic nanocomposites based on tubule clay
Yuri Lvov, Louisiana Tech University, USA

Title: Characterization of nanosuspension using pulsed field gradient nuclear magnetic resonance
Haruhisa Kato, National Institute of Advanced Industrial Science and Technology, Japan

Coffee Break

Title: Engineering optical Raman active nanoassemblies for nanosensor purposes
Nekane Guarrotxena, Spanish National Research Council, Spain

Title: Mechanical and topographical characterization of biomaterials, cells and tissues by enhanced atomic force microscopy
Jörg Barner, JPK Instruments AG, Germany

Title: Soft thermal nanoimprint lithography
Mark Schwartzman, Ben-Gurion University of the Negev, Israel

Title: Bioinspired gradient surfaces with controlling of dynamic wettability
Yongmei Zheng, Beihang University, China

Title: EHDA technology utilizing different bio-structure
Rita Haj Ahmad, De Montfort University, UK

Title: Electrochemical and biosynthesis of Nano-Photocatalytic materials and its applications in photovoltaic, anti-bacterial, anti-cancer and in preparation of polymer composites
Sannaiah Ananda, University of Mysore, India

Title: Synthesis and characterization of single-crystal bismuth telluride nanowires
Ming Yau Chern, National Taiwan University, Taiwan

Title: Iriartea deltoidea & Socratea exhorriza: Sustainable production alternatives for integrated Biosystems, first stage - bioconstruction.
Lina Fernanda Mojica Sánchez, CIAM-UNIMETA, Colombia

Title: On-demand release of paclitaxel and 5-flourouracil using thermoresponsive poly(NIPAm-co-HMAAm)/polyurethane partnered with alternating magnetic field induced hyperthermia on non-vascular nitinol stent
Ludwig Erik Aguilar, Chonbuk National University, South Korea

Title: Reversible and irreversible self-folding behavior of water responsive poly (vinyl alcohol) films
Amrita Rath, Indian Institute of Technology Madras, India

Title: Doxorubicin conjugated Fe₃O₄-GQD nanoparticle for magnetically targeted and ph responsive drug delivery vehicle: a two way targeted approach
Ankan Dutta Chowdhury, National Chiao Tung University, Taiwan

Panel Discussion

Day 2 | February 21, 2017 | Tuesday

Sylt 3
Keynote Forum

Title: Hybrid photovoltaic-piezoelectric flexible device for energy harvesting from nature
Elias Siores, University of Bolton, UK

Title: The decomposition of the solution during the formation of eutectic composites
Alex Gusakov, Institute of Solid State Physics of RAS, Russia

Title: Designing topological states by pressure, strain and functionalization
Udo Schwingenschloegl, King Abdullah University of Science & Technology, Saudi Arabia

Title: Graphene/h-BN heterostructures based field effect transistors employing chemical vapor deposition
Dae Joon Kang, Sungkyunkwan University, Republic of Korea

Sessions:
Materials Chemistry | Materials Physics | Energy Materials
Session Chair: Claude Delmas, University of Bordeaux, France
Session Co-Chair: Zhiqiang Gao, National University of Singapore, Singapore

Session Introduction

Title: Solid state electrochemistry: A tool for synthesis and characterization of solids
Claude Delmas, University of Bordeaux, France

Title: Chemical effects on metals friction at the nanometer scale
Arnaud Caron, KoreaTech, Republic of Korea

Title: Graphene oxide supported layered double hydroxide hybrids: Synthesis and applications
Mohamed Mokhtar Mohamed Mostafa, King Abdulaziz University, Saudi Arabia

Coffee Break

Title: Approaches to reduce material consumptions in photovoltaics
Martha Ch. Lux-Steiner, Helmholtz-Zentrum Berlin, Germany

Title: Imaging electrons motion in semiconductor materials
Michael K L Man, Okinawa Institute of Science and Technology Graduate University, Japan

Title: Neutron scattering investigations of hydrogen storage in porous materials
Margarita Russina, Helmholtz Centre Berlin for Material and Energy Research, Germany

Title: Development of novel organic radical batteries
Shinichi Nakatsuji, University of Hyogo, Japan

Title: A dual-carbon phase modified and nanostructured nickel sulfide anode for sodium-ion batteries
Zhiqiang Gao, National University of Singapore, Singapore

Title: Hierarchical conducting polymers micro/nanostructures and their electrochemical energy conversion
Ying Zhu, Beihang University, China

Title: Environmental benign graphene quantum dots embedded halloysite nanotubes as high performance supercapacitor electrode material
Akhilesh Babu Ganganboina, National Tsing Hua University, Taiwan

Lunch Break

Sessions:
Metallurgy and Materials Science | Advanced Materials and Devices | Characterization and Testing of Materials
Session Chair: Mikhail Lebyodkin, CNRS, France
Session Co-Chair: Mihaela Albu, Graz Centre of Electron Microscopy, Austria

Session Introduction

Title: Development of solar grade silicon refining via metallurgical route: Thermodynamic properties of silicon based alloys
Kazuki Morita, The University of Tokyo, Japan
Title: Controlling microstructure via thermal science analysis during resistance spot welding
Peng-Sheng Wei, National Sun Yat-Sen University, Taiwan

Title: Light-induced superconductivity in an organic mott insulator induced by light-driven carrier doping
Masayuki Suda, Institute for Molecular Science, Japan

Title: Large tunnel magnetocapacitance in magnetic tunnel junctions
Hideo Kajiu, Hokkaido University, Japan

Title: Crack-closing of superelastic NiTi SMA short fibers in mortar beams
Eunsoo Choi, Hongik University, Korea

Title: Correlated versus random behavior of dislocations in jerky flow of Al-Mg alloys
Mikhail Lebyodkin, CNRS, France

Title: The development of smart materials for medical applications using laser scanning micrometry
Daniel Melling, University of Dundee, UK

Title: Quantum contact mechanics for holistic material optimization
Norbert Schwarzer, Saxonian Institute of Surface Mechanics, Germany

Coffee Break

Title: Magnetic characterization of the phase transformations during synthesis of the FeWO₄ nanoparticles using WS₂ nanotubes
Gregory Leitus, Weizmann Institute of Science, Israel

Title: Advanced alloys and steels microstructure characterization by analytical high resolution scanning transmission electron microscopy
Mihaela Albu, Graz Centre of Electron Microscopy, Austria

Title: Evaluation of liquid tin corrosion on austenitic steels as well as nickel-based alloys and first tests on possible protective surface layers at high temperature
Thomas Emmerich, Karlsruher Institute of Technology, Germany

Workshop

Title: Correlative and in-situ Materials Characterization
Said Mansour, Hamad Bin Khalifa University, Qatar
Mathias O. Mosig, Protochips, USA
Philipp Wachsmuth, JEOL, Germany

Session Introduction

Title: Optimization of sustainable cutting conditions in turning carbon steel by CNC turning machine
Haider M. Mohammad Albu-Swelim, University of Basrah, Iraq

Title: Enhancement the mechanical properties of aluminum casting alloys (A356) by adding nanorods structures from zinc oxide
Zaid S Qassim, University of Basrah, Iraq

Title: Prediction of hardness, yield strength, and tensile strength for single roll melt spinning of 5083 Al-alloy ribbons
Ahmad Kadhim Jassim Al-Dawod, University of Basrah, Iraq

Title: Comprehensive study of chemical synthesis and dielectric parameters of holmium substituted yttrium iron garnets (HoₓY₃₋ₓFe₅O₁₂, x=0.1, 0.3, 0.6, 0.9, 1.2, 1.5) prepared by conventional ceramic method
Kausar Javed Khan, Lahore College for Women University, Pakistan

Title: Water content dependent mechanical properties of biopolymer thin films: A molecular dynamics study
Santhosh Mathesan, IIT Madras, India

Poster Presentations on Day 2 (February 21, 2017) 16:20-17:00 @ Sylt Foyer

MSC-01
Title: Predictive wear modelling - The ultimate simulation tool for optimum tribo coatings
Nick Bierwisch, Saxonian Institute of Surface Mechanics, Germany

MSC-02
Title: Synthesis and characterization of conductive polymer hydrogels and the investigation of their application as biosensor hybrid for catechol detection
Ezer Castillo, Adelphi University, USA

MSC-03
Title: Dynamic response of a modified water tank exposed to concentrated solar energy
Mohammed H. Alhamdo, University of AlMustansiryah, Iraq

MSC-04
Title: Experimental study of the thermal behavior of heated natural composite material
Qasim Saleh Mahdi, AL-Mustansiryyah University, Iraq
Title: Engineering of multi-functional composite nano-particles to address anti-microbial resistance using EHDA particle technology  
Suleman Ramzan, De Montfort University, UK

Title: Rare earth Chalcogels NaLnSnS4 (Ln= Y, Gd, Tb) for Selective Adsorption of Volatile Hydrocarbons and Gases  
Fatimah Edhaim, King Abdullah University of Science & Technology, SA

Title: On the friction and wear on-set of fcc metals by atomic force microscopy  
Hui-Eun Ko, KoreaTech, Republic of Korea

Panel Discussions
End Of Day 2
Closing Ceremony

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15th Annual Congress on Materials Research and Technology
February 19-20, 2018 Paris, France

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Scientific Program

11th International Conference on

September 7-8, 2017  Edinburgh, Scotland
### Keynote Forum

**Introduction**

**Title:** Direct recording of myosin head power and recovery strokes in hydrated myosin filaments provides evidence against the swinging lever arm mechanism in muscle contraction  
*Haru Sugi, Teikyo University Medical School, Japan*

**Title:** The skeleton microporous materials with coatings inside the pores for medical and dental applications  
*Leszek Adam Dobrzanski, World Academy of Materials and Manufacturing Engineering, Poland*

**Title:** Single wall and multiwall WS₂ nanotubes synthesis and characterization - the update  
*Alla Zak, Holon Institute of Technology, Israel*

### Networking and Refreshments Break

### Sessions: Advancement in Nanomaterials Science And Nanotechnology | Coatings and Surface Engineering | Functional Materials

**Session Chair:** Hideo Miura, Tohoku University, Japan

**Title:** Evaluation of atomic scale damages of advanced materials based on the order of atom arrangement  
*Hideo Miura, Tohoku University, Japan*

**Title:** Thermokinetic modeling and simulation of complex phase transformations in the framework of advanced functional materials  
*Erwin Povoden-Karadeniz, Institute of Materials Science and Technology, Austria*

**Title:** Evaluation of sputtered PZT thin films on Ti-substrates upon re-crystallization with a thin Pb-overcoat  
*Ankita ghatak, S.N. Bose National Centre For Basic Sciences, India*

**Title:** Modification of ground state property on size reduction to 1D  
*Barnali Ghosh (Saha), S.N. Bose National Centre For Basic Sciences, India*

**Title:** Towards conductive textiles: coating polymeric fibres with graphene  
*Ana neves, University of Exeter, UK*

**Title:** Functionalization of cocoa shell (CS) surfaces using nanoparticles and their application in CO₂ storage  
*Julien vieillard, University of Rouen Normandie, France*

### Session Chair: Manfred Martin, RWTH Aachen University, Germany

**Title:** Low friction, wear resistant quasicrystalline coatings  
*Jean marie dubois, Université de Lorraine, France*

**Title:** Hafnium and palladium modified aluminide coatings  
*Jolanta Romanowska, Rzeszów University of Technology, Poland*

**Title:** Resistive switching in highly disordered thin oxide films  
*Manfred Martin, RWTH Aachen University, Germany*

**Title:** TiO₂ nanotubes as potential vascular stents: Effect of oxygen plasma treatment on crystal structure and surface properties  
*Metka bencina, Jožef Stefan Institute, Slovenia*

**Title:** Particle size versus energetics of nanomaterials: Key parameters controlling the stability and reactivity of nanostructured materials  
*Speranta Tanasescu, Institute of Physical Chemistry Ilie Murgulescu of the Romanian Academy, Romania*
Title: Formation of carbon-based nanostructures from carbon suboxide decomposition at high pressure and temperature – a ReaxFF study
Xavier Bidault, Commissariat Energie Atomique, France

Title: Starch capped silver nanoparticles as colorimetric sensor for hydrogen peroxide recognition in aqueous medium
Abdelaziz Elgamouz, University of Sharjah, UAE

Networking and Refreshments Break

Sessions: Advanced Biomaterials, Bio devices & Tissue Engineering | Advanced Ceramics and Composite Materials
Session Chair: Garcia Garcia Francisco, University of Edinburgh, Scotland

Title: Design of nanostructured powders and mechanical properties of WC-AISI 304 stainless steel composites
Ana Senos, University of Aveiro, Portugal

Title: Thermal characterization of a thermoplastic resin for resin transfer molding in process conditions: Demonstrating of the feasibility of the technology
Bailleul Jean-Luc, Laboratoire de Thermocinétique de Nantes, France

Title: Thermoelectric oxides processed by a laser floating zone technique
Nuno M. Ferreira, University of Aveiro, Portugal

Title: LIPSS stimulate stem mesenchymal cells differentiation to osteoblasts in titanium and tantalium
Alberto Jorge Mora, Universidad de Santiago de Compostela, Spain

Title: Biological cell inspired reactors for an increasing population world
Garcia Garcia Francisco, University of Edinburgh, Scotland

Title: Synthesis of Nano CaCO3 and Hydroxyapatite by Sol-Gel methods, on spores and in 3D-printed Ca2+-crosslinked PVA hydrogels and their use in bone regeneration
Paul Sermon, Brunel University, UK

Breakout @ Edradour

Sessions: Materials Processing and characterization | Materials for Energy application & Energy storage
Session Chair: Alexandre Maitre, University of Limoges, France

Title: Atomic layer deposition routes to monolithic integration of crystalline oxides on semiconductors
John Ekerdt, University of Texas at Austin, USA

Title: Tailoring compatibility in ultrapermeable polymer blends to switch off plasticization and physical ageing
Lau Sam, University of Edinburgh, Scotland

Title: Mechanism of spark plasma sintering of high temperature ceramics such as carbides
Alexandre Maitre, University of Limoges, France

Title: Testing methodologies for thermo-mechanical fatigue evaluation in advanced aerospace materials
Mark Whittaker, Swansea University, UK

Title: Characterization of energy materials by neutron scattering
Martin Jones Owen, Science and technology facilities council, UK

Title: Permanent magnets in energy applications for the clean environment
Spomenka Kobe, Jožef Stefan Institute, Slovenia

Lunch Break

Sessions: Advanced Materials Engineering | Materials Science and Engineering | Emerging Areas of Materials Science
Session Chair: Masumi Saka, Tohoku University, Japan
Title: Interaction of nanoparticles with amino acids and a physiologically important model protein studied by spectroscopic techniques
Karolina M. Šišková, Palacký University in Olomouc, Czech Republic

Title: Kovacs effect and the relation between glasses, supercooled liquids and crystals
Francesco Aliotta, Istituto per i Processi Chimico-Fisici, Italy

Title: Co-electrodeposition of Zn-rich Cu-Zn-Sn metallic alloy and its conversion to Cu₂ZnSnS₄ and Cu₂ZnSnSe₄ photovoltaic absorber films
Ali Rakhsani, Kuwait University, Kuwait

Title: Surface mechanics design of metallic materials by cavitation peening
Hitoshi soyama, Tohoku University, Japan

Title: Fatigue analysis of a failed connecting rod in race car engine
Klaudio Bari, University of Derby, UK

Title: Crack/damage evaluation and micro-materials fabrication in the relation with electric field
Masumi Saka, Tohoku University, Japan

YRF: Heat transfer performance of double-layer porous copper produced by tape casting with lost carbonate sintering
Mosalagae Mosalagae, Sheffield University, UK

Session Chair: Klaudio Bari, University of Derby, UK

Title: Advanced polydimethylsiloxane-urea copolymer basedmasterbatches with multiple functionality
Hans-Joachim Radusch, MLU Halle, Germany

Title: Sculpture art and fashion design
Mayssa El Fare, Damietta University, Egypt

Title: Material science and fashion design
Nashwa El Shafey, Damietta University, Egypt

Title: Structures, interactions and optical responses from polymer and polymer nanocomposites
Sarathi Kundu, Institute of Advanced Study in Science and Technology, India

Title: Recent advances in polylactic acid based blends, composites and nanocomposites for packaging and barrier applications
Kartikey Verma, Chandigarh University, India

Day 2  September 08, 2017
Balvenie Glenmorangie

Keynote Forum

Title: Influence of non-Newtonian behavior of polymers on their processing characteristics
Mosongo moukwa, PolyOne Corporation Designed Structures and Solutions LLC, USA

Title: Continuous nanocrystallizing of medicaments by spray flash evaporation
Denis Spitzer, NS3E Laboratory, ISL-CNRS-UNISTRA, France

Title: Hybrid biomaterials for nanobioelectronic device: toward biocomputing system
Jeong-Woo Choi, Sogang University, Korea

Session Chair: Klaudio Bari, University of Derby, UK

Title: Molten salts & molten salts technology: past, present and future in materials and processing technology
Francisco Javier Perez Trujillo, Universidad Complutense de Madrid, Spain

Title: SERS tag-therapeutic drug delivery, multimodal imaging, multiplexed sensing and diagnosis metal-nanosystems
Nekane Guarrotxena, Institute of Polymer Science and Technology, Spanish National Research Council, Spain

Session Chair: Nekane Guarrotxena, Institute of Polymer Science and Technology, Spanish National Research Council, Spain

Session Chair: Sylvain G.Cloutier, École de Technologie Supérieure, Canada
Title: Adsorptive removal of sulfur compounds using Cu$^{2+}$-based porous coordination polymers
Masashi Morita, Panasonic Corporation, Japan

Title: Key role of the liquid-surface interactions to reveal hidden elastic properties in liquids
Laurence Noirez, Université Paris-Saclay, France

Title: Influence of nickel and aluminum additions on the microstructure and tensile properties of innovative, free-carbon, 10% cobalt maraging composit steel
Saied Elghazaly, Central metallurgical R&D Inst, Egypt

Title: Functionalized well-defined polymeric nanostructures for biomedical applications
Efrosyni Themistou, Queen's University Belfast, UK

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Title: The performance of polypropylene fibre reinforced concrete: Mechanical properties
Noor Faisal Abas, Universiti Sains Malaysia, Malaysia

Title: Polymeric nanoparticles and gels: modeling of dynamic behavior and properties using Discrete Element Method
Martin Kroupa, University of Chemistry and Technology Prague, Czech Republic

Title: High-performance perovskites hybrids for printable optoelectronics
Sylvain G.Cloutier, École de Technologie Supérieure, Canada

Title: Hydrogen production from water using the sun via photocatalytic processes on Au/g-C$_3$N$_4$/TiO$_2$ materials
Valerie Keller, Institute of Chemistry and Processes for Energy, Environment and Health, France

Title: On unified approach in description of crystalline structures in discrete space
Vladimir Shevcheko, Institute of Silicate Chemistry RAS, Russia

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Video Presentations

Title: Engineering columnar crystals: A novel, template-based method of sequential deposition
Ho-kei Chan, Harbin Institute of Technology, China

Title: Microstructure development affected by electrode geometry during resistance spot welding
Peng-Sheng Wei, National Sun Yat-Sen University, Taiwan

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Networking and Refreshments

Poster Presentations

Poster Judges: Speranta Tanasescu & Valerie Keller
Title: Luminescence of morphologically-controlled calcium silicon nitride particles through combined techniques of ultrasonic spray pyrolysis and carbothermal reduction/nitridation
Satoshi Ono, Sophia University, Japan

Title: Natural plant-derived polymer fabricated with sugar-containing hydroxyapatite for biocompatible bone-hemostasis
Yeonjeong Noh, Sophia University, Japan

Title: Encapsulation of oxynitride phosphors into sintered Li₂O-ZnO-B₂O₃-P₂O₅-CaF₂ glass body
Nanako Akiyama, Sophia University, Japan

Title: Electrochemical decoration of MoS₂ nanoplatelet arrays with Pt quantum dots for high efficient water splitting
Arnas Naujokaitis, Vilnius University, Lithuania

Title: Detachable photocatalysts of anatase TiO₂ nanoparticles: Annulling surface charge for immediate photocatalyst separation
Al-Hetlani, Kuwait University, Kuwait

Title: Luminescence of Mn²⁺ and Eu³⁺ doped zinc phosphate glass
Hector Octavio Murrieta Sanchez, Universidad Nacional Autónoma de México, México

Title: Impact of the granularity of a high-explosive material on its shock properties
Xavier Bidault, Commissariat Energie Atomique, France

Title: Green synthesized biocompatible anode in MFCs for sustainable wastewater treatments and energy recycling
Ying Cheng, University of Newcastle, Australia

Title: Fibers made by centrifugal spinning technology

Awards & Closing Ceremony