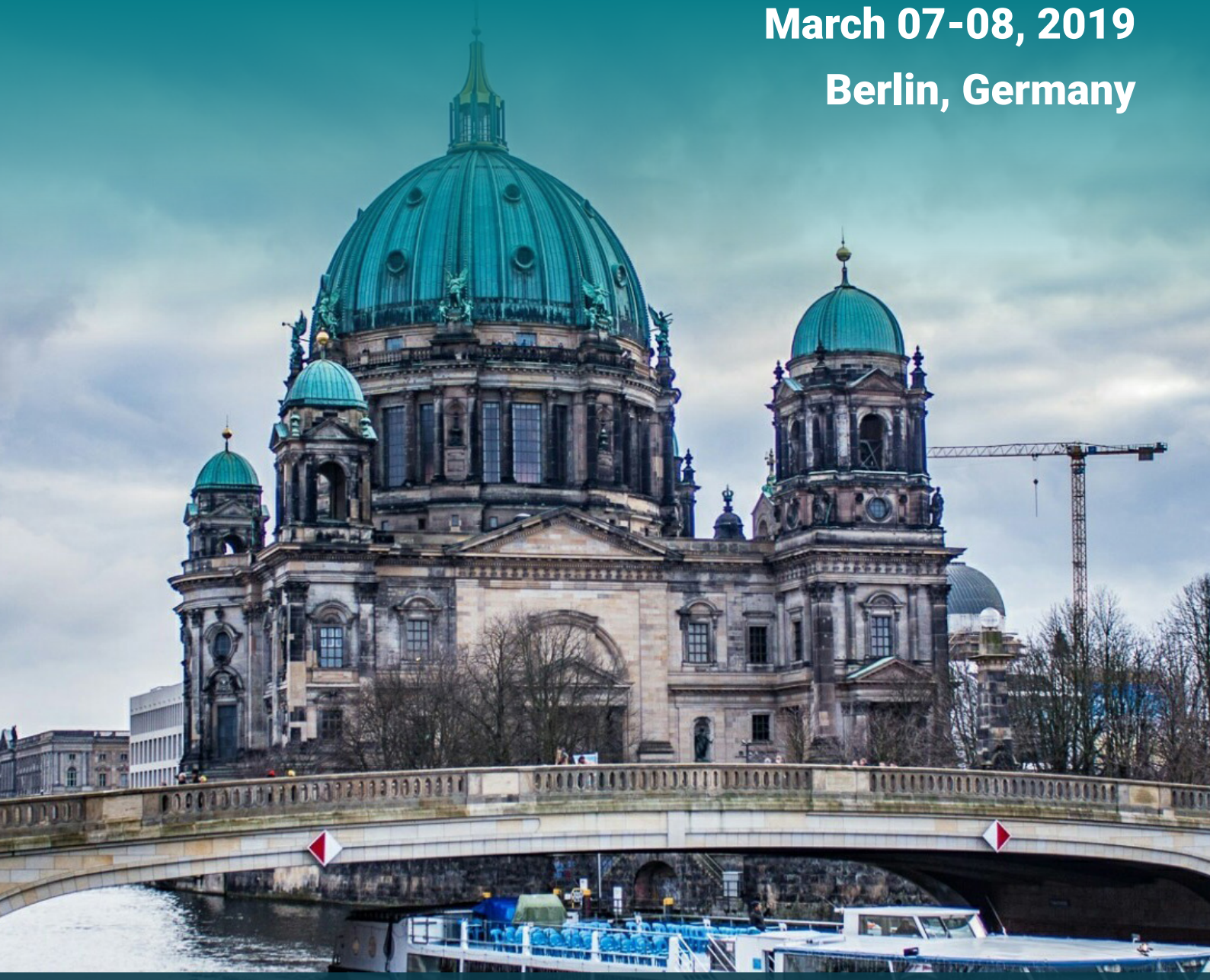
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17th International Conference on

Emerging Materials and Nanotechnology

March 07-08, 2019

Berlin, Germany



SCIENTIFIC PROGRAM

DAY 1
Thursday, 7th March

08:30-09:00 **Registrations**

09:00-09:30 **Introduction**

09:30-09:50 COFFEE BREAK

09:50-11:50 Meeting Hall 01

KEYNOTE LECTURES

11:50-13:10

MEETING HALL 01

Talks On:

- Materials Science and Engineering
- Materials and Devices
- Nanotechnology in Materials Science

13:10-13:15 GROUP PHOTO

13:15-14:00 LUNCH BREAK

14:00-16:00

MEETING HALL 01

Talks On:

- Energy Materials
- Surface Science and Engineering
- Biomaterials and Tissue Engineering

16:00-16:20 COFFEE BREAK

MEETING HALL 01 (16:20-17:00)

Young Researchers in Emerging Materials and Nanotechnology

DAY 2
Friday, 8th March

09:00-10:30 Meeting Hall 01 — **KEYNOTE LECTURES**

10:30-10:50 COFFEE BREAK

10:50-12:50 — **MEETING HALL 01**

Talks On:

- Ceramic Engineering
- Polymer Technology
- Graphene and Carbon Nanotubes

12:50-13:35 LUNCH BREAK

13:35-15:55 — **MEETING HALL 01**

Talks On:

- Electrical, Optical, Magnetic Materials
- Advanced Materials
- Materials Characterization and Applications

15:55-16:15 COFFEE BREAK

MEETING HALL 01 (16:15-17:00)

Poster Presentations

Previous Organizing Committee



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Berlin Attractions



Glimpses of Materials Science Conferences

















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Day 1 March 22, 2018

Registrations

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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 Abdulrahamn 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 SiO_2 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) & $CoFe_2O_4/Co_{0.5}Zn_{0.5}Fe_2O_4$ - 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 TiO_2 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'-Co_3(Al, W) strengthened Co-Al-W-Mo-Ta-B-Ce alloys** **Jiangbo Sha,** Beihang Uniersity, 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

Bookmark your dates

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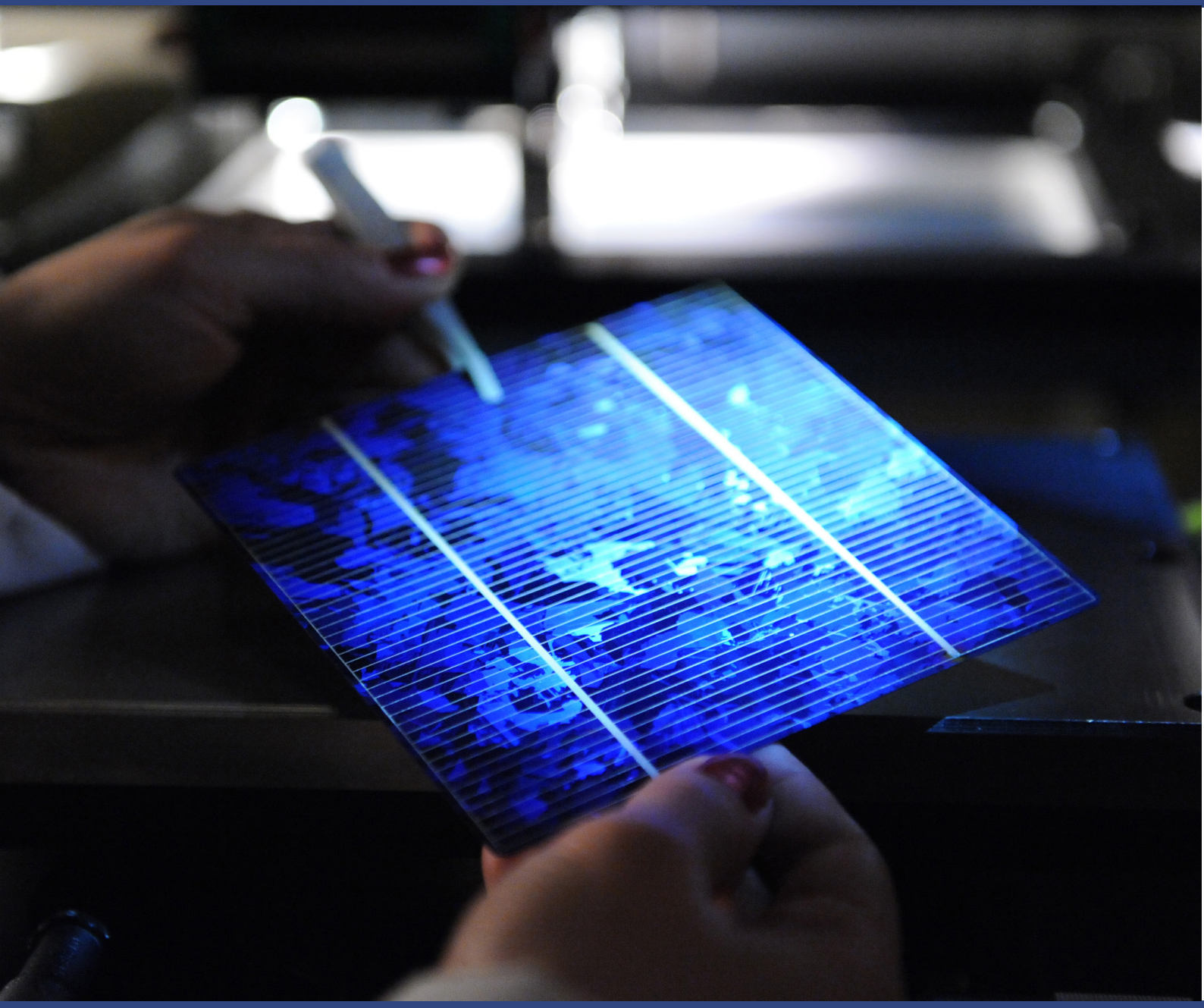
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Materials Research and Technology

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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 Industral 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 Schvartzman, 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(NIPAAm-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 Fe_3O_4-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 guskov, 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 grown h-BN as a dielectric layer

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 Kaiju, 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 $FeWO_4$ nanoparticles using WS_2 nanotubess
Gregory Leitus, Weizmann Institue 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 AlMustansirya, Iraq
MSC-04	**Title: Experimental study of the thermal behavior of heated natural composite material** **Qasim Saleh Mahdi**, AL-Mustansiryah University, Iraq

MSC-05	**Title: Engineering of multi-functional composite nano-particles to address anti-microbial resistance using EHDA particle technology** **Suleman Ramzan,** De Montfort University, UK
MSC-06	**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
MSC-07	**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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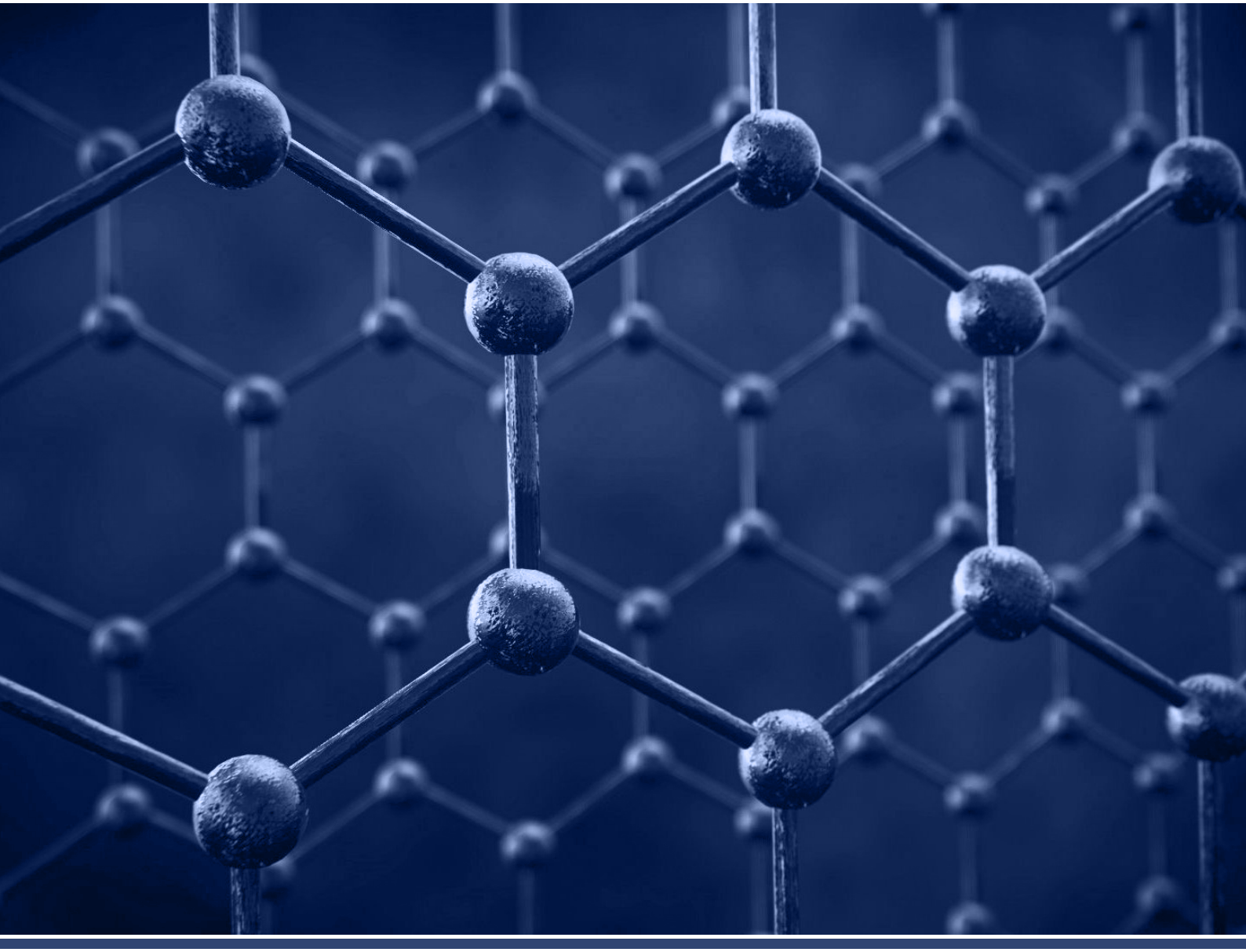
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Opening Ceremony

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 WS_2 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

Session Introduction

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 CO_2 storage

Julien vieillard, University of Rouen Normandie, France

Lunch Break

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: TiO_2 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 $CaCO_3$ and Hydroxyapatite by Sol-Gel methods, on spores and in 3D-printed Ca^{2+}-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, Univerisity 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
Karolína 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 Cu_2ZnSnS_4 and $Cu_2ZnSnSe_4$ photovoltaic absorber films
Ali Rakhshani, 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 Univeristy, UK

Networking and Refreshments Break

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

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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

Networking and Refreshments Break

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

Session Introduction

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

Lunch Break

Title: The performance of polypropylene fibre reinforced concrete: Mechanical properties
Noor faisal Abas, Universiti Sains Malaysia, Malaysia
YRF: 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 perovskite 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_3N_4/TiO_2 materials
Valerie Keller, Institute of Chemistry and Processes for Energy, Environment and Health, France
Title: On unified approach in description of crysttalline structures in discrete space
Vladimir Shevcheko, Institute of Silicate Chemistry RAS, Russia

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

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: Title: Encapsulation of oxynitride phosphors into sintered Li_2O-ZnO-B_2O_3-P_2O_5-CaF_2 glass body
Nanako akiyama, Sophia University, Japan
Title: Electrochemical decoration of MoS_2 nanoplatelet arrays with Pt quantum dots for high efficient water splitting
Arnas Naujokaitis, Vilnius University, Lithuania
Title: Detachable photocatalysts of anatase TiO_2 nanoparticles: Annulling surface charge for immediate photocatalyst separation
Al-Hetlani, Kuwait University, Kuwait
Title: Luminescence of Mn^{2+} and Eu^{3+} doped zinc phosphate glass
Hector Octvaio 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