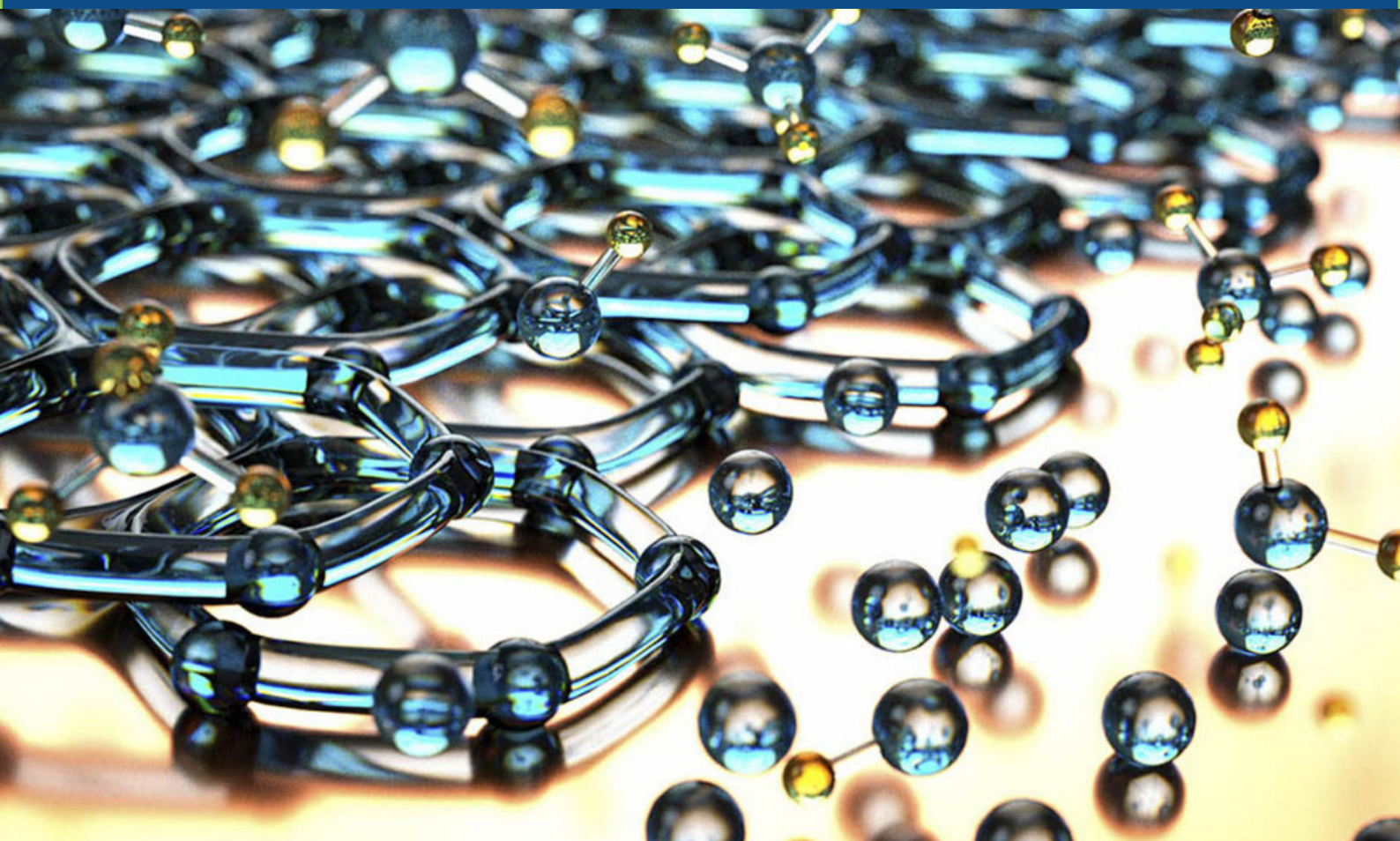


# Tentative Program

16<sup>th</sup> International conference on

## Emerging Materials and Nanotechnology

March 22-23, 2018 London, UK



Interactive  
Sessions

Keynote  
Lectures

Plenary  
Lectures

Workshops

Exhibitors

B2B  
Meetings

\*\*\*For available speaker slots\*\*\*

[emergingmaterialscongress@annualconferences.org](mailto:emergingmaterialscongress@annualconferences.org)

## Emerging Materials Congress 2018

**16<sup>th</sup> International Conference on Emerging Materials and Nanotechnology**

March 22-23, 2018 London, UK

**Program at A Glance****Day 1**

Morning Sessions	Reception/Registration	08.00-09.00	
		Time	General Session
		09.00-09.15	Inaugural Address
	3 Keynote/Plenary Talks	09.15-09.45	Keynote/Planery talk 1
		09.45-10.15	Keynote/Planery talk 2
		10.15-10.45	Keynote/Planery talk 3
	Panel Discussions/Group Photo		
	Coffee/Tea Break 10.45-11.00 (Networking)		
	11.00-12.40	<div>➤ Materials Science and Engineering</div> <div>➤ Materials Chemistry and Physics</div> <div>➤ Surface Science and Engineering</div>	
Evening Sessions			
	Lunch Break 12.40-13.30		
	13.30-15.30	<div>➤ Emerging Materials for Energy Storage</div> <div>➤ Materials and Devices</div> <div>➤ Energy Materials</div>	
	Coffee/Tea Break 15.30-15.45 (Networking)		
	15.45-17.25	Workshop	

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[emergingmaterialscongress@materialsconferences.org](mailto:emergingmaterialscongress@materialsconferences.org)

Day 2				
Morning Sessions		Time	Session 1	Session 2
	09.00-10.40		Keynote Forum	
	Coffee/Tea Break 10.40-10.55 (Networking)			
	10.55-12.35	Biomaterials and Tissue Engineering		Nanotechnology in Materials Science & Polymer Technology
Evening Sessions	Lunch Break 12.35-13.25			
	13.25-15.05	Mining and Metallurgy		Electrical, Optical and Magnetic Materials
	Coffee/Tea Break 15.05-15.20 (Networking)			
	15.20-17.00	Materials Application & Materials Characterization		Next Generation Materials Advanced Emerging Materials
Poster presentation @ 17.00-18.00				
	Awards & Closing Ceremony			
NOTE: Program Schedule is subject to change with final allotment of the speaker slots				

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# Conference Highlights

- Materials Science and Engineering
- Materials and Devices
- Emerging Materials for Energy Storage
- Next-Generation Materials Nanotechnology in Materials Science
- Energy Materials
- Mining and Metallurgy
- Surface Science and Engineering
- Biomaterials and Tissue Engineering
- Materials Characterization
- Polymer Technology
- Electrical, Optical and Magnetic Materials
- Materials Chemistry and Physics
- Advanced Materials
- Materials Applications

For detailed sessions, please visit: <http://emergingmaterials.materialsconferences.com/>

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# Glimpses of Emerging Materials Conferences





## BEST TOURIST ATTRACTIONS IN LONDON, UK



Natural History Museum



Coke rings



Royal Albert Hall



Natural History Museum



National Gallery of London



Tower of London



Tower Bridge



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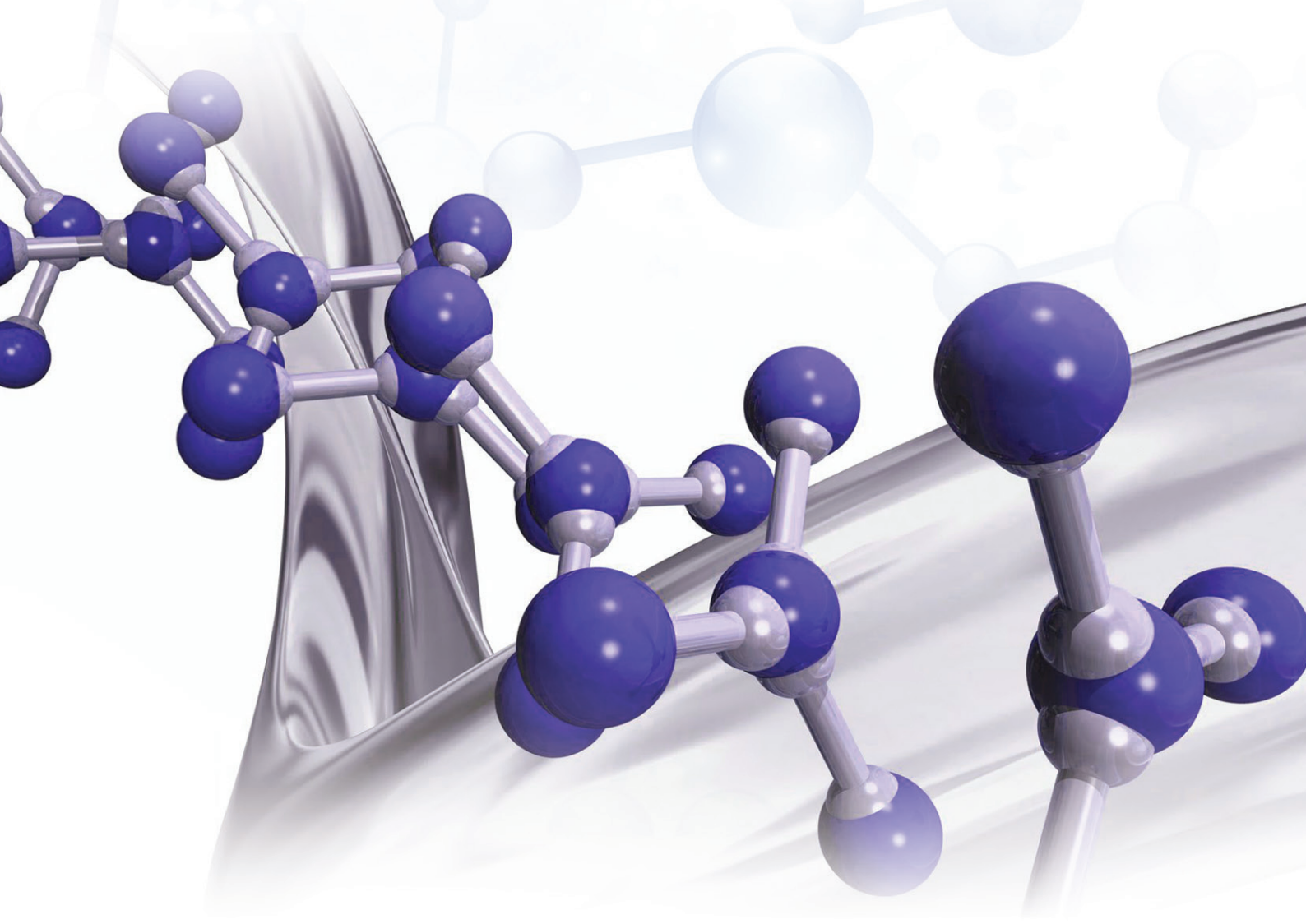
1078<sup>th</sup> Conference

# SCIENTIFIC PROGRAM

10<sup>th</sup> International Conference on

## EMERGING MATERIALS & NANOTECHNOLOGY

July 27-29, 2017 | Vancouver | Canada



### Conference Series - America

One Commerce Center-1201, Orange St. #600, Wilmington, Zip 19899, Delaware, USA P: +1-702-508-5200, F: +1-650-618-1417

### Conference Series - UK

Kemp House, 152 City Road, London EC1V 2NX Toll Free: +1-800-216-6499

West Minster South

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# Opening Ceremony

## Keynote Forum

**Title: Small things offer big promise**

**Carlo Montemagno**, University of Alberta, Canada

**Title: Progress in semiconductor materials and processes for printed transistors**

**Beng S Ong**, Hong Kong Baptist University, Hong Kong

## Networking & Refreshments Break

**Jas Pal Badyal**, Durham University, United Kingdom

**Title: Probing the nano-scale with the use of Nano-Opto-Mechatronics Instruments (NOMI)**

**Hamed Sadeghian**, TNO, Netherlands

## Workshop

**Title: Emerging nano-porous metal-organic frameworks materials for applications related to energy efficiency and environmental sustainability**

**Youssef Belmabkhout**, KAUST, Saudi Arabia

**Sessions: Materials and Devices | Nanotechnology & Emerging Technologies**

**Session Chair: Anton Liopo**, The University of Texas MD Anderson Cancer Center, USA

**Session Chair: Jingyang Wang**, Chinese Academy of Sciences, China

## Session Introduction

**Title: Gold-based emerging nanomaterials for imaging and experimental cancer therapy**

**Anton Liopo**, The University of Texas MD Anderson Cancer Center, USA

**Title: Strategic modification of nanostability for super thermal insulating materials**

**Jingyang Wang**, Chinese Academy of Sciences, China

## Lunch Break

**Title: Engineering graphene and TMDCs for nanoelectronic device applications**

**Moon-Ho Ham**, Gwangju Institute of Science and Technology (GIST), South Korea

**Title: Nanocarbon composites for mechanical and barrier applications**

**Ken Bosnick**, National Research Council Canada, Canada

**Title: Developing nanostructured materials for harvesting more photons**

**Dongling MA**, Institut National de la Recherche Scientifique (INRS), Canada

**Title: Plasmon-enhanced optoelectronic devices based on metal nanostructures**

**Lin Jiang**, Soochow University, China

**Title: To explore nano world and material structure stress by X-ray nano probe at Taiwan photon source**

**Shao-Chin Tseng**, National Synchrotron Radiation Research Center, Taiwan

**Title: Microneedle bio-sensor: Direct, label-free, real time detection of pH in biological cells**

**Ganesh Kumar Mani**, Tokai University, Japan

**Title: Bacteria can enhance mechanical strength of a porous medium**

**Swayamdipta Bhaduri**, University of Alberta, Canada

## Panel Discussion

## Networking & Refreshments Break

**Sessions: Biomaterials and Bioinspired Materials | Emerging Materials for Energy Storage | Metals and Mining**

**Session Chair: Samuel Frimpong**, Missouri University of Science and Technology, USA

**Session Chair: Aman Ullah**, University of Alberta, Canada



**Title: Tire rubber material characterization for effective structural and fatigue modeling and analysis**

**Samuel Frimpong**, Missouri University of Science and Technology, USA

**Title: Rapid conversion of lipids into biopolymers and conjugates**

**Aman Ullah**, University of Alberta, Canada

**Title: Hydroxyapatite–heparin–BMP-2 on modified titanium surfaces enhances the efficacy of bone formation and osseointegration: *in vitro* & *in vivo* study**

**Deok-Won Lee**, Kyung-Hee University, South Korea

**Title: DEM modeling of oil sands materials structures**

**Samuel Frimpong**, Missouri University of Science and Technology, USA

**Title: Modifying titanium surfaces with nano-sized hydroxyapatite and simvastatin can enhance bone formation and osseointegration**

**Deok-Won Lee**, Kyung-Hee University, South Korea

**Title: Nano-Si: With good performance in solar cells and lithium ion batteries**

**Zhihao Yue**, Nanchang University, P.R. China

**Panel discussions | Memento Presentation to Organizing Committee Members**

**Day 2 July 28, 2017**

**West Minster South**

**Sessions: Advanced Emerging Materials | Materials: Characterization and Applications | Coatings and Surface Engineering**

**Session Chair: Matheus F A Goosen**, Alfaisal University, Saudi Arabia

**Session Chair: Krzysztof Z Sokalski**, Czestochowa University of Technology, Poland

## **Keynote Forum**

**Registrations and Introduction**

**Title: Digital etching of III-V semiconductors in aqueous solutions**

**Jan J Dubowski**, Université de Sherbrooke, Canada

**Networking & Refreshments Break**

**Title: Ni-based nanomaterials for high efficiency supercapacitors in energy storage**

**Hao Gong**, National University of Singapore, Singapore

**Title: Suspension thermal sprayed nanocomposite WC-Co coatings: Nanoindentation assessment**

**Matheus F A Goosen**, Alfaisal University, Saudi Arabia

**Title: Scaling a way for revealing self-similar features of materials and new applications**

**Krzysztof Z Sokalski**, Czestochowa University of Technology, Poland

**Title: Laser assist break of hard and brittle materials**

**Etsuji Ohmura**, Osaka University, Japan

**Title: Self-organized periodic nanostructures on the surfaces of semiconductors and dielectrics by scanning femtosecond laser pulses**

**Ki-Soo Lim**, Chungbuk National University, Korea

**Title: Lanthanides-redox ligands for single molecule magnets and luminescence**

**Lahcène Ouahab**, CNRS, Université de Rennes 1, France

**Lunch Break**

**Title: Crystal growth of Na-Si clathrates by the flux method**

**Haruhiko Morito**, Tohoku University, Japan

**Title: Microstructure and surface properties of Ti-6Al-4V cold spray coated with SiC-based cermet**

**Isaac D Adebisi**, Vaal University of Technology, South Africa

**Title: Facile fabrication of hybrid copper-fiber conductive features with enhanced durability and ultra-low sheet resistance for low-cost high-performance paper-based electronics**

**Tengyuan Zhang**, Western University, Canada

**Panel Discussion**

**Poster Presentation**

- EM17 01** Title: **New bone formation & fusion relevant to timing of cranioplasty via frozen autologous bone flaps in rabbits: a preliminary report using micro-CT scans & tissue staining analysis**  
Deok-Won Lee, Kyung-Hee University, South Korea
- EM17 02** Title: **Au, Ag, and Tio<sub>2</sub> green synthesis and applications as antibacterial for both gram positive and gram negative strain**  
Nada E Omer, University of Dammam, Saudi Arabia
- EM17 03** Title: **Number of layer dependent direct optical transition from monolayer to pentalayer in synthesized large area MoSe<sub>2</sub>**  
Jae-Hun Jeong, Yonsei University, South Korea
- EM17 04** Title: **Fabrication of multiplexed plasmonic nanoparticle structures based on AFM lithography**  
Jianmei Chen, Soochow University, China
- EM17 05** Title: **The effect of preparation conditions on the ion-exchange properties of LTA zeolite prepared from local silica**  
Samia Kosa, King Abdulaziz University, Saudi Arabia
- EM17 06** Title: **Bone regeneration enhanced by using a Gold nanoparticle–hydrogel complex**  
Deok-Won Lee, Kyung-Hee University, South Korea
- EM17 07** Title: **One step room temperature green synthesis of Au nanoparticles via gallic acid**  
Mustafa Can, Sakarya University, Turkey
- EM17 08** Title: **Synthesis and characterization of hematite nanoparticles for arsenite removal from aqueous medium**  
Herlys Viltres Cobas, Centro de Investigación en Ciencia Aplicada y Tecnología, Mexico
- EM17 09** Title: **Multifunctional nanoparticles composed of a mixed ferrite core and a mesoporous silica shell for RGD peptide to target  $\alpha$  (v)  $\beta$  (3) integrin in cancer therapy and diagnosis**  
Susel Del Sol Fernandez, Centro de Investigación en Ciencia Aplicada y Tecnología, Mexico

#### Best Poster Award Presentation

#### Memento Presentation to Organizing Committee Members

#### Networking & Refreshments Break

### Day 3 July 29, 2017

#### West Minster South

**Sessions: Advanced Emerging Materials | Materials: Characterization and Applications | Coatings and Surface Engineering**

**Session Chair: Klaus G Nickel, University Tübingen, Germany**

**Session Chair: David Kennedy, National Research Council of Canada, Canada**

**Title: The potential of improving building construction materials by a biomimetic approach**

**Klaus G Nickel, University Tübingen, Germany**

**Title: Quantifying the biological fate of nanosilver**

**David Kennedy, National Research Council of Canada, Canada**

#### Networking & Refreshments Break

**Title: Photochromic organic field-effect transistors: Molecules, device properties and laser patterning of circuits**  
**Yutaka Wakayama, National Institute for Materials Science (NIMS), Japan**

**Title: A bioinspired strategy for immobilizing silver nanoparticles towards the synthesis of antimicrobial paper**  
**Md.Shafiul Azam, University of Alberta, Canada**

**Title: Effects of the chemical composition of coal tar pitch on the baking zone temperature in Soderberg electrode systems**

**Lay Shoko, Vaal University of Technology, South Africa**

**Title: Growth, structural and electrical properties of VO<sub>2</sub>/ZnO nanostructures**

**Sang-Wook Han, Jeonbuk National University, South Korea**

**Title: Temperature-dependent hard X-ray excited optical luminescence to study the optical properties of the ZnO microwires**

**Bi-Hsuan Lin, National Synchrotron Radiation Research Center, Taiwan**

#### Panel Discussion | Awards & Closing Ceremony

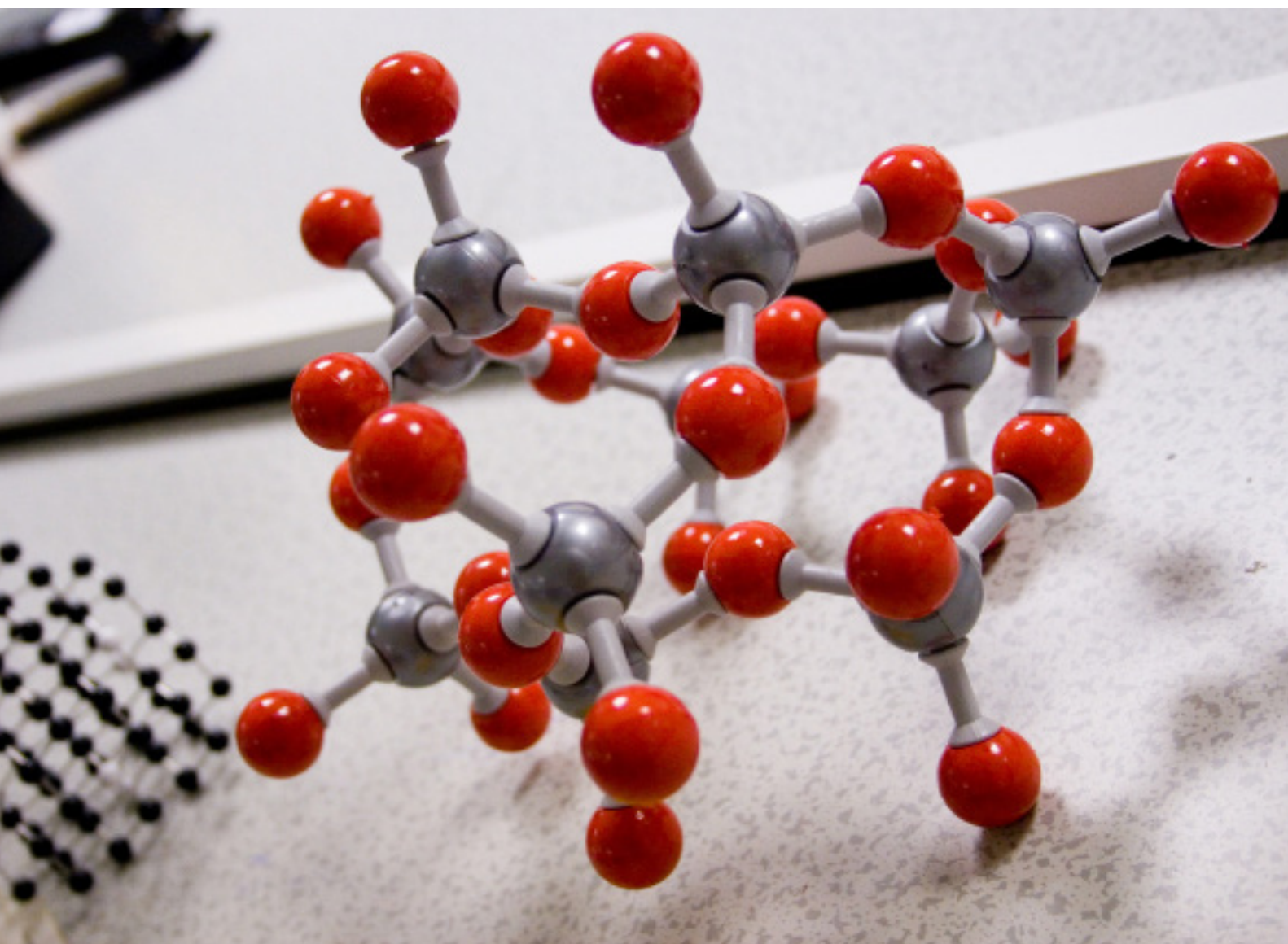
#### Lunch Break



9<sup>th</sup> World Congress on

# Materials Science and Engineering

June 12-14, 2017 Rome, Italy



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## Olimpica 1

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## Opening Ceremony

## Keynote Forum

## Introduction

**New ways of vision: Protein structures in translational medicine and business development - My experience****Robert Huber**, Nobel Laureate, Chemistry 1988**Nanogenerators for self-powered systems and piezotronics for artificial intelligence****Zhong Lin Wang**, Georgia Institute of Technology, USA**Sessions: Materials Science and Engineering | Metals, Metallurgy and Materials****Session Chair: Nekane Guarrotxena**, Spanish National Research Council (CSIC), Spain**Session Co-Chair: Augusto Di Gianfrancesco**, Consultant, Rome Area, Italy

## Session Introduction

**Title: Building up smart optical “organic-inorganic” nanosystems****Nekane Guarrotxena**, Spanish National Research Council (CSIC), Spain**Title: Materials for advanced ultra-super critical power plants****Augusto Di Gianfrancesco**, Consultant, Rome Area, Italy

## Networking &amp; Refreshments Break

**Title: Helical light induced chiral surface relief in azo-polymer thin film****Takashige Omatsu**, Chiba University, Japan**Title: Multi-scale deformation analysis in a thermoplastic polyurethane****Alexander M Korsunsky**, University of Oxford, UK**Title: Proposed link between the periodic table and the standard model****John Roberts**, University of Liverpool, UK**Title: Fine-controlled subnano-metal particles in a dendrimer reactor****Kimihisa Yamamoto**, Tokyo Institute of Technology, Japan**Title: Structure and dynamics of polymer materials at the single molecule scale studied by novel fluorescence microscopy techniques****Hiroyuki Aoki**, Japan Atomic Energy Agency, Japan**Title: Development of highly stretchable conductive fiber and fiber-based electronic sensors for textile electronics****Taeyoon Lee**, Yonsei University, Republic of Korea

## Lunch Break

**Title: Finite-element analysis of velocity mode transition of crack propagation in rubber materials****Atsushi Kubo**, University of Tokyo, Japan**Title: Light driven directional mass transport of azo-benzene containing materials for complex tri-dimensional structures on surfaces****Stefano L. Oscurato**, University of Naples Federico II, Italy**Title: Enhancing the photocatalytic activity for pollutant degradation and H<sub>2</sub> evolution by modifying ZrO<sub>2</sub> with nanoclusters of BiVO<sub>3</sub>, Ag<sub>3</sub>PO<sub>4</sub>, SrTiO<sub>3</sub> and WO<sub>3</sub>: A first-principles study****Francis Opoku**, University of Johannesburg, South Africa**Sessions: Nanomaterials****Session Chair: Hikaru Kobayashi**, Osaka University, Japan**Session Co-Chair: Marzia Quaglio**, Italian Institute of Technology, Italy

## Session Introduction



**Title: Si nanopowder for internal hydrogen generation materials**

**Hikaru Kobayashi**, Osaka University, Japan

**Title: N-doped carbon-based nanofibers as oxygen reduction reaction catalysts**

**Marzia Quaglio**, Italian Institute of Technology, Italy

**Title: Controlled synthesis of vertical and planar graphenes using plasma-enhanced chemical vapor deposition**

**Mineo Hiramatsu**, Meijo University, Japan

**Title: Rational clustering and fractionation of “SERS hot-spot” plasmonic nanoparticles**

**Nekane Guarrotxena**, Spanish National Research Council (CSIC), Spain

#### Networking & Refreshments Break

**Title: The nanophotonic behaviors of wideband diluted magnetic semiconductor nanostructures**

**Bing Suo**, Beijing Institute of Technology, China

**Title: Fabrication of nanoporous graphene membranes for nanofiltration applications**

**Marco Laurenti**, Politecnico di Torino, Italy

**Title: Noble metal nanostructures**

**Sarmiza Elena Stanca**, Leibniz Institute of Photonic Technology, Germany

**Title: Fabrication and characterization of carbon nanotube–recycled polyethylene terephthalate nanocomposites**

**Ravindra Reddy Chowreddy**, Norner AS, Norway

**Title: Adatom's Berry phase as a classification toolkit and responsible for enhanced lifetimes of degenerated ground states**

**Marta Prada**, University of Hamburg, Germany

**Title: Nanostructured  $\text{Mn}_x\text{O}_y$  as catalyst for oxygen reduction reaction**

**Angelica Chiodoni**, Italian Institute of Technology, Italy

#### Panel Discussion

**Day 2    June 13, 2017**

### Olimpica 1

#### Keynote Forum

**An approximate semi-classical method that uses real valued trajectories for time dependent tunneling calculations**

**Michael F. Herman**, Tulane University, USA

**Implementation of new magnesium sheets into application from laboratory to service**

**Karl Ulrich Kainer**, Helmholtz-Zentrum Geesthacht, Germany

**Towards the growth of 3D forests of carbon nanotubes: Selective height control using reservoirs and overlayers**

**Gilbert Daniel Nessim**, Bar Ilan University, Israel

**Sessions: Nanomaterials | Mechanics, Characterization Techniques and Equipments**

**Session Chair: Kyuman Cho**, Sogang University, South Korea

**Session Co-Chair: Olga Barrera**, University of Oxford, UK

#### Session Introduction

**Title: Photoelectron spectra of  $\text{Ge}_x\text{Sb}_{20}\text{Se}_{80-x}$  Glasses**

**Li Wang**, Beijing University of Technology, China

**Title: Nanocellulose based flexible, environment-friendly nonvolatile resistive switching memory**

**Kazuki Nagashima**, IMCE Kyushu University, Japan

#### Networking & Refreshments Break

**Title: 2D material fluid nanocomposites for reconfigurable integrated optoelectronics and Si photonics**

**Anna Baldycheva**, University of Exeter, UK

**Title: Supporting titanium on silica, graphene, epoxy graphene and carbon nanotubes: A first-principles study**

**Penny Govender**, University of Johannesburg, South Africa

**Title: Nanostructure Layered Double Hydroxides (LDH): synthesis, characterization and possible applications**

**Maria Richetta**, University of Rome "Tor Vergata", Italy

**Title: Nanocrystalline cellulose from abaca fibers**

**Anniver Ryan P. Lapuz**, Forest Products Research and Development Institute, Philippines

**Title: A high resolution, multi-purpose scanning I/Q-interferometer scheme for material diagnostics**

**Kyuman Cho**, Sogang University, South Korea

**Title: Coupling diffusion and mechanics modeling for hydrogen embrittlement (HE)**

**Olga Barrera**, University of Oxford, UK

#### Lunch Break

**Title: Effects of plasticity and pressure on the morphology and propagation of blisters: formation of croissant and donut-like buckles**

**Jérôme Colin**, University of Poitiers, France

**Title: Rational design of organic electrode materials: New advances and tools**

**Christine Frayret**, Université de Picardie Jules Verne, France

**Title: Computational investigation of the kneading process of bread dough**

**Natalie German**, Technical University of Munich, Germany

**Title: Materials characterization by X ray diffraction techniques**

**Aitor Larrañaga Varga**, University of the Basque Country, Spain

**Title: Internal stress and friction measurements during MoS<sub>2</sub>-nickel electrodeposition**

**Ebru Saraloglu Güler**, Baskent University, Turkey

**Title: In-situ measurement for ablation geometry during impinging of plume with laser triangulation method**

**Juhwan Lim**, Agency for Defense Development, South Korea

#### Networking & Refreshments Break

**Title: Chemically bonded aramid-MWCNTs nano-composites: Morphology and thermal-mechanical properties**

**Zahoor Ahmad**, Kuwait University, Kuwait

**Title: The fate, behaviour and effect of WO<sub>3</sub> nanoparticles on the functionality of an aerobic treatment unit**

**Sandile Simelane**, University of Johannesburg, South Africa

**Title: Flexible synthesis of anatase TiO<sub>2</sub> nanocrystallines for dye-sensitized solar cells applied at regular sunlight and room light conditions**

**Yu-Ling Guo**, National Cheng Kung University, Taiwan

**Title: Single particle spectroscopic studies on two-photon photoluminescence of plasmon coupled gold nanotriangle dimers**

**Monalisa Garai**, National University of Singapore, Singapore

**Title: Fiber networks modified with graphene for durable and versatile flexible electronics**

**Pietro Cataldi**, Italian Institute of Technology, Italy

**Title: Mechanical and thermal properties of propylene glycol extended and paper waste sludge modified polyurethane foams**

**Agne Kairyte**, Vilnius Gediminas Technical University, Lithuania

#### Break-out Session Day 2 @ Olimpica 3

**Sessions: Biomaterials and Medical Devices | Polymer Science and Technology | Ceramics and Composite Materials**

**Session Chair: Bing Lu**, Wanhua Chemical Group Co. Ltd., China

**Session Co-Chair: Loubat Cédric**, Specific Polymers, France

#### Session Introduction

**Title: New development and applications of polyurethane materials**

**Bing Lu**, Wanhua Chemical Group Co. Ltd., China



**Title: Specific Polymers – Alkoxysilane and phosphonic acid functional groups to improve compatibility between inorganic surfaces and polymers**

**Loubat Cédric**, Specific Polymers, France

**Title: Improving separation of polymers by size-exclusion and liquid chromatography on the background of the theoretical model**

**Miloš Netopilík**, Academy of Sciences of the Czech Republic, Czech Republic

**Title: Sticky degradable bioelastomers**

**Richard Vendamme**, Flemish Institute for Technological research, Belgium

#### Special Session on:

**Title: Physics versus non-physical ISO/NIST standards in nano, micro and the numerous macro-techniques are detrimental for daily life: what can be done?**

**Gerd Kaupp**, University of Oldenburg, German

#### Lunch Break

**Title: Fabrication of Co-Cr alloys for biomedical applications by implementing rapid solidification**

**Julio Juarez Islas**, Instituto de Investigaciones en Materiales, Mexico

**Title: An enzymatic-based process for the extraction of fibers from diss stems with for composites reinforcement**

**Antonio Zuorro**, Sapienza" University of Rome, Italy

**Title: Flexible and soft bioelectronics for the biotic/abiotic interface**

**Damia Mawad**, University of New South Wales, Australia

**Title: Strategies for enhancing interfacial adhesion between chicken feather filler and thermoplastic matrices in biocompositess**

**Jorge Macanás de Benito**, Universitat Politècnica de Catalunya, Spain

**Title: Geometry and size dependent structural reversibility of sub-micrometer polymer structures**

**Hong Yee Low**, Singapore University of Technology and Design, Singapore

**Title: Perlite metal syntactic foam (PMSF) in impact engineering**

**Thomas Fiedler**, University of Newcastle, Australia

#### Networking & Refreshments Break

**Title: Synthesis and characterization of titanium carbide nanofibers using a modified carbothermal reduction process**

**Kanchan Mondal**, Southern Illinois University, USA

**Title: Highly dispersed zinc based sorbents for hot gas desulphurization: Synthesis and application**

**David Lokhat**, University of KwaZulu-Natal, South Africa

**Title: Melt infiltration casting of alumina, silicon carbide and boron carbide reinforced aluminium matrix composites**

**Ali Kalkanli**, Middle East Technical Univeristy, Turkey

**Title: Biomaterial surface modification to control inflammation: Effect of nanotopography and surface chemistry on protein adsorption and cell response**

**Rahul Madathiparambil Visalakshan**, University of South Australia, Australia

**Title: High performance rubber concrete**

**Samaneh Pourmohammadimojaveri**, Western Sydney University, Australia

**Title: Investigation of the microstructure and oxidation properties of NbB<sub>2</sub>-SiC-GNP composites**

**Burak Cagri Ocak**, Istanbul Technical University, Turkey

#### Poster Presentations (Session 1)

MSE01

**Title: Optoelectronic studies on hybrid perovskites films for solar cells applications**

**Mauricio Solis de la Fuente**, Lawrence Berkeley National Laboratory, USA

MSE02

**Title: Valorization of feather wastes as useful and environmental friendly materials**

**Marta Casadesús**, Universitat Politècnica de Catalunya, Spain

MSE03

**Title: Manufacturing of gasket sheet using paper manufacturing process without organic solvent**

**Yoonjong Yoo**, Korea Institute of Energy Research, Republic of Korea

- MSE04** Title: **Visible light driven photo-active nano Ag-TiO<sub>2</sub> for coating applications**  
Jia Liang Cheng, Temasek Polytechnic, Singapore
- MSE05** Title: **Preparation of leucite from analcime by ion exchange process: An experimental study**  
Qianqian Chang, China University of Geosciences, China
- MSE06** Title: **Preparation and luminescent properties of orange reddish emitting phosphor KCaBi(PO<sub>4</sub>)<sub>2</sub>:Sm<sup>3+</sup>**  
Mi Ruiyu, China University of Geosciences, China
- MSE07** Title: **Synthesis of nano-analcime with potassic hornblende syenite by direct alkali-hydrothermal treatment**  
Yuxiang Qi, China University of Geosciences, China
- MSE08** Title: **Angle-insensitive multicolor display device based on phase change materials**  
Hongkai Ji, University of Science and Technology, China
- MSE09** Title: **Gate-tunable Schottky junction solar cells with light transparent and electric-field permeable graphene mesh on n-Si**  
Won Il Park, Hanyang University, South Korea
- MSE10** Title: **Characterization and stability of TiO<sub>2</sub> nanoparticles in industrial dye stuff effluent**  
Langelihle Nsikayezwe Dlamini, University of Johannesburg, South Africa

#### Poster Presentations (Session 2)

- MSE11** Title: **Effect of binder on adsorption of cesium on silica gel containing embedded phosphotungstic acid**  
Aleksy Vasiliev, East Tennessee State University, USA
- MSE12** Title: **A highly efficient photoanode for enhancing degradation of the azo dye and electricity generation of dual-photoelectrode photocatalytic fuel cell**  
He Yun, City University of Hong Kong, China
- MSE13** Title: **Preparation of zeolite for slow-release fertilizer using K-feldspar powder**  
Jiangyan Yuan, China University of Geosciences, China
- MSE14** Title: **Raman microspectroscopy in dental research**  
Tomasz Buchwald, Poznan University of Technology, Poland
- MSE15** Title: **Inverse gas chromatography - A novel method for the examination of bond strength between tooth hard tissues and restorative materials**  
Zuzanna Okulus, Poznan University of Technology, Poland
- MSE16** Title: **Study on deposition rate and microstructure of niobium coating prepared by CVD from niobium pentafluoride**  
Mingmin Zheng, State Power Investment Corporation Science and Technology Research Institute, China
- MSE17** Title: **Effect of reduced graphene oxide on the mechanical, thermal and electrical properties of epoxy**  
Ahmed Alzahrany, University of Sheffield, United Kingdom
- MSE18** Title: **Solar cell: Photochemical cells based on dye sensitization of titanium dioxide and with indium tin oxide as a conductor**  
Ari A Mohammed, University of Zakho, Iraq
- MSE19** Title: **Preparation and properties of protective coating on inner surface of nickel-based alloy tube**  
Yanhong Liu, State Power Investment Corporation Science and Technology Research Institute, China



- MSE20**      **Title: Specific Polymers – Alkoxysilane and phosphonic acid functional groups to improve compatibility between inorganic surfaces and polymers**  
 Loubat Cédric, Specific Polymers, France
- MSE21**      **Title: Response of S-phase to rapid annealing**  
 Yana Liang, University of Birmingham, UK

#### Panel Discussion

**Day 3    June 14, 2017**

### Olimpica 1

#### Sessions: Electronic, Optical and Magnetic Materials

**Session Chair: Henri Jaffres**, Unité Mixte de Physique CNRS, France

**Session Co-Chair: Alessandra Vitale**, Politecnico di Torino, Italy

#### Session Introduction

**Title: Electrical spin injection and detection in molybdenum disulfide multilayer channel**

**Henri Jaffres**, Unité Mixte de Physique CNRS, France

**Title: Microscopic background in metal-insulator criterion for doped Mott-Hubbard materials**

**Vladimir A Gavrichkov**, Kirensky Institute of Physics, Russia

**Title: An electromagnetic-thermal model for heating patterns prediction of microwave treated palm to contrast the Red Palm Weevil**

**Rita Massa**, University Naples Federico II, Italy

**Title: Study on chemical reaction under microwave irradiation**

**Satoshi Fujii**, Tokyo Institute of Technology, Japan

**Title: L1<sub>0</sub>-FePt based systems for ultra high-density magnetic recording**

**Gaspare Varvaro**, ISM-CNR, Italy

**Title: Photoluminescent crystalline magnetic materials based on trivalent lanthanide ions and polycyanidometallates**

**Szymon Chorazy**, Jagiellonian University, Poland

#### Networking & Refreshments Break

**Title: Rare-metal-free supermagnet L1<sub>0</sub>-type FeNi ordered alloy**

**Masato Kotsugi**, Tokyo University of Science, Japan

**Title: Rare-metal-free high-performance Ga-Sn-O thin film transistor**

**Tokiyoshi Matsuda**, Ryukoku University, Japan

**Title: Ferroelectricity and magnetism in the organic charge transfer salts k-(ET)<sub>2</sub>X**

**Luca Fausto Tocchio**, Politecnico di Torino, Italy

**Title: Materials by design for thermodynamically stable electrides**

**Mina Yoon**, University of Tennessee, USA

**Title: Intrinsic charge transport in stanene: Role of buckling and electron-phonon coupling**

**Yuma Nakamura**, Tsinghua University, China

#### Lunch Break

#### Sessions: Emerging Smart Materials | Materials for Energy and Environmental Sustainability

**Session Chair: Tsvetanka Zheleva**, US Army Research Lab, USA

**Session Co-Chair: Antonina Pirrotta**, University of Palermo, Italy

#### Session Introduction

**Title: Materials research in energy and power for defense**

**Tsvetanka Zheleva**, US Army Research Lab, USA

**Title: A new perspective for analyzing experimental tests on biomaterials**

**Antonina Pirrotta**, University of Palermo, Italy

**Title: Solar cells efficiency enhancement by plasmons generation**

**Alexander Axelevitch**, Holon Institute of Technology, Israel

**Title: Sustainable solutions for industrial waste minimization: Environmental and material applications**

**Shivani Bhardwaj Mishra**, University of South Africa, South Africa

**Title: Quasiparticle approach to study the kinetics of self-assembly in complex material**

**Helena Zapolsky**, University of Normandy, France

**Title: Screen printable molecular copper ink for printed electronics**

**Bhavana Deore**, National Research Council, Canada

#### Networking & Refreshments Break

**Title: Relation between nanoscale structures and transport phenomena in materials of polymer electrolyte fuel cell**

**Takashi Tokumasu**, Tohoku University, Japan

**Title: Siloxane photopolymers for PCR microfluidics**

**Alessandra Vitale**, Politecnico di Torino, Italy

**Title: The quantum Hall effect, the theta angle, instantons and all that**

**Adrianus M M Pruiskien**, University of Amsterdam, Netherlands

**Title: CO<sub>2</sub> adsorption equilibria on calcium exchanged bentonite modified by mono-, di- and triethanolamines**

**Ali Elkhalfah**, Al-Neelain University, Sudan

**Title: Structural features and functions of ZIF crystals made via a reaction diffusion process at room temperature**

**Mohamad Hmadeh**, American University of Beirut, Lebanon

**Title: Influence of grain size on super elasticity and actuation properties of Cu-Al-Mn shape memory alloys**

**Nazim Babacan**, Ghazi University, Turkey

#### Panel Discussion

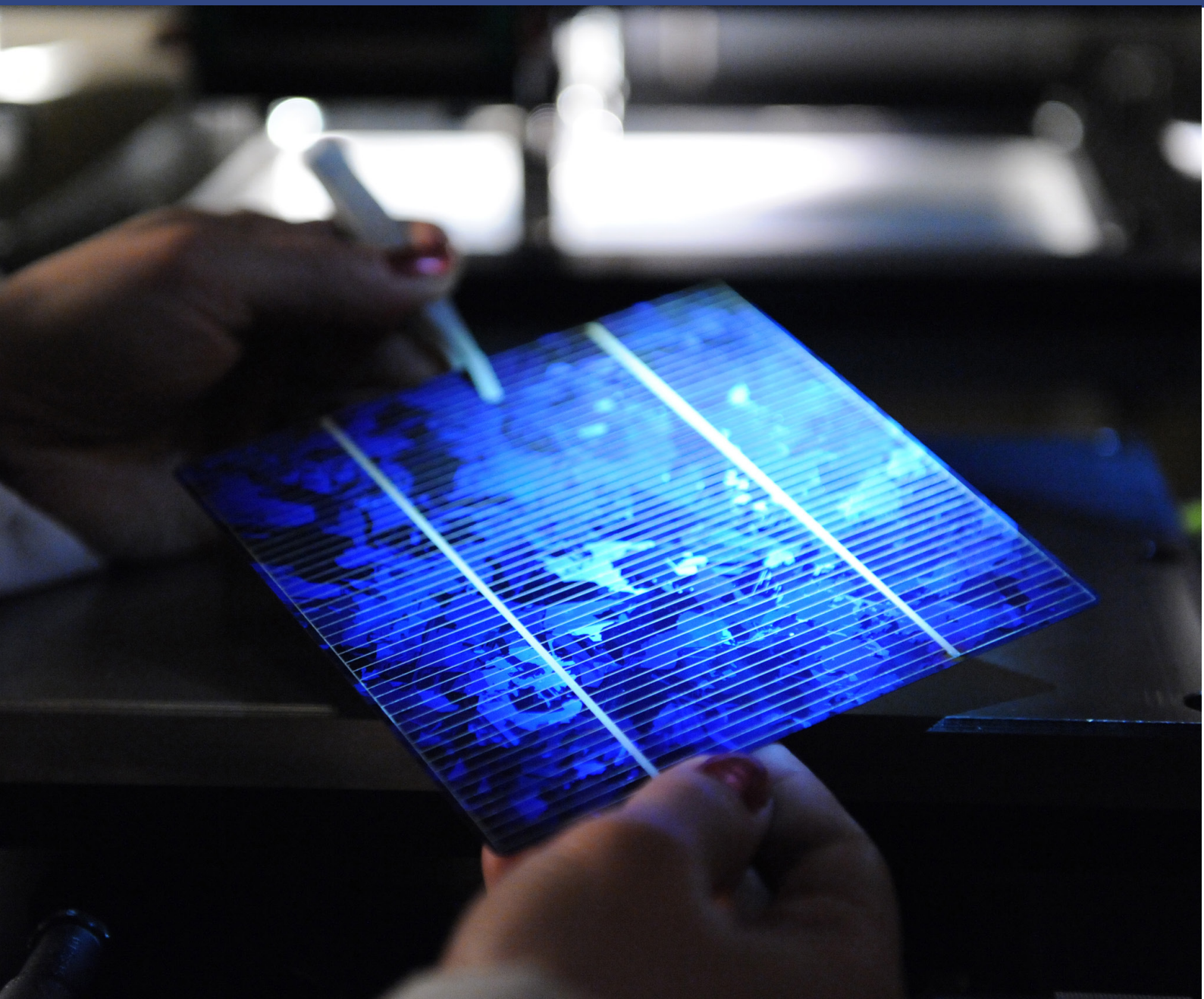
#### Award Ceremony



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February 20-21, 2017 Berlin, Germany



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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: Iriarteia deltoidea & Socratea exorrhiza: Sustainable production alternatives for integrated Biosystems, first stage - bioconstruction.**

**Lina Fernanda Mojica Sánchez**, CIAM-UNIMETA, Colombia

**Title: On-demand release of paclitaxel and 5-fluorouracil 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<sub>3</sub>O<sub>4</sub>-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<sub>4</sub> nanoparticles using WS<sub>2</sub> 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  $\text{NaLnSnS}_4$  ( $\text{Ln} = \text{Y, Gd, Tb}$ ) 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**

**Bookmark your dates**

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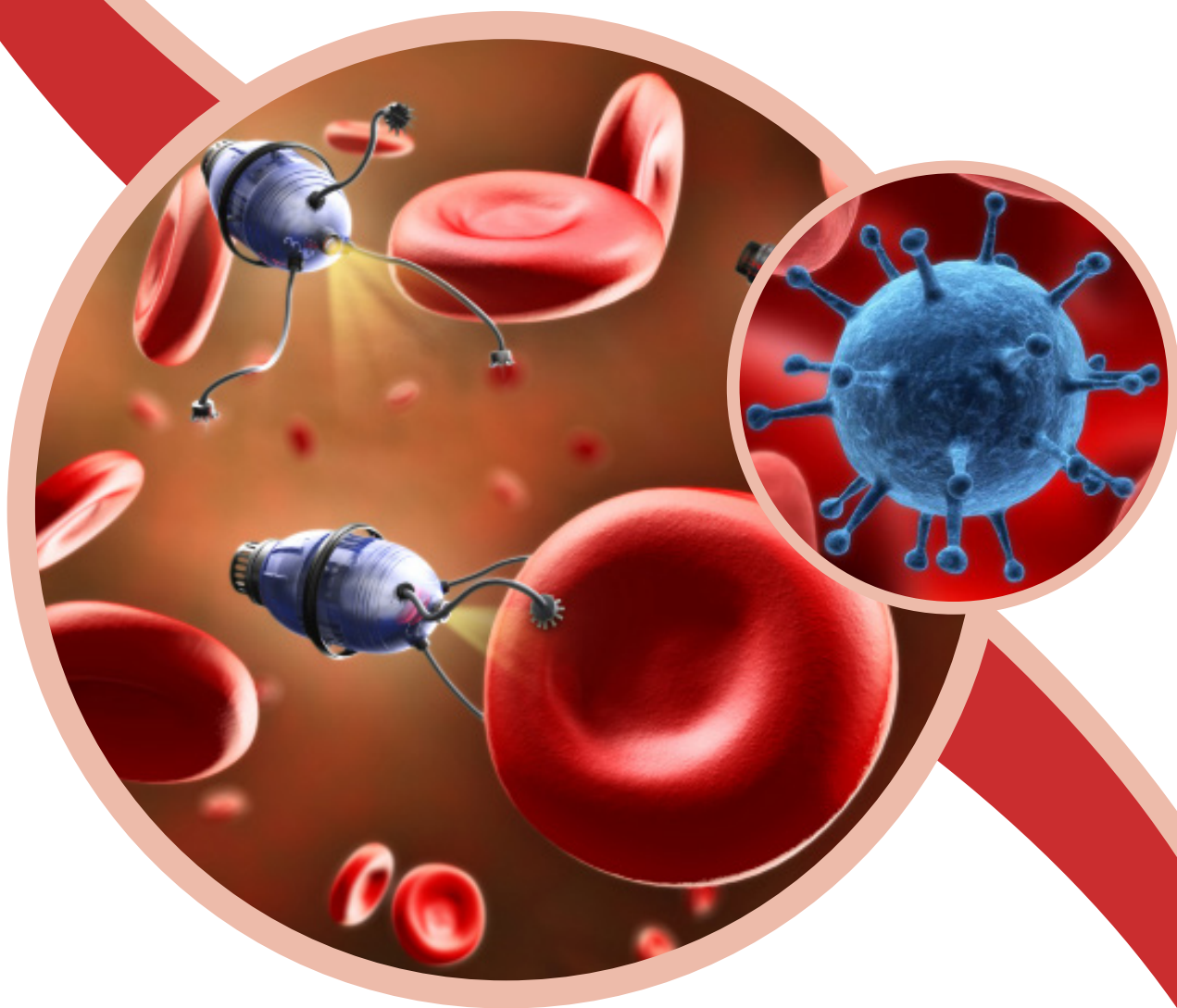


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# Nano Conference

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# Opening Ceremony

## Keynote Forum

### Introduction

**Title: The causal link between Nano -Toxicology and human health: DNA damage by UV emission from nanoparticles**

**Thomas Prevenslik**, QED Radiations, China

**Title: S-Nitrosated human serum albumin dimer with superior antitumor activity, long blood retention and excellent EPR effect**

**Masaki Otagiri**, Sojo University, Japan

**Title: Tuning plasmon resonance of  $\text{In}_2\text{O}_3$  nanocrystals throughout mid-infrared: dopant, phase, and electronic structure dependence**

**Pavle V. Radovanovic**, University of Waterloo, Canada

Group Photo

Networking and Refreshment Break

**Title: Surface-engineered tungsten disulfide ( $\text{WS}_2$ ) inorganic nanotubes (INTs- $\text{WS}_2$ ) – novel chemically modified nanoscale CNT-replacement inorganic “Nanofillers”**

**Jean-Paul Lellouche**, Bar-Ilan University, Israel

## Plenary Session

**Title: Ensemble Monte Carlo methods and results for nanoscale Si and III-V n-channel FinFETs; non-equilibrium degenerate statistics, quantum-confined scattering and more**

**Leonard F Register**, University of Texas at Austin, USA

**Title: Defluorination-assisted nanotube-substitution reaction with ammonia gas for synthesis of nitrogen-doped single-walled carbon nanotubes**

**Yoshinori Sato**, Tohoku University, Japan

**Title: Novel silicon nano-objects**

**María E Dávila**, Instituto de Ciencia de Materiales de Madrid - ICMM - CSIC, Spain

Lunch Break

**Title: Metamaterial device design with the extended modal theory**

**Nathalie Raveu**, LAPLACE - Centre National de la Recherche Scientifique, France

**Title: Electrically driven nanogap optical antennas**

**Claire Deeb**, Centre de Nanoscience et de Nanotechnologies, France

**Title: A novel nanometric cubic phase in monochalcogenide semiconductors – theory and experiment**

**Guy Makov**, Ilse Katz Institute for Nanoscale Science and Technology, Israel

## Panel Discussion

**Sessions:** Nanoscience and Technology | Nano Medicine | Nano Toxicology | Nanophotonics | Nano Composites | Nano Fluidics | Nanotechnology in Agriculture and Food Industry

**Session Chair:** Jean-Paul Lellouche, Bar-Ilan University, Israel

**Session Co-chair:** Masaki Otagiri, Sojo University, Japan

Session Introduction

*Nano 2017*

**Title: Nanotechnology in liver cancer**

**Manfred George Krukemeyer**, Paracelsus-Hospital Osnabrueck, Germany

**Title: Probing atherosclerotic plaque permeability using fluorescent blood pool agents in ApoE<sup>(-/-)</sup> mouse model**

**Claudia Cabella**, Bracco Imaging SpA, Italy

Networking and Refreshment Break

**Title: Nanotechnology: Applications and risks**

**Akbar S Khan**, Defense Threat Reduction Agency, USA

**Title: The fantastic voyage of nanoparticles targeting A $\beta$**

**Giulio Sancini**, University of Milano-Bicocca, Italy

**Title: Secondary electron emission from carbon nanoparticles by electron impact**

**Isabel Montero**, Instituto de Ciencia de Materiales de Madrid - ICMM - CSIC, Spain

**Title: Reactions of radicals at nanoparticles surfaces**

**Tomer Zidki**, Ariel University, Israel

#### YRF Session

**YRF Judge: Pavle V. Radovanovic**, University of Waterloo, Canada

**Title: Preparation and characterization of prednisone and ciprofloxacin double layer-loaded chitosan nanoparticles for oral delivery**

**Modan Wu**, Dublin Institute of Technology, Ireland

**Title: The cytoplasmic escape pathway of polyethylenimine coated nanoparticles is altered by changing the nanoparticle concentration**

**Kepsutlu Burcu**, Helmholtz-Zentrum Berlin, Germany

**Title: Functions of antigen presenting cells can be altered by gold nanoparticles exposure**

**Alexis Gonon**, Institute of Advanced Biosciences-University Grenoble Alpes, France

#### Panel Discussion

Day 2 June 06, 2017

#### Keynote Forum

##### Introduction

**Title: Band gap science for organic solar cells**

**Masahiro Hiramoto**, Institute for Molecular Science, Japan

**Title: Transparent and conductive nanomaterials**

**Daniel Bellet**, CNRS, France

**Title: Functional nanostructures and energy-driven water splitting**

**Ming-Yong Han**, Institute of Materials Research and Engineering, Singapore

Networking and Refreshment Break

#### Plenary Session

**Title: Contact line dynamic of cassie-state wetting on ultrahydrophobic nano-structured surfaces**

**Jiangtao Cheng**, Virginia Polytechnic Institute and State University, USA

**Title: Nanostructured supports design: a prospective way to modern catalysts constructing**

**Vera I Isaeva**, National University of Science and Technology "MISiS", Russia

**Title: Copper nanoparticles: Retarding air-oxidation without electrical isolation using organic ligands, and the size dependence of nanoparticle work function**

**Ross A Hatton**, University of Warwick, UK

**Title: Atomic-scale characterization of semiconductor nanowire surfaces during device operation**

**Rainer Timm**, Lund University, Sweden

Lunch Break

#### Panel Discussion

**Sessions:** Nano Electronics | Nano Biotechnology | Nanotechnology in Water treatment | Advanced Nanomaterials | Nanotech for Energy and Environment | Nano Materials Synthesis and Characterisation | Nanobiomaterials

**Session Chair: Masahiro Hiramoto**, Institute for Molecular Science, Japan

**Session Co-Chair: Daniel Bellet**, CNRS, France

17th EURO 2017



**Title: The ILs-assisted solvothermal synthesis of  $\text{TiO}_2$  spheres: The effect of ionic liquids on morphology and photoactivity of  $\text{TiO}_2$**

**Ewelina Grabowska**, University of Gdansk, Poland

**Title: Synthesis of highly active supported Pt nanostructure via thermo-destabilization of microemulsions**

**Riny Yolanda Parapat**, Technical University of Berlin, Germany

**Title: One-pot synthesis of hydrophilic  $\text{Nd}^{3+}:\text{Ba}_{0.3}\text{Lu}_{0.7}\text{F}_{2.7}$  nano spheres: Crystal structure, X-ray computed tomography and NIR luminescence**

**Ana Isabel Becerro**, Instituto de Ciencia de Materiales de Sevilla (CSIC-US), Spain

**Title: Electrowetting actuation of polydisperse nanofluid droplets**

**Crismar Patacsil**, University of the Philippines Diliman, Philippines

**Title: Application of nanoparticles as biomolecular carriers**

**Laleh Alisaraie**, Memorial University, Canada

**Title: Enzymatic synthesis and characterization of metallic nanoparticles for targeted application on antimicrobial biodegradable polymers**

**Iva Rezić**, University of Zagreb, Croatia

**Title: Light-driven reversible shaping on azopolymeric structures**

**Francesca Frascella**, Politecnico di Torino, Italy

### Networking and Refreshment Break

**Title: Effect of cold atmospheric plasma application on nano-TiN coated Co-Cr dental alloy**

**Emre Seker**, Eskisehir Osmangazi University, Turkey

**Title: Effect of cold atmospheric plasma on collagen membrane surface**

**Basak Kusakci Seker**, Eskisehir Osmangazi University, Turkey

**Title: Pulsed laser deposited doped  $\text{Cu}_2\text{O}$  thin films for optical application**

**Gurpreet Kaur**, Dr. B. R. Ambedkar National Institute of Technology, India

### Video presentation

**Title: The effects of laser characteristics on melting of nano-particles on a surface**

**Peng-Sheng Wei**, National Sun Yat-Sen University, Taiwan

**Title: Optical spin injection in atomic monolayers**

**Norberto Arzate**, Centro de Investigaciones en Óptica, Mexico

### Poster Presentations

**Poster Judge: Yoshinori Sato**, Tohoku University, Japan

### Panel Discussion

### Award & Closing Ceremony

## Upcoming Nanotechnology Conferences

### **19th Nano Congress for Next Generation**

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20<sup>th</sup> International Conference on

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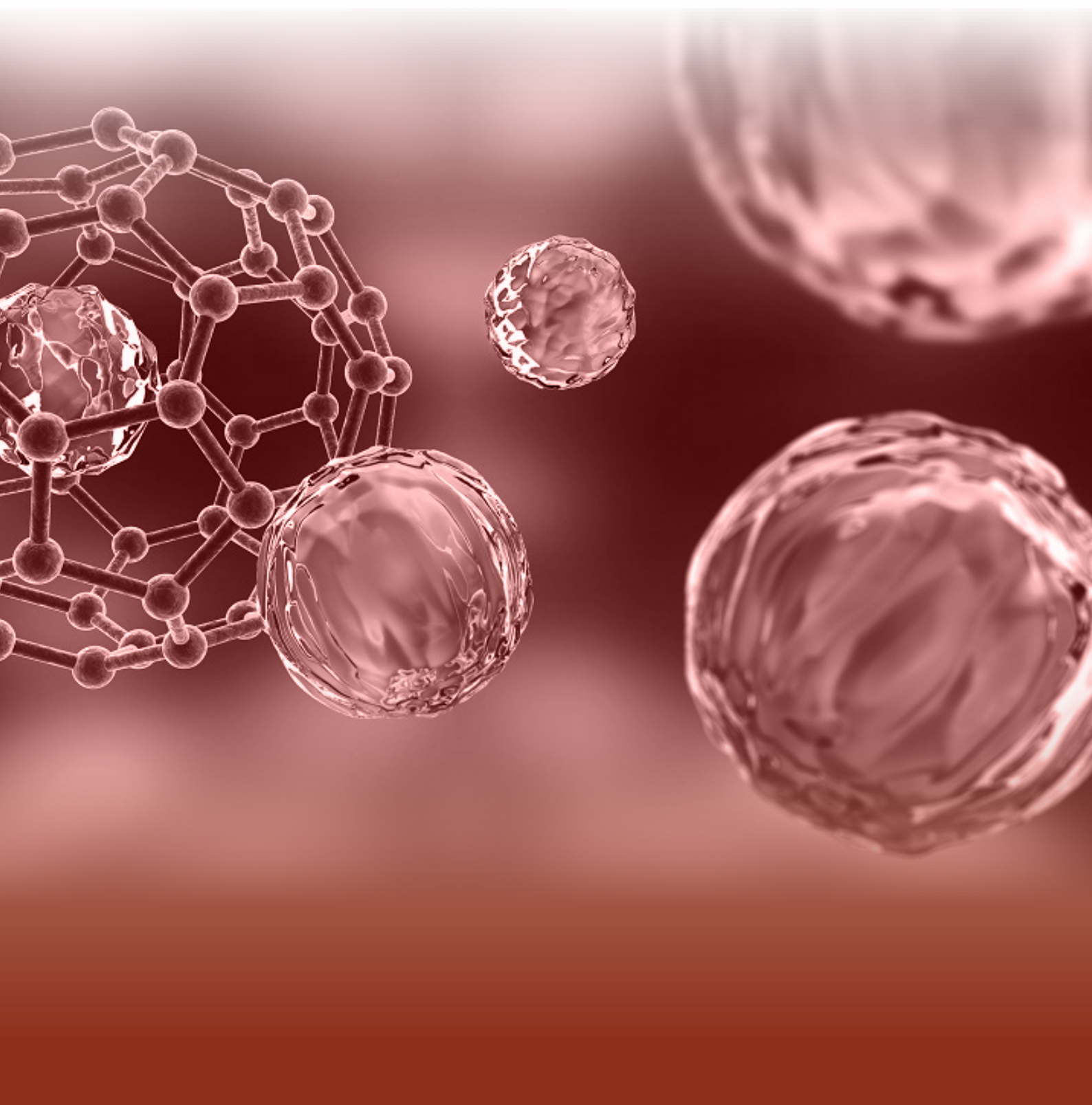
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14<sup>th</sup> International Conference on  
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March 30-31, 2017 Madrid, Spain





# Opening Ceremony

## Keynote Forum

### Introduction

**Title: Design of Pd-based nanoalloy particles confined into mesoporous carbon: Size, composition and confinement effects on the interactions with hydrogen**

**Camelia Matei Ghimbeu**, Researcher, Institute of Materials Science of Mulhouse (IS2M-CNRS), France

**Title: Nanofluids for energy applications**

**Pedro Gomez-Romero**, CSIC Research Professor, Catalan Institute of Nanoscience and Nanotechnology, Spain

### Networking & Refreshments Break

**Title: Free-standing nanostructures at atomic scale: From growth mechanisms to local properties at the nanoscale**

**Jordi Arbiol**, Catalan Institution for Research and Advanced Studies, Spain

## Sessions

**Nano Particles | Nano Electronic devices | Nano Scale Materials | Scope of Nanomaterials | Nanomaterials Characterisation and Synthesis | Nano Structures | Nanomaterials Safety and Regulations**

**Session Chair: Alain Demourgues**, University of Bordeaux, France

**Session Co-chair: Constantinos Sioutas**, University of Southern California, USA

### Session Introduction

**Title: Physical, chemical and toxicological characteristics and historical trends of ultrafine particulate matter from traffic emissions in the Mega City of Los Angeles**

**Constantinos Sioutas**, University of Southern California, USA

**Title: Heat transport in tetra-functional epoxy resin containing low percentage of exfoliated graphite nanoparticles**

**Carlo Naddeo**, University of Salerno, Italy

**Title: 2D plasmonic diffractive patterns in metals by laser interference**

**Ramon J Peláez**, Institute of Optics, Spain

### Group Photo: 13:10-13:15

### Lunch Break

**Title: Gas Phase synthesis of Nanoparticles: Challenges and Opportunities**

**Yves Huttel**, Instituto de Ciencia de Materiales de Madrid, Spain

**Title: Graphene and fullerene based nanostructures grown by chemical vapor deposition and related technologies**

**Enric Bertran-Serra**, Universitat de Barcelona, Spain

**Title: Effects of process parameters on chemical functionalization of helicoil carbon nanotubes**

**Sean Reza Taklimi**, Wichita State University, USA

**Title: Magnetic nanoparticle/ magnetic fluid approach to control neuromuscular degeneration in Friedreich's ataxia**

**Swasti Wagh**, Precedent of Indore Chapter of SAMAG (Seek a Miracle Ataxia Group), India

**Title: Sorting of nanogel mixed dispersions by directed assembly on surfaces using AFM nanoxerography**

**Lauryanne Teulon**, Université de Toulouse, France

### Networking & Refreshments Break

**Title: Synthesis of FePO<sub>4</sub>•2H<sub>2</sub>O nanocomposites for fabrication of lithium ion battery using impinging stream reactor**  
**Bin Dong**, The University of Nottingham Ningbo China, China  
**Title: Plasmonic Photothermal Inactivation of Escherichia coli and Bacillus cereus using Polymer Coated Gold Nanoparticle.**  
**Heba ElSayed ElZorkany**, Nanotechnology and Advanced Materials Central Lab, Egypt  
**Title: Effect of particle size on the optical properties of ZnO nanopowders fabricated by wet milling**  
**Telem Şimşek**, Hacettepe University, Turkey

**Day 2 | March 31, 2017**

**Cadiz**

## Keynote Forum

### Introduction

**Title: Dynamic tensile modulus of positive temperature coefficient materials under electric field investigated in terms of low frequency earthquake counter measures**

**Masaru Matsuo**, Dalian University of Technology, China

**Title: The world of fluorine-based nano-materials: Past, present and future**

**Alain Demourgues**, University of Bordeaux, France

**Title: Nano scale InGaAs FinFET for post Si CMOS application**

**Edward Yi Chang**, National Chiao Tung University, Taiwan

**Title: Nanoelectromechanical resonators for logic operations**

**Mohammad I Younis**, King Abdullah University of Science and Technology, Saudi Arabia

## Networking & Refreshments Break

### Sessions:

**Applications of Nanomaterials | Characterization and Properties of Nanomaterials | Advanced Nanomaterials | Nanodevices and Systems | Nanomedical Devices | Nanotechnology Applications**

**Session Chair: J Vidal-Gancedo**, Institut of Barcelona, ICMA-B-CSIC, Spain

**Session Co-chair: Nadezhda Nebogatikova**, Russian Academy of Sciences, Russia

## Session Introduction

**Title: New catalytic process using palladium nanoparticles for the construction of potentially bioactive heterocycles**

**Amparo Luna**, Complutense University of Madrid, Spain

**Title: Nanostructured few-layer graphene films with edge reconstruction for electronic applications**

**Nadezhda Nebogatikova**, Russian Academy of Sciences, Russia

**Title: Au nanoparticles labeled with organic radicals**

**J Vidal-Gancedo**, Institut of Barcelona, ICMA-B-CSIC, Spain

**Title: Development of ultra-thin glass based micro/nano fluidic**

**Yo Tanaka**, RIKEN Quantitative Biology Center, Japan

## Lunch Break

**Title: Nanoparticles in plastic materials for food contact applications**

**Marta Lara**, Instituto Tecnológico del embalaje, Spain

**Title: Decoration of Nickel Nanoparticles on Multiwalled Carbon Nanotubes and Testing the Electrocatalytic Activity on Methanol/Ethanol Oxidation for Fuel cell Application**

**Krishnamurthy**, Bangalore University, India

**Title: High efficiency of silica-coated CdSe/ZnS quantum dots for cellular imaging by time lapse confocal laser scanning microscopy**

**Heba ElSayed ElZorkany**, Nanotechnology and Advanced Materials Central Lab, Egypt

**Title: Thermal properties of graphene nanoflakes dispersed in DMF: a classical MD study including QM corrections**

**Francesca Costanzo**, Catalan Institute of Nanoscience and Nanotechnology - ICN2, CSIC and BIST, Spain

**Title: Fe doped nano CaO based, fabric hybridized, stand alone natural solar photo-catalytic reactor for waste water treatment**

**Ambreen Ashar**, University of Agriculture-Faisalabad, Pakistan

## Networking & Refreshments Break

**Title: Biogenic synthesis of silver nanoparticles by *Bacillus thuringiensis* against dengue vector larvae**

**Romana Shahzadi**, University of the Punjab, Pakistan

**Title: The Effects of Interfacial Properties on Pore Shape during Solidification**

**Peng-Sheng Wei**, National Sun Yat-Sen University, Taiwan

**Title: The perception of the risks of nanotechnologies from the analysis of the environment, health and safety publications (OECD): Reflections on the legal assessment of future damage**

**Wilson Engelmann**, Unisinos, Brazil

**Poster Presentations**

**Closing Ceremony**

