

# Innovative Material Science & Nanotechnology conference

Jul 09-11, 2018 Valencia, Spain

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<https://materialscience.innovinconferences.com/>

Email: [materialscience@innovinc.org](mailto:materialscience@innovinc.org)

# 1

# Monday

## Hall Name - Azafata Meeting Hall

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8:00-9:00

Registrations

9:00-9:15

Opening Ceremony

**Moderator:**

**Sneha Akhade**

Pacific Northwest National Laboratory, USA

### KEYNOTE FORUM

9:15-10:05

**Title: Elimination of Failure Mechanisms of Metals**

**John Campbell OBE FREng**, Emeritus Professor, Department of Metallurgy and Materials, University of Birmingham, UK

### Sessions:

**Materials Science and Engineering | Emerging Areas of Materials Science**

### Session Chairs:

Sergio Gonzalez Sanchez, Northumbria University, UK

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

10:05-10:25

**Title: Non-Invasive Characterization of Tissues and Synthetic Polymers Using Vibrational OCT**

**Frederick Silver**, Robert Wood Johnson Medical School at Rutgers University, USA

10:25-10:45

**Title: Elimination of Tin Whisker Growth from Electronics via Indium Addition**

**Indranath Dutta**, Washington State University, USA

### Coffee Break 10:45-11:00 @ Terrace

11:00-11:20

**Title: Synchrotron X-ray spectroscopy for studying electro-chemical reactions in operando experiments**

**Jun'ichiro Mizuki**, Kwansai Gakuin University, Japan

# 1

# Monday

- 11:20-11:40 ————— **Title: Hall Effect in Bulk-Doped Organic Single Crystals**  
**Masahiro Hiramoto**, Institute for Molecular Science, Japan
- 11:40-12:00 ————— **Title: Development of novel in vitro fatigue test for biomimetic implants made of UHMWPE**  
**Marina Knyazeva**, TU Dortmund University, Germany
- 12:00-12:20 ————— **Title: Strategy for preventing excessive wear rate at high loads in bulk metallic glass composites**  
**Sergio Gonzalez Sanchez**, Northumbria University, UK
- 12:20-12:40 ————— **Title: Horizontal Single Belt Casting of High Strength High Ductility (HSHD) Steels**  
**Roderick Guthrie**, McGill University, Canada
- 12:40-13:00 ————— **Title: Investigation of Nano-clay Enhanced Marine Gelcoat with Improved Degradation Resistance Performance**  
**Zhongyi Zhang**, University of Portsmouth, UK

**Group Photo**

**Lunch Break 13:00-13:45 @ Aeropuerto Meeting Room**

### **Session Chairs:**

**John Campbell**, University of Birmingham, UK  
**Indranath Dutta**, Washington State University, USA

- 13:45-14:05 ————— **Title: Lead-Free Ceramic/Polymer Composites for Smart Sensing Applications**  
**Kamal Prasad**, T.M. Bhagalpur University, India
- 14:05-14:25 ————— **Title: Time Resolved Terahertz Spectroscopy of nanomaterials**  
**Jaehun Park**, Pohang Accelerator Laboratory, South Korea
- 14:25-14:45 ————— **Title: Fundamental Investigations of Electrocatalyzed Transformations of Organic Compounds**  
**Sneha Akhade**, Pacific Northwest National Laboratory, USA
- 14:45-15:05 ————— **Title: Temperature-Irradiation combined effects on Ge-doped optical fibers**  
**Antonino Alessi**, University of Lyon, France

# 1

# Monday

- 15:05-15:25 ————— **Title: Development of 45S5 bioactive glass coatings by plasma spraying**  
**Eugeni Cañas Recacha**, Universitat Jaume I, Spain
- 15:25-15:45 ————— **Title: Characterisation of elastomer-aramid systems for material modelling – methods using fibre Bragg grating sensors and digital image correlation**  
**Mikko Kanerva**, Tampere University of Technology, Finland
- Coffee Break 15:45-16:00 @ Picasso**
- 16:00-16:20 ————— **Title: On microstructure and friction-wear properties of AISI 316L and M2 steels after PLD deposition of TiB<sub>x</sub>/Ti<sub>y</sub>SiC<sub>z</sub> multilayer and short post-deposition annealing**  
**Agnieszka Twardowska**, Pedagogical University of Cracow, Poland
- 16:20-16:40 ————— **Title: Optical, Electrical and Photoresponse Properties of Copper doped TiO<sub>2</sub> Thin Film Based Photodetector**  
**Murat Yildirm**, Selcuk University, Turkey
- 16:40-17:00 ————— **Title: Defect reduction of Ga Ngrowington dome-shaped patterned-sapphire substrates**  
**Chiu-Chang Huang**, National Taiwan University, Taiwan
- 17:00-17:20 ————— **Title: Influence Of Alumina Addition On High Temperature Oxidation And Wear Resistance Of Nicrally Alloy**  
**Ivan Cervera**, Jaume I University of Castellon, Spain
- 17:20-17:40 ————— **Title: Correlation of Nanoarchitecture to Corrosion Susceptibility in Alloy Systems**  
**Yunusa A. Balogun**, Indiana University Bloomington, USA

**Panel Discussions**

# 2

# Tuesday

## Hall Name - Azafata Meeting Hall

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### Moderator:

**Lucien Veleva,**

Center for Research and Advanced Studies of the National Polytechnic Institute, Mexico

### PLENARY TALK

09:20-09:50

**Title: Low Energy Bandgap Semiconducting Materials for Energy and Environment**

**Hyoyoung Lee,** Sungkyunkwan University, Republic of Korea

### KEYNOTE FORUM

09:50-10:30

**Title: Graphene: Novel Nano Approach for Remarkable Corrosion Resistance**

**Raman Singh,** Monash University, Australia

10:30-11:10

**Title: Technological Applications of the Grand Unified Theory**

**E. E. Escultura,** Research Professor (Honorary),  
GVP-LIAS Institute for Advance Studies, GVP College of Engineering,  
JNT University Kakinada, Vishakhapatnam, AP, India

## Coffee Break 11:10-11:25 @ Terrace

### Sessions:

**Nanotech in Life Sciences and Medicine, Advanced Nanomaterials,  
Nanotech for Energy and Environment, Nanoengineering and its applications**

### Session Chairs:

**Richard Cross,** De Montfort University Leicester, UK  
**Raman Singh,** Monash University, Australia

# 2

# Tuesday

- 11:25-11:45 ————— **Title: Nano-composites developed as smart Coating**  
**Anand Sawroop Khanna**, IIT Bombay, India
- 11:45-12:05 ————— **Title: A study of the shape-dependent antibacterial activity of different metal nanoparticles**  
**Richard Cross**, De Montfort University Leicester, UK
- 12:05-12:25 ————— **Title: Electronic Properties of Various B-Doped Diamond (111)//Dye Molecule Interfaces**  
**Karin Larsson**, Uppsala University, Sweden
- 12:25-12:45 ————— **Title: Development of CaCO<sub>3</sub> scaffolds by supercritical CO<sub>2</sub> processing**  
**Sudhir Kumar Sharma**, New York University Abu Dhabi, UAE
- 12:45-13:05 ————— **Title: Study on the preparation and properties of CdS/polyether ether ketone nanocomposite materials**  
**Jiang Dong**, Jilin University, China

**Lunch Break 13:05-13:50 @ Aeropuerto Meeting Room**

## Poster Presentations (13:50-14:40)

### **Session Chairs:**

**Anand Sawroop Khanna**, IIT Bombay, India  
**Nikolaus Stolterfoht**, Helmholtz-Zentrum Berlin, Germany

- 14:40-15:00 ————— **Title: Nanobeams of ions guided through nanocapillaries in insulating materials**  
**Nikolaus Stolterfoht**, Helmholtz-Zentrum Berlin, Germany
- 15:00-15:20 ————— **Title: Procedures for Synthesizing Metal, Oxide and Chalcogenide Nanomaterials using natural cohorts**  
**Anal K. Jha**, Aryabhata KnowledgeUniversity, India

# 2

# Tuesday

15:20-15:40 ————— **Title: Thermal properties of Titania Nanotubes**  
**Saima Ali**, Aalto University, Finland

15:40-16:00 ————— **Title: The Topographically Defined Biodegradable Nanopatterned Patches to Regulate Cell Fate and Acceleration of Bone Regenerations**  
**Hee Seok Yang**, Dankook University, Korea

## Coffee Break 16:00-16:15 @ Aeropuerto Meeting Room

16:15-16:35 ————— **Title: Detection and Concentration of human Norovirus using Concanavalin A**  
**Seung Jae Lee**, Chonbuk National University, Rep. of Korea

16:35-16:55 ————— **Title: Improvement of the structural and chemical properties of carbon nano-onions for electrocatalysis**  
**Marta Eliza Plonska-Brzezinska**, University of Bialystok, Poland

16:55-17:15 ————— **Title: Insulated Molecular Wires: Sheathing Semi-Conducting Polymers with Organic Nanotubes through Heterogeneous Nucleation**  
**Gijo Raj**, New York University Abu Dhabi, UAE

17:15-17:35 ————— **Title: Direct Synthesis of Few-Layer N-Doped Graphene and Its Lithium Storage Properties**  
**Yinghuai Qiang**, China University of Mining and Technology, China

17:35-17:55 ————— **Title: Aqueous Synthesis of Surface-Defective Rh Nanotetrahedrons with Visible-Light-Inducible Surface Plasmon Resonance for Enhanced Hydrogen Generation**  
**Chen-Rui Kao**, National Chung Cheng University, Taiwan

**Panel Discussions**

# 3

# Wednesday

**Hall Name - Azafata Meeting Hall**

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## **Sessions:**

**Biomaterials and Healthcare, Materials Process Engineering and  
Materials Chemistry**

## **Session Chairs:**

**Zhongyi Zhang**, University of Portsmouth, UK  
**Brian Booth**, Clemson University, USA

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|-------------|-------|---|
| 09:00-09:20 | _____ | <b>Title: Targeted delivery of therapeutics to macrophages using functionalized dendrimeric nanoparticles: A novel two-pronged approach to facilitate removal of accumulated lipid</b><br><b>Shobha Ghosh</b> , VCU Medical Center, USA   |
| 09:20-09:40 | _____ | <b>Title: Novel implant material for tissue regeneration and anti-cancer activity following breast cancer treatment</b><br><b>Brian Booth</b> , Clemson University, USA   |
| 09:40-10:00 | _____ | <b>Title: Bioresorbable Composite Materials for Medical Device Applications</b><br><b>Mahrokh Dadsetan</b> , Evonik Corporation, USA  |
| 10:00-10:20 | _____ | <b>Title: Hygroexpansion and surface roughness cause defects and increase the electrical resistivity of aluminium PVD coatings on paper</b><br><b>Martina Lindner</b> , Technical University of Munich, Germany   |
| 10:20-10:40 | _____ | <b>Title: Hyaluronic acid based thermoreversible hydrogels for cartilage regeneration: capability for proliferation of mesenchymal stem cells stimulated by platelet-rich plasma in 3D culture and tissue differentiation</b><br><b>Maria Helena Andrade Santana</b> , University of Campinas, Brazil |
| 10:40-11:00 | _____ | <b>Title: Proposed link between the PERIODIC TABLE and the STANDARD MODEL</b><br><b>John Owen Roberts</b> , The Open University, UK   |



# 3

# Wednesday

## Coffee Break 11:00-11:15 @ Terrace

- 11:15-11:35 \_\_\_\_\_ **Title: Versatile elastic microtubes for soft microfluidics and biomedical engineering applications**  
**Wang Xi**, Institut Jacques Monod, Paris, France
- 11:35-11:55 \_\_\_\_\_ **Title: Levitation Force , Trapped Field and Current Distribution in Field Cooled Superconducting Disks according to a Mean Field Model**  
**Pierre Bernstein**, Université de Caen - CRISMAT - CNRS, France
- 11:55-12:15 \_\_\_\_\_ **Title: Bioinspired water collecting/repellent surfaces with micro- and nanostructures**  
**Yongmei Zheng**, Beihang University, China
- 12:15-12:35 \_\_\_\_\_ **Title: Innovative Soft Rubbery Polymers & Nanomaterials Through Sustainable Chemistry**  
**Anil K Bhowmick**, IIT Kharagpur, India
- 12:35-12:55 \_\_\_\_\_ **Title: The Fabrication of Porous Hydroxyapatite-Bioactive Glass Hybrids for Synthetic Bone Grafts, via Honeycomb Extrusion**  
**Moe Elbadawi**, Luleå University of Technology, Sweden
- 12:55-13:15 \_\_\_\_\_ **Title: Flexible electro-conductive textiles: Opportunities and challenges**  
**Kushal Sen**, Indian Institute of Technology Delhi, India

## Lunch Break 13:15-14:00 @ Aeropuerto Meeting Room

# 3

# Wednesday

## Session Chairs:

**Shobha Ghosh**, VCU Medical Center, USA  
**John Owen Roberts**, The Open University, UK

- 14:00-14:20 ————— **Title: In situ degradation assesment of AZ31B magnesium alloy in simulated body fluid**  
**Lucien Veleva**, Center for Research and Advanced Studies of the National Polytechnic Institute, Mexico
- 14:20-14:40 ————— **Title: Label-free electrochemical immunosensor based on graphene nanocomposite for cancer diagnosis**  
**Mehdi Rahimi-Nasrabadi**, Baqiyatallah University of Medical Sciences, Iran
- 14:40-15:00 ————— **Title: Study on Selective Laser Melting of Tin Bronze**  
**Jinwu Kang**, Tsinghua University, China
- 15:00-15:20 ————— **Title: Carrier doping of topological insulators and thier superconductivity**  
**Yoshihiro Kubozono**, Okayma University, Japan
- 15:20-15:40 ————— **Title: The Effect of Surface Mechanical Attrition Treatment (SMAT) Parameters on Microstructure and Mechanical Properties of Commercial Pure Titanium (CP-Ti)**  
**Reza Miresmaeili**, Tarbiat Modares University, Iran
- 15:40-16:00 ————— **Title: Modelling the damping behaviour of systems based on pomelo fruit**  
**Marijo Mlikota**, University of Stuttgart, Germany
- 16:00-16:20 ————— **Title: Balanced Path, I/Q-Interferometer Schems for Surface Chracterization and Biosensor Applications**  
**Kyuman Cho**, Sogang University, Korea

**Panel Discussions**

## Poster Presentations (13:50-14:40)

- IMNC-101      \_\_\_\_\_      **Title: Monomeric structures of heterometal-coordinated concanavalin A for specific interactions with viruses**  
**Hyun Goo Kang**, Chosun University, Republic of Korea
- IMNC-102      \_\_\_\_\_      **Title: Conjugated polymer's side chains post-processing for improved molecular packing and mobility of organic thin-film transistors (OTFTs)**  
**Maciej Barlog**, Texas A&M University at Qatar, Qatar
- IMNC-103      \_\_\_\_\_      **Title: Synthesis of functional and fluorescent carbon quantum dots from A<sub>4</sub> and B<sub>2</sub> type polyamidation monomer sets**  
**Geumbi Jeong**, Korea National University of Transportation, Republic of Korea
- IMNC-104      \_\_\_\_\_      **Title: Synthesis and Application of SrCO<sub>3</sub>-CO<sub>3</sub>O<sub>4</sub> nanoparticles-incorporated CNFs for DUFCS**  
**Saeed Al-Meer**, Qatar University, Qatar
- IMNC-105      \_\_\_\_\_      **Title: The study of nanoscale interactions between cardiac cells and nanofibrous scaffolds**  
**Victor Balashov**, Moscow Institute of Physics and Technology, Russia
- IMNC-106      \_\_\_\_\_      **Title: Catalytic hairpin assembly for the efficient assay of RNase H activity**  
**Chang Yeol Lee**, Korea Advanced Institute of Science and Technology, Republic of Korea

**Panel Discussions**

**Thanks giving & Closing Ceremony**

*We wish to see you again at*

# **2<sup>nd</sup> Innovative Material Science & Nanotechnology conference**

*July 15-17, 2019 London, UK*

**Venue:**

**Holiday Inn London Heathrow M4 Jct 4  
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