

Scientific Program
**5th Global Nanotechnology
Congress and Expo**

December 03-05, 2018 at Valencia, Spain



Workshop by



Scientific Federation

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Day 1 December 03, 2018

Perellonet

- 08:00-09:00 Registrations
09:00-09:10 Introduction
09:10-09:30 Opening Ceremony

Plenary Forum

- 09:30-10:20 **Title: Oxide Nanosheets Preparation, Properties and Applications for Energy-related Devices**
Masaru Miyayama, The University of Tokyo, Japan
- 10:20-11:10 **Title: A Unified Approach to Plasmon-Polariton and Brewster Mode Dynamics in Media with Interfacial Surface-admittance**
Robin W Tucker, Lancaster University and the Cockcroft Institute, UK

Networking & Refreshments Break 11:10-11:25 @ Foyer

Keynote Forum

- 11:25-12:05 **Title: Interface Engineering and Stability of Low Temperature Processed Perovskite Solar Cells**
Ashraf Uddin, The University of New South Wales, Australia
- 12:05-12:45 **Title: Confined Growth, Mechanical, Electronic, Magnetic and Thermal Transport Properties of Nanomaterials**
Yang Han, Harbin Engineering University, China

Group Photo 12:45-12:50

Lunch Break 12:50-13:50

Workshop

- 13:50-15:50 **Title: FODIAC Nanotechnology in Food for Diabetes and Cognition**

Networking & Refreshments Break 15:50-16:05 @ Foyer

Invited Talks

Sessions **Nanoelectronics | Synthesis of Nanomaterials and Nanoparticles**

Session Chair **Osman Adiguzel, Firat University, Turkey**

- 16:05-16:35 **Title: Nanoscale Imaging and Spectroscopy Analysis of High-K Dielectrics and Reliability Study**
Shubhakar Kalya, Singapore University of Technology and Design (SUTD), Singapore
- 16:35-17:05 **Title: A Comparative Study on Co(II) Removal Capacity from Water Samples by Adsorption using Limestone and Nanolimestone**
Ahmed Hussien Ragab, King Khalid University, Saudi Arabia

Featured Talks

Sessions **Nanostructures | Electronic, Optical and Magnetic Materials**

- 17:05-17:30 **Title: Superhydrophobic Coatings Based on Annealed Electrospun Fibers and Electrospayed Nanostructured Particles for Easy Emptying Packaging Applications**
Maria Pardo-Figuerez, Bioinicia R&D Department, Spain
- 17:30-17:55 **Title: High Throughput Electrospinning/Electrospraying Applications of Interest in Food, Pharma, Biomedicine and Food Packaging**
Jose Maria Lagarón, IATA-CSIC, Spain

Day 2 December 04, 2018

Perellonet

Plenary Forum

- 09:00-09:50 **Title: Generation and Amplification of Electromagnetic Waves using Semiconductor Superlattice**
Alexander G Balanov, Loughborough University, UK
- 09:50-10:40 **Title: Ultraviolet Raman Spectroscopic System for in Situ Measurements at High Temperatures in the Region of Low Frequency**
Hirotaka Fujimori, Yamaguchi University, Japan

Networking & Refreshments Break 10:40-10:55 @ Foyer

- 10:55-11:45 **Title: Thermoelastic Phase Transformation and Multilayered Nature of Martensite in Copper Based Shape Memory Alloys**
Osman Adiguzel, Firat University, Turkey

Keynote Forum

- 11:45-12:25 **Title: Developing a New Novel Less CO₂ Emission Cement and Its Successful Use in Producing High Performance and Fast Curing Cold Mix Asphalt for Roads Surfacing and Maintenance**
Hassan Al Nageim, Liverpool John Moores University, UK
- 12:25-13:05 **Title: Charge States of O₂ Adsorbed on Rutile TiO₂ Surface by AFM/KPFS**
Yanjun Li, Osaka University, Japan

14:05-14:45 Title: **Direct Test for Matter – antimatter Imbalance in the Universe and Experimental Methods for Testing it**
Petteri Pusa, University of Liverpool, UK

Invited Talks

Sessions **Materials Science and Engineering | Nanostructures**

Session Chair **Hassan Al Nageim, Liverpool John Moores University, UK**

14:45-15:15 Title: **Laboratory Studies on The Mechanical and Chemical Properties of New Secondary Cementitious Materials [SCM]**

Hassan Al Nageim, Liverpool John Moores University, UK

15:15-15:45 Title: **Identification of Atomic Species on Rutile TiO₂(110) Surface at 78 K by AFM**

HuanFei Wen, Osaka University, Japan

Networking & Refreshments Break 15:45-16:55 @ Foyer

Featured Talks

Sessions **Recent Trends in Nanotechnology | Nanotechnology in Food and Agriculture | Nanocomposites | Nanotoxicology | Nano Structures**

16:00-16:25 Title: **Nanotechnology-Based Bioactive Nutritional Compounds Modulate Bi-directional Signalling between the Gastrointestinal Tract and the Brain**

Aaron JK Tan, National Hospital for Neurology and Neurosurgery, UK

16:25-16:50 Title: **Modified Nanoadditives for Food Packaging Applications**

Carlos Castilla, ITENE, Spain

16:50-17:15 Title: **Most Common ENMs Toxicological Profile Assessment**

Arantxa Ballesteros, ITENE, Spain

17:15-17:40 Title: **Structural Basis for Elucidating Spectral Tuning Mechanism of Cone Pigments**

Kota Katayama, Nagoya Institute of Technology, Japan

Poster Presentations

P-001 Title: **Platinum Nanoparticles Using Anbara Fruit Extract: Green Biosynthesis and Study Their Hepatoprotective Effect Against Carbon Tetra Chloride (CCL₄) Hepatotoxicity in Wistar Rats**
Najlaa S Al-Radadi, Taibah University, Saudi Arabia

P-002 Title: **Modified Nanoadditives for Food Packaging Applications**

Carlos Castilla, ITENE, Spain

P-003 Title: **Implementation of Functionalized PS Electrospun Nanofibers Onto Aluminium Substrates for the Design of Superhydrophobic and Anticorrosive Nanocoatings**

Pedro Jose Rivero Fuente, Public University of Navarra, Spain

P-004 Title: **Photocatalytic Activity Based on the Incorporation of Metal Oxide Precursors by Using the Layer-by-Layer Technique**

Pedro Jose Rivero Fuente, Public University of Navarra, Spain

P-005 Title: **Development of a Highly Efficient Brain Tumour-Penetrating Drug Delivery Formulation using Nanotechnology: A Combinatorial and Targeted Approach in Neurosurgical Cancer Therapy**

Aaron JK Tan, National Hospital for Neurology and Neurosurgery, UK

P-006 Title: **Most Common ENMs Toxicological Profile Assessment**

Arantxa Ballesteros, ITENE, Spain

P-007 Title: **Effect of Charge and Phosphine Ligands on Electronic Structure of the Au₈ Cluster**

Sol Milena Mejia Chica, Pontificia Universidad Javeriana, Colombia

Day 3 December 05, 2018

Perellonet

Plenary Forum

09:30-10:20 Title: **Challenge to the Lower Temperature Growth of Graphene Based on In-situ TEM Observation**

Masaki Tanemura, Nagoya Institute of Technology, Japan

10:20-11:00 Title: **Functional Nanoparticles for Portable Analytical Devices**

Maria Carmen Blanco-Lopez, Universidad de Oviedo, Spain

Networking & Refreshments Break 11:00-11:15 @ Foyer

Invited Talks

Sessions **Green nanotechnology | Nanodevices & Nanosensors | Advancements in Material Science**

Session Chair **Osman Adiguzel, Firat University, Turkey**

11:15-11:45 Title: **Environmentally Friendly Surface-nanostructured Amphiphilic Polymers to Combat Marine Biofouling**

Elisa Martinelli, University of Pisa, Italy

- 11:45-12:15** **Title: GMR Sensors**
Càndid Reig, University of Valencia, Spain
- 12:15-12:45** **Title: Ionizing Radiation Sensors Based on Carbon Nanotubes**
Kenneth Fontajnez Mora, Universidad del Turabo, USA
- 12:45-13:15** **Title: Chemical Synthesis and Modification of Carbon Nanodots for Application in Lubricants**
Alfonso Fernandez Gonzalez, Universidad de Oviedo, Spain

Lunch Break 13:15-14:15

Featured Talks

Sessions

Recent Trends in Nanotechnology | Nanodevices & Nanosensors | Synthesis of Nanomaterials and Nanoparticles | Nanomagnetic Fluids

- 14:15-14:40** **Title: Nanophotonics on Base of Planar X-ray Waveguide-resonators**
Evgeny V Egorov, Institute of Microelectronics Technology RAS, Russian Federation
- 14:40-15:05** **Title: Temperature-switch Nanomagnetic Logic Gates for Cellular Hyperthermia**
Rute A Pereira, University of Aveiro, Portugal
- 15:05-15:30** **Title: Nanomagnetic Fluids for the Production of Advanced Composite Systems**
Antonio T Marques, Faculdade de Engenharia da Universidade do Porto, Portugal
- 15:30-15:55** **Title: Nanofiber Nonwovens from a Biodegradable Polymer by Meltblowing**
Gajanan S Bhat, University of Georgia, USA

Closing Ceremony

Bookmark Your Dates

**7th Global Nanotechnology
Congress and Expo**

December 02-04, 2019 Bali, Indonesia