

# NANOSMAT

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## Technical Programme

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# 12th NANOSMAT Conference & NANOSMAT SCHOOL 2017

11-13 September 2017

**VENUE:** *Pierre & Marie Curie University, Paris, FRANCE*

NANOSMAT  
school

UPMC  
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the  
NANOSMAT  
society

## Welcome to the 12<sup>th</sup> NANOSMAT Conference in Paris

We are very pleased to welcome you to the **12<sup>th</sup> International Conference on Surfaces, Coatings and Nanostructured Materials (NANOSMAT)** held here at the *Pierre & Marie Curie University* in Paris, France. This conference is the 12<sup>th</sup> in the NANOSMAT conference series. NANOSMAT-1 (in 2005) and NANOSMAT-2 (in 2007) were both held in Portugal, whereas, NANOSMAT-3 (in 2008), NANOSMAT-4 (in 2009), NANOSMAT-5 (2010), NANOSMAT-6 (2011), NANOSMAT-7 (2012), NANOSMAT-8 (2013), NANOSMAT-9 (2014), NANOSMAT-10 (2015) and NANOSMAT-11 (2016) were held in Barcelona (Spain), Rome (Italy), Reims (France), Krakow (Poland), Prague (Czech Republic), Granada (Spain), Dublin (Ireland), Manchester (UK) and Aveiro (Portugal), respectively.

We would like to thank all the delegates for participating in this truly international NANOSMAT conference. We are thankful to all our invited speakers for accepting our invitation and offering to share their knowledge with the NANOSMAT delegates. This year's event will yet again host the highly successful *Young Scientist Lecture Competition*, which takes place on Day 1 of the conference. There will also be a *Best Poster Competition*.

The **2017 NANOSMAT Prize** will be awarded to **Professor Cornelis DEKKER** from Delft University of Technology in Netherlands who will deliver his award-winning lecture titled "*Nanotechnology for single-molecule nanotechnology*". This year's **2017 "NANOSMAT AWARD"** will be presented to **Professor Andrea Ferrari** from University of Cambridge in UK who will lecture on "*A journey through carbons*".

For the first time, this year, we will be presenting the annual inaugural **KROTO AWARD** (in memory of the late **Sir Harold Kroto** FRS) to **Dr Matthew Cole** from the University of Bath, UK for outstanding achievements in nanoscience and nanotechnology. The KROTO AWARD each year will recognise excellence and honour younger scientists (*PostDoc Level, Junior Scientists*) for outstanding scientific output and achievements in nanoscience and technology.

This year the 12<sup>th</sup> NANOSMAT conference is being held in conjunction with the first ever **NANOSMAT SCHOOL** ([www.nanosmat-school.org](http://www.nanosmat-school.org)). We hope the delegates will immensely benefit from this school. International and world-renowned scientists, including **Professor Werner Blau** (Ireland), **Professor Samir Iqbal** (USA), **Dr Giuseppe Fierro** (Italy), **Professor Jeff De Hosson** (Netherlands) and **Professor Abdelhafed TALEB** (France) will lecture at the SCHOOL.

We hope you will thoroughly enjoy the conference and will immensely benefit from attending NANOSMAT-2017. Enjoy the conference, Paris and France.

### NANOSMAT 2017 Chairs:

**Professor Jeff De Hosson** (Netherlands)

**Dr Abdelhafed TALEB** (France)

**Dr Nasar Ali** (UK)

# 11 September 2017

08:00	<b>Registration (11 September 2017)</b>
09:00	<b>Welcome Address</b>
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09:30	<b>Professor Abdelhafed TALEB</b> , Co-Chair (France) <b>Professor Jeff De Hosson</b> , Chair (Netherlands) <b>Dr Nasar Ali</b> , Chair (UK)
09:30	<b>PLN-3: Professor Cornelis DEKKER</b> , Delft University of Technology, Netherlands
-	<i>"Nanotechnology for single-molecule nanotechnology"</i> ( <b>2017 NANOSMAT PRIZE</b> )
10:15	
10:15	<b>INV-16: Professor Werner Blau</b> , Trinity College Dublin, Ireland
-	<i>"Phosphorene, Antimonene and Arsenene - a new class of atomic 2-dimensional nanomaterials"</i>
10:45	
10:45	<b>PLN-5: Dr Matthew Cole</b> , University of Bath, UK
-	<i>"Advanced Nanoengineering Towards the Electronics for Tomorrow"</i> ( <b>KROTO AWARD 2017</b> )
11:15	
11:15	<b>PLN-1: Professor Clément Sanchez</b> , Collège de France, Sorbonne Universities-UPMC / LCMCP / CNRS, Paris-France
-	<i>"Nanomaterials and Nanostructured Materials: integrative approaches"</i>
11:45	
11:45	<b>Refreshment break (with Poster Displays)</b>
-	
12:15	
12:15	<b>INV-4: Professor Jeff De Hosson</b> , University of Groningen, Netherlands
-	<i>"On the fabrication of nanostructures with electron and ions"</i>
12:45	
12:45	<b>Lunch (with Poster Displays)</b>
-	
14:15	

## Young Scientist Lecture Competition

14:15	<b>NANO-262: Michal Szczypinski</b> , Technical University of Liberec, Czech Republic
-	<i>"Evaluation of oxidative stability of selected high-fat food products stored in Nano-Diamond-incorporated food packaging"</i>
14:35	
14:35	<b>NANO-264: Diego Ribas Gomes</b> , University of Groningen, Netherlands
-	<i>"The Role of Interstitial Clusters in Ion Beam Induced Bending"</i>
14:55	
14:55	<b>NANO-61: Aatif Ijaz</b> , Koç University, Turkey
-	<i>"Anti-Icing Nano-Composites"</i>
15:15	

15:15 - 15:35	<b>NANO-211: Pannawit Tipsawat</b> , Suranaree University of Technology, Thailand <i>"Magnetite (Fe<sub>3</sub>O<sub>4</sub>) Nanoparticles: Synthesis, Characterization and Electrochemical Properties"</i>
15:35 - 15:55	<b>NANO-74: N. Ali</b> , Cranfield University, UK <i>"The Role of Nanocoating and Fluid PH Level on the Enhancement of Surface Hydrophobicity Behaviour"</i>
15:55 - 16:15	<b>NANO-162: Ramūnas Skaudžius</b> , Vilnius University, Lithuania <i>"3D Reconstruction of SEM Images of Adipose Tissue"</i>
16:15 - 16:35	<b>NANO-38: R.R. Zairov</b> , A.E. Arbutov IOPC KSC RAS, Russia <i>"Calix[4]arene-based Ln(III) 1,3-Diketonates as a Luminescent and Paramagnetic Functional Bricks to Construct a Novel Type of Nanoparticulate Dual Contrast Agents"</i>
16:35 - 16:55	<b>NANO-243: Farsad Forghani</b> , University of Tehran, Iran <i>"Thermodynamic description of order-disorder interface of nano-precipitates in Ni-Al alloy system"</i>
16:55 - 17:15	<b>NANO-152: Navdeep Kaur</b> , Guru Nanak Dev University, India <i>"Substrate Induced Structural and Optical Changes in Thermally Deposited Thin Films of Lead (II) tetrakis (4-cetylphenoxy) phthalocyanine"</i>
17:00 - 18:00	<b>Refreshments &amp; Poster Displays</b>

## 12 September

Time	Energy Chair(s): Daniele M. TRUCCHI (Italy), J. Antonio ZAPIEN (Hong Kong) Room: 1	Time	Nanoparticles & Nanofibres Chair(s): Katarzyna OZGA (Poland), Mustapha Jouiad (UAE) Room: 2
09:00 - 09:20	<b>INV-33: Professor Nowshad Amin</b> , Universiti Kebangsaan Malaysia, Malaysia <i>"Potential Implementation of Nano-Materials in Copper-Zinc-Tin-Sulphided (CZTS) Thin Film Solar Cells for Higher Conversion Efficiency"</i>	09:00 - 09:20	<b>INV-27: Iwan V. KITZYK</b> , Technological University of Czestochowa, Poland <i>"Studies of chalcogenide nanocrystallites operated by coherent laser induced beams"</i>
09:20 - 09:35	<b>NANO-66: Iván Cabria</b> , Universidad de Valladolid, Spain <i>"Simulations of Hydrogen Storage Capacities of Activated Carbons using Interaction Potentials that include Dispersion Interactions"</i>	09:20 - 09:35	<b>NANO-16: Ganna Ungur</b> , Technical University of Liberec, Czech Republic <i>"Modified polyurethane nanofibers for antibacterial purification of water and air"</i>
09:35 - 09:50	<b>NANO-156: Carlo Mennucci</b> , University of Genova, Italy <i>"Broadband Light Trapping in Nanotextured Optoelectronic Devices"</i>	09:35 - 09:50	<b>NANO-195: Jamila Boudaden</b> , Fraunhofer Research Institution for Microsystems and Solid State Technologies, Germany <i>"Functionalized nanoparticles for CO<sub>2</sub> sensor"</i>

09:50 - 10:05	<b>NANO-76: Thongsuk Sichumsaeng</b> , Suranaree University of technology, Thailand <i>"Effect of various electrolytes on the electrochemical properties of Ni(OH)<sub>2</sub> nanostructures"</i>	09:50 - 10:05	<b>NANO-223: V.VIOLET DHAYABHARAN</b> , Bishop Heber College, India <i>"Effect of nanocomposite MnO<sub>2</sub>/Ppy/rGO on electrochemical sensing of methyl parathion"</i>
10:05 - 10:20	<b>NANO-189: Lina Zhang</b> , Beijing University of Chemical Technology, China <i>"Pressure-responsive Locomotion and Its Potential Application in Powering Cardiac Pacemaker"</i>	10:05 - 10:20	<b>NANO-120: V.V.T. Padil</b> , Technical University of Liberec, Czech Republic <i>"Development of Bioplastic electrospun membranes based on tree gums"</i>
10:20 - 10:35	<b>NANO-220: Princy Merlin</b> , Bishop Heber College, India <i>"Polyaniline based Charcoal/Ni nanocomposite material for High Performance Supercapacitors"</i>	10:20 - 10:35	<b>NANO-202(2): K. Vijayalakshmi</b> , Bishop Heber College, India <i>"Development of a selective hydrogen leak sensor based on Pd incorporated ZnO nanowires on ITO substrate by spray pyrolysis method"</i>
10:30 - 11:00	<b>Refreshments break (with Poster Displays)</b>		
11:00 - 11:15	<b>NANO-148: Yaowapa Howold</b> , Khon Kaen University, Thailand <i>"Investigation of Inkjet Printing Electrodes for Photocatalytic Water Splitting"</i>	11:00 - 11:15	<b>NANO-83: Y.R. Wang</b> , Soochow University, China <i>"Preparation and Characterization of Tea polyphenol Loaded Porous Core-Shell Nanofibers"</i>
11:15 - 11:30	<b>NANO-211: Pannawit Tipsawat</b> , Suranaree University of Technology, Thailand <i>"Magnetite (Fe<sub>3</sub>O<sub>4</sub>) Nanoparticles: Synthesis, Characterization and Electrochemical Properties"</i>	11:15 - 11:30	<b>NANO-188: Saida MEHRAZ</b> , Research Centre in Industrial Technologies CRTI, Algeria <i>"Large Scale and Flexible Synthesis of Sn Doped TiO<sub>2</sub> Aggregates using Hydrothermal Synthesis"</i>
11:30 - 11:45	<b>NANO-80: Ornuma Kalawa</b> , Suranaree University of technology, Thailand <i>"Synthesis and Electrochemical Properties of Ni-doped MnCo<sub>2</sub>O<sub>4</sub> Nanoparticles Prepared by a Simple Polymer Solution Method"</i>	11:30 - 11:45	<b>NANO-47: Carmen María Álvarez Docio</b> , Instituto de Cerámica y Vidrio (CSIC), Spain <i>"Design of nanostructured surfaces through the growth of 2D particles and its application as reflective materials"</i>
11:45 - 12:00	<b>NANO-46: Julián Jiménez Reinosa</b> , Instituto de Cerámica y Vidrio (CSIC), Spain <i>"Hierarchical nano ZnO-microTiO<sub>2</sub> composite: high UV adsorption with photodegradation inhibition"</i>	11:45 - 12:00	<b>NANO-38: R.R. Zairov</b> , A.E. Arbusov IOPC KSC RAS, Russia <i>"Calix[4]arene-based Ln(III) 1,3-Diketonates as a Luminescent and Paramagnetic Functional Bricks to Construct a Novel Type of Nanoparticulate Dual Contrast Agents"</i>
12:00-13:00	<b>Lunch (with Poster Displays)</b>		

# 12 September

## NANOSMAT SCHOOL

<b>Time</b>	<b>NANOSMAT SCHOOL Room: 3</b>
09:00 - 10:30	<b>Professor Werner Blau</b> (Trinity College, Dublin, Ireland) <ul style="list-style-type: none"> <li>1. Liquid phases processing of nanomaterials</li> <li>2. Nonlinear optical effects and applications of 2D nanosheets</li> </ul>
10:30 - 11:00	<b>Refreshments break (with Poster Displays)</b>
11:00-12:00	<b>Professor Dr Samir M. Iqbal</b> , University of Texas Grande Valley, USA <i>"Nanotextured Systems for Biomedical Sensing"</i>
12:00-13:00	<b>Lunch (with Poster Displays)</b>

<b>Time</b>	<b>Special Session: NanoAFRICA Chair(s): S. Cassaignon (France); J. Ebothe (France) Room: 1</b>	<b>Time</b>	<b>Special Session: NanoTURKEY Chair(s): Mirac ALAF (Turkey), Hatem Akbulut (Turkey) Room: 2</b>
13:00 - 13:15	<b>NANO-11: Saleh Khamlich</b> , University of South Africa, South Africa <i>"Polypyrrole-AgNPs-Graphene Nanocomposite Deposited on Carbon Fibre Paper for High Performance Supercapacitor"</i>	13:00 - 13:15	<b>NANO-122: Mirac ALAF</b> , Bilecik Seyh Edebali University, Turkey <i>"Nanostructured Sn-Carbonaceous Composites Reinforced with Graphene for Stable Na-ion Batteries"</i>
13:15 - 13:30	<b>NANO-32: Lebogang Kotsedi</b> , University of South Africa, South Africa <i>"Titanium thin films after femtosecond laser heating"</i>	13:15 - 13:30	<b>NANO-161: Ubeyd Toçoğlu</b> , Sakarya University, Turkey <i>"SnO<sub>2</sub> Based Carbon Composite Electrodes for Li-ion Batteries"</i>
13:30 - 13:45	<b>NANO-29: Aline Simo</b> , University of South Africa, South Africa <i>"Ferromagnetic Heterojunctions VO<sub>2</sub>/Co<sub>3</sub>V<sub>2</sub>O<sub>8</sub> Materials for Photocatalytic Degradation of Fuchsin Magenta Dye"</i>	13:30 - 13:45	<b>NANO-61: Aatif Ijaz</b> , Koç University, Turkey <i>"Anti-Icing Nano-Composites"</i>
13:45 - 14:00	<b>NANO-21: Noluthando Mayedwa</b> , Ithemba Labs, South Africa <i>"Green synthesis of Zinc Tin oxide (ZnSnO<sub>3</sub>/ZTO) nanomaterials using Aspalathus Linearis natural extracts for electrochemical studies"</i>	13:45 - 14:00	<b>NANO-89: Gizem HATIPOGLU</b> , TÜBİTAK-Marmara Research Center/Sakarya University, Turkey <i>"ELECTROCHEMICAL PERFORMANCE OF METALLURGICAL GRADE SILICON DECORATED GRAPHENE ANODES"</i>

14:00 - 14:15	<b>NANO-9: Kasinathan Kaviyarasu</b> , iTHEMBA Labs, South Africa <i>"Proliferation on bio-sensing application by chemical approach method: In vitro cytotoxicity effect and antibacterial performance of microvascular endothelial cell A549 activity on Zinc oxide doped SWCNT nanocrystals"</i>	14:00 - 14:15	<b>NANO-126: Hatem AKBULUT</b> , Sakarya University, Turkey <i>"A Review on Electrodeposition of Ni-Based Nanocomposites: Effect of Alloying Elements and Reinforcements"</i>
14:15 - 14:30	<b>NANO-12: Nolubabalo Matinise</b> , iTHEMBA Labs, South Africa <i>"A novel zinc zirconate (ZnZrO<sub>3</sub>) nanocomposites bimetallic designed by Green synthesis via Moringa Olefeira extract for high electrochemical supercapacitors"</i>	14:15 - 14:30	<b>NANO-118: Mehmet Oguz Guler</b> , Sakarya University, Turkey <i>"Novel 3D Cu<sub>6</sub>Sn<sub>5</sub>@C/Graphene-MWCNT Nanocomposite Structures for High Capacity Electrode Materials for Li-Ion Batteries"</i>
14:30 - 15:00	<b>Refreshments break (with Poster Displays)</b>		
<b>Time</b>	<b>Nanotechnologies</b> <b>Chair(s): Matthew Cole (UK)</b> <b>Room: 1</b>	<b>Time</b>	<b>Nanobiotechnology &amp; Nanomedicine</b> <b>Chair(s): S. Iqbal (USA); S. Cassaignon (France)</b> <b>Room: 2</b>
15:00 - 15:15	<b>NANO-160: Adam Barcz</b> , Institute of Electronic Technology, Poland <i>"Towards a 3D Isolation of Semiconductor Nano-Box by Ion Implantation"</i>	15:00 - 15:20	<b>NANO-174: Samir Iqbal</b> , University of Texas at Arlington, USA <i>"Non-invasive Detection of Cancer from Urine using Nanotextured Polymer Biochip"</i>
15:15 - 15:30	<b>NANO-149: Raffaella Suriano</b> , Politecnico di Milano, Italy <i>"AFM nanomechanical properties of hybrid coatings based on silica, zirconia and fluorinated polymers for high durability and scratch resistance on plastic substrates"</i>	15:15 - 15:35	<b>NANO-8: Khairunisak Abdul Razak</b> , Universiti Sains Malaysia, Malaysia <i>"The Effect of Concentration and pH of PBS to the Electrocatalytic Performance of Enzymatic Glucose Biosensor"</i>
15:30 - 15:45	<b>NANO-167: M. Zenkri</b> , PSL University, France <i>"Spatially distributed passivation as a tool for new materials. Cellular automata modelling"</i>	15:35 - 15:50	<b>NANO-162: Ramūnas Skaudžius</b> , Vilnius University, Lithuania <i>"3D Reconstruction of SEM Images of Adipose Tissue"</i>
15:45 - 16:00	<b>NANO-98: Shunji Kurosu</b> , Toyo University, Japan <i>"Formation of concentric patterns composed of fullerene nano-fibres via convective self-assembly"</i>	15:50 - 16:05	<b>NANO-65: Yoon Sung Nam</b> , KAIST, Korea <i>"Photodynamic Chemotherapy Using ROS-degradable Polymer Nanoparticles to Enhance In vivo Drug Efficacy"</i>
16:00 - 16:15	<b>NANO-197: Eunkyong Kim</b> , Yonsei University, Korea <i>"Bismuth Telluride Thin Films with a High Thermoelectric Power Factor"</i>	16:05 - 16:20	<b>NANO-216: I. Sharmila Lydia</b> , Bishop Heber College, India <i>"Biodegradable PHBHHx Fibers Reinforced with Capped ZnSe QDs for Photocatalysis"</i>



16:15 - 16:30	<b>NANO-48: Haruhisa Kato</b> , National Institute of Advanced Industrial Science and Technology (AIST), Japan <i>"Characterization of Nanomaterials in Liquid Phase using Hyphenated Flow and Centrifugal Field-Flow Fractionation"</i>	16:20 - 16:35	<b>NANO-175: M. Usman Raza</b> , University of Texas at Arlington, USA <i>"Electrical Differentiation of Metastatic and Non-Metastatic Tumor Cells from Individual Morphological Characteristics"</i>
16:30 - 16:45	<b>NANO-134: Shehla Honey</b> , University of Punjab, Pakistan <i>"H+ ions beam irradiation-induced interconnections between Ni-NWs for transparent conducting electrodes"</i>		
16:30 - 17:15	<b>Poster Displays 2</b>		
<b>18:30</b>	<b>NANOSMAT Dinner (Paris City Cruise Dinner)</b> – Buses leave conference venue @5.30pm for dinner venue		

## 12 September

### NANOSMAT SCHOOL

Time	Room: 3
13:00-14:30	<b>Professor Jeff Th M. De Hosson</b> , University of Groningen, Netherlands <i>"In situ Electron Nanoscopy: fundamentals and applications"</i>
14:30 - 15:00	<b>Refreshments break (with Poster Displays)</b>
15:00-16:30	<b>Dr Giuseppe Fierro</b> , CNR, ISMN Institute at Dept. of Chemistry, 'SAPIENZA' University of Rome, ITALY <i>"Intriguing (nano)chemistry of transition metal oxide catalysts investigated by Temperature-Programmed Reduction (TPR)"</i>
16:30 - 17:15	<b>Poster Displays 2</b>
18:00	<b>NANOSMAT Dinner (Paris City Cruise Dinner)</b>  Buses leave conference venue @5.30pm for dinner venue



# 13 September

Time	Nanomaterials: Synthesis, Characterization & Application Chair(s): Jeff De-Hosson (Netherlands); Giuseppe Fierro (Italy) Room: 1	Time	Nanoscience Chair(s): Katarzyna Mitura (Poland); Iwan V. KITK (Poland) Room: 2
09:00 - 09:15	<b>NANO-45: Julian Menges</b> , Technische Universität Kaiserslautern, Germany <i>"High resolution micro-resonators for chemo-selective sensing in liquids"</i>	09:00 - 09:15	<b>NANO-27: Sriprajak Kongsuk</b> , Khon Kaen University, Thailand <i>"Molecular Simulation Study of Niosome Monolayers with and without Cholesterol Incorporation at the Water-Air Interface"</i>
09:15 - 09:30	<b>NANO-41: Yasuhisa Omura</b> , Kansai University, Japan <i>"Impact of Crystal Orientation and Conduction Band Non-parabolicity on Diffusion Constant of Nano-scale Si Rectangular Wires - theoretical estimation"</i>	09:15 - 09:30	<b>NANO-124: Tomasz Bolek</b> , National Centre for Nuclear Research, Poland <i>"Effect of the real interface roughness on the stress distribution and crack propagation in thermal barrier coating using finite element method"</i>
09:30 - 09:45	<b>NANO-56: Haifeng Zhang</b> , Harbin Institute of Technology, China <i>"One-step Hydrothermal Method to Fabricate Drag-reduction Superhydrophobic Surface"</i>	09:30 - 09:45	<b>NANO-81: Sedlovets Daria M</b> , Institute of Microelectronics Technology and High Purity Materials RAS, Russia <i>"Metal-free polyphthalocyanine – 2D conductive polymer"</i>
09:45 - 10:00	<b>NANO-77: Mukesh Chander Bhatnagar</b> , IIT Delhi, India <i>"Synthesis, Characterization and Gas Sensing Properties of Cadmium Tin Oxide Nanoparticles"</i>	09:45 - 10:00	<b>NANO-86: Audrius Jutas</b> , Kaunas University of Technology, Lithuania <i>"Lattice Distortion Model: Events' Scaling on a Horizon of Space-time"</i>
10:00 - 10:15	<b>NANO-193: Keerati Meeporn</b> , Khon Kaen University, Thailand <i>"Three-Phase Polyvinylidene Fluoride/Ag-La<sub>1.9</sub>Sr<sub>0.1</sub>Ni<sub>0.6</sub>Mg<sub>0.4</sub>O<sub>4</sub> Nanocomposites With Enhanced Dielectric Properties and Low Dielectric Loss"</i>	10:00 - 10:15	<b>NANO-235: Pallab Banerji</b> , Indian Institute of Technology Kharagpur, India <i>"Direction Controlled Growth of In<sub>x</sub>Ga<sub>1-x</sub>As Nanowires"</i>
10:15 - 10:30	<b>NANO-150: Kathleen Heinrich</b> , Fraunhofer ENAS, Germany <i>"Integration of quantum dot sensitized solar cells on technical textiles"</i>		
10:30 - 11:00	<b>Refreshments break (with Poster Displays)</b>		

Time	Nanomaterials: Synthesis, Characterization & Application Chair(s): Mimoun El Marssi (France), Fabio DA Aarão Reis (Brazil) Room: 1	Time	Nanoscience Chair(s): Katarzyna Mitura (Poland); Iwan V. KITYK (Poland) Room: 2
11:00 - 11:20	<b>NANO-58 (Invited): Hyung-Ho Park</b> , Yonsei University, Korea <i>"Effect of Ordered Mesoporous Structure Adoption in Thermoelectric Oxides"</i>	11:00 - 11:15	<b>NANO-205: Ionut Enculescu</b> , National Institute of Materials Physics, Romania <i>"Nanowire field effect transistors for sensing applications"</i>
11:20 - 11:35	<b>NANO-133: Ganesh Iyer</b> , Indian Institute of Technology Kanpur, India <i>"Effect of Surface Stress on the Interaction of a Dislocation with a Nanovoid"</i>	11:15 - 11:30	<b>NANO-165: Yingjie Liao</b> , CNRS, CERMAV, France <i>"Ultra-fast nano-organization of carbohydrate-based block copolymer thin films with sub-10 nm features"</i>
11:35 - 11:50	<b>NANO-67: Domenica Tonelli</b> , University of Bologna, Italy <i>"Carbon nanomaterials as glassy carbon modifiers for electrochemical devices with boosted activity"</i>	11:30 - 11:45	<b>NANO-199: Iván Cabria</b> , Universidad de Valladolid, SPAIN <i>"Magnetostatic Dipolar Anisotropy Energy of Ferromagnetic Thin Layers and Nanowires"</i>
11:50 - 12:05	<b>NANO-59: Małgorzata Frelek-Kozak</b> , National Centre for Nuclear Research, Poland <i>"Evaluation of consolidation method on mechanical and structural properties of ODS RAF steel"</i>	11:45 - 12:00	<b>NANO-107: J. Grym</b> , Institute of Photonics and Electronics of the CAS, Czech Republic <i>"ZnO Nanorod Arrays Grown on Locally Modified Substrates"</i>
12:00-13.00	<b>Lunch (with Poster Displays)</b>		

## 13 September

### NANOSMAT SCHOOL

Time	NANOSMAT SCHOOL Room: 3
09:00-10:30	<b>Dr Abdelhafed TALEB</b> , Piuerre & Marie Curie University, Paris, France <i>"Nanomaterials: An overview from synthesis to nanotechnological applications"</i>
10:30 - 11:00	<b>Refreshments break (with Poster Displays)</b>

13:00 - 13:45  
**"PLN-4: Professor Andrea Ferrari**, University of Cambridge, UK  
*"A journey through carbons"*  
**2017 NANOSMAT AWARD LECTURE**

Time	Nanomaterials: Synthesis, Characterization & Application Chair(s): Jean Ebothe (France) Room: 1	Time	Nanoscience Chair(s): Matthew Cole (UK), Guisepe Fierro (Italy) Room: 2
14:00 - 14:15	<b>NANO-260: Valery Zhyllinski</b> , Belarusian State Technological University, Belarus <i>"The Chemical Deposition of Multicomponent Films in Nanoporous Anodic Alumina"</i>	14:00 - 14:20	<b>INV-17: Giuseppe Fierro</b> , CNR, 'SAPIENZA' University of Rome, ITALY <i>"Nanostructured Cu species in low loading copper-based methanol synthesis catalysts"</i>
14:15 - 14:30	<b>NANO-15: H.-Y. He</b> , Shaanxi University of Science and Technology, China <i>"Self-cleaning properties of reduced graphene oxide/TiO<sub>2</sub>: Mo hybrid thin films with efficient synergistic enhancement effect"</i>	14:20 - 14:40	<b>INV-21: Katarzyna Mitura</b> , Koszalin University of Technology, Poland <i>"Antibacterial properties of food packaging with incorporated Nano-Diamond"</i>
14:30 - 14:45	<b>NANO-115: Olena Fesenko</b> , Institute of Physics of National Academy of Sciences of Ukraine, Ukraine <i>"Gold nanostars, graphene nanostructures for Surface Enhanced Infrared Absorption"</i>	14:40 - 15:00	<b>INV-28: Katarzyna OZGA</b> , Technological University of Czestochowa, Poland <i>"Operation by optoelectronic features of photopolymer embedded nanocrystallites"</i>
14:45 - 15:00	<b>NANO-109: Yanhua Song</b> , Soochow University, China <i>"Fabrication and characterization of porous and highly aligned PAN/graphene nanocomposites"</i>	15:00 - 15:20	<b>INV-30: Professor Riccardo Polini</b> , Università di Roma "Tor Vergata", Italy <i>"From tungsten minerals to sintered cemented tungsten carbides: the carbothermic reaction shortcut"</i>
15:00 - 15:15	<b>NANO-152: Navdeep Kaur</b> , Guru Nanak Dev University, India <i>"Substrate Induced Structural and Optical Changes in Thermally Deposited Thin Films of Lead (II) tetrakis (4-cemylphenoxy) phthalocyanine"</i>	15:20 - 15:35	<b>NANO-63: Roohan Thirayatorn</b> , Khon Kaen University, Thailand <i>"The calculation electronic and optical properties of the C, Si, SiC and SiGe quantum dots"</i>
15:15 - 15:30	<b>NANO-78: Nik Ghazali Nik Salleh</b> , Malaysian Nuclear Agency, Malaysia <i>"Development of Radiation Curable Nanocomposites for Coating Applications"</i>	15:35 - 15:50	<b>NANO-114: Feifei Wang</b> , Soochow University, China <i>"The puncture behaviors of textile structure composites impregnated by Shear Thickening Fluid"</i>
15:30 - 15:45	<b>NANO-180: S. Sali</b> , CRTSE - Division DDCS, Algeria <i>"Synthesis and Characterization of TiO<sub>2</sub>: Nb<sub>4-x</sub> V<sub>x</sub> thin film deposited by ultrasonic spray pulverization for solar cells applications"</i>	15:50 - 16:05	<b>NANO-74: N. Ali</b> , Cranfield University, UK <i>"The Role of Nanocoating and Fluid PH Level on the Enhancement of Surface Hydrophobicity Behaviour"</i>
15:45 - 16:00	<b>NANO-190: Sana Falah</b> , PSL Research University, France <i>"Electrochemical sensors performances: The role of specific surface and recognition receptors dynamic"</i>	16:05 - 16:20	<b>NANO-171: Samia Belhousse</b> , CRTSE, Algeria <i>"Tyrosinase immobilization on functionalized porous silicon surface"</i>

16:00 - 16:15	<b>NANO-264: Diego Ribas Gomes</b> , University of Groningen, Netherlands <i>"The Role of Interstitial Clusters in Ion Beam Induced Bending"</i>	16:20 - 16:35	<b>NANO-201: Sayed Mohamed Baqer Albahrani</b> , Sorbonne Universités, UPMC Université Paris 06, France <i>"Stability of self-assembled Cobalt nanoparticles under extreme conditions"</i>
16:15 - 16:30	<b>NANO-259: Babak Mazinani</b> : Malayer University, Iran <i>"Synthesis and Characterization of TiO2 supported on SBA-15 using a stable titania sol and evaluation its photocatalytic efficiency"</i>	16:35 - 16:50	<b>NANO-212: Jérôme PIRARTICMN</b> , CNRS, Université d'Orléans, France <i>"Structural phase transition in Pt-Ag nanoalloys under high temperature"</i>
16:30 - 16:45	<b>NANO-137: Bhanu Bhusan Khatua</b> , IIT- Kharagpur, India <i>"Design of durable Piezoelectric Nanogenerator Based on AlO-rGO/PVDF Nanocomposite with High Power Density for Biomechanical Energy Harvesting Applications"</i>		
17:00 - 17:45	<b>Refreshments &amp; Concluding Remarks</b>		

Time	Nanoscience & Nanotechnology INVITED SESSION (Room 3) Chair(s): Jeff Hosson (Netherlands), AbdelHAFED Taleb (France)		
13:50 - 14:10	<b>INV-37: Professor Christophe Petit</b> , Sorbonne University, UPMC, MONARIS, Paris-France <i>"Self-assembly of Magnetic Nanomaterials: Design and Physical Properties?"</i>		
14:10 - 14:30	<b>INV-38: Dr Daniele M. TRUCCHI</b> , CNR-ISM, Rome, ITALY <i>"Black diamond technology for solar energy conversion at high temperature"</i>		
14:30 - 14:50	<b>INV-39: Prof. Michel Cassir</b> , Chimie ParisTech (PSL), France <i>"New issues in nanostructured coatings for high temperature energy devices"</i>		
14:50 - 15:10	<b>INV-40: Professor Mimoun El Marssi</b> , University of Picardie, France <i>"Strain effect and phase transitions in epitaxial ferroelectric superlattices"</i>		
15:10 - 15:30	<b>INV-41: Professor Fabio DA Aarão Reis</b> , Universidade Federal Fluminense, Brazil <i>"Crossover from compact to branched films in electrodeposition with surface diffusion"</i>		
15:30 - 15:50	<b>INV-42: Dr Dung di Caprio</b> , IRCP, CNRS - Chimie ParisTech, Paris, France <i>"Cellular automata approach in electrochemistry: some applications"</i>		
15:50 - 16:10	<b>INV-25: Juan Antonio ZAPIEN</b> , City University of Hong Kong, Hong Kong <i>"Optics for advanced nano-materials characterisation"</i>		
16:10 - 16:30	<b>INV-31: Dr Catherine JOURNET-GAUTIER</b> , Université Claude Bernard Lyon 1, France <i>"2D hexagonal boron nitride synthesized by a polymer route"</i>		
16:30 - 16:50	<b>INV-36: Dr. Mustapha Jouiad</b> , Masdar Institute of Science and Technology, Abu Dhabi, UAE <i>"Role of Localized Surface Plasmon Resonance (LSPR) in solar spectrum of water splitting devices"</i>		
16:50 - 17:10	<b>INV-35: Professor Michael Molinari</b> , University of Reims Champagne Ardenne, France <i>"Electrodeposition of highly luminescent Rare-Earth doped Si nanowires from Room Temperature Ionic Liquids"</i>		
17:00 - 17:45	<b>Refreshments &amp; Concluding Remarks</b>		

## Poster Presentations: 11 September

**NANO-15(2): H.-Y. HeShaaxi**, University of Science and Technology, China

*"Enhanced photocatalytic activity of MoS<sub>2</sub>/Si-doped TiO<sub>2</sub> nanotube hybrids with highly efficient interface effect"*

**NANO-30: Aline Simo**, University of South Africa, South Africa

*"Shape Control VO<sub>2</sub> Nanorods Prepared By Soft Chemistry"*

**NANO-31: Lebogang Kotsedi**, University of South Africa, South Africa

*"Structural study of femtosecond laser irradiated germanium thin films"*

**NANO-34: Romário Araújo Pinheiro**, National Institute for Space Research (INPE), Brazil

*"Water Vapor Extraction from Humid Air by Super-Hydrophilic VACNTs Growth on Stainless Steel Screen"*

**NANO-35: Amanda Araújo Silva**, National Institute for Space Research (INPE), Brazil

*"Multi-walled Carbon Nanotubes Exfoliated by Hydrogen/Oxygen Plasmas and Their Performance in Supercapacitor Devices"*

**NANO-38(2): R.R. Zairov**, A.E. Arbutov IOPC KSC RAS, Russia

*"High performance magneto-fluorescent nanoparticles assembled from terbium and gadolinium 1,3-diketones"*

**NANO-42: Sang-Chul Jung**, Sunchon National University, Korea

*"Assessing the electrochemical performance of a supercapacitor electrode made of copper oxide and activated carbon using liquid phase plasma"*

**NANO-43: Sumalin Phokha**, Udon Thani Rajabhat University, Thailand

*"Effects of CeO<sub>2</sub> nanoparticles on electrochemical properties of carbon/CeO<sub>2</sub> composites"*

**NANO-44: Sitchai Hunpratub**, Udon Thani Rajabhat University, Thailand

*"Characterization and Electrical Properties of BaTi<sub>1-x-y</sub>(In<sub>0.5</sub>Nb<sub>0.5</sub>)xZryO<sub>3</sub> Ceramics"*

**NANO-50: Pornsawan Sikam**, Khon Kaen University, Thailand

*"Study of structure, optical and magnetic properties of Co-doped SrTiO<sub>3</sub> nanoparticles synthesized by hydrothermal method and first-principles calculation"*

**NANO-51: Rogério Pinto Mota**, UNESP – Campus of Guaratinguetá, Brazil

*"Plasma Polymerized 2-methyl-2-oxazolyne Incorporated With Chlorhexidine for Biomedical Applications"*

**NANO-52: Rogério Pinto Mota**, UNESP – Campus of Guaratinguetá, Brazil

*"Deposition of Diglyme Thin Films by Plasma Polymerization at Low Pressure Low RF Applied Power Conditions: Investigation of Polymerization Process"*

**NANO-57: Yanjin Tuo**, Harbin Institute of Technology, China

*"Preparation and drag reduction of porous superhydrophobic surface on stainless steel"*

**NANO-59(2): Małgorzata Frelek-Kozak**, National Centre for Nuclear Research, Poland

*"On the determination of growth stress during oxidation of pure zirconium at elevated temperature"*

**NANO-64: Maria Moreno-Armenta**, Universidad Nacional Autónoma de México, Mexico

*"Oxygen adsorption over graphene/GaN (0001) surface"*

**NANO-68: Margaret Olateju**, University of South Africa, South Africa

*"Green Synthesis of SmPO<sub>4</sub> Nanomaterials via Callistemon viminalis Extract"*

**NANO-71: J.C. Jiménez**, Universidad Politécnica de Madrid, Spain

*"Sputtering yield in nanowires"*

**NANO-82: Sedlovets Daria M**, Institute of Microelectronics Technology and High Purity Materials RAS, Russia

*"Electron beam assisted chemical vapor deposition of 3D carbon structures"*

<p><b>NANO-87: Woong Han</b>, Korea Carbon Convergence Technology Institute, Korea  <i>"A Study on Antimicrobial Activities of Ni-coated CNT-reinforced Nano Composites"</i></p>
<p><b>NANO-88: Woong Han</b>, Korea Carbon Convergence Technology Institute, Korea  <i>"Effects of Nanostructured Ni-coating on the Thermal Conductivity of Ni-CFs/Graphite Flakes/polypropylene Nano-composites"</i></p>
<p><b>NANO-90: Su-Shia Lin</b>, National Chi Nan University, Taiwan  <i>"Wettability and optical properties of SnO–SnO<sub>2</sub>–Sb<sub>2</sub>O<sub>3</sub> thin films deposited by simultaneous RF and DC magnetron sputtering"</i></p>
<p><b>NANO-90(2): Su-Shia Lin</b>, National Chi Nan University, Taiwan  <i>"Physical properties of titanium oxide thin films prepared by sol–gel spin coating"</i></p>
<p><b>NANO-93: Yusuke Takeuchi</b>, Toyo University, Japan  <i>"Synthesis of hybrid nanoparticles composed of doxorubicin/PLGA/chitosan/graphene oxide"</i></p>
<p><b>NANO-94: Asma Ben Salah</b>, Toyo University, Japan  <i>"Patterns formed by magnetic particles in combined dc and ac magnetic fields"</i></p>
<p><b>NANO-95: Yuma Ishido</b>, Toyo University, Japan  <i>"Synthesis of magnetic nano crystals via pyrolysis in ethanol"</i></p>
<p><b>NANO-99: Sang Soon Hwang</b>, Incheon National University, Korea  <i>"Combustion Synthesis of Silicon Dioxide Nanoparticles using Premixed Burner with Central Precursor Port"</i></p>
<p><b>NANO-103: Masayuki Karube</b>, Toyo University, Japan  <i>"Activity of an enzyme immobilized on ferromagnetic particles under an ac/dc combined magnetic field"</i></p>
<p><b>NANO-105: Pornjuk Srepusharawoot</b>, Khon Kaen University, Thailand  <i>"Enhancements of hydrogen adsorption in M-MOF-525 (M=Zr, Ti and V): A first-principle study"</i></p>
<p><b>NANO-106: Teerasak Kamwanna</b>, Khon Kaen University, Thailand  <i>"Synthesis and Physical Properties of Delafossite CuBO<sub>2</sub> p-type Transparent Conducting Oxide"</i></p>
<p><b>NANO-108: J. Grym</b>, Institute of Photonics and Electronics of the CAS, Czech Republic  <i>"Mechanisms of Electrophoretic Deposition of Metal Nanoparticle Monolayers"</i></p>
<p><b>NANO-110: Hana Lim</b>, Korea Institute of Industrial Technology (KITECH), Korea  <i>"Large-area and cost-effective fabrication of Ag-coated polymeric nanopillar array for surface-enhanced Raman spectroscopy"</i></p>
<p><b>NANO-111: Hana Lim</b>, Korea Institute of Industrial Technology (KITECH), Korea  <i>"Aqueous Rechargeable Na-ion battery based on Polypyrrole-CNT nanowire as anode and Na<sub>0.44</sub>MnO<sub>2</sub> nanorod as cathode"</i></p>
<p><b>NANO-112: Boyoung Cho</b>, Korea Institute of Industrial Technology (KITECH), Korea  <i>"MWCNT-polyimide core-shell nanowire as high capacity anode and cathode material for aqueous rechargeable sodium-ion battery"</i></p>
<p><b>NANO-116: Yoshikatsu Tanaka</b>, Toyo University, Japan  <i>"Analysis of thin multi-layer structures by using Hall effect measurement"</i></p>
<p><b>NANO-117: Shunji Yamakawa</b>, Toyo University, Japan  <i>"A New Scaling Parameter of FinFETs"</i></p>
<p><b>NANO-119: Mehmet Oguz Guler</b>, Sakarya University, Turkey  <i>"Freestanding Nano Crystalline Tin@Carbon Anode Electrodes for High Capacity Li-Ion Batteries"</i></p>



<b>NANO-123: Mirac ALAF</b> , Bilecik Seyh Edebali University, Turkey <i>"Electrochemical Performance Study of Graphene/MWCNT/Si-Yolk-Shell Freestanding Anodes for Lithium Ion Batteries"</i>
<b>NANO-125: Tomasz Bolek</b> , National Centre for Nuclear Research, Poland <i>"Potassium gadolinium tungstate doped RE ions as potential nano-sized material for medical imaging"</i>
<b>NANO-127: Hatem AKBULUT</b> , Sakarya University, Turkey <i>"Carbon-Silicon Composite Anode Electrodes Modified with MWCNT for High Energy Battery Applications"</i>
<b>NANO-131: S. Kim</b> , Korea Institute of Industrial Technology (KITECH), Korea <i>"Non-enzymatic Electrochemical Lactate Biosensor based on Nickel Hydroxide"</i>
<b>NANO-132: Laura Castro</b> , Universidad Complutense de Madrid, Spain <i>"Biosynthesis of metallic nanoparticles using Aeromonas hydrophila as biotechnological tool"</i>
<b>NANO-135: Mateusz Petrus</b> , Warsaw University of Technology, Poland <i>"Influence of Spark Plasma Texturing parameters on microstructure of aluminum composites reinforced with 2D crystals"</i>
<b>NANO-73: Fabio Reis</b> , Universidade Federal Fluminense, Brazil <i>"Effects of film growth kinetics on grain coarsening and grain shape"</i>

## Poster Presentations: 12 September

<b>NANO-138: Marek Kostecki</b> , Warsaw University of Technology, Poland <i>"Tribological properties of 6061 aluminum alloy matrix composites reinforced with MoS2 nanoflakes and multi-layer graphene in vacuum environment"</i>
<b>NANO-141: Vasily Lavrentiev</b> , Nuclear Physics Institute CAS, Czech Republic <i>"Nanostructure and magnetism of self-assembled CoxC60 hybrid films"</i>
<b>NANO-143: Sang Yong Nam</b> , Gyeongsang National University, Korea <i>"Preparation of nanoporous membranes using thermally induced phase separation method"</i>
<b>NANO-144: Sang Yong Nam</b> , Gyeongsang National University, Korea <i>"The composite membranes of poly(phenylene oxide) and polyethylene support containing quaternary ammonium for alkaline anion exchange membrane fuel cell applications"</i>
<b>NANO-145: Arturo Fernandez-Perez</b> , University of Bio-Bio, Chile <i>"Chemically-deposited nanostructured CdS:Al/PbS thin films for photovoltaic applications"</i>
<b>NANO-146: Arturo Fernandez-Perez</b> , University of Bio-Bio, Chile <i>"Schottky contacts on chemically-deposited nanostructured Al-doped CdS thin films"</i>
<b>NANO-147: Pairoot Moontragoon</b> , Khon Kaen University, Thailand <i>"Calculation of electronic and thermoelectric properties of SrTiO3"</i>
<b>NANO-153: Fuat Kayis</b> , Sakarya University, Turkey <i>"Producing and Characterization of V2O5 Nanobelts with a One-Step Method"</i>
<b>NANO-154: Deniz Gültekin</b> , Sakarya University, Turkey <i>"Detailed Analysis Of Hydrothermally Grown ZnO Nanorods On The Graphene Oxide Sheets"</i>
<b>NANO-155: Deniz Gültekin</b> , Sakarya University, Turkey <i>"Synthesis and Characterization of ZnO-Graphene Oxide Nanocomposites"</i>



<p><b>NANO-157: Carlo Mennucci</b>, University of Genova, Italy  <i>"Self-organized flexible plasmonic arrays"</i></p>
<p><b>NANO-158: Samia Belhousse</b>, CRTSE, Algeria  <i>"CO2 sensors based on porous silicon and conducting polymer"</i></p>
<p><b>NANO-168: Young-Kwon Park</b>, The University of Seoul, Korea  <i>"Catalytic Removal of Food Waste Derived Odor using Hybrid System Comprised of Wet Plasma and Catalyst"</i></p>
<p><b>NANO-169: Young-Kwon Park</b>, The University of Seoul, Korea  <i>"Efficient Upgrading of Bio-oil using Porous Catalytic Materials"</i></p>
<p><b>NANO-176: Ramazan ERDEM</b>, Akdeniz University, Turkey  <i>"In vitro Evaluation of Modified Nanohydroxyapatite Doped Electrospun Nanofibrous Scaffold"</i></p>
<p><b>NANO-178: Yan Zhang</b>, Soochow University, China  <i>"Nano silver particles infiltrated three-dimensional crimped silk yarn"</i></p>
<p><b>NANO-184: Wattana Tuichai</b>, Khon Kaen University, Thailand  <i>"Enhanced Dielectric Permittivity in Nano Ag-Deposited (In3+, Nb5+) co-doped TiO2/Polyvinylidene Fluoride Composites"</i></p>
<p><b>NANO-185: J. Boonlakhorn</b>, Khon Kaen University, Thailand  <i>"CaCu3Ti4O12 Nanopowders Prepared by a Urea-Combustion Method: Synthesis, Characterization, and Their Bulk Electrical and Giant Dielectric Properties"</i></p>
<p><b>NANO-187: Ali Can YILMAZ</b>, Cukurova University, Turkey  <i>"PA6/Silver blends: Investigation of Mechanical and Electromagnetic Shielding Behaviour of Electrospun Nanofibers"</i></p>
<p><b>NANO-202: K. Vijayalakshmi</b>, Bishop Heber College, India  <i>"A novel synthesis of non-enzymatic H 2O2 sensor based on Pd:Mn O2 nanoparticles decorated carbon nanotubes/Ta nanocomposites"</i></p>
<p><b>NANO-203: Giuseppe FIERRO</b>, CNR, ISMN Institute at Dept. of Chemistry, 'SAPIENZA' University of Rome, Italy  <i>"Integrated analytical methodologies for the study of the corrosion products naturally grown on Roman Ag-based artefacts"</i></p>
<p><b>NANO-204: Giuseppe FIERRO</b>, CNR, ISMN Institute at Dept. of Chemistry, 'SAPIENZA' University of Rome, Italy  <i>"Combined use of FE-SEM+EDS, TOF-SIMS, m-FTIR, XRD and OM for the study of ancient gilded artefacts"</i></p>
<p><b>NANO-206: Matei Elena</b>, National Institute of Materials Physics, Romania  <i>"Electrospun fibers for life sciences applications"</i></p>
<p><b>NANO-209: Monica Enculescu</b>, National Institute of Materials Physics, Romania  <i>"Emissive Properties of Dye-Doped Polymer Nanofibers Produced by Electrospinning"</i></p>
<p><b>NANO-210: Rodica-Cristina Voicu</b>, National Institute for R&amp;D in Microtechnologies –IMT Bucharest, Romania  <i>"Fabrication and characterization of thin mico/nano-membranes for MEMS/NEMS applications"</i></p>
<p><b>NANO-218: Nutthakritta Phromviyo</b>, Suranaree University of Technology, Thailand  <i>"Enhanced Dielectric permittivity with Retaining Low Loss in Poly(vinylidene fluoride) by Incorporating with Ag Nanoparticles Synthesized via Hydrothermal Method"</i></p>
<p><b>NANO-219: Nutthakritta Phromviyo</b>, Suranaree University of Technology, Thailand  <i>"High Dielectric Permittivity and Suppressed Loss Tangent in PVDF Polymer Nanocomposites using Gold Nanoparticle-Deposited BaTiO3 Hybrid Particles as Fillers"</i></p>
<p><b>NANO-224: Prasit Thongbai</b>, Khon Kaen University, Thailand  <i>"Na1/3Ca1/3Bi1/3Cu3Ti4O12-Ni/Polyvinylidene Fluoride Three-Phase Nanocomposites with High Dielectric Permittivity and Low Dielectric Loss Tangent"</i></p>

<p><b>NANO-225: Prasit Thongbai</b>, Khon Kaen University, Thailand  <i>"Low Dielectric Loss with Excellent Temperature Stability of Dielectric Permittivity in Ag/Ag-BaTiO<sub>3</sub> Hybrid Particles/PVDF Polymeric Nanocomposites"</i></p>
<p><b>NANO-228: Jong won Choi</b>, Sungkyunkwan University, Korea  <i>"Annealing Effect on Defect States and Electrical Property of ZnO Nanorods Prepared using a Hydrothermal Method"</i></p>
<p><b>NANO-229: Chae Hee Park</b>, Sungkyunkwan University, Korea  <i>"Effect of Diethanolamine on Morphology, and Photocatalytic Activity of Anatase TiO<sub>2</sub> Mesocrystals"</i></p>
<p><b>NANO-230: Park Geun Chul</b>, Sungkyunkwan University, Korea  <i>"Effects of Calcination Temperature on Morphology, Microstructure, and Photocatalytic Activity of TiO<sub>2</sub> Mesocrystals"</i></p>
<p><b>NANO-232: Simone Berardozi</b>, Sapienza University of Rome, Italy  <i>"Synthesis of a new artificial linker resorc[4]arene-based system for immunosensors development"</i></p>
<p><b>NANO-234: Apiwat Boonkuang</b>, Khon Kaen University, Thailand  <i>"Surface Layer Effects in Sb-Doped TiO<sub>2</sub> Ceramics"</i></p>
<p><b>NANO-239: Mehtap Safak Boroglu</b>, University of Istanbul, Turkey  <i>"Gas separation properties of Thermally Rearranged (TR) poly(benzoxazole-co-amide) and zeolitic imidazolate framework based polymer mixed matrix membranes"</i></p>
<p><b>NANO-243: Farsad Forghani</b>, University of Tehran, Iran  <i>"Thermodynamic description of order-disorder interface of nano-precipitates in Ni-Al alloy system"</i></p>
<p><b>NANO-245: Paolo Di Sia</b>, Free University of Bolzano, Italy  <i>"Quantum-Relativistic Carrier Nano-Transport and Plasmonics"</i></p>
<p><b>NANO-247: Jean-Pierre Celis</b>, KU Leuven, Belgium  <i>"Tribological behaviour of nanostructured iron processed by equal channel angular pressing"</i></p>
<p><b>NANO-251: Haksoo Lee</b>, Sungkyunkwan University, Korea  <i>"Flexible Moisture Barrier with Organic / Inorganic Hybrid Structure for Organic Light-Emitting Diodes Using Roll-to-Roll Process"</i></p>
<p><b>NANO-252: Chanho Kim</b>, Sungkyunkwan University, Korea  <i>"Fabrication of Silver-nanowire Embedded Transparent Electrode with Light Extraction Layer for High Efficient OLEDs via Roll-to-Roll process"</i></p>
<p><b>NANO-262: Michal Szczypinski</b>, Technical University of Liberec, Czech Republic  <i>"Influence of carbon allotropes addition on the properties of the polystyrene composite board obtained from recycled expanded polystyrene"</i></p>
<p><b>NANO-263: Michal Szczypinski</b>, Technical University of Liberec, Czech Republic  <i>"Detonation nanodiamond as biological barrier and performance enhancer in expanded polystyrene boards"</i></p>
<p><b>NANO-7: Djoille Denner Damm</b>, Federal University of São Paulo, Brazil  <i>"HFCVD Diamond Film On Vanadium Carbide Interlayer Applied By Laser Cladding"</i></p>
<p><b>NANO-238(2): Daejun Oh</b>, The University of Seoul, Korea  <i>"Multilayer graphene growth on stainless steel electrode towards anti-corrosion application"</i></p>

## Poster Presentations: 13 September

**NANO-1: S.E. Benito-Santiago**, Instituto Politécnico Nacional, GESMAT, Mexico

*"Structure and adsorption properties of graphene oxide decorated with iron oxides"*

**NANO-10: Kasinathan Kaviyarasu**, iTHEMBA Labs, South Africa

*"Synthesis and characterization studies of Ceria doped CuO nanocrystals by hydrothermal method"*

**NANO-22: Noluthando Mayedwa**, Ithemba Laboratory, Cape Town, South Africa

*"Green Synthesis via natural extracts of Aspalathus Linearis and characterization of PtNiCu nanoparticles and their high electrocatalytic activity on methanol oxidation"*

**NANO-39: Nametso Mongwaketsi**, iThemba LABS, South Africa

*"Green Synthesis of Silver Nanoparticles From Callistemon Viminalis Flower Extract"*

**NANO-40: Nametso Mongwaketsi**, iThemba LABS, South Africa

*"Callistemon Viminalis Extract Based Silver Nanoparticles Influence On The Optical Properties Of Porphyrin Nanorods"*

**NANO-55: Fathi Touati**, National Institute of Research and Physico-chemical Analysis (INRAP), Tunisia

*"Micro-octahedra of Cu<sub>2</sub>O: Hydrothermal synthesis and electrochemical properties"*

**NANO-75: Kimia Hemyari**, Shiraz University of Medical Sciences, Iran

*"Synthesis of surface-modified superparamagnetic nanoparticles by PEG-400 to embedding Ag and Au nanoparticles as antifungal agents"*

**NANO-179: Abdelaziz Beddiaf**, Khenchela University, Algeria

*"Study of the Thermal Drift in Sensitivity of Pressure Sensor"*

**NANO-198: S .Taleb**, University of Boumerdes, Algeria

*"ELECTROCHEMICAL SYNTHESIS AND MICROSTRUCTURAL ANALYSIS OF ZnO NANOSHEETS FOR PHOTOCATALYSIS"*

**NANO-207: M. Pedroza-Montero**, Universidad de Sonora, MÉXICO

*"Molecular biorecognition of glyconanoparticles by liver tumoral cells line"*

**NANO-208: F.A. Pedroza-Montero**, Universidad de Sonora, MÉXICO

*"Membrane structure alterations on both  $\gamma$ -irradiated and stored human erythrocytes"*

**NANO-213: Pascal Andrezza**, ICMN, CNRS, Université d'Orléans, France

*"Investigation techniques of nanoalloys structure and phase transition"*

**NANO-246: A.YOUNES**, University of Saad Dahleb Blida, Algeria

*"Structural and magnetic properties of FeNiCu nanostructured produced by mechanical alloying"*

**NANO-248: Hachemi BOURIDAH**, Université de Jijel, Algeria

*"Elaboration and characterization of N type porous silicon"*

**NANO-249: Hachemi BOURIDAH**, Université de Jijel, Algeria

*"Analytical Surface Potential Model for Columnar Nanocrystalline Silicon Thin Film Transistors"*

**NANO-254: S. Sali**, CRTSE - Division DDCS, Algeria

*"Effect of anodizing potentials on corrosion behavior of anodic TiO<sub>2</sub> nanotubes grown on Ti6Al4V substrates for dental application"*

**NANO-256: Mircea Chipara**, University of Texas Rio Grande Valley, USA

*"Polystyrene - Polyvinylidene Fluoride Blends"*

**NANO-257: Ahmed KOUADRI-BOUDJELTHIA**, University of CHLEF, Algeria

*"STUDY OF THE CREEP BEHAVIOR OF A COMPOSITE MATERIAL UNDER DIFFERENT HUMIDITYS"*

<p><b>NANO-260(2): Valery Zhylinski</b>, Belarusian State Technological University, Belarus  <i>"The Formation of Nanosize Pyramidal Meshes from Aluminum"</i></p>
<p><b>NANO-13: Nolubabalo Matinise</b>, iTHEMBA Labs, South Africa  <i>"Green synthesis of novel Zinc cadmium oxide (ZnCdO) nanocomposite via Moringa Oleifera natural extract for applications in Energy Storage, Catalysis, and as Conductive Materials"</i></p>
<p><b>NANO-60: Faouzi Sdiri</b>, Université de Tunis El Manar, Tunisia  <i>"Nano-Vanadium Pentoxide Intercalated With amino-alcohol: Novel layered Hybrids with Electrochemical performance"</i></p>
<p><b>NANO-14: Jarot Raharjo</b>, Agency for the Assessment and Application of Technology, Indonesia  <i>"Nd and Gd co-doped Ceria-Based Nano Composite Electrolyte for IT-SOFCs Prepared By Sol-Gel Route"</i></p>
<p><b>NANO-17: Agustanhakri Bakri</b>, Agency for the Assessment and Application of Technology, Indonesia  <i>"Effect of Purity CeO<sub>2</sub> on Electrochemical Properties of LaNi<sub>5</sub> - Type Alloy Electrodes"</i></p>
<p><b>Houda Ennaceri</b>, Mourad Boujnah, Abdelhafed Taleb, Asmae Khaldoun, Rodrigo Saez-Araoz, Ahmed Ennaoui, Abdallah El Kenz, Abdelilah Benyoussef  <i>"Thickness effect on the optical properties of TiO<sub>2</sub>-anatase thin films prepared by ultrasonic spray pyrolysis: Experimental and ab initio study"</i></p>
<p><b>Valiantsin Yaskelchyk</b> and Abdelhafed Taleb  <i>"Nanodiamond coating for anti-corrosion applications"</i></p>

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