

## TENTATIVE PROGRAM (as of 26/01/2017)

K: Keynote lecture / I: Invited Lecture / O: Oral contribution



### WEDNESDAY (01/02/2017)

10:00 – 11:00: Registration

11:00 – 11:15: Opening Ceremony- Welcome and Introduction.

- |   |   |
|---|---|
| 11:15 – 11:45: <b>João Rocha</b> (CICECO - University of Aveiro, Portugal)<br><i>Nanomaterials for Temperature Sensing</i>  | K |
| 11:45 – 12:00: <b>Eulalia Pereira</b> (REQUIMTE/UCiBIO, University of Porto, Portugal)<br><i>Synthesis of non-spherical metal nanoparticles for ultra-sensitive SERS</i>  | O |
| 12:00 – 12:15: <b>Cláudia Gomes Silva</b> (Associate Laboratory LSRE-LCM, Portugal)<br><i>Challenging fine chemical synthesis: a photocatalytic approach</i>  | O |
| 12:15 – 12:30: <b>Paul Grey</b> (CENIMAT/I3N, Portugal)<br><i>Design of tungsten oxide nanoparticles and application to electrochemical devices</i>   | O |
| 12:30 – 12:45: <b>Nagamalai Vasimalai</b> (INL, Portugal)<br><i>Facile and room temperature synthesis of highly red emissive gold nanodots for the application in paper based chemosensor of toxic anions</i>                         | O |
| 12:45 – 14:15: Cocktail Lunch / Poster Session & Exhibition   |   |
| 14:15 – 14:45: <b>Helena F. Florindo</b> (Universidade de Lisboa, Portugal)<br><i>Multicomponent Nanoscale Systems for Immune Modulation against solid tumors</i>   | I |
| 14:45 – 15:15: <b>Chris Whiteley</b> (National Taiwan University Science & Technology, Taiwan)<br><i>Interaction of human immune-deficiency virus (HIV) aspartic protease with spherical gold nanoparticles: Computer simulations</i> | I |
| 15:15 – 15:30: <b>Bruno Silva</b> (INL, Portugal)<br><i>Soft self-assembled nanostructured nanoparticles for gene and drug delivery</i>   | O |
| 15:30 – 15:45: <b>Oihane Ibarrola Moreno</b> (BioPraxis Research AIE, Spain)<br><i>NOCANTHER: GMP scale up for Drug Delivery nanosystems</i>  | O |
| 15:45 – 16:00: <b>Teodora Miclaus</b> (International Iberian Nanotechnology Laboratory (INL), Portugal)<br><i>Protein coronas modulate silver nanoparticle sulphidation in vitro with impact on cell toxicity</i>                     | O |
| 16:00 – 16:15: <b>Andrea Zille</b> (Universidade do Minho, Portugal)<br><i>Size Effects on Antimicrobial Efficiency of DBD Plasma Coated Silver Nanoparticles on Textiles</i>   | O |
| 16:15 – 16:30: <b>Sara Fateixa</b> (University of Aveiro, Portugal)<br><i>SERS imaging and chemisorption studies of methylene blue dyeing of antimicrobial textile fibers</i>   | O |
| 16:30 – 16:45: <b>Mónica Faria</b> (CeFEMA and Universidade de Lisboa, Portugal)<br><i>Hemocompatible Membranes for Blood Oxygenators</i>   | O |
| 16:45 – 17:00: <b>Fernando Cruz</b> (Universidade NOVA de Lisboa, Portugal)<br><i>Thermodynamics and kinetics of DNA in hydrophilic nanopores</i>   | O |
| 17:00– 17:30: Coffee Break / Poster Session & Exhibition  |   |
| 17:30 – 18:00: <b>André Chaves</b> (University of Minho, Portugal)<br><i>Signatures of A, B, and C excitons in the optical properties of monolayer transition-metal dichalcogenides</i>   | I |
| 18:00 – 18:15: <b>Lluís Marsal</b> (University Rovira i Virgili, Spain)   | O |

*Engineered Nanoporous anodic alumina photonic structures*

18:15 – 18:30: **Joana Guerreiro** (INL/Life Sciences, Portugal)

O

*Surface imprinting of complex matrices for plasmonic screening of global polyphenols and proteins interaction*

18:30 – 18:45: **Carola Krysch** (University of Erlangen, Germany)

O

*Gold-Nanorod Based SPASER*



#### THURSDAY (02/02/2017)

09:00 – 09:30: **Pablo Alonso Gonzalez** (Universidad de Oviedo, Spain)

K

*Nano-optics on flatland*

09:30 – 10:00: **Rainer Hillenbrand** (CIC nanoGUNE, Spain)

K

*Nanoimaging and control of polaritons in 2D materials*

10:00– 10:15: **Olivia Salomé Soares** (Universidade do Porto, Portugal)

O

*Easy method to prepare highly active N-doped carbon nanotube catalysts for advanced oxidation processes*

10:15 – 10:30: **César González** (University of Granada, Spain)

O

*Molecular dissociation in a defected MoS<sub>2</sub> monolayer*

10:30 – 10:45: **Marcus Worsley** (Lawrence Livermore National Laboratory, USA)

O

*Graphene-based aerogels for high performance sensing and catalytic applications*

10:45 – 11:15: **Pedro M. Da Costa** (KAUST, Saudi Arabia)

K

*Rational design of graphene-based electrodes for energy storage systems*

11:15 – 11:45: *Coffee Break / Poster Session & Exhibition*

11:45 – 12:45: *Poster Session*

12:45 – 14:15: *Lunch*

14:15 – 14:45: **João Gaspar** (INL, Portugal)

K

*Hybrid Spintronic-MEMS Devices*

14:45 – 15:15: **Pedro Miguel Cândido Barquinha** (Universidade Nova de Lisboa, Portugal)

I

*Sustainable, multifunctional and flexible electronics platform based on oxides*

15:15 – 15:30: **Jordi Llobet** (Institut de Microelectrònica de Barcelona (IMB-CNM, CSIC), Spain)

O

*Focused ion beam implantation as a tool for the fabrication of nanoelectromechanical devices*

15:30 – 16:00: **Fernando Langa** (Universidad de Castilla-La Mancha, Spain)

I

*Highly Efficient Porphyrin-Based Bulk Heterojunction Organic Photovoltaics*

16:00 – 16:30: **Bruno Amorim** (Instituto Superior Técnico - IST, Portugal)

I

*Waveguide QED quantum computing with graphene nanoribbon plasmons*

16:30 – 16:45: **Wei Li** (International Iberian Nanotechnology Laboratory, Portugal)

O

*Monolithic Co<sub>3</sub>Se<sub>4</sub> Nanowire Electrodes for Highly Efficient and Stable Oxygen Evolution and Overall Water Splitting*

16:45 – 17:30: *Coffee Break / Poster Session & Exhibition*

17:30 – 18:00: **Joaquín Fernández-Rossier** (INL, Portugal)

K

*Atomic scale electronics: from classical kilobytes to quantum bits*

18:00 – 18:30: **Christian Joachim** (CEMES-CNRS, France)

K

*Super tunneling and molecular wires*

18:30 – 19:00: **Marek Kolmer** (Jagiellonian University, Poland)

K

*Electronic properties of atomic-scale wires from direct two-probe STM experiments*



FRIDAY (03/02/2017)

### PARALLEL SESSION TRACK A (PhD Students)

- 09:00 – 09:15: **Abderrazzaq Essaghraoui** (ICETA/ UCIBIO/ REQUIMTE, University of Porto, Portugal) O  
*Cyclosporine A-loaded solid lipid nanoparticles versus nanostructured lipid carriers for dermal applications*
- 09:15 – 09:30: **Ana Pinto** (UCIBIO/REQUIMTE, Portugal) O  
*Amoxicillin-loaded lipid nanoparticles: a novel approach to treat Helicobacter pylori infections*
- 09:30 – 09:45: **Rita Rodrigues** (University of Minho, Portugal) O  
*Solid and Aqueous Magnetic Liposomes as Nanocarriers for a New Potential Drug Active Against Breast Cancer*
- 09:45 – 10:00: **Rita S. Santos** (Ghent University, Belgium) O  
*Delivery of nucleic acid mimics as a novel treatment of infections - the Helicobacter pylori case*
- 10:00– 10:15: **Alexandra Plácido** (REQUIMTE/LAQV, Portugal) O  
*Acetylated Cashew Gum-Based Nanoparticles: Drug Delivery of the Alkaloid Epiisopiloturine*
- 10:15– 10:30: **Vânia Serrão Sousa** (University of Algarve / CENSE, Portugal) O  
*Application of TiO<sub>2</sub> nanoparticles in conventional water treatment*
- 10:30 – 10:45: **Andreia Cardoso** (i3N/CENIMAT, CEMOP/UNINOVA, Portugal) O  
*Direct growth of plasmonic nanorod forests on paper substrate for low-cost flexible 3D SERS platforms*
- 10:45 – 11:00: **Jennifer Teixeira** (I3N - Universidade de Aveiro, Portugal) O  
*Effect of Varying the Cu Content on Cu(In,Ga)Se<sub>2</sub> Solar Cells*

### PARALLEL SESSION TRACK B (PhD Students)

- 09:00 – 09:15: **Luis Miguel Arellano Castellanos** (University of Castilla-La Mancha, Spain) O  
*Modifying the properties of graphene & carbon nanotubes through chemical modification*
- 09:15 – 09:30: **Quentin Arnoux** (UPMC/LCPMR, France) O  
*DIP interfacial layer in PV heterostructures using ITO as an electrode: impact of coating ratio and evaporation conditions on molecular orientation studied by STXM.*
- 09:30 – 09:45: **Edgar Fernandes** (Ecole Polytechnique Fédérale de Lausanne (EPFL) / Institut de Physique (IPHYS), Switzerland) O  
*Adsorption Sites of Individual Metal Atoms on Ionic Surface with Use of Scanning Tunneling Microscopy*
- 09:45 – 10:00: **Paul Grey** (CENIMAT|i3N, Portugal) O  
*Draw Your Electronics: Semiconducting Devices by Hand-Writing ZnO Nanoparticles on Paper*
- 10:00 – 10:15: **Julian Kalb** (University of Konstanz, Germany) O  
*Positions-controlled growth of rutile TiO<sub>2</sub> nanorods and their optical and electronic properties*
- 10:15 – 10:30: **Sangik Lee** (Konkuk University, Korea) O  
*The study on electrical properties of black phosphorus*
- 10:30 – 10:45: **Ana Lúcia Pires** (University of Porto, Portugal) O  
*Influence of Annealing Temperature in Thermoelectric Materials for Thermal Energy Harvesting*
- 10:45 – 11:00: **Raquel Rocha** (Universidade do Porto, Portugal) O  
*Novel solvent-free method for the synthesis of cryptomelane-type manganese oxide nanorods*
- 11:00 – 11:15: **Chansoo Yoon** (Konkuk University, Korea) O  
*Synaptic plasticity, learning and memory function in ferroelectric tunnel junction.*

11:15 – 11:45: Coffee Break / Poster Session & Exhibition

- 11:45 – 12:00: **Iola Duarte** (CICECO - University of Aveiro, Portugal) O  
*Integrating metabolic profiling into the toxicological assessment of nanomaterials: the case of silver nanoparticles*
- 12:00 – 12:15: **Lino Ferreira** (Center of Neurosciences and Cell Biology, Portugal) O  
*Prolonged intracellular accumulation of light-activatable nanoparticles in leukemic cells allows remote activation*
- 12:15 – 12:30: **Alexandre Magalhães** (UCIBIO/Requimte/University of Porto, Portugal) O  
*Modeling a Menshutkin SN<sub>2</sub> chemical reaction Inside Carbon Nanotubes*

12:30 – 12:45: <b>Boris Fainberg</b> (Holon Institute of Technology, Israel)	<b>O</b>
<i>"Plasmonic" properties of organic materials induced by light: bistability, surface polaritons and switching waves</i>	
12:45 – 13:00: <b>Shrabani Panigrahi</b> (Universidade Nova de Lisboa and CEMOP, Portugal)	<b>O</b>
<i>Direct Observation of Space Charge Dynamics in an Oxide Based Solar Cell Using Kelvin Probe Force Microscopy</i>	
13:00 – 13:15: <b>Paco Martinez</b> (CSInstruments, France)	<b>O</b>
<i>Advanced nano-electrical characterization of bidimensional materials and solar cells with atomic force microscopy</i>	
13:15 – 13:30: <b>Jordi Suñe</b> (Universitat Autònoma de Barcelona, Spain)	<b>O</b>
<i>Nonlinear memristive approach for the reset characteristics of thin LSMO films</i>	
13:30 – 13:45: <b>Gabriel Bernardo</b> (University of Sheffield, United Kingdom)	<b>O</b>
<i>Probing nanostructures using neutrons</i>	
13:45: Closing and nanoPT2018 announcement	