



TENTATIVE PROGRAM (as of 22/09/2020)



K: Keynote lecture / I: Invited Lecture / FP: FlashPoster contribution

Conference Time Zone – Lisbon, Portugal (GMT+1)



Wednesday (23/09/2020)

08:50 – 09:00: *Opening - Welcome and Introduction*

Antonio Correia – President (Phantoms Foundation, Spain)

09:00 – 09:30: **Peter Bøggild** (DTU Physics, Denmark)

Synthesis and THz-characterisation of large-scale 2D materials

09:30 – 10:00: **Nuno Peres** (University of Minho, Portugal)

Graphene Plasmonics

10:00 – 10:30: **Mário G. Silveirinha** (Universidade Tecnica de Lisboa - IST, Portugal)

Graphene plasmonics with a drift-current bias

10:30– 10:45: *Break*

10:45 – 11:15: **Xinliang Feng** (TU Dresden, Germany)

Advances in Organic 2D Materials

11:15 – 11:45: **Vitor Pereira** (NUS, Singapore)

A novel canted spin Hall effect and spin-orbit torques in the 2D topological materials MoTe₂ and WTe₂

11:45 – 12:05: **Klaas-Jan Tielrooij** (ICN2, Spain)

Graphene-based material platforms for quantum and terahertz nonlinear technologies

12:05 – 12:45: **FlashPoster Session (X7)**

12:05 – 12:10: **Lili Nadaraia** (Georgian Technical University, Georgia)

The effect of graphene reinforcement on the properties of TiO₂

12:10 – 12:15: **Tiago Queirós** (INL, Portugal)

Oxygen assisted monocrystalline graphene growth by chemical vapor deposition

12:15 – 12:20: **João Rodrigues** (International Iberian Nanotechnology, Portugal)

Upscaling MoSe₂ and hBN via controlled chemical vapor deposition

12:20 – 12:25: **Diego Carvalho** (Applied Molecular Biosciences Unit (UCIBIO), Portugal)

Simple one-pot separation of histidine-tagged proteins using NTA-functionalized gold nanostars

12:25 – 12:30: **Rute Chitas** (i3S - Instituto de Investigação e Inovação em Saúde, Portugal)

Optimization of drug-free nanostructured lipid carriers (NLC) for Helicobacter pylori eradication

12:30 – 12:35: **Rosa Garriga** (University of Zaragoza, Spain)

Anticancer Activity of Carbon Nanomaterials-Camptothecin Complexes

12:35 – 12:40: **Jose Ignacio Garcia** (Universidad de Zaragoza, Spain)

Controlled design of gold-based hybridnanomaterials with core-shell architecture

12:35 – 12:40: **Wera Di Cianni** (Università della Calabria/Universidad de Cadiz, Italy)

Photoreduction: new strategies for Additive Manufacturing

12:45 – 13:30: ePoster Session I

13:30 – 14:15: *Lunch Break*

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14:45 – 15:05: Inês Gonçalves (INEB - Oporto University, Portugal)	I
Exploring Graphene for Biomedical Applications: a strong ally for hydrogels and a sharp enemy for bacteria	
15:05 – 15:25: Pedro Alpuim (INL, Portugal)	I
High-quality graphene-based dispersions for flexible electronics	
15:25 – 15:45: <i>Break</i>	
15:45 – 17:45: Orals Session I	
15:45 – 15:55: Edgar Muñoz (Instituto de Carboquímica ICB-CSIC, Spain)	O
Supramolecular Two-Dimensional Peptidic Adhesives for Graphene Oxide Fiber Functionalization	
15:55 – 16:05: Andreia Pereira (INEB, Portugal)	O
Graphene: The key for pHEMA application as blood contacting devices	
16:05 – 16:15: Artur M. Pinto (Universidade do Porto, Portugal)	O
From nanographene production scale-up to its biomedical applications	
16:15 – 16:25: Francisco Brito (University of York, UK)	O
Simulation of Quantum Spin-Liquid Phases with Spectral Methods	
16:35 – 16:35: Patrícia Henriques (i3S/INEB, Portugal)	O
Graphene-based films interaction with proteins, bacteria, mammalian cells, and blood constituents: the impact of surface features	
16:35 – 16:45: Simão João (Dept. de Física e Astronomia, Faculdade de Ciências, Univ. do Porto, Portugal)	O
Nonperturbative momentum dependency in diagrammatic calculations	
16:45 – 16:55: Duarte Moura (i3S - Instituto de Inovação e Investigação em Saúde, Univ do Porto, Portugal)	O
Biodegradable pHEMA containing graphene oxide for blood contacting applications	
16:55 – 17:05: Patrícia Silva (International Iberian Nanotechnology Laboratory, Portugal)	O
Graphene transistors for biosensing: optimizing the microfabrication process	
17:05 – 17:15: Frederico Sousa (University of York, UK)	O
Proximity-Induced Quantum Interference Effects in Graphene	
17:15 – 17:25: João Pedro dos Santos Pires (University of Porto, Portugal)	O
From Positive to Negative Reflectance Response in Fibre Optics Tipped with Stacked Graphene/Dielectric Coatings	
17:25 – 17:35: Isaac Alcon (Freie Universität Berlin, Germany)	O
Quantum Interference Engineering of Nanoporous Graphene for Carbon Nanocircuitry	
17:35 – 17:45: Agnes Purwidyantri (International Iberian Nanotechnology Laboratory, Portugal)	O
Portable graphene transistor sensing system for wine DNA detection	
15:45 – 17:45: Orals Session II	
15:45 – 15:55: Antonio Ruiz-Sanchez (Universidad de Málaga, Spain)	O
Direct characterization of functional materials by haptized fluorescent dendrimers for in vitro allergic drug diagnose	
15:55 – 16:05: Amelia Ultimo (Trinity College Dublin, Ireland)	O
Large-pore silica nanocarriers for antiangiogenic treatment against age-related macular degeneration	
16:05 – 16:15: Carlos Baleizão (Instituto Superior Técnico, Portugal)	O
Smart hybrid silica nanocarriers with finely tuned structure for control release	
16:15 – 16:25: Natércia Martins (University of Aveiro, Portugal)	O
Composites of biopolymers and metal oxide nanoparticles for controlled release of micronutrients in agricultural soils	
16:35 – 16:35: João Avó (Insituto Superior Técnico, Portugal)	O
Nanomaterials with thermally-activated delayed fluorescence for live-cell imaging	
16:35 – 16:45: Ana Isabel Barbosa (LAQV, REQUIMTE, FFUP, Portugal)	O
Quercetin-loaded Hydrogels for Skin Ageing and Inflammation	
16:45 – 16:55: Javier Bonet-Aleta (University of Zaragoza, Spain)	O
Enzyme-mimicking catalytic Activity in Tumoral Microenvironment: Towards Glutathione-Glucose Depletion for Cancer Therapy	
16:55 – 17:05: Fábio Filipe Ferreira Garrudo (RPI & IST - iBB, Portugal)	O
Electroconductive nanofiber strategies for biomaterial-based approaches to tissue engineering	
17:05 – 17:15: Diana R. Fonseca (Faculdade de Engenharia, Dept. de Engenharia Metalúrgica e de Materiais, Portugal)	O
Fatal attraction: chitosan microspheres decorated with MSI-78A kill <i>Helicobacter pylori</i>	

- 17:15 – 17:25: **Maria João Oliveira** (Centro de Investigação de Materiais - CENIMAT/i3N, Portugal) O
Sticky cellulose hydrogel as reusable a platform for a SERS based immunoassay
- 17:25 – 17:35: **Sérgio Veloso** (Centre of Physics of the University of Minho, Portugal) O
Development of supramolecular peptide-based magnetolipogels: towards on-demand drug delivery
- 17:35 – 17:45: **Gonçalo Tiago** (ITQB-UNL, Portugal) O
Synthesis and functionalization of silver and gold nanoparticles for virus detection

17:45: Closing Day 1



Thursday (24/09/2020)

- 09:00 – 09:30: **Joao Mano** (University of Aveiro, Portugal) K
Nanotechnology approaches in the design of hybrid constructs for biomedicine
- 09:30 – 10:00: **Hélder A. Santos** (University of Helsinki, Finland) K
The new generation of nanomedicines for biomedical applications: Dressing nanoparticles in cell's clothing
- 10:00 – 10:30: **Rogério Gaspar** (University of Lisbon, Portugal) K
Nanomedicine into mainstream healthcare: areas of hope, areas of added value

10:30– 10:50: *Break*

- 10:50 – 11:20: **Avi Schroeder** (Technion, Israel) K
Targeting pancreatic tumors with nanomedicine
- 11:20 – 11:50: **David Mecerreyes** (Polymat, Spain) K
3D Printable Conducting Polymers for Bioelectronics
- 11:50 – 12:10: **Helena Florindo** (University of Lisbon, Portugal) I
Nanotechnological approaches for immune modulation against solid cancers
- 12:10 – 12:30: **Cláudia Nunes** (LAQV, University of Porto, Portugal) I
Lipid based delivery systems design and development for inflammatory and infectious diseases

12:30 – 13:00: ePoster Session II

13:00 – 13:40: *Lunch Break*

13:40 – 15:00: Orals Session I

- 13:40 – 13:50: **Khalil El hajraoui** (INL, Portugal) O
Scanning Transmission Electron Microscopy investigations of an efficiency enhanced annealed Cu(In_{1-x}Ga_x)Se₂ solar cell with sputtered Zn(O,S) buffer layer
- 13:50 – 14:00: **Tomás Lopes** (INL- International Iberian Nanotechnology laboratory, Portugal) O
Post-Deposition Treatment and Rear Interface Passivation in ultrathin Cu(In,Ga)Se₂ solar cells
- 14:00 – 14:10: **António Oliveira** (International Iberian Nanotechnology Laboratory, Portugal) O
Novel rear structure design for an effective optical enhancement in ultrathin Cu(In,Ga)Se₂ solar cells
- 14:10 – 14:20: **Jennifer Teixeira** (INL-International Iberian Nanotechnology Laboratory, Portugal) O
The impact of novel high-performance substrates in ultrathin solar cells
- 14:20 – 14:30: **Mario Villa-Navas** (International Iberian Nanotechnology Laboratory (INL), Portugal) O
Nanofabrication process for ex- and in-situ TEM heating and biasing chips
- 14:30 – 14:40: **Maria Enea** (University of Porto, Portugal) O
Synthesis, characterization and safety evaluation of gold nanoparticles
- 14:40 – 14:50: **Iliia Ivanov** (Center for Nanophase Materials Sciences, USA) O
All in one: Laboratory-on-a crystal for multifunctional, multiscale probing of thin films
- 14:50 – 15:00: **Miguel Herranz** (Universidad Politecnica de Madrid, Spain) O
Crystallization and Glass Transition of Polymers Interacting with the Square-Well Potential
- 15:00 – 15:10: **Alessandro Veneri** (University of York, UK) O
Prediction of Purely Interfacial Giant Antidamping Spin-Orbit Torque induced by Skew Scattering

13:40 – 15:00: Orals Session II

- 13:40 – 13:50: **Adriana Gonçalves** (Cenimat/i3N, FCT/UNL, Portugal) O

Production and characterization of thermoresponsive magnetic membranes

- 13:50 – 14:00: **Pedro Santos** (INL - International Iberian Nanotechnology Laboratory, Portugal) O
Cu(In,Ga)Se₂ growth by magnetron sputtering with Cu-rich and Cupoor targets
- 14:00 – 14:10: **Sofia Soares** (University of Aveiro, Portugal) O
Magnetic Nanosorbents Prepared from Quaternary Chitosan for the Removal of Glyphosate from Water
- 14:10 – 14:20: **Edurne Gonzalez** (POLYMAT. University of the Basque Country (UPV/EHU), Spain) O
Green Electrospinning. From Waterborne Polymer Dispersions to Functional Nanofibers
- 14:20 – 14:30: **Catarina Santos** (IST-ID, Portugal) O
Oxide based nanoparticles for biomedical applications
- 14:30 – 14:40: **Flávia Castro** (i3S, Portugal) O
Chitosan/ γ -PGA nanoparticles-based immunotherapy as adjuvant to radiotherapy in breast cancer
- 14:40 – 14:50: **Iulia Antohe** (National Institute for Laser, Plasma and Radiation Physics (INFLPR), Romania) O
Picomolar detection of 4-nitrophenol using a polyaniline/platinum - coated fiber optic surface plasmon resonance sensor
- 14:50 – 15:00: **Bruno Hermenegildo** (BCMaterials, Spain) O
Hybrid fibrous materials for advanced tissue engineering
- 15:00 – 15:10: **Iran Rocha Segundo** (University of Minho, Portugal) O
Modification of a transparent binder for road pavements using TiO₂ nanoparticles
- 15:00 – 15:15: *Break*
- 15:15 – 15:45: **Shlomo Magdassi** (The Hebrew University of Jerusalem, Israel) K
Additive Manufacturing: the next industrial revolution
- 15:45 – 16:15: **Lifeng Liu** (INL, Portugal) K
Nanostructured iridium catalysts with high oxygen evolution performance for PEM water electrolysis
- 16:15 – 16:45: **Paula M. Vilarinho** (University of Aveiro, Portugal) K
Mechanical Stress-responsive Poly (L-lactic) Acid Platforms for Biomedical Applications
- 16:45 – 17:15: **Arturo López-Quintela** (University of Santiago de Compostela, Spain) K
Small metal clusters as efficient catalytic species with outstanding stability
- 17:15: Closing Day 2