



TENTATIVE PROGRAM (as of 29/09/2020)



P: Plenary / K: Keynote lecture / I: Invited Lecture

Conference Time Zone – Madrid, Spain (GMT+2)



Tuesday (29/09/2020)

09:00 – 09:20: *Opening - Welcome and Introduction*

Rosa Menedez - President (Spanish National Research Council (CSIC), Spain)

Antonio Correia – President (Phantoms foundation, Spain)

09:20 – 09:50: **Andrea Ferrari** (Cambridge Graphene Centre, University of Cambridge, UK)

K

Title to be defined

09:50 – 10:20: **Manish Chhowalla** (University of Cambridge, UK)

K

Van der Waals Contacts on 2D Semiconductors

10:20– 10:40: *Break*

10:40 – 11:00: **Amaia Zurutuza** (Graphenea, Spain)

I

Graphene Commercialisation Status

11:00 – 11:20: **Rune Wendelbo** (Abalonyx, Norway)

I

Graphene Oxide for Functional Coatings

11:20 – 11:40: **Pedro Alpuim** (INL, Portugal)

I

Graphene devices for biosensing applications

11:40 – 11:50: **Artur Pinto** (LEPABE, Faculty of Engineering, University of Porto, Portugal)

O

Nanographene production scale-up and its biomedical applications with focus on cancer phototherapy

11:50 – 12:00: **Jakub Kierdaszuk** (University of Warsaw, Poland)

O

Highly effective gating of graphene on GaN nanopillars and epilayers

12:00 – 12:10: **Nerea Bilbao** (KU Leuven, Belgium)

O

On-Surface Boroxine 2D Covalent Organic Frameworks: a Comprehensive Analysis

12:10 – 12:20: **Anya Grushina** (Heidelberg Instruments Nano, Switzerland)

O

NanoFrazor lithography for precise shaping and non-invasive contacting of 1D & 2D materials

12:20 – 12:30: **Ozge Saglam** (Izmir University of Economics, Turkey)

O

Algorithmic Detection of Oxide Nanosheets

12:30 – 12:40: **Svetlana Ponomareva** (University Grenoble Alpes, France)

O

Graphene nanosheets produced by a green liquid phase exfoliation process

12:40 – 13:30: *Lunch Break*

13:30 – 14:00: **Daniel Neumaier** (AMO GmbH, Germany)

K

Graphene based Electronic Devices and Integrated Circuits - Applications and Manufacturing

14:00 – 14:30: **Gianluca Fiori** (University of Pisa, Italy)

K

Networks of two-dimensional materials for electronic applications

14:30 – 14:50: **Julio Gomez** (Avanzare, Spain)

I

Graphene based composites becomes a reality in 2020

14:50 – 15:20: **Arben Merkoci** (ICREA-ICN2, Spain)

K

Graphene-based biosensors

15:20 – 16:00: **Walt A de Heer** (Georgia Tech, USA)

P

Graphene nanoelectronics at the edge

16:00 – 16:15: *Break*

16:15 – 16:45: *ePoster Session*

16:45 – 17:15: **Pablo Alonso Gonzalez** (University of Oviedo, Spain) K

Nano-optics in 2D materials

17:15 – 17:35: **Ion Errea** (CFM-UPV, CSIC, Spain) I

Mechanically stable graphene with quadratic out-of-plane acoustic modes

17:35 – 17:45: **Alejandro Criado Fernández** (CICbiomaGUNE, Spain) O

A nanotechnological entry to fine carbohydrate-protein detection through CVD graphene

17:45: Closing Day 1



Wednesday (30/09/2020)

09:00 – 09:30: **Vincenzo Giannini** (CSIC, Spain) K

Extraordinarily transparent compact metallic metamaterials

09:30 – 10:00: **Lluis F. Marsal** (URV, Spain) K

Fine-tuning of the nanoporous alumina photonic stopbands by using non-conventional pulse anodization

10:00 – 10:30: **Luis M. Liz-Marzan** (CIC biomaGUNE, Spain) K

Self-Assembly of Plasmonic Nanoparticles Under Confinement

10:30 – 10:50: **Manuel Marques** (UAM, Spain) I

Magneto-optical Stren-Gerlach forces and non-reciprocal torques on small particles

10:50– 11:05: *Break*

11:05 – 11:15: **Daniel García-Lojo** (CINBIO - Universidade de Vigo, Spain) O

Plasmonic supercrystals integrated in microfluidics for ultrasensitive and selective SERS detection

11:15 – 11:25: **Rebeca Sola-Llano** (University of the Basque Country, Spain) O

Promising artificial one-directional antenna system based on cyanine-doped hybrid material

11:25 – 11:35: **Gonzalo Álvarez Pérez** (Universidad de Oviedo, Spain) O

Infrared permittivity of the biaxial van der Waals semiconductor alpha-MoO₃ from near- and far-field correlative studies

11:35 – 11:45: **Leire Gartzia-Rivero** (University of the Basque Country (UPV/EHU), Spain) O

Photoluminescent Organic Materials with Tuneable Emission-Colour and Polarization

11:45 – 11:55: **Eduardo Gil Santos** (Instituto de Micro y Nanotecnología, IMN-CNM (CSIC), Spain) O

Optomechanical detection of single bacterium mechanical modes

11:55 – 12:05: **Javier Martín Sánchez** (University of Oviedo, Spain) O

Strain-tunable Quantum Optical Emission in WSe₂ Monolayers

12:05 – 13:00: *ePoster Session*

13:00 – 13:45: *Lunch Break*

13:45 – 14:15: **Otto L. Muskens** (University of Southampton, UK) K

Shaping light using ultrafast and programmable nano-optics

14:15 – 14:45: **Javier García de Abajo** (ICREA - ICFO, Spain) K

Control of Light at the Atomic Scale: Fundamentals and Applications

14:45 – 15:15: **Niek van Hulst** (ICREA - ICFO, Spain) K

Near-field Interference for Local Field Shaping

15:15 – 15:45: **Remi Carminati** (ESPCI Paris / PSL University, France) K

Blind ghost imaging through scattering media

15:45 – 16:00: *Break*

16:00 – 16:20: Posthumous tribute to Juan Jose Saenz "Mole"

16:20 – 17:00: **Uzi Landman** (Georgia Tech, USA) P

Small is different: old questions, new paradigms

17:00: Closing Day 2



Thursday (01/10/2020)

- 09:00 – 09:30: **Lorenzo Moroni** (Maastricht University, The Netherlands) K
Biofabrication to control cell fate
- 09:30 – 10:00: **Giuseppe Battaglia** (IBEC, Spain) K
4D transmission electron microscopy: imaging soft materials and biologicals in liquid phase
- 10:00 – 10:10: **Teresa Sanchis** (IBEC / NanomedSpain, Spain) O
Nanomed Spain, the Spanish Technological Platform for Nanomedicine: promoting public-private collaboration, innovation and clinical translation of nanomedicine in Spain

10:10– 10:45: *Break*

- 10:45 – 11:15: **Javier Ramón Azcón** (IBEC, Spain) K
Integration of Microphysiological Systems with Organ-on-a-Chip technology for Disease Modeling
- 11:15 – 11:45: **Danny Porath** (The Hebrew University of Jerusalem, Israel) K
Backbone charge transport in double-stranded DNA
- 11:45 – 12:05: **Lucía Gutiérrez** (UNIZAR, Spain) I
Magnetic hyperthermia for cancer treatment: past problems, ongoing work and future possibilities
- 12:05 – 12:35: **Iraida Loinaz** (CIDETEC, Spain) K
Is it worth collapsing a polymer chain? In vitro biocompatibility and in vivo distribution studies of Dextran based SCPNs and non-crosslinked polymer
- 12:35 – 12:45: **Sebastian Thompson** (IMDEA, Spain) O
Nano-scale temperature measurements using anisotropy-based nanothermometers for cancer theranostics
- 12:45 – 12:55: **Ruth Prieto** (University of Basque Country, Spain) O
Fluorescence dye-silica nanoparticle for detection of cancer cells
- 12:55 – 13:05: **Jagoba Iturri** (BOKU University for Natural Resources and Life Sciences, Austria) O
Single-Cell Probe Force studies to identify Sox2 overexpression-promoted Cell adhesion variations in MCF7 Breast Cancer Cells
- 13:05 – 13:15: **David Rodriguez-Larrea** (Instituto Biofísica UPV/EHU-CSIC, Spain) O
Nanopores as single-molecule tools in nanobiotechnology

13:15 – 14:00: *ePoster Session*

14:00 – 14:30: *Lunch Break*

14:30 – 15:30: **Oral Parallel Sessions**

Oral Parallel Session I

- 14:30 – 14:40: **Verónica Montes García** (Université de Strasbourg & CNRS, France) O
Gold Nanoparticles Chemiresistors: towards e-tongues for Ions Sensing
- 14:40 – 14:50: **Pankaj Kapruwan** (Universitat Rovira i Virgili, Spain) O
Analyzing the loading and release of Rhodamine 6G dye from Nanoporous anodic alumina rugates filters using optical methods
- 14:50 – 15:00: **Dean J. Miller** (ZeppelinMet, Spain) O
Taking multimodal materials characterization further with plasma FIB-SEM
- 15:00 – 15:10: **Mónica Reigía-Blanco** (University of Santiago de Compostela, Spain) O
Electrochemical synthesis and characterization of silver atomic quantum clusters of three atoms
- 15:10 – 15:20: **Nerea Borja Gonzalez** (University of Santiago de Compostela, Spain) O
Tuning titanium dioxide with cu5-atomic quantum clusters for hydrogen photoproduction
- 15:20 – 15:30: **Shahana Huseyinova** (University of Santiago de Compostela, Spain) O
Surfactant-Free Sub-nanometric Copper Clusters. Synthesis, Characterization and Properties

Oral Parallel Session II

- 14:30 – 14:40: **Iván Sorribes** (Universitat Jaume I, Spain) O

Nanolayered MoS ₂ -Based Catalysts: A Convenient Choice for the Synthesis of Fine Chemicals 14:40 – 14:50: Rita Tilmann (Universität der Bundeswehr München, Germany)	O
Highly Selective, Non-Covalent Functionalization of MoS ₂ - Inorganic-Organic Heterostructures 14:50 – 15:00: Iria Rodríguez Arias (University of Santiago de Compostela, Spain)	O
Atomic quantum clusters as catalyst of antiradical reactions 15:00 – 15:10: Jose Manuel Blanco Trillo (University of Santiago de Compostela, Spain)	O
Synthesis, Characterization and Properties of Silver Clusters 15:10 – 15:20: Alfonsina Abat Amelenan Torimtubun (Universitat Rovira i Virgili, Spain)	O
High-Performance Organic Photovoltaic Cells for Indoor Light Energy Harvesting 15:20 – 15:30: Enas Moustafa (University of Rovira i Virgili, Spain)	O
Spray Pyrolysis Technique Utilized for the Fabrication of Inverted Polymer Solar Cells	
15:30 – 15:45: <i>Break</i>	
15:45 – 16:15: Josetxo Pomposo (CFM-UPV, CSIC, Spain)	K
Single-Chain Nanotechnology: Current Status and Opportunities 16:15 – 16:45: Monica Lira-Cantú (ICN2, Spain)	K
Nanomaterials for Emerging Photovoltaics: Halide Perovskite Solar Cells 16:45 – 17:15: Jérôme Cornil (Université de Mons, Belgium)	K
Pinning Effects at Hybrid Interfaces: A Theoretical Insight 17:15 – 17:45: Mikhail Otkrov (CFM-CSIC/UPV, Spain)	K
Discovery of the intrinsic antiferromagnetic topological insulators: theory and experiment	
17:45: IM2020 Online Closing	