



TENTATIVE PROGRAM (as of 09/03/2018)

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



TUESDAY (13/03/2018)

08:00 – 09:00: Registration

09:00 – 09:15: *Imaginenano2018 Opening Ceremony- Welcome and Introduction.*

Imaginenano2018 Plenary Session

09:15 – 10:00: Pedro Miguel Echenique (DIPC, Spain)

Surface Attophysics

P

10:00 – 10:45: Avelino Corma (ITQ – CSIC / UPV, Spain)

Nanopores such as molecular sieves, catalysts and containers

P

10:45– 11:30: *Coffee Break / Poster Session & Exhibition*

nanoSpain2018 tentative program

11:30 – 12:00: Robert Westervelt (Harvard University, USA)

STC for Integrated Quantum Materials Quantum Information Science & Technology

K

12:00 – 12:30: Elad Gross (The Hebrew University of Jerusalem, Israel)

High spatial resolution mapping of catalytic reactions on single nanoparticles

K

12:30 – 13:00: Pascal Larregaray (CNRS / Université Bordeaux · ISM, France)

Elementary reactivity at the nanometer scale: the abstraction of atoms from metal surfaces

K

13:00 – 14:30: *Lunch*

14:30 – 15:00: Liraz Chai (The Hebrew University of Jerusalem, Israel)

A bottom-up view at the aggregation of a bacterial functional amyloid protein

K

15:00 – 15:30: Mihaela Delcea (University of Greifswald, Germany)

Nanotools to understand why proteins and nanoparticles induce an immune response

K

15:30 – 15:45: Monica Carril (CIC biomaGUNE, Spain)

In situ detection of the protein corona in complex

O

15:45 – 16:00: Oihane Ibarrola (Praxis Pharmaceutical, Spain)

NoCanTher: Nanomedicine Upscaling for Early Clinical Phases of Multimodal Cancer Therapy

O

16:00 – 16:15: Roberto de la Rica (Universitat de les Illes Balears, Spain)

Reconfigurable Assemblies of Plasmonic Nanoparticles and Proteins for Biosensing

O

16:15– 16:45: *Coffee Break / Poster Session & Exhibition*

Parallel Session 1 - Seniors

- 16:45 – 17:00: Angel Del Pozo (Biopraxis Research AIE, Spain) 0
Smart multifunctional GLA-nanoformulation for treating Fabry disease
- 17:00 – 17:15: Joan Josep Carvajal Martí (Universitat Rovira i Virgili, Spain) 0
SWIR luminescence nanothermometry for biomedical applications
- 17:15 – 17:30: Rameez Ahmad (Nanoscribe GmbH, Germany) 0
Spectrum of applications of world's highest resolution micro 3D printer: from research to industry
- 17:30 – 17:45: Montserrat Rivas (Universidad de Oviedo, Spain) 0
Designing and reading magnetic lateral flow strips for point-of-use food and clinical applications
- 17:45 – 18:00: Gerald Kada (Keysight Technologies, Austria) 0
Monitoring Electrochemical Processes in a Safe Environment – from Metal Layers to Batteries
- 18:00 – 18:15: Ana Gomez (International Iberian Nanotechnology Laboratory, Portugal) 0
Simultaneous advanced microscopies for cellular dynamics
- 18:15 – 18:30: Andres Gomez Rodriguez (ICMAB-CSIC, Spain) 0
Disclosing piezogeneration at the nanoscale with Direct Piezoelectric Force Microscopy
- 18:30 – 18:45: Edmund Leary (University of Liverpool, UK) 0
Detecting mechanochemical atropisomerization within an STM breakjunction using porphyrins
- 18:45 – 19:00: Jose San Juan (Universidad del País Vasco, Spain) 0
Size-Effect on Superelasticity at Nano-Scale in Shape Memory Alloys for Potential Applications in MEMS
- 19:00 – 19:15: Maria Dolores Romero (IMNR, Romania) 0
Sol-Gel Microencapsulation of NaNO₃ as Phase Change Material for Thermal Energy Storage

Parallel Session 2 - Seniors

- 16:45 – 17:00: Amir Gheisi (SpringerNature, Germany) 0
How Nature Indexing Helps You Find Nanotechnology Literatures and Data Efficiently
- 17:00 – 17:15: Leire Gartzia-Rivero (University of the Basque Country (UPV/EHU), Spain) 0
Anisotropic Photo-Patterning of Fluorescent Nano-Fibers on Isotropic Surfaces: Control of Orientation, Position and Color
- 17:15 – 17:30: Begoña Galindo (AIMPLAS, Spain) 0
Low energy heating system based on Joule effect for electric vehicles
- 17:30 – 17:45: Juan Francisco Gonzalez Martinez (Malmö University, Sweden) 0
Humidity can induce phase transitions of surfactants embedded in latex coatings which can drastically decrease their performance
- 17:45 – 18:00: Dietmar Leinen (University of Malaga, Spain) 0
Ag-ZrO₂ cermet coatings sprayed onto steel sheet
- 18:00 – 18:15: Leire Ruiz Rubio (University of The Basque Country, Spain) 0
Polyoxometalate-chitosan nanogels for breast cancer therapies
- 18:15 – 18:30: Rebeca Sola-Llano (University of the Basque Country, Spain) 0
MgAPO-based nanostructured materials: in the search of one-directional antenna systems.
- 18:30 – 18:45: Cristina Vicente Manzano (EMPA, Switzerland) 0
Controlling Colour and Effective Refractive Index of Metal-Anodic Aluminium Oxide-Al Nanostructures: Morphology of AAO
- 18:45 – 19:00: Javier Junquera (Universidad de Cantabria, Spain) 0
Second-Principles Density Functional Theory: A systematically improvable multi-scale method including electrons and lattice degrees of freedom
- 19:00 – 19:15: Kaddeche Mourad (Université de Djilali Bounaâma- Khemis miliana, Algeria) 0
Simulation of nanoscale AlGaN/GaN high -electron mobility transistors employing field-plate structure



WEDNESDAY (14/03/2018)

- 09:00 – 09:30: Luis Sanz Tejedor (OEPM, Spain) I
Nanotechnology and the Patent System
- 09:30 – 10:00: Maria Jadraque (PONS IP, Spain) I
Patent protection of nanomaterials and nanotechnology related inventions
- 10:00 – 10:15: Iain Alisdair McGeoch (ABG Patentes S.L., Spain) O
Patenting Nanotechnology
- 10:15 – 10:30: Miren P. Cajaraville (University of the Basque Country, Spain) O
Exploring the potential of graphene nanomaterials as carriers for oil compounds: an in vitro toxicity approach
- 10:30 – 10:45: Celina Vaquero (TECNALIA, Spain) O
Ensuring safety when scaling-up nano-based processes: the case of printed electronics
- 10:45 – 11:00: Arantxa Ballesteros (ITENE, Spain) O
Toxicological profile assessment of ENMS for polymer industry in the context of NanoDesk SUDOE project
- 11:00– 11:30: *Coffee Break / Poster Session & Exhibition*
- 11:30 – 12:00: Pablo Ordejón (ICN2, Spain) K
Layered and 2D materials: electronic properties and structural instabilities from first principles
- 12:00 – 12:30: Stephan Roche (ICREA/ICN2, Spain) K
2D materials for Spin/Valleytronics: Theoretical Perspective
- 12:30 – 13:00: Jean-Christophe Charlier (UCL, Belgium) K
Electronic and optical properties of strained graphene and borophene
- 13:00 – 14:30: *Lunch (offered by the organization)*

Parallel session 1 - PhD Students

- 14:30 – 14:45: Marc Vila Tusell (Catalan Institute of Nanoscience and Nanotechnology (ICN2), Spain) O
Quantum transport simulations of graphene non-local spin valves
- 14:45 – 15:00: Ursula Ludacka (University of Vienna, Austria) O
Measuring and controlling free-standing 2D materials
- 15:00 – 15:15: Eduarda Fernandes (Centre of Physics of University of Minho and Porto (CFUM), Portugal) O
Nanosystems as biomimetic interfaces: a new strategy to predict drug candidate biophysical profile
- 15:15 – 15:30: Telma Soares (CFUM - Physics Center of Minho and Porto Universities, Portugal) O
An innovative nanocarrier for neuroprotection
- 15:30 – 15:45: Anastasia Vishratina (ITMO University, Russia) O
Optically active hybrid nanostructures based on semiconductor quantum dots and chiral molecules for biomedicine
- 15:45 – 16:00: Monu Ojha (IIT Delhi, India) O
Use of biological nanoparticles for degradation of Non-degradable polymers
- 16:00 – 16:15: Georgiana Amariei (University of Alcalá, Spain) O
Electrospun Nanofibers Containing Antimicrobial Peptides for Bio-film Prevention
- 16:15 – 16:30: Ruth Prieto Montero (University of Basque Country, Spain) O
Silica nanoparticles for bioimaging and Photodynamic Therapy
- 16:30 – 16:45: Domenico Cassano (NEST - Scuola Normale Superiore, Italy) O
Passion fruit-like nano-architectures: enabling the clinical translation of metal nanomaterials

Parallel session 2 - PhD Students

- 14:30 – 14:45: Anibal Pacheco (Technische Universitaet Dresden, Germany) O
Device design parameters for carbon nanotube field-effect transistors
- 14:45 – 15:00: Carlos Doñate Buendía (Universidad Jaume I (UJI), Spain) O
Carbon Quantum Dots Fluorescent Labels Generated by Continuous Laser Fragmentation
- 15:00 – 15:15: Sandra Ruiz-Gomez (Universidad Complutense de Madrid, Spain) O
3D magnetometry in ultrathin magnetite using XMCD-PEEM

- 15:15 – 15:30: Roberto María Hormigos (Universidad de Alcalá, Spain) O
Surfactant-free β -galactosidase micromotors for “on-the-move” lactose hydrolysis
- 15:30 – 15:45: Berta Díez Odriozola (Alcala University, Spain) O
Anti-(bio)fouling Composite Membranes by Polyacrylic acid/Poly(vinyl alcohol) Layer
- 15:45 – 16:00: Honorio Salmerón Valdivieso (Universidad de Granada, Spain) O
Interpretation and applicability of parallel superposition rheology techniques on liquid like flocculated hard sphere dispersions
- 16:00 – 16:15: Gunnar Klös (Aarhus University, Denmark) O
Chiral gold nano-hooks for increased LSPR sensitivity
- 16:15 – 16:30: Chen Chen (UC Berkeley, USA) O
Local Electronic Structure of a Single-Layer Porphyrin-Containing Covalent Organic Framework
- 16:30– 17:00: *Coffee Break / Poster Session & Exhibition*
- 17:00 – 17:30: Victor Puentes (ICN2, Spain) K
CeO₂ nanoparticles as safe CT X-ray contrast imaging agents
- 17:30 – 18:00: Danny Porath (The Hebrew University of Jerusalem, Israel) K
Novel DNA-Based Molecules and Their Charge Transport Properties
- 18:00 – 18:15: Silvia Hernández Ainsa (University of Zaragoza, Spain) O
Controlling photoacoustics enhancement with DNA nanostructures
- 18:15 – 18:30: Pablo Botella Asuncion (Instituto de Tecnología Química (UPV-CSIC), Spain) O
Mastering Contrast Agents in a Single Structure for T1-T2 Dual Magnetic Resonance Imaging
- 18:30 – 18:45: Juan Gallo (INL, Portugal) O
Tunable performance of manganese oxide nanostructures as MRI contrast agents
- 18:45 – 19:00: Ana García Sanz (Vall d'hebron Research Institute, Spain) O
CeO₂ nanoparticles as safe CT X-ray contrast imaging agents
- 19:00 – 19:15: Gunther Van Kerckhove (OCSiAl Europe Sarl, Luxembourg) O
Health, safety & environmental issues
- 19:15 – 19:30: Carlos Fito (ITENE, Spain) O
NanoMONITOR- A new real-time monitoring system to support the risk assessment of ENMs under REACH



THURSDAY (15/03/2018)

- 09:00 – 09:30: Joaquín Fernández-Rossier (INL, Portugal) K
Van der Waals spintronics with magnetic 2D crystals
- 09:30 – 10:00: Rodolfo Miranda (IMDEA-Nanociencia, Spain) K
Emergent Spin-Orbit Related Phenomena in Intercalated Graphene
- 10:00 – 10:15: Andres Ayuela (DIPC, CFM, Spain) O
Layertronics – the layer localization control of topological states in bilayer graphene with a gate voltage
- 10:15 – 10:30: Nerea Bilbao (KU Leuven, Belgium) O
New approaches towards surface-supported two-dimensional covalent organic frameworks
- 10:30 – 11:00: *Coffee Break / Poster Session & Exhibition*
- 11:00 – 11:30: JingCheng Li (NanoGUNE, Spain) I
Elementary Phenomena in Hybrid Graphene Nanoribbons on Surfaces
- 11:30 – 12:00: Ariel Ismach (Tel Aviv University, Israel) K
Graphene and Beyond: Synthesis and Characterization of Atomic-Films
- 12:00 – 12:30: Alain Pénicaud (CNRS / Université Bordeaux-I, France) K
Sustainable carbon: graphene water, nanotube water and ecofriendly conducting rubbers, electrocatalysts and supercapacitors
- 12:30 – 12:45: Eric Anglaret (Université Montpellier, France) O
Optical spectroscopy signatures of single walled carbon nanotubes dispersed in degassed water without additives
- 12:45 – 13:00: Antonio Cid Samamed (Universidad de Vigo, Spain) O
Redispersion and Self-Assembly of C₆₀ Fullerene in Water and Toluene

13:00 – 14:30 *Lunch*

14:30 – 15:00: Marc Chaigneau (HORIBA Scientific, France) I

Nanoscale Chemical and Electronic Mapping of Carboxyl Graphene Oxide using TERS

15:00 – 15:15: Haldun Sevincli (Izmir Institute of Technology, Turkey) O

Tuning phonon thermal transport through graphene by using ensembles of molecular antiresonances

15:15 – 15:45: Aran García-Lekue (DIPC, Spain) I

Novel Electronic States in Graphene Nanostructures

15:45 – 16:15: Mads Brandbydge (Technical University Denmark, Denmark) K

Transport in and into graphene: Insights from transport calculations

16:15 – 17:00: *Coffee Break / Poster Session & Exhibition*

17:00 – 17:30: Teófilo Rojo (CIC energiGUNE, Spain) K

Nanomaterials for Energy Storage

17:30 – 17:45: Antonio Ladron de Guevara (Instituto de Sistemas Optoelectrónicos y Microtecnología, Spain) O

Laser-reduced graphene for energy storage devices

17:45 – 18:00: Zeynep Karahaliloglu (Aksaray University, Turkey) O

Nano/Microlayer Hemostatic Agents in Diabetic Injury Wound Model in Rat

18:00 – 18:30: Carmen Mijangos (CSIC/ICTP, Spain) K

Challenges in polymer nanotechnology applications: patterning strategies and polymer confinement effects

18:30: *Closing*