

SCIENCE • INDUSTRY • SOCIETY

• • • • • 2018
IMAGINE NANO

MARCH 13-15 • BILBAO • SPAIN

www.imagenano.com

PROGRAM & POSTER LIST

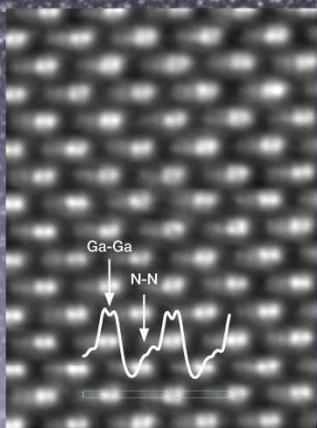
• ORGANISERS

PHANTOMS
foundation

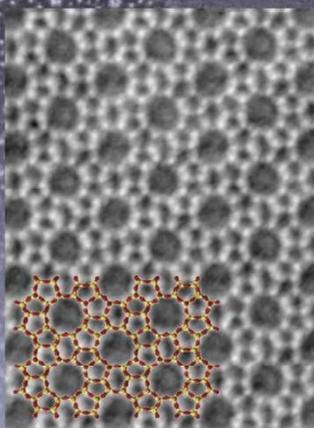
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BILBAO
EXHIBITION
CENTRE

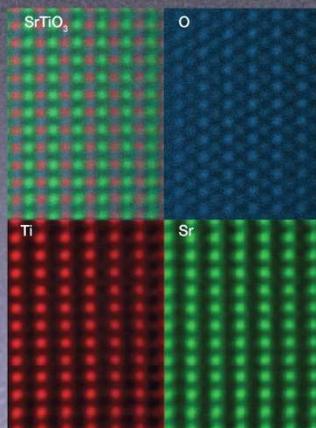
EXPOSSIBLE!



iDPC image showing simultaneous 63 pm splitting of Ga-Ga and N-N columns in GaN [211].



Atomic resolution image of ZSM-5 Zeolite showing the complicated arrangement of the Si (yellow) and O (red) atoms in the structure (1). 1. J. Su et al, *Microporous and Mesoporous Materials* 189 (2014) 115-125.



Atomic resolution EDS Mapping of [110] oriented SrTiO_3 at 200kV using the Thermo Scientific Dual-X detector configuration.

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On behalf of the International, Scientific and Technical Committees we take great pleasure in welcoming you to Bilbao for the fourth edition of **ImagineNano**.

Back in 2015, **ImagineNano** event has strengthened its position as one of the main events dedicated to Nanoscience and Nanotechnology (N&N) in Europe. The outstanding results of participation that have been reached and the interest created by the discussions, have laid the foundations for the upcoming edition.

ImagineNano 2018 is now an established event and is an excellent platform for communication between science and business, bringing together Nanoscience and Nanotechnology in the same place.

Internationally renowned speakers will be presenting the latest trends and discoveries in Nanoscience and Nanotechnology.

Under the same roof will be held 4 International Conferences (graphIn, NanoSpain, IC2 and 3PM), a vast exhibition showcasing cutting-edge advances in nanotechnology research and development, an industrial forum and a brokerage event (one-to-one meetings).

ImagineNano will gather the global nanotechnology community, including researchers, industry, policymakers and investors. The latest trends and discoveries in N&N from some of the world's leading players in the field will be discussed.

We would like to thank all participants, sponsors and exhibitors that joined us this year.

The Basque Country demonstrates its strengths in nanoscience, micro and nanotechnology, and positions itself as a major player in the "nano" world, reason why **ImagineNano** is organized for the 4th time in Bilbao.

There's no doubt that **ImagineNano 2018** is the right place to see and be seen.

Hope to see you again in the next edition of **ImagineNano** (2020).

● ORGANISERS



| | |
|-------------------|-----------------------|
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Ricardo Muñio (DIPC, Spain)

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The Regional Government is the executive body that, within its area of competence, assumes the government and administration of Bizkaia. The historical figure of the Deputy General heads the Regional Government. The latter is elected by the Provincial Parliament of Bizkaia. The Deputy General elects, in turn, the Regional Deputies, who head the various departments that make up the Regional Government. Currently, this is formed by the following Regional Departments: Agriculture / Culture / Economic Promotion / Environment / General Deputy / Presidency / Public Works and Transport / Social Action / Treasury and Finance



Donostia International Physics Center (DIPC) is a singular research center devoted to research at the cutting edge in the fields of Condensed Matter Physics and Materials Science. Born in 2000, its board enjoys the participation of public bodies as well as private entities.

Since its conception DIPC has stood for the promotion of excellence in research, which demands a flexible space where creativity is stimulated by diversity of perspectives. The most remarkable characteristic of the center is its dynamic research community, integrated by local host scientists and a large number of international visiting researchers.



ICEX Spain Trade and Investment is a public business organization which works worldwide with the objective of promoting the

internationalization of Spanish companies in order to improve their competitiveness, as well as boosting foreign investment in Spain. ICEX offers its services through 31 Provincial and Territorial Trade Offices in Spain, 98 Economic and Commercial Offices worldwide, the largest foreign network, and 19 Business Centres abroad. Every year, ICEX organizes around 1,200 promotional activities in foreign markets and answers over 90,000 queries on internationalization.

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Carl Zeiss is a leading company in the field of microscopy and commitment to natural sciences and research on materials. As a leading manufacturer of microscopes, we offer complete solutions for biomedical research, the healthcare sector and the high-tech industries.

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The Center for Cooperative Research in Biomaterials - CIC biomaGUNE, located in San Sebastian (Spain), was officially opened in December 2006. CIC biomaGUNE is a non-profit research organization created to promote scientific research and technological innovation at the highest levels in the Basque Country following the BioBasque policy, in order to create a new business sector based on biosciences. Established by the Government of the Basque Country, CIC biomaGUNE constitutes one of the Centers of the CIC network, the largest Basque Country research network on specific strategic areas, having the mission to contribute to the economical and social development of the country through the generation of knowledge and speeding up the process that leads to technological innovation.

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FREE WIFI

Wireless network: Imagenenano2018 (no password is required)

EXHIBITION & POSTER AREA

LUXUA – exhibition and poster area, 3rd floor

DATES & TIMES OF THE CONFERENCES

Check programs for conference and parallel activities exact hours

COFFEE BREAKS

LUXUA – exhibition and poster area, 3rd floor.
See conference programs for timetables

IMAGENENANO 2018 DINNER*

Tuesday March 13, 21:00

Sociedad Bilbaina

Nafarroa Kalea 1, 48001 Bilbao

*Conference dinner only included for the following passes: Global, NanoSpain2018 and 3PM 2018.
If you wish to attend, contact the organisers at the registration desks.

TAXIS

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AGENDA & LOCATION

| TUESDAY – MARCH 13 | ROOM | FLOOR | TIME |
|--|--------------|-------|-------------|
| ImagineNano2018 Plenary session | Auditorium 1 | 4 | 09:00-10:45 |
| GraphIn2018 Plenary session | Room 1A | 5 | 11:30-18:30 |
| nanoSpain2018 Plenary session | Auditorium 1 | 4 | 11:30-16:15 |
| nanoSpain2018 Parallel Session 1 - Seniors | Auditorium 1 | 4 | 16:45-19:15 |
| nanoSpain2018 Parallel Session 2 - Seniors | Room 3 | 5 | 16:45-19:15 |
| 3PM 2018 Plenary session | Room 2 | 5 | 11:30-18:15 |
| Industrial Forum Session 1: "Strategies on technology transfer and patents commercialization for nanotechnology: successful stories" <i>Organized by CSIC</i> | Luxua | 3 | 11:30-12:15 |
| Industrial Forum Session 2: "Funding NANO to Market and Society" <i>Organized by CDTI</i> | Luxua | 3 | 14:00-15:30 |
| Industrial Forum Session 3: "Nanofabrication with RAITH EBL and FIB equipment" <i>Organized by Raith</i> | Luxua | 3 | 16:30-19:00 |
| WEDNESDAY – MARCH 14 | ROOM | FLOOR | TIME |
| GraphIn2018 Parallel Session Characterization | Room 3 | 5 | 09:00-11:00 |
| GraphIn2018 Parallel Session Standardization & Production | Room 3 | 5 | 11:30-12:55 |
| GraphIn2018 Parallel Session Applications | Room 1A | 5 | 09:00-13:05 |
| GraphIn2018 Plenary Session | Room 1A | 5 | 14:30-18:30 |
| nanoSpain2018 Plenary Session | Auditorium 1 | 4 | 09:00-13:00 |
| nanoSpain2018 Parallel Session 1 - PhD Students | Auditorium 1 | 4 | 14:30-16:45 |
| nanoSpain2018 Parallel Session 2 - PhD Students | Room 3 | 5 | 14:30-16:30 |
| nanoSpain2018 Plenary Session | Auditorium 1 | 4 | 17:00-19:30 |
| 3PM 2018 Plenary session | Room 2 | 5 | 09:00-18:30 |
| IC2 – COMPOSITE 2018: Plenary session | Room 4 | 5 | 09:00-19:15 |
| Industrial Forum Session 4: "Showcasing industrial multi-sectorial applications of pilot infrastructures for the development of new nano-enabled materials and components" <i>Organized by TECNALIA</i> | Luxua | 3 | 09:00-13:00 |
| Industrial Forum Session 5: "Safe by Design Implementation: Industrial experiences from European Initiatives" <i>Organized by Gaiker & TEMAS</i> | Luxua | 3 | 14:00-16:30 |
| Industrial Forum Session 6: "NanoDesk: Advanced web tools to promote the implementation of nanotechnologies and a safe use of nanomaterials in the plastic industry" <i>Organized by ITENE</i> | Luxua | 3 | 17:00-19:00 |
| B2B Brokerage Event | Luxua | 3 | 09:30-18:00 |
| THURSDAY – MARCH 15 | ROOM | FLOOR | TIME |
| nanoSpain2018 Plenary session | Auditorium 1 | 4 | 09:00-18:30 |
| 3PM 2018 Plenary session | Room 2 | 5 | 09:00-18:30 |
| IC2 – COMPOSITE 2018 | Room 4 | 5 | 09:00-13:00 |
| Industrial Forum Session 7: "Graphene and 2D Materials" EUREKA Cluster <i>Organized by Graphene & 2DM EUREKA cluster</i> | Luxua | 3 | 09:30-11:15 |
| Industrial Forum Session 8: "SIESTA: professional open source code ready for industry" <i>Organized by SIMUNE</i> | Luxua | 3 | 11:30-13:00 |



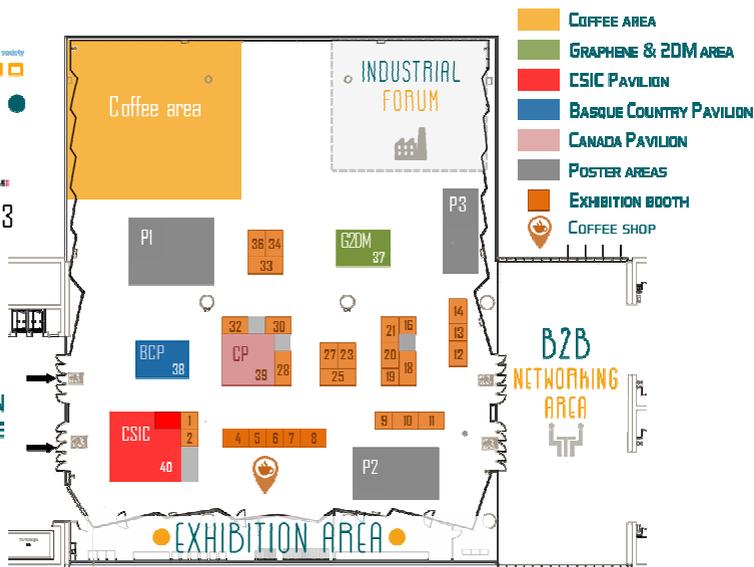
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| 5TH FLOOR | Room 1A Room 2 Room 3 Room 4 |
| 4TH FLOOR | Auditorium 1 |
| 3RD FLOOR | LUXUA Exhibition & poster area Industrial Forum B2B – Brokerage Event |
| 2ND FLOOR | Registration area |

IMAGINENANO
 2018

BILBAO EXHIBITION CENTRE

Luxua - Level 3

MAIN
 ENTRANCE



- COFFEE AREA
- GRAPHENE & 2DM AREA
- CSIC PAVILION
- BASQUE COUNTRY PAVILION
- CANADA PAVILION
- POSTER AREAS
- EXHIBITION BOOTH
- COFFEE SHOP

- | | |
|----|---------------------------------------|
| 1 | ScienTecnológica |
| 2 | nano tech 2019 |
| 4 | NanoScan |
| 5 | TECNASA |
| 6 | Izasa Scientific |
| 7 | Nanoscribe |
| 8 | neaspac |
| 9 | Das-Nano |
| 10 | NANOMED Spain |
| 11 | ICN2 |
| 12 | CDTI |
| 13 | Jagomex |
| 14 | SPECS Surface Nano Analysis GmbH |
| 16 | Nanotechnology Industries Association |

- | | |
|----|------------------------------|
| 18 | ITENE |
| 19 | Schaefer-techniques |
| 20 | Salmegias S.L. |
| 21 | ANTARES INSTRUMENTACION SL |
| 23 | HORBAScientific |
| 25 | Carl Zeiss Iberia S.L. |
| 27 | ACS Publications |
| 28 | AIMPLAS |
| 30 | Alaya Ingenieros Grupo Alaya |
| 32 | LEYBOLD |
| 33 | Lasing S.A. |
| 34 | MOPIAG Nanomaterials |
| 36 | Ralfit |

- | | |
|----|--------------------------------------|
| 37 | Graphene & 2DM area |
| | Oxford Instruments Plasma Technology |
| | Oxford University of Technology |
| | 'Graphene & 2DM' EUREKA Cluster |
| | Abalonyx |
| | Graphene Batteries AS |
| | Graphenea |
| 38 | Basque Country Pavilion |
| | TECNALIA |
| | University of the Basque Country |
| | Sirune Atomik S.L. |
| | CIC biomGUNE |
| | IK4 RESEARCH ALLIANCE |

- | | |
|----|--|
| 39 | Canada Pavilion |
| | CelluForce |
| | NanoCanada |
| | National Research Council Canada |
| 40 | CSIC Pavilion |
| | Oficina de Transferencia de Tecnología |
| | CINN / CSIC |
| | IMB-CNM / CSIC |
| | IMN-CNM / CSIC |

EXHIBITORS



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| | TUESDAY MARCH 13 | WEDNESDAY MARCH 14 | THURSDAY MARCH 15 |
|--|---|-----------------------|----------------------|
| FREE ENTRANCE PLENARY SESSION 2018 IMAGINENANO |  NANOSPAIN 2018 | | |
| |  3PM 2018 | | |
| |  GRAPHIN 2018 | | |
| |  IC2 2018 | | |
| |  B2B BROKERAGE EVENT | | |
| |  POSTER SESSION | | |
| |  INDUSTRIAL FORUM | | |
|  IMAGINENANO EXHIBITION | | | |

P: PLENARY / K: KEYNOTE / I: INVITED / O: ORAL

IMAGINENANO 2018 PLENARY program



TUESDAY MARCH 13, 2018

| | |
|-------|--|
| 08:00 | Registration |
| 09:00 | Imaginenano2018 Opening Ceremony - Welcome and Introduction |
| 09:15 | Pedro Miguel Echenique (DIPC, Spain) Surface Attophysics P |
| 10:00 | Avelino Corma (ITQ – CSIC / UPV, Spain) Nanopores such as molecular sieves, catalysts and containers P |
| 10:45 | Coffee Break - Poster Session & Exhibition |

TUESDAY MARCH 13, 2018

| | | |
|-------|--|---|
| 11:30 | Robert Westervelt (Harvard University, USA) STC for Integrated Quantum Materials Quantum Information Science & Technology | K |
| 12:00 | Elad Gross (The Hebrew University of Jerusalem, Israel) High spatial resolution mapping of catalytic reactions on single nanoparticles | K |
| 12:30 | Pascal Larregaray (CNRS / Université Bordeaux- ISM, France) Elementary reactivity at the nanometer scale: the abstraction of atoms from metal surfaces | K |
| 13:00 | Lunch | |
| 14:30 | Liraz Chai (The Hebrew University of Jerusalem, Israel) A bottom-up view at the aggregation of a bacterial functional amyloid protein | K |
| 15:00 | Mihaela Delcea (University of Greifswald, Germany) Nanotools to understand why proteins and nanoparticles induce an immune response | K |
| 15:30 | Monica Carril (CIC biomGUNE, Spain) In situ detection of the protein corona in complex | O |
| 15:45 | Oihane Ibarrola (Praxis Pharmaceutical, Spain) NoCanTher: Nanomedicine Upscaling for Early Clinical Phases of Multimodal Cancer Therapy | O |
| 16:00 | Roberto de la Rica (Universitat de les Illes Balears, Spain) Reconfigurable Assemblies of Plasmonic Nanoparticles and Proteins for Biosensing | O |
| 16:15 | Coffee Break - Poster Session & Exhibition | |
| 16:45 | Parallel Session 1 - Seniors | |
| 16:45 | Parallel Session 2 - Seniors | |

TUESDAY MARCH 13, 2018

Parallel Session 1 - Seniors

| | | |
|-------|--|---|
| 16:45 | Angel Del Pozo (Biopraxis Research AIE, Spain) Smart multifunctional GLA-nanoformulation for treating Fabry disease | ○ |
| 17:00 | Joan Josep Carvajal Marfí (Universitat Rovira i Virgili, Spain) SWIR luminescence nanothermometry for biomedical applications | ○ |
| 17:15 | Rameez Ahmad (Nanoscribe GmbH, Germany) Spectrum of applications of world's highest resolution micro 3D printer: from research to industry | ○ |
| 17:30 | Roberto D'Agosta (Ikerbasque and UPV/EHU, Spain) Magnetism in Pt nanoclusters | ○ |
| 17:45 | Montserrat Rivas (Universidad de Oviedo, Spain) Designing and reading magnetic lateral flow strips for point-of-use food and clinical applications | ○ |
| 18:00 | Gerald Kada (Keysight Technologies, Austria) Monitoring Electrochemical Processes in a Safe Environment – from Metal Layers to Batteries | ○ |
| 18:15 | Ana Gomez (International Iberian Nanotechnology Laboratory, Portugal) Simultaneous advanced microscopies for cellular dynamics | ○ |
| 18:30 | Andres Gomez Rodriguez (ICMAB-CSIC, Spain) Disclosing piezogenesis at the nanoscale with Direct Piezoelectric Force Microscopy | ○ |
| 18:45 | Edmund Leary (University of Liverpool, UK) Detecting mechanochemical atropisomerization within an STM breakjunction using porphyrins | ○ |
| 19:00 | María Dolores Romero (IMNR, Romania) Sol-Gel Microencapsulation of NaNO_3 as Phase Change Material for Thermal Energy Storage | ○ |

Parallel Session 2 - Seniors

| | | |
|-------|--|---|
| 16:45 | Amir Gheisi (SpringerNature, Germany) How Nature Indexing Helps You Find Nanotechnology Literatures and Data Efficiently | ○ |
| 17:00 | Leire Gartzia-Rivero (University of the Basque Country (UPV/EHU), Spain) Anisotropic Photo-Patterning of Fluorescent Nano-Fibers on Isotropic Surfaces: Control of Orientation, Position and Color | ○ |
| 17:15 | Begoña Galindo (AIMPLAS, Spain) Low energy heating system based on Joule effect for electric vehicles | ○ |
| 17:30 | Juan Francisco Gonzalez Martinez (Malmö University, Sweden) Humidity can induce phase transitions of surfactants embedded in latex coatings which can drastically decrease their performance | ○ |
| 17:45 | Dietmar Leinen (University of Malaga, Spain) Ag-ZrO ₂ cermet coatings sprayed onto steel sheet | ○ |
| 18:00 | Leire Ruiz Rubio (University of The Basque Country, Spain) Polyoxometalate-chitosan nanogels for breast cancer therapies | ○ |
| 18:15 | Rebeca Sola-Llano (University of the Basque Country, Spain) MgAPO-based nanostructured materials: in the search of one-directional antenna systems | ○ |
| 18:30 | Cristina Vicente Manzano (EMPA, Switzerland) Controlling Colour and Effective Refractive Index of Metal-Anodic Aluminium Oxide-Al Nanostructures: Morphology of AAO | ○ |
| 18:45 | Javier Junquera (Universidad de Cantabria, Spain) Second-Principles Density Functional Theory: A systematically improvable multi-scale method including electrons and lattice degrees of freedom | ○ |
| 19:00 | Kaddeche Mourad (Université de Djilali Bounaâma- Khemis miliana, Algeria) Simulation of nanoscale AlGaIn/GaN high -electron mobility transistors employing field-plate structure | ○ |

WEDNESDAY MARCH 14, 2018

| | | |
|--|---|---|
| 09:00 | Luis Sanz Tejedor (OEPM, Spain) Nanotechnology and the Patent System | |
| 09:30 | María Jadrque (PONS IP, Spain) Patent protection of nanomaterials and nanotechnology related inventions | |
| 10:00 | Iain Alisdair McGeoch (ABG Patentes S.L., Spain) Patenting Nanotechnology | ○ |
| 10:15 | Miren P. Cajaraville (University of the Basque Country, Spain) Exploring the potential of graphene nanomaterials as carriers for oil compounds: an in vitro toxicity approach | ○ |
| 10:30 | Celina Vaquero (TECNALIA, Spain) Ensuring safety when scaling-up nano-based processes: the case of printed electronics | ○ |
| 10:45 | Aranxa Ballesteros (ITENE, Spain) Toxicological profile assessment of ENMS for polymer industry in the context of NanoDesk SUDO project | ○ |
| 11:00 | Coffee Break - Poster Session & Exhibition | |
| 11:30 | Pablo Ordejón (ICN2, Spain) Layered and 2D materials: electronic properties and structural instabilities from first principles | K |
| 12:00 | Stephan Roche (ICREA/ICN2, Spain) 2D materials for Spin/Valleytronics: Theoretical Perspective | K |
| 12:30 | Jean-Christophe Charlier (UCL, Belgium) Electronic and optical properties of strained graphene and borophene | K |
| 13:00 | Lunch | |
| Parallel Session 1 - PhD Students | | |
| Parallel Session 2 - PhD Students | | |
| 16:30 | Coffee Break - Poster Session & Exhibition | |
| 17:00 | Victor Puentes (ICN2, Spain) CeO ₂ nanoparticles as safe CT X-ray contrast imaging agents | K |
| 17:30 | Danny Porath (The Hebrew University of Jerusalem, Israel) Novel DNA-Based Molecules and Their Charge Transport Properties | K |
| 18:00 | Silvia Hernández Ainsa (University of Zaragoza, Spain) Controlling photoacoustics enhancement with DNA nanostructures | ○ |
| 18:15 | Pablo Botella Asuncion (Instituto de Tecnología Química (UPV-CSIC), Spain) Mastering Contrast Agents in a Single Structure for T ₁ -T ₂ Dual Magnetic Resonance Imaging | ○ |
| 18.30 | Juan Gallo (INL, Portugal) Tunable performance of manganese oxide nanostructures as MRI contrast agents | ○ |
| 18:45 | Ana García Sanz (Vall d'hebron Research Institute, Spain) CeO ₂ nanoparticles as safe CT X-ray contrast imaging agents | ○ |
| 19:00 | Gunther Van Kerckhove (OCSIAI Europe Sarl, Luxembourg) Health, safety & environmental issues | ○ |
| 19:15 | Carlos Fito (ITENE, Spain) NanoMONITOR- A new real-time monitoring system to support the risk assessment of ENMs under REACH | ○ |

WEDNESDAY MARCH 14, 2018

Parallel Session 1 - PhD Students

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

Parallel Session 2 - PhD Students

| | | |
|-------|---|---|
| 14:30 | Anibal Pacheco (Technische Universitaet Dresden, Germany) Device design parameters for carbon nanotube field-effect transistors | ○ |
| 14:45 | Carlos Doñate Buendía (Universidad Jaume I (UJI), Spain) Carbon Quantum Dots Fluorescent Labels Generated by Continuous Laser Fragmentation | ○ |
| 15:00 | Sandra Ruiz-Gomez (Universidad Complutense de Madrid, Spain) 3D magnetometry in ultrathin magnetite using XMCD-PEEM | ○ |
| 15:15 | Roberto María Hormigos (Universidad de Alcalá, Spain) Surfactant-free β -galactosidase micromotors for "on-the-move" lactose hydrolysis | ○ |
| 15:30 | Berta Díez Odriozola (Alcalá University, Spain) Anti-(bio)fouling Thin-Film Composite Membranes by Polyacrylic acid/Poly(vinyl alcohol) Layer | ○ |
| 15:45 | Honorio Salmerón Valdivieso (Universidad de Granada, Spain) Interpretation and applicability of parallel superposition rheology techniques on liquid like flocculated hard sphere dispersions | ○ |
| 16:00 | Gunnar Klös (Aarhus University, Denmark) Chiral gold nano-hooks for increased LSPR sensitivity | ○ |
| 16:15 | Chen Chen (UC Berkeley, USA) Local Electronic Structure of a Single-Layer Porphyrin-Containing Covalent Organic Framework | ○ |

THURSDAY MARCH 15, 2018

| | | |
|-------|---|---|
| 09:00 | Joaquín Fernández-Rossier (INL, Portugal) Van der Waals spintronics with magnetic 2D crystals | K |
| 09:30 | Rodolfo Miranda (IMDEA-Nanociencia, Spain) Emergent Spin-Orbit Related Phenomena in Intercalated Graphene | K |
| 10:00 | Andres Ayuela (DIPC, CFM, Spain) Layertronics – the layer localization control of topological states in bilayer graphene with a gate voltage s | O |
| 10:15 | Nerea Bilbao (KU Leuven, Belgium) New approaches towards surface-supported two-dimensional covalent organic frameworks | O |
| 10:30 | Coffee Break - Poster Session & Exhibition | |
| 11:00 | JingCheng Li (nanoGUNE, Spain) Elementary Phenomena in Hybrid Graphene Nanoribbons on Surfaces | K |
| 11:30 | Ariel Ismach (Tel Aviv University, Israel) Graphene and Beyond: Synthesis and Characterization of Atomic-Films | K |
| 12:00 | Alain Pénicaud (CNRS / Université Bordeaux-I, France) Sustainable carbon: graphene water, nanotube water and ecofriendly conducting rubbers, electrocatalysts and supercapacitors | K |
| 12:30 | Eric Anglaret (Université Montpellier, France) Optical spectroscopy signatures of single walled carbon nanotubes dispersed in degassed water without additives | O |
| 12:45 | Antonio Cid Samamed (Universidad de Vigo, Spain) Redispersion and Self-Assembly of C ₆₀ Fullerene in Water and Toluene | O |
| 13:00 | Lunch | |
| 14:30 | Marc Chaigneau (HORIBA Scientific, France) Nanoscale Chemical and Electronic Mapping of Carboxyl Graphene Oxide using TERS | K |
| 15:00 | Haldun Sevincli (Izmir Institute of Technology, Turkey) Tuning phonon thermal transport through graphene by using ensembles of molecular antiresonances | O |
| 15:15 | Aran García-Lekue (DIPC, Spain) Novel Electronic States in Graphene Nanostructures | I |
| 15:45 | Mads Brandbydige (Technical University Denmark, Denmark) Transport in and into graphene: Insights from transport calculations | K |
| 16:15 | Coffee Break - Poster Session & Exhibition | |
| 17:00 | Teófilo Rojo (CIC energiGUNE, Spain) Nanomaterials for Energy Storage | K |
| 17:30 | Antonio Ladron de Guevara (ISOM-UPM, Spain) Laser-reduced graphene for energy storage devices | O |
| 17:45 | Zeynep Karahaliloglu (Aksaray University, Turkey) Nano/Microbilayer Hemostatic Agents in Diabetic Injury Wound Model in Rat | O |
| 18:00 | Carmen Mijangos (CSIC/ICTP, Spain) Challenges in polymer nanotechnology applications: patterning strategies and polymer confinement effects | K |
| 18:30 | Closing | |

THURSDAY MARCH 15, 2018

| | | |
|-------|--|---|
| 11:30 | Remi Carminati (Langevin Institute - ESPCI, France) Probing mode connectivity in photonics using two classical or quantum nanosources | K |
| 12:00 | Martin Lopez Garcia (International Iberian Nanotechnology Laboratory, Portugal) Photosynthetic photonic crystals: photonic aspects of the ultimate light harvesting process in nature | O |
| 12:15 | Nicolas Ubrig (University of Geneva, Switzerland) Microscopic Origin of the Valley Hall Effect in Transition Metal Dichalcogenides | O |
| 12:30 | Camilla Dore (ICMAB, Spain) Cellulose based photonic architectures | O |
| 12:45 | María Ujué González (Instituto de Micro y Nanotecnología, IMN-CNM, CSIC, Spain) Photonic applications of nanocolumnar Au films obtained by glancing angle deposition with magnetron sputtering | O |
| 13:00 | Lunch | |
| 14:30 | Javier Aizpurua (CSIC-UPV/EHU, Spain) Driving Plasmon-Enhanced Molecular Spectroscopy to the Atomic Scale | K |
| 15:00 | Peter Kovac (DIPC, Spain) Insights into nanoplasmonics from first-principles time-dependent density functional simulations | K |
| 15:30 | Tânia Ribeiro (Instituto Superior Técnico, Portugal) Incorporation of plasmonic nanoparticles in organic photovoltaic solar cells | O |
| 15:45 | Nerea Zabala (UPV/EHU, Spain) Plasmonic nanoantennas for nanometer, picosecond control of VO ₂ phase-transition | O |
| 16:00 | Jon Lafuente-Bartolome (University of the Basque Country (UPV/EHU), Spain) Spin plasmons at surfaces with strong spin-orbit coupling | O |
| 16:15 | Coffee Break - Poster Session & Exhibition | |
| 17:15 | Jean-Jacques Greffet (Institut d'Optique Graduate School, France) Quantum plasmonics | K |
| 17:45 | Priscila Kosaka (IMM-CNM-CSIC, Spain) Hybrid optoplasmonic and nanomechanical sensor for proteomics | I |

WEDNESDAY MARCH 14, 2018

| | | |
|-------|--|---|
| 09:00 | Jouni Ahopelto (VTT, Finland) Nanostructures for Phononics | K |
| 09:30 | Daniel Lanzilotti Kimura (C2N-CNRS, France) Ultrahigh Frequency Phononics and Mechanics | K |
| 10:00 | Omar Ortiz (C2N, France) Nanophononic Potentials Based on Band Engineering | O |
| 10:15 | Jeremie Maire (ICN2, CSIC and BIST, Spain) Nanocrystalline silicon optomechanical cavities | O |
| 10:30 | Soren Stobbe (Niels Bohr Institute, University of Copenhagen, Denmark) Exciton-phonon interaction in coupled quantum wells: optical refrigeration and optomechanics | K |
| 10:45 | Coffee Break - Poster Session & Exhibition | |
| 11:30 | Ewold Verhagen (AMOLF, The Netherlands) Nonlinear and pulsed optomechanical measurement in sliced photonic crystal nanobeams | K |
| 12:00 | Daniel Navarro-Urrios (ICN2, Spain) Nonlinear dynamics and chaos in Optomechanical nanobeams | K |
| 12:30 | Clivia Sotomayor Torres (ICREA/ICN2, Spain) Phonon-mediated Nanoscale Thermal Transport | K |
| 13:00 | Lunch | |
| 14:30 | Alessandro Pitanti (NEST, CNR-Nano, France) Silicon nitride membranes: jack of all electromechanical trades | K |
| 15:00 | Daniel Torrent (Universitat Jaume I, Spain) Control of Lamb Waves by Phononic Plates | O |
| 15:15 | Alvaro Blanco (Instituto de Ciencia de Materiales de Madrid, Spain) Tunable Fano Resonances in Colloidal Photonic Structures | O |
| 15:30 | Pau Molet (ICMAB, Spain) Ultrathin Semiconductor Superabsorbers from the Visible to the Near Infrared | O |
| 15:45 | Guillermo Arregui Bravo (ICN2, Spain) Anderson co-localization in GaAs/AlAs superlattices | O |
| 16:00 | Coffee Break - Poster Session & Exhibition | |
| 16:30 | Luis Liz-Marzan (CIC Biomagune, Spain) Sharpening Plasmon Resonances in Gold Nanorods | K |
| 17:00 | Alessandro Principi (School of Physics and Astronomy, UK) Low-loss bulk and edge plasmons in graphene heterostructures – a theoretical study | O |
| 17:15 | Cristiano Matricardi (Instituto de Ciencia de Materiales de Barcelona, Spain) Gold Nanoparticle-based supercrystals as Surface Enhanced Raman Scattering (SERS) substrates | O |
| 17:30 | Liberato Manna (IIT, Italy) Halide Perovskites Nanocrystals: Synthesis, Transformations and their Application in Devices | K |
| 18:00 | Adi Salomon (Bar-Ilan University, Israel) Nanoporous Metallic Networks: A New Class of Materials | K |

THURSDAY MARCH 15, 2018

| | | |
|-------|---|---|
| 09:00 | Alexander Kotlyar (Tel Aviv University, Israel) Selective Photoinduced Eradication of Cancer Cells by DARPin-Gold Nanoparticle Conjugates | K |
| 09:30 | Uri Sivan (Technion - Israel Institute of Technology, Israel) The Last Nanometer – Deep Look into the Hydration Structure of DNA and Solid Surfaces Using Ultra-High Resolution AFM | K |
| 10:00 | Raffaele Caroselli (Nanophotonics Technology Center, UPV, Spain) In-flow and in-continuum refractive index sensing using a highly sensitive porous silicon ring resonator | O |
| 10:15 | David Martín-Sánchez (NTC-UPV, Spain) Development and experimental study of a porous silicon fiber-optic temperature sensing probe | O |
| 10:30 | Ángela Ruiz Tórtola (Nanophotonics Technology Center, UPV, Spain) Photonic Bandgap Biosensing Structures Biofunctionalized with Molecular Beacon Probes | O |
| 10:45 | Coffee Break - Poster Session & Exhibition | |
| 11:30 | Maya Bar-Sadan (Ben-Gurion university of the Negev, Israel) Correlating the Structure of 2D Materials with Their Catalytic Activity | K |
| 12:00 | Juan Carlos Cuevas Rodríguez (UAM, Spain) Super-Planckian Far-Field Radiative Heat Transfer | K |
| 12:30 | Francisco J. García Vidal (UAM, Spain) Polaritons for Chemistry and Materials Science | K |
| 13:00 | Closing | |

TUESDAY MARCH 13, 2018

| | | |
|-------|---|---|
| 11:30 | Antonio Castro-Neto (NUS, Singapore) 2D Materials: science and technology | K |
| 12:00 | Xinliang Feng (TU-Dresden, Germany) Organic 2D Materials: Grand Challenges and Opportunities | K |
| 12:30 | Stijn Goossens (ICFO, Spain) Graphene as enabler for broadband image sensors integrated with CMOS and flexible platforms | I |
| 12:50 | Maria Paiva (University of Minho, Portugal) Flexible conductive adhesives based on PDMS | O |
| 13:05 | Lunch | |
| 14:30 | Francesco Bonaccorso (IIT-Graphene Labs / BeDimensional, Italy) Scaling up prospective for the production of graphene and other 2D crystals | K |
| 15:00 | Paolo Bondavalli (Thales Research & Technology, France) Graphene and related materials deposition by spray-gun deposition method. A versatile technique for a large panel of applications | K |
| 15:30 | Max Lemme (AMO GmbH, Germany) Towards Wafer Scale Integration of CVD Graphene and 2D Materials | K |
| 16:00 | Benjamin Huet (Université Catholique de Louvain, Belgium) Controlling the size, number of layers and planarity of CVD graphene single-crystals | O |
| 16:15 | Coffee Break - Poster Session & Exhibition | |
| 17:15 | Lucia Delogu (University of Trieste, Italy) Transcriptomic and single cell interaction properties of graphene in human primary immune cells | O |
| 17:30 | Alexander Bofin (Institute of Chemical Physics, Russian Acad. of Sciences, Russia) PolyGraphene - Perspective Enterosorbent for Medical Toxicology. Preclinical Tests and Safety Assessment | O |
| 17:45 | Alicia de Andrés (CSIC, Spain) Biosensing and imaging with graphene-based platforms | O |
| 18:00 | Jérôme Borme (INL-International Iberian Nanotechnology Laboratory, Portugal) Lab-on-a-chip DNA sensor based on graphene electrolyte-gated field-effect transistors | O |
| 18:15 | Marina Ramal Sánchez (University of Teramo, Italy) Graphene oxide induces sperm release from bovine oviductal epithelial cells by modifying sperm membrane fluidity and binding proteins expression | O |

TUESDAY MARCH 13, 2018

Parallel Session Characterization

| | | |
|-------|---|---|
| 09:00 | Peter Boggild (Technical University of Denmark, Denmark) Non-contact conductivity mapping of graphene: setting new standards | |
| 09:20 | Albert Redo-Sanchez (das Nano S.L., Spain) Onyx: A new Standard for 2D materials characterization | |
| 09:40 | Anil O. Yalcin (Thermo Fisher Scientific, The Netherlands) Damage free imaging of graphene: low kV, narrow energy spread and iDPC STEM | |
| 10:00 | Philip Schaefer (neaspec GmbH, Germany) Infrared nano-imaging and spectroscopy on graphene using scattering-type SNOM | ○ |
| 10:15 | Nicolas F. Martinez (Concept Scientific Instruments, Spain) Resistance and surface potential characterization of 2-d materials with atomic force microscopy | ○ |
| 10:30 | Holger Graef (Laboratoire Pierre Aigrain, France) Dirac Fermion Reflector as a Scattering Length Meter | ○ |
| 10:45 | Daena Madhi (DTU Fotonik, Denmark) Simulation and experimental investigation of 2D materials with far and near-field THz spectroscopy | ○ |

11:00 Coffee Break - Poster Session & Exhibition

Parallel Session Standardization & Production

| | | |
|-------|---|---|
| 11:30 | Felicien Schopfer (LNE, France) Graphene for quantum electrical metrology and the revised International System of units SI | |
| 11:50 | Andrew J. Pollard (National Physical Laboratory, UK) Standardisation of terminology and measurement for graphene and related 2D materials | |
| 12:10 | Félix Raso Alonso (Centro Español de Metrología, Spain) Towards the Standardization of Graphene: The Project GRACE | ○ |
| 12:25 | David Mackenzie (DTU Nanotech, Denmark) Quality Assessment of 2D Materials: continuity, uniformity and accuracy of mobility measurements | ○ |
| 12:40 | Siamak Eqtessadi (Abalonyx, Norway) Production of Nitrogen Doped Graphene Oxide | ○ |
| 12:55 | Lunch | |

TUESDAY MARCH 13, 2018

Parallel Session Applications

| | | |
|-------|---|---|
| 09:00 | Amalia Zurutuza (Graphenea, Spain) Towards graphene applications in electronics | |
| 09:20 | Valentino Libero Pio Guerra (UFCH JH, CAS, Czech Republic) Graphene as substrate for selective self-assembly of 2-D materials for optoelectronic applications | ○ |
| 09:35 | Neetu Prasad (Indian Institute of Technology Bombay, India) Bandgap tailoring of graphene oxide by electric field induced reduction: Applications to photonic micro devices | ○ |
| 09:50 | Alina Lyuleeva (Technical University of Munich, Germany) Functionalized and Oxidized Silicon Nanosheets for Sensors and Optoelectronics | ○ |
| 10:05 | Ibrahim Fakih (McGill University, Canada) pH Measurement with Large-Area Graphene Field-Effect Transistors at the Quantum Capacitance Limit | ○ |
| 10:20 | Juan Antonio Delgado Notario (University of Salamanca, Spain) Asymmetric dual grating gate graphene FETs for direct detection of Terahertz radiation | ○ |
| 10:35 | Sathya Narayanan Mathivanan (City, University of London, UK) Bilayer graphene electrooptic modulator with rib dielectric enhancing TE mode confinement | ○ |
| 10:50 | Aida Hichri (Faculté des Sciences de Bizerte, Tunisia) Binding energies of exciton complexes in two-dimensional transition metal dichalcogenide | |
| 11:05 | Coffee Break - Poster Session & Exhibition | |
| 11:30 | Julio Gomez (Avanzare, Spain) Relevance of an adequate of selection of the graphene materials and processing conditions in the preparation of GRM composites | |
| 11:50 | Cesar Merino Sanchez (Grupo Antolin Ingenieria, Spain) Prepreg formulation with graphene related materials | |
| 12:10 | Silvia Gentiluomo (Istituto Italiano di Tecnologia - IIT, Italy) Unravelling the boron nitride flakes morphology to enhance polycarbonate performances | ○ |
| 12:25 | Adolfo Benedito (AIMPLAS, Spain) Innovative solid sorbents based on modified graphene and MOF materials for CO ₂ capture | |
| 12:45 | Helge Weman (NTNU & CrayoNano AS, Norway) Using graphene as epitaxial substrate and transparent electrode for AlGaN UV LEDs | |
| 13:05 | Lunch | |

TUESDAY MARCH 13, 2018

| Plenary Session | | |
|-----------------|--|---|
| 14:30 | Pedro Gomez-Romero (ICN2, Spain) Graphene Nanofluids- From Thermal to Electrochemical Applications | I |
| 14:50 | Francisco José Fernández-Carretero (Tecnalia, Spain) Hybrid 3D graphene materials for energy applications | I |
| 15:10 | Rune Wendelbo (Abalonyx, Norway) Upcoming applications of graphene oxide and graphene oxide derivatives | I |
| 15:30 | Andrea Ferrari (Cambridge Graphene Centre, University of Cambridge, UK) Title to be defined | K |
| 16:00 | Coffee Break - Poster Session & Exhibition | |
| | Nersik Margaryan (Armenian State Pedagogical University after Khachatur Abovyan, Armenia) | |
| 16:30 | Mathematical Calculation of Screened Coulomb Interaction Potential in Graphene | O |
| 16:45 | Daniel A. Solis (CEA/SPINTEC, France) Proximity Magnetoresistance on Graphene Induced by Magnetic Insulators | O |
| 17:00 | Elisseos Verveniotis (WPI-MANA, NIMS, Japan) Room temperature electronic localization in a single graphene layer on sapphire by He-ion irradiation | O |
| 17:15 | Mauricio Terrones (The Pennsylvania State University, USA) Defects in Metal Dichalcogenides: Effects in Catalysis & Optical Emission | K |
| 17:45 | Kostya Novoselov (NGI - The University of Manchester, UK) van der Waals Heterostructures | P |
| 18:30 | Closing | |

WEDNESDAY MARCH 14, 2018

| | | |
|-------|---|---|
| 09:00 | Karl S. Coleman (Durham University, UK) Structure Evolution and Control in Graphene Polymer Composites | K |
| 09:30 | Costas Galiotis (FORTH/ ICE-HT and University of Patras, Greece) Multi-functional CVD graphene/polymer nanolaminates | K |
| 10:00 | Manuel Belmonte (Institute of Ceramics and Glass (CSIC), Spain) Multifunctional ceramic/graphene composites | O |
| 10:15 | Sandra Hernandez Aldave (Swansea University, UK) Fabrication and characterisation of Ion conductive polymer - graphene nanoplatelets composite thin films | O |
| 10:30 | Azadeh Motealleh (Abalonyx, Norway) The potential of graphene oxide and reduced graphene oxide in fabrication of 3D printed ceramic and polymeric composites | O |
| 10:45 | Coffee Break - Poster Session & Exhibition | |
| 11:30 | Vincenzo Palermo (ISOF-CNR, Italy) Graphene-based materials for large-scale applications: ideal graphene vs. real commercial products | K |
| 12:00 | Robert Young (The University of Manchester, UK) The Mechanics of Reinforcement of Nanocomposites by 2D Materials | K |
| 12:30 | Mallika Bohm (Talga Technologies Ltd, UK) Talga: Emerging high quality scalable graphene supply; path to high performance low eco impact multi-functional product applications | I |
| 13:00 | Lunch | |
| 14:30 | Alain Dufresne (Grenoble INP-Pagora, France) Nanoparticles from biological source and polymer nanocomposites | K |
| 15:00 | Ana Beloqui (CICnanoGUNE, Spain) New biocatalytic composites assembled by metal ion coordination | O |
| 15:15 | Gianvito Caputo (Italian Institute of Technology, Italy) Sustainable long chain polyester bioplastics from tomato peel waste sources | O |
| 15:30 | Susana Guzman Puyol (Istituto Italiano di Tecnologia (IIT), Italy) All natural bioplastics from cellulose and cellulose-rich agro-wastes | O |
| 15:45 | Hugo Mora Sánchez (Instituto IMDEA Materiales, Spain) Microstructure and mechanical characterization of thin bioactive PEO coatings fabricated on UFG CP Ti | O |
| 16:00 | Giacomo Tedeschi (Istituto Italiano di Tecnologia - IIT, Italy) Sustainable fabrication of hydrophobic composite films inspired by plant cuticles | O |
| 16:15 | Coffee Break - Poster Session & Exhibition | |
| 17:00 | Daniele Cangialosi (CFM-UPV/EHU-CSIC, Spain) Accessing low energy glasses by polymer nanostructuring | K |
| 17:30 | Roy Shenhar (The Hebrew University of Jerusalem, Israel) Block Copolymer-Based Nanocomposite Films: Hierarchical Structures by Chemical Design | K |
| 18:00 | Jannick Duchet-Rumeau (IMP@INSA, INSA Lyon-GDR CNRS, France) Ionic Liquids: versatility and potential as interfacial agents for designing physicochemical interactions and tailoring morphology and properties of nanofilled polymers | K |
| 18:30 | Alexander Bismarck (University of Vienna, Austria) Title to be defined | K |
| 19:00 | Jose Covas (University of Minho, Portugal) Manufacture of electrically conductive PEEK filaments for 3D printing | O |

THURSDAY MARCH 15, 2018

| | | |
|-------|--|---|
| 09:00 | Nassia Athanassiou (Istituto Italiano di Tecnologia, Italy) Biocomposites in food packaging, water remediation and wound management | |
| 09:30 | Maria Jorda Beneyto (ITENE, Spain) Modified nanoadditives for food packaging applications | |
| 10:00 | David Mecerreyes (POLYMAT - UPV/EHU, Spain) Electroactive polymer composites for bioelectronics | |
| 10:30 | Coffee Break - Poster Session & Exhibition | |
| 11:00 | Jose Maria Lagaron (IATA-CSIC, Spain) High Throughput Electrospinning and Electrospaying for the Design of Innovative Nanomaterials and Structures of Application Interest | K |
| 11:30 | Cristina Monteserin (IK4-TEKNIKER, Spain) Effect of different types of electrospun polyamide 6 nanofibres on the mechanical properties of a carbon fibre/epoxy composites | O |
| 11:45 | Vanessa Garcia (FIDAMC, Spain) Carbon fiber/graphene doped epoxy demonstrator for aeronautic applications | O |
| 12:00 | Anna Roig (ICMAB-CSIC, Spain) Bacterial Nanocellulose: Surface Microstructuration and Composites | |
| 12:30 | Tamara Calvo-Correas (University of the Basque Country, Spain) Synergic effect of magnetite nanoparticles and cellulose nanocrystals on shape-memory behaviour | O |
| 12:45 | Antoine Charbonneau (Celluforce, Canada) Cellulose nanocrystals: a biomaterial with great potential | O |
| 13:00 | Pablo González Miguel (ITAINNOVA Instituto Tecnológico de Aragón, Spain) Smart nanomaterials with cellulosic matrix and magnetic properties | O |
| 13:15 | Lunch | |
| 14:45 | Ahmed Elmarakbi (University of Sunderland, UK) Graphene for Vehicles Prototype | |
| 15:15 | Laura Campagnolo (Istituto Italiano di Tecnologia, Italy) Silk fibroin/orange peel composite foam: an efficient adsorbent material for water remediation | O |
| 15:30 | Kizkitza González Munduate (University of the Basque Country, Spain) Starch based 'click' cross-linked conductive nanocomposite hydrogels | O |
| 15:45 | Aleandro Antidormi (University of Cagliari, Italy) On the Nature of Microscopic Heat Carriers in Nano-Porous Silicon | O |
| 16:00 | Coffee Break - Poster Session & Exhibition | |
| 16:30 | Juan Jose Vilatela (IMDEA, Spain) Nanostructured fibres and fabrics for structural supercapacitor composites | |
| 17:00 | Yogendra Kumar Mishra (Kiel University, Germany) Functional applications ZnO tetrapod nanomaterials made by flame transport synthesis | K |
| 17:30 | Miguel Angel López Manchado (ICTP - CSIC, Spain) Multifunctional Properties of Rubber Nanocomposites | |
| 18:00 | Oleg Figovsky (Polymate Ltd. Israel) Green Nanotechnology: aims and expedients | K |
| 18:30 | Closing | |



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| Arbelaz | Aitor | Spain | Synthesis and Characterisation - Green and Bio composites | <i>Mechanical Properties of Gelatin Reinforced with Nanocellulose</i> | 52 |
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| Oliden Sánchez | Ainhoa | Spain | Nanomaterials | <i>Improvement of NIR photophysical properties of a hemicyanine dye by its encapsulation within 1D-AlPO nanochannels</i> | 22 |
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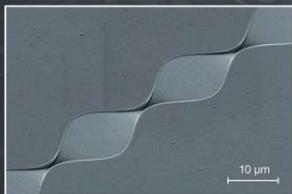
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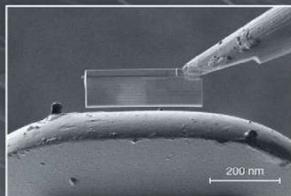
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