

Wednesday 29th June 2016

09:00 – 09:15 *Registration*

09:15 – 09:30 *Welcome*

Session 1: Nanodevices, sensors and reliability

Chairmen: *Gerardo López and Oscar Gilberto Súchil Pérez*

09:30 – 09:45 **Volume Resistive Switching in metallic functional complex oxides driven by the Metal-Insulator Transition**

Juan Carlos Gonzalez-Rosillo (ICMAB)

09:45 – 10:00 **Development of a Fluidic System for Electrochemical Sensing of Emerging Contaminants**

Martha Raquel Baez Gaxiola (IMB-CNM)

10:00 – 10:15 **Single-Step Fabrication for Highly Reliable n Type Organic Field-Effect Transistors**

Antonio Campos García (ICMAB)

10:15 – 10:30 **The fabrication of high resolution guiding patterns for the directed self-assembly of block co-polymers**

Steven Gottlieb (IMB-CNM)

10:30 – 10:45 **All-inkjet-printed dissolved oxygen sensor on flexible and plastic substrates**

Ana Moya (IMB-CNM)

10:45 – 12:00 *Poster Session + Coffee Break*

Session 2: Nanomedicine and nanobiomaterials

Chairmen: *Steven Gottlieb and Laura Evangelio*

12:00 – 12:15

Bio-Hacking and the Do-It-Yourself Biologist

Daniel Grajales Garcia (ICN2)

12:15 – 12:30

Evaluation of inorganic nanoparticles in the model organism *Caenorhabditis elegans*

Laura Gonzalez-Moragas (ICMAB)

12:30 – 12:45

Suspended Micro/nanogenerators for cell stimulation

Carolina Vargas Estevez (IMB-CNM)

12:45 – 13:00

Silica Nanoparticles at the biointerface: a cellular study

Antonio Aranda-Ramos (UAB)

13:00 – 13:15

Filter-Based holder for pathogen detection

Josune Jimenez Ezenarro (IMB-CNM)

13:15 – 13:30

A modular bioreactor with integrated impedance spectroscopy electrodes for monitoring of epithelial and endothelial barriers

Jose Yeste Lozano (IMB-CNM)

13:30 – 15:00

Lunch (not included)

Session 3: Nanomaterials I

Chairmen: *Gerardo López and Enrique Irisarri*

15:00 – 15:15

Oxygenation process of YBCO thin films studied from insitu electrical resistivity measurements

Alexander Stangl (ICMAB)

15:15 – 15:30

Plasmonics: light at the nanoscale

Ana Conde Rubio (UB and IMB-CNM)

15:30 – 15:45

Magnetic impurities on top of Rashba surface alloy

Stefano Schirone (ICN2)

15:45 – 16:00

Break

16:00 – 17:00

Invited talk "From the knowledge to the global market" Proiser Projectes i Serveis R+D"

Dr. Carles Soler Vázquez (Universitat de València)

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Session 4: Synthesis and Characterization of advanced materials I

Chairmen: *Enrique Irisarri and Laura Evangelio*

- 09:00 – 09:15 **Defect engineering in YBCO nanocomposite films**
Bernat Mundet (ICMAB)
- 09:15 – 09:30 **Synthesis and potential applications of mesoporous Ni-doped SnO₂: powders versus films**
Junpeng Fan (UAB)
- 09:30 – 09:45 **Engineering edge structure and electronic properties of graphene nanoislands by Au intercalation**
Michele Gastaldo (ICN2)
- 09:45 – 10:00 **Novel magnetic core-shell Ce-Ti@Fe₃O₄ nanoparticles as adsorbent for water defluoridation**
Ahmad Abo Markeb (UAB)
- 10:00 – 10:15 **Engineering electronic and magnetic properties of metal organic – topological insulator heterostructures**
Marc González Cuxart (ICN2)
- 10:15 – 10:30 **Growth of nanocomposite YBCO films by CSD-Transient Liquid Assisted Growth.**
Júlia Jareño (ICMAB)
- 10:30 – 11:15 *Poster Session + Coffee Break*
- 11:15 – 13:00 *The PhD movie 2 + Debate*
- 13:00 – 14:30 *Lunch (not included)*

Session 5: Synthesis and Characterization of advanced materials II + Nanomaterials for energy and nanoelectronics

Chairmen: *Steven Gottlieb and Oscar Gilberto SÚchil Pérez*

- 14:30 – 14:45 **Thermoelectric microgenerators based on bottom-up silicon nanowire arrays**
Inci Donmez (IMB-CNM)
- 14:45 – 15:00 **PowerPAD: Non-toxic capillary-based flow battery for single use applications**
Perla Patricia Alday Lara (IMB-CNM)
- 15:00 – 15:15 **Inkjet printing chemical solution deposition of YBa₂Cu₃O_{7-x} thick films: From the ink to the tape**
Bohores Villarejo (ICMAB)
- 15:15 – 15:30 **Charge separation via strain gradients flexoelectricity: flexovoltaics by design**
Andrea Schiaffino (ICMAB)
- 15:30 – 15:45 **Pressure-induced conductivity in a neutral non-planar spin-localized radical**
Manuel Souto Salom (ICMAB)
- 15:45 – 16:00 **In solution and on surface studies of novel polychlorotriphenylmethyl (PTM) radicals for molecular electronics applications**
Francesc Bejarano (ICMAB)
- 16:00 – 16:15 *Break*
- Start-up: another way to transfer Technology***
Júlia Palma (PRUAB)
- 16:15 – 17:00 ***Case of success: Applied Nanoparticles, spin-off of ICN2, UAB and ICREA. It has developed technology to optimize the production of biogas by controlled iron oxide nanoparticles processes organic waste treatment introduction.***
Martí Busquets
- 17:00 – 17:15 *Awards + Closing*

Poster session			
Poster number	Author	Affiliation	Title
1	Dionisia Ortiz	UAB	Development of impedimetric aptasensors for Lysozyme detection
2	Inés Temiño Gutiérrez	ICMAB	Benchmark organic semiconductors successfully processed by a single rapid, low-cost, and scalable technique: BAMS (Bar Assisted Meniscus Shearing)
3	Eduard Masvidal Codina	IMB-CNM	Characterization of graphene electron transport, electrode-electrolyte properties and functionalization using an electrochemical chamber
4	Andreu González-Calabuig	UAB	Electronic tongue approach for mixture quantification of 4 ethylphenol, 4-ethylguaicol and 4-ethylcatechol
5	Pedro Fernando Escudero	IMB-CNM	Colorimetric surface stress sensors based on smart polymers
6	Qiaoming Zhang	ICMAB	High performance water-gate organic field effect transistors based on OSColymer blends
7	Anna Herrera Chacón	UAB	Molecularly Imprinted Polymers for 4-Ethylphenol detection
8	Ziliang Li	ICMAB	Study of oxide nanoparticle evolution in ex-situ YBCO nanocomposites
9	Enrique Irisarri	ICMAB	Hard Carbon (HC) as Electrode Material for Sodium Ion Batteries
10	Iván Dario Gómez Robayo	UIS	Adsorption of toxic metal ions onto magnetic graphene oxide
11	Enelia Cristina Peláez Gutiérrez	ICN2	Label-free optical biosensors for the specific detection of Sintrom in Serum
12	Irene Anton Sales	ICMAB	Encapsulating endothelial progenitor cell's secretome for vascular remodeling therapies
13	Miquel Torras	ICMAB	Magneto-plasmonic multimaterial nanoparticles
14	Antonio Aranda-Ramos	UAB	Biocompatibility of magneto-plasmonic nanoparticles (MPNPs) for combined photothermal and magnetothermal therapies in human carcinoma cells
15	Deyaa Youssef	ICMAB	Production of Bacterial nano-cellulose as a terrific natural polymer
16	Javier Fernández Tejero	IMB-CNM	Development of High-Energy Physics Silicon Tracking Detectors for the ATLAS Experiment

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17	Javier Patarroyo	ICN2	Tuning the plasmonic response up: Hollow cuboid metal nanostructures
18	Qianzhe Zhang	ICMAB	Stabilization of epitaxial quartz on Si from amorphous silica films
19	Adrià Gordillo	ICMAB	Magneto-plasmonic multimaterial nanoparticles
20	Florind Merkoçi	ICN2	Mechanistics insights in the Pt vs Ag galvanic replacement reaction