

**Propuestas TFM Nanomat, curso 2017-2018**

<b>Titulo</b>	<b>Directores</b>
Antimicrobial nanomaterials for cultural heritage conservation	Dr. Scott G. Mitchell
Understanding ferroelectricity in HfO <sub>2</sub> -ZrO <sub>2</sub> films	Dr. José A. Pardo Dr. Pedro A. Algarabel
In-situ TEM investigations of 1D and 2D Nanomaterials	Dr. Raul Arenal
Synthesis of covalent nanostructures on functional surfaces	Dr. David Serrate Dr. Jorge Lobo
Magnetic hyperthermia based nanotherapies	Dr. Carlos Sánchez Dr. Jesús Martínez
Fabrication and electrical characterization of graphene nanodevices	Dr. José María de Teresa Dr. Soraya Sangiao
Intrinsic and extrinsic effects on the transport properties of nanodevices based on Topological Insulators	Dr. José María de Teresa Dr. Soraya Sangiao
Nanostructured analytical biosensors for the detection of emerging contaminants	Dr. Juan Carlos Vidal
Assembling a toolbox of magnetic nanoparticles for magnetic hyperthermia applications	Dr. Lucía Gutiérrez Dr. Raluca Fratila
Optimized nanocarriers from amphiphilic block copolymers by supramolecular chemistry	Dr. Luis Oriol Dr. Milagros Piñol
Photoresponsive gene delivery vectors: synthesis, characterization and application	Dr. Jesús del Barrio Dr. Silvia Hernández
Localized magnetic hyperthermia as a novel tool for cell transfection	Dr. Raluca Fratila Dr. Valeria Grazú
Pegylated pH-sensitive micelles based on polypeptides for biomedical applications	Dr. Rafael Martín
Development of responsive nanostructured supramolecular materials based on bent-core molecules	Dr. M. Blanca Ros
Nanostructured soft materials for organic electronics based on columnar liquid crystals	Dr. Teresa Sierra Dr. Raquel Gimenez
Nanopatterning of molecules on devices by Atomic Force Microscopy	Dr. Ana Isabel Gracia
Analysis of proteins by local probe microscopy	Dr. Ana Isabel Gracia
Chemical modification of surfaces for molecular electronics applications	Dr. Santiago Martín Dr. Pilar Cea
Nanofabrication of two dimensional chemical scaffoldings	Dr. Pilar Cea Dr. Santiago Martín
Elaboration and study of 2D films based on metalloporphyrins	Dr. Ignacio Gascón Dr. Olivier Roubeau
Preparation and characterization of nanostructures of pyrene-containing bent-core molecules by self-assembling techniques	Dr. Santiago Martín Dr. M. Blanca Ros
3D printing applied to PDMS microfluidic devices for photocatalysis and nanotechnology applications	Dr. Maria Pilar Pina Dr. Miguel Urbiztondo
Fabrication of microfluidic SERS devices by nanoimprint lithography techniques for CWAs detection in gas phase	Dr. Maria Pilar Pina Dr. Reyes Mallada
Au-SiO <sub>2</sub> plasmonic nanostructures for SERS detection applications in gas phase	Dr. Maria Pilar Pina Dr. Reyes Mallada
Engineering catalyst for methane transformation	Dr. Ignacio Julián Dr. Scott G. Mitchell
Synthesis, characterization and catalytic applications of metallic nanoparticles supported on biomorphic carbons	Dr. Antonio Monzón Dr. Eva Romeo