

## APROBACIÓN CGC OFERTA TFM MÁSTER NANOMAT- CURSO 2020-21

#	Título	Supervisor 1	Supervisor 2	vocal
1	Interaction of Cooper pairs with magnetic impurities in type-II superconductor nano-deposits.	David Serrate	Jose Maria de Teresa	
2	AFM induced pattern formation in compliant surfaces	David Serrate	Juan José Mazo	
3	Exploring the Surface Enhanced Raman Spectroscopy (SERS) properties of perovskite nanocrystals	Emilio Juárez	María Pilar Pina	
4	Application of halide perovskite thin-films in Surface Enhanced Raman Spectroscopy (SERS)	Emilio Juárez	María Pilar Pina	
5	Nanostructured electrodes based on carbon nitride materials for electrochemical energy storage	Emilio Juárez	Marta Haro	
6	SERS (Surface enhanced Raman Spectroscopy) platforms based on Silicon nanopillars for ultrasensitive detection of Chemical Warfare Agent	María Pilar Pina	Marta Lafuente	
7	Nanocarriers based on orthogonal clickable block-copolycarbonates	Milagros Piñol	Luis Oriol	
8	Thin films of dense magnetic MOFs particles for local cryogenic magnetic refrigeration	Ignacio Gascón	Olivier Roubeau	
9	Design and "dry" synthesis of 2D nanographenes with atomic scale precision	David Serrate	Jorge Lobo	
10	Development of enzyme-like catalysts to cause metabolic alterations in tumors	José Luis Hueso	Javier Calzada	Jesús Santamaría
11	Development of solar cells based on perovskite-nanocrystal heterojunctions	María Bernechea	Emilio Juárez	
12	Development of thin film photocatalysts active under solar light for pollutant removal in liquid phase	María Bernechea		
13	Evaluating the synergistic antimicrobial properties of polyoxometalate-peptide hybrids as biofilm prevention materials	Elena Atrián	Scott G. Mitchell	
14	Nanomaterials for cultural heritage conservation (non-presential)	Andrés Seral_Ascaso	Scott G. Mitchell	Elena Cerrada
15	Physical phase plates for transmission electron microscopy analysis of nanomaterials	Raul Arenal	Simon Hettler	
16	Atomic Configuration Studies of Misfit-Layered Compounds in the form of Nanotubes	Raul Arenal	Simon Hettler	
17	Low-dimensional Carbon and Related Materials: In-situ Microscopy Studies	Raul Arenal		
18	Laser-induced crystallization of binary oxide films deposited on different substrates	Luis A. Angurel	José Angel Pardo	
19	Sizing metallic nanoparticles at trace levels	Martín Resano		
20	Electroanalytical techniques for the detection and quantification of micro and nanoplastics in natural waters	Juan Carlos Vidal		
21	Characterization of Supramolecular Systems by NMR Spectroscopy	María Pilar Romero	Jesús del Barrio	
22	Nanomaterials for Photocatalytic Reduction of CO <sub>2</sub> : Nanolayered MoS <sub>2</sub> -based catalysts	Francisco Balas		
23	Nanomaterials for Photocatalytic Reduction of CO <sub>2</sub> : Development of Efficient Solid-Gas Reactors	Francisco Balas		
24	Nanofabrication methodologies and surface characterization in molecular electronic devices	Pilar Cea	Santiago Martín	
25	Mimic Cell Membranes: thermodynamic and atomic force microscopy studies	Pilar Cea	Santiago Martín	
26	Nanofabrication of chemically modified surfaces with applications in molecular electronics	Pilar Cea	Santiago Martín	
27	Electrode optimization through nano-catalysts for green fuel production in solid	Alodia Orera	Miguel A. Laguna	Jose Angel Pardo
28	Inks and electrodes based on nanocellulose for the Photoelectrochemical water splitting	Jose María Gonzalez	Ana Benito	María Pilar Pina
29	Functional materials based on assembled nanocellulose for Environmental applications	Jose María Gonzalez	Enrique García Bordejé	María Pilar Pina
30	Dye sensitized titanium dioxide anode for photoelectrochemical water splitting	María Jesús Blesa	Alejandro Ansón	
31	Electron-Microscopy atomic analysis of porous catalysts	Alvaro Mayoral	Cesar Magen Dominguez	
32	Correlations between crystal symmetry and magnetic properties of spintronic LaCoO <sub>3</sub> thin films by aberration-corrected STEM	Alvaro Mayoral	Cesar Magen Dominguez	
33	Study of the dimensional influence and structural damping on the vortex movement in superconducting YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> quasi-one dimensional microwires	Antonio Badía Majos	Irene Lucas del Pozo	
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