

# Propuestas TFM NANOMAT curso 2024-25

Columna1	TÍTULO	DIRECTOR 1	DIRECTOR 2	PONENTE	DEPARTAMENTO
1	3D nanostructures for the next generation of MRAM memories	Bran, Cristina	Anadón Barcelona, Alberto		Física de la Materia Condensada
2	Synthesis, characterization and application of nanocatalysts obtained by laser-assisted pyrolysis	Hueso, Jose Luis	Pakrieva, Ekaterina		Ingeniería Química y TMA
3	Catalytic bioartificial vectors formed by extracellular vesicles, enzymes and nanoparticles	Sancho Albero, María	Martín Pardillos, Ana	Santamaría Ramiro, Jesús	Ingeniería Química y TMA
4	DEVELOPMENT AND CHARACTERIZATION OF ELECTROSPUN NANOCOMPOSITES OF BIOPOLYESTERS AND NANOCELLULOSE OF APPLICATION INTEREST IN FOOD PACAKGING	José M. Lagarón	Cristina Prieto	Ignacio Gascón	Química Física
5	Sustainable fabrication of perovskite solar cells.	María Cristina Momblona Rincón	María Bernechea Navarro		Ingeniería Química y TMA
6	Green processing for environmentally friendly, efficient, and low-cost perovskite-QDs solar cell technology	María Cristina Momblona Rincón	María Bernechea Navarro		Ingeniería Química y TMA
7	Next generation electrolytes for sodium-ion batteries	María Bernechea Navarro	Cristina Pozo-Gonzalo		Ingeniería Química y TMA
8	Triple Halogenated Perovskite Mesoscopic Solar Cell with Doped Carbon Layers	Juarez Perez, Emilio	Sanz Marco, Arturo		Ingeniería Química y TMA
9	Development of catalysts for CO2 revalorization using microwave-assisted reactors	Hueso, Jose Luis	Fiorentino, Laura		Ingeniería Química y TMA
10	Nanocatalytic capsules to target the tumor microenvironment	Hueso, Jose Luis			
11	Hybrid nanomaterials based on cellulose and chitin nanocrystals to alleviate food allergies	Jose Miguel González Domínguez	María Victoria Gil Álvarez	Javier Remón Núñez (RyC)	Ingeniería Química y TMA
12	Control of the casting temperature when preparing dense polymeric membranes for CO2 separation	Coronas, Joaquín			Ingeniería Química y TMA
13	Development of Nanostructured Materials for CO2 capture and utilization assisted by microwave heating	Florentino Madiedo, Laura	Mallada Viana, Reyes		Ingeniería Química y TMA
14	Antibacterial nanoparticles to improve 3d printed medical devices	Laura Usón Muñoz	Sancho Albero, María (INMA)	Arruebo Gordo, Manuel	Ingeniería Química y TMA
15	Synthesis, characterization and evaluation of Fe-based catalysts for COx-free Hydrogen and Carbonaceous nanomaterials production	Antonio Monzón Bescós	María del Pilar Tarifa Sánchez		Ingeniería Química y TMA
16	Nanomaterials for sodium-ion battery (SIB) cathodes	María Bernechea Navarro	M. Pilar Lobera		Ingeniería Química y TMA
17	Synthesis of single atom carbon-based catalysts by laser pyrolysis	Francisco Balas	Pakrieva, Ekaterina		Ingeniería Química y TMA
18	Sustainable Textiles: An Evaluation of Innovative Materials in Fashion	María Moros	Laura Gutierrez		Química Analítica
19	Analysis and integration of redox proteins by atomic force microscopy	Gracia Lostao, Ana Isabel			Bioquímica y Biología Molecular y Celular
20	Planar model cell membranes for biomedical applications	Santiago Martin Solans	Pilar Cea Mingueza		Química Física
21	Development of ultrathin polymeric membranes for CO2 capture	Ignacio Gascón Sabaté	Beatriz Zornoza Encabo		Química Física /Ingeniería Química y TMA
22	Magnetic Properties of chiral 4d molecular complexes	Ana Arauzo	Ricardo Rodriguez		Física de la Materia Condensada
23	Biomimetic hydrogels for applications as medical adhesives and in nanomedicine	Alexandre Lancelot	Teresa Sierra		Química Orgánica
24	Development of NIR-responsive micellar hydrogels from amphiphilic block copolymers for application in nanomedicine	Milagros Piñol	Miriam Abad		Química Orgánica
25	Dynamic DNA-polymer materials	Jesús del Barrio	Silvia Hernández		Química Orgánica
26	Enhancing the electrocaloric effect through strain-engineering in lead-free perovskite epitaxial thin films	Sara Lafuerza Bielsa	José Ángel Pardo		Física de la Materia Condensada / Ciencia y Tecnología de Materiales y Fluidos
27	Synthesis and characterization of palladium nanomaterials by electrodeposition from eutectic media	Elisabet Pires			Química Orgánica

<b>28</b>	Preparation of liquid crystal emulsions functionalized with light-responsive bent-core amphiphiles	M. Blanca Ros	Alberto Concellón	Química Orgánica
<b>29</b>	Synthesis and characterization of nanoporous colloids for environmental remediation	Teresa Sierra	Alberto Concellón	Química Orgánica
<b>30</b>	Exploring SERS with 2D-nanomaterials	María Pilar Pina	Raúl Arenal	Ingeniería Química y TMA/Física de la Materia Condensada