

# Final TFG. Semestre de tardor. Curs 2023-24

|                           |  | Alumne                      |
|---------------------------|--|-----------------------------|
| <b>1. New materials</b>   |  |                             |
| 1.1                       | Microfluidic synthesis of 3D covalent organic frameworks (COFs) <a href="#">(resum)</a>  | Adell Roca, Miquel          |
| 1.2                       | Development of microcapsules with thermal, mechanical and chemical resistance from plastic waste to contain MPCM <a href="#">(resum)</a> | Bal'tykova, Altana          |
| 1.3                       | Amphiphilic compounds and their role in biomineralization. <a href="#">(resum)</a>   | Calderon Miranda, Elena     |
| 1.4                       | Fabrication and characterization of clot-in-chip platforms <a href="#">(resum)</a>   | Cornejo Paredes, Marco      |
| 1.5                       | Synthesis of expanded perovskites with controllable electrical doping <a href="#">(resum)</a>  | Espuch Escobar, Miquel      |
| 1.6                       | Synthesis of single-crystals of quasi-2D perovskites for light-absorbing applications <a href="#">(resum)</a>                            | Mediavilla Pina, Miquel     |
| 1.7                       | Low-cyanide electrolyte for AuCu alloy electrodeposition. <a href="#">(resum)</a>  | Sebastià Castarlenas, Enric |
| <b>2. Food and health</b> |  |                             |
| 2.1                       | Characterization and authentication of meat and meat products using chromatographic metabolomic fingerprints <a href="#">(resum)</a>     | Aijon Xalmet, Nil           |

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| <b>2.2</b>            | Combination of optical and electrochemical methods for the resolution of pharmaceutical formulations<br><a href="#">(resum)</a>         | Baun Carazo, Pol           |
| <b>2.3</b>            | Interactions between drugs and biliary salts micelles present in intestinal fluids <a href="#">(resum)</a>                              | Cabañas Castaño, Ruben     |
| <b>2.4</b>            | Design of sensors and preconcentration strategies for the electroanalytical determination of pharmaceuticals<br><a href="#">(resum)</a> | García Arnan, Xènia        |
| <b>2.5</b>            | Gradient elution HPLC/UV method for the determination of sweeteners in soft drinks. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>   | Huetó Gual, Joel           |
| <b>2.6</b>            | Voltammetric analysis of bioactive compounds in food samples <a href="#">(resum)</a>  | Roca Aracil, Marc          |
| <b>3. Environment</b> |   |                            |
| <b>3.1</b>            | Photocatalytic Removal of Emerging Organic Pollutants in Water <a href="#">(resum)</a> <a href="#">(dipòsit)</a>                        | Bautista Rosas, Queralt Lu |
| <b>3.2</b>            | Physicochemical characterization of wastes: providing proficiency testing according ISO 17043. <a href="#">(resum)</a>                  | Blasco Villegas, Carla     |
| <b>3.3</b>            | Simultaneous analysis of plutonium isotopes and <sup>90</sup> Sr with fluorescents polymers in tandem. <a href="#">(resum)</a>          | Giner Mestre, Mònica       |
| <b>3.4</b>            | Optimization of experimental parameters for the electro-oxidation of kraft lignin <a href="#">(resum)</a>                               | Lladós Clos, Jaume         |

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| <b>3.5</b>                         | Iridium electrocatalysts supported on doped titania nanotubes for oxygen evolution reaction. ( <a href="#">resum</a> )   | Mena Andrade, Santiago Andrés |
| <b>4. Computational Studies</b>    |  |                               |
| <b>4.1</b>                         | Stereochemical influence on tuning the transition temperature in Spin-Crossover molecules ( <a href="#">resum</a> ) ( <a href="#">dipòsit</a> )                | Alcocer Bernuz, Carlota       |
| <b>4.2</b>                         | Atomic Doping in Nano-oxides for Photocatalysis ( <a href="#">resum</a> )  | Huang Haoyu                   |
| <b>4.3</b>                         | Preliminary study of organic radicals generated from 1,3,2-dithiazolyl capable of forming magnetic crystals. ( <a href="#">resum</a> )                         | Montes Segarra, Ainhoa        |
| <b>5. Synthesis and Reactivity</b> |  |                               |
| <b>5.1</b>                         | Synthesis of molecular boxes using heptazine ligands. ( <a href="#">resum</a> )  | Blanco Gea, José Antonio      |
| <b>5.2</b>                         | Synthesis of cyclic peptide antibiotics and related compounds. ( <a href="#">resum</a> ) ( <a href="#">dipòsit</a> )   | Candelario Ribas, Hermes      |
| <b>5.3</b>                         | Synthesis of N-acyl thioimides. Direct, catalytic and asymmetric reactions of construction of C-C bonds. ( <a href="#">resum</a> ) ( <a href="#">dipòsit</a> ) | Castella Rodríguez, Josep     |
| <b>5.4</b>                         | Water-soluble organometallic complexes of lanthanides. ( <a href="#">resum</a> )   | Conesa Escoda, Marc           |
| <b>5.5</b>                         | Synthesis of functional organic dyes and their characterization using NMR, MS, UV-vis and fluorimetry. ( <a href="#">resum</a> ) ( <a href="#">dipòsit</a> )   | Font Fraga, Oscar             |

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| <b>5.6</b>  | Synthesis and characterization of imine palladacycles. <a href="#">(resum)</a>  | Guadalupe Phang, Eva Sofia |
| <b>5.7</b>  | Fluoride-triggered homoallylic trifluoromethylation of allyl fluorides with gem-difluoroalkenes. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>            | Insausti Brull, Gerard     |
| <b>5.8</b>  | Synthesis of PROTACs for Castration-Resistant Prostate Cancer. <a href="#">(resum)</a>  | Lluch Díez, Xavier         |
| <b>5.9</b>  | Synthesis of luminescent phosphane gold(I) complexes. <a href="#">(resum)</a>   | Onetti i Batlle, Oriol     |
| <b>5.10</b> | Synthesis of iron (III) porphyrins and study of their magnetic properties. <a href="#">(resum)</a>  | Romo Carmona, Marc         |
| <b>5.11</b> | Catalytic alkene and alkyne hydroacylation using Rh(I) complexes with diphosphanes. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>                         | Saumell Palacios, Nil      |
| <b>5.12</b> | Synthesis, structural and magnetic studies of new coordination complexes 3d and 4f with schiff bases derived from oxalic dihydrazide. <a href="#">(resum)</a> | Sitjar Bote, Pedro         |
| <b>5.13</b> | Characterization of complexes derived from the Ag <sup>II</sup> cation as candidate to quantum computation QUBITs. <a href="#">(resum)</a>                    | Xuriguera Bravo, Clàudia   |

| <b>6. Methods and Techniques</b> |   |                           |
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| <b>6.1</b>                       | Characterisation of modified industrial filtration membranes by chemical imaging and chemometrics <a href="#">(resum)</a> <a href="#">(dipòsit)</a>     | Frías Bermúdez, Adrià     |
| <b>6.2</b>                       | Ink optimization for the fabrication of Cu <sub>2</sub> O-CeO <sub>2</sub> gas diffusion electrodes. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>  | Orcera Busquets, Júlia    |
| <b>6.3</b>                       | Effect of oxidations in the kinase domain of Src. <a href="#">(resum)</a>   | Urbano Romero, Laia       |
| <b>6.4</b>                       | Copper hydrometallurgic processes. <a href="#">(resum)</a>  | Vindel Deras, Katherine N |
| <b>7. Bibliographic research</b> |   |                           |
| <b>7.1</b>                       | Metabolomic approach to assess arsenic stress in plants and algae. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>                                    | Bujons Lario, Jana        |
| <b>7.2</b>                       | Activation of carbon dioxide mediated by organometallic complexes derived from earth-abundant metals. <a href="#">(resum)</a> <a href="#">(dipòsit)</a> | Carrascosa Estaún, Àngela |
| <b>7.3</b>                       | Superfluid helium nanodroplets and Chemistry. Fundamentals and applications. <a href="#">(resum)</a>  | Costa Boatella, Maria     |
| <b>7.4</b>                       | Analysis of the effect of viscosity in the design of fluorescent molecular rotors. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>                    | Gambin Sáez, Albert       |
| <b>7.5</b>                       | Creation of a database of polonium distribution coefficient in soils. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>                                 | Planas Rafel, Aleix       |

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| <b>7.6</b>                       | Photoactive structures with multiple azobenzene units. <a href="#">(resum)</a>   | Ruiz Tienda, Eva           |
| <b>7.7</b>                       | Formamide formation by different routes and on Titan. <a href="#">(resum)</a>  | Santillana López, Noemí    |
| <b>8. External Organizations</b> |  |                            |
| <b>8.1</b>                       | Human biomonitoring and wastewater-based epidemiology as complementary approaches for early identification of chemical exposure risks at the neighborhood level. <a href="#">(resum)</a> <a href="#">(dipòsit)</a> | Ballester Miró, Olivia     |
| <b>8.2</b>                       | Effect of TiO2 particle size: haemolytic activity and cell viability determination interference. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>   | Bescós Tenas, Laura        |
| <b>8.3</b>                       | Developing of analytical methodology for the determination of per- and polyfluoroalkyl substances in drinking water. <a href="#">(resum)</a>   | Gil Estela, Carlota        |
| <b>8.4</b>                       | Target Screening of Organic Contaminants in Lettuce Partially Irrigated with Reclaimed Wastewater. <a href="#">(resum)</a>   | Jiménez de Parga Gros, Ana |
| <b>8.5</b>                       | Implementation of the regulations of Annex 1 of GMP (Good Manufacturing Practice) in the production area of Laboratorios Grifols S.A. P9, Parets del Vallès. <a href="#">(resum)</a>                               | Martínez Montes, Sonia     |
| <b>8.6</b>                       | Occurrence of contaminants of emerging concern in urban groundwater samples from Barcelona city. <a href="#">(resum)</a>   | Mestanza Castelltort, Erik |
| <b>8.7</b>                       | Analysis of plasticizers in bird eggs from Doñana National Park. <a href="#">(resum)</a>   | Ortiz Lisbona, Sandra      |

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| <b>8.8</b>              | Comparative evaluation of different film-forming ingredients as water resistance agents in sun protection products. <a href="#">(resum)</a>  | Ruiz Vea, Emma.              |
| <b>8.9</b>              | Atroposelective C–H amination. Synthesis of ligands and methodology. <a href="#">(resum)</a> <a href="#">(dipòsit)</a>   | Sans Claro, Ariadma          |
| <b>8.10</b>             | Study of the electromagnetic shielding effect in a cable of a polymeric compound combined with different types of carbon nanoparticles. <a href="#">(resum)</a>                                      | Sufuentes Pérez, Abel Hermes |
| <b>9. Erasmus/Sicue</b> |  |                              |
| <b>9.1</b>              | Deposition of $\text{BaCo}_{0.4}\text{Fe}_{0.4}\text{Zr}_{0.2}\text{O}_{3-\delta}$ material thin films through chemical solution via Spin-Coating. <a href="#">(resum)</a> <a href="#">(dipòsit)</a> | Gutierrez Arce, Judith       |
| <b>9.2</b>              | Transforming waste into fertilizer: exploring the future utilization of spent alkali activated material (aam) adsorbent <a href="#">(resum)</a>  | Serrahima Serra, Anna        |