Departamento de Física de la Materia Condensada

Universidad Zaragoza

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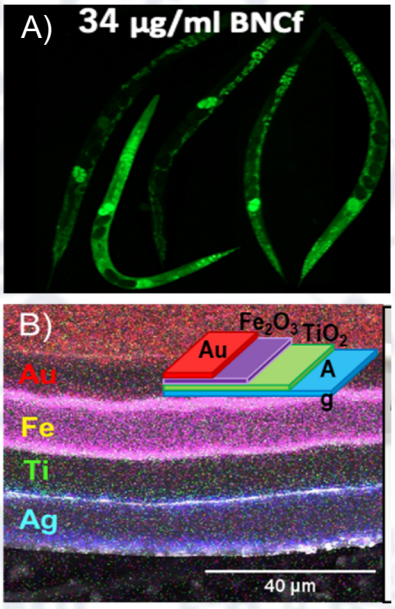
A biojourney to cellulose –nanoparticles hybrids: from biosynthesis to the evaluation on *C. elegans*.

Biobased composites with carefully tuned mechanical and functional properties are promising alternatives for developing next-generation biomedical implants. Biopolymers, such as cellulose, and its nanoscale form, nanocellulose, are sustainable, green materials for fabricating advanced composites.

This seminar showcases how to exploit nanotechnology and nature, combining bacterial cellulose (BC) with nanoparticles to develop innovative and novel stimuli-responsive materials. This approach allows the precise control of the composition and structure of the resulting biohybrid materials, expanding the range of properties and their potential applications. Additionally, the talk explores the biojourney of the BC from its biosynthesis down to its effects on the lipid metabolism of *C. elegans*.



A) Evaluation of the lipid lowering effect of BC using *C. elegans*.
B) Multilaminate BC composites

Anna is Dra. in Chemistry from the UAB (ICMAB-CSIC) with extensive international scientific experience. Her research is focused in the development of biocompatible biomaterials, based on cellulose and nanoparticles to create multifunctional materials that respond to a stimulus. The interaction of these materials is studied in 2D and 3D cells and with the small model organism C. elegans. The physical-chemical properties of these materials are optimized using economical biocompatible approaches with low economic impact. She actively participates in dissemination and technology transfer activities.

Con la colaboración de:

Facultad de Ciencias Universidad Zaragoza

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12 Abril (viernes)

HORA: 12:30

SALA DE GRADOS FACULTAD DE CIENCIAS