

Claudia Bazán Cobelo

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EDUCATION

Ph.D. in Environmental and Fundamental Chemistry <i>University of A Coruña (UDC), A Coruña, Spain</i> - Research line: Synthesis and Applications of Low-Dimensional Materials. - Supervisors: Dr. I. Jéniffer Gómez Pérez and Dr. Jessica Rodríguez Villar.	2025 – Present
M.Sc. in Chemical Research and Industrial Chemistry <i>University of A Coruña (UDC), A Coruña, Spain</i> Specialization: Biological Chemistry.	2023
B.S. in Chemistry <i>University of A Coruña (UDC), A Coruña, Spain</i>	2022

RESEARCH EXPERIENCE

Visiting Researcher A.J. Drexel Nanomaterials Institute, Drexel University <i>Department of Materials Science and Engineering, Philadelphia, PA, USA</i> <i>Funded by the INDITEX-UDC Predoctoral Mobility Grant (inMOTION program)</i> <i>Host: Prof. Yury Gogotsi</i> - MXene synthesis, processing and characterization. - Surface modification of MXene-based materials.	Sep 2026 – Dec 2026
Predoctoral Researcher CICA, University of A Coruña <i>NanoSelf and Metal4Bio research groups</i> - Synthesis, functionalization and physicochemical characterization of low-dimensional materials, including Carbon Dots and MoS₂, among others. - Development of heterostructures for environmental and biological applications. - Research activities in photocatalysis and multimodal biomedical imaging.	Mar 2025 – Present

PROFESSIONAL EXPERIENCE

Laboratory Technician Fellow Stellantis Vigo <i>Quality Control Department, Vigo, Spain</i> - Quality inspection of automotive paint and materials analysis. - Monitoring and control of the painting process and assessment of product quality.	Jan 2024 – Jan 2025
Undergraduate Laboratory Internship Hijos de Rivera S.L. <i>A Coruña, Spain</i>	Jun – Jul 2021

RESEARCH SKILLS

Nanomaterials Synthesis and Processing - Synthesis of 0D and 2D low-dimensional nanomaterials, including Carbon Dots and MoS₂, among others. - Surface modification and functionalization of nanomaterials. - Design and preparation of heterostructures.
Characterization Techniques - Ultraviolet-Visible spectroscopy (UV-Vis) - Fluorescence spectroscopy - Infrared spectroscopy (FTIR) - Dynamic light scattering (DLS) and zeta potential measurements - Transmission electron microscopy (TEM) - Atomic force microscopy (AFM) - Thermogravimetric analysis (TGA)

Research Applications

- Environmental remediation and sustainable applications.
- Biomedical applications and molecular imaging.

PUBLICATIONS

Oz, U. C.; Kucukturkmen, B.; Gómez, I. J.; Elsherbeny, A.; Ipek Tekneci, S.; Eşim, Ö.; Göksever, S.; Ozkose, U. U.; Gulyuz, S.; **Bazán-Cobelo, C.**; Yilmaz, O.; Ustundag, A.; Medalová, J.; Bozkir, A.; Zajíčková, L.; Er, E. Engineering two-in-one nanoparticles for simultaneous delivery graphene quantum dot and pemetrexed. *ACS Omega* 2025, 10, 48934–48947.

SELECTED PRESENTATIONS

- **A Modular Carbon Dot Platform for Multimodal Molecular Imaging.** Poster, Cellular Aging and Metabolism Symposium 2026, A Coruña, Spain, 20–22 Jul 2026.
- **Engineering Solar-Driven Systems for Sustainable Water Treatment through Low-Dimensional Materials.** Oral presentation, Research Seminar (CICA), A Coruña, Spain, 9 Apr 2026.
- **From Industrial Waste to Photocatalysts of the Future: Covalent CDs–MoS₂ Heterostructures for Solar Wastewater Purification.** Poster and talk, III Epifanio Campo Research Awards, Ferrol, Spain, 15 Jan 2026.
- **Eco-designed Nanomaterials for Efficient Wastewater Decontamination.** Elevator pitch, Emalcsa–UDC Chair Symposium, A Coruña, Spain, 4 Dec 2025.
- **When Carbon Learned to Shine: Carbon Dots and Their Unexpected Light.** Science communication talk, Happy Hour (CICA), A Coruña, Spain, 31 Oct 2025.
- **Engineering Organic-Inorganic Heterostructures Through Covalent Strategies.** Poster, XXI Symposium of Young Chemical Researchers, Zaragoza, Spain, 17–20 Nov 2025.

SCIENTIFIC ACTIVITIES

- **Peer Reviewer:** ACS Applied Nano Materials, American Chemical Society (ACS), 2026.
- **Social Media Team Member:** Pint of Science, A Coruña, Spain, 2026.
- **Scientific Jury Member:** CCK “inKrustado” Scientific Congress, A Coruña, Spain, 2026.
- **Specialized Training:** Synthesis, Processing, Characterization and Applications of MXenes, A.J. Drexel Nanomaterials Institute, 2026.
- **Specialized Training:** Advanced use of Malvern Panalytical Zetasizer Advance instruments, IESMAT, 2025.

SELECTED RESEARCH PROJECTS

- **ED431G-2023/09:** Accreditation, Structuring and Improvement of Research Centers of the Galician University System. Xunta de Galicia / CIGUS Network / European Union / FEDER. 2025–2027.
- **METALCHEF | PID2023-146174NA-I00:** Chemoselective Functionalization of Biomolecules Mediated by Metals. 2024–2027.
- **Carbon Dots as an Innovative Therapy for Ischemic Stroke:** Development and Technology Transfer Project, FINIBIC. 2025–2026.

GRANTS & FUNDING

INDITEX–UDC Predoctoral Mobility Grant | inMOTION Program

University of A Coruña

2026