

CICLO DE CONFERENCIAS

DEPARTAMENTO DE QUÍMICA ANALÍTICA

Miércoles 4 de junio de 2025, 11.00 h

Sala de Tesis (antigua capilla), Edificio A



Development of novel analytical methods and electrochemical sensors for the detection of environmental contaminants and bioremediation studies

Gregor Marolt, PhD

Assistant Professor of Analytical Chemistry
University of Ljubljana, Slovenia

Visiting Researcher

UCM, Universidad Complutense de Madrid, Spain



About the Speaker

Gregor Marolt, PhD is Assistant Professor of Analytical Chemistry at the University of Ljubljana, Slovenia

He stayed as Postdoctoral Researcher in UCSD, University of California, San Diego, USA (supervisor: Prof. Joseph Wang)

He also stayed as Visiting Researcher at the UCM, Universidad Complutense de Madrid, Spain, and in ASU Biodesign Institute, Arizona State University, USA.

Assessor of Accredited Laboratories SA - Slovenian Accreditation.

Scopus link: <https://www.scopus.com/authid/detail.uri?authorId=58128091600&origin=recordpage>.

About his conference

Particular focus will be given to current research projects and potential collaboration possibilities within his research fields, including fundamental voltammetry, development of electrochemical sensors (e.g. for the detection of pesticides, micro/nanoplastics), fabrication, pretreatment and modification/functionalization of carbon-based and gold screen-printed electrodes (SPEs), nanoengineering, and development of new analytical methods (laser ablation-ICP-MS, ion-exchange chromatography, spectroscopy, potentiometric titrations, and electroanalytical methods) for the investigation of microplastics, metal complexes with bio-relevant ligands, enrichment of nutritional value of flour, toxicology and bio-remediation studies (e.g. heavy metal and nanoplastics removal using medicinal fungi), and machine learning for foodstuff analysis, including authentication of honey origin via mineral profiling, wine analysis and development of “artificial sommelier”.