EFCE Spotlight Talks

Working Party on Electrochemical Engineering

29 October 2026

16:00-18:00 CET

EFCE

Electrochemical Engineering for Sustainable Wastewater Management: From Pollutant Removal to Resource Recovery

Electrochemical engineering is emerging as a powerful enabler of sustainable wastewater management, offering new pathways beyond conventional pollutant removal towards resource recovery and valorization. This webinar will explore how electrically driven processes can transform wastewater and waste streams into valuable products while reducing environmental impacts and supporting the transition to a circular economy. The first part will highlight the concept of electrorefineries, integrating electrochemical reactions, separations, and renewable electricity for sustainable chemical production. The second will address electrochemical organic waste reforming, coupling water purification with the conversion of organic matter into sustainable hydrogen. The final part will focus on selective electrochemical nutrient recovery from wastewater, enabling the production of valuable nutrient resources. Together, these approaches illustrate the potential of electrochemical engineering to integrate pollutant removal, chemical production, energy generation, and nutrient recovery within sustainable and circular wastewater systems.

PROGRAM

16:00	**Welcome and introduction** Karel Bouzek, Chair of the WP on Electrochemical Engineering Emmanuel Mousset, WP French Delegate, CNRS, GEPEA - France Boelo Schuur, EFCE Scientific Vice-President
16:10	**Electrorefineries: electrifying chemical refining for a circular and sustainable future** Manuel A. Rodrigo, University of Castilla-la-Mancha - Spain
16:45	**Electrochemical organic waste reforming for sustainable hydrogen production and water purification** Carlos Martinez-Huitle, Federal University of Rio Grande do Norte - Brazil
16:20	**Selective electrochemical recovery of nutrients from wastewater for a circular economy** William Tarpeh, Stanford University - USA
17:55	**Conclusion** Emmanuel Mousset, WP French Delegate, CNRS, GEPEA - France

REGISTRATION

free of charge but mandatory

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