Interfacial Bioelectrochemistry: Enzymatic NO and CO₂ Reduction and H₂ Evolution

Webinar Mon 8th September 12:00-13:00 UK time

This webinar presents electrochemical studies of key metalloenzymes relevant to environmental applications. We examine nitric oxide reductase (NOR) and formate dehydrogenase (FDH) for selective NO and CO₂ reduction, and [NiFe]-hydrogenase for H₂ evolution. By coupling enzymes to electrodes, we uncover mechanistic insights into electron transfer, catalytic onset, and mass-transport effects. These findings support the development of sustainable bioelectrocatalytic systems for NO abatement, CO₂ valorisation, and green hydrogen production.



Cristina M. Cordas, PhD in Biochemistry, 2007, FCT-NOVA. Currently, she is a Researcher at LAQV REQUIMTE, at Nova School of Science and Technology. Has 41 published papers in specialized peer-review journals, 4 book chapters, h = 13 and 457 citations (Scopus); 26 oral communications. Supervision of graduated/non-graduated students (1 PhD, 7 masters students, 14 u/grad final projects, 3 graduate research fellows) and 2 postdoc researchers. Scientific area is Chemistry with emphasis in (Bio)Electrochemistry.

This webinar is brought to you by EBNet's working group on Bioelectrochemical Systems for Environmental Biotechnology (BES WG), led by Dr Sharon Velasquez-Orta of Newcastle University.



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