



Dr. Benjamin Erable is a Research Director at the CNRS, affiliated with the Laboratory of Chemical Engineering in Toulouse, France. He earned his PhD in Enzymatic Engineering, Bioconversion, and Microbiology from the University of La Rochelle in 2005, focusing on bioprocesses for halogenated gas treatment. After his PhD, he expanded his expertise in electroactive biofilms through international collaborations, working on microbial fuel cells (MFCs) and pioneering technologies such as the microbial electrochemical snorkel and electrochemical tree. Since joining CNRS in 2010, his research has focused on understanding and engineering electron transfer between conductive materials and complex microbial biofilms. His contributions include work on microbial catalysis of the oxygen reduction reaction, porous stainless steel cathodes for floating MFCs, and microfluidic bioelectrochemical systems to control biofilm architecture and function. His current projects span electromethanogenesis, biohydrogen production from bulk microbial electrolysis, integration of microbial electrochemical technologies in biorefineries, and biogalvanic cathodic protection. He received the CNRS Bronze Medal in 2020 and currently serves as Chair of evaluation committees and Associate Editor of *Sustainable Energy Technologies and Assessments*. He has a strong record in mentoring and research training, having supervised over 25 Master's and undergraduate students, 15 PhD theses, with 8 additional PhD projects ongoing or starting in 2026, as well as 12 post-doctoral researchers. His scientific leadership is reflected in the coordination or management of more than 25 research contracts. His research output includes over 100 peer-reviewed international publications, 11 patents, 4 scientific awards, 4 book chapters, and more than 120 oral communications, including 15 invited lectures.

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