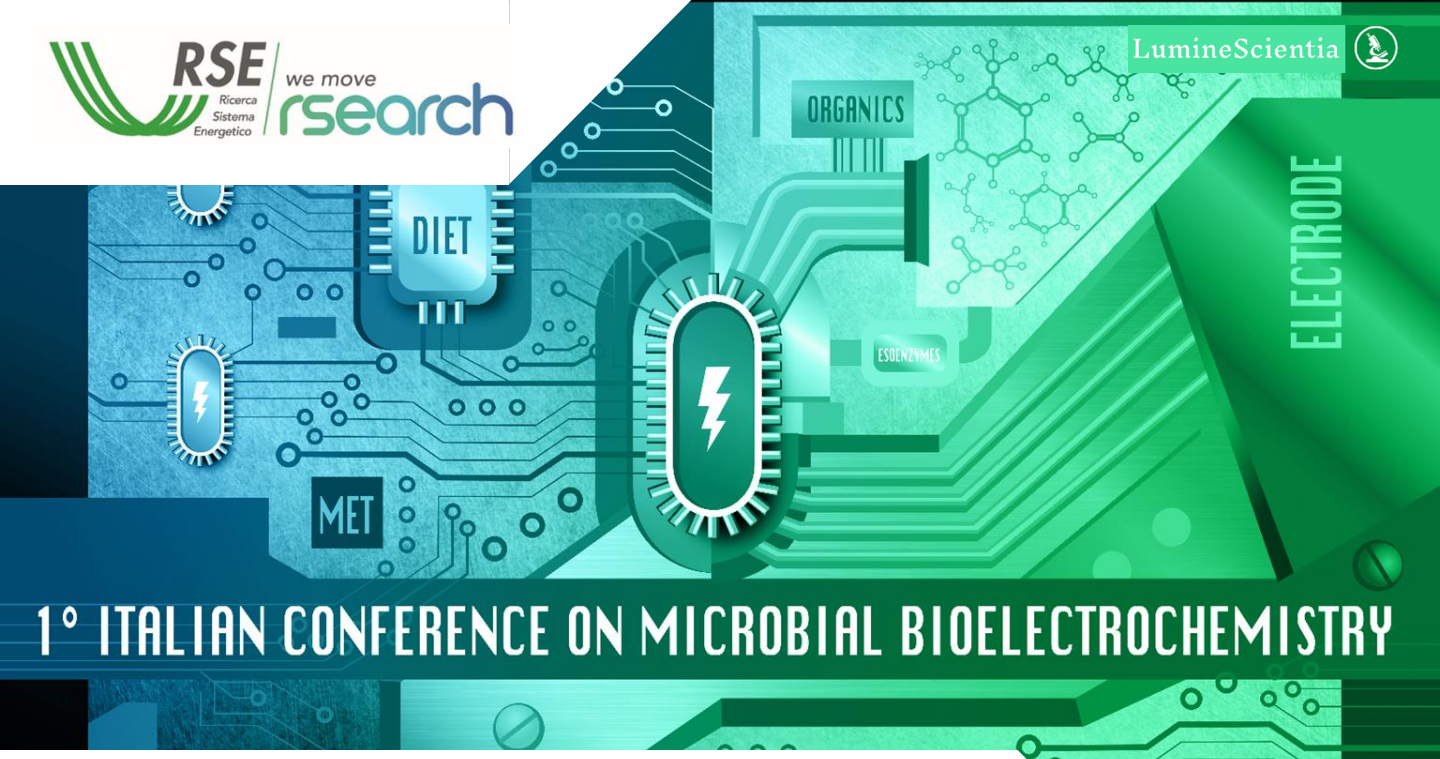
RSE we move rsearch
Ricerca Sistema Energetico

LumineScientia



1° ITALIAN CONFERENCE ON MICROBIAL BIOELECTROCHEMISTRY

26-27 February 2026

Ricerca sul sistema Energetico - RSE
Auditorium - Via Rubattino 54, Milano

This event is intended as the **first gathering for the Italian community working in microbial bioelectrochemistry**, with the goal of fostering discussion on key national research topics: bioelectrochemical systems for energy and biofuels, water and soil remediation, metal and alloy corrosion, as well as other scientifically and practically relevant themes. The conference aims to become a **reference point for tackling the field's multidisciplinary challenges** by promoting collaboration and active participation. The program features a **round-table discussion, oral presentations, and poster sessions** to encourage dialogue and spark new synergies within the scientific community.

Free participation upon registration at the **dedicated link**, until all spots are filled.

Abstract submission for oral and poster presentations: submit via the indicated link by **January 30, 2026**

The six best posters will be awarded a **prize of €500** each, sponsored by ISE, BES, CISE2007, and the University of Milan-Bicocca

Funded by the European Union
NextGenerationEU

PCR H_2

The conference is part of the research activities carried out within the framework of the National Recovery and Resilience Plan (PNRR) – Mission 2, Component 2, Investment 3.5 'Research and development on hydrogen', funded by the European Union – Next Generation EU, and implemented in accordance with the Research Operational Program (POR) approved by the Ministry of Ecological Transition on 27 June 2022.

SPONSORS:

PATRONAGE:

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Program

26/02/2026

14:30 – 15.00	*Welcome greetings and introduction by RSE (Prof. Franco Cotana, Ing. Michele de Nigris, Dr. Pierangela Cristiani)*
15:00 – 15.45	*Contribution on the experience in Germany (prof. Miriam Rosenbaum) and Spain (prof. Abraham Esteve Nunez)*
15.45 – 16.15	*Round table: perspectives of microbial bioelectrochemistry for industry and academia in Italy*
16.15 – 18.30	*Poster session and awards*
20.00	*Social dinner*

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9.00 – 17.00	*Presentations (15 min each, including questions)*
17.00 – 17:30	*Discussion and closure*

Scientific Committee

Pierangela Cristiani (*RSE, Milano*), **Carlo Santoro** (*Università degli Studi di Milano-Bicocca*), **Andrea Franzetti** (*Università degli Studi di Milano-Bicocca*), **Marianna Villano** (*Università La Sapienza, Roma*), **Matteo Grattieri** (*Università di Bari*), **Stefano Trasatti** (*Università degli Studi di Milano*), **Fabrizio Adani** (*Università degli Studi di Milano*), **Lucia Cavalca** (*Università degli Studi di Milano*), **Federico Aulenta** (*IRSA-CNR, Roma*), **Matteo Tucci** (*IRSA-CNR, Roma*), **Carolina Cruz Viggi** (*IRSA-CNR, Roma*), **Domenico Borello** (*Università La Sapienza, Roma*), **Marco Zeppilli** (*Università La Sapienza, Roma*), **Antonella Marone** (*ENEA, Casaccia*), **Barbara Mecheri** (*Università di Roma 2*), **Rosa Nastro** (*Università Napoli Parthenope*), **Paolo Dessì** (*Università di Napoli Federico II*), **Andrea Capodaglio** (*Università di Pavia*), **Leonardo Iannucci** (*Politecnico di Torino*), **Sabrina Grassini** (*Politecnico di Torino*), **Giorgia Ghiara** (*Politecnico di Torino*), **Matteo Daghio** (*Università di Firenze*), **Alessandra Adessi** (*Università di Firenze*), **Francesco Valentino** (*Università di Venezia*) **Lorenzo Cristiani** (*Leibniz - HKI Jena, DE*), **Daniele Molognoni** (*LEITAT, Barcellona, ES*), **Ruggero Rossi** (*University of Baltimore, Maryland, USA*), **Silvia Bolognesi** (*Università di Girona, ES*).

Oral presentations

27/02/26

09:00 – 09:15	**OPENING CEREMONY**	
09:15 – 09:30	**Stefano Freguia** (University of Melbourne)	Bioelectrochemical sensing of cyanobacteria
09:30 – 09:45	**Matteo Grattieri** (Università degli Studi di Bari Aldo Moro)	Bacteria-based Semi-Artificial Photosynthesis for Solar Fuels, Current Generation, and Self-Powered Biosensors
09:45 – 10:00	**Enrico Marsili** (University of Nottingham Ningbo China)	Electrogenetics of Bacillus subtilis for tunable production of high-added value biochemicals
10:00 – 10:15	**Opeyemi Temitope Otemoye** (University of Nottingham Ningbo China)	Real-time, label-free electrochemical technique for detection and quantification of early biofilm
10:15 – 10:30	**Chiara Capelli** (Università degli studi di Firenze)	Electrode potential as a metabolic switch: genomic insights into simultaneous hydrogen, PHB, and biomass production by *Rhodopseudomonas palustris* 42OL
10:30 – 10:45	**Rosa Nastro** (Università degli Studi di Napoli Parthenope)	Adaptive Laboratory Evolution (ALE) for the bioelectrosynthesis of Multicarbon Organic Compounds from HCO_3^- by exploiting Cupriavidus necator metabolism.
10:45 – 11:00	**Sarah Zecchin** (Università degli Studi di Milano)	Microbial extracellular electron transfer in the environment: Potential role in arsenic dynamics in rice field soil
11:00 – 11.15	**COFFEE BREAK**	
11:15– 11:30	**Daniele Moraschini** (Politecnico di Milano)	Monitoring Bioelectrolysis systems by Distribution of Relaxation Times elaboration of Electrochemical Impedance Spectroscopy data
11:30– 11:45	**Arianna Callegari** (Università di Pavia)	Bioelectrochemical enhancement of anaerobic sludge digestion
11:45 – 12:00	**Matteo Tucci** (CNR - IRSA)	First Evidence of Naturally-Occurring Electric Fields in Biofilms Documented in Anammox Granules
12:00 – 12:15	**Daniele Molognoni** (Leitat Technological Center)	Accelerating anaerobic digestion through bioelectrochemical systems integration: the AD-BES technology
12:15 – 12:30	**Clara Marandola** (Sapienza Università di Roma)	Enhancing In-Situ Biomethane Production: A Comparative Analysis of Electrochemical Configurations in AD-MEC Systems
12:45 – 13:00	**Paolo Dessi** (Università degli studi di Napoli Federico II)	Development of gas diffusion electrode – microbial electrosynthesis (GDE-MES) cells for CO_2 reduction: computational fluid dynamics modelling and experimental verification
13:00 – 14.15	**LUNCH**	
14:15 – 14:30	**Mirella Di Lorenzo** (University of Bath)	Exciting perspectives in Soil Microbial Fuel Cell research and routes to practical implementations
14:30 – 14:45	**Giorgio De Checchi** (Universite des Antilles)	Pyrolised Melamine Foam with adsorbed CNTs as 3D anodes for BES
14:45 – 15:00	**Giorgia Ghiara** (Politecnico di Torino)	Phenazines as Redox Mediators: How Determinant Are They in Microbiologically Influenced Corrosion of pure iron?
15:00 – 15:15	**Gaia Salvatori** (Sapienza - Università di Roma)	Electrochemical Characterization of a Digestate-Fed Bioanode in a Continuous-Flow Microbial Electrolysis Cell for Hydrogen Production
15:15 – 15:30	**Ruggero Rossi** (Johns Hopkins University)	Engineering Reactors for Microbial Electrocatalysis
15:30 – 15:45	**Marco Zeppilli** (Sapienza - Università di Roma)	Development and validation of Bioelectrochemical processes for the Remediation of groundwater contaminated by chlorinated aliphatic hydrocarbons: from proof of concept to pilot-scale application
15:45 – 16:00	**COFFEE BREAK**	
16:00 – 16:15	**Geremia Sassetto** (Sapienza - Università di Roma)	Resilience and Adaptation of a Bioelectrochemical System to Cr(VI) during TCE Dechlorination
16:15 – 16:30	**Guehaz Karima** (Università di Firenze)	Screening of Redox Mediators for Improved Electron Transfer in *Rhodopseudomonas palustris* 42OL-Driven Photobio-cathodes
16:30 – 16:45	**Lorenzo Cristiani** (Leibniz-HKI)	Why Make Acetate or methane When You Can Make Ectoine? A Value-Driven Bioelectrochemical Platform Using *Halomonas elongata*
16:45 – 17:00	**Gabriella Caucia** (Università degli Studi di Milano Bicocca)	Harnessing Geothermal Soils for CO_2 Bioelectrochemical Reduction
17:00 – 17:30	**DISCUSSION - CLOSURE**	