# Special Issue

# Recent Advances in Fuel Cells: Materials, Simulation, and AI-Based Applications

## Message from the Guest Editors

Recent advances in fuel cell and microbial fuel cell technologies have enabled enhanced control of electrochemical and bioelectrochemical processes, fostering progress in fundamental research, device miniaturization, and practical applications. The integration of computational fluid dynamics (CFD), multiphysics simulation, and artificial intelligence provides powerful tools to analyze transport phenomena, reaction kinetics, and coupled electrochemical, bioelectrochemical, fluidic behavior, enabling performance prediction, optimization, and intelligent control of advanced energy systems. This Special Issue focuses on experimental, numerical, and data-driven studies addressing energy conversion and sustainability in fuel cells and microbial fuel cells. The aim of this Special Issue is to showcase recent advances that combine experiments, simulation, and artificial intelligence to improve energy conversion efficiency, system reliability, and sustainability.

## Guest Editors


Prof. Dr. Juan Manuel Olivares Ramírez
Department of Chemical and Renewable Energy, Universidad Tecnológica de San Juan del Río, San Juan del Río 76800, Mexico

Dr. Omar Rodríguez-Abreo
Facultad de Ingeniería, Universidad Autónoma de Querétaro, Santiago de Querétaro 76010, México


## Deadline for manuscript submissions

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
processes@mdpi.com

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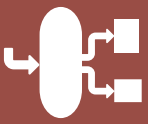

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Prof. Dr. Giancarlo Cravotto
Department of Drug Science and Technology, University of Turin, Via P. Giuria 9, 10125 Turin, Italy

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