



Sustainable Electrochemical Materials and Processes

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Message from the Guest Editors

Dear Colleagues,

Climate change is causing an increase in floods, drought, wildfires, and hurricanes. Over the past 50 years, climate- and weather-related disasters have surged five-fold. By 2050, climate change could cut the world economy by \$23 trillion. Our climate challenge is largely an energy challenge, as energy accounts for over 66% of global greenhouse gas emissions. Industrial processes, such as the Haber–Bosch process (for producing nitrogen fertilizers), alone account for 1.4% of global CO₂ emissions and consume 1% of the world's total energy production. Chemistry and materials science are key to building a sustainable circular economy by utilizing renewable energy, designing zero-waste reactions, maximizing energy efficiencies and lifecycles, and developing functional materials. This Special Issue will include original research in sustainable electrochemistry.

Research articles in this Special Issue will not only demonstrate advancements in developing electrochemical materials and processes, but will show how they contribute to solving energy and climate challenges.





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Message from the Editor-in-Chief

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