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Selective Catalysis for the Sustainable Energies

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Message from the Guest Editors

This is a Special Issue focused on the advances in the development of materials and systems for the selective production of value-added chemicals by electrocatalysis. This call includes both experimental and computational strategies to improve the overall performance of the catalytic reactions (reaction rate, product selectivity, durability, energy efficiency) by optimizing the physicochemical properties of reaction components (catalyst, electrolyte, membrane), operating conditions, and reactor design. We are particularly interested in displacing petrochemical-derived production of chemicals with electrocatalysis powered by clean energy. We highly encourage submissions on the development of catalysts and systems for green hydrogen and ammonia production, CO₂ and CO reduction, biomass conversion, and upgrading of hydrocarbons to high-value chemicals at industrial conditions.

Deadline for manuscript submissions: closed (31 July 2022)



