



Innovative Electrocatalysts for Fuel Cell and Battery Applications

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Message from the Guest Editor

The development of sustainable energy systems is vitally essential to hinder global warming and environmental pollution emergencies. Fuel cells and batteries have undoubtedly emerged in the last decades as the most promising technologies for stationary, portable, and automotive applications. Their large-scale commercialization is closely related to the research of innovative electro-catalysts able to achieve efficient, durable, and low-cost energy conversion and storage, with a low environmental impact. Particularly, for polymer electrolyte membrane fuel cells and their subcategories, platinum scarcity, their high cost and low tolerance to alcohol crossover have led to the requirement of alternative materials catalyzing both the oxygen reduction and fuel oxidation reactions, both in acid and alkaline environment. Further optimization could be address reliability and durability, required by the market, under critical temperature and relative humidity conditions.

