

Special Issue

Electrocatalysts Based on Composites of Transition Metals and Reduced Graphene Oxide

Message from the Guest Editors

Future progress in western society strongly depends on the development of alternative energy sources. In the case of electrochemical energy devices, significant improvements require the development of novel electrocatalysts. The high price of precious metals, their limited sources and even impeded activity in alkaline environments have inspired research into substitutes. In this context, reduced graphene oxide is already recognized as an excellent supporting material for different electrocatalysts. Apart from its supportive role, it participates actively in the mechanism of hydrogen evolution reaction and significantly improves the electrocatalytic activity of transition metals towards this reaction. Furthermore, graphene oxide possesses unexpected inherent redox activity and astonishing chemical reversibility. In this context, findings regarding the synthesis, characterization, modeling, and mechanisms of the electrocatalytic reactions of novel electrocatalysts based on reduced graphene oxide and transition metals represent the focus of this Special Issue.

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