

## Special Issue

# Efficient PGM Electrocatalysts for Hydrogen Evolution Reaction

### Message from the Guest Editor

The expression “hydrogen economy” was introduced half a century ago to describe a scenario in which the main energy carrier is hydrogen, offering innumerable environmental benefits, a secure energy supply, and a global economy. Platinum is the state-of-the-art electrocatalyst for HER, followed by other platinum group metals (PGMs). The superior catalytic activity of PGMs towards HER is a consequence of optimal hydrogen intermediate species binding energy, which, according to the Sabatier’s principle, must be neither too strong nor too weak. As PGMs are scarce and expensive, reaching economically feasible and sustainable usage of PGM catalysts must be achieved. This primarily implies development of active and stable catalysts with reduced PGM loadings. This Special Issue aims to collect contributions concerned with recent advances in research on efficient PGM-based electrocatalysts for hydrogen evolution reactions. These include, but are not limited to, fundamental studies on model PGM catalysts, synthesis and characterization of advanced nanoparticle-based PGM catalysts, and the current state of research on novel PGM single atom catalysts.

### Guest Editor

Dr. Milutin Smiljanić

Department of Materials Chemistry, National Institute of Chemistry, Hajdrihova 19, POBox 660, SI-1001 Ljubljana, Slovenia

### Deadline for manuscript submissions

closed (31 July 2023)



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Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[catalysts@mdpi.com](mailto:catalysts@mdpi.com)

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