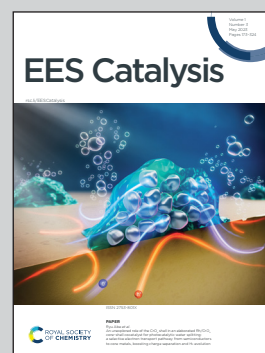


Showcasing research on electrochemical activity switching of exsolution catalysts from the Research Group for Electrochemical Energy Conversion at TU Wien, Austria.

Exsolved catalyst particles as a plaything of atmosphere and electrochemistry

Exsolution is a novel technique for creating highly active and stable oxide-supported metal catalysts *via* the intentional partial decomposition of a perovskite-type parent oxide. If the parent perovskite is a mixed conducting electrode in a solid oxide cell, the exsolved particles can be switched between a metallic and an oxidic state by applying a bias voltage, providing unprecedented opportunities for catalysis. In this work, the electrochemical activity switching is mechanistically explained by the effective chemical potential of oxygen in all three involved phases.

As featured in:



See Harald Summerer *et al.*,
EES. Catal., 2023, 1, 274.