

Environmental Science journals

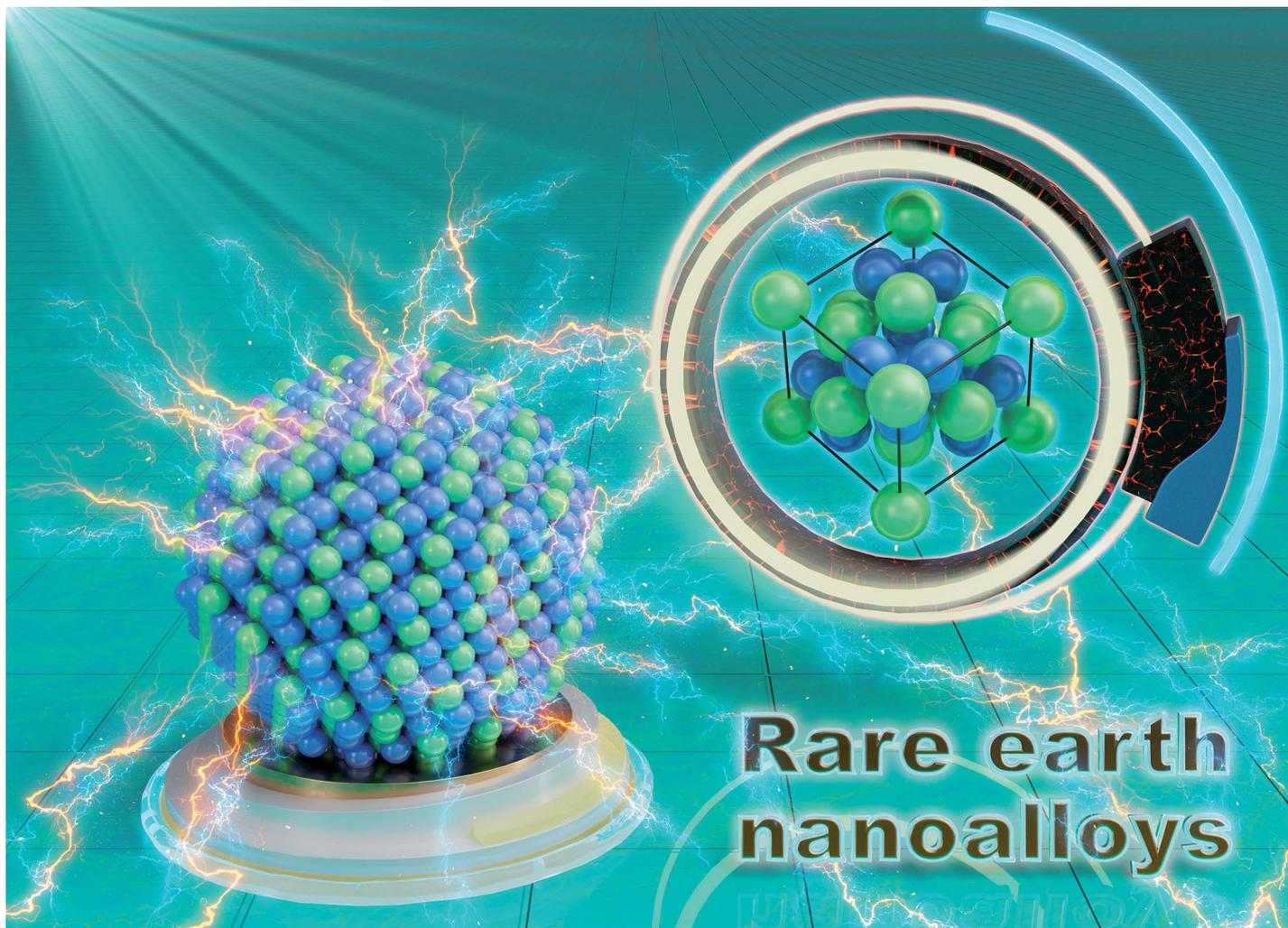
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Fundamental questions
Elemental answers





Rare earth nanoalloys

Showcasing research from Professor Yaping Du's laboratory, Center for Rare Earth and Inorganic Functional Materials, Nankai University, Tianjin, China.

Laves phase Ir_2Sm intermetallic nanoparticles as a highly active electrocatalyst for acidic oxygen evolution reaction

Rare earth alloys are significant for fundamental explorations and promising for practical applications. Herein, Ir_2Sm nanoparticles were synthesized as acidic oxygen evolution reaction catalysts. Ir_2Sm alloy with ordered atomic arrangement is a new phase belonging to the C15 cubic MgCu_2 -type in the Laves phase family. Alloying Sm with Ir atoms modulates the electronic nature of Ir, thereby enhancing the oxygen evolution reaction activity. This study provides a new perspective on the rational design and practical application of high-performance rare earth alloy catalysts.

As featured in:



See Yaping Du *et al.*,
Chem. Sci., 2023, **14**, 5887.