Showcasing research from Professor Zhiping Luo's laboratory, Fayetteville State University, North Carolina, USA.

Computational–experimental assessment of transition-metal doping of Co_3O_4 for acidic oxygen evolution reaction with balanced activity and stability

Density-functional theory (DFT) screening of fourth-row transition-metal-doped Co_3O_4 for acidic OER establishes joint activity–stability descriptors and identifies chromium as an optimal dopant balancing performance and durability. Guided by computation, experiments on Cr-doped samples validated the dopant's high activity and stability. This work offers a broadly applicable strategy to discover effective dopants for oxide OER catalysts in acidic media.

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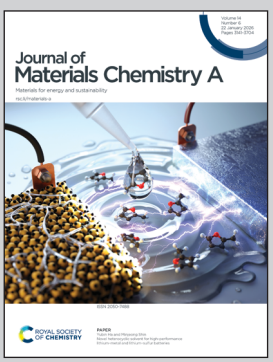

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