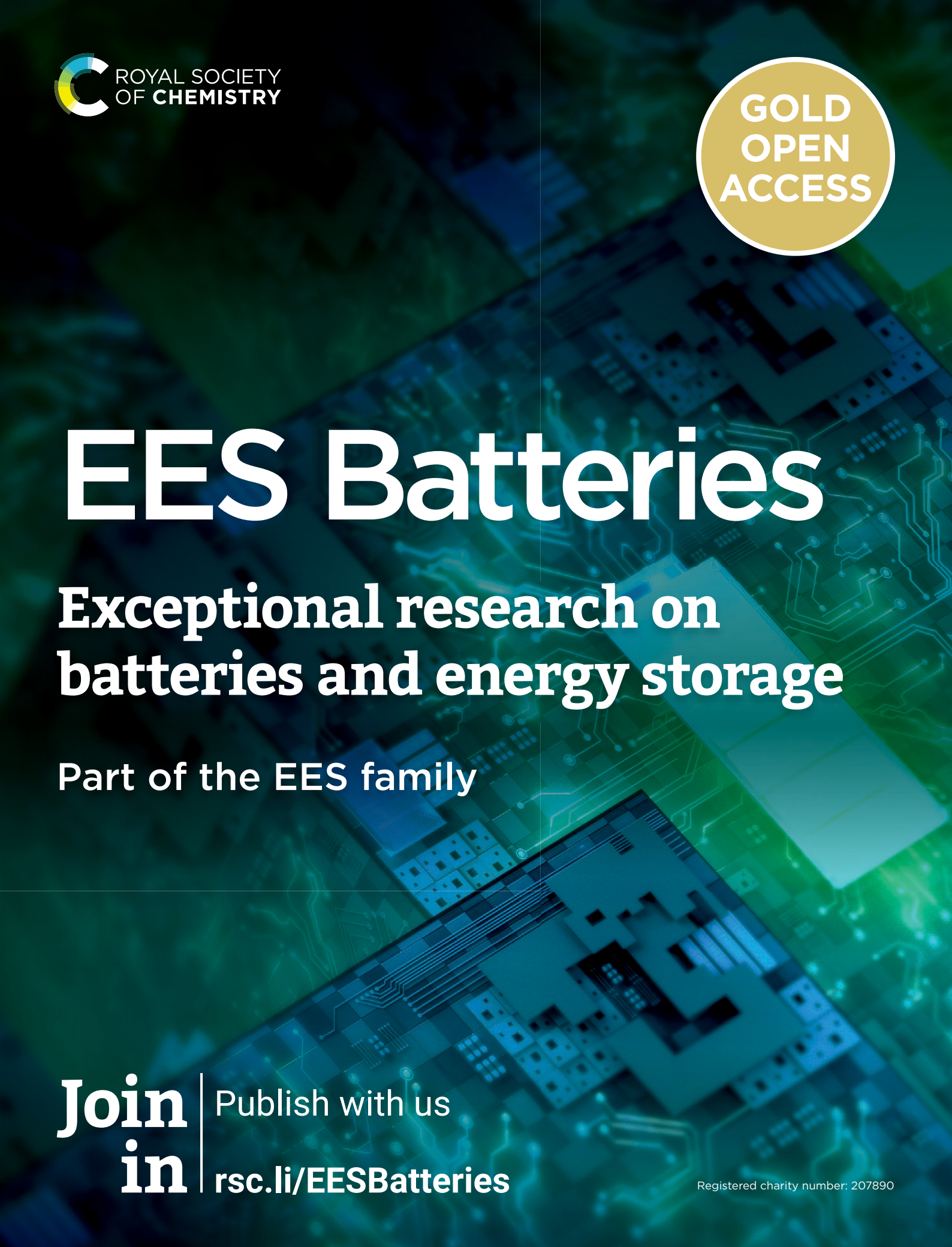
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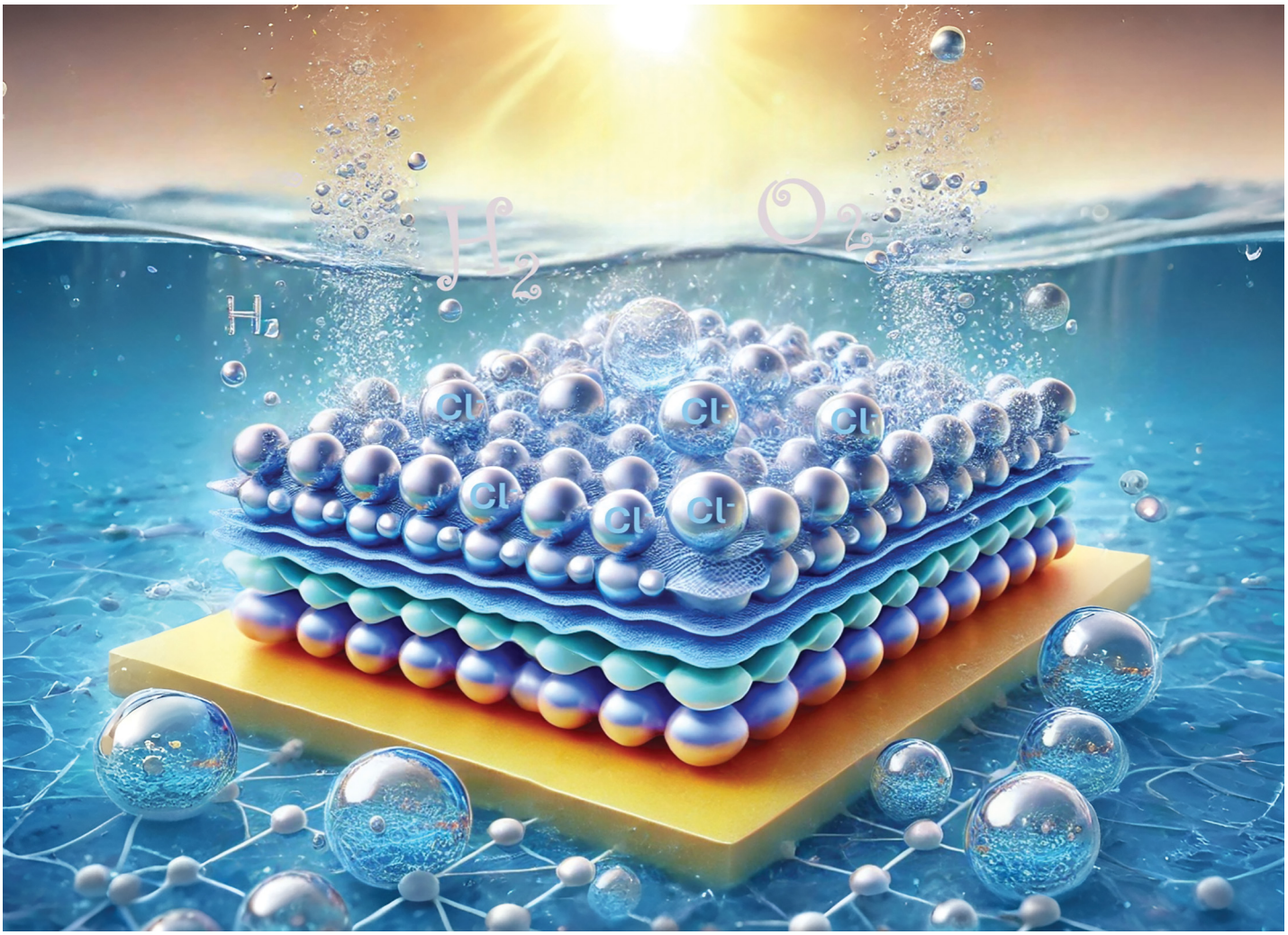

Showcasing research from Professor Song's laboratory, Department of Energy Engineering, Hanyang University, Seoul, Republic of Korea.

Tailoring the electronic structure of an exfoliated layered double hydroxide using a lanthanide for chloride-ion blocking in seawater splitting

Seawater is a widely available source of hydrogen in our environment, possessing significant potential for hydrogen generation. The chloride ion is the primary component in seawater splitting, as it can hinder the active site responsible for *OH adsorption. Consequently, it became imperative to inhibit the chloride ion from reaching the active site. We employed the concept of Lewis acidity for the inhibition of the chloride ion. The Lewis acidity of Ni^{2+} and Fe^{3+} ions is augmented by Ce doping *via* electronic manipulation.

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As featured in:

See Chan-Yeup Chung, HyukSu Han, Taeseup Song *et al.*, *EES Catal.*, 2025, **3**, 435.

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