

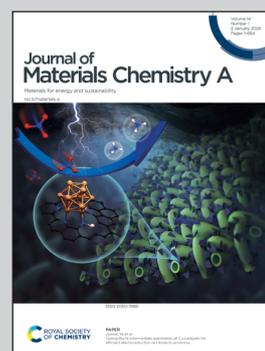
Showcasing research from Hiroki Wago, Prof. Shigenori Mitsushima, and Prof. Yoshiyuki Kuroda from Graduate School of Engineering Science, Yokohama National University, Japan.

Nanostructural design of flexible mesoporous hydrogel electrodes *via* colloidal electrochemical deposition for highly efficient oxygen evolution reaction

We present flexible mesoporous hydrogel electrodes that efficiently catalyze the oxygen evolution reaction in alkaline water electrolysis. These electrodes are fabricated *via* colloidal electrochemical deposition of hybrid cobalt hydroxide nanosheets. The unique mesoporous structure, enclosed by flexible nanosheets, enhances oxygen mass transport, achieving higher current densities and paving the way for sustainable hydrogen production.

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See Yoshiyuki Kuroda *et al.*, *J. Mater. Chem. A*, 2026, **14**, 414.