



Showcasing research from Professor Jun Hyuk Moon's laboratory, Department of Chemical and Biomolecular Engineering, Sogang University, Seoul, Republic of Korea.

Boosting electrochemical methane conversion by oxygen evolution reactions on Fe-N-C single atom catalysts

This article presents a novel electrochemical approach for direct methane-to-ethanol conversion using Fe-N-C single atom catalysts. The catalysts can retain active oxygen species without activating oxygen evolution reaction, thus enhancing both the Faraday efficiency for conversion and the ethanol production. The article also demonstrates continuous methane conversion using a flow cell with a gas diffusion electrode. Our approach offers a promising solution for energy-efficient and high-value-added utilization of methane resources.

As featured in:



See Jun Hyuk Moon *et al.*,
Energy Environ. Sci., 2023, **16**, 3158.