

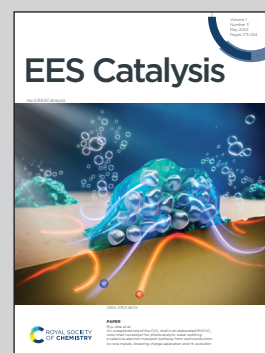


Showcasing research from Professor Csaba Janáky's laboratory, Institute of Chemistry, University of Szeged, Hungary.

Local hydrophobicity allows high-performance electrochemical carbon monoxide reduction to C_{2+} products

Production of CO through CO_2 reduction seems to be feasible even at pilot-scale, but the selective production of high-value multi-carbon products is challenging. CO reduction is a possible second step in the cascade electrochemical valorisation of CO_2 , although the low solubility of CO poses notable challenges. In this study, the microenvironment of Cu catalyst particles was tailored by incorporating a pore sealer polymer in the catalyst layer that was formerly unknown for this community. This allowed the high rate electroreduction of CO to C_{2+} products with above 70% Faradaic efficiency.

As featured in:



See Balázs Endrődi,
Csaba Janáky *et al.*,
EES. Catal., 2023, 1, 263.