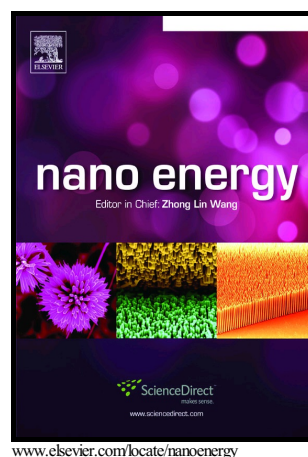


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Xiuzhen Zheng^{a,b}, Jin Han^a, Yu Fu^a, Yue Deng^a, Yangyang Liu^a, Yang Yang^a, Tao Wang^a, Liwu Zhang^{a,c,}*

^aShanghai Key Laboratory of Atmospheric Particle Pollution and Prevention, Department of Environmental Science and Engineering, Fudan University, Shanghai, 200433, P. R. China

^bCollege of Chemistry and Material Science, Huaibei Normal University, Anhui Huaibei 235000, P. R. China

^cShanghai Institute of Pollution Control and Ecological Security, Shanghai, 200092, Peoples' Republic of China

*zhanglw@fudan.edu.cn.

Abstract

Electrochemical reduction of CO₂ to fuels is a promising way to reduce CO₂ emission and address the environment and energy crisis. However, the H₂ evolution reaction competes with CO₂ electrochemical reduction, which would lower the overall efficiency for carbonaceous products. In this work, a new electrocatalyst (cubic-shaped Cu inverse opals) was reported to reduce CO₂ to useful chemicals, which was synthesized from an electrochemical reduction of Cu₂O inverse opals. The Cu inverse opals could electrochemically reduce CO₂ to CO and HCOOH with a Faradaic

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