

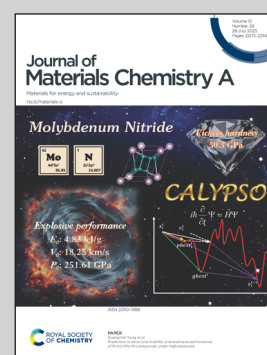
Showcasing research from Professor Zhenguo Li's laboratory, National Engineering Laboratory for Mobile Source Emission Control Technology, China Automotive Technology & Research Center Co., Ltd, Tianjin, China.

Gram-scale production of an Fe single atom catalyst and mass transfer enhancement in PEMFCs

A ZIF-derived Fe single atom catalyst is designed for oxygen reduction reaction in fuel cell. The maximum power density can reach 803 mW cm⁻² with only 1.2 mg cm⁻² Fe-based catalyst in cathode, due to the large specific surface area, high density of Fe single atoms and collaborative optimization of gas diffusion layer and catalyst layer. Furthermore, the simple synthesis process and excellent catalytic activity leads to the possibility of commercial application.

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