

Zn/Co-MOFs DERIVED HIGH PERFORMANCE ELECTRODES FOR ELECTROCATALYSIS AND HYBRID SUPERCAPACITOR

by *Hong Zhang*

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Abstract

Extensive research conducted in recent years has shown that MOFs are exceptionally good precursors for a large variety of nanohybrids as the active materials applied in electrocatalysis and electrochemical energy storage. However, of the large pool of known MOFs, very few of them have been properly studied as precursors for free-standing nanoelectrodes of varying structures and morphologies, which has great potential for electrocatalysis and flexible energy storage devices. In this work, Zn/Co-MOFs derived self-supported metal-carbon, metal compound-carbon and mesoporous carbon hybrid nanoarrays were developed by tuning the various composition and processing conditions, and their electrochemical performance for water-splitting, flexible solid-state rechargeable Zn-air battery and flexible Zn ions hybrid supercapacitor were investigated.

Speaker *Hong Zhang*

Biography

Mr. Hong Zhang is now a PhD student in department of Materials Science & Engineering under Prof. John Wang, and his co-supervisor is A/P Xie Jianping from Department of Chemical and Biomolecular Engineering, NUS. He received the master's degrees of materials science and engineering from Tianjin University, China in 2015. His present research interest focuses on electrocatalysis and electrochemical energy storage.

ALL ARE WELCOME!

A/P Xue Jun Min Host