



Showcasing research from a collaboration between Professor Hongzhen Lin's laboratory (Suzhou Institute of Nano-tech and Nano-bionics, Suzhou, China) and Dr Jian Wang (Karlsruhe Institute of Technology, Helmholtz Institute Ulm)

Self-tandem catalysis of fast Mg^{2+} desolvation and sulfur conversions for ultrahigh-performance Mg-S batteries via serially-assembled atomic reactors

In this work, Dr Jian Wang, Prof. Shuangyin Wang and Prof. Hongzhen Lin propose for the first time the concept of tandem catalysis (the two gearwheels) in Mg-S battery. By adopting train-like assembled atom reactors on long conductive nanocarbon (STAR@LCNC) as a catalyst, the barriers of Mg^{2+} desolvation and sulfur/polysulfide conversions are dramatically reduced, yielding much improved kinetics and hence a record-high electrochemical performance of Mg-S battery.

As featured in:



See Jian Wang, Shuangyin Wang, Hongzhen Lin *et al.*, *Energy Environ. Sci.*, 2024, **17**, 3765.