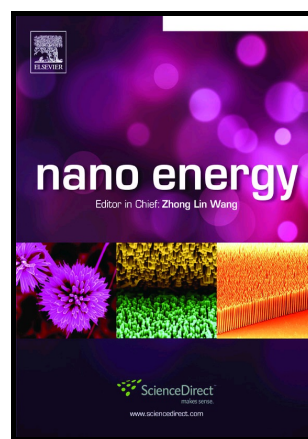


## Author's Accepted Manuscript

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# Well-elaborated, mechanochemically synthesized Fe-TPP $\subset$ ZIF precursors (Fe-TPP = tetraphenylporphine iron) to atomically dispersed iron–nitrogen species for oxygen reduction reaction and Zn-air batteries

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## ABSTRACT:

Although atomically dispersed Fe-N species as electrocatalysts often exhibit high activity for oxygen reduction reaction (ORR), the rational design and facile fabrication of single-atom Fe-N species-based catalysts remains a great challenge because of their easy aggregation. Herein, a new precursor of host-guest Fe-TPP $\subset$ *rho*-ZIF (Fe-TPP = tetraphenylporphyrin iron;

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