

## Supporting information

# Confined Space Assisted Preparation of Fe<sub>3</sub>O<sub>4</sub> Nanoparticles Modified Fe-N-C Catalysts derived from Covalent Organic Polymer for Oxygen Reduction

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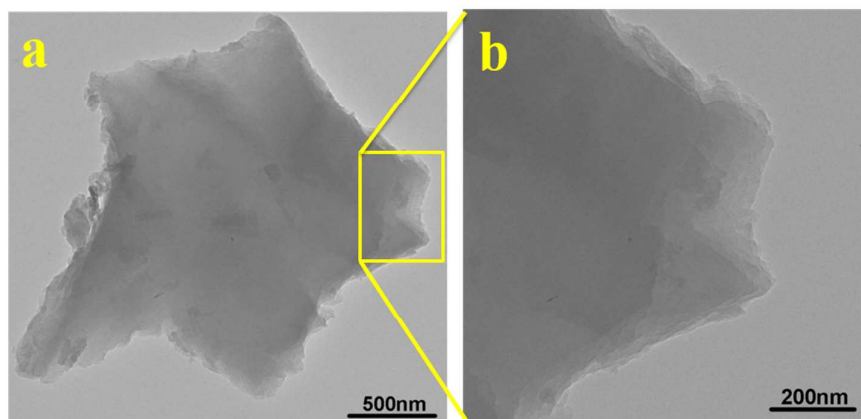
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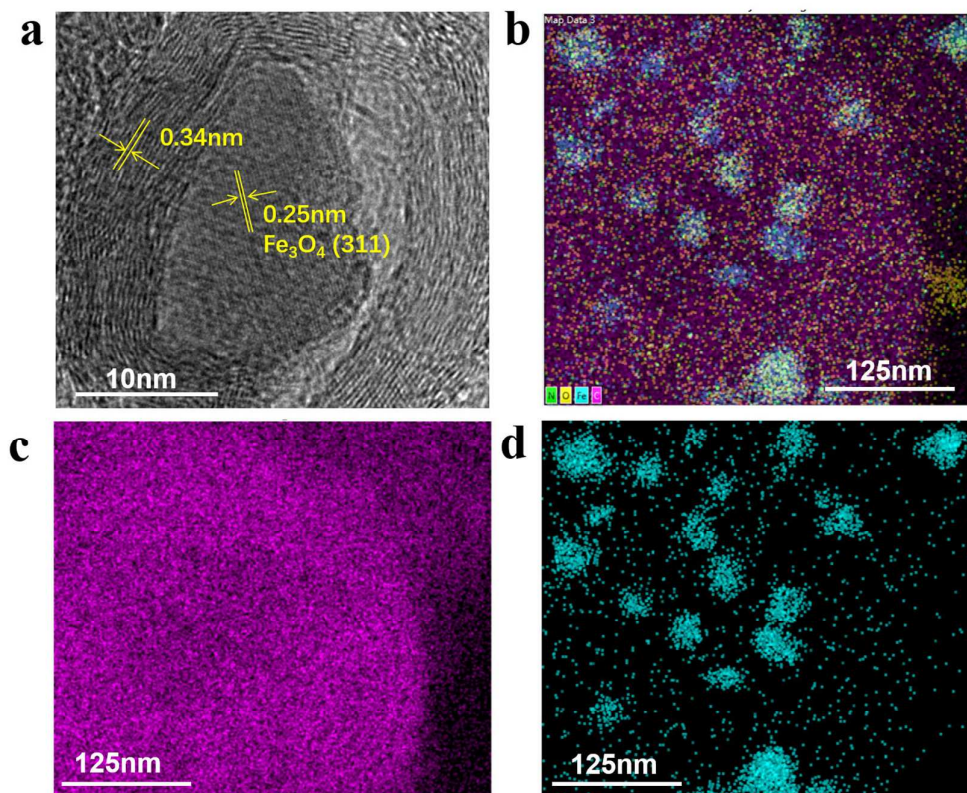
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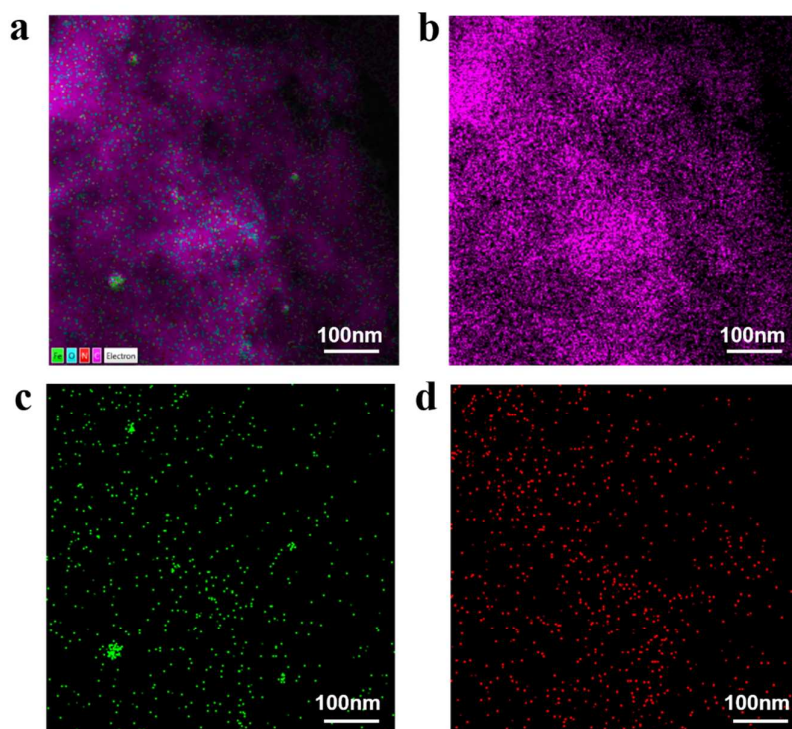
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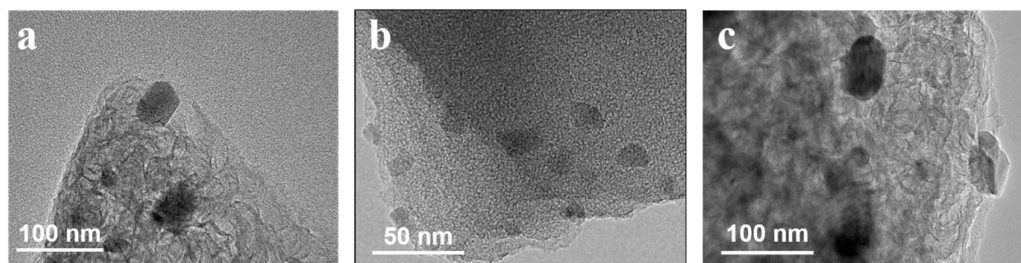
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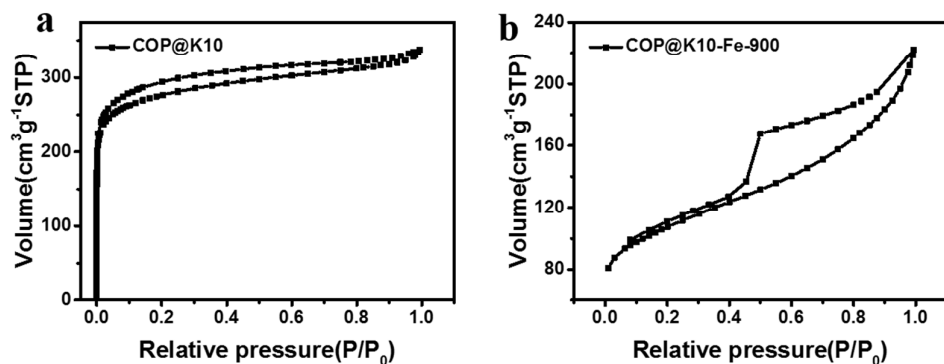
**Figure S2.** (a) HRTEM image of COP@K10-Fe-900, (b-d) EDX-mapping of total, C and Fe elements from HAADF-STEM image of COP@K10-Fe-900.



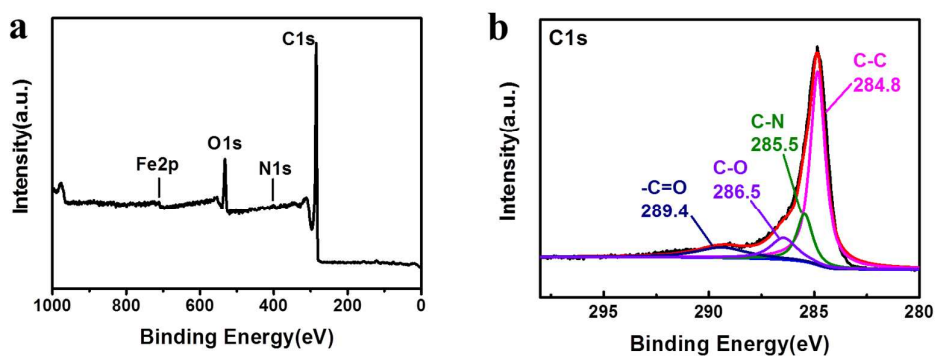
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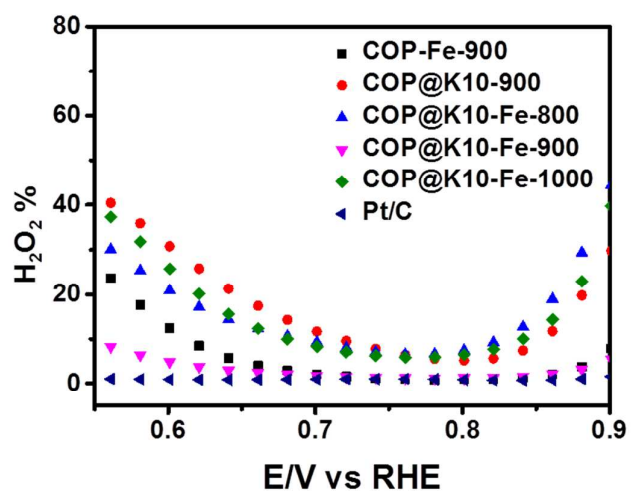
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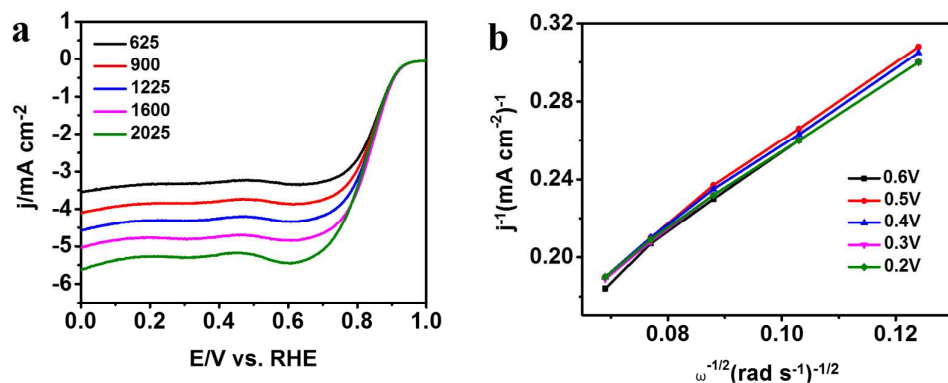
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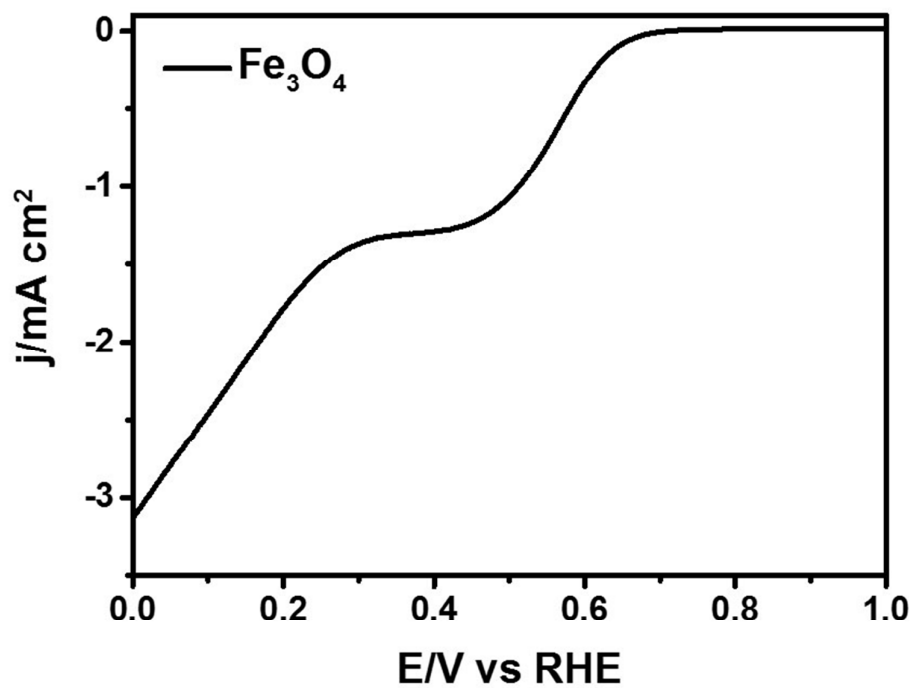
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**Figure S8.** (a) Rotating disk electrode (RDE) linear sweep voltammograms of COP@K10-Fe-900 at different rotating rates in the alkaline solution (b) Koutecky-Levich plots of COP@K10-Fe-900 derived from RDE voltammograms.



**Figure S9.** LSV curve of  $\text{Fe}_3\text{O}_4$  nanoparticles in  $\text{O}_2$ -saturated  $0.1 \text{ mol L}^{-1}$  KOH at  $5 \text{ mVs}^{-1}$ .

**Table S1.** The BET specific surface area of COP@K10 and COP@K10-Fe-900.

Catalyst	COP @K10	COP@K10-Fe-900
BET specific surface area ( $\text{m}^2 \text{ g}^{-1}$ )	875.6191	352.2472