**Supporting Information**

# Cobalt/Nitrogen co-Doped Porous Carbon Nanosheets as Highly Efficient Catalysts for Oxygen Reduction Reaction in Both Basic and Acidic Media

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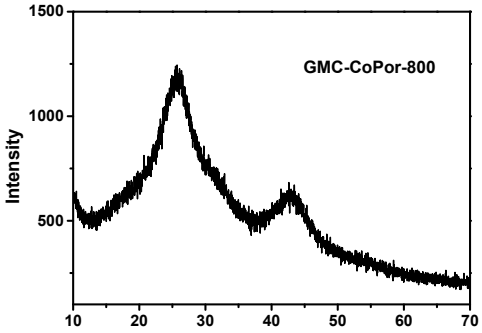


**Figure S1**. XRD analysis of the GMC-CoPor-800

**Table S1 The content of Co and N element in the composite GMP-CoPor and CMP-CoPor-T (T=700, 800 and 900)**

| Sample | Name | %At Conc | N/Co ratio |
|---|---|---|---|
| GMP-CoPor | N 1s | 3.58 | 6.1 |
| | Co 2p | 0.59 | |
| GMP-CoPor-700 | N 1s | 3.13 | 7.5 |
| | Co 2p | 0.42 | |
| GMP-CoPor-800 | N 1s | 2.50 | 7.1 |
| | Co 2p | 0.35 | |
| GMP-CoPor-900 | N 1s | 1.73 | 9.1 |
| | Co 2p | 0.19 | |

**Table S2 ORR performance of GMC-CoPor-700 and some recently reported Metal/N co-doped carbon materials. All the electrocatalysts were tested in 0.1M KOH**

| Materials | Half-wave Potential (V vs Ag/AgCl) | Diffusion-limited Current Density (mA $cm^{-2}$) | Reference |
|---|---|---|---|
| Co/N co-doped porous carbon nanosheets | -0.147 | 4.64 | This Work |
| Co-N doping of carbon/graphene sheets | -0.18 | 5.21 (-0.3 V) | [1] |
| Fe-N co-doped mesoporous 2D Carbon | -0.156 | 5.64 (-0.4 V) | [2] |
| Co-N co-doped WC Carbide | -0.194 | 4.8 (-0.4 V) | [3] |
| Co-N co-doped graphene-like carbon nanosheets | -0.151 | ~5.7 | [4] |
| N-doped graphene aerogel supported Co nanoparticles | ~-0.25 | 4.5 | [5] |
| Co and N co-doped carbon | -0.115 | ~4.6 | [6] |
| Co and P co-doped reduced graphene | ~-0.19 | ~-4.9 (-0.4 V) | [7] |
| Fe, Co, N-doped 3D porous carbon foams | ~-0.17 | ~4.3 (-0.4 V) | [8] |

**Table S3 ORR performance of GMC-CoPor-700 and some recently reported Metal/N co-doped carbon materials. All the electrocatalysts were tested in 0.5M $H_2SO_4$**

| Materials | Half-wave Potential (V vs Ag/AgCl) | Diffusion-limited Current Density (mA $cm^{-2}$) | Reference |
|---|---|---|---|
| Co/N co-doped porous carbon nanosheets | 0.54 | 5.10 | This Work |
| Fe-N doped vertically aligned carbon nanotubes catalysts | 0.54 | ~6 | [9] |
| Fe-polypyrrole derived carbon electrocatalysts | 0.50 | 5.7 | [10] |
| Cobalt tripyridyl triazine derived Co-N doped carbon | ~0.4 | ~4.3 | [11] |
| Fe, Co-N doping of carbon/graphene sheets | 0.63 | ~4.8 | [1] |
| Mesoporous Co-N co-doped carbon derived from VB12 | 0.52±0.02 | 4.5 | [12] |

**Reference**


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