

Supplementary Information

**One-pot synthesis of Co/N-doped mesoporous graphene with
embedded Co/CoO_x nanoparticles for efficient oxygen reduction
reaction**

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(C. M. Li).

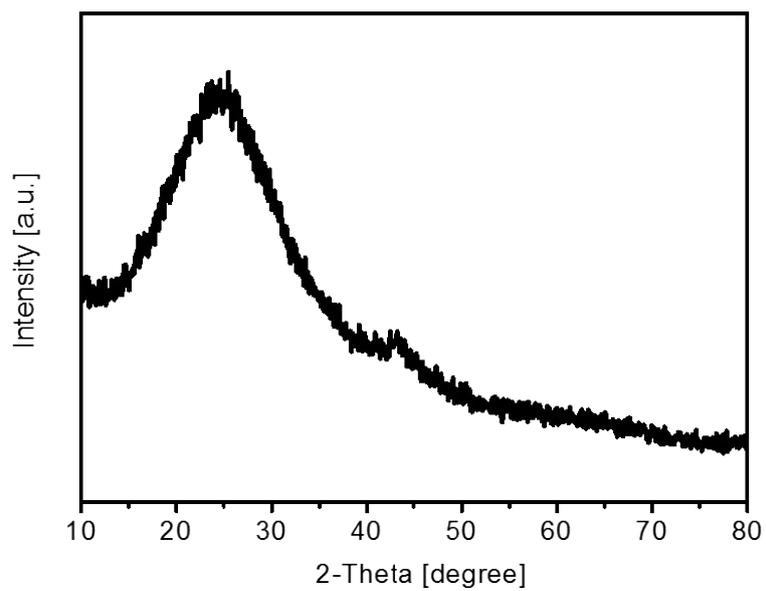


Fig. S1. The XRD pattern of GO-PDA-Co_x.

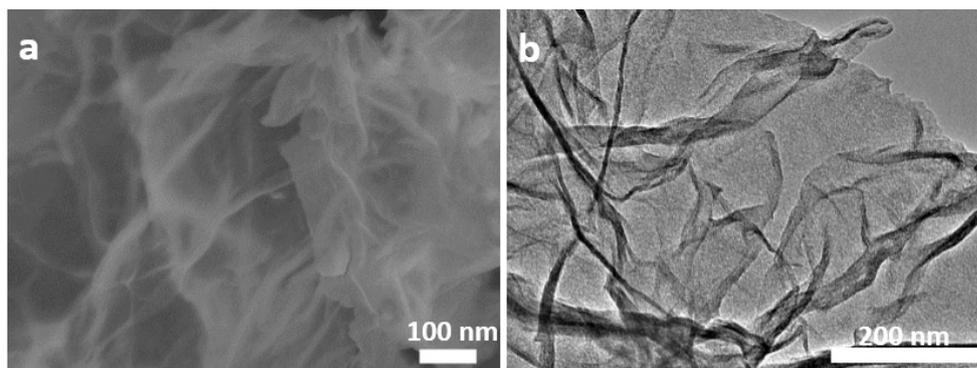


Fig. S2. SEM and TEM images of GO-PDA-Co_x.

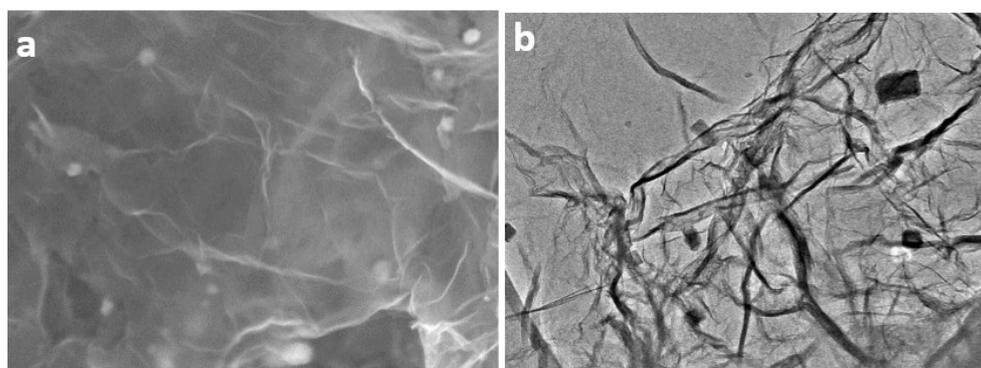


Fig. S3. SEM and TEM images of Co/CoO_x@Co/N-graphene synthesized with 0.1 mM of Co²⁺.

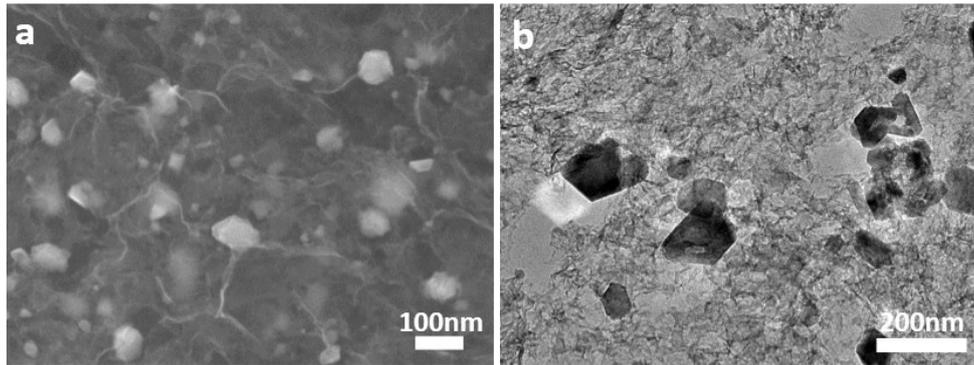


Fig. S4. SEM and TEM images of Co/CoO_x@Co/N-graphene synthesized with 10 mM of Co²⁺.

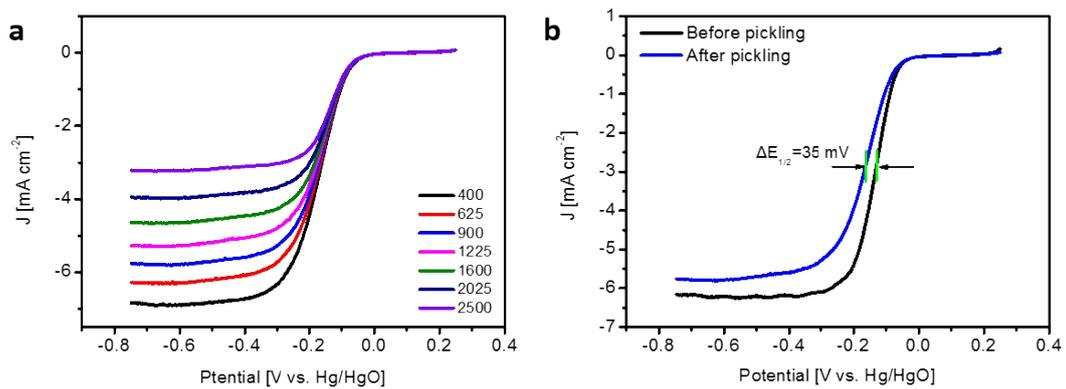


Fig. S5. Rotating-disk voltammograms of Co/CoO_x@Co/N-graphene after acid washing at a scan rate of 5 mV s⁻¹ at different rotating rates in O₂-saturated 0.1 M KOH solution (a); RDE curves before and after acid washing at a rotation rate of 1600 rpm and sweep rate of 5 mV s⁻¹ (b).

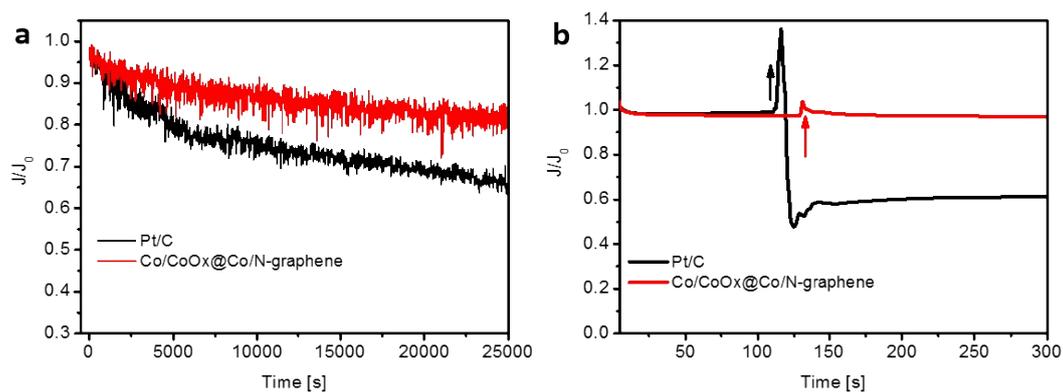


Fig. S6. (a) Amperometric curves of Co/CoO_x@Co/N-graphene and commercial Pt/C at -0.3 V (vs. Hg/HgO) in O₂-saturated 0.1 M KOH solution. J₀ defines the initial current density; (b) Amperometric curves of Co/CoO_x@Co/N-graphene, and commercial Pt/C at -0.3 V (vs. Hg/HgO) in O₂-saturated 0.1 M KOH solution. The arrows indicate the addition of 20% (v/v) methanol into the electrolyte. The current spikes may originate from the charging of electrochemical double layer due to the methanol addition, which changes the electrode/solution interface.