Supporting Information for

Low-loading Cobalt Coupled with Nitrogen-Doped Porous Graphene as Excellent Electrocatalyst for Oxygen Reduction Reaction

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Fig. S1 Nitrogen adsorption-desorption isotherm of N-rGO.



Fig. S2 XPS spectra of GO.



Fig. S3 Raman spectra of Co-N.



Fig. S4 CVs of ORR on the Co-N-rGO catalysts (with different Co loading) in a O_2 -saturated 0.1M KOH at a scan rate of 50 mVs⁻¹.



(b)



Fig. S5 CVs of (a) Co–N–rGO and (b) Pt/C in O₂-saturated 0.1 M KOH solution with and without 3.0M CH₃OH. Scan rate: 100 mVs^{-1} .

sample	C (at%)	N (at%)	O (at%)	Co (at%)
GO	68.07		31.93	-
N-rGO	83.13	5.59	11.28	-
Co-N-rGO	85.85	5.66	8.06	0.44
Co-N-rGO-HCl	85.51	5.59	8.90	-

Table S1. Elements composition of the samples from XPS results.