

## Supporting Information

# Phosphorus and cobalt co-doped reduced graphene oxide bifunctional electrocatalyst for oxygen reduction and evolution reactions

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**Table S1** The comparison for the electrocatalytic activity of our catalysts with earlier reports.

Catalyst	Mass loading (mg cm <sup>-2</sup> )	Electrolyte	E <sub>onset,ORR</sub> (V)	E <sub>1/2, ORR</sub> (V)	Limited current density around 0 V (vs. RHE) for ORR (mA cm <sup>-2</sup> )	E <sub>OER</sub> (V) (10 mA cm <sup>-2</sup> )	Reference
Co-P-G	0.4	0.1 M KOH	0.89	0.82	5.5	1.62 (IR-corrected)	This work
IrO <sub>2</sub>	0.1	0.1 M KOH	-	-	-	1.60	This work
N-CNTFs	0.2	0.1 M KOH	0.95	0.87	5.2	1.60 (IR-corrected)	[S1]
N-G/CNT	0.43	0.1 M KOH	0.88	0.70	5.0	1.65 (IR-corrected)	[S2]
P-ordered MC	0.79	0.1 M KOH	0.85	0.75	5.2	-	[S3]
N,P- carbon foam	0.15	0.1 M KOH	0.94	0.85	4.0-5.0	1.80	[55]
N,P-G/CNS	0.14	0.1 M KOH	1.0	0.88	5.5	1.57 (IR-corrected)	[S4]
Fe-N-CC	0.1	0.1 M KOH	0.91	0.83	4.6	-	[S5]
Fe/Co/Ni-NCNTs	0.2	0.1 M KOH	0.89	0.84	6.0	1.62 (IR-corrected)	[S6]
Fe-P-C	0.04	0.1 M KOH	0.95	0.78	5.0	-	[44]

**References:**

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