Facile synthesis of MOF-derived ultrafine Co nanocrystals embedded in nitrogen-doped carbon matrix for the hydrogen evolution reaction

Fangcai Zheng,^{a,b,c} Hongyu Xia,^{a*} Shihao Xu,^a Rencui Wang^a and

Yuanguang Zhang^a

^a Anhui Key Laboratory of Functional Coordination Compounds, School of Chemistry and Engineering, Anging Normal University, Anging 246011, PR China

^b High Magnetic Field Laboratory, Hefei Institute of Physical Science, Chinese Academy of Science, Hefei 230031, PR China

^c Shanghai Key Laboratory of Materials Protection and Advanced Materials in Electric Power, Shanghai 200090, PR China

^{*} xiahy@aqtc. edu.cn



Figure S1. Nitrogen adsorption/desorption curves for Co@N-C-600, Co@N-C-600, and Co@N-C-600, respectively.



Figure S2. Time-dependent current density curve (i-t curve) under static overpotential of 100 mV vs RHE for 10h.

Table S1. BET specific surface area and pore size for Co@N-C-600, Co@N-C-600,and Co@N-C-600, respectively.

Samples	BET surface area	Pore diameter
Co@N-C-600	14.1 m ² g ⁻¹	23.4 nm
Co@N-C-700	44.3 m ² g ⁻¹	17.2 nm
Co@N-C-800	97.4 m ² g ⁻¹	2.4 nm