



## **Copper-Doped Cobalt Spinel Electrocatalysts Supported on Activated Carbon for Hydrogen Evolution Reaction**

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## **Supporting information**



Figure S1. Configuration of a three-electrode cell.









Figure S2. SEM-EDS elemental mapping of Co, Cu, and overlapped Co-Cu.



Figure S3. BJH pore-size distribution of the silica template calculated using the desorption branch of the N<sub>2</sub> isotherm at  $-196^{\circ}$ C.



**Figure S4.** Nitrogen adsorption isotherms at -196 °C for all the hybrid materials: (a) AC-Co*x* and (b) AC-CuCo*x* ( $0 \le x \le 20$  wt.%).





**MDPI** 

**Figure S5.** Cyclic voltammograms recorded in 0.1 M KOH for all the hybrid materials within the pseudocapacitive potential region: (a) undoped AC-Cox samples and (b) copper-doped AC-CuCox samples. Scan rate:  $2 \text{ mV s}^{-1}$ .