Supporting Information

Controllable generation of ZnO/ZnCo₂O₄ arising from bimetal-

organic frameworks for electrochemical detection of naphthol

isomers

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Experimental section

Electrochemical measurements

All electrochemical measurements were carried out with a CHI660D electrochemical workstation (Shanghai Chenhua Co.). A three-electrode system was used, where a saturated calomel electrode (SCE) served as the reference electrode, a platinum wire electrode as the auxiliary electrode and a modified CPE as the working electrode. Cyclic voltammetric measurements were done in an undivided 30 mL electrochemical teflon cell at 25 ± 0.5 °C. AC impedance experiments were carried out in 5.0 mM K₃Fe(CN)₆/K₄Fe(CN)₆ (1:1) containing 0.1M KCl, while the applied perturbation amplitude was 0.005 V, the frequencies swept from10⁵ to 10⁻² Hz, the number of points per frequency decade was 12 and the initial potential was 0.20 V vs. RE (SCE).

Preparation of CPE electrodes

0.6 g of liquid paraffin and 3.4 g of graphite powder were hand-mixed to produce a homogenous paste. Then the prepared carbon paste was firmly packed into a PVC tube (3 mm internal diameter) and a copper wire (1.5 mm external diameter) was introduced into the other end for electrical contact.

Results and discussion



Fig. S1 The XRD pattern of Zn₆Co₀-BMOF (ZIF-8), Zn₅Co₁-BMOF, Zn₃Co₃-

BMOF, Zn₁Co₅-BMOF and Zn₀Co₆-BMOF (ZIF-67)



Fig. S2 The XRD pattern of $[Zn_xCo_{6-x}-BMOF]_{air}(x=0, 1, 5, 6)$



Fig. S3 The plots of $E_{p,a}$ vs. natural logarithm of scan rate (lnv)