Supporting Information

Comparation on Effects of Cation and Phosphorus Doping in Cobalt-Based Spinel Oxides towards Oxygen Evolution Reaction

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Supplementary Figures



Fig. S1 SEM and TEM images of precursors: (a, d) MC-pre, (b, e) NMC-pre, (c, f) ZNMC-pre and (g) the corresponding XRD patterns.



Fig. S2 Elemental mapping patterns of oxides. (a) MC, (b) NMC and (c) ZNMC.



Fig. S3 Elemental mapping patterns of P-doped oxides. (a) P-MC, (b) P-NMC and (c) P-ZNMC.



Fig. S4 Nitrogen adsorption-desorption isotherms of oxides with and without P doping.



Fig. S5 XPS spectra of (a, b) Co 2p for NMC, P-NMC, MC and P-MC, (c) Ni 2p for NMC and P-NMC, (d, e) O 1s for NMC, P-NMC, MC and P-MC.



Fig. S6 CVs of all samples under different scan rates of 0.2, 1, 4, 8, 12, 16 and 20 mV s⁻¹. (a) P-ZNMC, (b) P-NMC, (c) P-MC, (d) ZNMC, (e) NMC and (f) MC. The unit of all captions of legends in each panel is mV s⁻¹.