Supporting Information

Engineering Zeolitic Imidazolate Framework Derived Mo-Doped Cobalt Phosphide for Efficient OER Catalysts

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Table S1: Microstructural parameters of CoP and CoMoP-2 Catalysts

Catalysts	2Θ value	Plane	a=b=c (Å)	d-spacing	Average Crystalline size (nm)
CoP	49.01	202	5.050	1.86	8.34
CoMoP-2	48.33	202	5.077	1.88	4.58

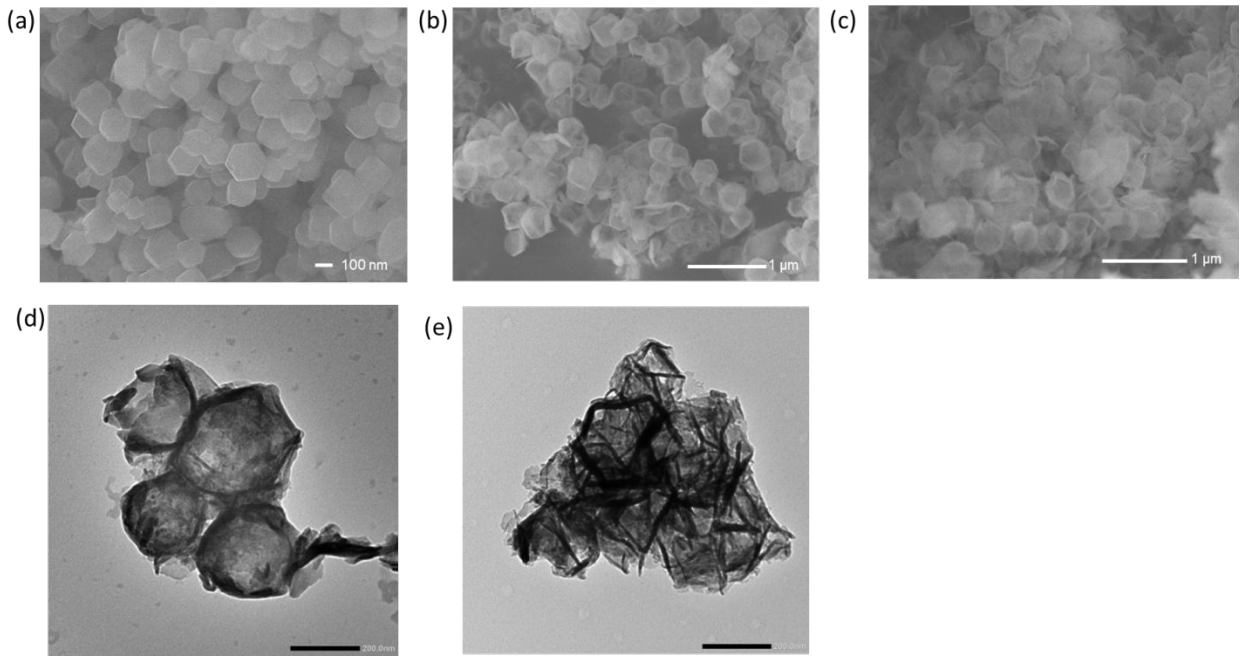

Figure S1: SEM images of: (a) ZIF-67, (b) CoMoP-1, (c) CoMoP-3, and TEM images of (d) CoMoP-1, and (e) CoMoP-3.

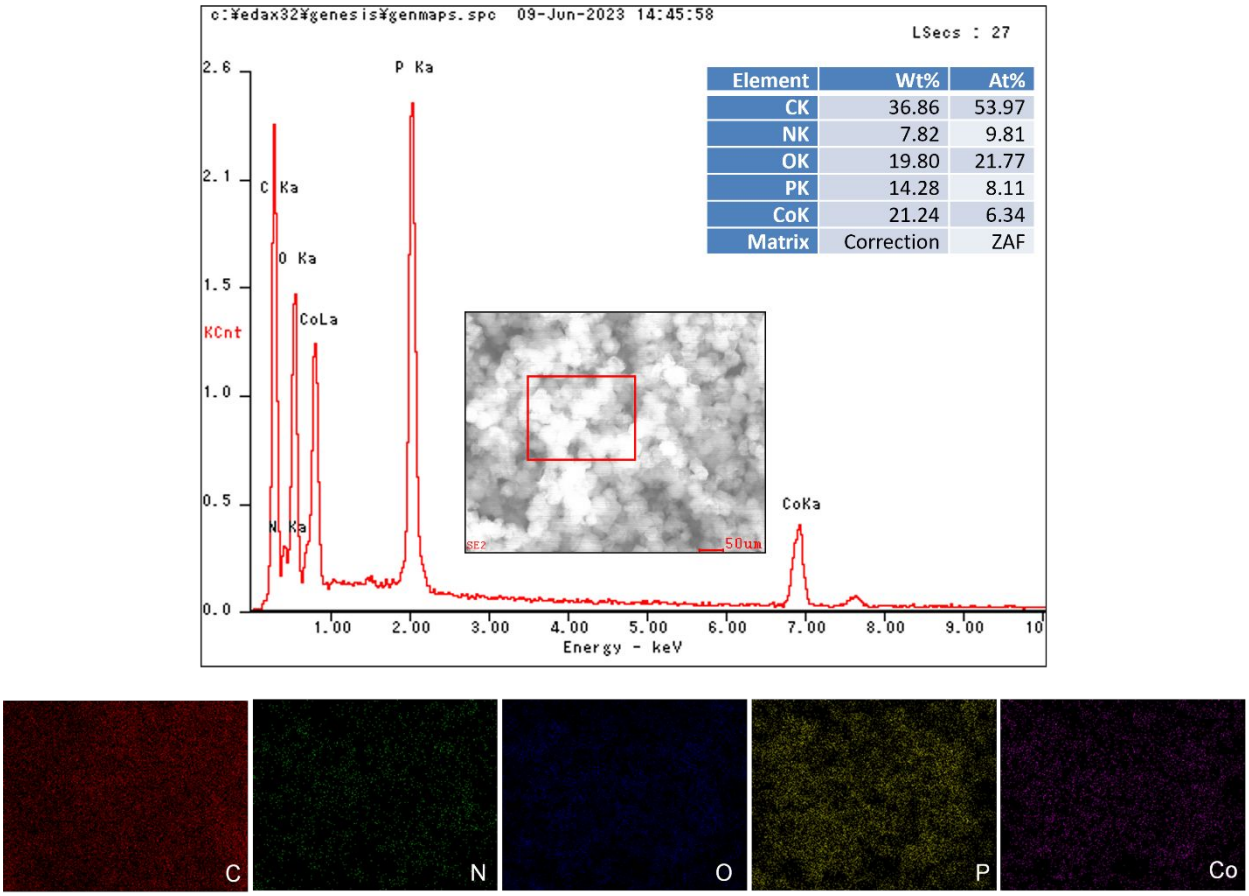

Figure S2: EDX analysis of ZIF-67 derived CoP.

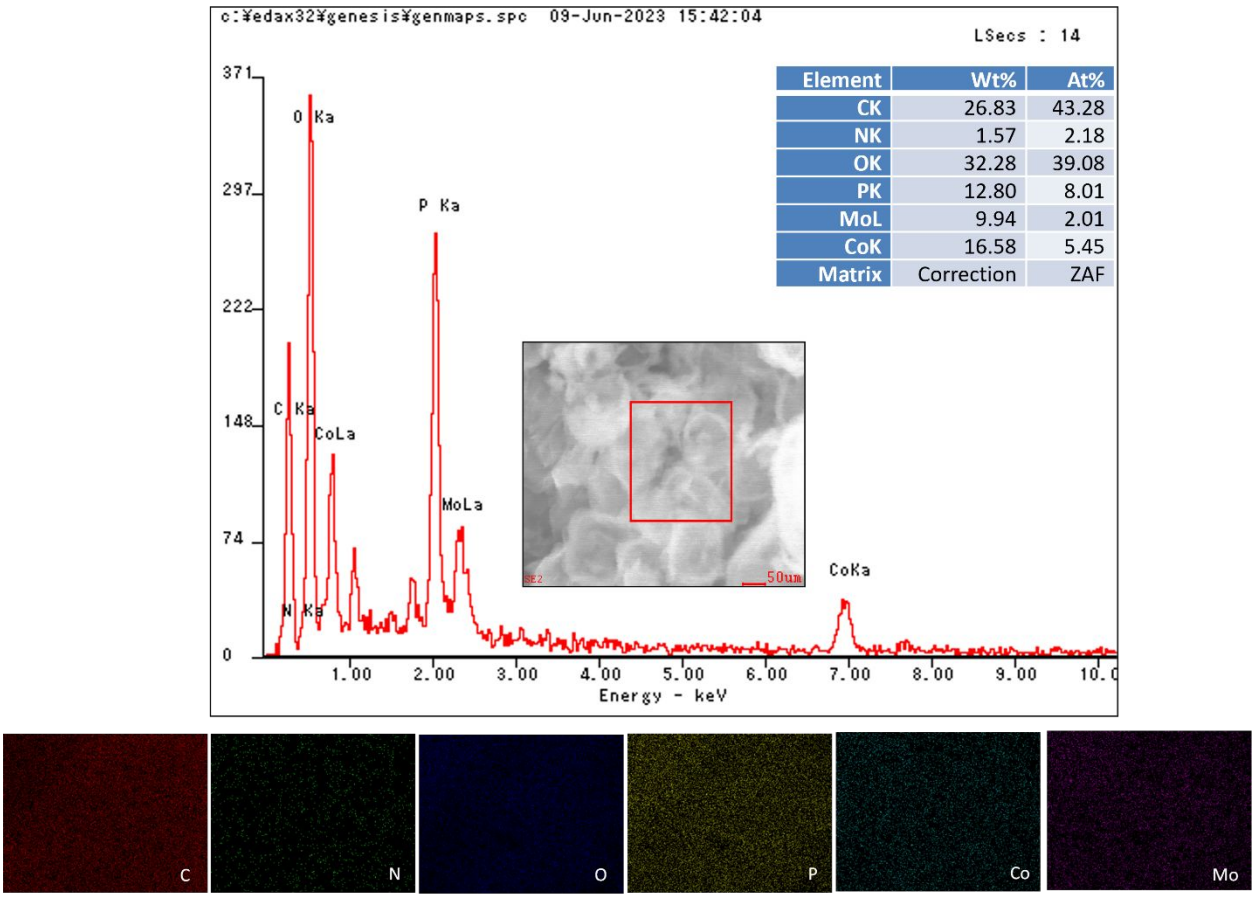

Figure S3. EDX analysis of ZIF-67 derived CoMoP-2.

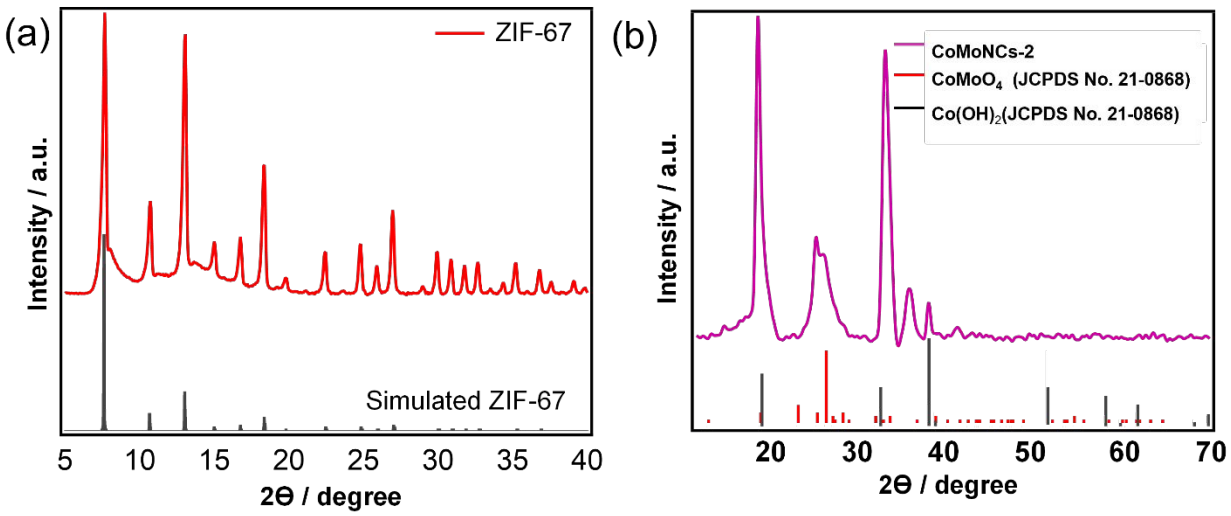

Figure S4: PXRD pattern of: (a) ZIF-67, and (b) CoMoNCs-2.

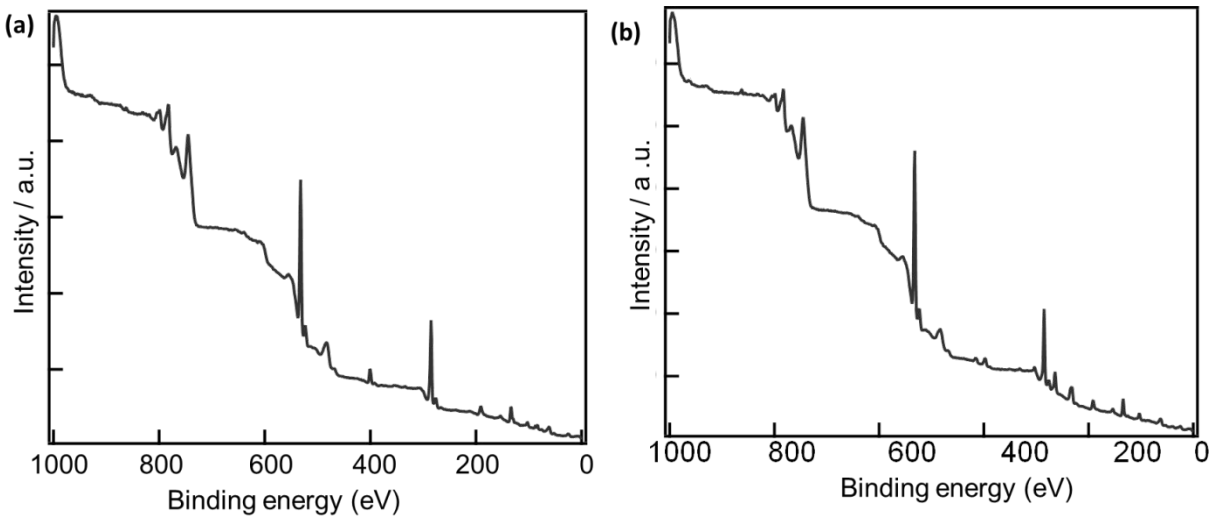

Figure S5: XPS Survey spectrum of: (a) CoP, and (b) CoMoP-2.

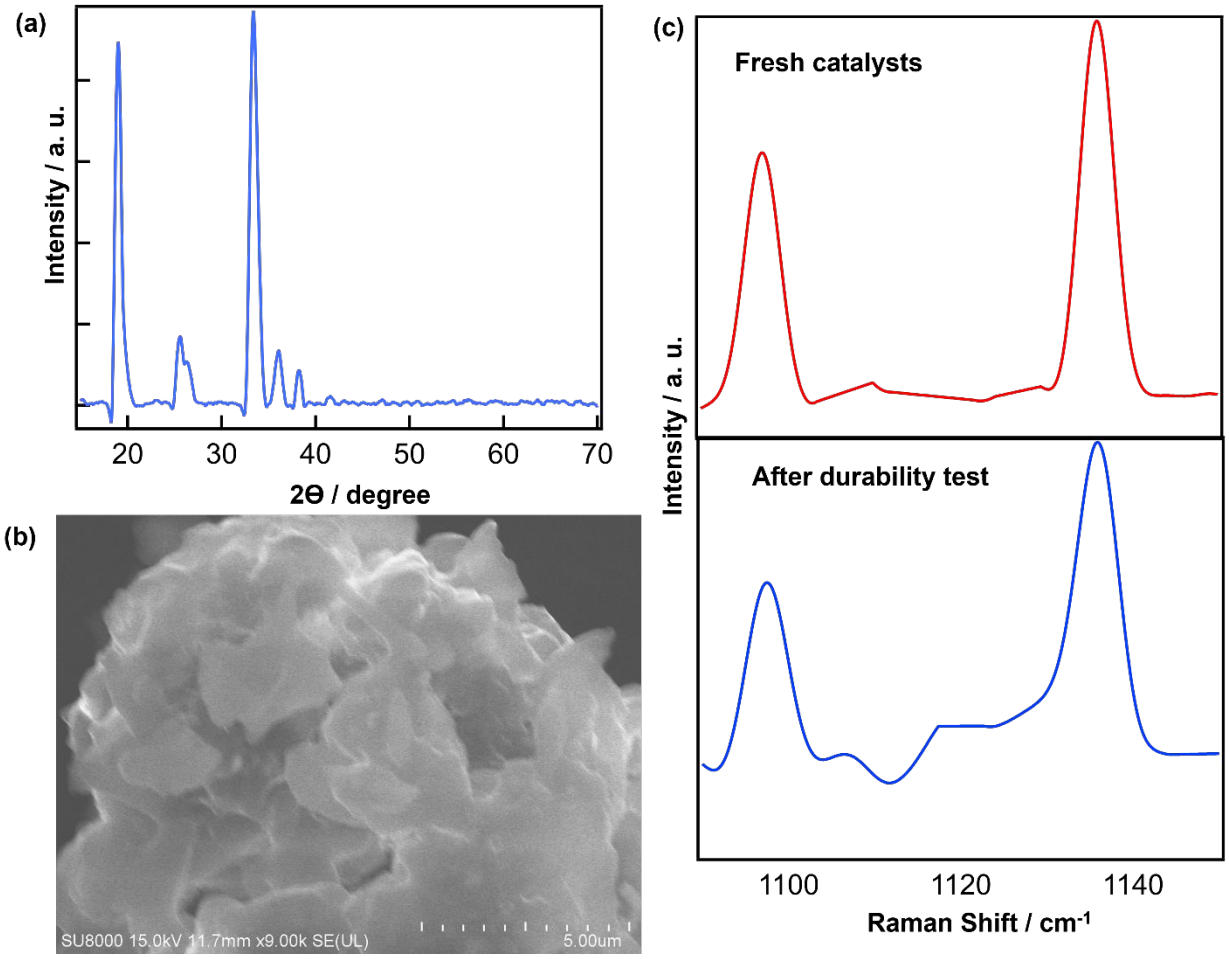

Figure S6: (a) PXRD pattern, (b) FESEM image, and (c) Raman shift of CoMoP-2 catalysts before and after durability test at 10 mA cm^{-2} for 4h.

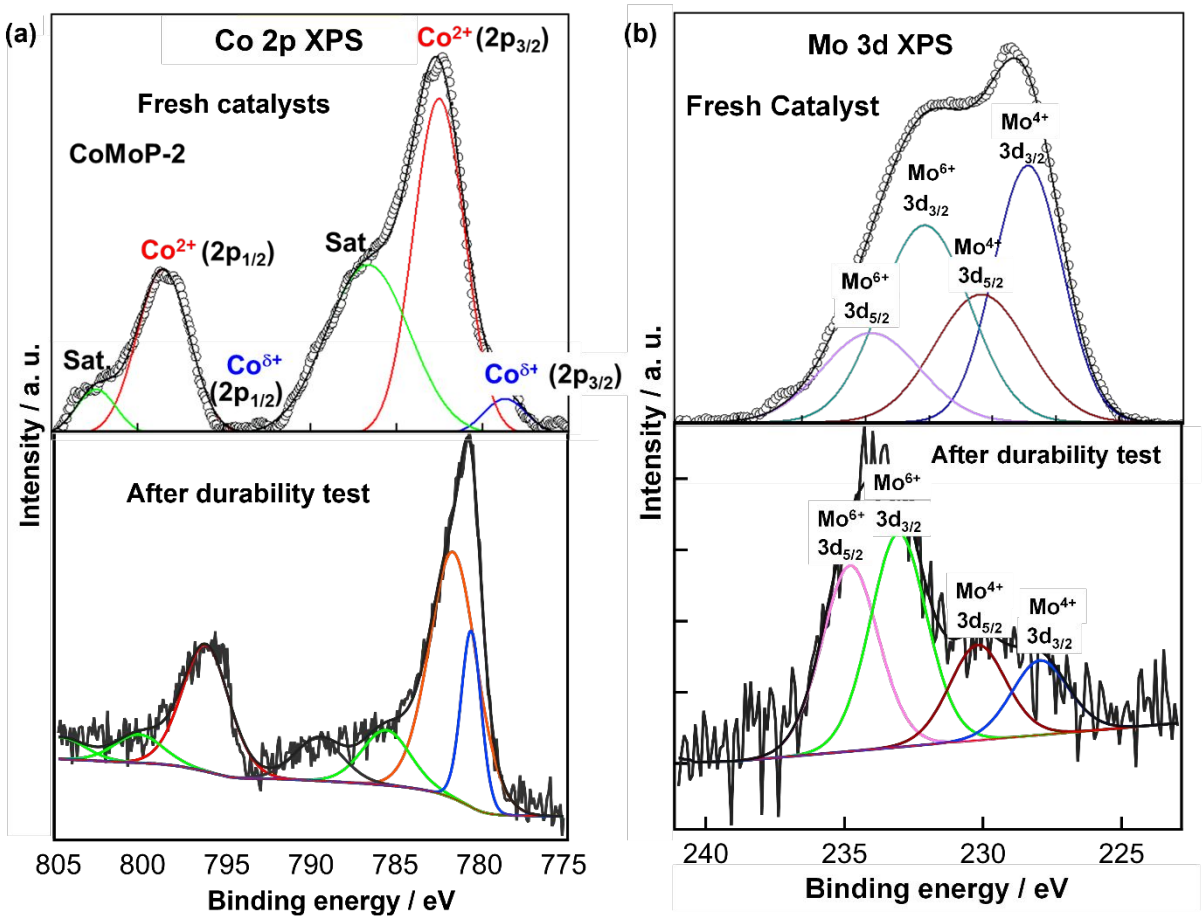

Figure S7: XPS of spectrum: (a) Co 2p, and (b) Mo 3d of CoMoP-2 catalysts before and after durability test at 10 mA cm^{-2} for 4h.

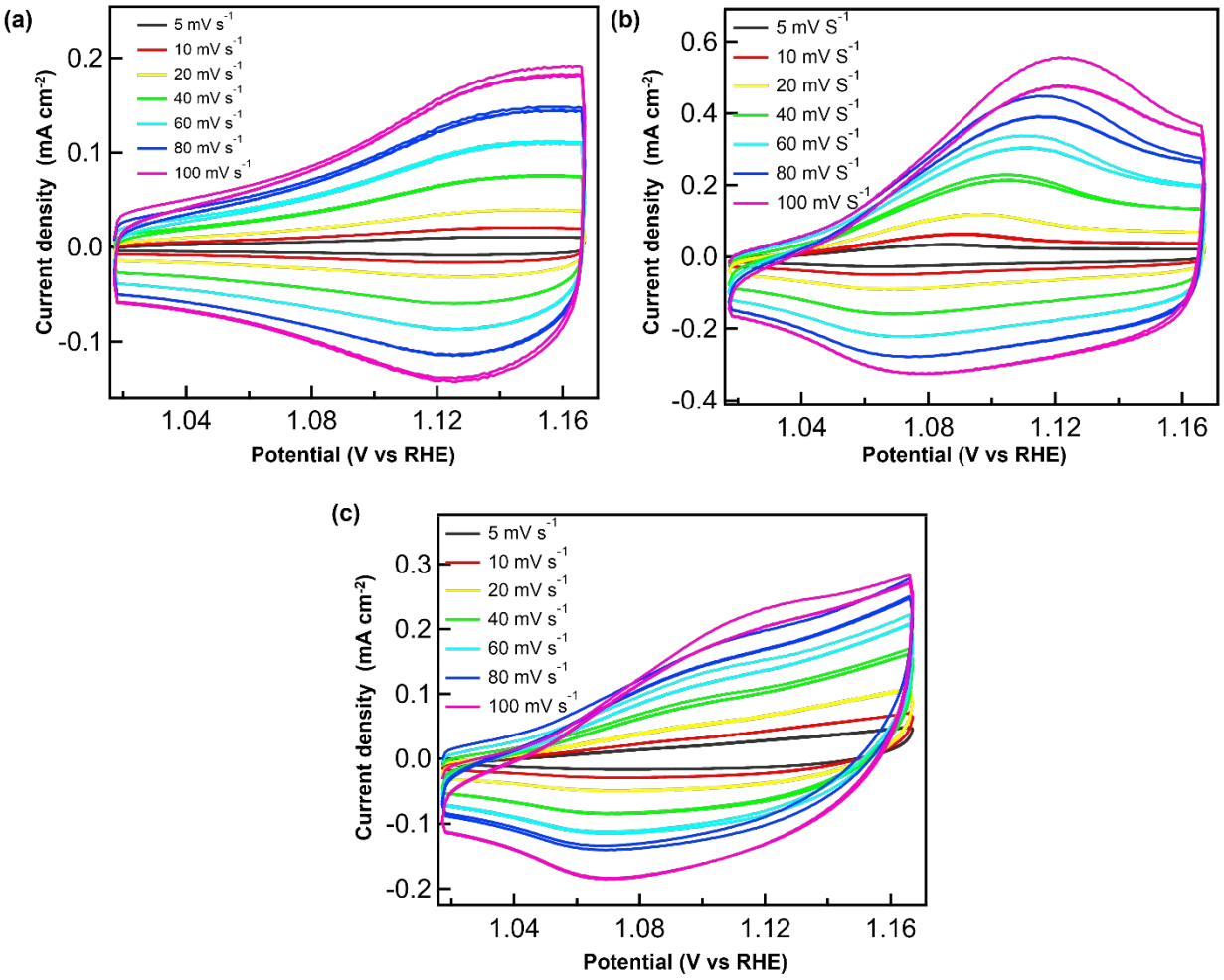

Figure S8: CV curves at various scan rates ranging from 5 to 100 mV s^{-1} of: (a) CoP, (b) CoMoP-1, and (c) CoMoP-3 each of which was measured at different scan rate in 1.0 M KOH solution.

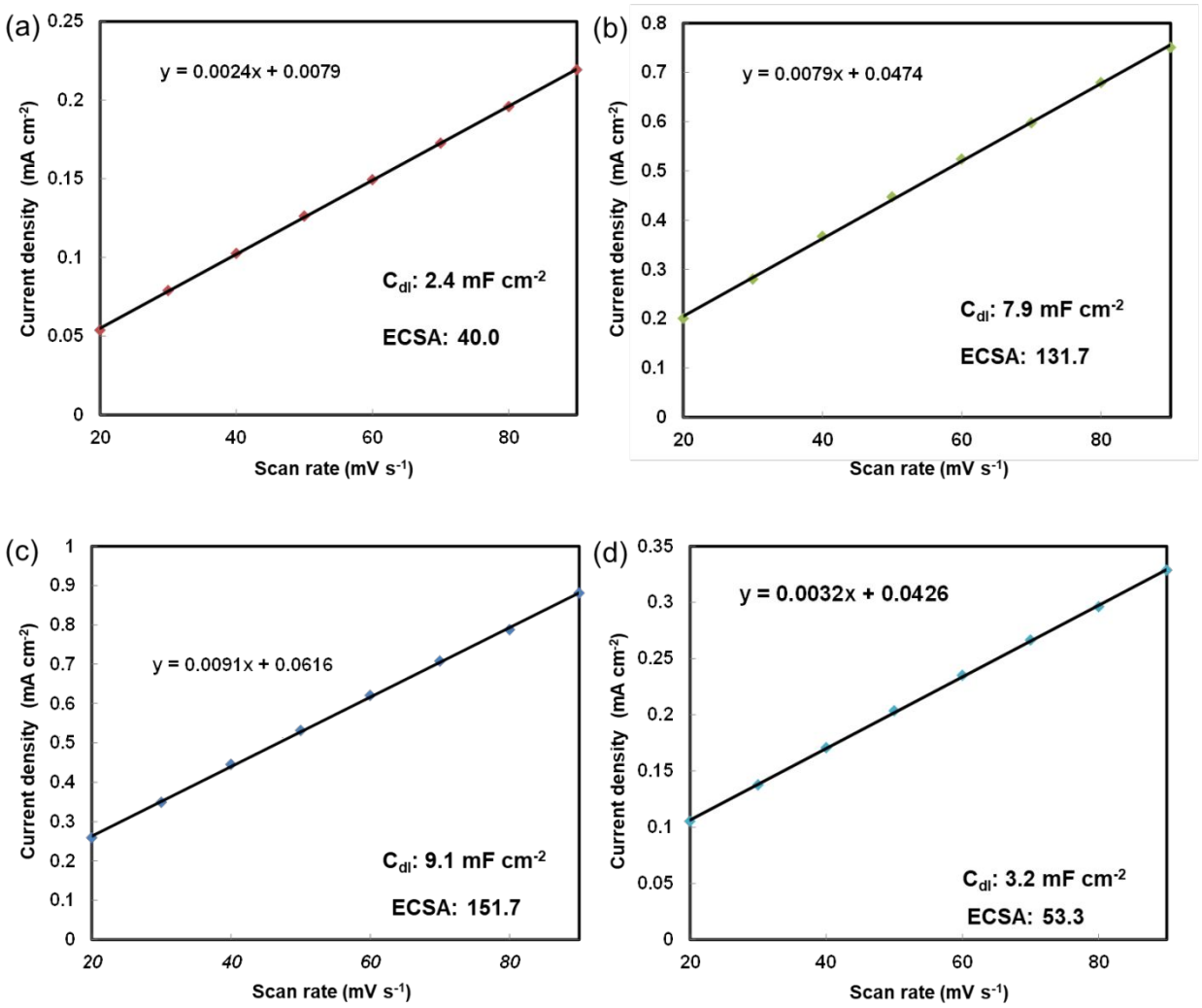

Figure S9: Current density vs Scan rate, calculated C_{dl} values and ECSA values of (a) CoP, (b) CoMoP-1, (c) CoMoP-2, and (d) CoMoP-3 obtained from the CV curves measured at various scan rates.

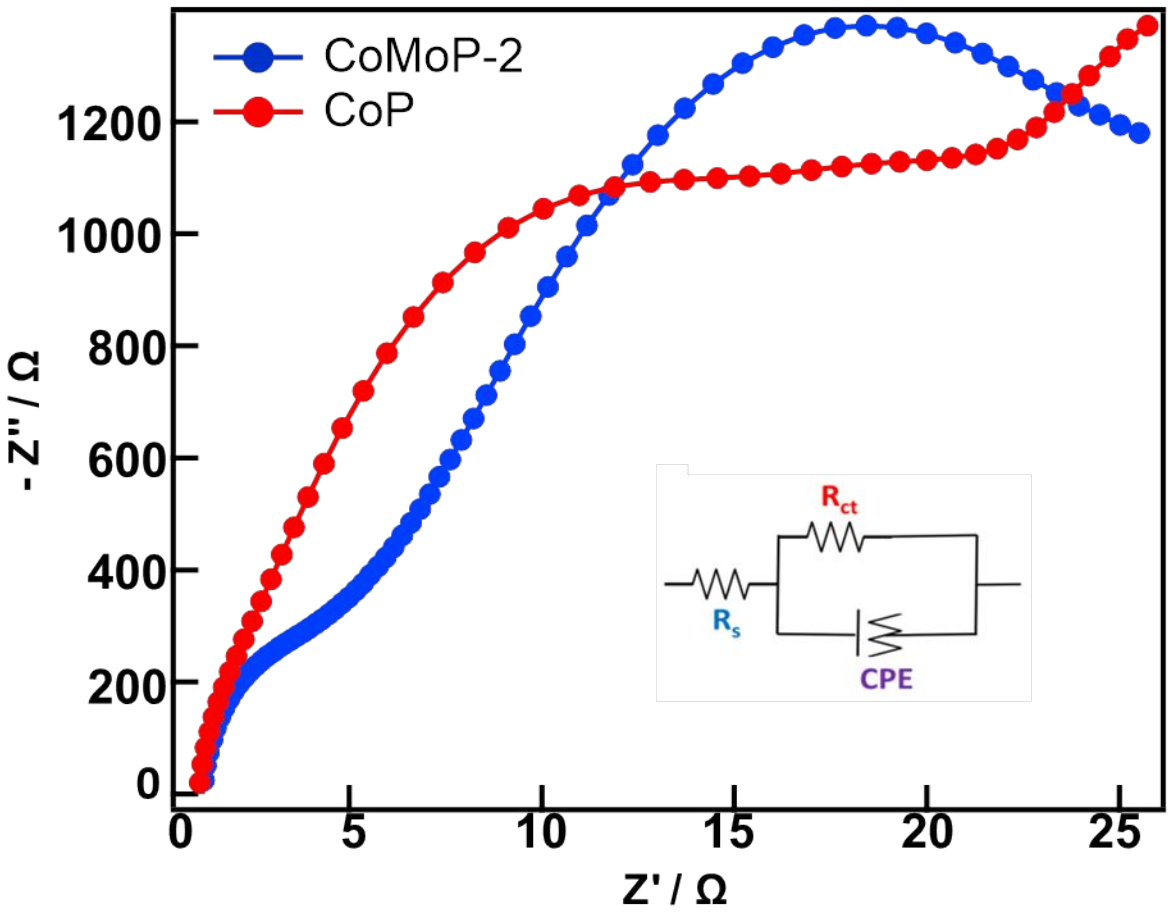

Figure 10: Nyquist plots of CoP and CoMoP-2 catalysts measured in 1.0 M KOH solution.

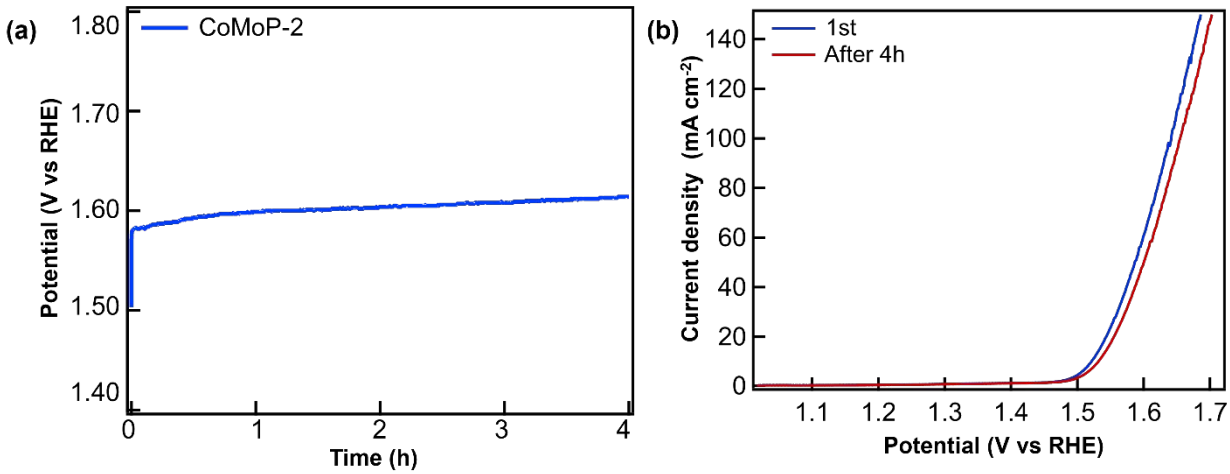

Figure S11: (a) Stability test of CoMoP-2 Choroamperometry study, (b) LSV curves before and after the stability test.

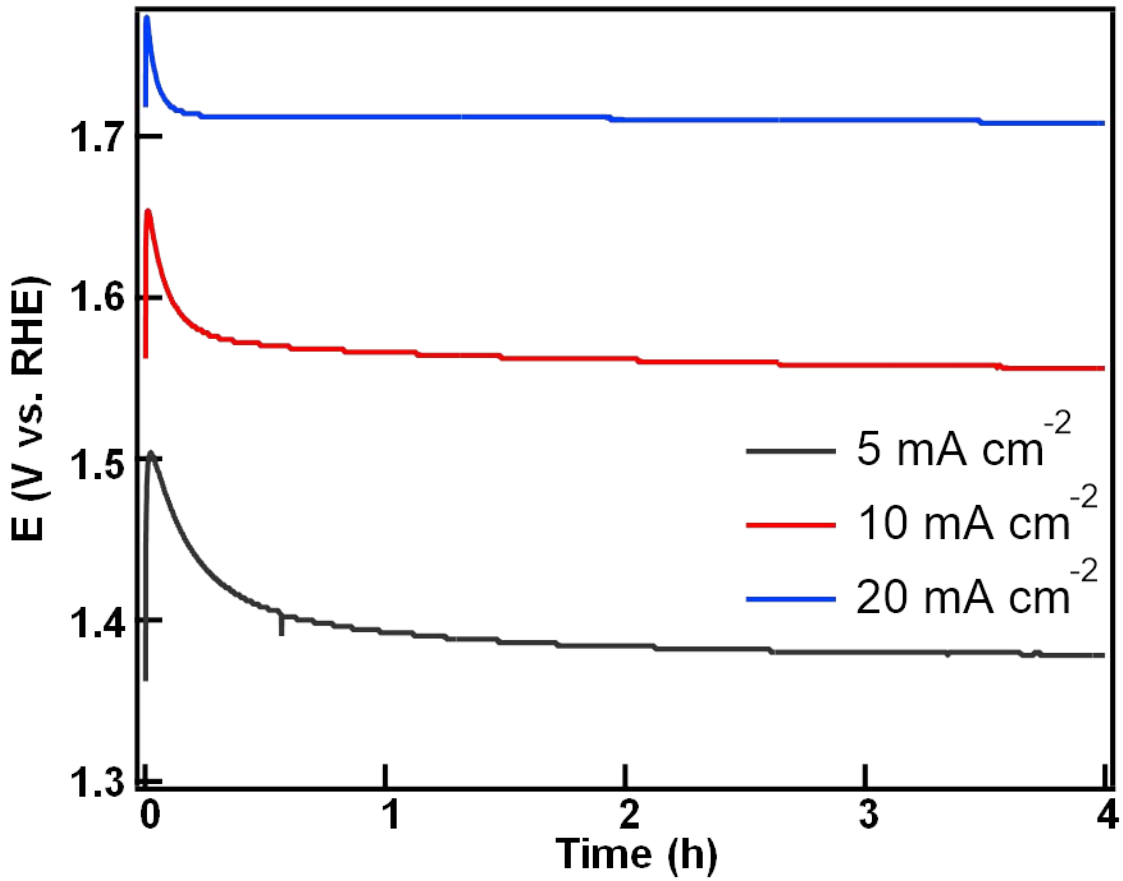

Figure S12: Stability test of CoMoP-2 Choronopotentiometry study at various current densities for 4 h.