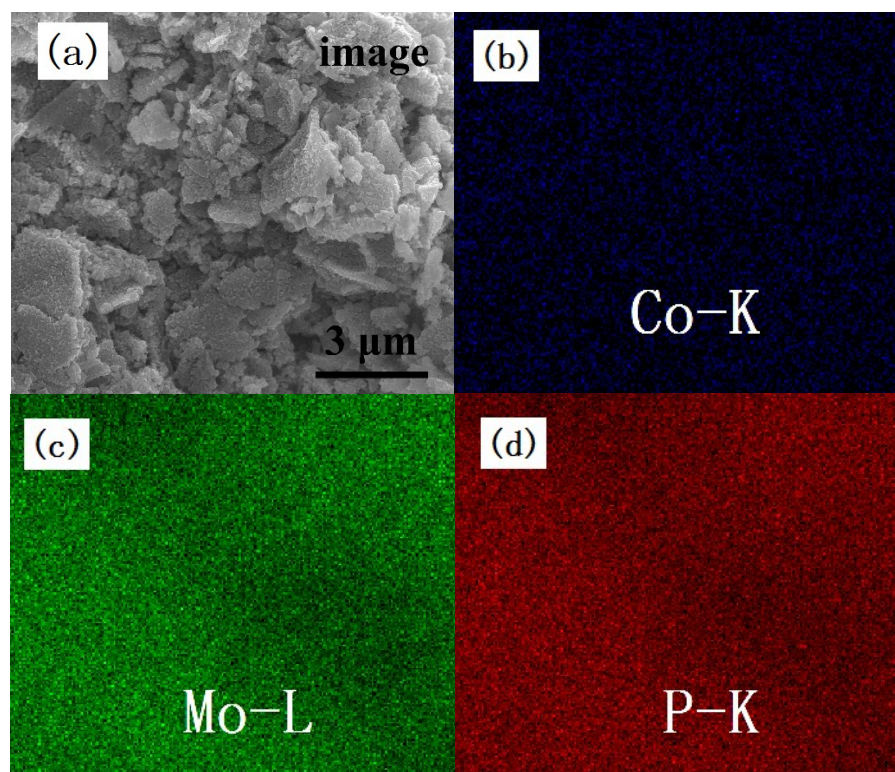
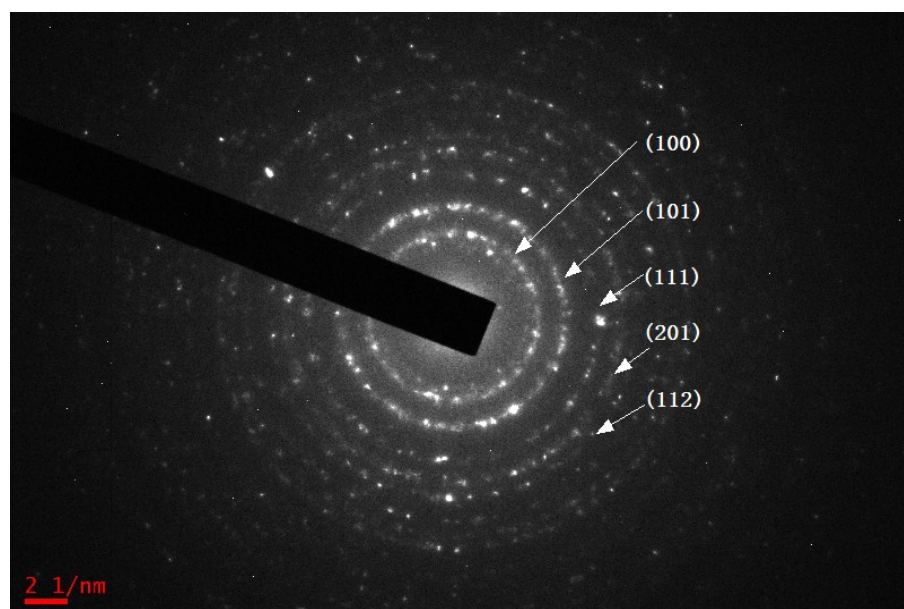


Supplementary Information

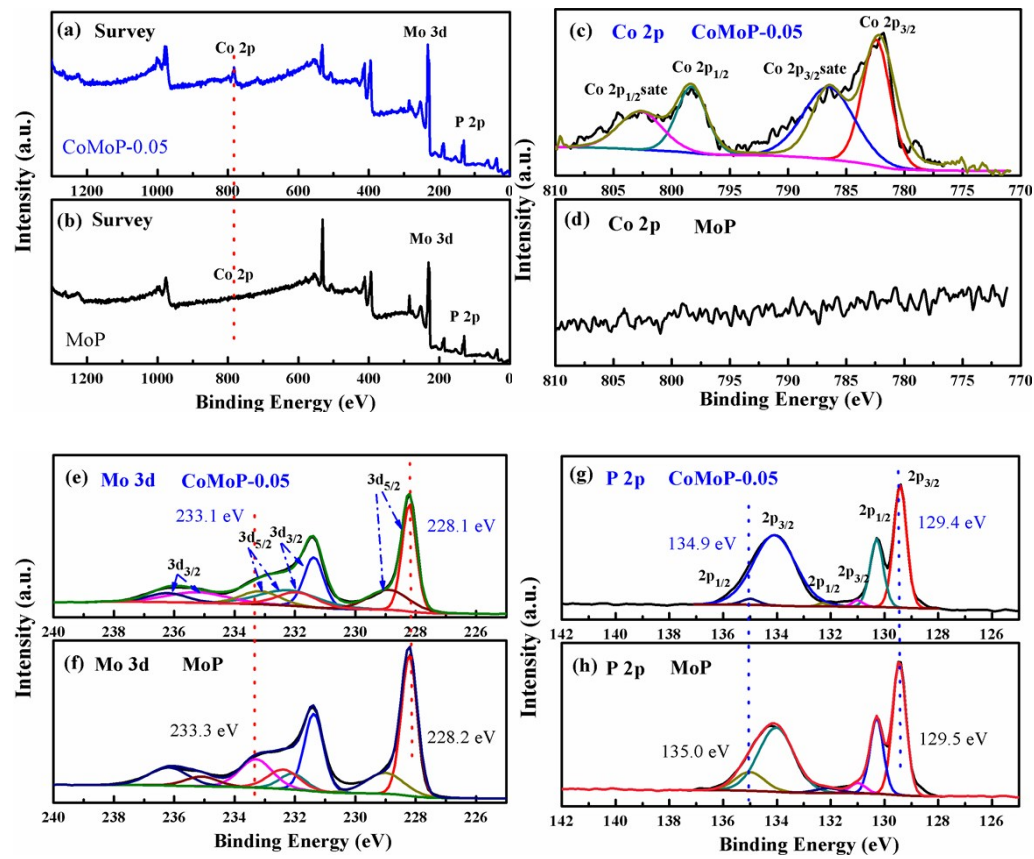
S1- The EDX elemental mapping of CoMoP-0.05.



S2- SAED pattern of CoMoP-0.05.

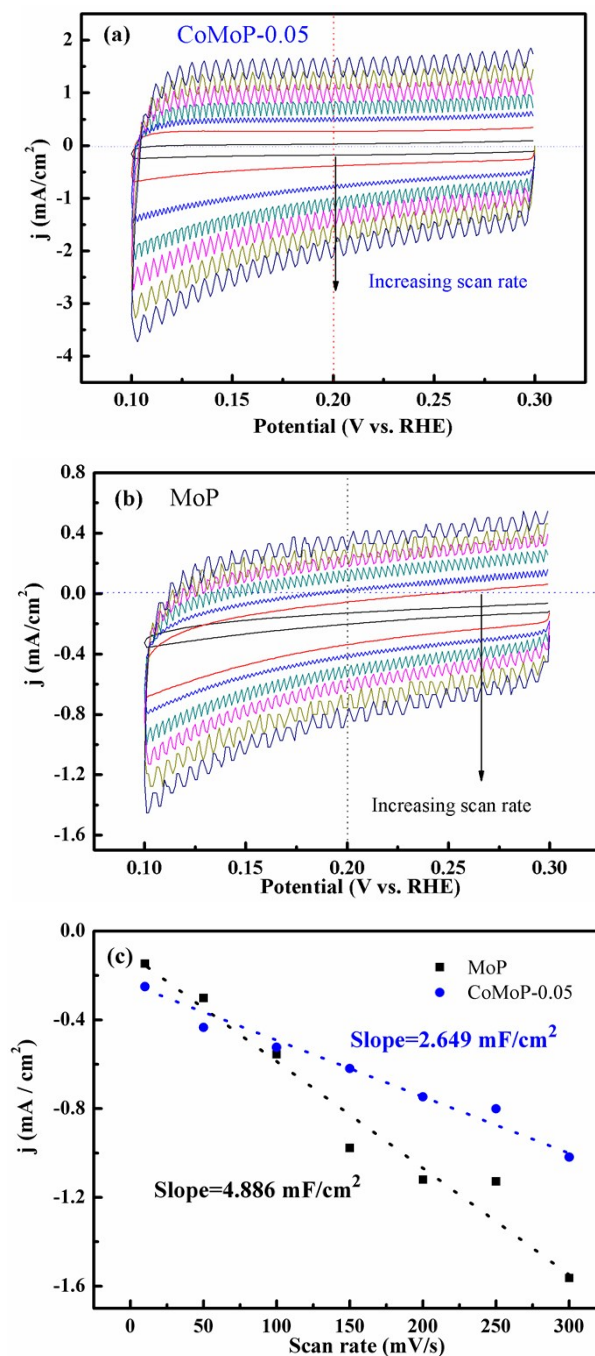


S3- XPS of the CoMoP-0.05 and MoP: (a), (b) Survey; (c), (d) Co 2p spectrum; (e), (f) Mo 3d spectrum; (g), (h) P 2p spectrum.



S4- Electrochemical capacitance measurements for the determination of the surface area of MoP and CoMoP-0.05.

(a) and (b) The capacitive current from double layer charging can be measured from cyclic voltammograms in a potential range where no Faradaic processes are observed. The capacitive currents were measured at 0.20 V vs RHE for CoMoP-0.05 (a) and at 0.27 V for MoP (b). (c) The measured capacitive currents plotted as a function of scan rate for MoP and CoMoP-0.05.



S5- Cycling stability of CoMoP-0.05 at an overpotential of -160 mV in 0.5 M H_2SO_4 .

