



Supplementary Material

# One-Dimensional CoMoP Nanostructures as Bifunctional Electrodes for Overall Water Splitting

Xin Chang <sup>1</sup>, Jun Yan <sup>1</sup>, Xinyao Ding <sup>1</sup>, Yaozu Jia <sup>1</sup>, Shijie Li <sup>2,\*</sup> and Mingyi Zhang <sup>1,\*</sup>

<sup>1</sup> Key Laboratory for Photonic and Electronic Bandgap Materials, Ministry of Education, School of Physics and Electronic Engineering, Harbin Normal University, Harbin 150025, China

<sup>2</sup> National Engineering Research Center for Marine Aquaculture, Institute of Innovation & Application, Zhejiang Ocean University, Zhoushan 316022, China

\* Correspondence: lishijie@zjou.edu.cn (S.L.); zhangmingyi@hrbnu.edu.cn (M.Z.)

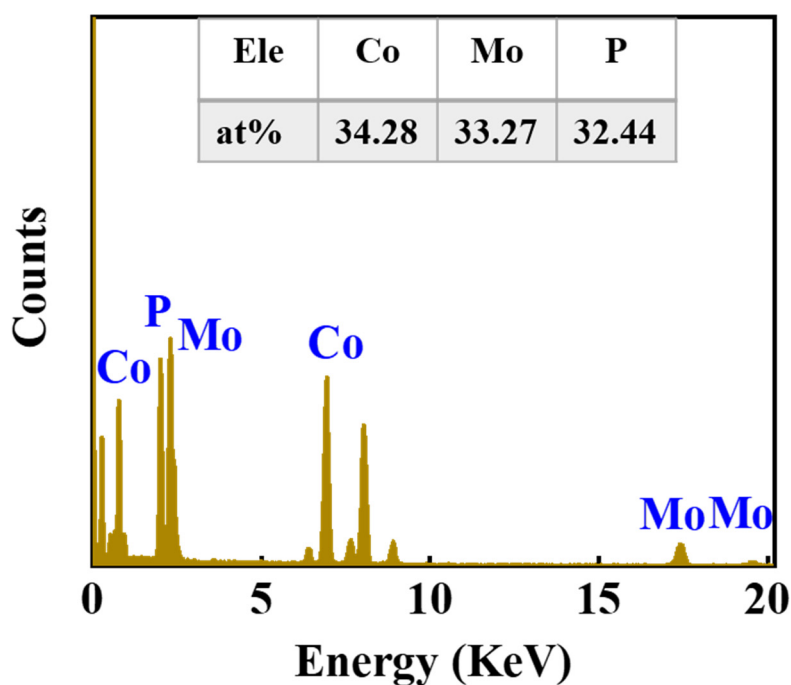
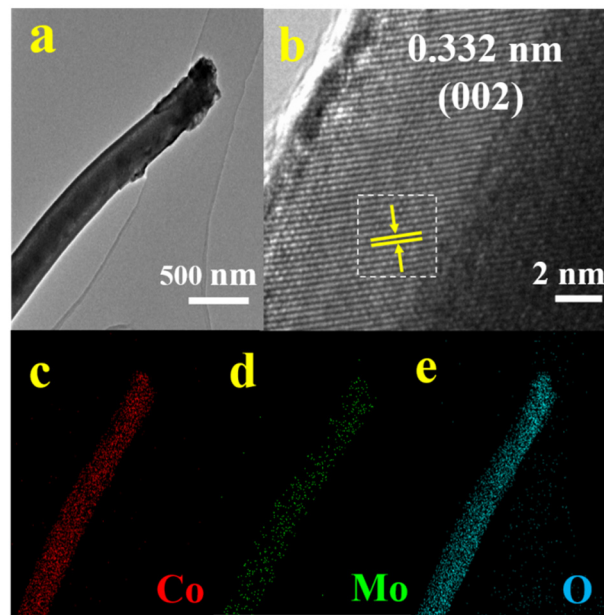
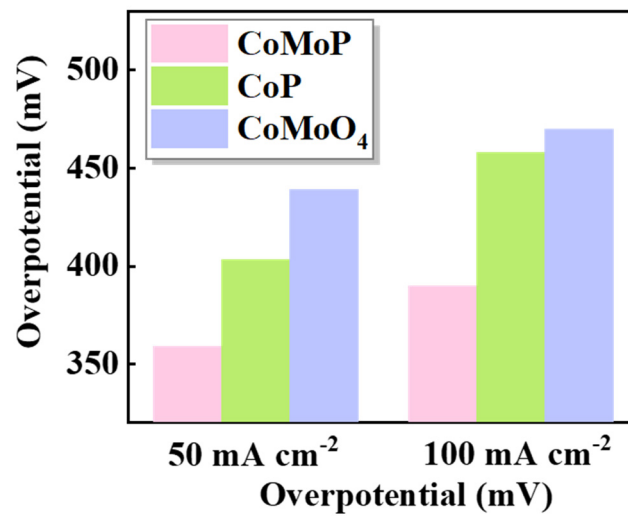


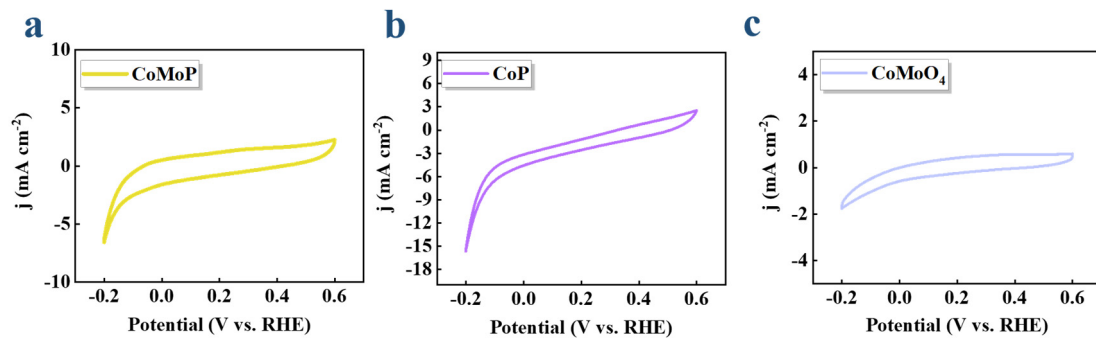
Figure S1. Energy dispersive X-ray spectroscopy of CoMoP NFs.



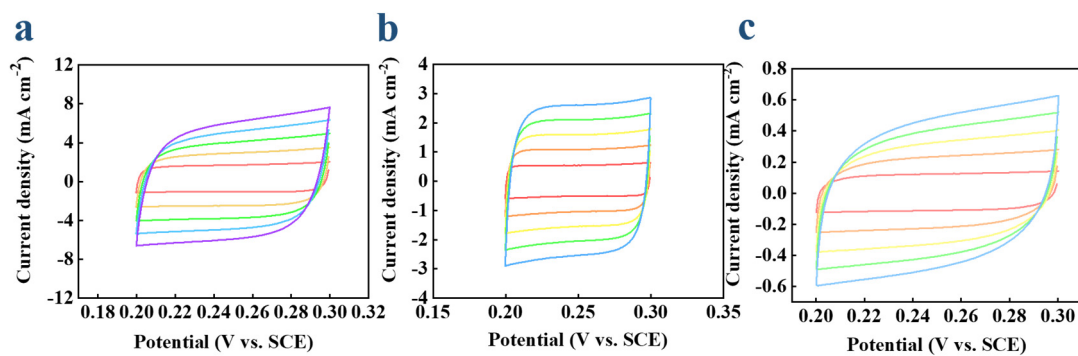
**Figure S2.** (a,b) TEM image and HR-TEM lattice image of CoMoO<sub>4</sub> NFs, and (c-e) corresponding element mappings of CoMoO<sub>4</sub> NFs.



**Figure S3.** Overpotentials of CoMoP NFs, CoP NFs, and CoMoO<sub>4</sub> NFs at current densities of 50 mA cm<sup>-2</sup> and 100 mA cm<sup>-2</sup> for OER test.



**Figure S4** Cyclic voltammograms of (a) CoMoP NFs, (b) CoP NFs, and (c) CoMoO<sub>4</sub> NFs with a potential range from -0.2-0.6 V (V vs. RHE) in 1M PBS solution.



**Figure S5.** Cyclic voltammograms of (a) CoMoP NFs, (b) CoP NFs, and (c) CoMoO<sub>4</sub> NFs in a potential range from 0.2-0.3 V (V vs. SCE) in 1 M KOH.