

Supplementary Materials

Tunable Carrier Transfer of Polymeric Carbon Nitride with Charge-Conducting CoV₂O₆·2H₂O for Photocatalytic O₂ Evolution

Shaohong Zang ¹, Xiaorong Cai ¹, Mengshan Chen ¹, Dehong Teng ¹, Fei Jing ¹, Zhe Leng ^{1,*}, Yingtang Zhou ¹ and Feng Lin ^{2,*}

- ¹ Institute of Innovation & Application, National Engineering Research Center For Marine Aquaculture, Zhejiang Ocean University, Zhoushan 316022, China; shzhang@zjou.edu.cn (S.Z.); caixiaorong@zjou.edu.cn (X.C.); chenmengshan@zjou.edu.cn (M.C.); z20095136223@zjou.edu.cn (D.T.); jingfei@zjou.edu.cn (F.J.); zhoutingtang@zjou.edu.cn (Y.Z.)
- ² College of Chemical and Materials Engineering, Quzhou University, Quzhou 324000, China
- * Correspondence: lengzhe@zjou.edu.cn (Z.L.); 39083@qzc.edu.cn (F.L.); Tel.: +86-0580-2262589 (Z.L.)

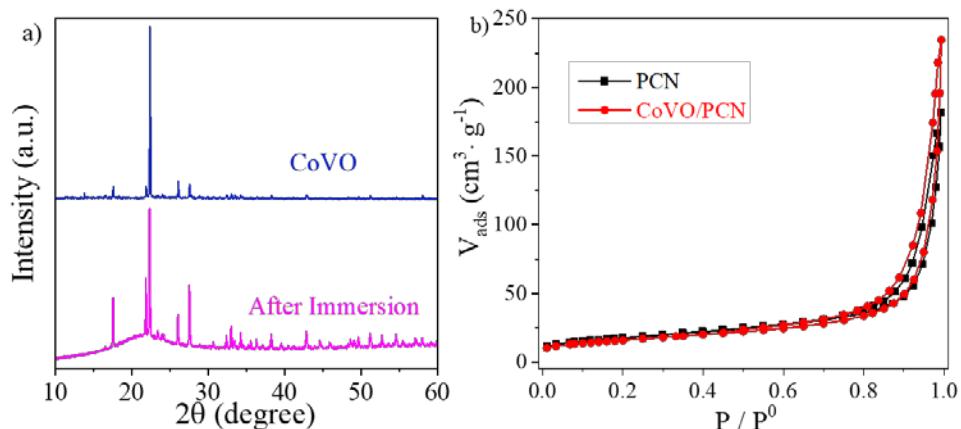


Figure S1. (a) XRD pattern of CoVO before and after immersion, (b) BET specific surface areas of PCN and 3 wt% CoVO/PCN samples.

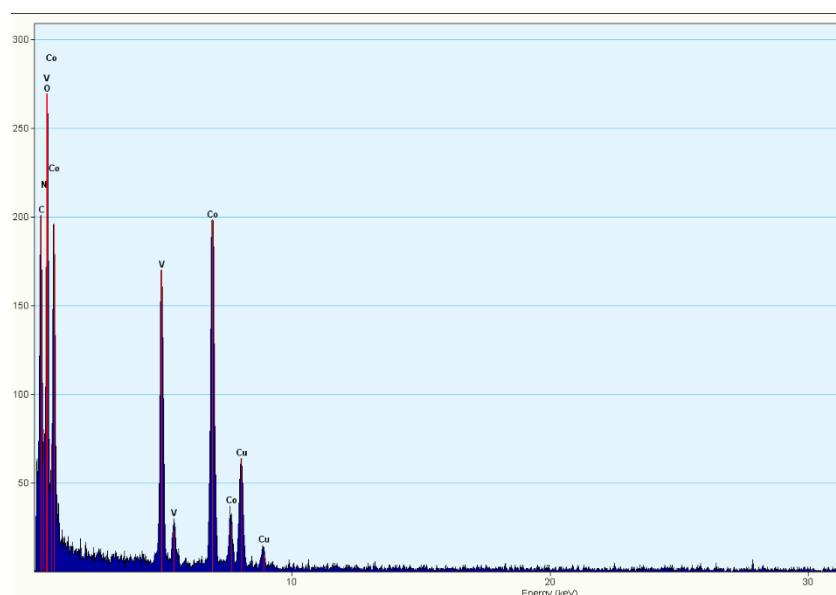


Figure S2. EDX analysis of 3 wt% CoVO/PCN sample.

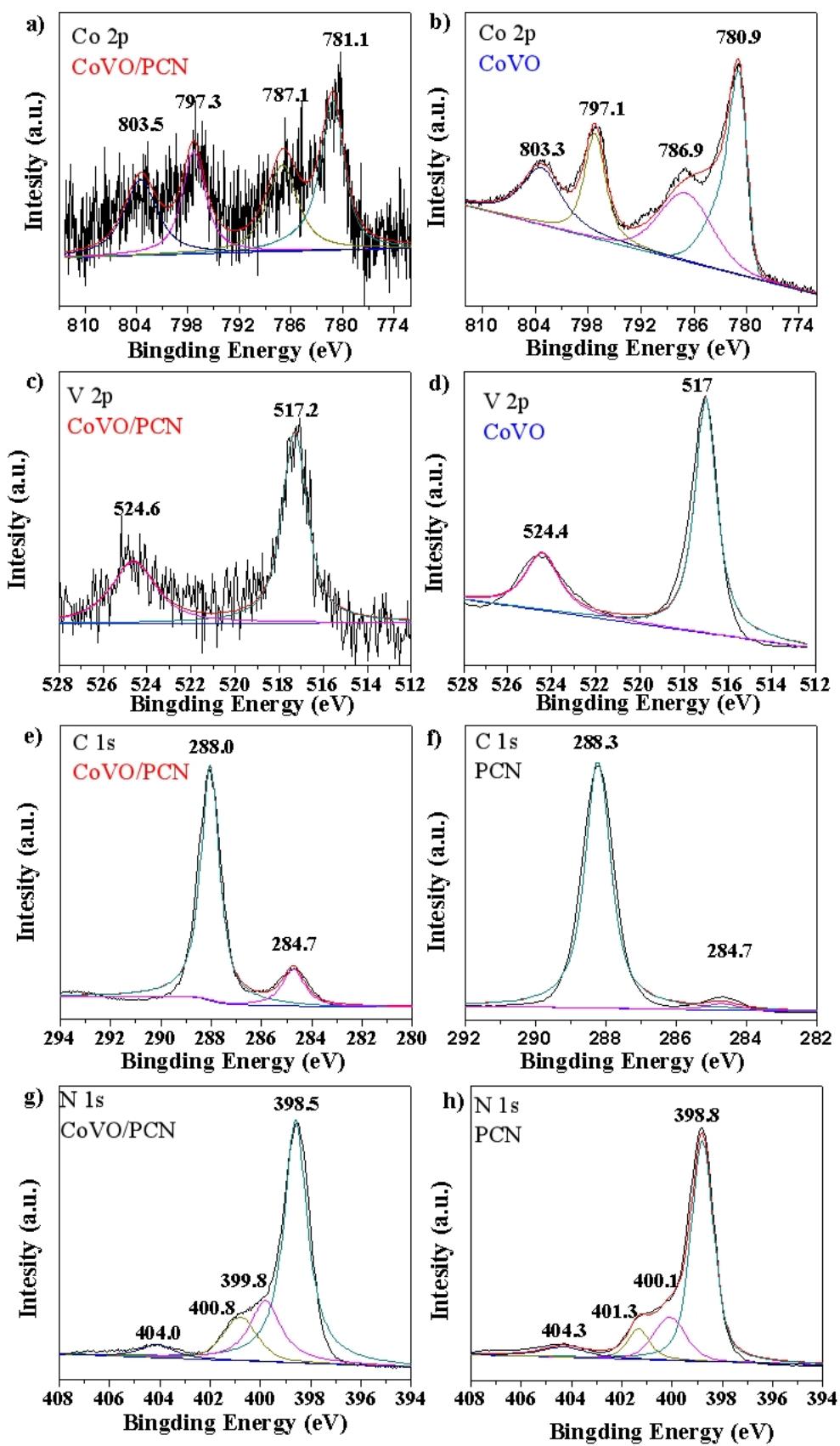


Figure S3. High-resolution XPS spectra of pure CoVO, PCN and the 3 wt% CoVO/PCN samples.

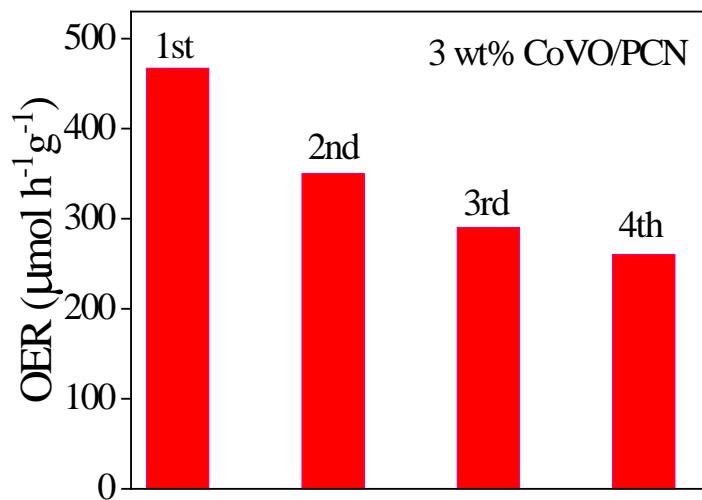


Figure S4. Recycling OER ability of 3 wt% CoVO/PCN.

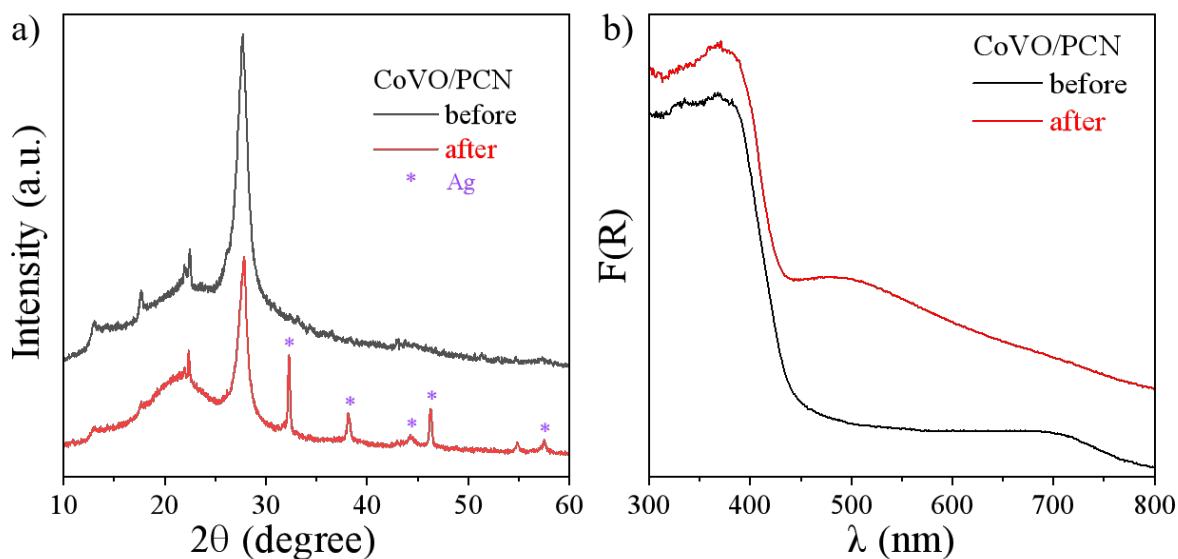


Figure S5. (a) XRD spectra and (b) DRS spectra of the recycled CoVO/PCN sample.

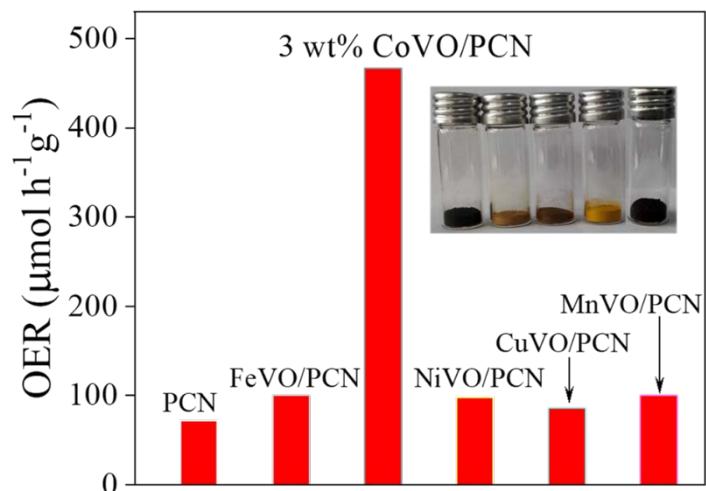


Figure S6. Photocatalytic O_2 evolution curves of 3 wt% TMVO/PCN samples (TM: Fe, Co, Ni, Cu, Mn).

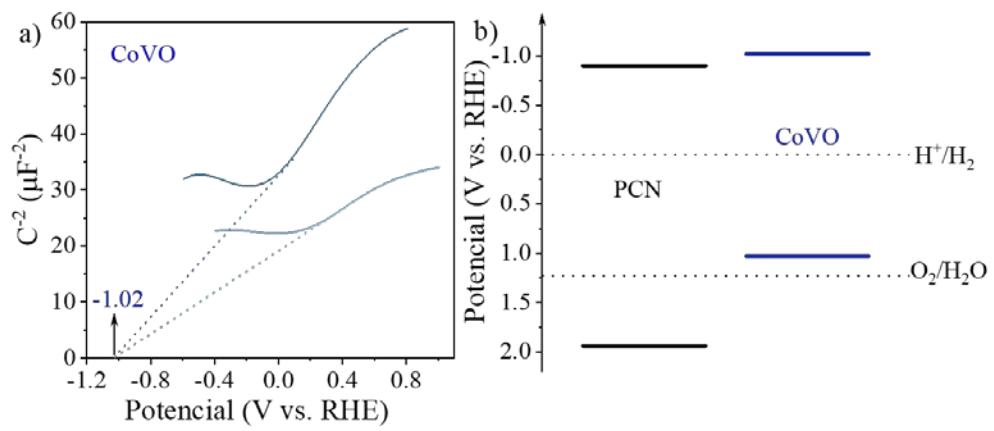


Figure S7. (a) Mott–Schottky plots of CoVO; (b) electronic band structure of the PCN and CoVO.