Novel 3-D nanoporous graphitic- C_3N_4 nanosheets with heterostructured modification for efficient visible-light photocatalytic hydrogen production

Jielin Yuan,^a Qiongzhi Gao,^{*a} Xin Li,^a Yingju Liu,^a Yueping Fang, ^{* a} Siyuan Yang ^c,Feng Peng ^c and Xiaosong Zhou^{*b}

^aInstitute of Biomaterial, College of Science, South China Agricultural University, Guangzhou 510642, China;

^bSchool of Chemistry Science & Technology, and Institute of Physical Chemistry, Zhanjiang Normal University, Zhanjiang 524048,, China;

^c School of Chemistry and Chemical Engineering, South China University of Technology, Guangzhou, PR China.

Corresponence author: Y.P. Fang Tel: 86-20-85285565. Fax: 86-20-85285565. E-mail: ypfang@scau.edu.cn; X.S. Zhou E-mail: zxs801213@163.com

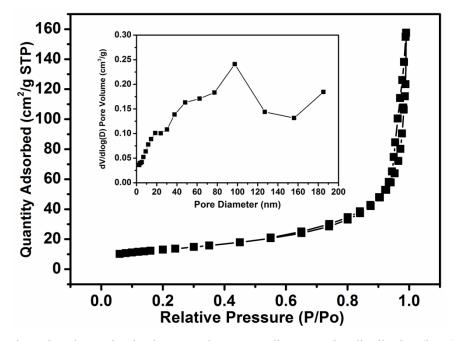


Fig. S1 Nitrogen adsorption-desorption isotherms and corresponding pore-size distribution (inset) of the porous C_3N_4 nanosheets

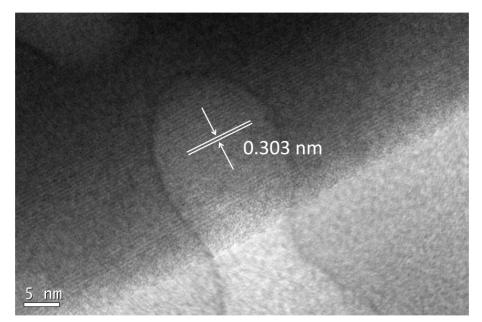


Fig. S2 HRTEM image with the lattice spacing of 0.303 nm by the analyses of P-C₃N₄/BiPO₄ 3% wt. samples.

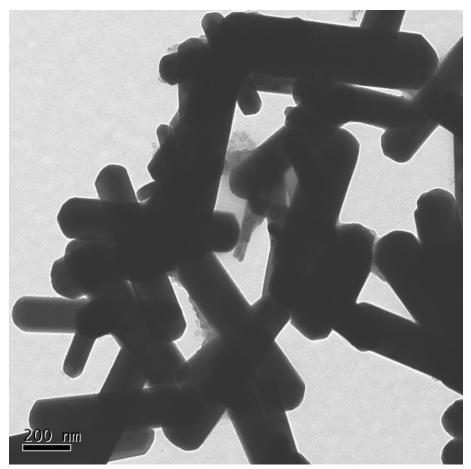


Fig. S3 Typical TEM images of pure $BiPO_4$ nanorods from hydrothermal reaction without adding amino cyanide (CH_2N_2) solution