## Phosphorus doped and defect modified graphitic carbon nitride for

## boosting photocatalytic hydrogen production

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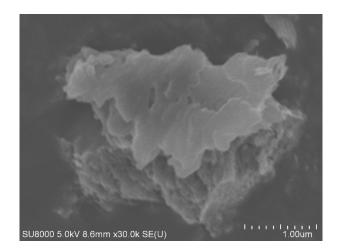


Fig. S1. SEM images of the as-prepared P-g-C<sub>3</sub>N<sub>4</sub> sample.

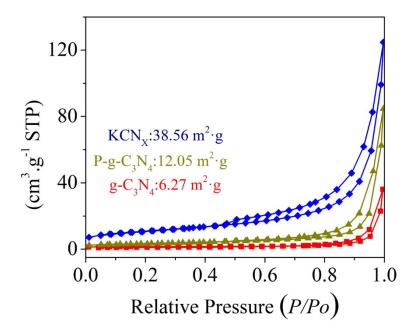


Fig S2:  $N_2$  adsorption-desorption isotherms of pristine g-C<sub>3</sub>N<sub>4</sub>, P-g-C<sub>3</sub>N<sub>4</sub> and PCN<sub>x</sub>

samples



Fig. S3. Digital photographs of the as-prepared  $g-C_3N_4$  and  $P-g-C_3N_4$  and  $PCN_x$  samples