

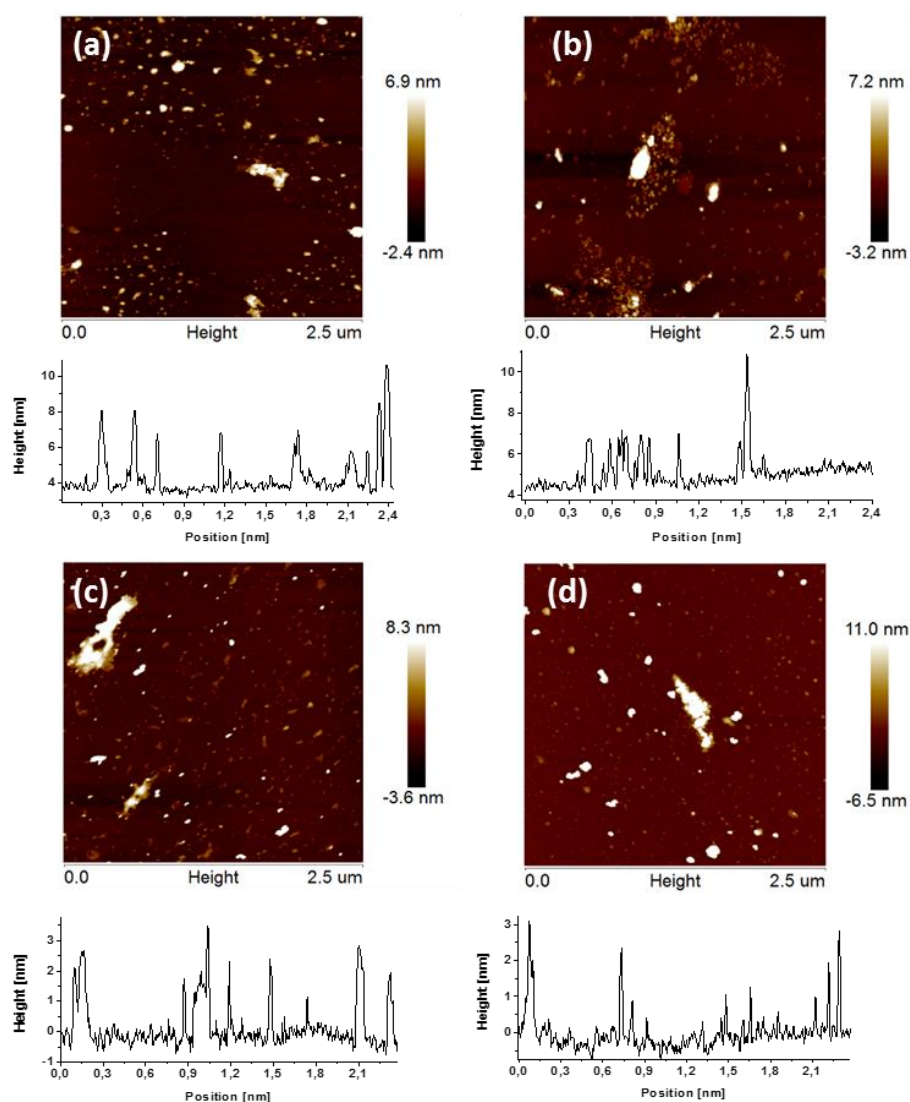
Supplementary material

# Bifunctional polymeric carbon nitride via tuning fabrication conditions for photocatalysis

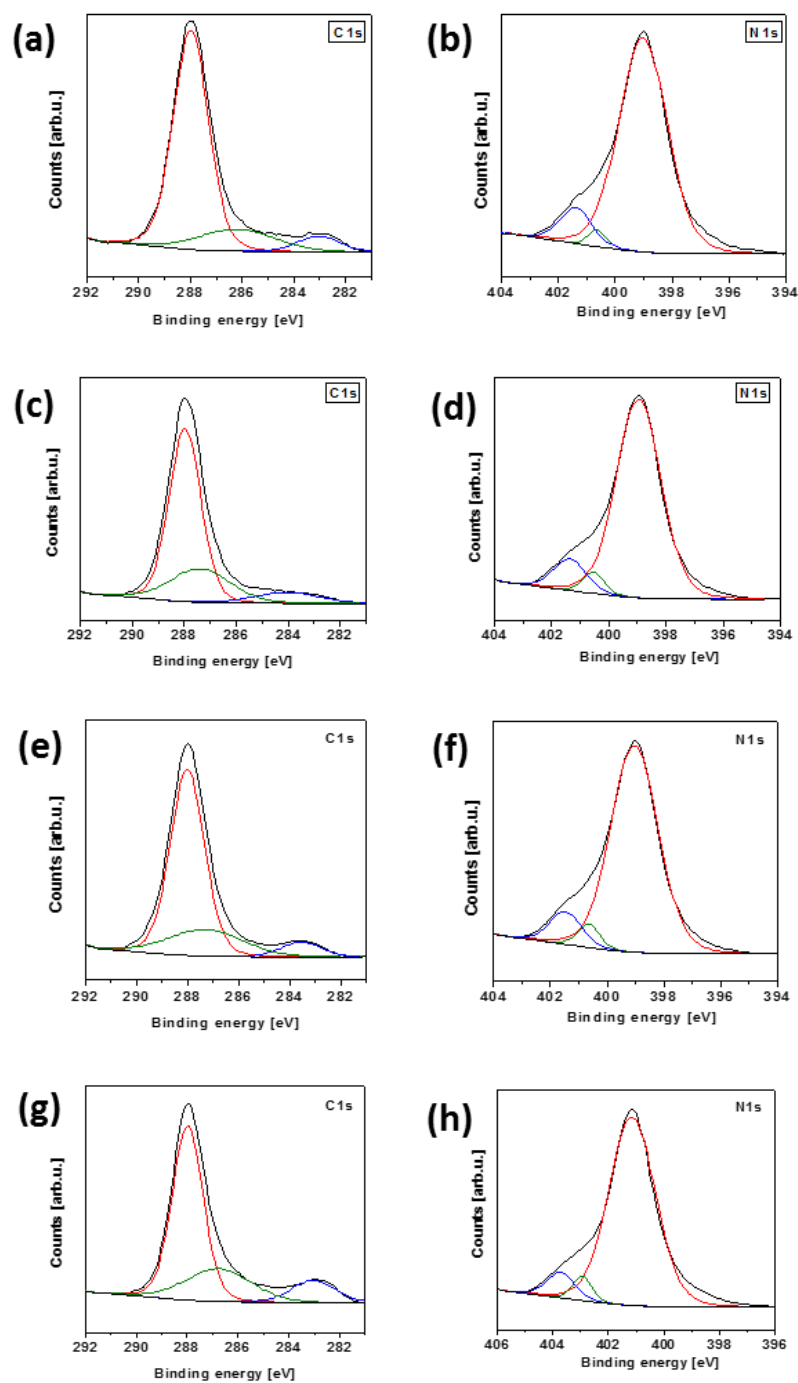
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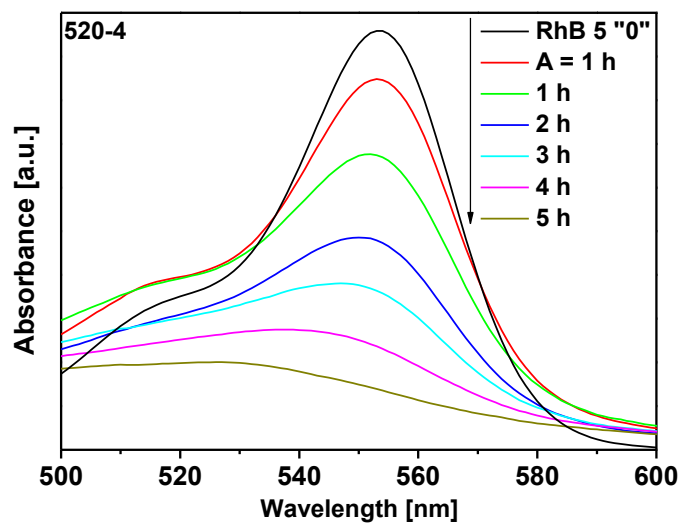
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**Figure S1.** AFM images and height profiles of polymeric carbon nitride prepared under different conditions: (a) 500-4, (b) 520-4, (c) 550-4 and (d) 600-4.



**Figure S2.** C 1s and N 1s XPS spectra of polymeric carbon nitride synthesized at 500 °C (500-4) (a, b), 520 °C (520-4) (c, d), 550 °C (550-4) (e, f) and 600 °C (600-4) (g, h).



**Figure S3.** UV/vis spectra of RhB during photocatalytic degradation with catalyst 520-4 irradiated with simulated solar light (150 W Xe lamp with Air Mass 1.5G filter).