

# **Photocatalytic H<sub>2</sub> evolution, CO<sub>2</sub> reduction and NO<sub>x</sub> oxidation by highly exfoliated g-C<sub>3</sub>N<sub>4</sub>**

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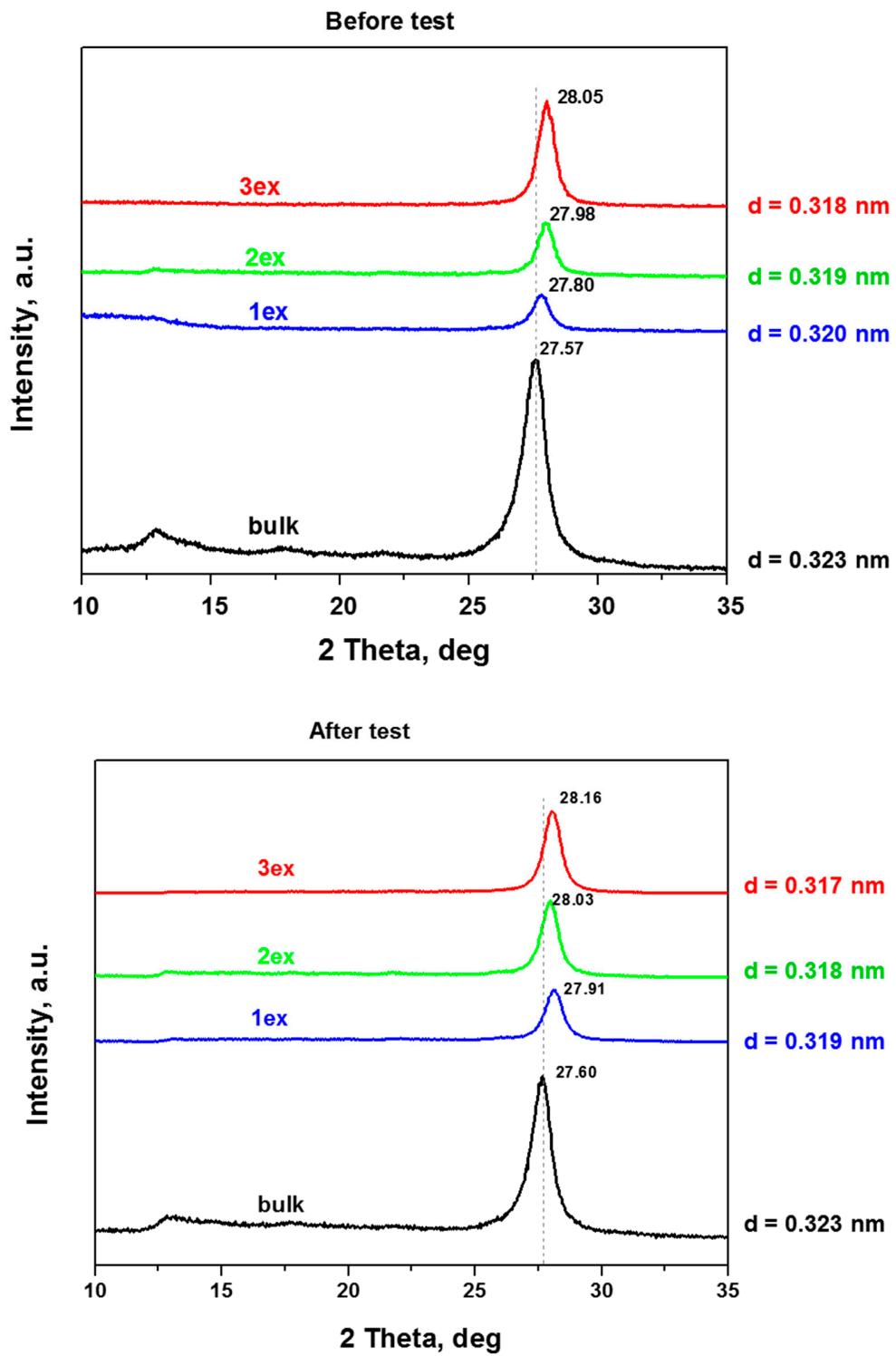
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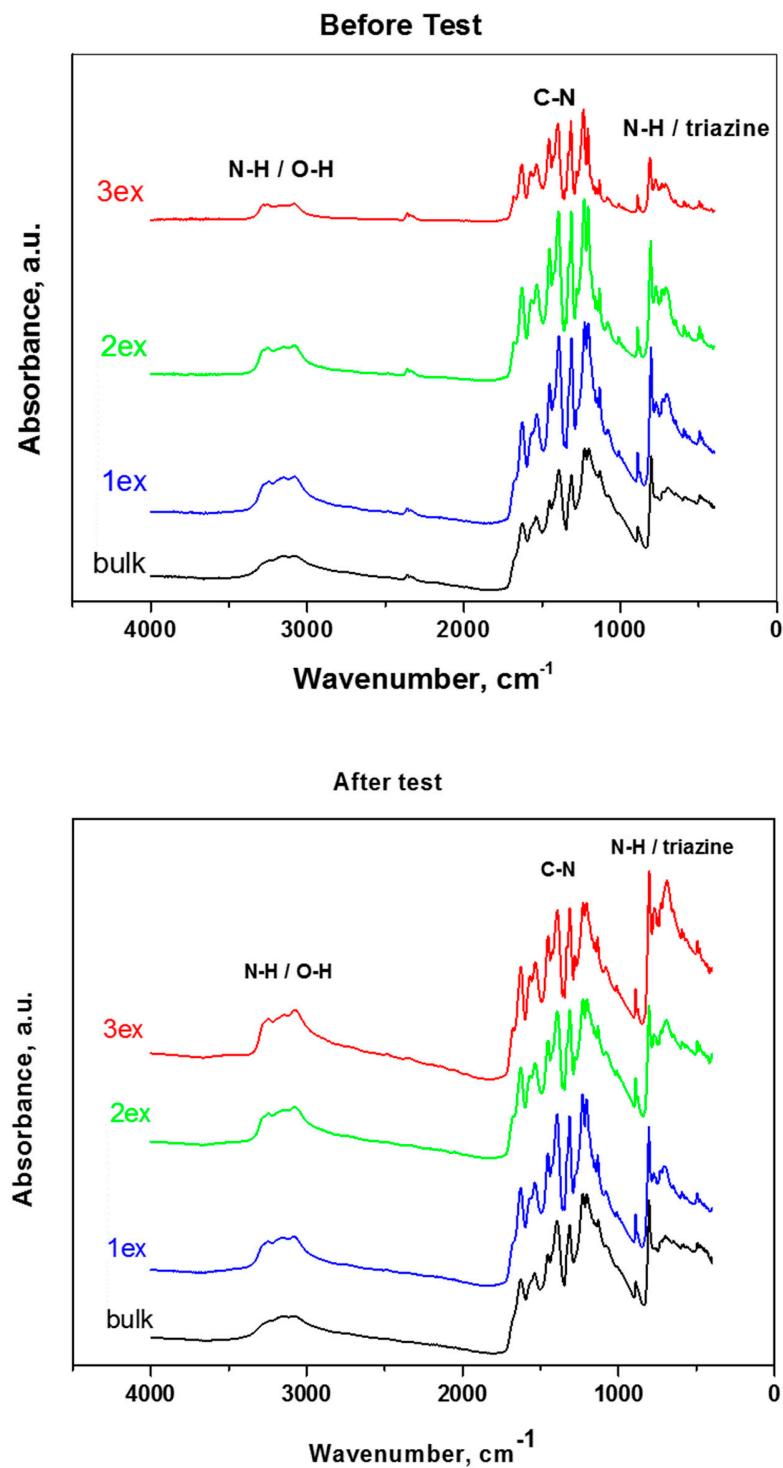
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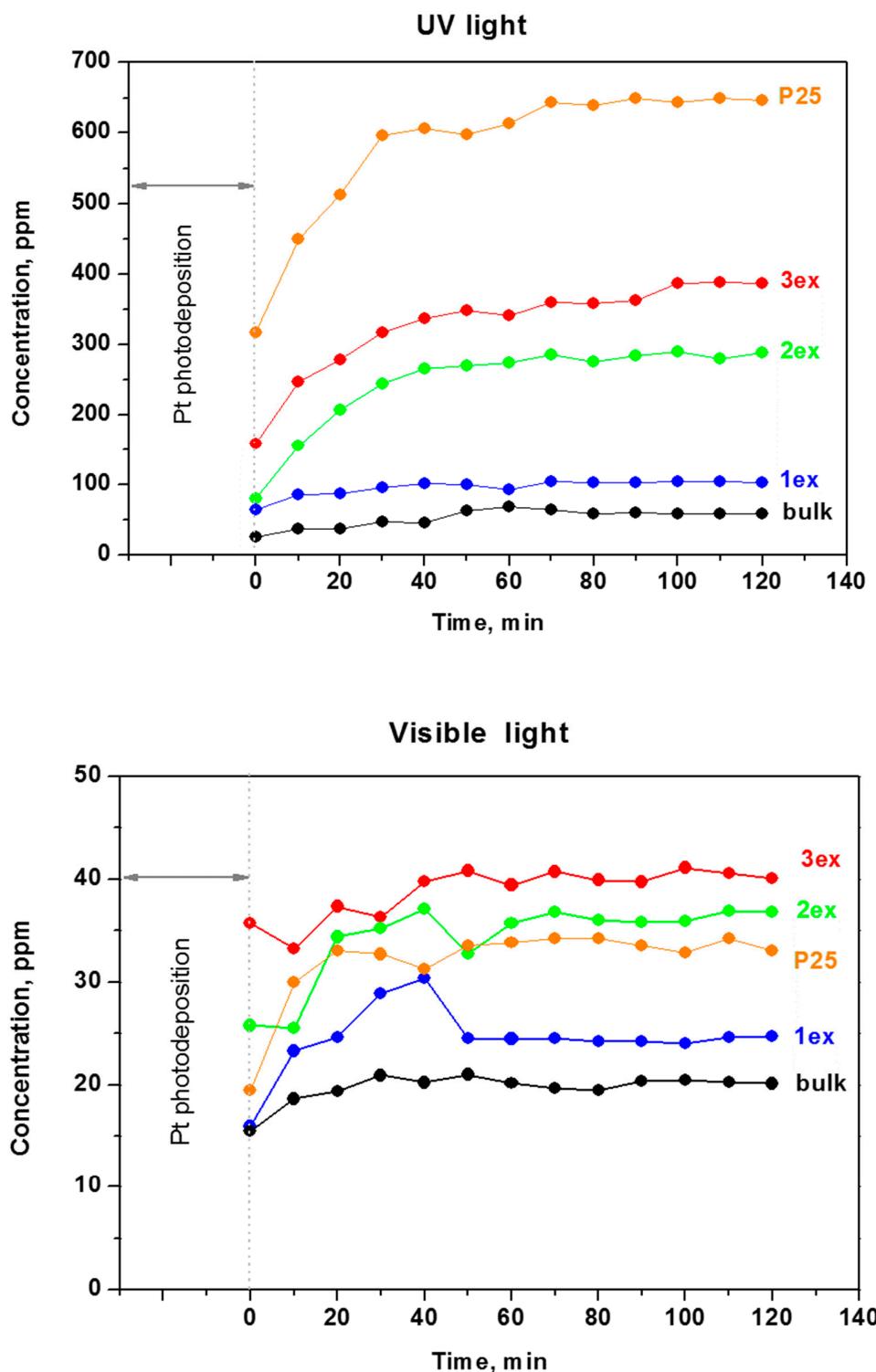
E-mail address [kamila.koci@vsb.cz](mailto:kamila.koci@vsb.cz) (Kamila Kočí).



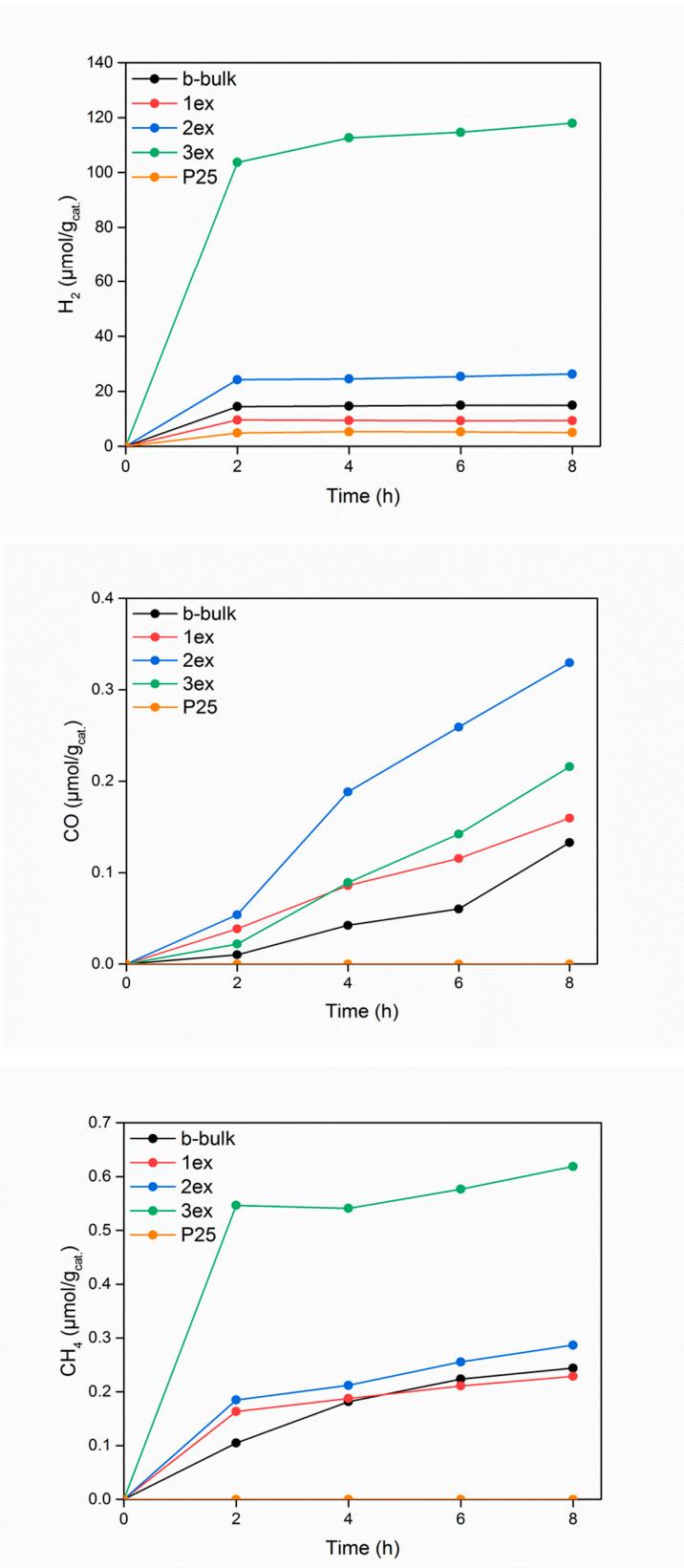
**Figure S1.**XRD patterns of the g-C<sub>3</sub>N<sub>4</sub> materials before and after photocatalytic activity tests in NO<sub>x</sub> oxidation.



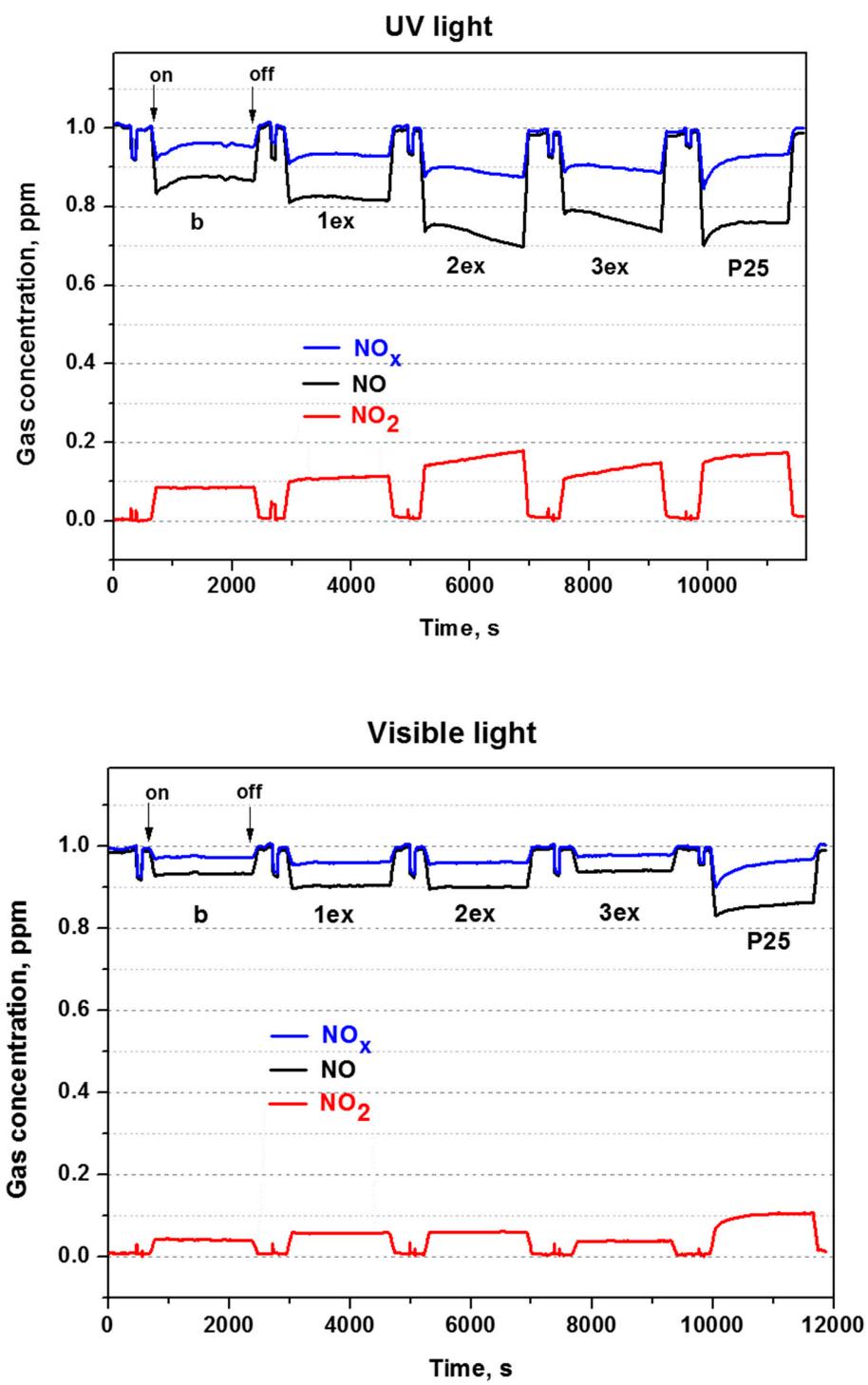
**Figure S2.** FT-IR spectra of the g-C<sub>3</sub>N<sub>4</sub> materials before and after photocatalytic activity tests in NO<sub>x</sub> oxidation.



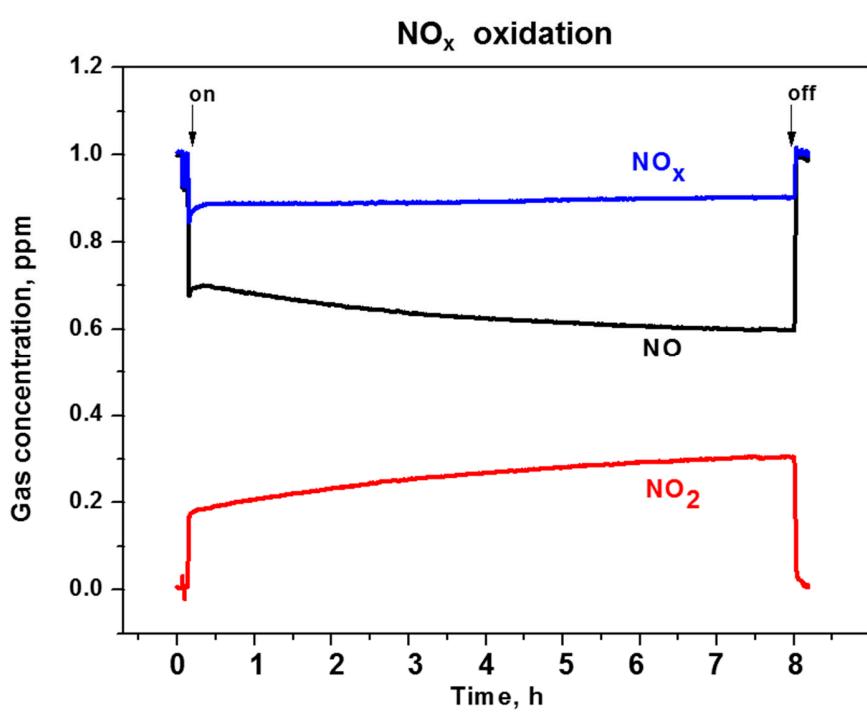
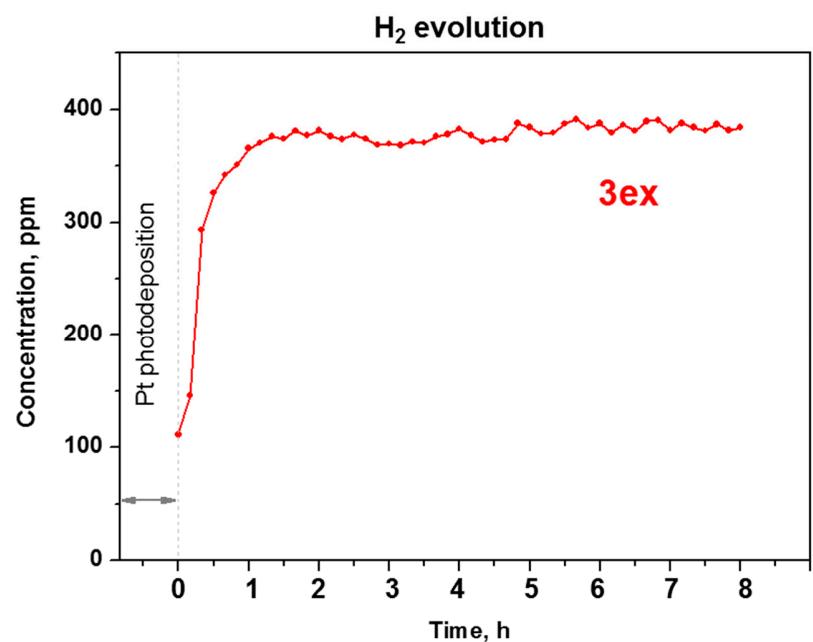
**Figure S3.** Experimental H<sub>2</sub>concentration curves recorded for the g-C<sub>3</sub>N<sub>4</sub>(b, 1ex, 2ex, 3ex) and reference (P25) catalysts under UV and visible light.



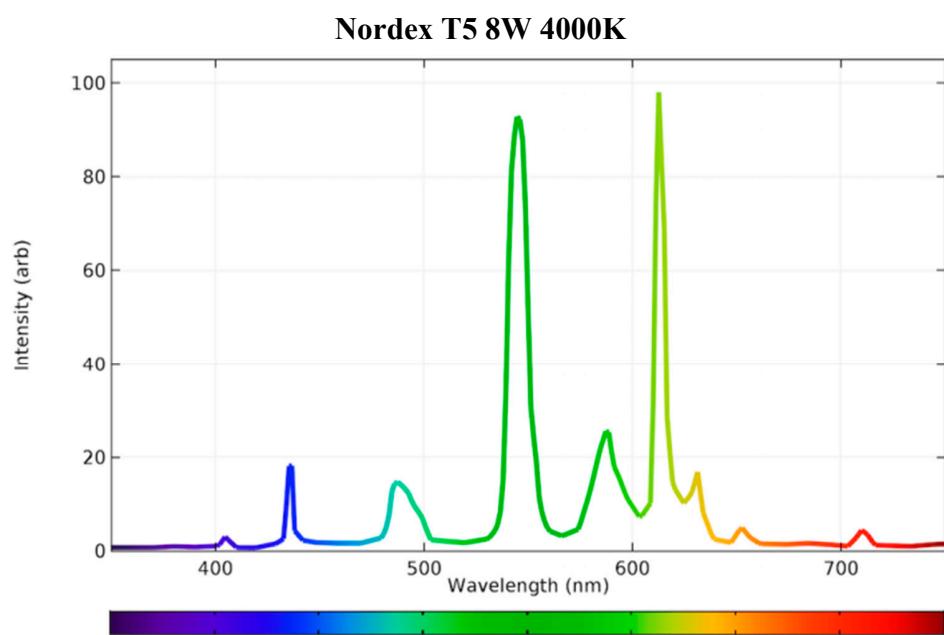
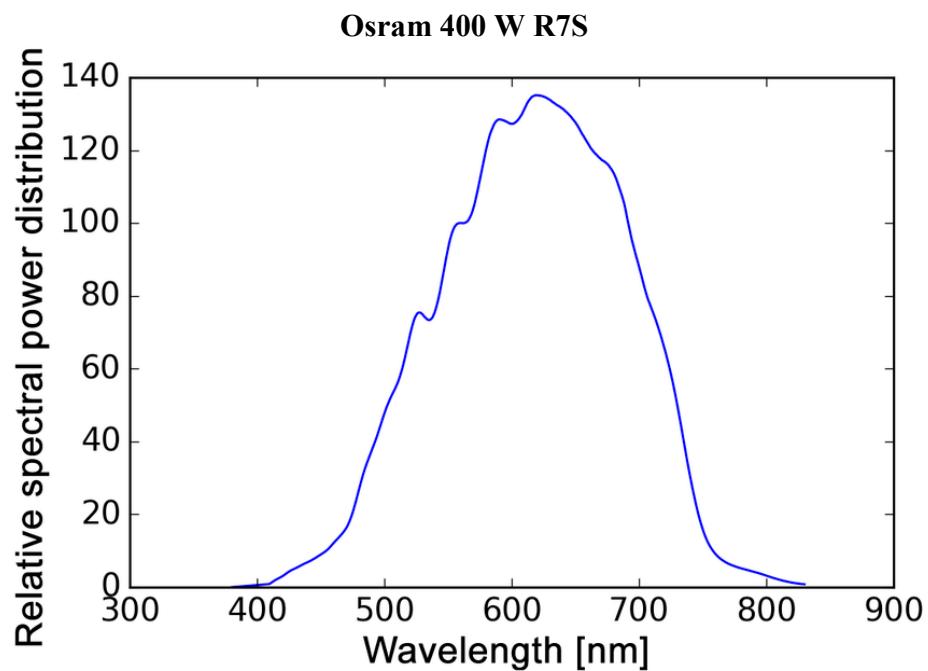
**Figure S4.** Time dependence of yields of  $H_2$ ,  $CO$  and  $CH_4$ .



**Figure S5.** Concentration of  $\text{NO}$ ,  $\text{NO}_2$  and  $\text{NO}_x$  gases for the  $\text{g-C}_3\text{N}_4$  (b, 1ex, 2ex, 3ex) and reference (P25) catalysts under UV and visible light irradiation.



**Figure S6.** Long-term (8 h) measurements for 3ex in H<sub>2</sub> evolution and 2ex in NO<sub>x</sub> oxidation.



**Figure S7.** Emission spectra of the visible light sources