

Supporting Information

Facile route for C-N/Nb₂O₅ nanonets synthesis-based 2-methylimidazole for visible-light driven photocatalytic degradation of Rhodamine B

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Table of Contents

SUPPORTING FIGURES	1
Supporting Figure S1	1
Supporting Figure S2	2
Supporting Figure S3	3
Supporting Figure S4	4
Supporting Figure S5	5
Supporting Figure S6	5
Supporting Figure S7	6

SUPPORTING FIGURES

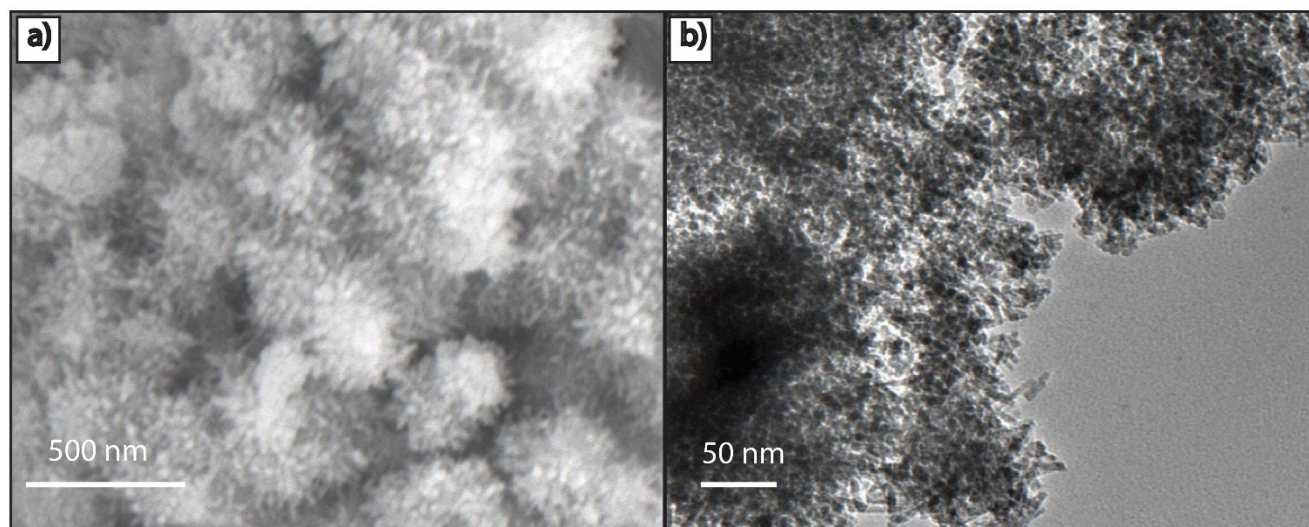


Figure S1. (a) SEM and (b) TEM images of Nb₂O₅-CS at calcination temperature 350 °C.

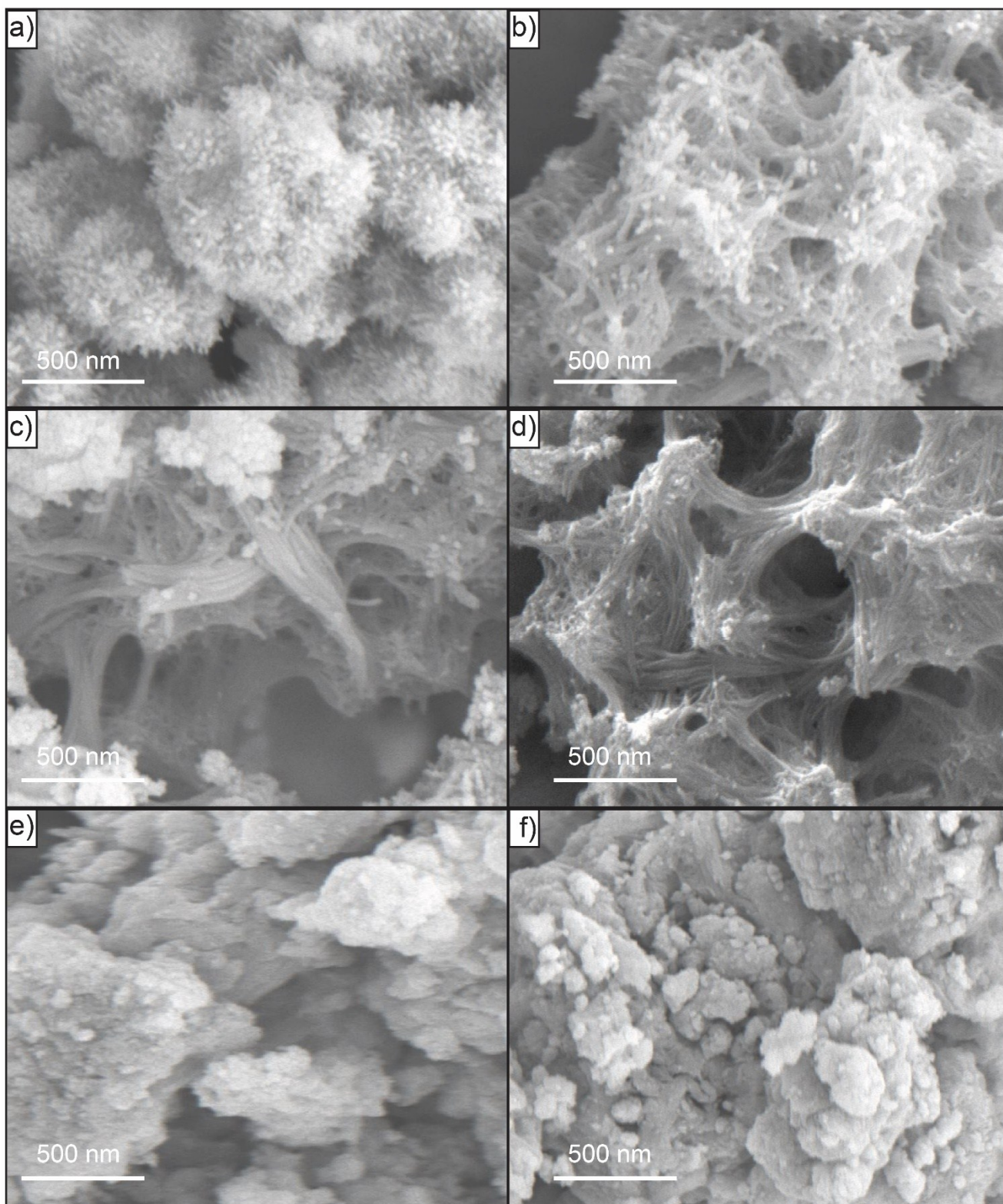


Figure S2. SEM images of Nb₂O₅ nanostructures synthesized by using different concentrations of Hmim: (a) 15 mmol·L⁻¹, (b) 30 mmol·L⁻¹, (c) 60 mmol·L⁻¹, (d) 90 mmol·L⁻¹, (e) 120 mmol·L⁻¹, and (f) 150 mmol·L⁻¹.

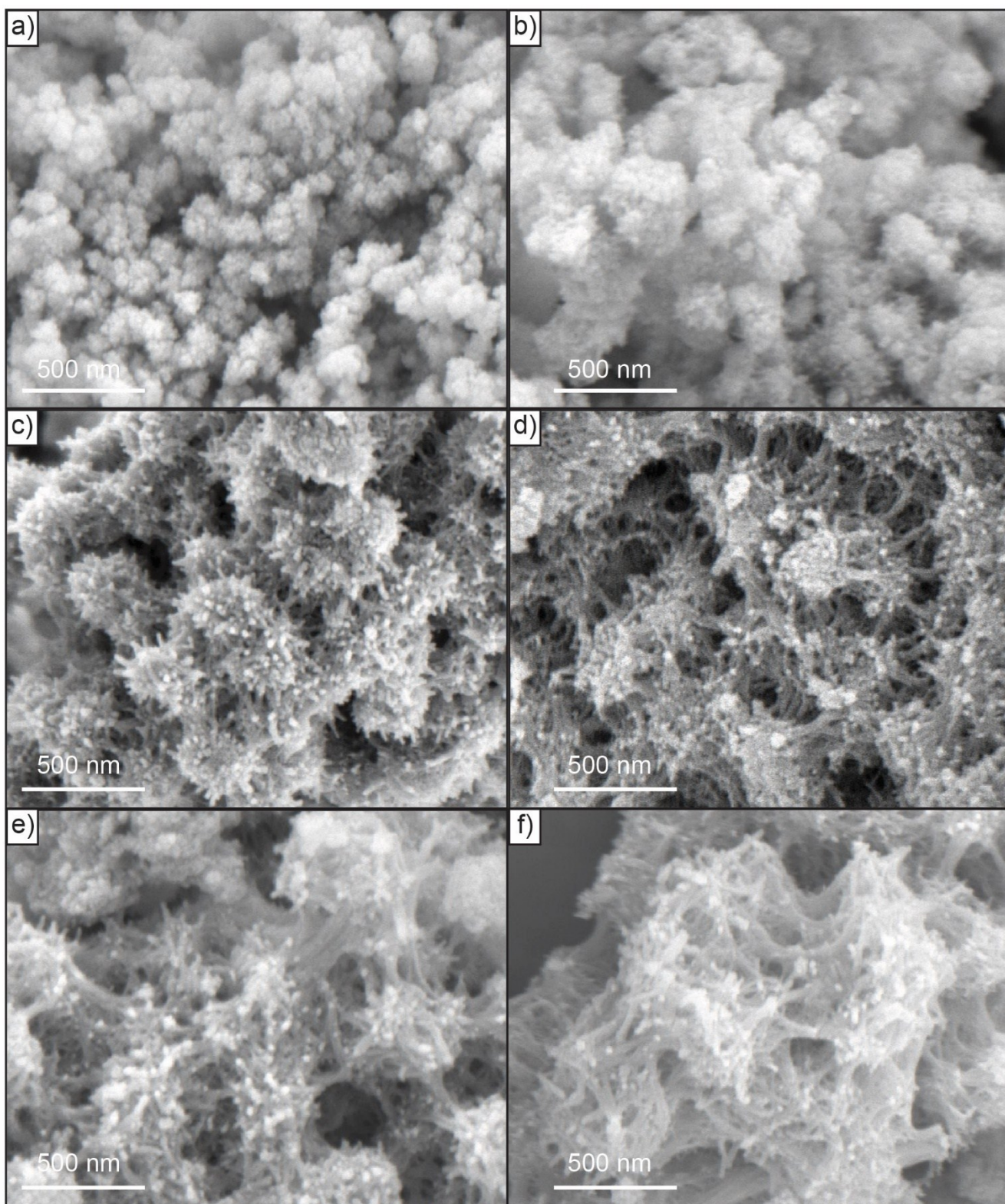


Figure S3. SEM images of Nb₂O₅ nanonetstructures synthesized at different reaction periods: (a) 1 h, (b) 3 h, (c) 6 h, (d) 9 h, (e) 12 h, and (f) 24 h.

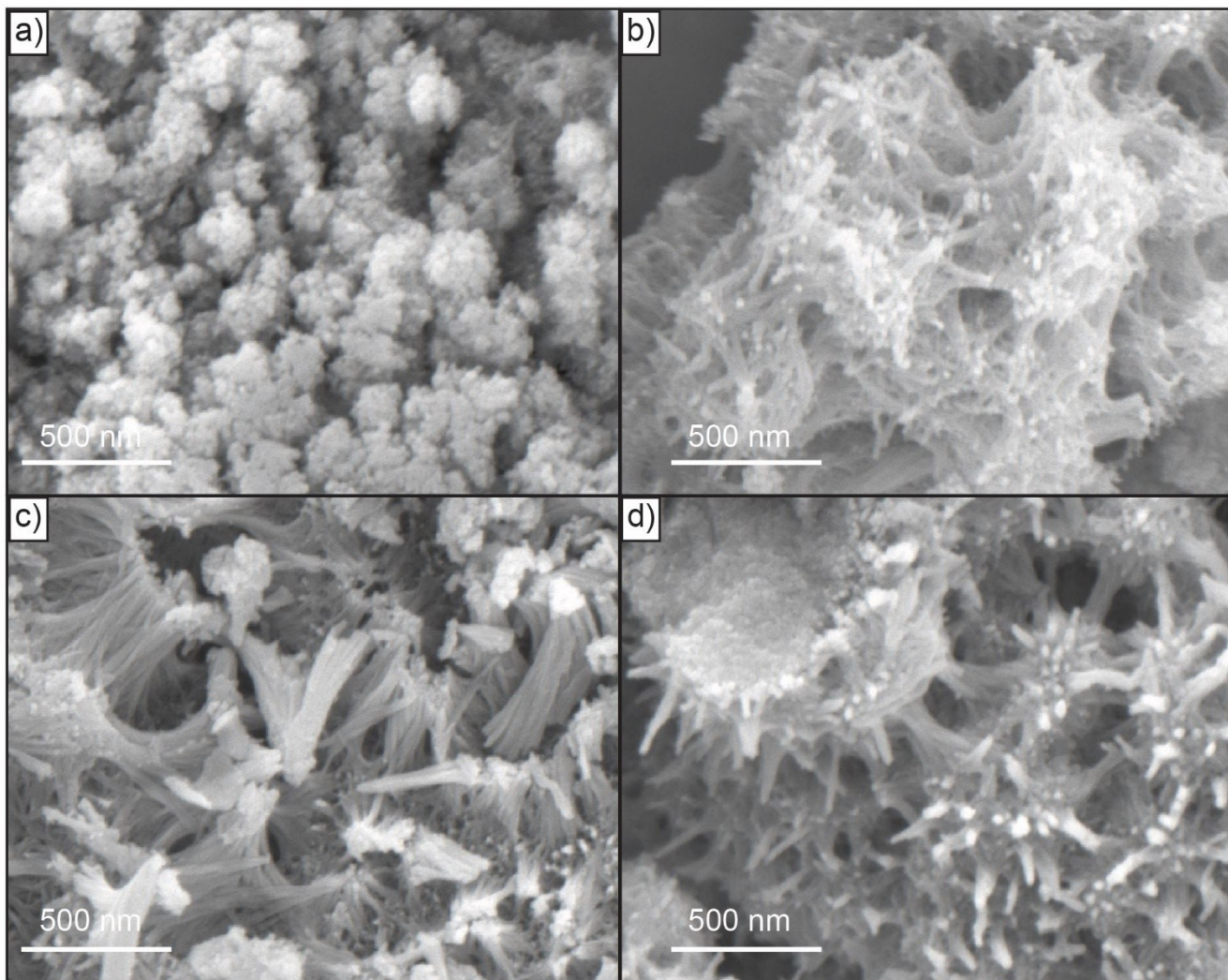


Figure S4. SEM images of C-N/Nb₂O₅NNs synthesized by using 2: 1 molar ratio of niobium oxalate: Hmim with different co-solvent volumetric ratios of water to ethanol: (a) 5:1, (b) 2:1, (c) 1:1, and (d) 1:2.

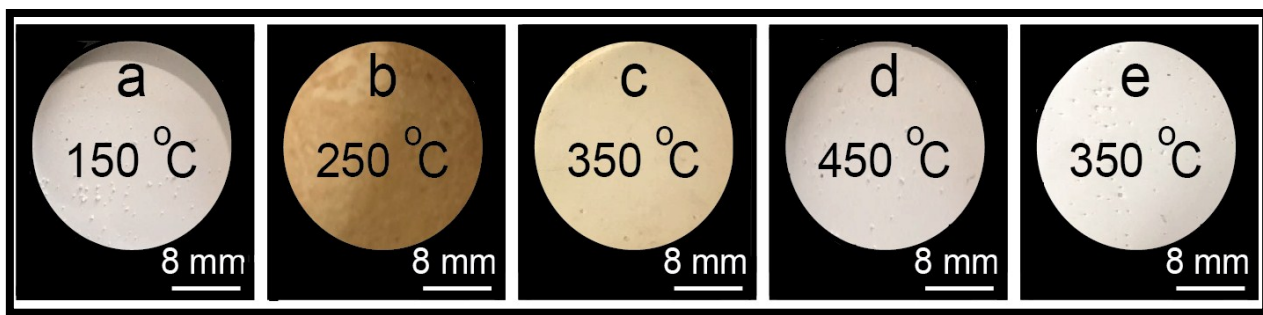


Figure S5. Camera images of Nb₂O₅ nanonetstructures powder at different calcination temperatures of (a) 150 °C, (b) 250 °C, (c) 350 °C, (d) 450 °C, and (e) Nb₂O₅-CS at 350 °C.

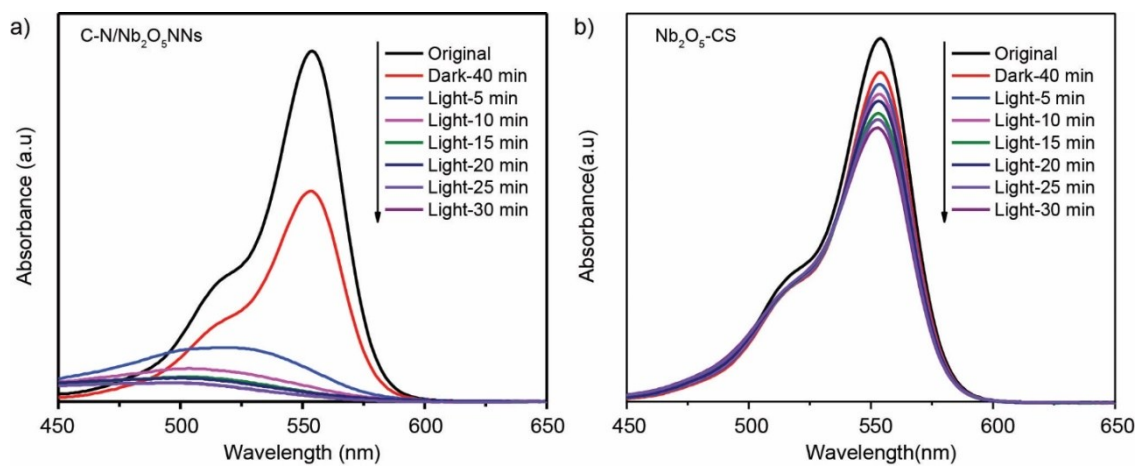


Figure S6. UV-vis absorption spectra changes of the RhB absorbance in aqueous solution over C-N/Nb₂O₅NNs (a) and Nb₂O₅-CS (b).

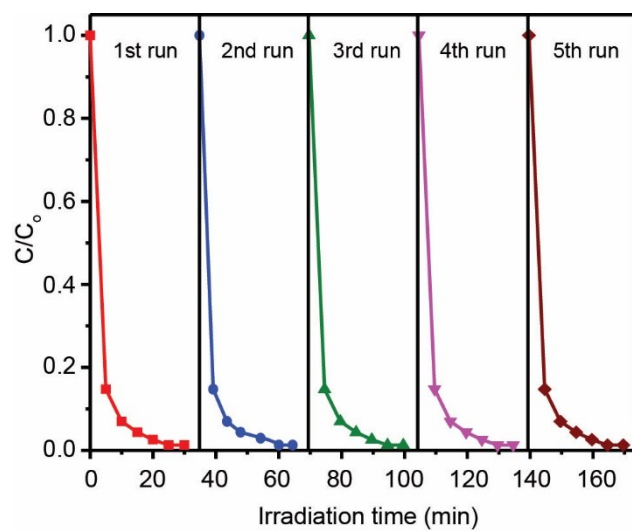


Figure S7. The number of cycles for the photocatalytic degradation of 10 mg/L RhB in presence of 1 g/L C–N/Nb₂O₅NNs.