Supporting Information for

C, N-Codoped InOOH Microspheres: One-Pot Synthesis, Growth Mechanism and Visible Light Photocatalysis

Suxiang Ge, ab Beibei Wang, Jun Lin, and Lizhi Zhang and Lizhi Zhang

^aKey Laboratory of Pesticide & Chemical Biology of Ministry of Education, College of Chemistry, Central China Normal University, Wuhan 430079, People's Republic of China E-mail: zhanglz@mail.ccnu.edu.cn Phone/Fax: +86-27-6786 7535

^bKey Laboratory of Micro-Nano Materials for Energy Storage and Conversion of Henan Province, Institute of Surface Micro and Nano Materials, Xuchang University, Henan 461000, People's Republic of China

^cDepartment of Chemistry, Renmin University of China, Beijing 100872, People's Republic of China E-mail: jlin@chem.ruc.edu.cn

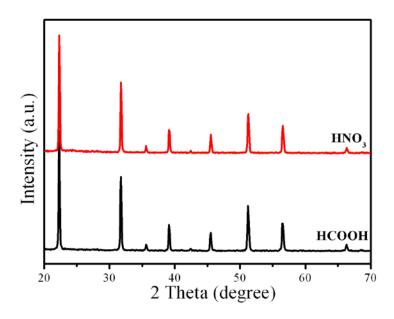


Fig. S1 XRD of In(OH)₃ obtained by adding HCOOH or HNO₃ to adjust the pH.

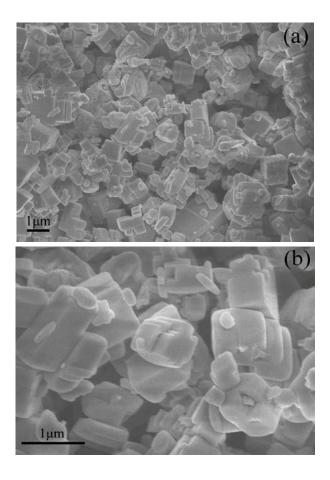


Fig. S2 SEM images of In(OH)₃ obtained without adding CA in the reaction system.

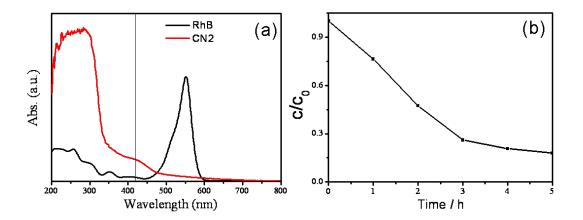
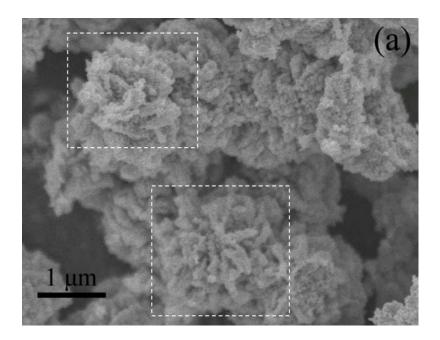


Fig. S3 Comparison of UV-vis diffuse reflectance spectral of CN2 and RhB (a) and the photodegradation efficiencies of RhB by 0.1 g of CN2 under monochromatic light source (λ = 420 nm) (b). C₀ and C are the initial concentration after the adsorption equilibrium and temporal concentration of RhB at different times, respectively.



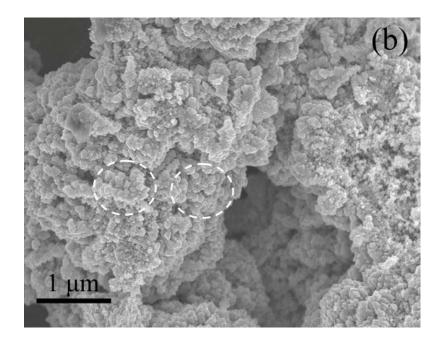


Fig. S4 SEM images of samples with 0.30 mmol of CA collected at different reaction stages: (a) 12 h, (b) 18 h.

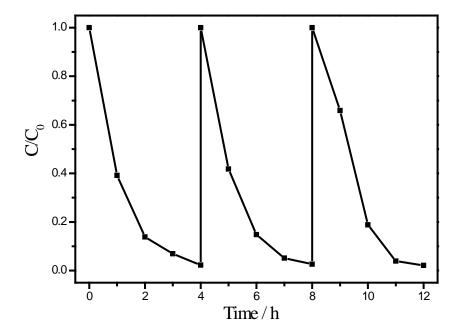


Fig. S5 Recycling runs of photocatalytic experiment with the used CN2 catalyst.