

Electronic Supplementary Information

Unique 1D/3D K₂Ti₆O₁₃/TiO₂ micro-nano heteroarchitectures: controlled hydrothermal crystal growth and enhanced photocatalytic performance for water purification

Qiang Wang,^{a,b} Chenming Fan,^a Guomin Li,^a Jiangshui Luo^{c,d*} and Bing Li^{a,c*}

^aSchool of Mechanical and Power Engineering, East China University of Science and Technology,
130 Meilong Road, Shanghai 200237, China.

^bState Key Lab of High Performance Ceramics and Superfine Microstructure, Shanghai Institute of
Ceramics, Chinese Academy of Sciences, 1295 Dingxi Road, Shanghai, 200050, China

^cCollaborative Innovation Center of Clean Energy, Longyan University, Longyan 364012, China.

^dDepartment of Physics and Astronomy, KU Leuven, Leuven 3001, Belgium

*Corresponding Authors:

E-mail address: jiangshui.luo@kuleuven.be (Jiangshui Luo); bingli@ecust.edu.cn (Bing Li)

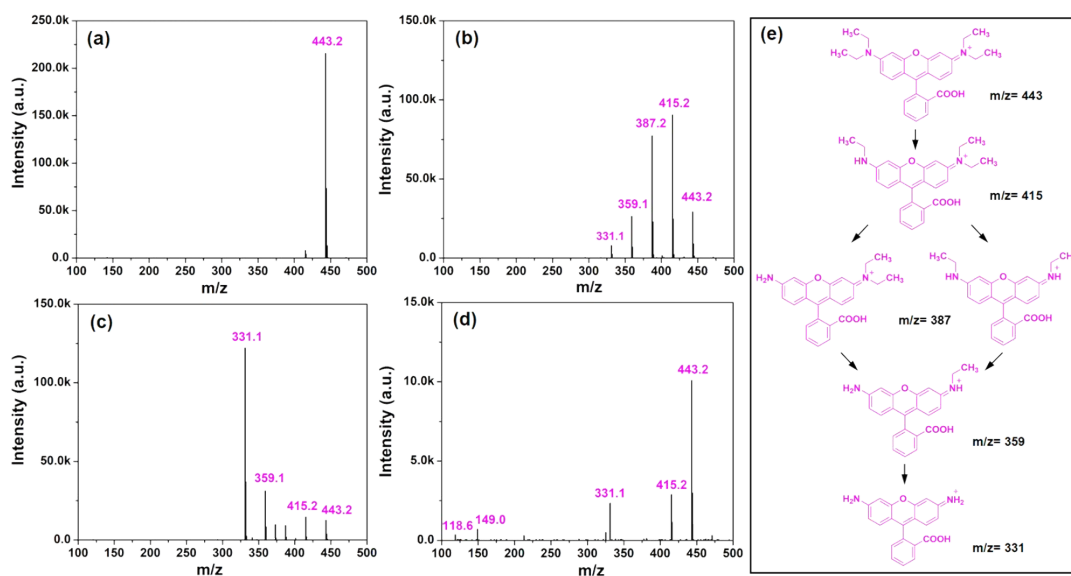


Fig. S1 MS spectra of RhB solutions and the formed intermediates during degradation process at different irradiation time : (a) 0 min, (b) 30 min, (c) 60 min and (d) 90 min. (e) Proposed pathway for photocatalytic degradation of RhB molecules.

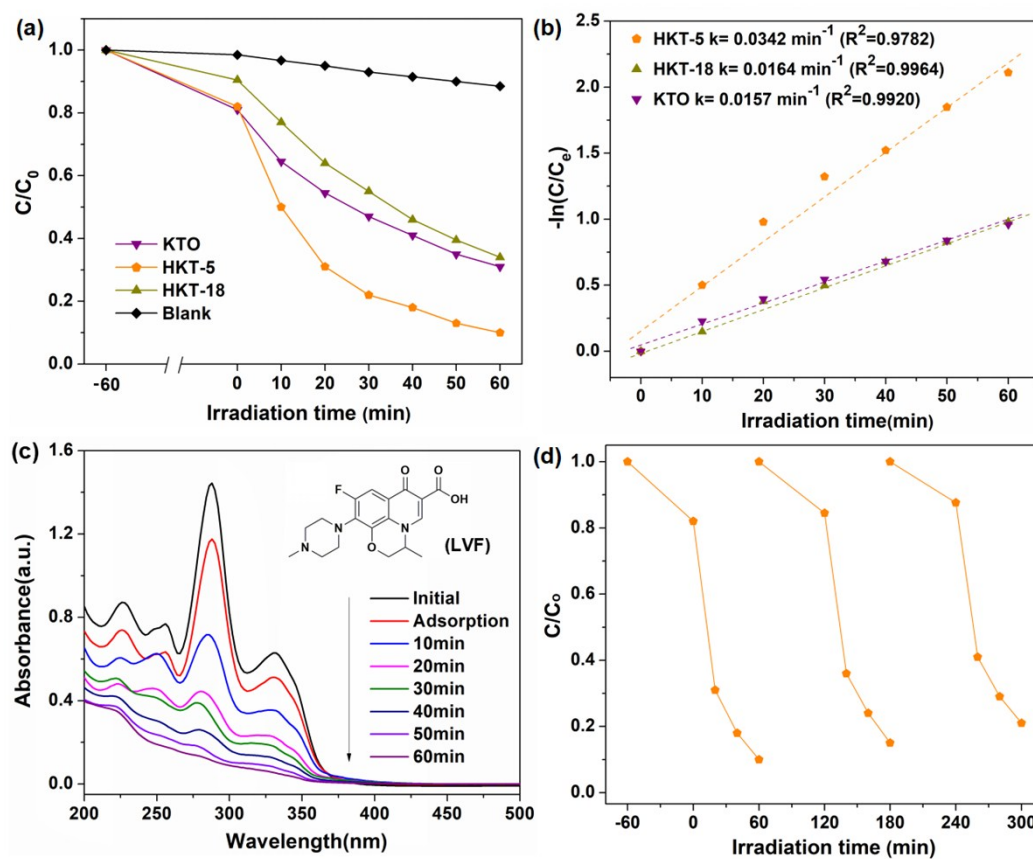


Fig. S2 (a) Photocatalytic degradation of LVF under simulated sunlight irradiation. (b) Pseudo first-order kinetic analysis for LVF degradation. (c) UV-vis spectra of LVF solutions before and after photocatalytic tests in the presence of HKT-5. (d) Cycling tests for LVF degradation by HKT-5.