

Electronic Supplementary Information (ESI) for

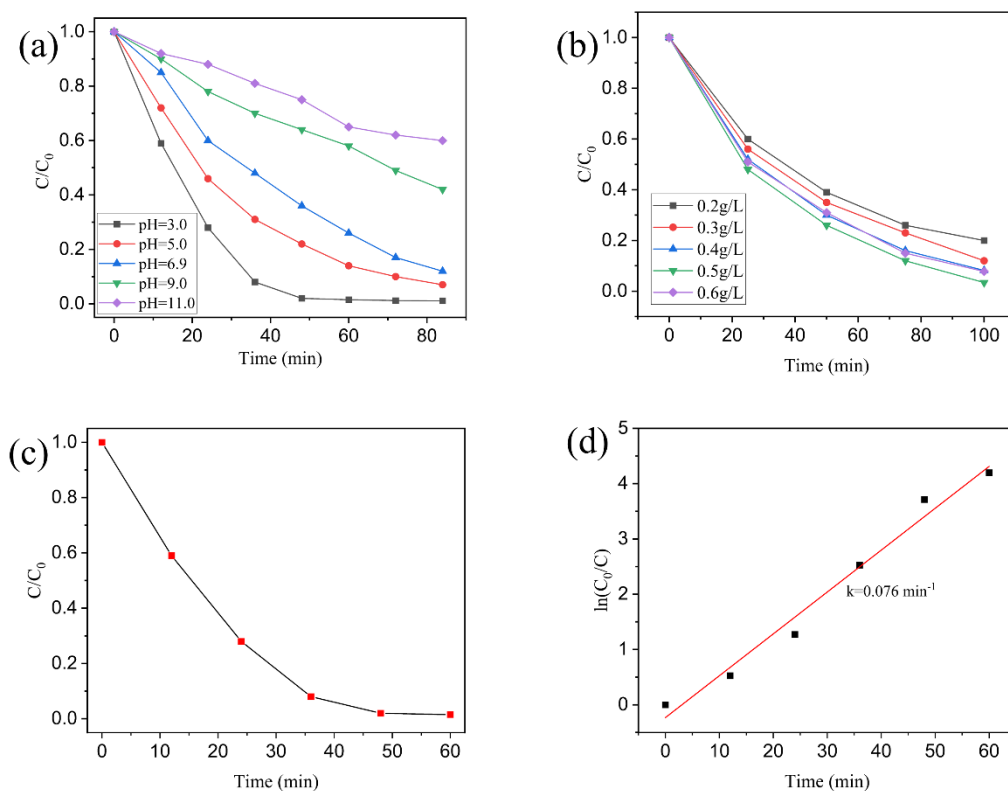
**Ag<sub>2</sub>NCN anchored on Ti<sub>3</sub>C<sub>2</sub>T<sub>x</sub> MXene as a Schottky heterojunction: Enhanced visible light photocatalytic efficiency of rhodamine B degradation**

Haidong Yu <sup>a,b</sup>, Haibing Jiang <sup>b</sup>, Xuan Cao <sup>a,\*</sup>, Shuhua Yao <sup>a,\*</sup>

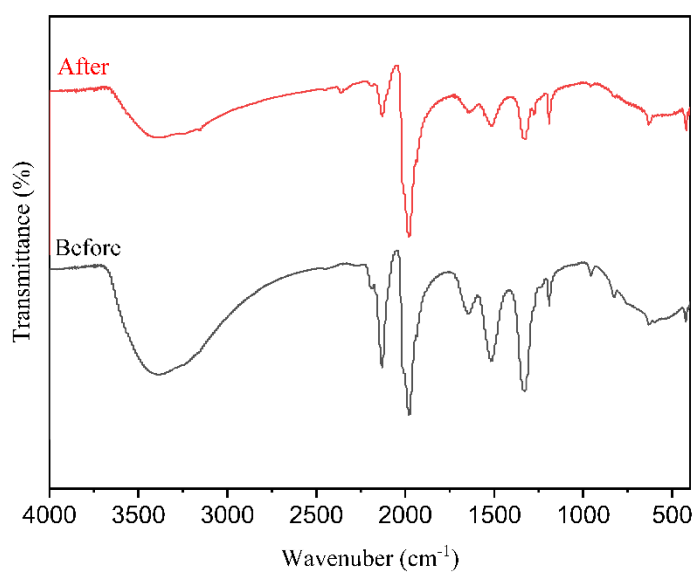
<sup>a</sup> *Liaoning Engineering Research Center for Treatment and Recycling of Industrially Discharged Heavy Metals, Shenyang University of Chemical Technology, Shenyang 110142, China*

<sup>b</sup> *Langfang Natural Resources Comprehensive Survey Center, China Geological Survey, Langfang 065000, China*

\*Correspondence E-mail: [caoxuan@syuct.edu.cn](mailto:caoxuan@syuct.edu.cn)



**Figure S1** Influence factors to the removal rate of RhB: (a) initial pH, (b) catalyst dosage; and (c) UV-vis spectra of RhB concentration changed with time, (d) the degradation kinetics (RhB = 20 mg/L 200 mL, pH=3.0,  $\text{Ag}_2\text{NCN}/\text{Ti}_3\text{C}_2\text{T}_x$  (AT2) = 0.5 g/L)



**Figure S2** FT-IR spectra comparison of fresh and used  $\text{Ag}_2\text{NCN}/\text{Ti}_3\text{C}_2\text{T}_x$  (AT2) composite.