

Supporting Information

Facile synthesis of magnetic zero-valent iron nanoflake-decorated graphene nanoplates as synergistic adsorbent and reductant for effective rhodamine B degradation

Trung-Dung Dang^{a,*} Hang T. T. Le^a , Duy Anh Nguyen^b, Duong Duc La^{b,*} Dinh Duc Nguyen^{c,d,*}

^a School of Chemical Engineering, Hanoi University of Science and Technology, 1st Dai Co Viet, Hanoi, Vietnam

^b Institute of Chemistry & Materials, 17 Hoang Sam, Cau Giay, Hanoi, Vietnam

^c Institute of Research and Development, Duy Tan University, Da Nang, Vietnam

^d Department of Environmental Energy Engineering, Kyonggi University, Republic of Korea

This provides further information about the magnetic properties of the GNPs@ZVI composite.

This material is available free of charge via the internet.

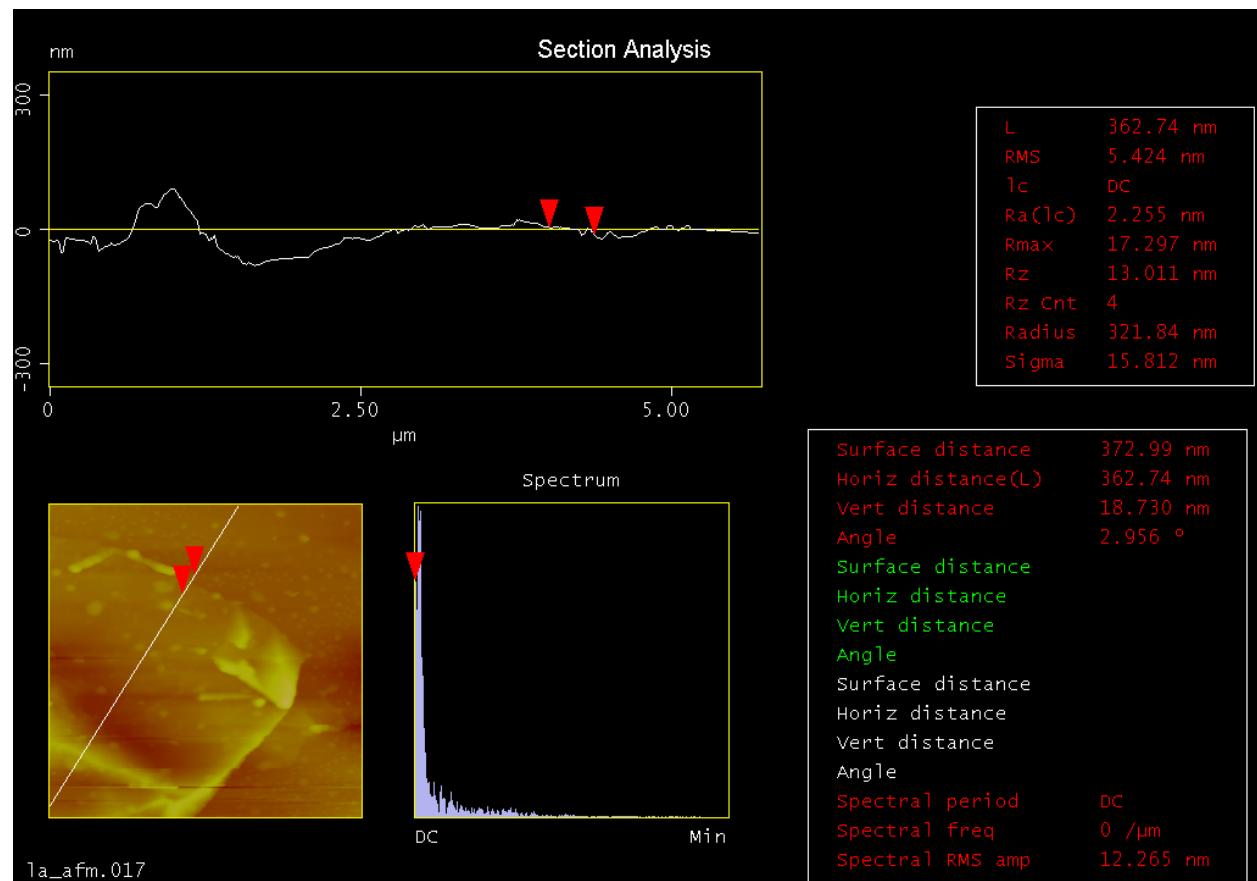


Figure S1. AFM images of graphene nanoplates

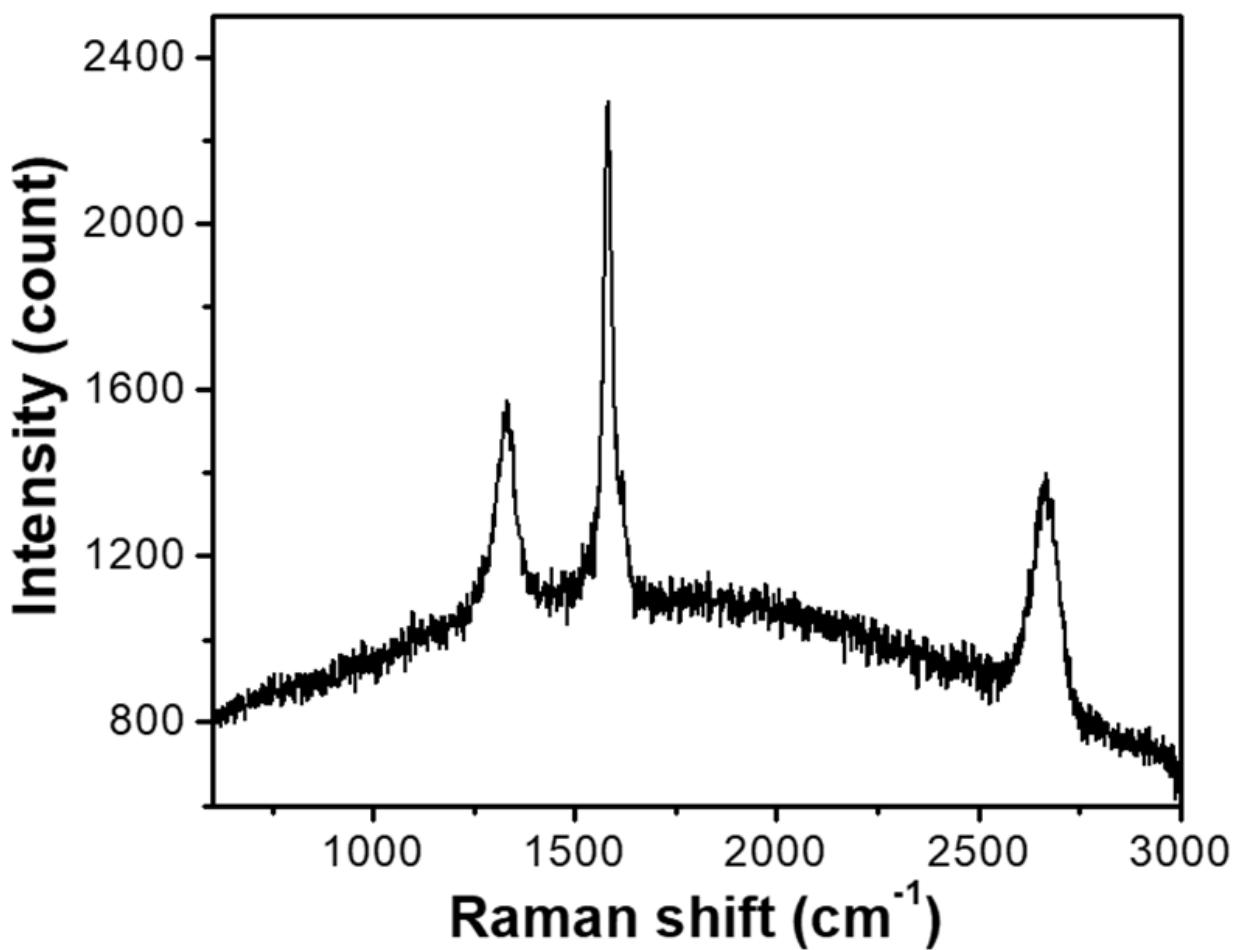


Figure S2. Raman spectrum of graphene nanoplates

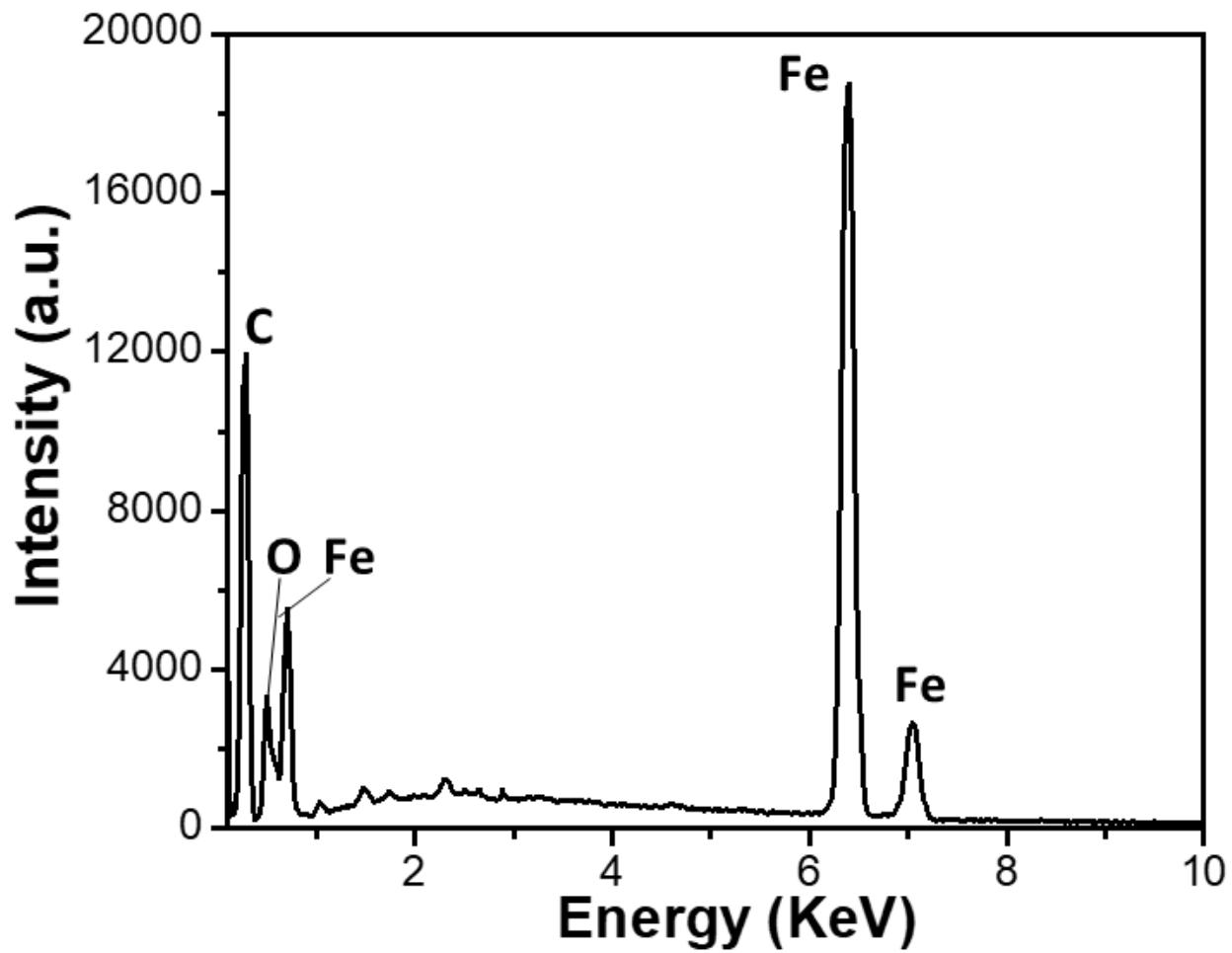


Figure S3. EDX spectrum of graphene@ZVI nanoflakes composite

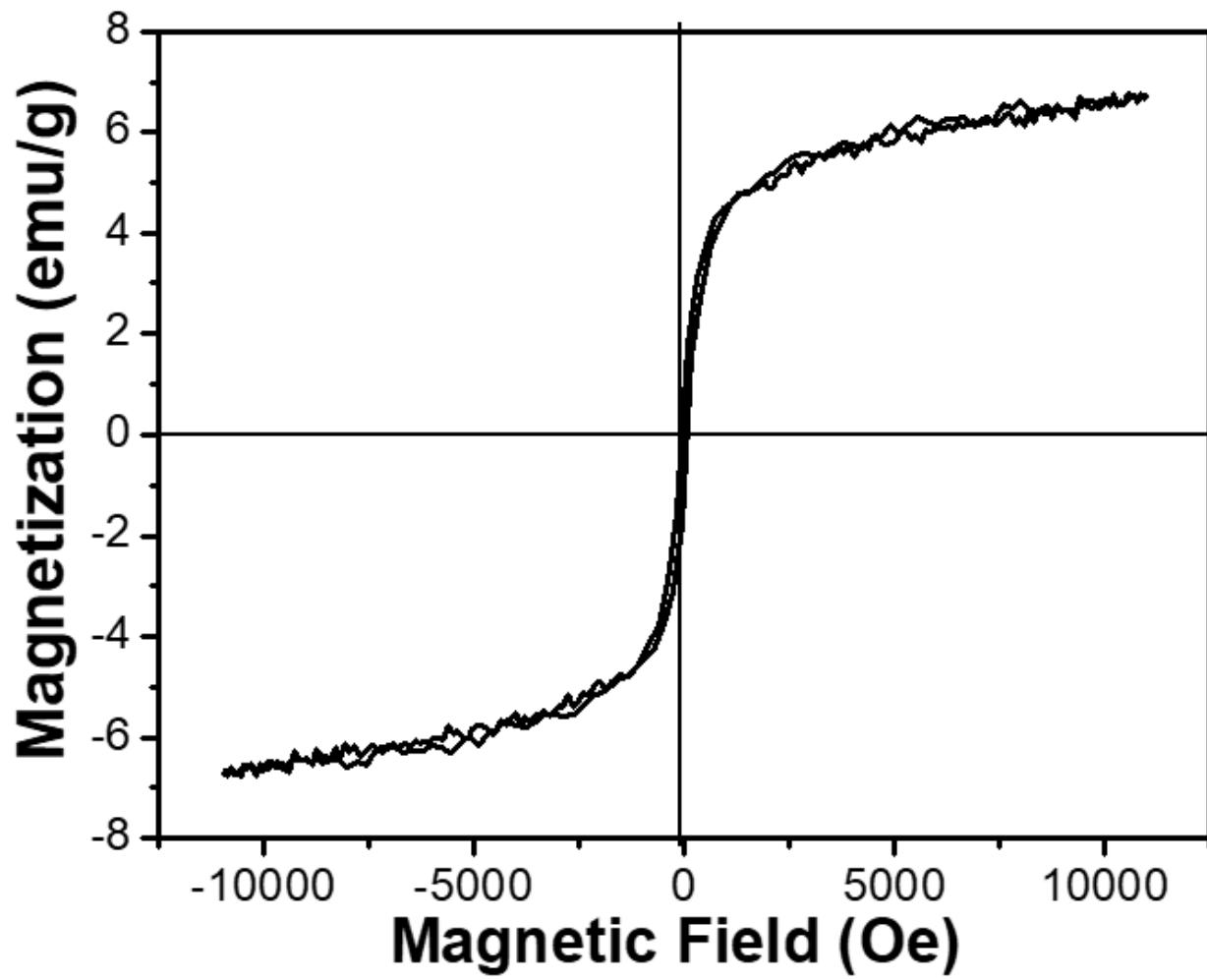


Figure S4. The magnetic properties of the ZVI nanoflakes-decorated graphene nanoplates composite.

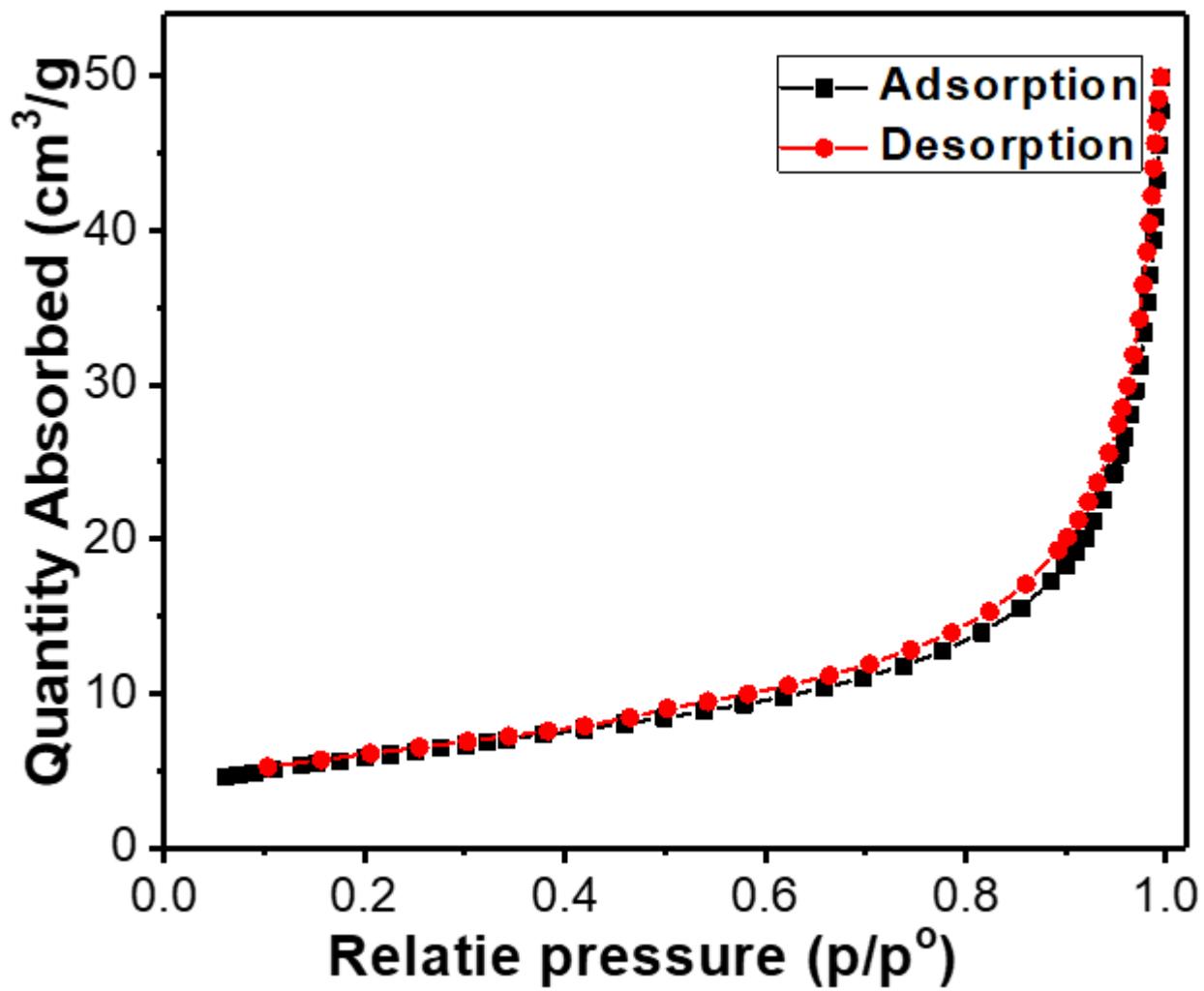


Figure S5. The N_2 adsorption and desorption curves of GNPs@fZVI nanocomposite.

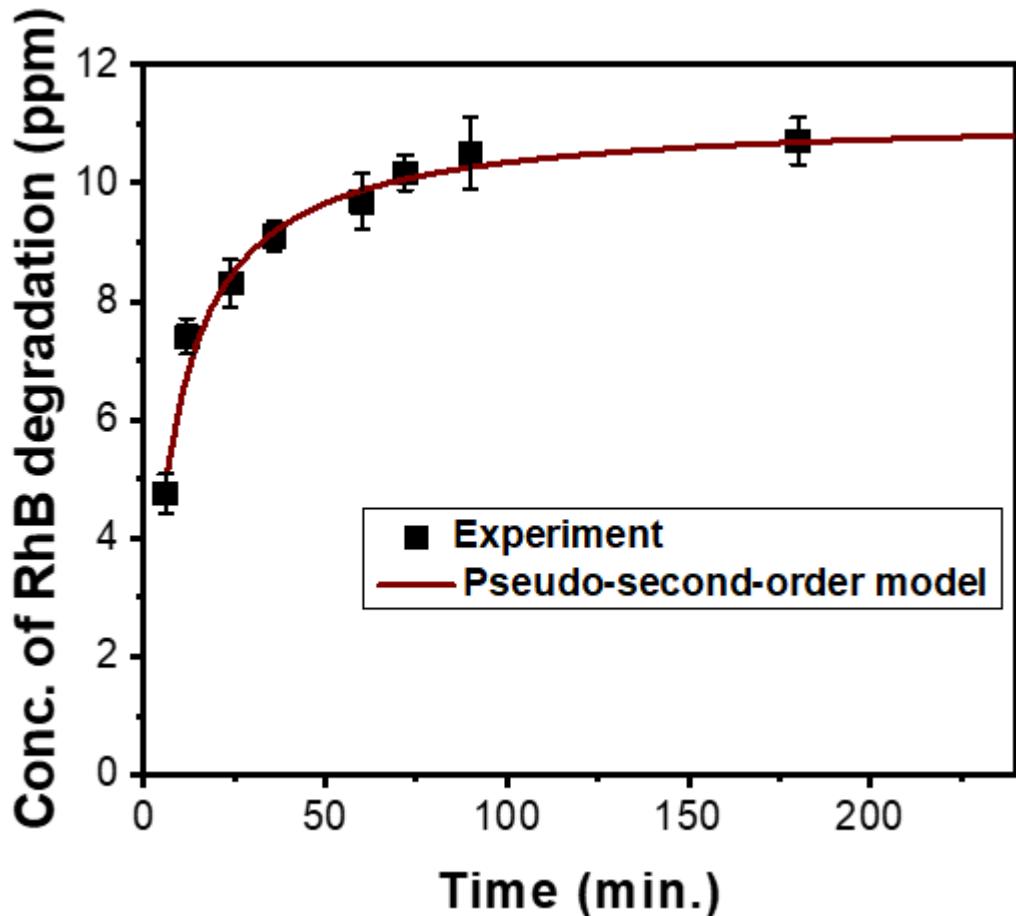


Figure S6. Kinetics model of simultaneous RhB degradation by GNPs@fZVI composite

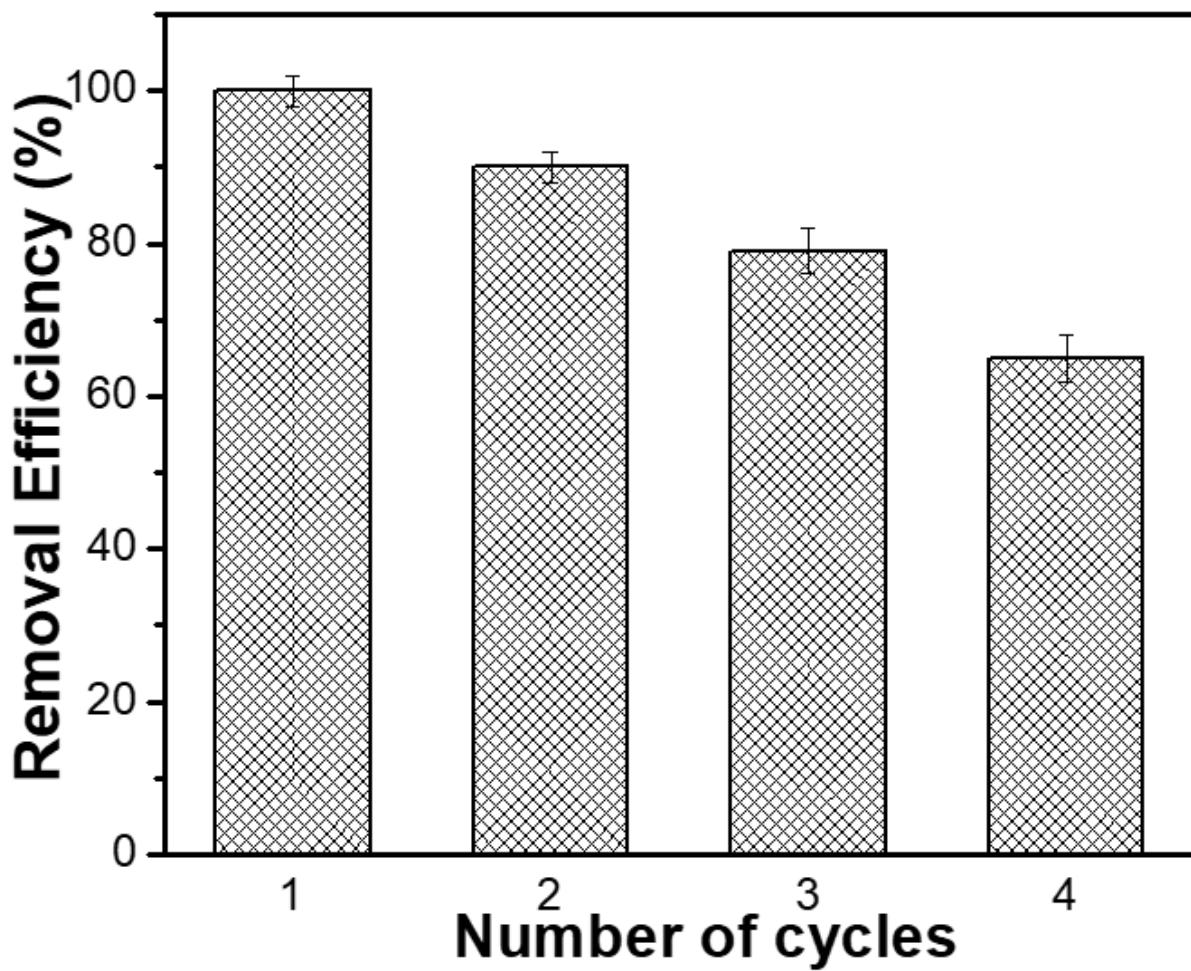


Figure S7. Recyclability of GNPsfZVI composite for RhB removal

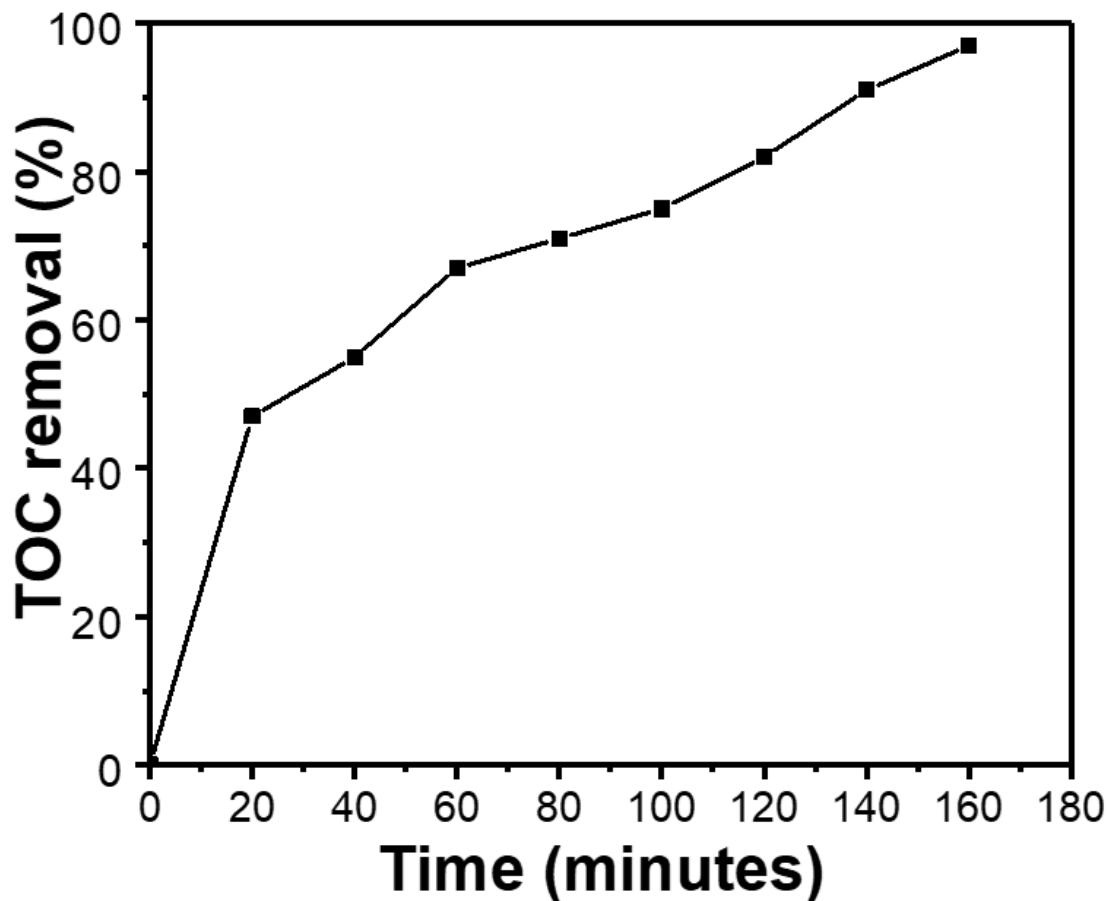


Figure S8. Total organic carbon (TOC) removal during the degradation of RhB in the presence of GNPs@fZVI composite