

Controlled Nanorod-like Structure of Iron Tetrapolyvanadate for Enhanced Heterogeneous Fenton-like Catalysis

Bui Ba Canh¹, [Nguyen Duc Manh](#)^{1,2}, Cao Hong Ha¹, Nguyen Vân-Anh^{1,*}

¹ School of Chemistry and Life Sciences, Hanoi University of Science and Technology, No.1 Dai Co Viet, Hanoi, Vietnam

² Current address: University of Lille, CNRS, Centrale Lille, Universite D'Artois, UMR 8181, UCCS - Unite de Catalyse et Chimie Du Solide, F-59000, Lille, France

*Email: anh.nguyenvan@hust.edu.vn

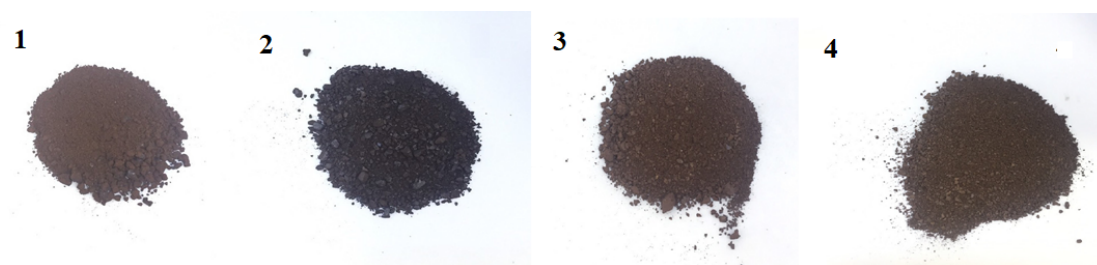
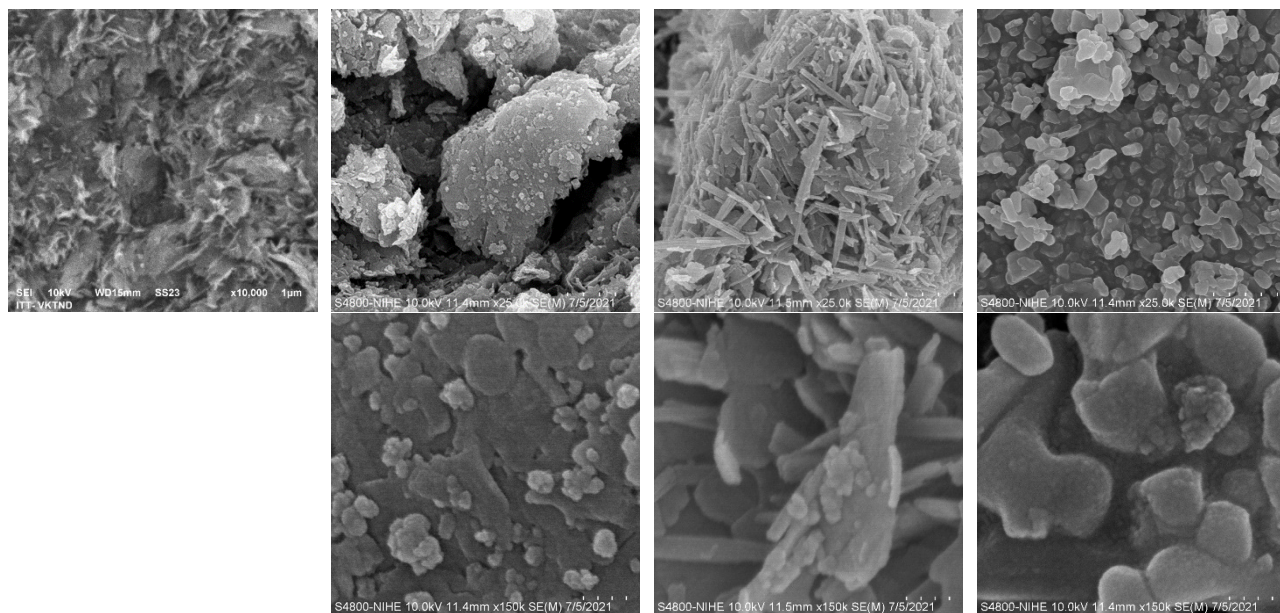


Figure S1. Digital photographs of FeV₂ at different hydrothermal temperatures **(1)** 80°C, **(2)** 110°C, **(3)** 140°C and **(4)** 180°C



(A) As-prepared
FeV₂-180

(B) FeV₂-180 - 35

(C) FeV₂-180 - 80

(D) FeV₂-180 - 500

Figure S2. SEM images of FeV₂ synthesized at different aging temperatures (as prepared, 35°C, 80 °C, and 500 °C) at magnification of 25k (above) and 150k (below)

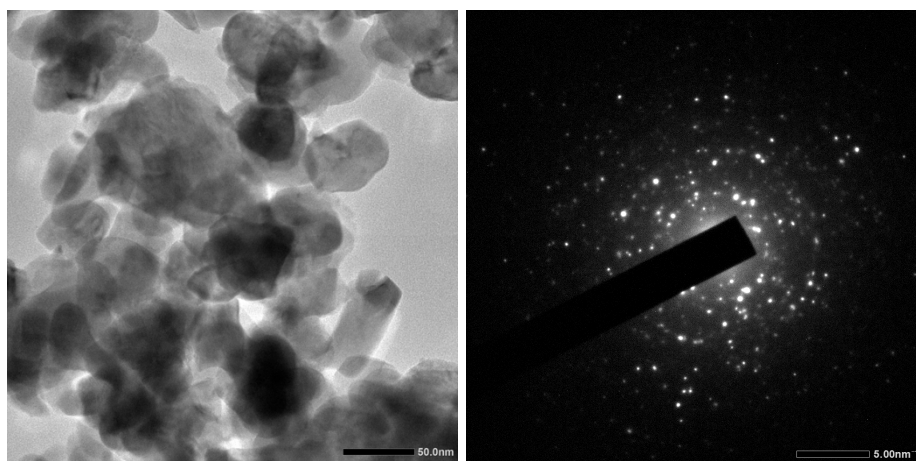


Figure S3. TEM image and SAED pattern of FeV₂-180-500

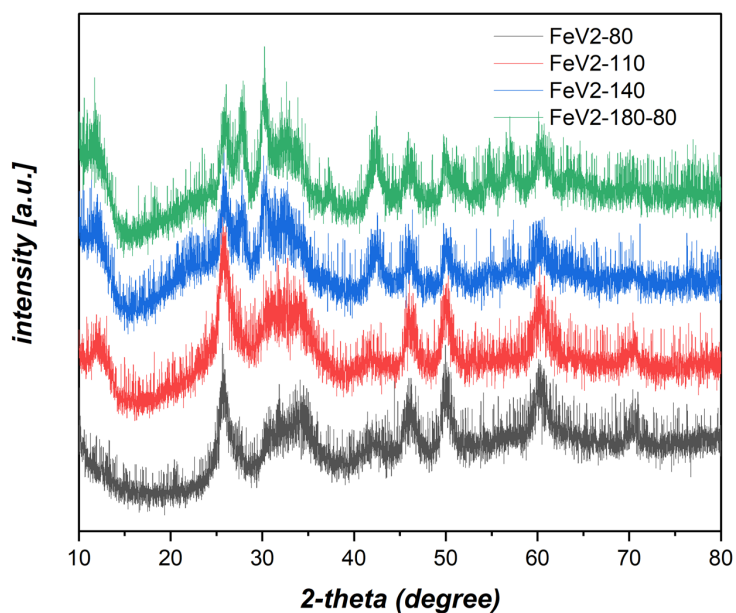


Figure S4. XRD patterns of the $\text{Fe}_2\text{V}_4\text{O}_{13}$ samples synthesized at different hydrothermal temperatures (180°C, 140°C, 110°C, and 80°C)

Figure S4 presents the XRD patterns of these obtained $\text{Fe}_2\text{V}_4\text{O}_{13}$ samples. In general, the differences were not apparent in the signals observed in the XRD spectra of the samples. All samples showed a poorly crystalline structure.