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Hydrothermal Growth and Characterization of Length Tunable Porous Iron Vanadates One-dimentional Nanostructures

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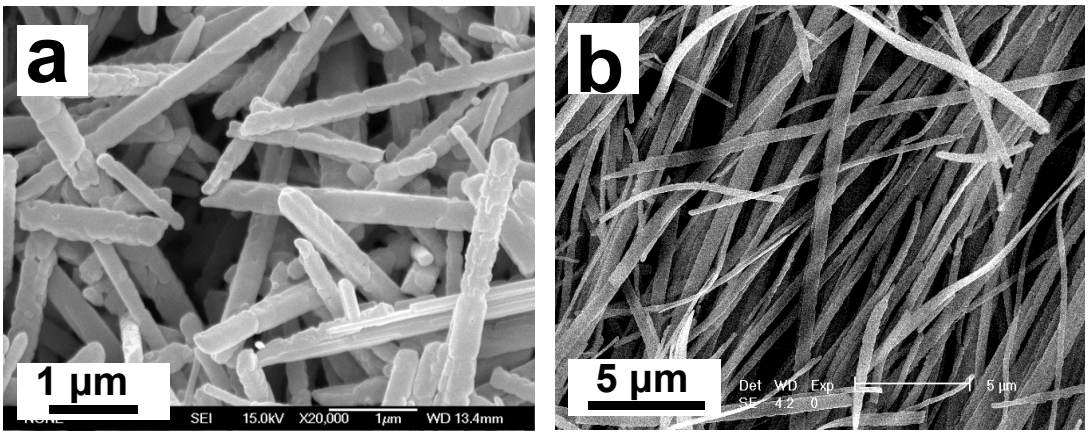

Fig. S1 SEM images of the A-FeV_xO_y-4 (a) and A-FeV_xO_y-6 (b) 1-D nanostructures.

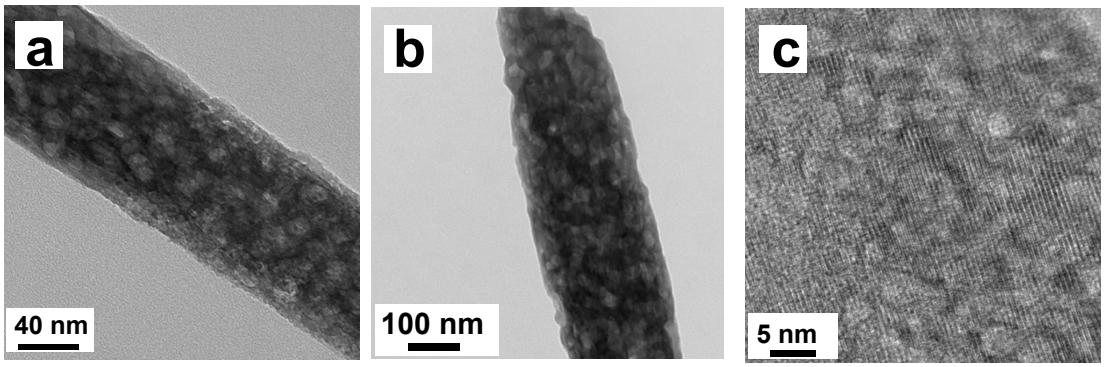

Fig. S2 HRTEM images of the A-FeV_xO_y-4 (a), A-FeV_xO_y-5 (b) and A-FeV_xO_y-6 (c) 1-D nanostructures.

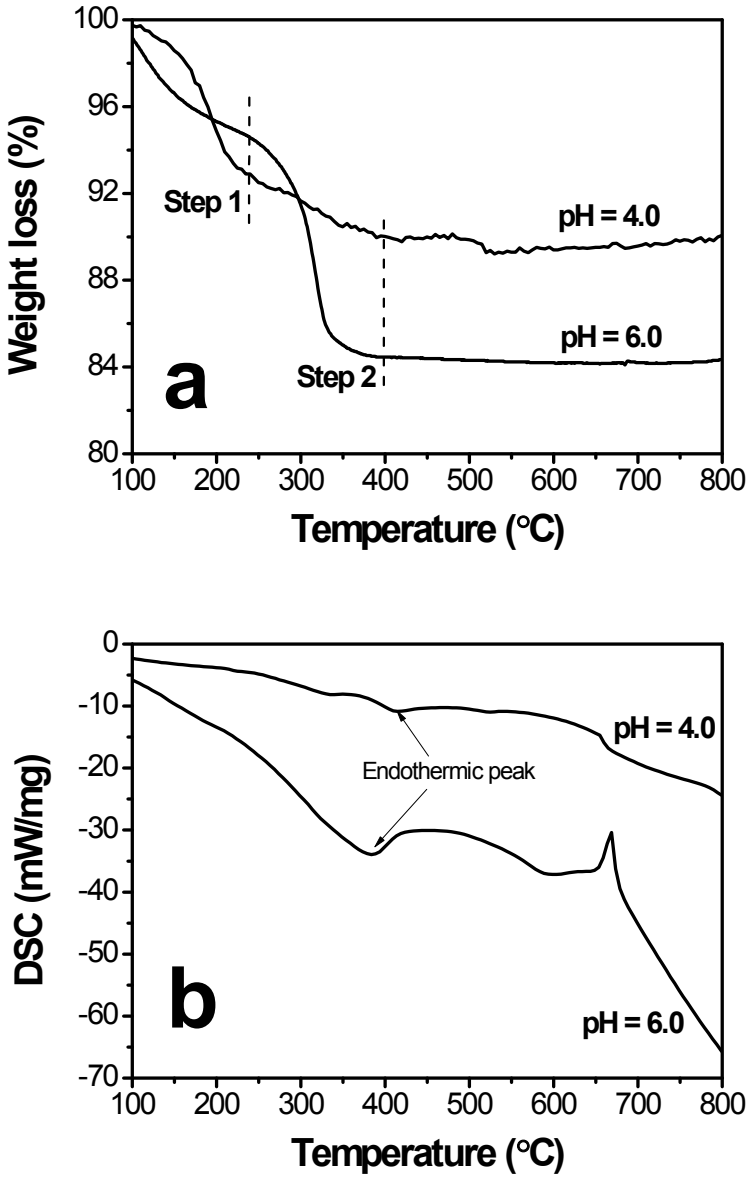

Fig. S3 Thermal analysis (a) and DSC analysis (b) of FeV_xO_y-4 and FeV_xO_y-6.

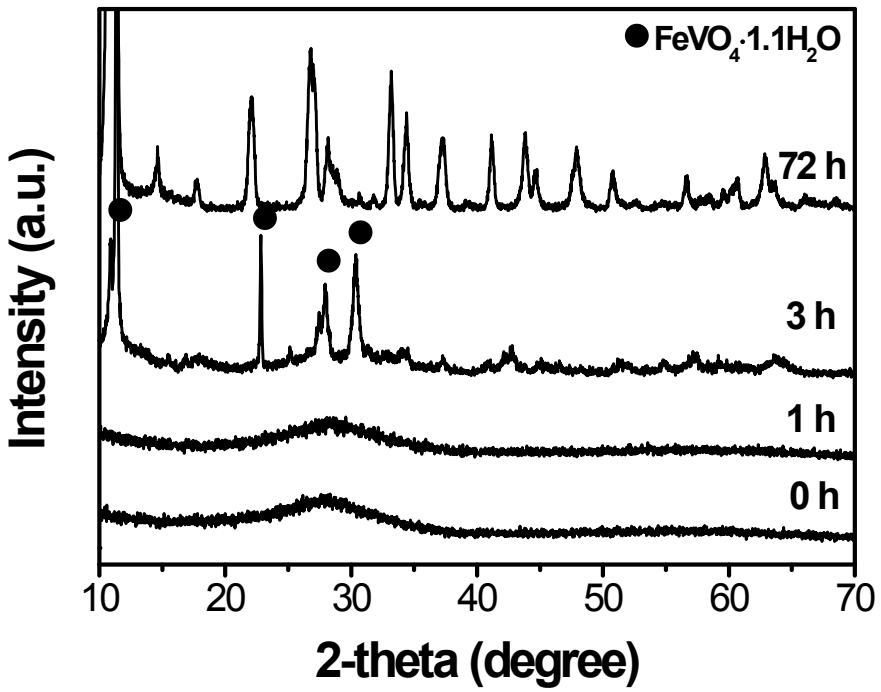

Fig. S4 XRD patterns evolution of FeV_xO_y-6 at different synthesis stages.

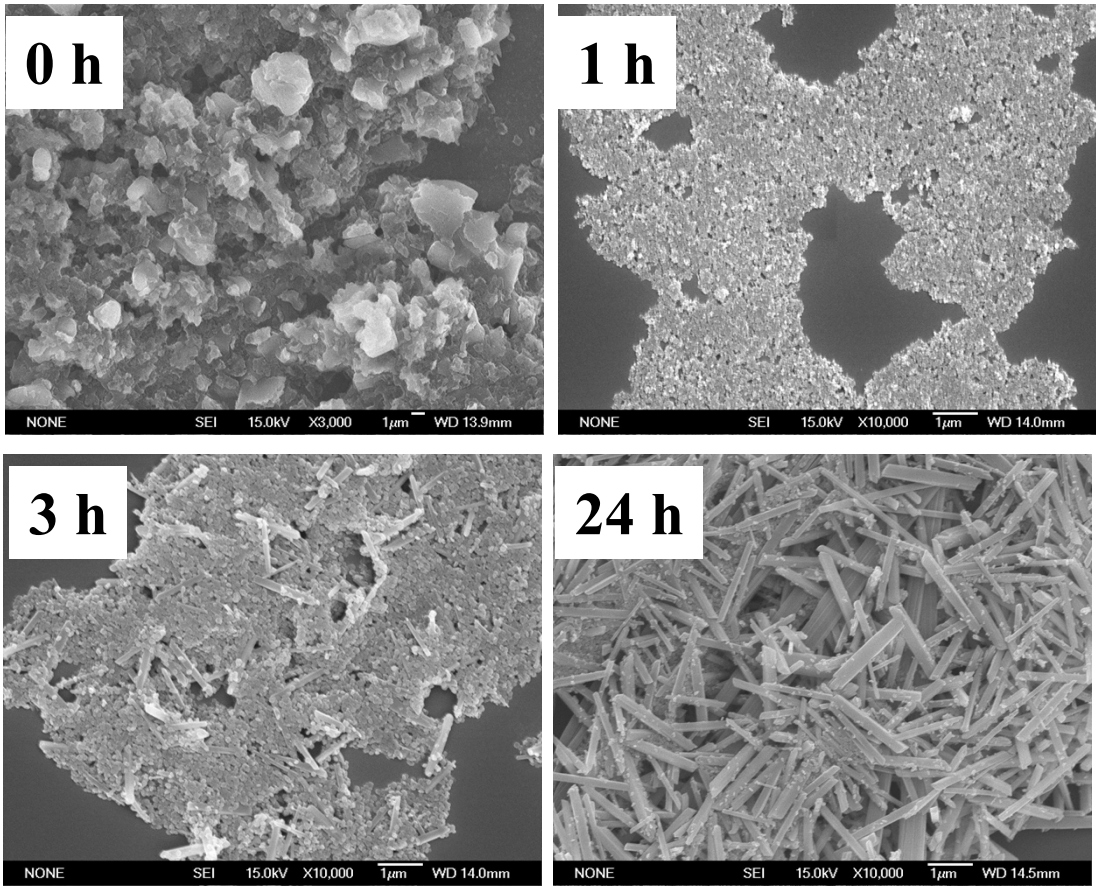

Fig. S5 Morphological evolution of FeV_xO_y-4 1-D nanostructure at different synthesis stages, starting from the precursor nanoparticles (0h) and followed by 1h, 3h and 24 h hydrothermal treatment of the precursors.

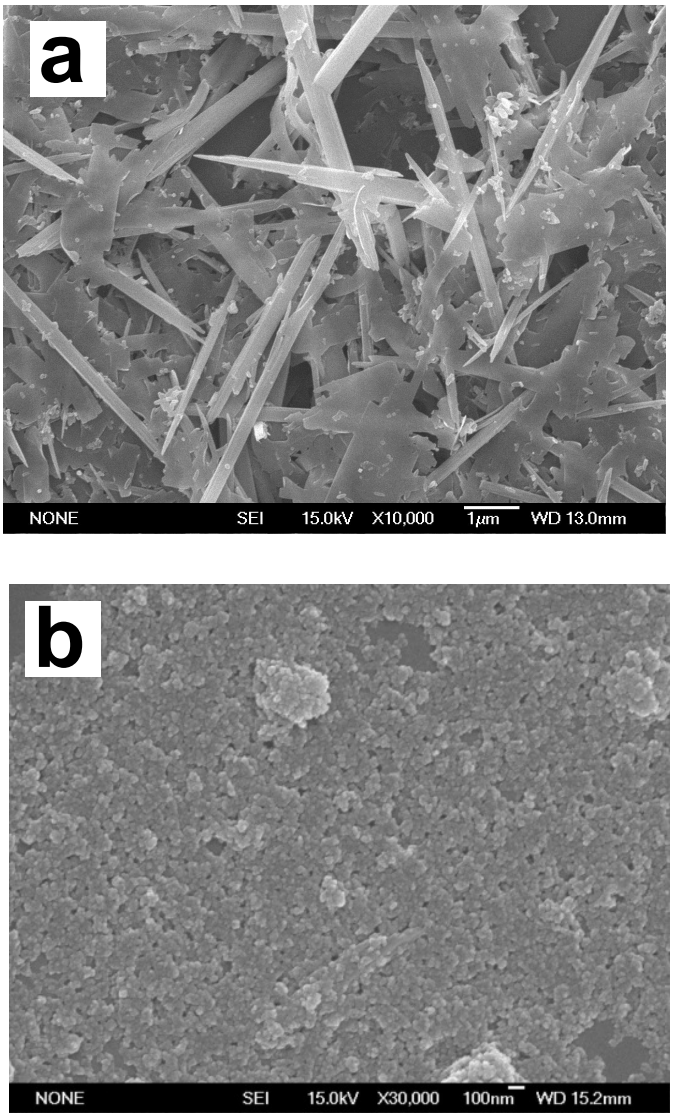

Fig. S6 FESEM images of FeV_xO_y 1-D nanostructures prepared at pH values of 2.0 (a) and 7.0 (b).

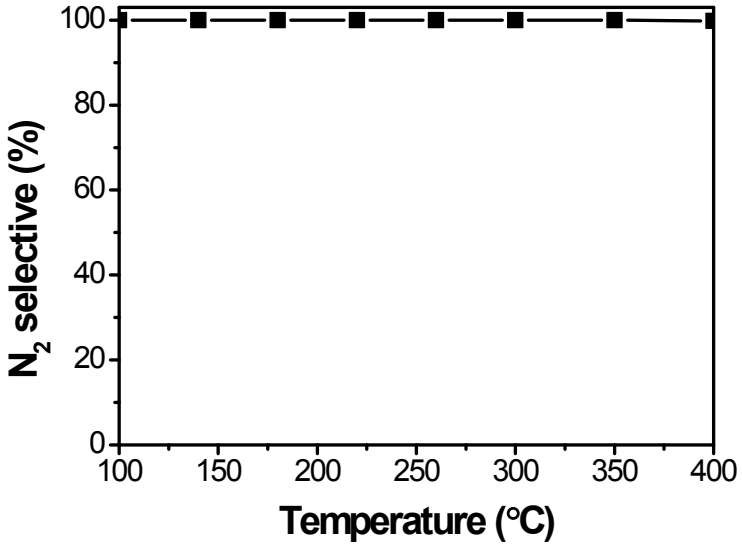

Fig. S7 Selectivity towards N_2 as a function of temperature in the feed gas of 250 mL/min total rate, 500ppm NO, 500ppm NH_3, 3%O_2, and N_2 balance, GHSV=20000h^{-1}.