Supporting Information

## Synthesis of hierarchical nanosheetassembled V<sub>2</sub>O<sub>5</sub> microflowers with high sensing properties towards amine

Xiaohong Yang,<sup>1</sup> Hui Xie, <sup>1</sup>Haitao Fu,<sup>1\*</sup> Xizhong An,<sup>1\*\*</sup> Xuchuan Jiang,<sup>2</sup>Aibing Yu<sup>2</sup>

<sup>1</sup> School of Materials and Metallurgy, Northeastern University, Shenyang 110819, China

<sup>2</sup> Department of Chemical Engineering, Monash University, Melbourne 3800, Australia



Figure S1 SEM images of the products obtained at various temperatures of (a) 220, (b) 260, and (c) 280.



Figure S2 SEM images of the products obtained at various vanadium concentrations of (a) 0.75 mM, (b) 1.5mM, and (c) 3.0 mM.

<sup>\*</sup> Correspondence: fuht@smm.neu.edu.cn., anxz@mail.neu.edu.cn



Figure S3 SEM images of the products obtained at various reaction time (a) 24h, (b) 36h, and (c) 48h.



Figure S4 SEM images of the products obtained at the molar ratio of V to bicarbonate of (a) 1:1, (b) 1:2, (c) 1:3, (d) 1:4.



Figure S5 TEM image of the commercial  $V_2 O_5$  particles.