**Electronic Supplementary Information (ESI)** 

## Controllable Synthesis of WO<sub>3</sub>·nH<sub>2</sub>O Microcrystals with Various Morphologies by a facile inorganic route and their Photocatalytic Activities

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Fig. S1 SEM images of the samples obtained by the hydrothermal method at different additive amount of Na<sub>2</sub>SO<sub>4</sub>: (a) 0.1 g Na<sub>2</sub>SO<sub>4</sub>, (b) 1.5 g Na<sub>2</sub>SO<sub>4</sub>.



Fig. S2 SEM images of the N1 obtained by the hydrothermal method at different reaction conditions

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(a) in 100 °C for 24 h, (b) 200 °C for 12 h.



Fig. S3 SEM images of the N2 obtained by the hydrothermal method at different reaction temperatures for 6 h: (a) 150 °C, (b) 200 °C and when the T is 100 °C, no any precipitate was obtained.



Fig.S4 SEM images of the N2 obtained by the hydrothermal method at 200  $^{\circ}$ C for different time: (a) 1.5 h, (b) 2.5 h, and (c) 3.5 h.



Fig. S5 SEM images of the N3 formed by the hydrothermal method at different reaction

temperatures for 6 h: (a) 100  $^{\circ}$ C, and (c) 150  $^{\circ}$ C.



Fig. S6 SEM images of the N3 prepared by the hydrothermal method at 200  $^{\circ}$ C for different time: (a) 1.5 h, (b) 2.5 h, and (c) 3.5 h.