# Supporting information

# Guanidine sulfate-assisted synthesis of hexagonal $WO_3$ nanoparticles with enhanced adsorption properties

Wanjun Mu, Mei Li, Xingliang Li, Zongping Ma, Rui Zhang, Qianhong Yu, Xiang Xie, Kai Lv, Hongyuan Wei*, Yuan Jian

*Institute of Nuclear Physics and Chemistry, China Academy of Engineering Physics, 64# Mianshan Road*

*Corresponding author: Tel: +86 816 2494854.

*E-mail address:* muwj2014@163.com

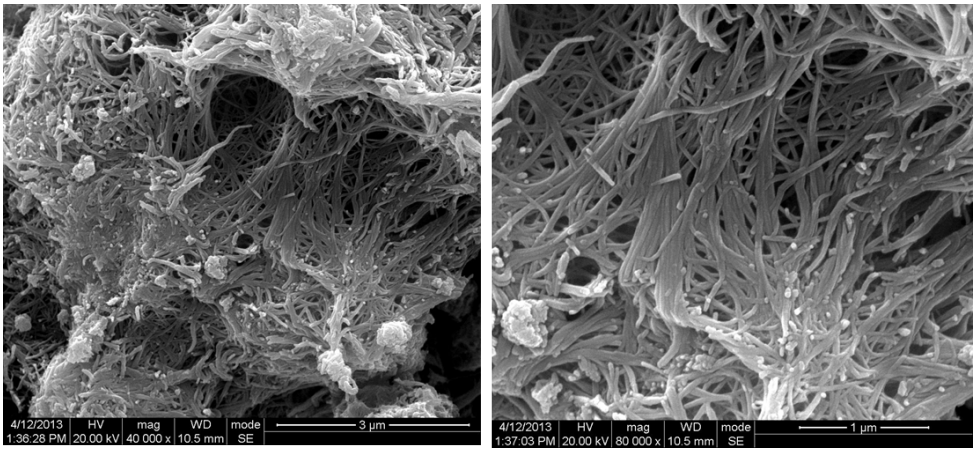


**Fig.1. SEM images of the samples synthesized via hydrothermal treatment at170 $^0$C for 24 h with addition of 5 g $C_2H_{10}N \cdot H_2SO_4$**

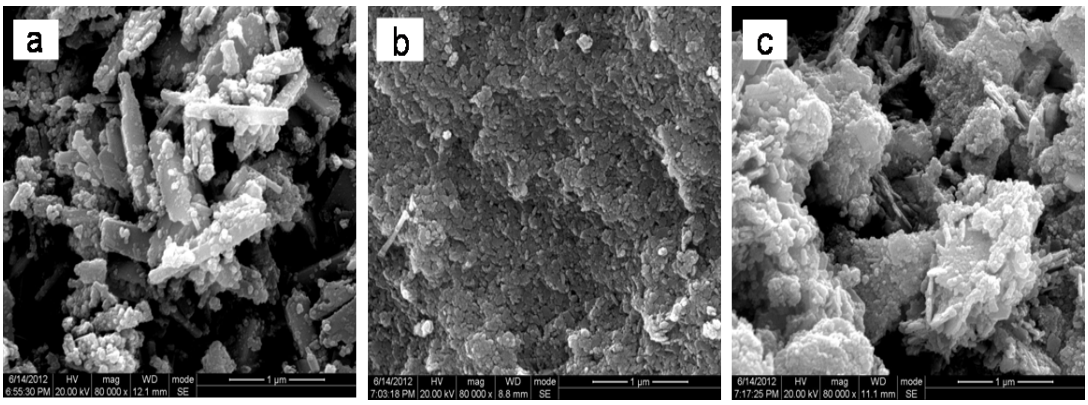


**Fig.2. SEM images of $WO_3$ nanocrystals synthesized with different salts (a) $CH_5N_3 \cdot HCl$, (b) $C_2H_{10}N_6 \cdot H_2CO_3$, (c) $C_2H_6N_4S$.**

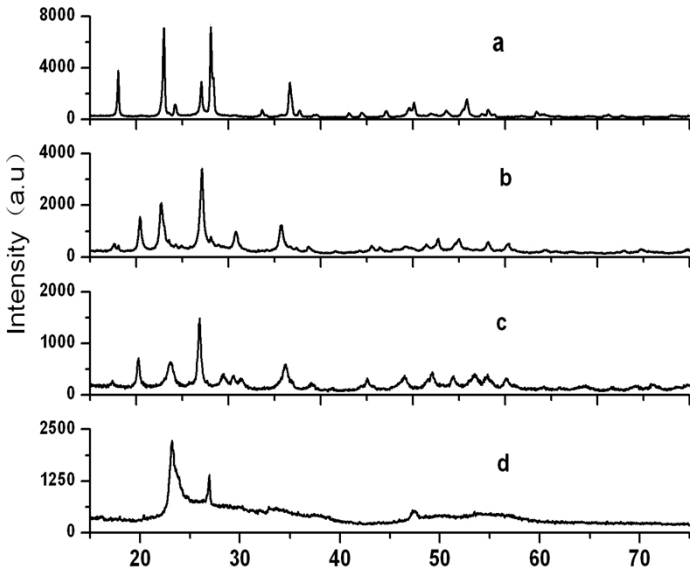


**Fig.3. XRD patterns of $WO_3$ nanocrystals synthesized with different salts, (a) $CH_5N_3 \cdot HCl$, (b) $C_2H_{10}N_6 \cdot H_2CO_3$, (c) $C_2H_6N_4S$.**

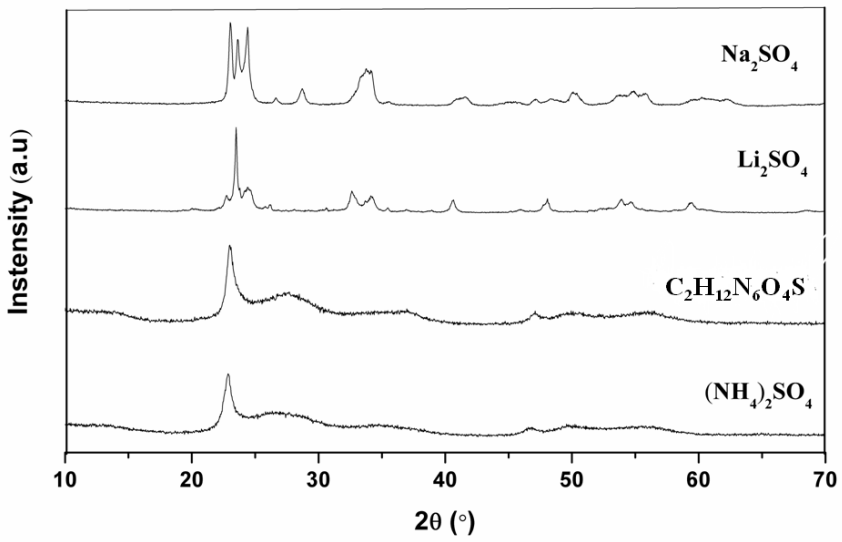


**Fig.4 XRD patterns of $WO_3$ nanocrystals synthesized with different salts**