

Electronic Supplementary Material (ESI) for “*A simple chemical solution synthesis of nanowire-assembled hierarchical CuO microspheres with enhanced photochemical properties*”

Li Li¹, Yongxing Zhang^{1*}, Jia Li¹, Dong Ma¹, Dechuan Li¹, Guangping Zhu¹, Huijie Tang², and Xuanhua Li^{2*}

¹ Department of Materials Science and Engineering, Huaibei Normal University, Huaibei 235000, P. R. China

² Research & Development Institute of Northwestern Polytechnical University In Shenzhen, Shenzhen 518057, P. R. China

E-mail: zyx07157@mail.ustc.edu.cn; lixh32@nwpu.edu.cn

Table S1. Effect of experimental parameters on the morphology of CuO

Sample	Reagent 1	Reagent 2	Reagent 3	Reagent 4	Morphology
S0	Cu(Ac) ₂ · H ₂ O	H ₂ O	NH ₃ · H ₂ O		Hierarchical CuO microspheres assembled with nanosheets (HCMAS)
S1				Na ⁺ Ac ⁻	
S2				SO ₄ ²⁻	Hierarchical CuO microspheres assembled with nanosheets (HCMAS)
S3	Cu(Ac) ₂ · H ₂ O	H ₂ O	NH ₃ · H ₂ O	NO ₃ ⁻	
S4				Cl ⁻	
S5				K ⁺ Ac ⁻	

S6					SO_4^{2-}
S7					NO_3^-
S8					Cl^-

Table S2. Effect of experimental parameters on the morphology of CuO

Sample	Reagent 1	Reagent 2	Reagent 3	Reagent 4	Morphology
S0	$\text{Cu}(\text{Ac})_2 \cdot \text{H}_2\text{O}$	H_2O	$\text{NH}_3 \cdot \text{H}_2\text{O}$		Hierarchical CuO microspheres assembled with nanosheets (HCMAS)
S9	$\text{Cu}(\text{Ac})_2 \cdot \text{H}_2\text{O}$				
S10	$\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$			Na^+	
S11	$\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$				
S12	$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$	H_2O	$\text{NH}_3 \cdot \text{H}_2\text{O}$	CO_3^{2-}	Hierarchical CuO microspheres assembled with nanowires (HMAW)
S13	$\text{Cu}(\text{Ac})_2 \cdot \text{H}_2\text{O}$				
S14	$\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$			K^+	
S15	$\text{Cu}(\text{NO}_3)_2 \cdot 3\text{H}_2\text{O}$				
S16	$\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$				