Electronic Supplementary Material (ESI) for CrystEngComm

Supporting information

Chemoaffinity-mediated crystallization of Cu_2O: a reaction effect on crystal growth and anode property

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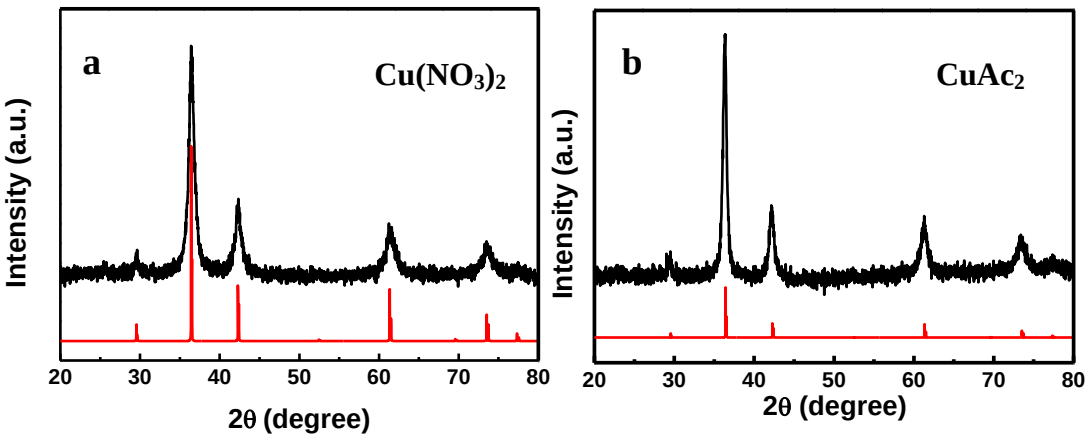

Fig. S1. XRD patterns of final products obtained with $Cu(NO_3)_2$ (a) and $CuAc_2$ (b) as copper salts. JCPDS No. 05-0667.

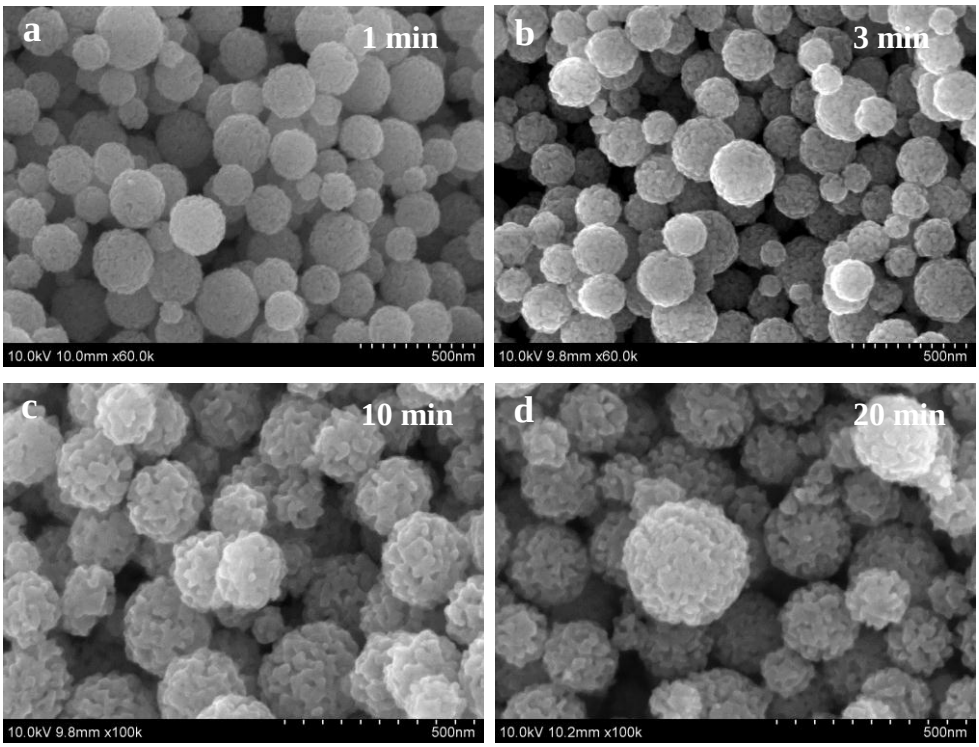

Fig. S2. SEM images of Cu_2O spheres collected at different reaction times with $Cu(NO_3)_2$ as copper precursor.

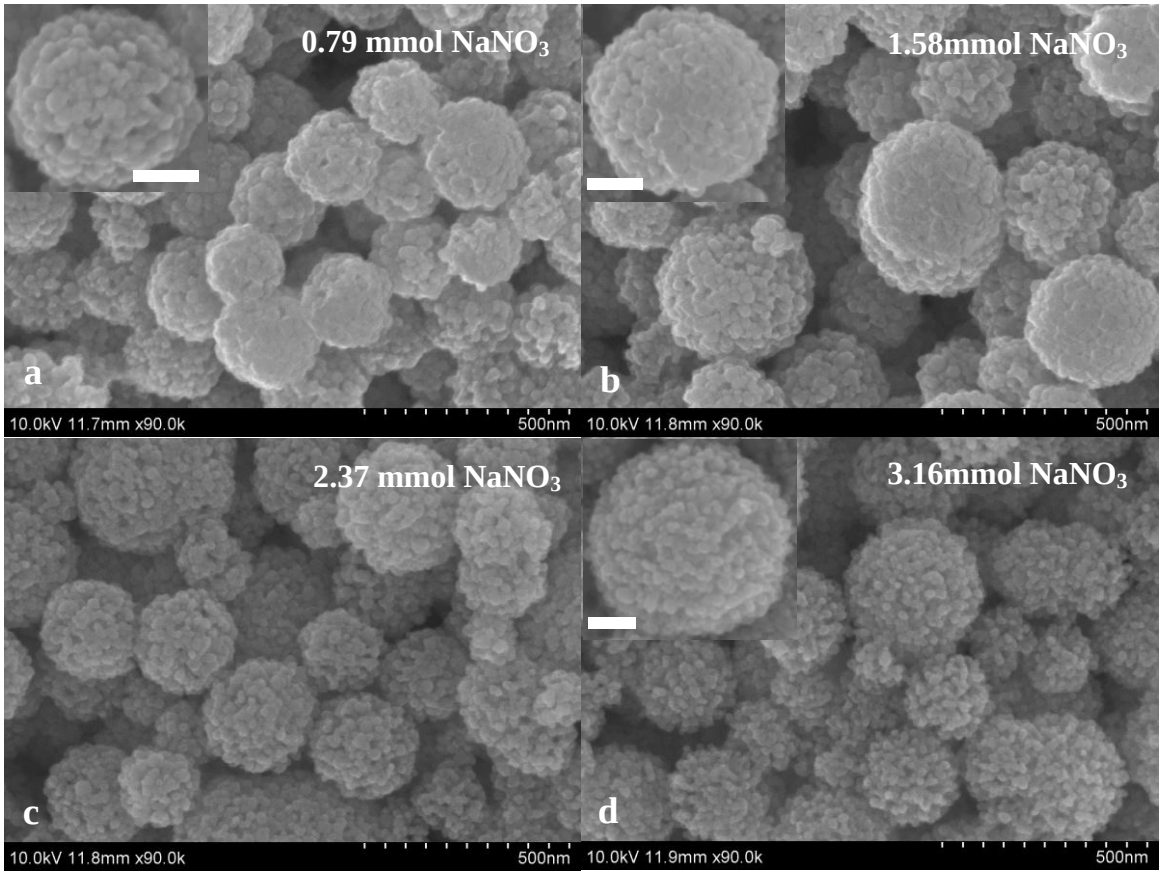

Fig. S3. SEM images of products with $Cu(NO_3)_2$ as precursor and adding different amounts of $NaNO_3$. Scale bars of insets are 100 nm.

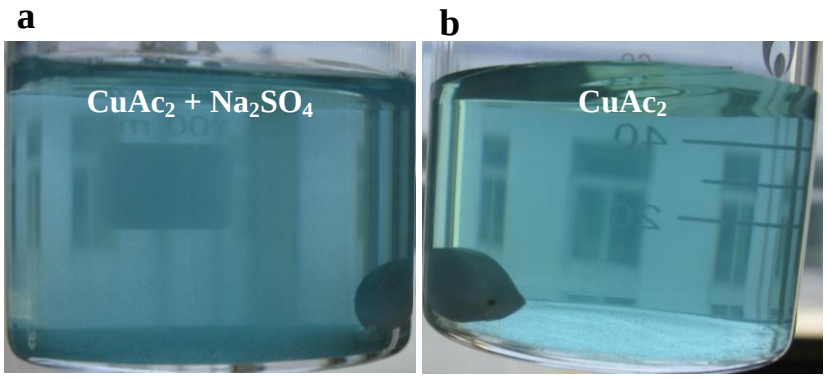

Fig. S4. Photographs showing the cloudy solution formed with the introduction of SO_4^{2-}.

Table S1. Discharge capacities of Cu_2O electrodes

Sample	Discharge capacity / mAh g^{-1}			
	1^{st}	2^{nd}	20^{th}	50^{th}
$CuSO_4$	558.5	346.1	78.9	41.1
$Cu(NO_3)_2$	738.9	406.5	70.9	43.1
$CuAc_2$	728.3	534.4	74.6	32.5
NaOH	475.5	246	141.8	87