

Supporting information

Hydrogen Peroxide Triggered Morphological Evolution of Barium Sulfate Crystals under Basic Conditions

Xiao-Hui Zhang,^{a,b} Feng-Wen Yan,^{a,*} Cun-Yue Guo,^b Feng-Bo Li,^a Zhi-Jun Huang,^{a,b} and Guo-Qing Yuan^{a,*}

^aBeijing National Laboratory for Molecular Sciences, Laboratory of New Materials, Institute of Chemistry, Chinese Academy of Sciences, Beijing 100190, P. R. China.

^bGraduate University of Chinese Academy of Sciences, Beijing 100049, P. R. China.

*Corresponding author. E-mails: yanfw@iccas.ac.cn, yuangq@iccas.ac.cn

Table S1. The indexation summary of the standard and the samples prepared under various pH values.

<i>h k l</i>	2θ (degree)				
	Standard ^a	Sample a ^b	Sample b ^b	Sample c ^b	Sample d ^b
0 1 1	20.52	20.48	20.46	20.58	20.58
1 1 1	22.87	22.84	22.78	22.94	22.94
0 0 2	24.95	24.88	24.82	24.92	24.92
2 1 0	25.94	25.90	25.84	26.02	26.02
1 0 2	26.94	26.86	26.80	26.90	26.90
2 1 1	28.84	28.79	28.74	28.92	28.90
1 1 2	31.63	31.58	31.52	31.68	31.66
3 0 1	32.90	32.84	32.90	33.14	33.10
1 1 3	42.71	42.62	42.56	42.74	42.72
3 1 2	43.10	42.98	42.94	43.16	43.12

^a data from JCPDS No. 01-076-0213; ^b Sample a, b, c and d are in accordance with those in Fig. 1.

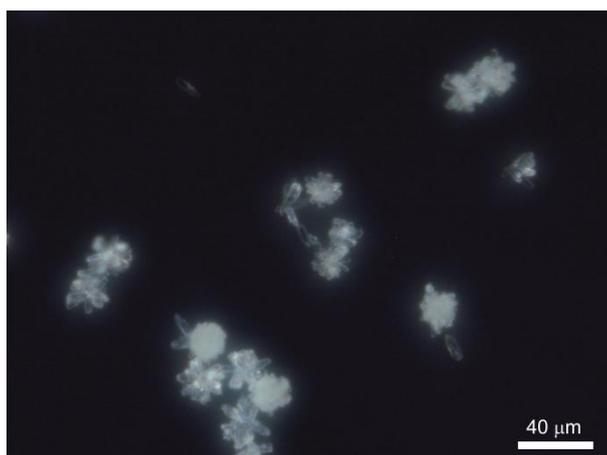


Fig. S1 Crossed-polarized optical microscopy image of as-prepared urchin like crystals.

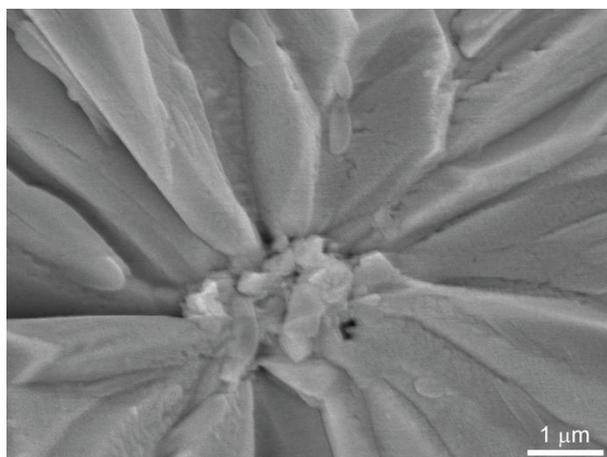


Fig. S2 SEM image of the center area of the urchin-like crystal after etching in 0.1 M HCl for 6 h.