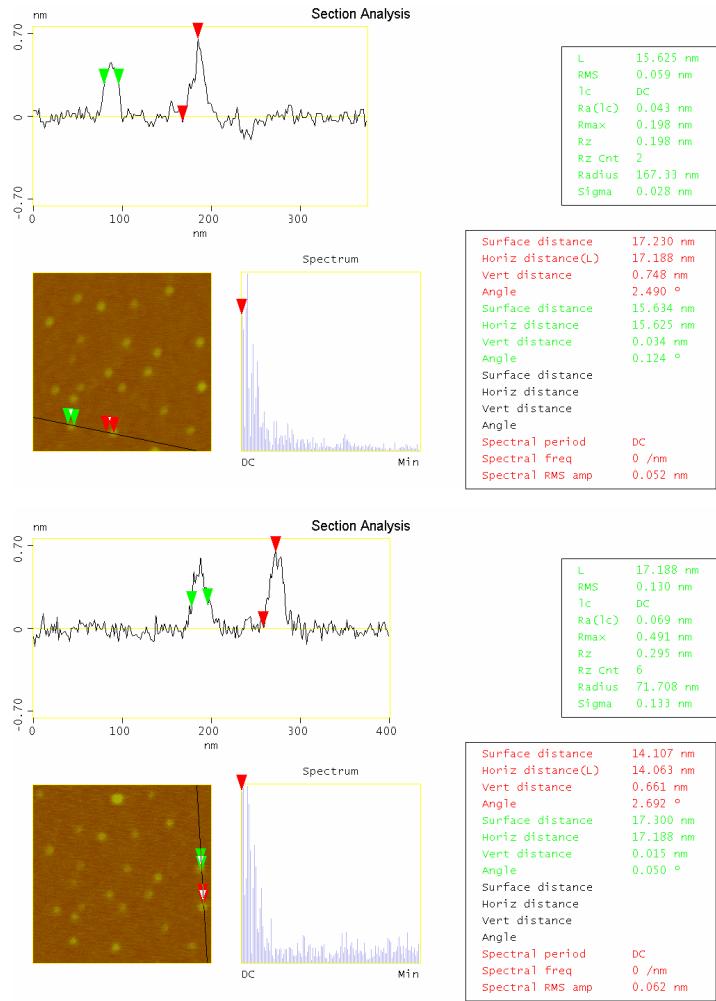


Support information
 for
Size Control of Monodisperse Copper Sulfide Faceted Nanocrystals and Triangular Nanoplates

Wenjing Lou, Miao Chen, Xiaobo Wang, and Weimin Liu*

Support Figures and Tables



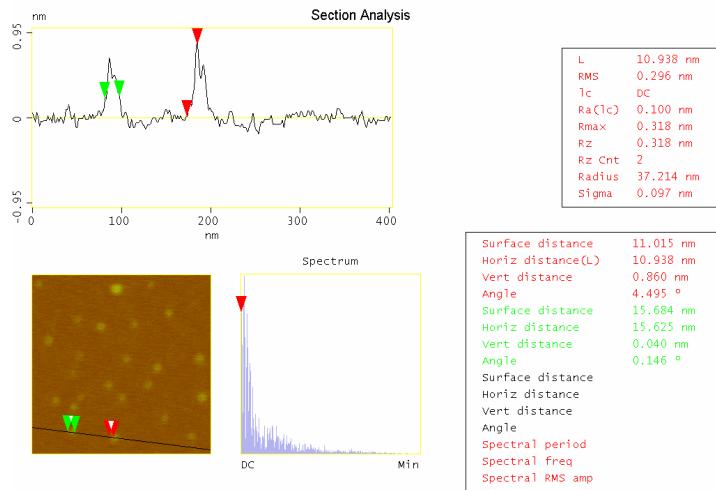


Figure S1 The section analyses of copper sulfides nanoplates in three different areas.

Table S1 Summary of the size and shape of copper sulfide nanocrystals obtained under various reaction conditions

n	Solvent	[precursor]	Reaction /[Solvent]	Average size temperature	Morphology
8	OA	0.2mmol/5g	120	8.9 ± 0.7	faceted crystals
8	OA	0.2mmol/5g	140	9.8 ± 0.3	uniform spherical crystals
8	OA	0.2mmol/5g	160	11.4 ± 0.2	uniform spherical crystals
8	OA	0.2mmol/5g	180	13.1± 0.5	faceted crystals & rods
12	OA	0.2mmol/5g	120	9.8 ± 0.7	spheres & triangles
12	OA	0.2mmol/5g	140	12.3 ± 0.6	uniform triangles
12	OA	0.2mmol/5g	160	15.6 ± 0.5	uniform triangles
12	OA	0.2mmol/5g	180	↳31	big and small triangles
12	OA	0.2mmol/5g	200	↳56	big triangles
12	OA	0.25mmol/5g	140	10.7 ± 1.2	triangles
12	OA	0.3mmol/5g	140	9.7 ± 0.9	triangles
12	OA	0.4mmol/5g	140	8.5 ± 0.5	small triangles

n: the carbon number of the substitute alkyl groups; OA= oleylamine

Table S2 XRD peak positions for CuS and Cu₉S₅ in the XRD pattern in Figure 8.

Peak position				CuS	Cu ₉ S ₅
(d-spacing, Å)				03-0724	26-0476
200 °C	180 °C	160 °C	140 °C		
3.36	3.38	3.39			3.39 (101)
3.18	3.19	3.21	3.19	3.21 (101)	3.20 (00 15)
3.03	3.02	3.05	3.05	3.03 (102)	3.04 (107)
2.96					2.95 (018)
		2.82	2.82	2.83 (103)	
2.76	2.76	2.78	2.76		2.77 (10 10)
		2.74	2.73	2.72 (006)	
2.23	2.17	2.17			2.17 (01 17)
1.95	1.95	1.96	1.95		1.96 (110)
		1.90	1.90	1.90 (110)	
		1.74	1.74	1.74 (108)	
1.66	1.67	1.67	1.67		1.67 (205)
		1.56	1.56	1.56 (116)	
1.38	1.38	1.38	1.38	1.39 (118)	
		1.28	1.28	1.28 (208)	
		1.21	1.21	1.21 (213)	
		1.13	1.13	1.10 (217)	