

Electronic Supplementary Information

Application of quaternary $\text{Cu}_2\text{ZnSnS}_4$ quantum dot-sensitized Solar Cells based on hydrolysis approach

Bing Bai, Dongxing Kou*, Wenhui Zhou, Zhengji Zhou and Sixin Wu*

The Key Laboratory fo Special Functional Materials of MOE, Henan University, Kaifeng, 475004, P. R. China

*E-mail: koudongxing@henu.edu.cn and wusixin@henu.edu.cn

Talbe S1. Elemental composition values of CZTS QDs synthesized by changing the reaction times according to the EDX measurement

	90s	3min	6min	12min	24min	45min
Cu/Zn	56.32/4.8	42.23/6.75	29.79/10.6	26.15/13.0	25.98/12.4	25.07/11.7
/Sn/S	7/9.25/29.	/12.69/38.	5/14.43/45	9/14.25/46	6/13.87/47	4/15.06/48
	56	33	.13	.51	.69	.13
Cu/Zn	7.62/0.66/	4.41/0.70/	2.64/0.94/	2.24/1.12/	2.17/1.04/	2.08/0.97/
/Sn/S	1.25/4.00	1.32/4.00	1.28/4.00	1.22/4.00	1.16/4.00	1.25/4.00

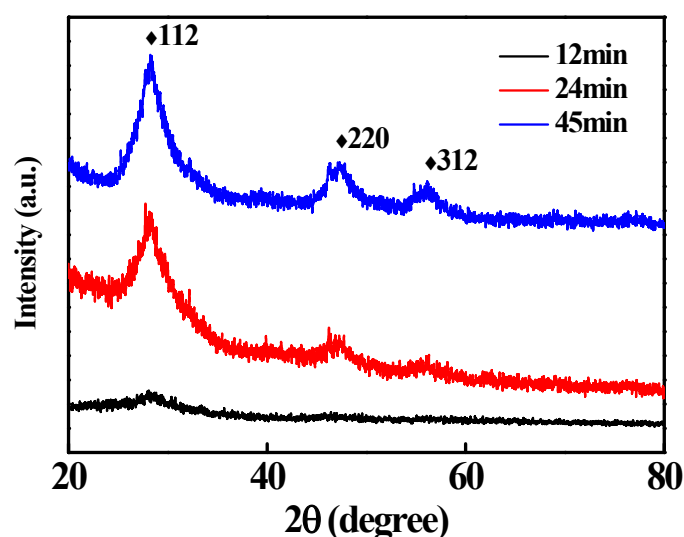


Figure S1. XRD patterns of CZTS QDs synthesized at different reaction times.