

Electronic Supplementary Information

Microfluidic Chips Enabled One-step Synthetization of Biofunctionalized $\text{CuInS}_2/\text{ZnS}$ Quantum Dots

Siyi Hu,^a Butian Zhang,^d Shuwen Zeng,^e Liwei Liu,^c Ken-tye Yong,^{*b} Hanbin Ma,^{*a} Yuguo Tang^a

a. CAS Key Laboratory of Bio-medical Diagnostics, Suzhou Institute of Biomedical Engineering and Technology, Chinese Academy of Sciences, No.88 Keling Road, Suzhou, Jiangsu, 215163, P.R. China.

b. School of Electrical and Electronic Engineering, Nanyang Technological University, Singapore 639798, Singapore.

c. Key Laboratory of Optoelectronic Devices and Systems of Guangdong Province, College of Optoelectronic Engineering, Shenzhen University, Shenzhen 518060, China.

d. MOE Key Laboratory of Fundamental Physical Quantities Measurement, PGMF and School of Physics, Huazhong University of Science and Technology, Wuhan 430074, P. R. China.

e. XLIM Research Institute, UMR 7252 CNRS/University of Limoges, Limoges, 87060, France

* Corresponding author: mahb@sibet.ac.cn ; ktyong@ntu.edu.sg

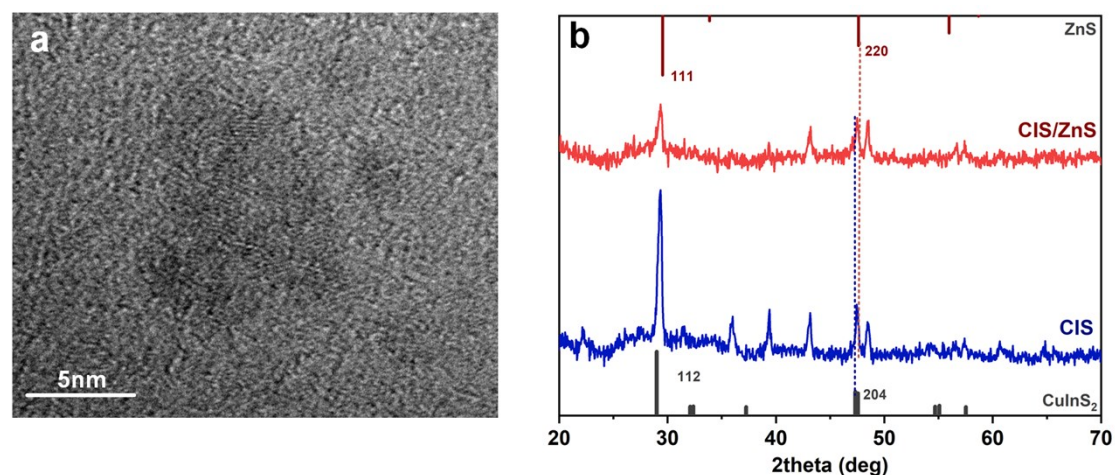


Figure S1. The HRTEM (a) and XRD patterns (b) of $\text{CuInS}_2/\text{ZnS}$ QDs synthesized by microfluidic chips.

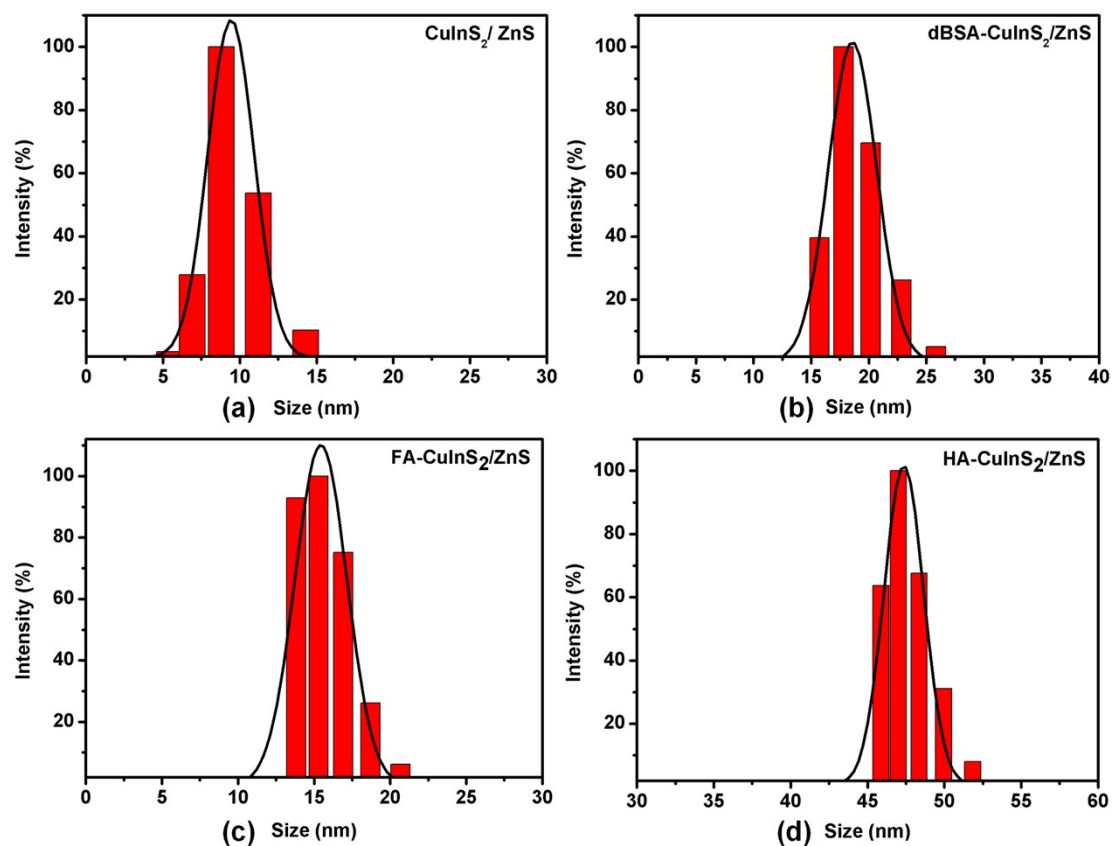


Figure S2. Hydrodynamic size distribution of (a) MF CIS QDs, (b) MF CIS/ZnS QDs, (c) FA-QDs and (d) HA-QDs in aqueous suspension measured by dynamic light scattering (DLS).

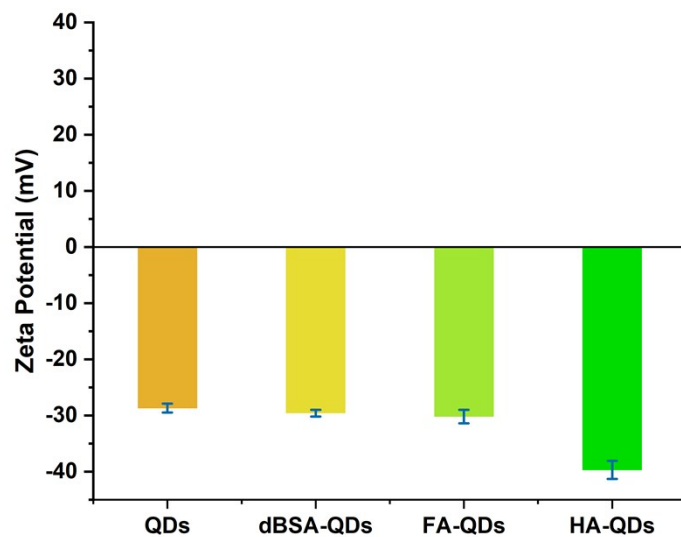


Figure S3. Zeta Potential of the QDs and dBSA synthesized by the microfluidic chips, and FA or HA modified QDs.

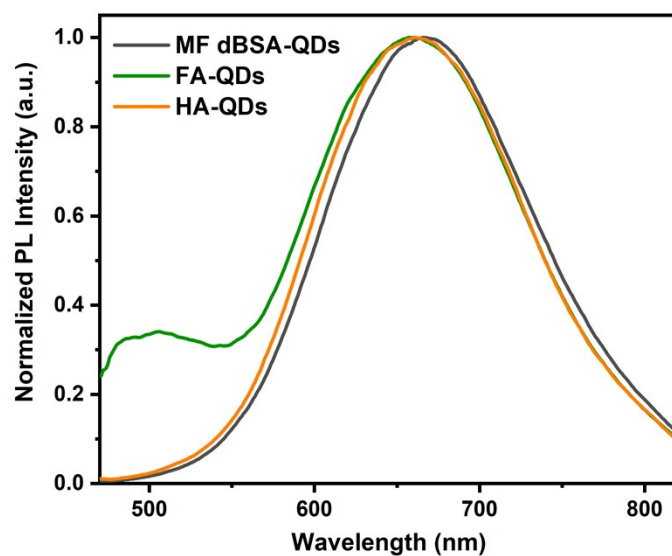


Figure S4. The PL spectrum of the MF dBSA-QDs, FA-QDs and HA-QDs

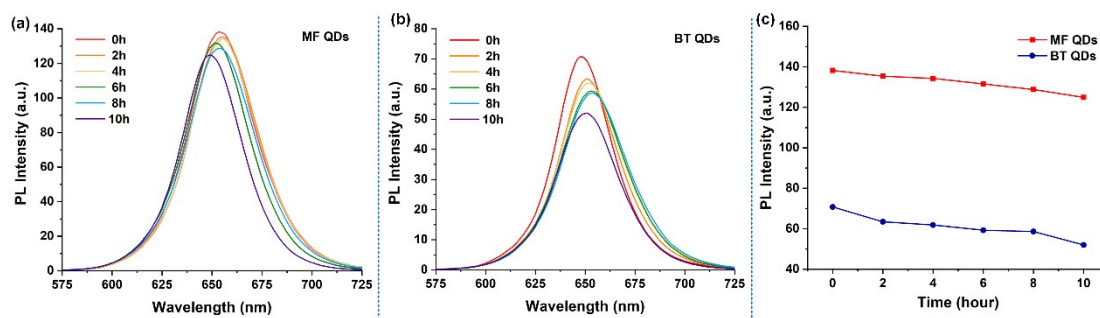


Figure S5. Comparison of photostability of $\text{CuInS}_2/\text{ZnS}$ (QDs) prepared by the BT method and the MF method

Table S1 The quantum yield of the BT QDs, MF QDs and dBSA-QDs

Sample name	BT QDs	MF QDs	MF dBSA-QDs
QY	9%	22.4%	30.7%