Supporting Information

SPIONs@Cu_{2-x}S nanoclusters for highly sensitive MRI and targeted photothermal therapy of hepatocellular carcinoma

Xiaolong Liu^{1,2}, Xinyi Lin^{1,2}, Ming Wu^{1,2}, Ruhui Lin³, Buhong Li^{4*}and Jingfeng Liu^{1,2,5*}

¹ The Liver Center of Fujian Province, Fujian Medical University, Fuzhou 350025, P. R. China

² The United Innovation of Mengchao Hepatobiliary, Technology Key Laboratory of Fujian Province, Mengchao Hepatobiliary Hospital of Fujian Medical University, Fuzhou 350025, P. R. China

³ Academy of Integrative Medicine, Fujian University of Traditional Chinese Medicine, Fuzhou 350122, P.R. China.

⁴ Key Laboratory of OptoElectronic Science and Technology for Medicine of Ministry of Education, Fujian Provincial Key Laboratory for Photonics Technology, Fujian Normal University, Fuzhou, People's Republic of China

⁵ Liver Disease Center, The First Affiliated Hospital of Fujian Medical University, Fuzhou 350005, P. R. China

* Corresponding Author (correspondence should be address to Buhong Li and Jingfeng Liu), E-mail addresses: <u>bhli@fjnu.edu.cn</u>, <u>drjingfeng@126.com</u>



Fig. S1. (a) STEM image of SPIONs@Cu_{2-x}S aggregates, (b-e) corresponding elemental mappings (b: merged; c: Fe; d: Cu; e: S) of SPIONs@Cu_{2-x}S; (f) EDS spectrum of SPIONs@Cu_{2-x}S aggregates.

Element	Weight percentage (%)	Atom percentage (%)
O k	4.89	18.97
S k	8.70	16.85
Fe k	2.40	2.66
Cu k	21.67	21.17
Mo k	62.35	40.35
Total	100.00	

Table S1. Corresponding elemental content of SPIONs@Cu_{2-x}S aggregates by EDS analysis.



Fig. S2. Photographs of SCDP-LA in water for 0, 1, 3, and 7 days, respectively.