Electronic Supplementary Material (ESI) for RSC Advances.

Supporting Information

Fabrication of photostable PEGylated polymer nanoparticles from AIE monomer and trimethylolpropane triacrylate

Ke Wang,[a] Xiaoyong Zhang,[*a,b] Xiqi Zhang,[a,c] Xingliang Fan,[a] Zhen Li,[a] Zengfang Huang,[a] Qingsong Zhang,[a] Yen Wei[*a]

[a] *Department of Chemistry and Key Laboratory of Bioorganic Phosphorus Chemistry & Chemical Biology (Ministry of Education), Tsinghua University, Beijing, 100084, China.*

[b] *Department of Chemistry/Institute of Polymers, Nanchang University, 999 Xuefu Avenue, Nanchang, 330031, China*

[c] *Laboratory of Bio-Inspired Smart Interface Science, Technical Institute of Physics and Chemistry, Chinese Academy of Sciences, Beijing, 100190, China*

** E-mail: weiyen@tsinghua.edu.cn, wangke007@iccas.ac.cn, xiaoyongzhang1980@gmail.com*

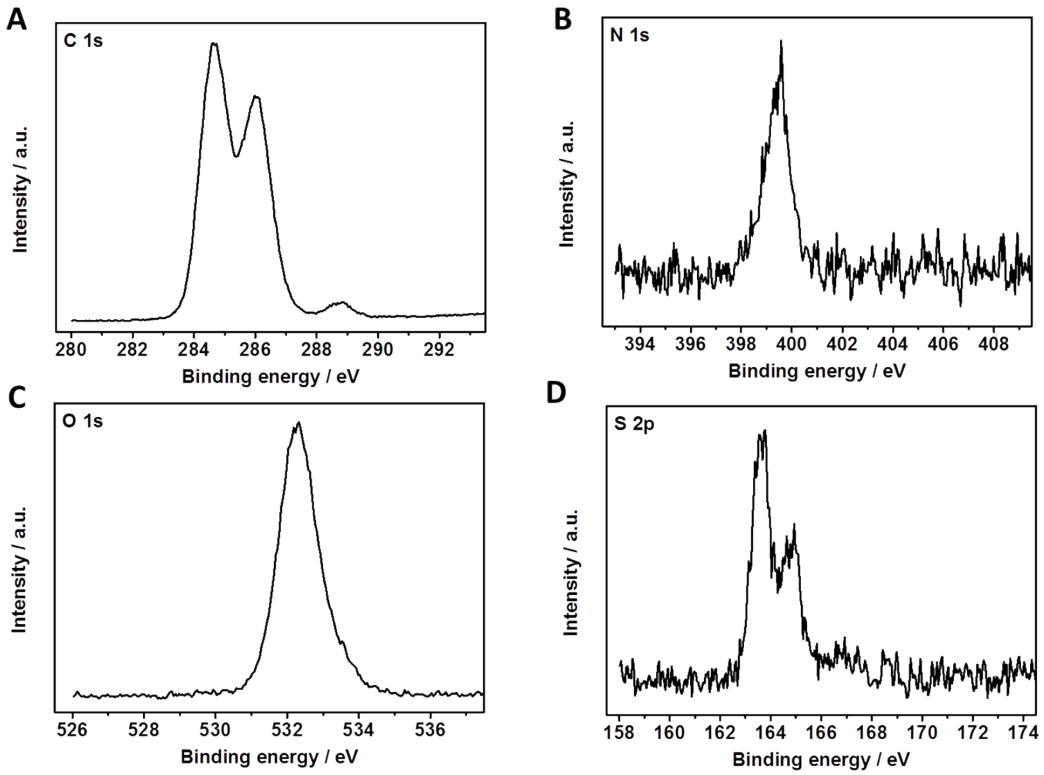

Fig. S1 XPS spectra of PhE-TT-PEG FPNs: (A) C 1s spectrum; (B) N 1s spectrum; (C) O 1s spectrum; (D) S 2p spectrum.

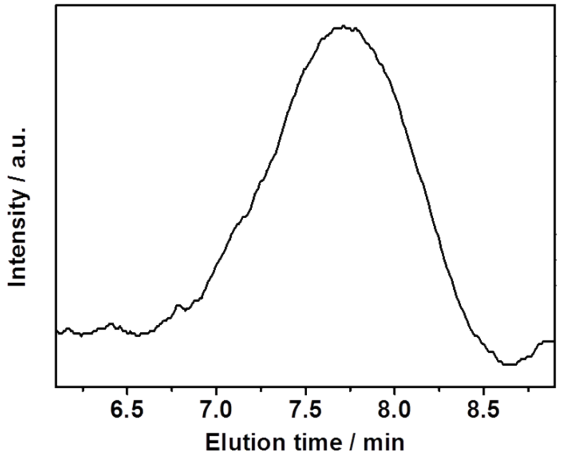

Fig. S2 GPC chart of PhE-TT-PEG (eluent: DMF).

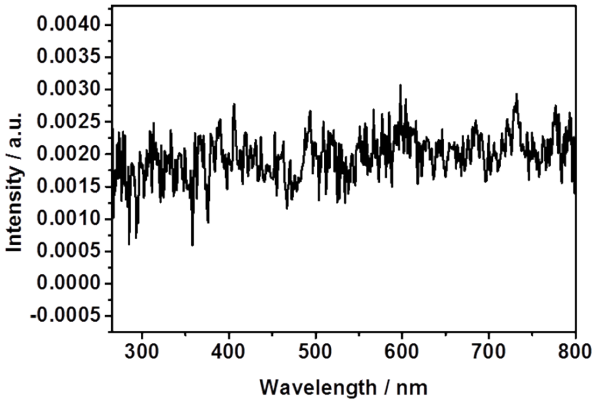

Figure S3 The absorption spectra of the filtrate after dialysis of PhE-TT-PEG against PBS solution and THF.

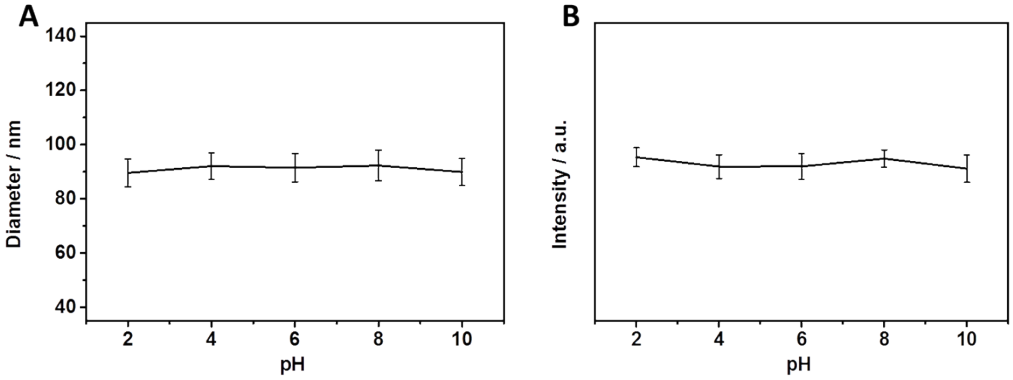

Fig. S4 (A) Hydrodynamic size changes of PhE-TT-PEG FPNs in PBS of different pH values; (B) Fluorescence intensity changes of PhE-TT-PEG FPNs in PBS of different pH values (λex = 488 nm and λem = 580 nm).

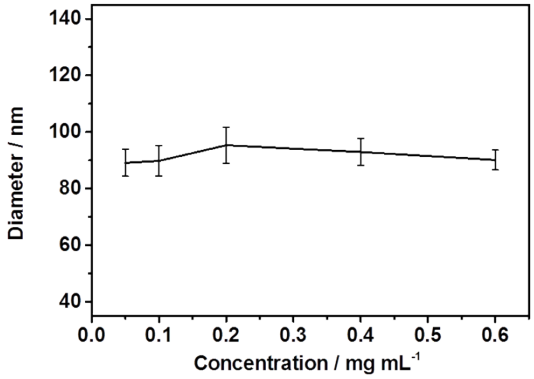

Fig. S5 Hydrodynamic size changes of PhE-TT-PEG FPNs in PBS with different concentrations.

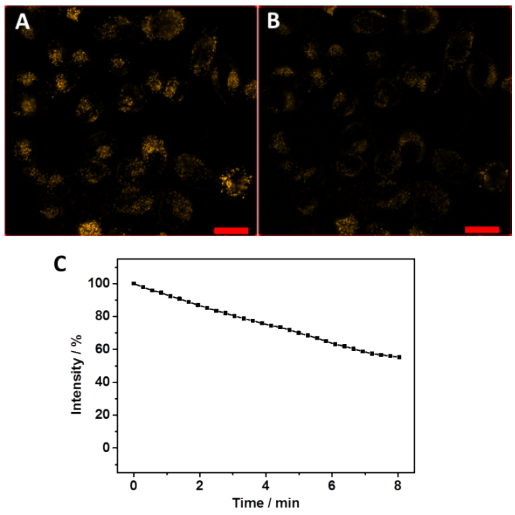

Fig. S6 Photostability of PhE-TT-PEG FPNs in live HeLa cells under continuous and strong lasers canning of 458 nm. Confocal images of PhE-TT-PEG FPNs stained cells: (A) before and (B) after the laser irradiation for 8 min. Scale bar = 20 μm. (C) The fluorescence intensity change during the photobleaching.

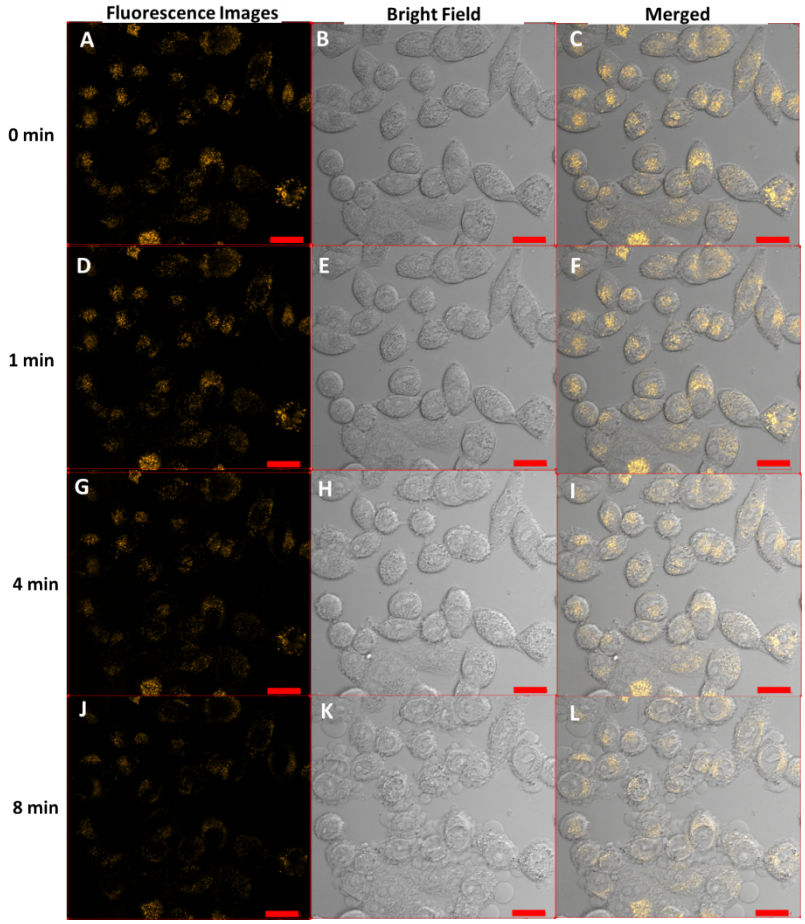

Fig. S7 CLSM images of live HeLa cells after photobleaching of different time. (A, D, G, J) fluorescent images under the excitation wavelength of 458 nm; (B, E, H, K) differential interference contrast images; (C, F, I, L) the corresponding overlay images. Scale bar = 20 μm.