Supporting Information for

A dual functionalized natural biomass carbon dots from lychee exocarp for cancer cells targetable near-infrared fluorescence imaging and photodynamic therapy

Mingyue Xue, Jingjin Zhao, Zhihua Zhan, Shulin Zhao,* Chuanqing Lan, Fanggui Ye and Hong Liang*

State Key Laboratory for the Chemistry and Molecular Engineering of Medicinal Resources, Guangxi Normal University, Guilin, 541004, China.

Table of contents

Supplementary figures and table

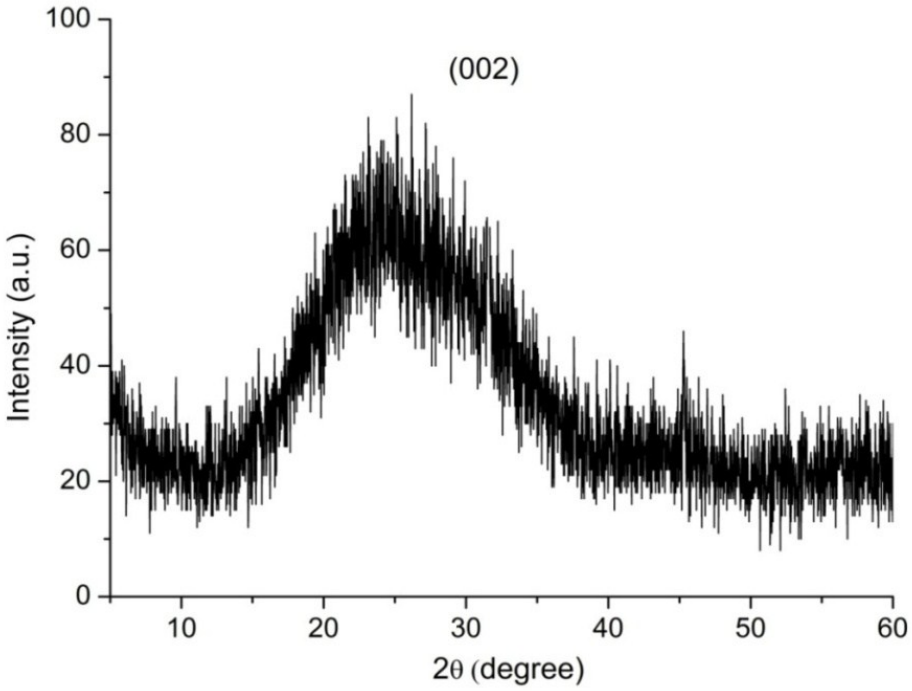

Figure S1. XRD pattern of the NBCDs

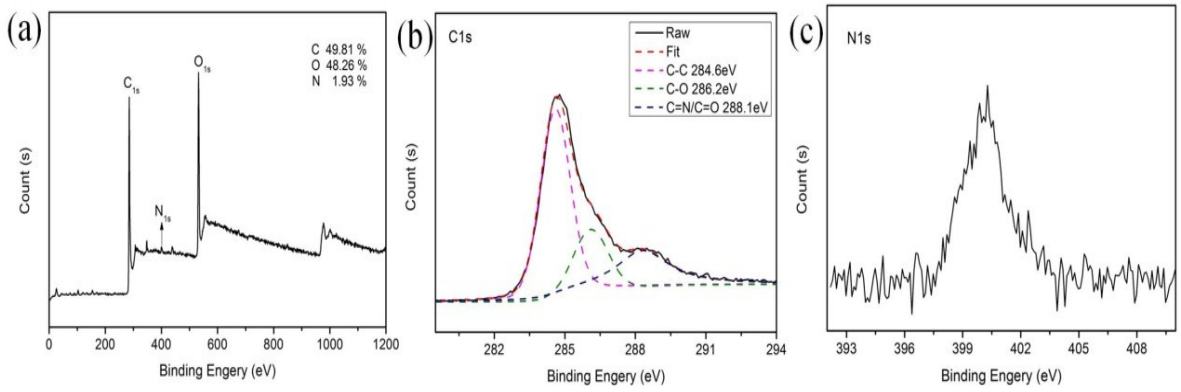

Figure S2. XPS spectra of the NBCDs (a). High-resolution C1s peaks (b) and N1s peaks (c) of the NBCDs.

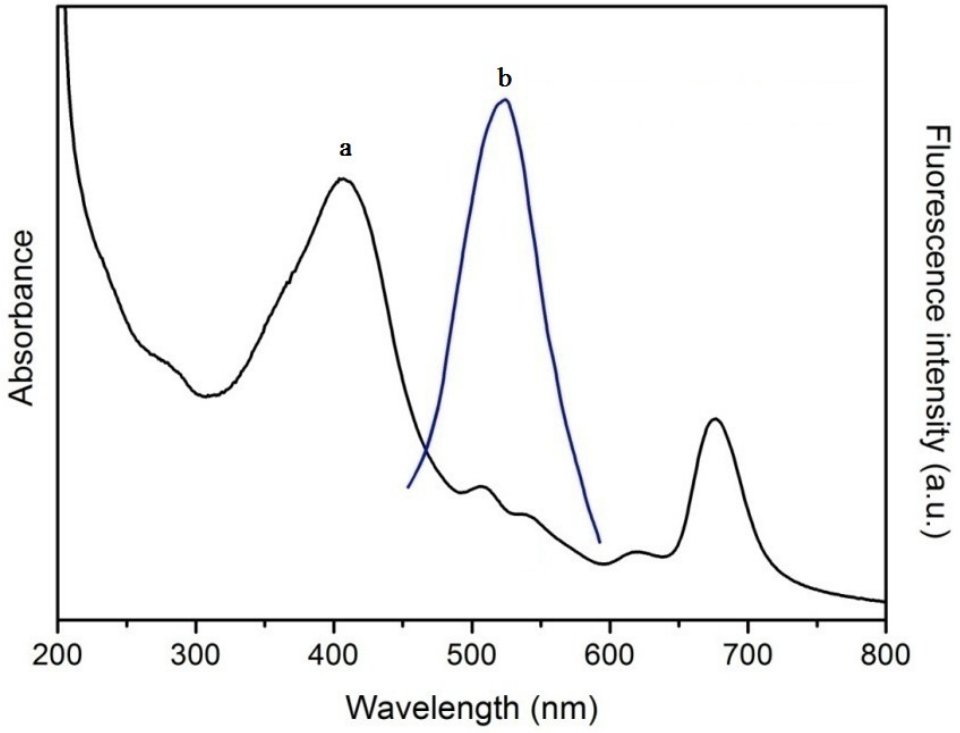

Figure S3. UV-Vis absorption spectrum of Ce6 (a) and fluorescence emission spectrum of NBCD-PEG (b). The excitation wavelength is 420 nm.

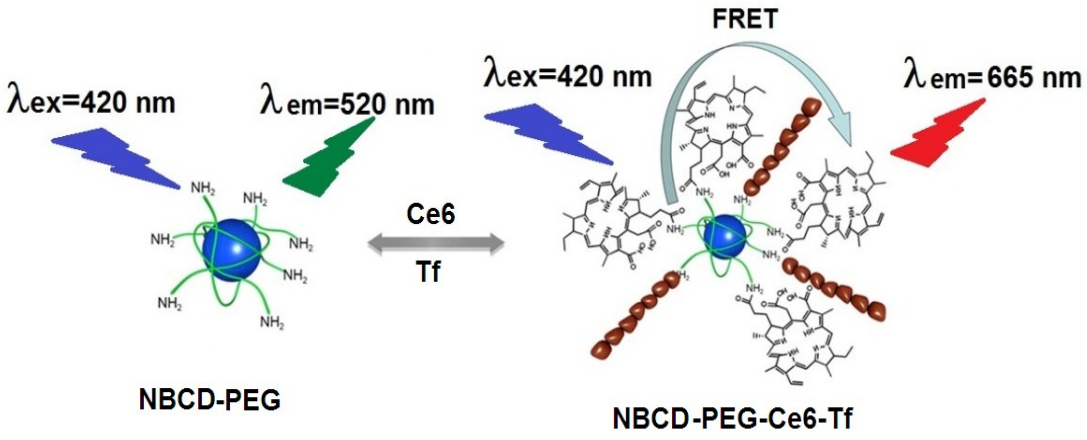

Figure S4. FRET process between NBCD-PEG and Ce6.

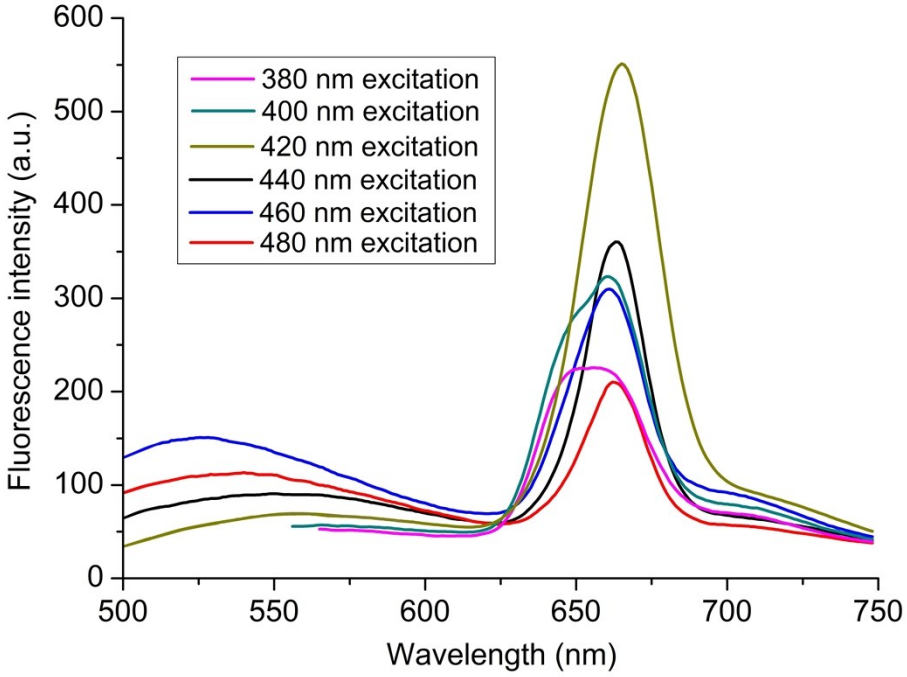

Figure S5. The excitation-independent behaviors of NBCD-PEG-Ce6-Tf.

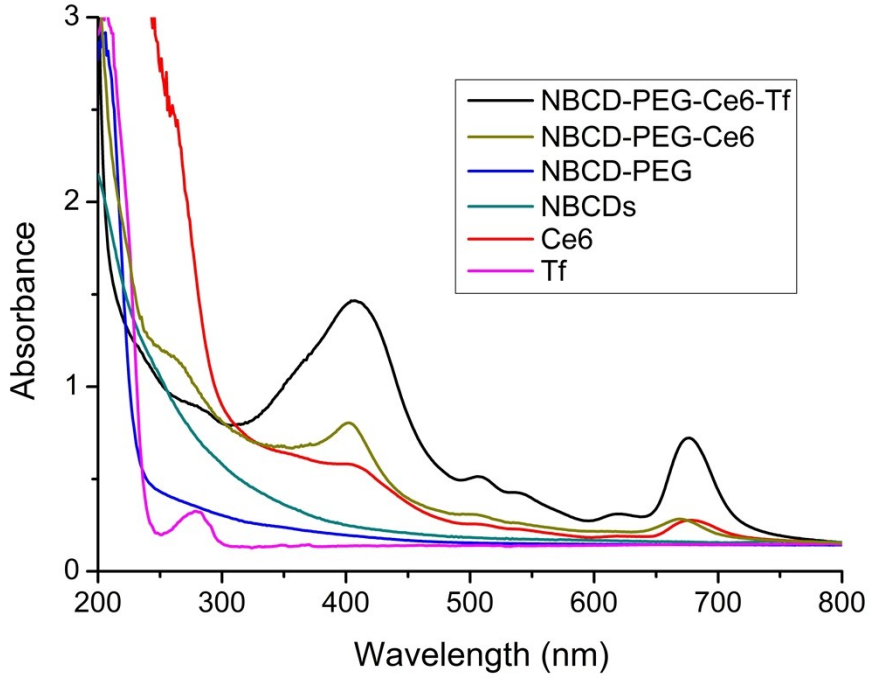

Figure S6. The UV-Vis spectra of NBCDs, Ce6, Tf and NBCD-PEG-Ce6-Tf.

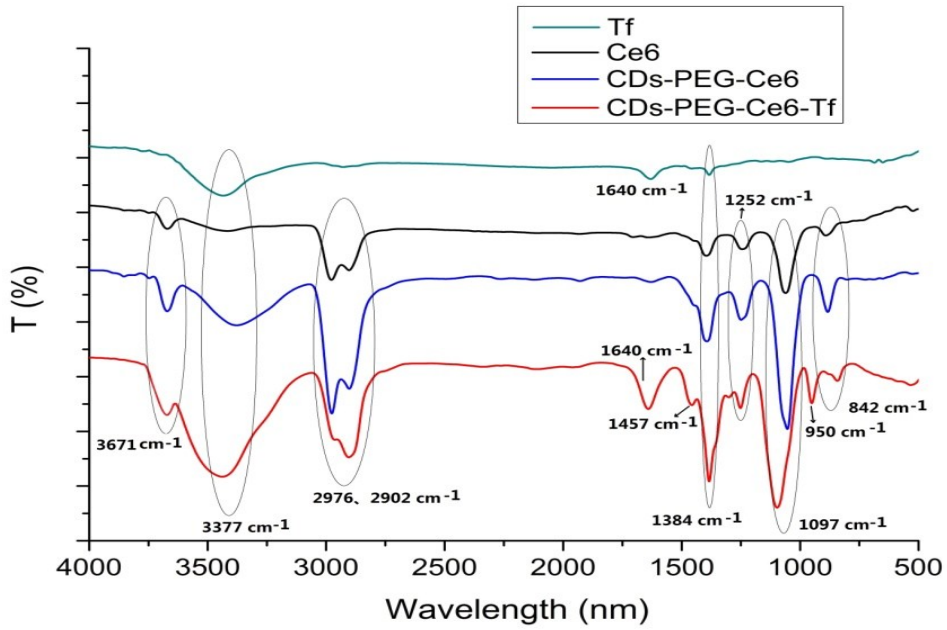

Figure S7. FT-IR spectra of Ce6, Tf, NBCD-PEG-Ce6 and NBCD-PEG-Ce6-Tf.

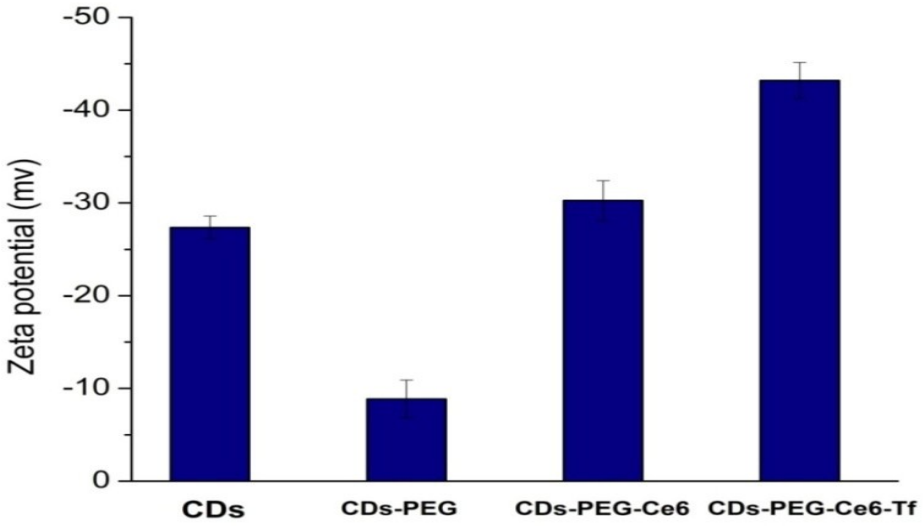

Figure S8. Zeta potential of Ce6, NBCD-PEG, NBCD-PEG-Ce6 and NBCD-PEG-Ce6-Tf.

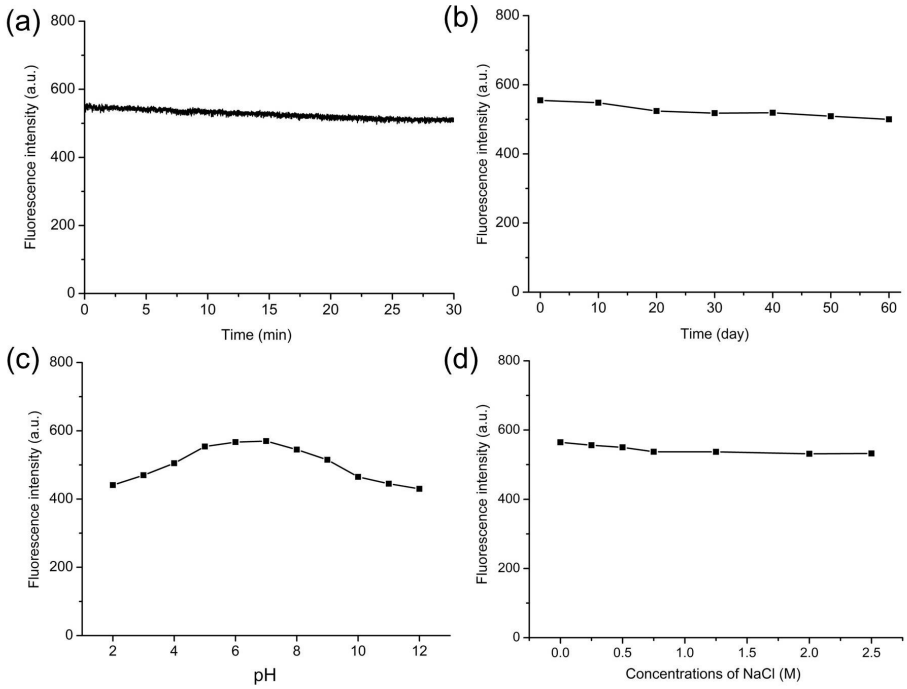

Figure S9. The fluorescence intensity variation of the as-prepared NBCD-PEG-Ce6-Tf solution under 365 nm UV light irradiation (a), and with variation of storage time (b), pH value (c) and concentrations of NaCl solutions (d).