

Supporting Information for

Surface passivation of carbon nanoparticles
with branched macromolecules influences near
infrared bioimaging

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Supporting Figures:

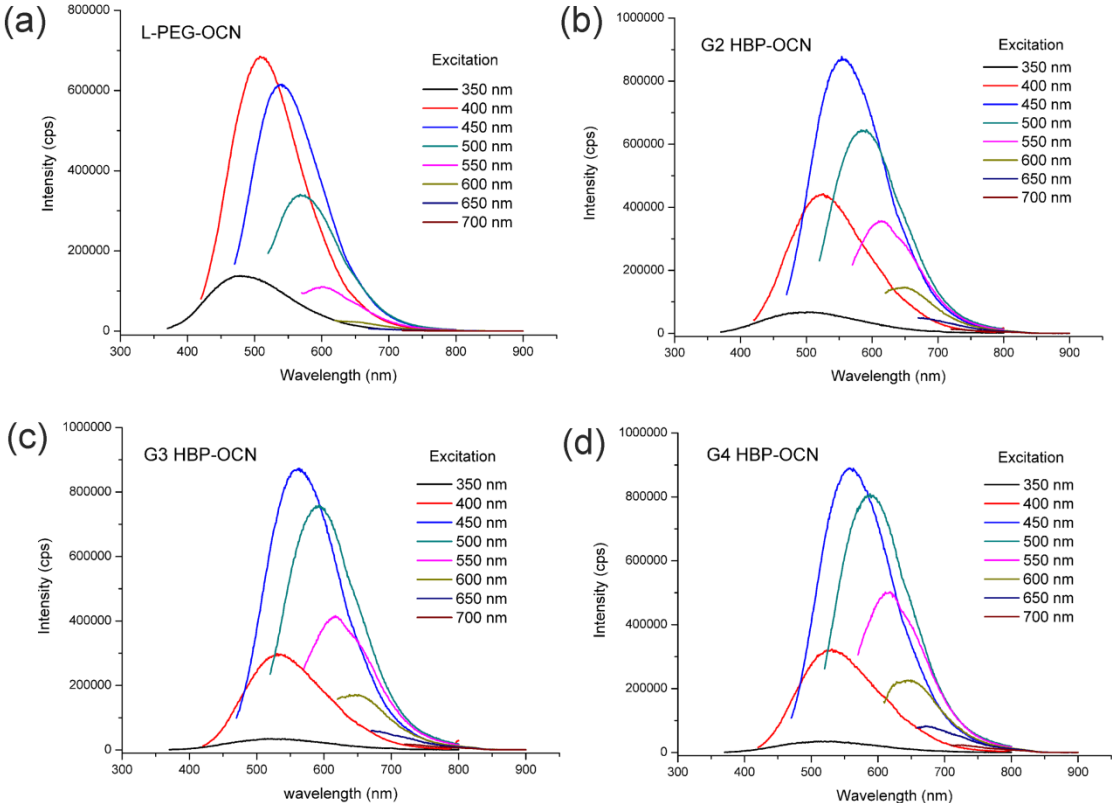


Figure S1. The emission spectra of OCNs excited at different excitation wavelength: (a) L-PEG-OCN; (b) G2 HBP-OCN; (c) G3 HBP-OCN; (d) G4 HBP-OCN.

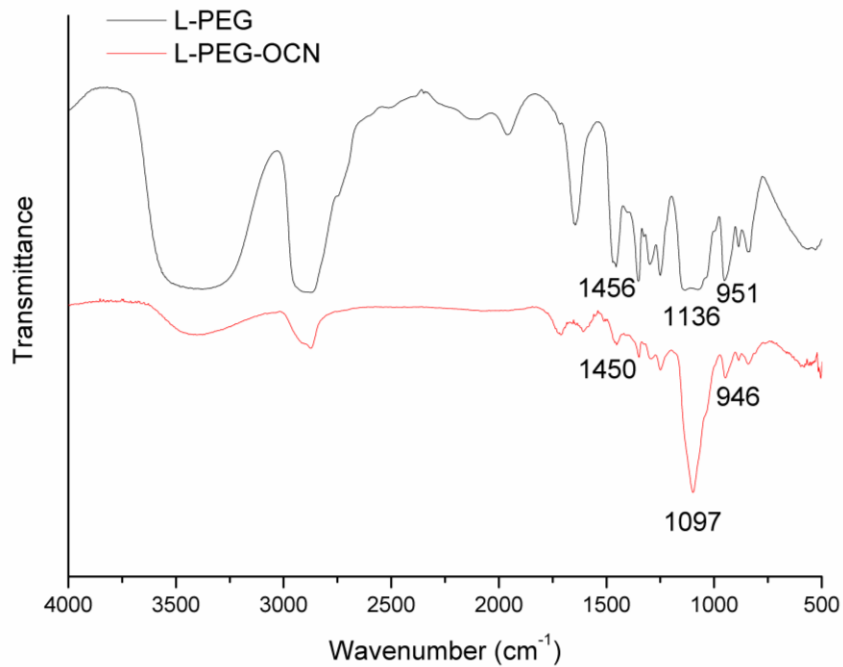


Figure S2. The FT-IR spectra of L-PEG and L-PEG-OCNs.

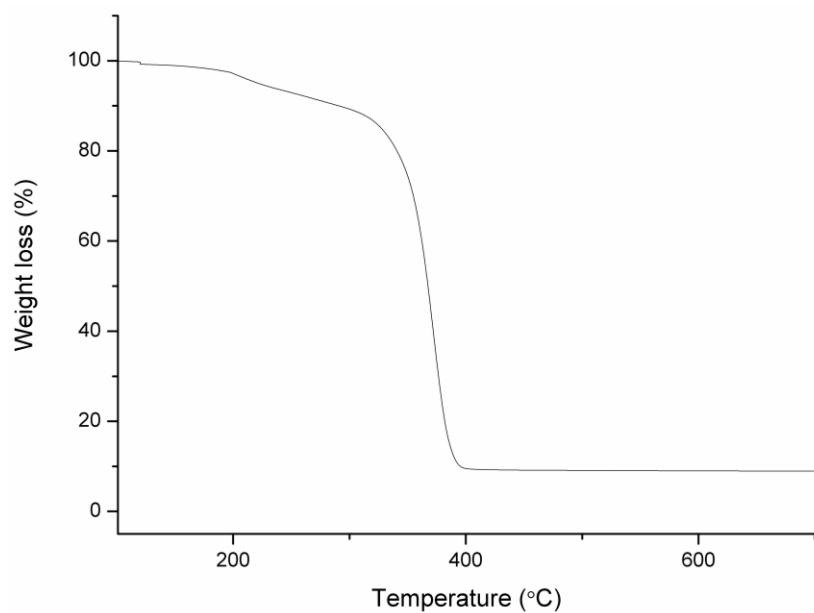


Figure S3. TGA curve of L-PEG-OCN.

TGA were measured on TGA Q 5000 of TA Instruments in the nitrogen atmosphere. The TGA curve is shown in Figure S3. The similar results were also observed in the TGA of the L-PEG capped gold [1], Fe₃O₄ [2] and ZnS [3] nanoparticles. The weight percentages of L-PEG and OCNs calculated using the TGA results are 88% and 9.2%, respectively.

References:

[1] Manson J, Kumar D, Meenan B, et al. Polyethylene glycol functionalized gold nanoparticles: the influence of capping density on stability in various media. *Gold Bull* 2011; 44: 99-105.

[2] Mukhopadhyay A, Joshi N, Chattopadhyay K, et al. A Facile Synthesis of PEG-Coated Magnetite (Fe₃O₄) Nanoparticles and Their Prevention of the Reduction of Cytochrome C. *ACS Applied Materials & Interfaces* 2011; 4: 142-149.

[3] Zhao Y, Wang F, Fu Q, et al. Synthesis and characterization of ZnS/hyperbranched polyester nanocomposite and its optical properties. *Polymer* 2007; 48: 2853-2859.