

Electronic Supplementary Material (ESI) for RSC Advances.

## **SUPPORTING INFORMATION**

### **Thermo-activatable PNIPAM-functionalized Lanthanide-doped Upconversion Luminescence Nanocomposites used for In Vitro Imaging**

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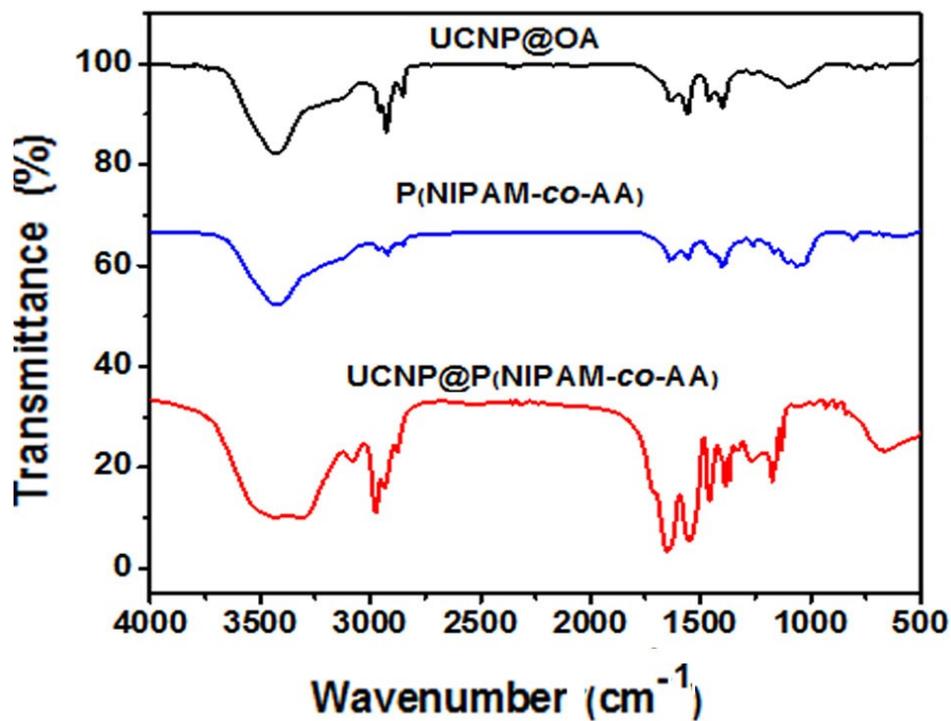
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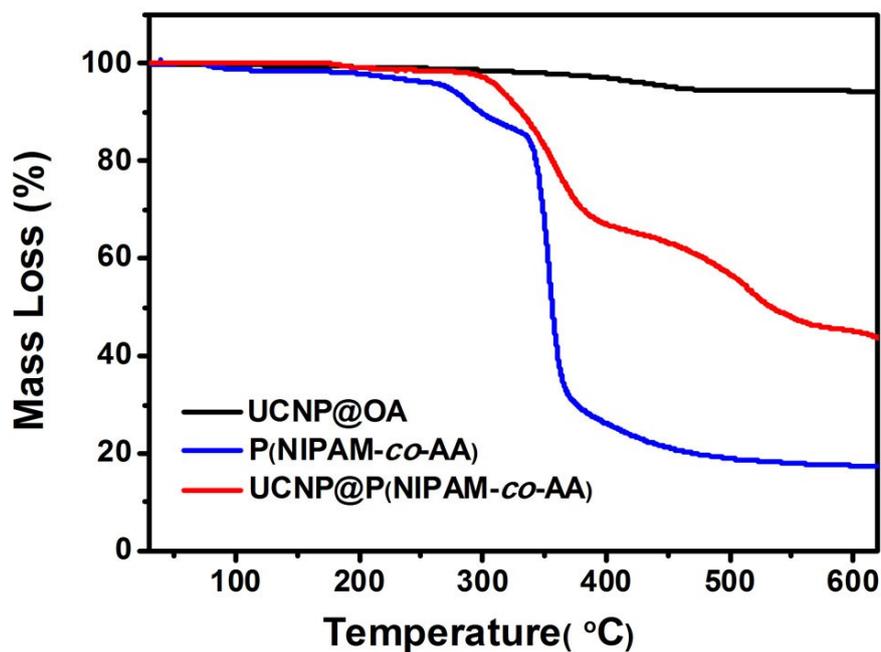
E-mail: huangxn@cnu.edu.cn (X.N. Huang)

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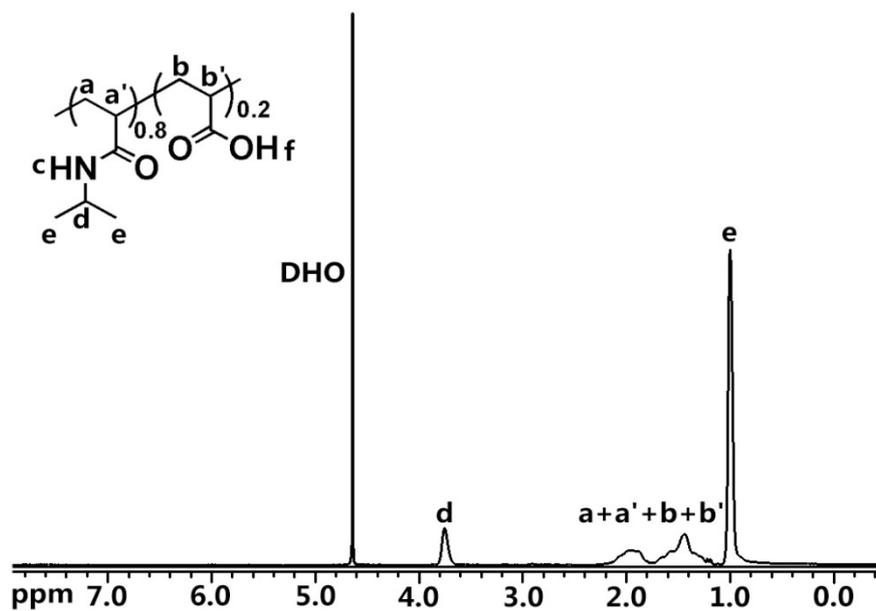
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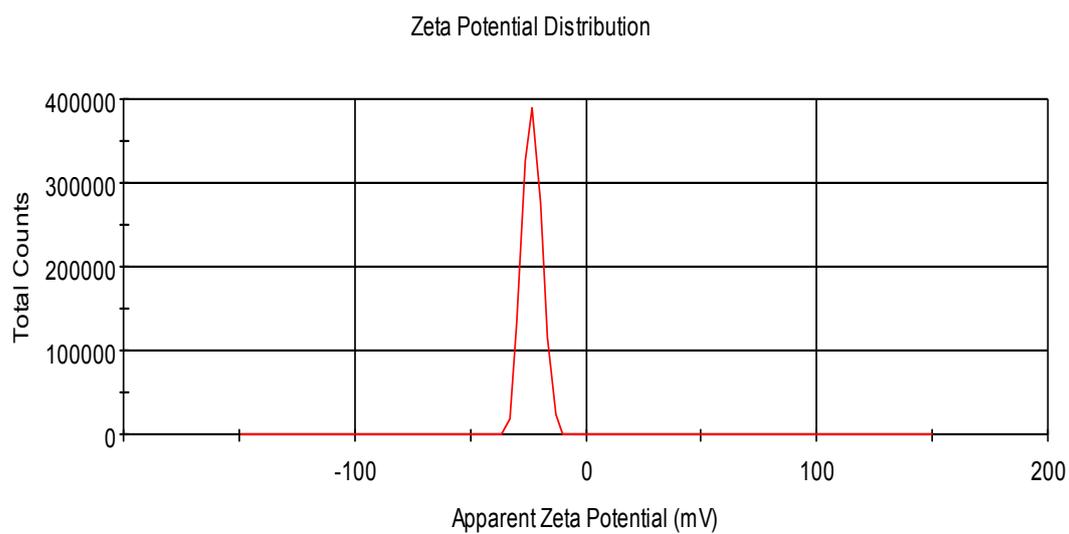
**Fig. S1.** FTIR spectra of the white solid residue UCNP@OA (black line), P(NIPAM-co-AA) (blue line), UCNP@ P(NIPAM-co-AA) (red line).



**Fig. S2.** Thermogravimetric analysis (TGA) of the white solid residue UCNP@OA (black line), P(NIPAM-co-AA) (blue line), UCNP@ P(NIPAM-co-AA) (red line).



**Fig. S3.**  $^1\text{H-NMR}$  spectrum of  $\text{P(NIPAM-co-AA)}$  in  $\text{D}_2\text{O}$ .



**Fig. S4.** Zeta Potential of  $\text{UCNP@P(NIPAM-co-AA)}$  in  $\text{D}_2\text{O}$ .