

Multiresponsive hydrogel based on polyacrylamide functionalized with thymine derivatives

Ke Yang^{a,b,*}, Ming Zeng^a

^aCollege of Basic Medical Sciences, Changsha Medical University, Changsha
410082, People's Republic of China

^bCollege of Biology, Hunan University, Changsha 410082, People's Republic of
China

*E-mail: yangkenhm@yahoo.com.cn

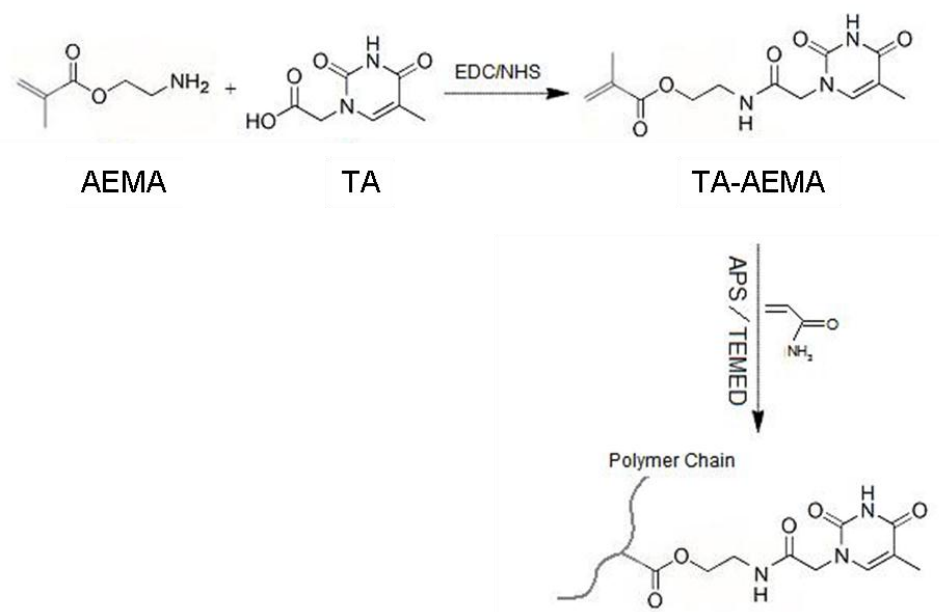


Figure S1. Synthetic route of thymine-functionalized polyacrylamide.

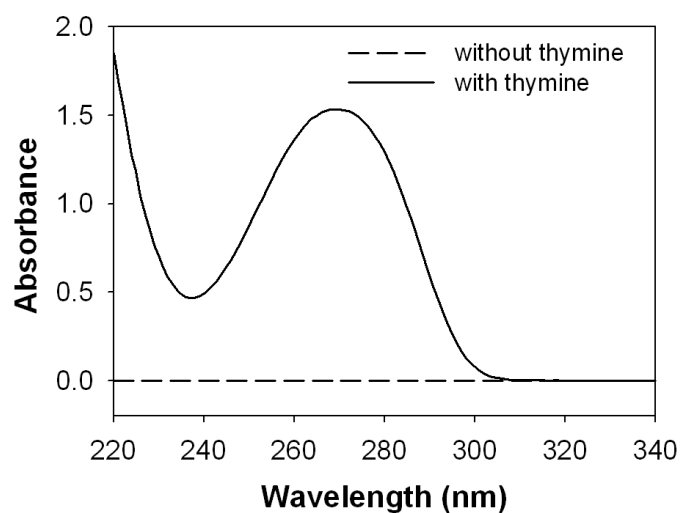


Figure S2. UV-vis spectra of polyacrylamide functionalized with and without thymine.

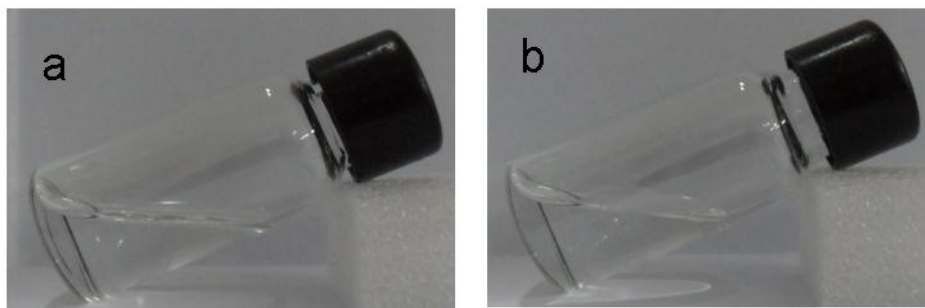


Figure S3. Photographs of thymine-unmodified polyacrylamide solutions with the concentrations of 4 wt % (a) and 20 wt % (b) after irradiation with 365 nm UV light for 2 h.

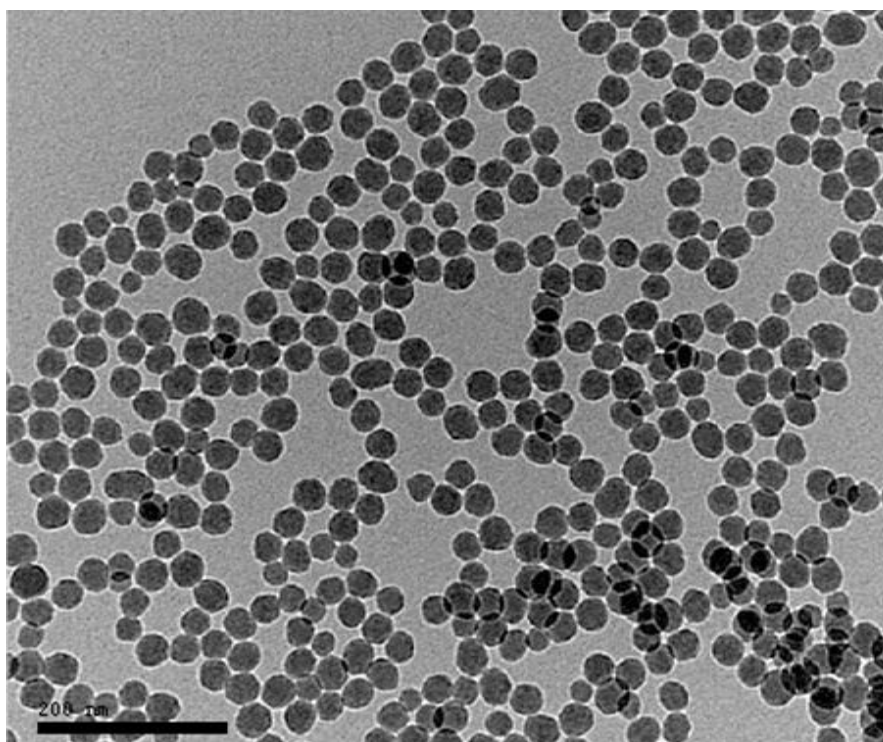


Figure S4. Transmission electron microscopy (TEM) image of $\text{Ru}(\text{bipy})_3^{2+}$ dye-doped silica nanoparticles (FSiNPs).

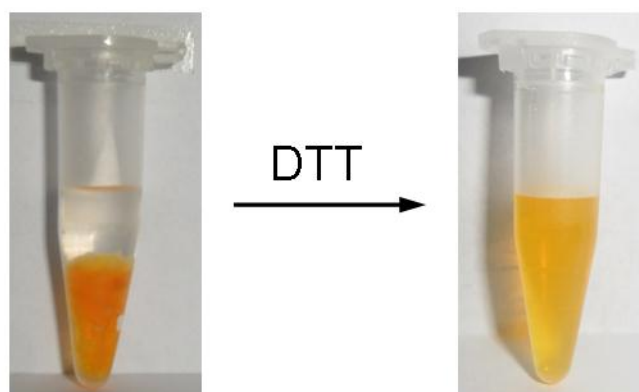


Figure S5. Photographs of Hg^{2+} -cross-linked hydrogel with entrapped FSiNPs without (left) and with (right) the addition of $2 \mu\text{M}$ DTT for 15 min.