

Electronic Supplementary Information for:

**Temperature- and redox-responsive magnetic complex micelles
for controlled drug release**

Hui Zou^a and Weizhong Yuan^{ab*}

*^aInstitute of Nano and Bio-polymeric Materials, School of Materials Science and Engineering,
Tongji University, 4800 Cao'an Road, Shanghai 201804, People's Republic of China. Fax: +86
21 69584723; Tel: +86 21 69580234; E-mail: yuanwz@tongji.edu.cn*

*^bKey Laboratory of Advanced Civil Materials, Ministry of Education, 4800 Cao'an Road,
Shanghai 201804, People's Republic of China. Fax: +86 21 69584723; Tel: +86 21 69580234; E-
mail: yuanwz@tongji.edu.cn*

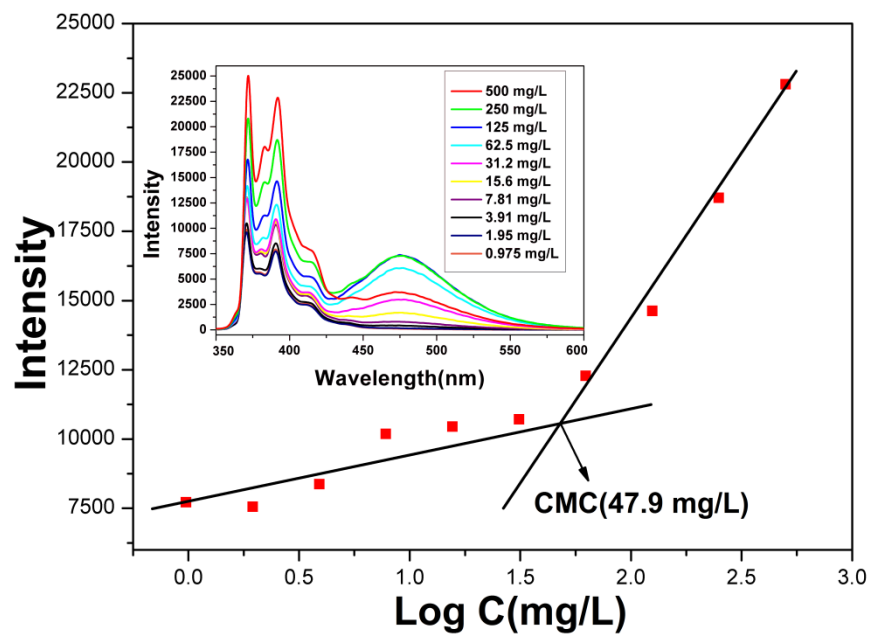


Fig. S1 CMC of PCL-SS-PDMAEMA copolymer determined using pyrene as the fluorescent probe.

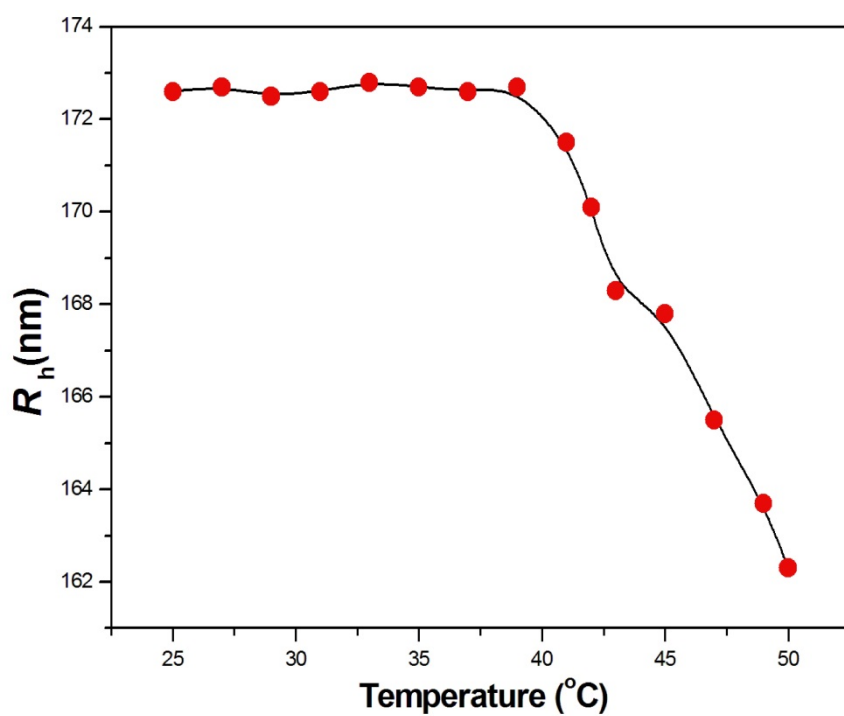


Fig. S2 Temperature dependence of hydrodynamic radius (R_h) for PCL-SS-PDMAEMA micellar solutions (concentration: 1 mg·mL⁻¹).

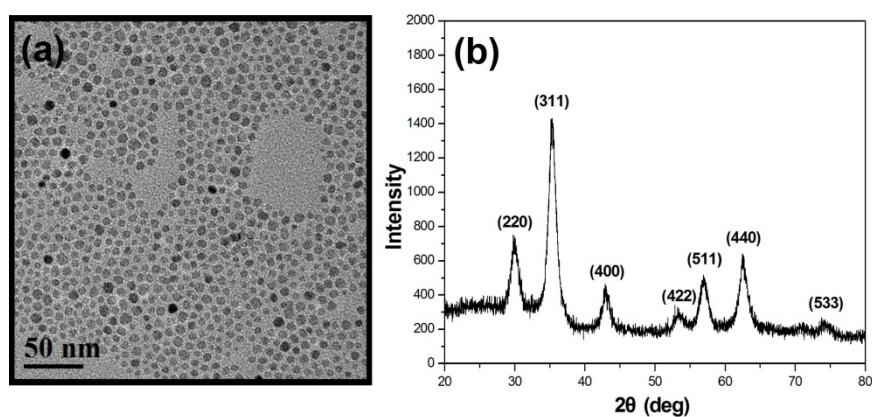


Fig. S3 (a) TEM images and (b) XRD patterns of oleic acid modified Fe_3O_4 nanoparticles.

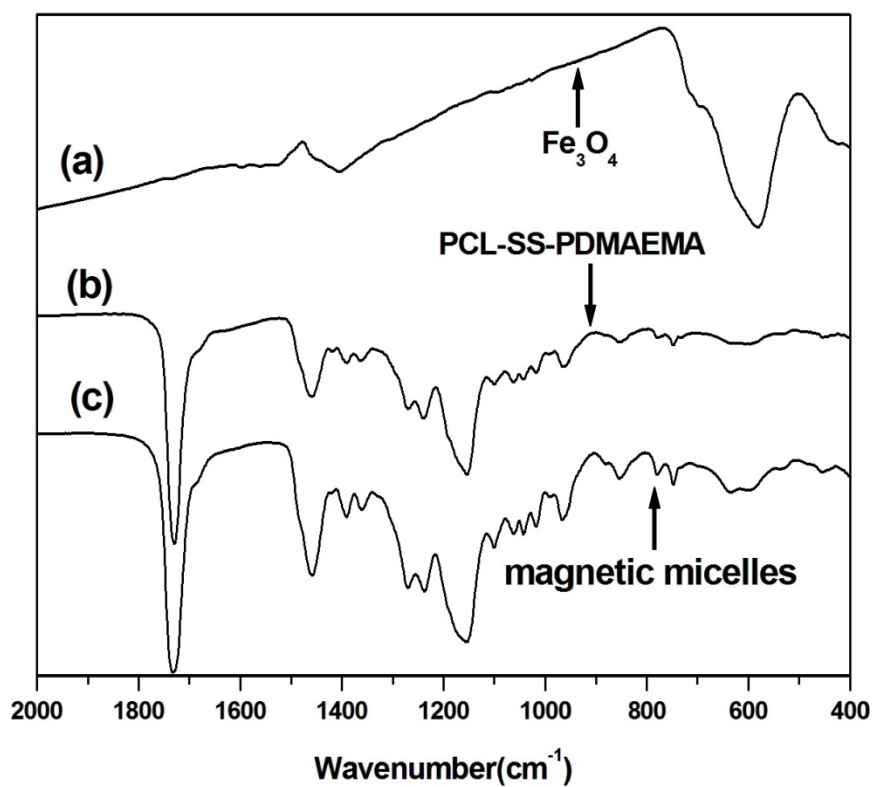


Fig. S4 FTIR spectra of (a) oleic acid stabilized Fe_3O_4 nanoparticles, (b) PCL-SS-PDMAEMA copolymer, and (c) magnetic PCL-SS-PDMAEMA/ Fe_3O_4 complex micelles.

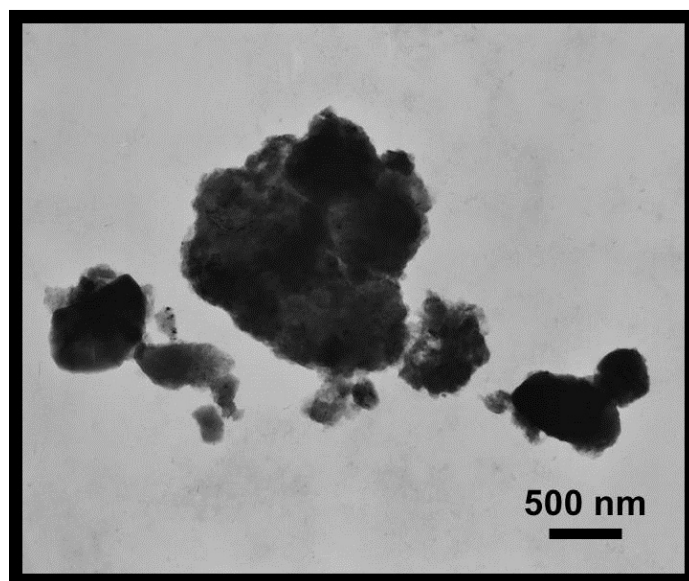


Fig. S5 TEM images of the magnetic PCL-SS-PDMAEMA/Fe₃O₄ complex micelles (concentration: 1mg·mL⁻¹) after addition of DTT (concentration: 10 mM) 60 min later.

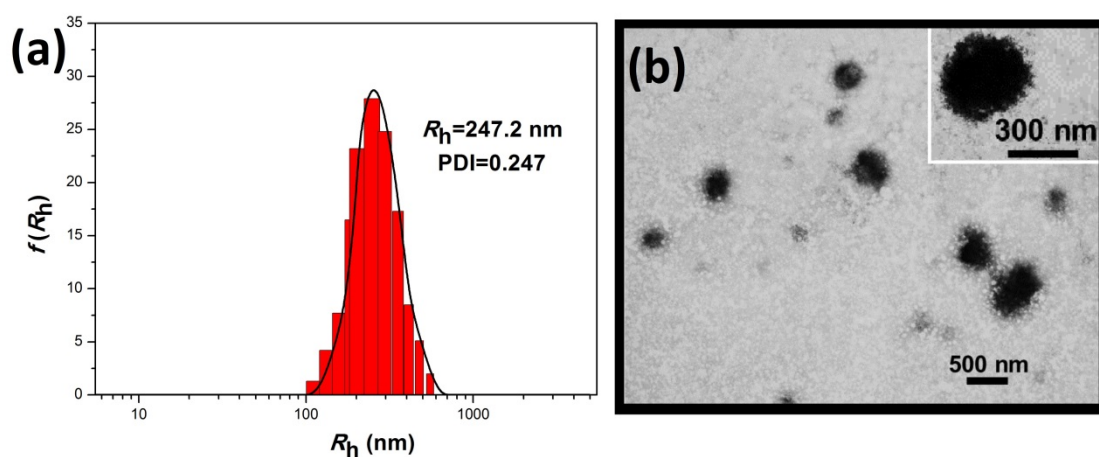


Fig. S6 Hydrodynamic radius (R_h) distribution and (b) TEM images of the DOX loaded magnetic PCL-SS-PDMAEMA/Fe₃O₄ complex micelles at 25 °C (Insert: high-resolution TEM image of the DOX loaded magnetic micellar structure) (the PCL-SS-PDMAEMA/Fe₃O₄ concentration of : 1 mg·mL⁻¹).

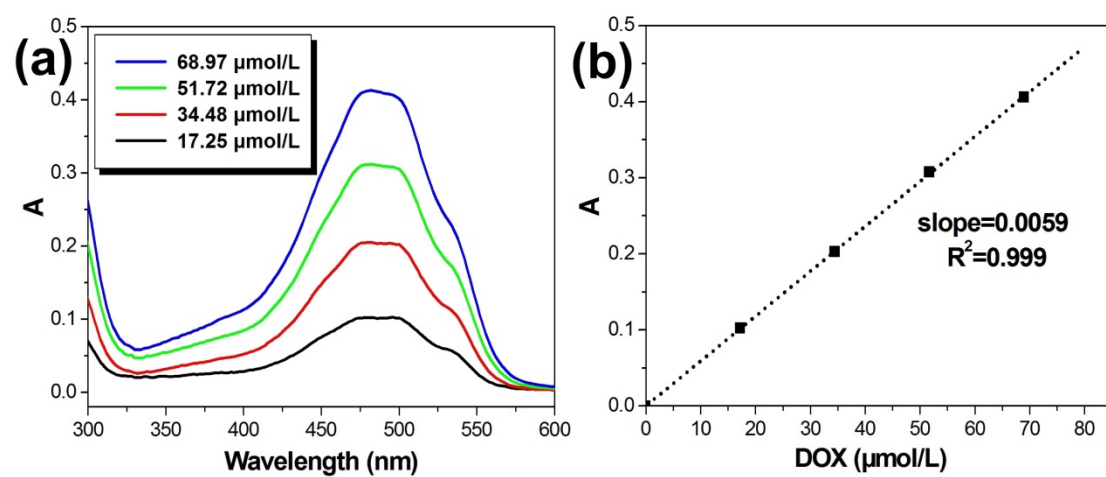


Fig. S7 (a) UV spectra of DOX at different concentrations in PBS buffer and (b) the standard curve of absorbance vs. concentration of DOX in PBS buffer.