Facile synthesis and self-assembly of amphiphilic polydimethylsiloxane with poly(ethylene glycol) moieties via thiol-ene click reaction

Yong Xia, Hongtao Yao, Zhihui Miao, Yun Ma, Meifang Cui, Liqiang Yan, Huanhuan Lin,

Zhengjian Qi*

College of Chemistry and Chemical engineering, Southeast University, Nanjing, Jiangsu

211189, PR China



Corresponding author: Tel: +86 13605186011; E-mail: qizhengjian@seu.edu.cn



Figure 1S. The FT-IR spectra of PDMS-Vi, sPDMS-Vi, mPEG-SH, and S-PPG20 (enlarged).







Figure 2S. ¹H NMR spectra of PDMS-Vi, sPDMS-Vi, mPEG-SH, S-PPG100, S-PPG20, and T-

PPG.



Figure 3S. Variation of the intensity ratio (I_3/I_1) as a function of **T-PPG** and **S-PPG100**

concentration, the dotted line shows the CAC value.



Figure 4S. Variation of the intensity ratio (I_3/I_1) as a function of **PDMS** and **PEG** concentration, the dotted line shows the CAC value.



Figure 5S. Typical TEM images of copolymers micelles (1 mg/mL) (a) T-PPG, (b)S-PPG20, and

(c) S-PPG100.

Table 1S. The CMC value of the other materials based on pyrene fluorescent probe.

polymers -	Method of fluorescent probe
	CMC (g/L)
POSS-PDMAEMA ¹	2.2×10 ⁻¹
PLA ₁₂ -PEG ₁₃₆ -PLA ₁₂ ²	9.0×10 ⁻²
PEG ₁₂ -PCL ₂₃ -PEG ₁₂ ³	7.0×10 ⁻⁴

- 1. L. Ma, H. P. Geng, J. X. Song, J. Z. Li, G. X. Chen and Q. F. Li, *J Phys Chem B*, 2011, **115**, 10586-10591.
- 2. Y. Bakkour, V. Darcos, S. M. Li and J. Coudane, *Polym Chem-Uk*, 2012, **3**, 2006-2010.
- 3. S. S. Payyappilly, S. Dhara and S. Chattopadhyay, *Soft Matter*, 2014, **10**, 2150-2159.