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Electronic Supplementary Information for:

## Star-shaped and star-block polymers with porphyrin core: from LCST-UCST thermoresponsive transition to tunable self-assembly behaviour and fluorescence performance

Weizhong Yuan\* and Xiangnan Chen

School of Materials Science and Engineering, Key Laboratory of Advanced Civil Materials of Ministry of Education, Tongji University, 201804, People's Republic of China. Fax: +86 21 69584723; Tel: +86 21 69580234; E-mail: yuanwz@tongji.edu.cn

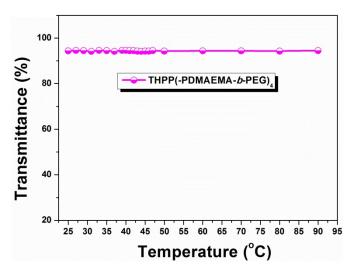


Fig. S1 Transmittance curve of THPP(-PDMAEMA-b-PEG)<sub>4</sub> from 25 °C to 90 °C.

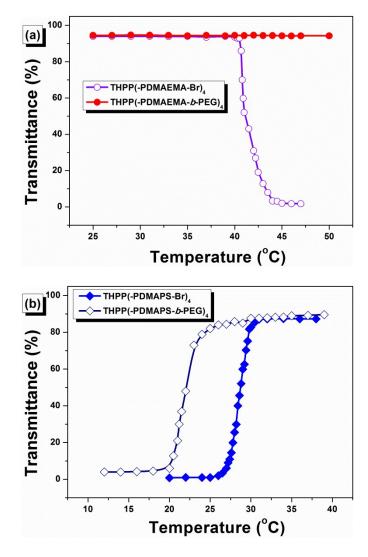


Fig. S2 Transmittance curves of (a) THPP(-PDMAEMA-Br)<sub>4</sub> and THPP(-PDMAEMA-b-PEG)<sub>4</sub>,

(b) THPP(-PDMAPS-Br)4 and THPP(-PDMAPS-b-PEG)<sub>4</sub> during cooling process.

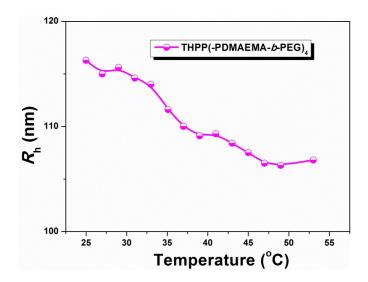


Fig. S3 Temperature dependence of hydrodynamic radius  $(R_h)$  for THPP(-PDMAEMA-b-PEG)<sub>4</sub>.