

Electronic Supplementary Information (ESI)

Magnetic polymerizable surfactants: thermotropic liquid crystal behaviors and construction of nanostructured films

Zhaohui Huang,^a Mengjiao Yi,^a Yihan Liu,^a Ping Qi,^a Aixin Song,^{* a} and Jingcheng Hao^a

^aKey Laboratory of Colloids and Interface Chemistry (Shandong University),
Ministry of Education, Jinan 250100, China

* Corresponding author:

songaixin@sdu.edu.cn; Phone: 0531-88363532; Fax: 0531-88564750

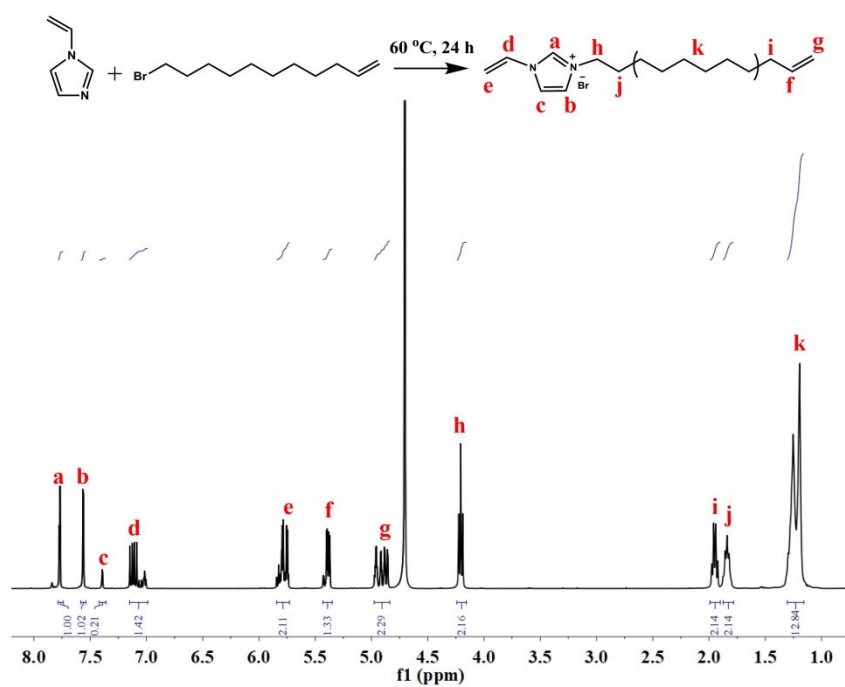


Fig. S1 1H NMR spectrum of $C_{11}VIMBr$.

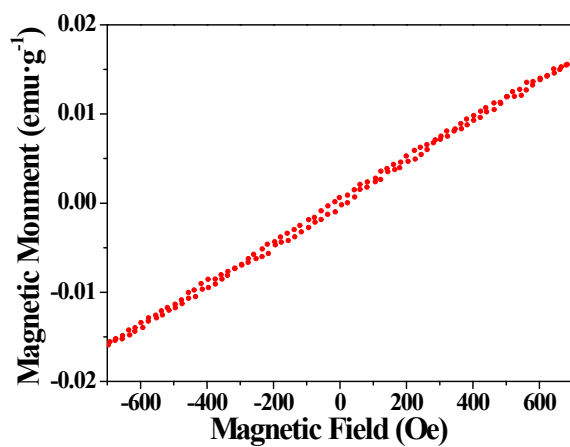


Fig. S2 SQUID magnetometry of $C_{12}VIMMn$ where a small “hysteresis loop” appeared.

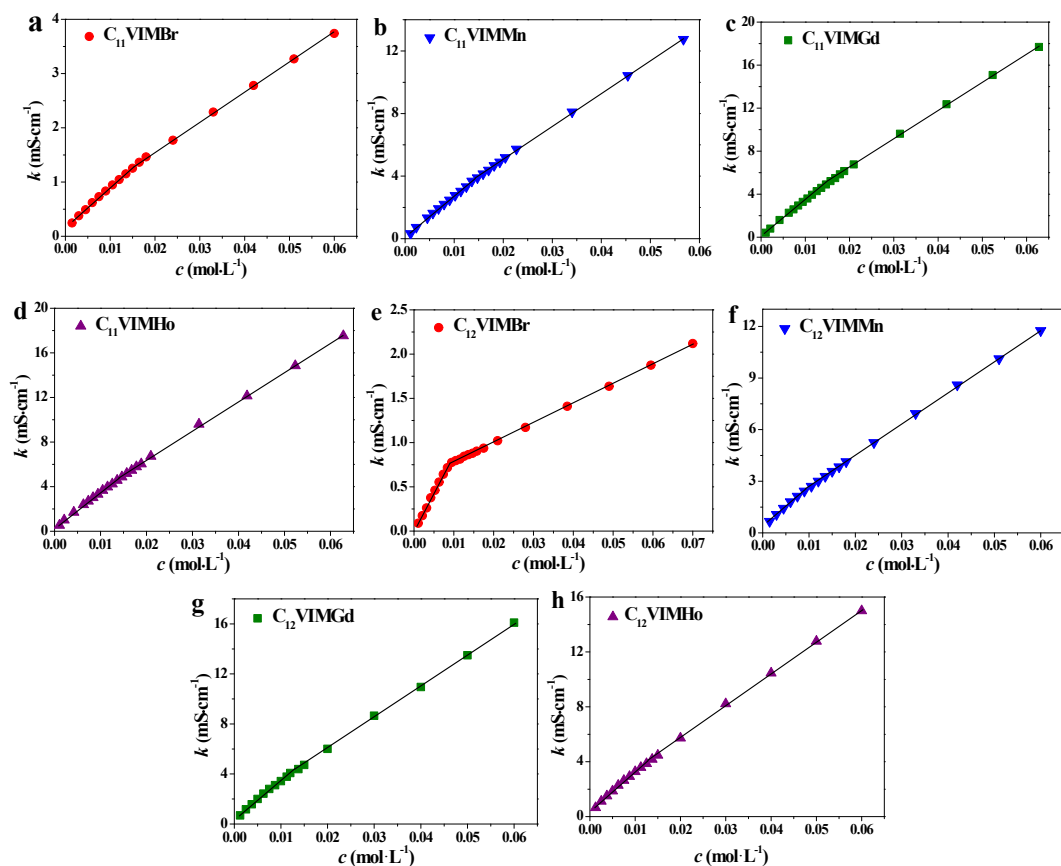
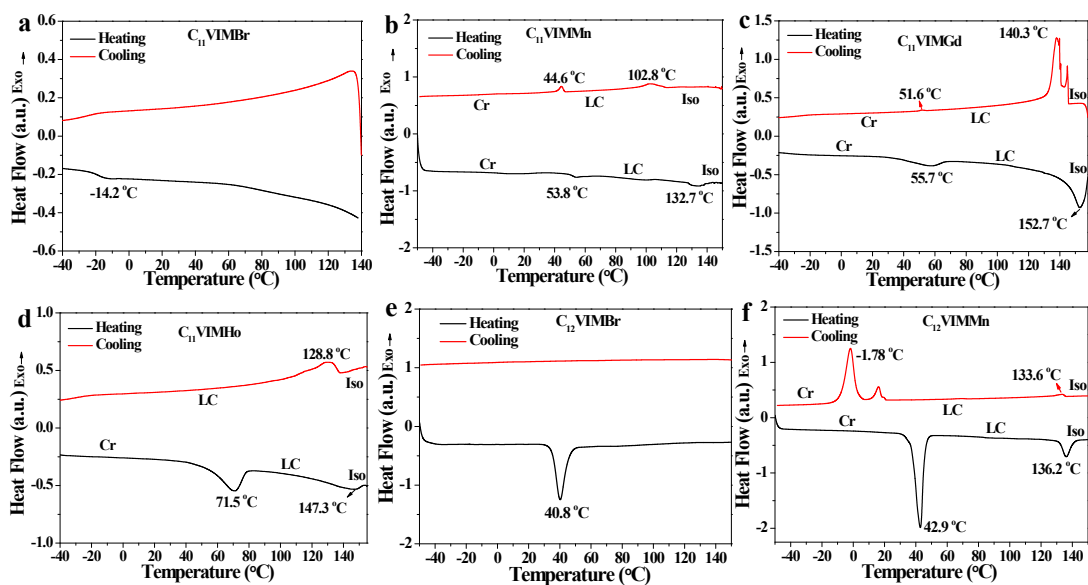


Fig. S3 Electrical conductivity plots of six magnetic surfmers in aqueous solutions with different concentrations. The test temperature was 25.0 ± 0.1 °C.



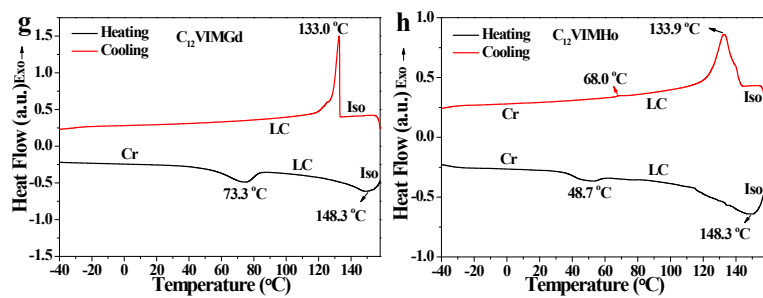


Fig. S4 DSC curves of C_{11} VIMBr, C_{12} VIMBr and their corresponding magnetic surfmers.

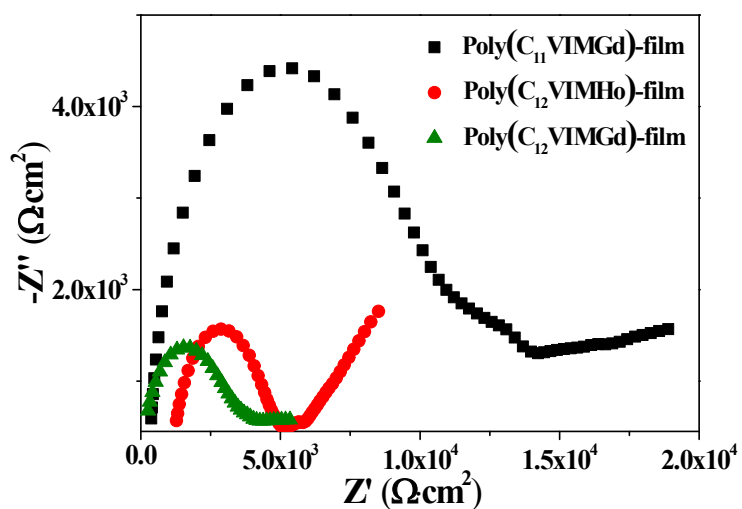


Fig. S5 EIS results of the films composed of poly(C_{11} VIMGd), poly(C_{12} VIMHo) or poly(C_{12} VIMGd).