

## 非离子表面活性剂Brij 30诱导离子液体型表面活性剂C<sub>16</sub>imC<sub>8</sub>Br蠕虫状胶束向凝胶的转变

胡益民, 韩杰\*, 郭荣\*

扬州大学化学化工学院, 江苏 扬州 225002

## Wormlike Micelle to Gel Transition Induced by Brij 30 in Ionic Liquid-Type Surfactant Aqueous Solution

Yimin Hu, Jie Han \*, Rong Guo \*

School of Chemistry and Chemical Engineering, Yangzhou University, Yangzhou 225002, Jiangsu Province, P. R. China.

\*Corresponding authors. Emails: hanjie@yzu.edu.cn (J.H.); guorong@yzu.edu.cn (R.G.). Tel.: +86-514-87975436.

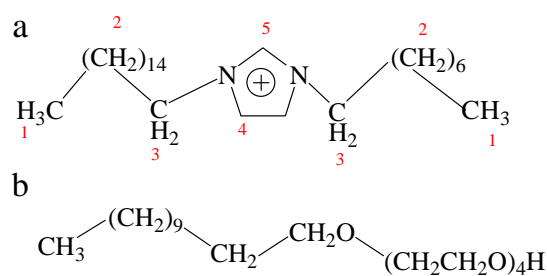


Fig. S1 Molecular structure of (a) ionic liquid-type surfactant  $[C_{16}imC_8]Br$  and (b) Brij 30 and the number of H atoms in  $[C_{16}imC_8]Br$  molecule.

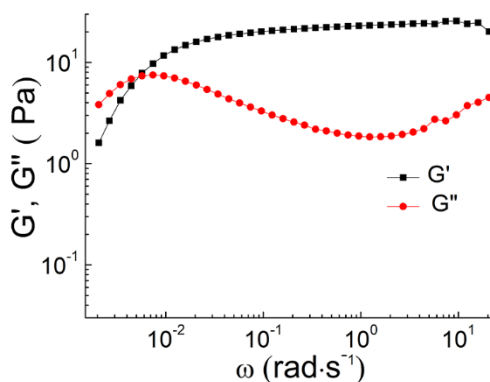


Fig. S2 The elastic modulus  $G'$  (filled symbols) and the viscous modulus  $G''$  (unfilled symbols) versus frequency for 4.00% (w)  $[C_{16}imC_8]Br$  aqueous solution.

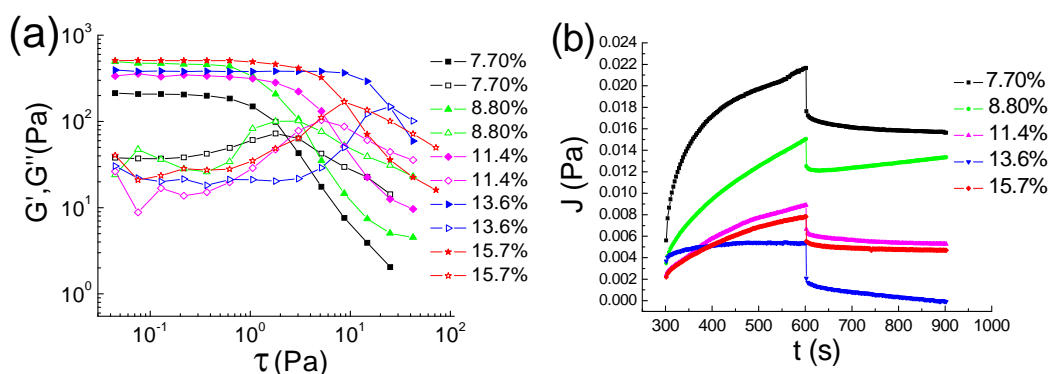


Fig. S3 (a) The  $G'$  (filled symbols) and the  $G''$  (unfilled symbols) versus stress for Brij 30/ $[C_{16}imC_8]Br$ (4.06% (w)) gels at different Brij 30 concentrations; (b) Creep and creep recovery behaviors for Brij 30/ $[C_{16}imC_8]Br$ (4.06% (w)) gels.

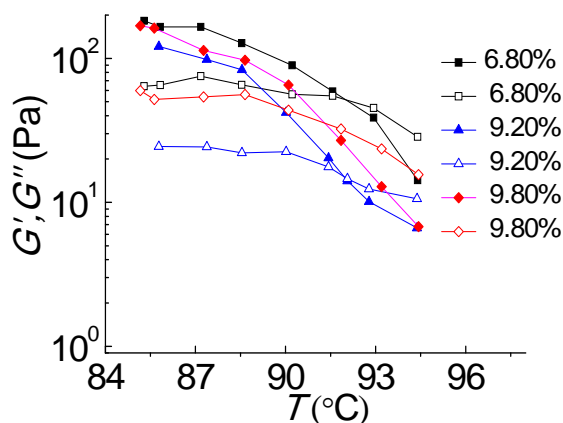


Fig. S4 The  $G'$  (filled symbols) and  $G''$  (unfilled symbols) versus temperature for Brij 30/ $[C_{16}imC_8]Br$  (4.06% (w)) systems at different Brij 30 concentrations: 6.80% (w); 9.20% (w); 9.80% (w).