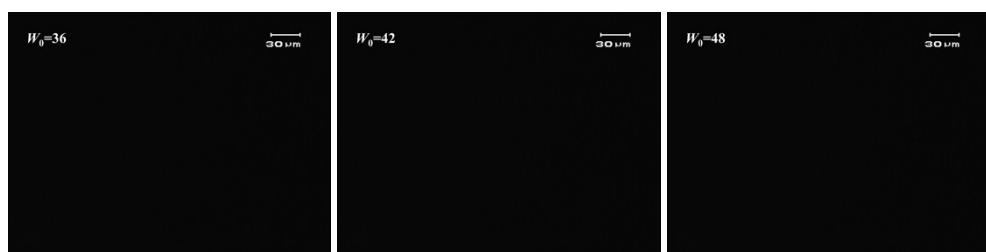


## Supporting Information

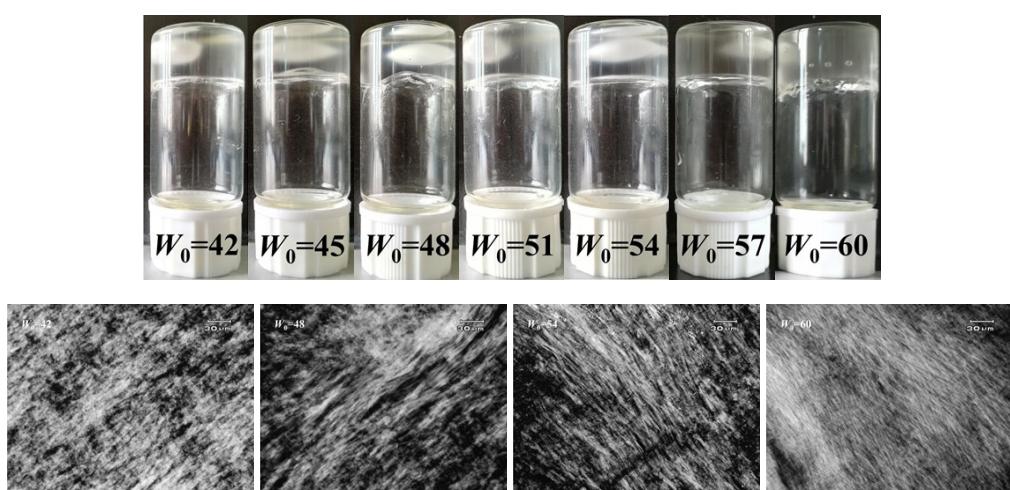
### Self-assembly of cationic gemini surfactants, alkanediyl-bis-(dimethyldodecylammonium bromide), in cyclohexane: effects of spacer length on their associating into lyotropic liquid crystalline or reverse vesicles

Shenglu Deng and Jianxi Zhao\*

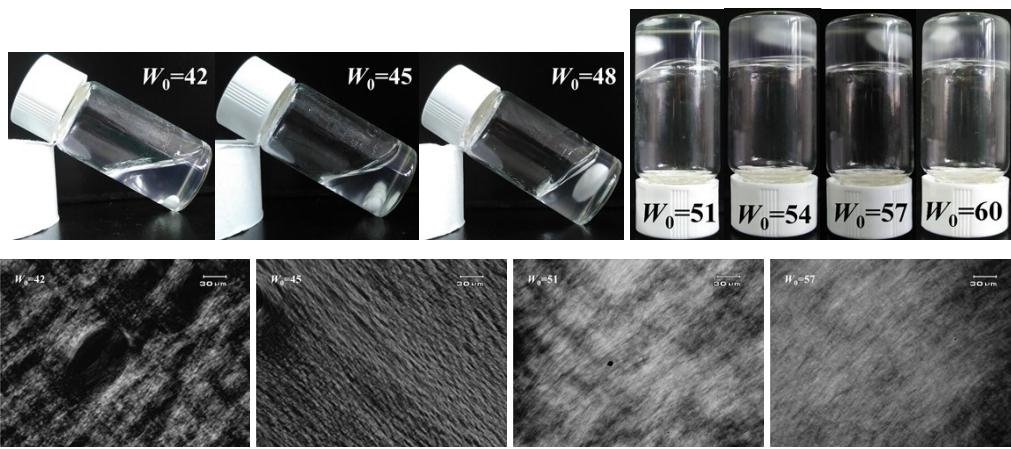
Institute of Colloid and Interface Chemistry, College of Chemistry and Chemical Engineering,  
Fuzhou University, Fuzhou, Fujian, 350108, China



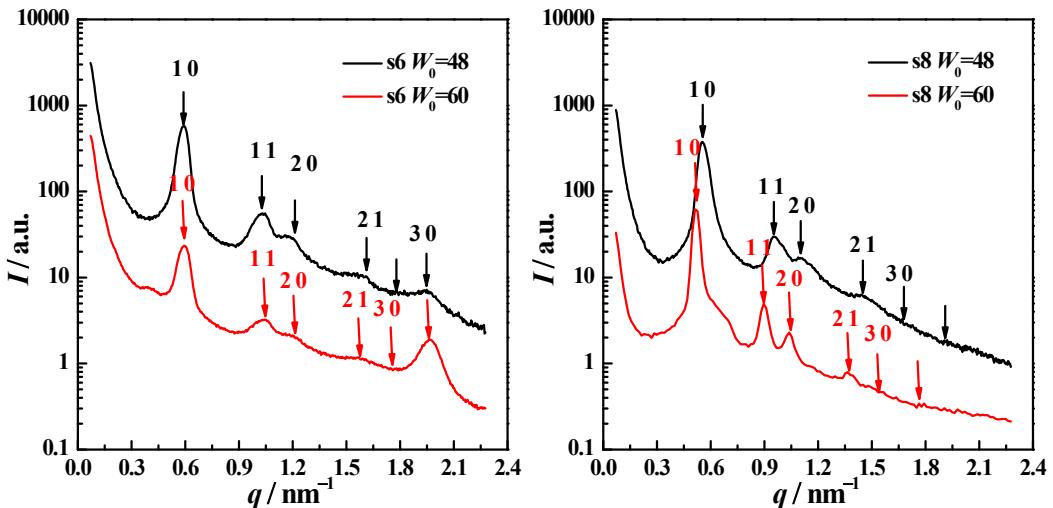
**Fig.S1** Polarising micrographs of the 12-2-12/SN (200/400 mmol·L<sup>-1</sup>) in cyclohexane at  $W_0$  = 36, 42, and 48 (from left to right)



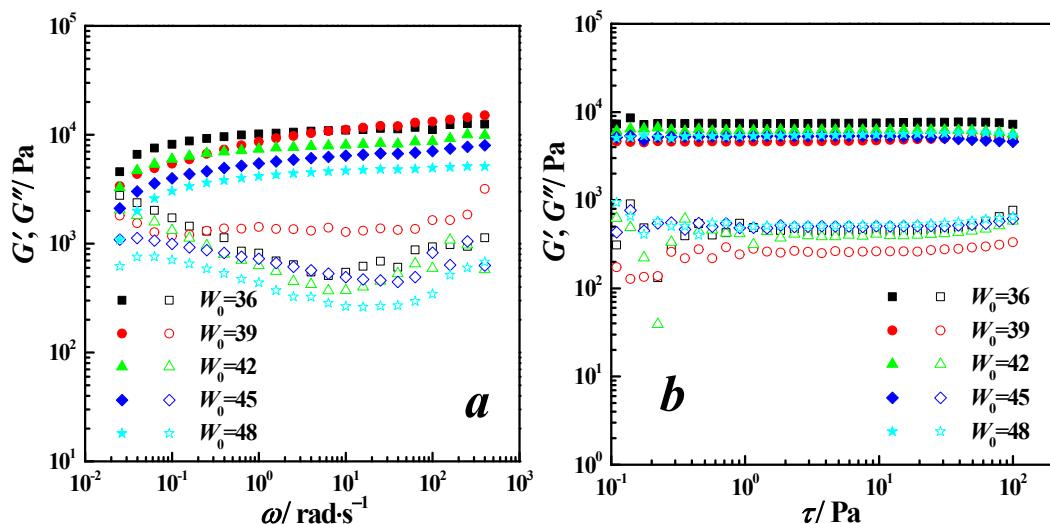
**Fig.S2** Appearances of equal charge mixed 12-6-12/SL (200/400 mmol·L<sup>-1</sup>) solutions at different  $W_0$ . Polarising micrographs (POMs) of the samples at  $W_0$  = 42, 48, 54 and 60 (from left to right).



**Fig.S3** Appearances of equal charge mixed 12-8-12/SL ( $200/400 \text{ mmol}\cdot\text{L}^{-1}$ ) solutions at different  $W_0$ . POMs of the samples at  $W_0 = 42, 45, 51$  and  $57$  (from left to right).

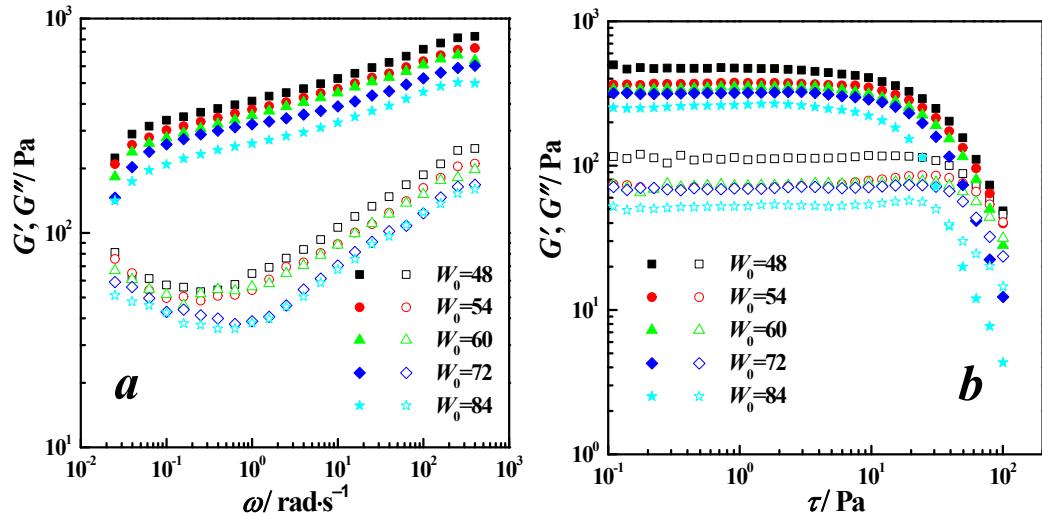


**Fig.S4** SAXS spectra of the 12-6-12/SL (left) and 12-8-12/SL (right) ( $200/400 \text{ mmol}\cdot\text{L}^{-1}$ ) in cyclohexane.

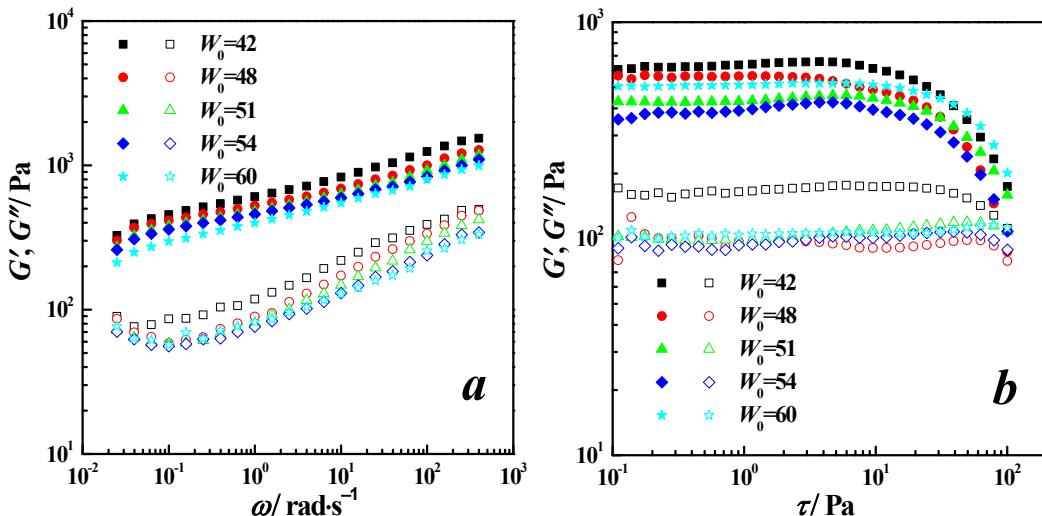


**Fig.S5** Oscillatory sweep rheogram (a) and stress sweep rheogram (b) of the 12-2-12/SH

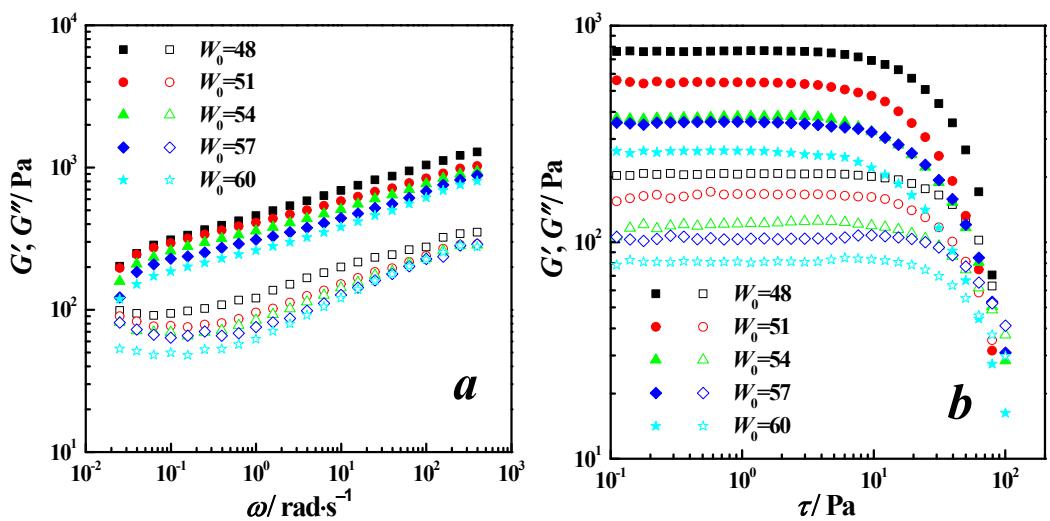
(200/400 mmol·L<sup>-1</sup>) at different  $W_0$ , in which elastic modulus  $G'$  and viscous  $G''$  are respectively represented as solid and open symbols.



**Fig.S6** Oscillatory sweep rheograms (a) and stress sweep rheograms (b) of the 12-4-12/SL (200/400 mmol·L<sup>-1</sup>) at different  $W_0$  ( $G'$ : solid,  $G''$ : open).



**Fig.S7** Oscillatory sweep rheograms (a) and stress sweep rheograms (b) of the 12-6-12/SL (200/400 mmol·L<sup>-1</sup>) at different  $W_0$  ( $G'$ : solid,  $G''$ : open).



**Fig.S8** Oscillatory sweep rheograms (a) and stress sweep rheograms (b) of the 12-8-12/SL (200/400 mmol·L<sup>-1</sup>) at different  $W_0$  ( $G'$ : solid,  $G''$ : open).