

Surface and thermal properties of the synthesized cationic poly(ethylene oxide) gemini surfactants: Role of spacer rigidity

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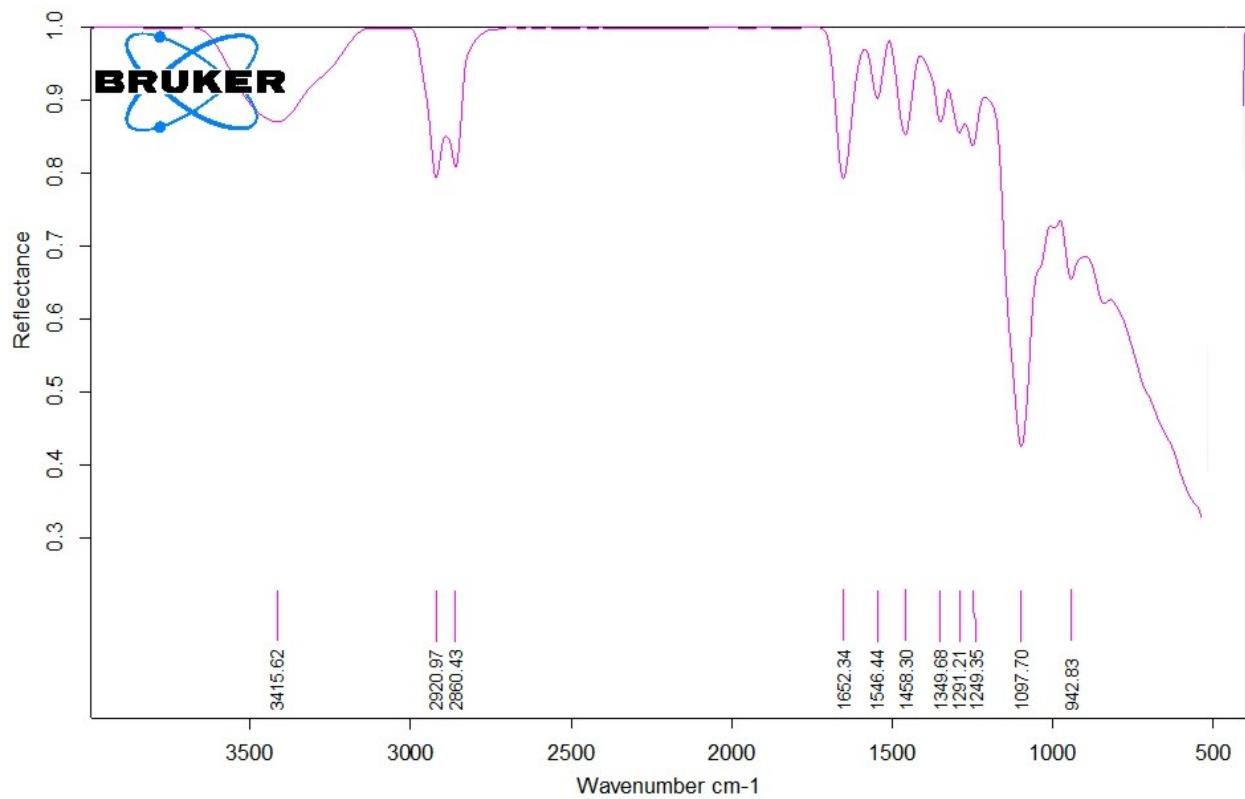


Fig. S1. FT-IR spectrum of cationic poly(ethylene oxide) gemini surfactant (**GS1**)

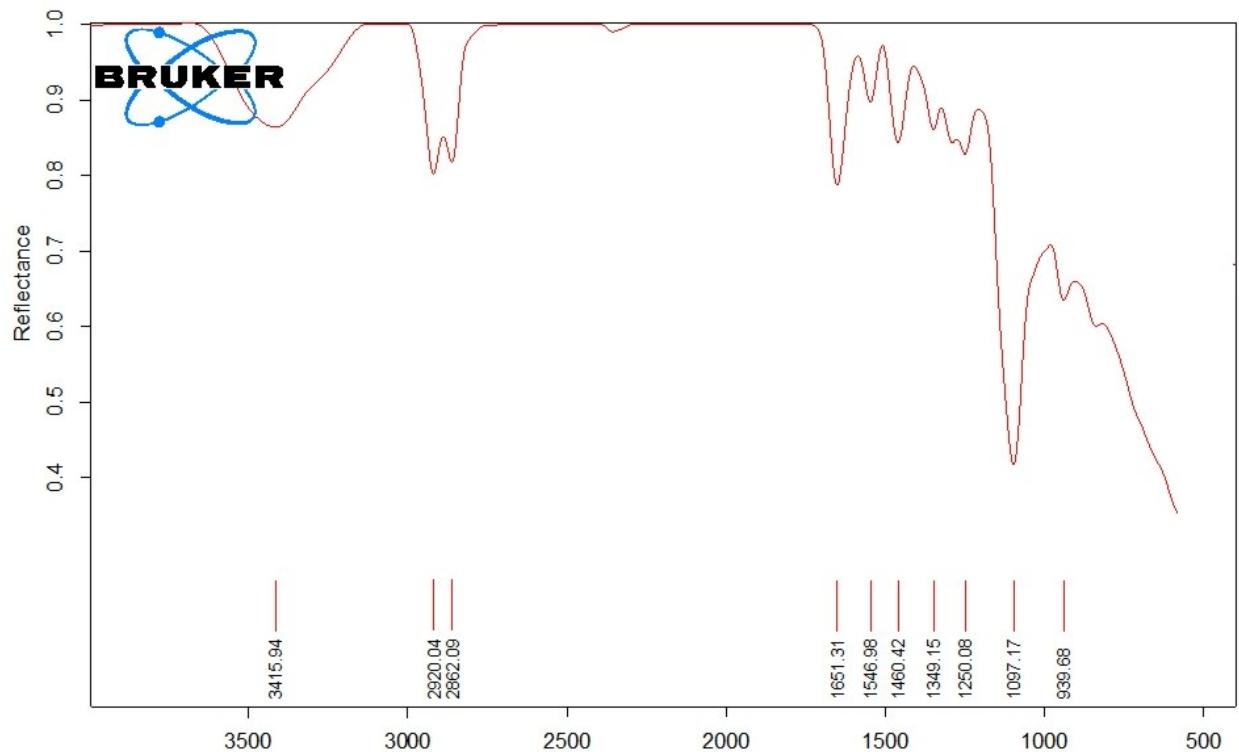


Fig. S2. FT-IR spectrum of cationic poly(ethylene oxide) gemini surfactant (**GS2**)

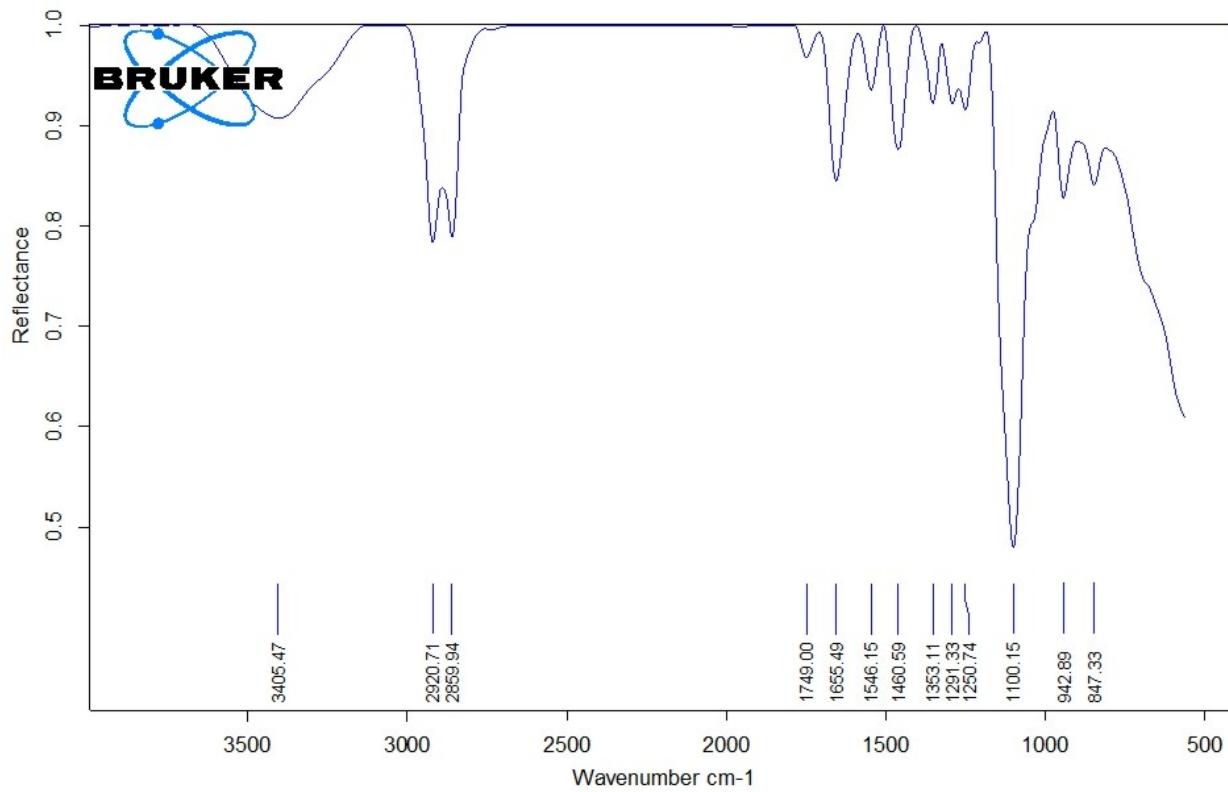


Fig. S3. FT-IR spectrum of cationic poly(ethylene oxide) gemini surfactant (**GS3**)

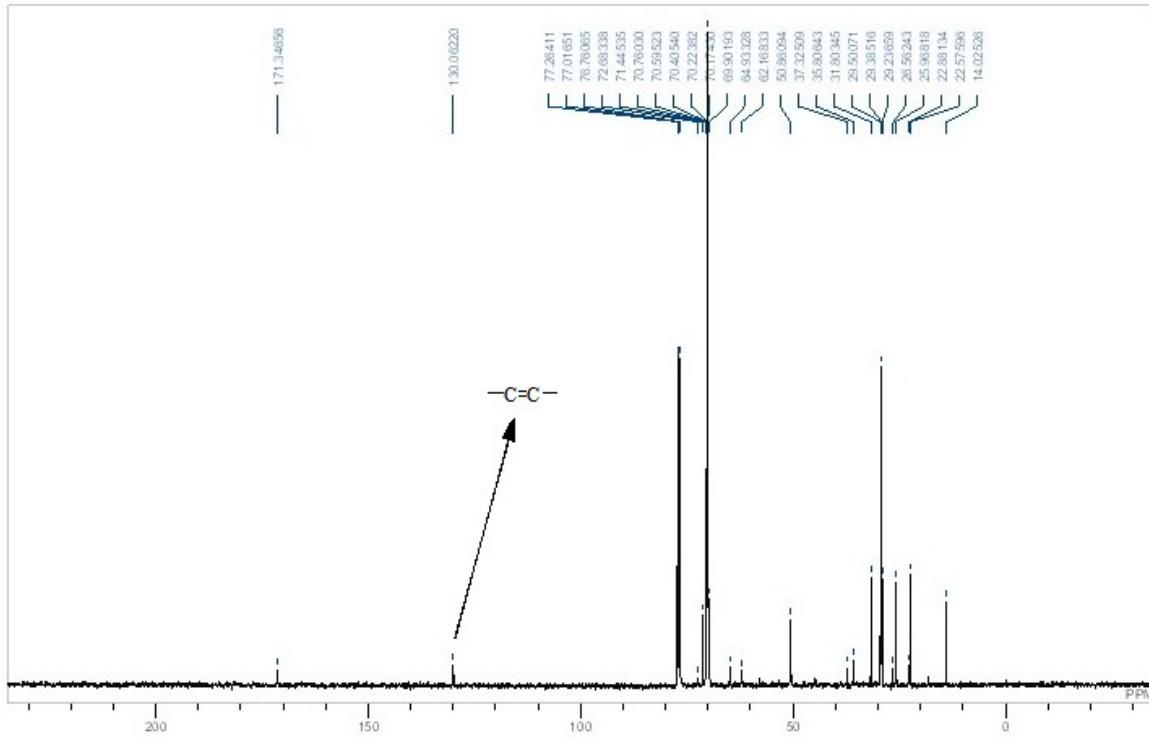


Fig. S4. ^{13}C -NMR of cationic poly(ethylene oxide) gemini surfactant (**GS2**)

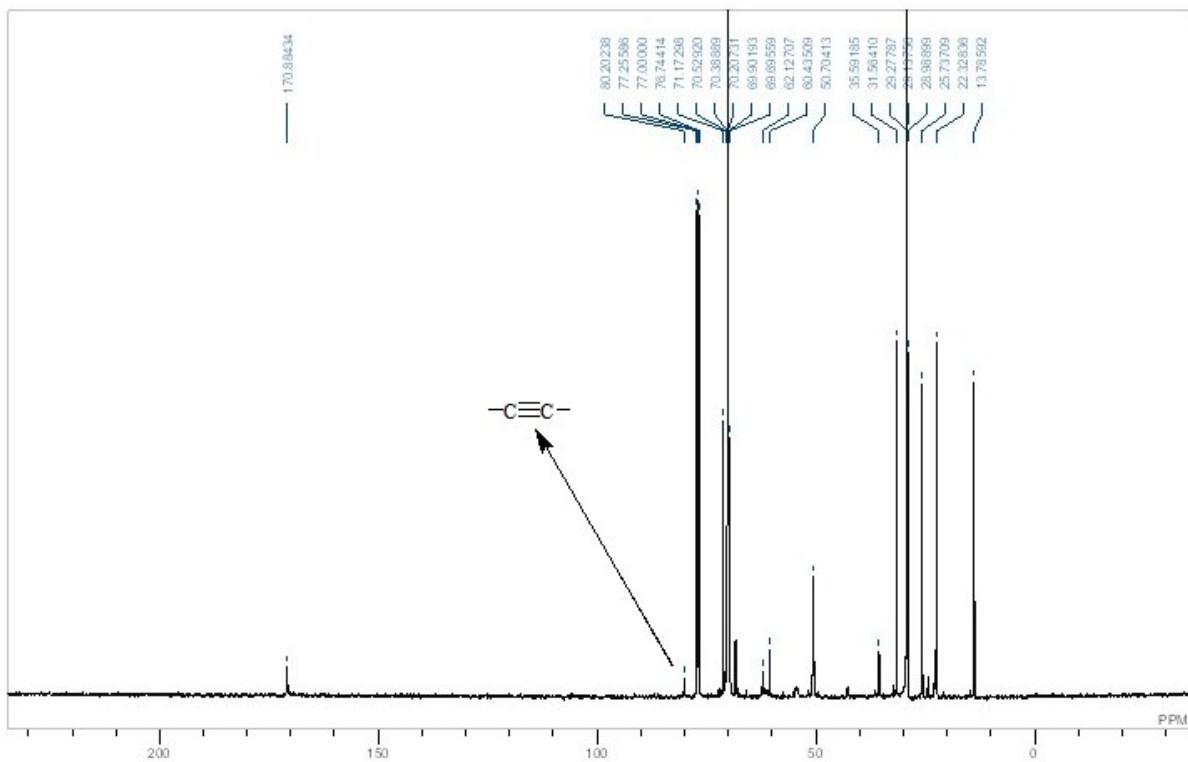


Fig. S5. ¹³C-NMR of cationic poly(ethylene oxide) gemini surfactant (GS3)

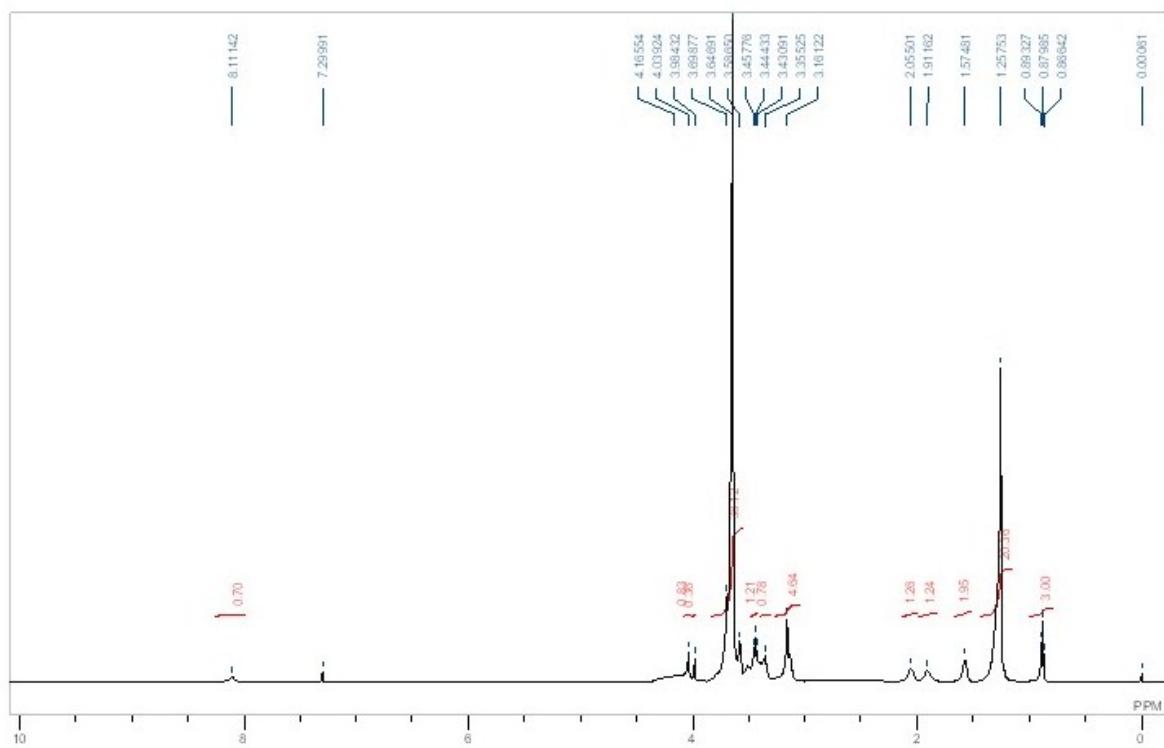


Fig. S6. ¹H-NMR of cationic poly(ethylene oxide) gemini surfactant (GS1)