

Supporting Information Available

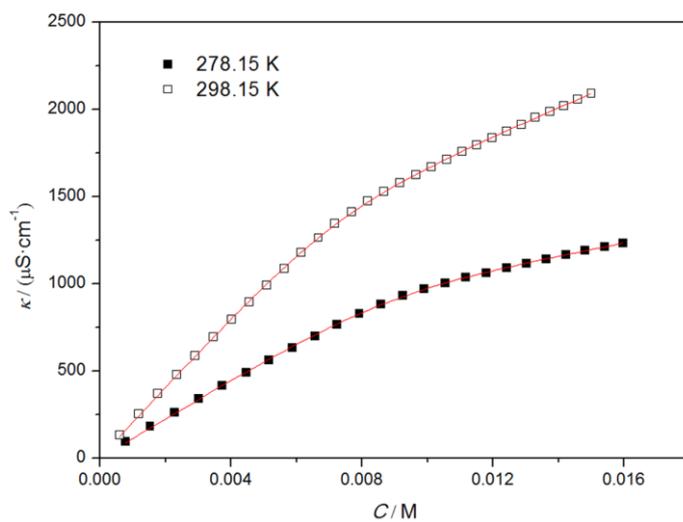


Figure S1. Specific conductivity (κ) versus concentration (C) of C10 at 278.15 and 298.15 K.

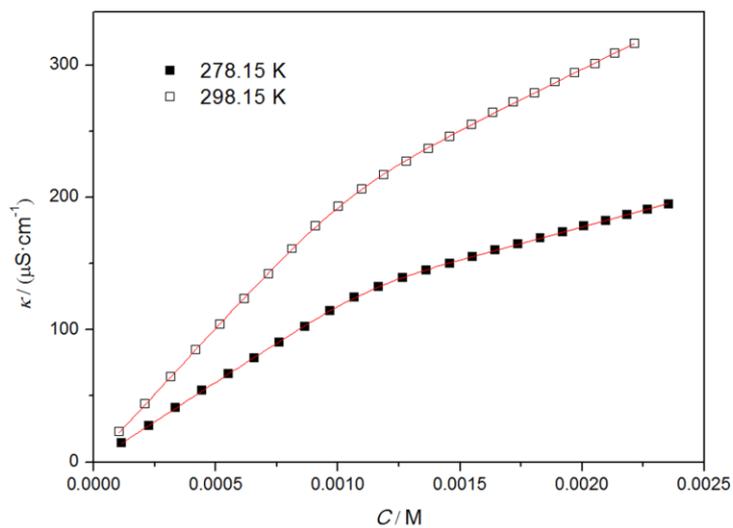


Figure S2. Specific conductivity (κ) versus concentration (C) of C12 at 278.15 and 298.15 K.

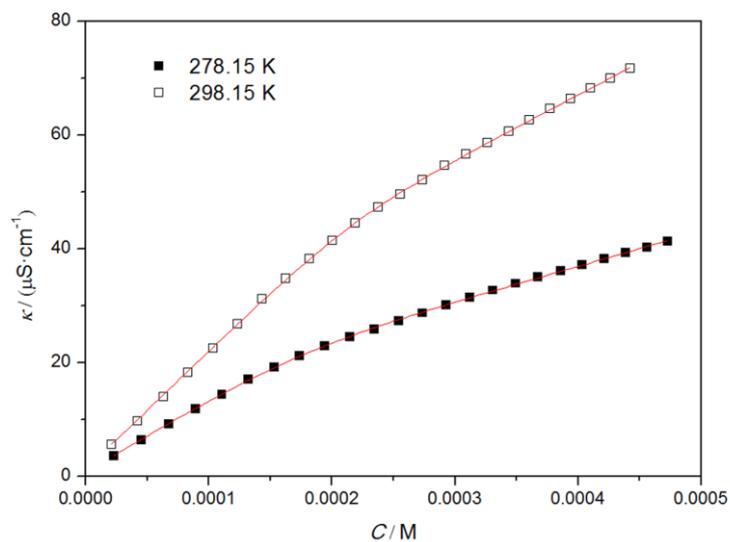


Figure S3. Specific conductivity (κ) versus concentration (C) of C14 at 278.15 and 298.15 K.

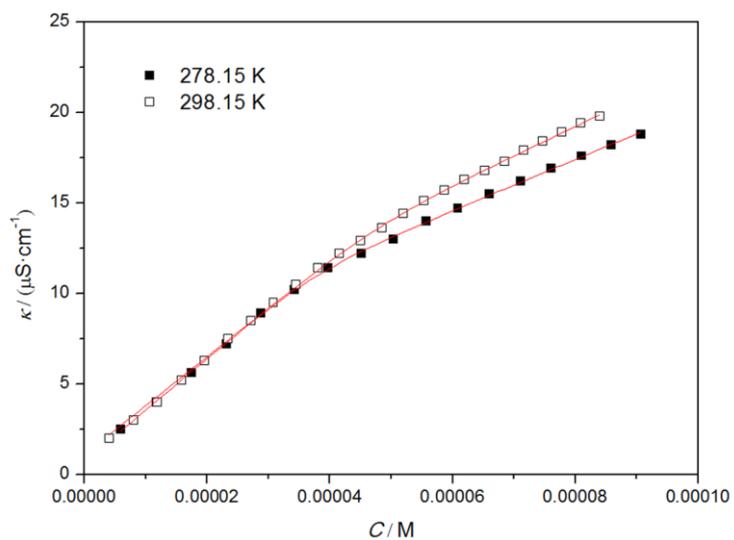


Figure S4. Specific conductivity (κ) versus concentration (C) of C16 at 278.15 and 298.15 K.

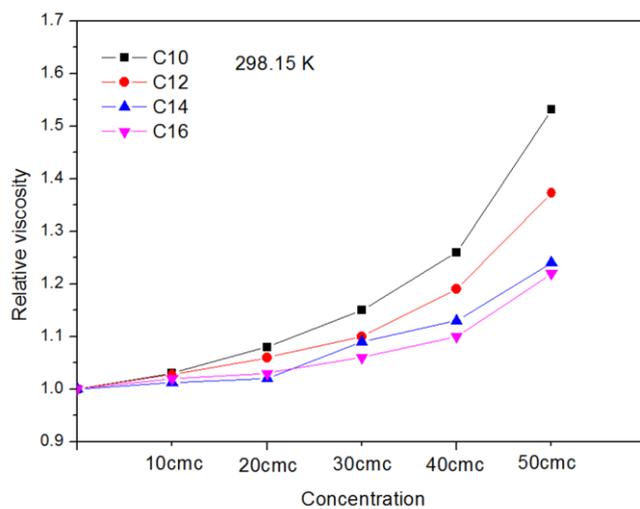


Figure S5. Relative viscosity versus concentration of gemini surfactants at 298.15 K.

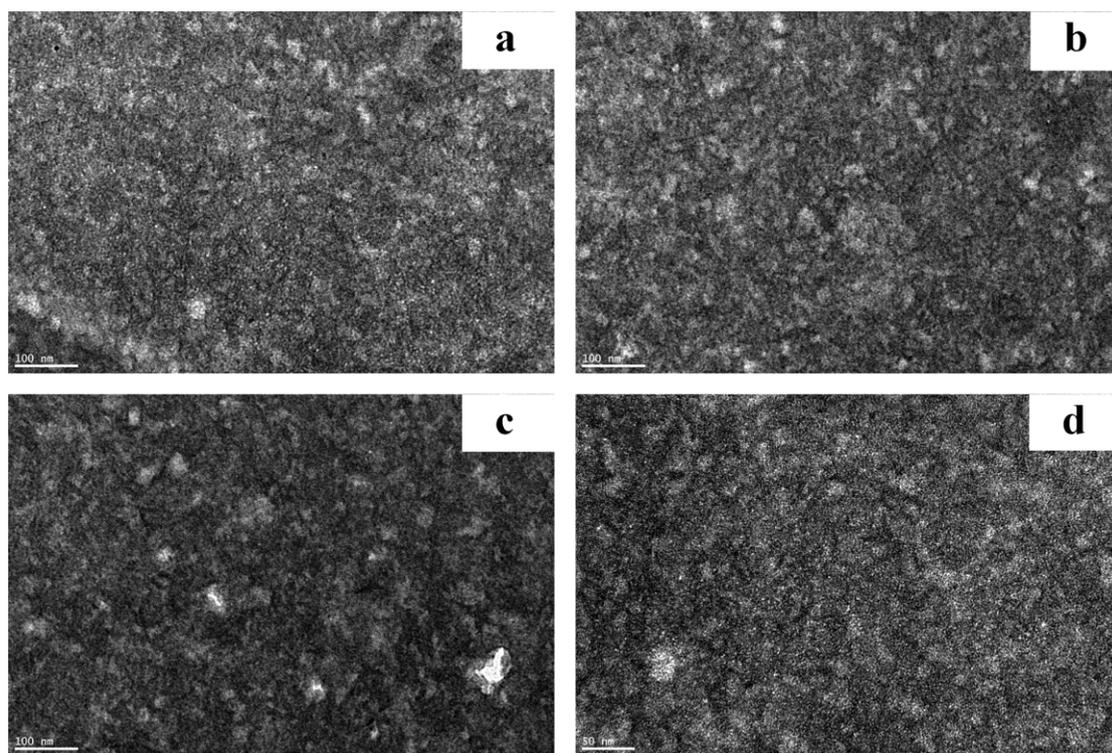


Figure S6. TEM micrographs for the gemini surfactants of 10 times cmc aqueous solutions with 0.1 M NaCl addition: (a), C10 (bar = 100 nm); (b) C12 (bar = 100 nm); (c) C14 (bar = 100 nm); (d) C16 (bar = 50 nm);

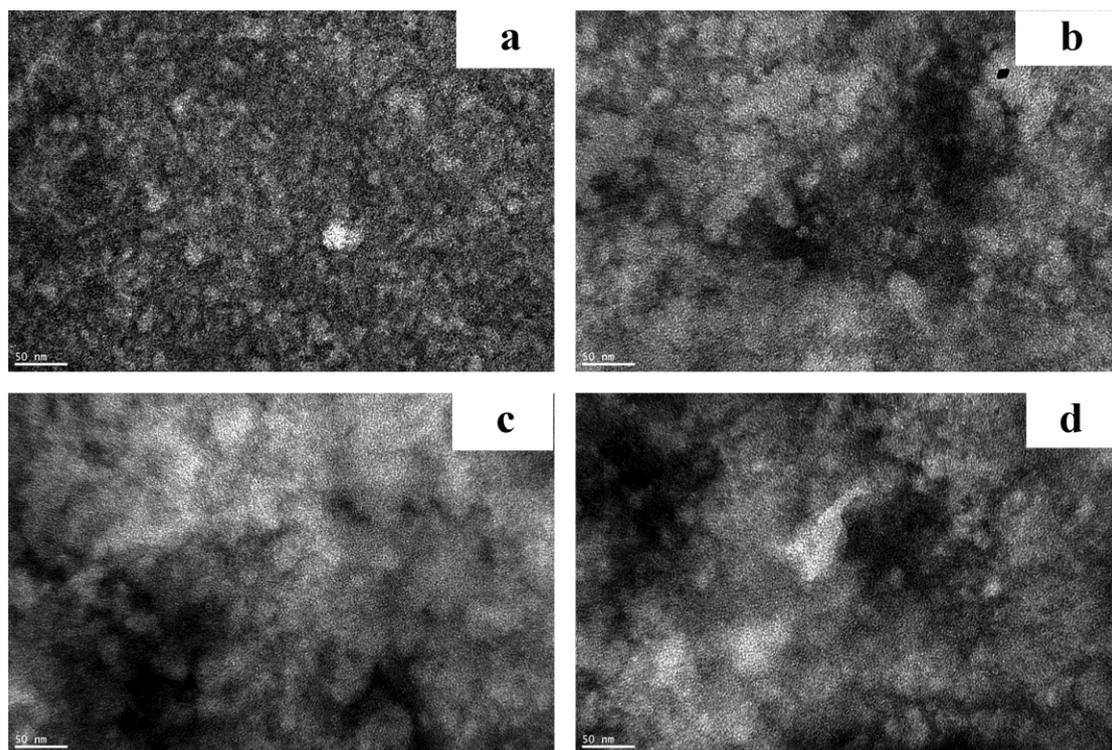


Figure S7. TEM micrographs for the gemini surfactants of 50 times cmc aqueous solutions with 0.1 M NaCl addition: (a), C10; (b) C12; (c) C14; (d) C16 (bar = 50 nm).

Table S1. Parameters of Micellization and Adsorption at the Air/Water Interface of Gemini Surfactants at 278.15 K

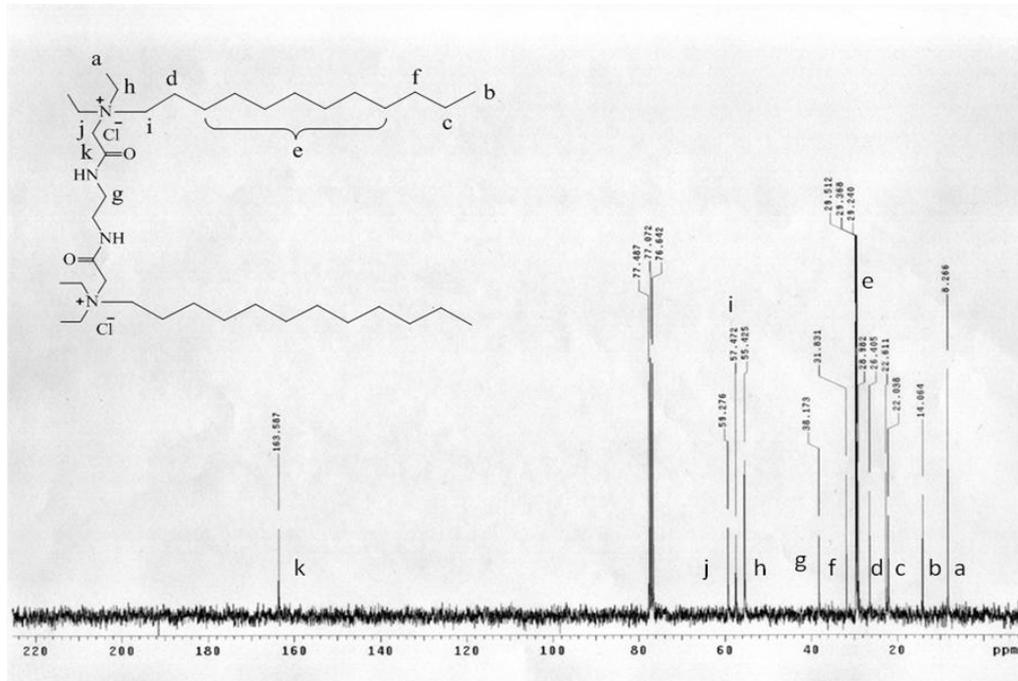
surfactant	cmc ^a	cmc ^b	γ_{cmc}	C ₂₀	10 ⁶ Γ		A _{min}		α
	(M)	(M)			(mol/m ²)		(nm ²)		
					<i>n</i> = 3	<i>n</i> = 2	<i>n</i> = 3	<i>n</i> = 2	
C10	8.40×10 ⁻³	8.61×10 ⁻³	45.90	2.38×10 ⁻³	1.03	1.55	1.61	1.07	0.33
C12	1.21×10 ⁻³	1.12×10 ⁻³	44.34	2.21×10 ⁻⁴	0.89	1.34	1.86	1.24	0.41
C14	1.32×10 ⁻⁴	1.67×10 ⁻⁴	47.81	4.42×10 ⁻⁵	0.71	1.07	2.33	1.55	0.48
C16	4.42×10 ⁻⁵	3.72×10 ⁻⁵	54.92	2.63×10 ⁻⁵	0.65	0.97	2.56	1.71	0.50

^a Measured by tensiometry. ^b Measured by conductometry.

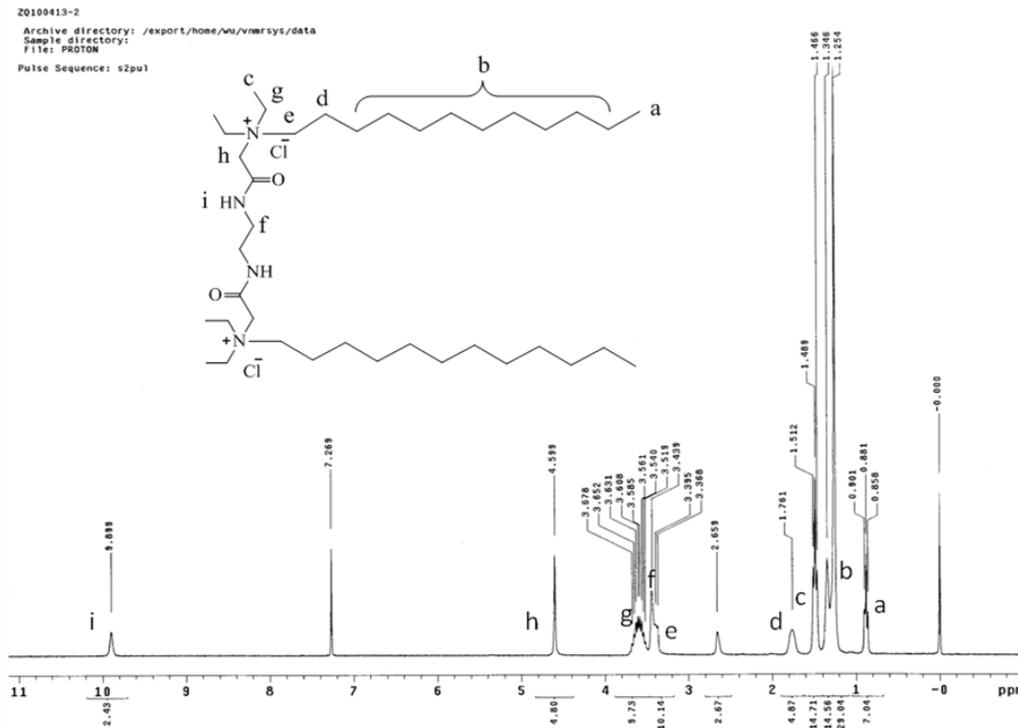
Table S2. Parameters of Micellization and Adsorption at the Air/Water Interface of Gemini Surfactants in the Solutions with 0.1 M NaCl Addition at 298.15 K

surfactant	cmc	γ_{cmc}	C ₂₀	10 ⁶ Γ (<i>n</i> = 1)	A _{min} (<i>n</i> = 1)
	(M)	(mN/m)	(M)	(mol/m ²)	(nm ²)
C10	6.38×10 ⁻⁴	41.60	4.22×10 ⁻⁵	1.64	1.01
C12	2.00×10 ⁻⁵	39.78	8.44×10 ⁻⁷	1.62	1.02
C14	4.19×10 ⁻⁶	39.78	1.17×10 ⁻⁷	1.42	1.17
C16	1.37×10 ⁻⁶	43.85	9.74×10 ⁻⁸	1.45	1.15

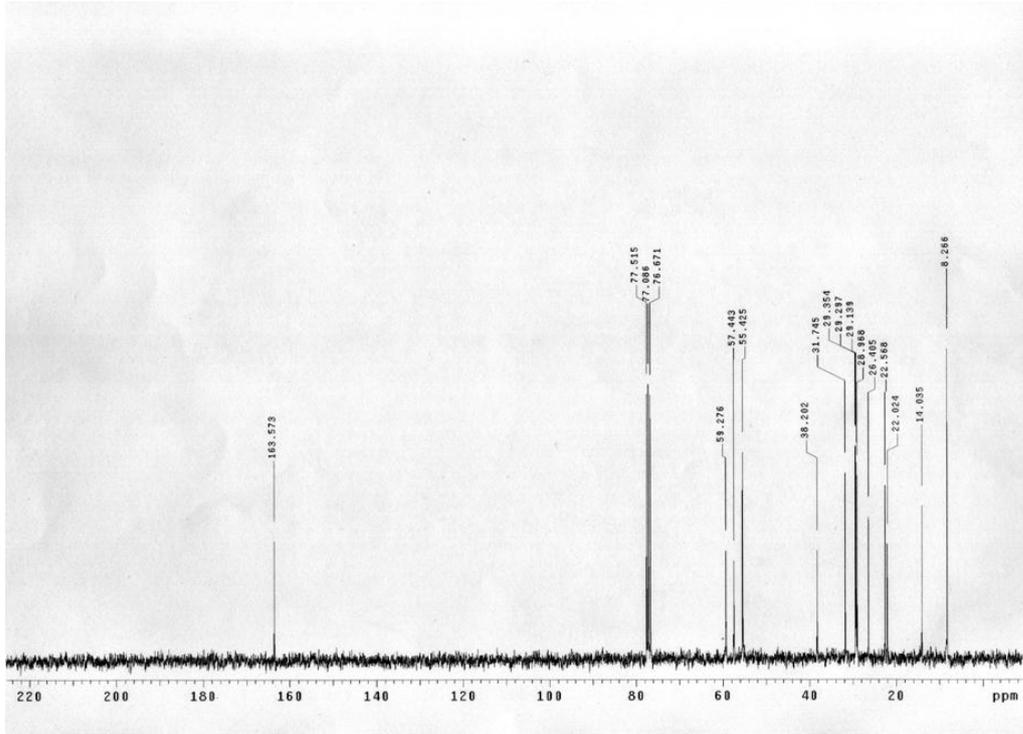
Gemini surfactants ^{13}C -NMR and ^1H -NMR



C12 ^{13}C -NMR

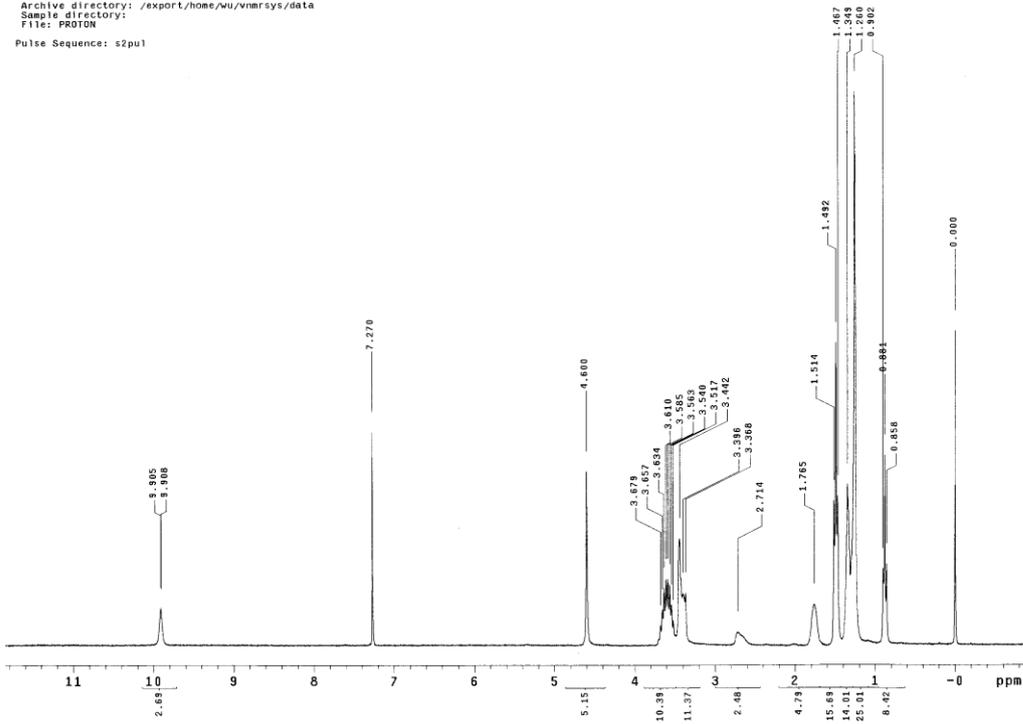


C12 ^1H -NMR

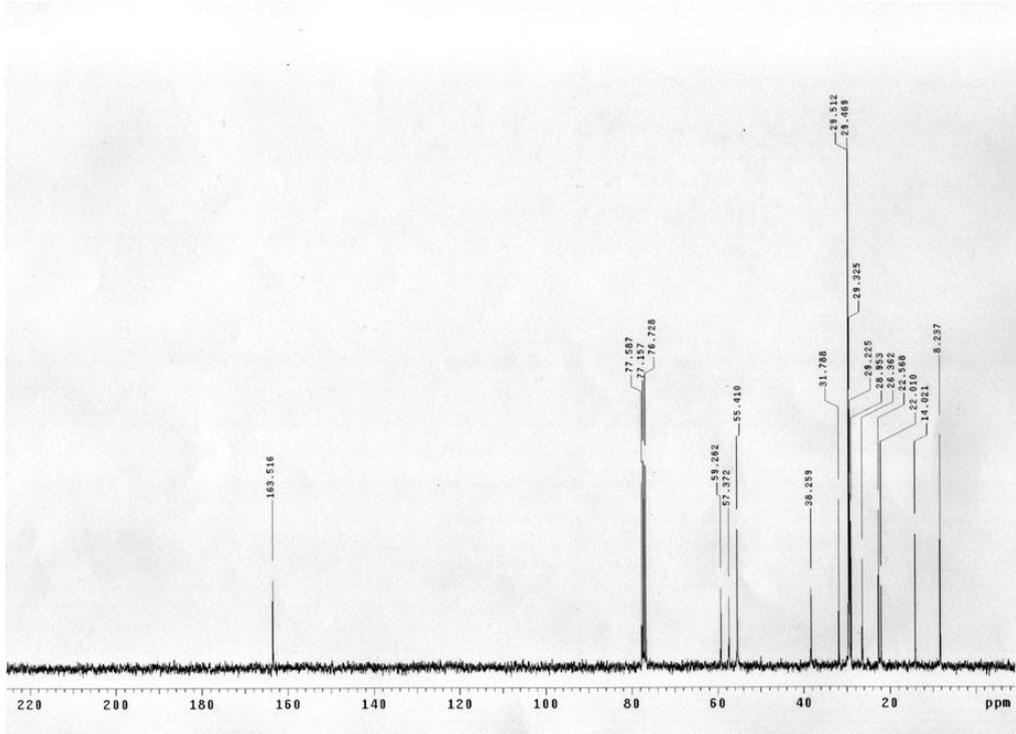


C10 ¹³C-NMR

Z0100323
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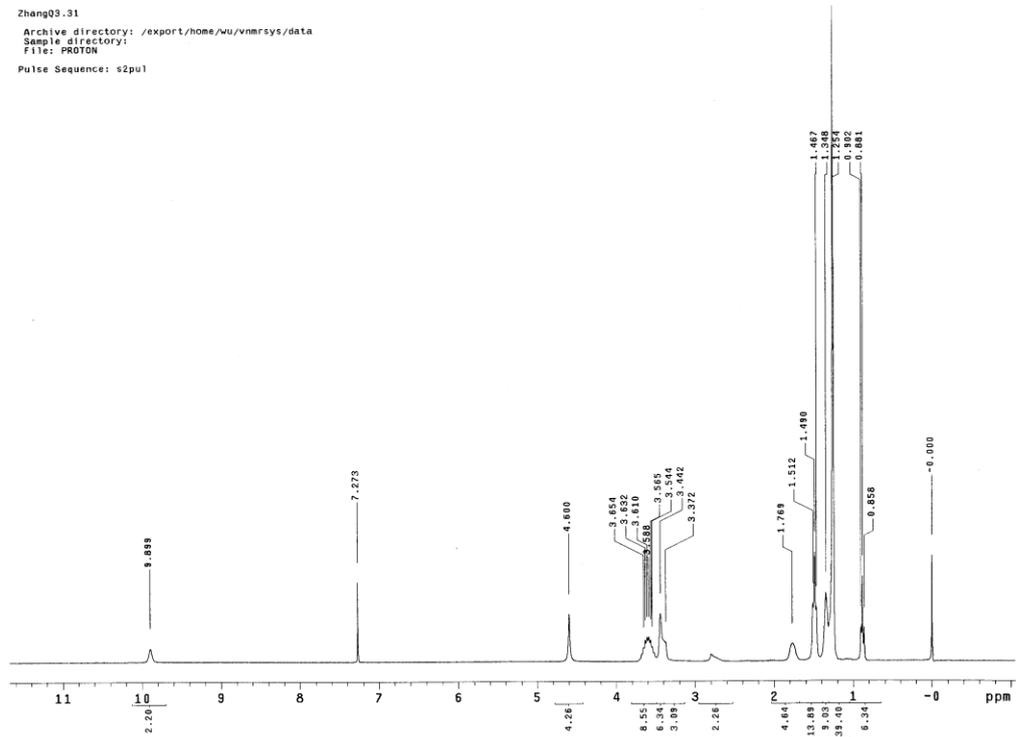


C10 ¹H-NMR

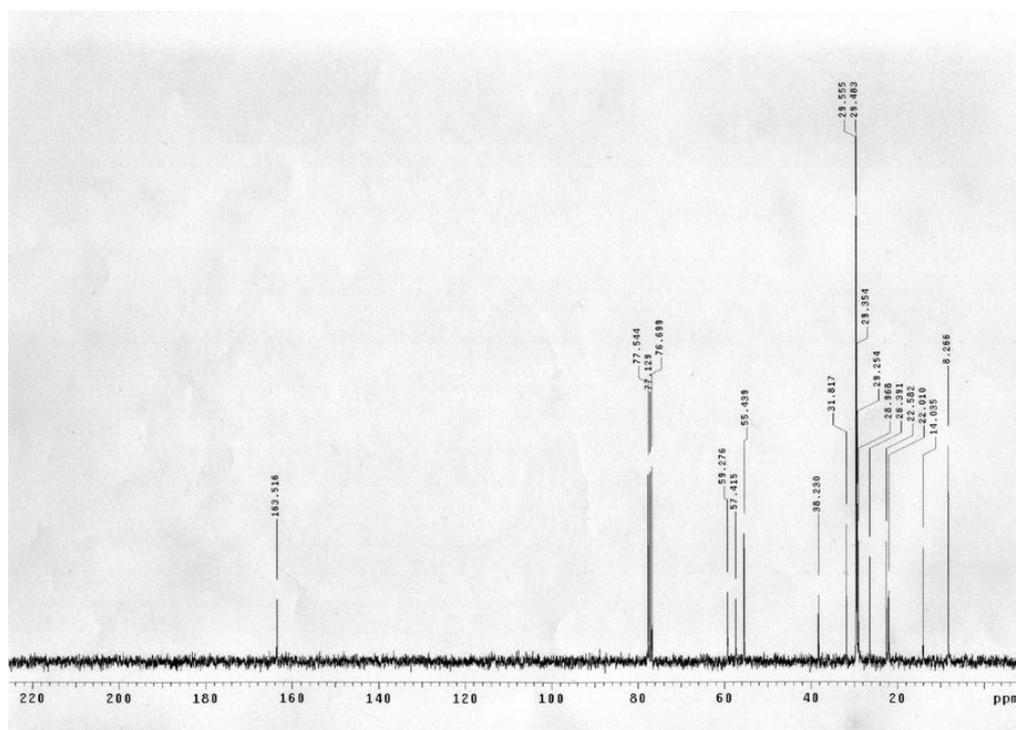


C14 ¹³C-NMR

ZhangQ9.31
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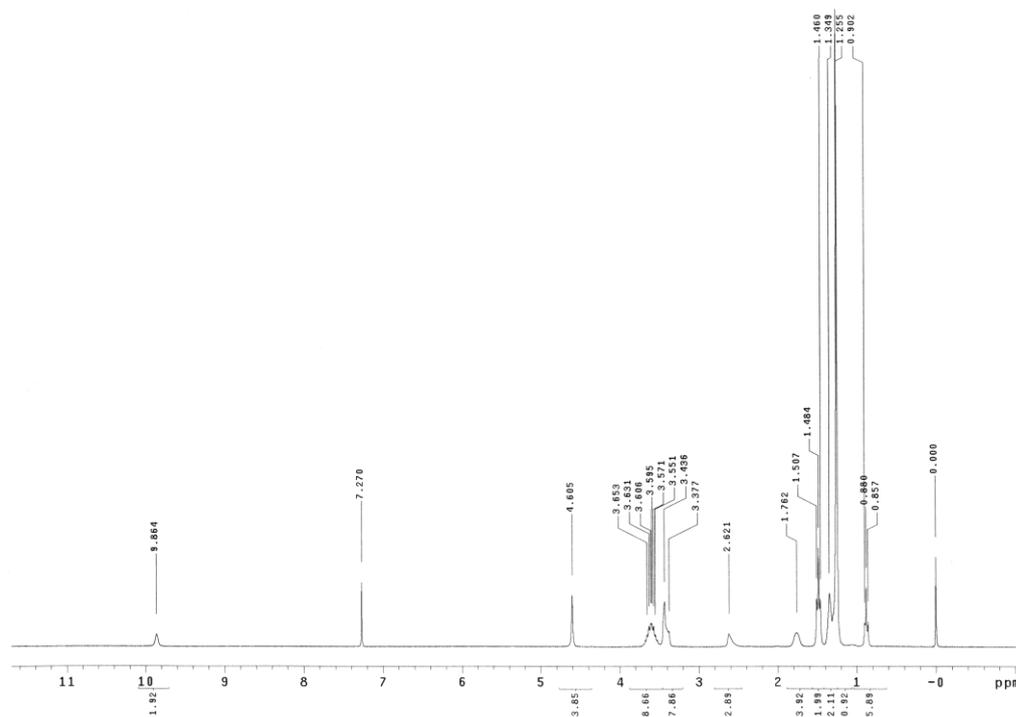


C14 ¹H-NMR



C16 ¹³C-NMR

ZhangQ110927



C16 ¹H-NMR

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