

Chemical shifts (δ) and ^1H NMR peak splitting of 16-2-16 series of gemini surfactants with various counterions:

16-2-16·2X ($\text{X}^- = \text{Br}^-$ or Cl^-). ^1H NMR (300 MHz, CDCl_3 , 25 °C, δ ppm):

7.24 (1H, s); 4.75 (4H, s); 3.69 (4H, s); 3.49 (12H, s); 1.78 (4H, s); 1.35 (4H, s); 1.23 (48H, s); 0.85 (6H, t).

16-2-16·2AMP. ^1H NMR (300 MHz, D_2O , 25 °C, δ ppm):

8.36 (2H, s); 8.07 (2H, s); 5.98 (2H, s); 4.57 (1H, s); 4.38 (2H, t); 4.22 (2H, s); 4.03 (4H, s); 3.81 (4H, s); 3.35 (4H, s); 3.17 (12H, s); 1.61 (4H, s); 1.19 (4H, s); 1.05 (48H, s); 0.67 (6H, t).

16-2-16·2UMP. ^1H NMR (300 MHz, D_2O , 25 °C, δ ppm):

7.92 (2H, d); 5.91 (1H, m); 4.67 (1H, s); 4.29 (4H, s); 4.17 (2H, s); 4.05 (3H, s); 3.87 (4H, s); 3.46 (4H, s); 3.23 (12H, s); 1.75 (4H, s); 1.34 (4H, s); 1.19 (48H, s); 0.79 (6H, t).

16-2-16·2CMP. ^1H NMR (300 MHz, D_2O , 25 °C, δ ppm):

7.99 (2H, d); 6.08 (2H, d); 5.90 (2H, s); 4.67 (4H, s); 4.25 (1H, s); 4.09 (2H, m); 4.02 (4H, s); 3.39 (4H, s); 3.21 (12H, s); 1.70 (4H, s); 1.32 (4H, s); 1.22 (48 H, s); 0.82 (6H, t).

16-2-16·2GMP. ^1H NMR (300 MHz, D_2O , 25 °C, δ ppm):

7.99 (2H, d); 5.79 (2H, m); 4.64 (2H, s); 4.38 (2H, m); 4.16 (1H, m); 3.98 (4H, s); 3.81 (4H, d); 3.36 (4H, s); 3.15 (12H, s); 1.63 (4H, s); 1.14 (4H, s); 1.11 (48H, s); 0.72 (6H, t).

16-2-16·Tartrate. ^1H NMR (300 MHz, D_2O , 25 °C, δ ppm):

4.20 (4H, s); 3.84 (2H, s); 3.39 (4H, s); 3.18 (12H, s); 3.18 (2H, s); 1.68 (4H, s); 1.28 (4H, s); 1.23 (48H, s); 0.81 (6H, t).

16-2-16·Malate. ^1H NMR (300 MHz, D_2O , 25 °C, δ ppm):

4.11 (1H, m); 3.81 (4H, s); 3.35 (4H, s); 3.14 (12H, s); 2.50 (1H, d); 2.26 (2H, m); 1.65 (4H, s); 1.27 (4H, s); 1.19 (48H, s); 0.77 (6H, t).

¹HNMR Spectra of 16-2-16 series of gemini surfactants with various counterions:

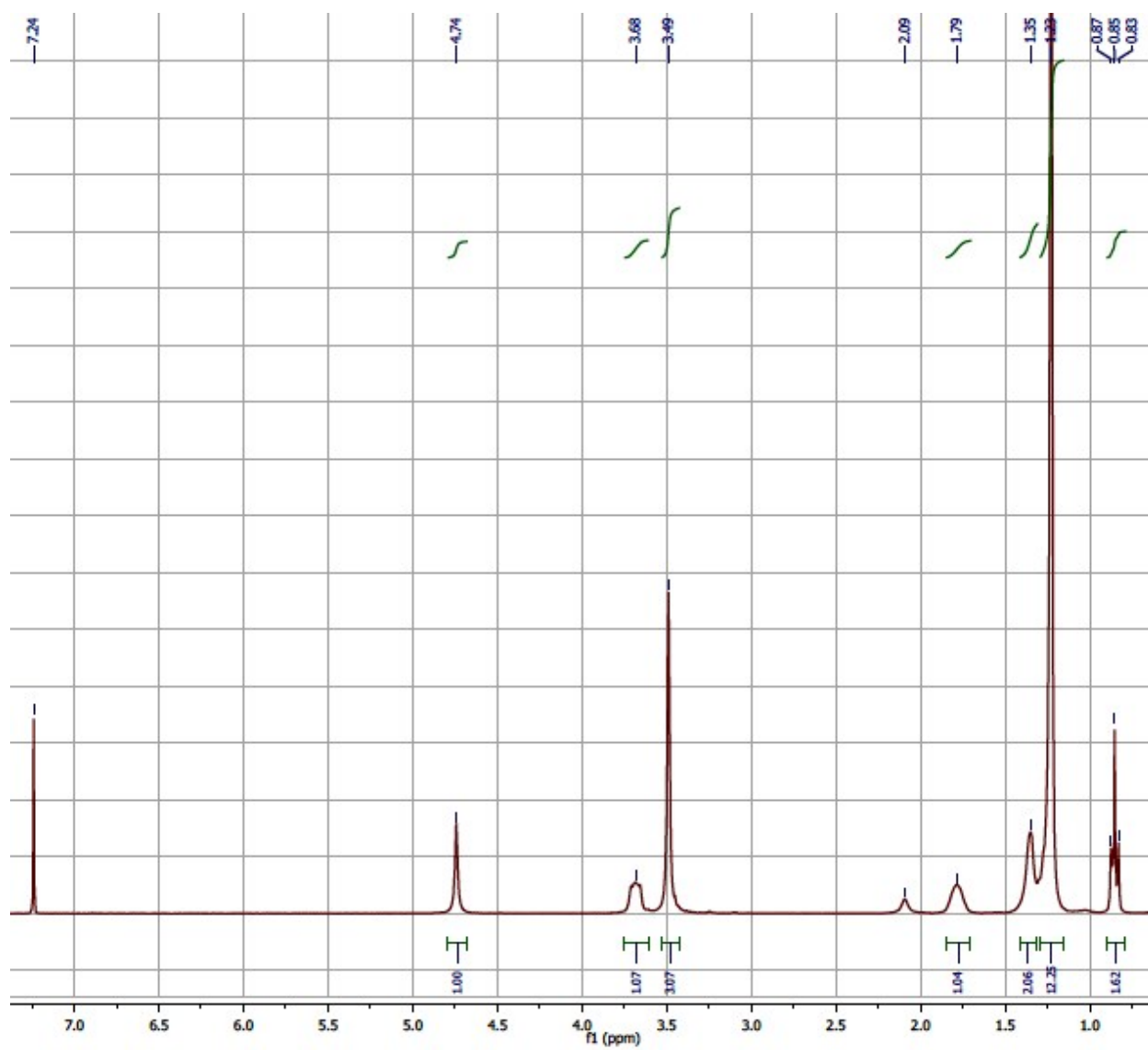


Figure S-1: ¹HNMR spectra of 16-2-16·2Br

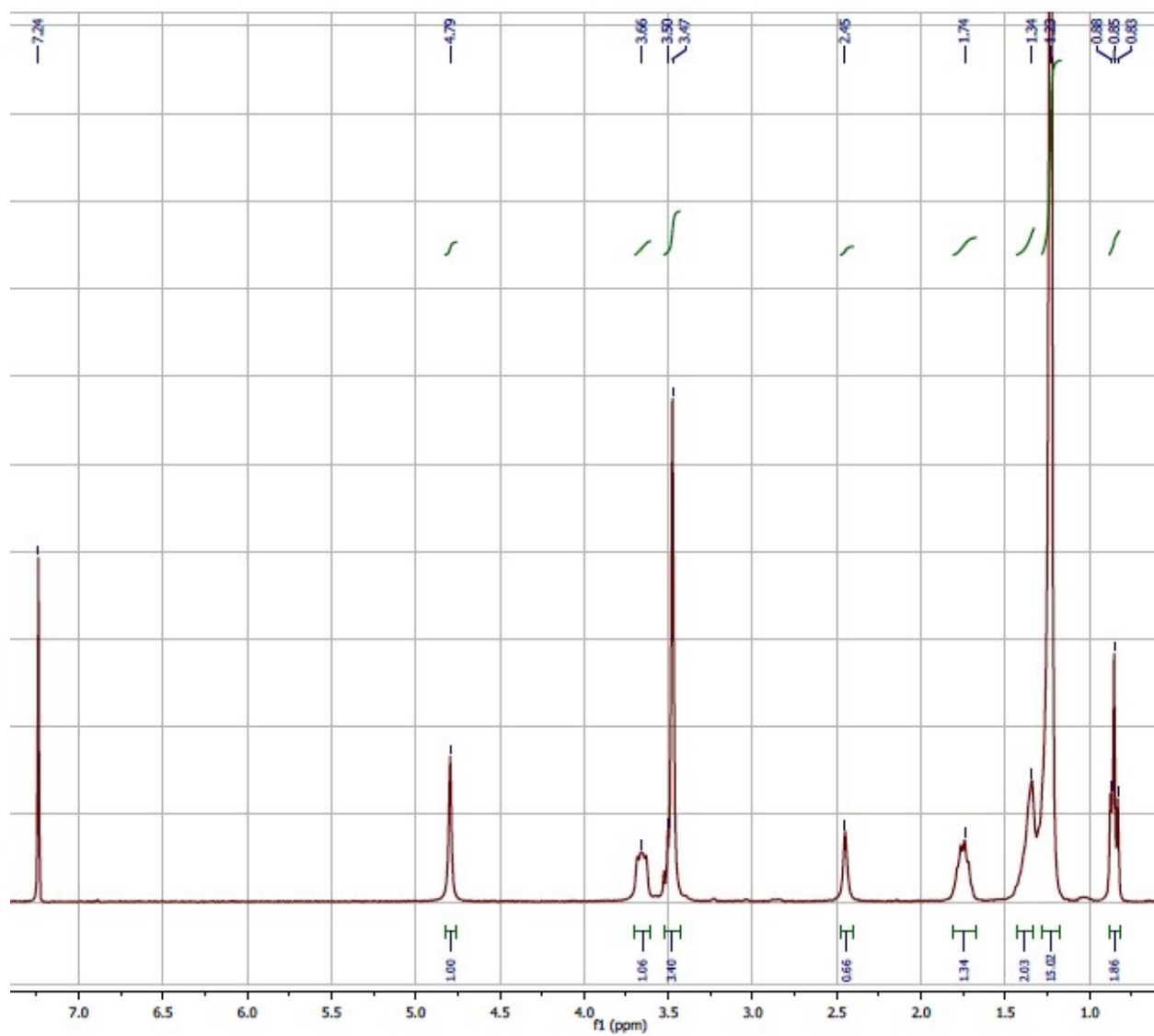


Figure S-2: ¹H NMR spectra of 16-2-16·2Cl

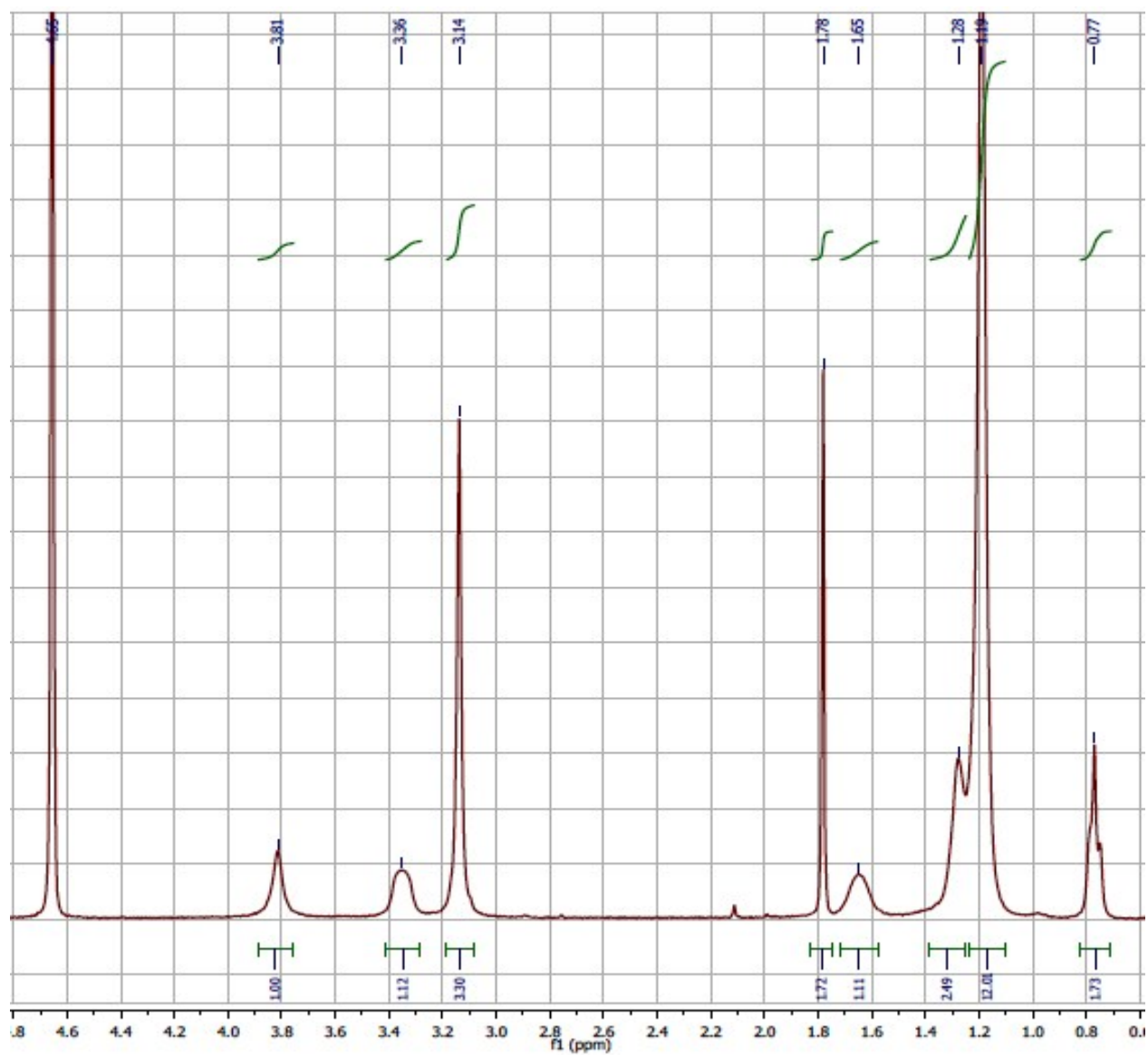


Figure S-3: ^1H NMR spectra of 16-2-16-2Ac

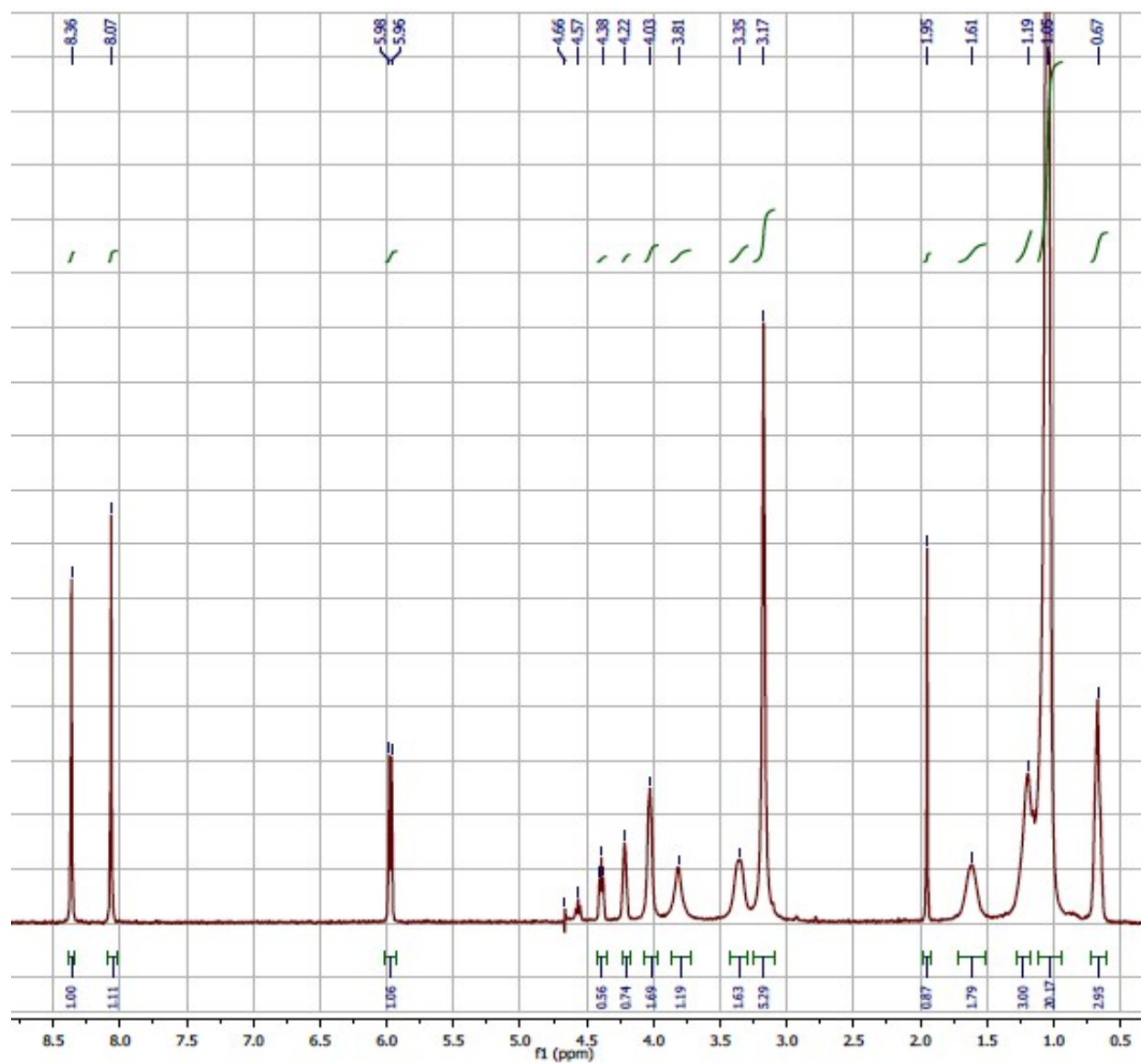


Figure S-4: ^1H NMR spectra of 16-2-16-2AMP

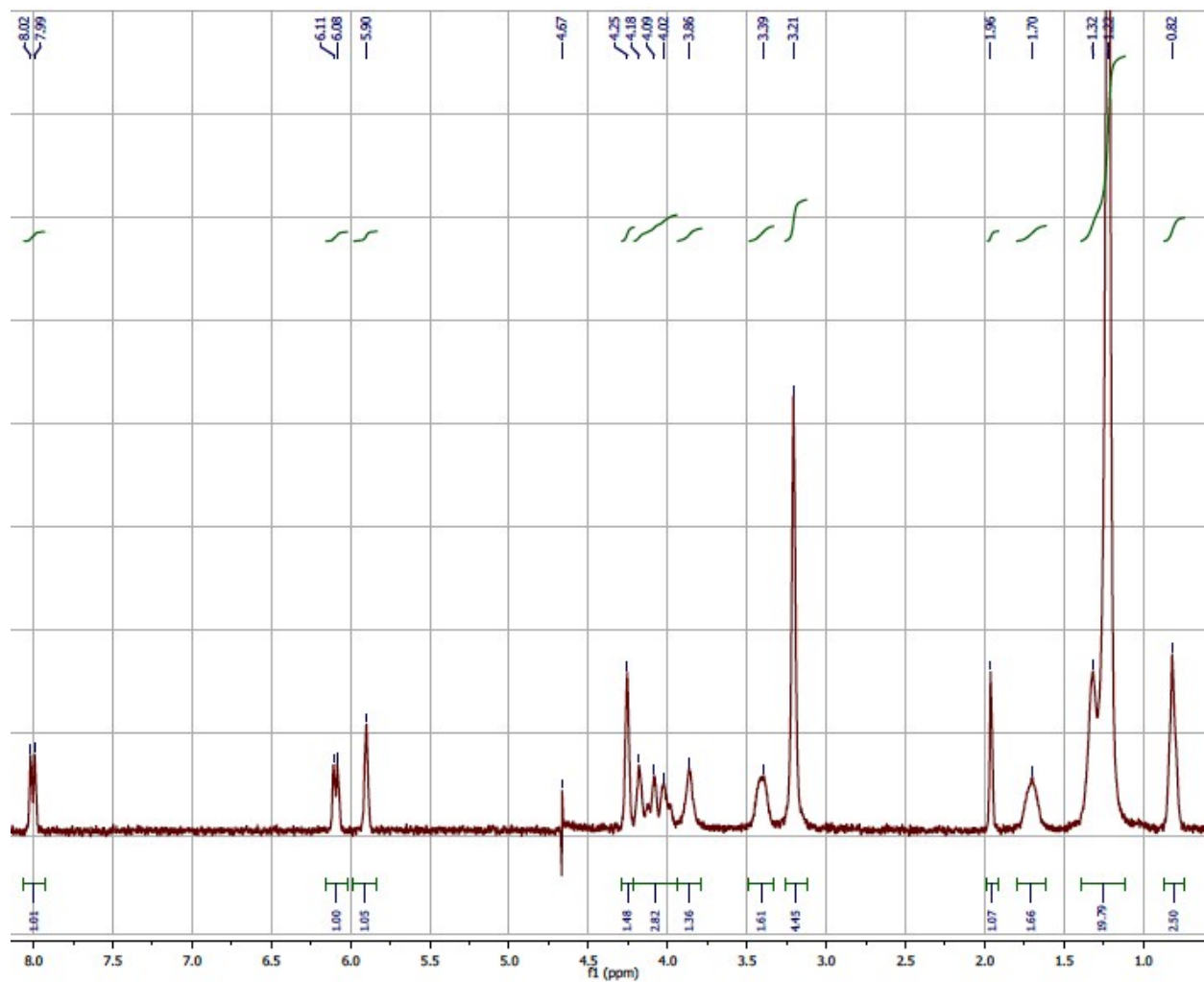


Figure S-5: ^1H NMR spectra of 16-2-16·2CMP

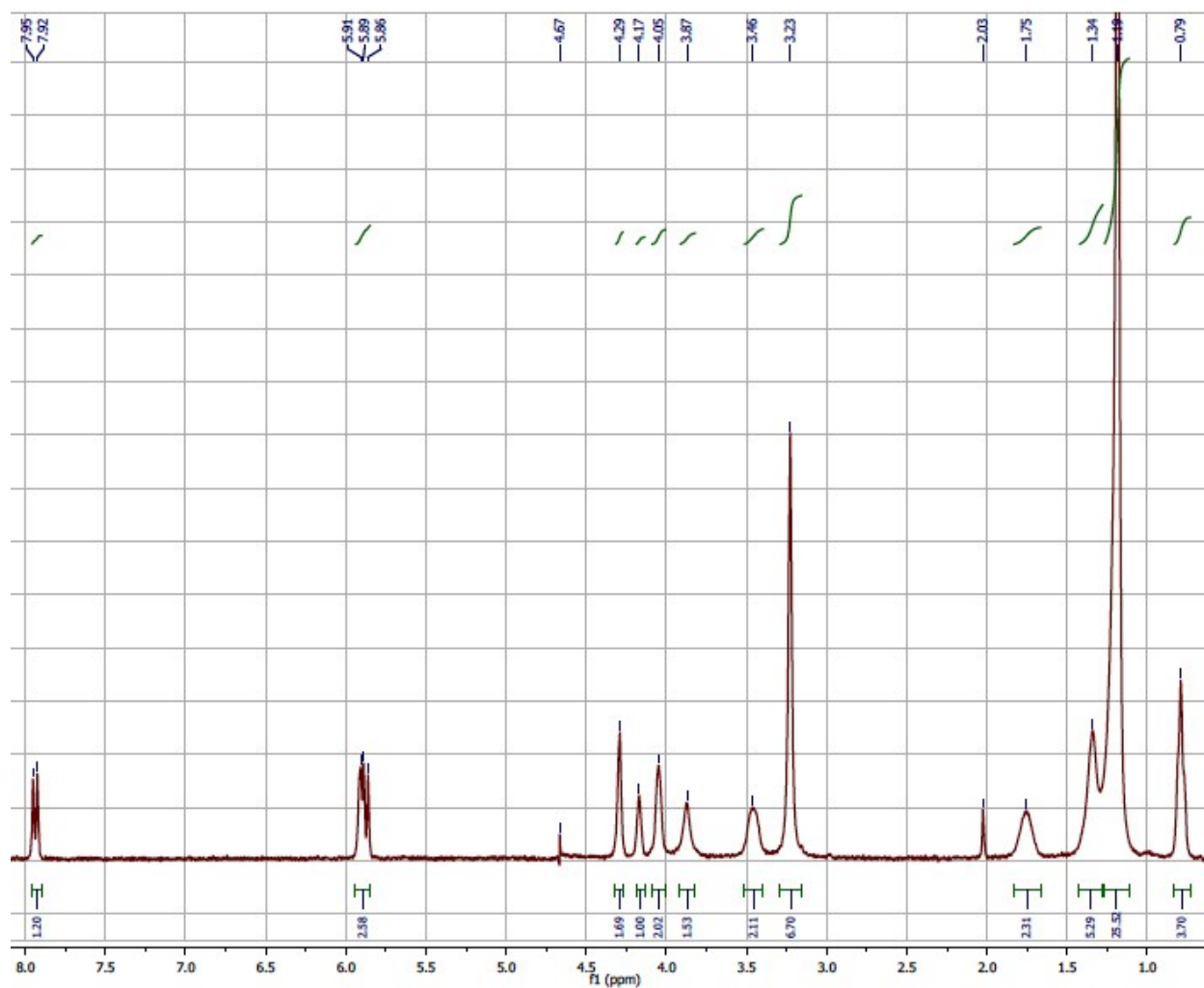


Figure S-6: ^1H NMR spectra of 16-2-16-2UMP

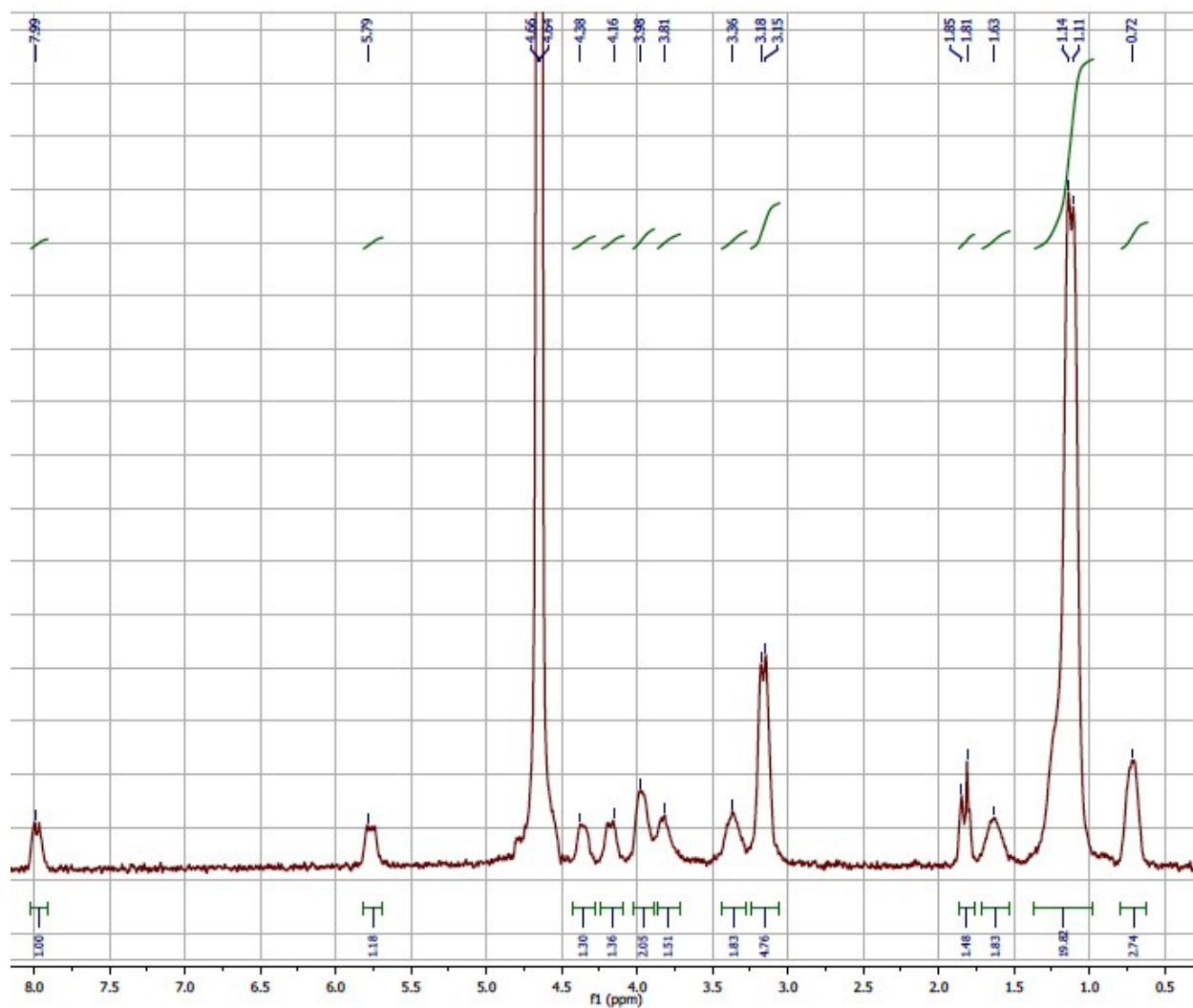


Figure S-7: ^1H NMR spectra of 16-2-16-2GMP

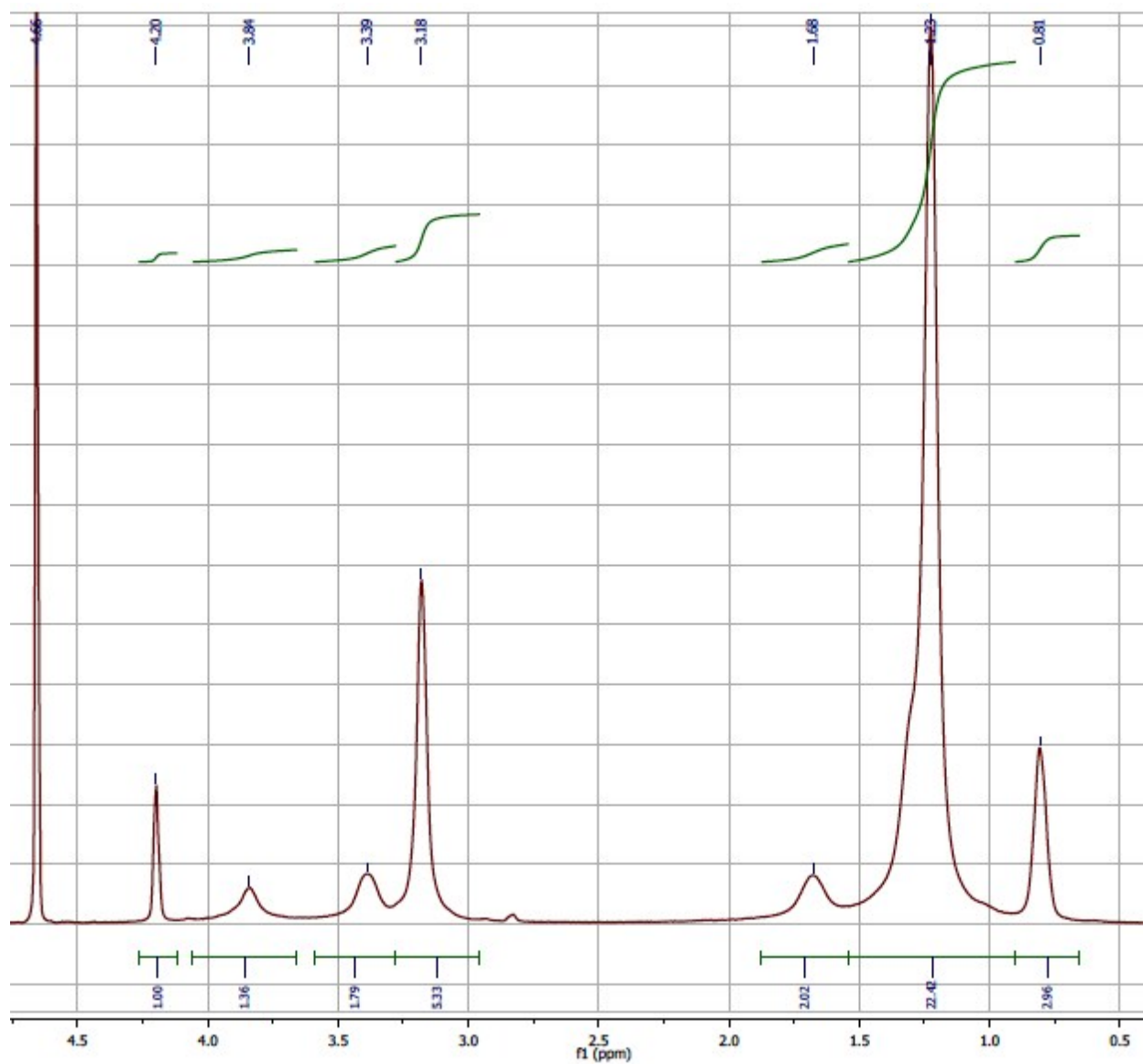


Figure S-8: ¹H NMR spectra of 16-2-16 Tartrate

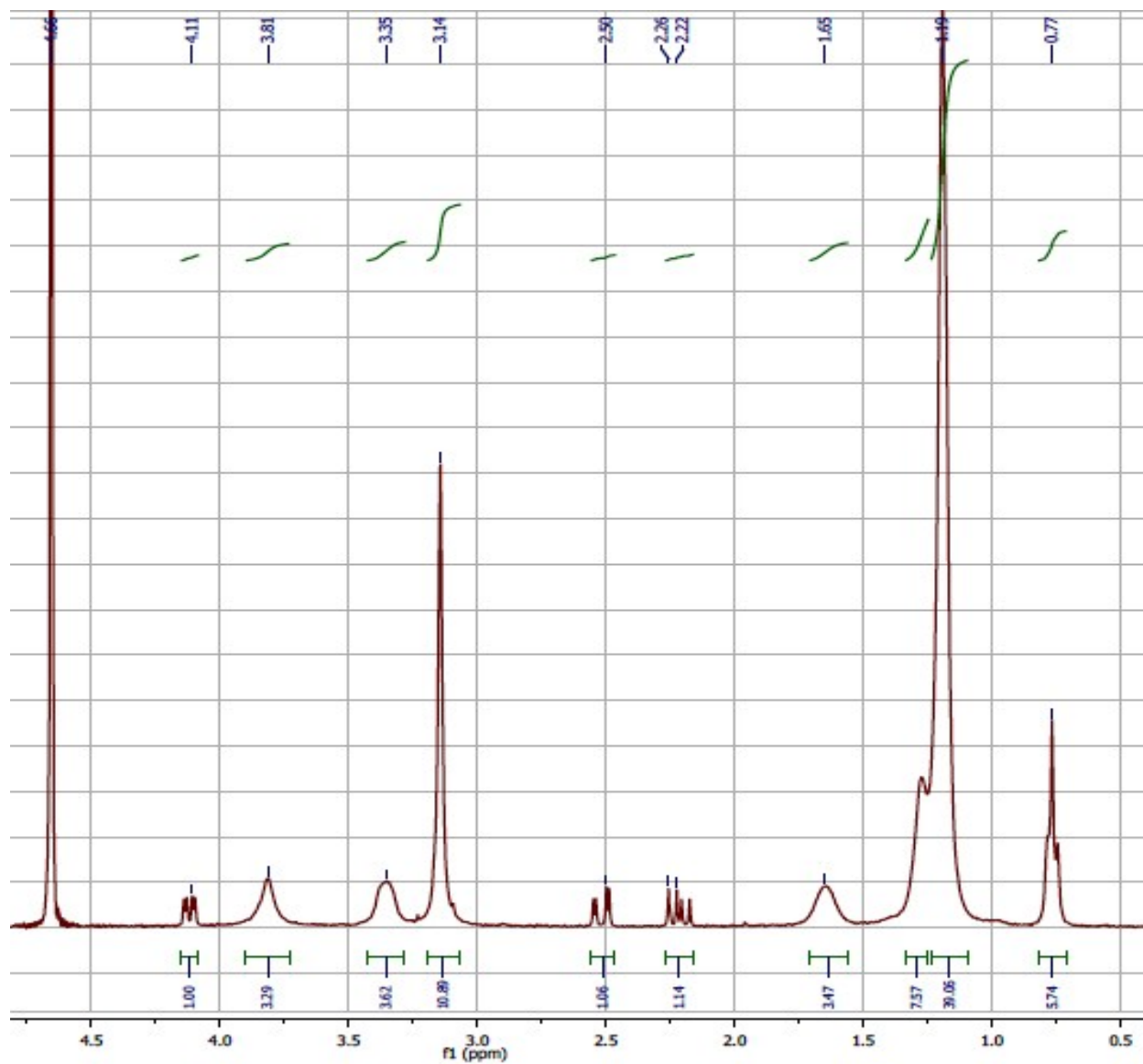


Figure S-9: ¹H NMR spectra of 16-2-16-Malate

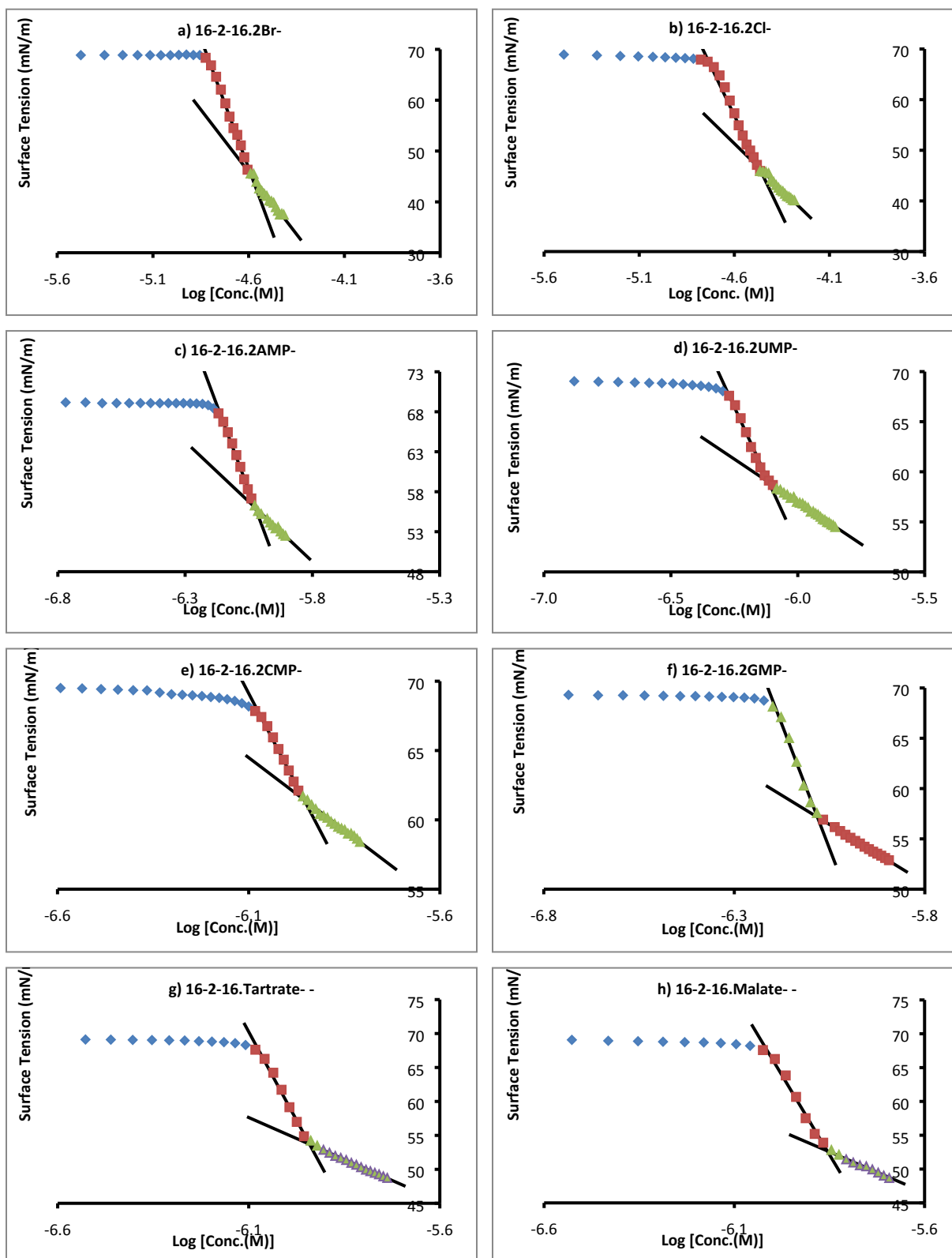


Figure S-10: Surface tension vs Log (Conc.) plots of 16-2-16 series of GSs

