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Electronic supplementary information

Preparation and characterization of fomesafen ionic liquids for reducing the risk to the aquatic environment

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¹H NMR of 1

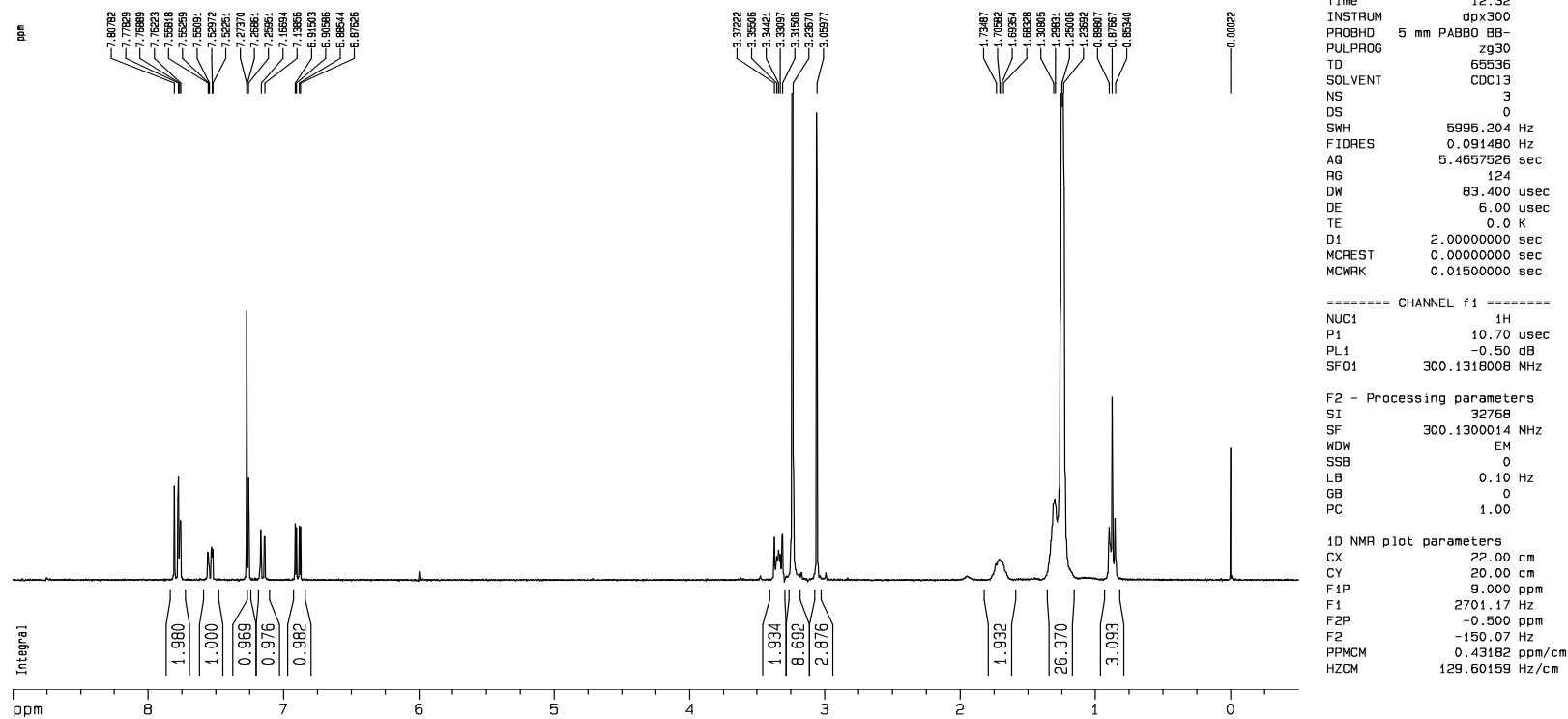


Fig. S1 ¹H NMR (300.13 MHz; CDCl₃) of **N-1** (Cetyl trimethyl ammonium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

1H NMR of 2

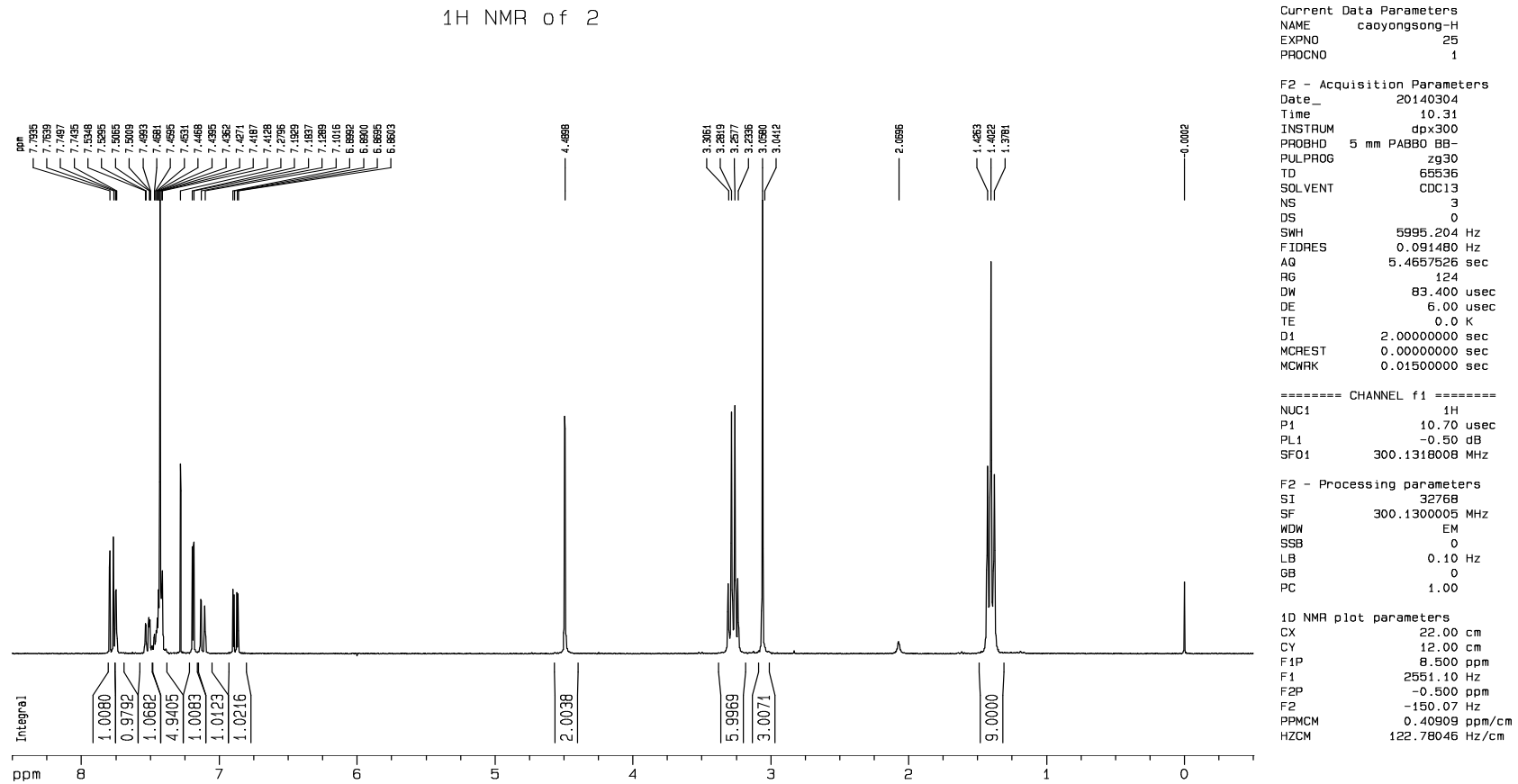


Fig. S2 ¹H NMR (300.13 MHz; CDCl₃) of **Ben-1** (Benzyltriethylammonium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

1H NMR of 3

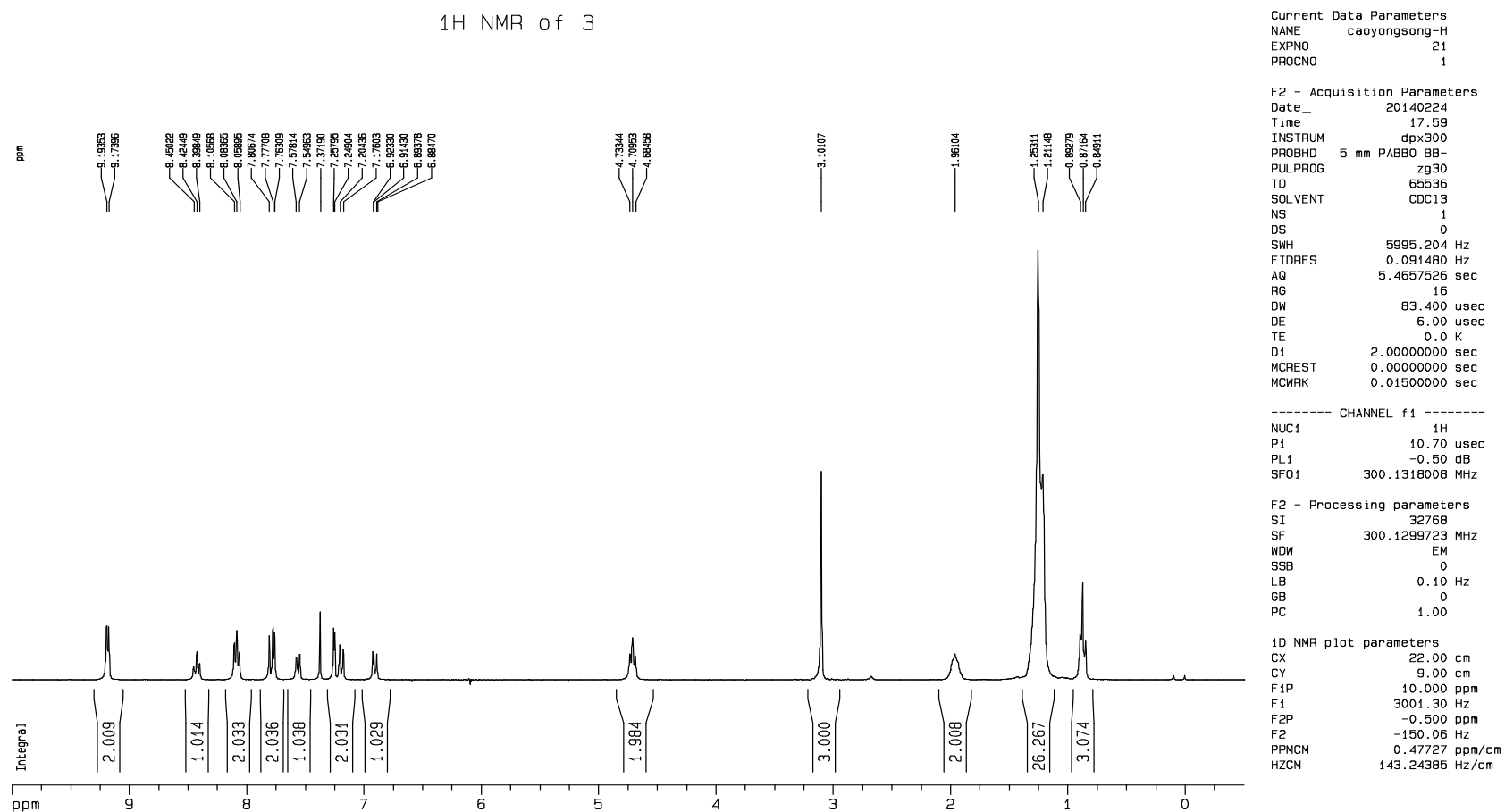


Fig. S3 ¹H NMR (300.13 MHz; CDCl₃) of **Pry-1** (1-Hexadecylpyridinium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

¹H NMR of 4

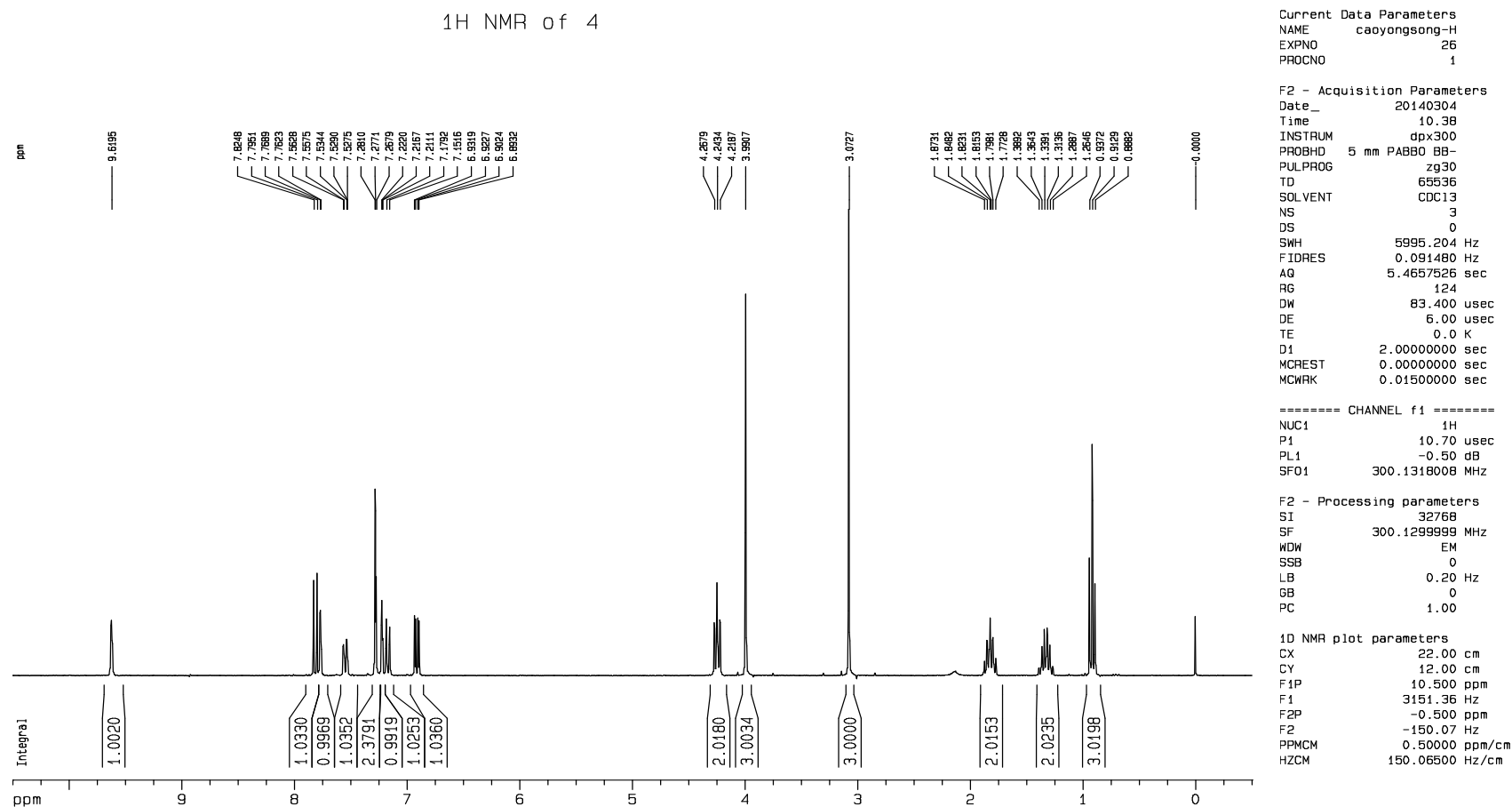
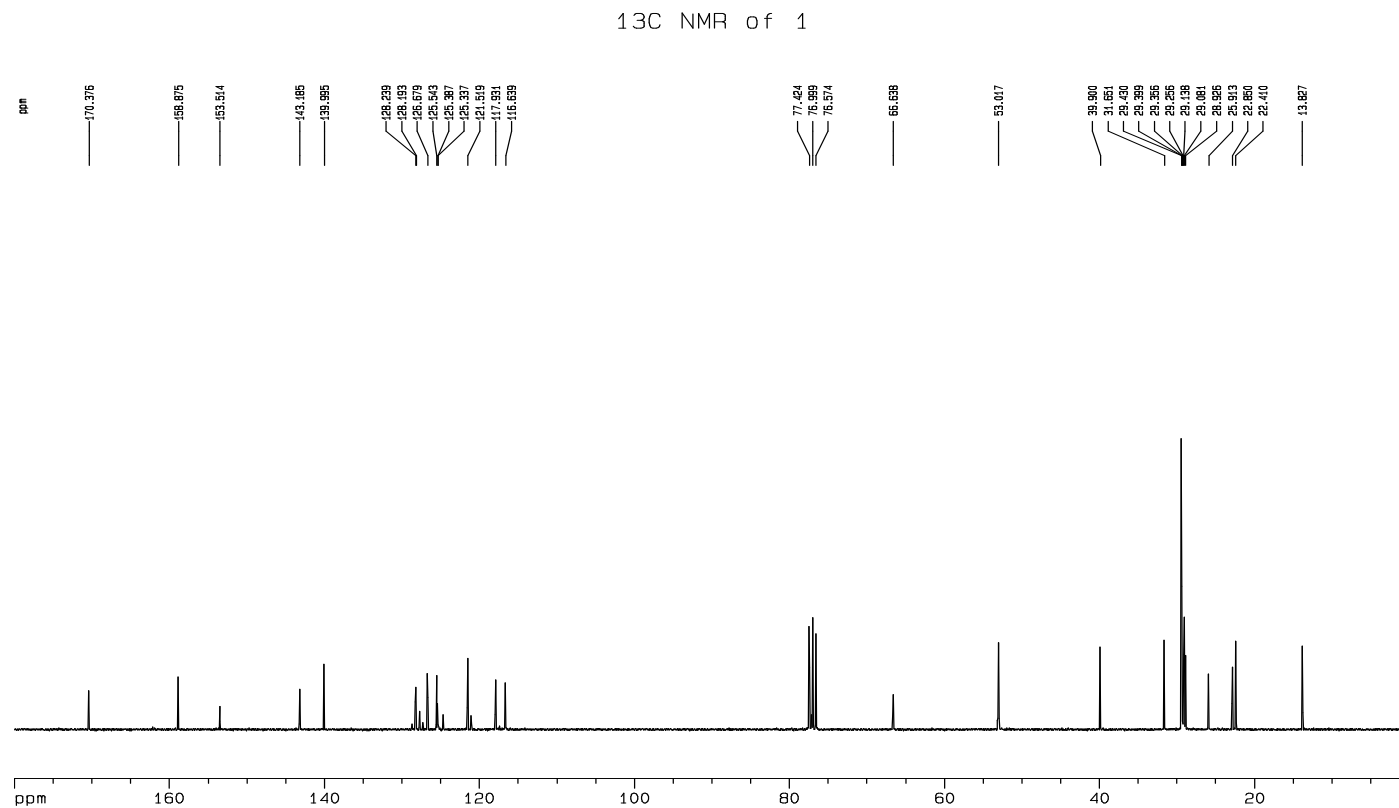


Fig. S4 ¹H NMR (300.13 MHz; CDCl₃) of **Im-1** (1-Butyl-3-methylimidazolium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)



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Fig. S5 ¹³C NMR (75.47 MHz; CDCl₃) of N-1 (Cetyl trimethyl ammonium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

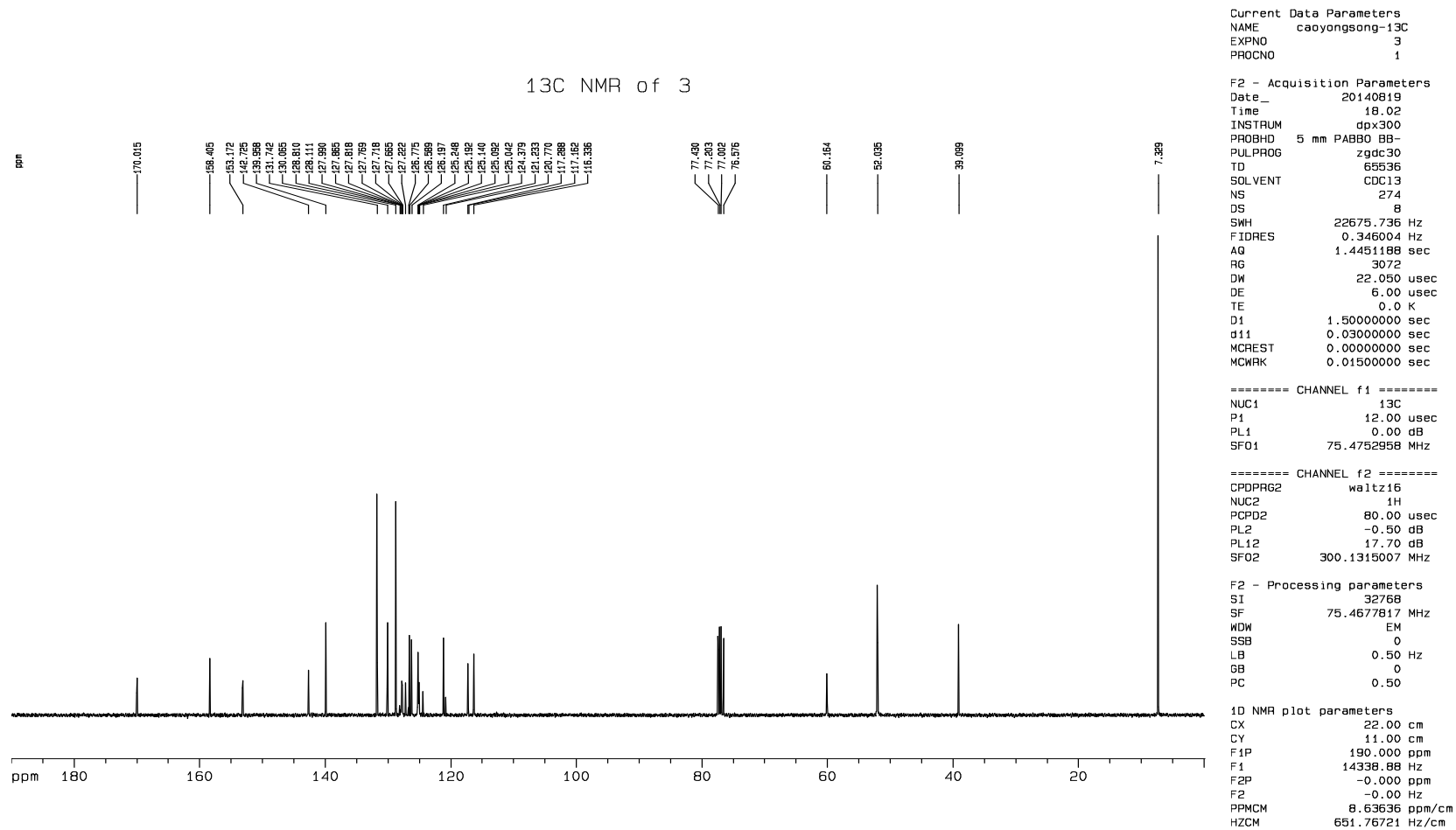


Fig. S6 ¹³C NMR (75.47 MHz; CDCl₃) of **Ben-1** (Benzyltriethylammonium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

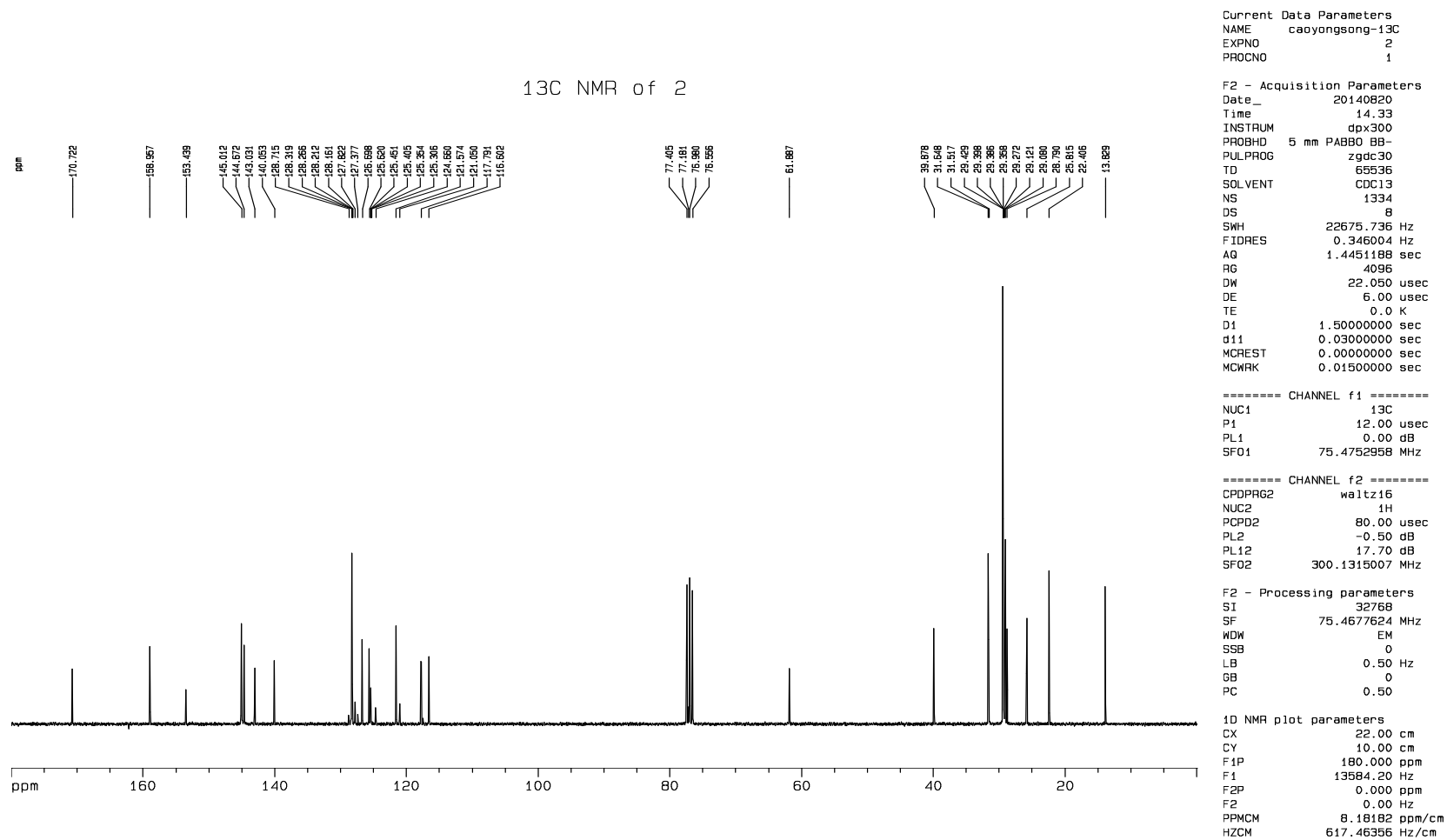


Fig. S7 ¹³C NMR (75.47 MHz; CDCl₃) of **Pry-1** (1-Hexadecylpyridinium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

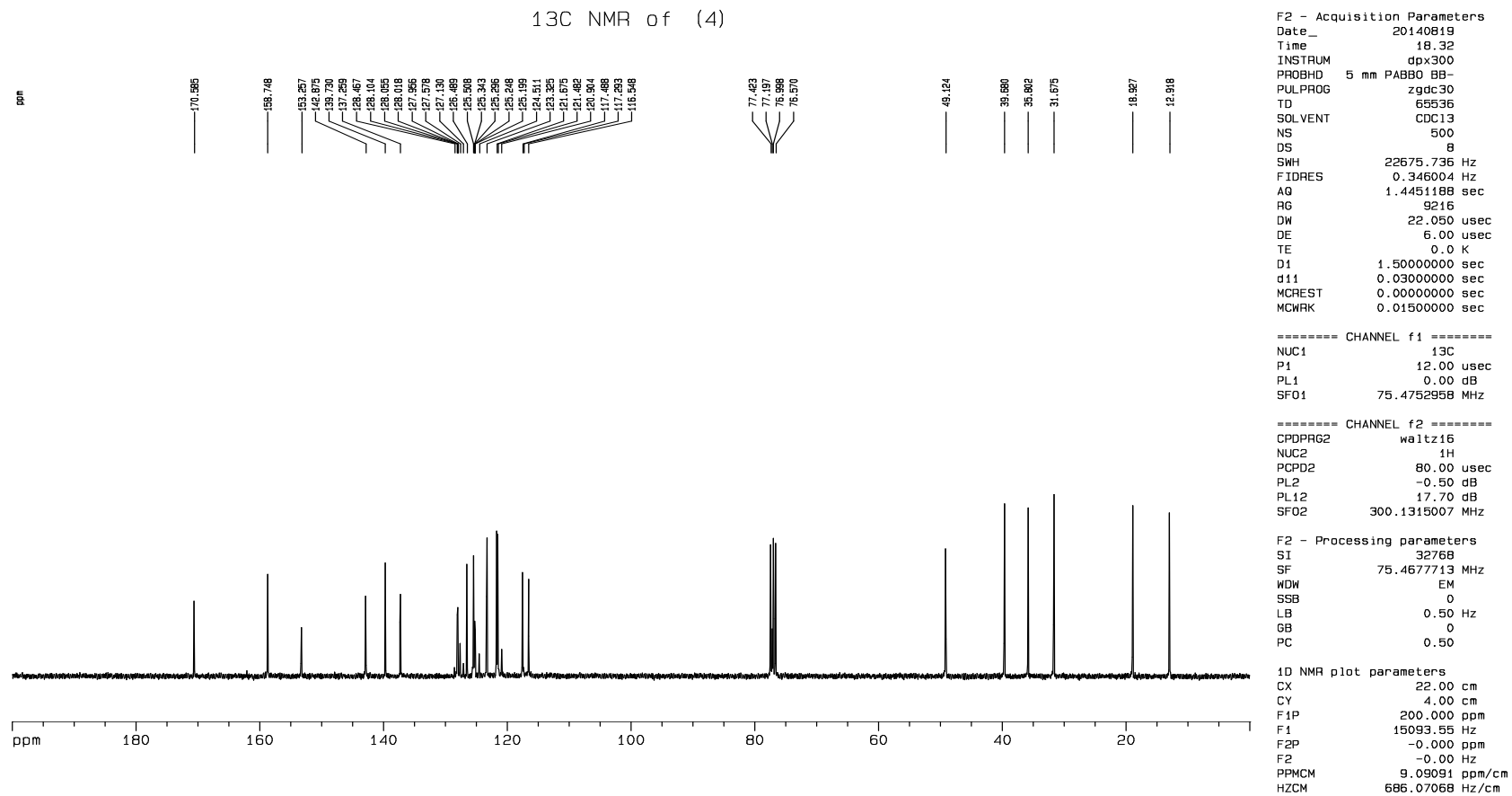


Fig. S8 ¹³C NMR (75.47 MHz; CDCl₃) of **Im-1** (1-Butyl-3-methylimidazolium 5-[2-chloro-4-(trifluoromethyl)phenoxy]-N-[methylsulfonyl]-2-nitrobenzamide)

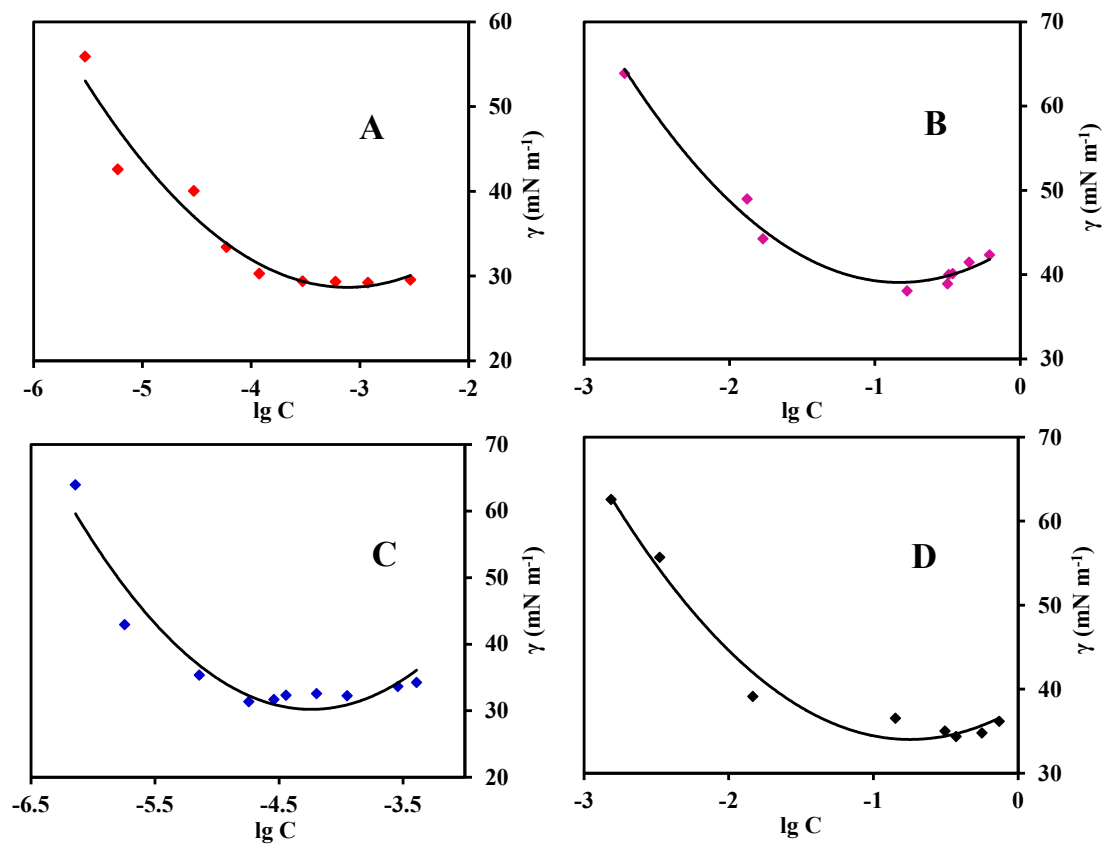


Fig. S9 The surface tension curves (γ -lg C curves) for N-1 (A), Ben-1 (B), Pyr-1 (C), Im-1 (D).