

Supplementary Information

- Figure S1.** ^1H NMR spectrum (600 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.
- Figure S2.** Expansion of ^1H NMR spectrum (600 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.
- Figure S3.** ^{13}C NMR spectrum (150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.
- Figure S4.** HSQC spectrum (600/150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.
- Figure S5.** HMBC spectrum (600/150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.
- Figure S6.** Expansion of HMBC spectrum(600/150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.
- Figure S7.** HRESIMS spectrum of compound **1**.
- Figure S8.** IR spectrum of compound **1**.
- Figure S9.** ^1H NMR spectrum (600 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.
- Figure S10.** Expansion of ^1H NMR spectrum (600 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.
- Figure S11.** ^{13}C NMR spectrum (150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.
- Figure S12.** HSQC spectrum (600/150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.
- Figure S13.** HMBC spectrum (600/150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.
- Figure S14.** Expansion of HMBC spectrum(600/150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.
- Figure S15.** HRESIMS spectrum of compound **2**.
- Figure S16.** IR spectrum of compound **2**.
- Figure S17.** ^1H NMR spectrum (600 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.
- Figure S18.** Expansion of ^1H NMR spectrum (600 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.
- Figure S19.** ^{13}C NMR spectrum (150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.
- Figure S20.** HSQC spectrum (600/150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.
- Figure S21.** HMBC spectrum (600/150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.
- Figure S22.** Expansion of HMBC spectrum(600/150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.
- Figure S23.** HRESIMS spectrum of compound **3**.
- Figure S24.** IR spectrum of compound **3**.

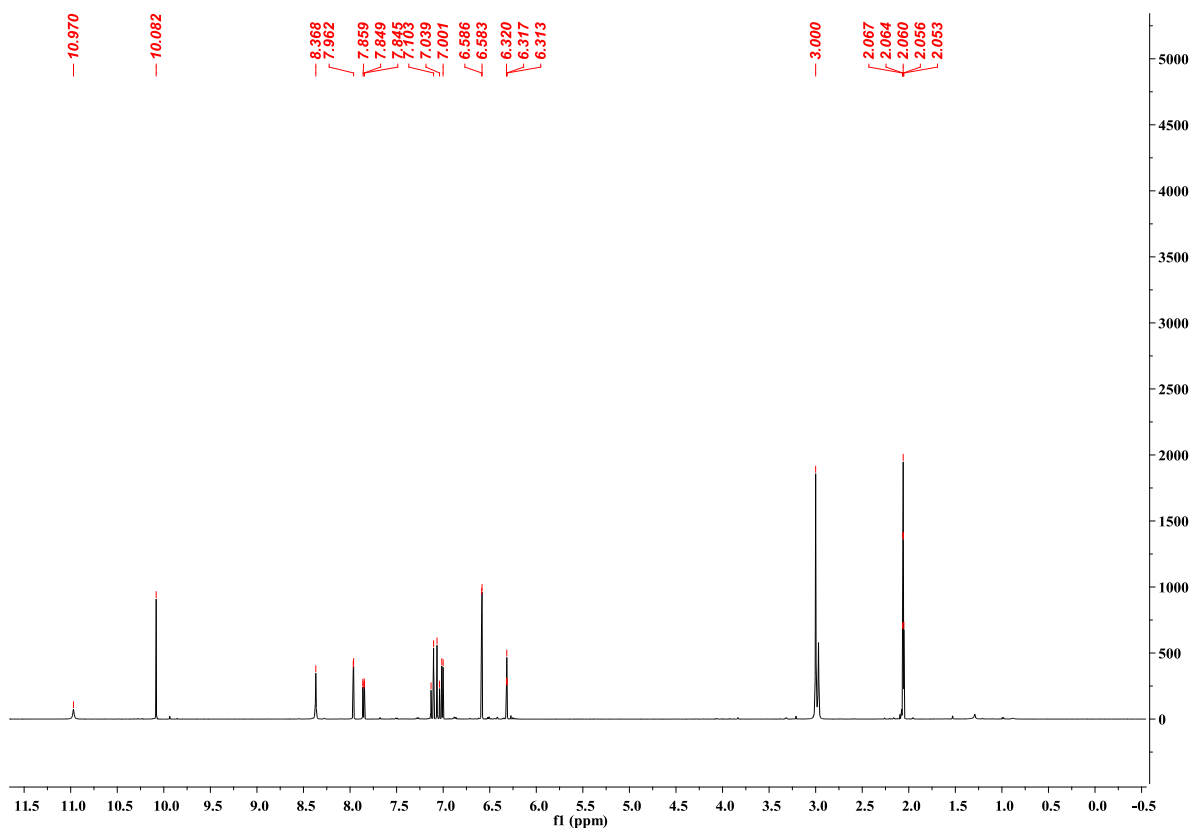
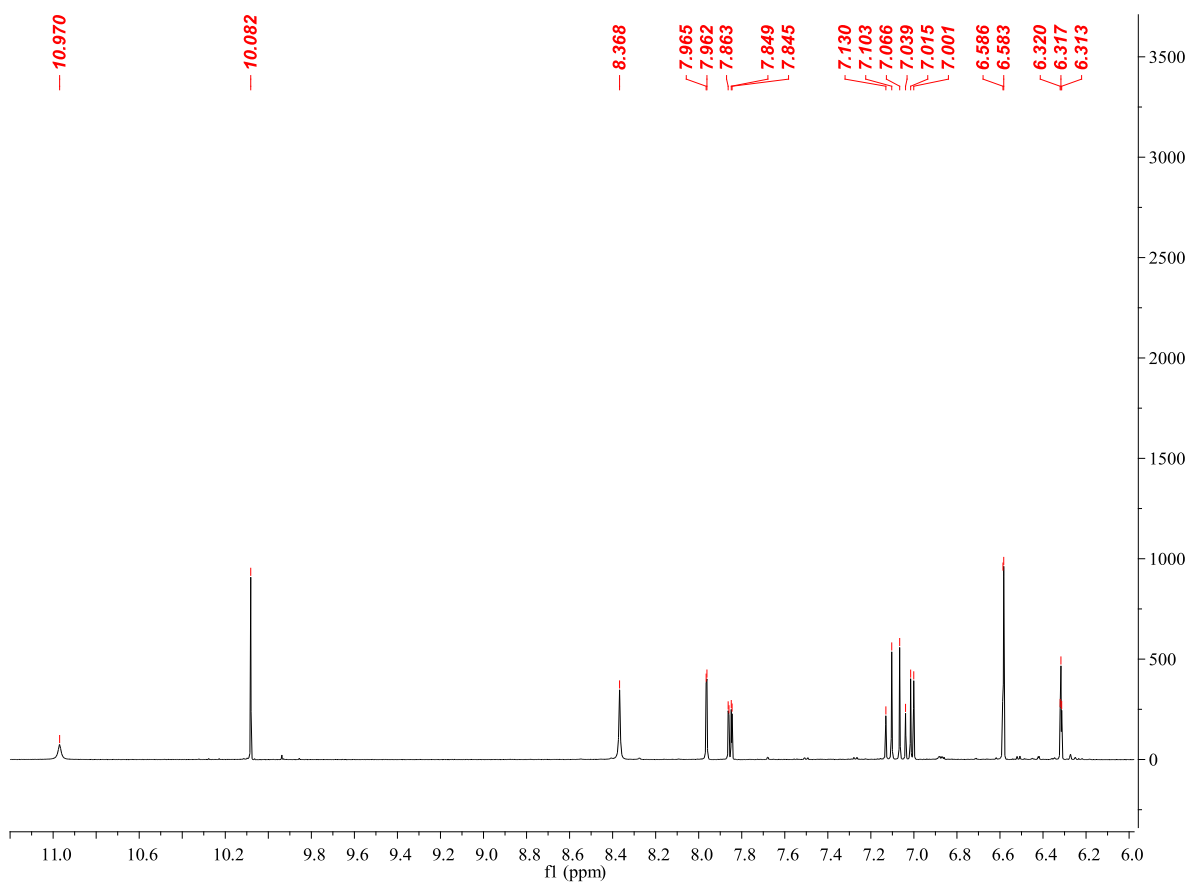
Figure S1. ^1H NMR spectrum (600 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.**Figure S2.** Expansion of ^1H NMR spectrum (600 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.

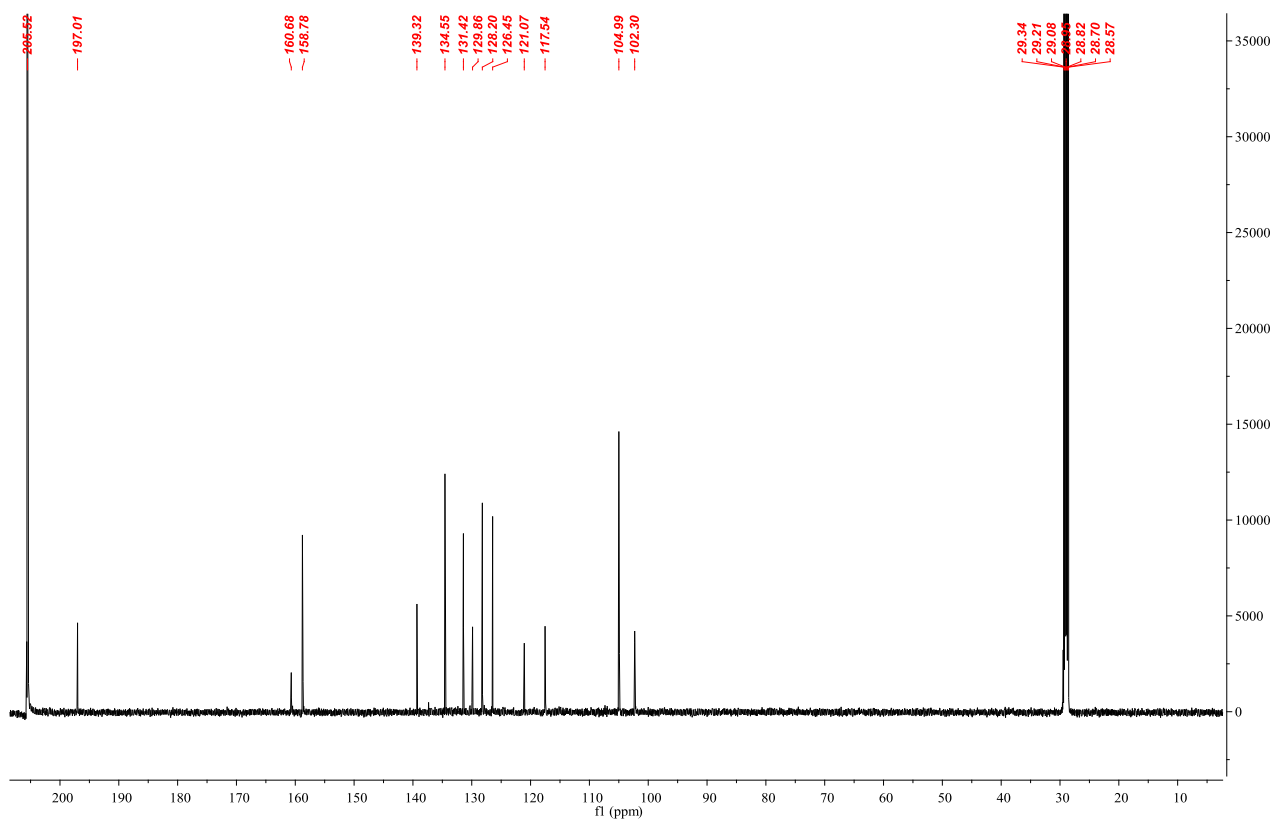
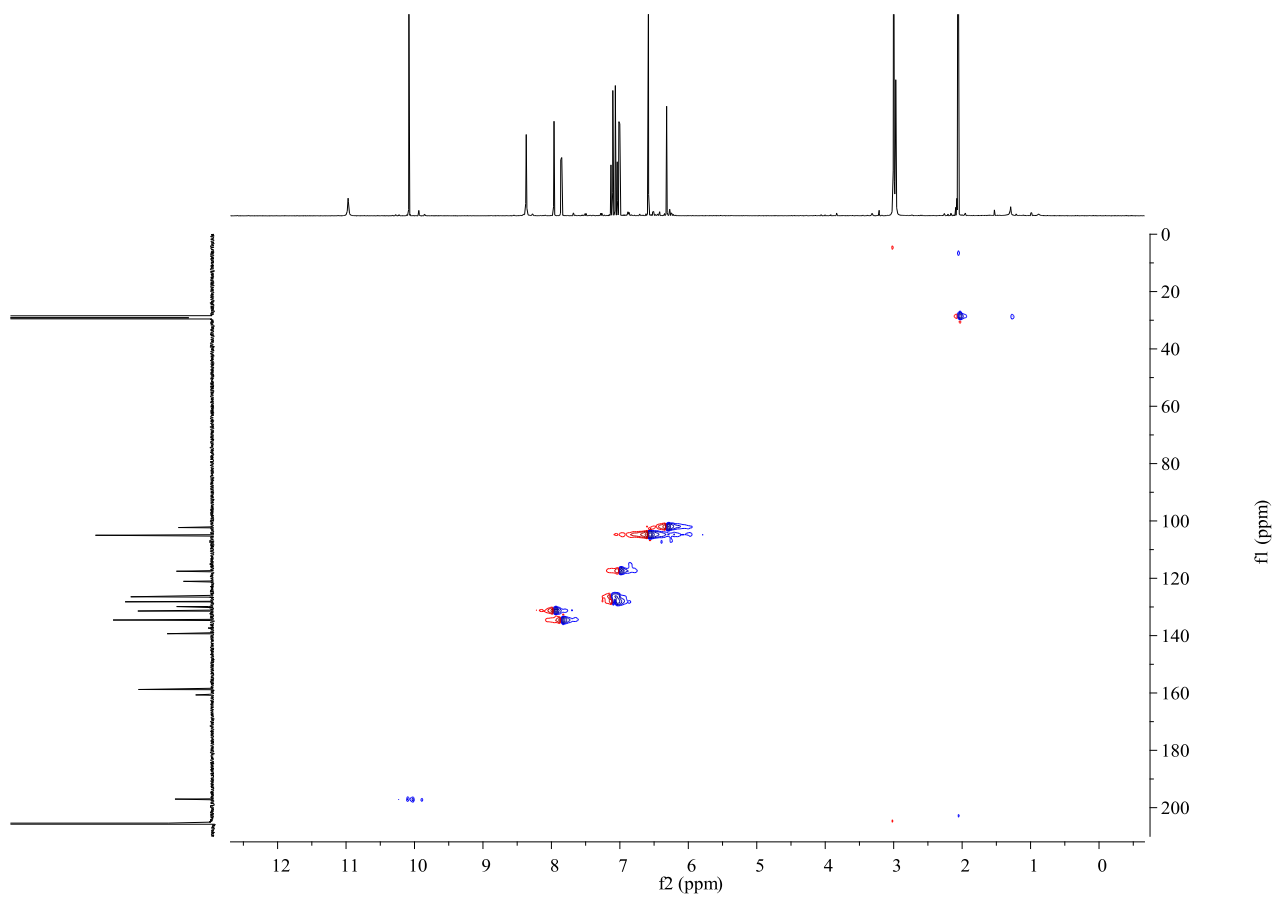
Figure S3. ^{13}C NMR spectrum (150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.**Figure S4.** HSQC spectrum (600/150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.

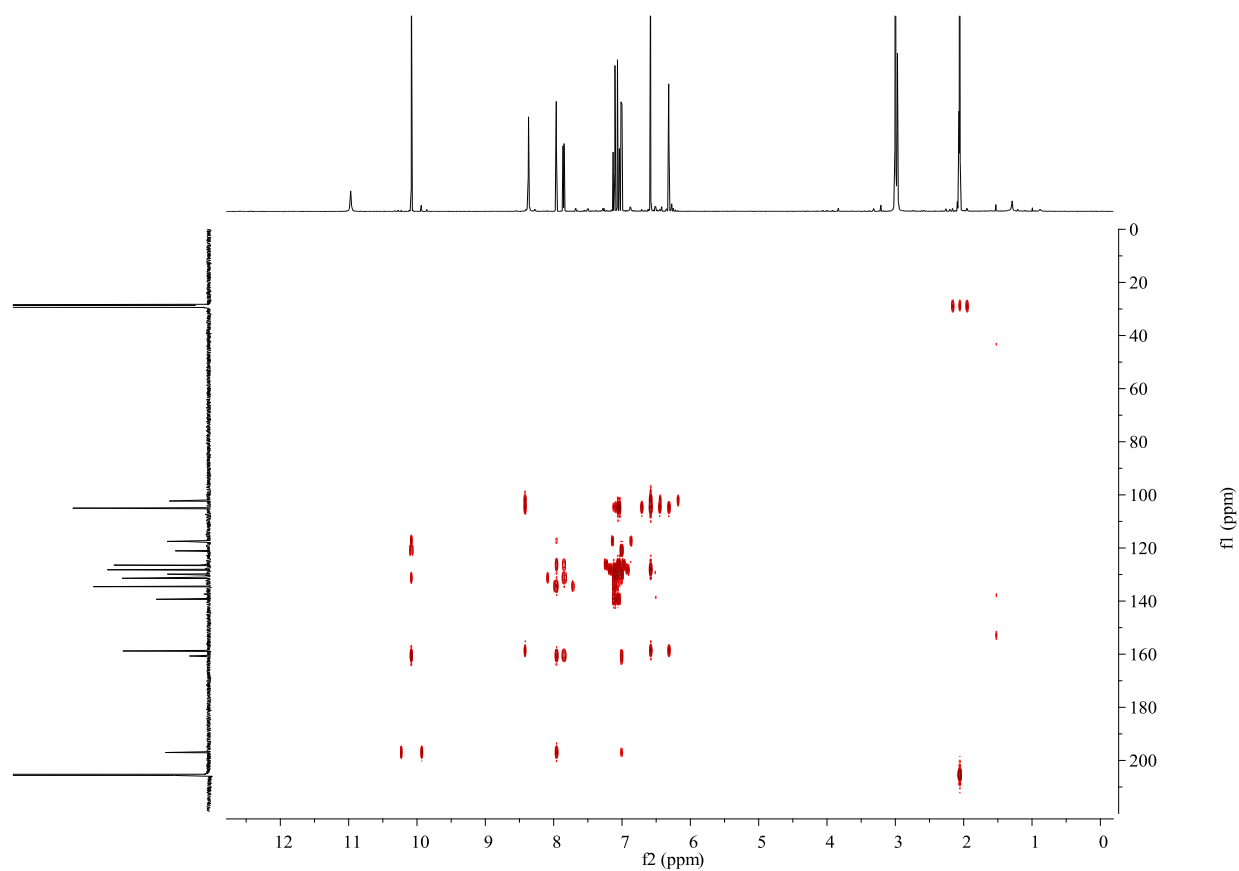
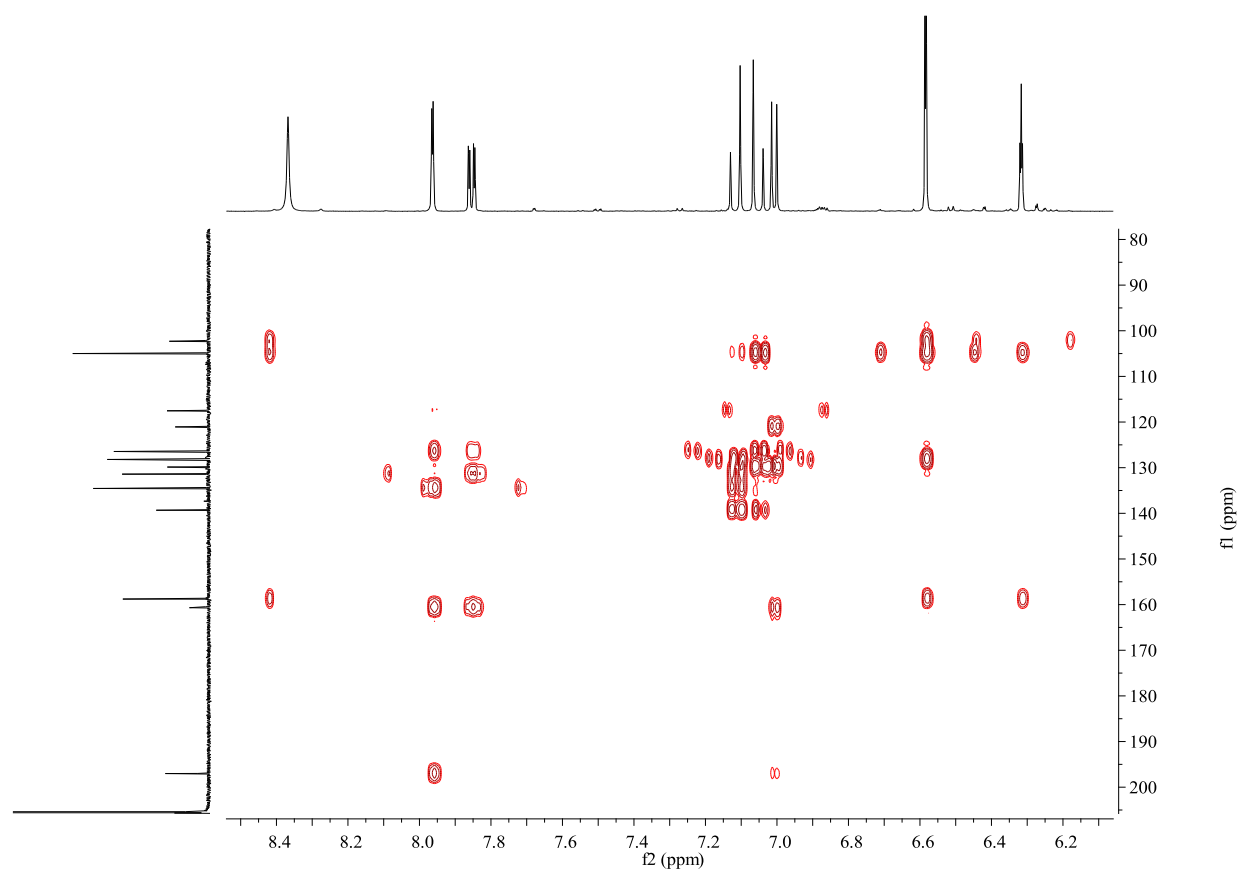
Figure S5. HMBC spectrum (600/150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.**Figure S6.** Expansion of (600/150 MHz) of compound **1** in $(\text{CD}_3)_2\text{CO}$.

Figure S7. HRESIMS spectrum of compound 1.

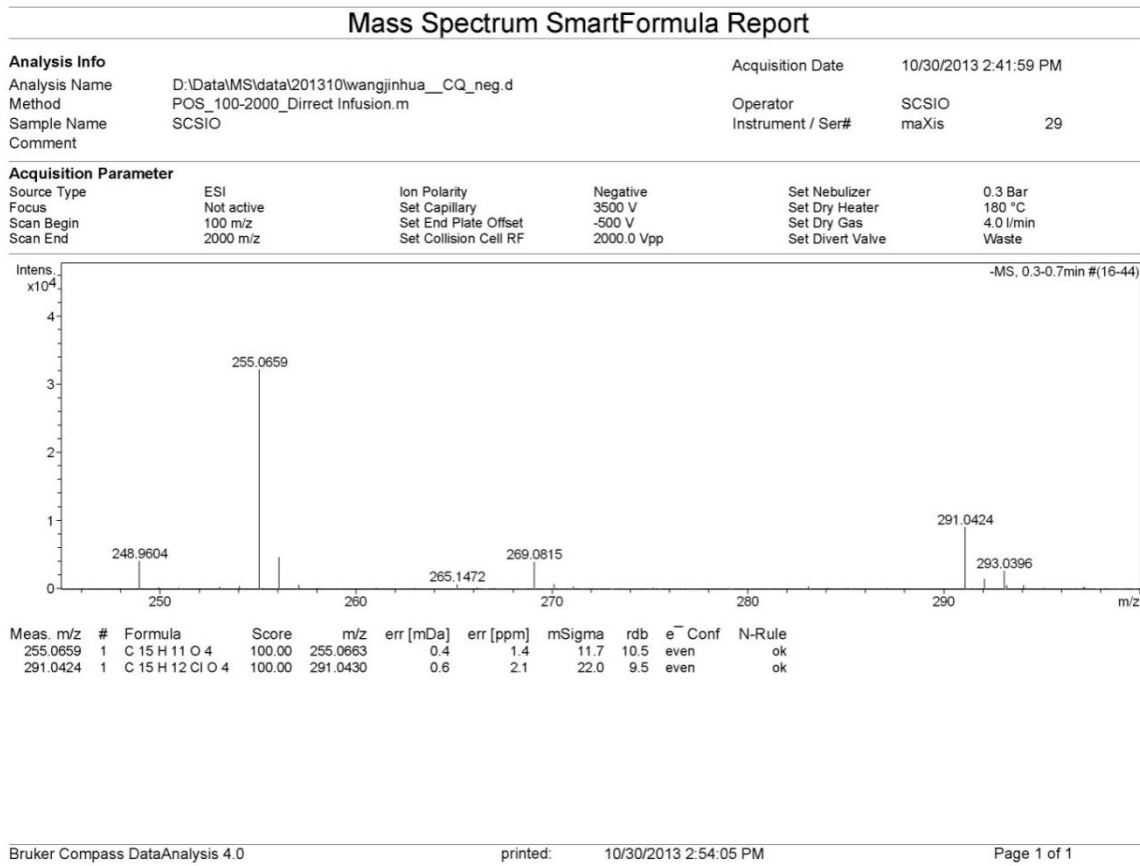


Figure S8. IR spectrum of compound 1.

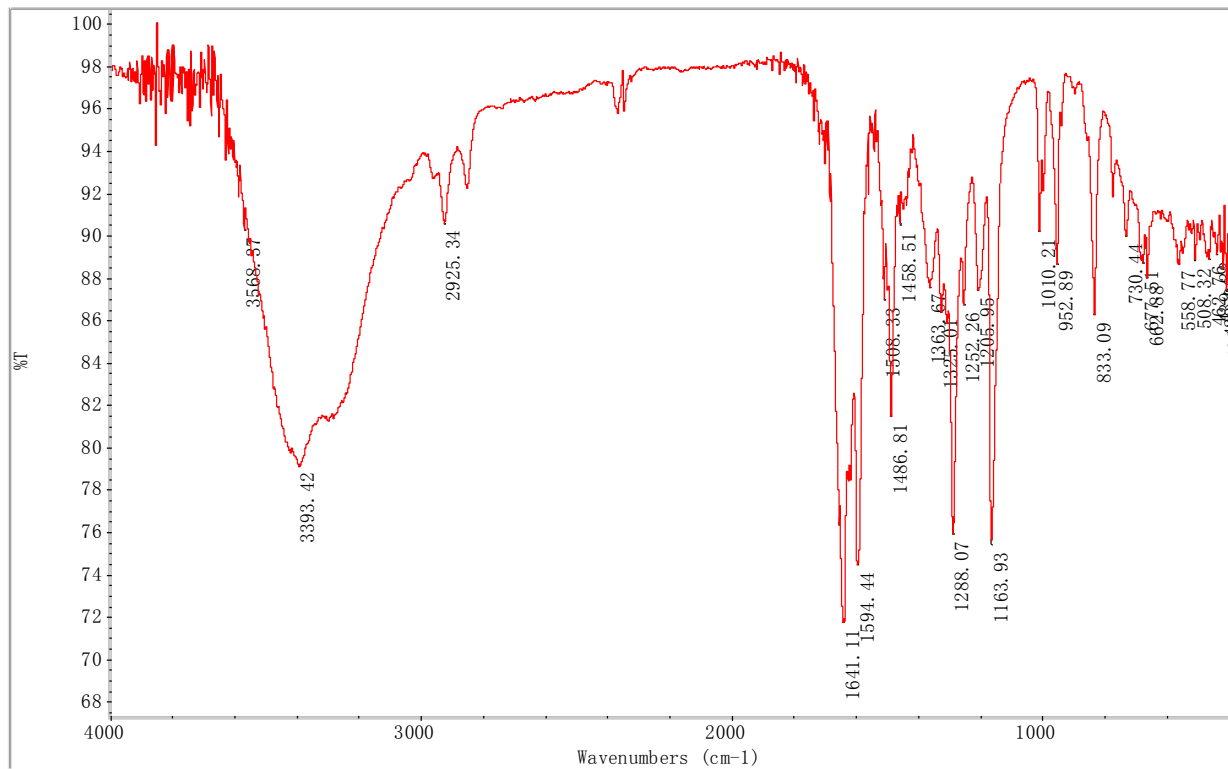


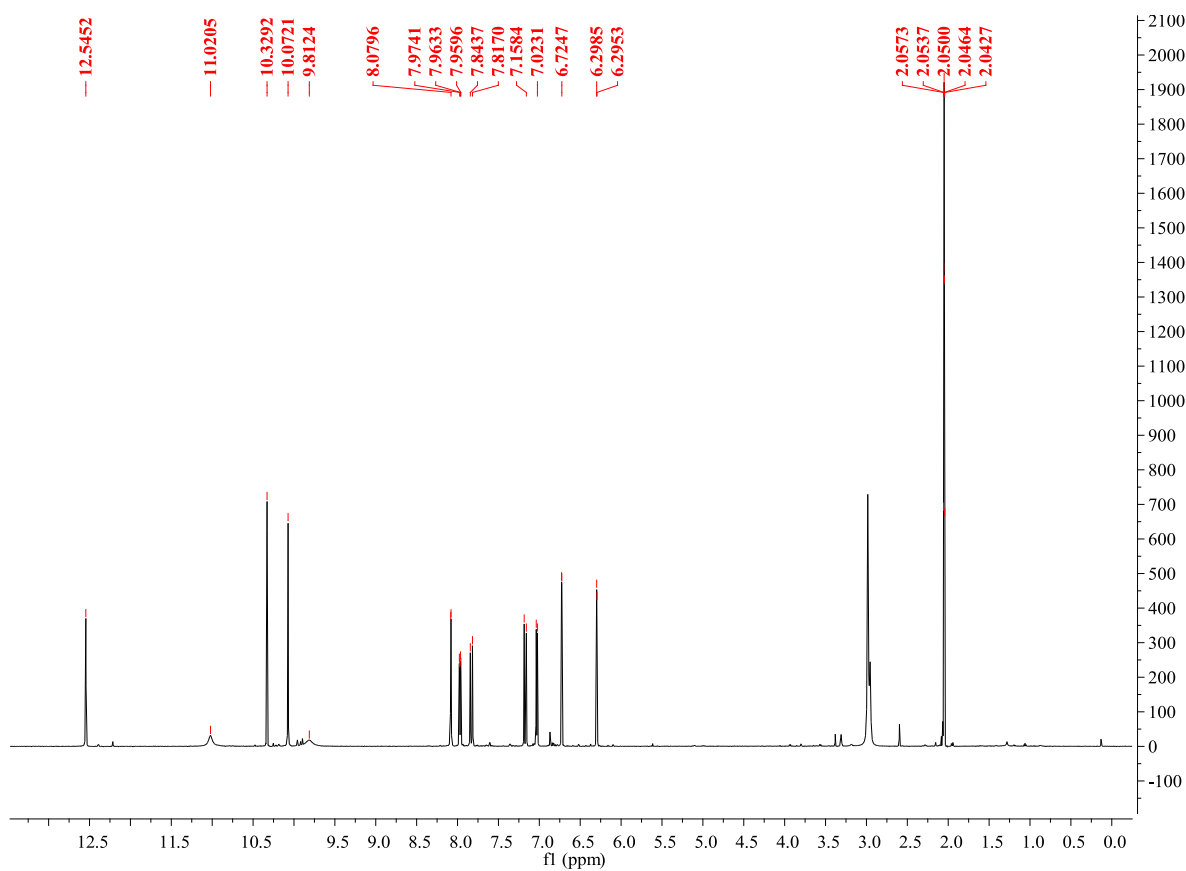
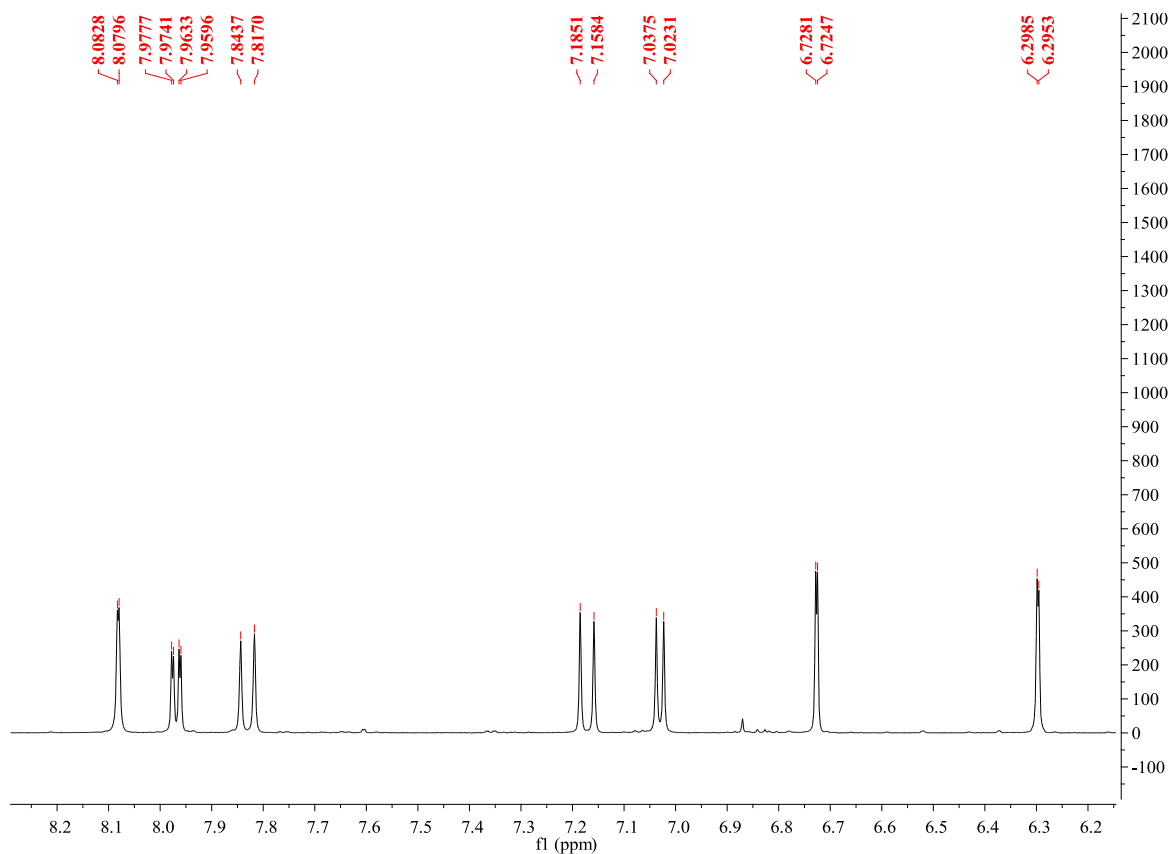
Figure S9. ^1H NMR spectrum (600 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.**Figure S10.** Expansion of ^1H NMR spectrum (600 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.

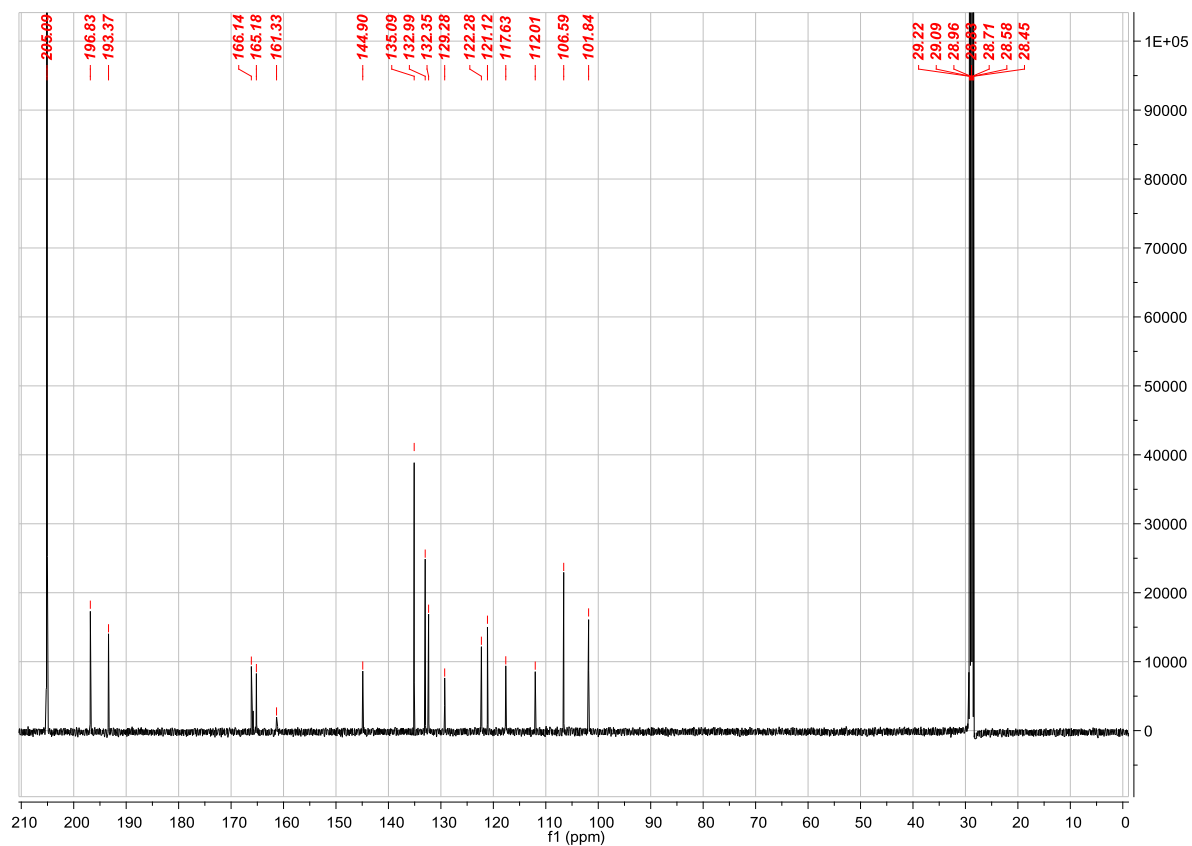
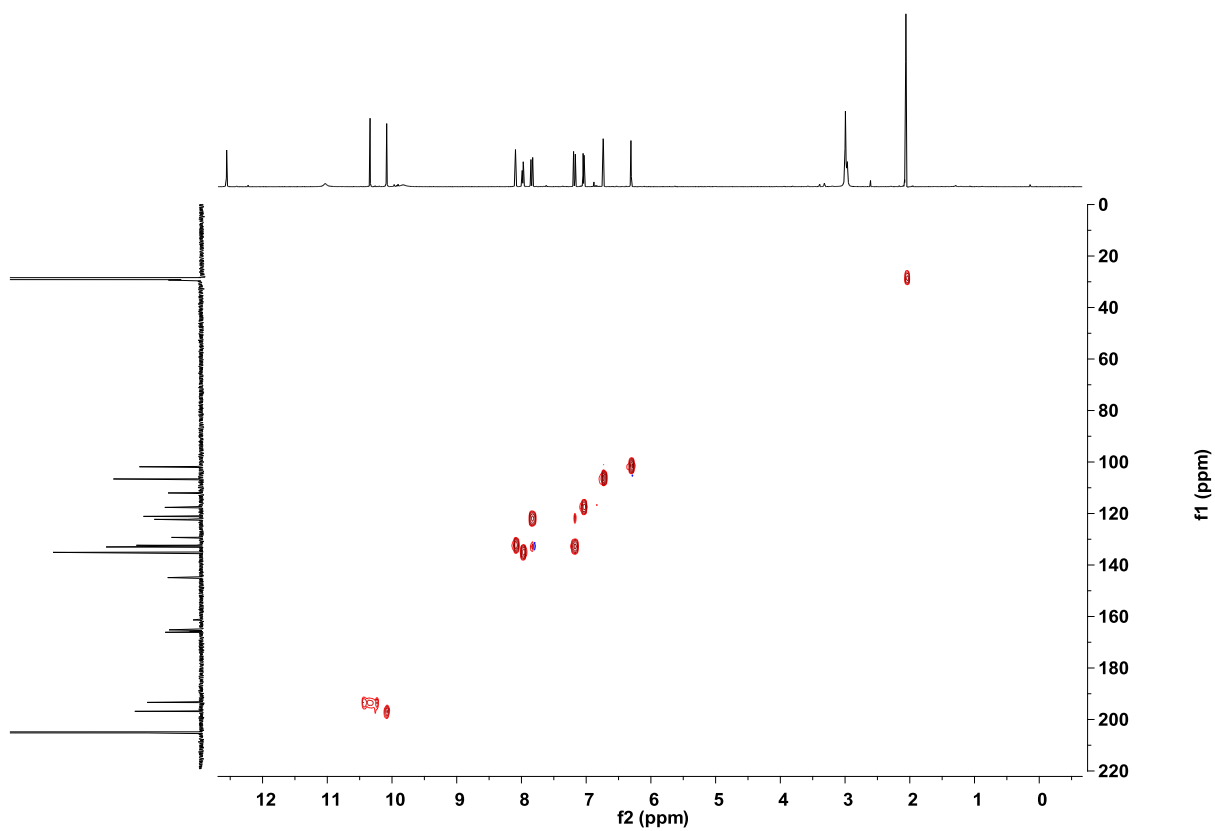
Figure S11. ^{13}C NMR spectrum (150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.**Figure S12.** HSQC spectrum (600/150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.

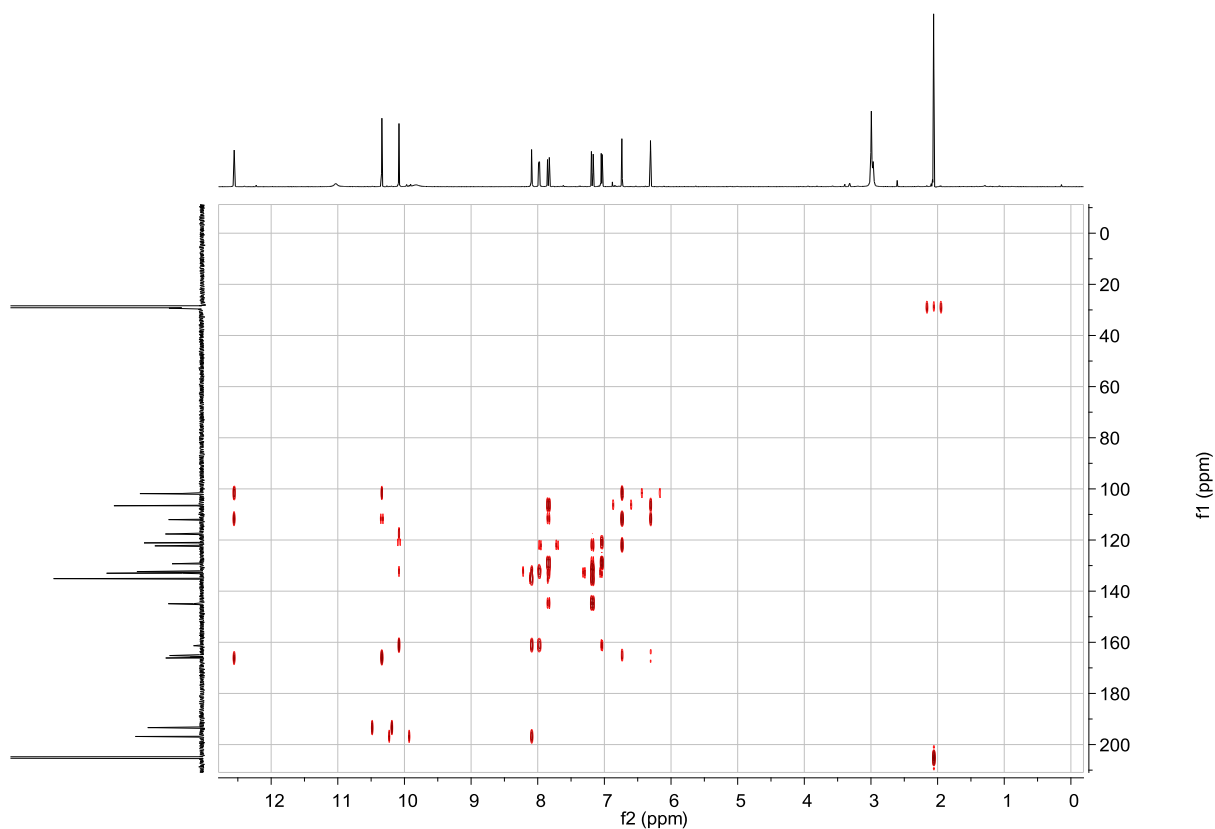
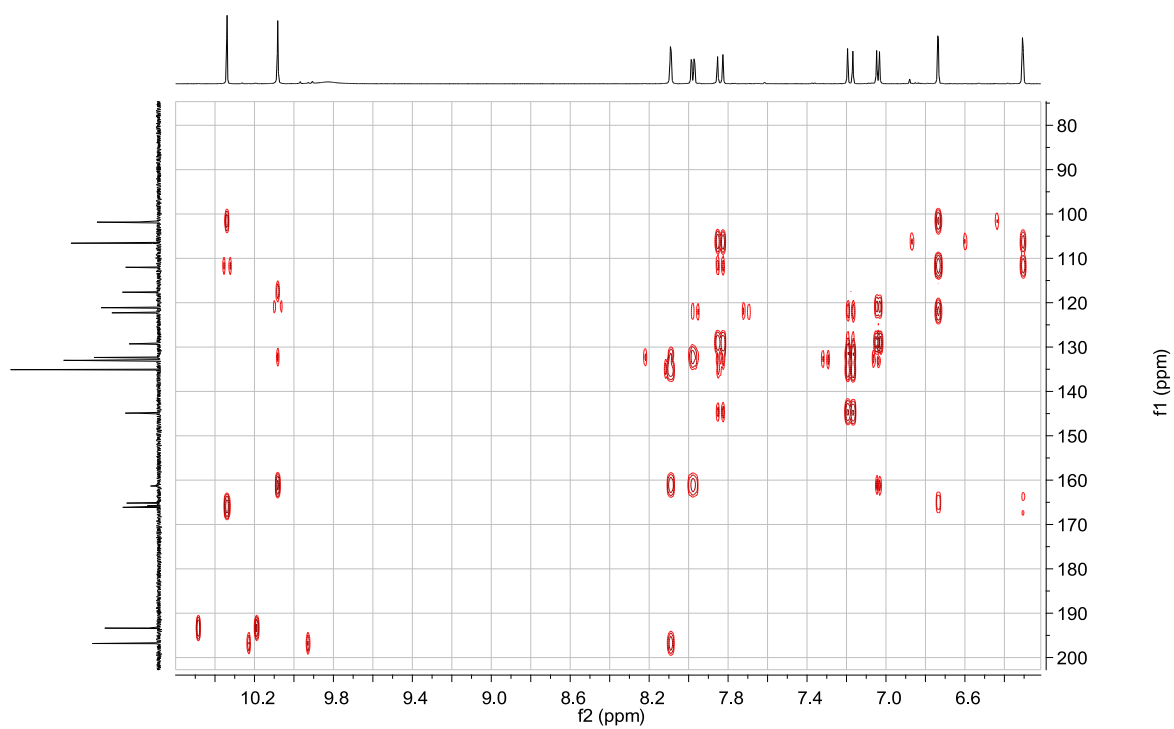
Figure S13. HMBC spectrum (600/150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.**Figure S14.** Expansion of HMBC spectrum (600/150 MHz) of compound **2** in $(\text{CD}_3)_2\text{CO}$.

Figure S15. HRESIMS spectrum of compound 2.

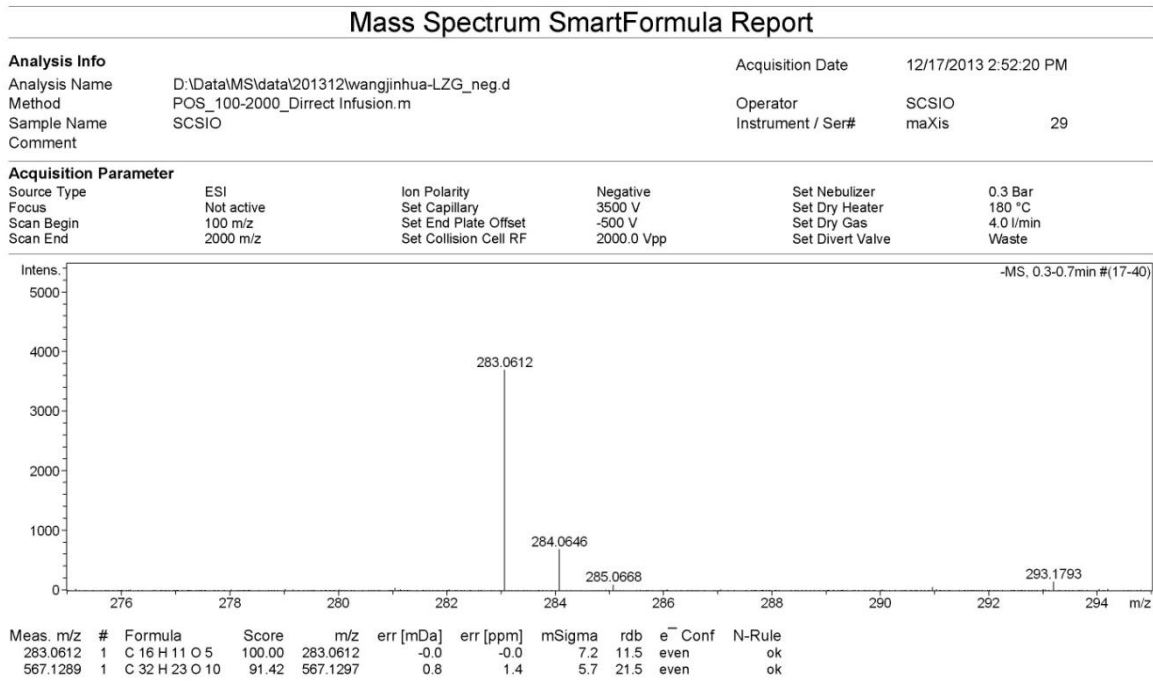


Figure S16. IR spectrum of compound 2.

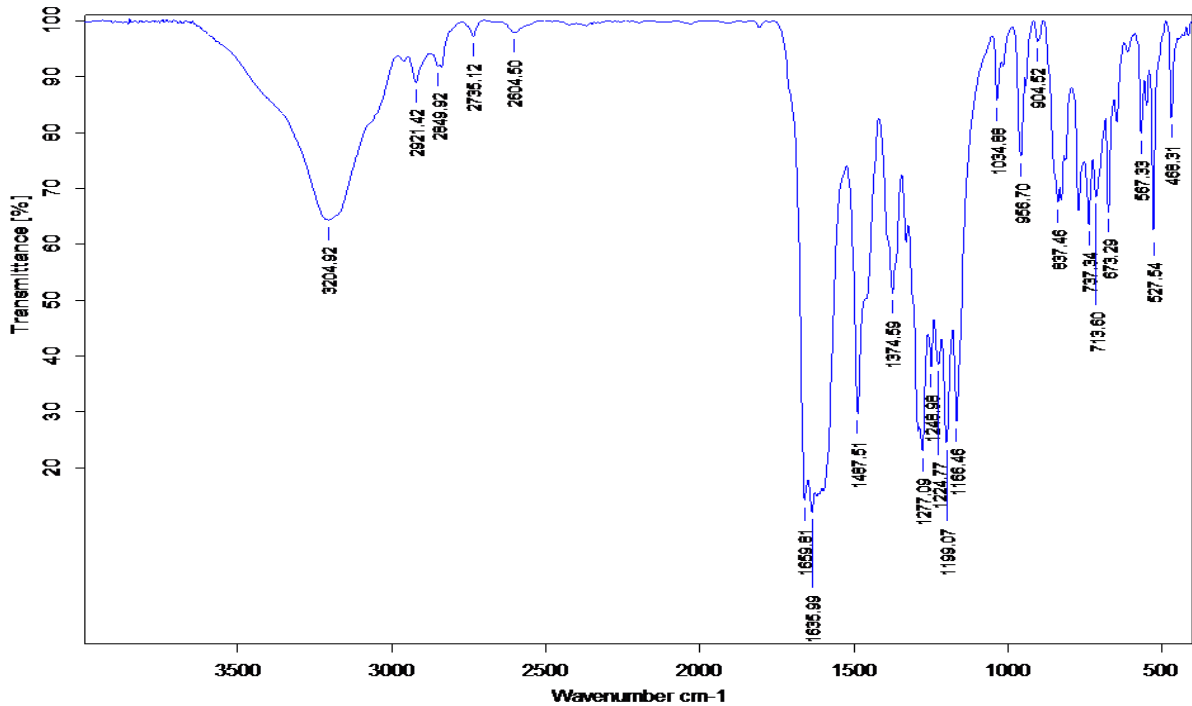


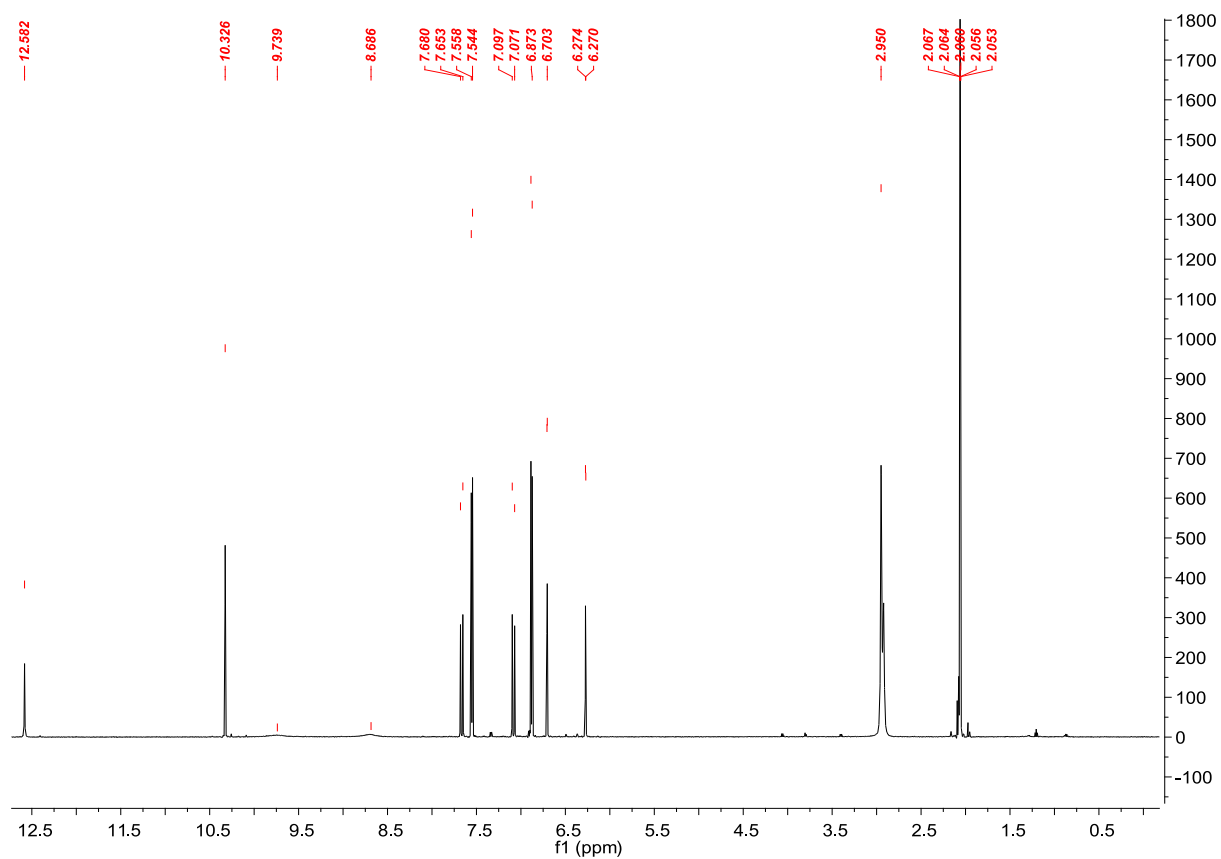
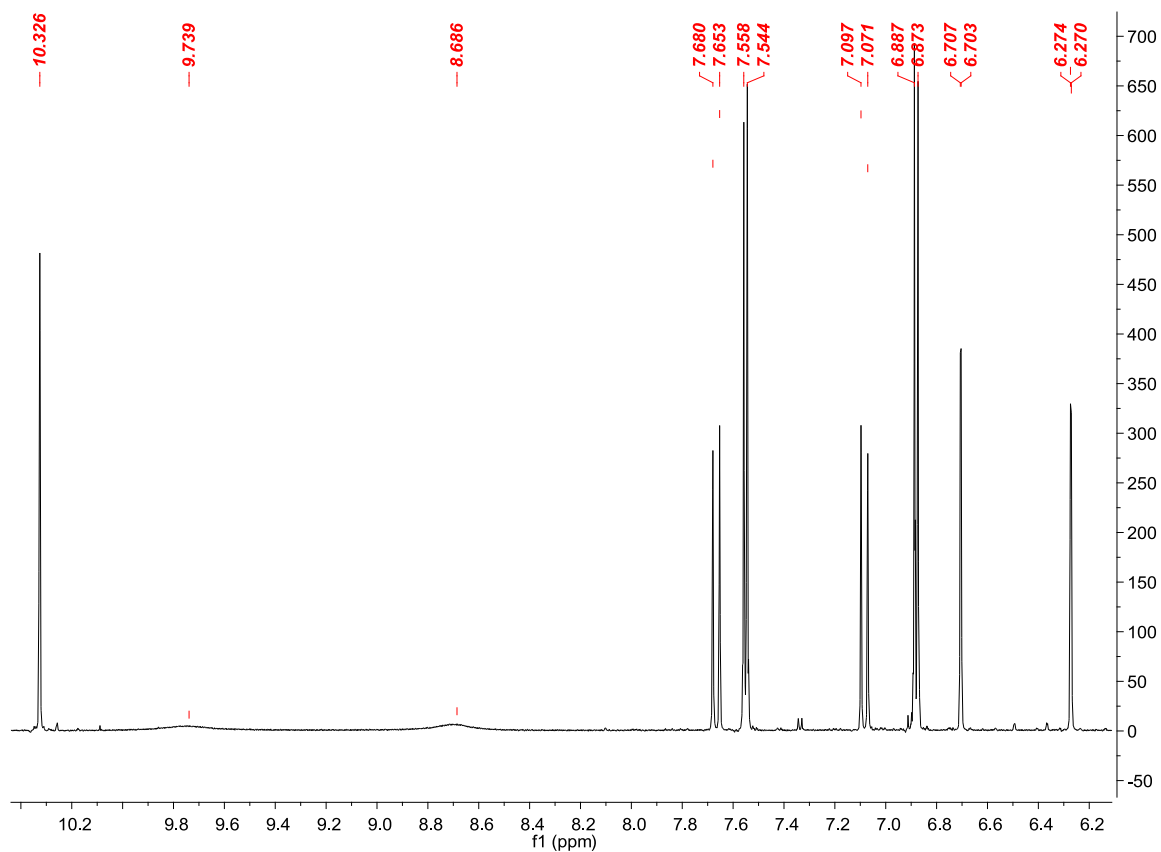
Figure S17. ^1H NMR spectrum (600 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.**Figure S18.** Expansion of ^1H NMR spectrum (600 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.

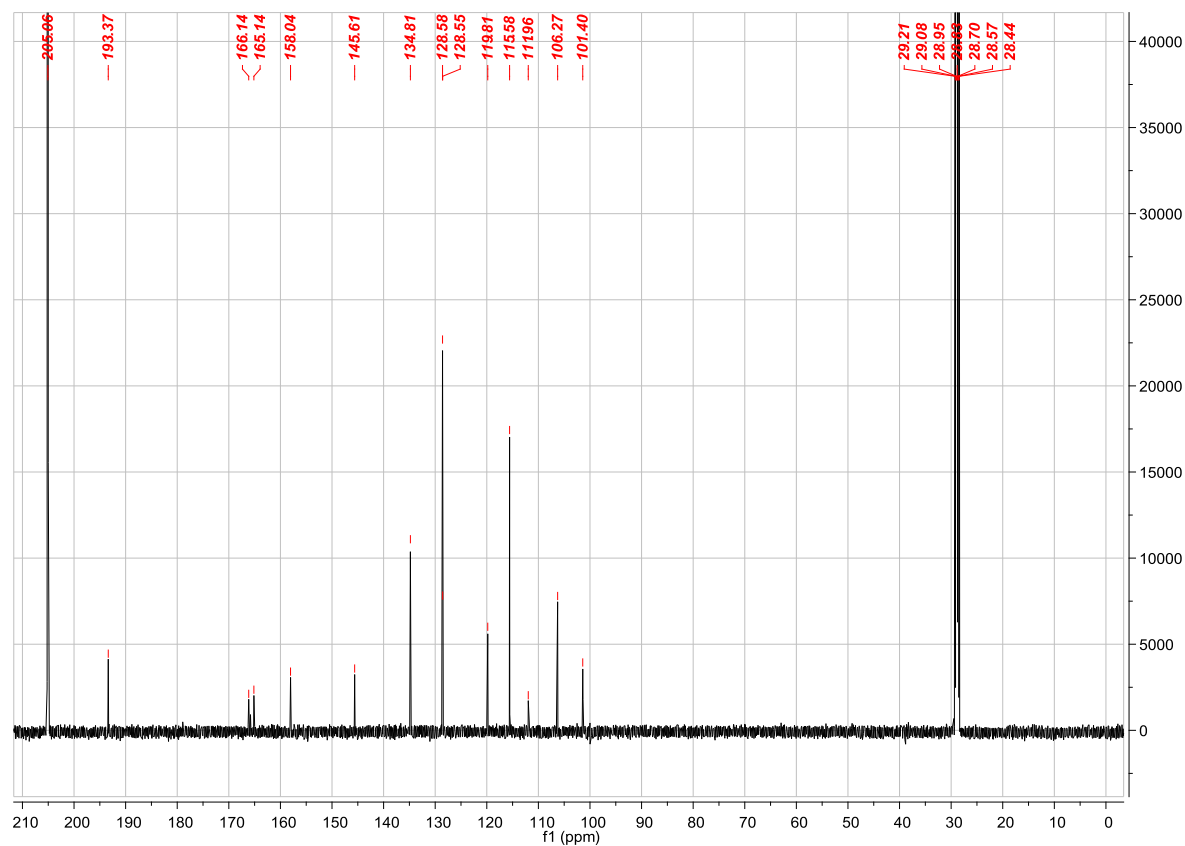
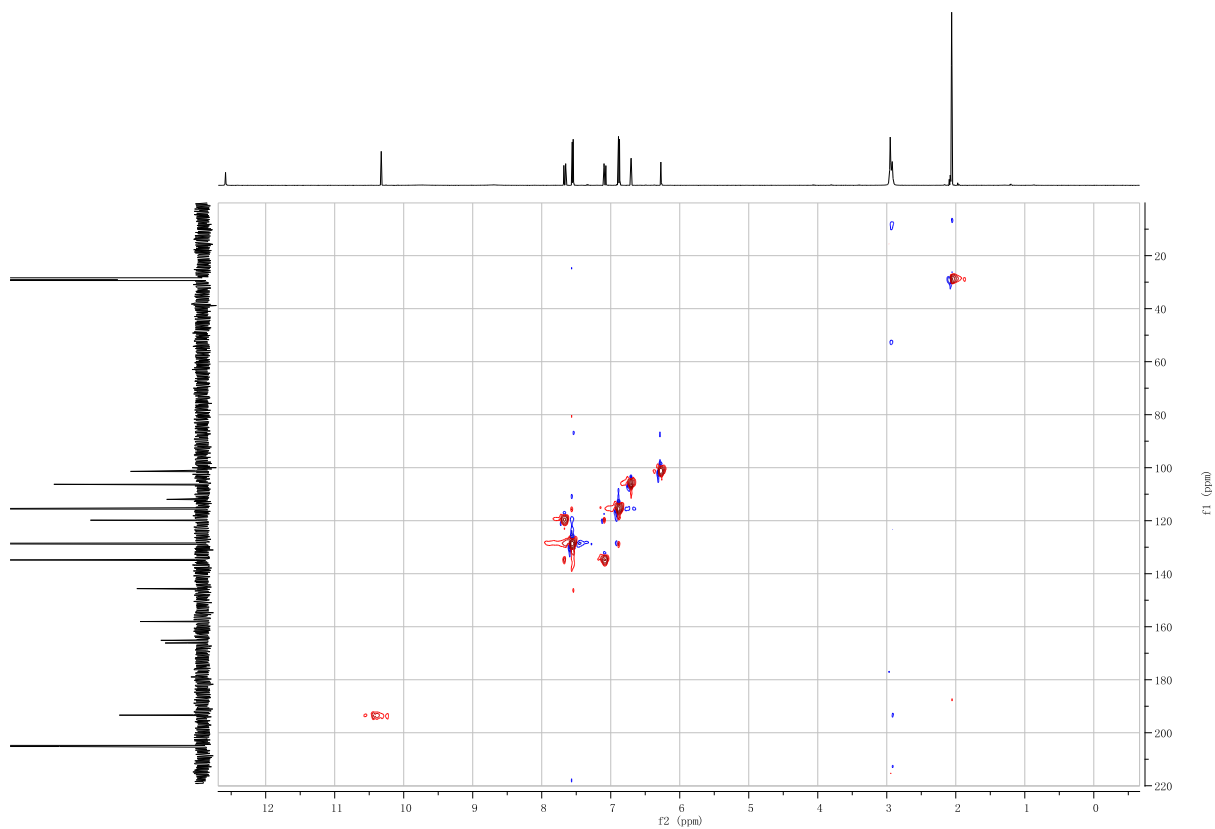
Figure S19. ^{13}C NMR spectrum (150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.**Figure S20.** HSQC spectrum (600/150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.

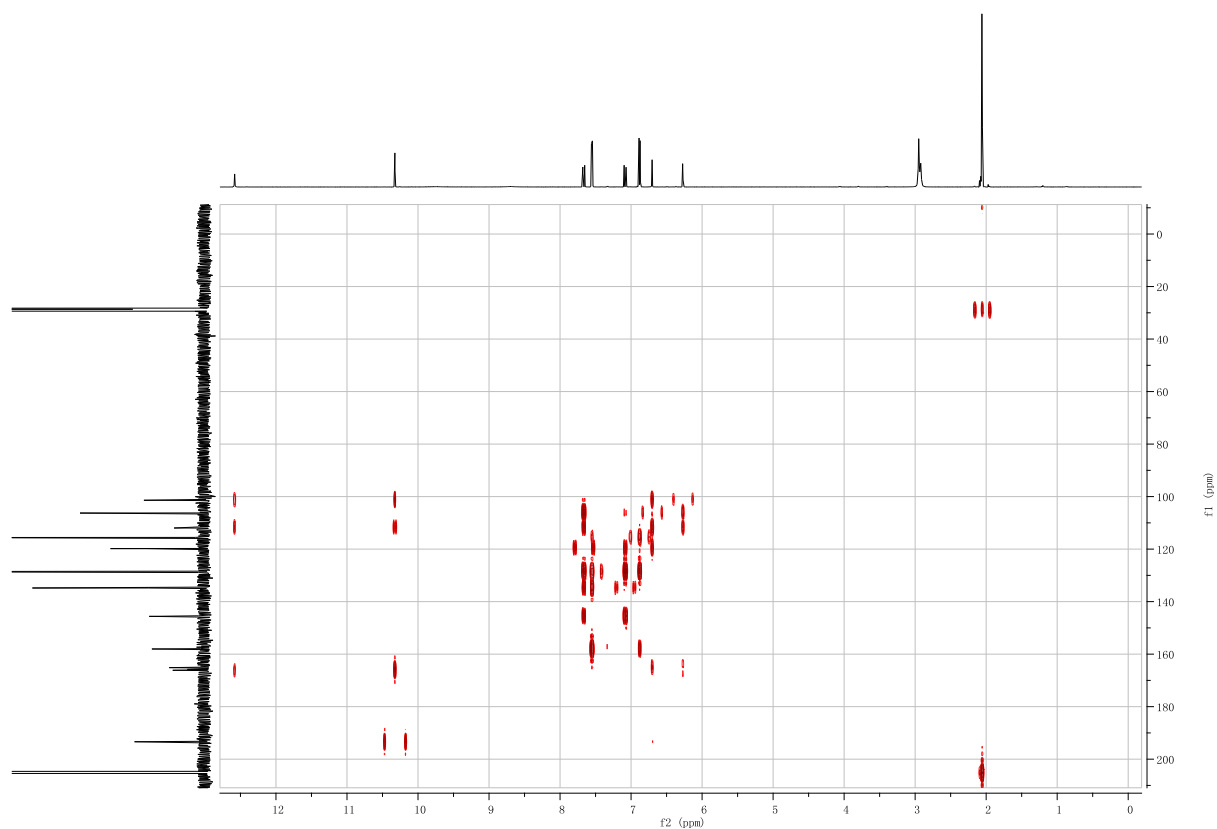
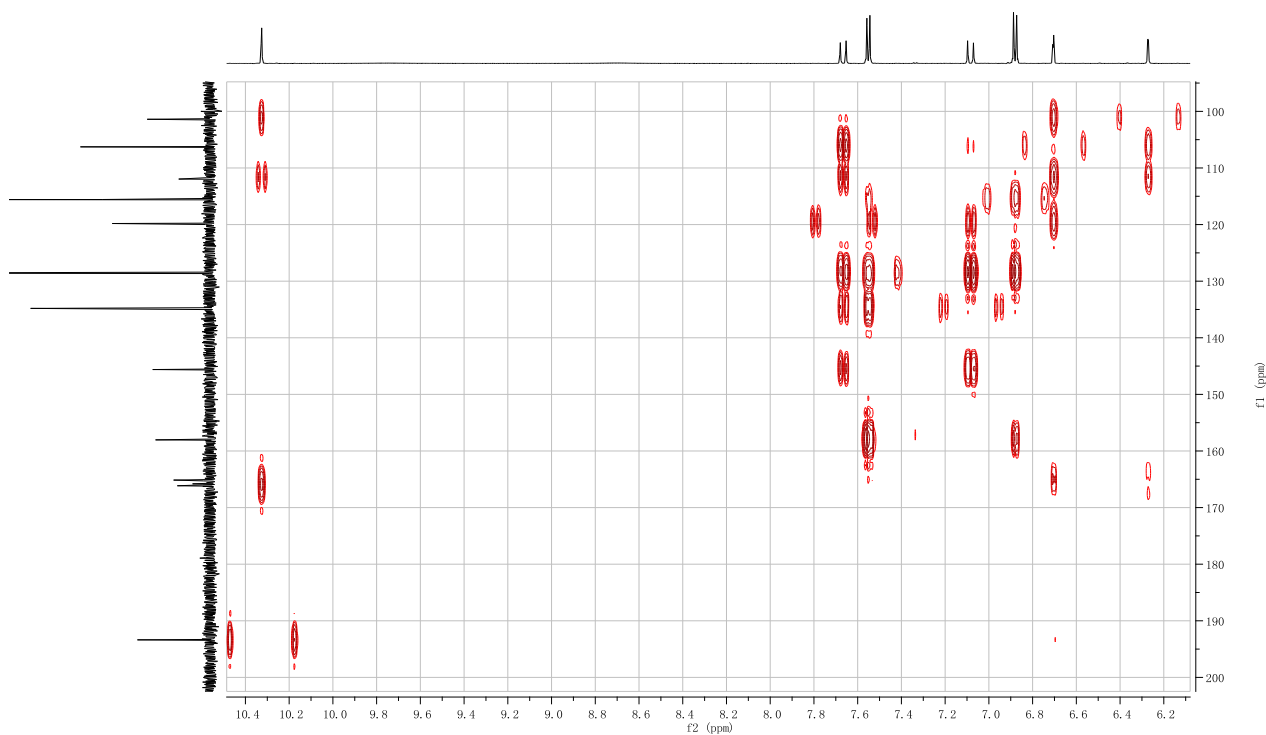
Figure S21. HMBC spectrum (600/150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.**Figure S22.** Expansion of HMBC spectrum (600/150 MHz) of compound **3** in $(\text{CD}_3)_2\text{CO}$.

Figure S23. HRESIMS spectrum of compound 3.

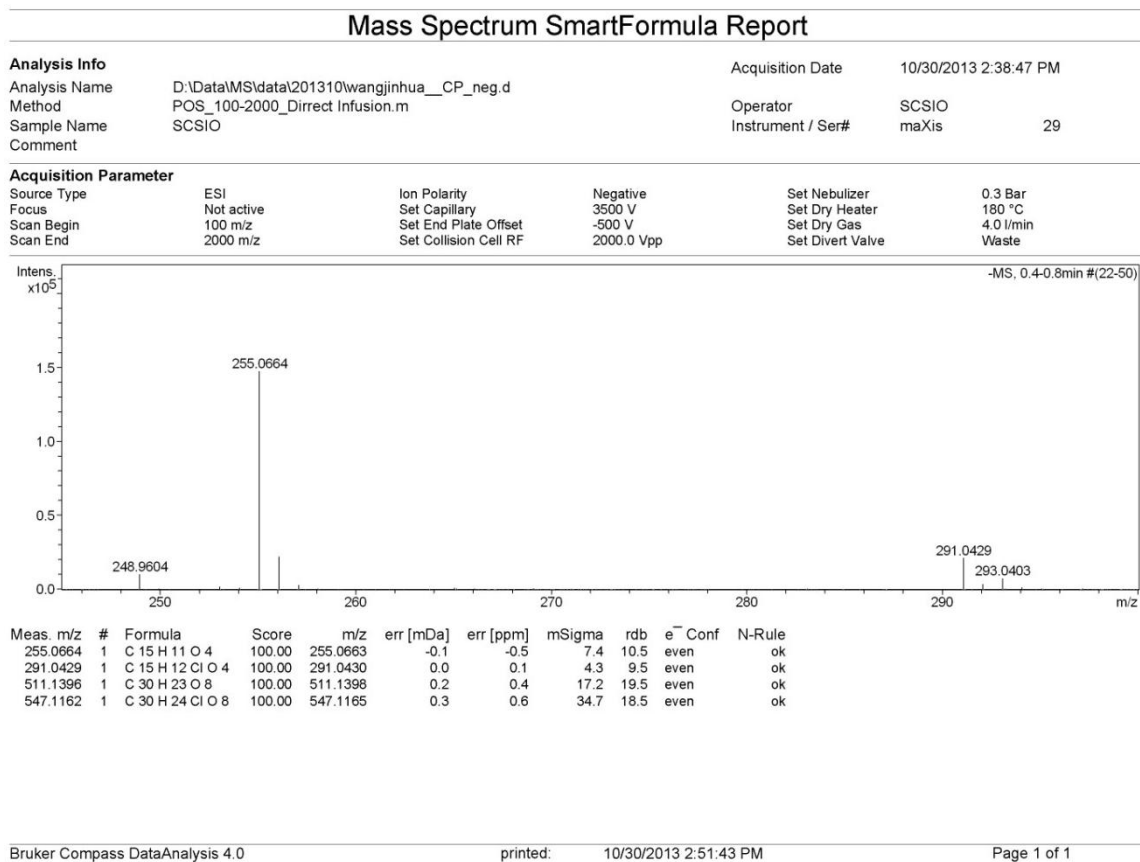


Figure S24. IR spectrum of compound 3.

