

Supporting information

An Organometallic Hybrid Antibiotic of Metronidazole with a Gold(I) N-Heterocyclic Carbene Overcomes Metronidazole Resistance in *Clostridioides difficile*

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Antibacterial effects of **2b** against different strains of *C. difficile*

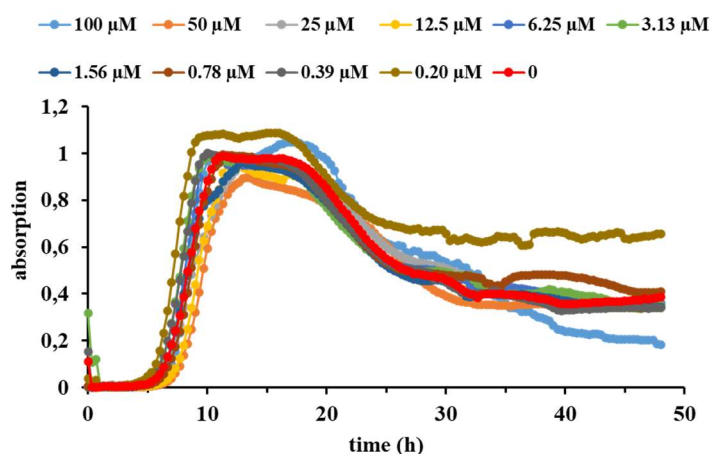


Figure S1: Antibacterial effects of **2b** in dosages from 0.2 to 100 μM against the *C. difficile* strain 1296^T

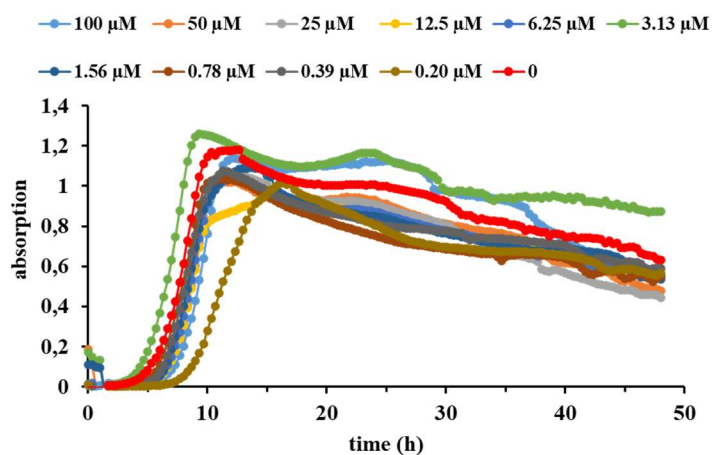


Figure S2: Antibacterial effects of **2b** in dosages from 0.2 to 100 μM against the *C. difficile* strain VPI10463

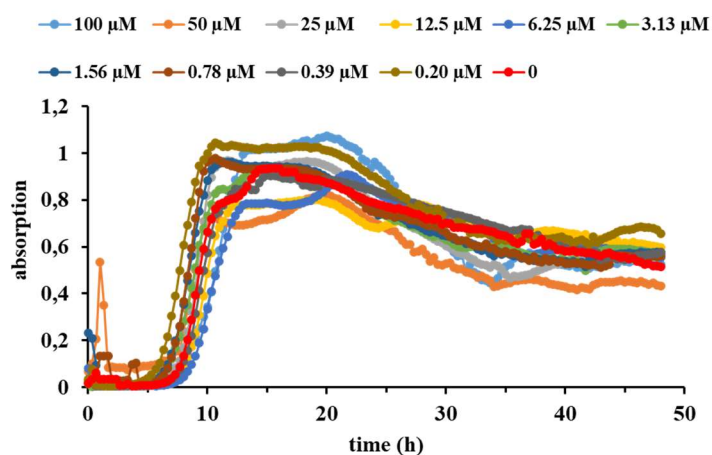


Figure S3: Antibacterial effects of **2b** in dosages from 0.2 to 100 μM against the *C. difficile* strain IB136 (NCTC 14385)

NMR Spectra

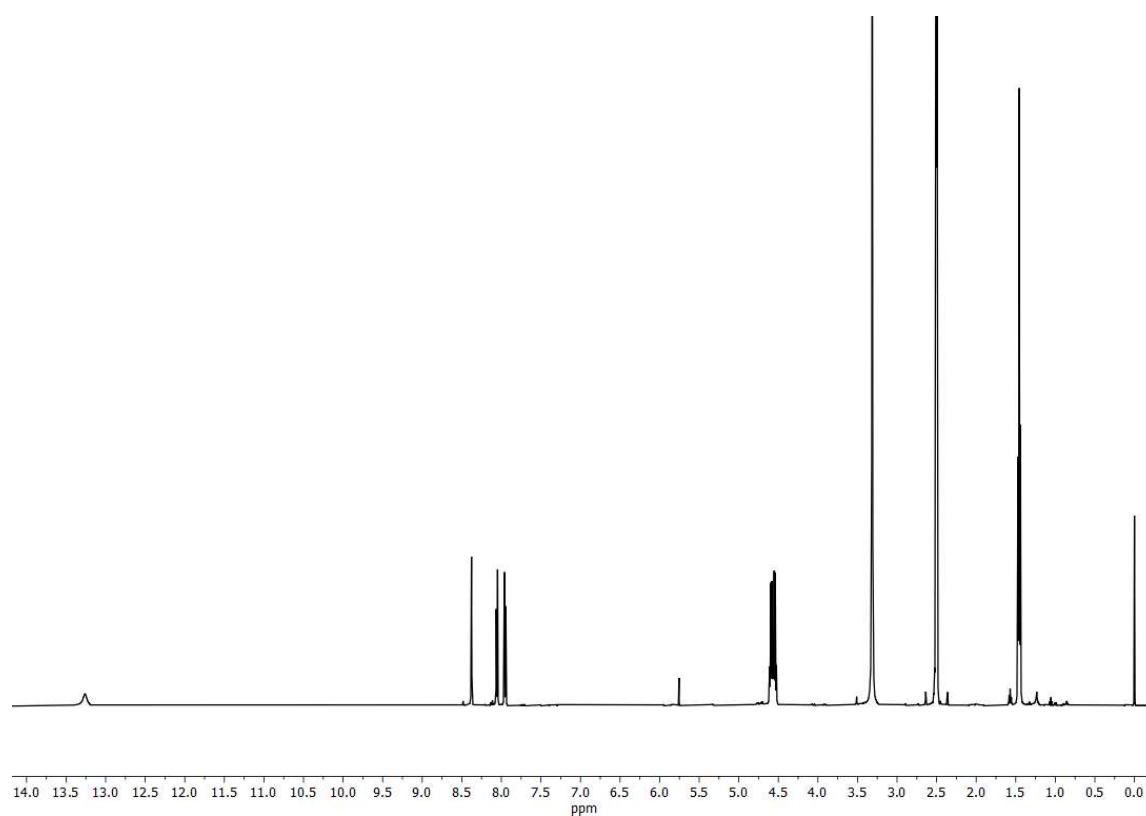


Figure S4: ^1H -NMR spectrum (400.4 MHz, $\text{DMSO}-d_6$) of **1b**

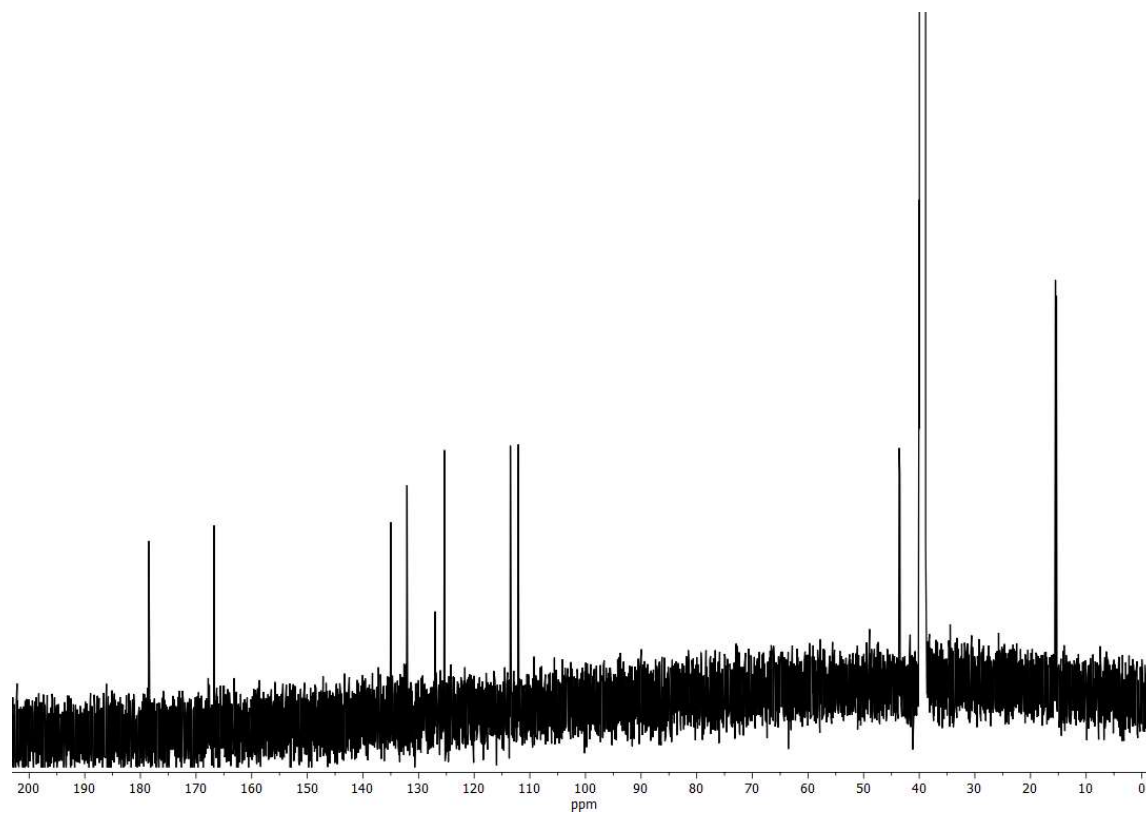


Figure S5: ^{13}C -NMR spectrum (100.7 MHz, $\text{DMSO}-d_6$) of **1b**

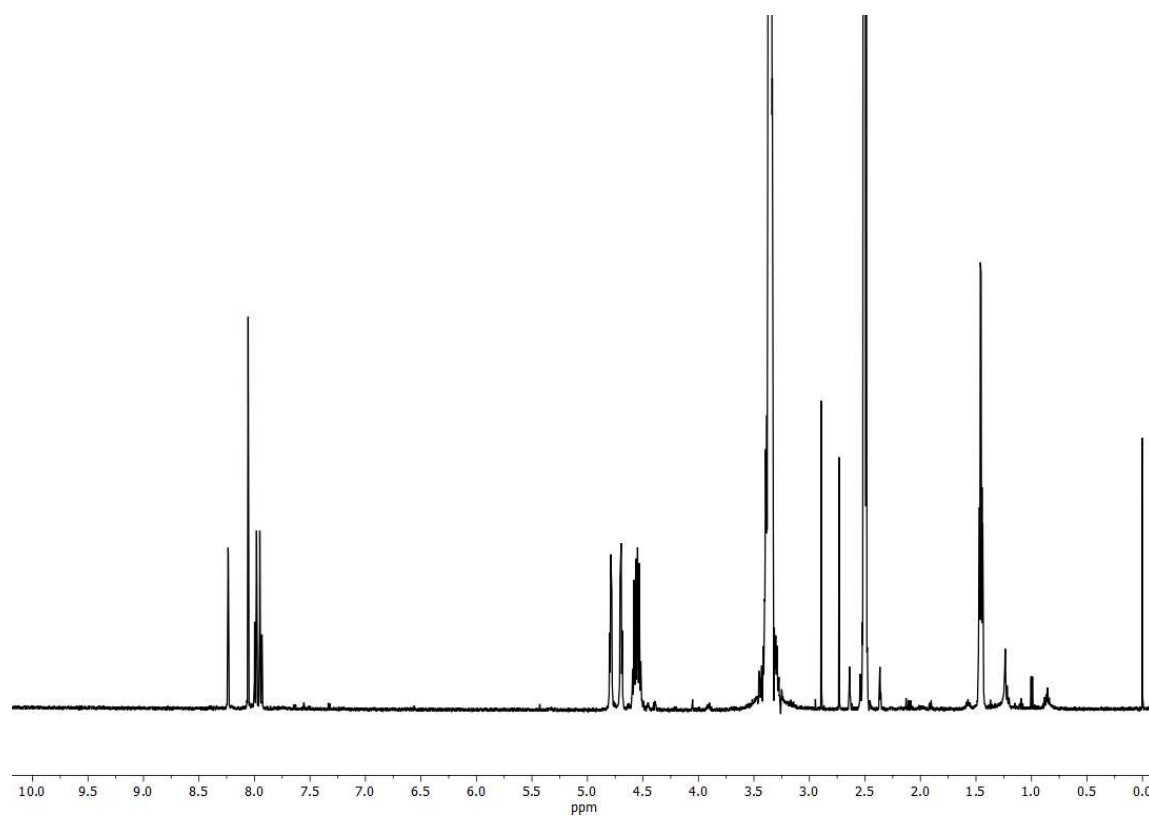


Figure S6: ^1H -NMR spectrum (500.3 MHz, $\text{DMSO-}d_6$) of **1c**

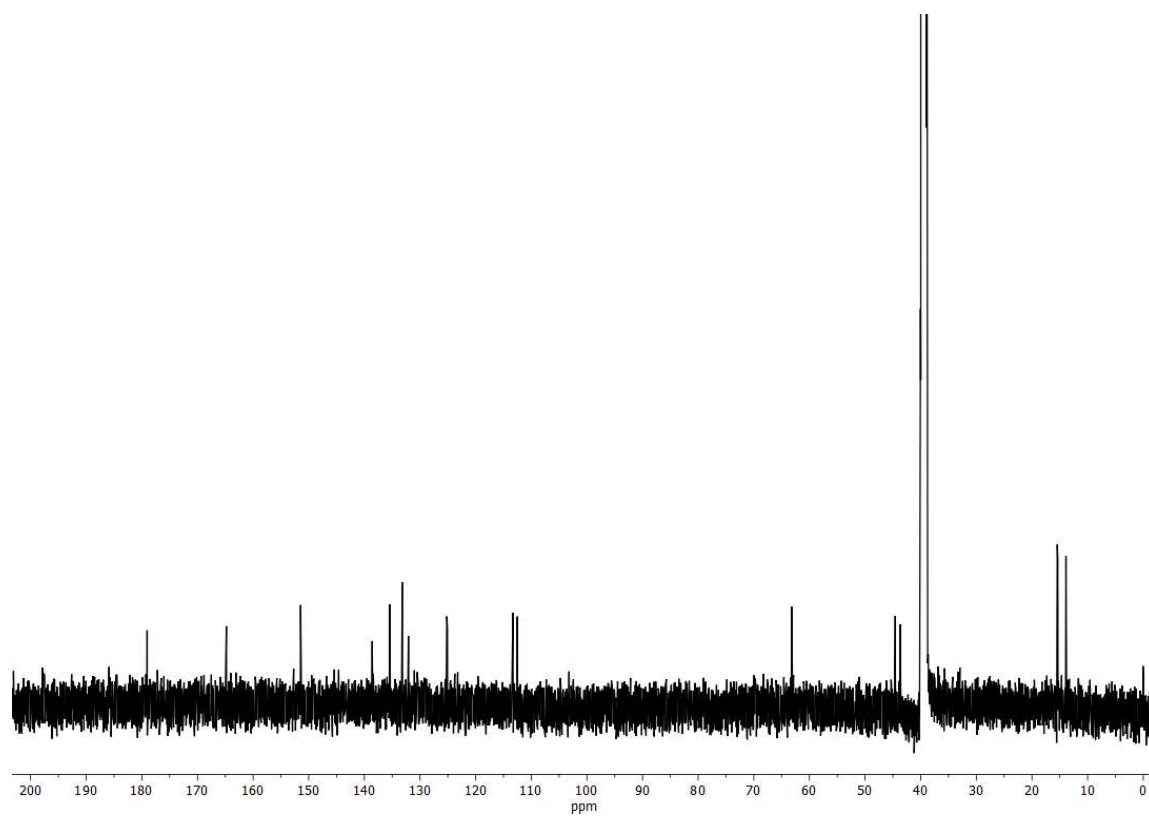


Figure S7: ^{13}C -NMR spectrum (125.8 MHz, $\text{DMSO-}d_6$) of **1c**

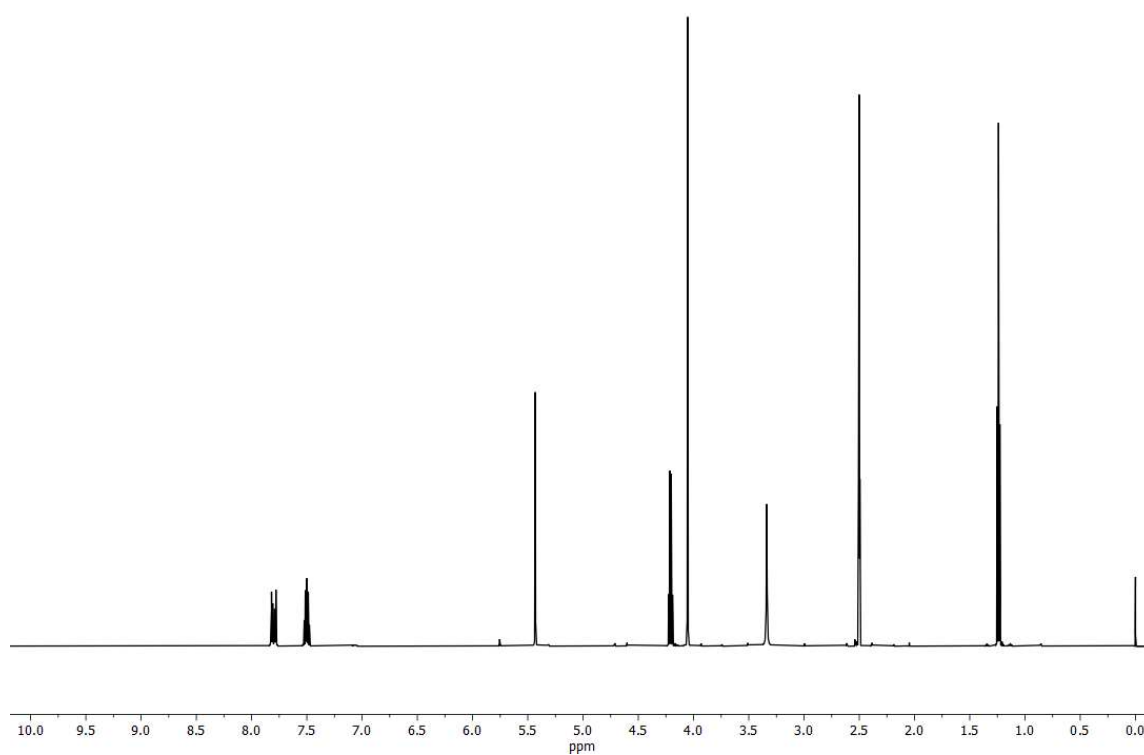


Figure S8: ^1H -NMR spectrum (600.1 MHz, $\text{DMSO}-d_6$) of **2a**

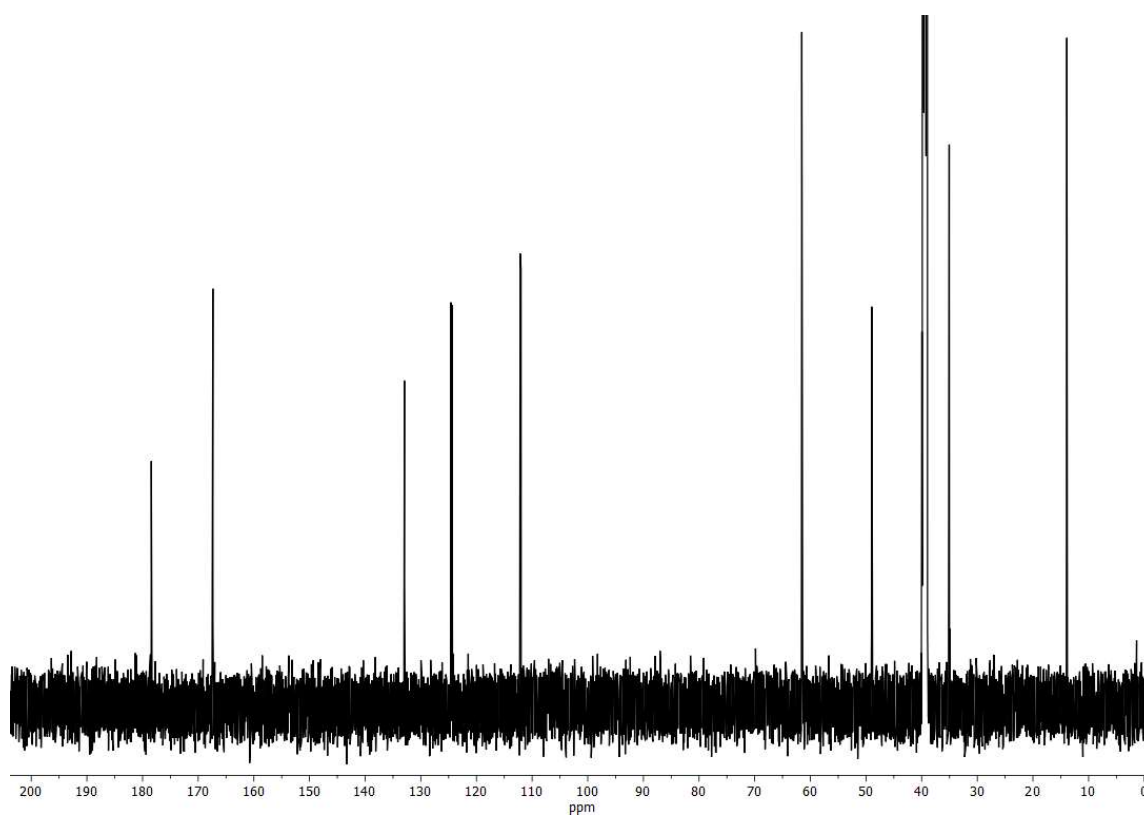


Figure S9: ^{13}C -NMR spectrum (150.9 MHz, $\text{DMSO}-d_6$) of **2a**

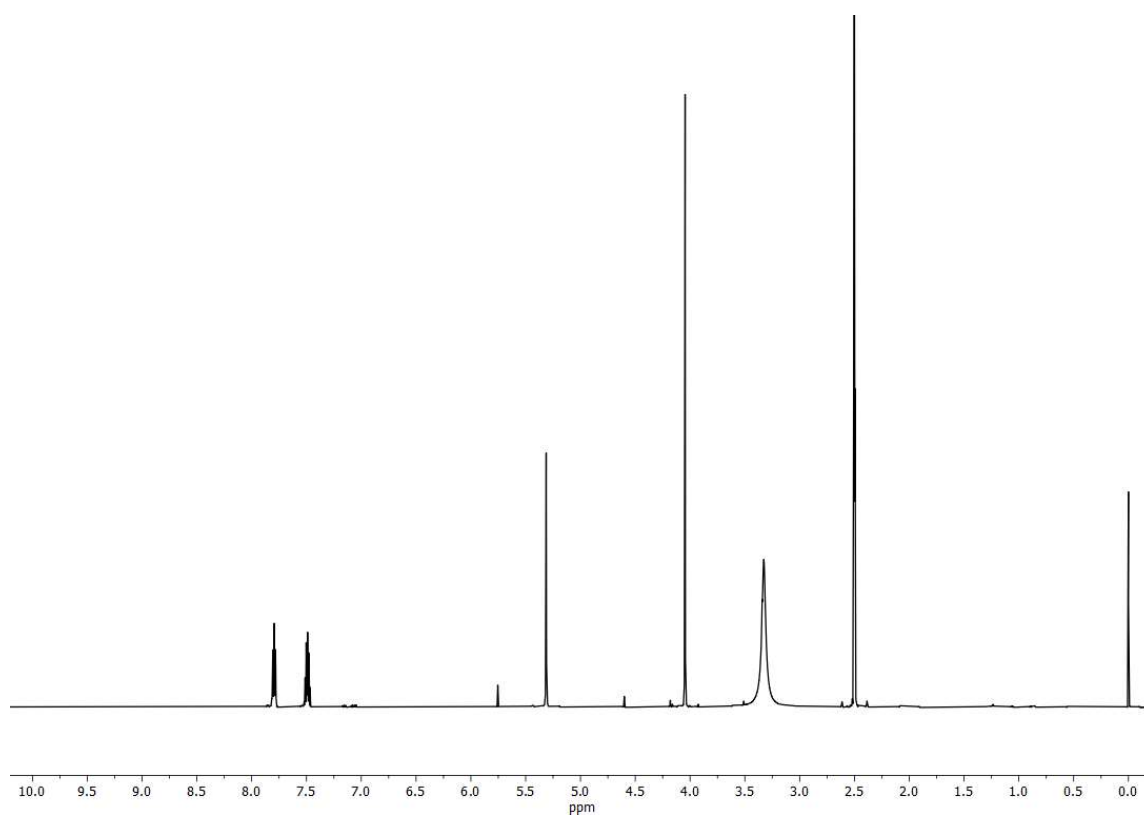


Figure S10: ^1H -NMR spectrum (500.3 MHz, $\text{DMSO-}d_6$) of **2b**

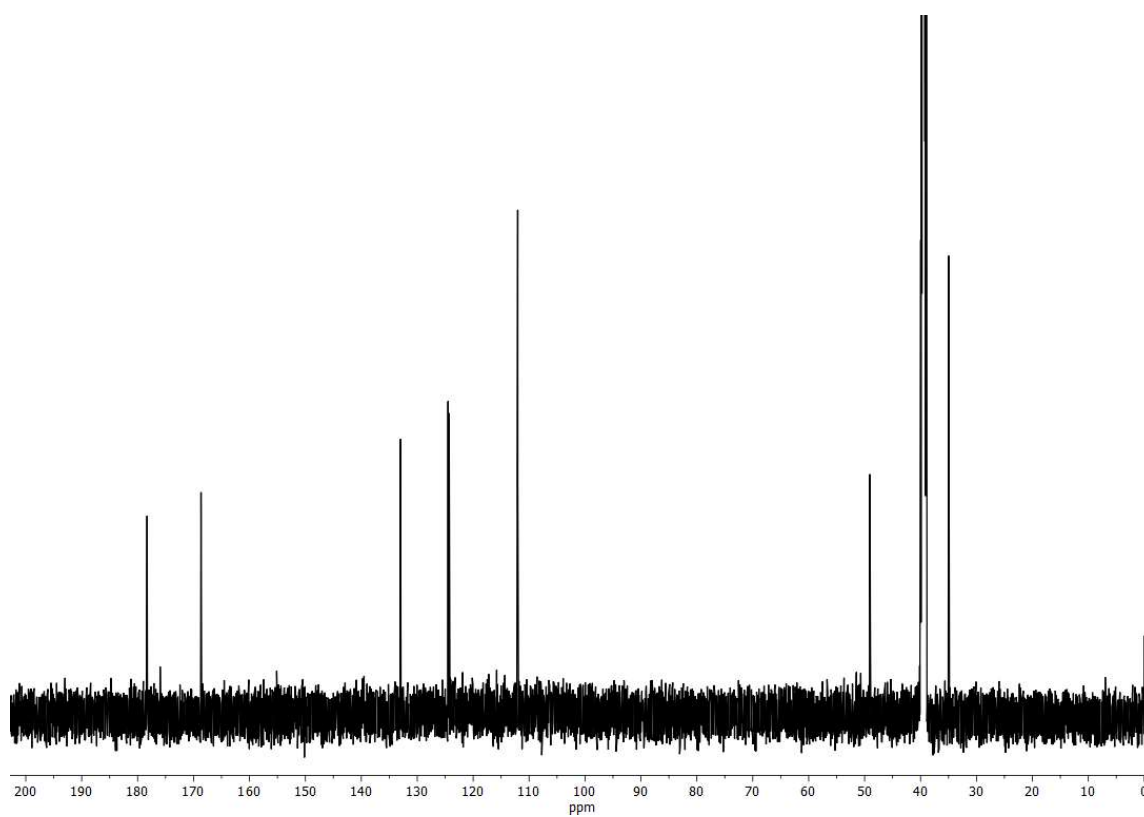


Figure S11: ^{13}C -NMR spectrum (125.8 MHz, $\text{DMSO-}d_6$) of **2b**

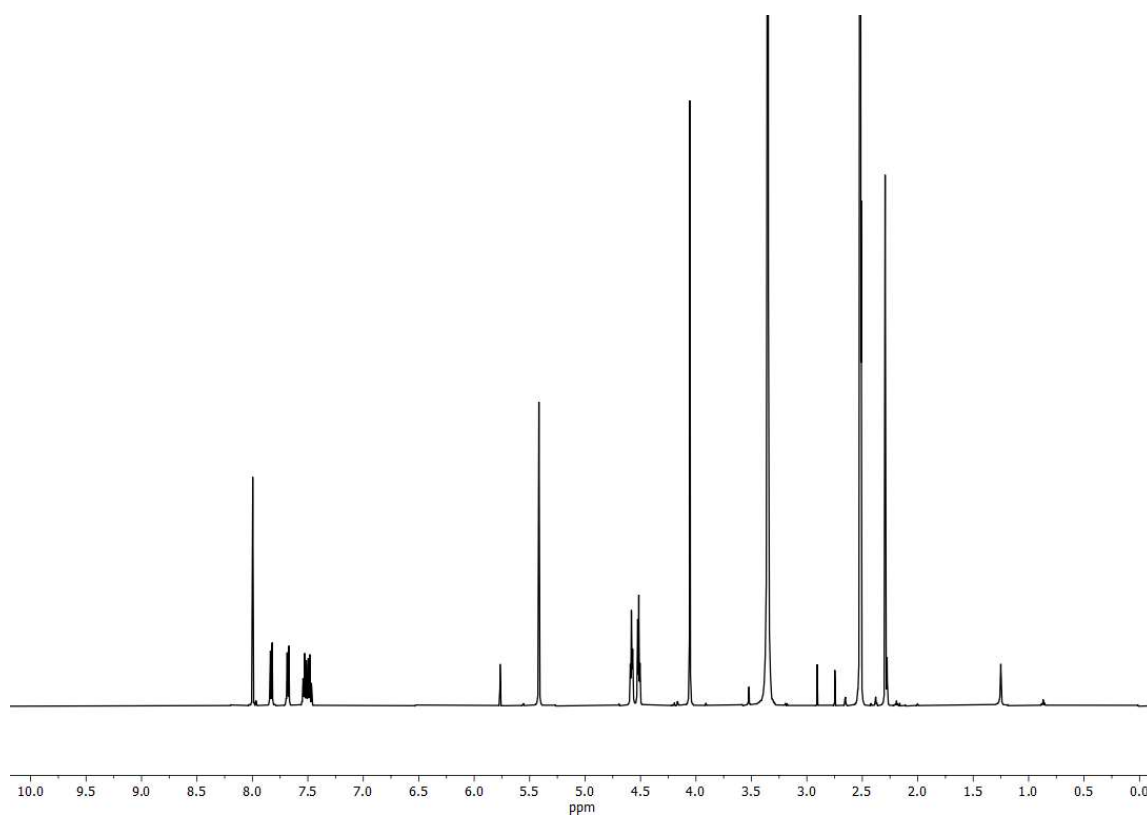


Figure S12: ^1H -NMR spectrum (500.3 MHz, $\text{DMSO}-d_6$) of **2c**

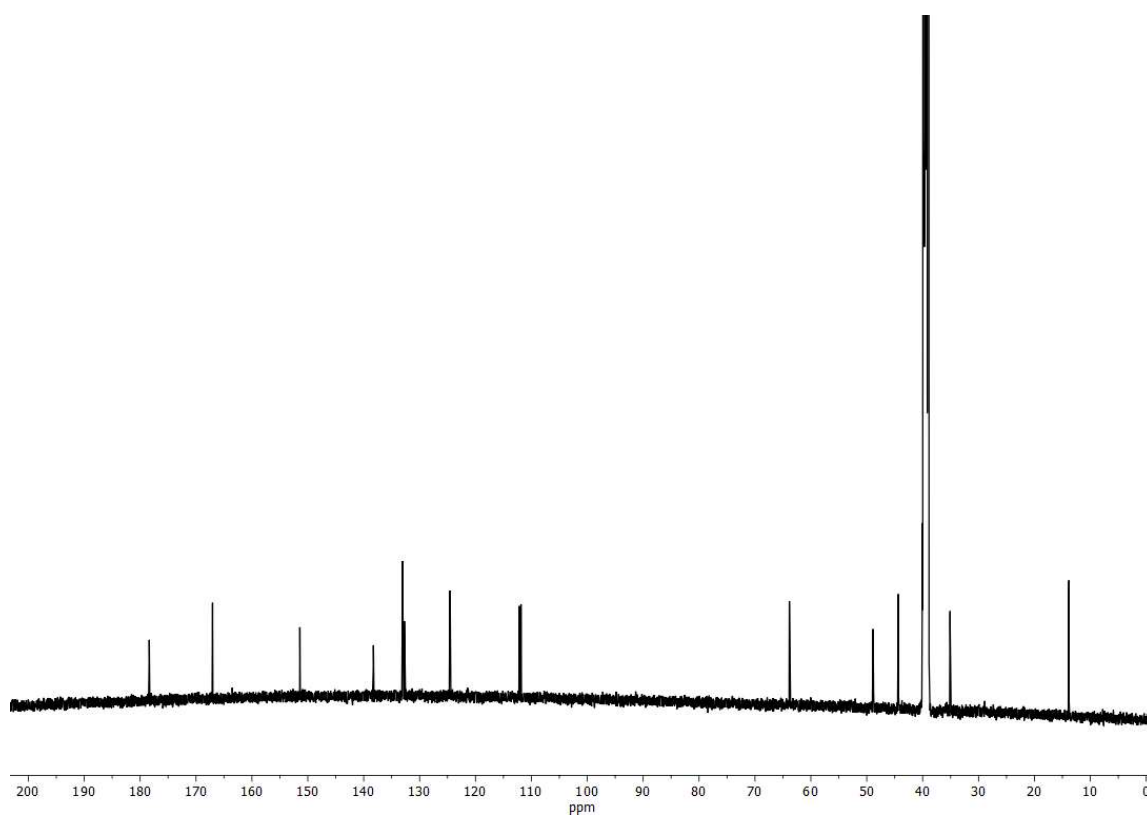


Figure S13: ^{13}C -NMR spectrum (125.8 MHz, $\text{DMSO}-d_6$) of **2c**