

Supplementary Material

Solid-state ^2H NMR Study for Deuterated Phenylene Dynamics in a Crystalline Gyroscope-like Molecule

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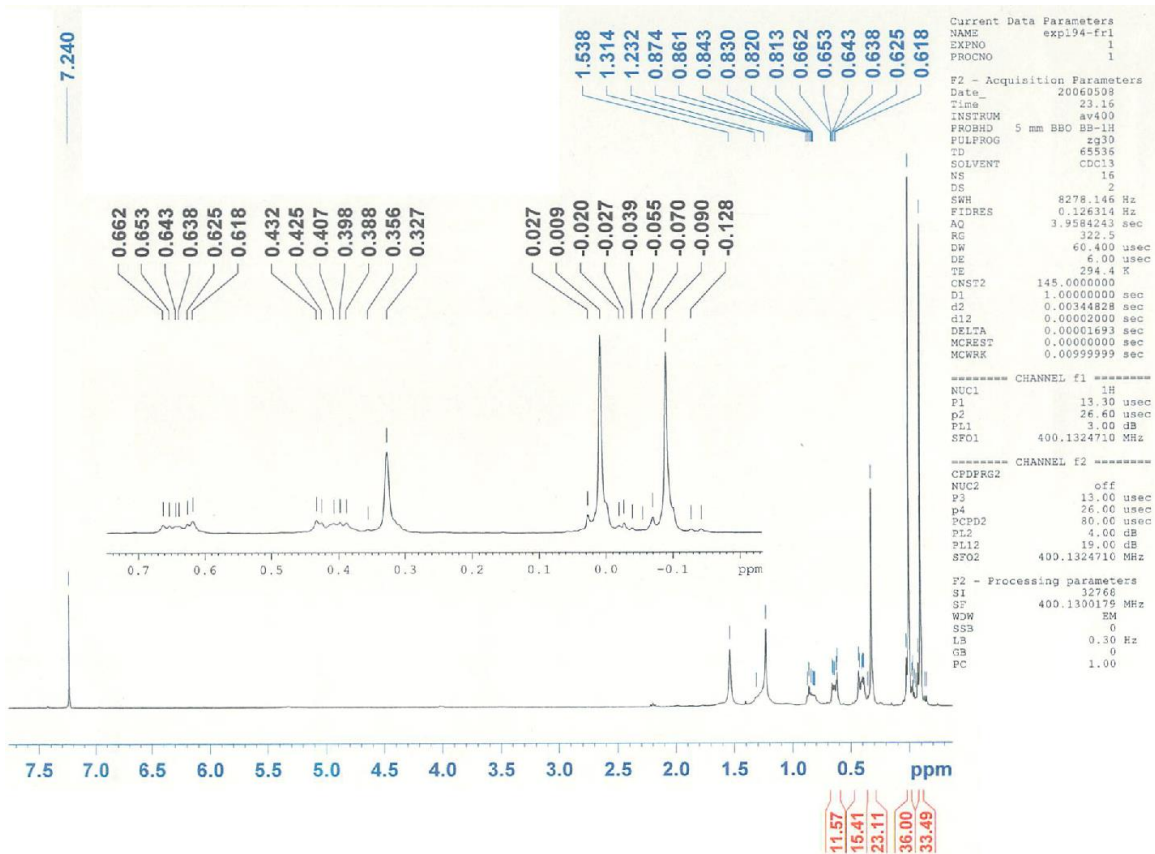


Figure S1: ¹H NMR spectrum of deuterated gyroscope-like molecule 1-d₄.

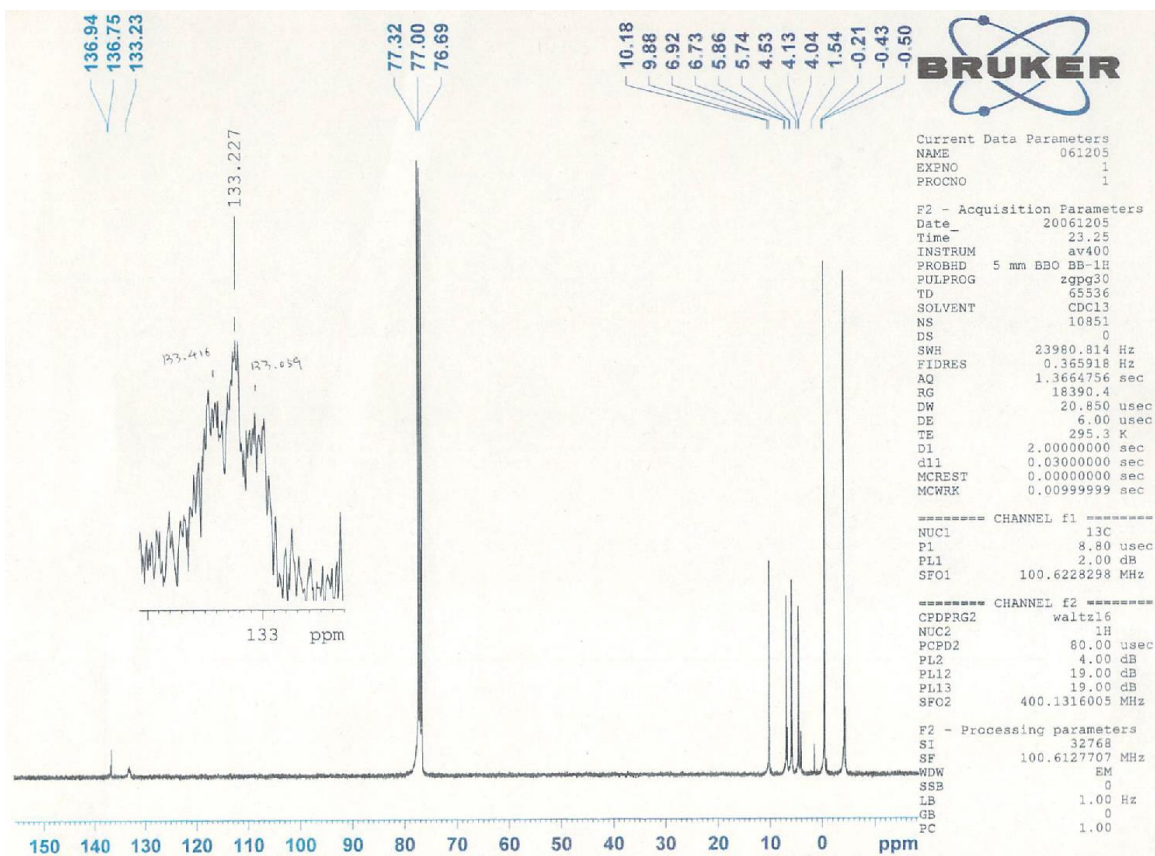


Figure S2: ¹³C NMR spectrum of deuterated gyroscope-like molecule 1-d₄.

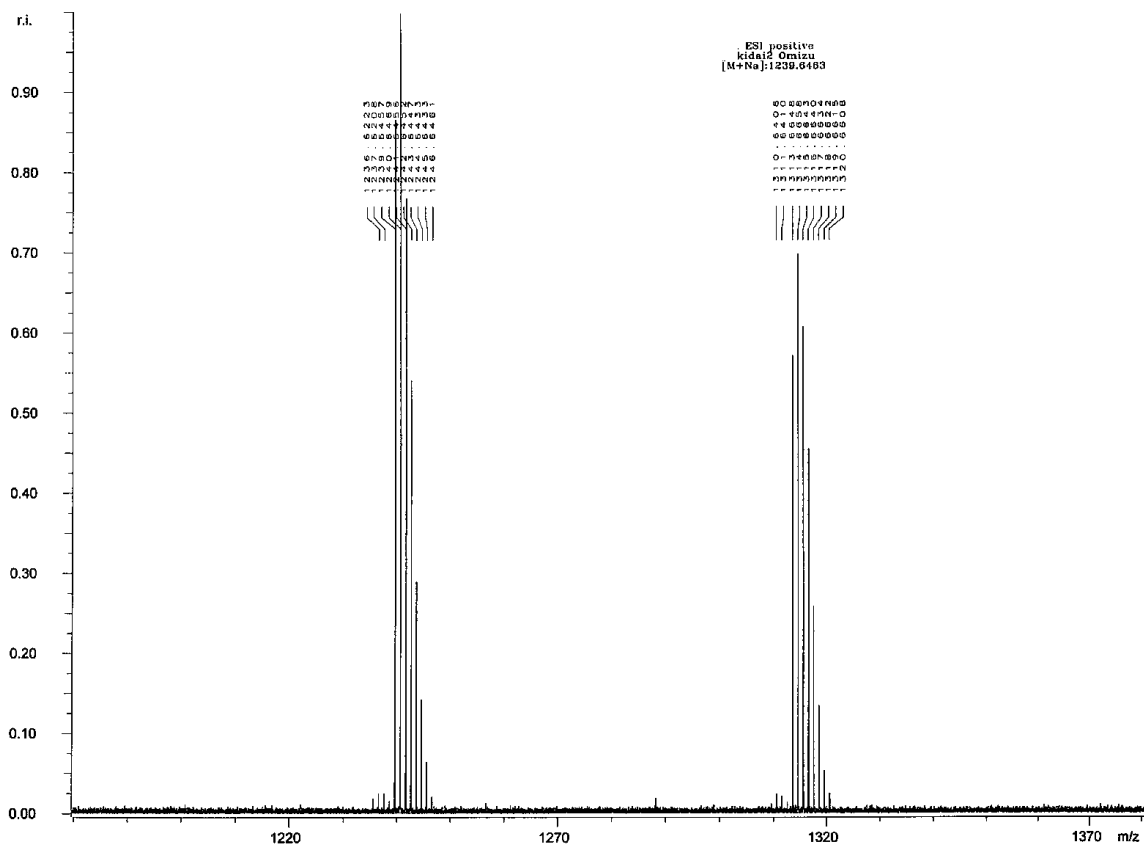


Figure S3: HRMS spectrum of deuterated gyroscope-like molecule $1-d_4$.

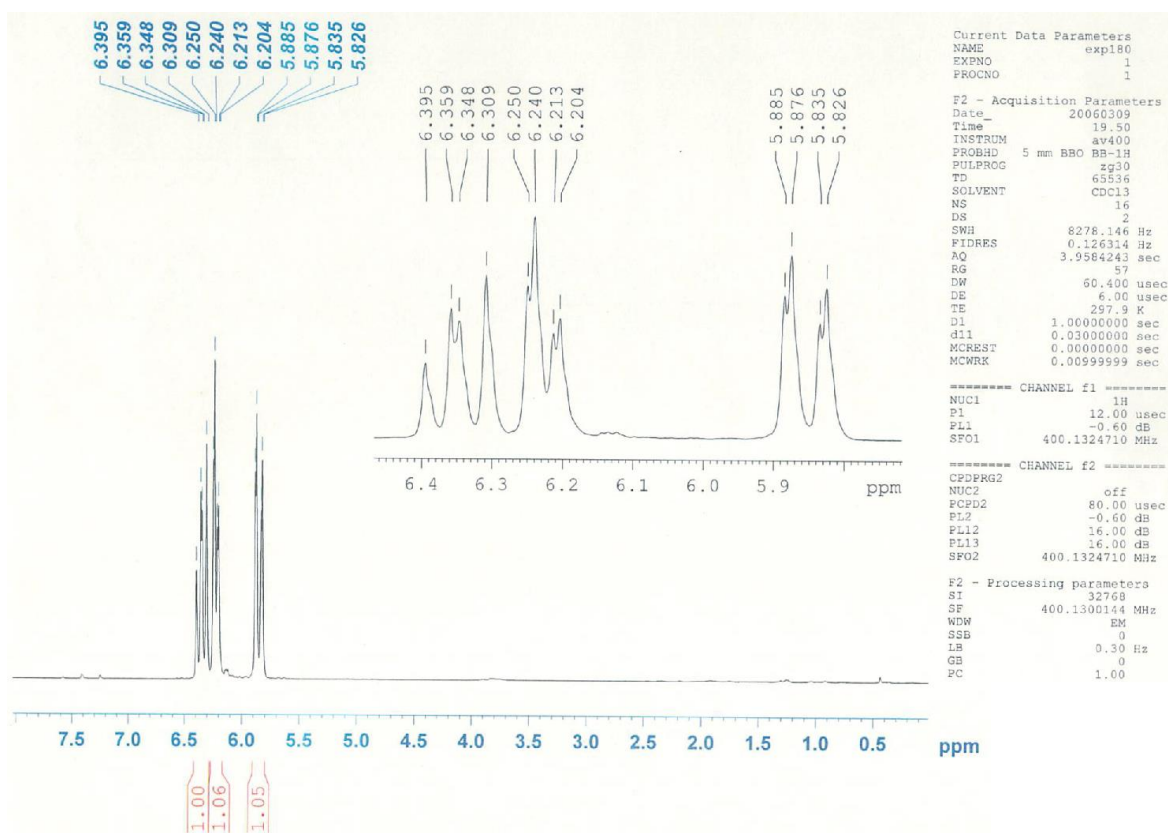


Figure S4: ^1H NMR spectrum of $2-d_4$.

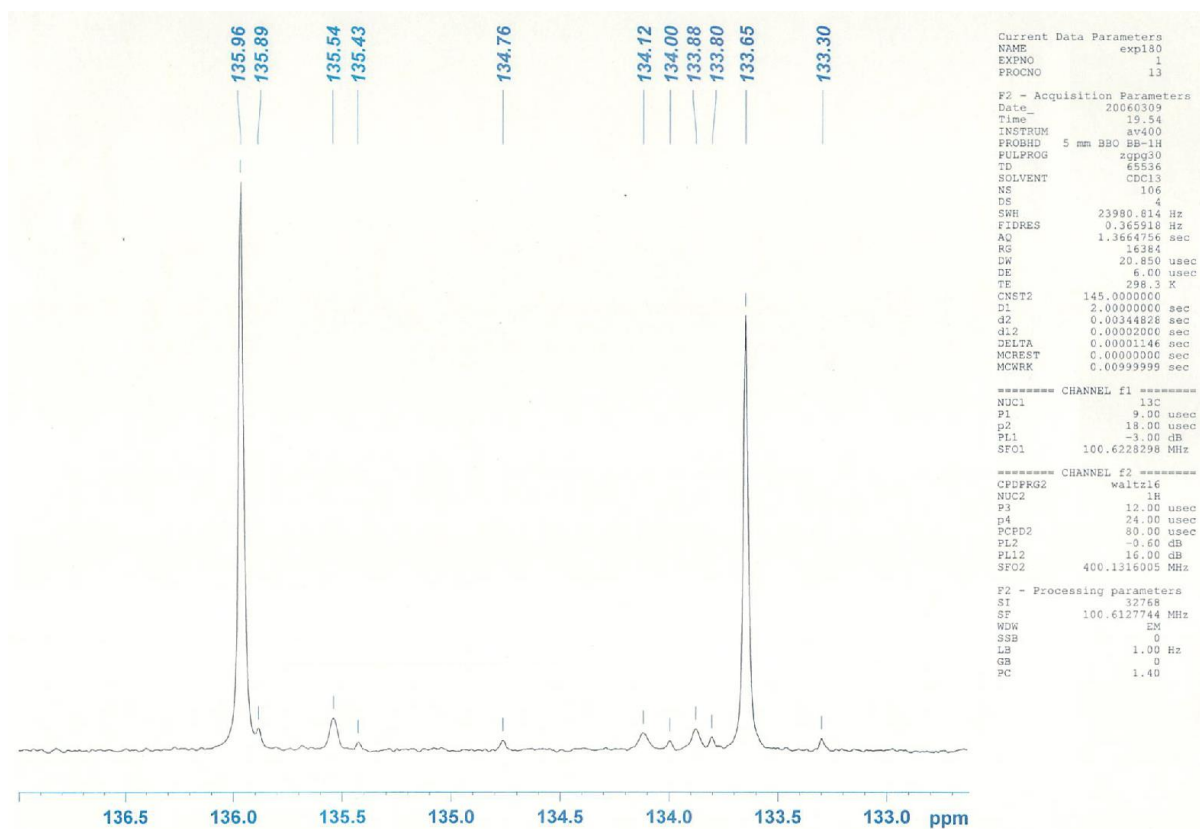


Figure S5: ^{13}C NMR spectrum of $2\text{-}d_4$.

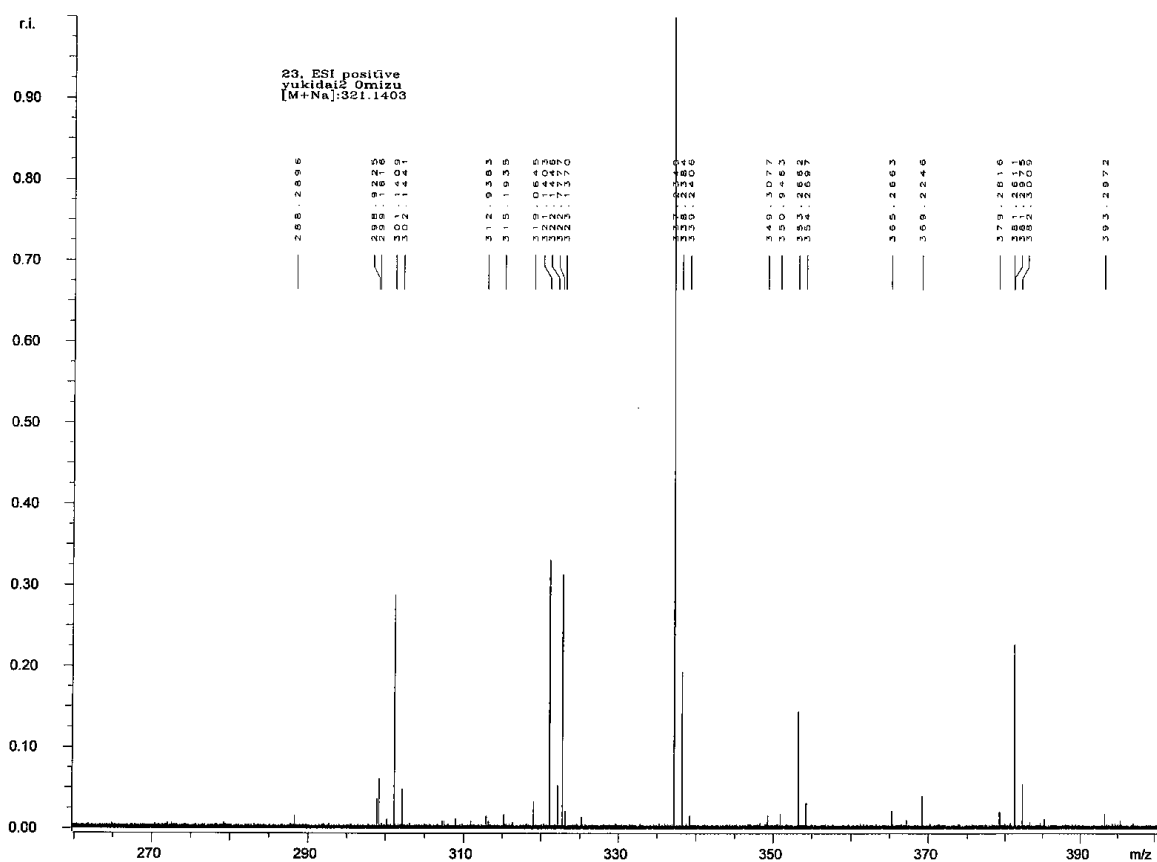


Figure S6: HRMS spectrum of $2\text{-}d_4$.

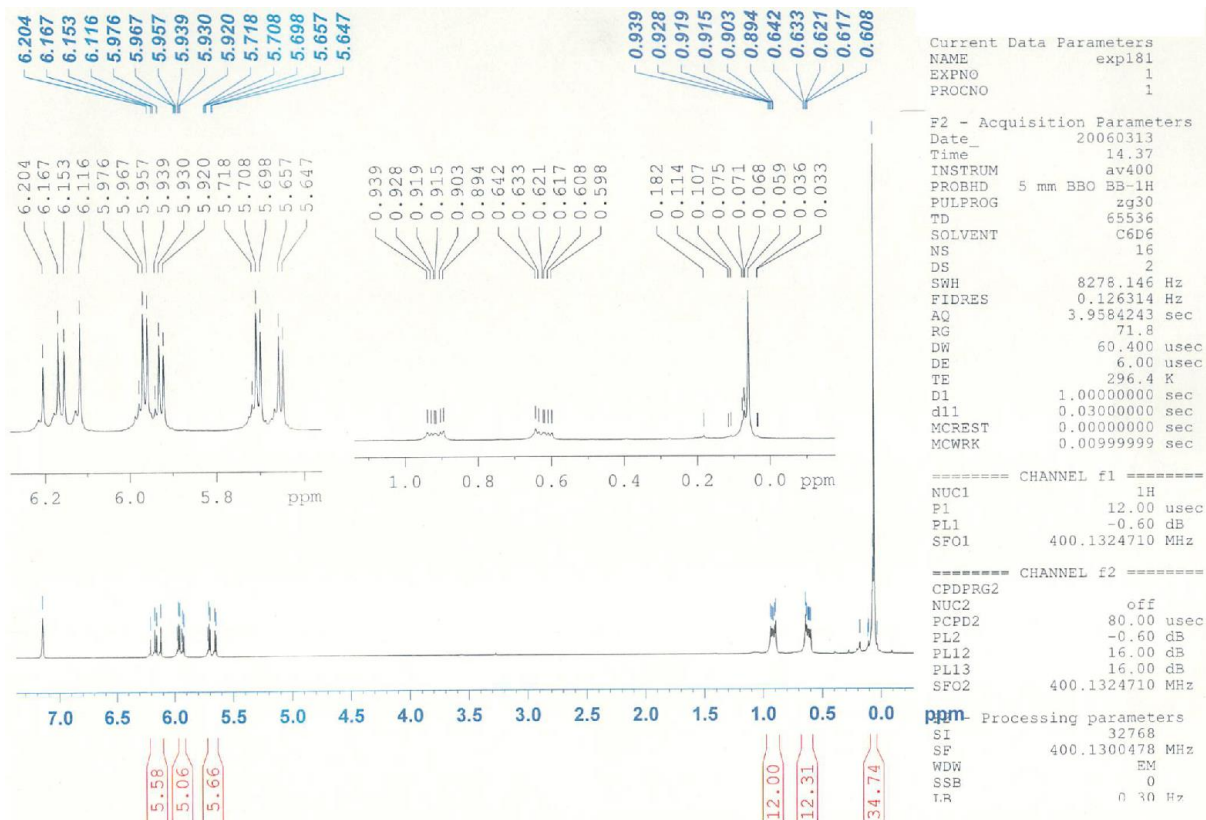


Figure S7: ^1H NMR spectrum of $3\text{-}d_4$.

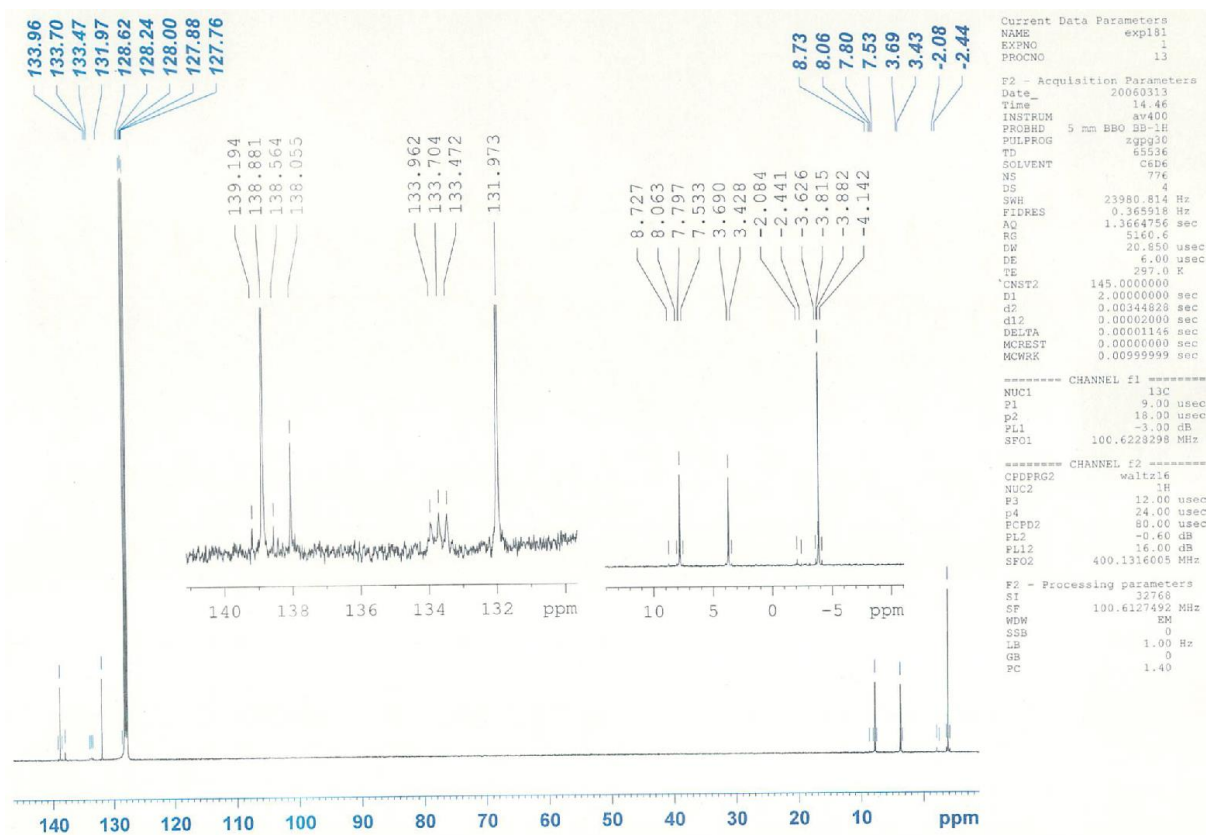


Figure S8: ^{13}C NMR spectrum of $3\text{-}d_4$.

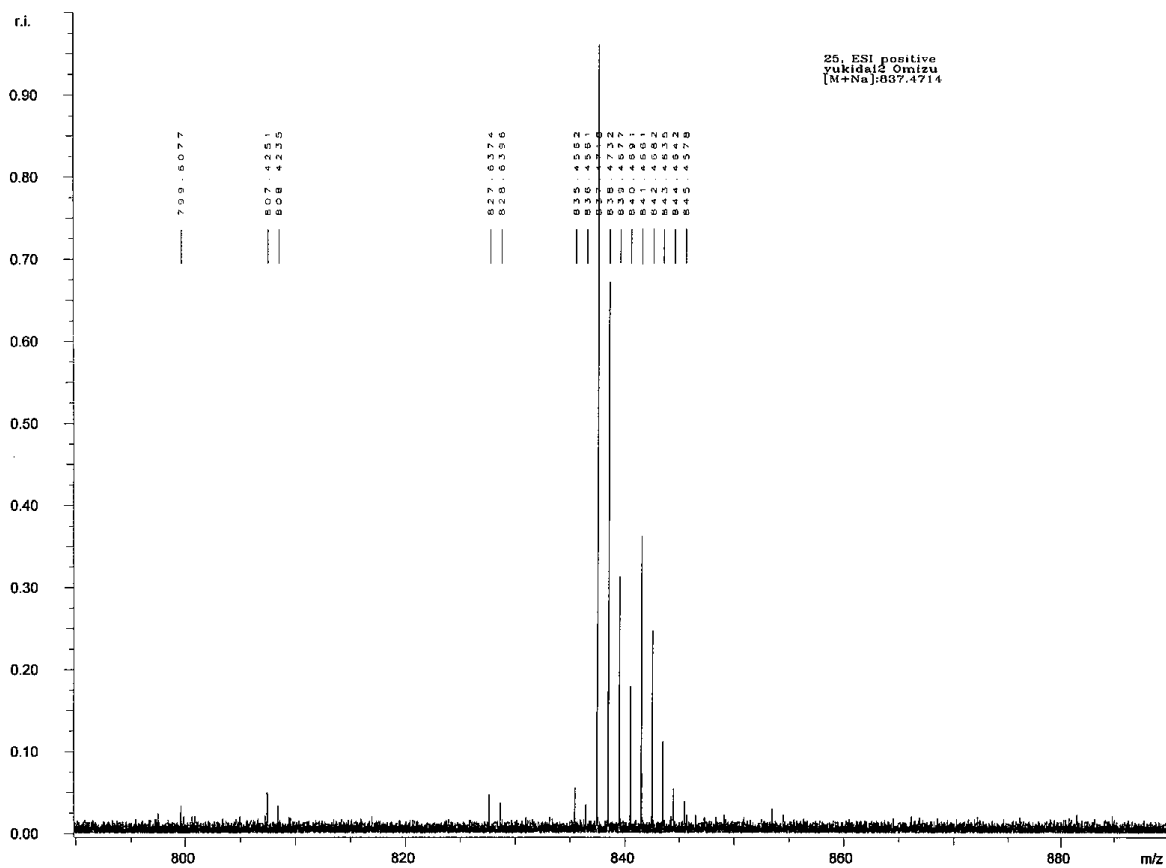


Figure S9: HRMS spectrum of 3- d_4 .

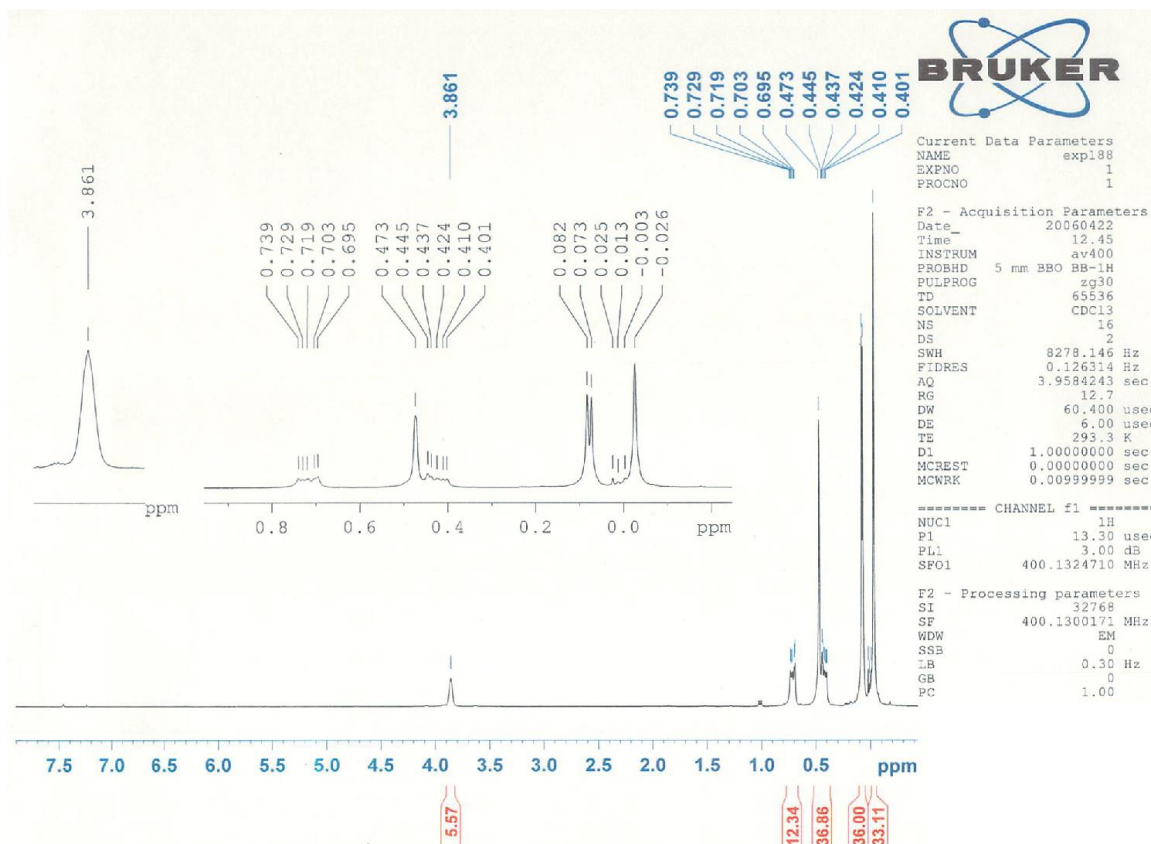


Figure S10: ^1H NMR spectrum of 4- d_4 .

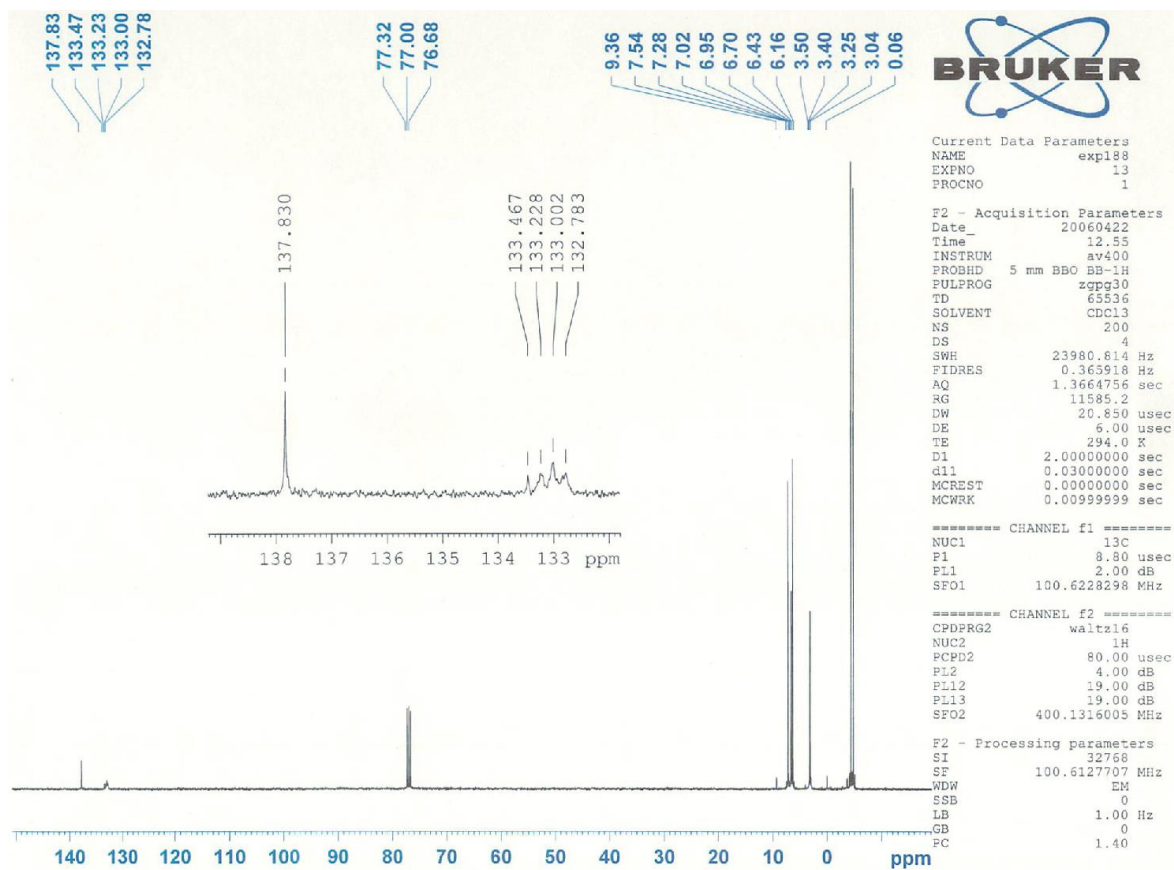


Figure S11: ¹³C NMR spectrum of 4-*d*₄.

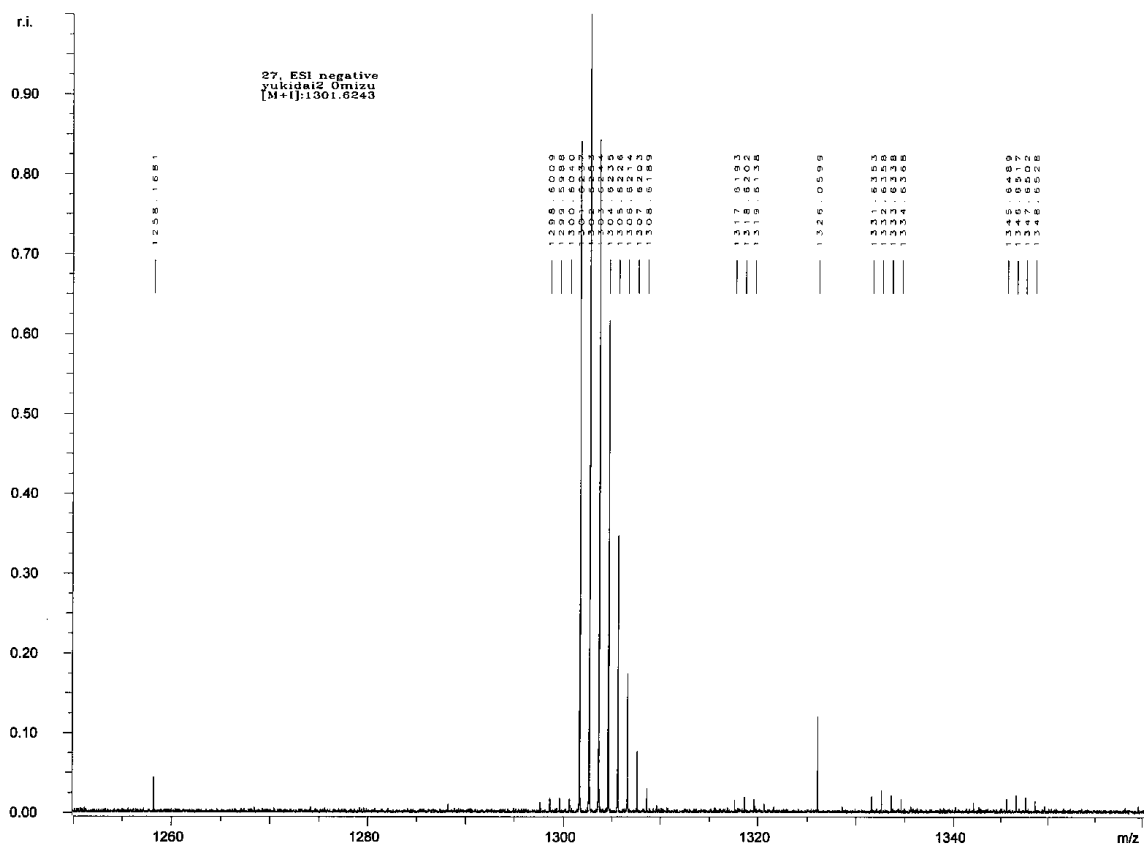


Figure S12: HRMS spectrum of 4-*d*₄.