



Supporting Information

for

New α - and β -cyclodextrin derivatives with cinchona alkaloids used in asymmetric organocatalytic reactions

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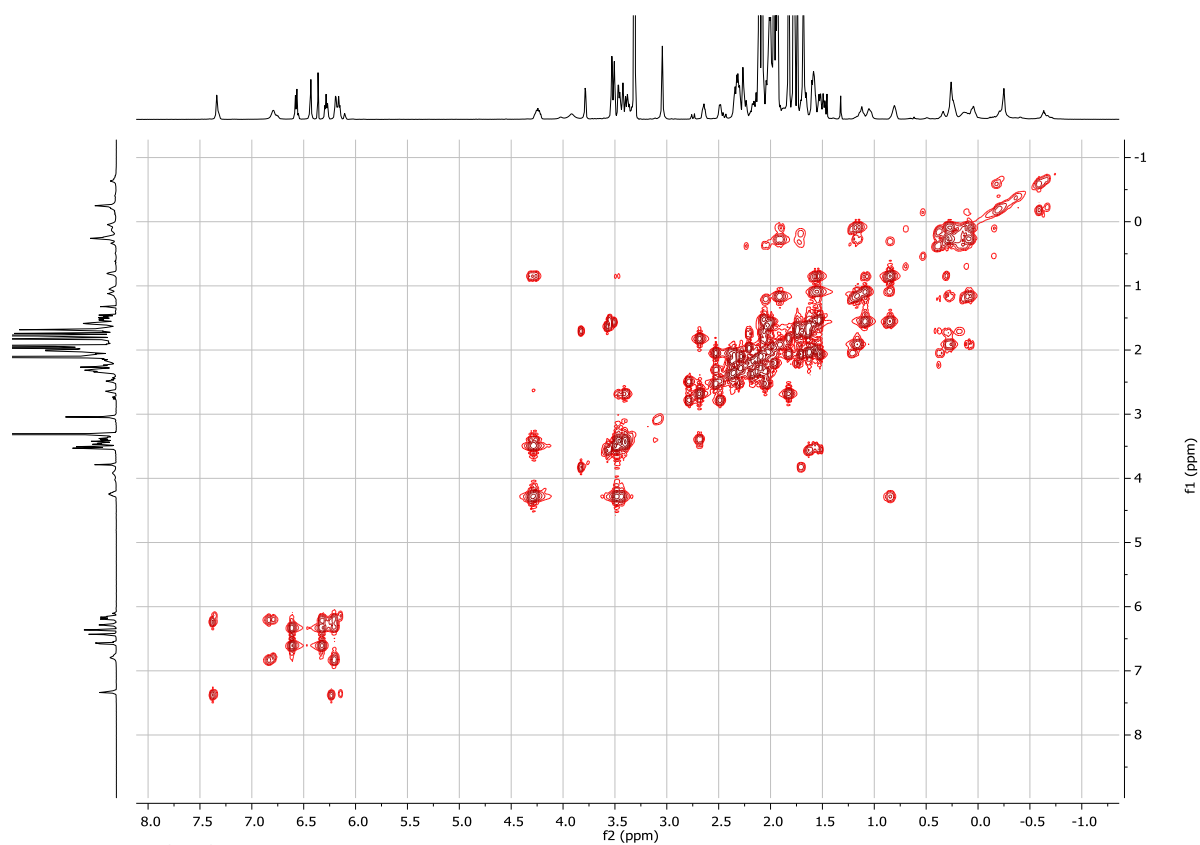
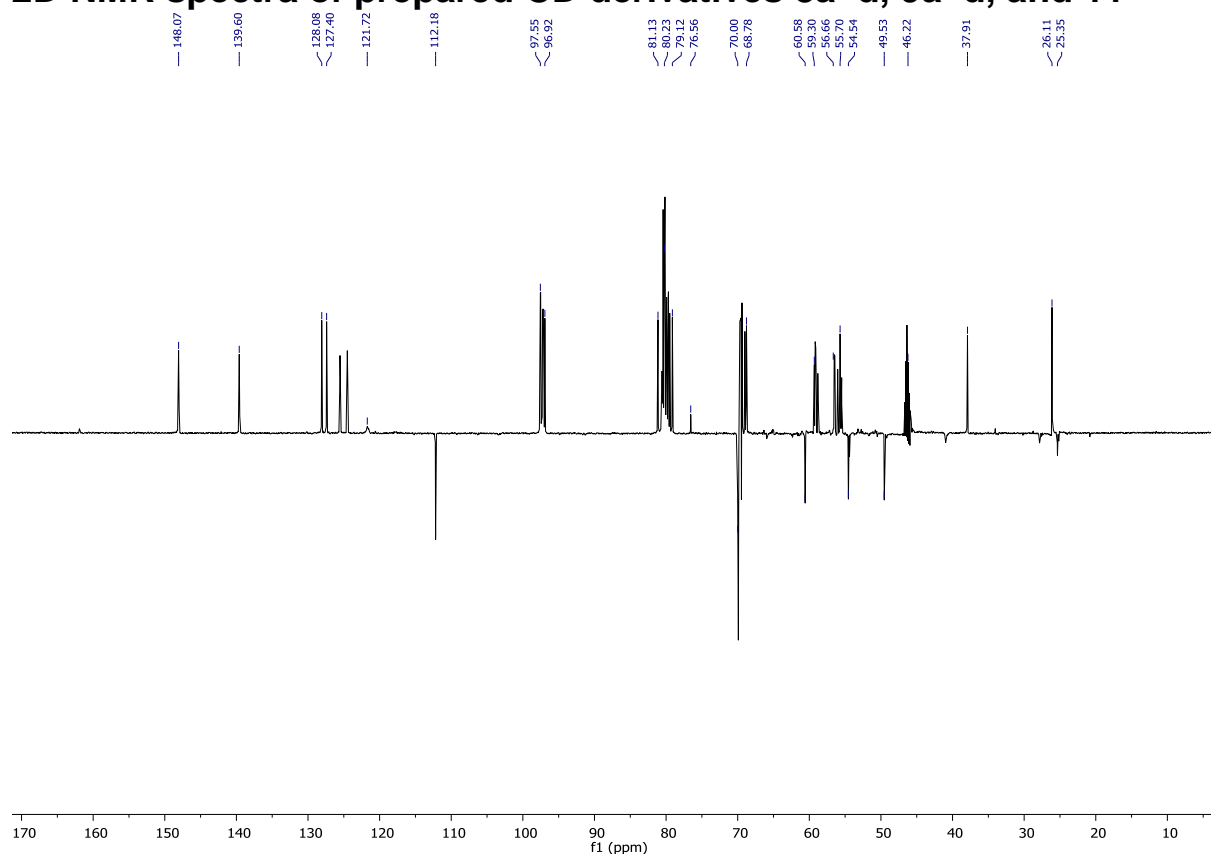
Beilstein J. Org. Chem. **2019**, *15*, 830–839. doi:10.3762/bjoc.15.80

2D NMR spectra of compounds 8a–d, 9a–d and 11

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2D NMR spectra of prepared CD derivatives 8a–d, 9a–d, and 11



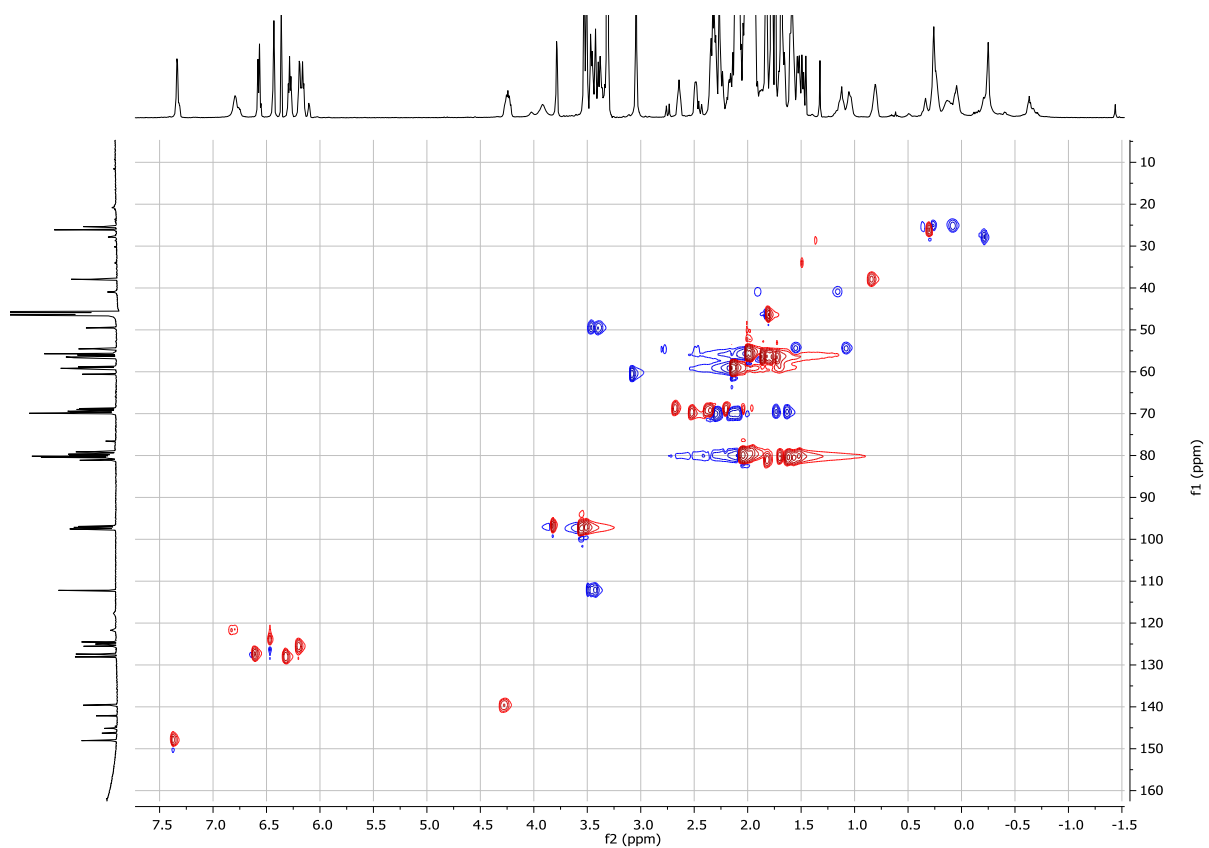


Figure S3: HSQC spectrum of compound **8a**.

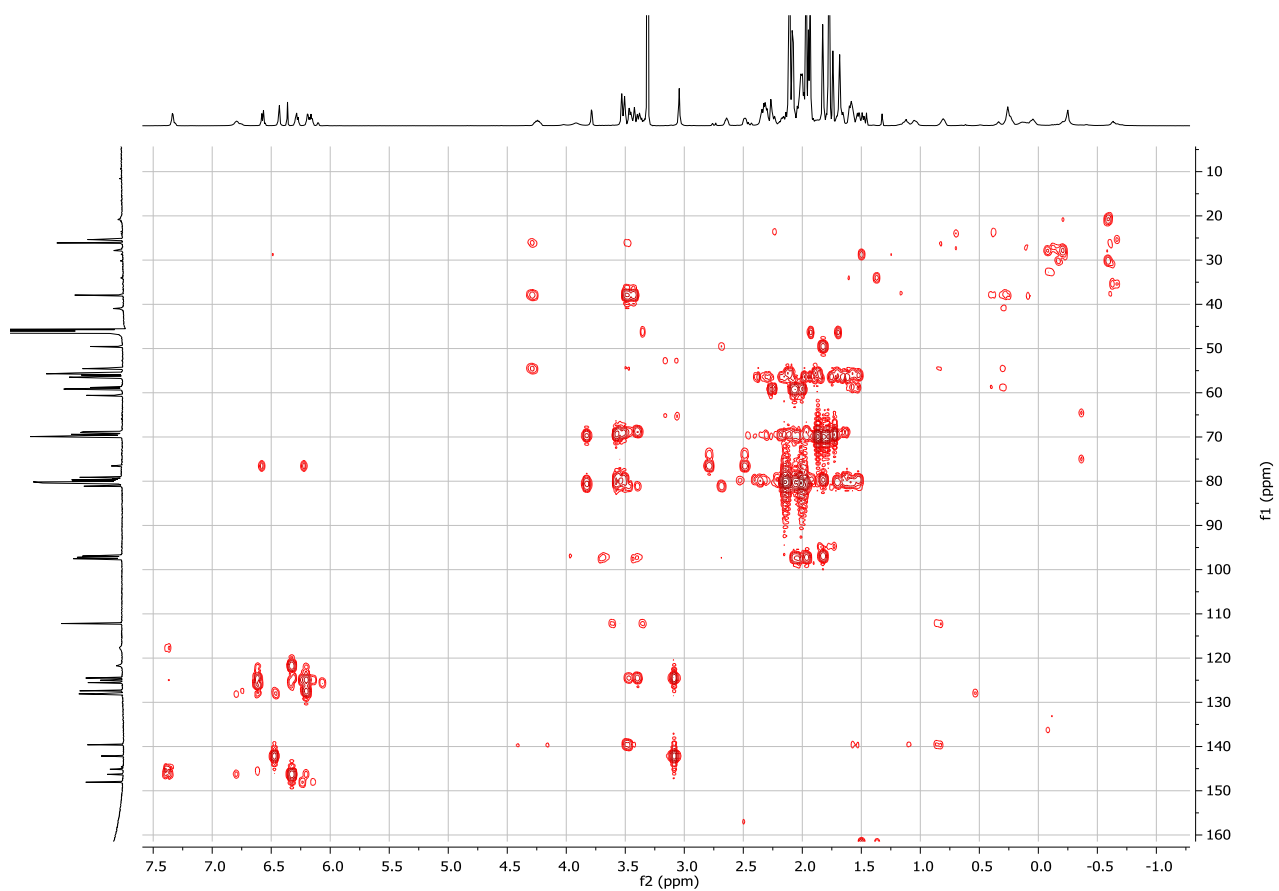


Figure S4: HMBC spectrum of compound **8a**.

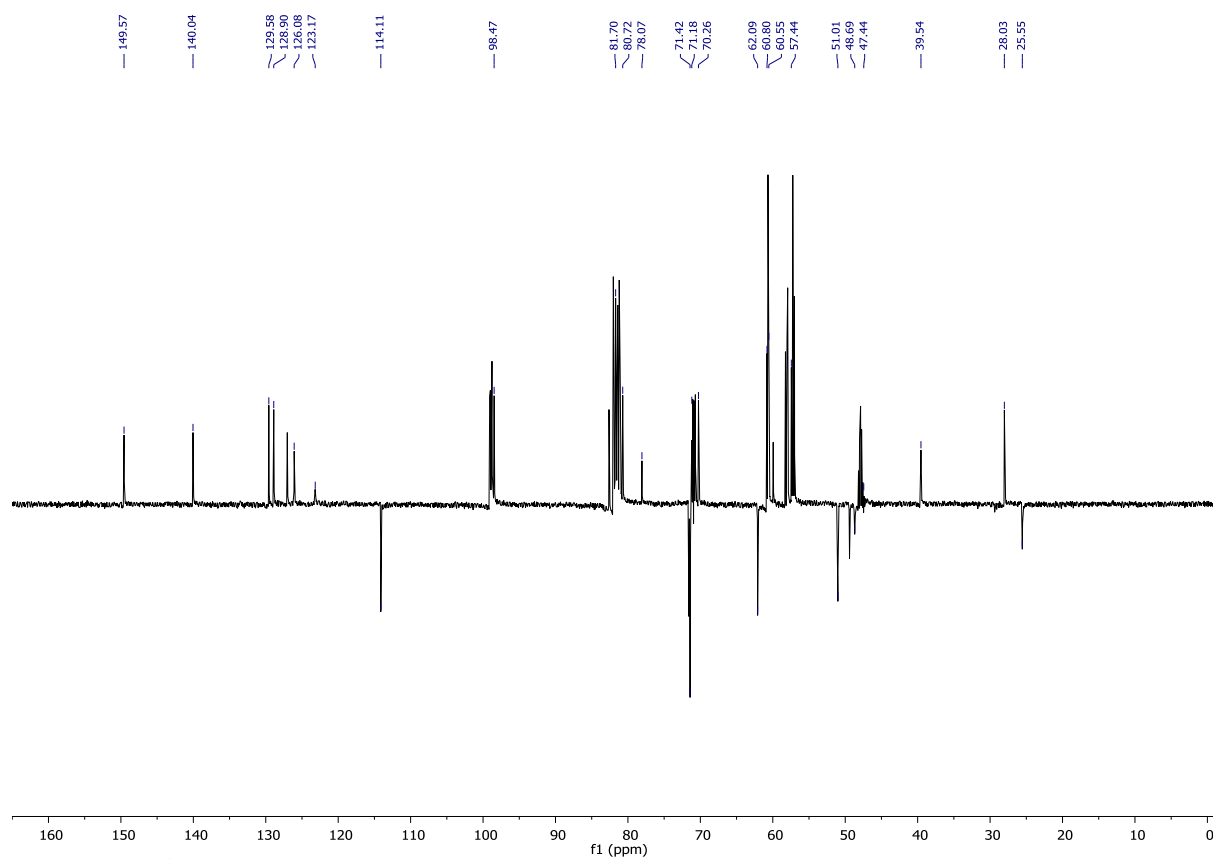


Figure S5: ^{13}C DEPT spectrum of compound **8b**.

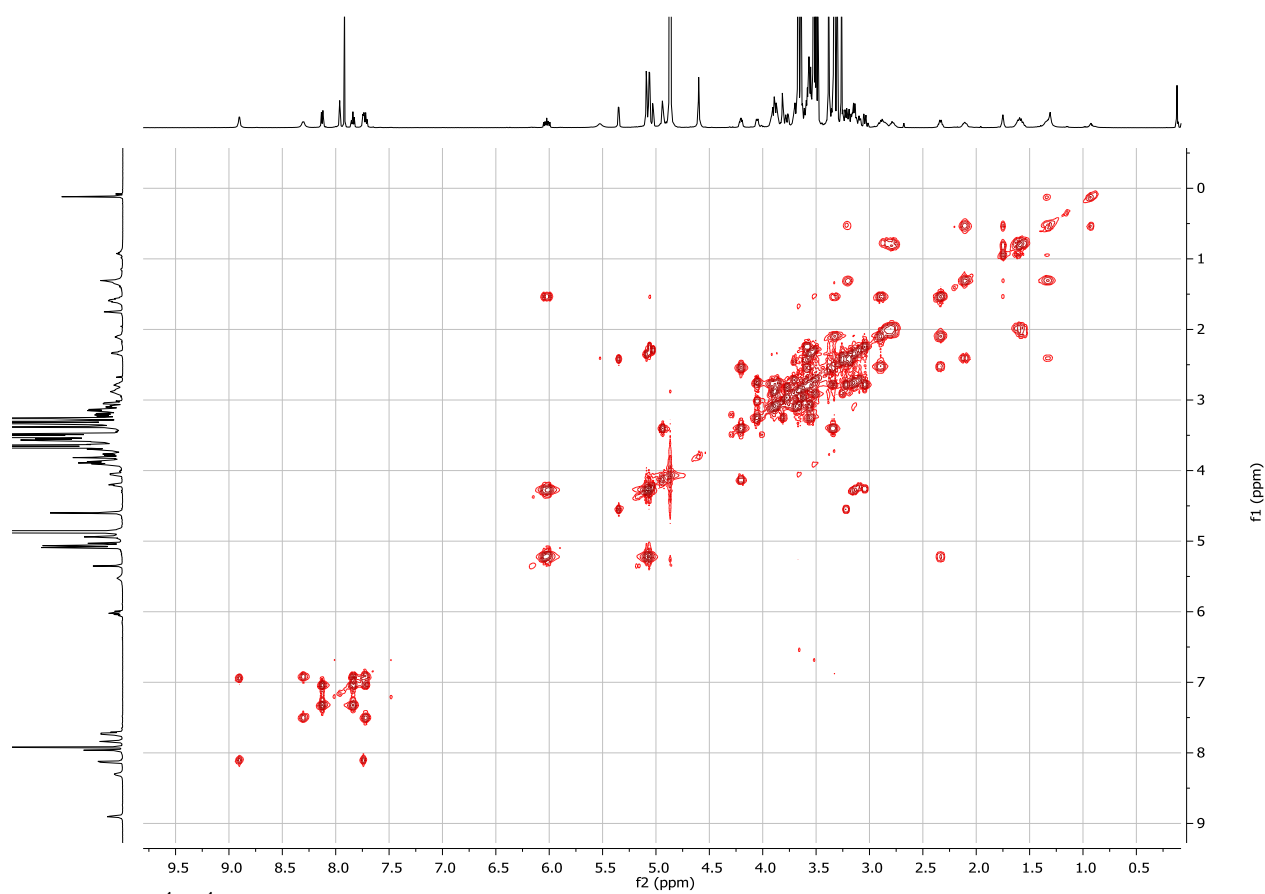


Figure S6: ^1H - ^1H COSY spectrum of compound **8b**.

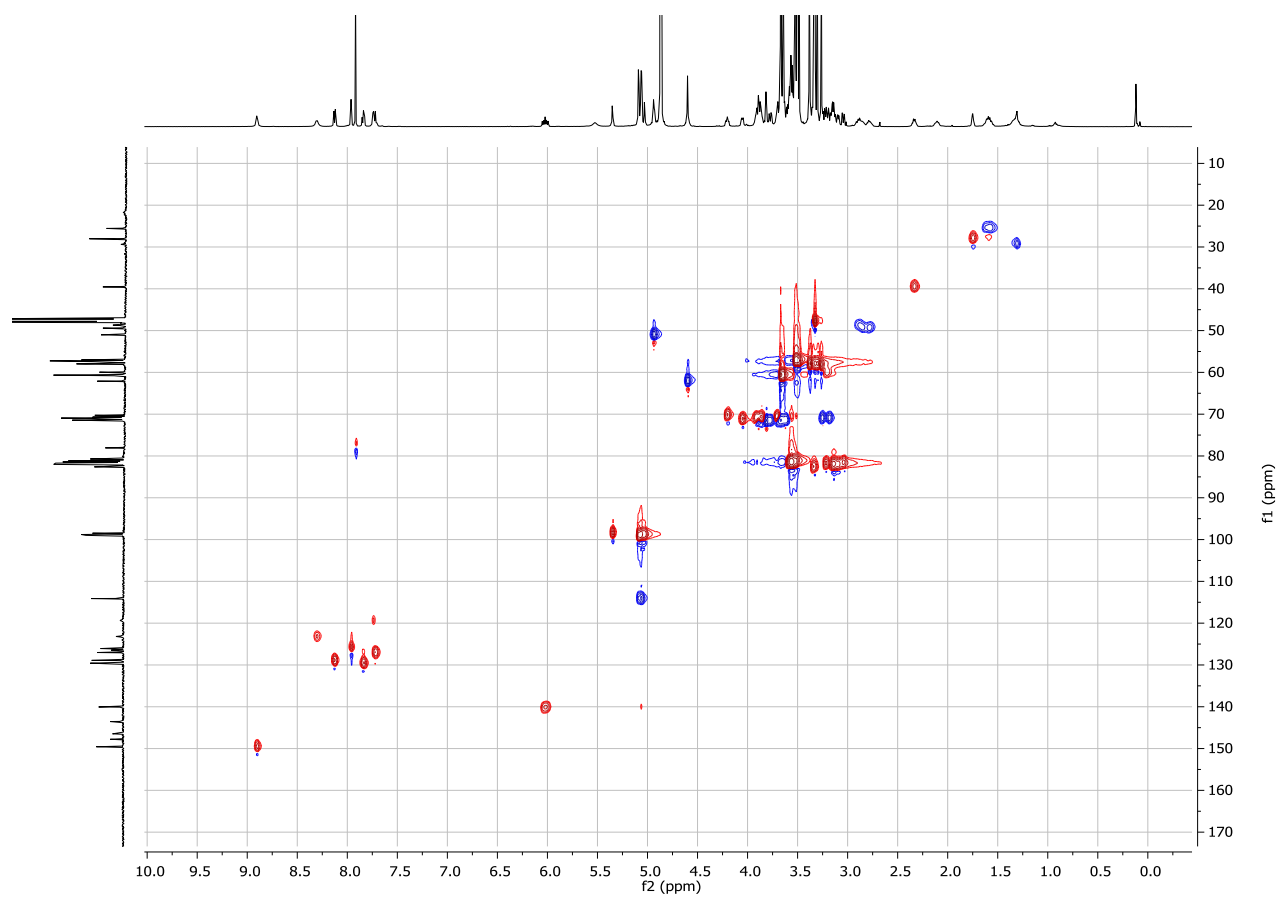


Figure S7: HSQC spectrum of compound **8b**.

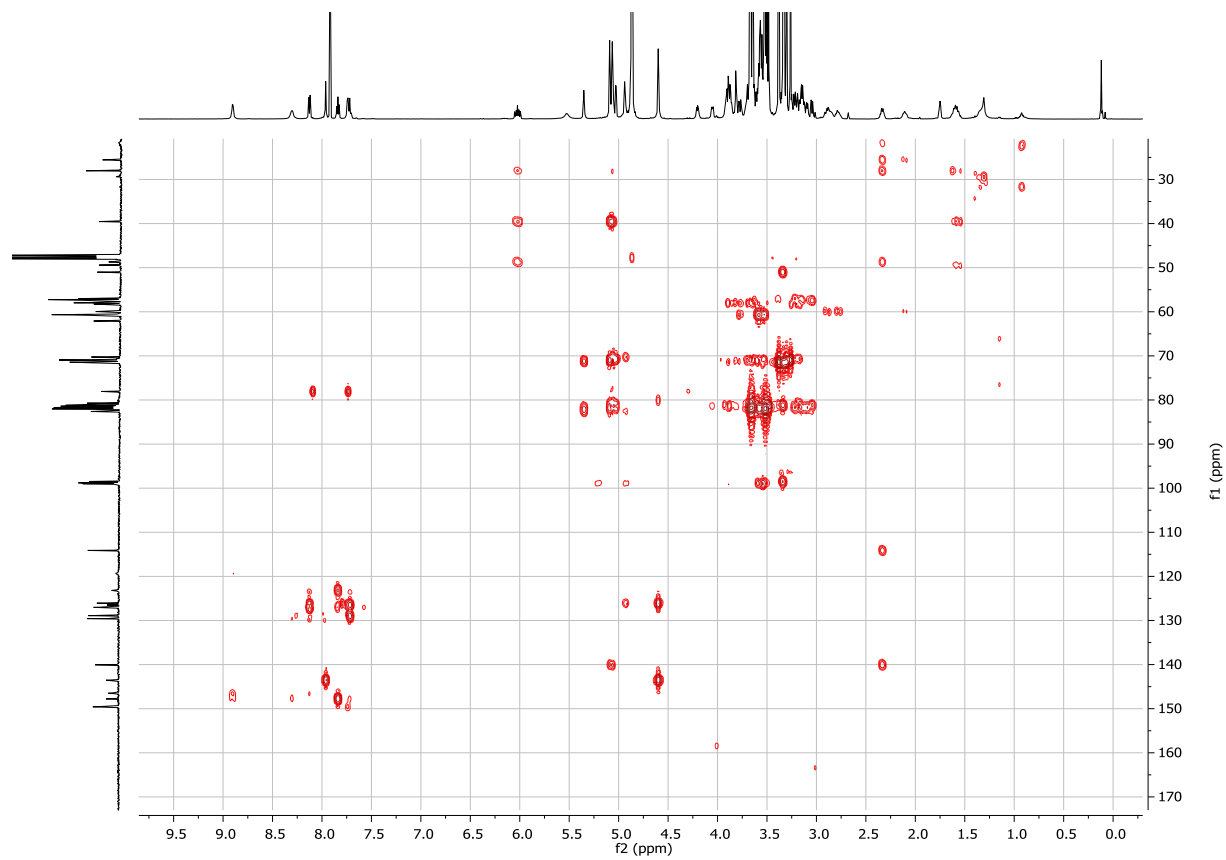


Figure S8: HMBC spectrum of compound **8b**.

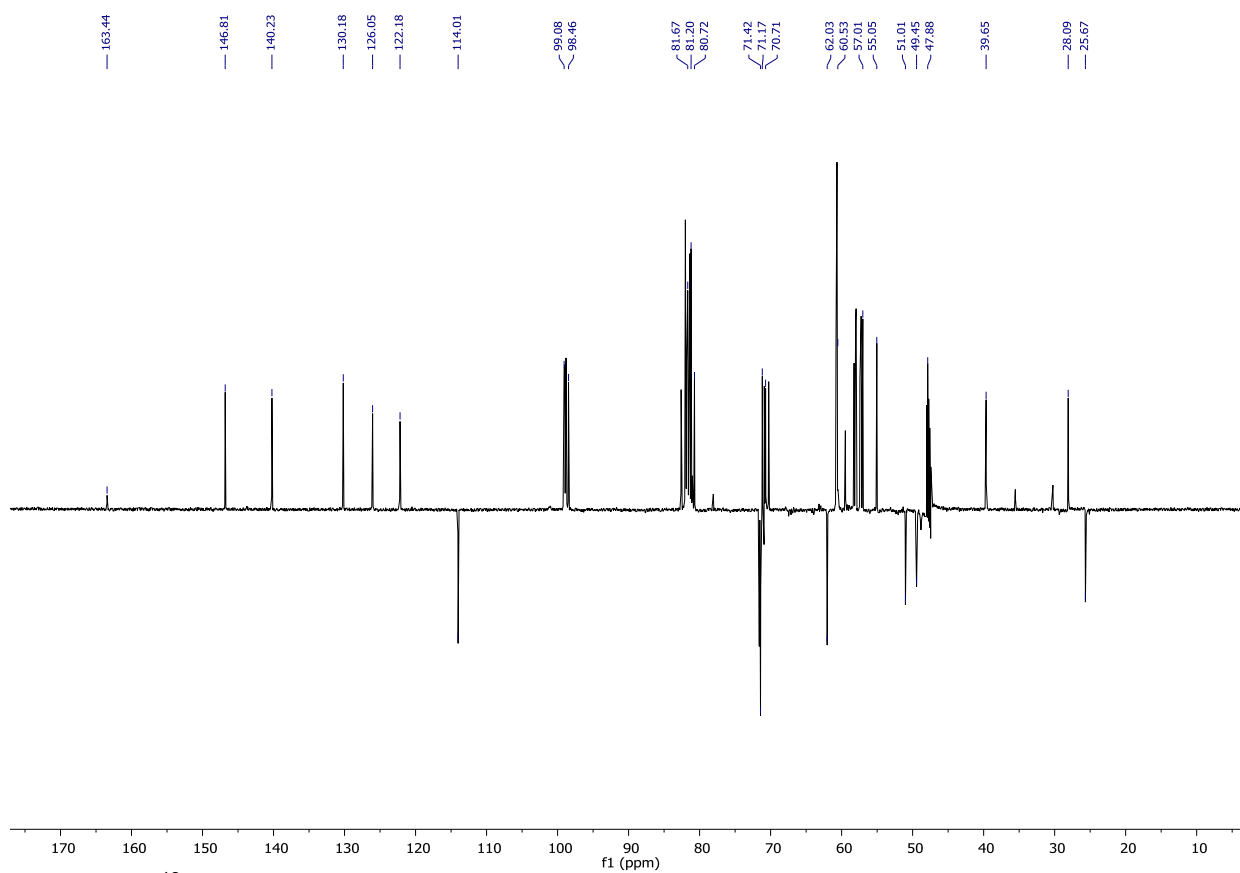


Figure S9: ^{13}C DEPT spectrum of compound **8c**.

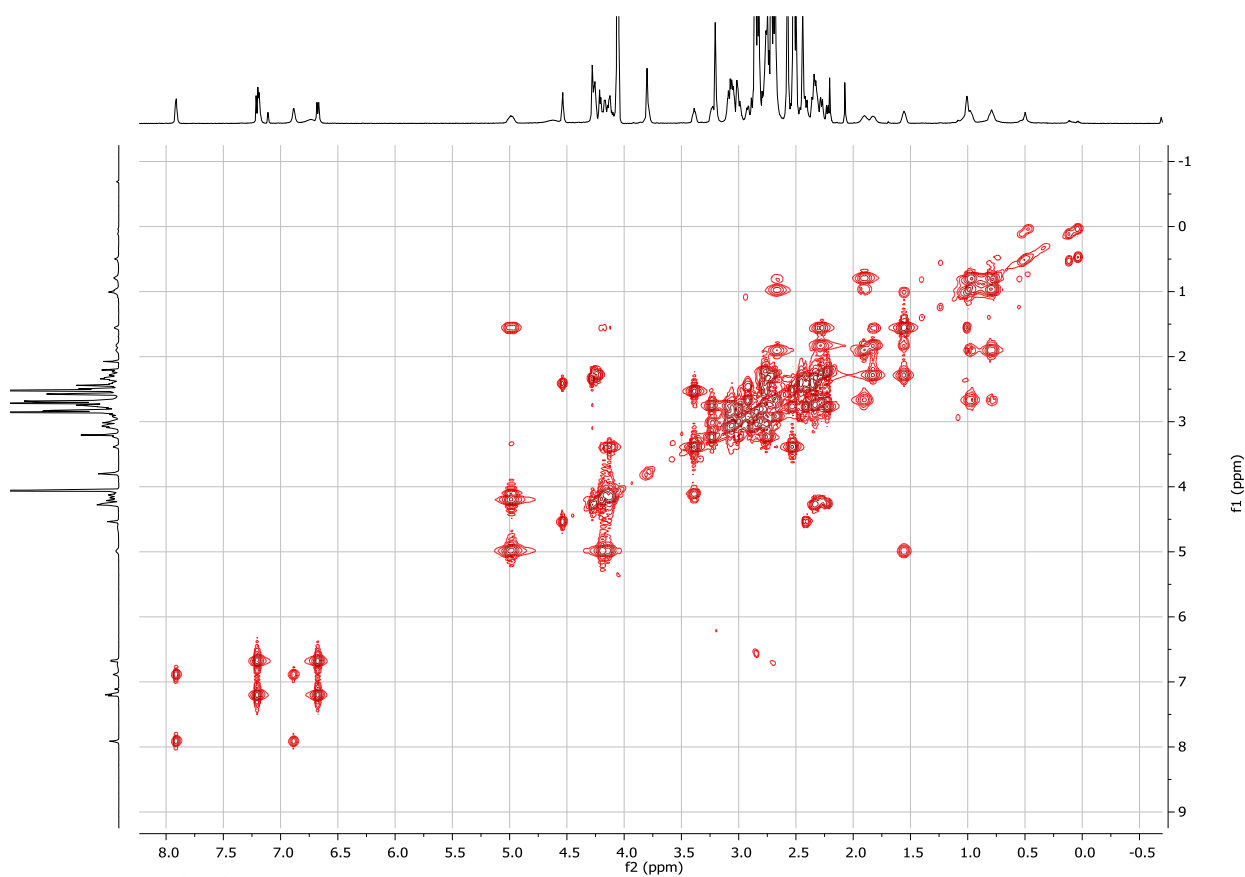


Figure S10: ^1H - ^1H COSY spectrum of compound **8c**.

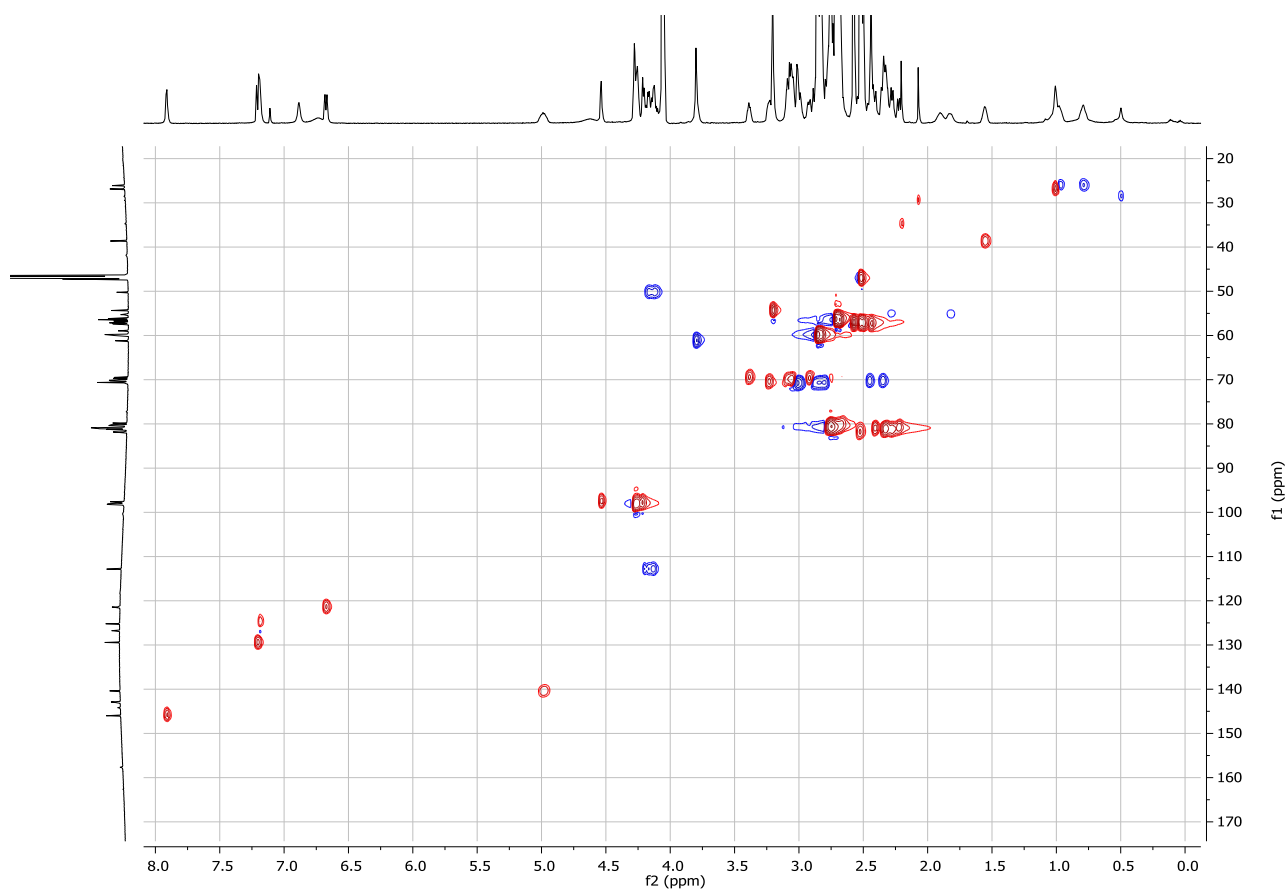


Figure S11: HSQC spectrum of compound **8c**.

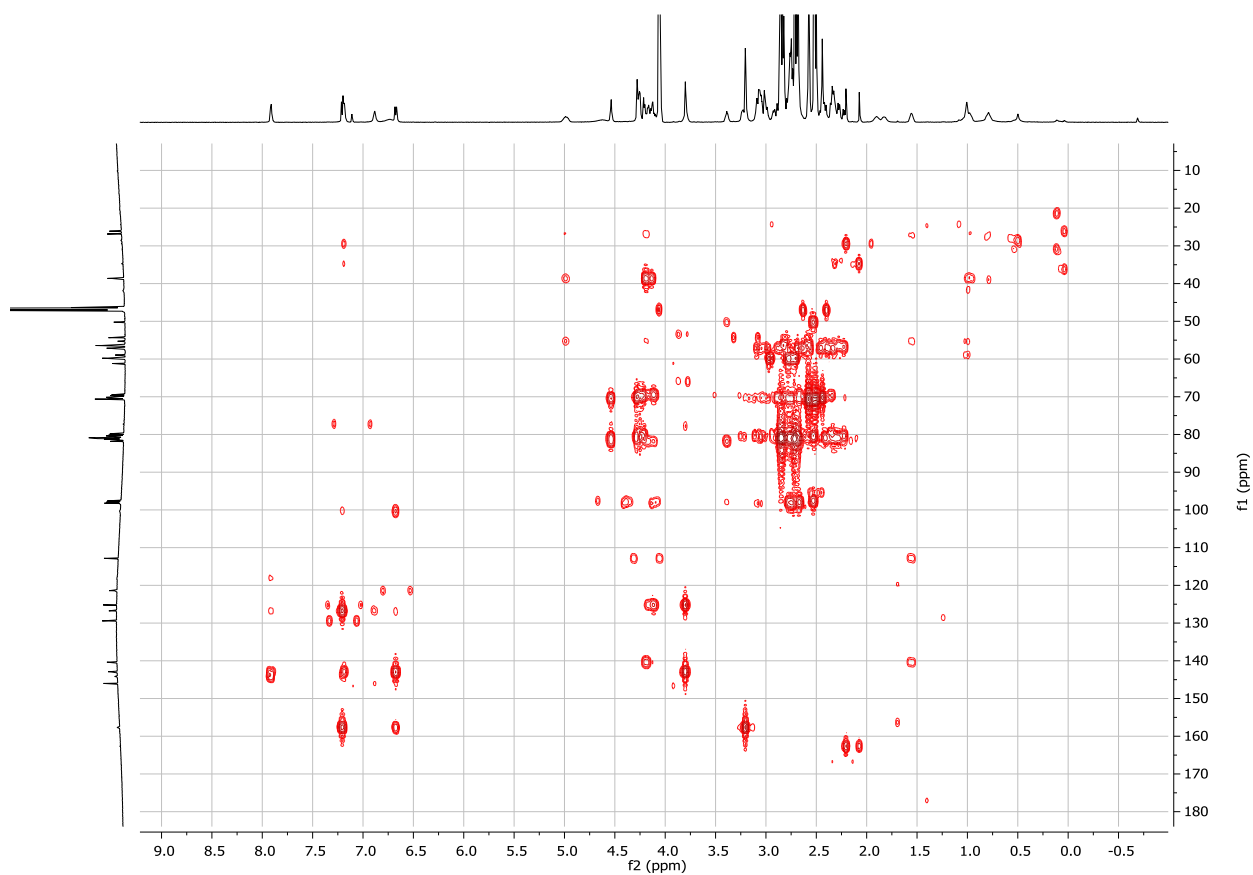


Figure S12: HMBC spectrum of compound **8c**.

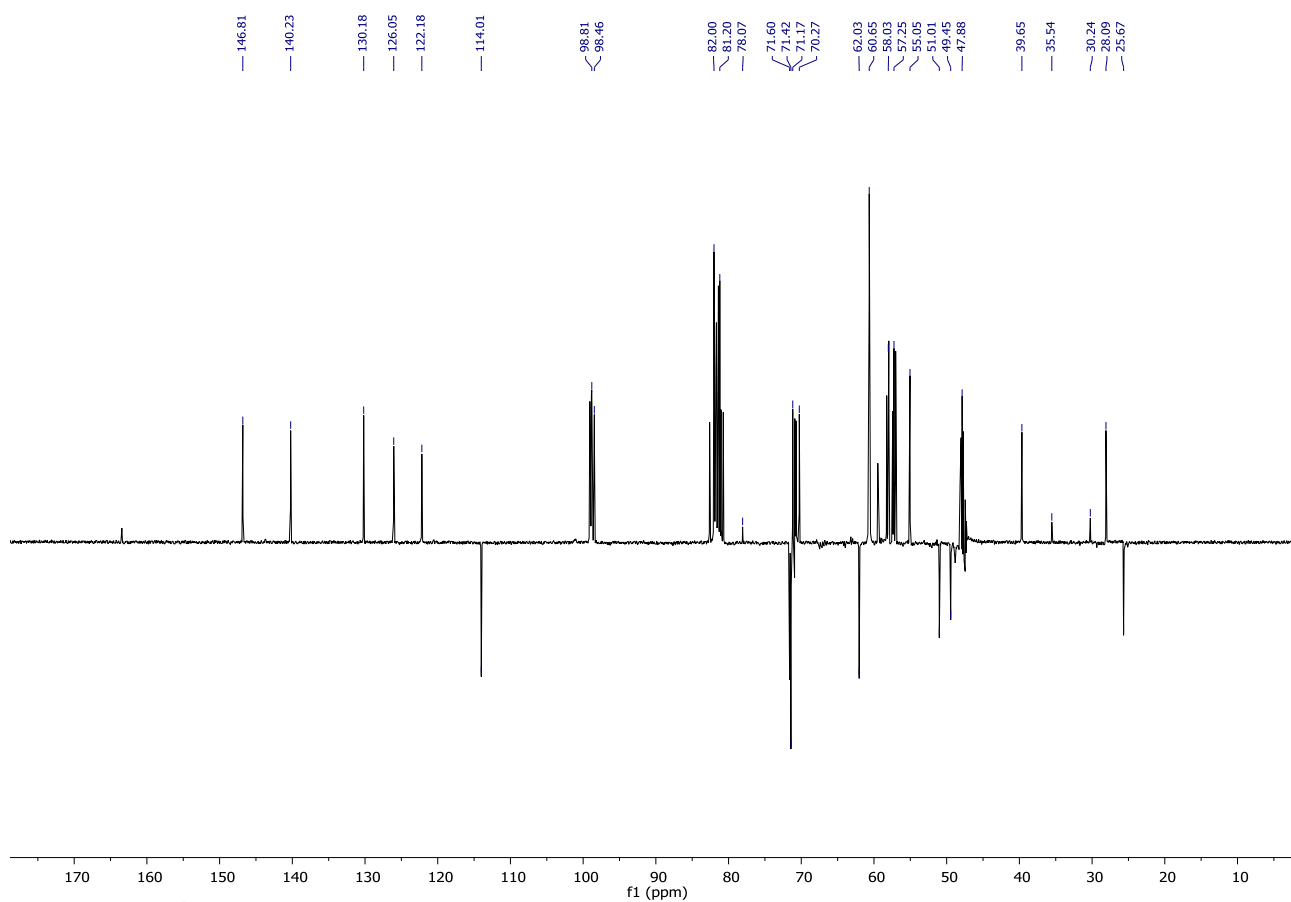


Figure S13: ^{13}C DEPT spectrum of compound **8d**.

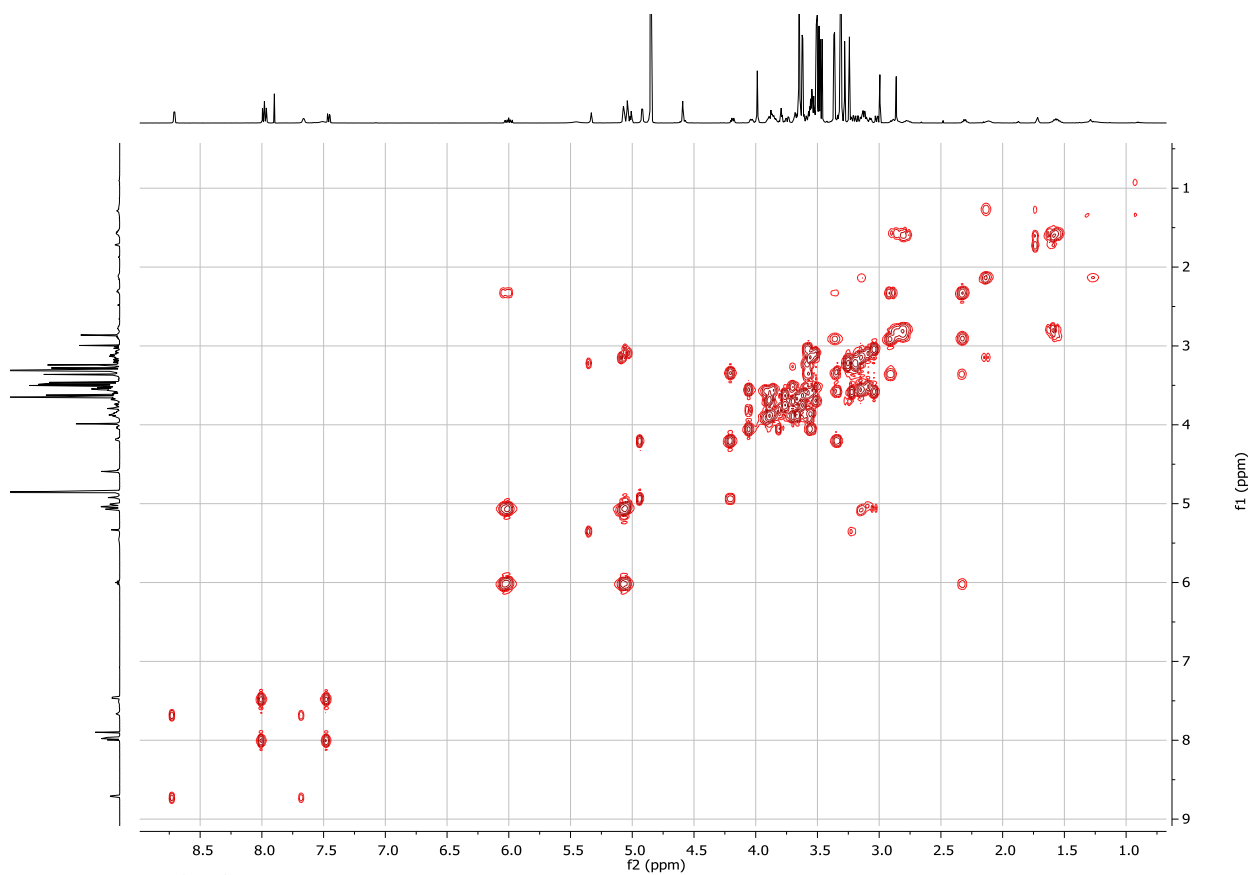


Figure S14: ^1H - ^1H COSY spectrum of compound **8d**.

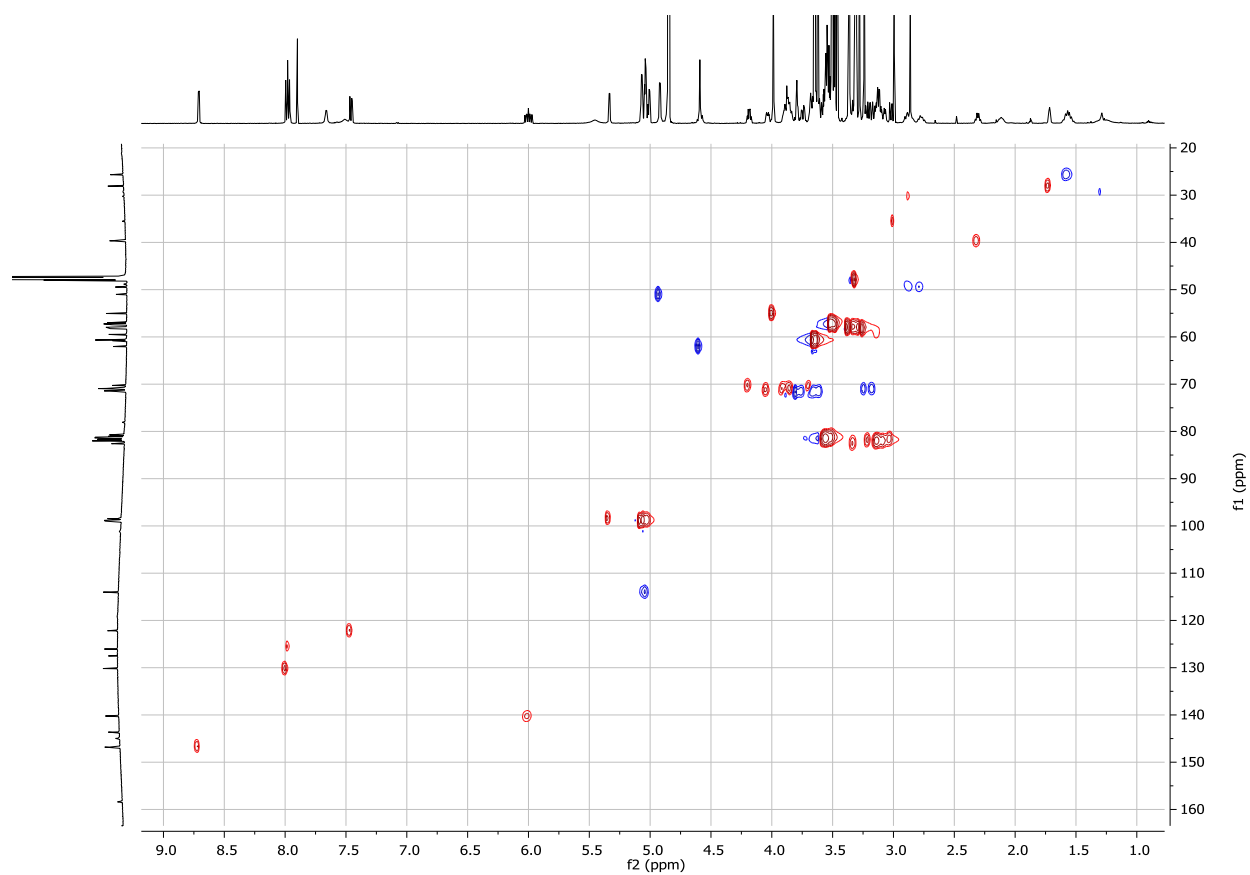


Figure S15: HSQC spectrum of spectrum of compound **8d**.

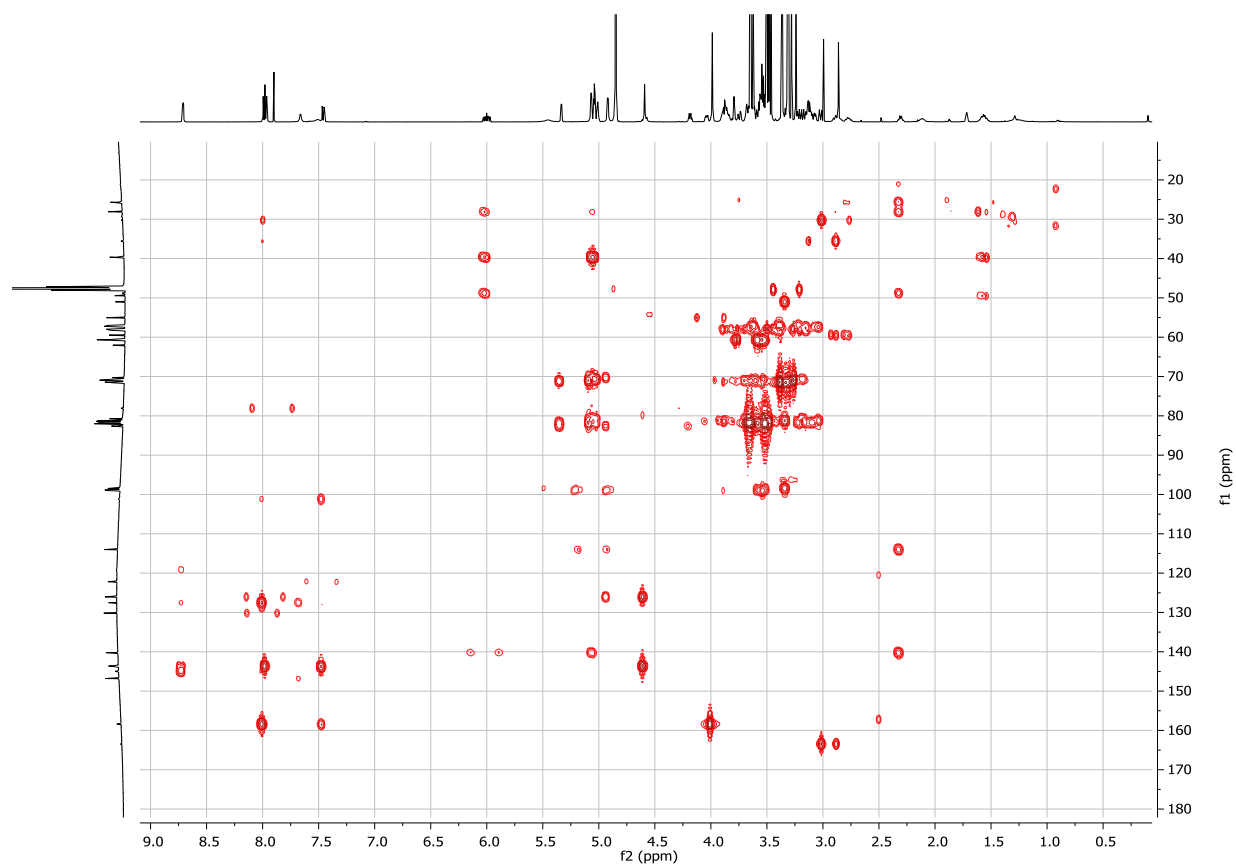


Figure S16: HMBC spectrum of spectrum of compound **8d**.

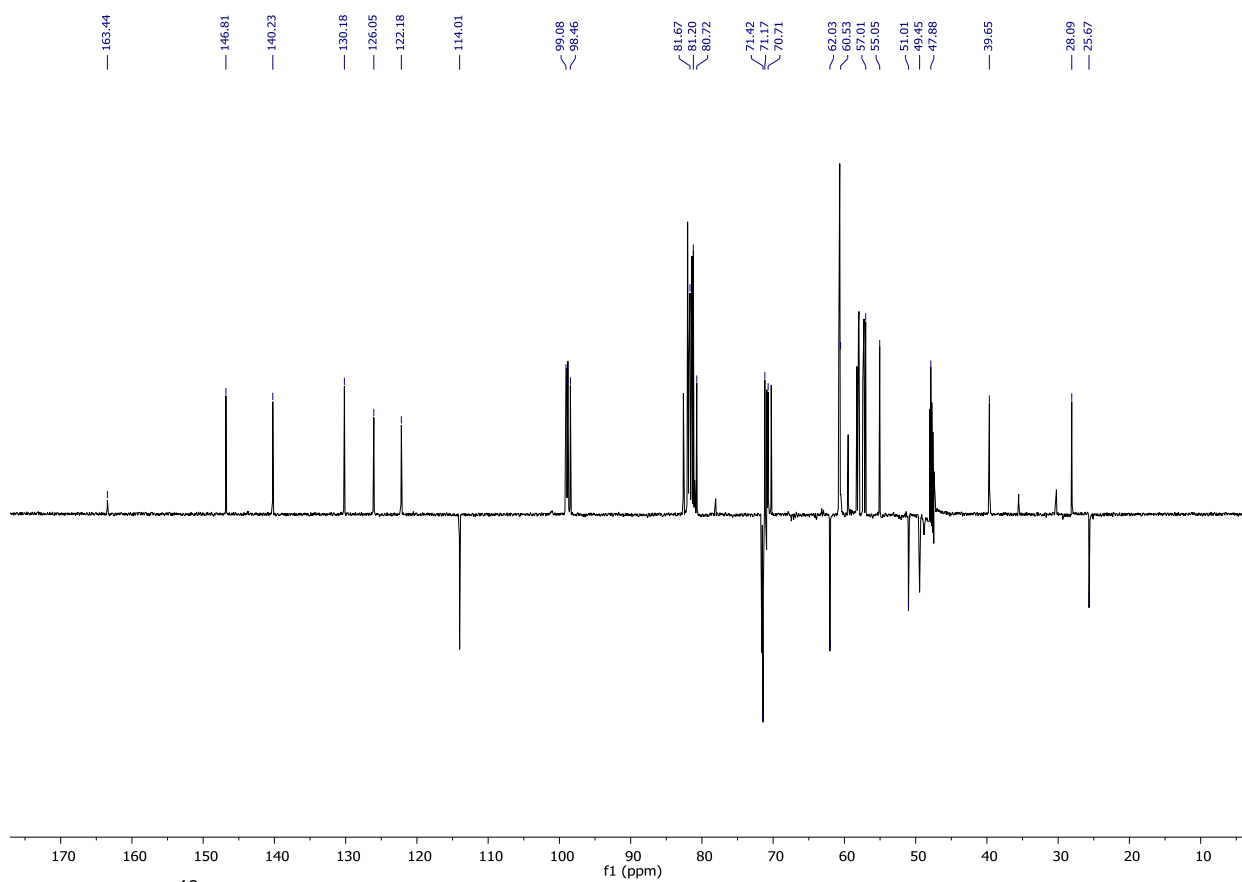


Figure S17: ^{13}C DEPT spectrum of compound **9a**.



Figure S18: ^1H - ^1H COSY spectrum of compound **9a**.

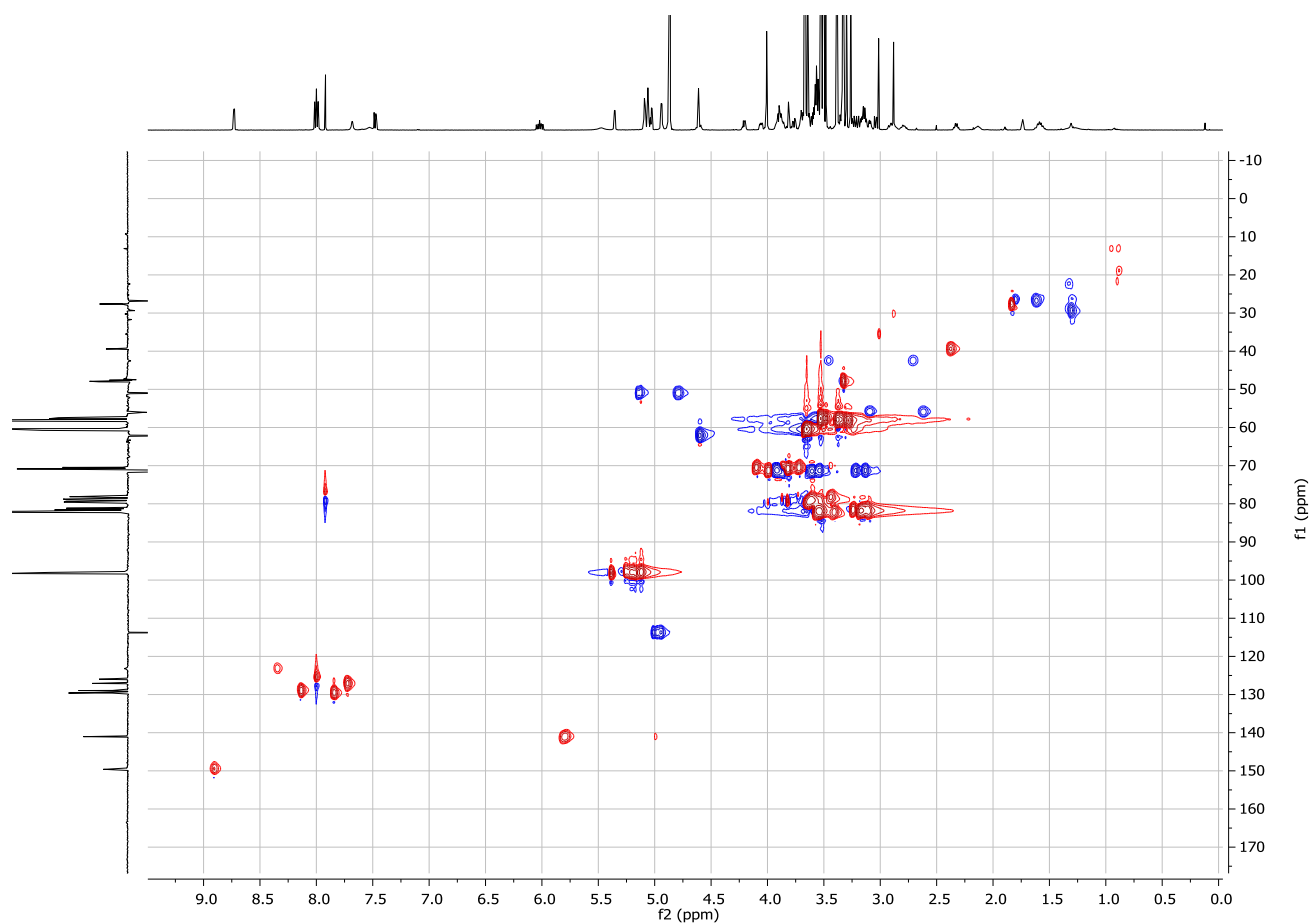


Figure S19: HSQC spectrum of compound **9a**.

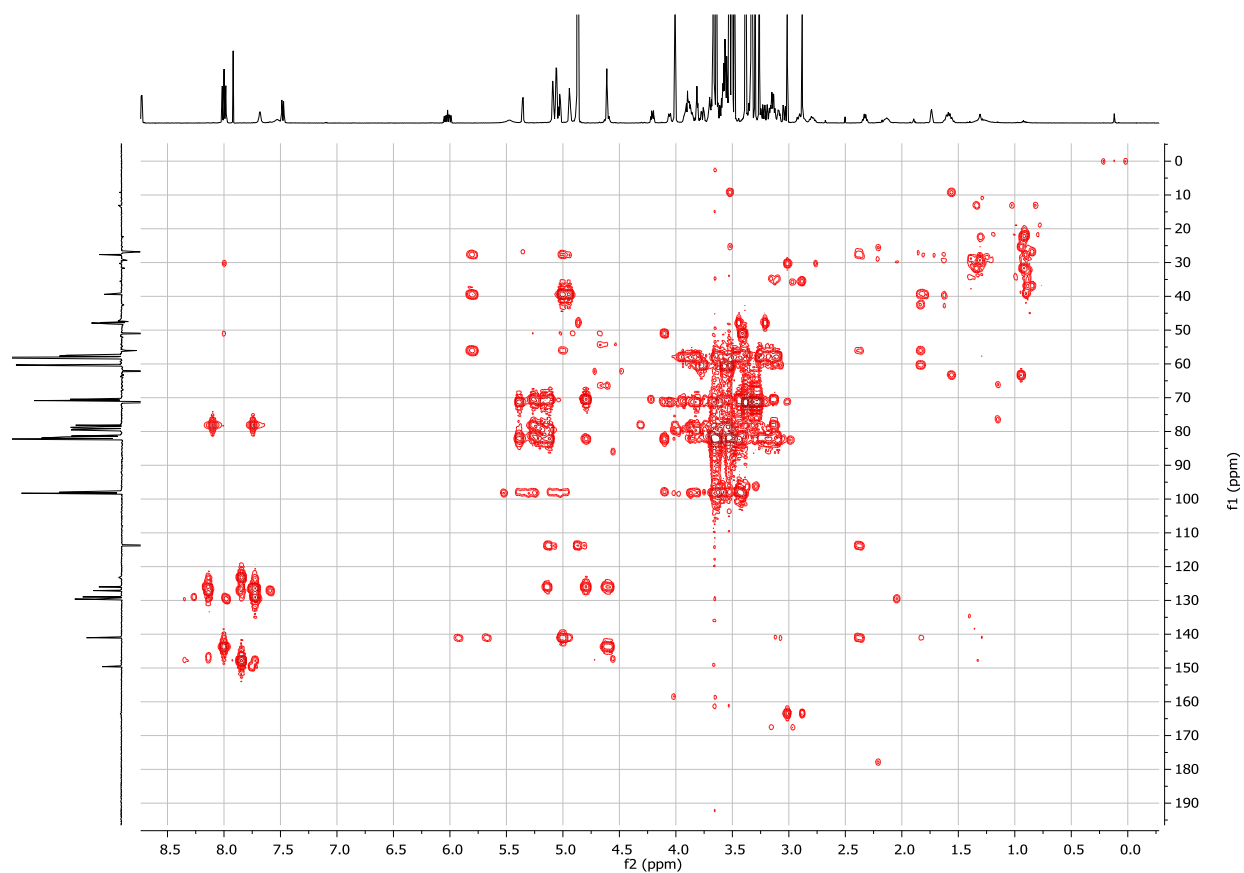


Figure S20: HMBC spectrum of compound **9a**.

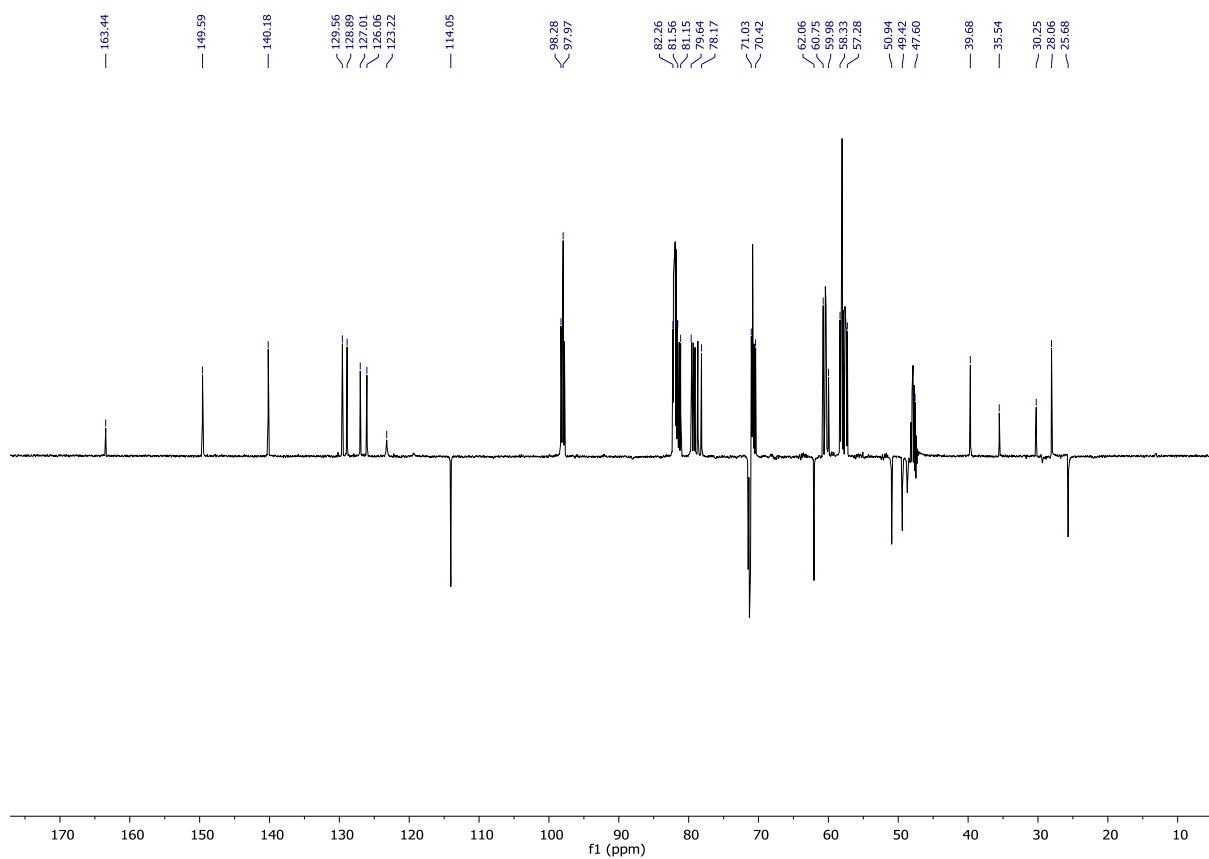


Figure S21: ^{13}C DEPT spectrum of compound **9b**.

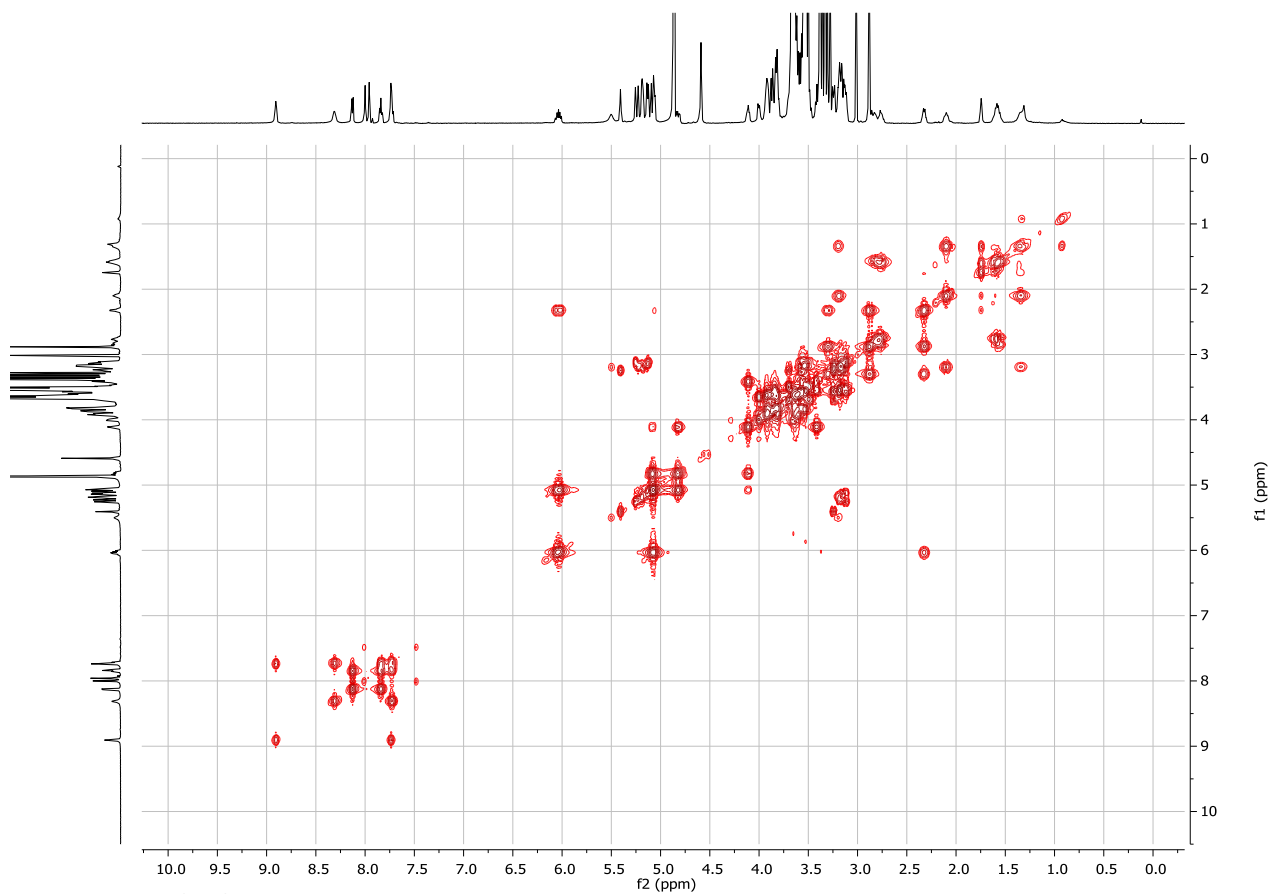


Figure S22: ^1H - ^1H COSY spectrum of compound **9b**.

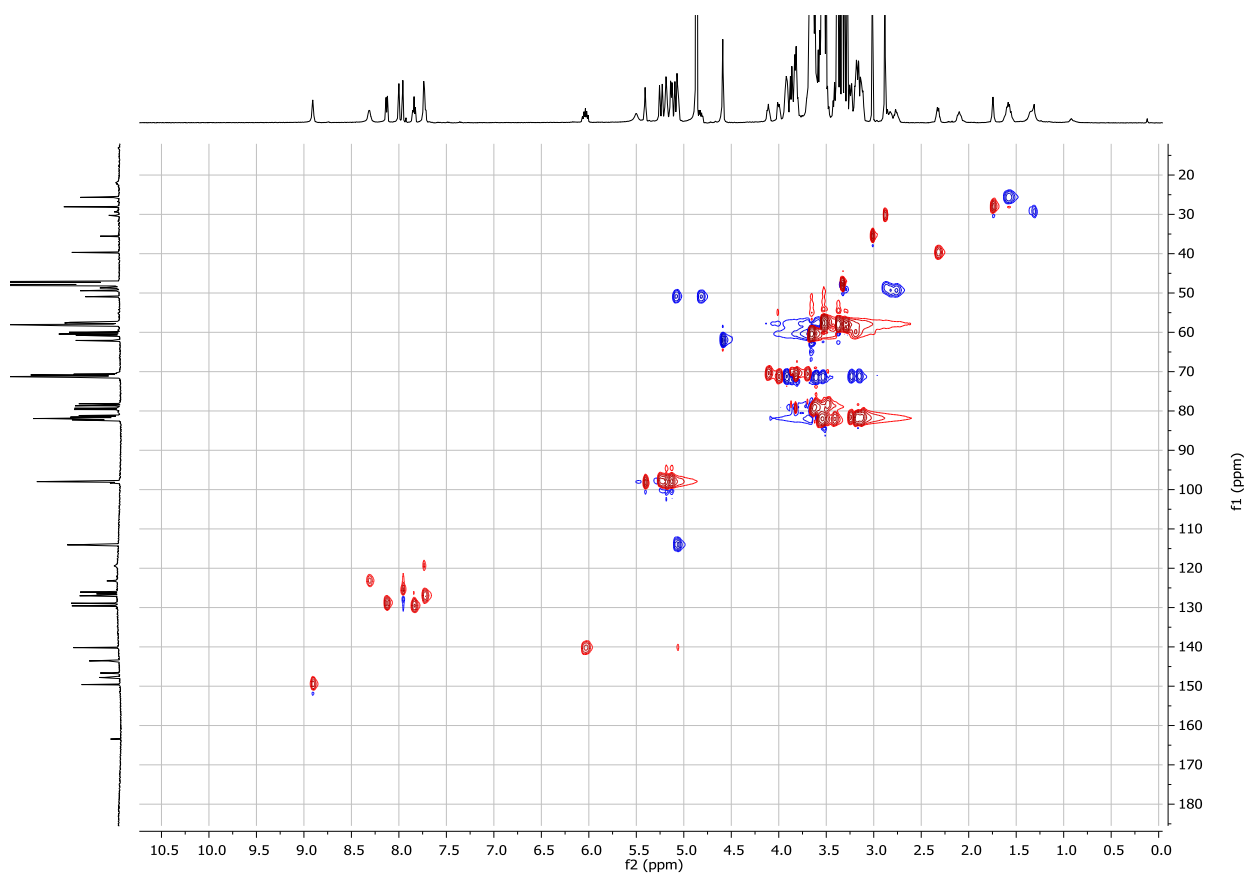


Figure S23: HSQC spectrum of compound **9b**.

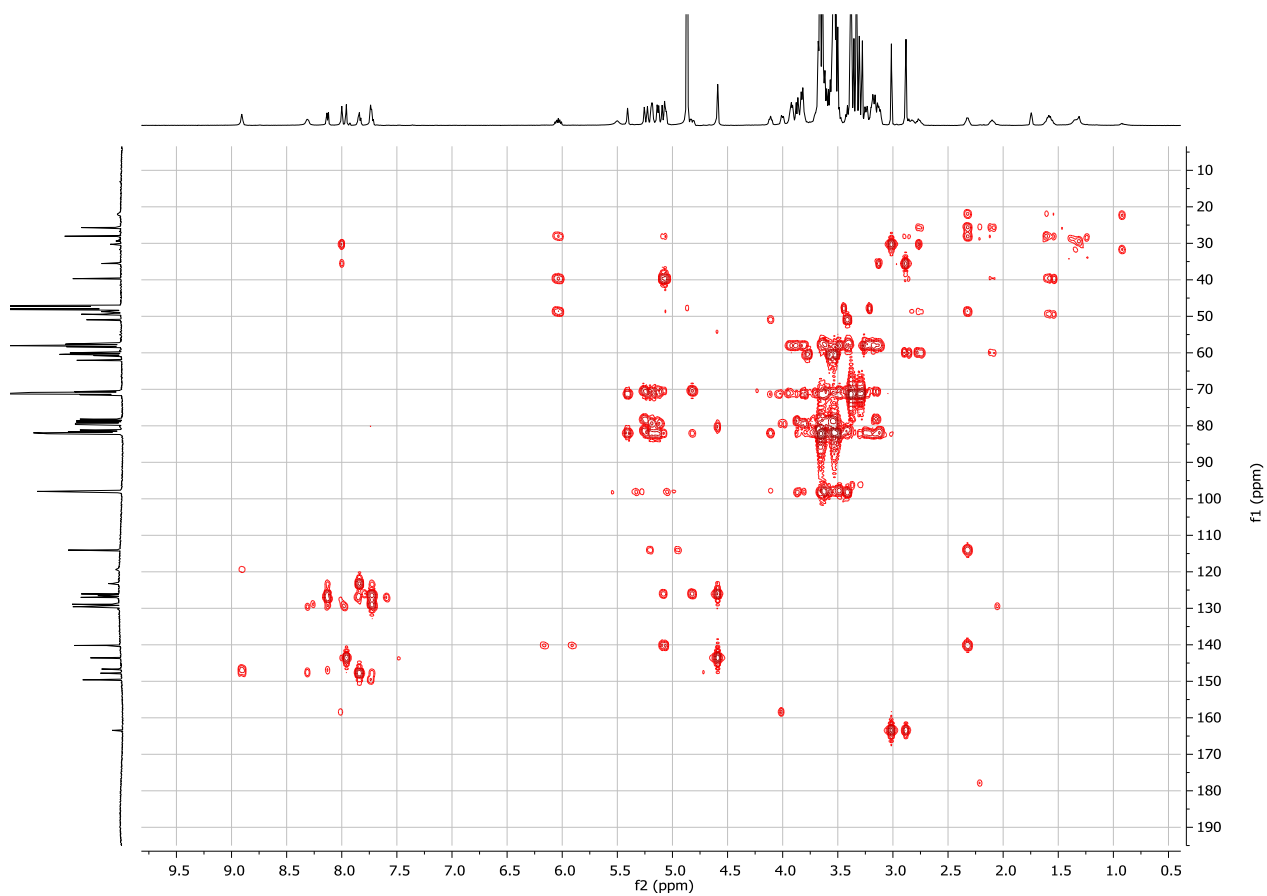


Figure S24: HMBC spectrum of compound **9b**.

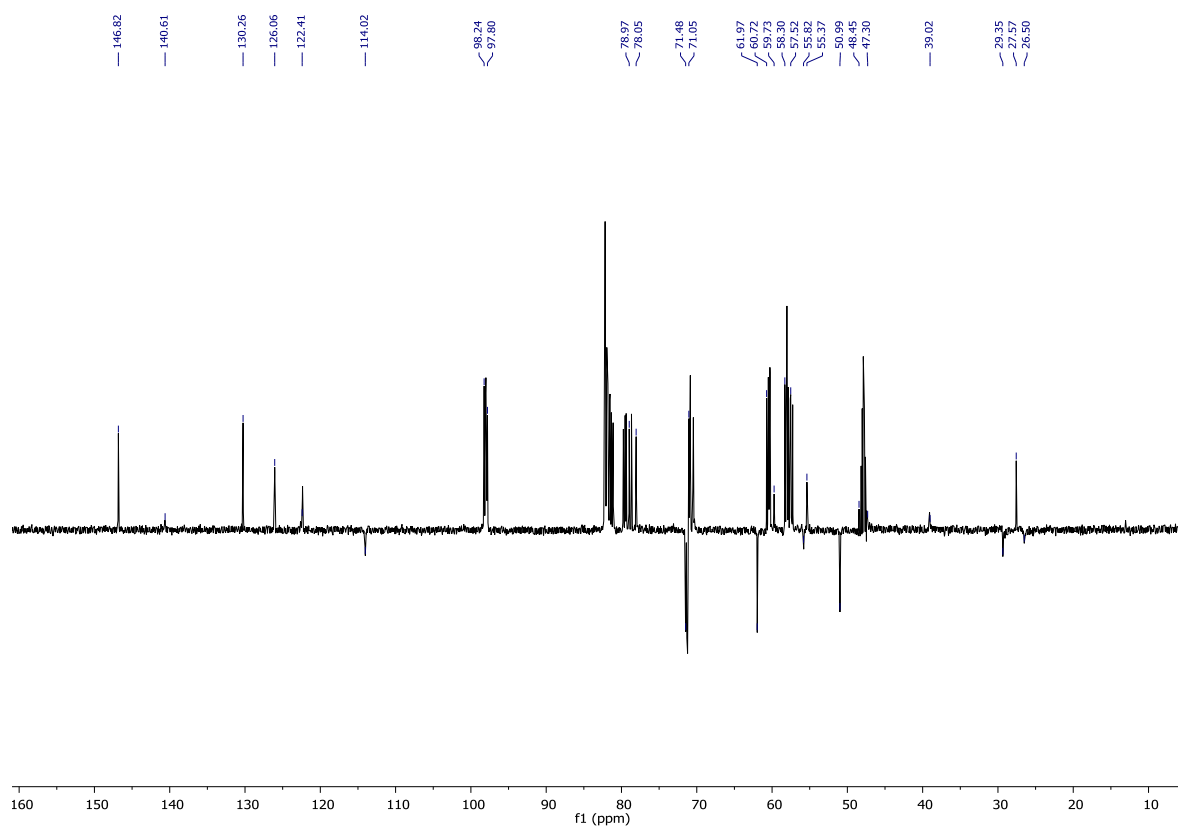


Figure S25: ^{13}C DEPT spectrum of compound **9c**.

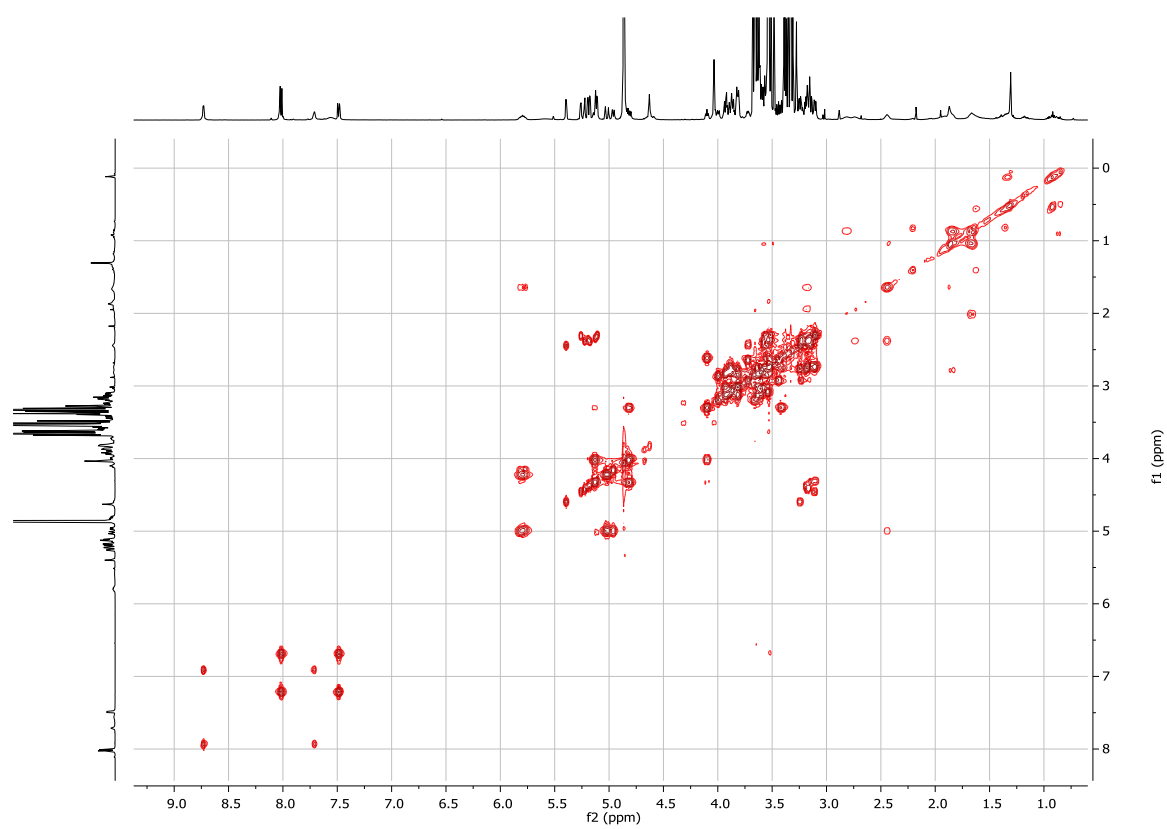


Figure S26: ^1H - ^1H COSY spectrum of compound **9c**.

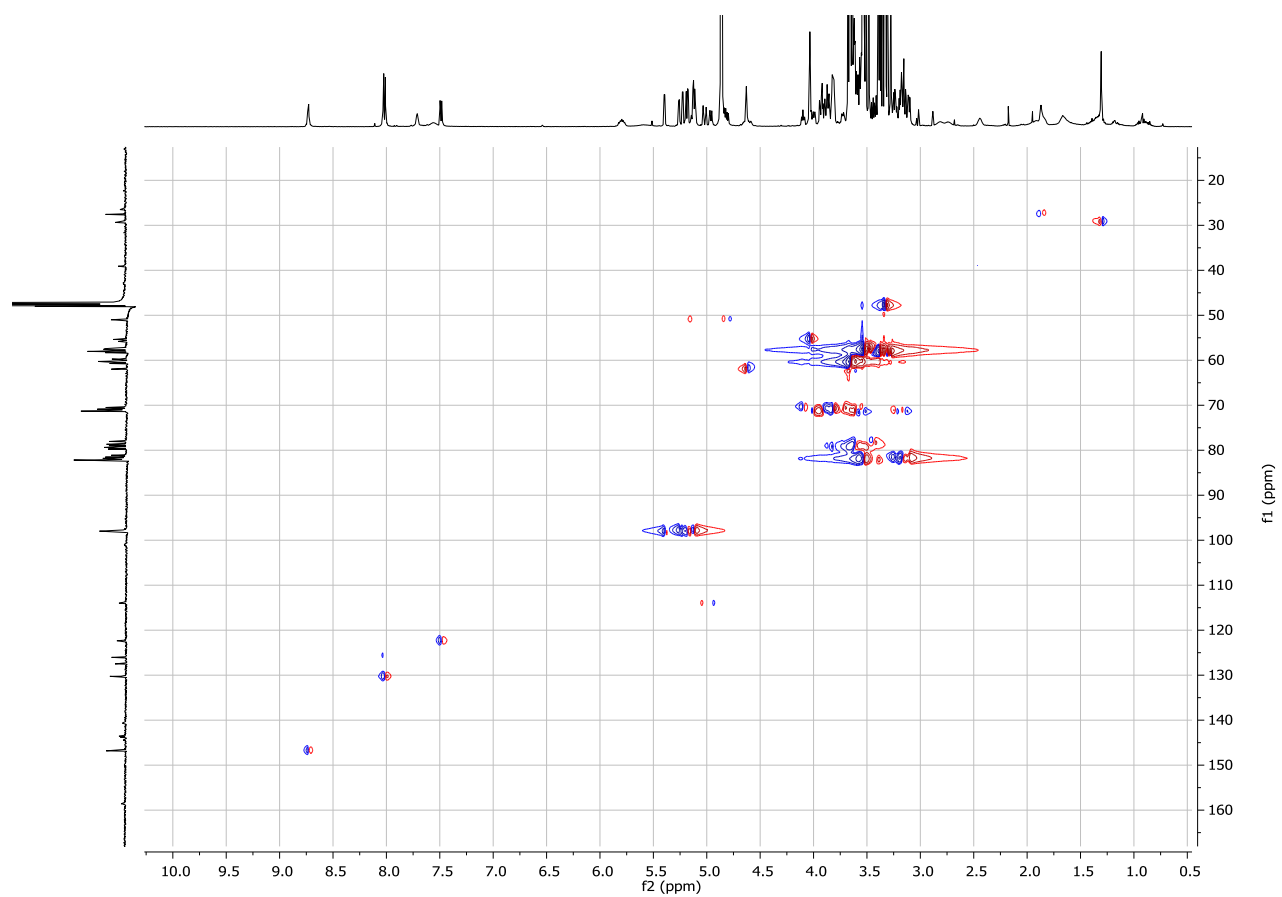


Figure S27: HSQC spectrum of compound **9c**.

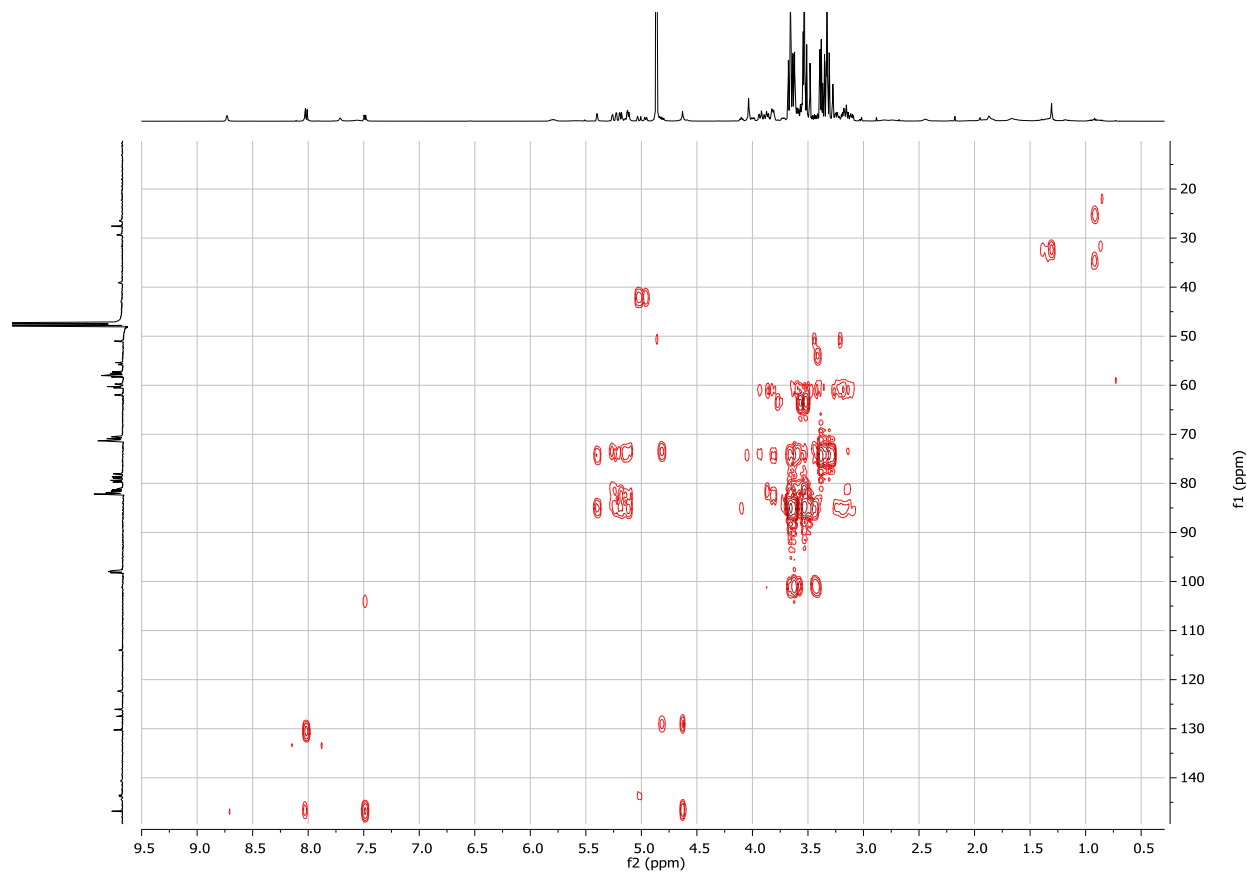


Figure S28: HMBC spectrum of compound **9c**.

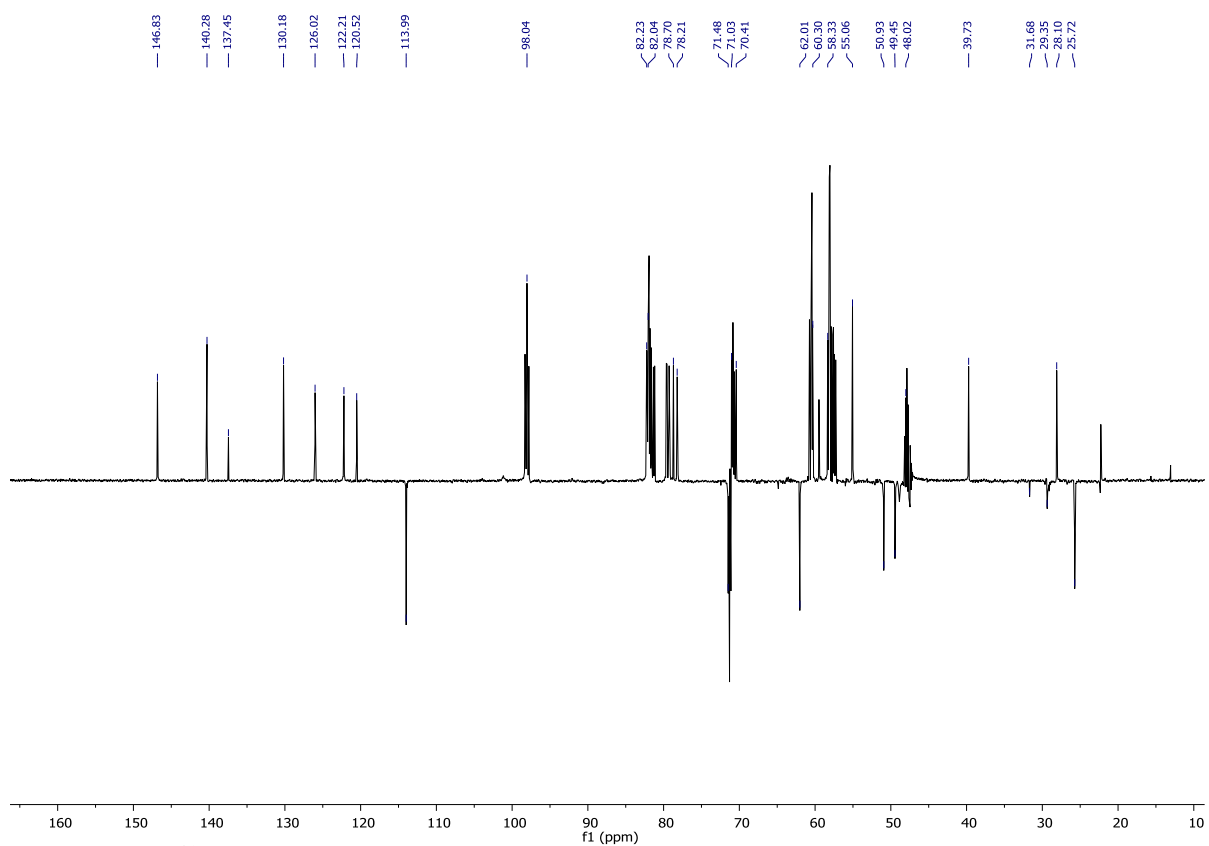


Figure S29: ^{13}C DEPT spectrum of compound **9d**.

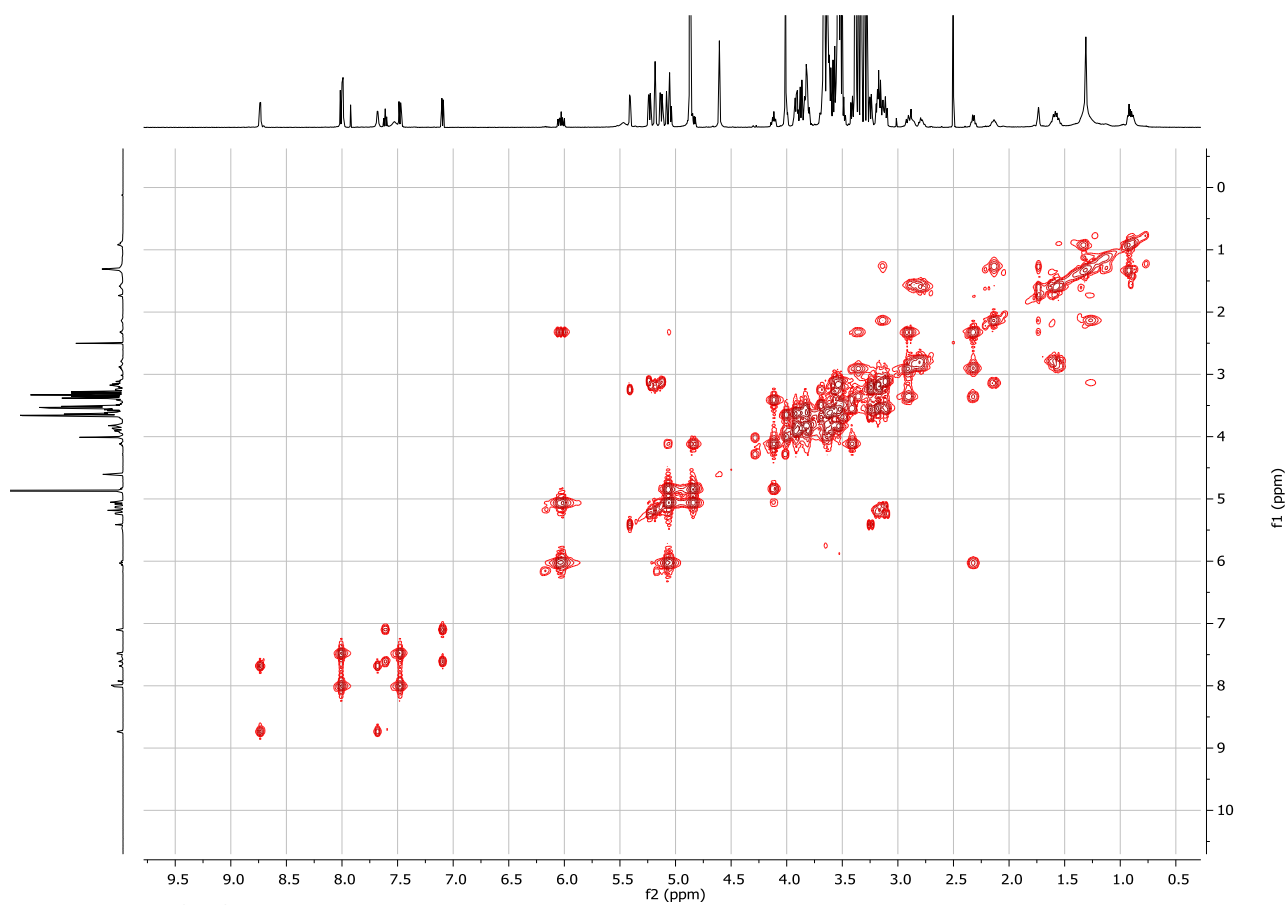


Figure S30: ^1H - ^1H COSY spectrum of compound **9d**.

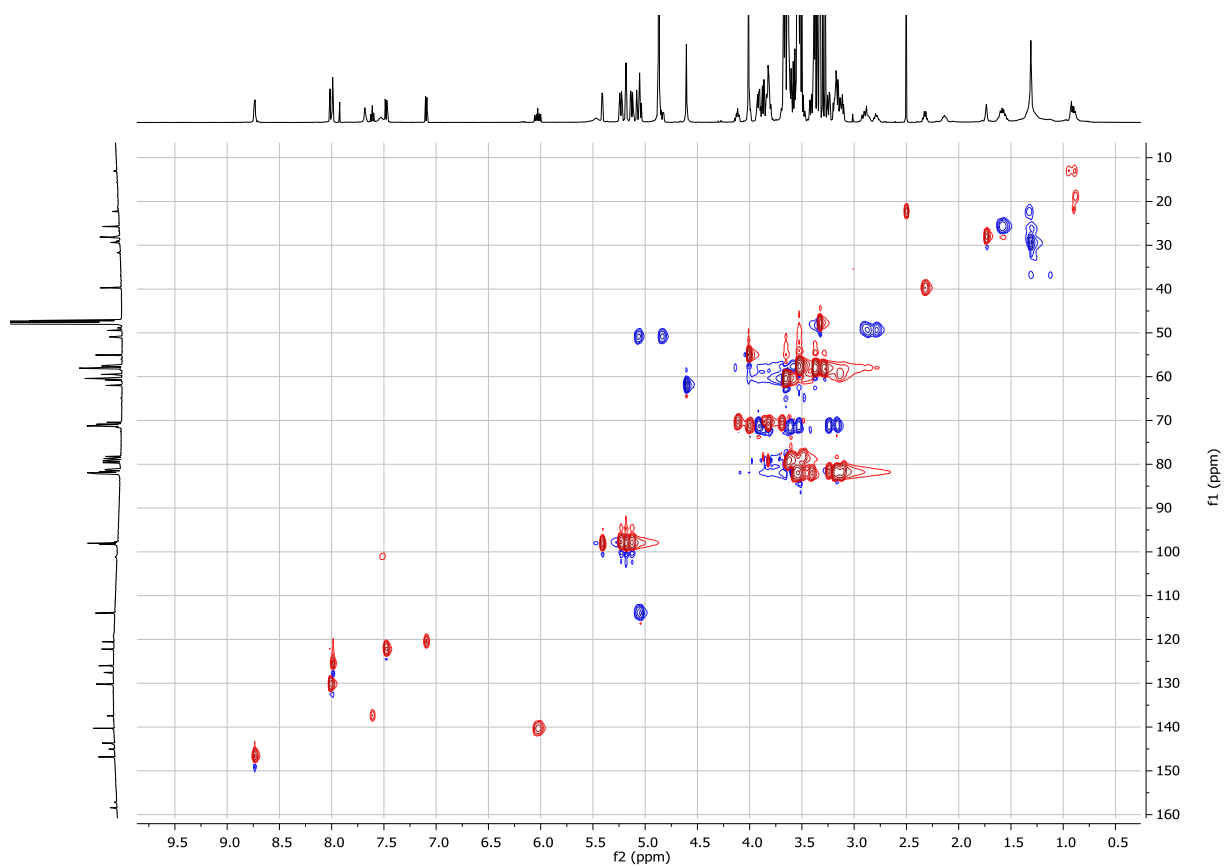


Figure S31: HSQC spectrum of compound **9d**.

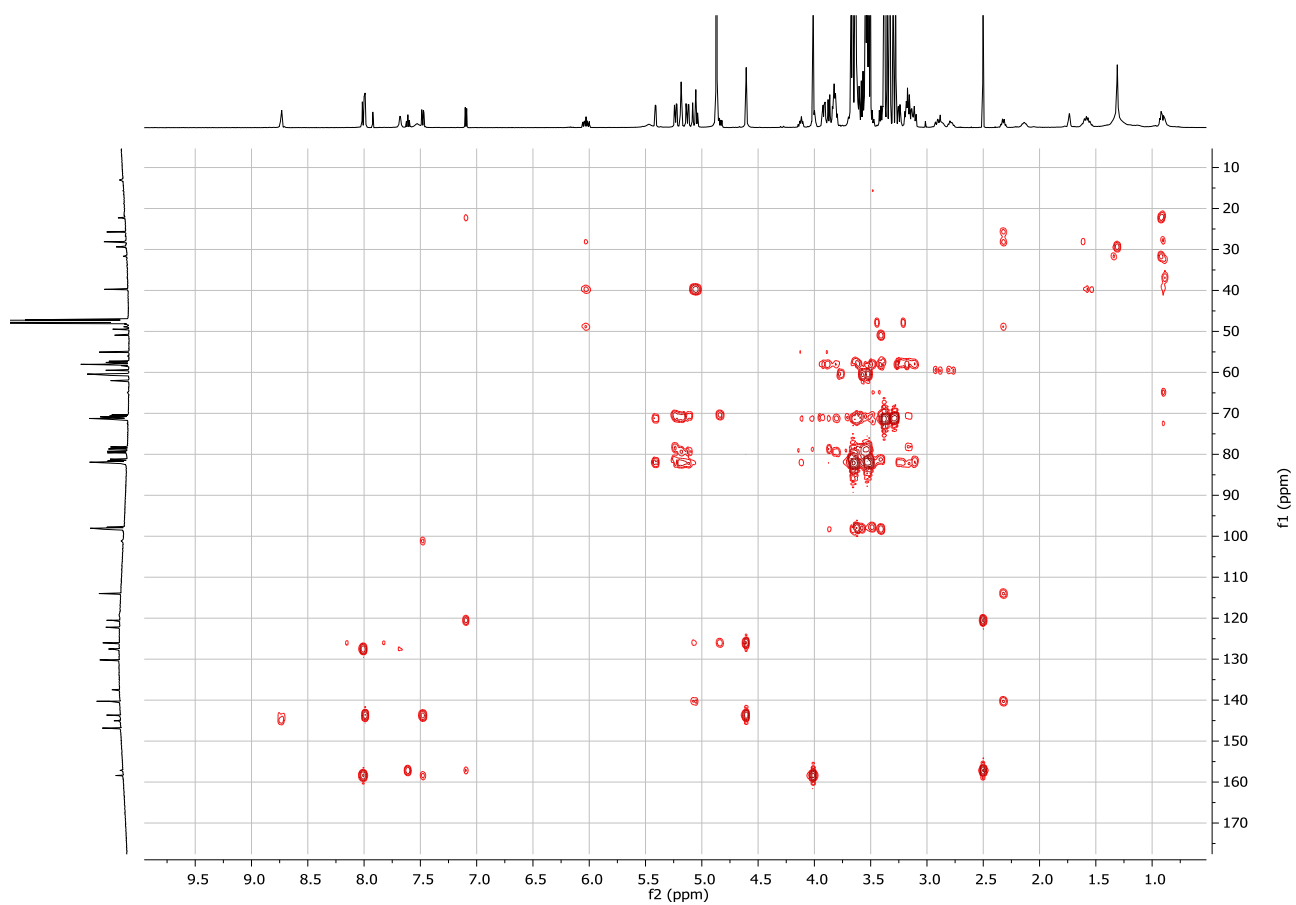


Figure S32: HMBC spectrum of compound **9d**.

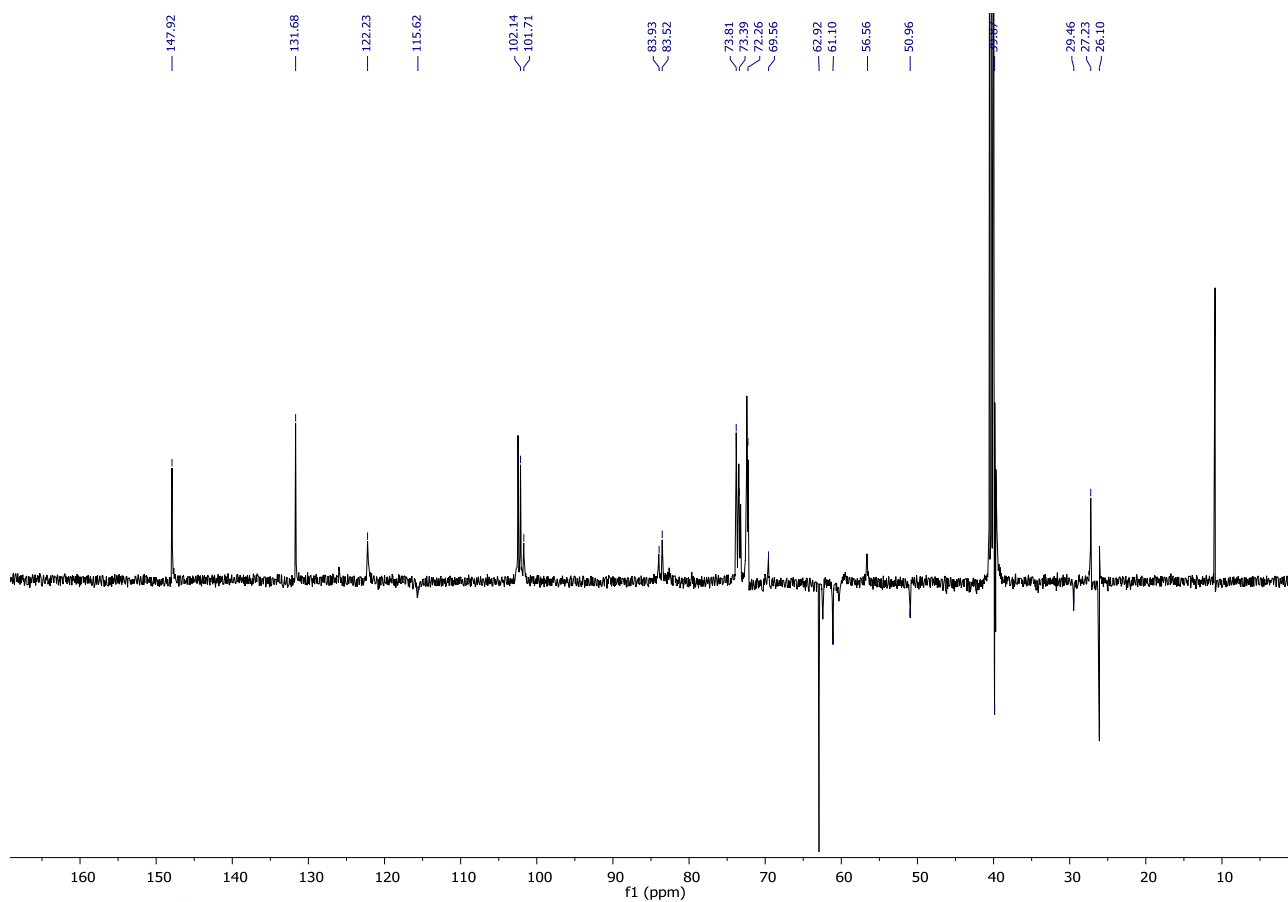


Figure S33: ^{13}C DEPT spectrum of compound **11**.

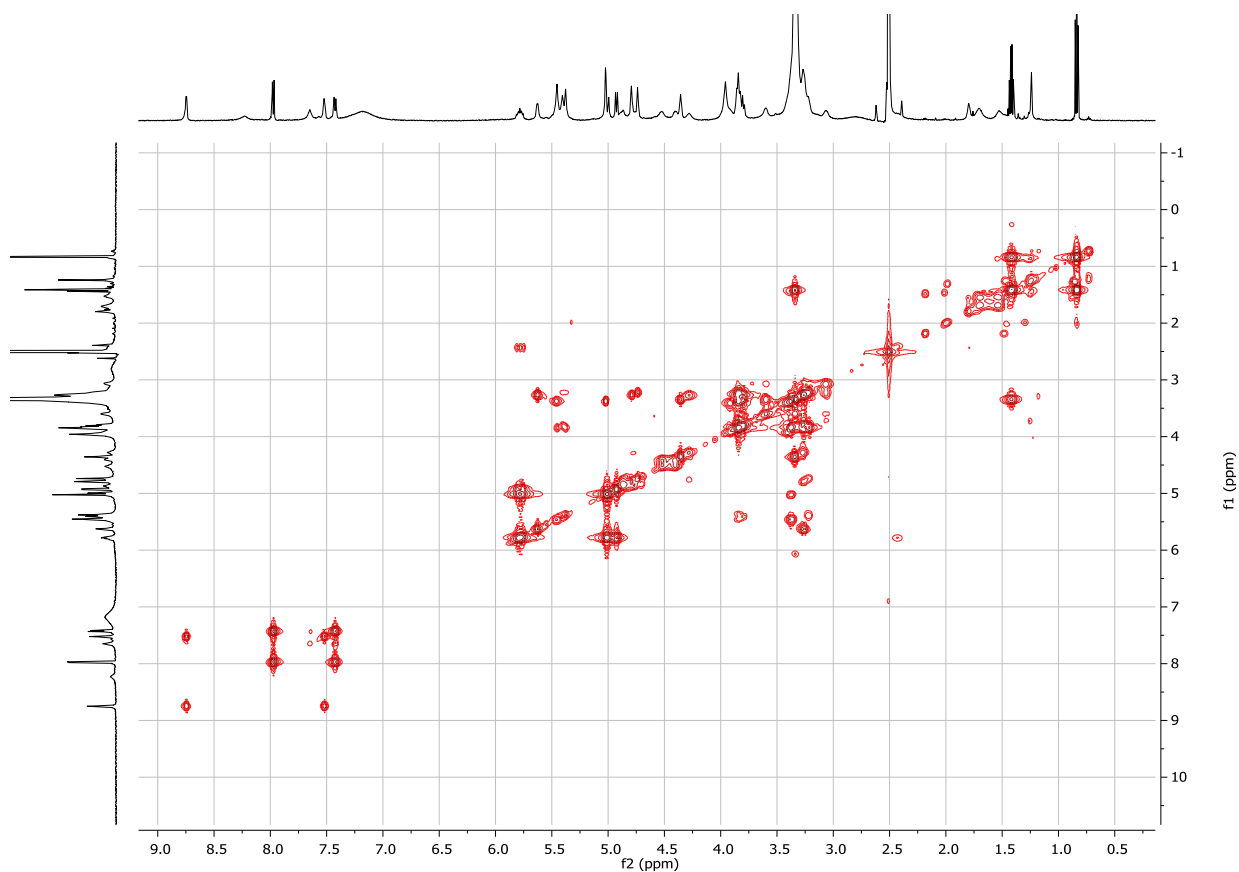


Figure S34: ^1H - ^1H COSY spectrum of compound **11**.

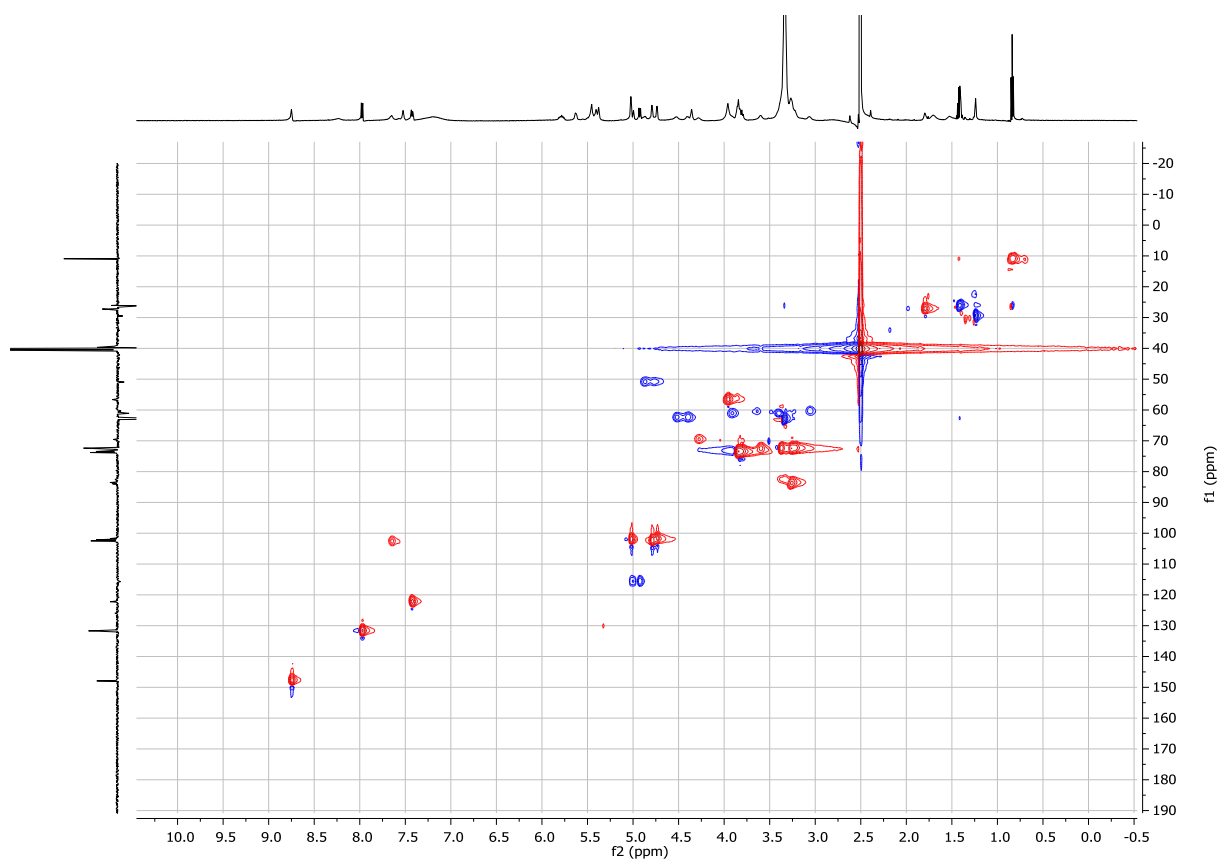


Figure S35: DEPT-edited HSQC spectrum of compound 11.

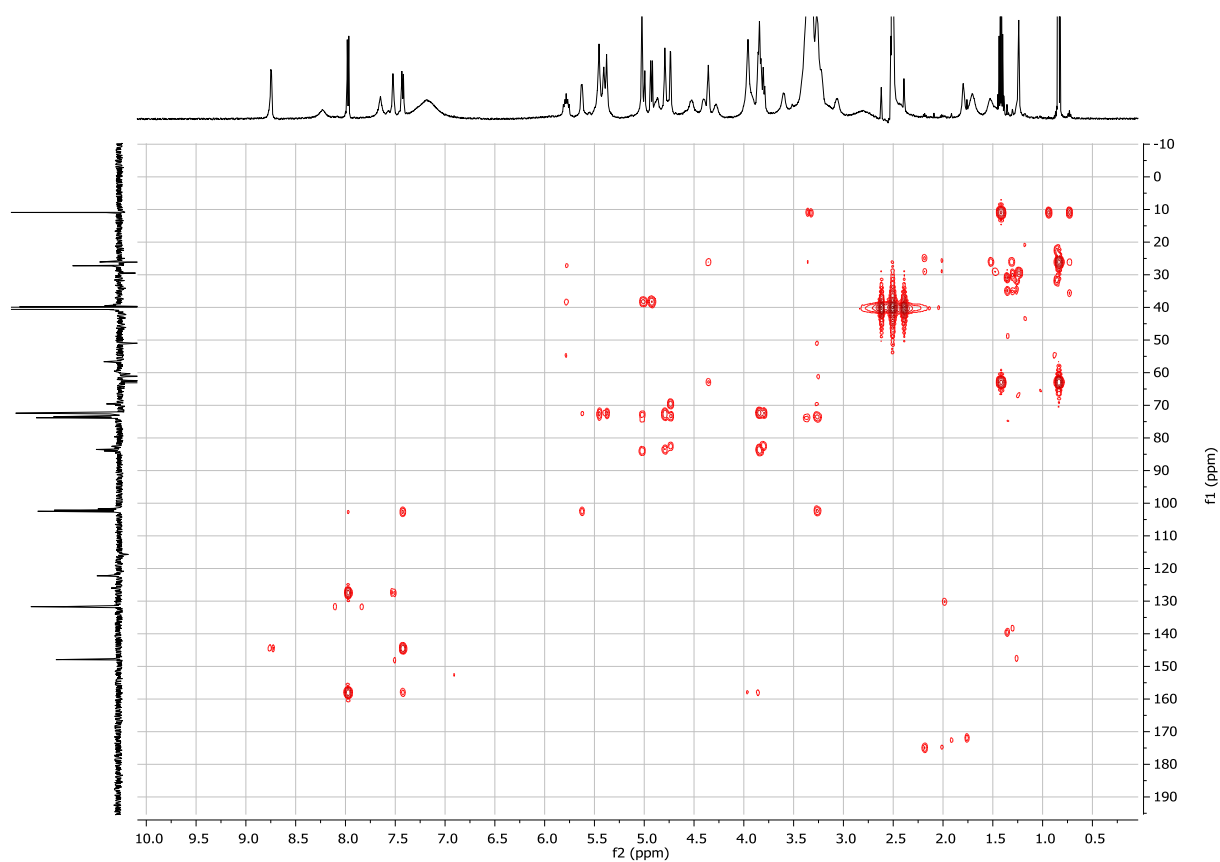


Figure S36: HMBC spectrum of compound 11.