Supplementary Information

Acridone Derivatives as Photosystem II Inhibitors: Synthesis, Herbicidal Activity, and Structure-Activity

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Molecular docking poses of compounds **10a-10e** with D1 protein of photosystem II

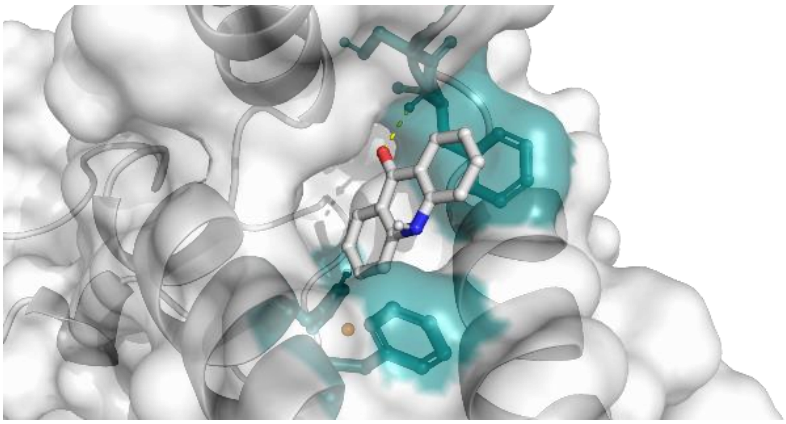

Figure S1. Binding mode of compound **10a** with the pocket site of D1 protein of PSII (PDB ID: 4V82).

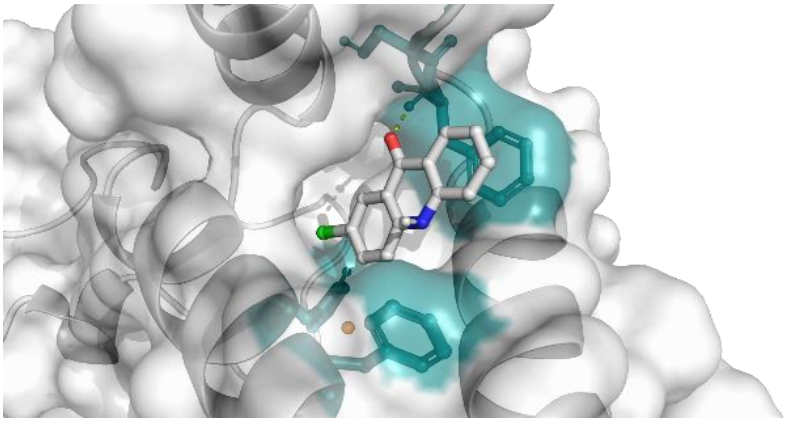

Figure S2. Binding mode of compound **10b** with the pocket site of D1 protein of PSII (PDB ID: 4V82).

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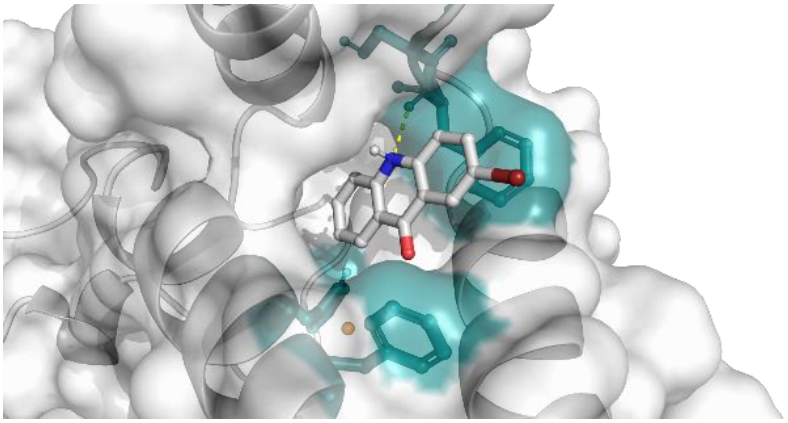

Figure S3. Binding mode of compound **10c** with the pocket site of D1 protein of PSII (PDB ID: 4V82).

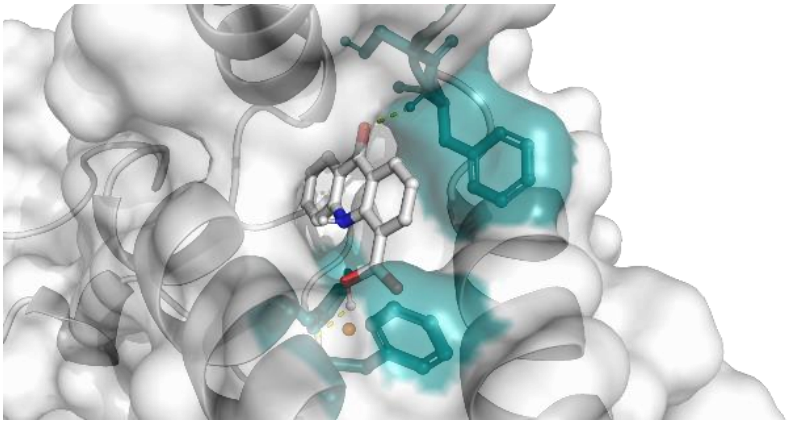

Figure S4. Binding mode of compound **10d** with the pocket site of D1 protein of PSII (PDB ID: 4V82).

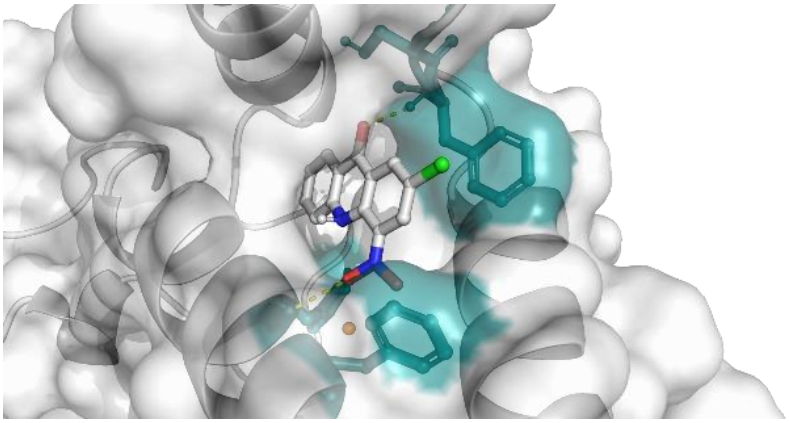

Figure S5. Binding mode of compound **10e** with the pocket site of D1 protein of PSII (PDB ID: 4V82).

Molecular docking poses of compounds **10a-10e** with HPPD enzyme

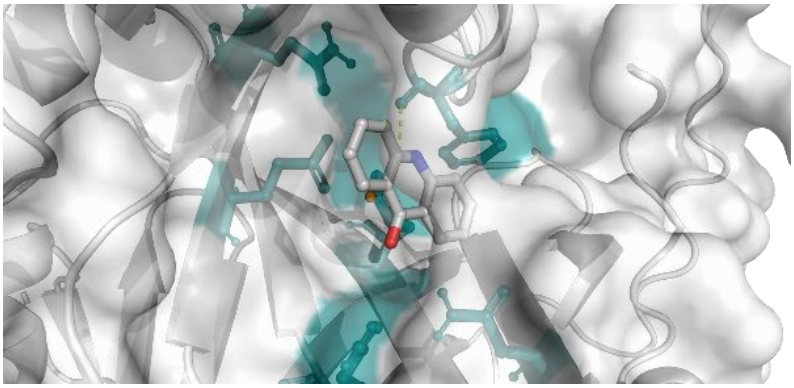

Figure S6. Binding mode of compound **10a** with the pocket site of HPPD enzyme (PDB ID: 6J63).

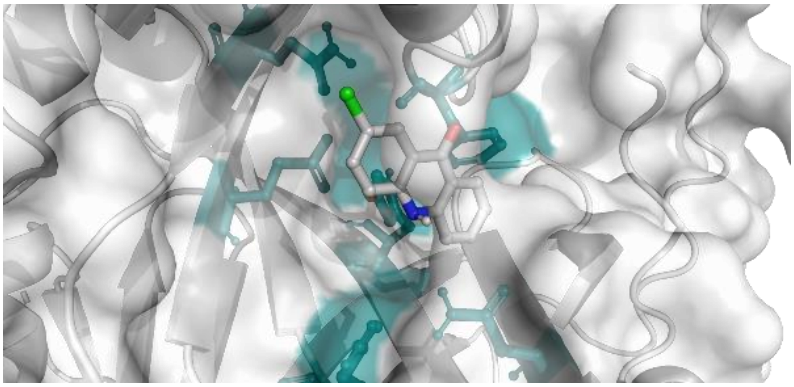

Figure S7. Binding mode of compound **10b** with the pocket site of HPPD enzyme (PDB ID: 6J63).

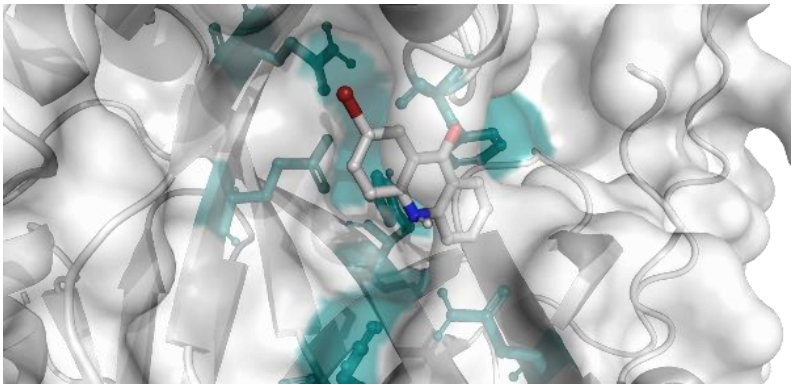

Figure S8. Binding mode of compound **10c** with the pocket site of HPPD enzyme (PDB ID: 6J63).

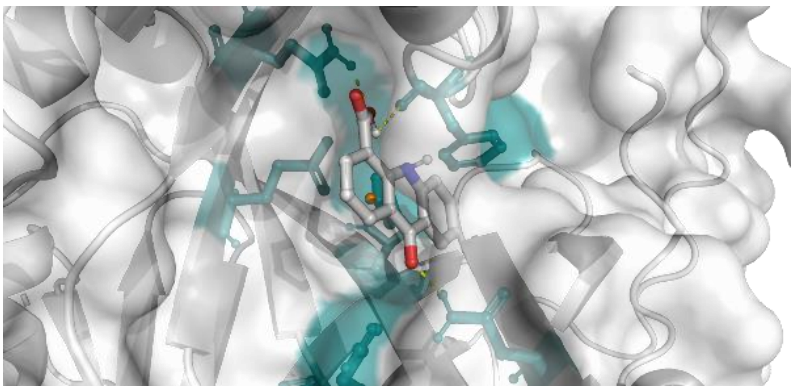

Figure S9. Binding mode of compound **10d** with the pocket site of HPPD enzyme (PDB ID: 6J63).

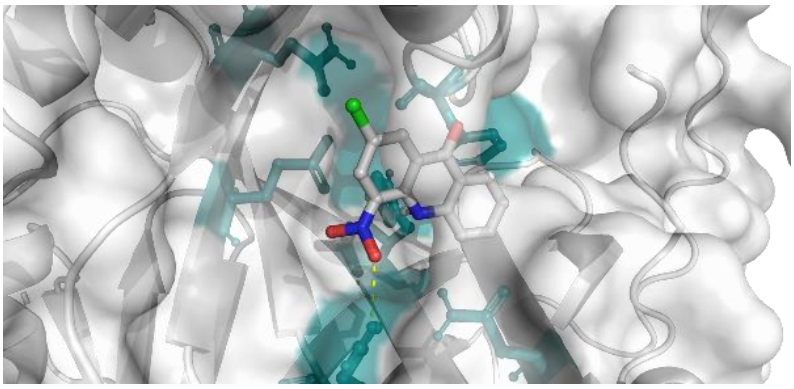

Figure S10. Binding mode of compound **10e** with the pocket site of HPPD enzyme (PDB ID: 6J63).

NMR spectra of compounds **10a-10e**

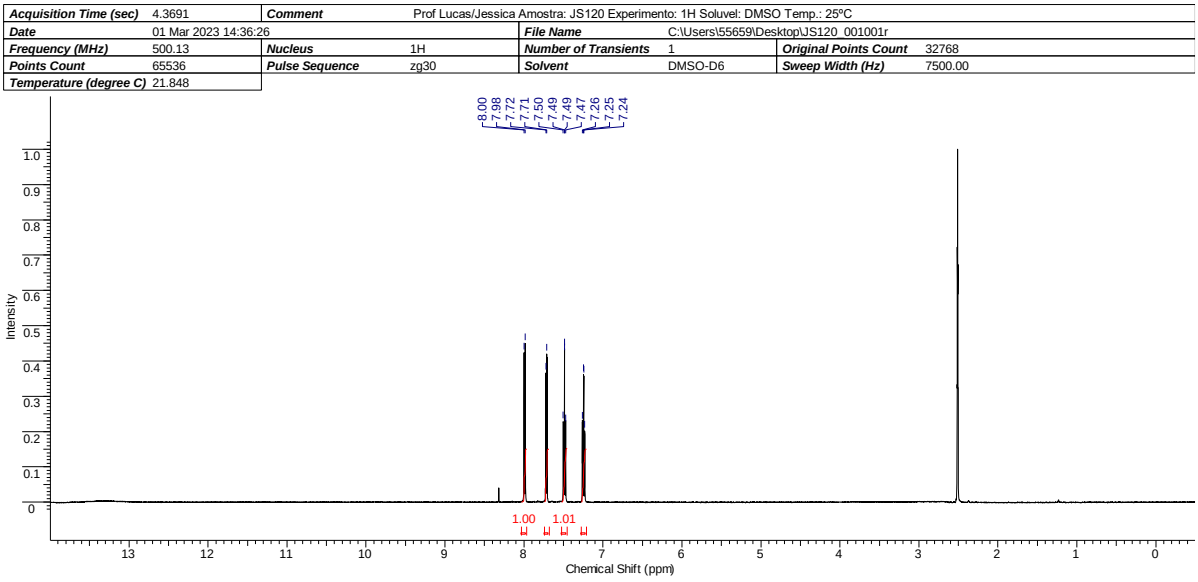

Figure S11. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **7**.

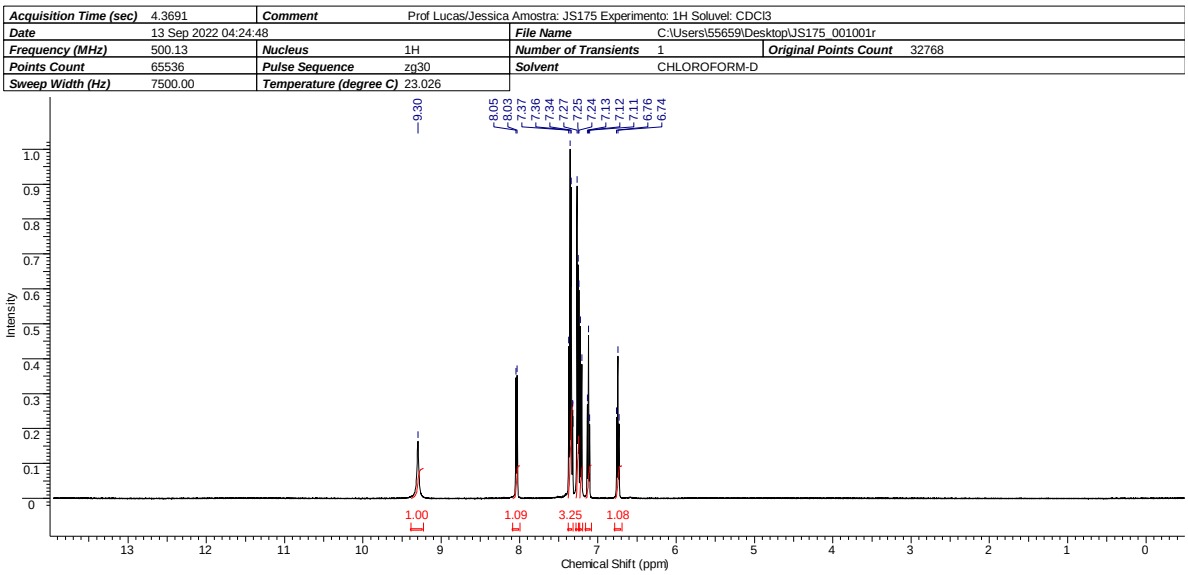

Figure S12. ^{1}H NMR spectrum (500 MHz, $CDCl_3$) of compound **9a**.

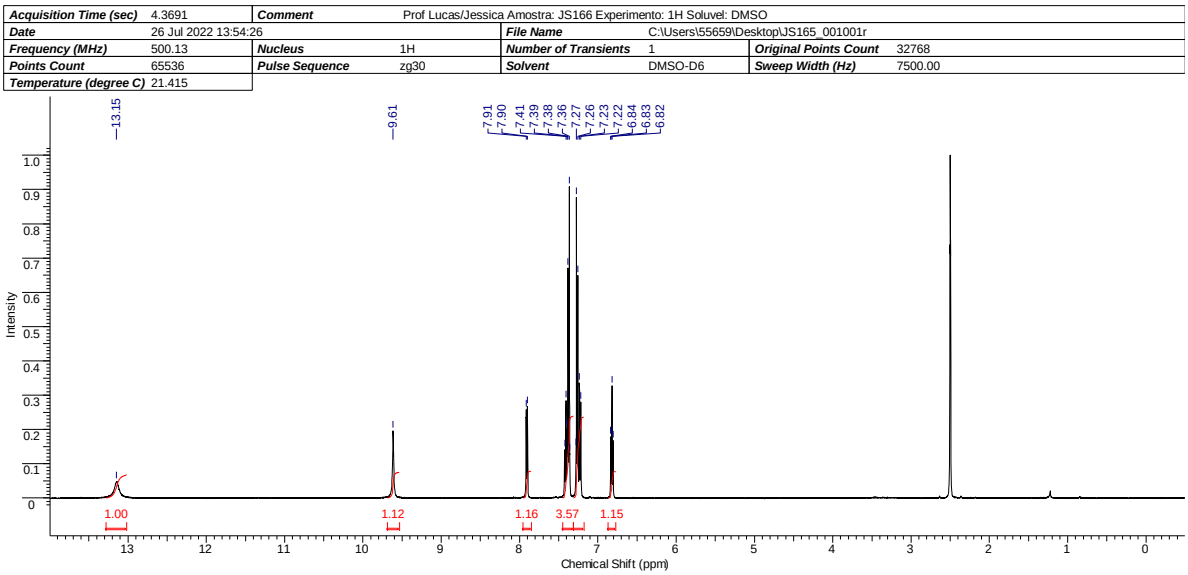

Figure S13. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **9b**.

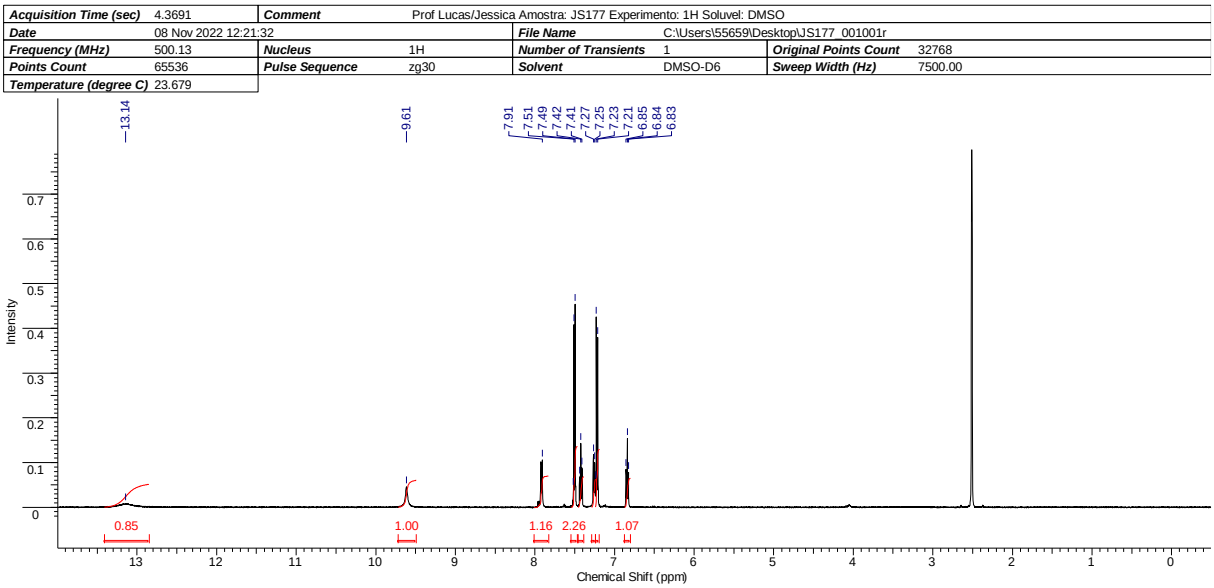

Figure S14. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **9c**.

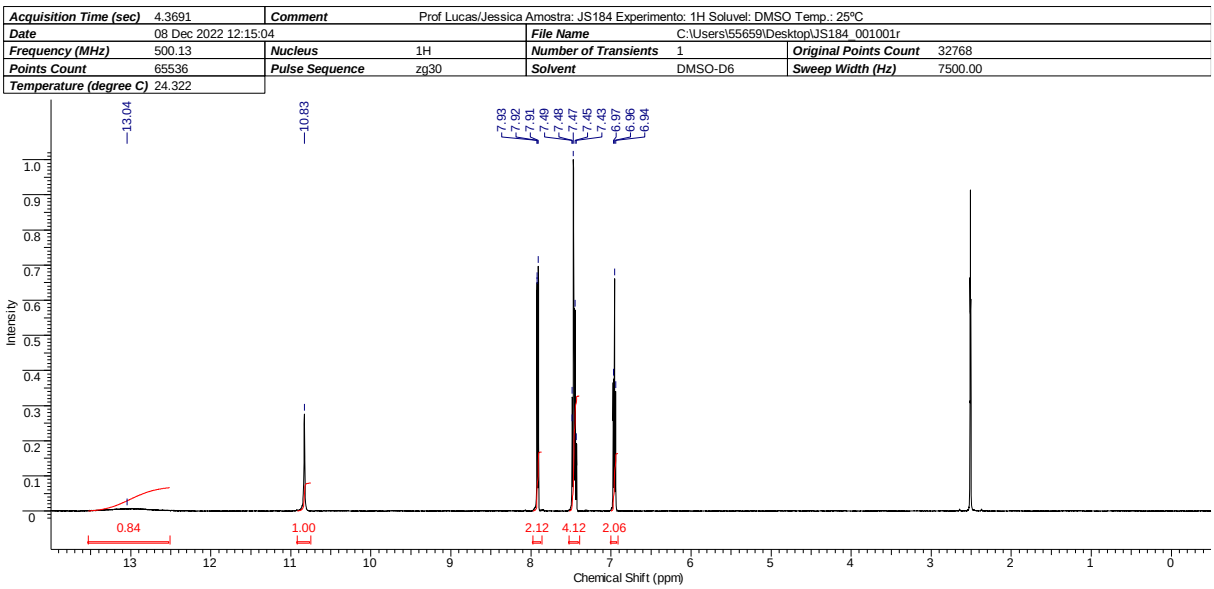

Figure S15. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **9d**.

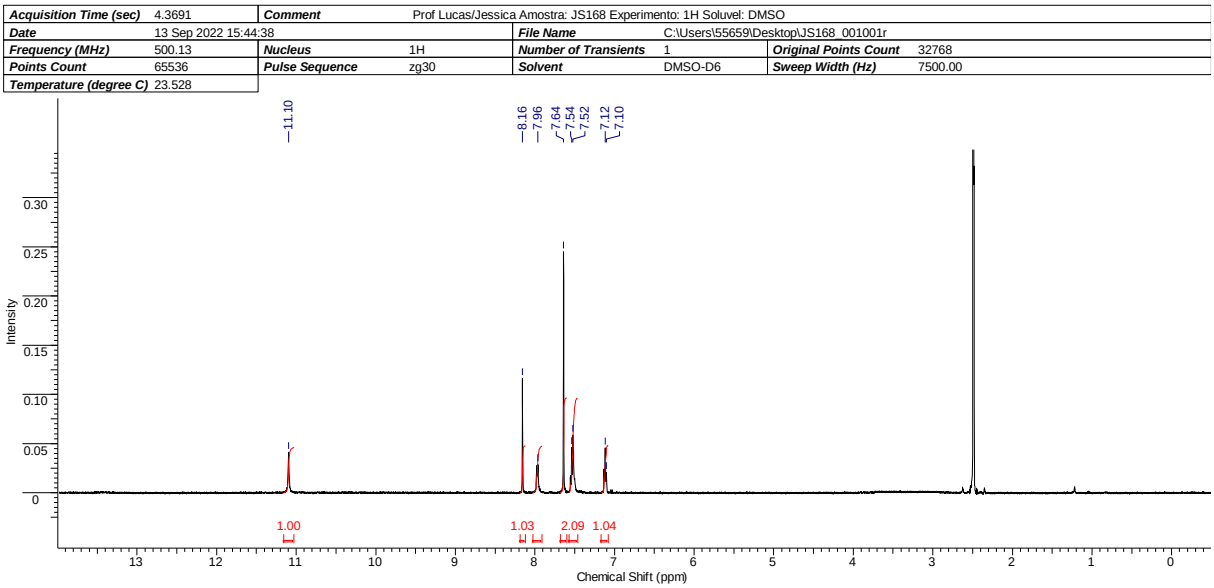

Figure S16. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **9e**.

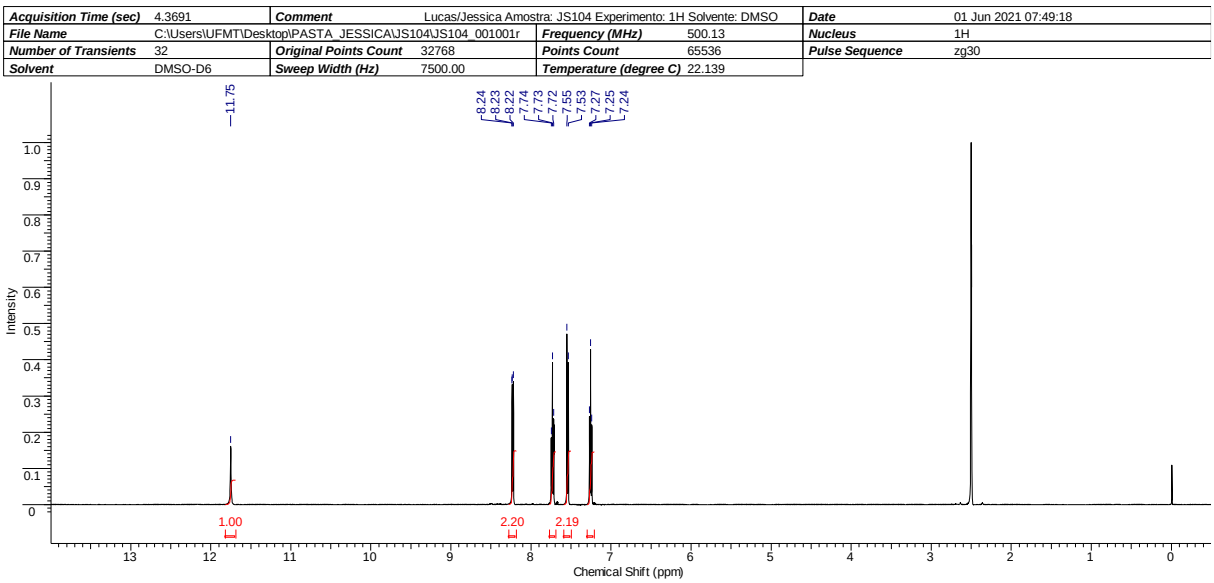

Figure S17. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **10a**.

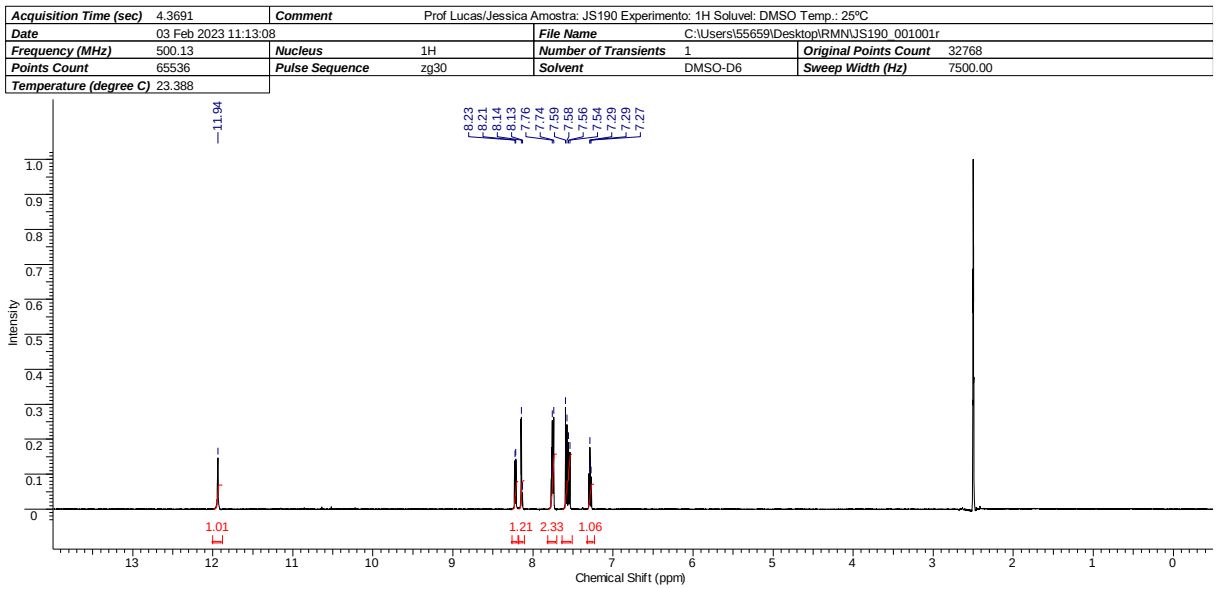

Figure S18. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **10b**.

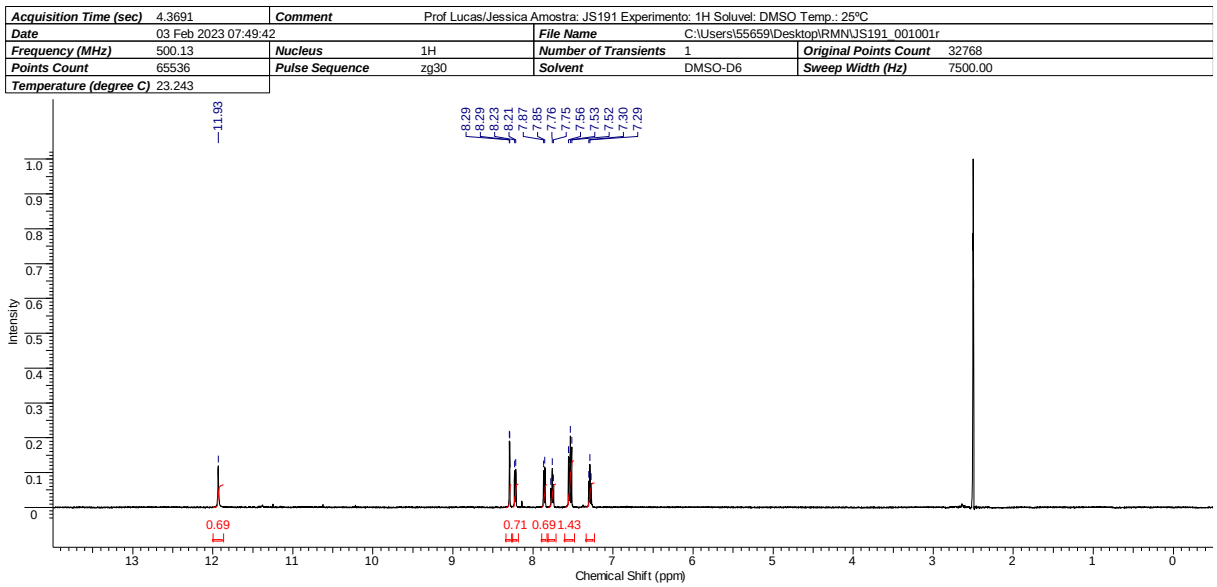

Figure S19. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **10c**.

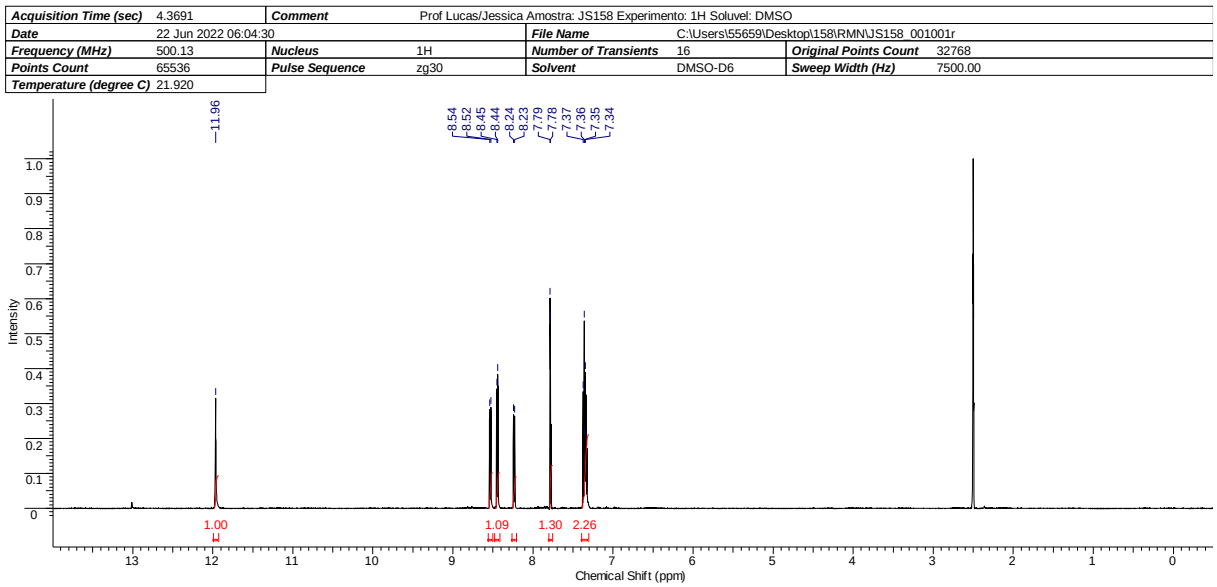

Figure S20. ^{1}H NMR spectrum (500 MHz, DMSO-d_6) of compound **10d**.

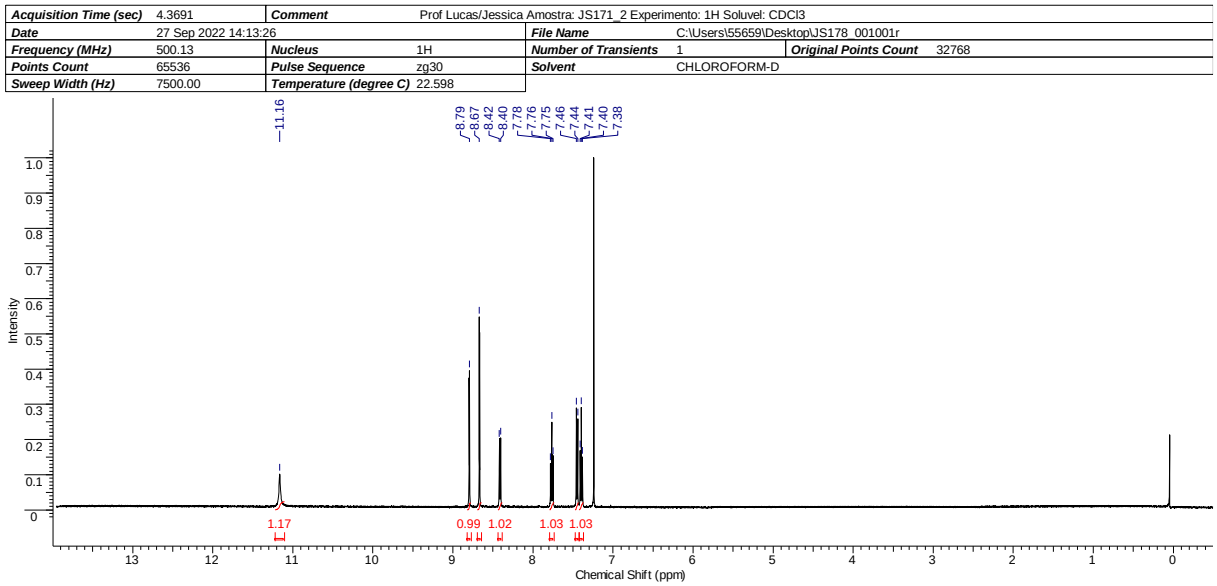

Figure S21. ^{1}H NMR spectrum (500 MHz, $CDCl_3$) of compound **10e**.

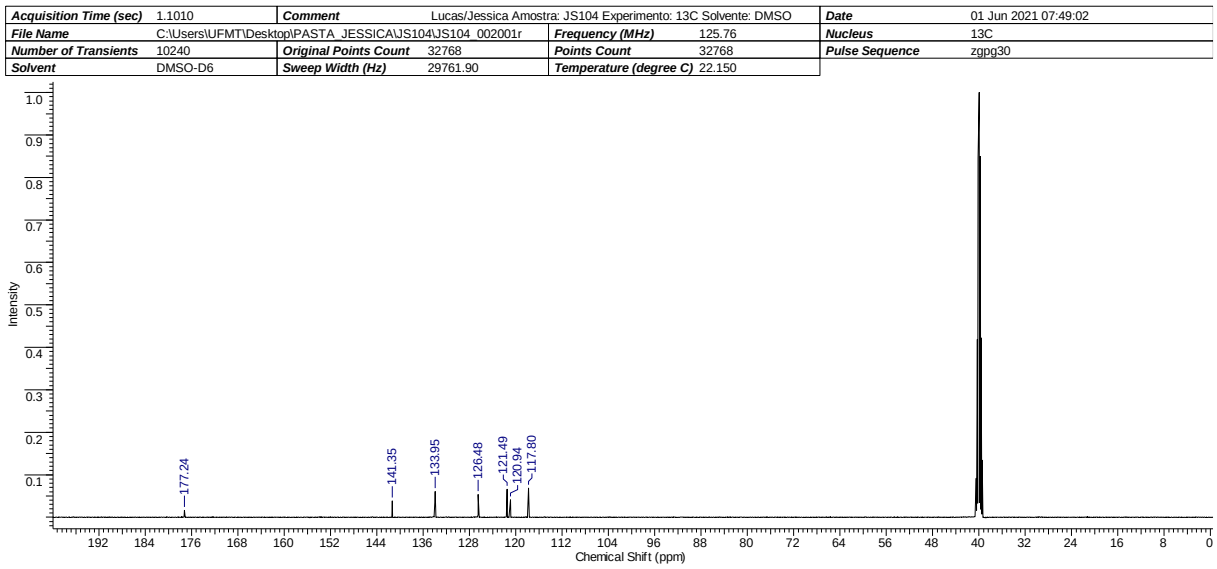

Figure S22. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of compound **10a**.

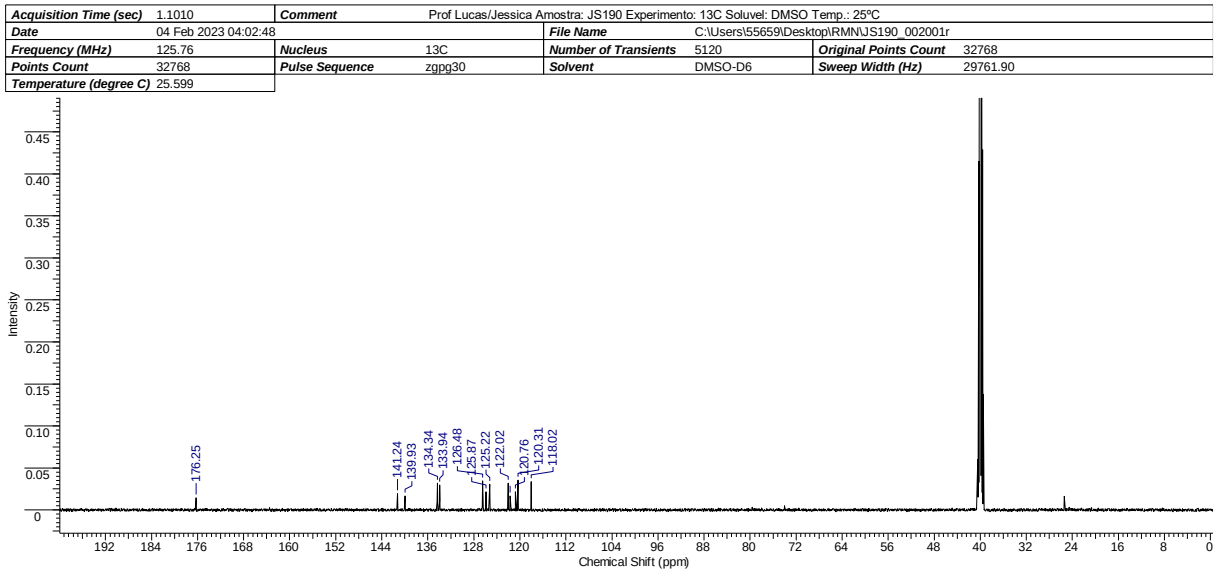

Figure S23. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of compound **10b**.

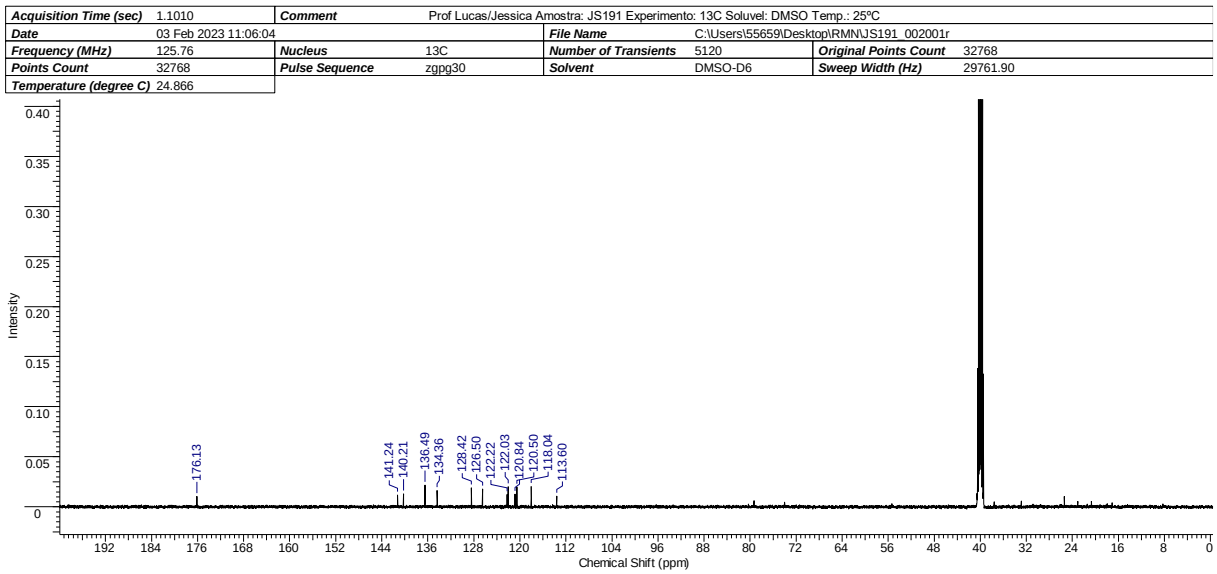

Figure S24. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of compound **10c**.

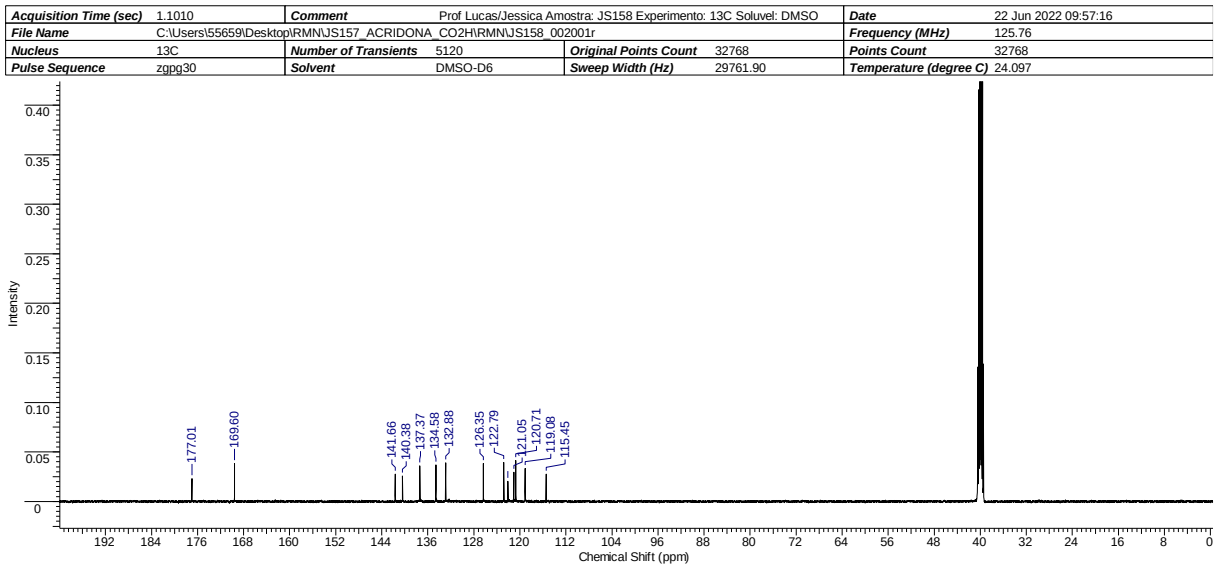

Figure S25. ^{13}C NMR spectrum (125 MHz, DMSO-d_6) of compound **10d**.

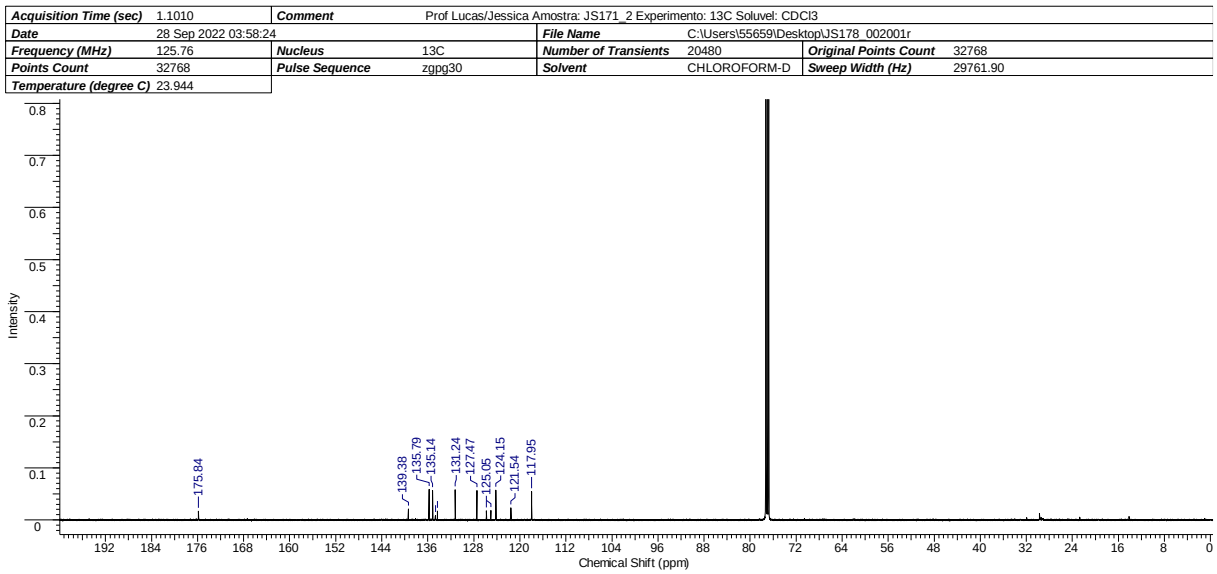

Figure S26. ^{13}C NMR spectrum (125 MHz, $CDCl_3$) of compound **10e**.

FTIR spectra of compounds **10a-10e**

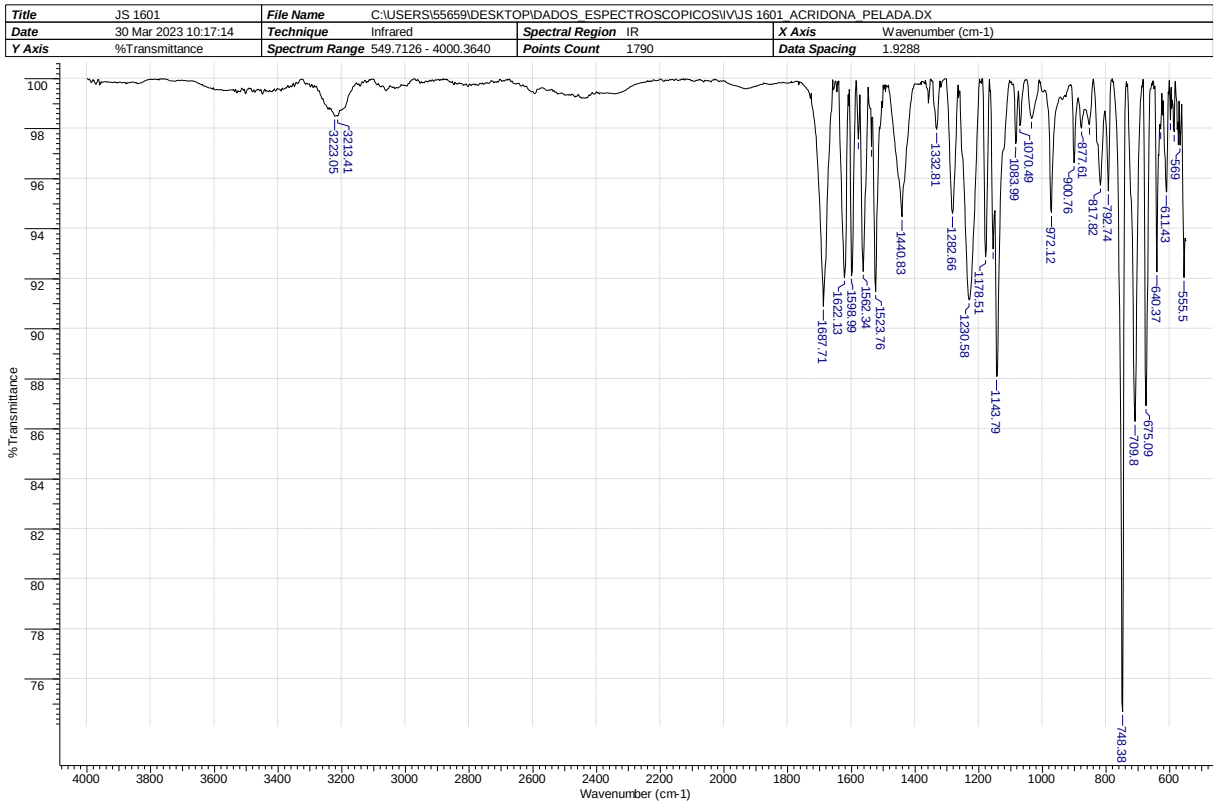

Figure S27. FTIR (KBr) spectrum of compound **10a**.

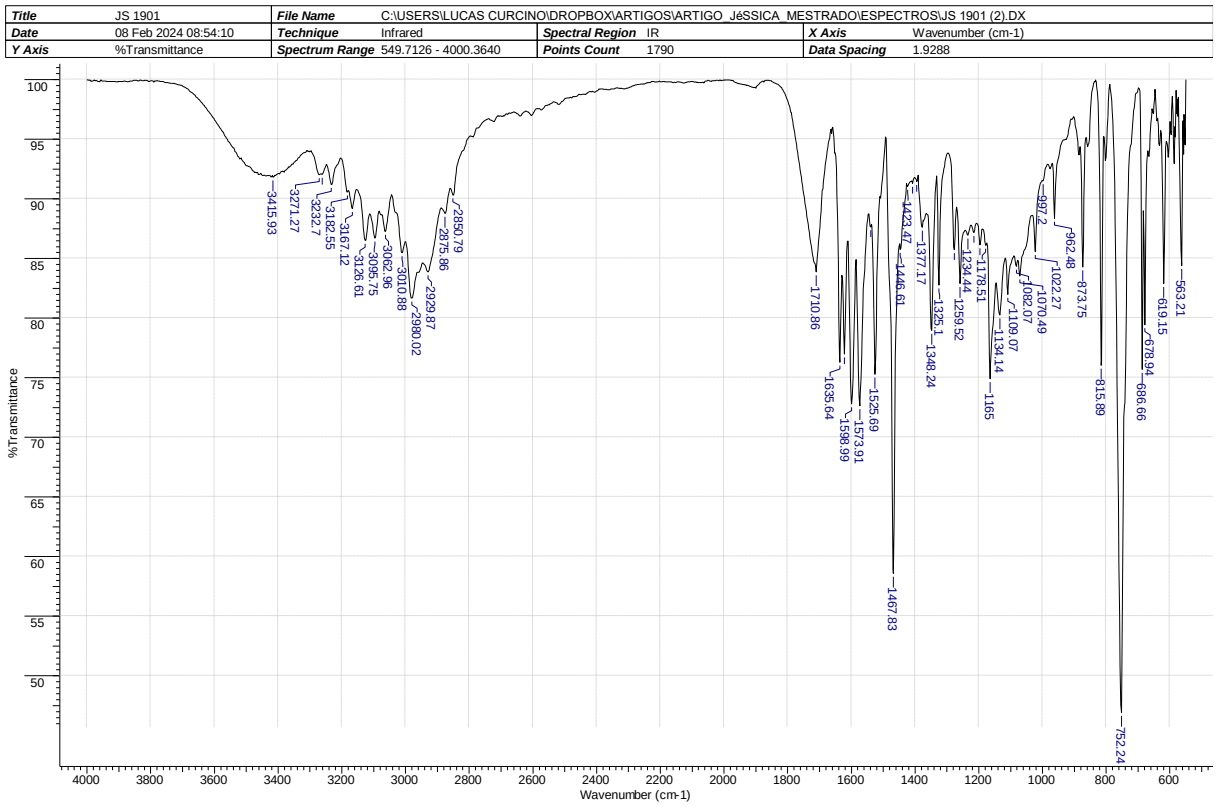

Figure S28. FTIR (KBr) spectrum of compound **10b**.

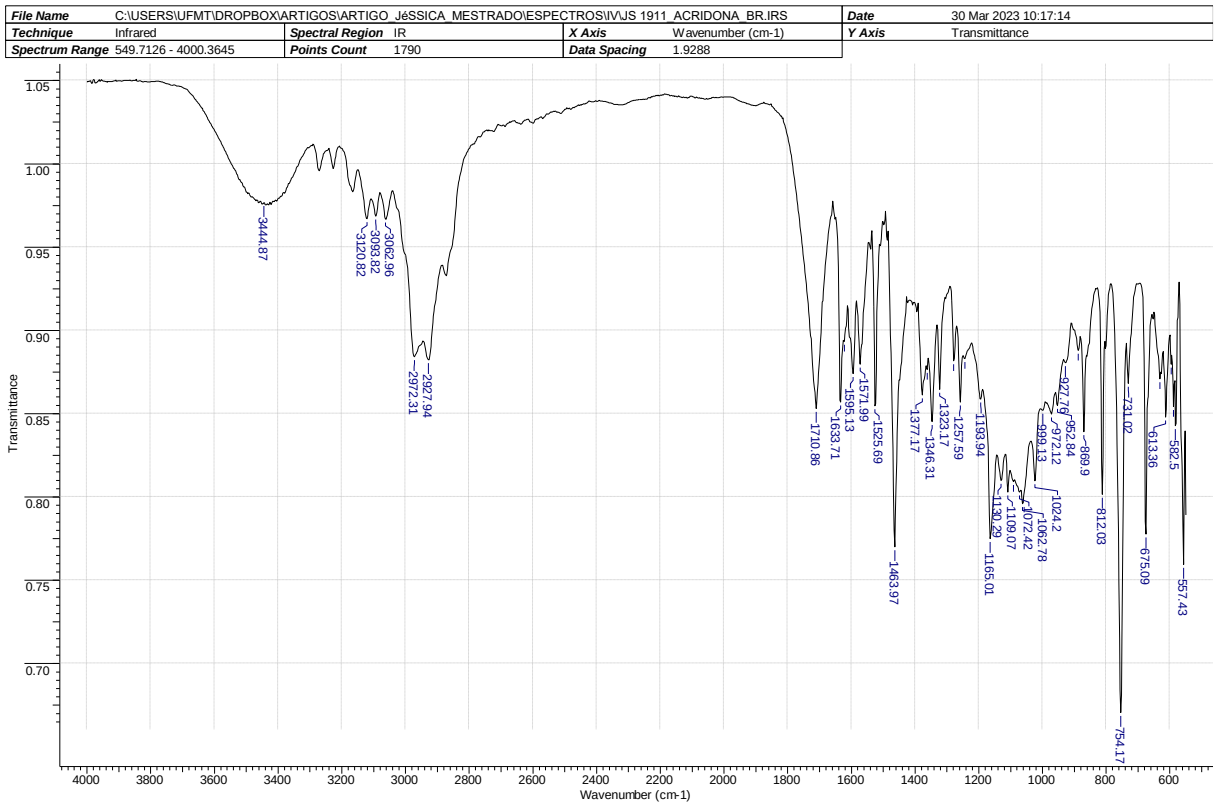

Figure S29. FTIR (KBr) spectrum of compound **10c**.

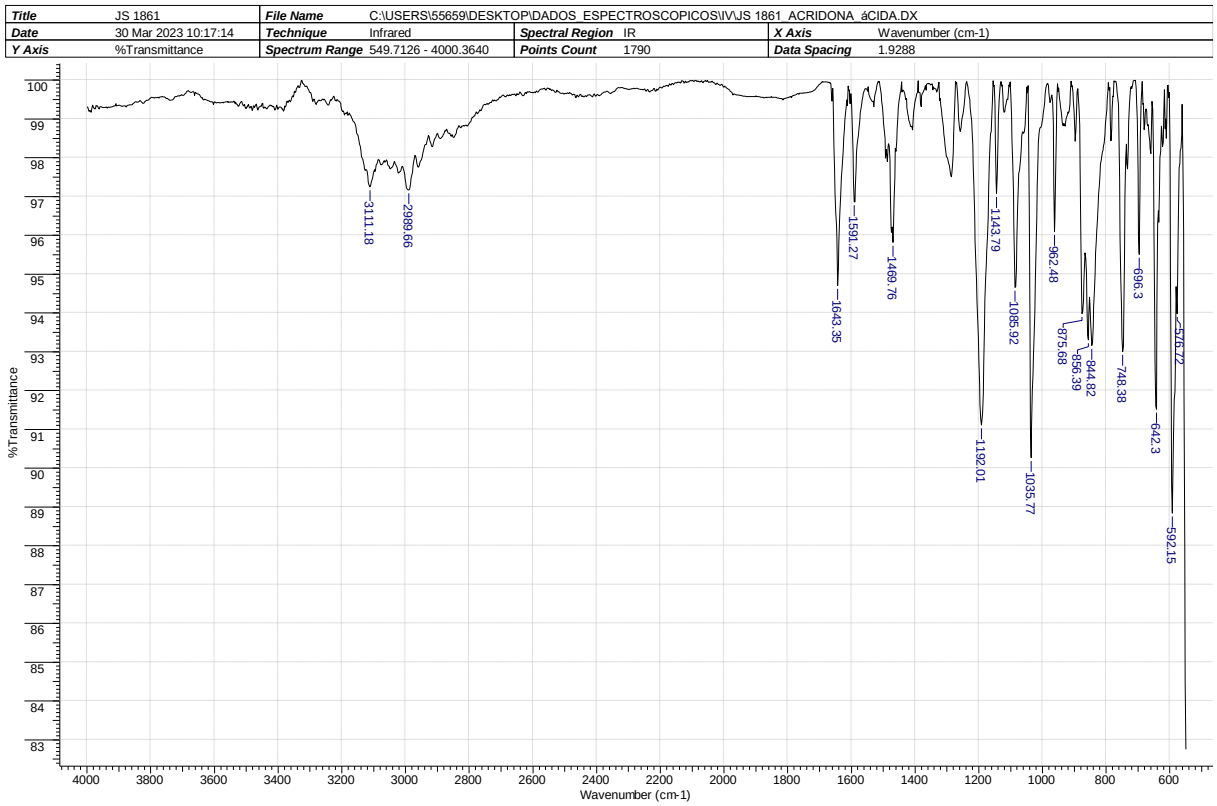

Figure S30. FTIR (KBr) spectrum of compound **10d**.

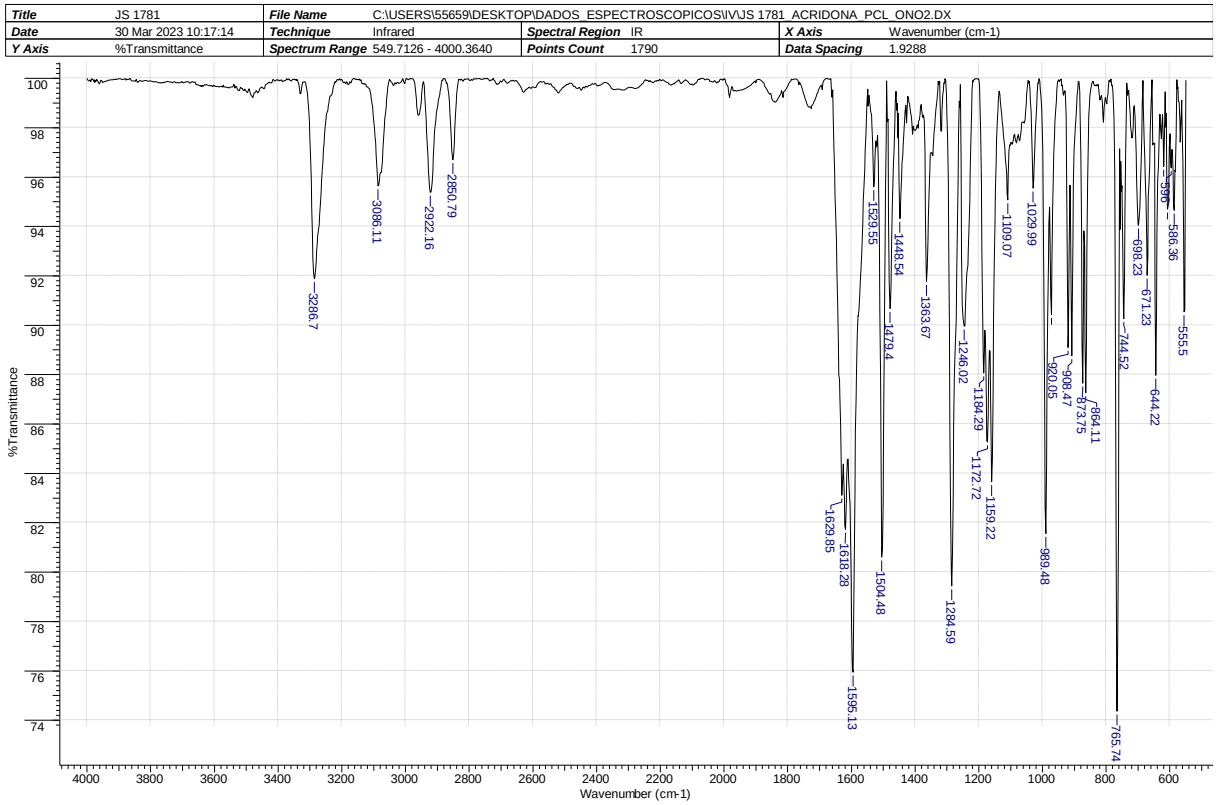

Figure S31. FTIR (KBr) spectrum of compound **10e**.