Supporting Information

An Improved, Efficient Method for the Quaternization of Nicotinamide and Antifungal Activities of Its Derivatives

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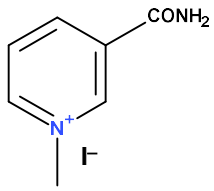
I) Copies of ^{1}H- and ^{13}C-NMR spectra



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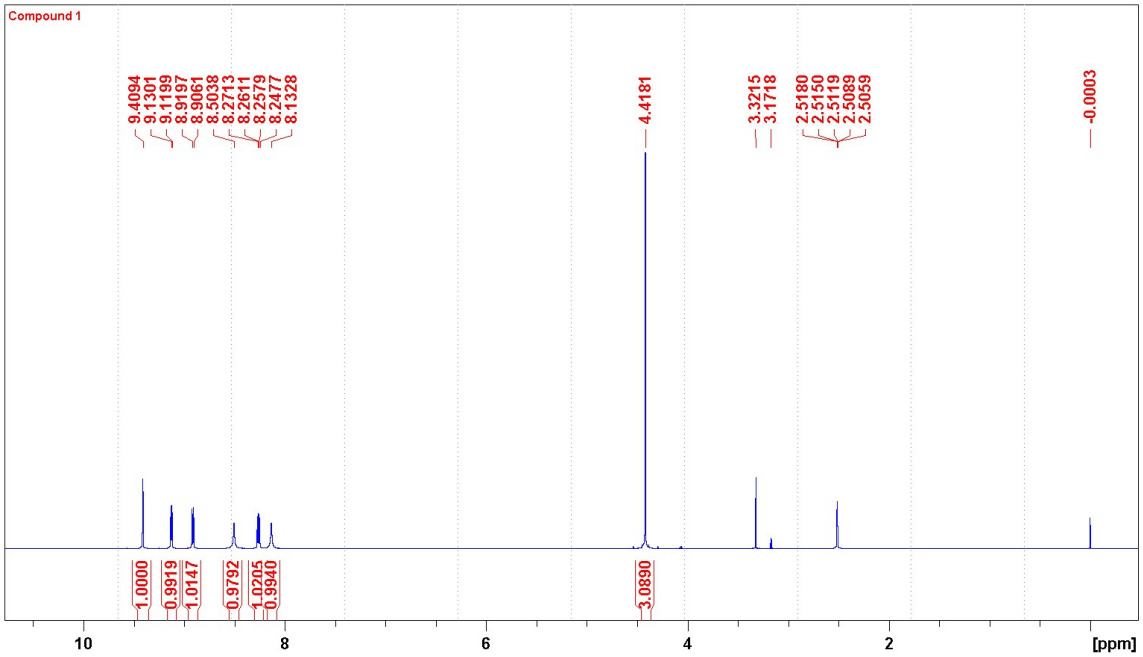


Figure S1. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(1)**.

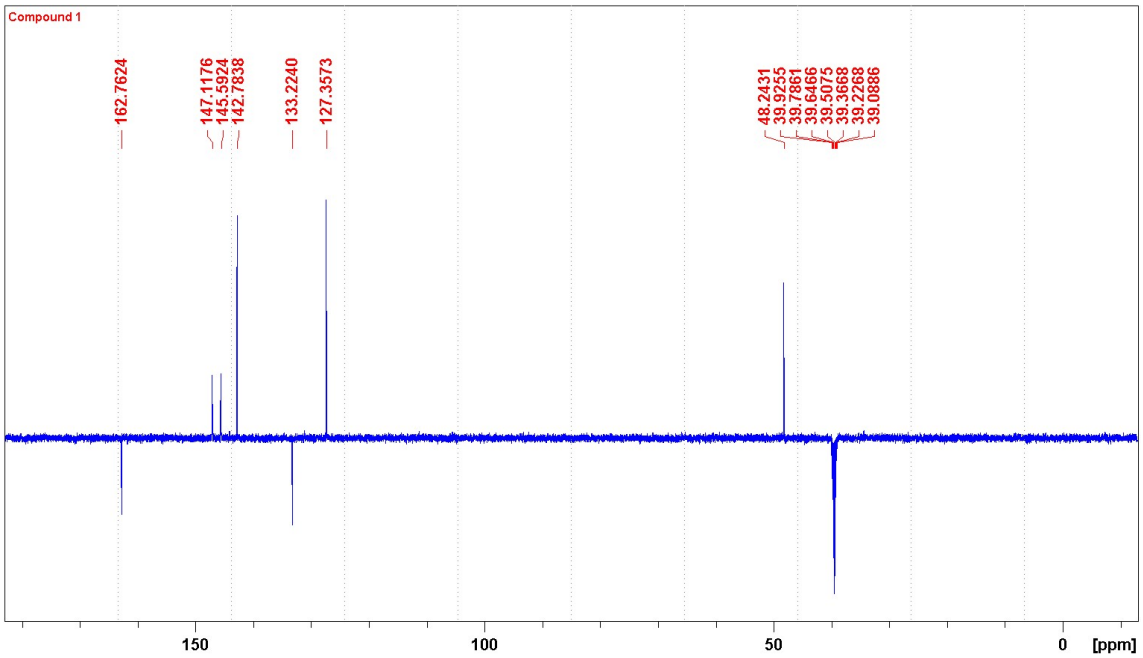
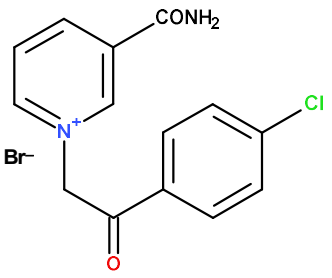


Figure S2. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(1)**.



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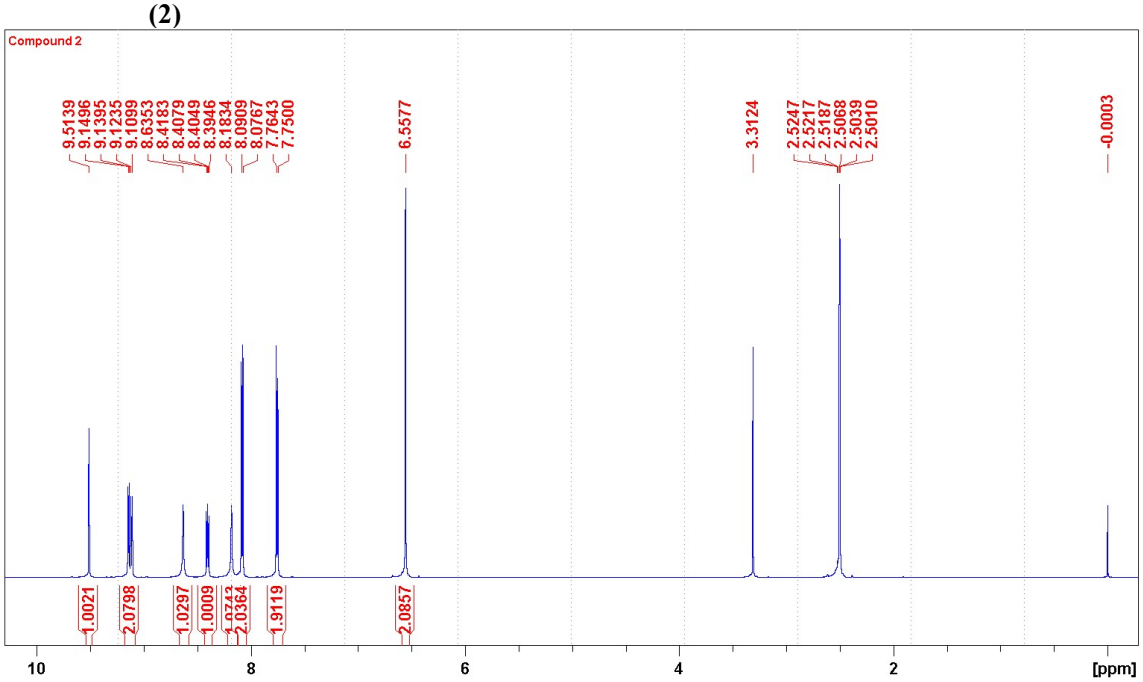


Figure S3. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(2)**.

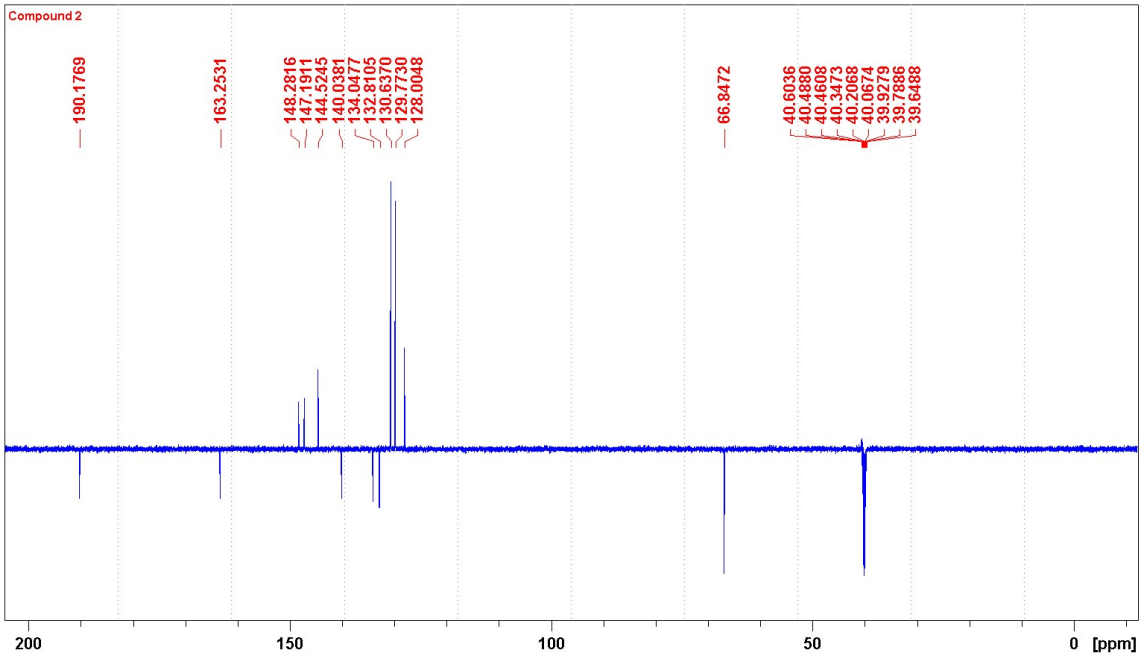
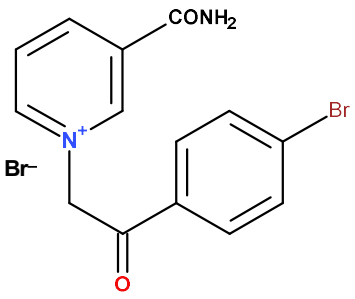


Figure S4. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(2)**.



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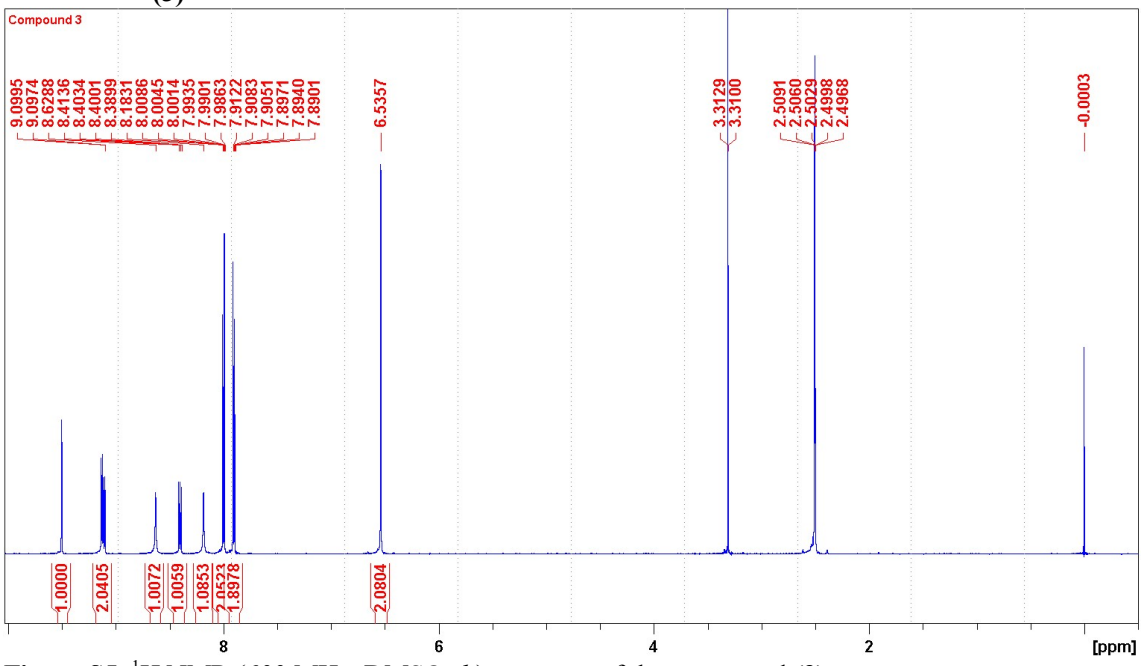


Figure S5. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(3)**.

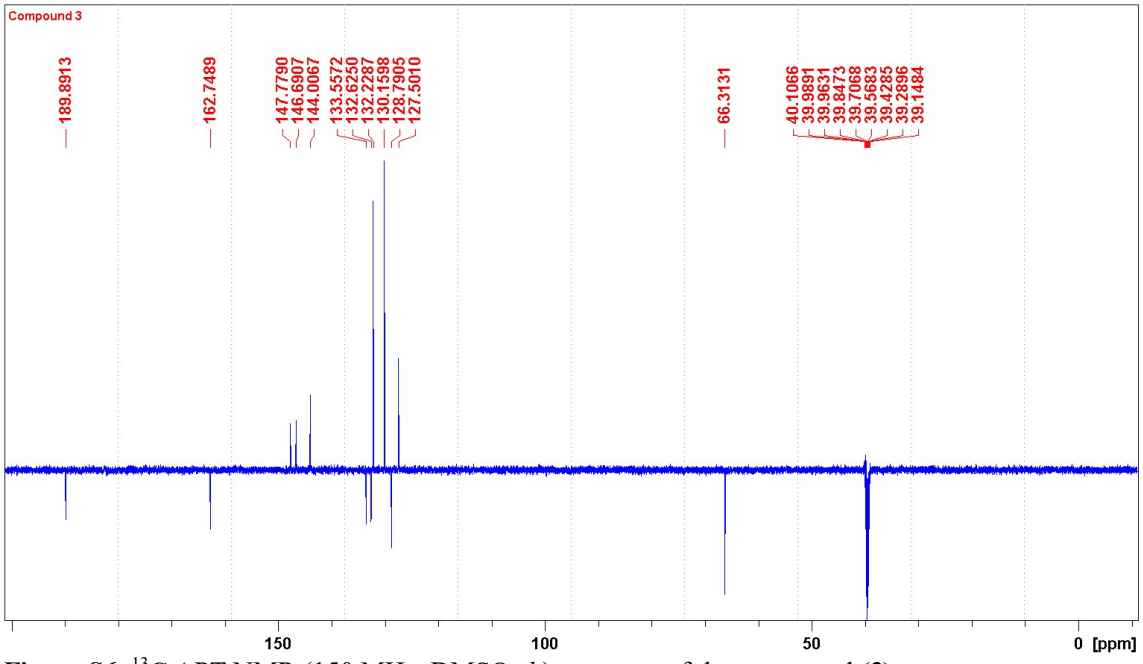
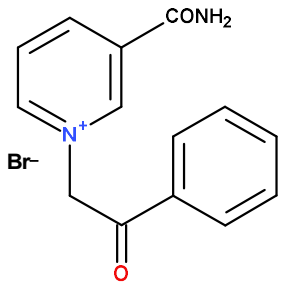


Figure S6. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(3)**.



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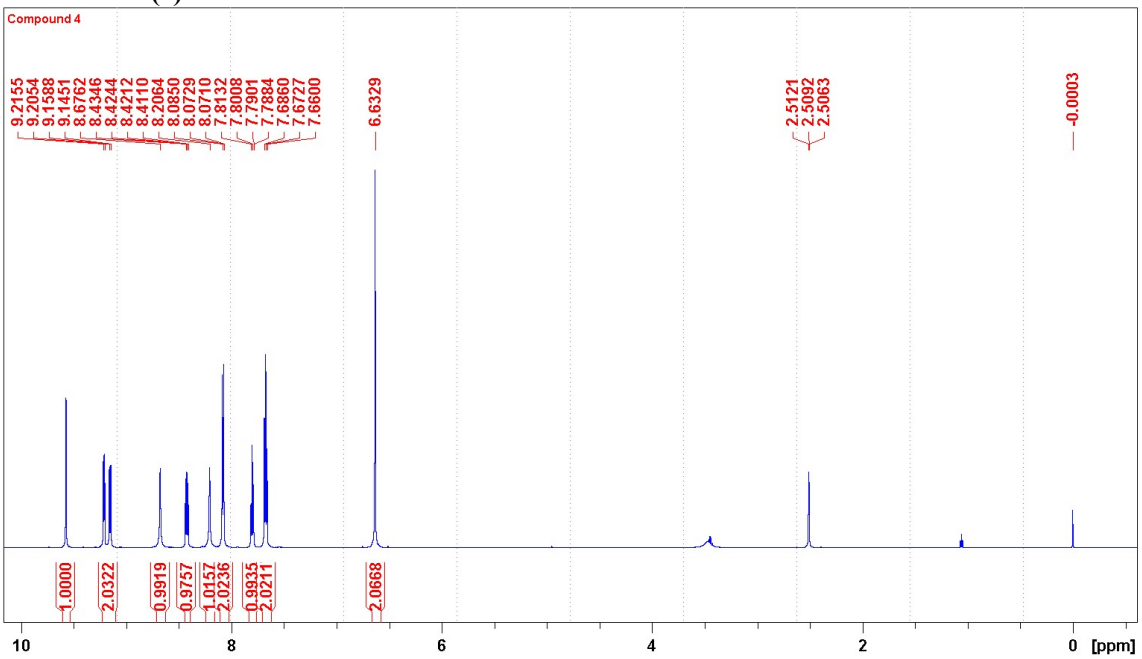


Figure S7. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(4)**.

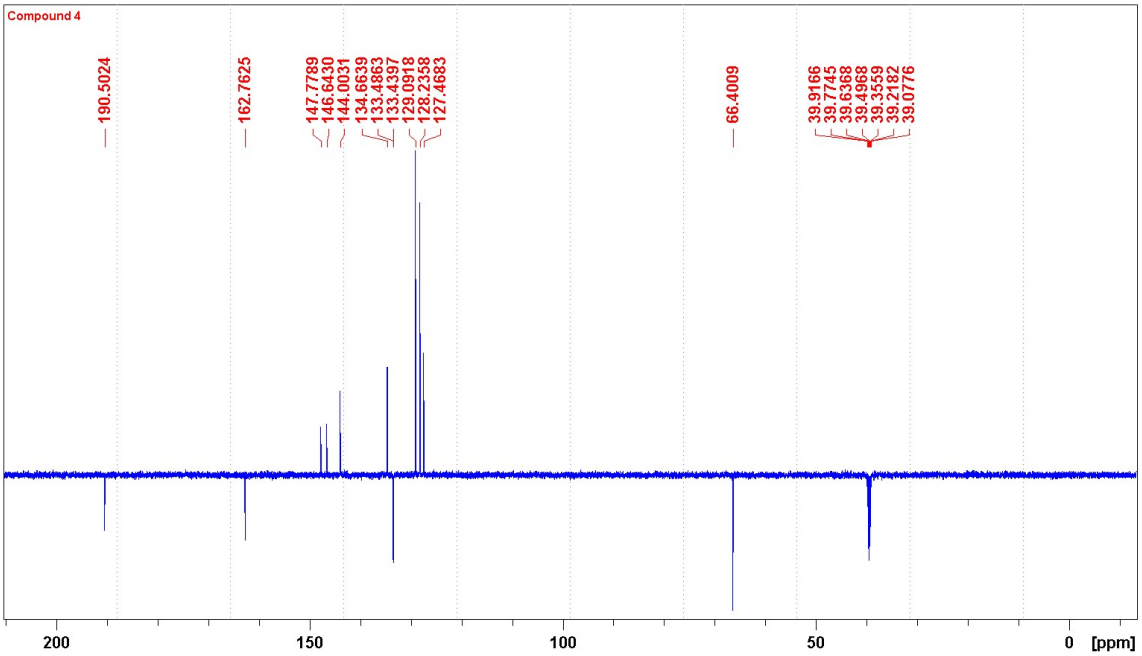
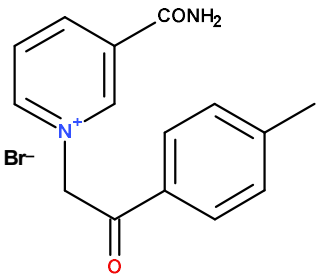


Figure S8. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(4)**.



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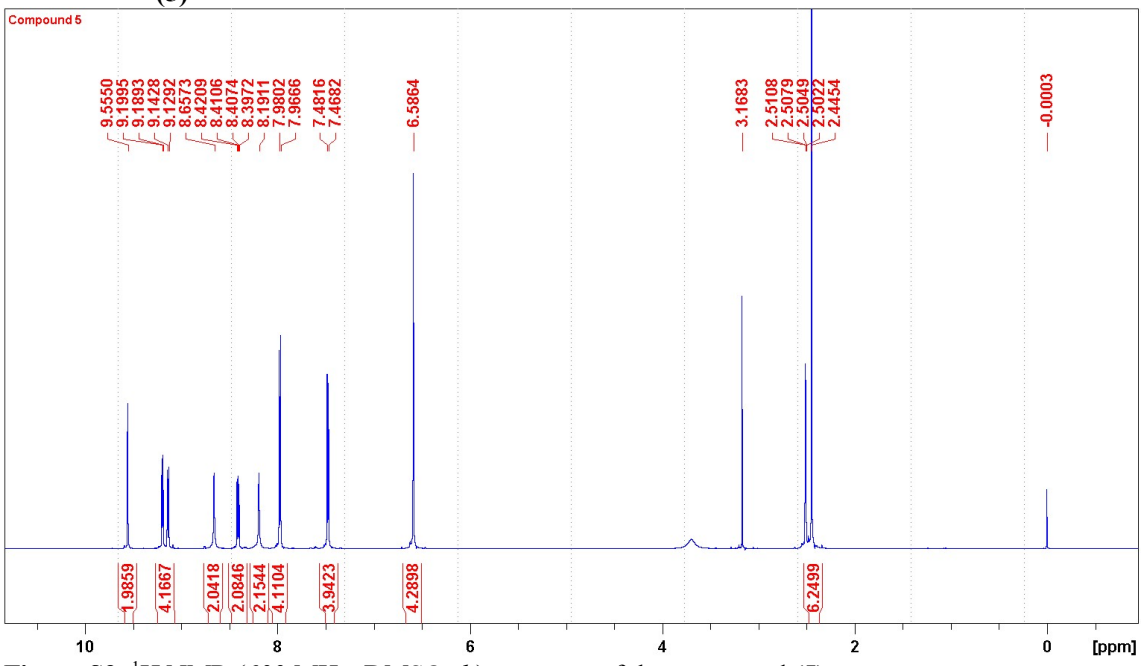


Figure S9. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(5)**.

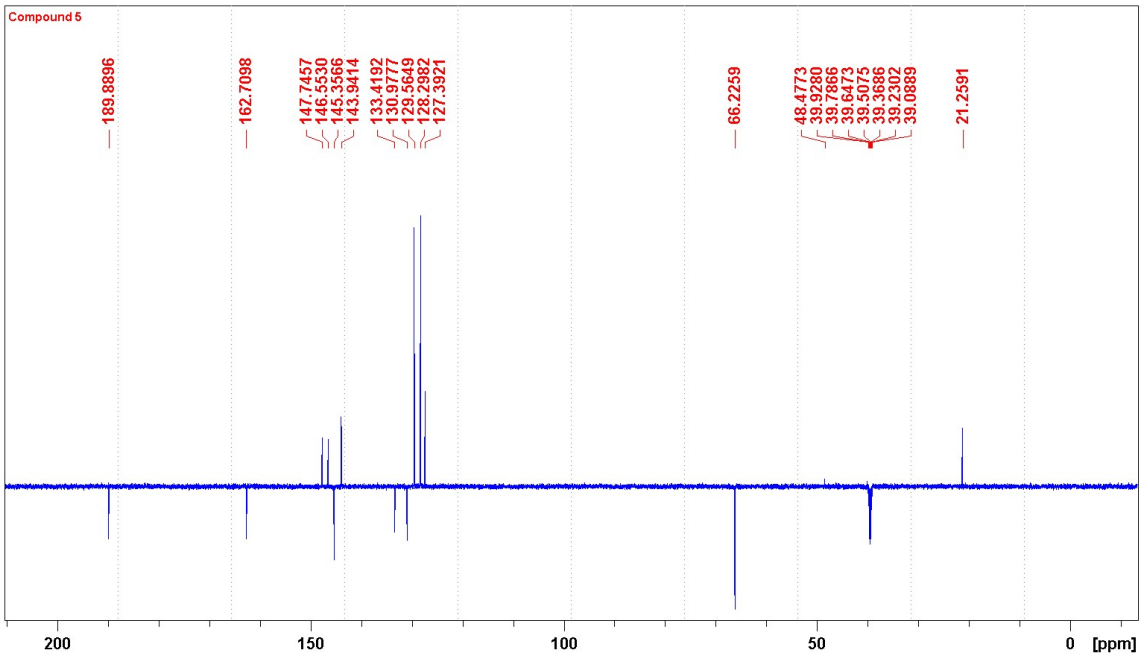
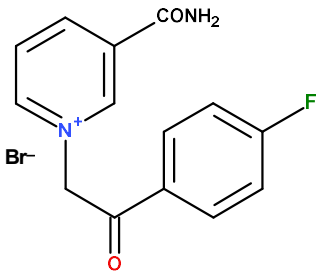


Figure S10. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(5)**.



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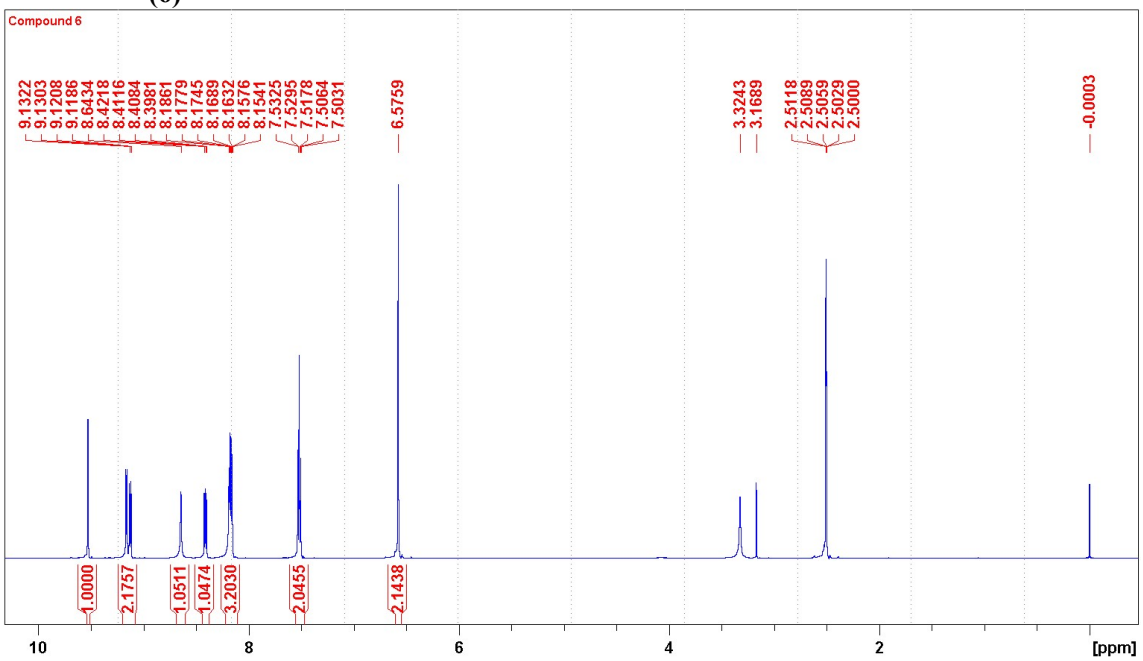


Figure S11. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(6)**.

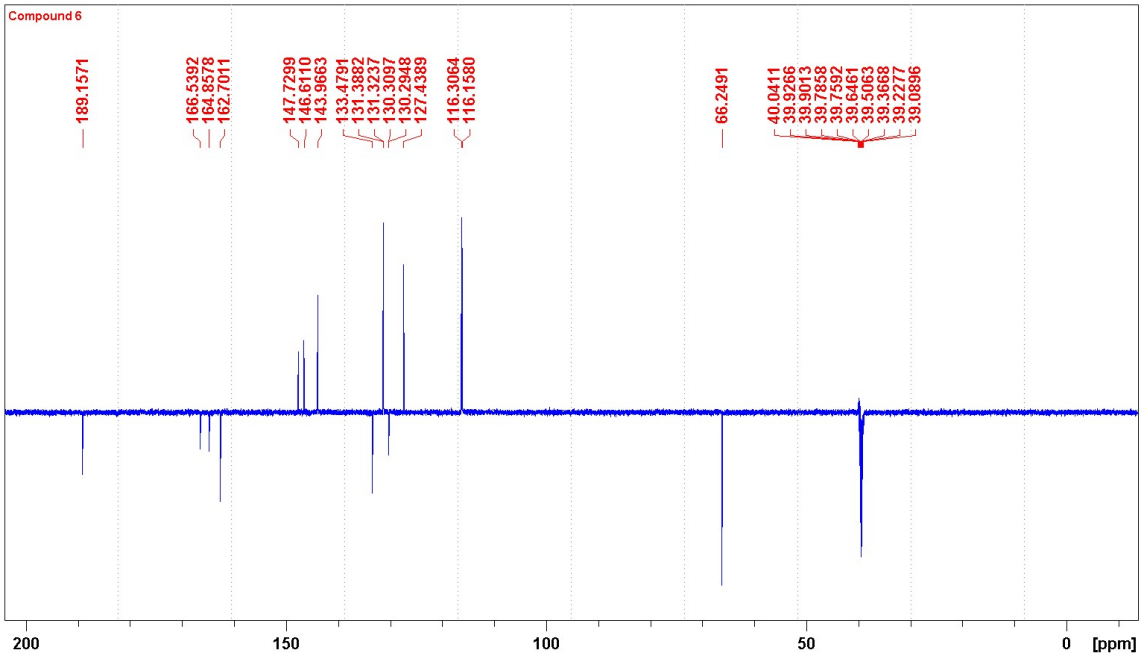
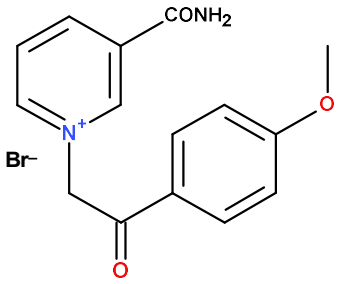


Figure S12. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(6)**.



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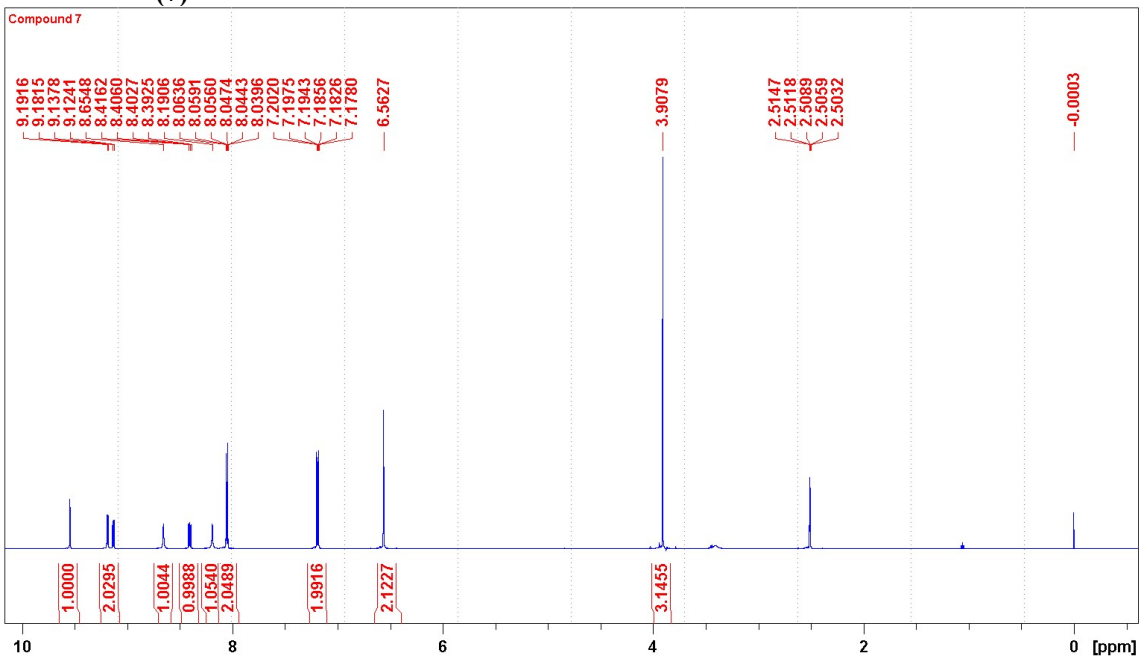


Figure S13. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(7)**.

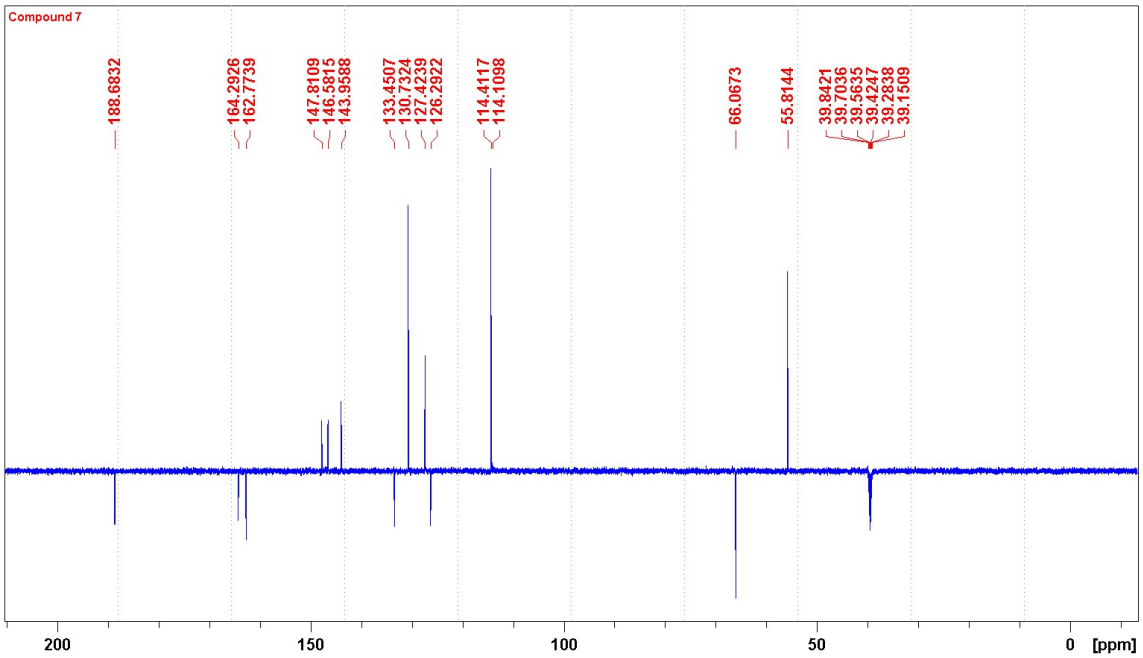
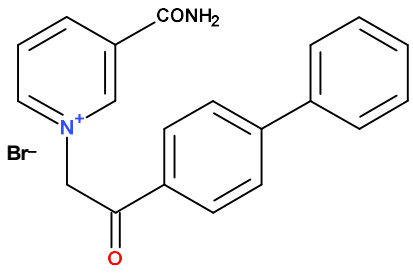


Figure S14. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(7)**.



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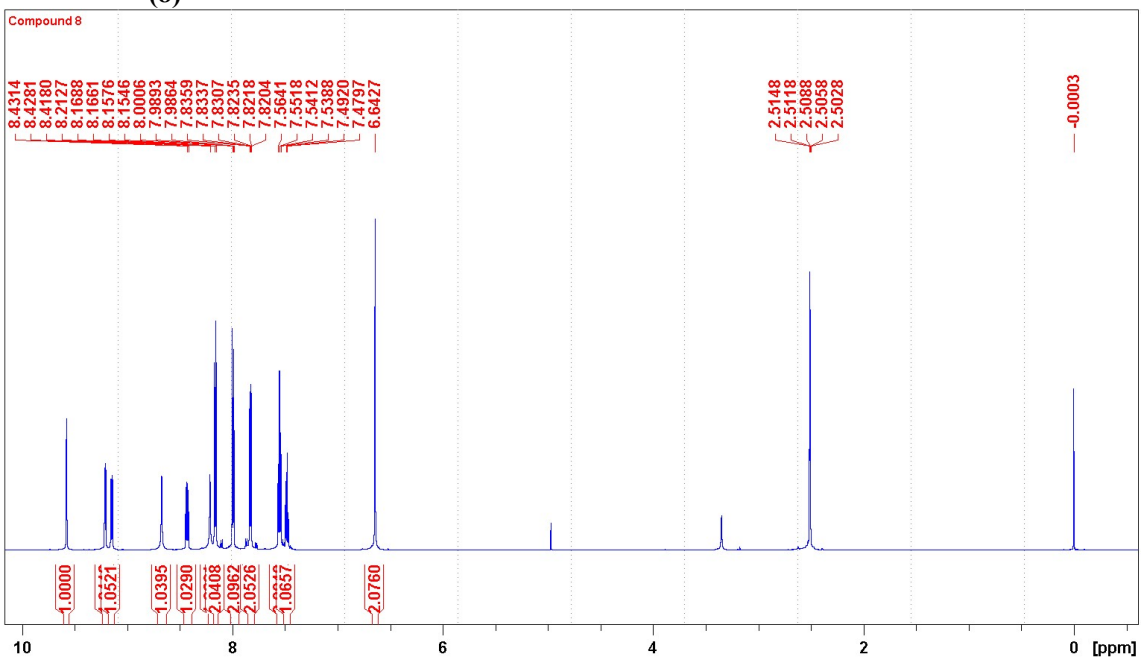


Figure S15. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(8)**.

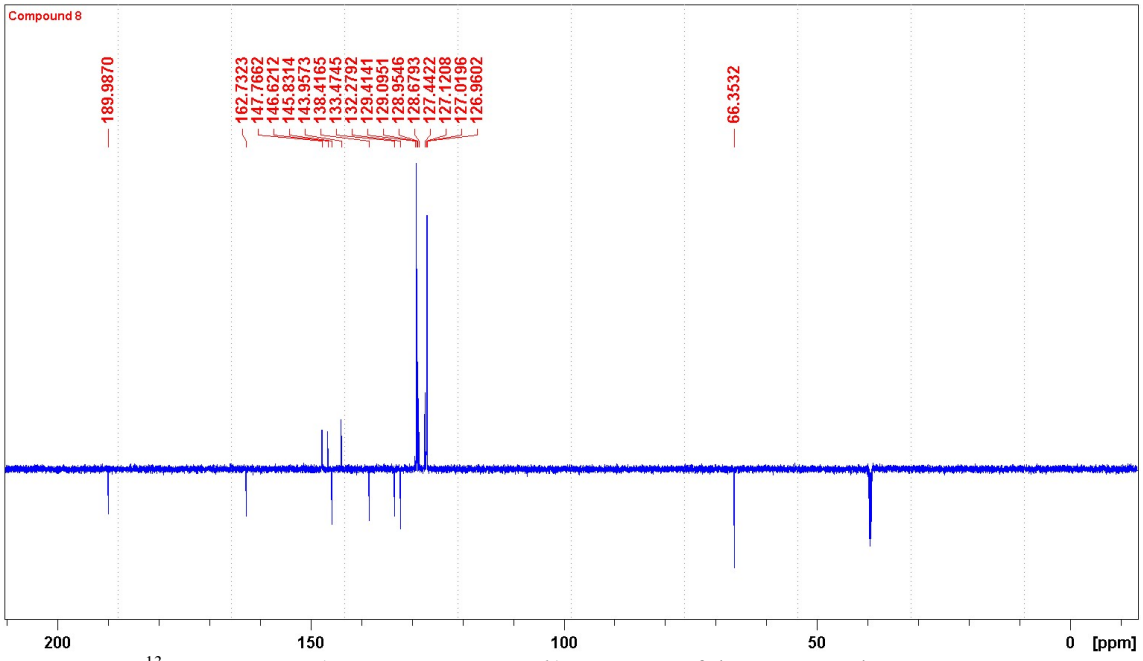
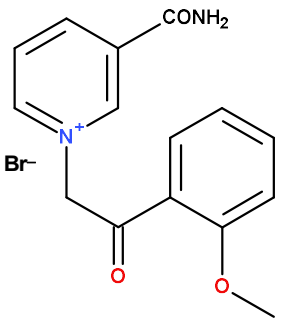


Figure S16. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(8)**.



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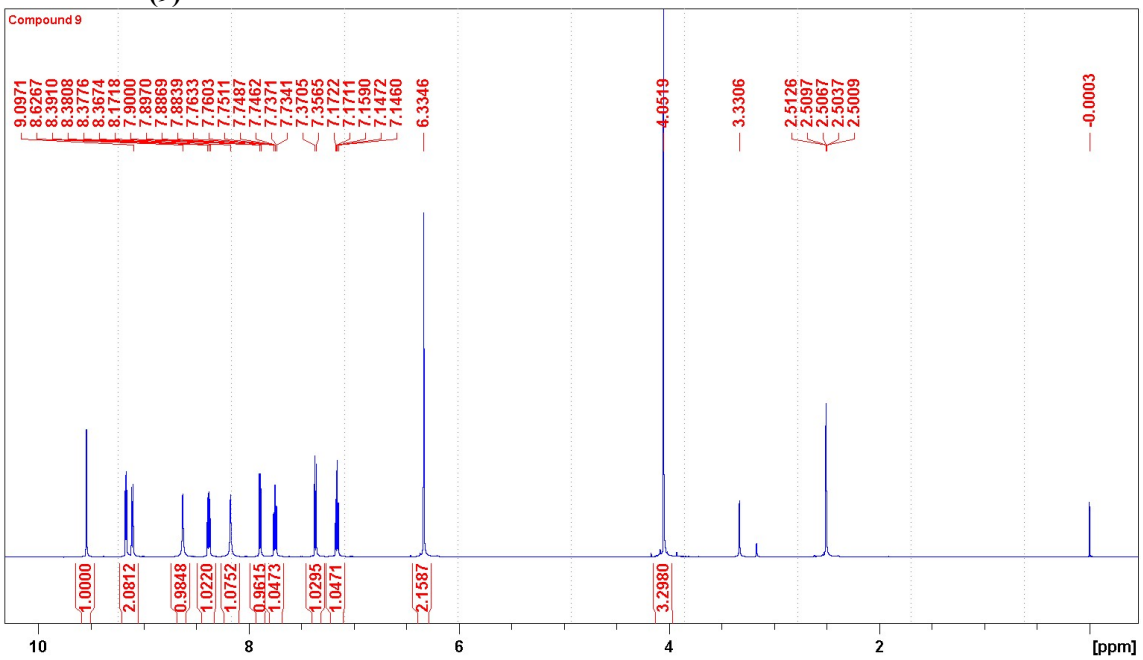


Figure S17. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(9)**.

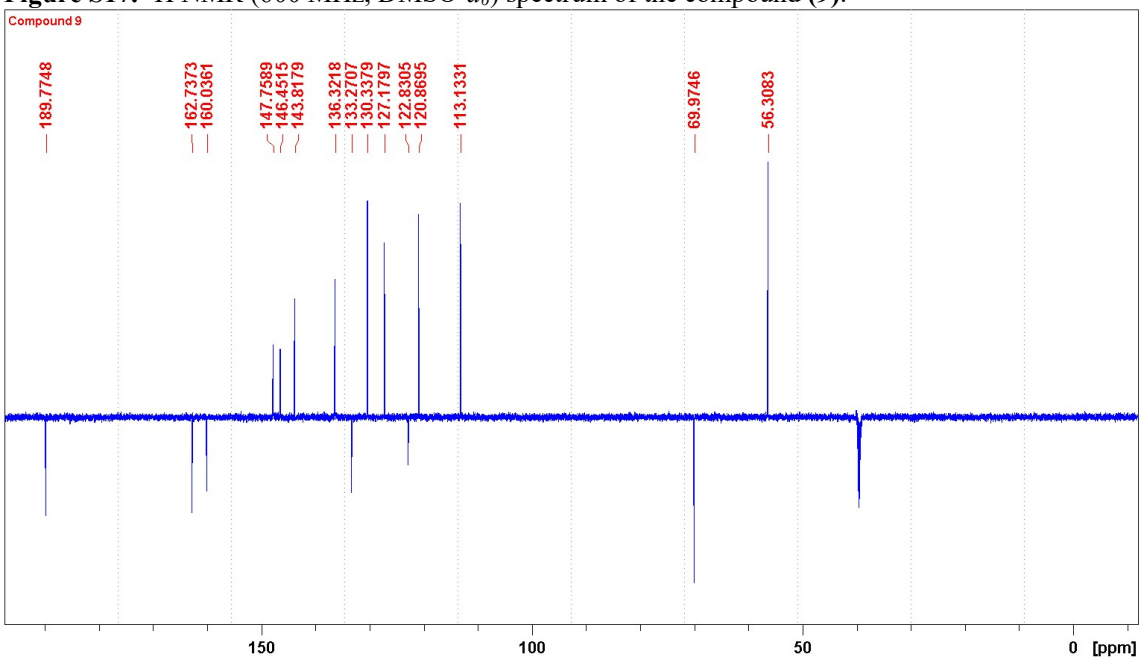
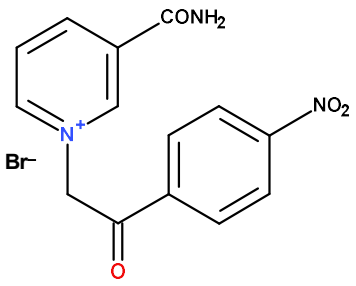


Figure S18. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(9)**.



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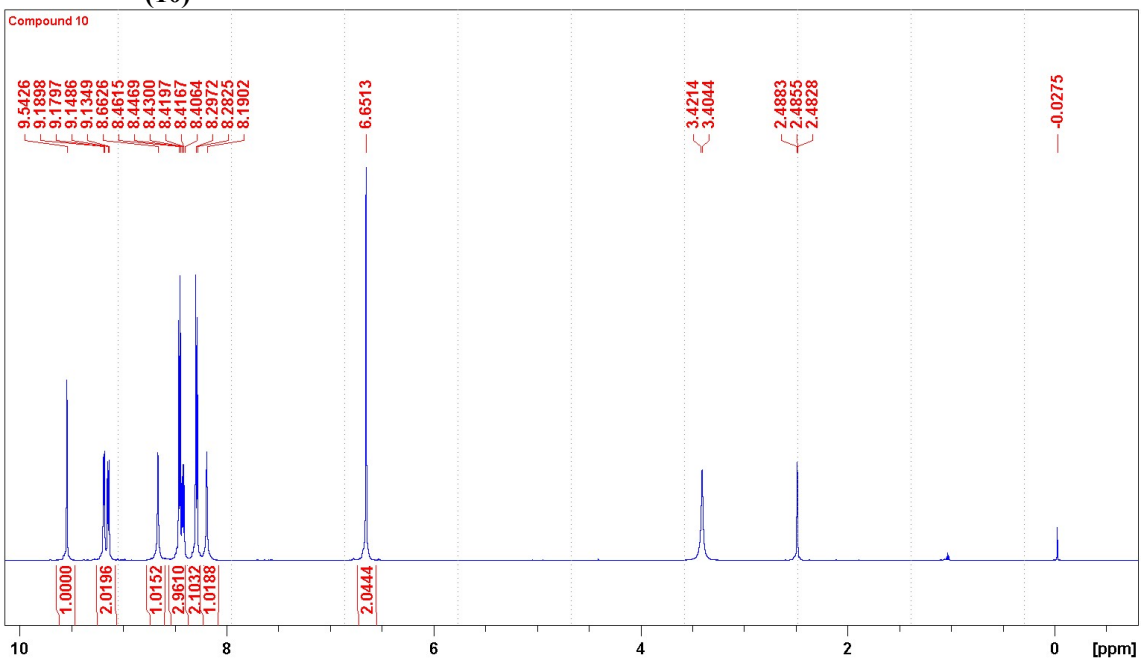


Figure S19. ^{1}H NMR (600 MHz, DMSO-d_6) spectrum of the compound **(10)**.

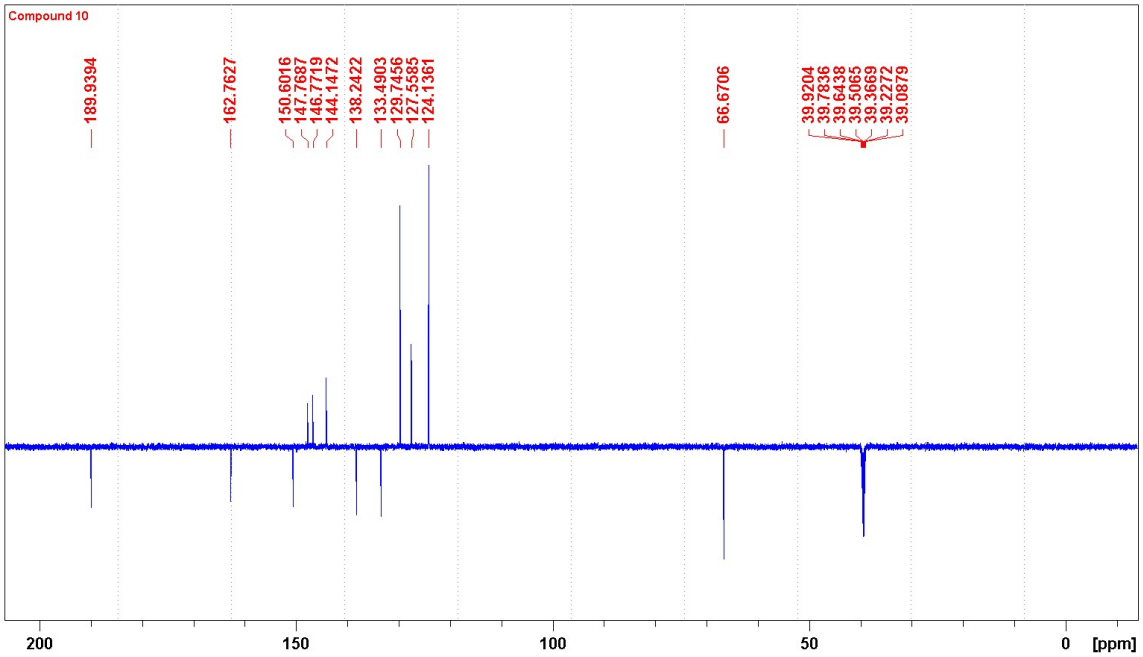


Figure S20. ^{13}C APT NMR (150 MHz, DMSO-d_6) spectrum of the compound **(10)**.

II) Copies of ^{1}H-^{1}H COSY NMR spectra of compounds **(2)** and **(8)**

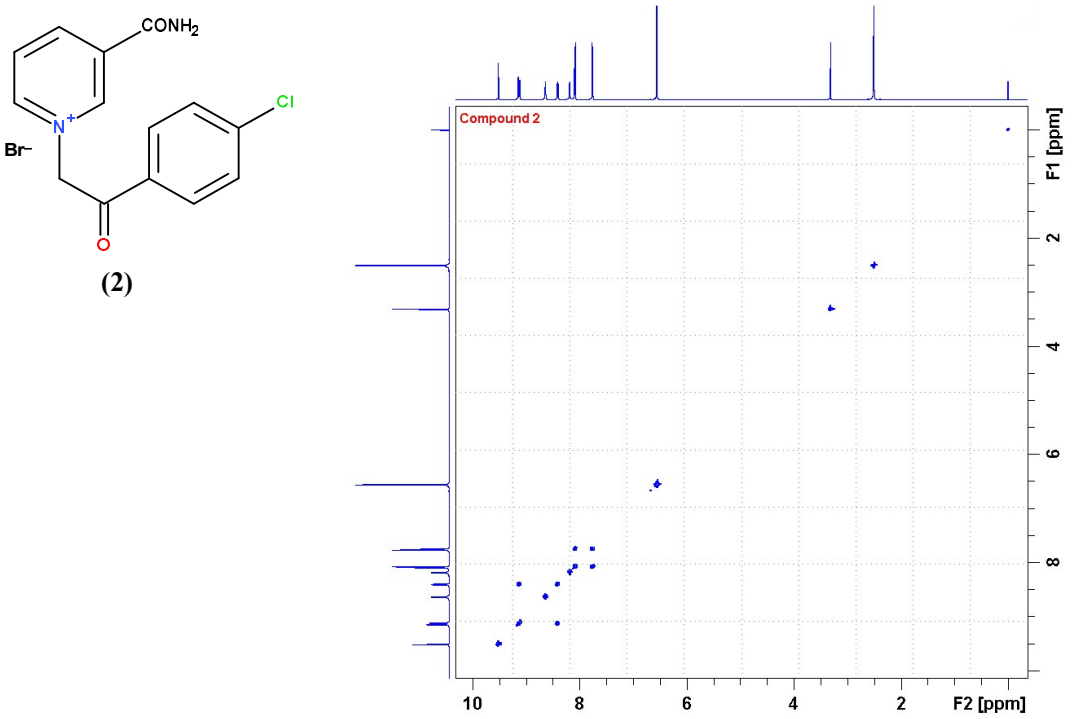


Figure S21. ^{1}H-^{1}H COSY NMR (600 MHz, DMSO-d_6) spectrum of the compound **(2)**. The one-dimensional ^{1}H NMR spectra are shown at the top and at the left-hand edge.

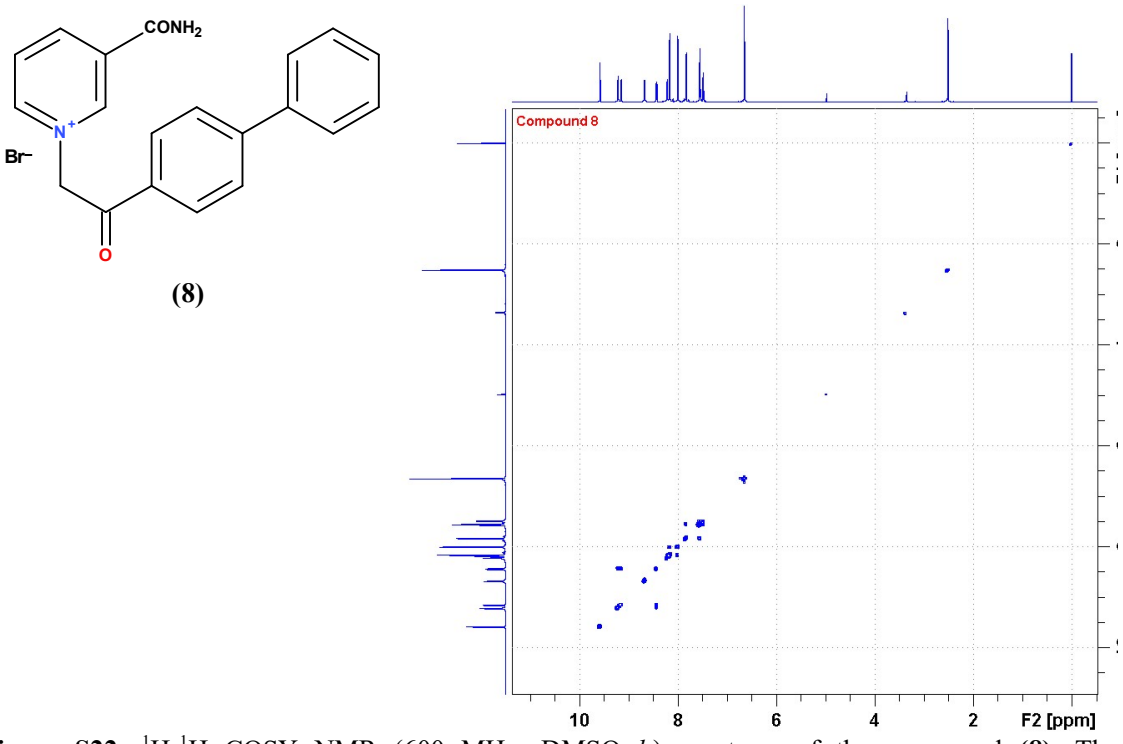
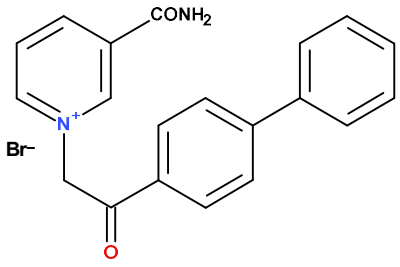


Figure S22. ^{1}H-^{1}H COSY NMR (600 MHz, DMSO-d_6) spectrum of the compound **(8)**. The one-dimensional ^{1}H NMR spectra are shown at the top and at the left-hand edge.

III) Copy of ^{1}H-^{13}C HMQC NMR spectrum of compound **(8)**



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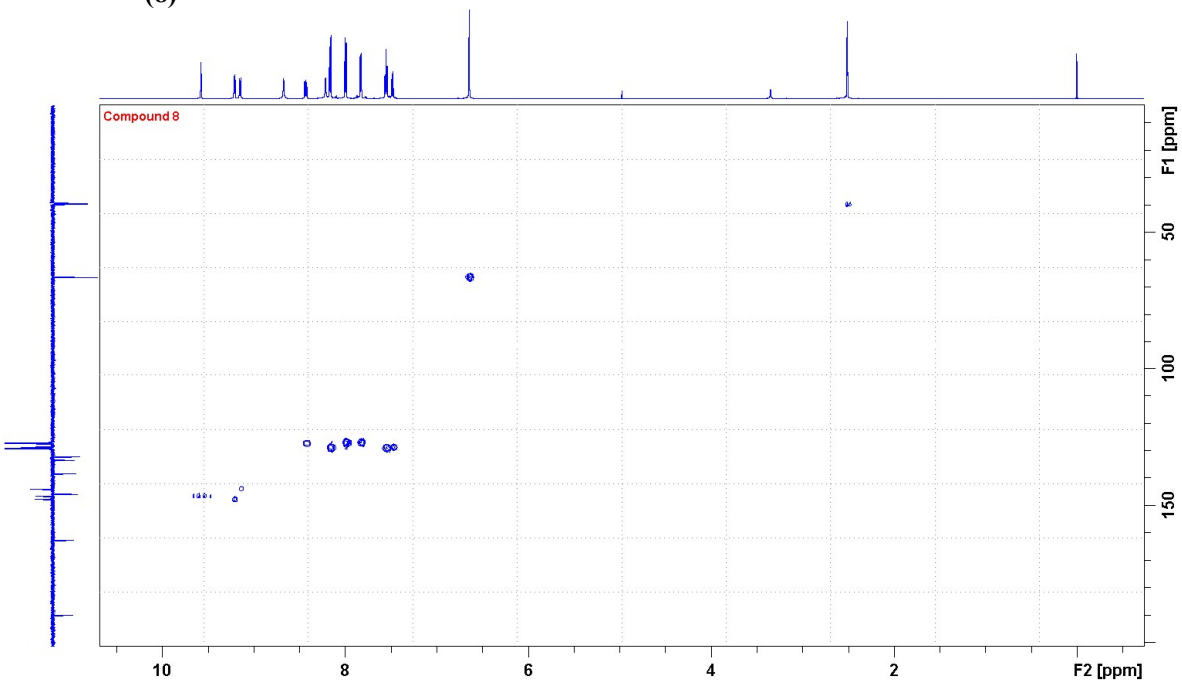
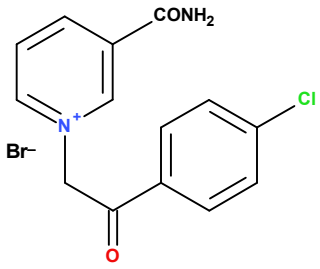


Figure S23. ^{1}H-^{13}C HMQC NMR spectrum of compound **(8)** in DMSO-d_6. The one-dimensional 600 MHz ^{1}H NMR spectrum is shown at the top edge and the 150 MHz ^{13}C NMR spectrum at the left-hand edge.

IV) Copies of ^{1}H-^{13}C HMBC NMR spectra of compounds **(2), (3)** and **(9)**



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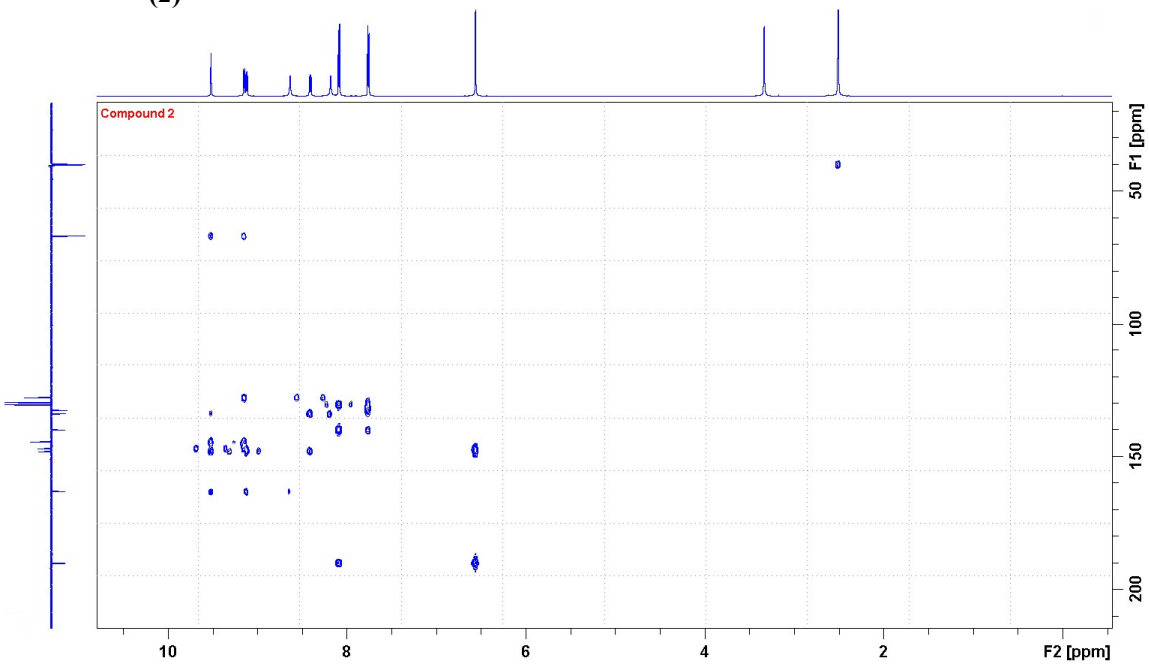
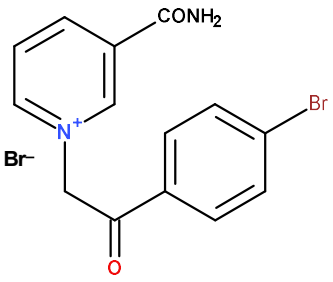


Figure S24. ^{1}H-^{13}C HMBC NMR spectrum of compound **(2)** in DMSO-d_6**.** The one-dimensional 600 MHz ^{1}H NMR spectrum is shown at the top edge and the 150 MHz ^{13}C NMR spectrum at the left-hand edge.



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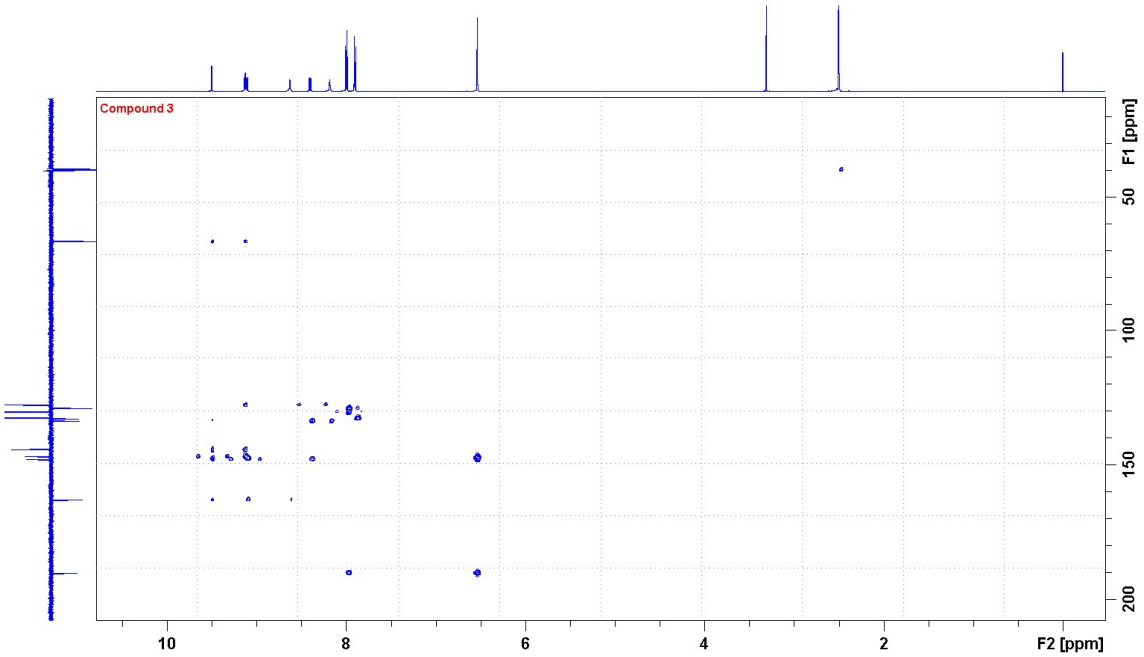
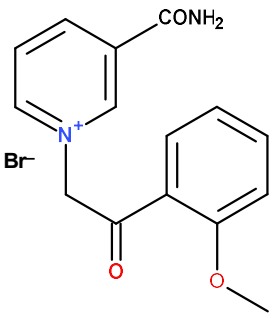


Figure S25. ^{1}H-^{13}C HMBC NMR spectrum of compound **(3)** in DMSO-d_6**.** The one-dimensional 600 MHz ^{1}H NMR spectrum is shown at the top edge and the 150 MHz ^{13}C NMR spectrum at the left-hand edge.



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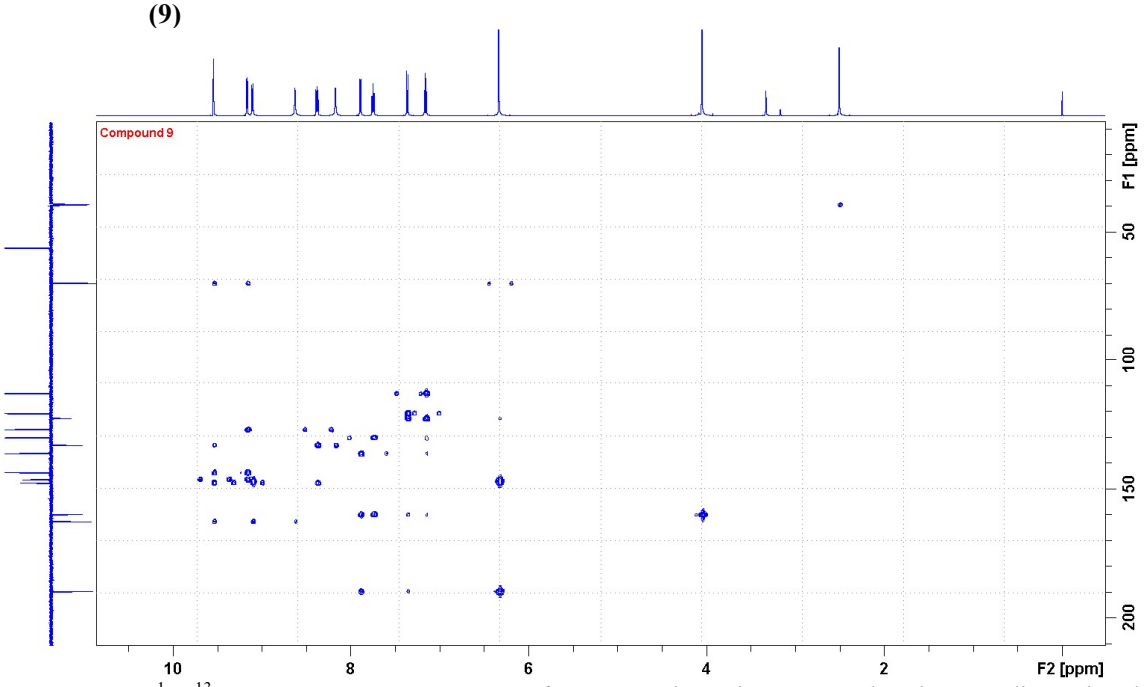

Figure S26. ^{1}H-^{13}C HMBC NMR spectrum of compound **(9)** in DMSO-d_6. The one-dimensional 600 MHz ^{1}H NMR spectrum is shown at the top edge and the 150 MHz ^{13}C NMR spectrum at the left-hand edge.