

# Synthesis and Antimalarial Evaluation of Halogenated Analogues of Thiaplakortone A

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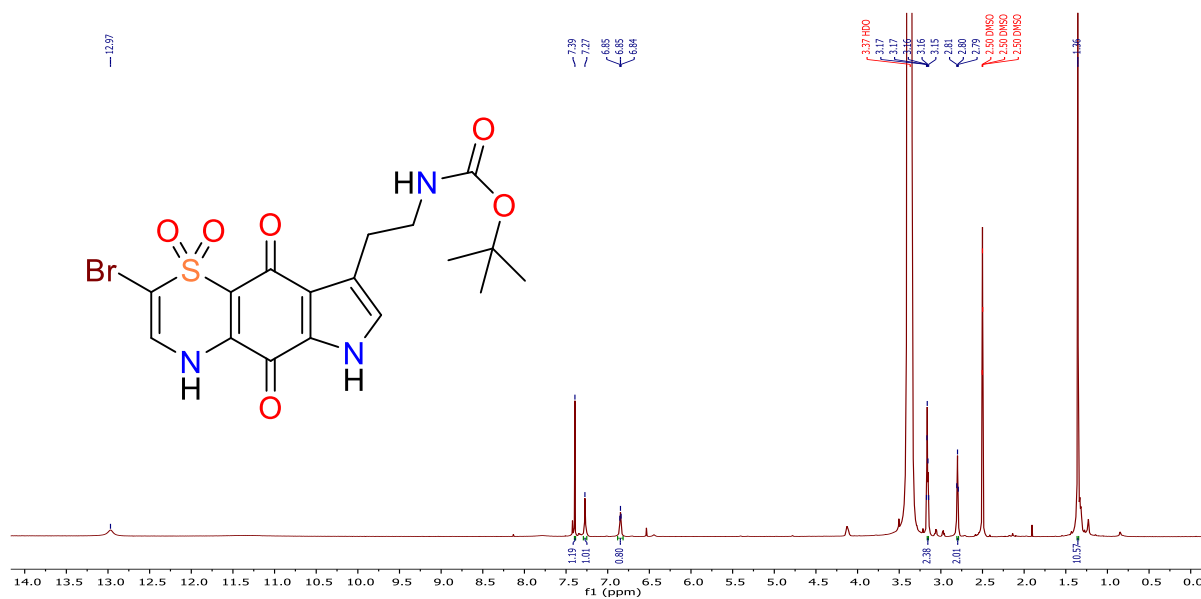
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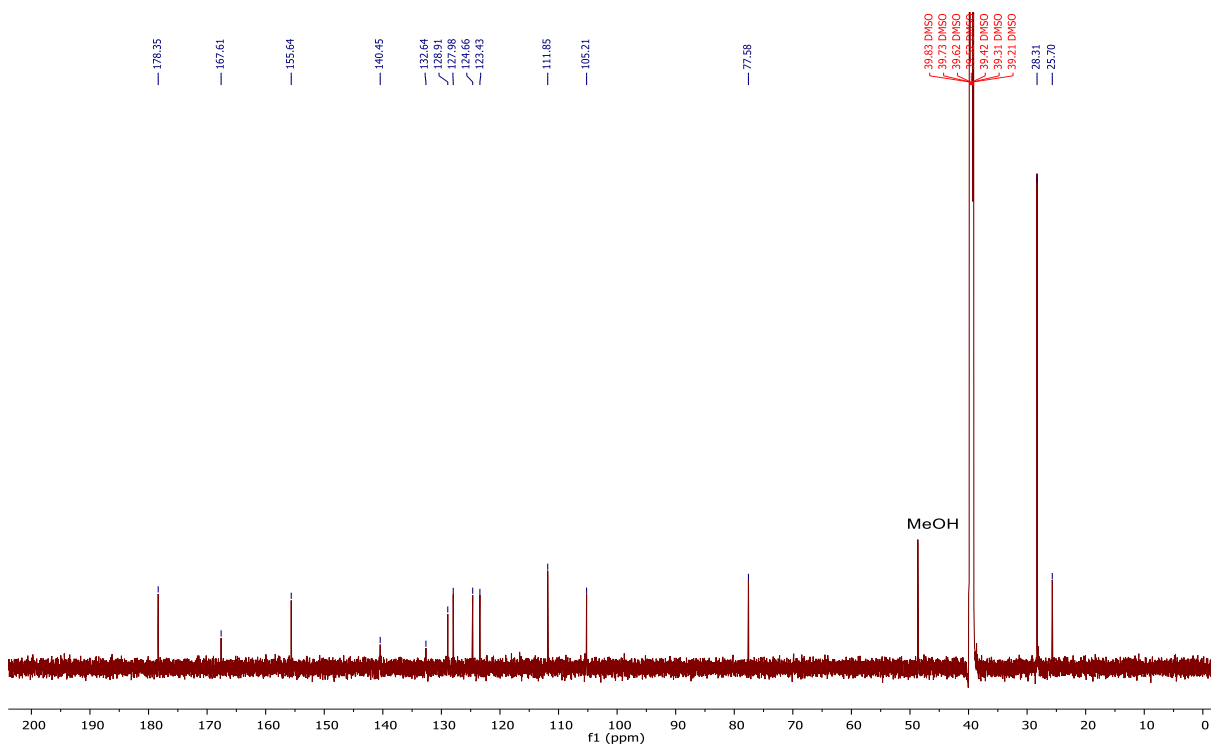
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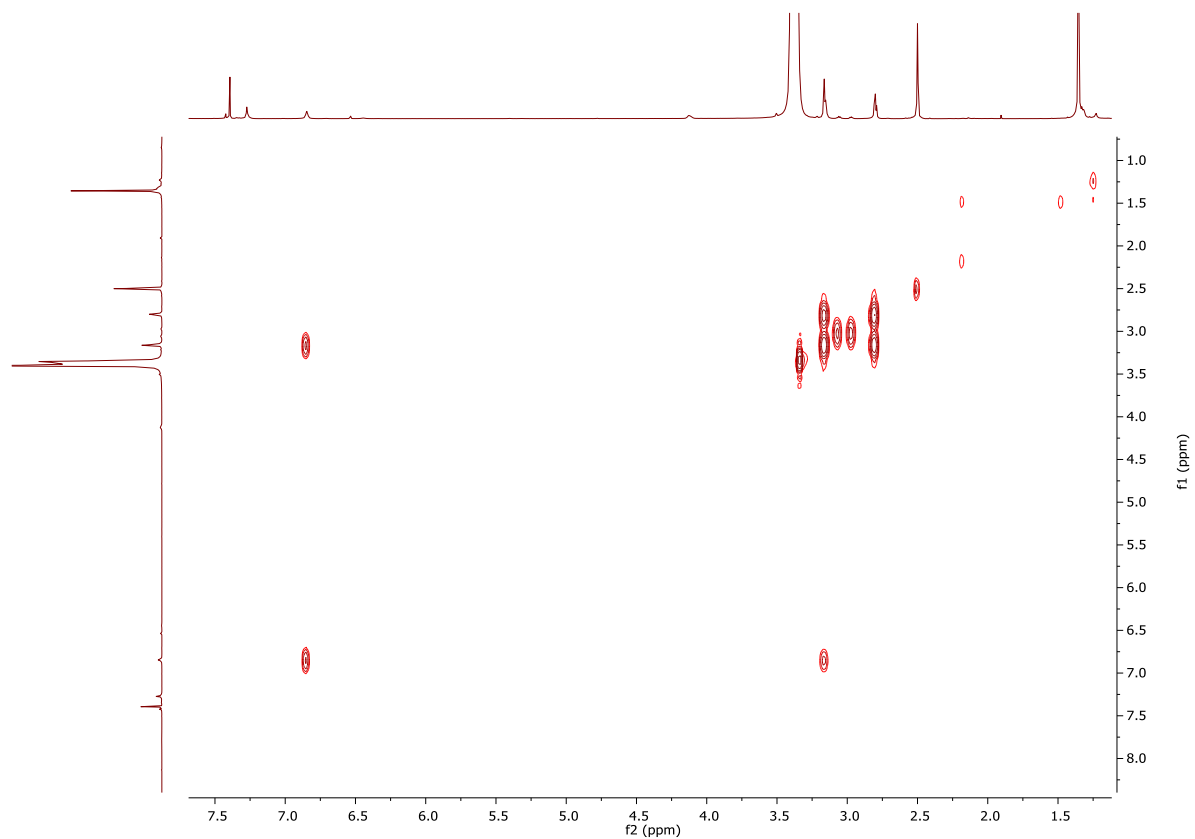
**S1:**  $^1\text{H}$  NMR Spectrum for Compound **3** in  $\text{DMSO-}d_6$



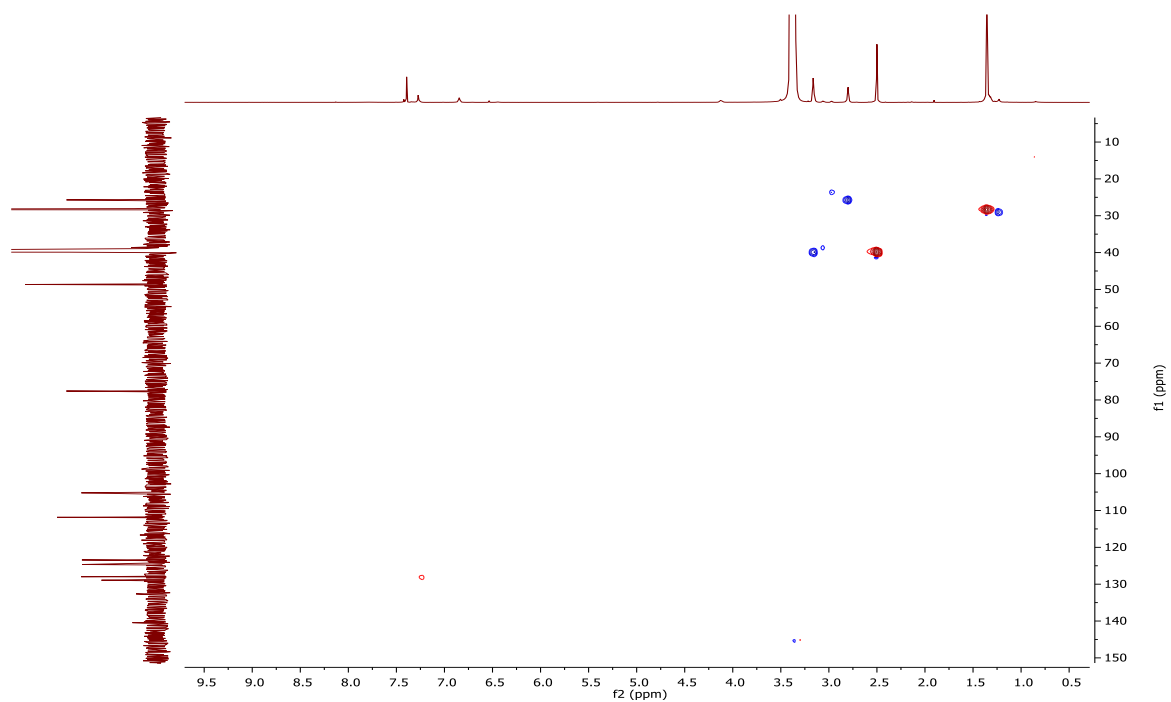
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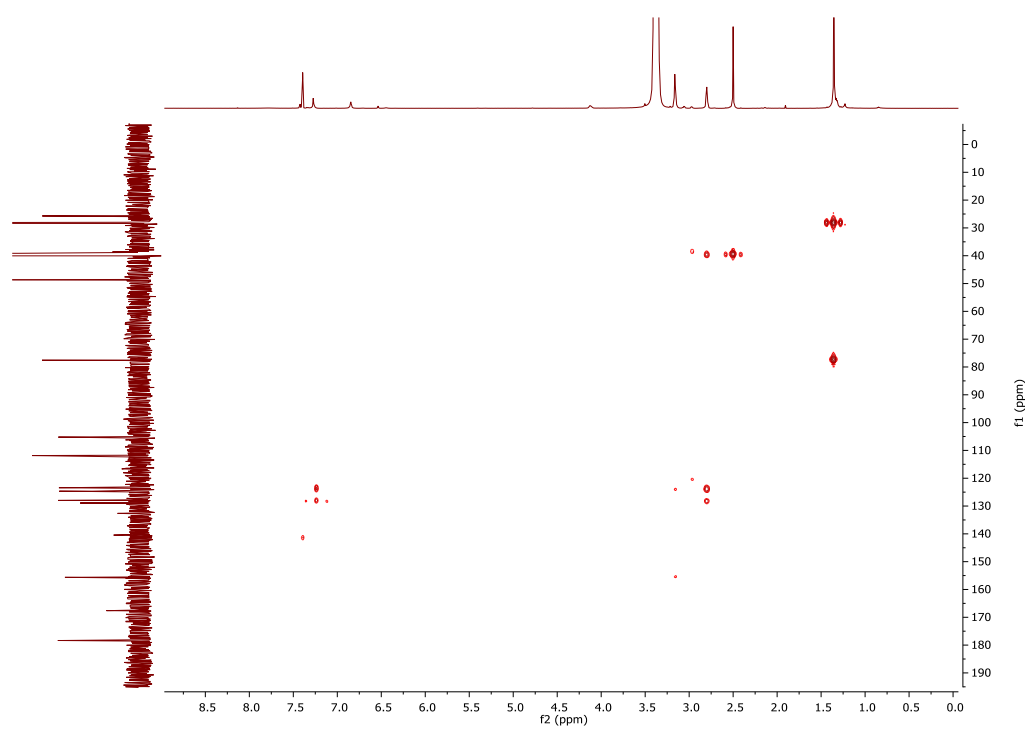
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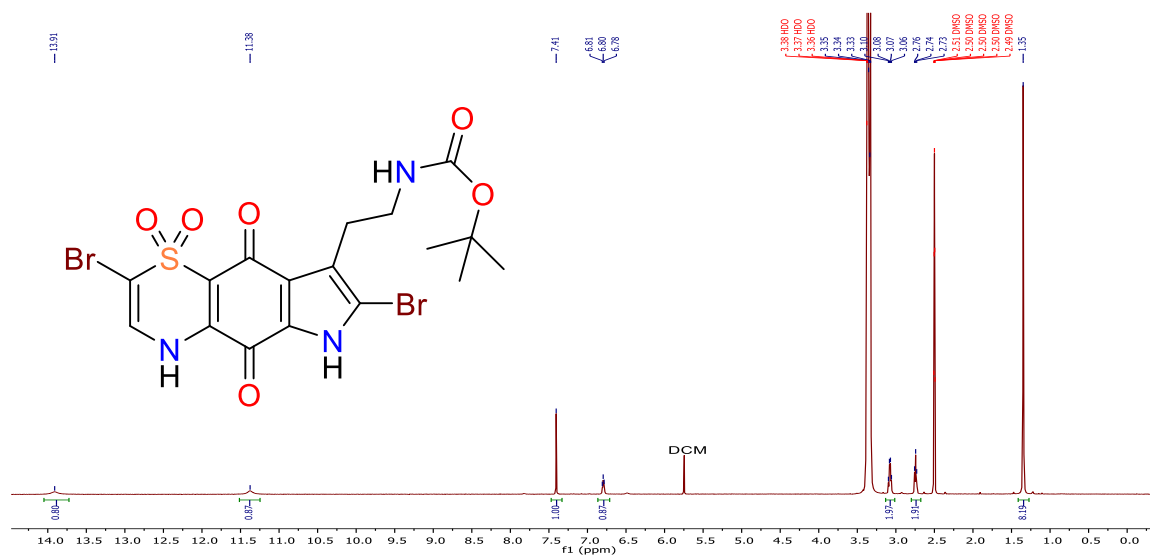
S4: HSQC NMR Spectrum for Compound **3** in DMSO-*d*<sub>6</sub>



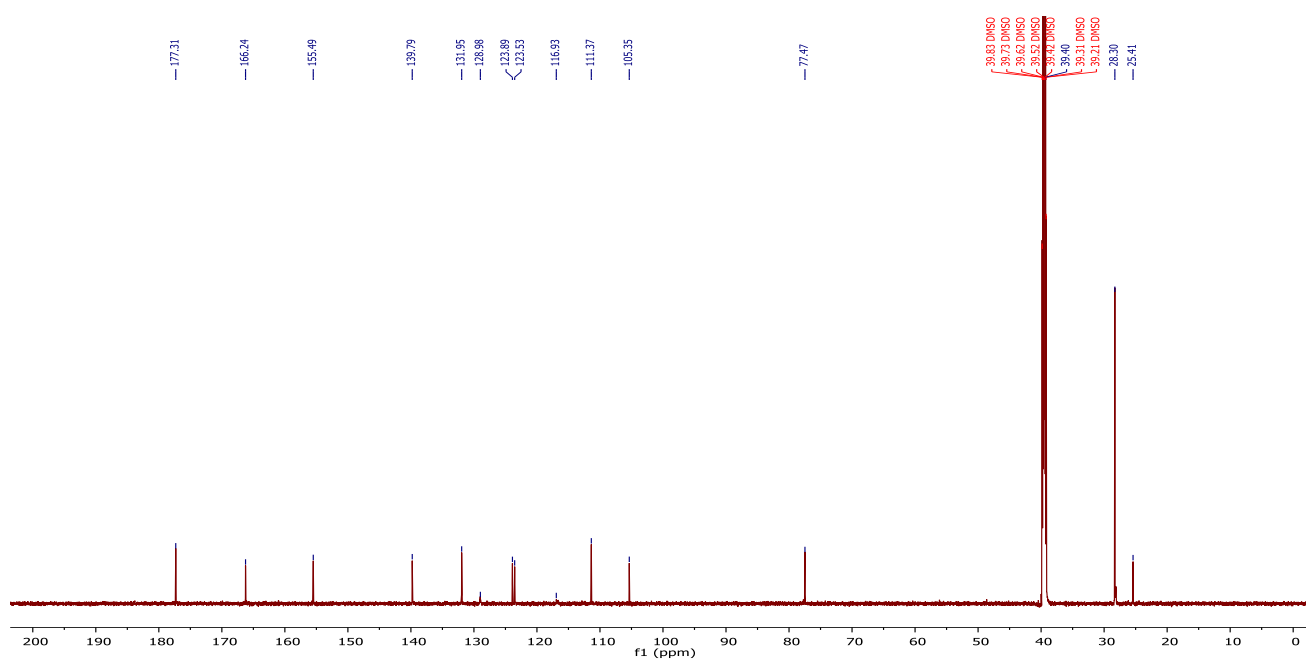
S5: HMBC NMR Spectrum for Compound 3 in DMSO-*d*<sub>6</sub>



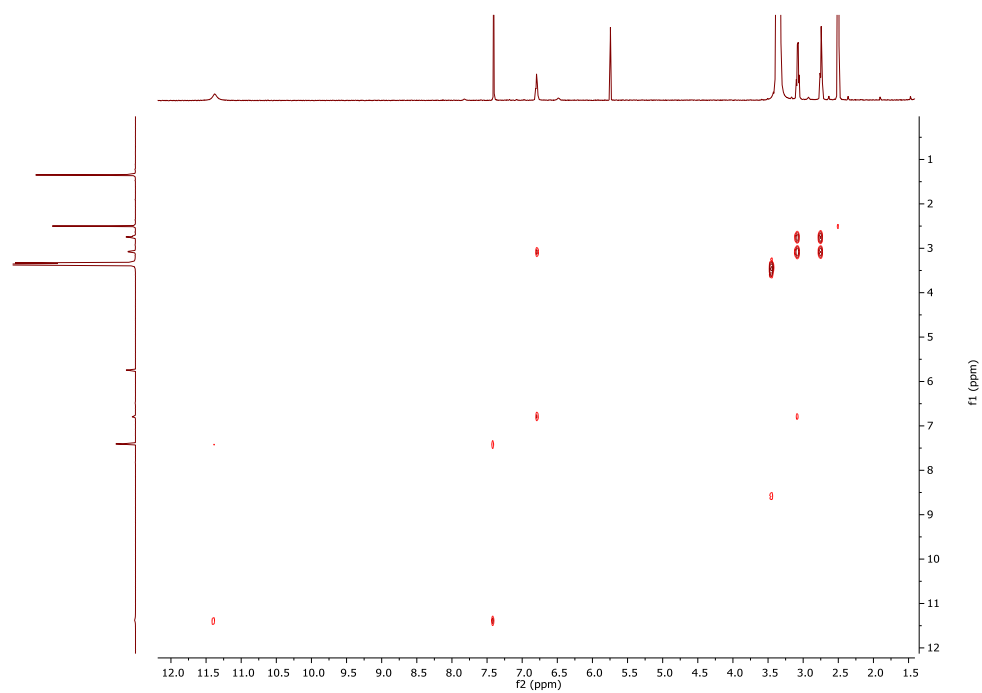
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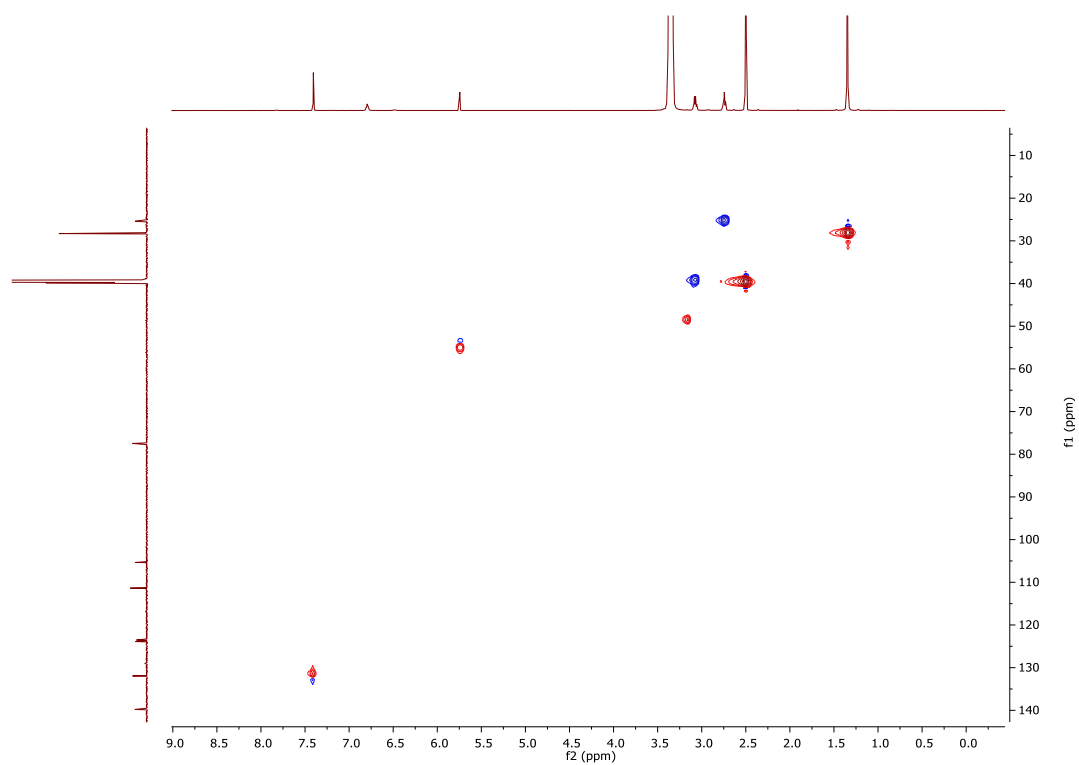
**S7:**  $^{13}\text{C}$  NMR Spectrum for Compound **4** in  $\text{DMSO}-d_6$



S8: COSY NMR Spectrum for Compound **4** in DMSO- $d_6$

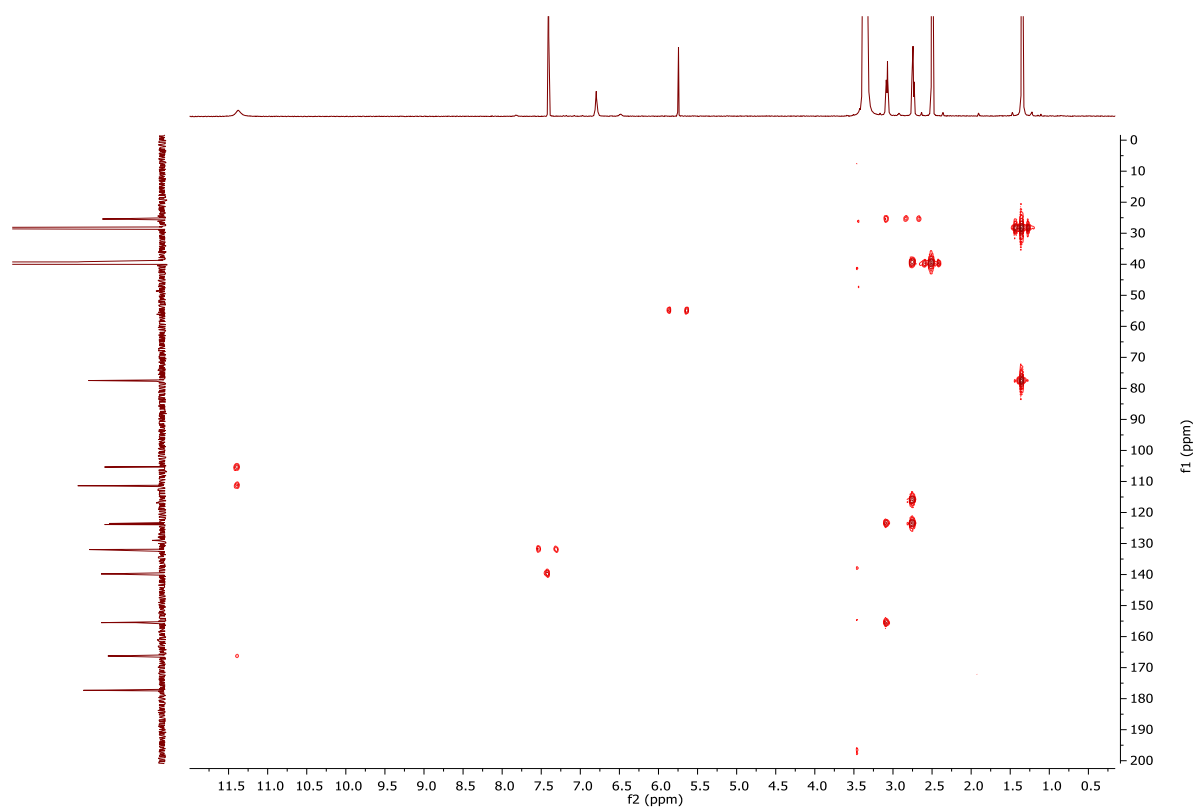


S9: HSQC NMR Spectrum for Compound **4** in DMSO- $d_6$

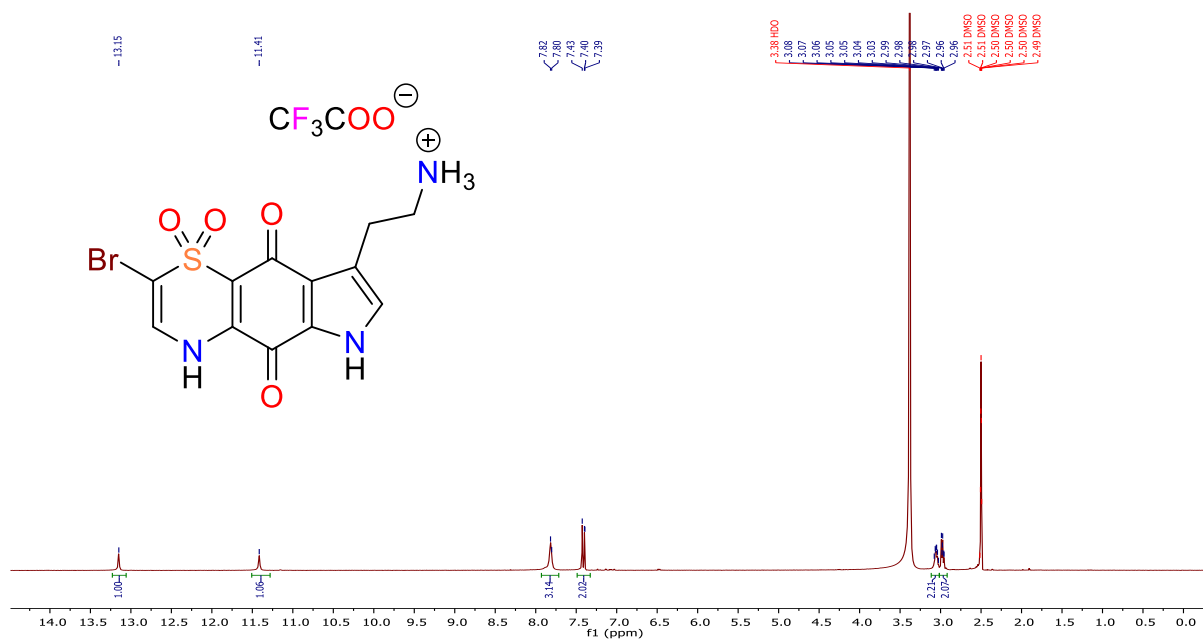




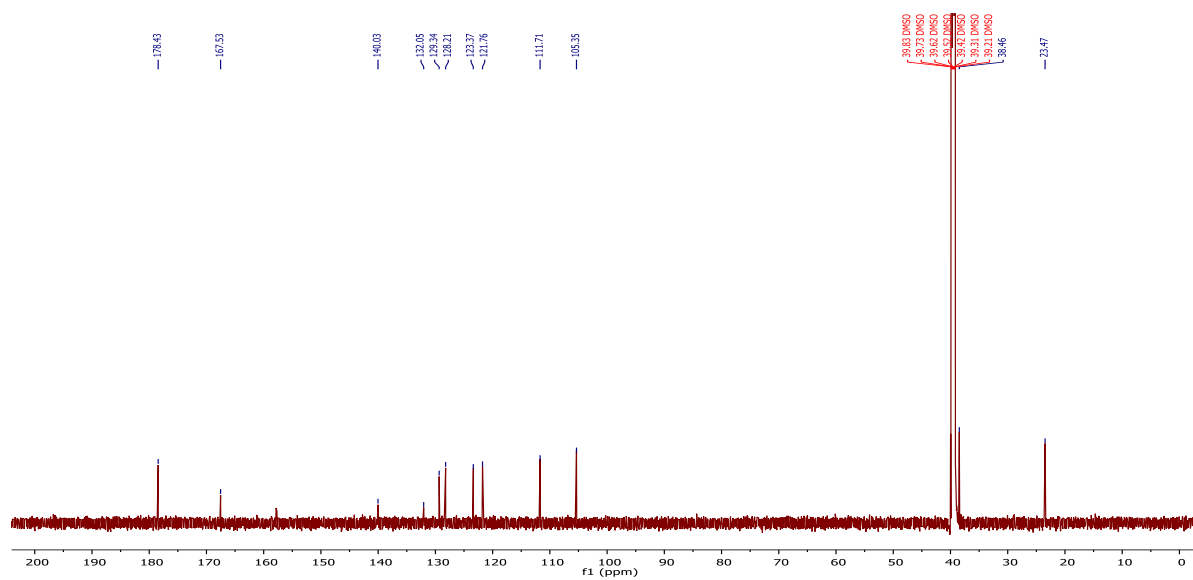
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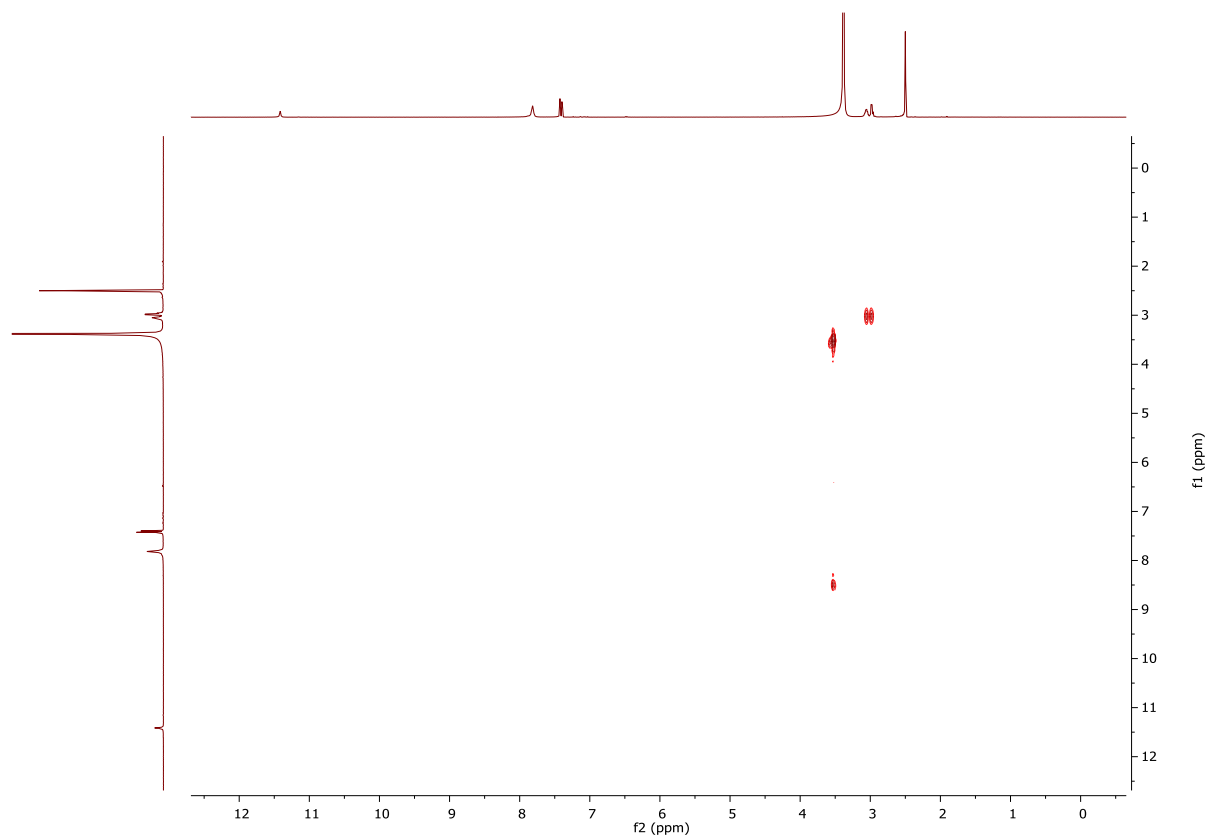
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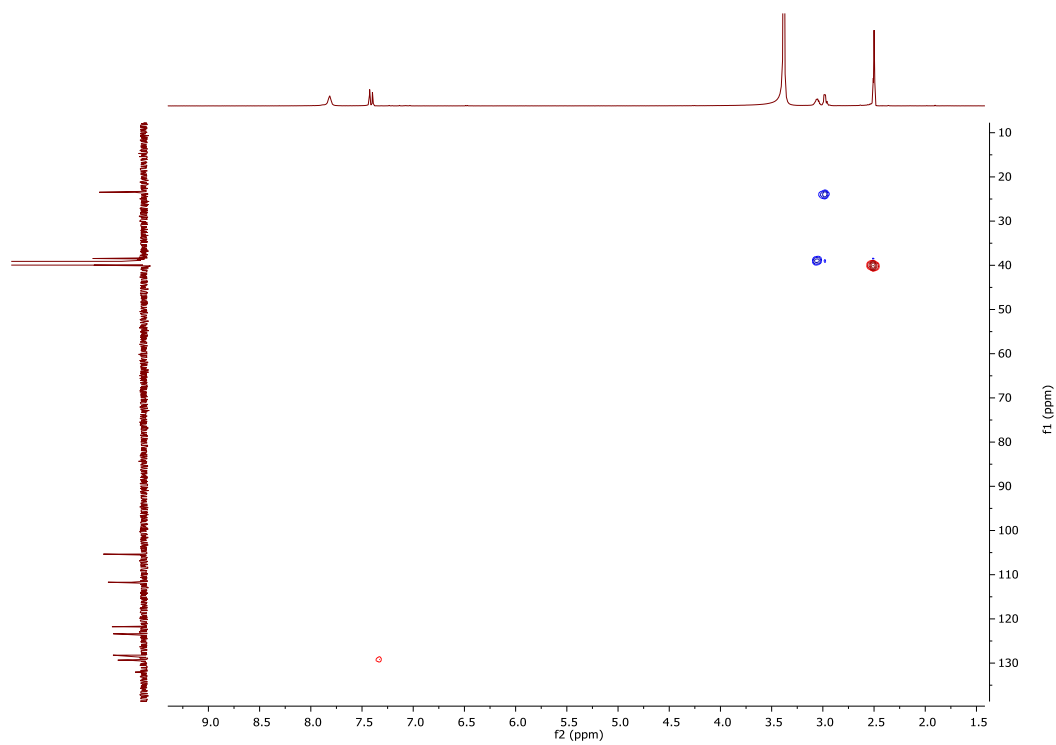
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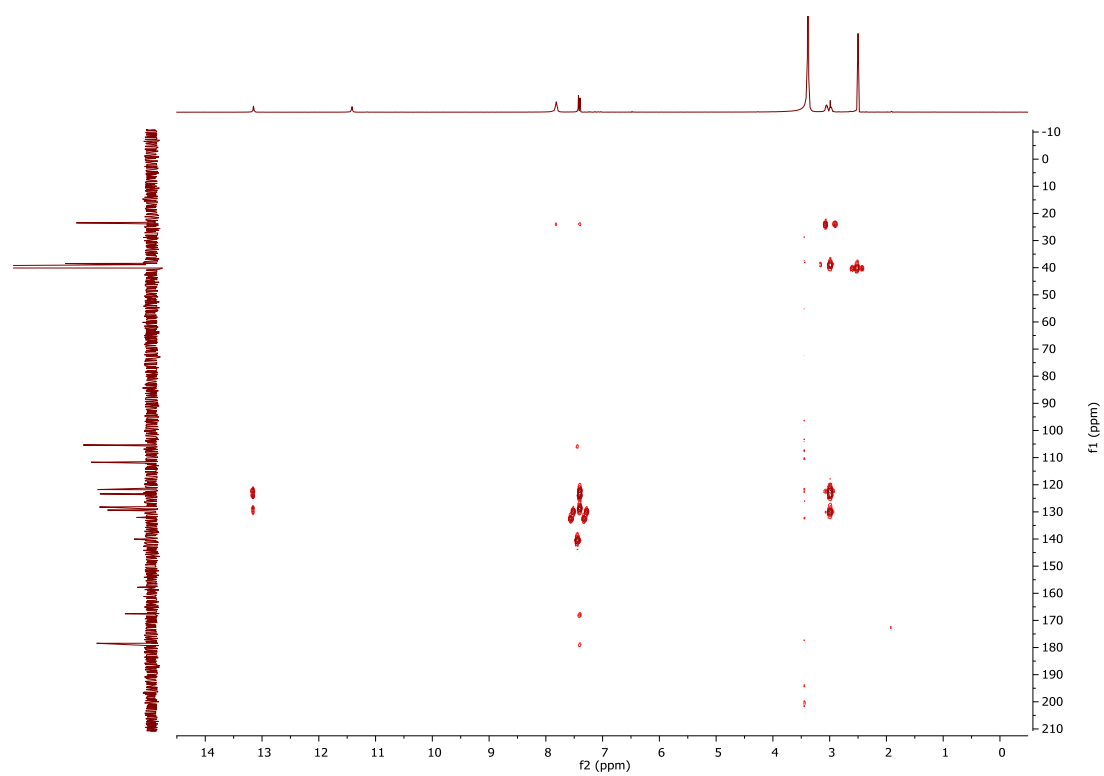
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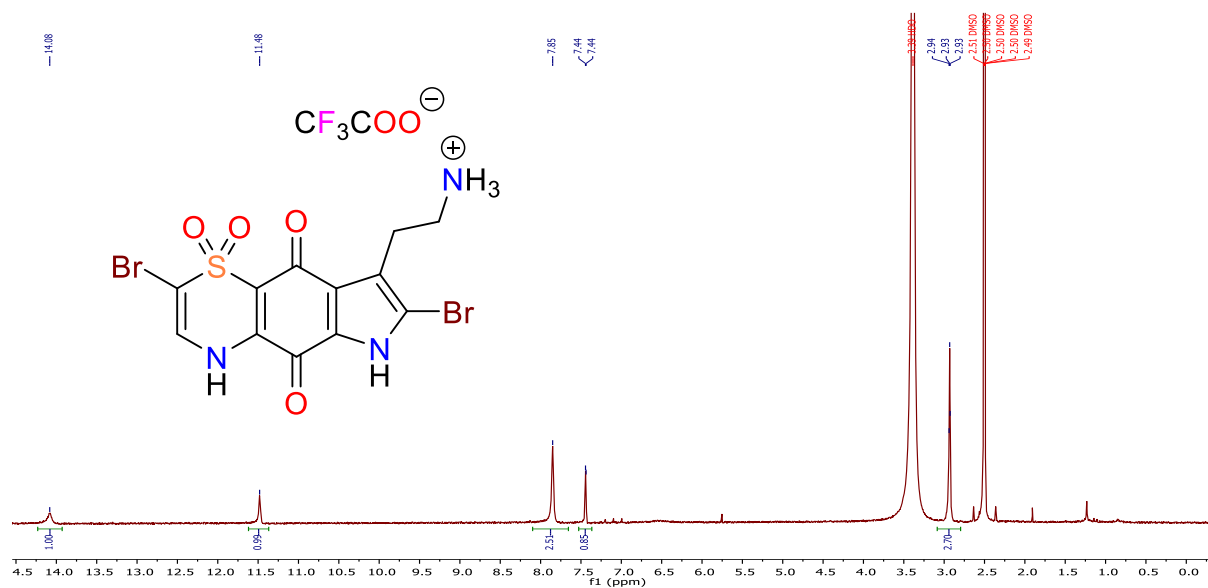
S14: HSQC NMR Spectrum for Compound 5 in DMSO- $d_6$



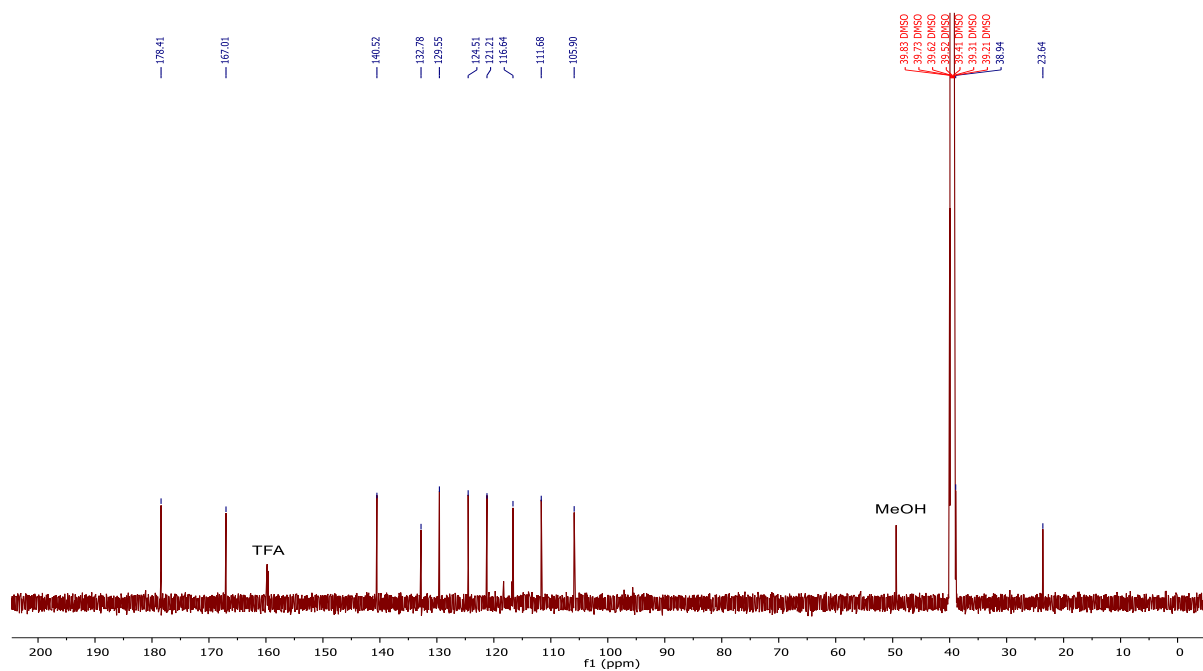
S15: HMBC NMR Spectrum for Compound 5 in DMSO- $d_6$



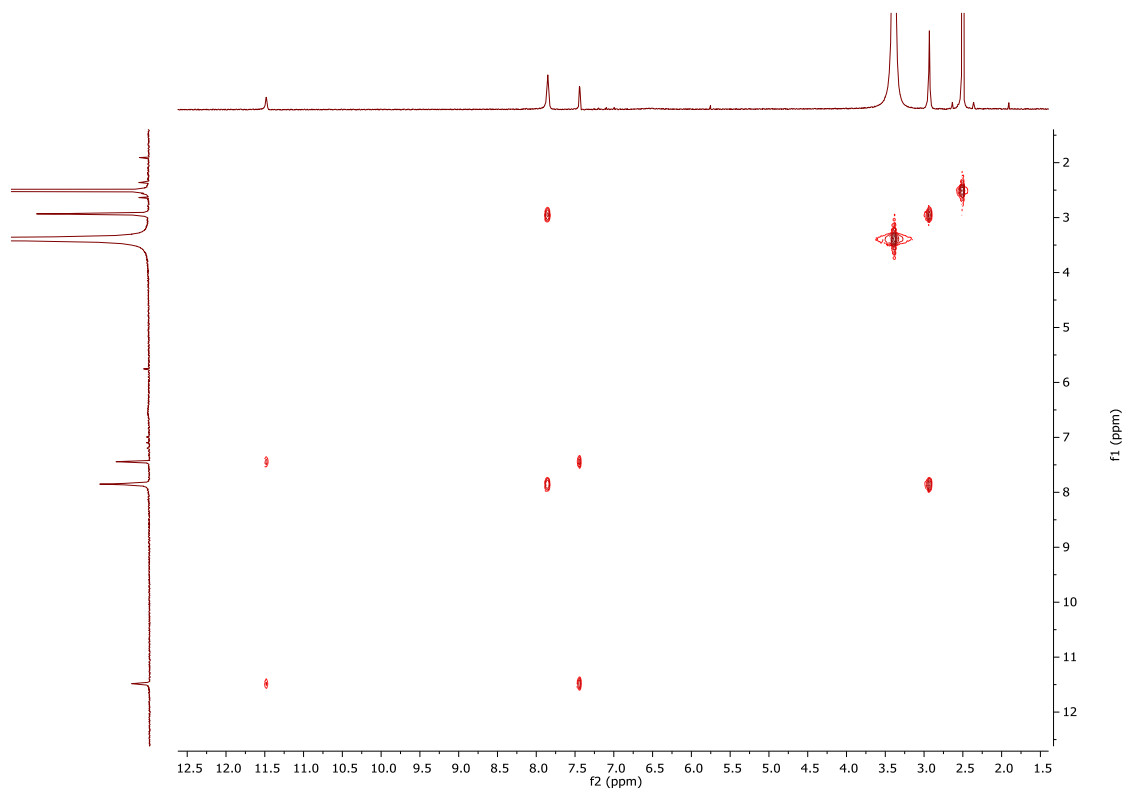
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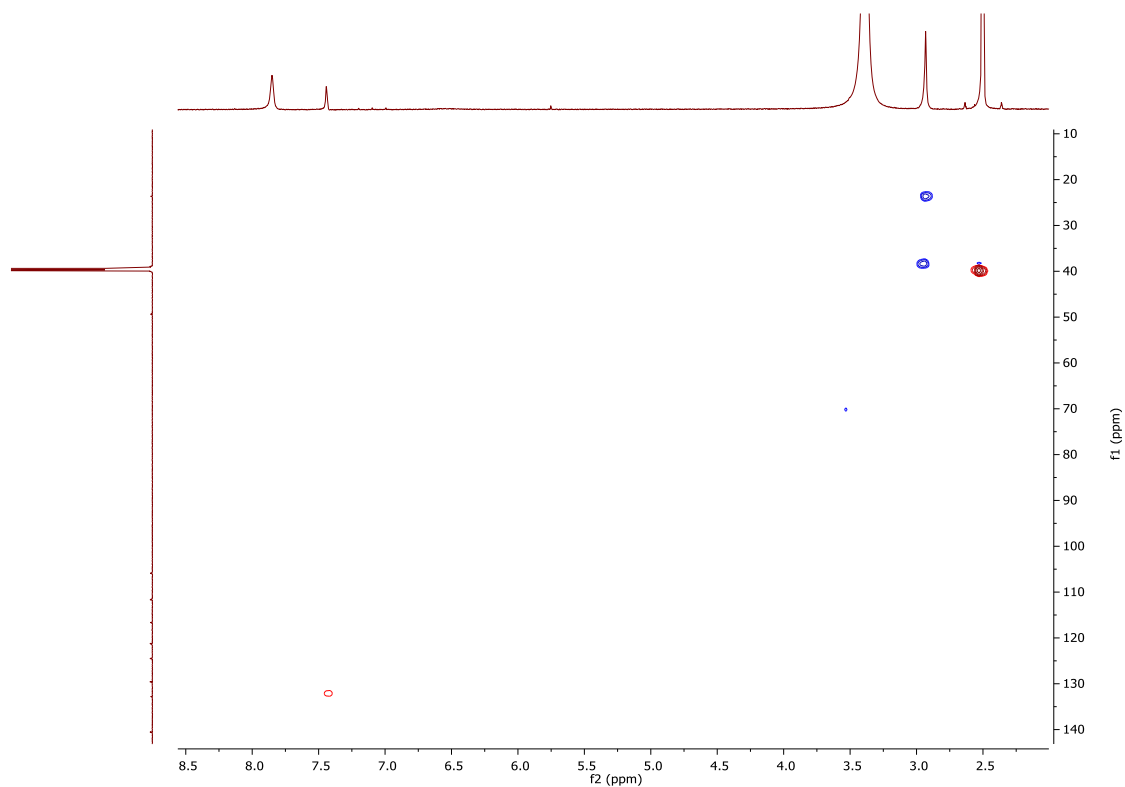
S17:  $^{13}\text{C}$  NMR Spectrum for Compound **6** in  $\text{DMSO}-d_6$



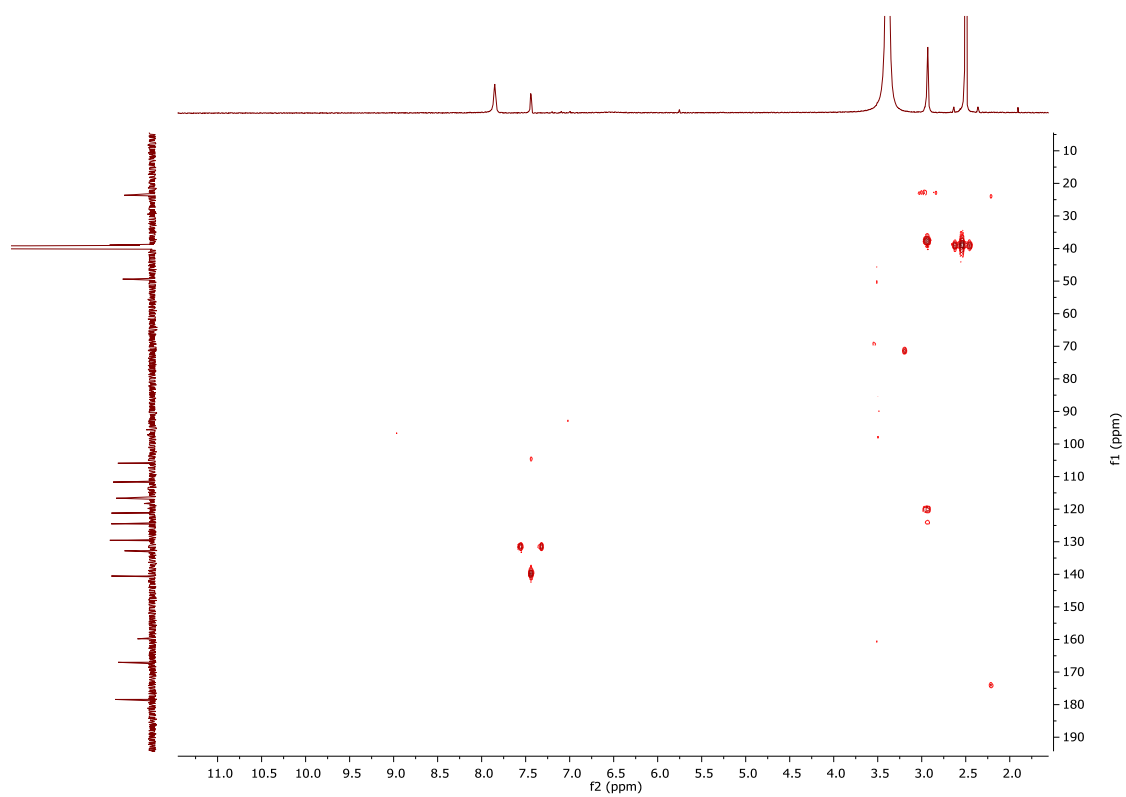
**S18:** COSY NMR Spectrum for Compound **6** in DMSO-*d*<sub>6</sub>



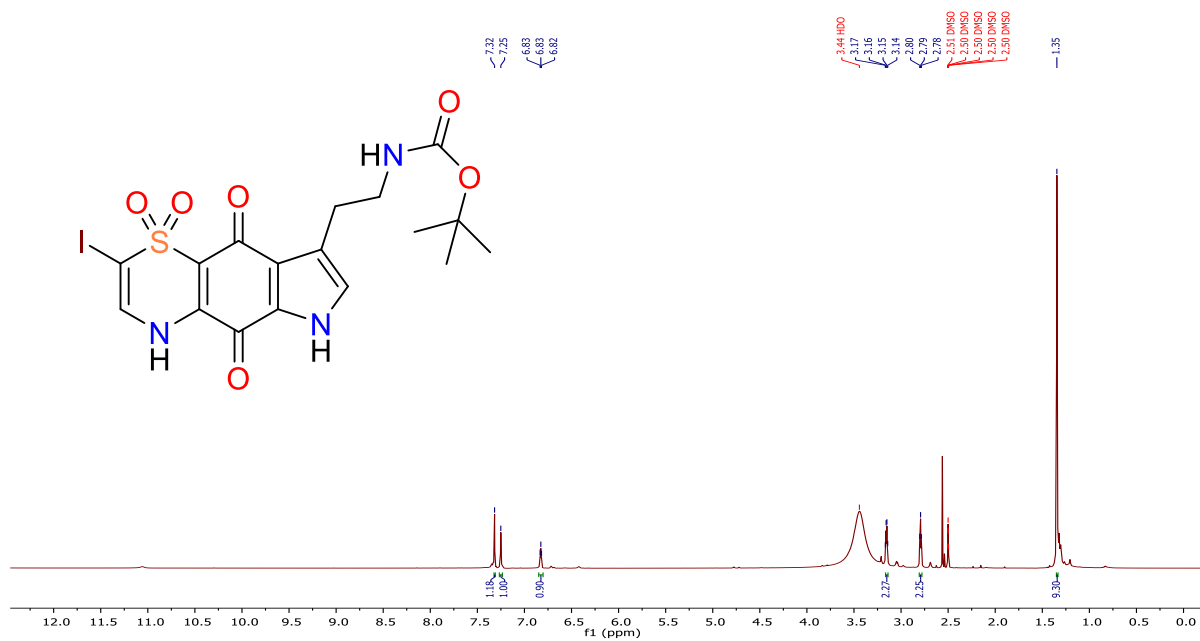
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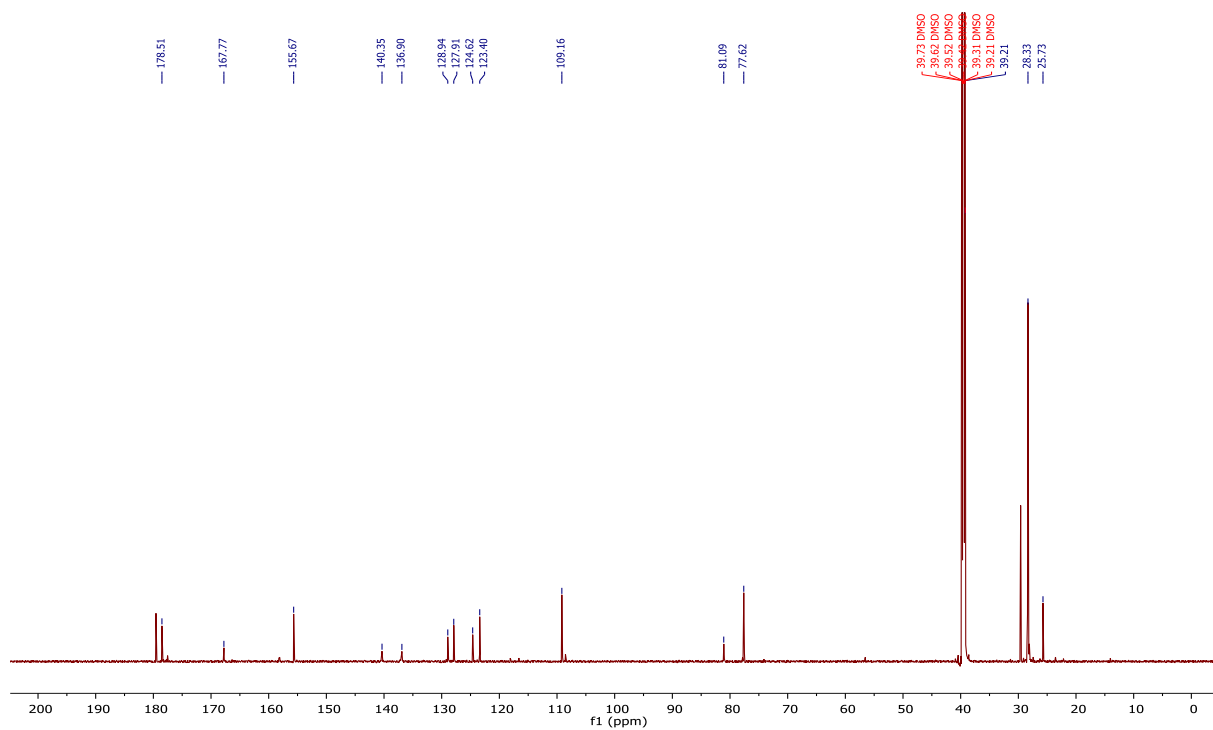
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S21:  $^1\text{H}$  NMR Spectrum for Compound 7 in  $\text{DMSO}-d_6$

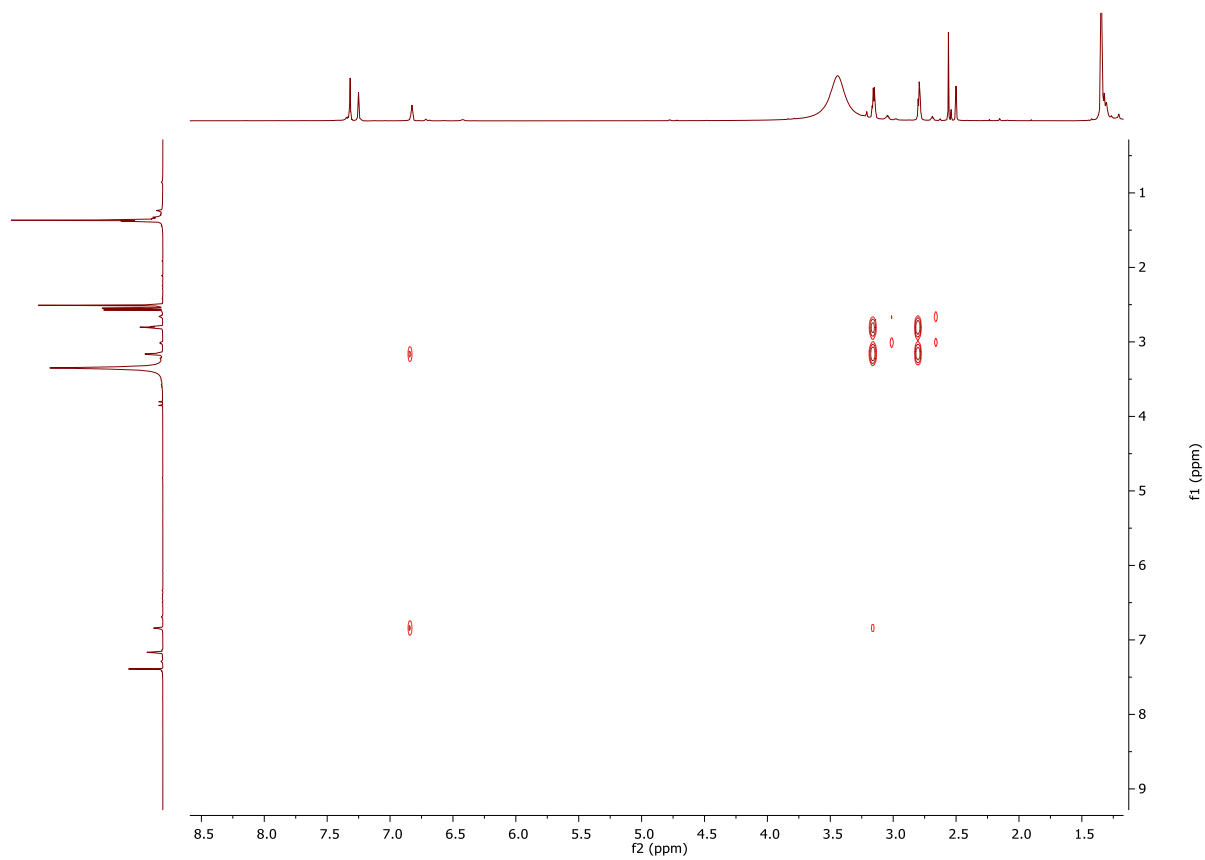


S22:  $^{13}\text{C}$  NMR Spectrum for Compound 7 in  $\text{DMSO}-d_6$

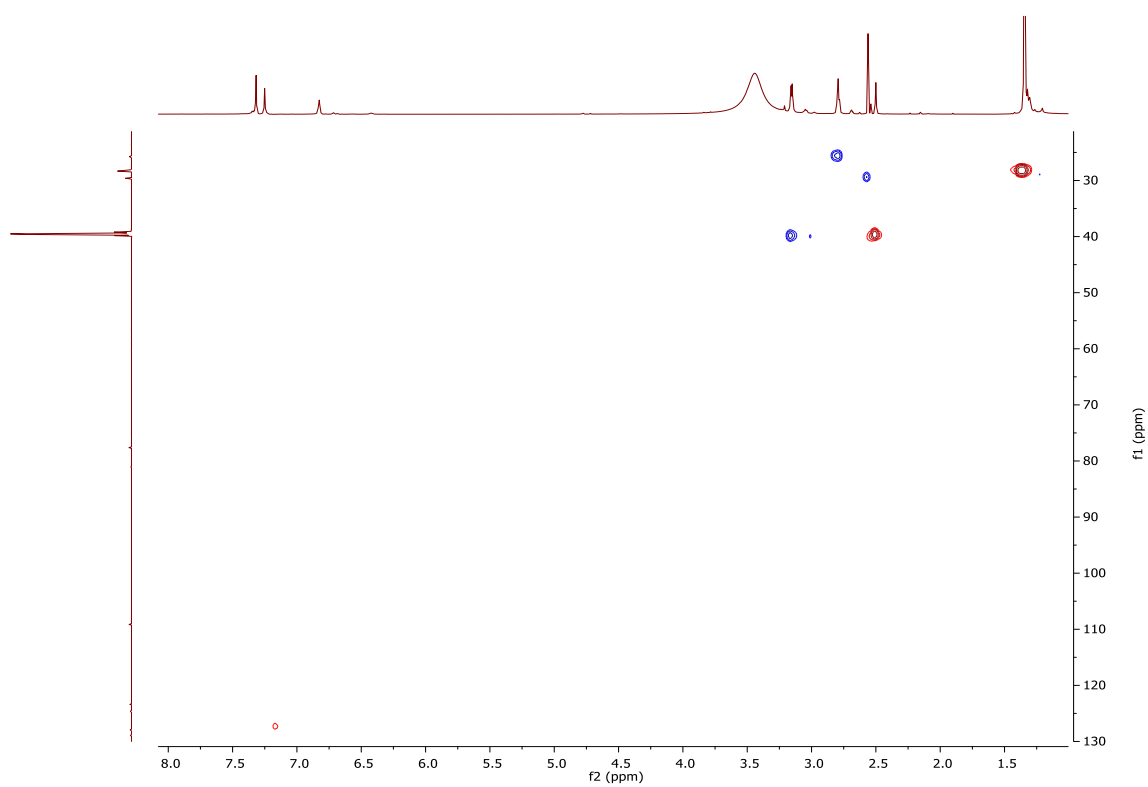




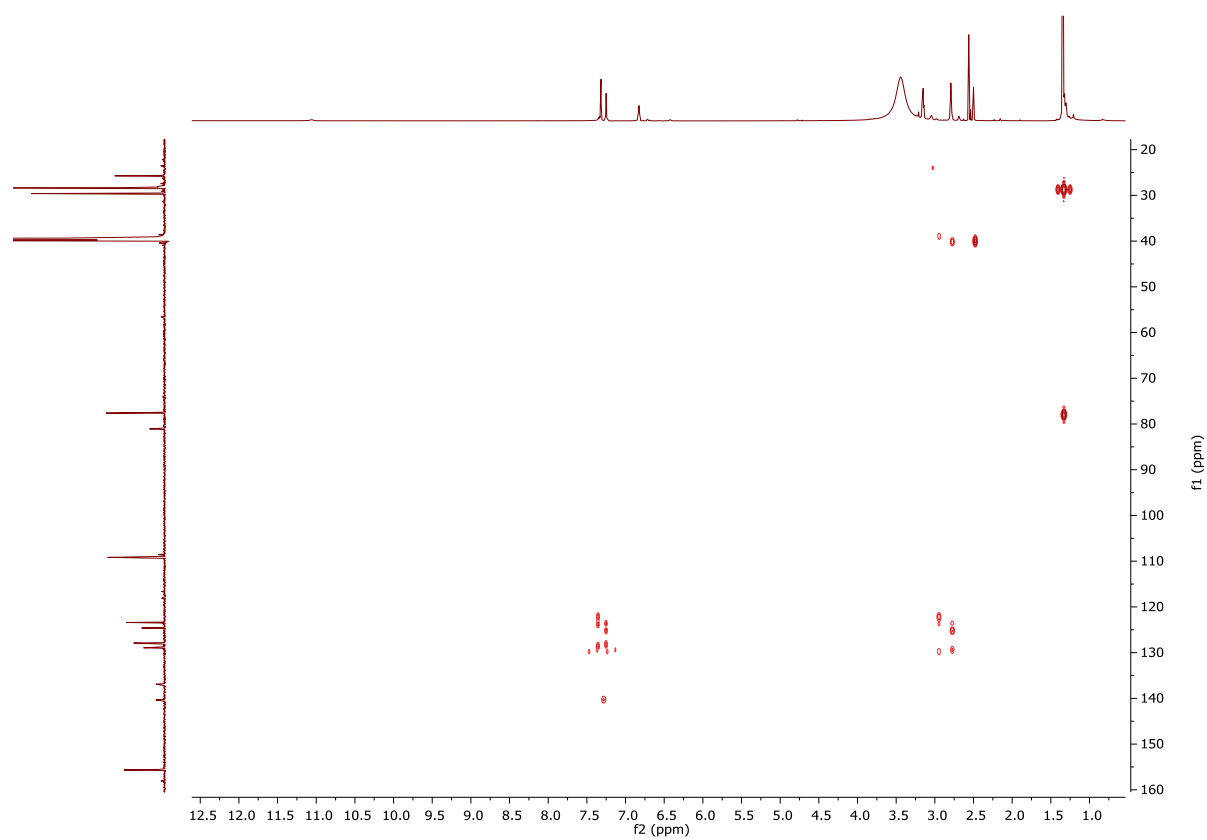
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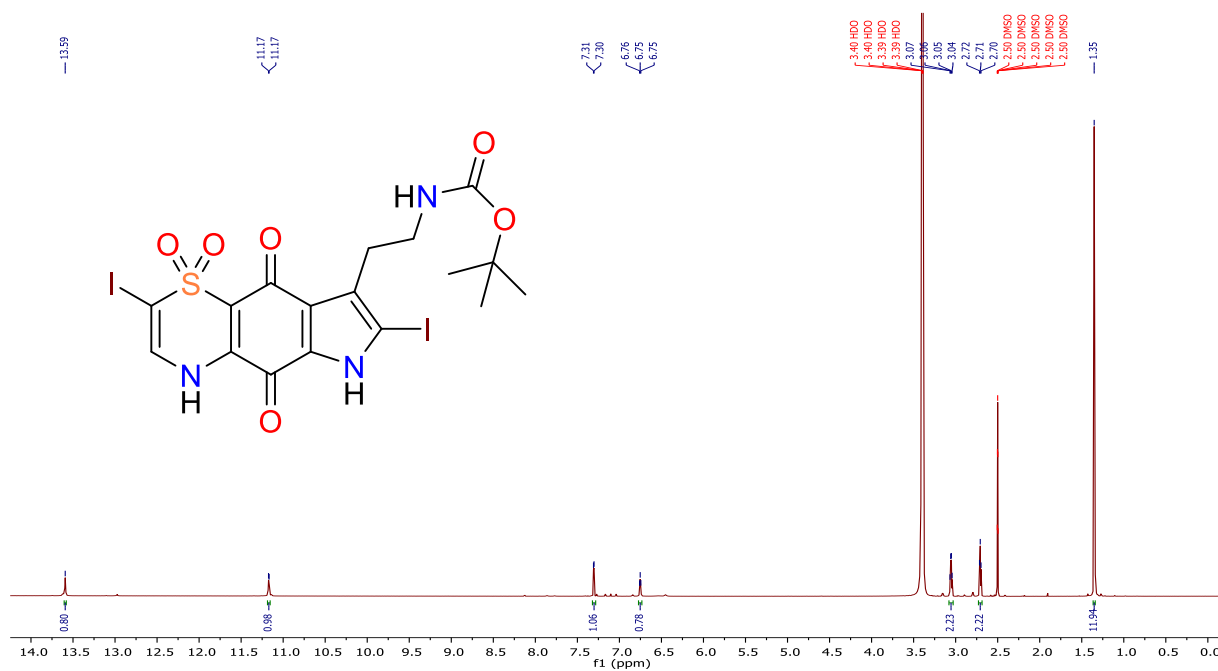
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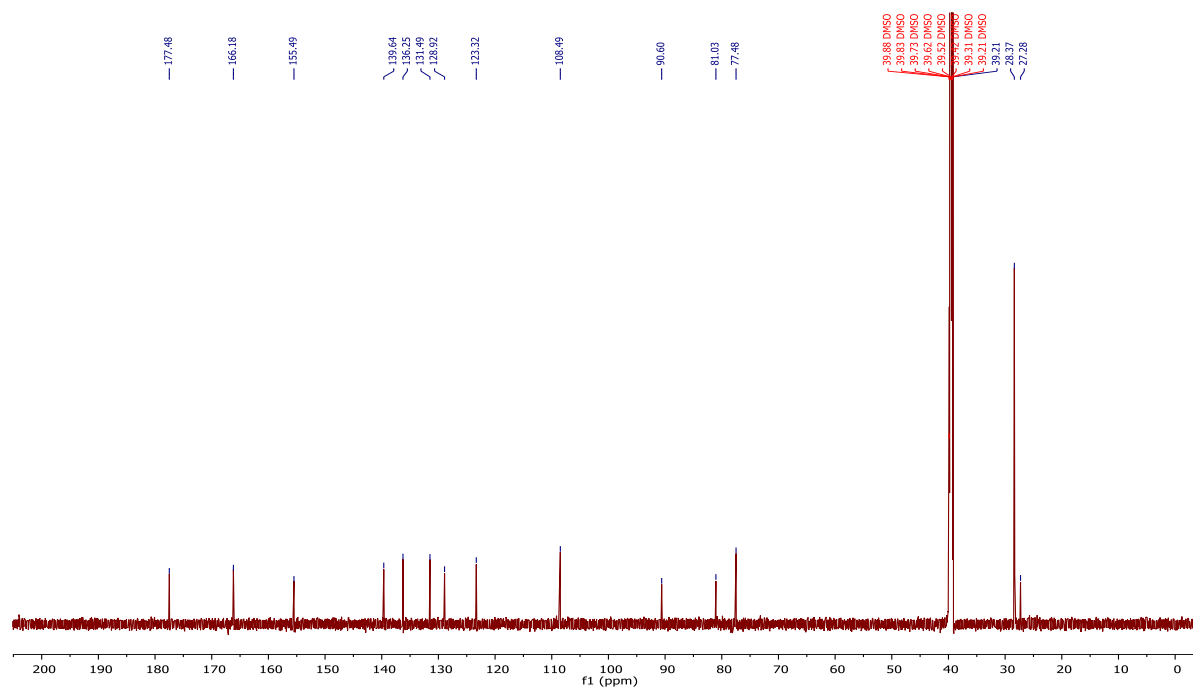
S25: HMBC NMR Spectrum for Compound 7 in DMSO- $d_6$



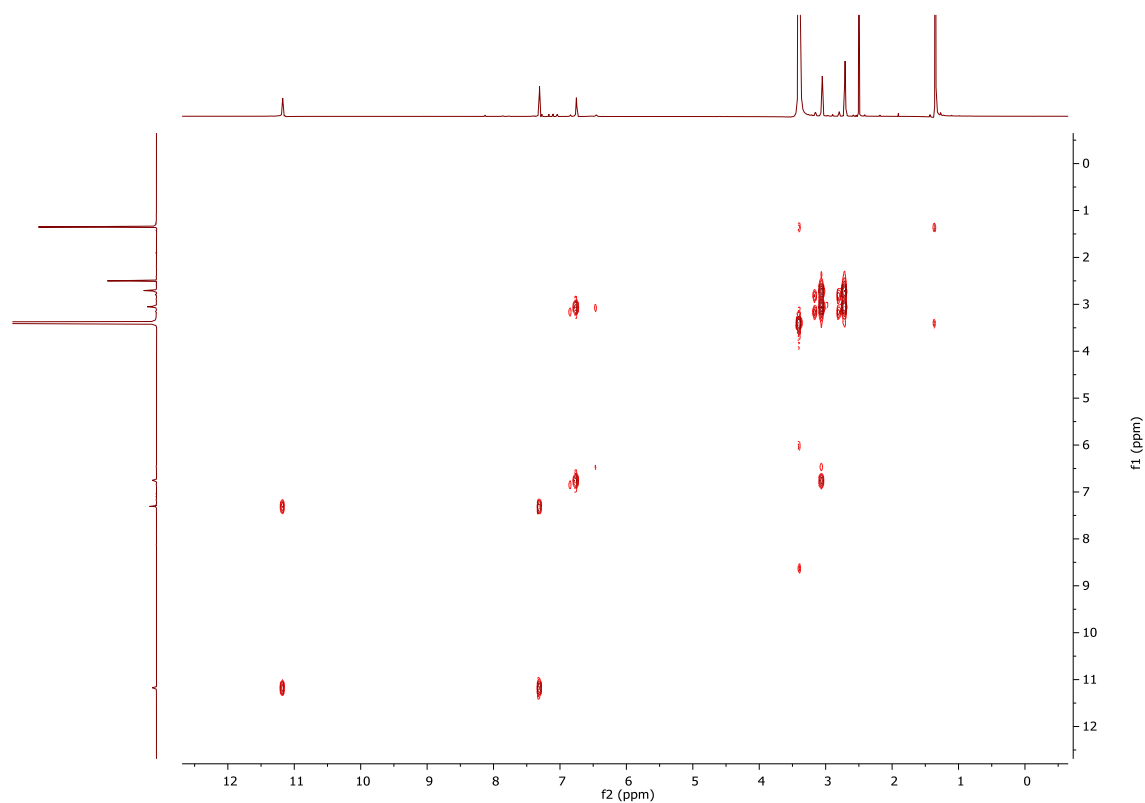
S26:  $^1\text{H}$  NMR Spectrum for Compound **8** in  $\text{DMSO}-d_6$



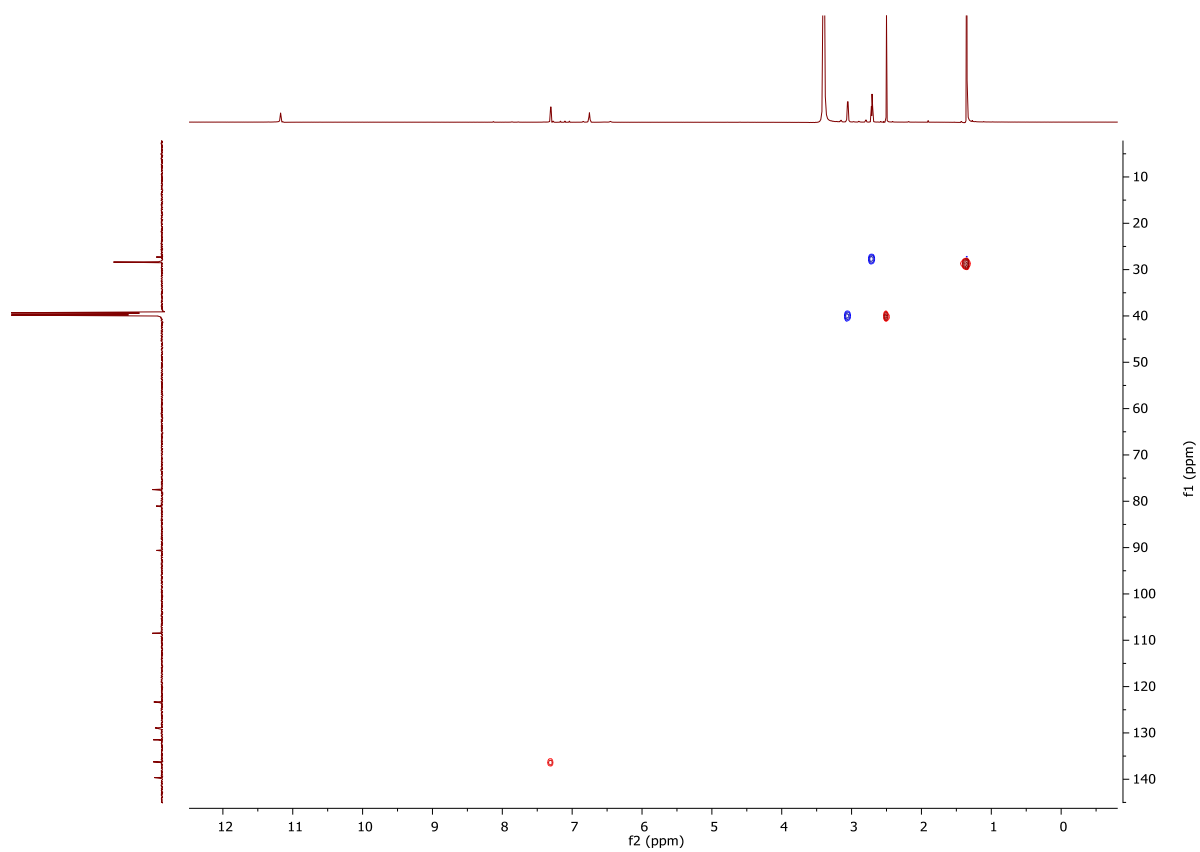
S27:  $^{13}\text{C}$  NMR Spectrum for Compound **8** in  $\text{DMSO}-d_6$



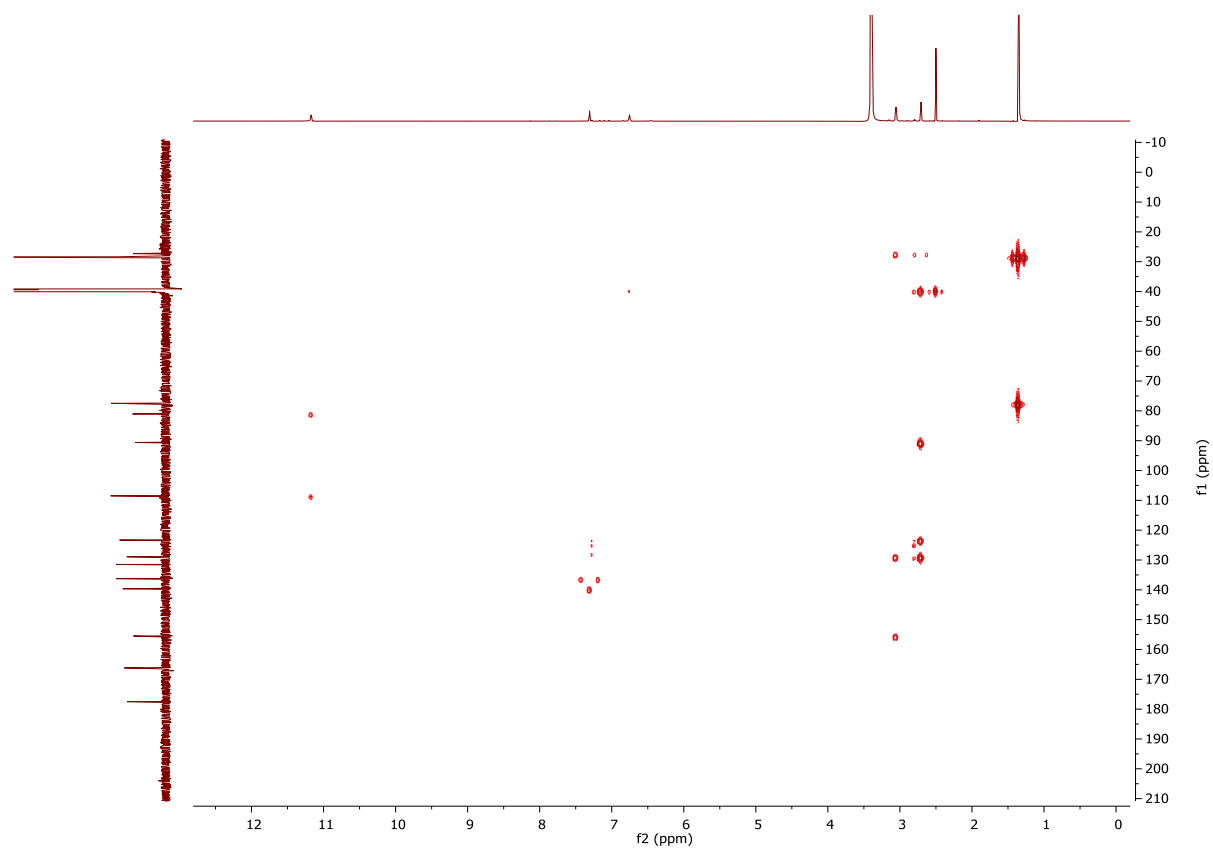
S28: COSY NMR Spectrum for Compound 8 in DMSO- $d_6$



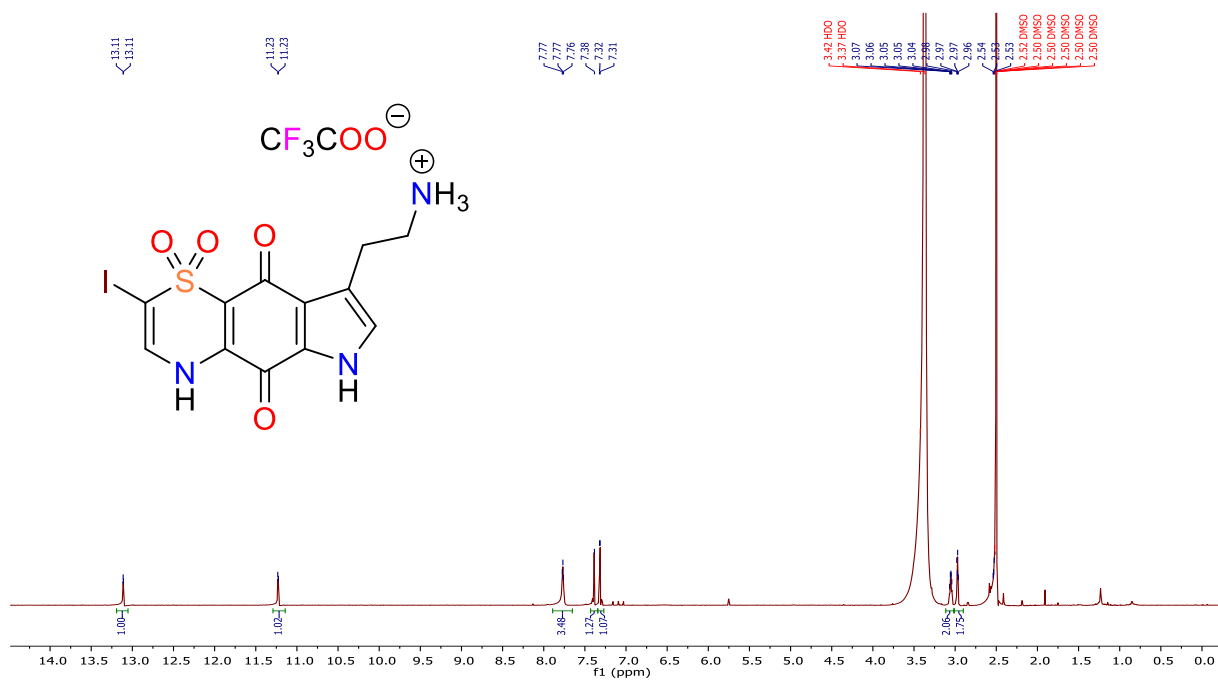
S29: HSQC NMR Spectrum for Compound 8 in DMSO- $d_6$



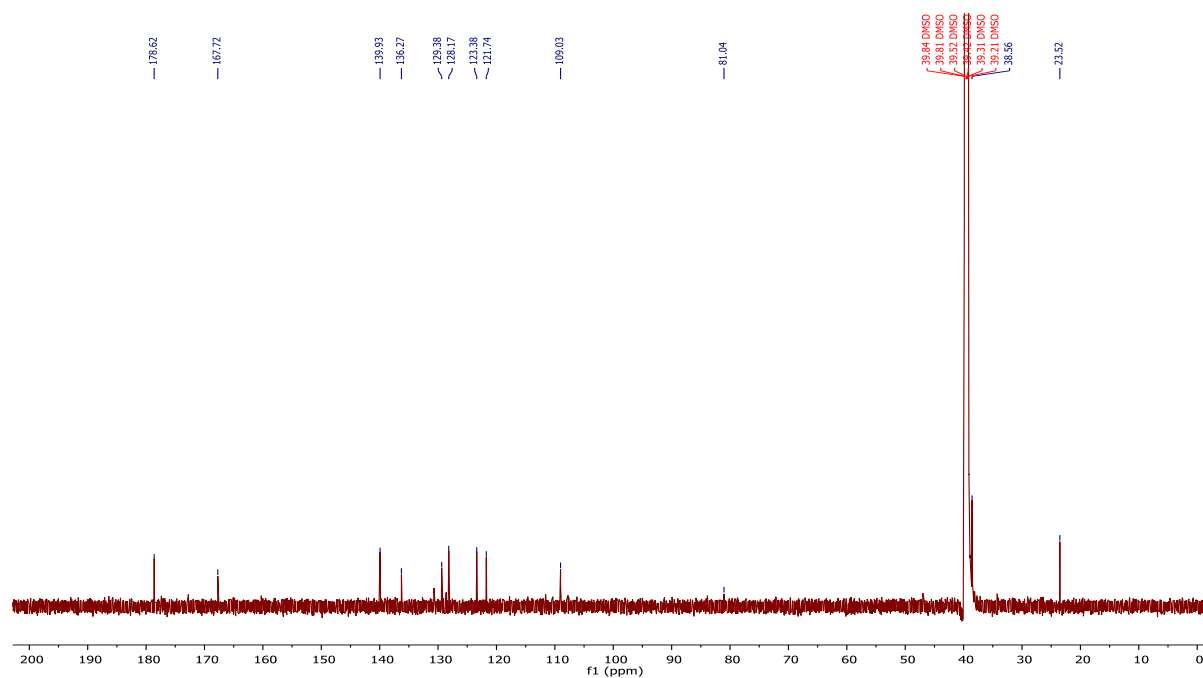
S30: HMBC NMR Spectrum for Compound 8 in DMSO-*d*<sub>6</sub>



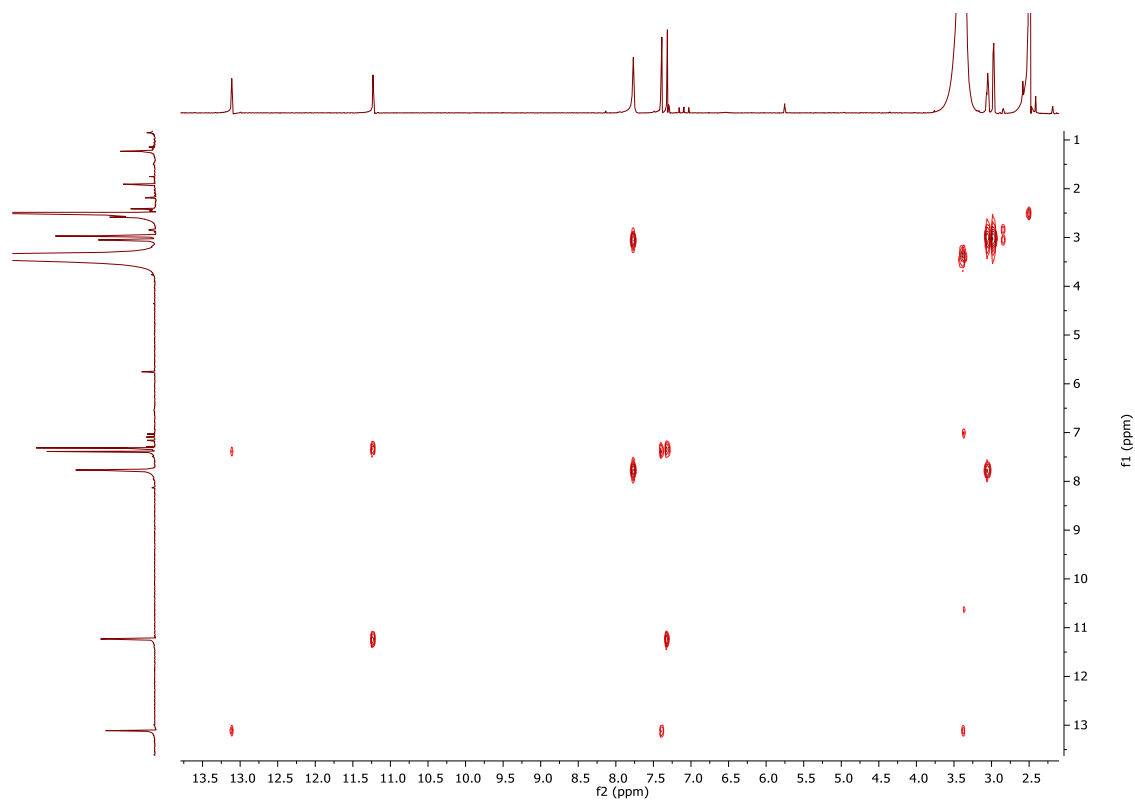
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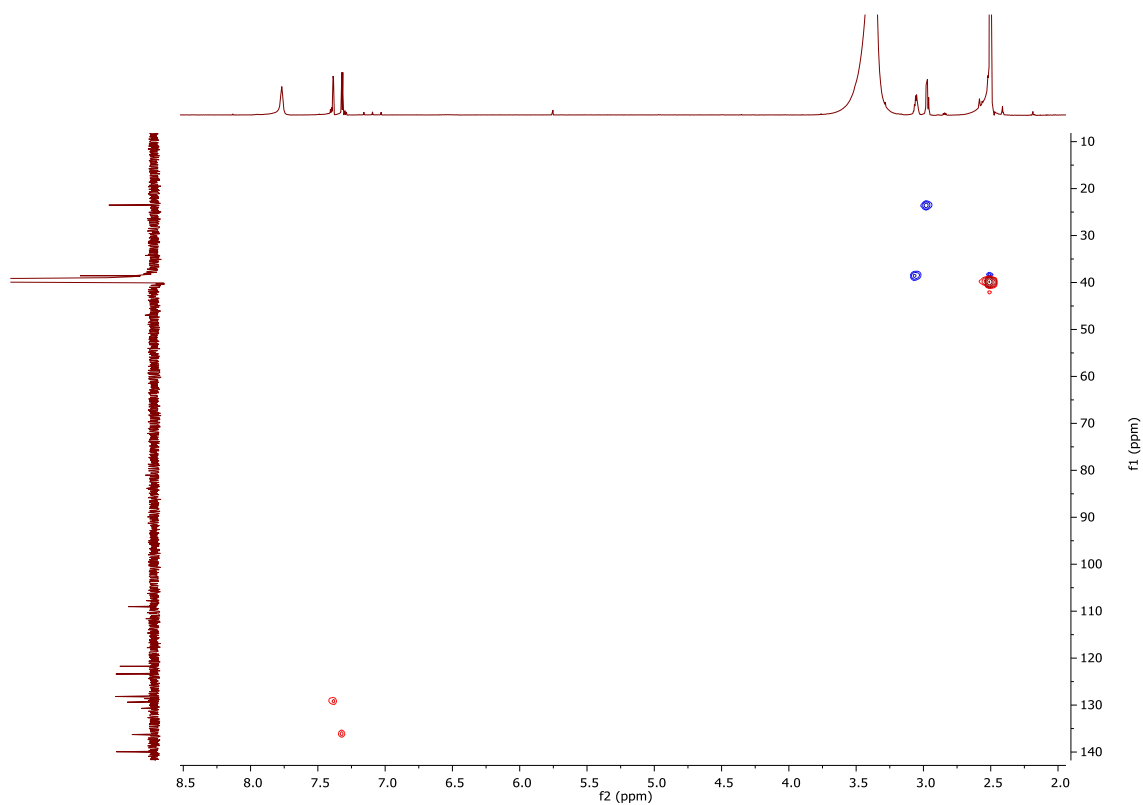
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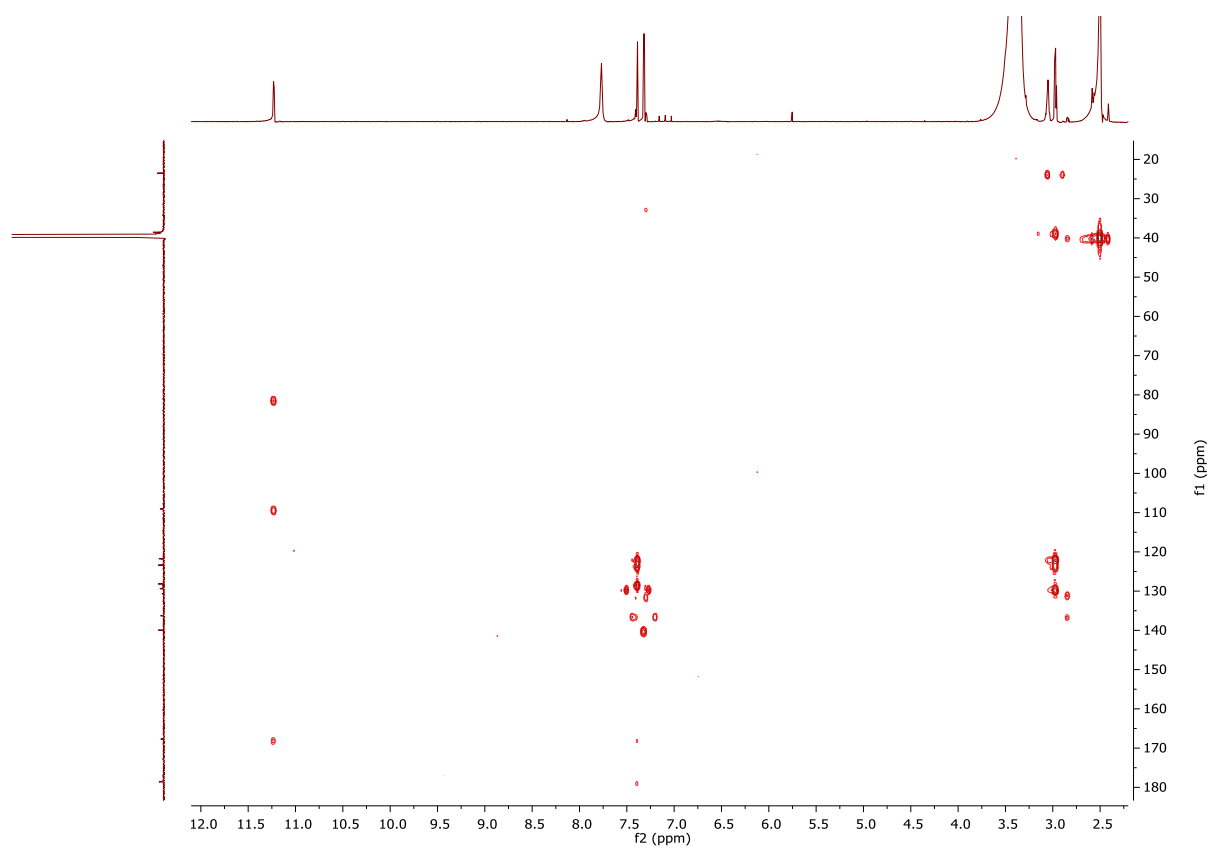
S33: COSY NMR Spectrum for Compound **9** in DMSO-*d*<sub>6</sub>



S34: HSQC NMR Spectrum for Compound **9** in DMSO-*d*<sub>6</sub>

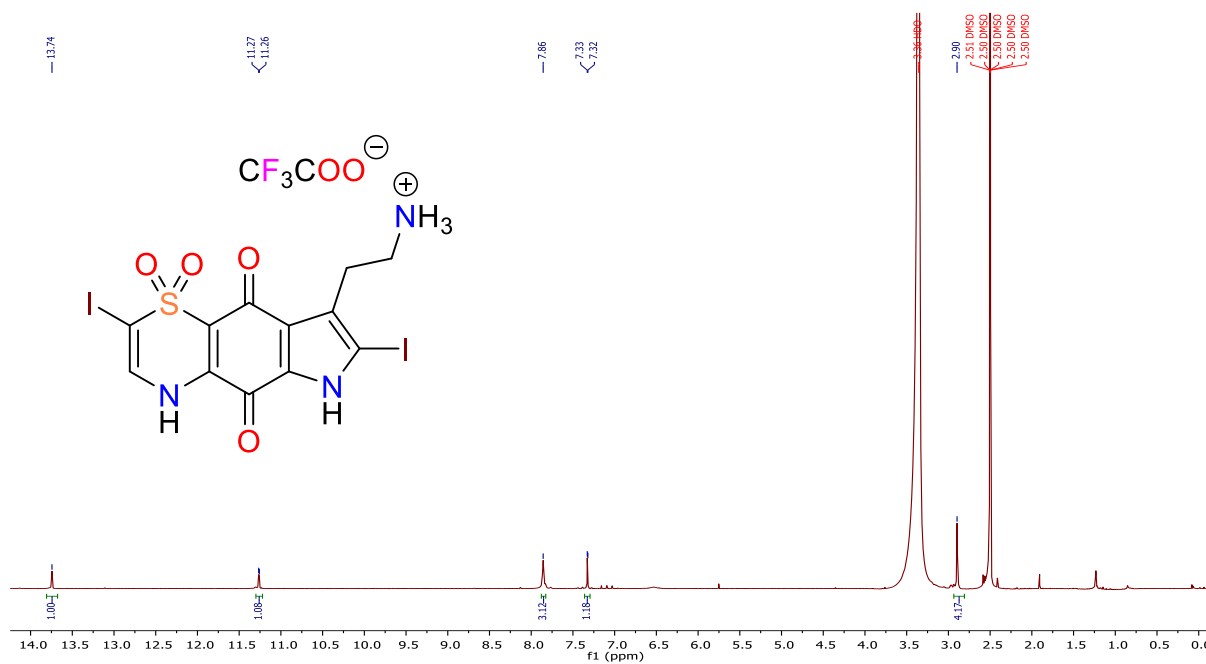


S35: HMBC NMR Spectrum for Compound 9 in DMSO- $d_6$

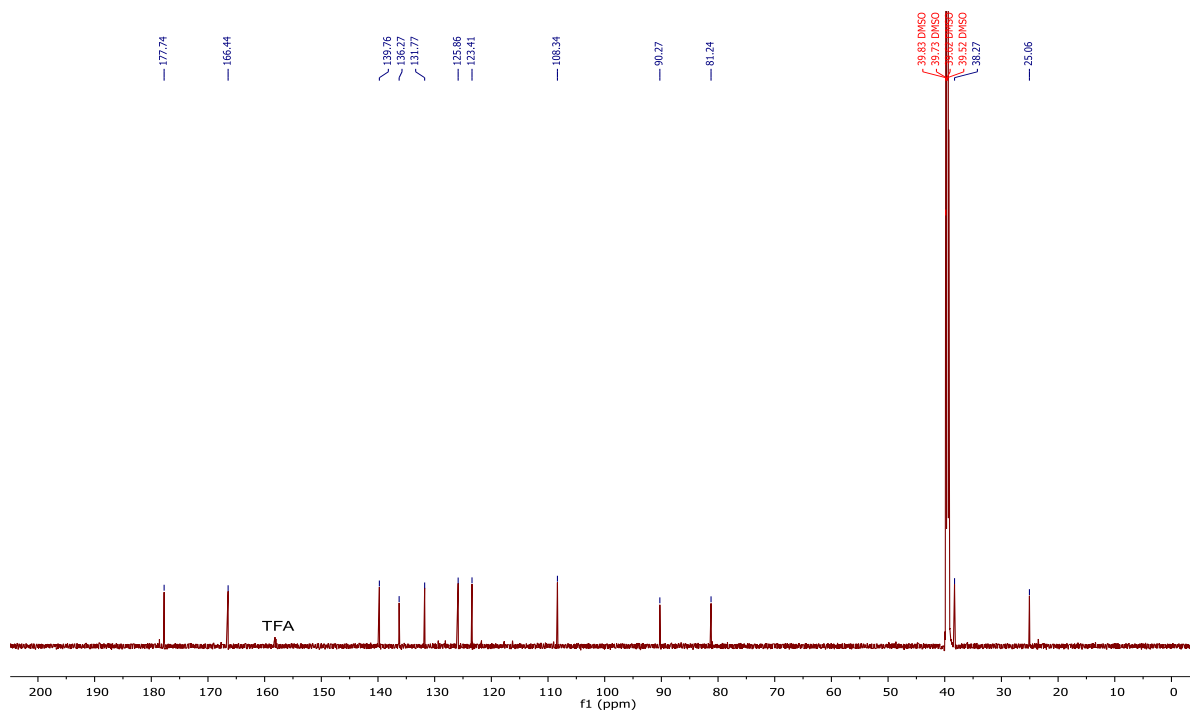




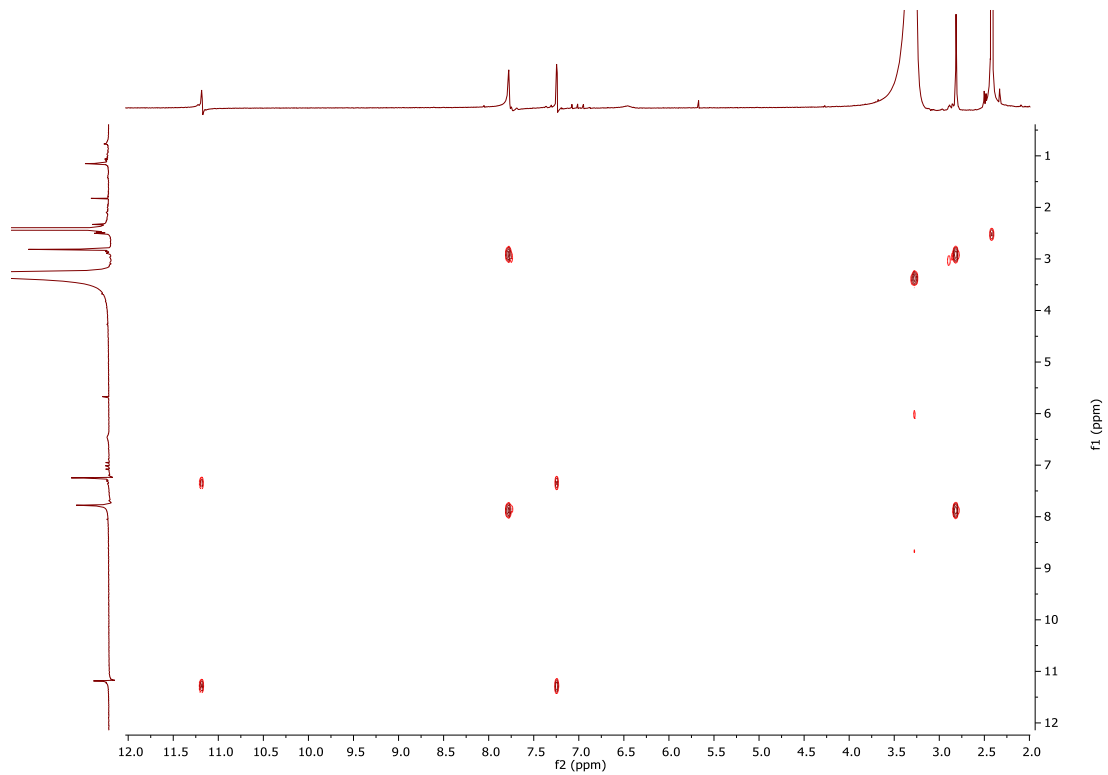
S36:  $^1\text{H}$  NMR Spectrum for Compound **10** in  $\text{DMSO}-d_6$



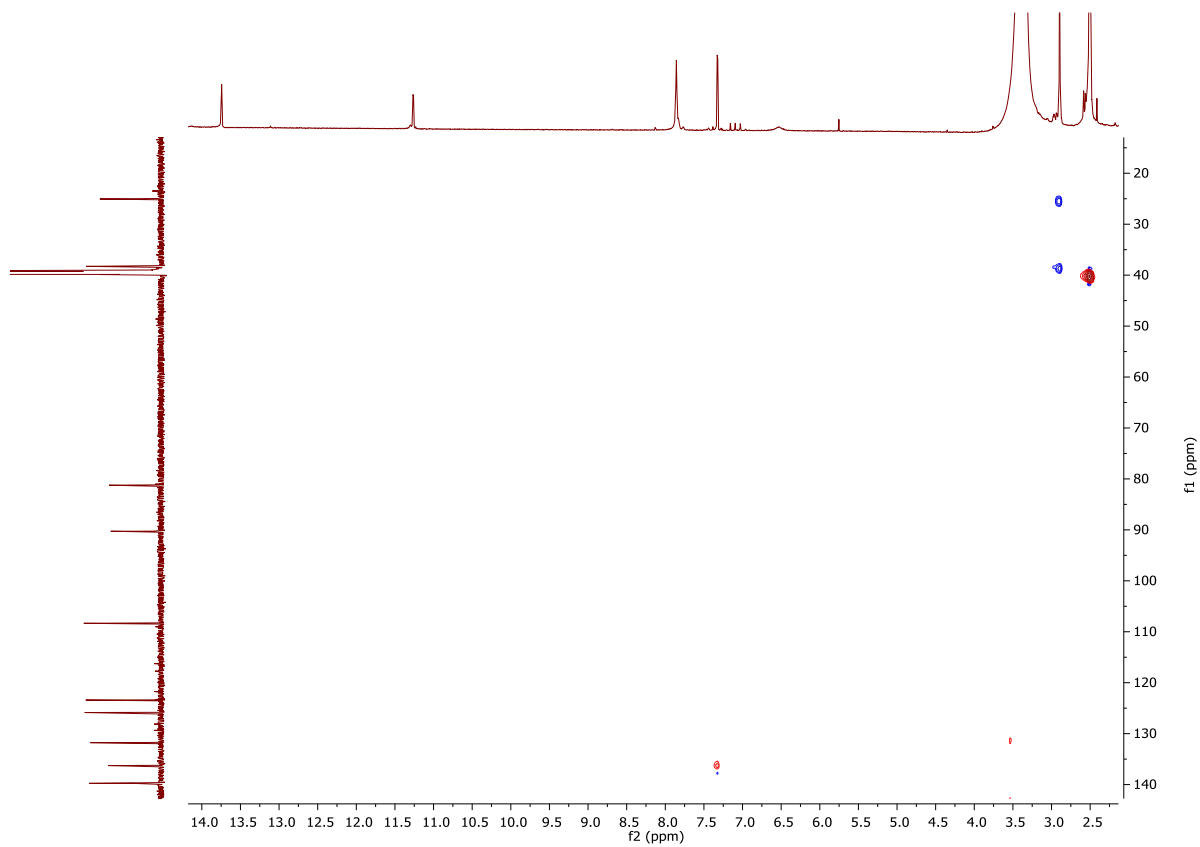
S37:  $^{13}\text{C}$  NMR Spectrum for Compound **10** in  $\text{DMSO}-d_6$



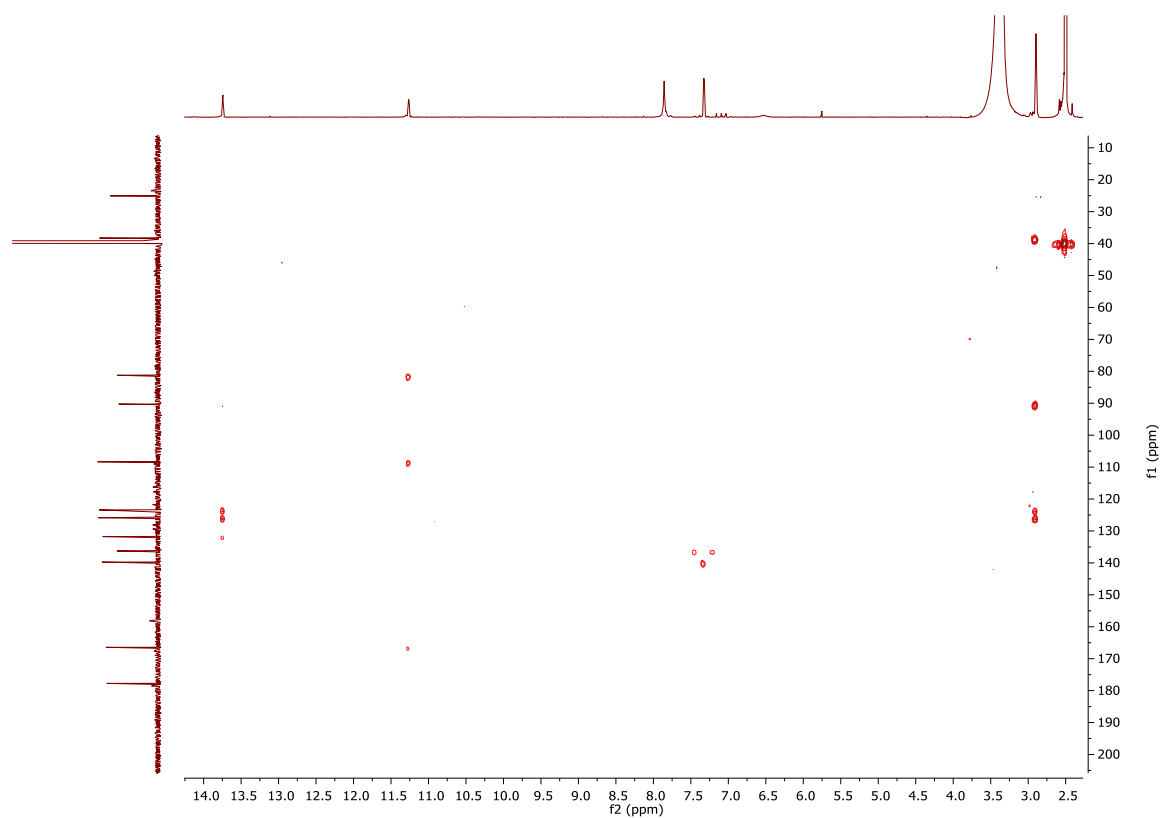
**S38:** COSY NMR Spectrum for Compound **10** in DMSO-*d*<sub>6</sub>



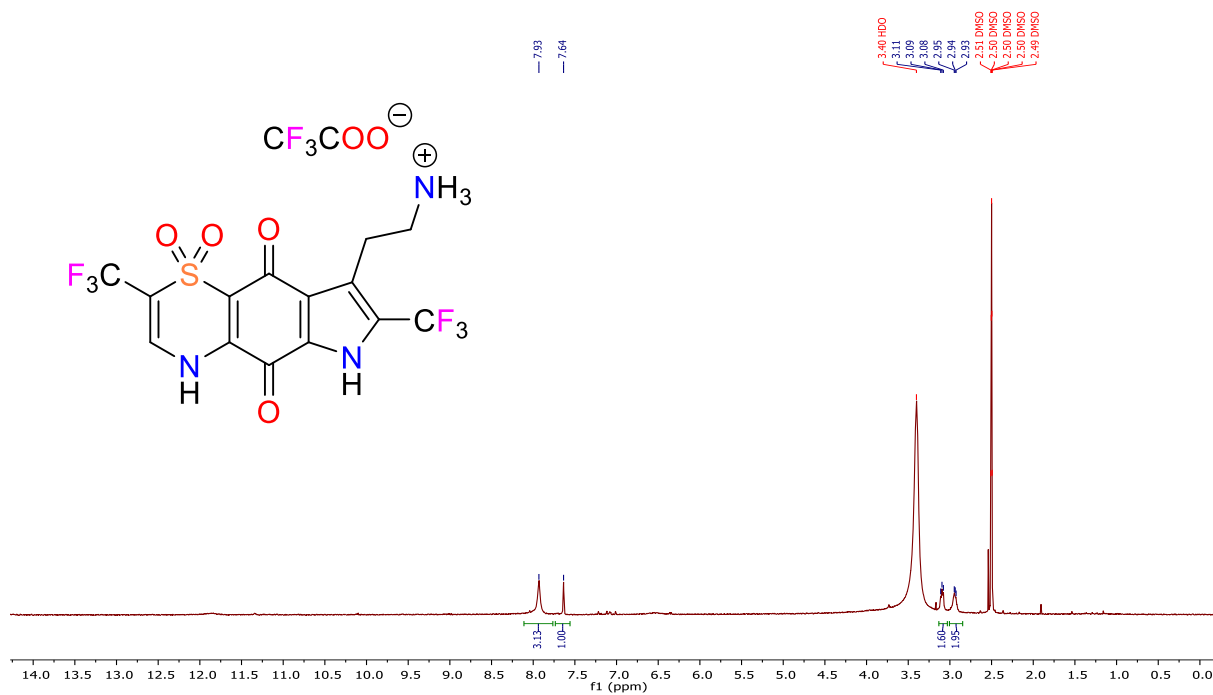
**S39:** HSQC NMR Spectrum for Compound **10** in DMSO-*d*<sub>6</sub>



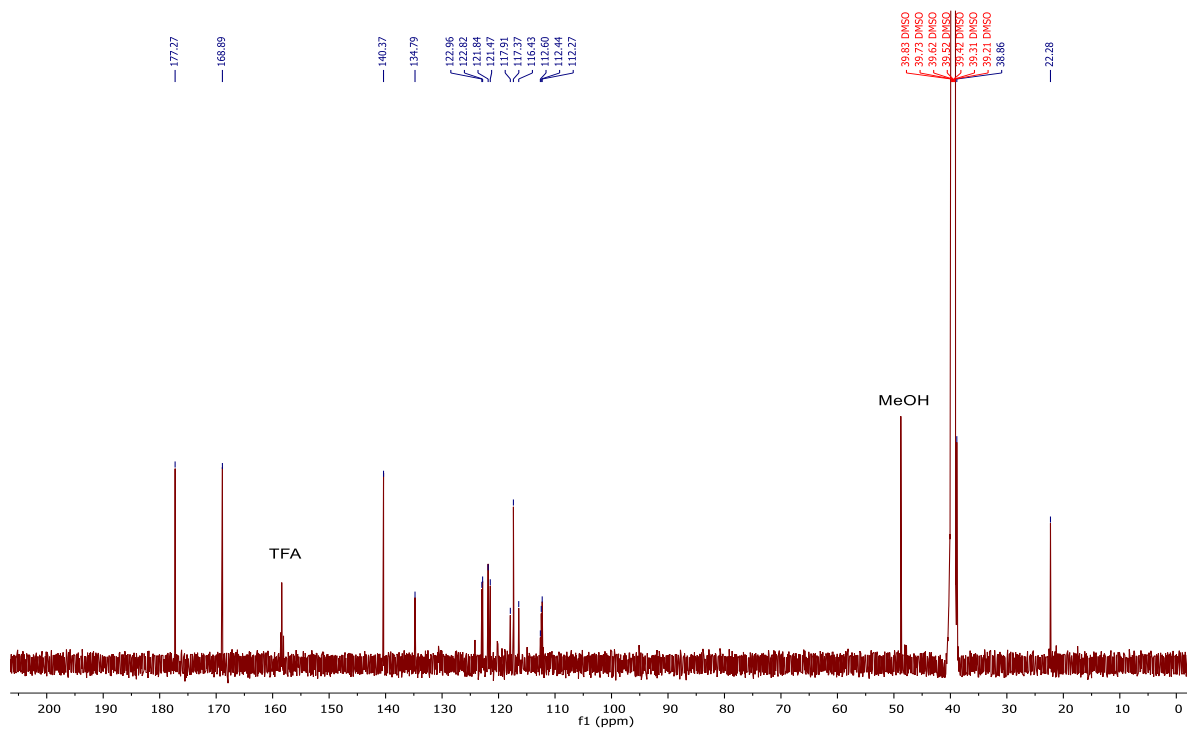
**S40:** HMBC NMR Spectrum for Compound **10** in DMSO-*d*<sub>6</sub>



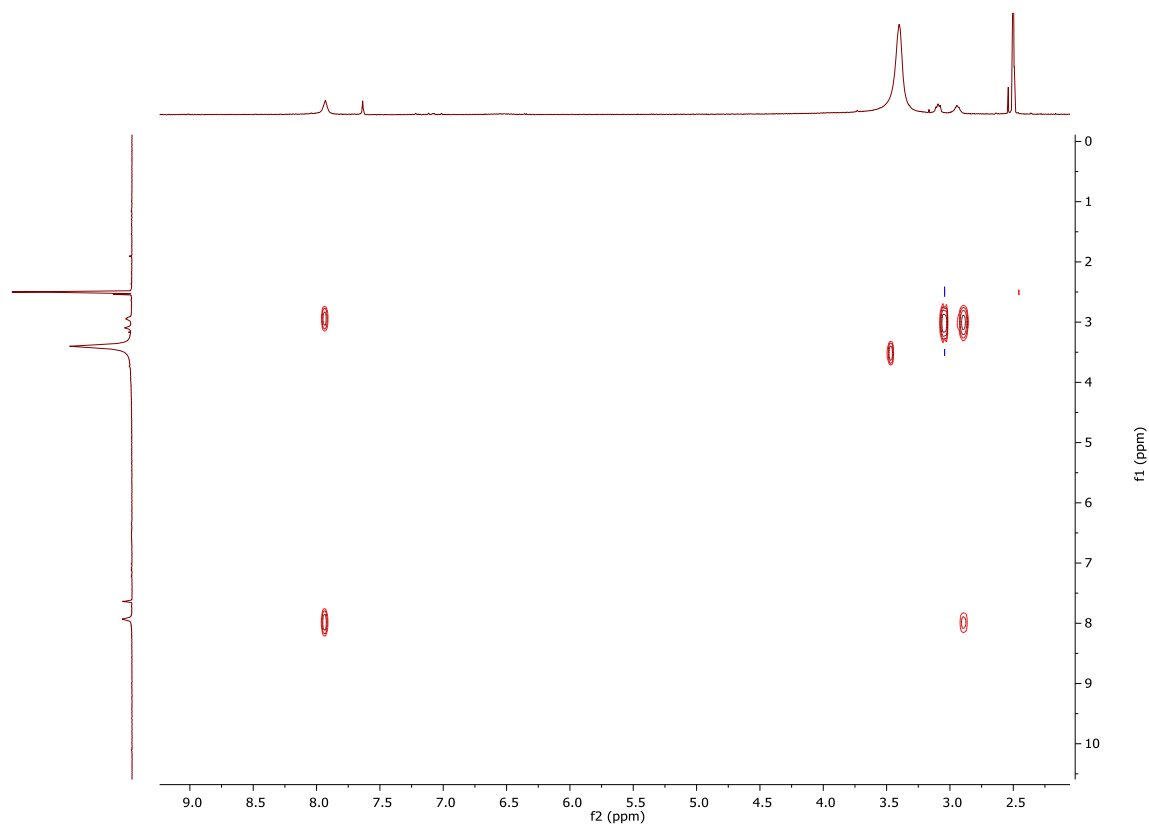
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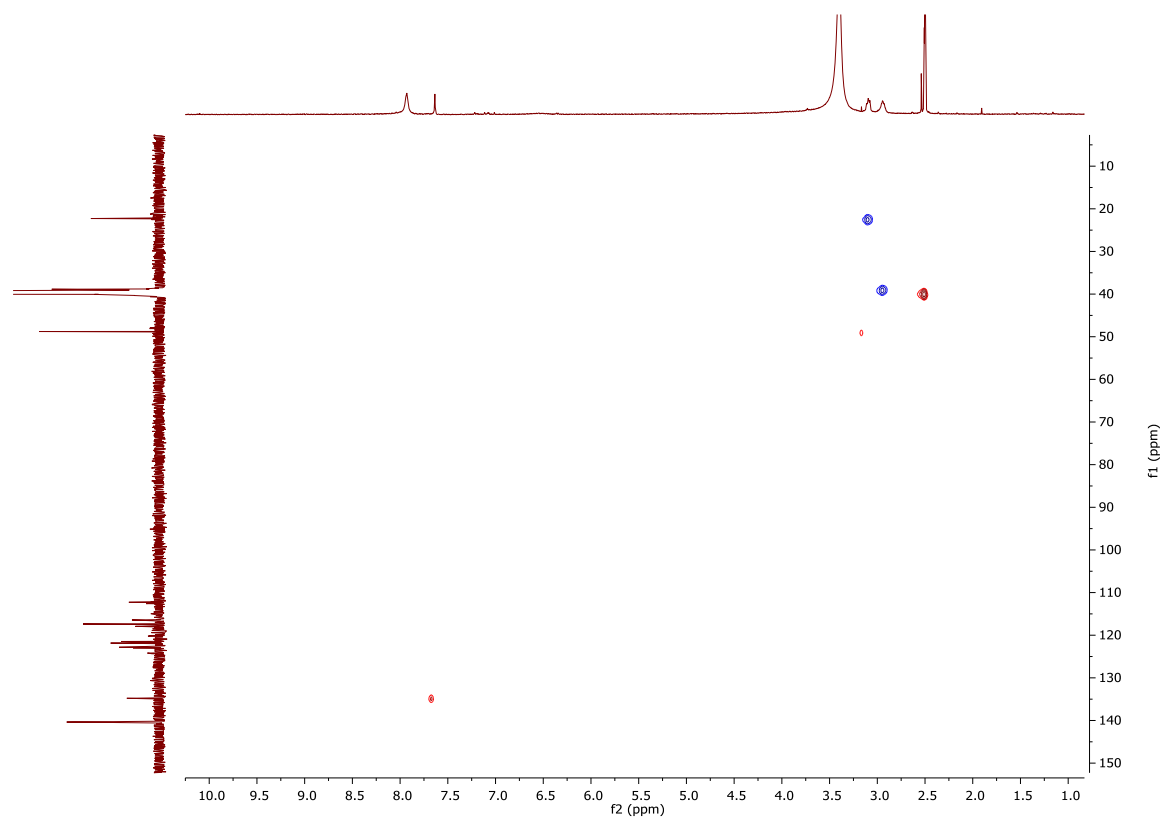
S42:  $^{13}\text{C}$  NMR Spectrum for Compound **11** in  $\text{DMSO}-d_6$



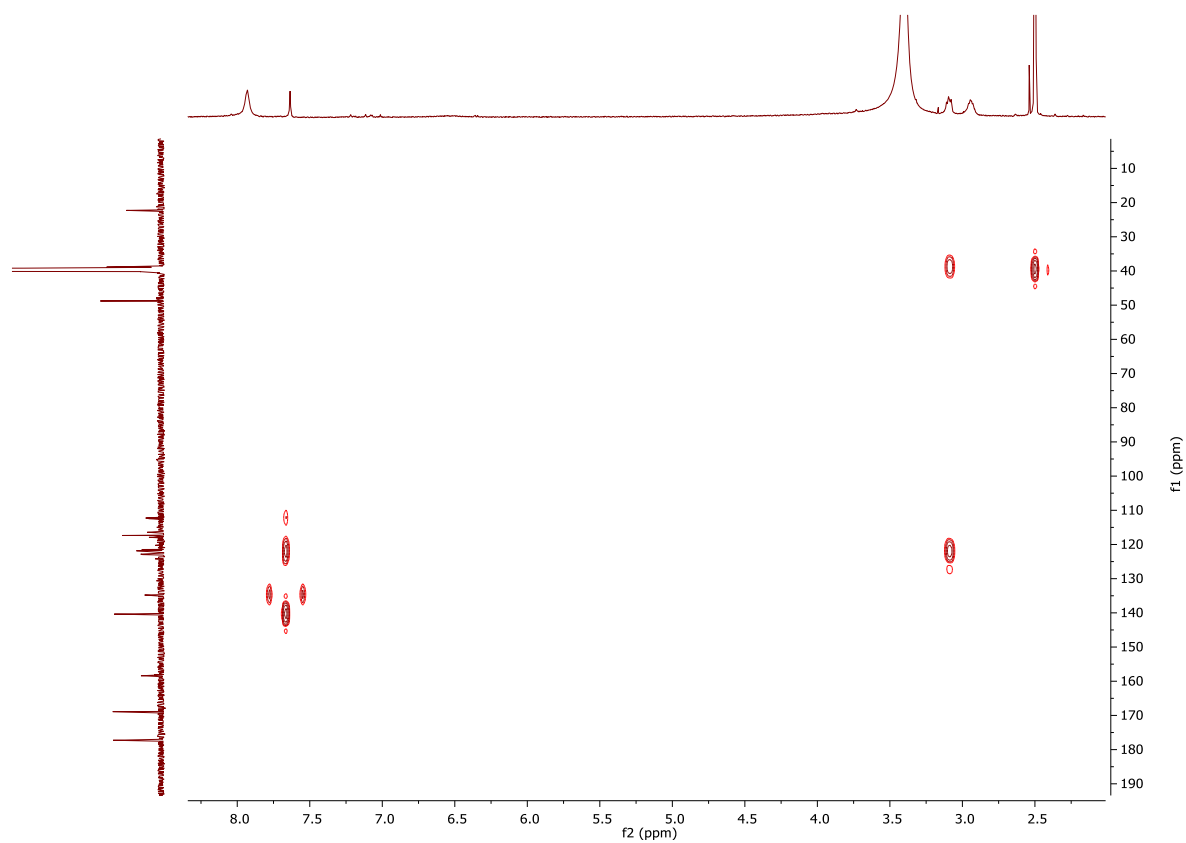
S43: COSY NMR Spectrum for Compound **11** in DMSO- $d_6$



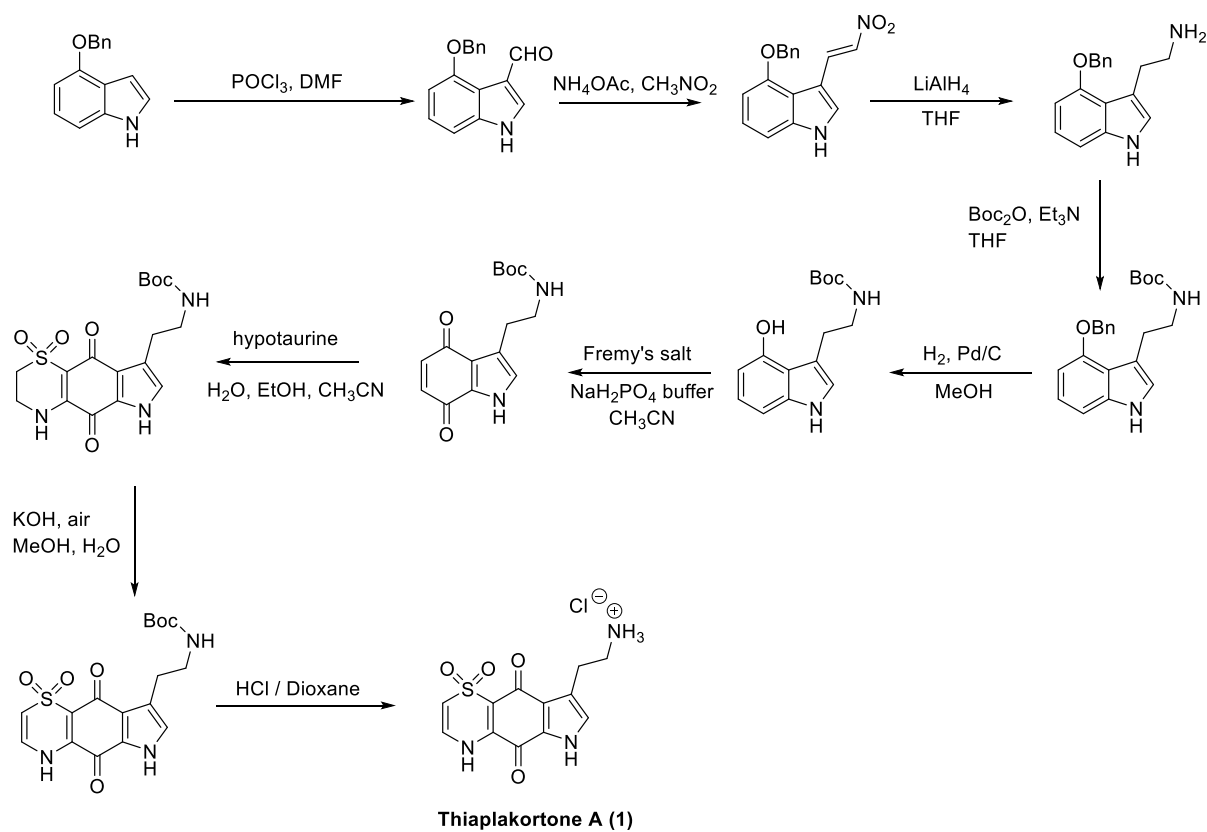
S44: HSQC NMR Spectrum for Compound **11** in DMSO- $d_6$



S45: HMBC NMR Spectrum for Compound **11** in DMSO-*d*<sub>6</sub>



**S46:** Synthetic Route for Thiaplakortone A (HCl Salt)<sup>1</sup>



1. Pouwer, R. H.; Deydier, S. M.; Le, P. V.; Schwartz, B. D.; Franken, N. C.; Davis, R. A.; Coster, M. J.; Charman, S. A.; Edstein, M. D.; Skinner-Adams, T. S.; Andrews, K. T.; Jenkins, I. D.; J. Quinn, R. J. Total synthesis of thiaplakortone A: derivatives as metabolically stable leads for the treatment of malaria. *ACS Med. Chem. Lett.* **2014**, *5*, 178–182.