

Supplementary Materials

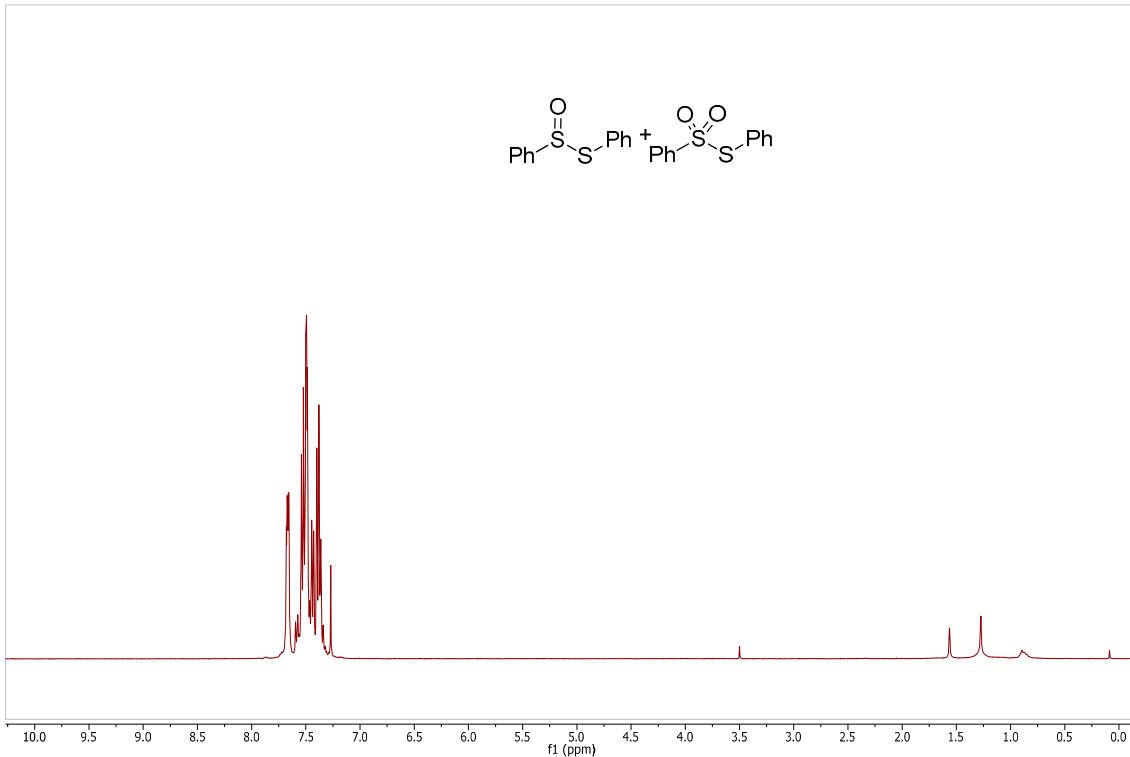


Figure S1. ¹H-NMR spectrum of thiolsulfinate **2b** and thiolsulfonate **3b** (CDCl₃).

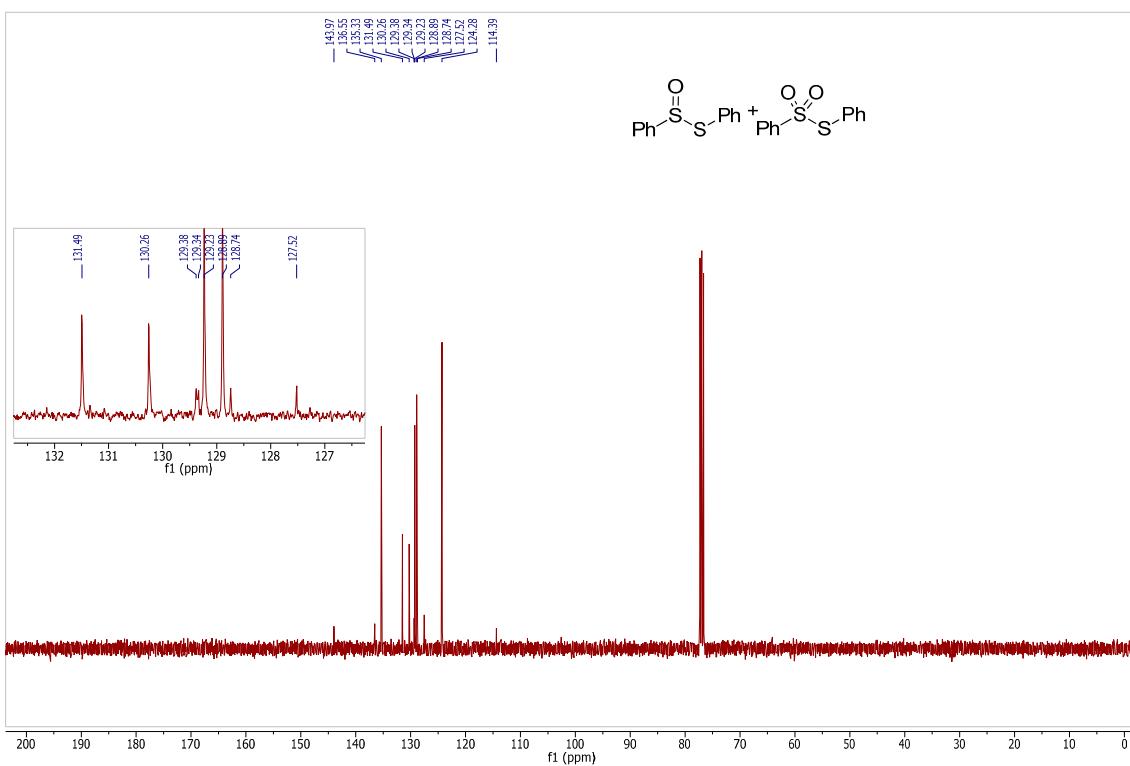


Figure S2. ¹³C-NMR spectrum of thiolsulfinate **2b** and thiolsulfonate **3b** (CDCl₃).

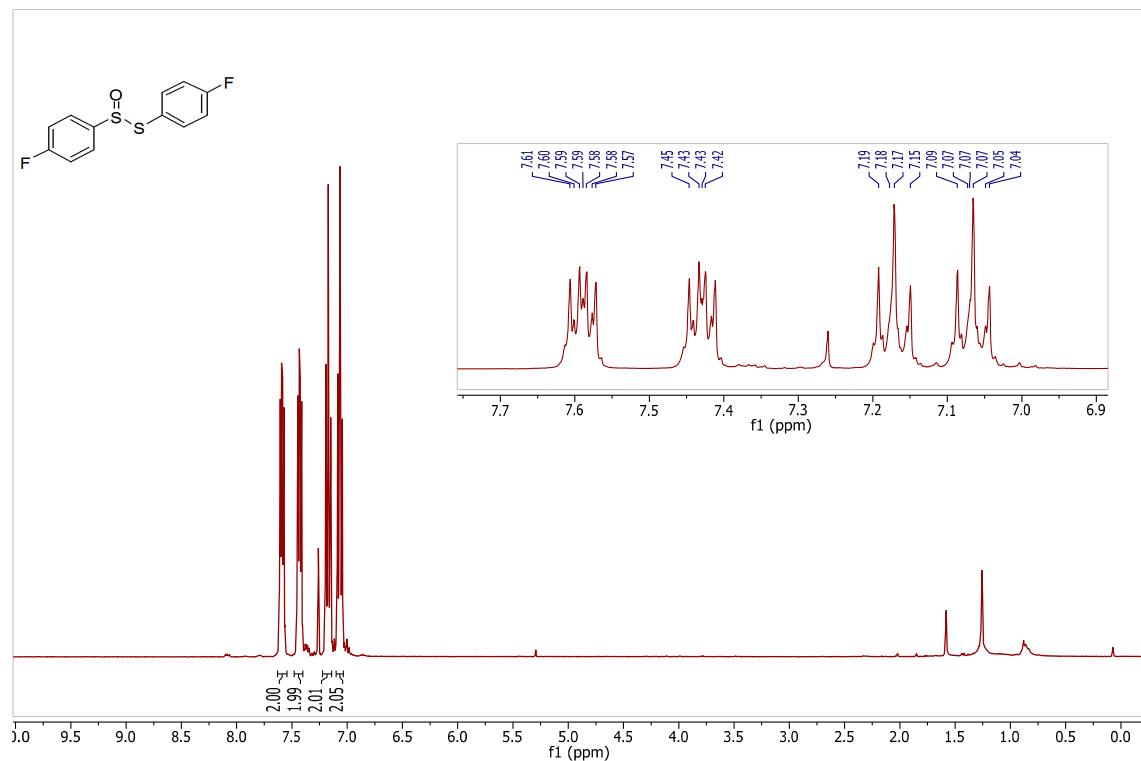


Figure S3. ^1H -NMR spectrum of thiolsulfinate **2c** (CDCl_3).

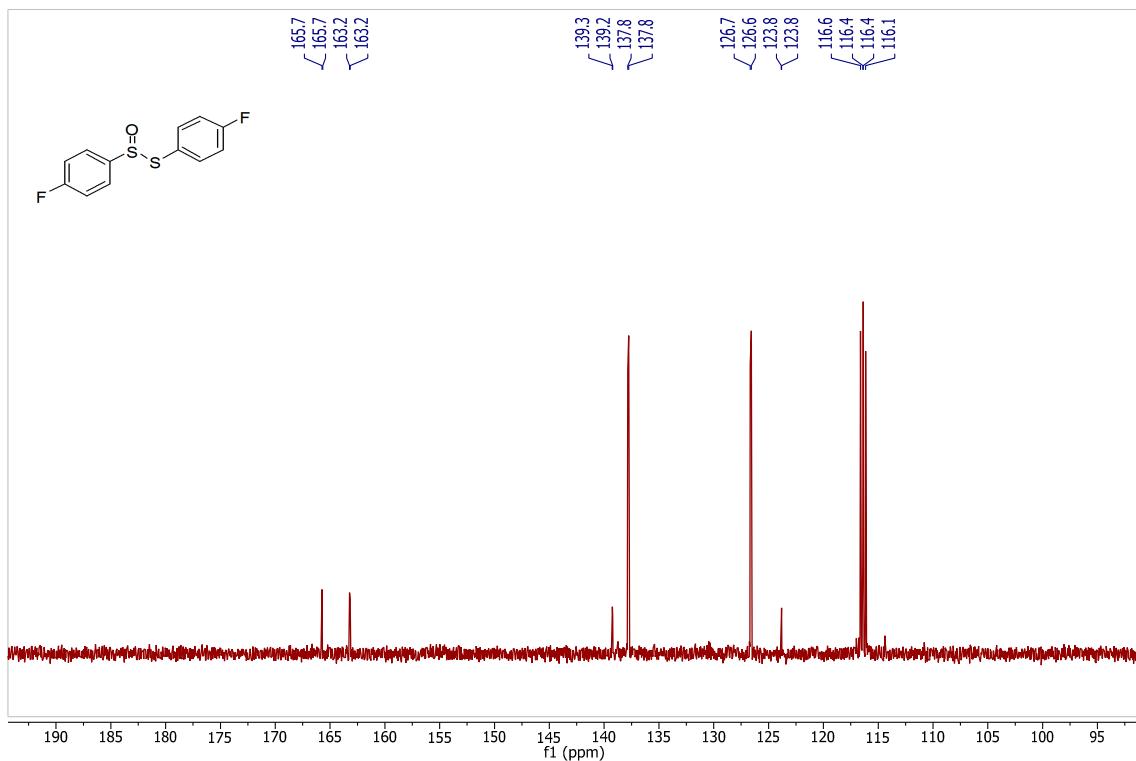


Figure S4. ^{13}C -NMR spectrum of thiolsulfinate **2c** (CDCl_3).

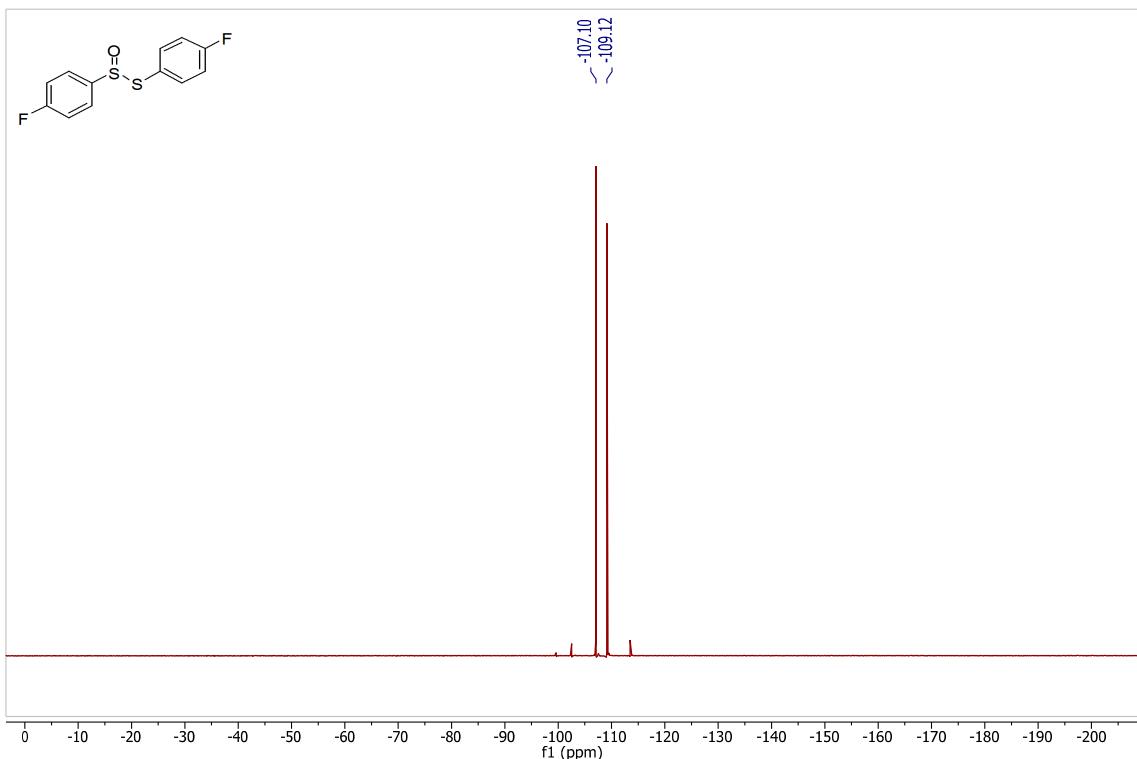


Figure S5. ¹⁹F-NMR spectrum of thiolsulfinate **2c** (CDCl₃).

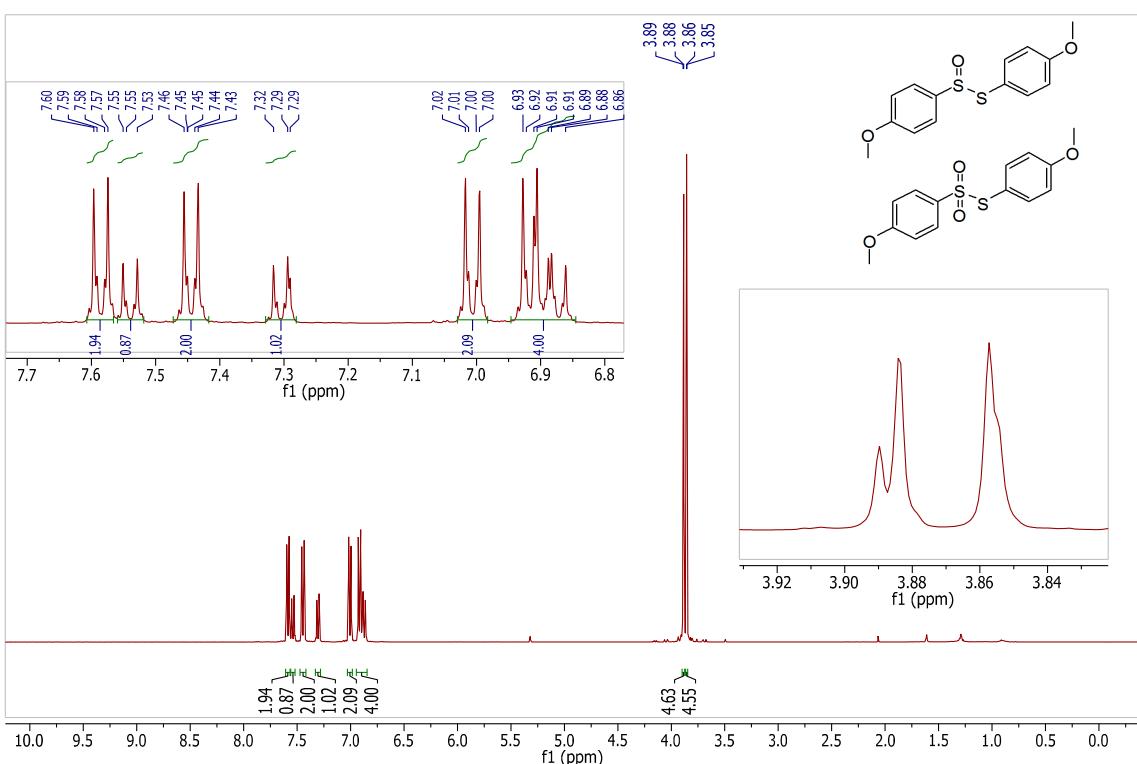


Figure S6. ¹H-NMR spectrum of thiolsulfinate **2d** and thiolsulfonate **3d** (CDCl₃).

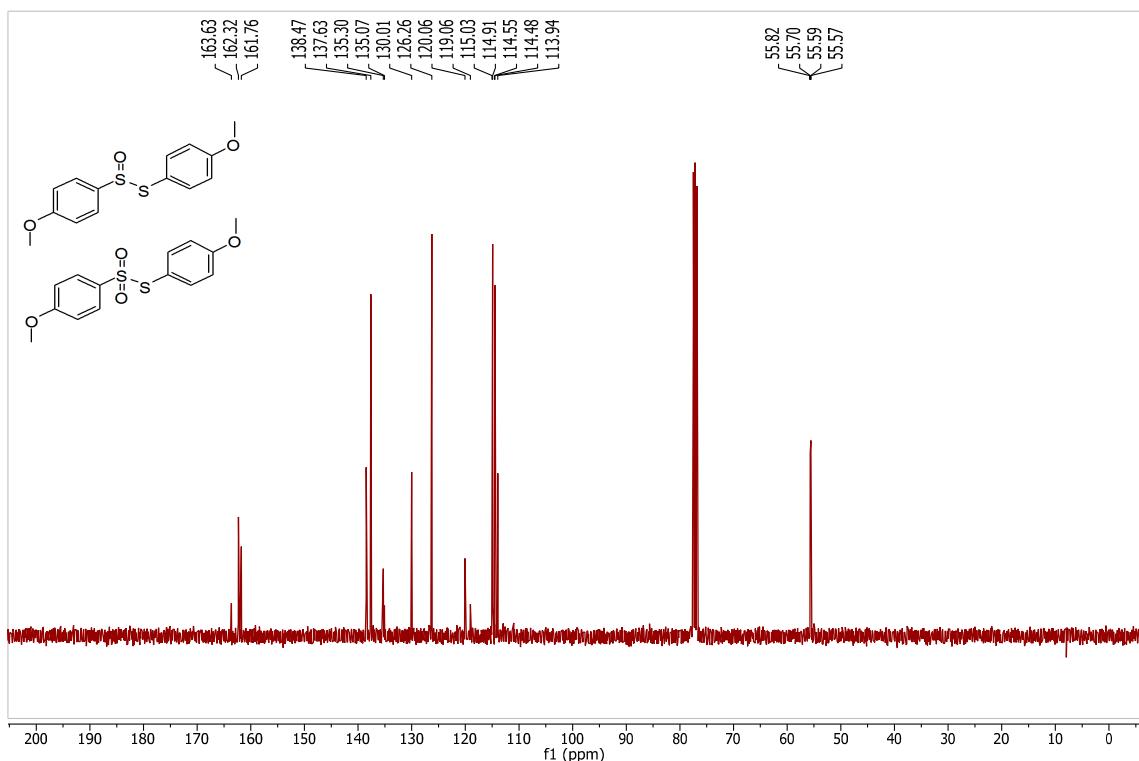


Figure S7. ^{13}C -NMR spectrum of thiolsulfinate **2d** and thiolsulfonate **3d** (CDCl_3).

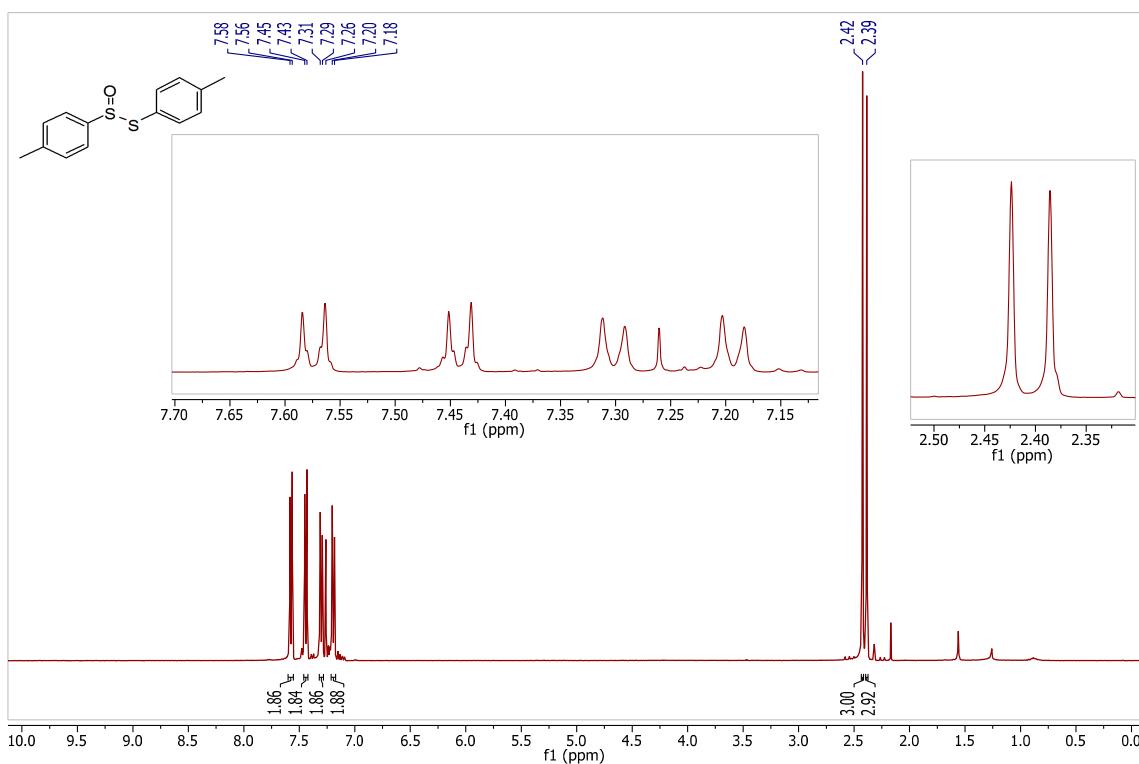


Figure S8. ^1H -NMR spectrum of thiolsulfinate **2e** (CDCl_3).

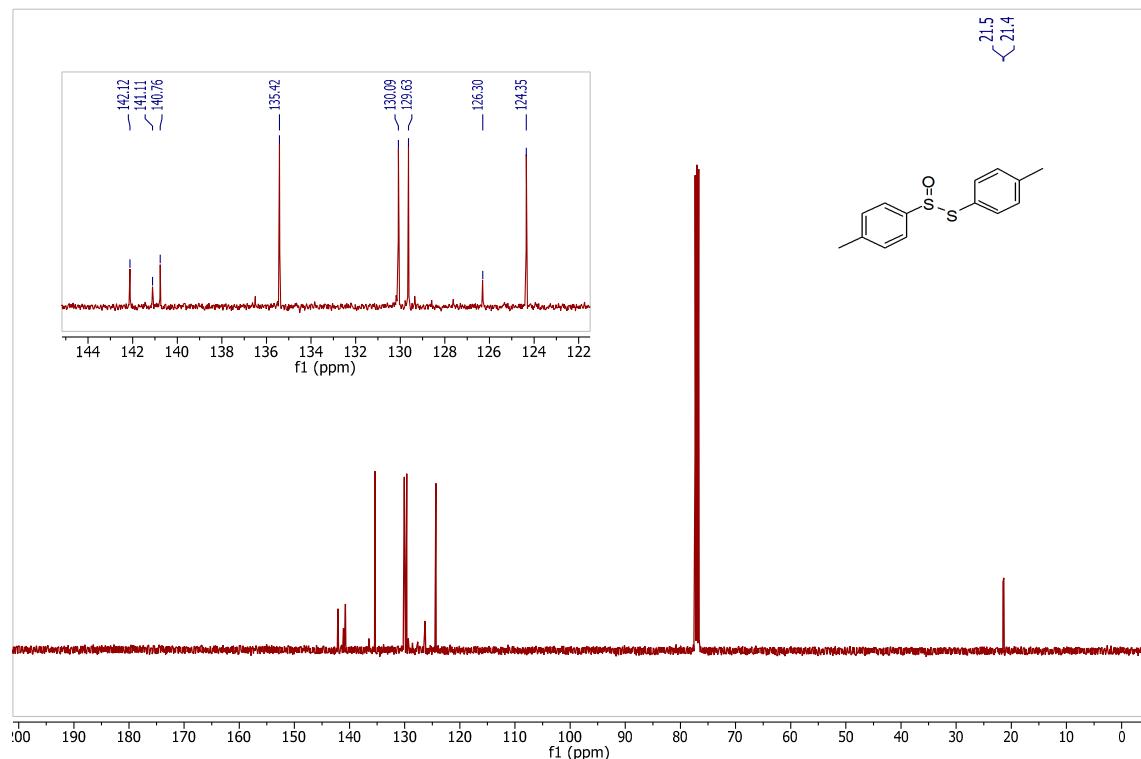


Figure S9. ^{13}C -NMR spectrum of thiolsulfinate **2e** (CDCl_3).

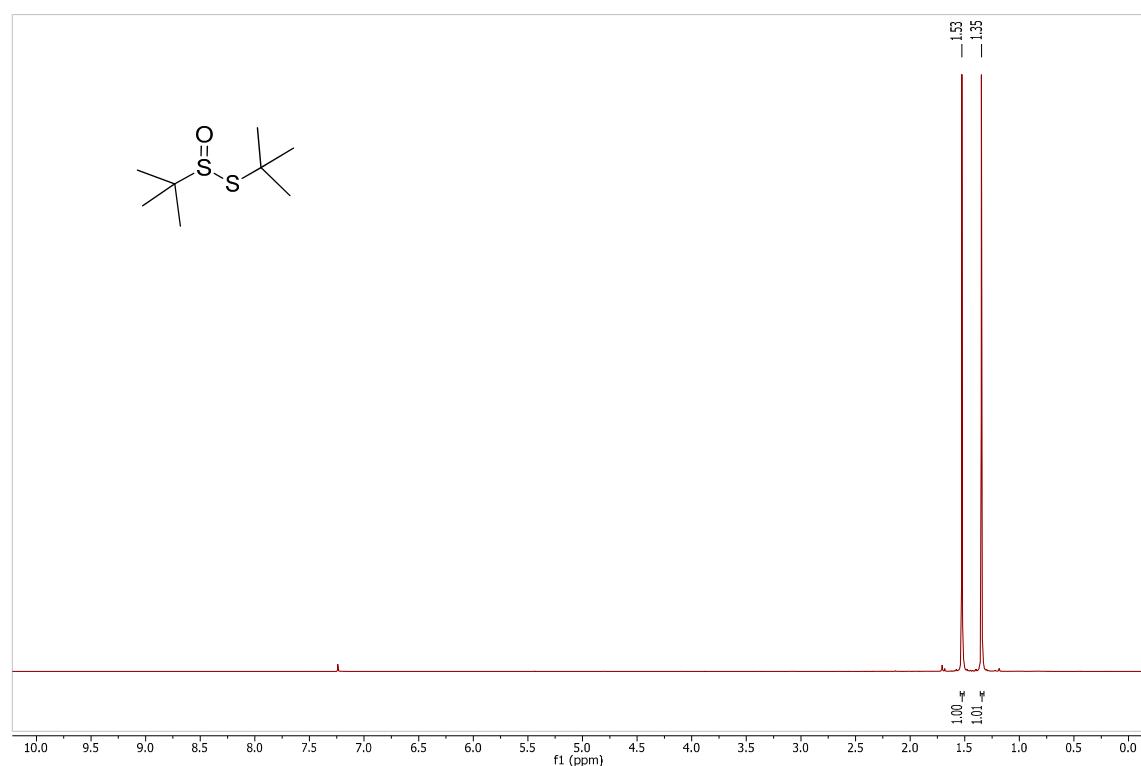


Figure S10. ^1H -NMR spectrum of thiolsulfinate **2f** (CDCl_3).

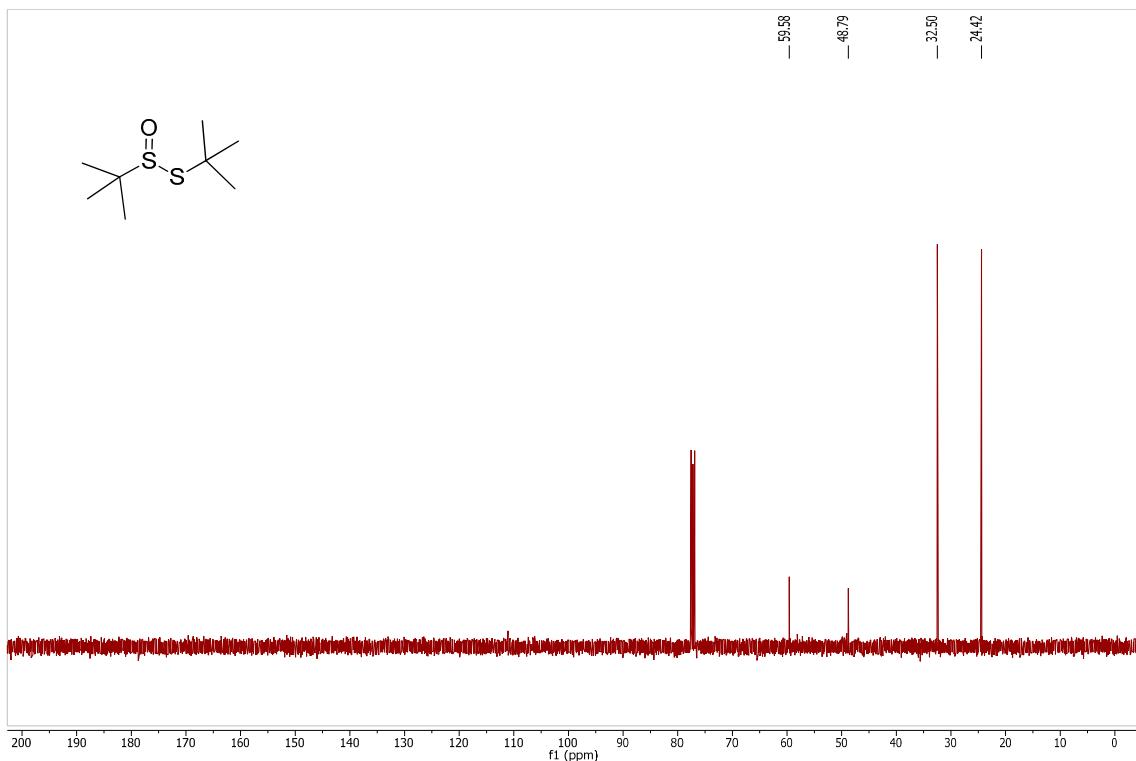


Figure S11. ^{13}C -NMR spectrum of thiolsulfinate **2f** (CDCl_3).

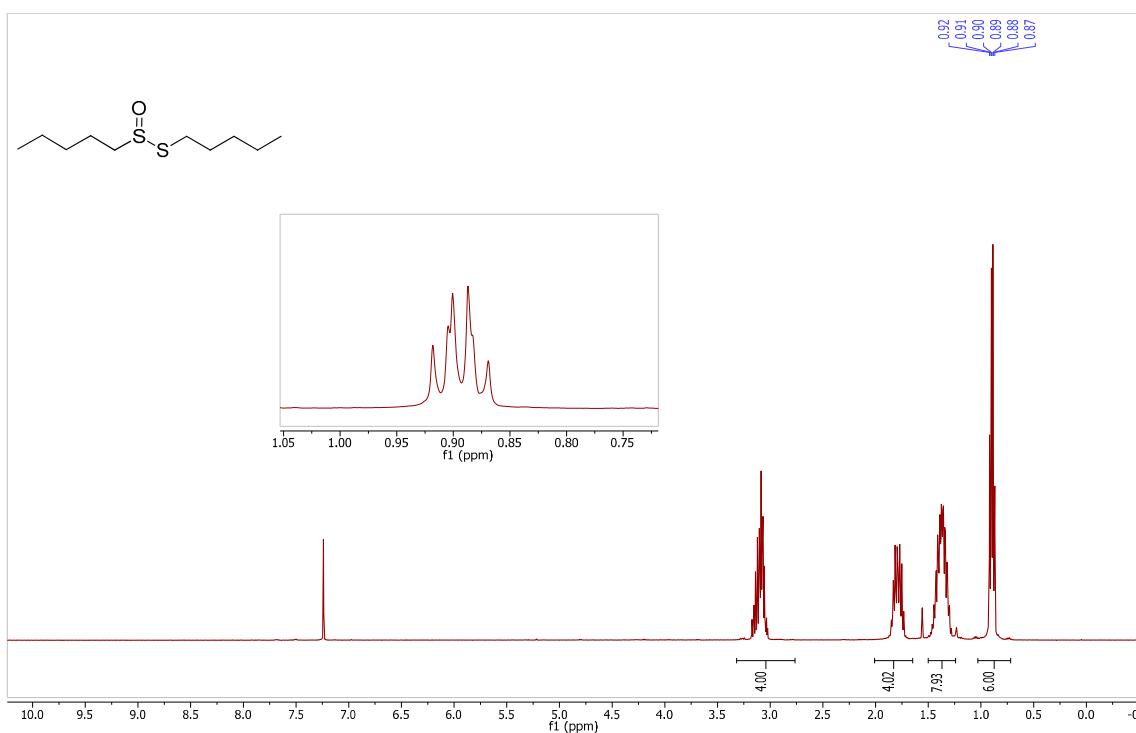


Figure S12. ^1H -NMR spectrum of thiolsulfinate **2g** (CDCl_3).

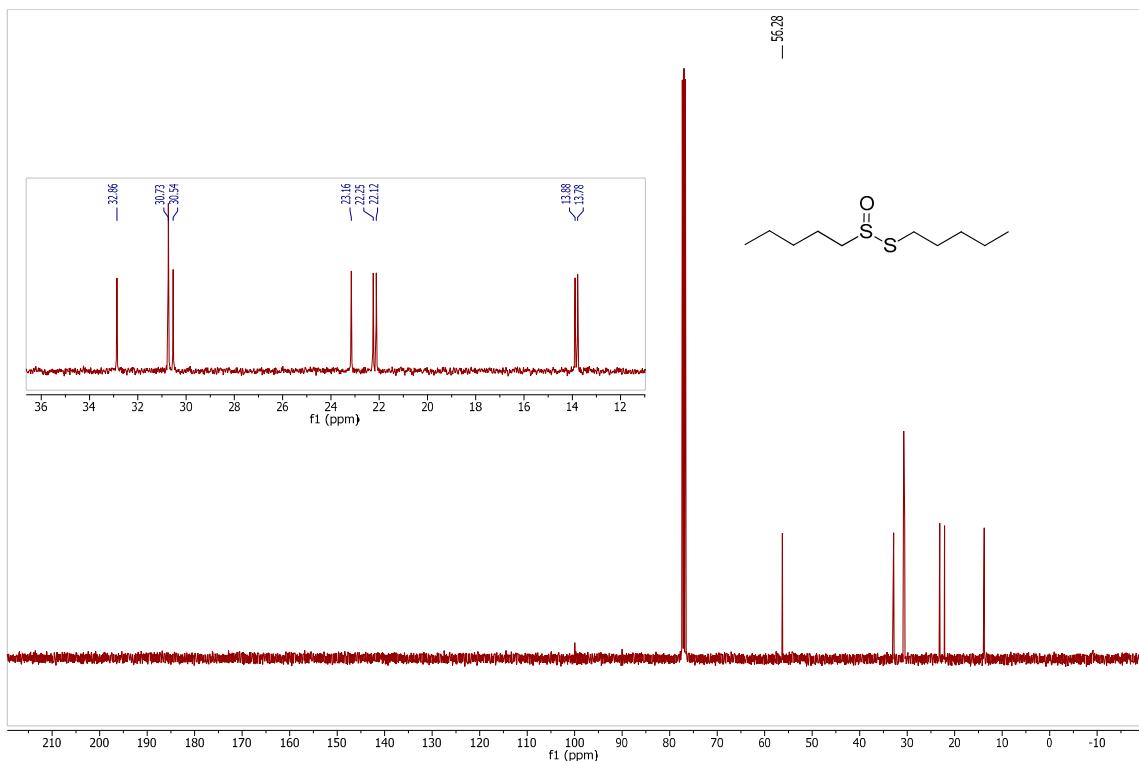


Figure S13. ^{13}C -NMR spectrum of thiolsulfinate **2g** (CDCl_3).

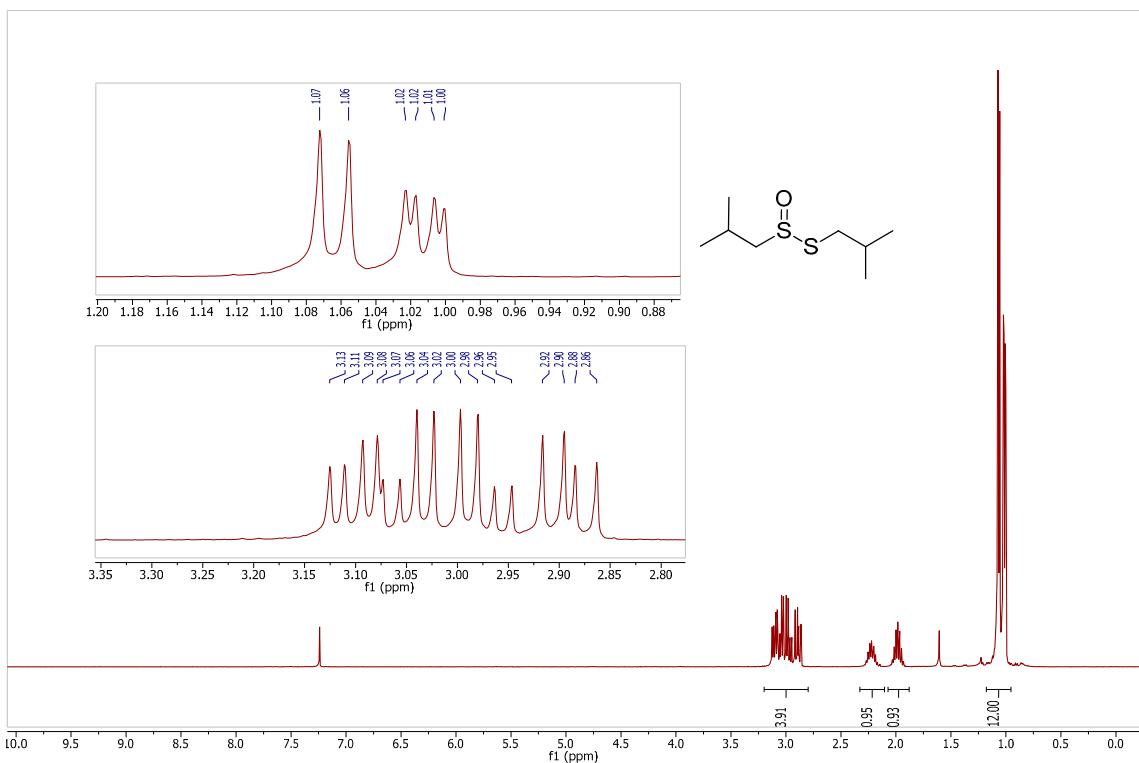


Figure S14. ^1H -NMR spectrum of thiolsulfinate **2h** (CDCl_3).

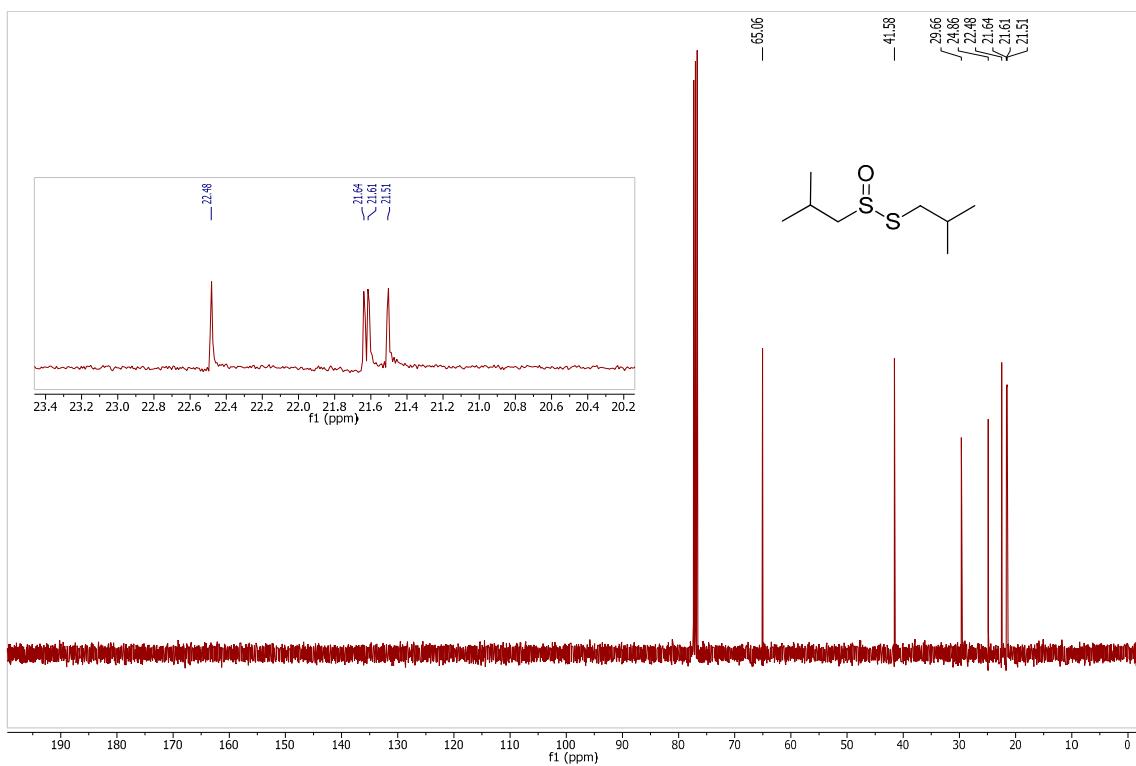


Figure S15. ¹³C-NMR spectrum of thiolsulfinate **2h** (CDCl₃).

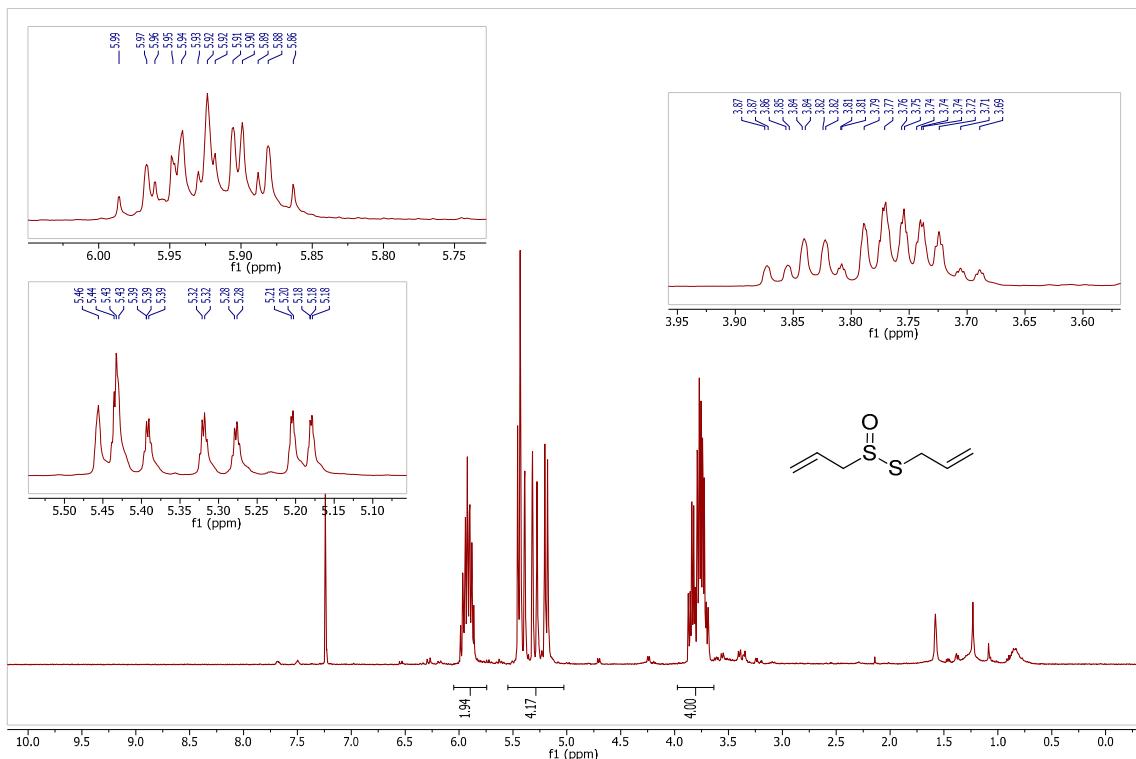


Figure S16. ¹H-NMR spectrum of thiolsulfinate **2i** (CDCl₃).

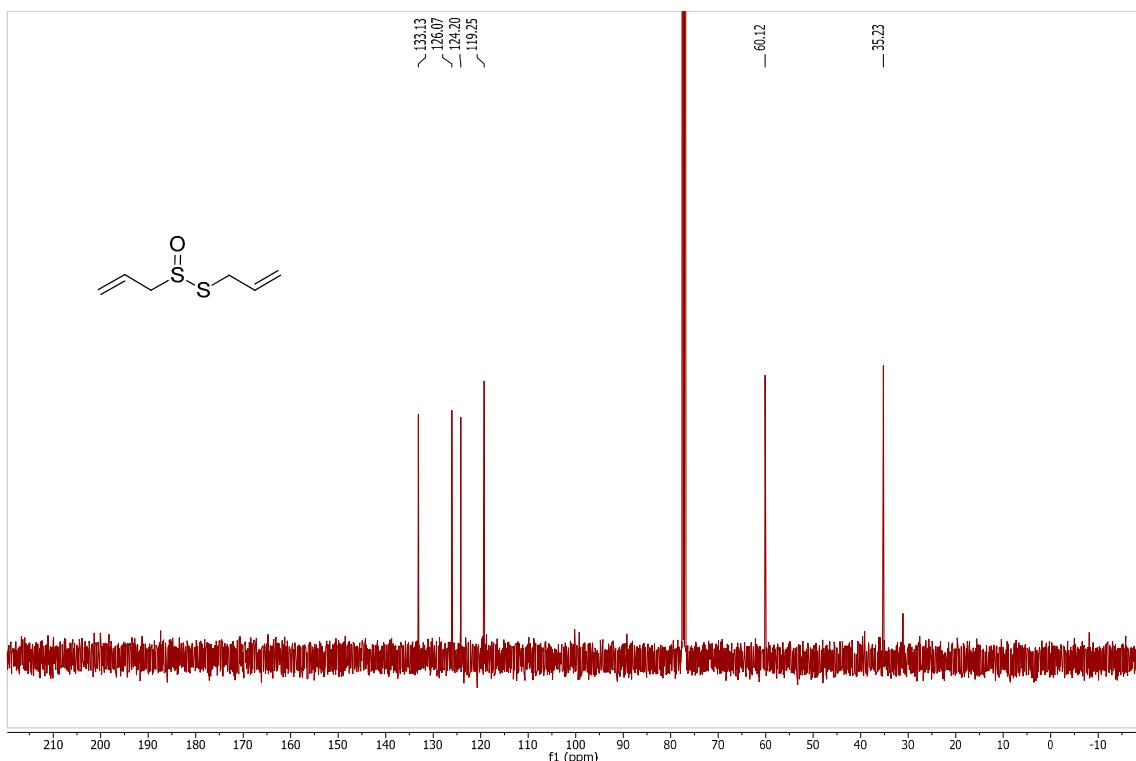


Figure S17. ^{13}C -NMR spectrum of thiolsulfinate **2i** (CDCl_3).

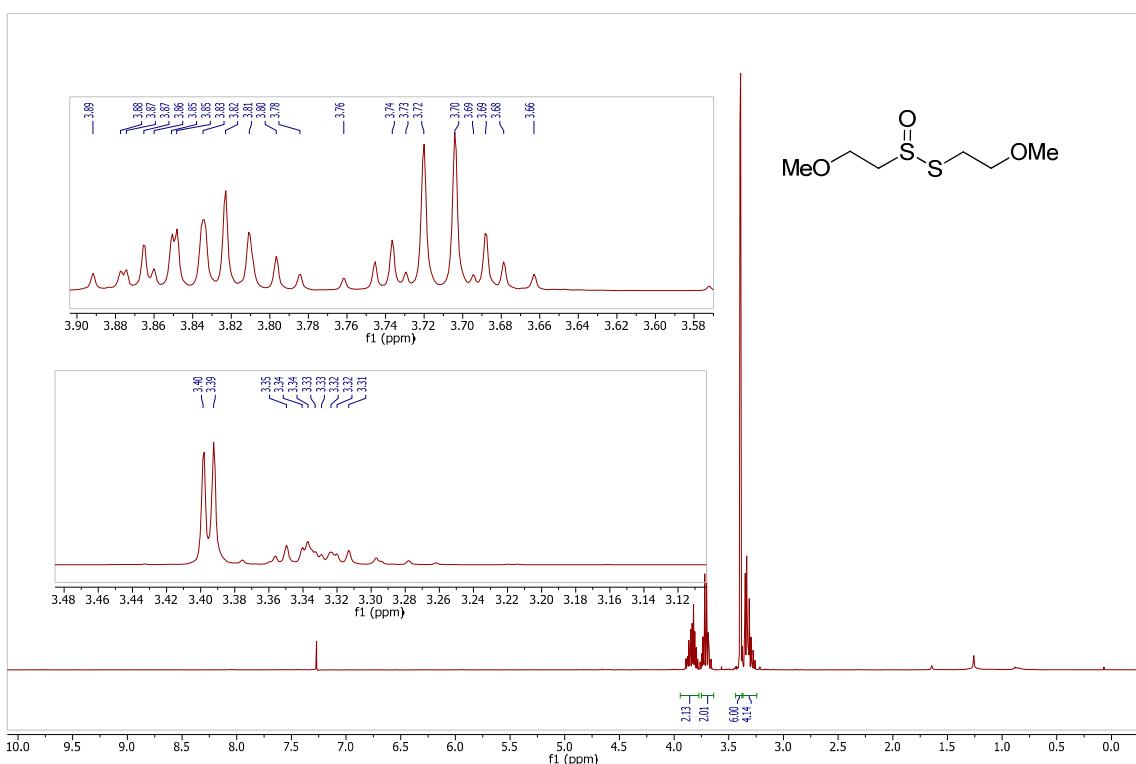


Figure S18. ^1H -NMR spectrum of thiolsulfinate **2j** (CDCl_3).

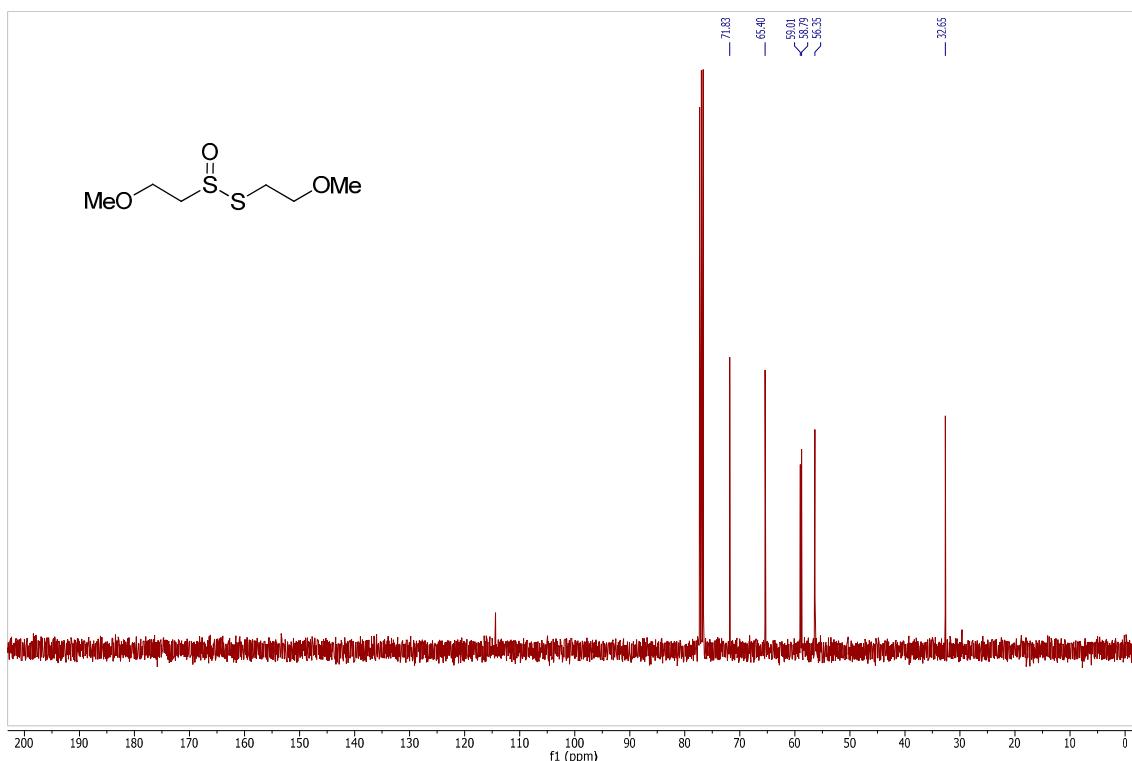


Figure S19. ^{13}C -NMR spectrum of thiolsulfinate **2j** (CDCl_3).

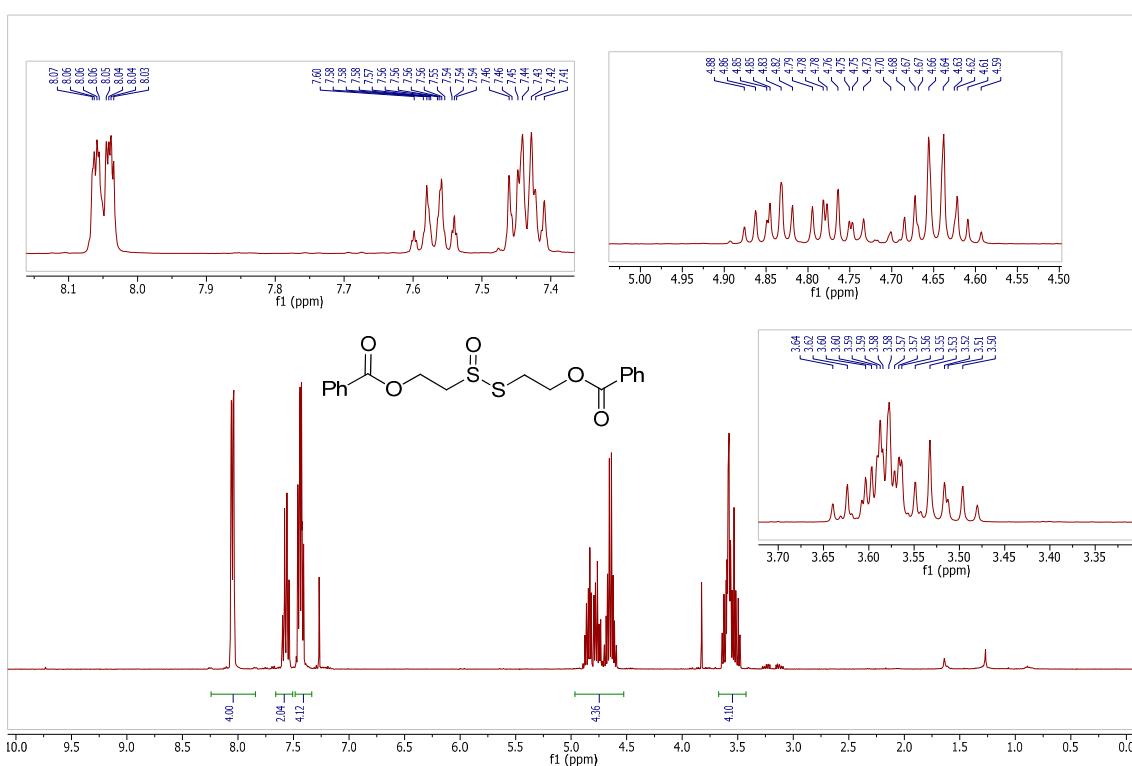


Figure S20. ^1H -NMR spectrum of thiolsulfinate **2k** (CDCl_3).

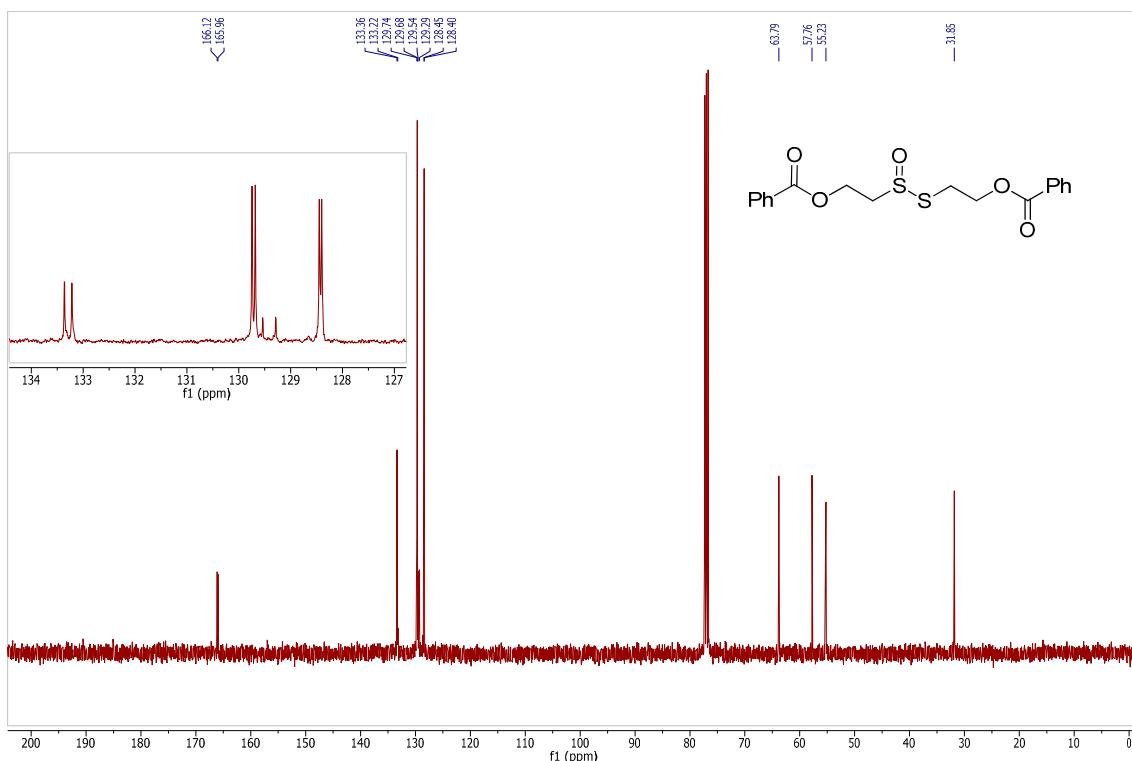


Figure S21. ^{13}C -NMR spectrum of thiolsulfinate **2k** (CDCl_3).

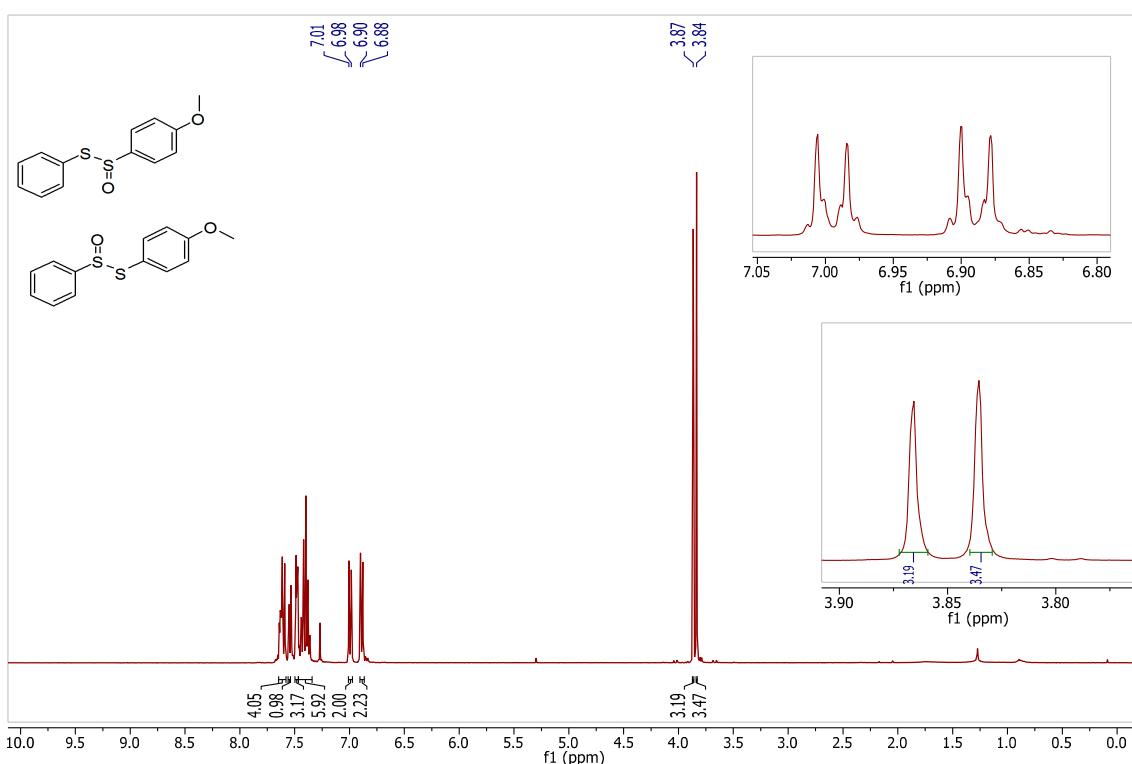


Figure S22. ^1H -NMR spectrum of thiolsulfinates **4a** and **5a** (CDCl_3).

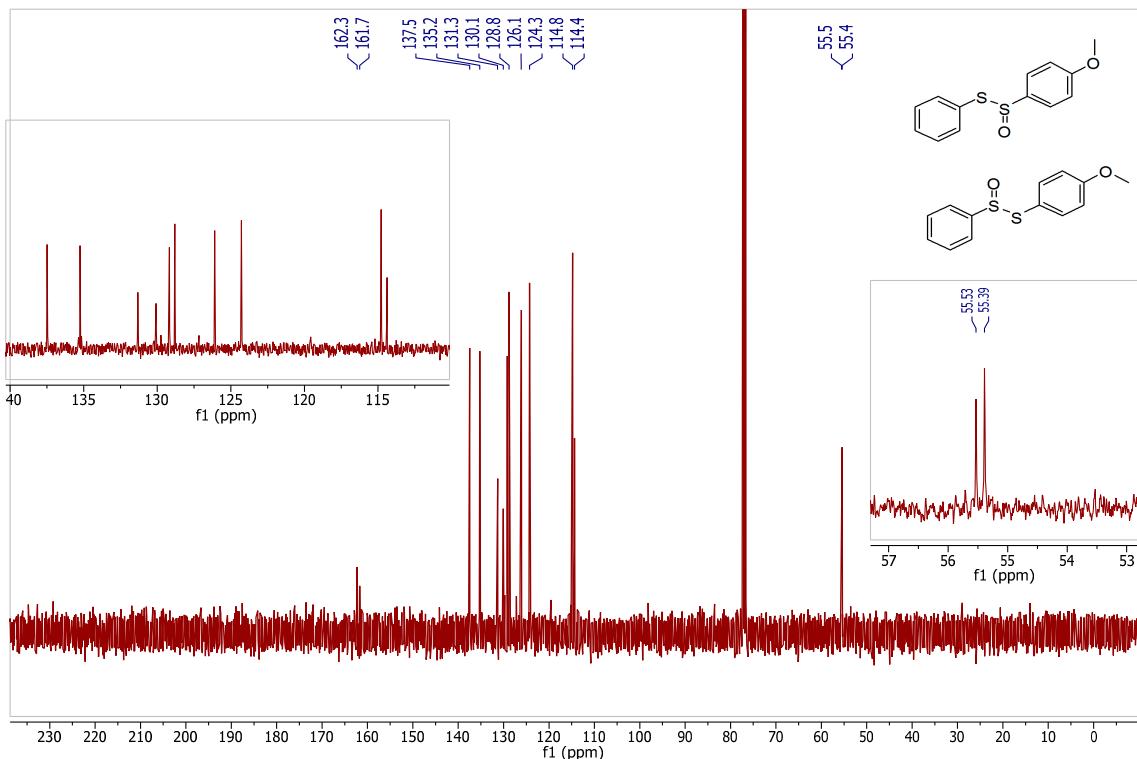


Figure S23. ^{13}C -NMR spectrum of thiolsulfinates **4a** and **5a** (CDCl_3).

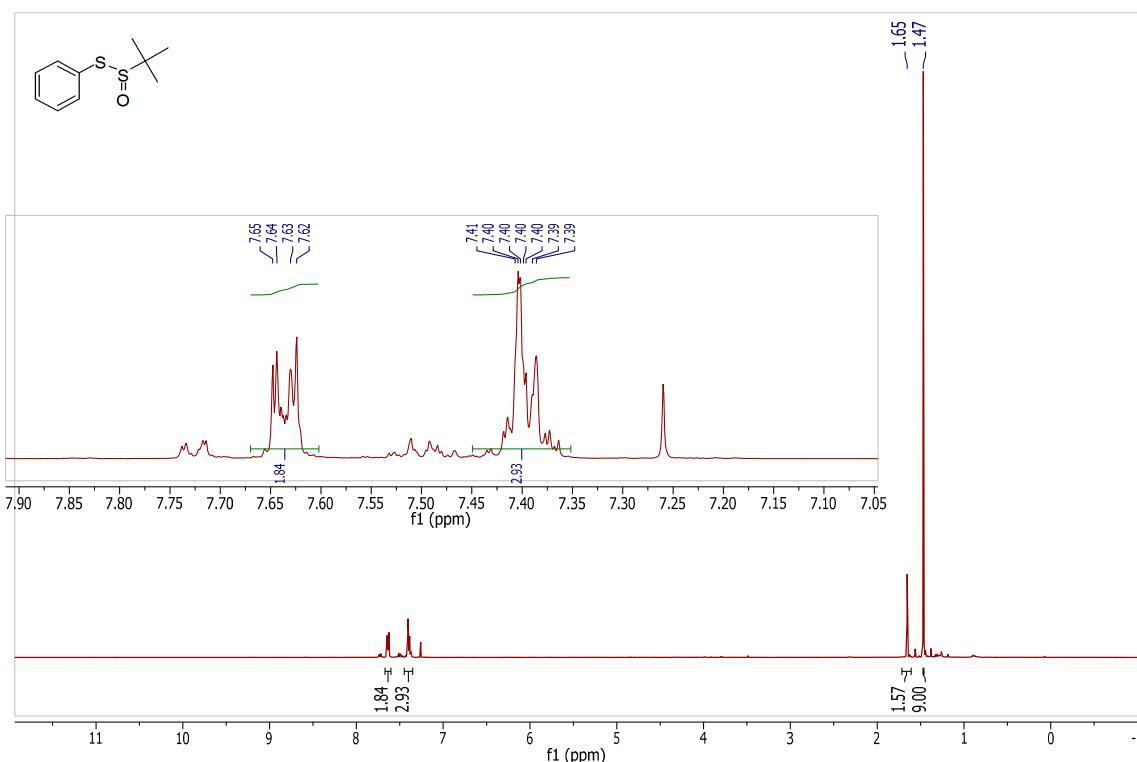


Figure S24. ^1H -NMR spectrum of thiolsulfinates **4b** and **5b** (CDCl_3).

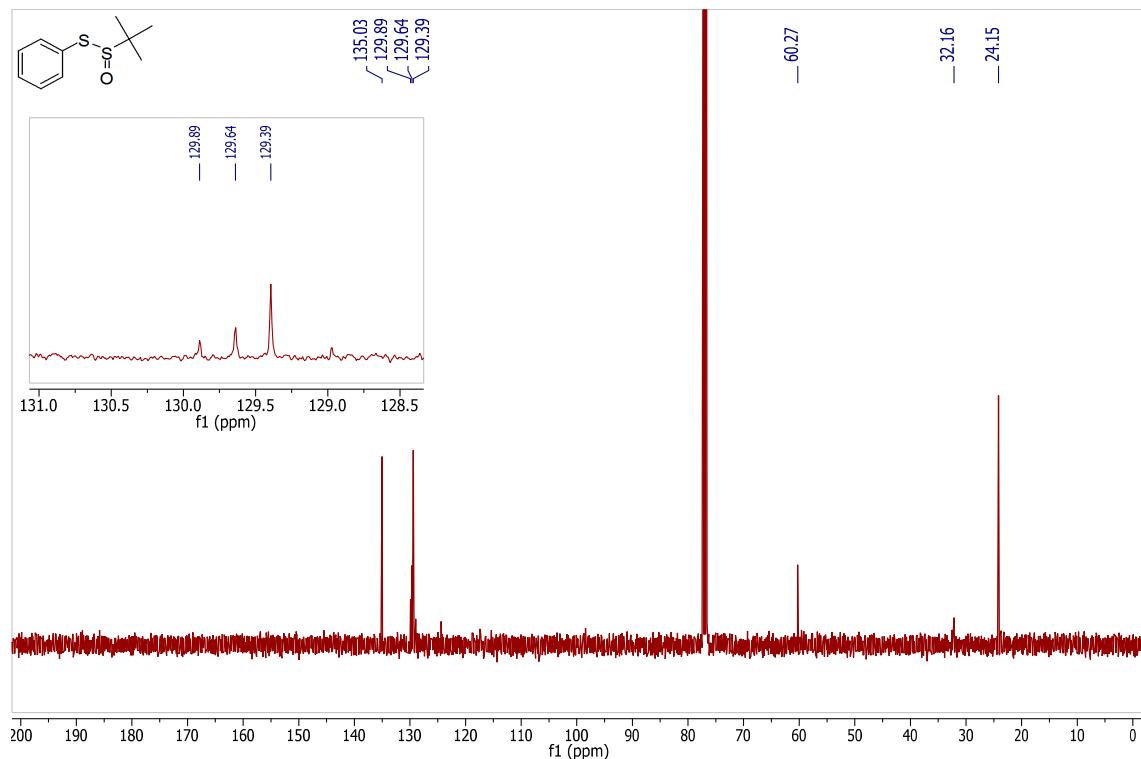


Figure S25. ^{13}C -NMR spectrum of thiolsulfinates **4b** and **5b** (CDCl_3).

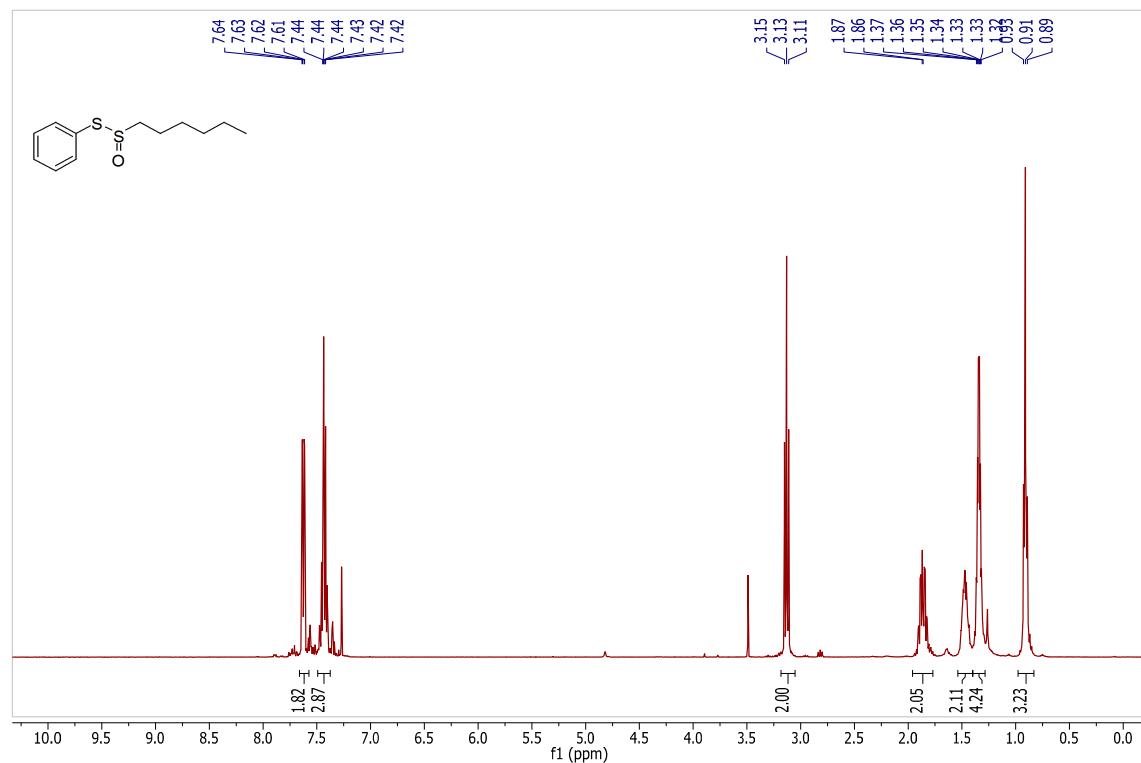


Figure S26. ^1H -NMR spectrum of thiolsulfinate **4c** (CDCl_3).

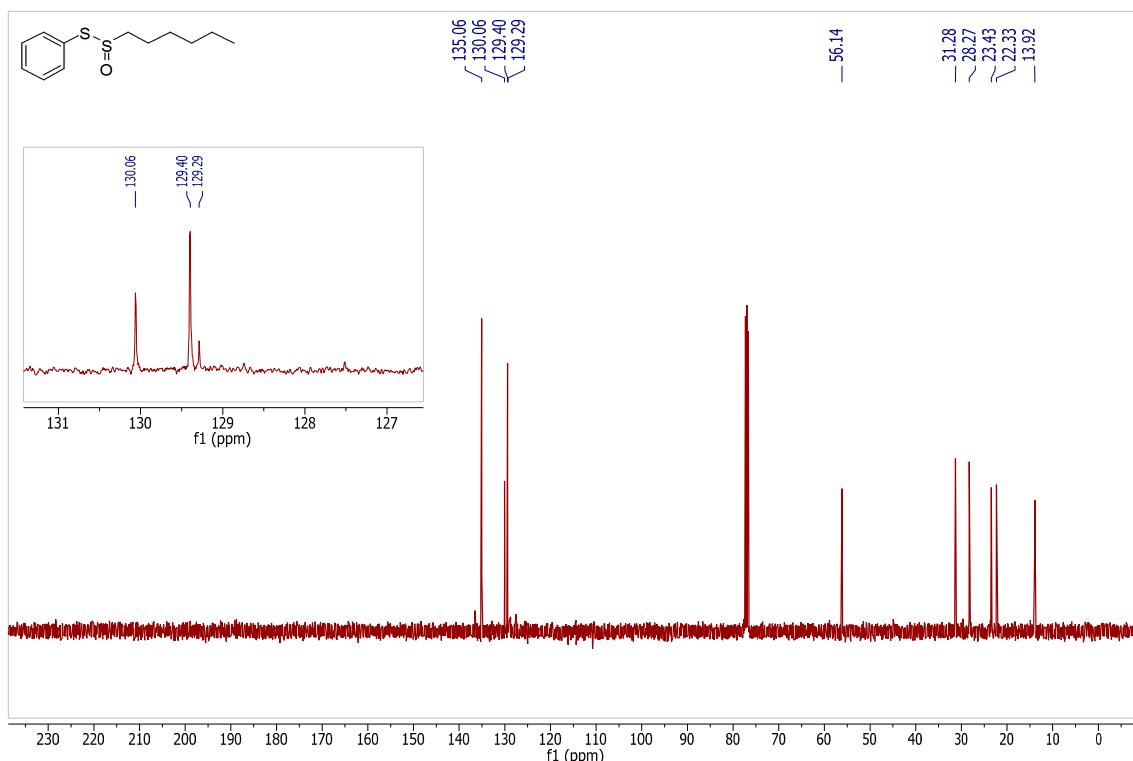


Figure S27. ^{13}C -NMR spectrum of thiolsulfinate **4c** (CDCl_3).

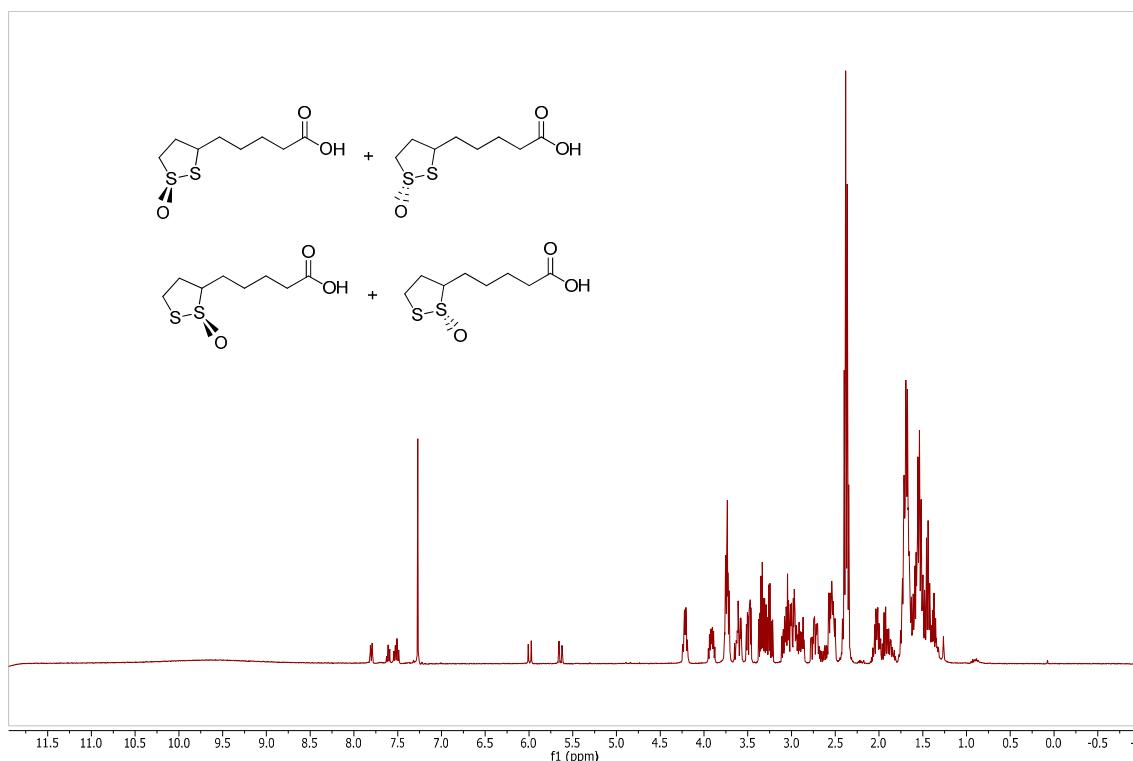


Figure S28. ^1H -NMR full spectrum of thiolsulfinates **8–11** from (\pm) -lipoic acid (CDCl_3).

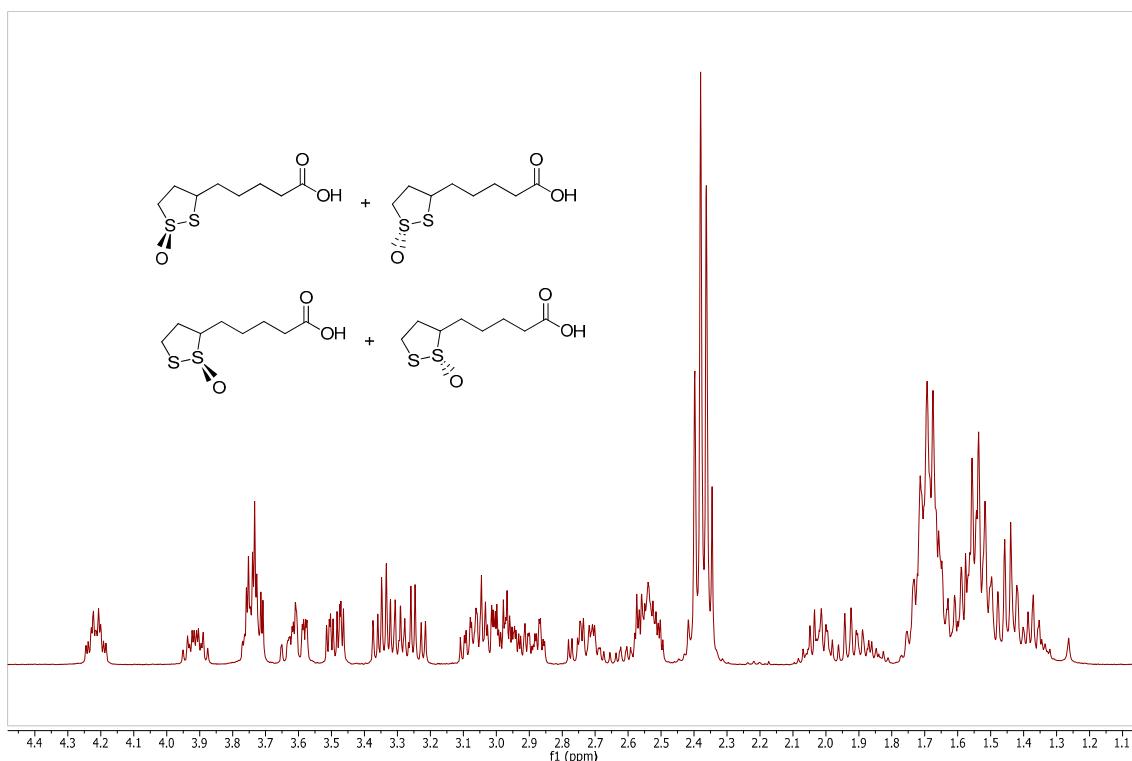


Figure S29. ¹H-NMR expanded spectrum of thiolsulfinates 8–11 from (±)-lipoic acid (CDCl₃).

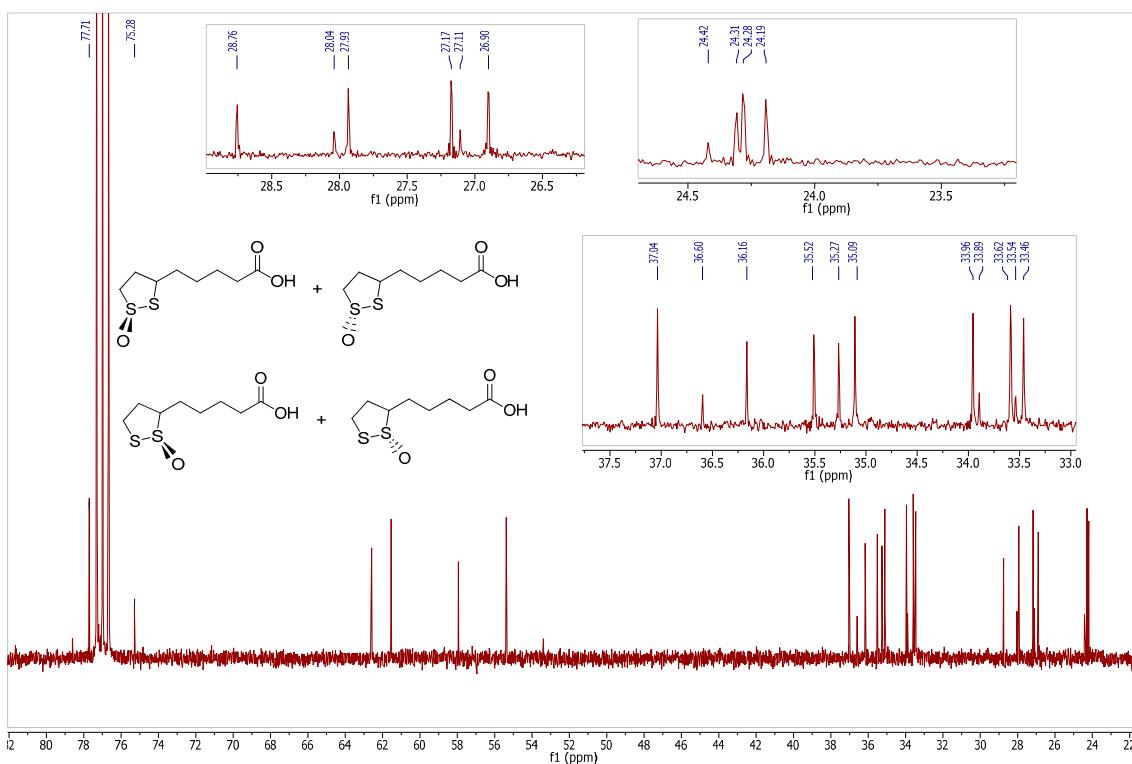


Figure S30. ¹³C-NMR expanded spectrum of thiolsulfinates 8–11 from (±)-lipoic acid (CDCl₃).

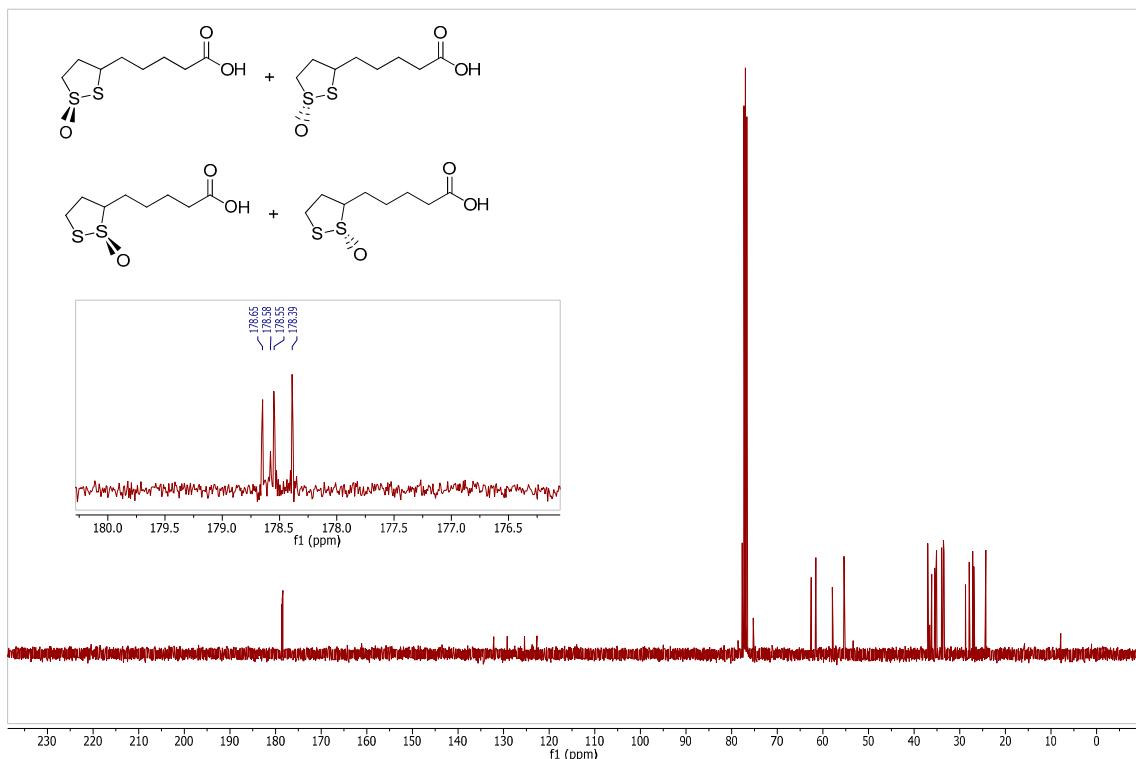


Figure S31. ^{13}C -NMR full spectrum of thiolsulfinates 8–11 from (\pm) -lipoic acid (CDCl_3).

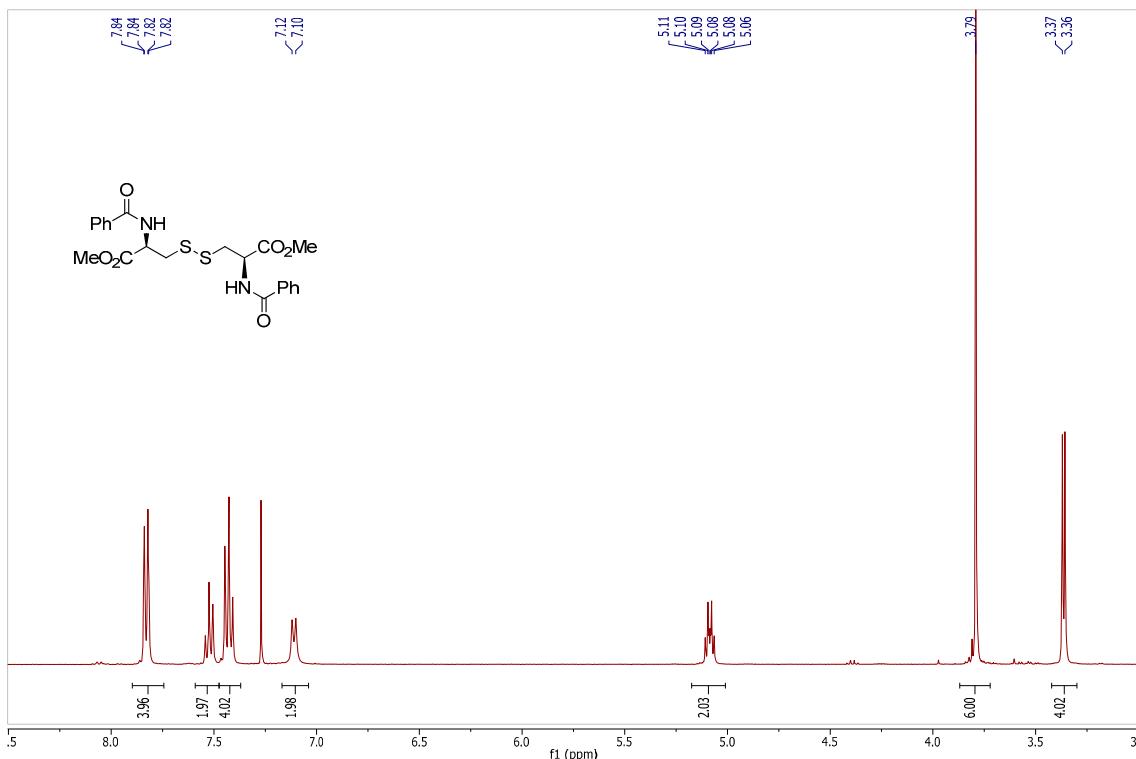


Figure S32. ^1H -NMR spectrum of cystine derivative 12 (CDCl_3).

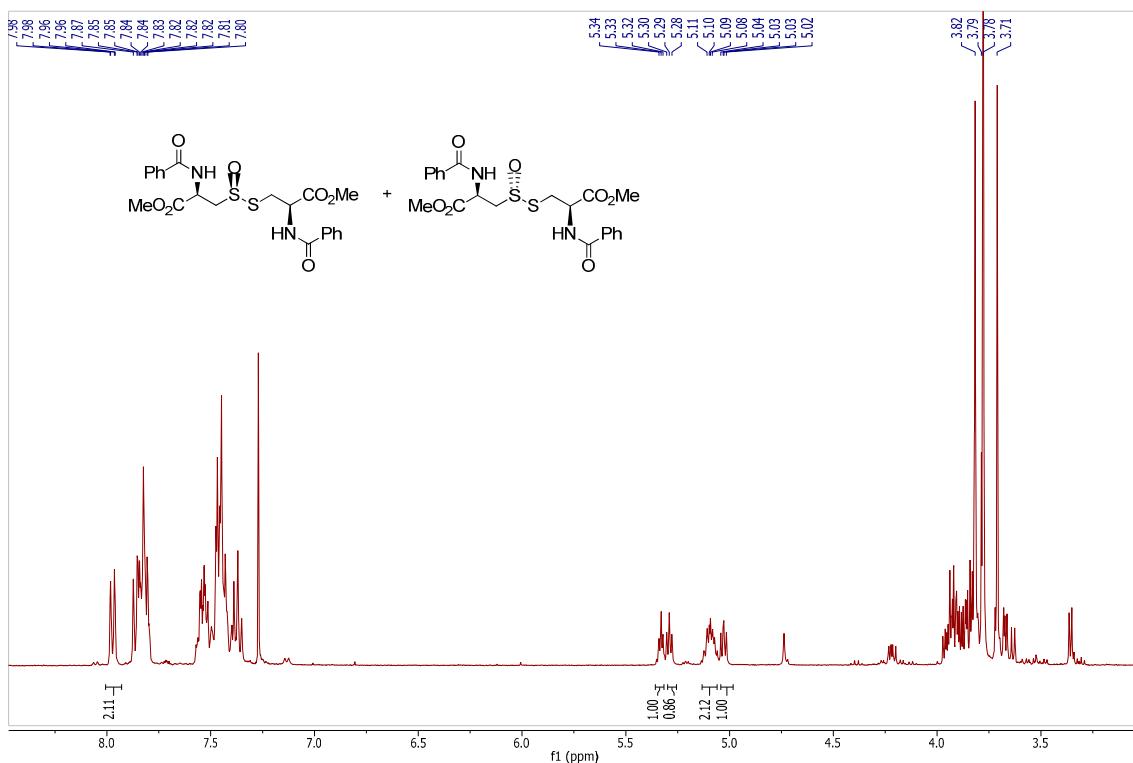


Figure S33. ¹H-NMR spectrum of oxidation products of cystine derivative **12** (CDCl₃).