

Synthesis and reactivity of fluorinated dithiocarboxylates to prepare thioamides. Effective access to a 4-styrenylthioamide-cinchona alkaloid monomer.

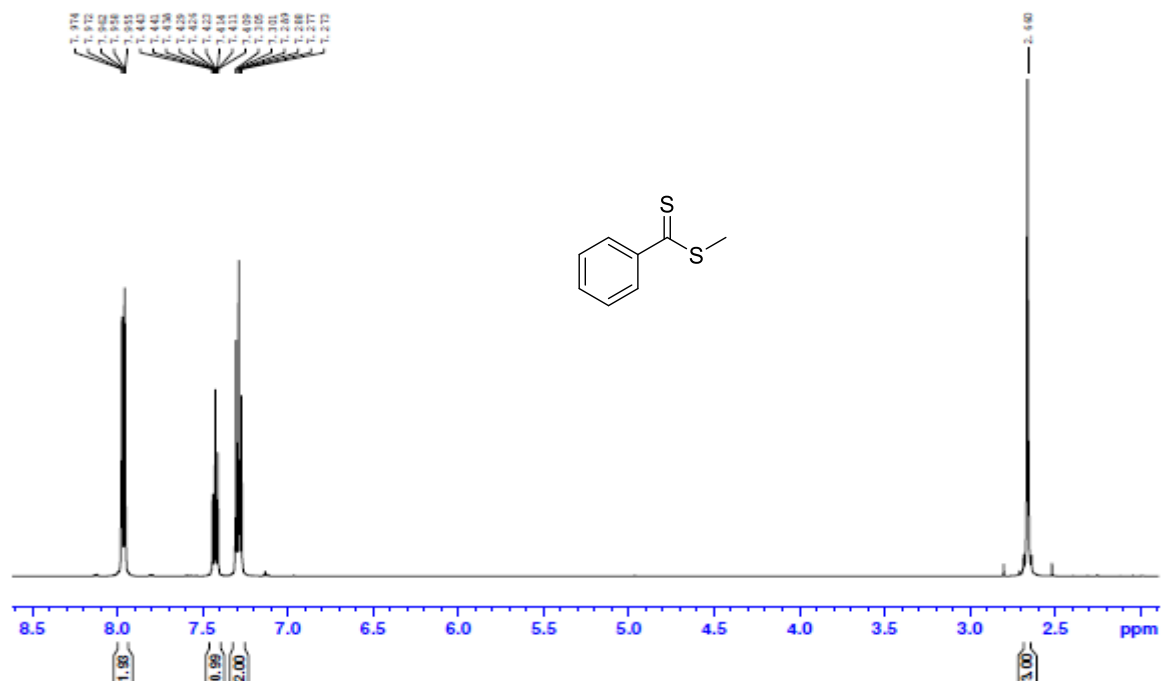
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¹ Normandie Université, Laboratoire de Chimie Moléculaire et Thioorganique, UMR 6507, ENSICAEN, UNICAEN, CNRS, 6 Bd du Maréchal Juin, 14050 Caen, France

* Correspondence: jerome.baudoux@ensicaen.fr

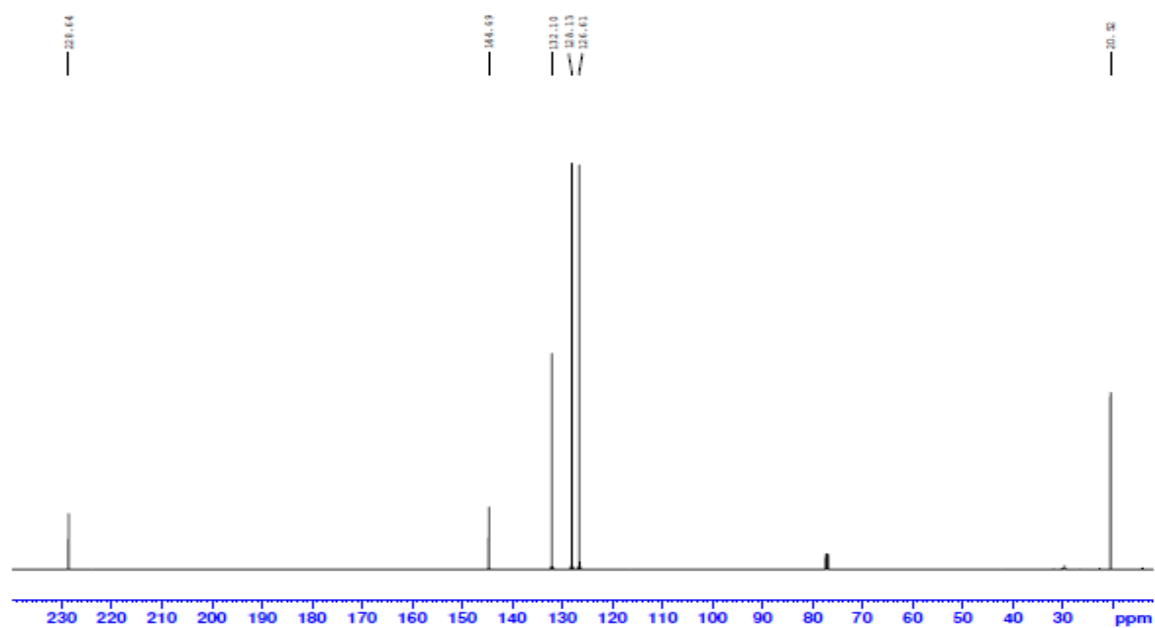
Methyl dithiobenzoate 2a

¹H NMR



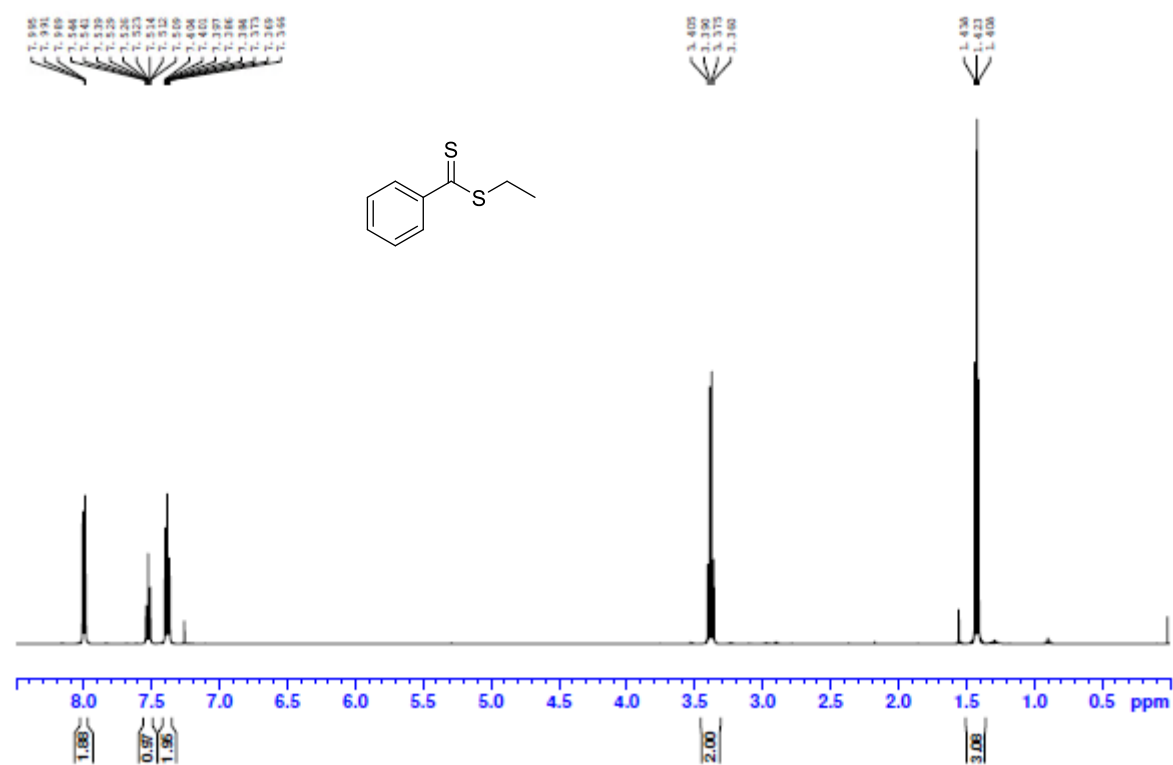
¹³C NMR

Supporting Information



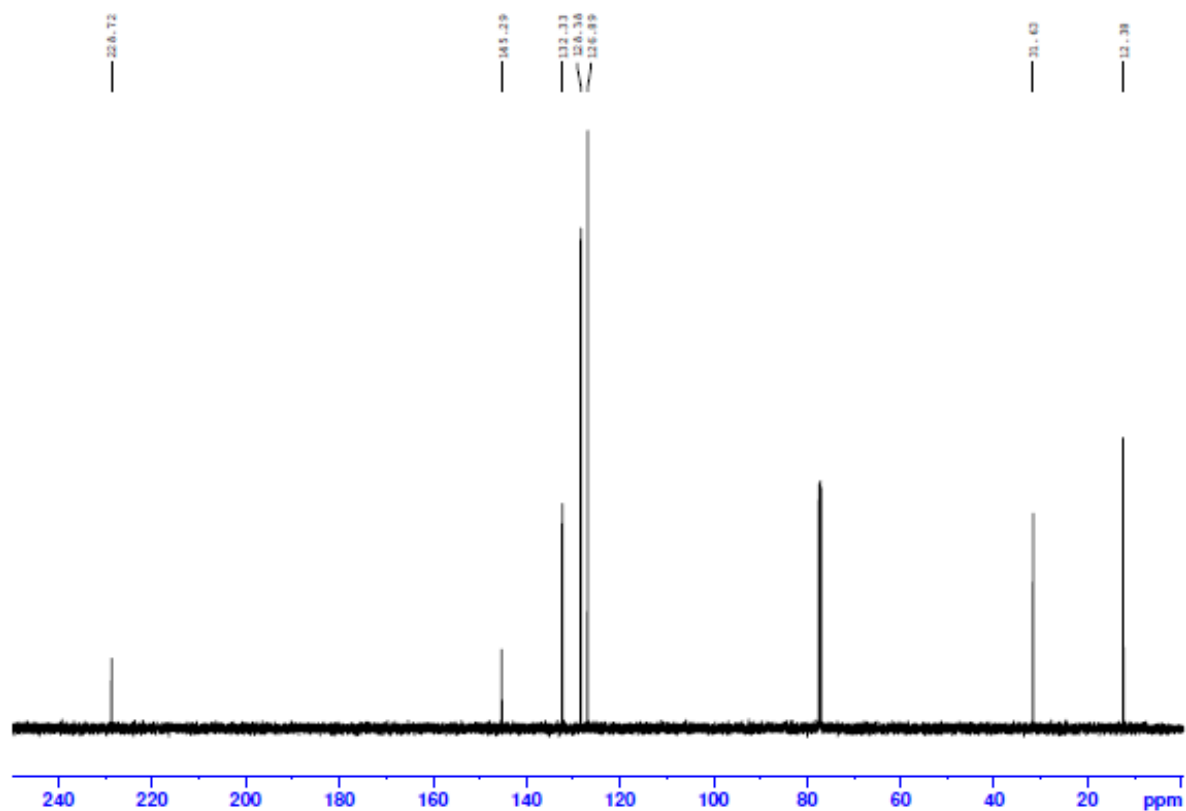
Ethyl dithiobenzoate 2b

¹H NMR



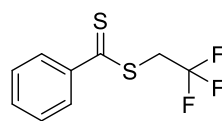
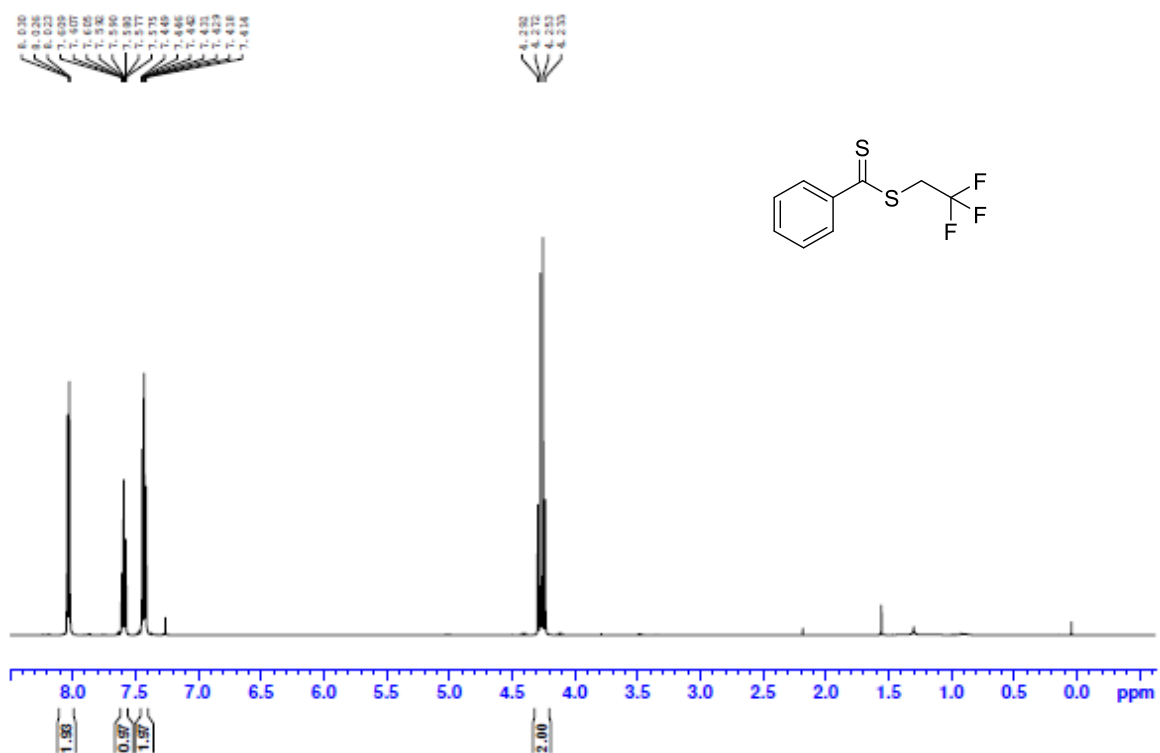
¹³C NMR

Supporting Information



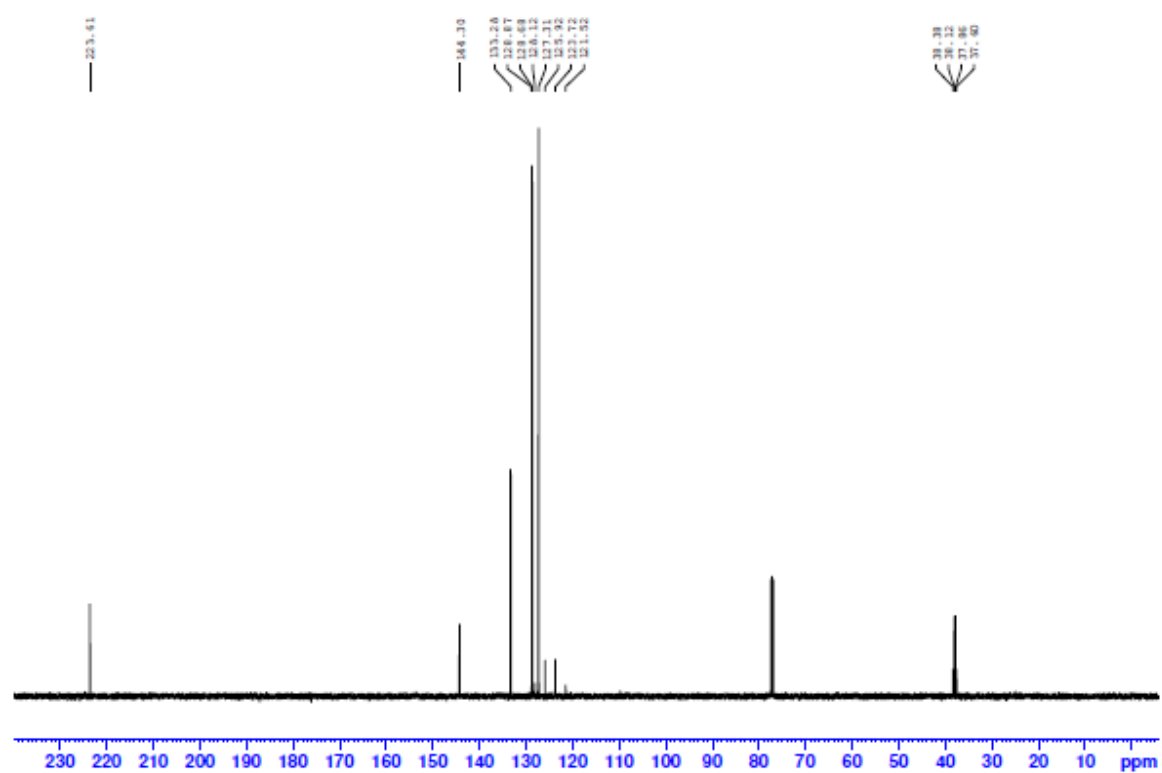
2,2,2-trifluoroethyl dithiobenzoate 2c

¹H NMR



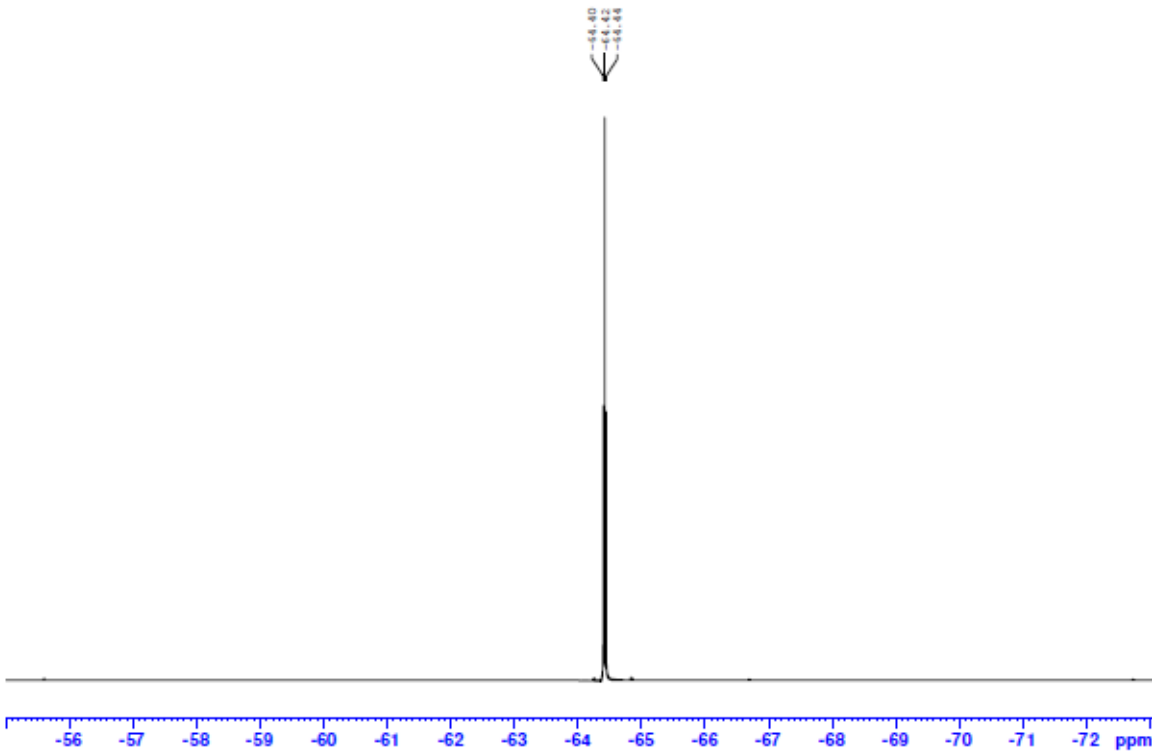
Supporting Information

^{13}C NMR

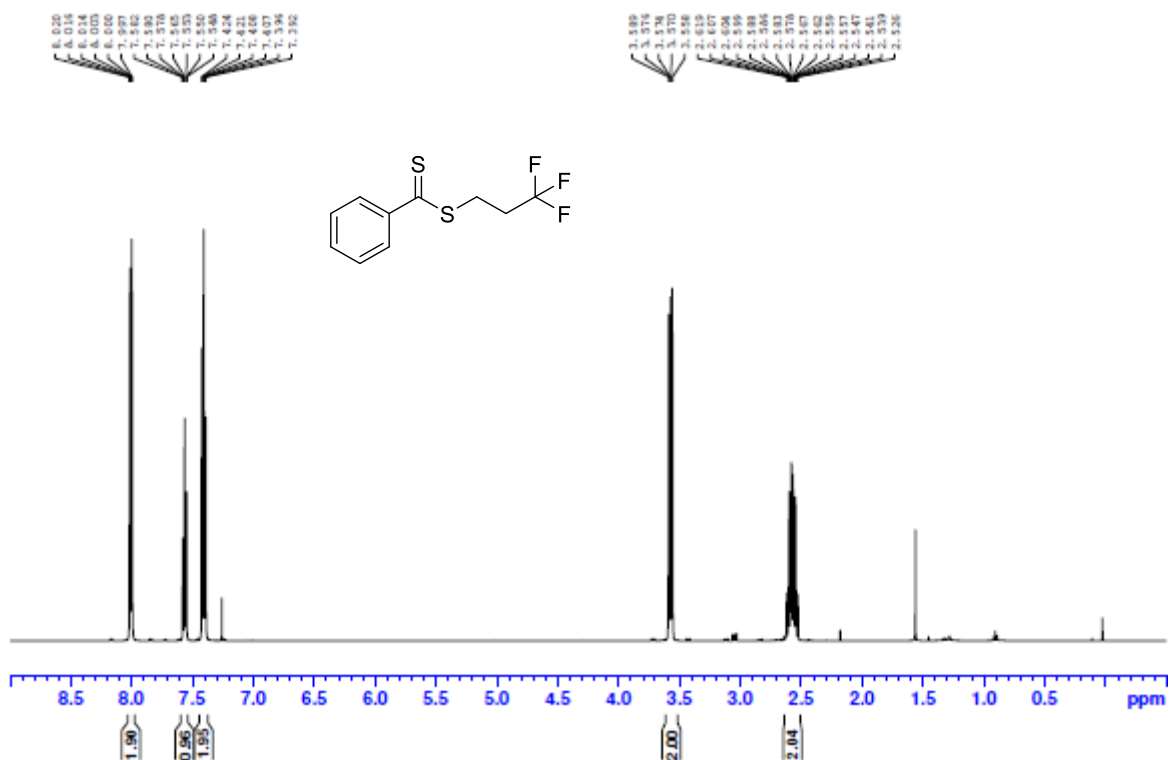


^{19}F NMR

Supporting Information

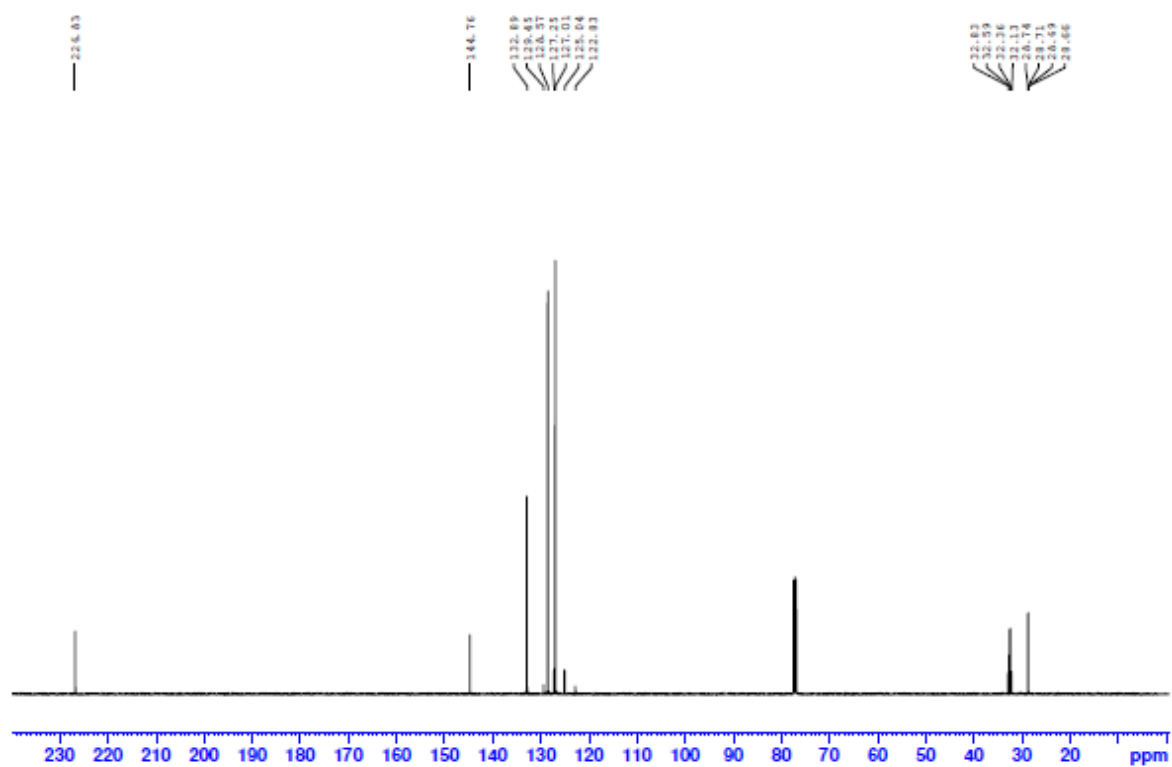


2,2,2-trifluoropropyl dithiobenzoate 2d

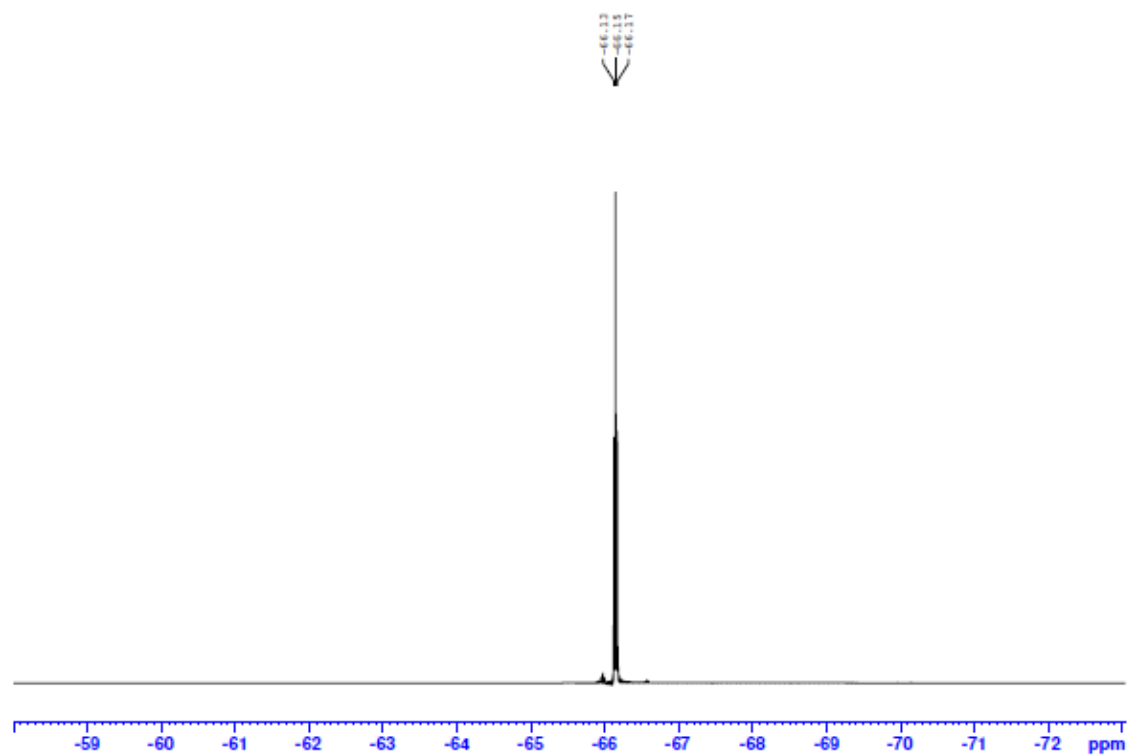
¹H NMR

Supporting Information

^{13}C NMR



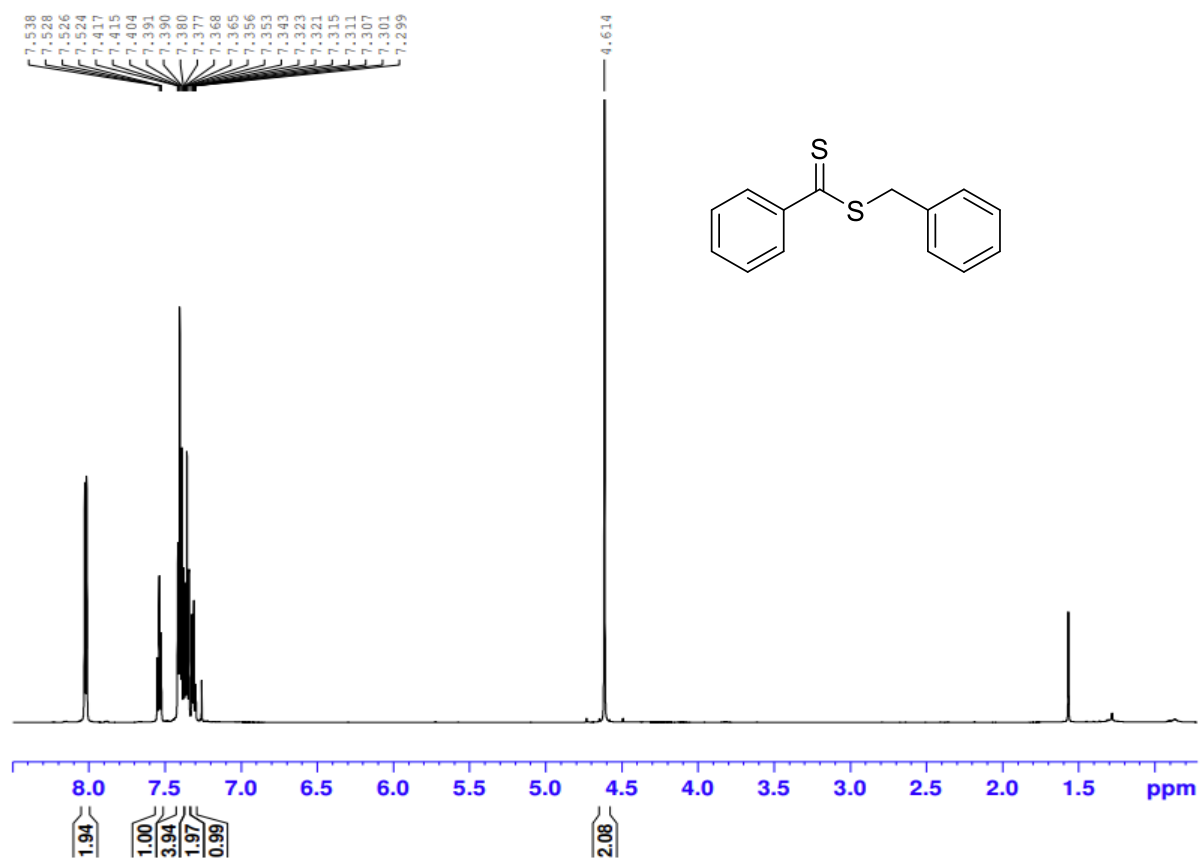
^{19}F NMR



Supporting Information

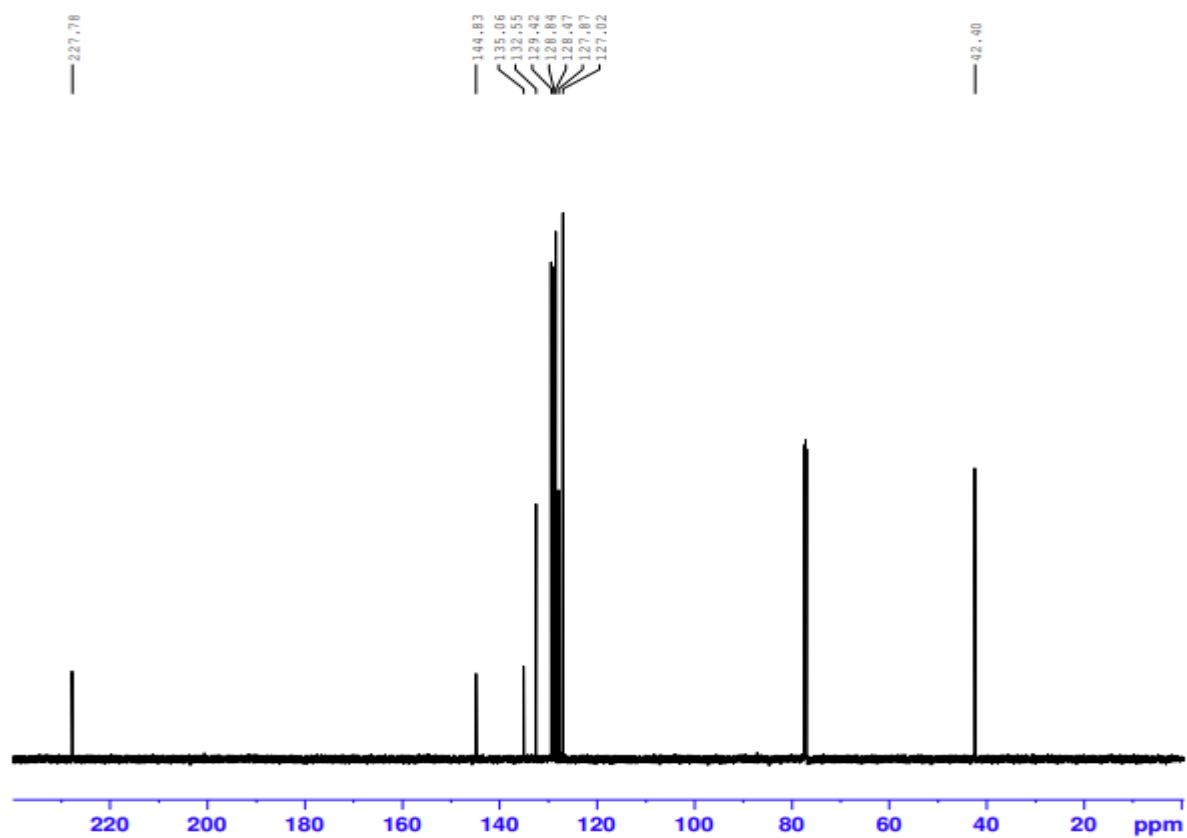
Benzyl dithiobenzoate 2e

^1H NMR



^{13}C NMR

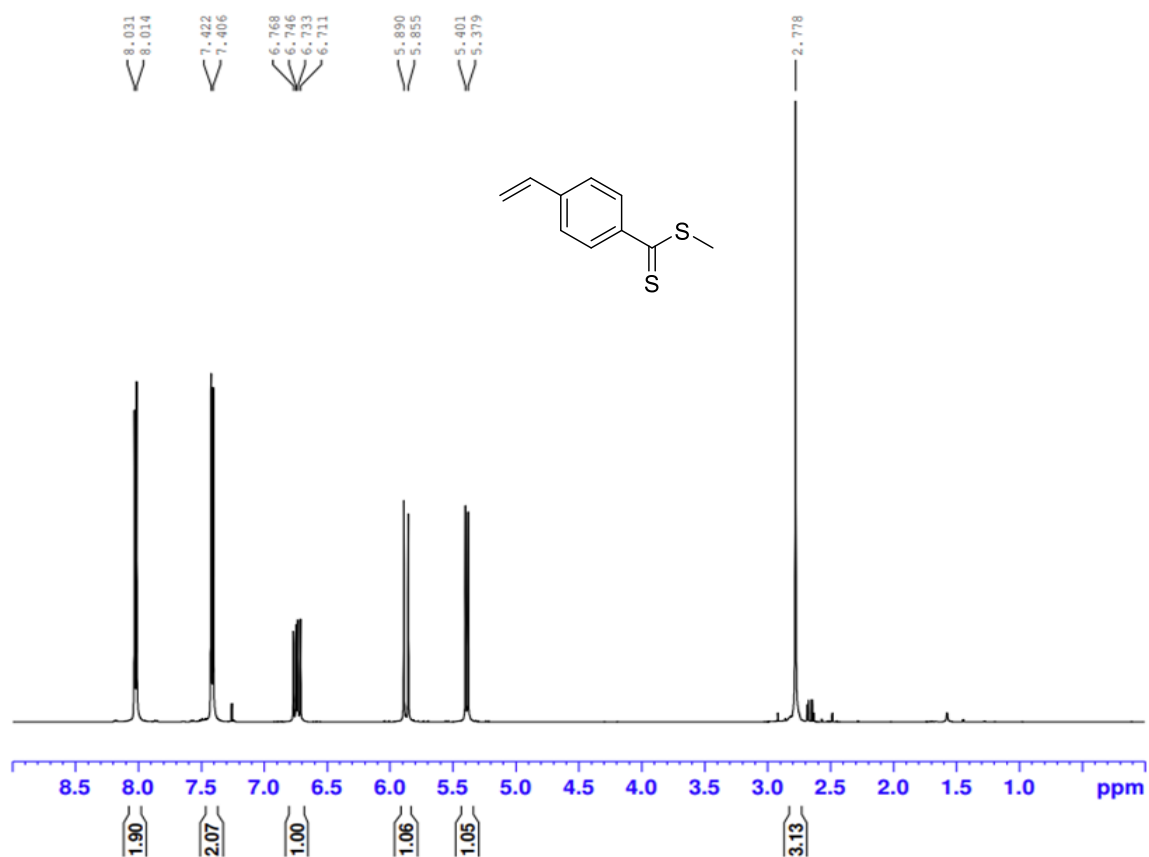
Supporting Information



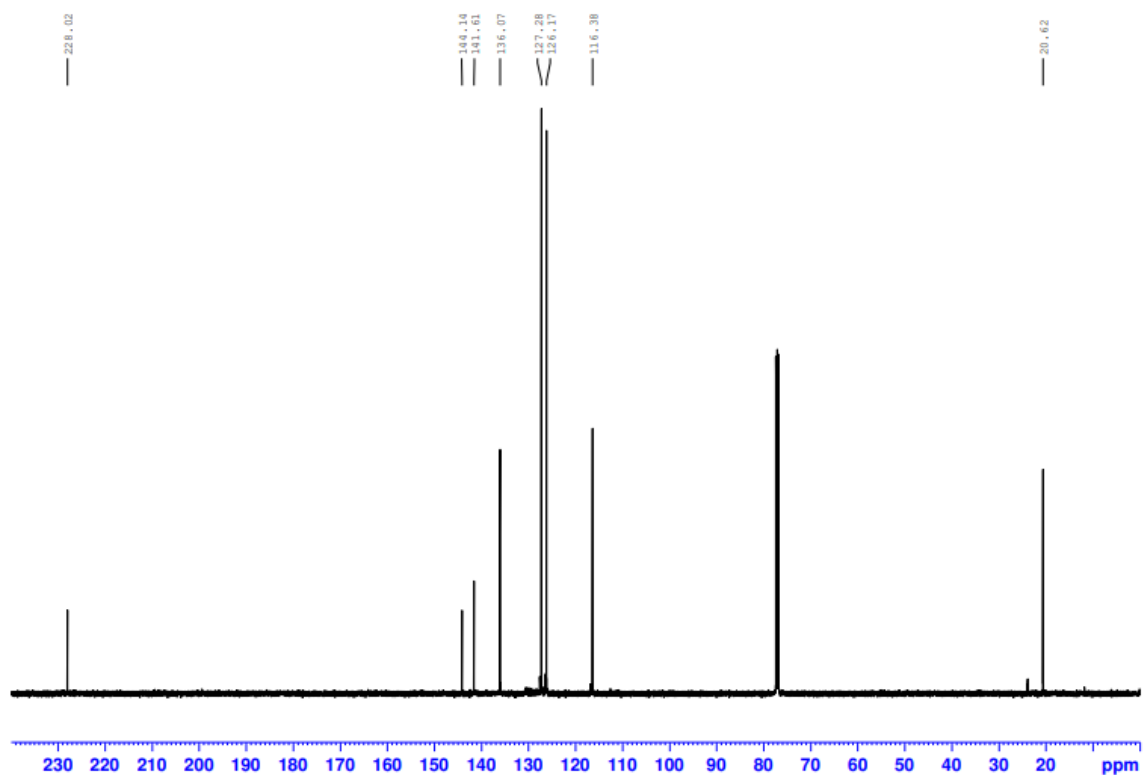
Methyl 4-vinyldithiobenzoate 3a

¹³C NMR

Supporting Information



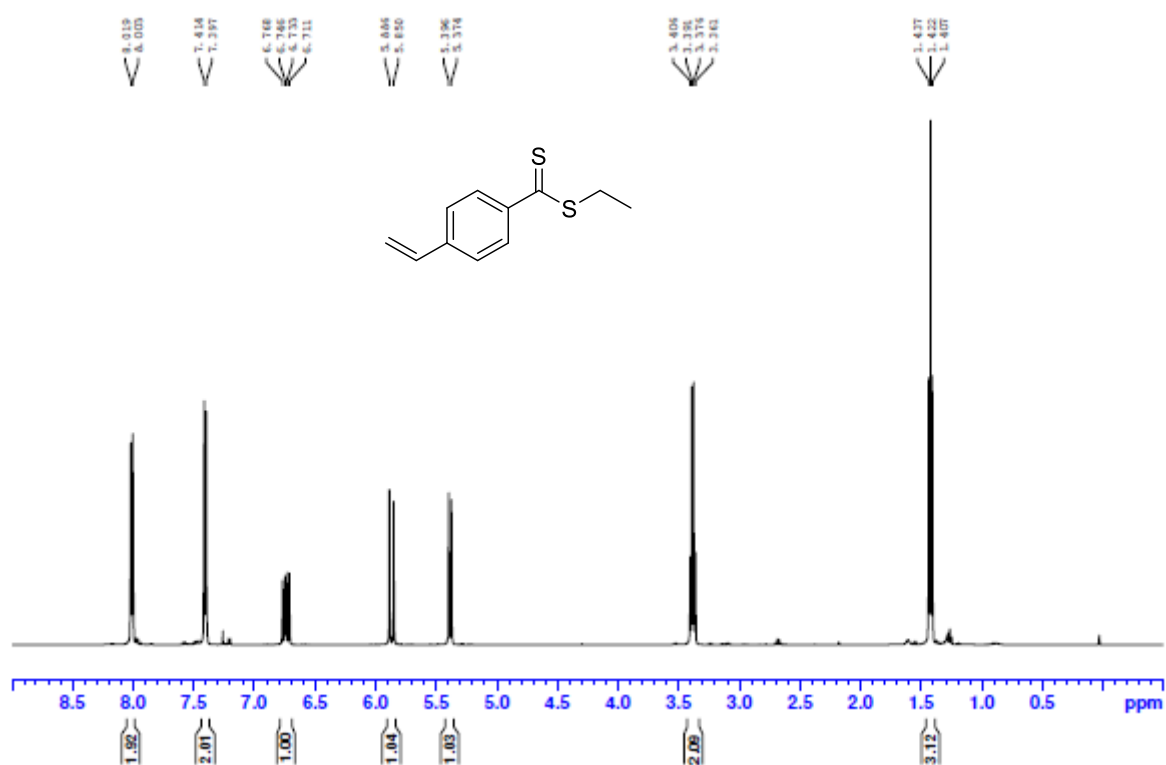
¹³C NMR



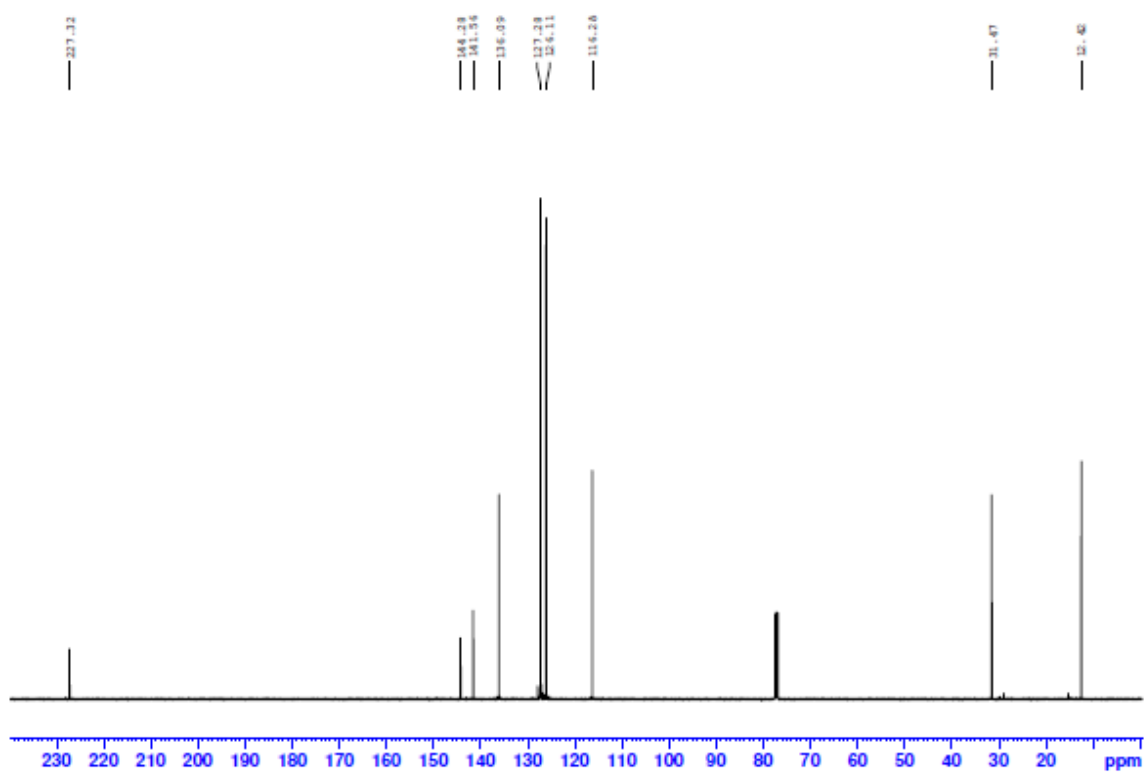
Ethyl 4-vinyldithiobenzoate 3b

Supporting Information

^1H NMR

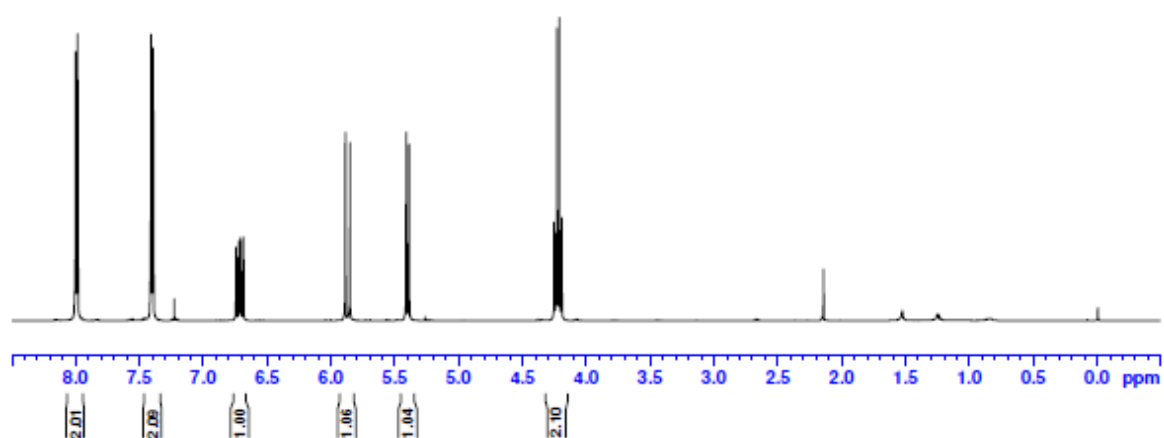
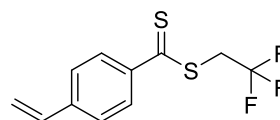


^{13}C NMR



2,2,2-trifluoroethyl 4-vinyldithiobenzoate 3c

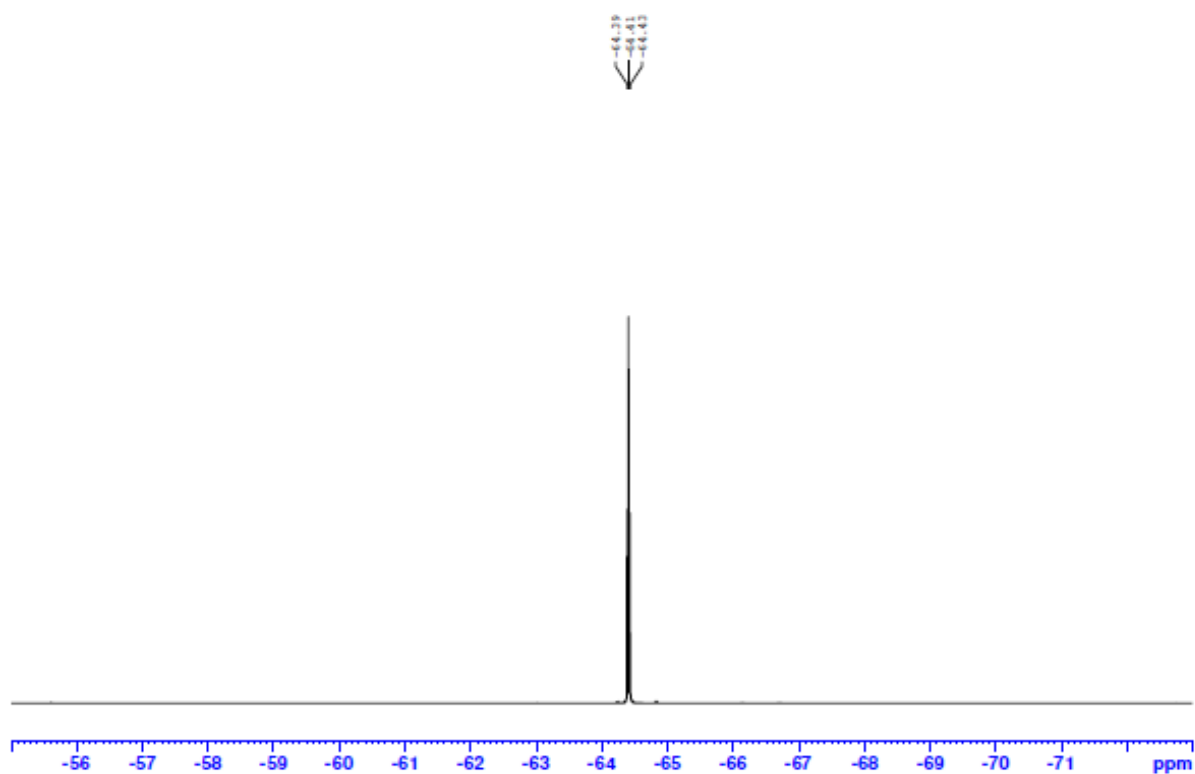
Figure 1 displays five phylogenetic trees (a-e) showing relationships between taxa. The trees are rooted and show bootstrap values at the nodes. Tree (a) has 8 tips with bootstrap values 8, 0, 0, 1, 7, 9, 9, 7. Tree (b) has 8 tips with bootstrap values 7, 4, 0, 9, 7, 9, 6, 6. Tree (c) has 8 tips with bootstrap values 6, 7, 2, 0, 6, 7, 0, 7. Tree (d) has 4 tips with bootstrap values 5, 0, 0, 6 and 5, 0, 5, 1. Tree (e) has 4 tips with bootstrap values 5, 4, 0, 9 and 5, 3, 8, 7.



143.24
142.56
135.90
128.18
127.79
126.39
125.98
125.16
124.51
117.09
36.36
35.10
31.64
27.58

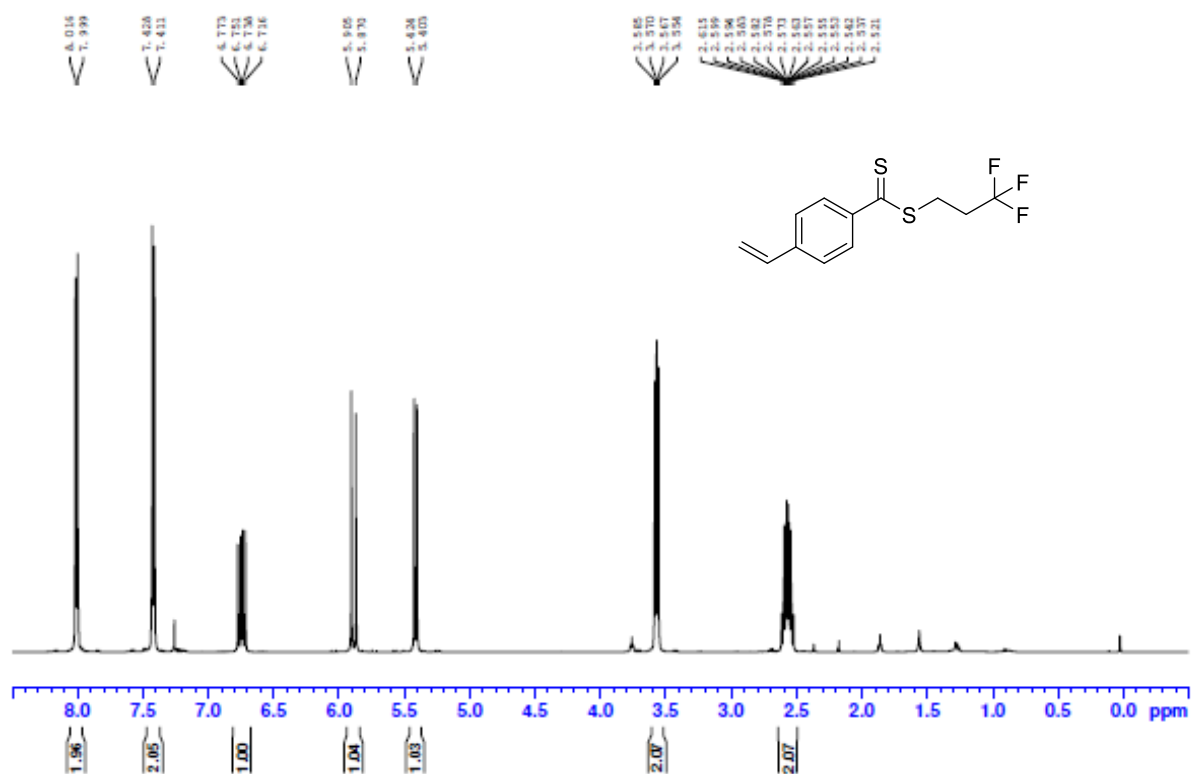
Supporting Information

^{19}F NMR



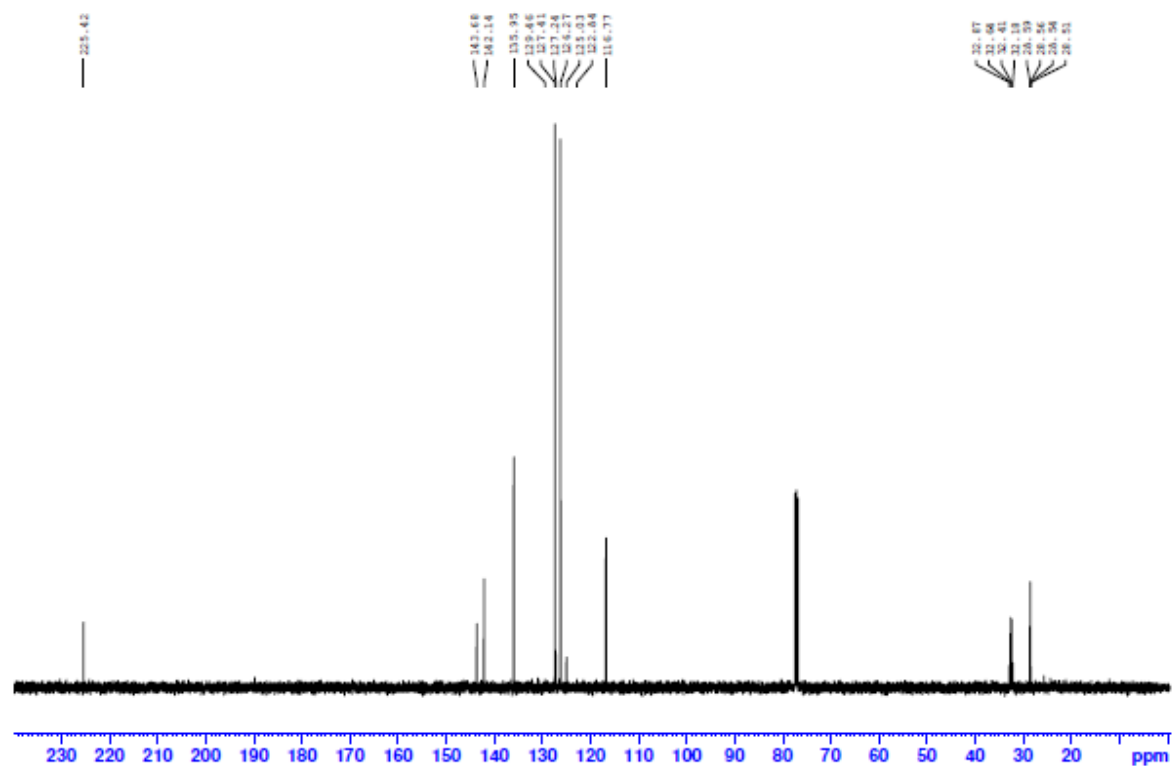
2,2,2-trifluoropropyl 4-vinyldithiobenzoate 3d

^1H NMR

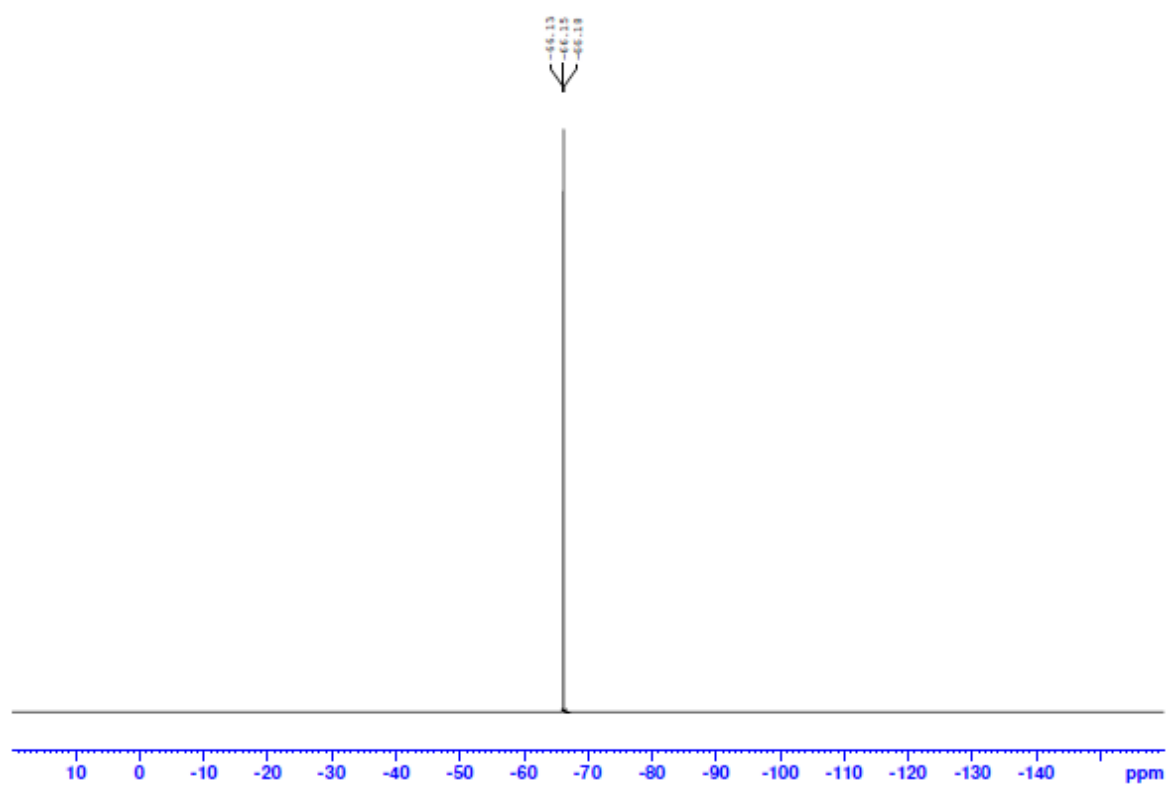


Supporting Information

^{13}C NMR



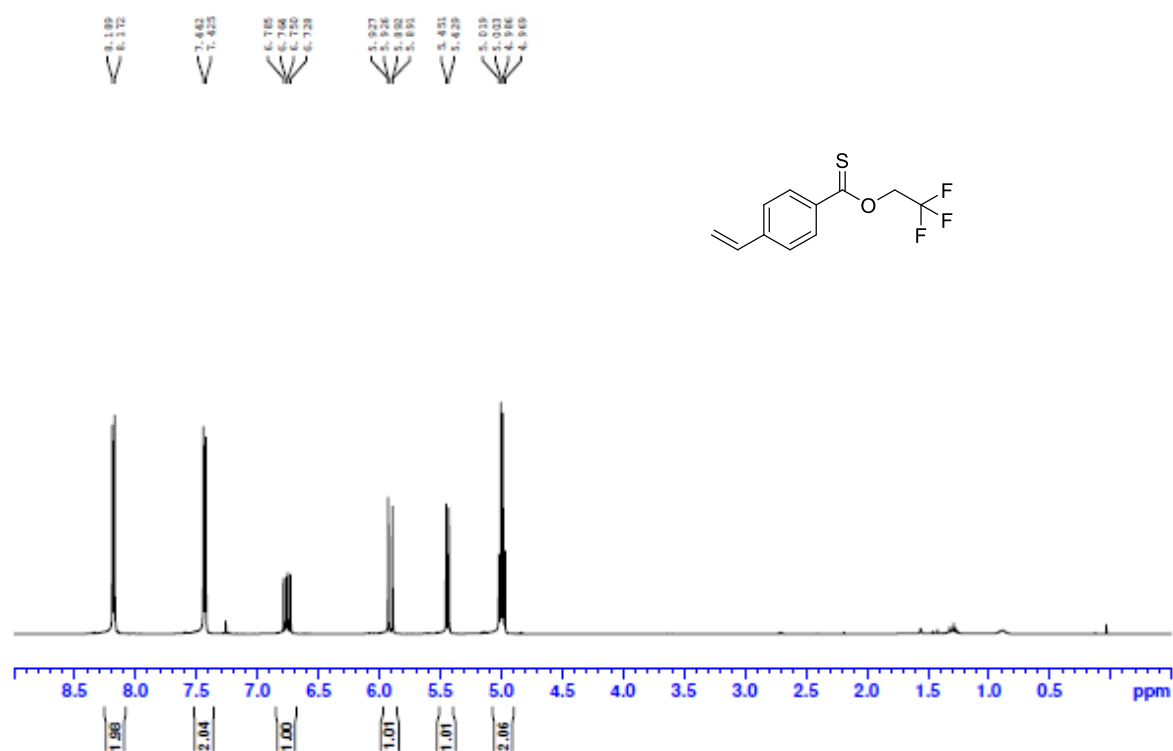
^{19}F NMR



Supporting Information

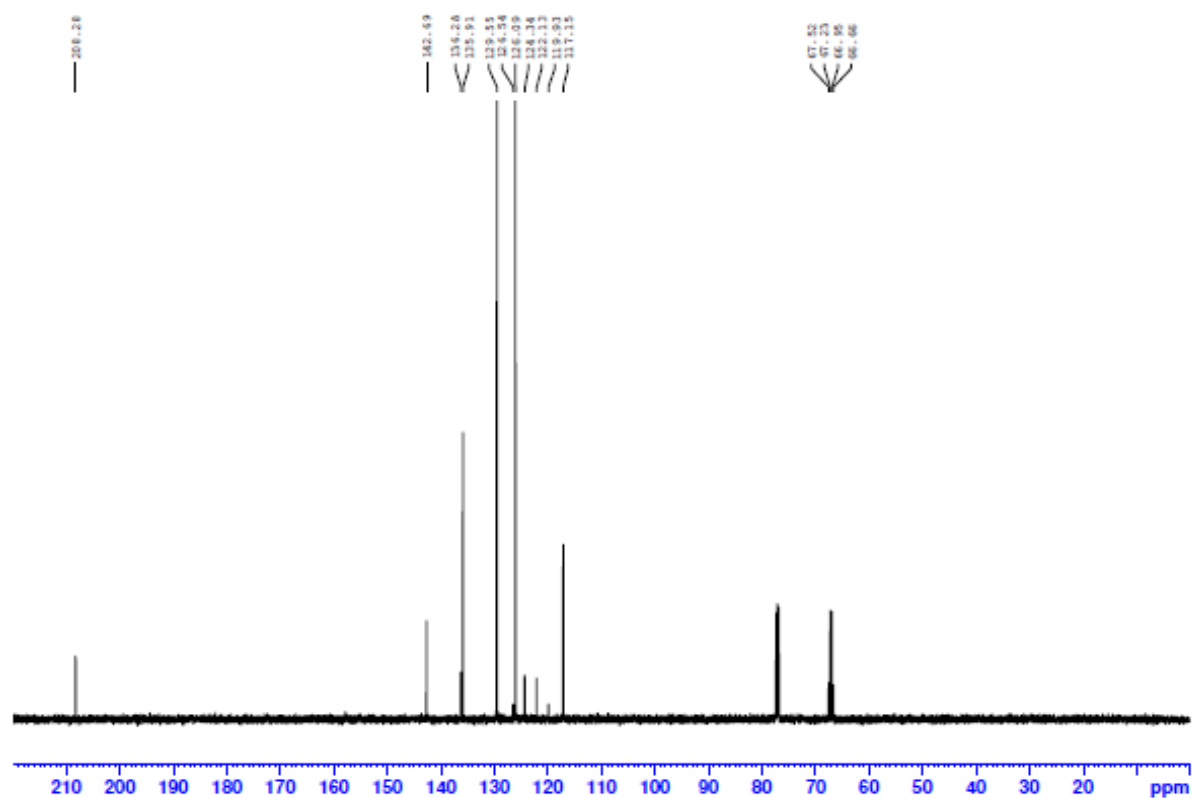
2,2,2-trifluoroethyl 4-vinylthiobenzoate **4**

^1H NMR

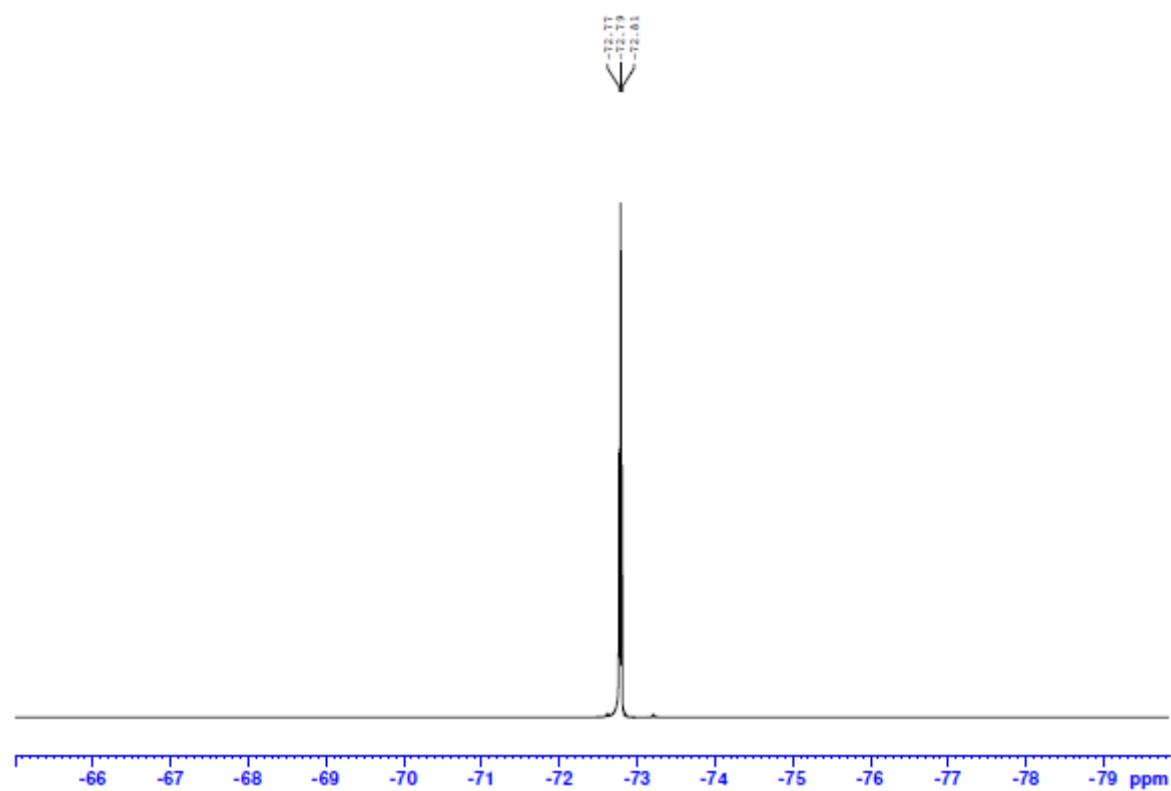


^{13}C NMR

Supporting Information



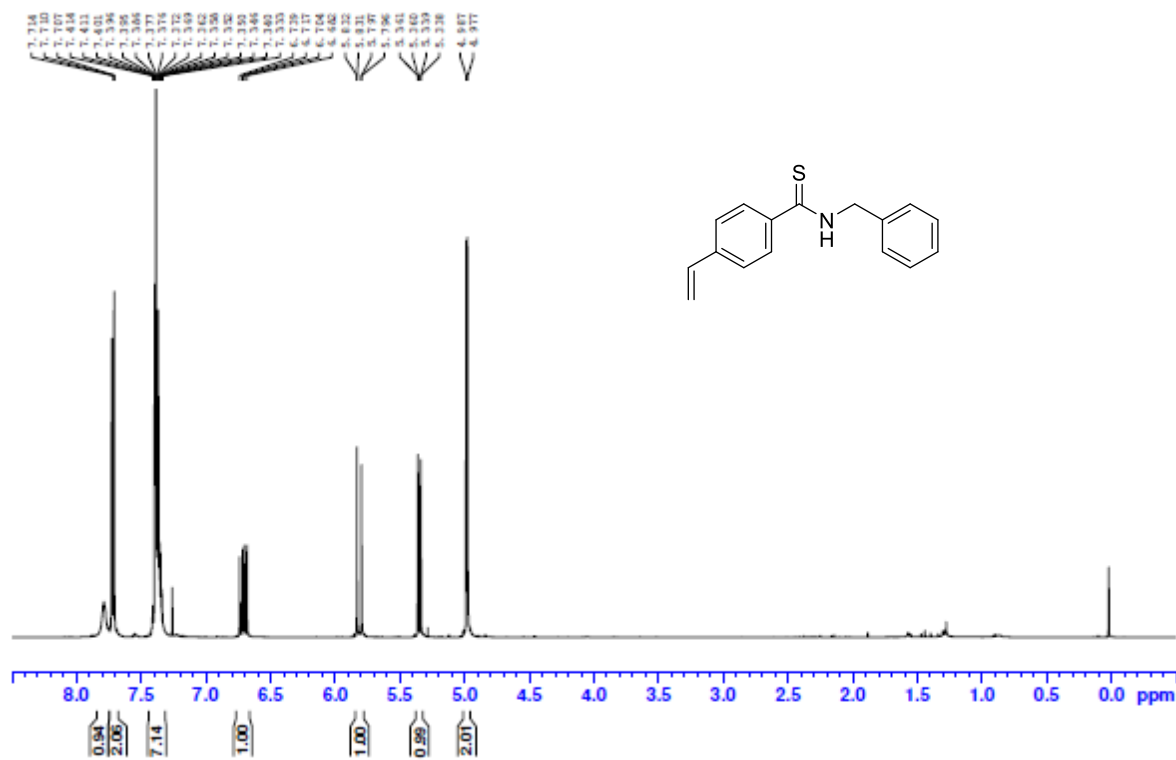
¹⁹F NMR



Supporting Information

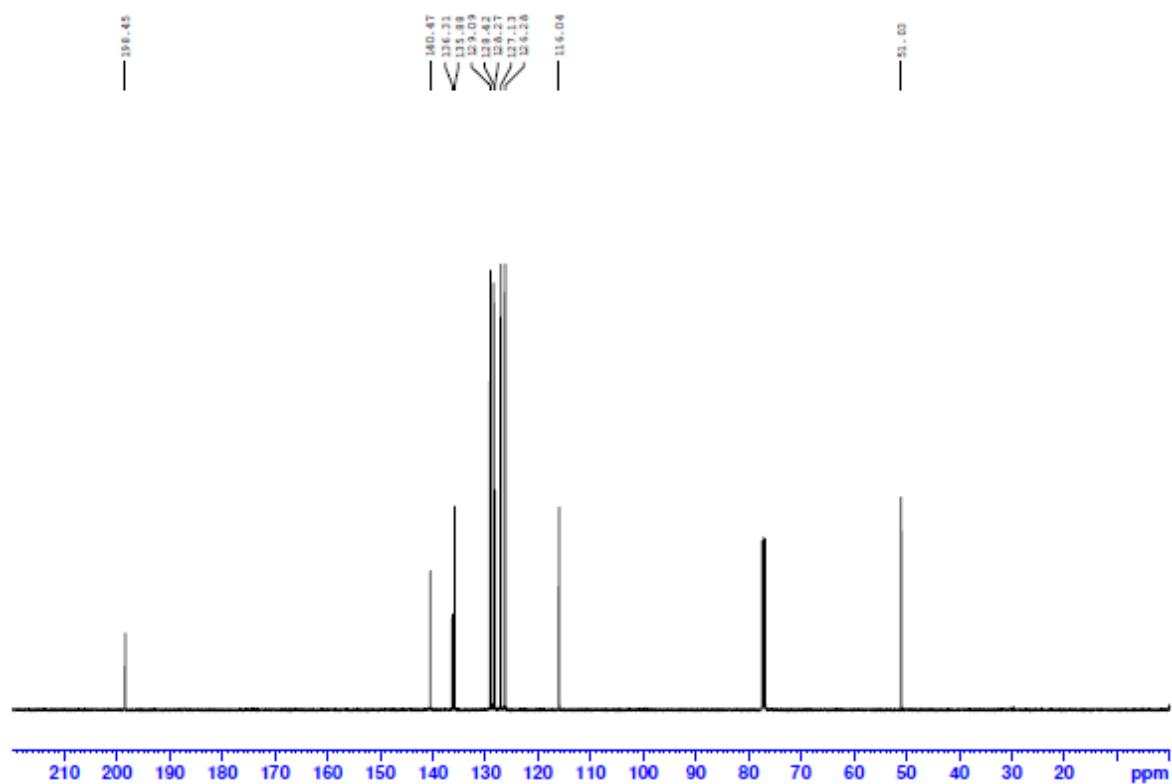
N-benzyl-4-vinylbenzothioamide 5a

^1H NMR



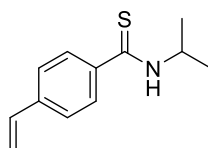
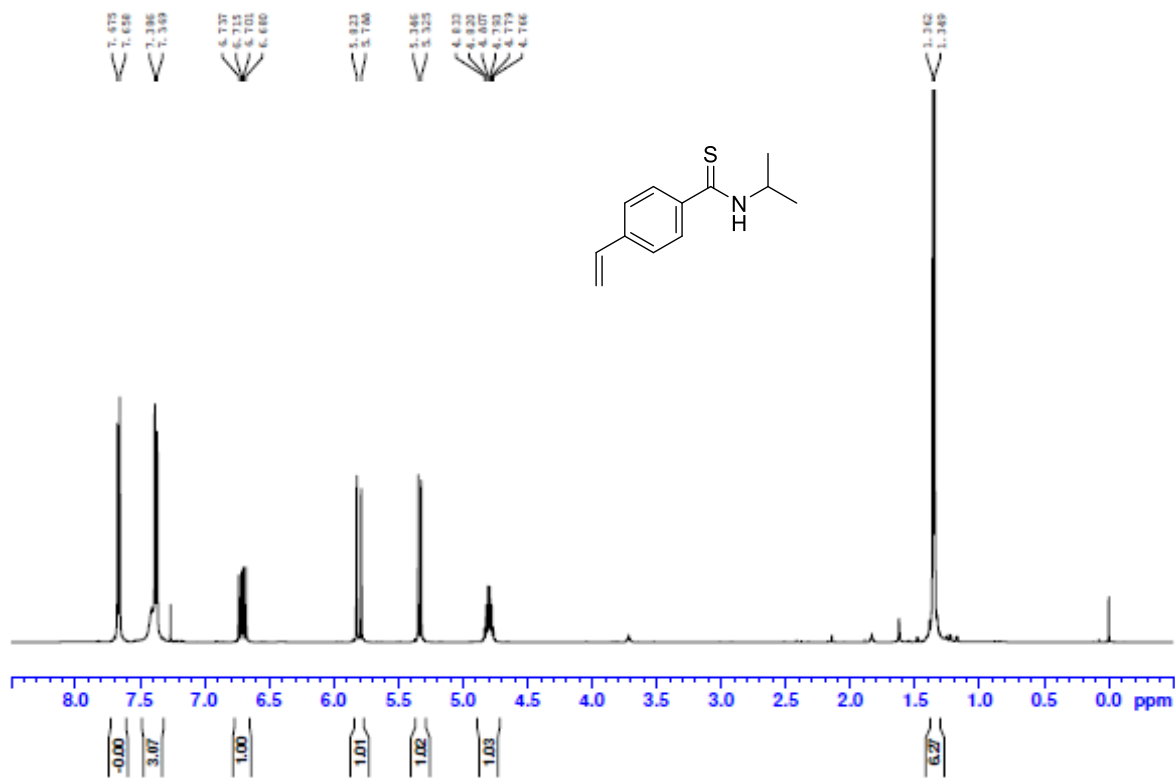
^{13}C NMR

Supporting Information

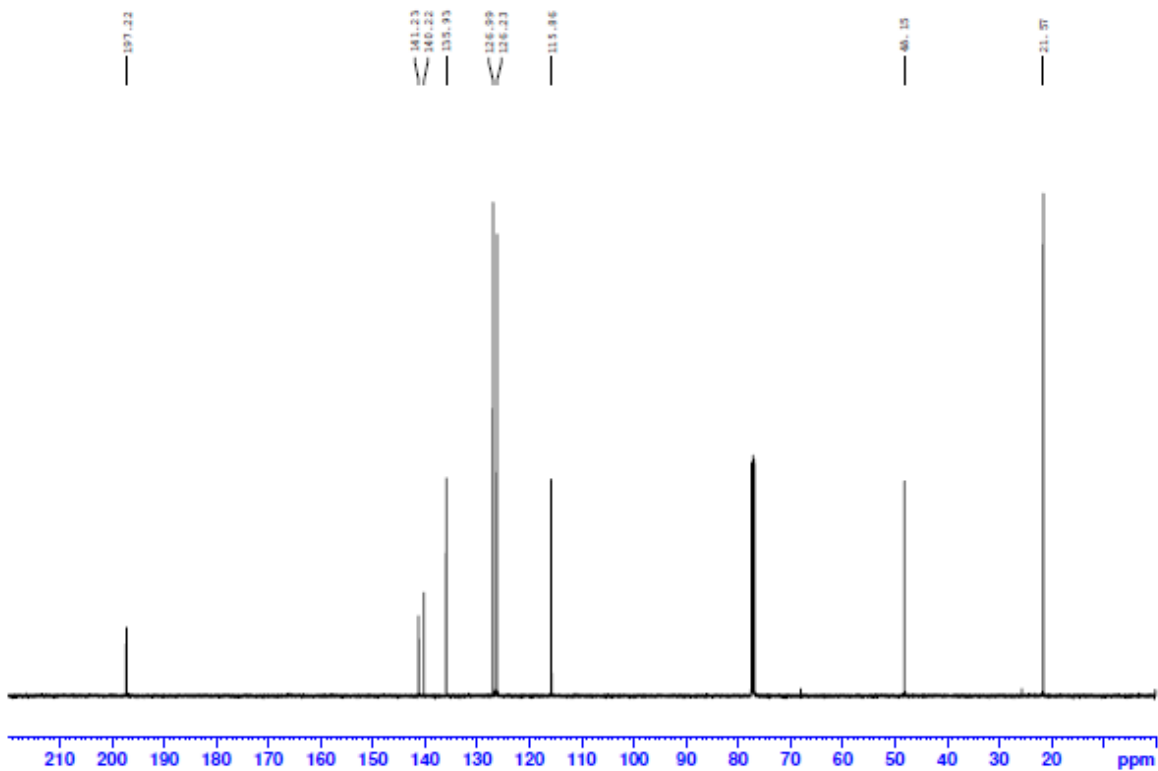


4-vinyl-*N*-propan-2-ylbenzothioamide 5b

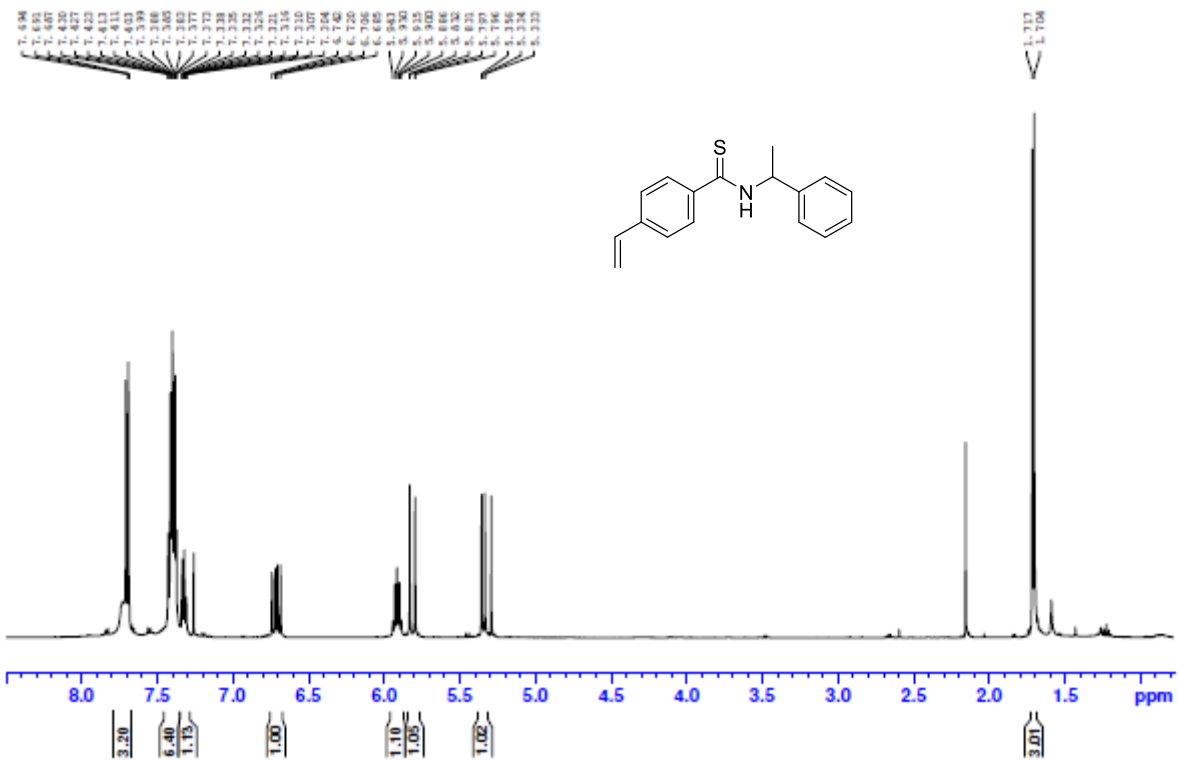
¹H NMR



Supporting Information

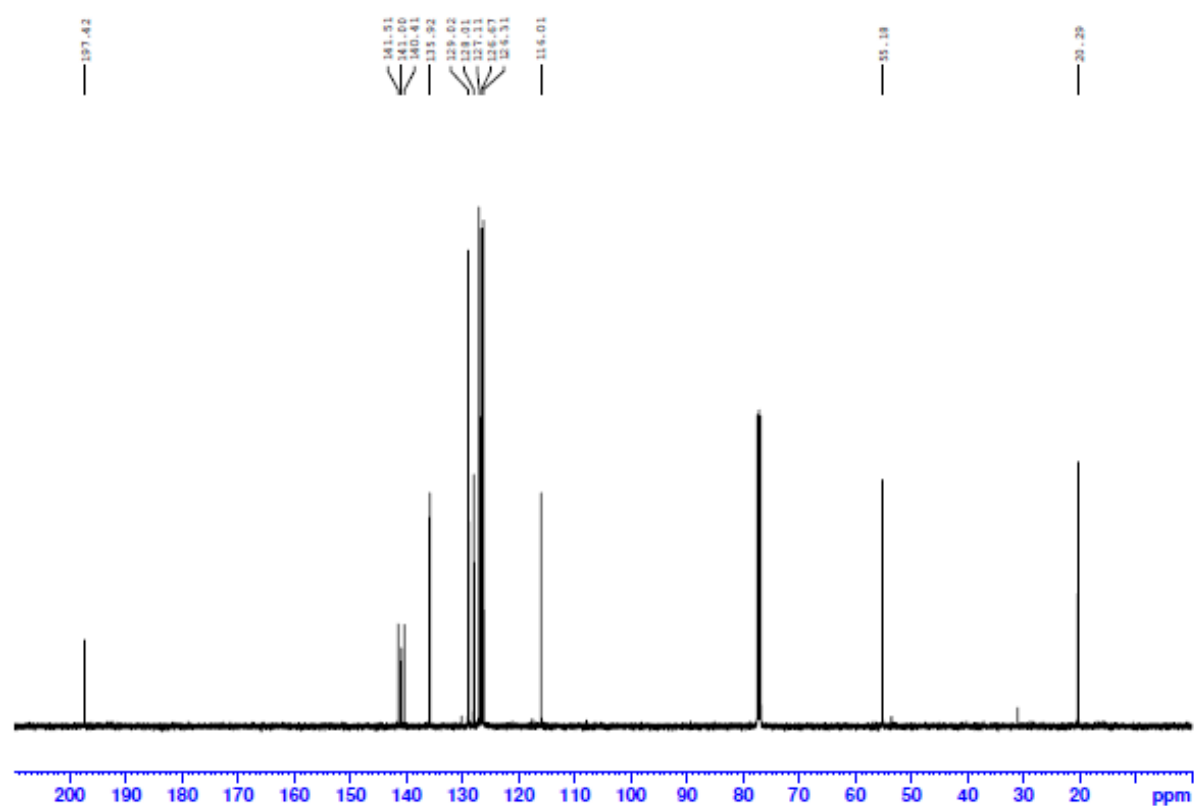
¹³C NMR

4-vinyl-*N*-(1-phenylethyl)benzothioamide 5c

¹H NMR

Supporting Information

^{13}C NMR



N-(9-Deoxyepicinchonidin-9-yl)-4-vinylbenzothioamide 5d

^1H NMR

Supporting Information

