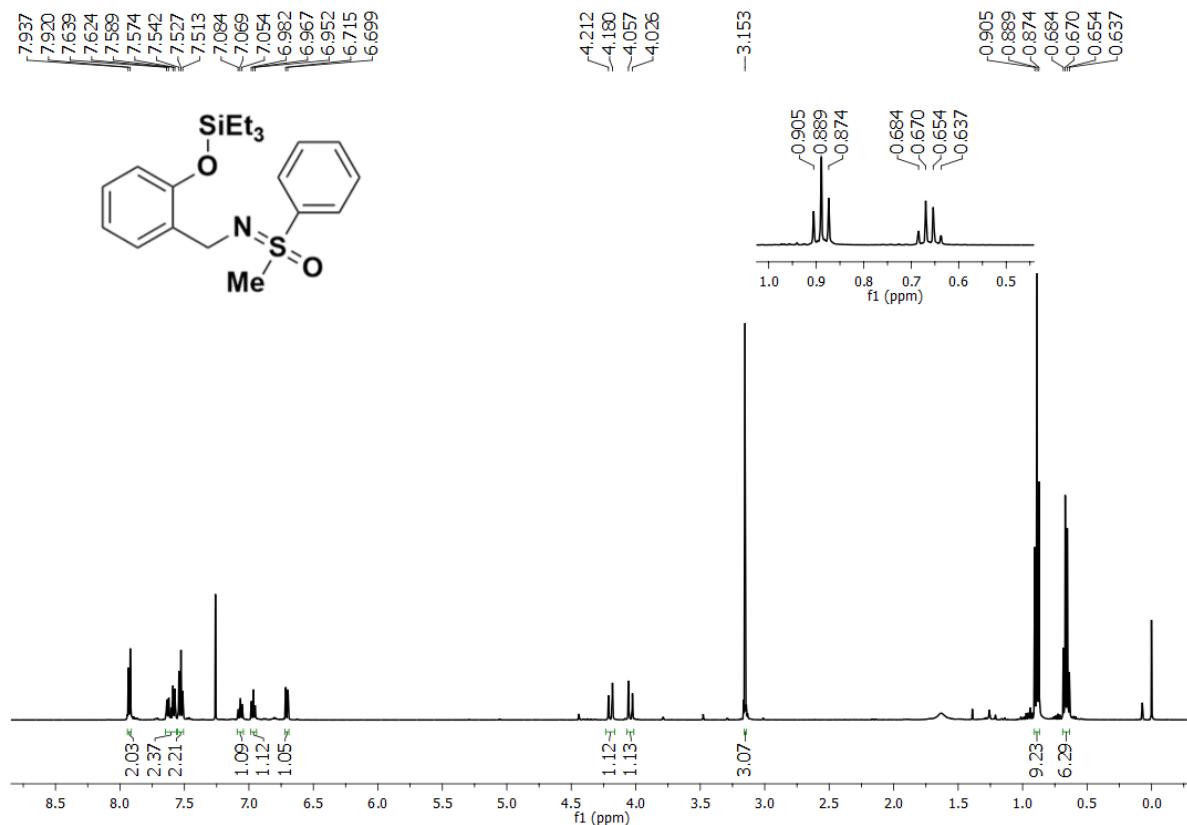
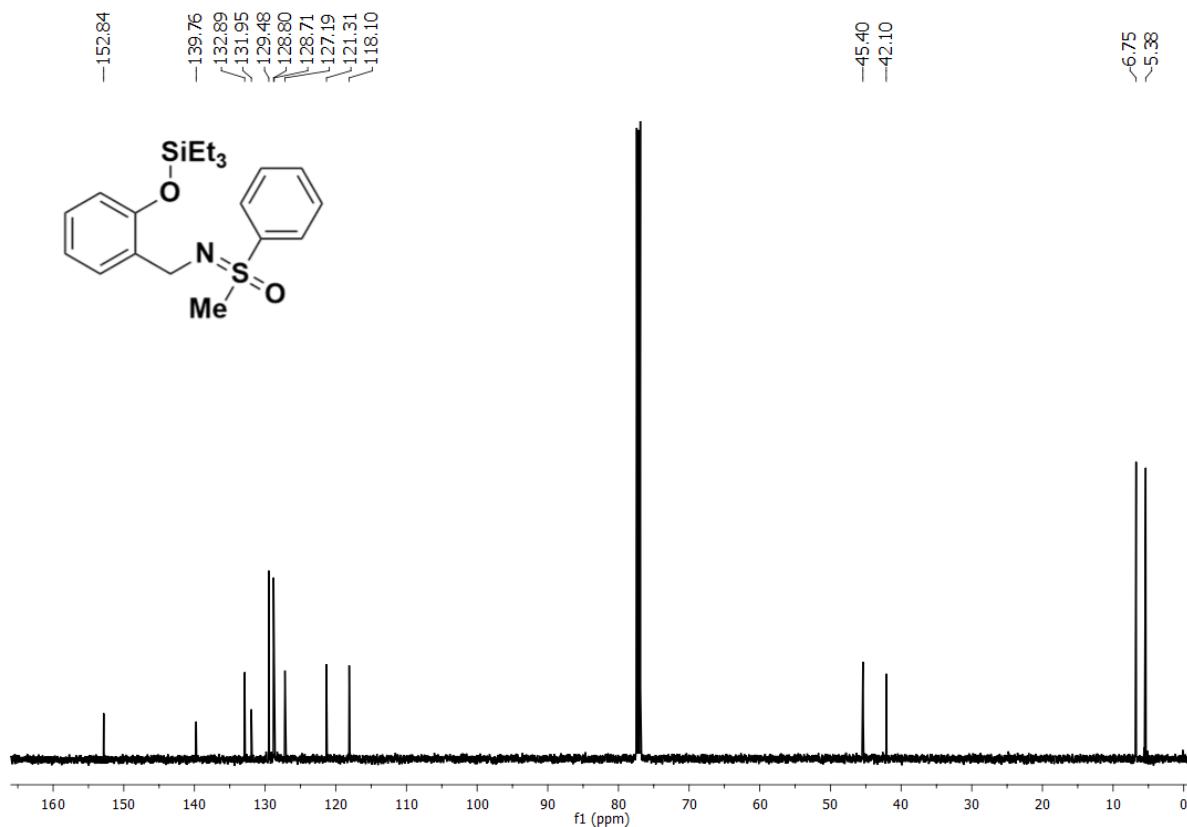


5. ^1H and ^{13}C NMR spectra of synthesized compounds

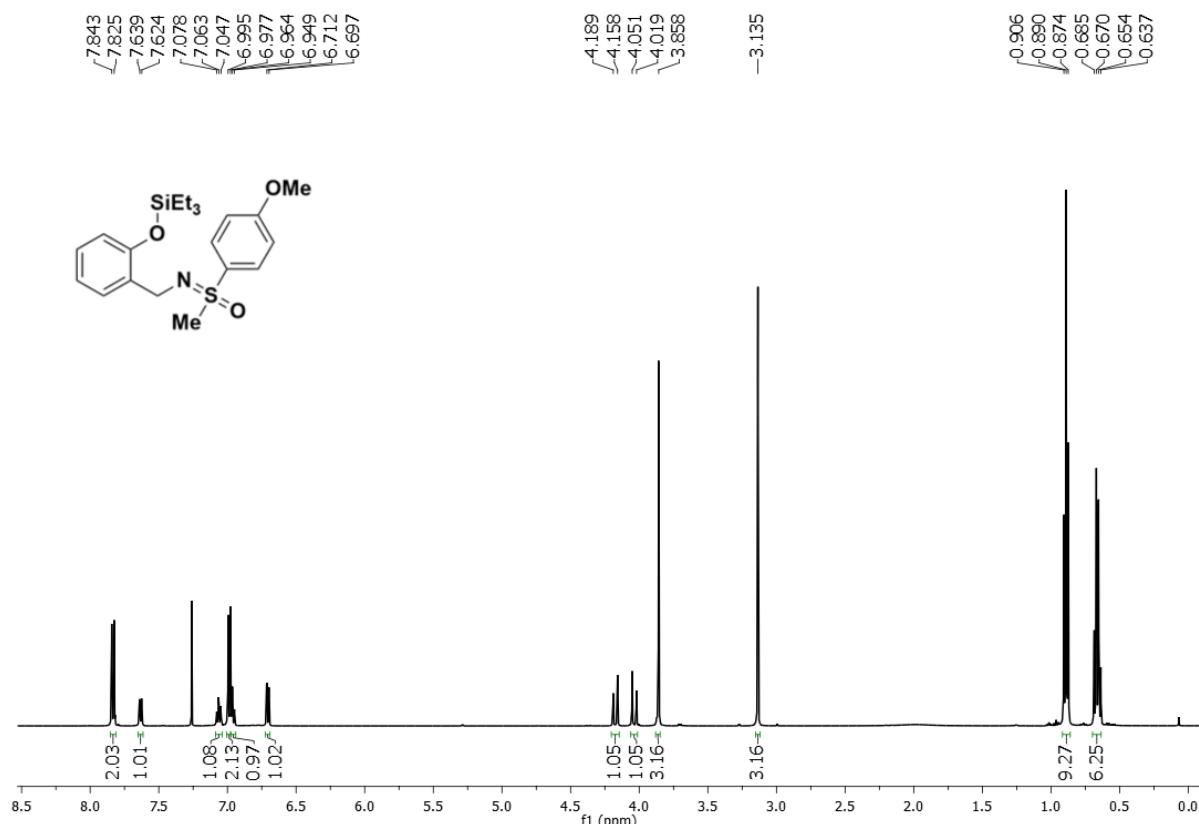
^1H NMR of **4a** (500 MHz, CDCl_3)



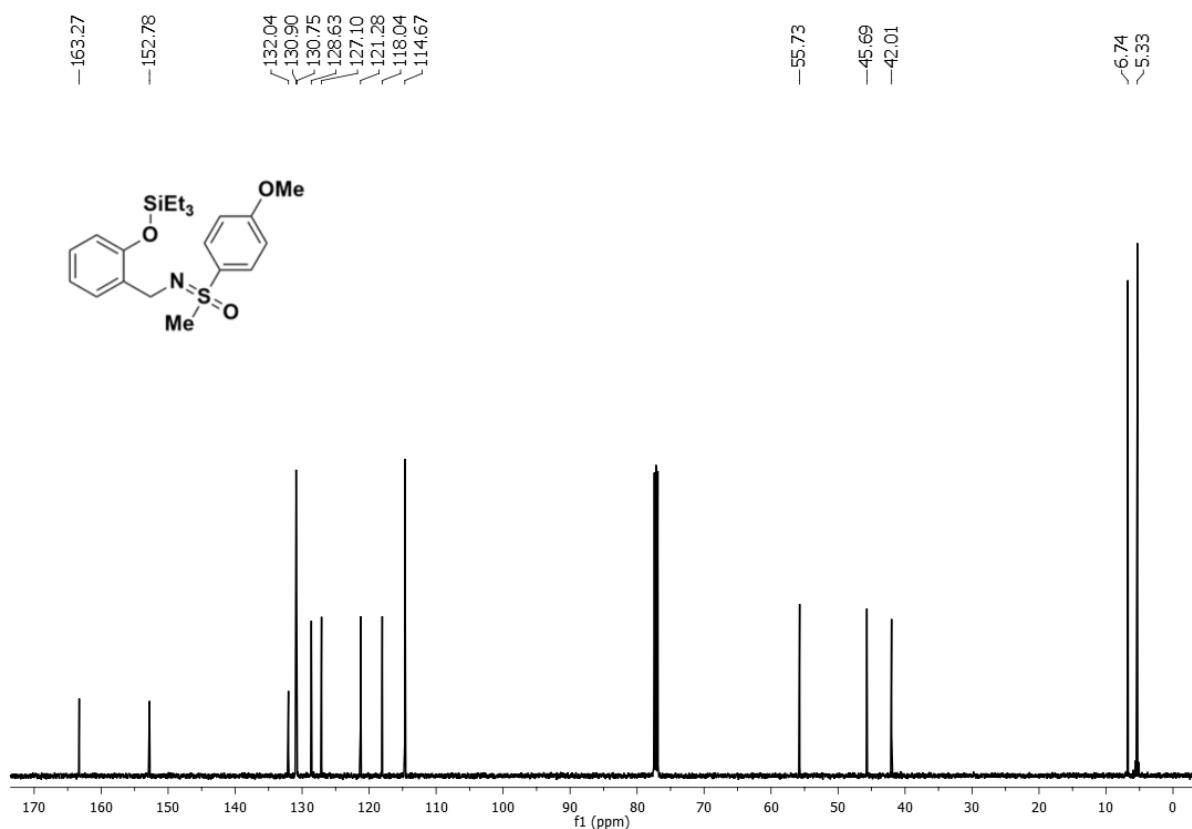
$^{13}\text{C} \{^1\text{H}\}$ NMR of **4a** (126 MHz, CDCl_3)



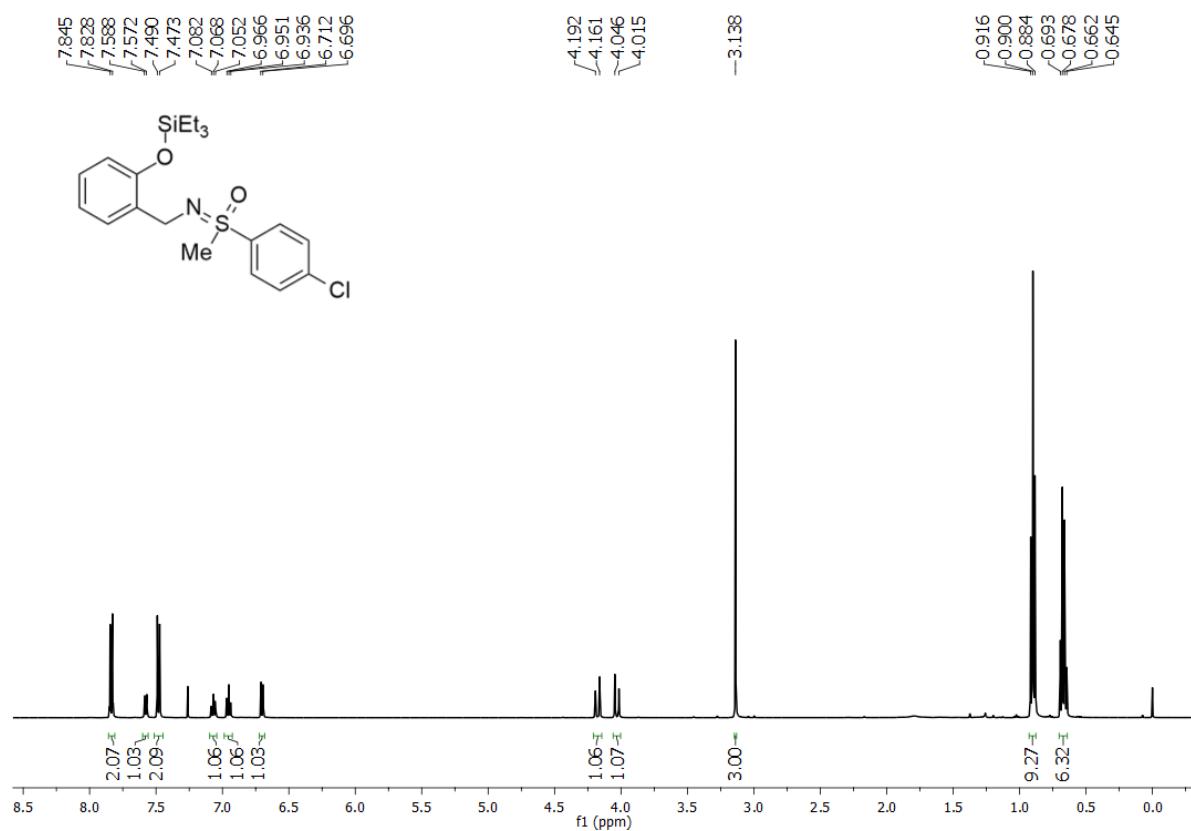
¹H NMR of **4b** (500 MHz, CDCl₃)



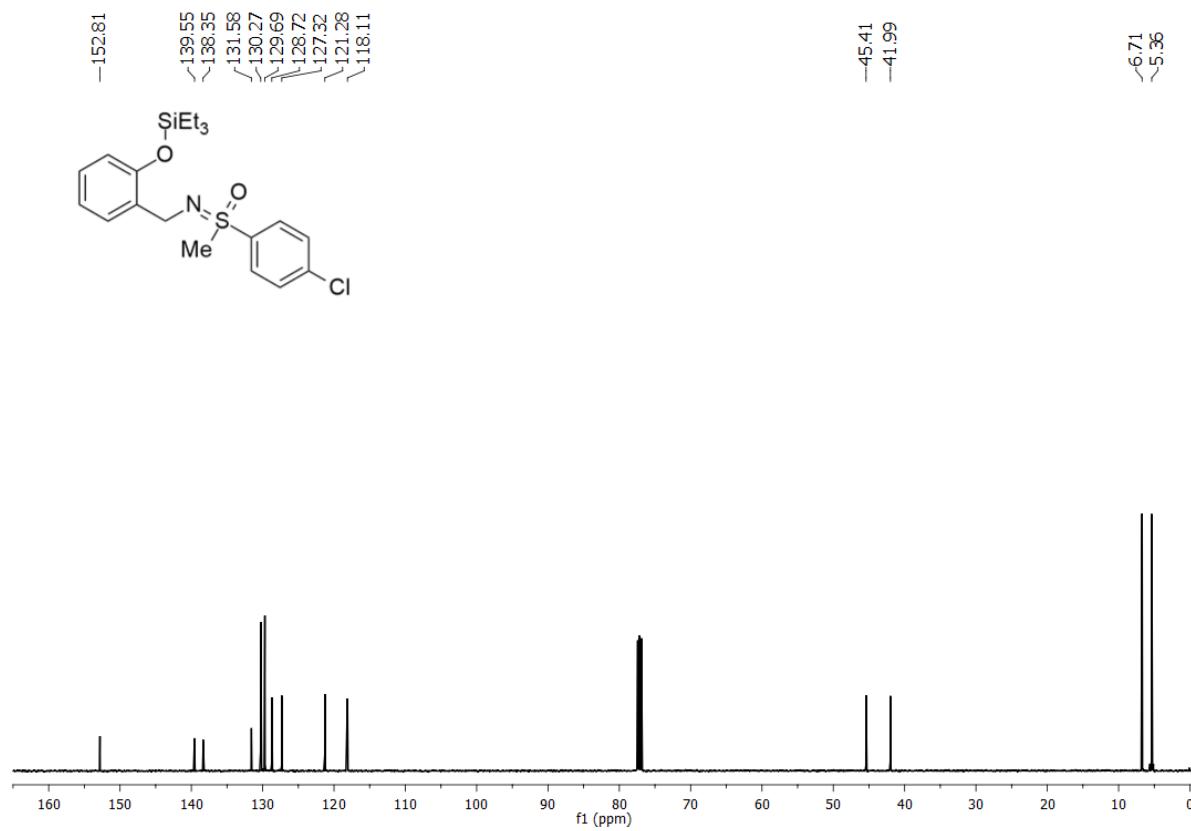
¹³C {¹H} NMR of **4b** (126 MHz, CDCl₃)



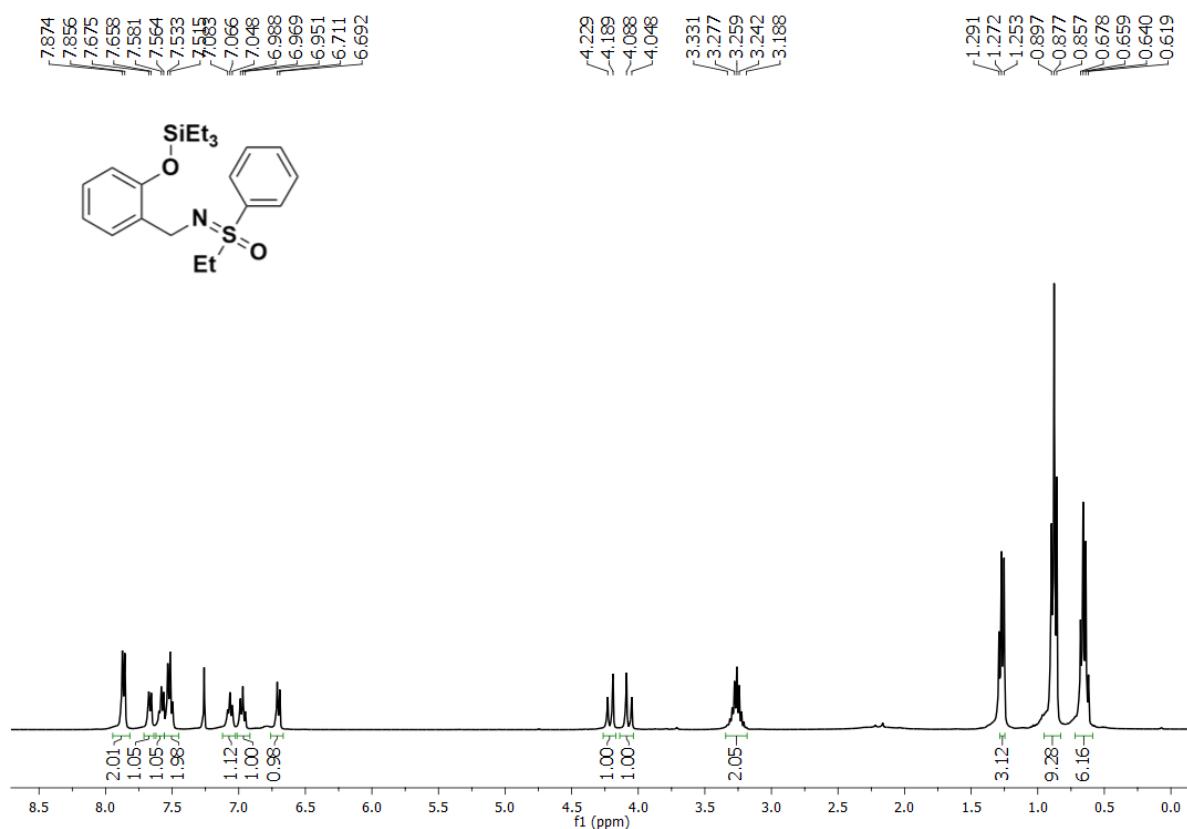
¹H NMR of **4c** (500 MHz, CDCl₃)



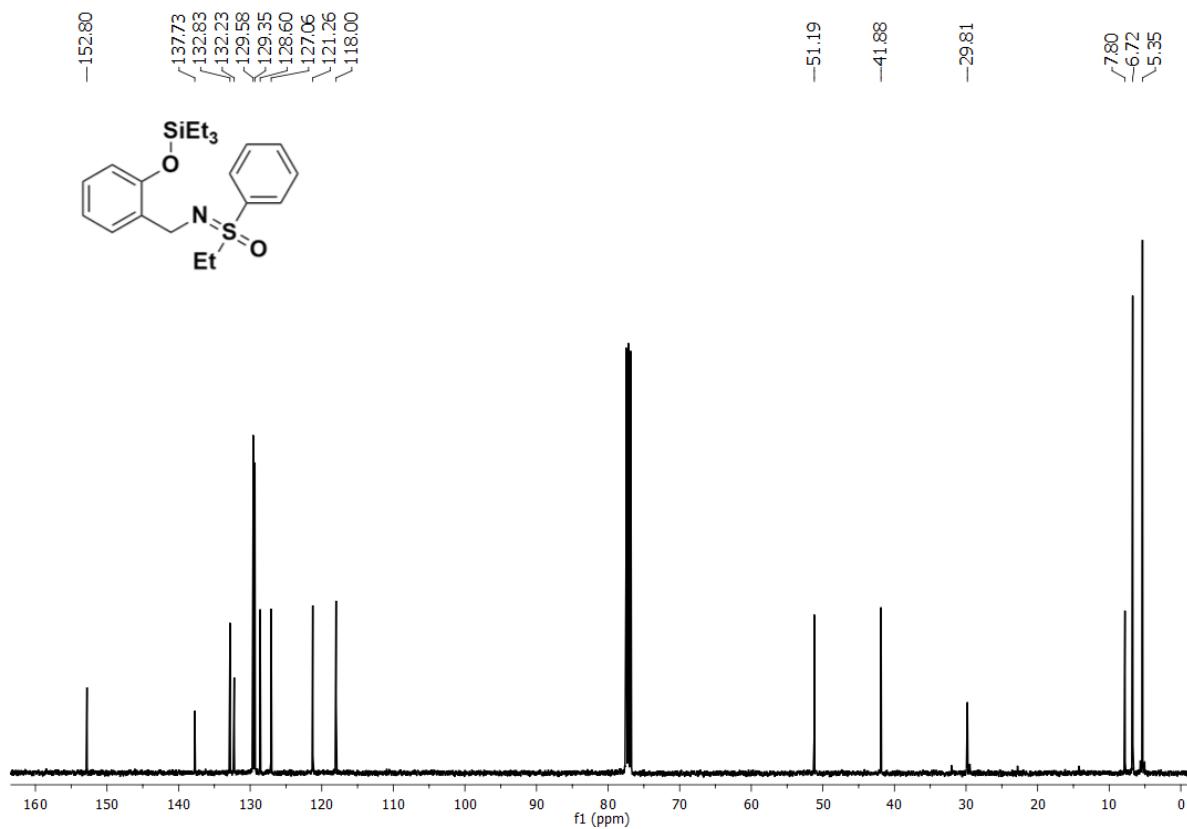
¹³C {¹H} NMR of **4c** (126 MHz, CDCl₃)



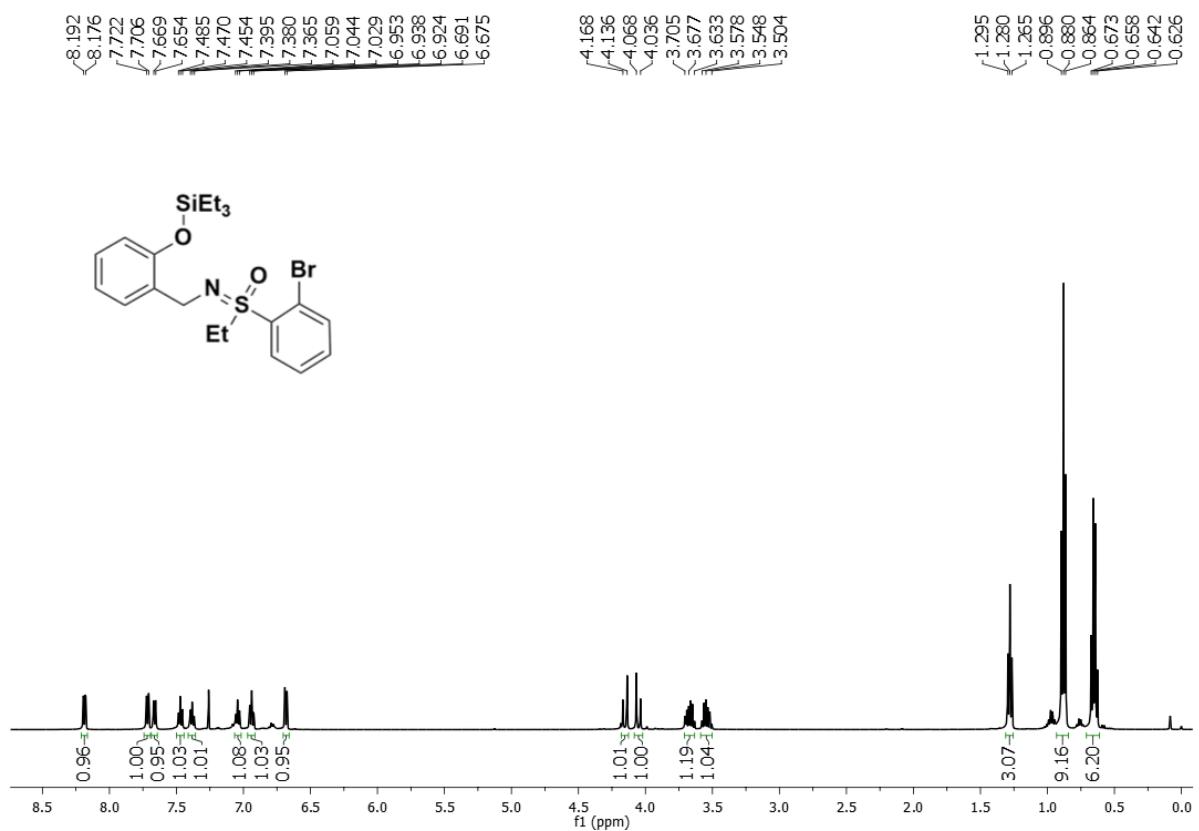
¹H NMR of **4d** (400 MHz, CDCl₃)



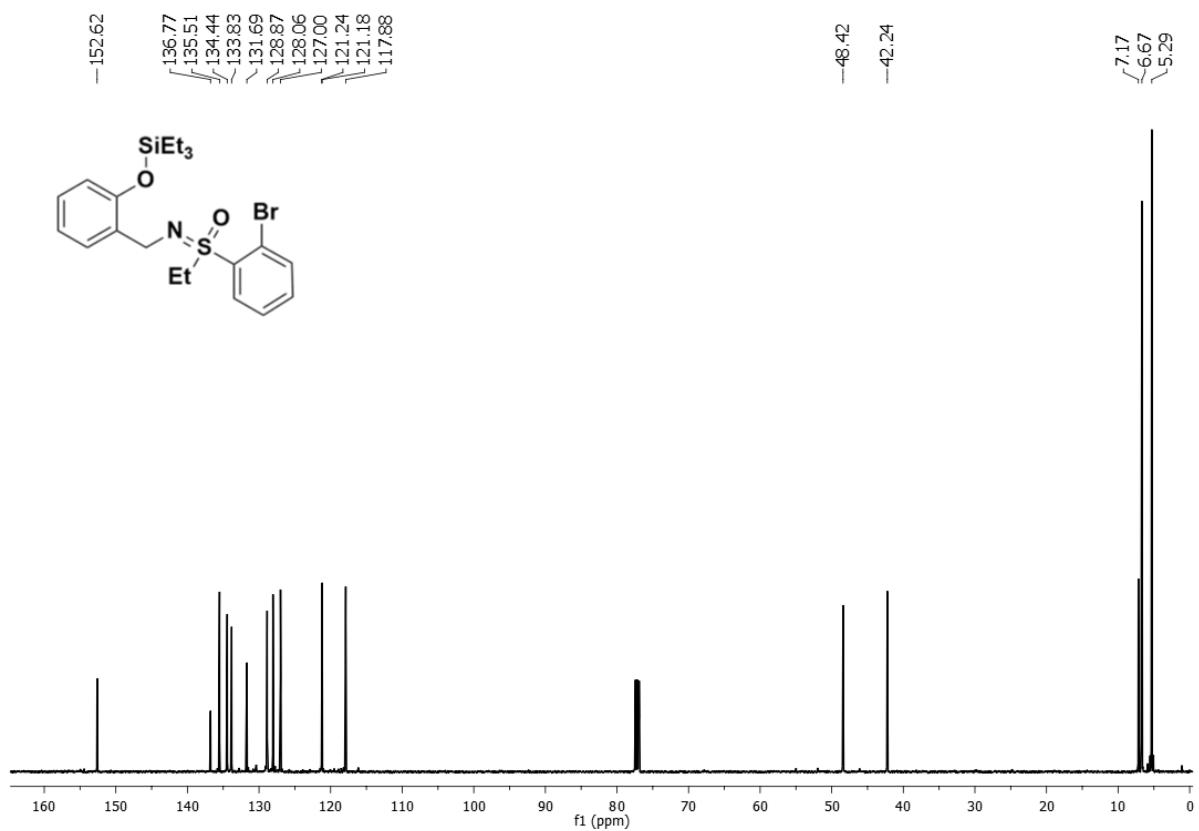
¹³C{¹H} NMR of **4d** (101 MHz, CDCl₃)



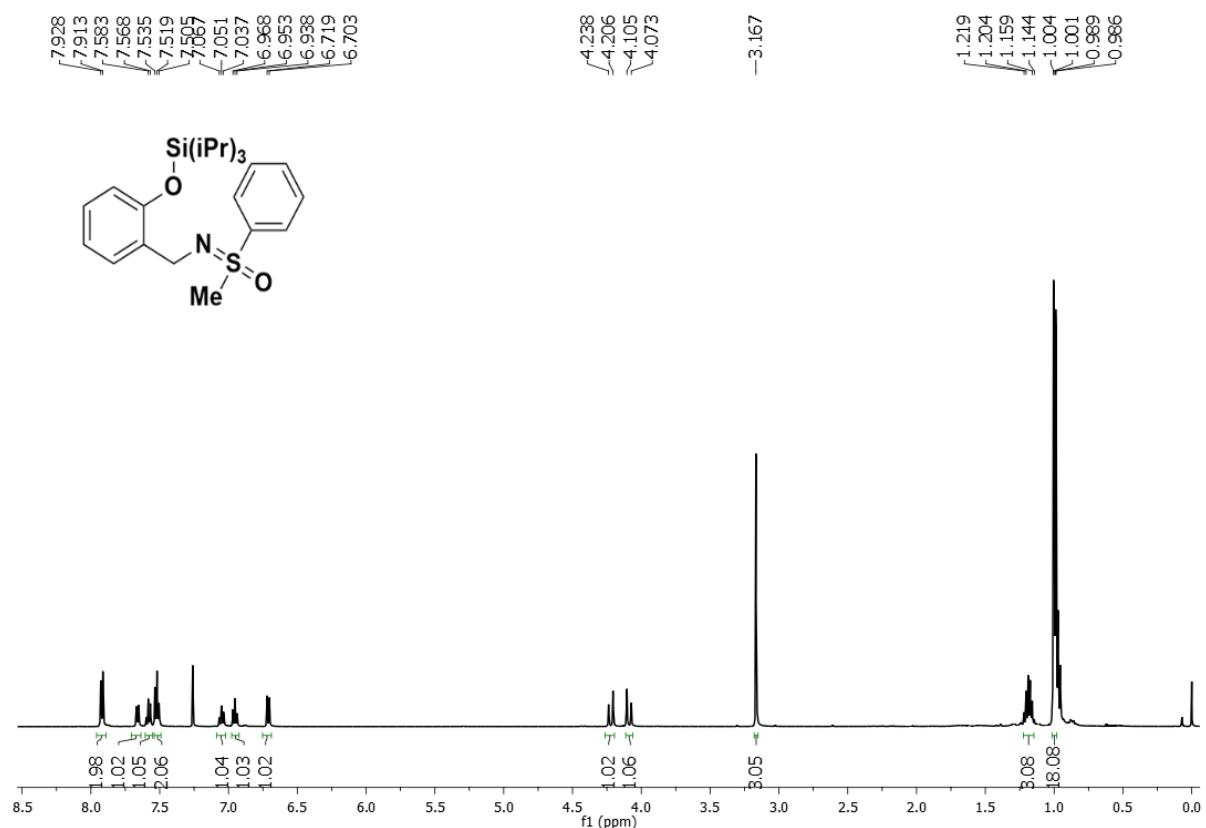
¹H NMR of **4e** (500 MHz, CDCl₃)



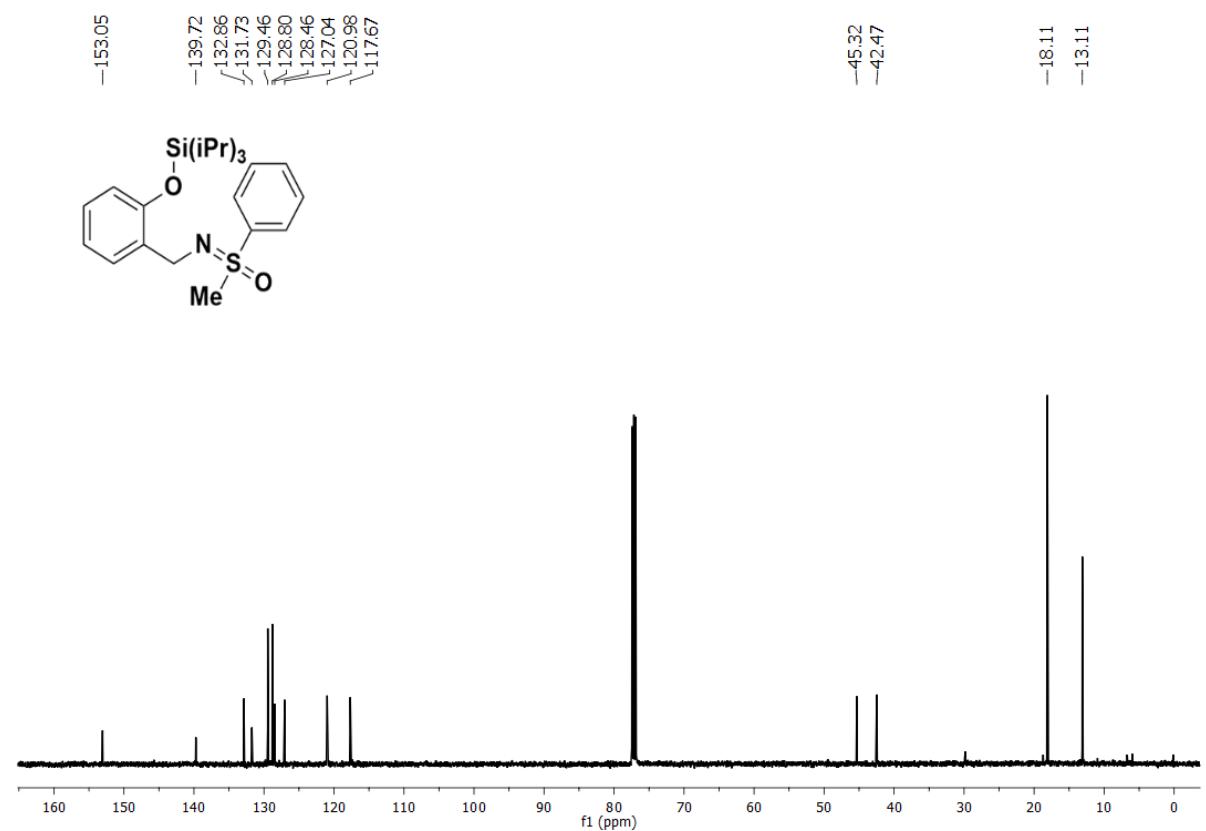
¹³C {¹H} NMR of **4e** (126 MHz, CDCl₃)



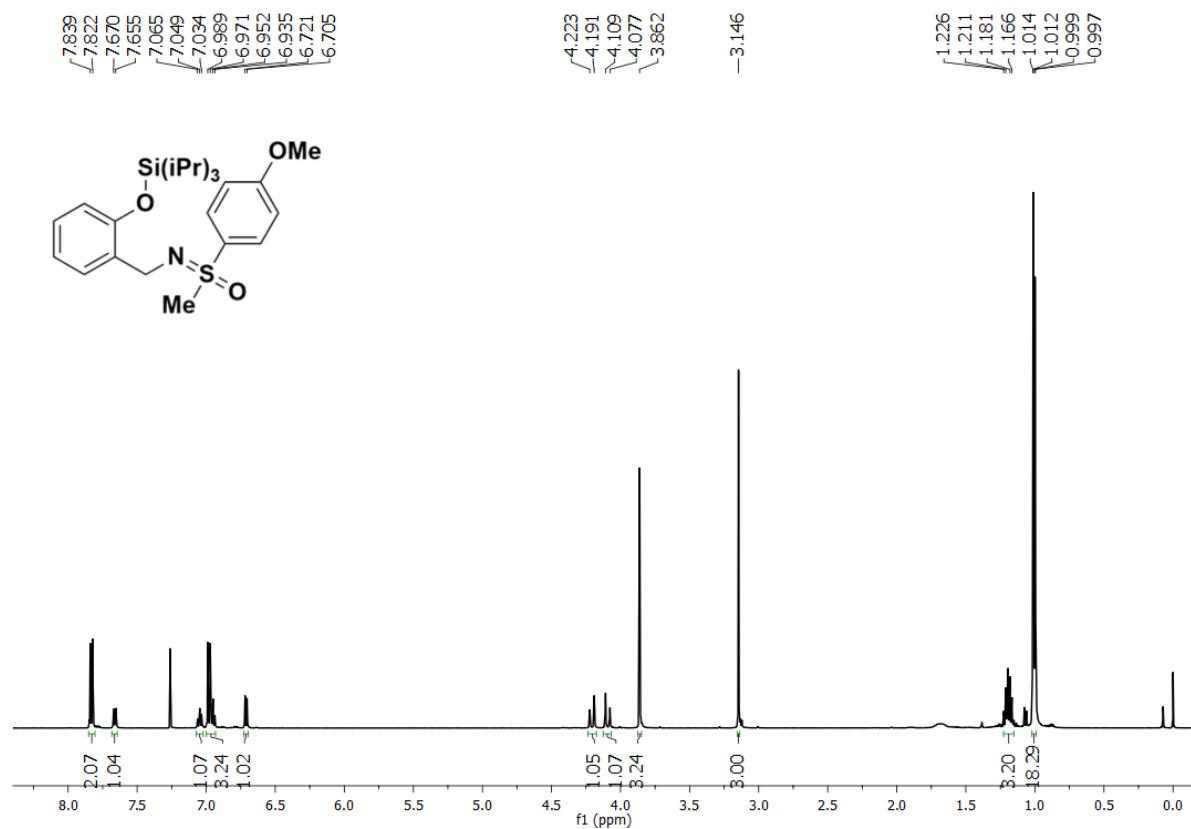
¹H NMR of **4f** (500 MHz, CDCl₃)



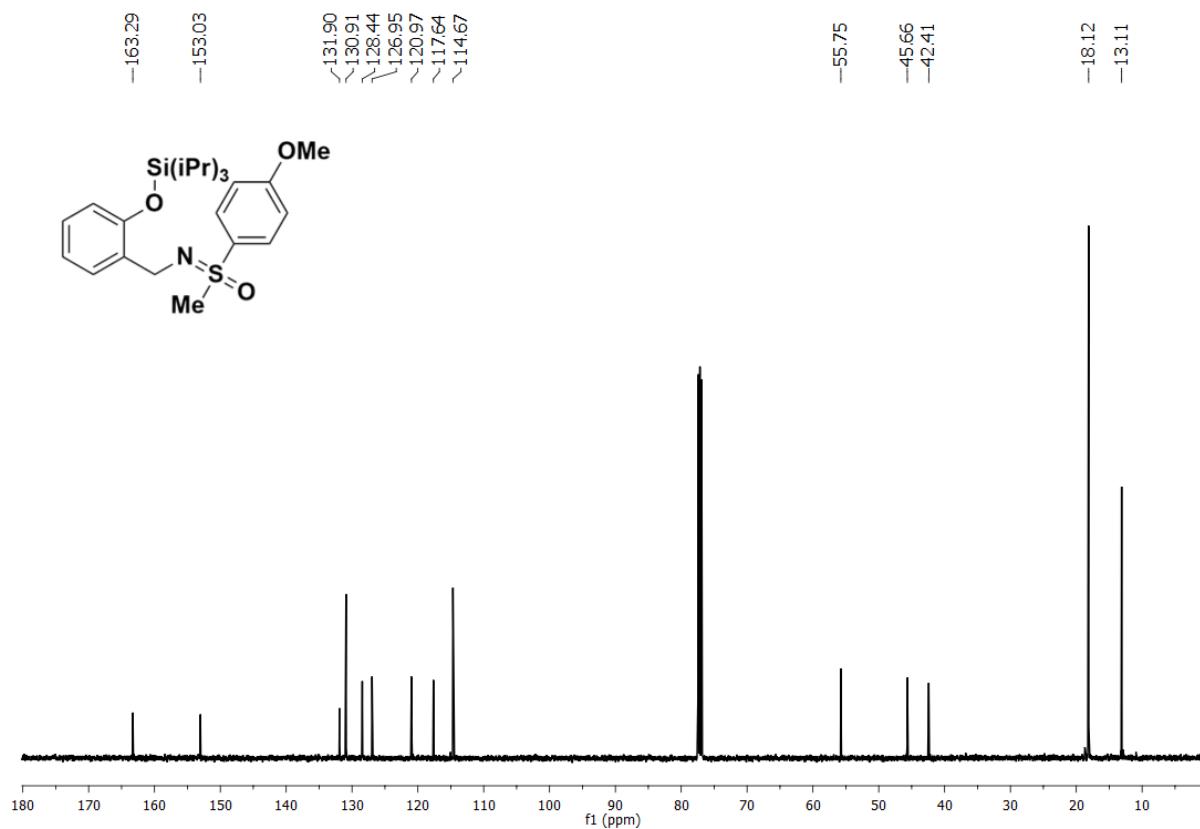
¹³C {¹H} NMR of **4f** (126 MHz, CDCl₃)



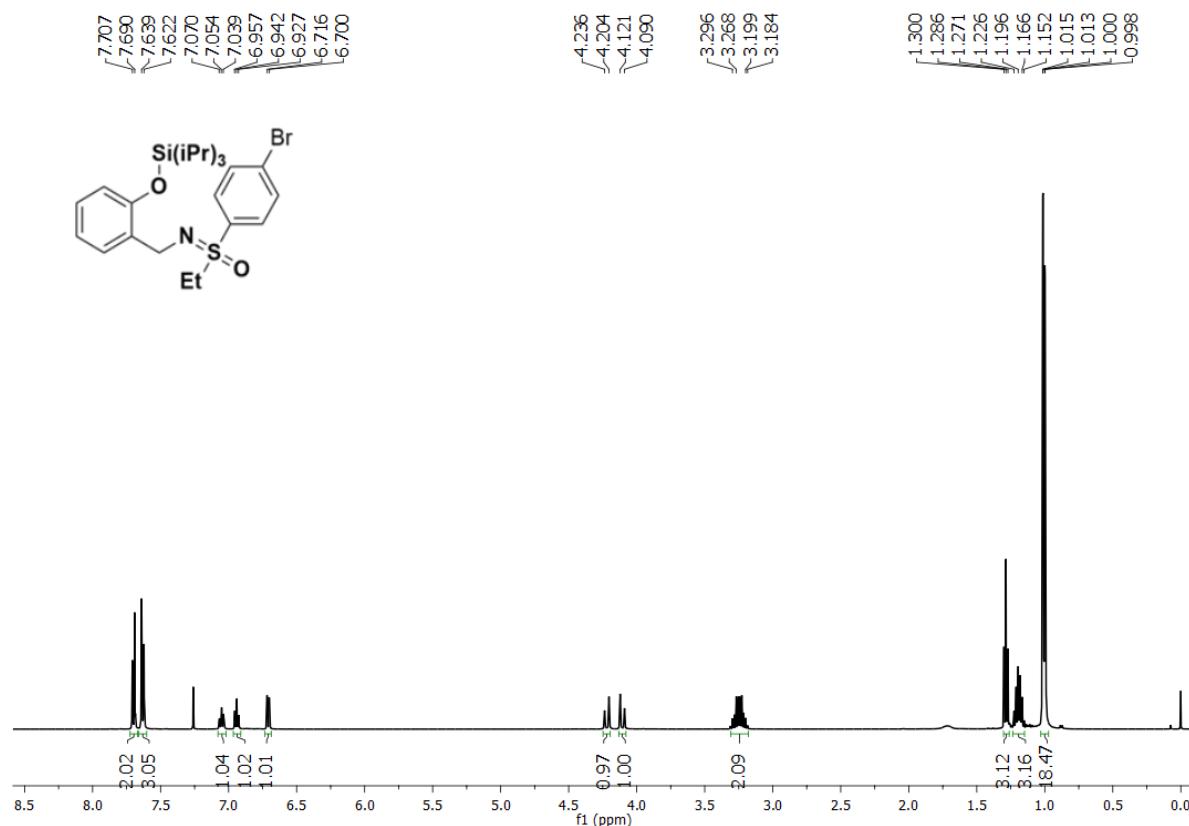
¹H NMR of **4g** (500 MHz, CDCl₃)



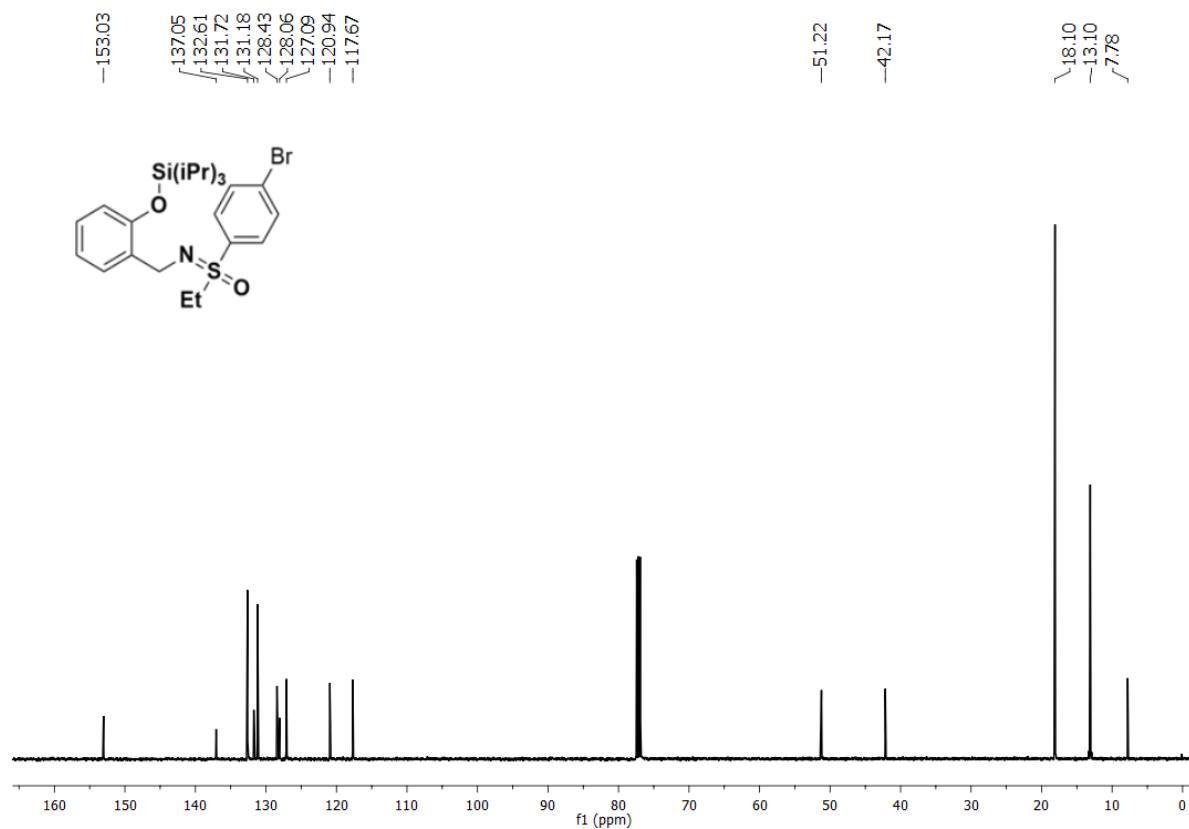
¹³C {¹H} NMR of **4g** (126 MHz, CDCl₃)



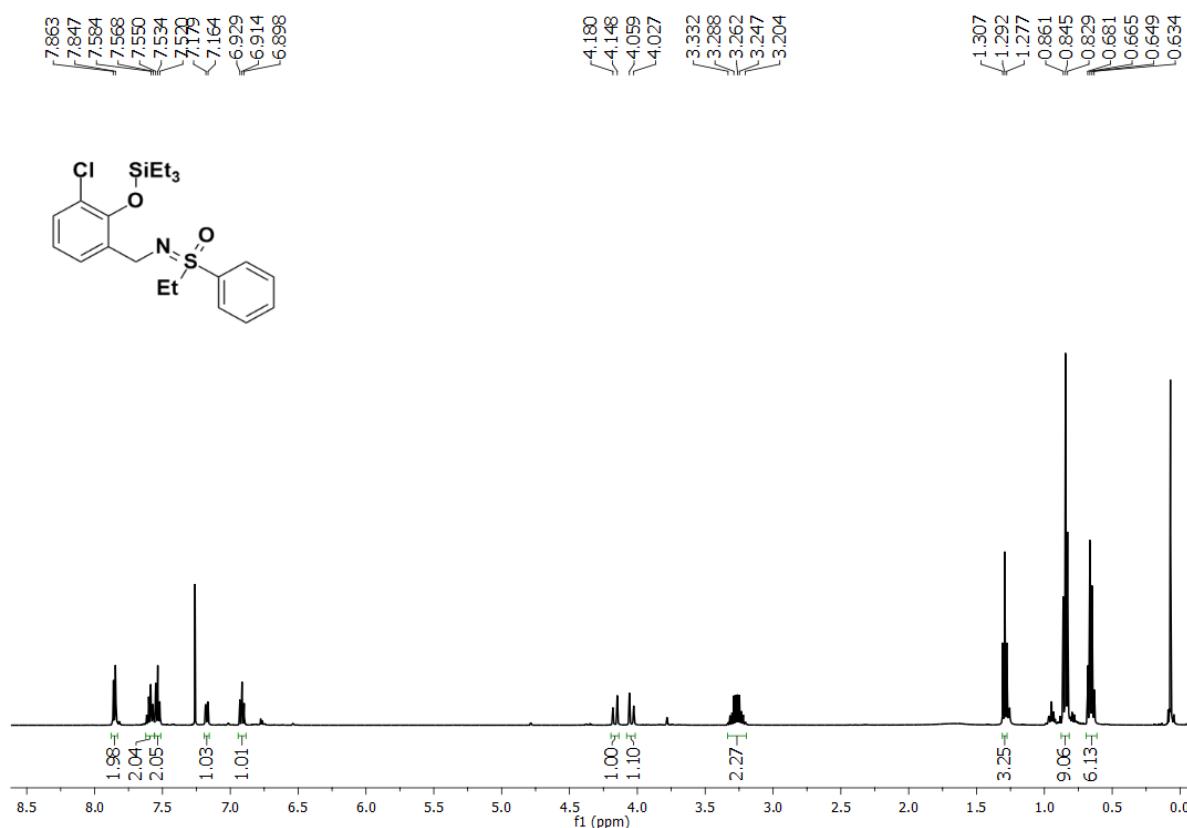
¹H NMR of **4h** (500 MHz, CDCl₃)



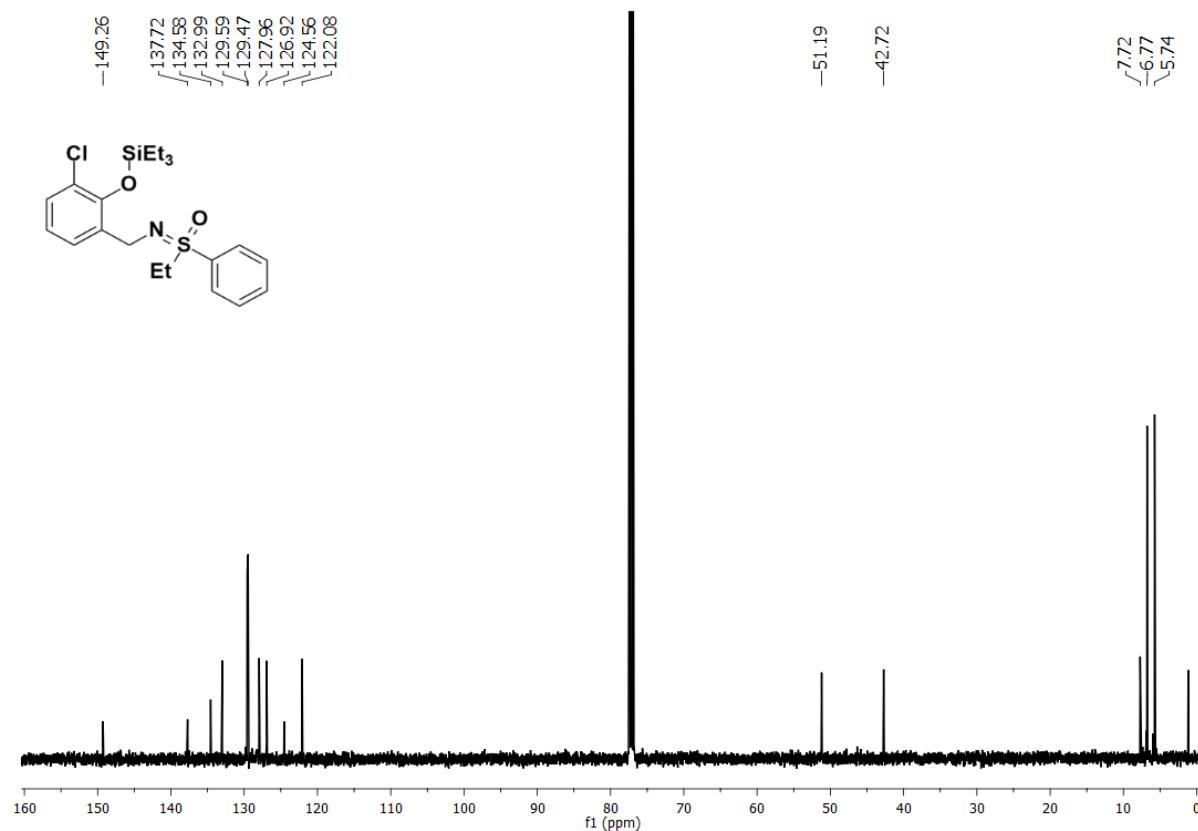
¹³C {¹H} NMR of **4h** (126 MHz, CDCl₃)



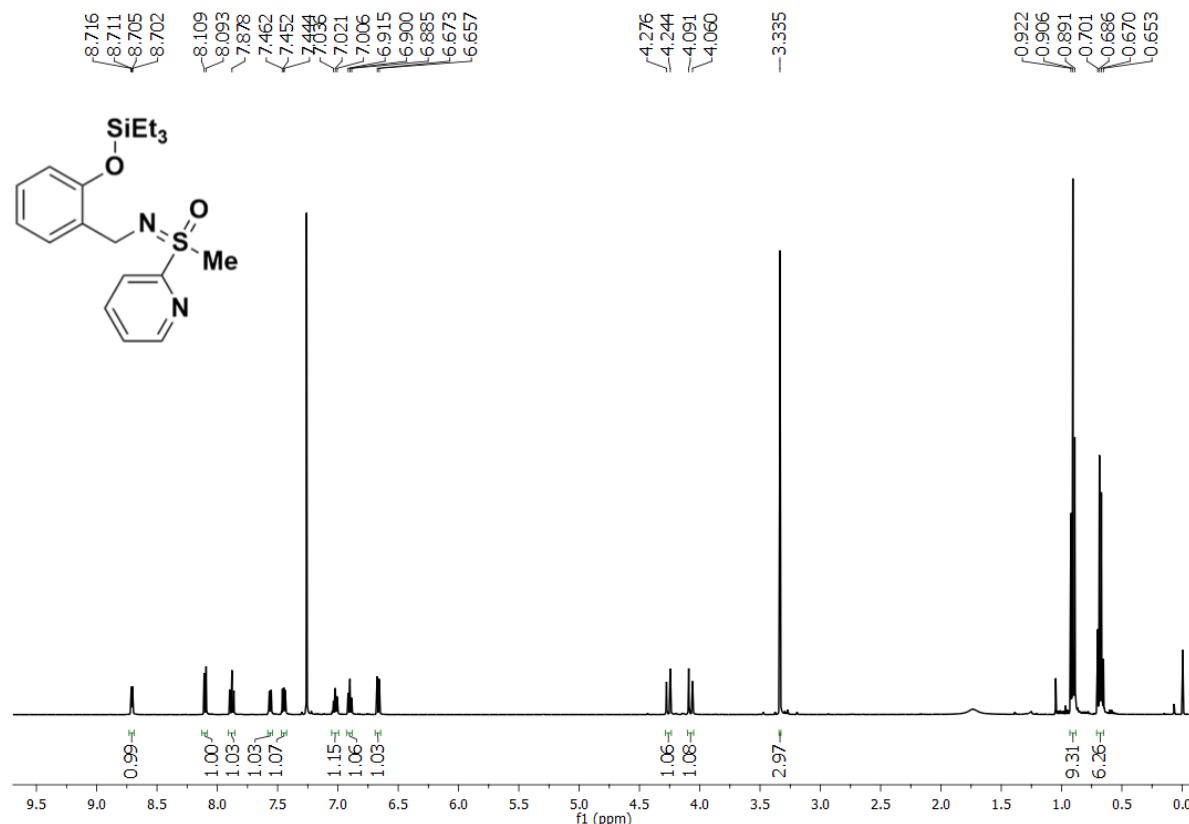
¹H NMR of **4i** (500 MHz, CDCl₃)



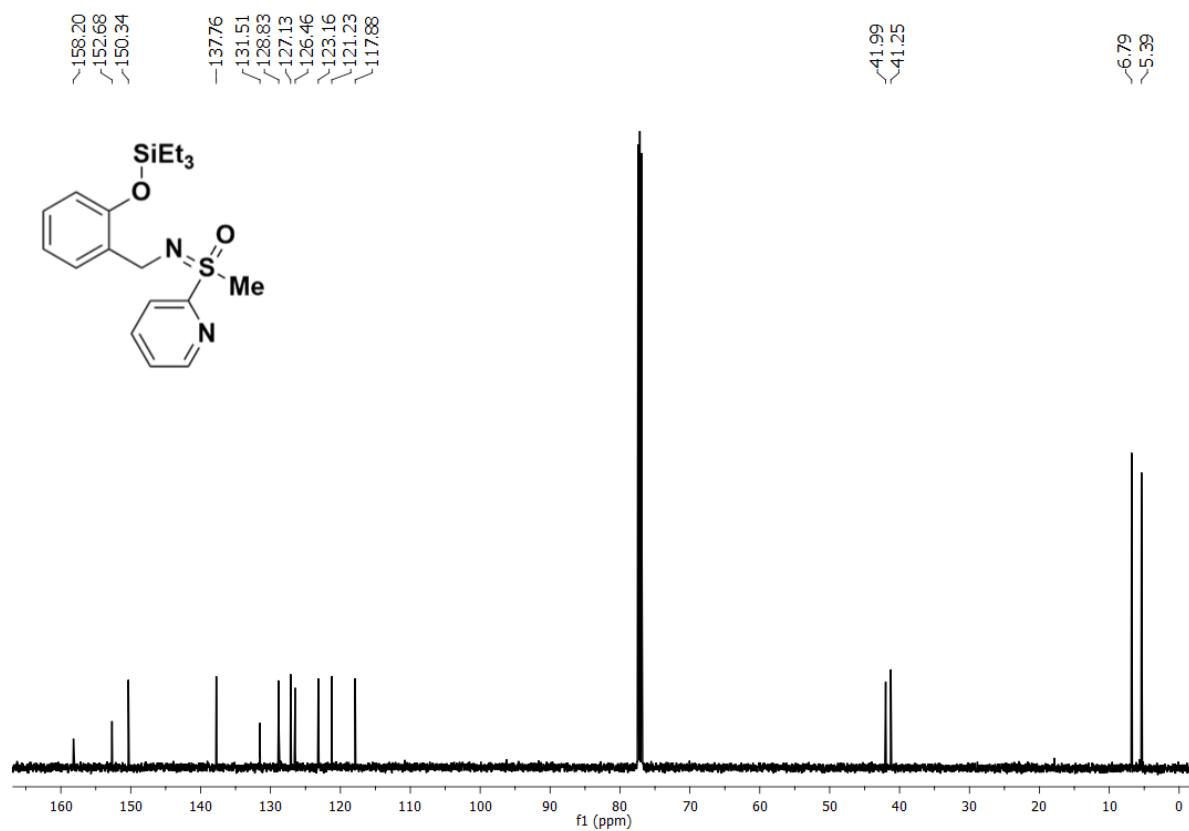
¹³C {¹H} NMR of **4i** (126 MHz, CDCl₃)



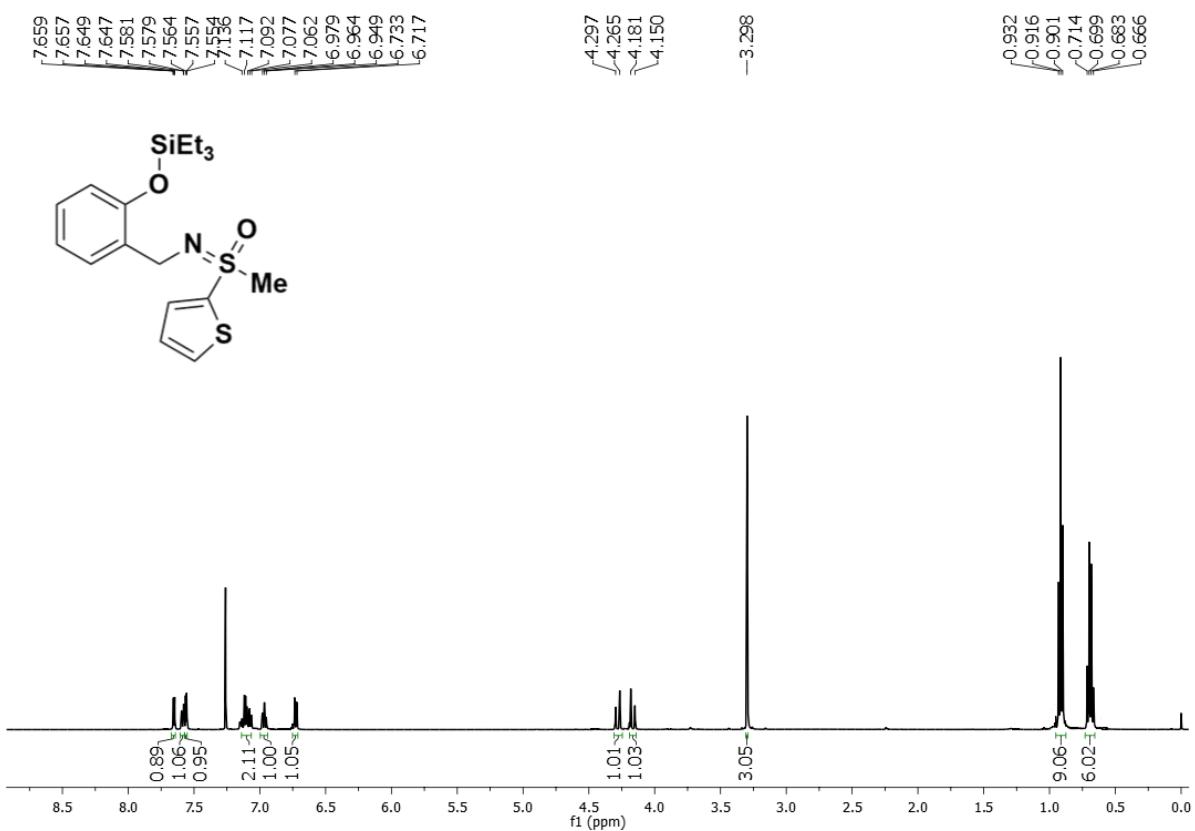
¹H NMR of **4j** (500 MHz, CDCl₃)



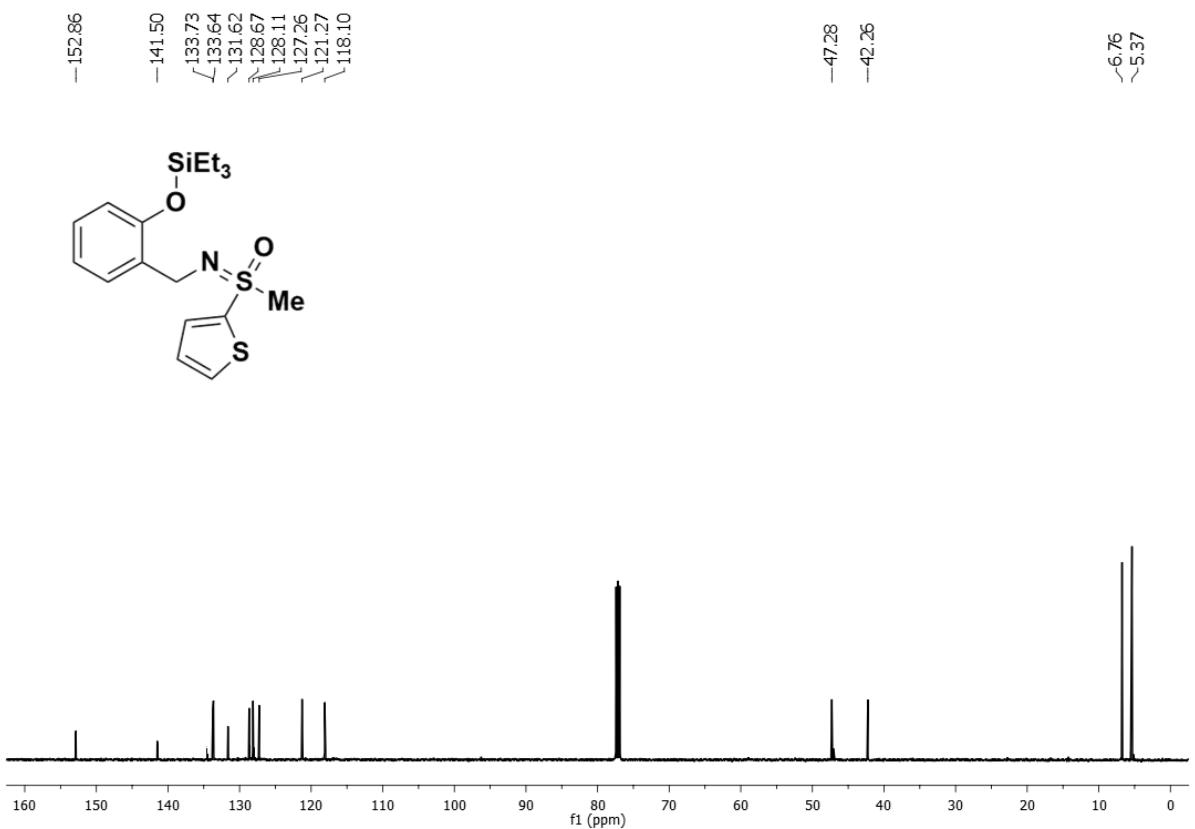
^{13}C { ^1H } NMR of **4j** (126 MHz, CDCl_3)



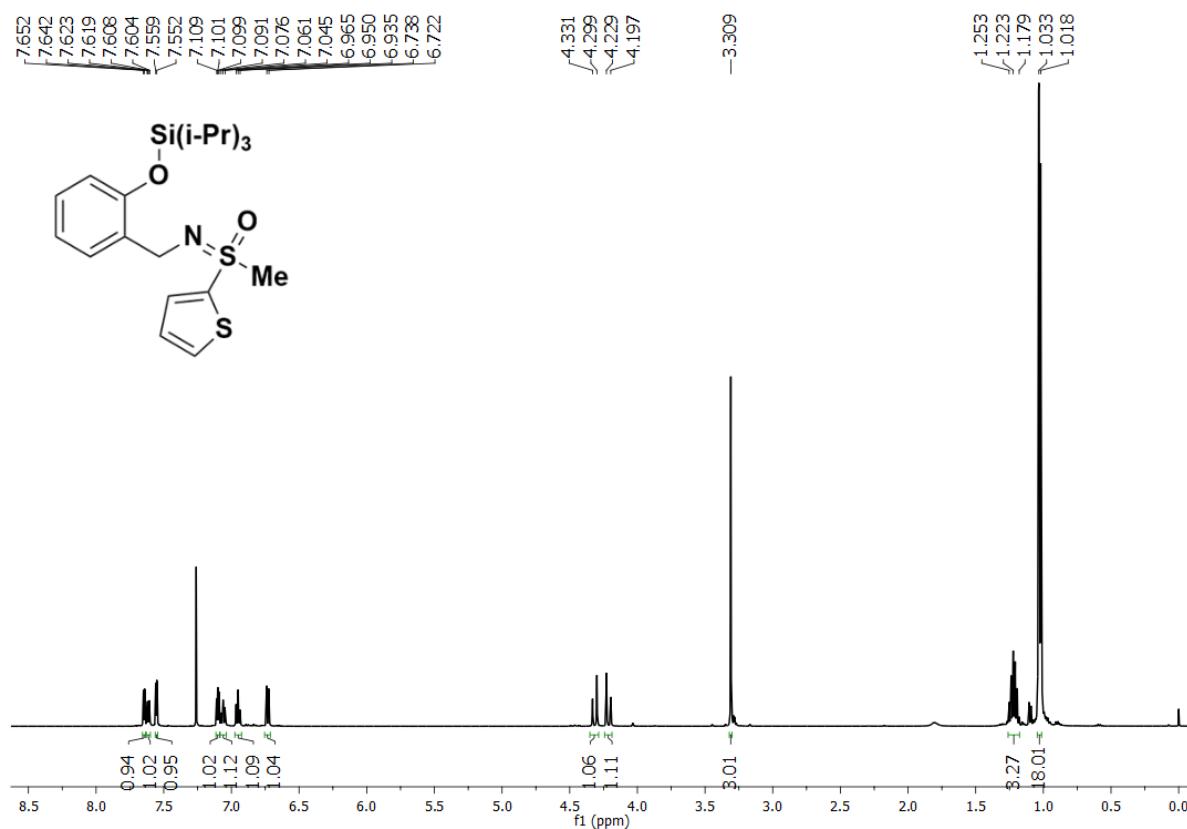
¹H NMR of **4k** (500 MHz, CDCl₃)



¹³C {¹H} NMR of **4k** (126 MHz, CDCl₃)



¹H NMR of **4I** (500 MHz, CDCl₃)



¹³C {¹H} NMR of **4I** (126 MHz, CDCl₃)

