

Supporting Information

An easy access to α -carbonyl sulfones using cross-coupling of α -aryl- α -diazoesters with sulfonyl hydrazides

Anup Kumar Sharma, Shiv Chand, Anand Kumar Pandey, and Krishna Nand Singh*

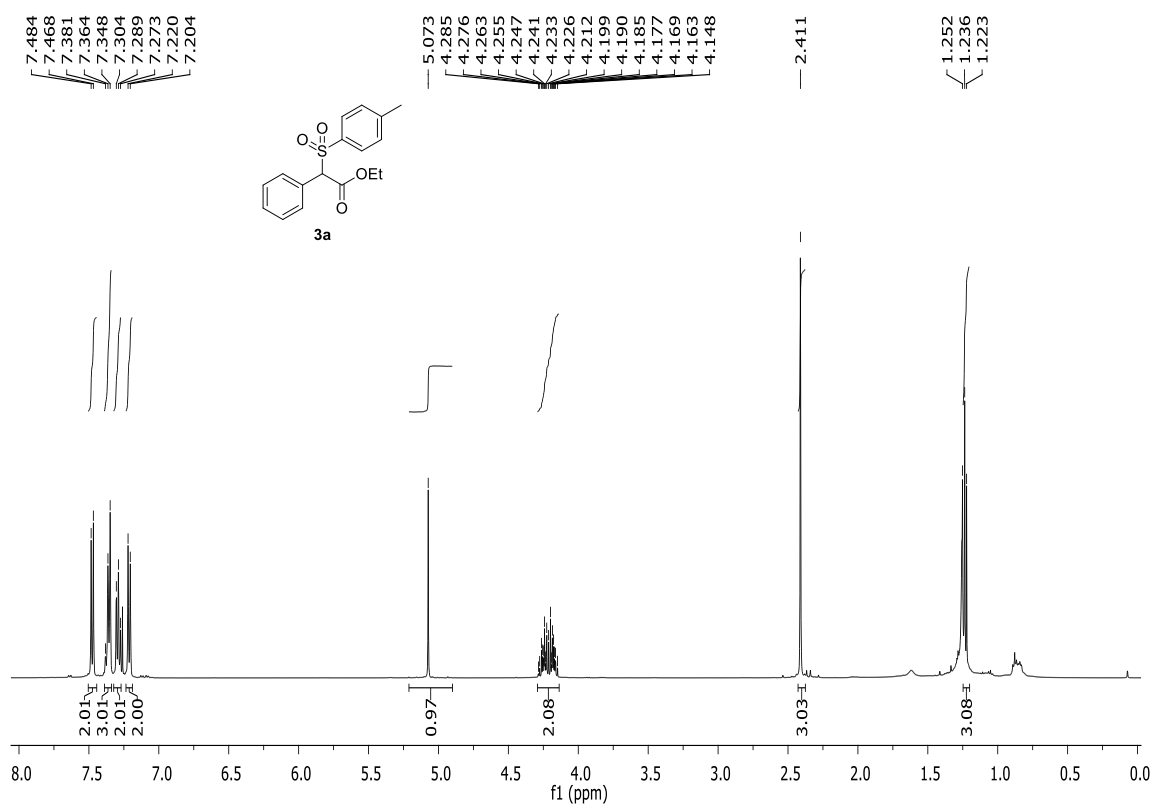
Department of Chemistry, Institute of Science, Banaras Hindu University, Varanasi-221005,
India.

E-mail: knsinghbhu@yahoo.co.in; knsingh@bhu.ac.in

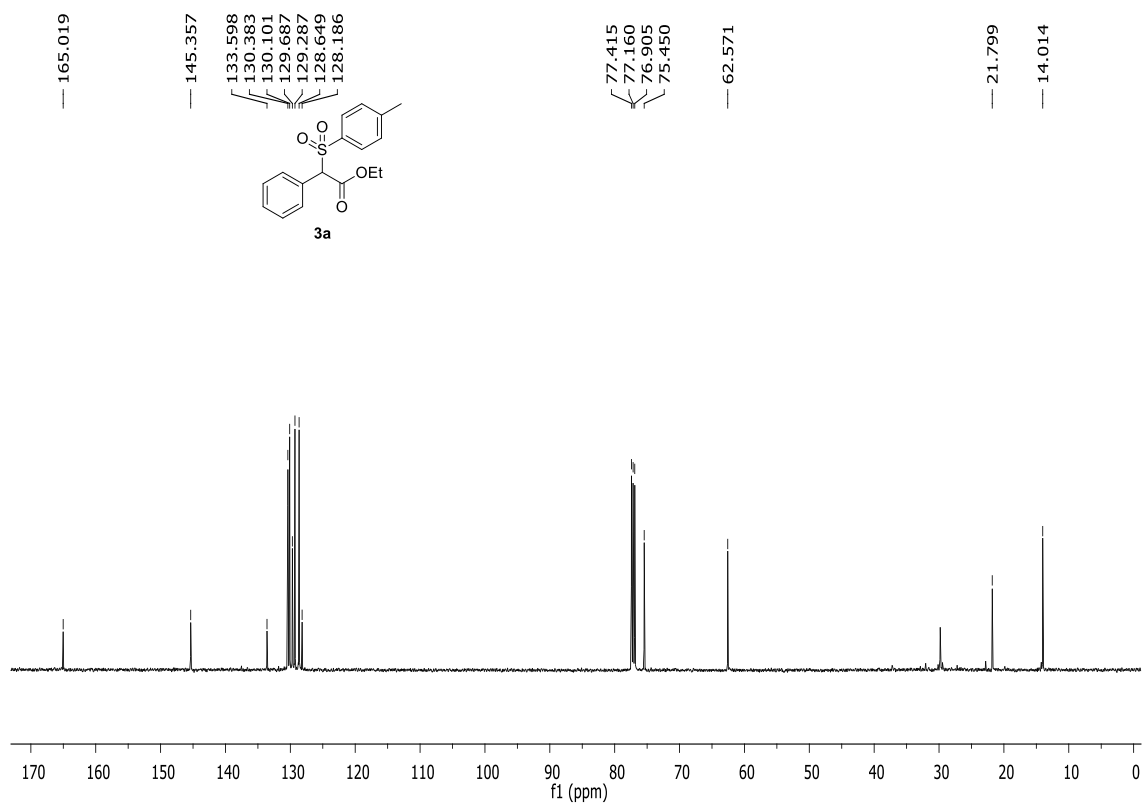
Contents	Page No.
I. Copies of ^1H , $^{13}\text{C}\{^1\text{H}\}$, and ^{19}F NMR spectra	S2-S28
II. HRMS of the TEMPO adduct 4a	S29

I. Copies of ^1H , $^{13}\text{C}\{^1\text{H}\}$, and ^{19}F NMR spectra

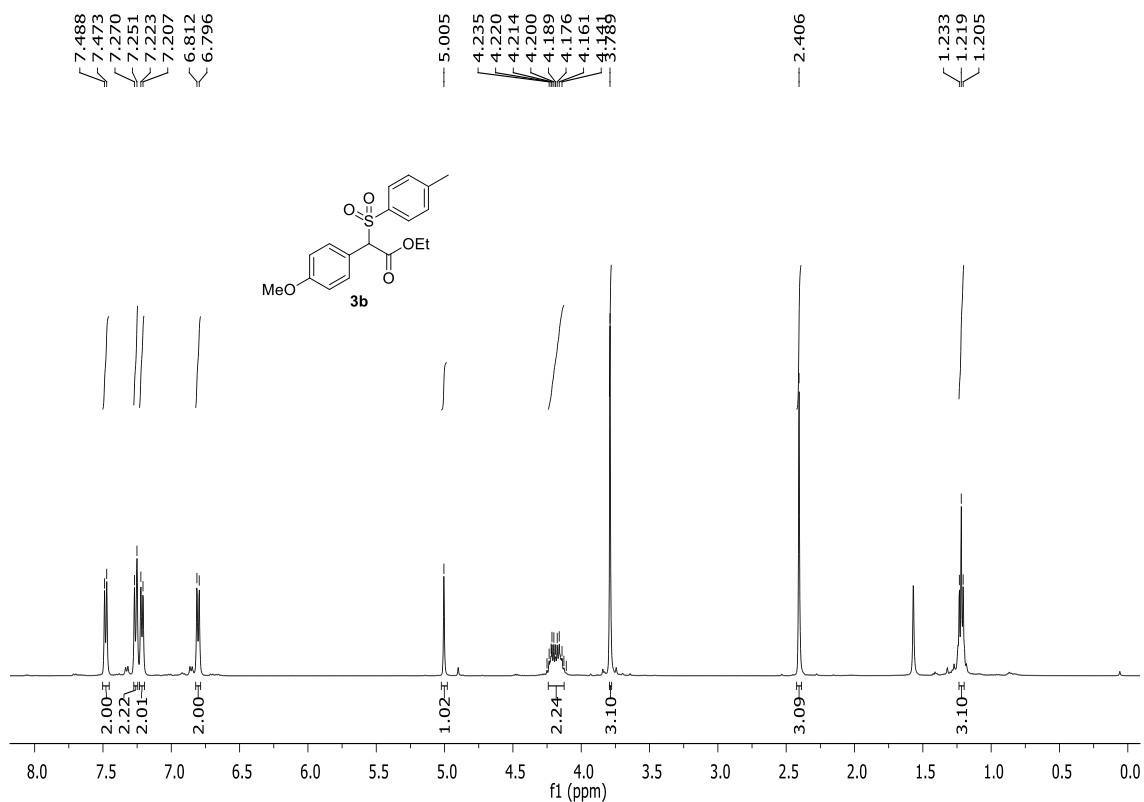
^1H NMR (500 MHz, CDCl_3)



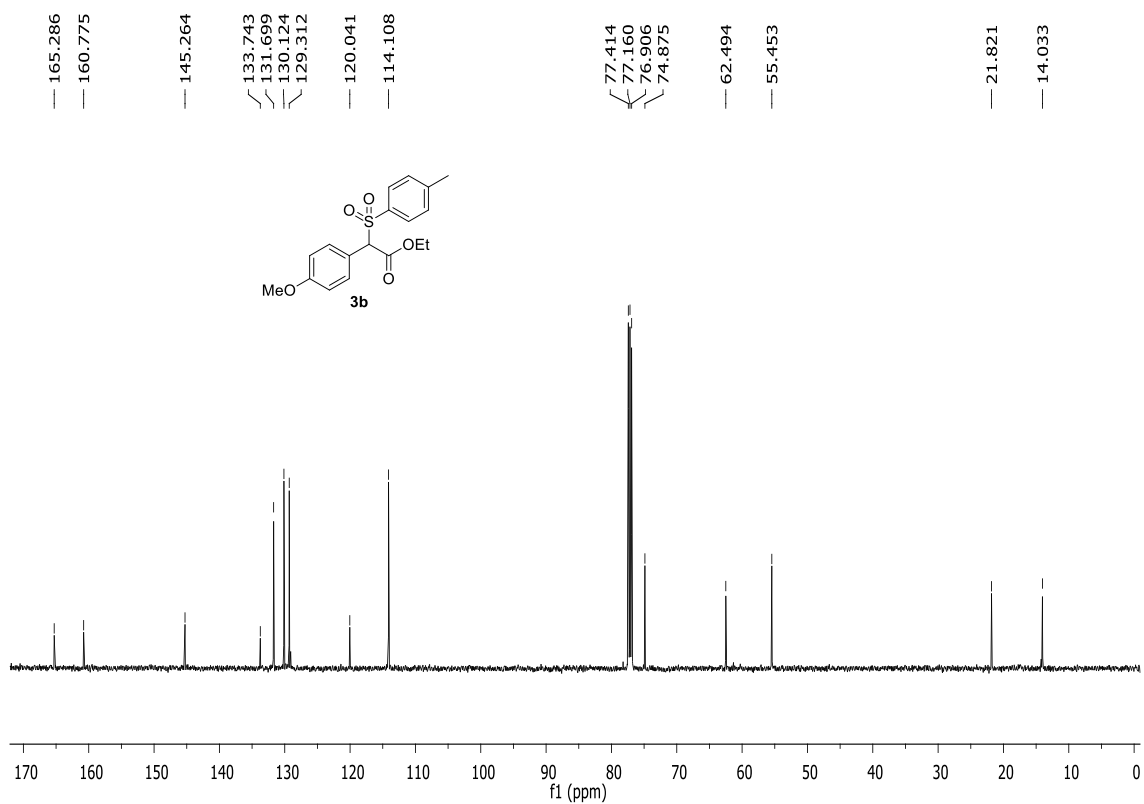
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



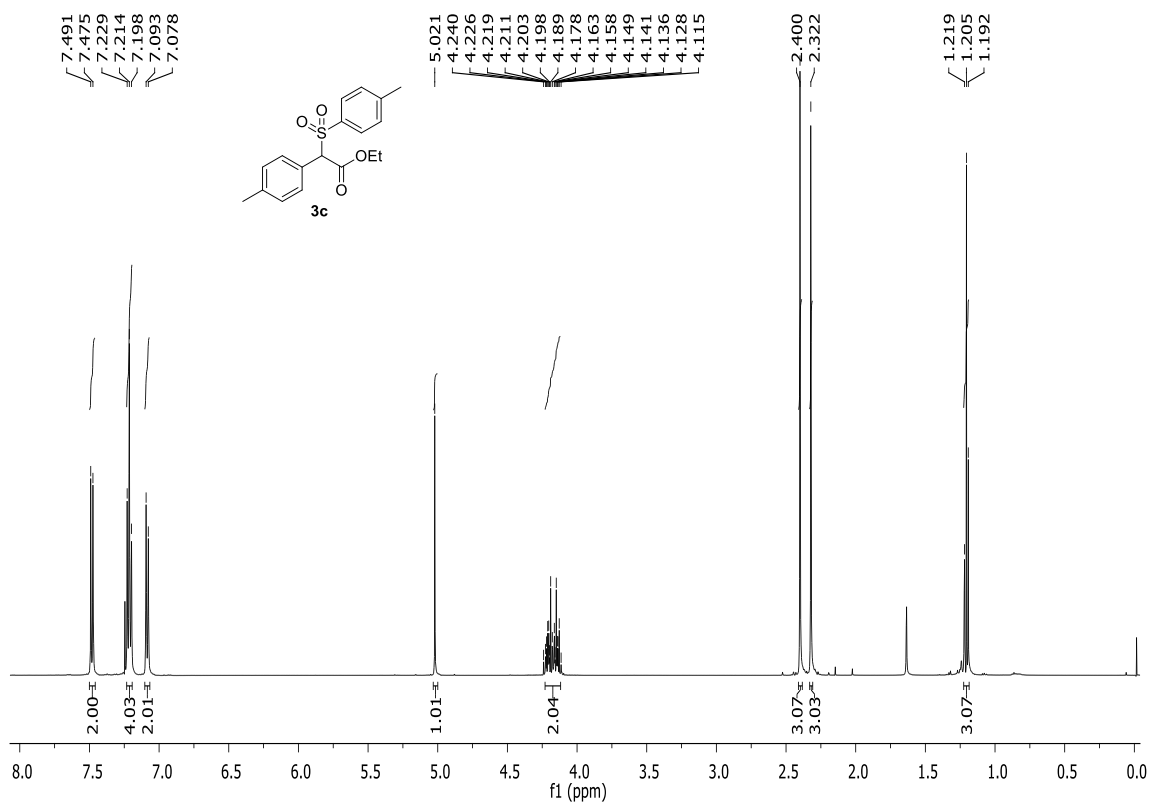
^1H NMR (500 MHz, CDCl_3)



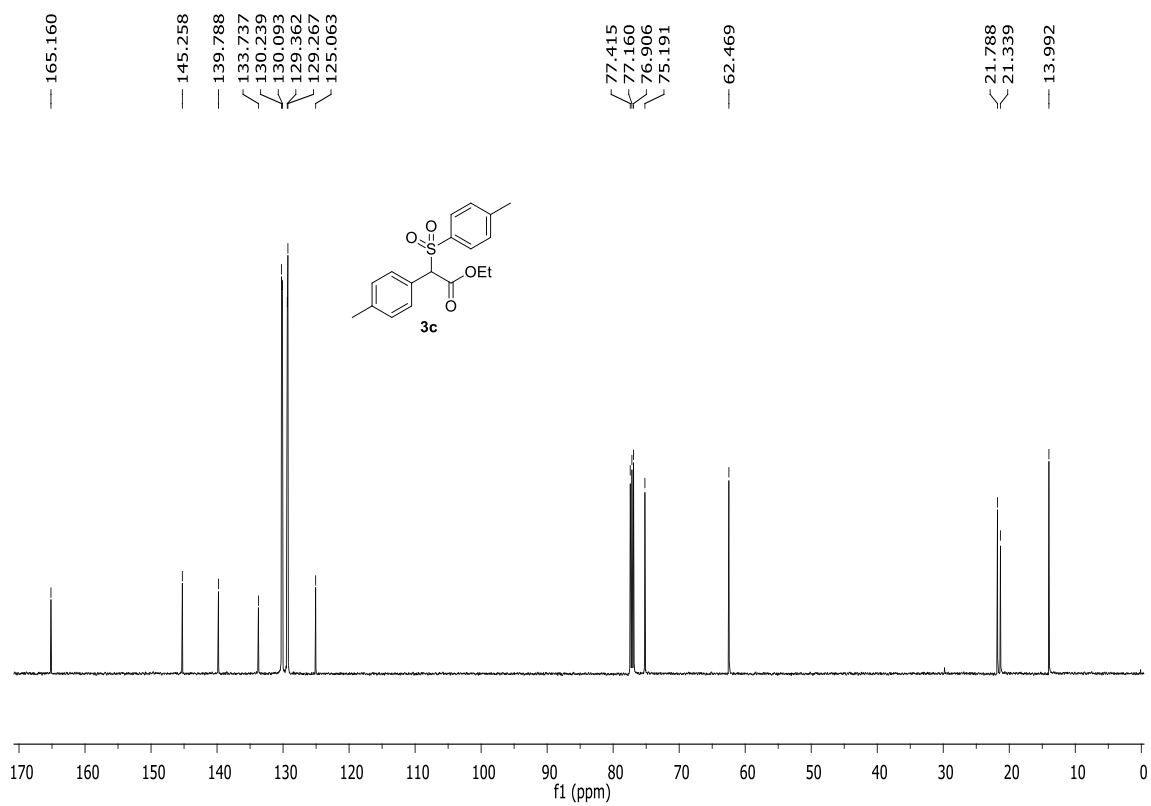
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



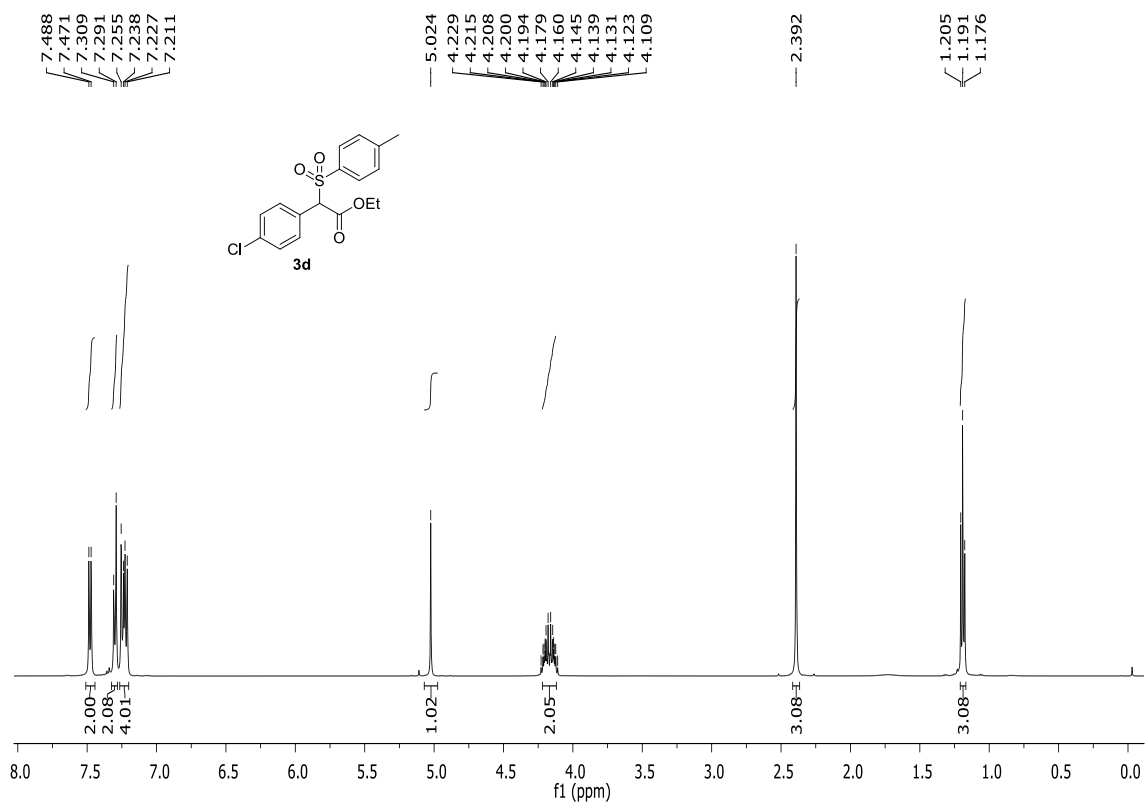
¹H NMR (500 MHz, CDCl₃)



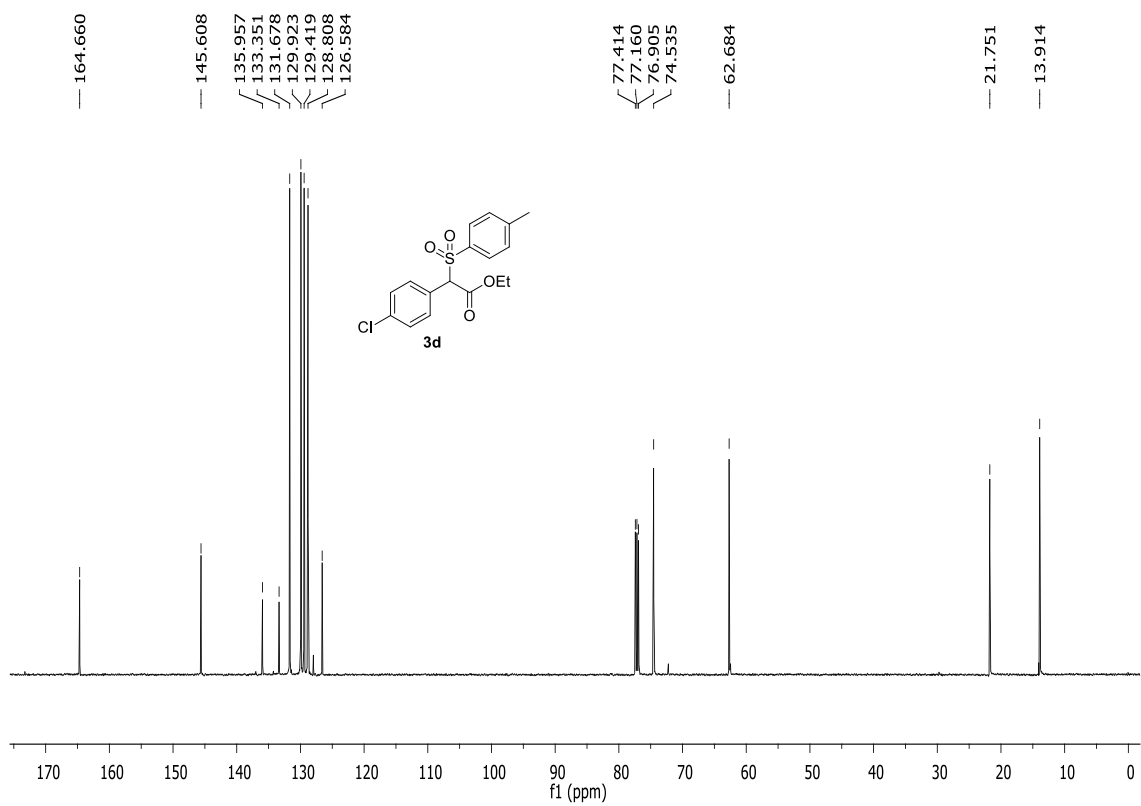
¹³C{¹H} NMR (125 MHz, CDCl₃)



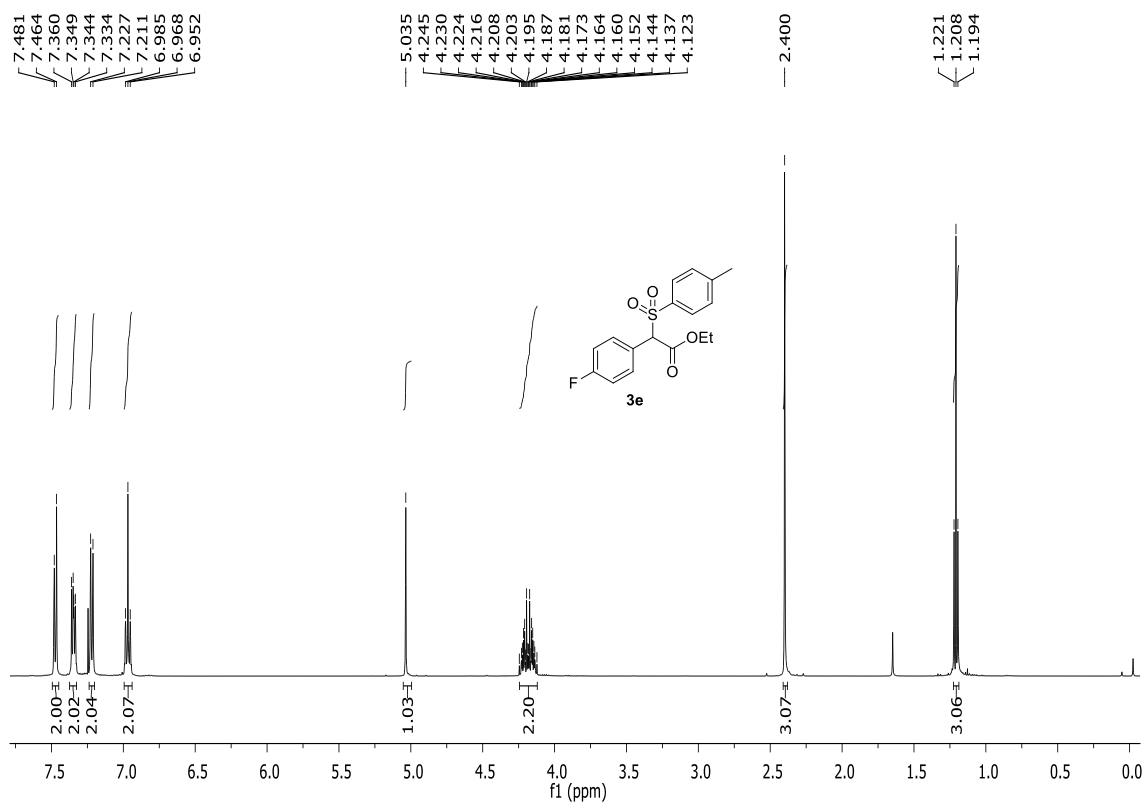
¹H NMR (500 MHz, CDCl₃)



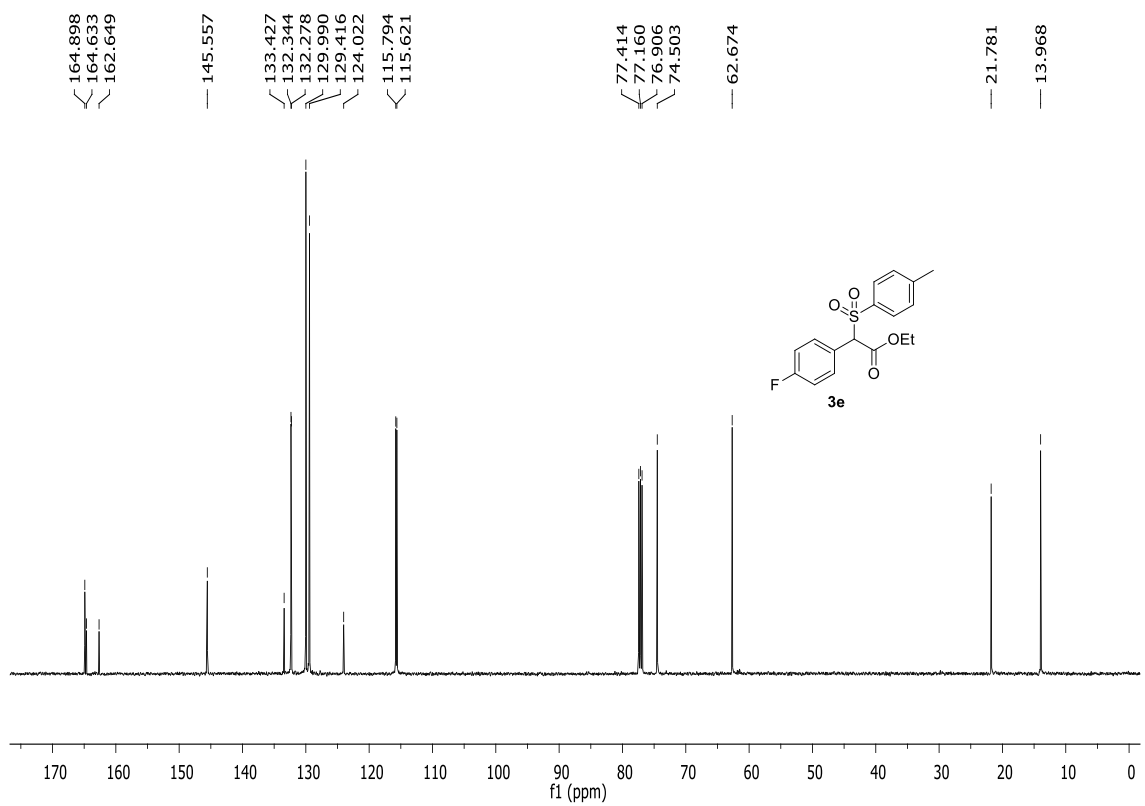
¹³C{¹H} NMR (125 MHz, CDCl₃)



¹H NMR (500 MHz, CDCl₃)

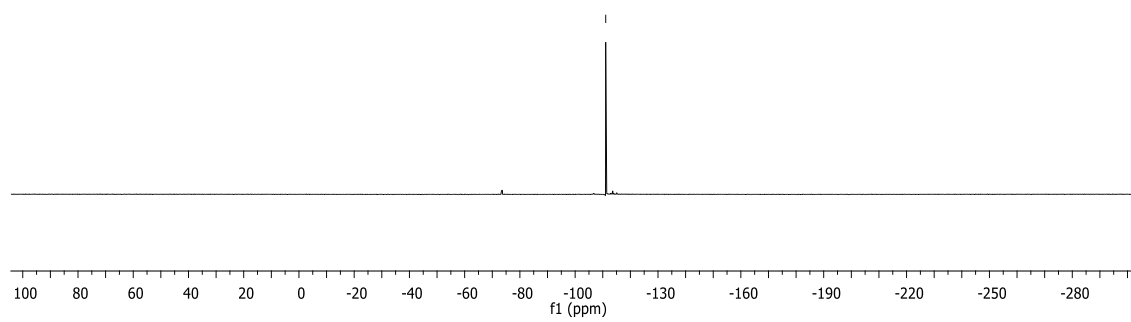
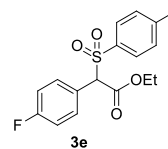


¹³C{¹H} NMR (125 MHz, CDCl₃)

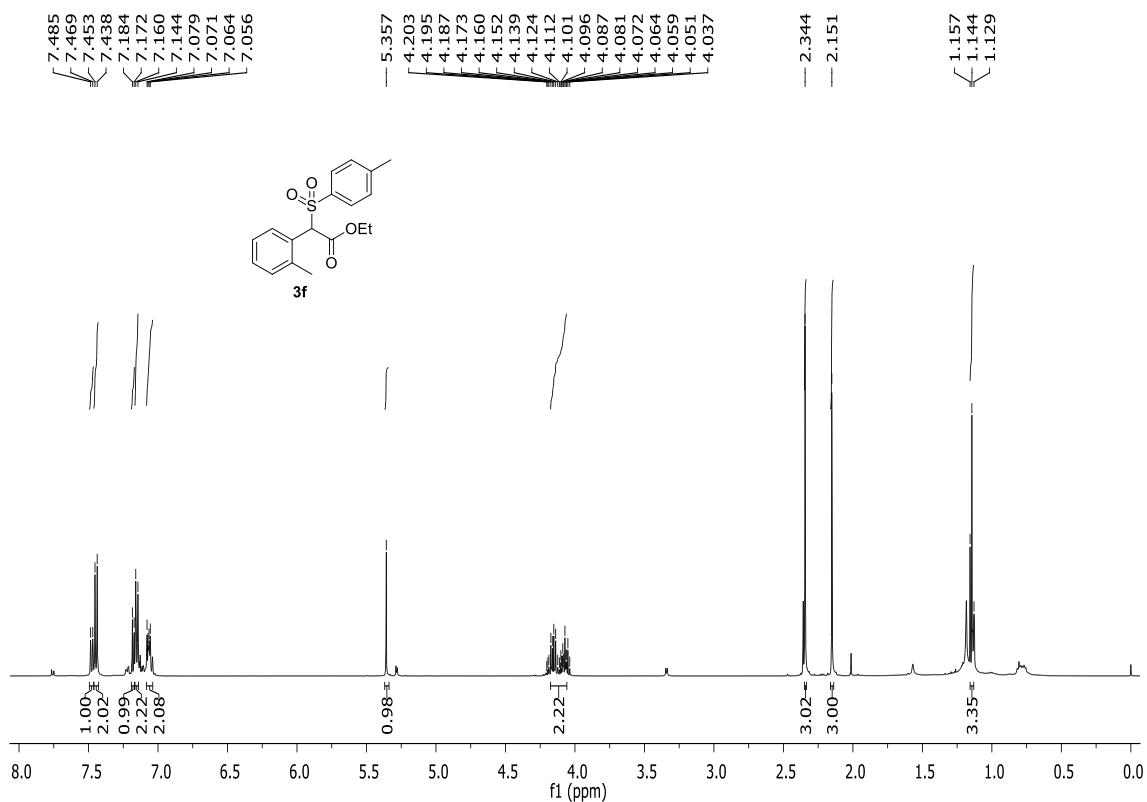


^{19}F NMR (470 MHz, CDCl_3)

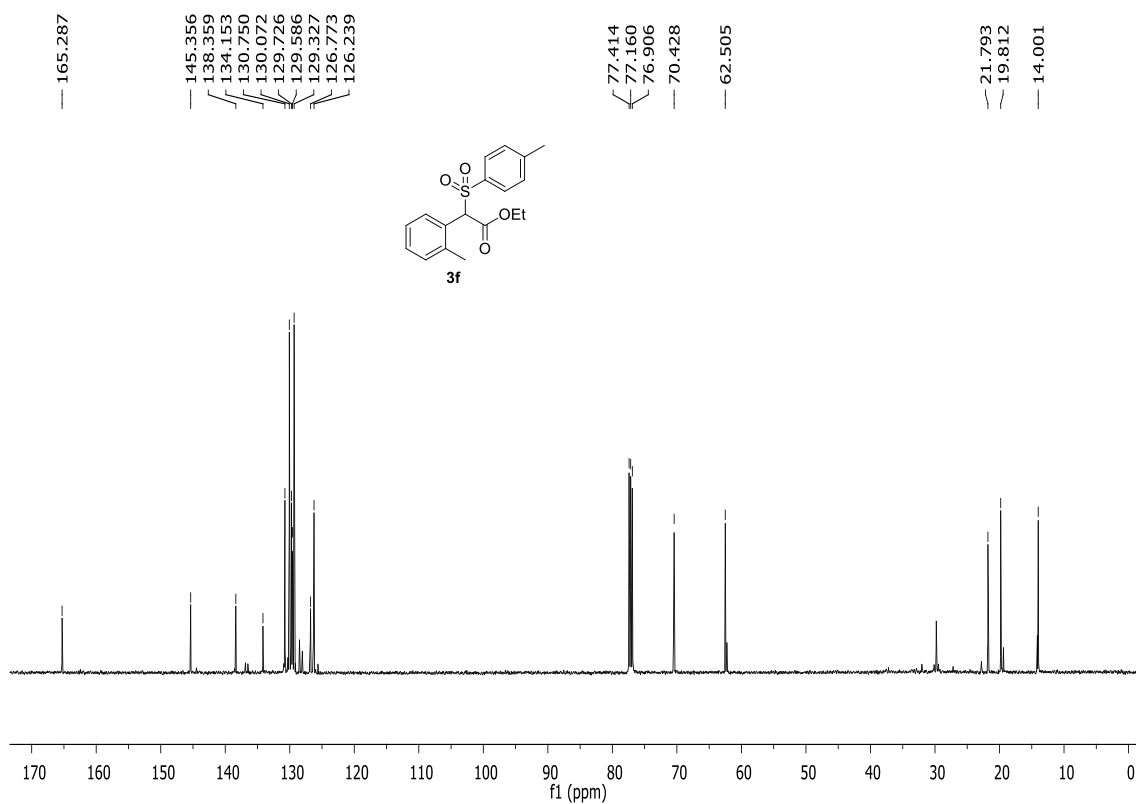
---111.082



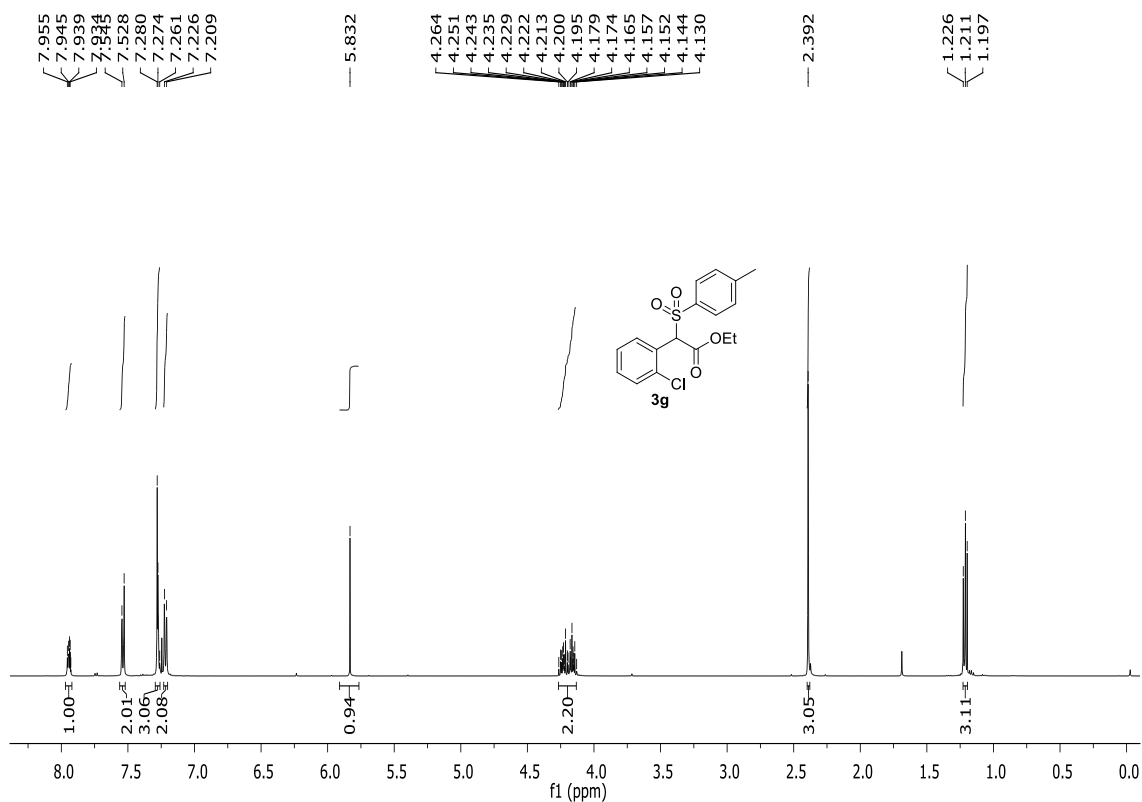
¹H NMR (500 MHz, CDCl₃)



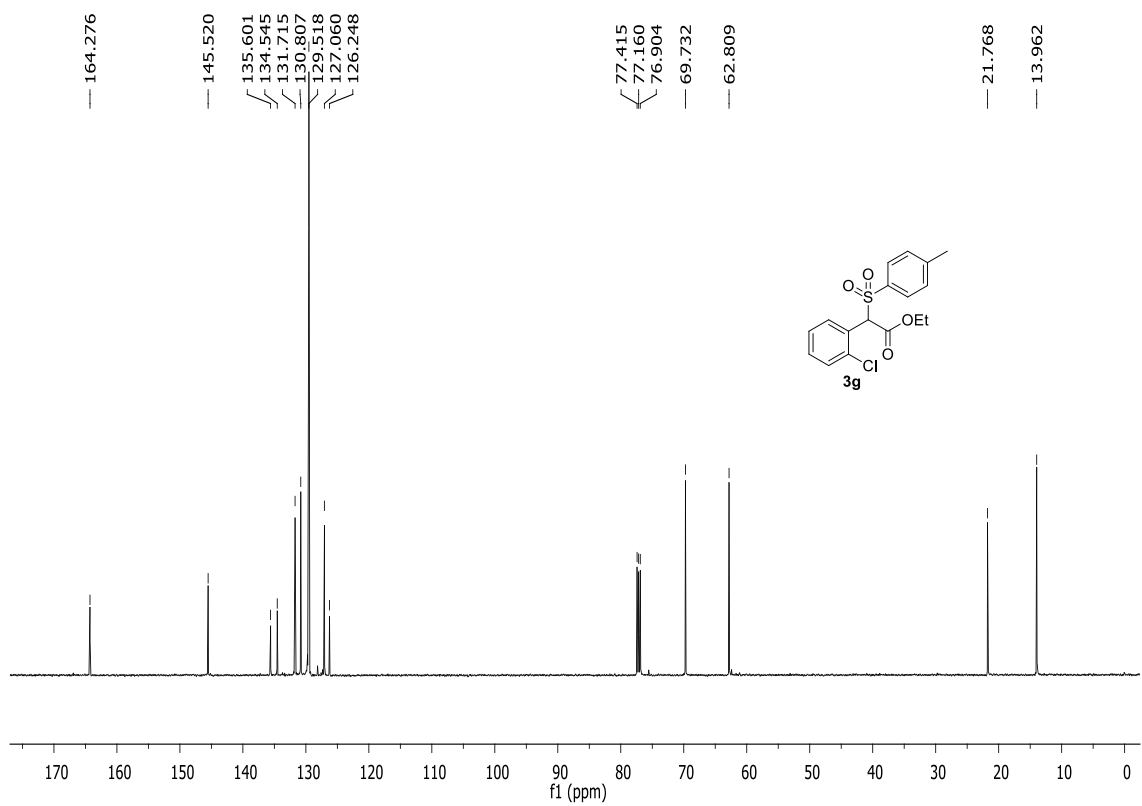
¹³C{¹H} NMR (125 MHz, CDCl₃)



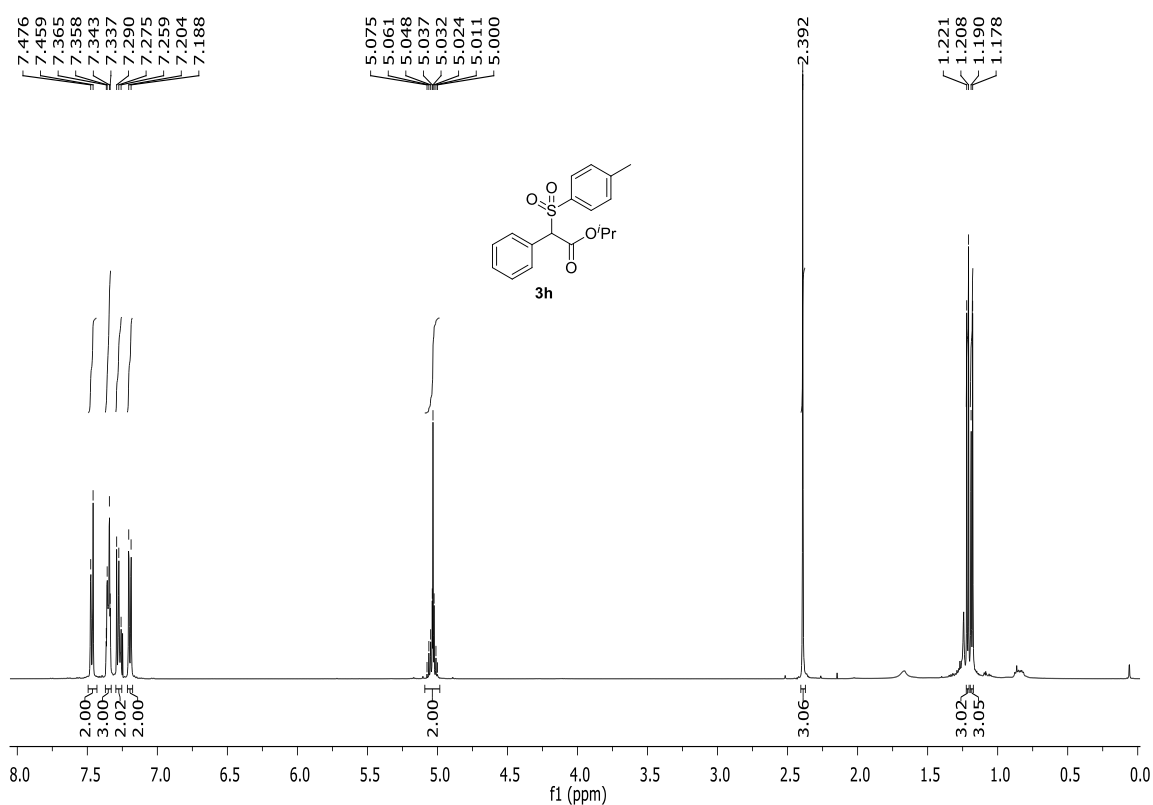
¹H NMR (500 MHz, CDCl₃)



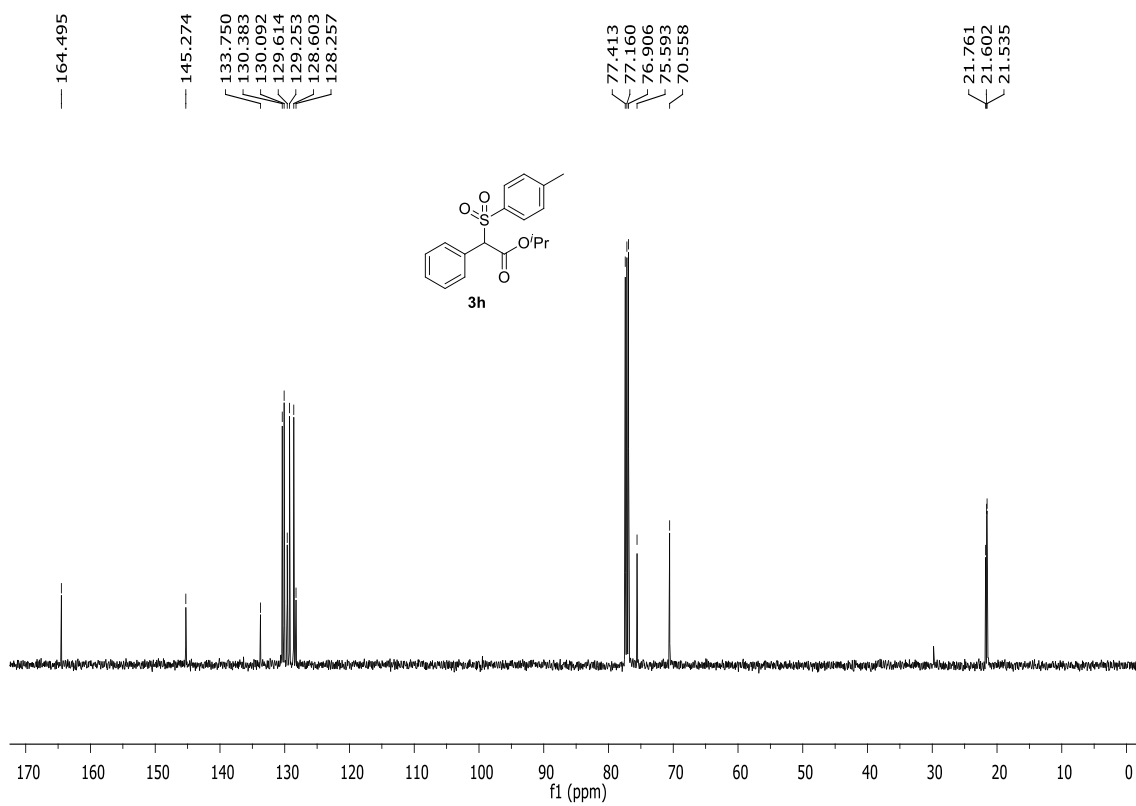
¹³C{¹H} NMR (125 MHz, CDCl₃)



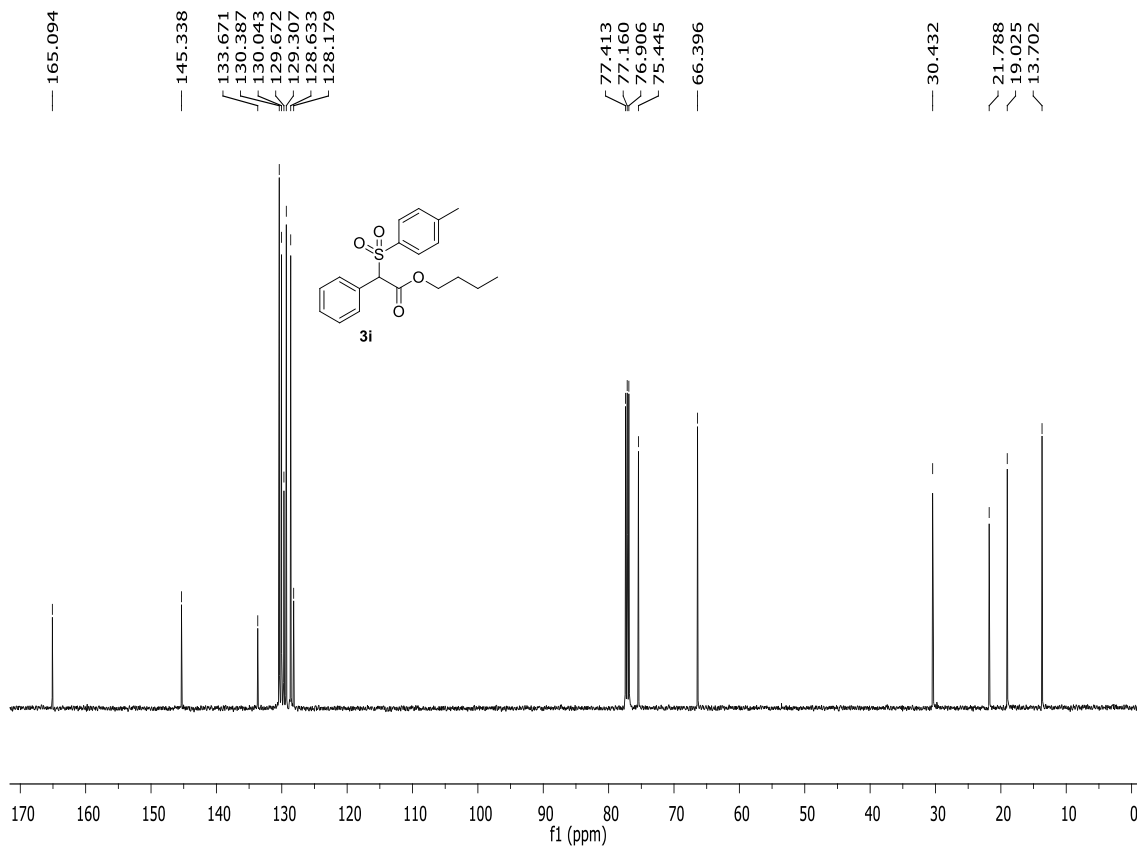
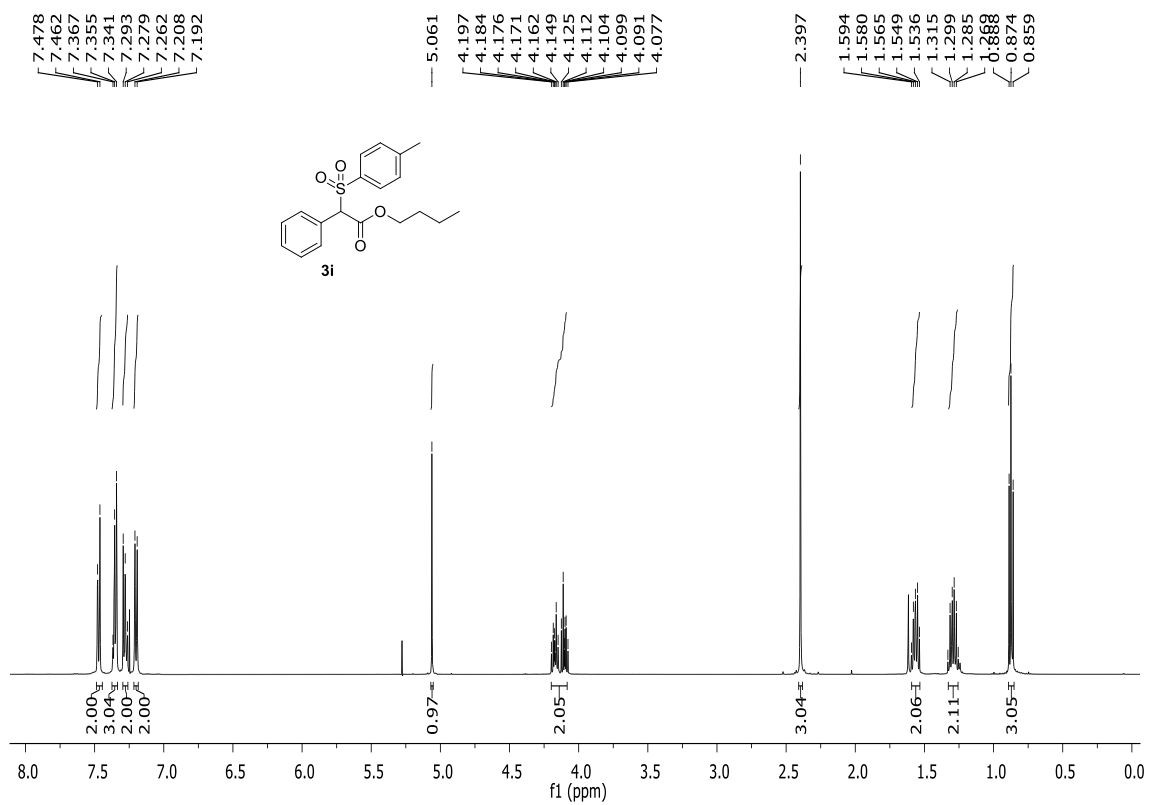
¹H NMR (500 MHz, CDCl₃)



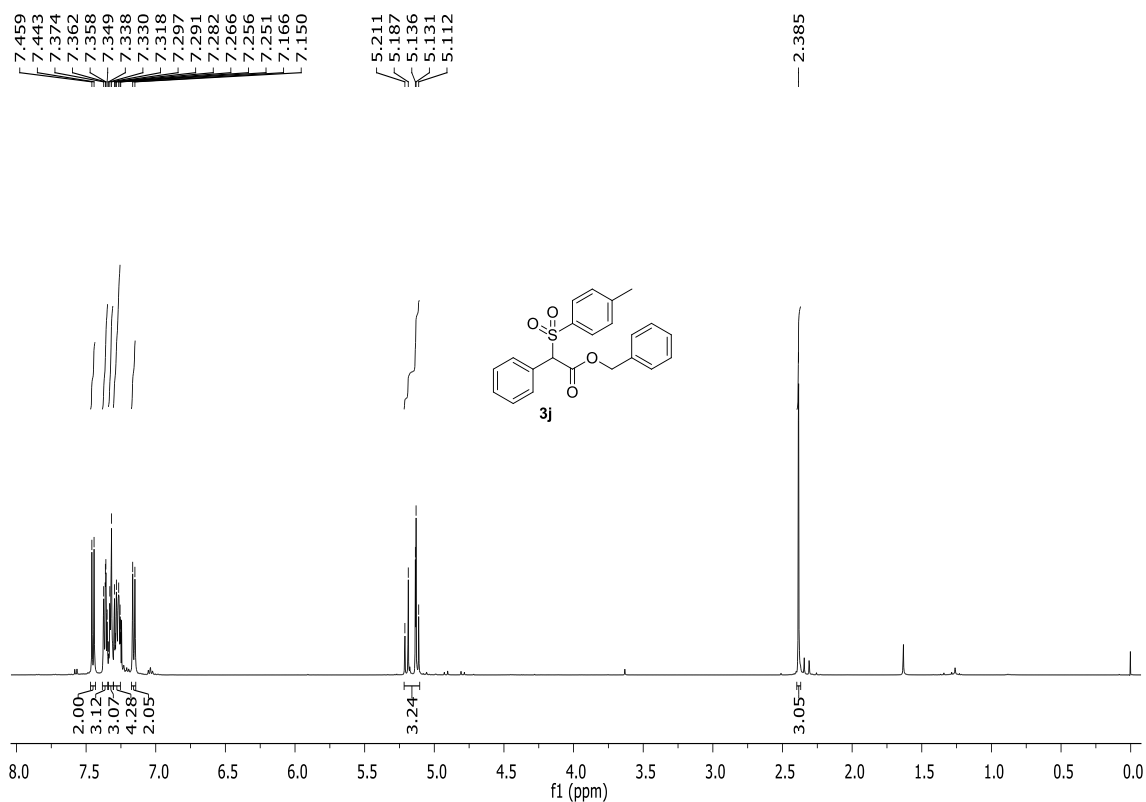
¹³C{¹H} NMR (125 MHz, CDCl₃)



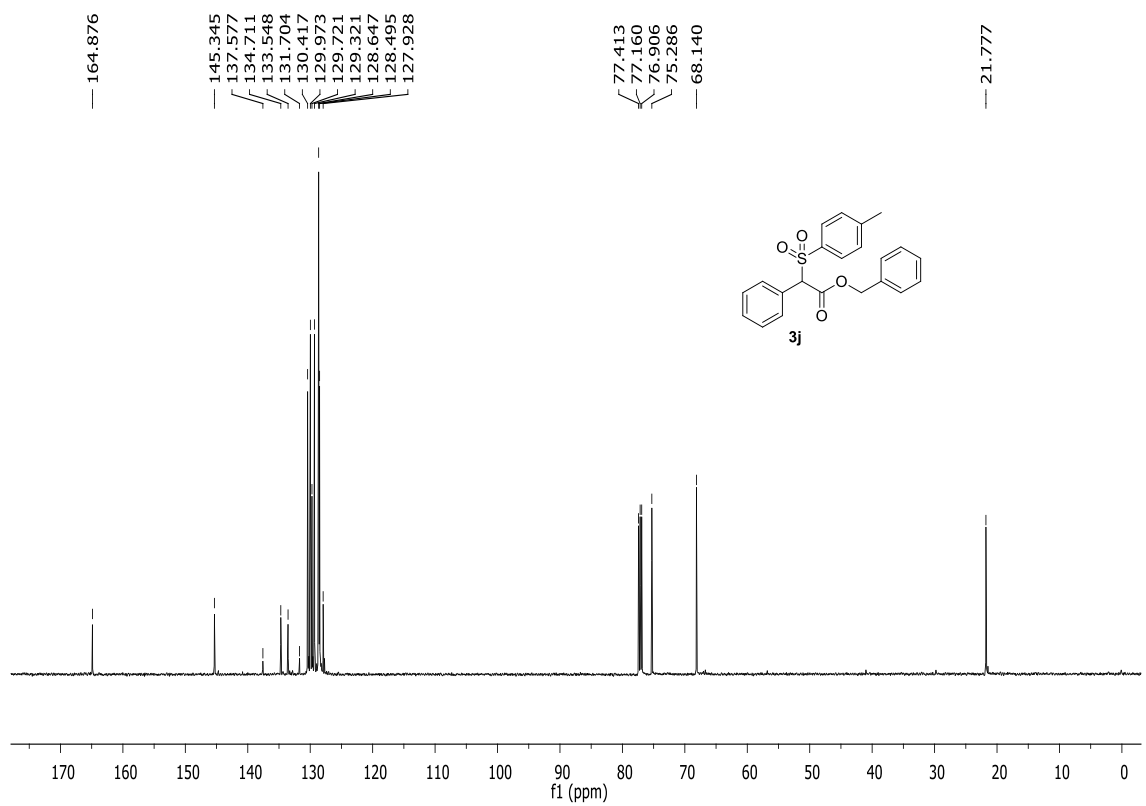
¹H NMR (500 MHz, CDCl₃)



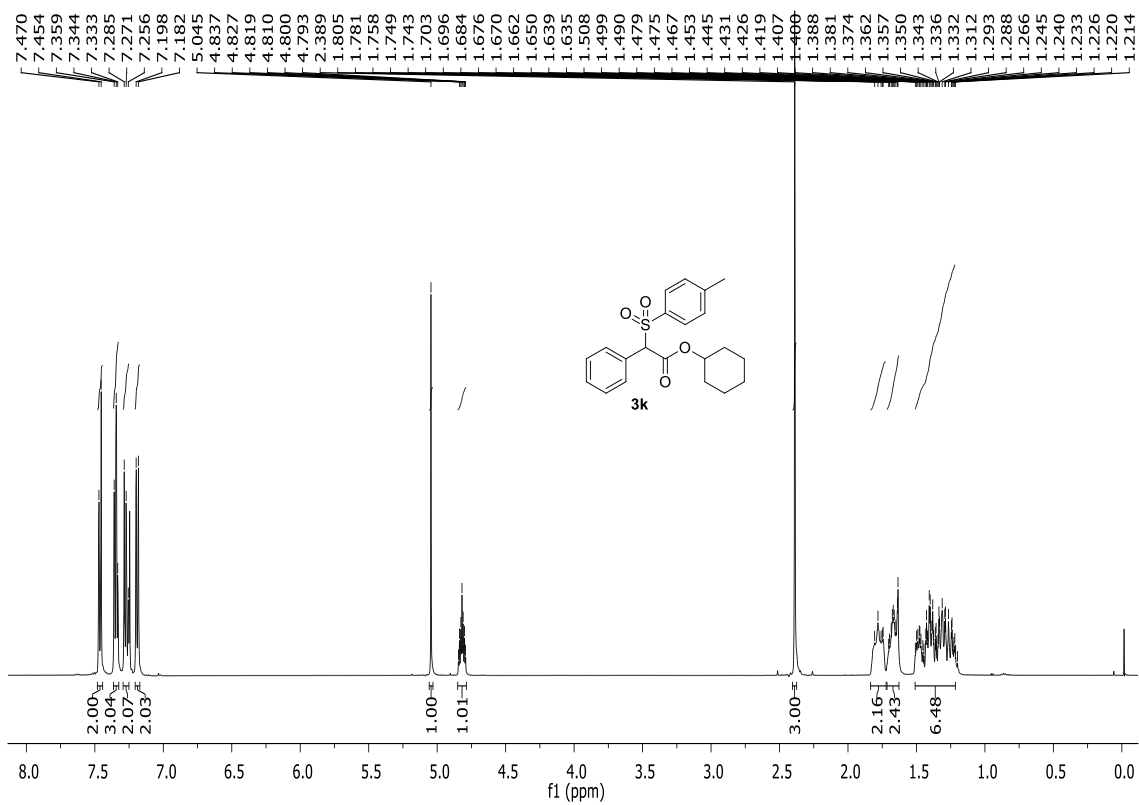
¹H NMR (500 MHz, CDCl₃)



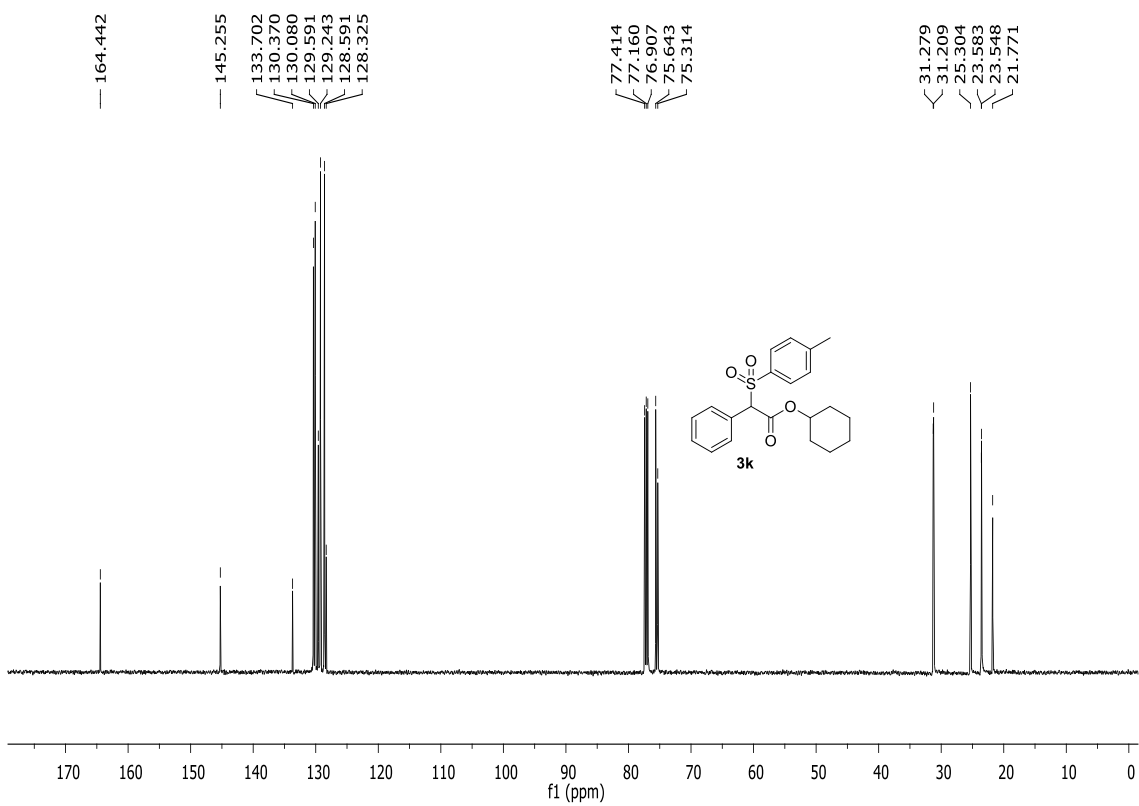
¹³C{¹H} NMR (125 MHz, CDCl₃)



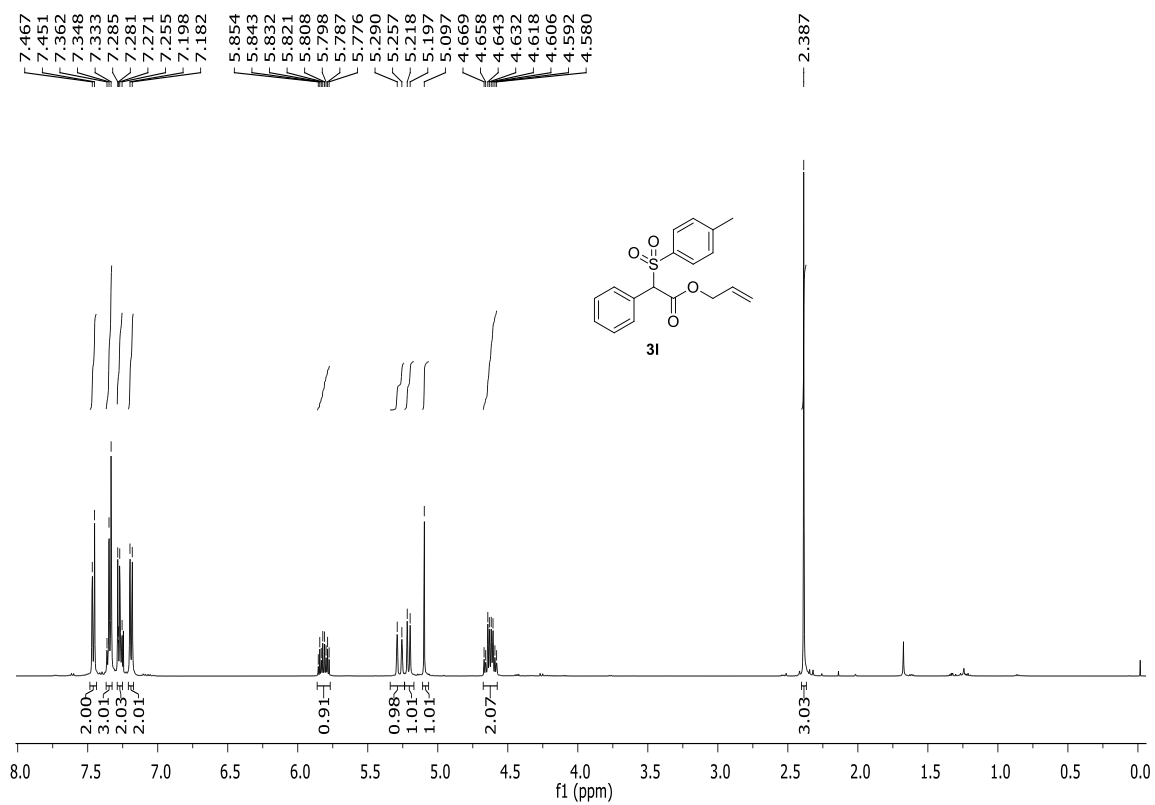
^1H NMR (500 MHz, CDCl_3)



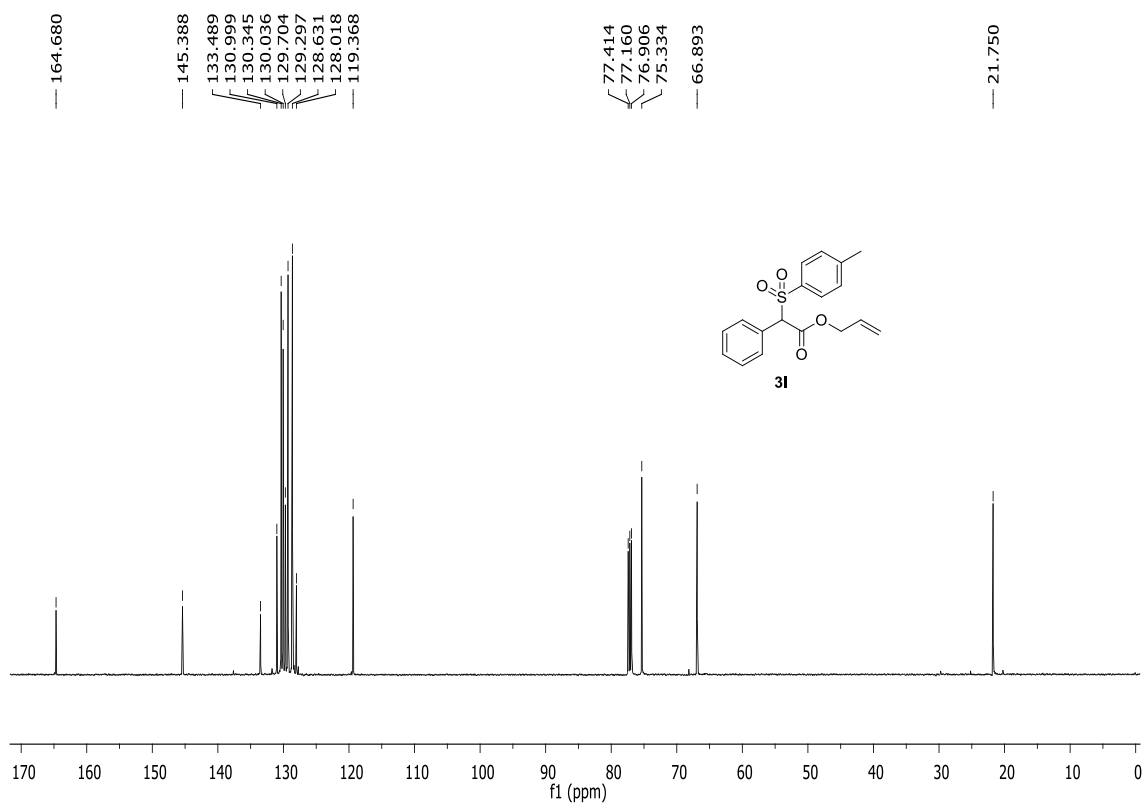
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



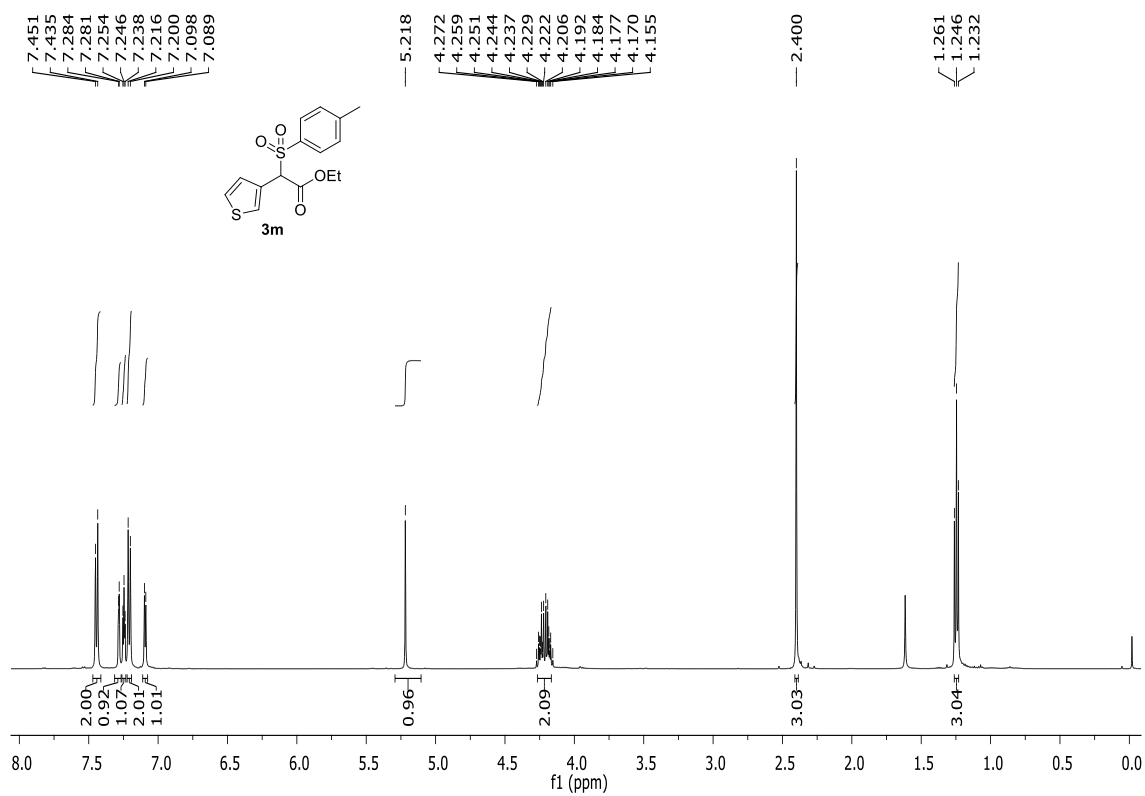
^1H NMR (500 MHz, CDCl_3)



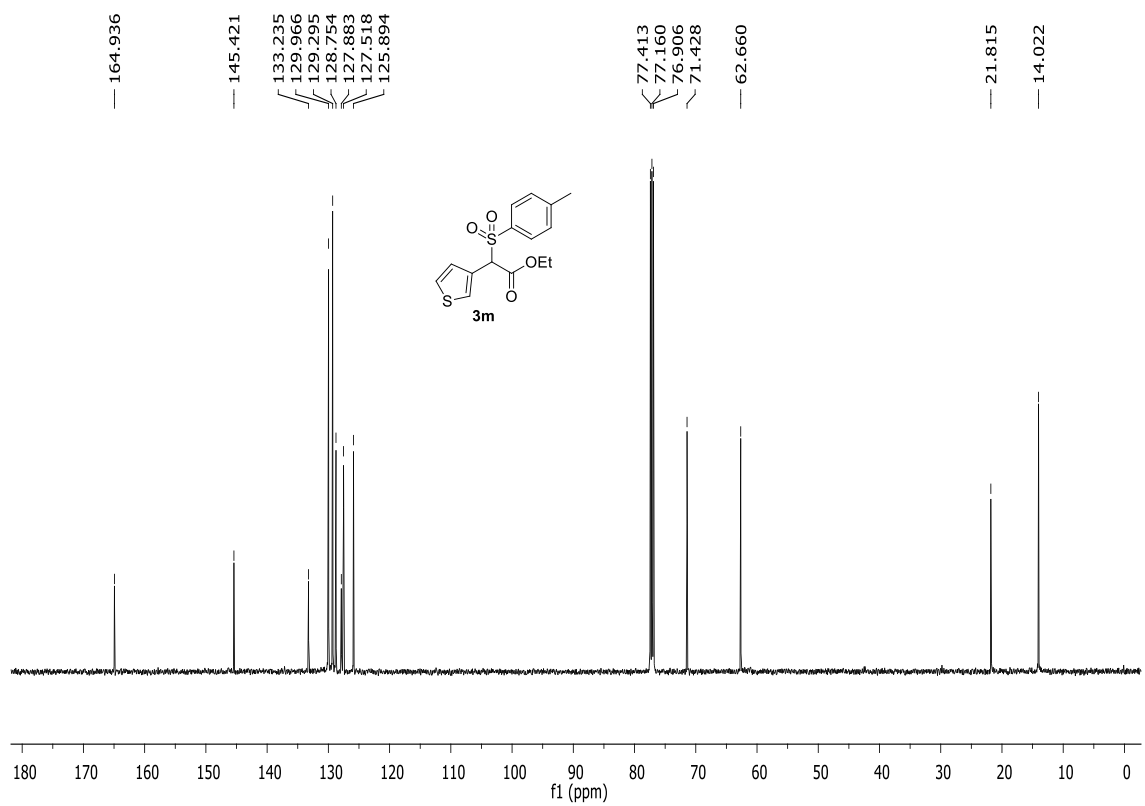
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



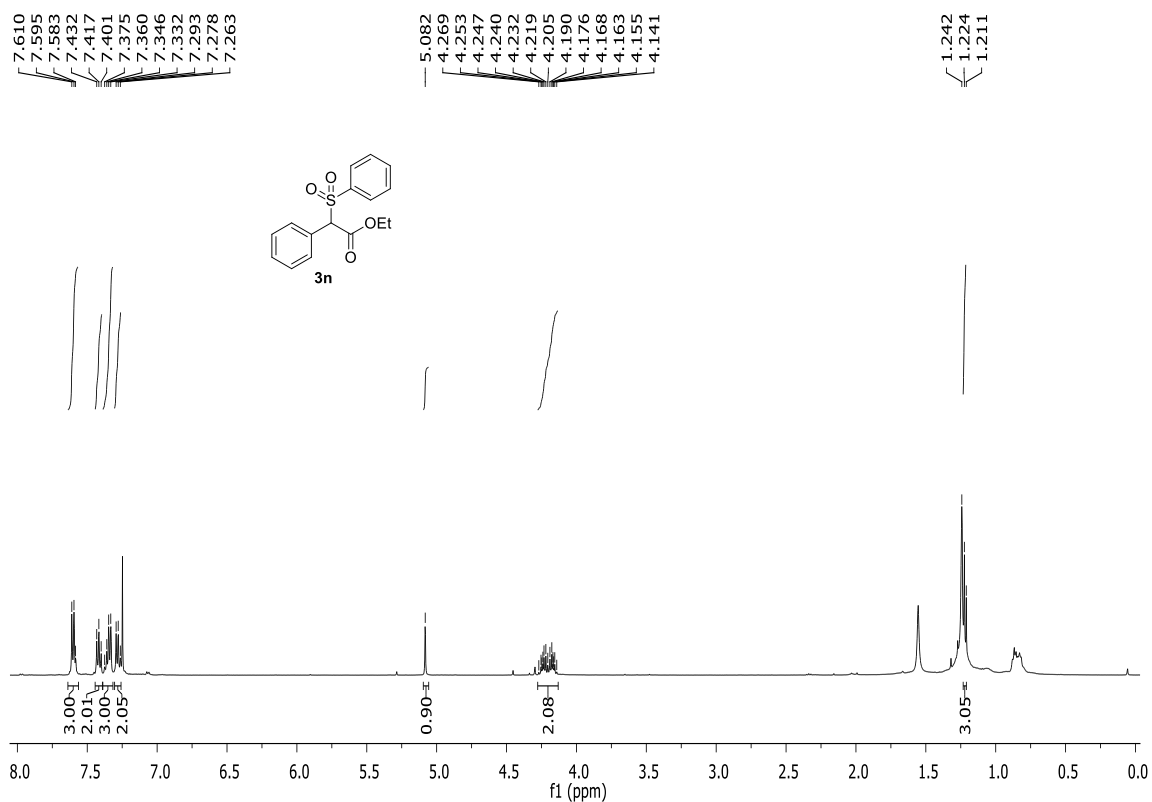
^1H NMR (500 MHz, CDCl_3)



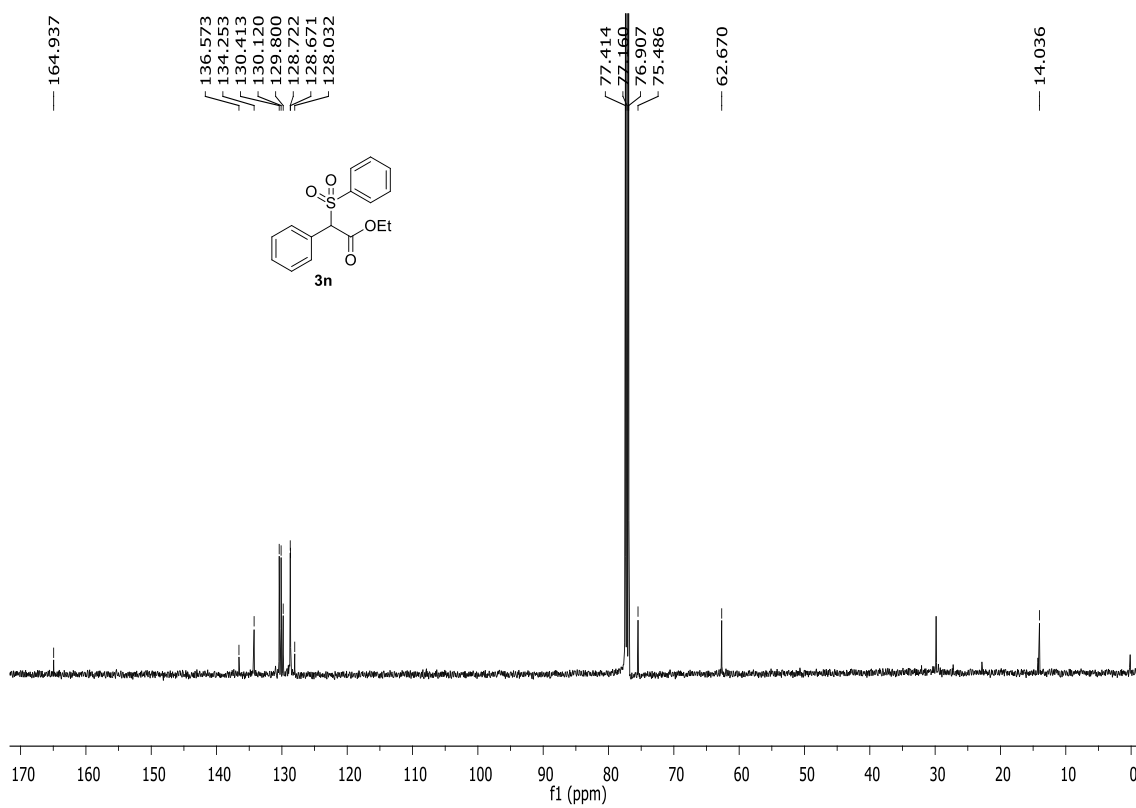
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



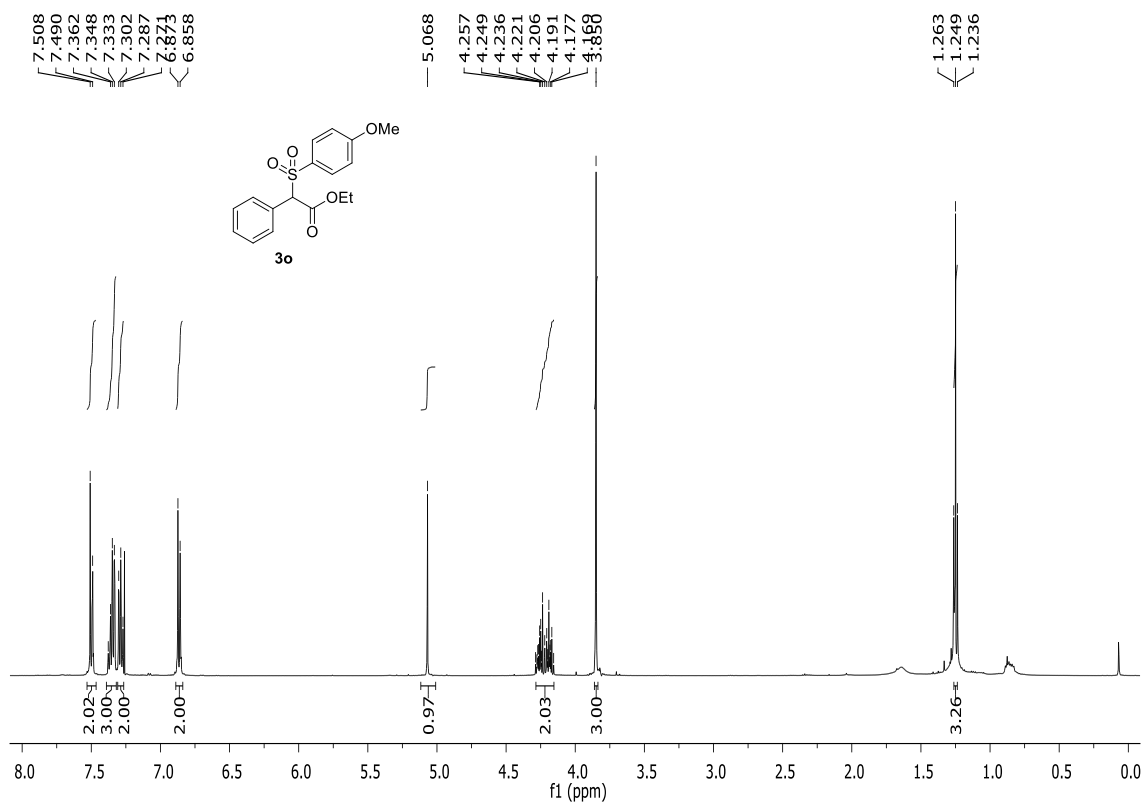
^1H NMR (500 MHz, CDCl_3)



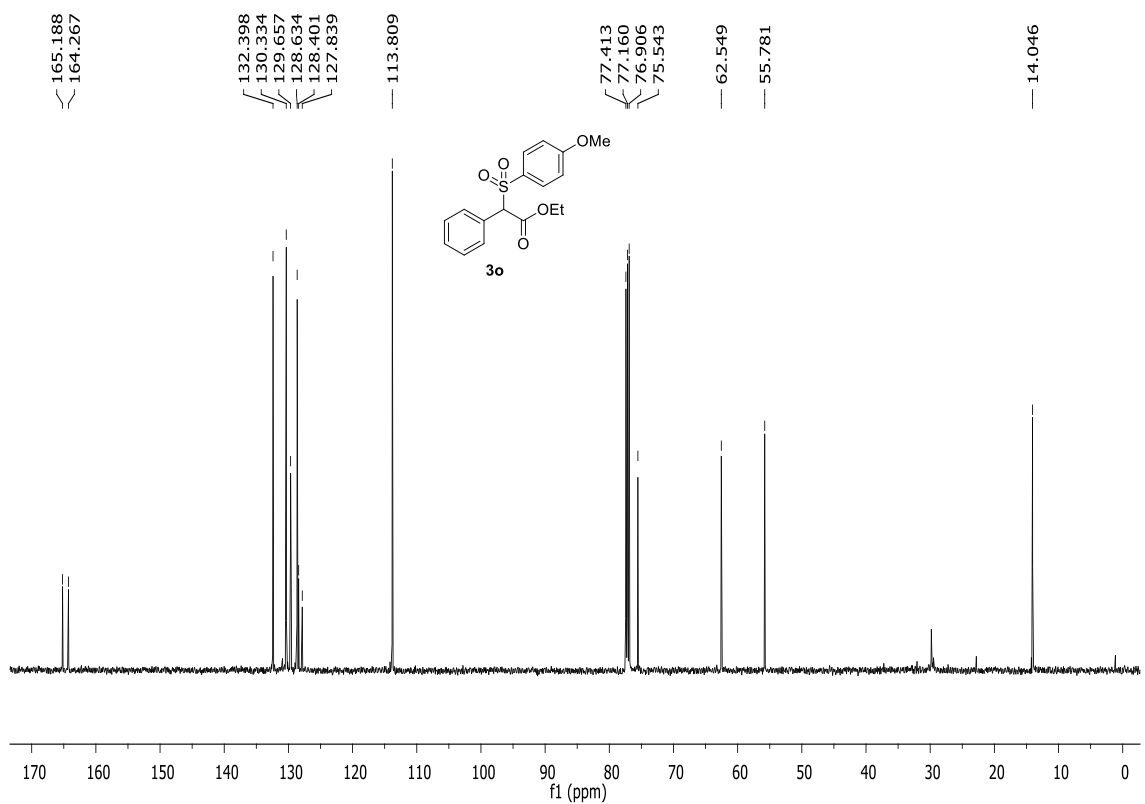
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



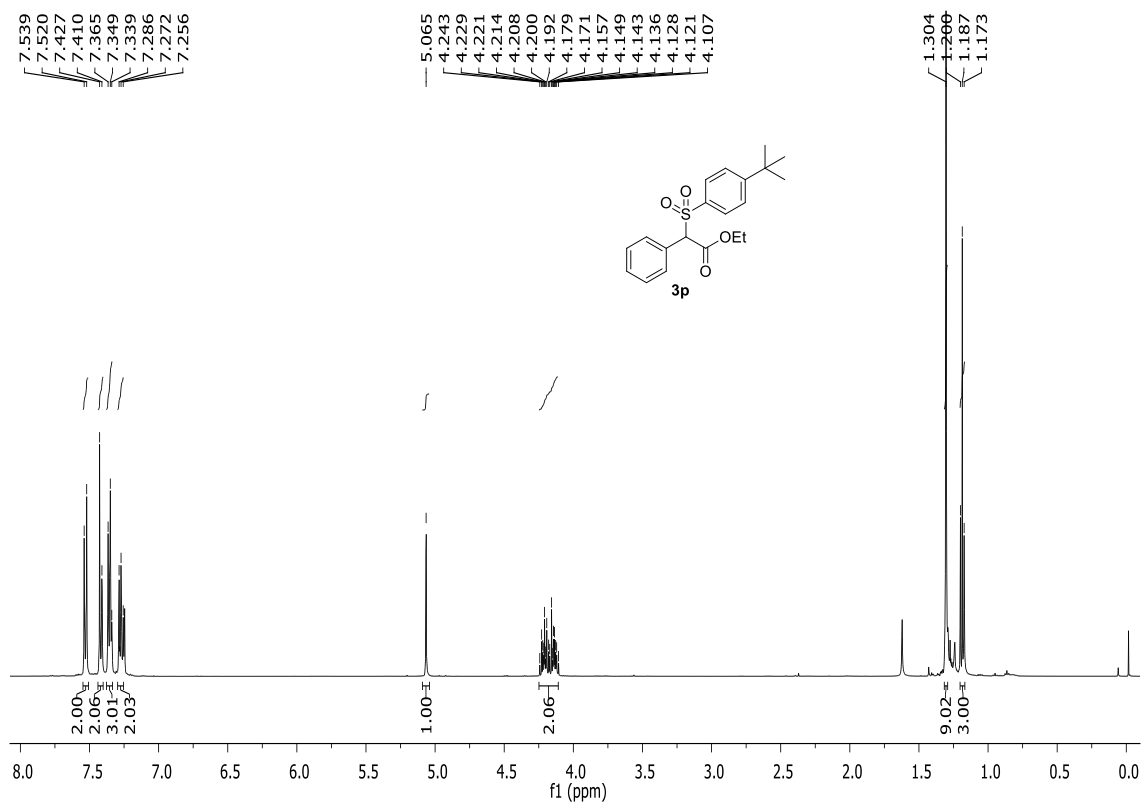
^1H NMR (500 MHz, CDCl_3)



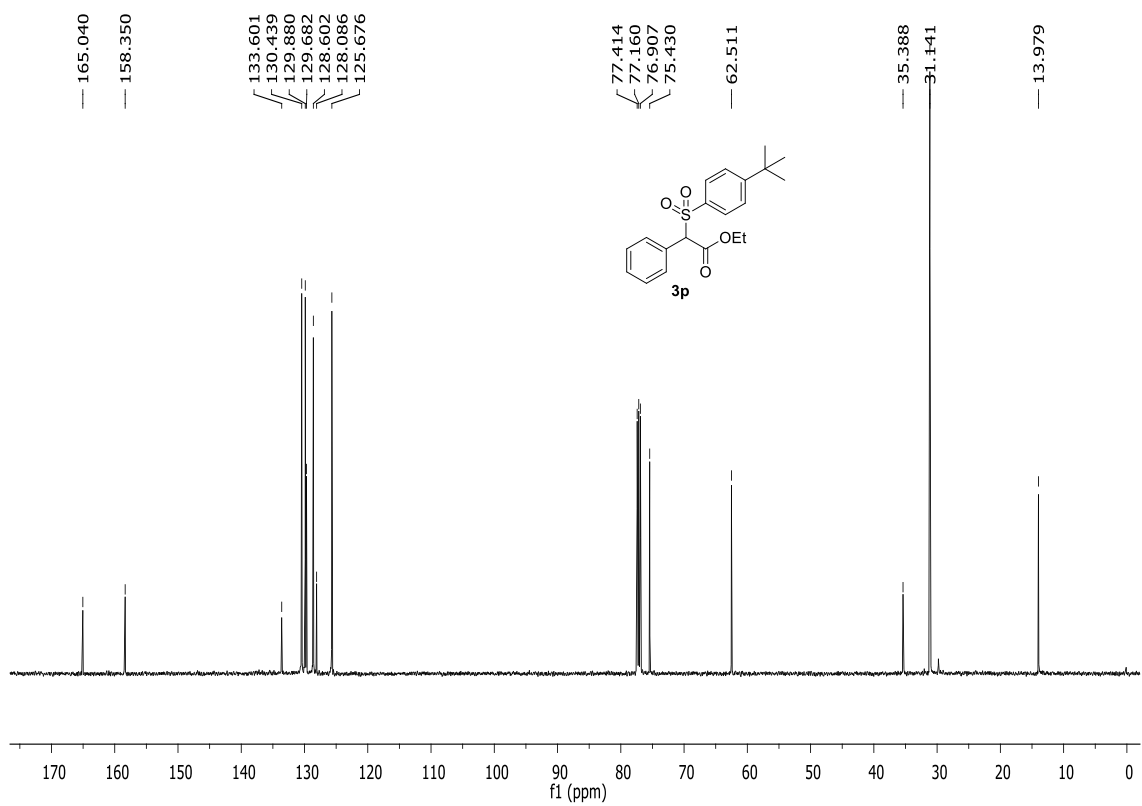
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



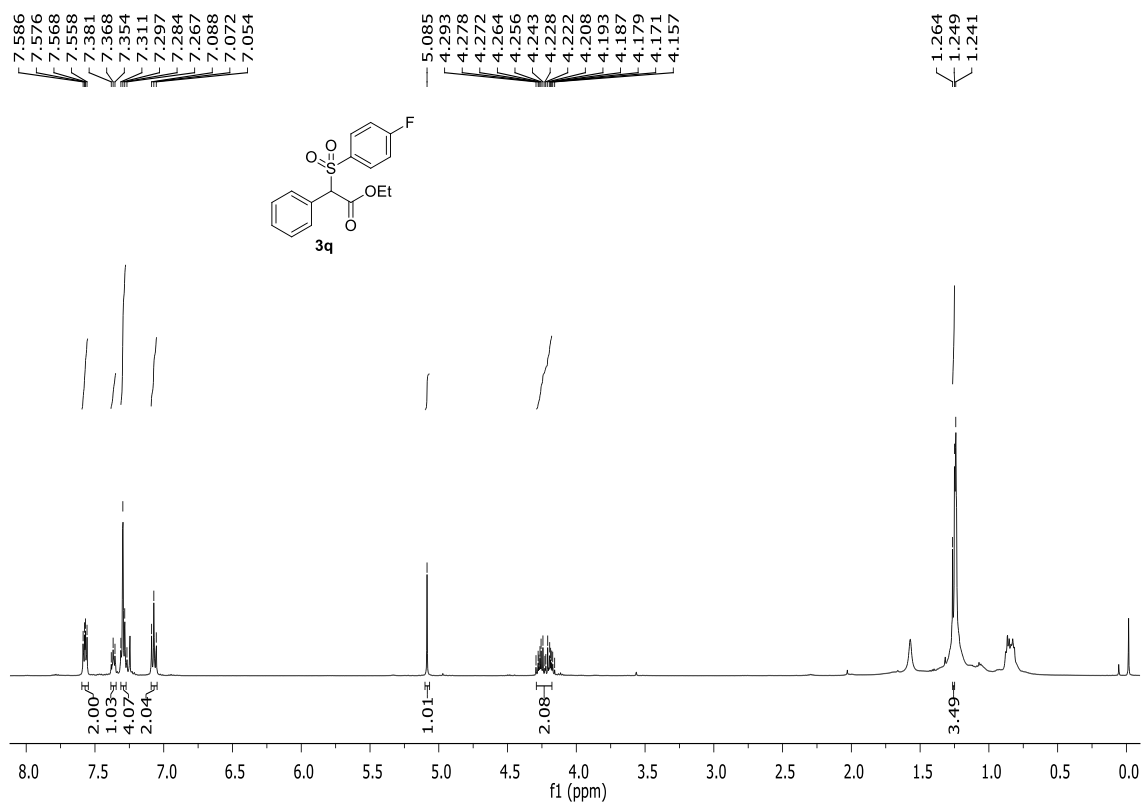
¹H NMR (500 MHz, CDCl₃)



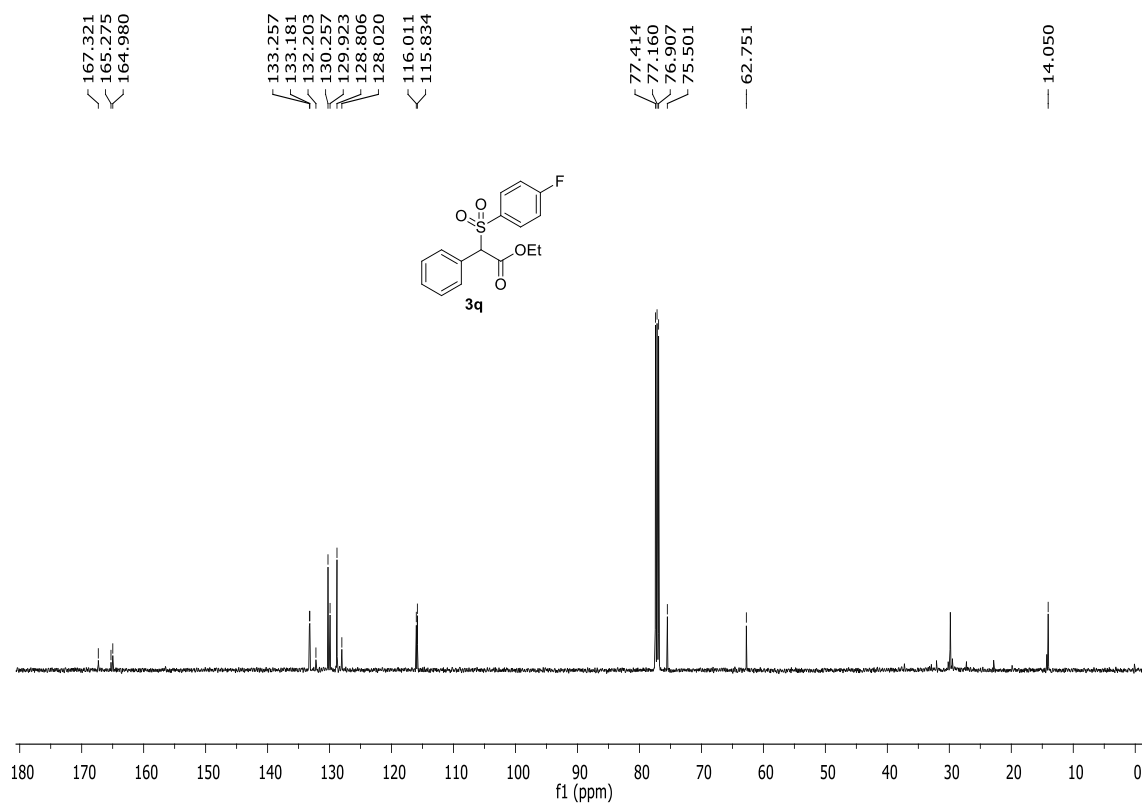
¹³C{¹H} NMR (125 MHz, CDCl₃)



¹H NMR (500 MHz, CDCl₃)

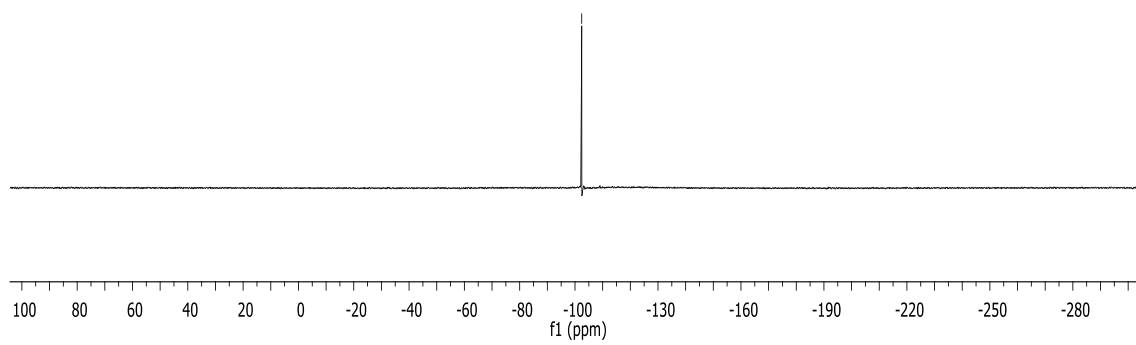
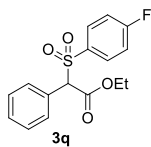


¹³C{¹H} NMR (125 MHz, CDCl₃)

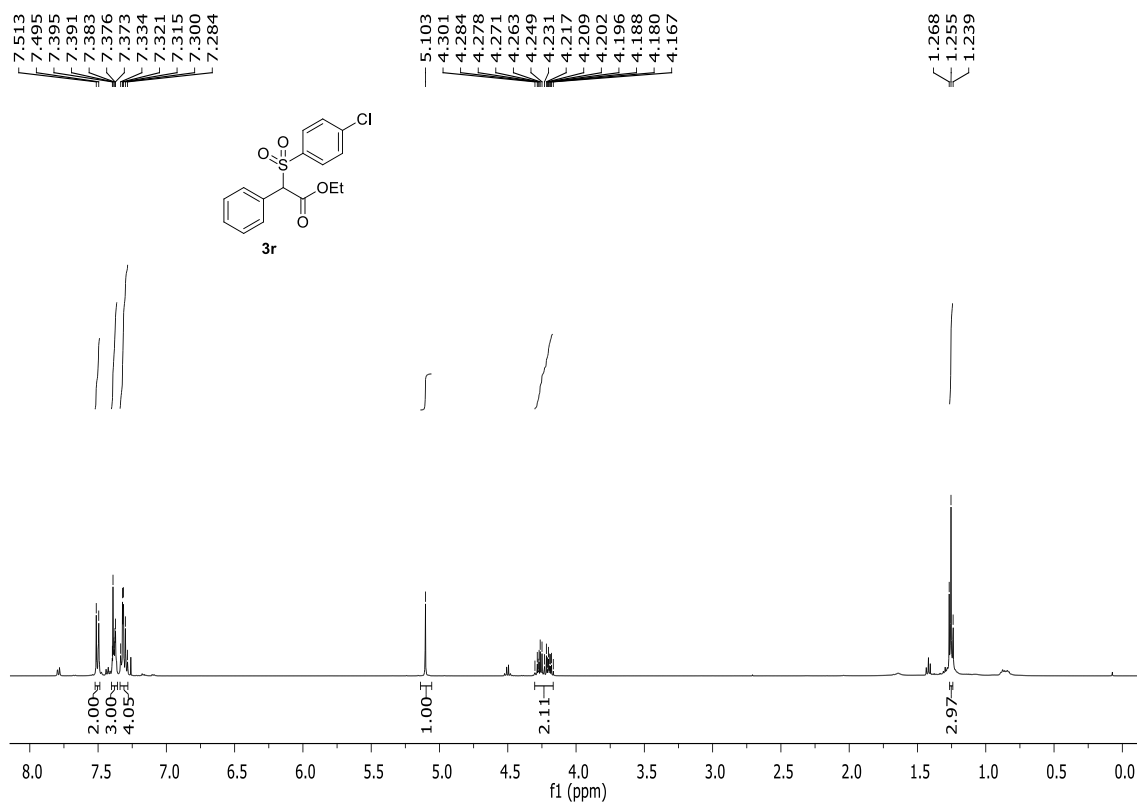


^{19}F NMR (470 MHz, CDCl_3)

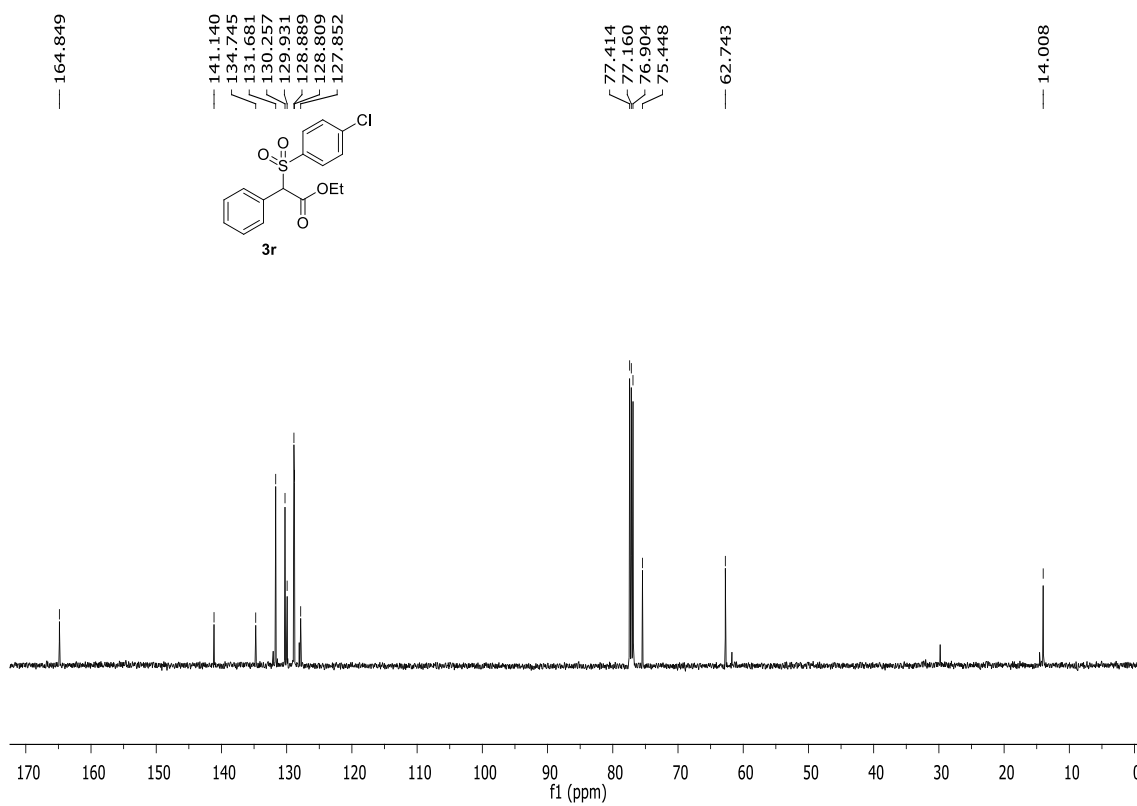
— -102.430



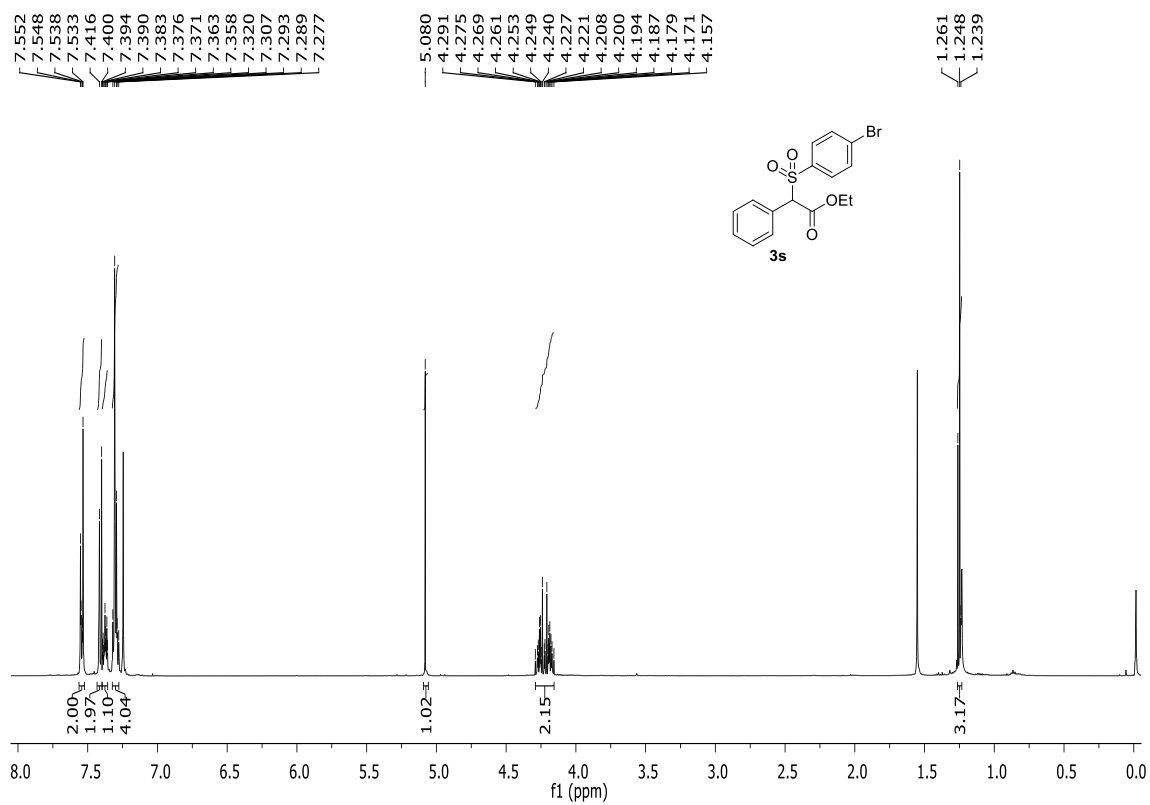
^1H NMR (500 MHz, CDCl_3)



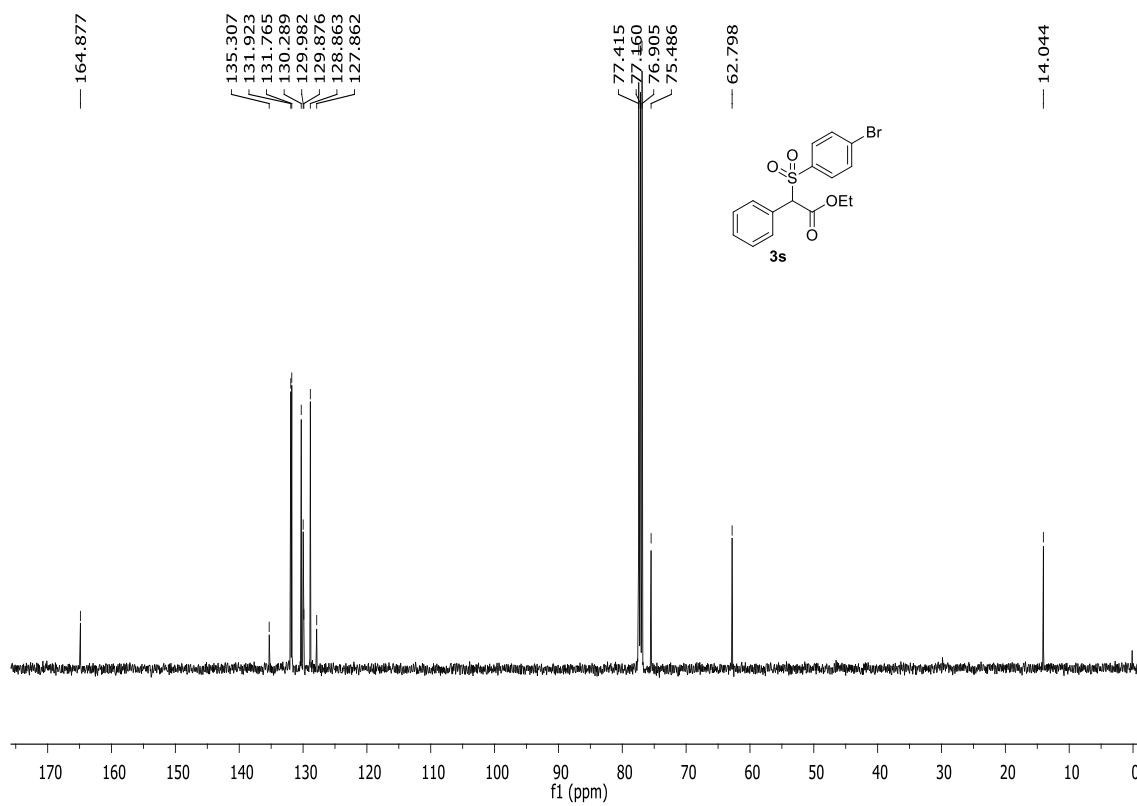
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



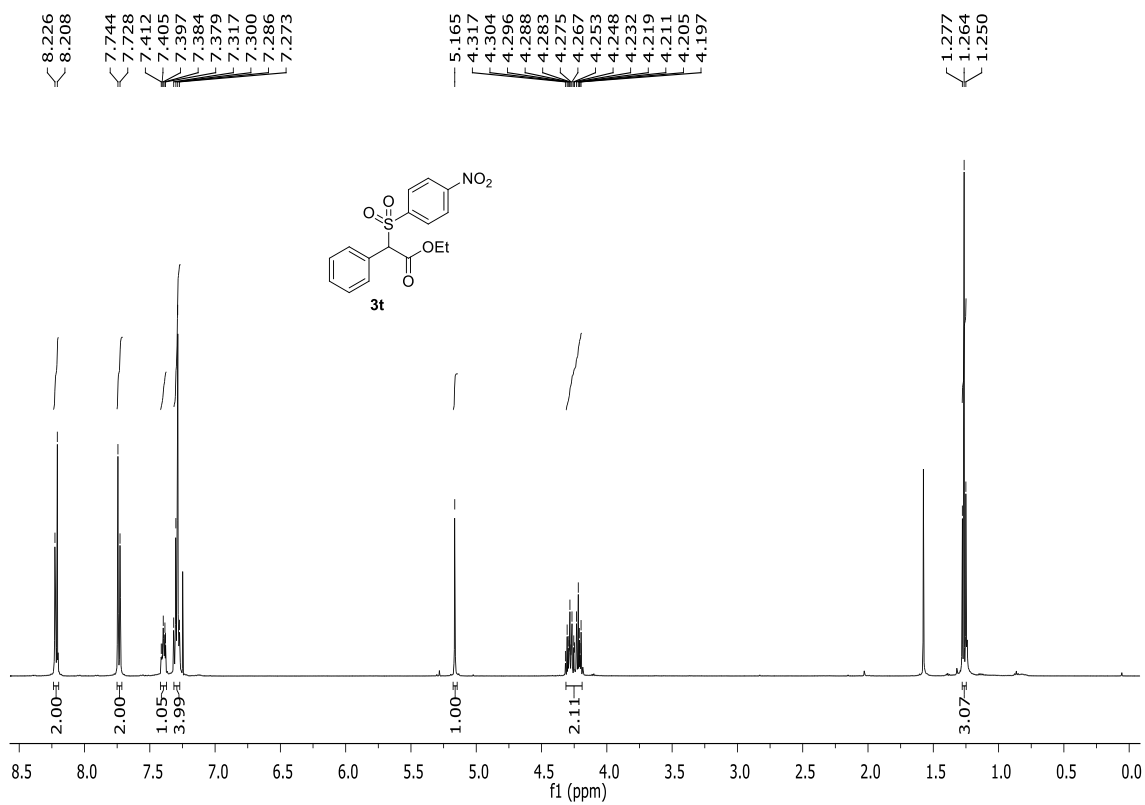
^1H NMR (500 MHz, CDCl_3)



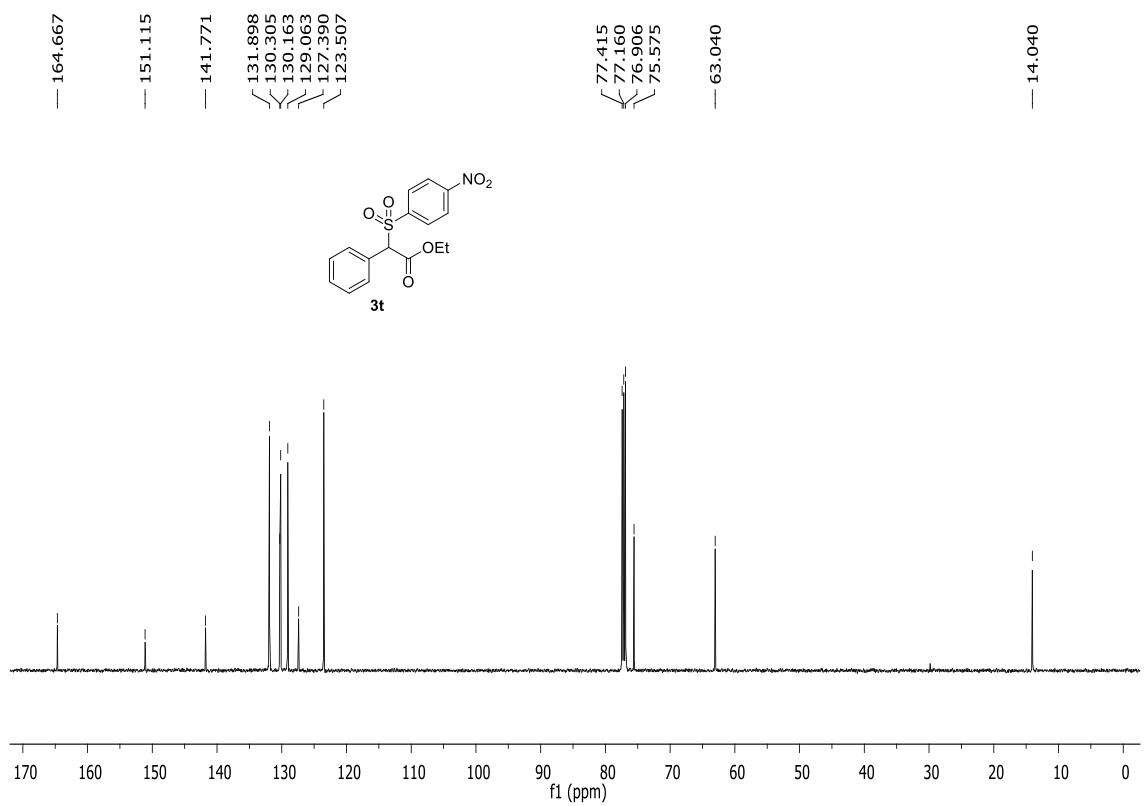
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



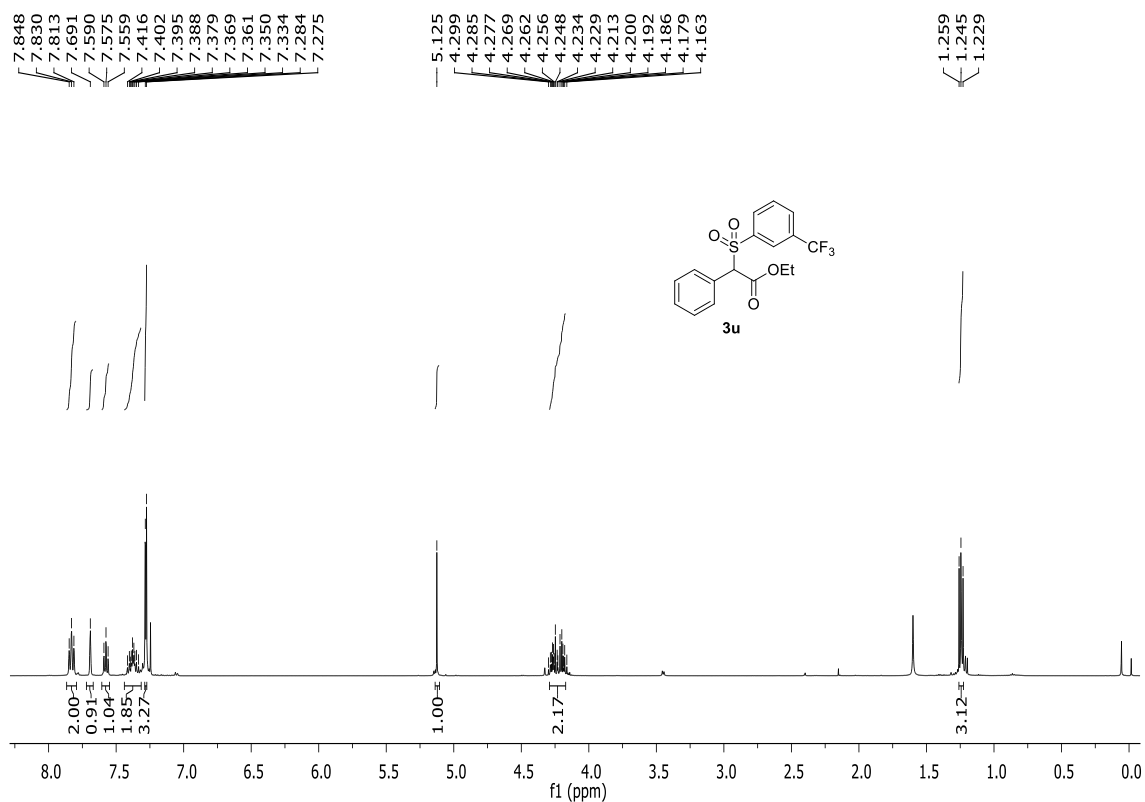
^1H NMR (500 MHz, CDCl_3)



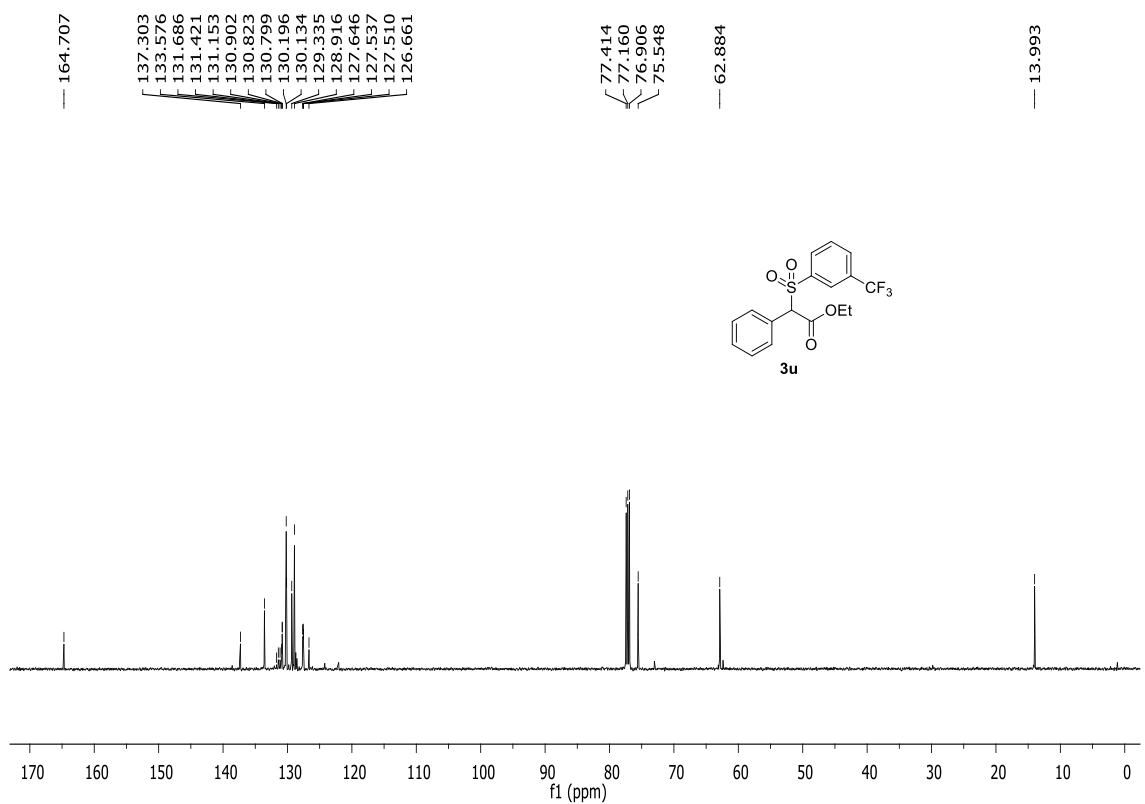
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



¹H NMR (500 MHz, CDCl₃)

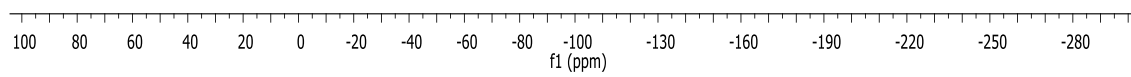
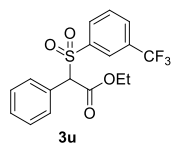


¹³C{¹H} NMR (125 MHz, CDCl₃)

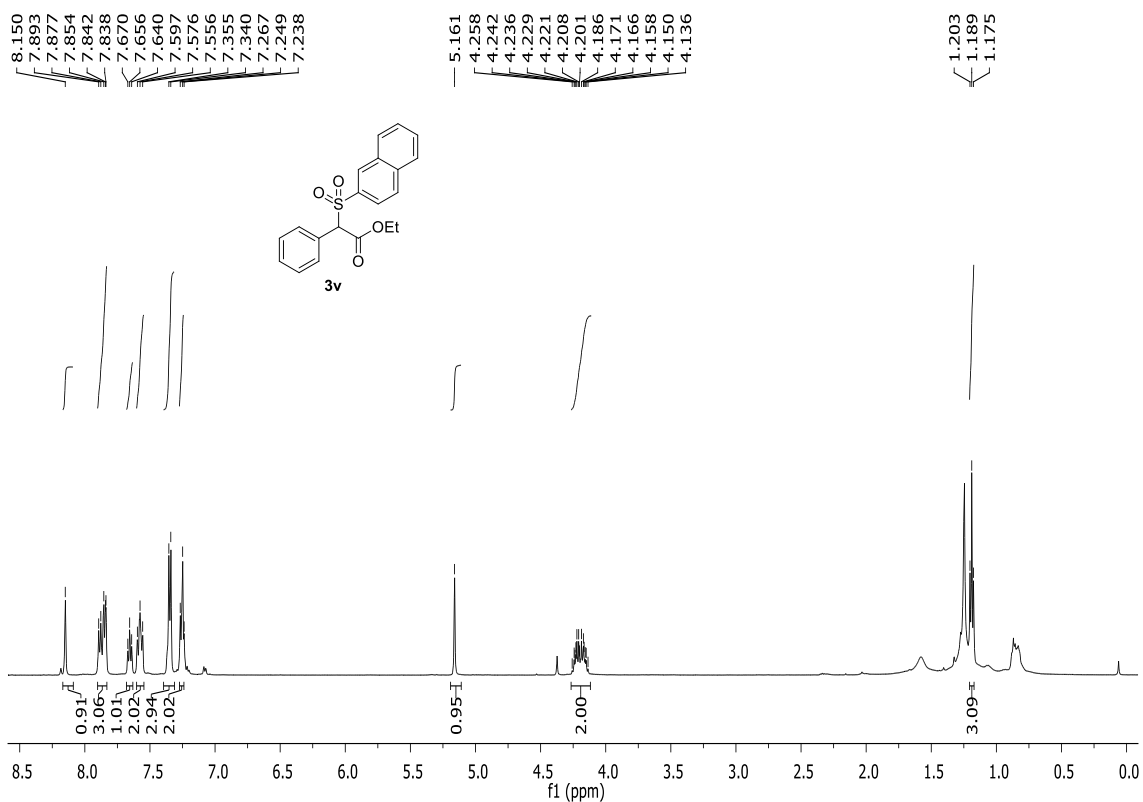


¹⁹F NMR (470 MHz, CDCl₃)

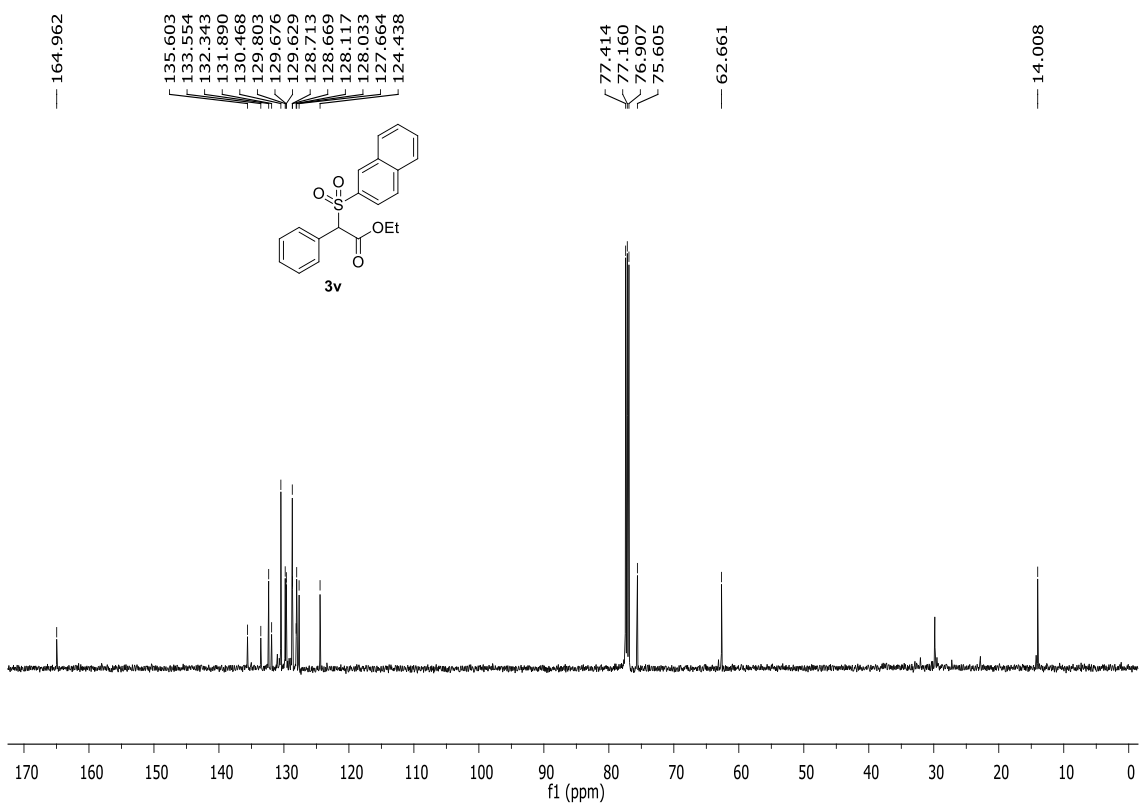
--- -62.846



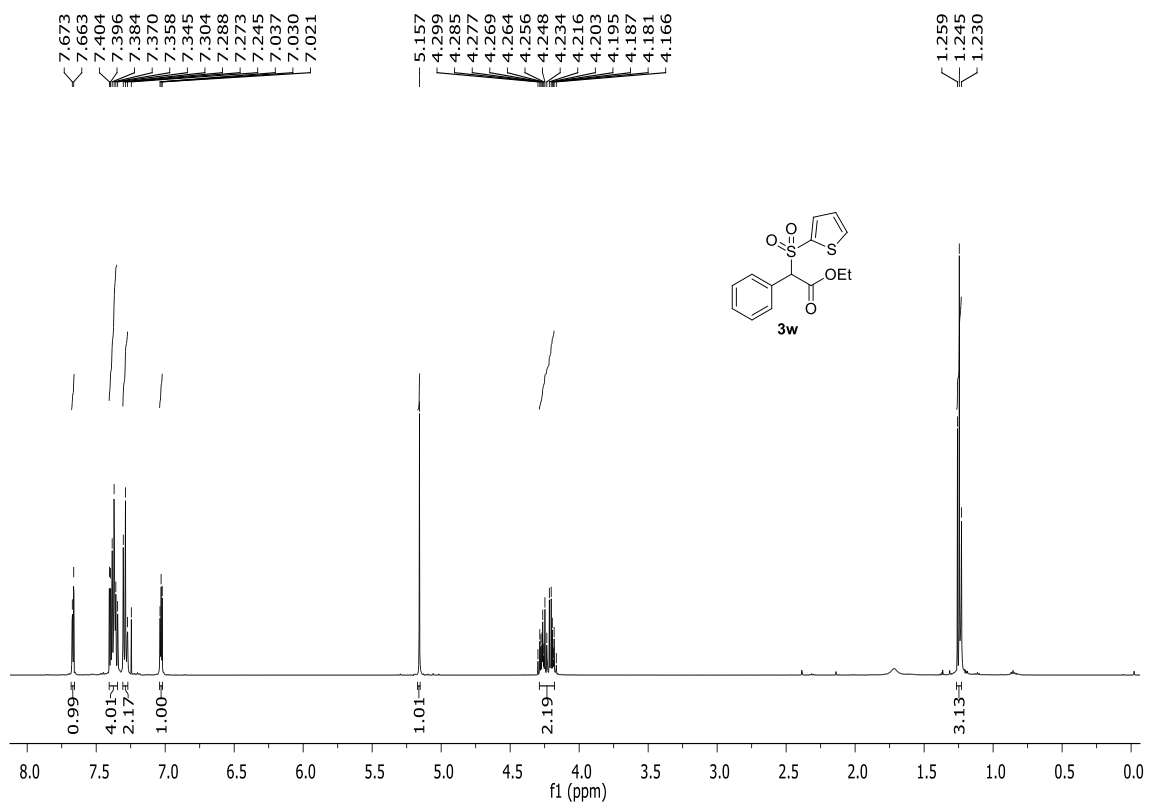
¹H NMR (500 MHz, CDCl₃)



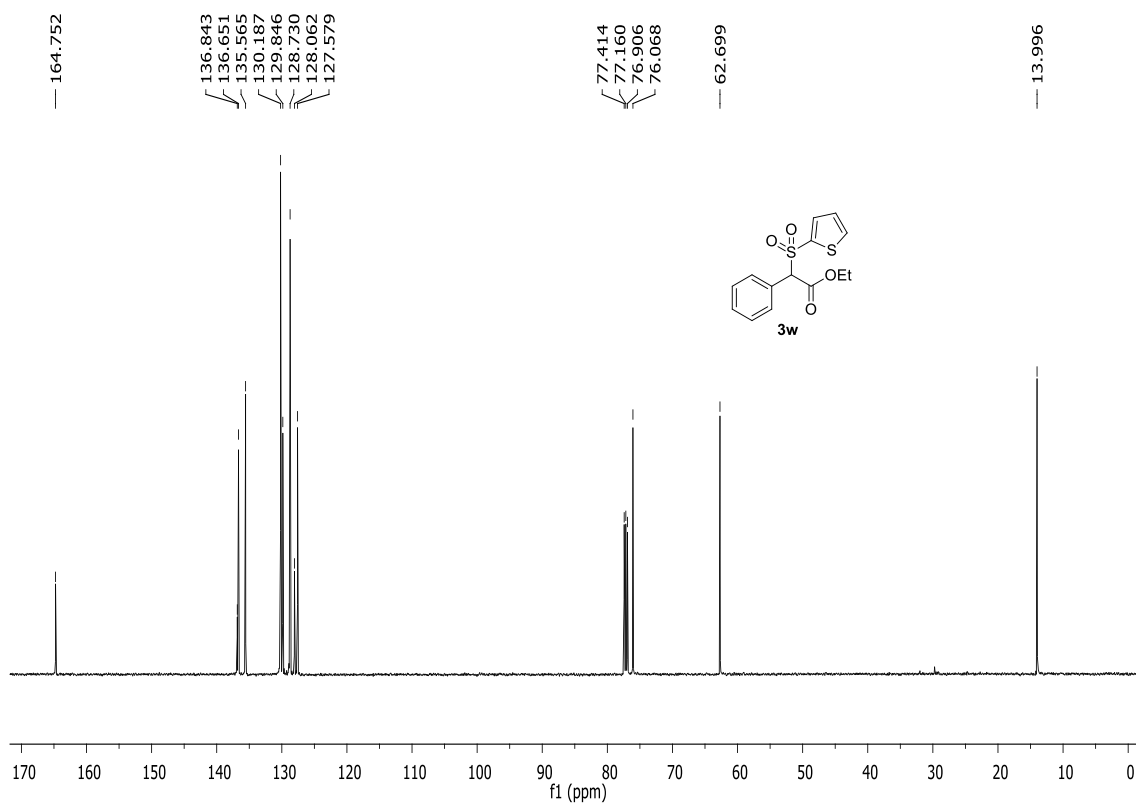
¹³C{¹H} NMR (125 MHz, CDCl₃)



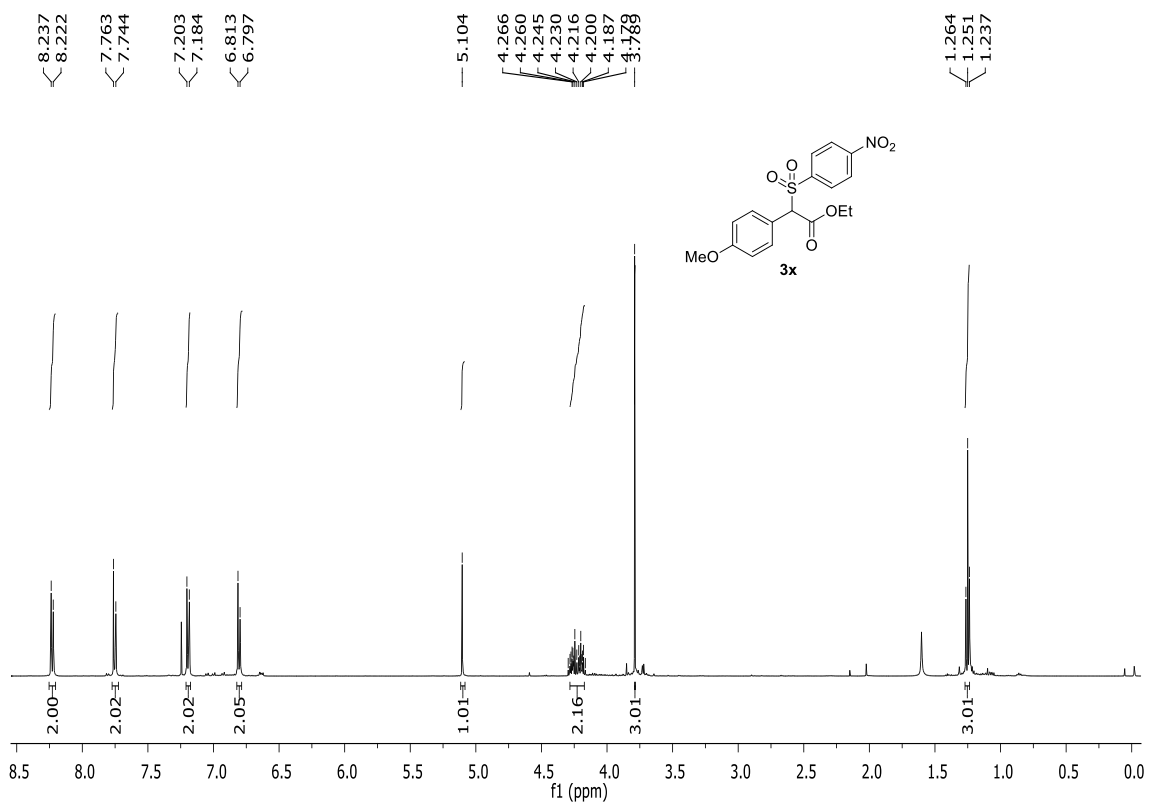
^1H NMR (500 MHz, CDCl_3)



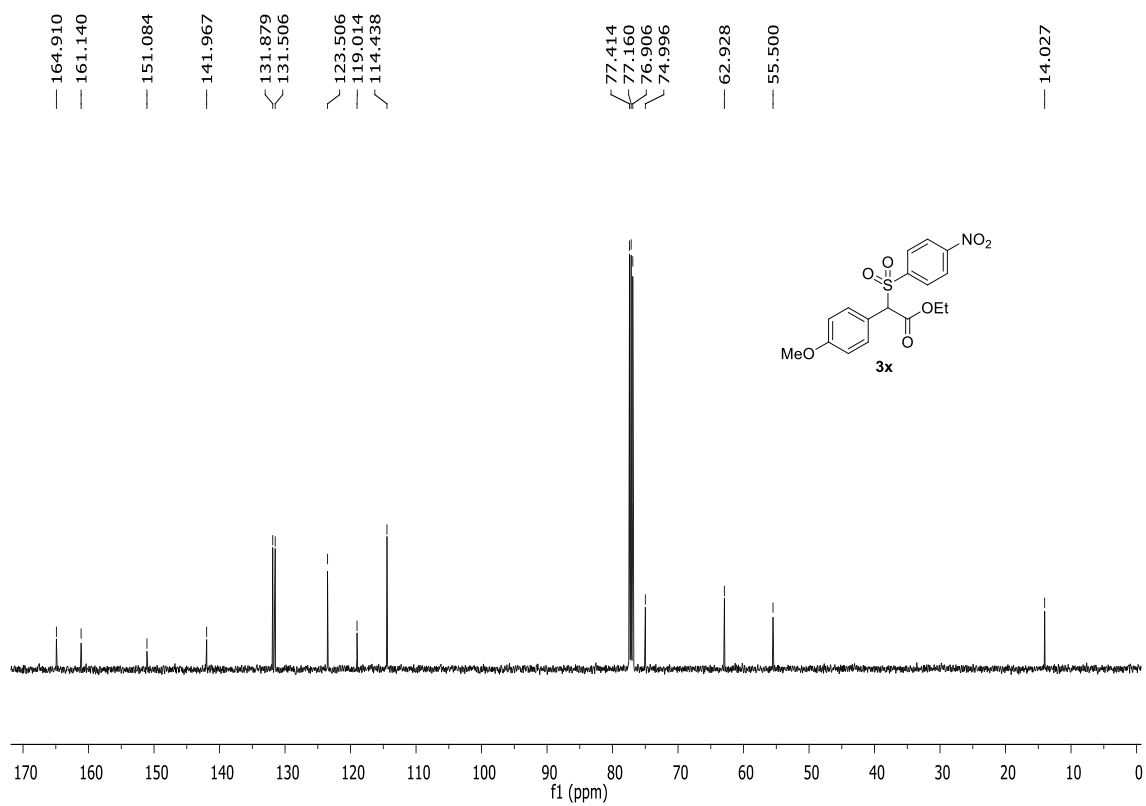
$^{13}\text{C}\{^1\text{H}\}$ NMR (125 MHz, CDCl_3)



¹H NMR (500 MHz, CDCl₃)



¹³C{¹H} NMR (125 MHz, CDCl₃)



II. HRMS of the TEMPO adduct 4a

