Electronic Supplementary Information

Copper-Mediated Oxidative Difluoromethylenation of Aryl Boronic Acids with α–Silyldifluoromethylphosphonates: A New Method for Aryldifluorophosphonates

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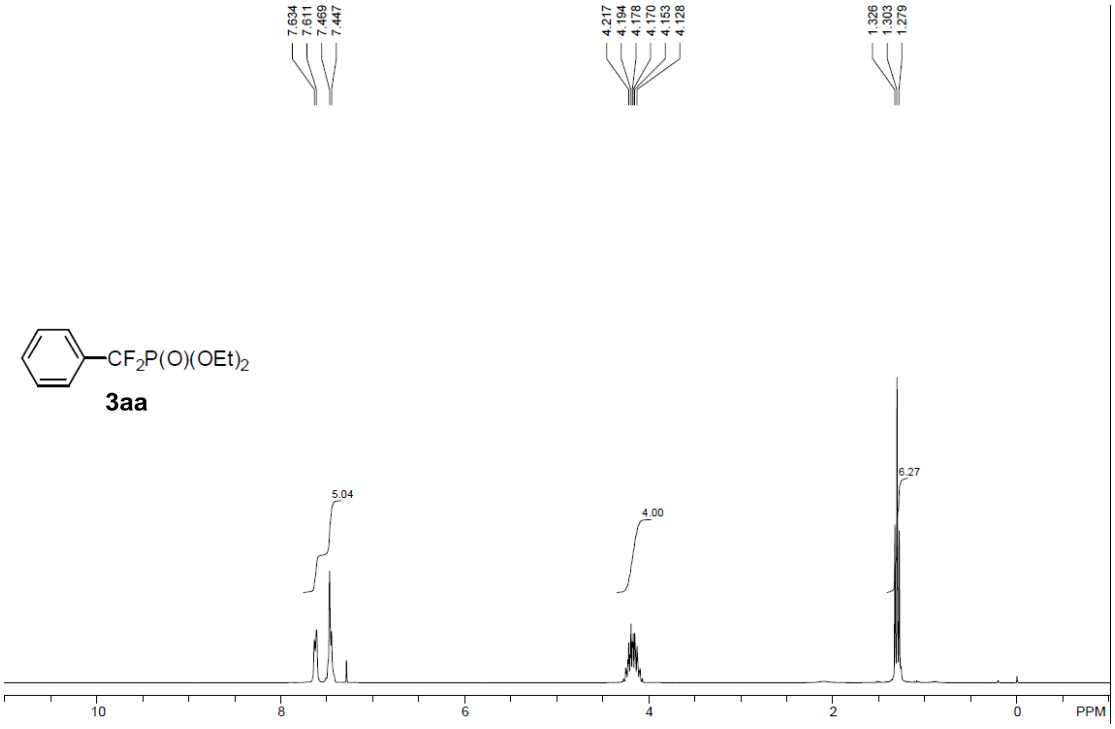
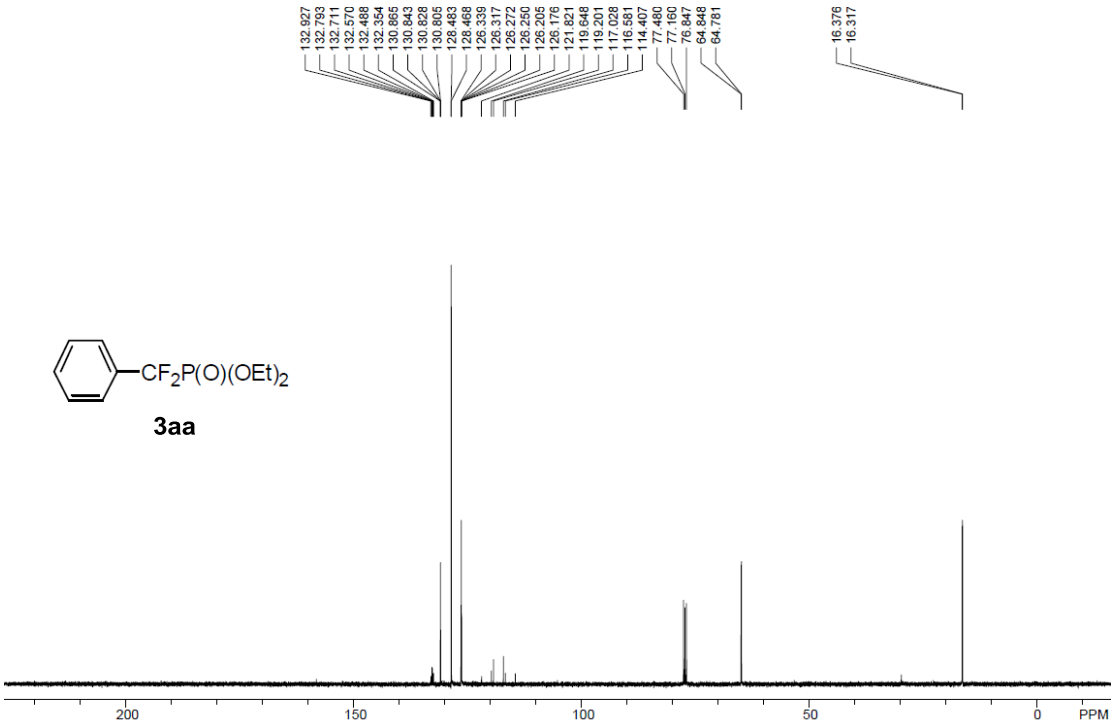
Email: flq@mail.sioc.ac.cn

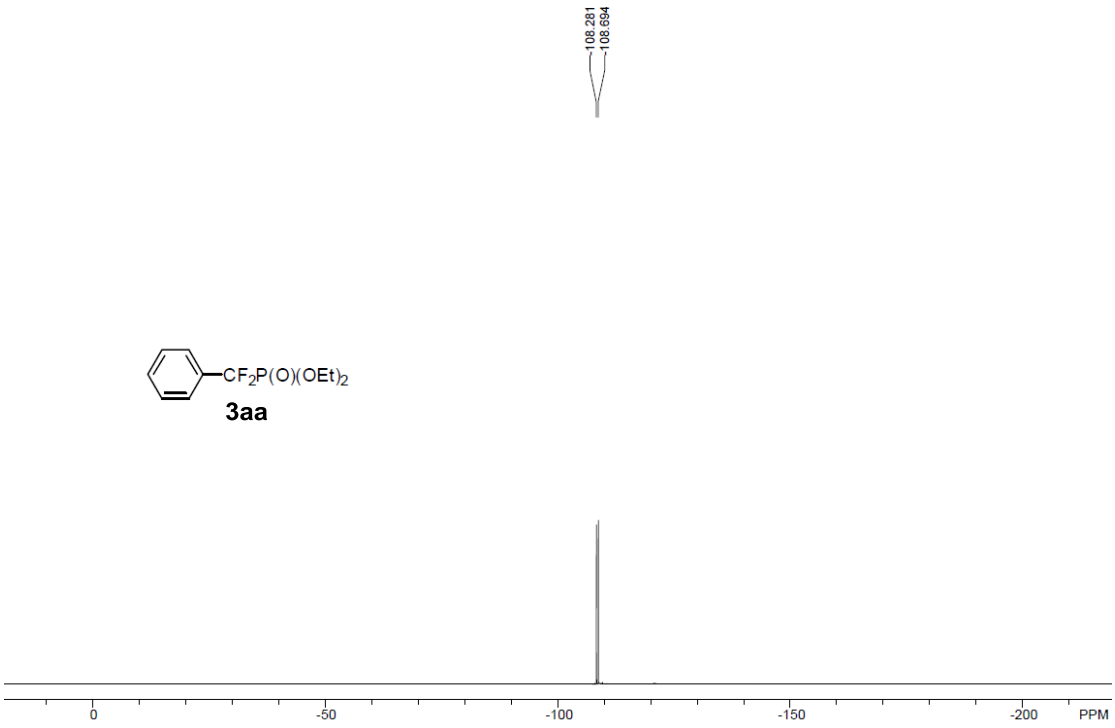
^{1}H NMR of **3aa** ($CDCl_3$, 300 MHz)



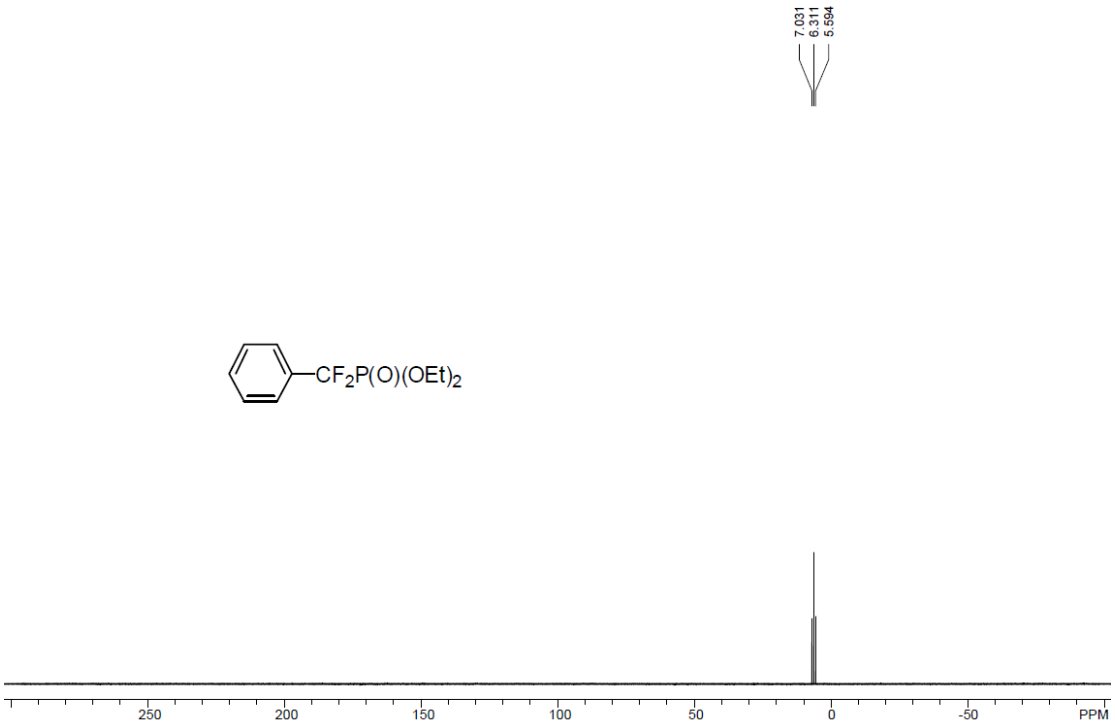
^{13}C NMR of **3aa** ($CDCl_3$, 100 MHz)



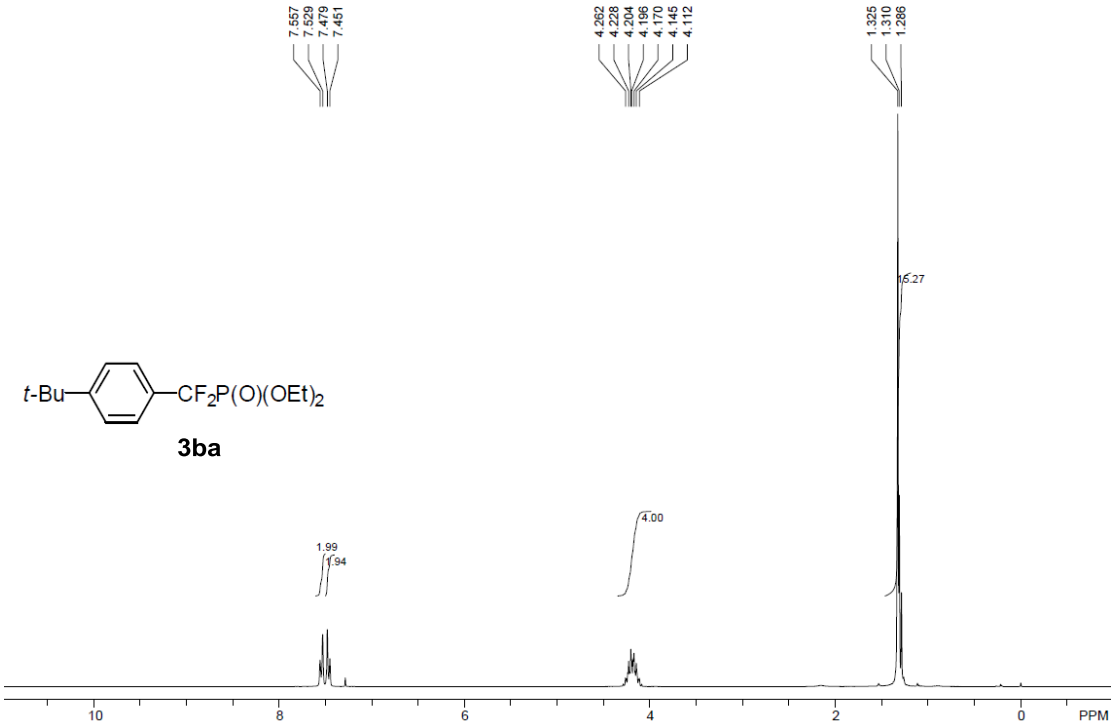
^{19}F NMR of **3aa** ($CDCl_3$, 282 MHz)



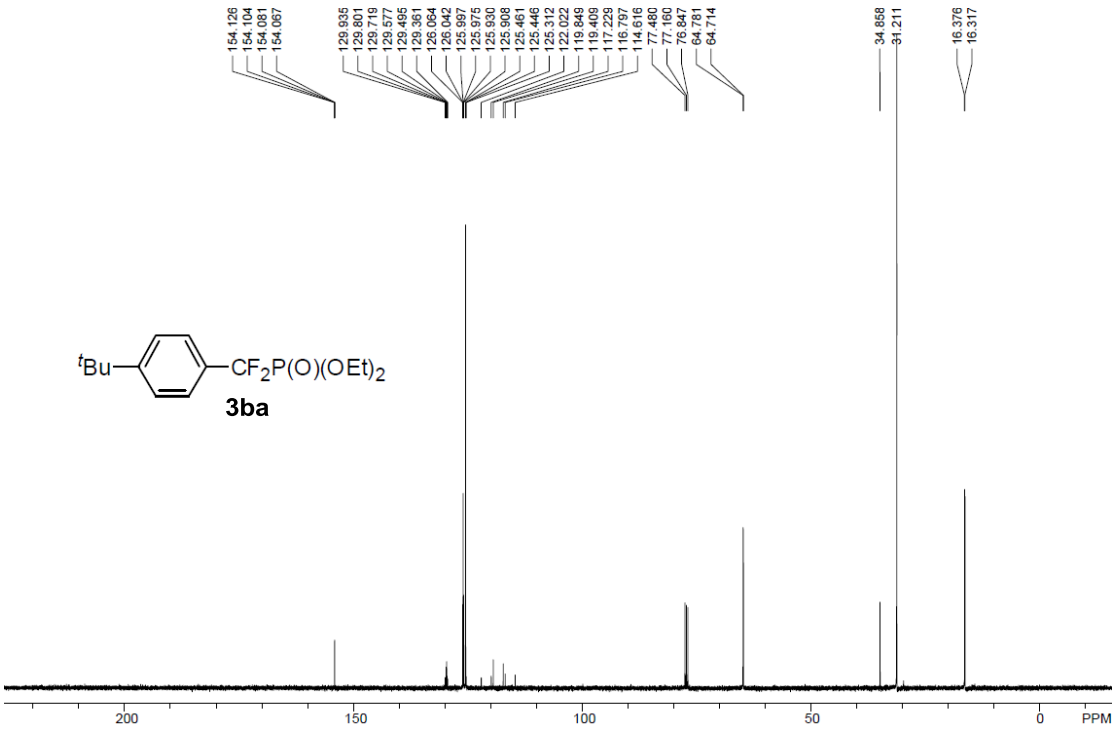
^{31}P NMR of **3aa** ($CDCl_3$, 162 MHz)



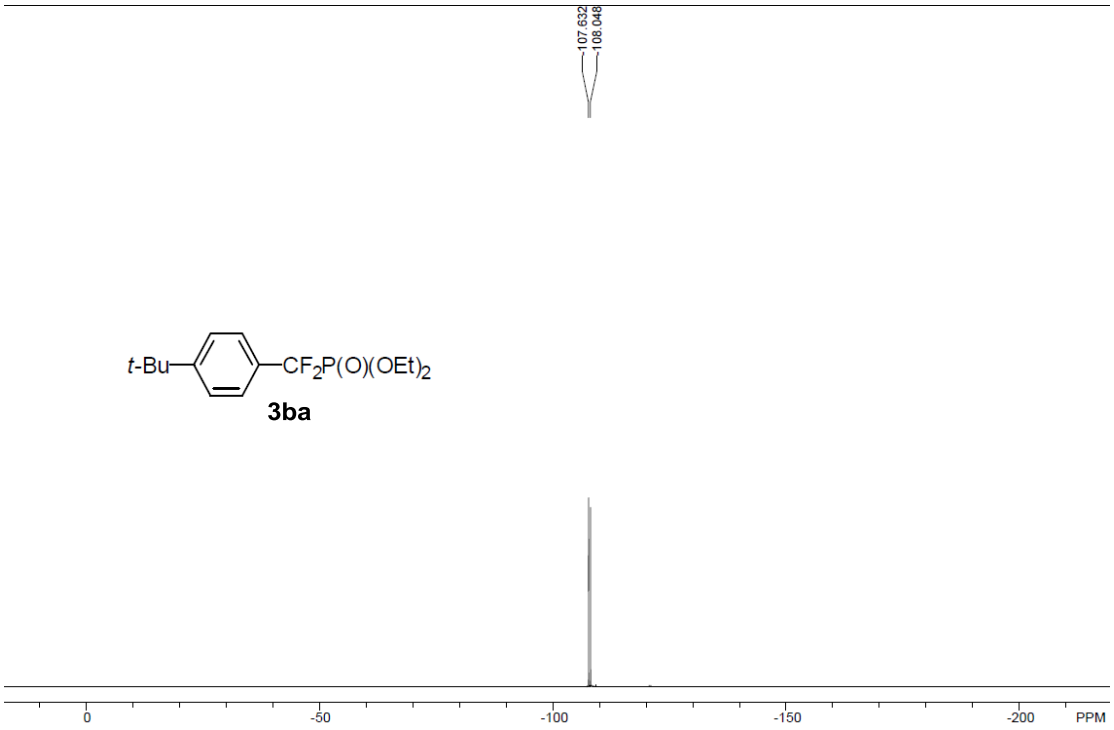
^{1}H NMR of **3ba** ($CDCl_3$, 300 MHz)



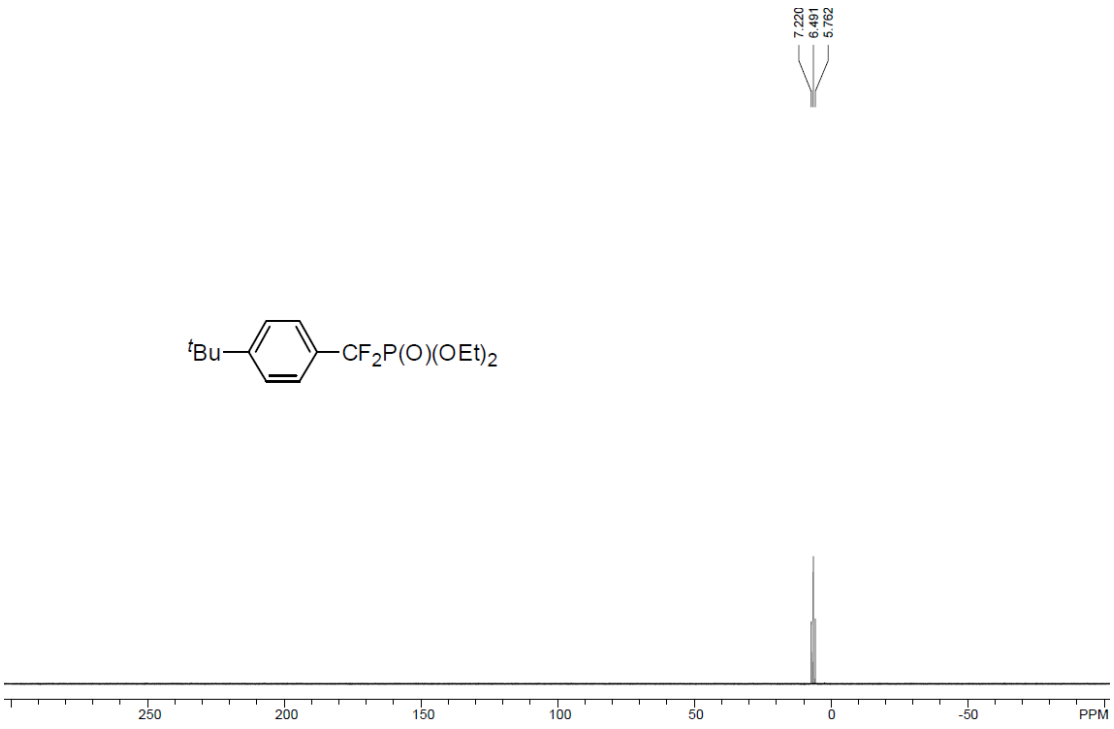
^{13}C NMR of **3ba** ($CDCl_3$, 100 MHz)



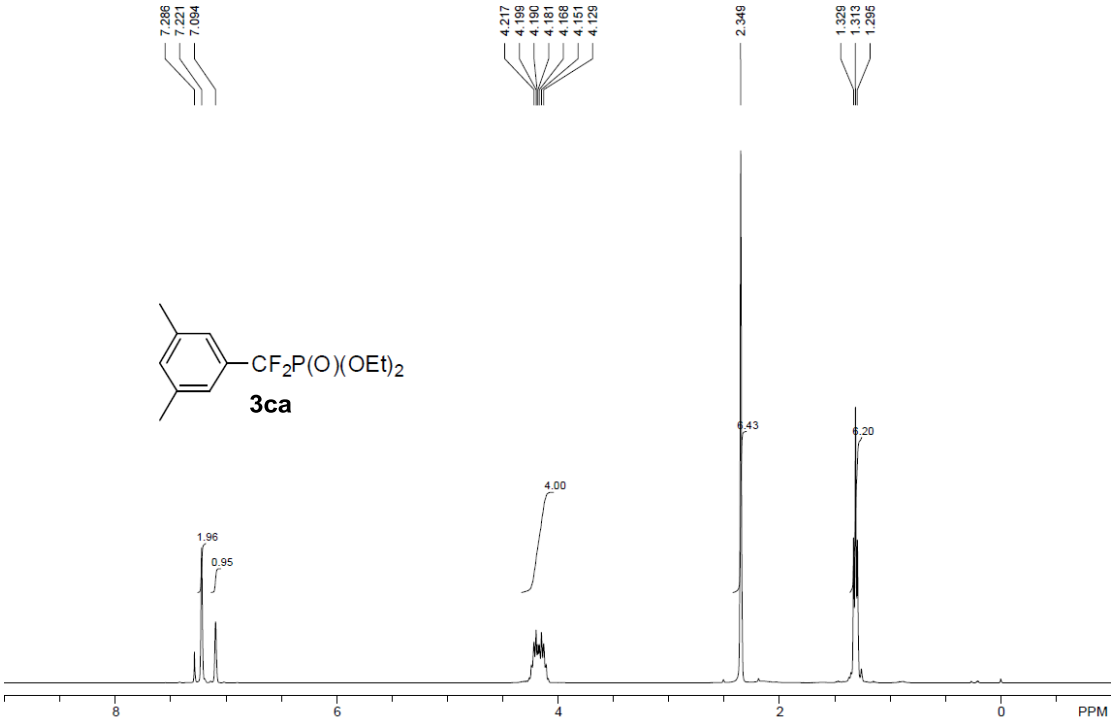
^{19}F NMR of **3ba** ($CDCl_3$, 282 MHz)



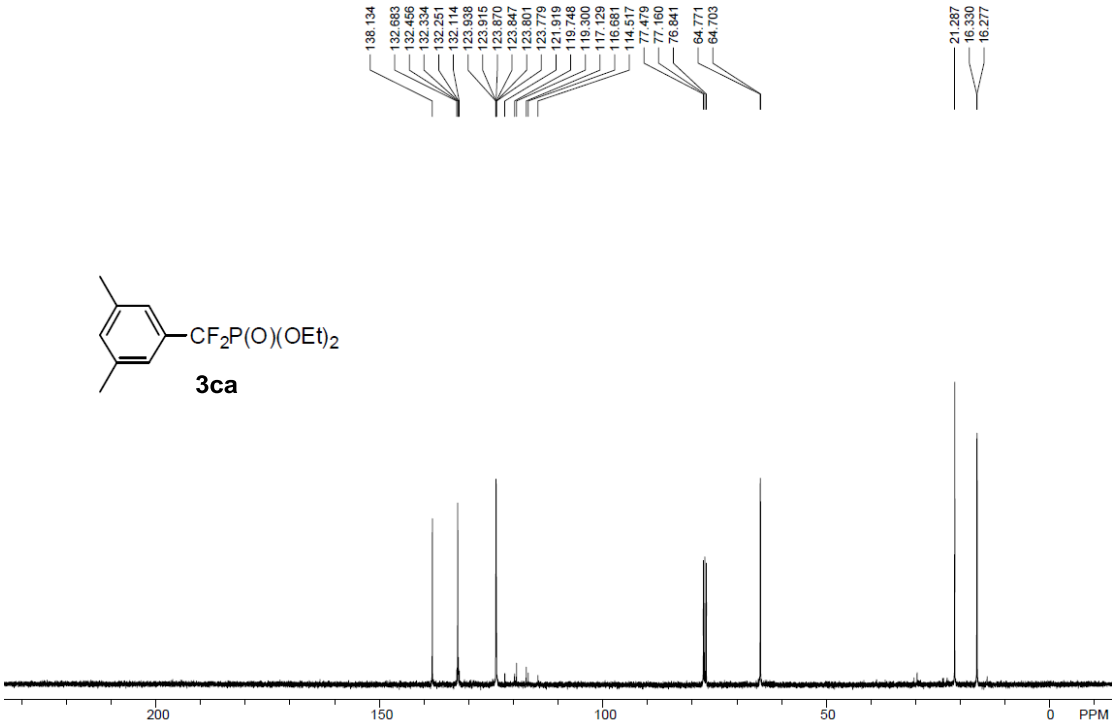
^{31}P NMR of **3ba** ($CDCl_3$, 162 MHz)



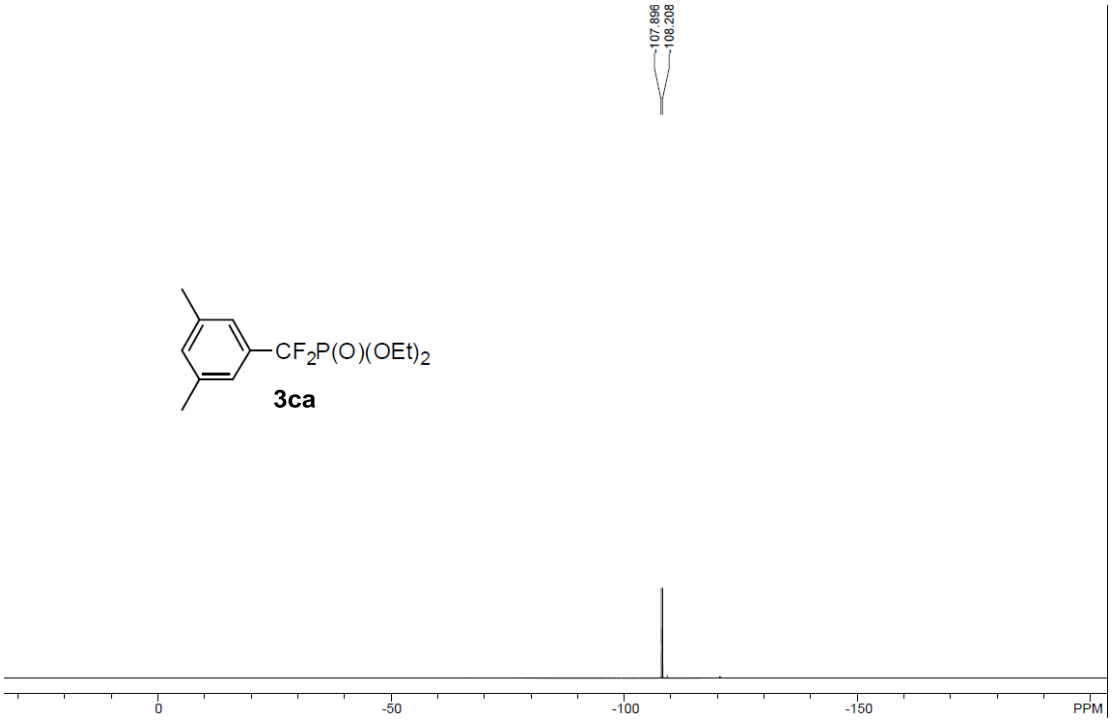
^{1}H NMR of **3ca** ($CDCl_3$, 300 MHz)



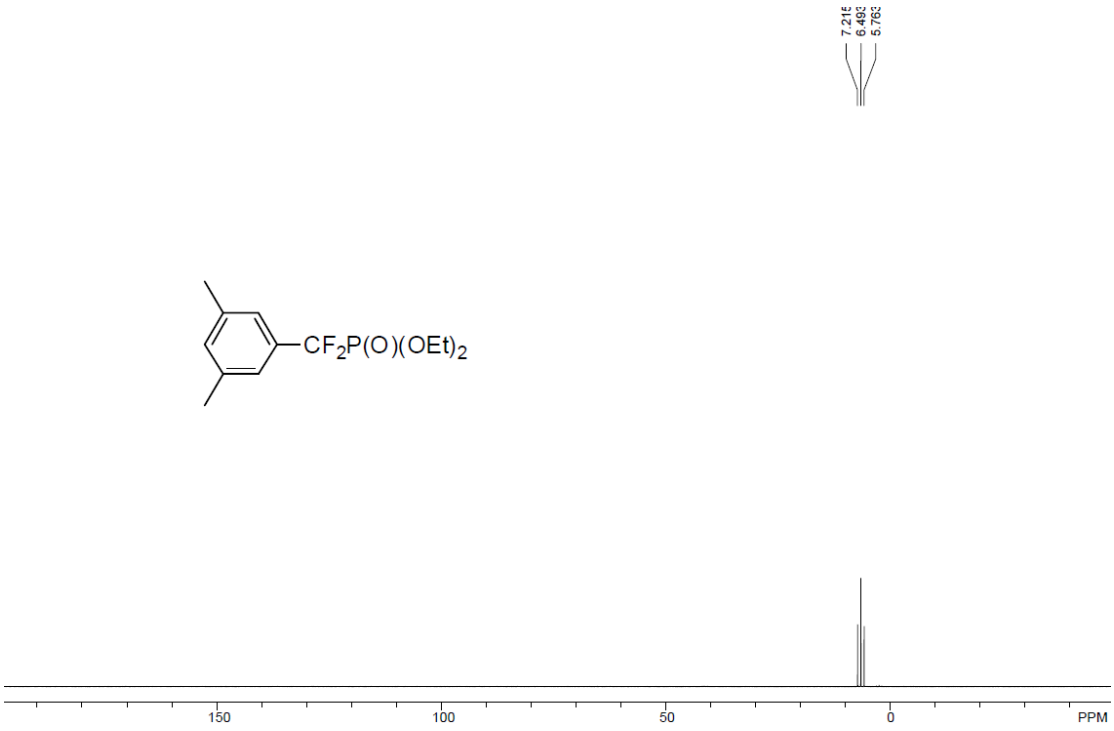
^{13}C NMR of **3ca** ($CDCl_3$, 100 MHz)



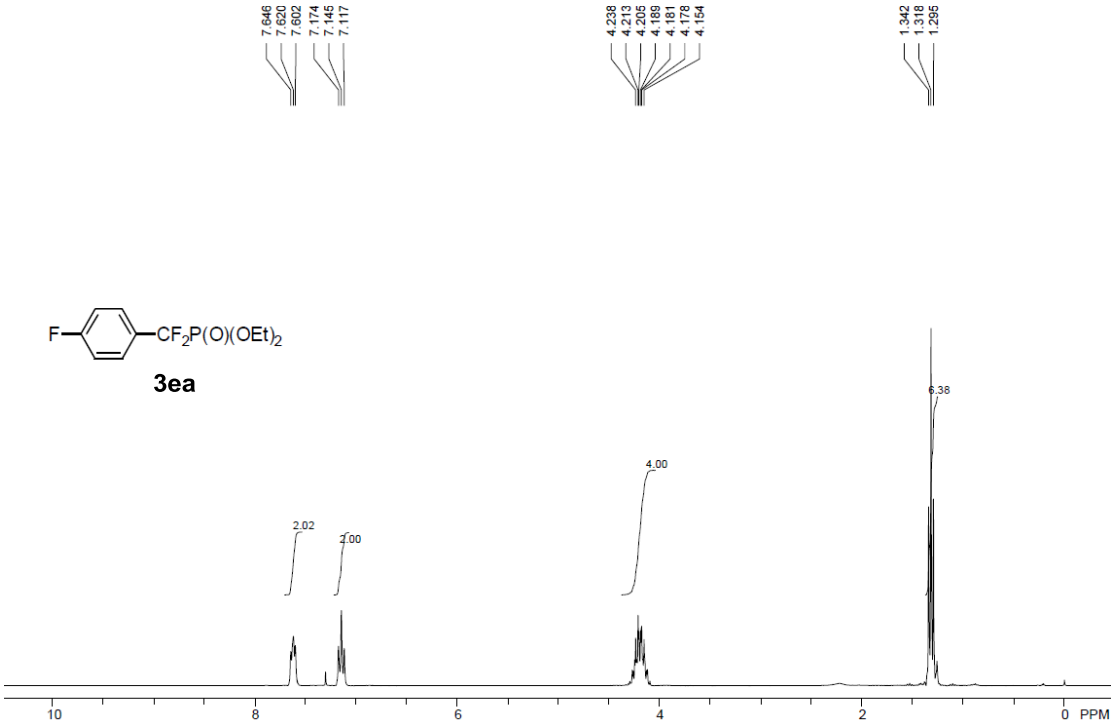
^{19}F NMR of **3ca** ($CDCl_3$, 282 MHz)



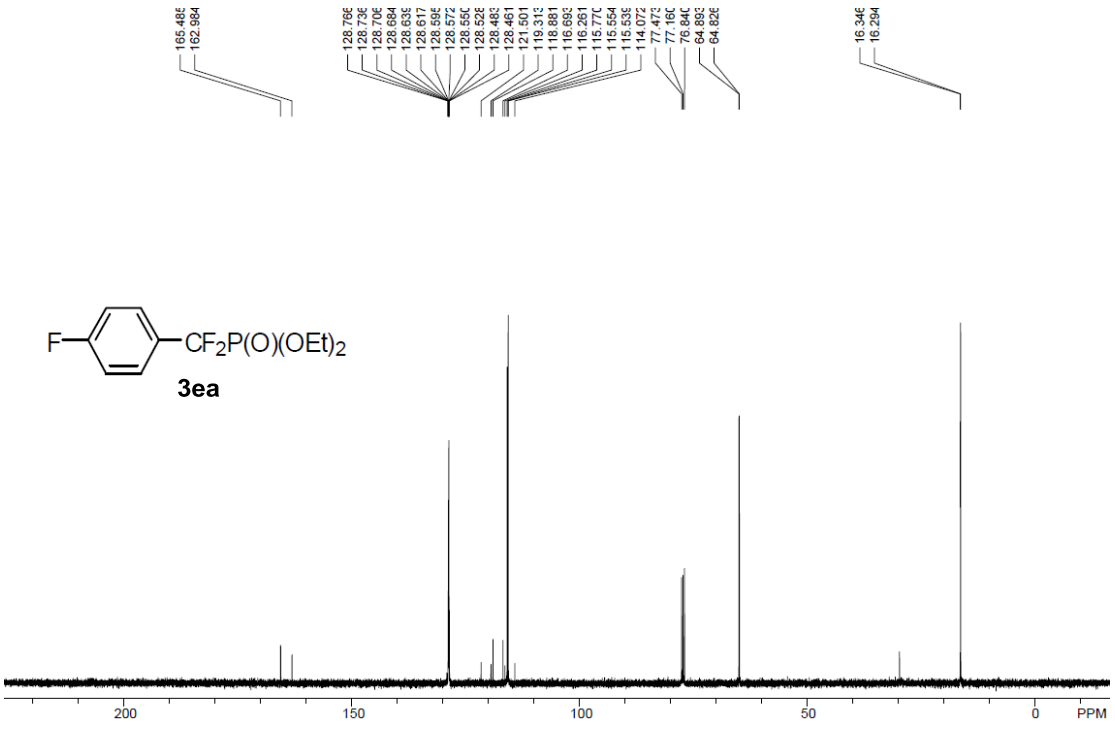
^{31}P NMR of **3ca** ($CDCl_3$, 162 MHz)



^{1}H NMR of **3ea** ($CDCl_3$, 300 MHz)



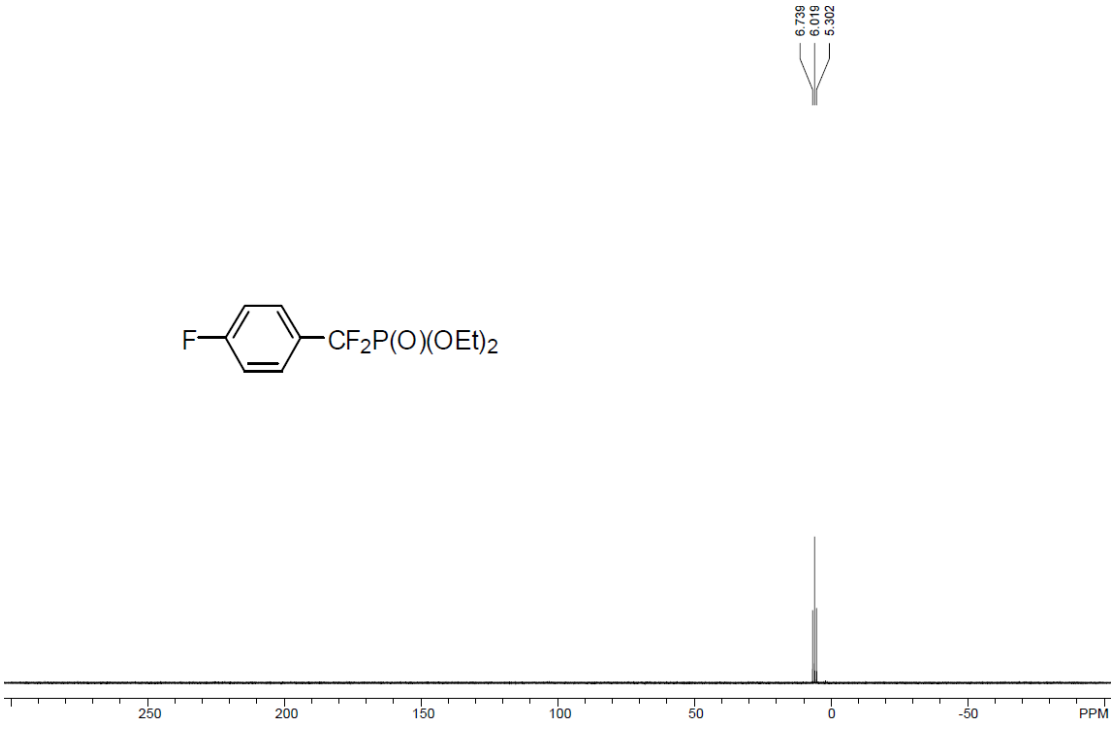
^{13}C NMR of **3ea** ($CDCl_3$, 100 MHz)



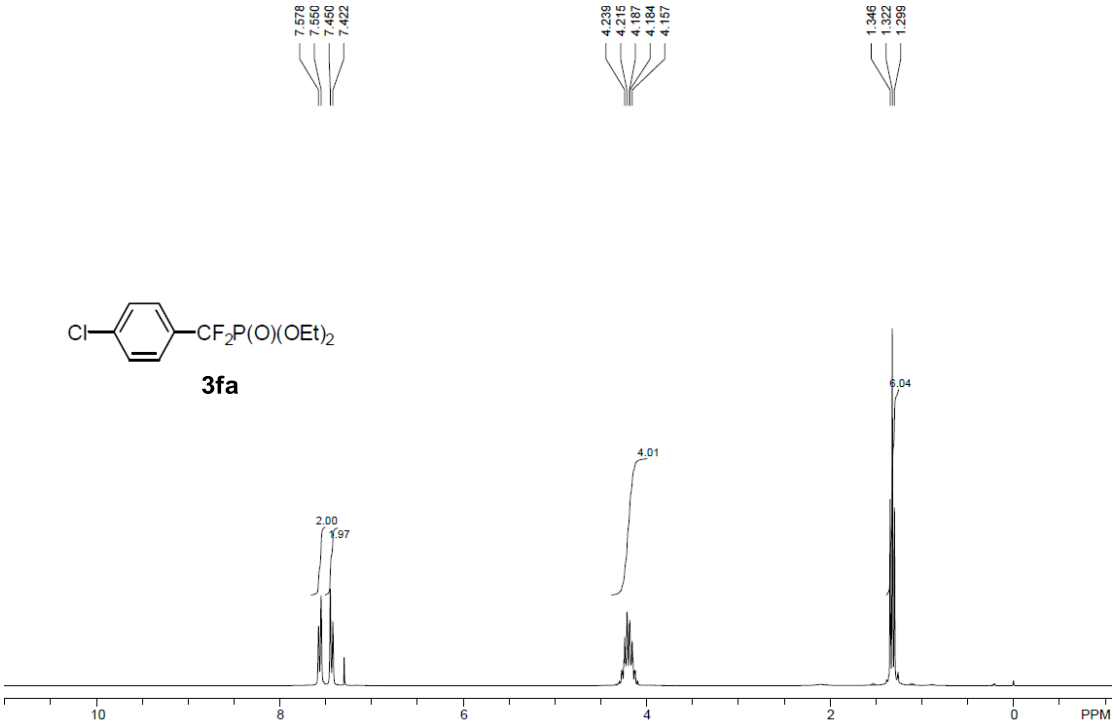
^{19}F NMR of **3ea** ($CDCl_3$, 282 MHz)

3ea

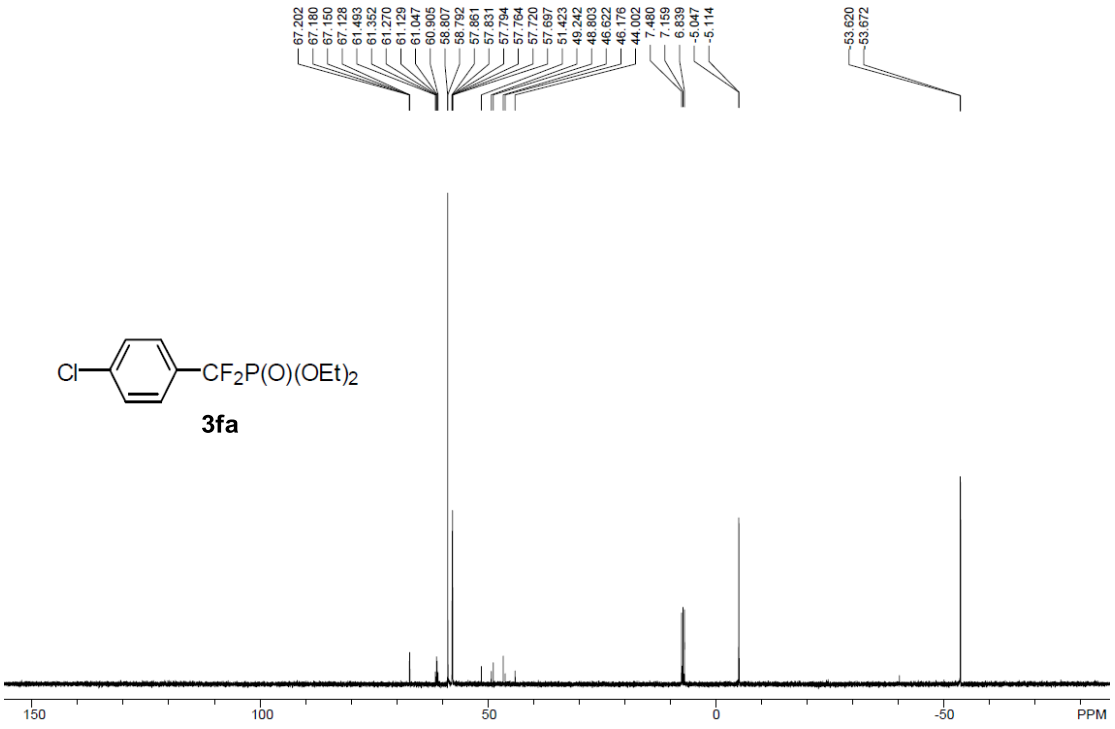
^{19}P NMR of **3ea** ($CDCl_3$, 162 MHz)



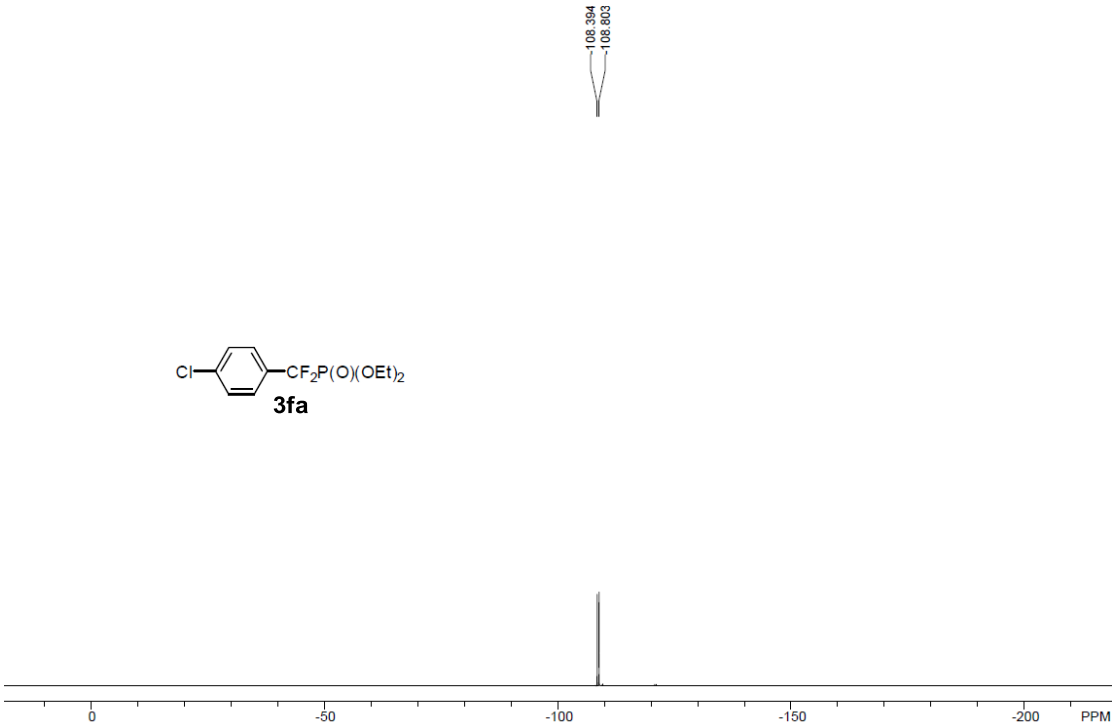
^{1}H NMR of **3fa** ($CDCl_3$, 300 MHz)



^{13}C NMR of **3fa** ($CDCl_3$, 100 MHz)

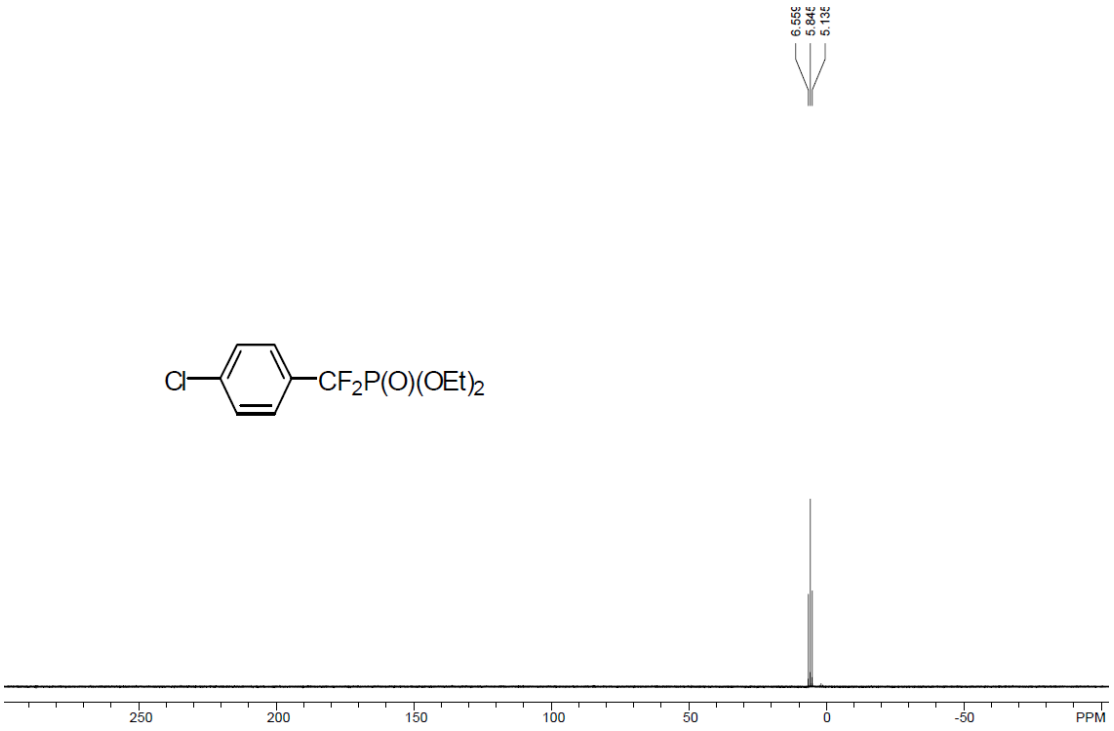


^{19}F NMR of **3fa** ($CDCl_3$, 282 MHz)

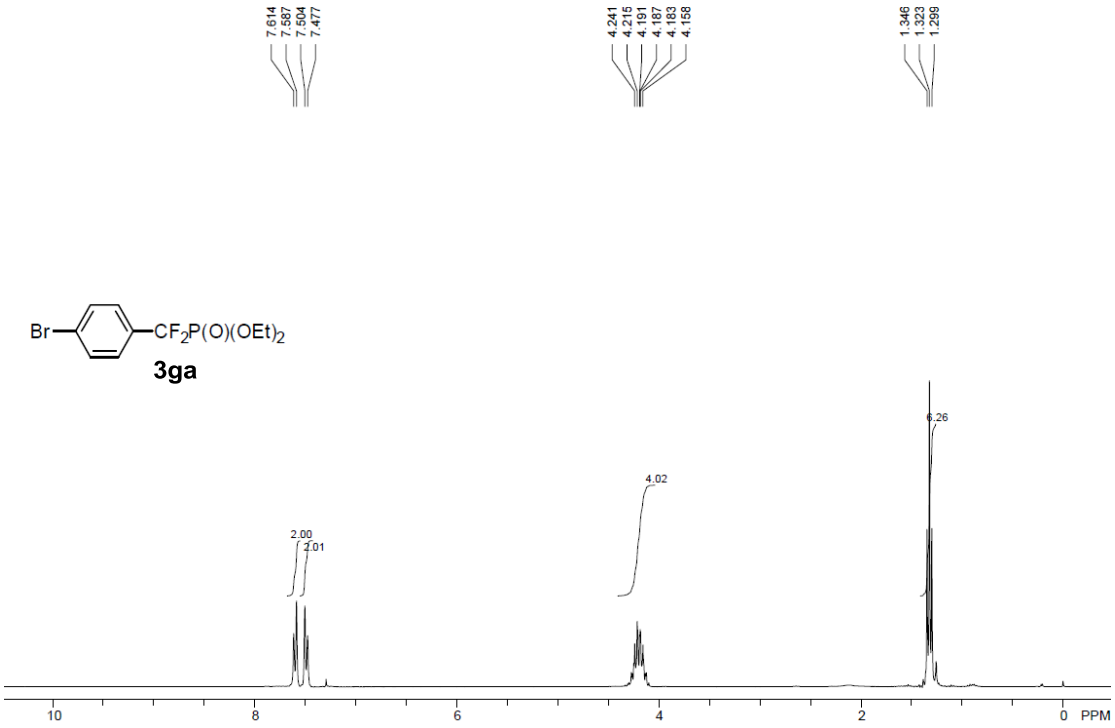


3fa

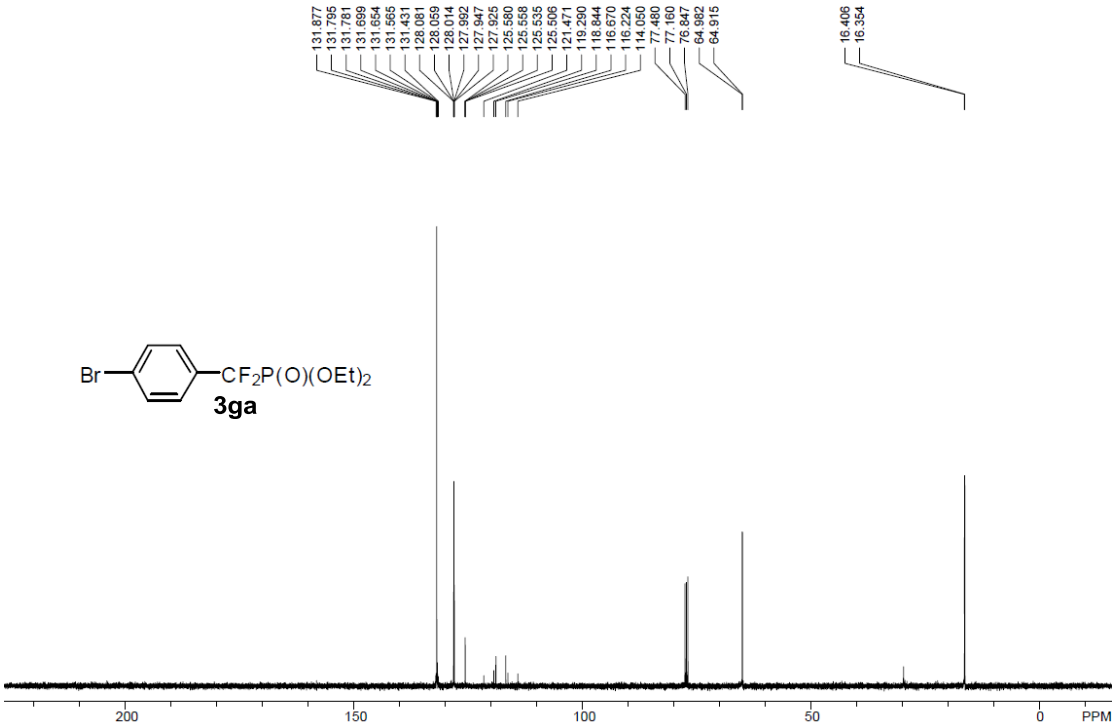
^{31}P NMR of **3fa** ($CDCl_3$, 162 MHz)



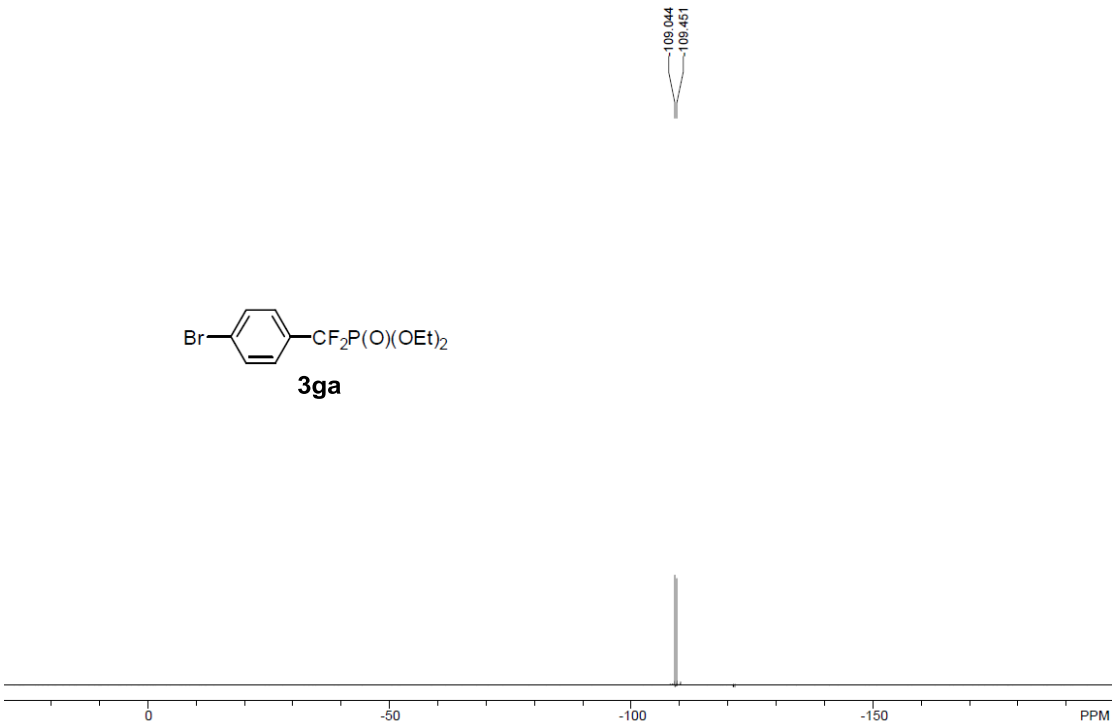
^{1}H NMR of **3ga** ($CDCl_3$, 300 MHz)



^{13}C NMR of **3ga** ($CDCl_3$, 100 MHz)

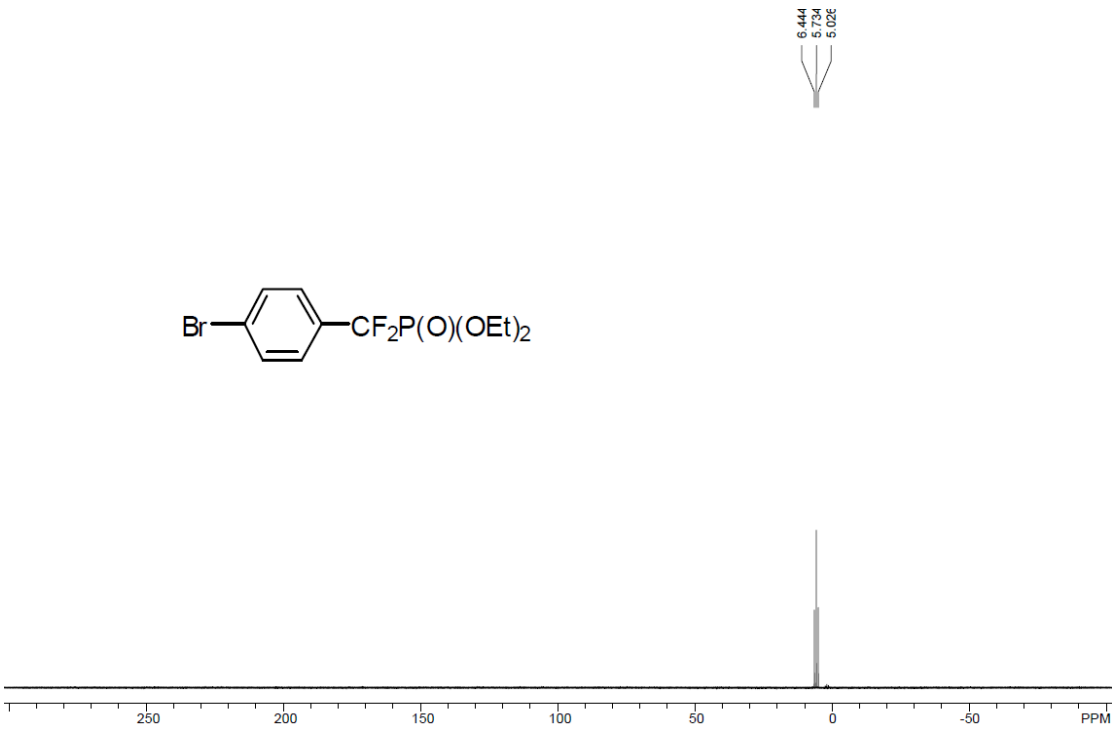


^{19}F NMR of **3ga** ($CDCl_3$, 282 MHz)

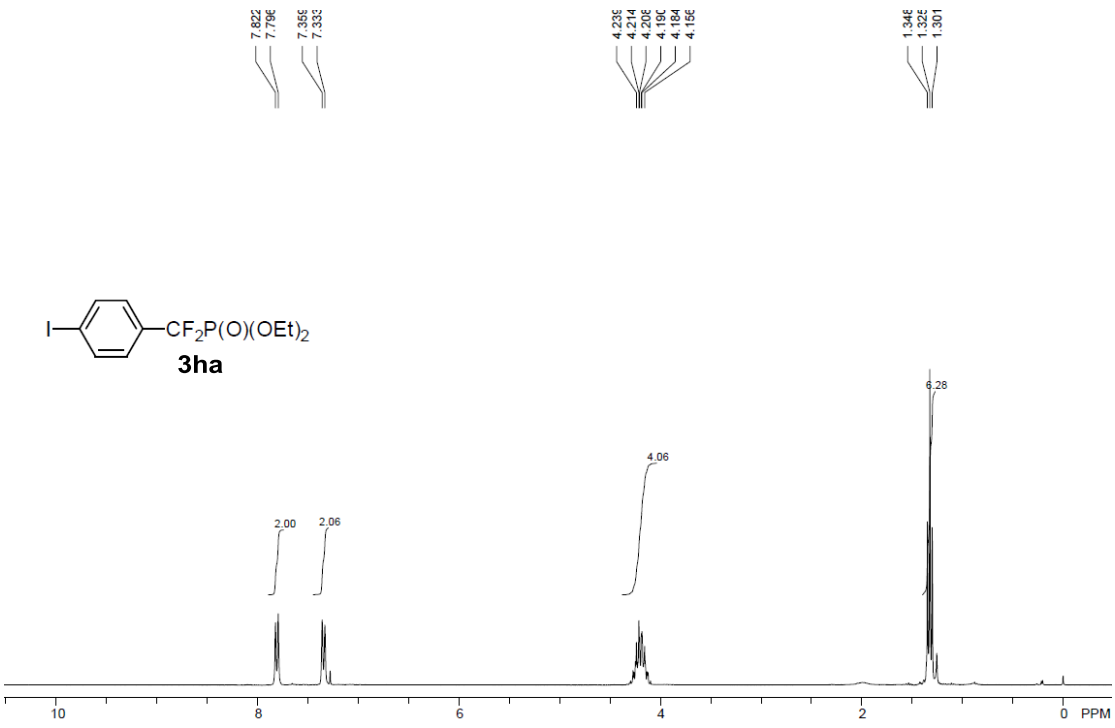


3ga

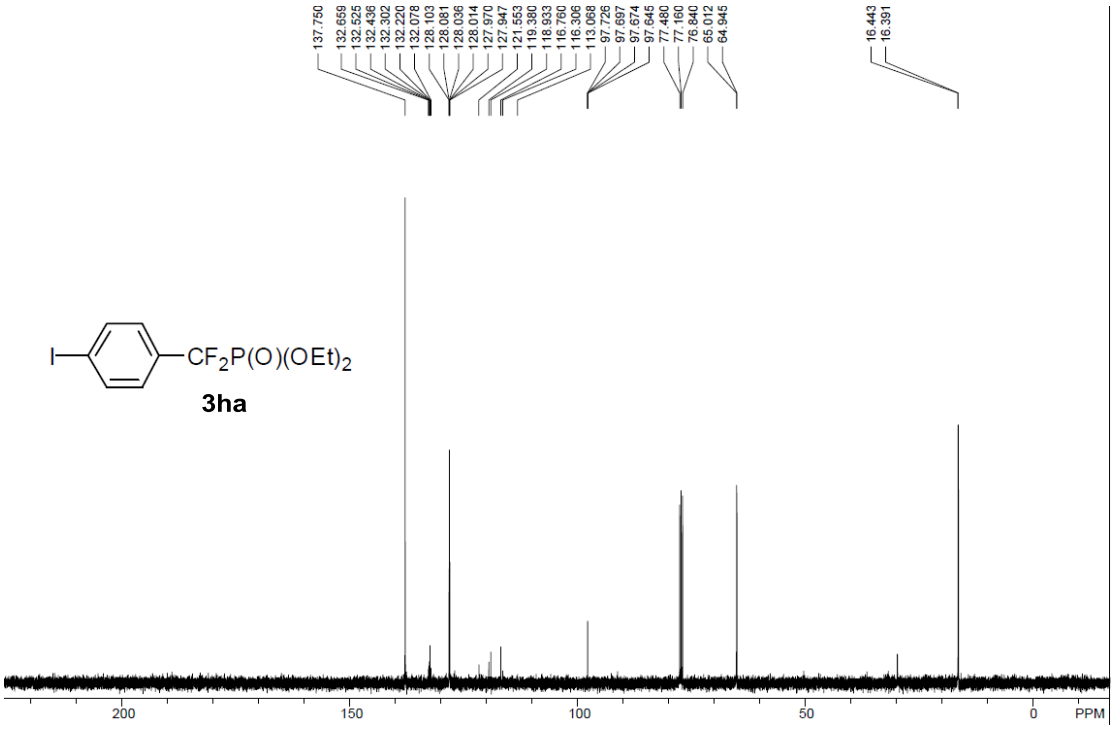
^{31}P NMR of **3ga** ($CDCl_3$, 162 MHz)



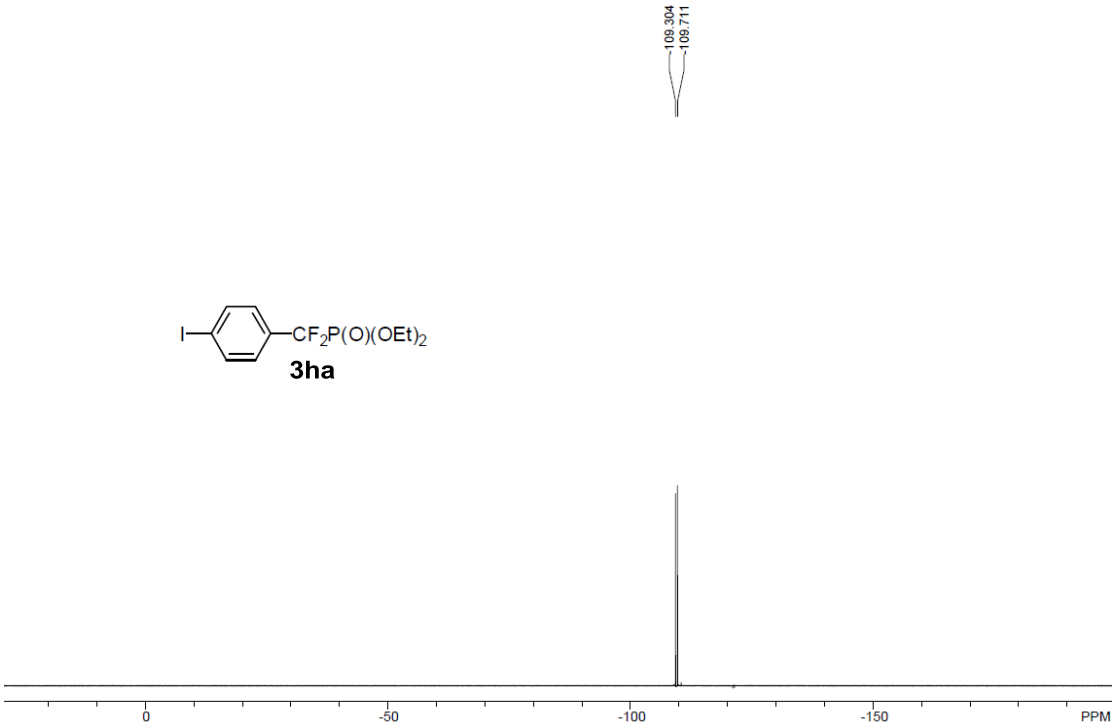
^{1}H NMR of **3ha** ($CDCl_3$, 300 MHz)



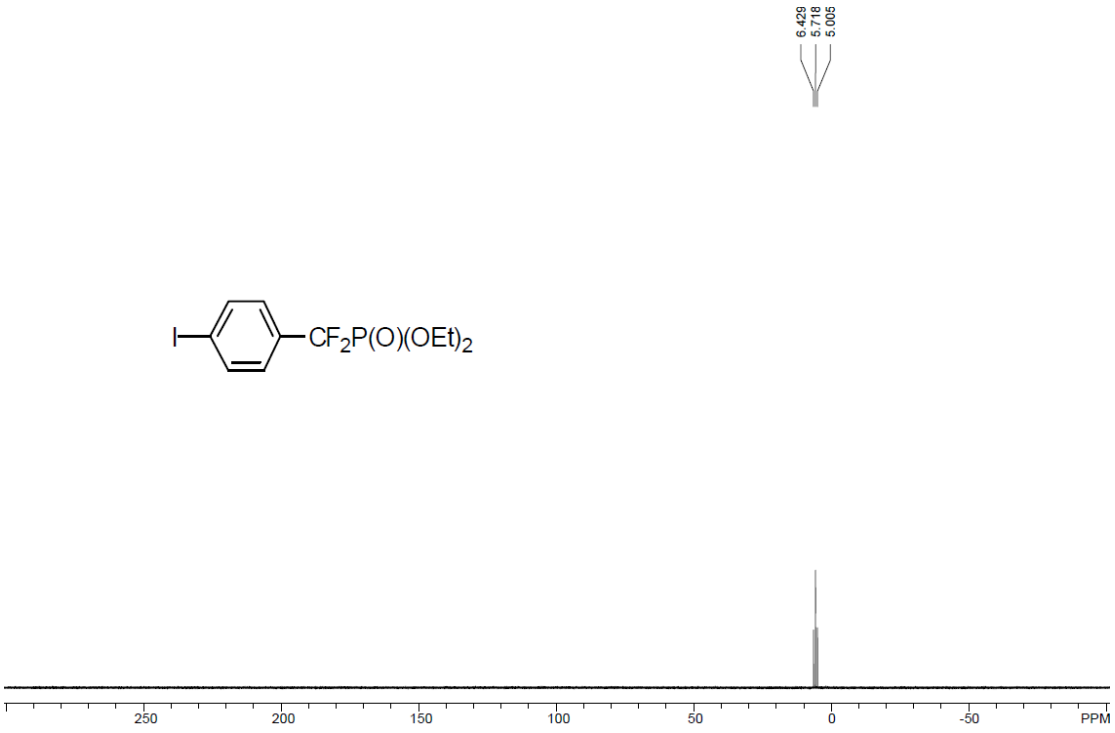
^{13}C NMR of **3ha** ($CDCl_3$, 100 MHz)



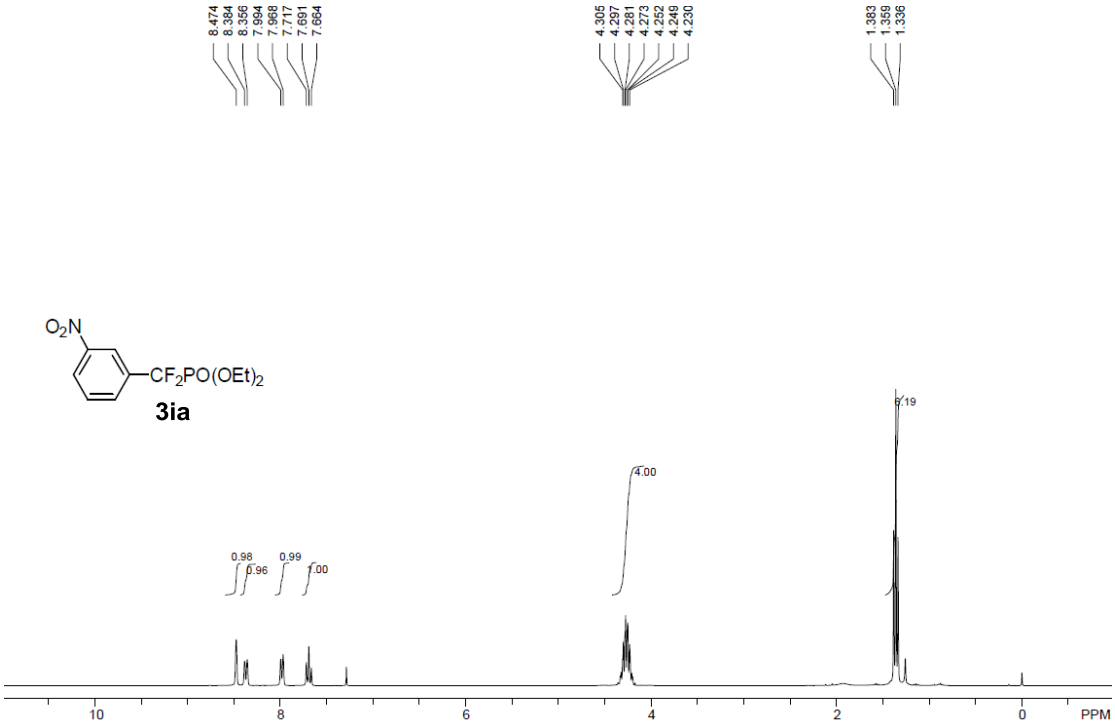
^{19}F NMR of **3ha** ($CDCl_3$, 282 MHz)



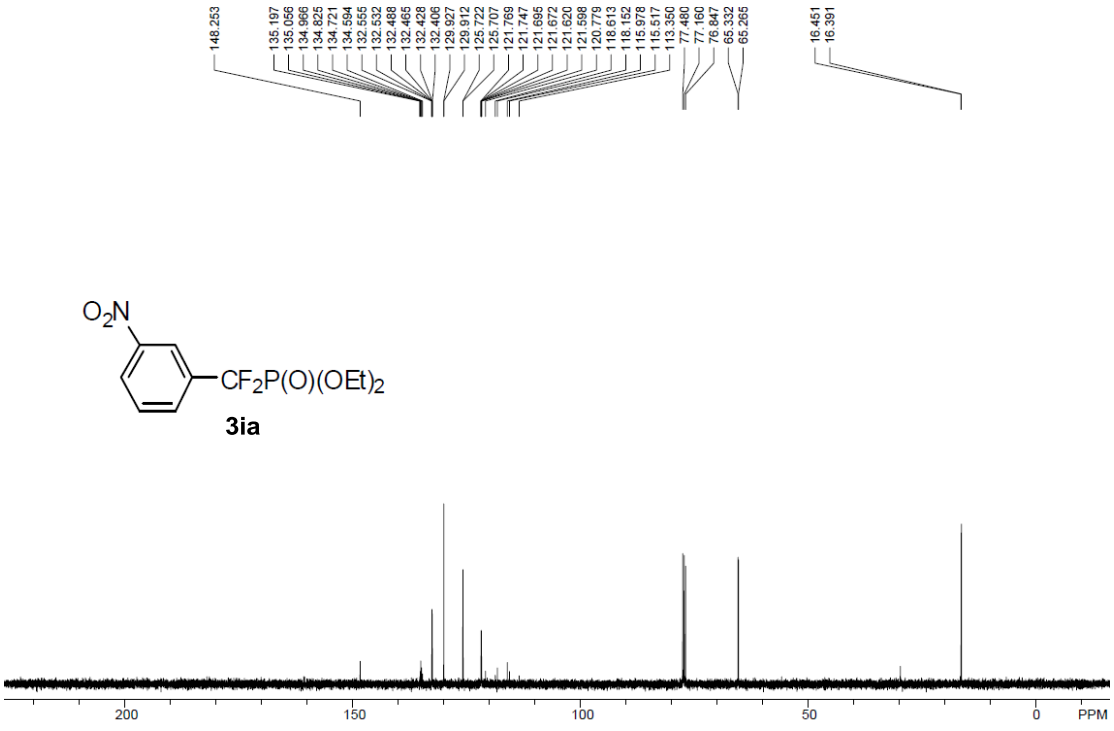
^{31}H NMR of **3ha** ($CDCl_3$, 162 MHz)



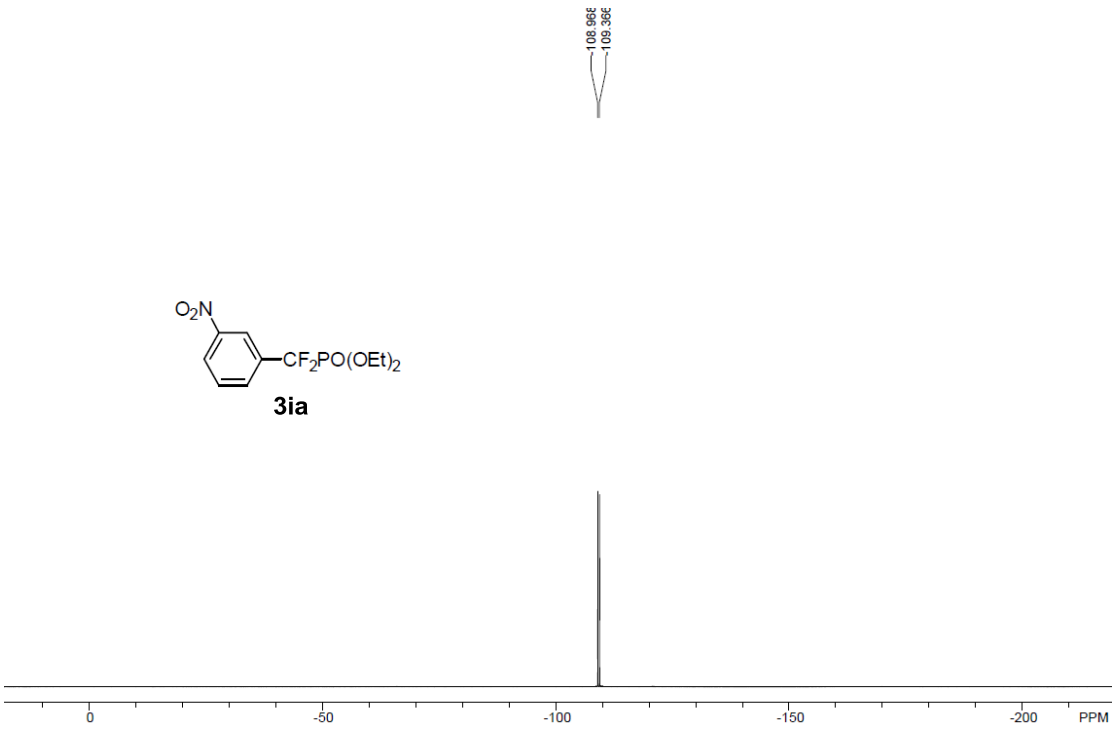
^{1}H NMR of **3ia** ($CDCl_3$, 300 MHz)



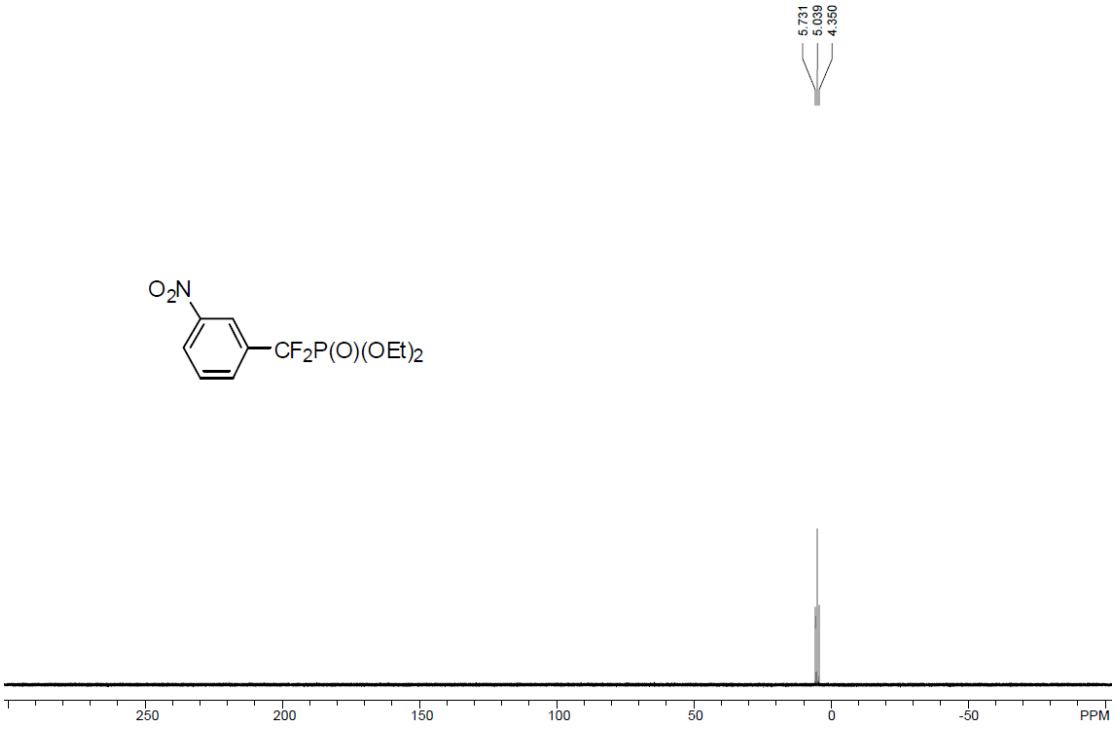
^{13}C NMR of **3ia** ($CDCl_3$, 100 MHz)



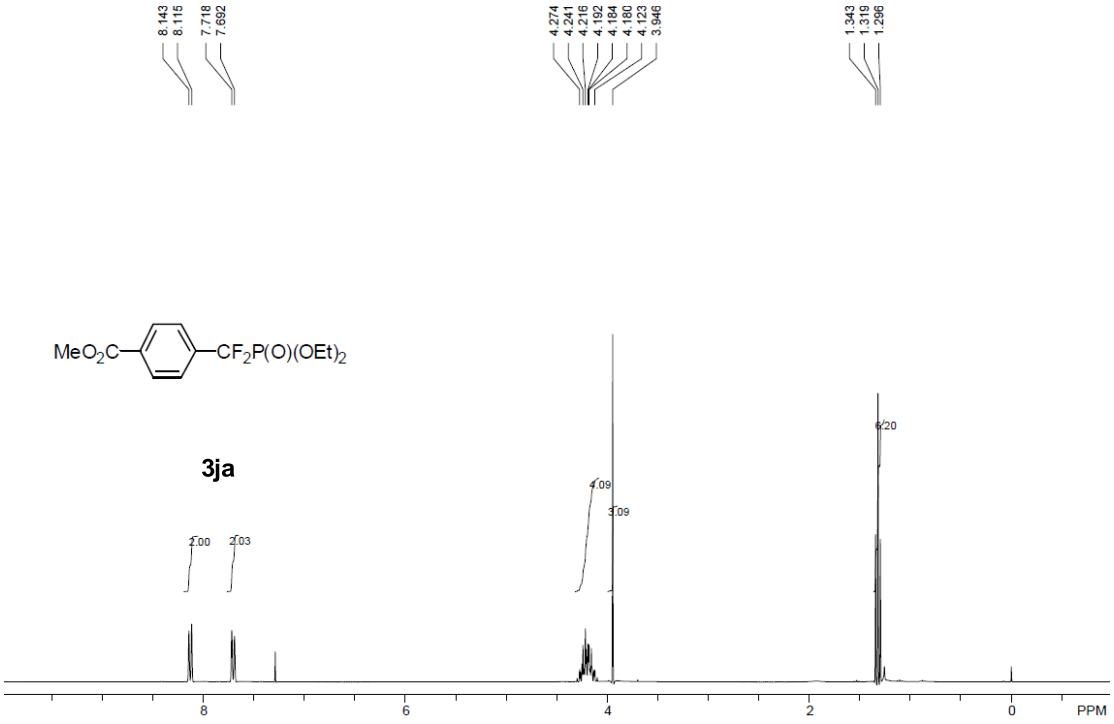
^{19}F NMR of **3ia** ($CDCl_3$, 282 MHz)



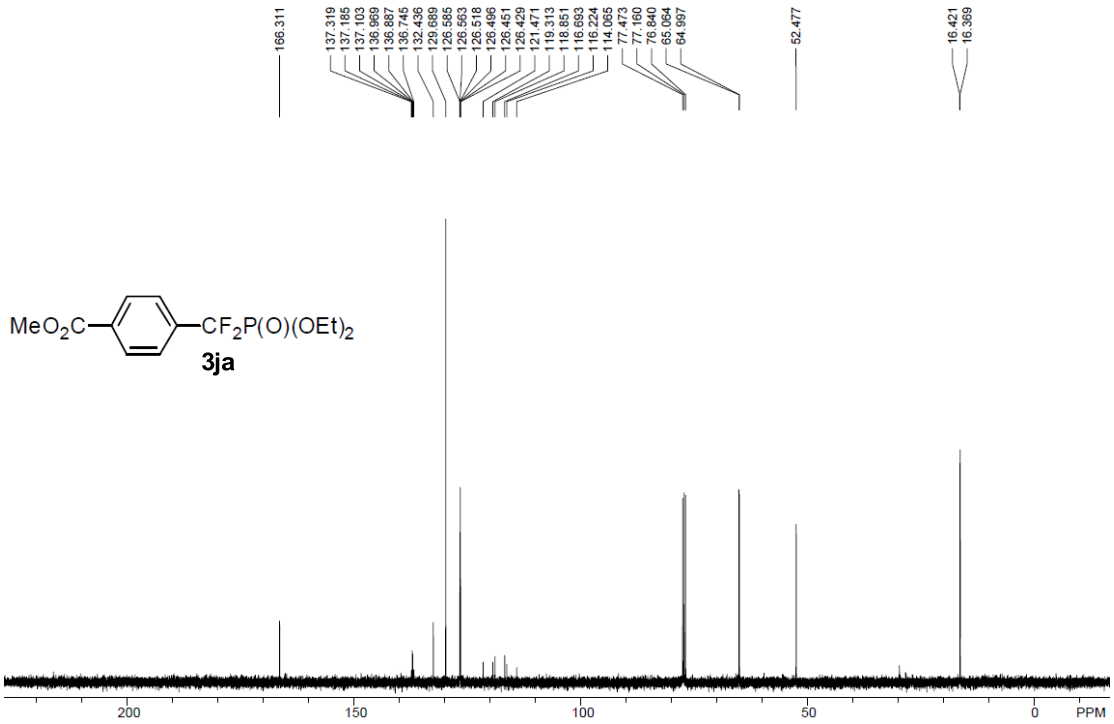
^{31}P NMR of **3ia** ($CDCl_3$, 162 MHz)



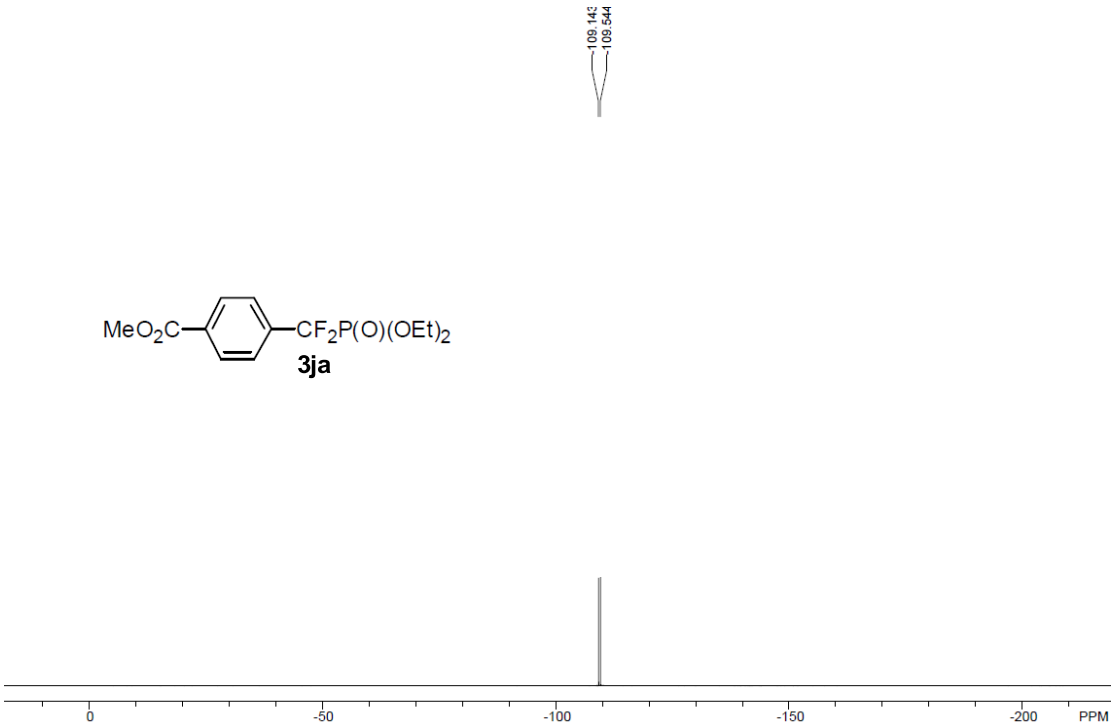
^{1}H NMR of **3ja** ($CDCl_3$, 300 MHz)



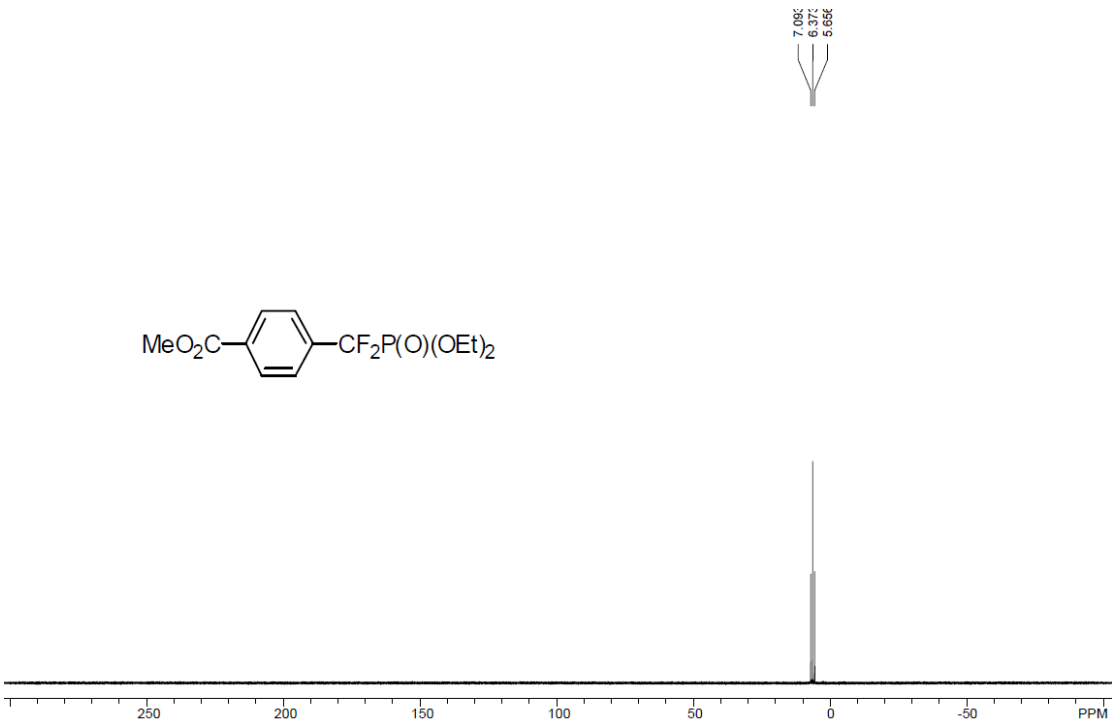
^{13}C NMR of **3ja** ($CDCl_3$, 100 MHz)



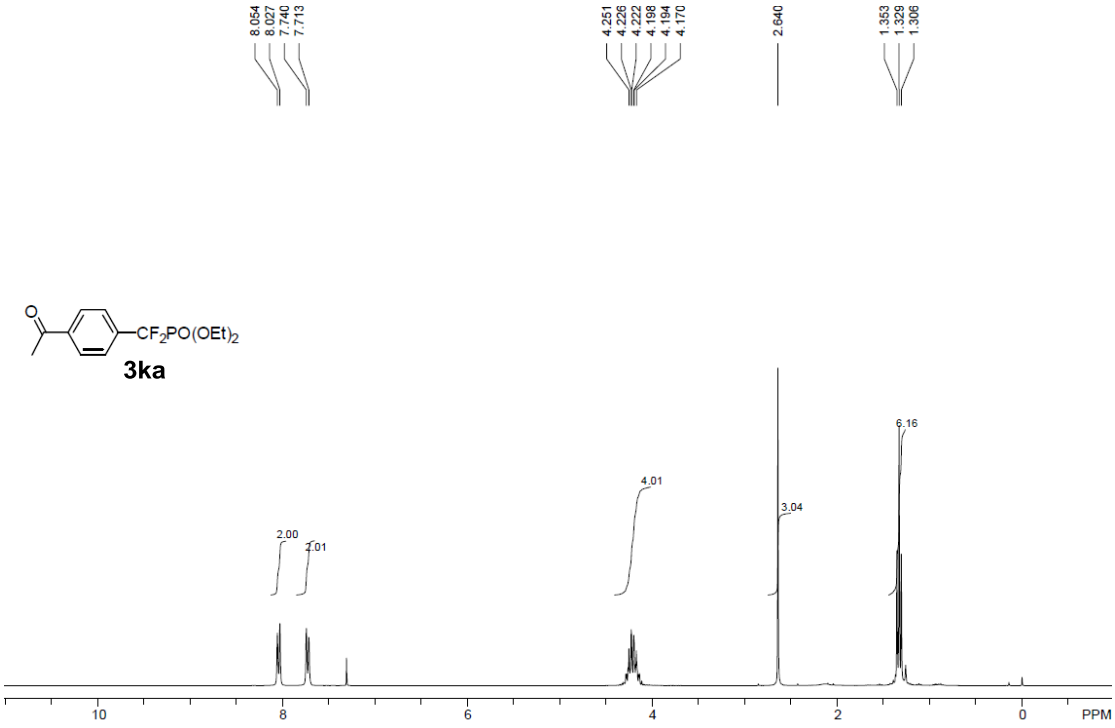
^{19}F NMR of **3ja** ($CDCl_3$, 282 MHz)



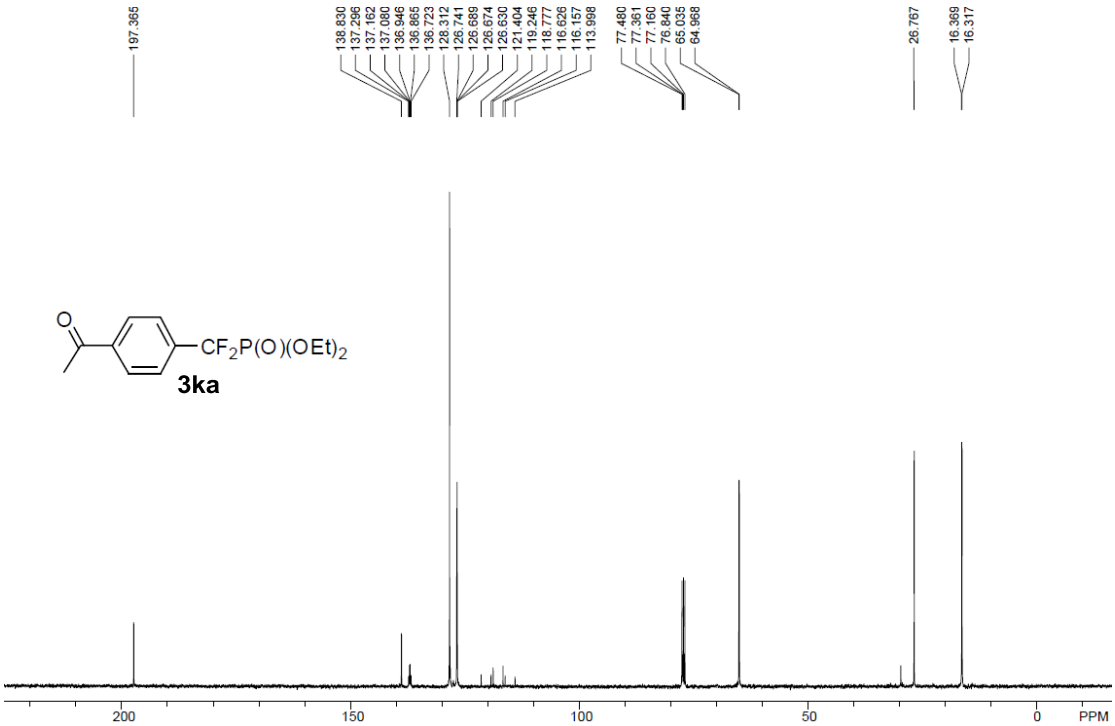
^{31}P NMR of **3ja** ($CDCl_3$, 162 MHz)



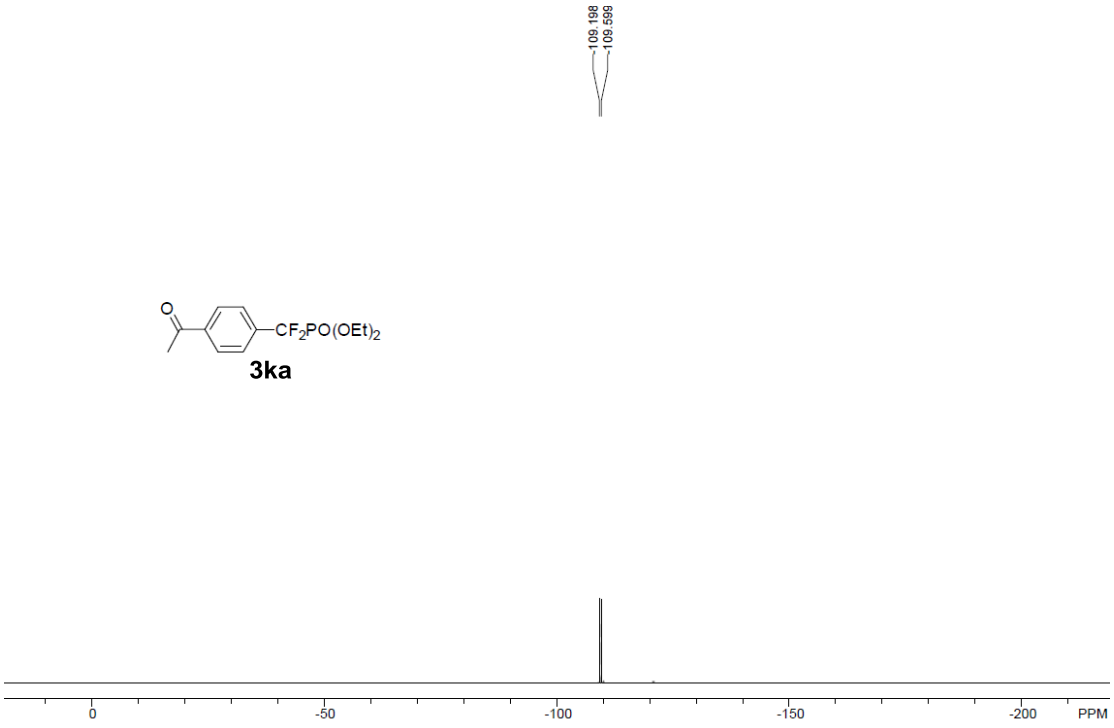
^{1}H NMR of **3ka** ($CDCl_3$, 300 MHz)



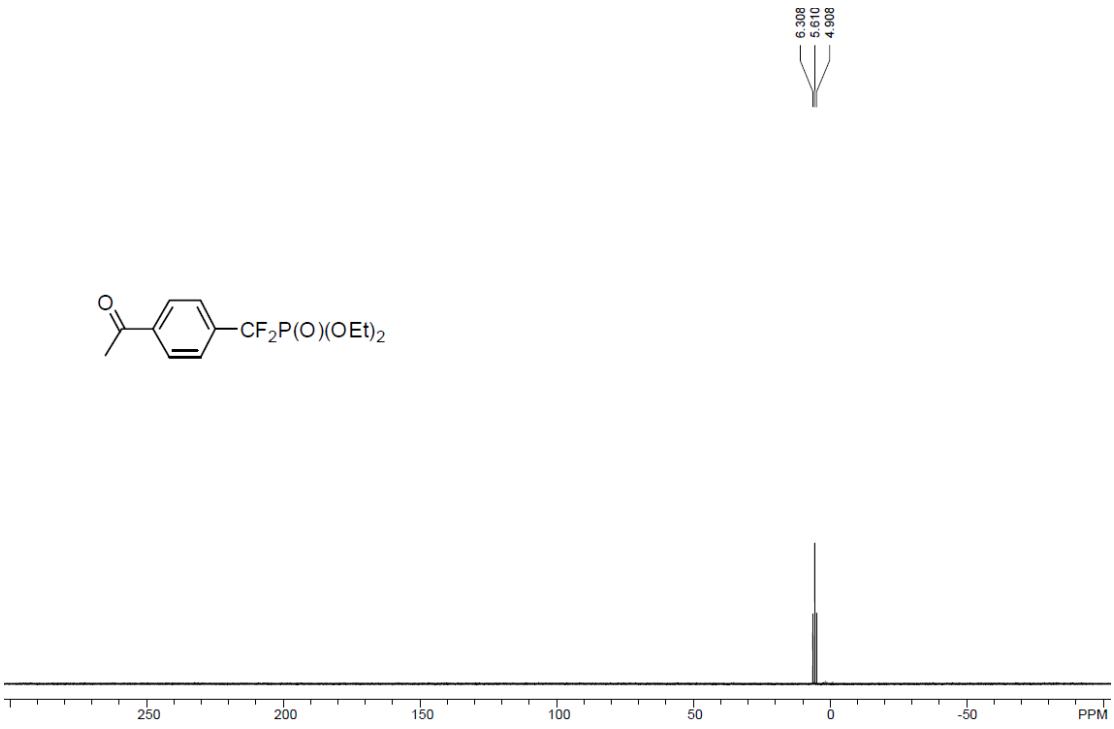
^{13}C NMR of **3ka** ($CDCl_3$, 100 MHz)



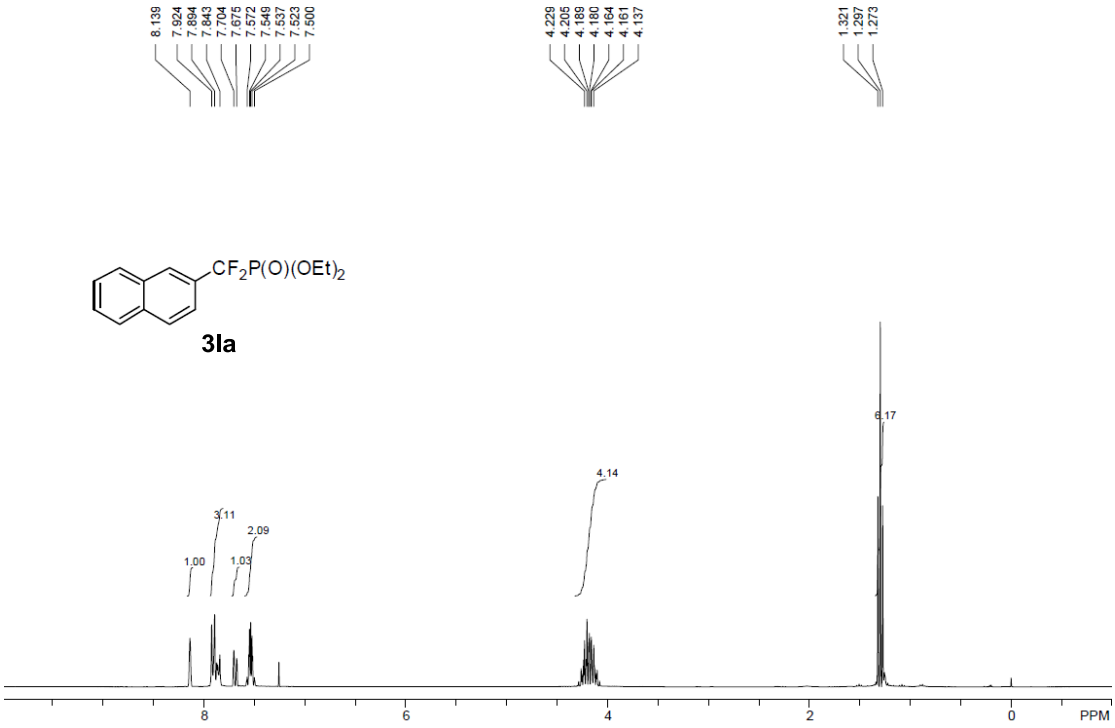
^{19}F NMR of **3ka** ($CDCl_3$, 282 MHz)



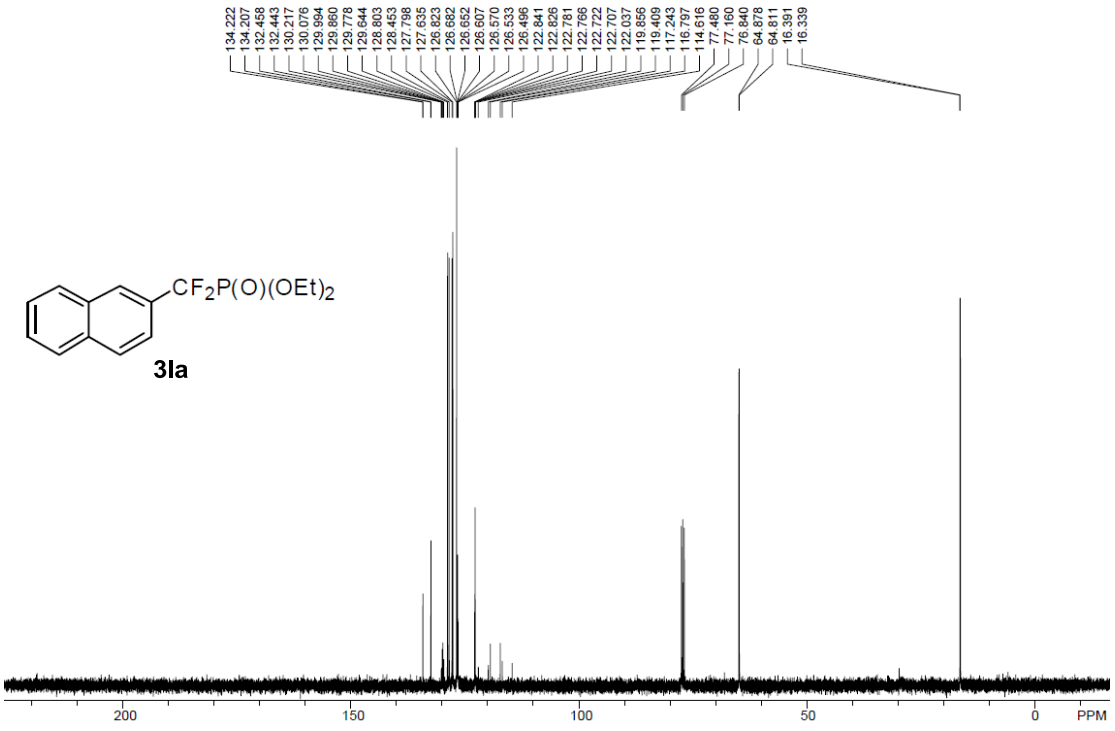
^{31}P NMR of **3ka** ($CDCl_3$, 162 MHz)



^{1}H NMR of **3la** ($CDCl_3$, 300 MHz)



^{13}C NMR of **3la** ($CDCl_3$, 100 MHz)



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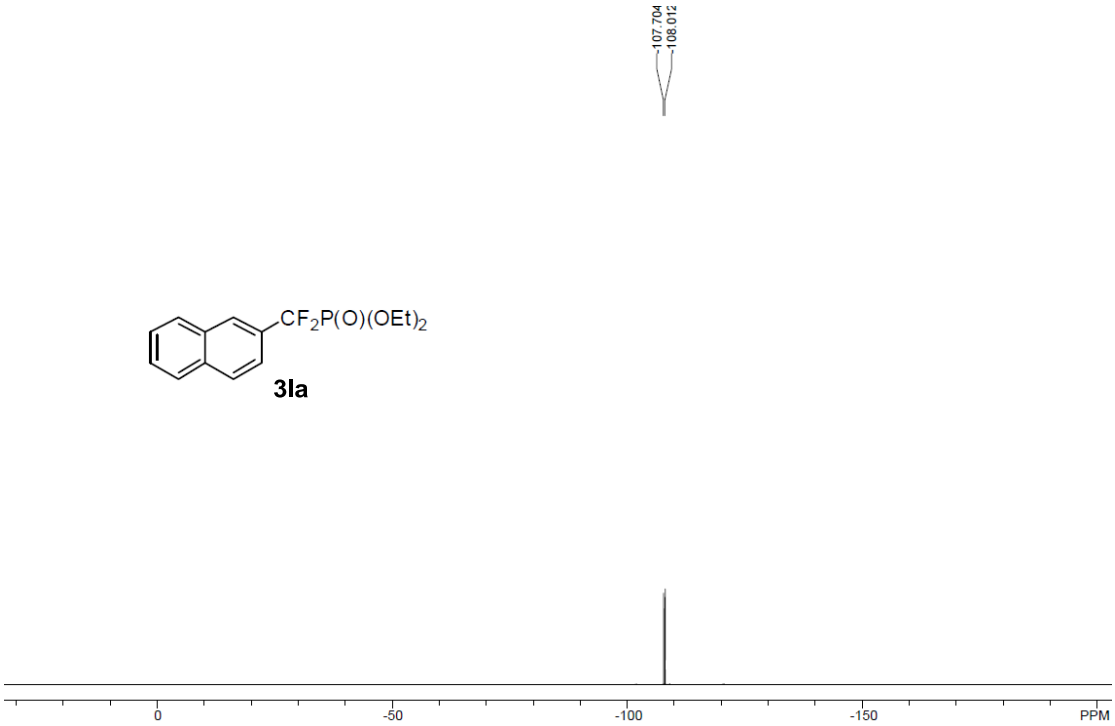
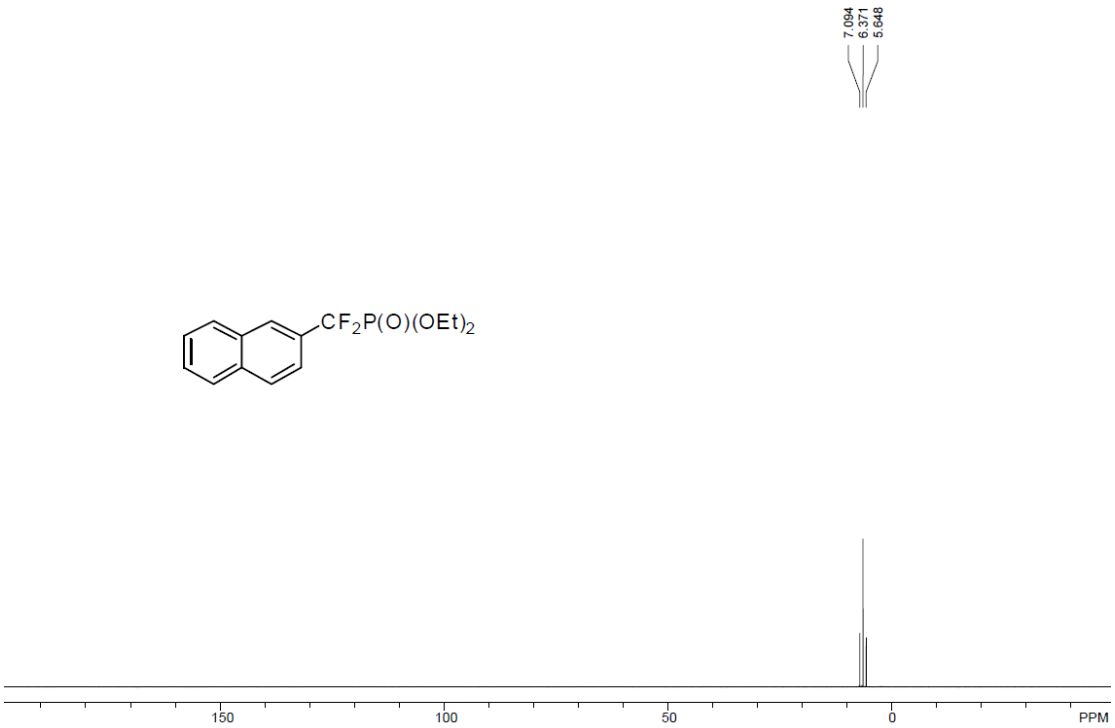
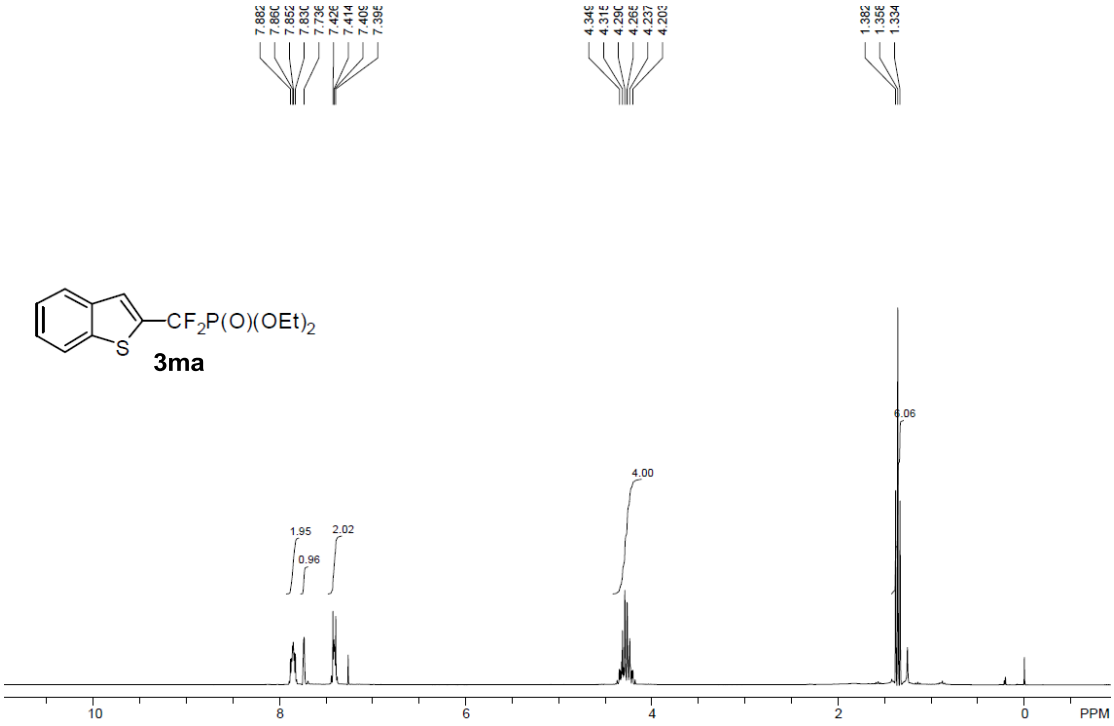


^{31}P NMR of **3la** ($CDCl_3$, 162 MHz)



^{1}H NMR of **3ma** ($CDCl_3$, 300 MHz)



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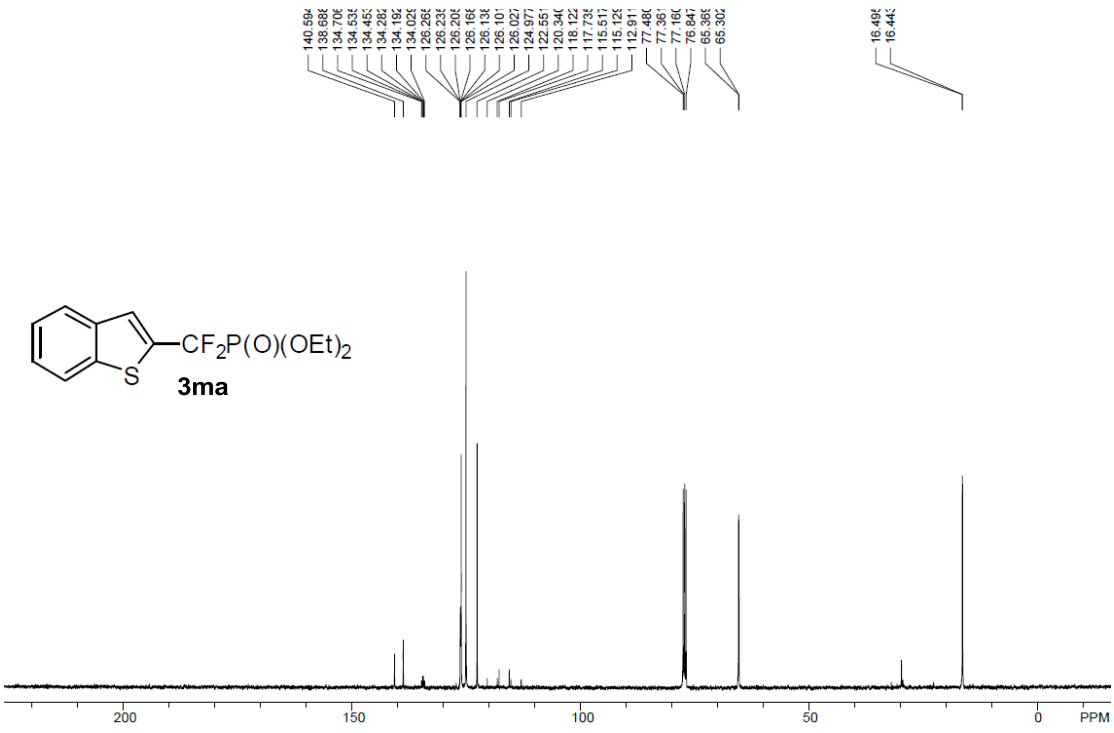
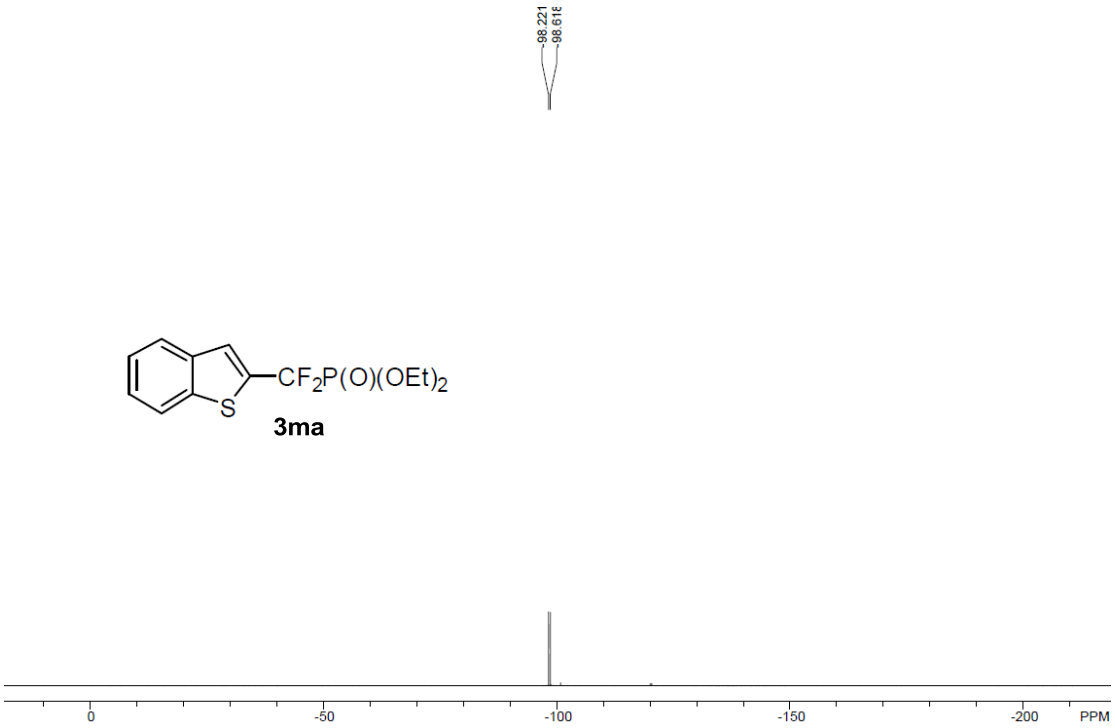
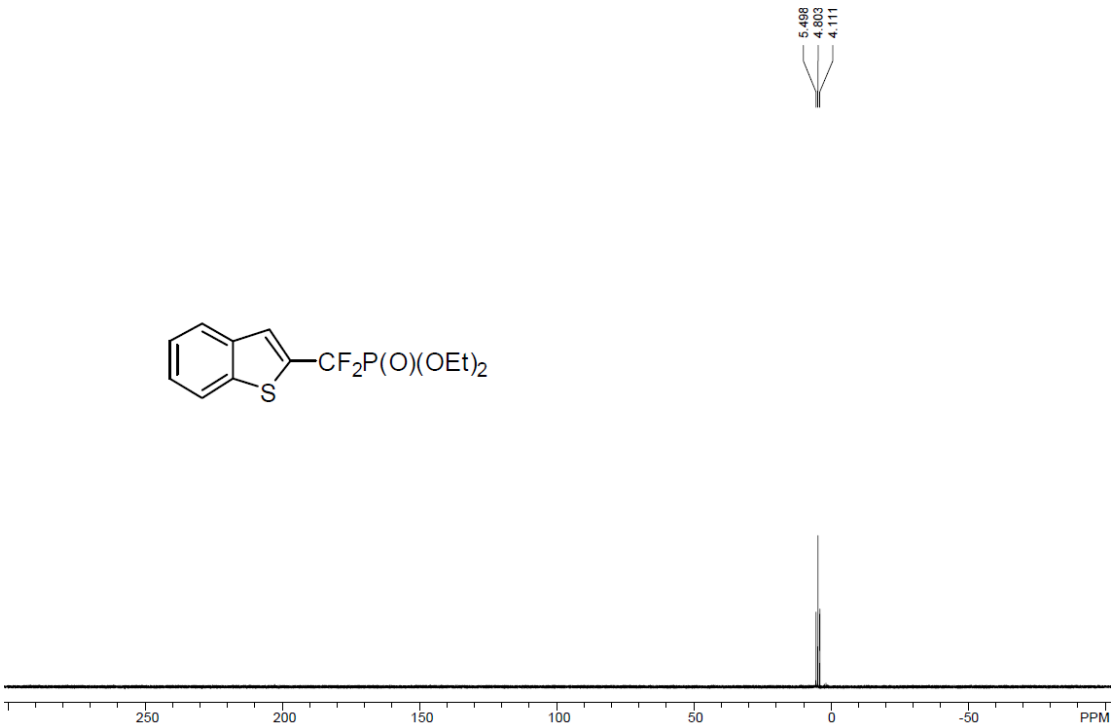


^{19}F NMR of **3ma** ($CDCl_3$, 282 MHz)



^{31}P NMR of **3ma** ($CDCl_3$, 162 MHz)



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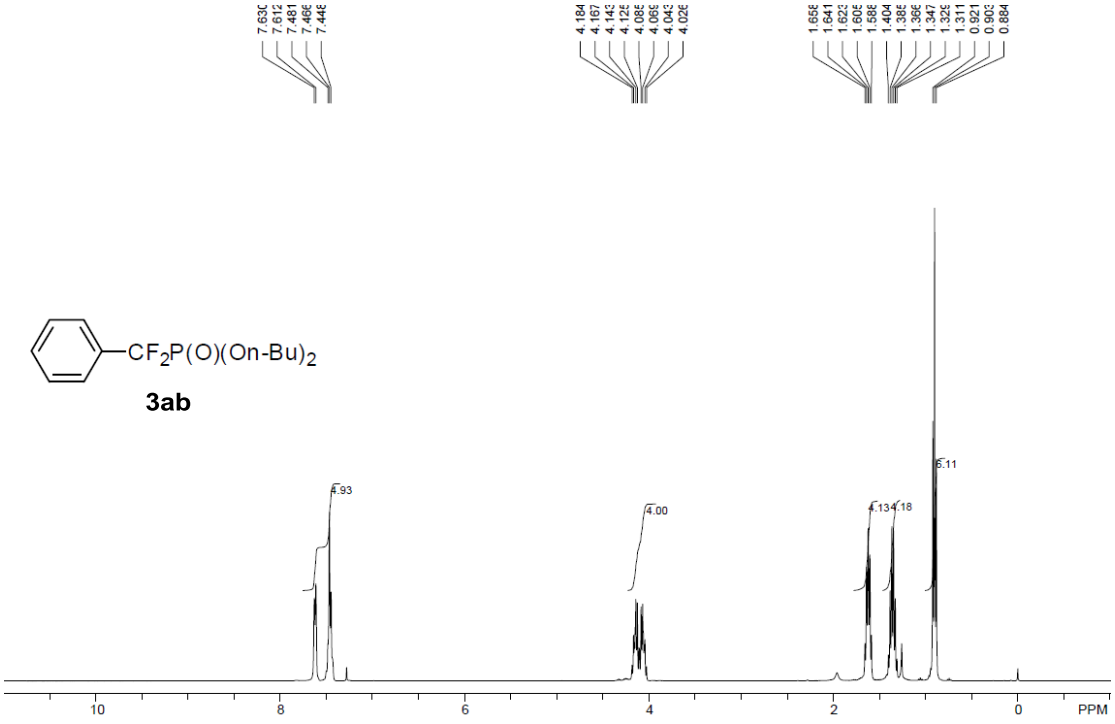
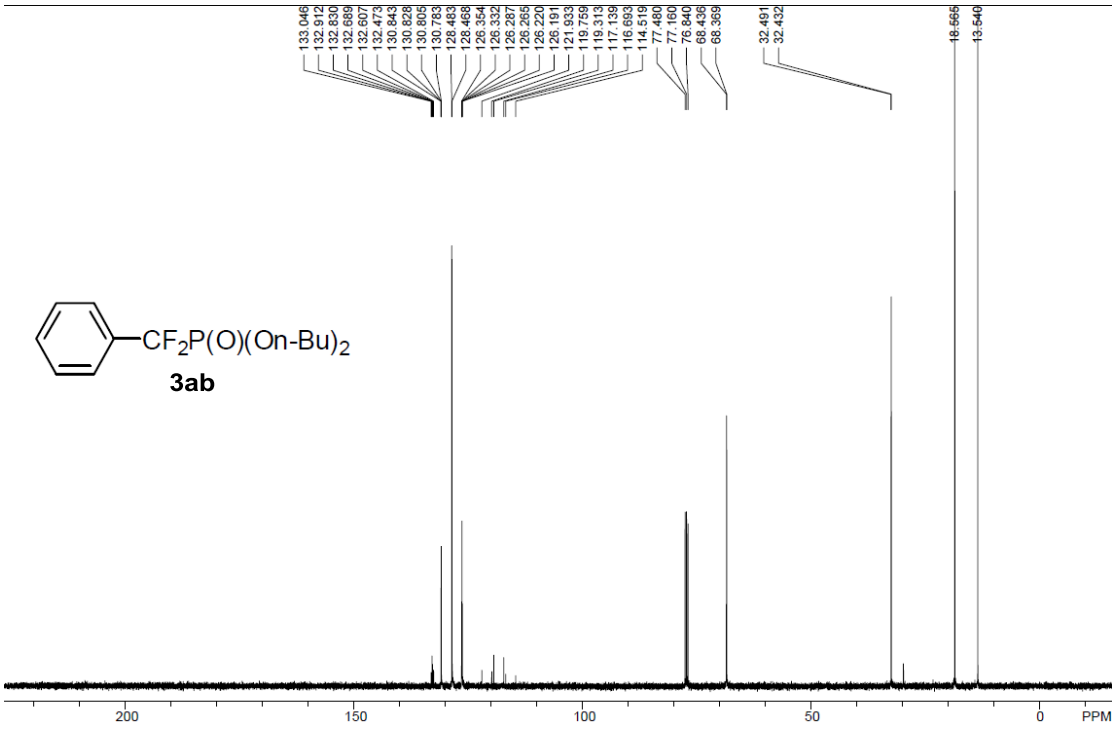
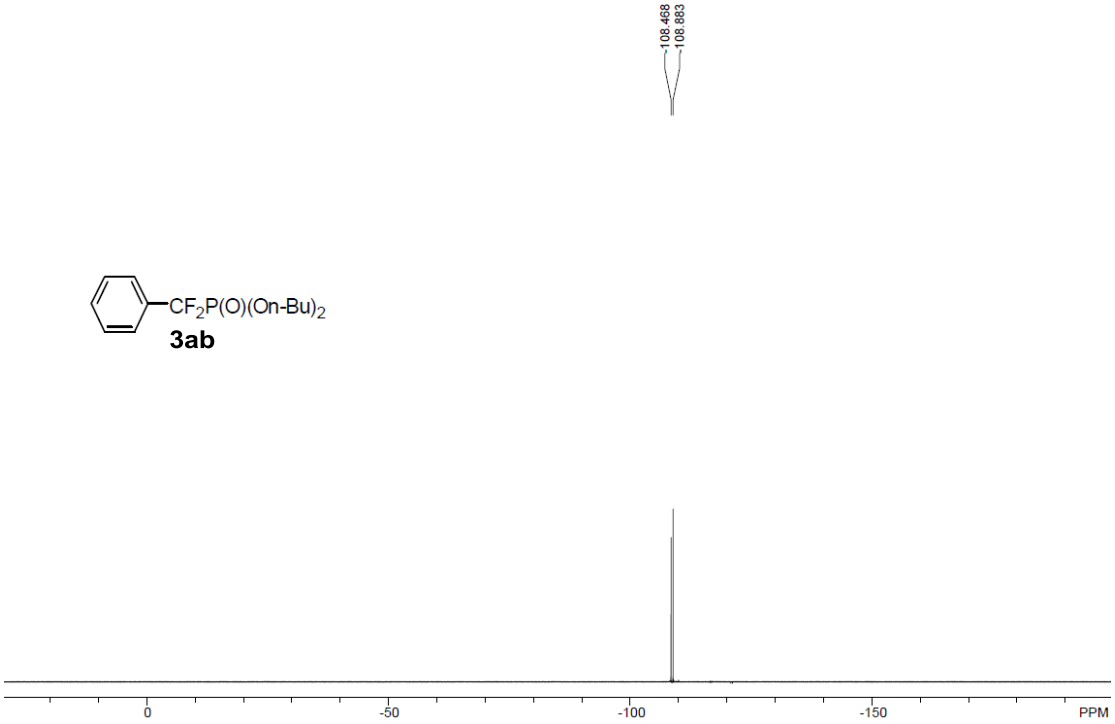


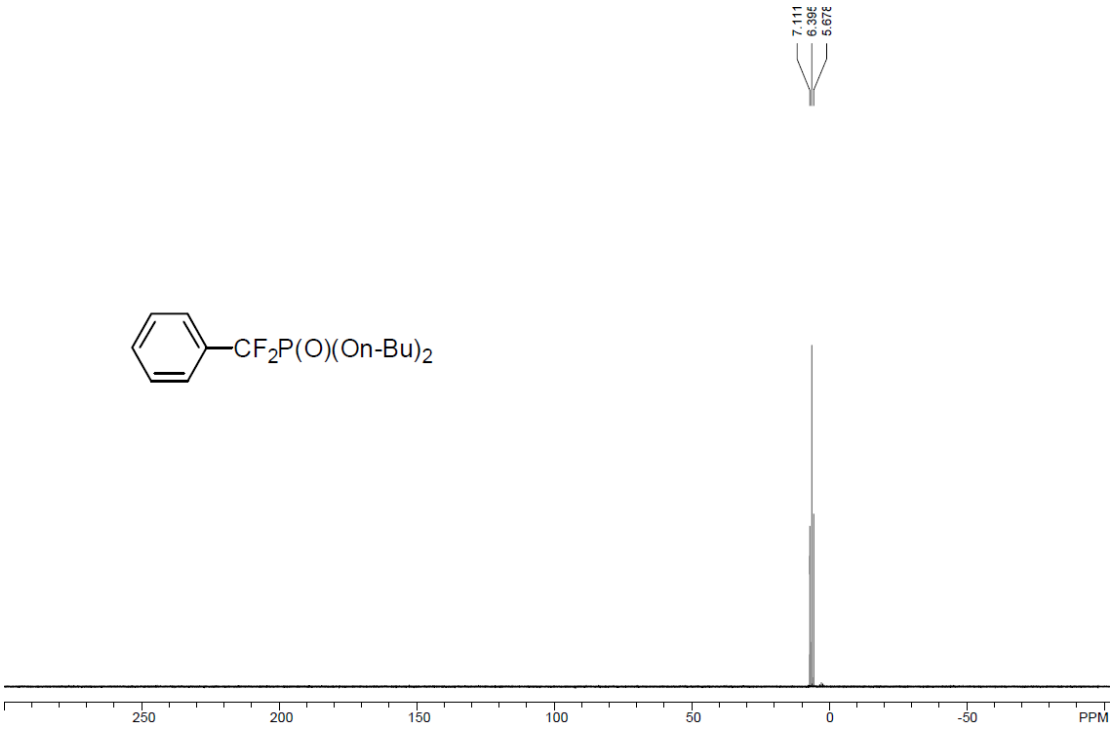
^{13}C NMR of **3ab** ($CDCl_3$, 100 MHz)



^{19}F NMR of **3ab** ($CDCl_3$, 282 MHz)



^{31}P NMR of **3ab** ($CDCl_3$, 162 MHz)



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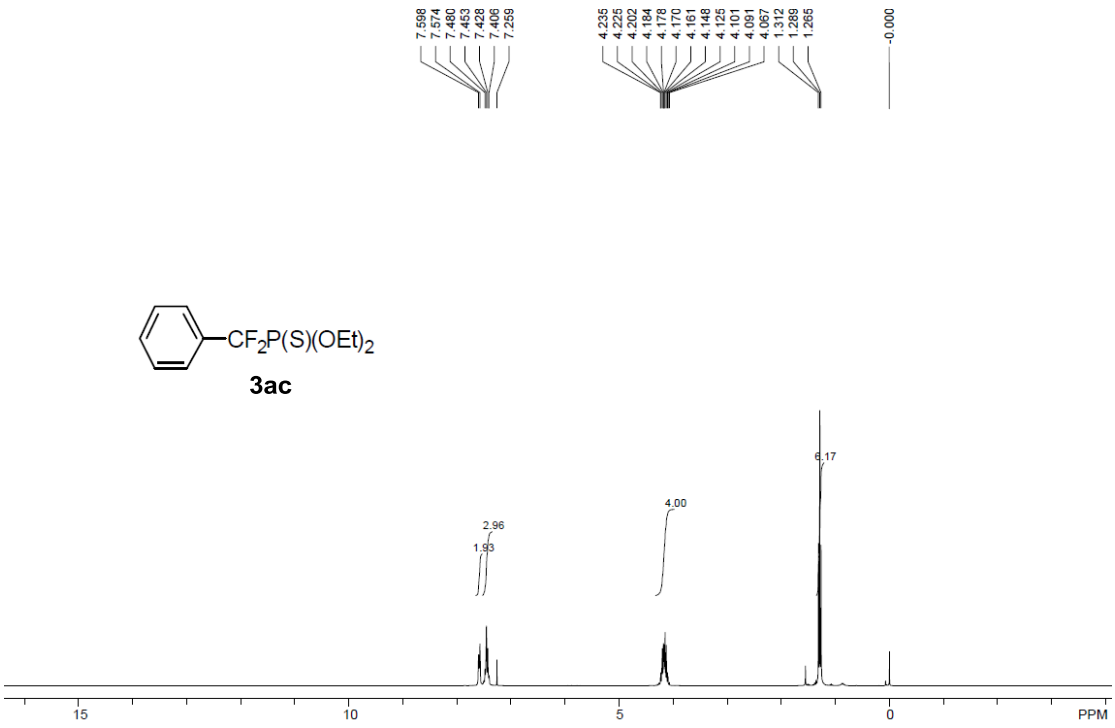
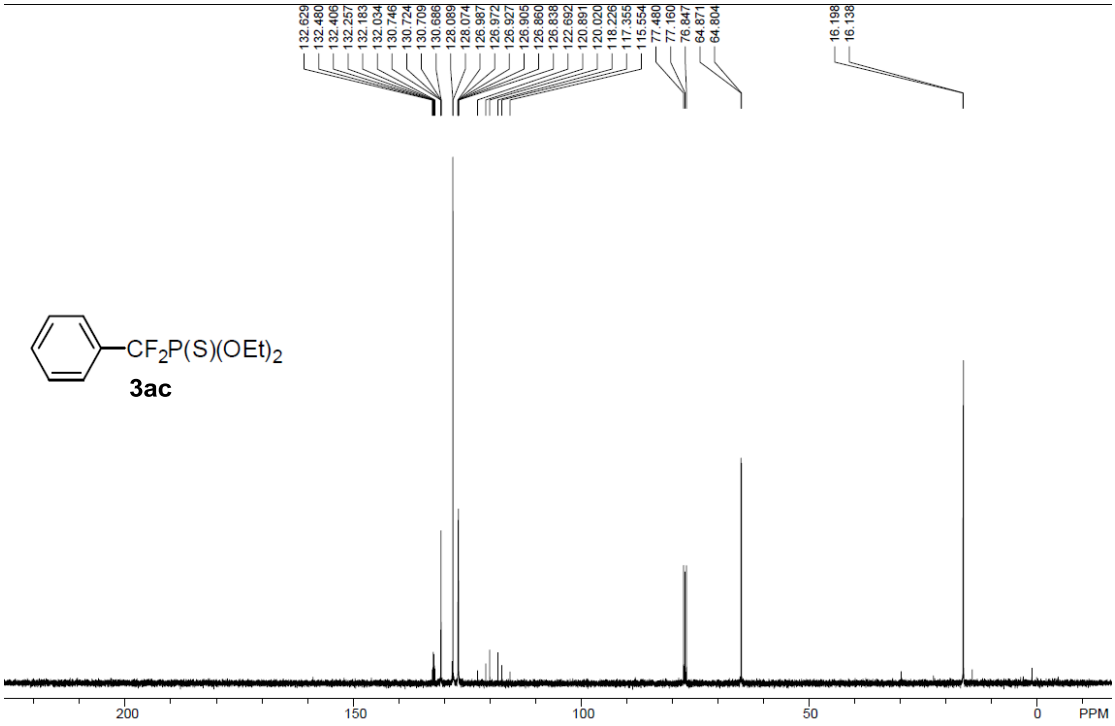
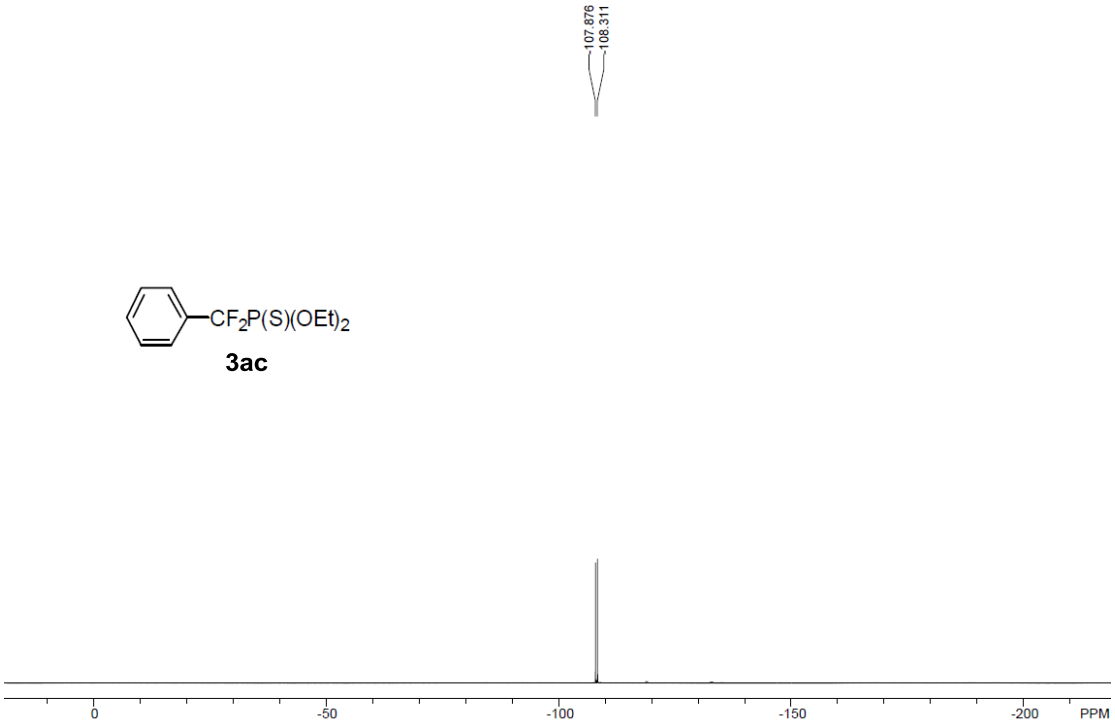


^{13}C NMR of **3ac** ($CDCl_3$, 100 MHz)

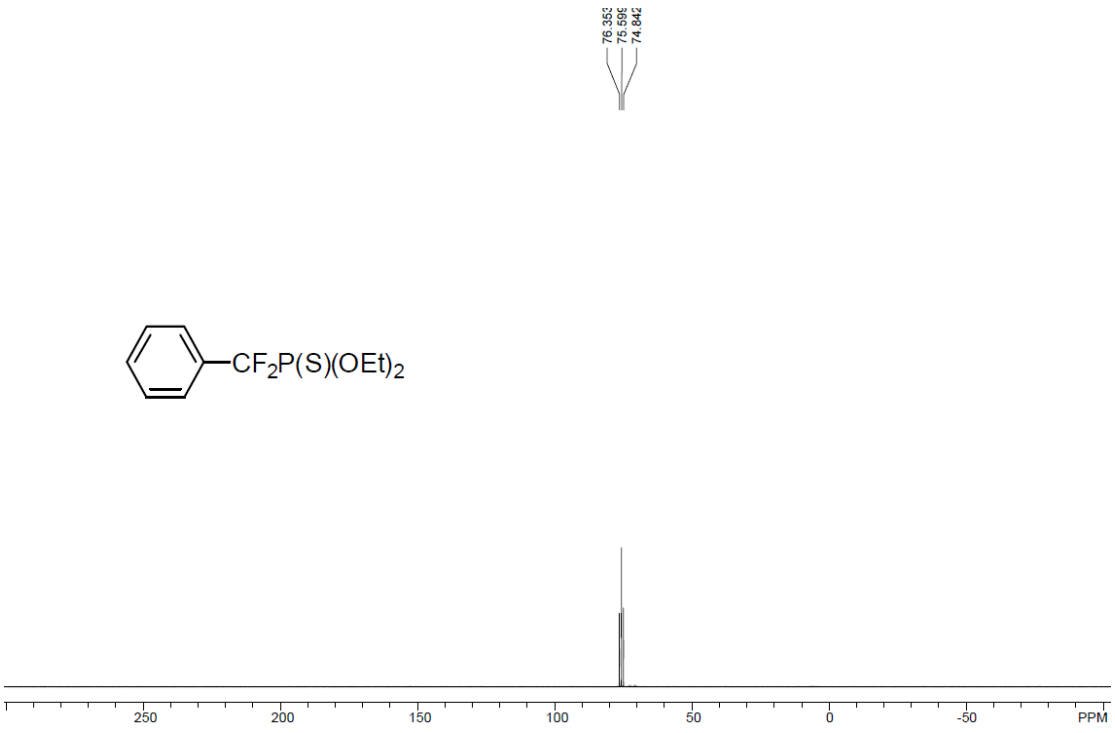


^{19}F NMR of **3ac** ($CDCl_3$, 282 MHz)

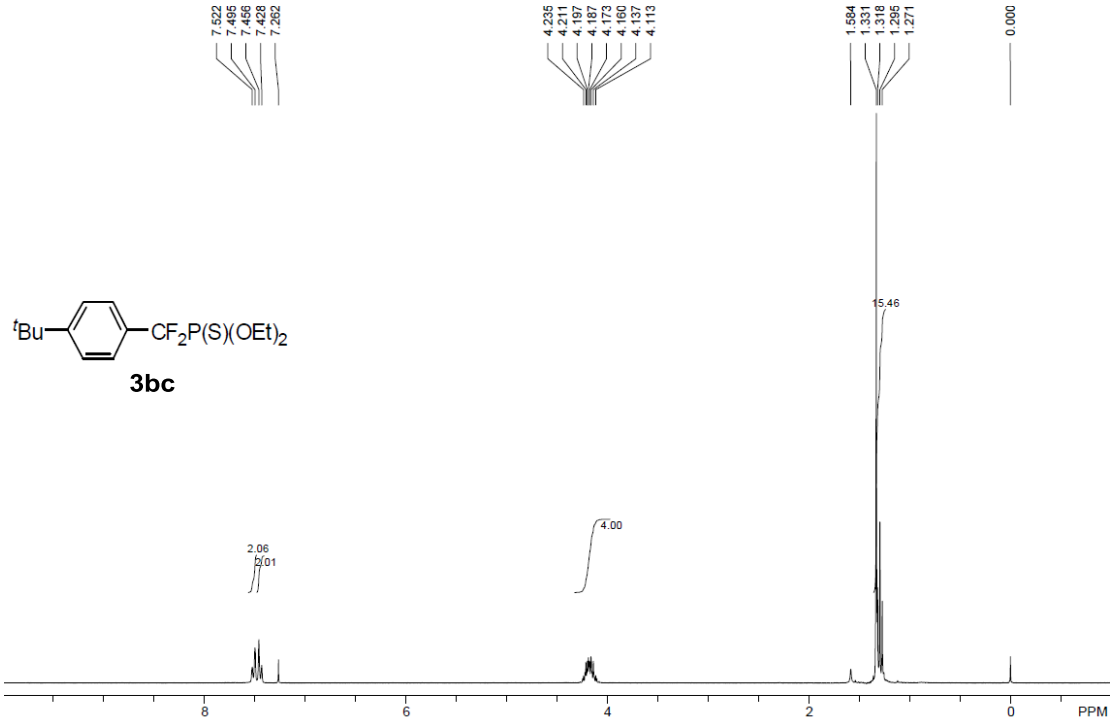


3ac

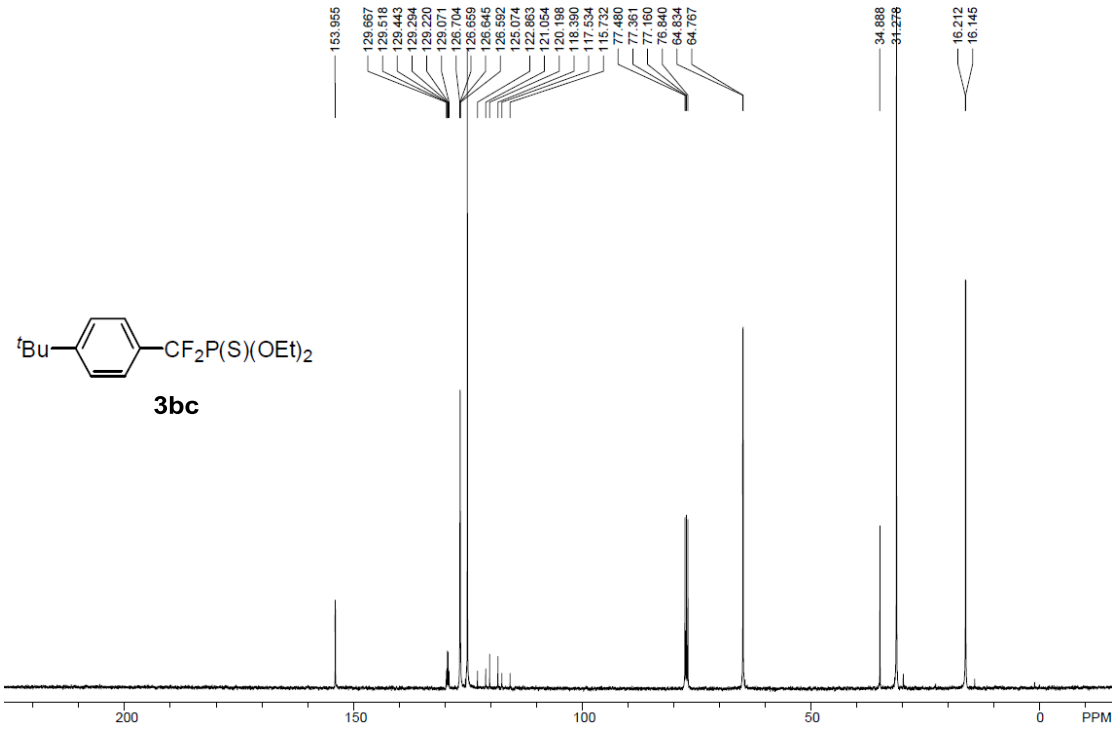
^{31}P NMR of **3ac** ($CDCl_3$, 162 MHz)



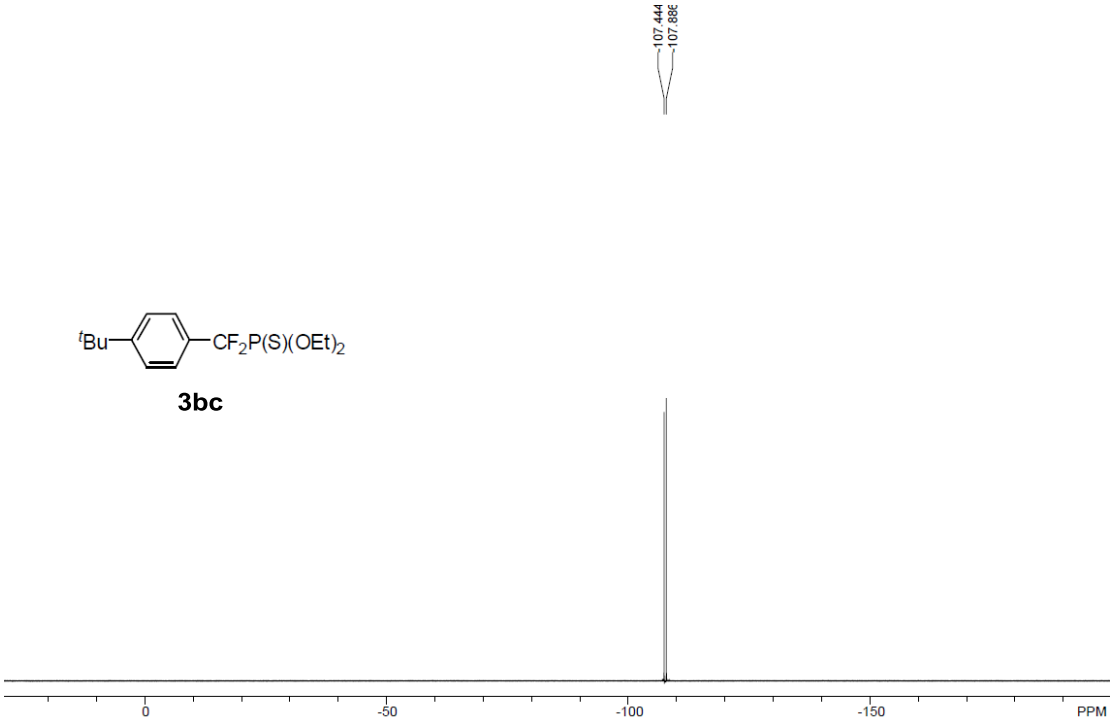
^{1}H NMR of **3bc** ($CDCl_3$, 300 MHz)



^{13}C NMR of **3bc** ($CDCl_3$, 100 MHz)

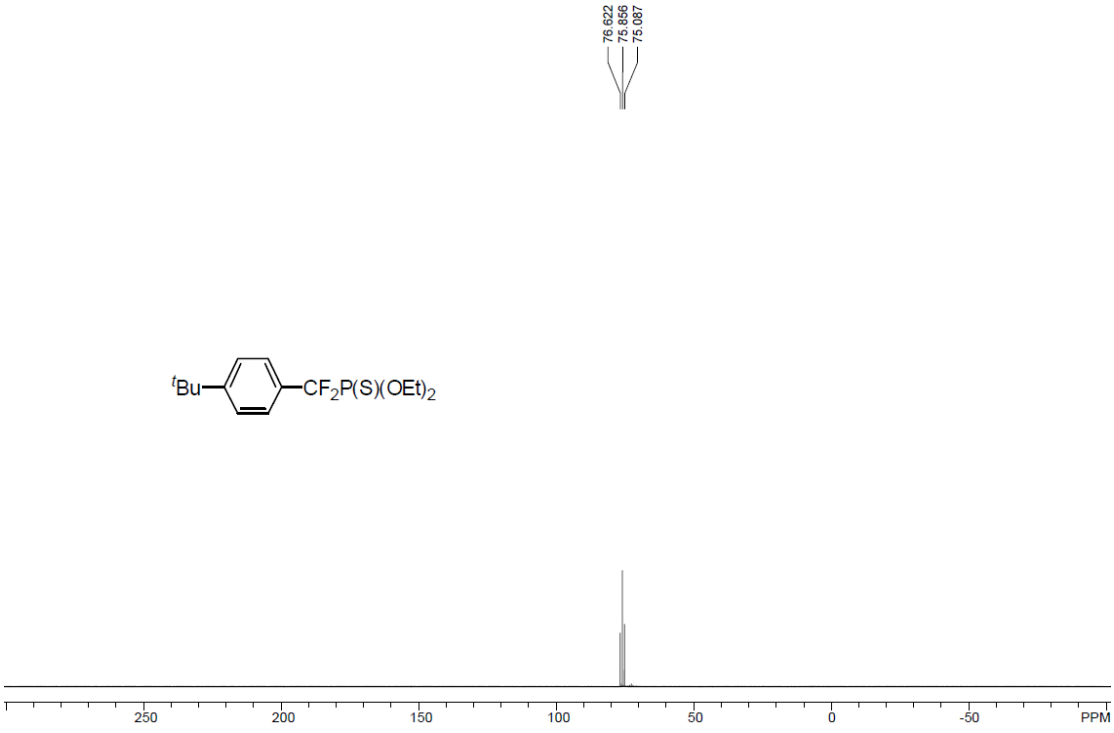


^{19}F NMR of **3bc** ($CDCl_3$, 282 MHz)

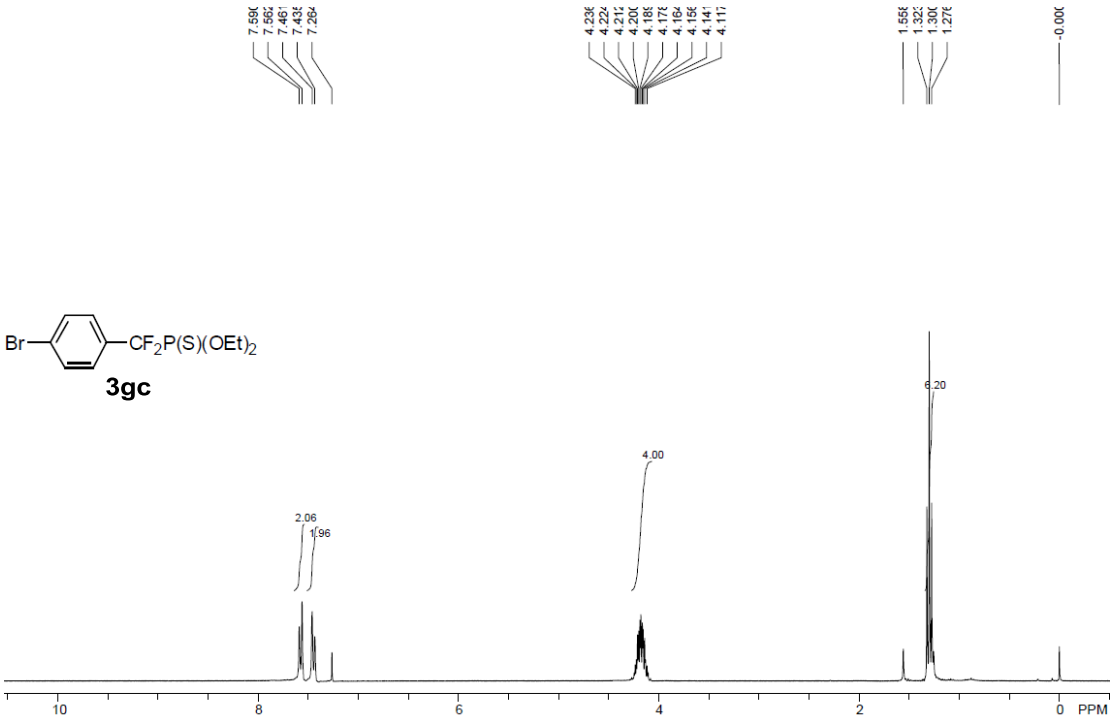


3bc

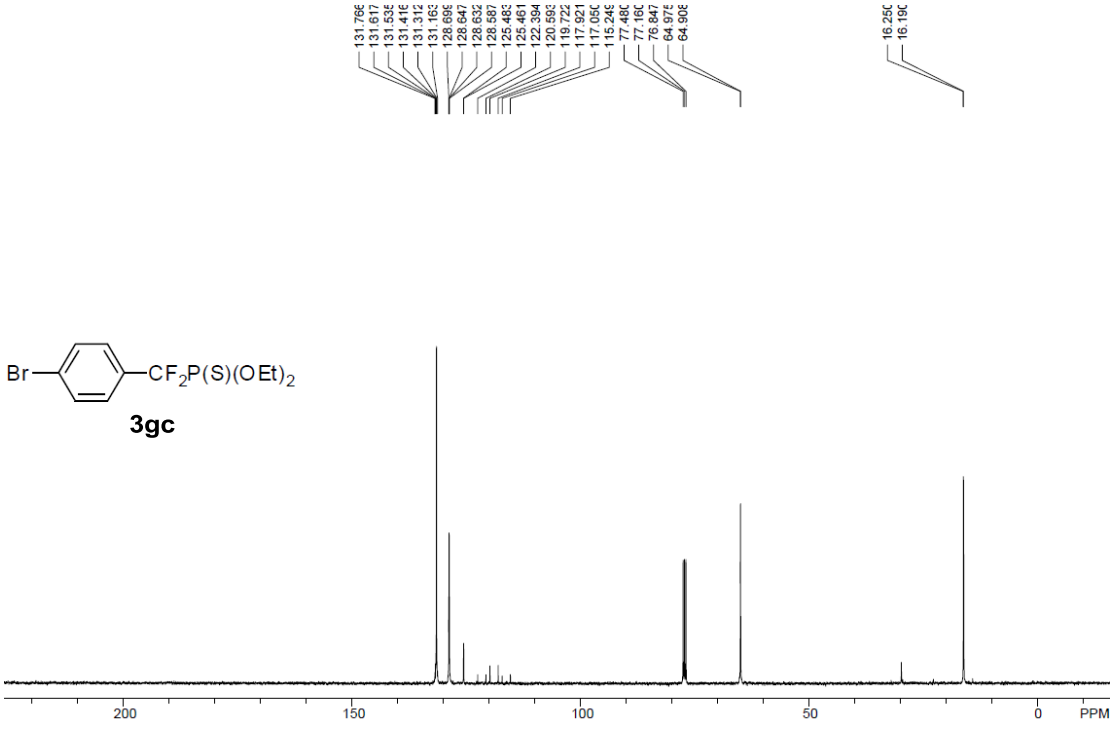
^{31}P NMR of **3bc** ($CDCl_3$, 162 MHz)



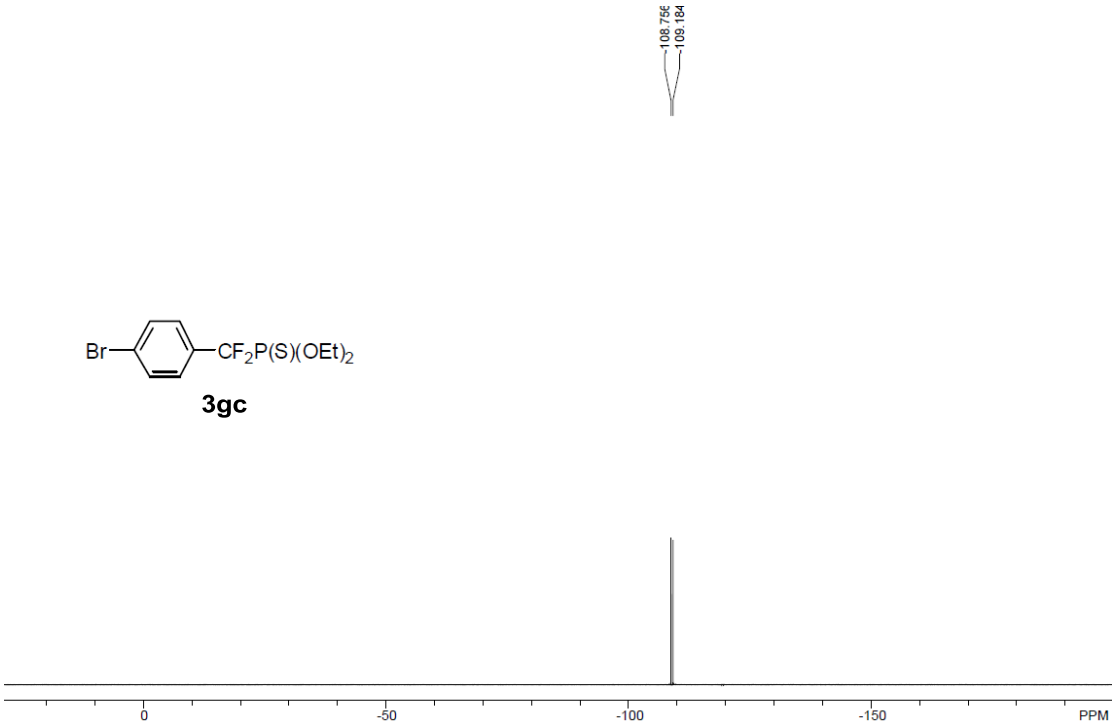
^{1}H NMR of **3gc** ($CDCl_3$, 300 MHz)



^{13}C NMR of **3gc** ($CDCl_3$, 100 MHz)



^{19}F NMR of **3gc** ($CDCl_3$, 282 MHz)



3gc

^{31}P NMR of **3gc** ($CDCl_3$, 162 MHz)