

Supporting information for

# 4-Cyano-5-(2-Thiophenyl)-Pyrazoles are High Affinity CB1 Receptor Ligands

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<sup>c</sup> C.N.R.-Istituto di Chimica del Riconoscimento Molecolare, via Mancinelli 7, 20131 Milano, Italy

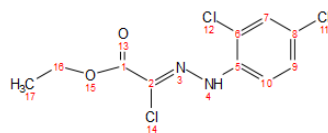
## I. <sup>1</sup>H, <sup>13</sup>C, <sup>19</sup>F NMR spectra

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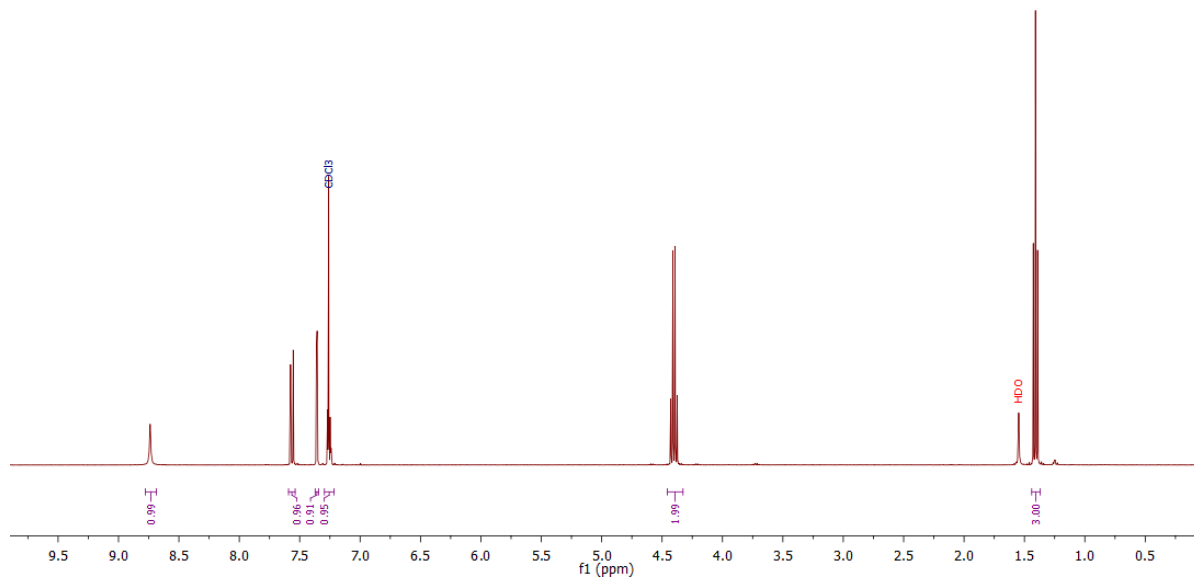
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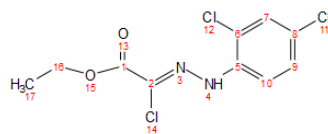
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )



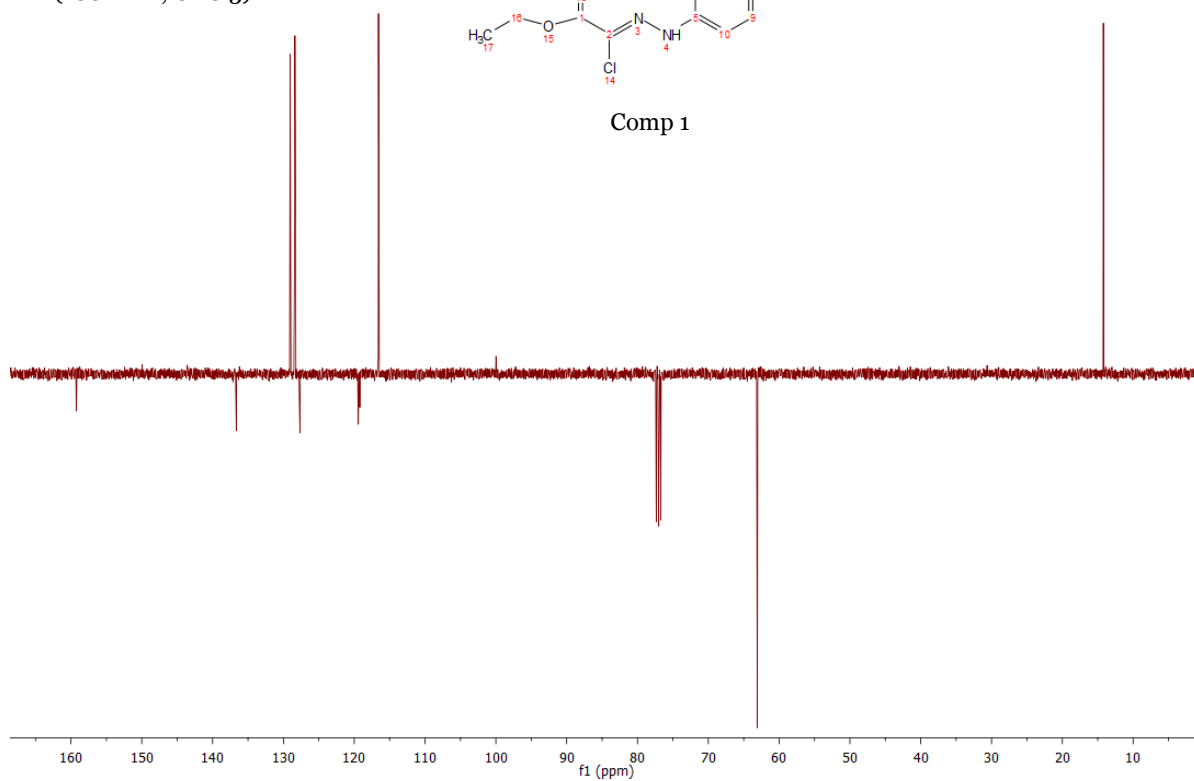
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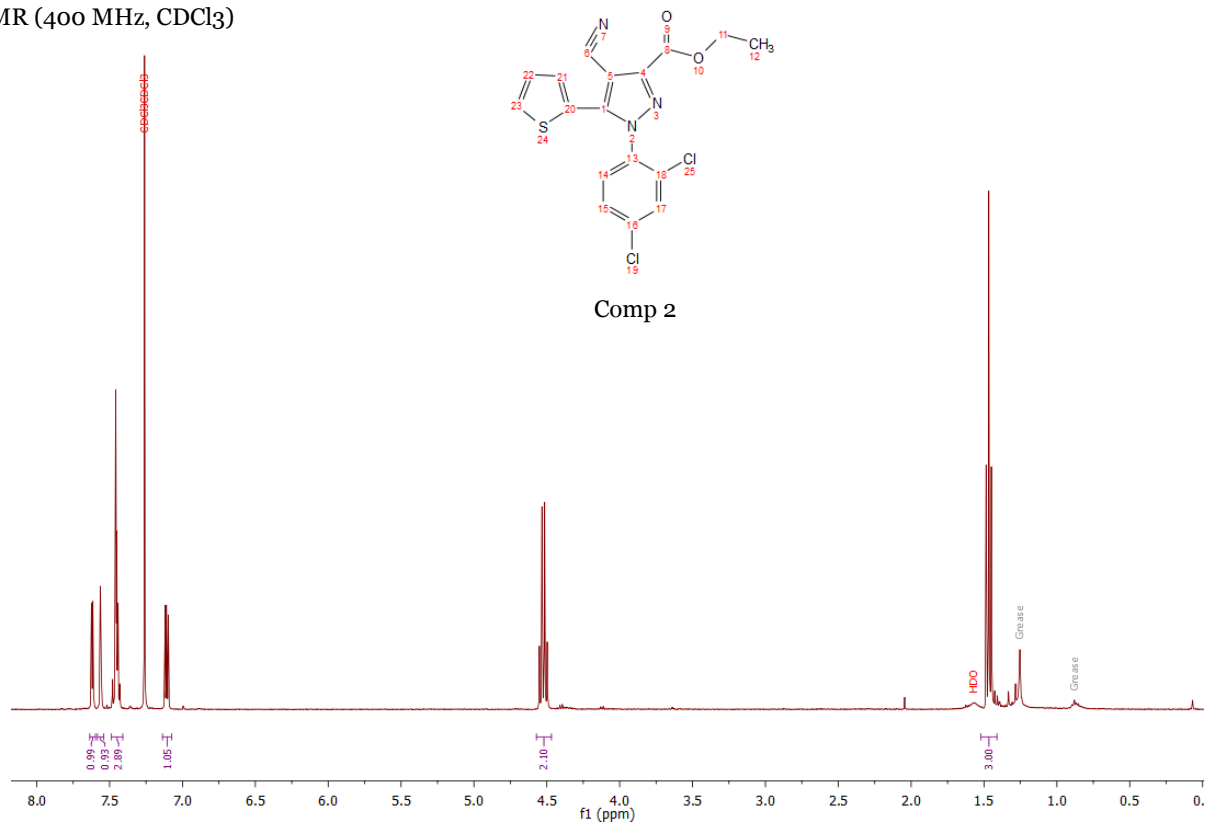
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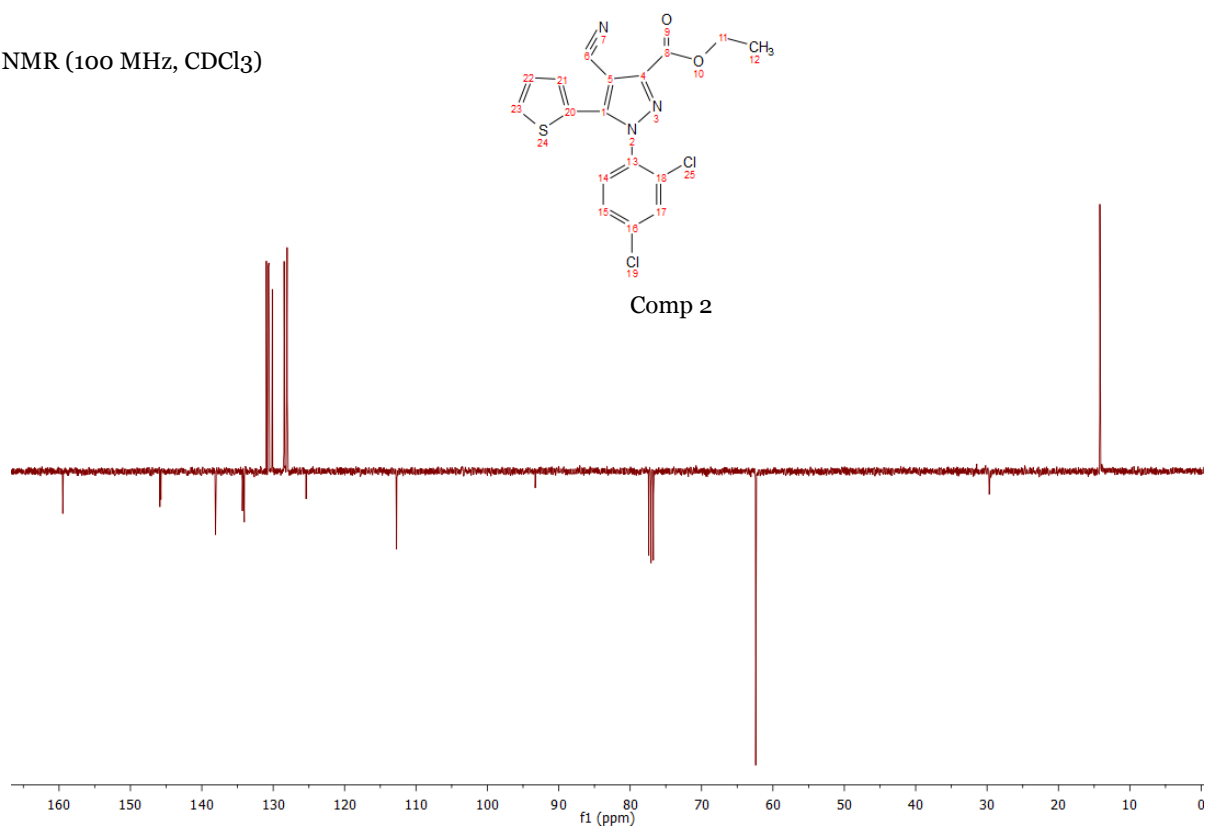
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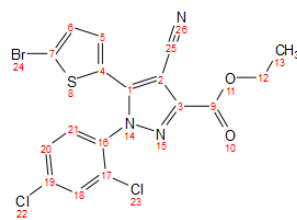
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



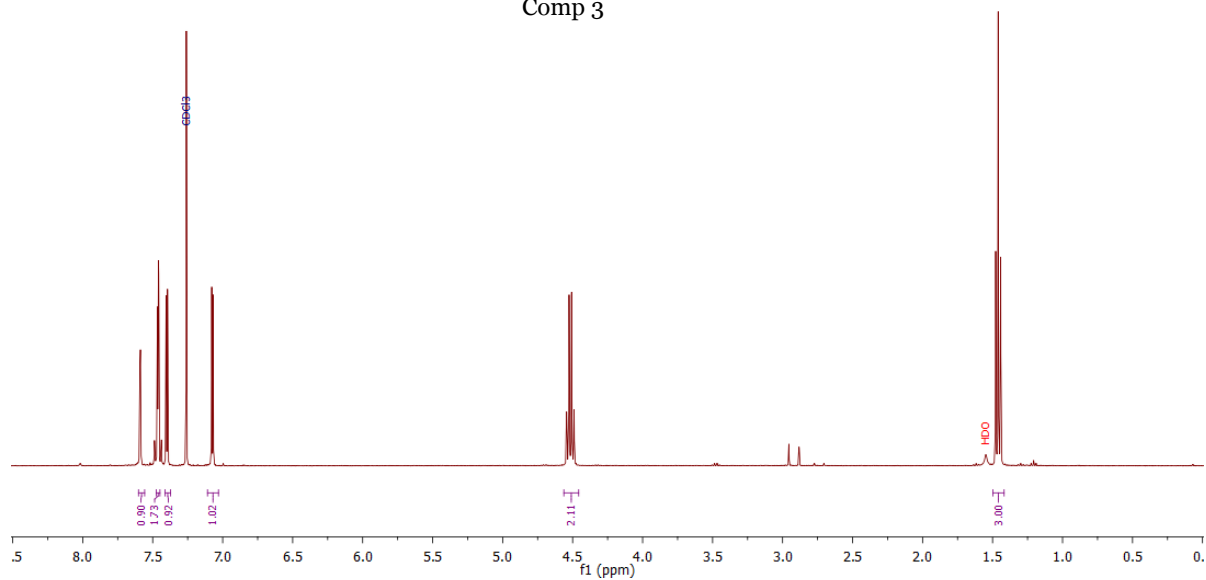
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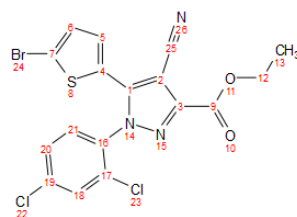
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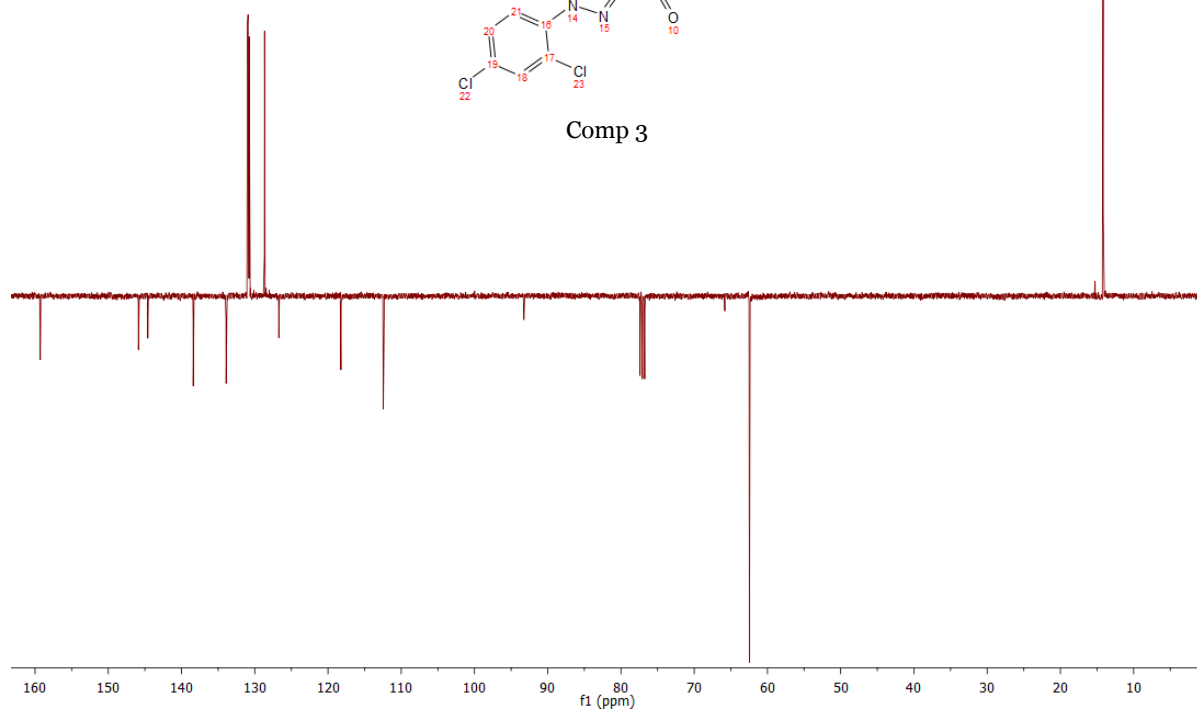
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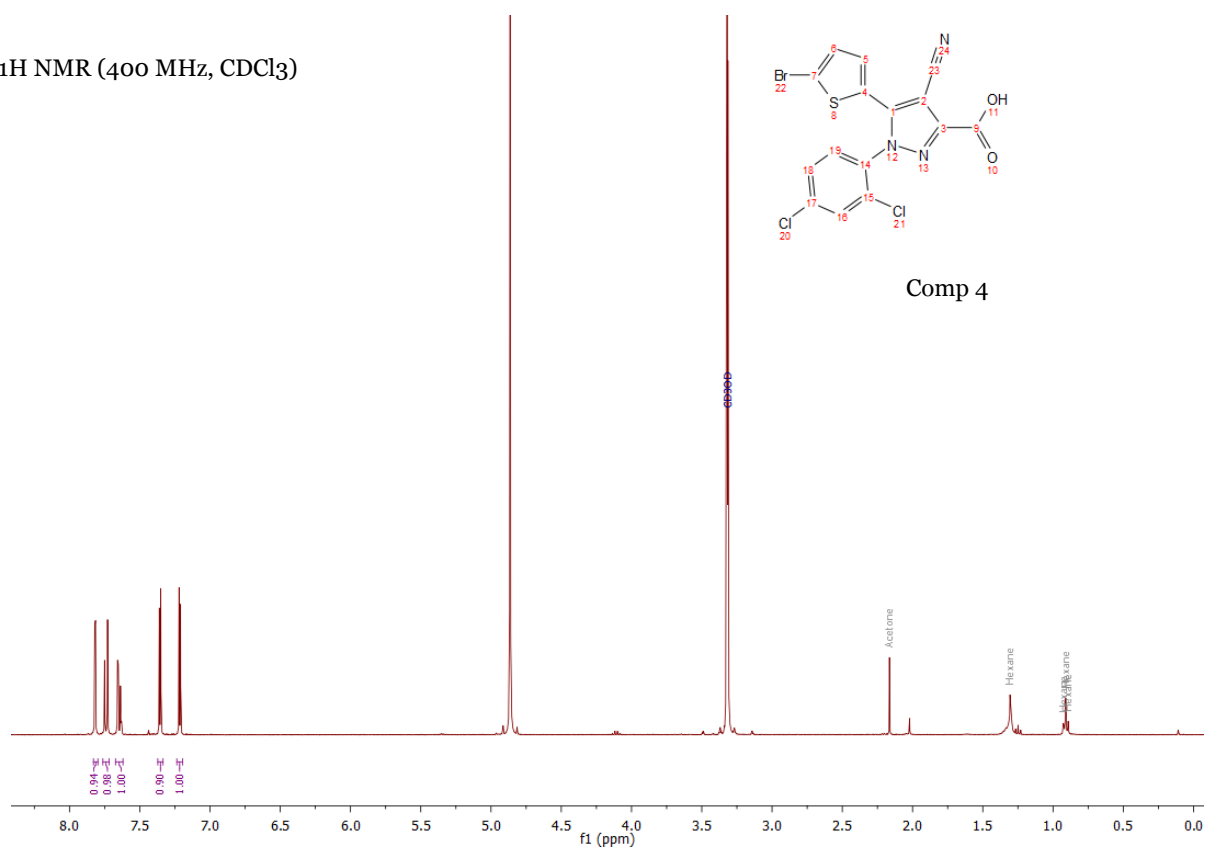
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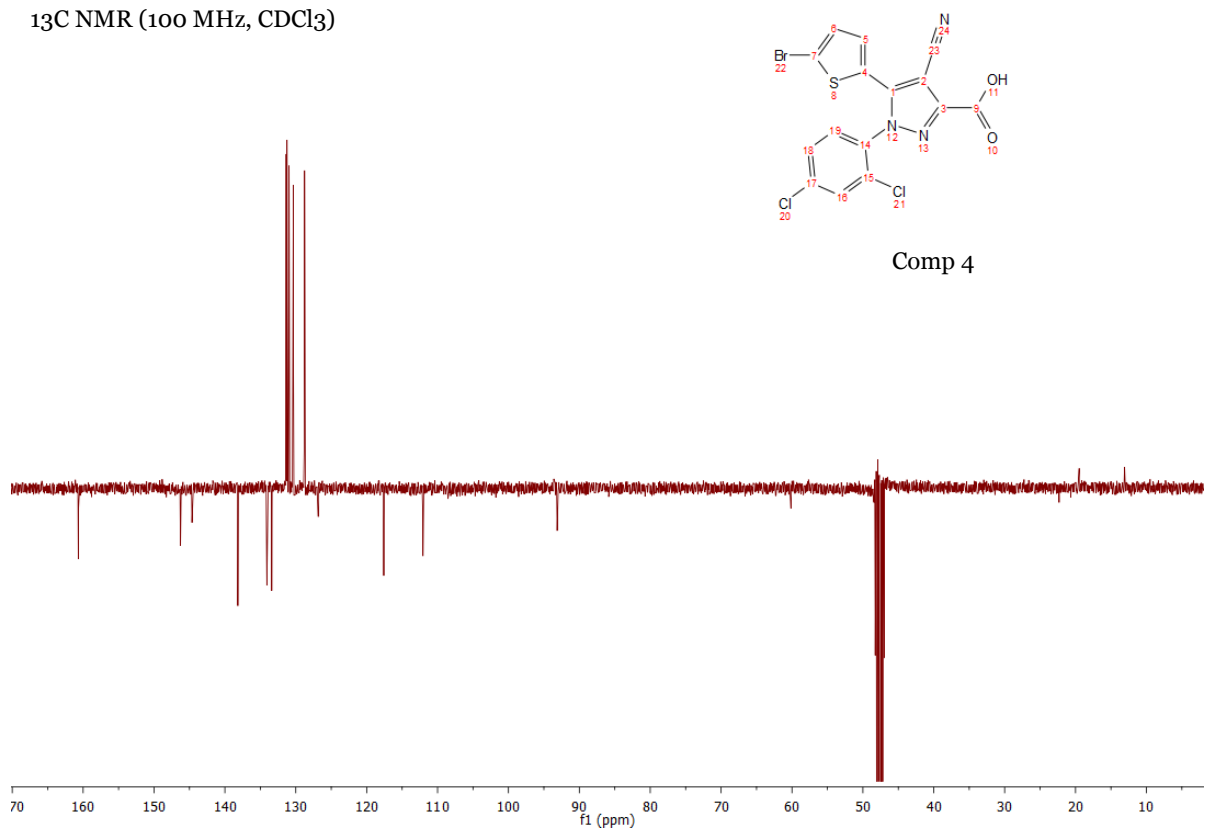
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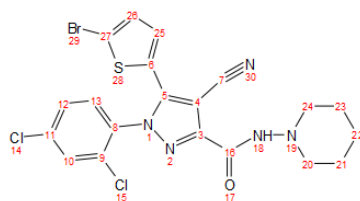
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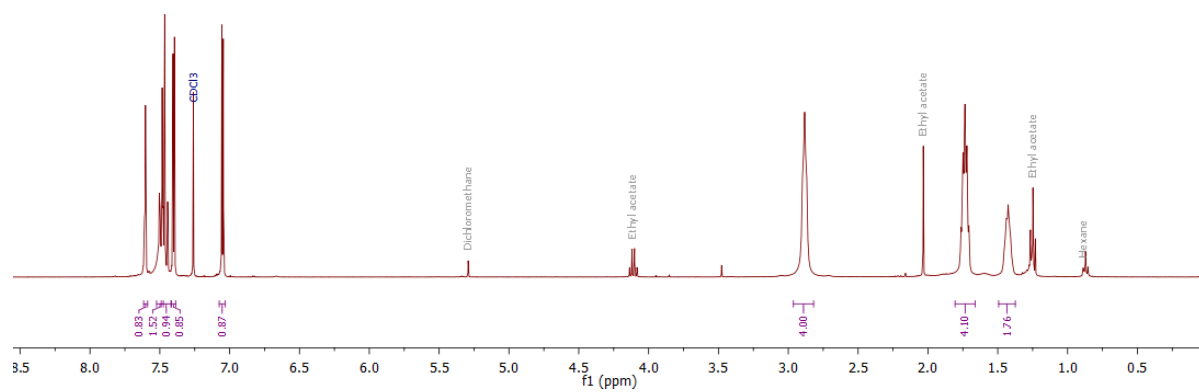
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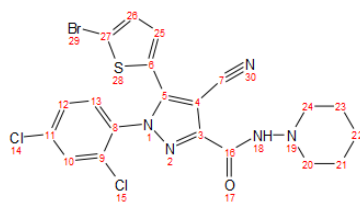
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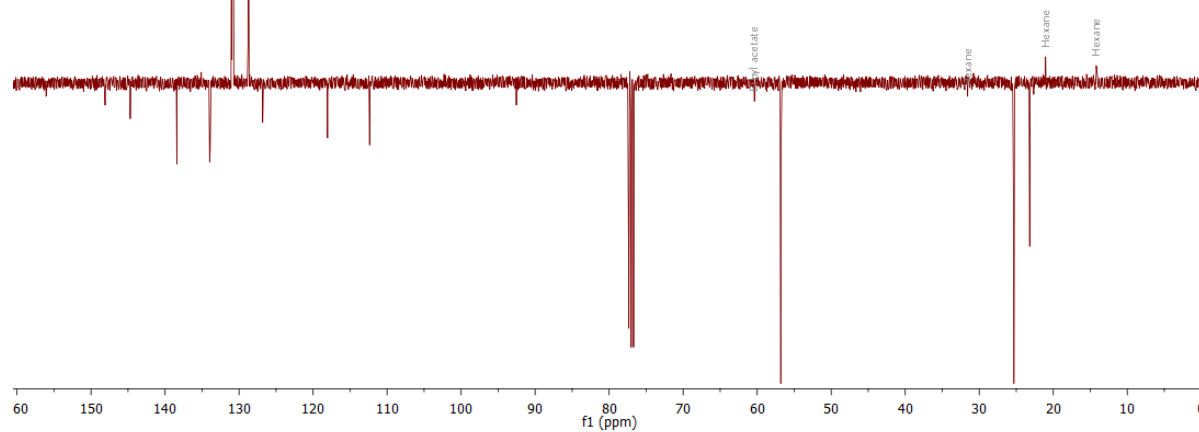
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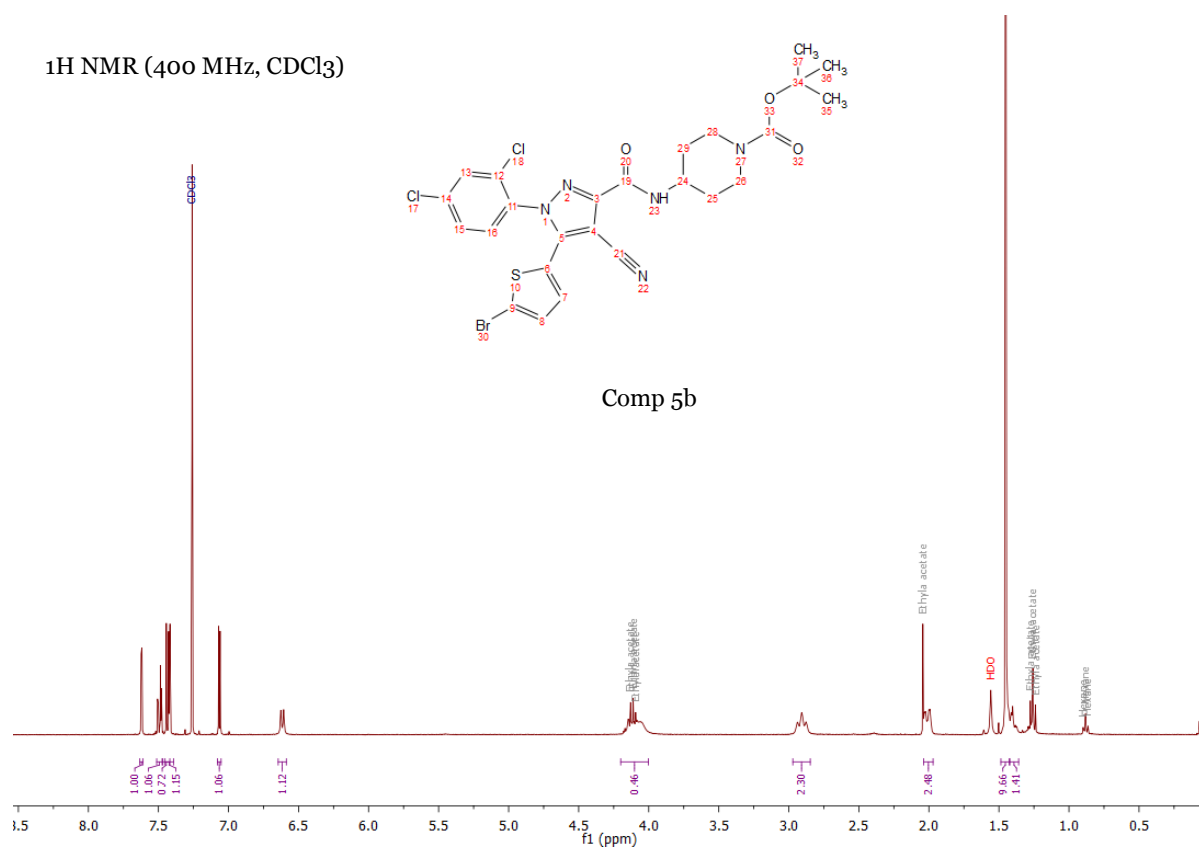
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)



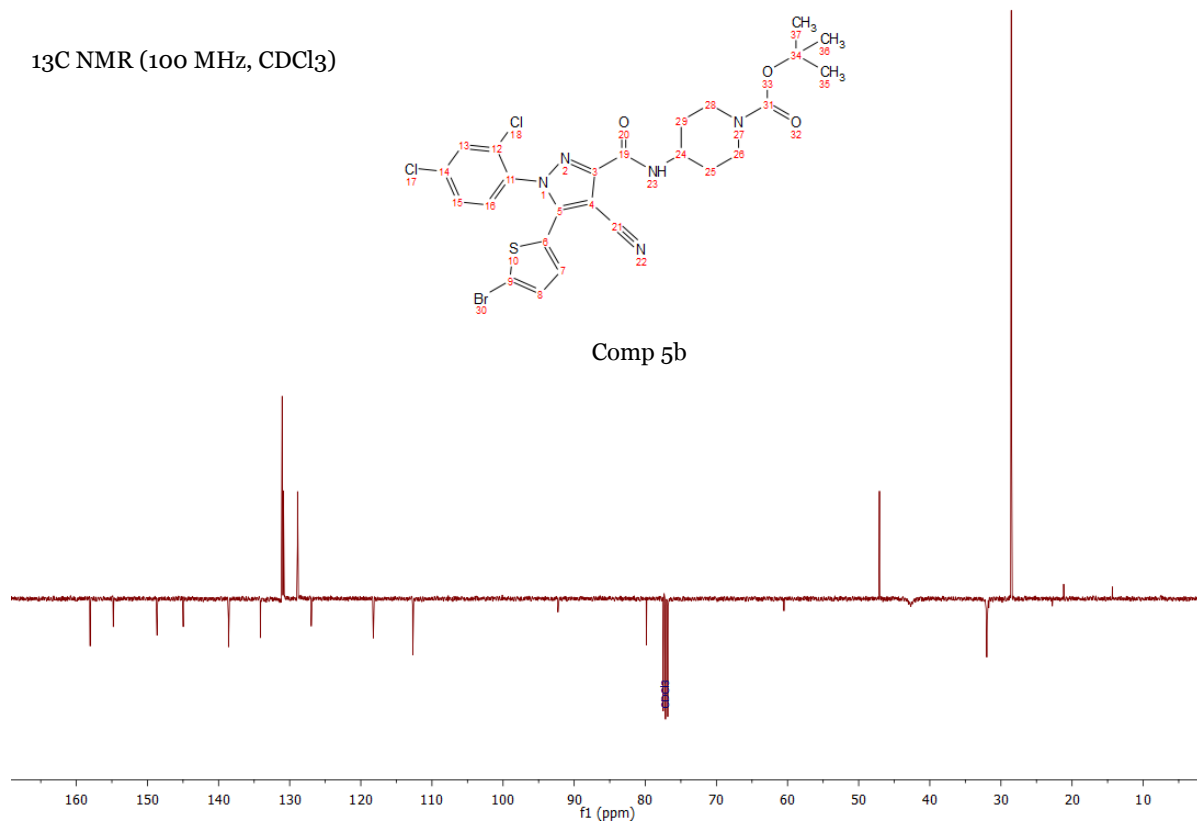
Comp 5a



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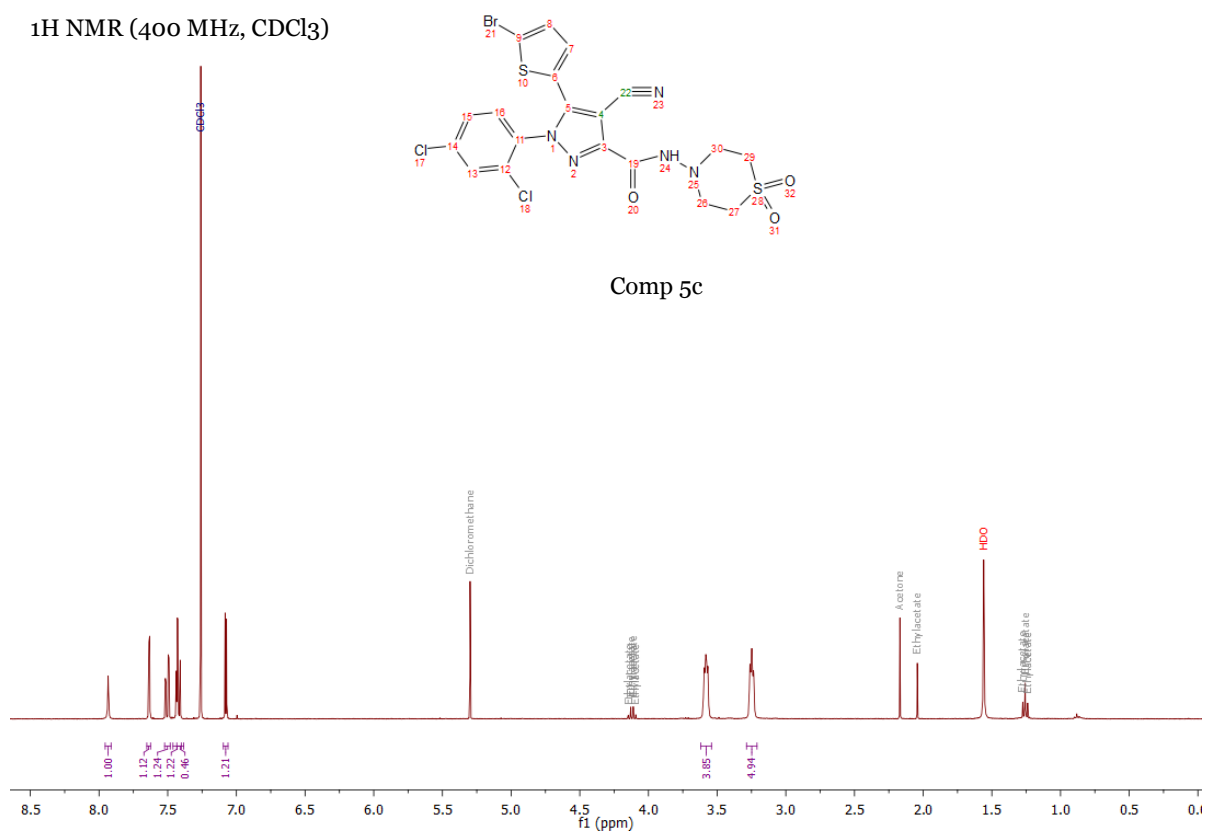


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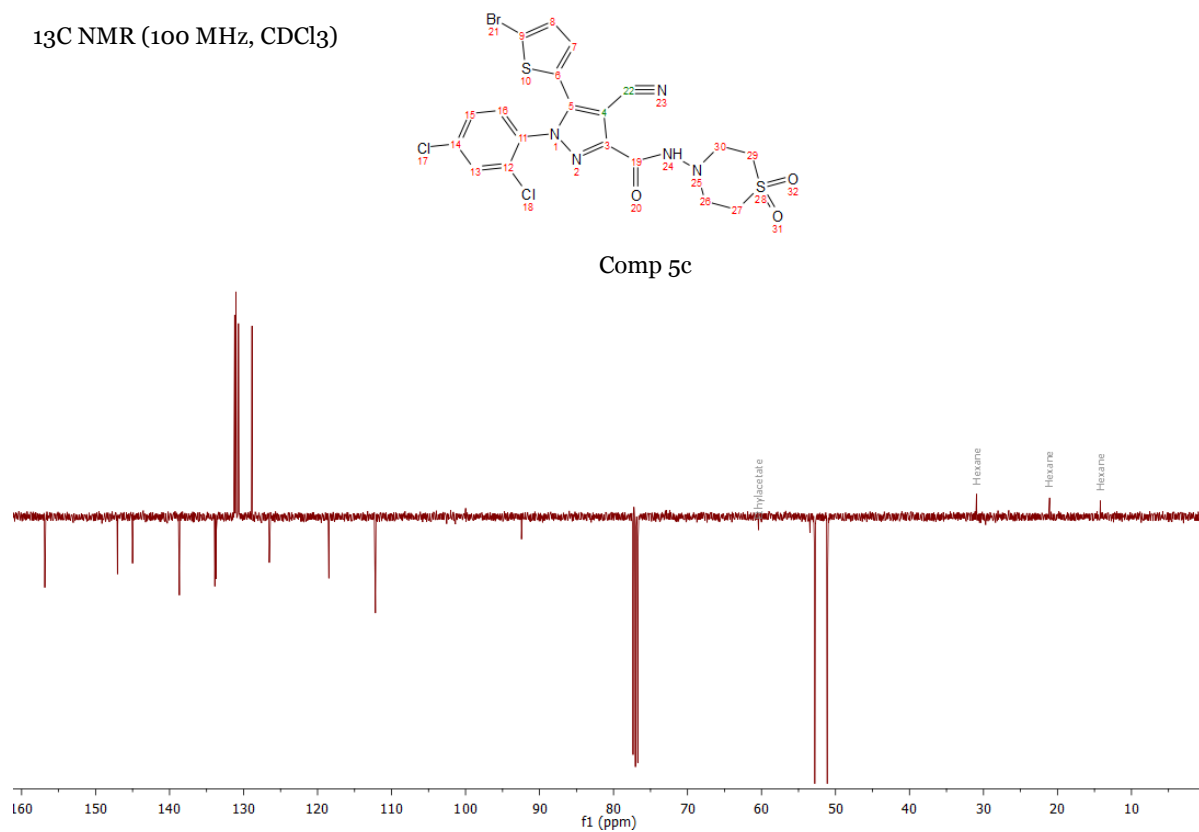




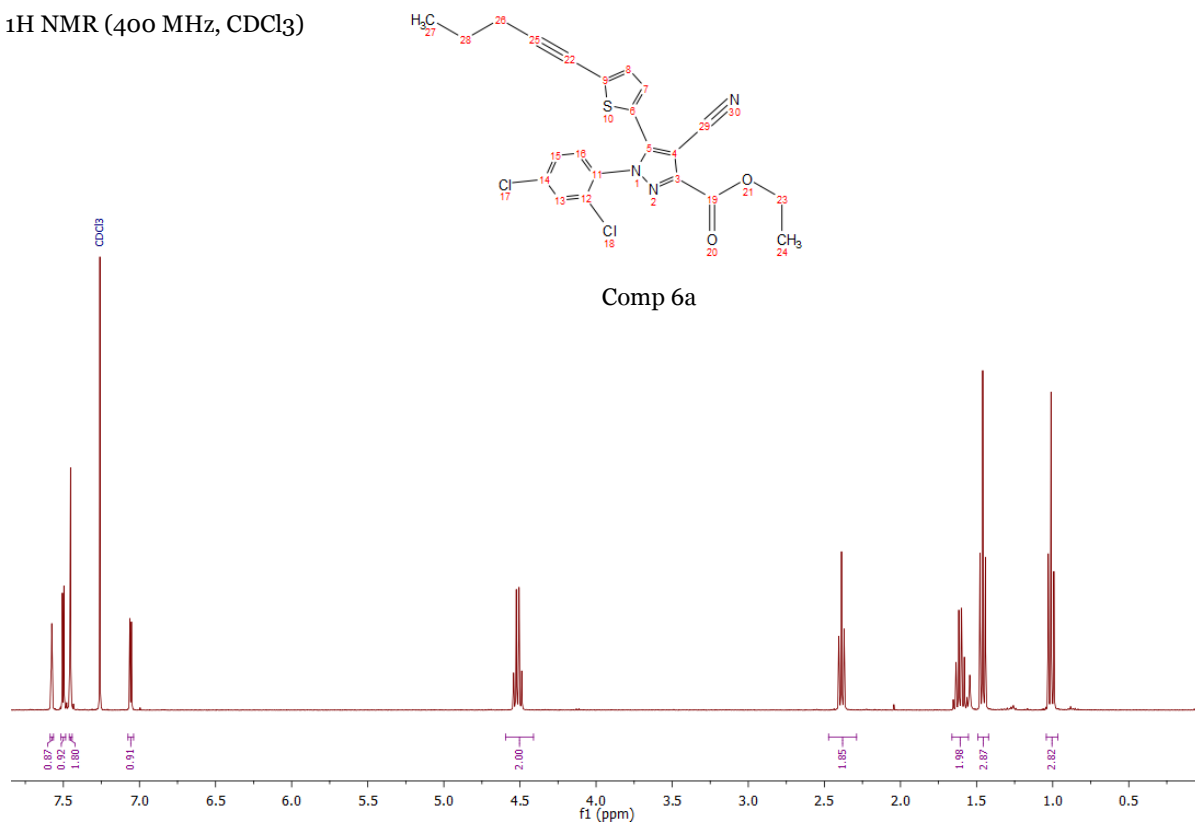
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



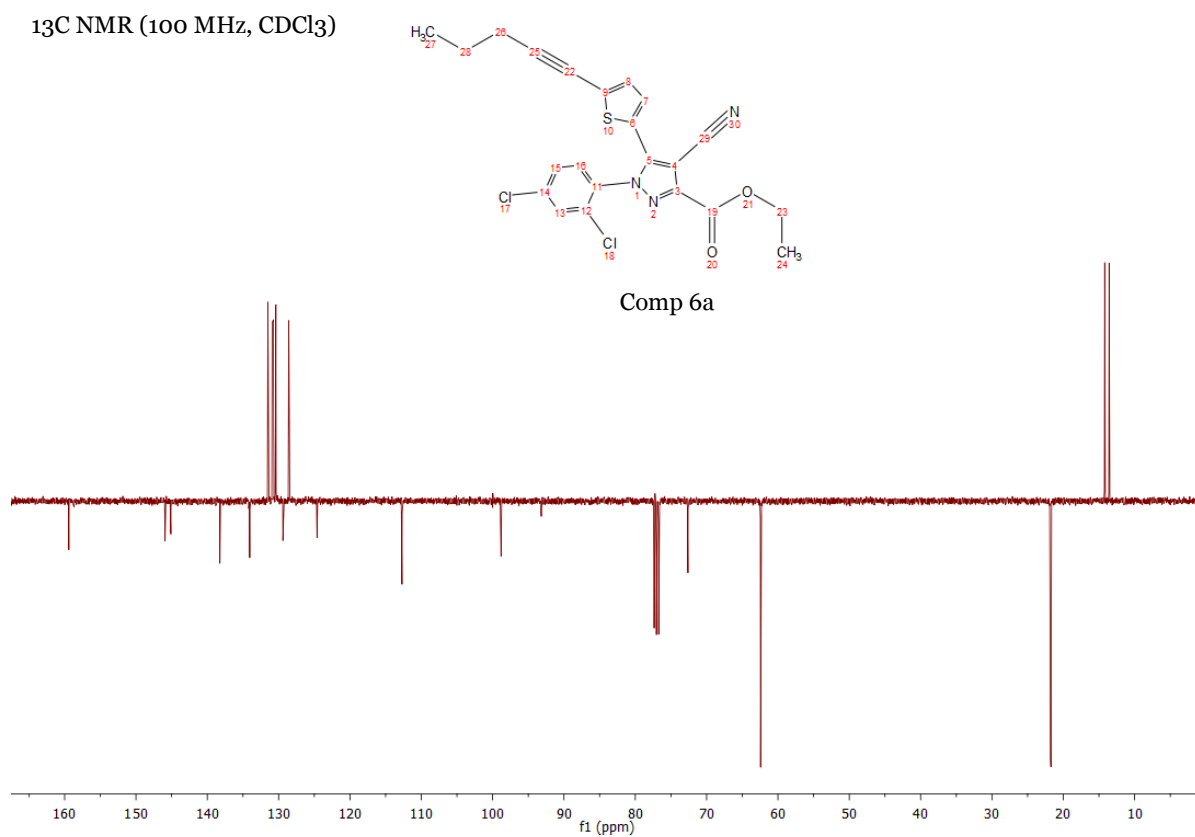
<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)

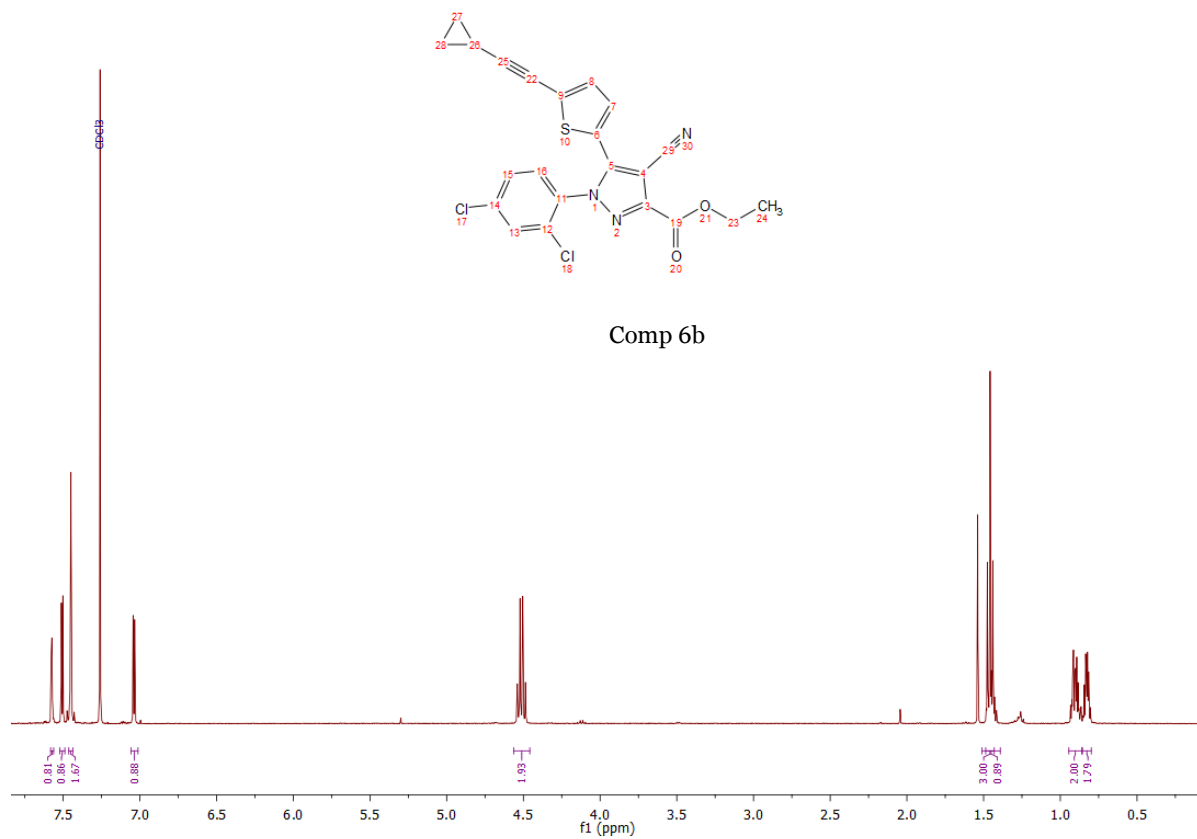
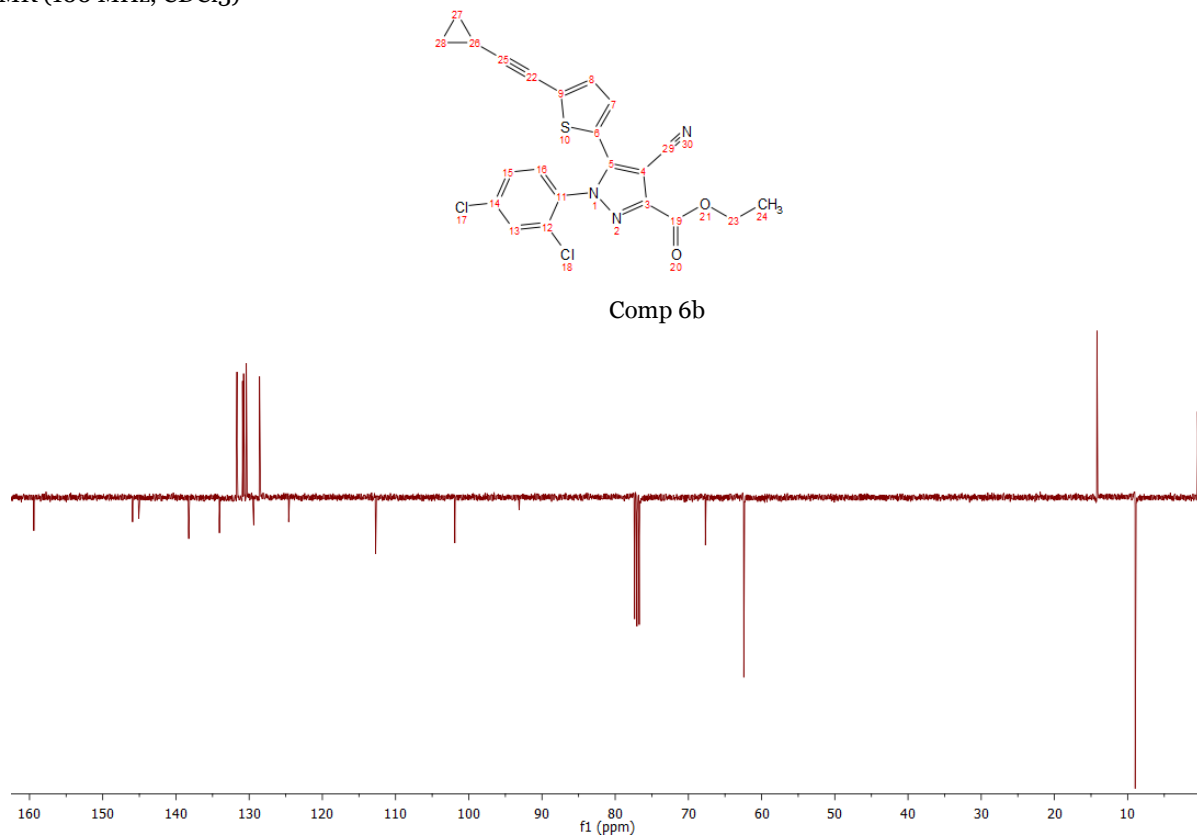


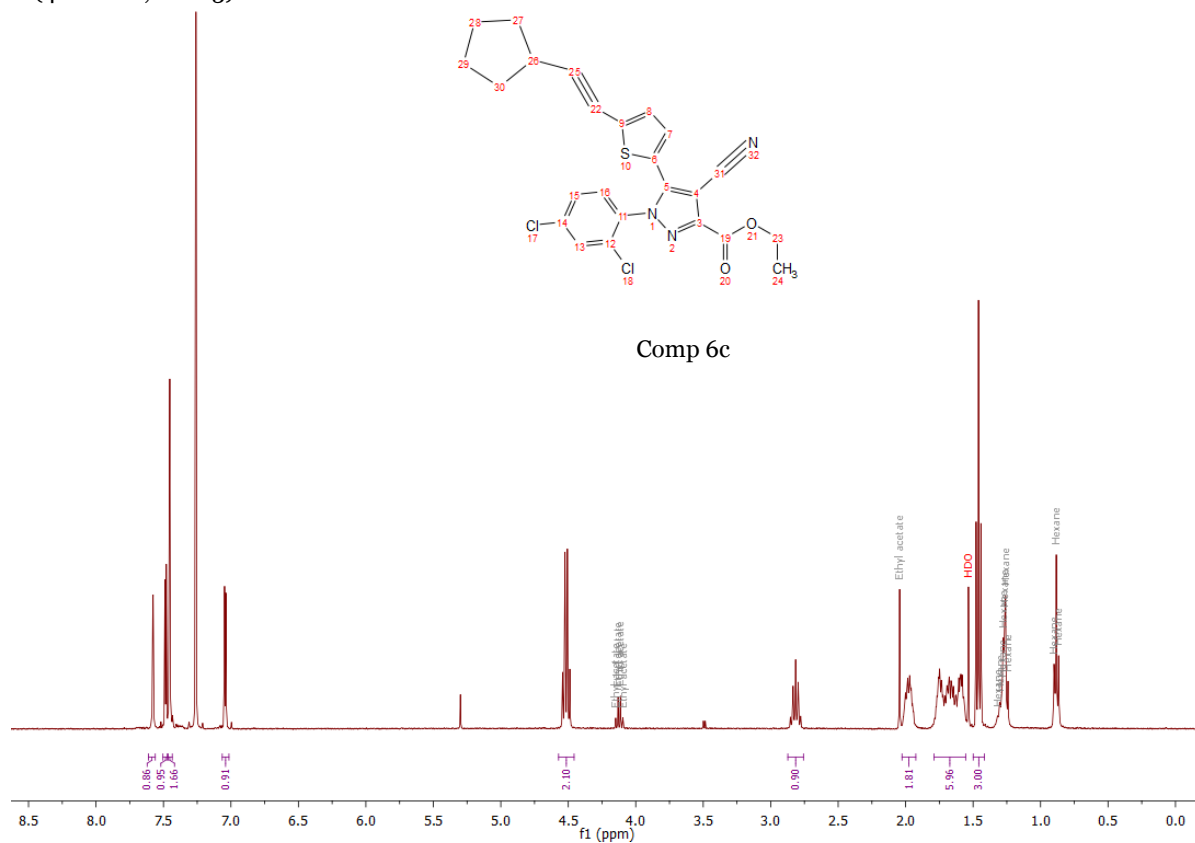
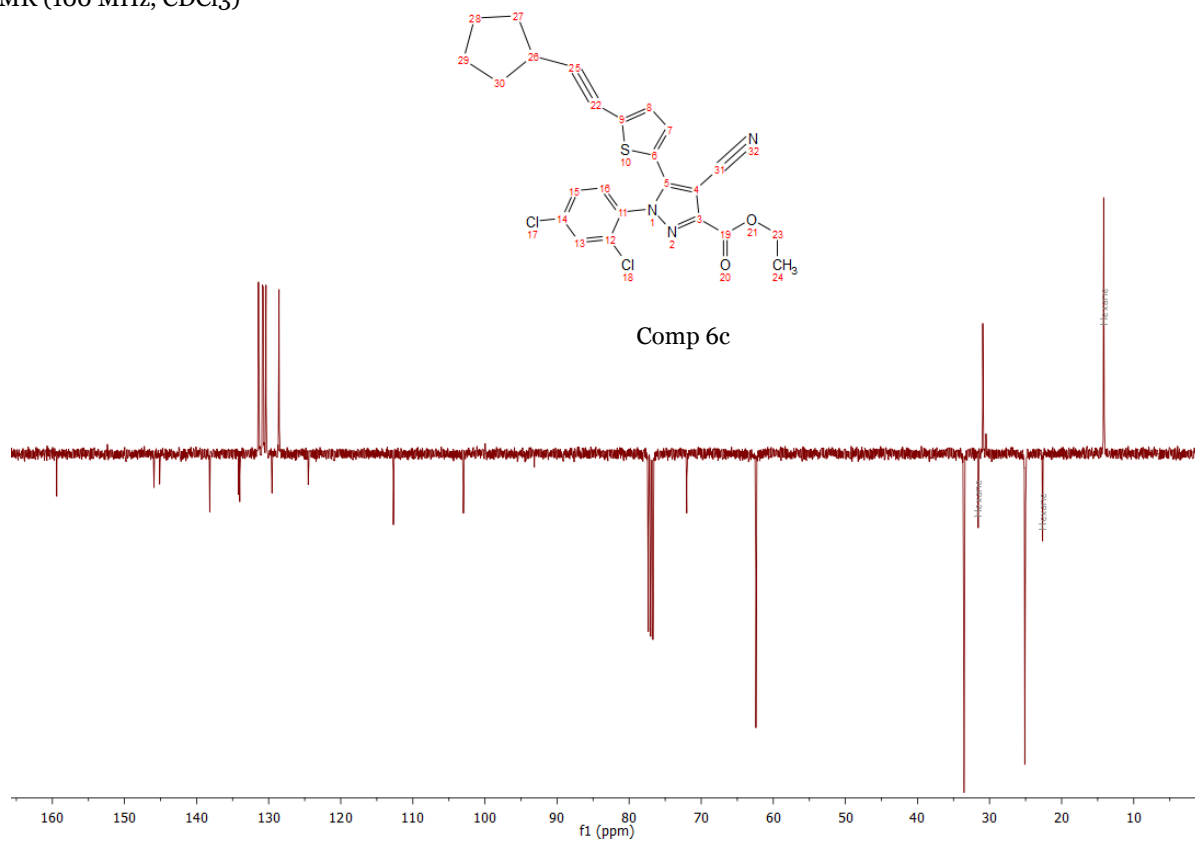
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )

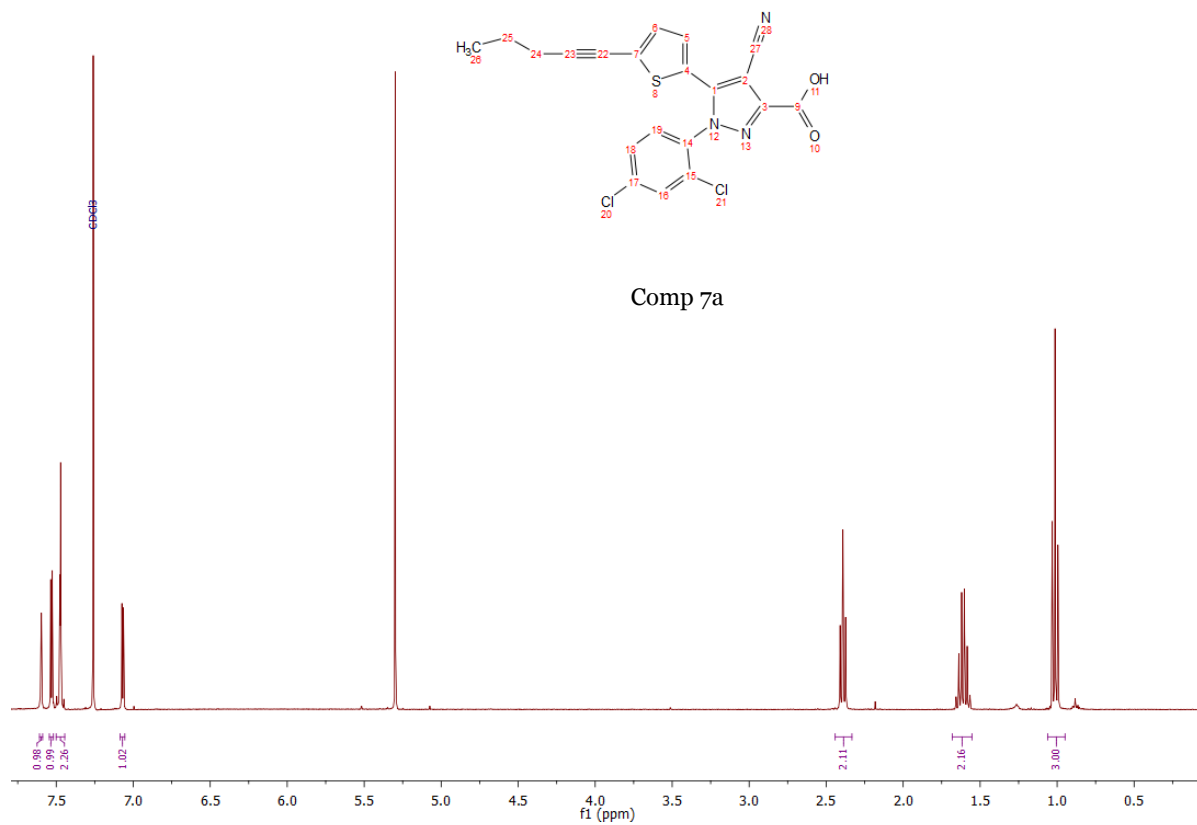
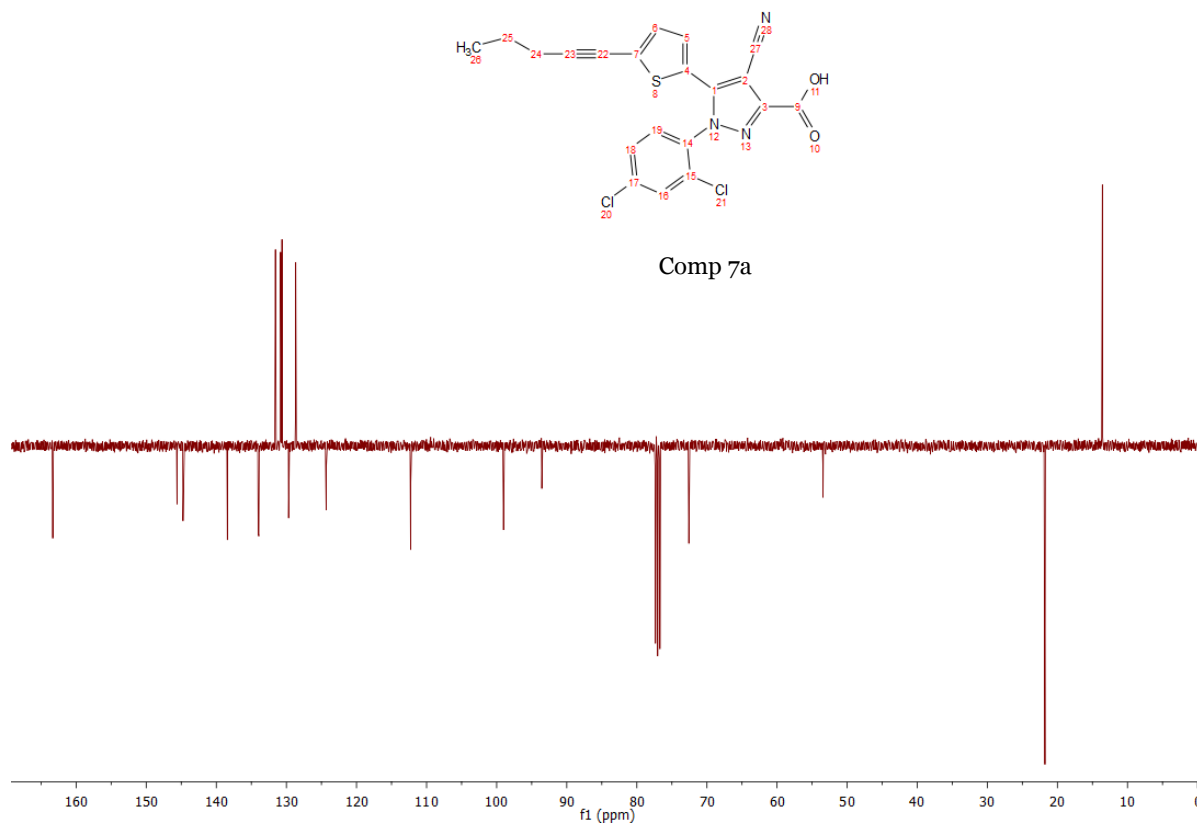


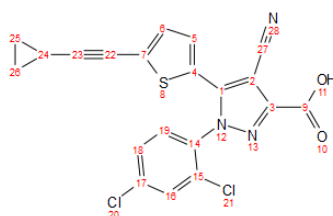
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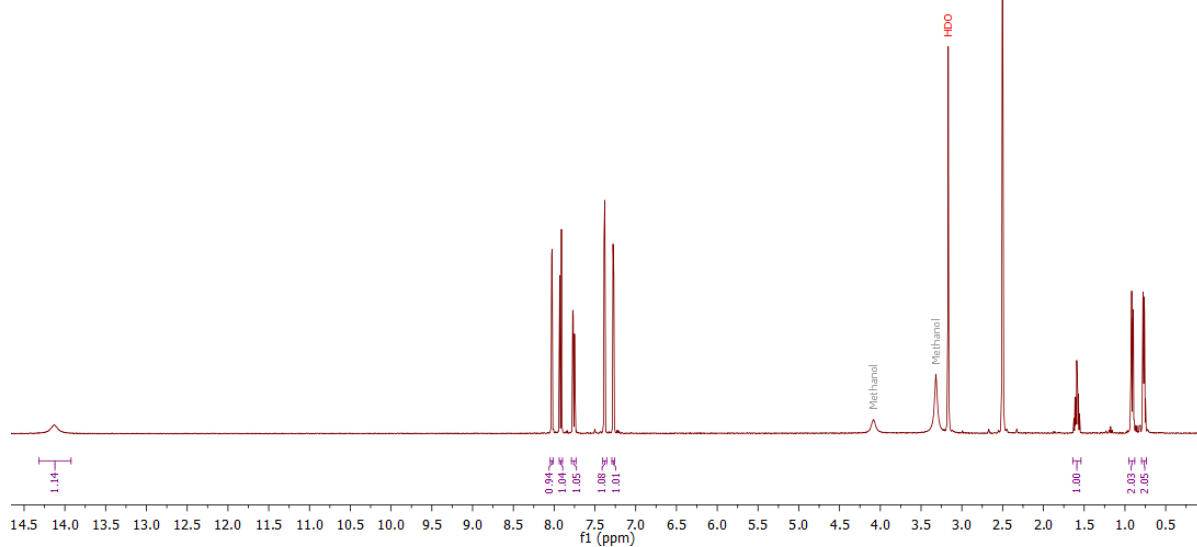
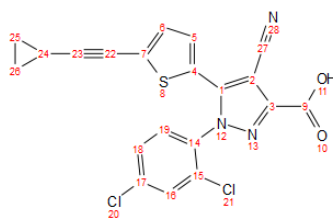
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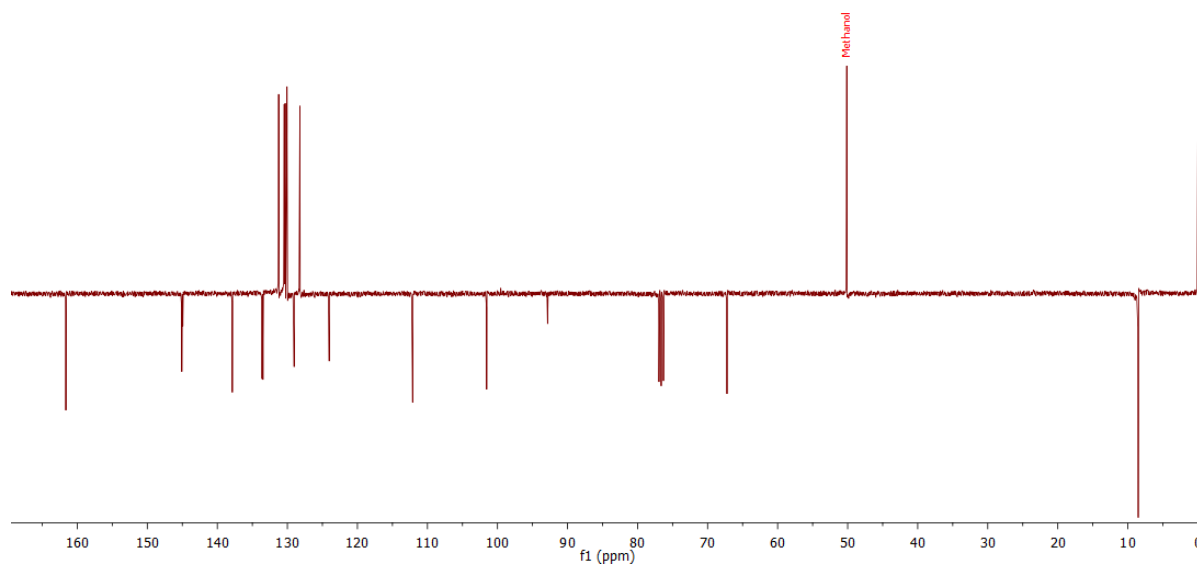
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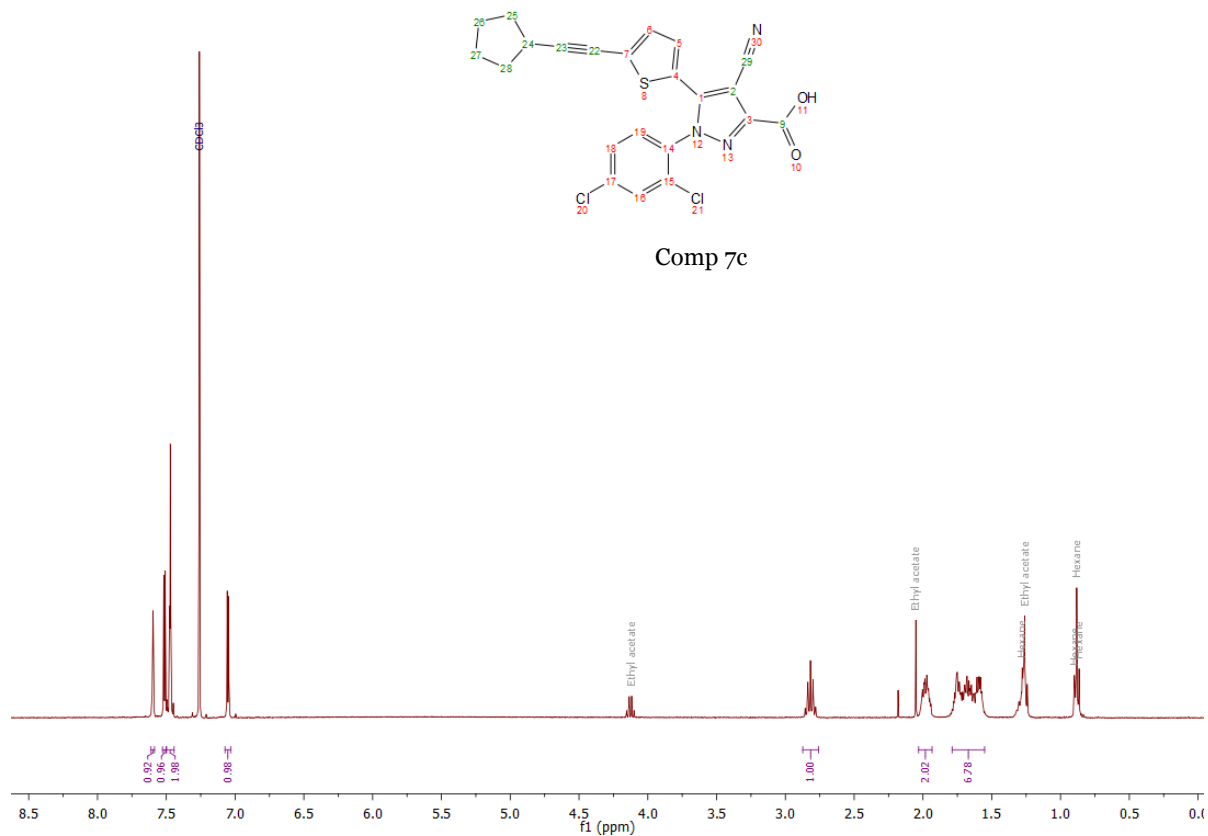
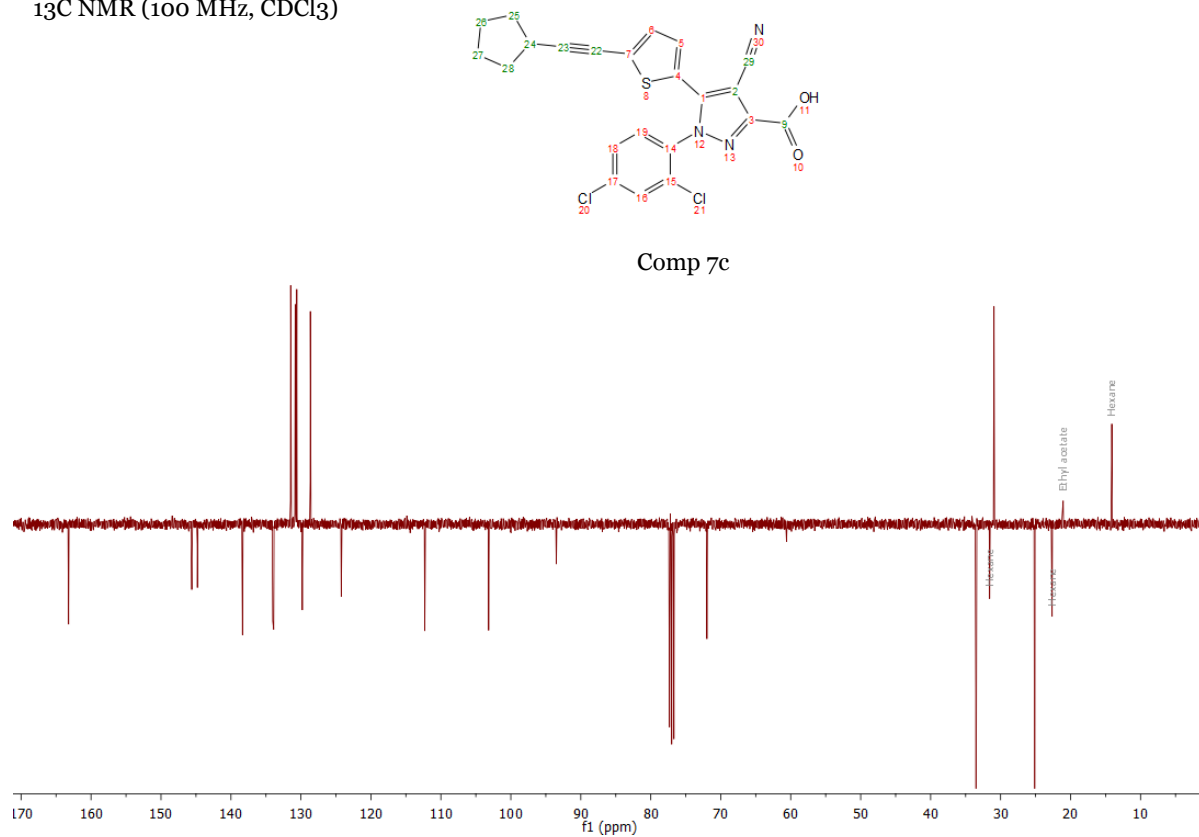
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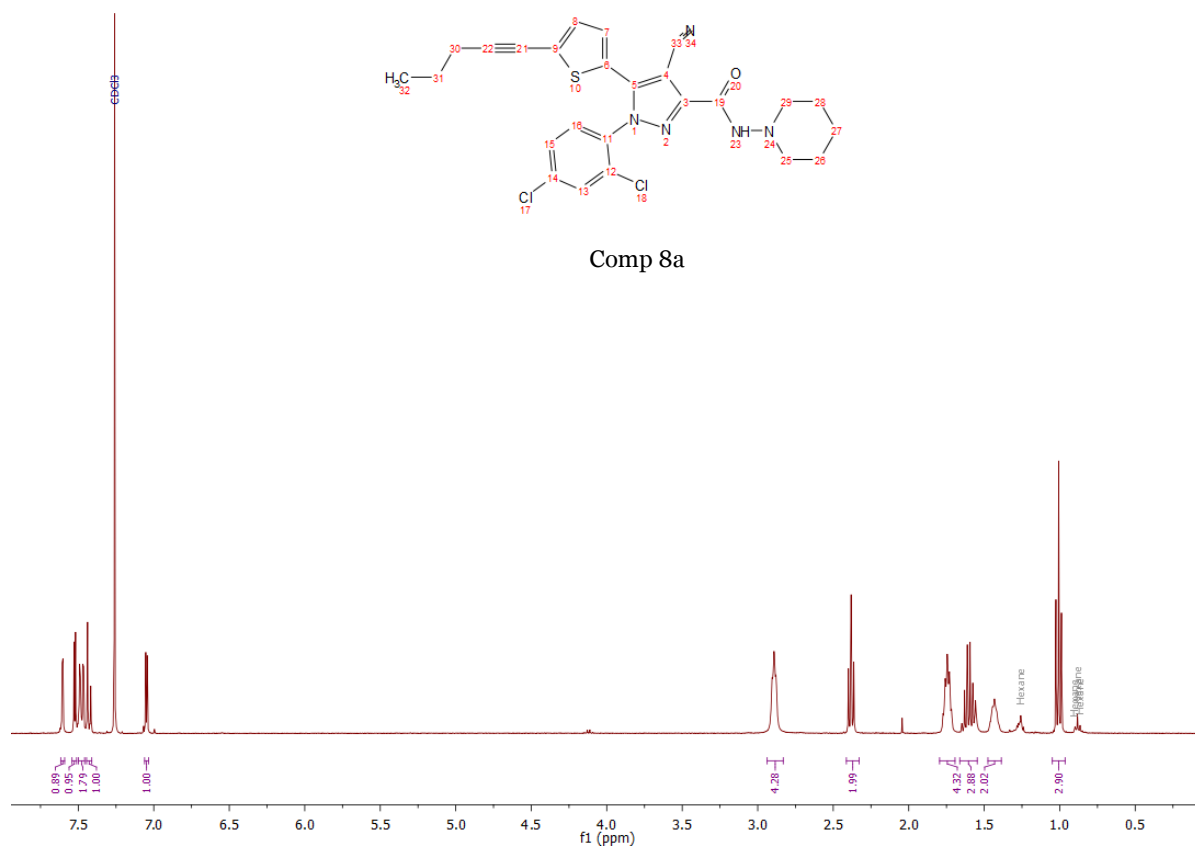
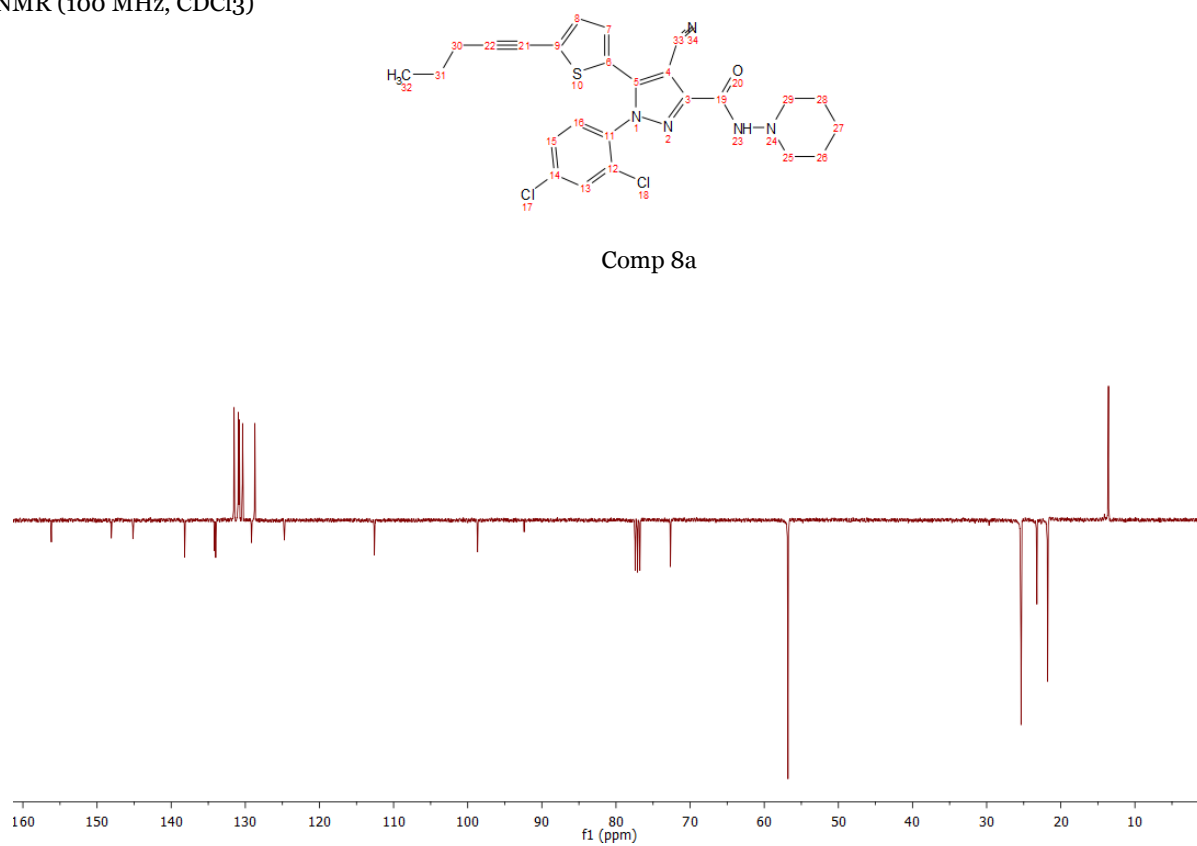
Comp 7b

 $^{13}\text{C}$  NMR (100 MHz, DMSO)

Comp 7b

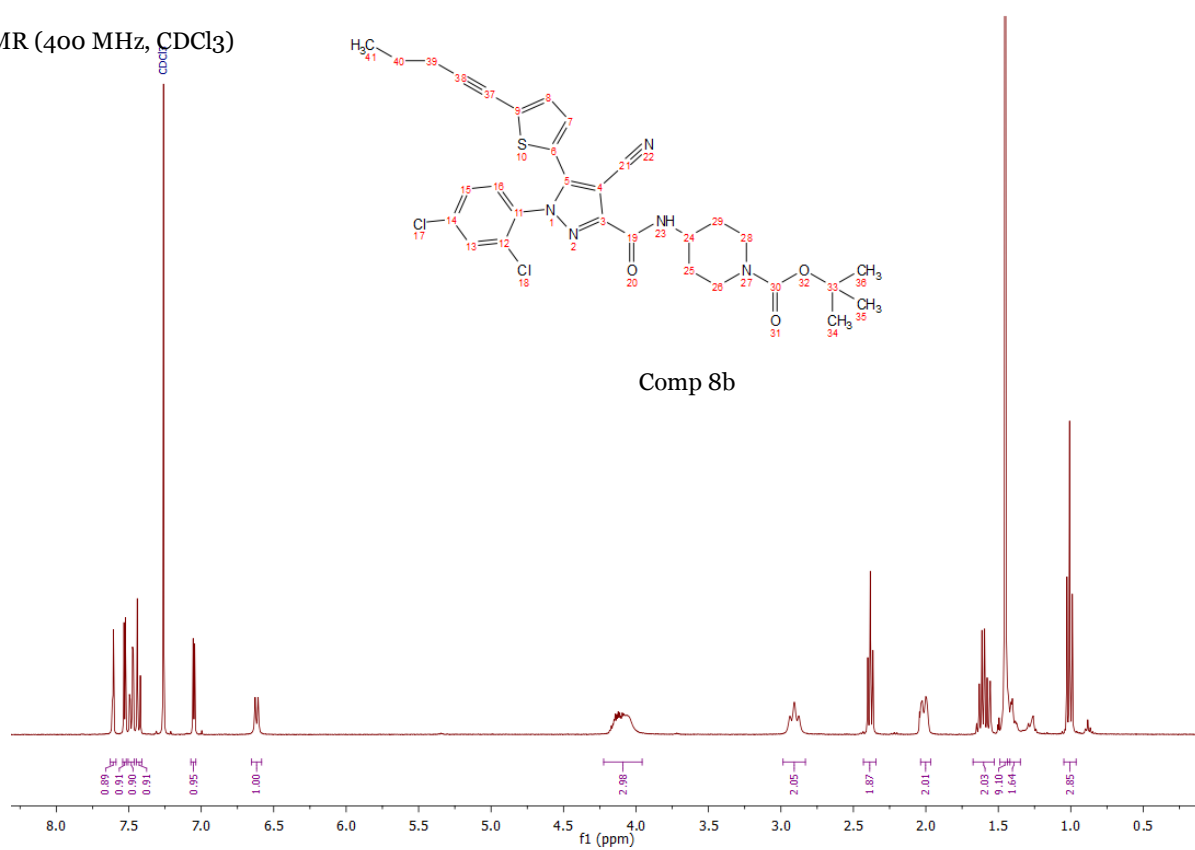


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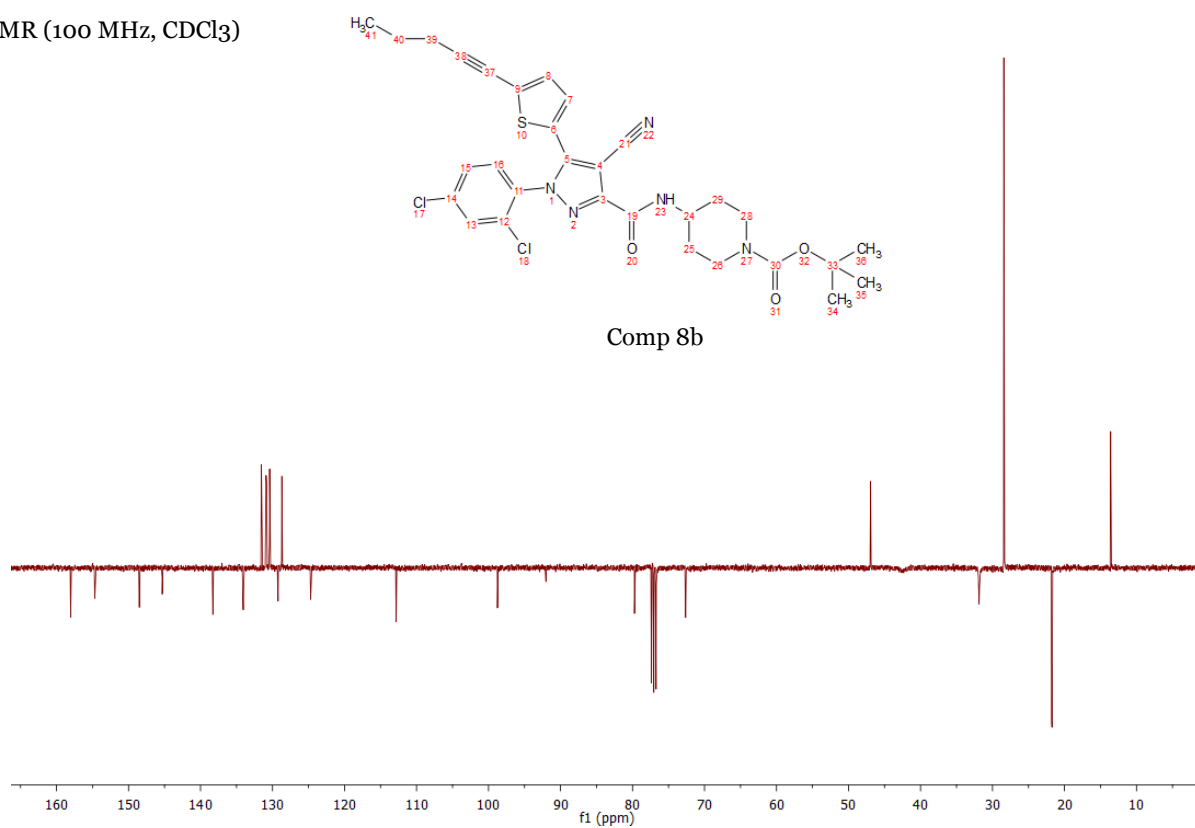
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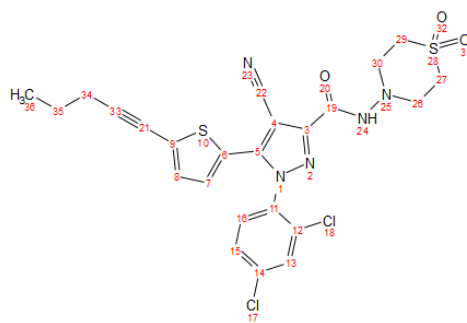


<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

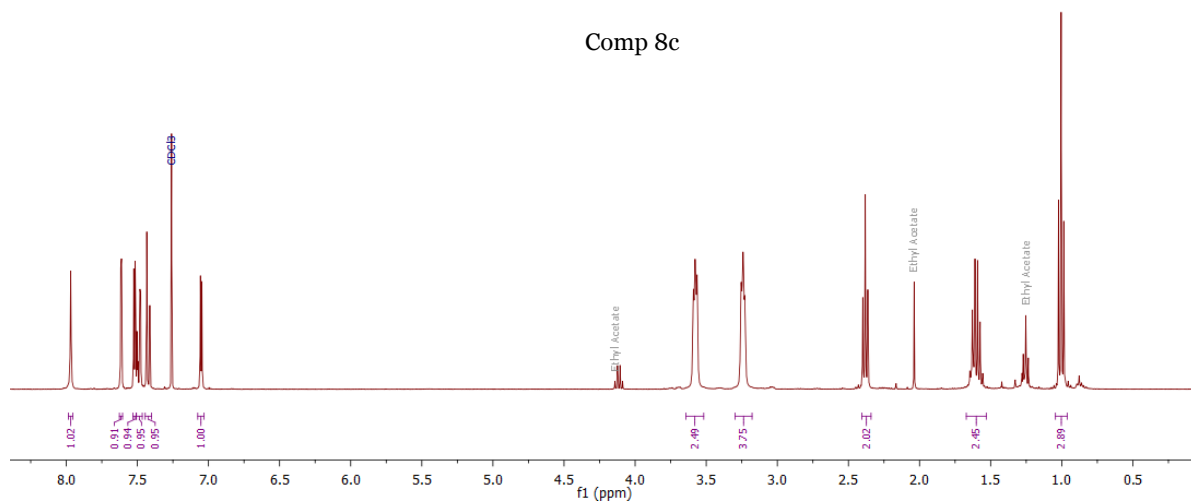
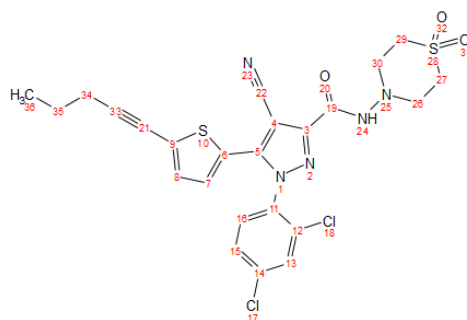


<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)

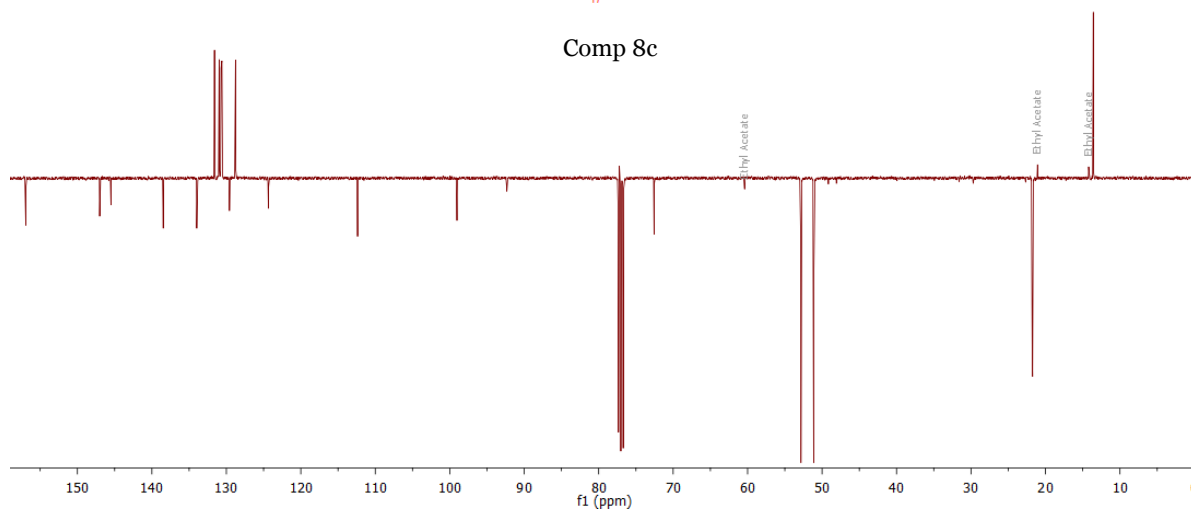


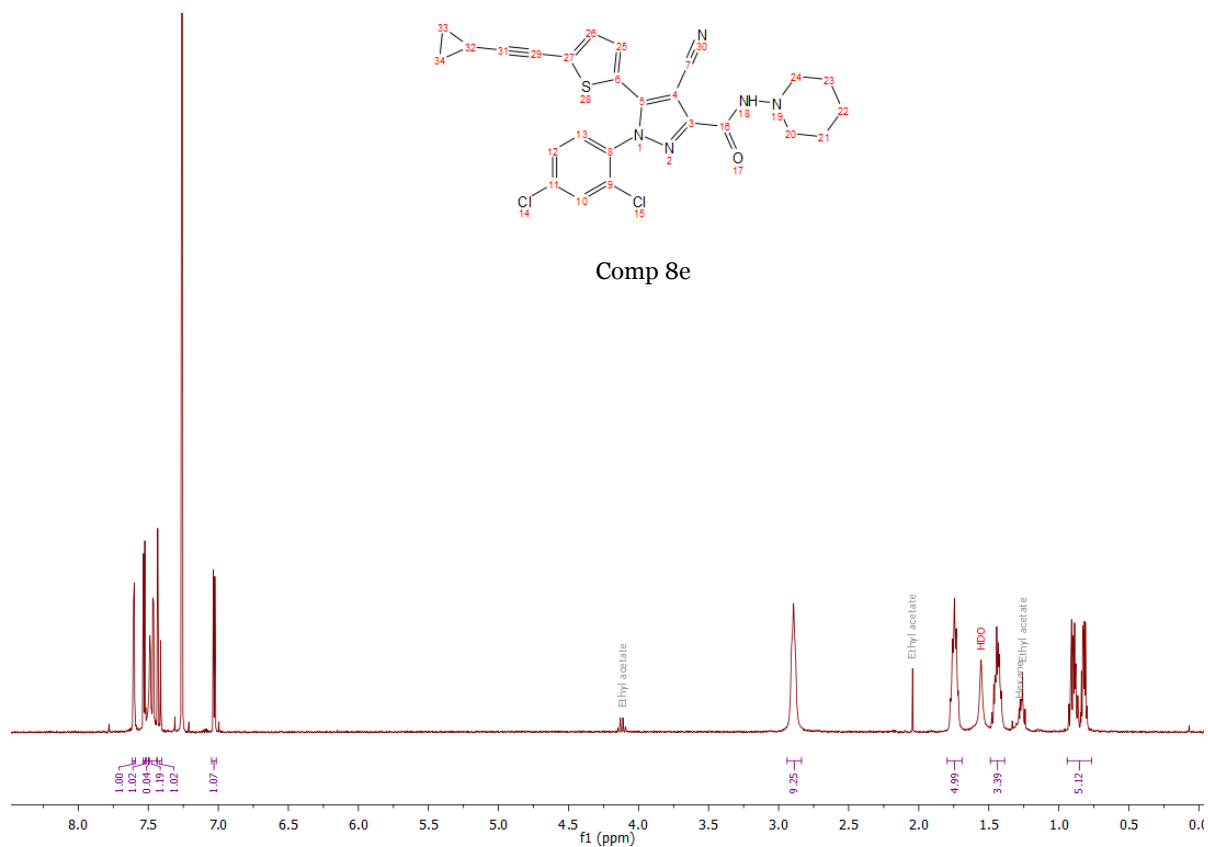
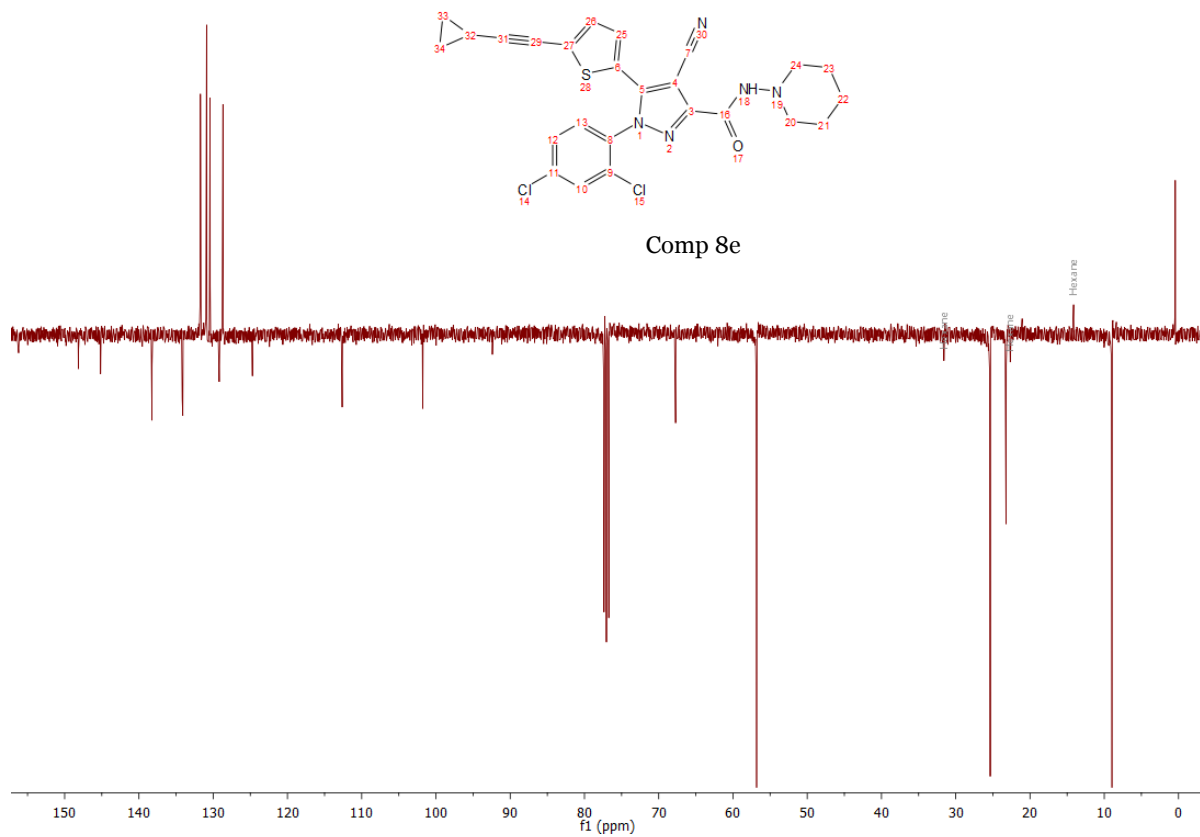
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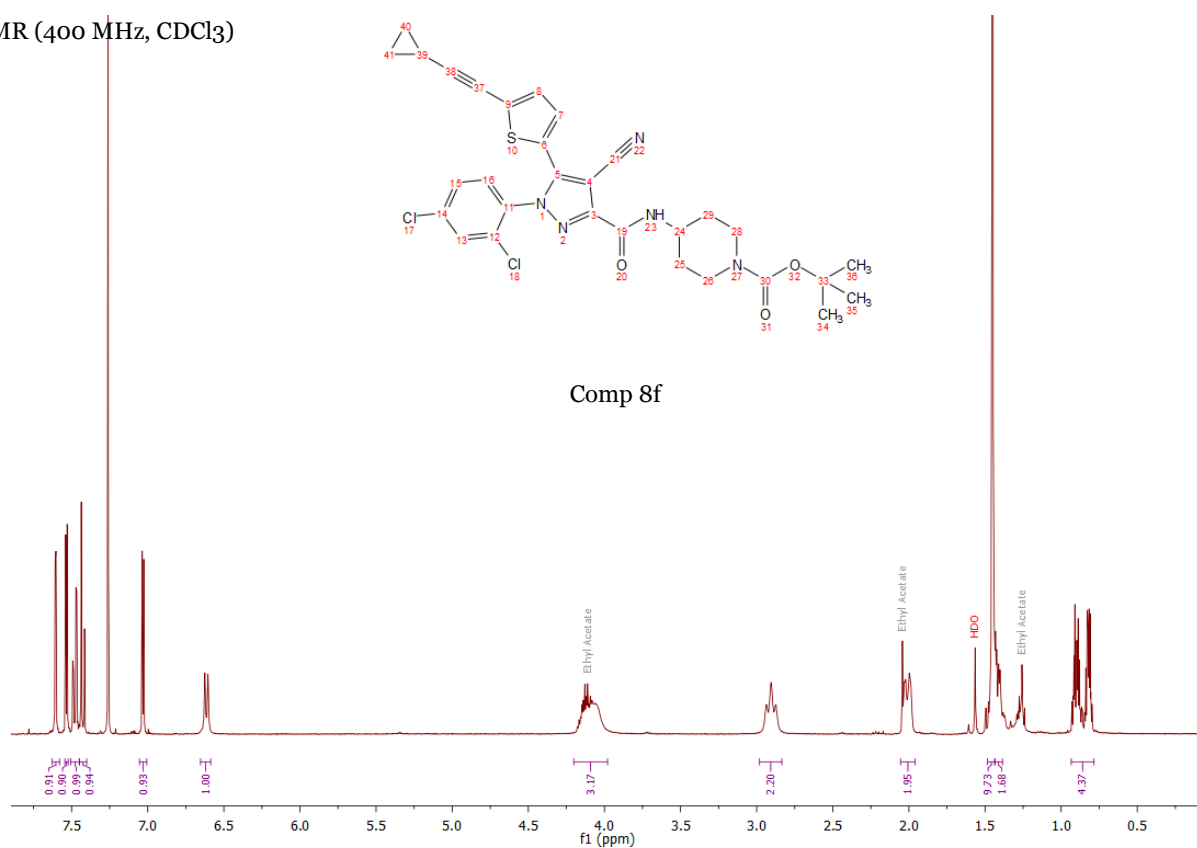
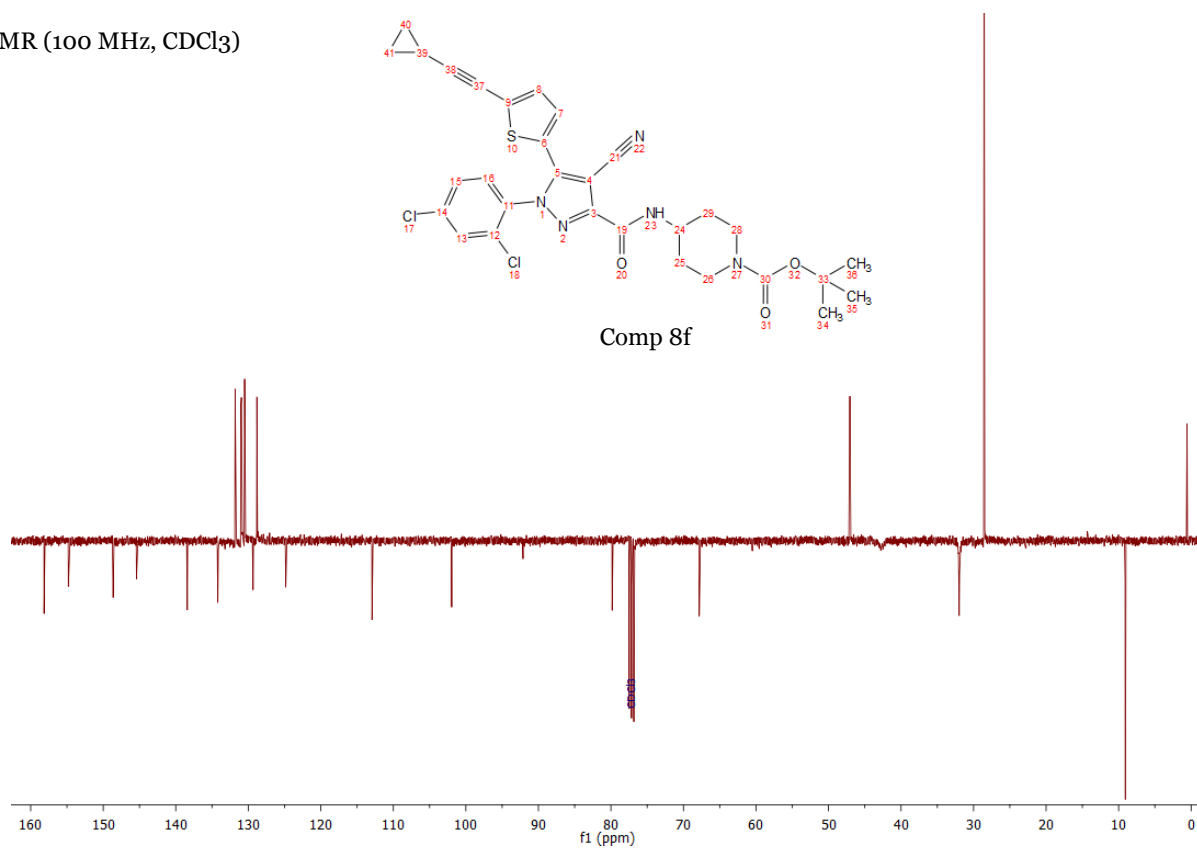
Comp 8c

 $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )

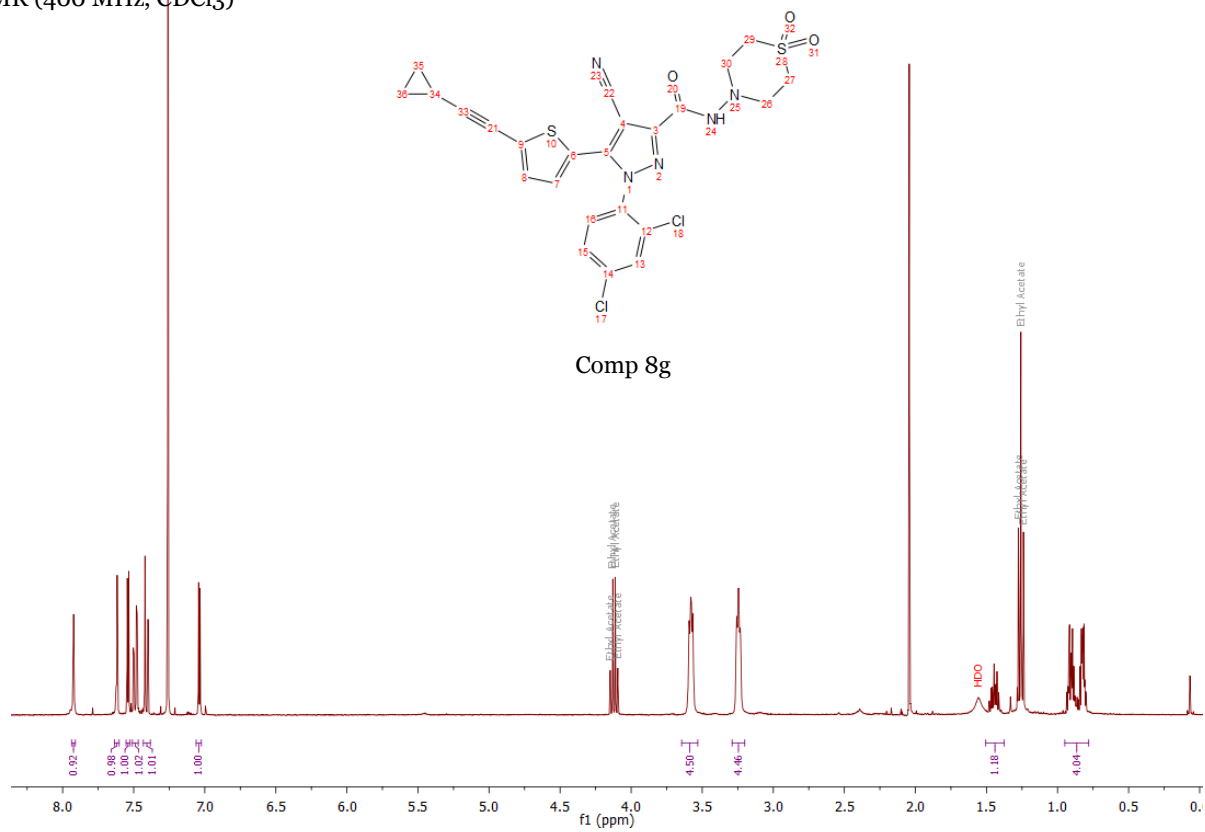
Comp 8c



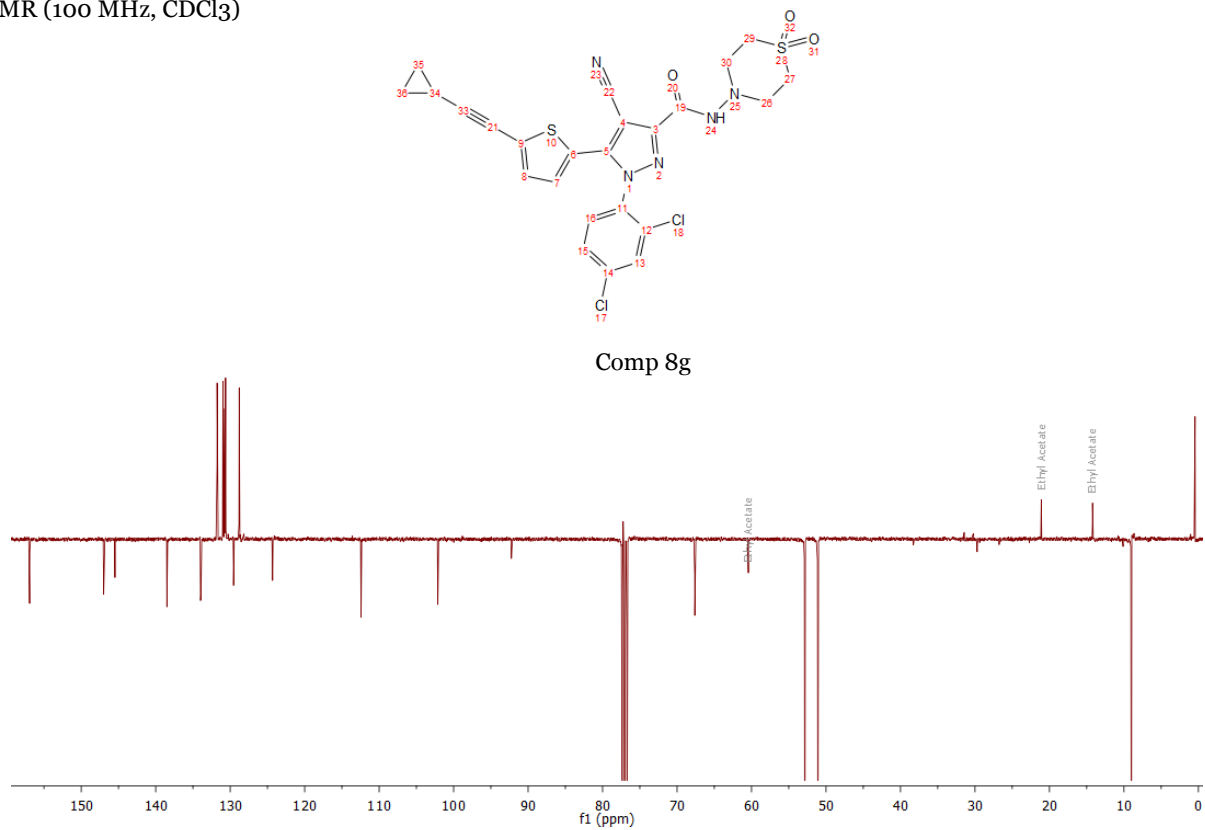
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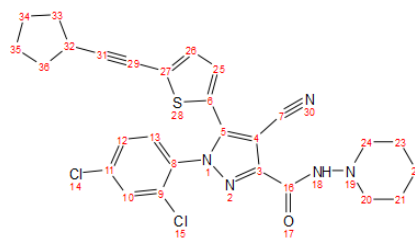
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<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

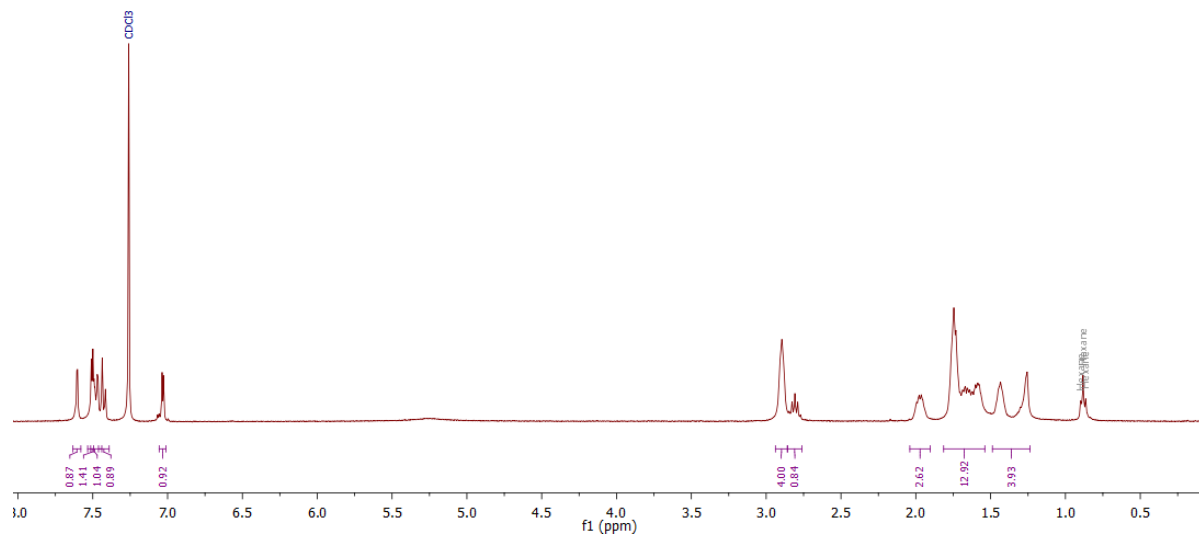
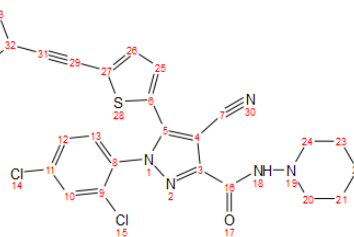


<sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>)

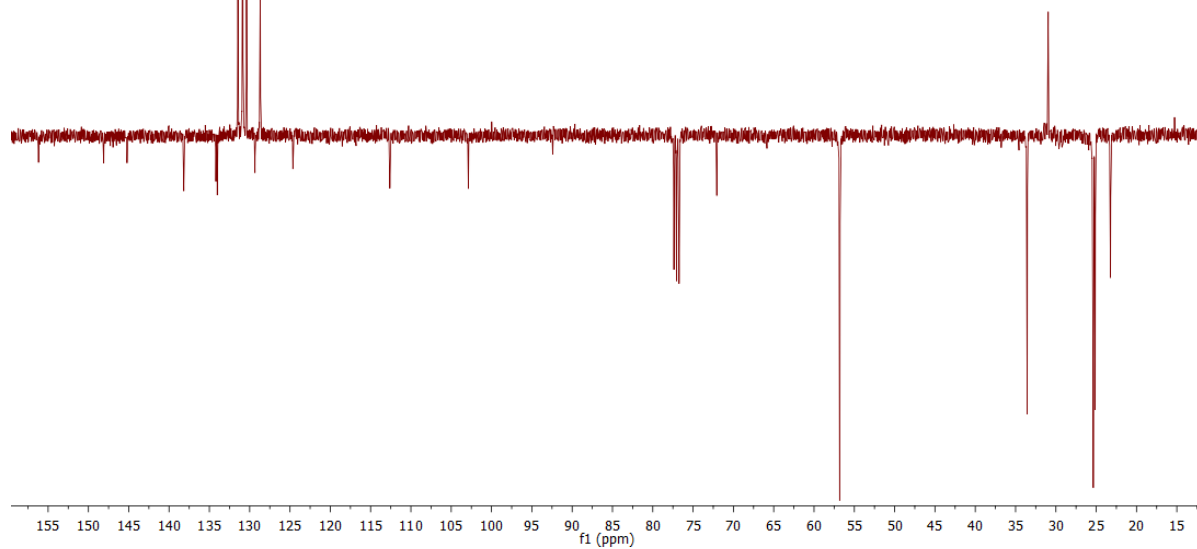


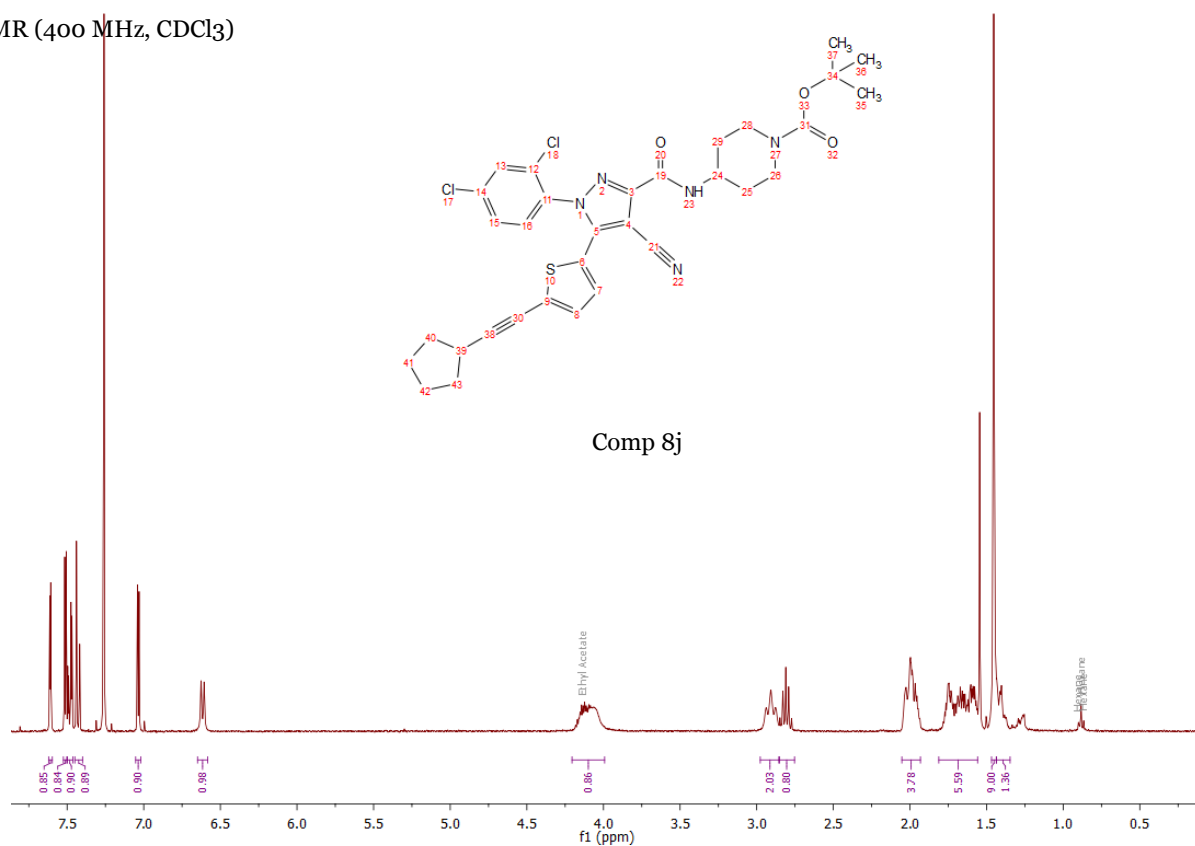
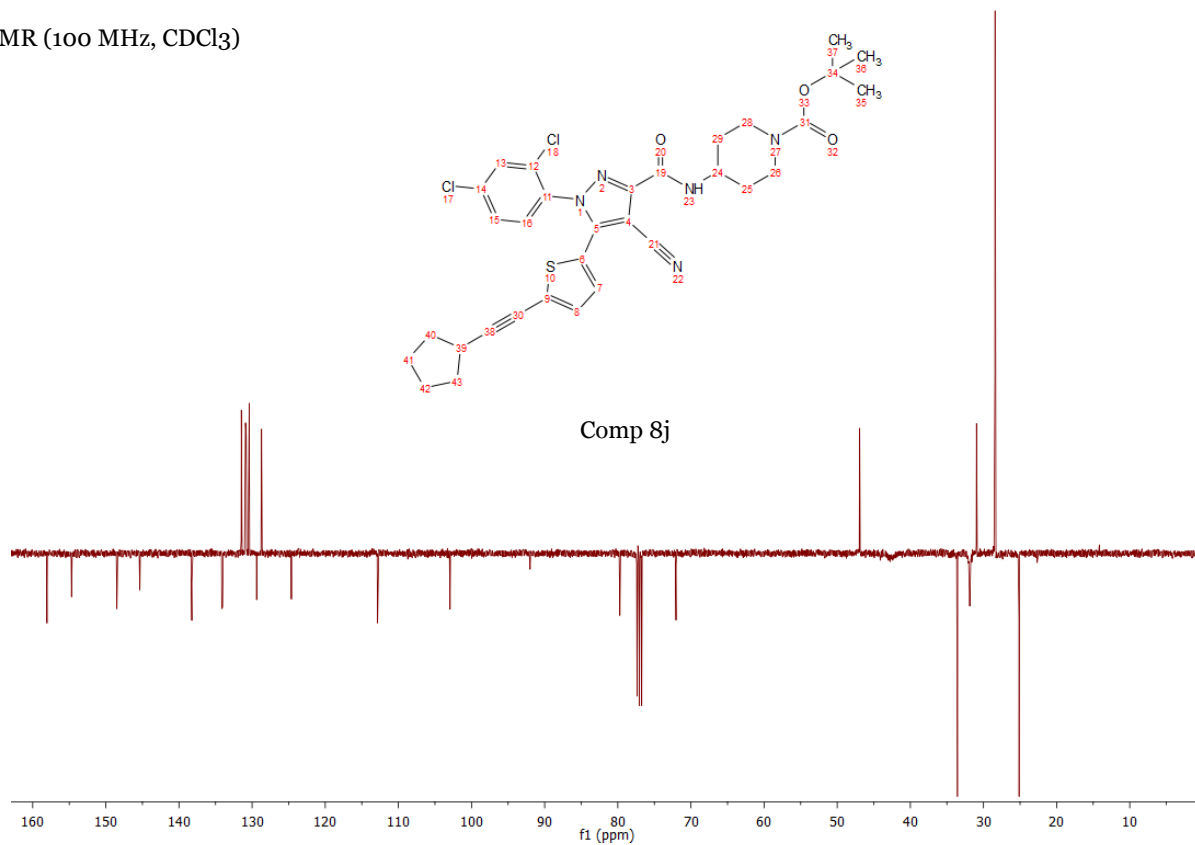
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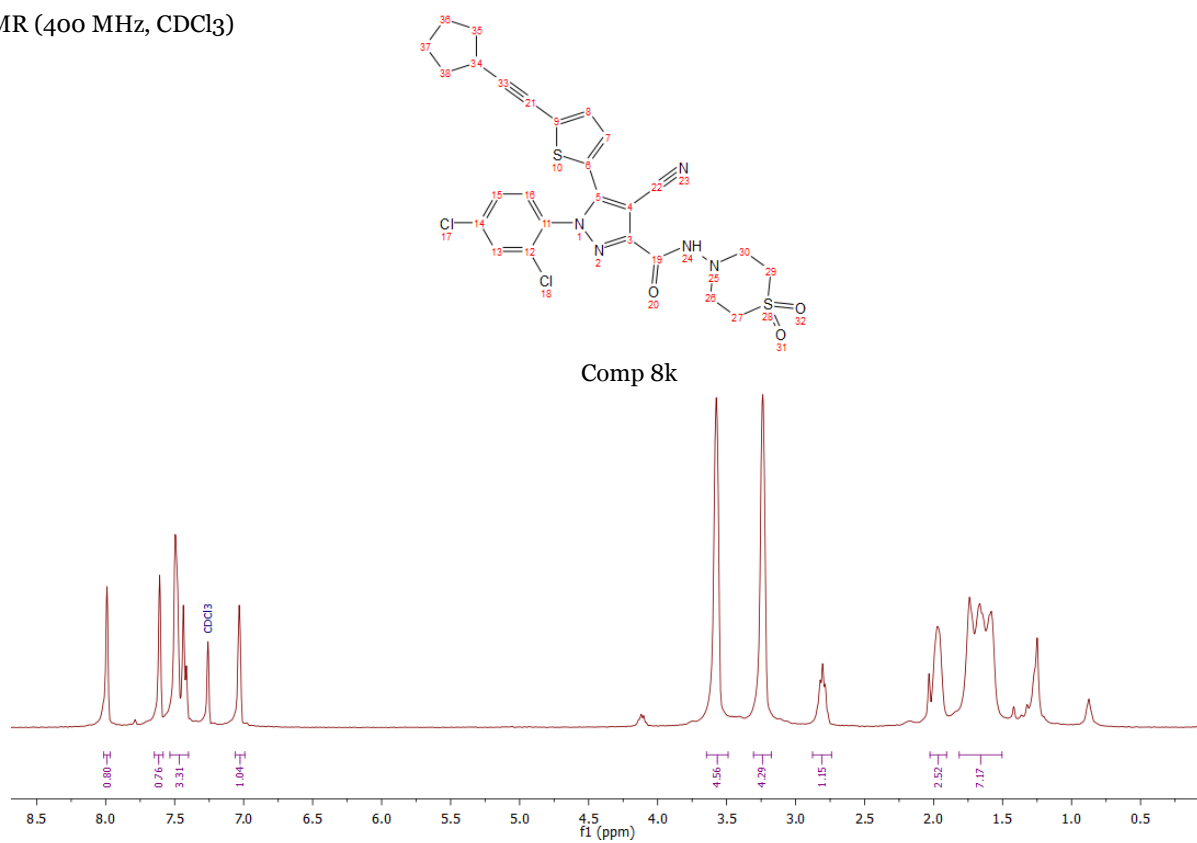
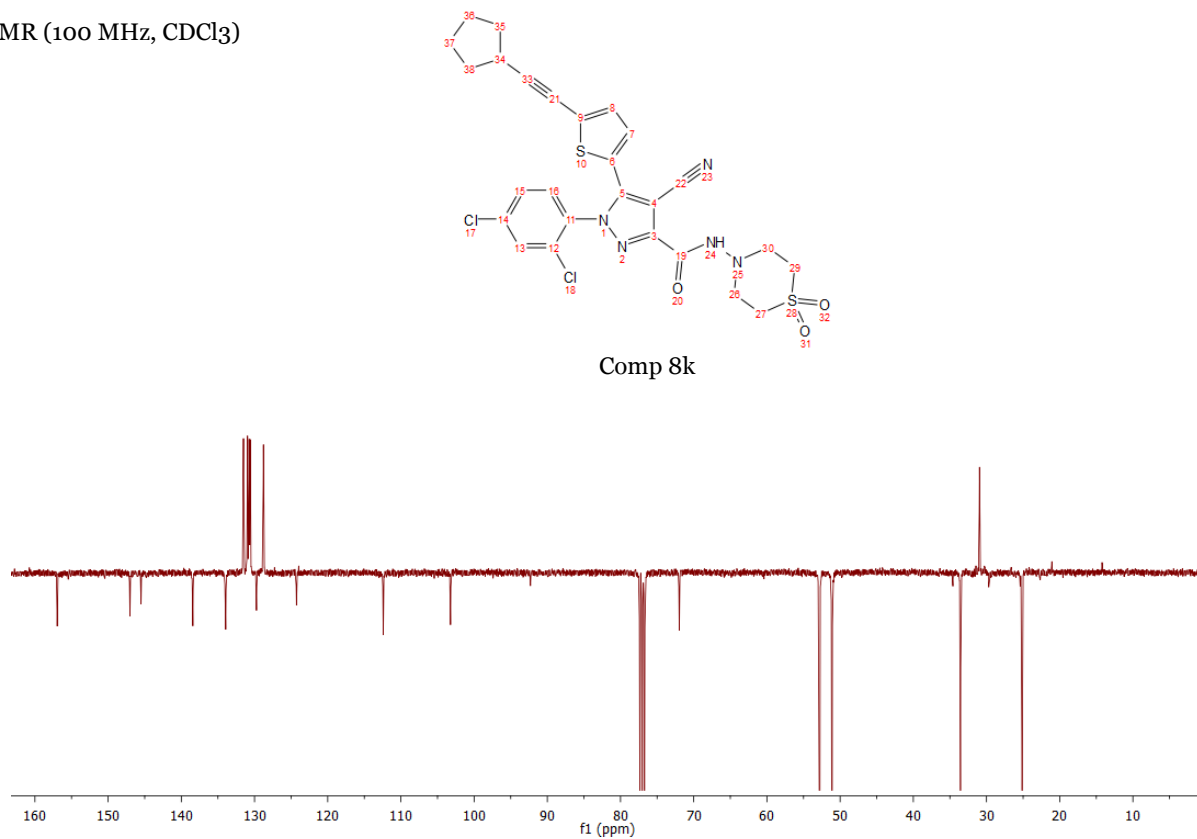
Comp 8i

 $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )

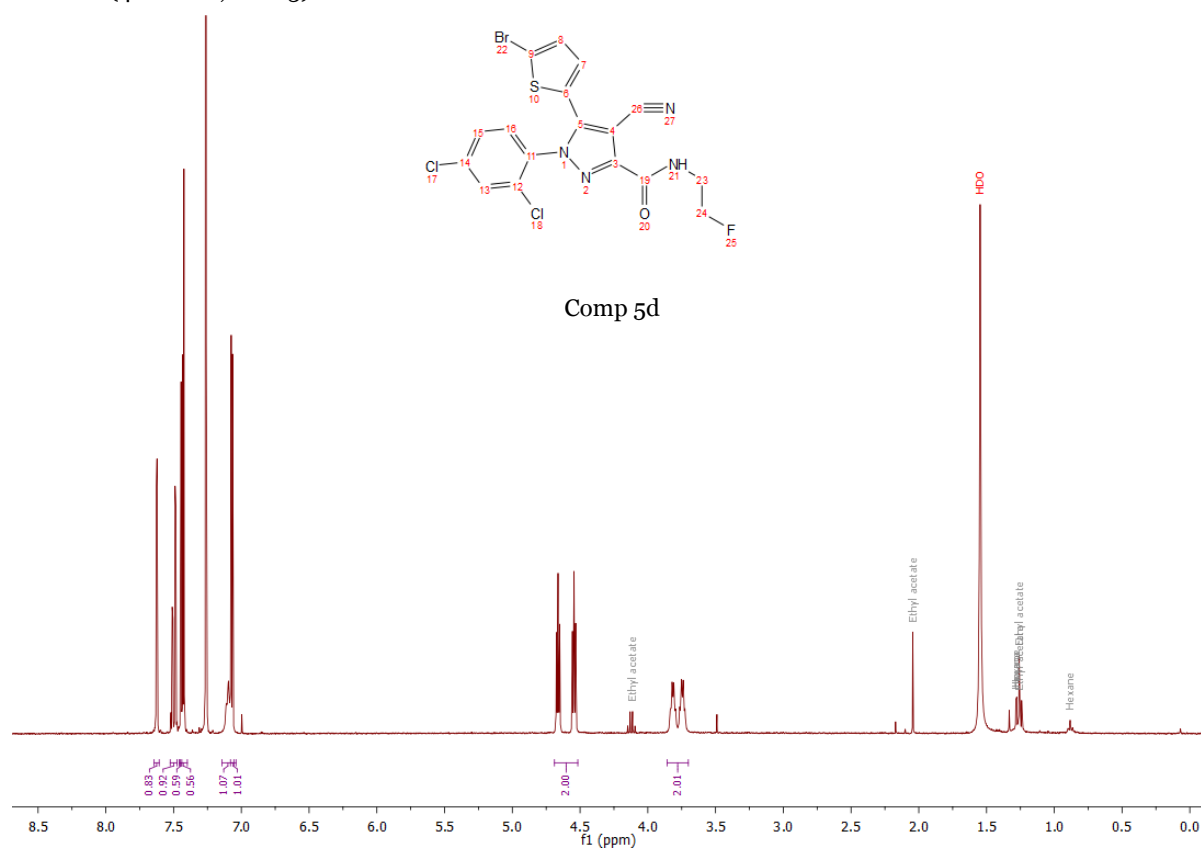
Comp 8i



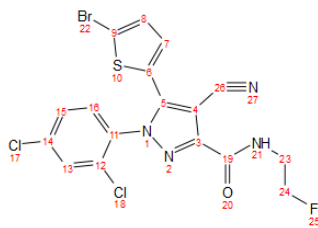
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$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )

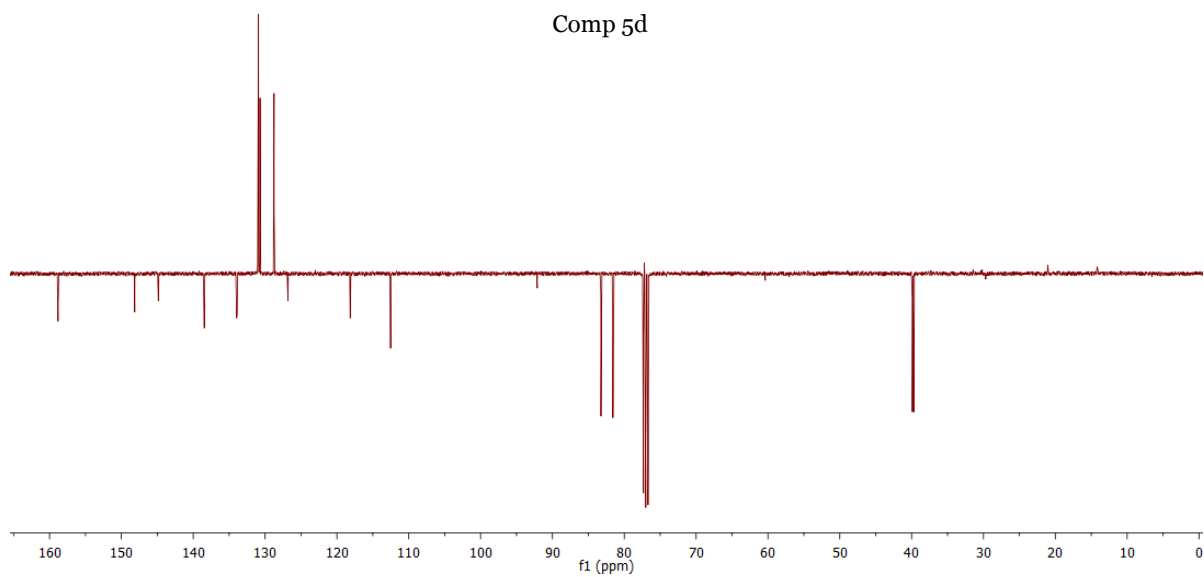


$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )

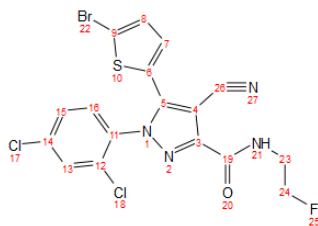
$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )



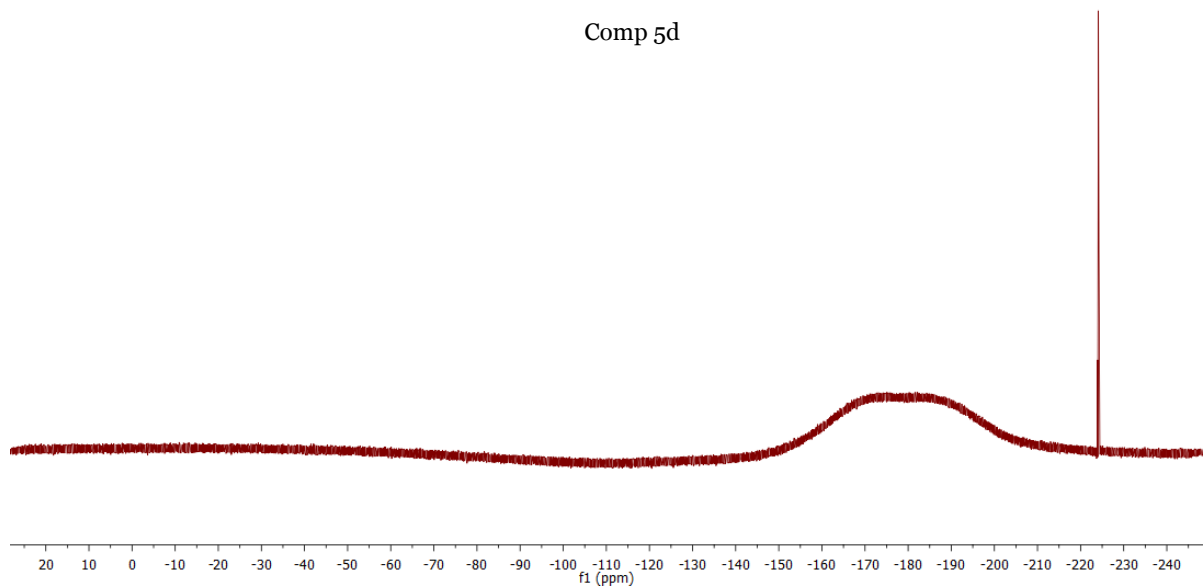
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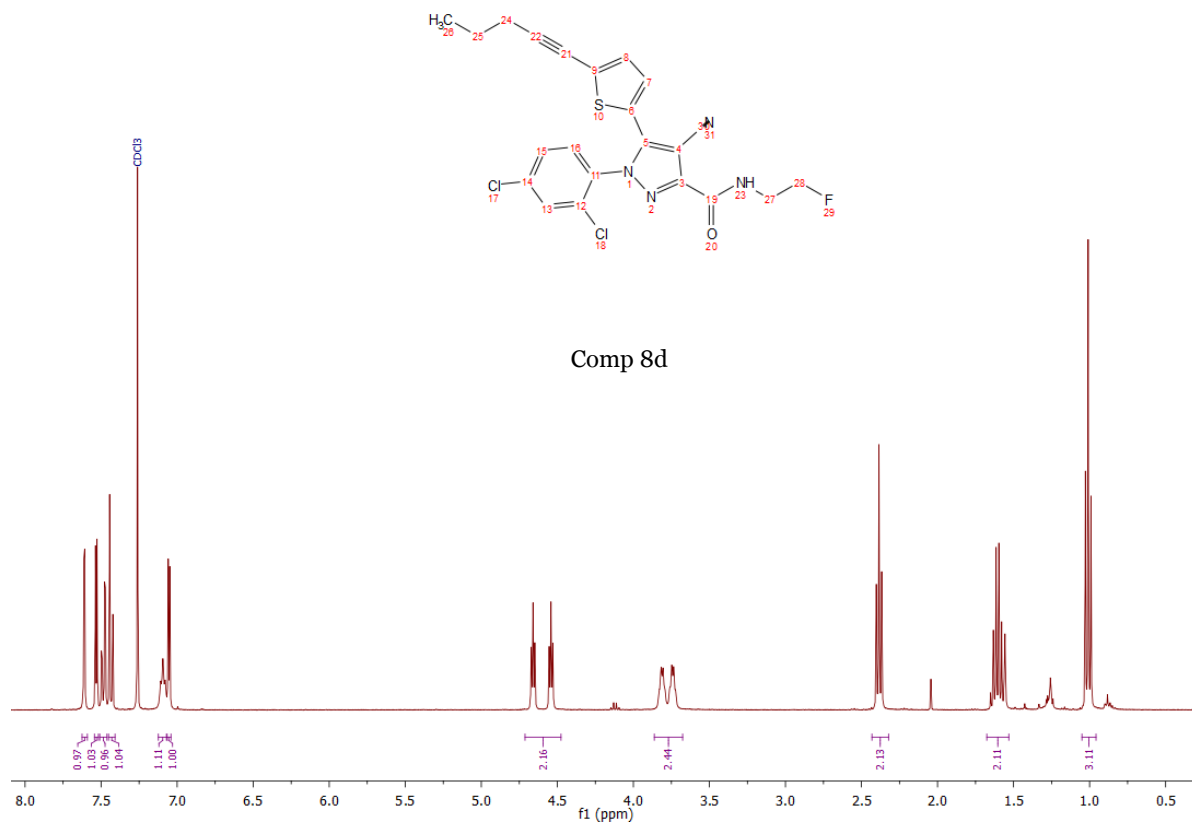
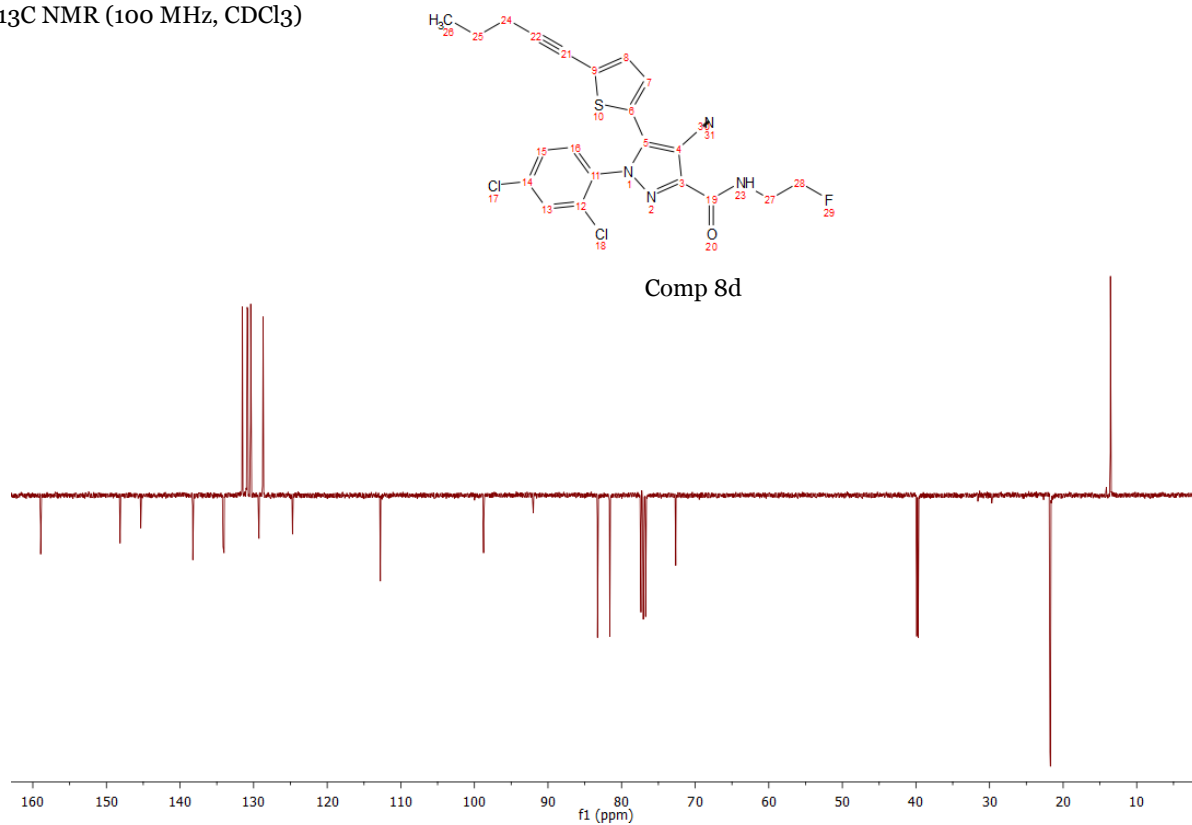


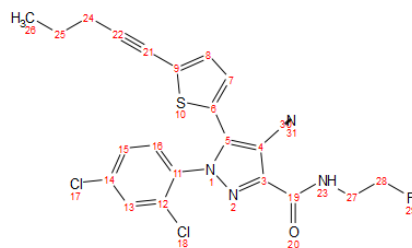
$^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ )



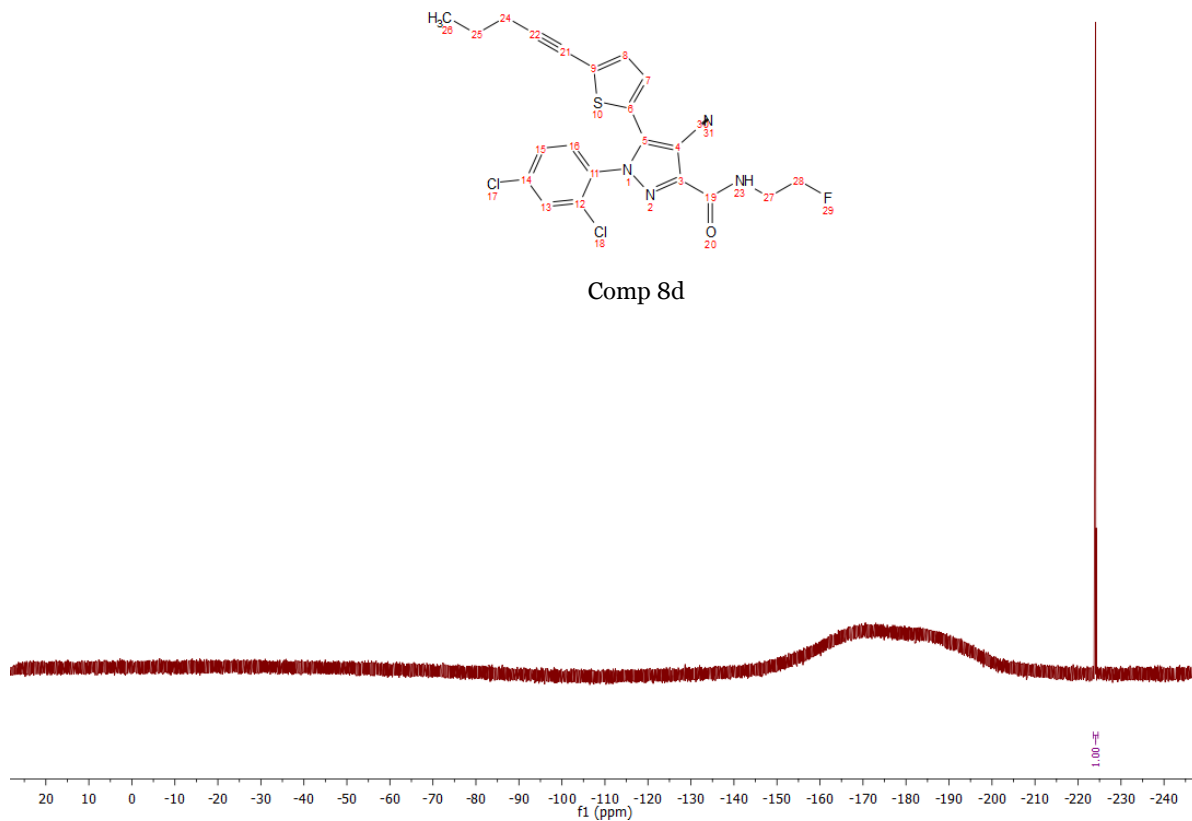
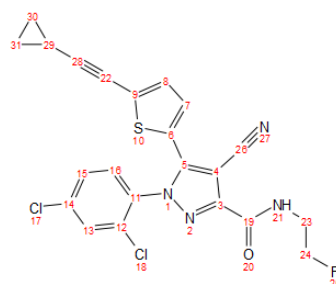
Comp 5d



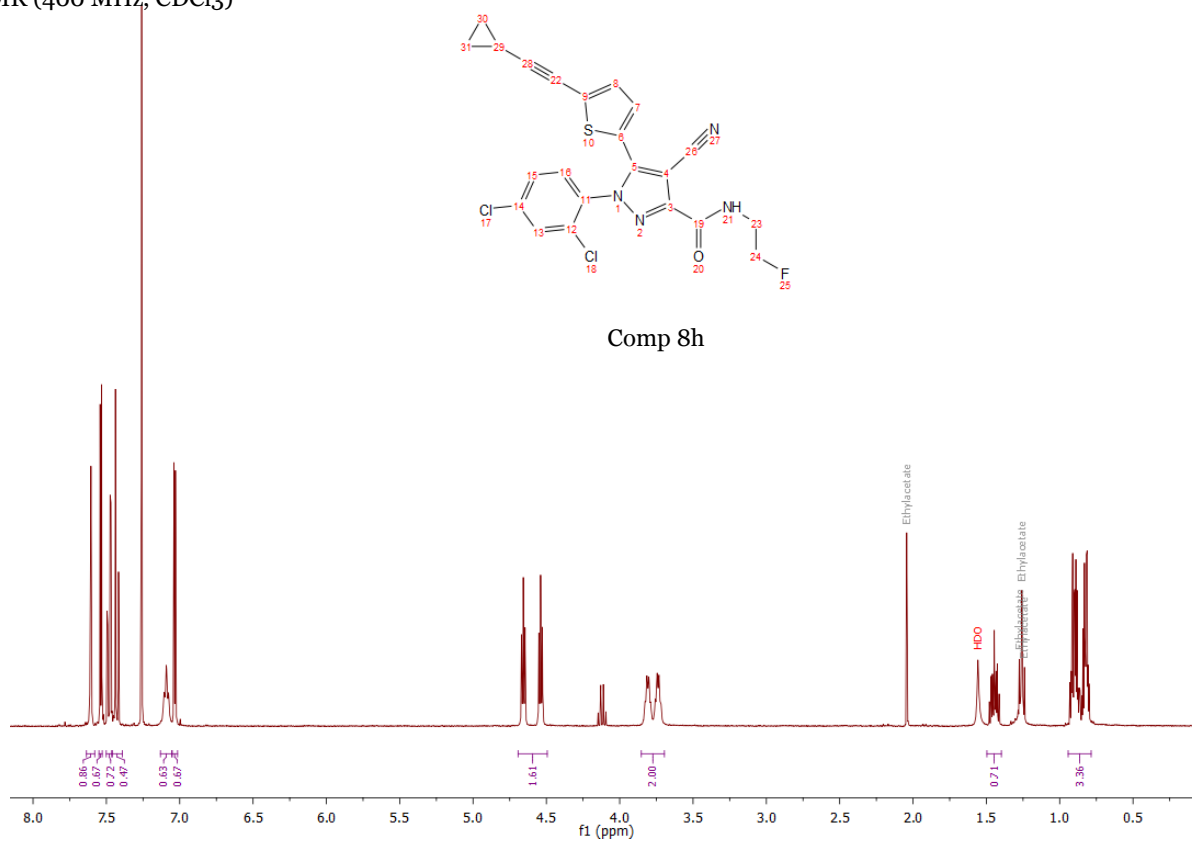
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ ) $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )

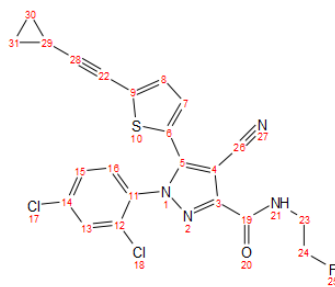
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Comp 8d

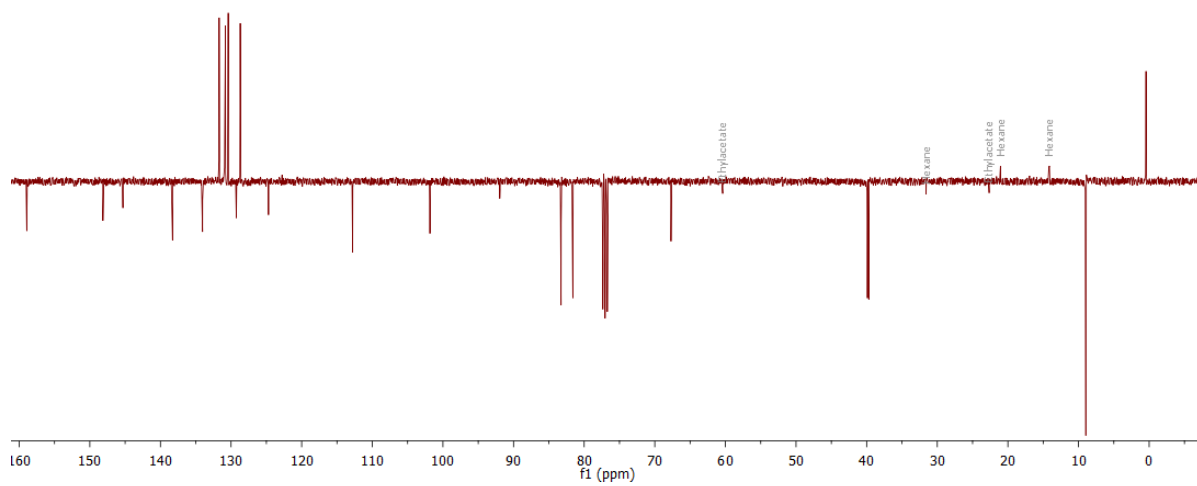
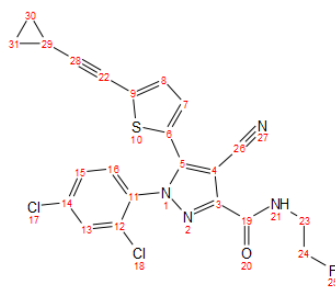
 $^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3$ )

Comp 8h

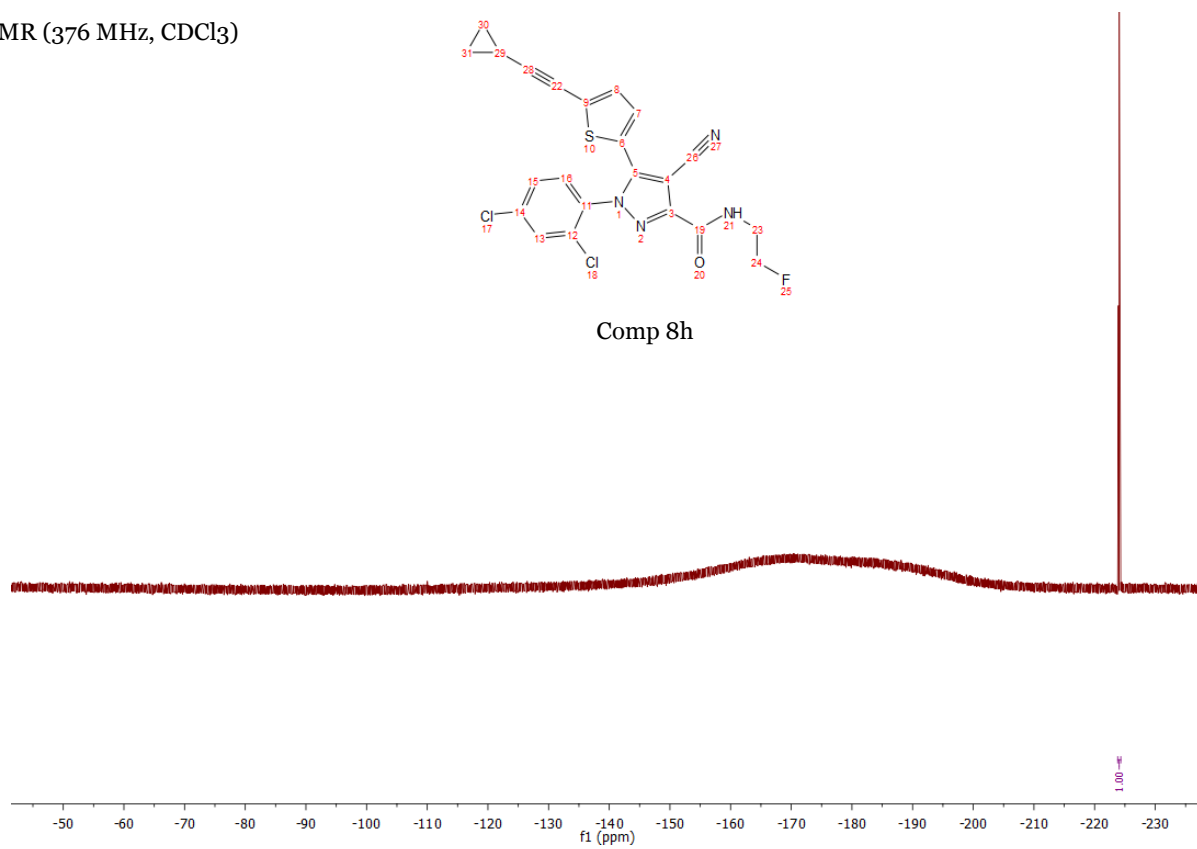


$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )

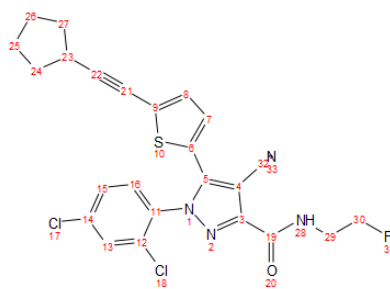
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 $^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ )

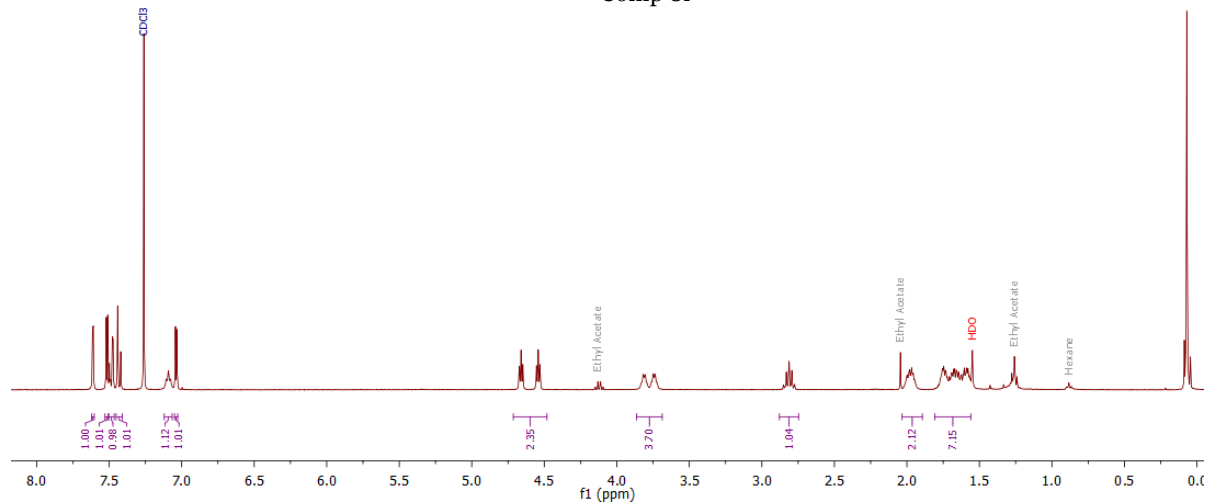
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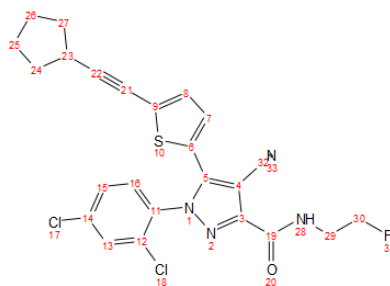
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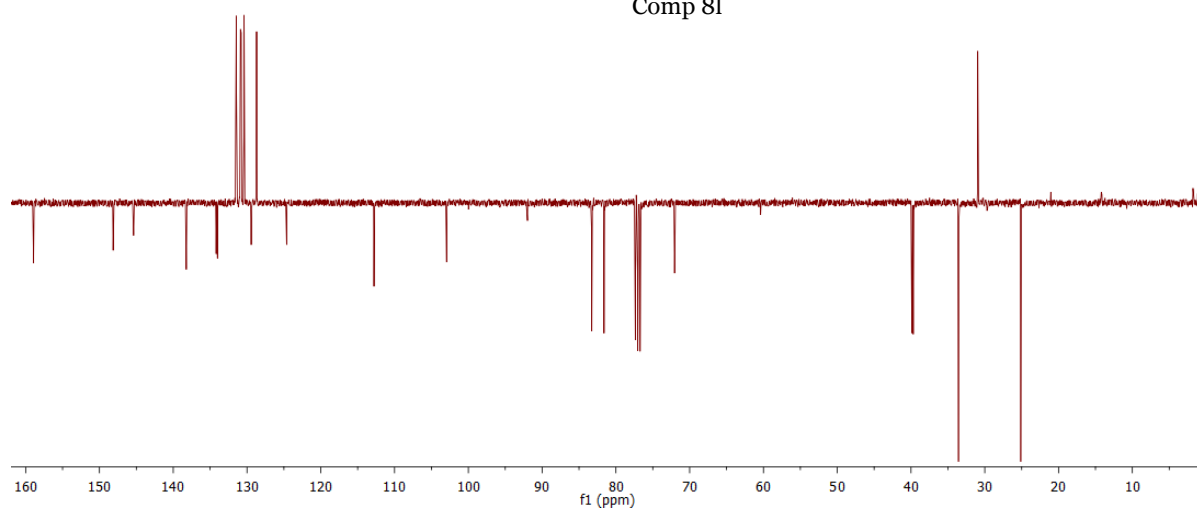
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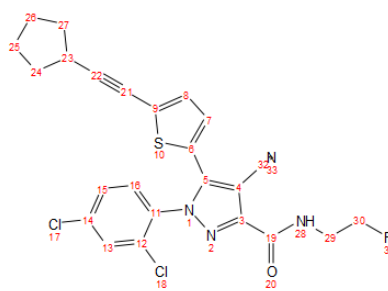
$^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ )



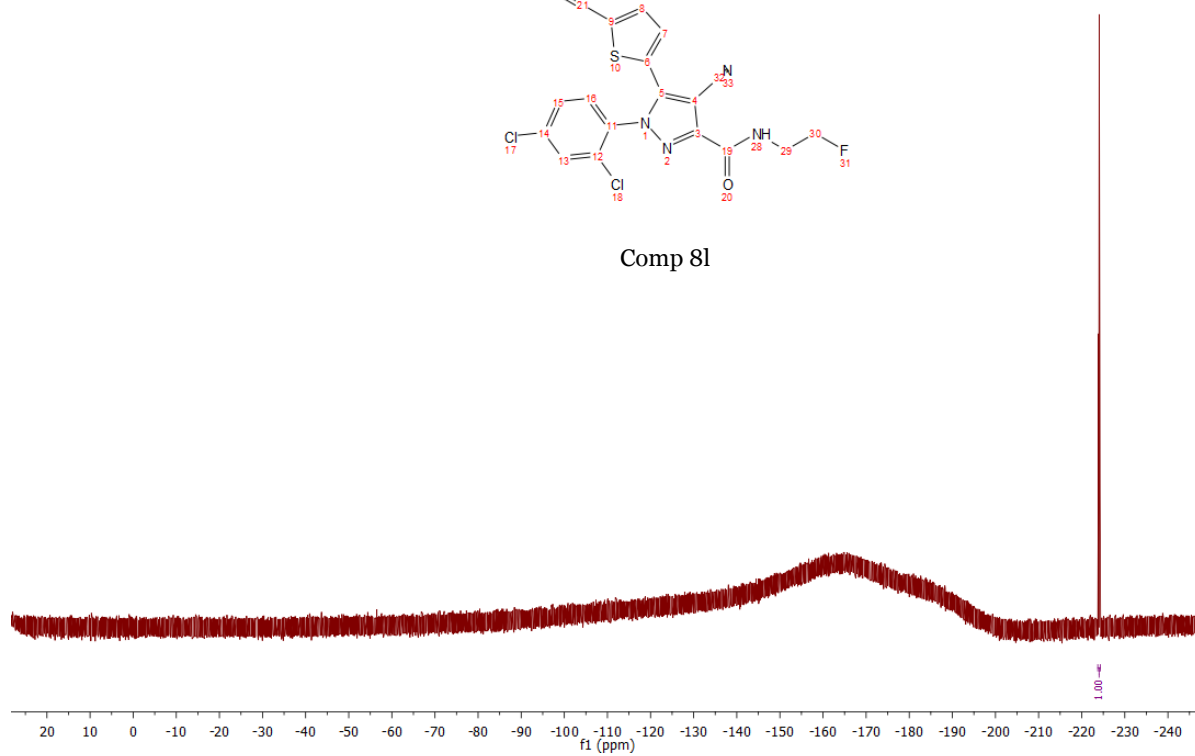
Comp 81

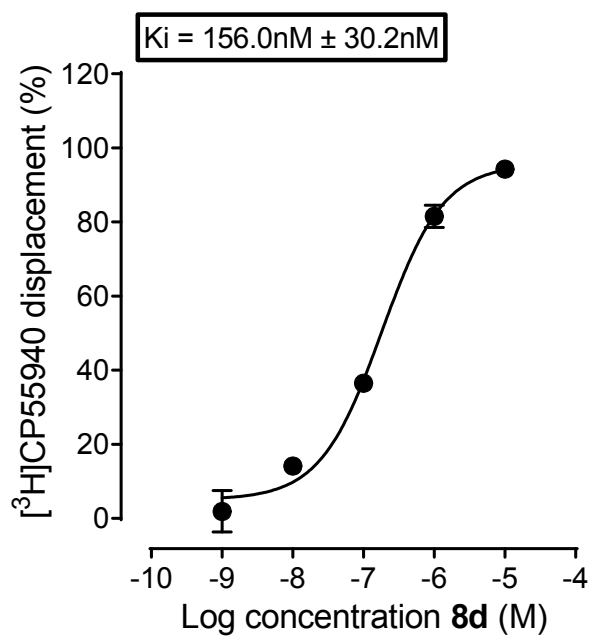
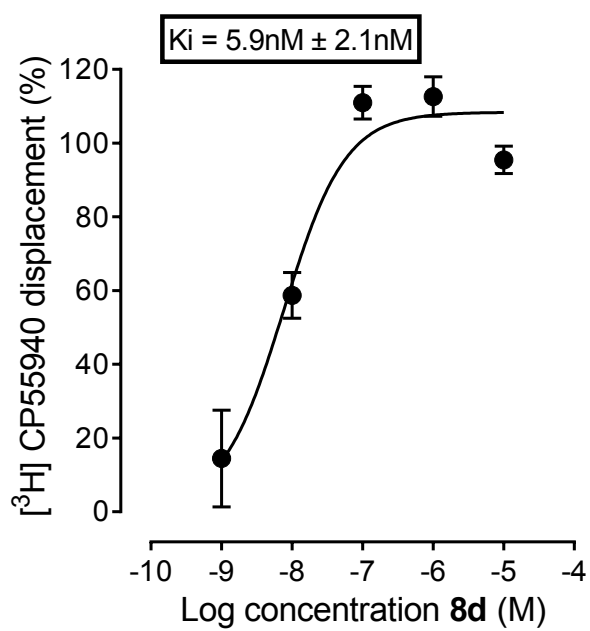


$^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ )

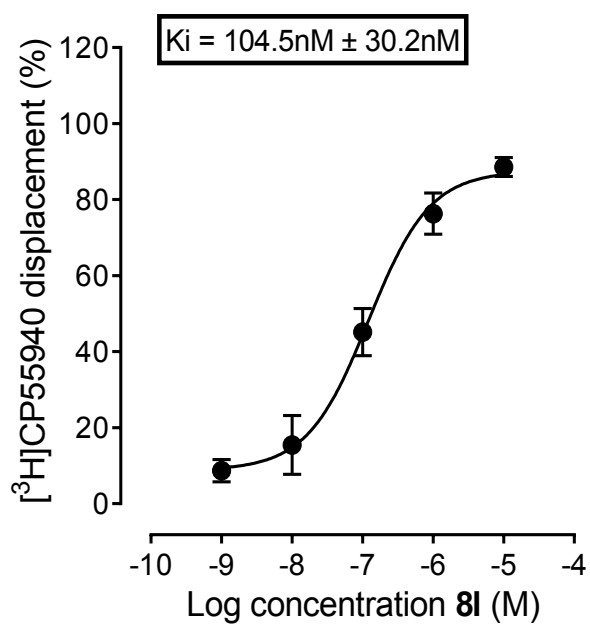
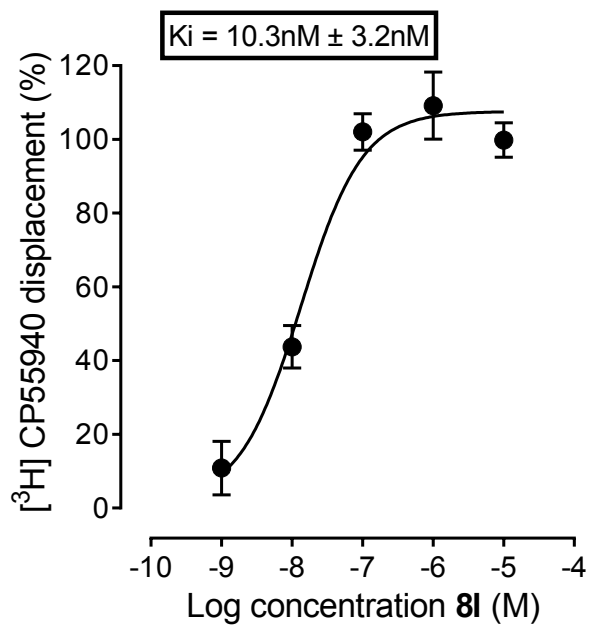


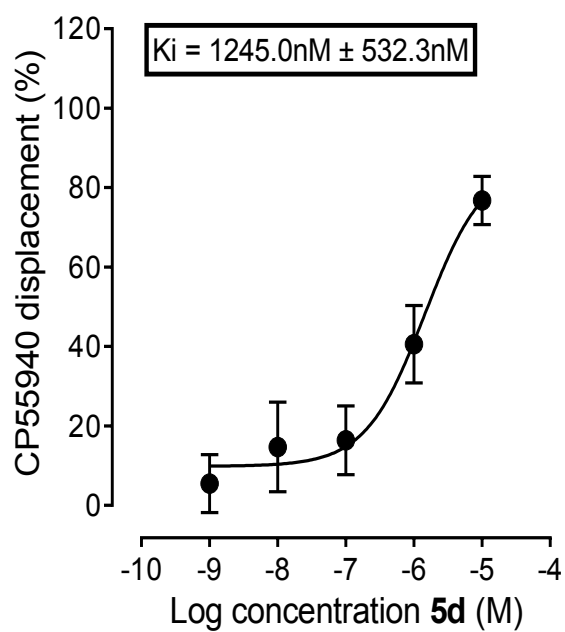
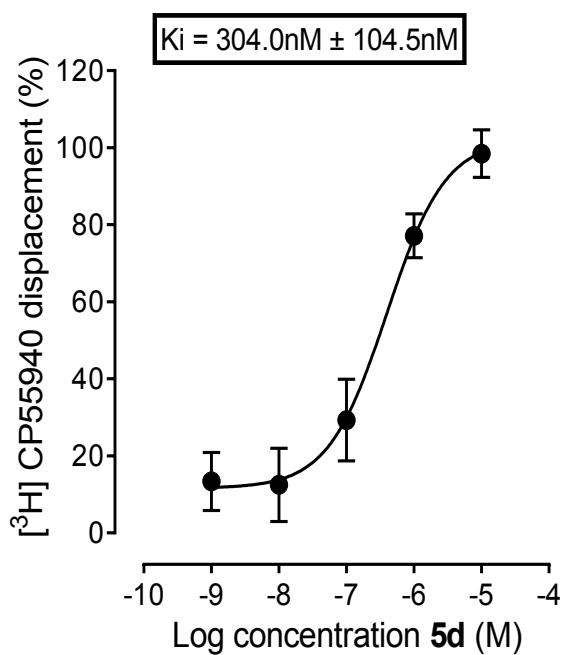
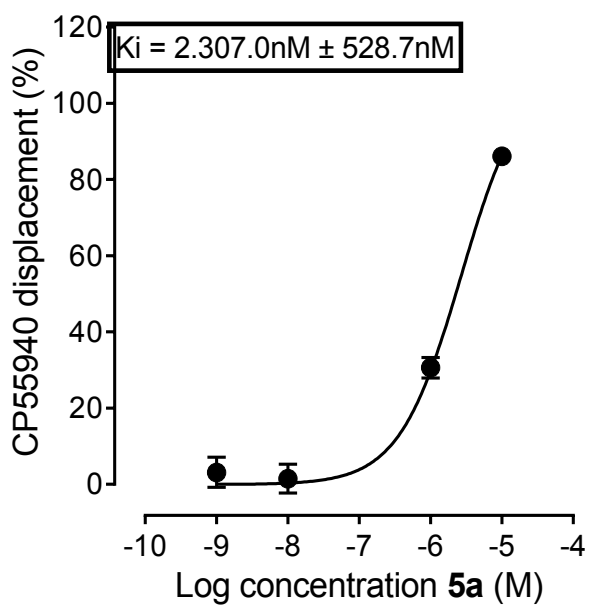
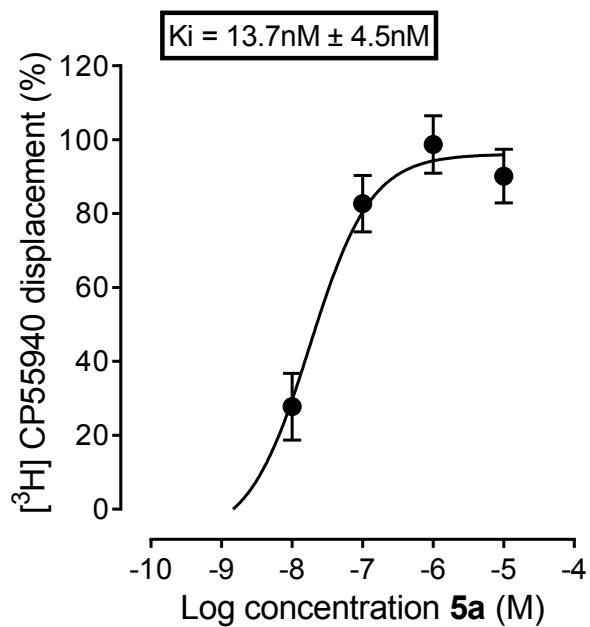
Comp 8l

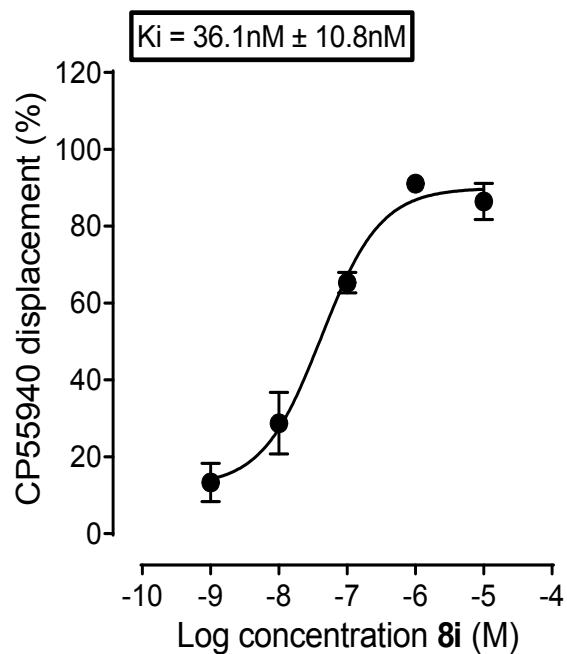
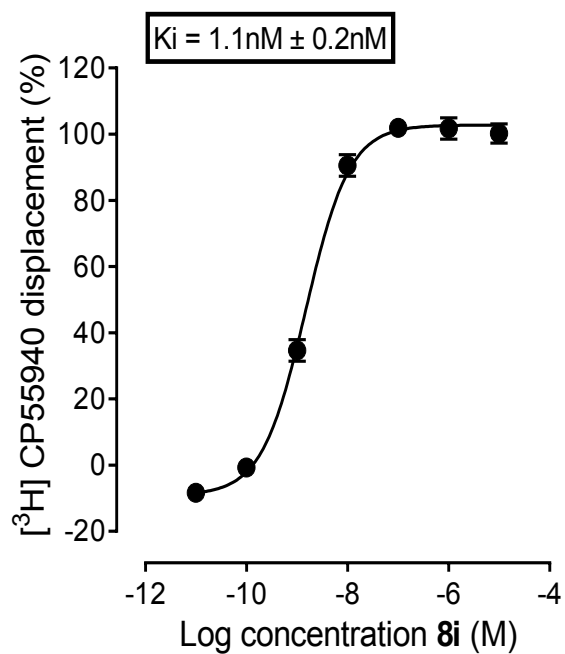
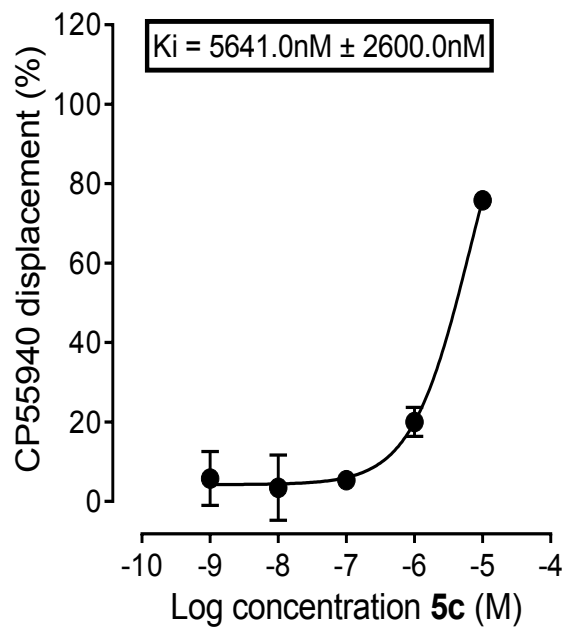
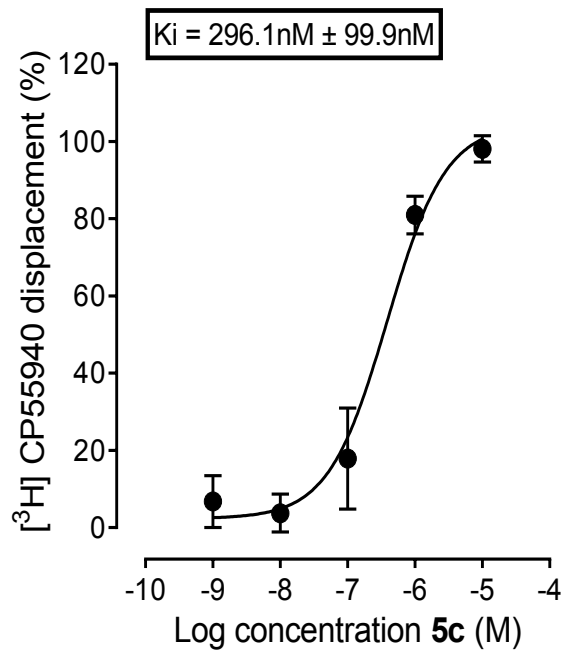


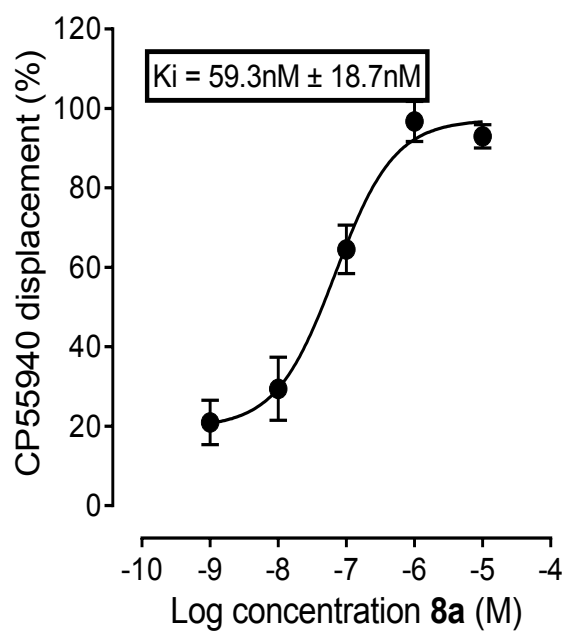
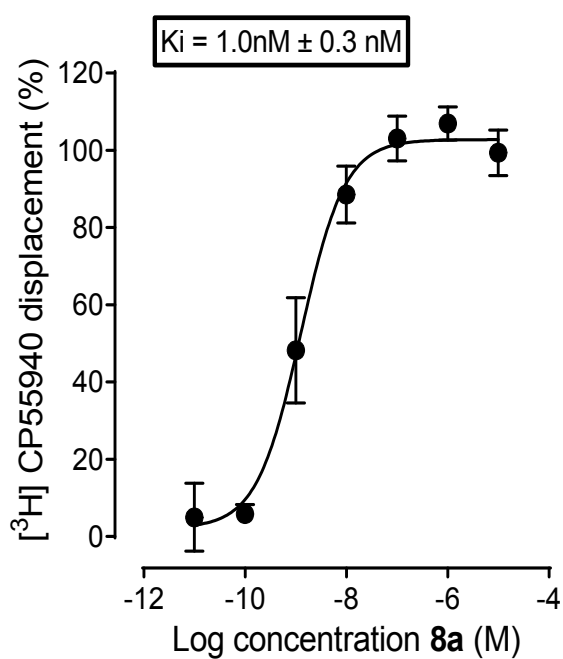
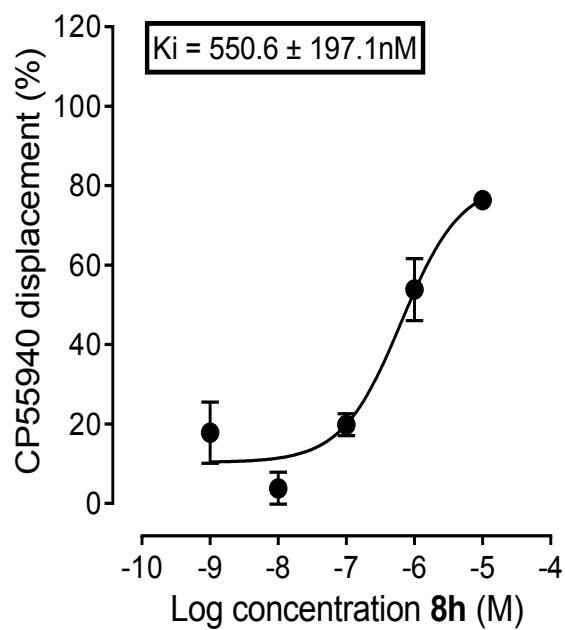
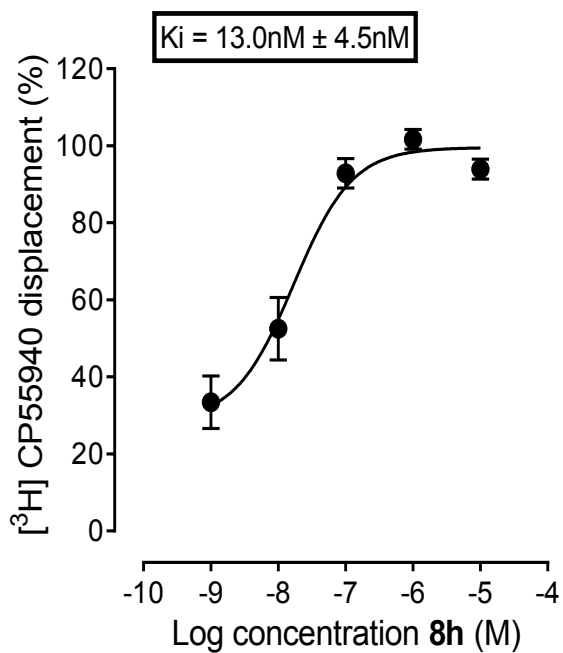
$K_i$  measurements

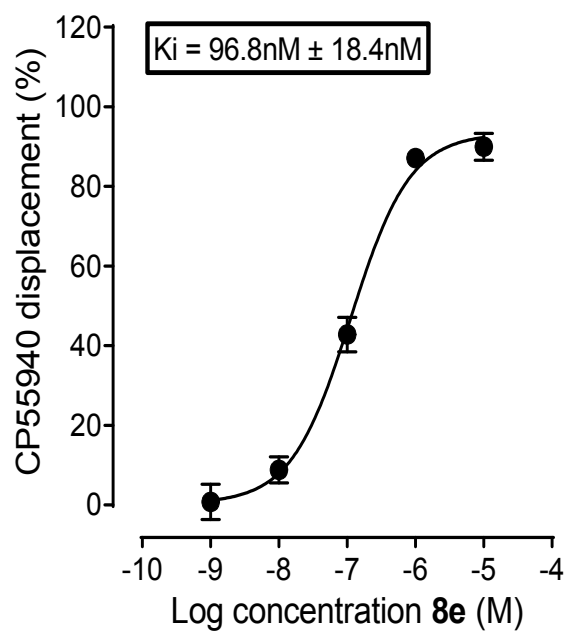
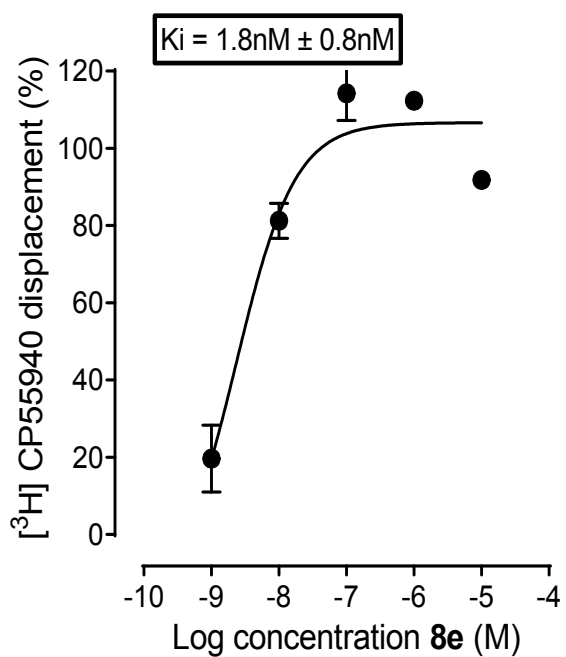
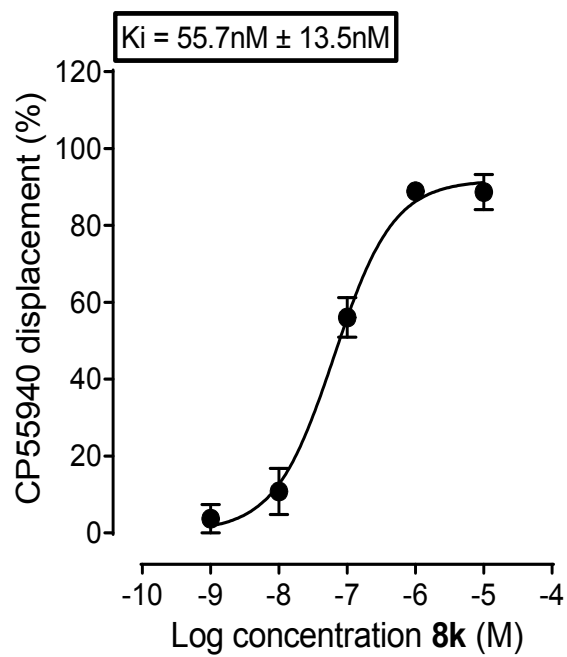
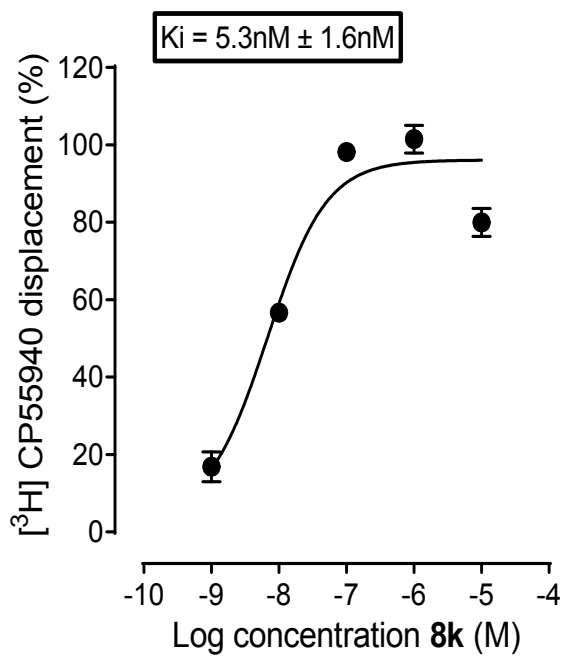


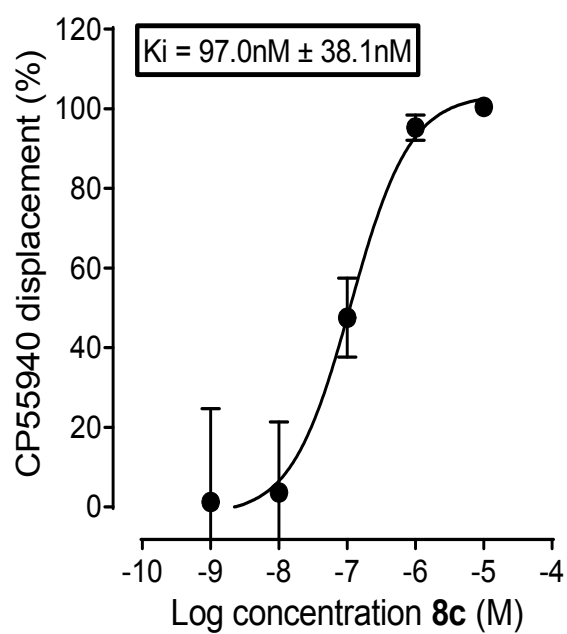
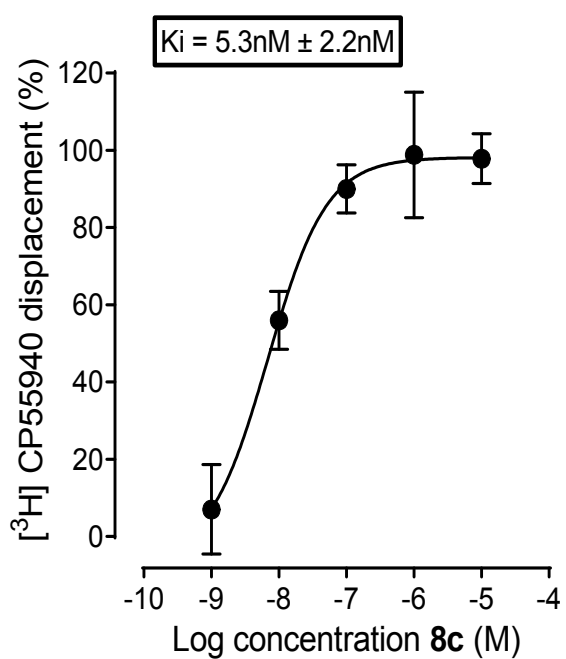
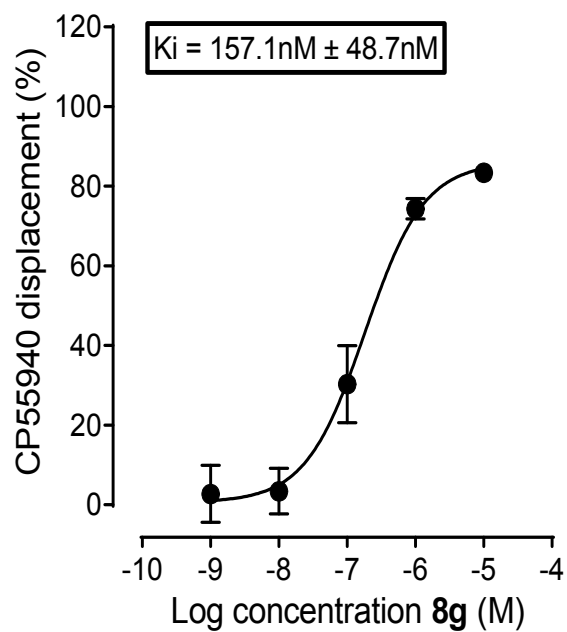
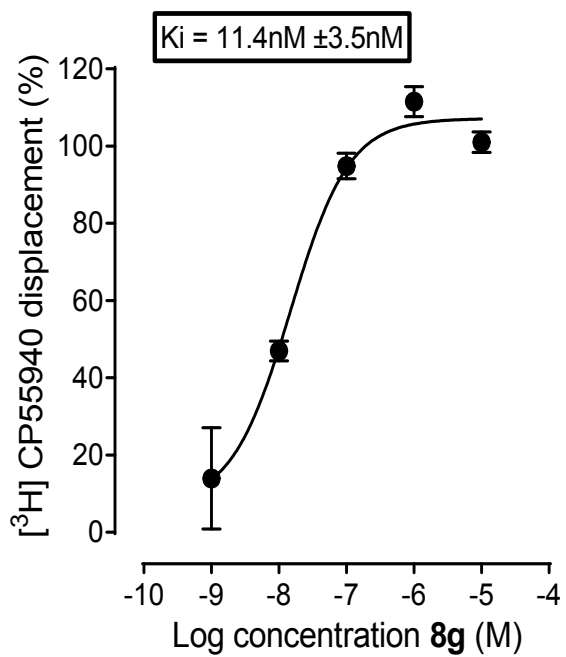


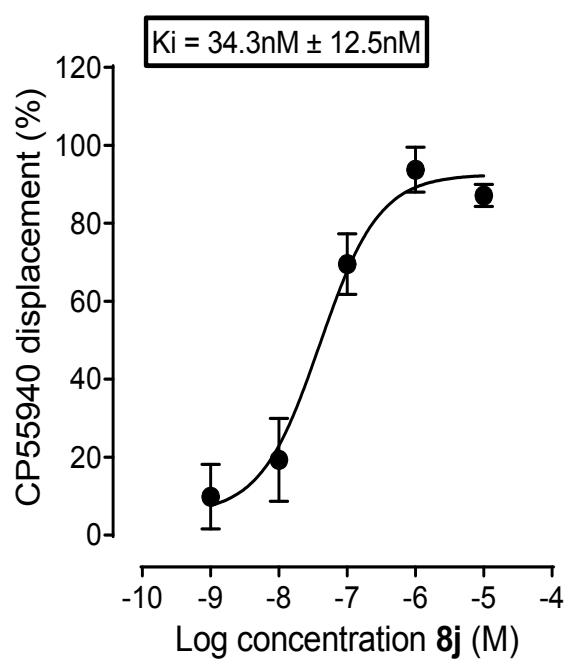
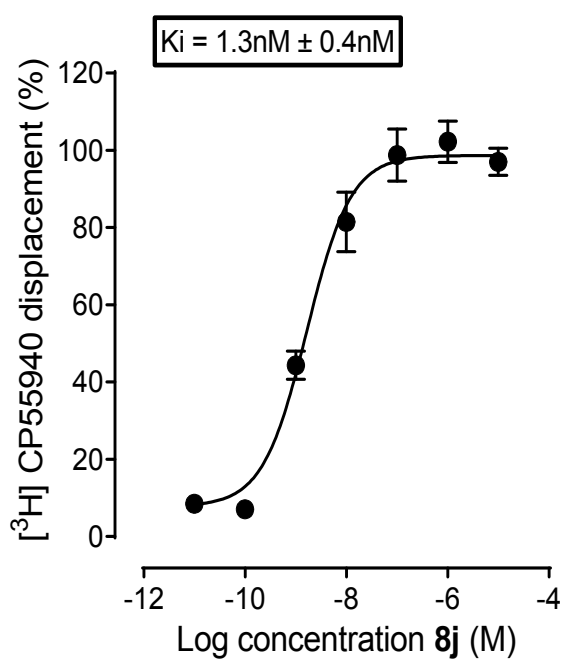
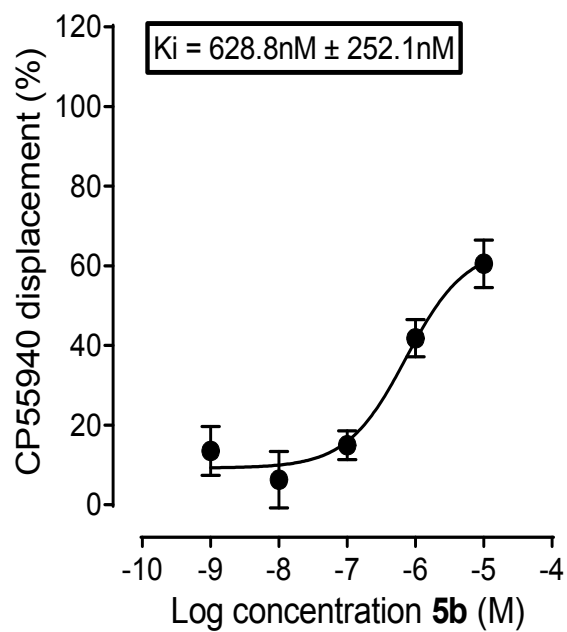
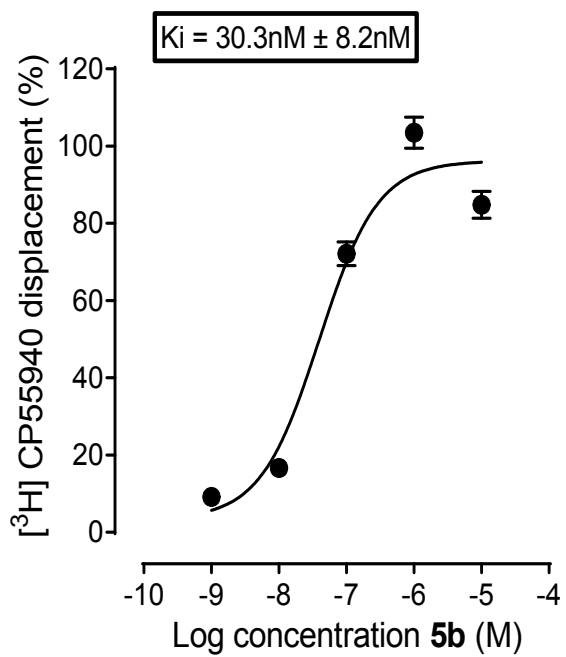


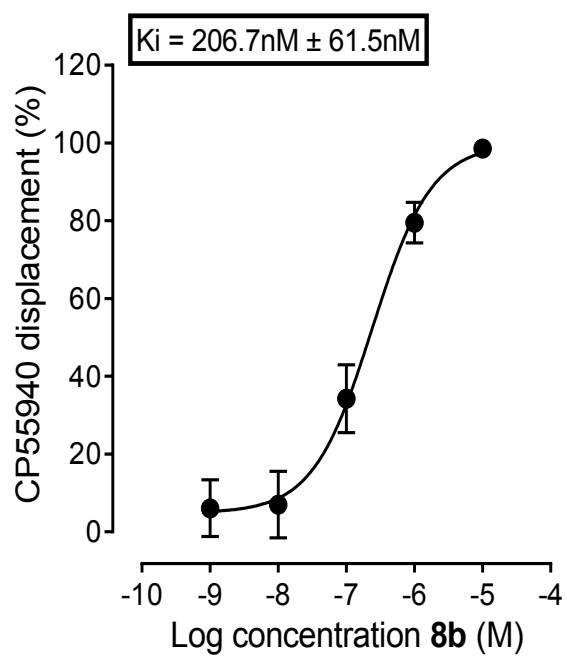
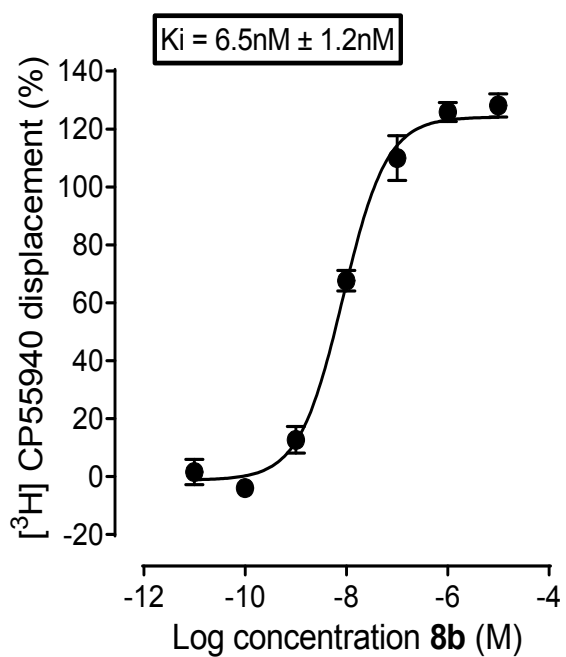
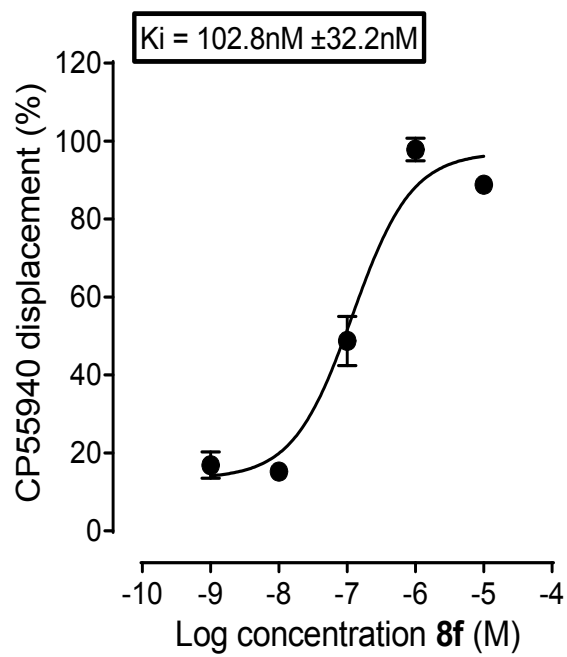
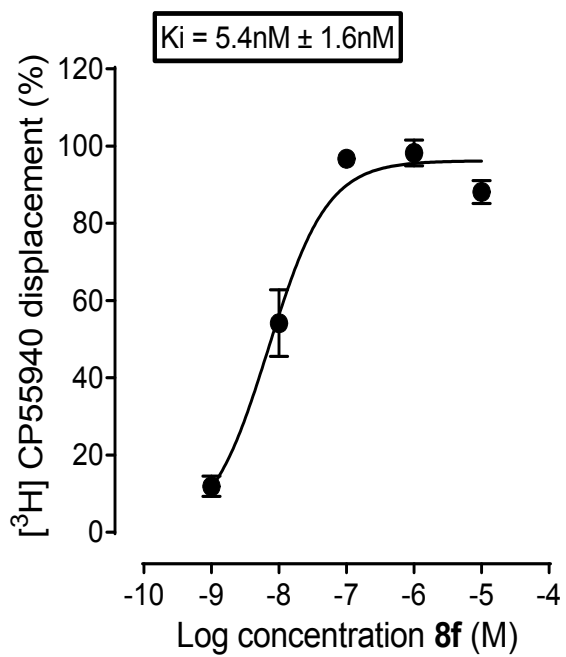














## Functional assays

