

Supporting Information

Multitarget curcumin-piperlongumine hybrids with antioxidant and antiinflammatory properties for the potential treatment of Alzheimer's disease.

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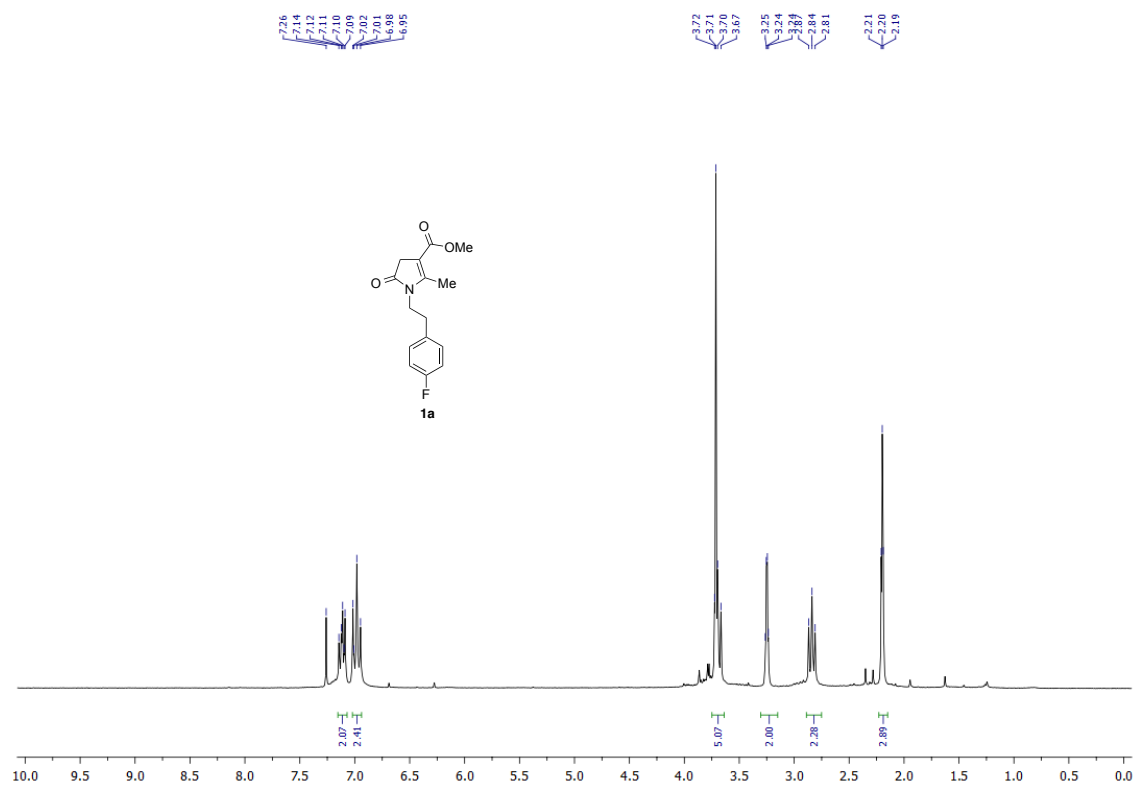
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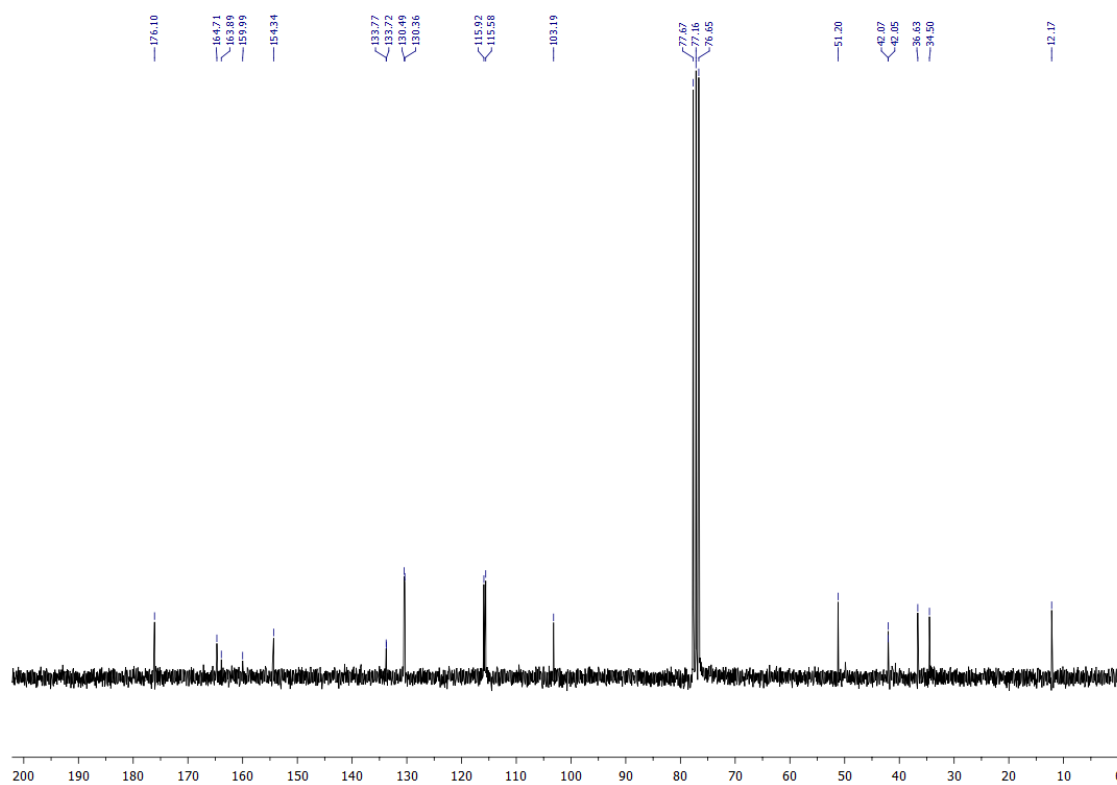
Copies of spectra of new compounds

Methyl 2-methyl-5-oxo-1-(4-fluorophenethyl)-4,5-dihydropyrrole-3-carboxylate (**1a**)

^1H NMR (250 MHz, CDCl_3)

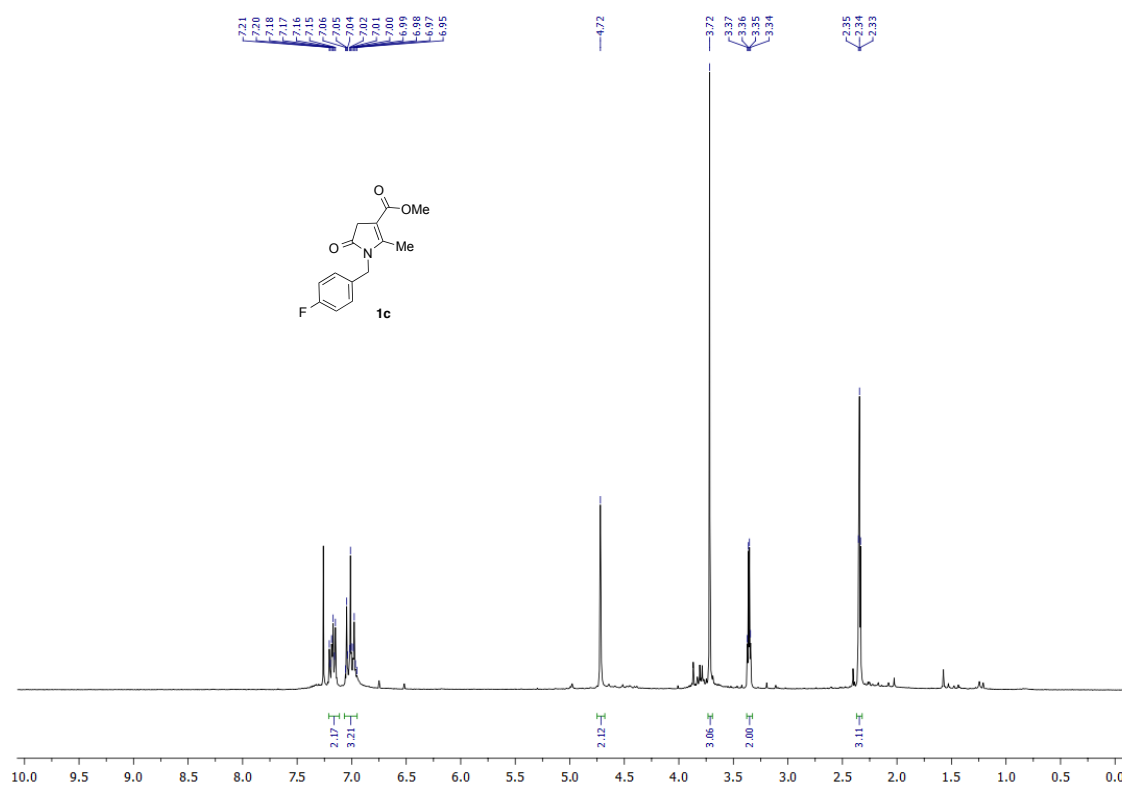


^{13}C NMR (63 MHz, CDCl_3)

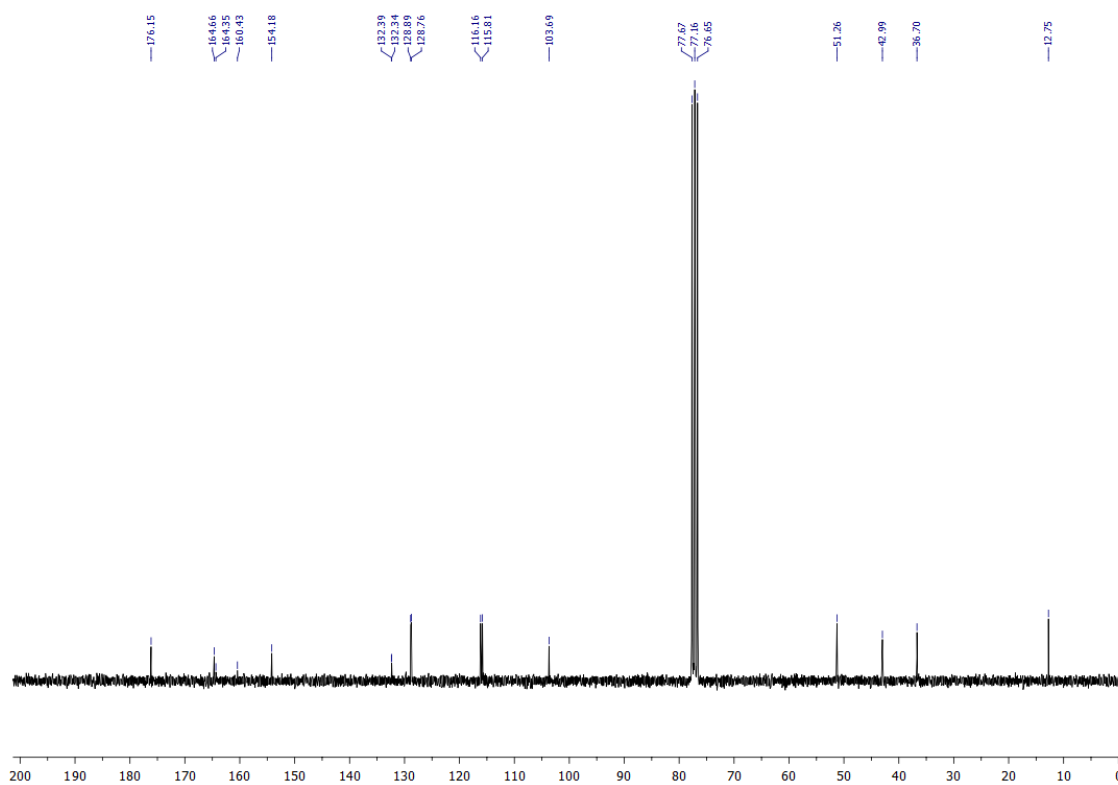


Methyl 1-(4-fluorobenzyl)-2-methyl-5-oxo-4,5-dihydropyrrole-3-carboxylate (**1c**)

¹H NMR (250 MHz, CDCl₃)

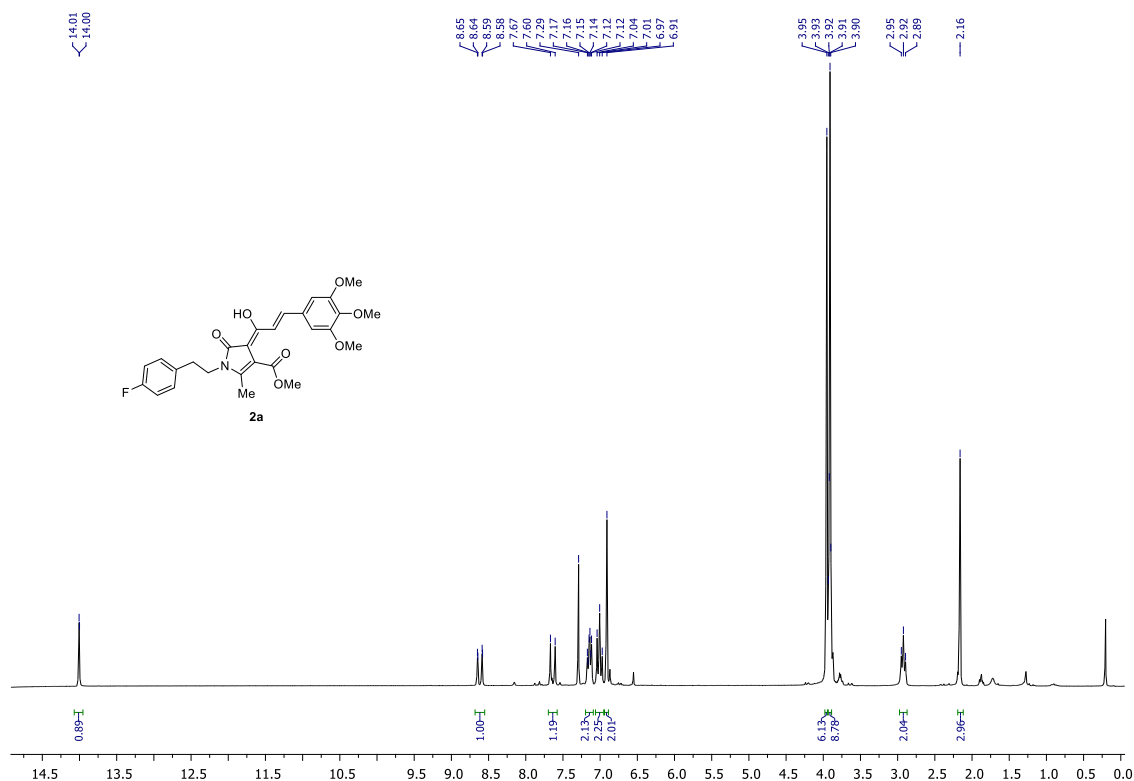


¹³C NMR (63 MHz, CDCl₃)

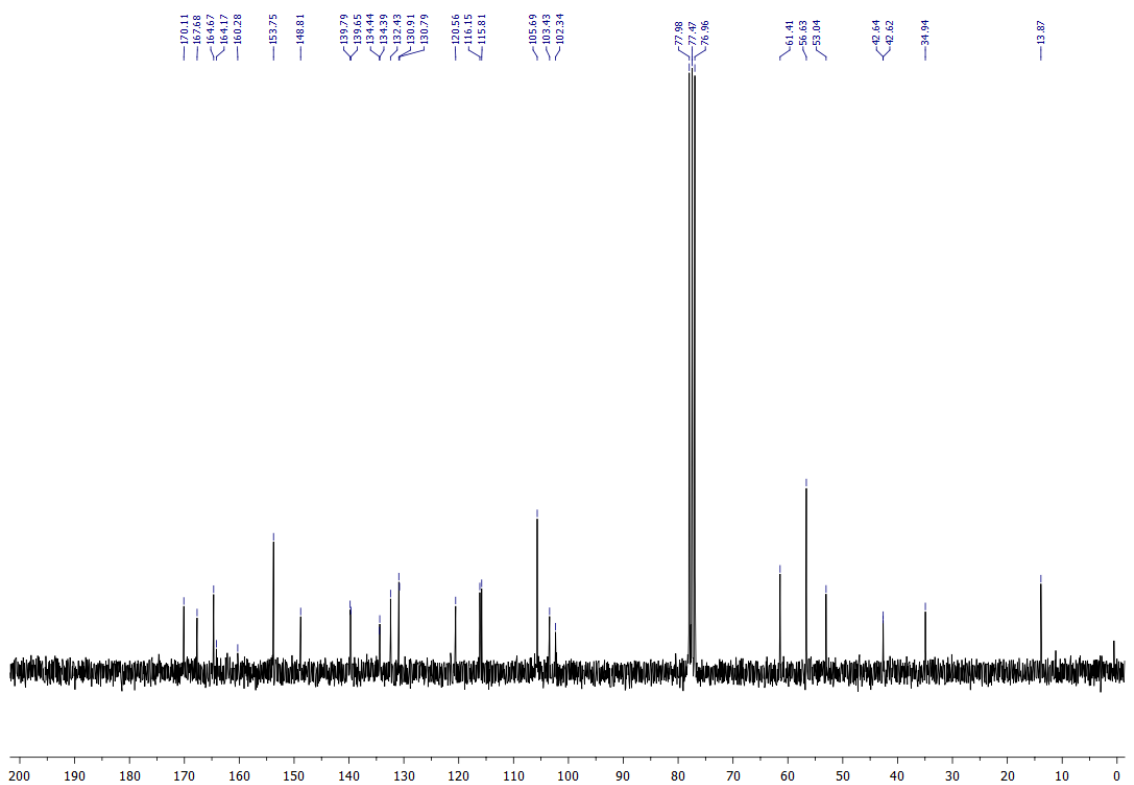


Methyl (Z)-1-(4-fluorophenethyl)-4-((E)-1-hydroxy-3-(3,4,5-trimethoxyphenyl)-allylidene)-2-methyl-5-oxo-4,5-dihydro-1H-pyrrole-3-carboxylate (**2a**)

^1H NMR (250 MHz, CDCl_3)

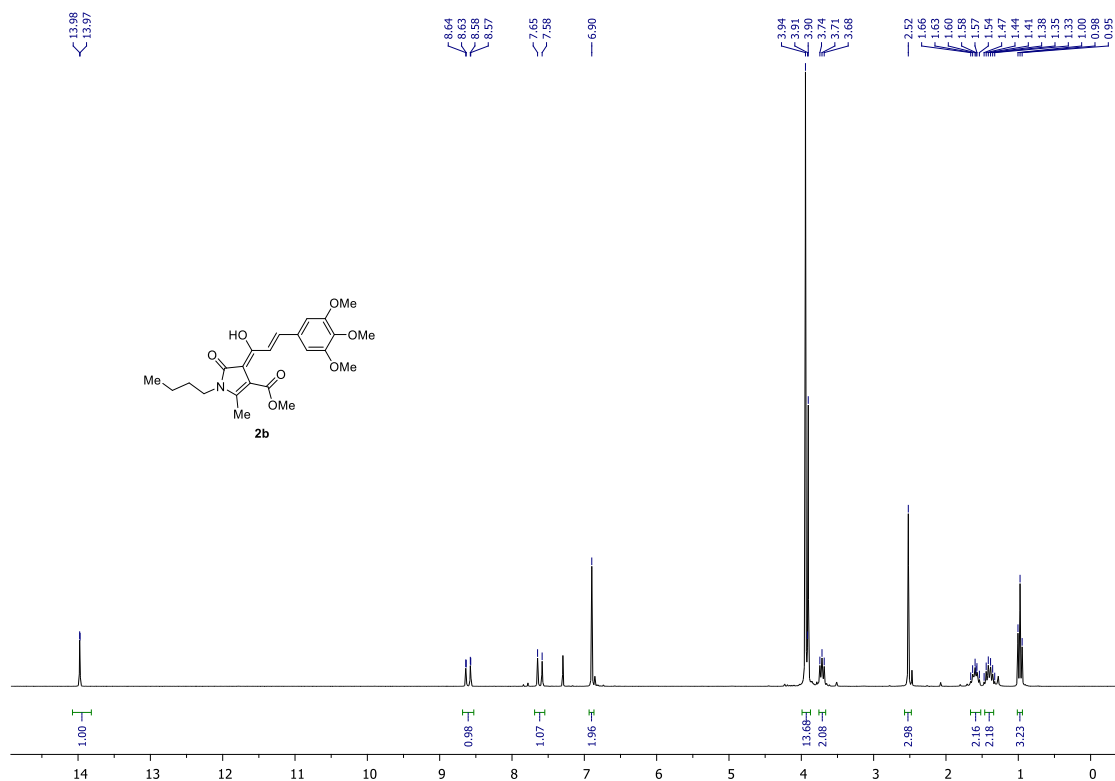


^{13}C NMR (63 MHz, CDCl_3)

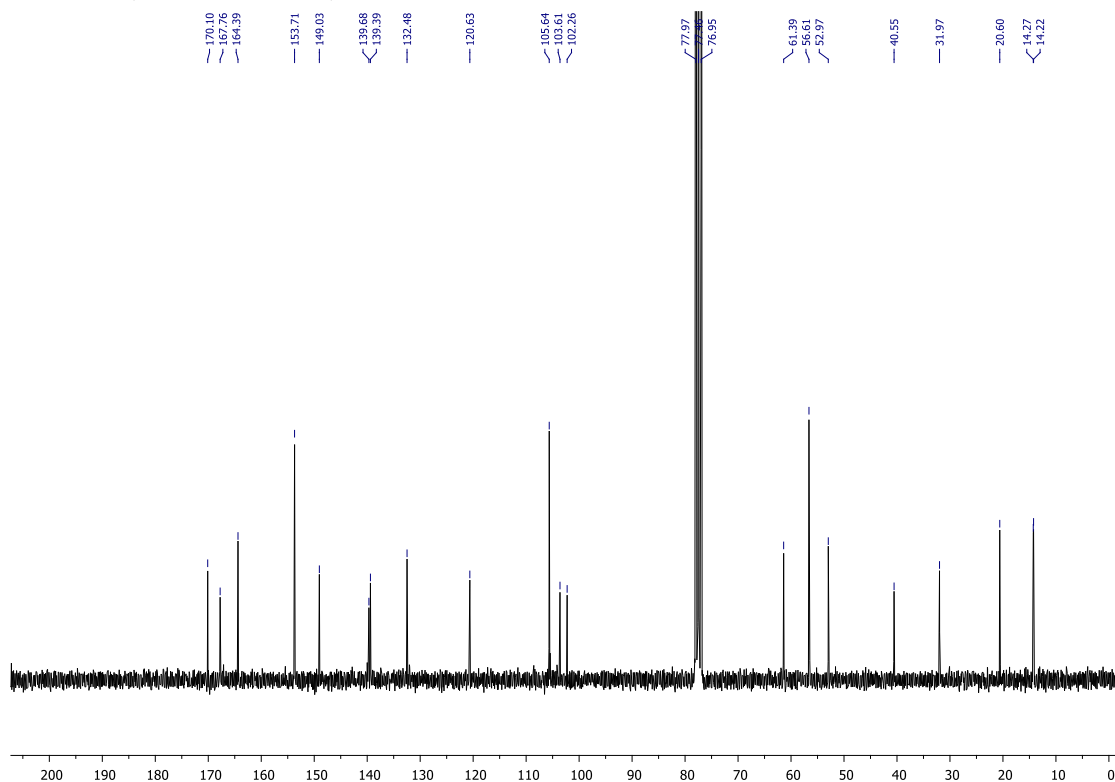


Methyl (Z)-1-butyl-4-((E)-1-hydroxy-3-(3,4,5-trimethoxyphenyl)allylidene)- 2-methyl-5-oxo-4,5-dihydro-1H-pyrrole-3-carboxylate (**2b**)

¹H NMR (250 MHz, CDCl₃)

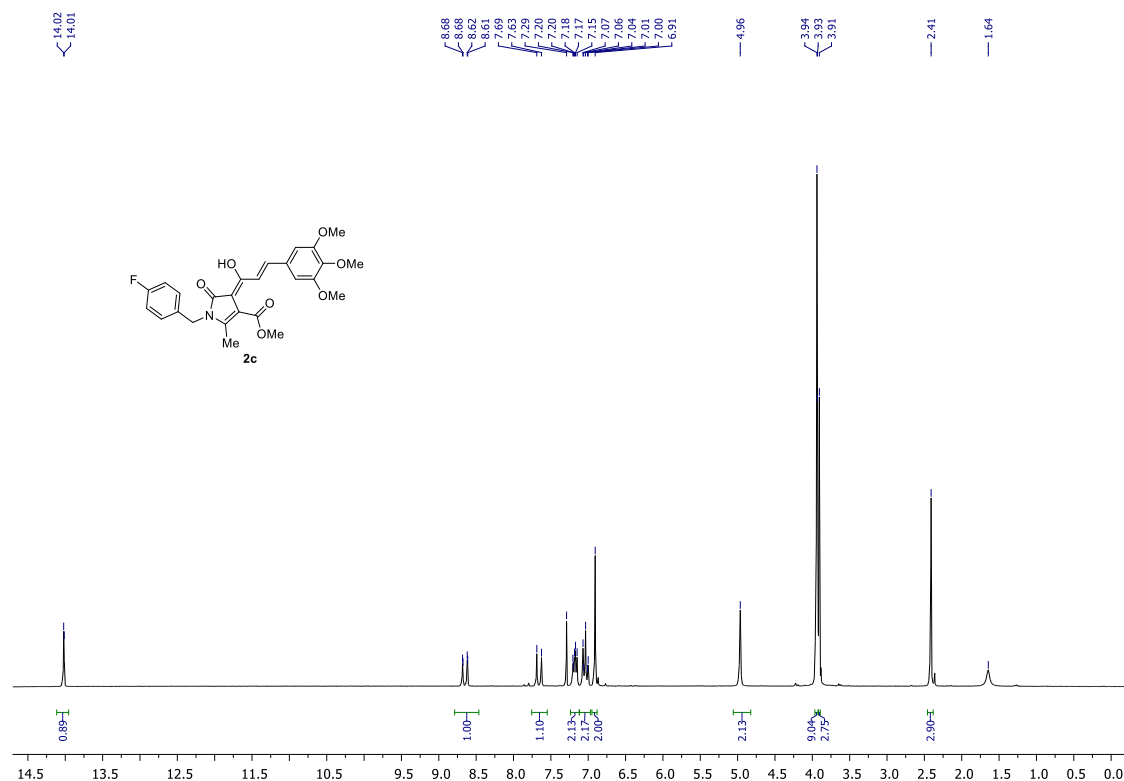


¹³C NMR (63 MHz, CDCl₃)

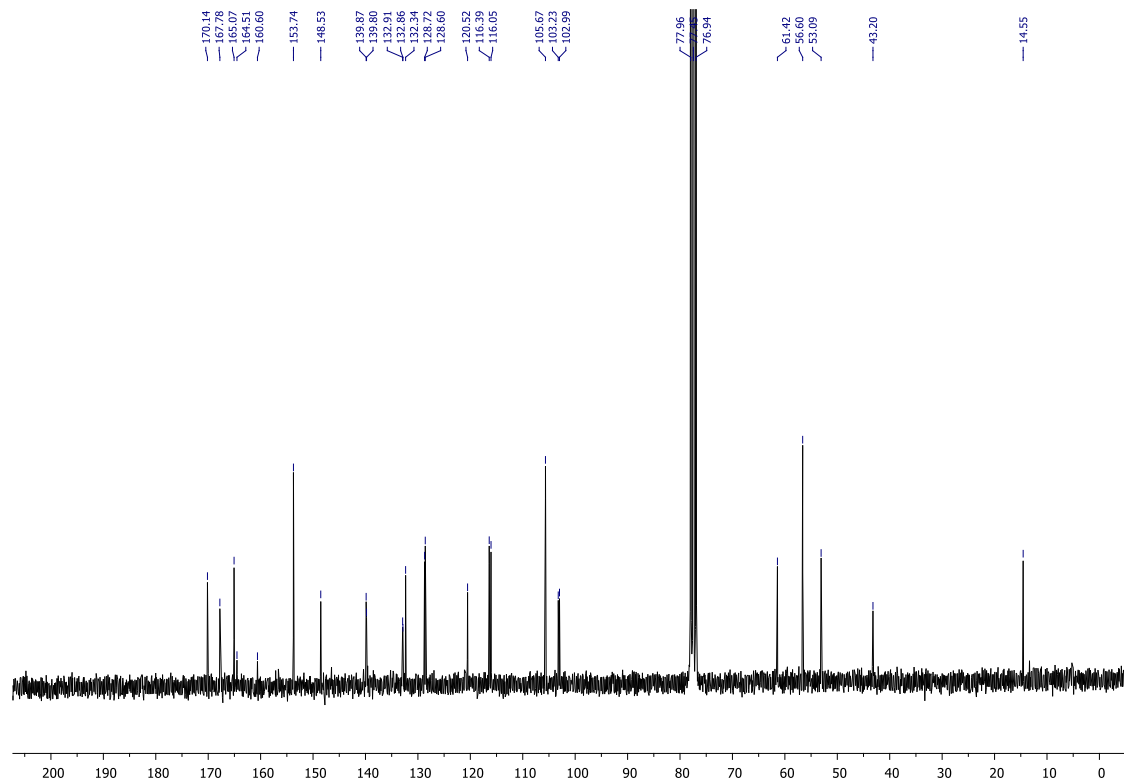


(Z)-1-(4-fluorobenzyl)-4-((E)-1-hydroxy-3-(3,4,5-trimethoxyphenyl)allylidene)-2-methyl-5-oxo-4,5-dihydro-1H-pyrrole-3-carboxylate (**2c**)

¹H NMR (250 MHz, CDCl₃)

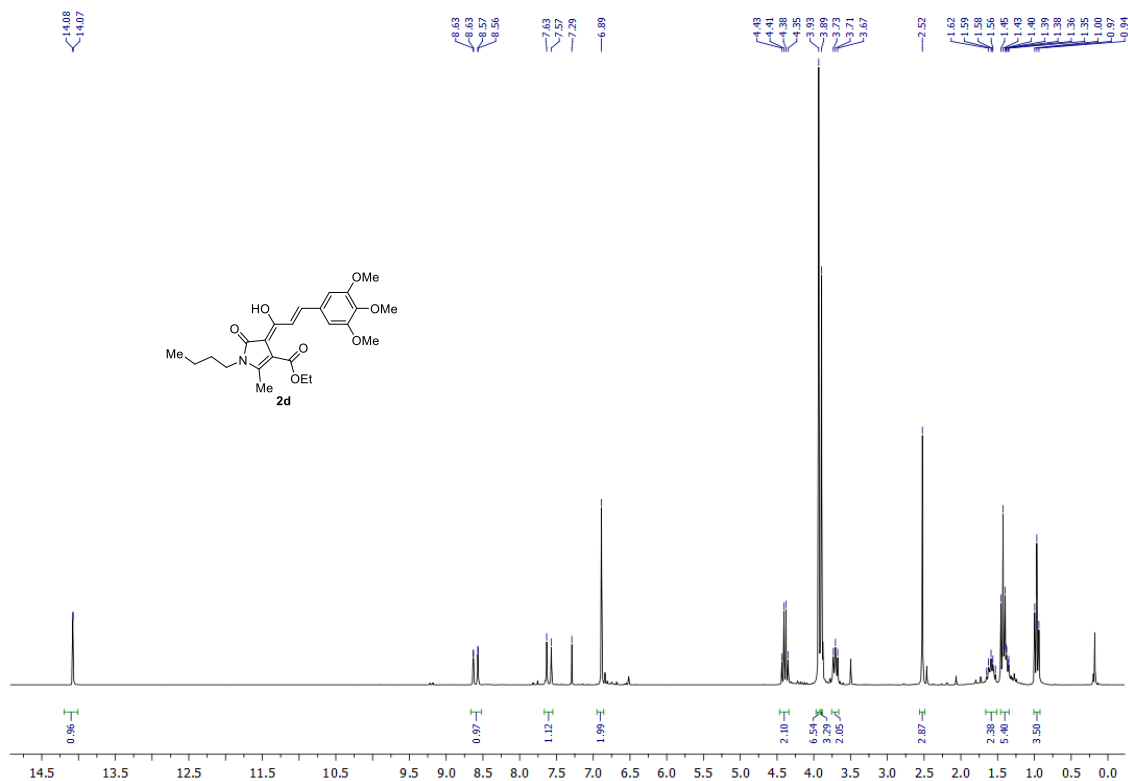


¹³C NMR (63 MHz, CDCl₃)

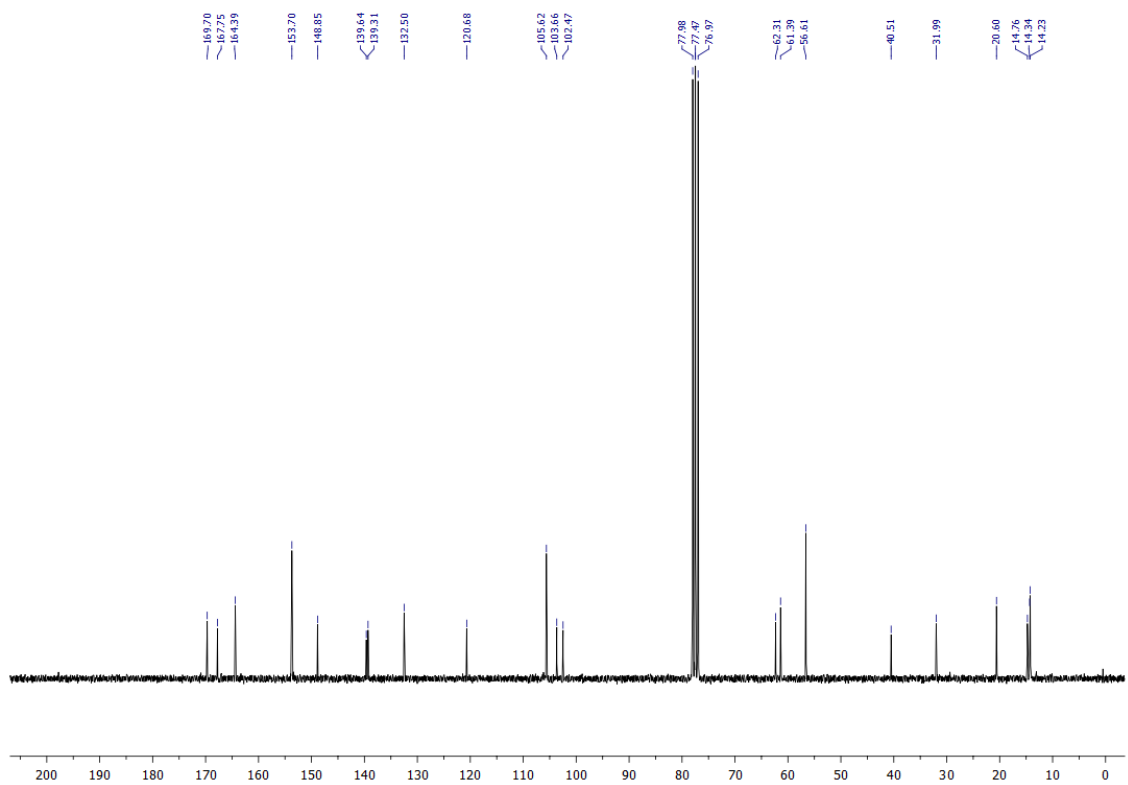


Ethyl (Z)-1-butyl-4-((E)-1-hydroxy-3-(3,4,5-trimethoxyphenyl)allylidene)-2-methyl-5-oxo-4,5-dihydro-1H-pyrrole-3-carboxylate (**2d**)

¹H NMR (250 MHz, CDCl₃)

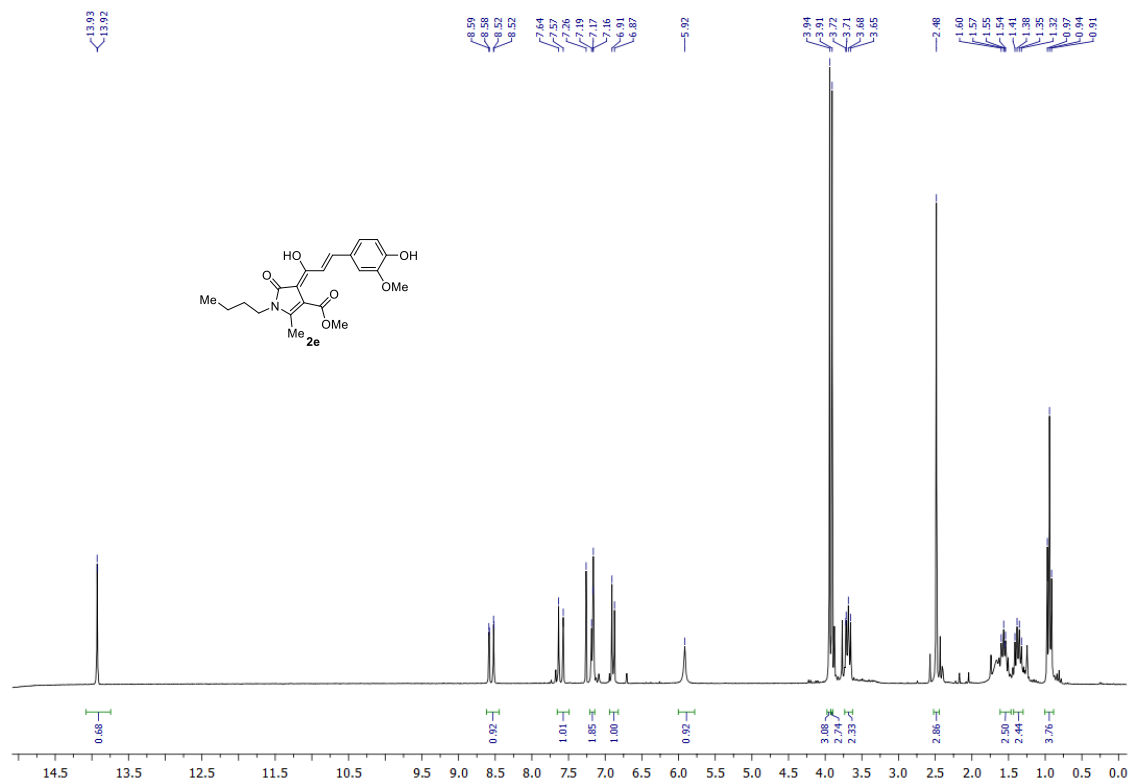


¹³C NMR (63 MHz, CDCl₃)

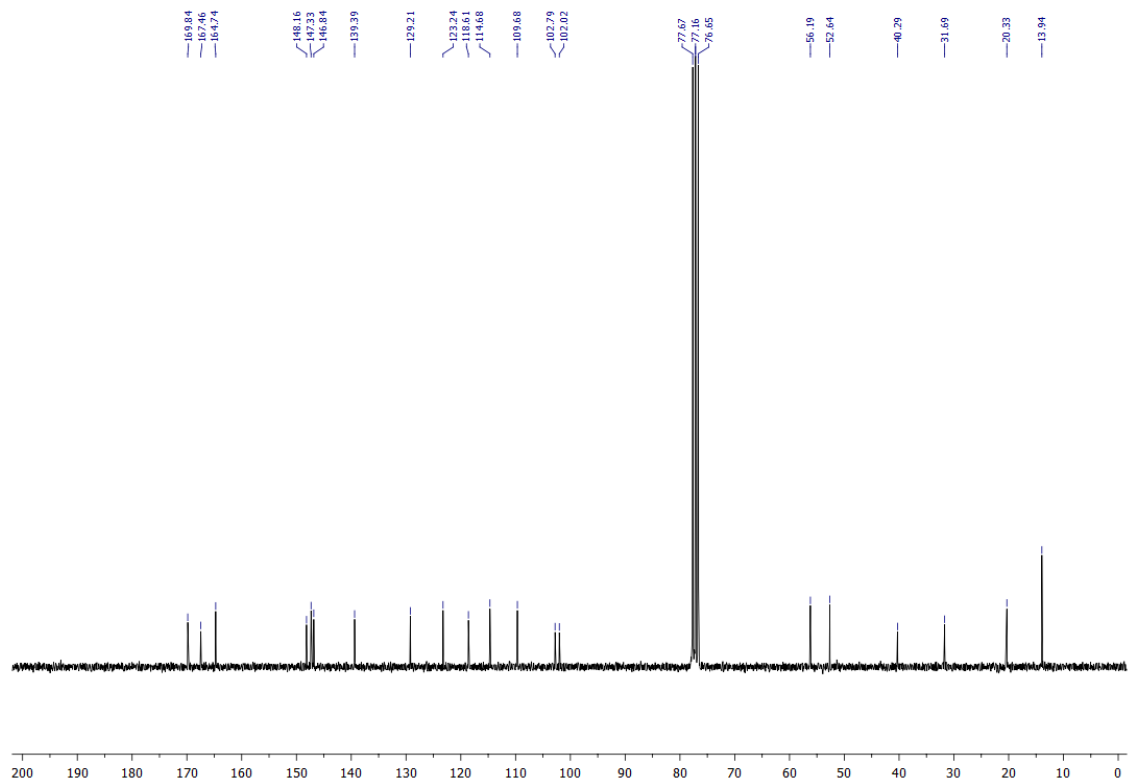


Methyl (Z)-1-butyl-4-((E)-1-hydroxy-3-(4-hydroxy-3-methoxyphenyl)allylidene)-2-methyl-5-oxo-4,5-dihydro-1H-pyrrole-3-carboxylate (**2e**)

¹H NMR (250 MHz, CDCl₃)

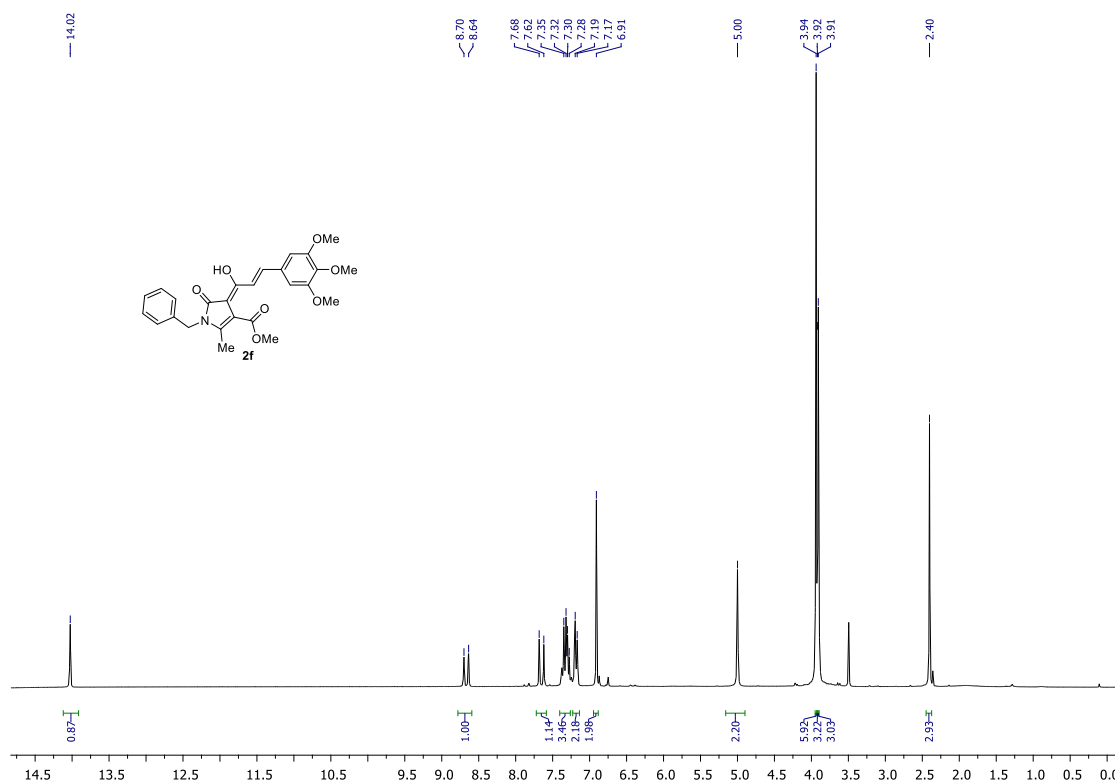


¹³C NMR (63 MHz, CDCl₃)



Methyl (Z)-1-benzyl-4-((E)-1-hydroxy-3-(3,4,5-trimethoxyphenyl)allylidene)-2-methyl-5-oxo-4,5-dihydro-1H-pyrrole-3-carboxylate (**2f**)

¹H NMR (250 MHz, CDCl₃)



¹³C NMR (63 MHz, CDCl₃)

