

Synthesis of a Small Library of Glycoderivative Putative Ligands of SGLT1 and Preliminary Biological Evaluation

Giuseppe D'Orazio¹ and Barbara La Ferla^{2,*}

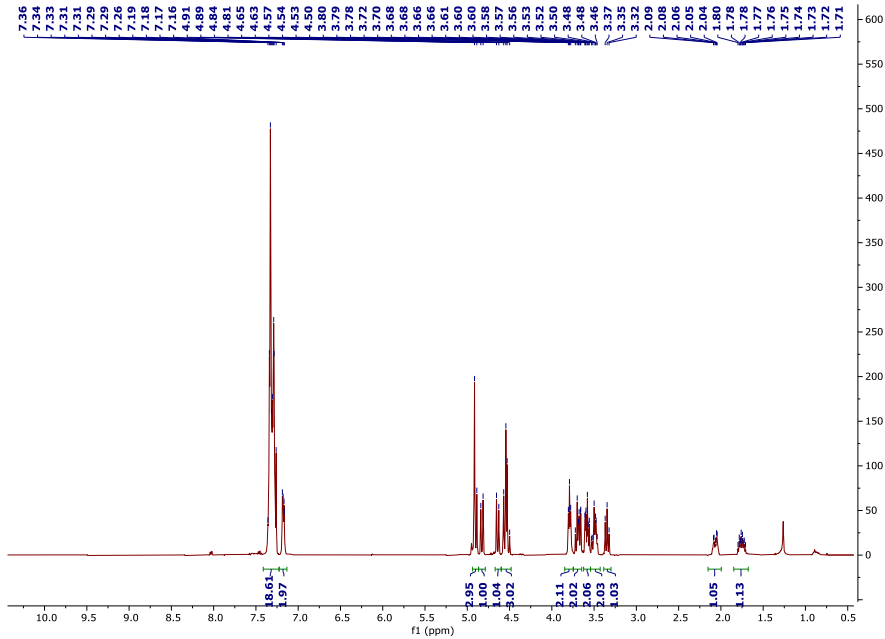
Supplementary Materials

¹H-NMR, 2D NOESY and ¹³C-NMR spectra of synthesized compounds.

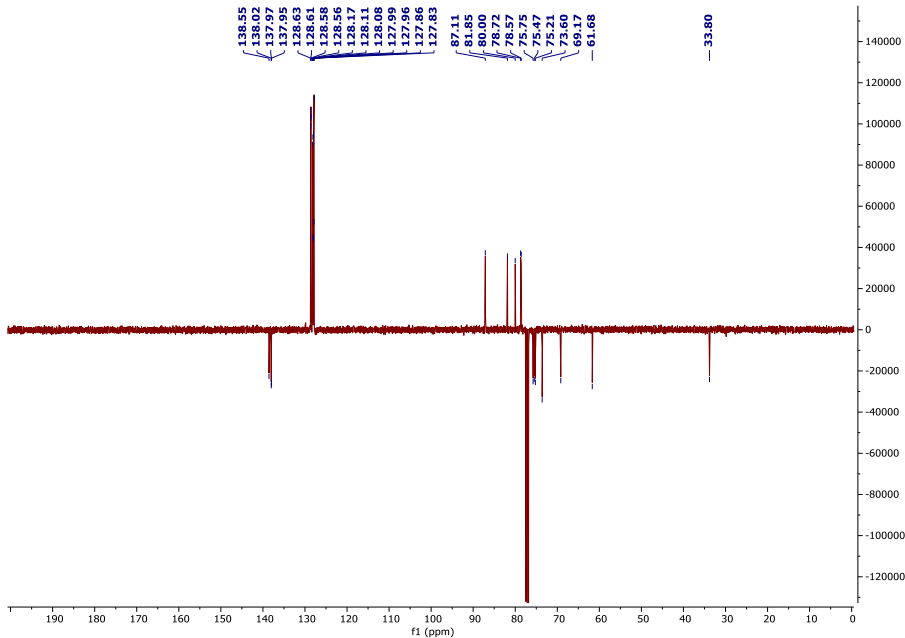
- Compound 13
- Compound 14
- Compound 15
- Compound 16
- Compound 17
- Compound 18
- Compound 2
- Compound 6
- Compound 22
- Compound 23
- Compound 4
- Compound 28a
- Compound 28b
- Compound 29a
- Compound 29b
- Compound 3
- Compound 4

Compound 13 27

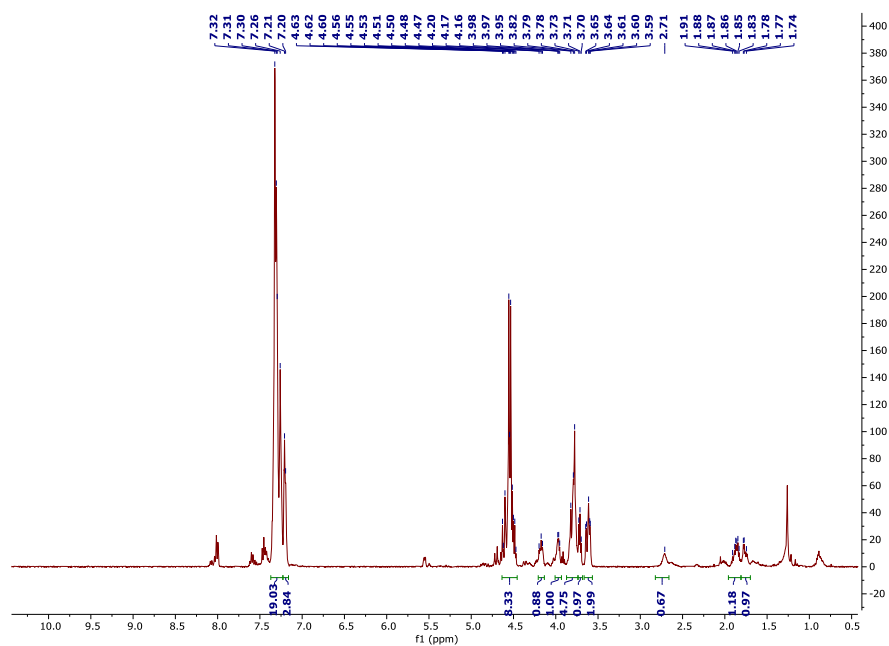
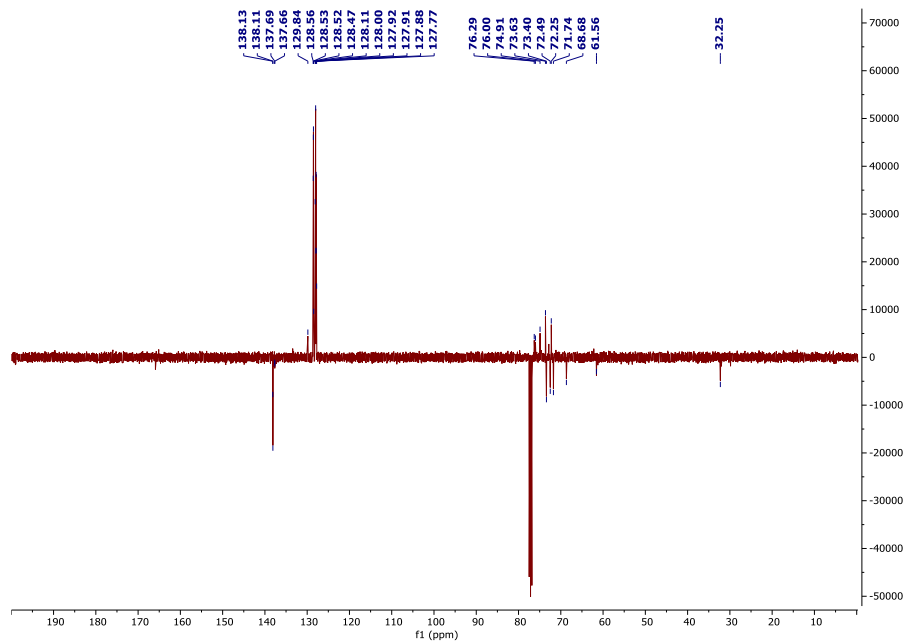
¹H-NMR (400 MHz, CDCl₃) 28



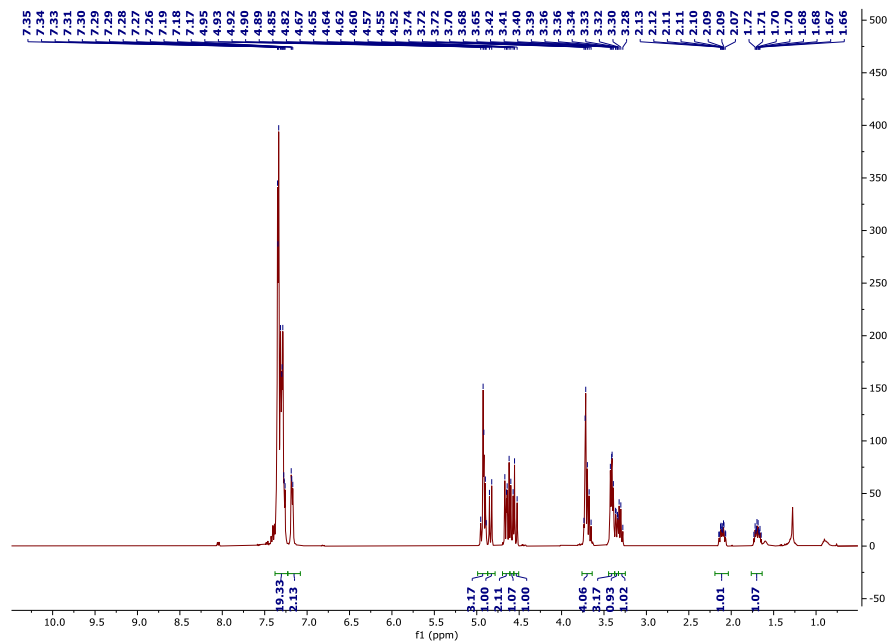
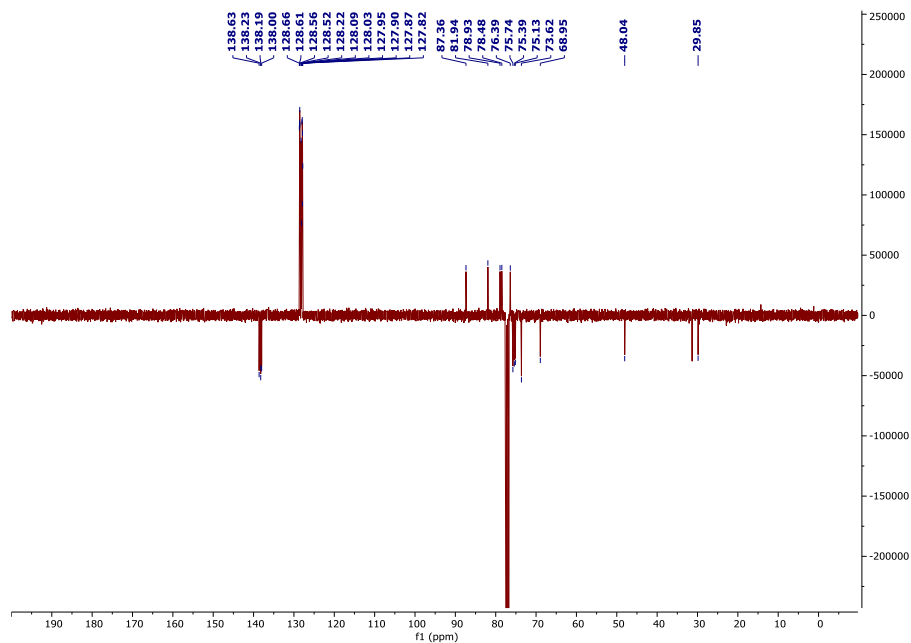
¹³C-NMR (101 MHz, CDCl₃) 33



Compound 14 37

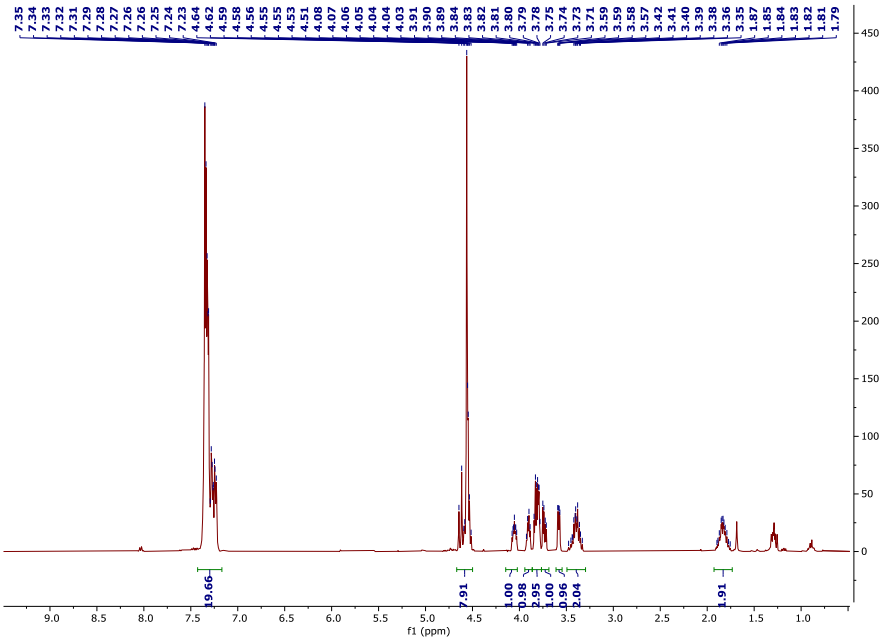
 ^1H -NMR (400 MHz, CDCl_3) 38 ^{13}C -NMR (101 MHz, CDCl_3) 43

Compound 15 46

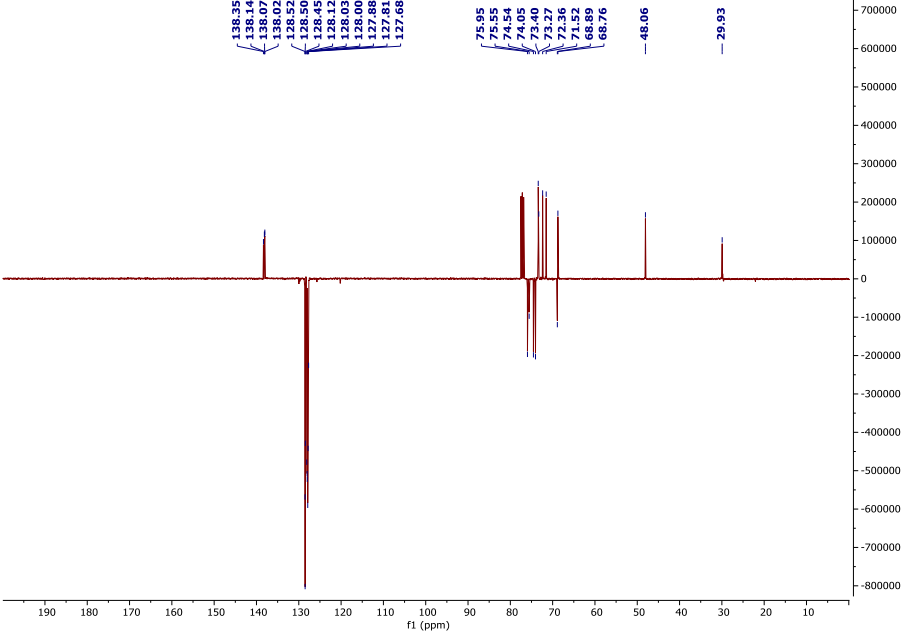
 ^1H -NMR (400 MHz, CDCl_3) 47 ^{13}C -NMR (101 MHz, CDCl_3) 52

Compound 16

¹H-NMR (400 MHz, CDCl₃)



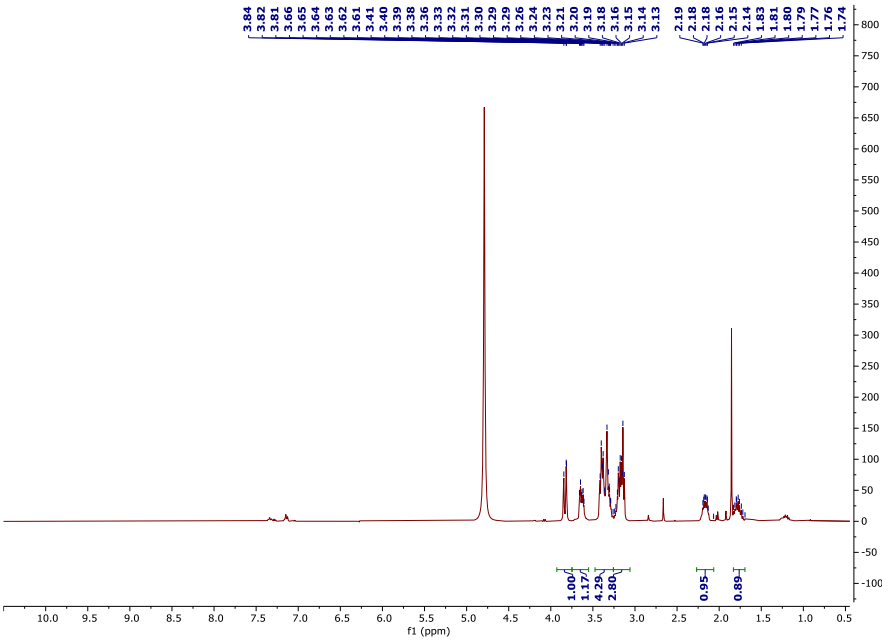
¹³C-NMR (101 MHz, CDCl₃)



Compound 17 65

¹H-NMR on crude material (400 MHz, D₂O) 66

67



68

69

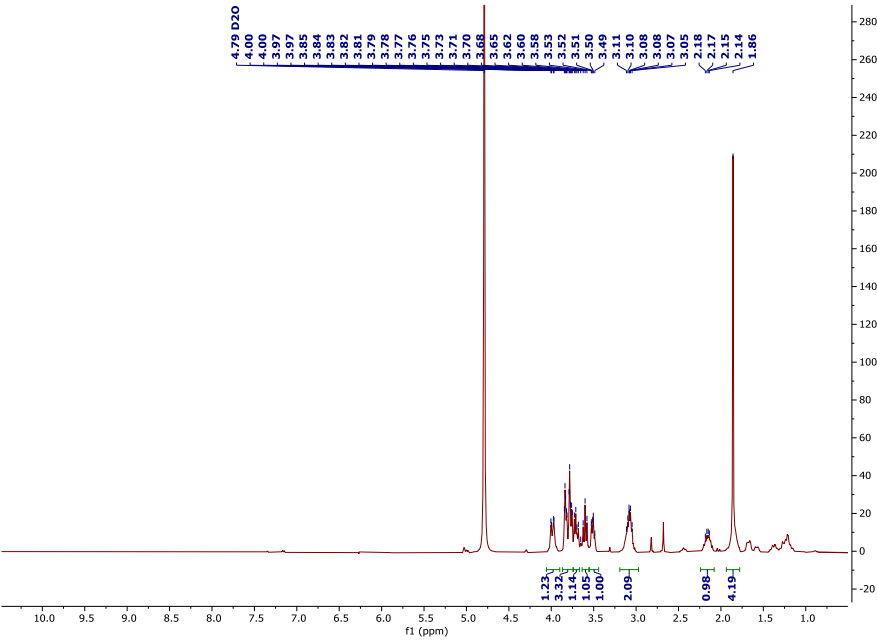
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71

Compound 18 72

¹H-NMR on crude material (400 MHz, D₂O) 73

74



75

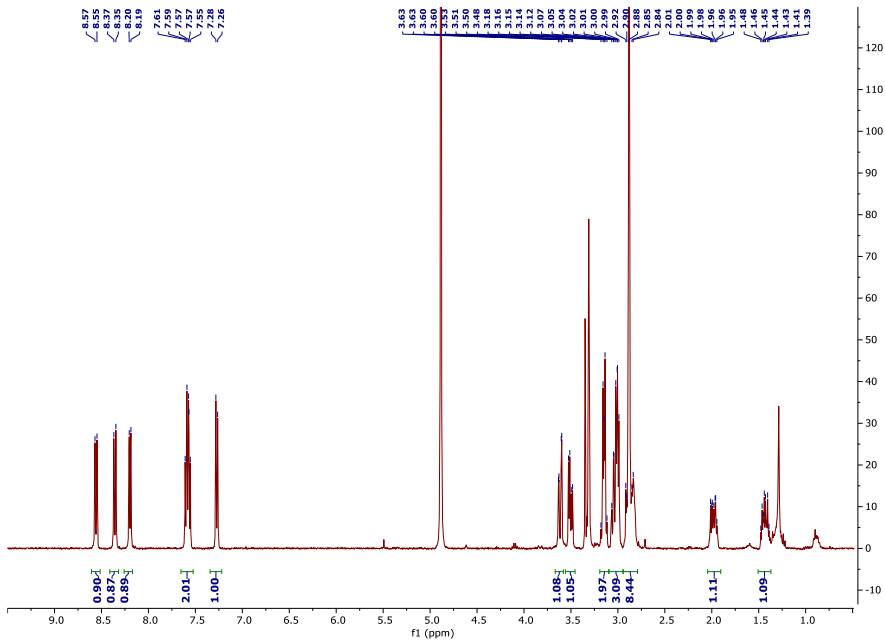
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77

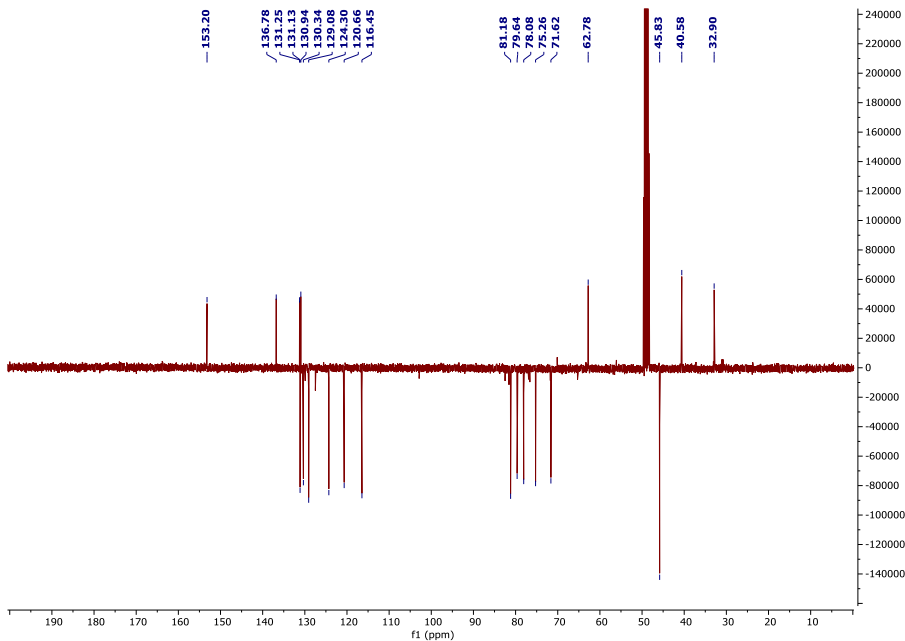
Compound 278

¹H-NMR (400 MHz, CD₃OD)79

80

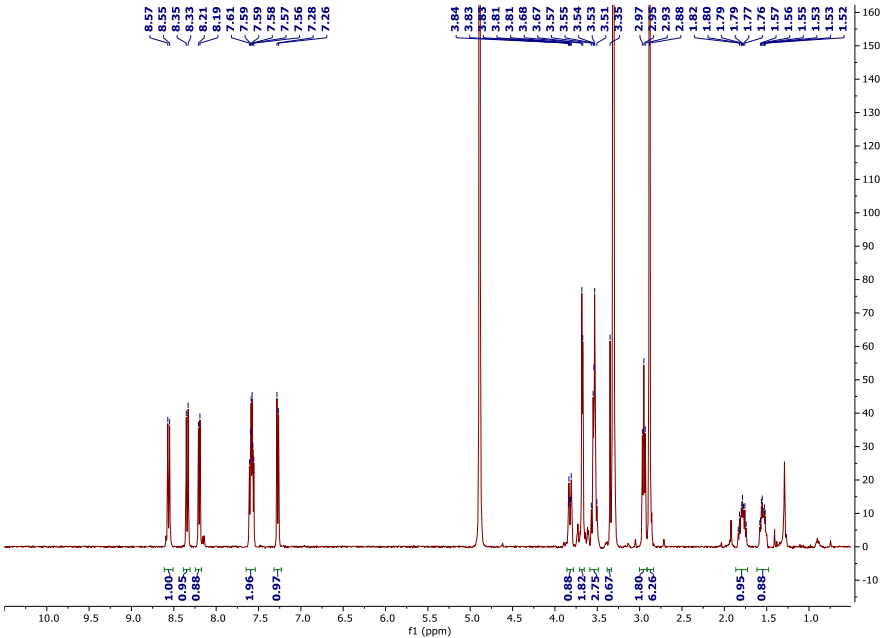


¹³C-NMR (101 MHz, CD₃OD)84

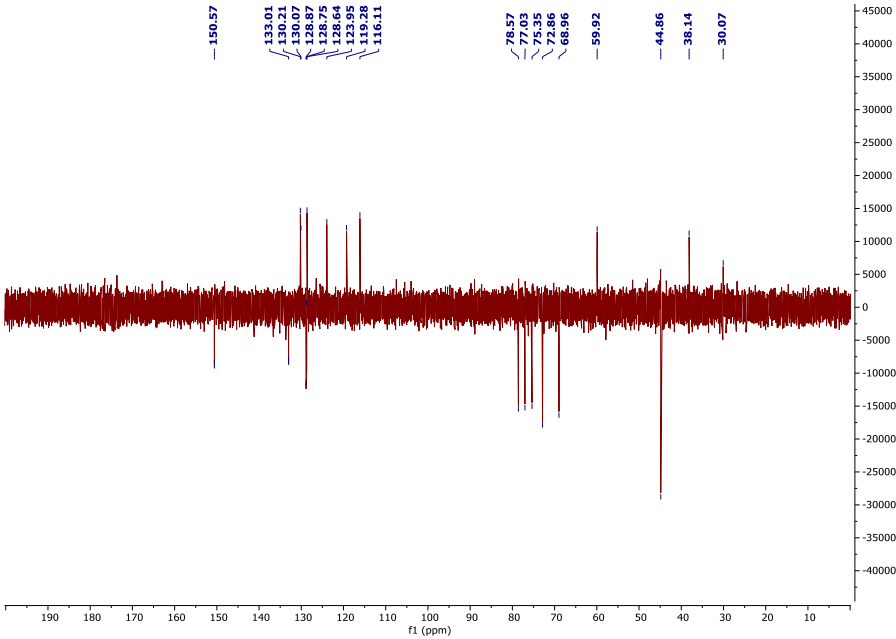


Compound 6

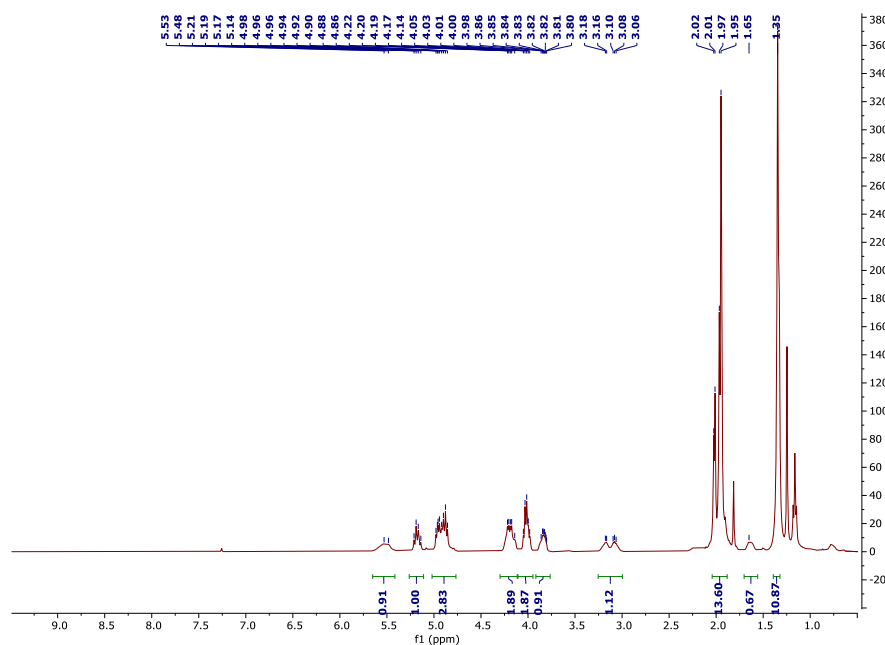
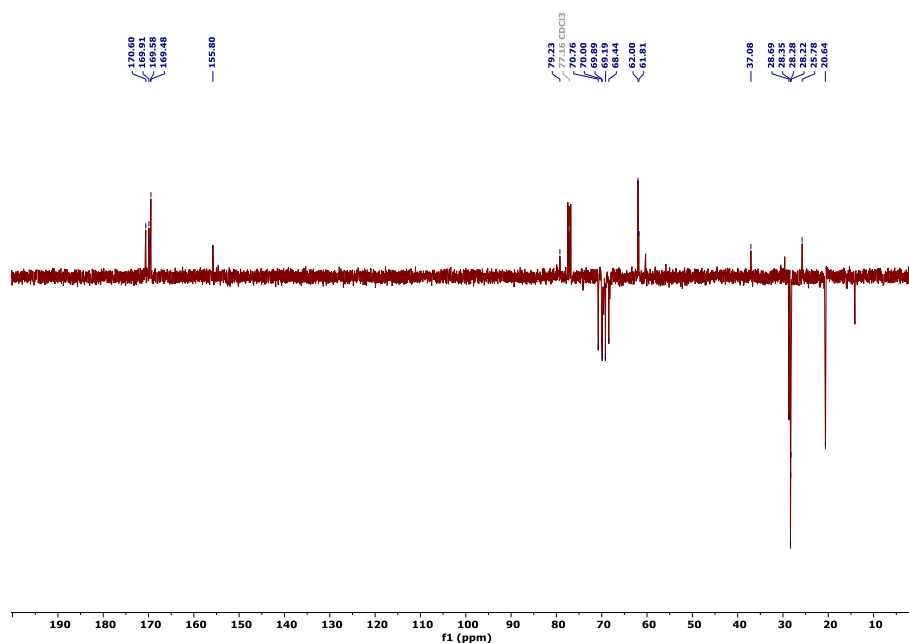
¹H-NMR (400 MHz, CD₃OD)



¹³C-NMR (101 MHz, D₂O)

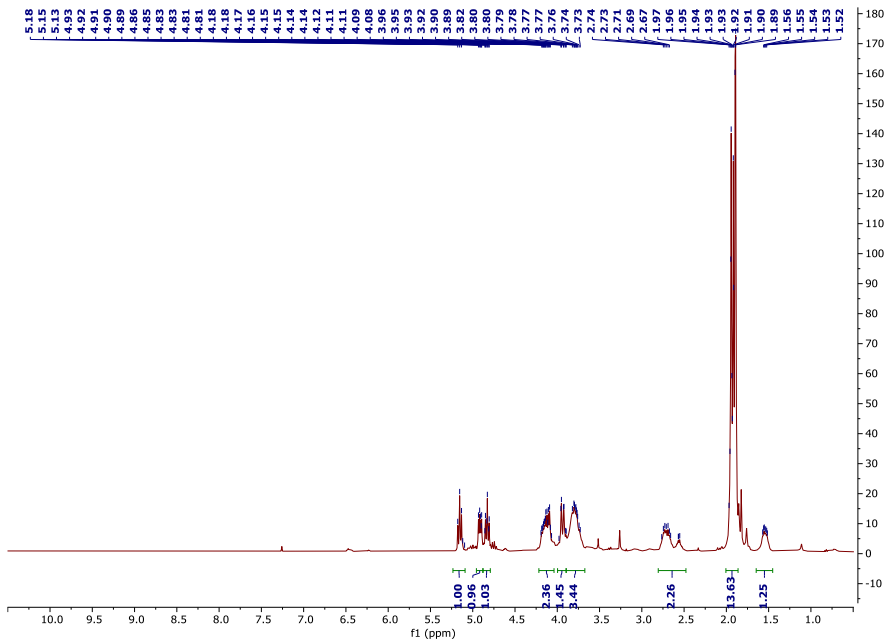


Compound 22 100

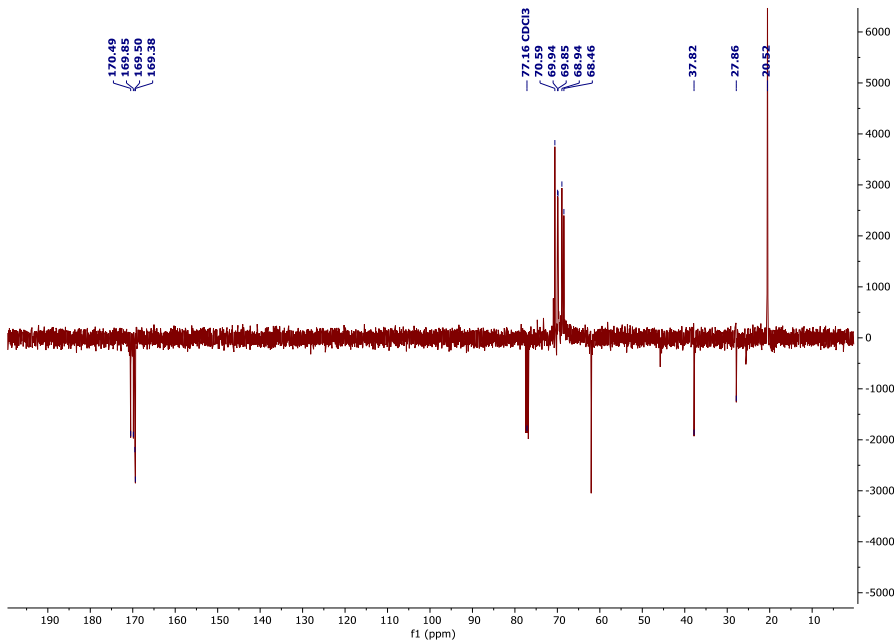
 ^1H -NMR on crude material (400 MHz, CDCl_3) 101 ^{13}C -NMR on crude material (101 MHz, CDCl_3) 104

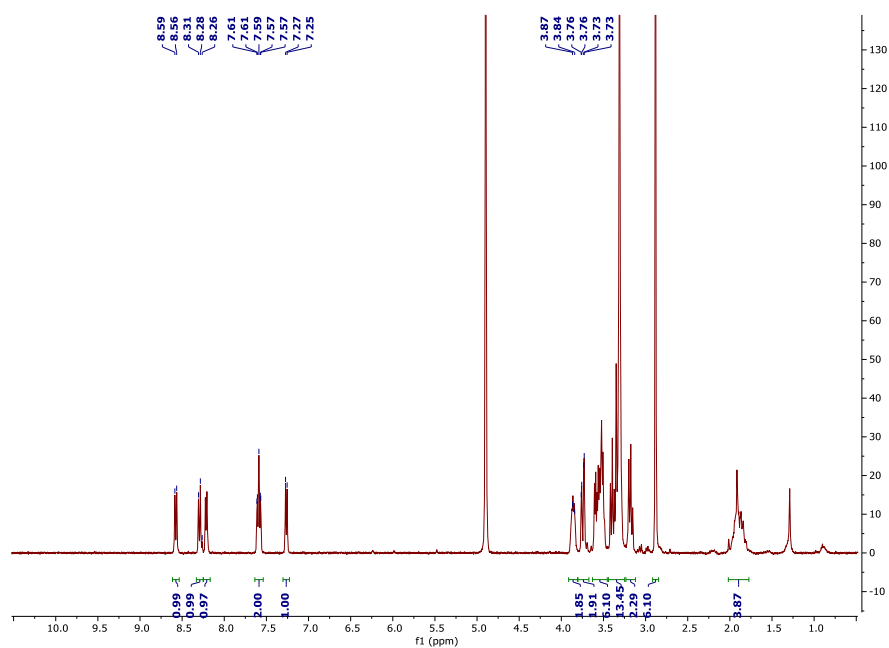
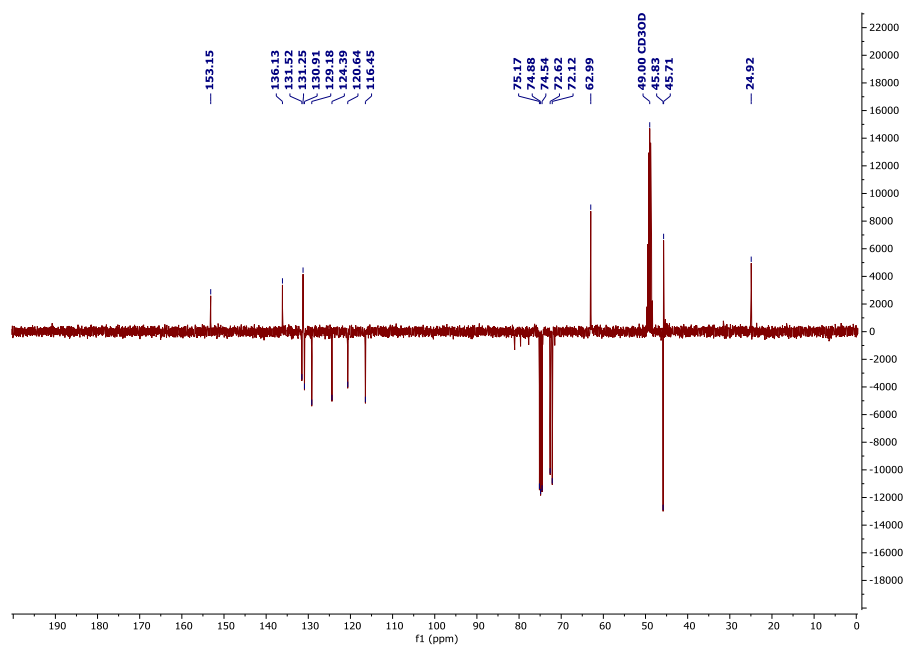
Compound 23 114

¹H-NMR on crude material (400 MHz, CDCl₃) 115



¹³C-NMR on crude material (101 MHz, CDCl₃) 118



Compound 4¹H-NMR (400 MHz, CD₃OD)¹³C-NMR (101 MHz, CD₃OD)

136

137

¹H NMR spectrum (CDCl₃) of compound 10a. The x-axis represents the chemical shift (f1) in ppm, ranging from 1.0 to 10.0. The y-axis represents the intensity. The spectrum shows several peaks with corresponding integrations:

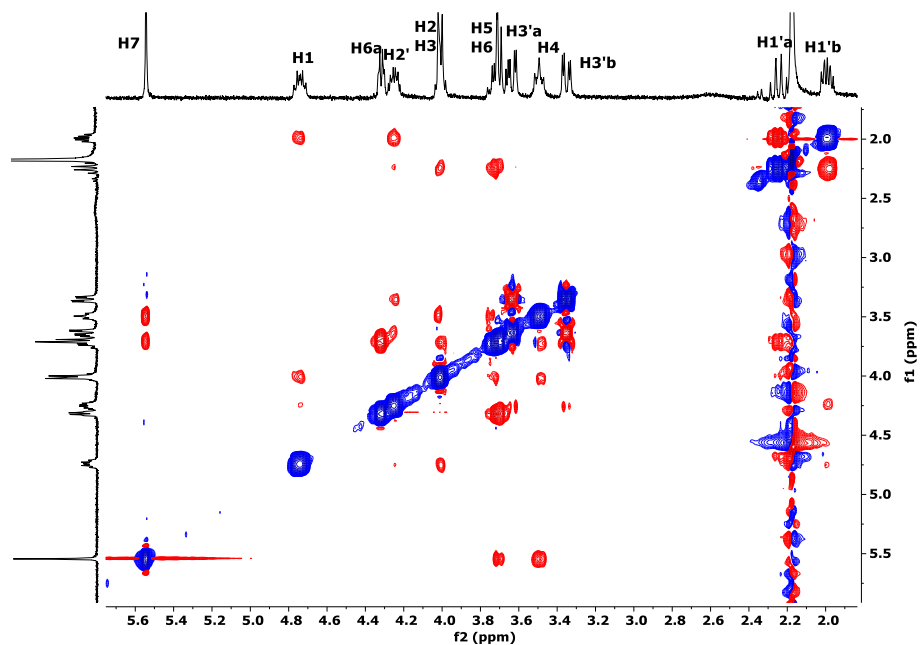
- Triplet at ~7.4 ppm (integration 2.00)
- Doublet at ~7.3 ppm (integration 3.02)
- Singlet at ~5.5 ppm (integration 1.02)
- Multiplet between 3.5-4.5 ppm (integrations 1.00, 1.05, 1.01, 2.00, 2.07, 1.03, 1.04, 1.10, 1.24)
- Multiplet between 1.0-2.5 ppm (integrations 1.02, 1.00)

139

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147

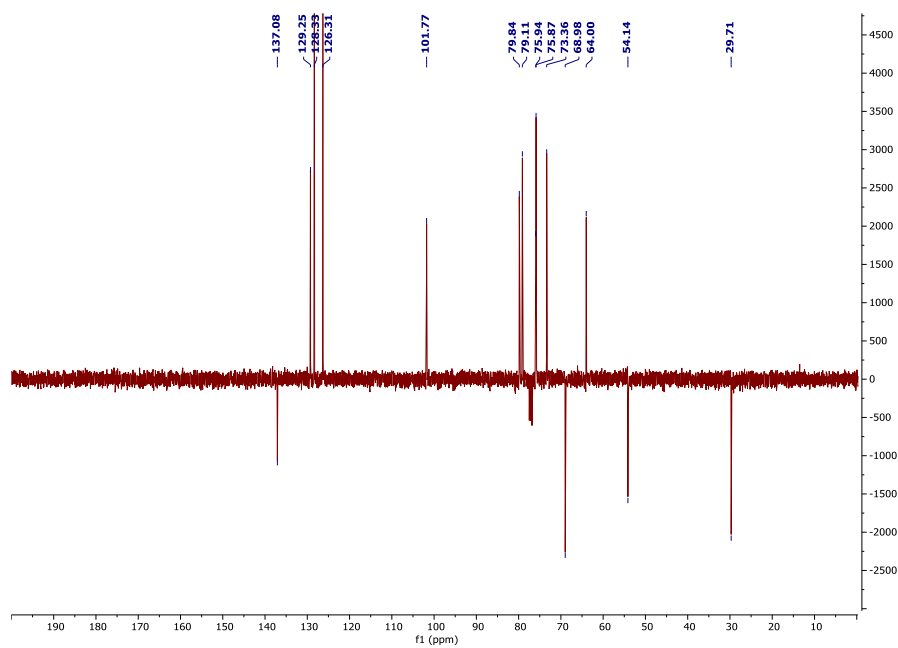
148

149

¹³C-NMR (101 MHz, CDCl₃)

150

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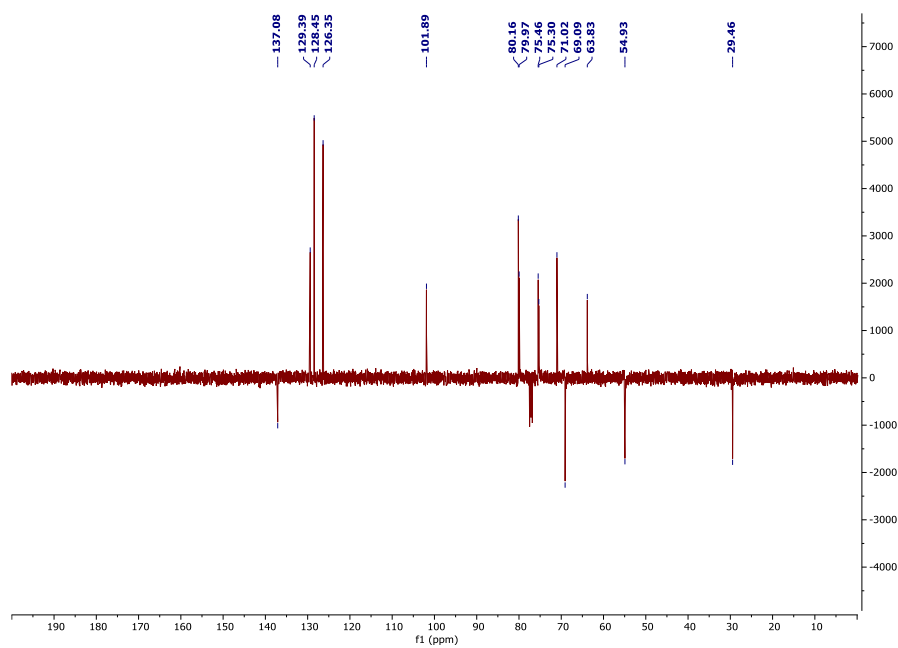
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169

170

¹³C-NMR (101 MHz, CDCl₃) 171

172



173

174

175

176

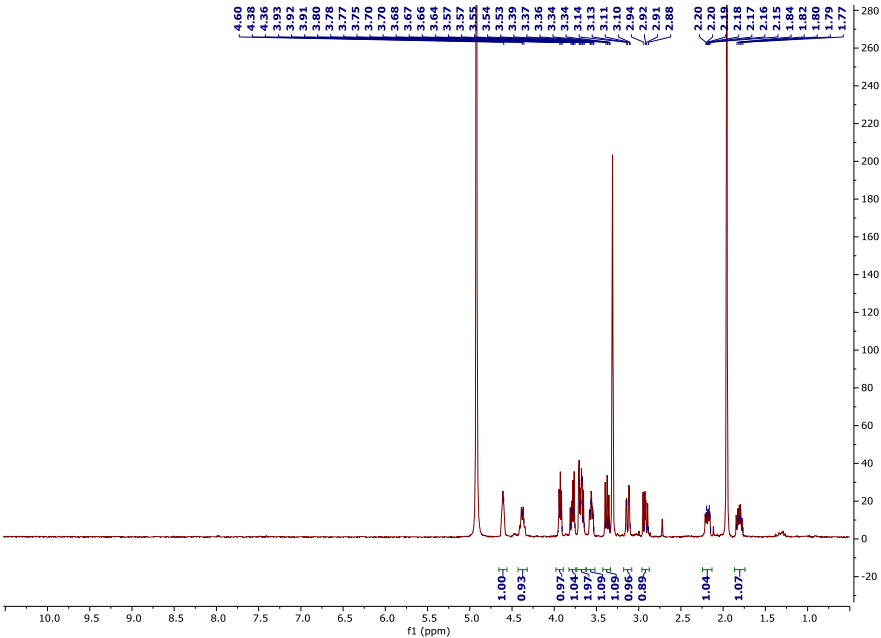
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178

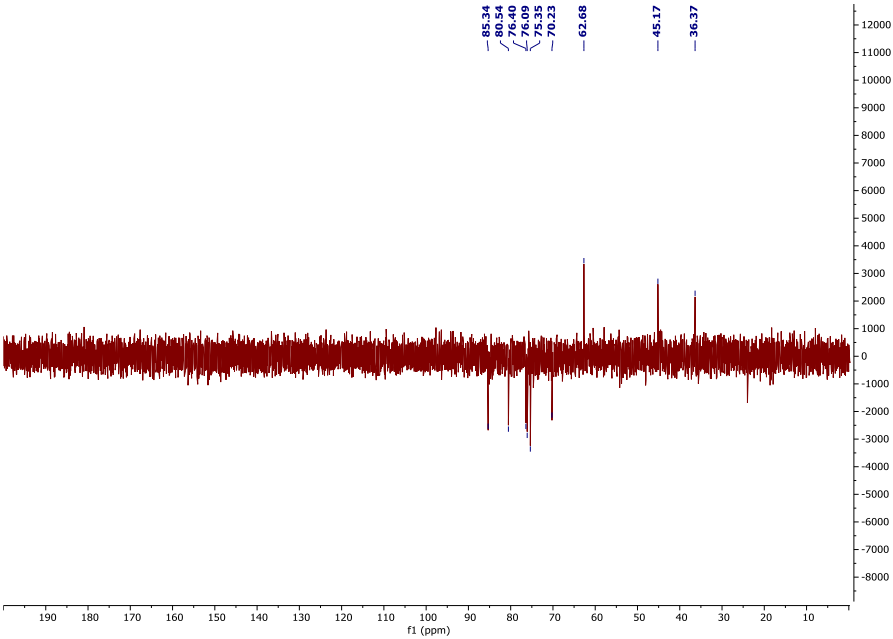
179

Compound 29a

¹H-NMR (400 MHz, CDCl₃)

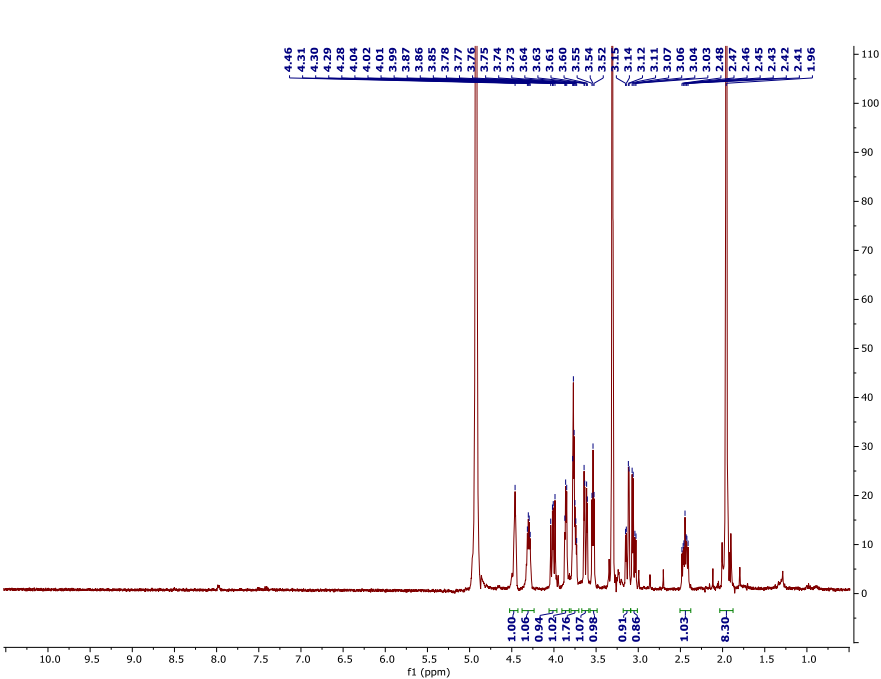


¹³C-NMR (101 MHz, CDCl₃)

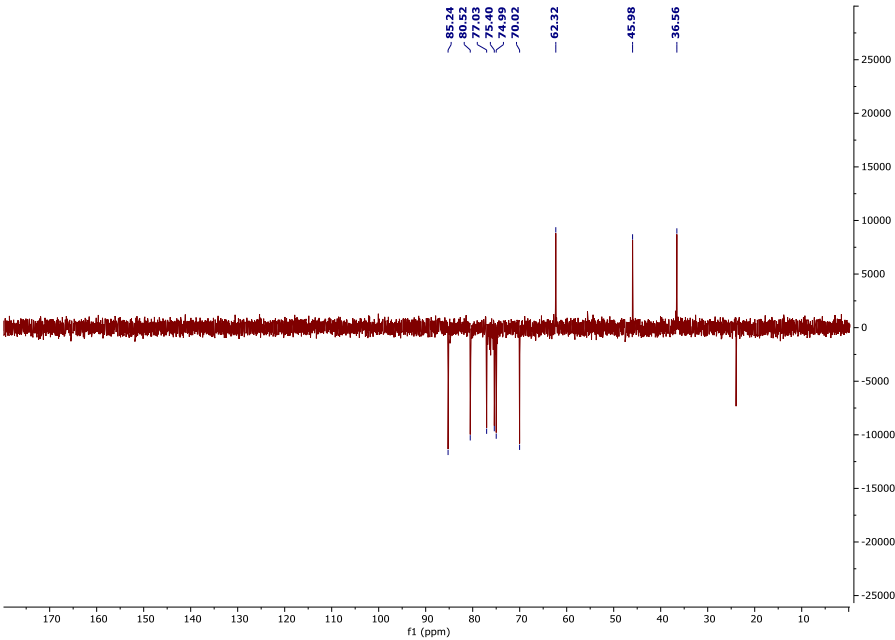


Compound 29b

¹H-NMR (400 MHz, CDCl₃)

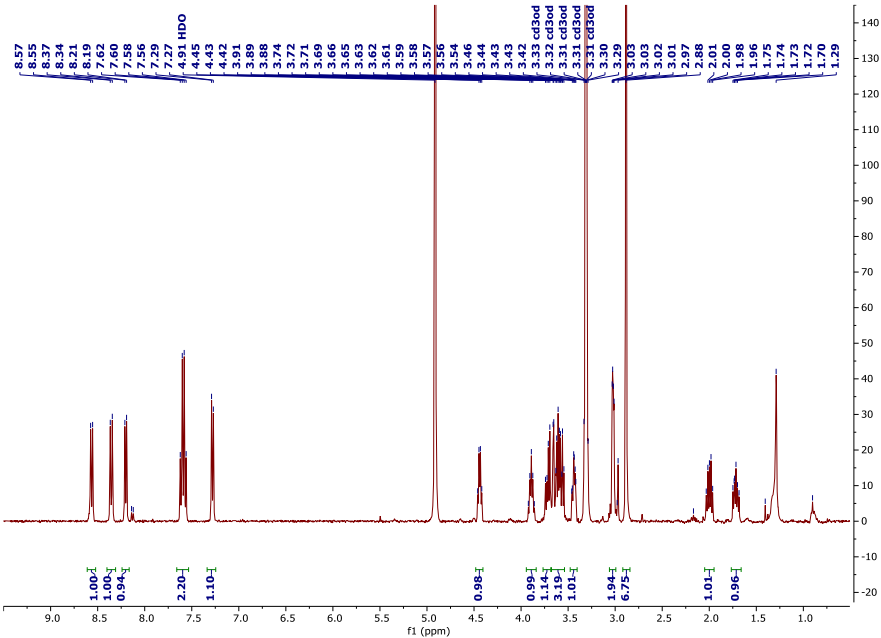


¹³C-NMR (101 MHz, CDCl₃)

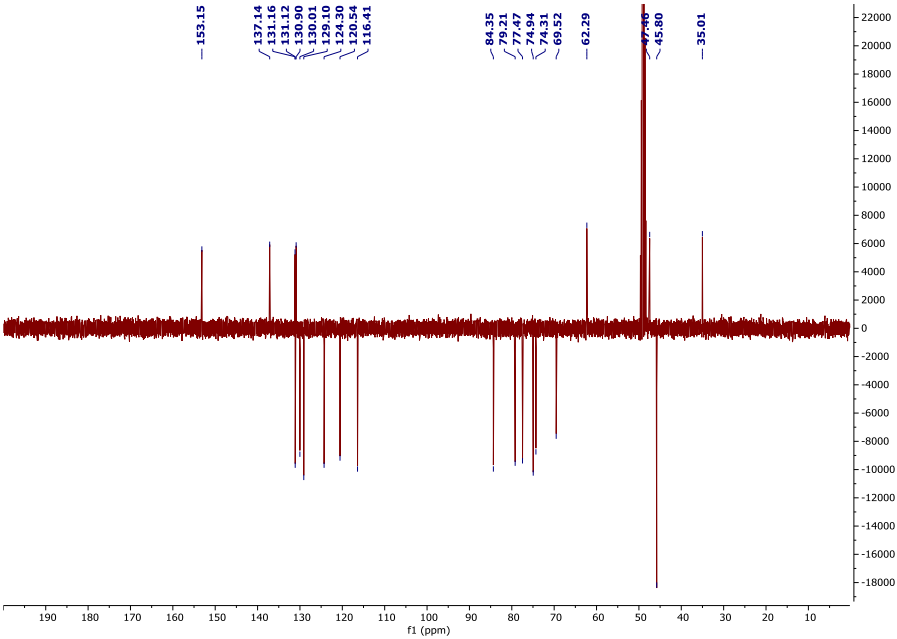


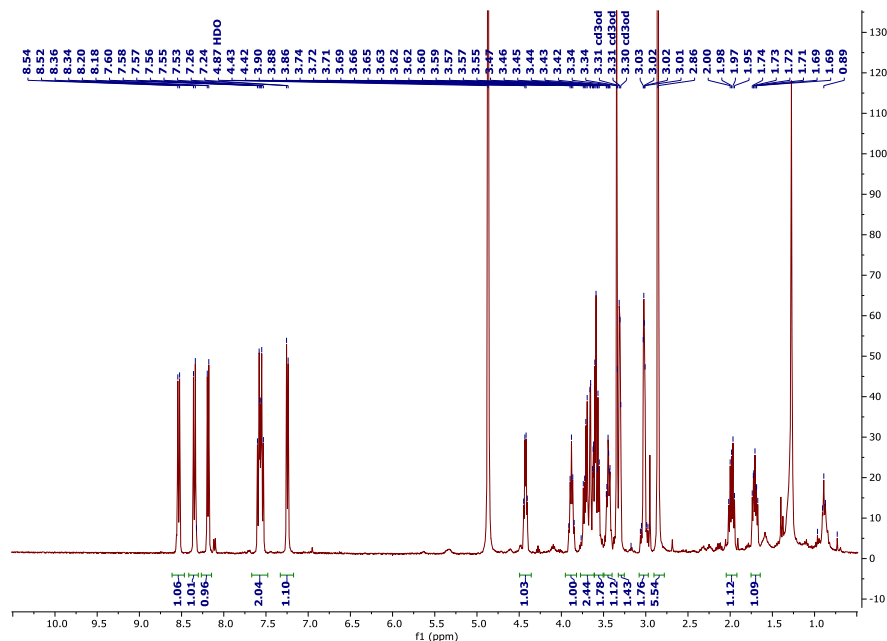
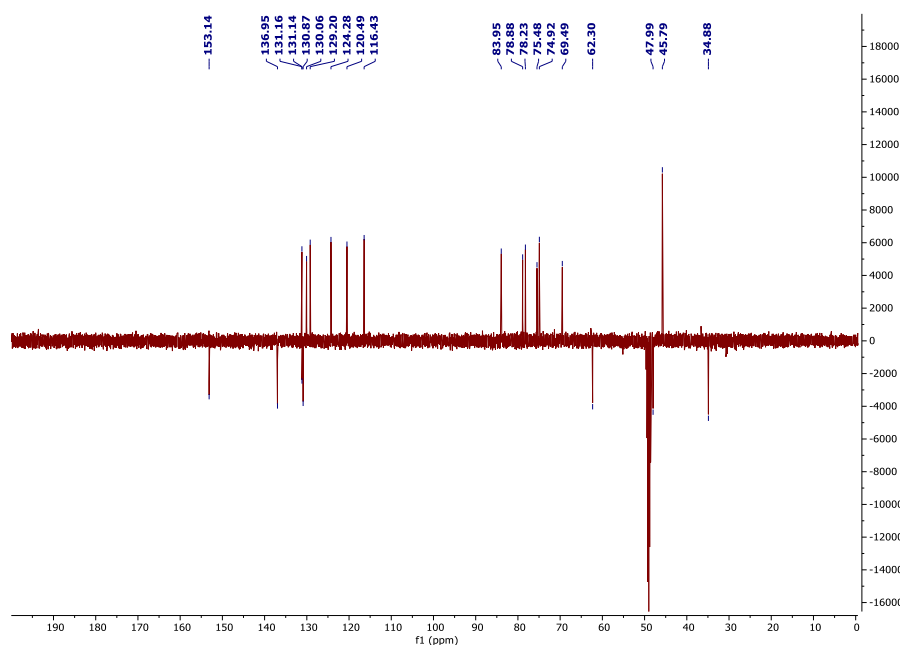
Compound 3

¹H-NMR (400 MHz, CD₃OD)



¹³C-NMR (101 MHz, CD₃OD)



Compound 4¹H-NMR (400 MHz, CD₃OD)¹³C-NMR (101 MHz, CD₃OD)

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