

Optical manipulation of sphingolipid biosynthesis using photoswitchable ceramides

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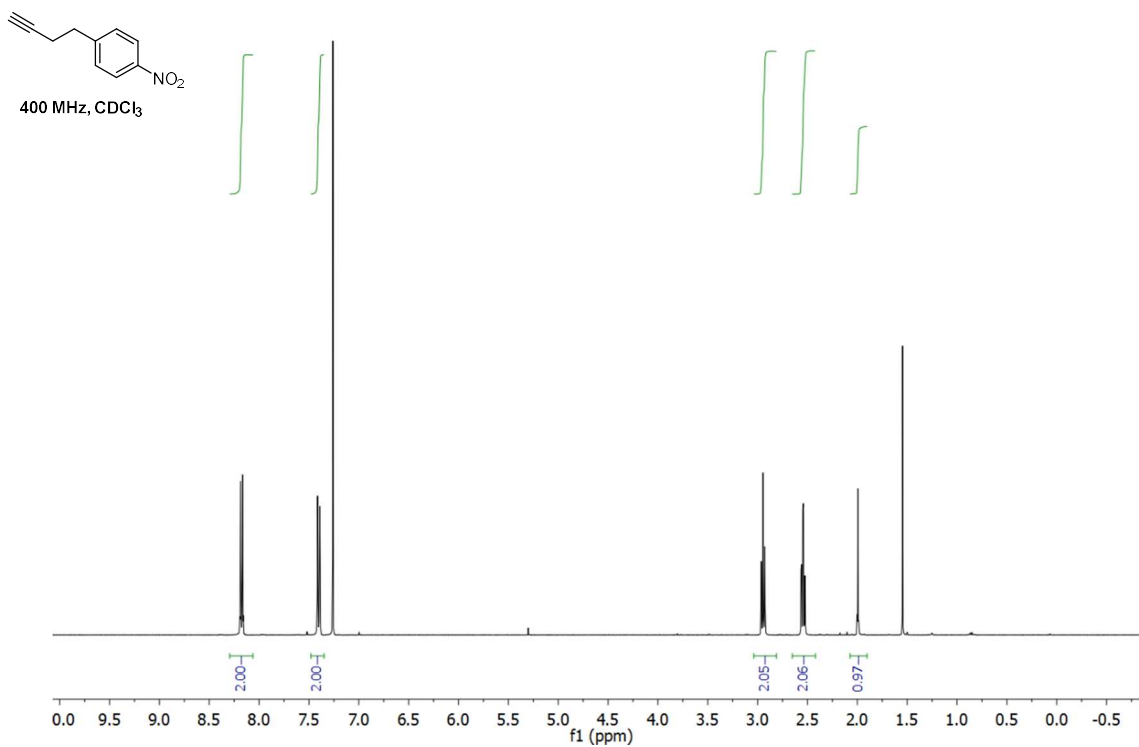
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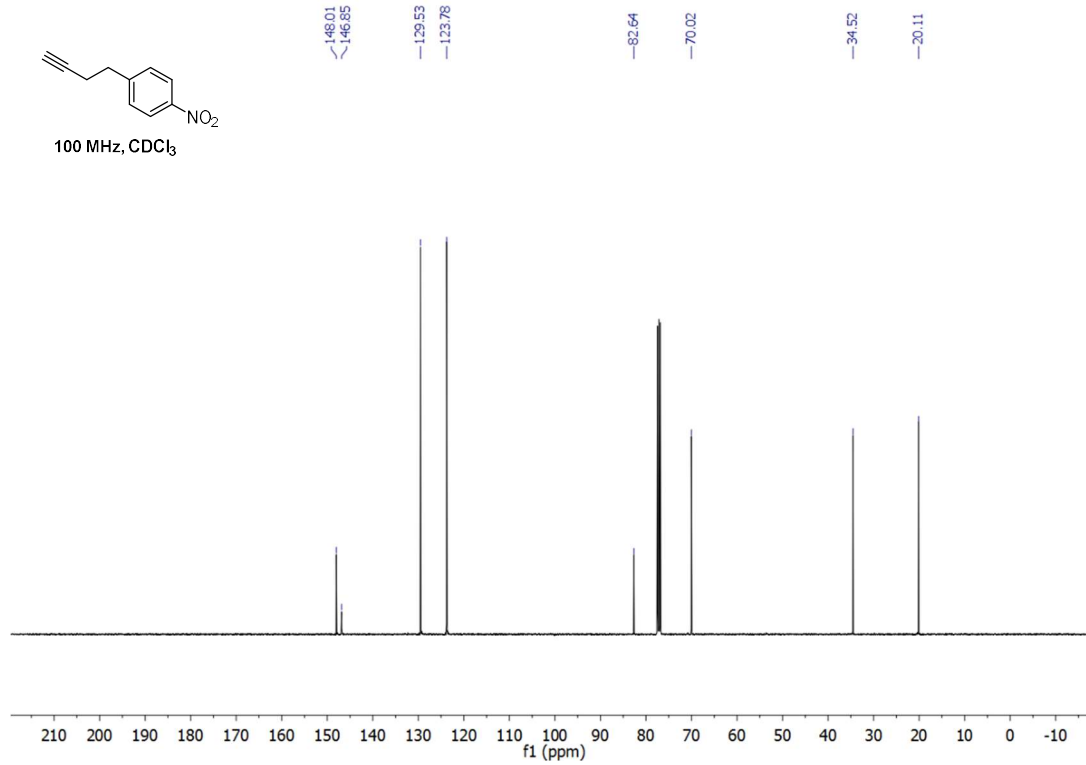
Dirk Trauner – dirktrauner@nyu.edu

Supplementary File 1 - NMR Spectra

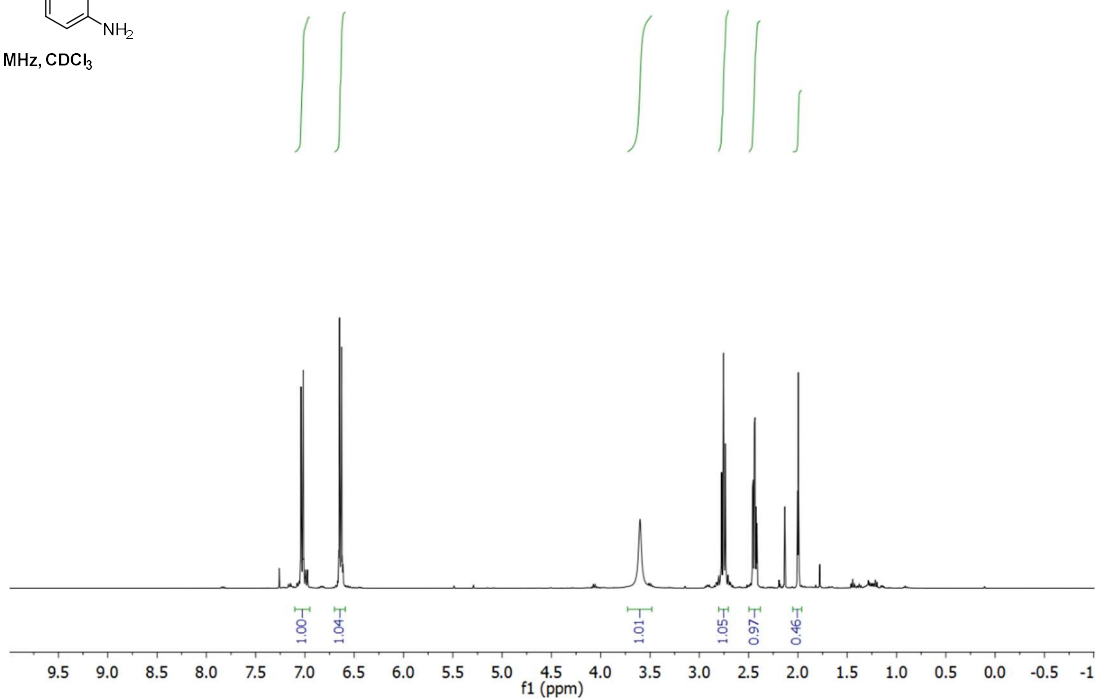
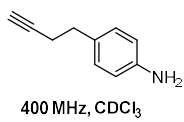
¹H NMR of 1-(but-3-yn-1-yl)-4-nitrobenzene (2)



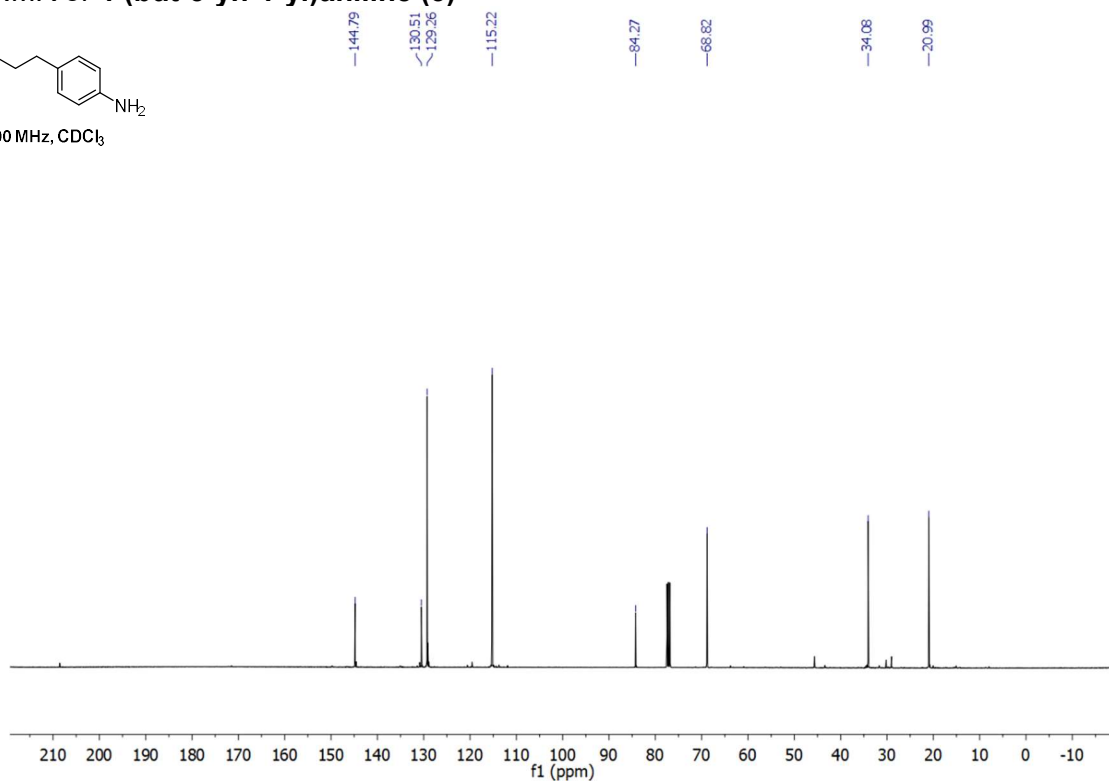
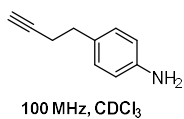
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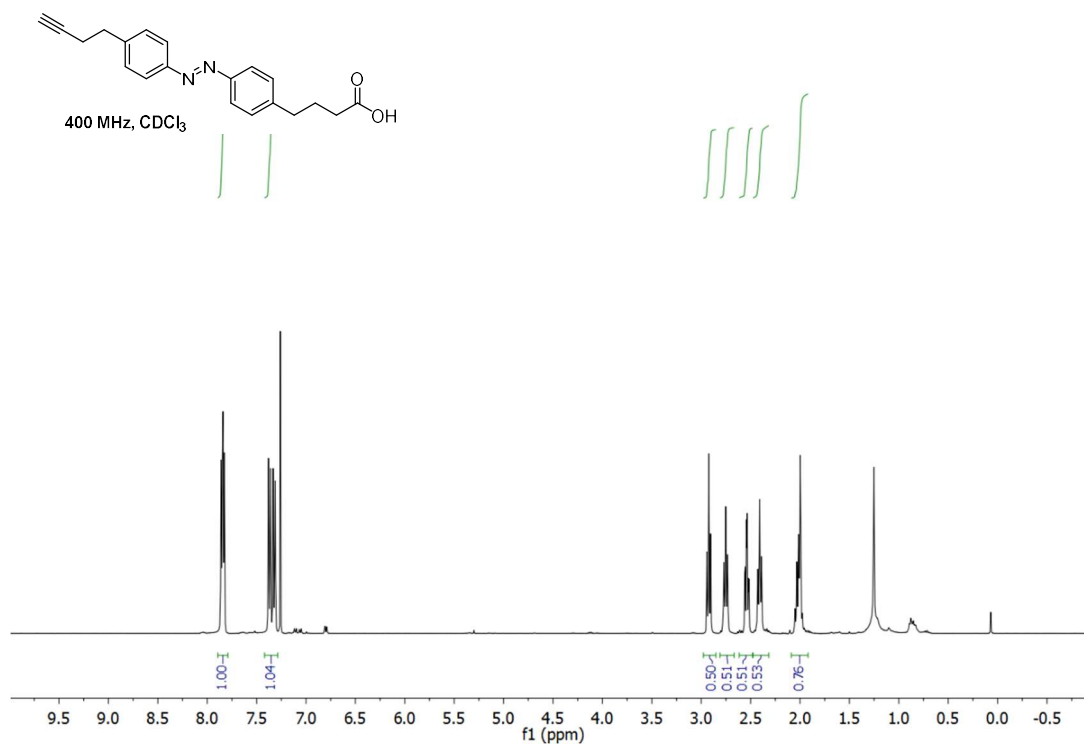
¹H NMR of 4-(but-3-yn-1-yl)aniline (3)



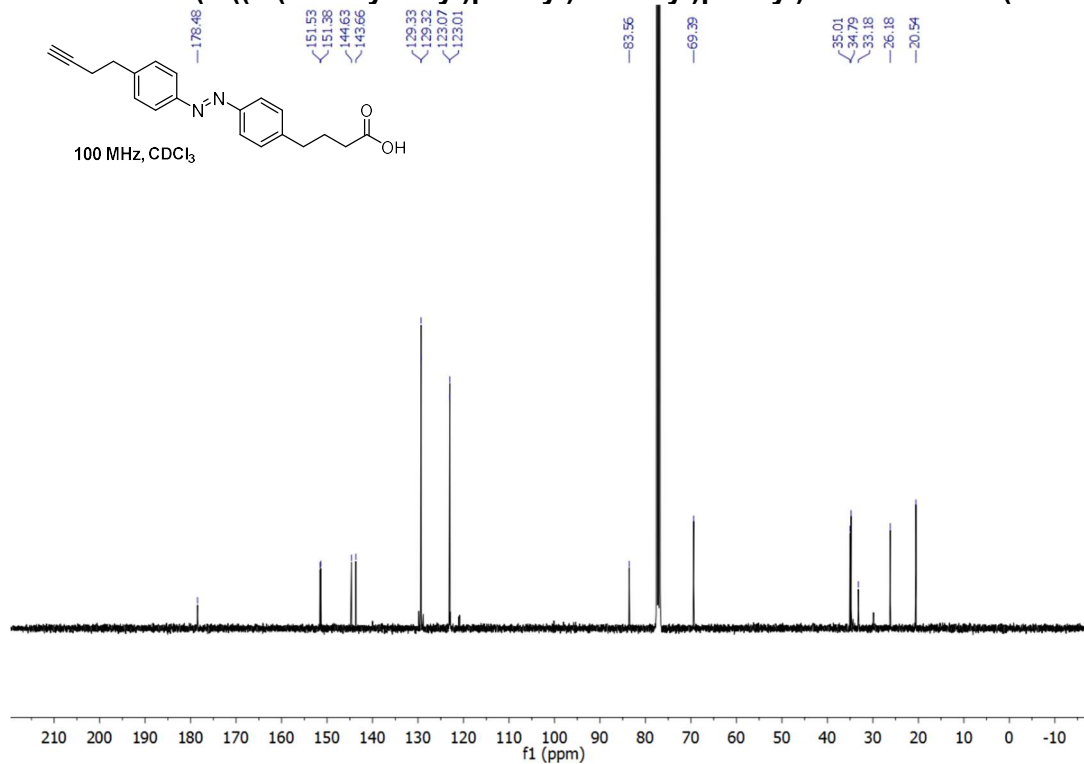
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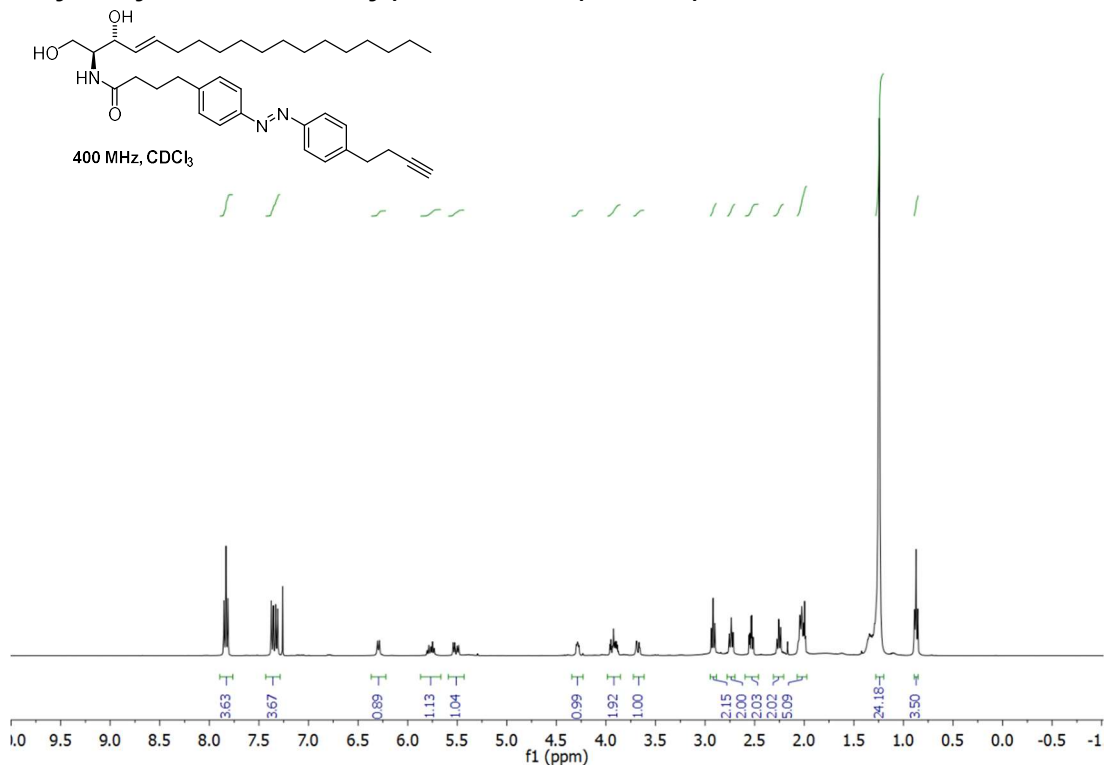
¹H NMR of 4-(4-((4-(but-3-yn-1-yl)phenyl)diazenyl)phenyl)butanoic acid (cFAAzo-4)



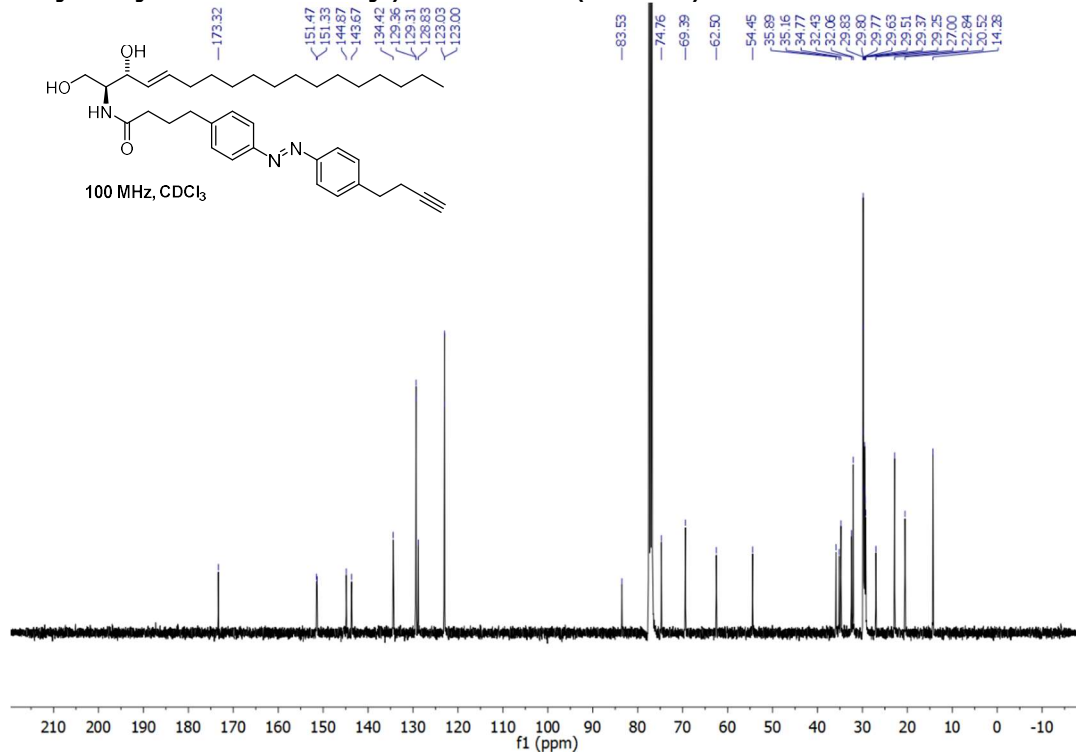
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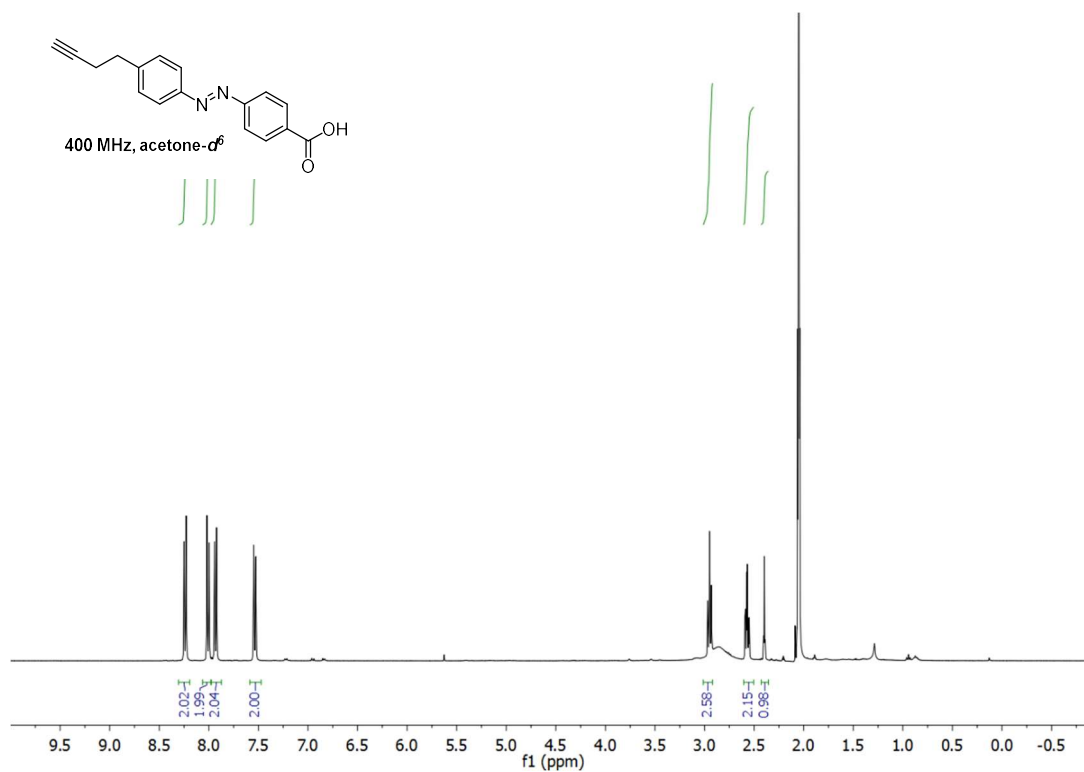
¹H NMR of 4-(4-(4-(but-3-yn-1-yl)phenyl)diazenyl)phenyl)-N-((2S,3R,E)-1,3-dihydroxyoctadec-4-en-2-yl)butanamide (caCer-1)



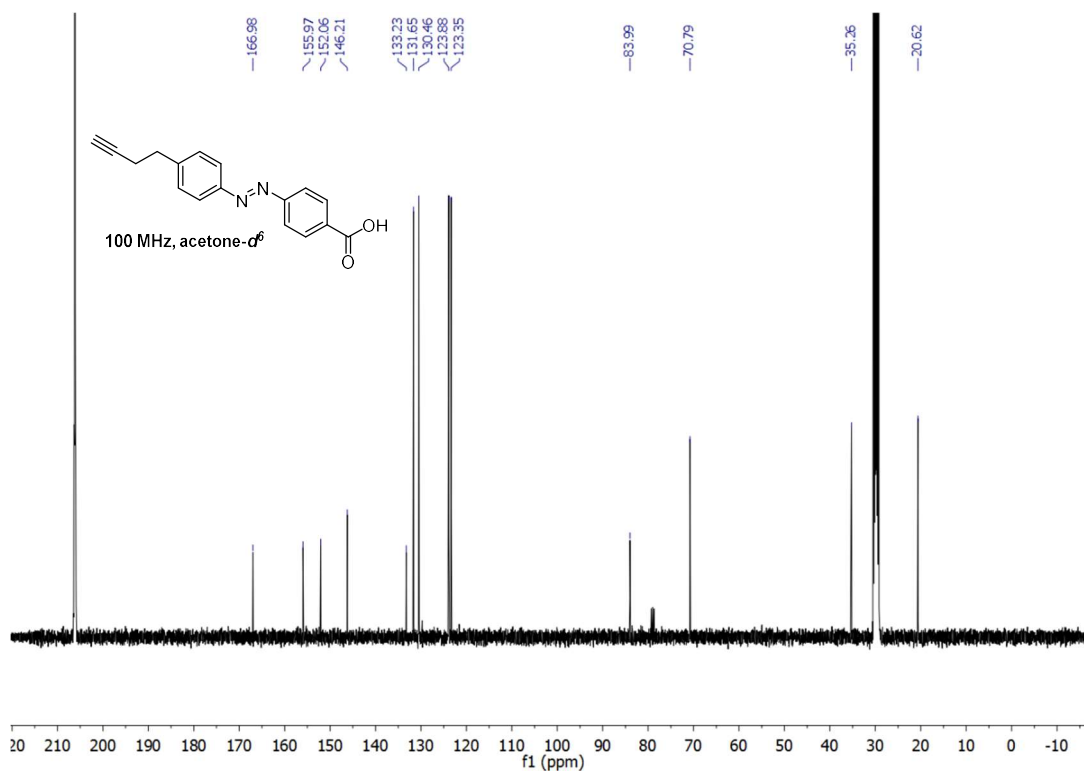
¹³C NMR of 4-(4-(4-(but-3-yn-1-yl)phenyl)diazenyl)phenyl)-N-((2S,3R,E)-1,3-dihydroxyoctadec-4-en-2-yl)butanamide (caCer-1)



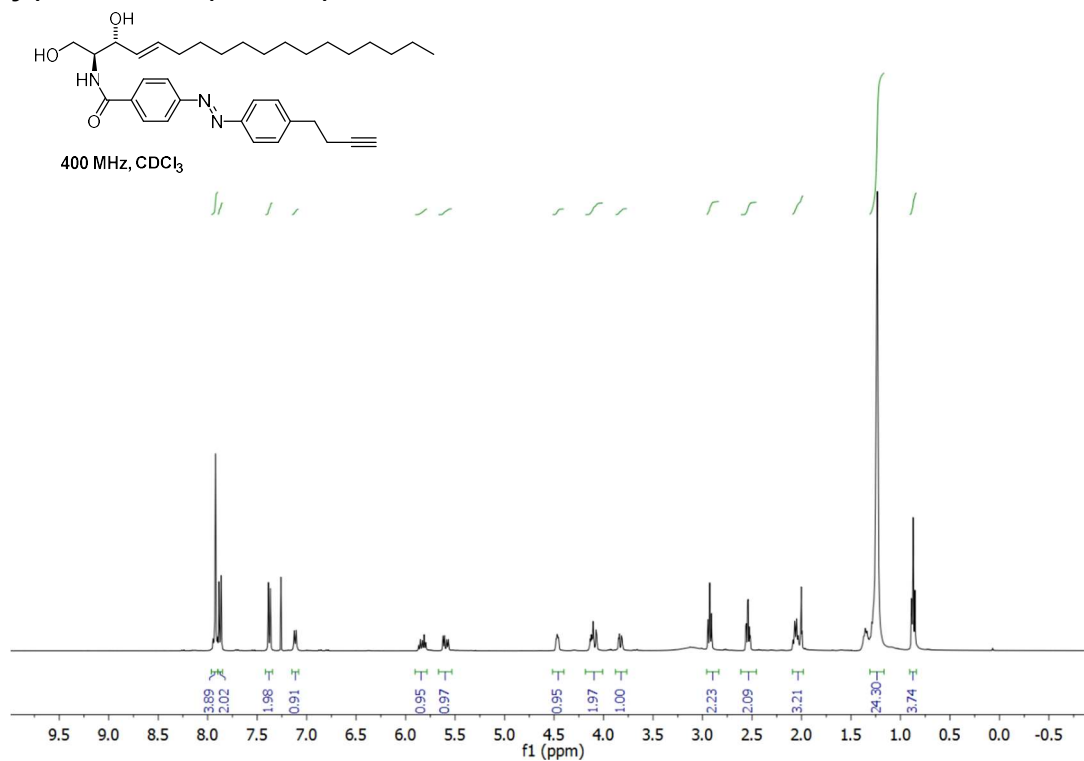
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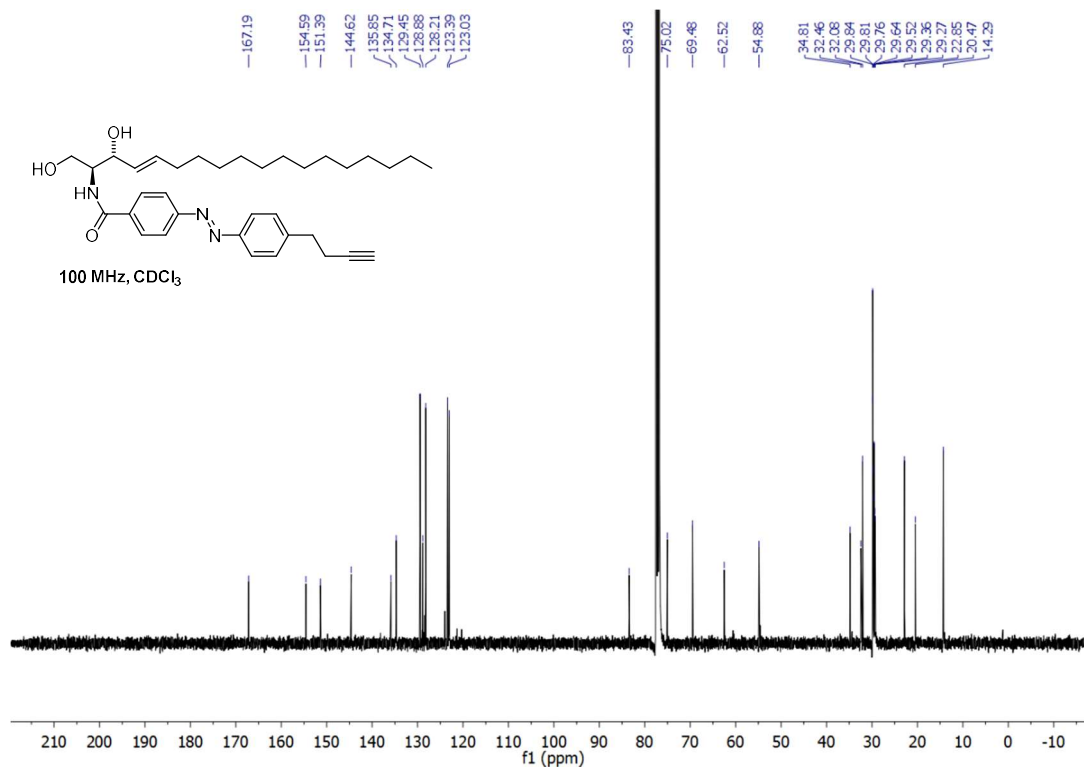
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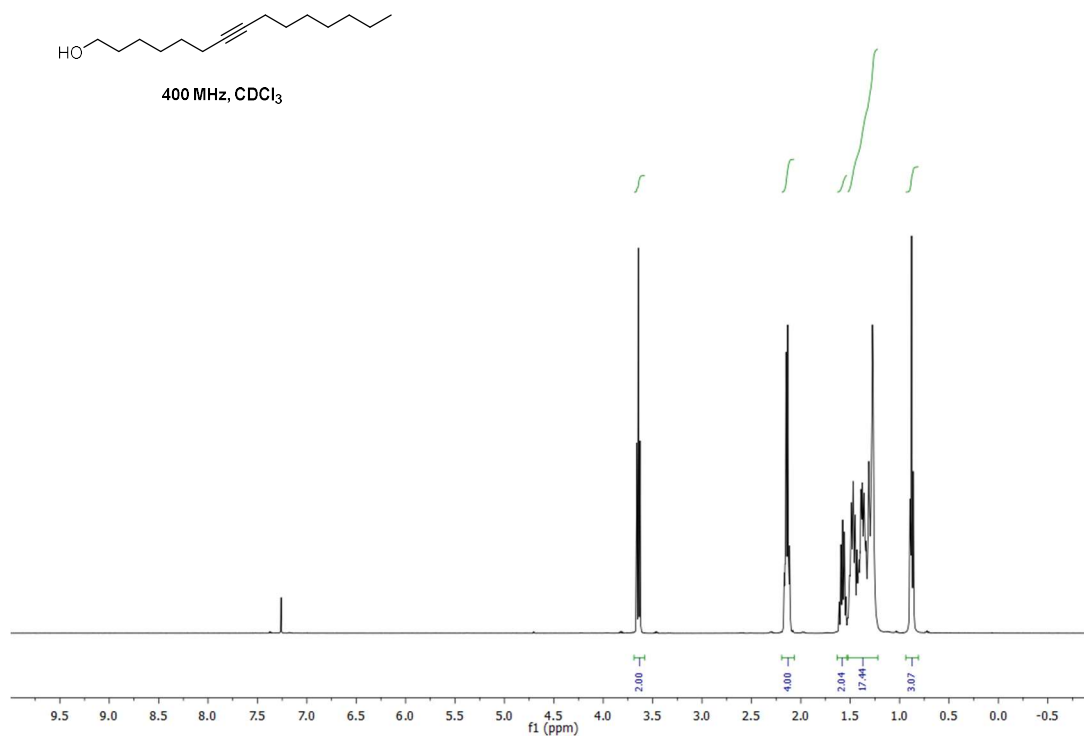
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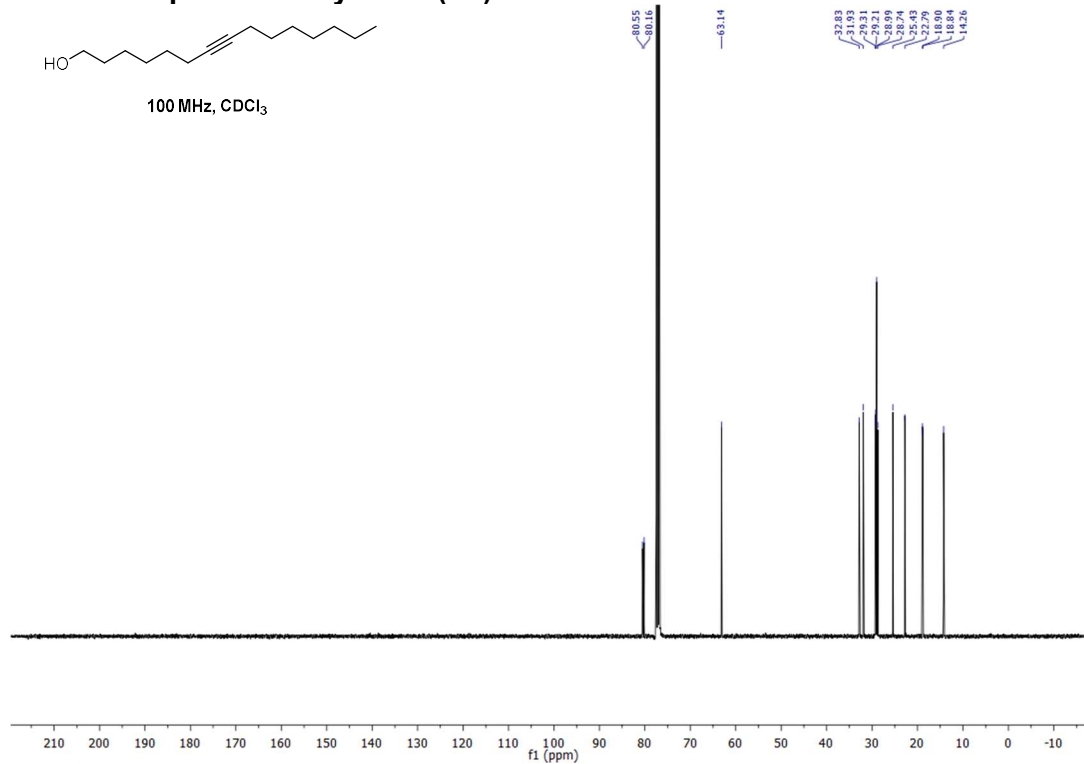
¹³C NMR of 4-(4-(but-3-yn-1-yl)phenyl)diazenyl-N-((2S,3R,E)-1,3-dihydroxyoctadec-4-en-2-yl)benzamide (caCer-2)



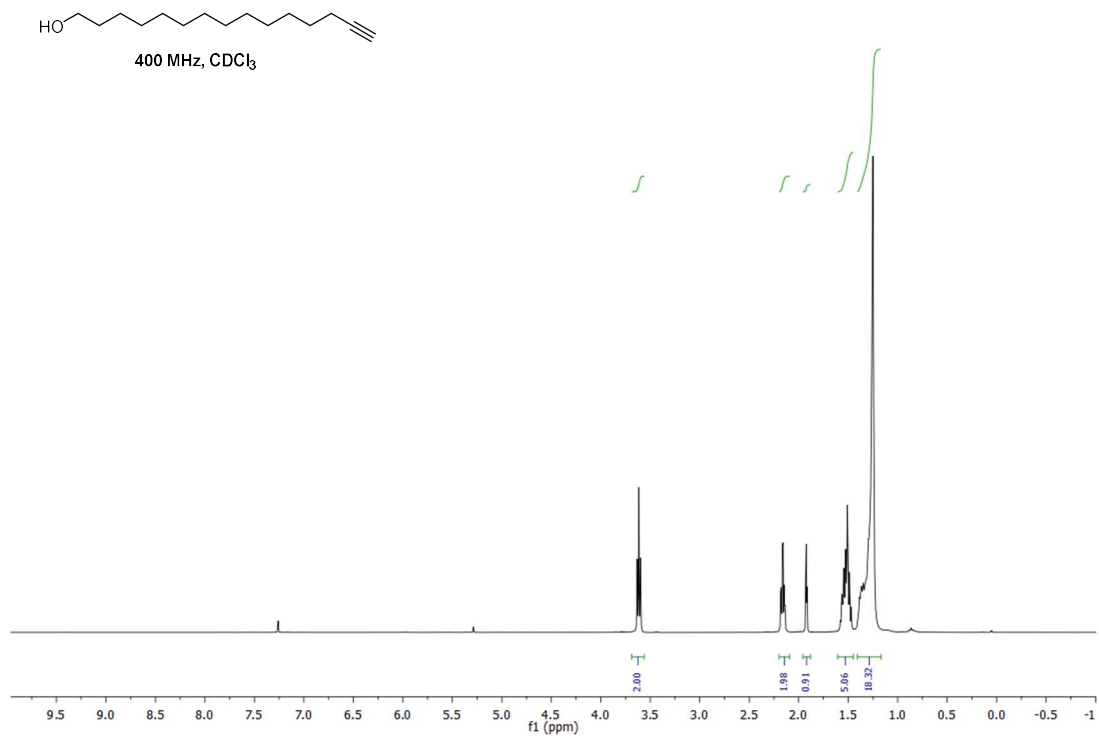
¹H NMR of pentadec-7-yn-1-ol (S1)



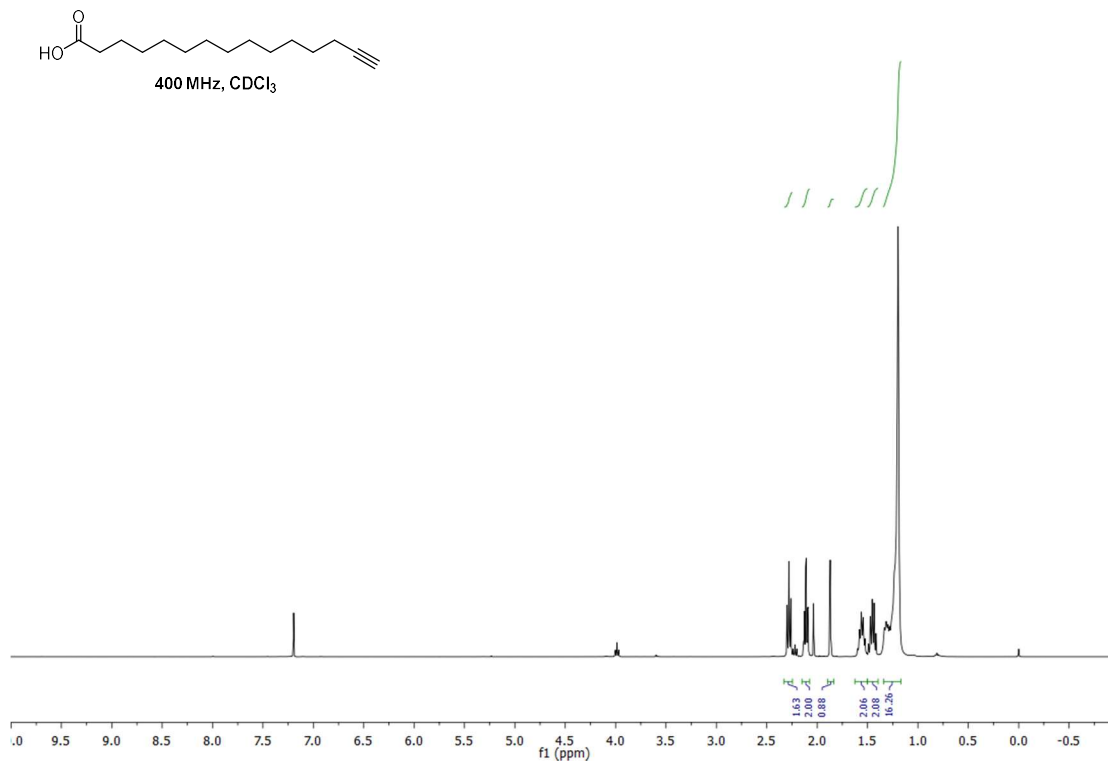
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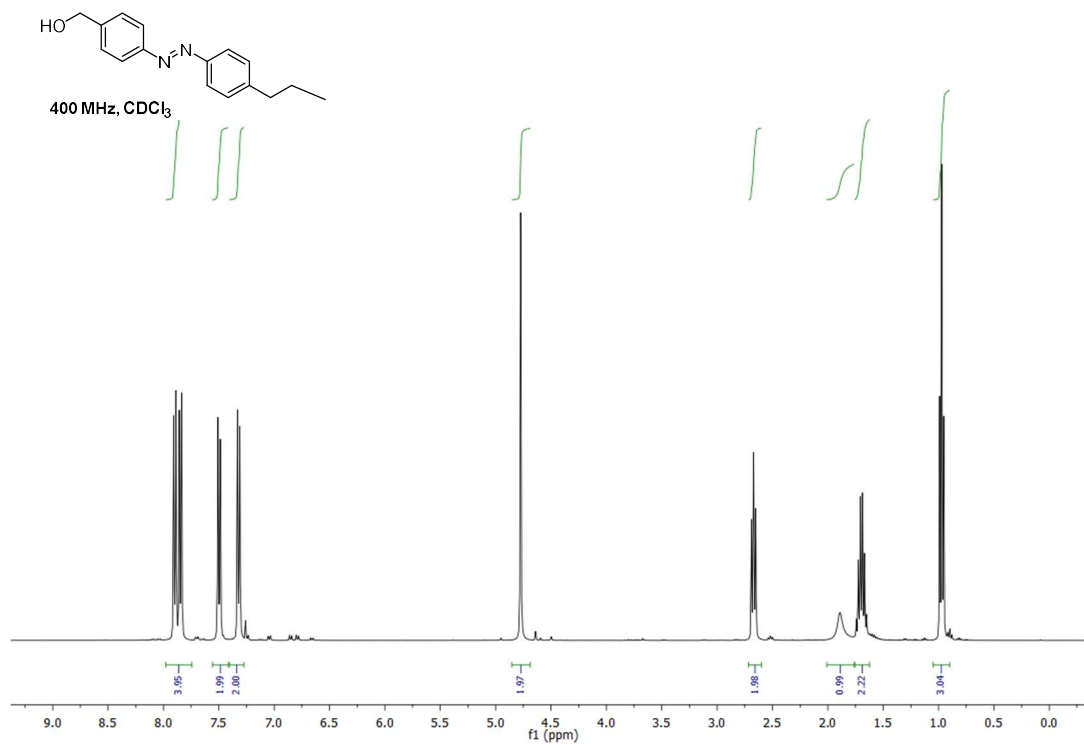
¹H NMR of pentadec-14-yn-1-ol (S2)



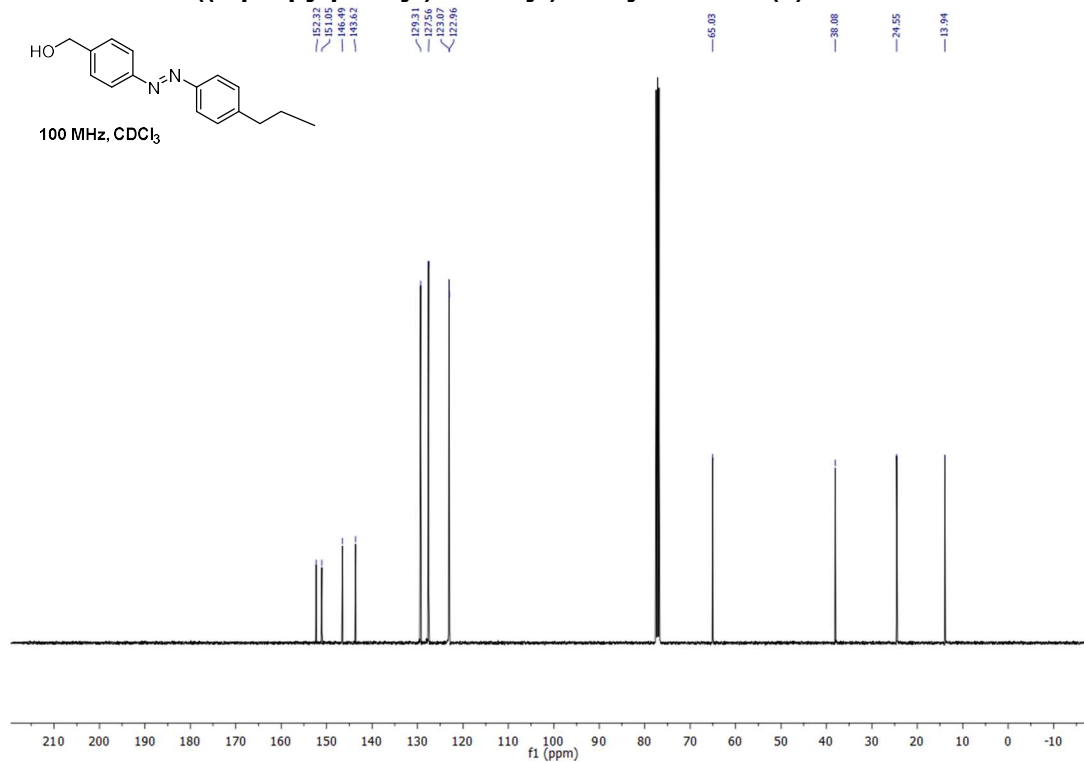
¹H NMR of pentadec-14-ynoic acid (4)



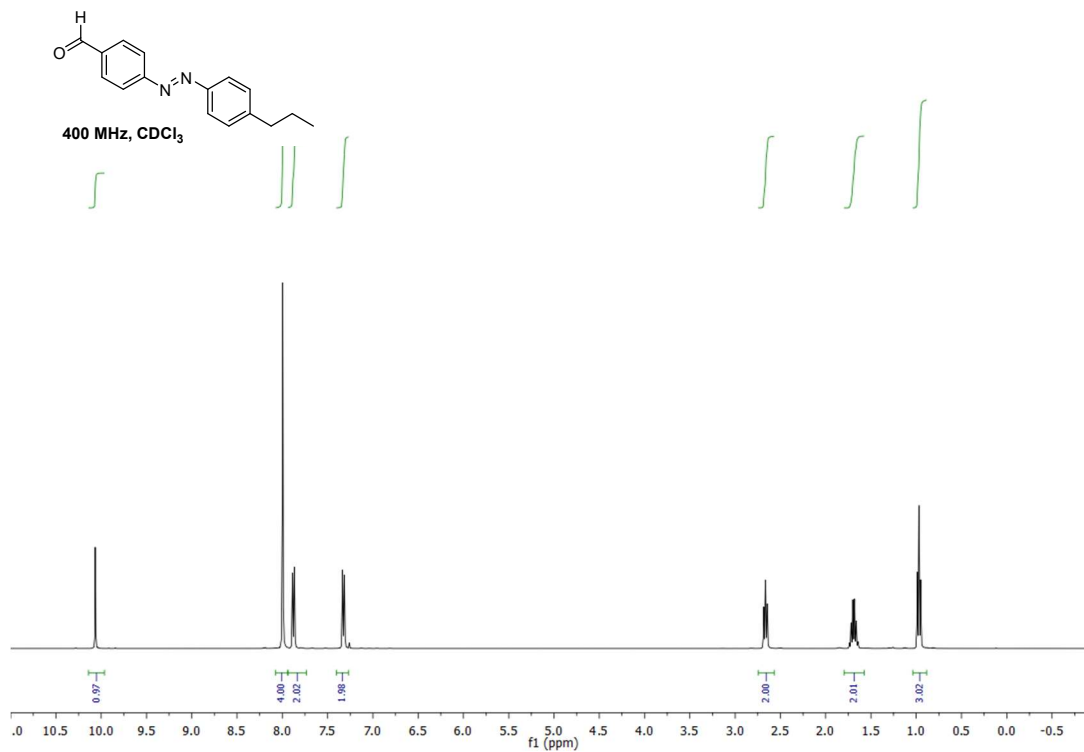
¹H NMR of 4-((4-propylphenyl)diazenyl)benzyl alcohol (5)



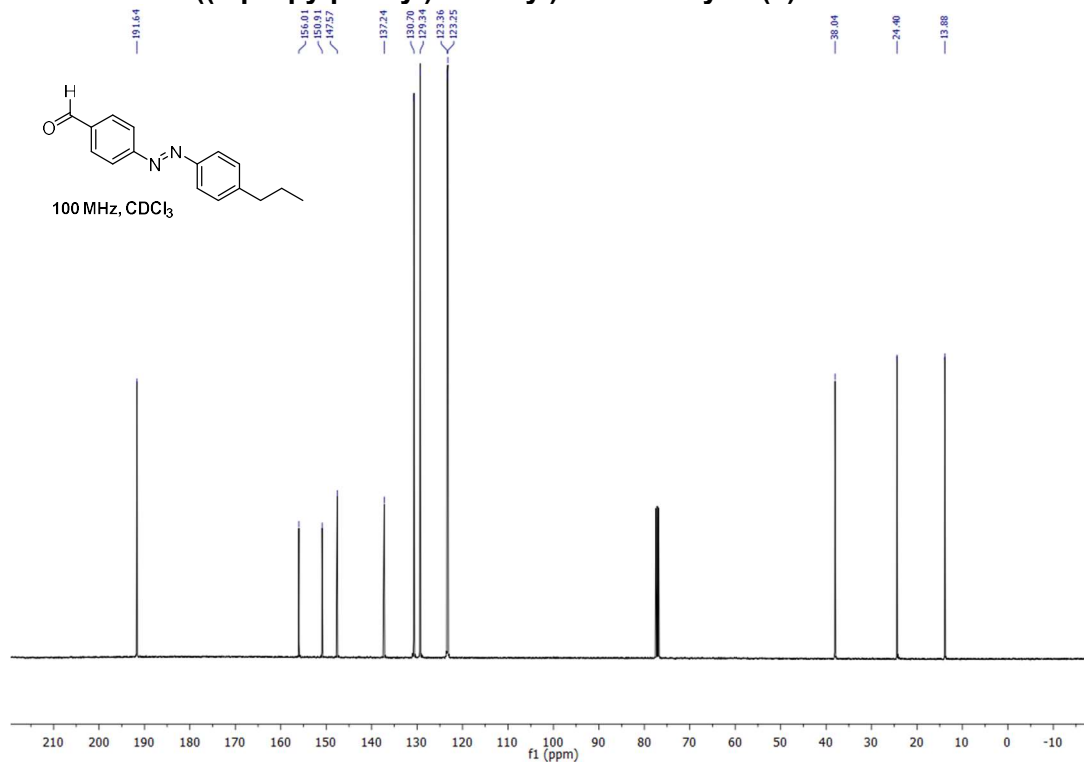
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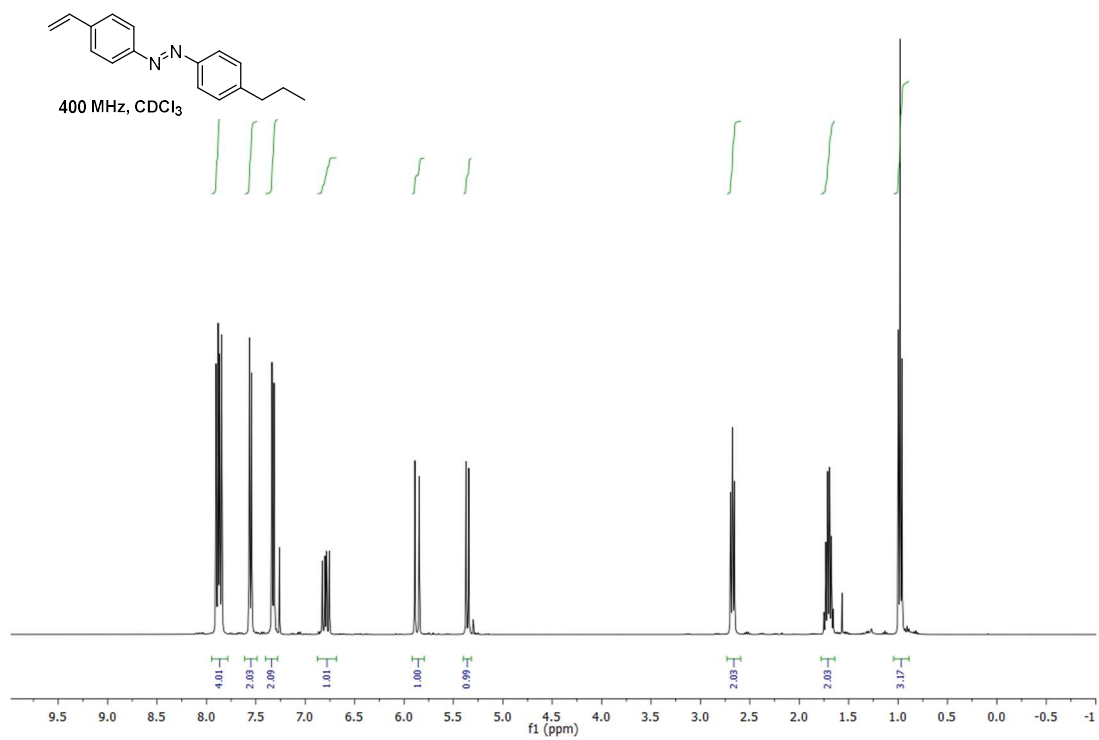
¹H NMR of 4-((4-propylphenyl)diazenyl)benzaldehyde (6)



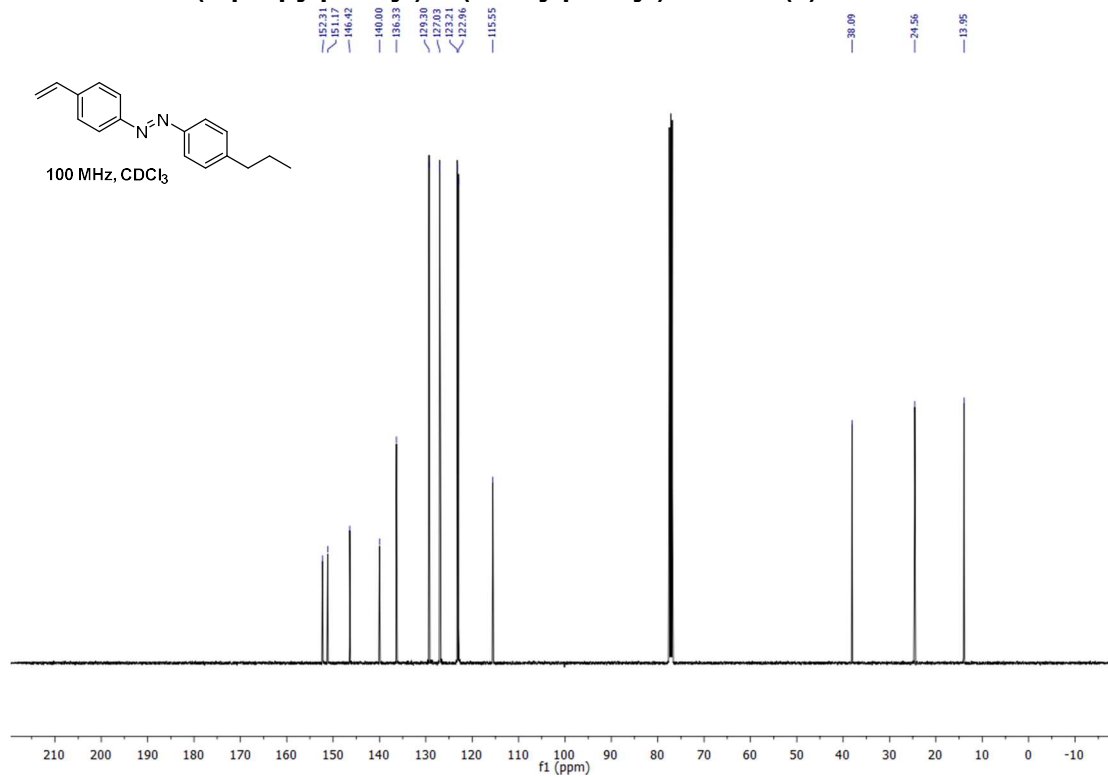
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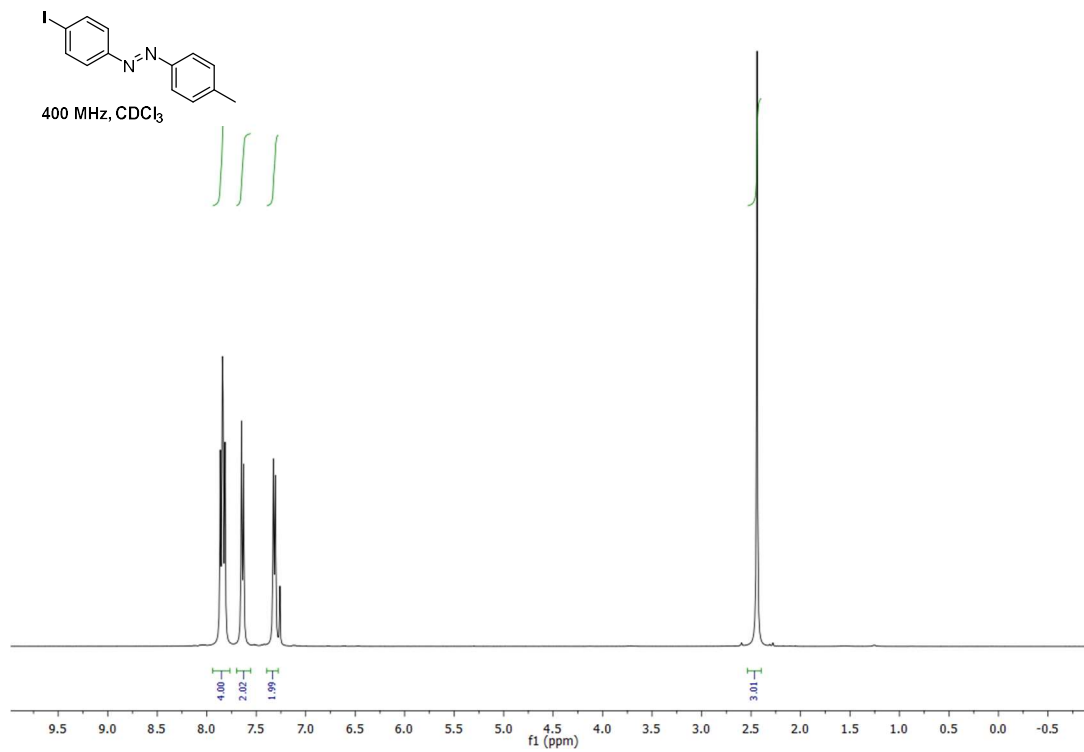
¹H NMR of 1-(4-propylphenyl)-2-(4-vinylphenyl)diazene (7)



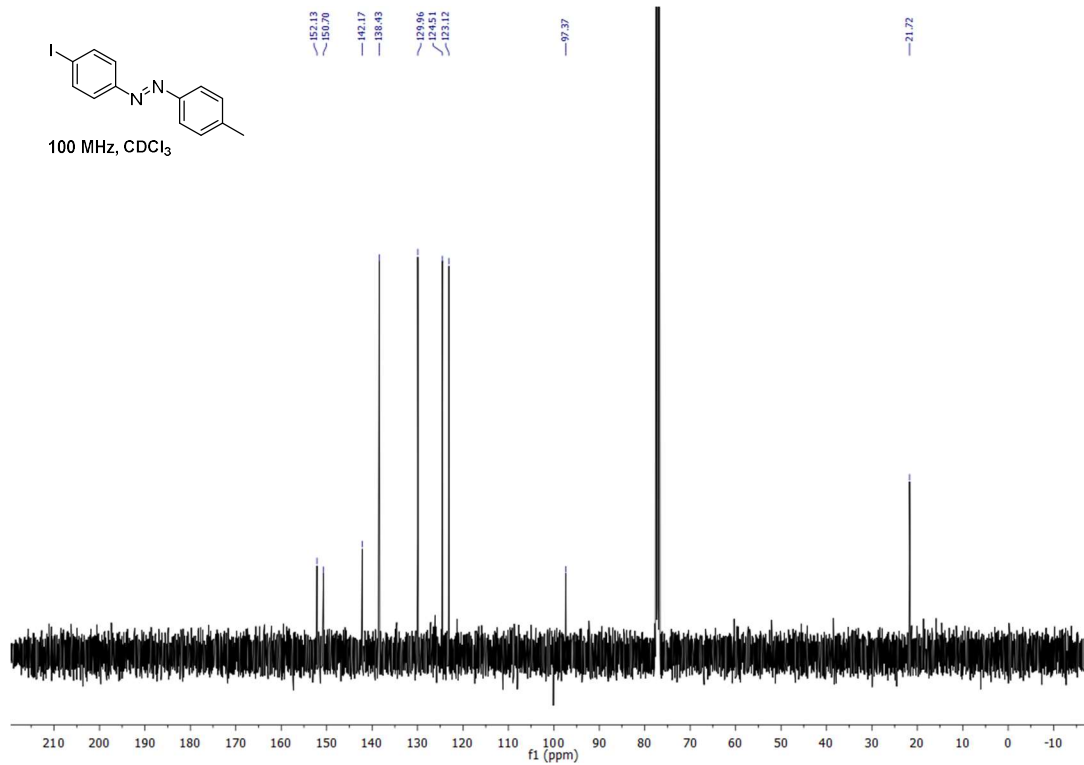
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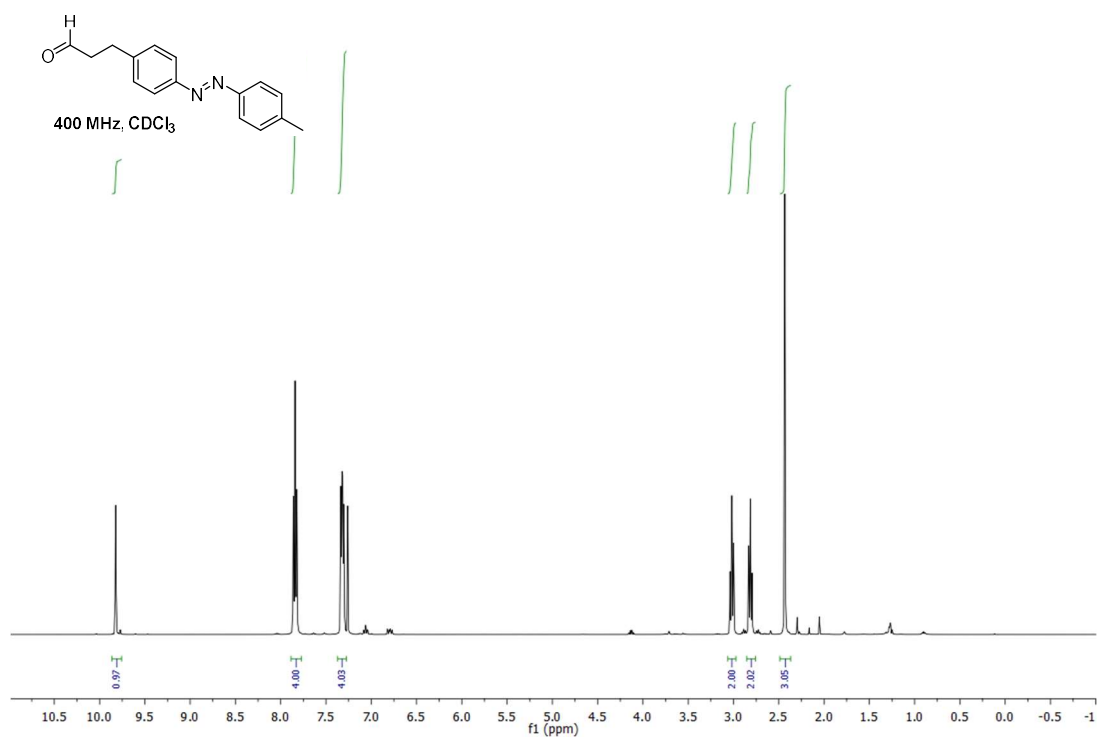
¹H NMR of 4-iodo-4'-methylazobenzene (S3)



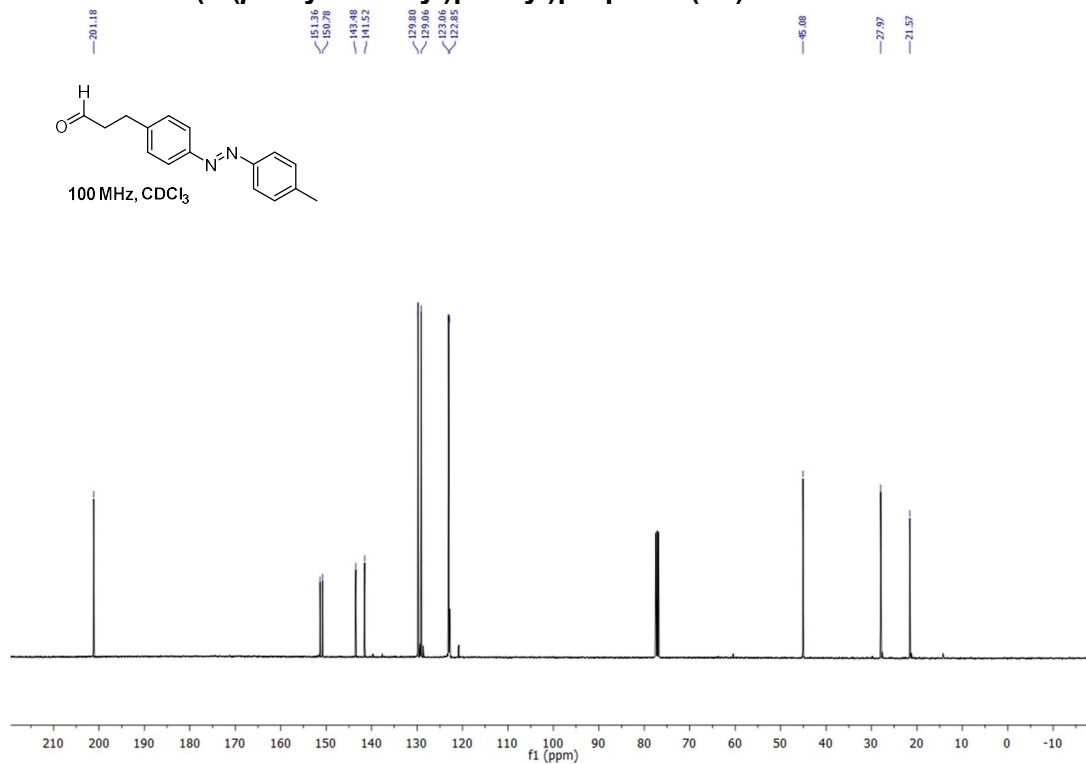
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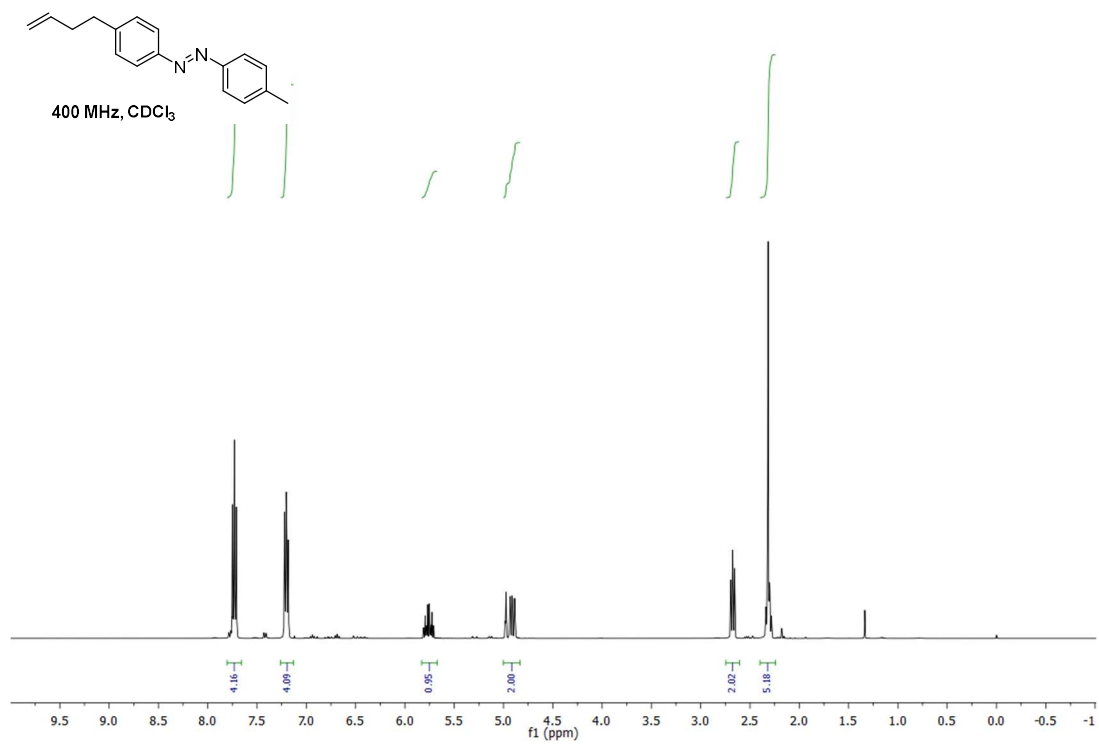
¹H NMR of 3-(4-(*p*-tolyl diazenyl)phenyl)propanal (S4)



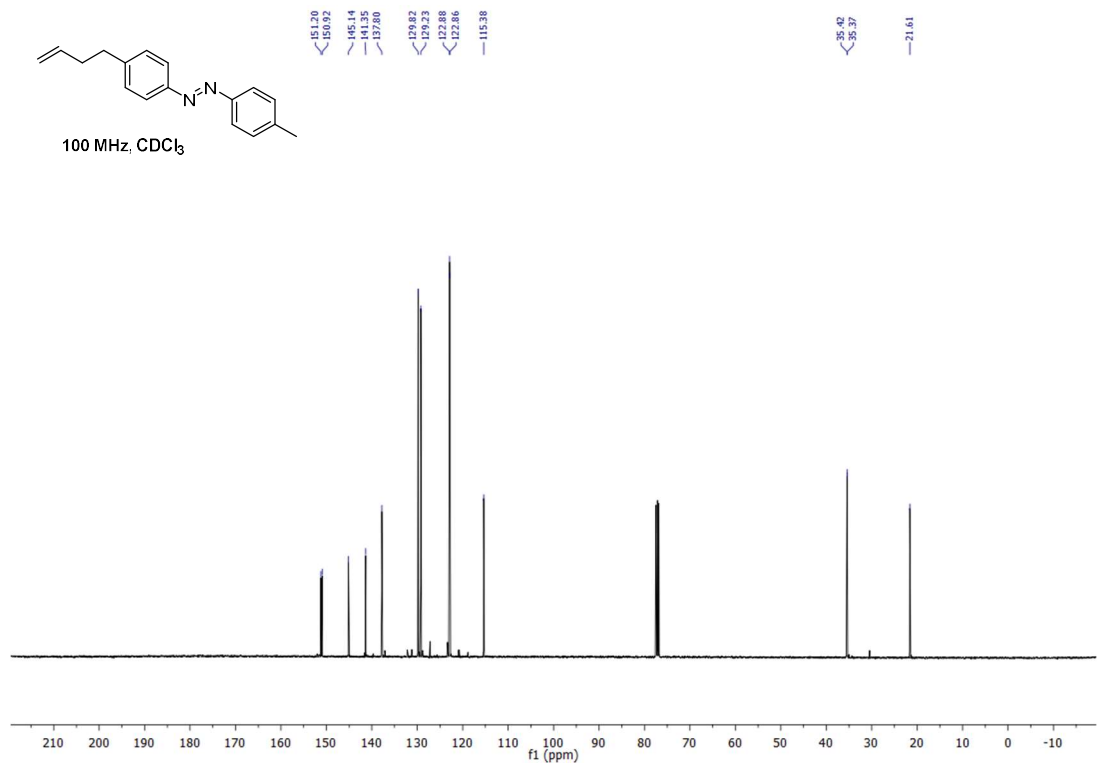
¹³C NMR of 3-(4-(*p*-tolyl diazenyl)phenyl)propanal (S4)



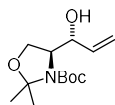
¹H NMR of 1-(4-(but-3-en-1-yl)phenyl)-2-(p-tolyl)diazene (S5)



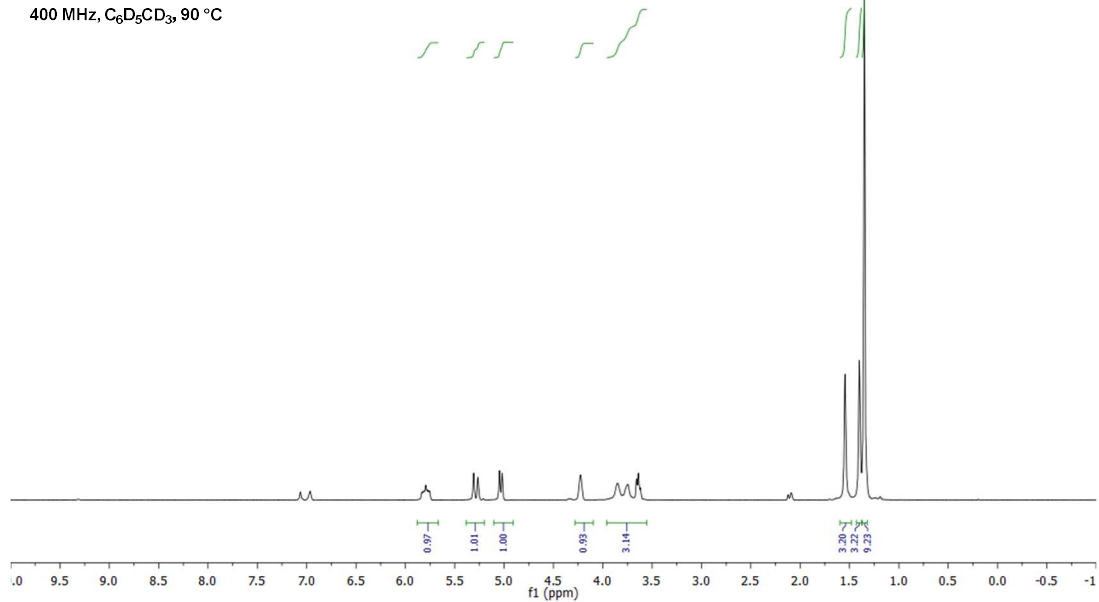
¹³C NMR of 1-(4-(but-3-en-1-yl)phenyl)-2-(p-tolyl)diazene (S5)



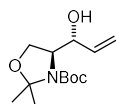
¹H NMR of *N*-Boc-(*R*)-1-((*S*)-2,2-dimethyloxazolidin-4-yl)prop-2-en-1-ol (8)



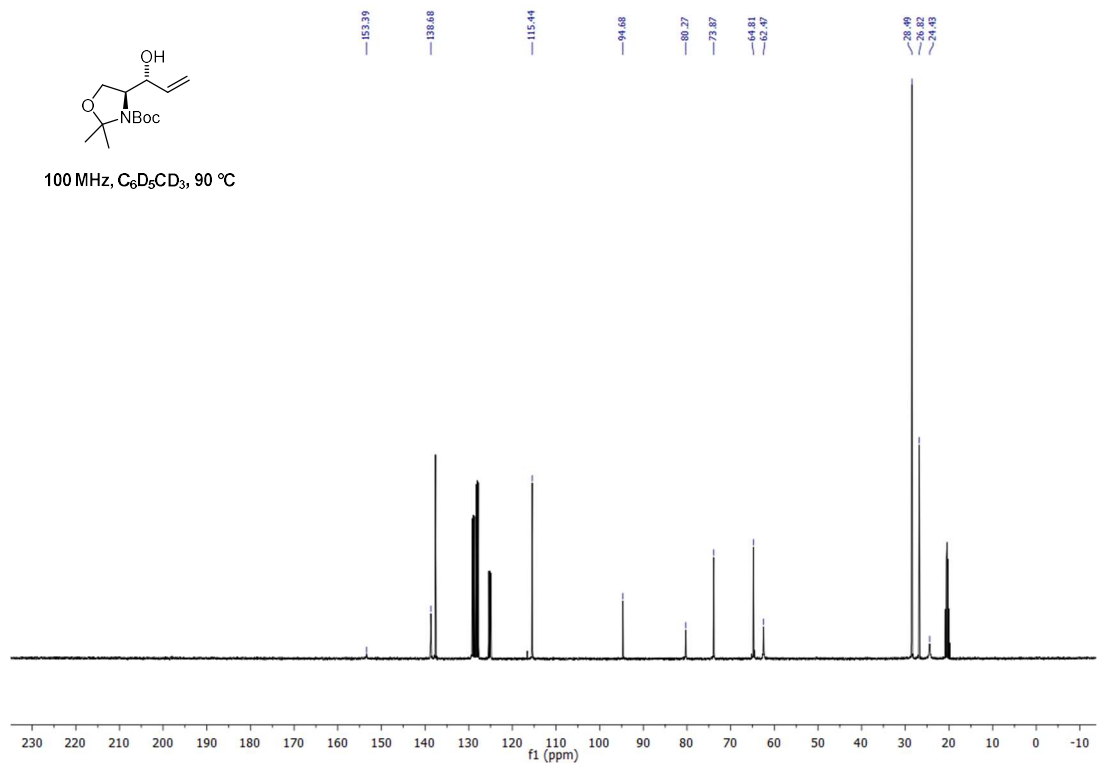
400 MHz, C₆D₅CD₃, 90 °C



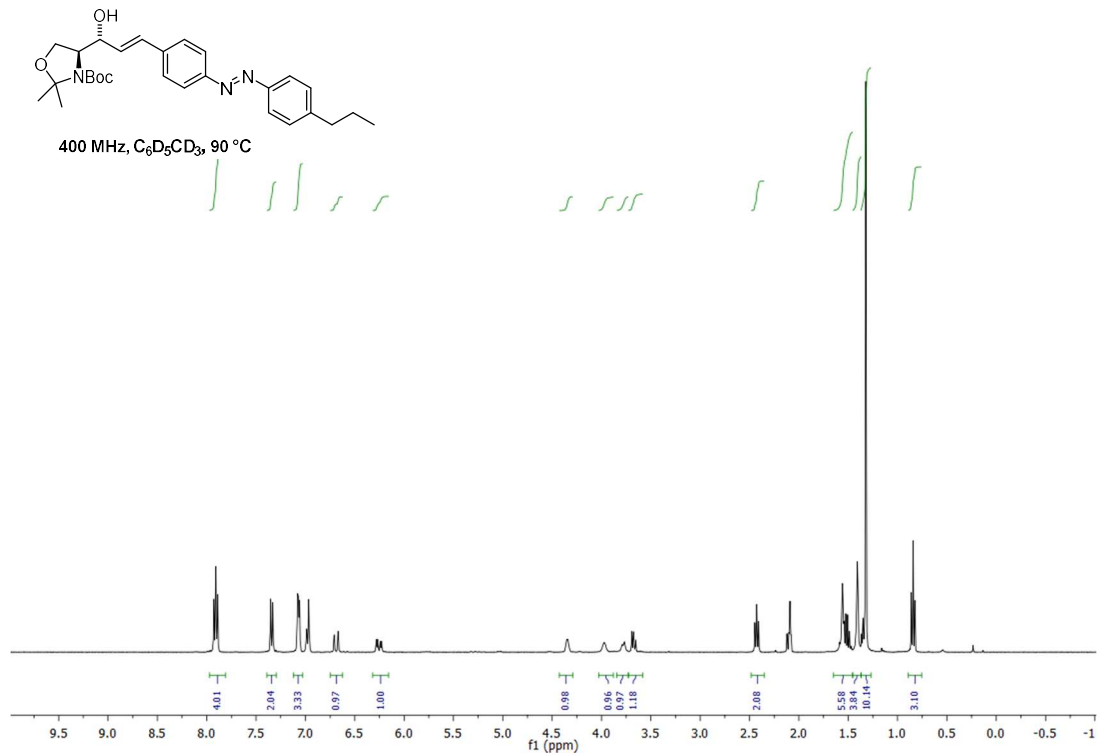
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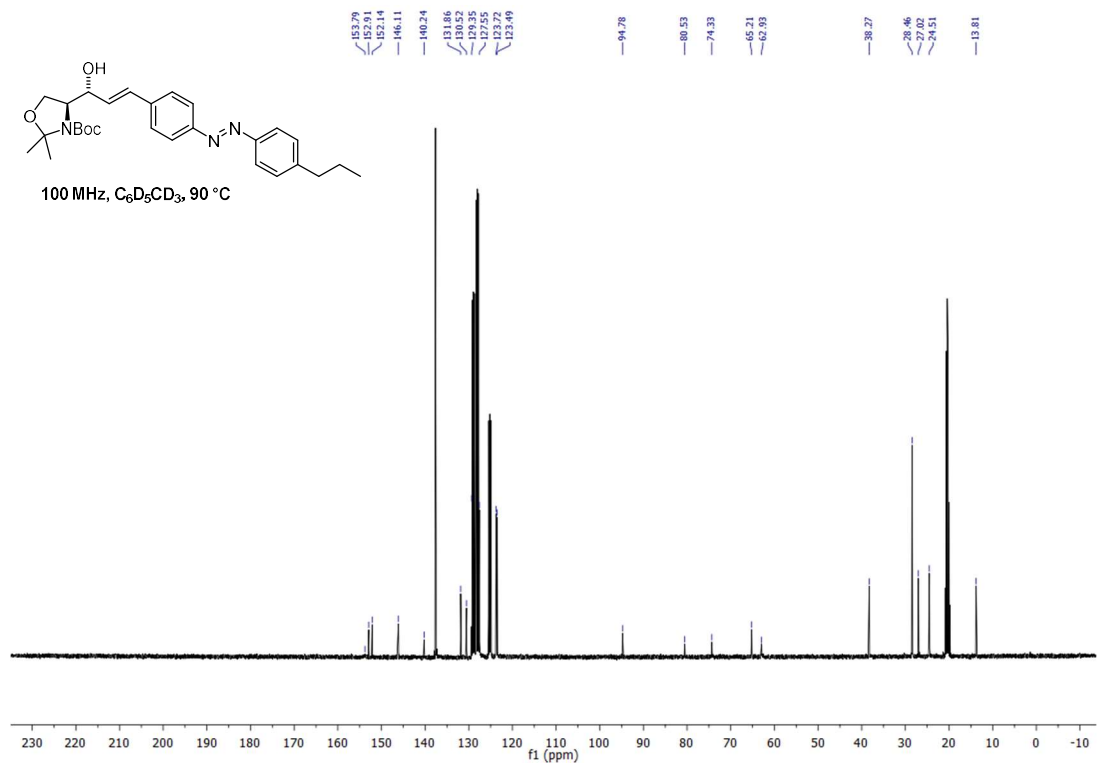
100 MHz, C₆D₅CD₃, 90 °C



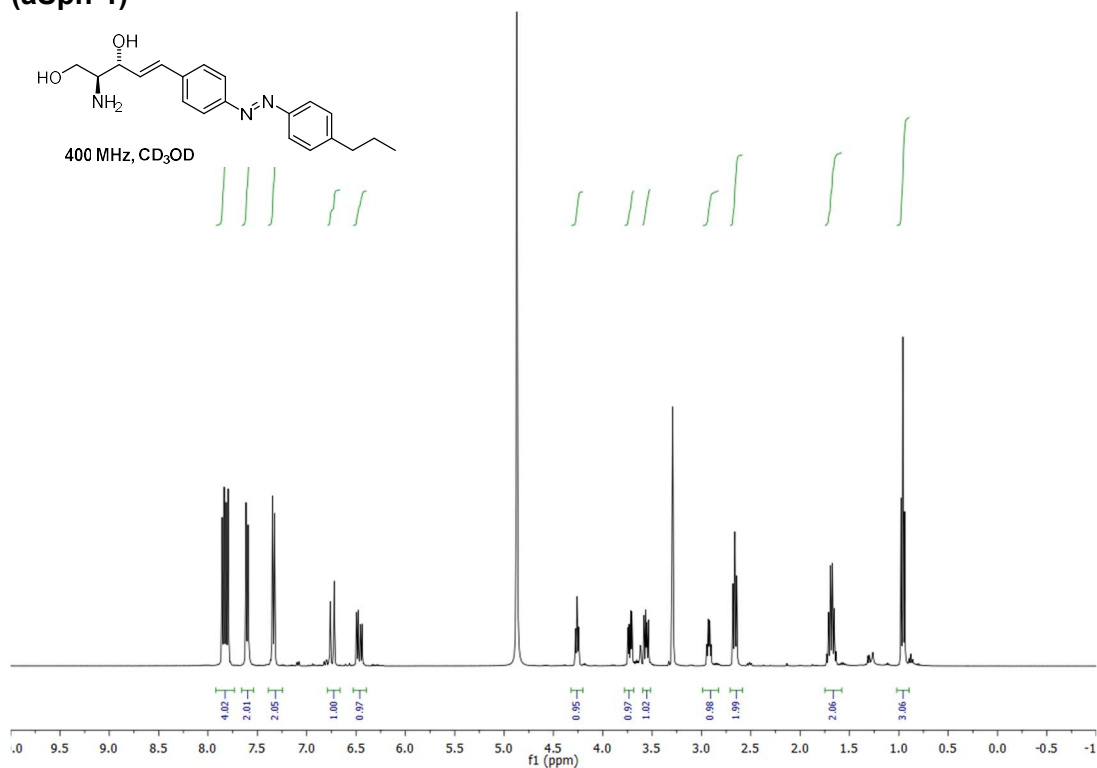
¹H NMR of *N*-Boc-(*R,E*)-1-((*S*)-2,2-dimethyloxazolidin-4-yl)-3-((4-(4-propylphenyl)diazenyl)phenyl)prop-2-en-1-ol (9)



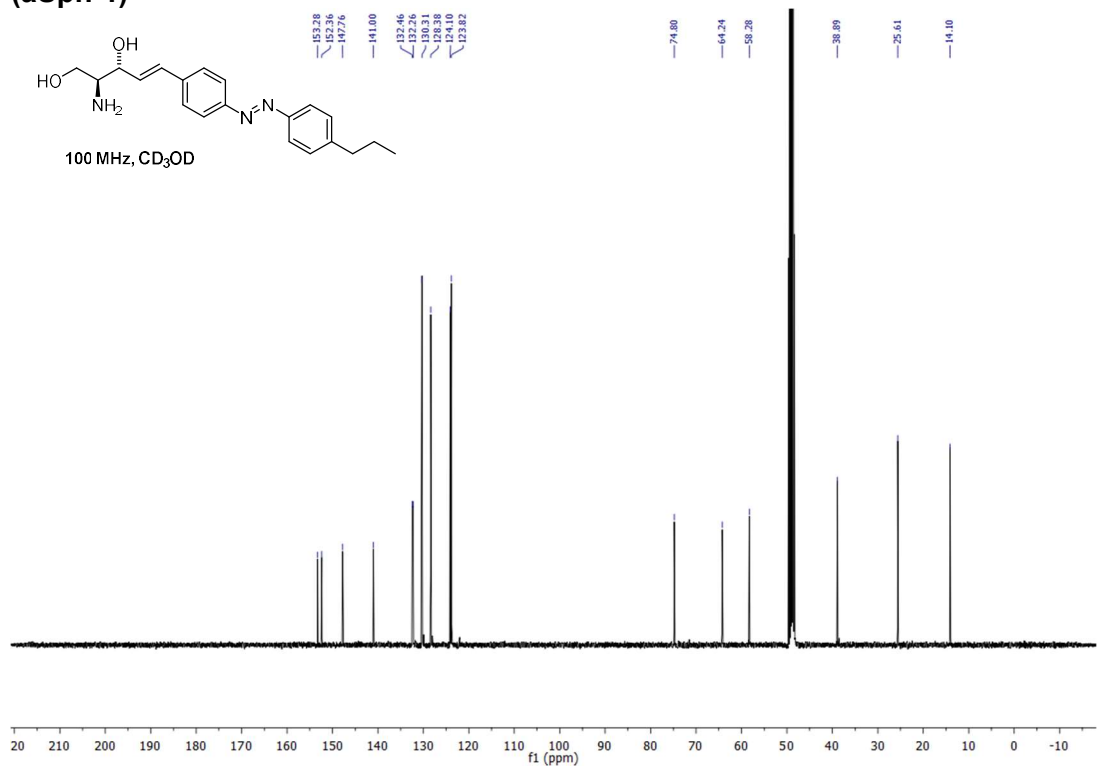
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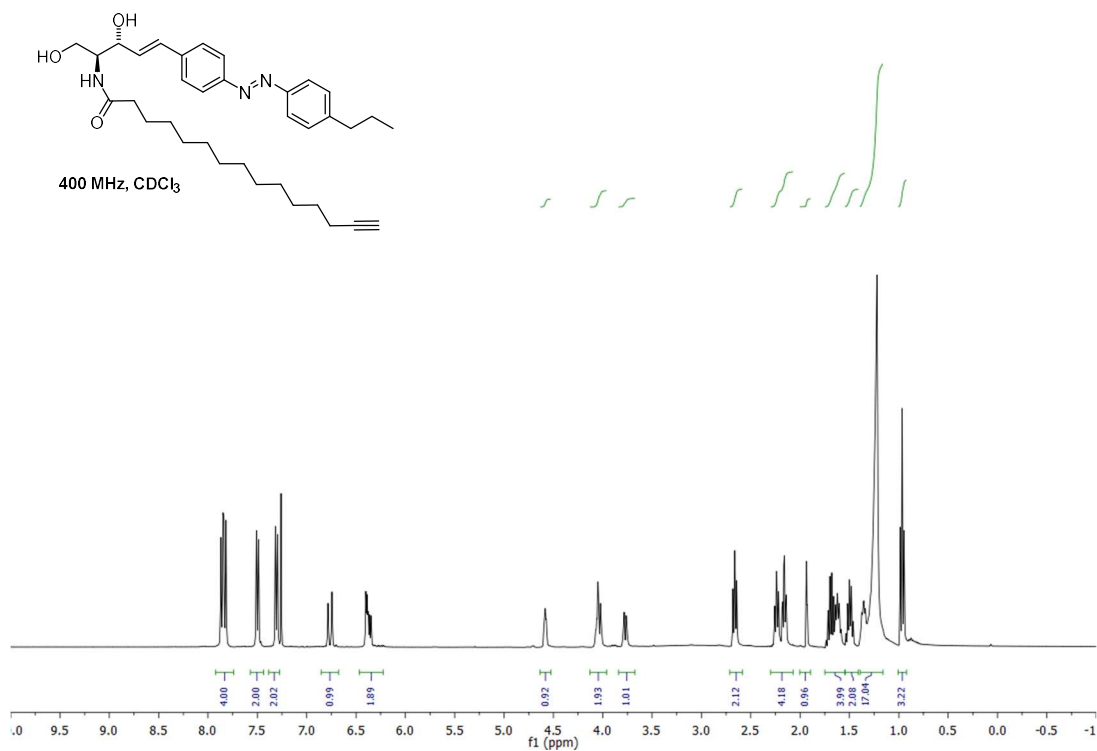
¹H NMR of (2*S*,3*R*,*E*)-2-amino-5-(4-((4-propylphenyl)diazenyl)phenyl) pent-4-ene-1,3-diol (aSph-1)



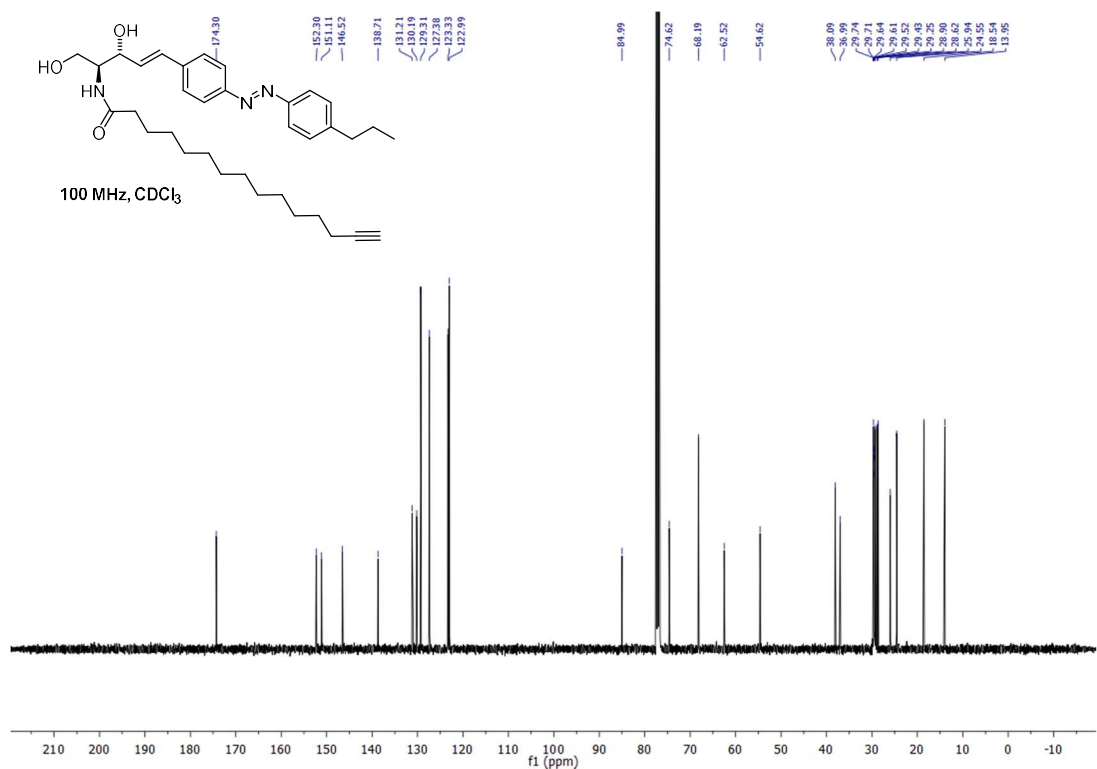
¹³C NMR of (2*S*,3*R*,*E*)-2-amino-5-(4-((4-propylphenyl)diazenyl)phenyl) pent-4-ene-1,3-diol (aSph-1)



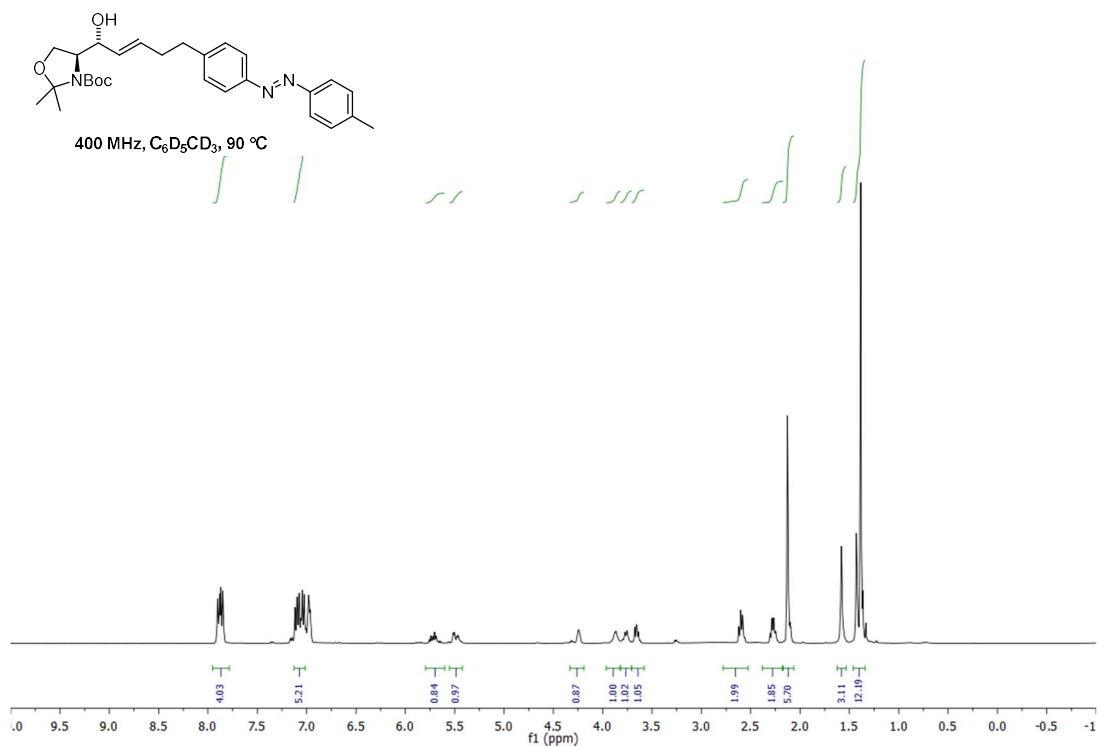
¹H NMR of *N*-((2*S*,3*R*,*E*)-1,3-dihydroxy-5-(4-((4-propylphenyl) diazenyl)phenyl)pent-4-en-2-yl)pentadec-14-ynamide (caCer-3)



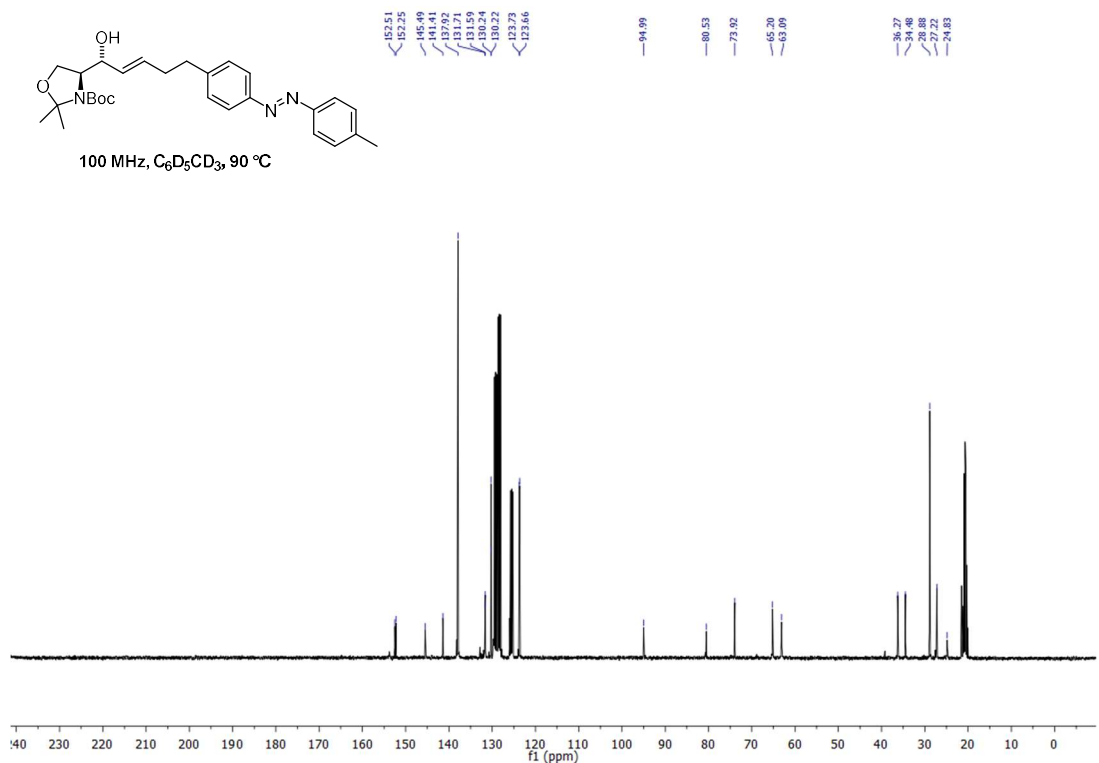
¹³C NMR of *N*-((2*S*,3*R*,*E*)-1,3-dihydroxy-5-(4-((4-propylphenyl) diazenyl)phenyl)pent-4-en-2-yl)pentadec-14-ynamide (caCer-3)



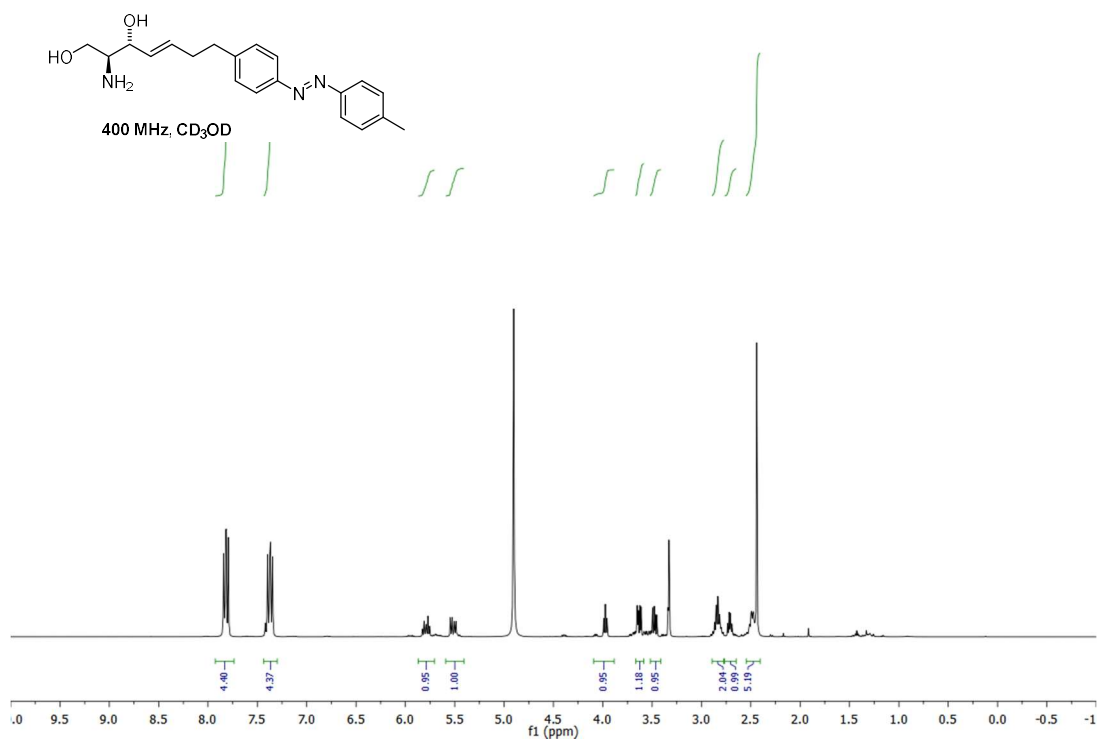
¹H NMR of compound **N-Boc-(R,E)-1-((S)-2,2-dimethyloxazolidin-4-yl)-6-(4-(p-tolyldiazenyl)phenyl)hex-2-en-1-ol (S6)**



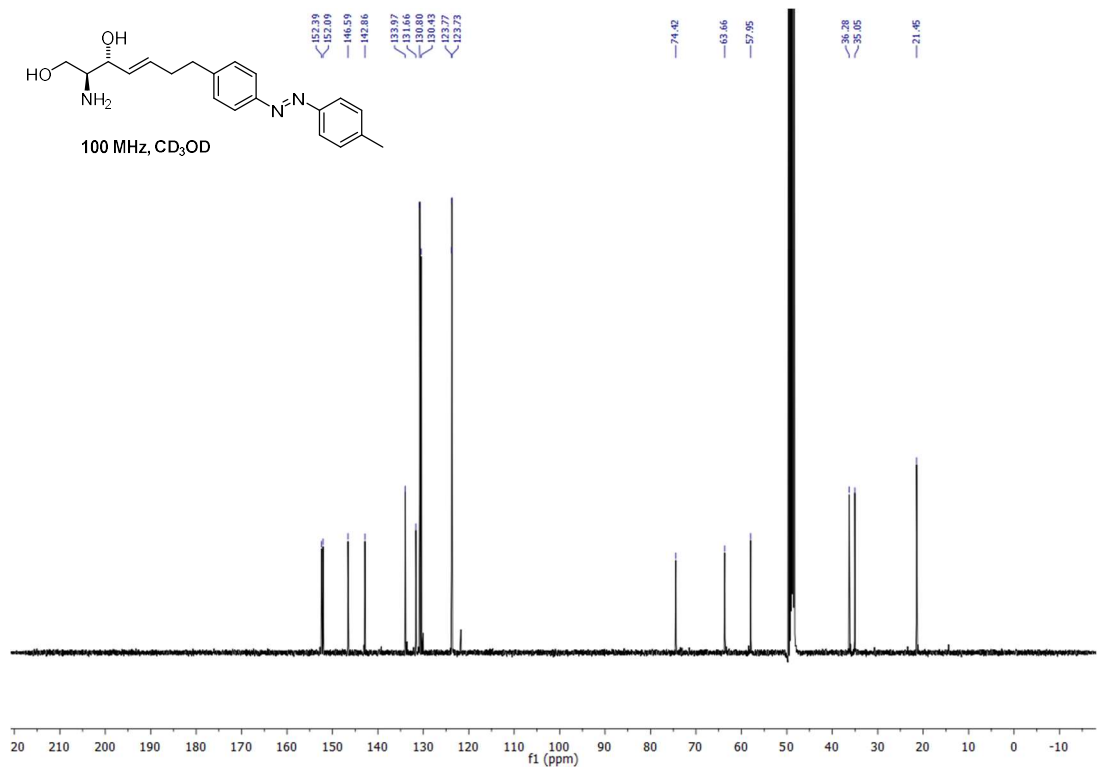
¹³C NMR of compound **N-Boc-(R,E)-1-((S)-2,2-dimethyloxazolidin-4-yl)-6-(4-(p-tolyldiazenyl)phenyl)hex-2-en-1-ol (S6)**



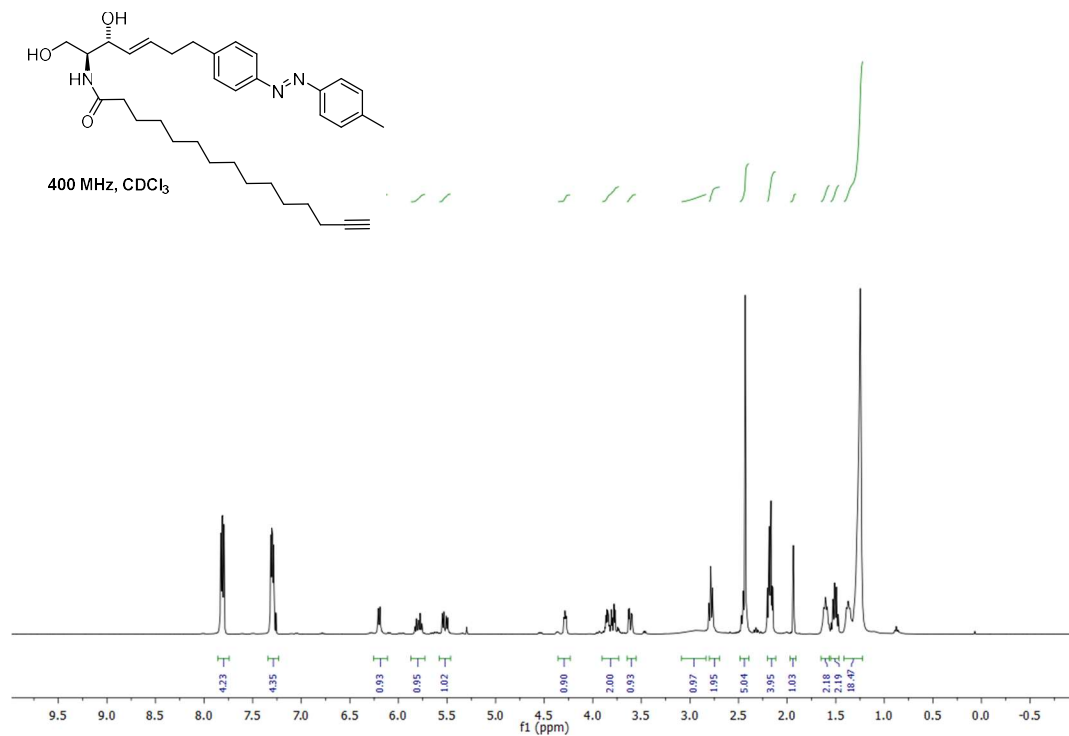
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¹³C NMR of (2*S*,3*R*,*E*)-2-amino-7-(4-(*p*-tolylidiazenyl)phenyl)hept-4-ene-1,3-diol (aSph-2)



¹H NMR of *N*-((2*S*,3*R*,*E*)-1,3-dihydroxy-7-(4-(*p*-tolyl diazenyl) phenyl)hept-4-en-2-yl)pentadec-14-ynamide (caCer-4)



¹³C NMR of *N*-((2*S*,3*R*,*E*)-1,3-dihydroxy-7-(4-(*p*-tolyl diazenyl) phenyl)hept-4-en-2-yl)pentadec-14-ynamide (caCer-4)

