

## Photoredox-Catalyzed Hydroxymethylation of $\beta$ -Ketoesters: Application to the Synthesis of [3.3.3] Propellane Lactones

Youssef Nassar<sup>a</sup> and Olivier Piva <sup>\*a</sup>

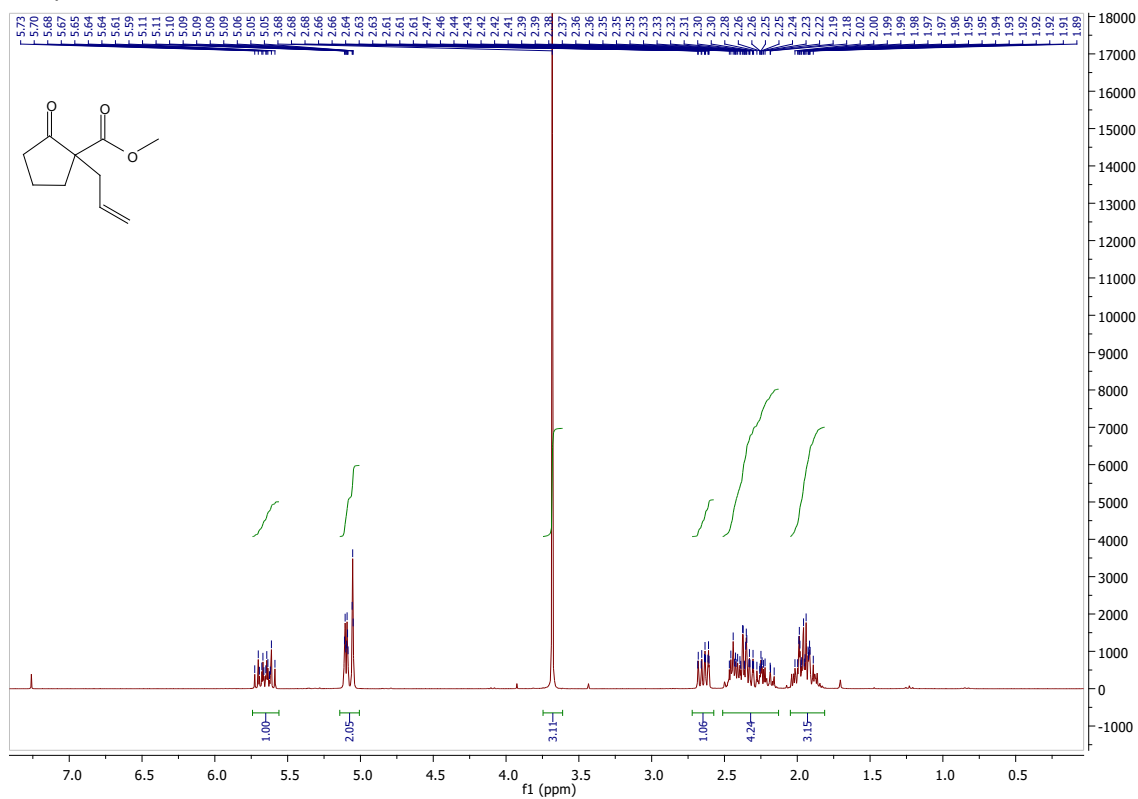
Université de Lyon; CNRS; UCBL; UMR 5246 – Institut de Chimie et de Biochimie Moléculaires et Supramoléculaires – 43, Boulevard du 11 Novembre 1918 – 69622 Villeurbanne - France

### SUPPORTING INFORMATION

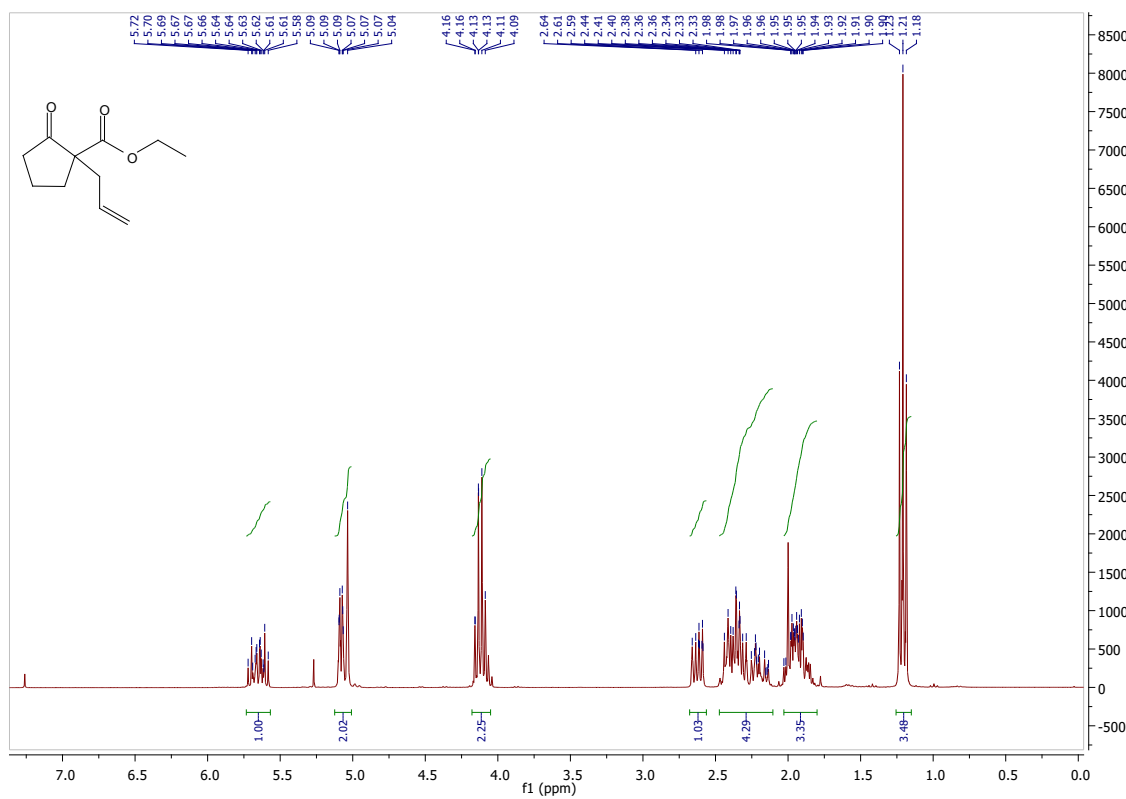
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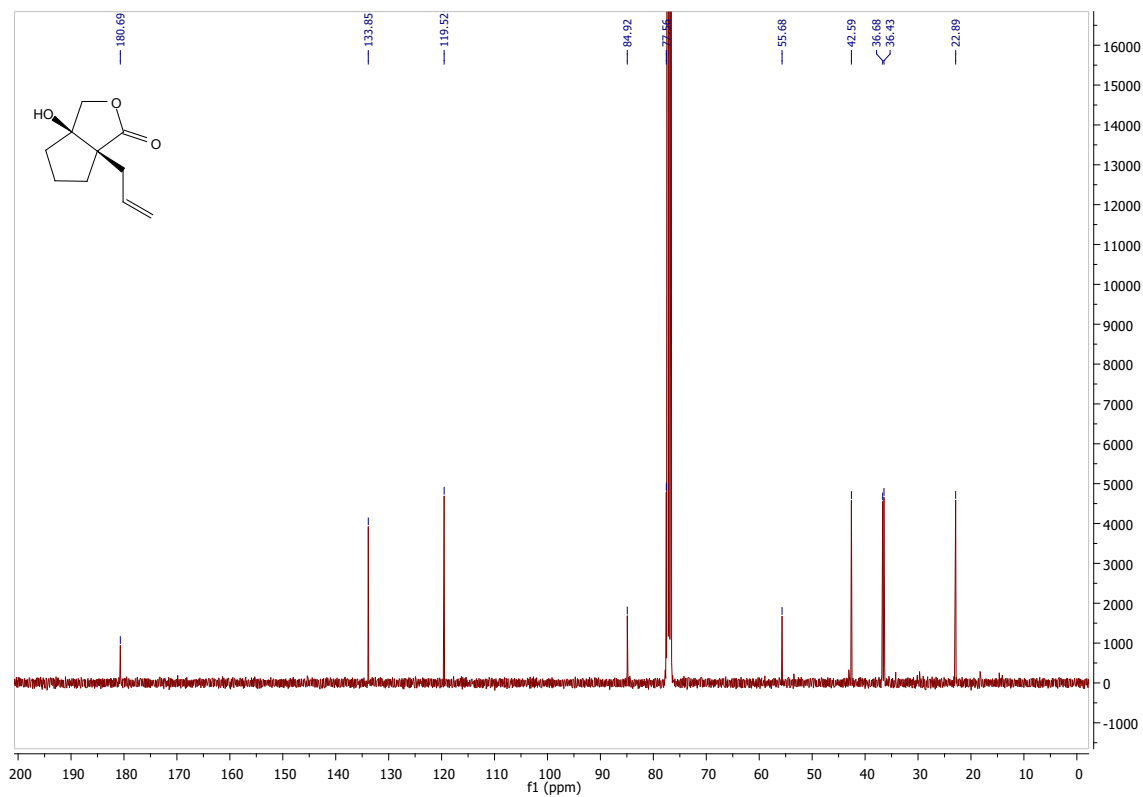
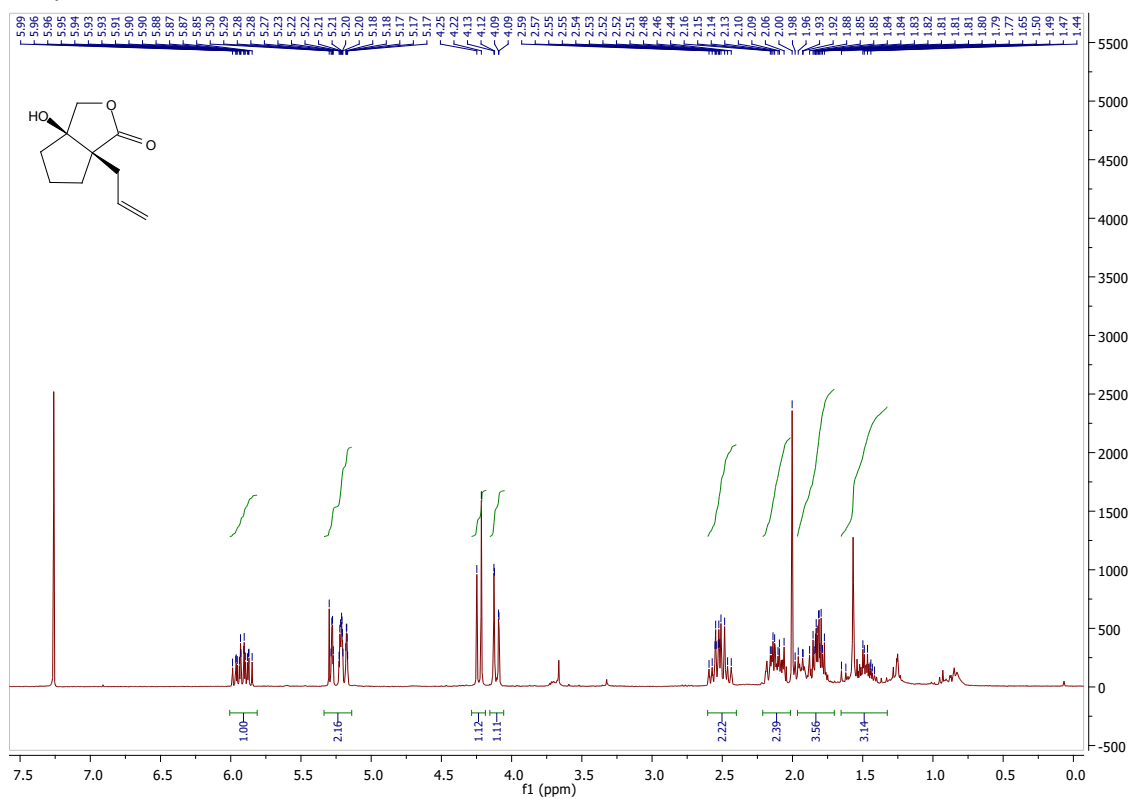
Compound **13a**



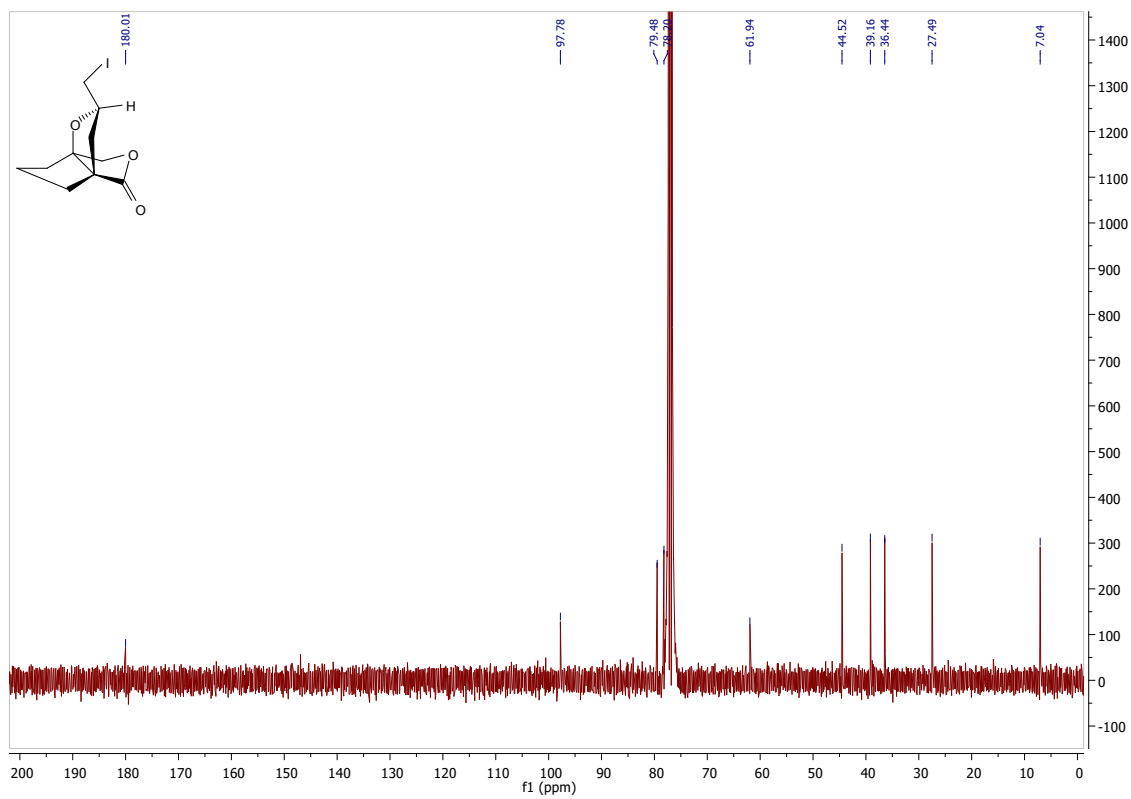
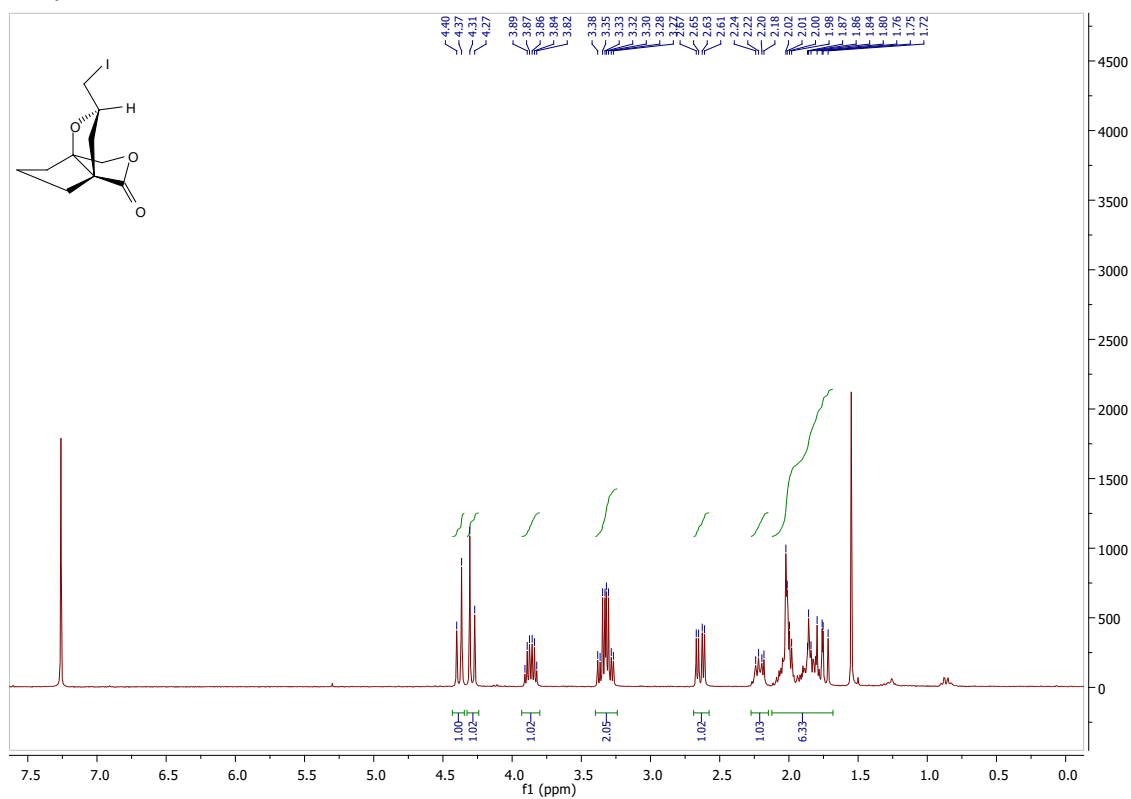
Compound **13b**



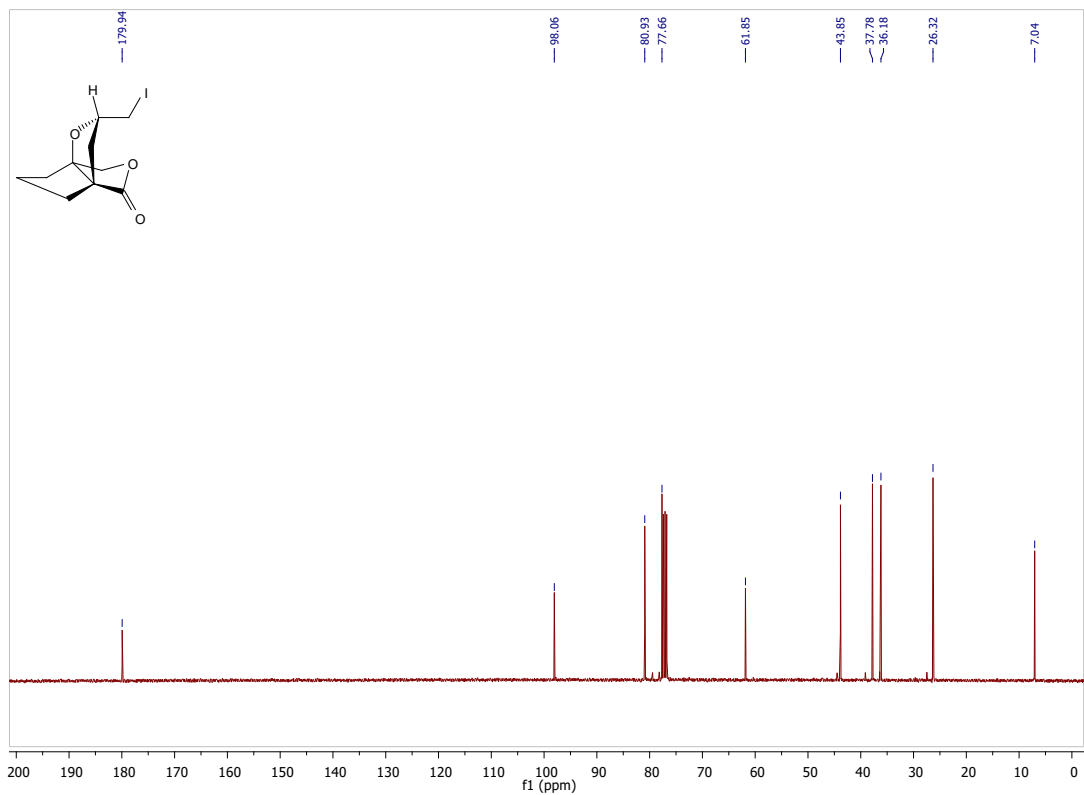
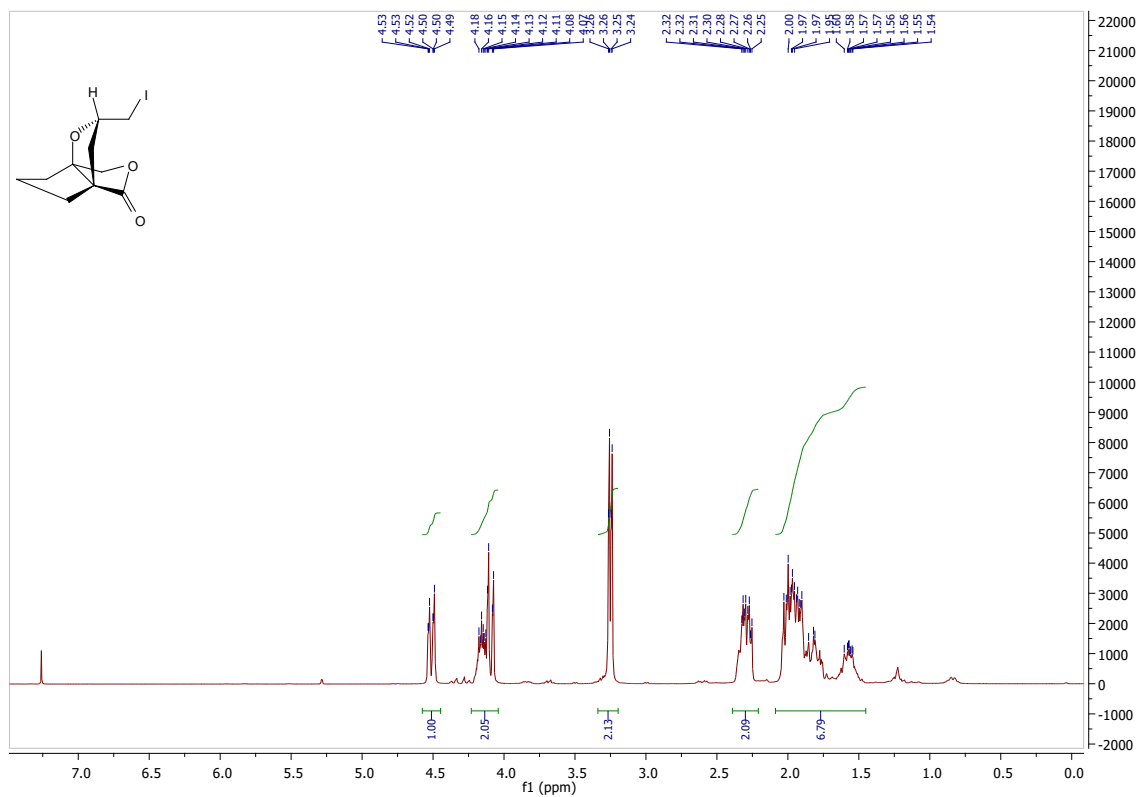
# Compound 14

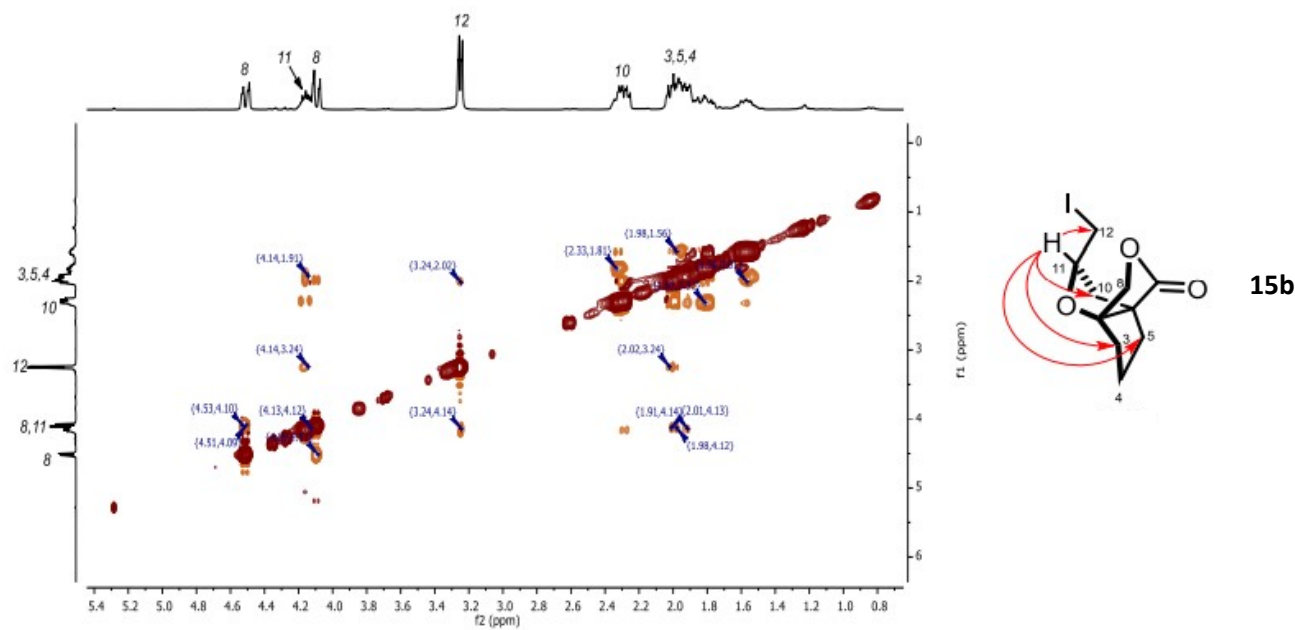
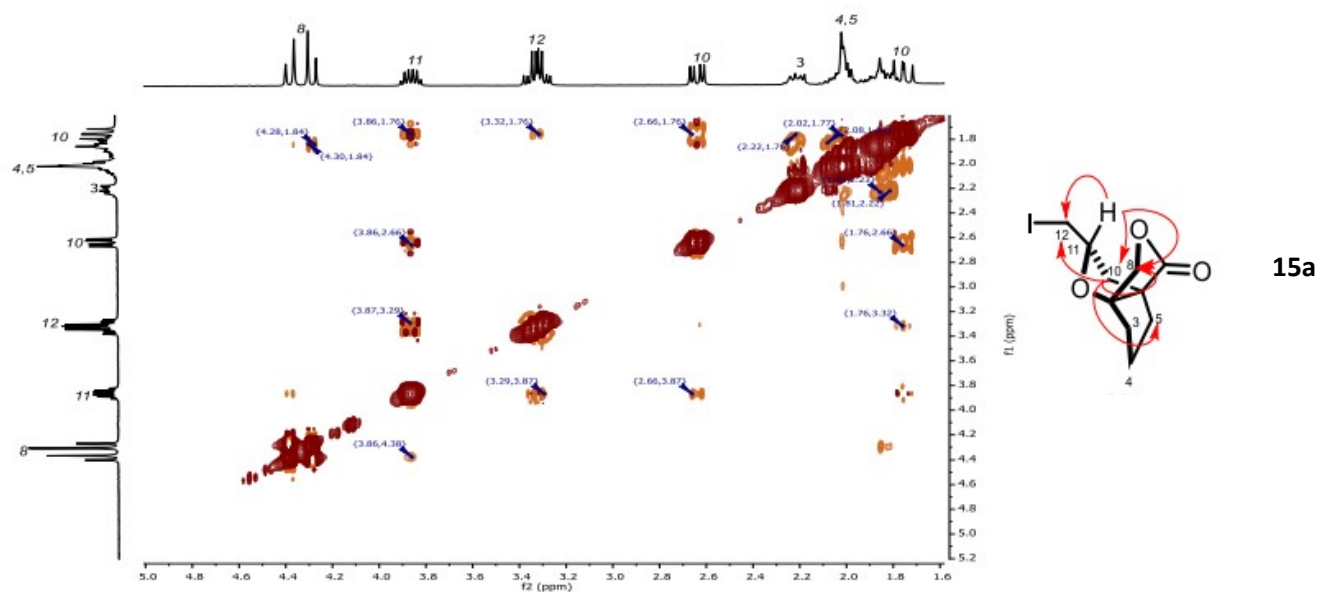


# Compound 15a



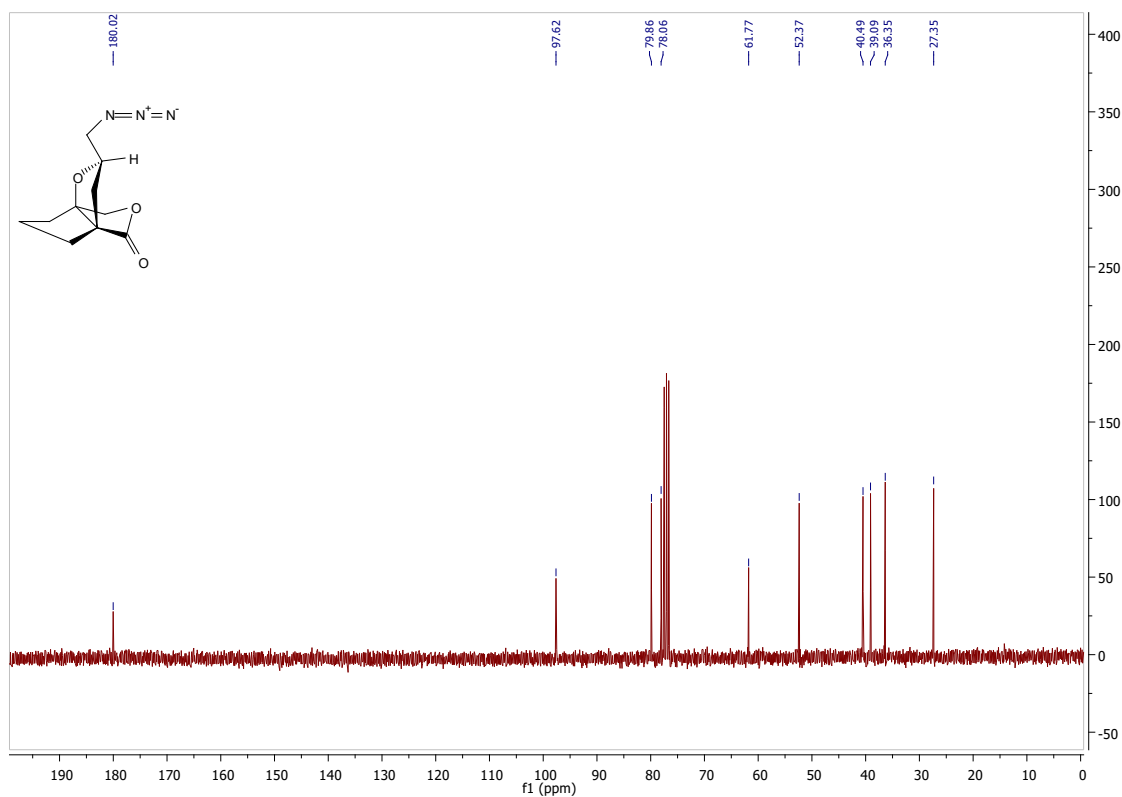
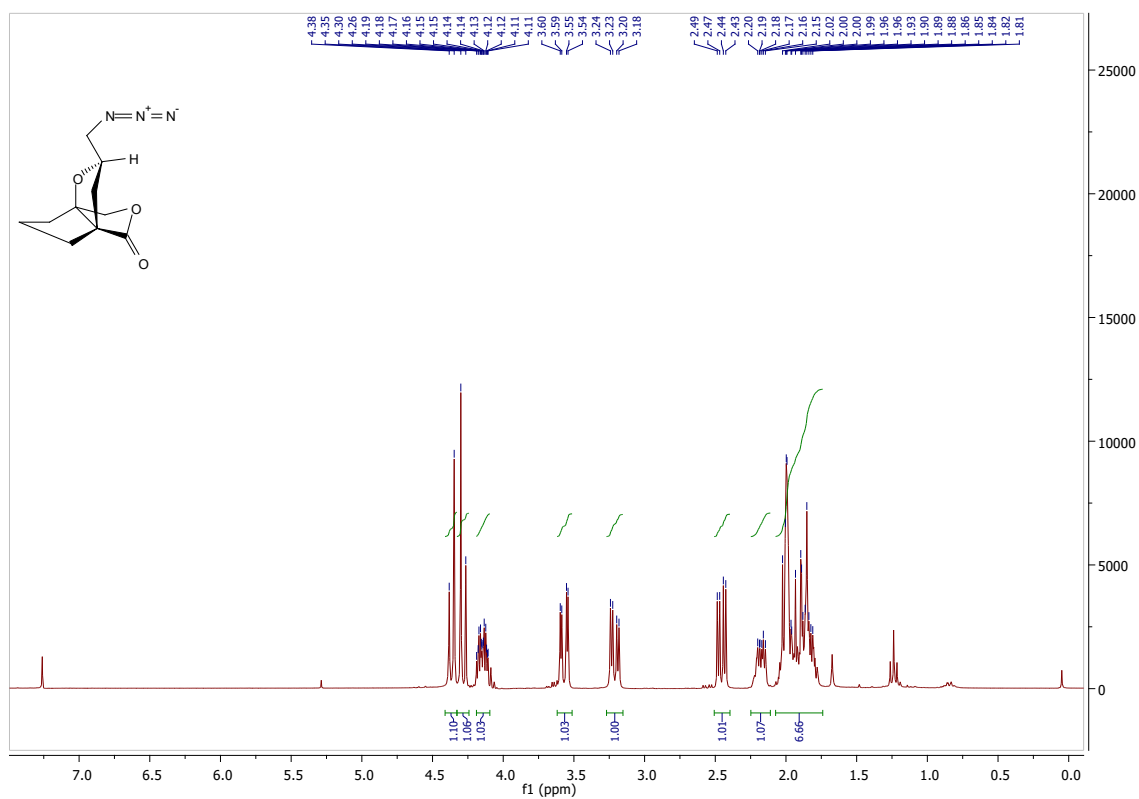
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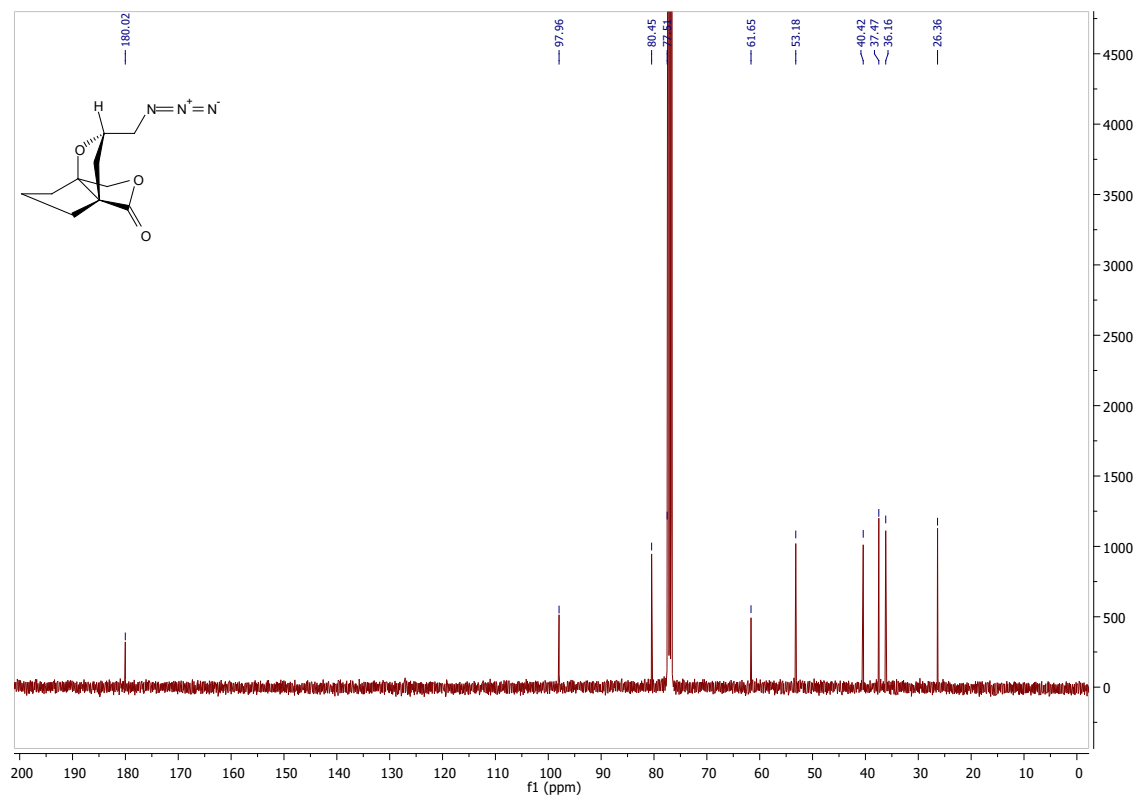
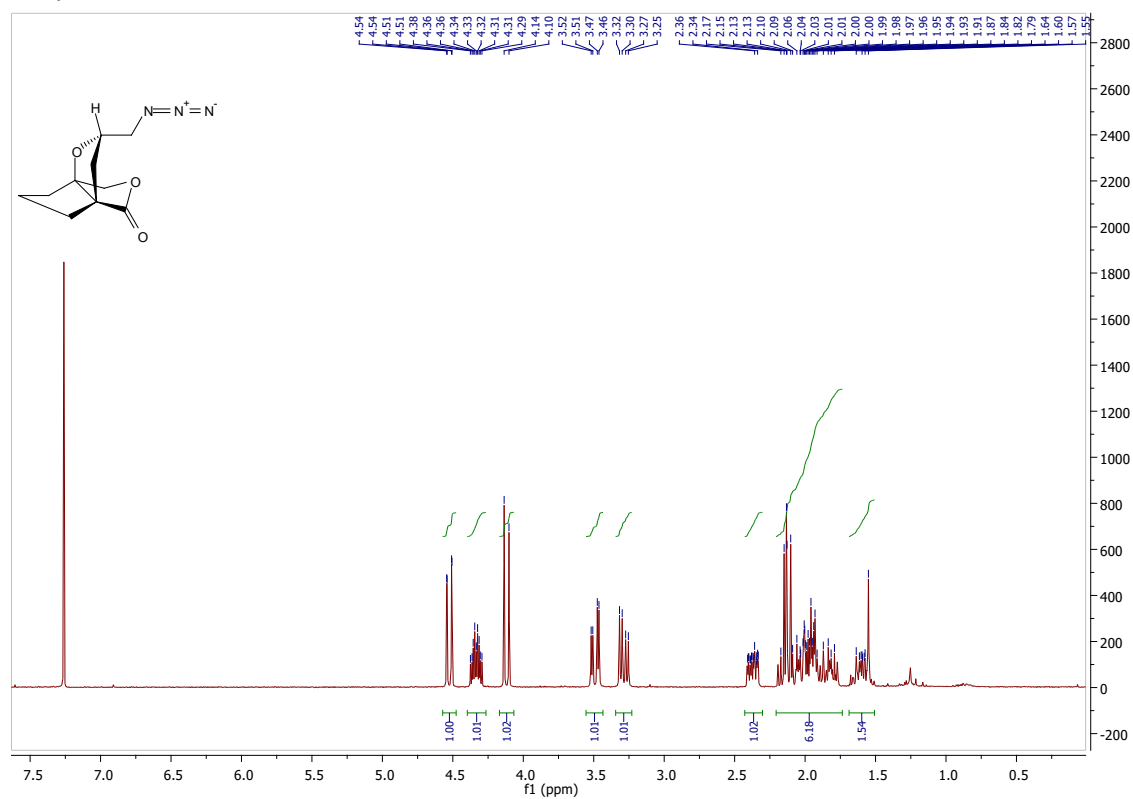


2D NOESY NMR of **15a** and **15b** ( $\text{CDCl}_3$ )

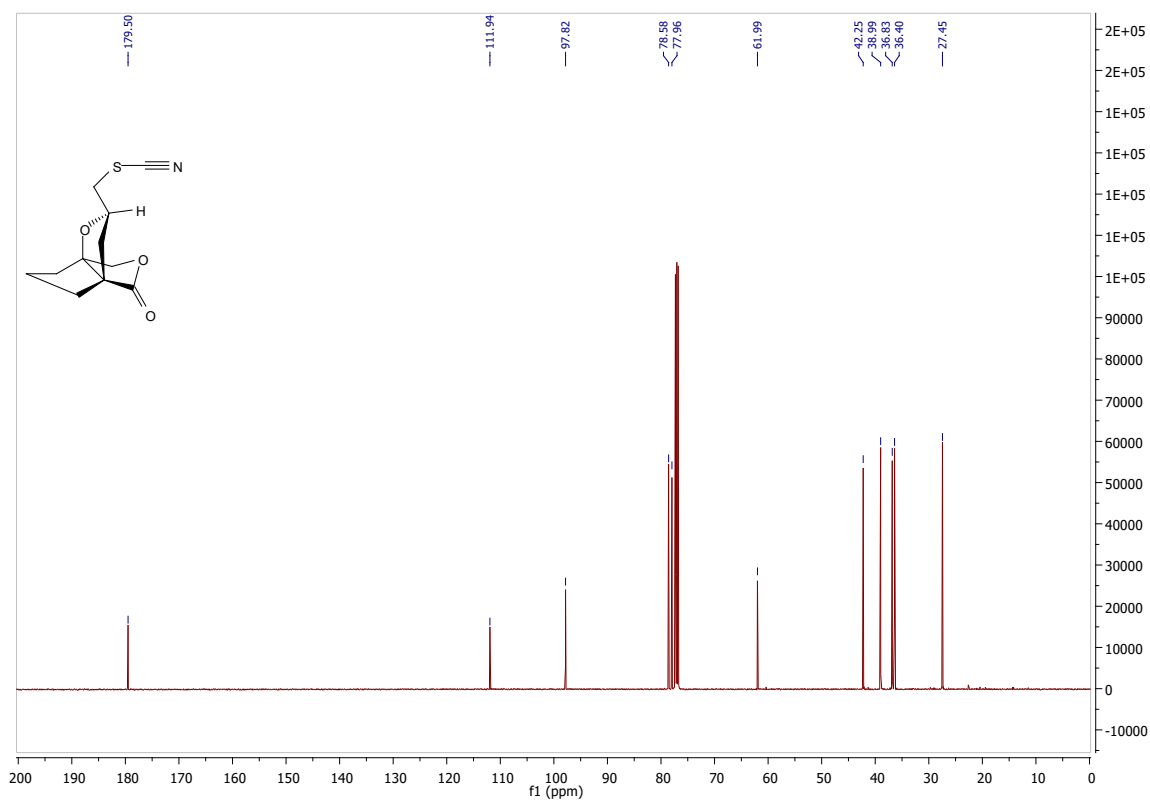
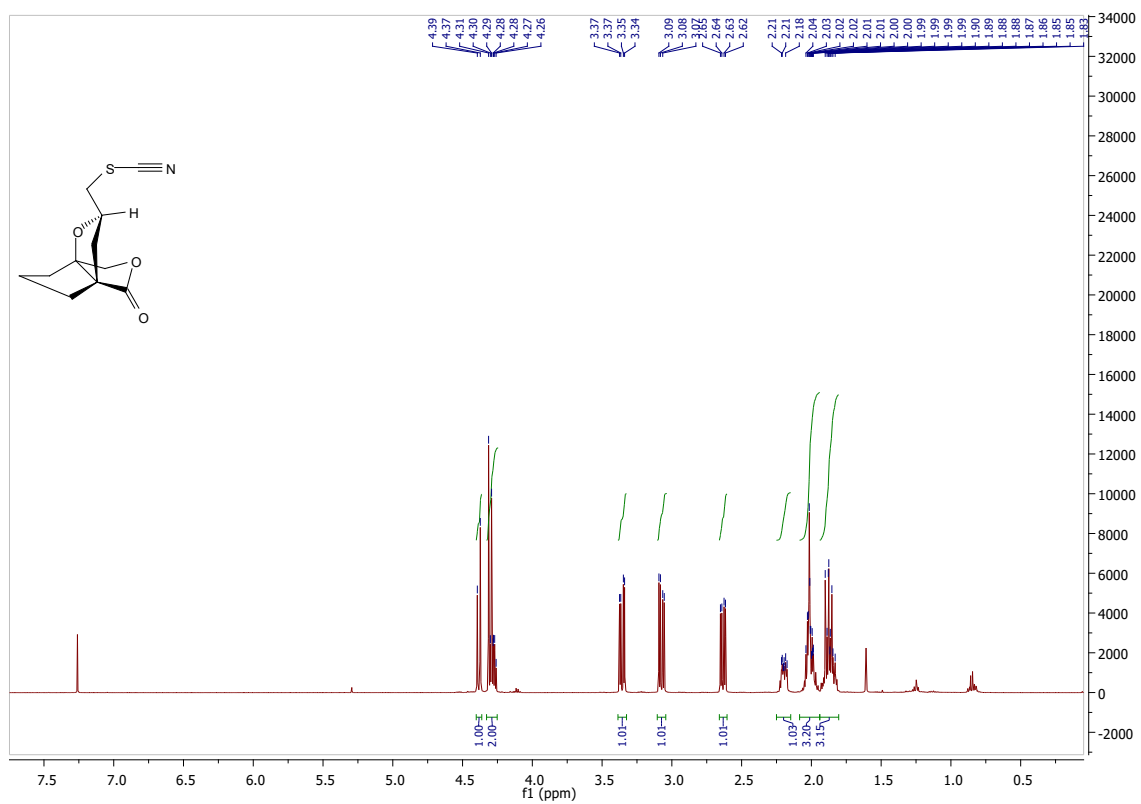
# Compound 16a



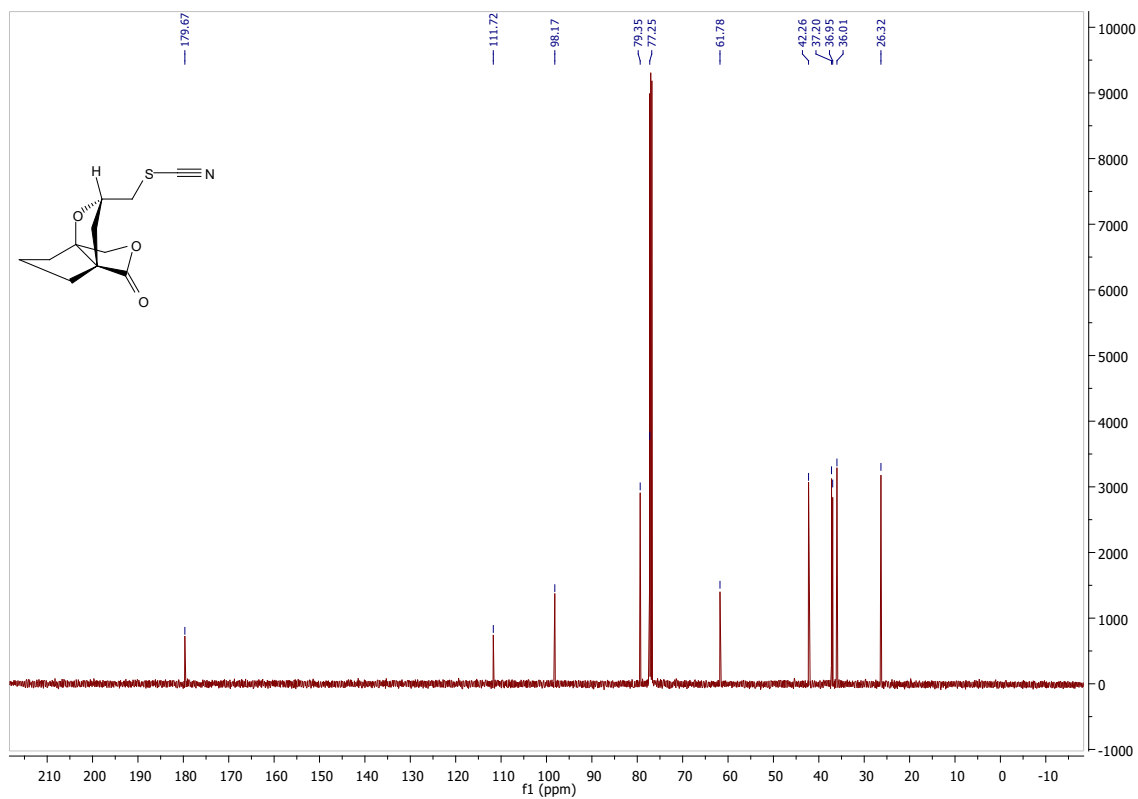
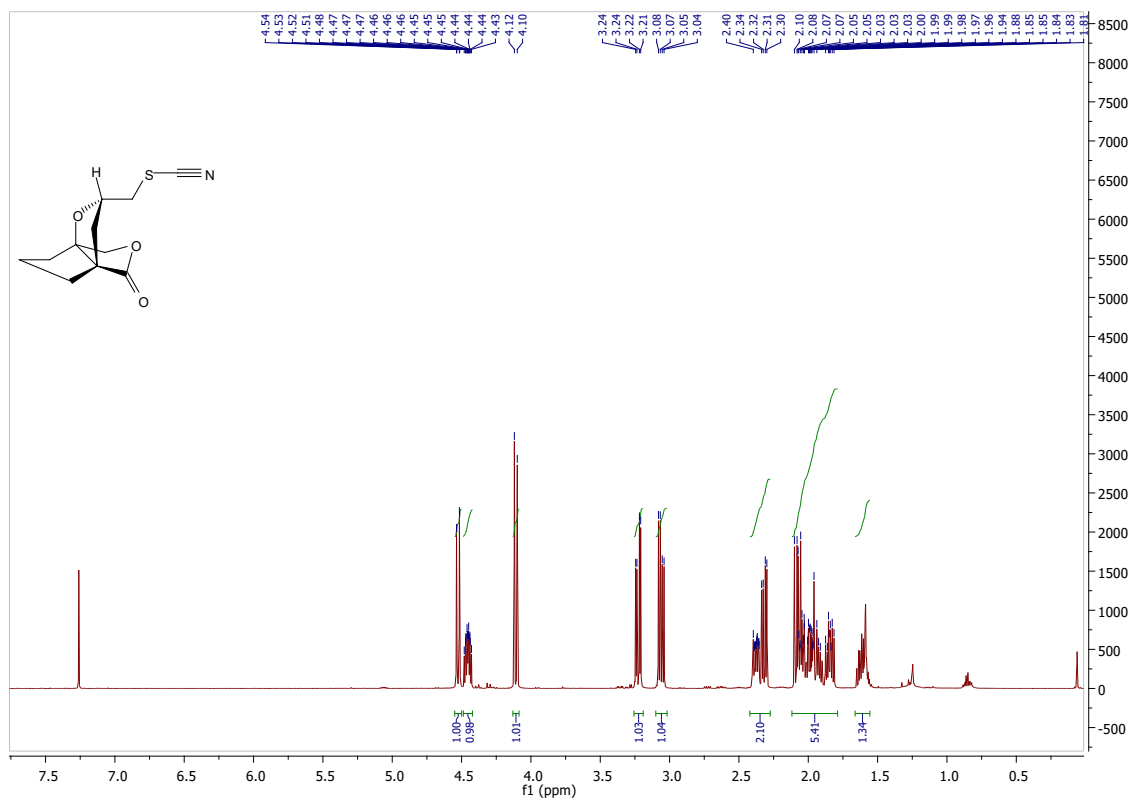
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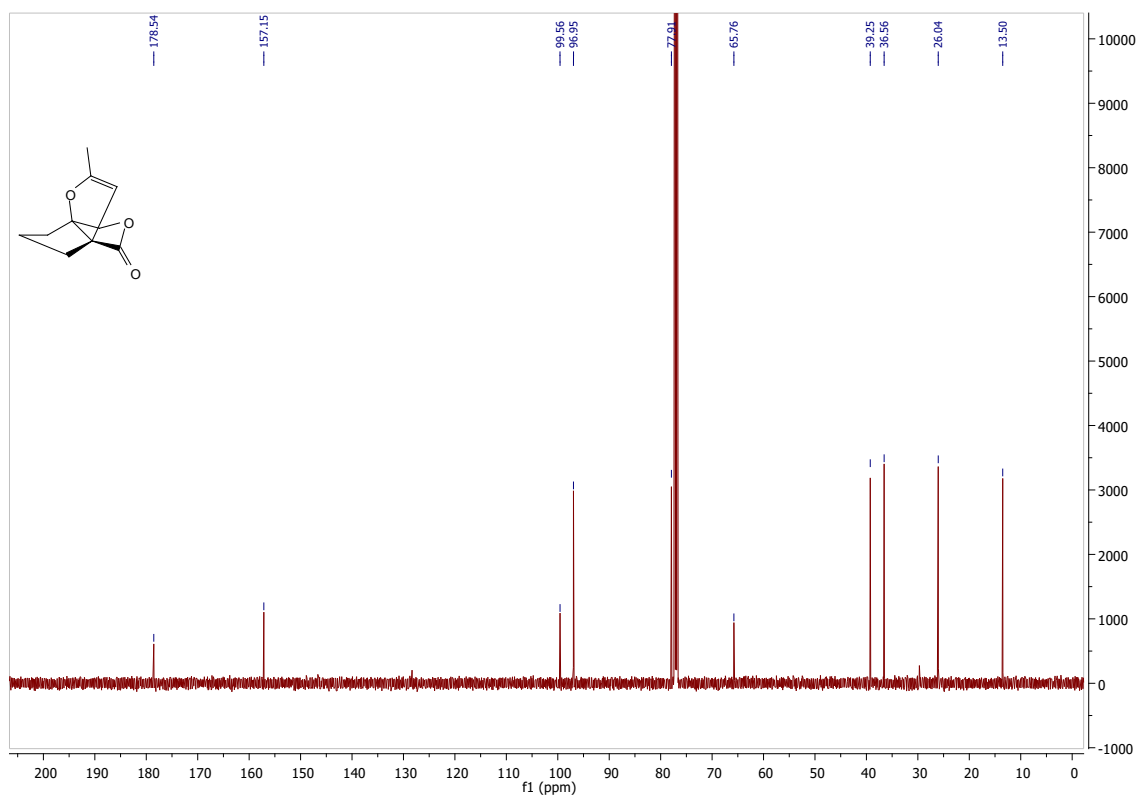
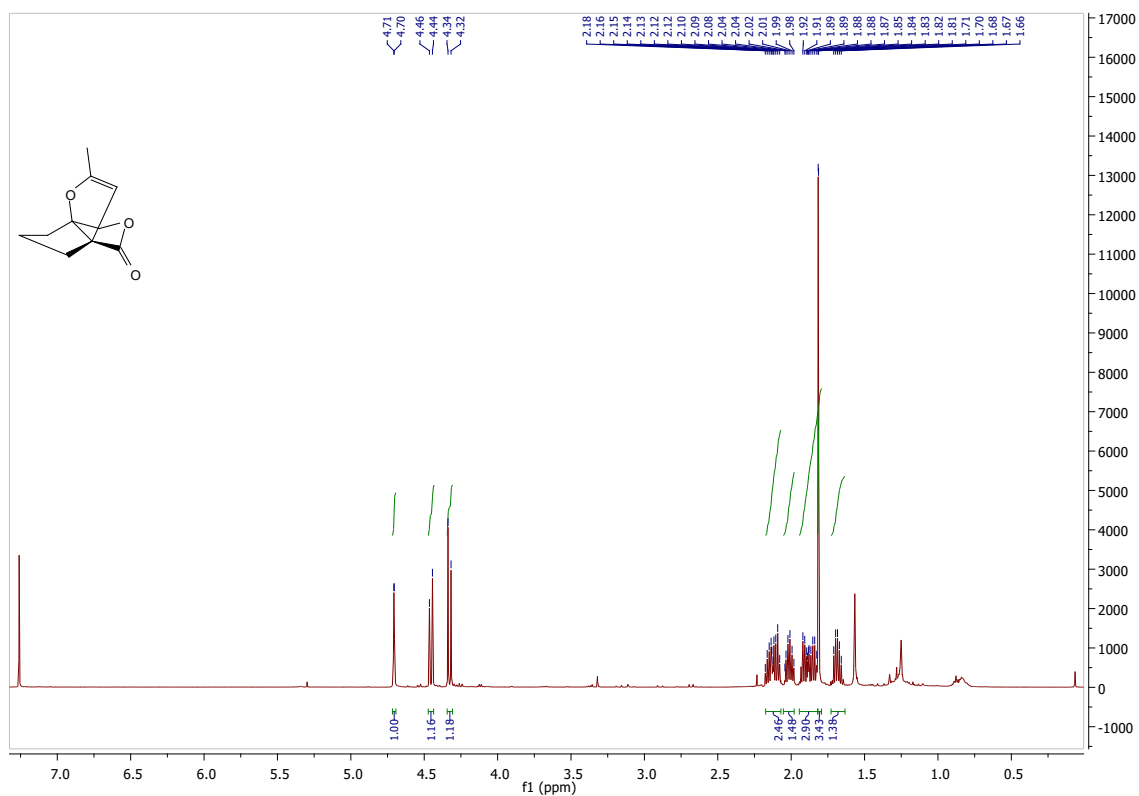
Compound **17a**



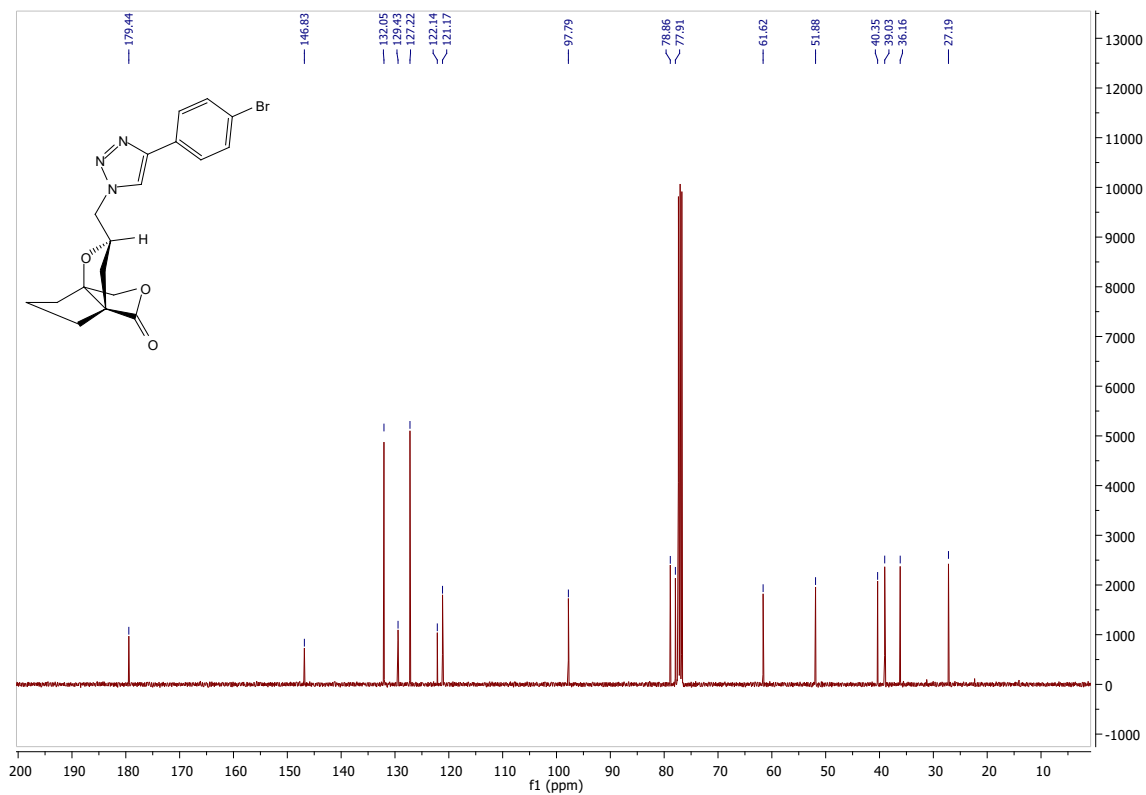
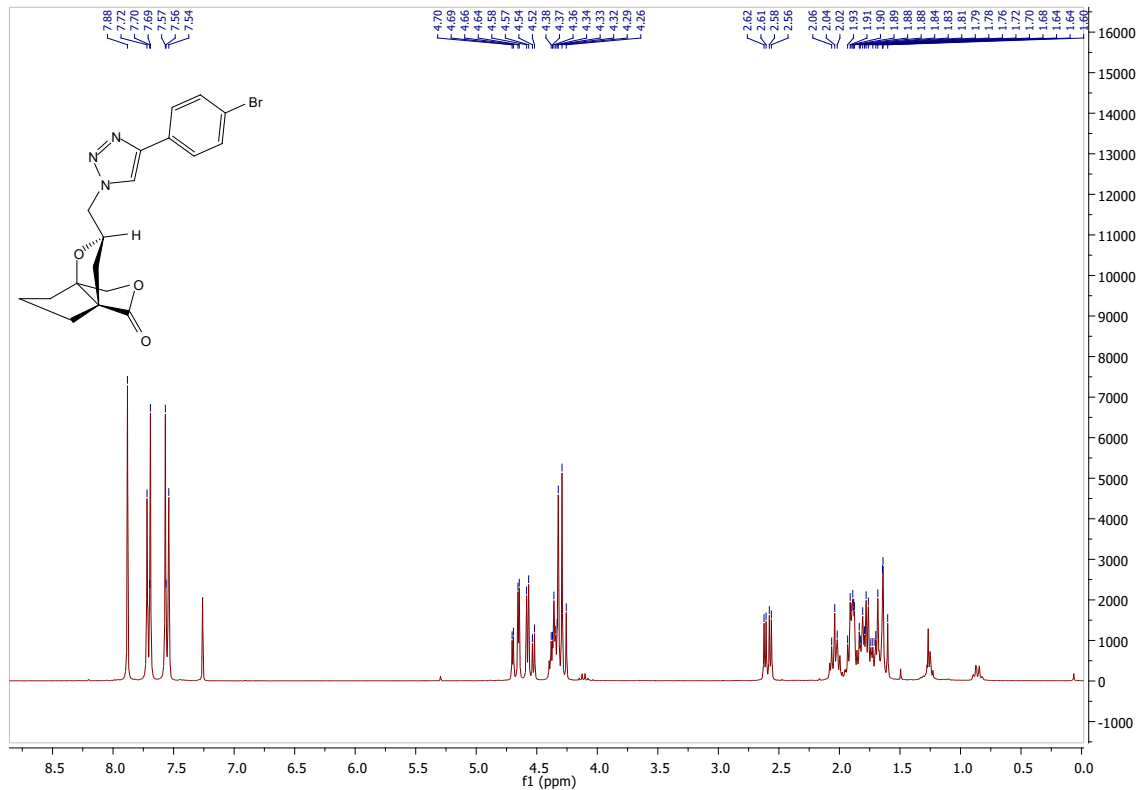
Compound **17b**



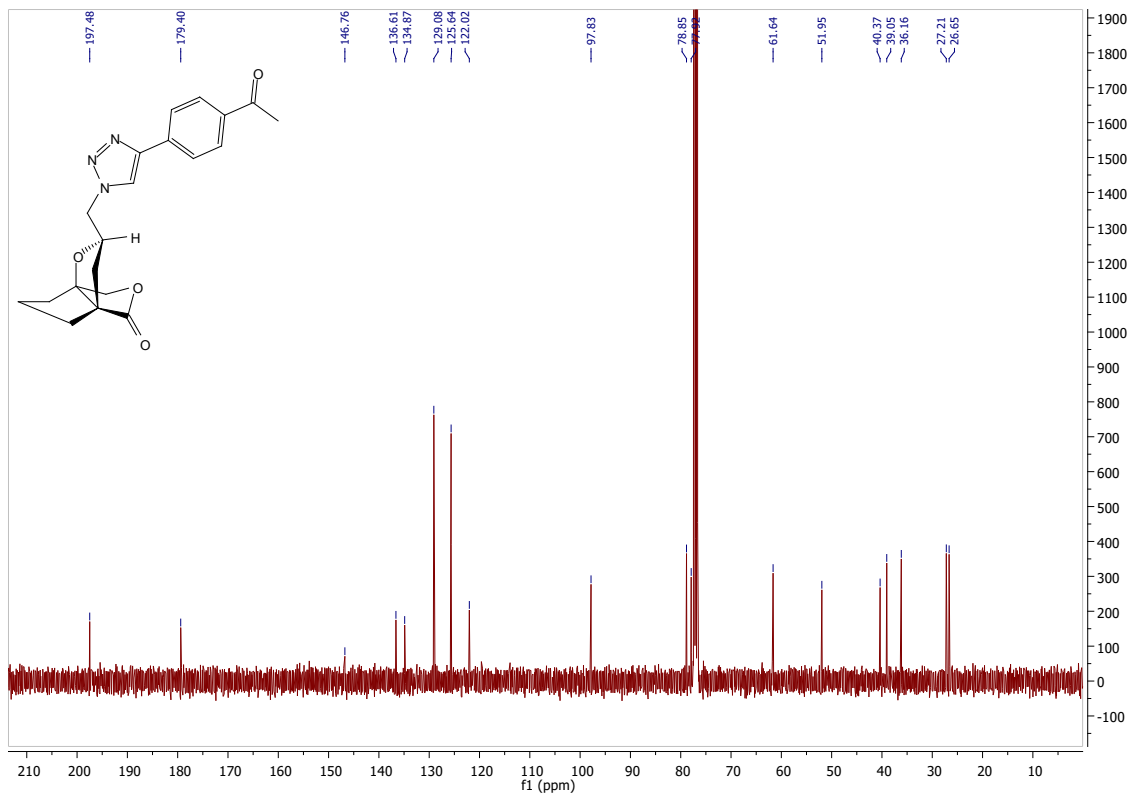
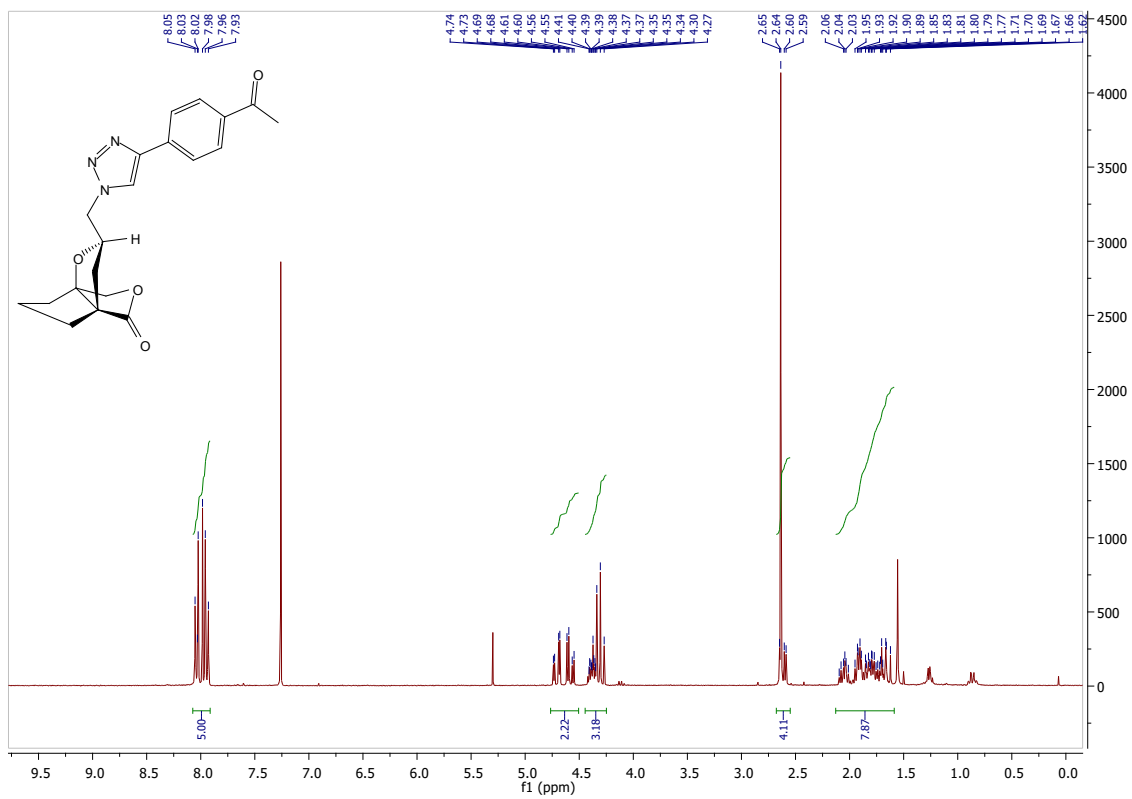
# Compound 18



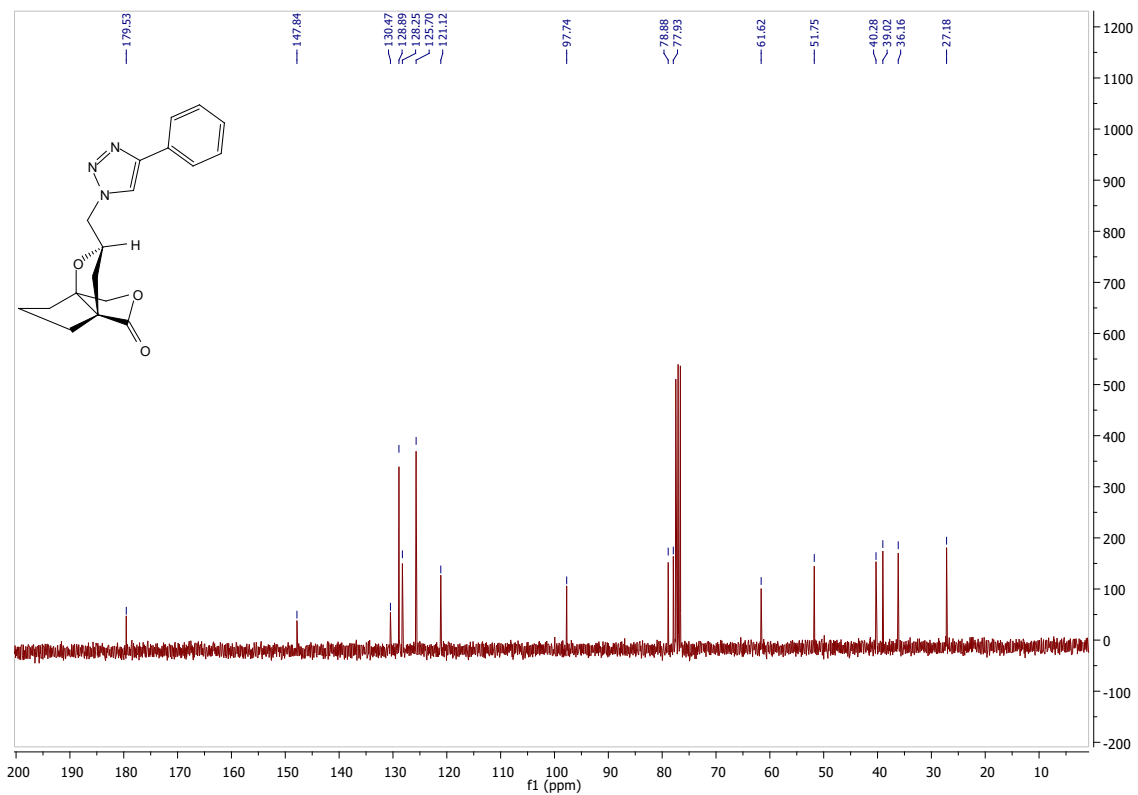
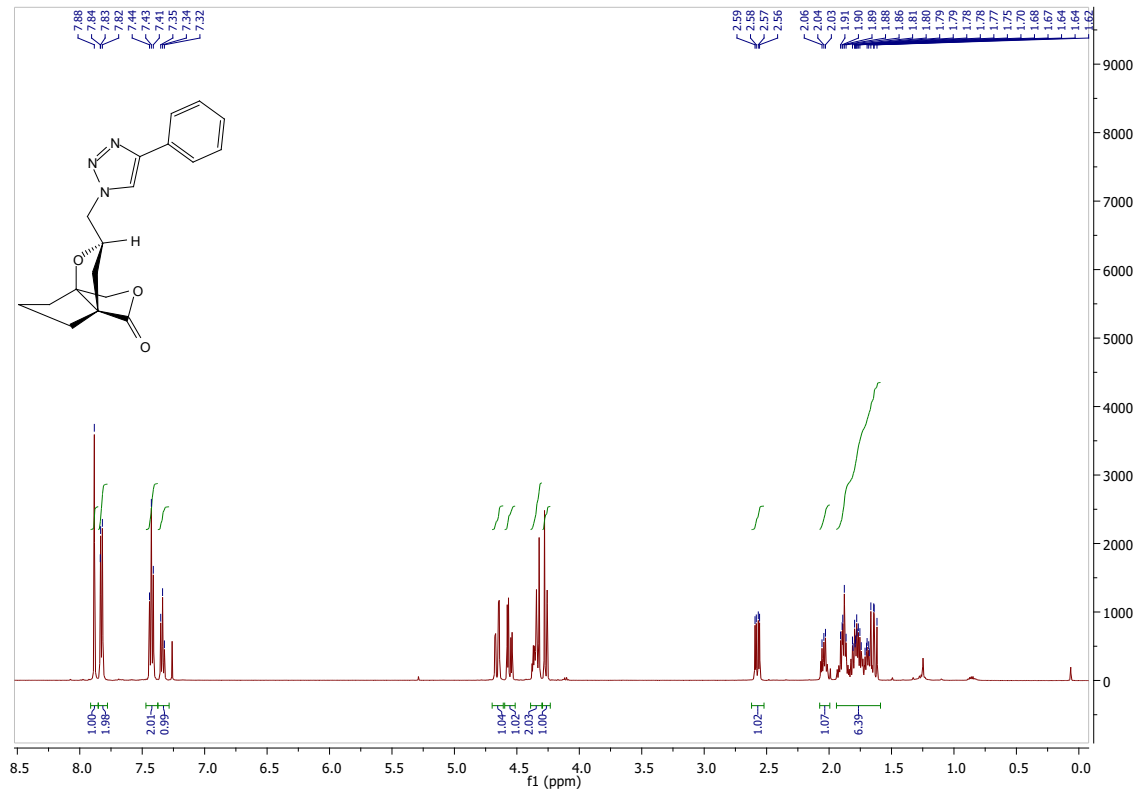
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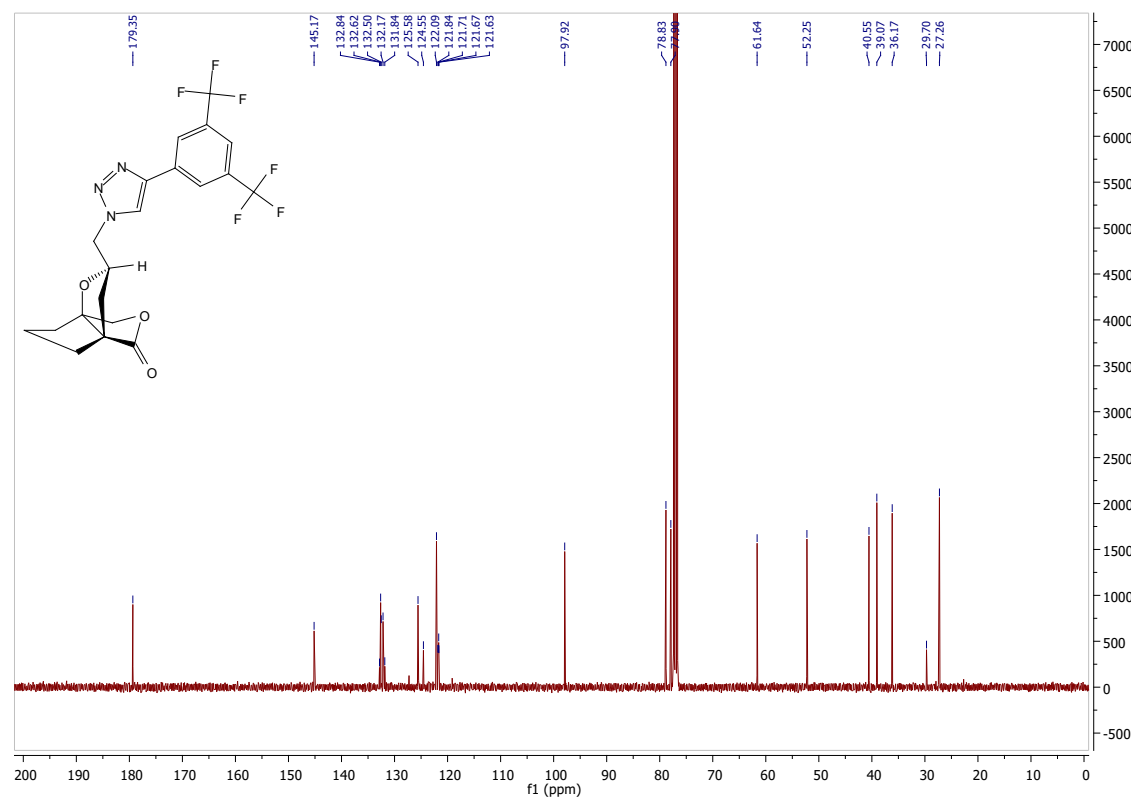
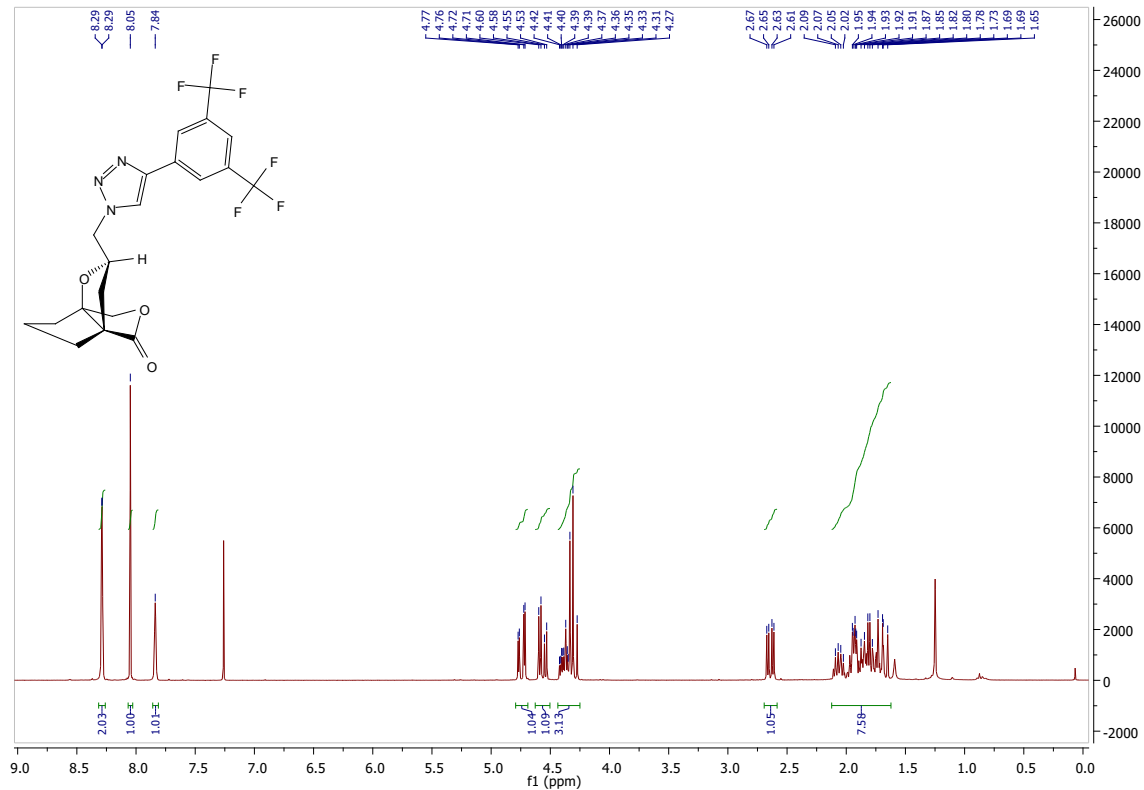
### Compound **19b**

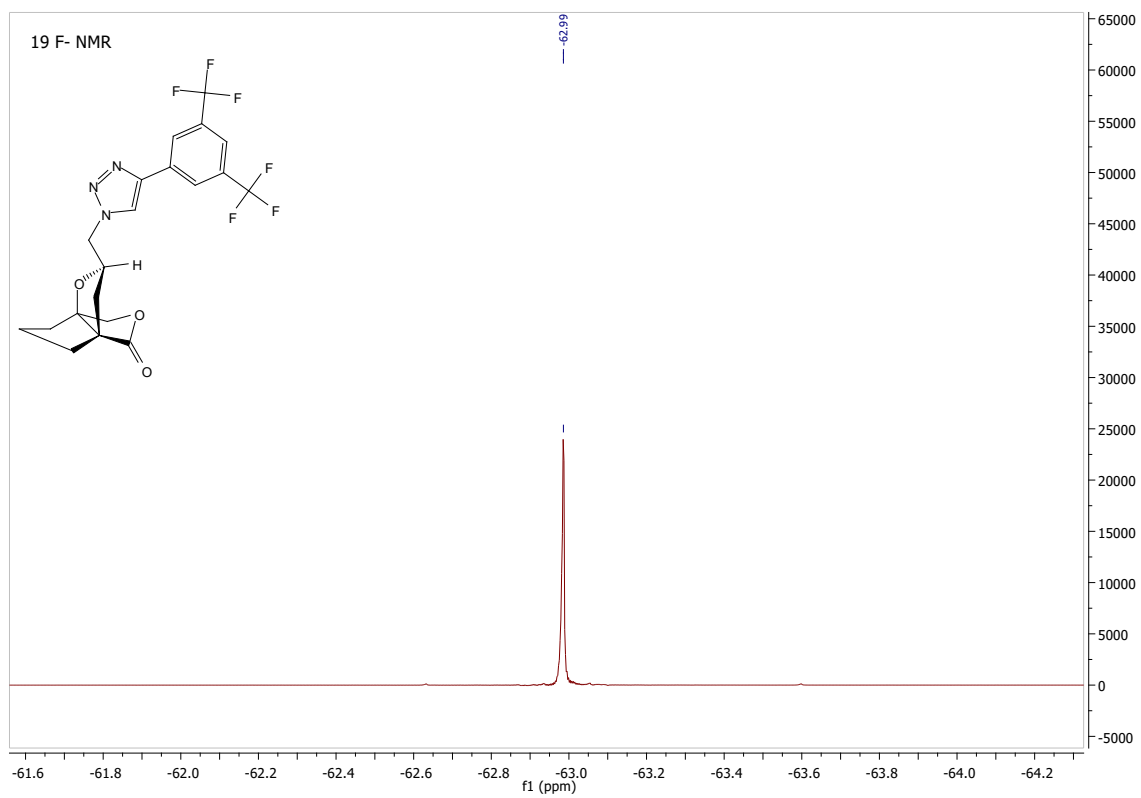


# Compound 19c

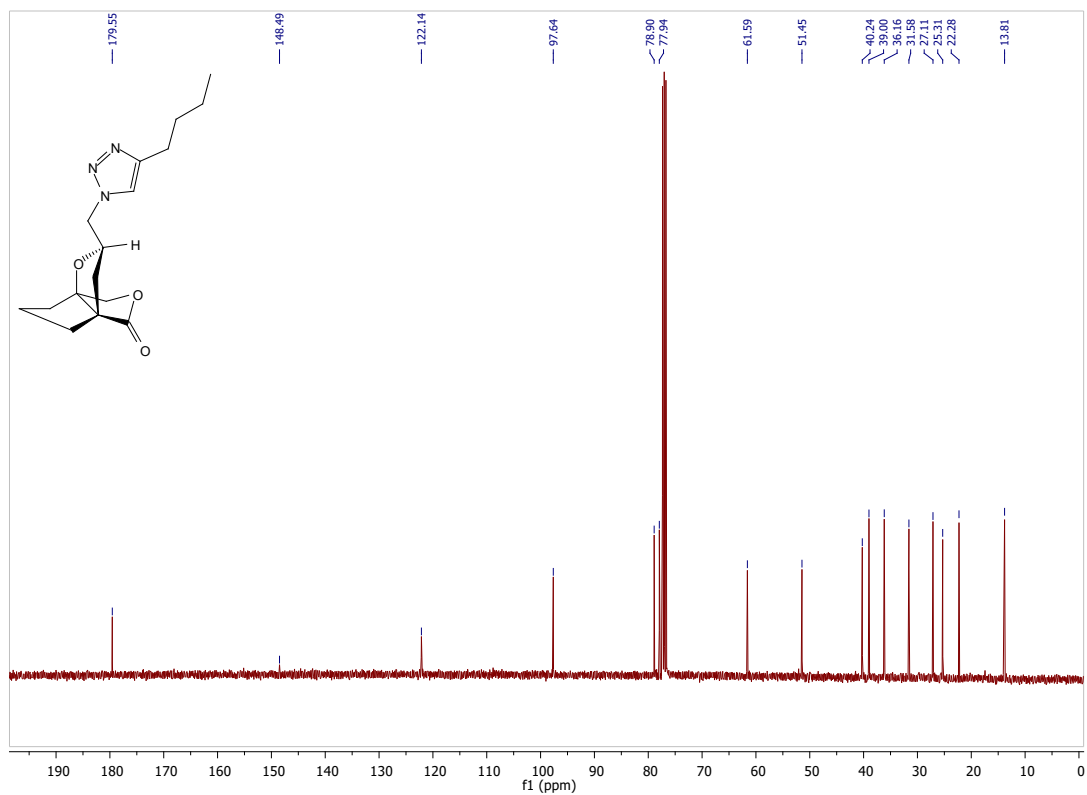
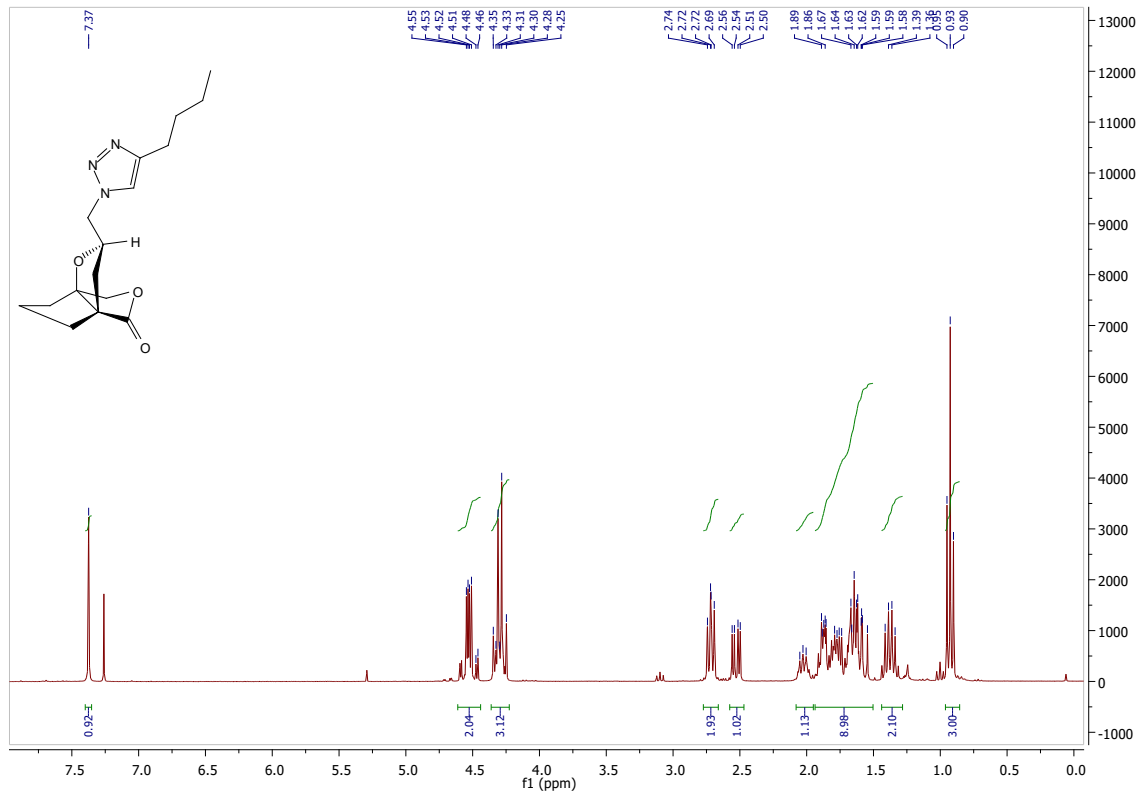


Compound **19d**

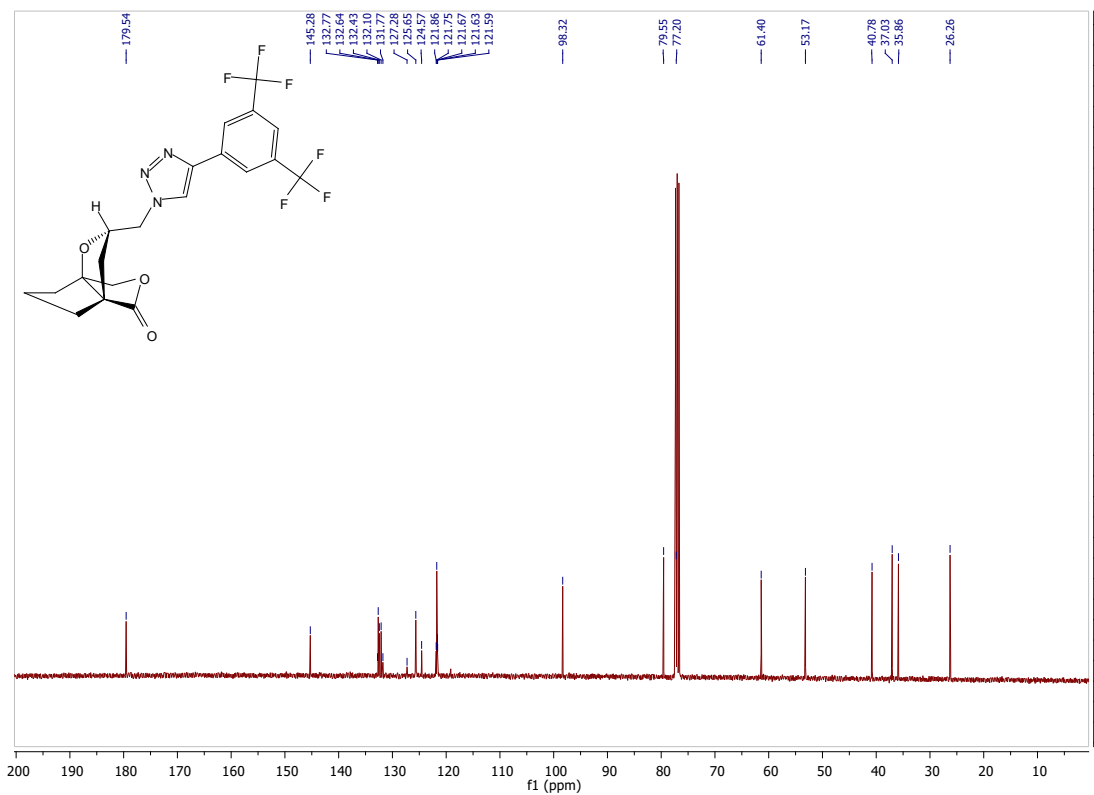
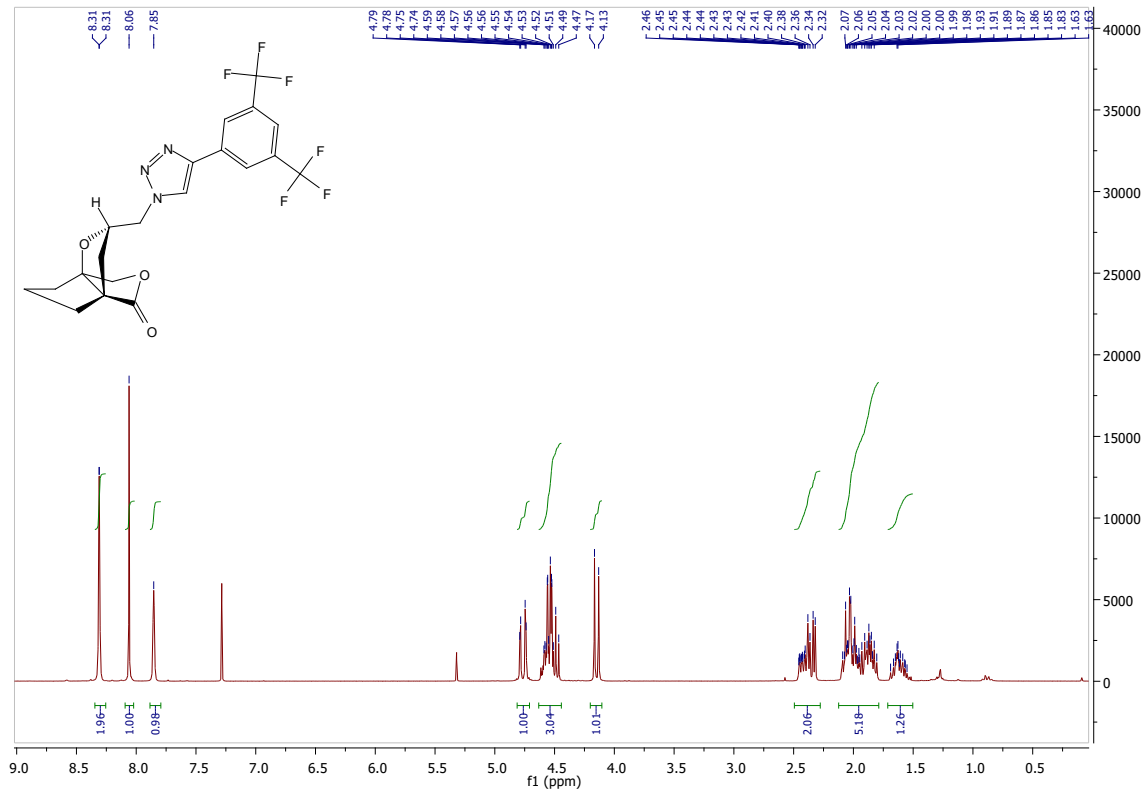




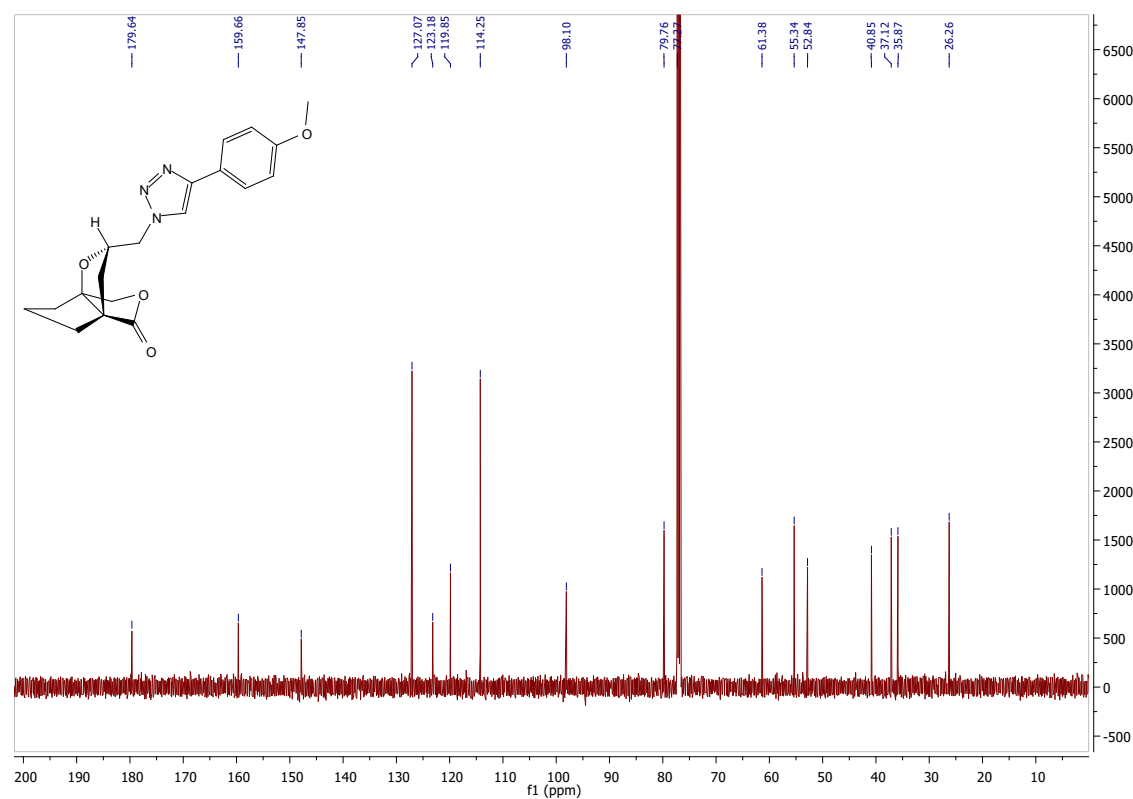
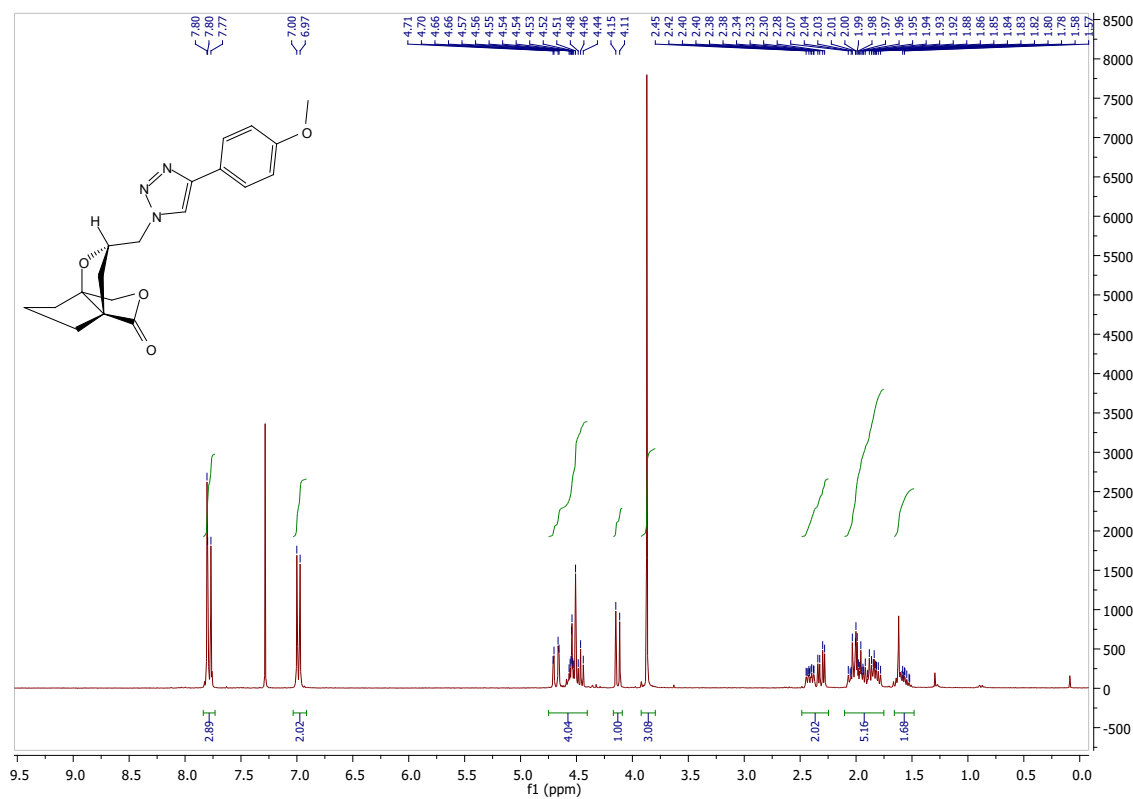
Compound **19e**



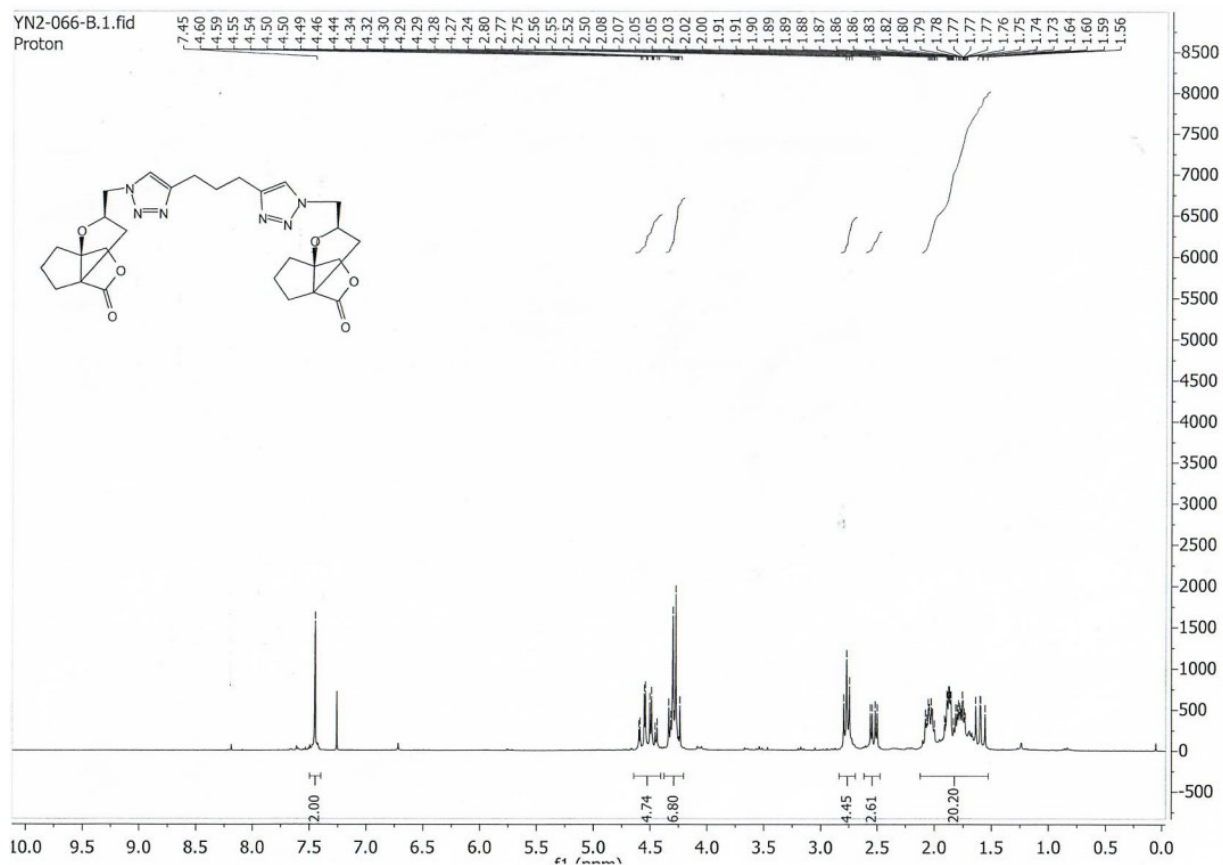
# Compound 20a



# Compound 20b



# Compound 21



YN2-066-B.3.fid  
C13-DEPT135.ab CDCl3 /opt/topspin surcoof 34 2



YN2-066-B.2.fid  
C13-CPD.ab CDCl3 /opt/topspin surcoof 34 1

