

SUPPLEMENTARY MATERIALS

Synthesis of novel saccharin derivatives

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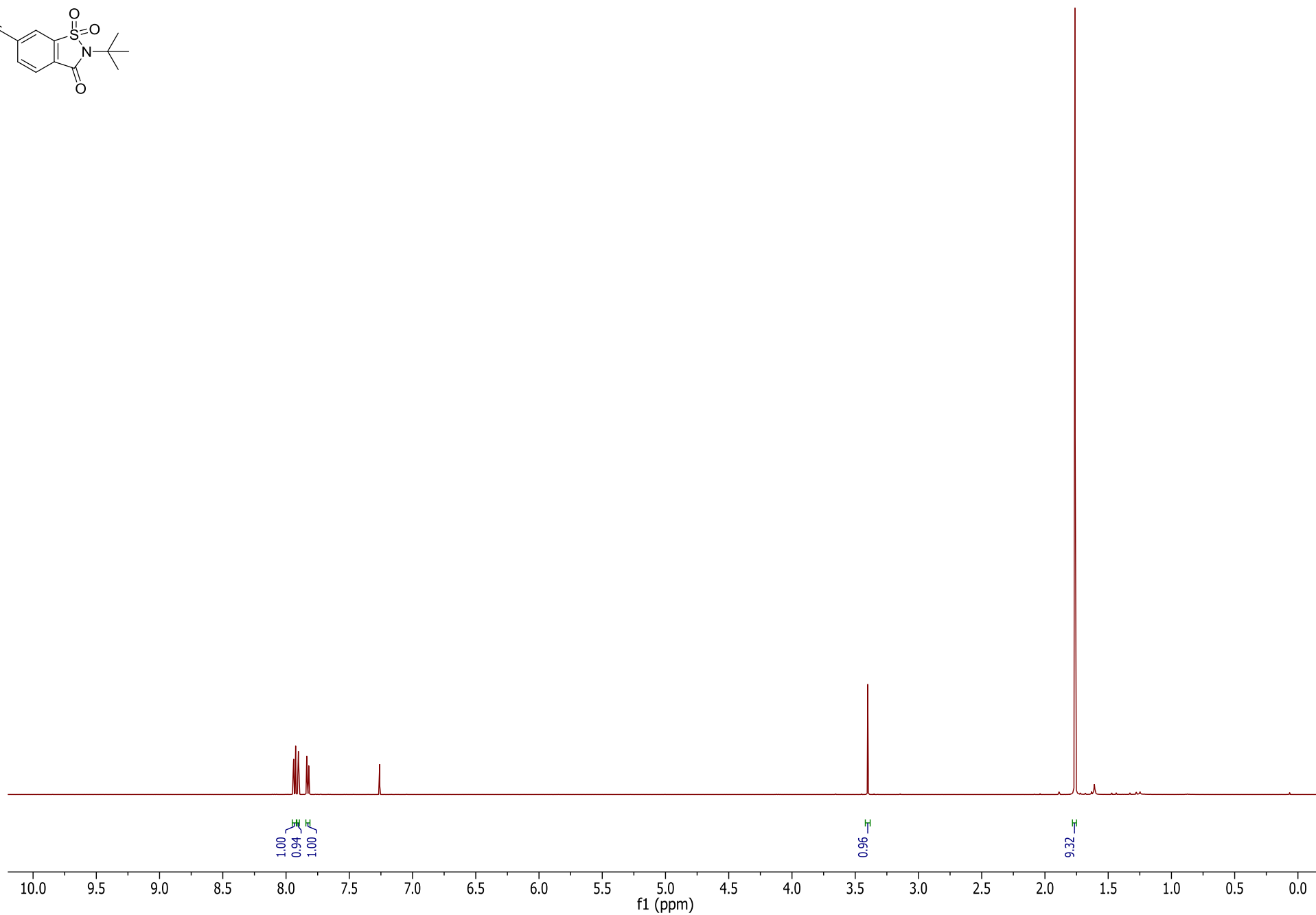
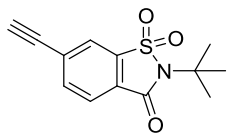
¹H, ¹³C and ¹⁹F NMR spectra

Compound 5 500 MHz ¹ H NMR CDCl ₃	S4
Compound 5 125 MHz ¹³ C NMR CDCl ₃	S5
Compound 6 500 MHz ¹ H NMR (CD ₃) ₂ SO	S6
Compound 6 125 MHz ¹³ C NMR (CD ₃) ₂ SO	S7
Compound 8 500 MHz ¹ H NMR CDCl ₃	S8
Compound 8 125 MHz ¹³ C NMR CDCl ₃	S9
Compound 9 500 MHz ¹ H NMR CDCl ₃	S10
Compound 9 125 MHz ¹³ C NMR CDCl ₃	S11
Compound 10 500 MHz ¹ H NMR (CD ₃) ₂ SO	S12
Compound 10 125 MHz ¹³ C NMR (CD ₃) ₂ SO	S13
Compound 11 500 MHz ¹ H NMR (CD ₃) ₂ SO	S14
Compound 11 125 MHz ¹³ C NMR (CD ₃) ₂ SO	S15
Compound 12 500 MHz ¹ H NMR (CD ₃) ₂ SO	S16
Compound 12 125 MHz ¹³ C NMR (CD ₃) ₂ SO	S17
Compound 13 500 MHz ¹ H NMR (CD ₃) ₂ SO	S18
Compound 13 125 MHz ¹³ C NMR (CD ₃) ₂ SO	S19
Compound 14 376 MHz ¹⁹ F NMR (CD ₃) ₂ SO.....	S20
Compound 14 500 MHz ¹ H NMR (CD ₃) ₂ SO	S21

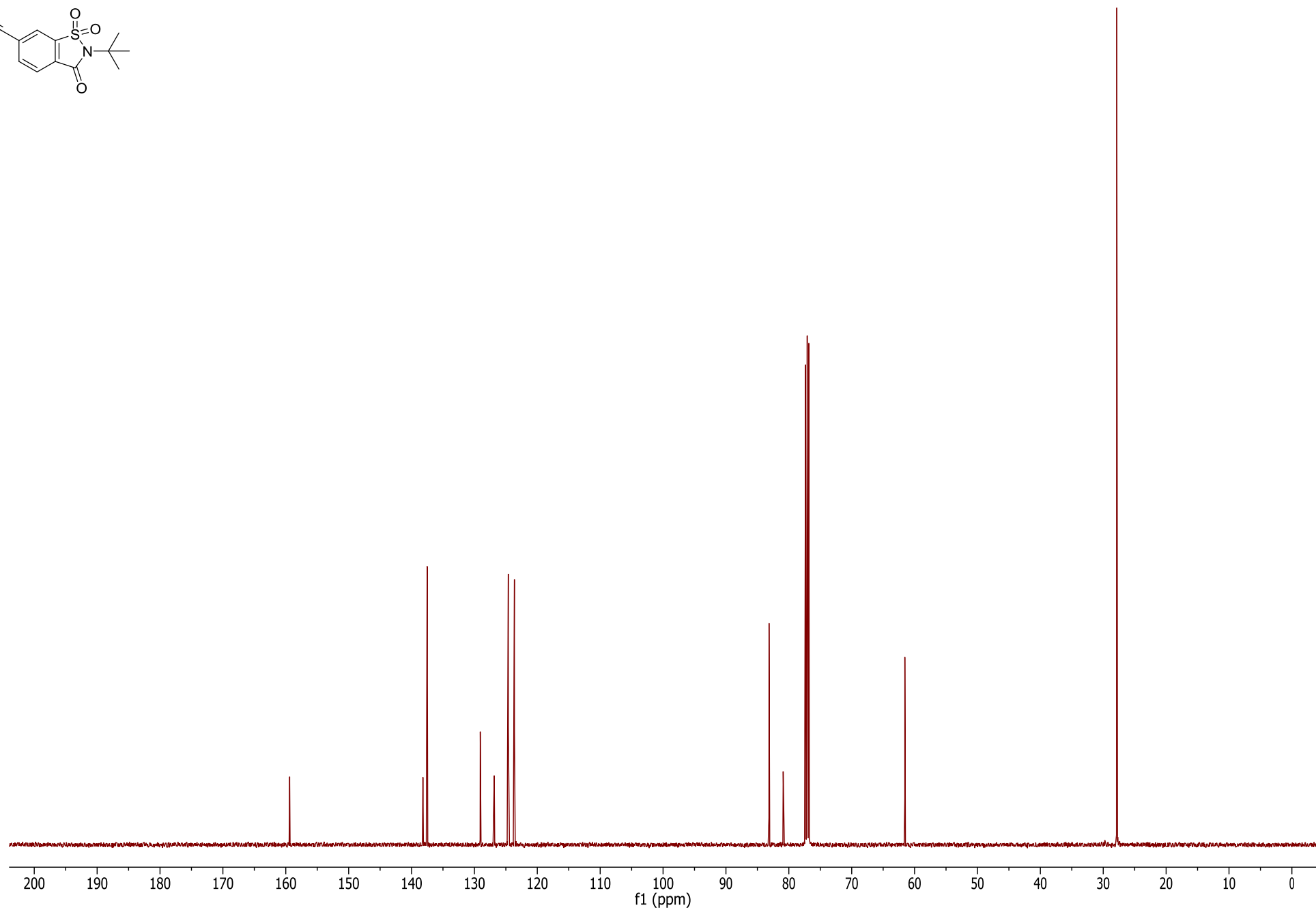
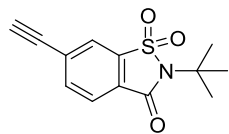
Compound 14 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S22
Compound 15 500 MHz ^1H NMR (CD_3) $_2$ SO	S23
Compound 15 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S24
Compound 17 500 MHz ^1H NMR (CD_3) $_2$ SO	S25
Compound 17 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S26
Compound 19 500 MHz ^1H NMR (CD_3) $_2$ SO	S27
Compound 19 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S28
Compound 20 500 MHz ^1H NMR (CD_3) $_2$ SO	S29
Compound 20 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S30
Compound 21 500 MHz ^1H NMR (CD_3) $_2$ SO	S31
Compound 21 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S32
Compound 22 500 MHz ^1H NMR (CD_3) $_2$ SO	S33
Compound 22 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S34
Compound 24 500 MHz ^1H NMR (CD_3) $_2$ SO	S35
Compound 24 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S36
Compound 25 500 MHz ^1H NMR (CD_3) $_2$ SO	S37
Compound 25 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S38
Compound 26 500 MHz ^1H NMR (CD_3) $_2$ SO	S39
Compound 26 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S40
Compound 27 500 MHz ^1H NMR (CD_3) $_2$ SO	S41
Compound 27 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S42
Compound 28 500 MHz ^1H NMR (CD_3) $_2$ SO	S43
Compound 28 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S44
Compound 29 500 MHz ^1H NMR (CD_3) $_2$ SO	S45
Compound 29 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S46
Compound 29 376 MHz ^{19}F NMR (CD_3) $_2$ SO	S47
Compound 30 500 MHz ^1H NMR (CD_3) $_2$ SO	S48
Compound 30 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S49
Compound 31 500 MHz ^1H NMR (CD_3) $_2$ SO	S50
Compound 31 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S51
Compound 31 HSQC NMR (CD_3) $_2$ SO	S52
Compound 32a + 32b 500 MHz ^1H NMR (CD_3) $_2$ SO	S53
Compound 32a + 32b 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S54
Compound 33 500 MHz ^1H NMR (CD_3) $_2$ SO	S55
Compound 33 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S56
Compound 34 500 MHz ^1H NMR (CD_3) $_2$ SO	S57

Compound 34 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S58
Compound 35 500 MHz ^1H NMR (CD_3) $_2$ SO	S59
Compound 35 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S60
Compound 36 500 MHz ^1H NMR (CD_3) $_2$ SO	S61
Compound 36 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S62
Compound 37 500 MHz ^1H NMR (CD_3) $_2$ SO	S63
Compound 37 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S64
Compound 38 500 MHz ^1H NMR (CD_3) $_2$ SO	S65
Compound 38 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S66
Compound 39 500 MHz ^1H NMR (CD_3) $_2$ SO	S67
Compound 39 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S68
Compound 40 500 MHz ^1H NMR (CD_3) $_2$ SO	S69
Compound 40 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S70
Compound 41 500 MHz ^1H NMR (CD_3) $_2$ SO	S71
Compound 41 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S72
Compound 42 500 MHz ^1H NMR (CD_3) $_2$ SO	S73
Compound 42 125 MHz ^{13}C NMR (CD_3) $_2$ SO	S74

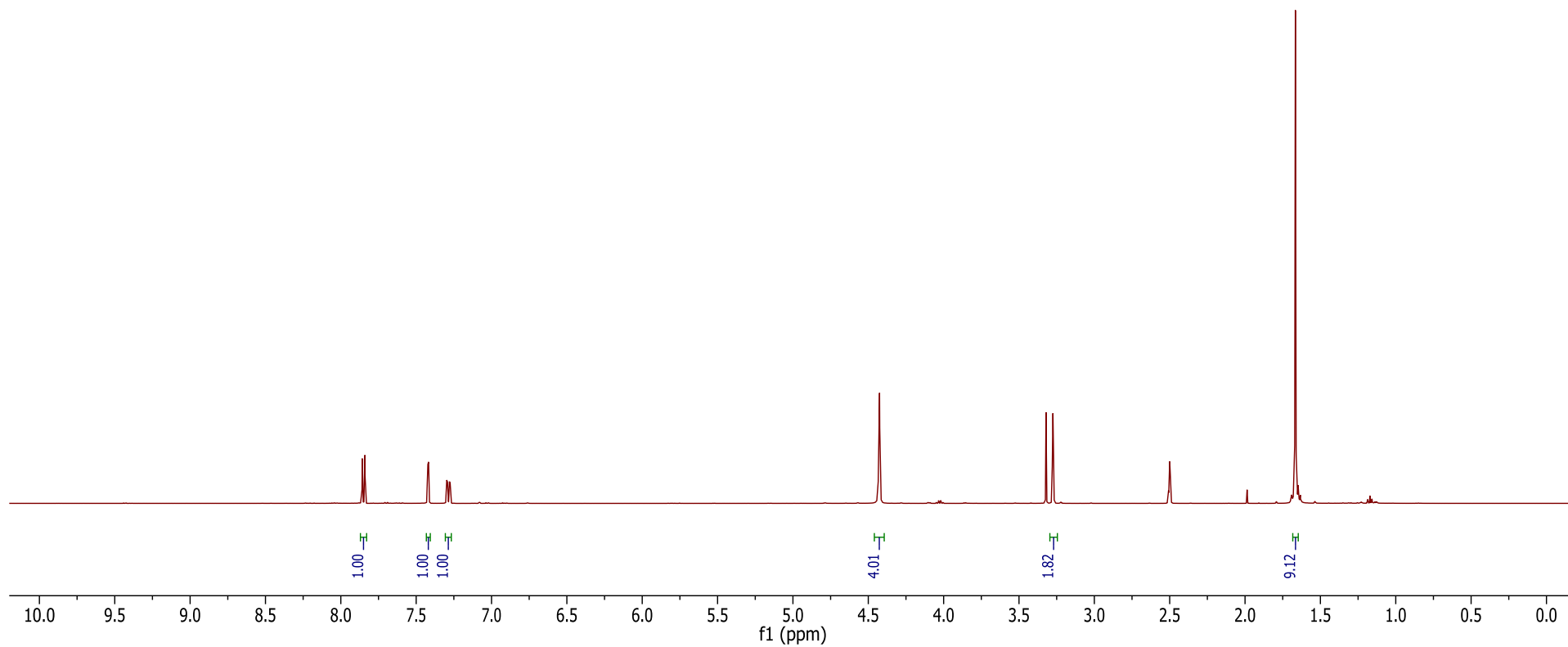
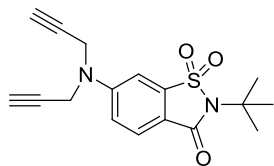
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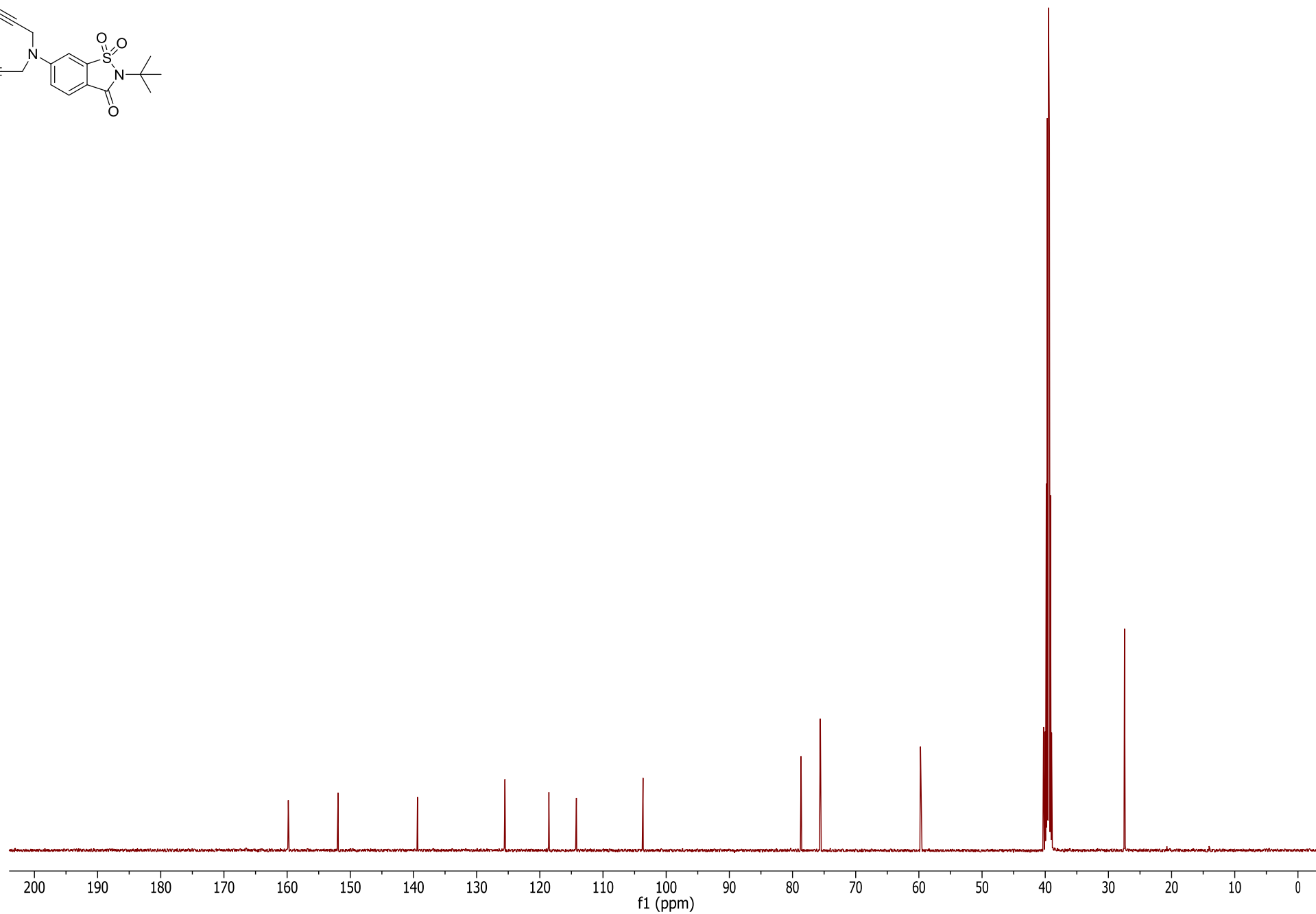
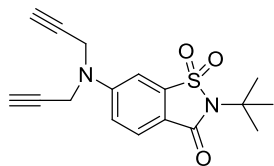
Compound 5 125 MHz ^{13}C NMR CDCl_3



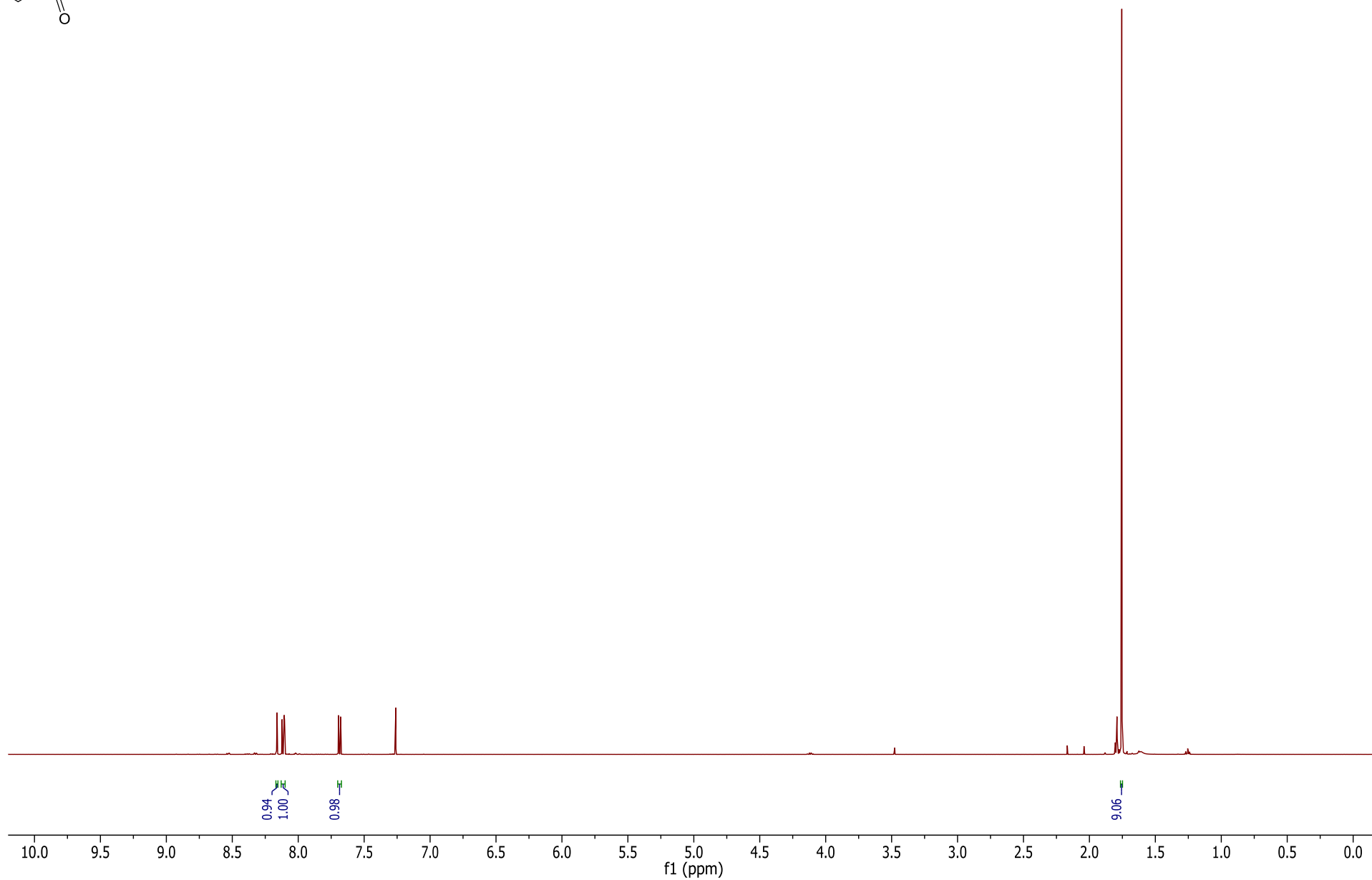
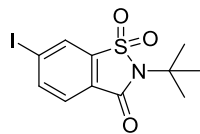
Compound **6** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



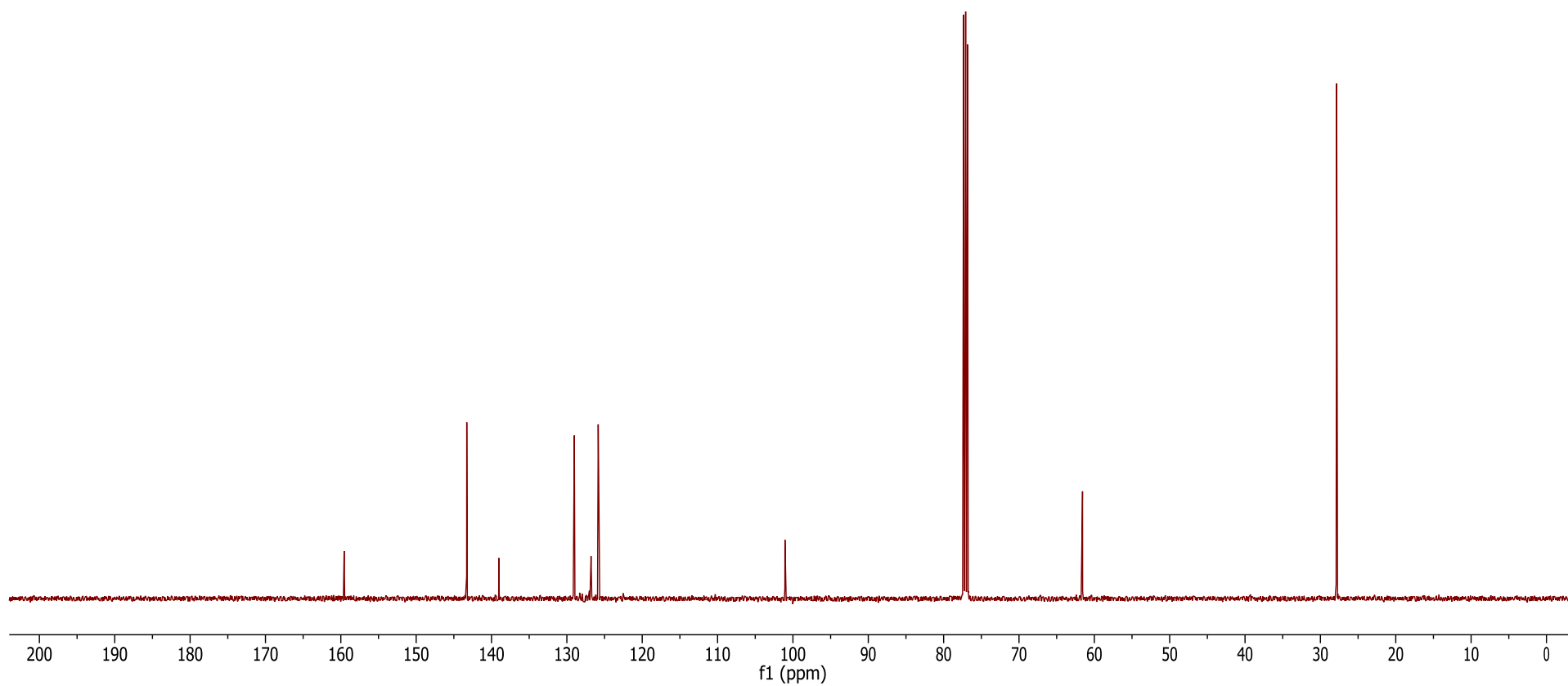
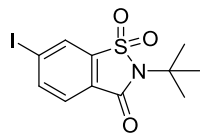
Compound **6** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



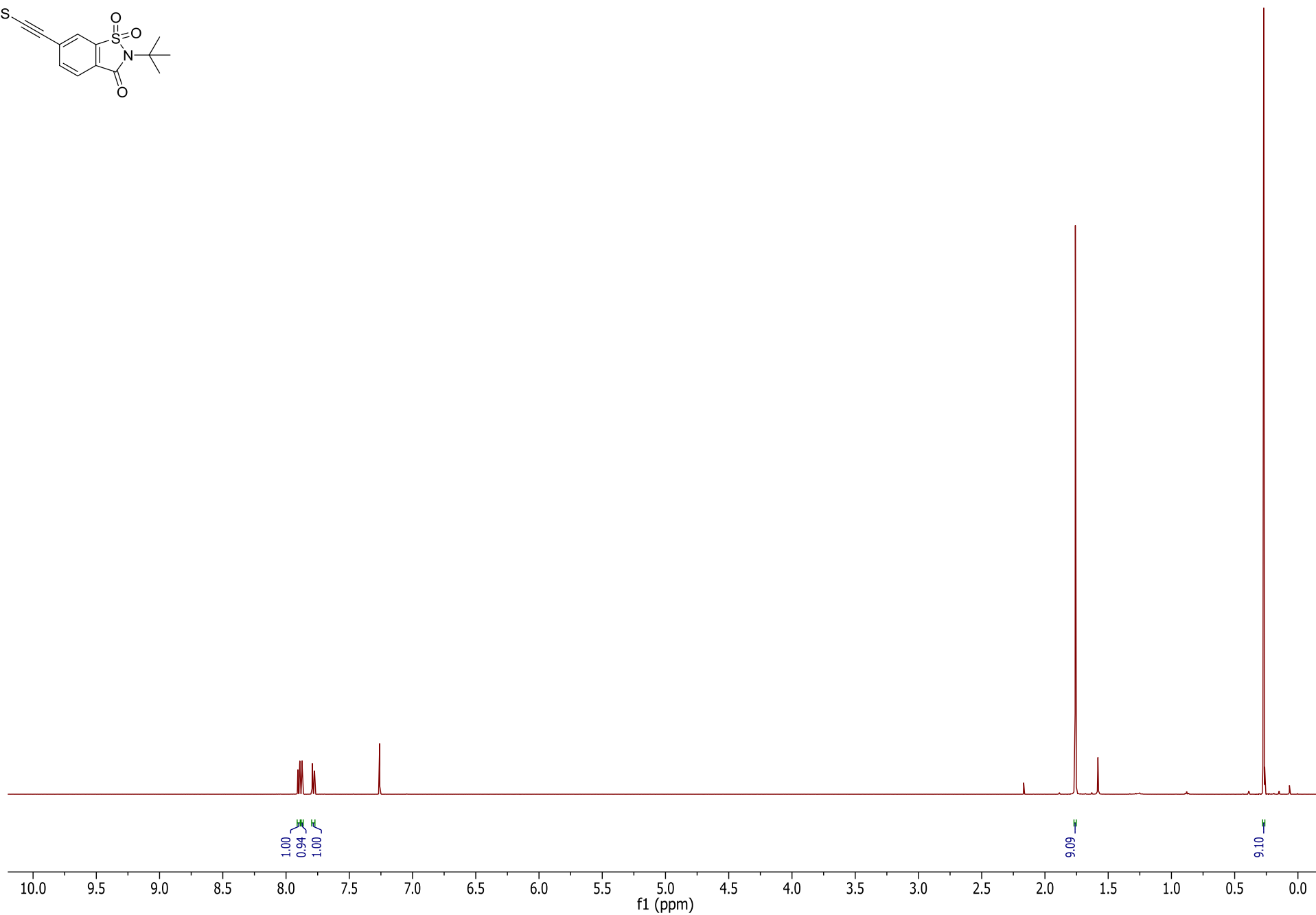
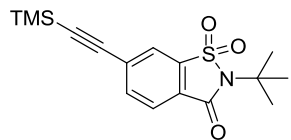
Compound **8** 500 MHz ^1H NMR CDCl_3



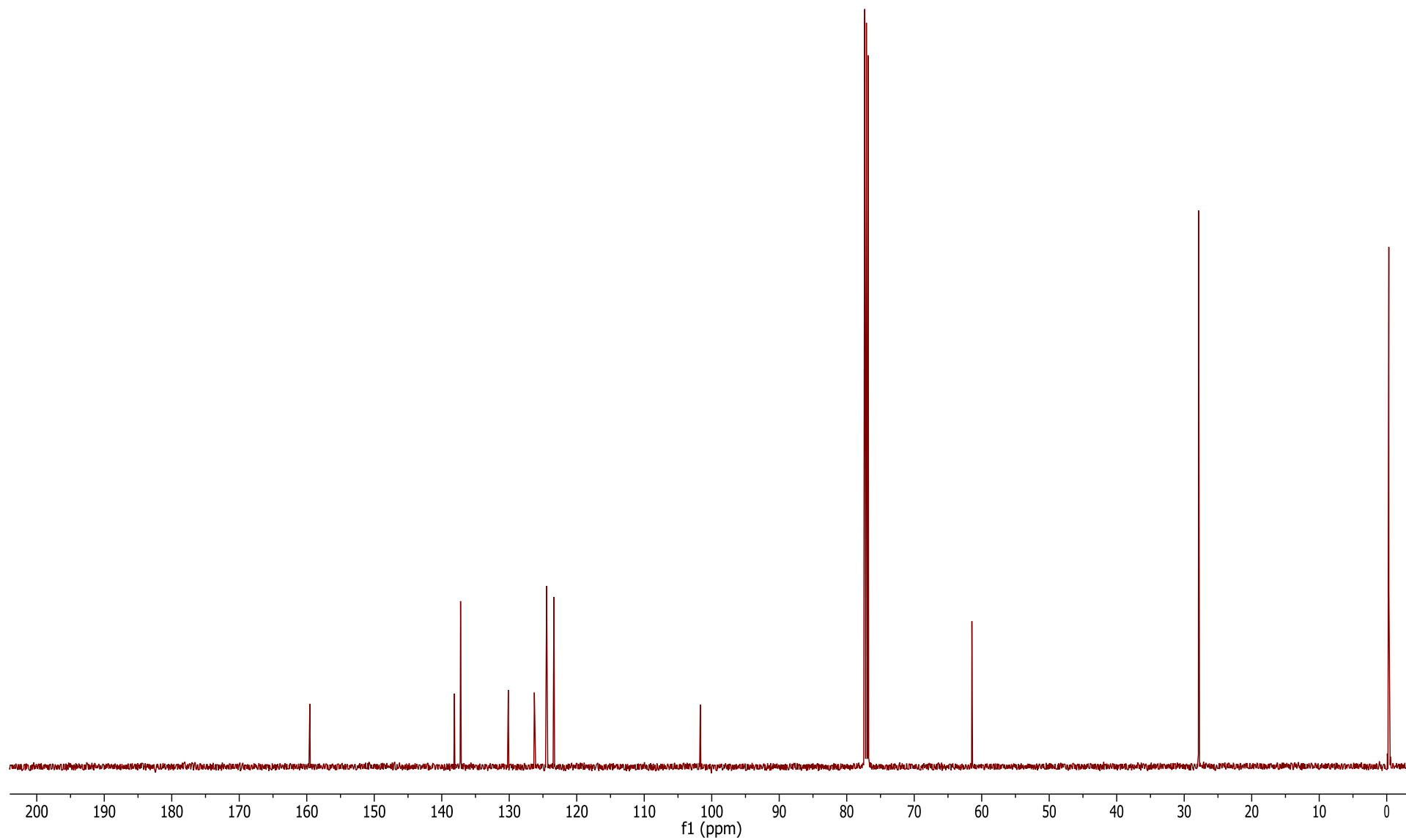
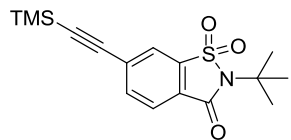
Compound **8** 125 MHz ^{13}C NMR CDCl_3



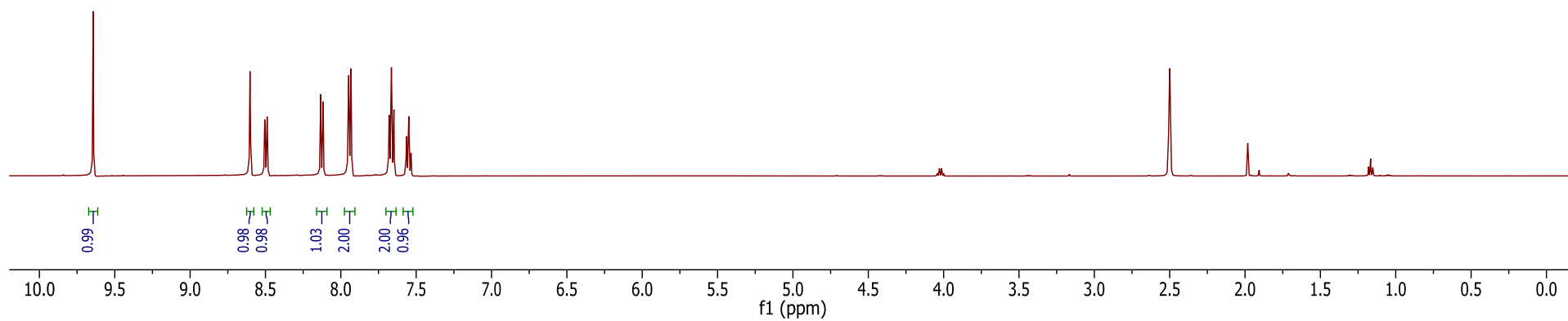
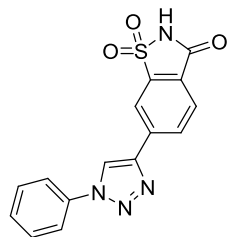
Compound **9** 500 MHz ^1H NMR CDCl_3



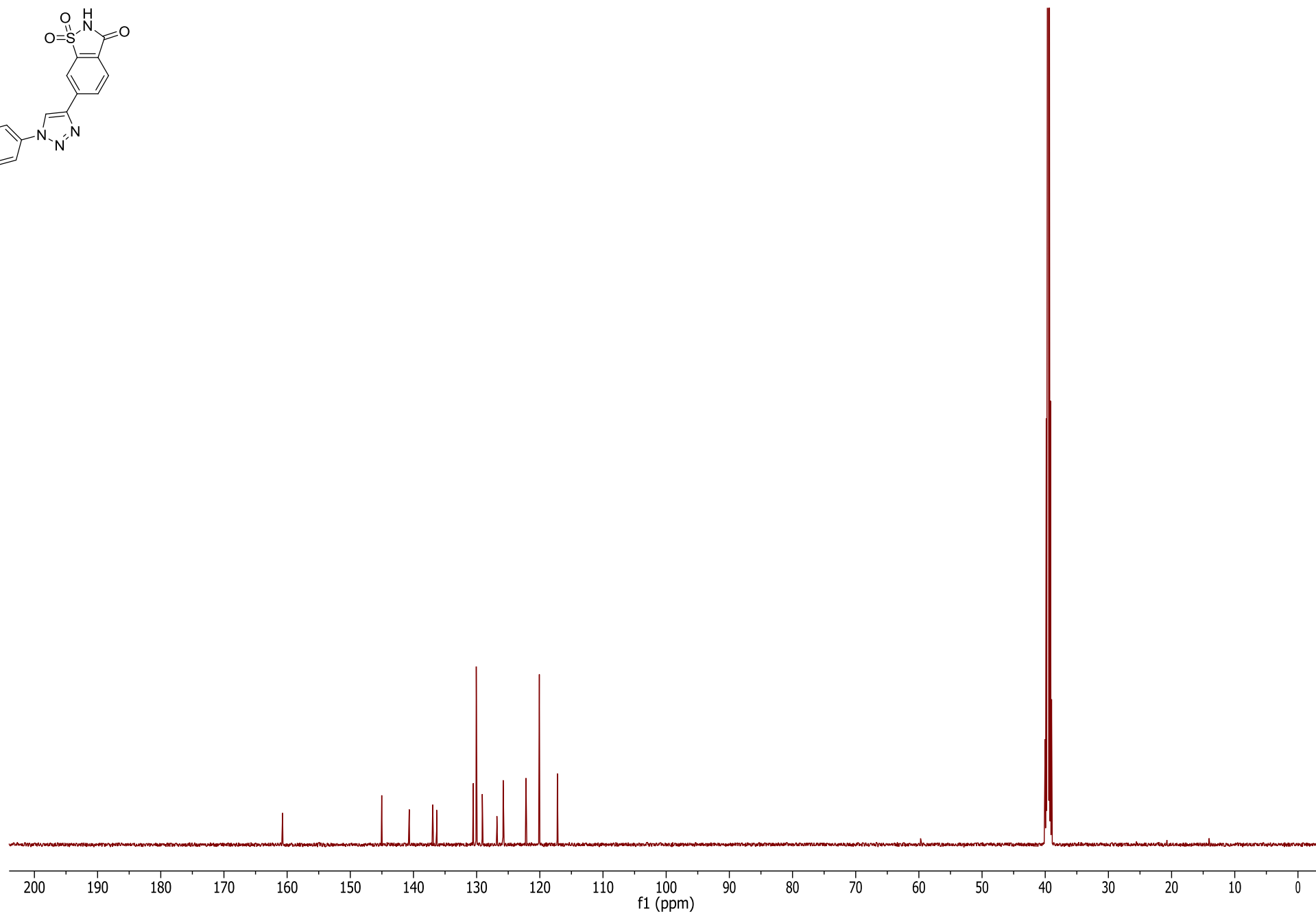
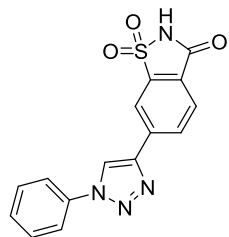
Compound **9** 125 MHz ^{13}C NMR CDCl_3



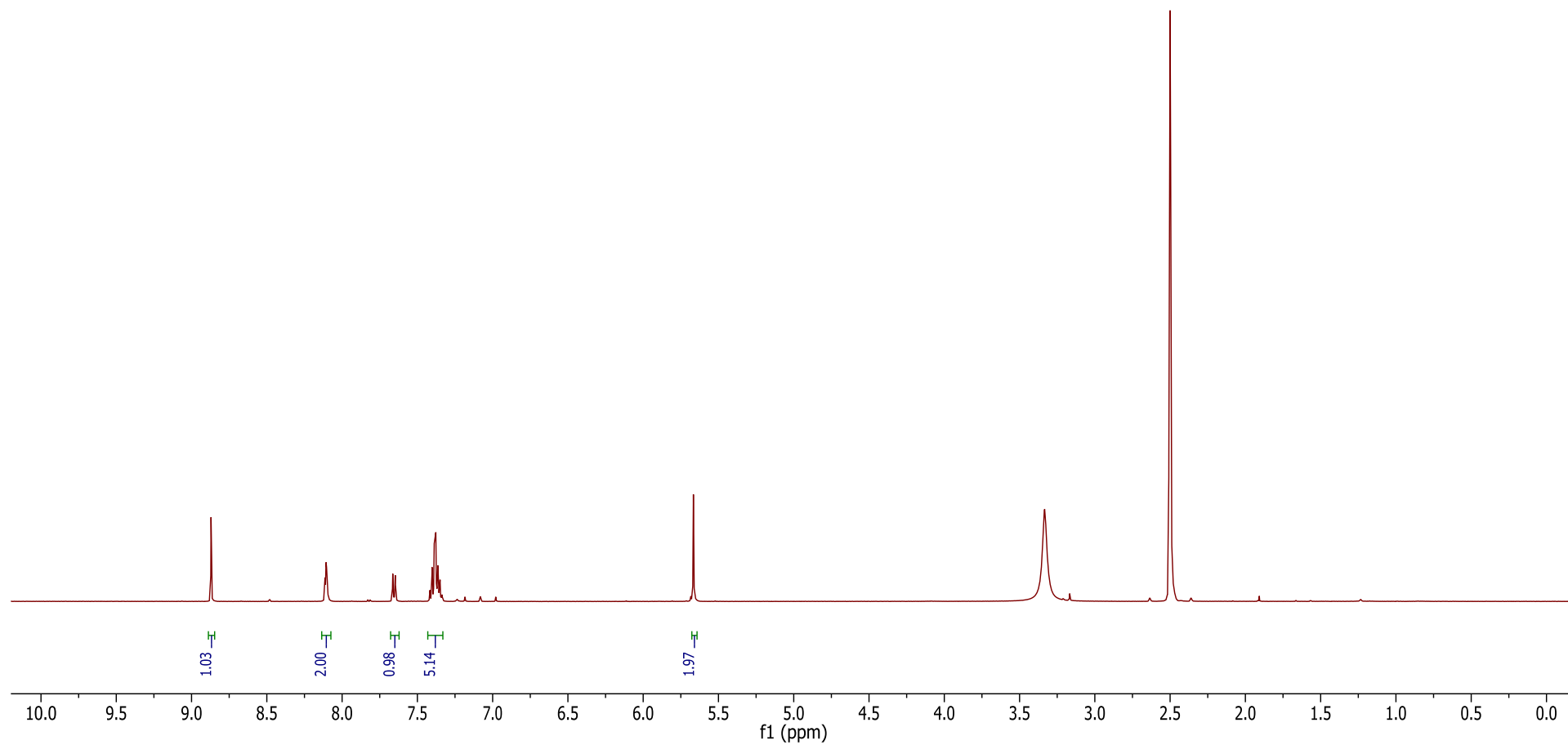
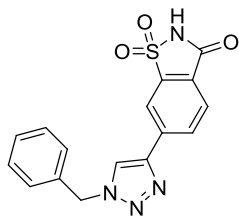
Compound **10** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



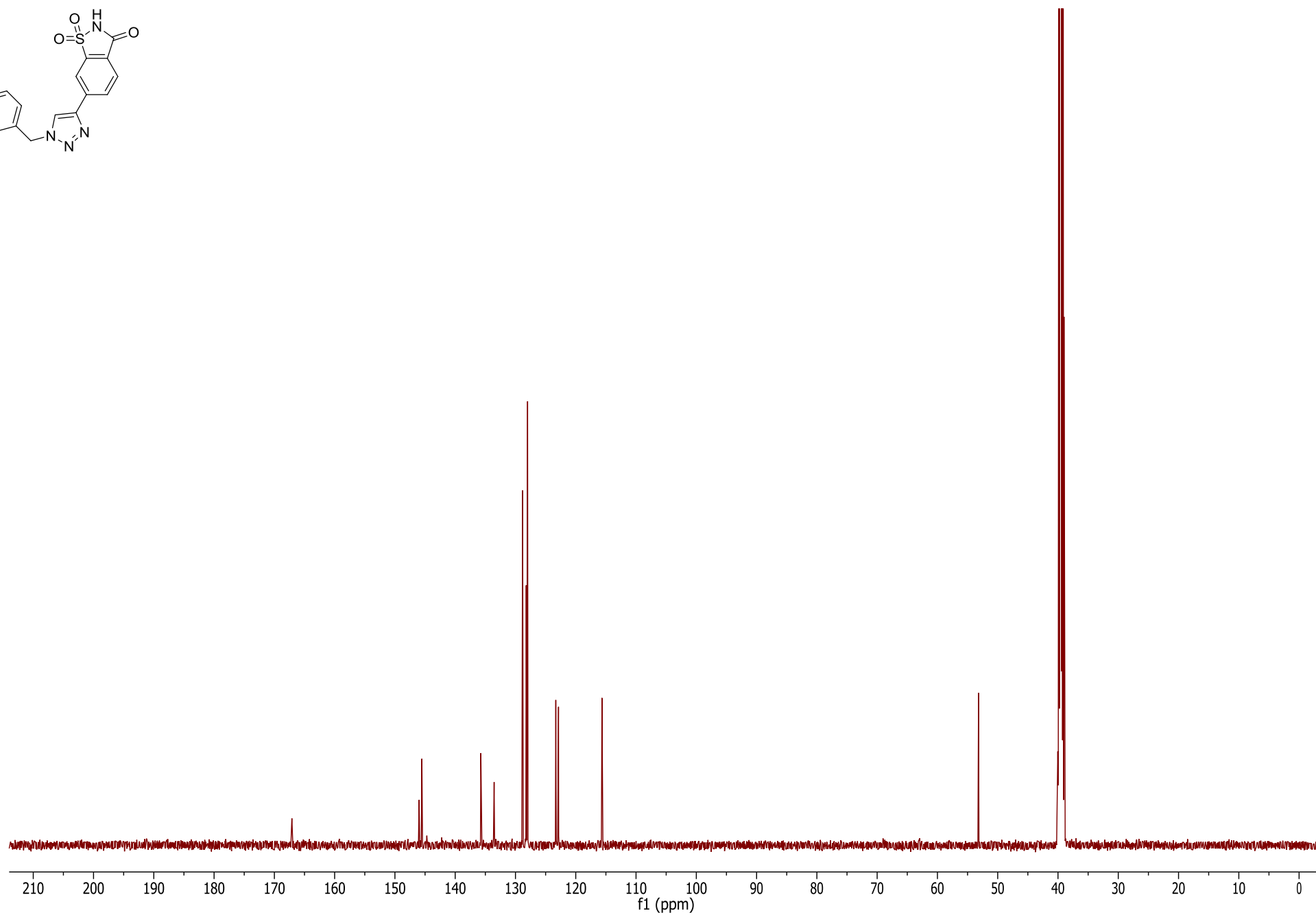
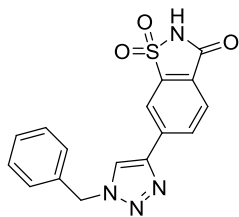
Compound **10** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



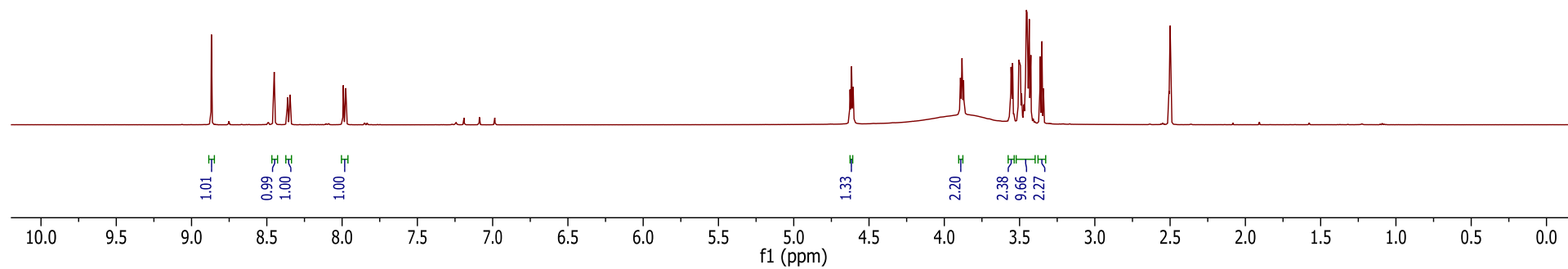
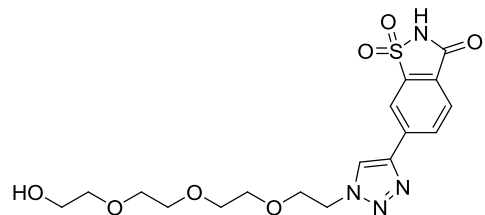
Compound **11** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



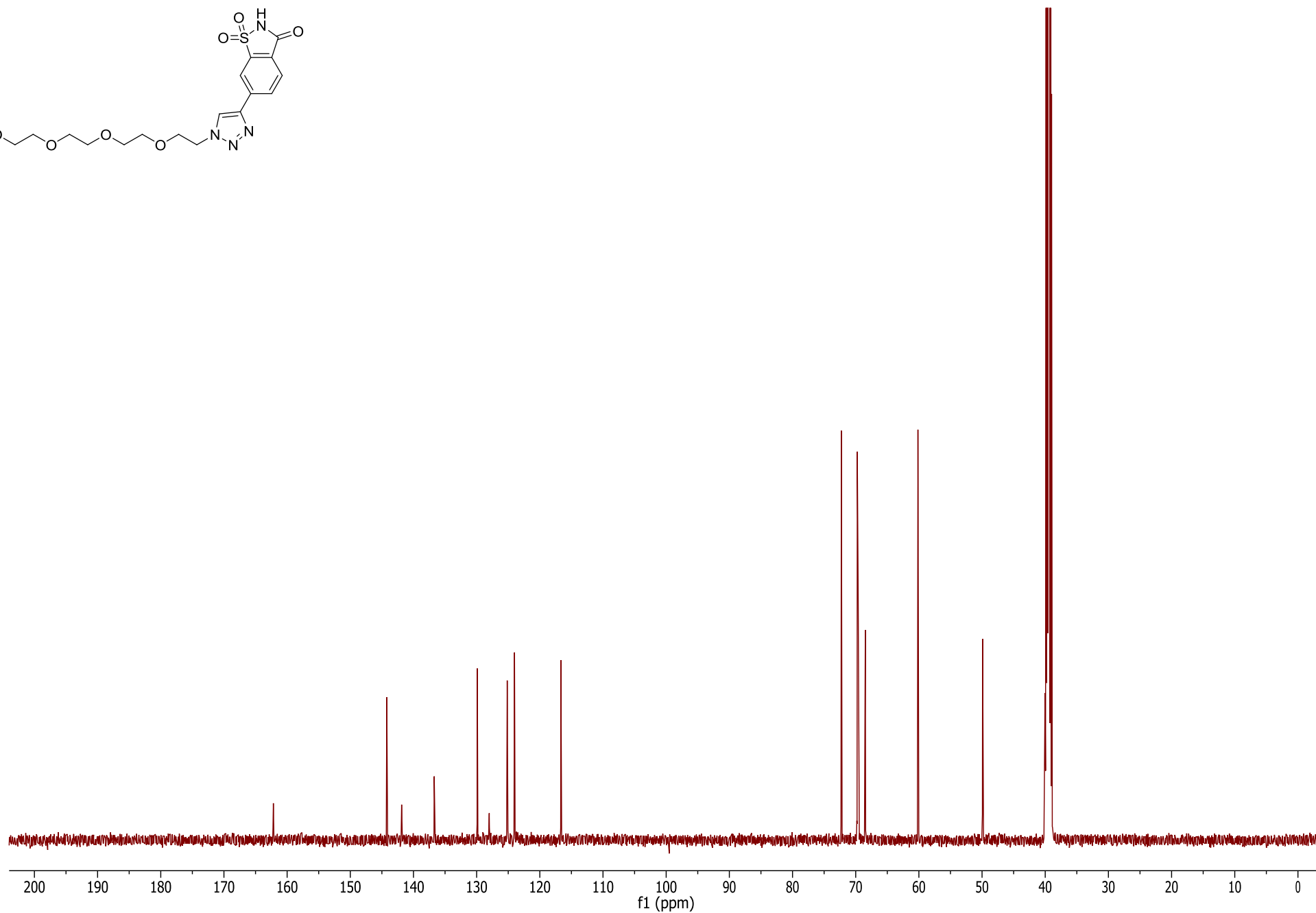
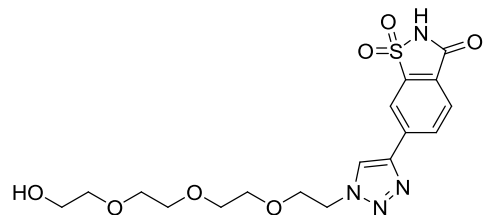
Compound **11** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



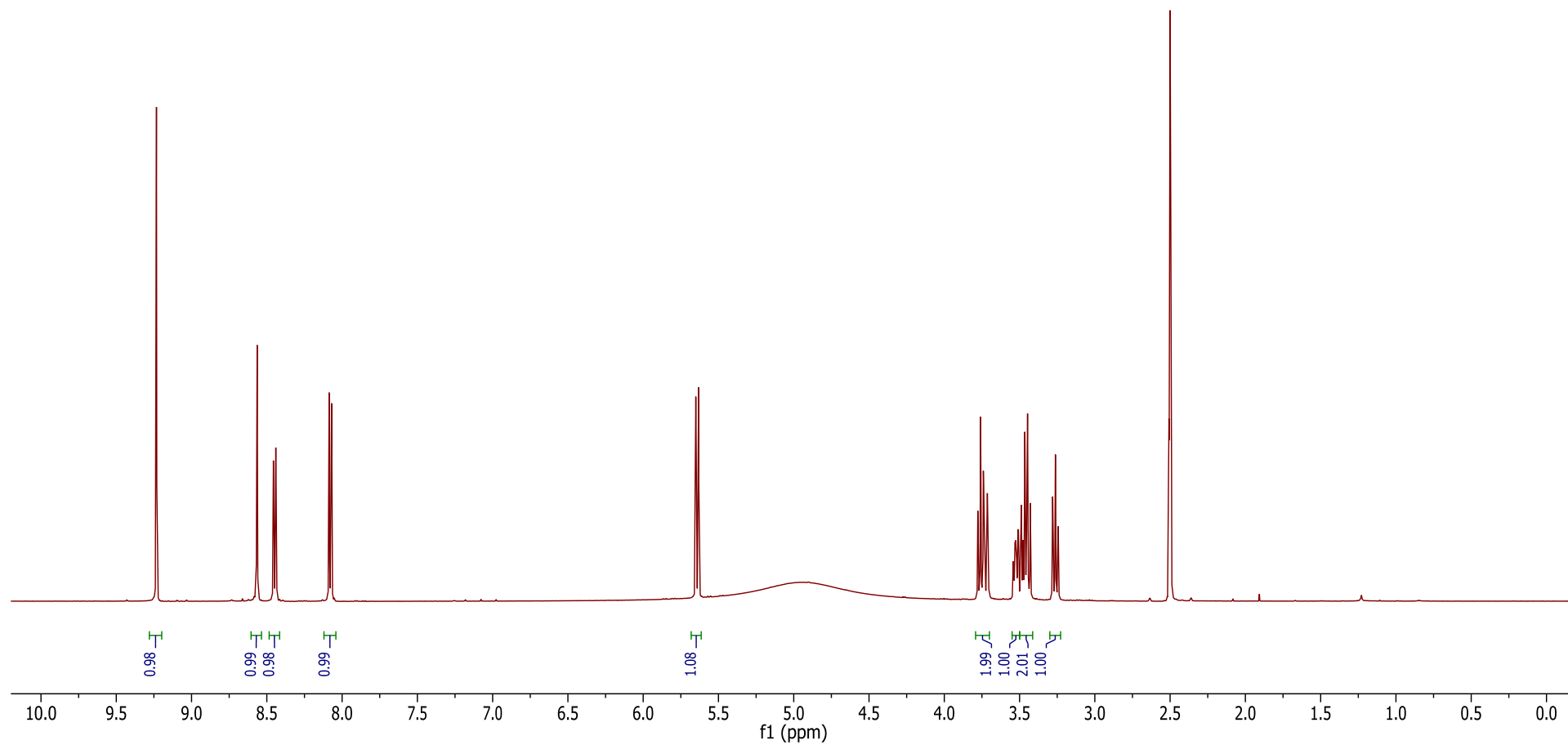
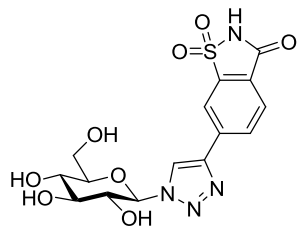
Compound **12** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



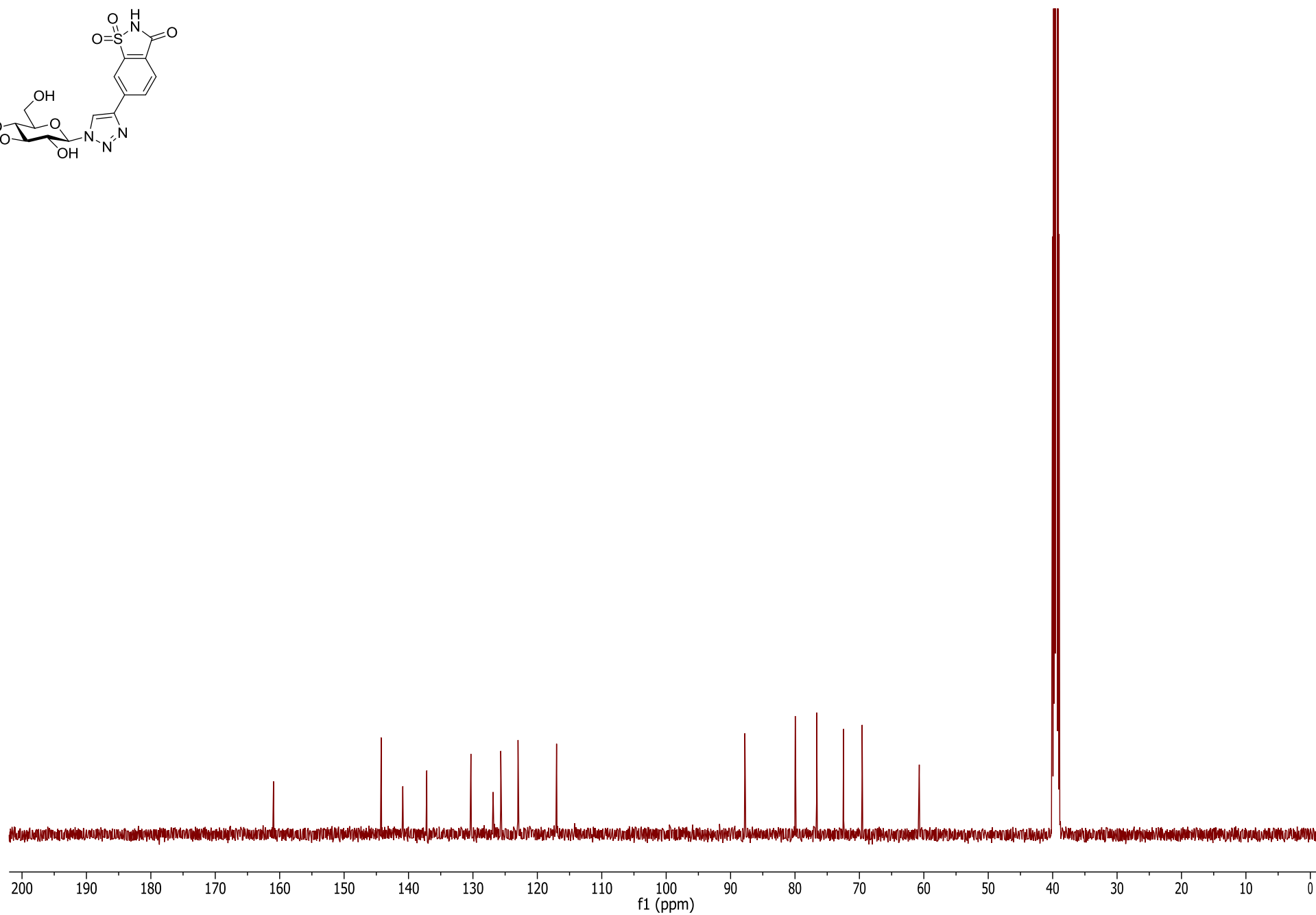
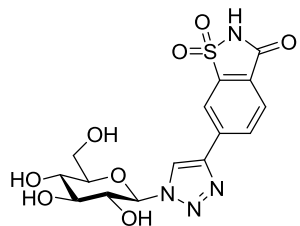
Compound **12** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



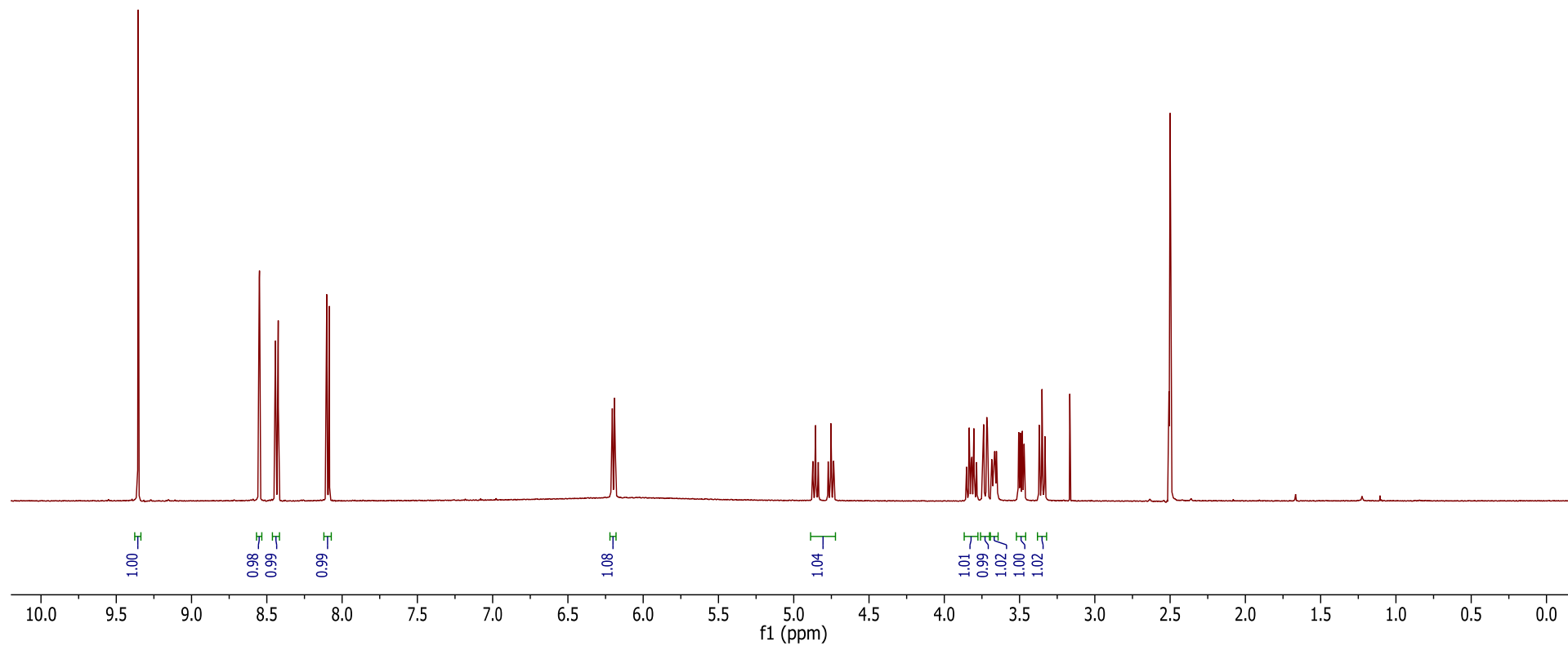
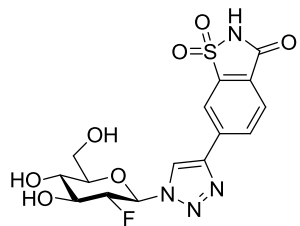
Compound **13** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



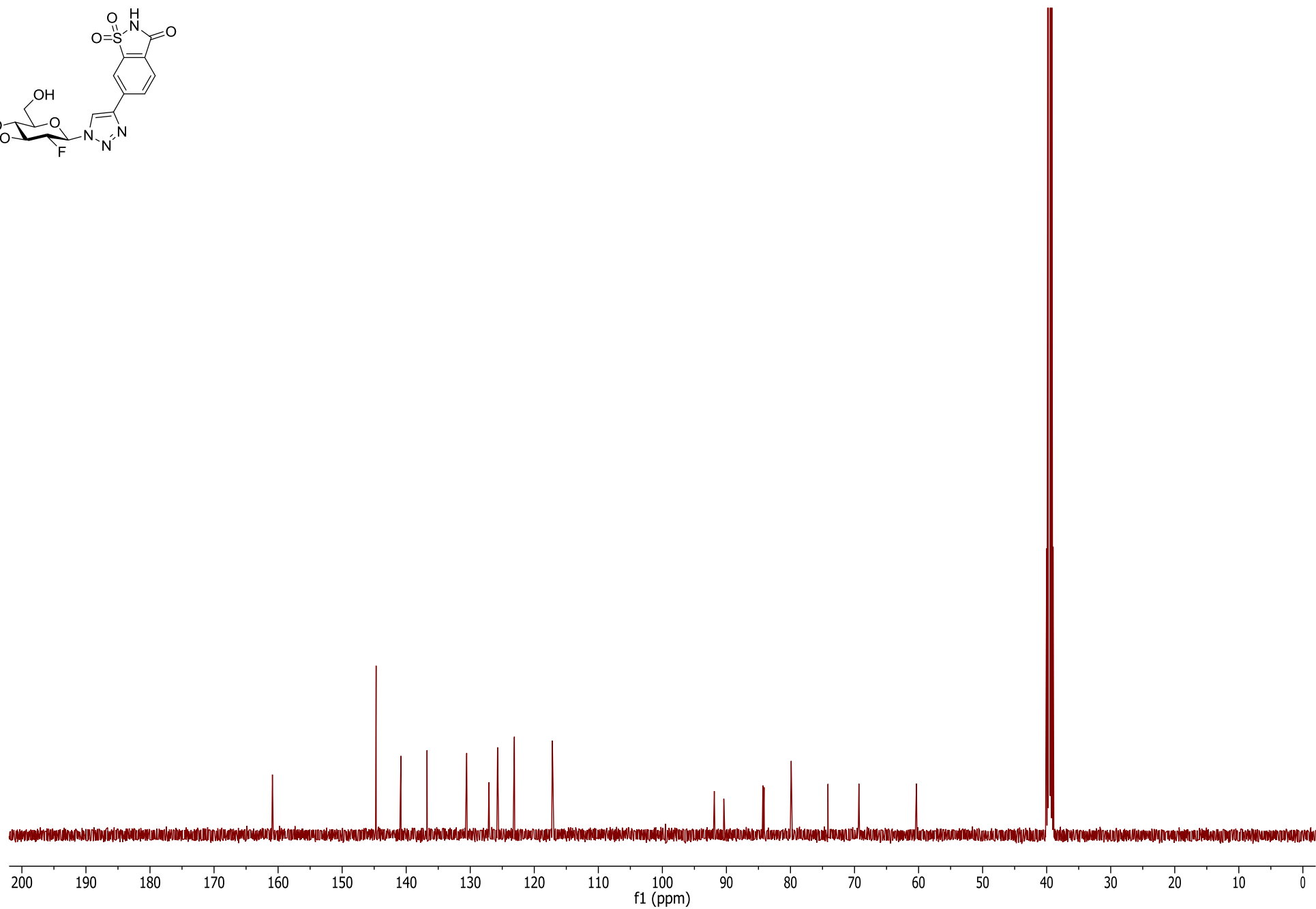
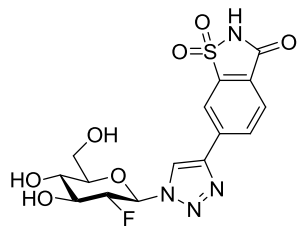
Compound **13** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



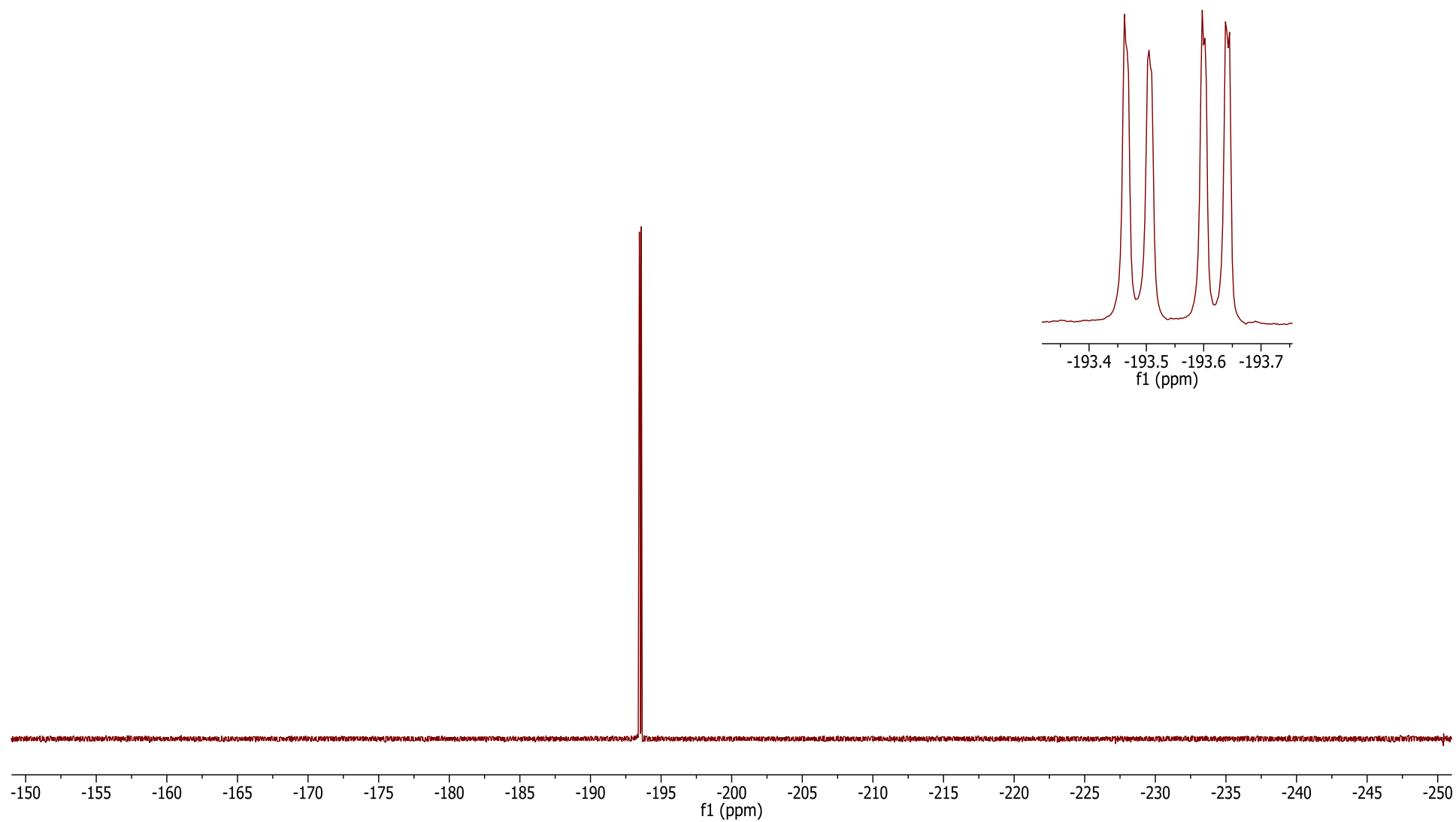
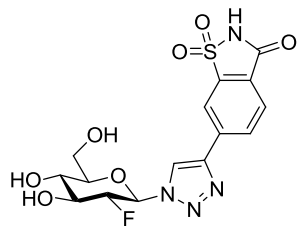
Compound **14** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



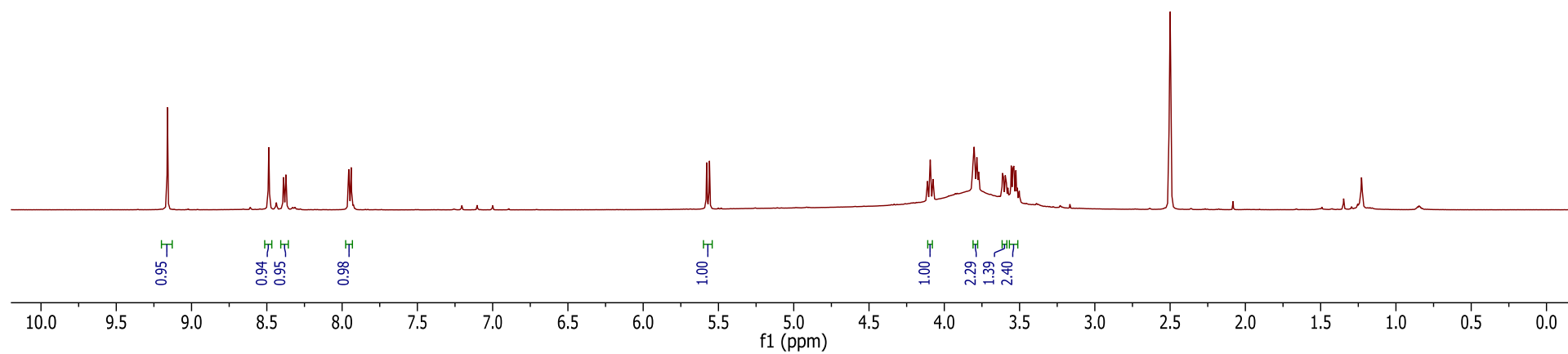
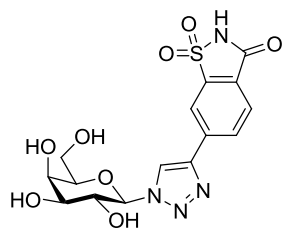
Compound **14** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



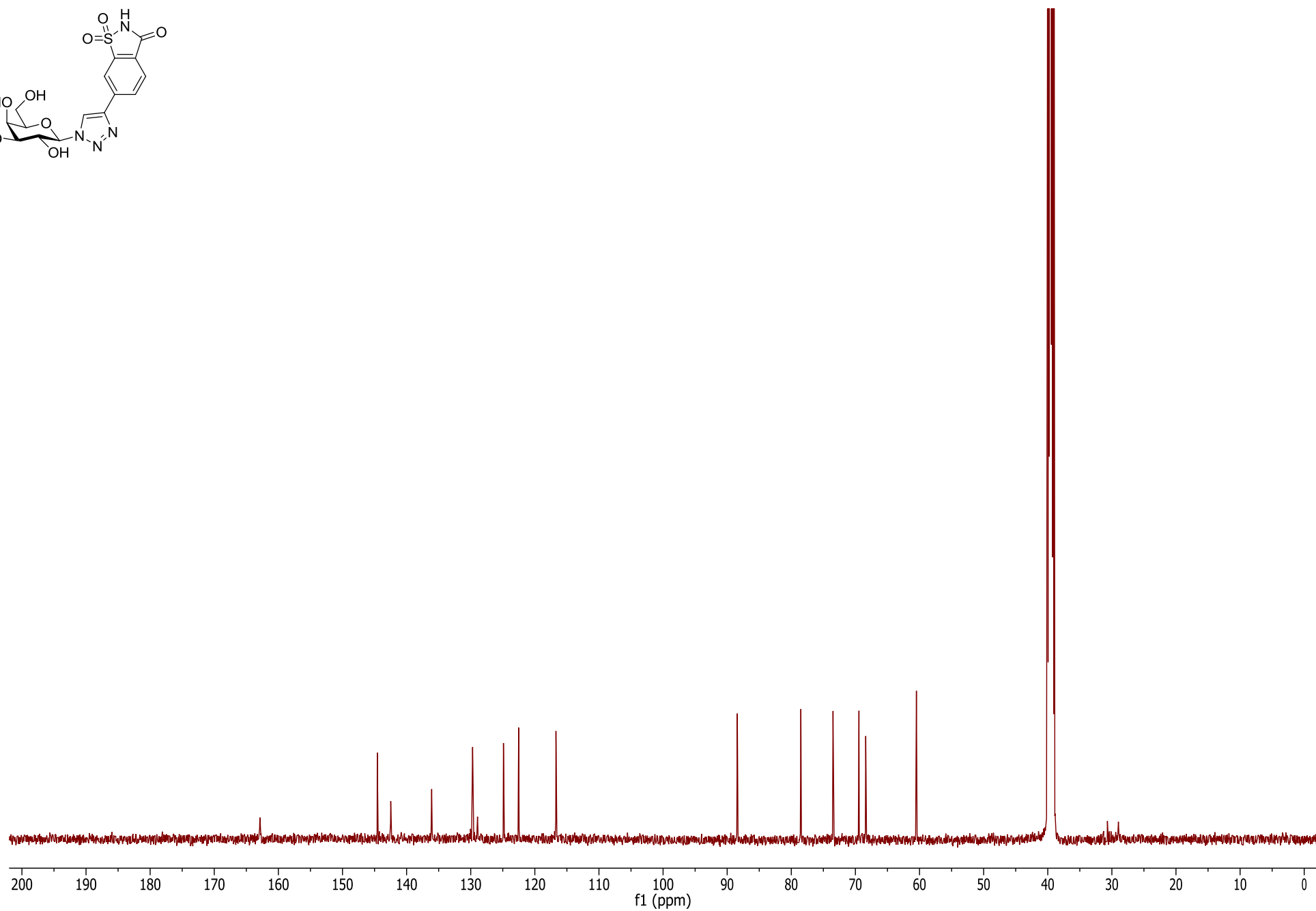
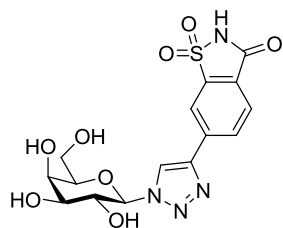
Compound **14** 376 MHz ^{19}F NMR (CD_3) $_2\text{SO}$



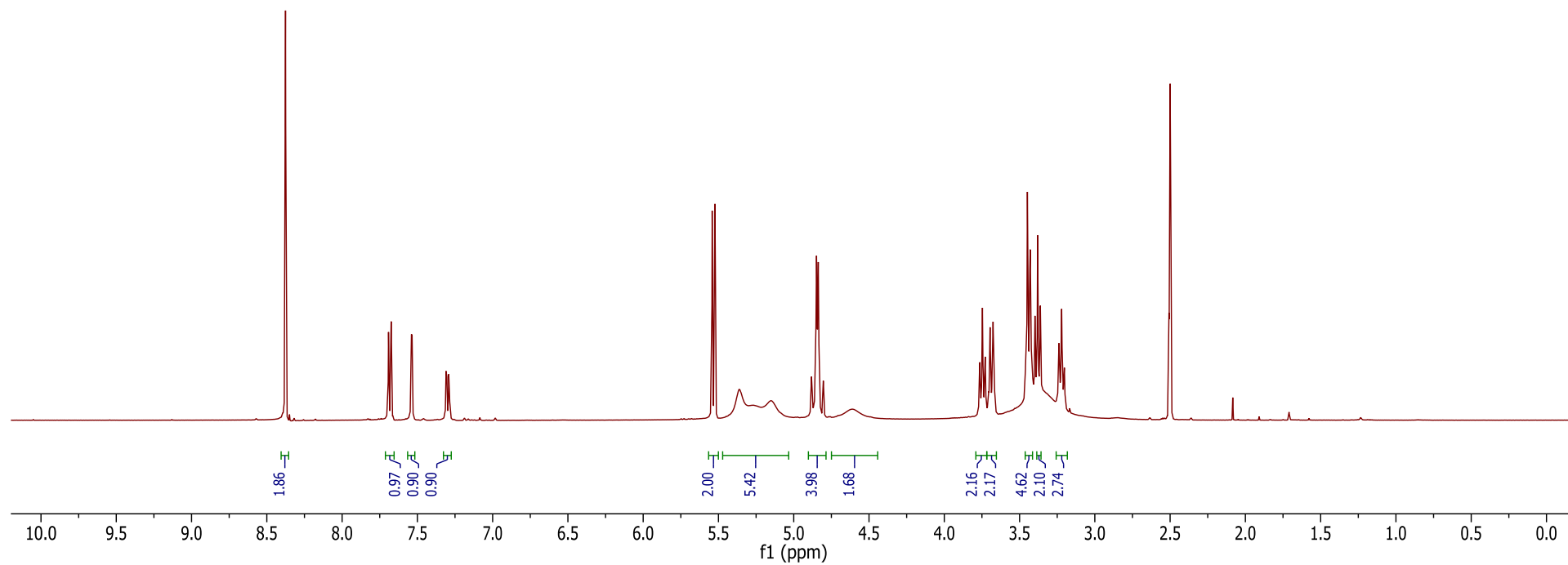
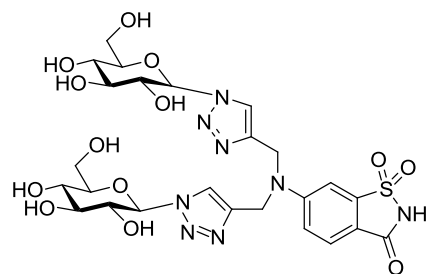
Compound **15** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



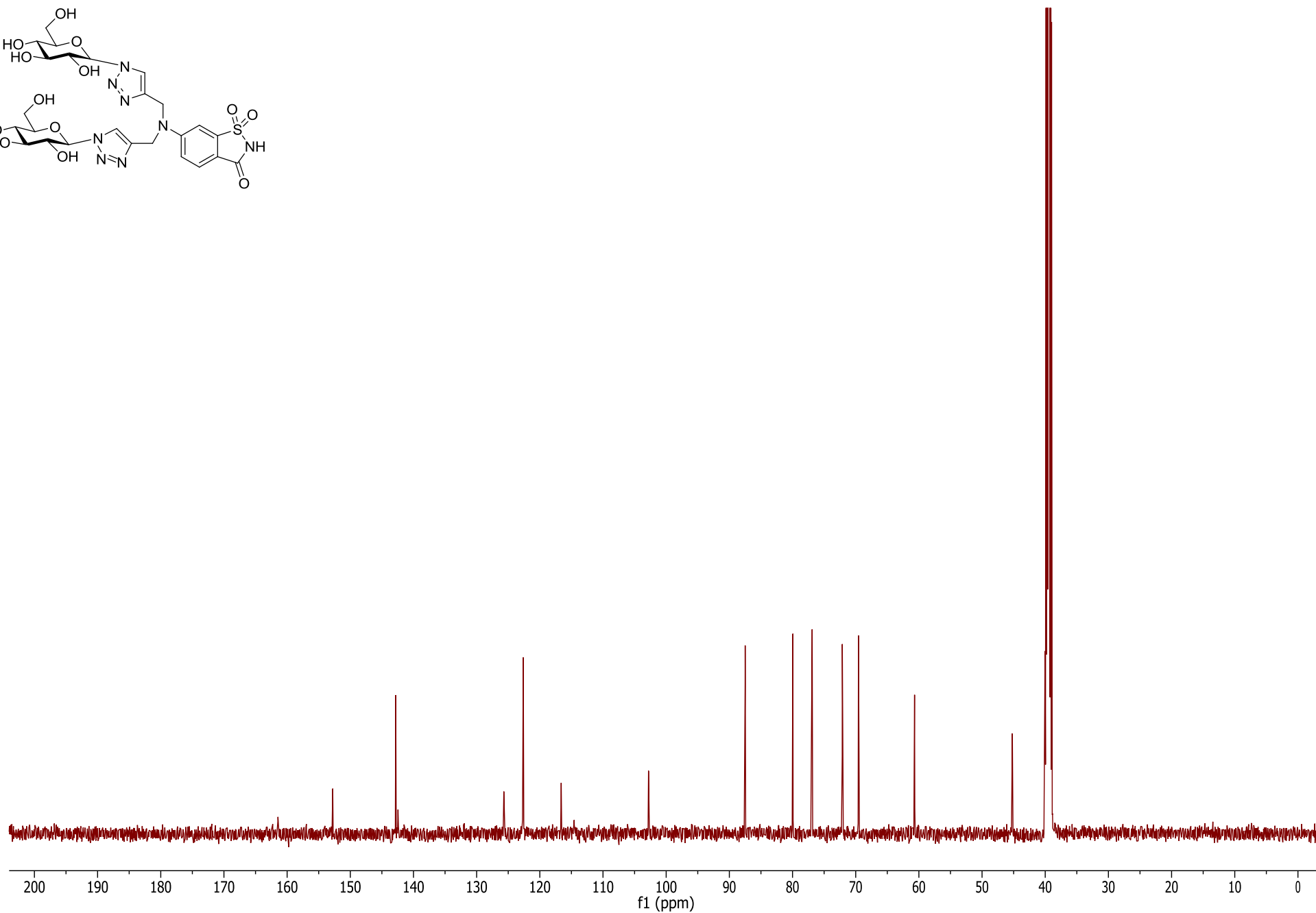
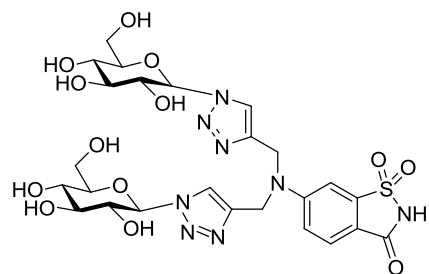
Compound **15** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



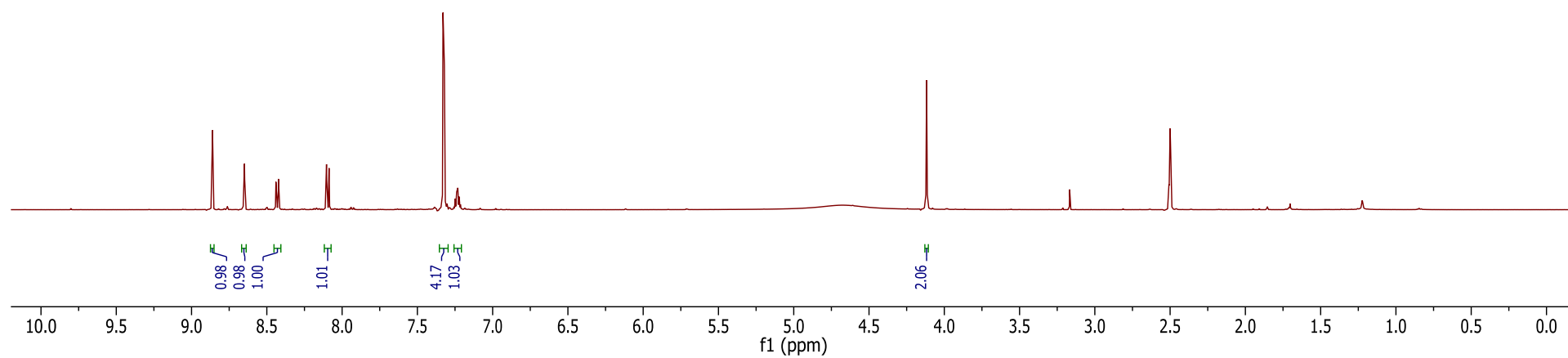
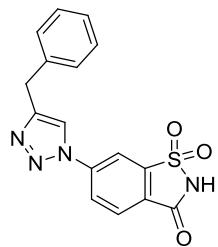
Compound **17** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



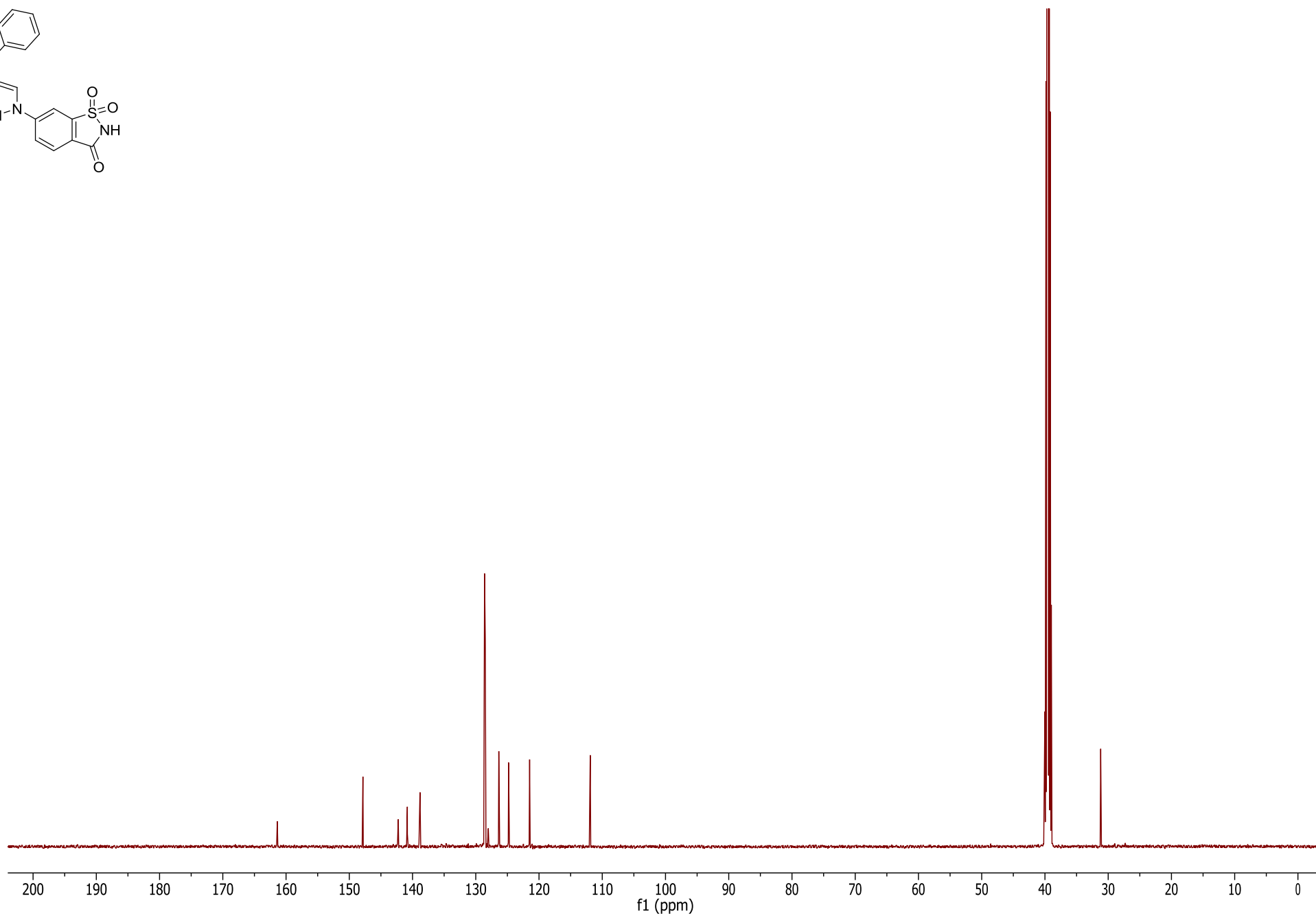
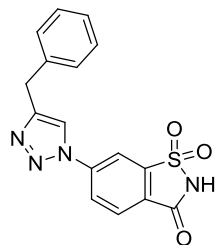
Compound **17** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



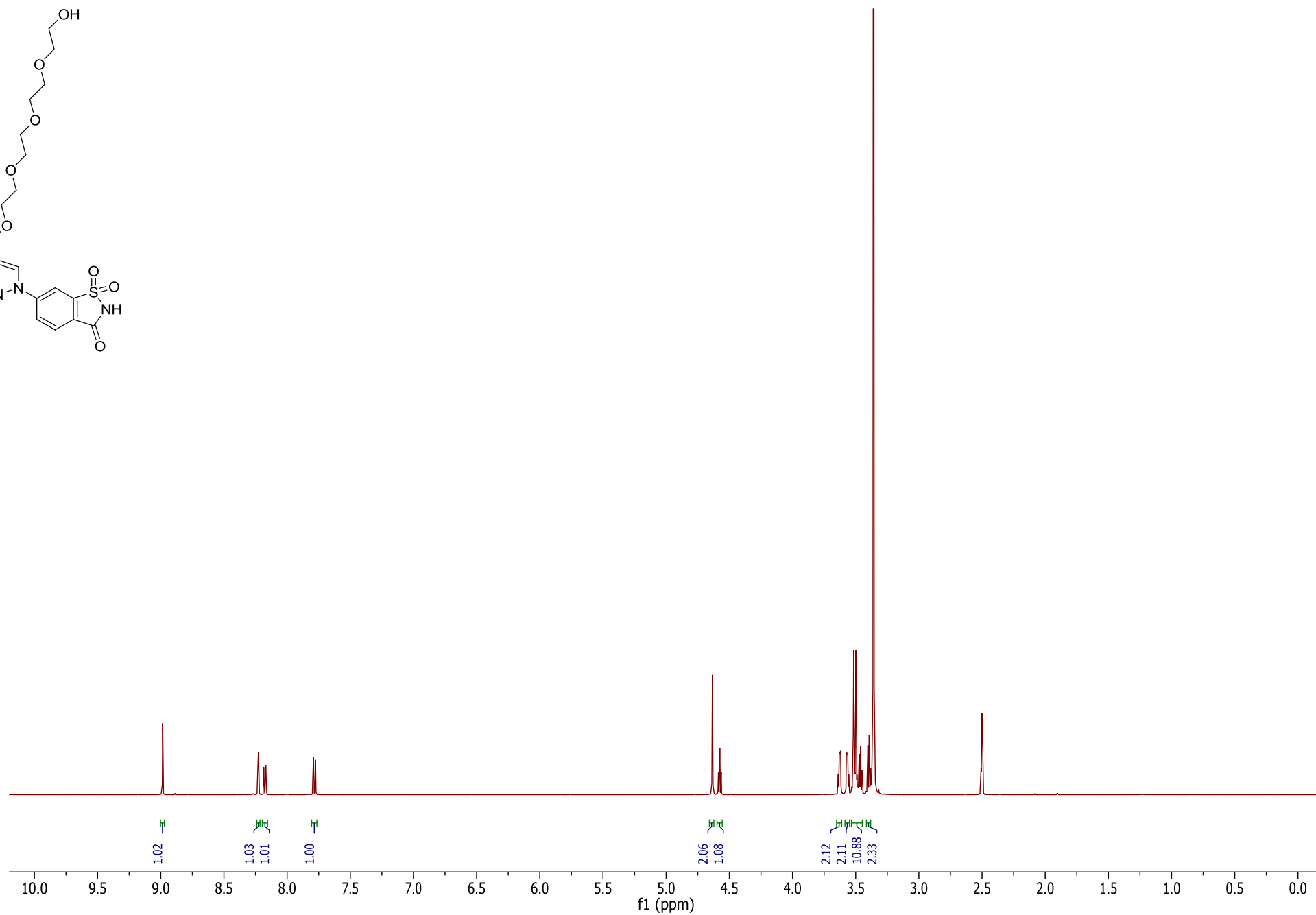
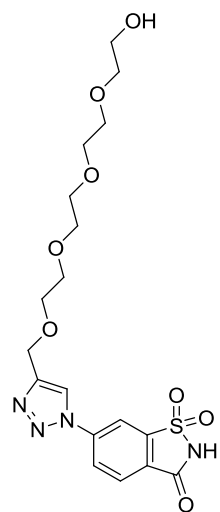
Compound **19** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



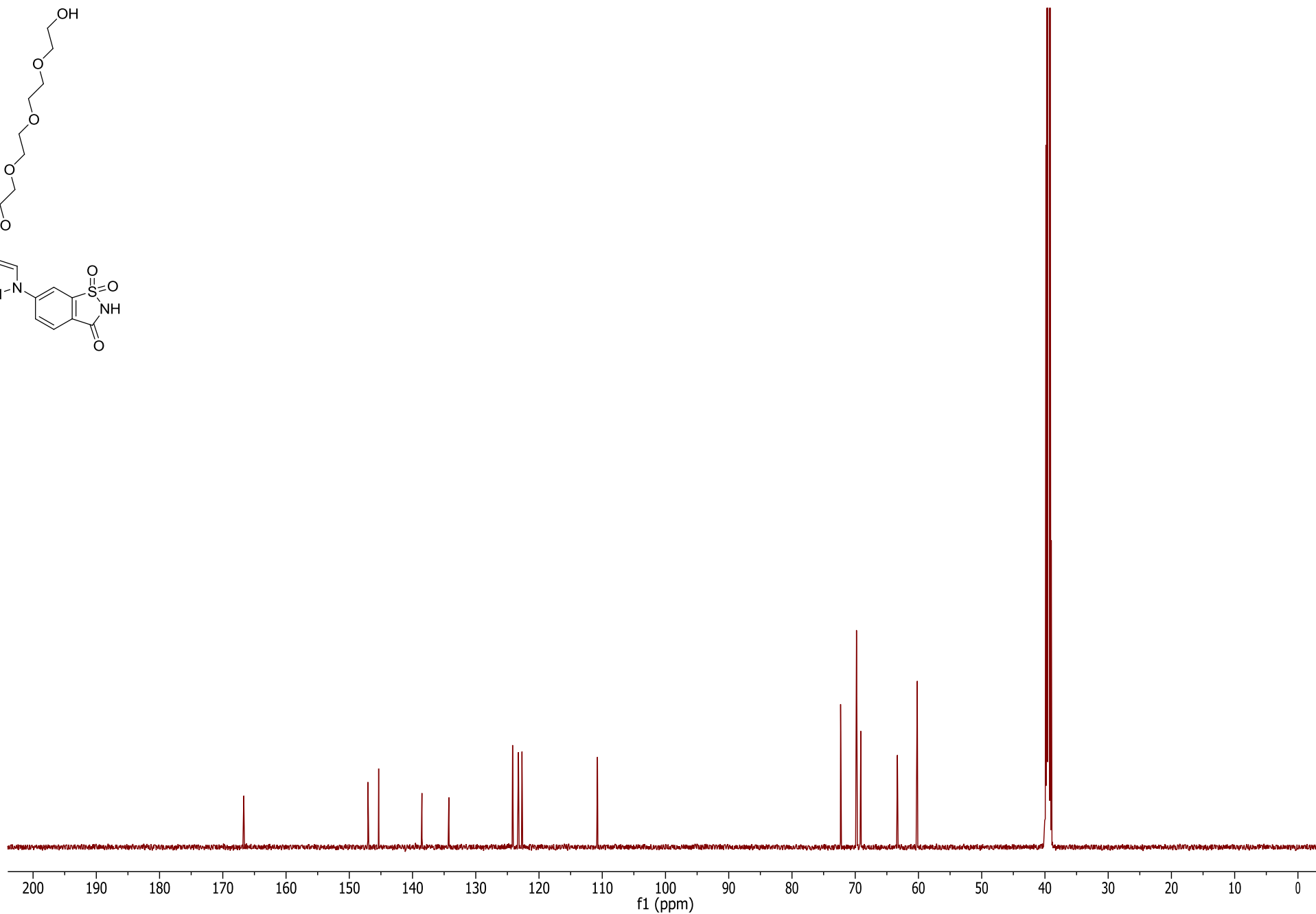
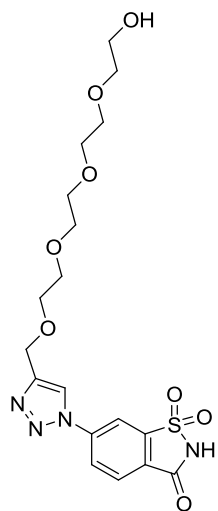
Compound **19** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



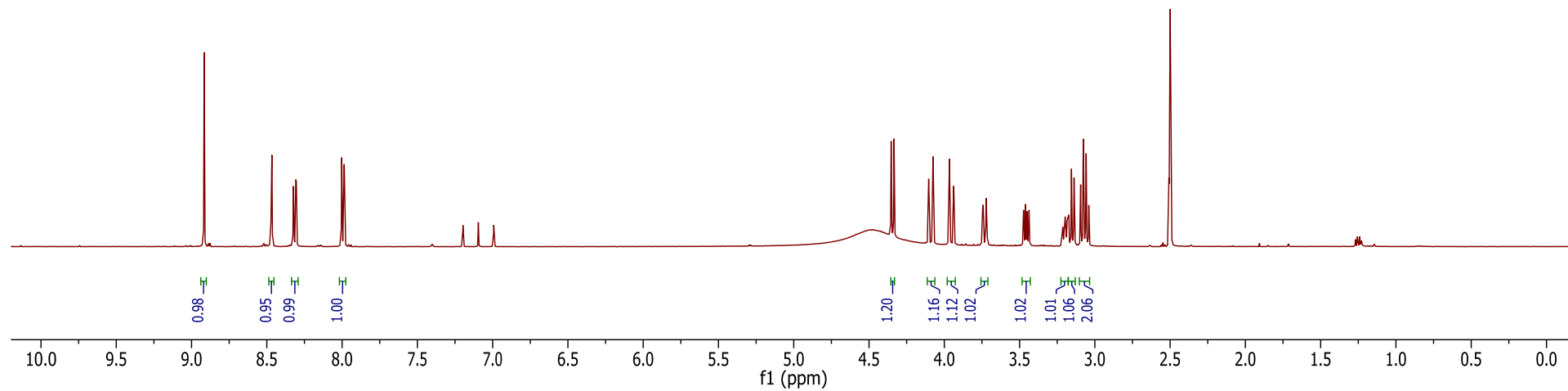
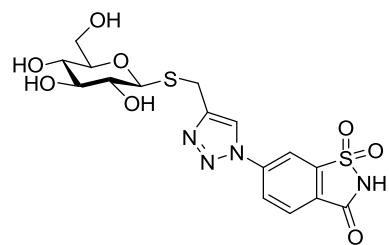
Compound **20** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



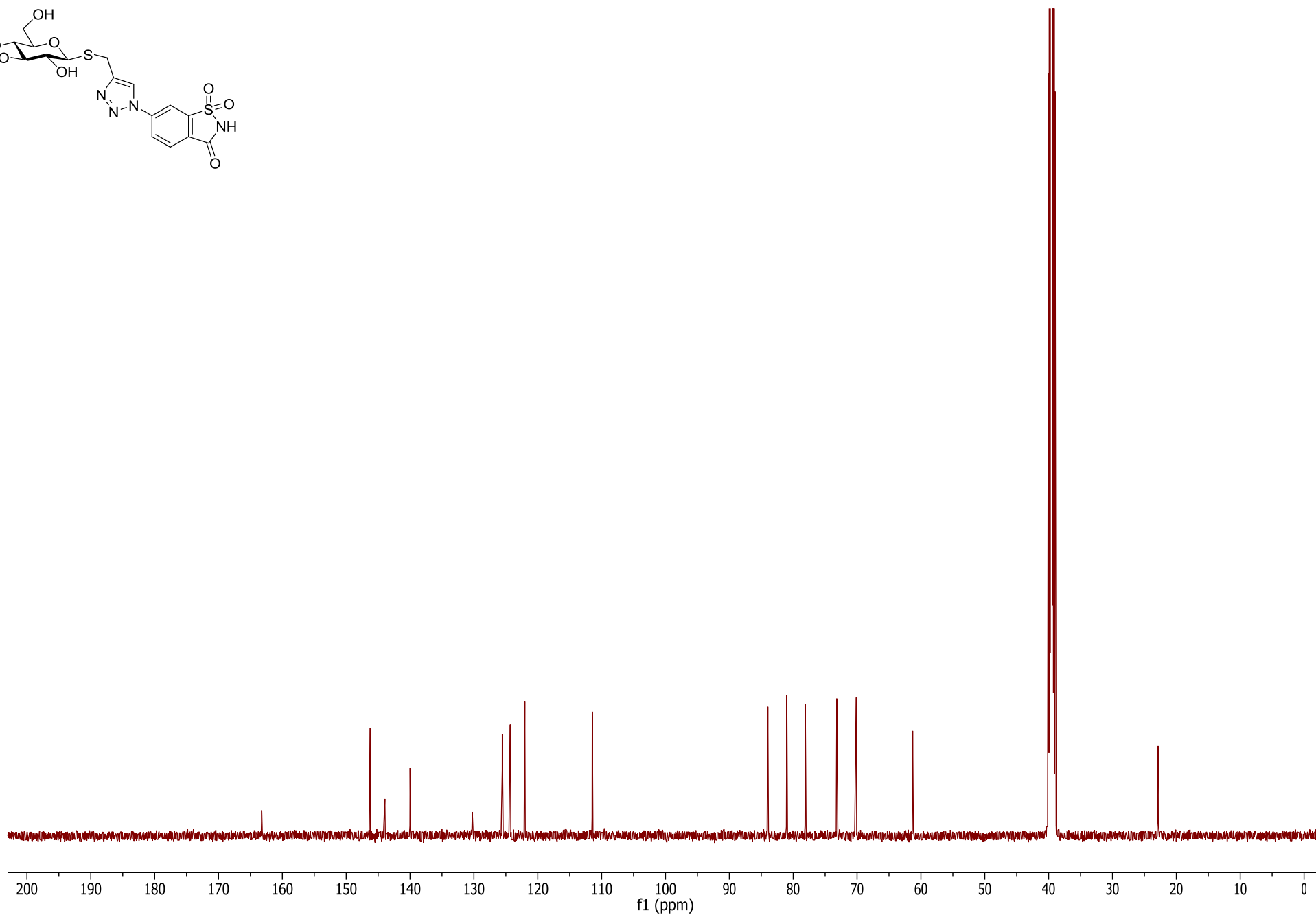
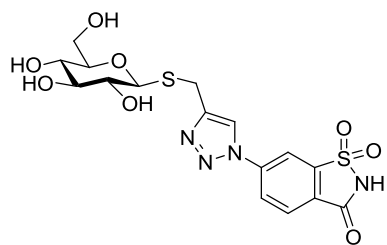
Compound **20** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



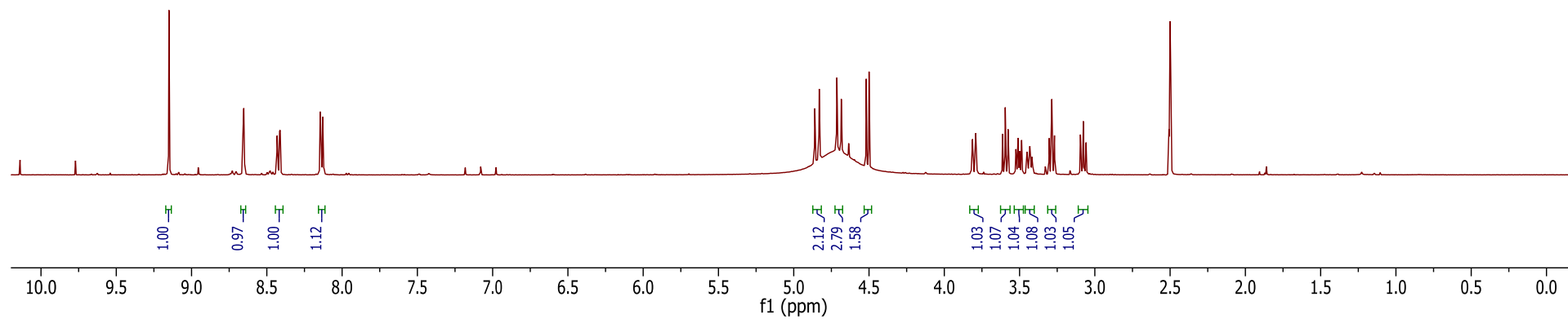
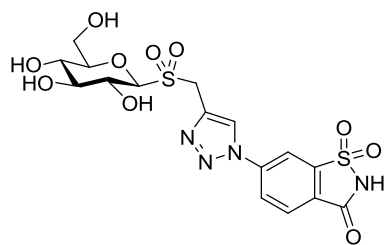
Compound **21** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



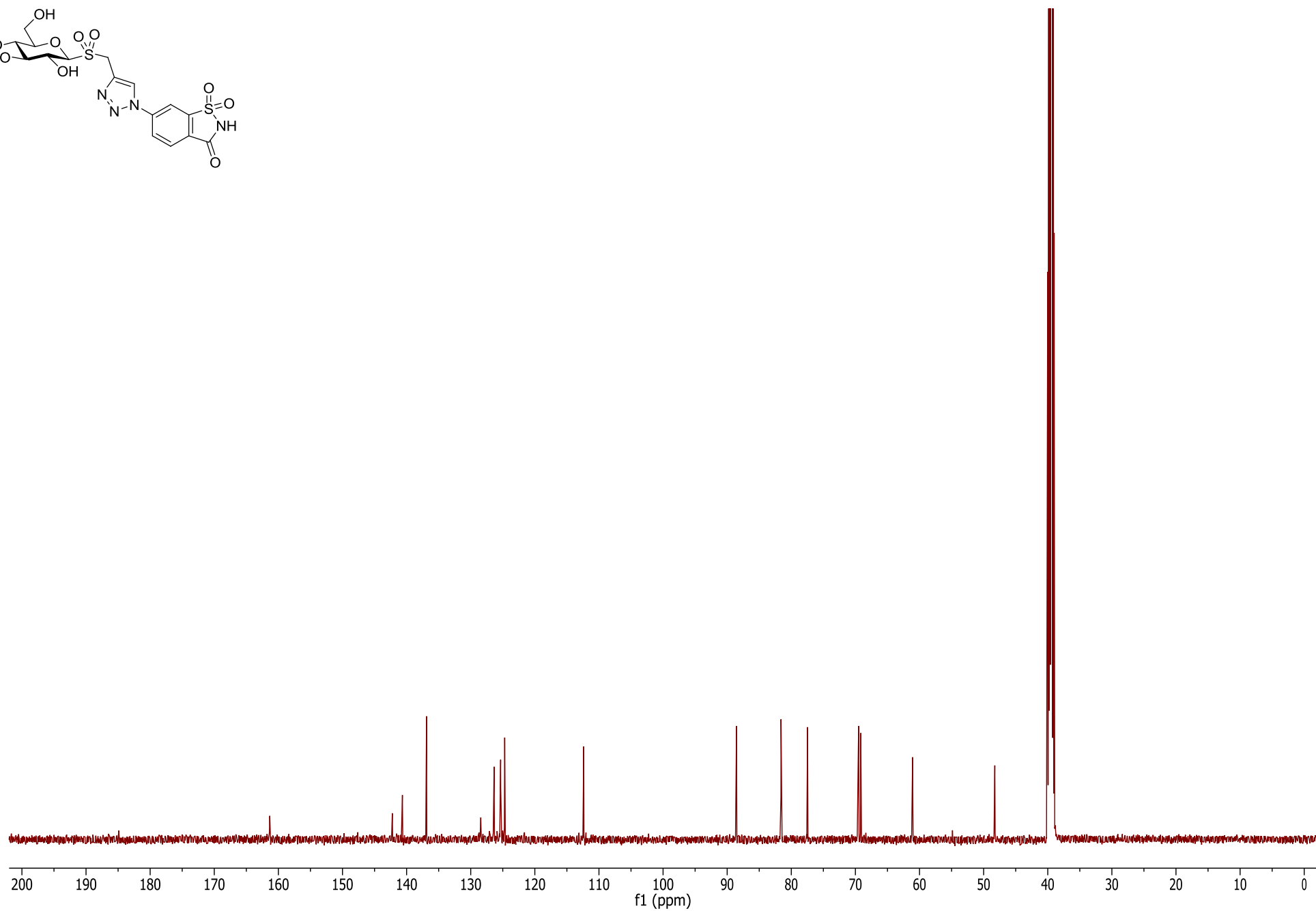
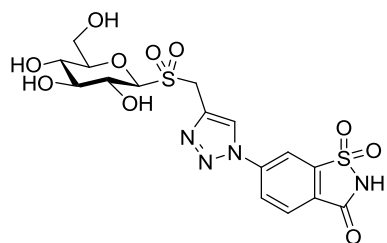
Compound **21** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



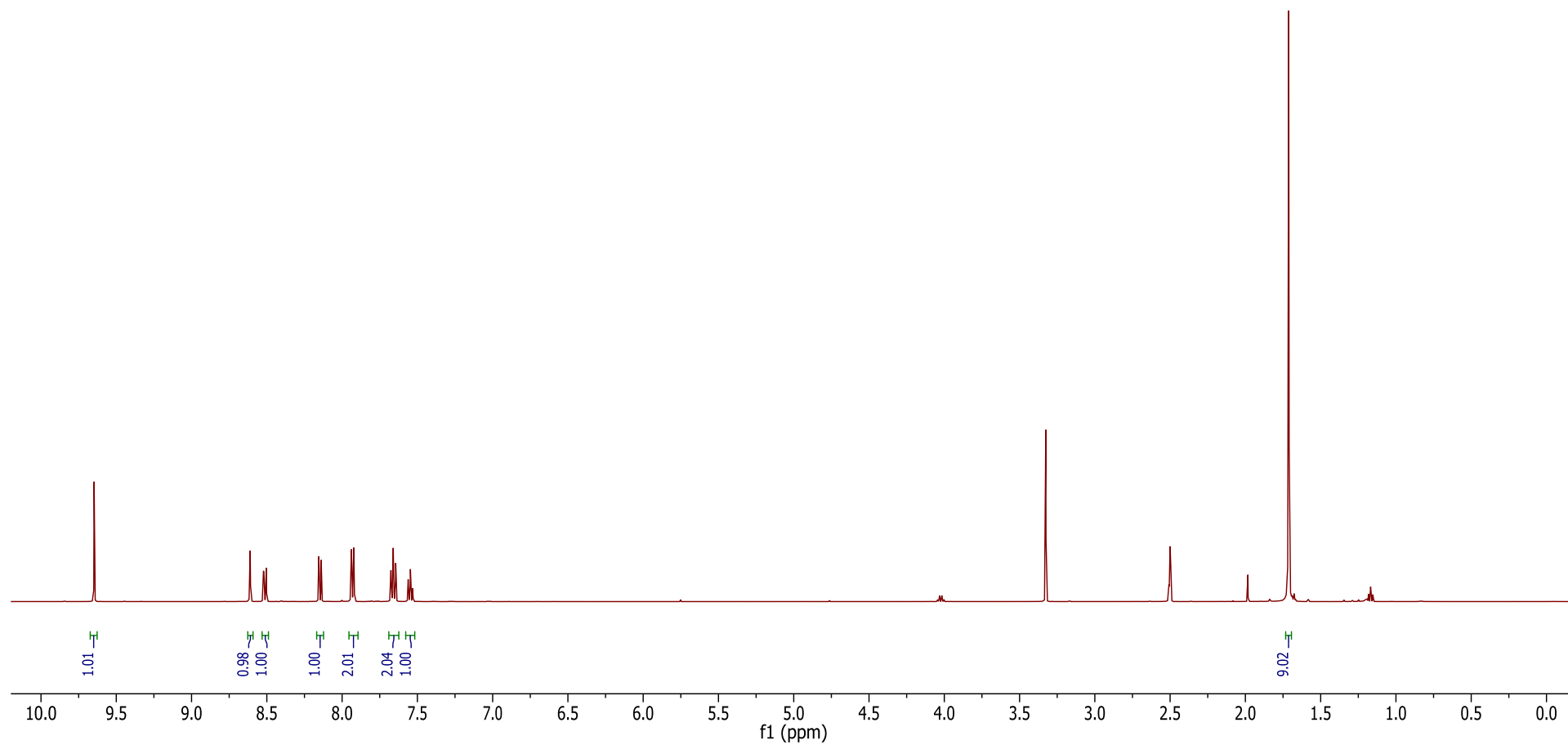
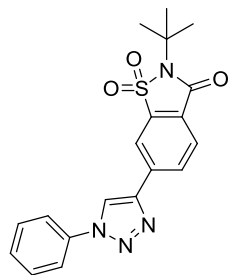
Compound 22 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



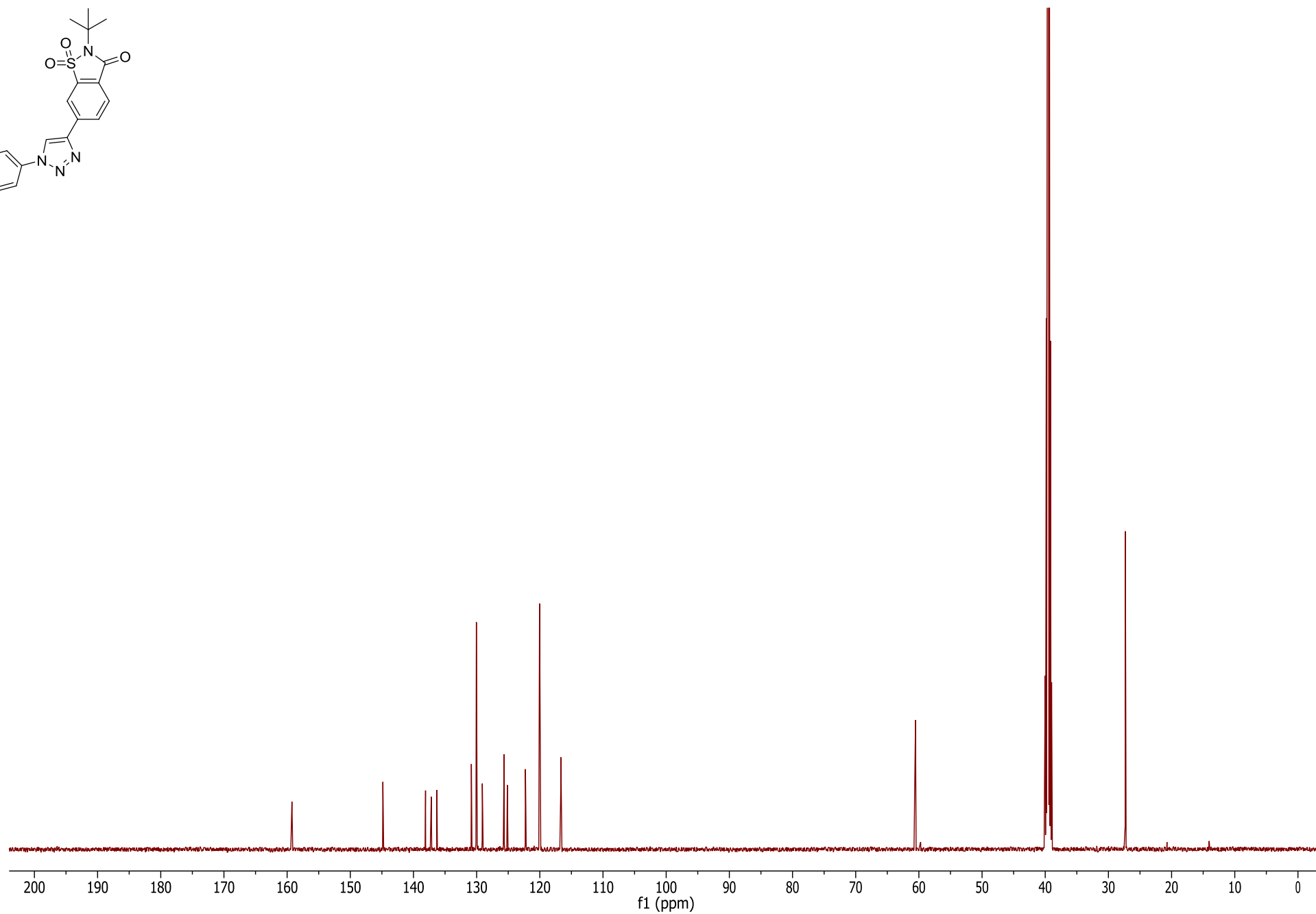
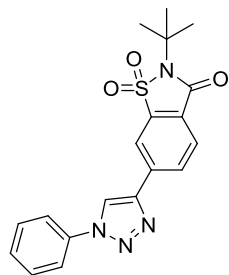
Compound 22 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



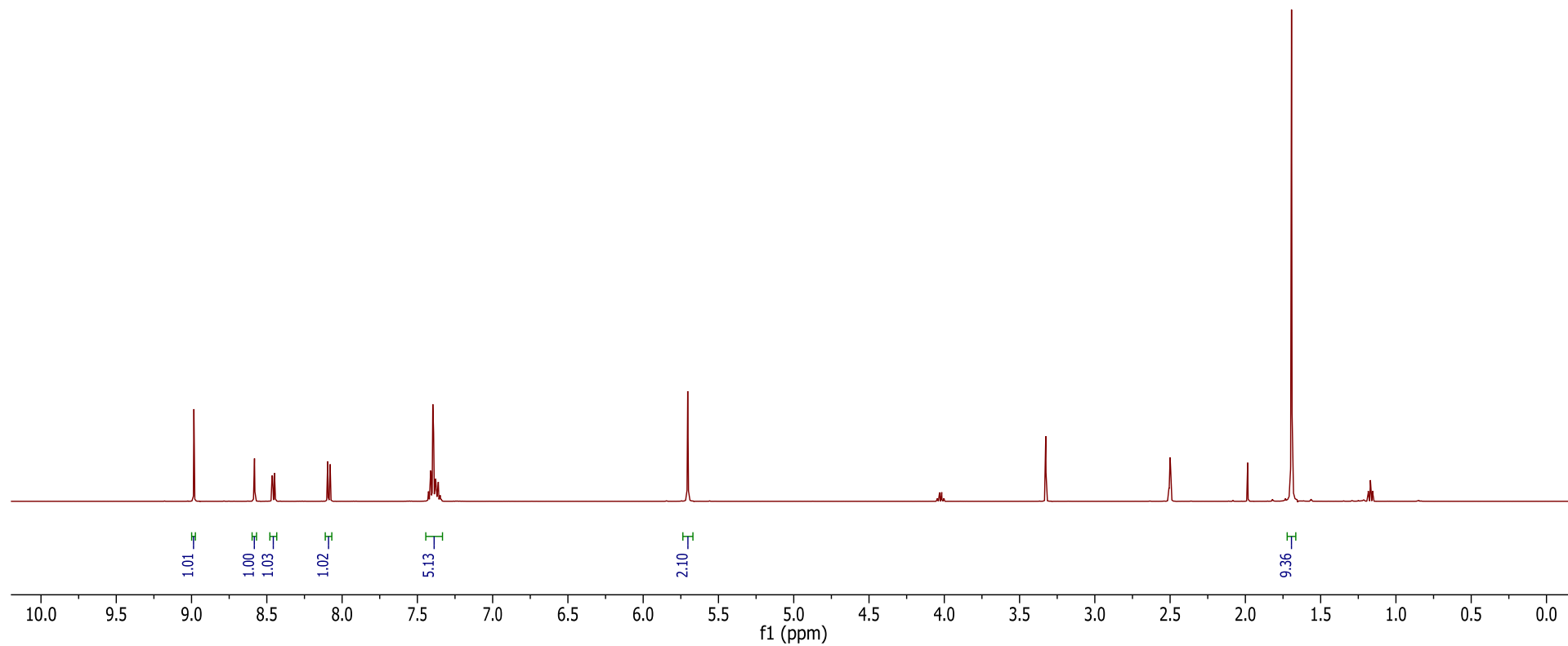
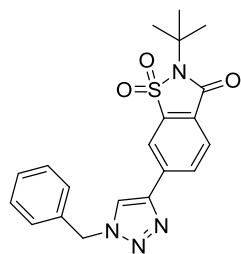
Compound **24** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



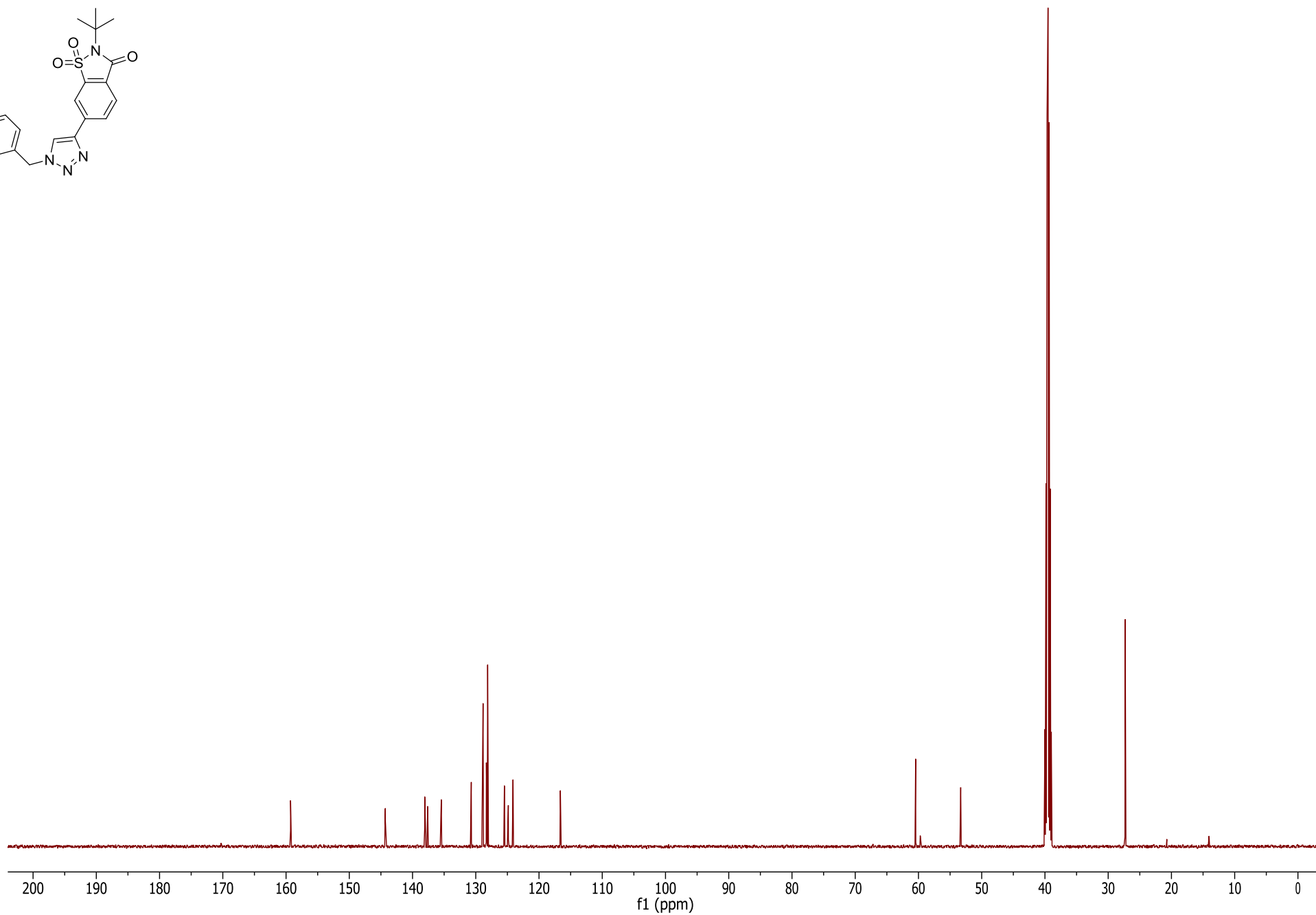
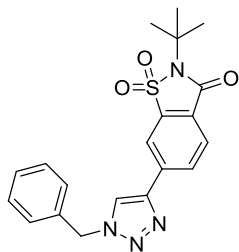
Compound **24** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



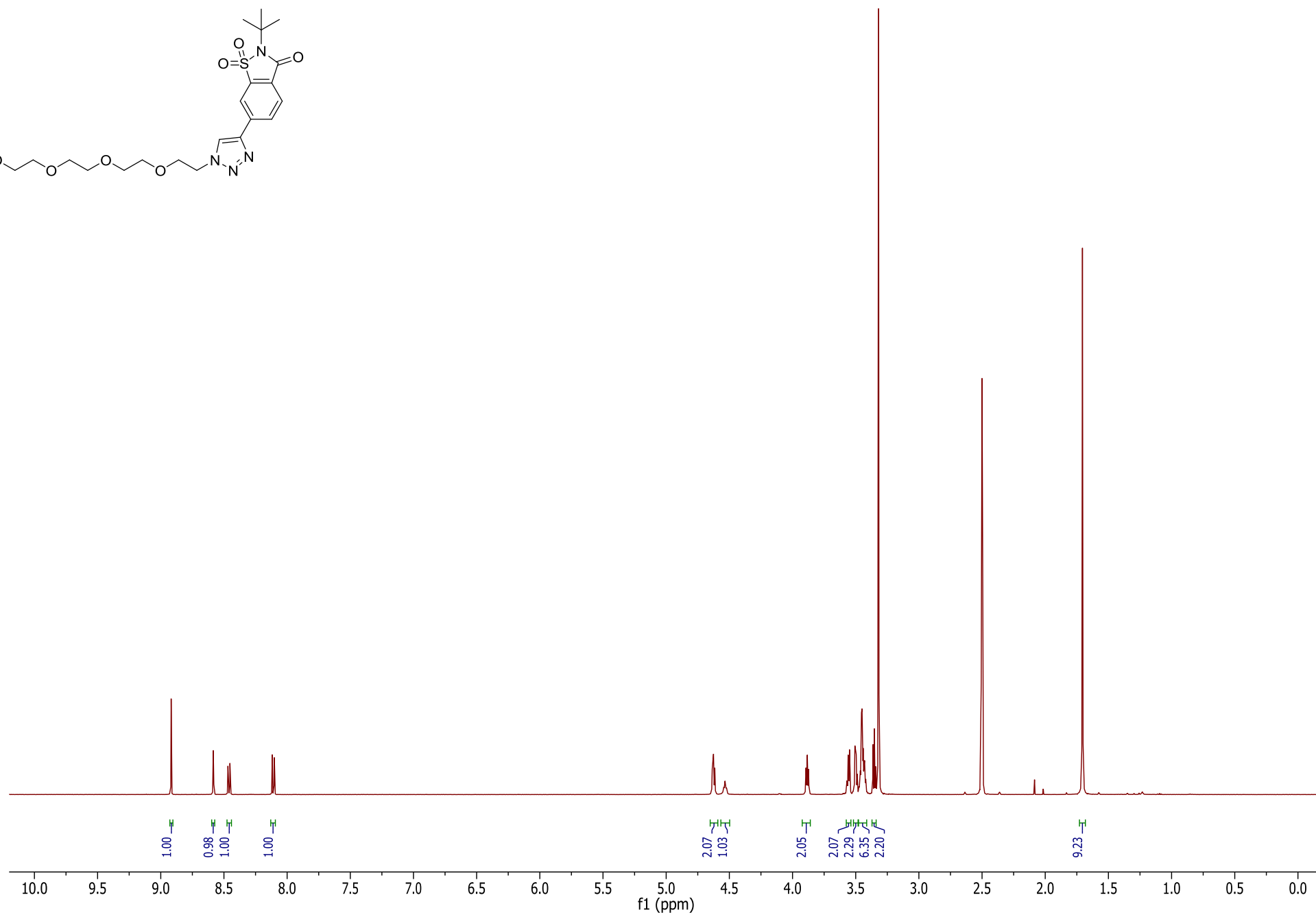
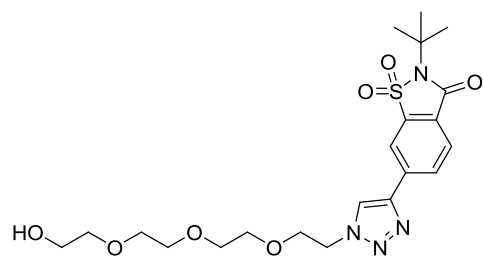
Compound 25 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



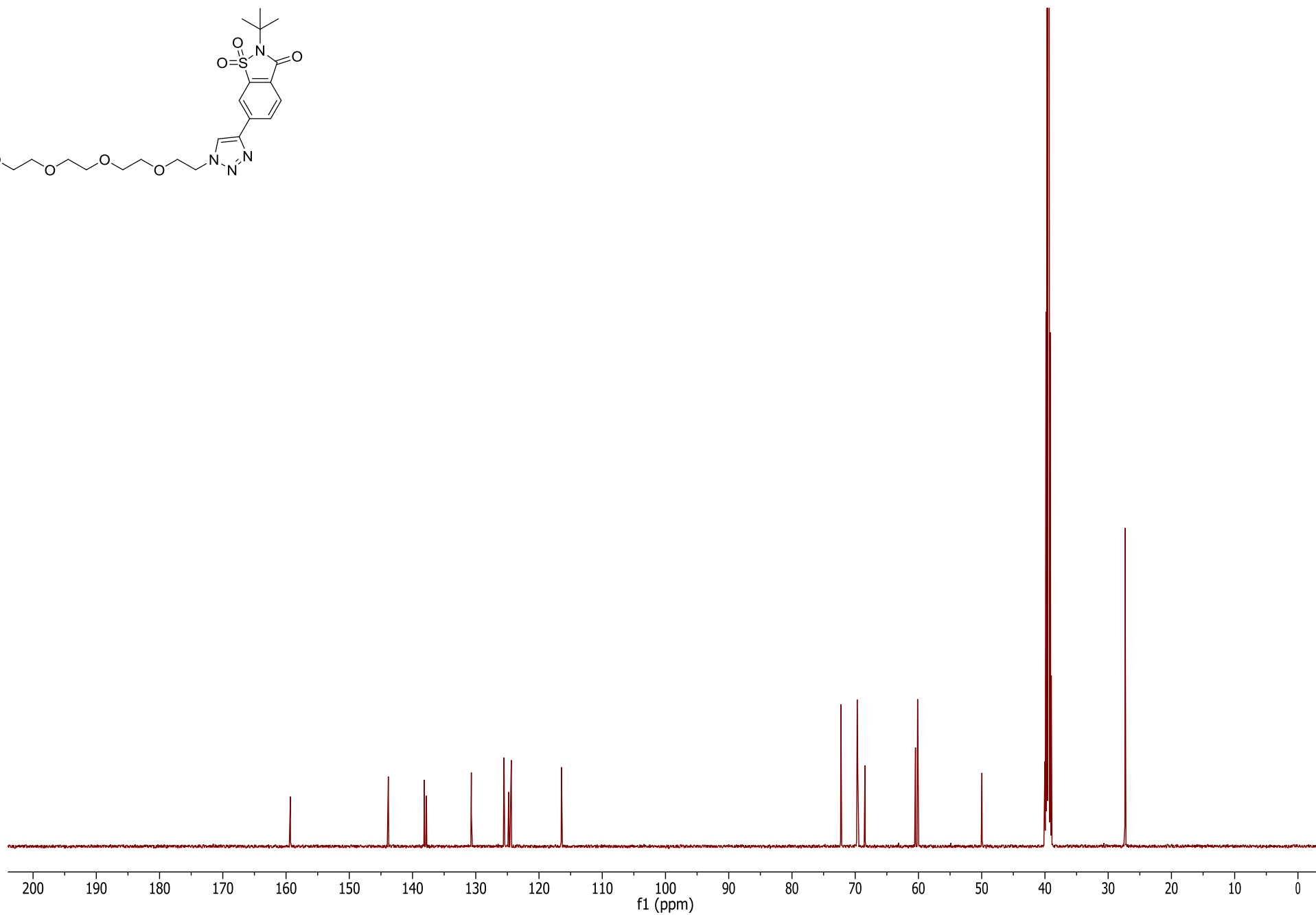
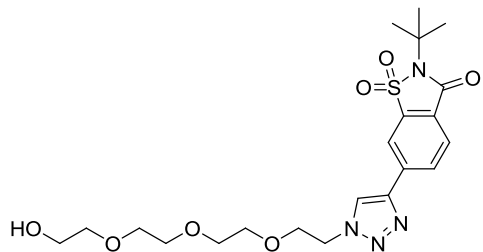
Compound **25** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



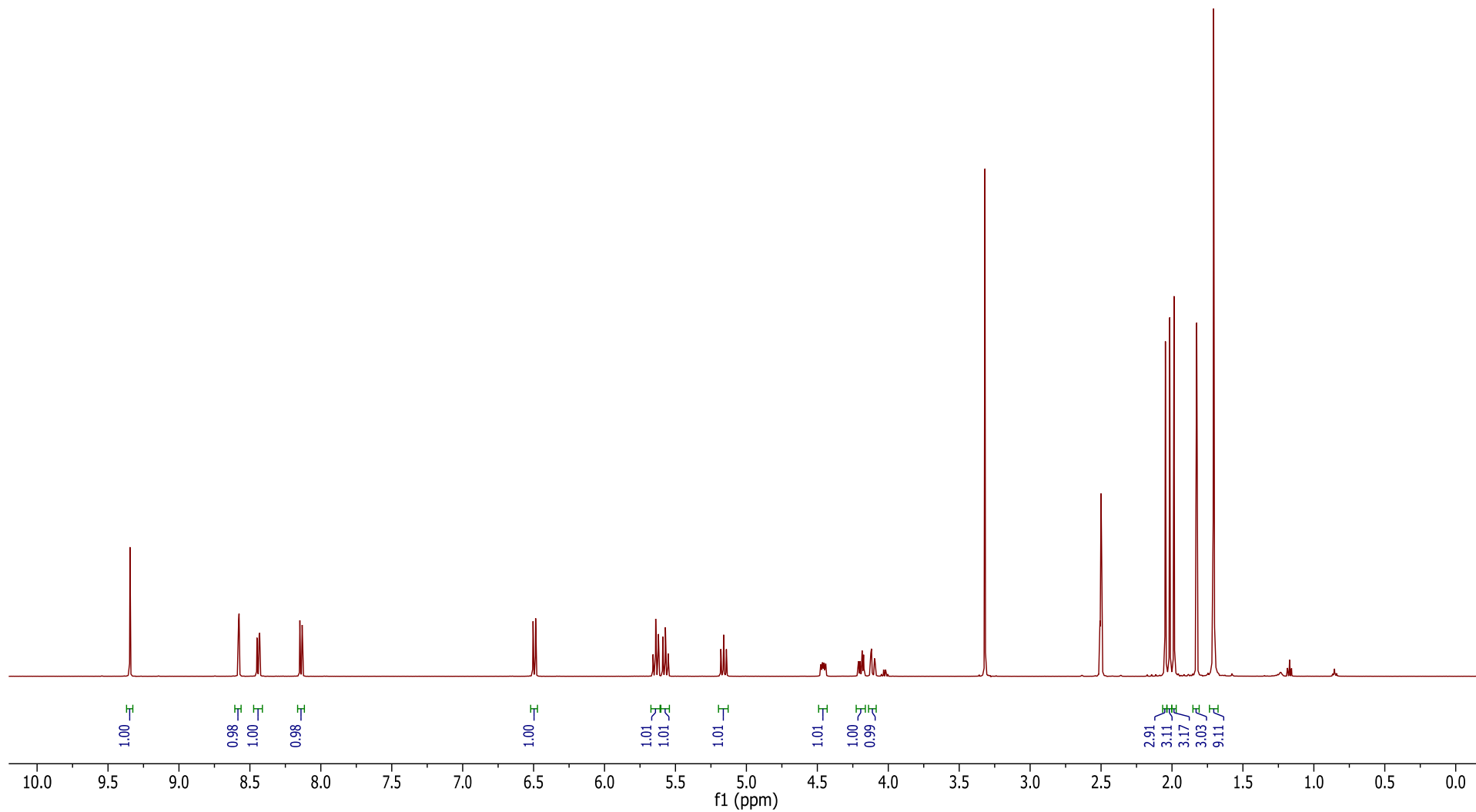
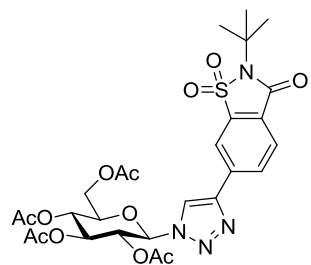
Compound **26** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



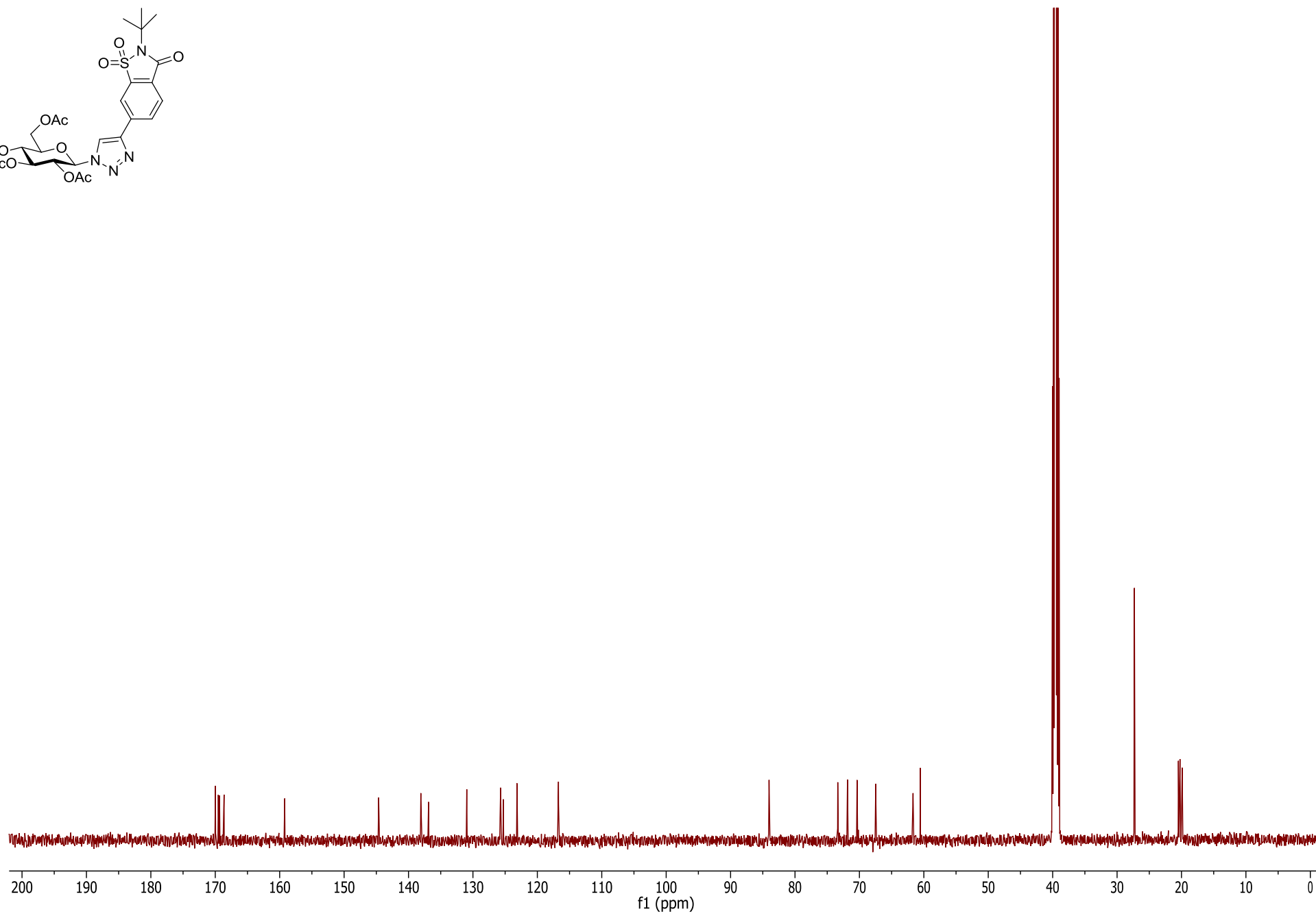
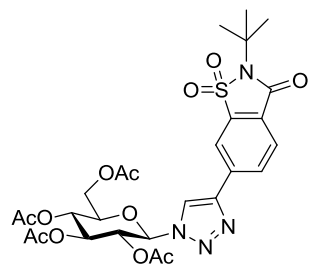
Compound **26** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



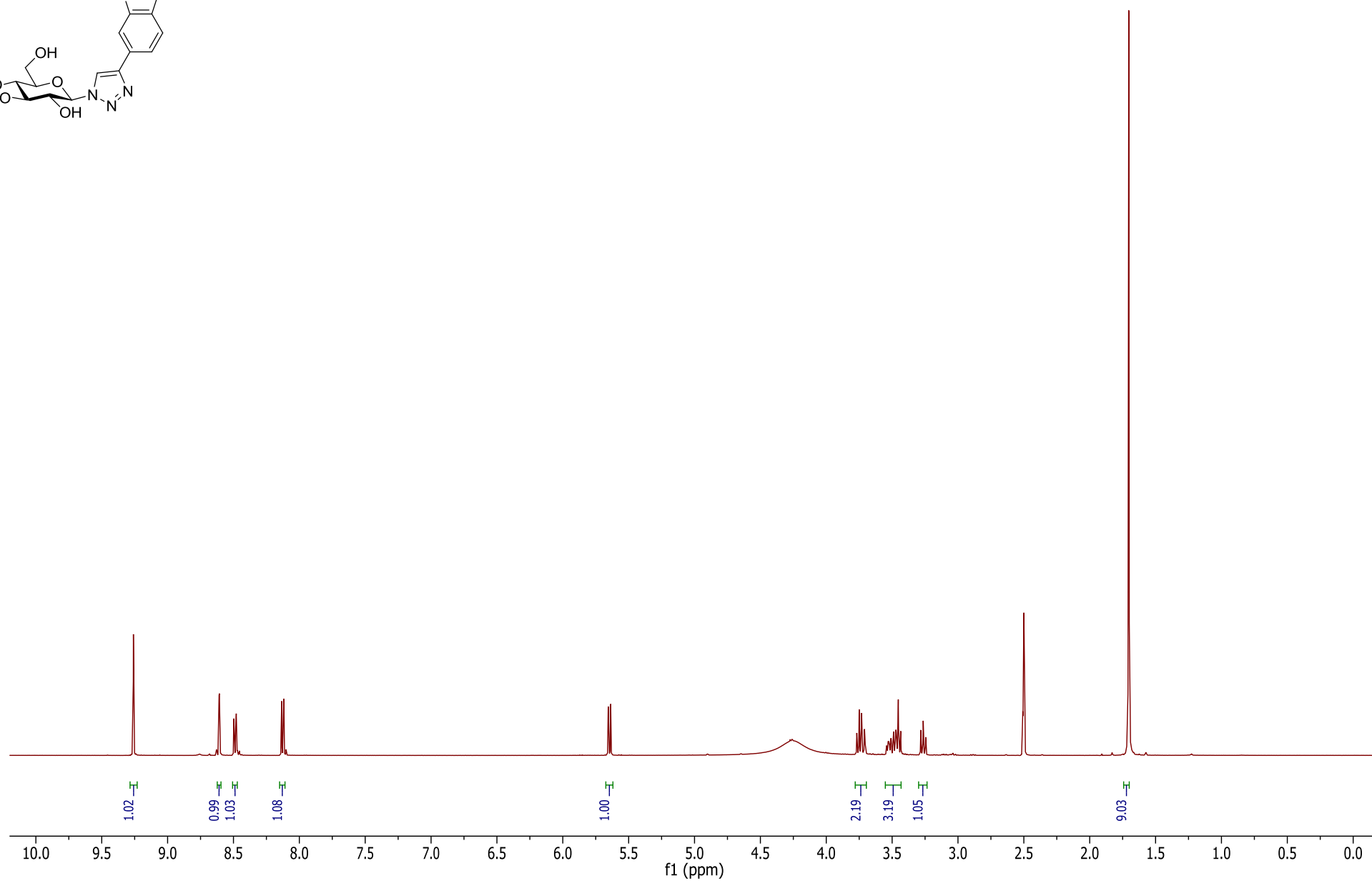
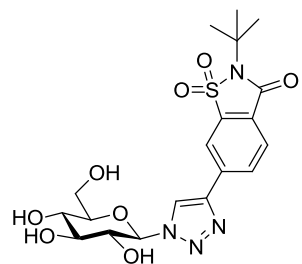
Compound 27 500 MHz ^1H NMR CDCl_3



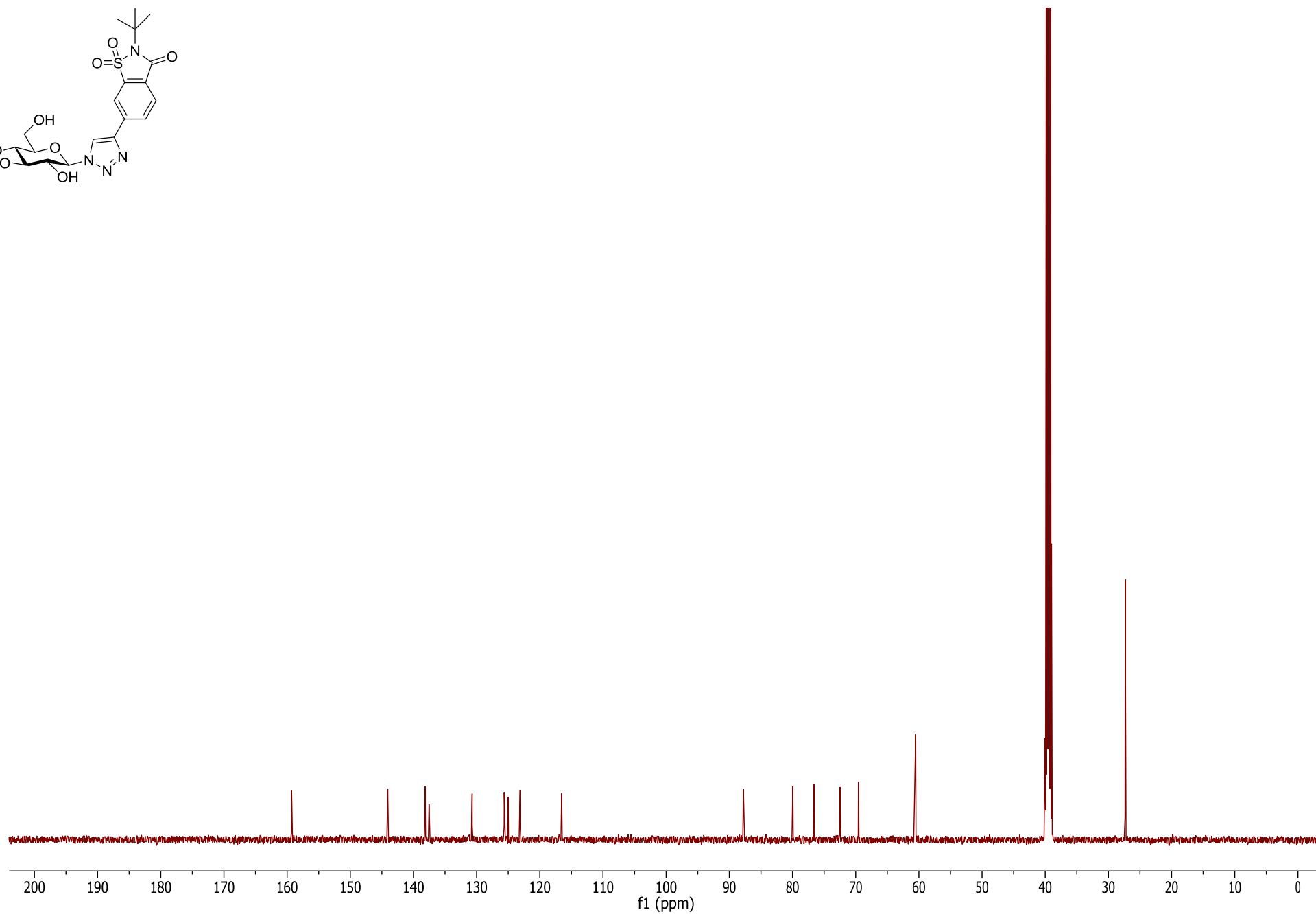
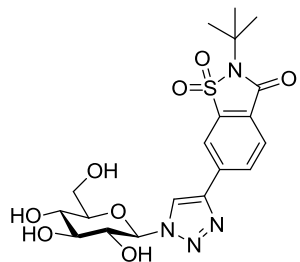
Compound 27 125 MHz ^{13}C NMR CDCl_3



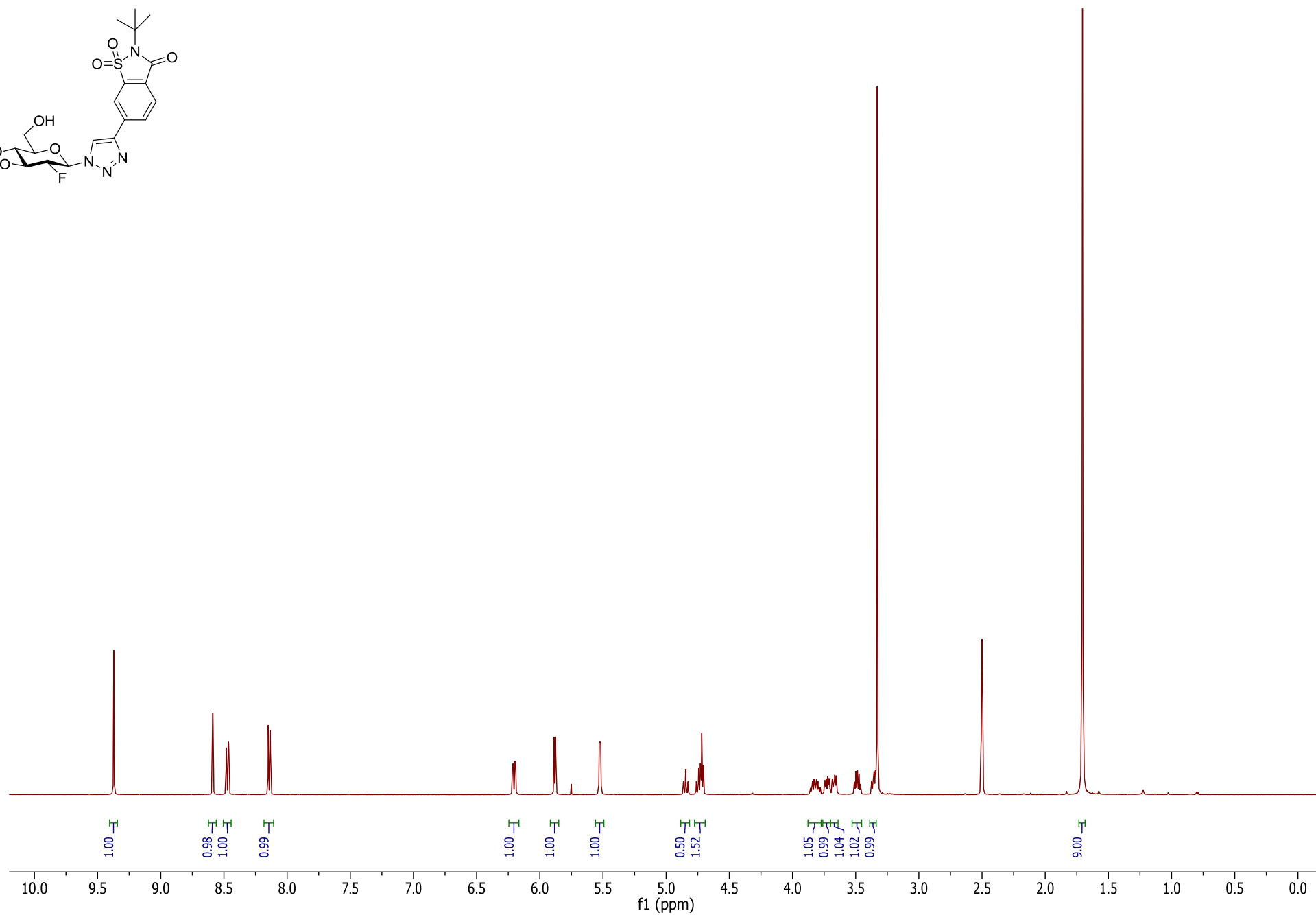
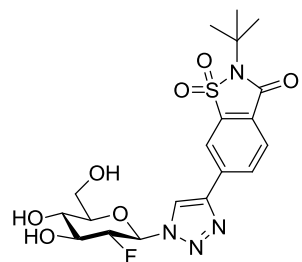
Compound **28** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



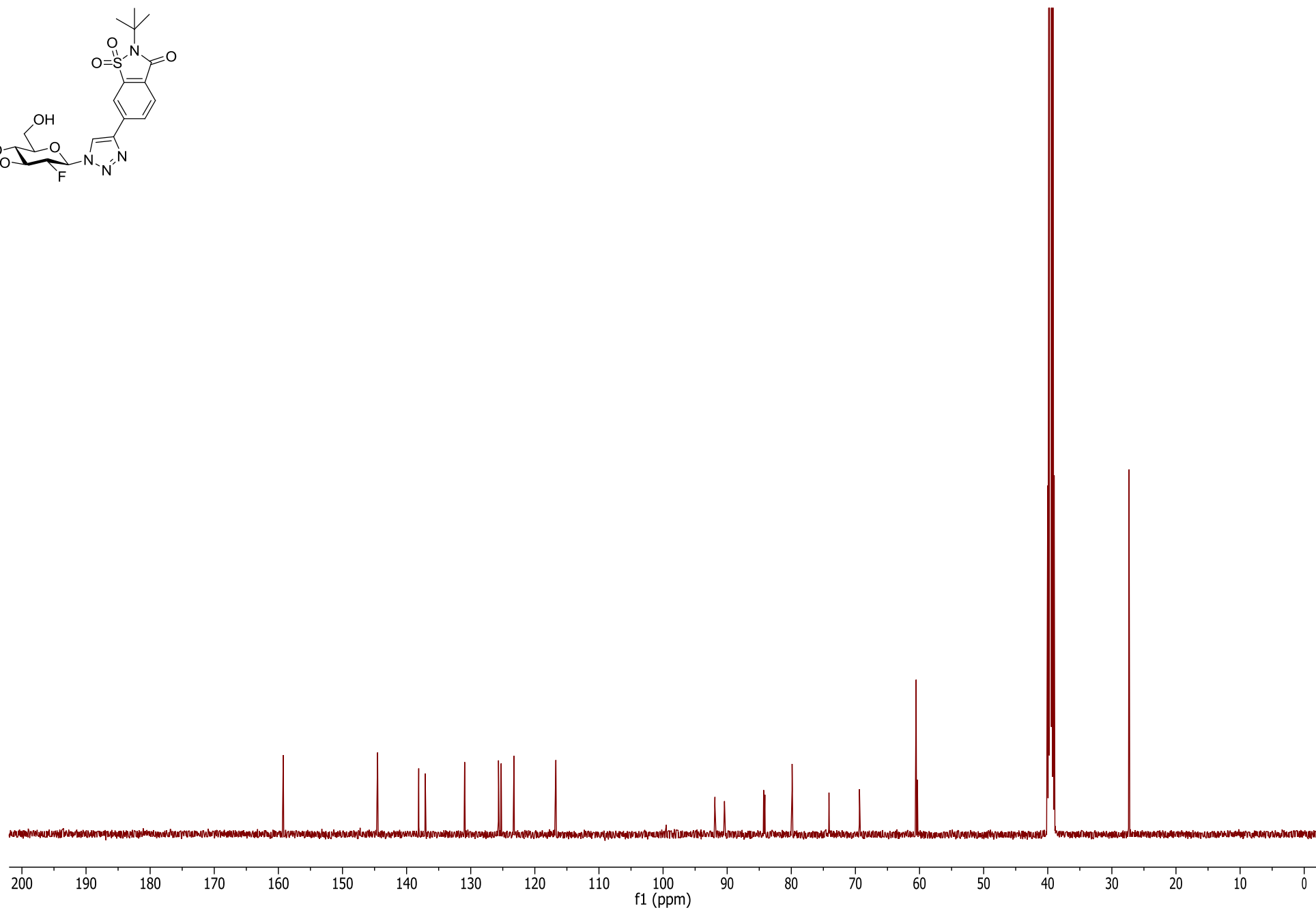
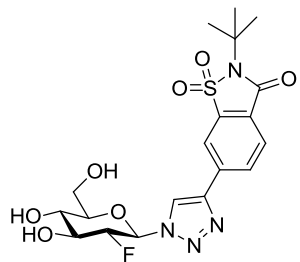
Compound **28** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



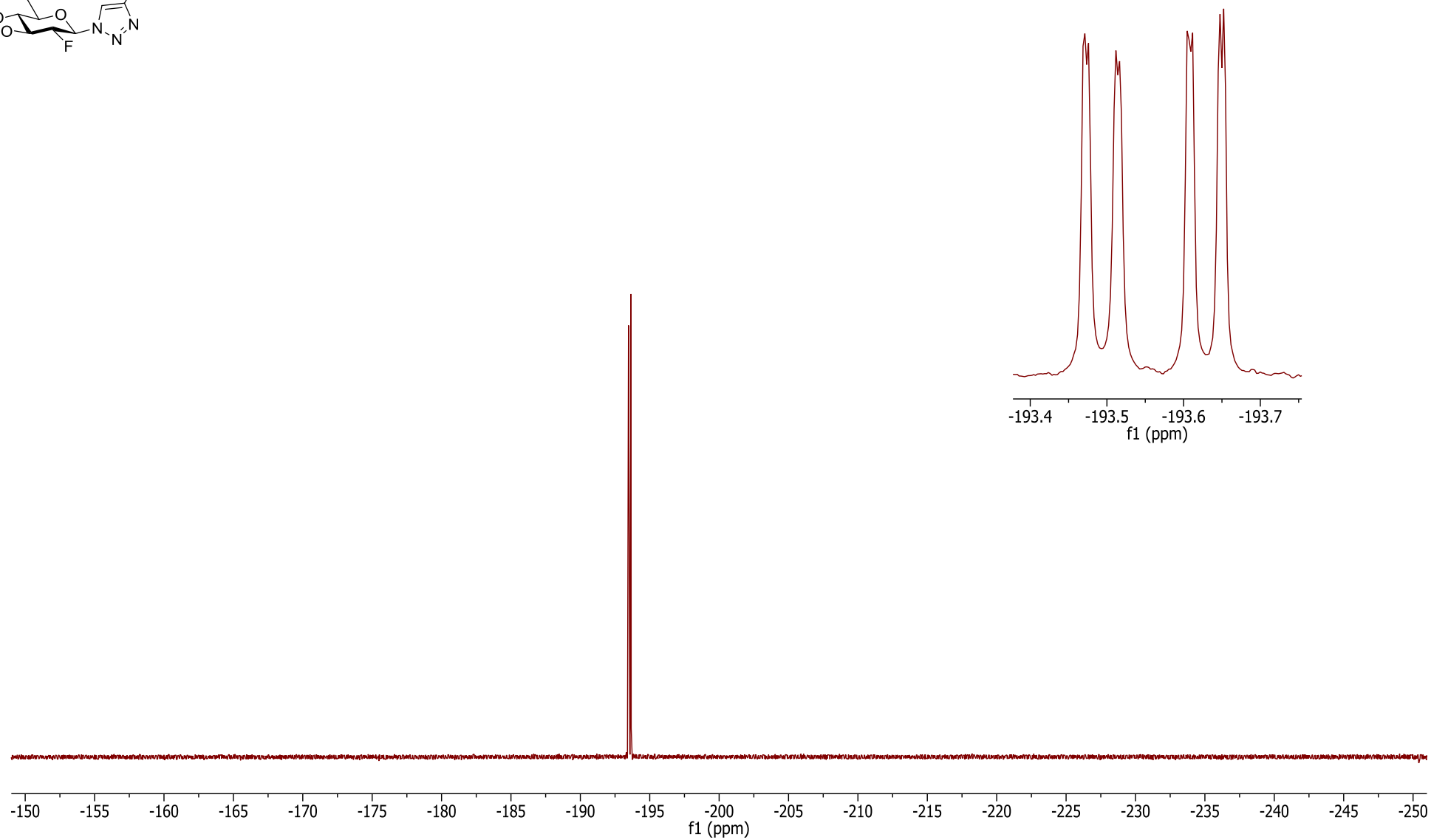
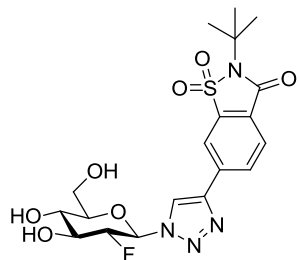
Compound **29** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



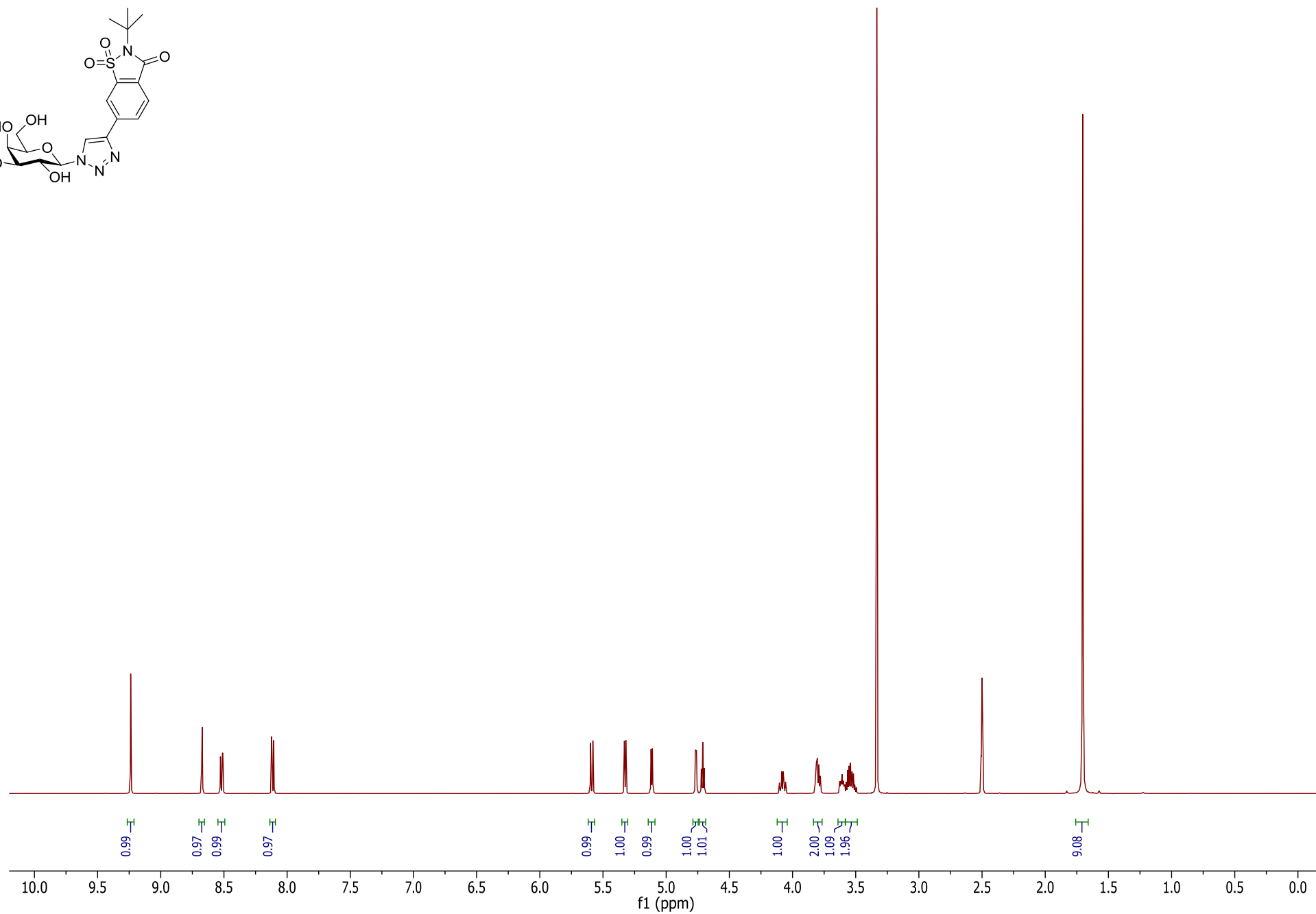
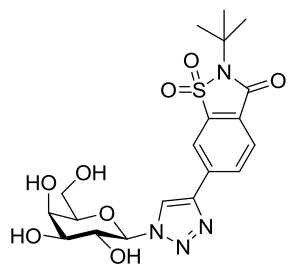
Compound **29** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



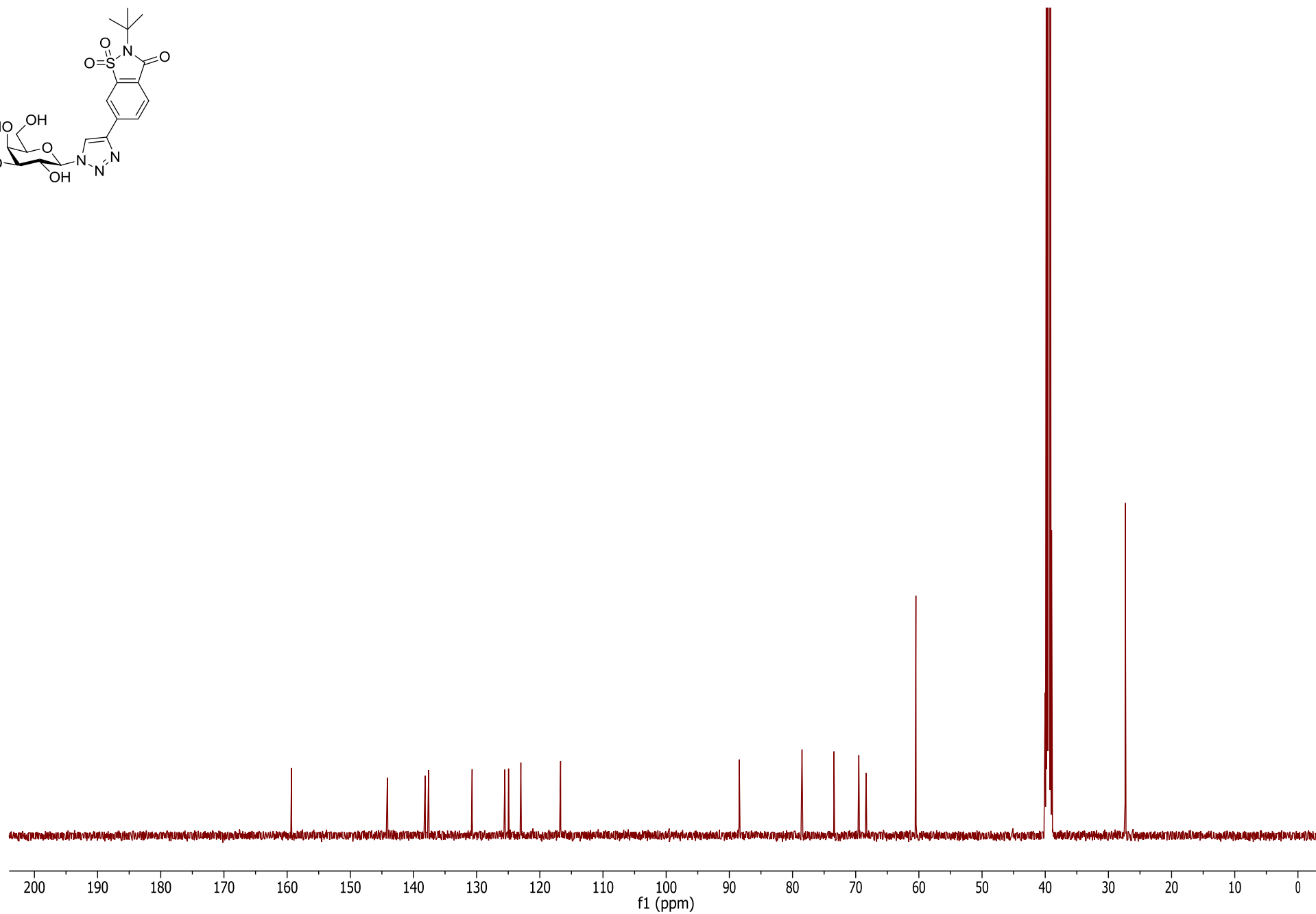
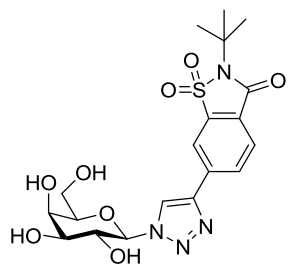
Compound **29** 376 MHz ^{19}F NMR (CD_3) $_2\text{SO}$



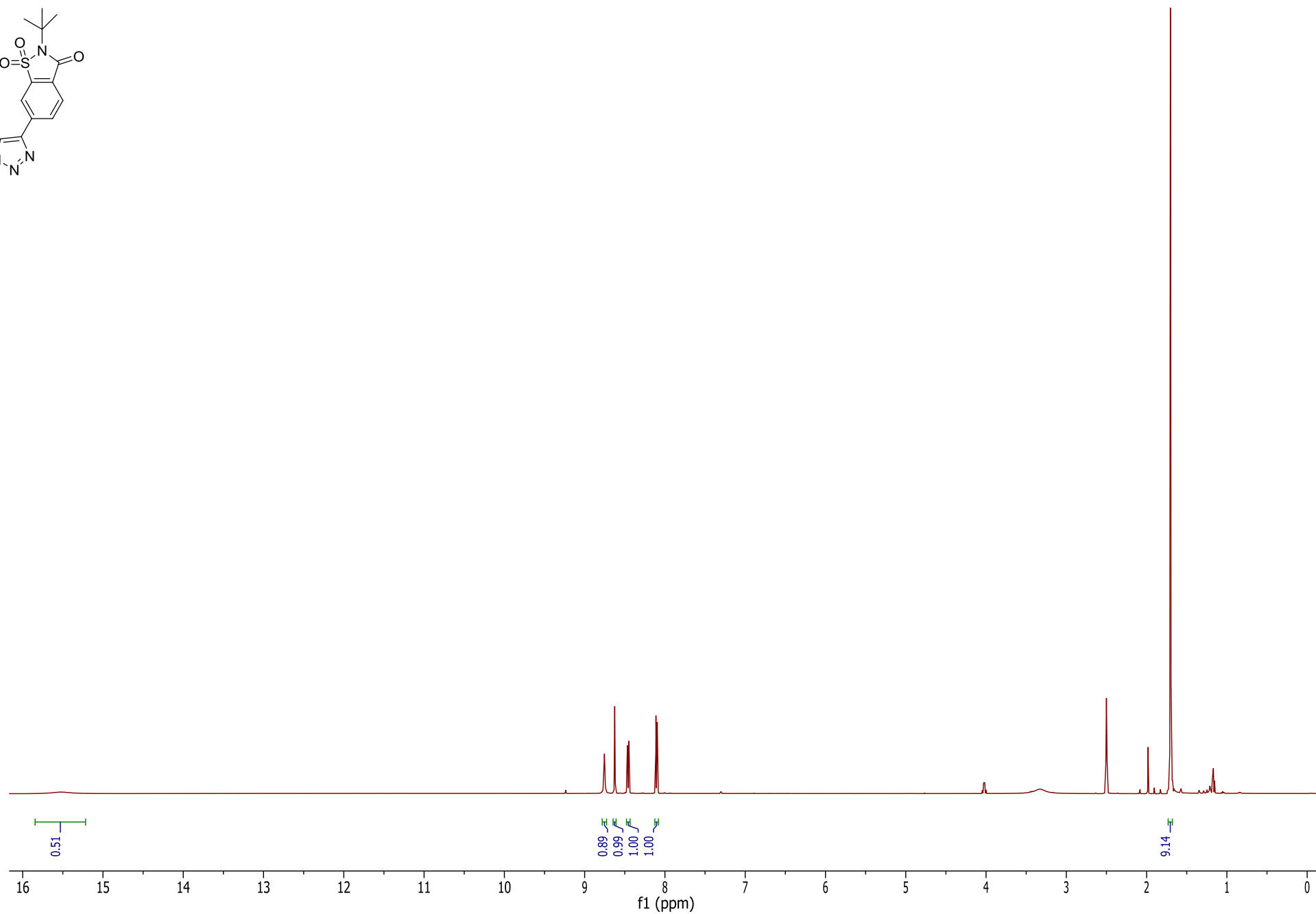
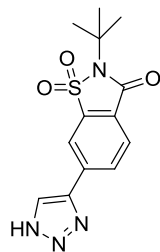
Compound **30** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



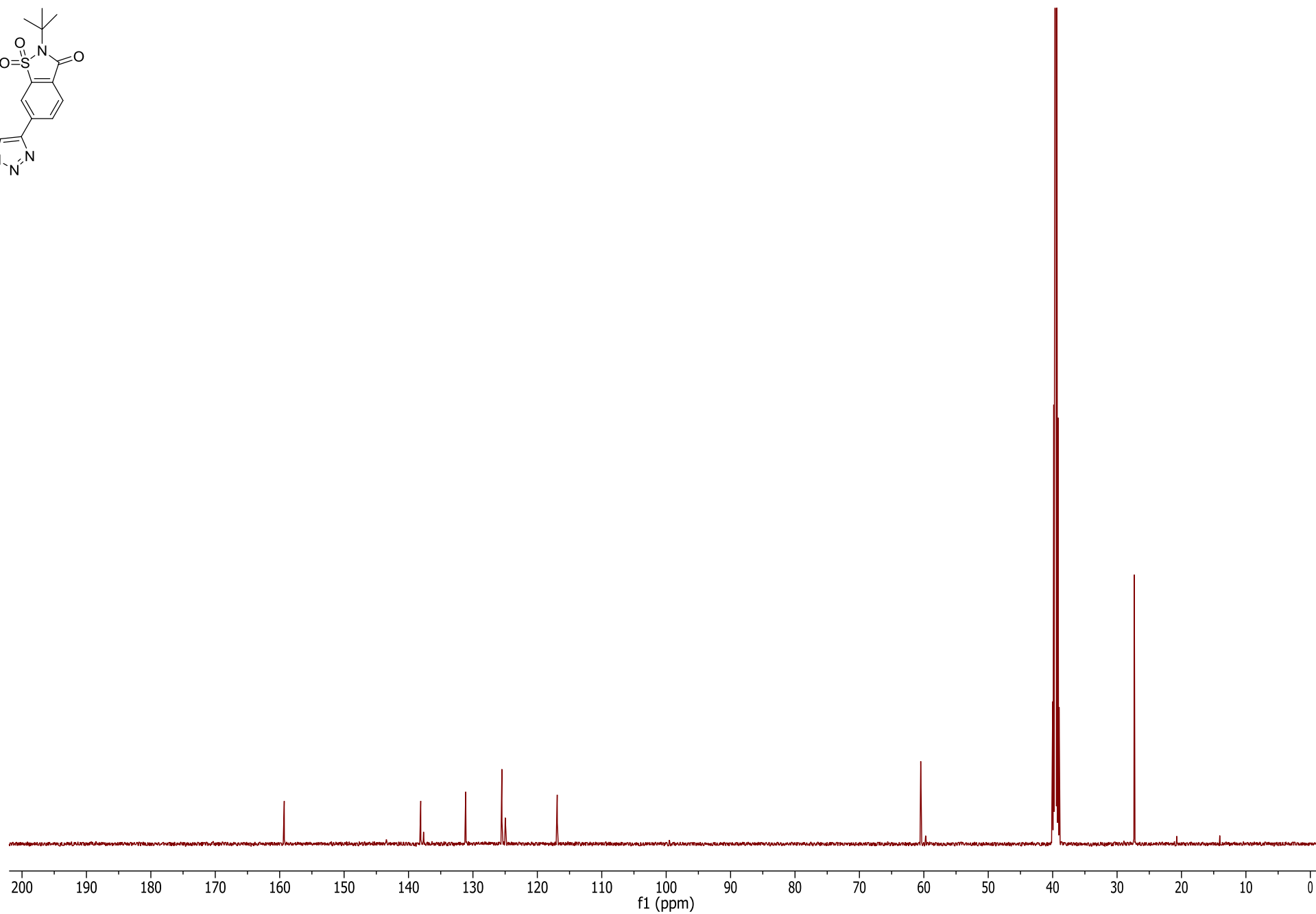
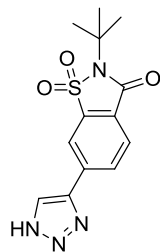
Compound **30** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



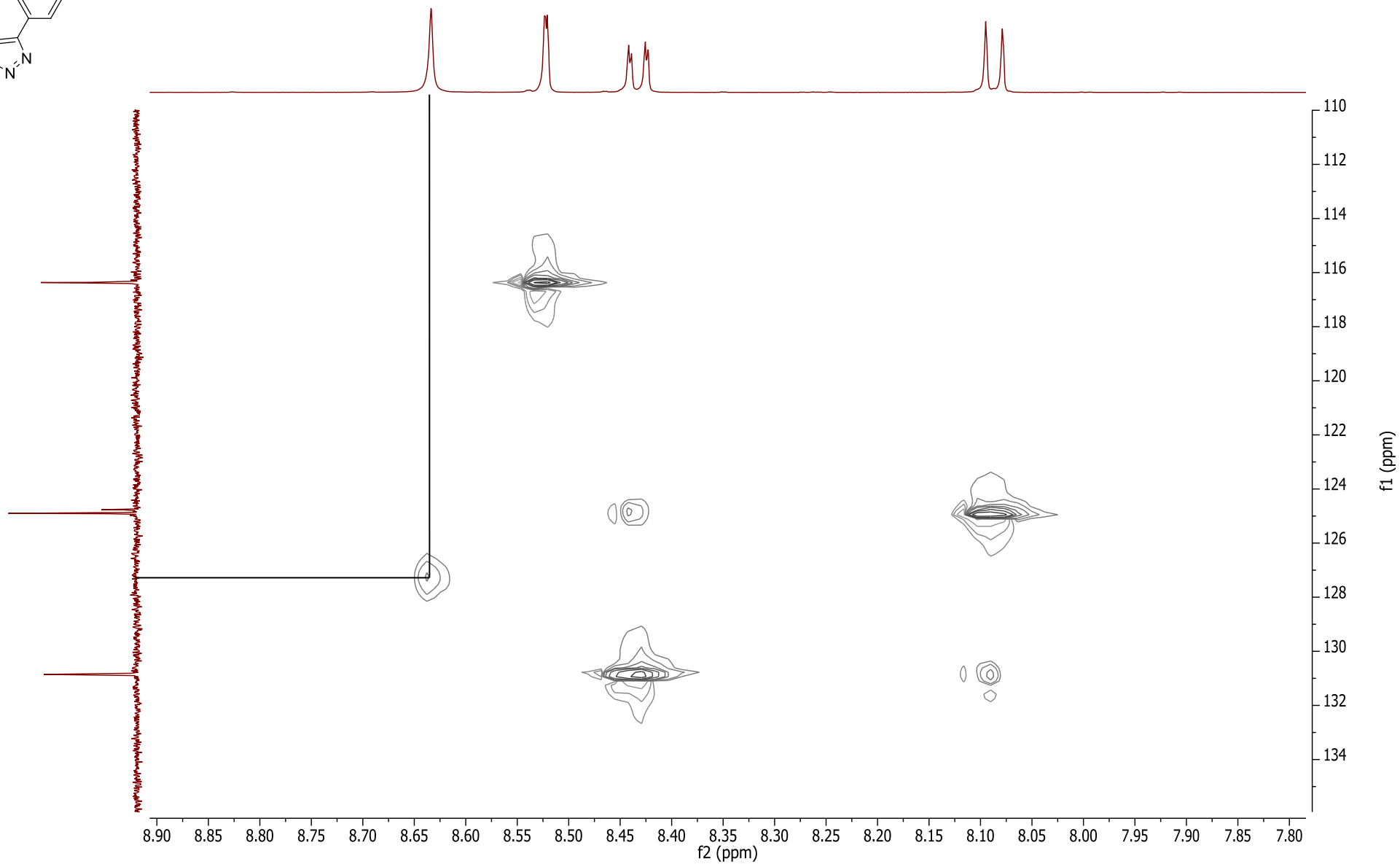
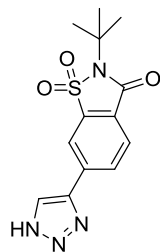
Compound **31** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



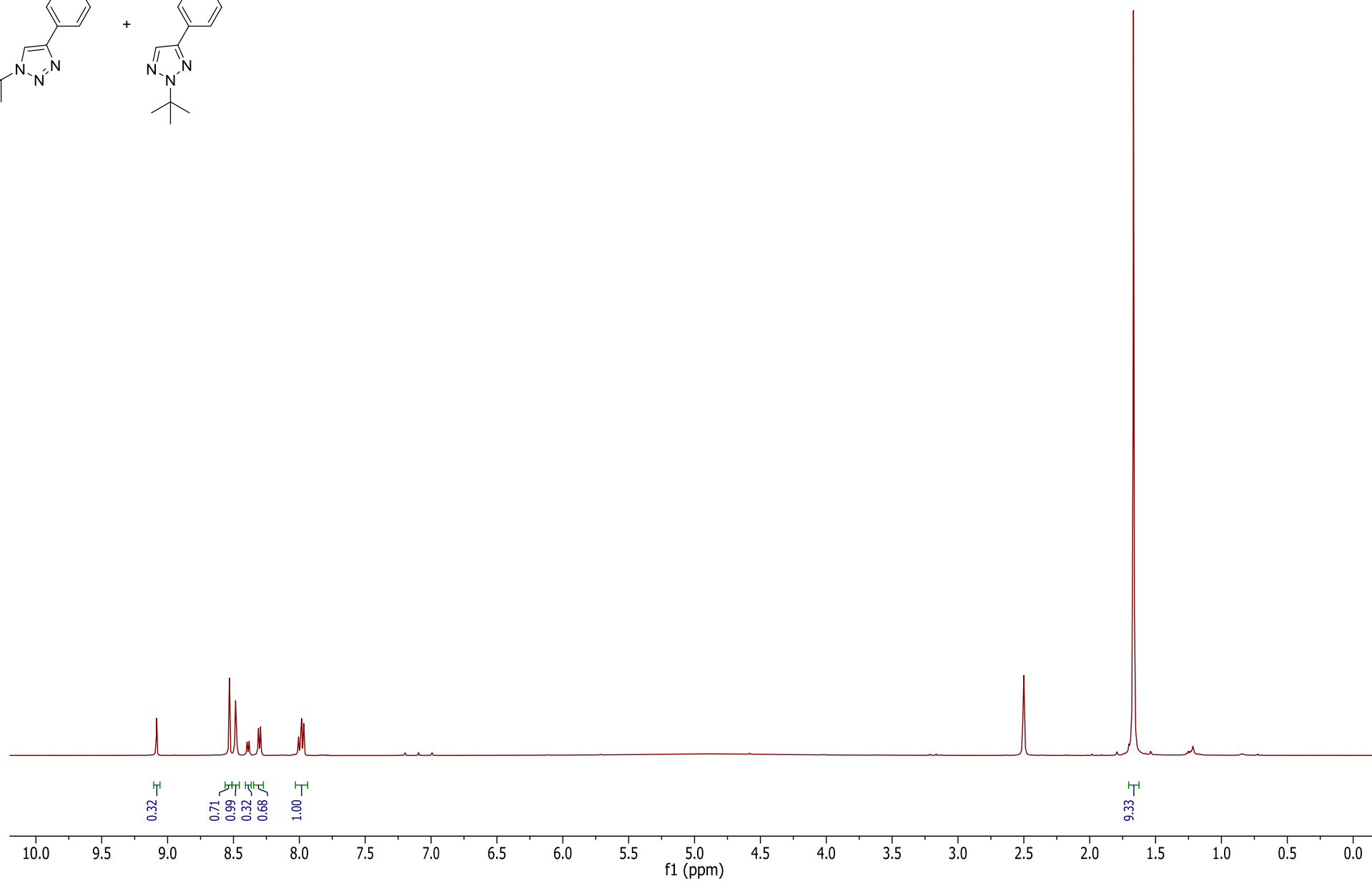
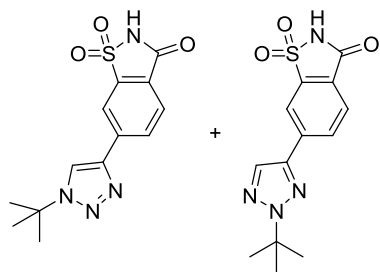
Compound **31** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



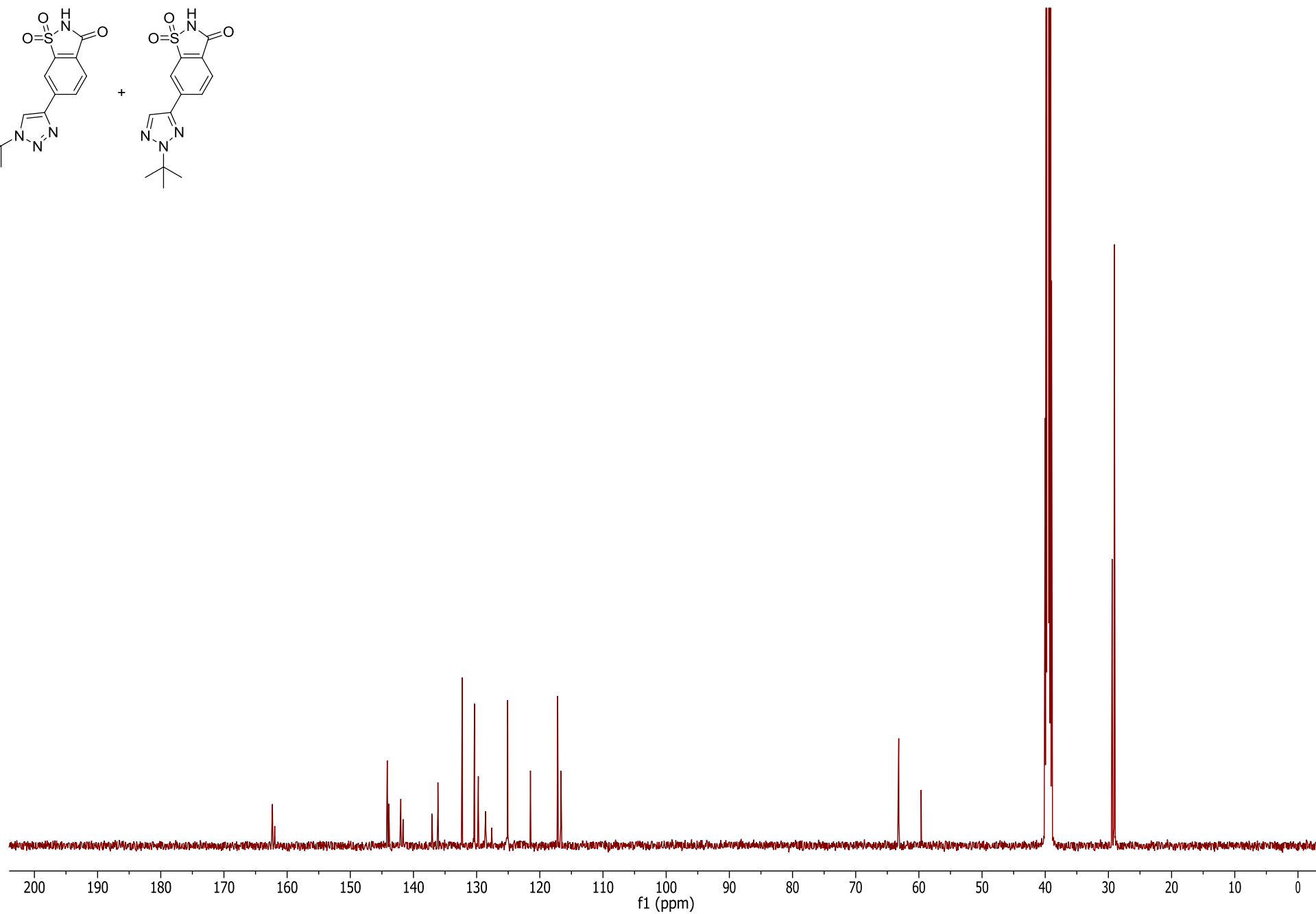
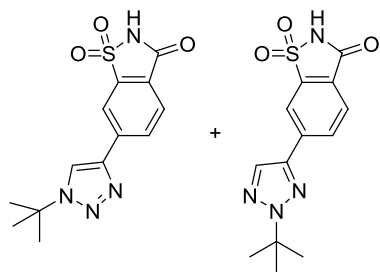
Compound **31** HSQC NMR (CD₃)₂SO, 90 °C, coupling constant 160 Hz



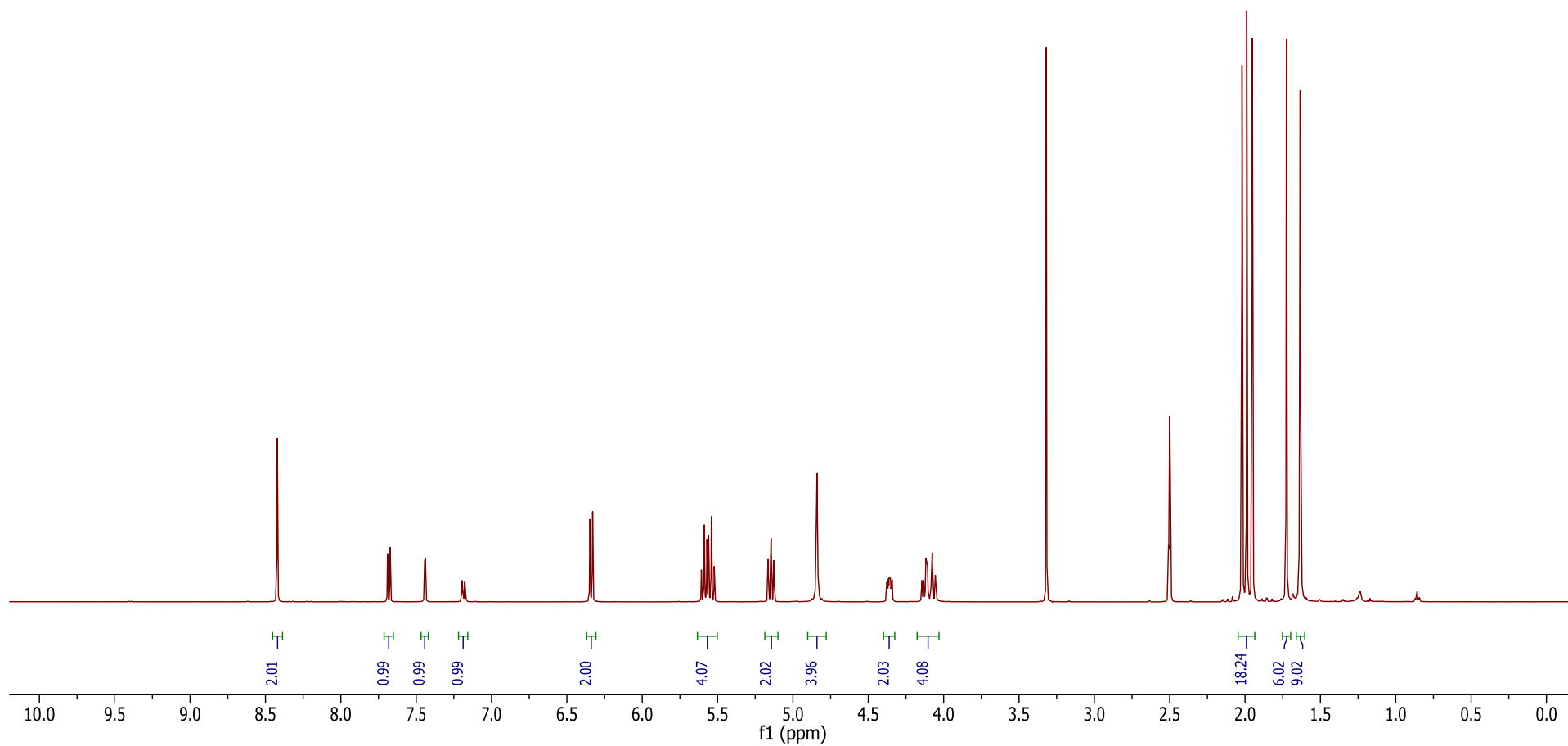
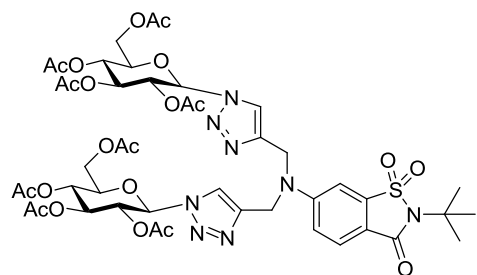
Compound **32a+32b** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



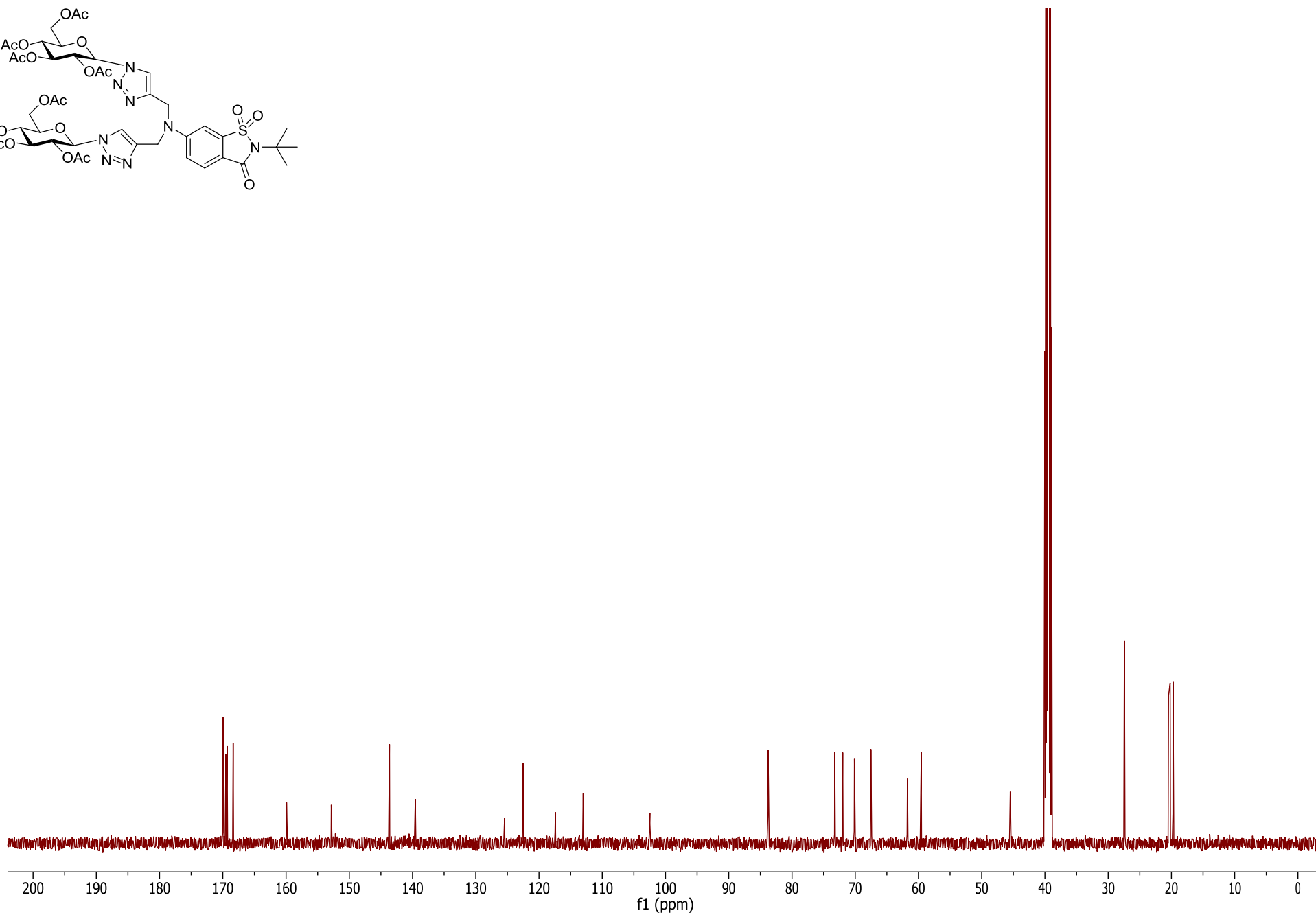
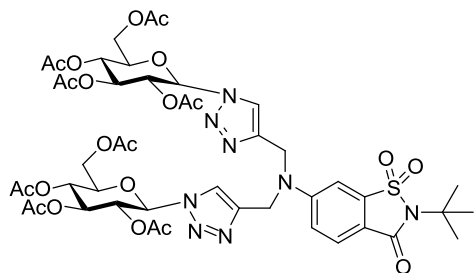
Compound **32a+32b** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



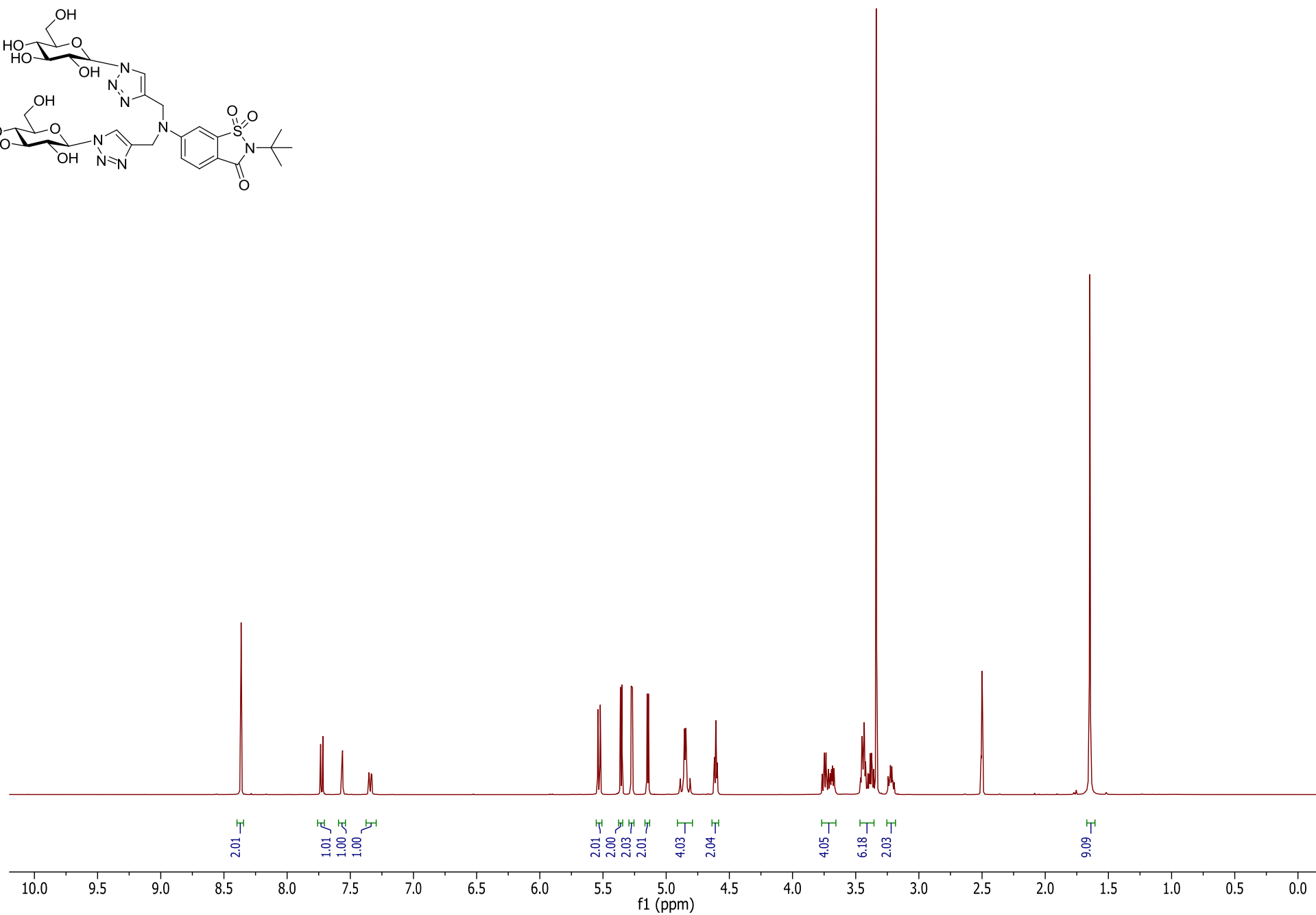
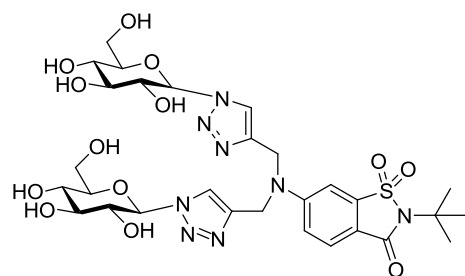
Compound **33** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



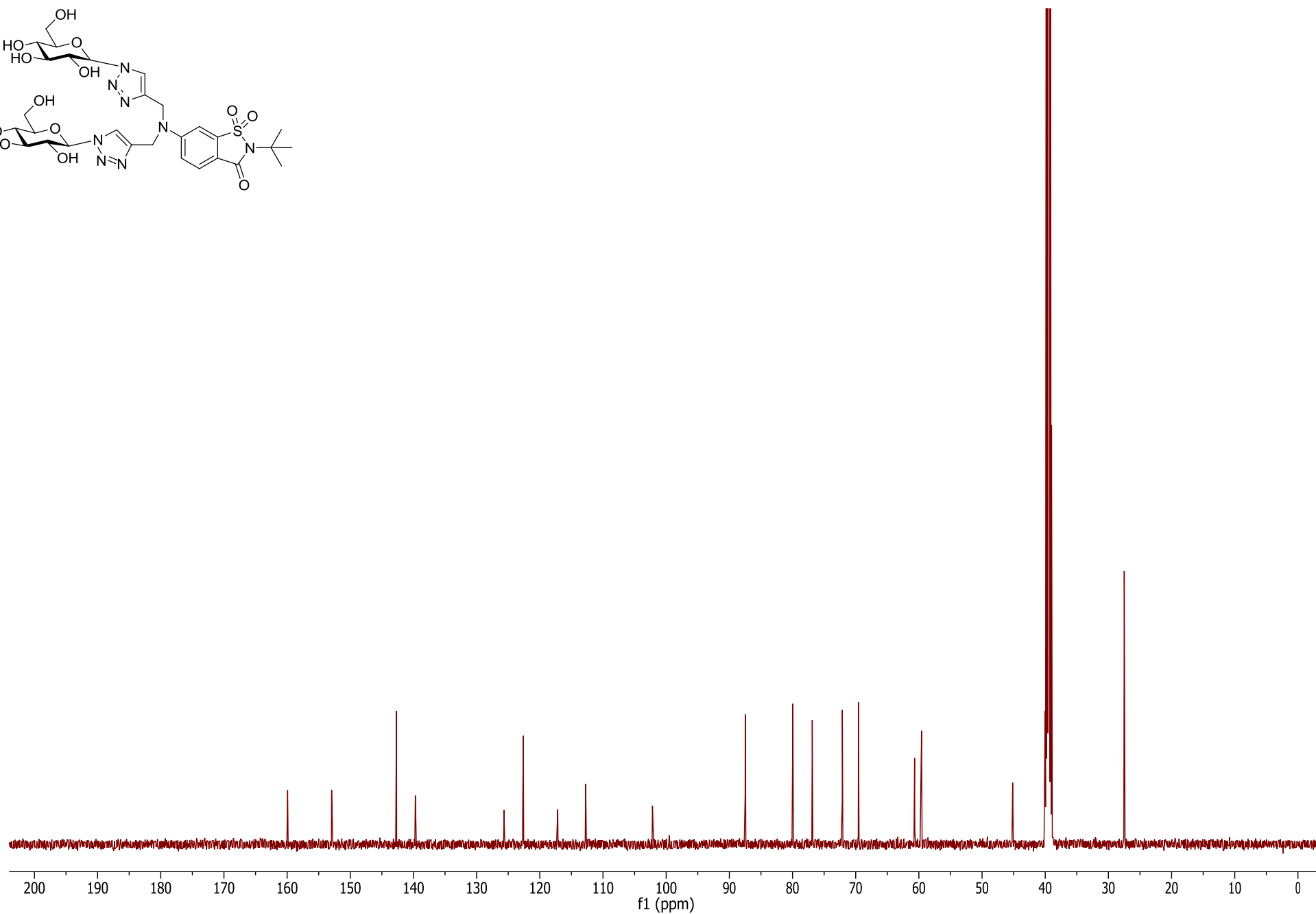
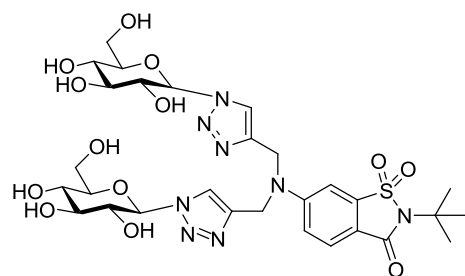
Compound **33** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



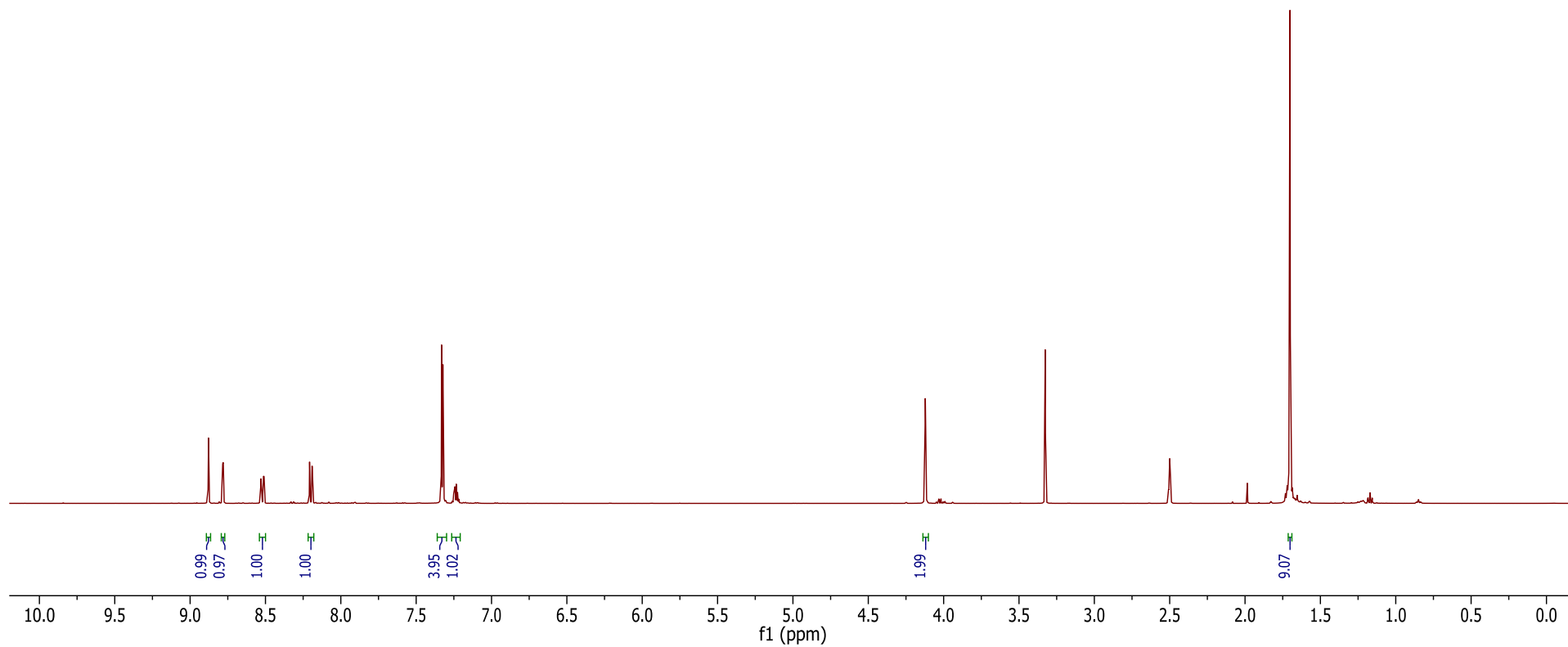
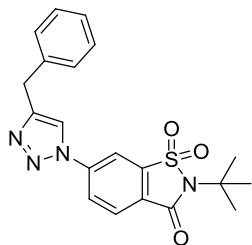
Compound **34** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



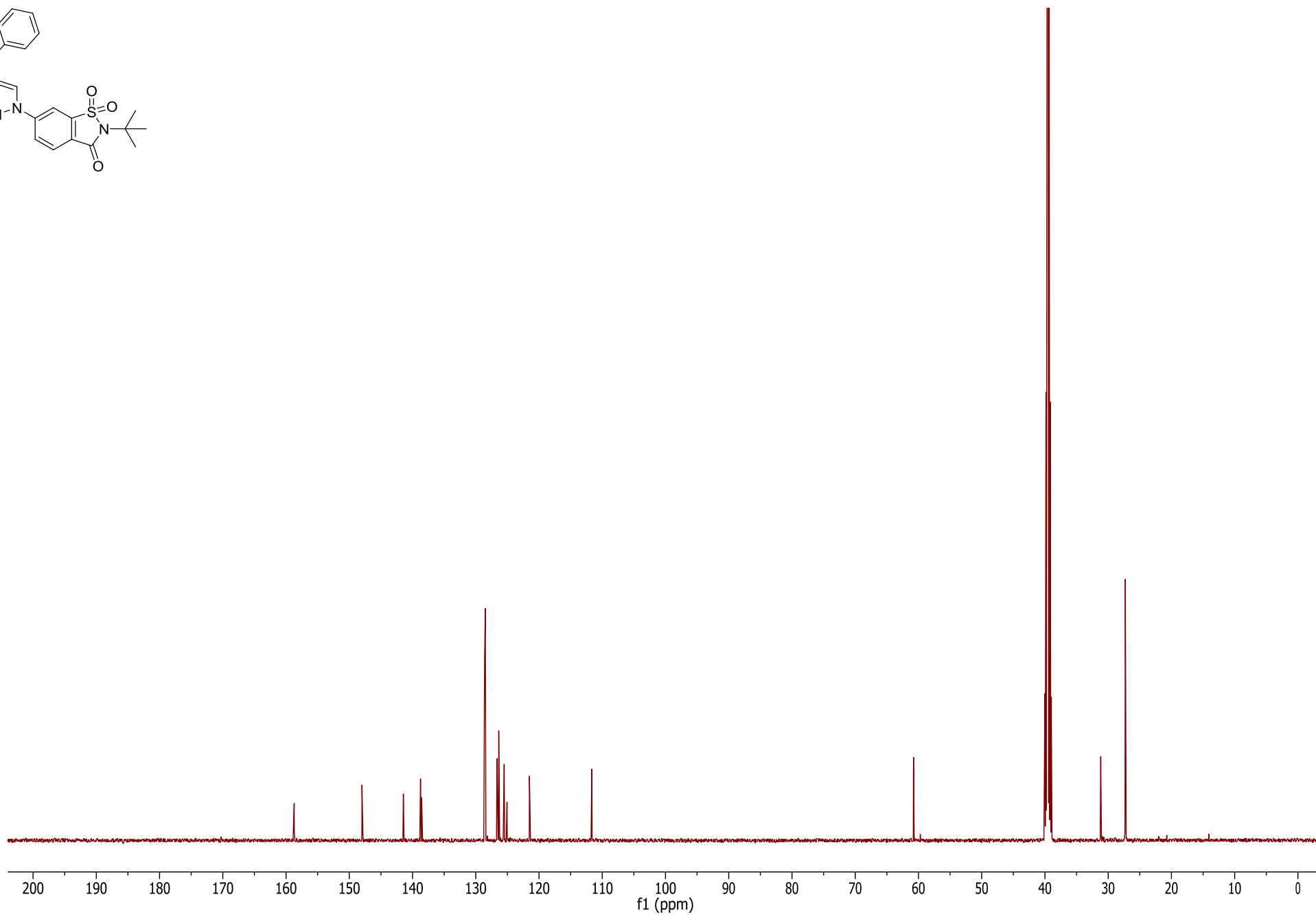
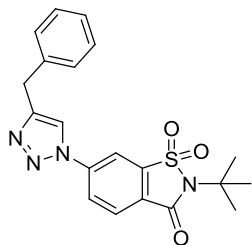
Compound **34** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



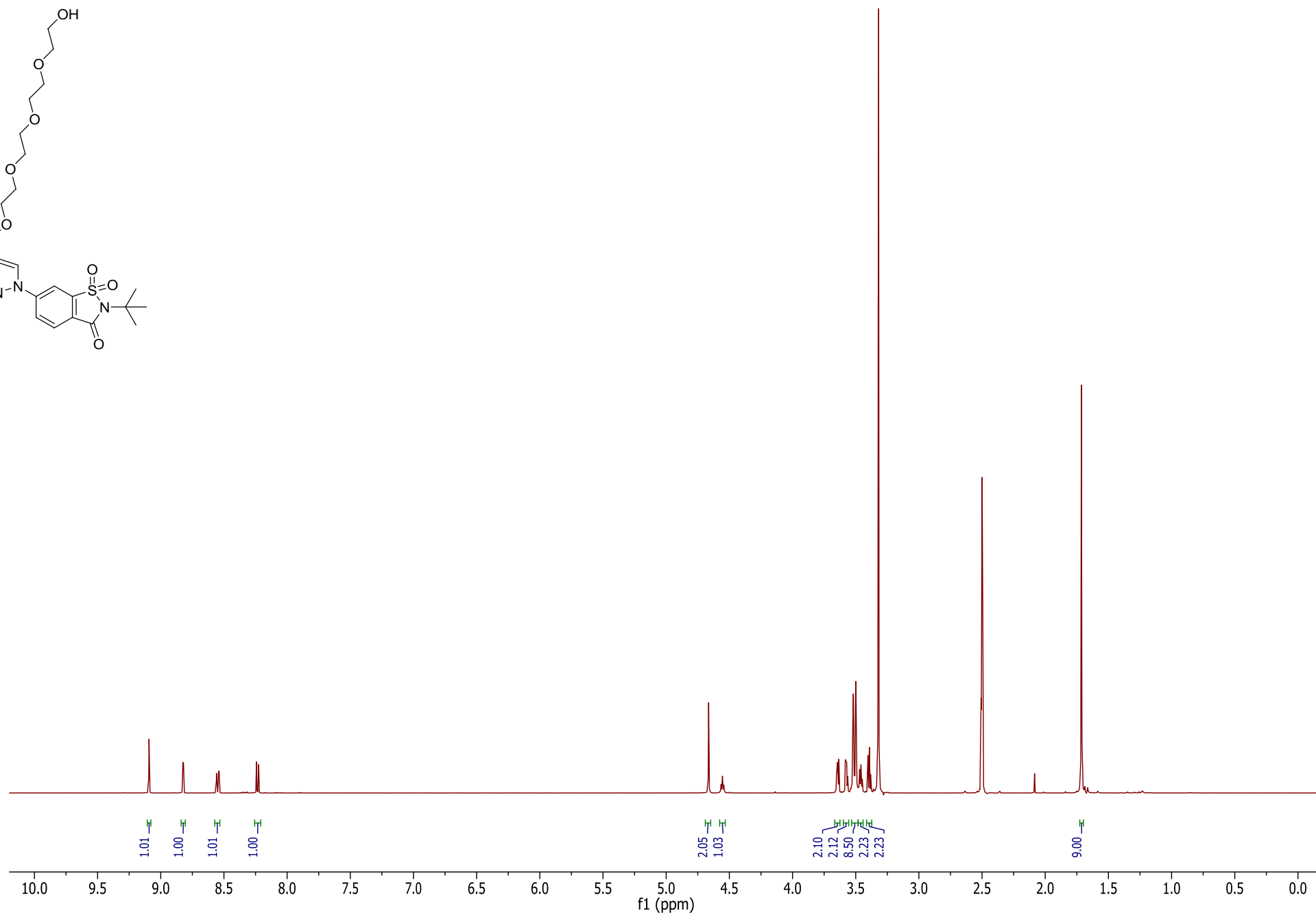
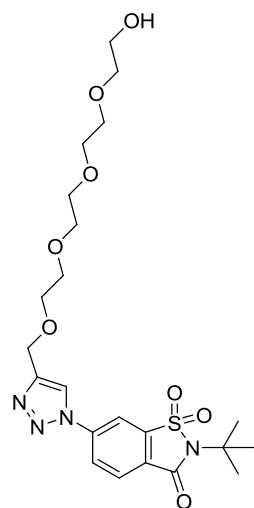
Compound **35** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



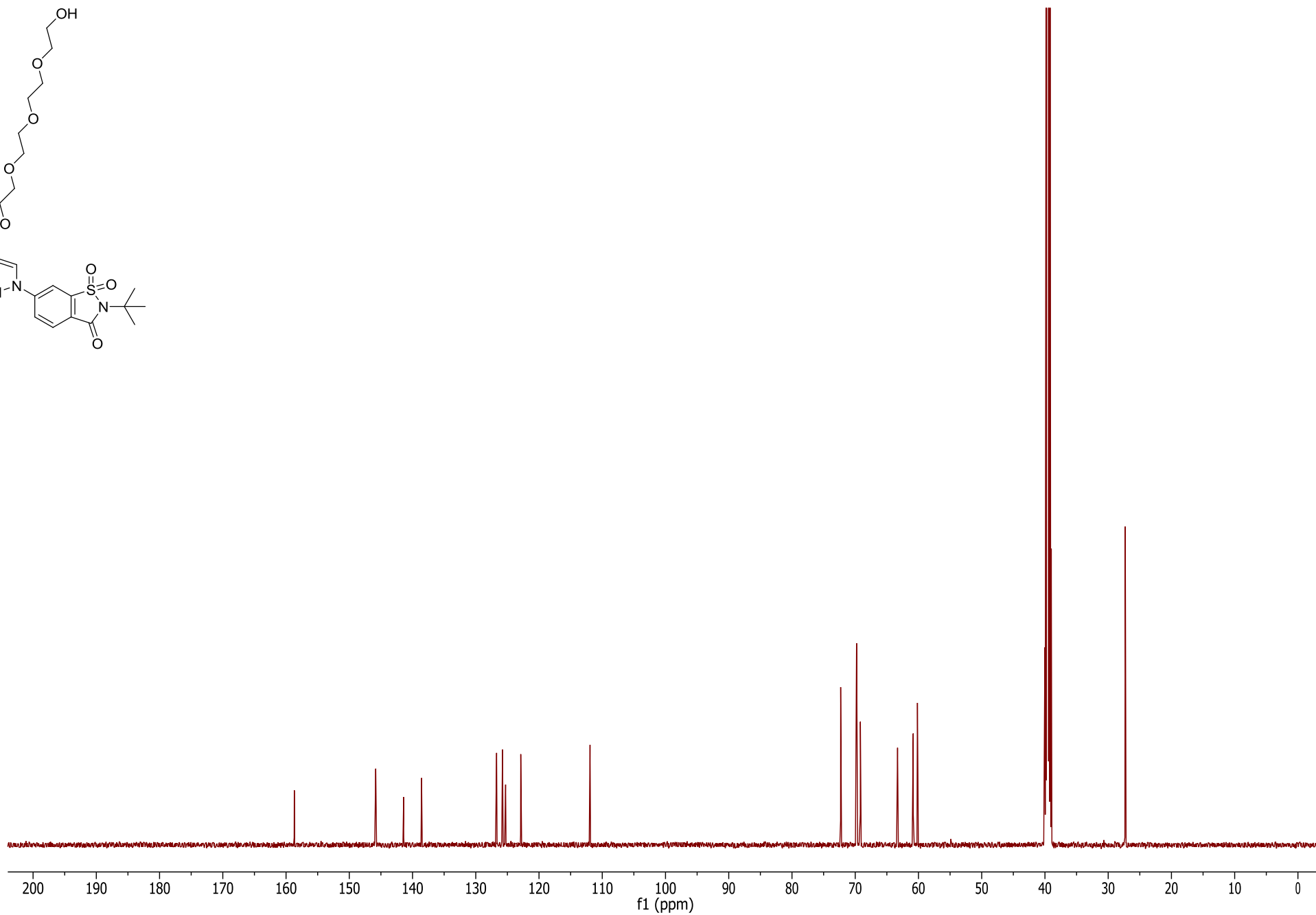
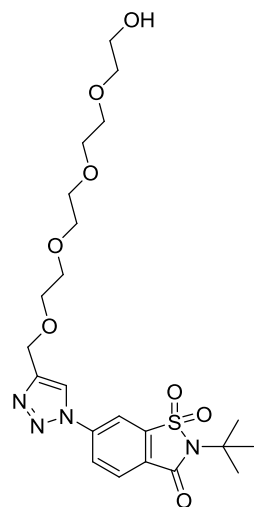
Compound **35** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



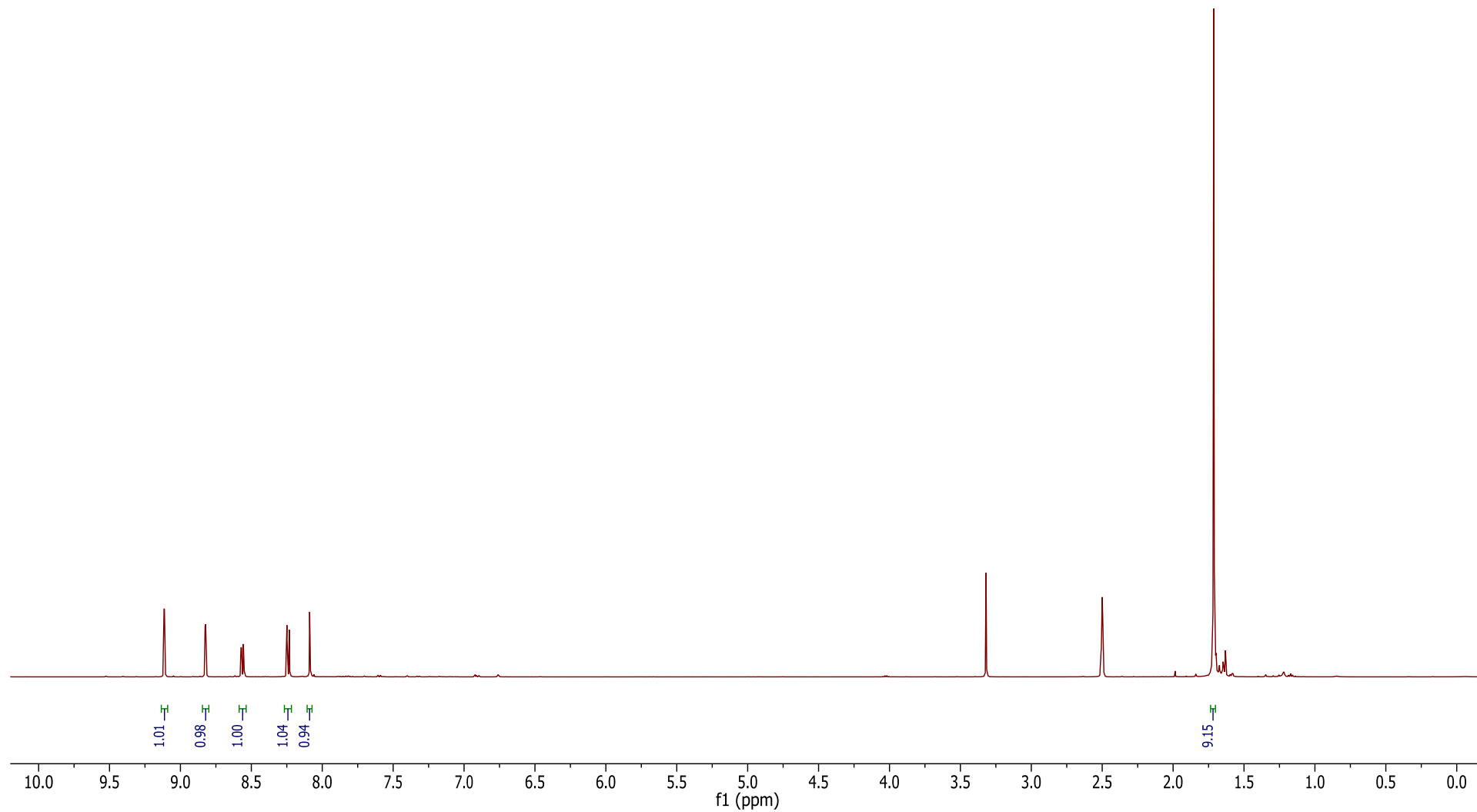
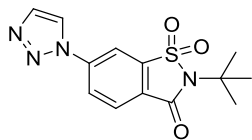
Compound **36** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



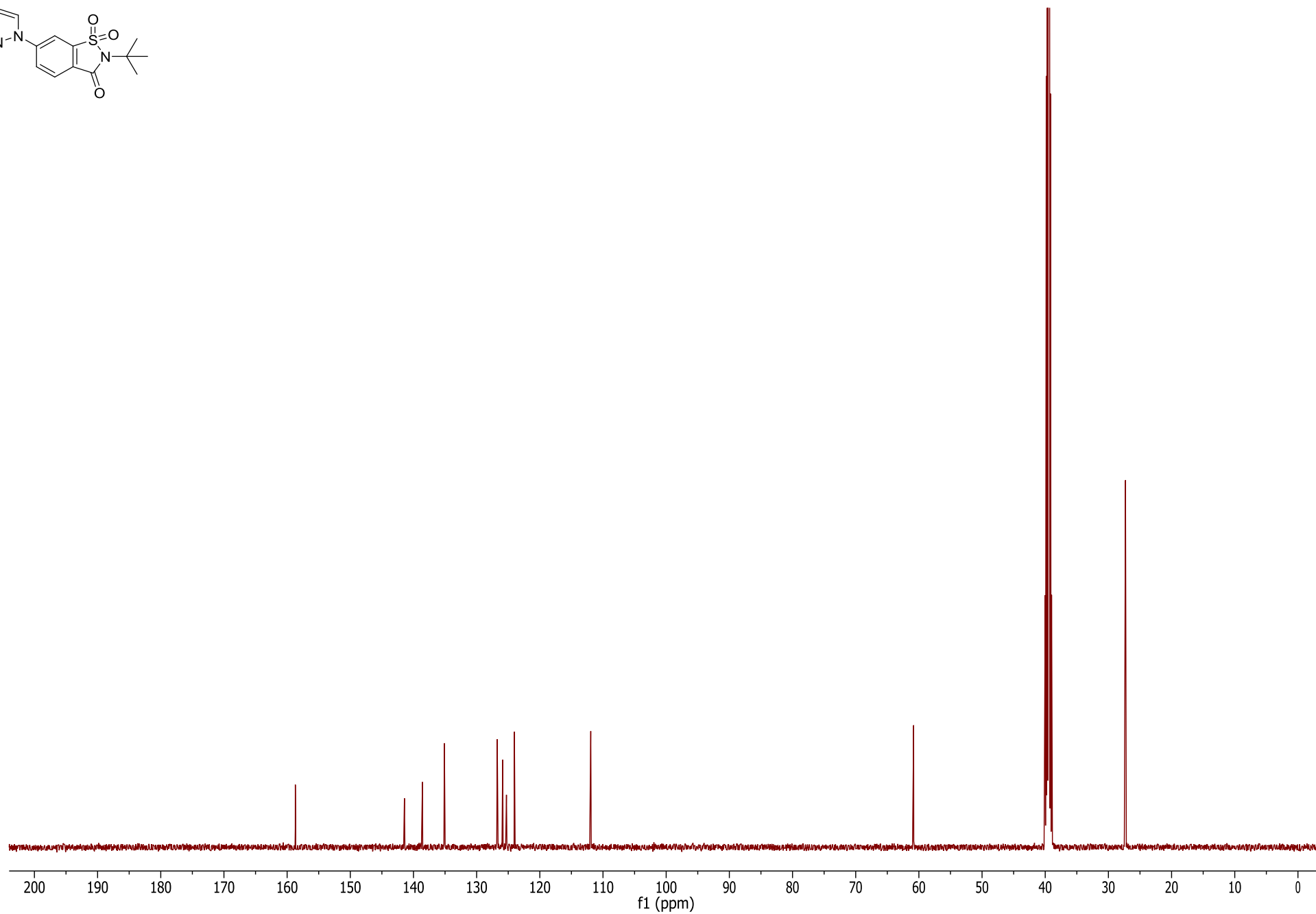
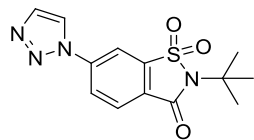
Compound **36** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



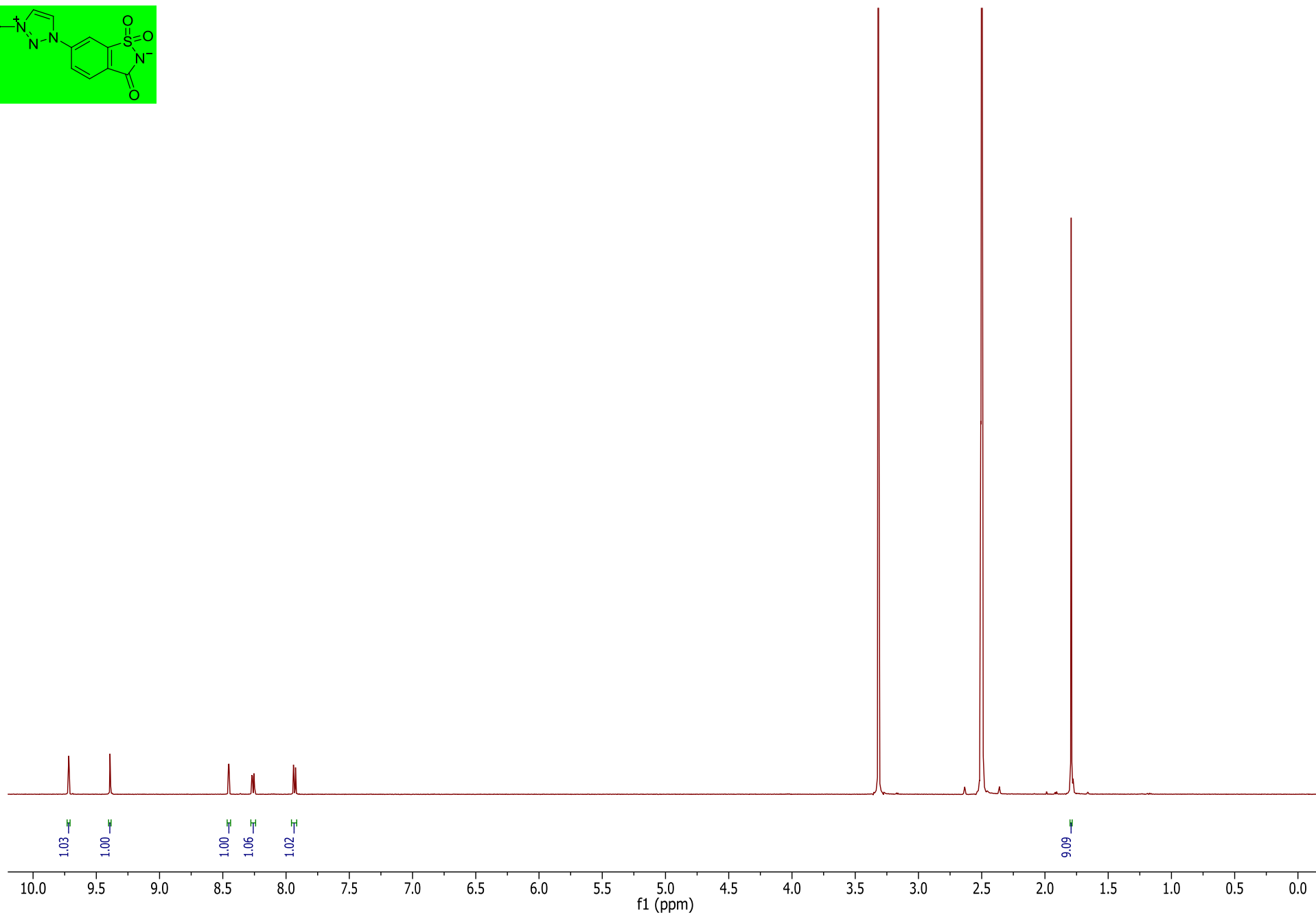
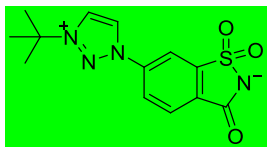
Compound **37** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



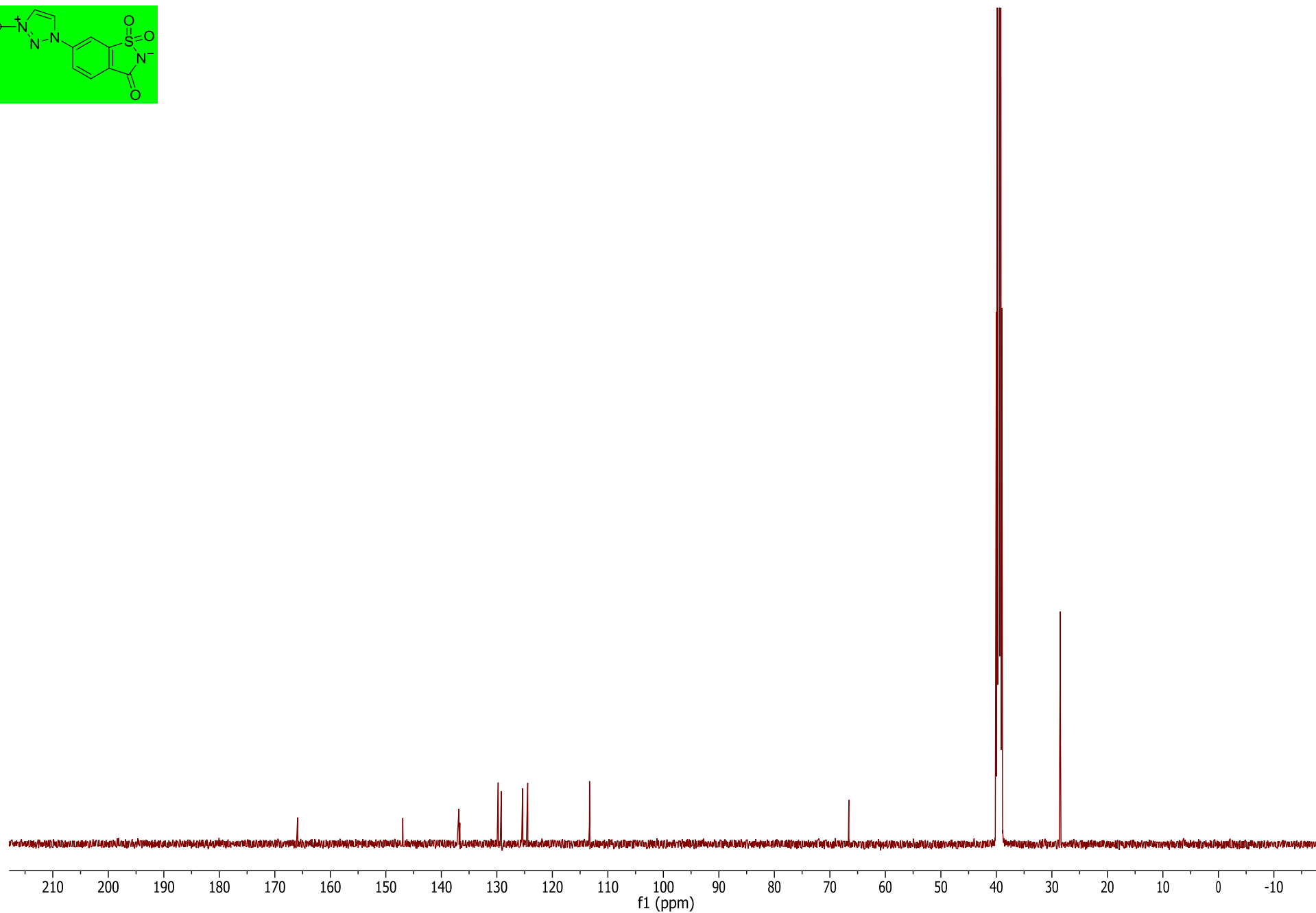
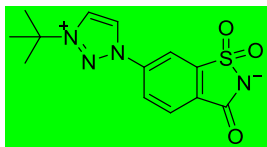
Compound **37** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



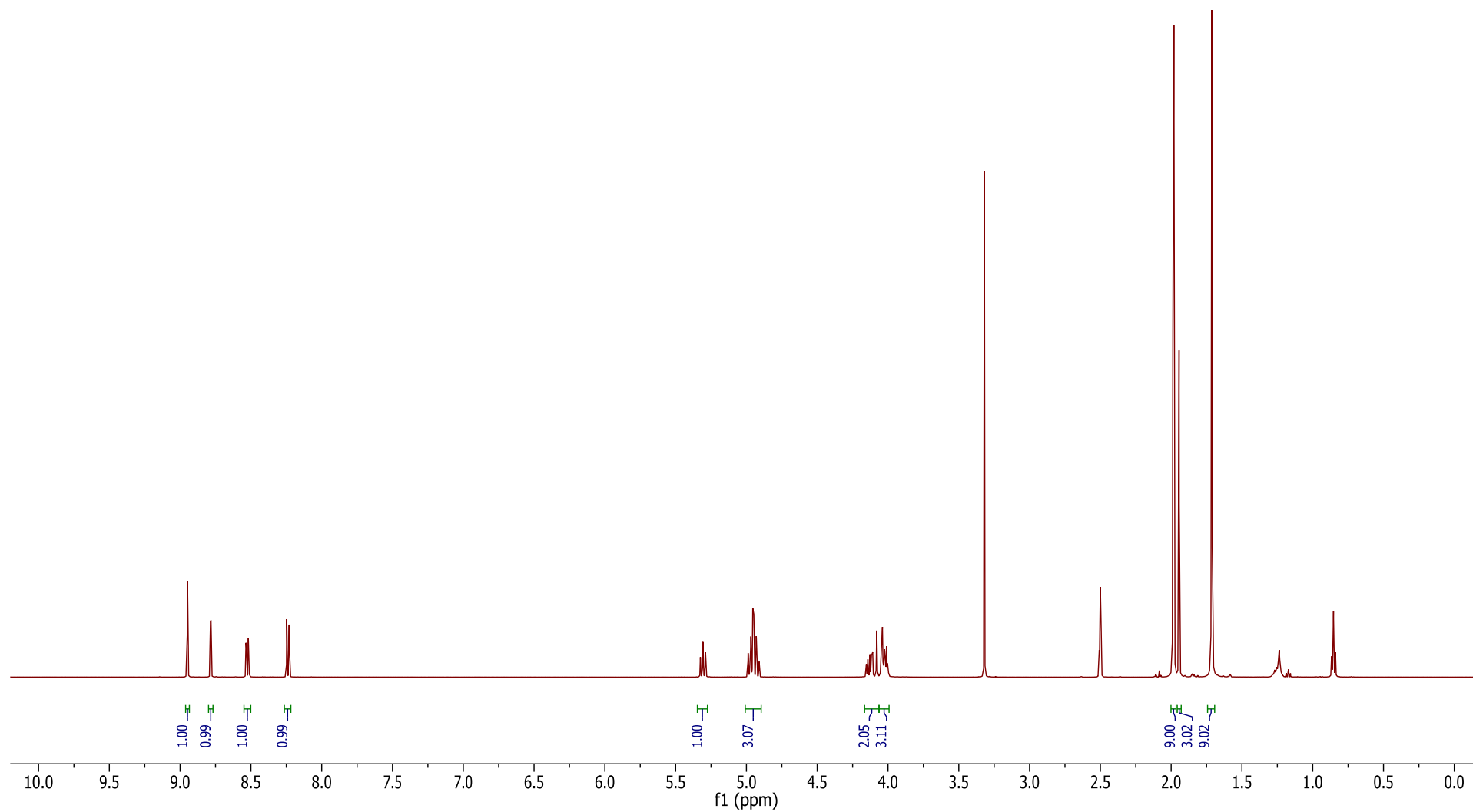
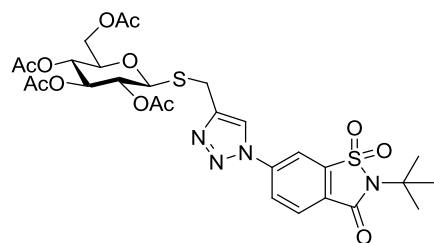
Compound **38** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



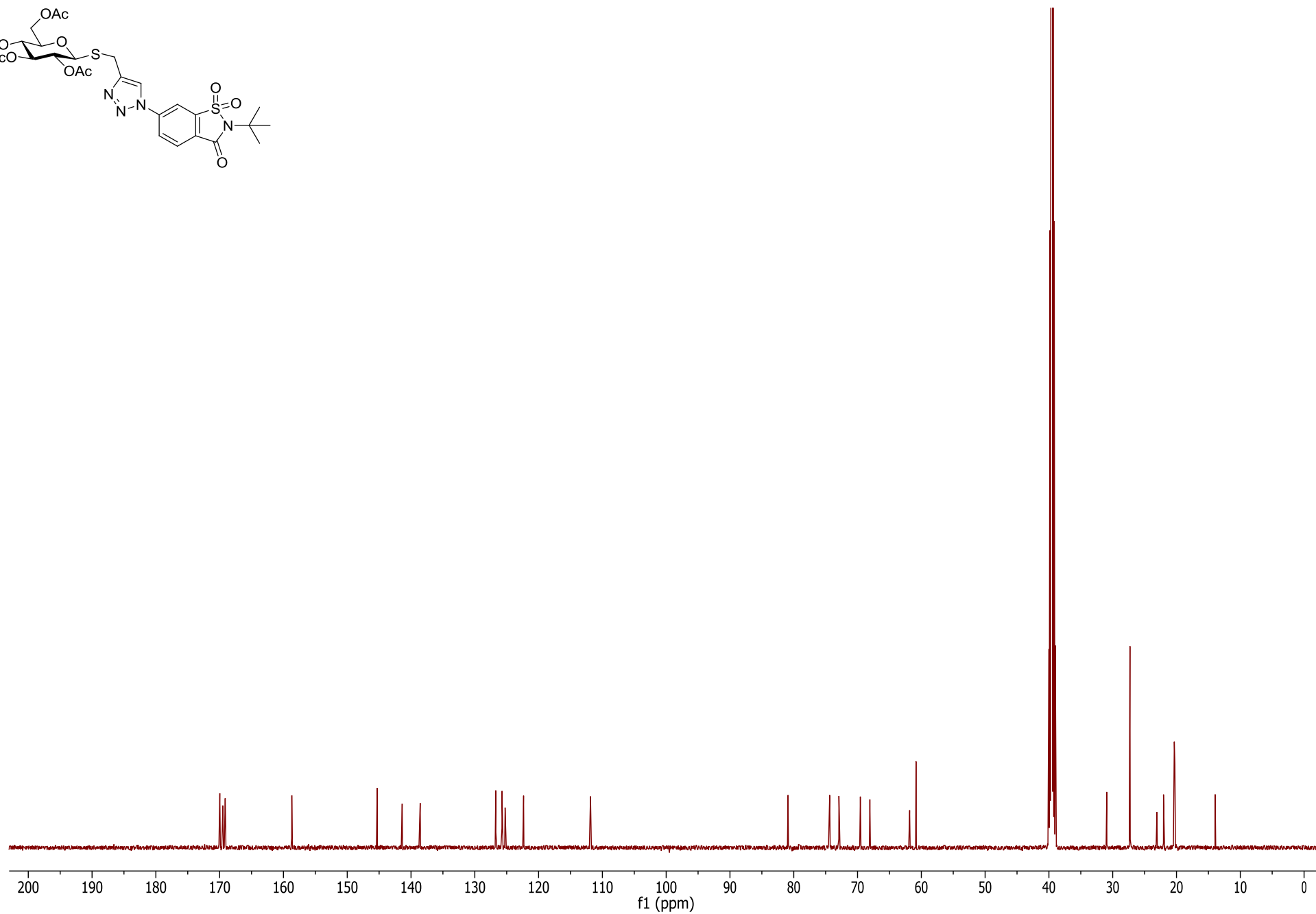
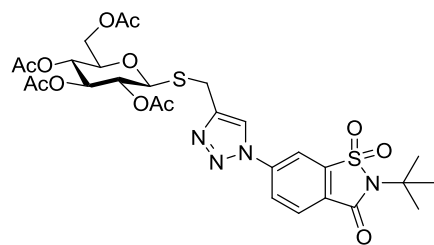
Compound **38** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



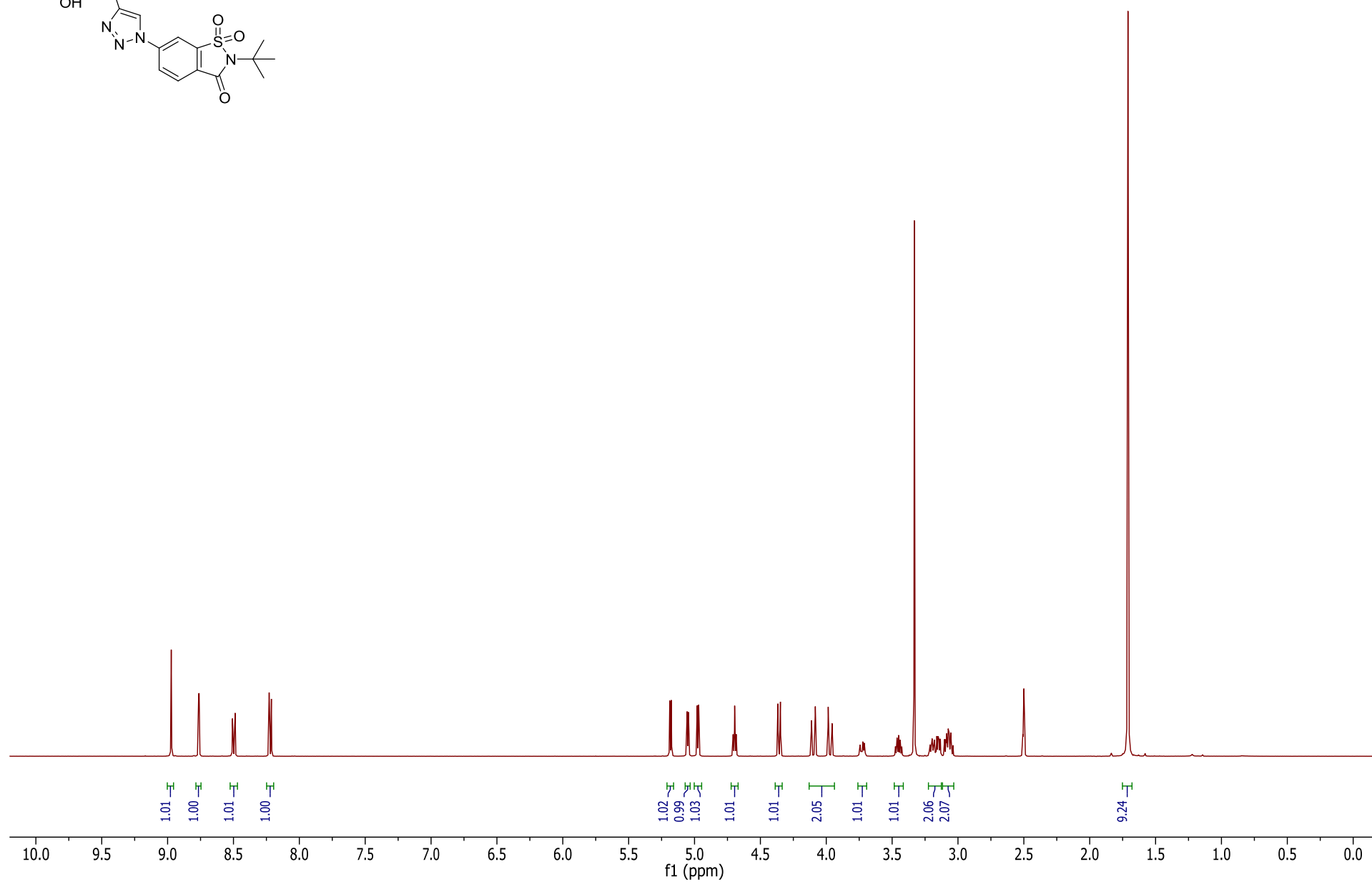
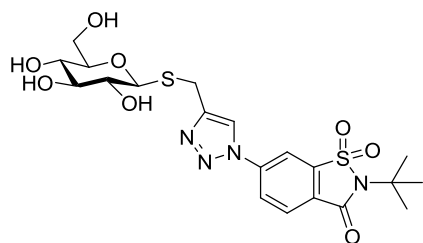
Compound **39** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



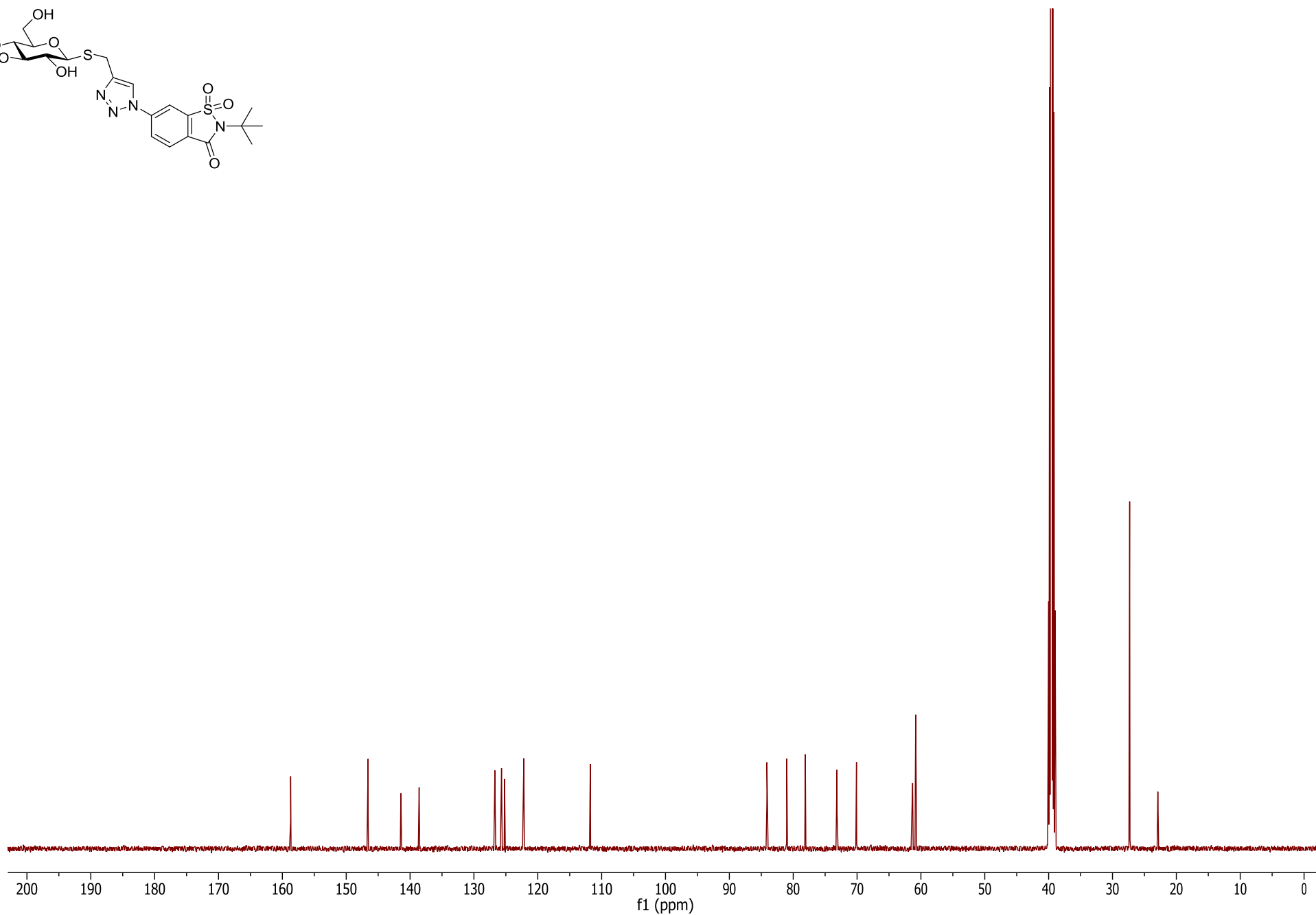
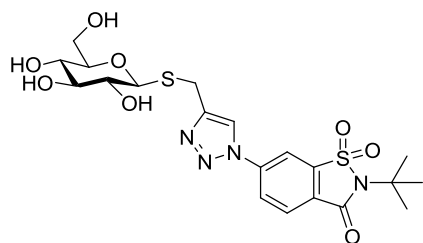
Compound **39** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



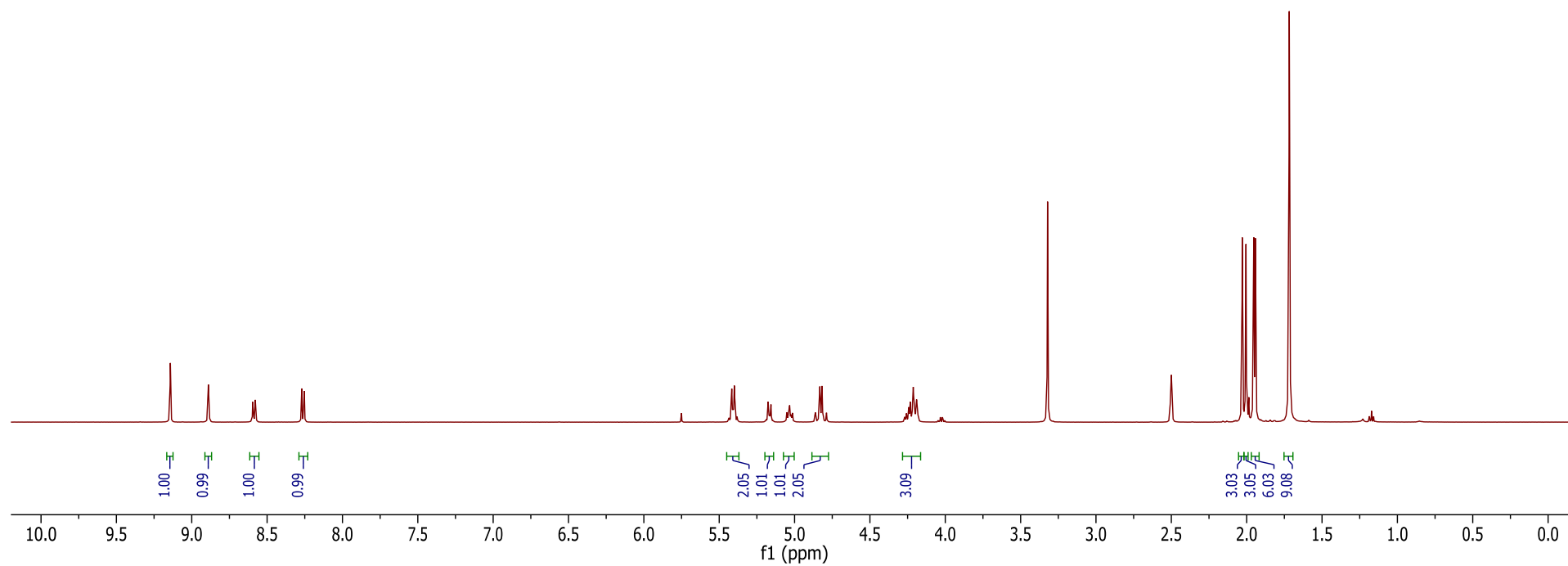
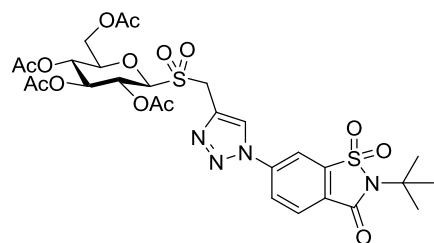
Compound **40** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



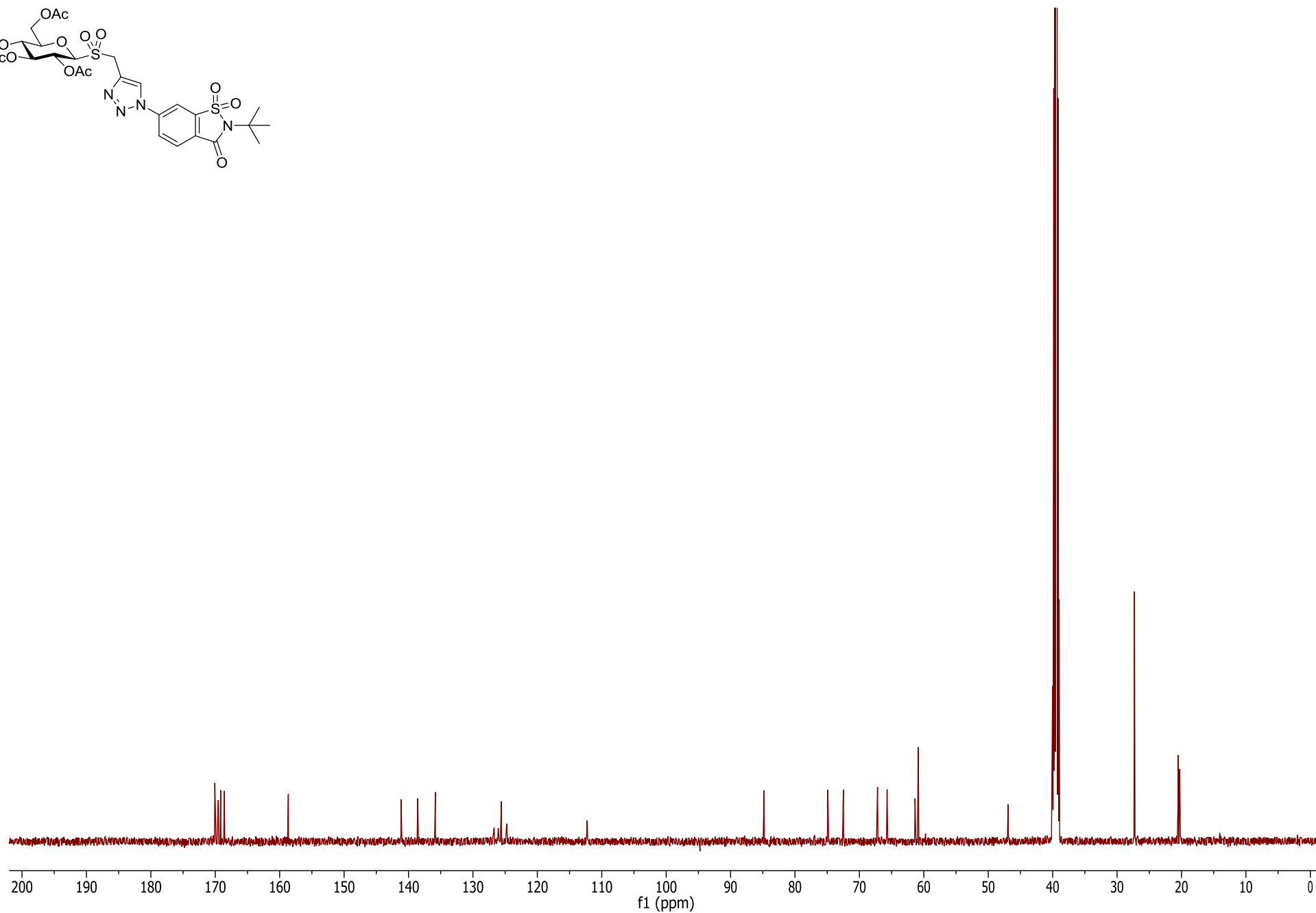
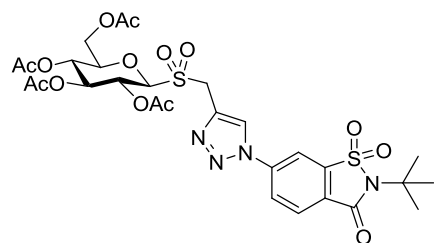
Compound **40** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



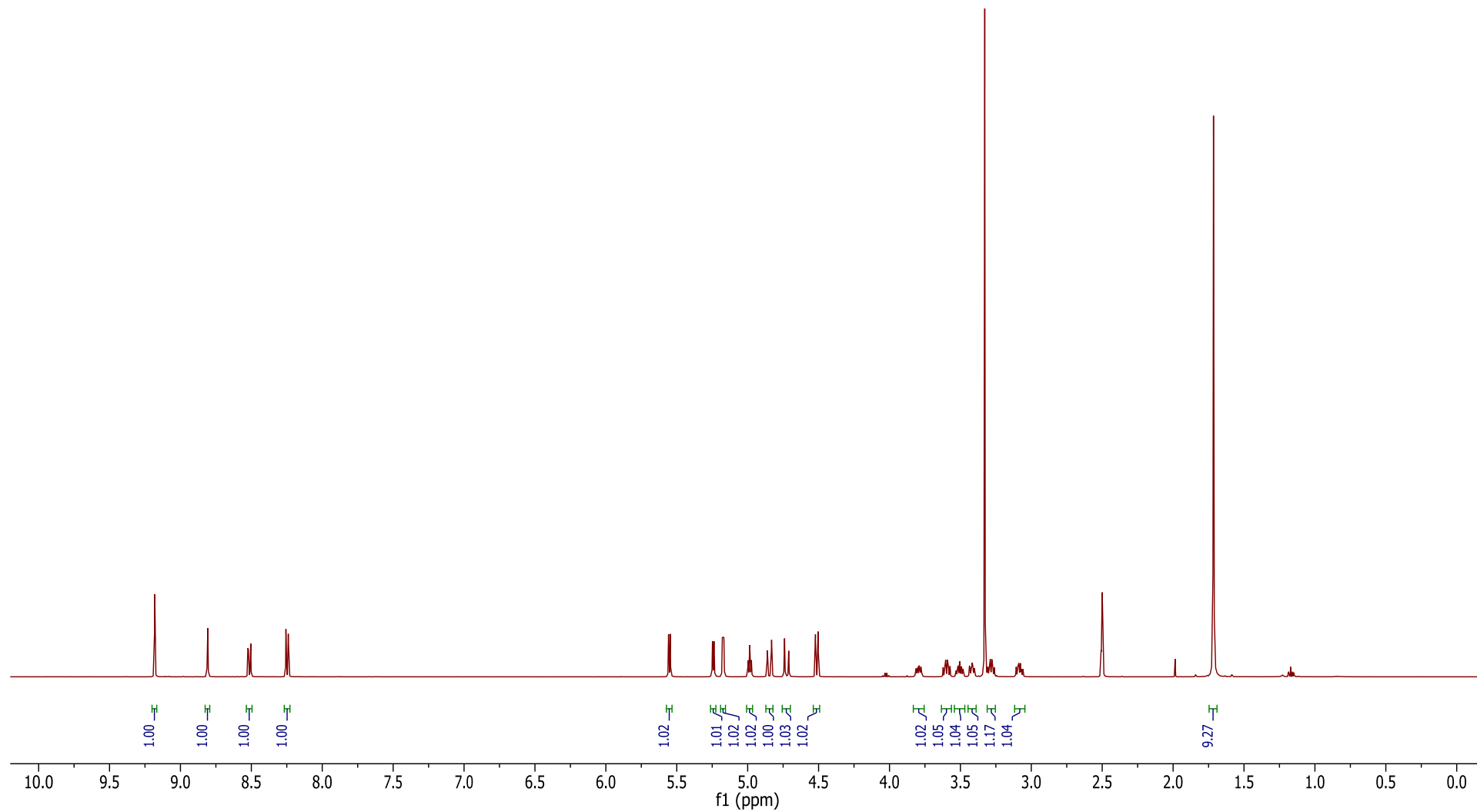
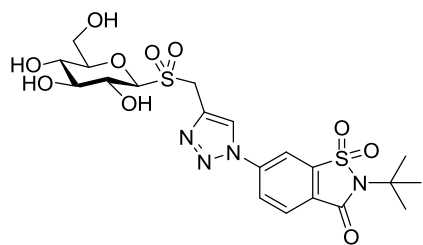
Compound **41** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



Compound **41** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$



Compound **42** 500 MHz ^1H NMR (CD_3) $_2\text{SO}$



Compound **42** 125 MHz ^{13}C NMR (CD_3) $_2\text{SO}$

