

RSC Advances

SUPPORTING INFORMATION

Supporting Information

For DOI:

This journal is © The Royal Society of Chemistry 2015

Supporting Information

Facile synthesis of Urea-tethered and Thiocarbamate-tethered Glycosyl beta-Amino Acids

Hanbing Teng^{*a,b}, Zengwei Zhang^a, Yifan Zhou^a, Zhiyong Chen^a, Qi Chen^a,
Yang Liu^a, Wenjin Xu^a

E-mail: wdthb@163.com

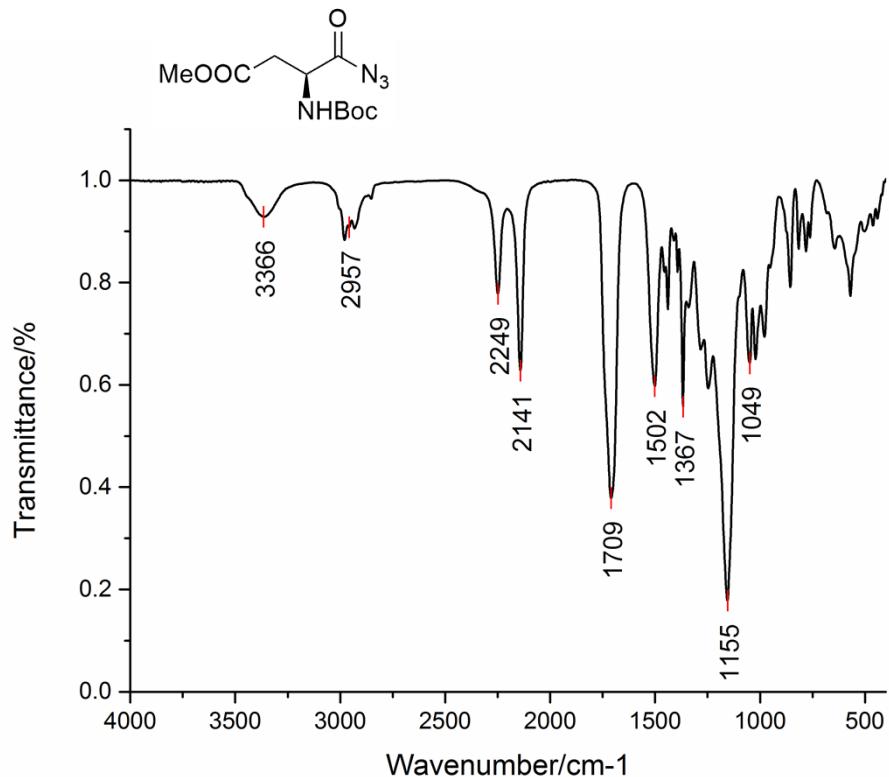
Contents

IR Spectroscopic Data	5
IR spectra of Compound 6	5
IR spectra of Compound 7	5
IR spectra of Compound 9a	6
IR spectra of Compound 9b	6
IR spectra of Compound 9c	7
IR spectra of Compound 9d	7
IR spectra of Compound 9e	8
IR spectra of Compound 11a	9
IR spectra of Compound 11b	9
IR spectra of Compound 11c	10
IR spectra of Compound 11d	10
1H and 13C Spectroscopic Data	11
¹ H-NMR spectra of Compound 9a in CDCl ₃	11
¹³ C-NMR spectra of Compound 9a in CDCl ₃	12
¹ H- ¹ H COSY NMR spectra of Compound 9a in CDCl ₃	13
¹ H- ¹ H COSY NMR Spectra of Compound 9a with partial enlarged detail in the glycosyl residue	14
¹ H- ¹³ C COSY NMR Spectra of Compound 9a with partial enlarged detail in the glycosyl residue	15
¹ H-NMR spectra of crude reaction mixture of Compound 9a in CDCl ₃	16
¹ H-NMR spectra of Compound 9b in CDCl ₃	17
¹³ C-NMR spectra of Compound 9b in CDCl ₃	18
¹ H-NMR spectra of Compound 9c in CDCl ₃	19
¹³ C-NMR spectra of Compound 9c in CDCl ₃	20
¹ H-NMR spectra of Compound 9d in CDCl ₃	21
¹³ C-NMR spectra of Compound 9d in CDCl ₃	22
¹ H-NMR spectra of Compound 9e in CDCl ₃	23
¹³ C-NMR spectra of Compound 9e in CDCl ₃	24
¹ H-NMR spectra of Compound 11a in CDCl ₃	25
¹³ C-NMR spectra of Compound 11a in CDCl ₃	26
¹ H-NMR spectra of Compound 11b in CDCl ₃	27
¹³ C-NMR spectra of Compound 11b in CDCl ₃	28
¹ H-NMR spectra of Compound 11c in CDCl ₃	29
¹³ C-NMR spectra of Compound 11c in CDCl ₃	30
¹ H-NMR spectra of Compound 11d in CDCl ₃	31
¹³ C-NMR spectra of Compound 11d in CDCl ₃	32
MS Spectroscopic Data.....	33
MS spectra of Compound 6	34
MS spectra of Compound 9a	34
MS spectra of Compound 9b	34
MS spectra of Compound 9c	34

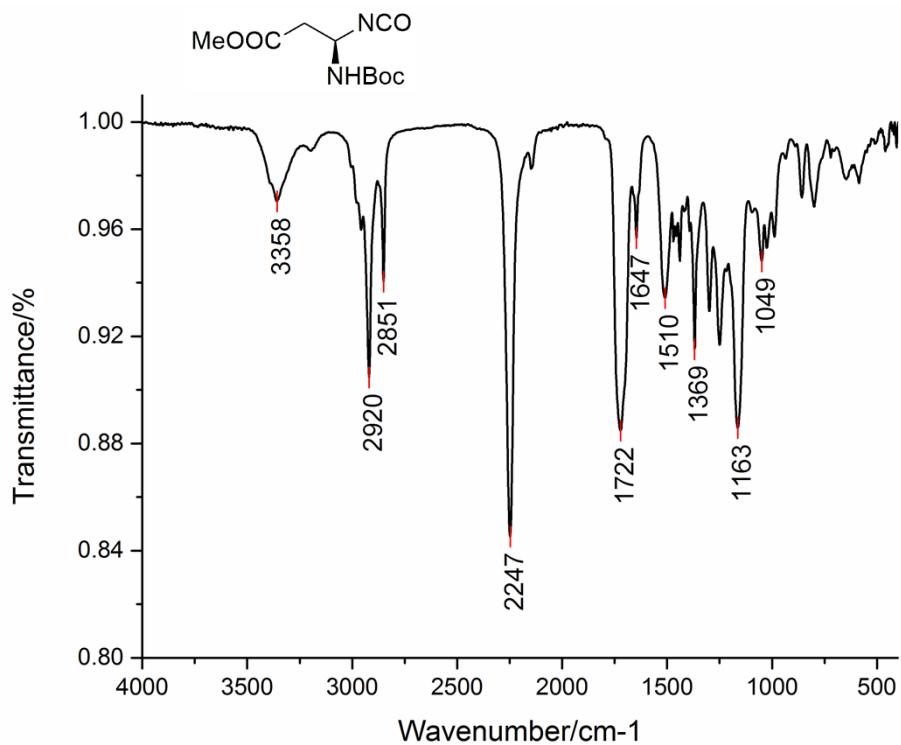
MS spectra of Compound 9d	34
MS spectra of Compound 9e	35
MS spectra of Compound 11a	35
MS spectra of Compound 11b	35
MS spectra of Compound 11c	35
MS spectra of Compound 11d	36

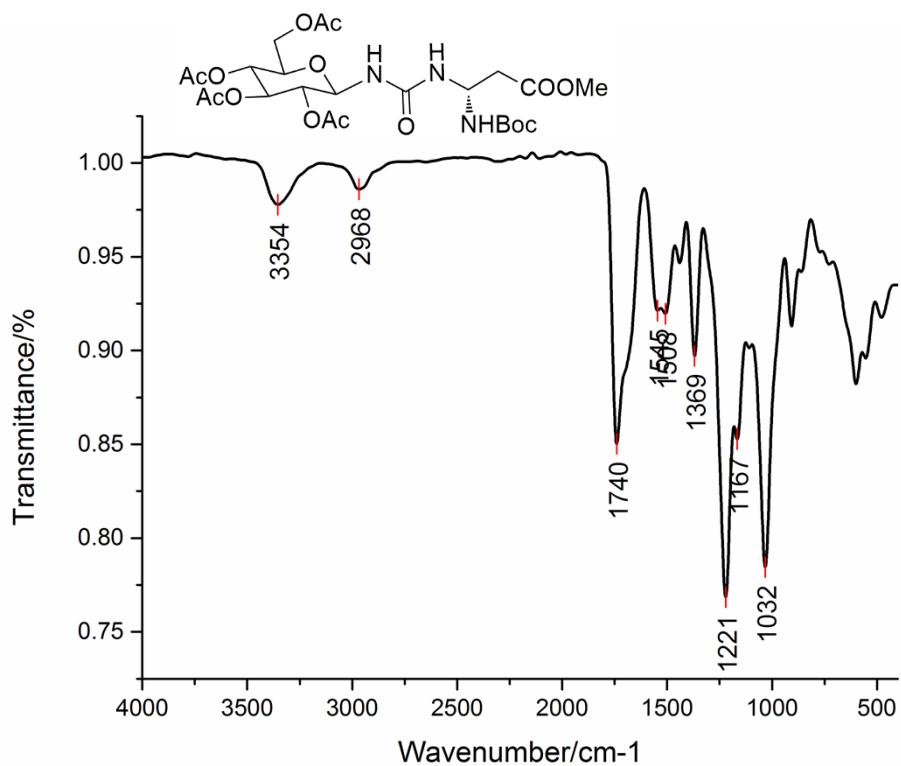
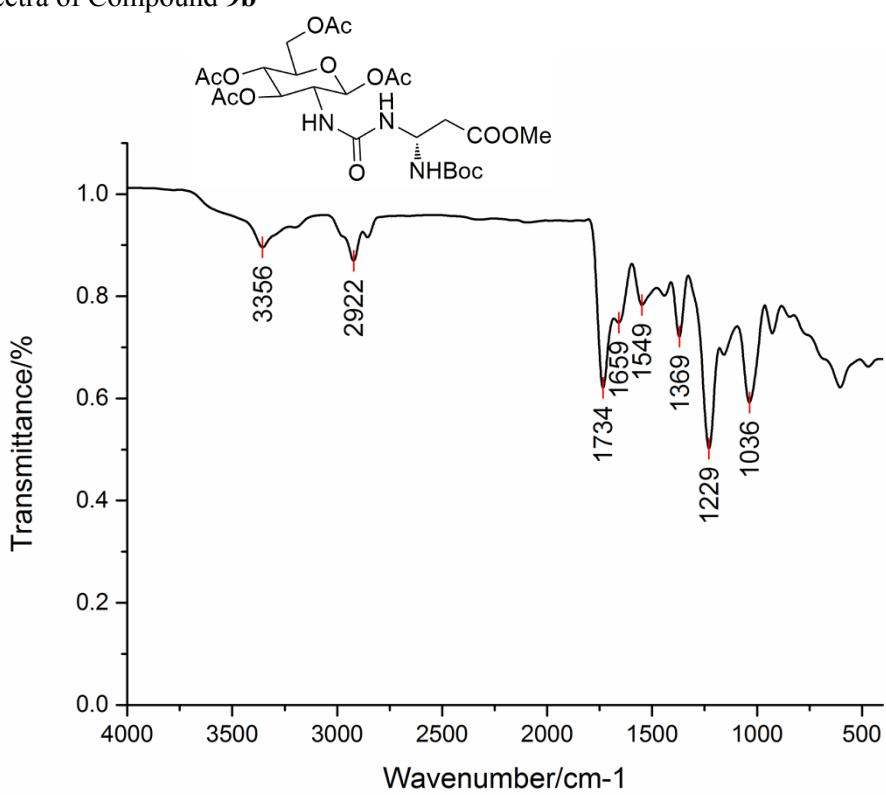
IR Spectroscopic Data

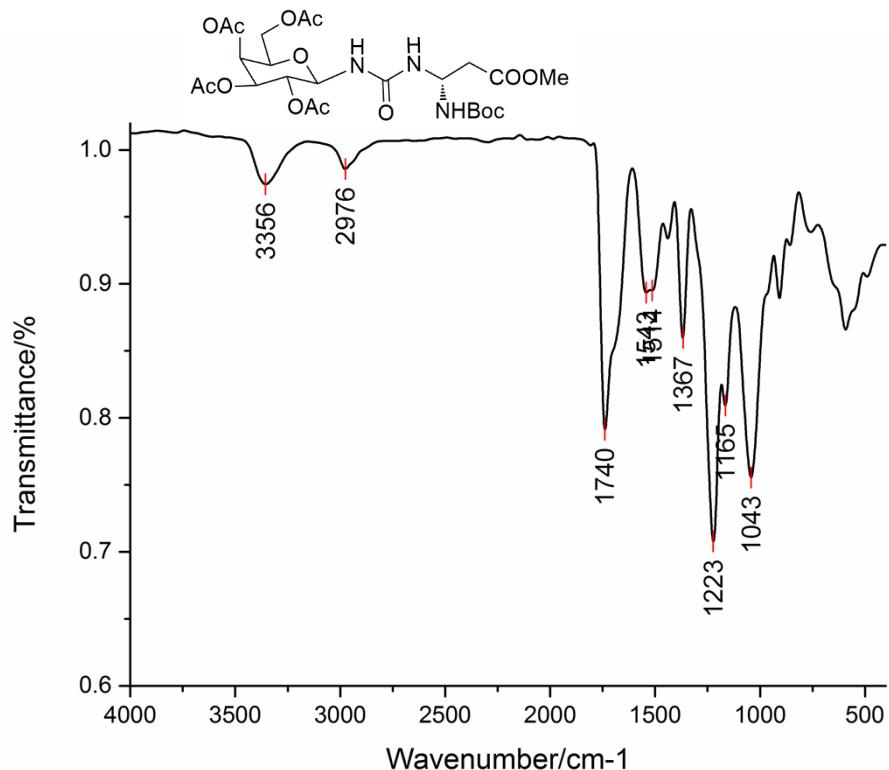
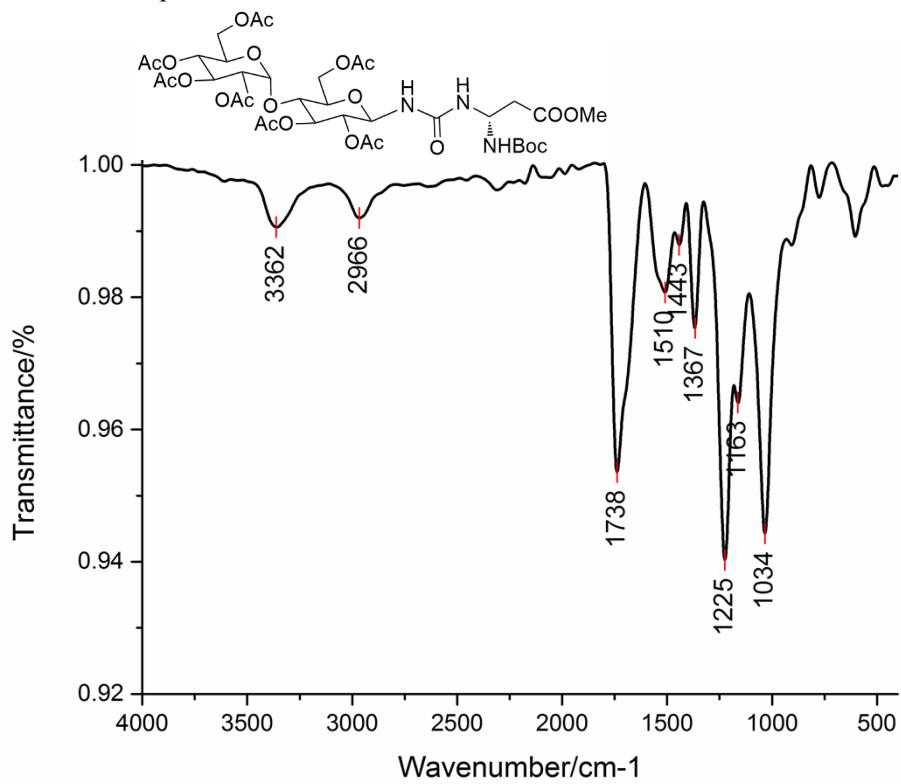
IR spectra of Compound 6

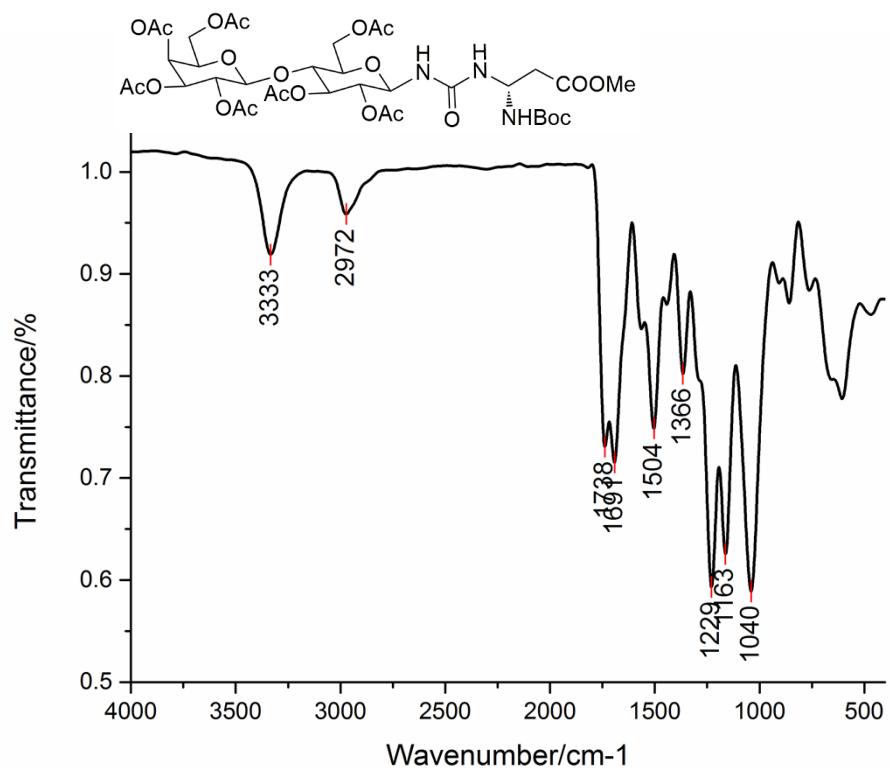


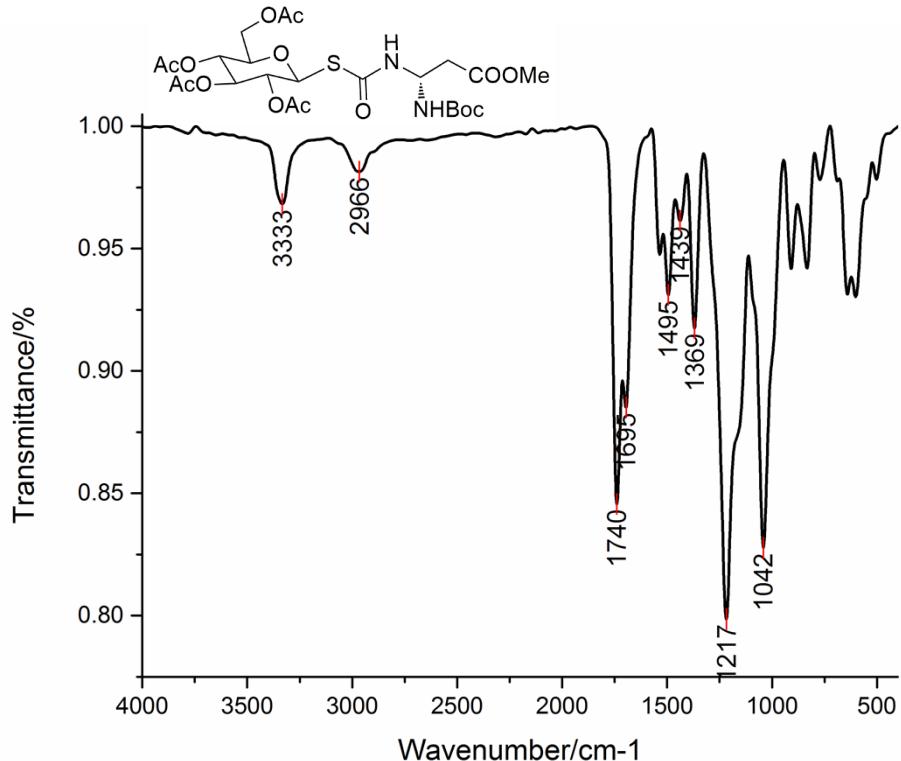
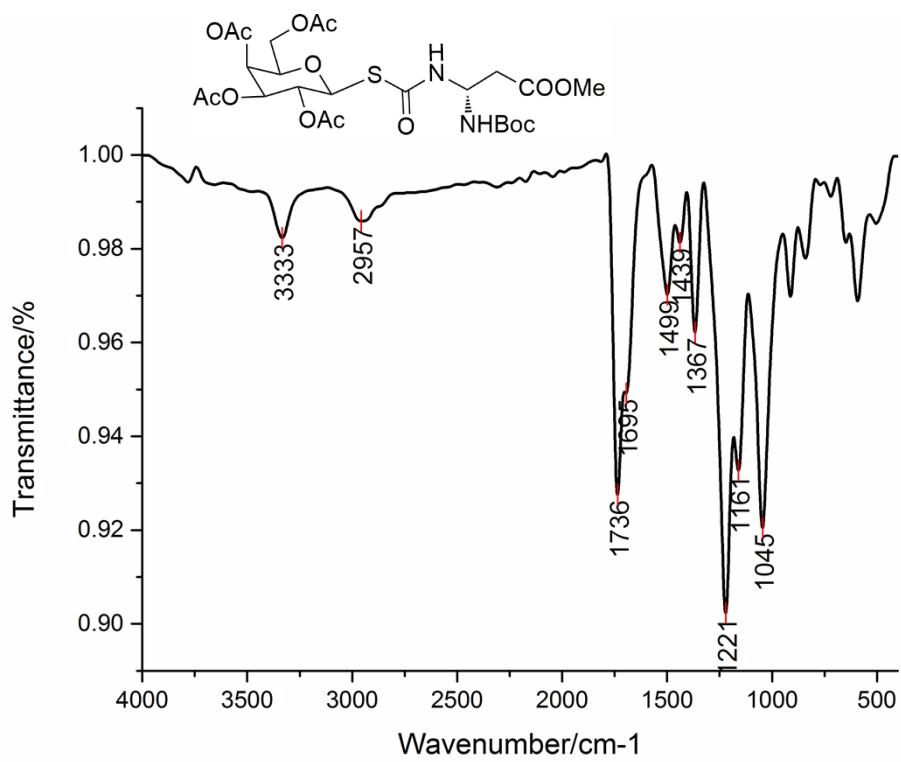
IR spectra of Compound 7

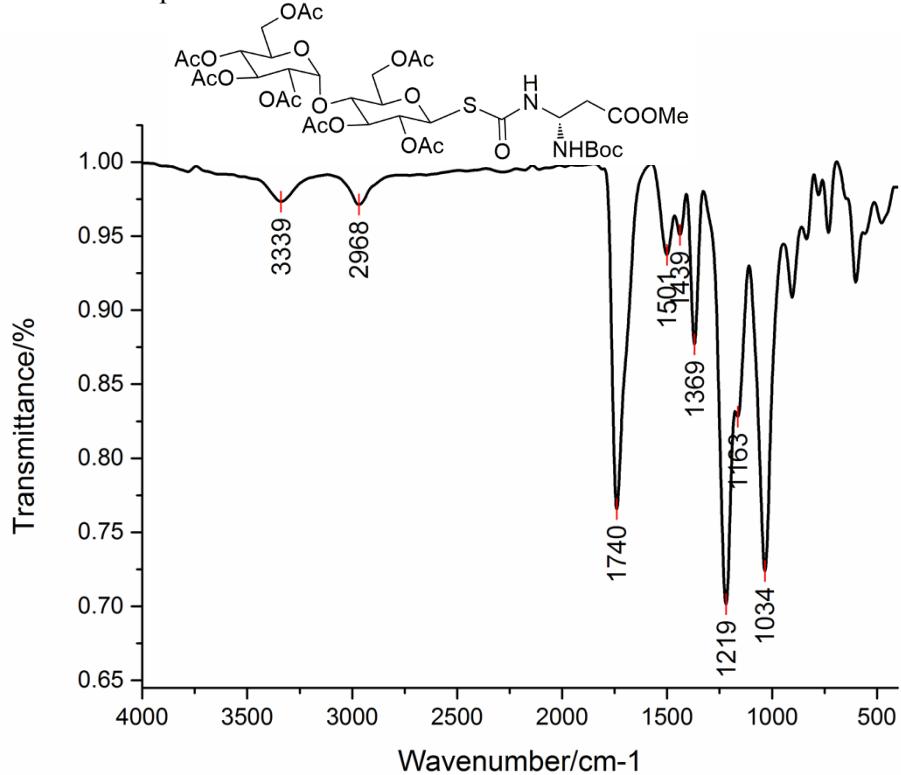
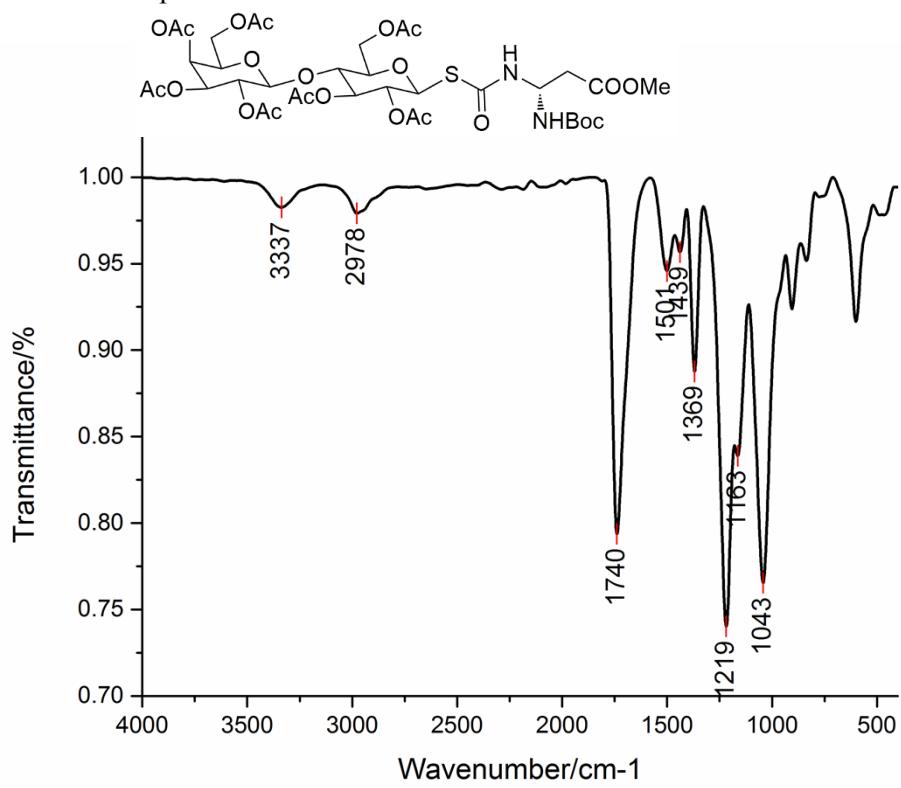


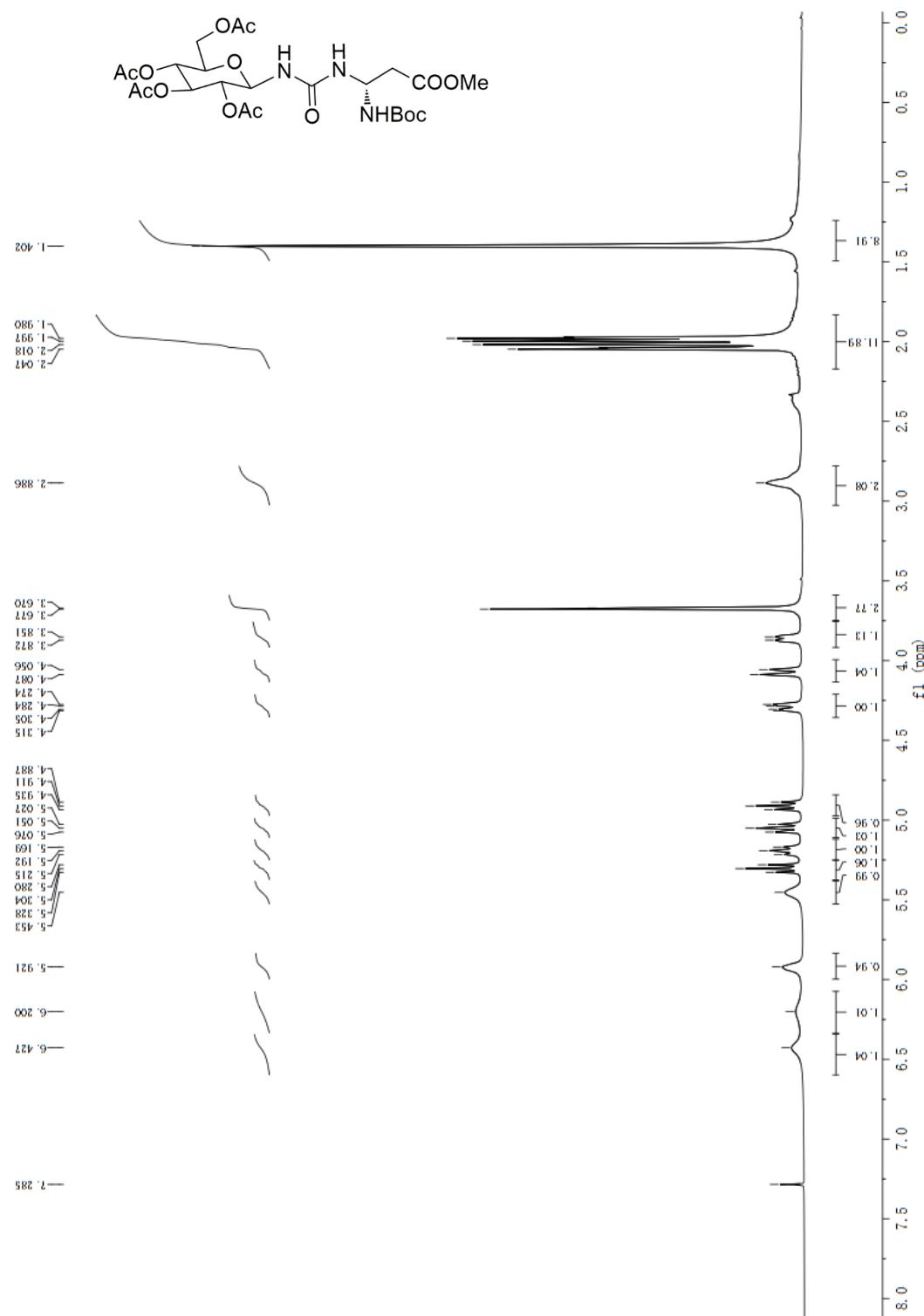
IR spectra of Compound **9a**IR spectra of Compound **9b**

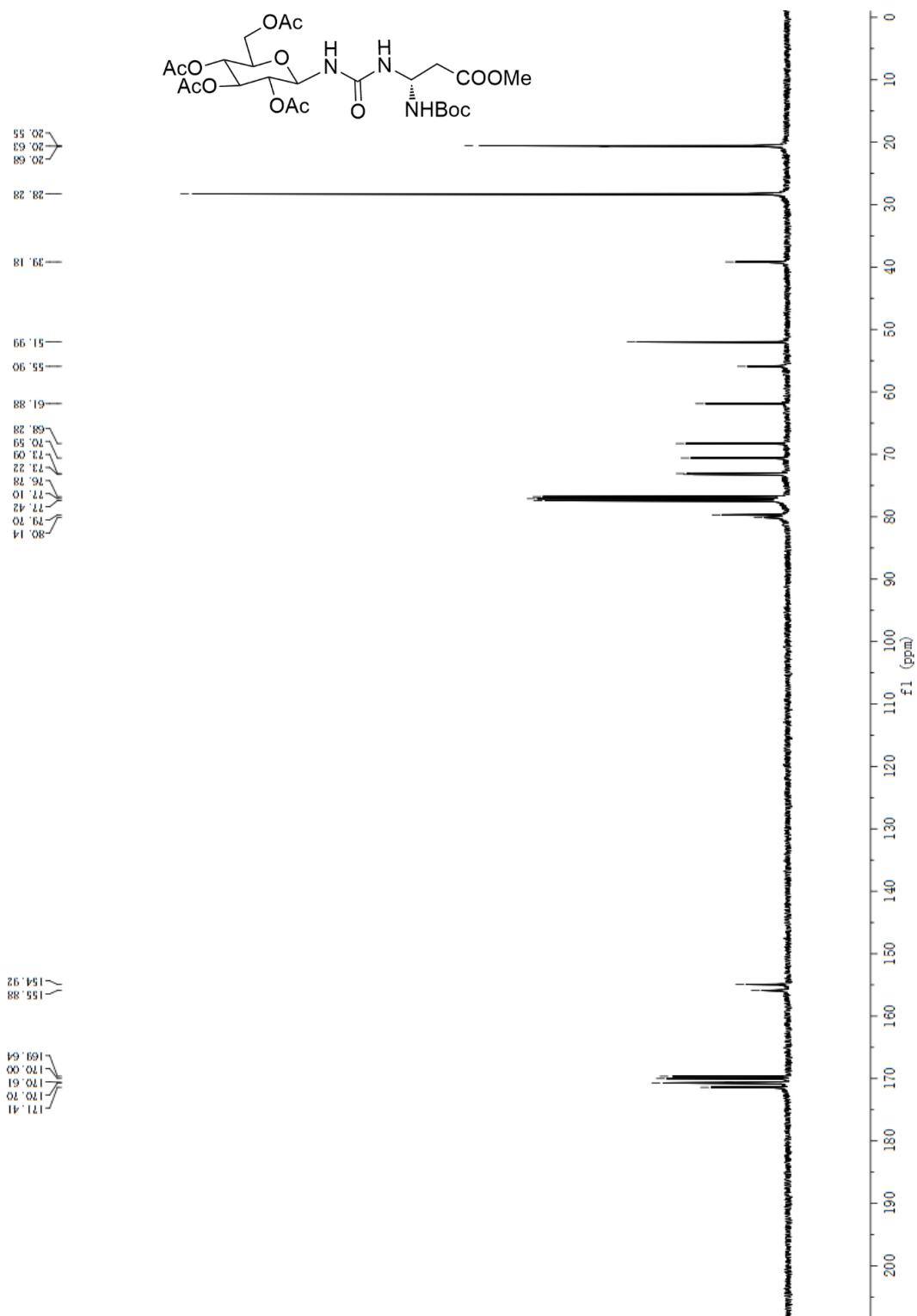
IR spectra of Compound **9c**IR spectra of Compound **9d**

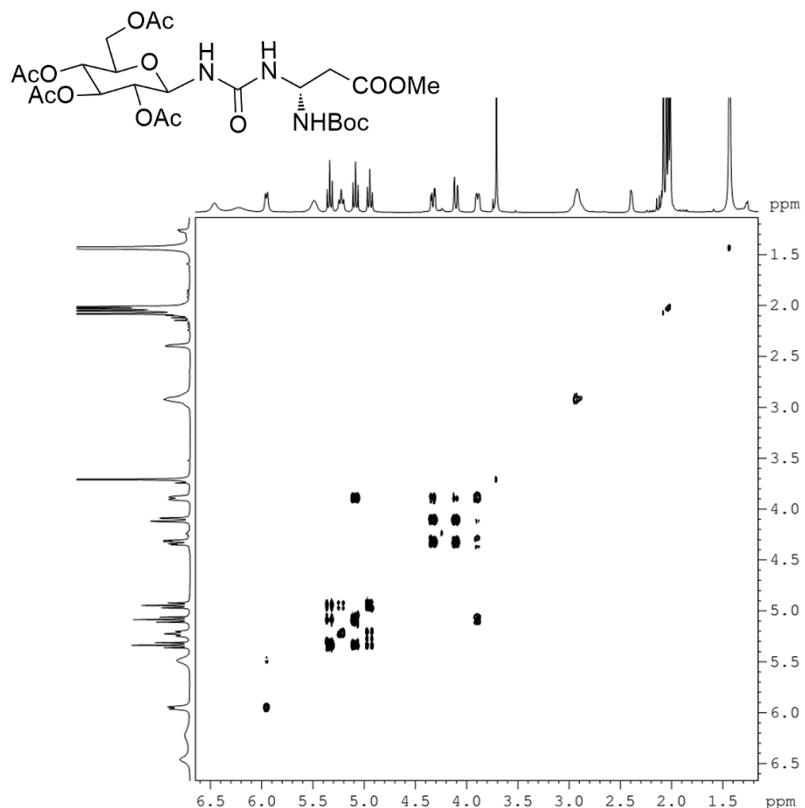
IR spectra of Compound **9e**

IR spectra of Compound **11a**IR spectra of Compound **11b**

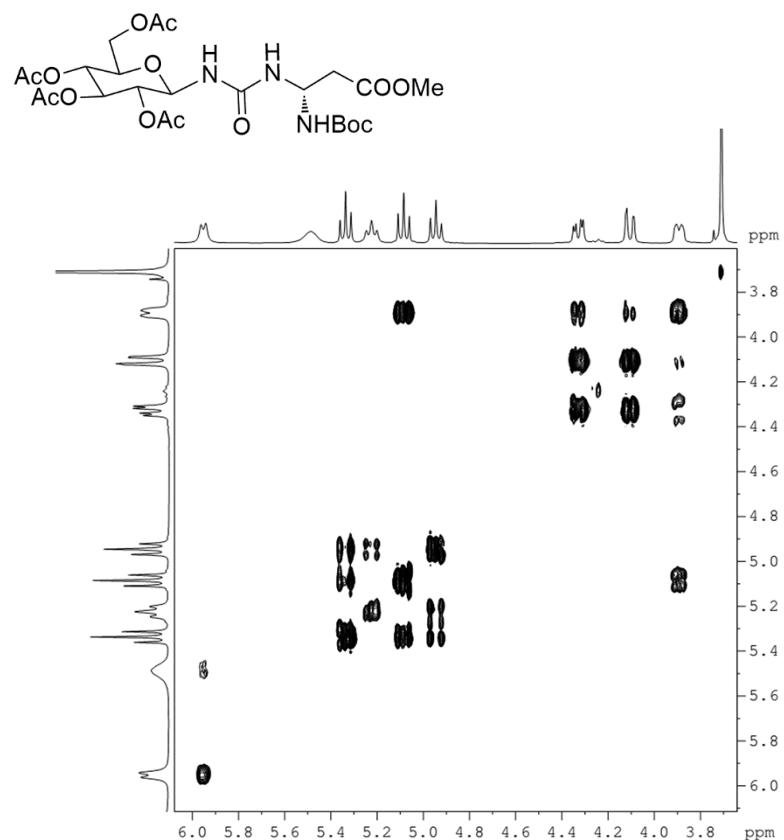
IR spectra of Compound **11c**IR spectra of Compound **11d**

¹H and ¹³C Spectroscopic Data¹H-NMR spectra of Compound **9a** in CDCl₃

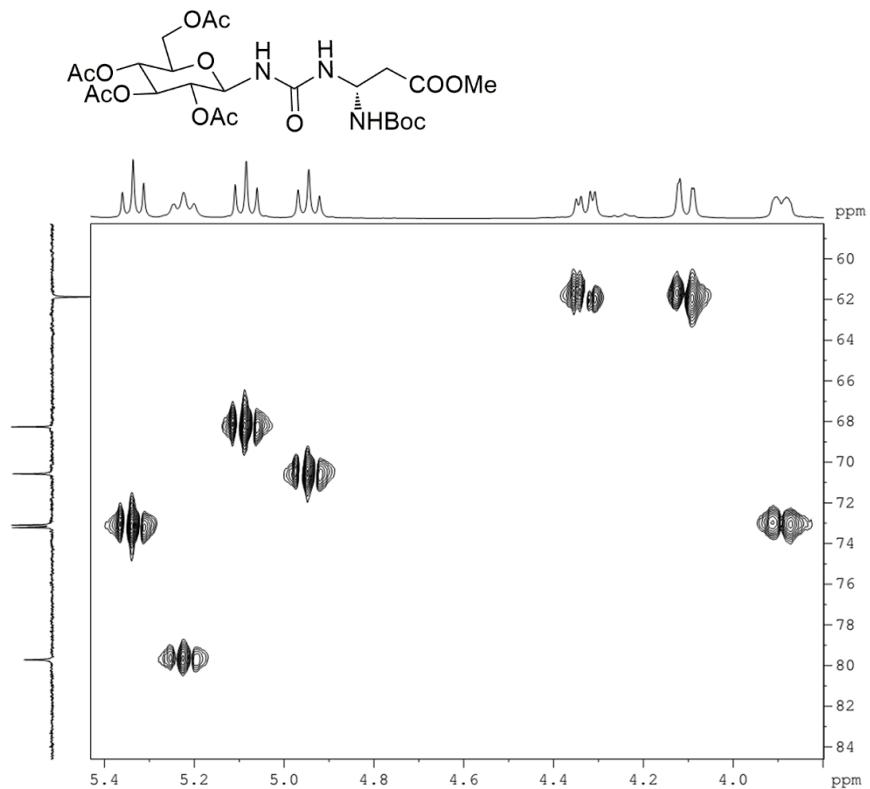
¹³C-NMR spectra of Compound 9a in CDCl₃

¹H-¹H COSY NMR spectra of Compound **9a** in CDCl₃

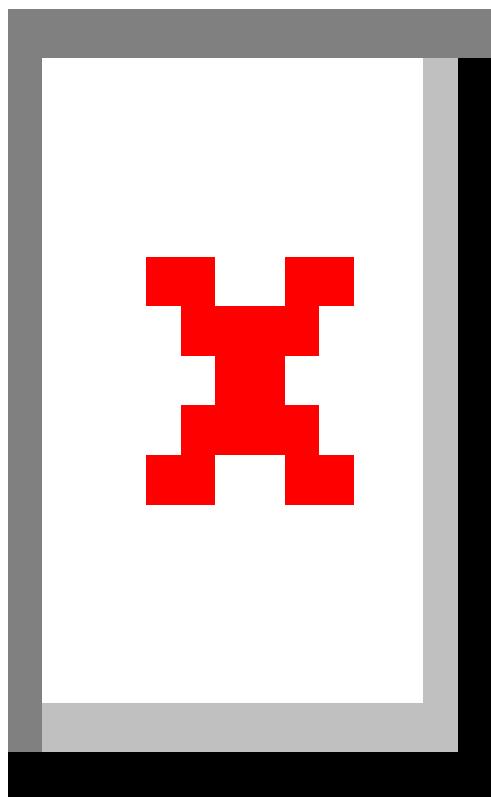
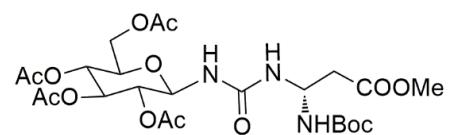
¹H-¹H COSY NMR Spectra of Compound **9a** with partial enlarged detail in the glycosyl residue

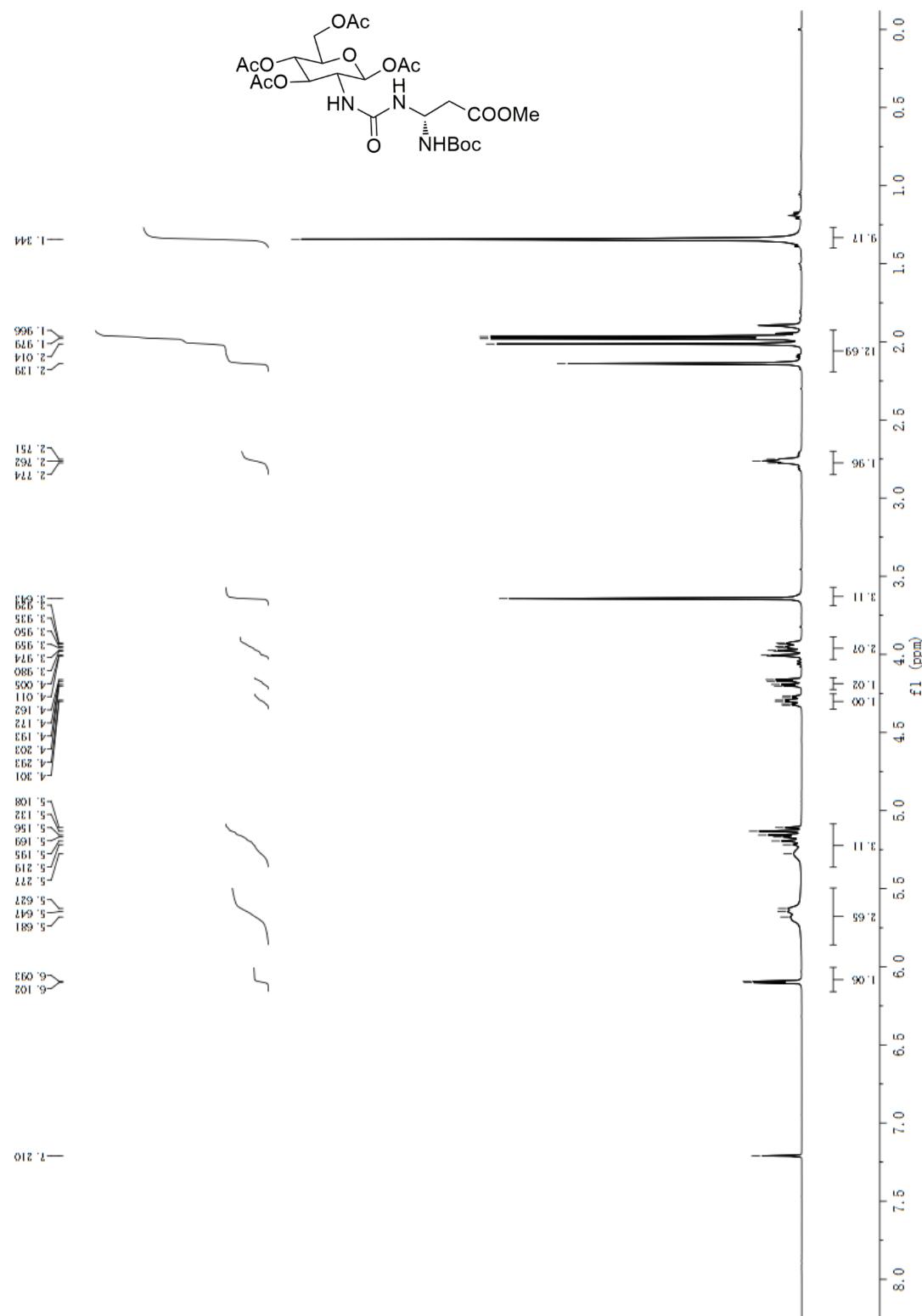


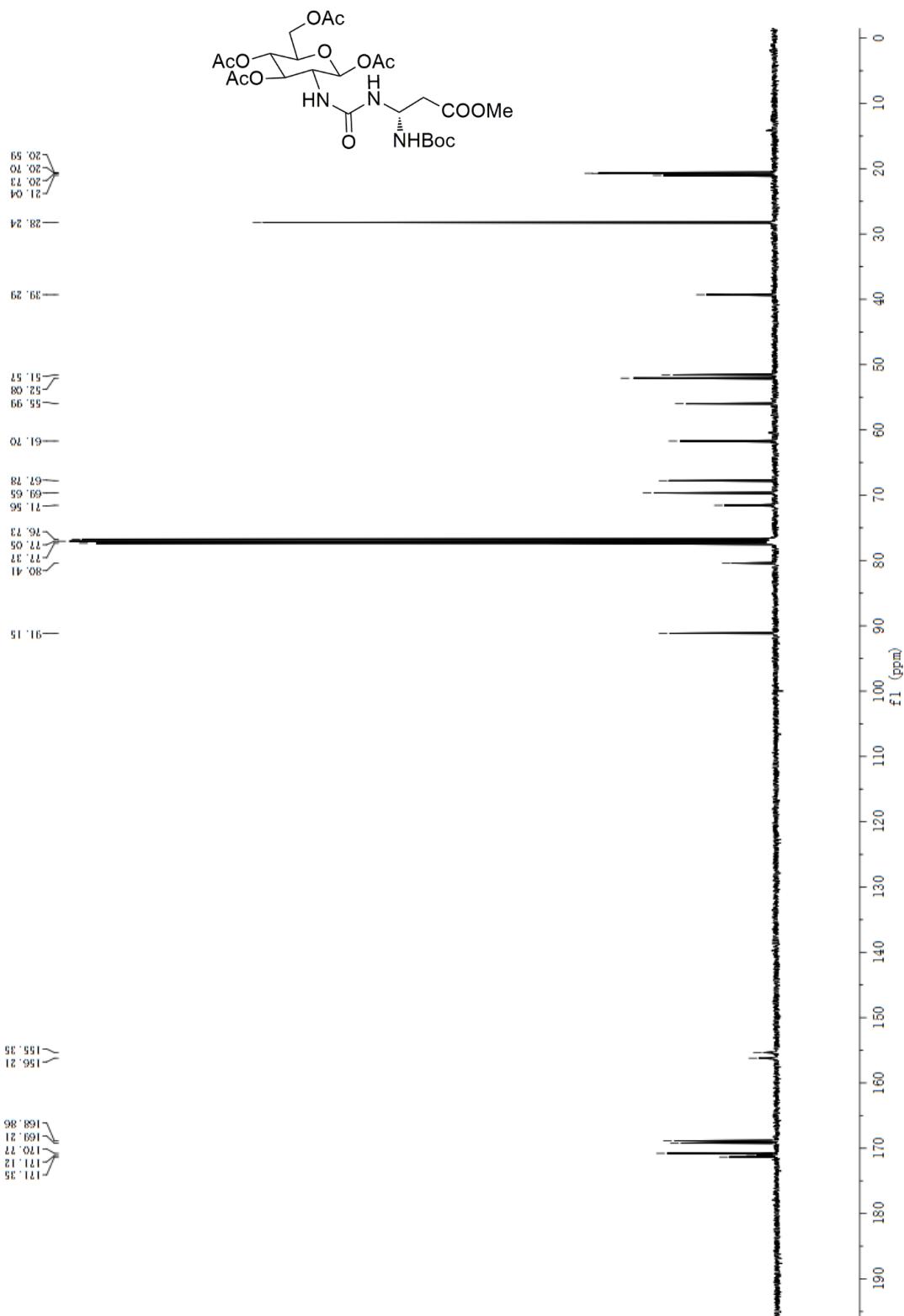
^1H - ^{13}C COSY NMR Spectra of Compound **9a** with partial enlarged detail in the glycosyl residue

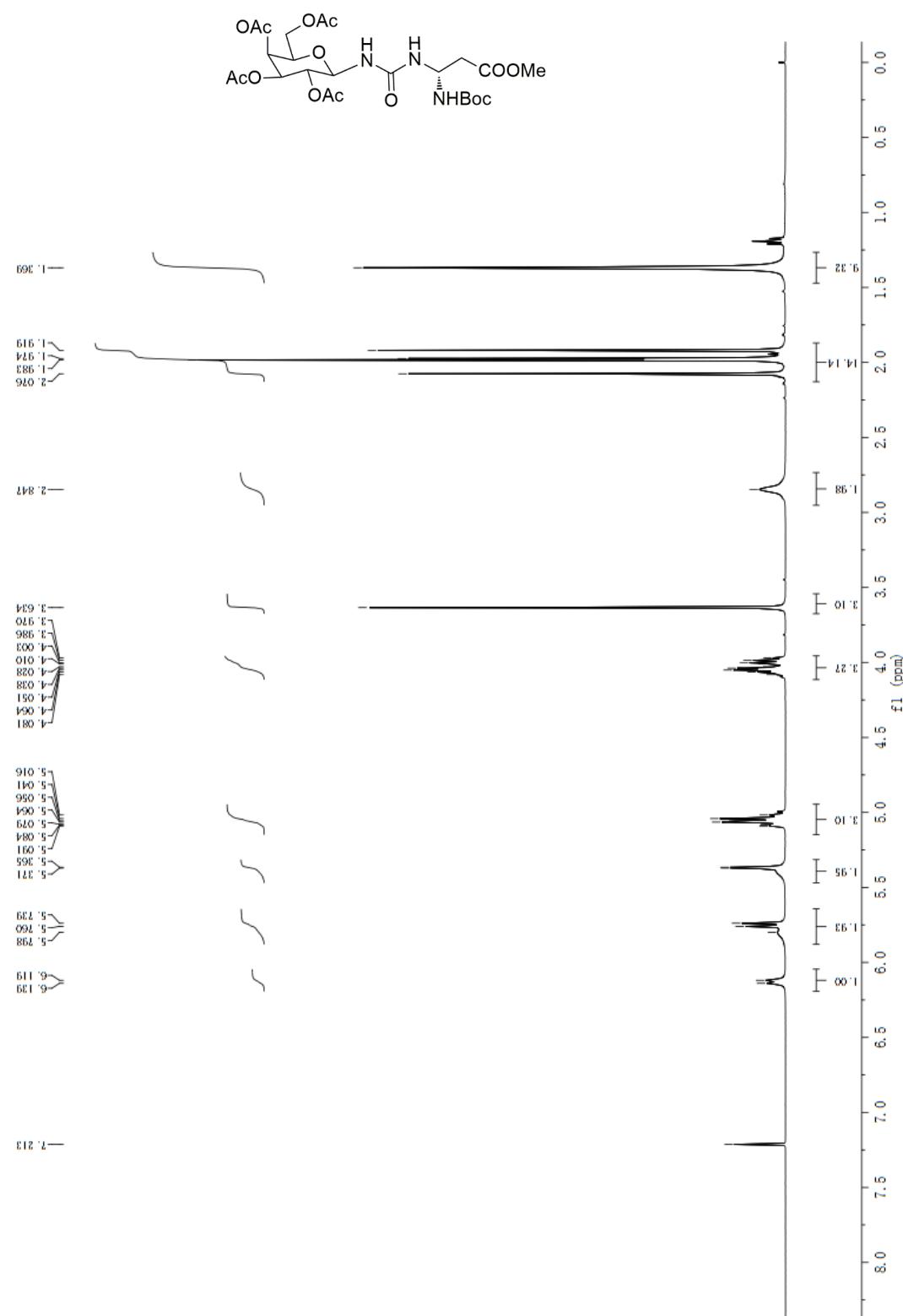


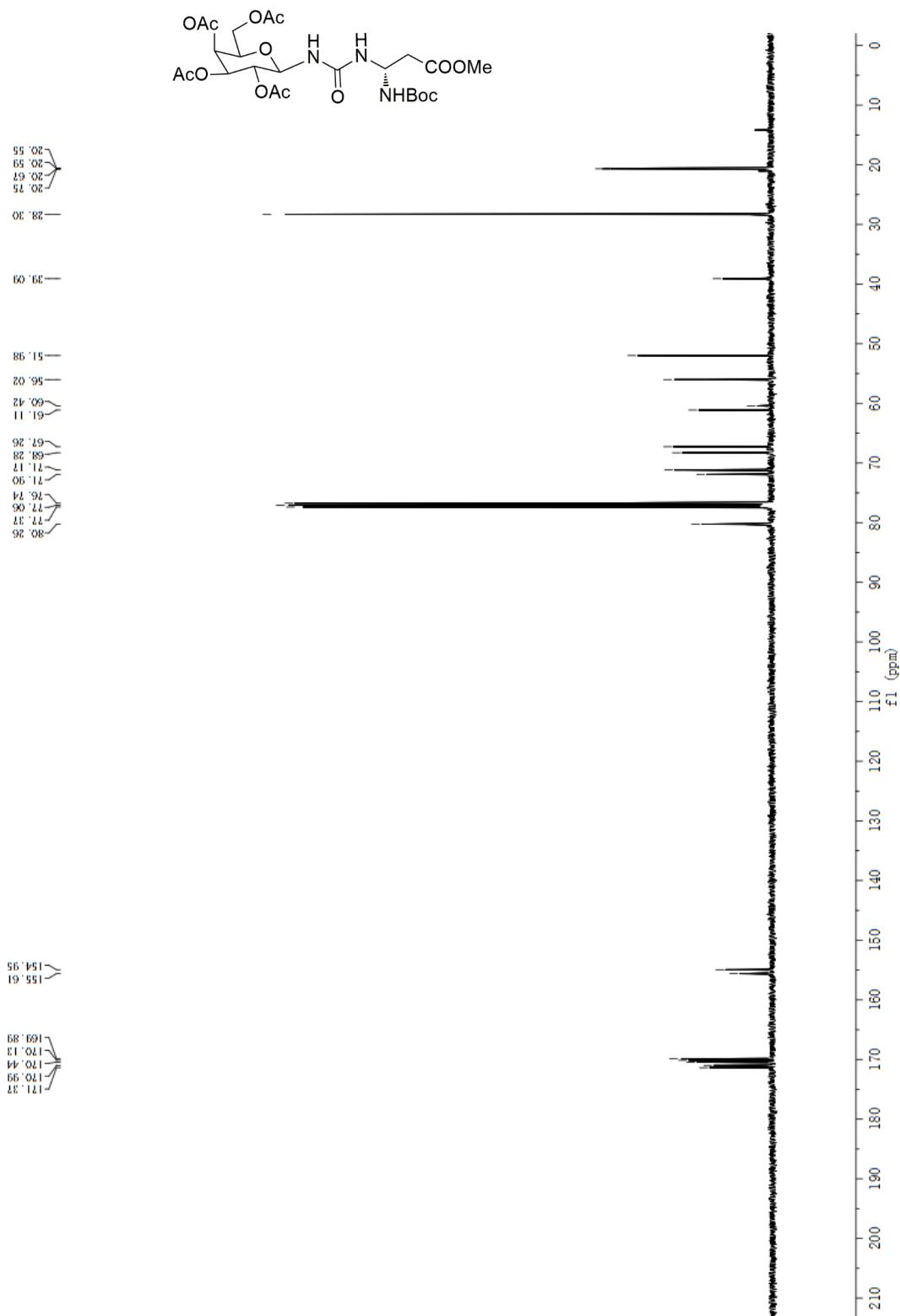
¹H-NMR spectra of crude reaction mixture of Compound **9a** in CDCl₃



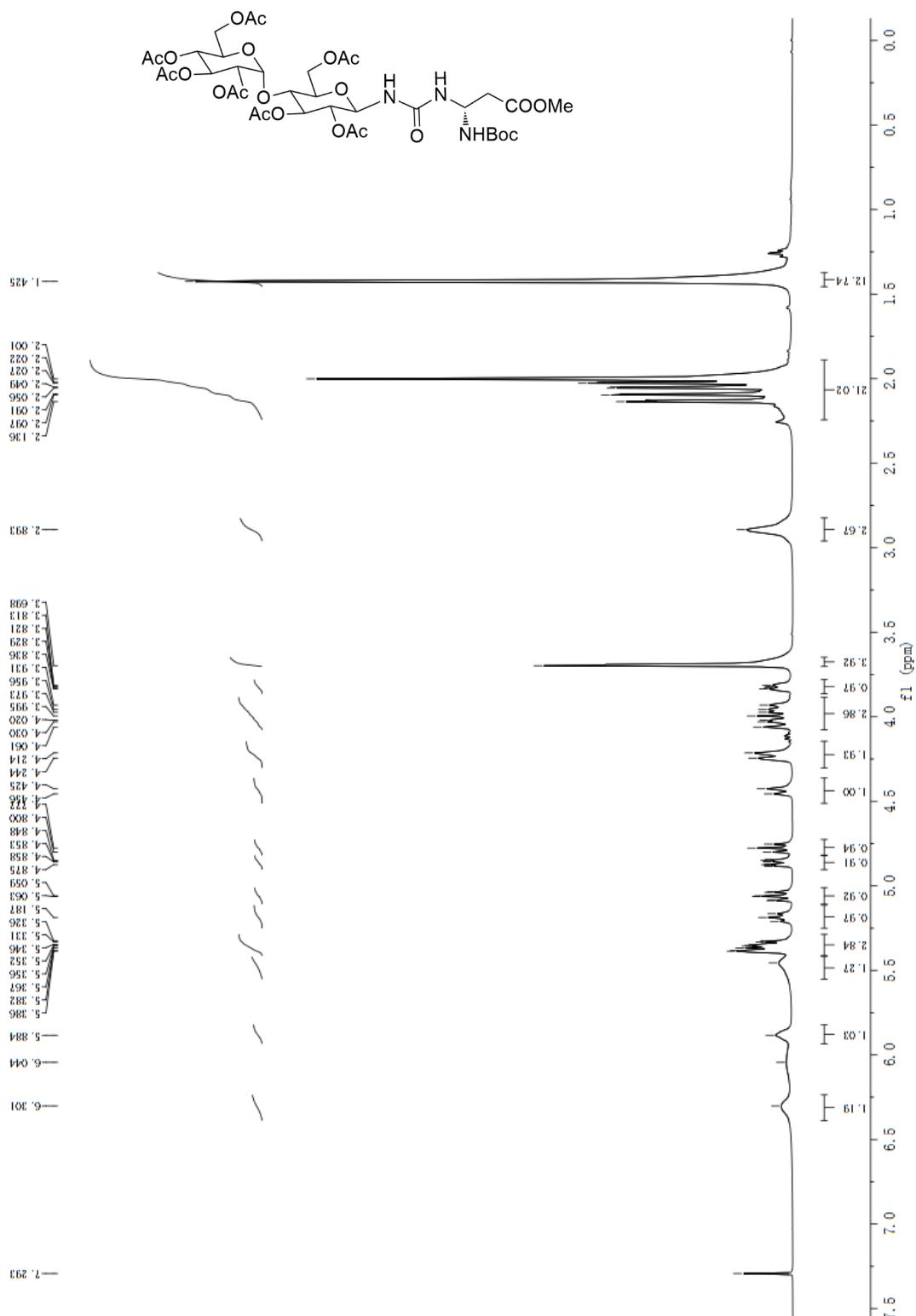
¹H-NMR spectra of Compound **9b** in CDCl₃

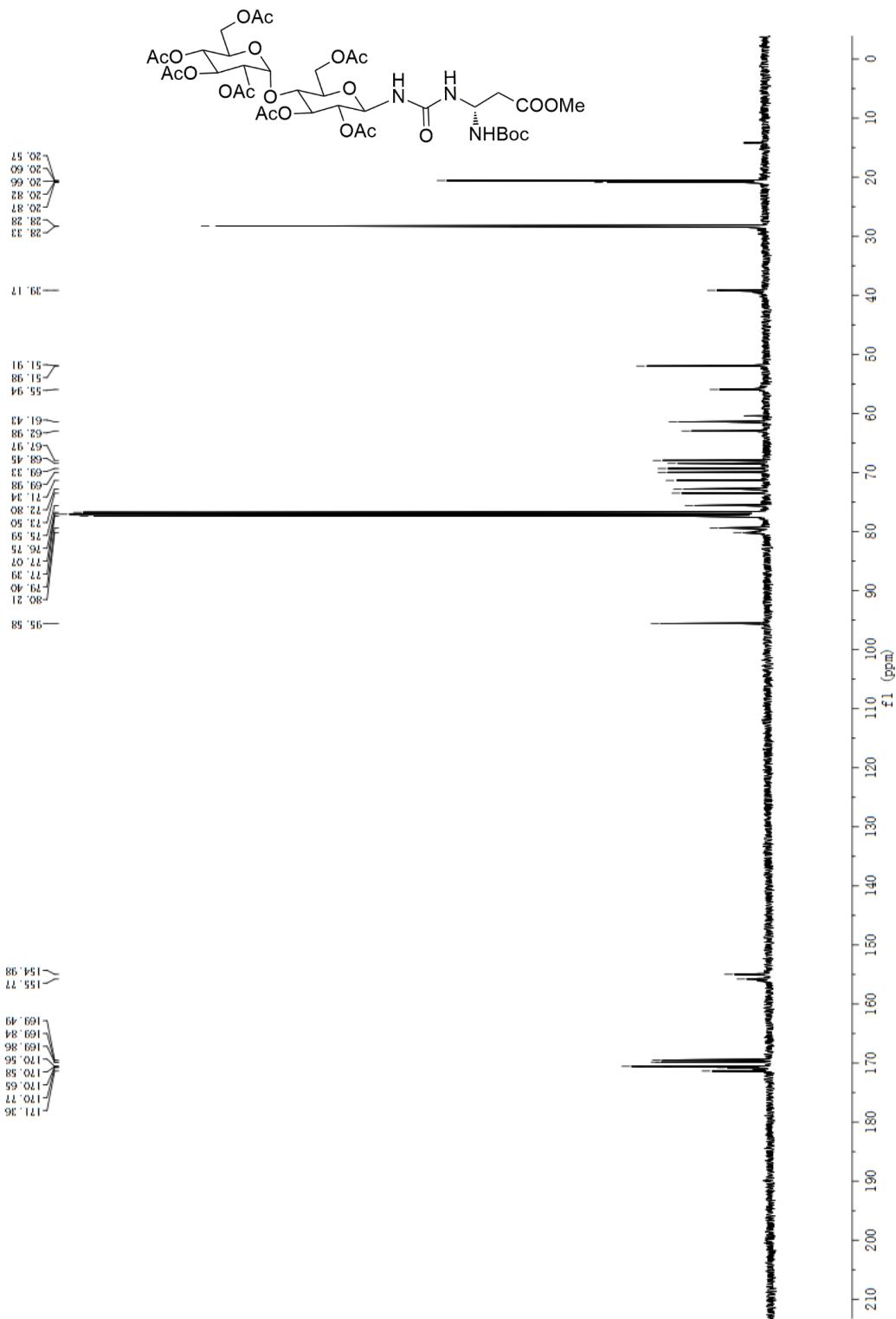
¹³C-NMR spectra of Compound **9b** in CDCl₃

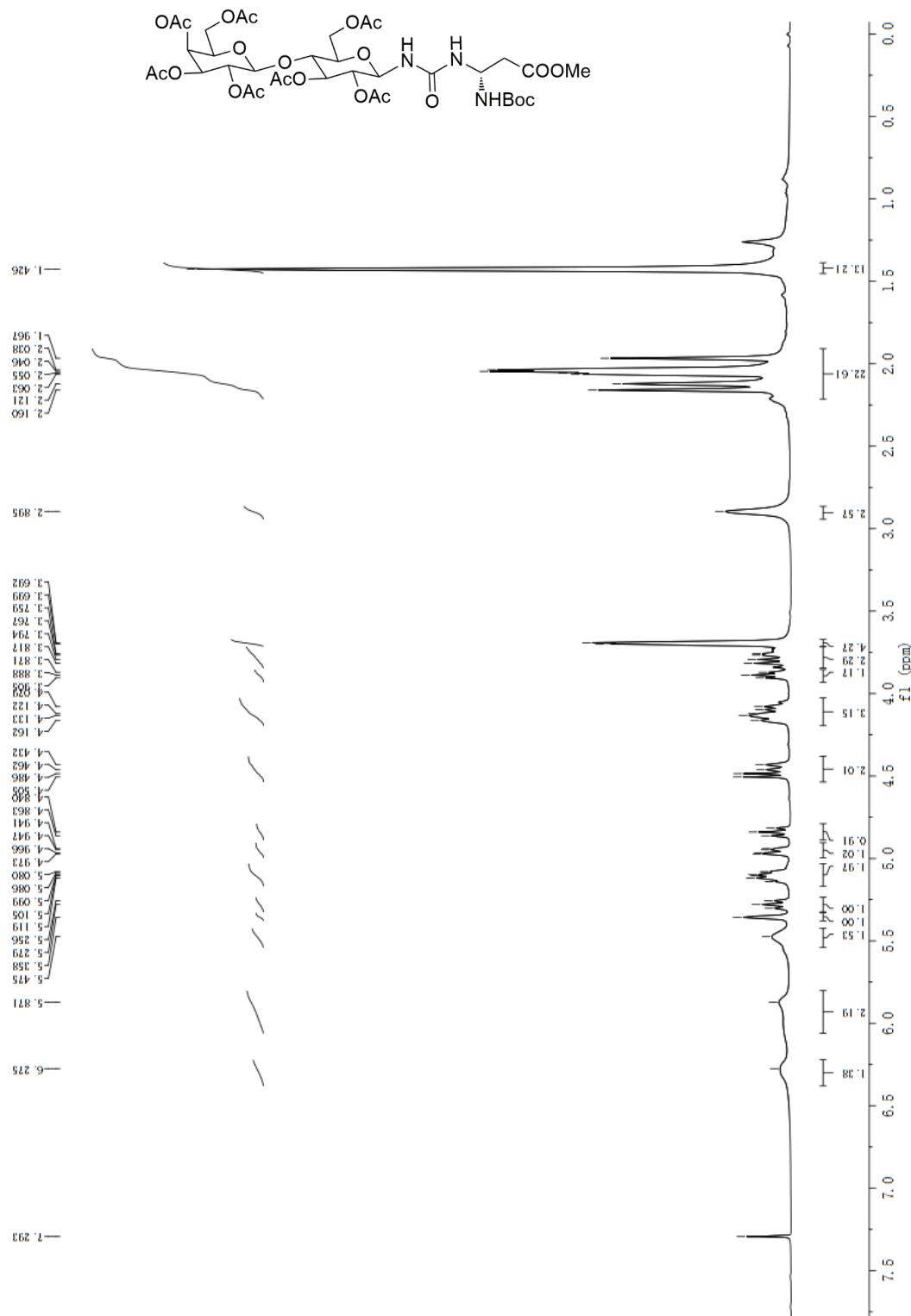
¹H-NMR spectra of Compound 9c in CDCl₃

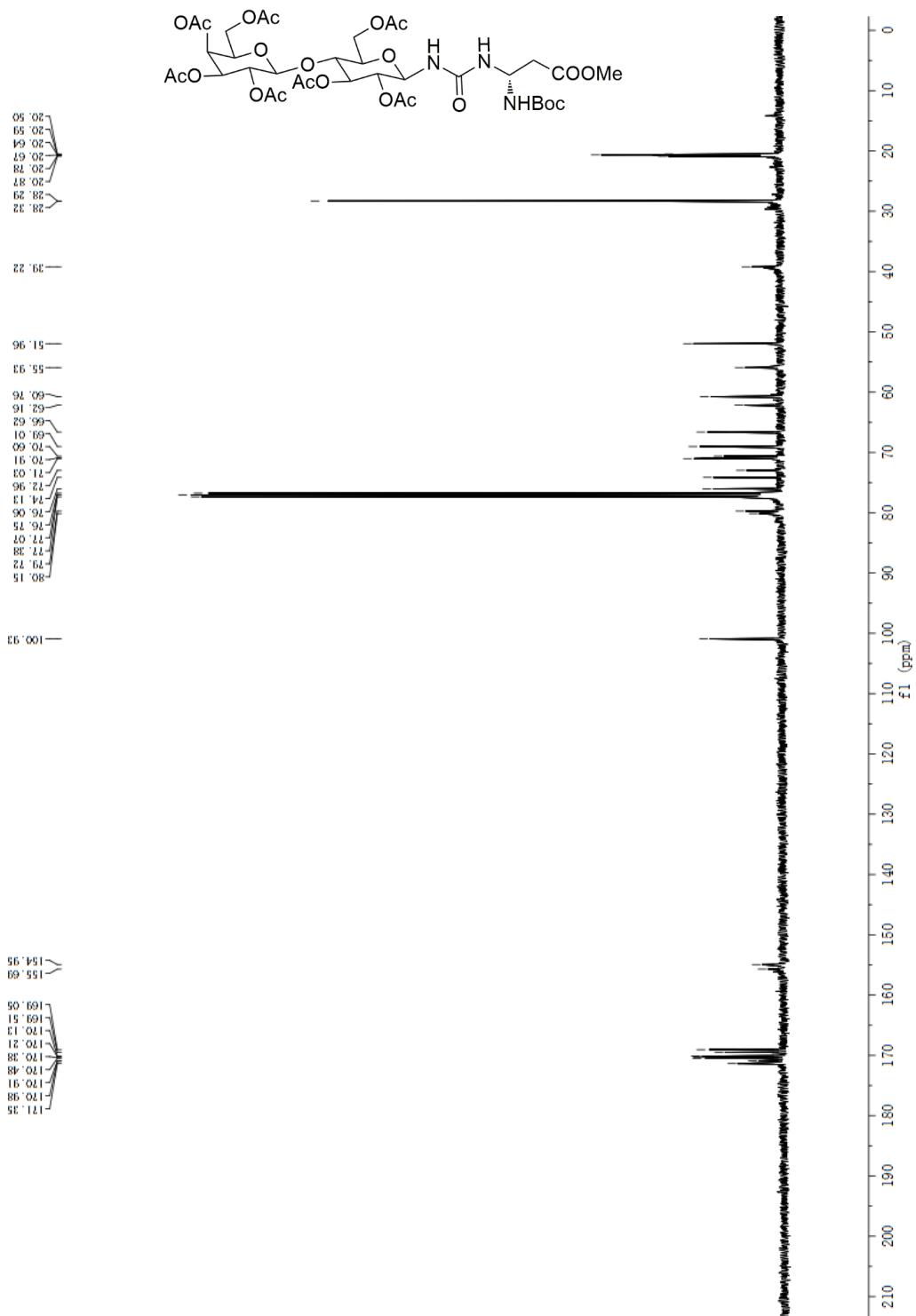
¹³C-NMR spectra of Compound 9c in CDCl₃

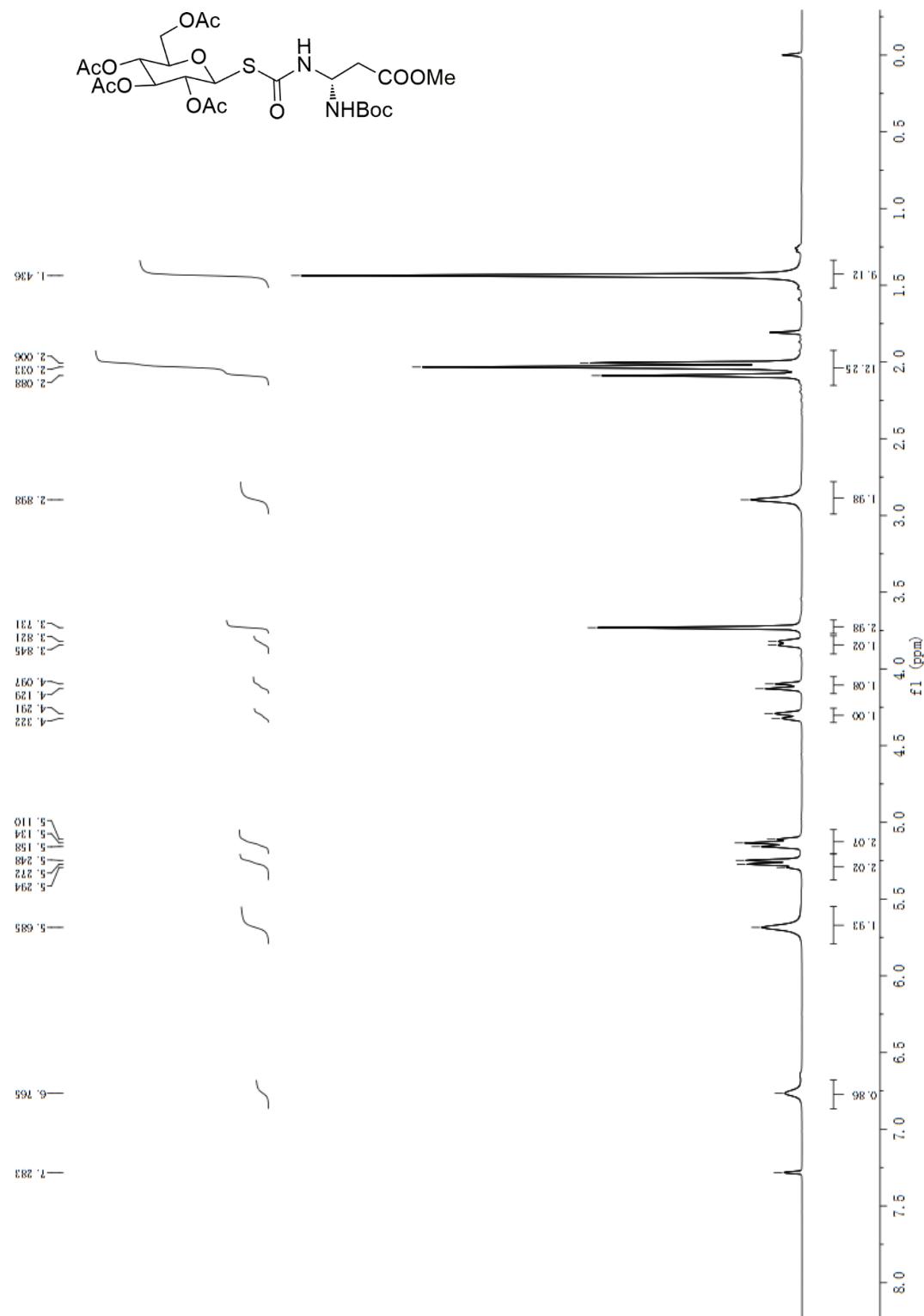
¹H-NMR spectra of Compound **9d** in CDCl₃

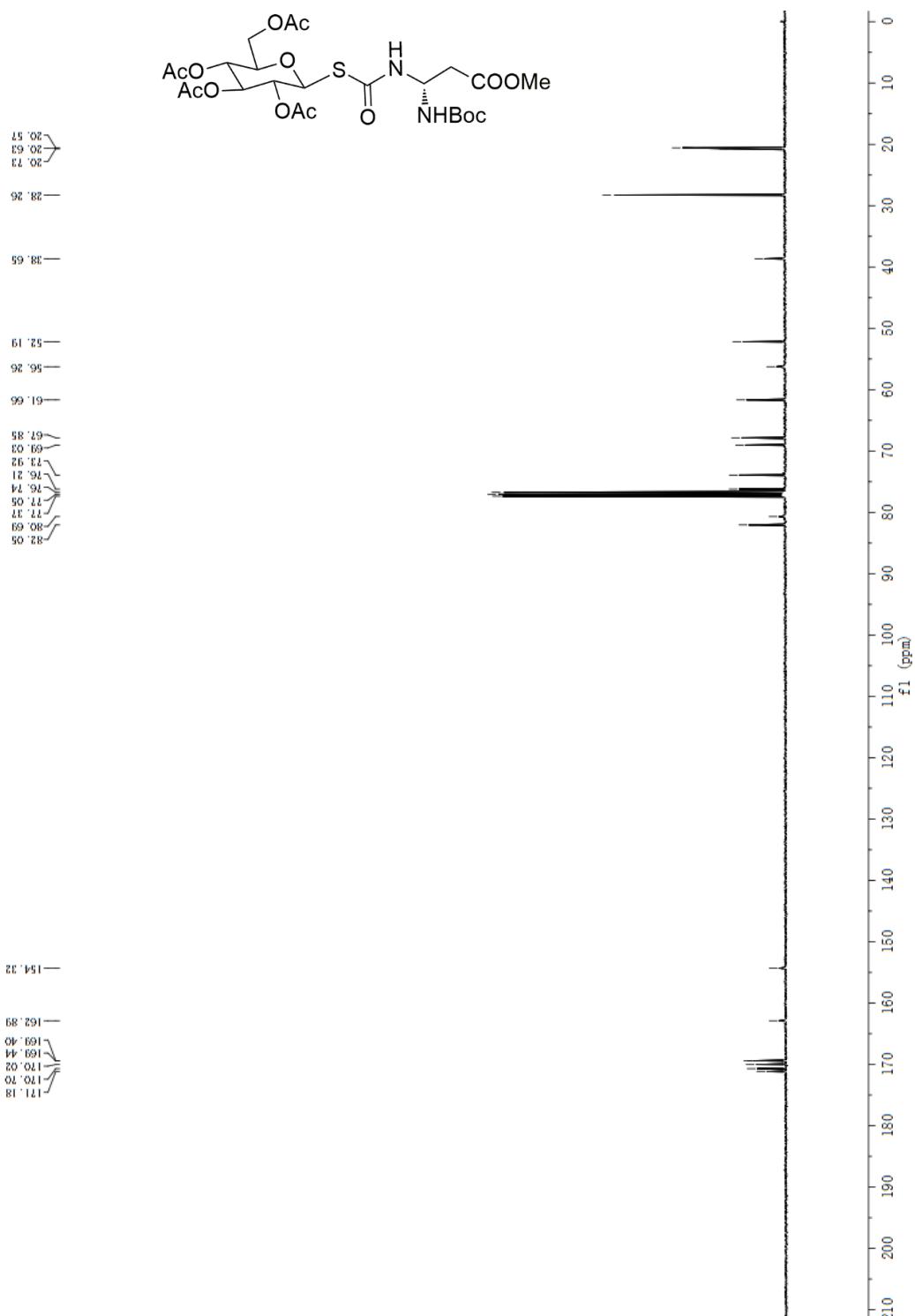


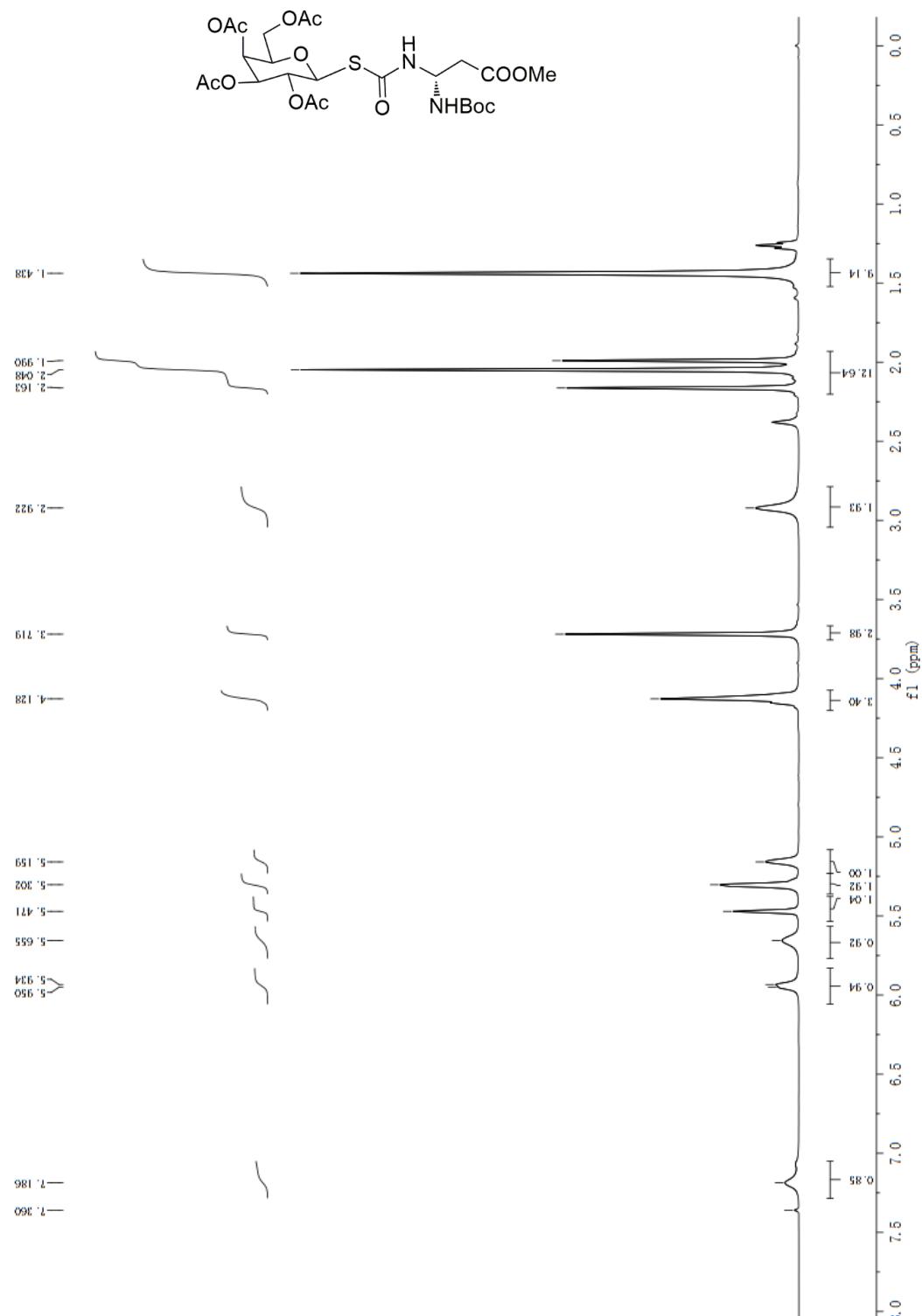
¹³C-NMR spectra of Compound **9d** in CDCl₃

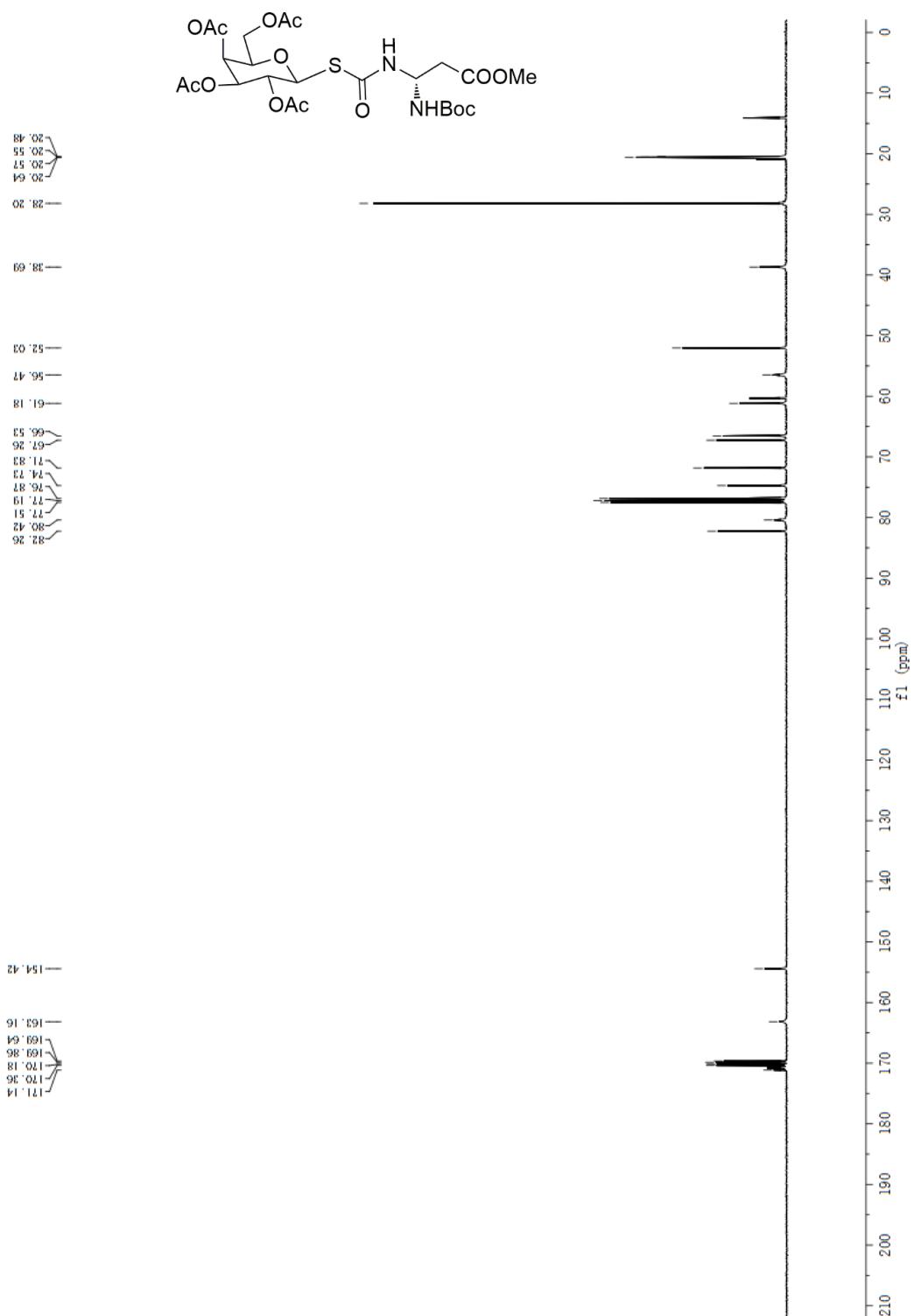
¹H-NMR spectra of Compound 9e in CDCl₃

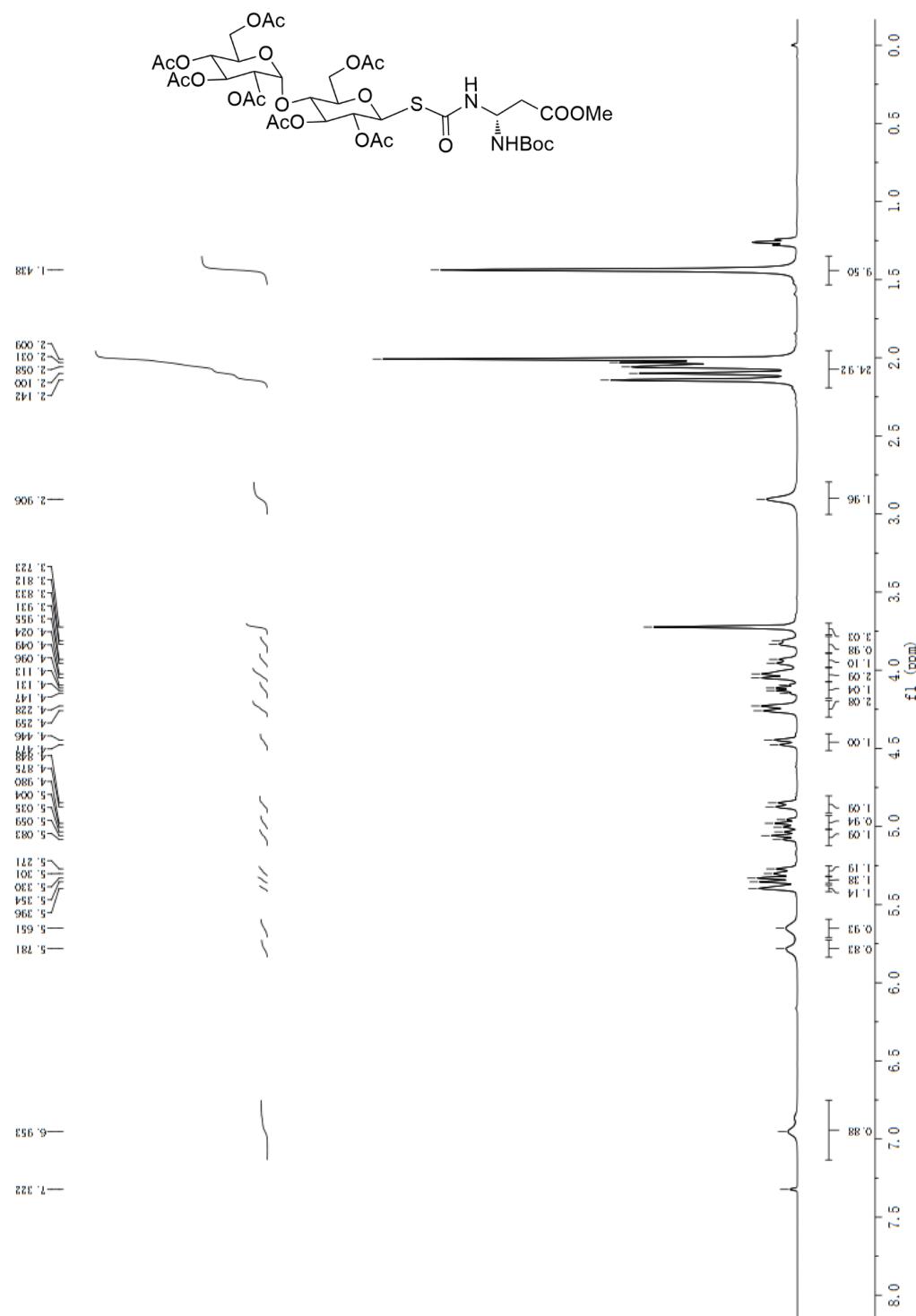
¹³C-NMR spectra of Compound 9e in CDCl₃

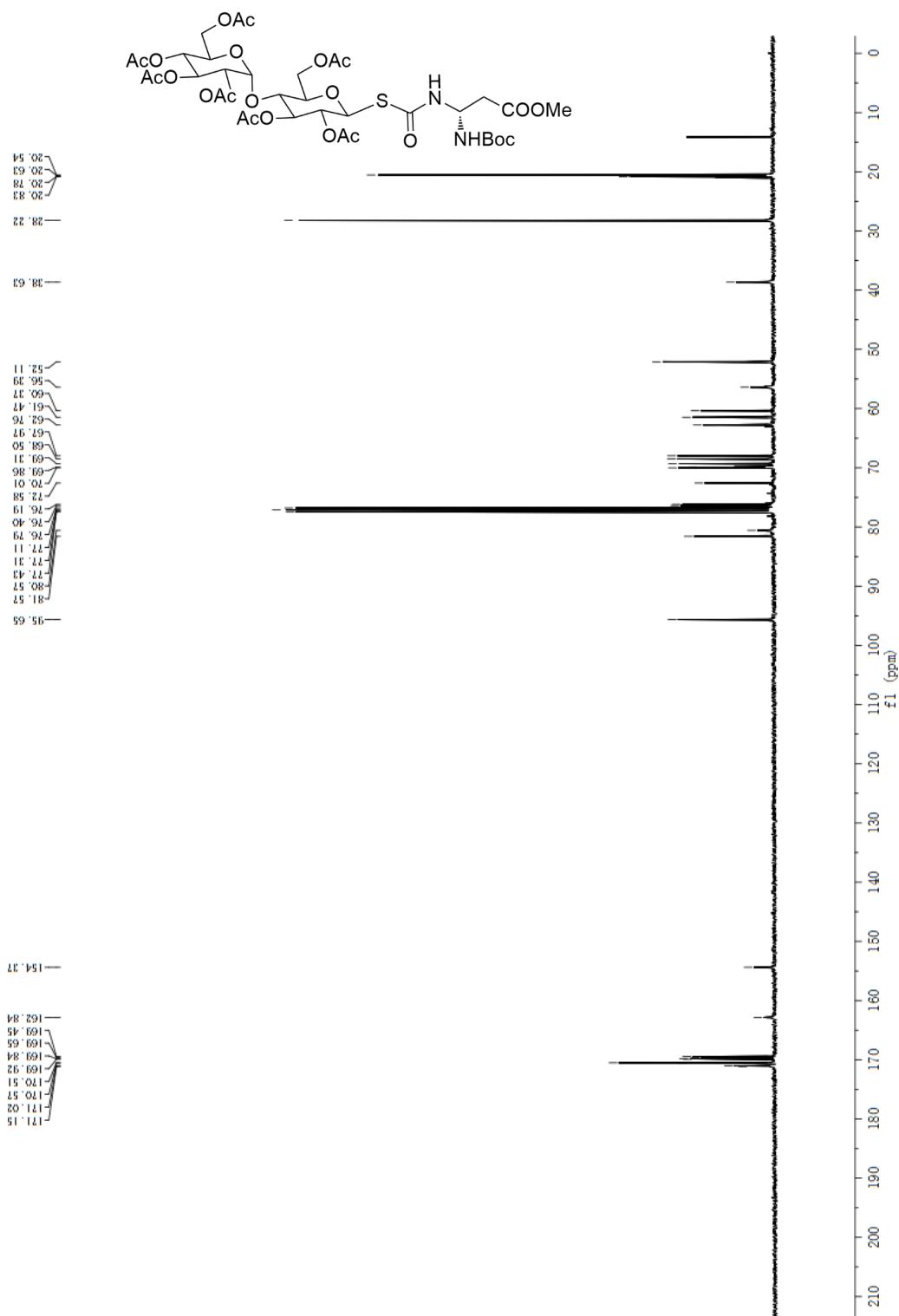
¹H-NMR spectra of Compound **11a** in CDCl₃

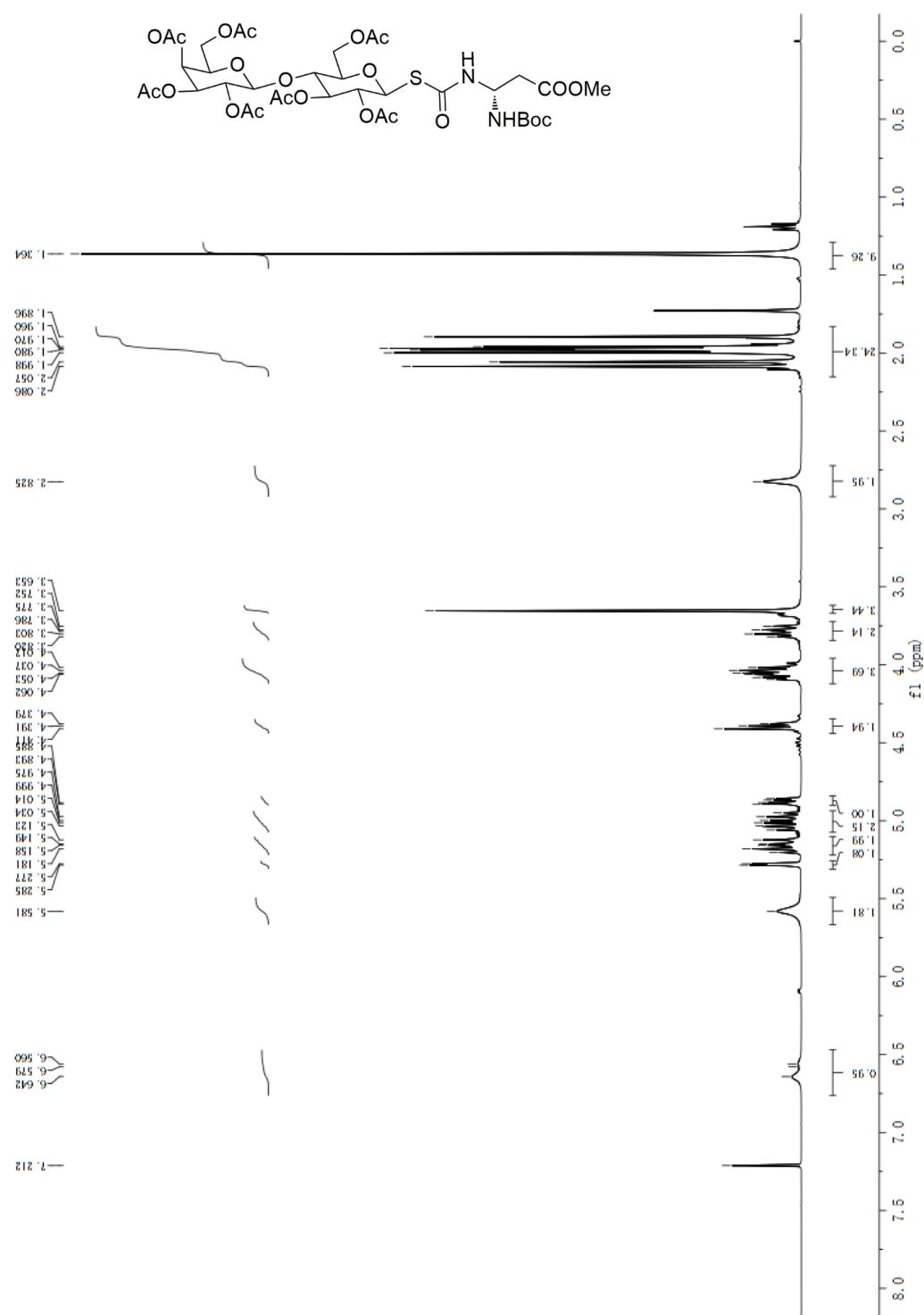
¹³C-NMR spectra of Compound **11a** in CDCl₃

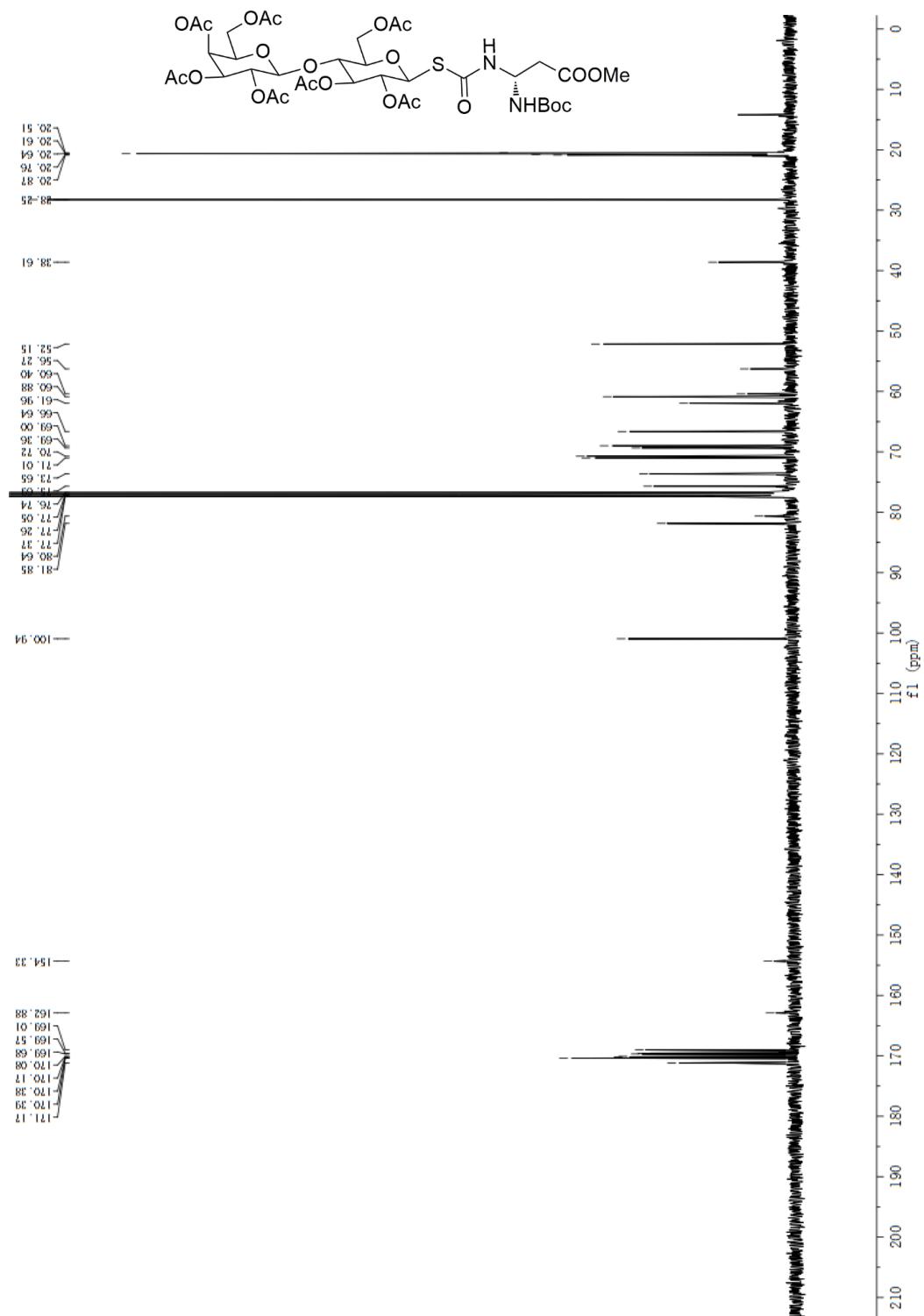
¹H-NMR spectra of Compound **11b** in CDCl₃

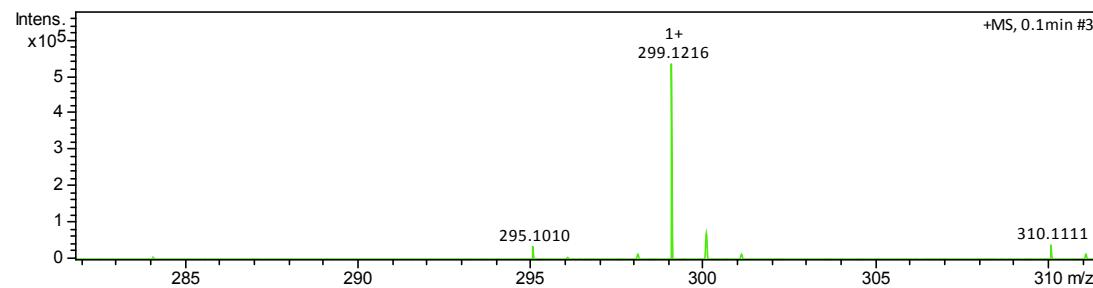
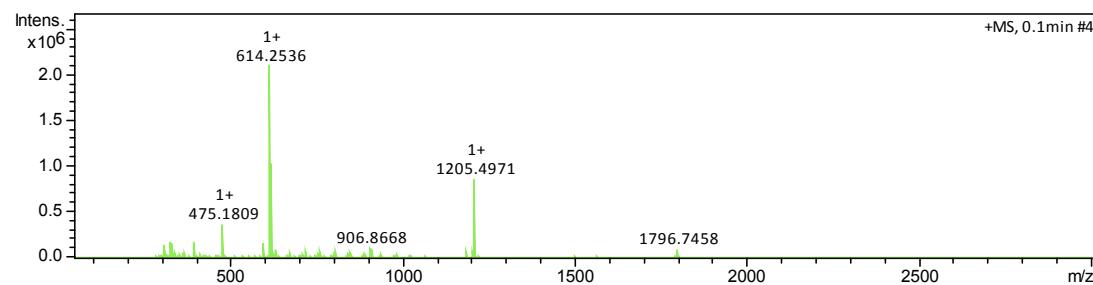
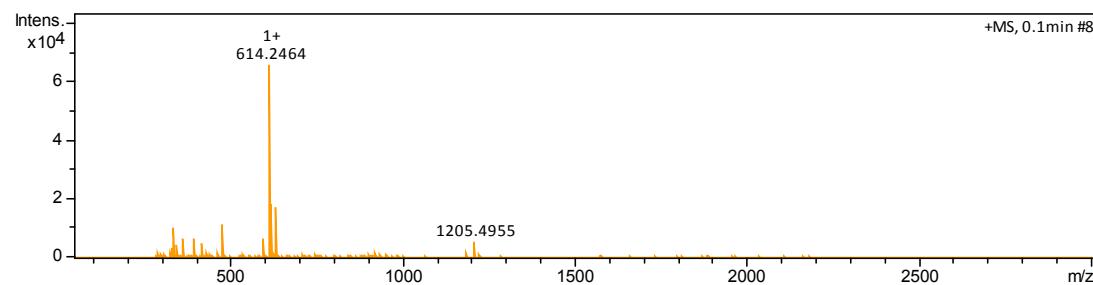
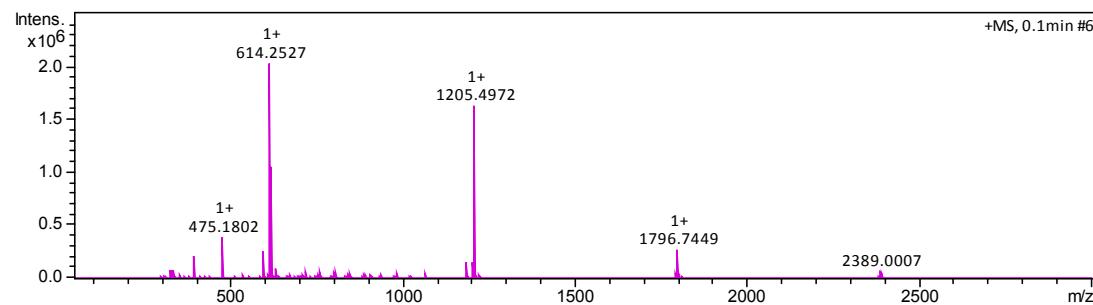
¹³C-NMR spectra of Compound **11b** in CDCl₃

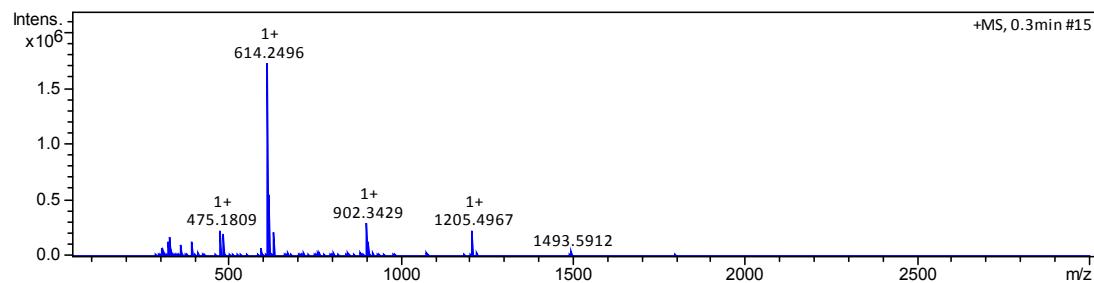
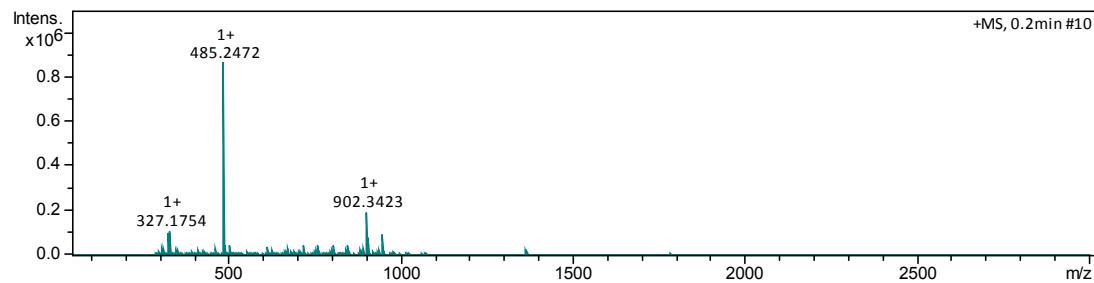
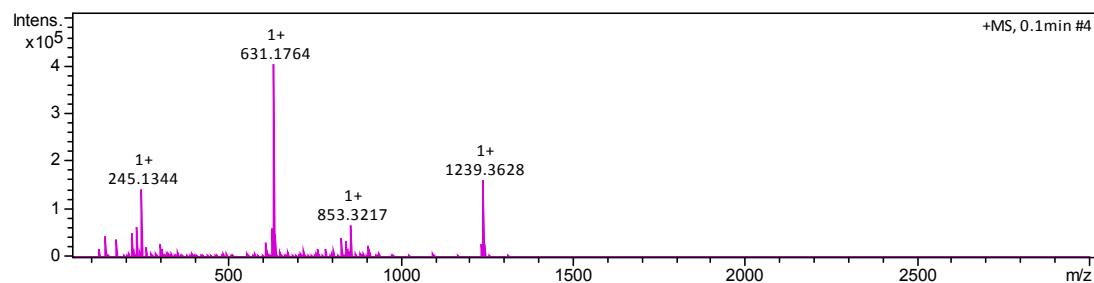
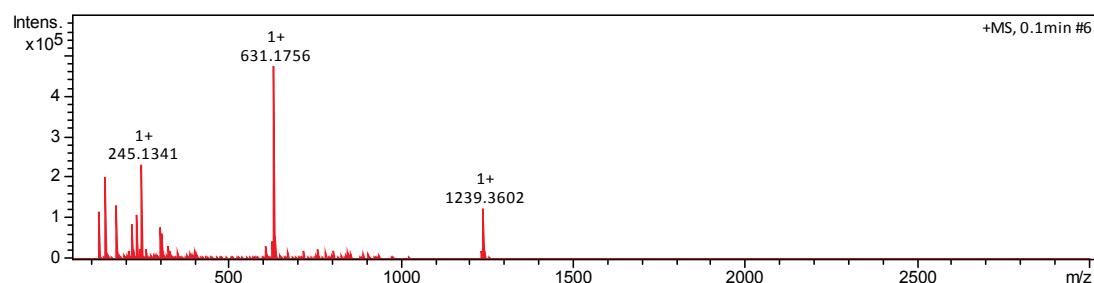
¹H-NMR spectra of Compound **11c** in CDCl₃

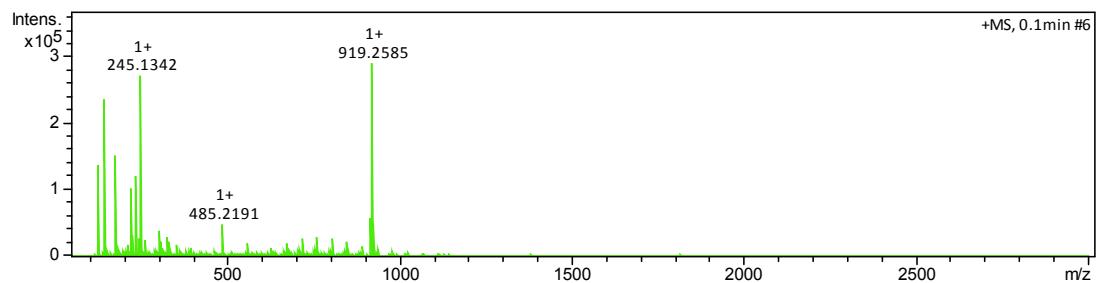
¹³C-NMR spectra of Compound **11c** in CDCl₃

¹H-NMR spectra of Compound **11d** in CDCl₃

¹³C-NMR spectra of Compound **11d** in CDCl₃

MS Spectroscopic Data**MS spectra of Compound 6****MS spectra of Compound 9a****MS spectra of Compound 9b****MS spectra of Compound 9c**

MS spectra of Compound **9d**MS spectra of Compound **9e**MS spectra of Compound **11a**MS spectra of Compound **11b**

MS spectra of Compound **11c**MS spectra of Compound **11d**