

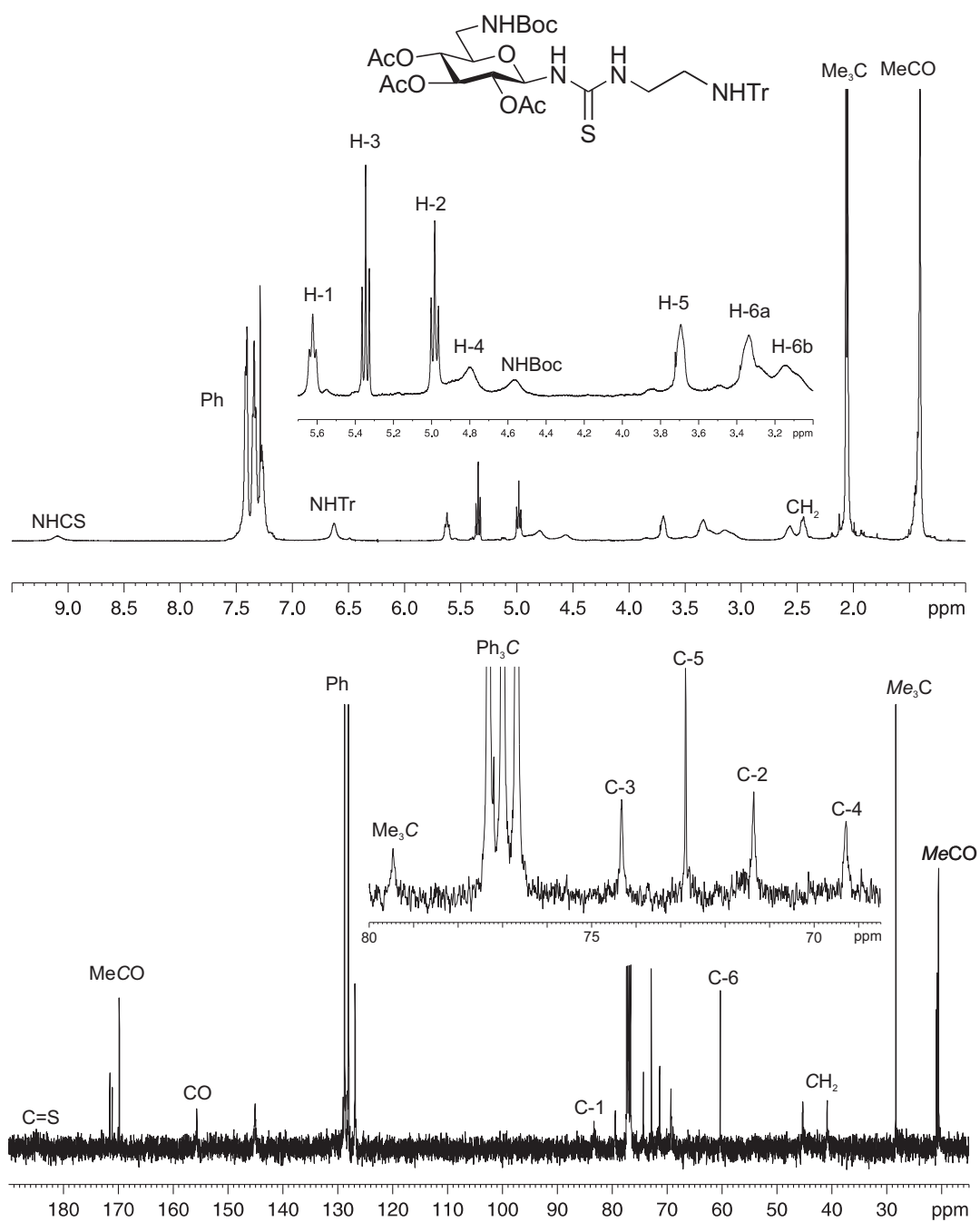
## **Cyclodextrin-scaffolded amphiphilic aminoglycoside clusters: Self-assembling and gene delivery capabilities**

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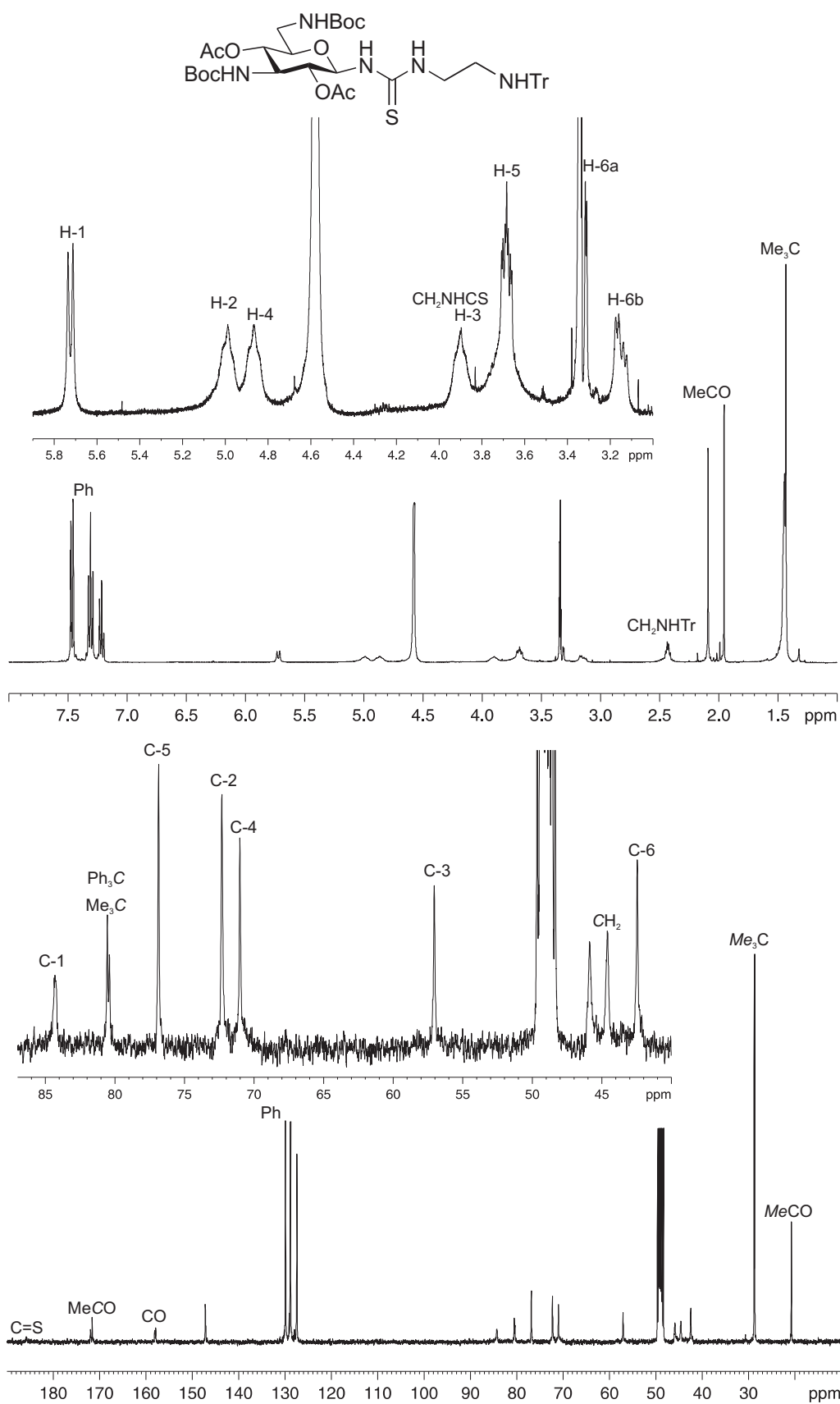
### **Supporting information**

#### **Contents:**

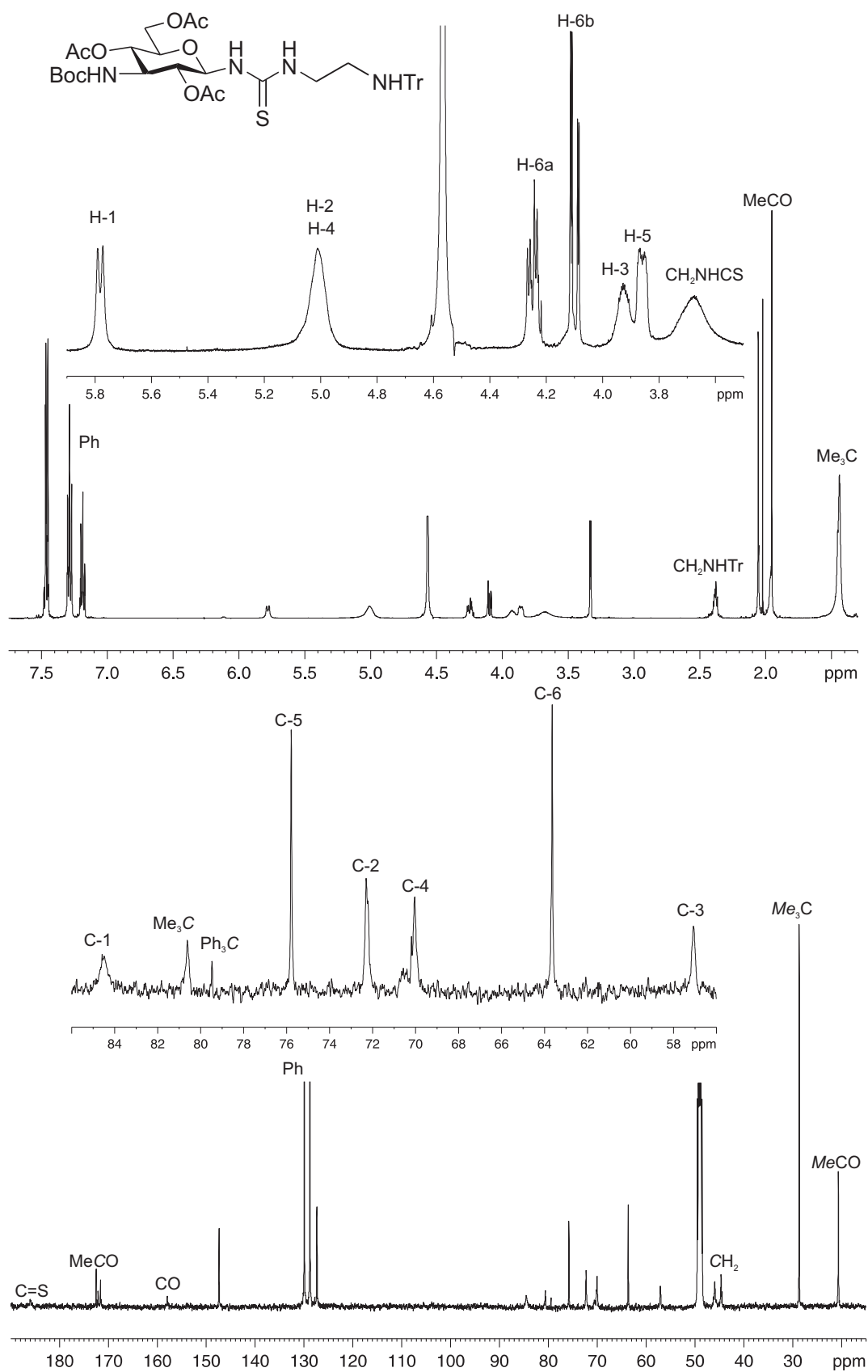
Figures S1-S16: NMR spectra of compounds **8-20**, and **2-4**.



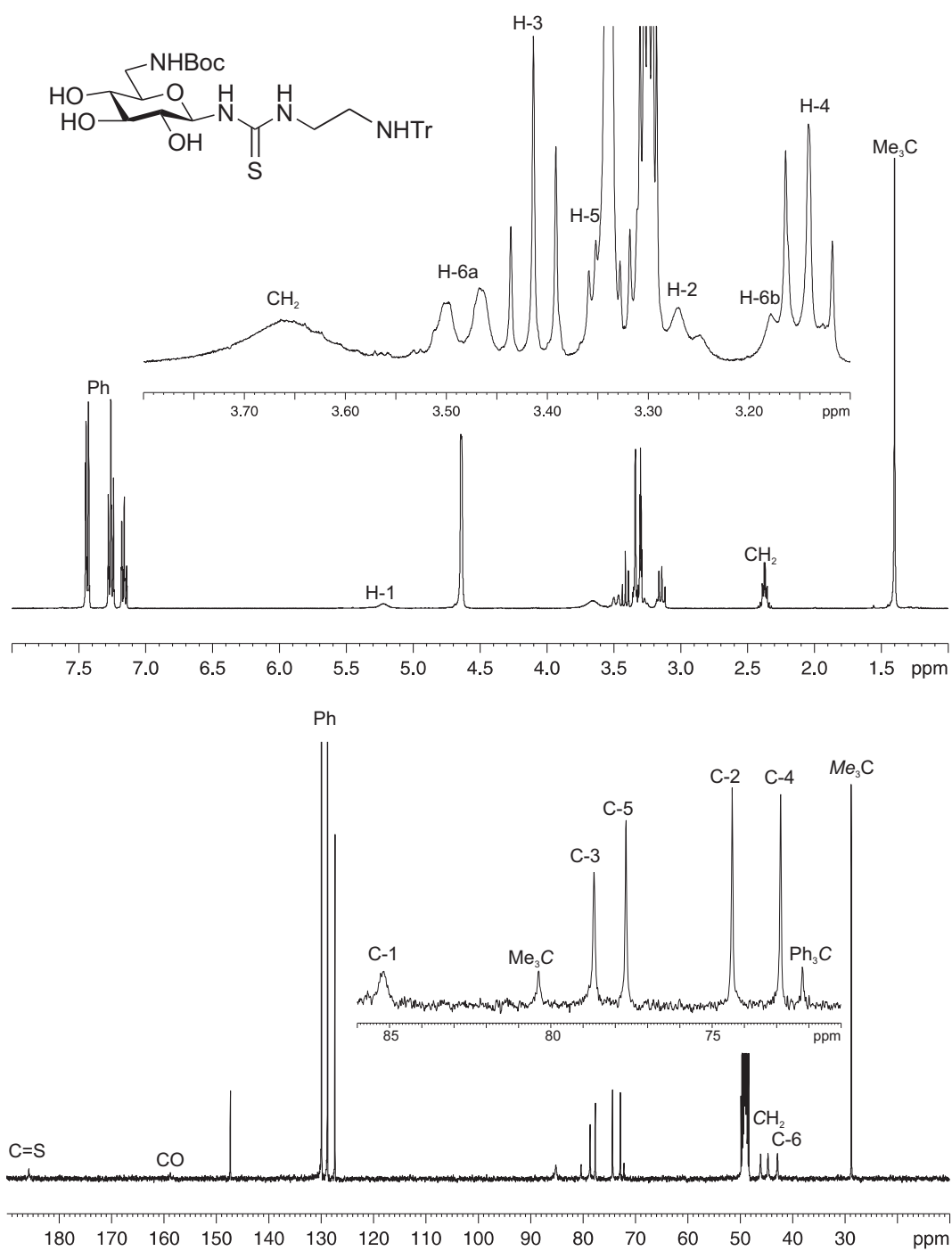
**Figure S1.**  $^1\text{H}$  and  $^{13}\text{C}$  NMR (500 and 125.7 MHz, respectively,  $\text{CDCl}_3$ ) spectra of compound **8**.



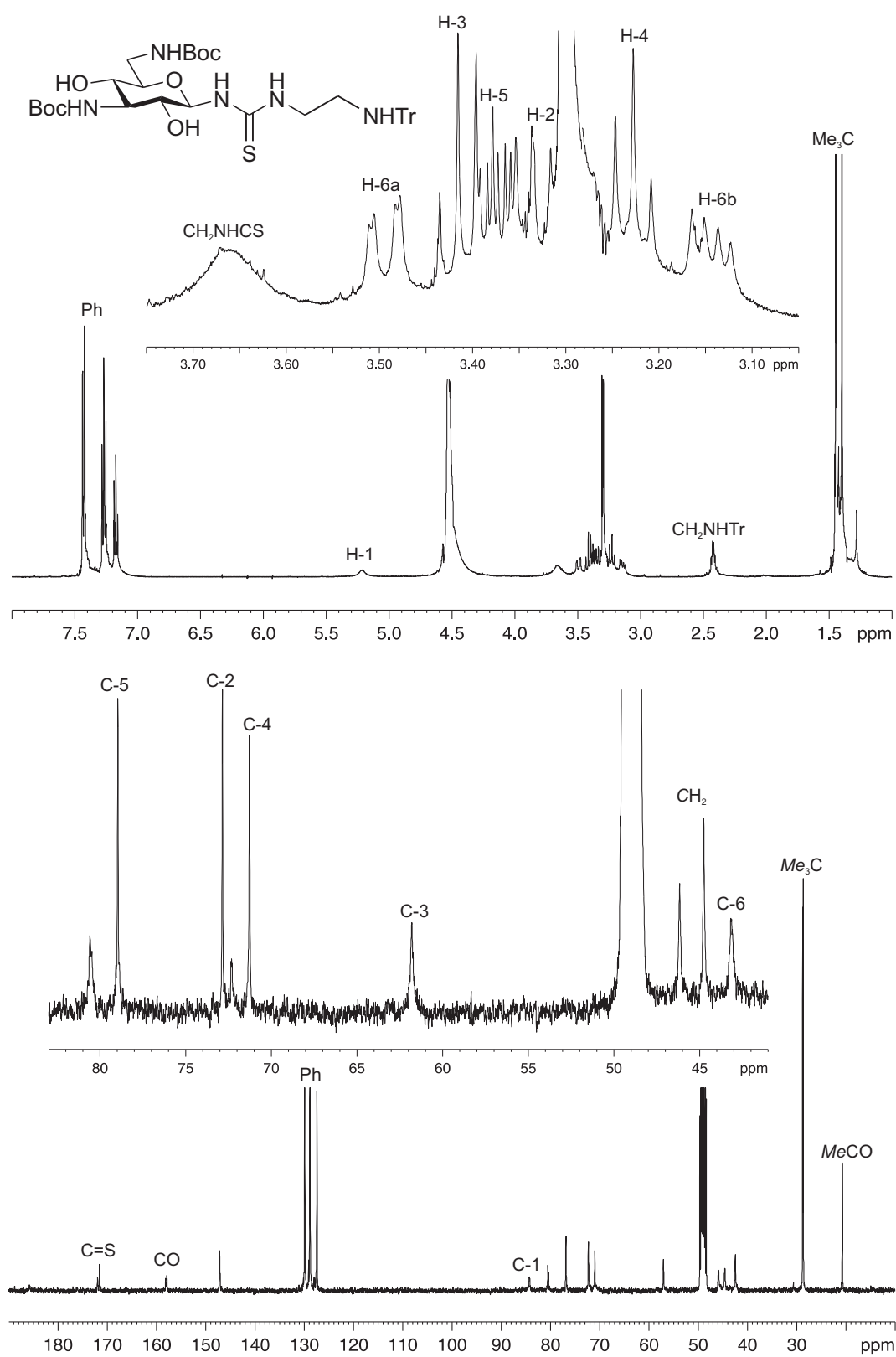
**Figure S2.**  $^1\text{H}$  (400 MHz, 323 K,  $\text{CD}_3\text{OD}$ ) and  $^{13}\text{C}$  NMR (100.6 MHz, 313 K,  $\text{CD}_3\text{OD}$ ) spectra of compound **9**.



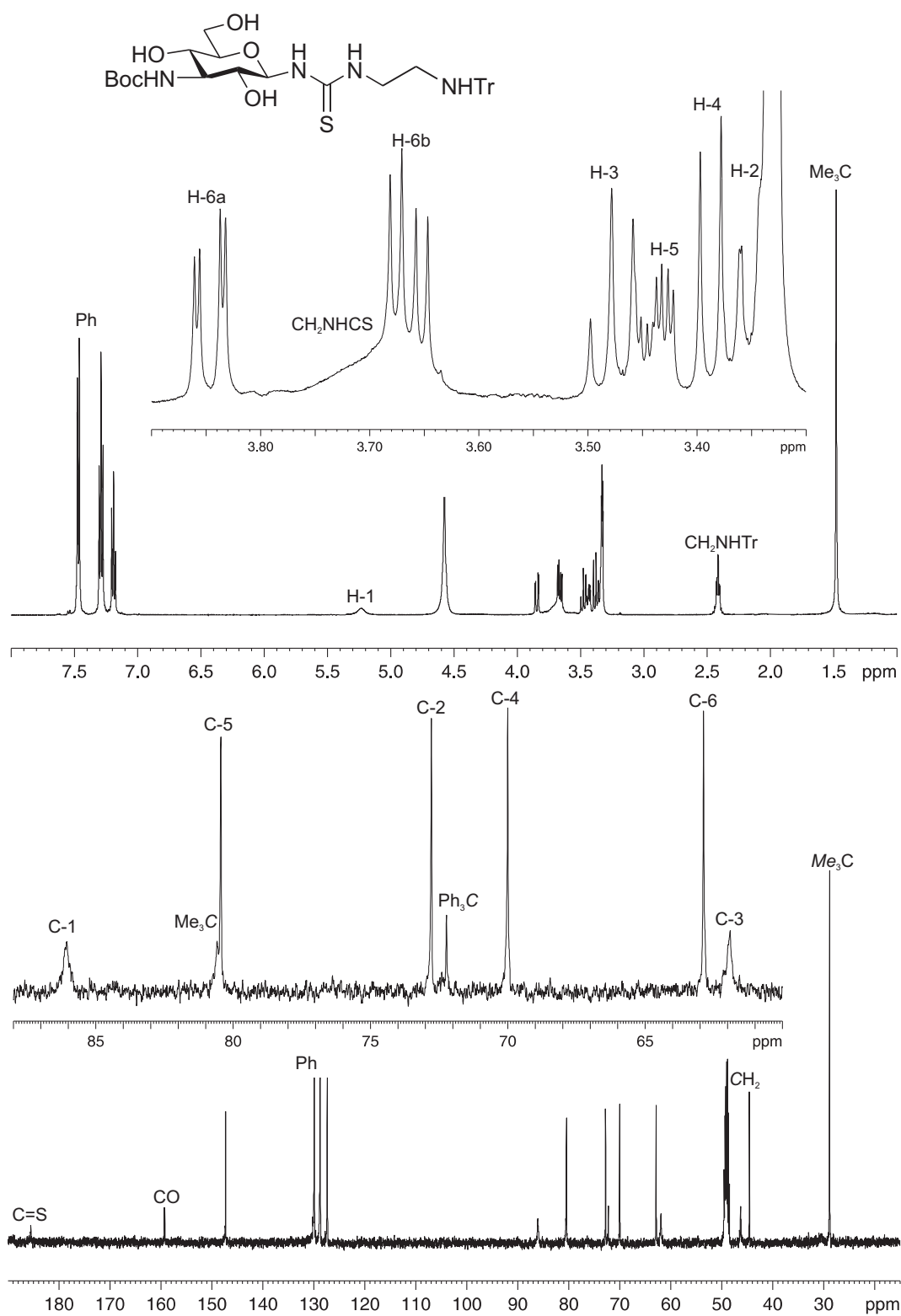
**Figure S3.**  $^1\text{H}$  (500 MHz, 323 K,  $\text{CD}_3\text{OD}$ ) and  $^{13}\text{C}$  NMR (125.7 MHz, 323 K,  $\text{CD}_3\text{OD}$ ) spectra of compound **10**.



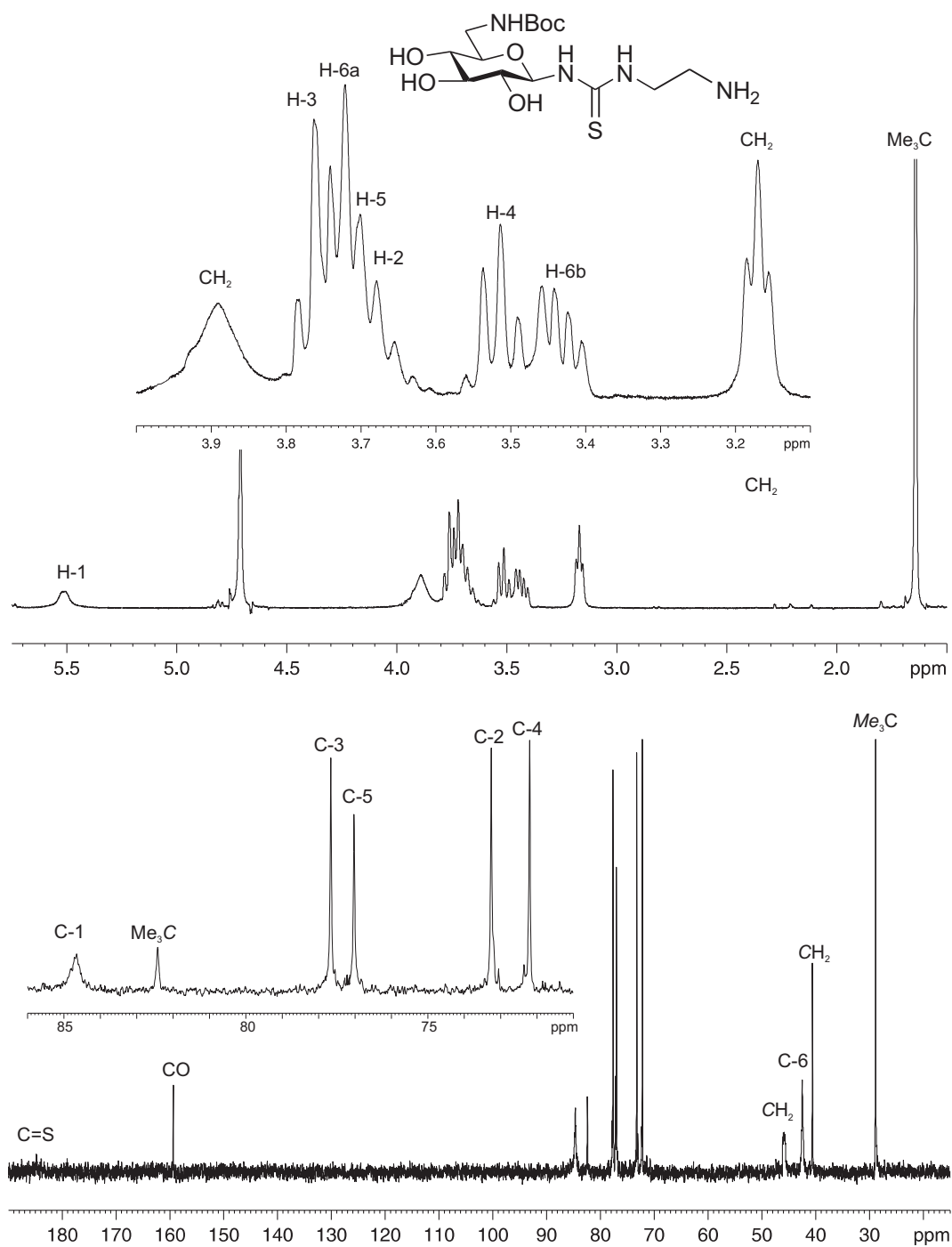
**Figure S4.**  $^1\text{H}$  and  $^{13}\text{C}$  NMR (400 and 100.6 MHz, respectively, MeOD, 313 K) spectra of compound **11**.



**Figure S5.**  $^1\text{H}$  (500 MHz, 313 K,  $\text{CD}_3\text{OD}$ ) and  $^{13}\text{C}$  NMR (125.7 MHz, 313 K,  $\text{CD}_3\text{OD}$ ) spectra of compound 12.

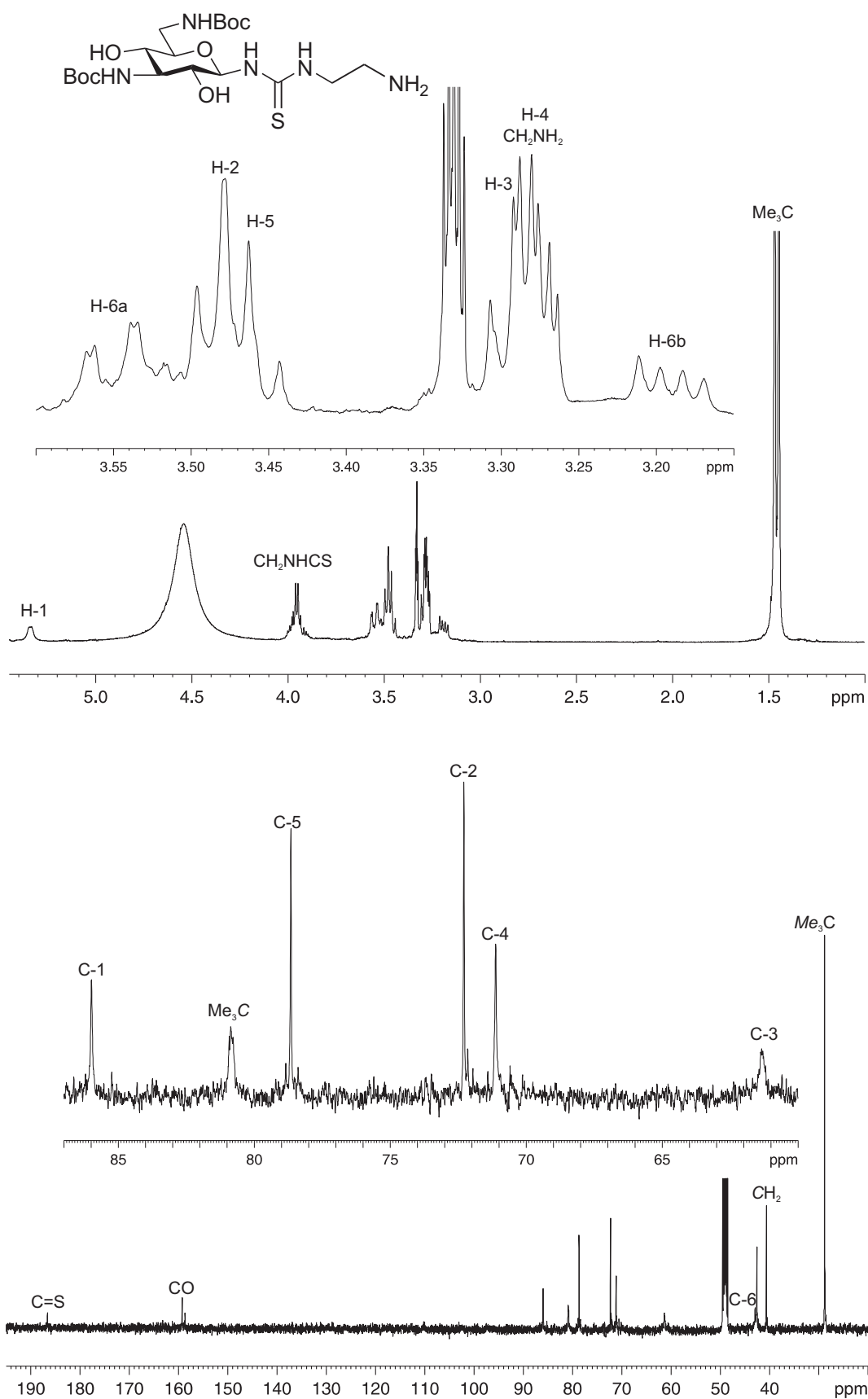


**Figure S6.**  $^1\text{H}$  (500 MHz, 323 K, CD<sub>3</sub>OD) and  $^{13}\text{C}$  NMR (125.7 MHz, 323 K, CD<sub>3</sub>OD) spectra of compound **13**.

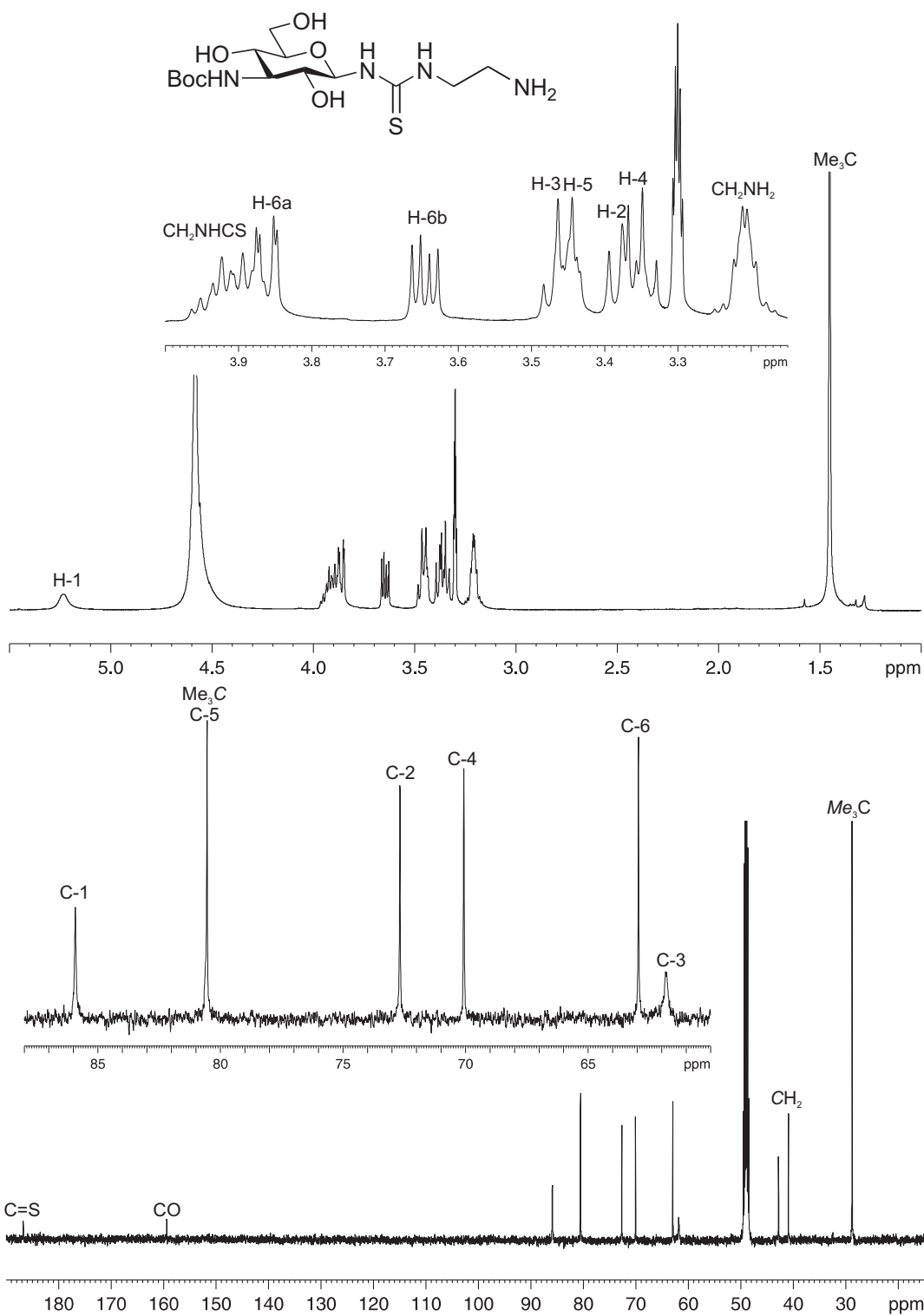


**Figure S7.**  $^1\text{H}$  and  $^{13}\text{C}$  NMR (400 and 100.6 MHz, respectively,  $\text{D}_2\text{O}$ , 323 K) spectra of compound **14**.

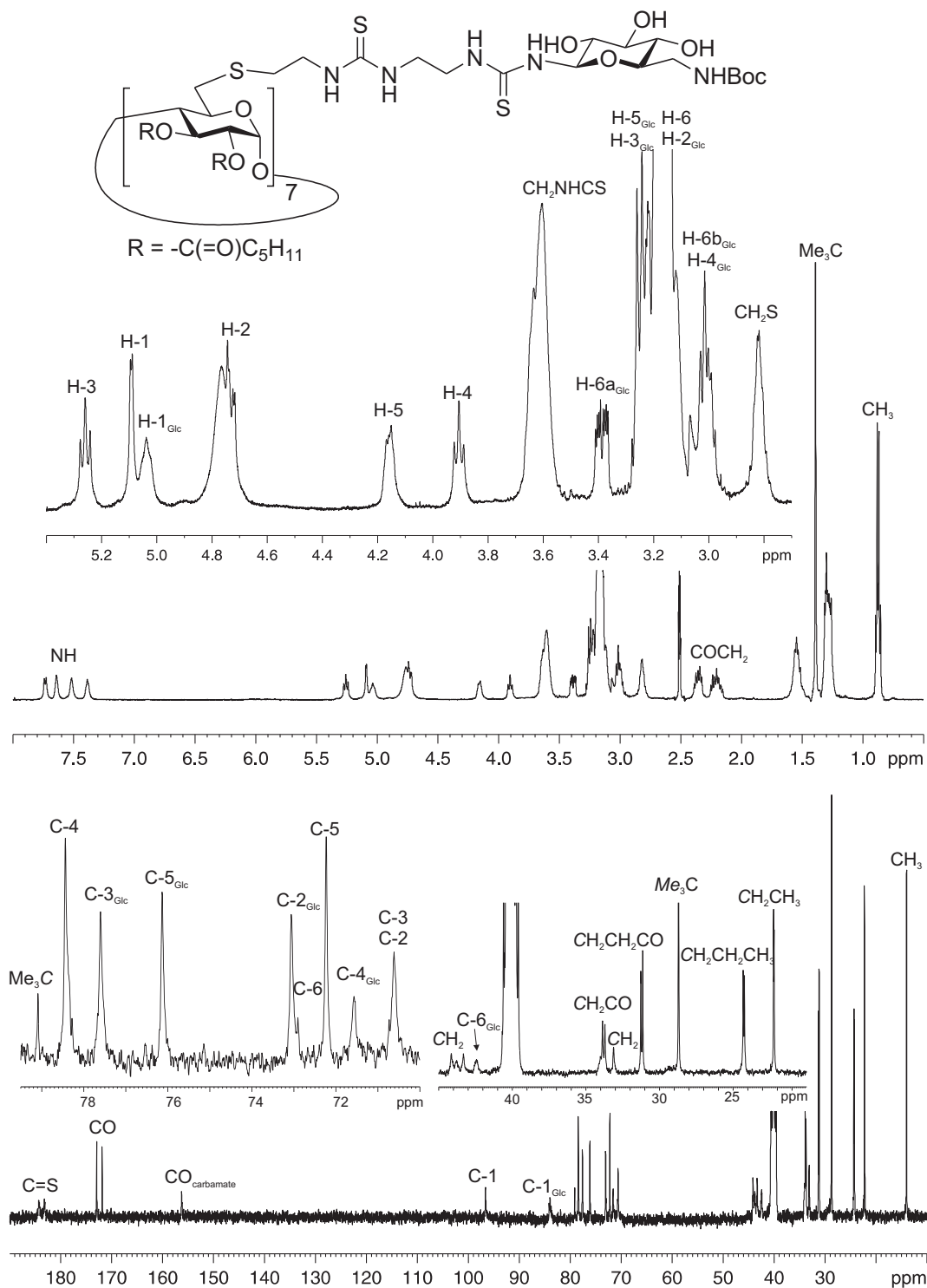




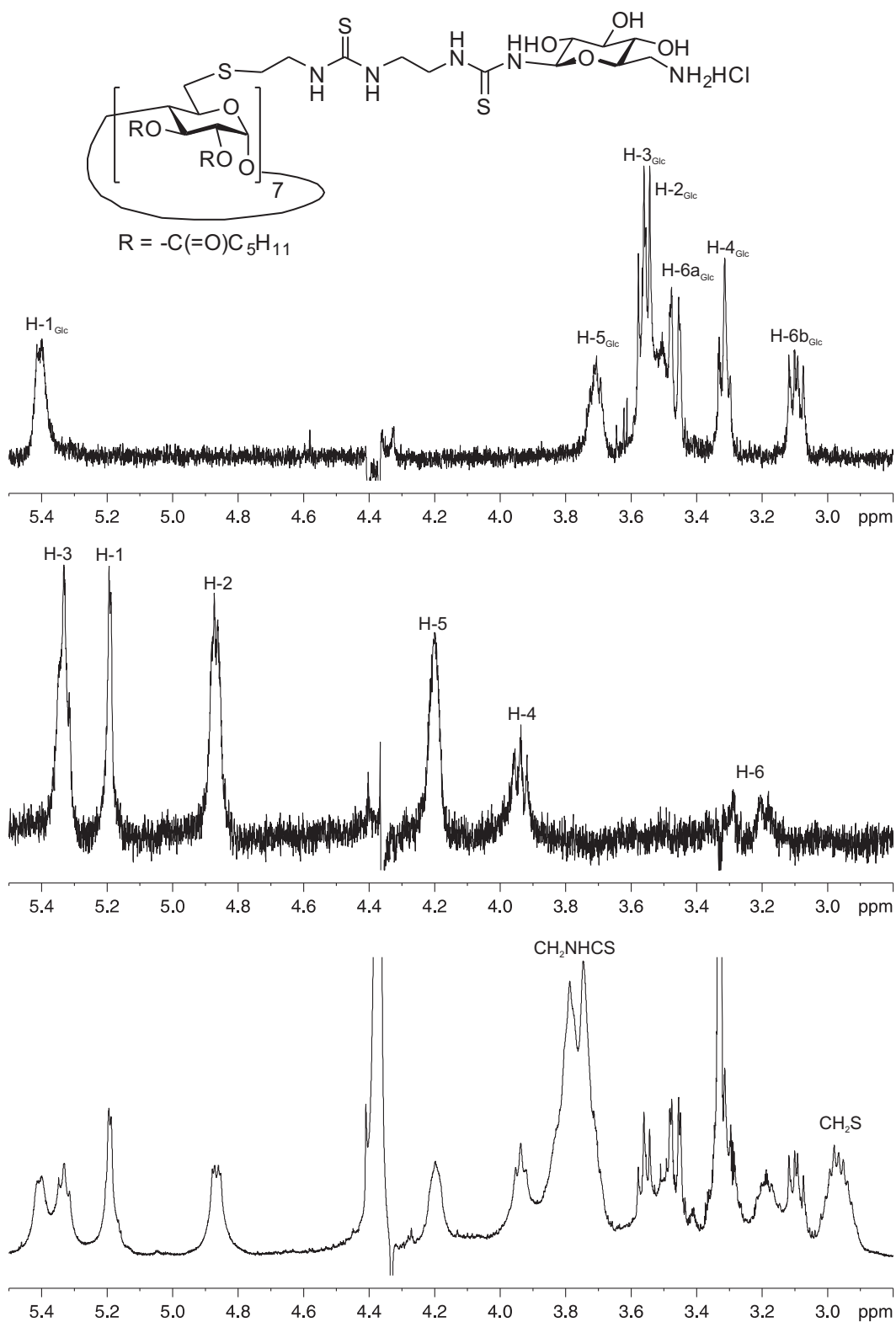
**Figure S8.**  $^1\text{H}$  (500 MHz, 323 K, 12:1  $\text{CD}_3\text{OD}-\text{D}_2\text{O}$ ) and  $^{13}\text{C}$  NMR (125.7 MHz, 323 K, 12:1  $\text{CD}_3\text{OD}-\text{D}_2\text{O}$ ) spectra of compound **15**.



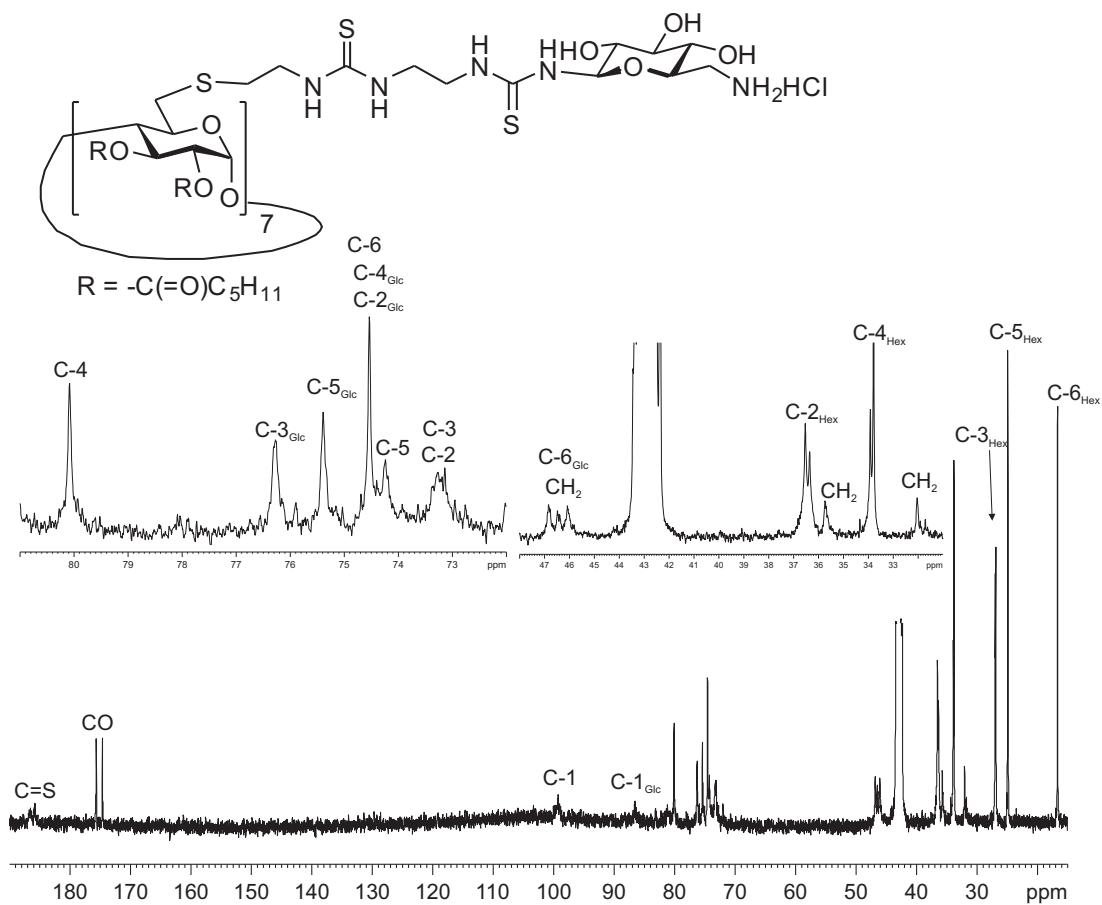
**Figure S9.**  $^1\text{H}$  (500 MHz, 323 K,  $\text{CD}_3\text{OD}$ ) and  $^{13}\text{C}$  NMR (125.7 MHz, 323 K,  $\text{CD}_3\text{OD}$ ) spectra of compound 16.



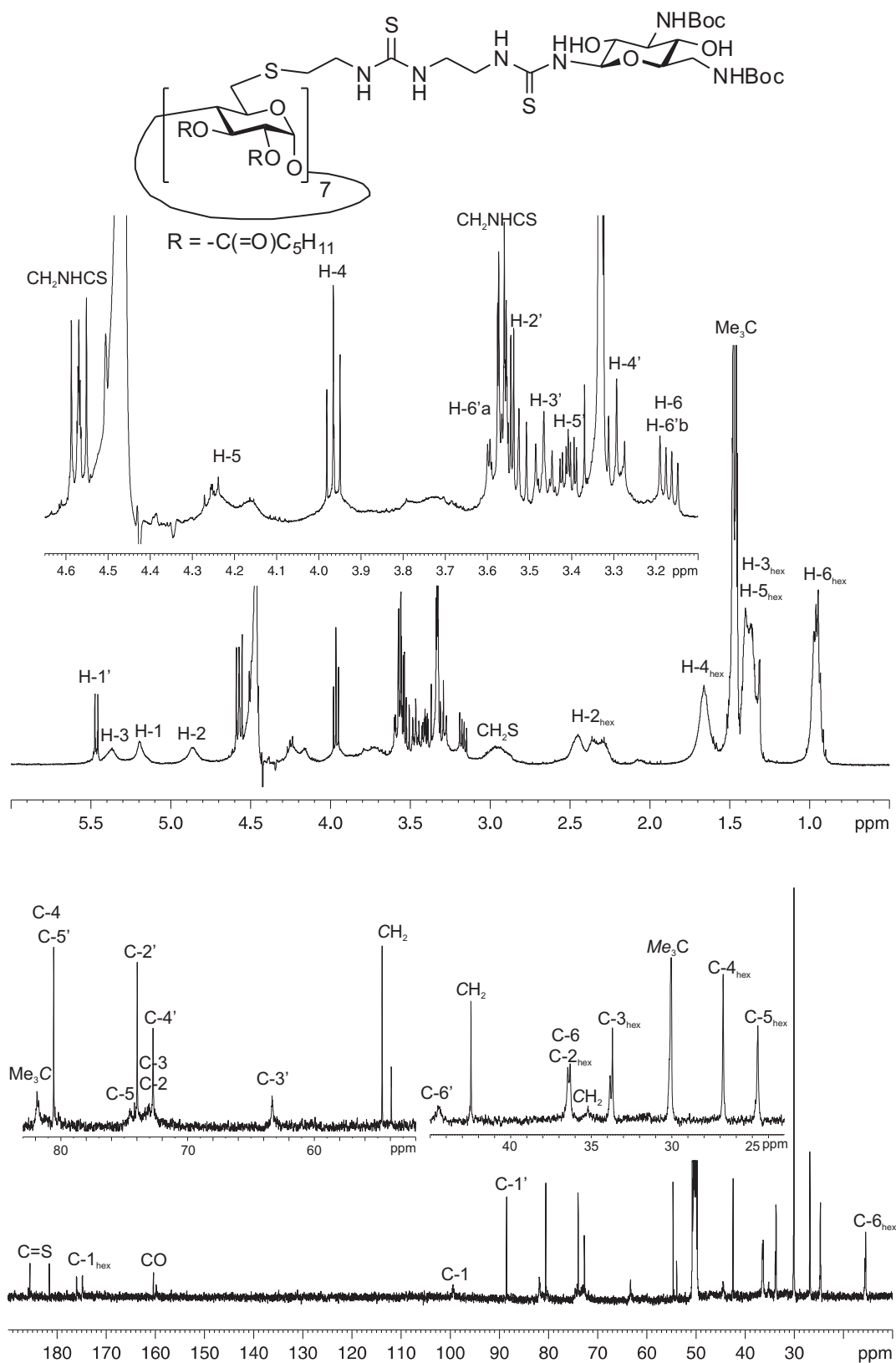
**Figure S10.**  $^1H$  (500 MHz, 343 K, DMSO- $d_6$ ) and  $^{13}C$  NMR (125.7 MHz, 313 K, DMSO- $d_6$ ) spectra of compound 18.



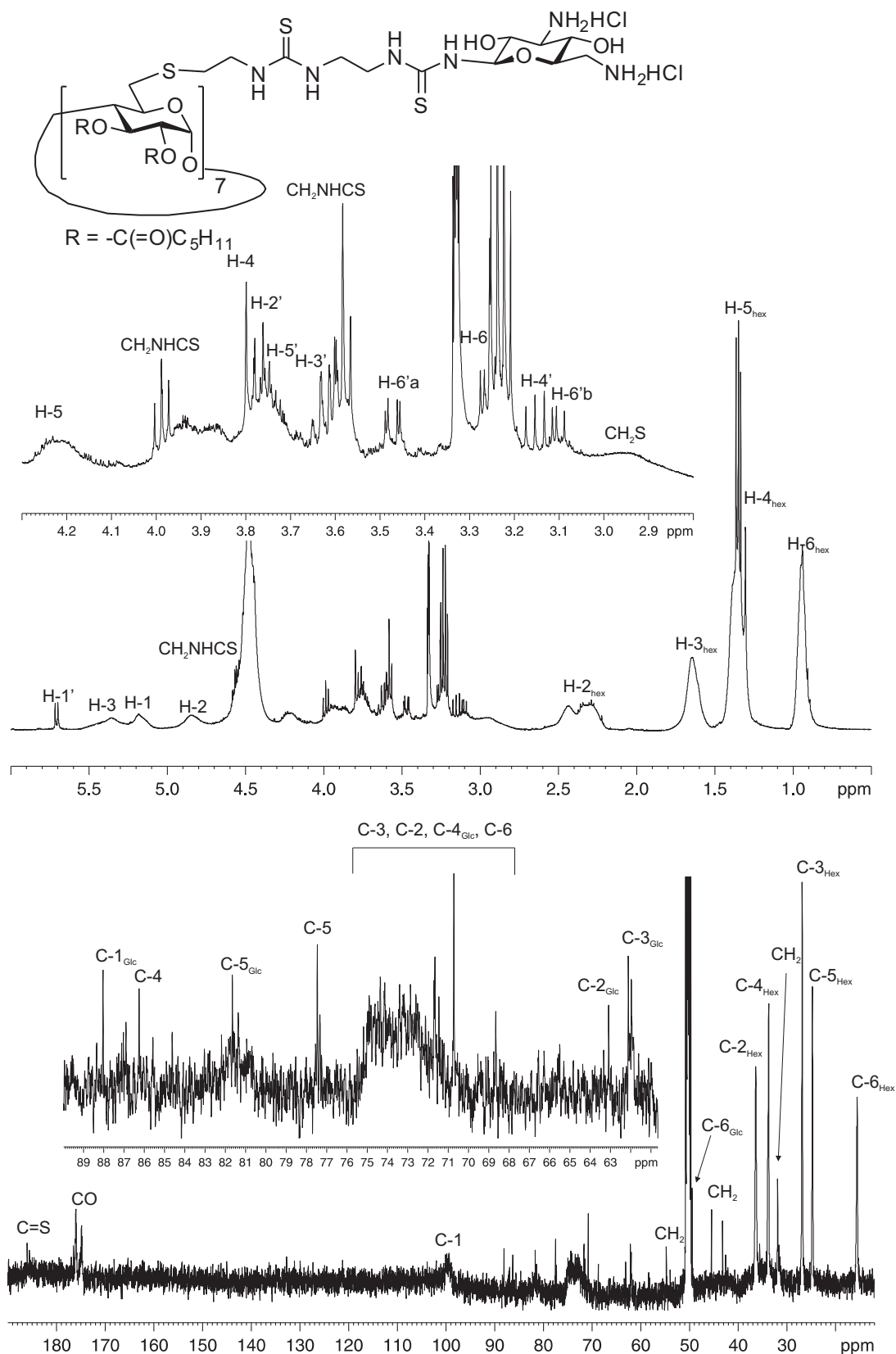
**Figure S11.**  $^1H$  and TOCSY (500 MHz, 333 K, 5:1  $CD_3OD-D_2O$ ) spectra of compound 2.



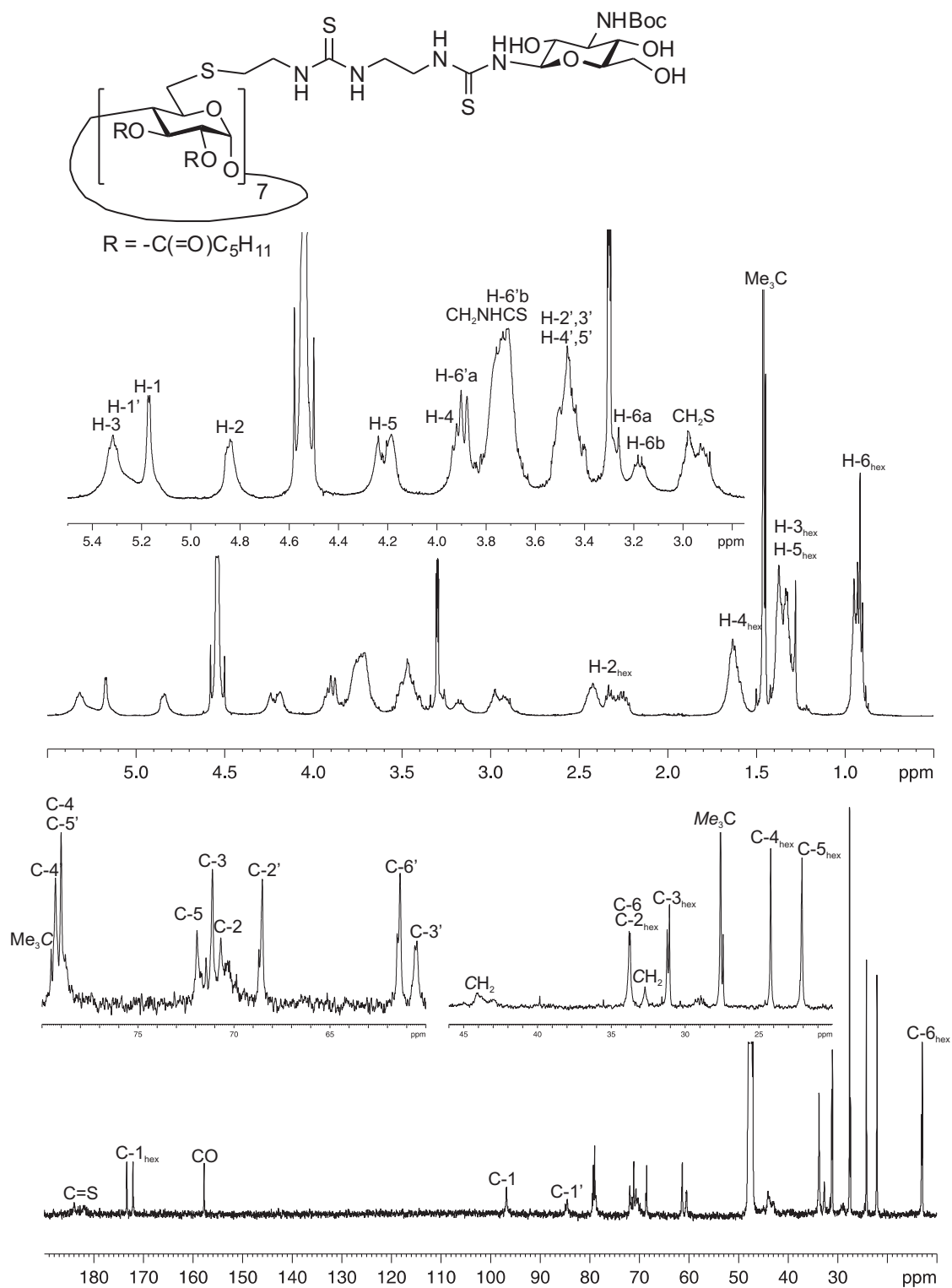
**Figure S12.**  $^{13}C$  NMR (125.7 MHz, 323 K, DMSO- $d_6$ ) spectrum of compound 2.



**Figure S13.** <sup>1</sup>H (500 MHz, 333 K, CD<sub>3</sub>OD) and <sup>13</sup>C NMR (125.7 MHz, 333 K, CD<sub>3</sub>OD) spectra of compound **19**.

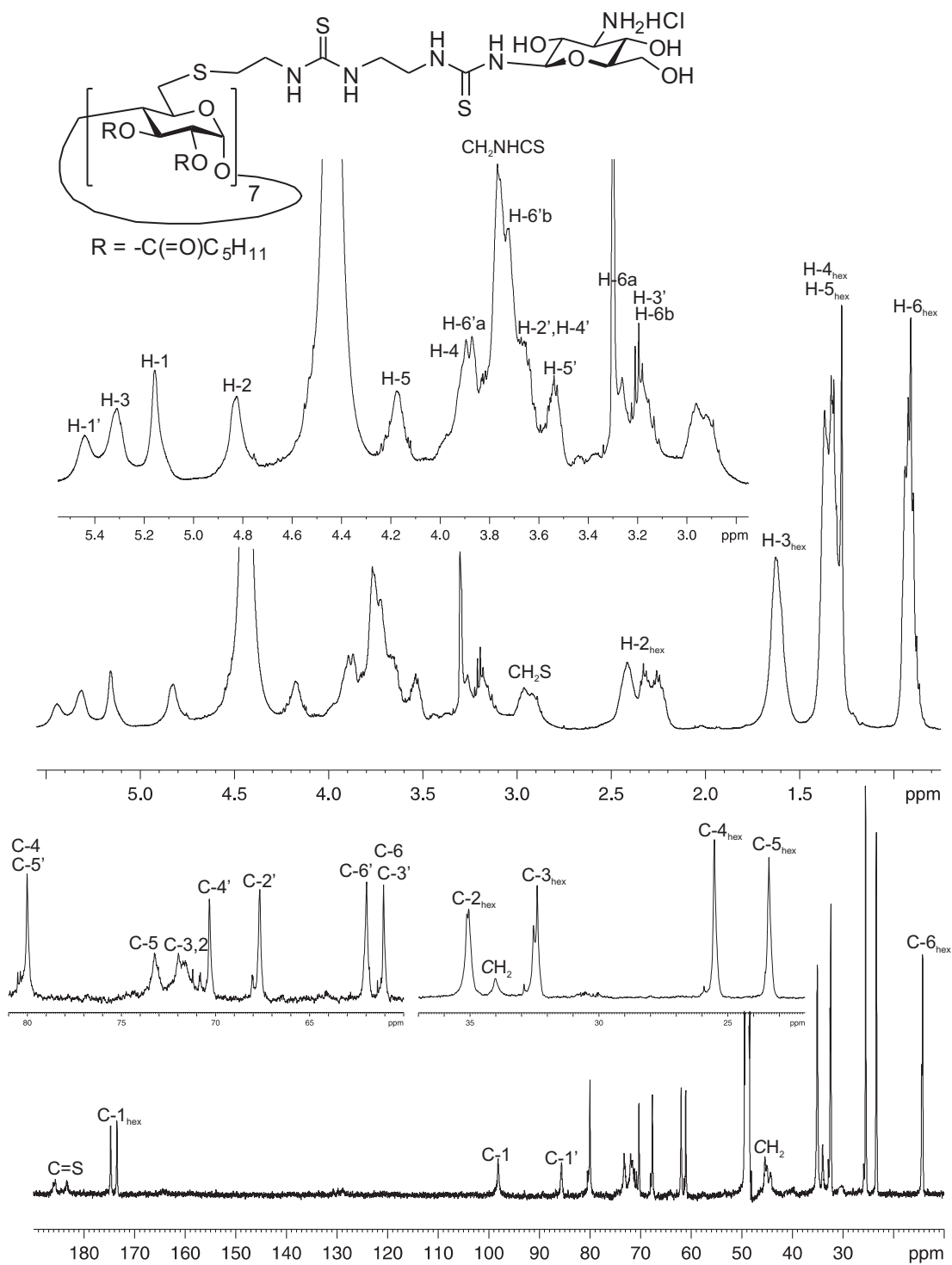


**Figure S14.** <sup>1</sup>H NMR (500 MHz, 333 K, CD<sub>3</sub>OD) and <sup>13</sup>C NMR (125.7 MHz, 323 K, CD<sub>3</sub>OD) spectra of compound 3.



**Figure S15.** <sup>1</sup>H (500 MHz, 323 K, CD<sub>3</sub>OD) and <sup>13</sup>C NMR (125.7 MHz, 323 K, CD<sub>3</sub>OD) spectra of compound **20**.





**Figure S16.** <sup>1</sup>H (500 MHz, 333 K, CD<sub>3</sub>OD) and <sup>13</sup>C NMR (125.7 MHz, 333 K, CD<sub>3</sub>OD) spectra of compound 4.