

# Supplementary Materials

$^1\text{H}$  and  $^{13}\text{C}$  NMR spectra of guanidine-bisurea bifunctional organocatalysts **11** and **12**.

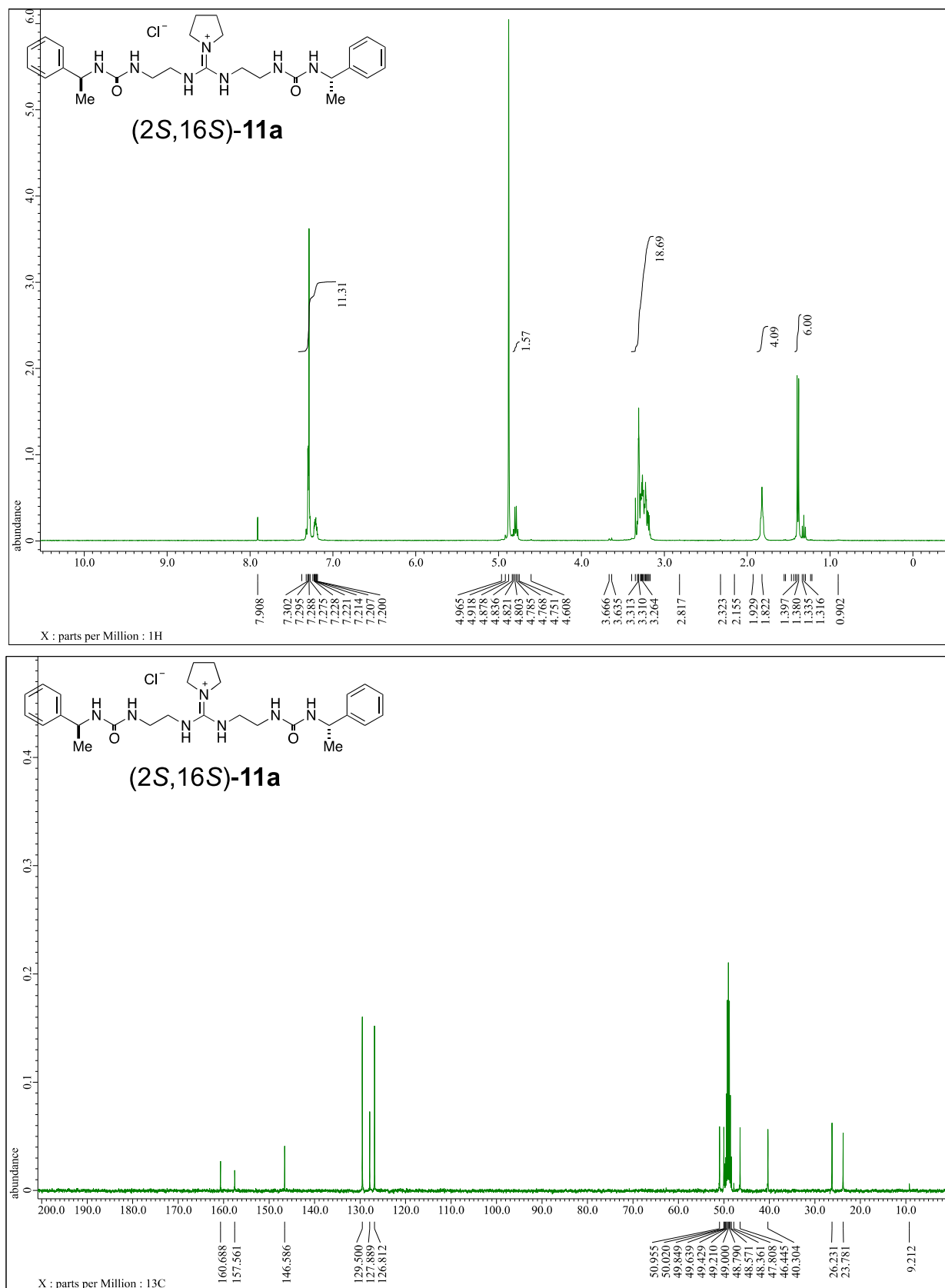


Figure S1. Copies of  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra of (2S,16S)-11a.

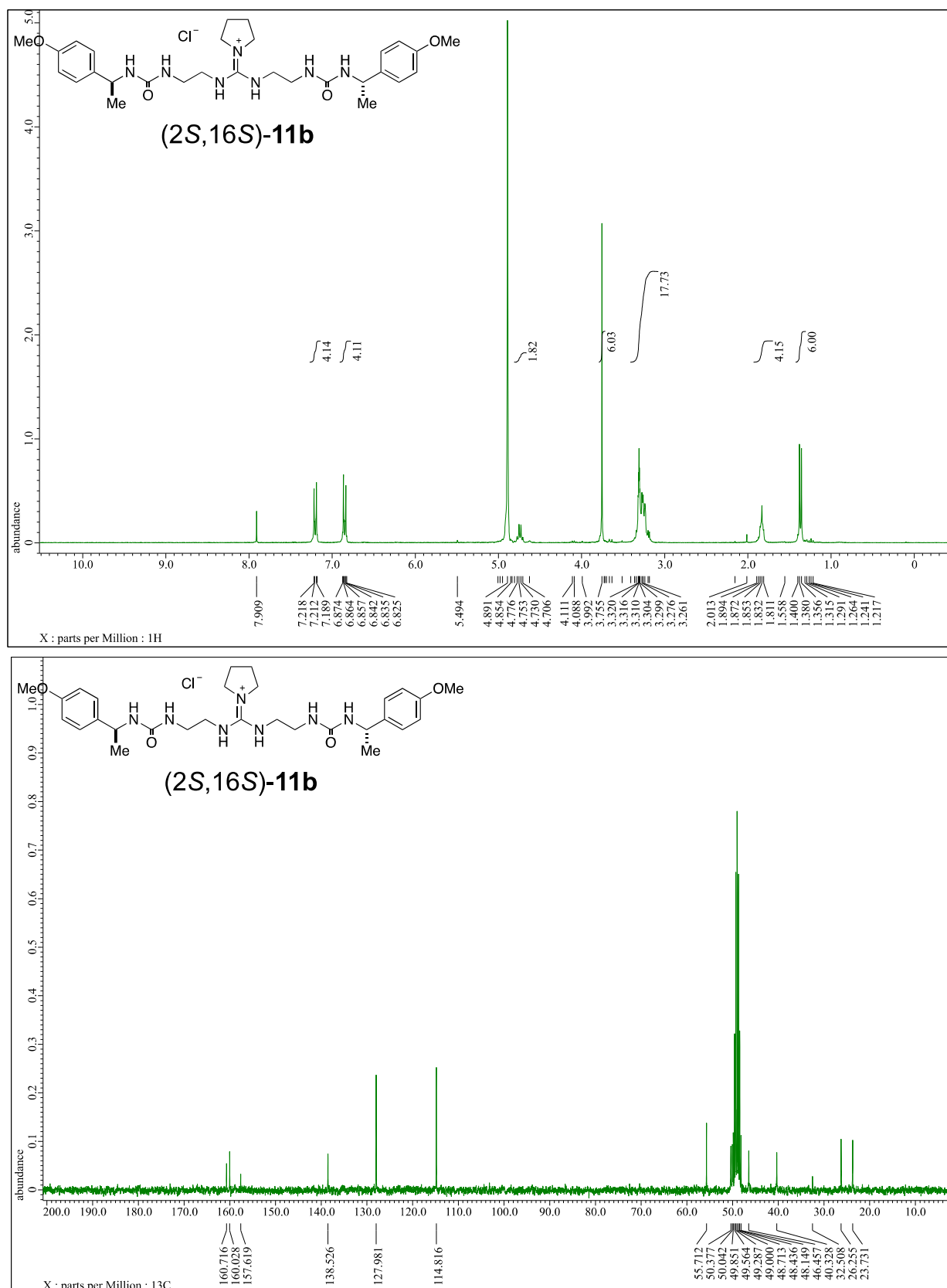


Figure S2. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2S,16S)-11b.

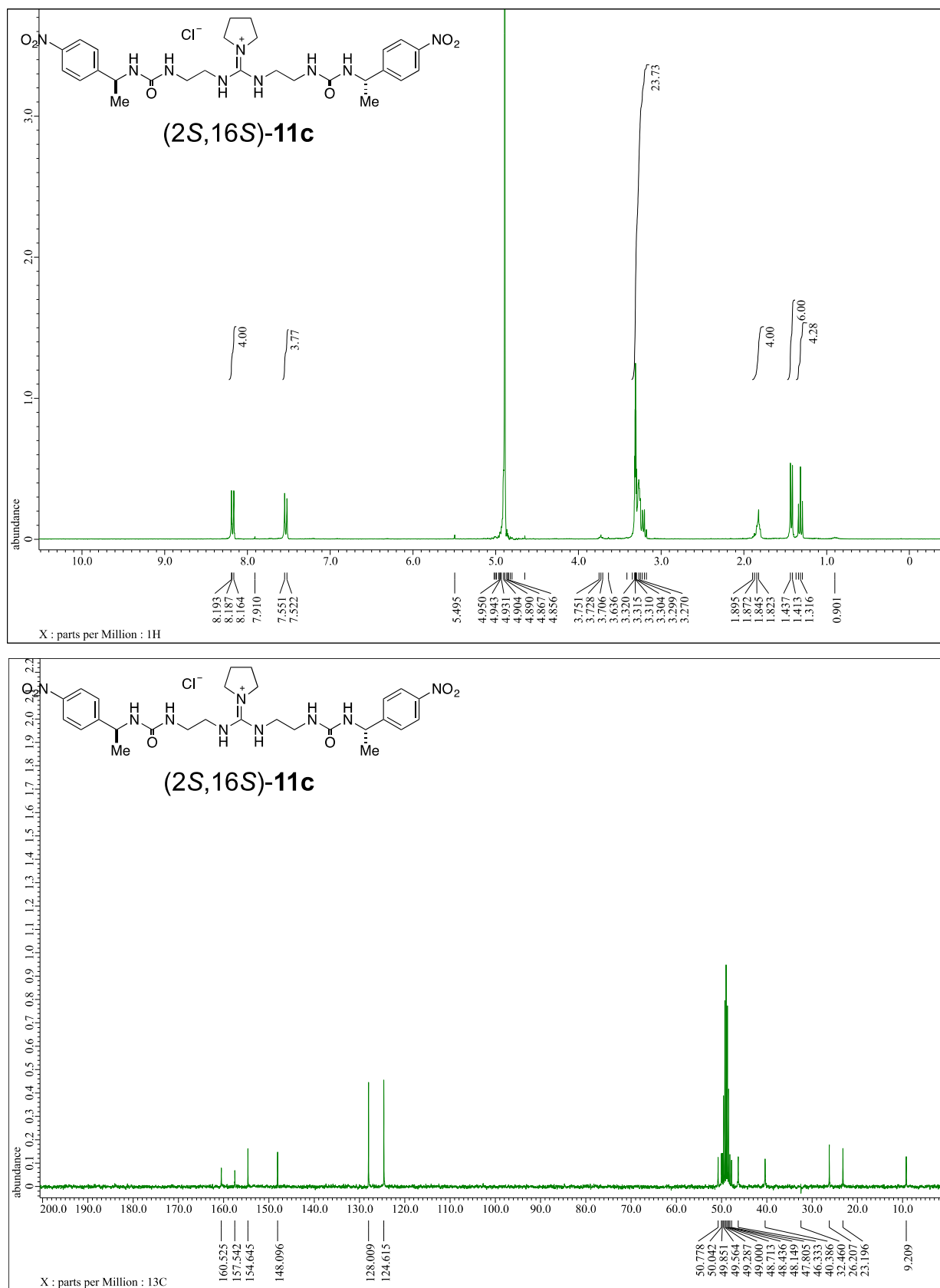
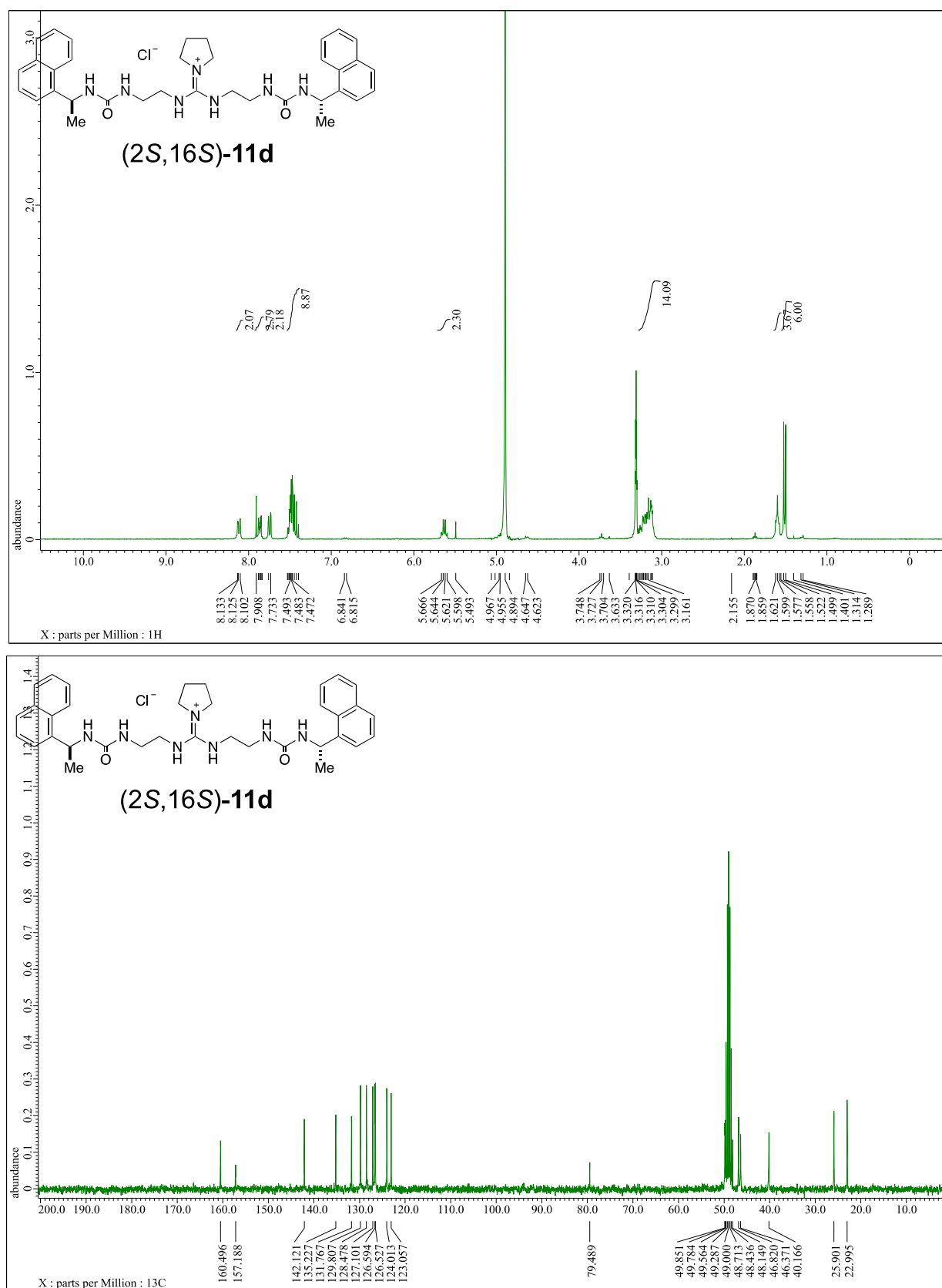
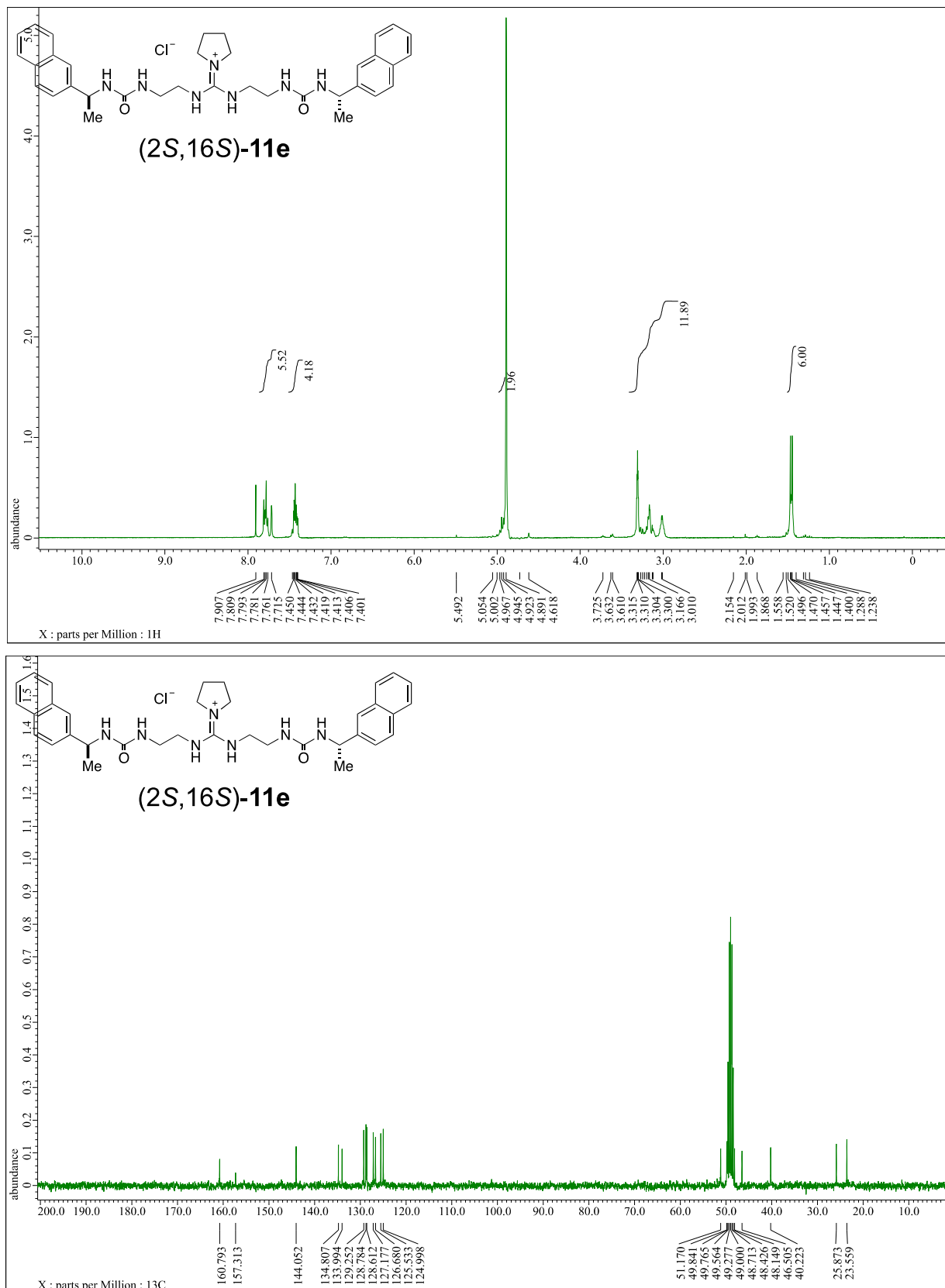


Figure S3. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2S,16S)-11c.

Figure S4. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2S,16S)-11d.

Figure S5. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2S,16S)-11e.

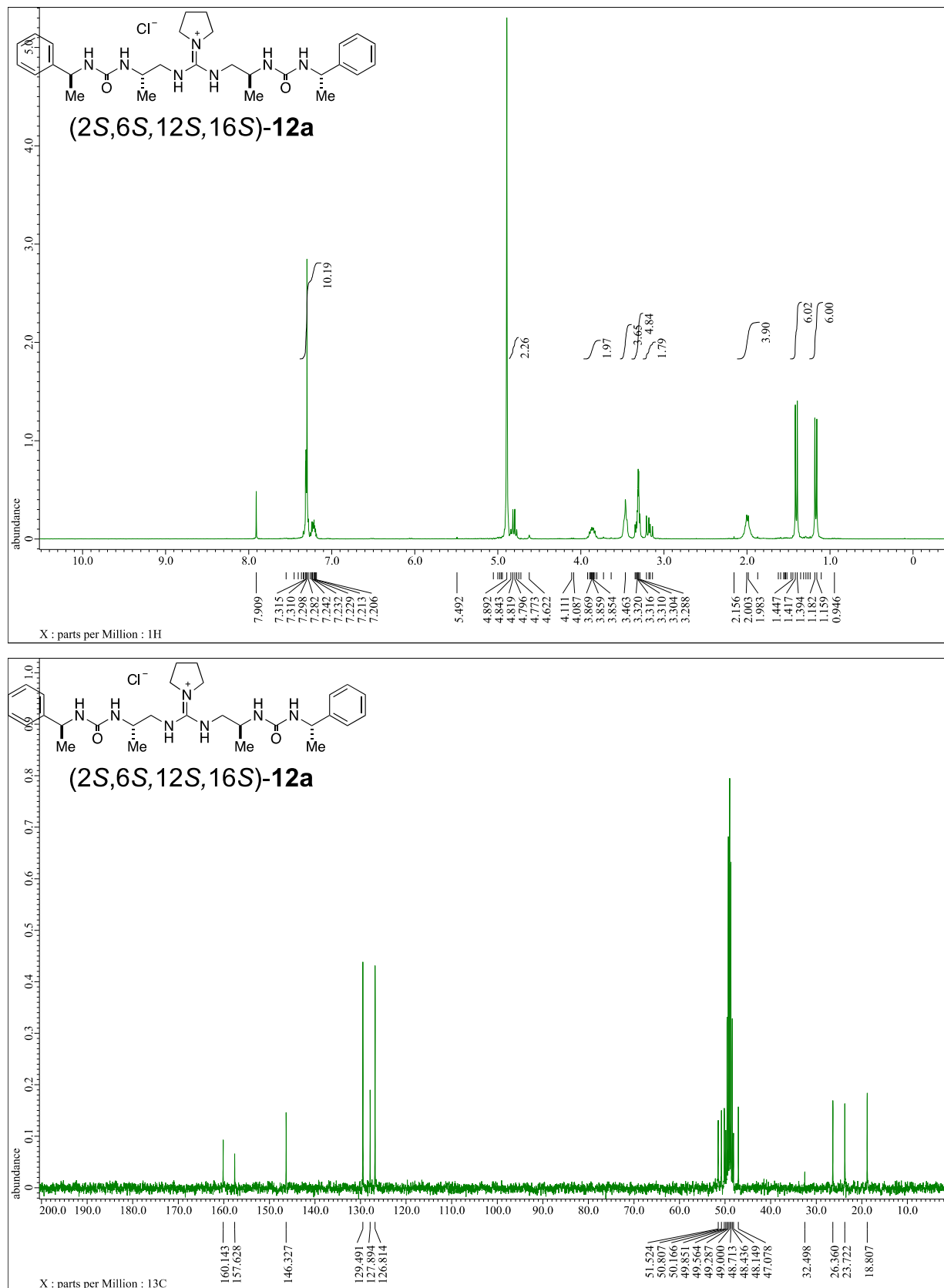


Figure S6. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2S,6S,12S,16S)-12a.

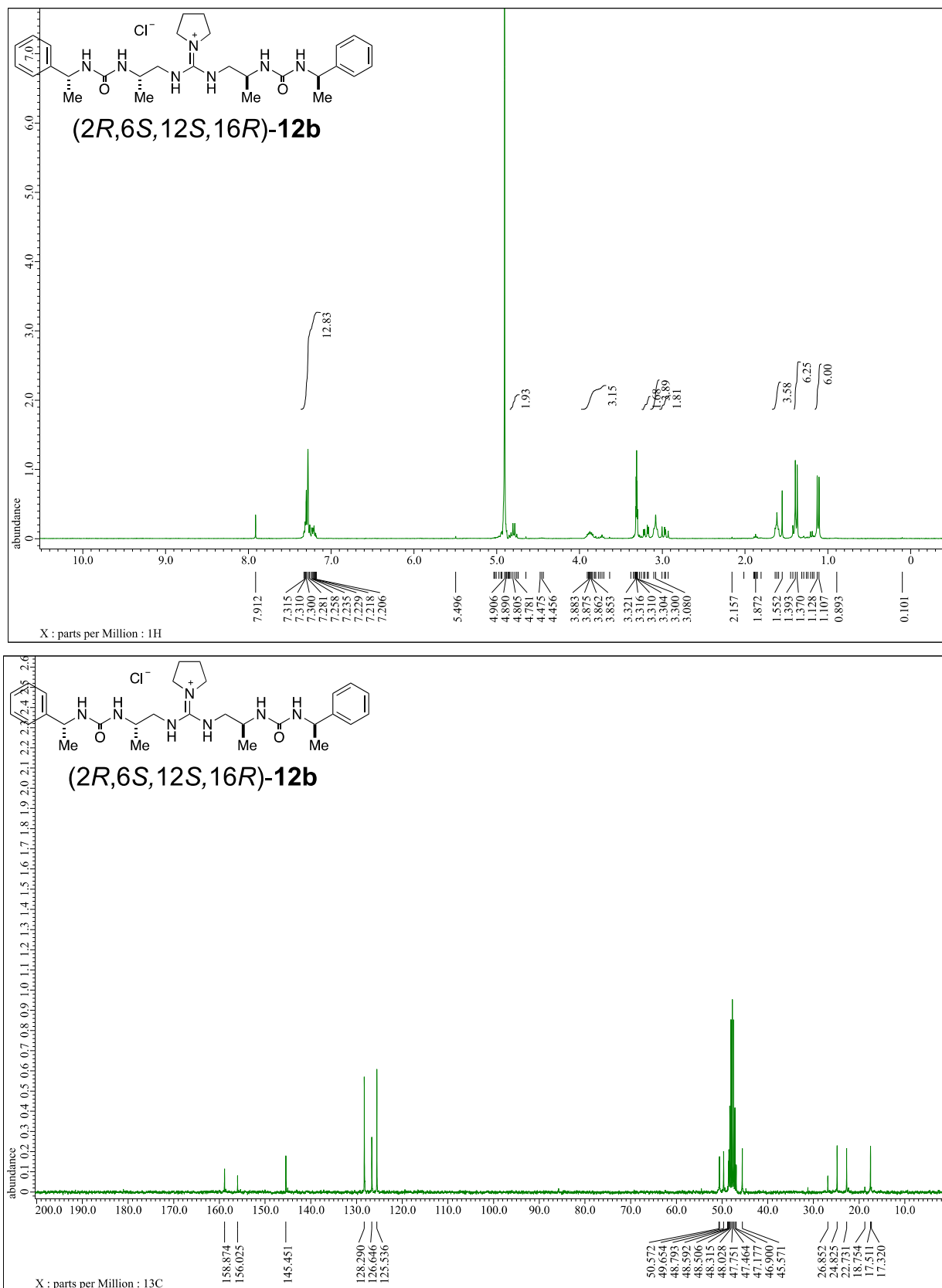
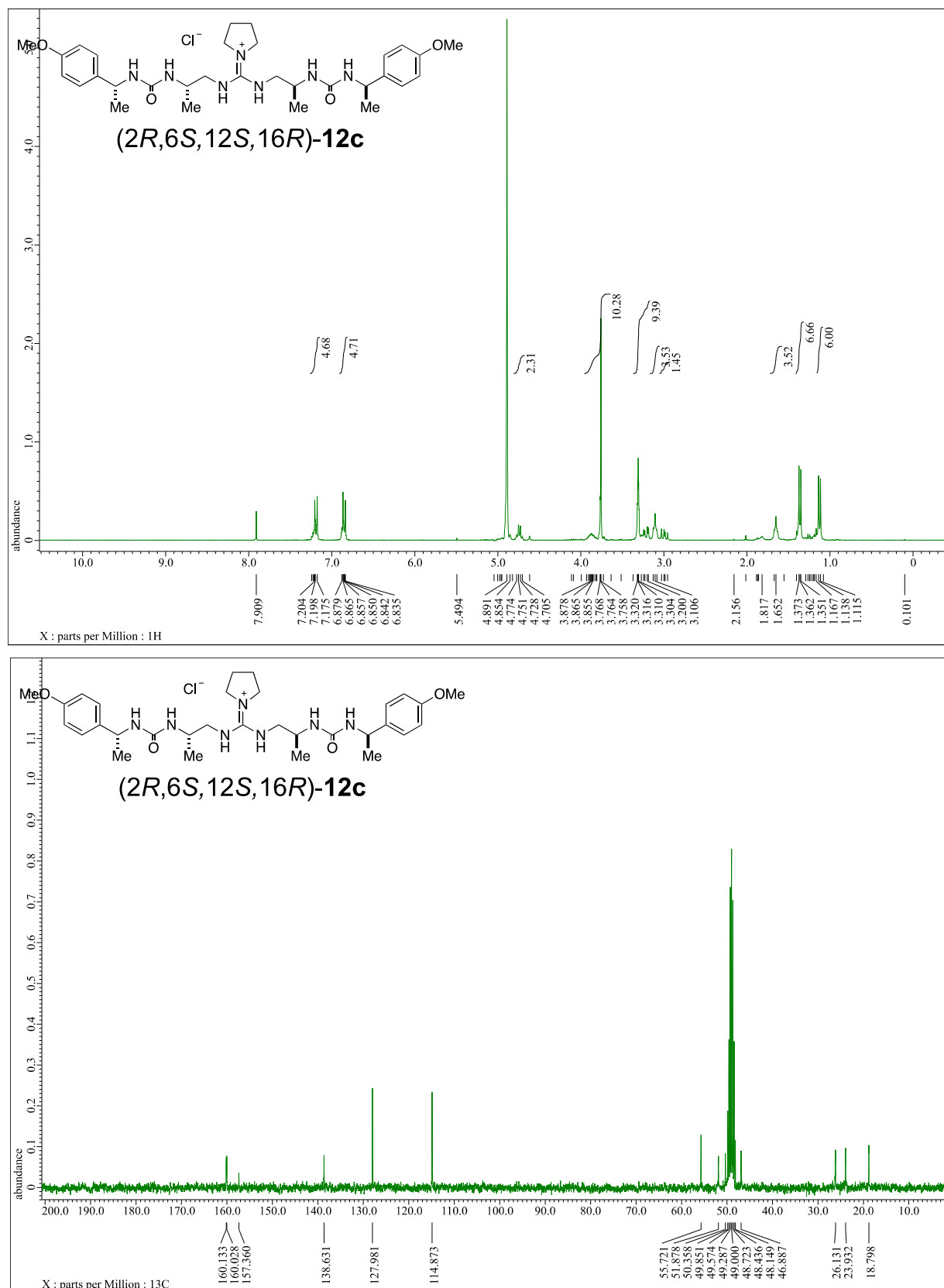


Figure S7. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2R,6S,12S,16R)-12b.



**Figure S8.** Copies of  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra of (2R,6S,12S,16R)-12c.



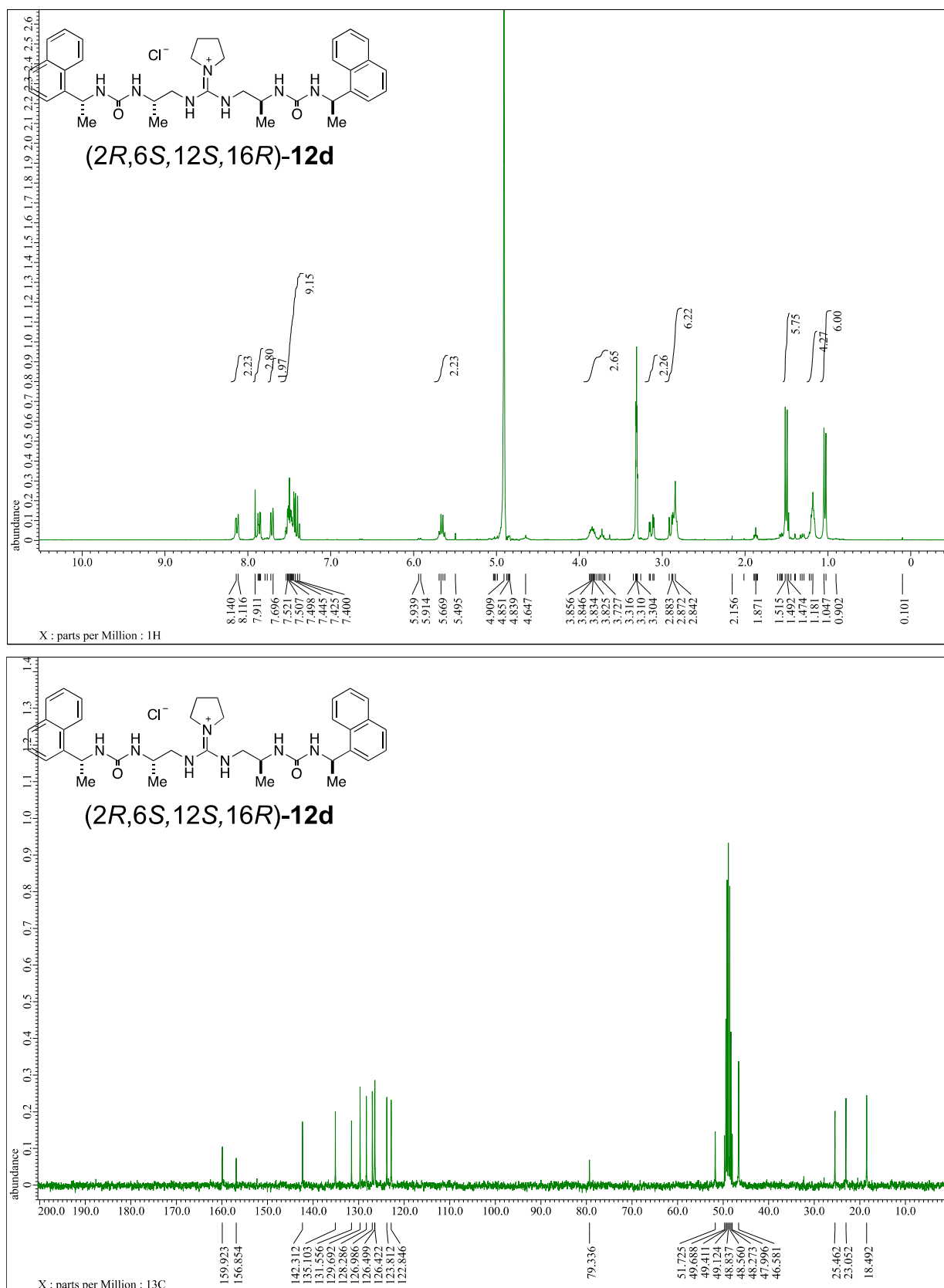
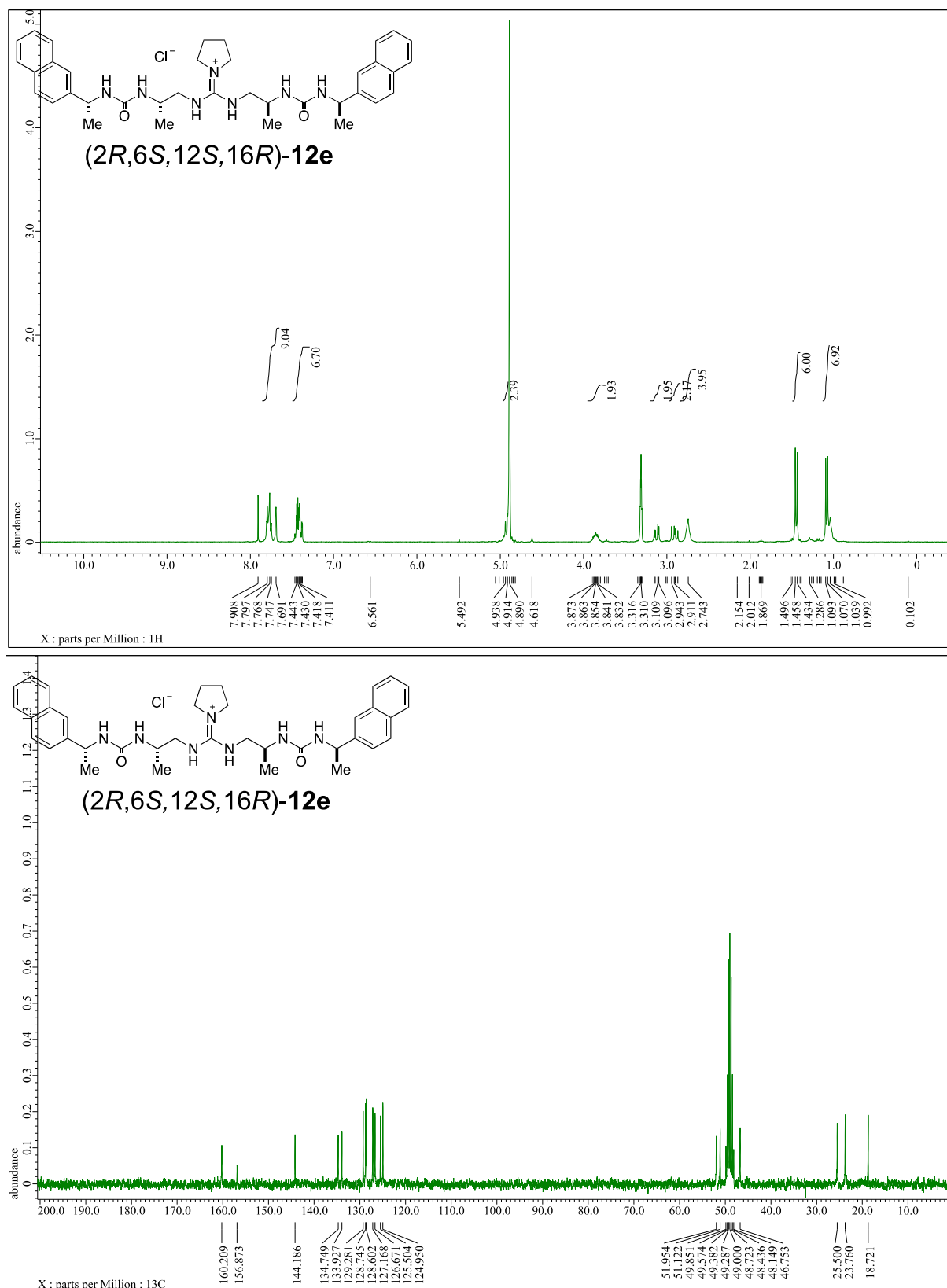


Figure S9. Copies of <sup>1</sup>H and <sup>13</sup>C NMR spectra of (2R,6S,12S,16R)-12d.



**Figure S10.** Copies of  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra of  $(2R,6S,12S,16R)\text{-12e}$ .