

# **Supporting Information**

## **Differentially Substituted Olefin Template Strategy**

### **for Synthesis of Tetrasubstituted Alkenes from (*E*)-1-bromo-2-iodoalkenes.**

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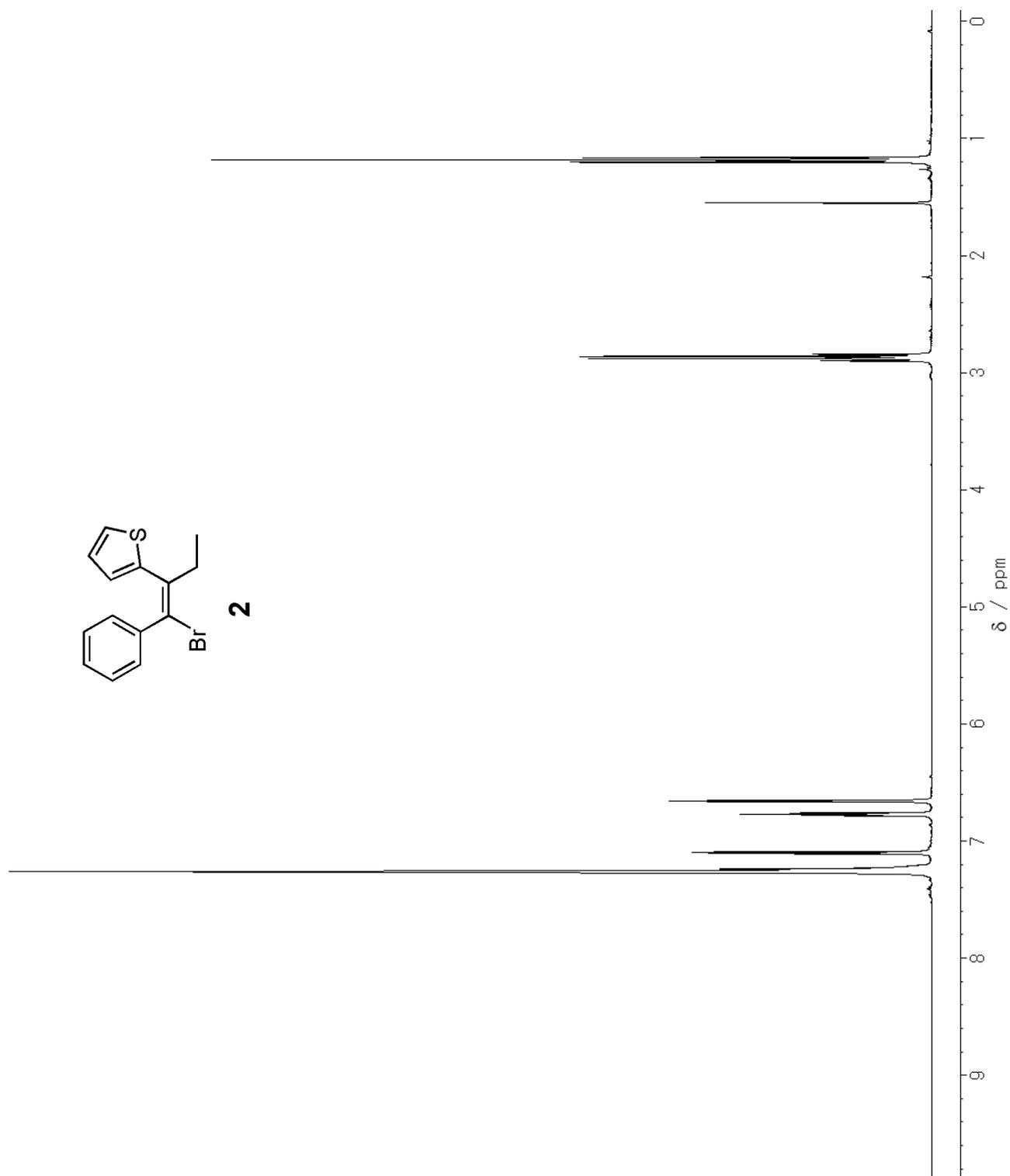
#### Contents

1. <sup>1</sup>H NMR and <sup>13</sup>C NMR spectra for all new compounds of **2, 7a, 7b, 7c, 7d, 7e, 7f, 4, 9, 10, 11, 12, 14.**

**$^1\text{H}$  NMR and  $^{13}\text{C}$  NMR spectra for compounds 2 – 14**

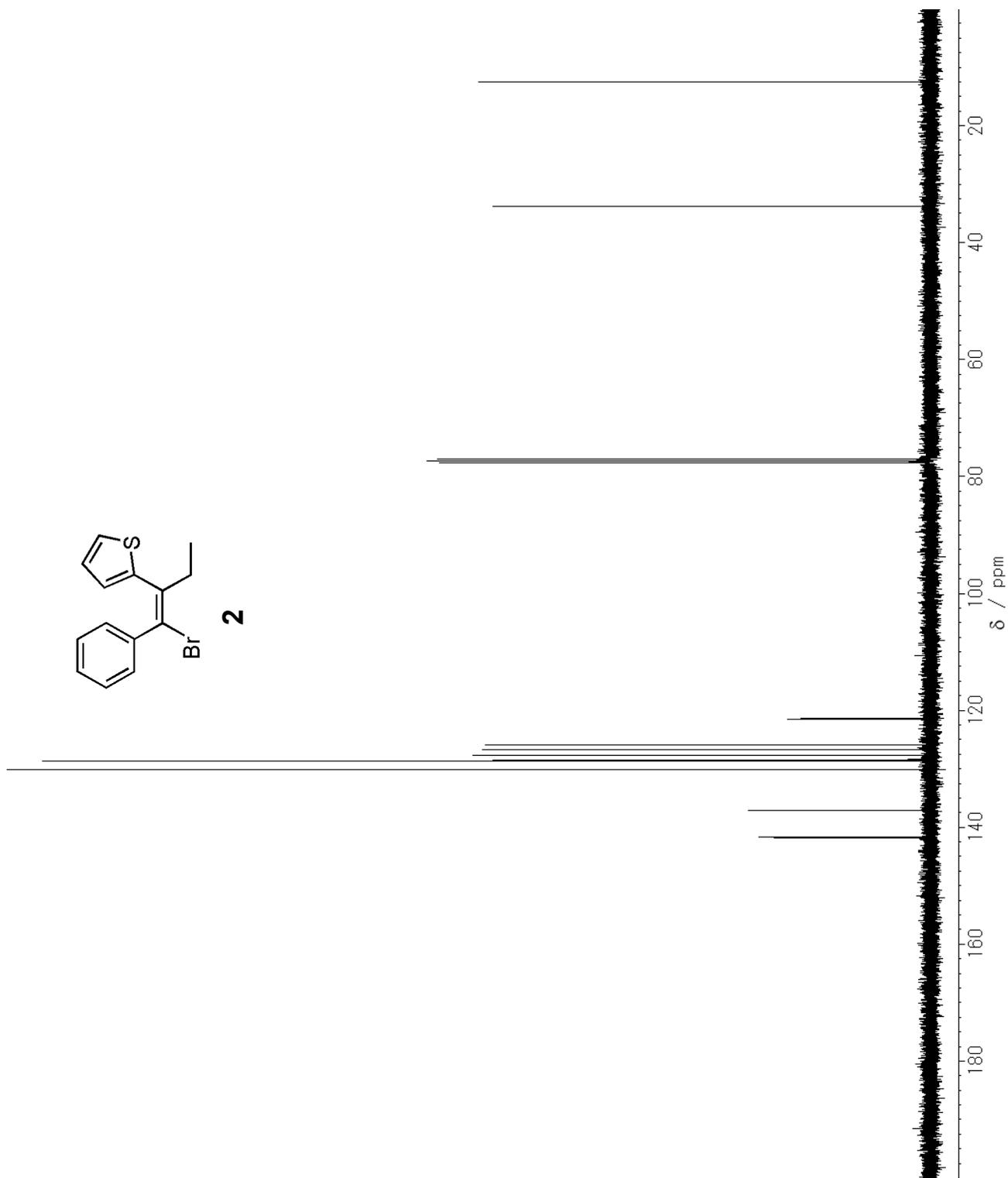
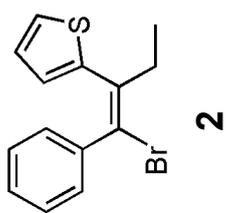
**Compound 2**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



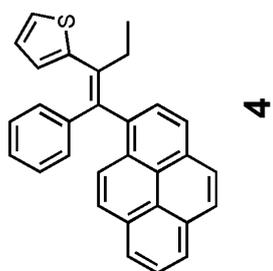
**Compound 2**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$

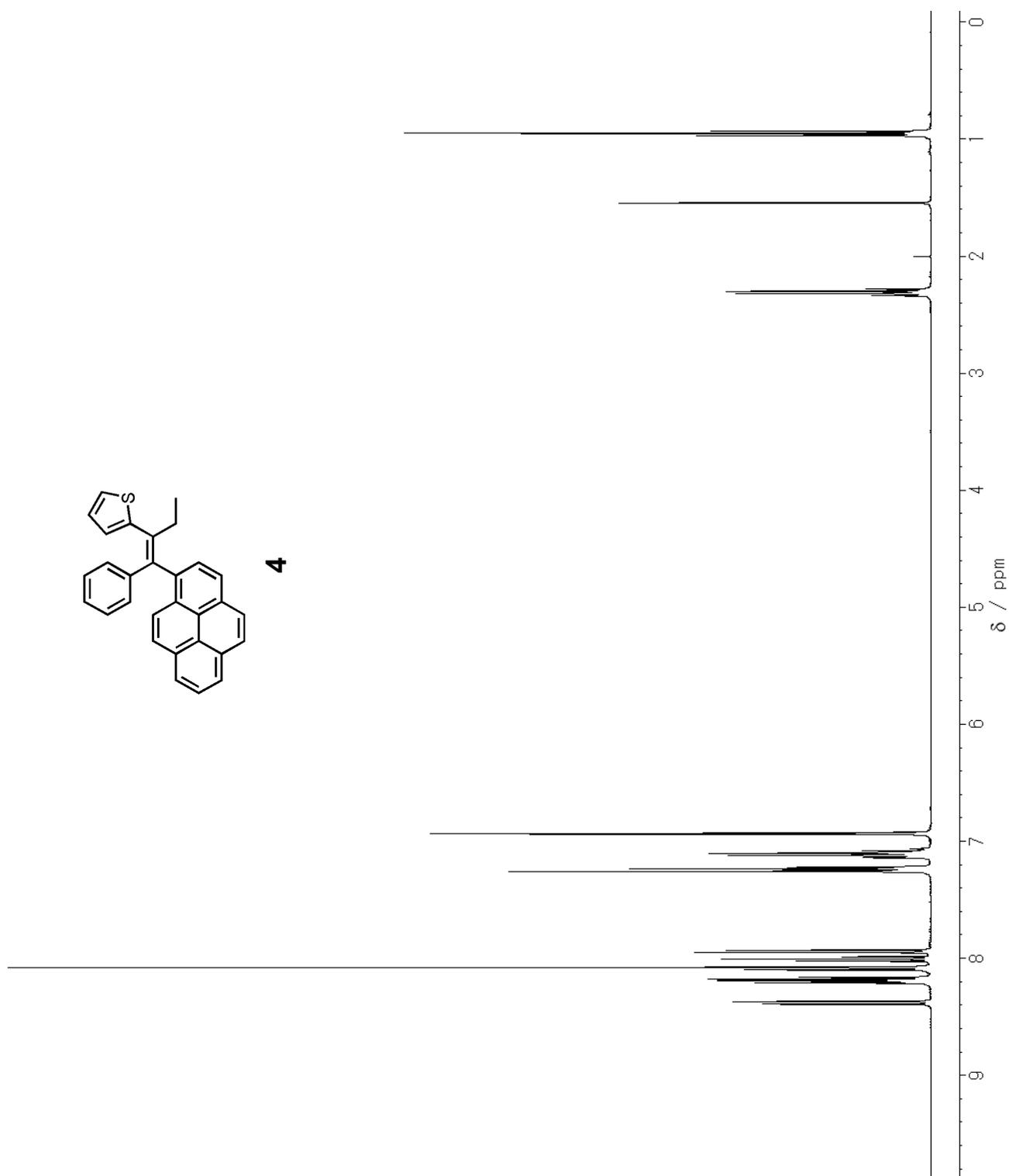


**Compound 4**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$

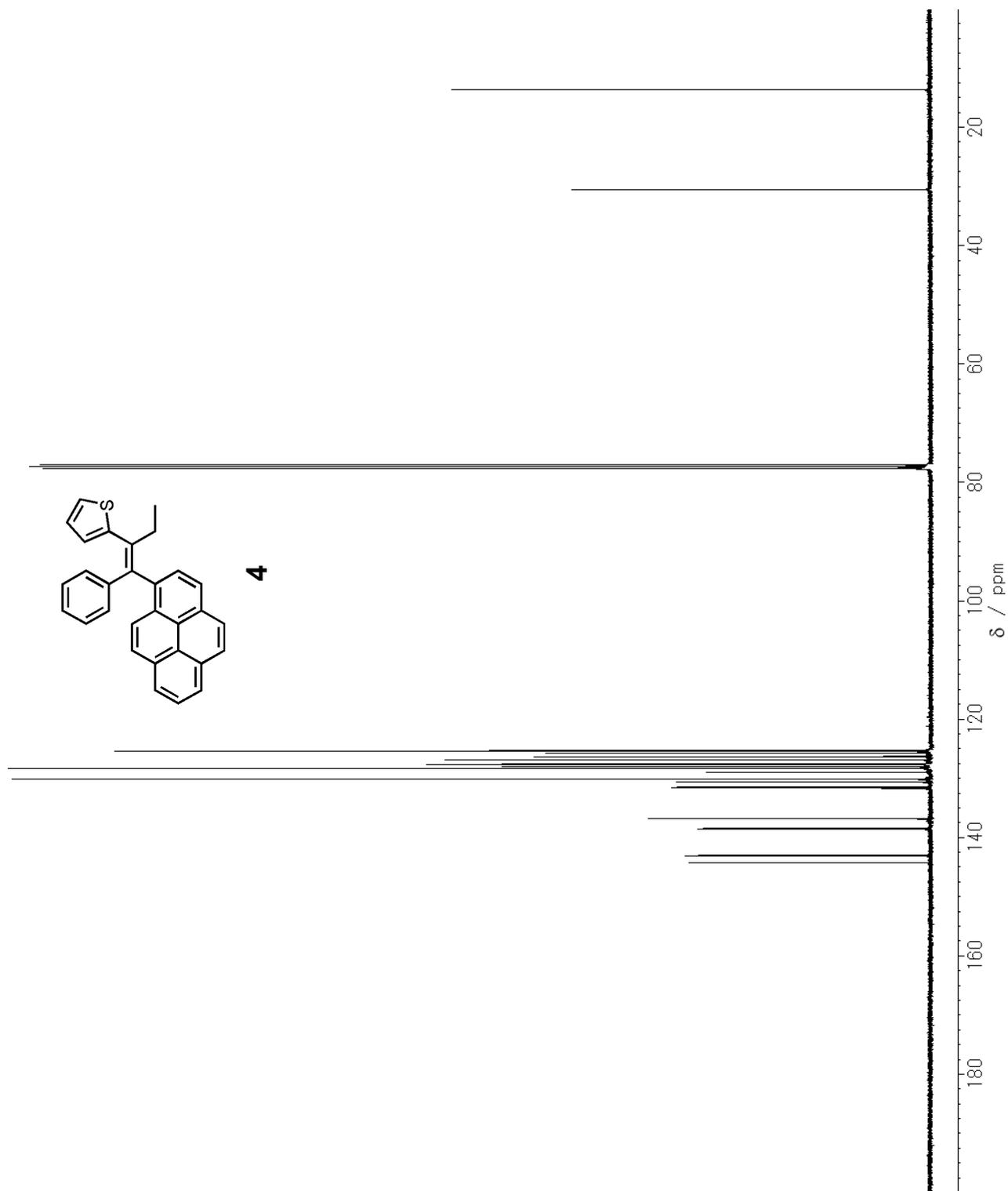


**4**



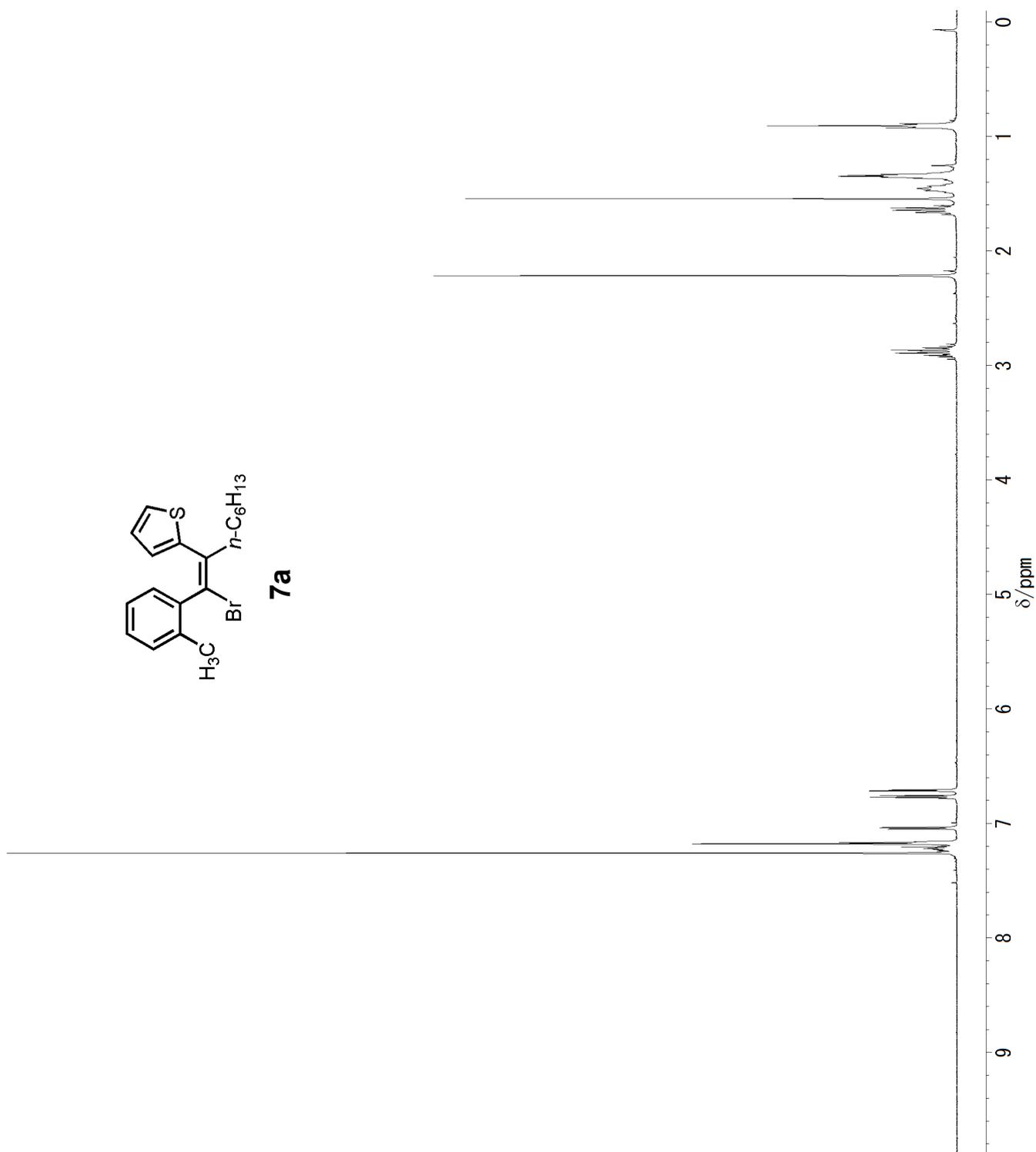
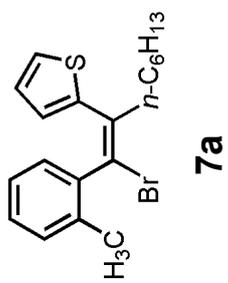
**Compound 4**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



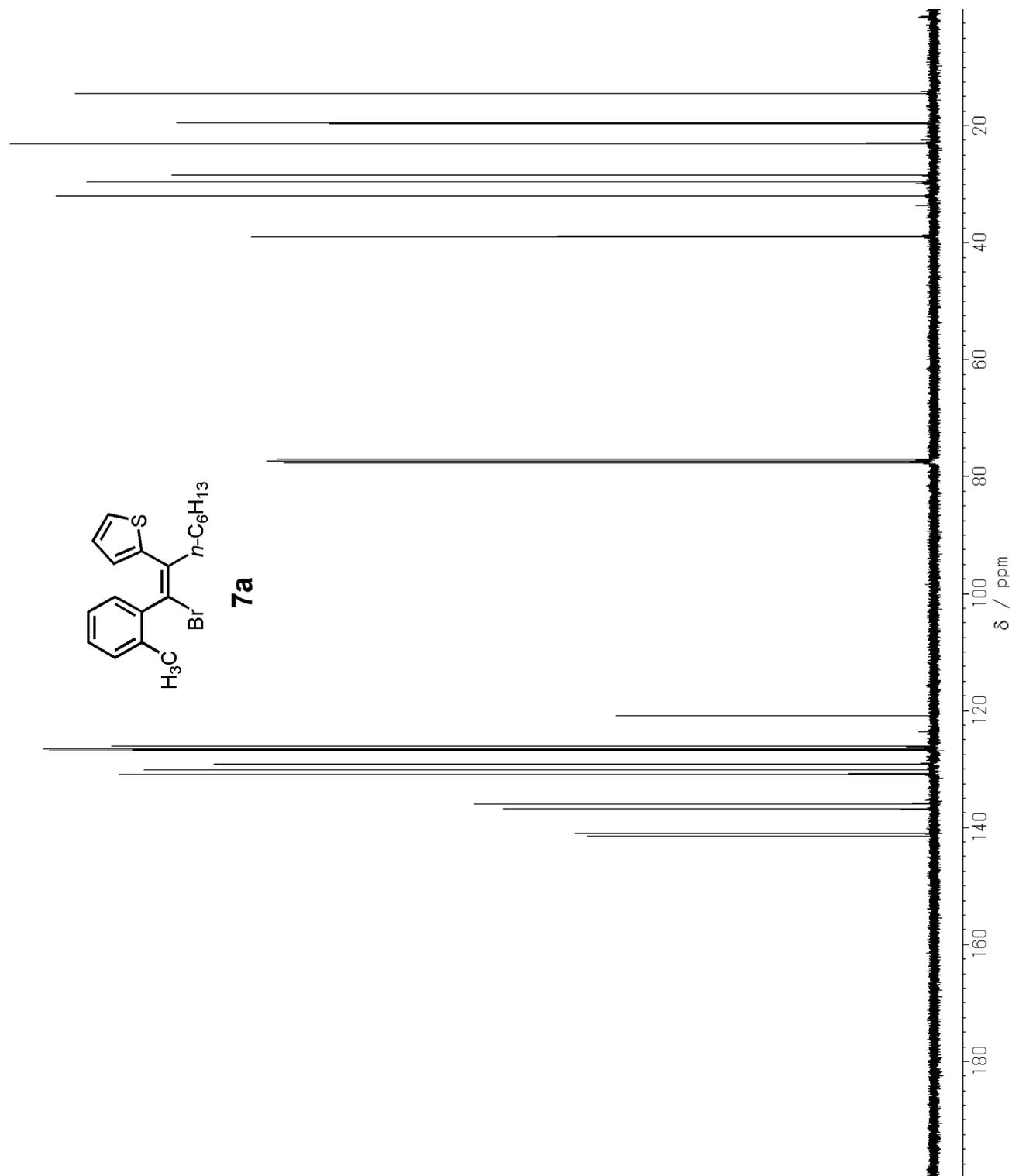
**Compound 7a**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



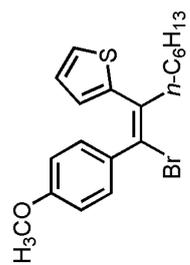
**Compound 7a**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$

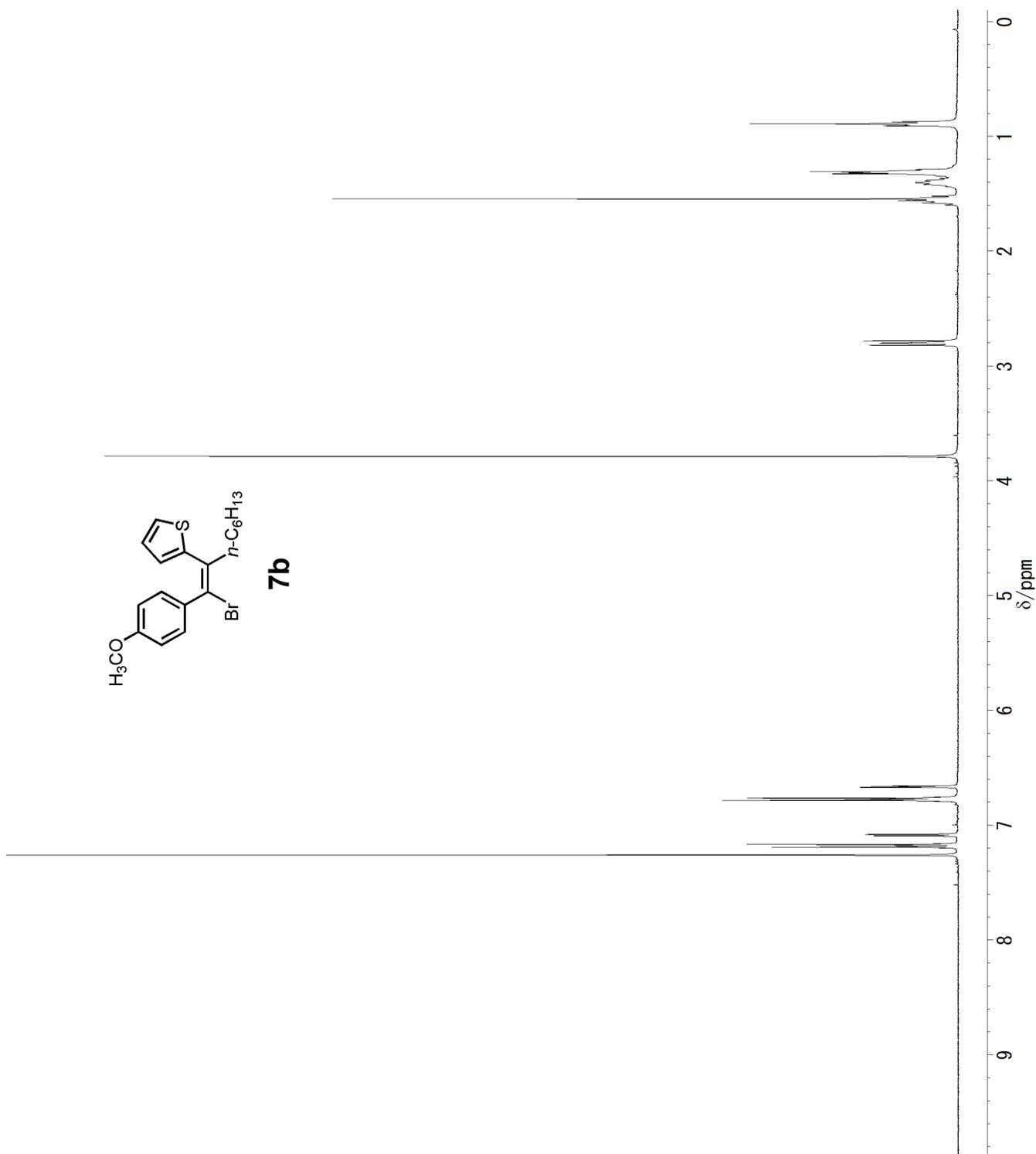


**Compound 7b**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$

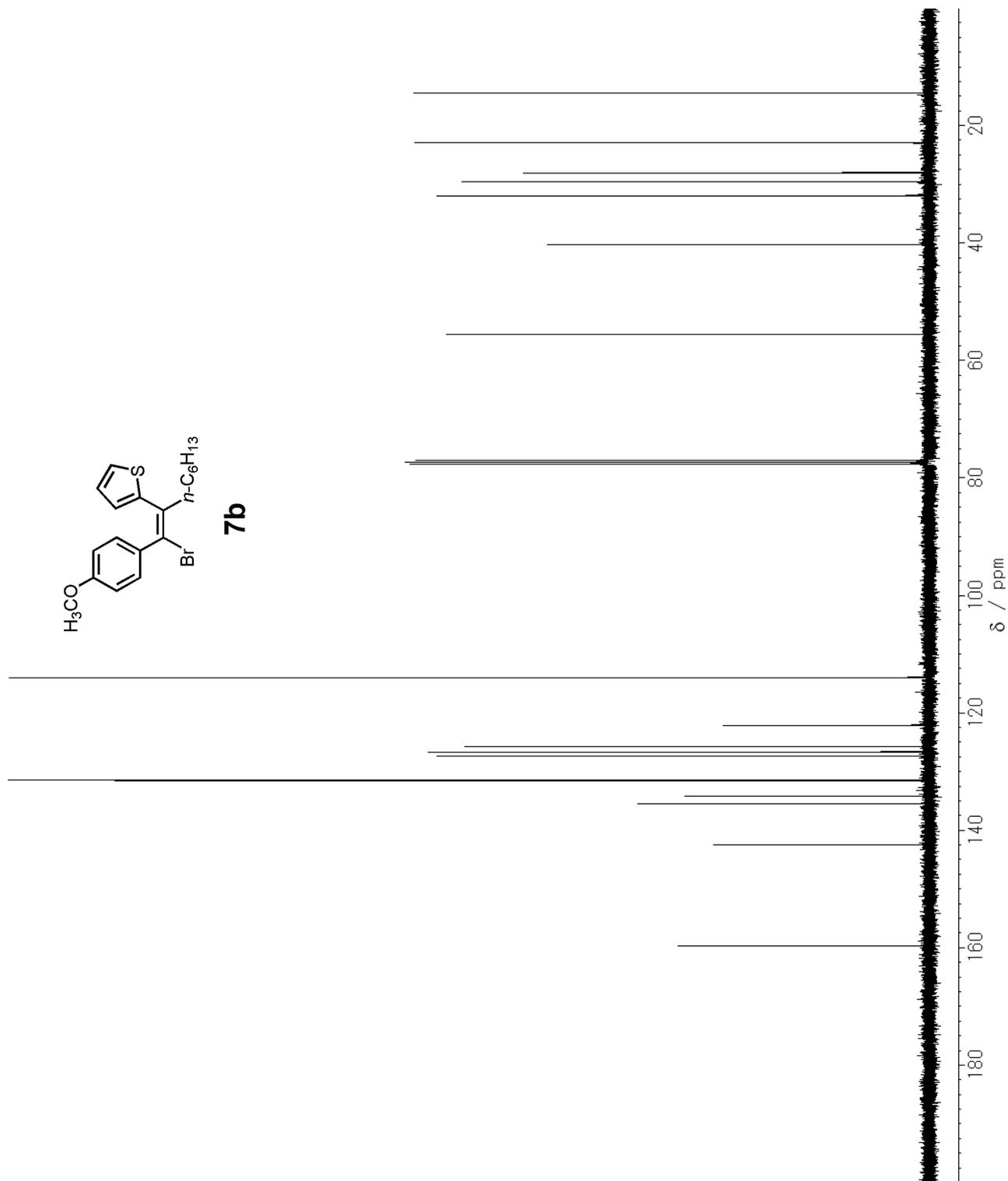
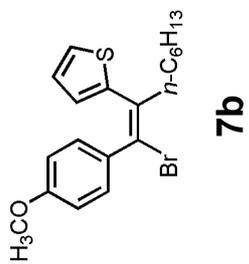


**7b**



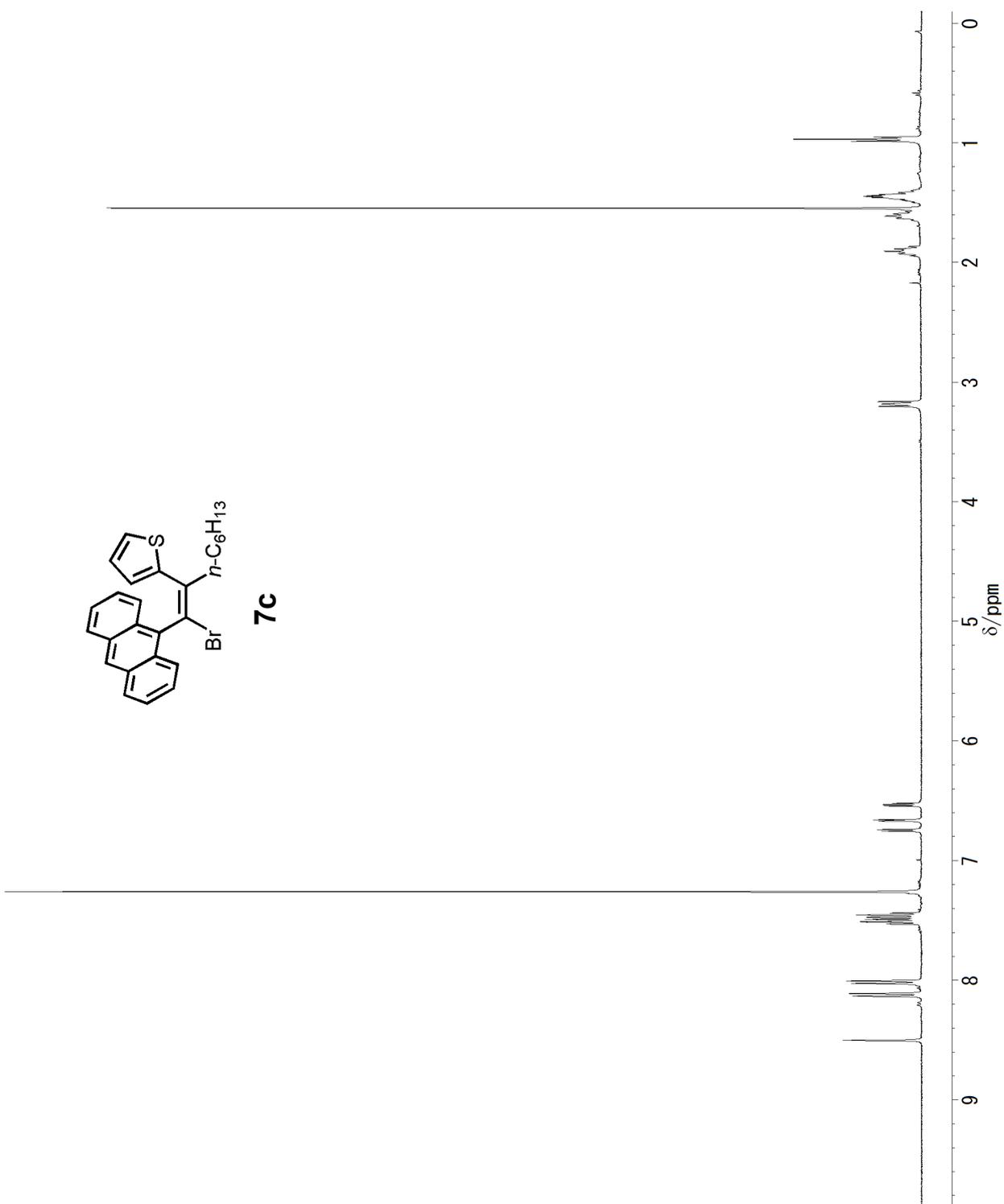
**Compound 7b**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



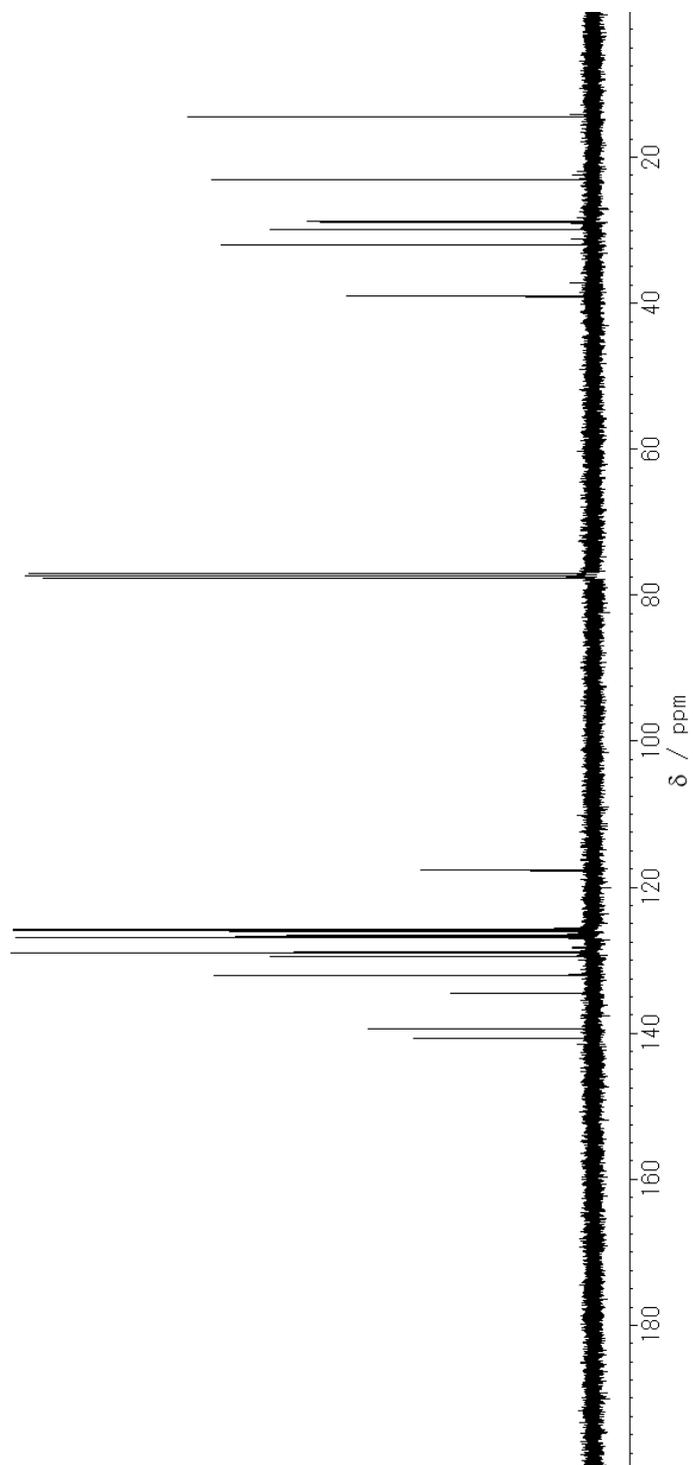
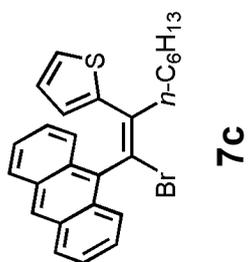
**Compound 7c**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



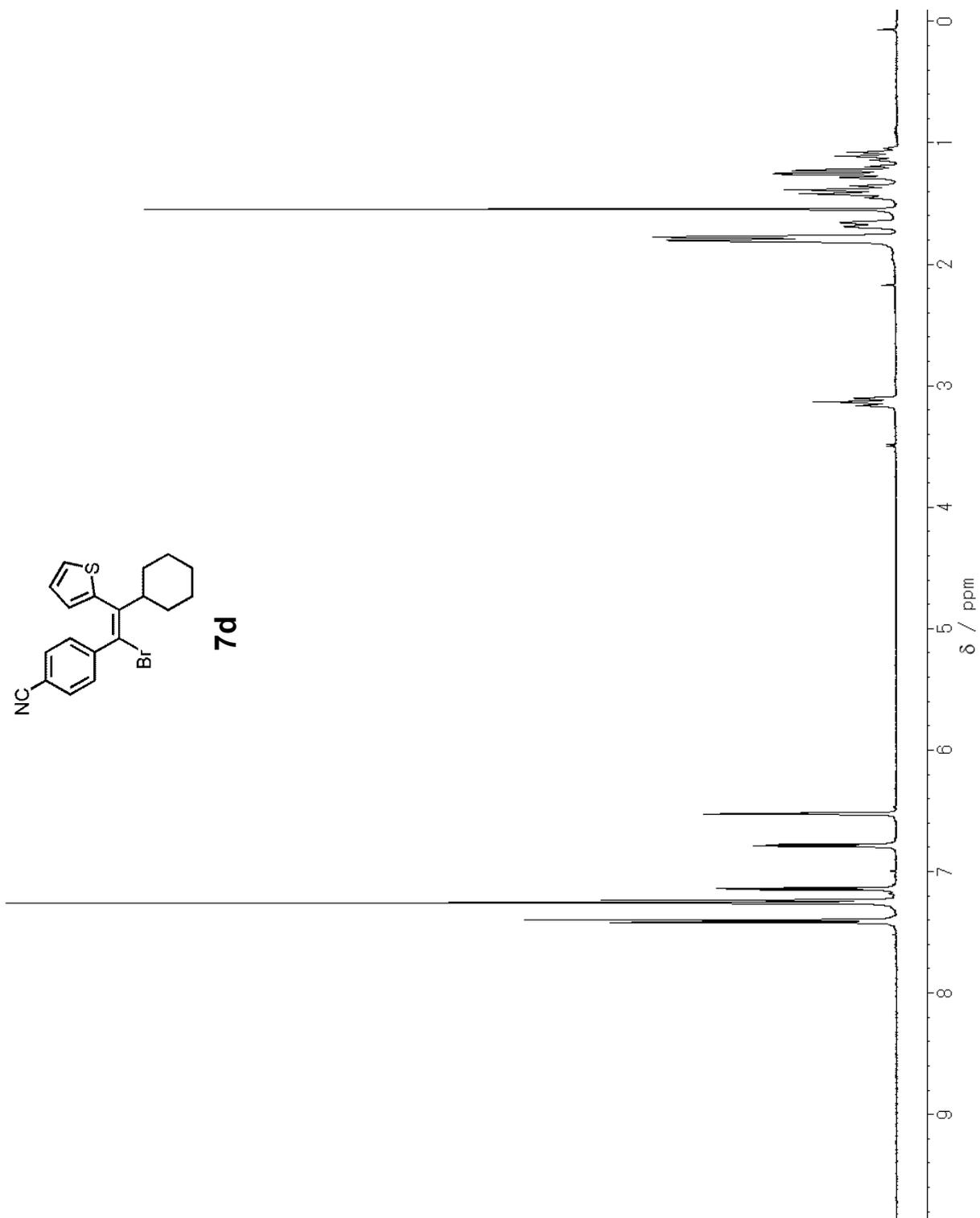
**Compound 7c**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



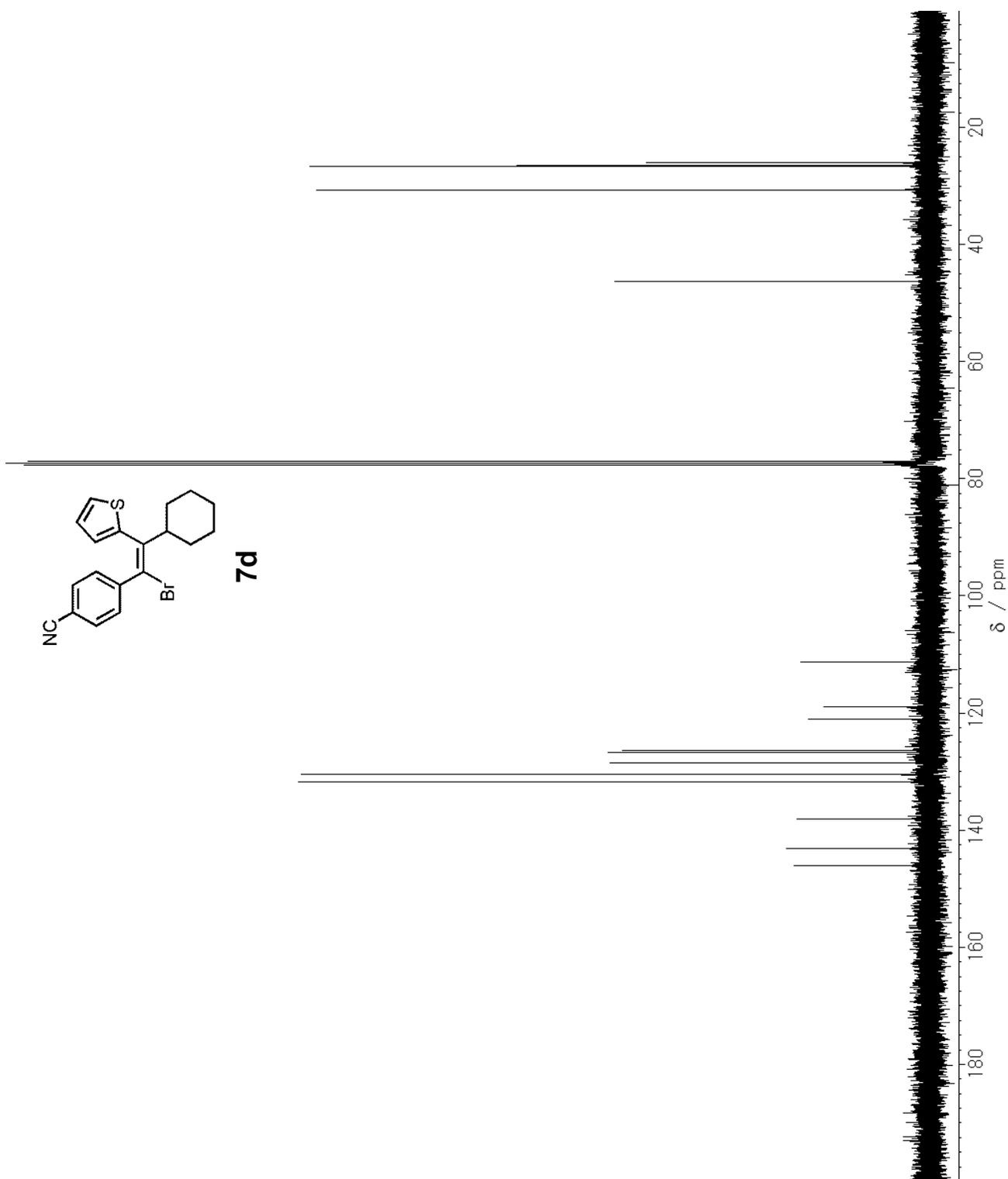
**Compound 7d**

<sup>1</sup>H NMR spectrum in CDCl<sub>3</sub>



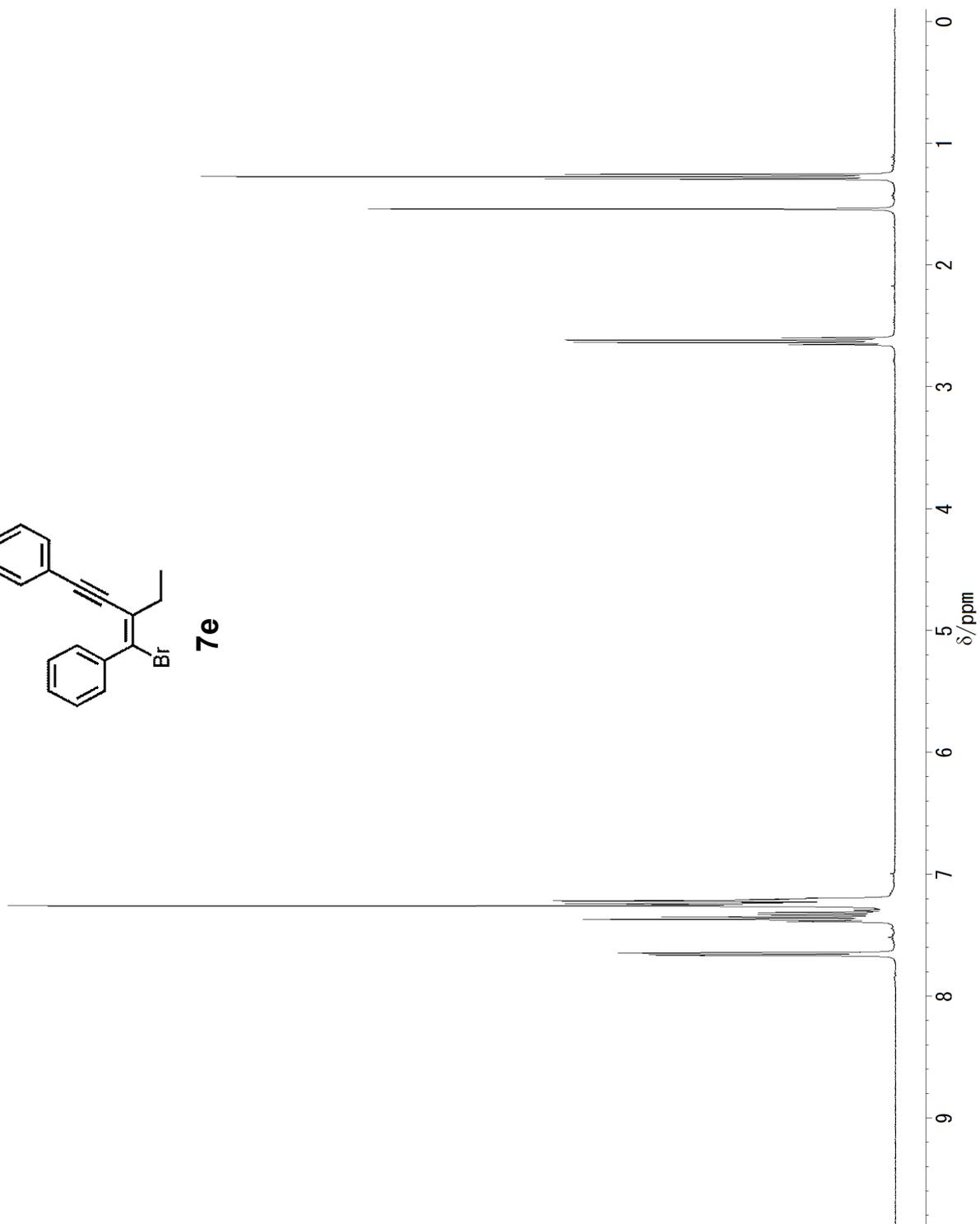
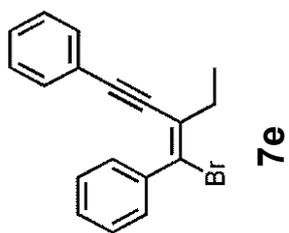
**Compound 7d**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



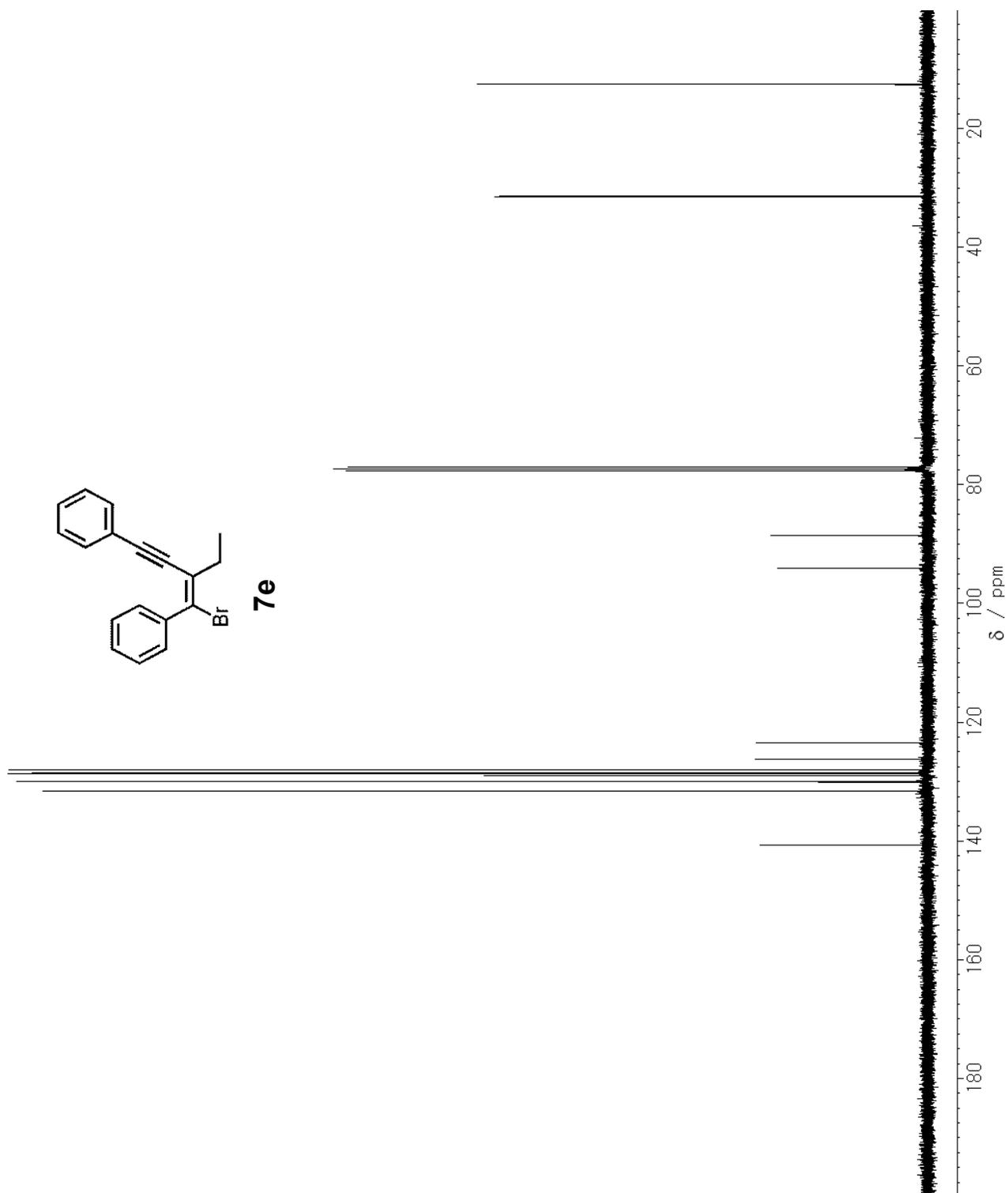
**Compound 7e**

<sup>1</sup>H NMR spectrum in CDCl<sub>3</sub>



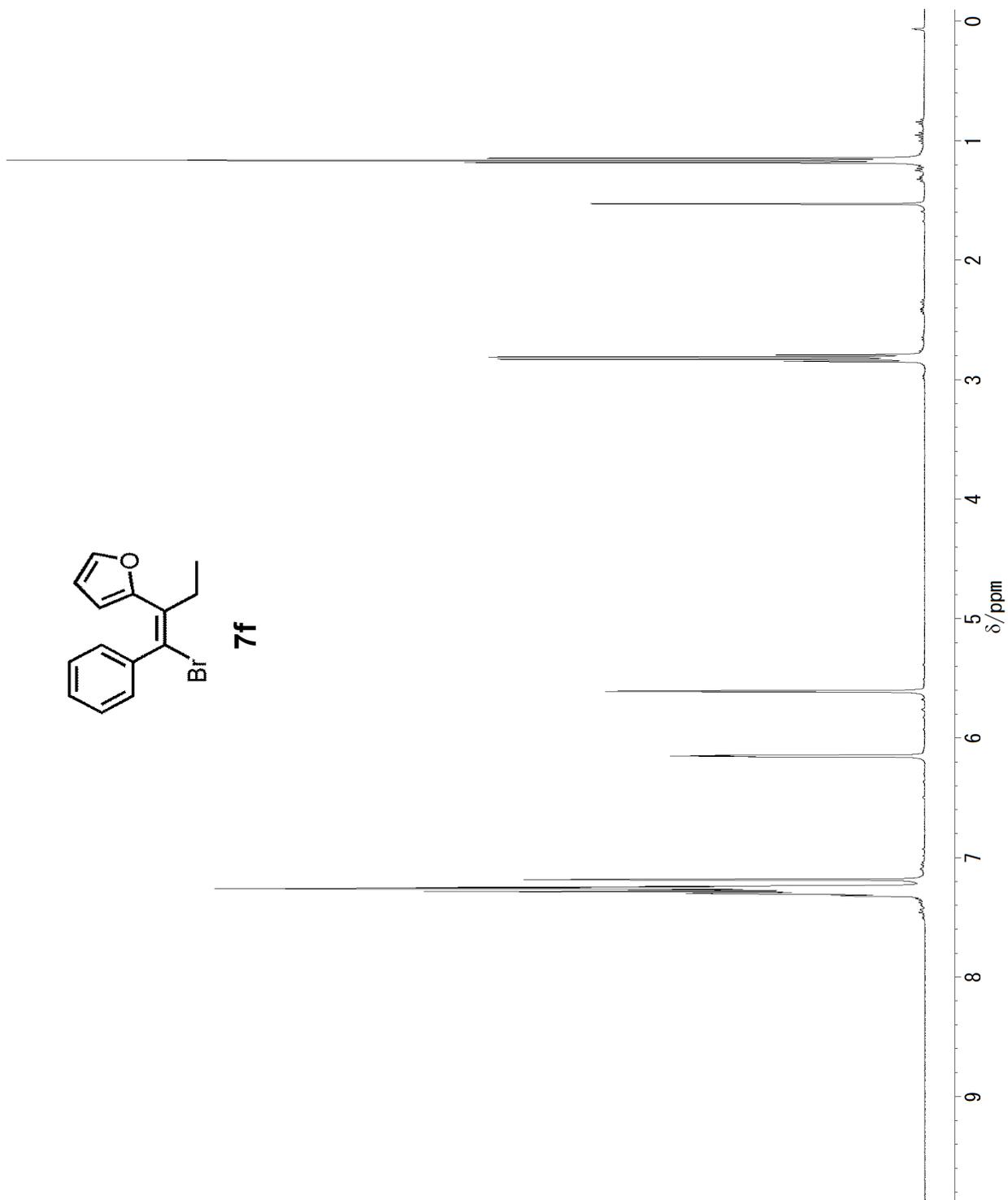
**Compound 7e**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



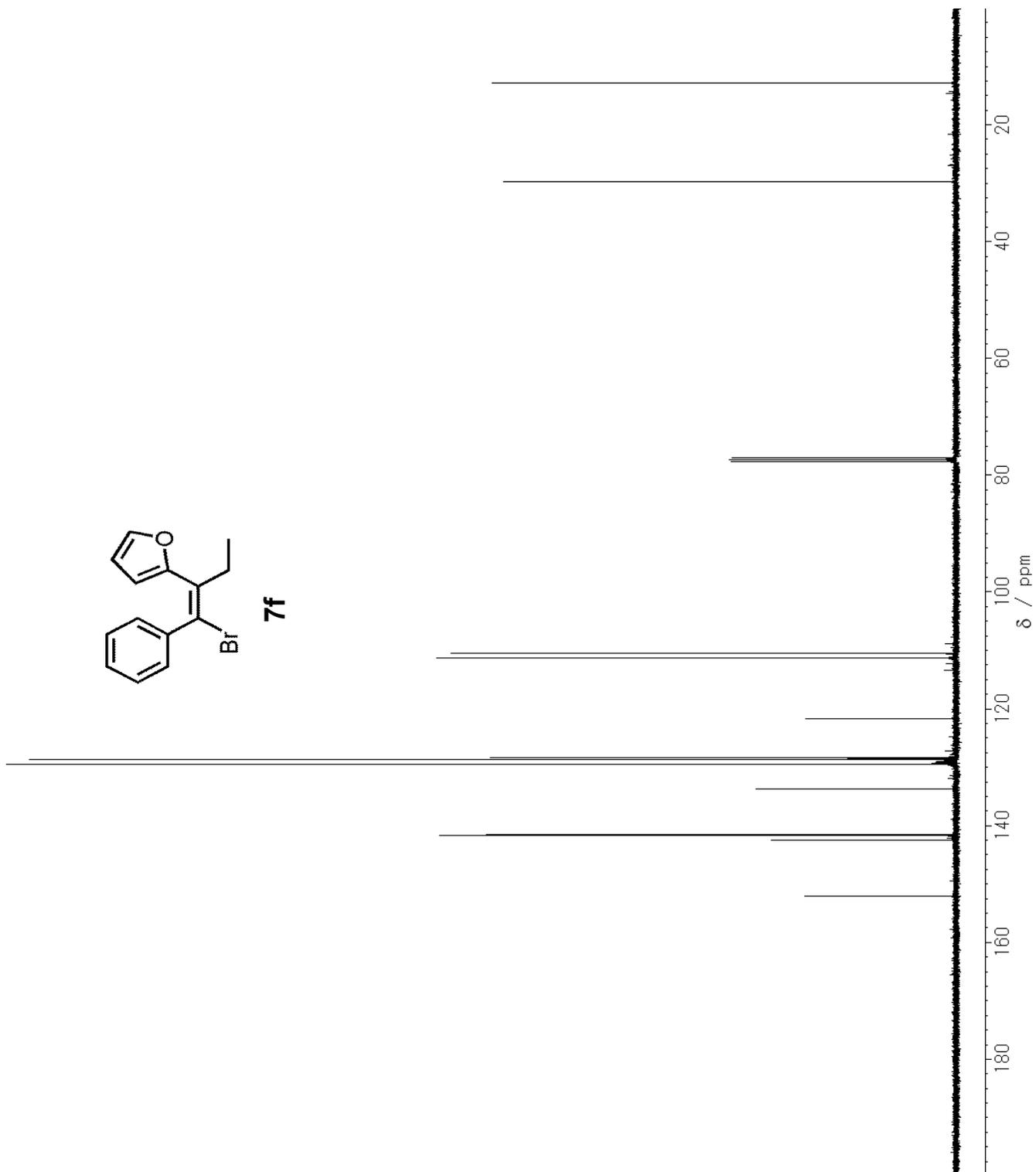
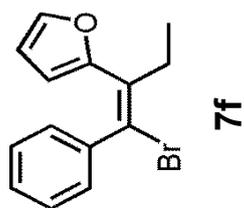
**Compound 7f**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



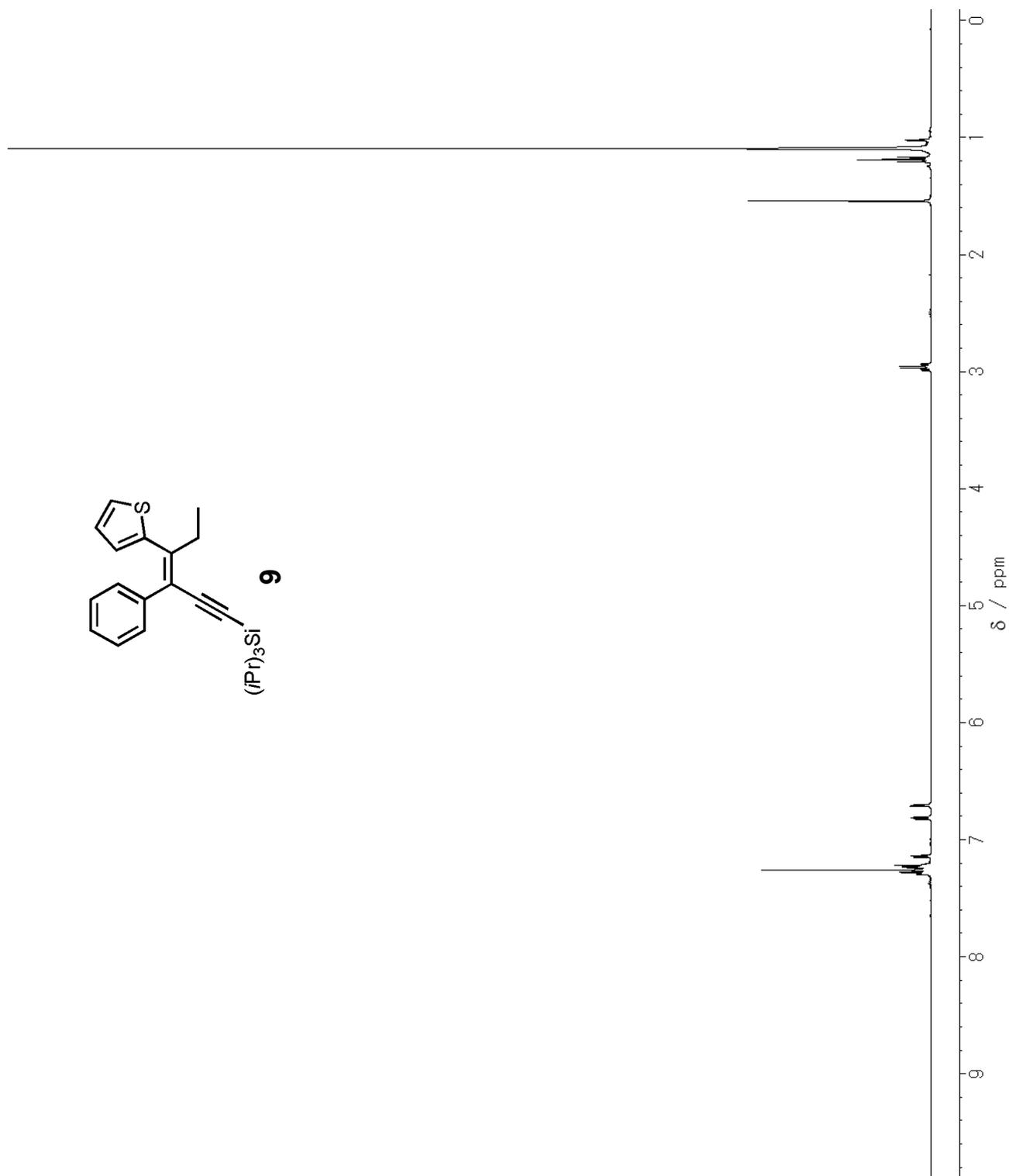
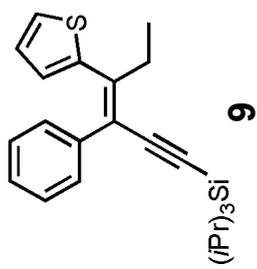
**Compound 7f**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



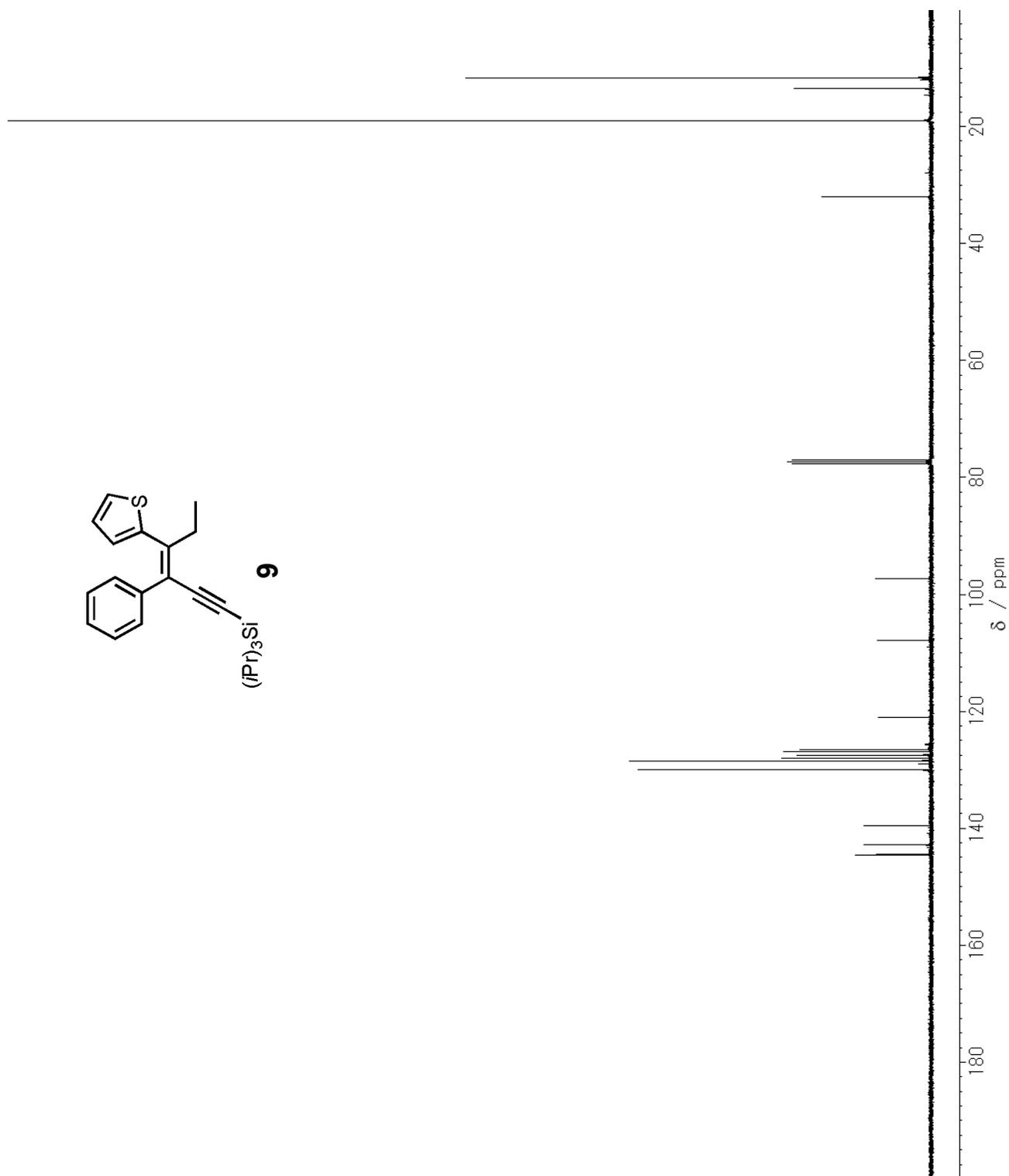
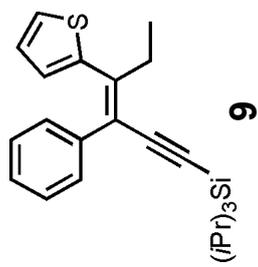
**Compound 9**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



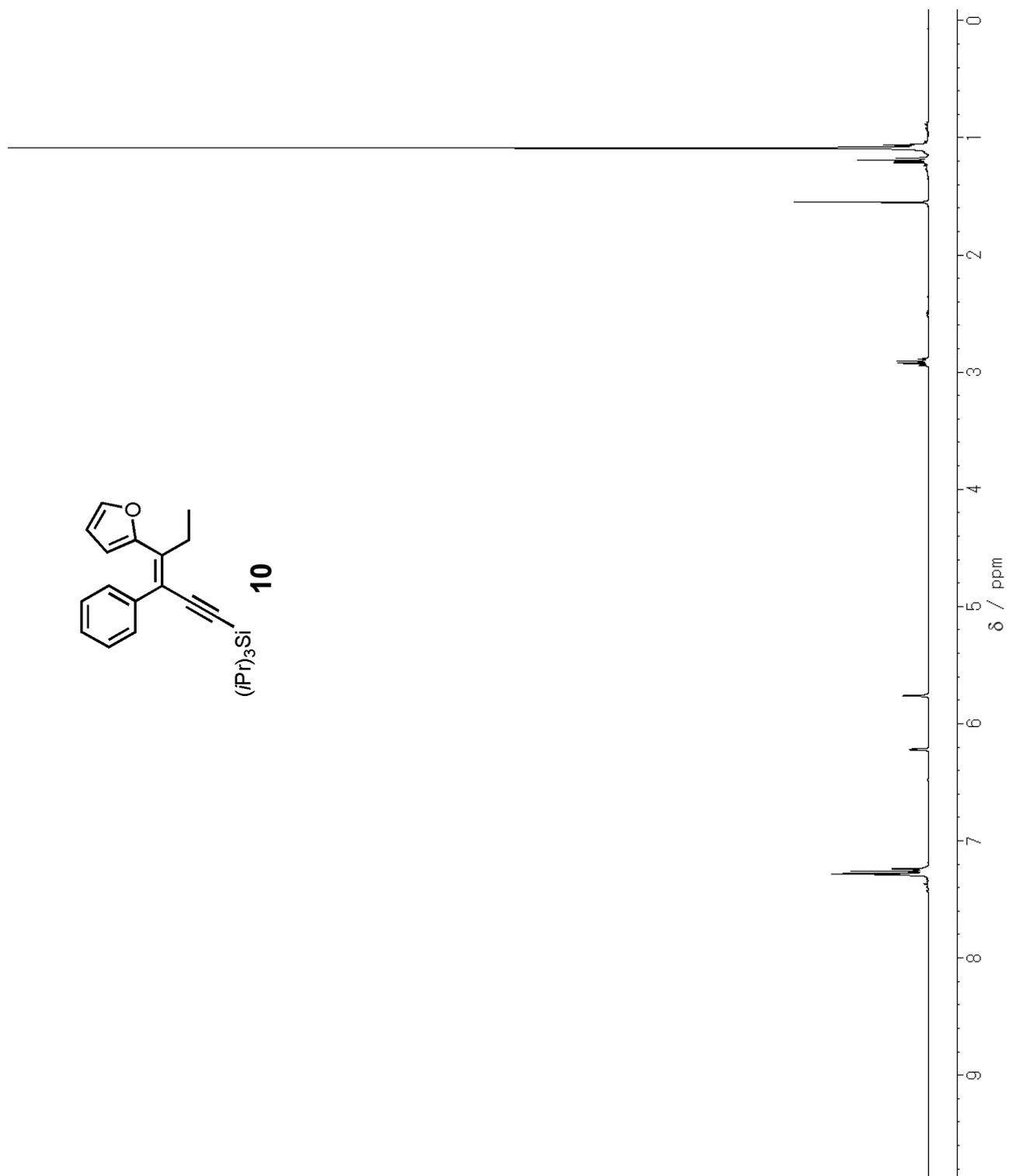
**Compound 9**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



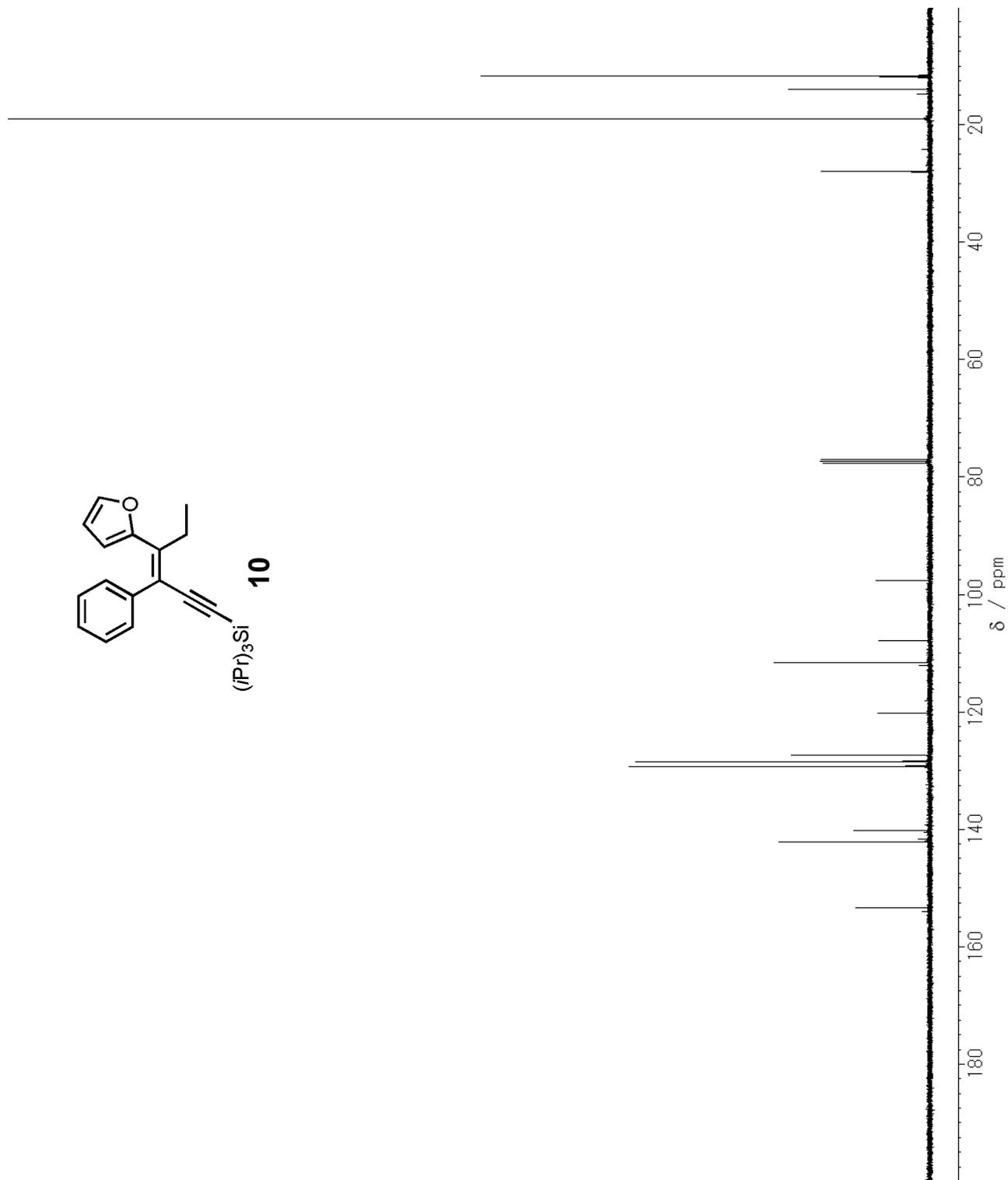
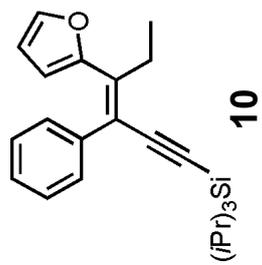
**Compound 10**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



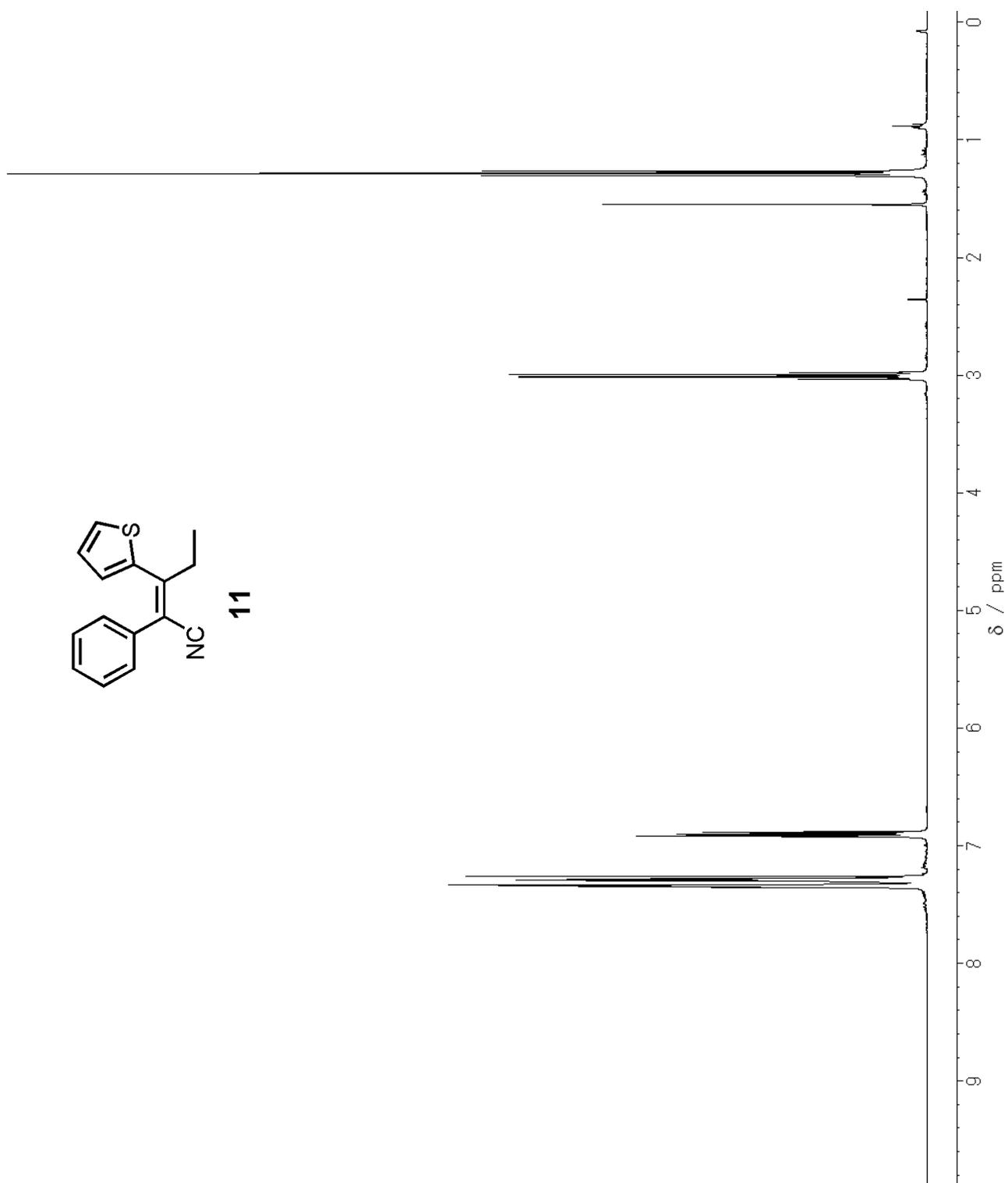
**Compound 10**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



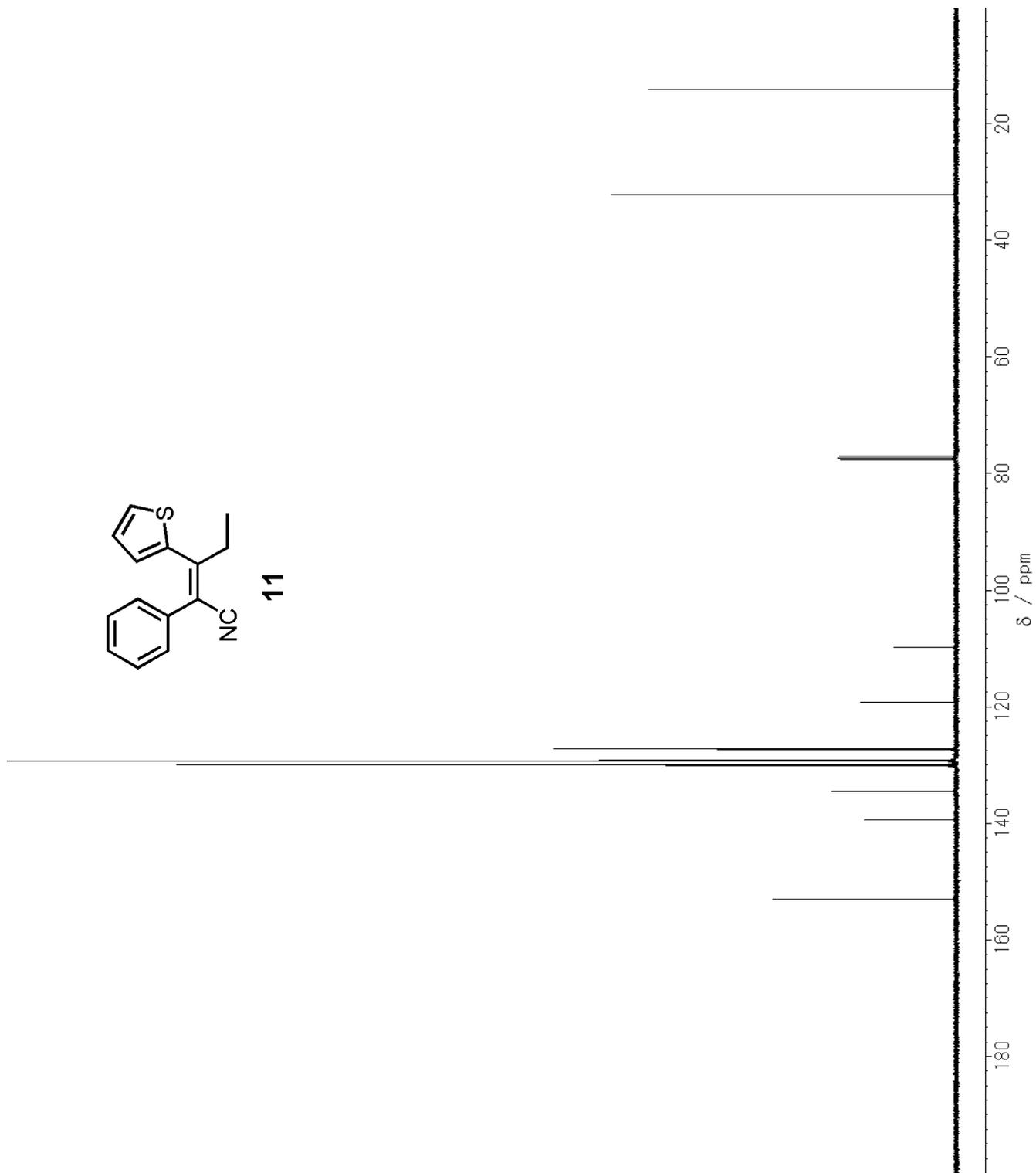
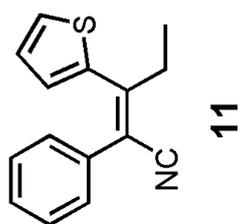
**Compound 11**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



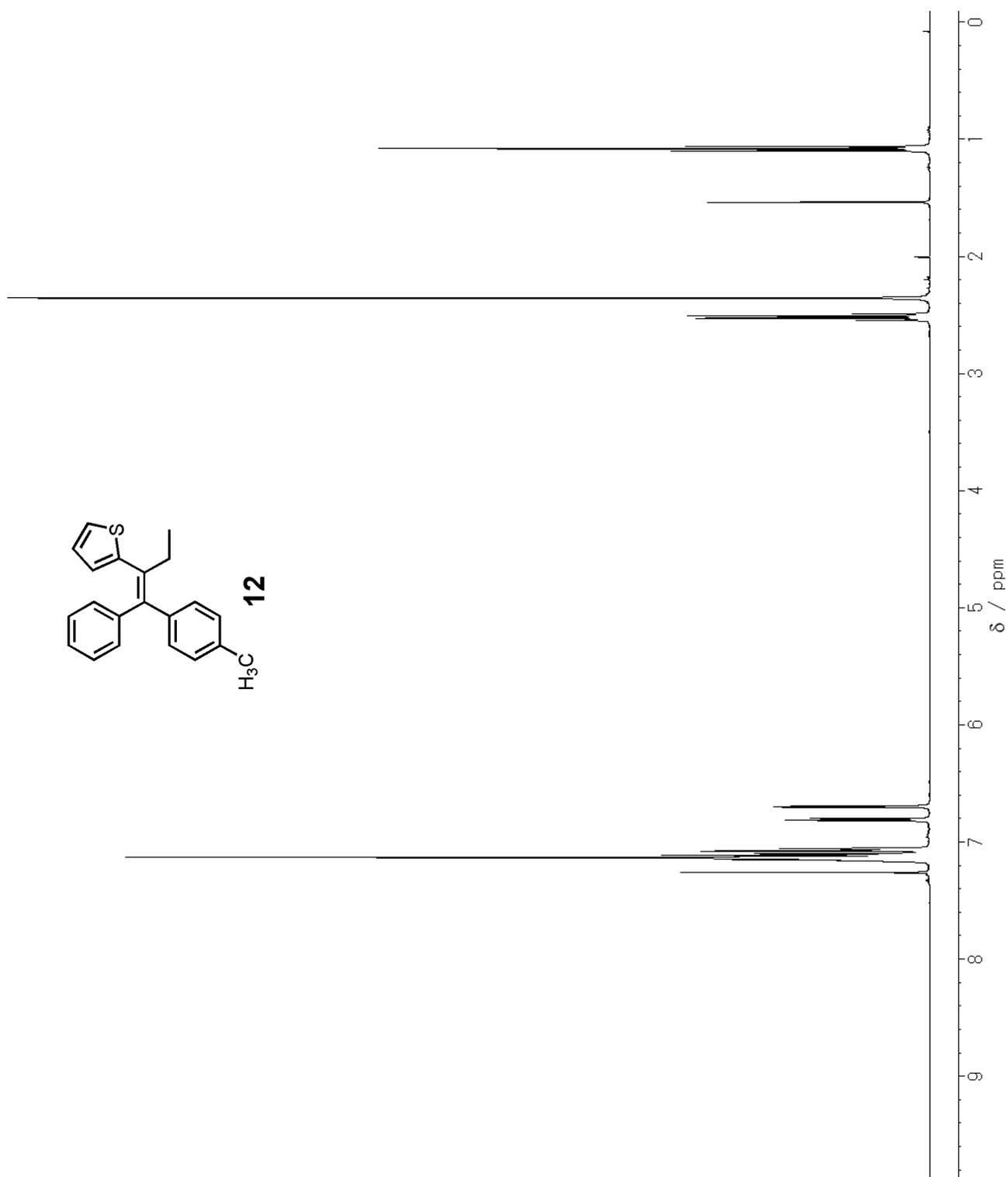
**Compound 11**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



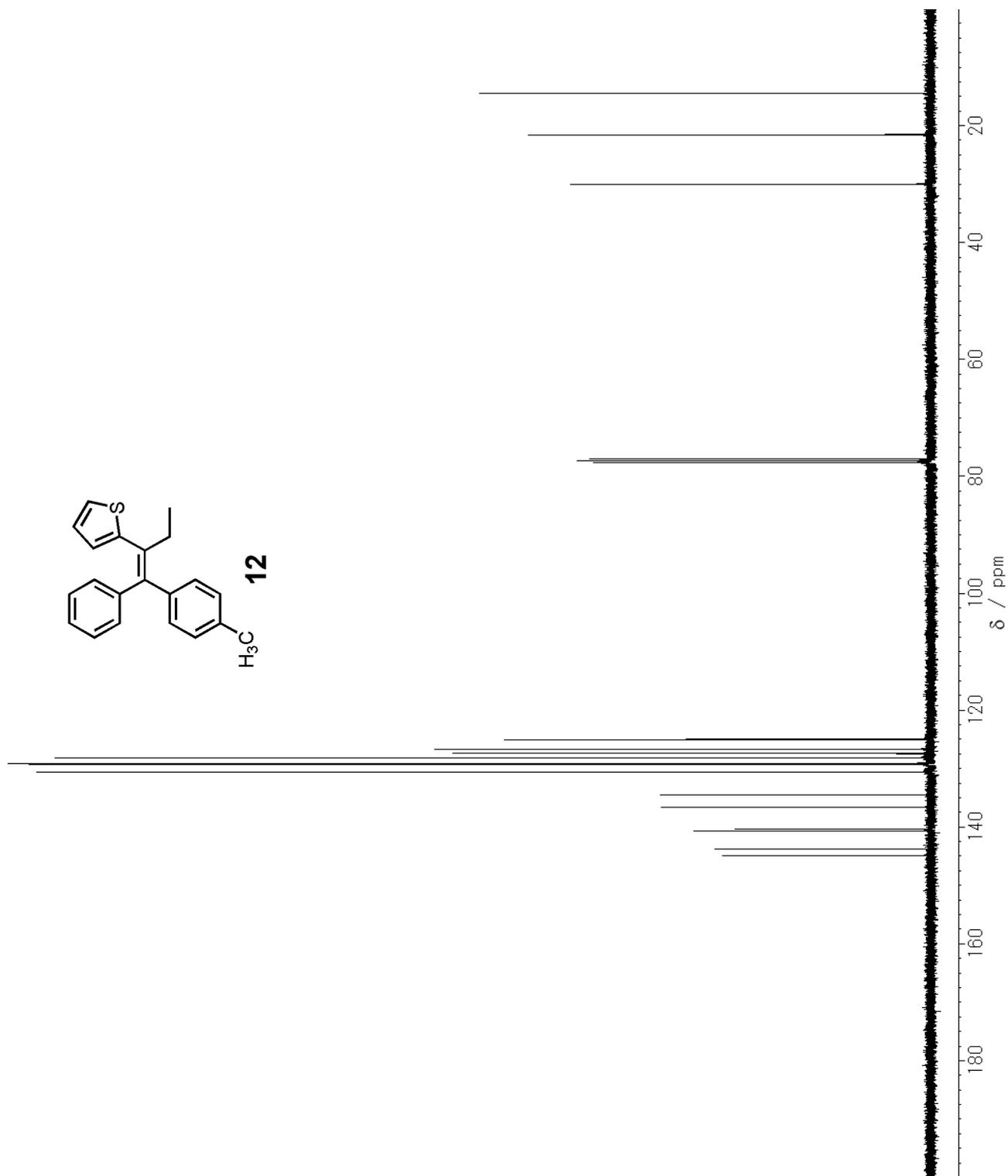
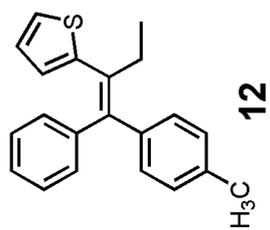
**Compound 12**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



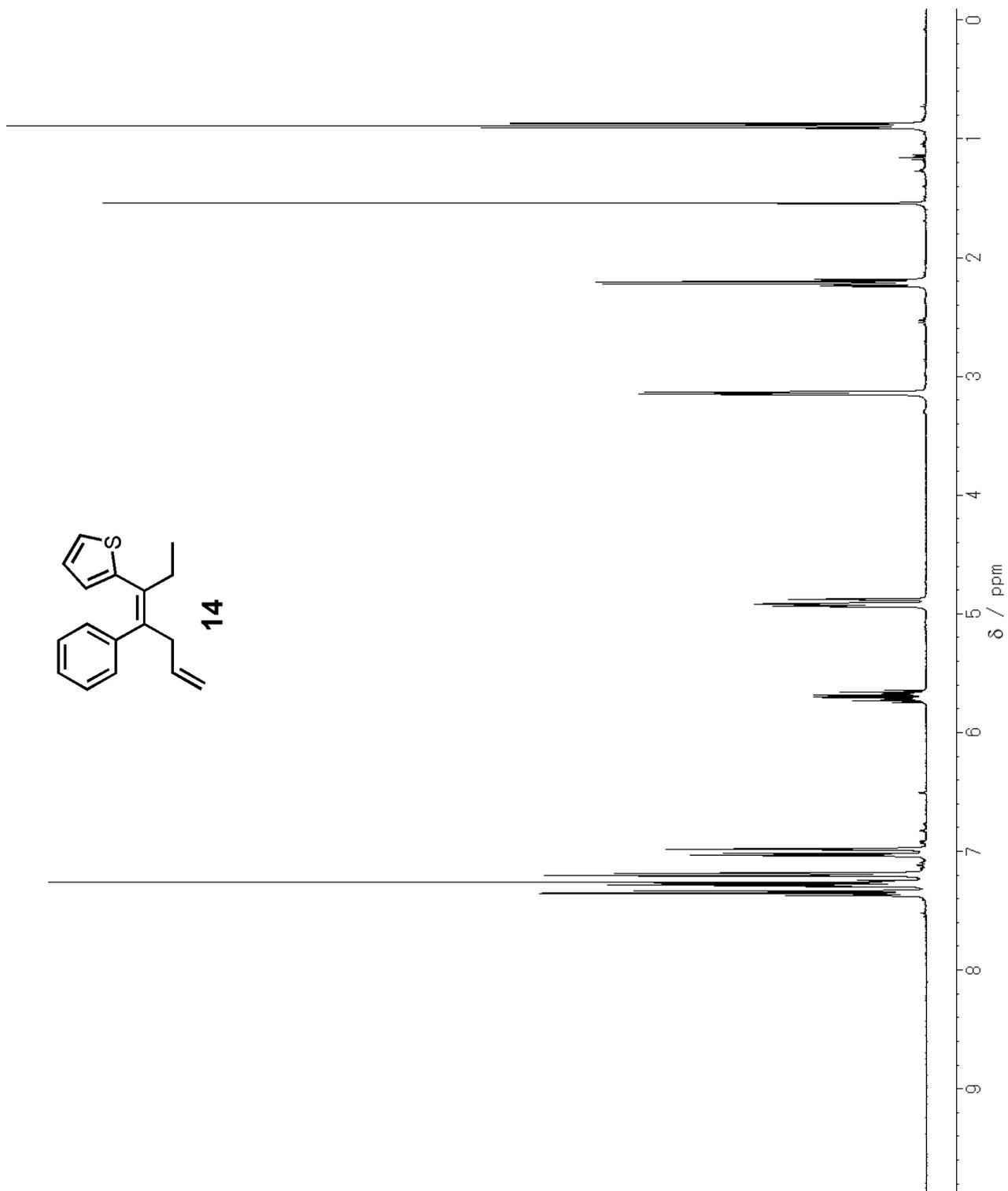
**Compound 12**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$



**Compound 14**

$^1\text{H}$  NMR spectrum in  $\text{CDCl}_3$



**Compound 14**

$^{13}\text{C}$  NMR spectrum in  $\text{CDCl}_3$

