

## Supporting Information

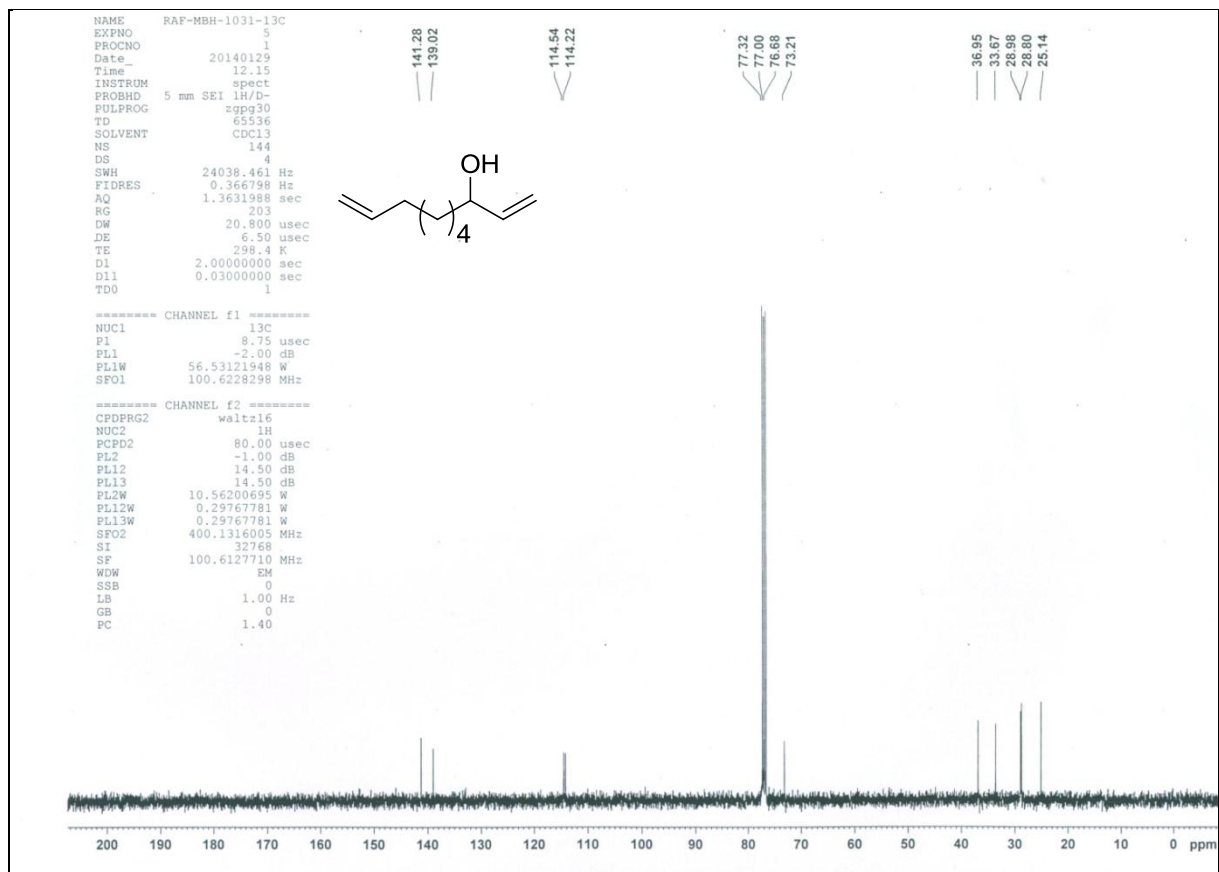
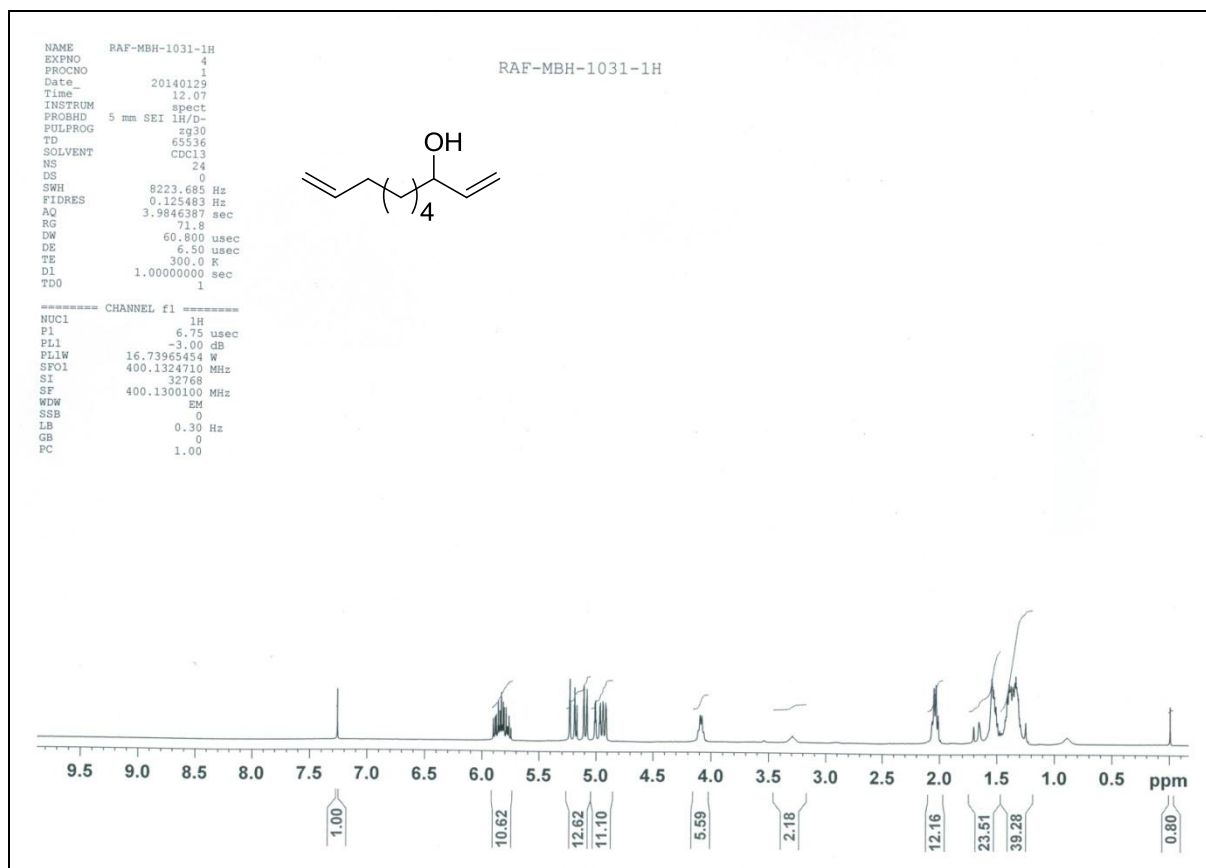
### **A Relay Ring-Opening/Double Ring-Closing Metathesis Strategy for the Bicyclic Macrolide-Butenolide Core Structures**

Mahesh B. Halle and Rodney A. Fernandes\*

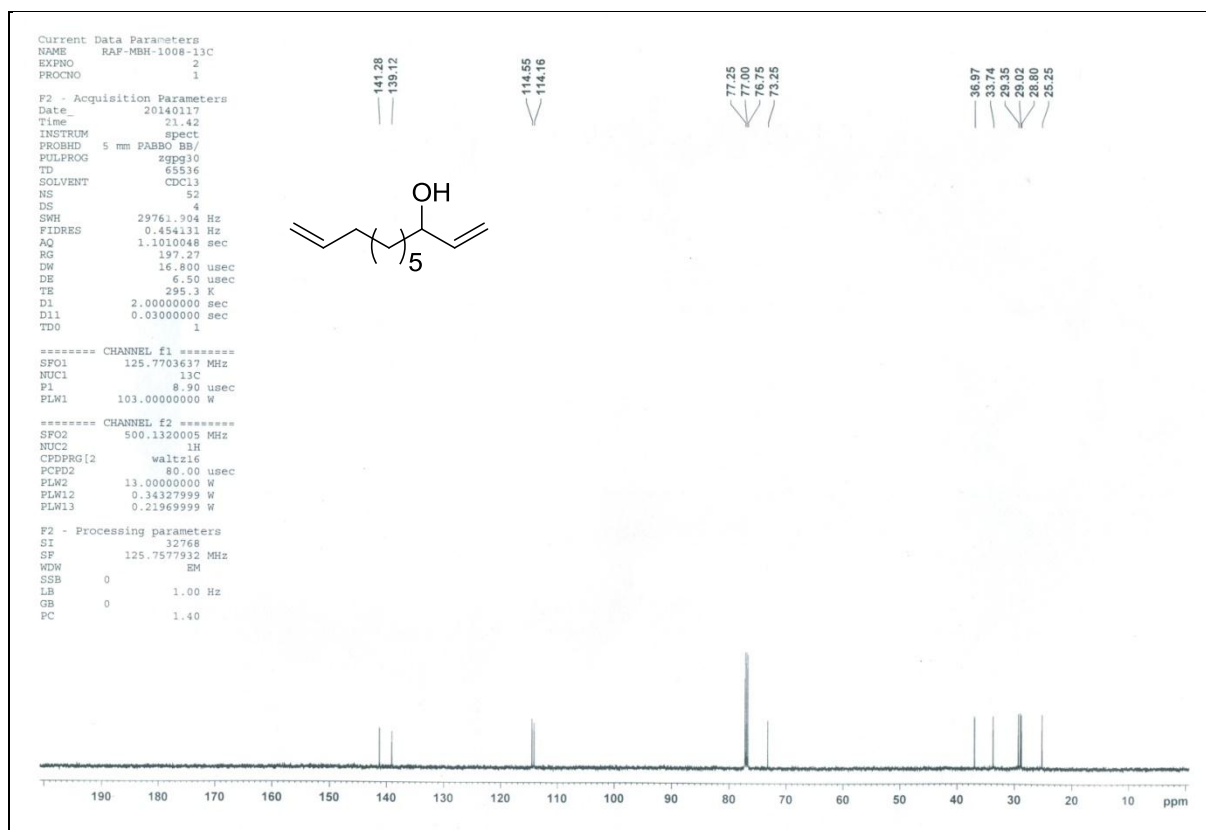
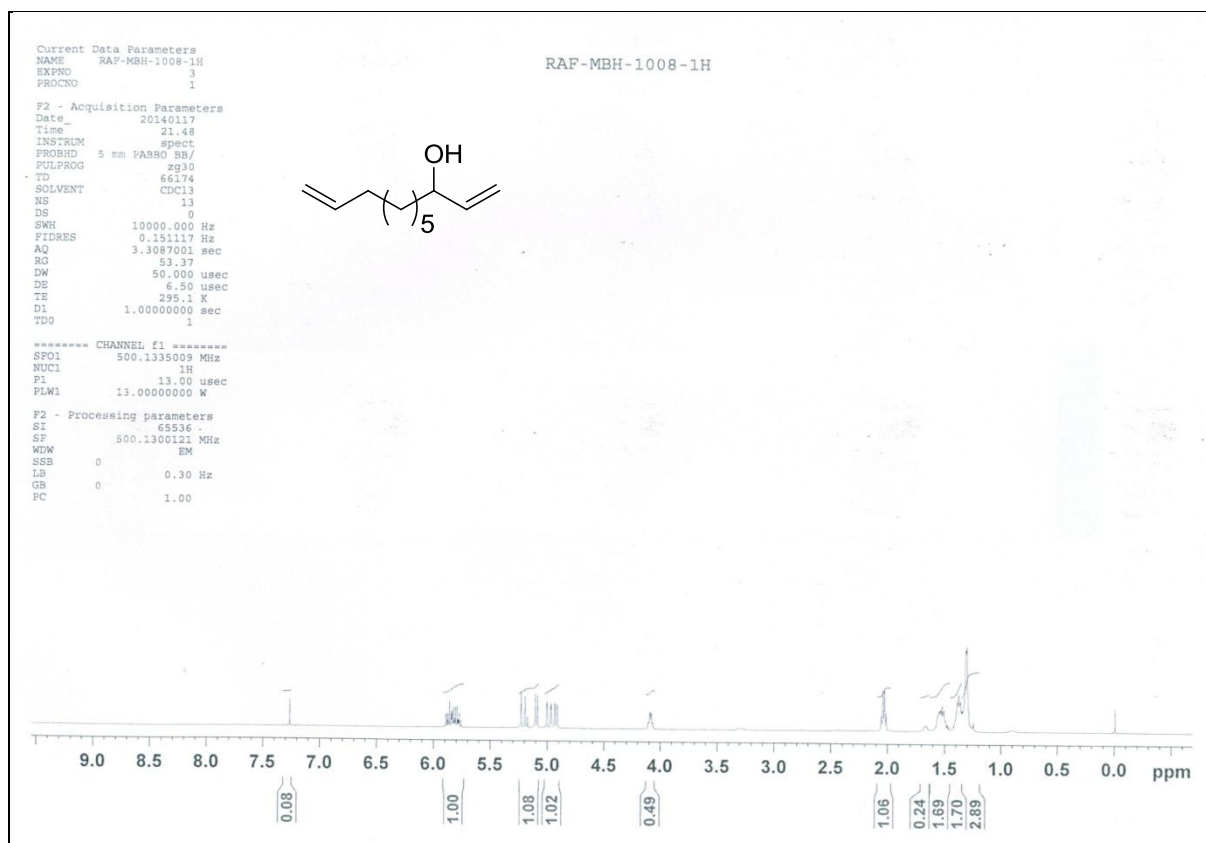
*Department of Chemistry, Indian Institute of Technology Bombay, Powai,  
Mumbai 400 076 Maharashtra, India. E-mail: rfernand@chem.iitb.ac.in*

Copies of  $^1\text{H}$  and  $^{13}\text{C}$  NMR spectra for all the compounds ..... S2–S20

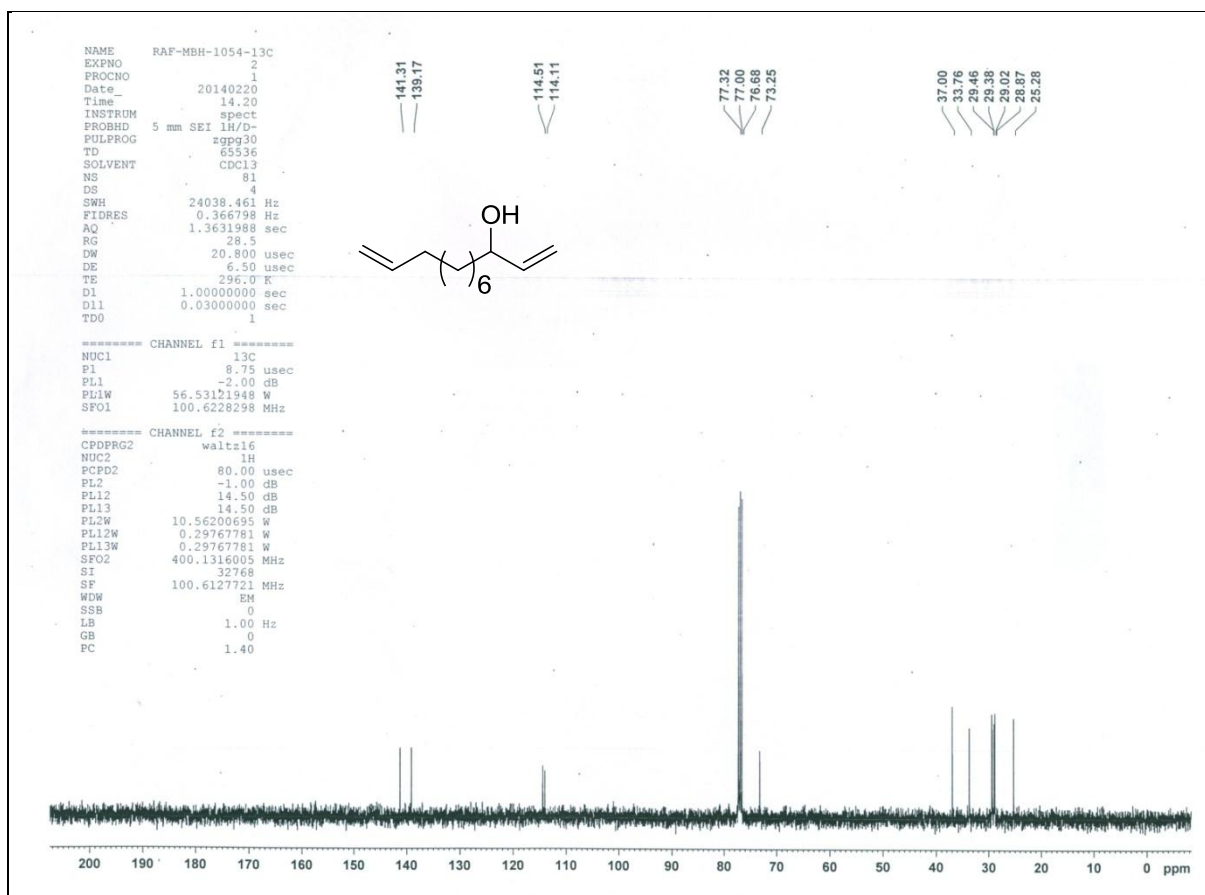
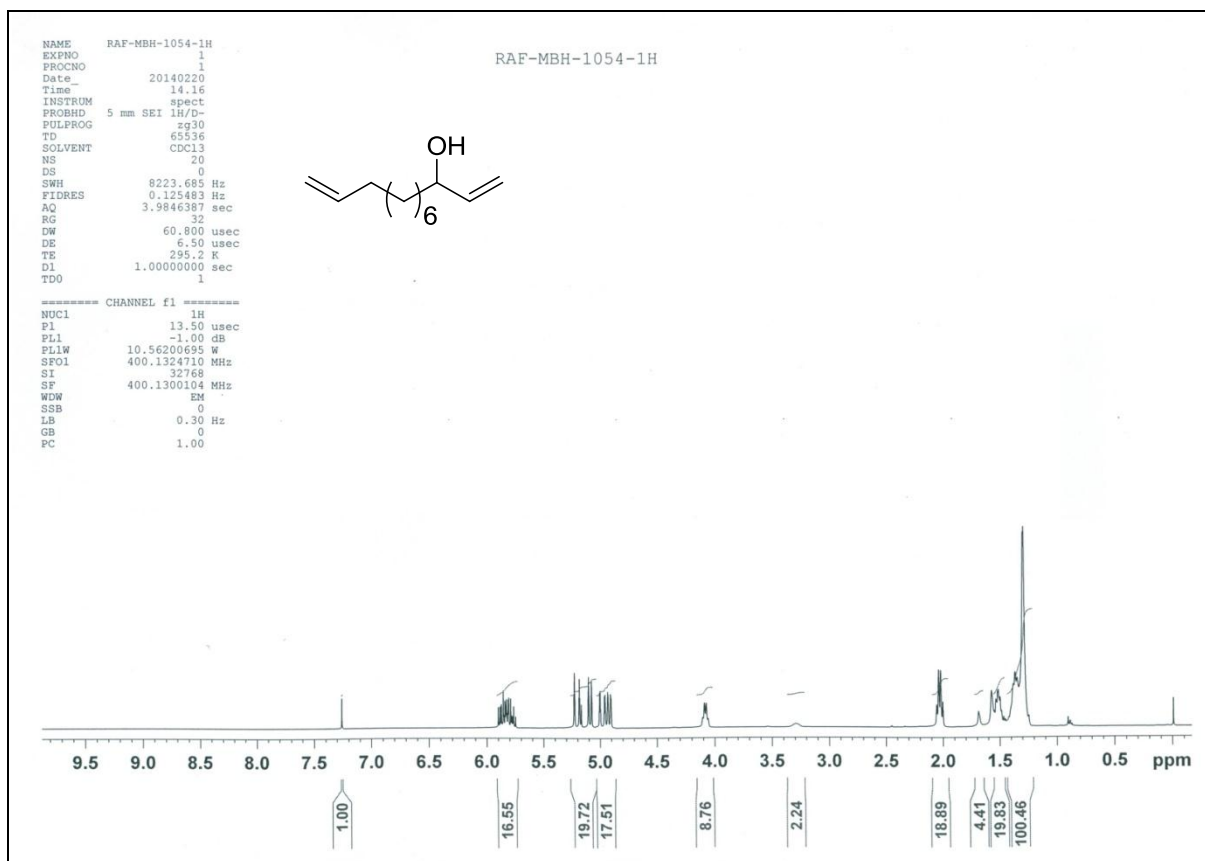
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound **9a**



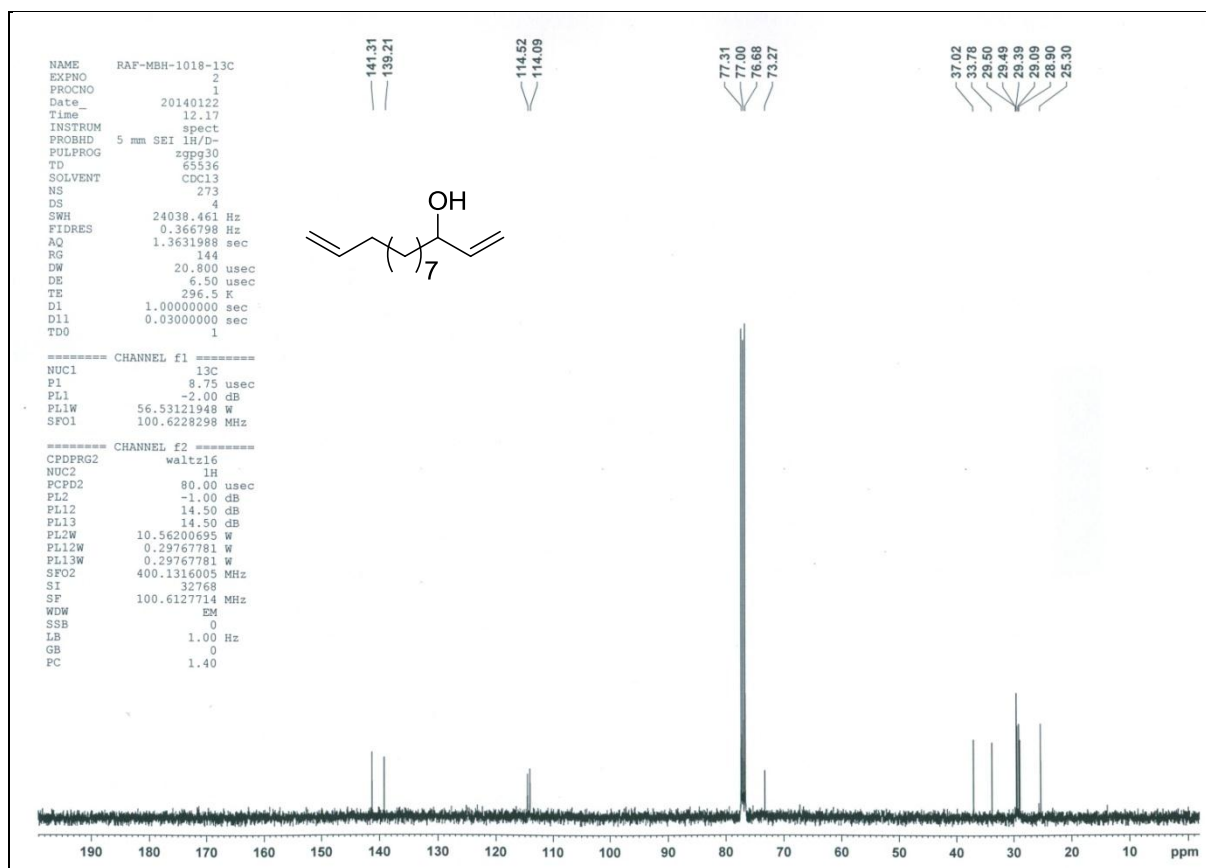
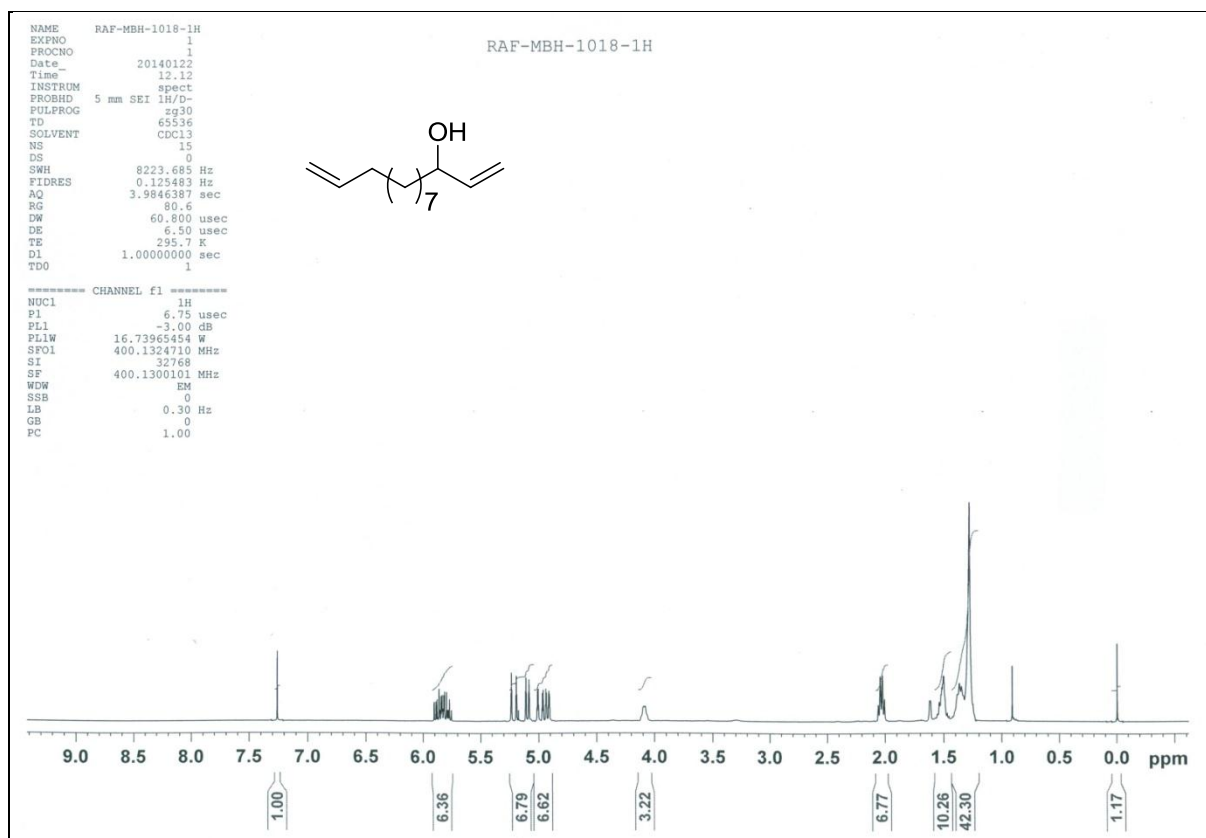
<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound **9b**



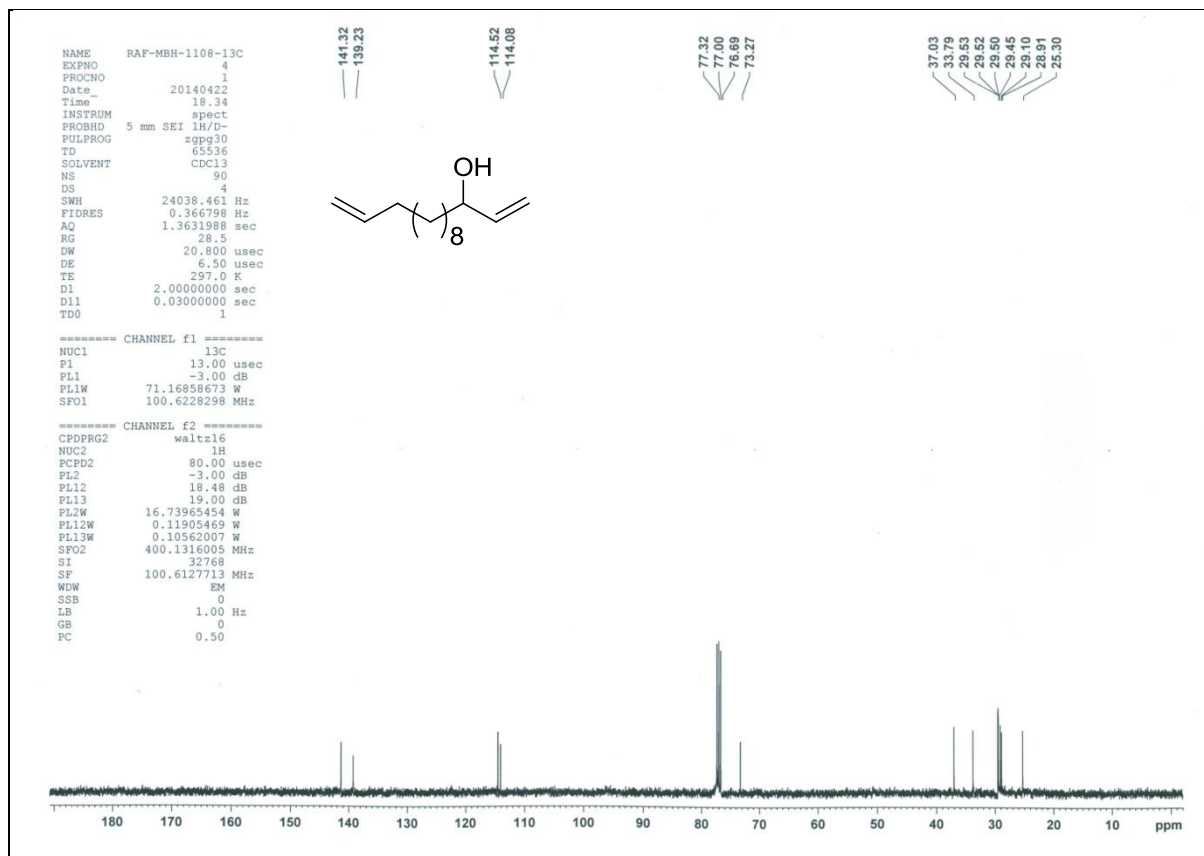
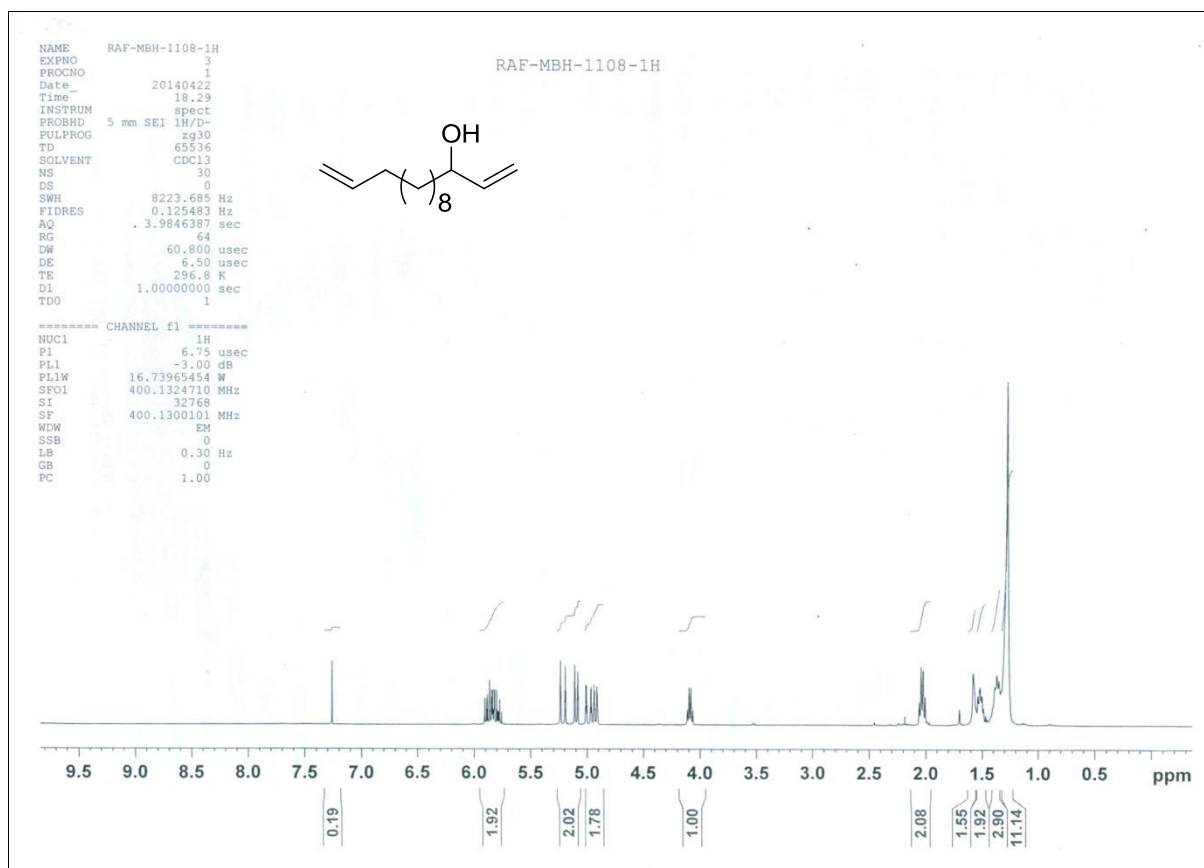
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound **9c**



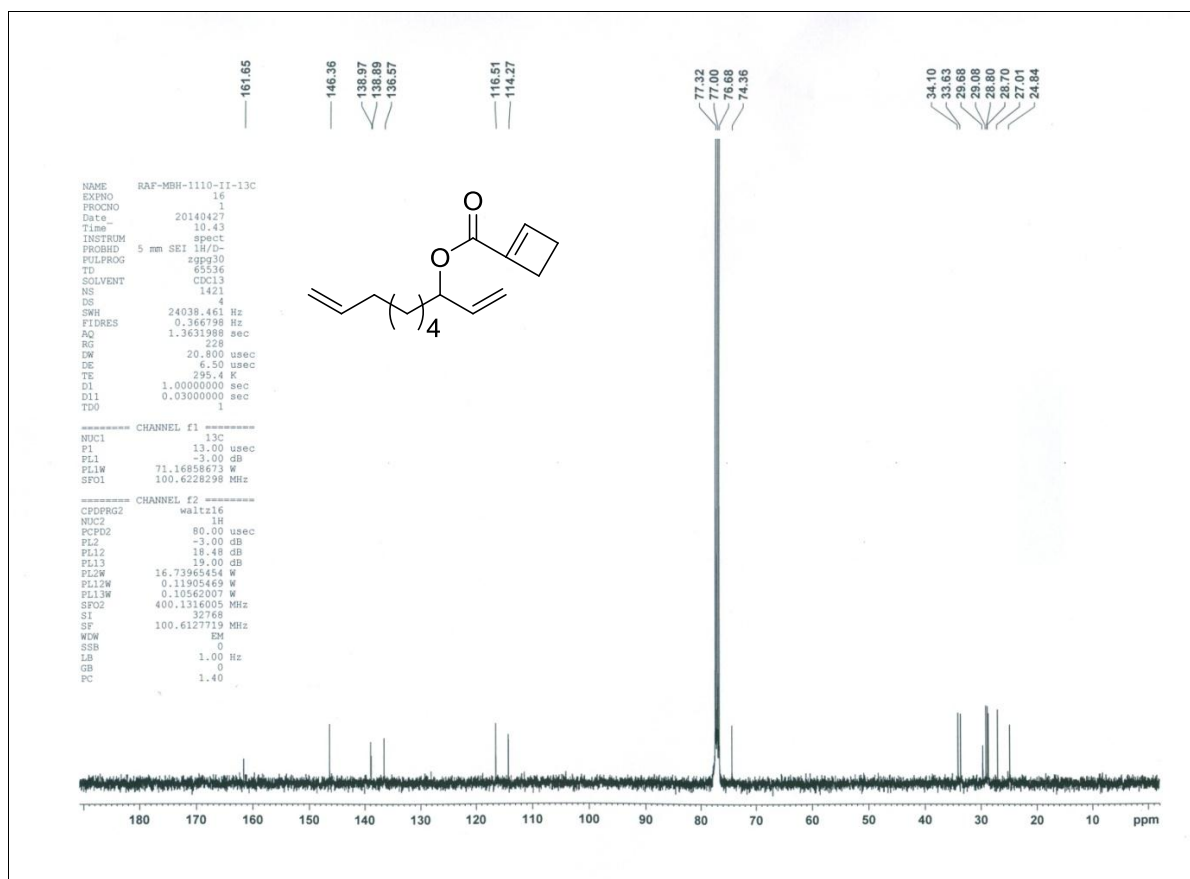
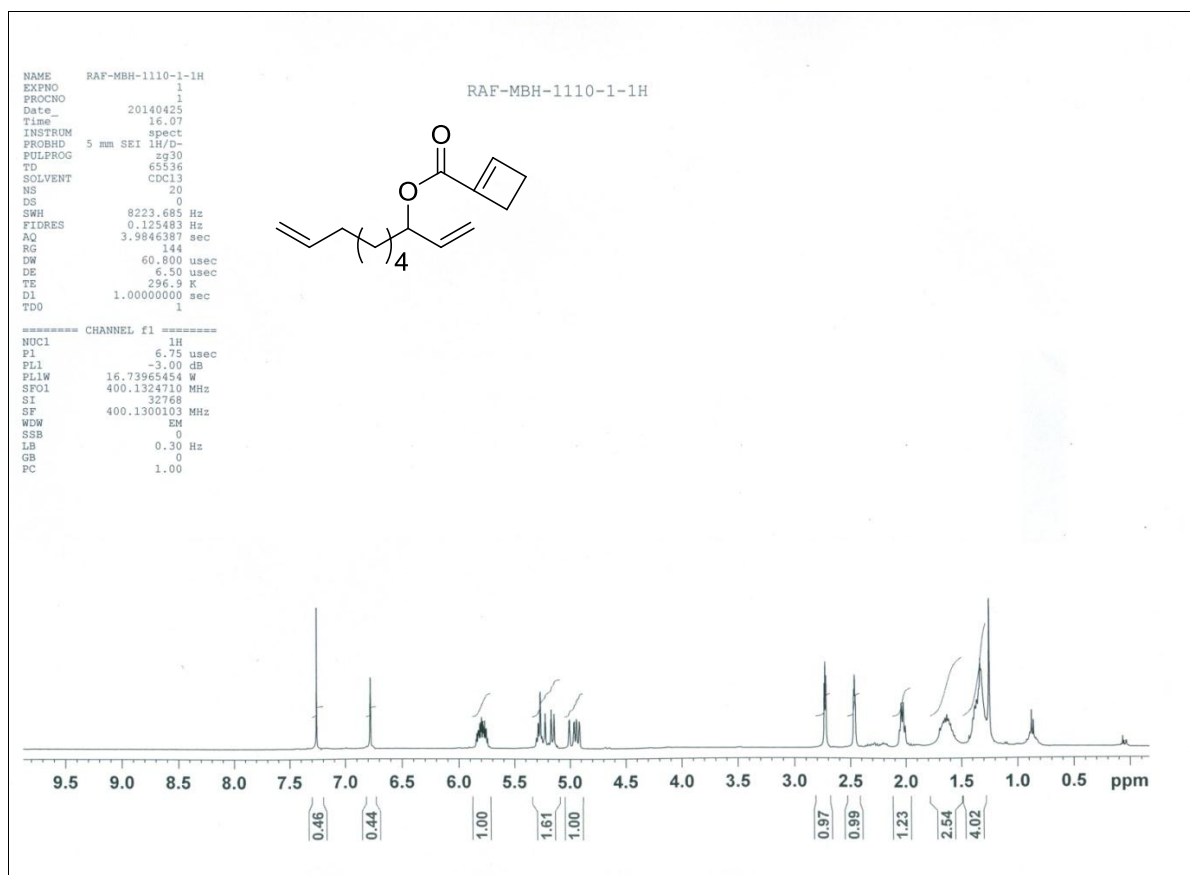
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound **9d**



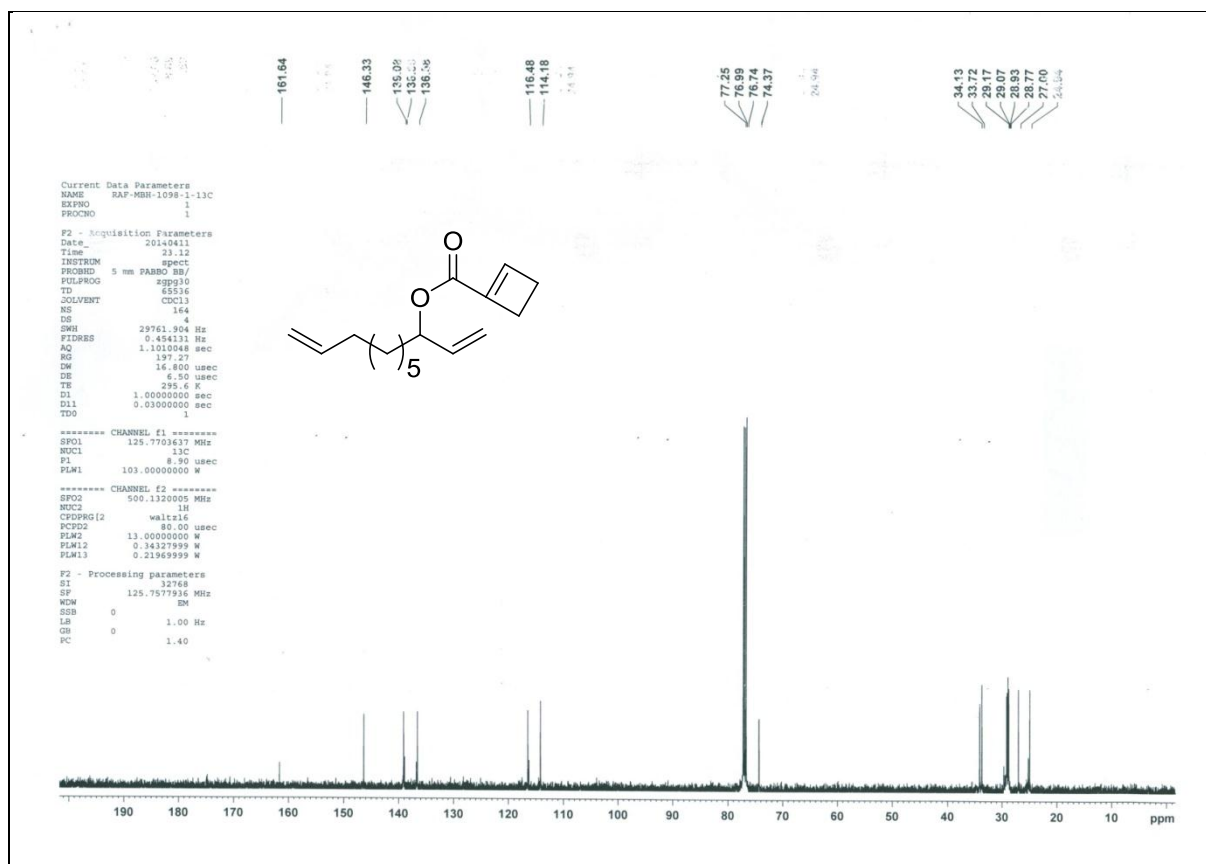
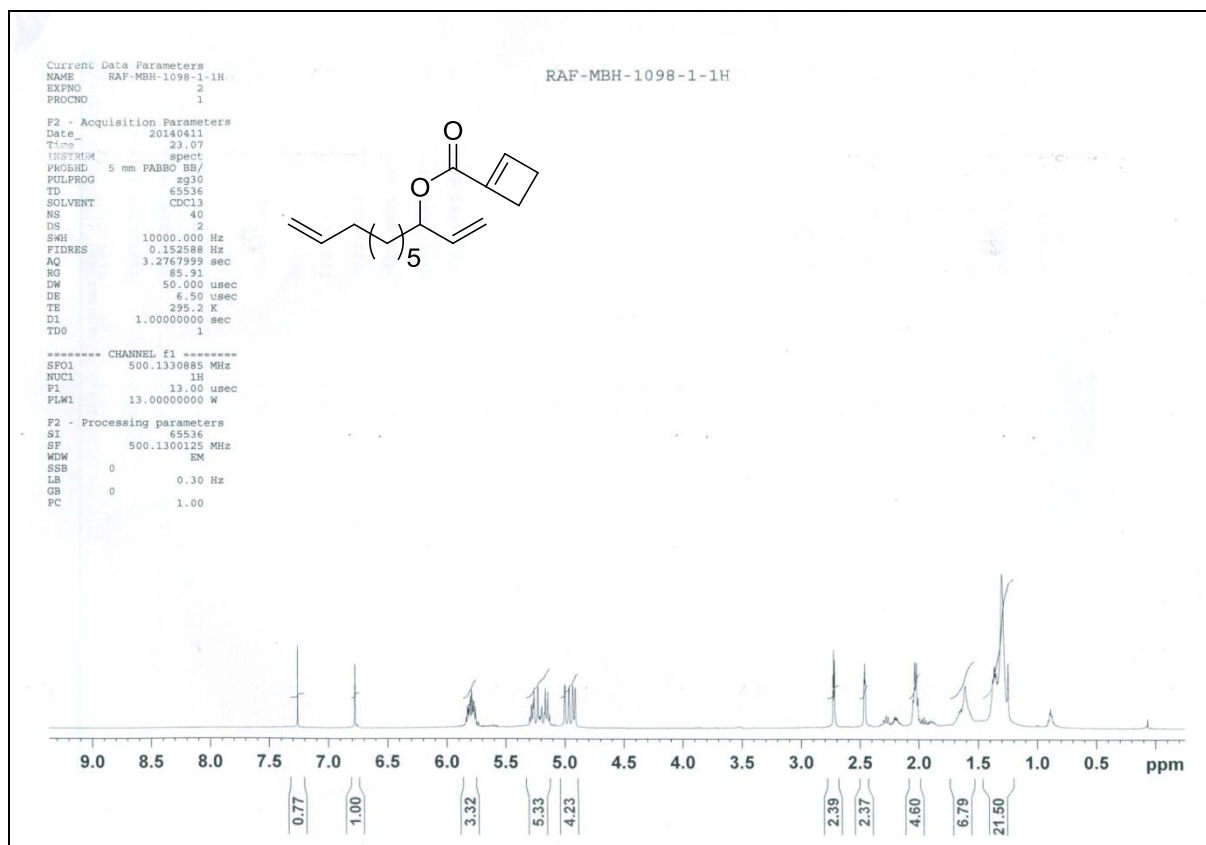
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound **9e**



<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound 5a

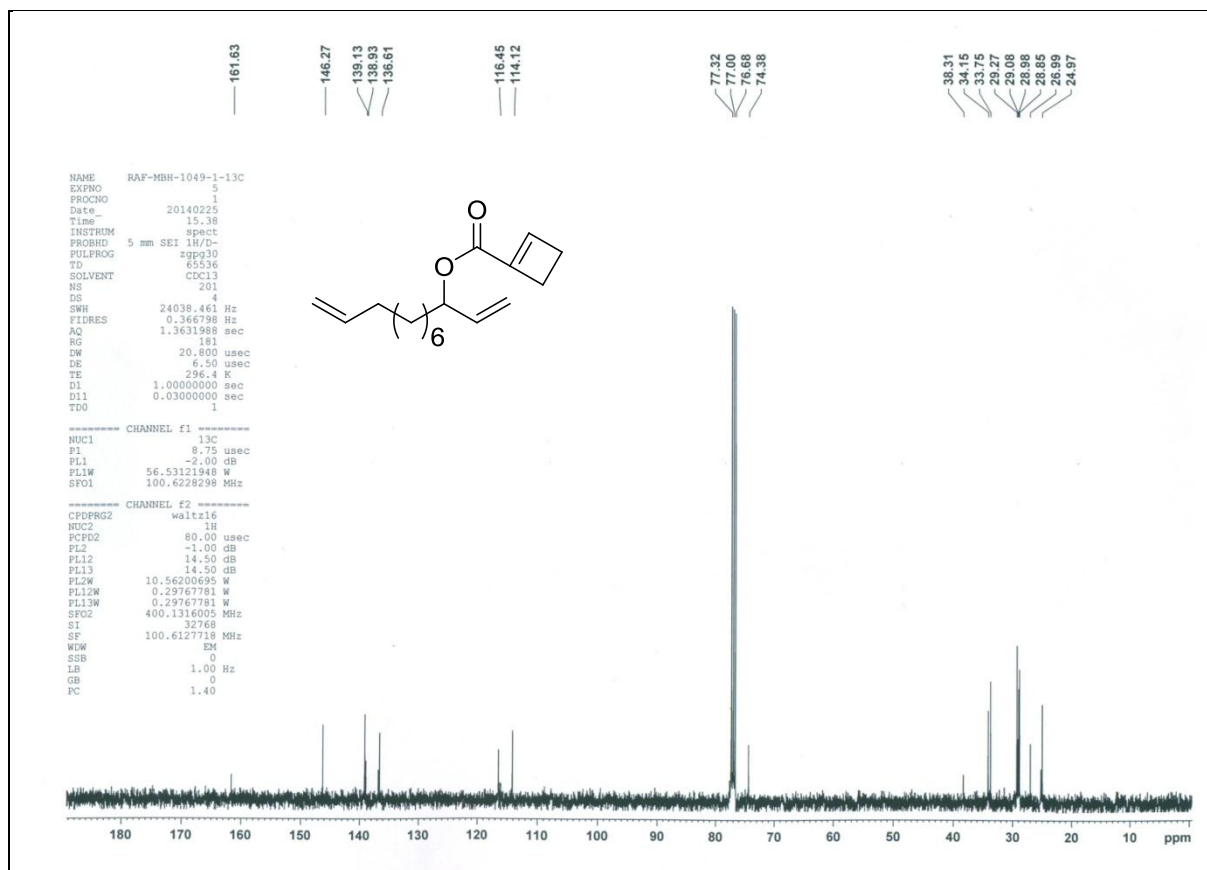
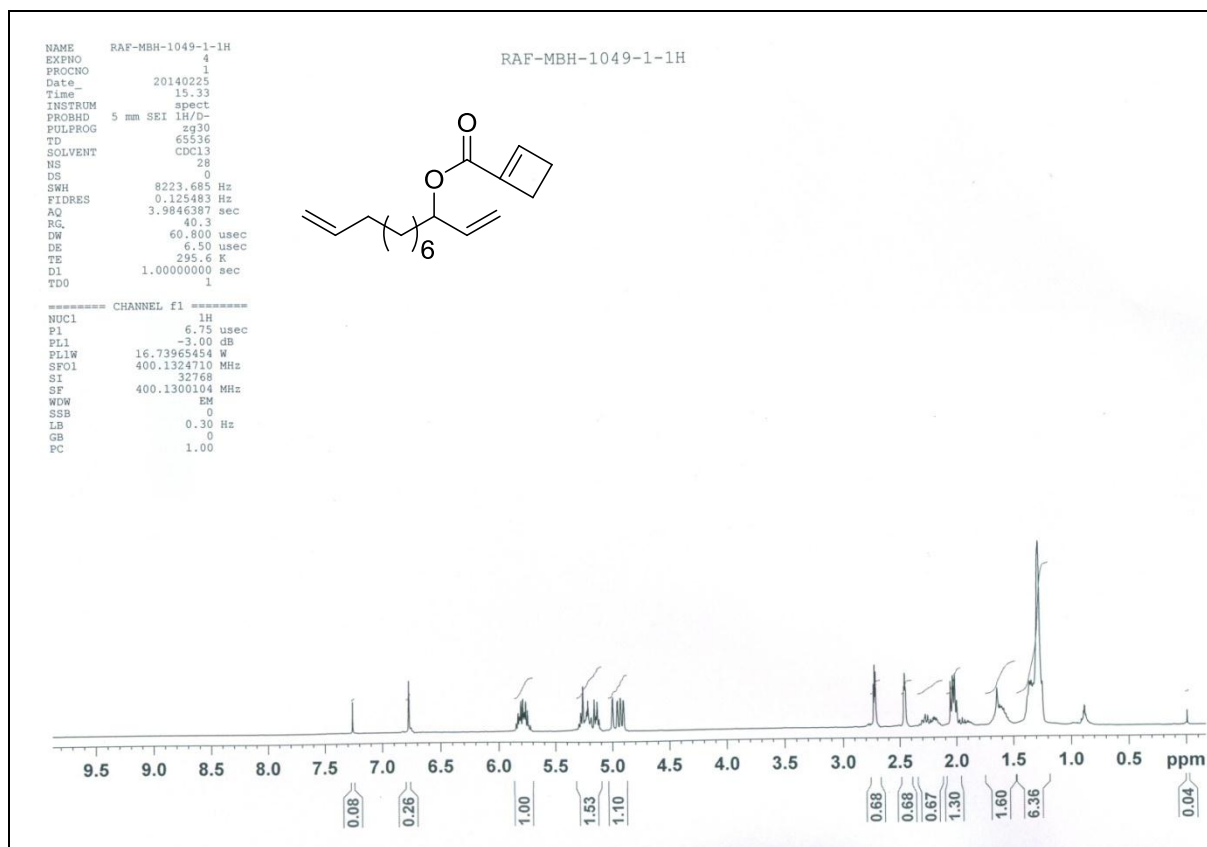


<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound **5b**

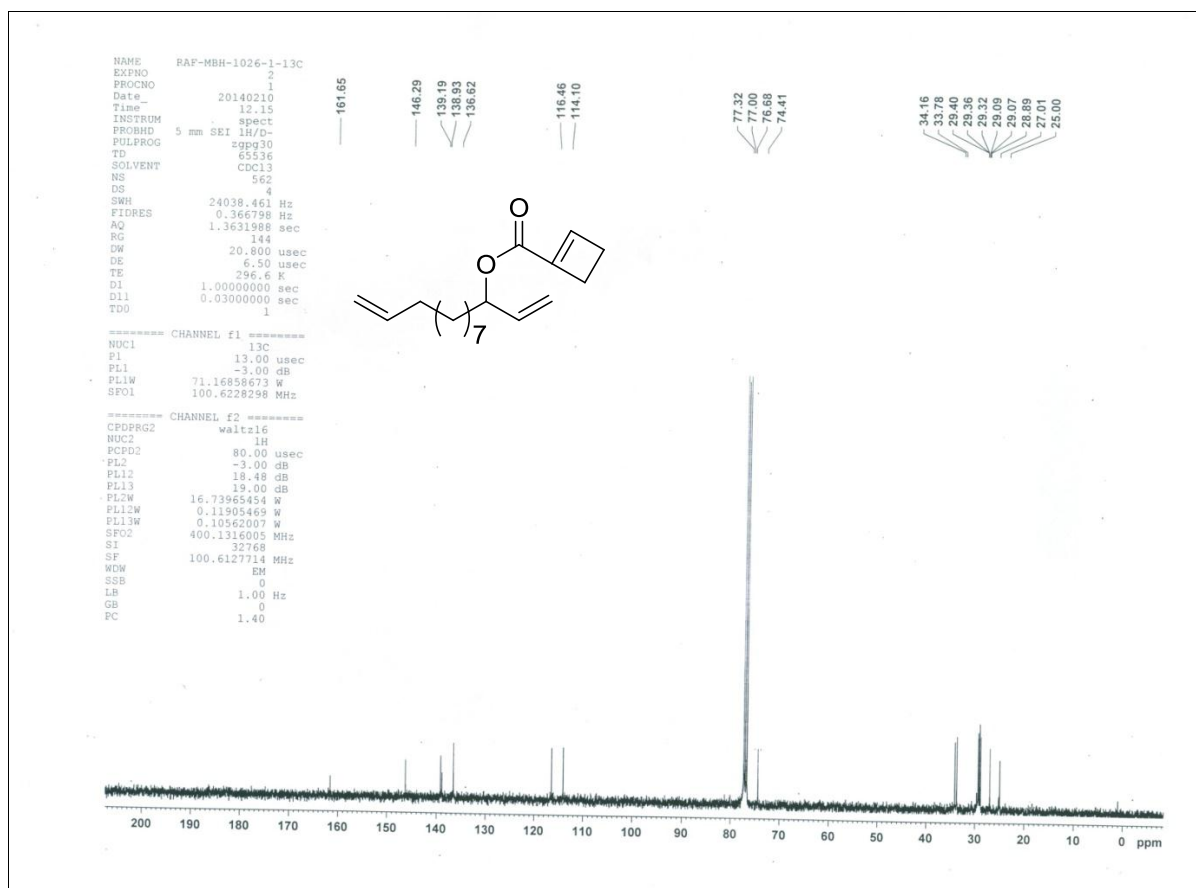
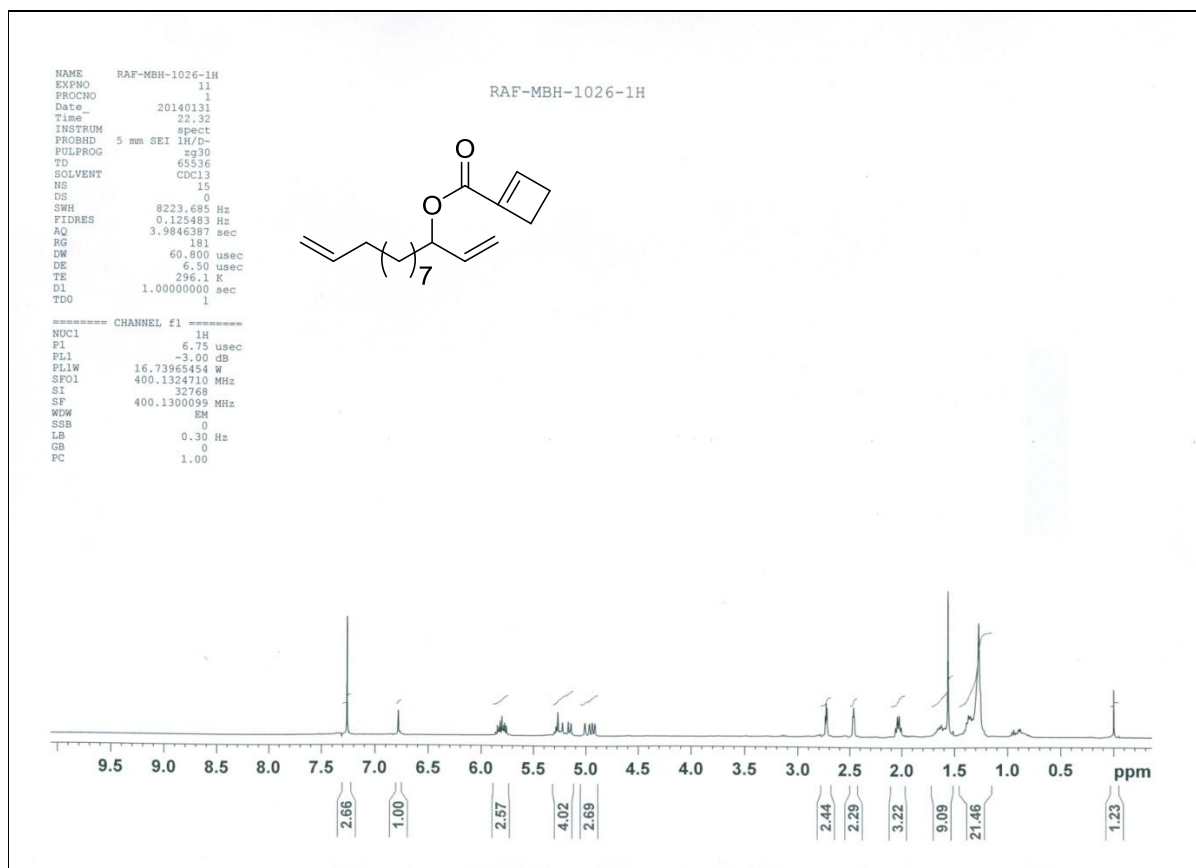




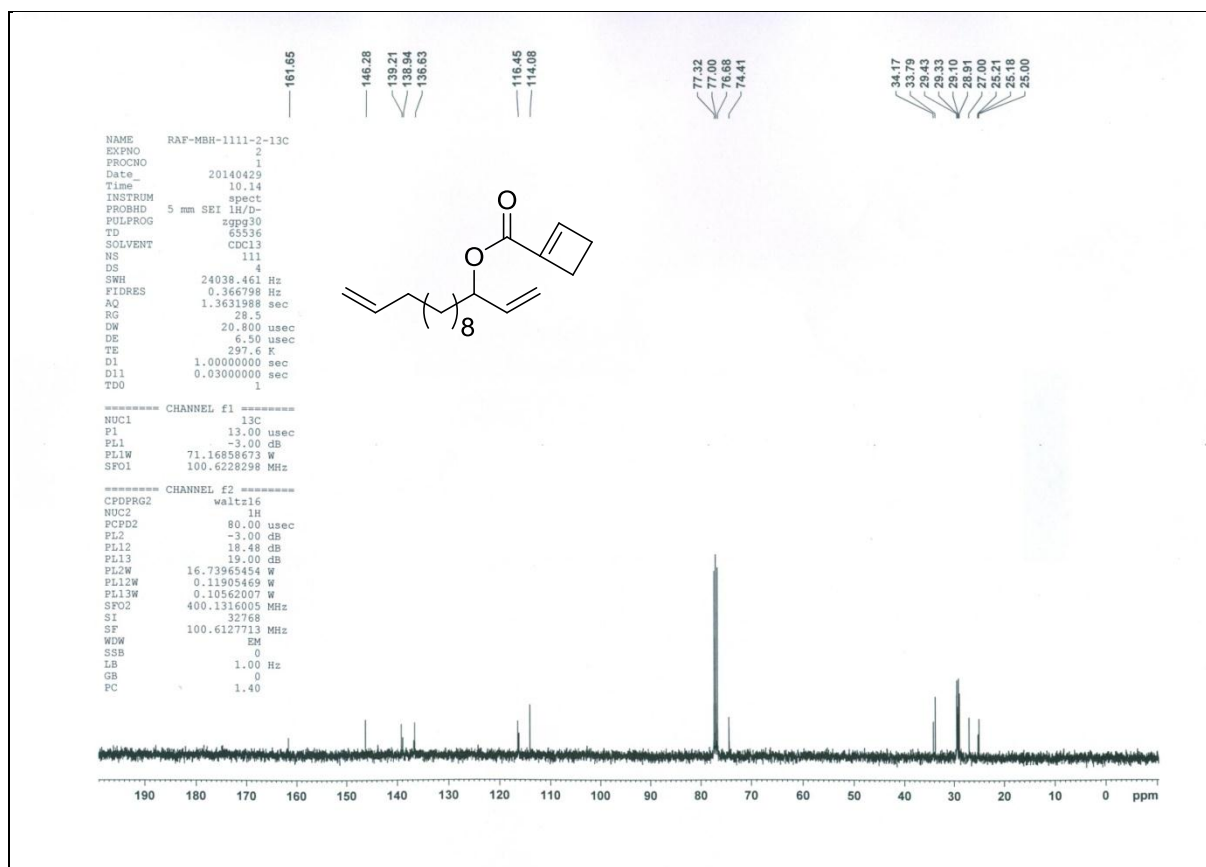
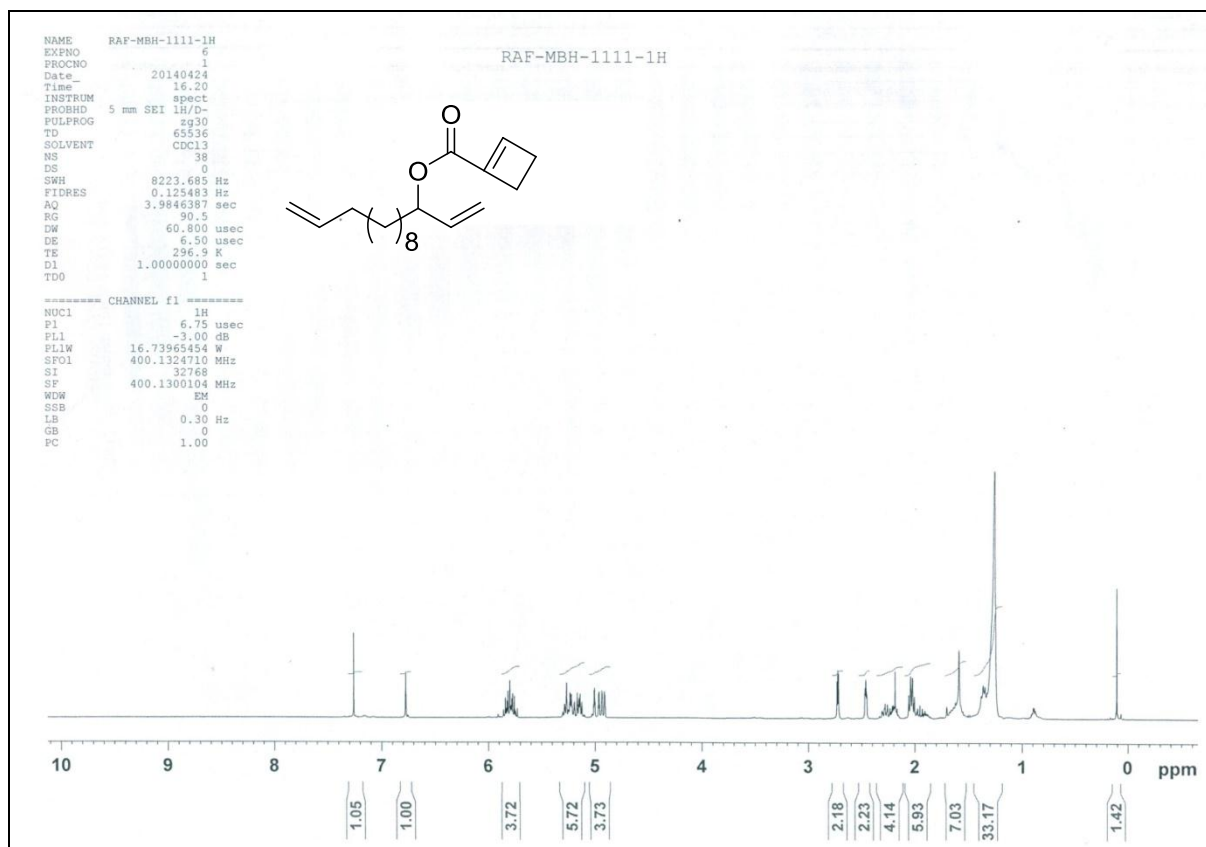
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound **5c**



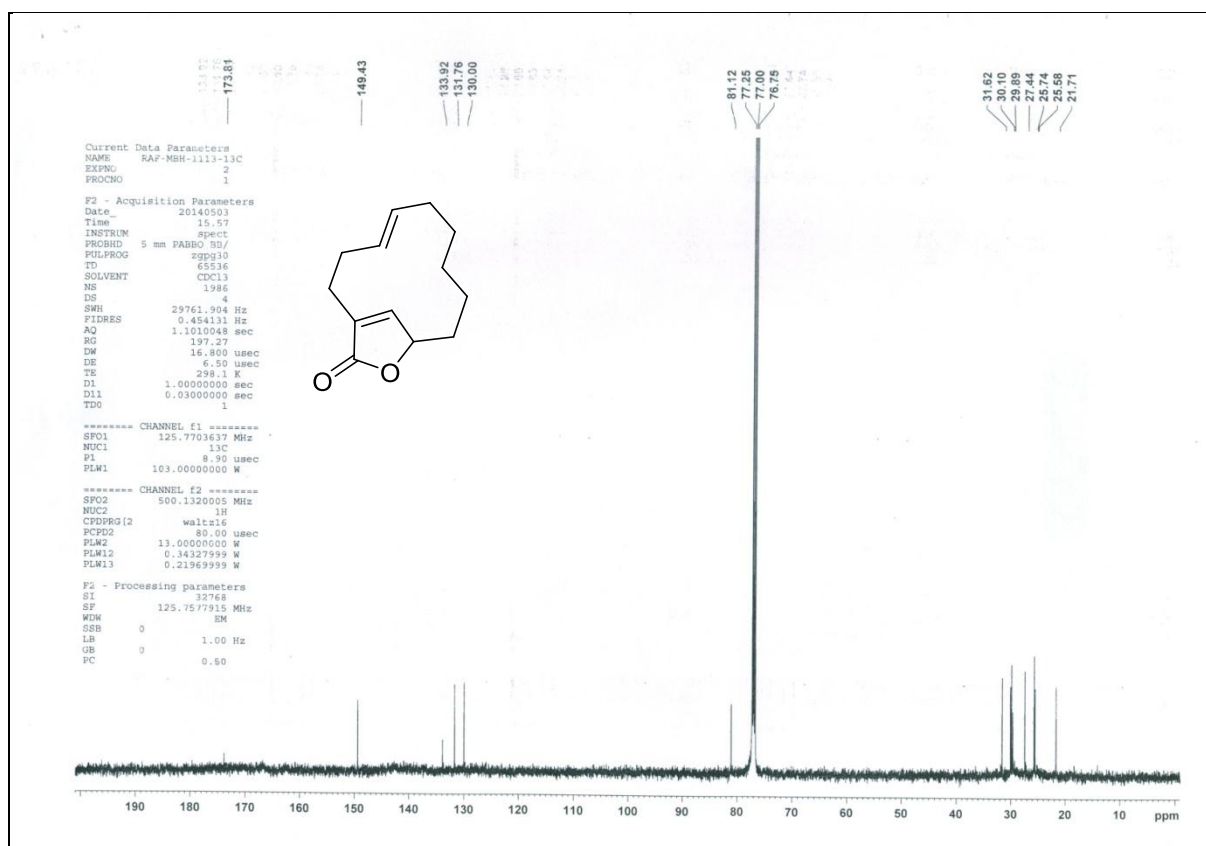
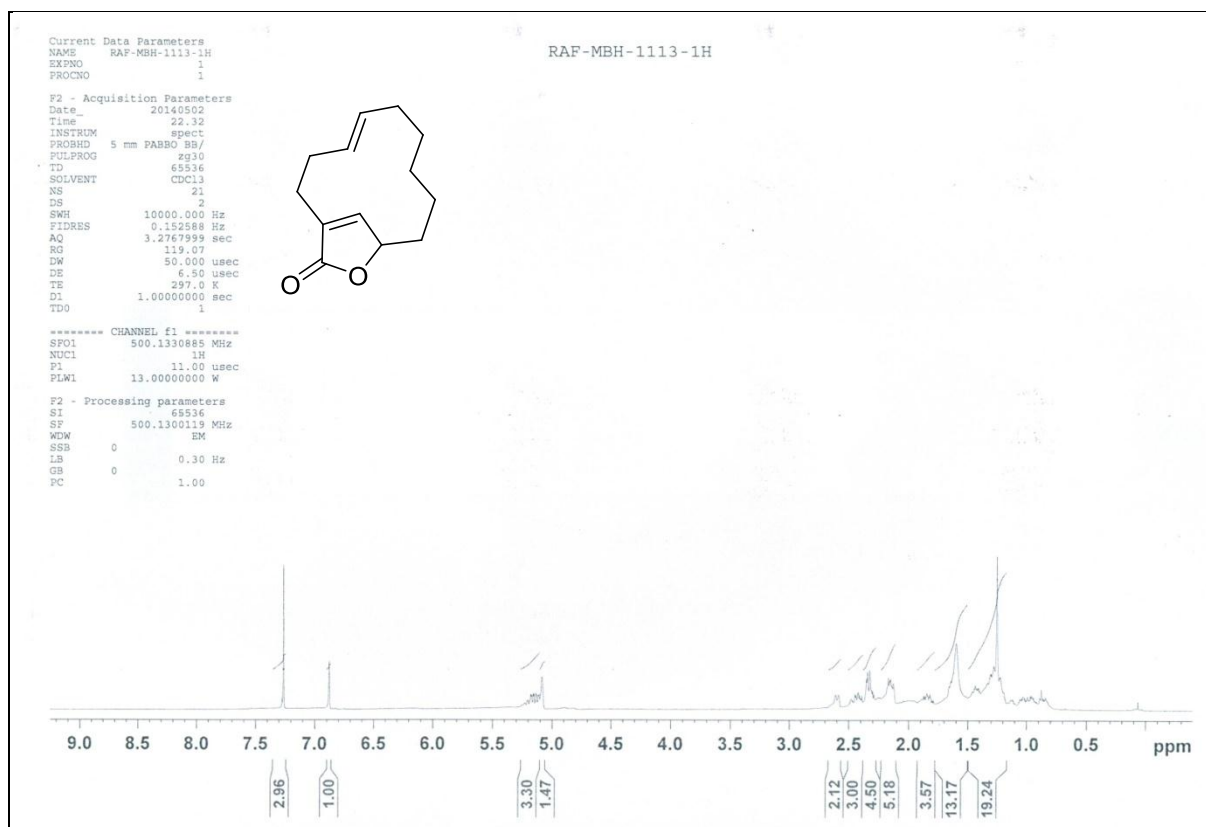
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3/\text{TMS}$ ) and  $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of Compound **5d**



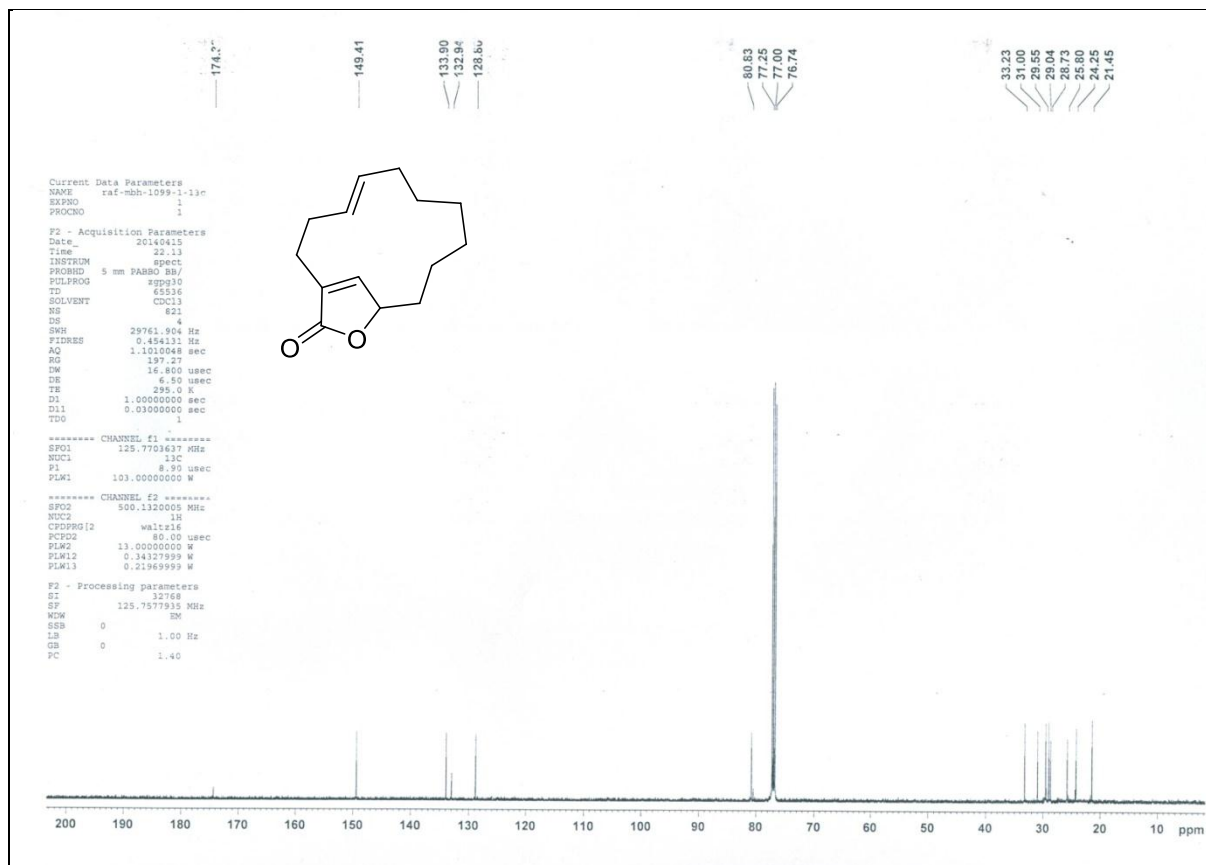
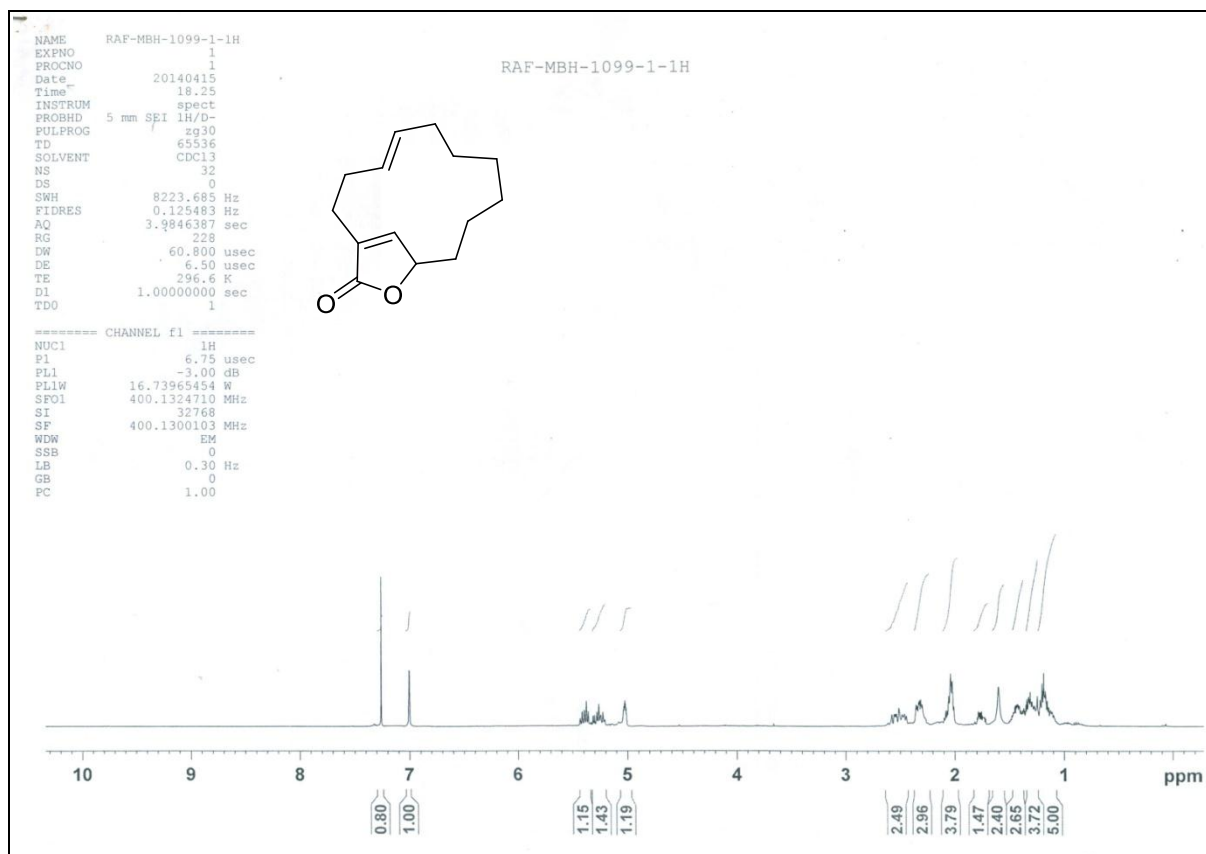
$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3/\text{TMS}$ ) and  $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of Compound **5e**



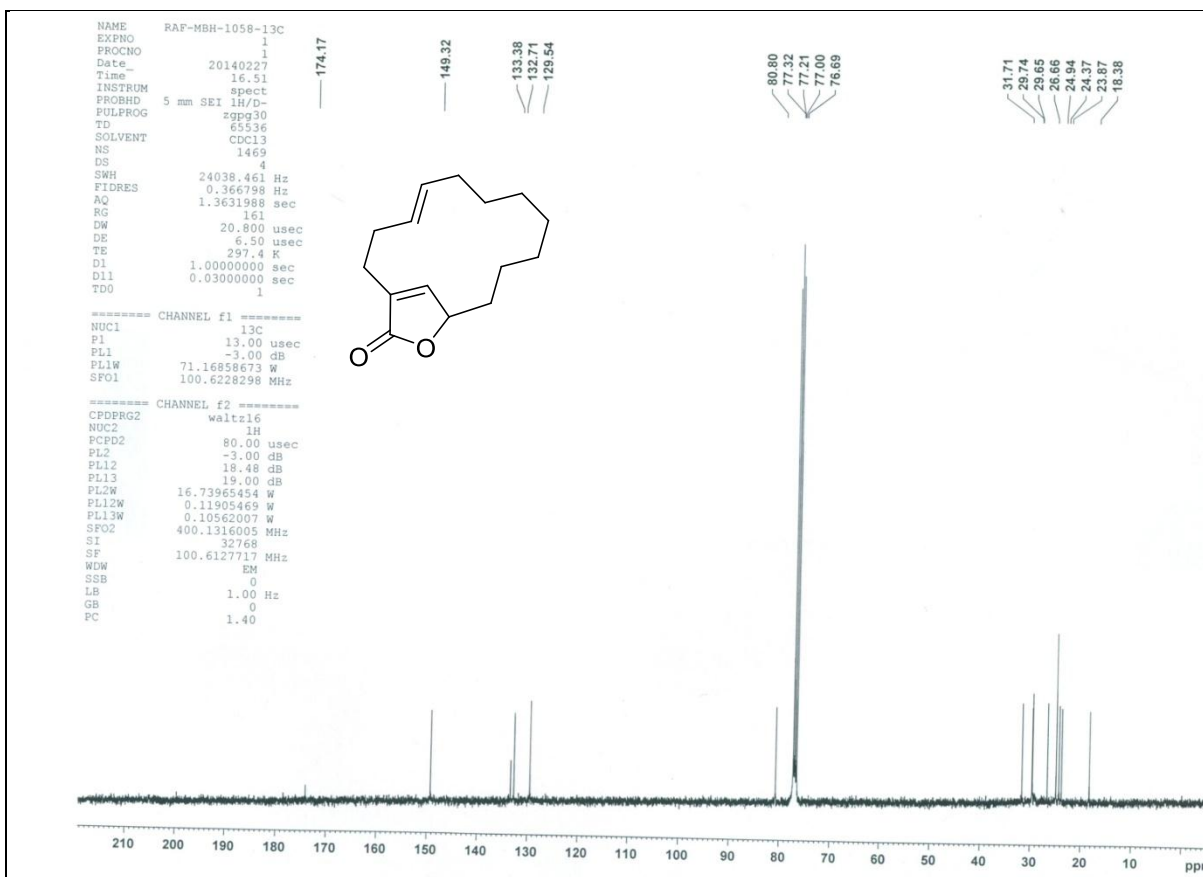
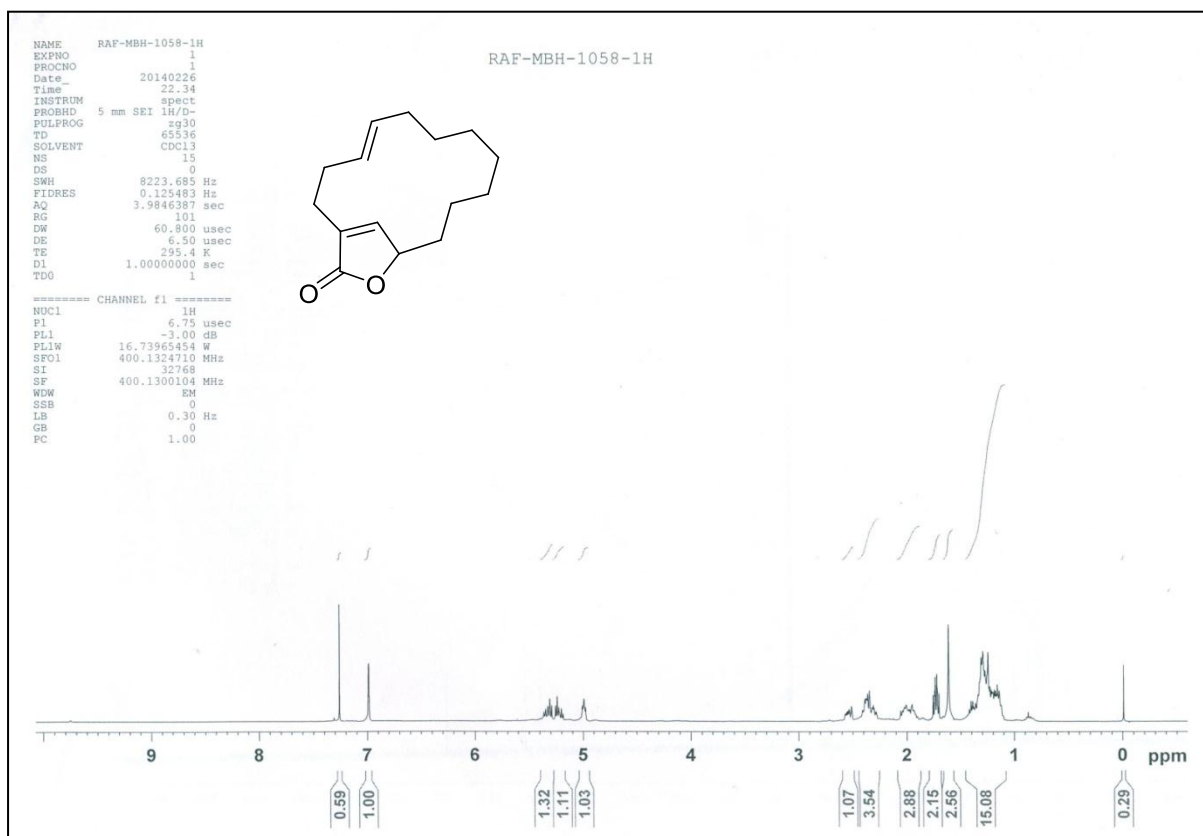
<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound 1a



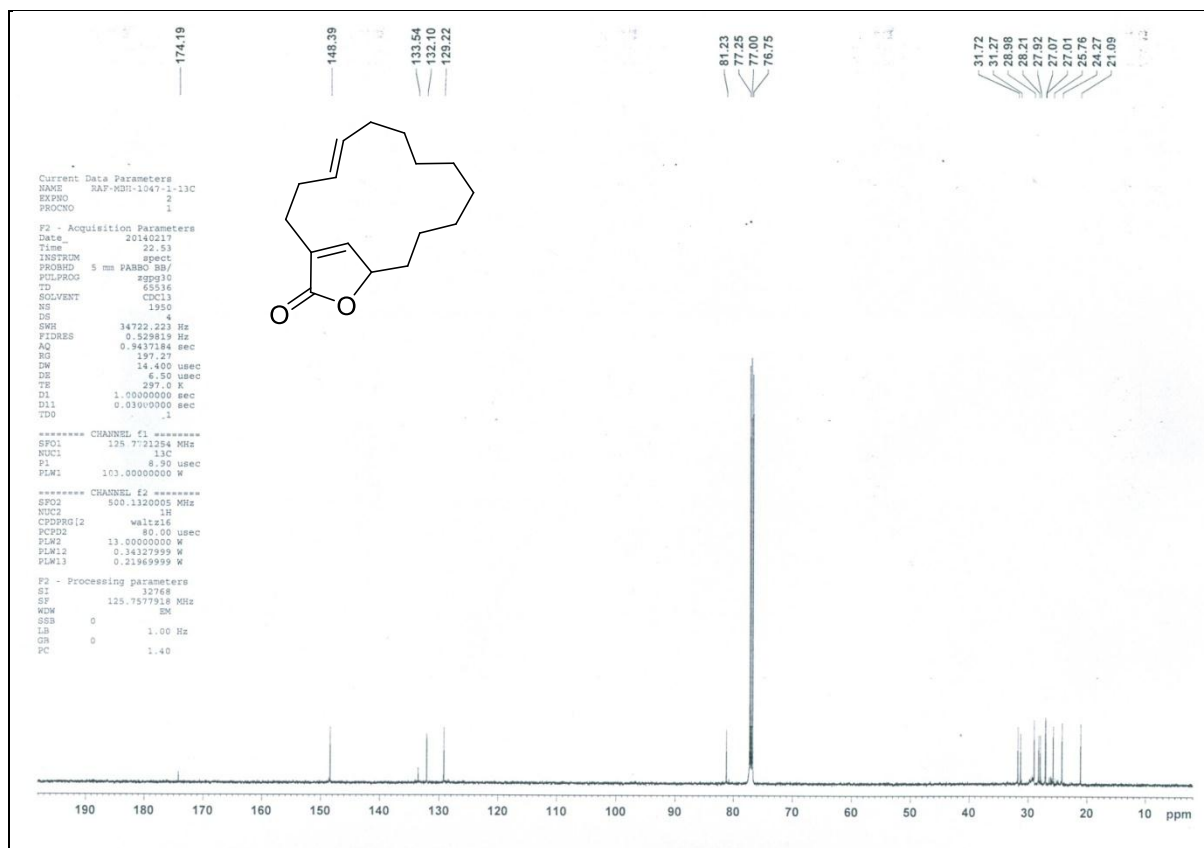
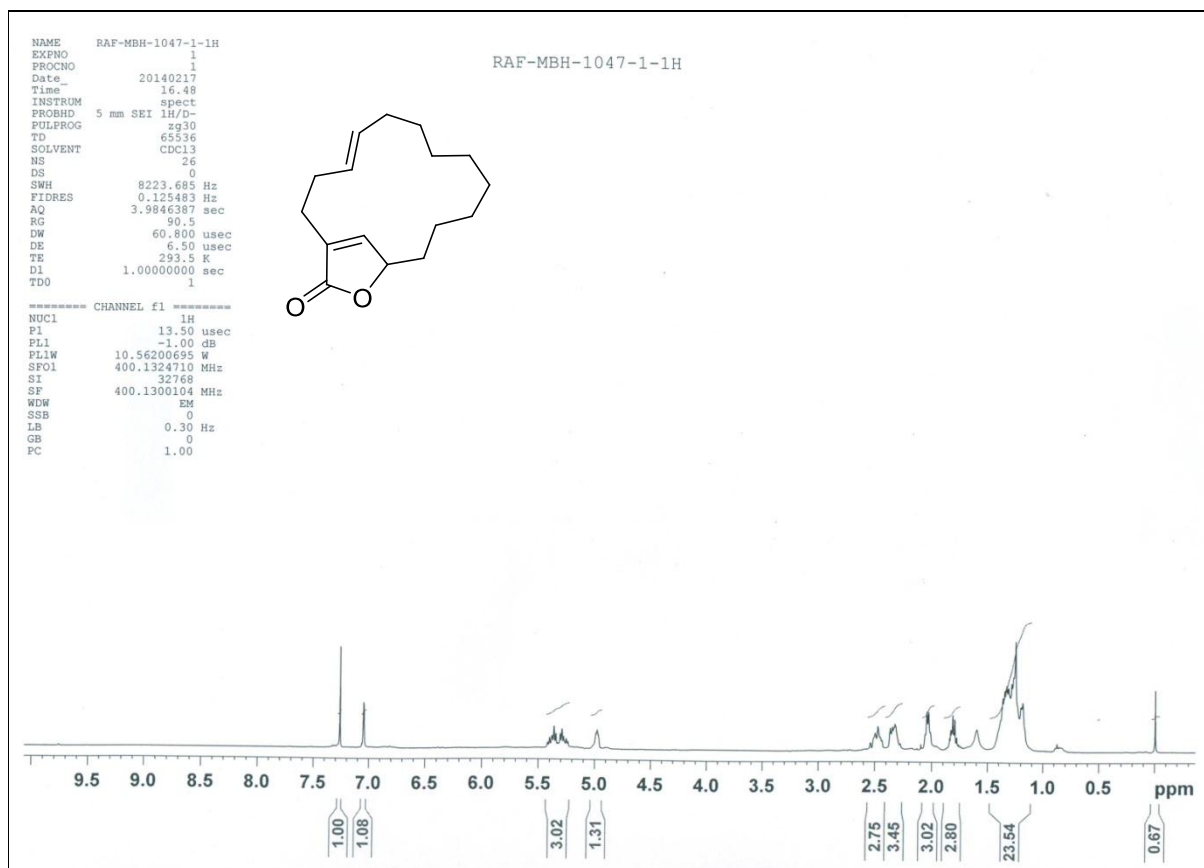
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound **1b**



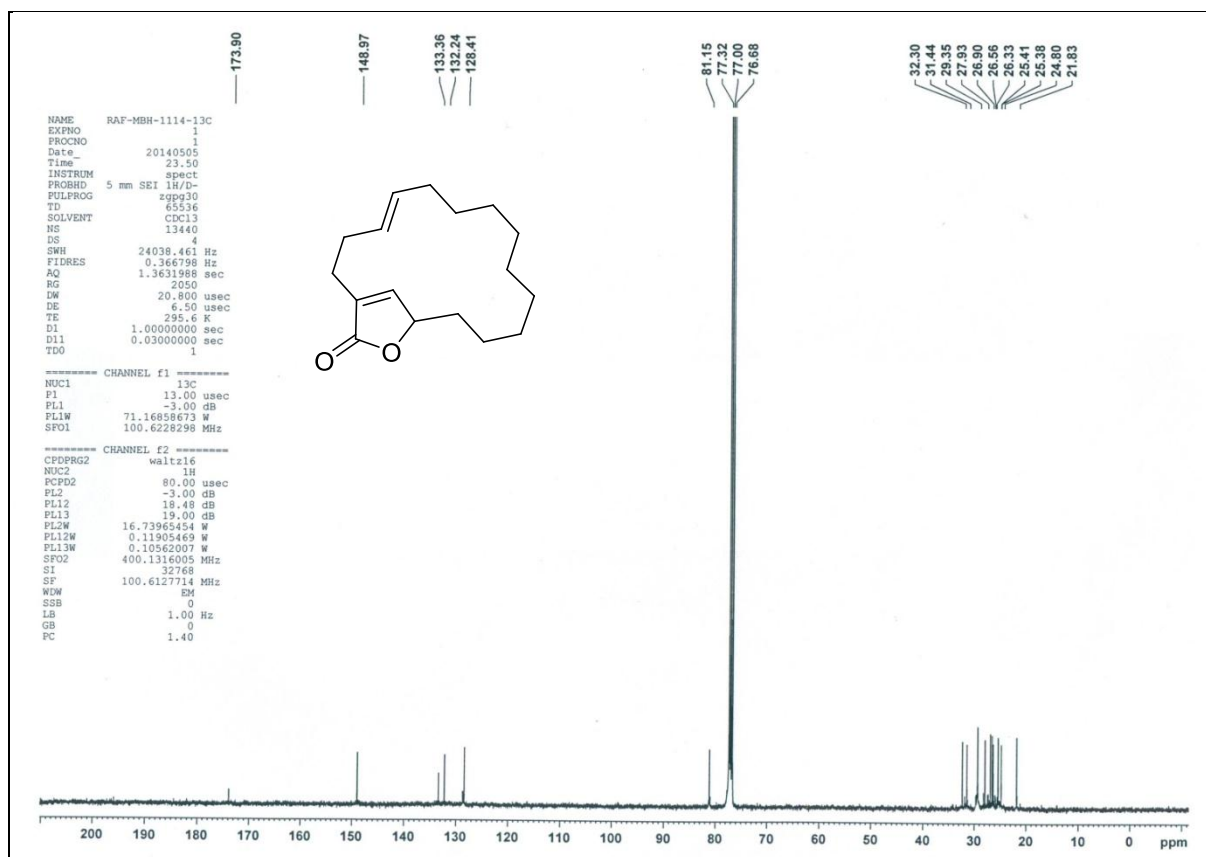
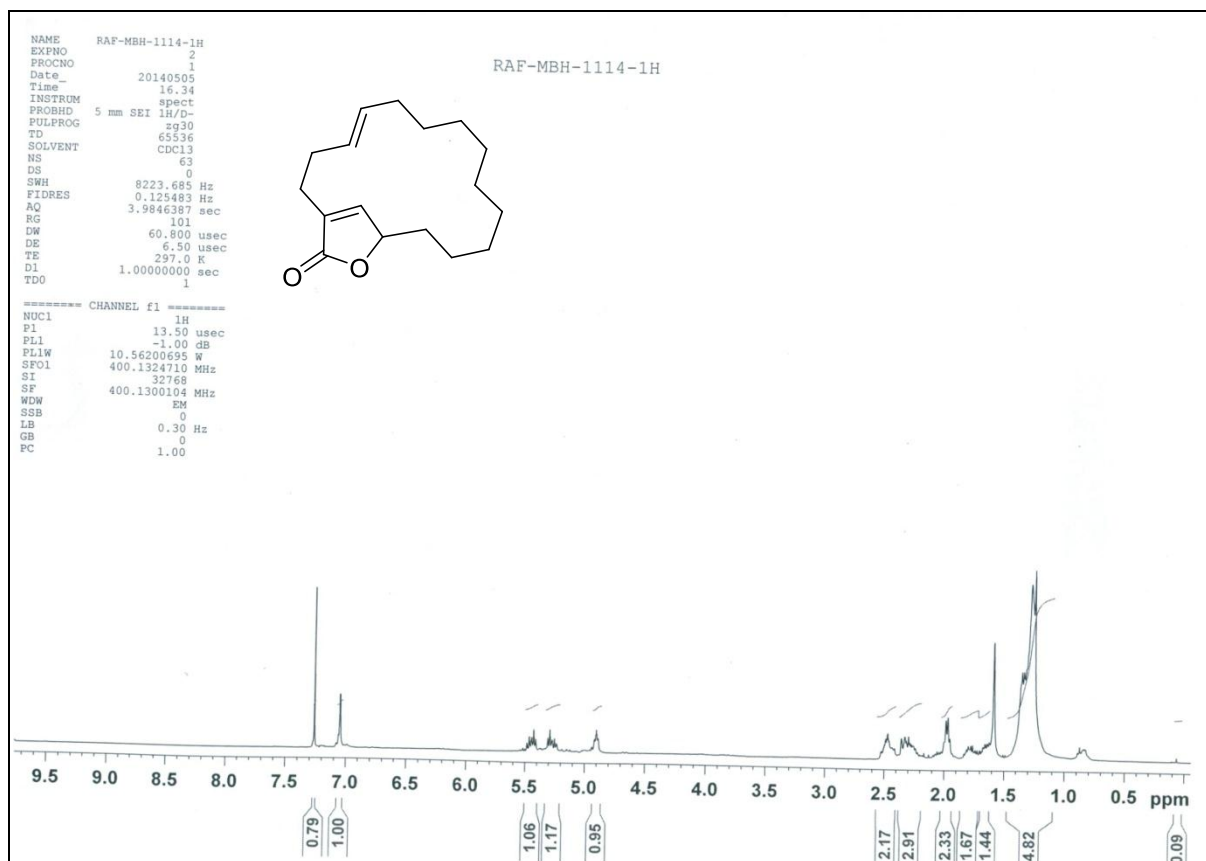
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound **1c**



<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound **1d**

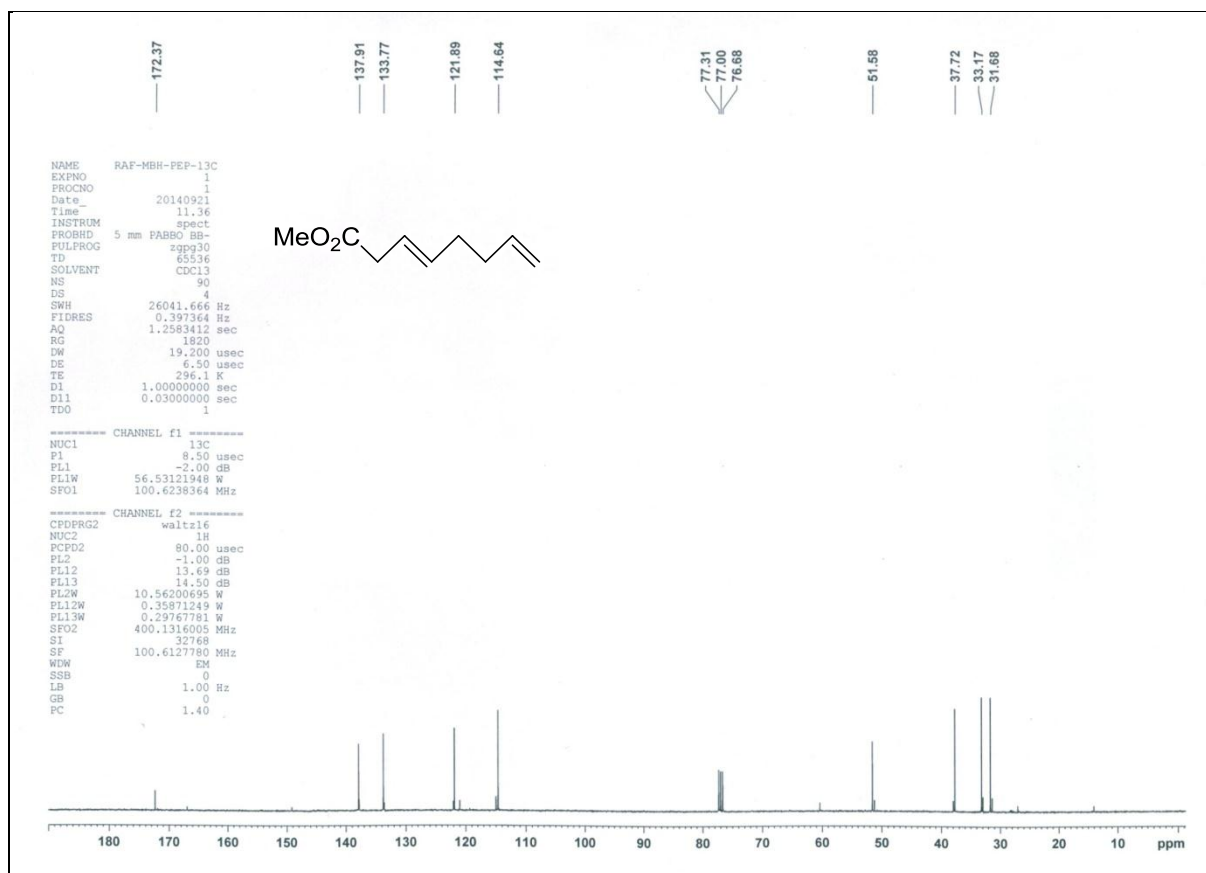
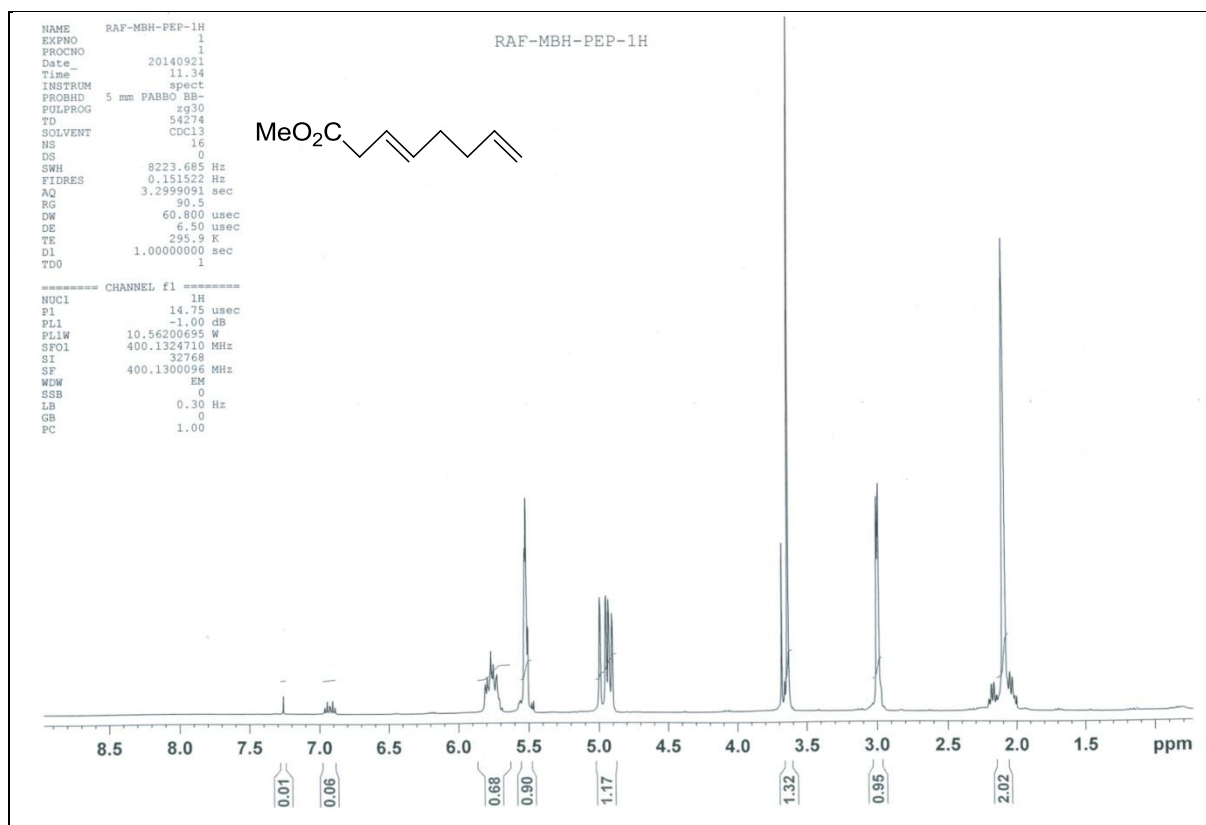


$^1\text{H}$  NMR (400 MHz,  $\text{CDCl}_3/\text{TMS}$ ) and  $^{13}\text{C}$  NMR (100 MHz,  $\text{CDCl}_3$ ) of Compound **1e**

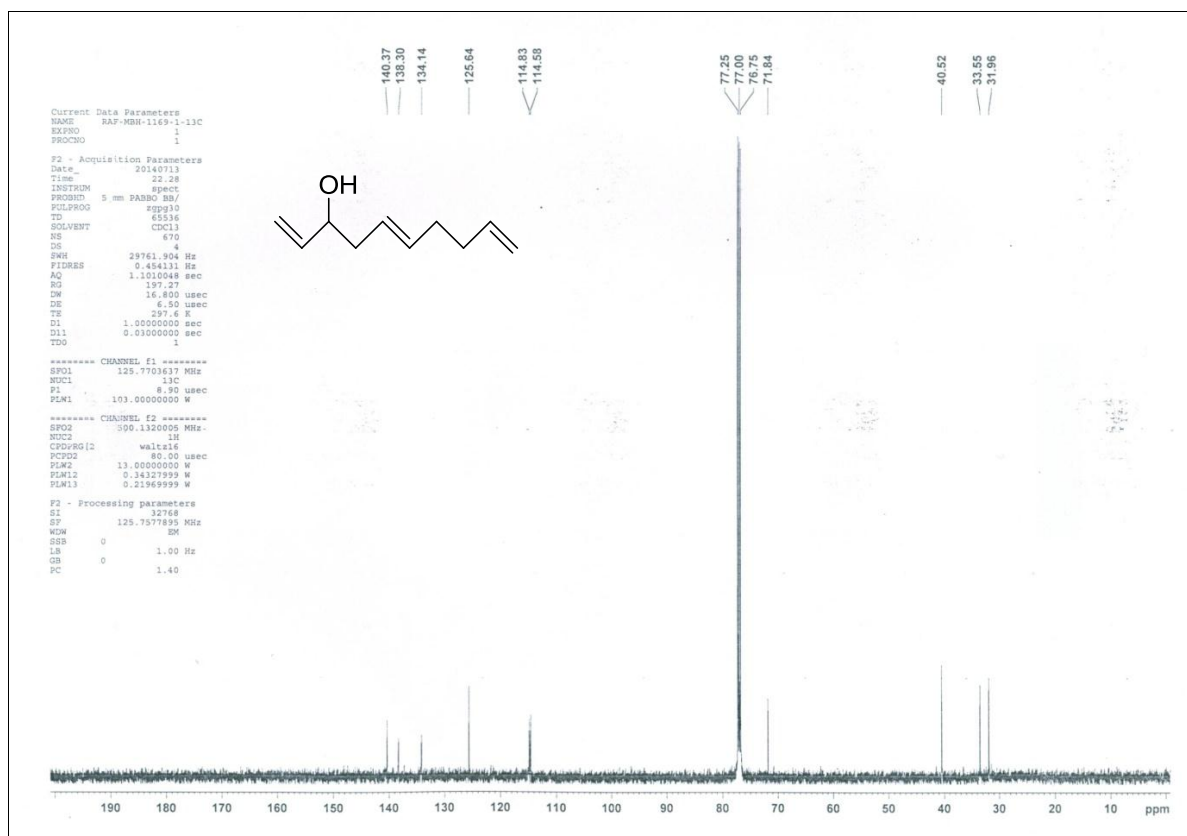
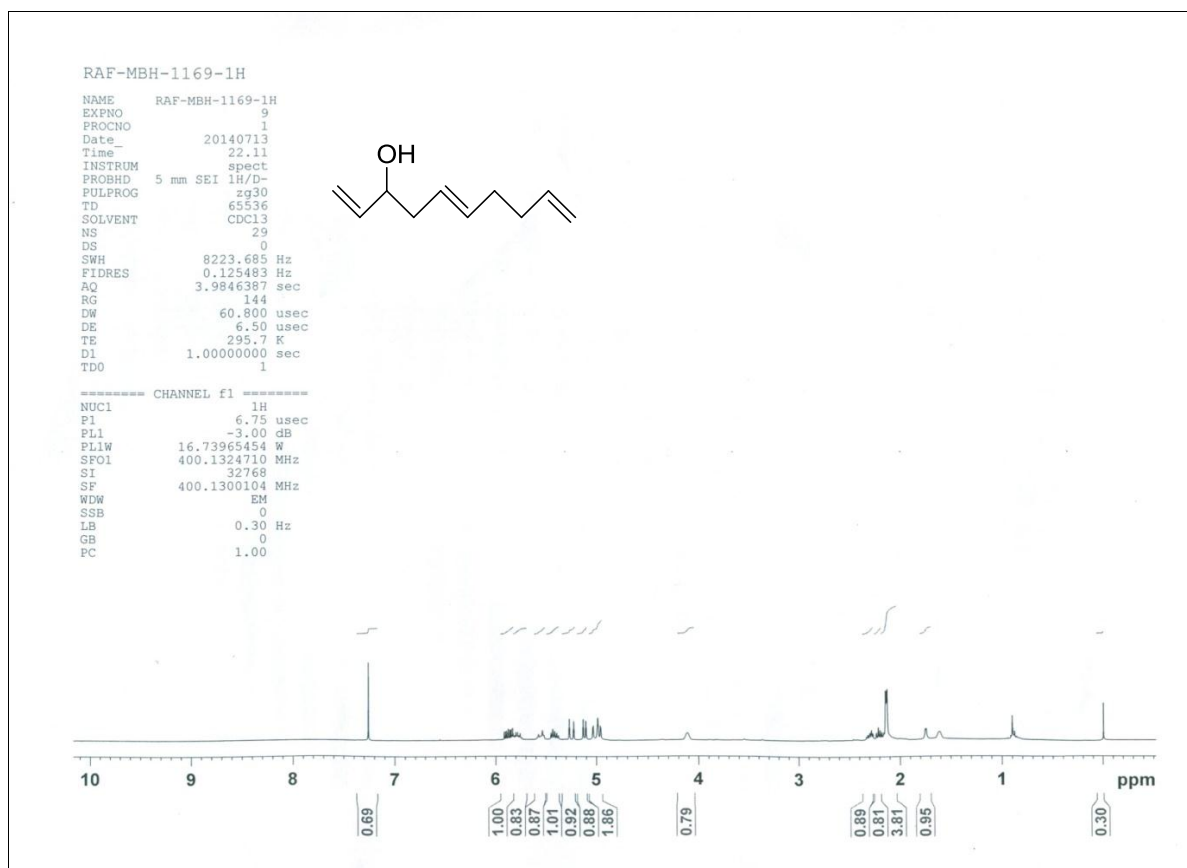




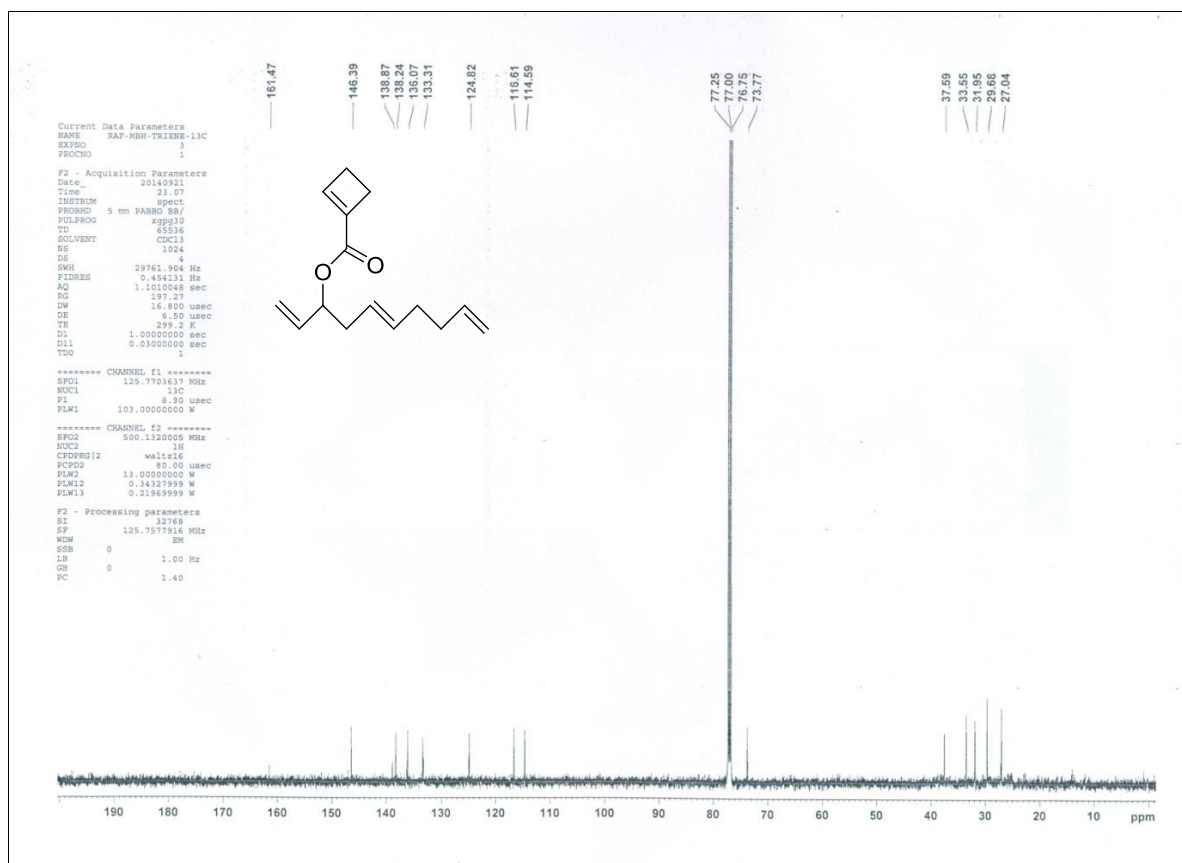
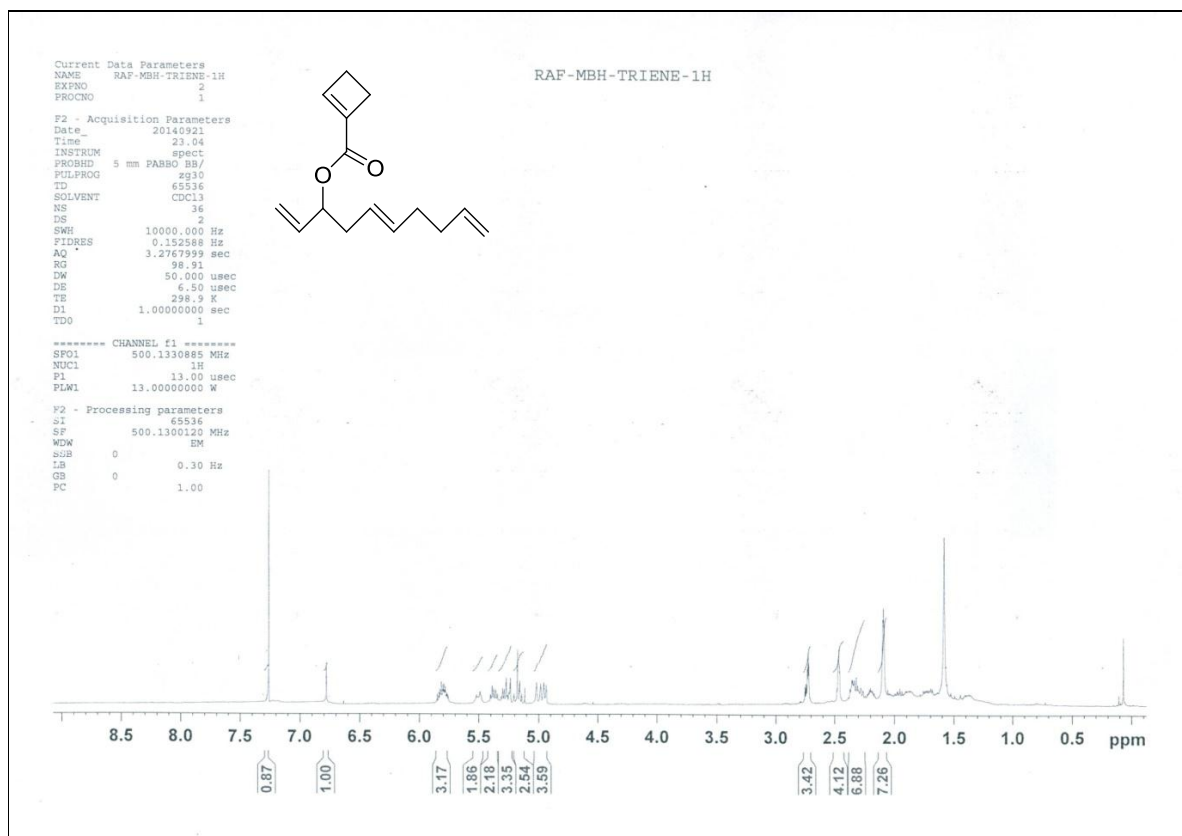
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (100 MHz, CDCl<sub>3</sub>) of Compound 13



<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound **9f**



<sup>1</sup>H NMR (500 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound **5f**



<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>/TMS) and <sup>13</sup>C NMR (125 MHz, CDCl<sub>3</sub>) of Compound 11

