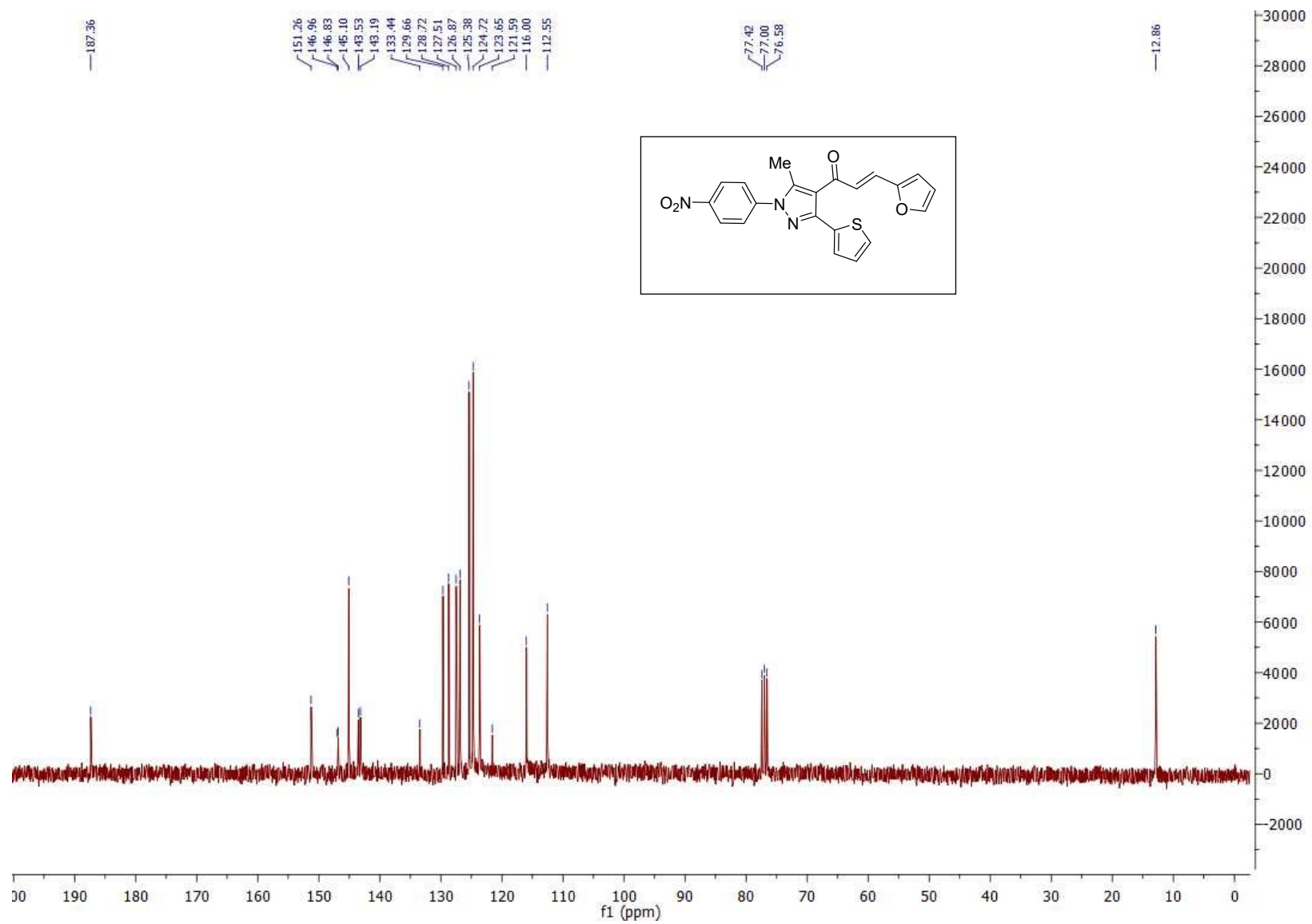
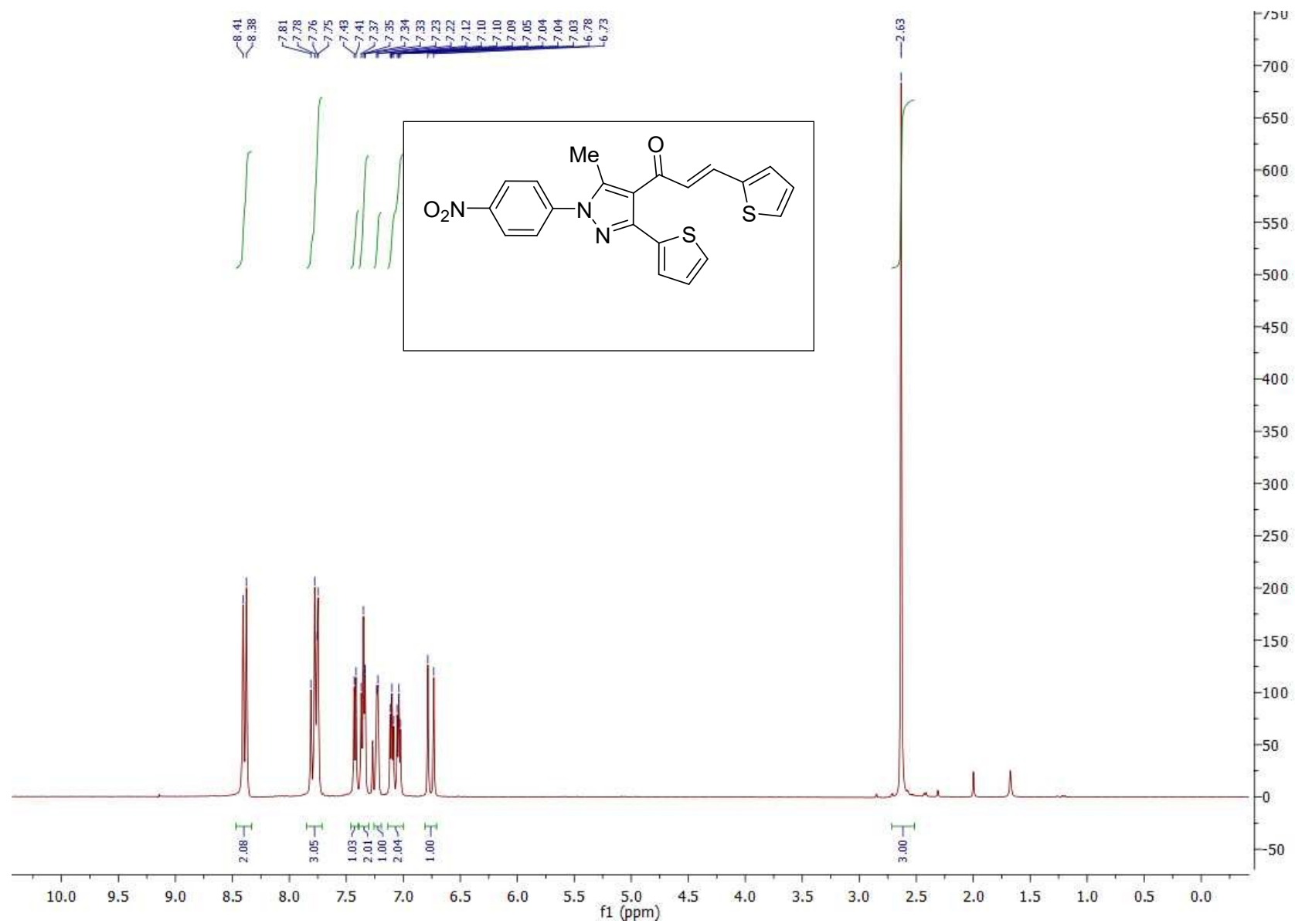


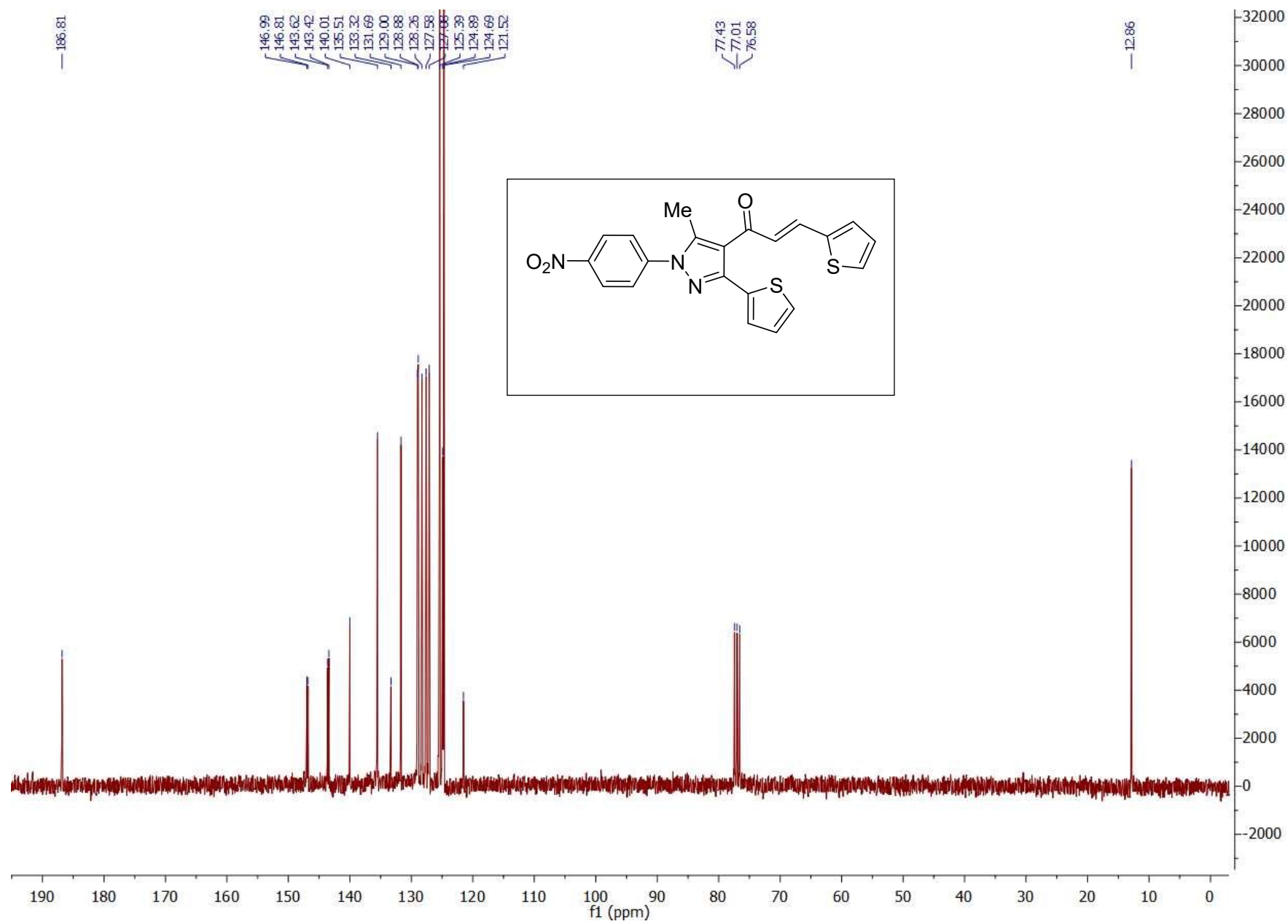
<sup>1</sup>H-NMR spectrum of 7a



<sup>13</sup>C-NMR spectrum of **7a**

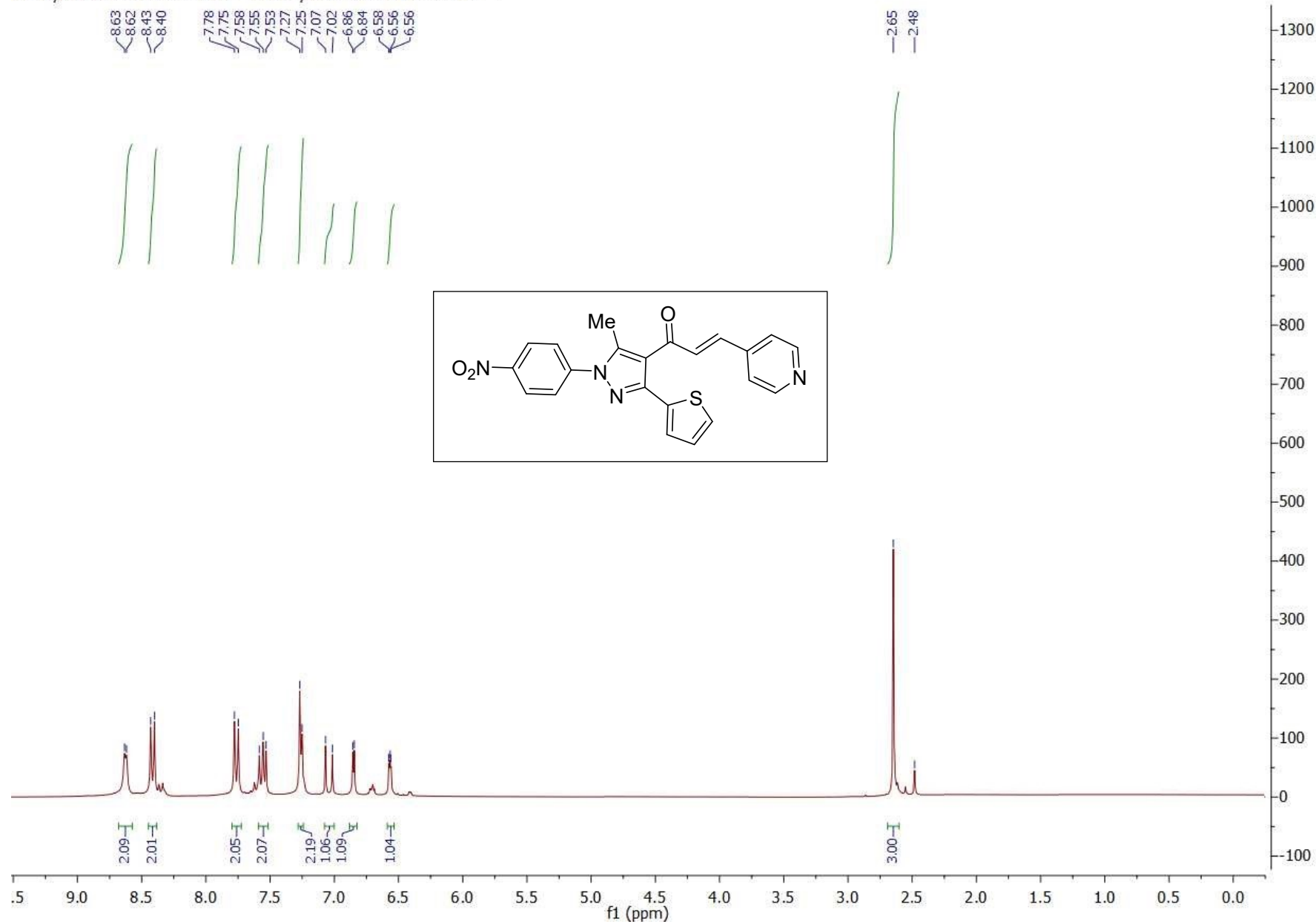


<sup>1</sup>H-NMR spectrum of **7b**



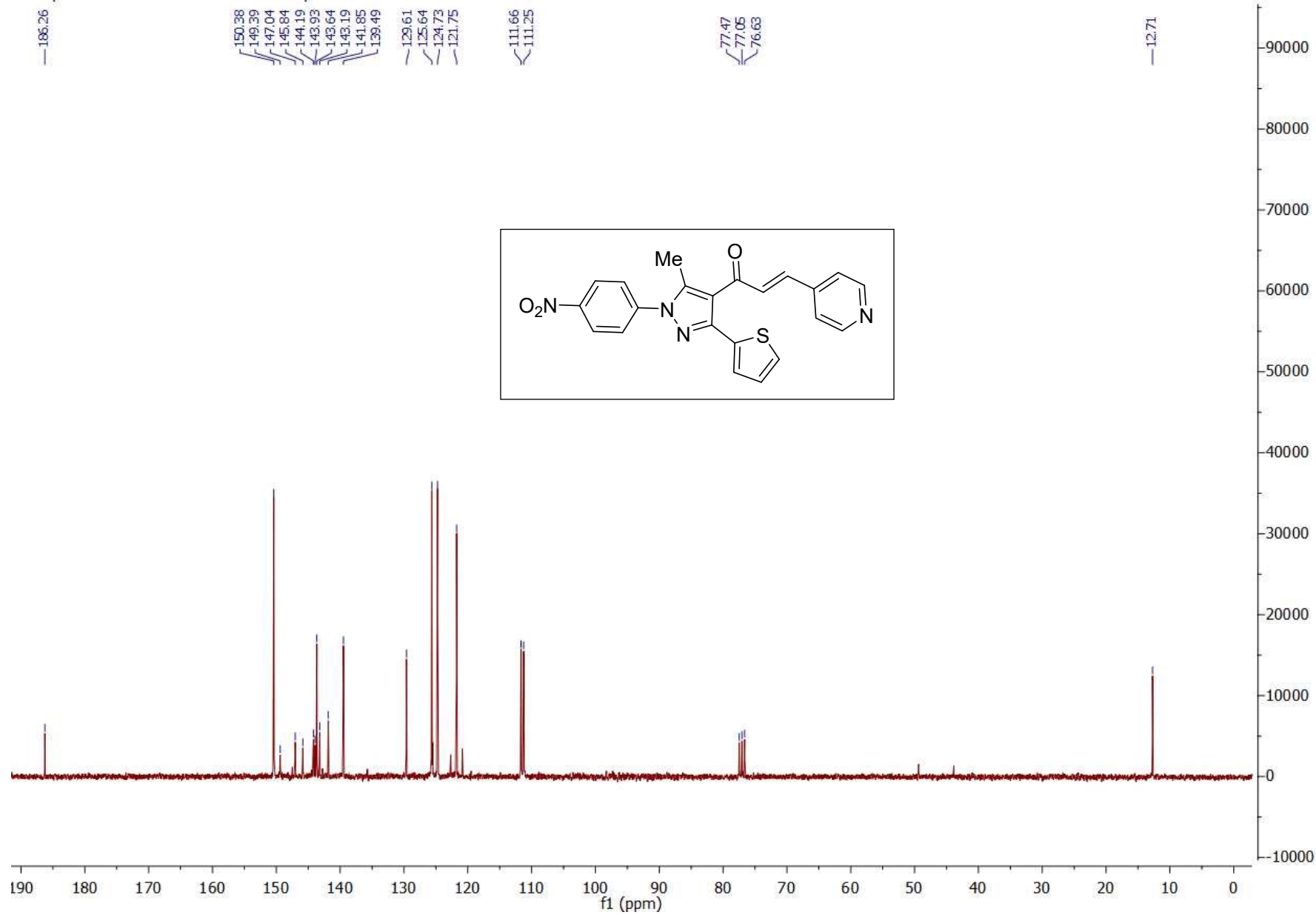
<sup>13</sup>C-NMR spectrum of **7b**

HamdyHasaneen-HI1-CDCl3-H1 — HamdyHasaneen-HI1-CDCl3-H1 —

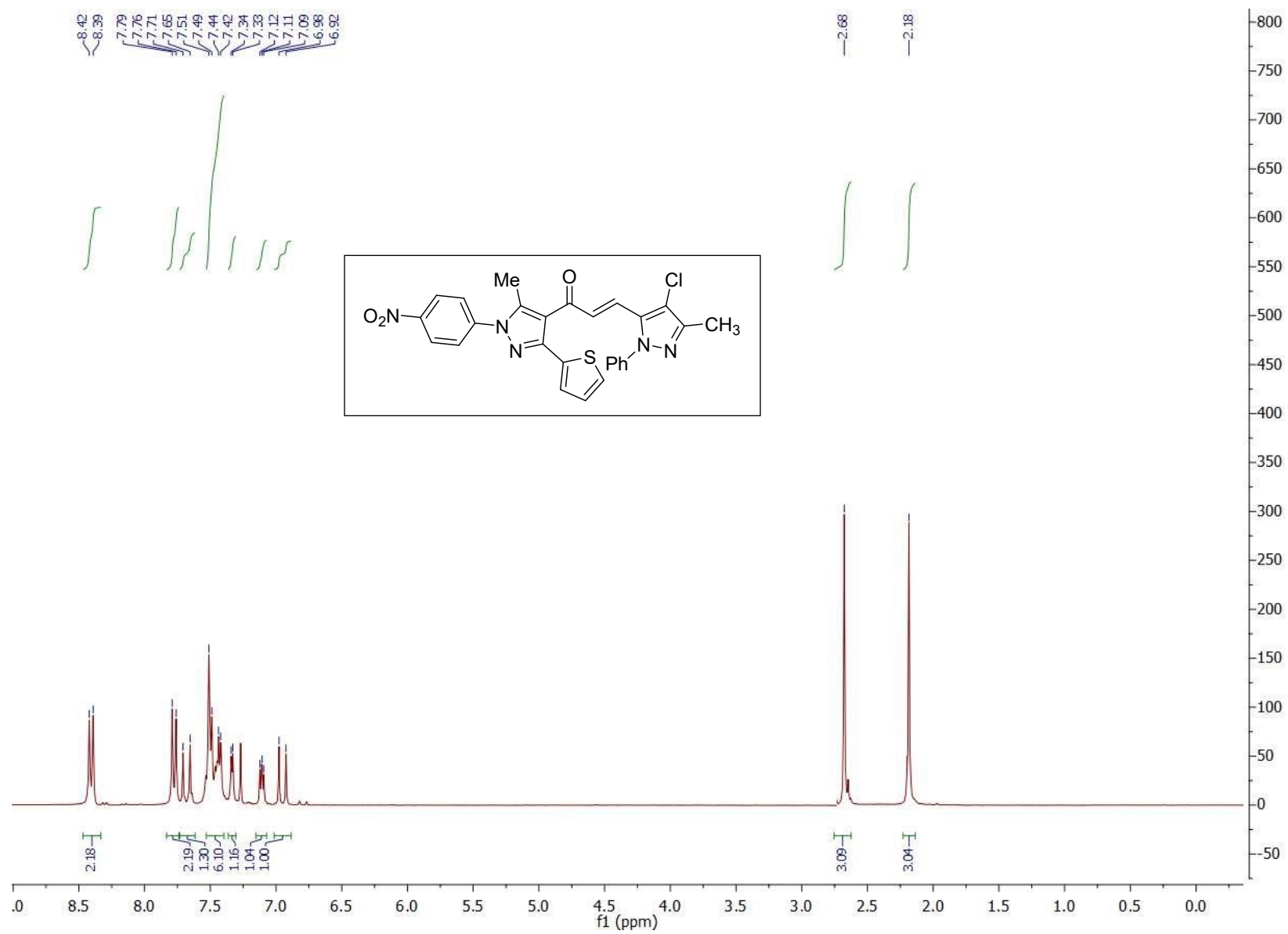


<sup>1</sup>H-NMR spectrum of **7c**

HamdyHasaneen-HI1-CDCl3-C13 — HamdyHasaneen-HI1-CDCl3-C13 —



<sup>13</sup>C-NMR spectrum of 7c



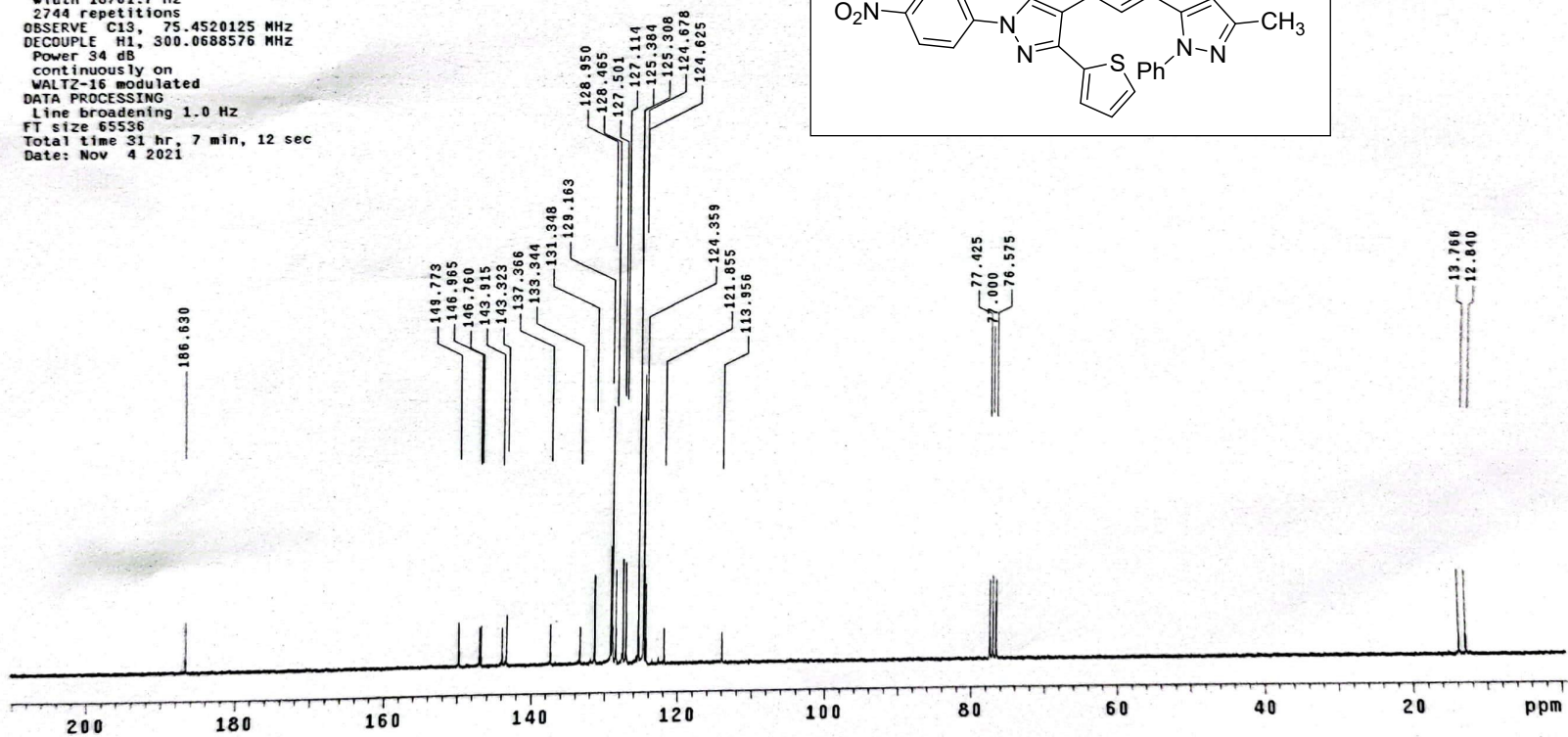
<sup>1</sup>H-NMR spectrum of **7d**

HamdyHasaneen-H22-CDC13-C13

Archive directory: /export/home/vnmr1/vnmrsys/data  
Sample directory: D05mm\_test\_12Mar2014-21:34:40  
File: PROTON

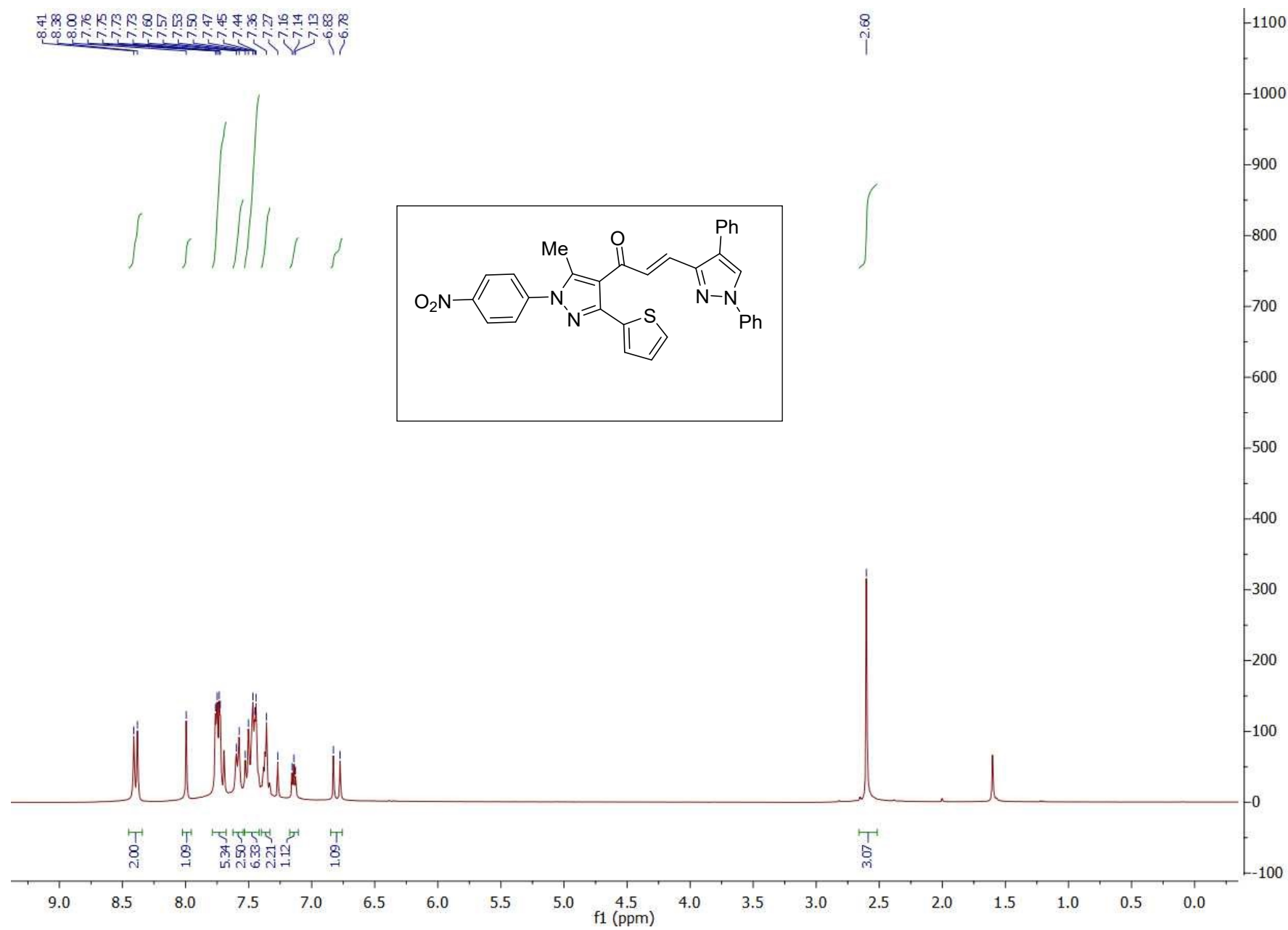
Pulse Sequence: s2pu1  
Solvent: CDC13  
Ambient temperature  
Mercury-300BB "NMR300"

Pulse 45.0 degrees  
Acq. time 1.707 sec  
Width 18761.7 Hz  
2744 repetitions  
OBSERVE C13, 75.4520125 MHz  
DECOUPLE H1, 300.0688576 MHz  
Power 34 dB  
continuously on  
WALTZ-16 modulated  
DATA PROCESSING  
Line broadening 1.0 Hz  
FT size 65536  
Total time 31 hr, 7 min, 12 sec  
Date: Nov 4 2021

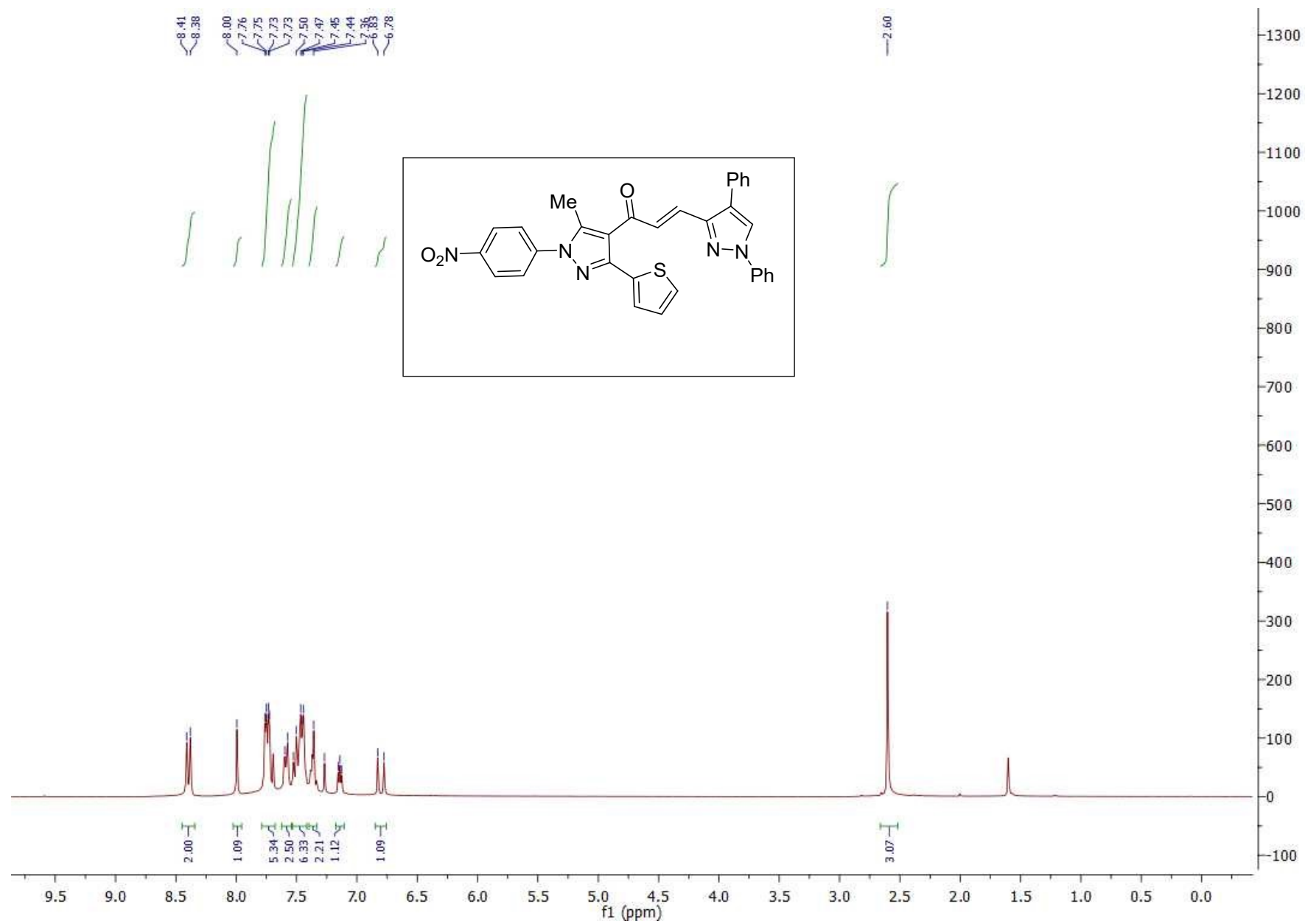


<sup>13</sup>C-NMR spectrum of 7d

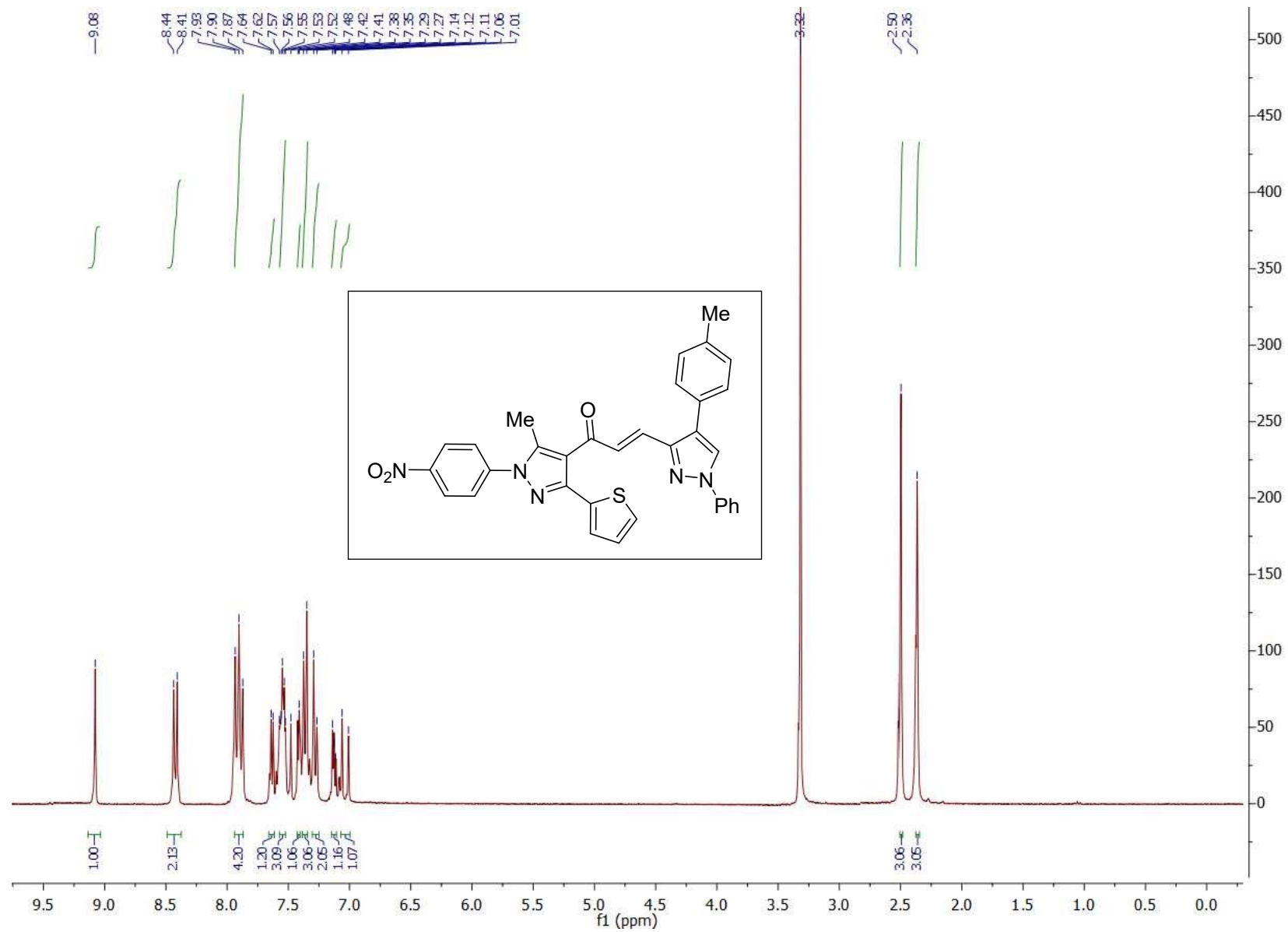




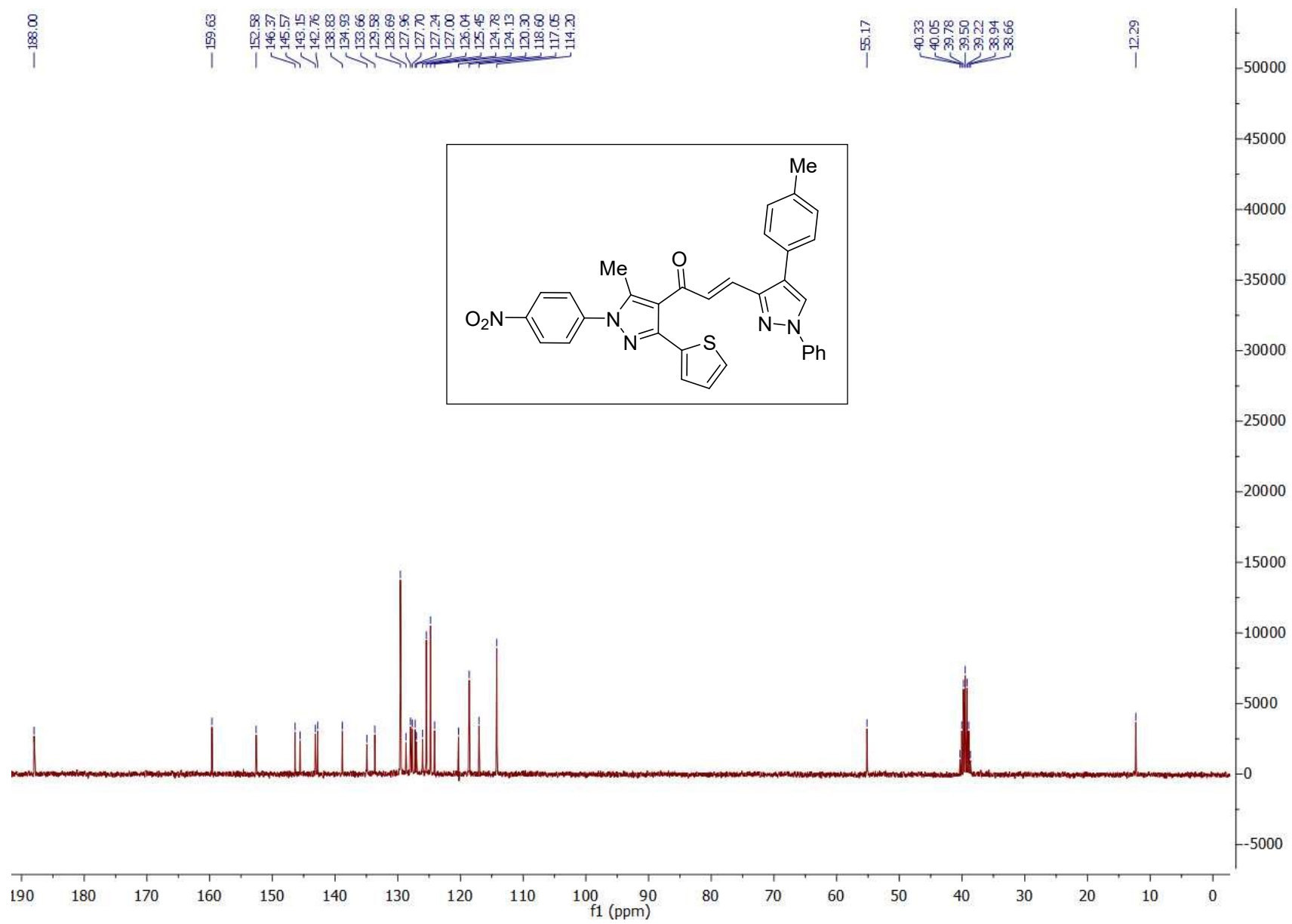
<sup>1</sup>H-NMR spectrum of 9a



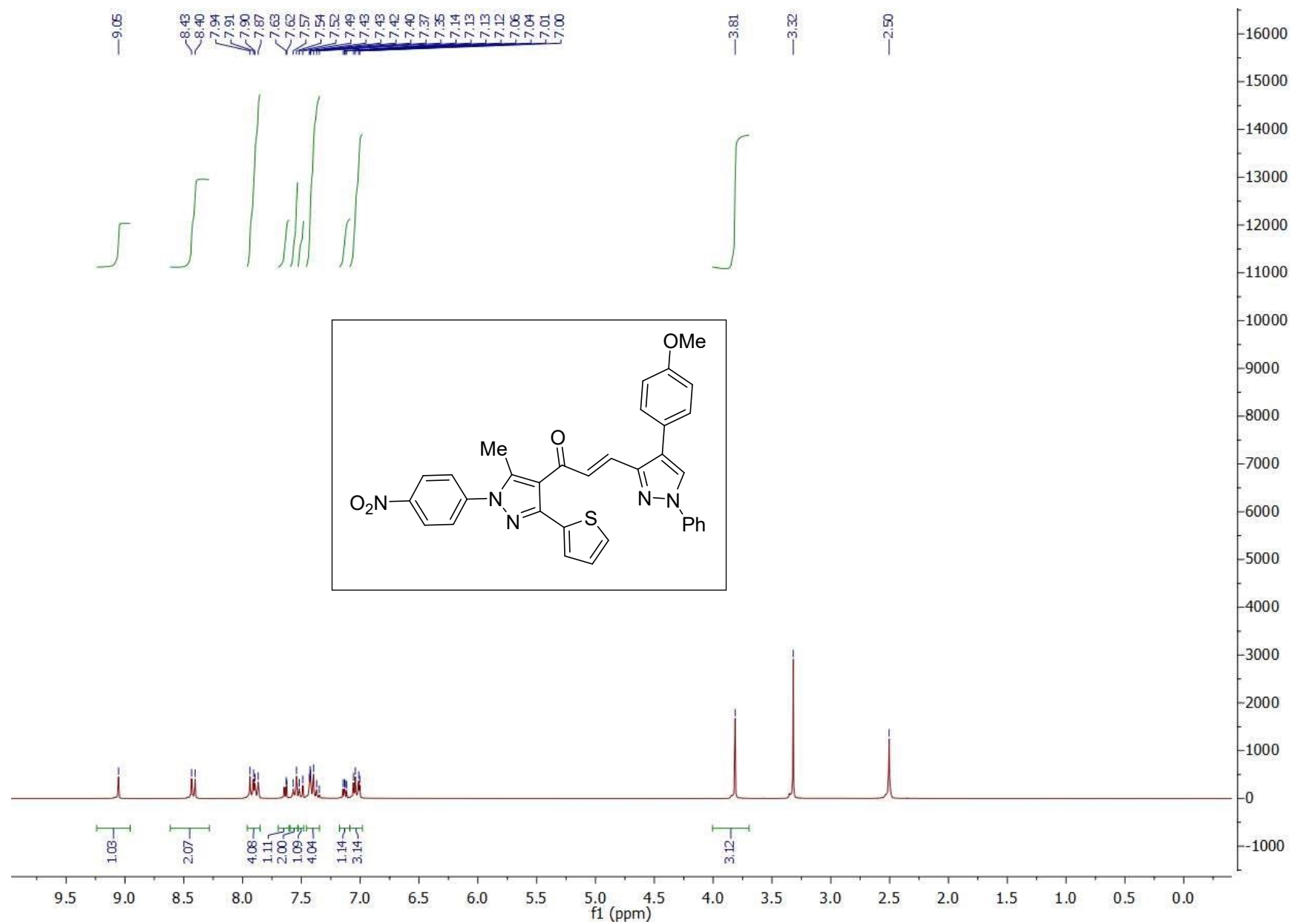
<sup>13</sup>C-NMR spectrum of **9a**



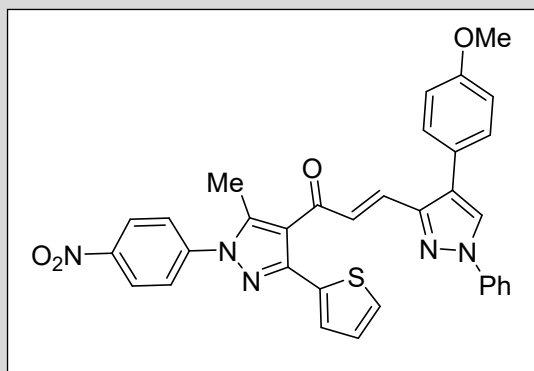
<sup>1</sup>H-NMR spectrum of **9b**



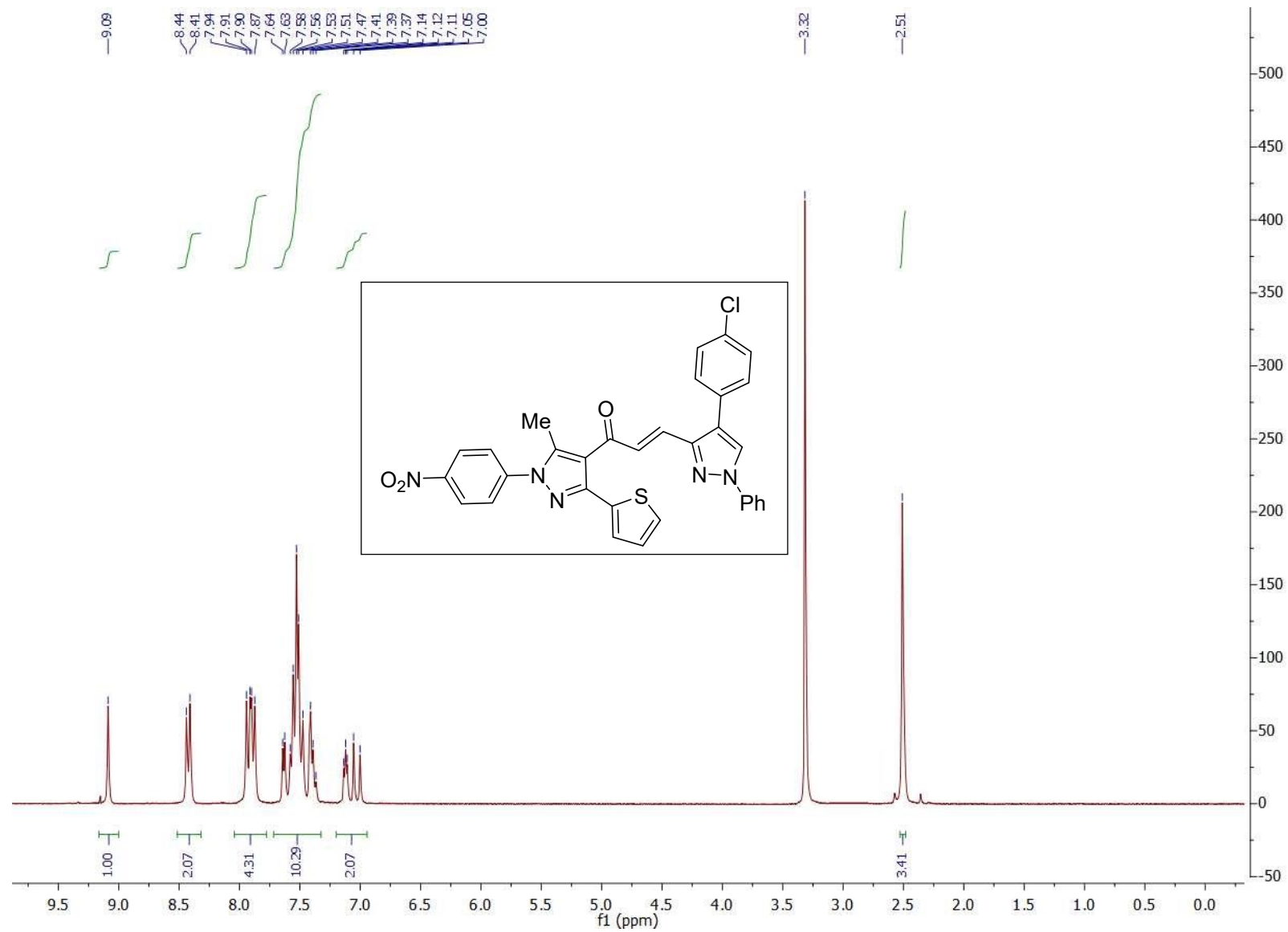
<sup>13</sup>C-NMR spectrum of **9b**



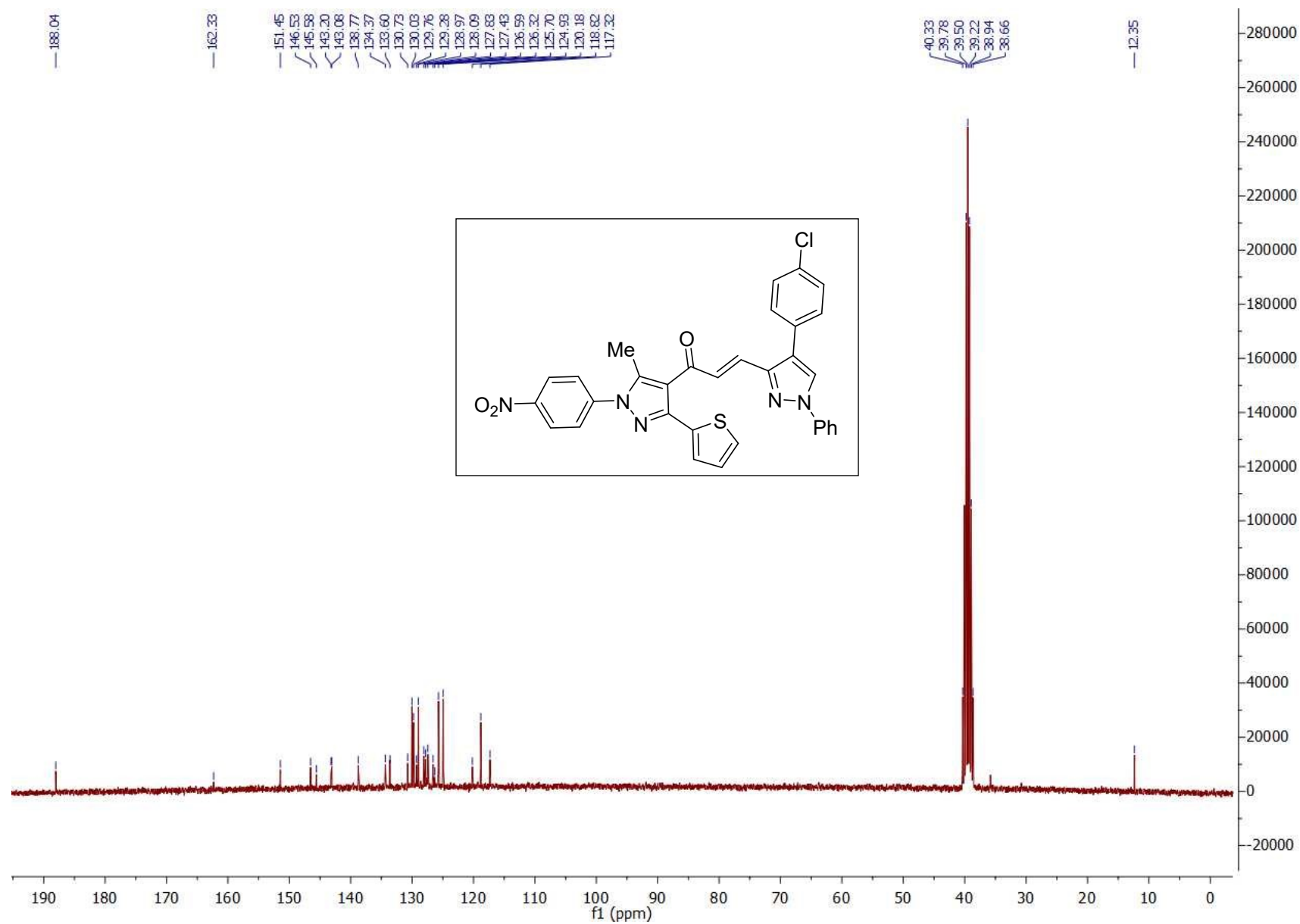
<sup>1</sup>H-NMR spectrum of **9c**



<sup>13</sup>C-NMR spectrum of 9c

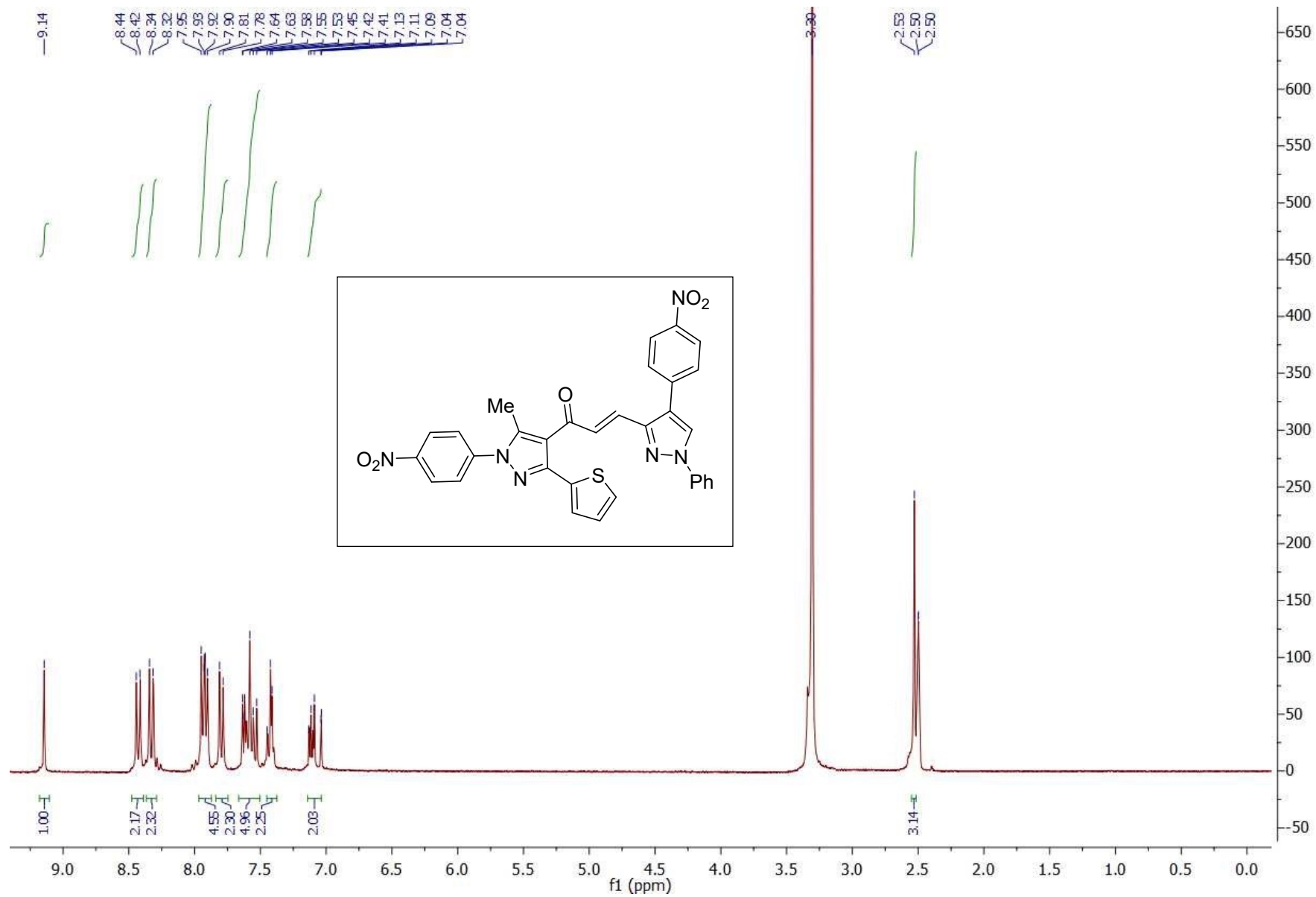


<sup>1</sup>H-NMR spectrum of 9d

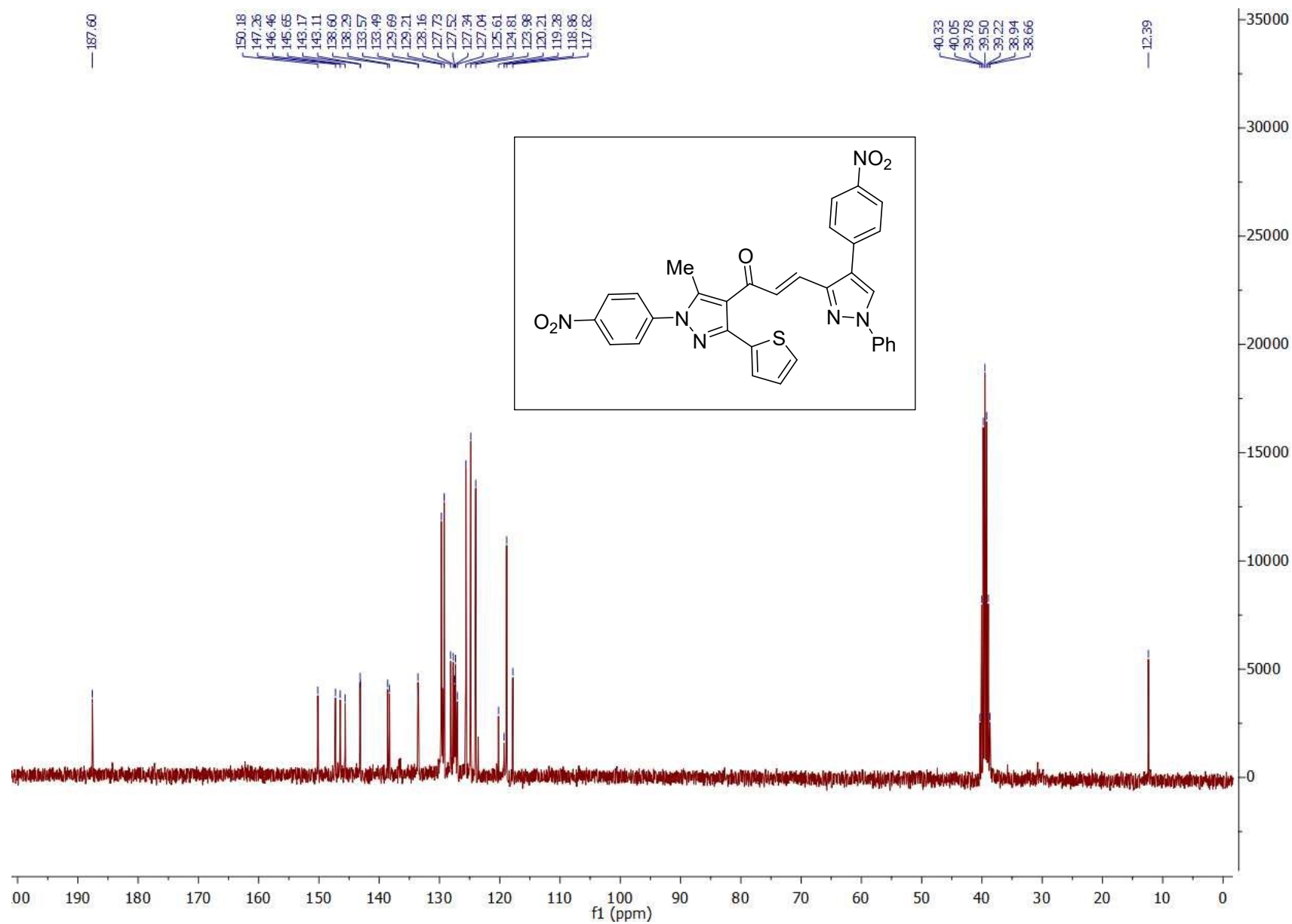


<sup>13</sup>C-NMR spectrum of **9d**

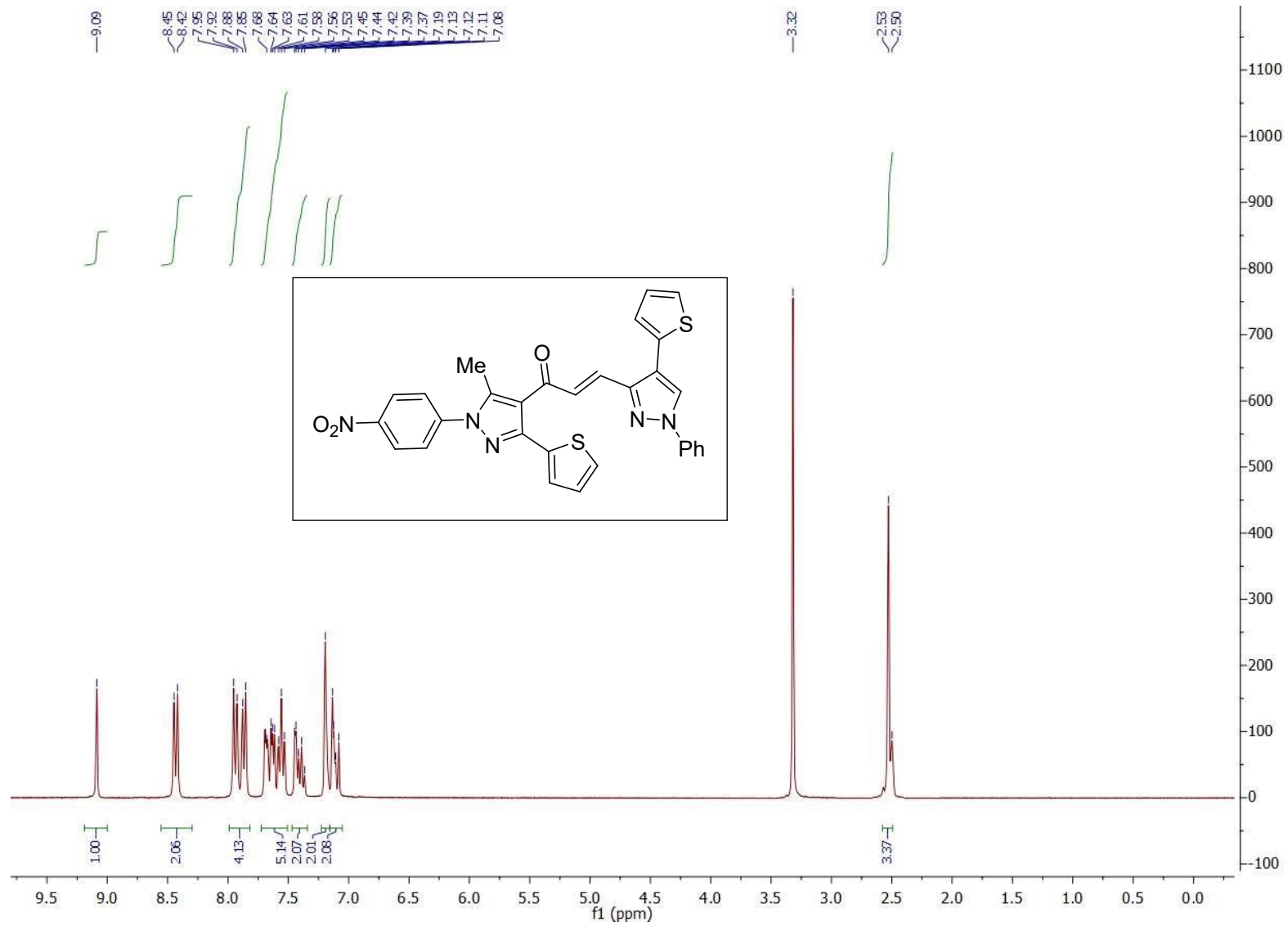




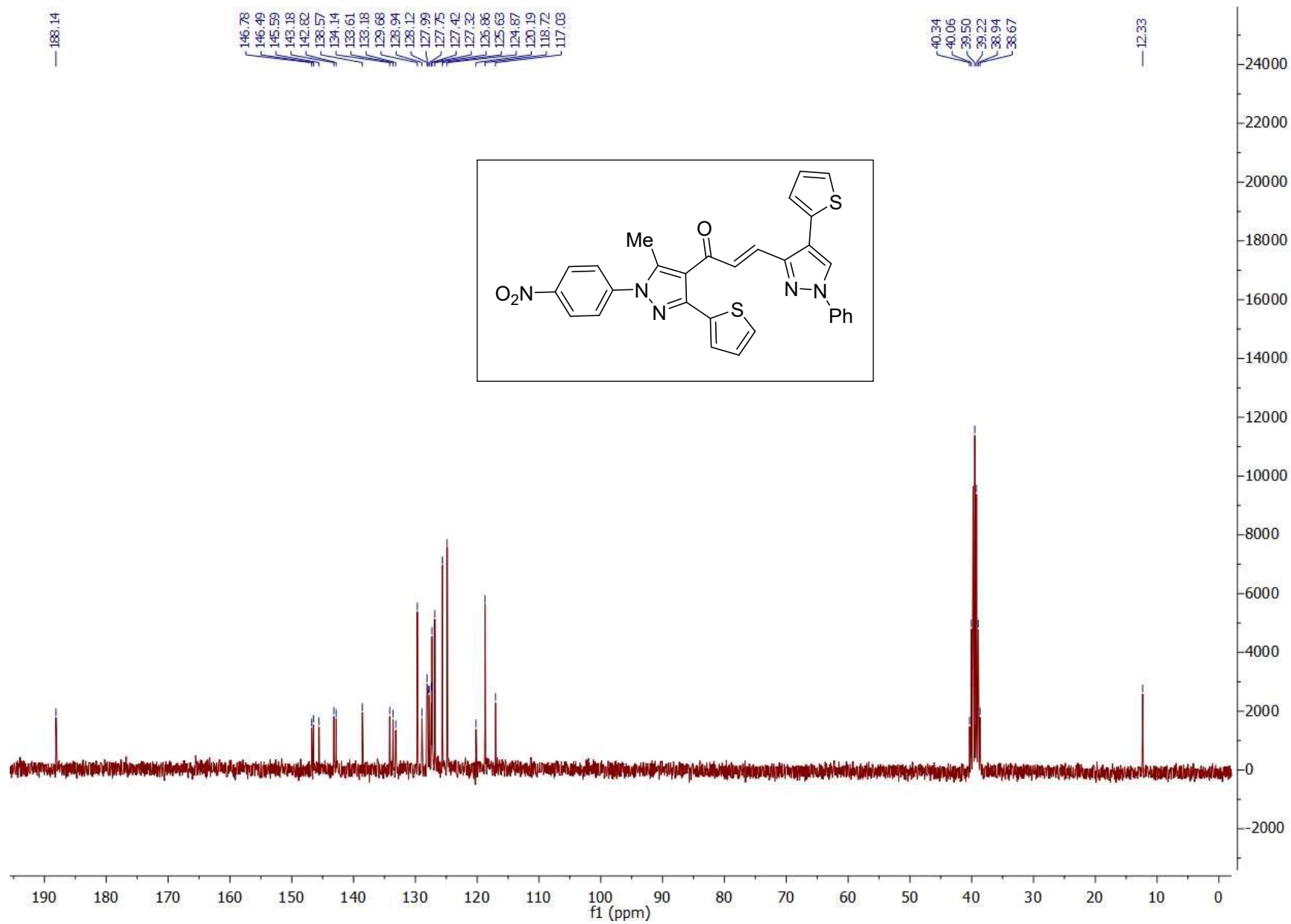
<sup>1</sup>H-NMR spectrum of **9e**



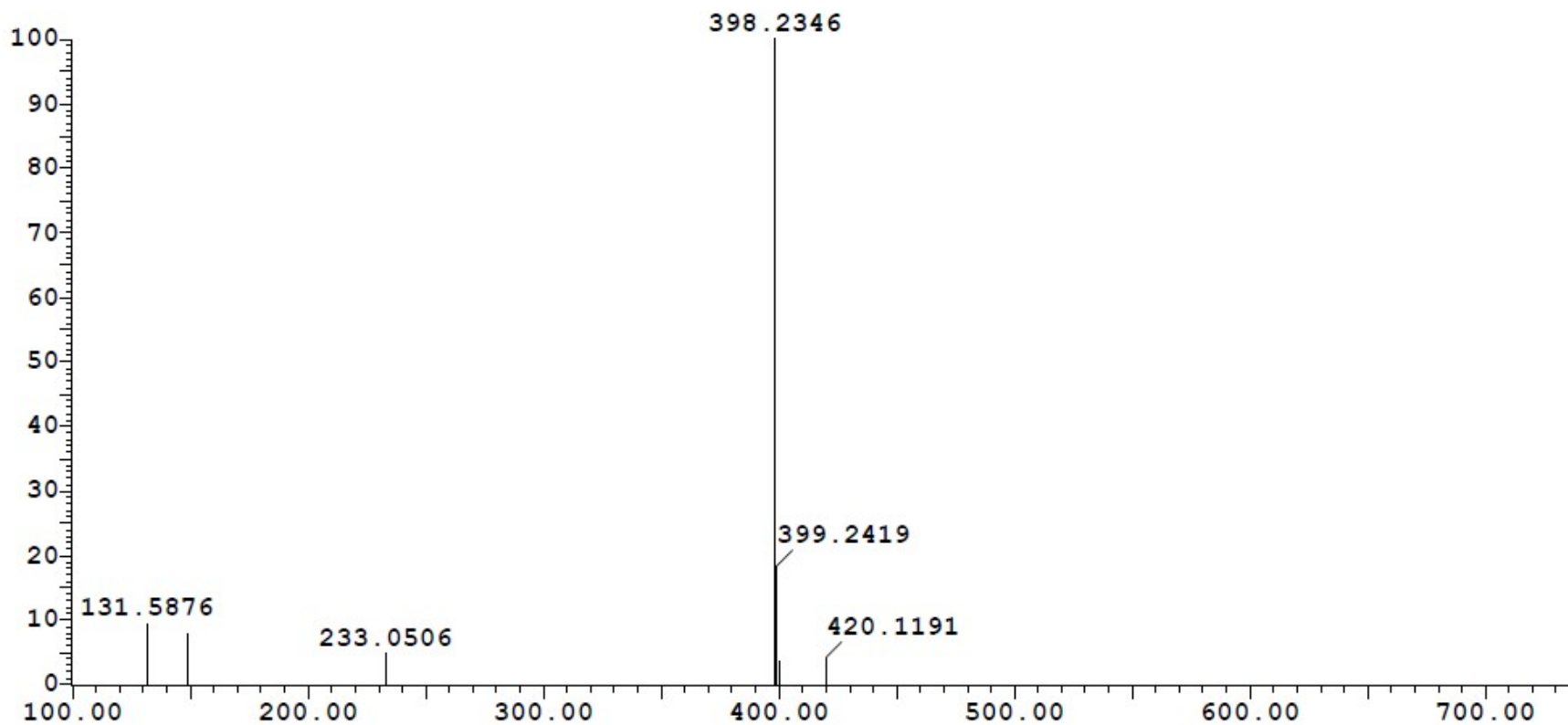
<sup>13</sup>C-NMR spectrum of **9e**



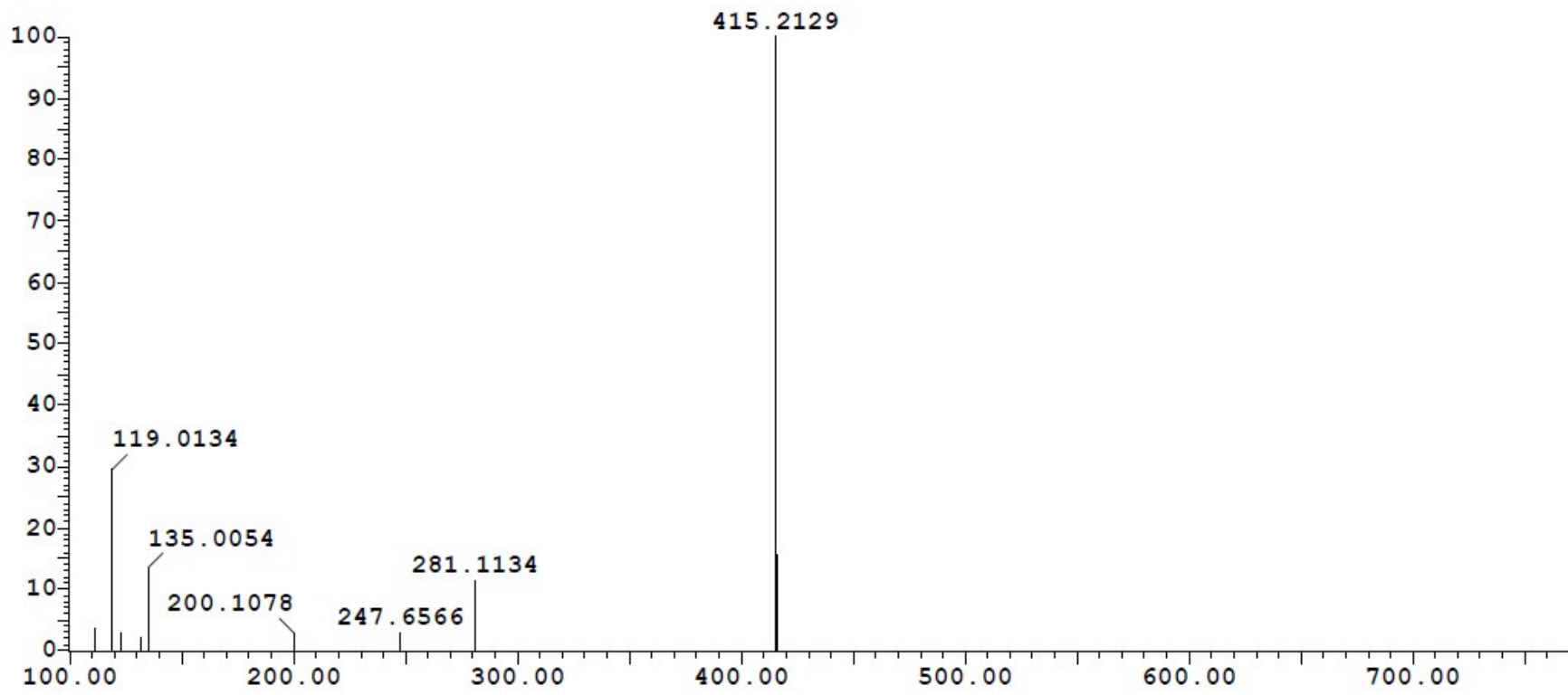
$^1\text{H-NMR}$  spectrum of **9f**



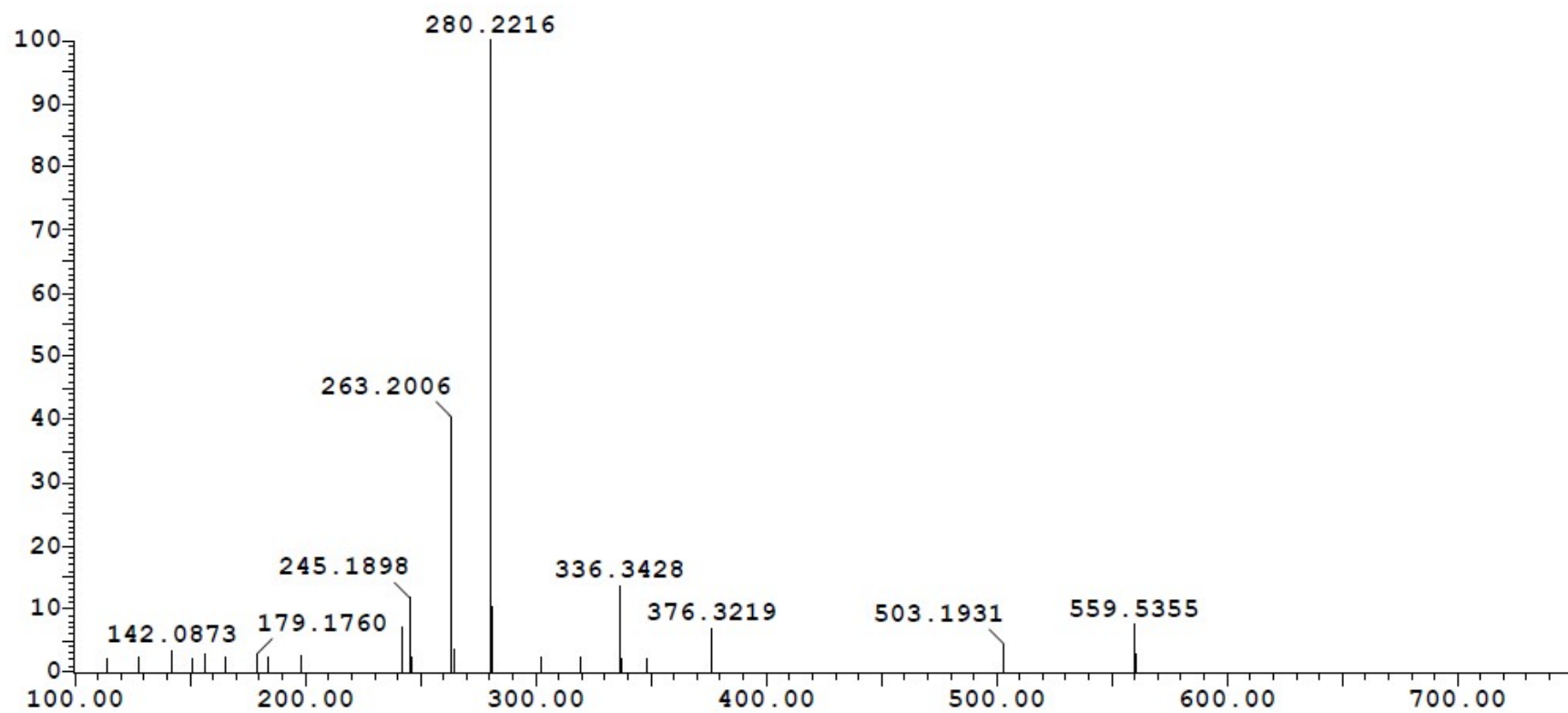
<sup>13</sup>C-NMR spectrum of **9f**



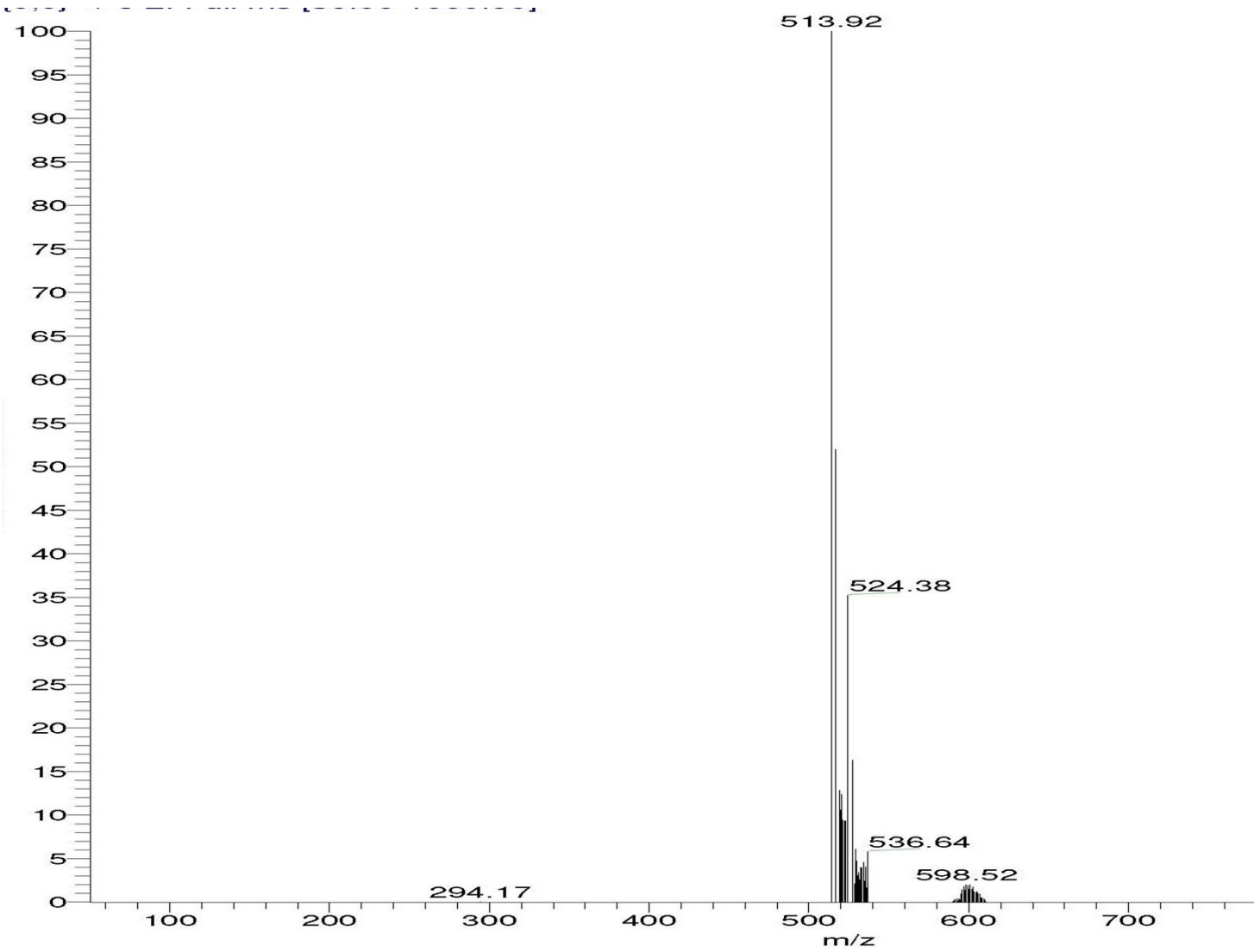
Mass spectrometry of **7b**



Mass spectrometry of **7c**

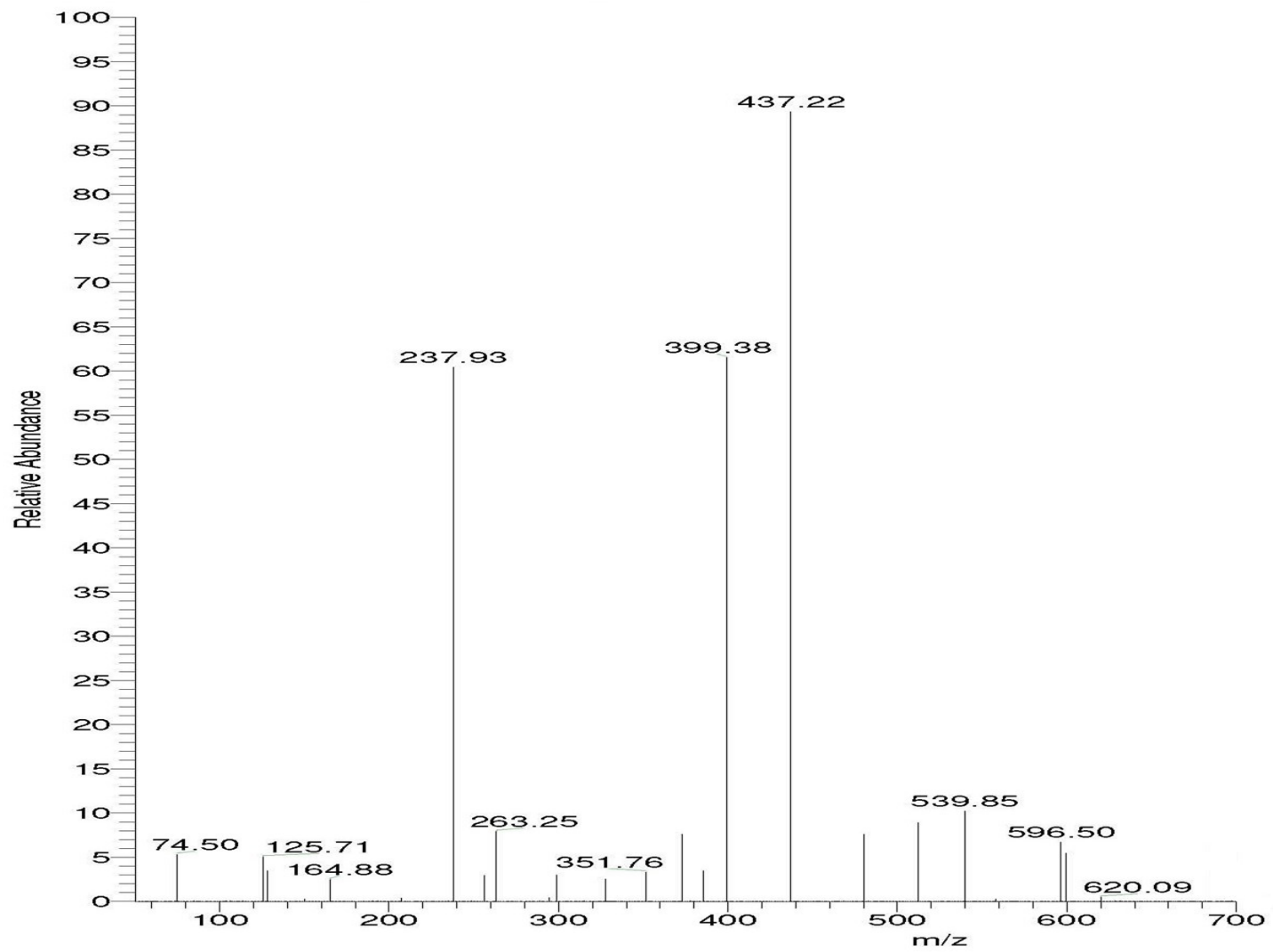


Mass spectrometry of **9a**

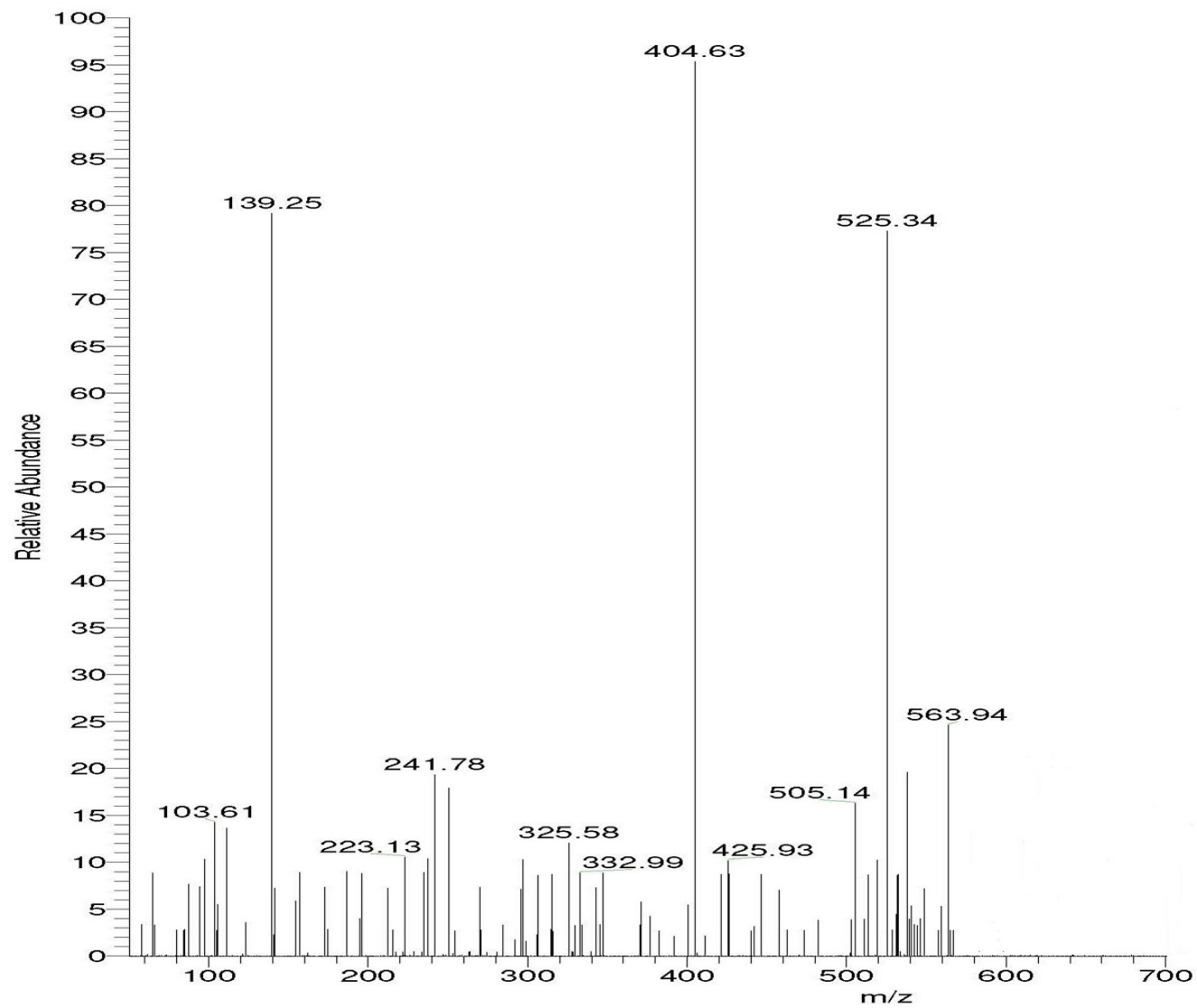


Mass spectrometry of **9d**





Mass spectrometry of **9e**



Mass spectrometry of **9f**