

# **SUPPLEMENTARY MATERIAL**

*for*

## **Design, synthesis and antitumor evaluation of novel pyrazolopyrimidines and pyrazoloquinazolines**

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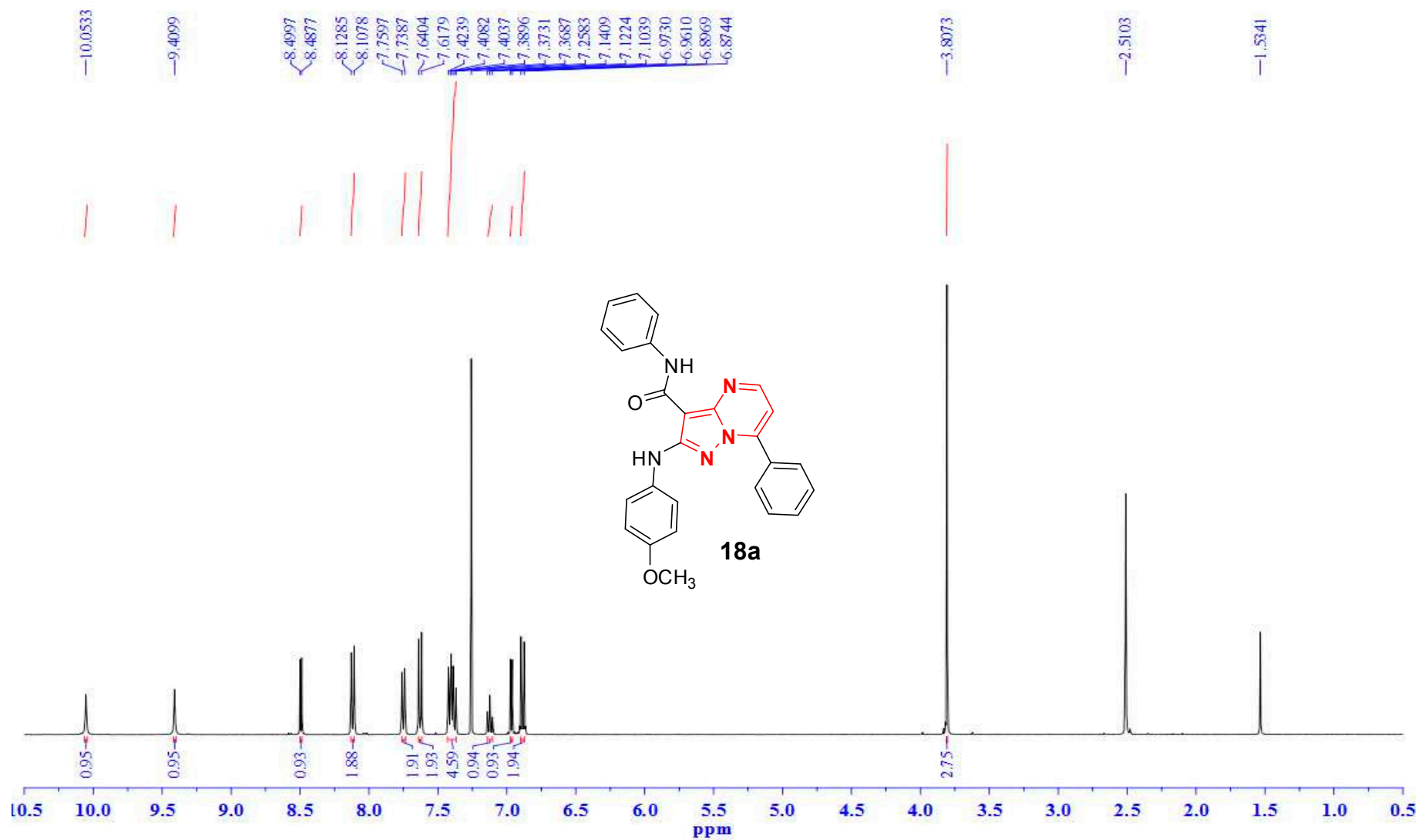
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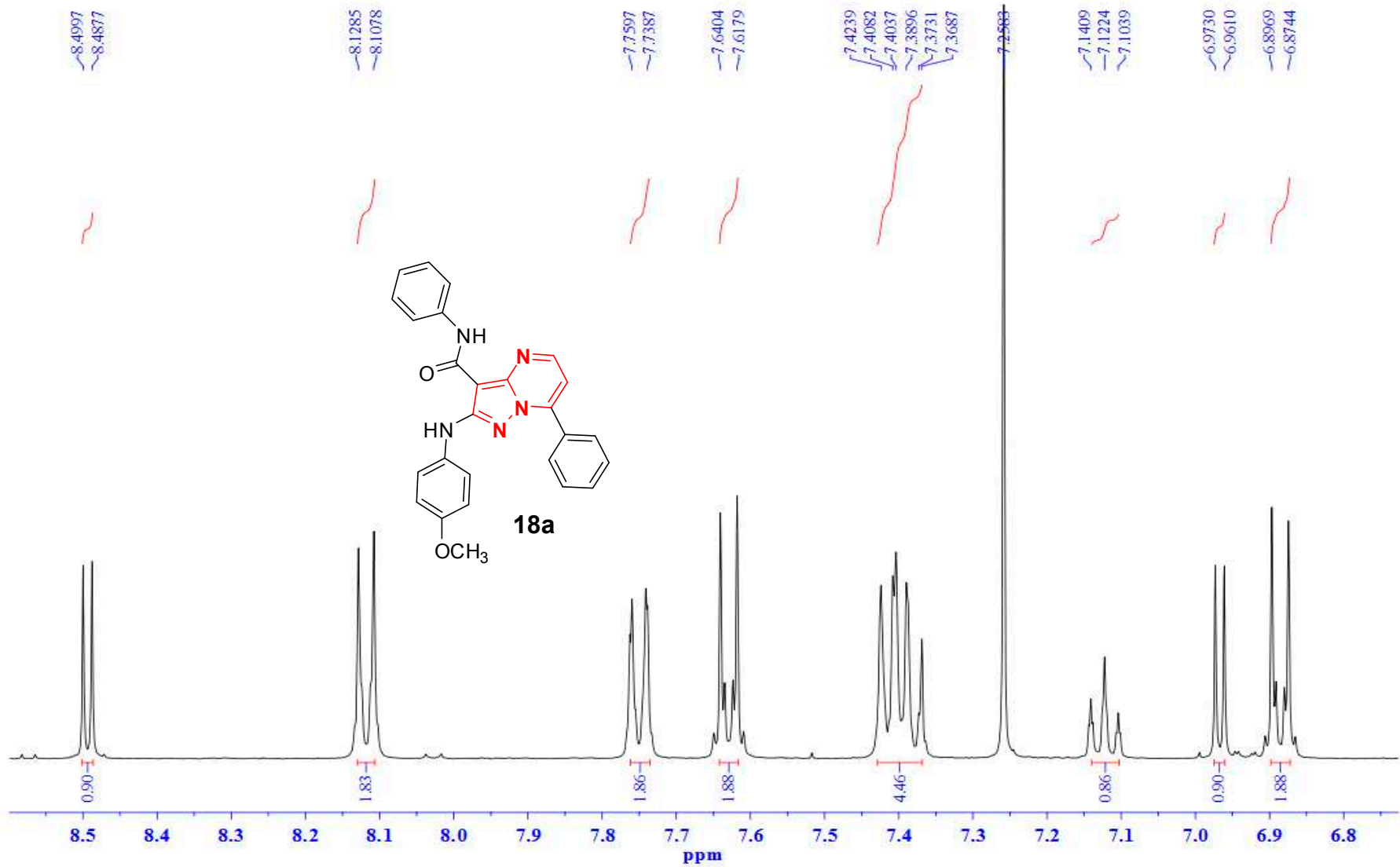
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<sup>5</sup>Department of Mathematics and Natural Science, Faculty of Science and Technology, University of Stavanger, N-4036 Stavanger, Norway; mohamed.mady@uis.no

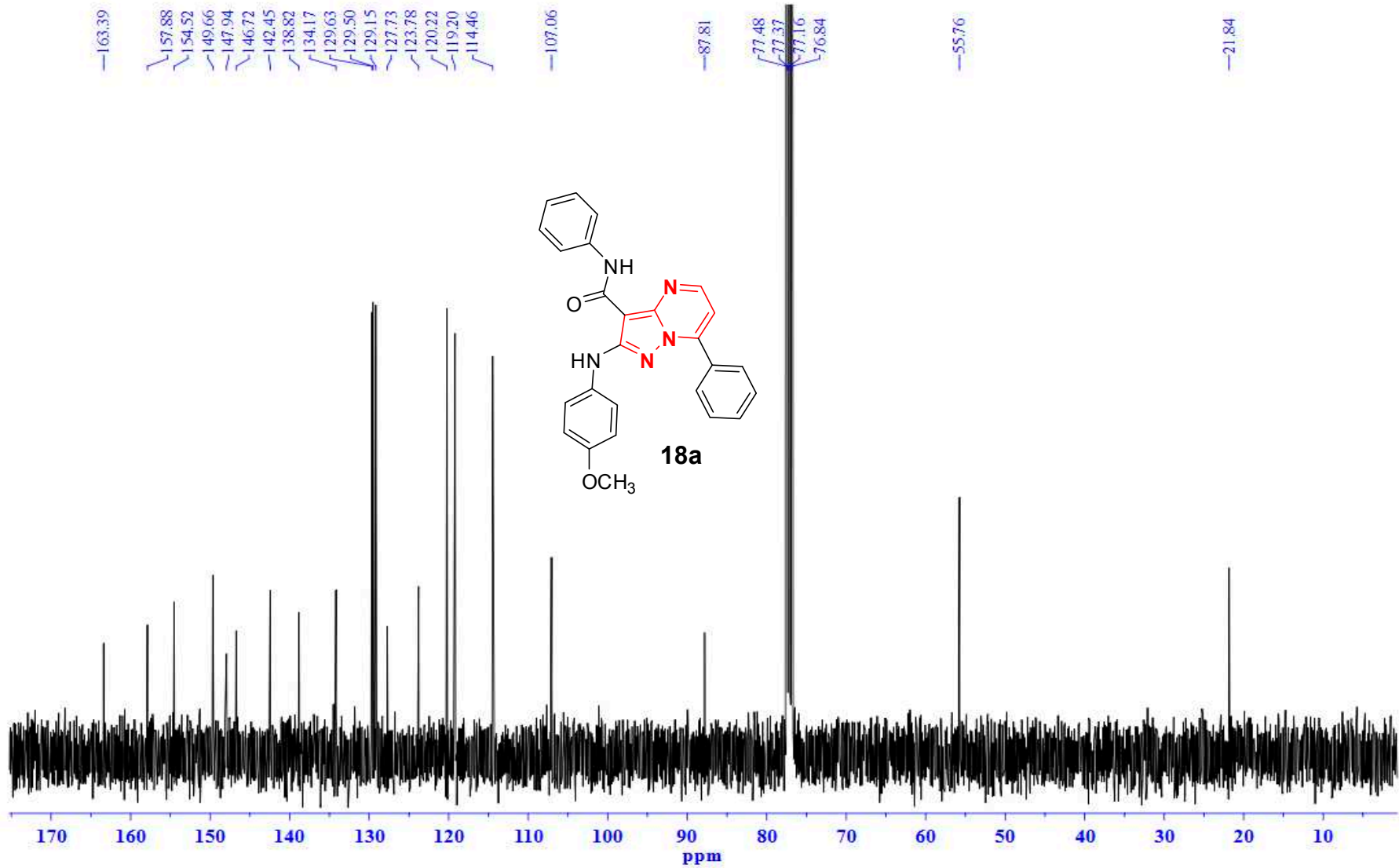
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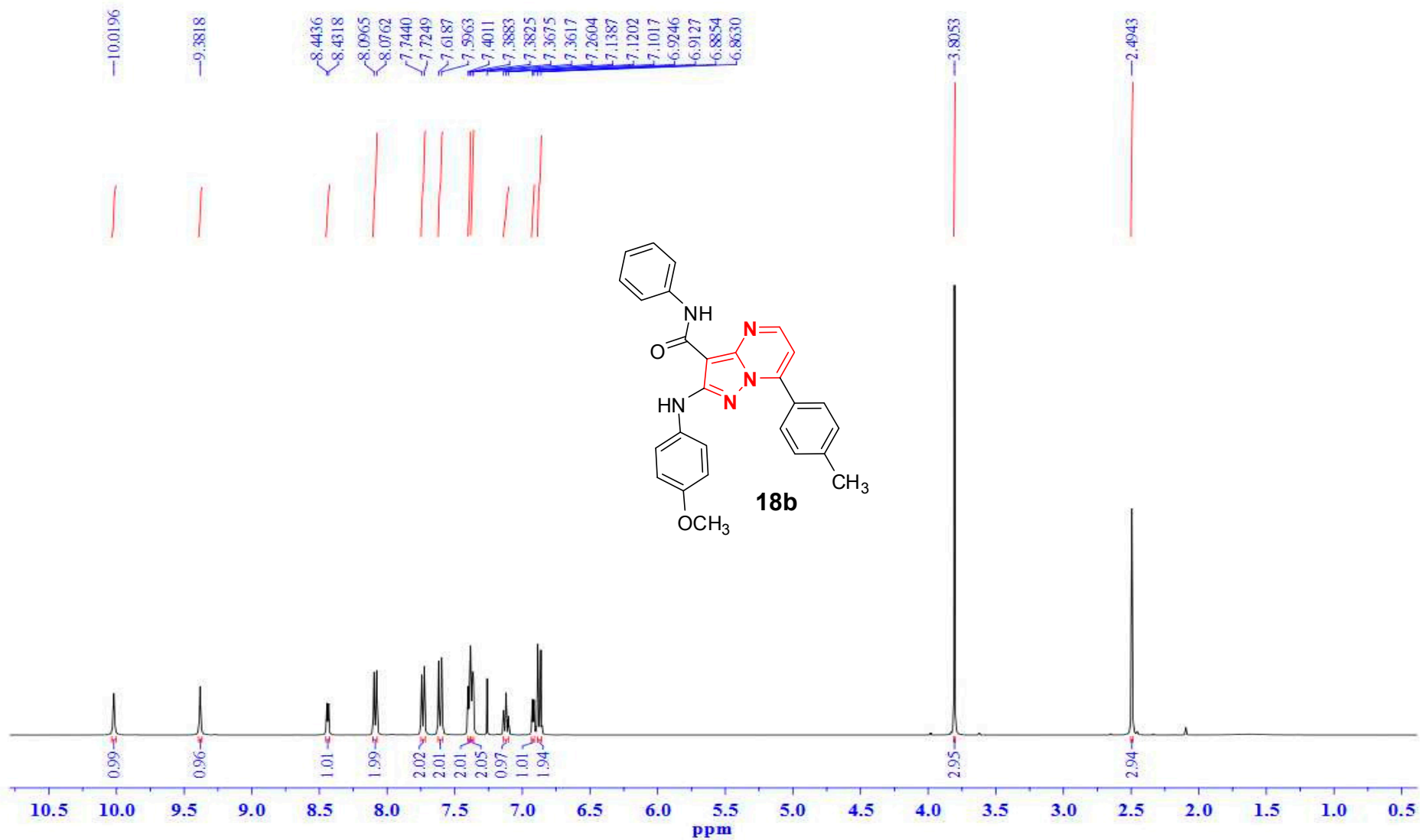
The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **18a**



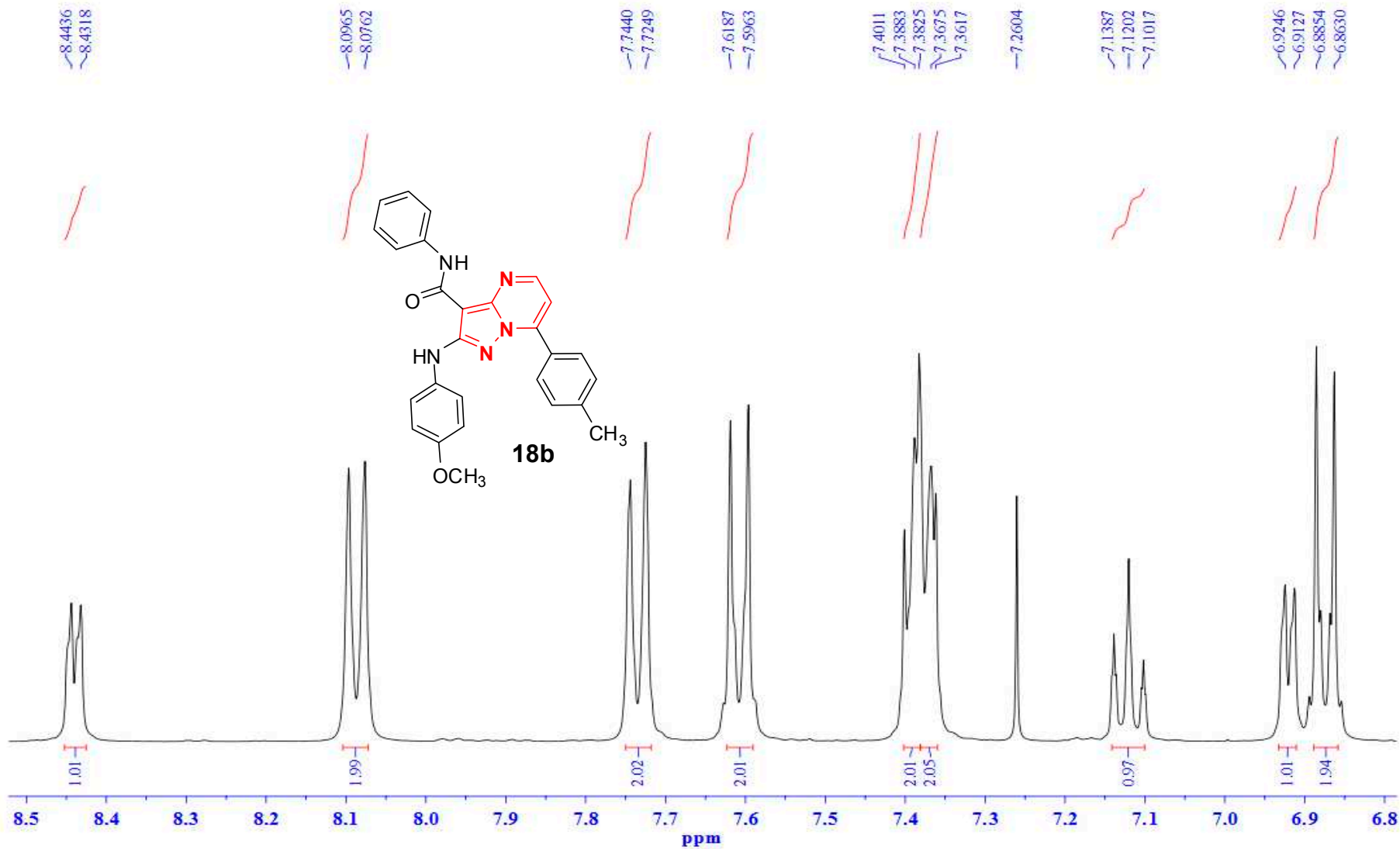
The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18a**



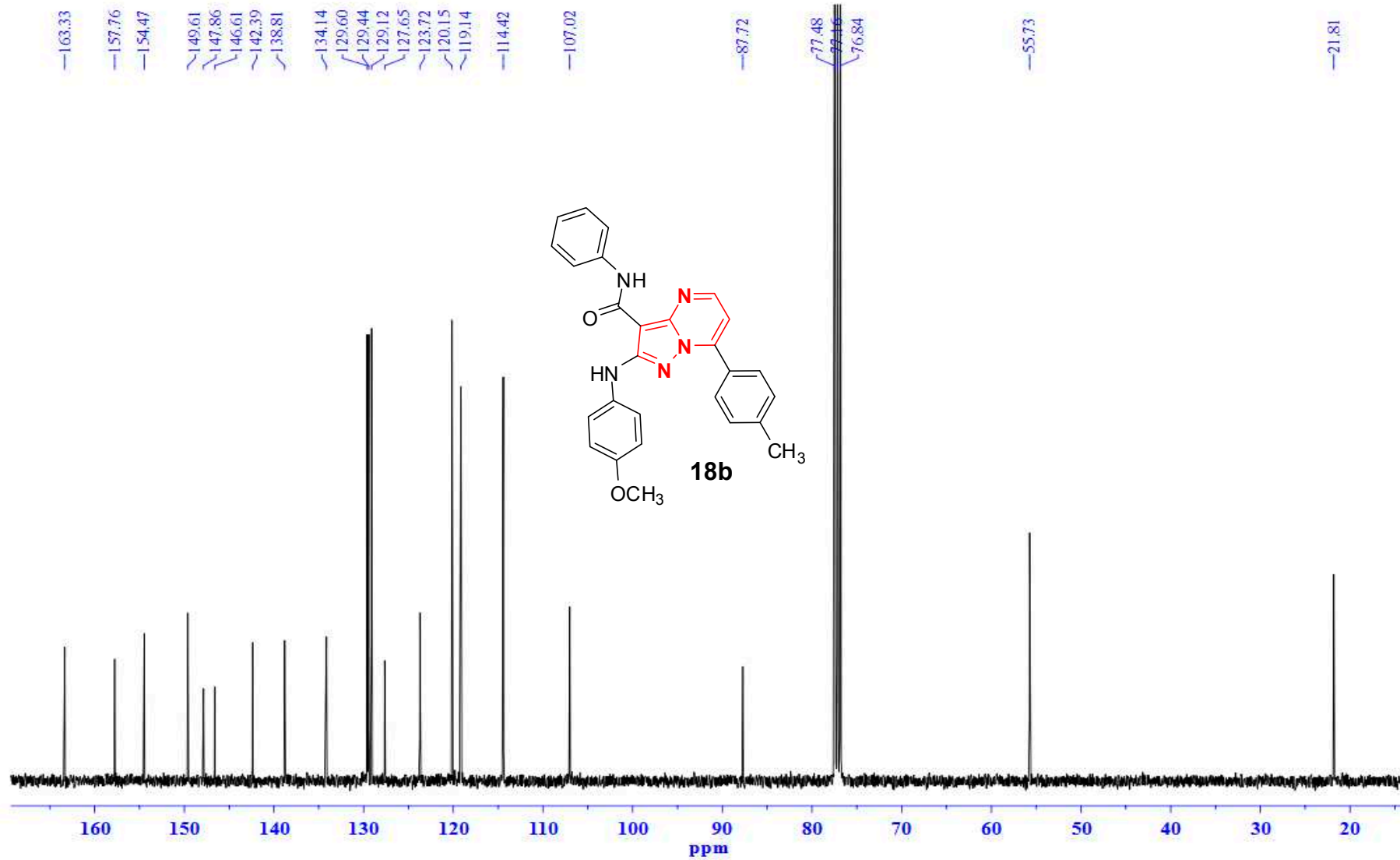
The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **18a**



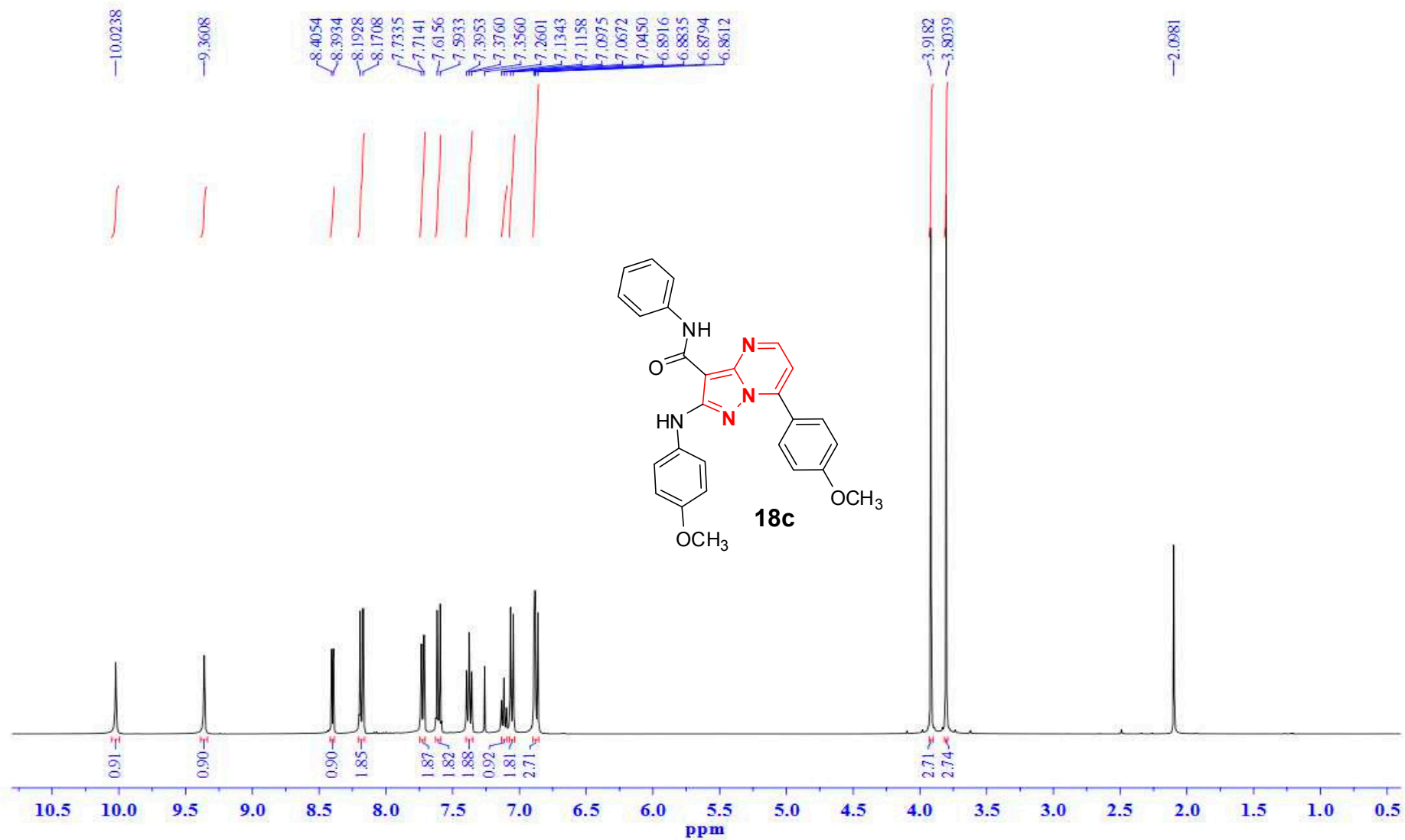
The <sup>1</sup>H NMR (400 MHz) spectrum of compound **18b**



The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18b**

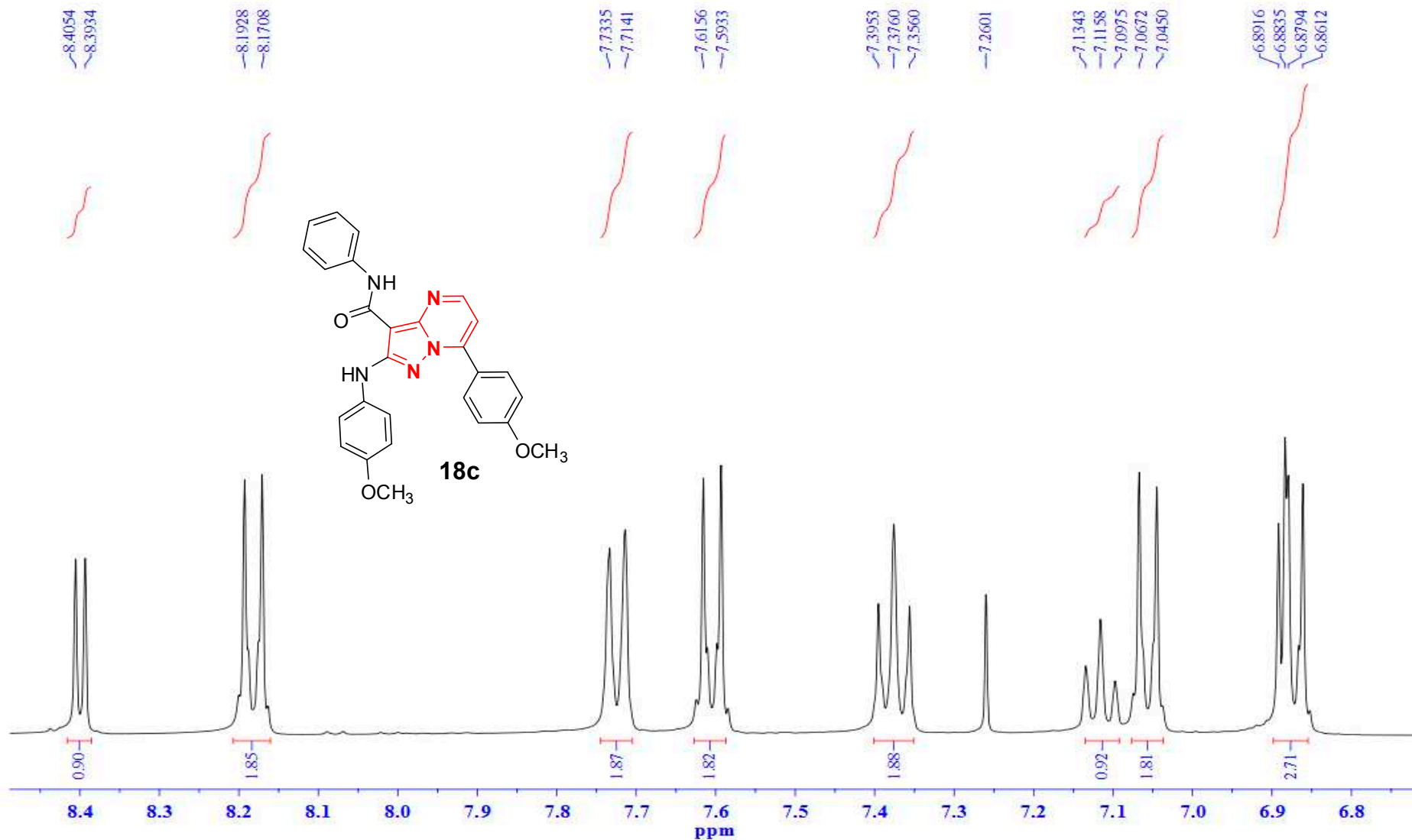


The <sup>13</sup>C NMR (100 MHz) spectrum of compound **18b**

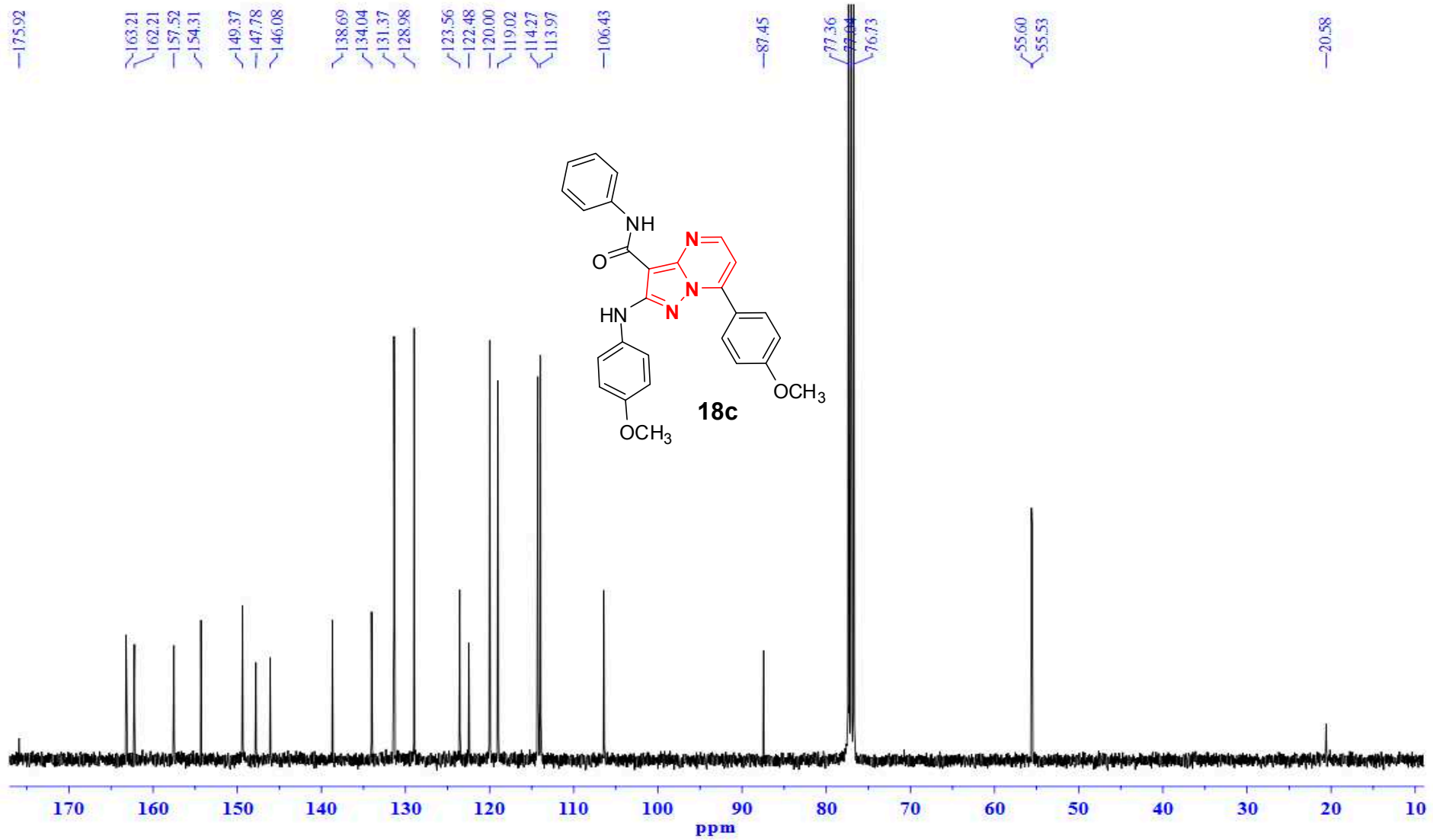


The <sup>1</sup>H NMR (400 MHz) spectrum of compound **18c**

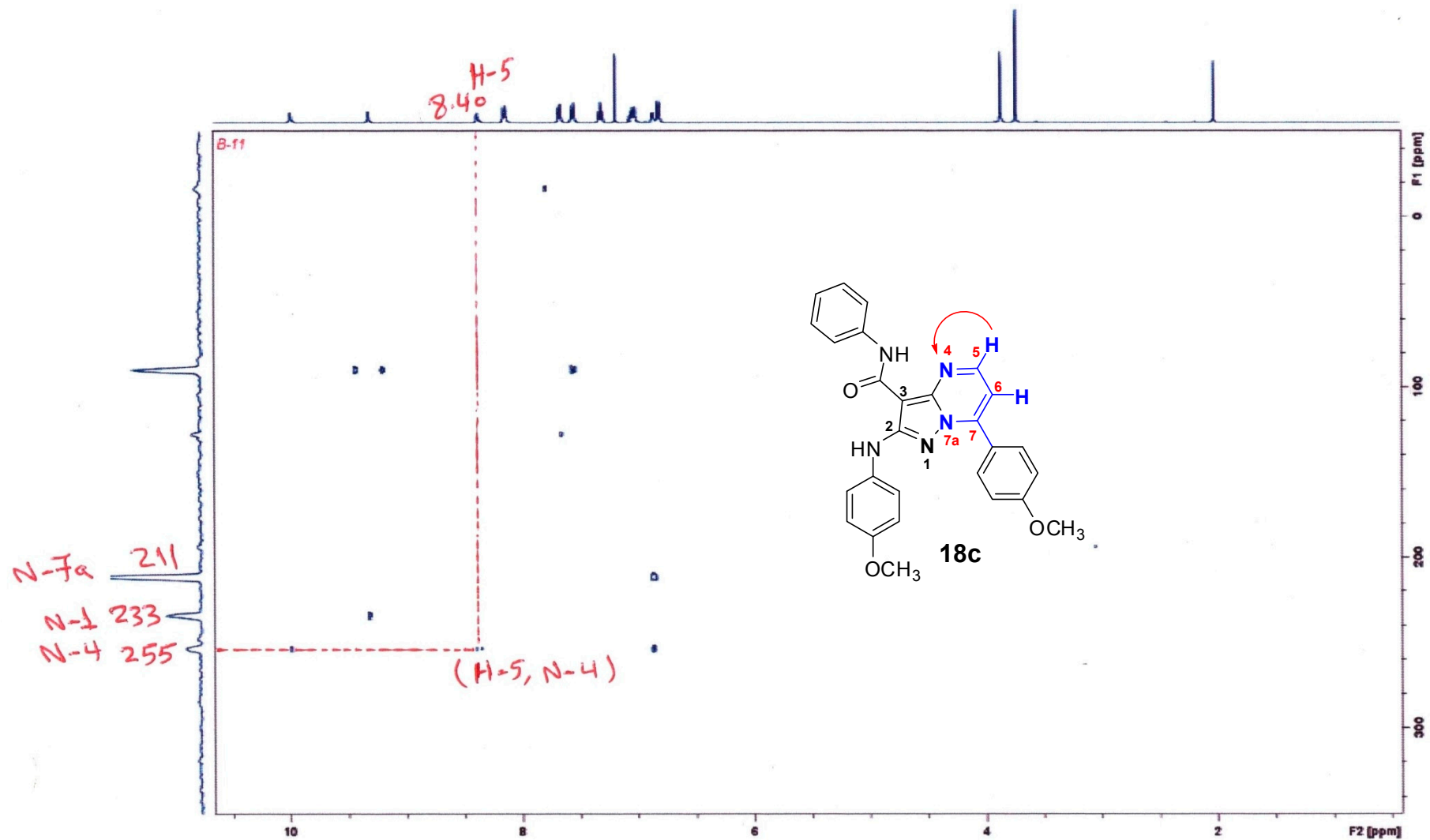




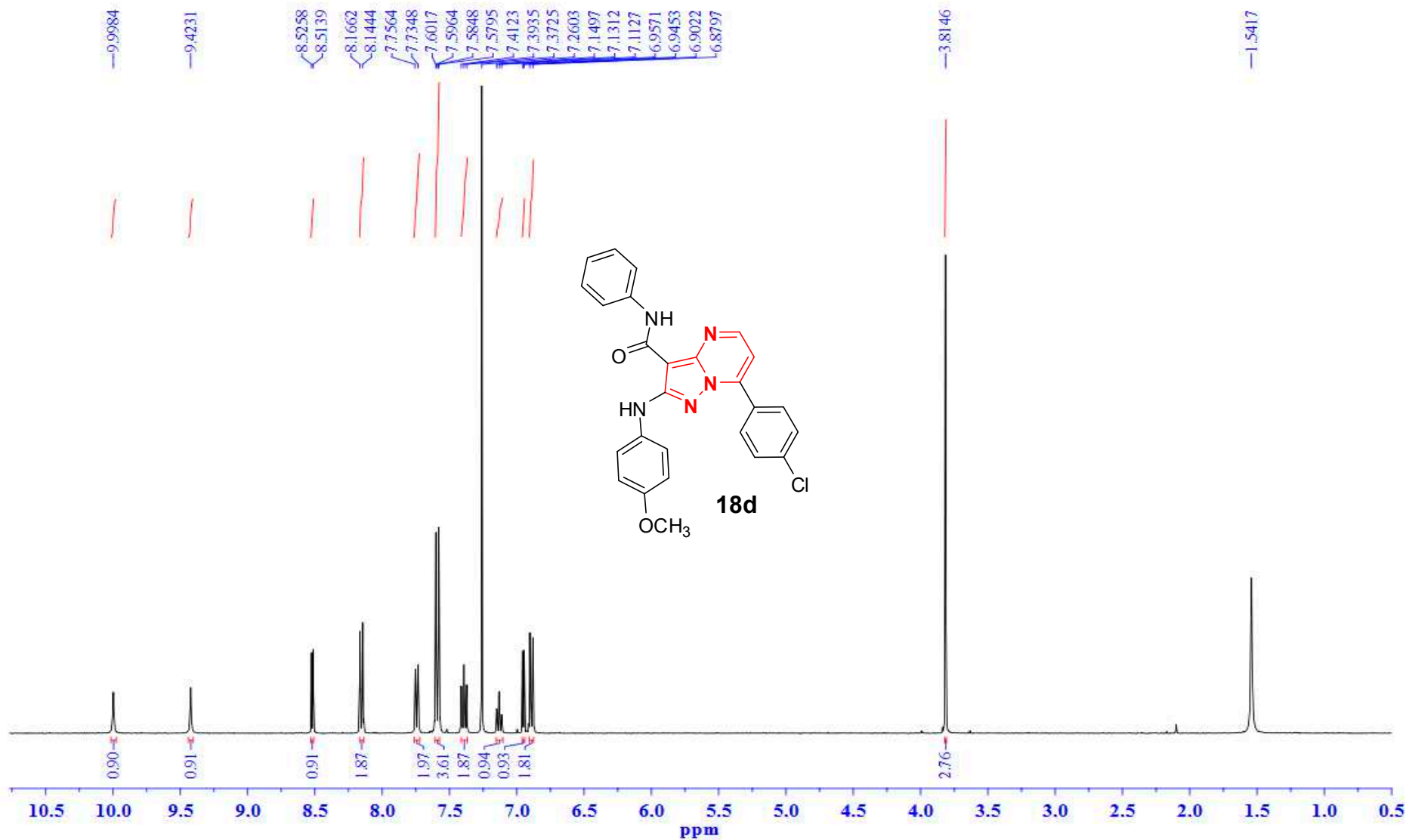
The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18c**



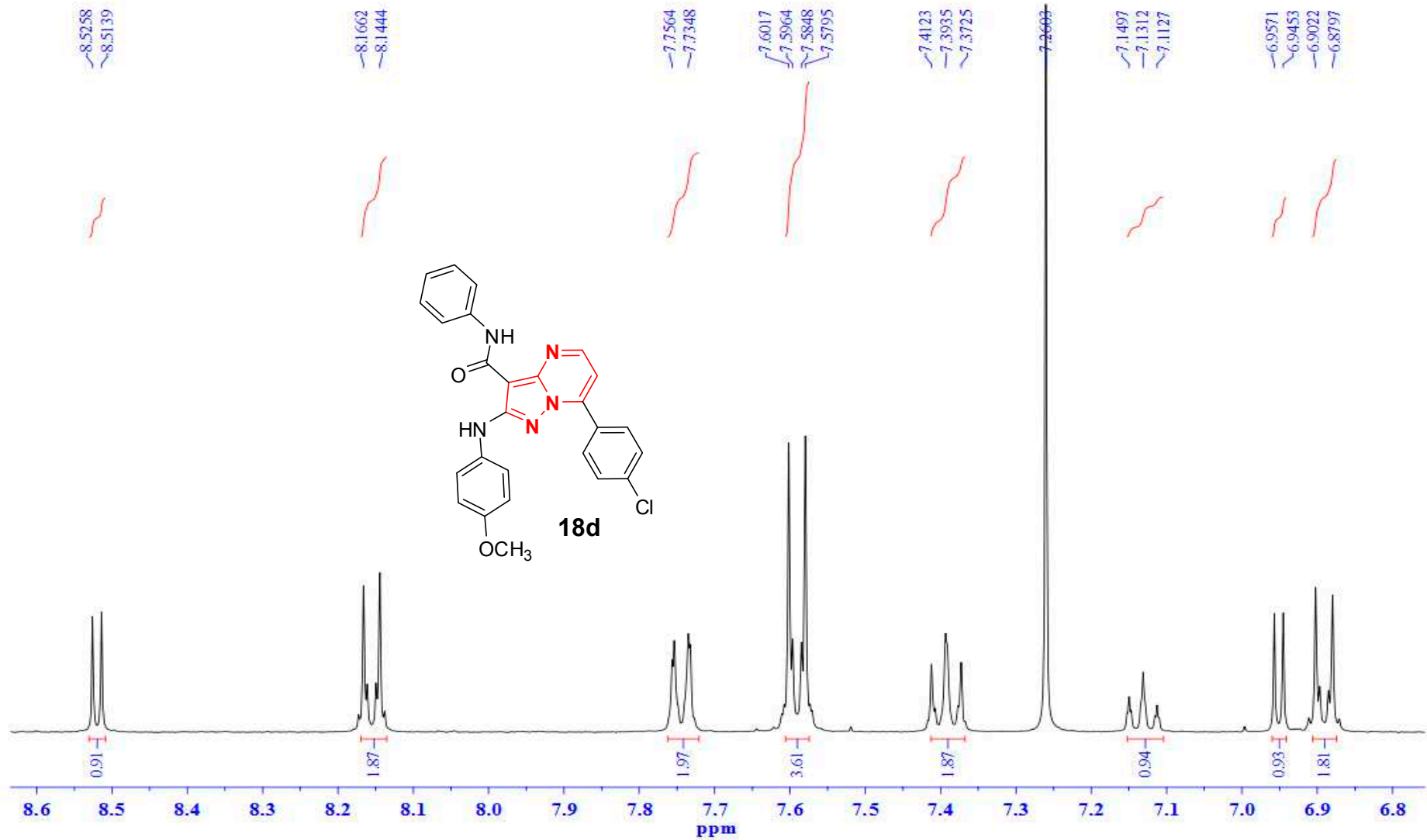
The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **18c**



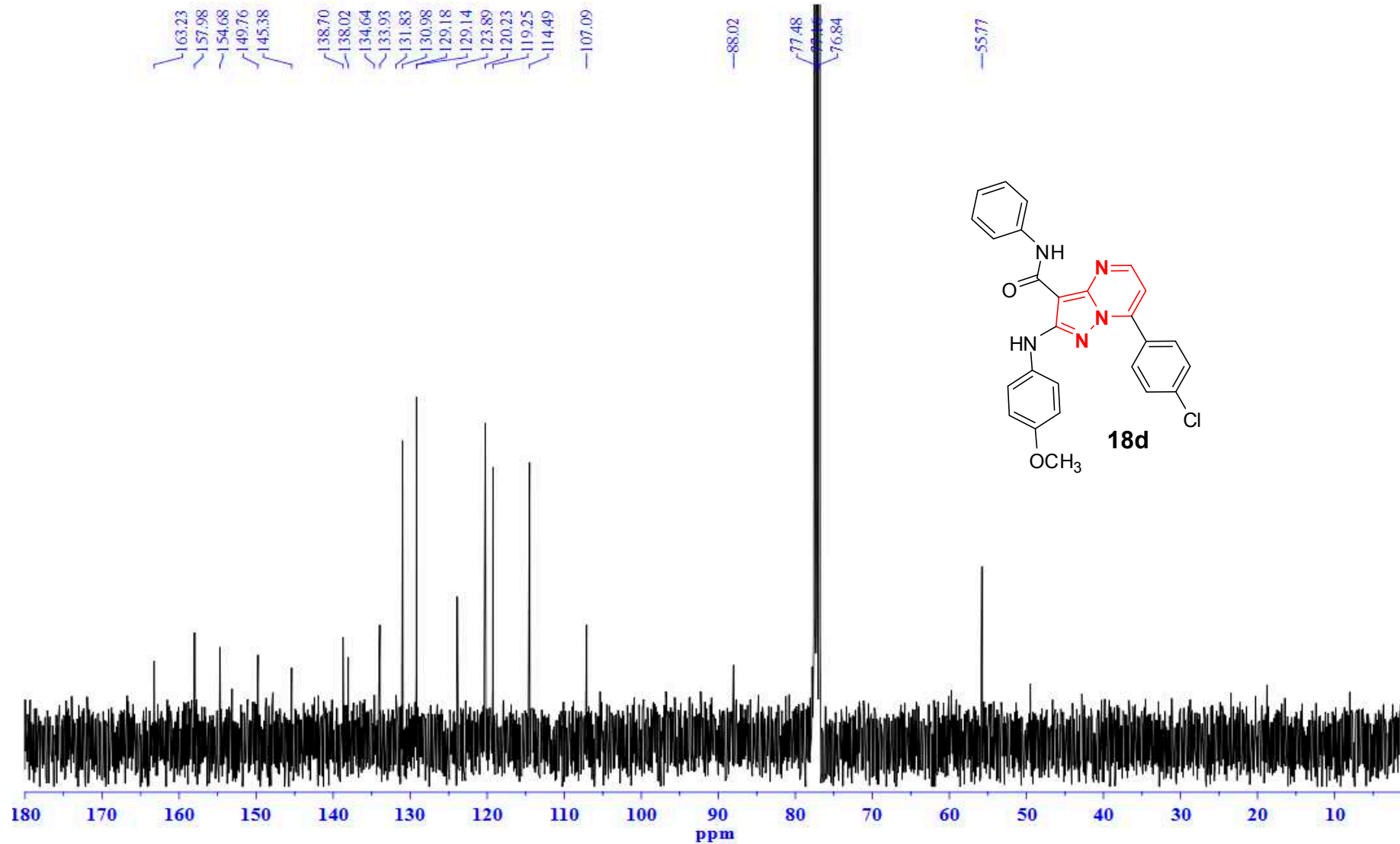
The  $^1\text{H}$ - $^{15}\text{N}$  HMBC (40 MHz) spectrum of compound **18c**



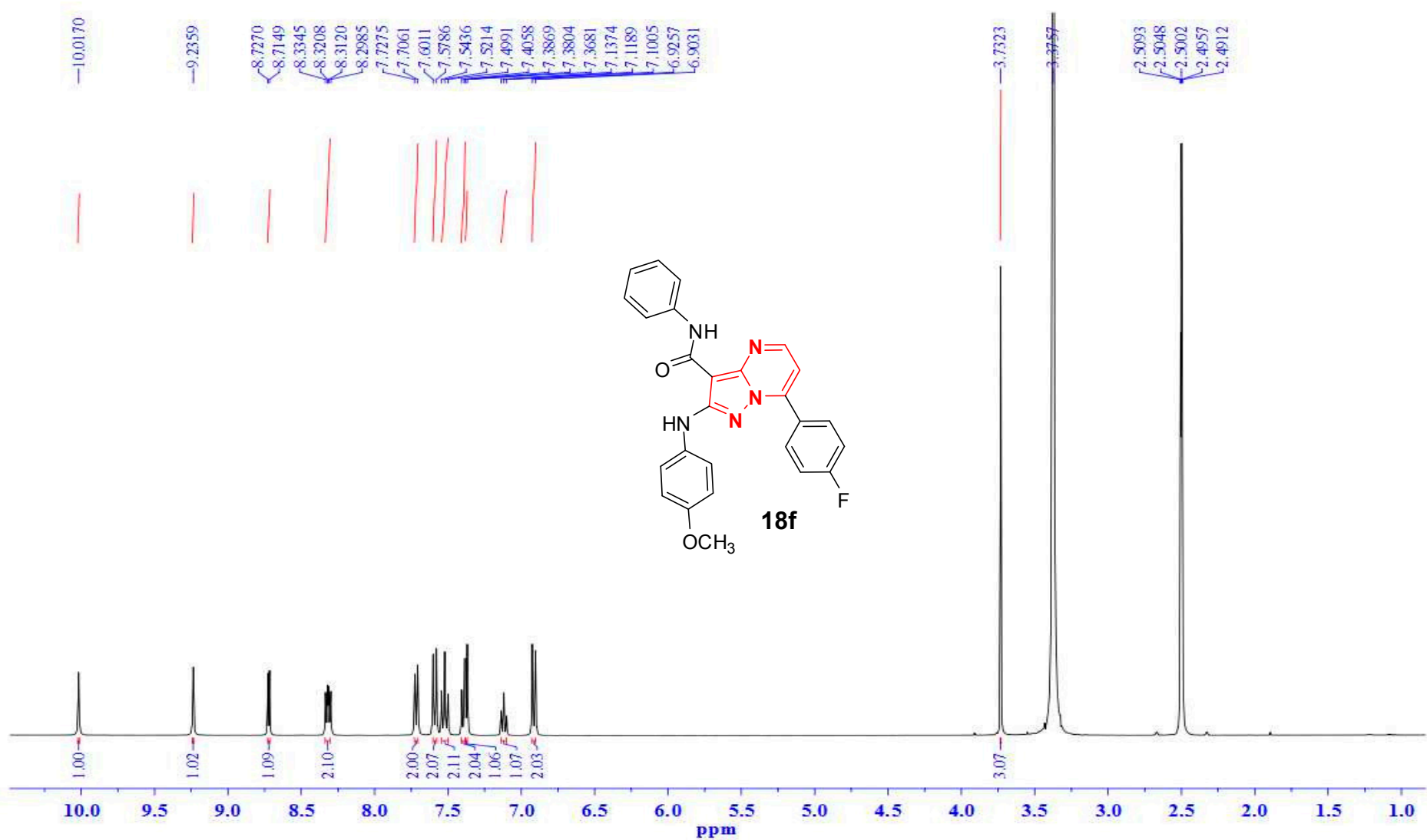
The <sup>1</sup>H NMR (400 MHz) spectrum of compound **18d**



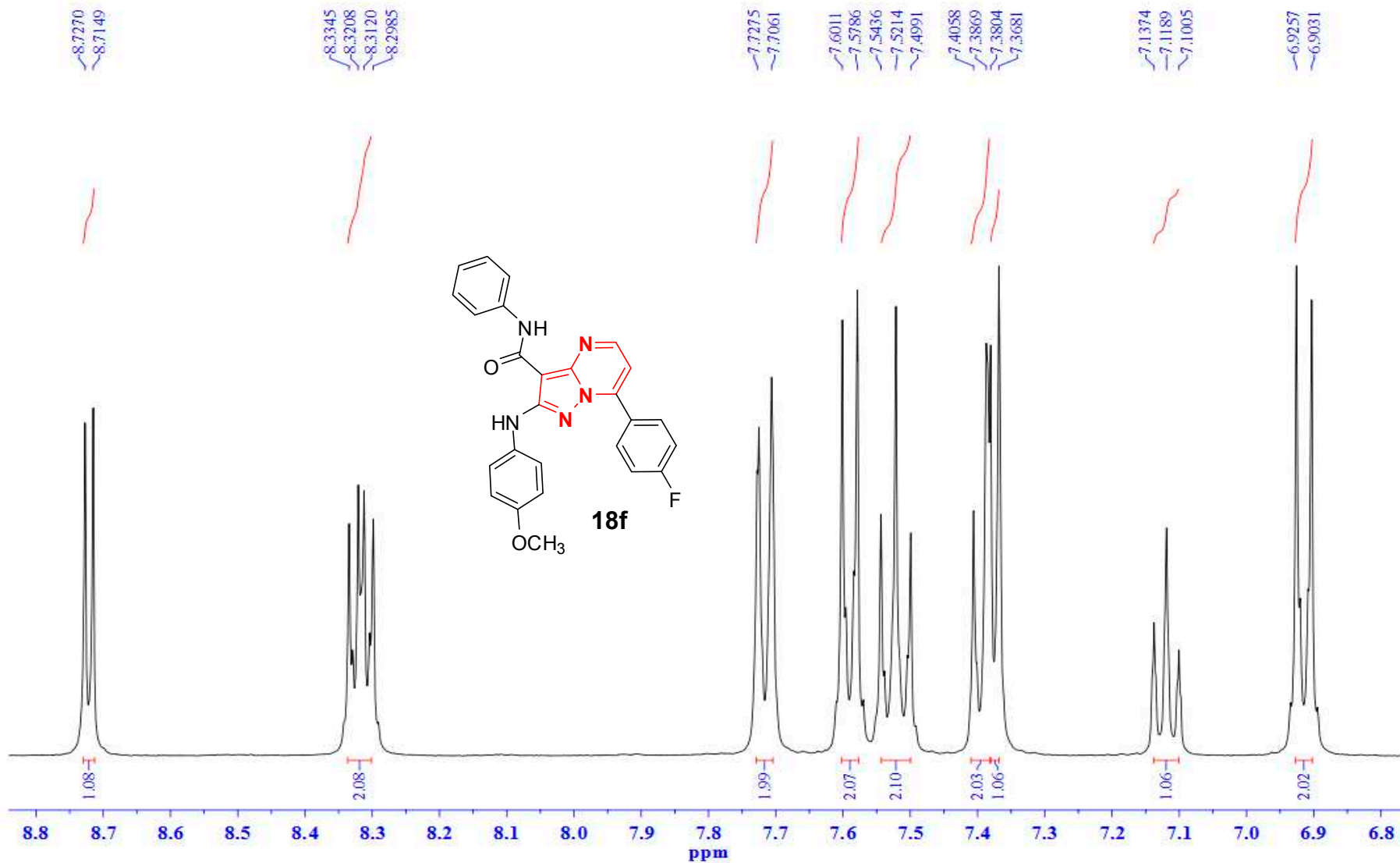
The  $^1\text{H}$  NMR (400 MHz) spectrum (aromatic region) of compound **18d**



The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **18d**

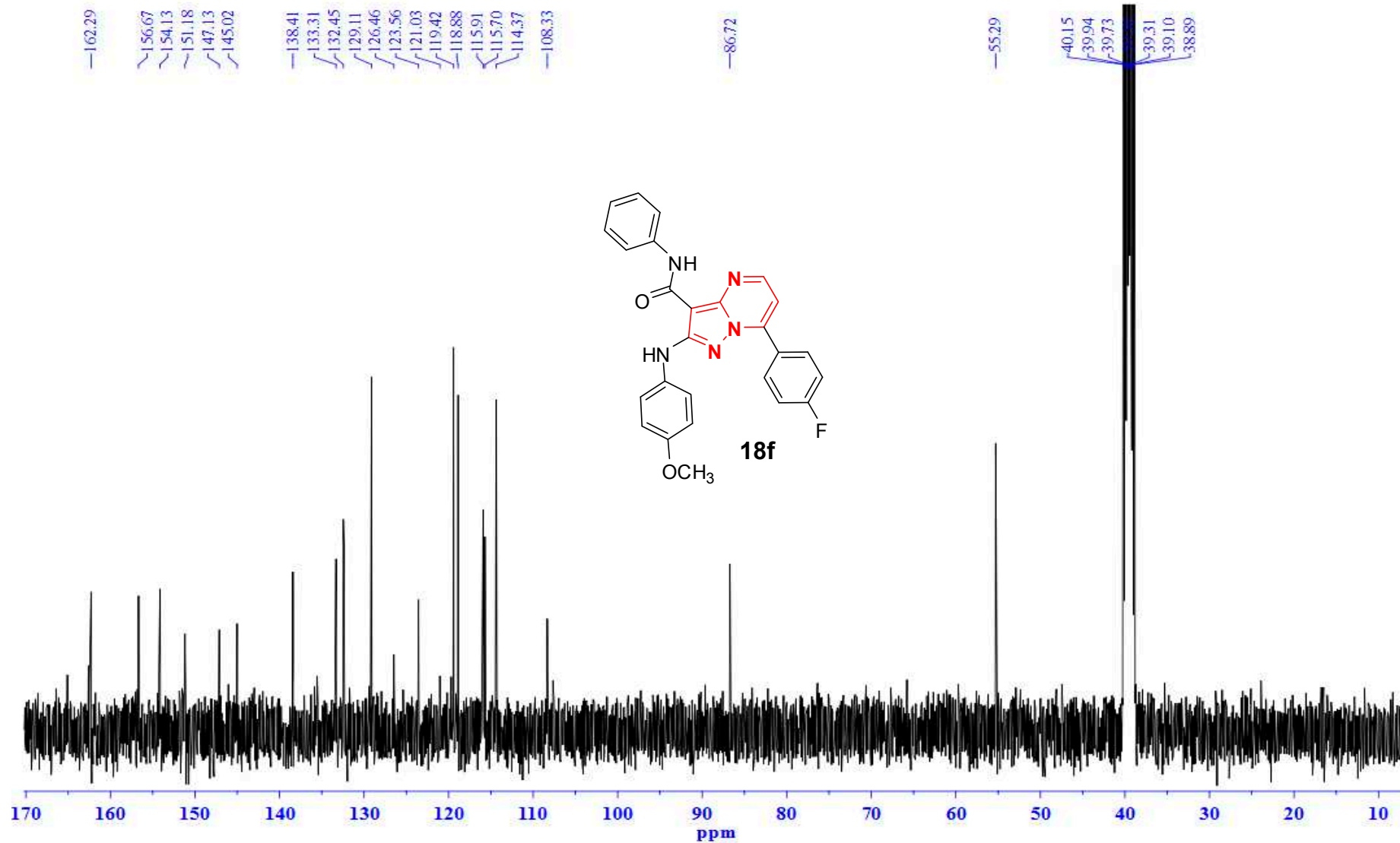


The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **18f**

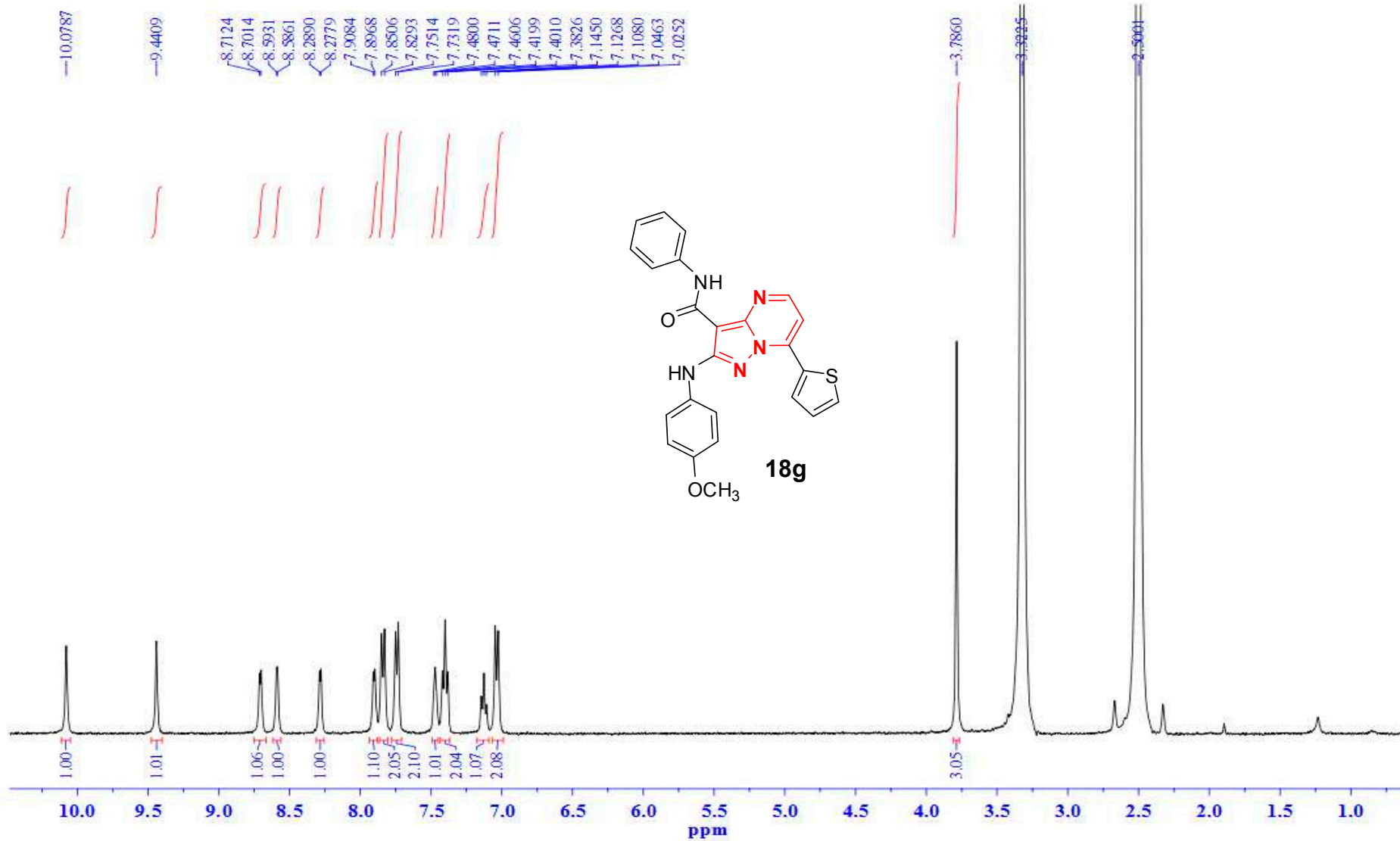


The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18f**

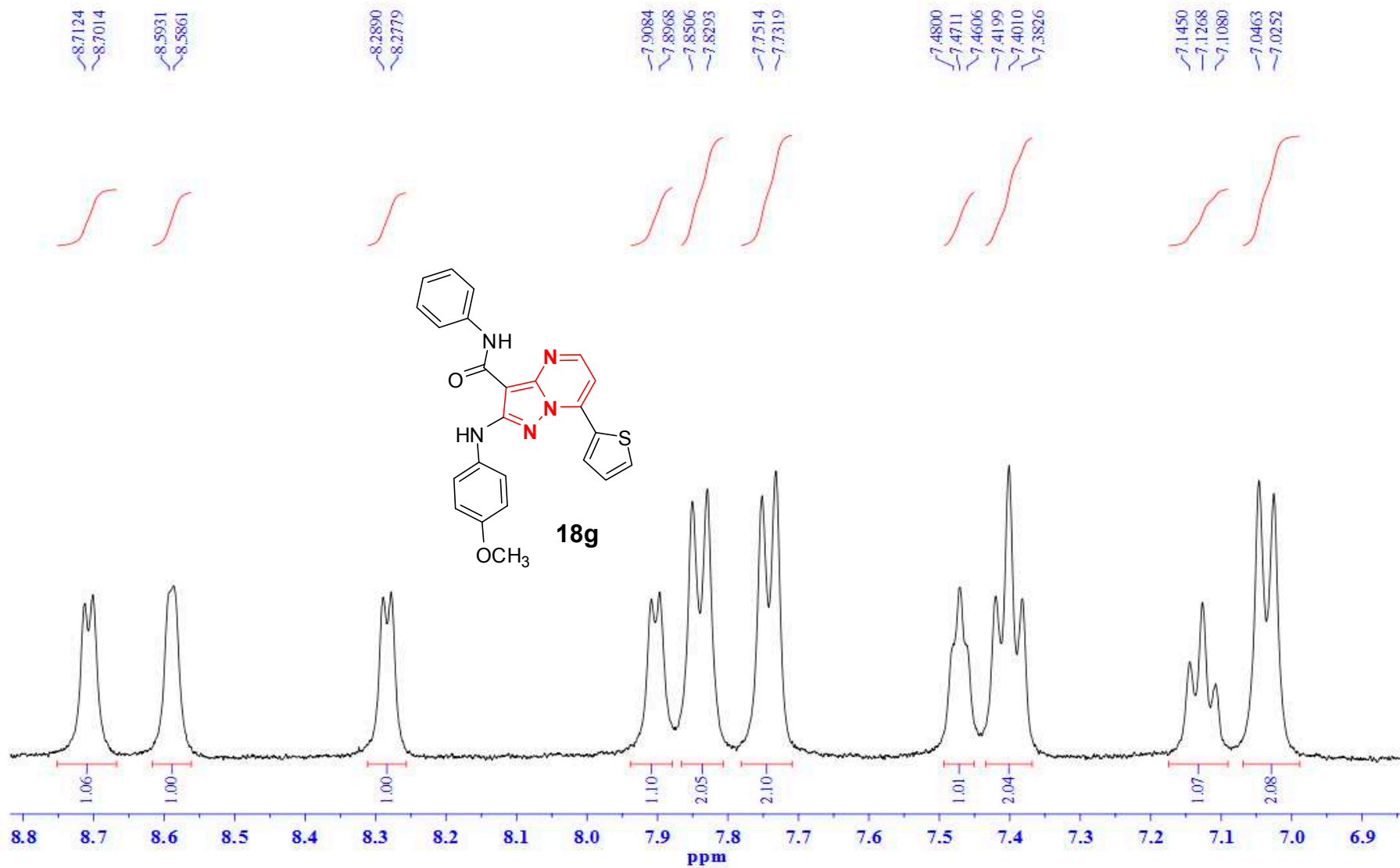




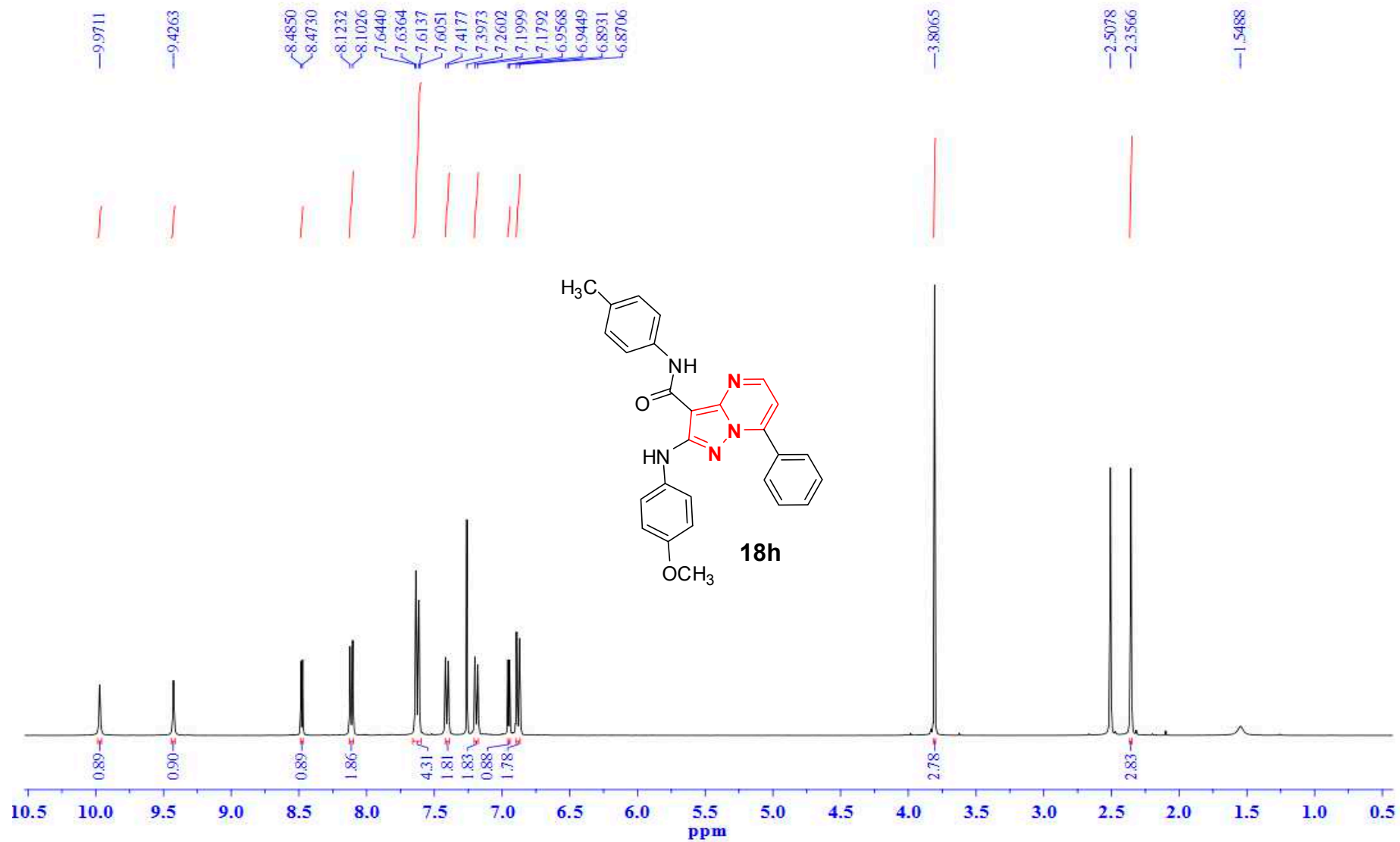
The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **18f**



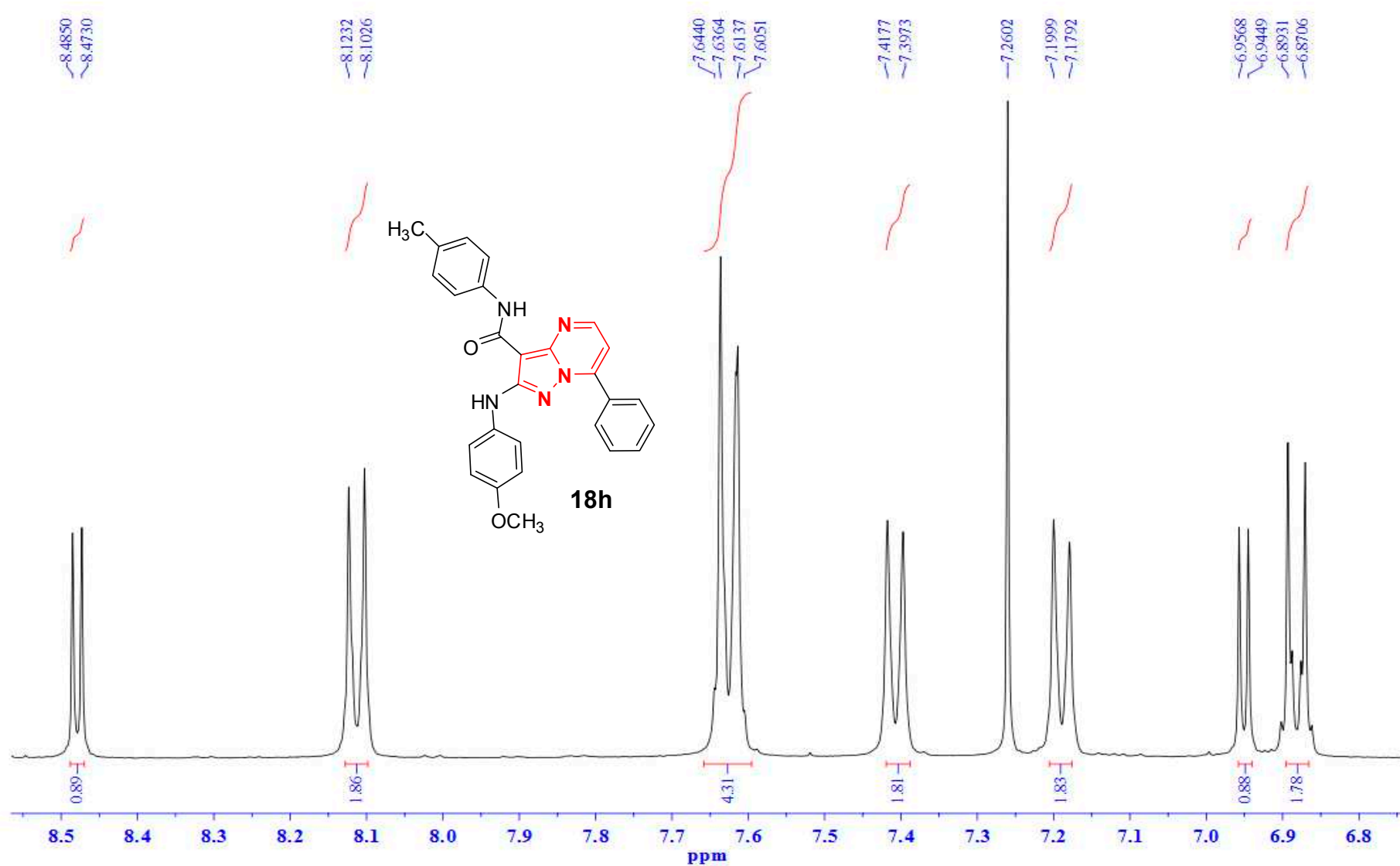
The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **18g**



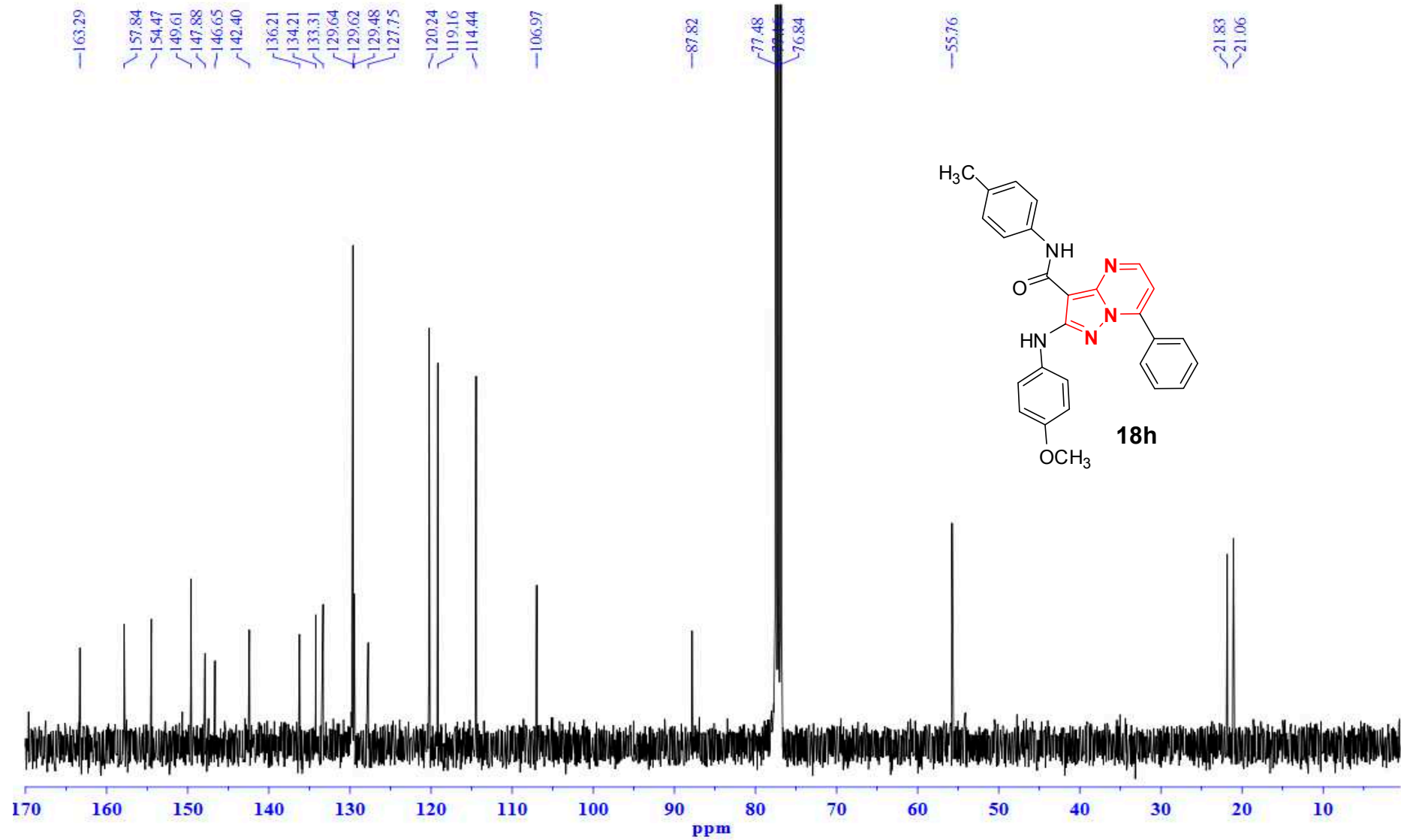
The  $^1\text{H}$  NMR (400 MHz) spectrum (aromatic region) of compound **18g**



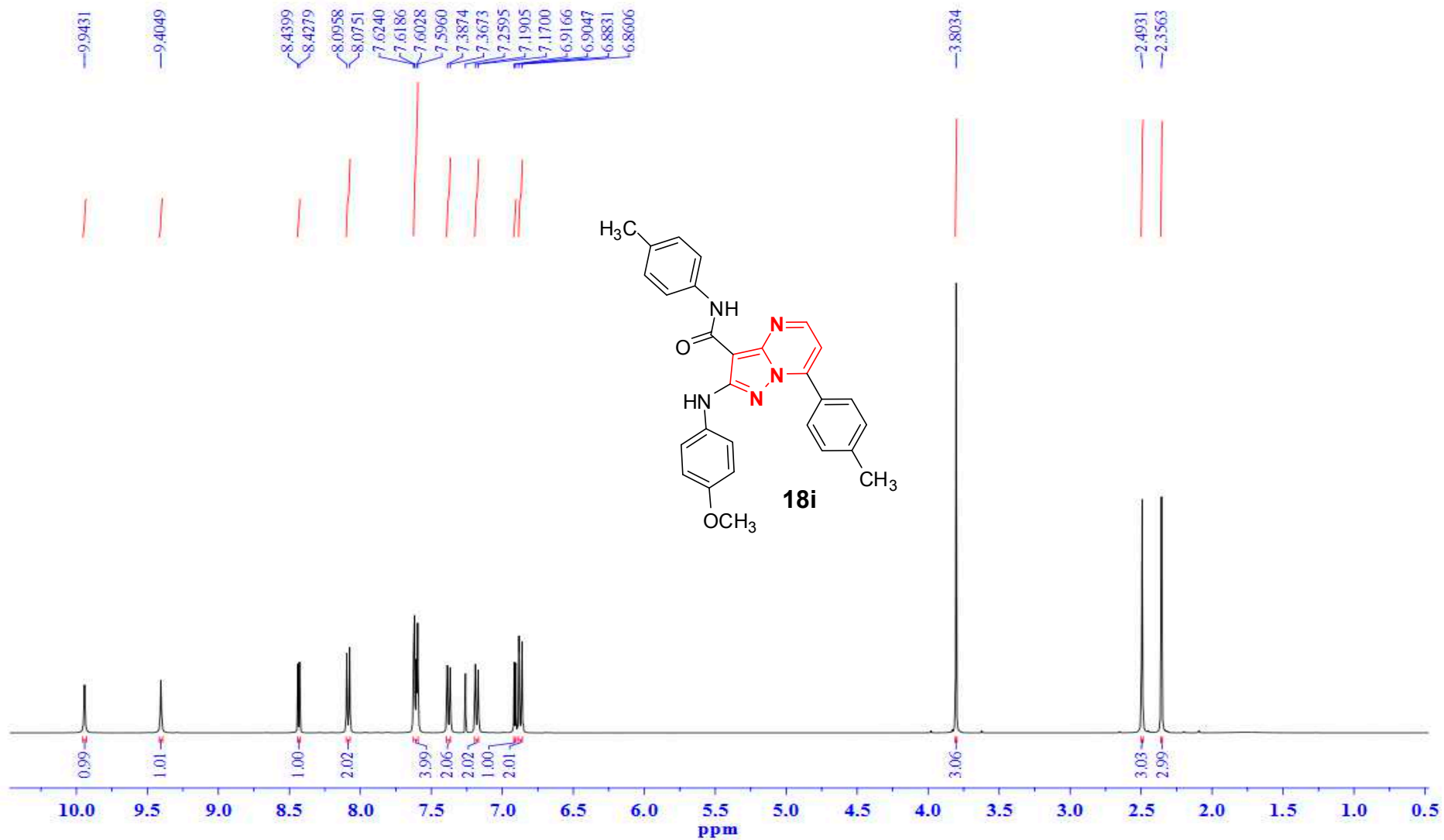
The  $^1\text{H NMR}$  (400 MHz) spectrum of compound **18h**



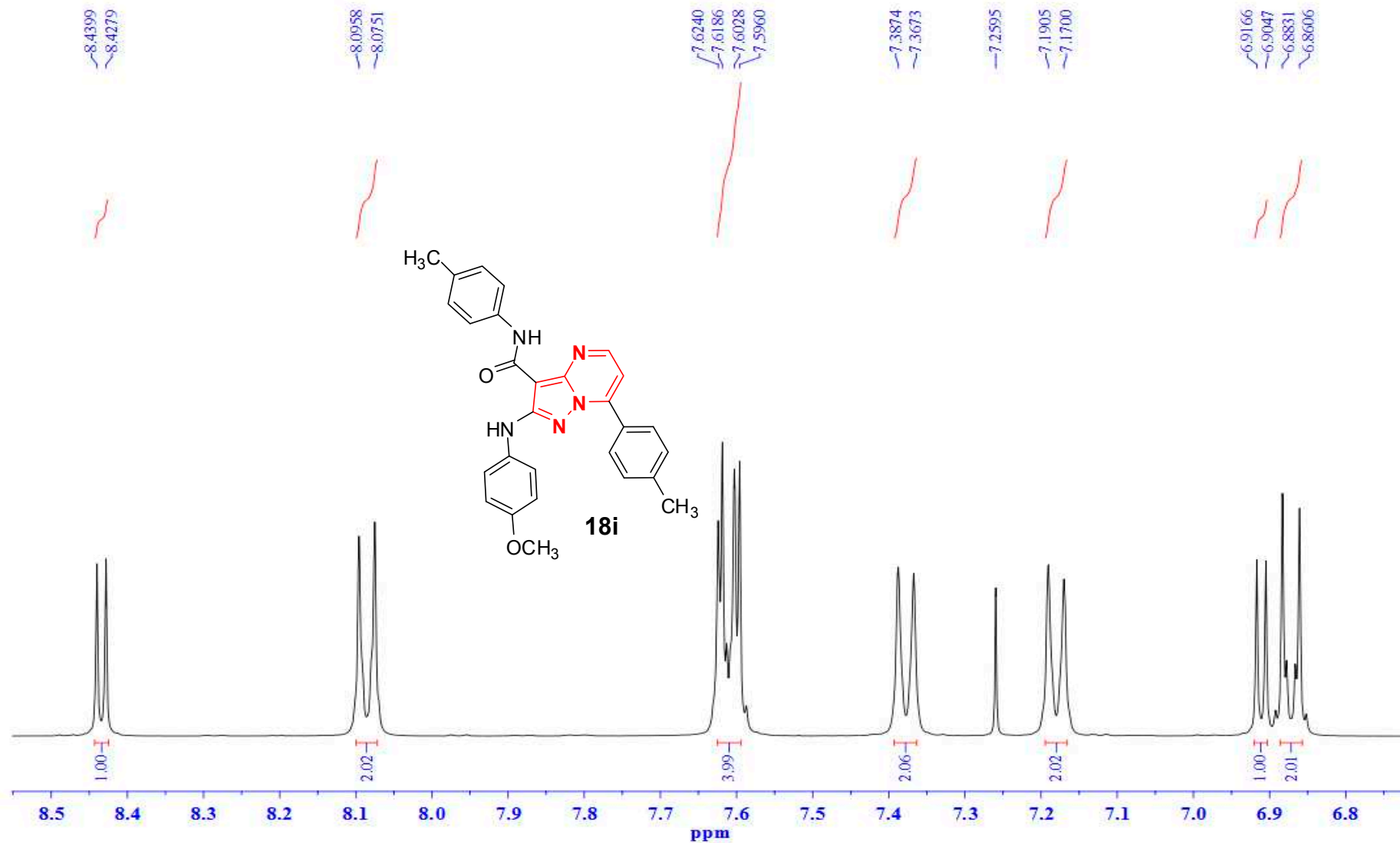
The  $^1\text{H}$  NMR (400 MHz) spectrum (aromatic region) of compound **18h**



The <sup>13</sup>C NMR (100 MHz) spectrum of compound **18h**

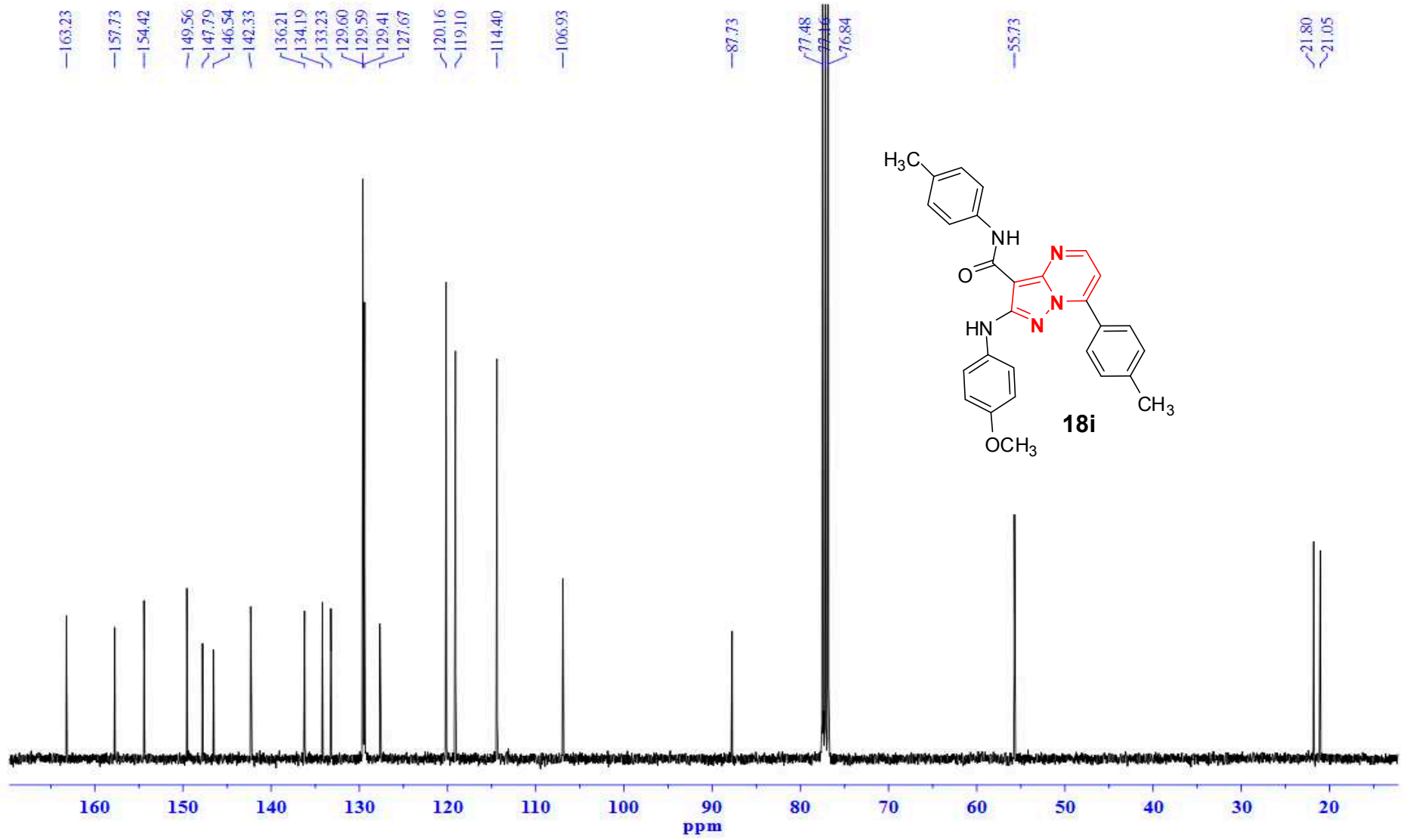


The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **18i**

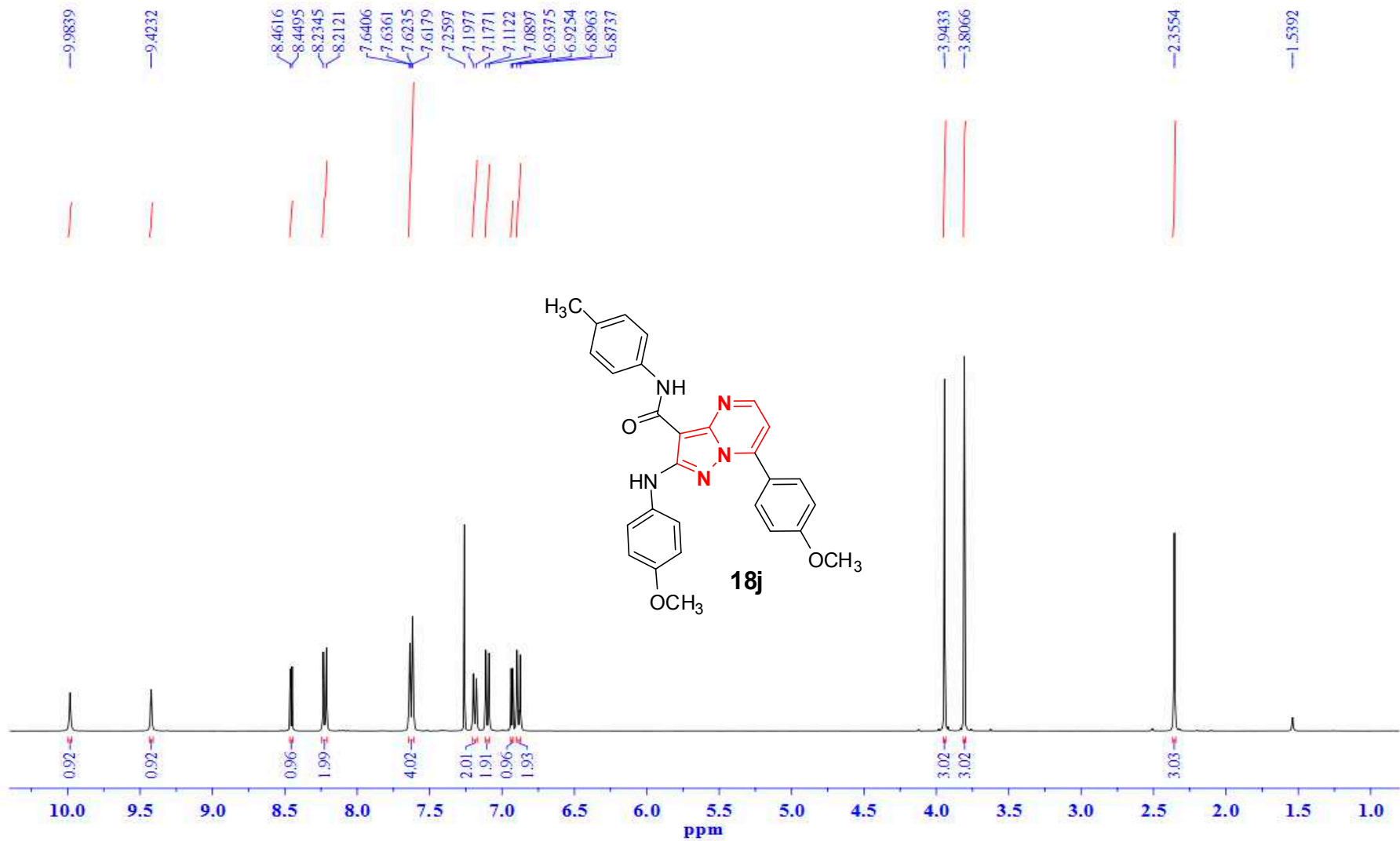


The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18i**

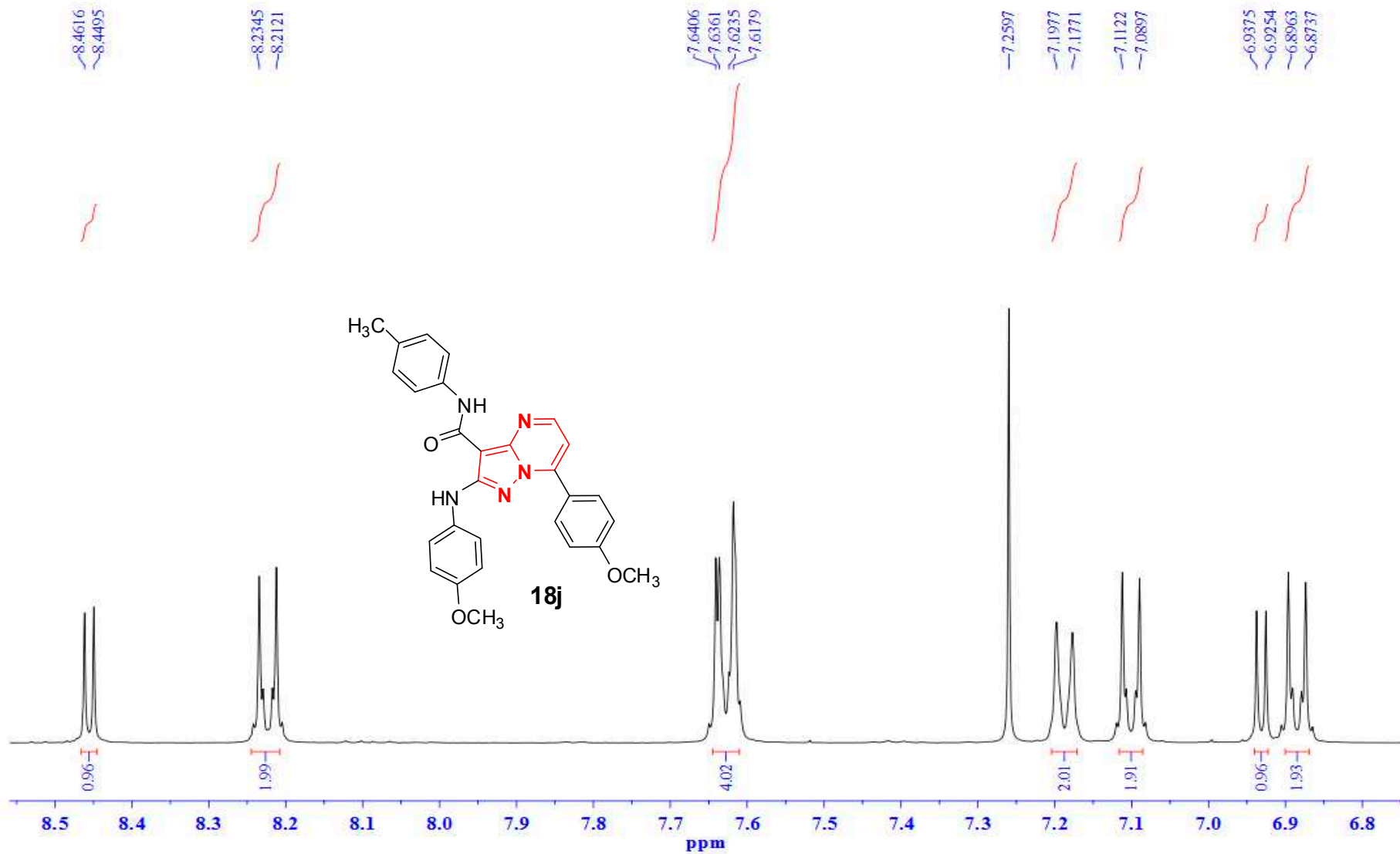




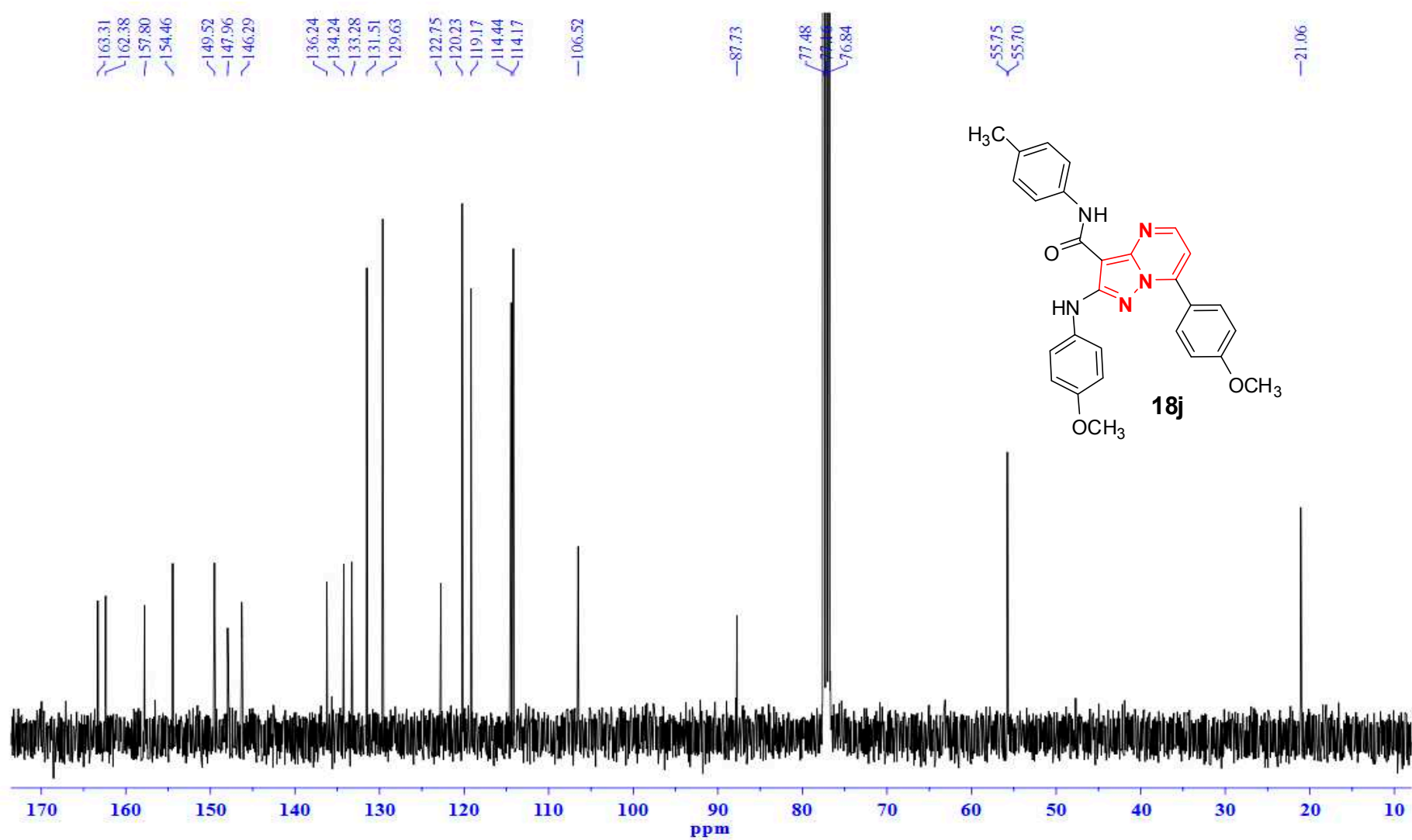
The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **18i**



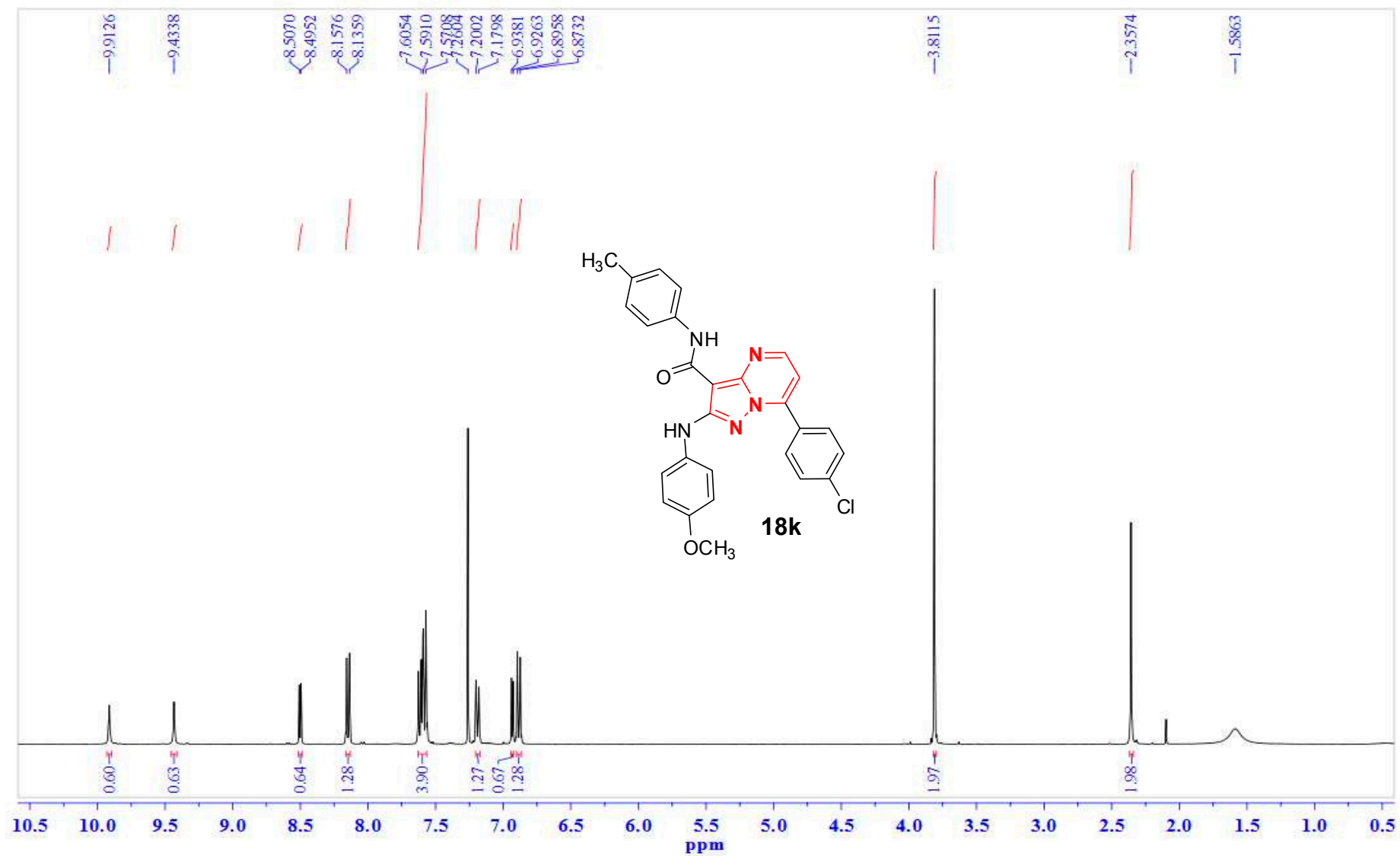
The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **18j**



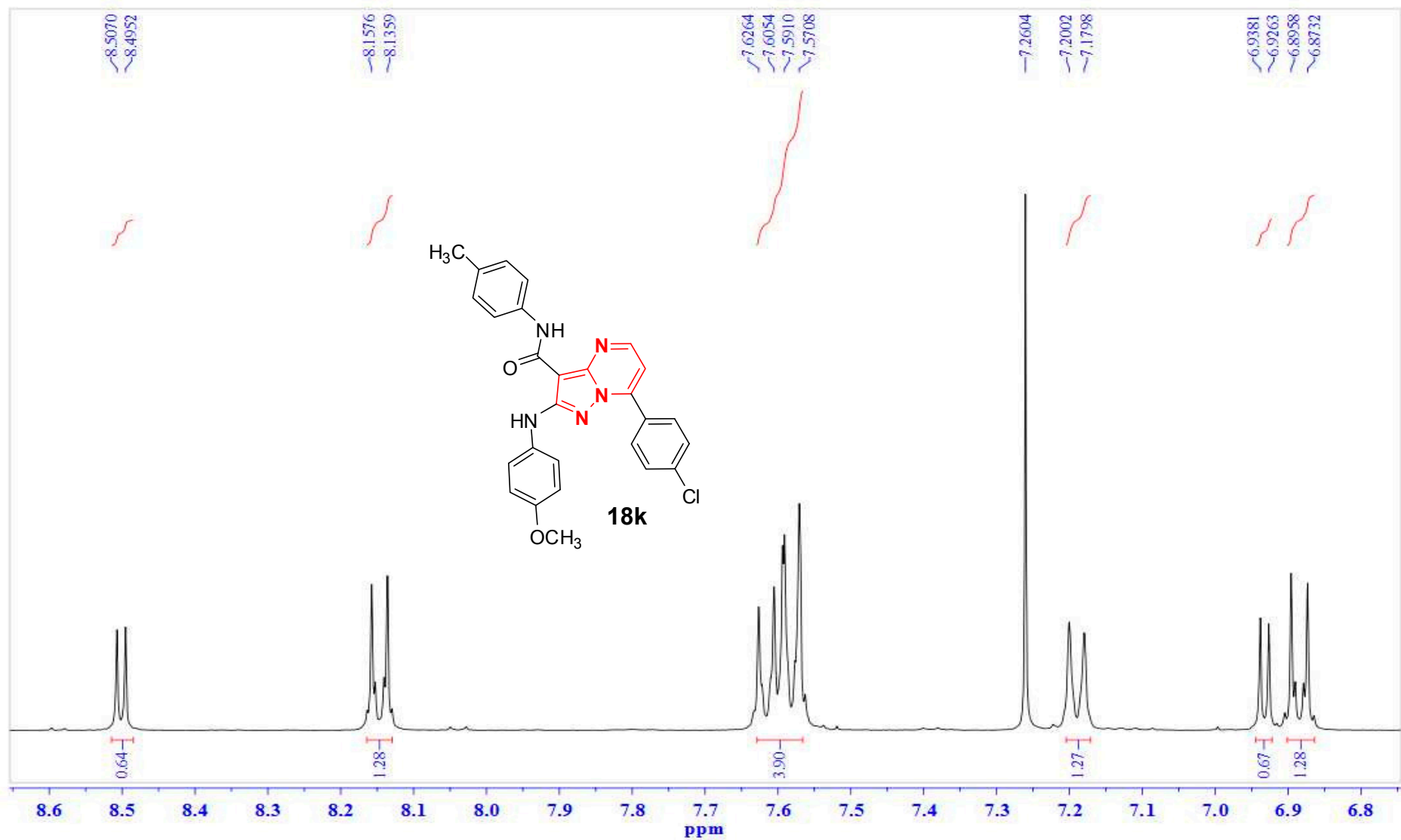
The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18j**



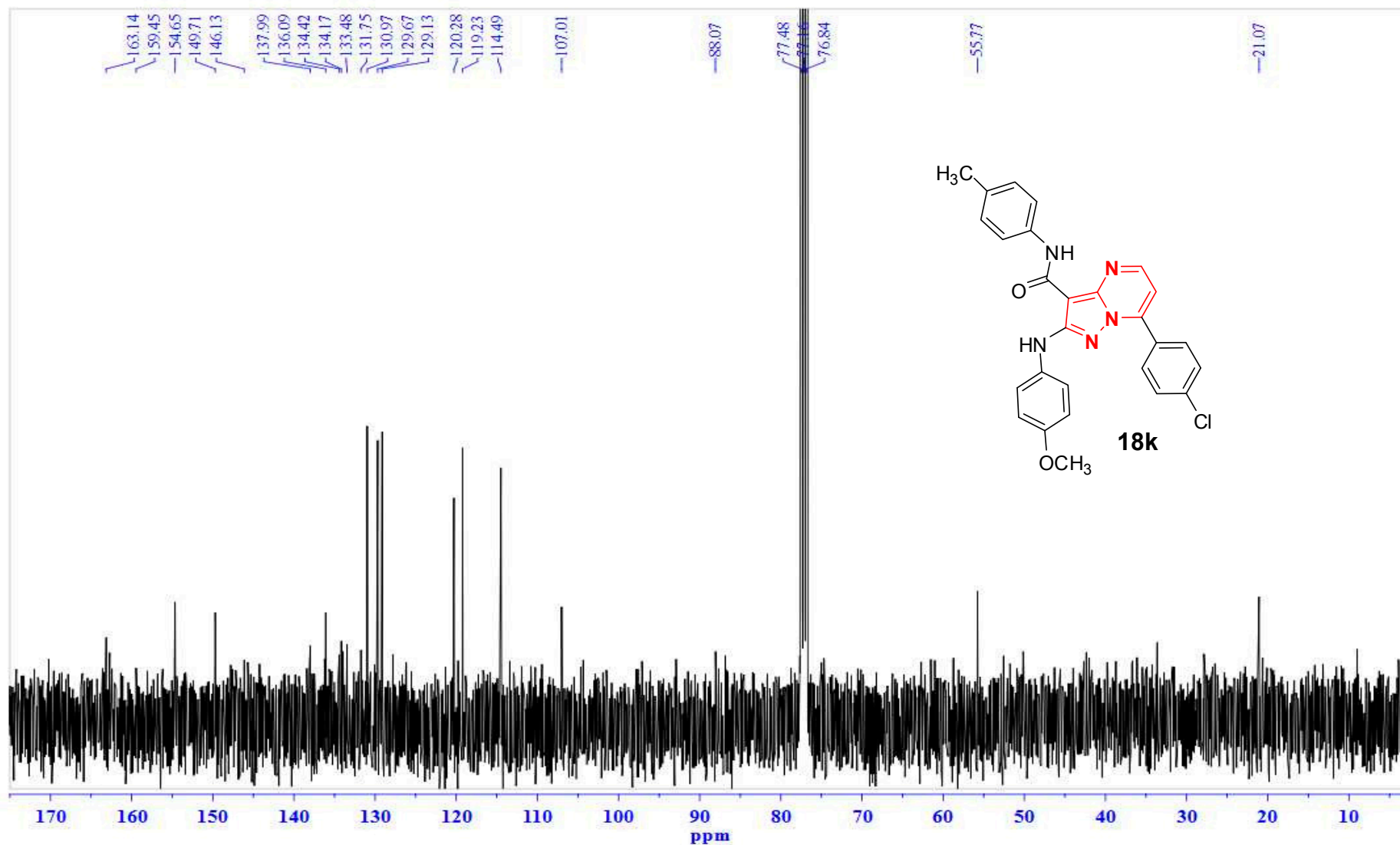
The <sup>13</sup>C NMR (100 MHz) spectrum of compound **18j**



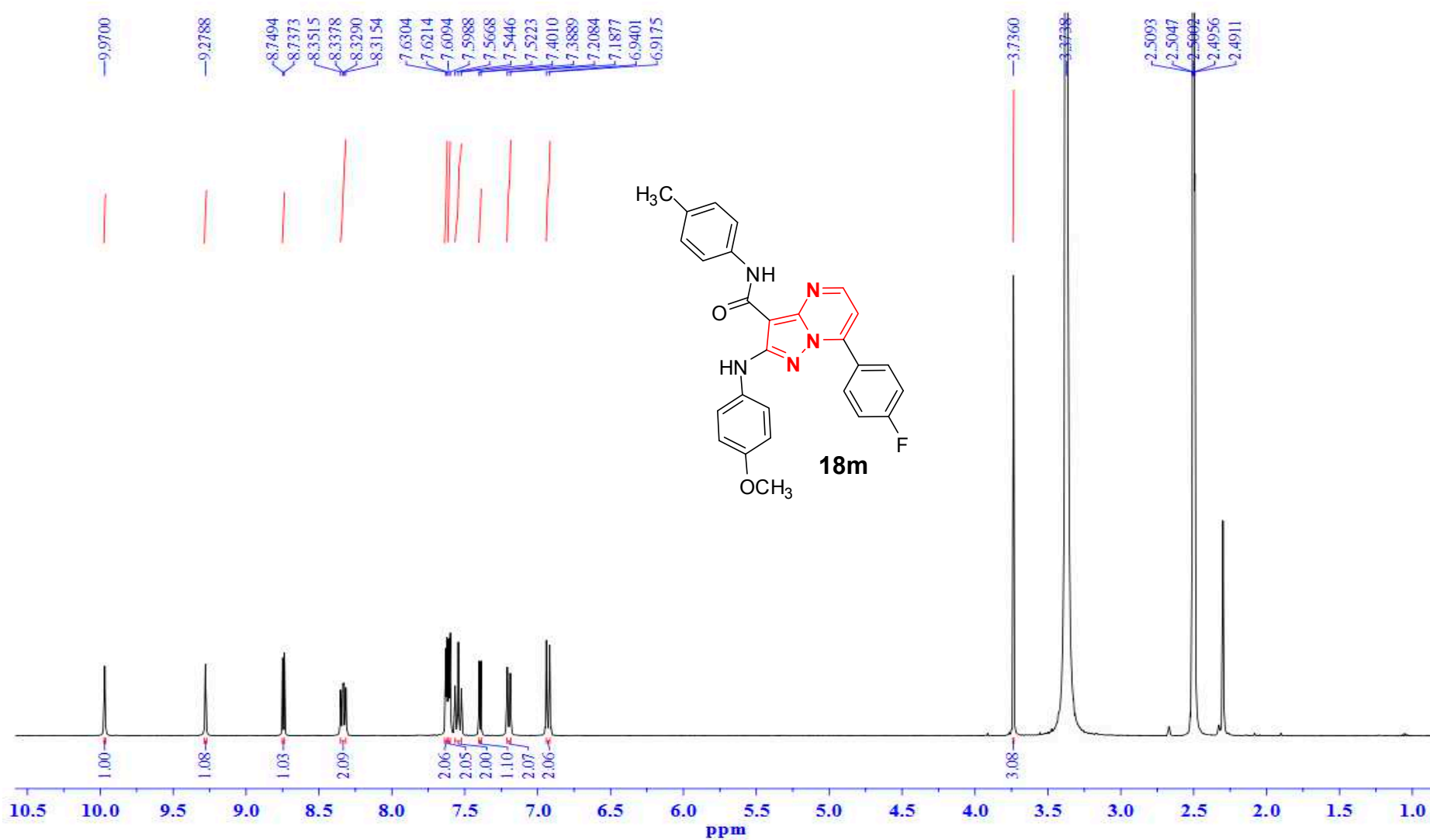
The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **18k**



The <sup>1</sup>H NMR (400 MHz) spectrum (aromatic region) of compound **18k**

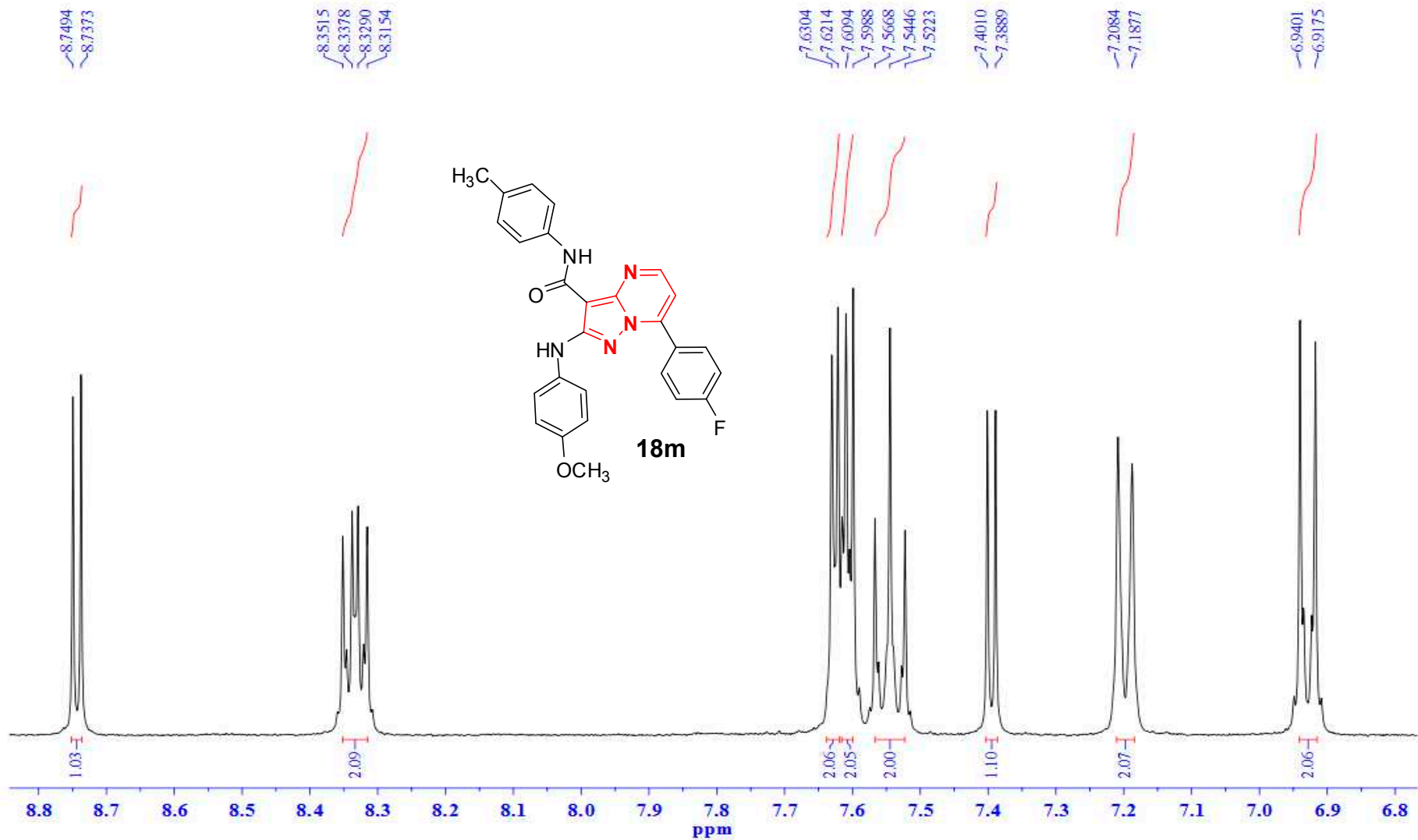


The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **18k**

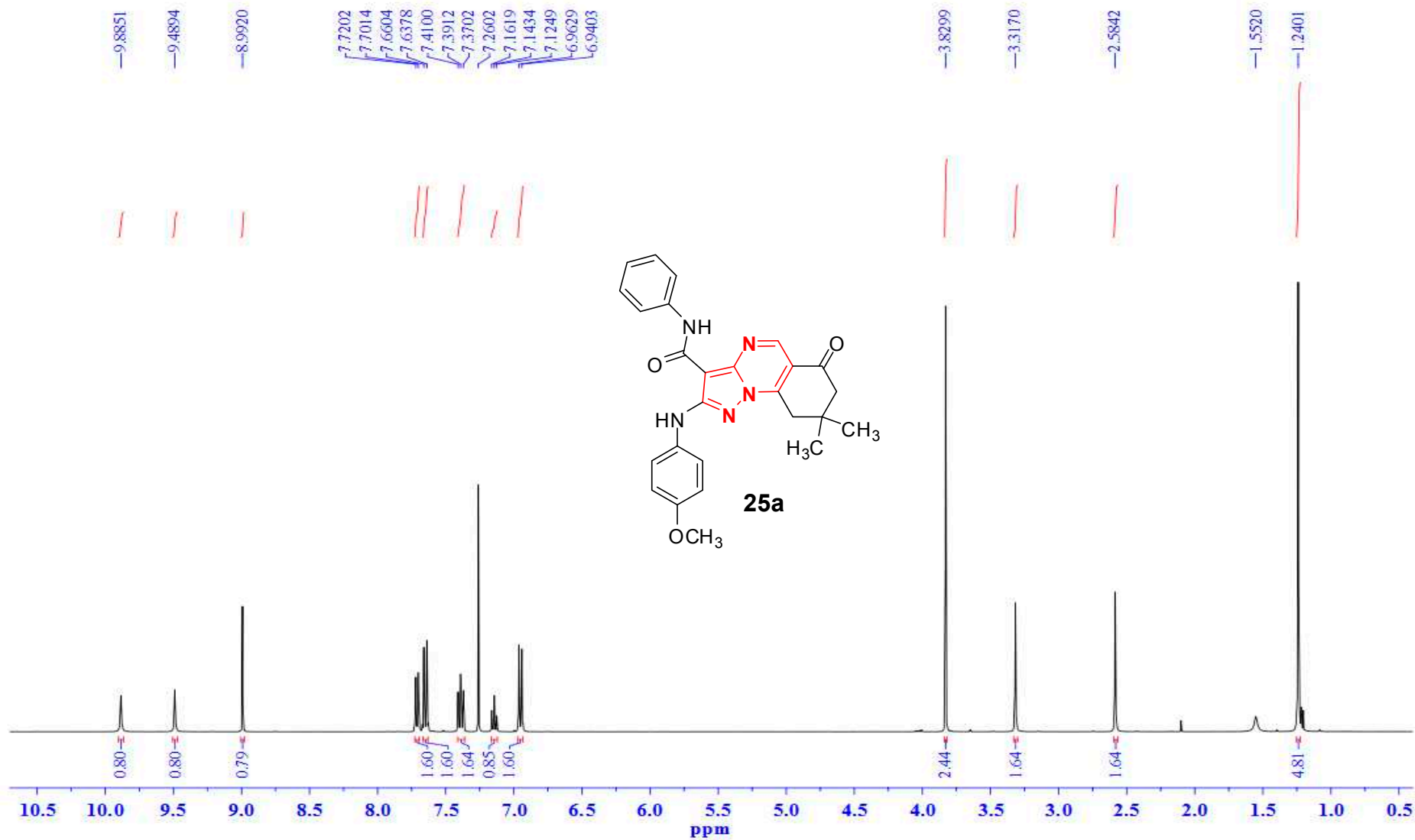


The <sup>1</sup>H NMR (400 MHz) spectrum of compound **18m**

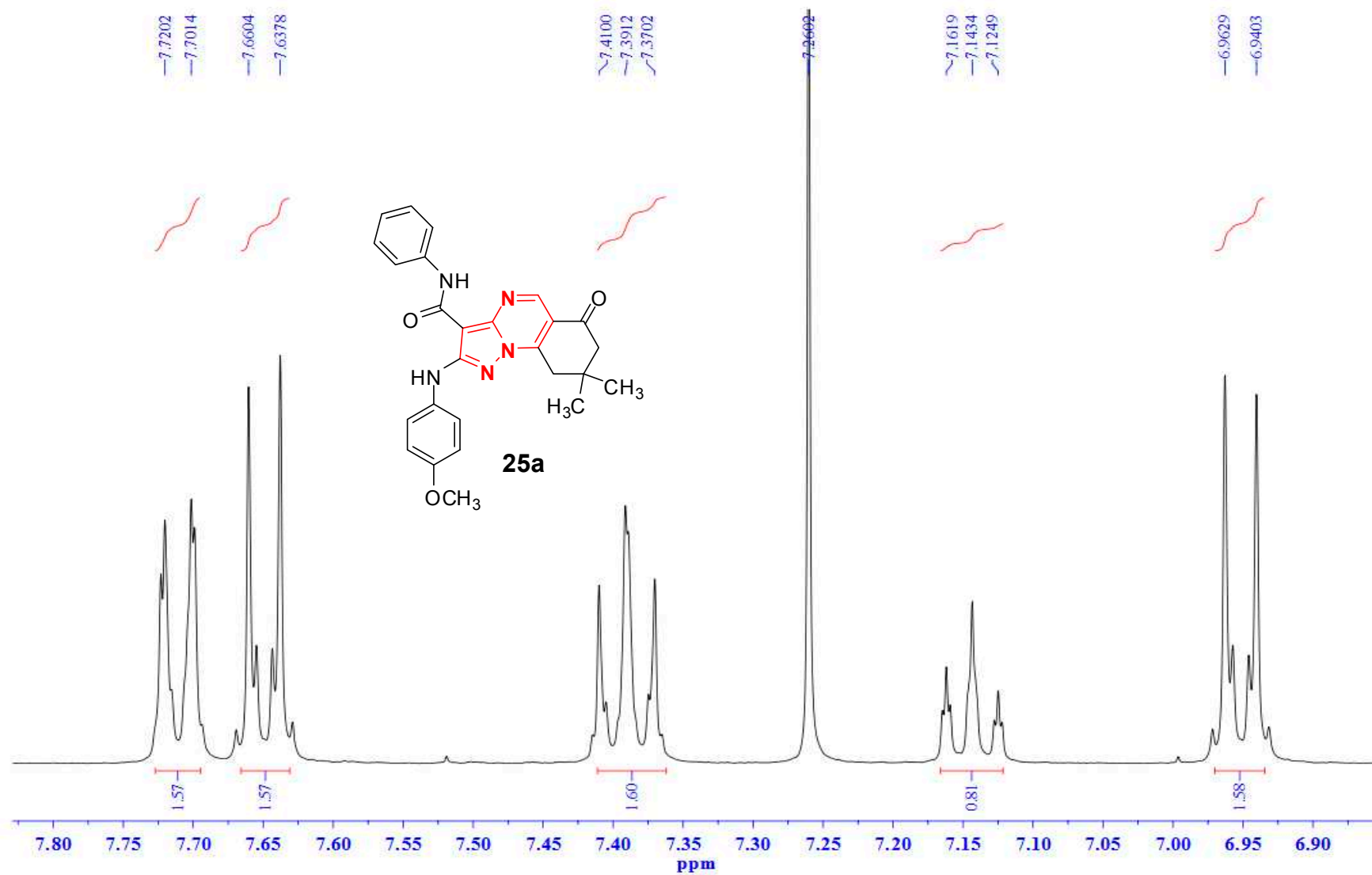




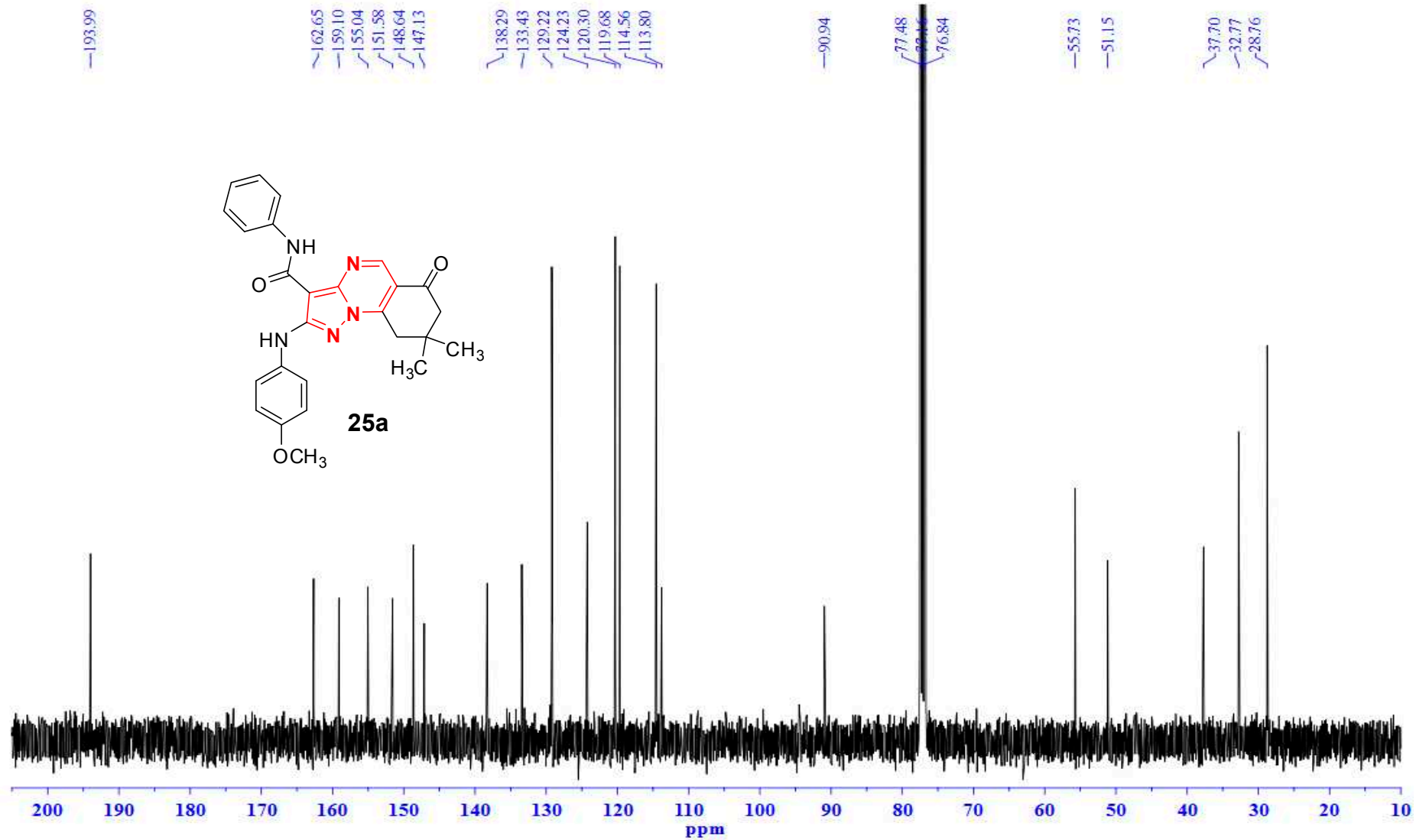
The  $^1\text{H}$  NMR (400 MHz) spectrum (aromatic region) of compound **18m**



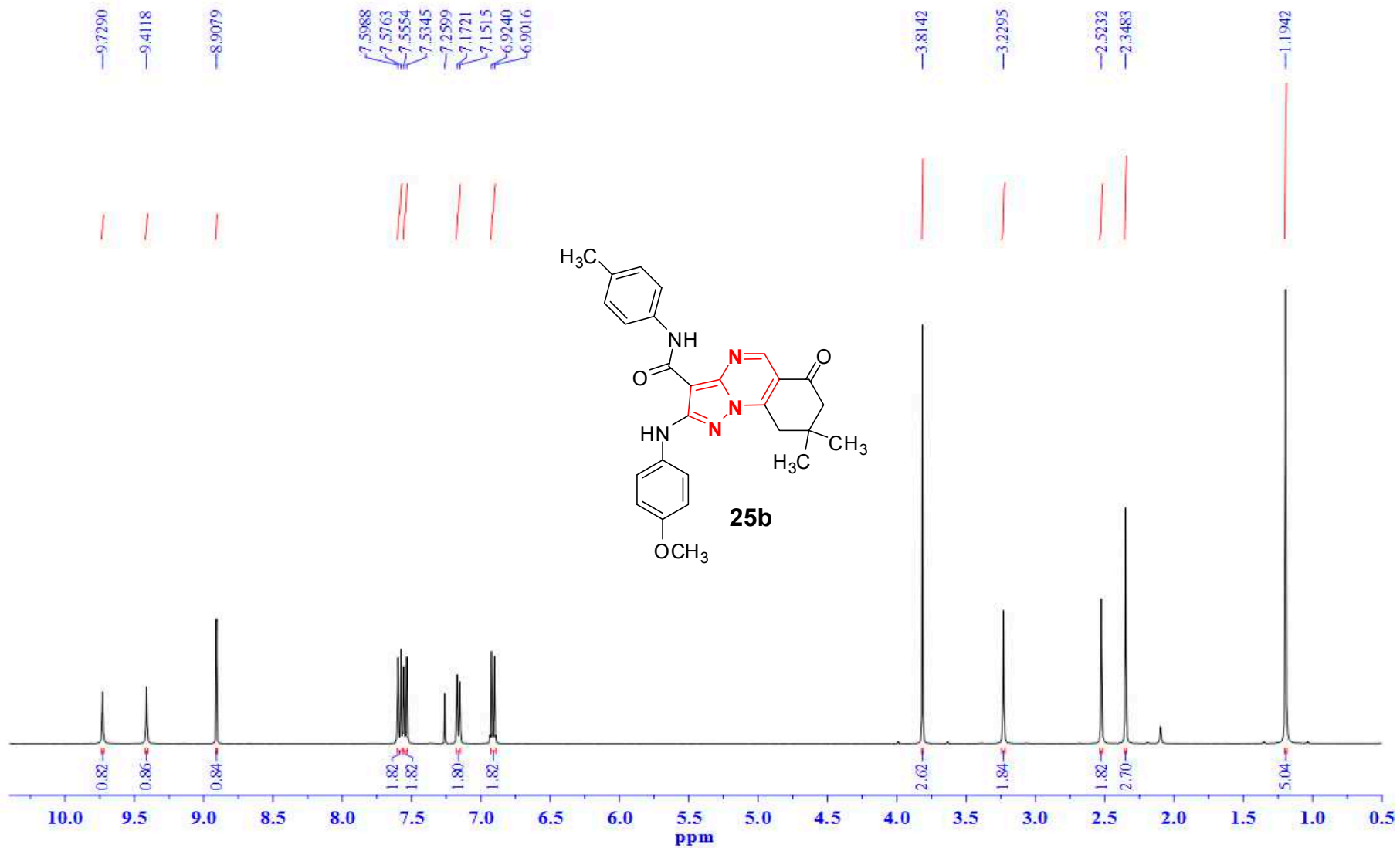
The <sup>1</sup>H NMR (400 MHz) spectrum of compound **25a**



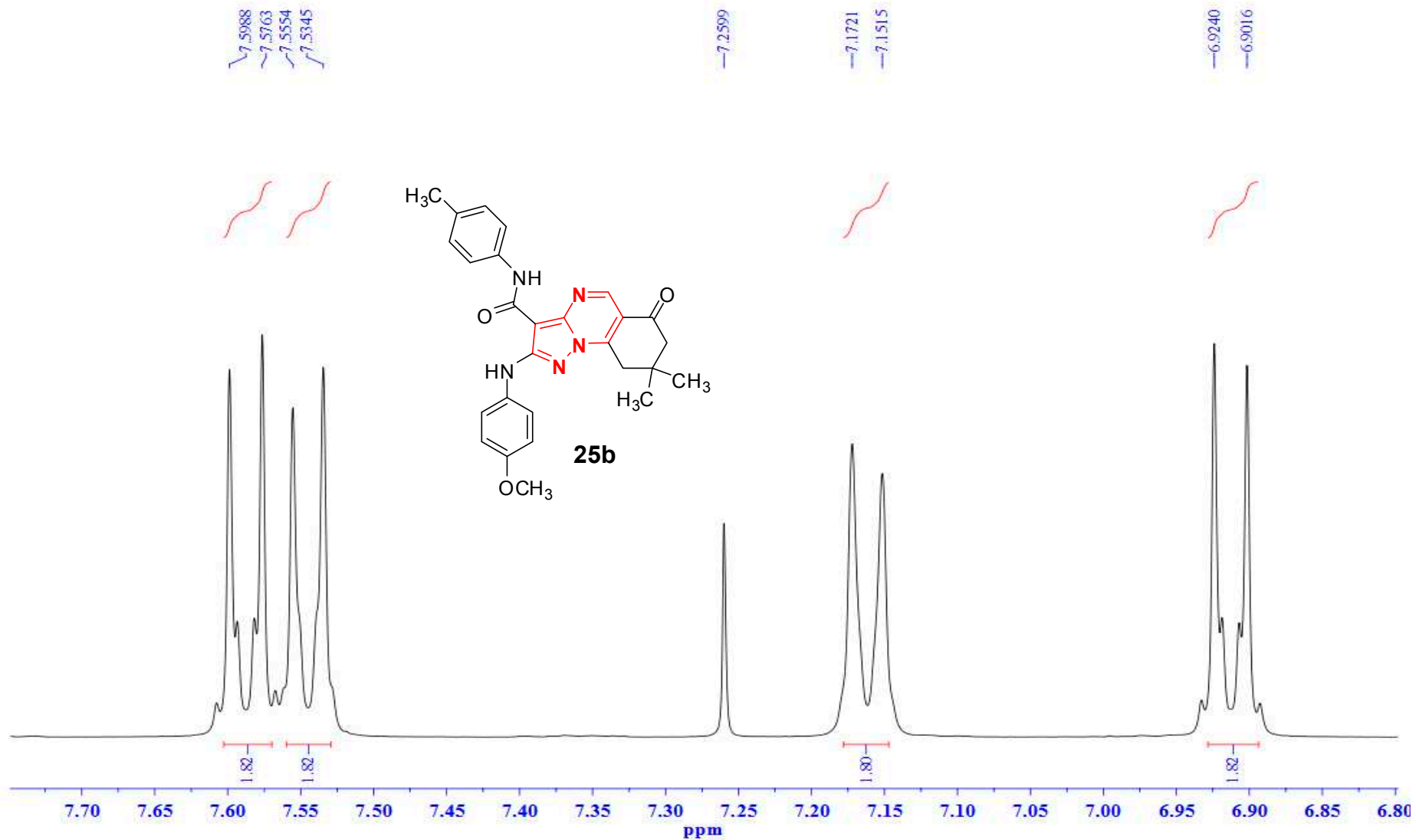
The  $^1\text{H}$  NMR (400 MHz) spectrum (aromatic region) of compound **25a**



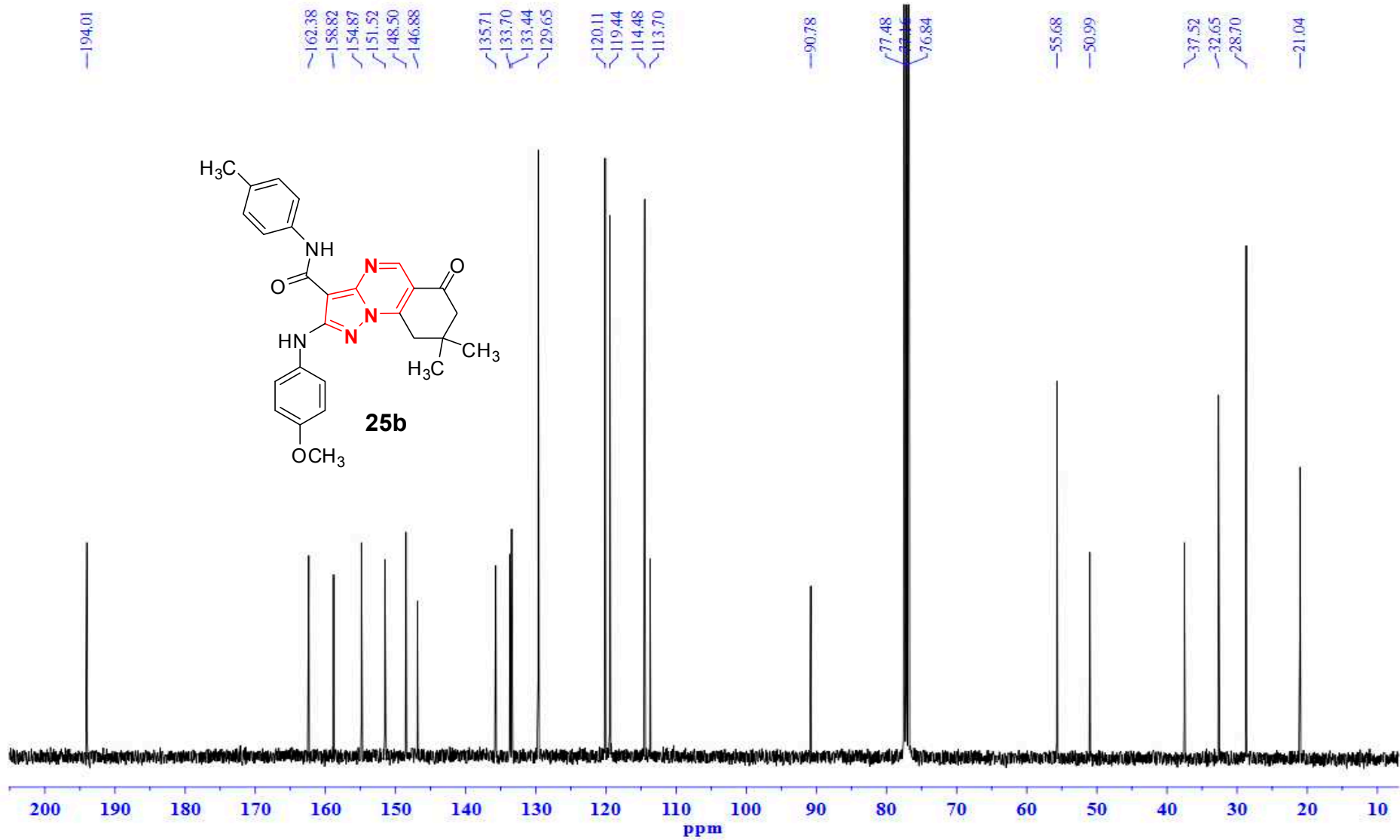
The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **25a**



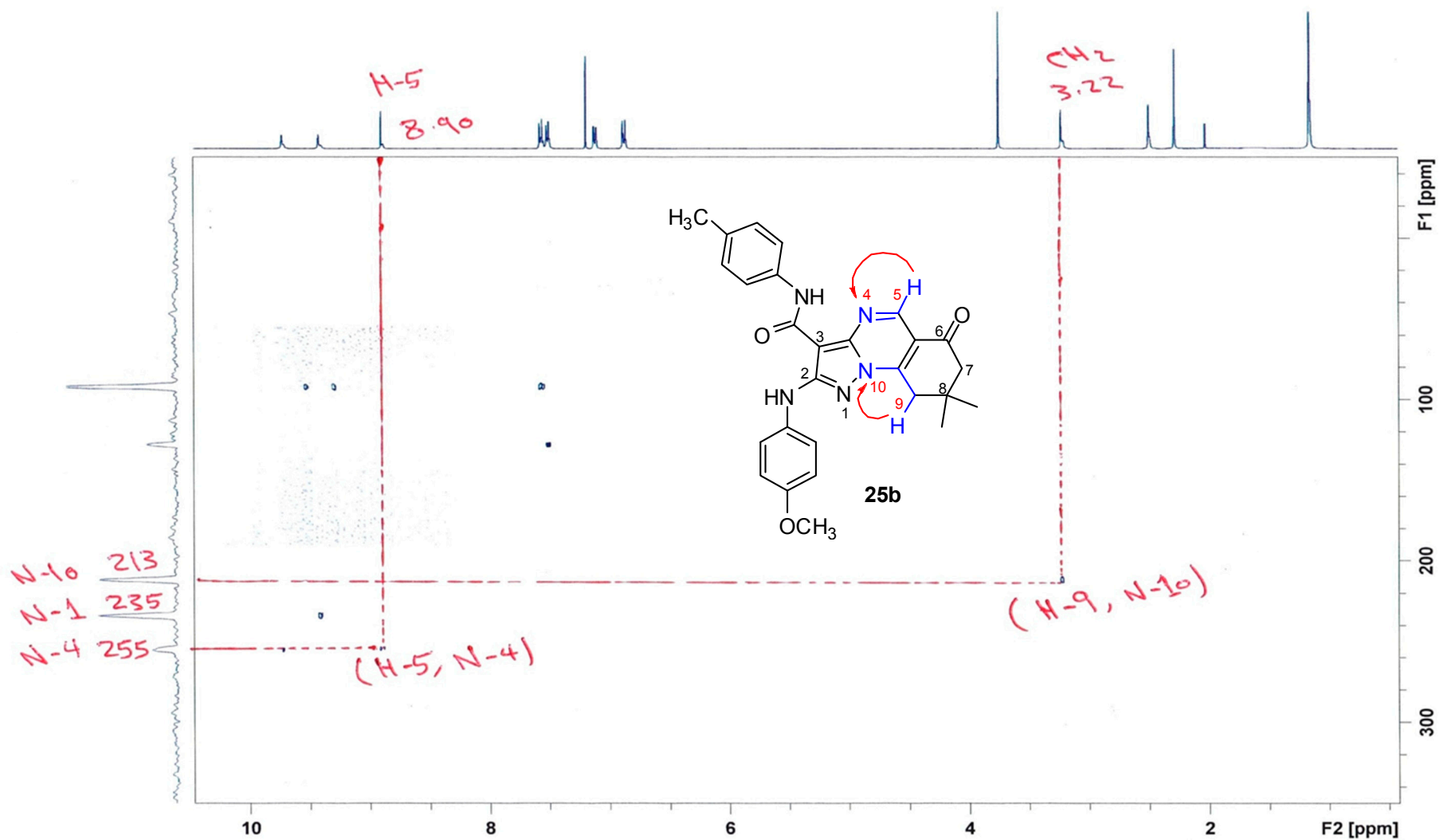
The  $^1\text{H}$  NMR (400 MHz) spectrum of compound **25b**



The  $^1\text{H}$  NMR (400 MHz) spectrum (aromatic region) of compound **25b**



The  $^{13}\text{C}$  NMR (100 MHz) spectrum of compound **25b**



The  $^1\text{H}$ - $^{15}\text{N}$  HMBC (40 MHz) spectrum of compound **25b**