

## Supporting Information

# Expanding the Heteroaromatic and 2-Aminosugar Chemical Space Accessible from the Biopolymer Chitin

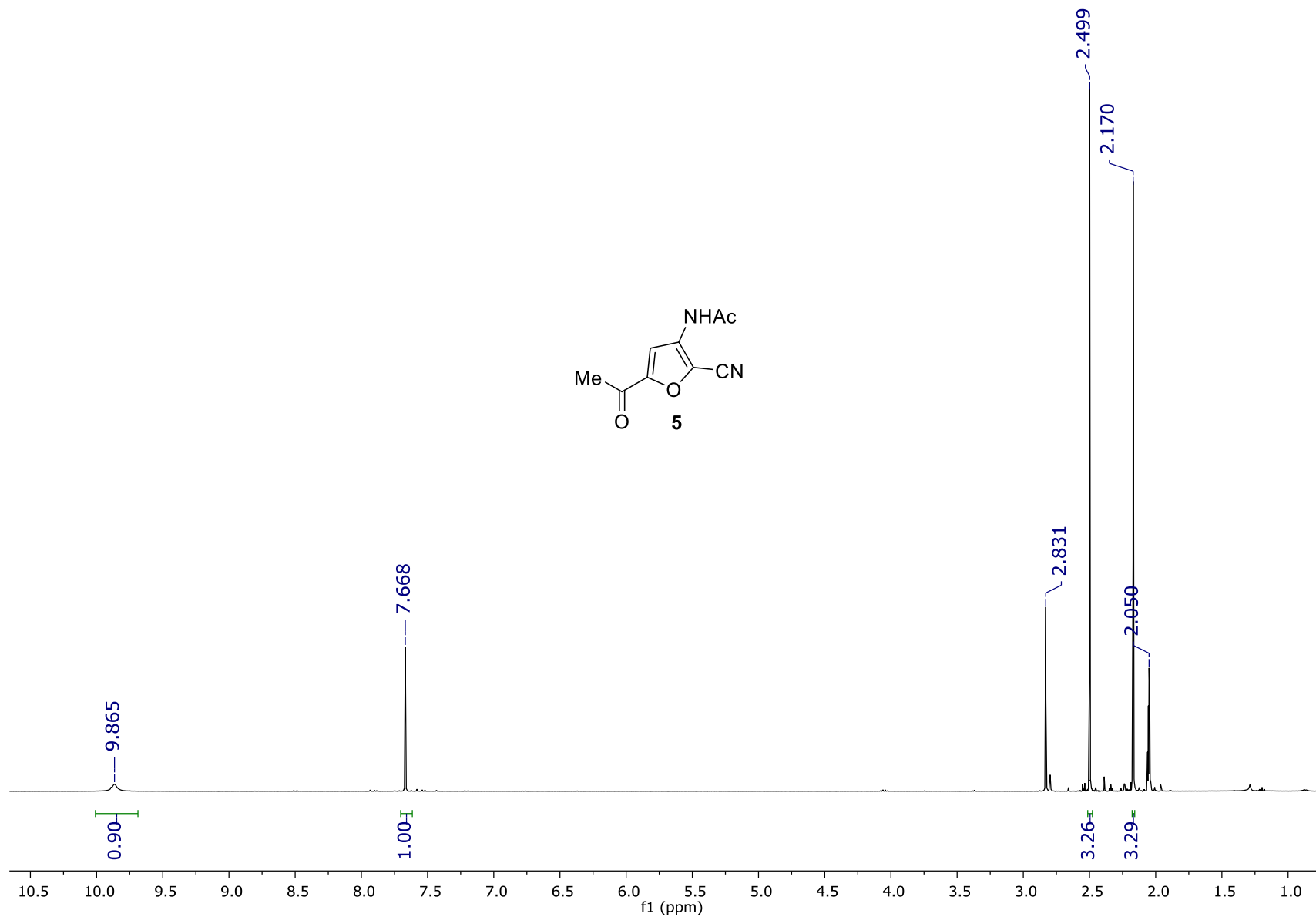
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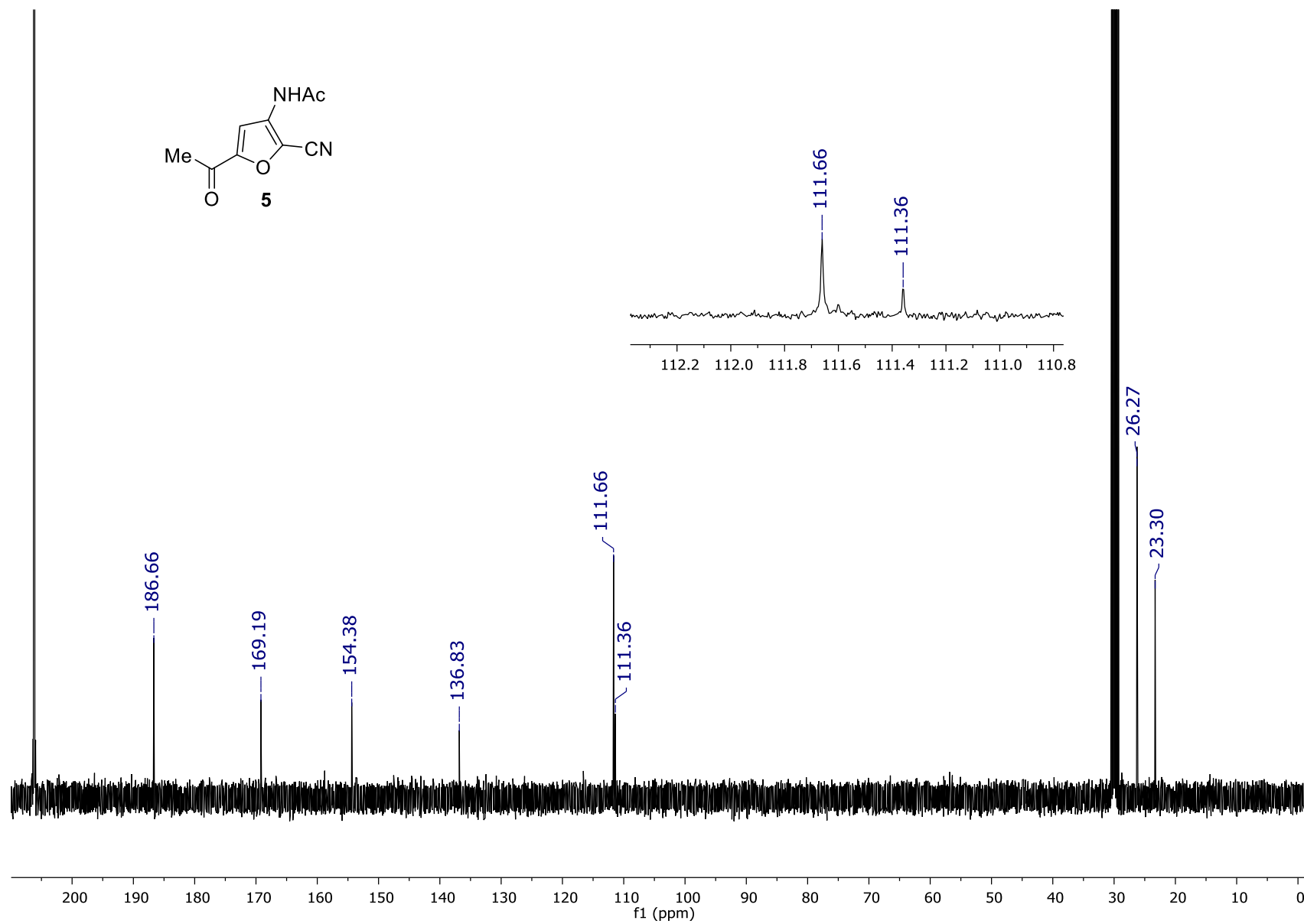
Centre for Green Chemical Science, School of Chemical Sciences, University of Auckland, 23 Symonds Street, Auckland, New Zealand

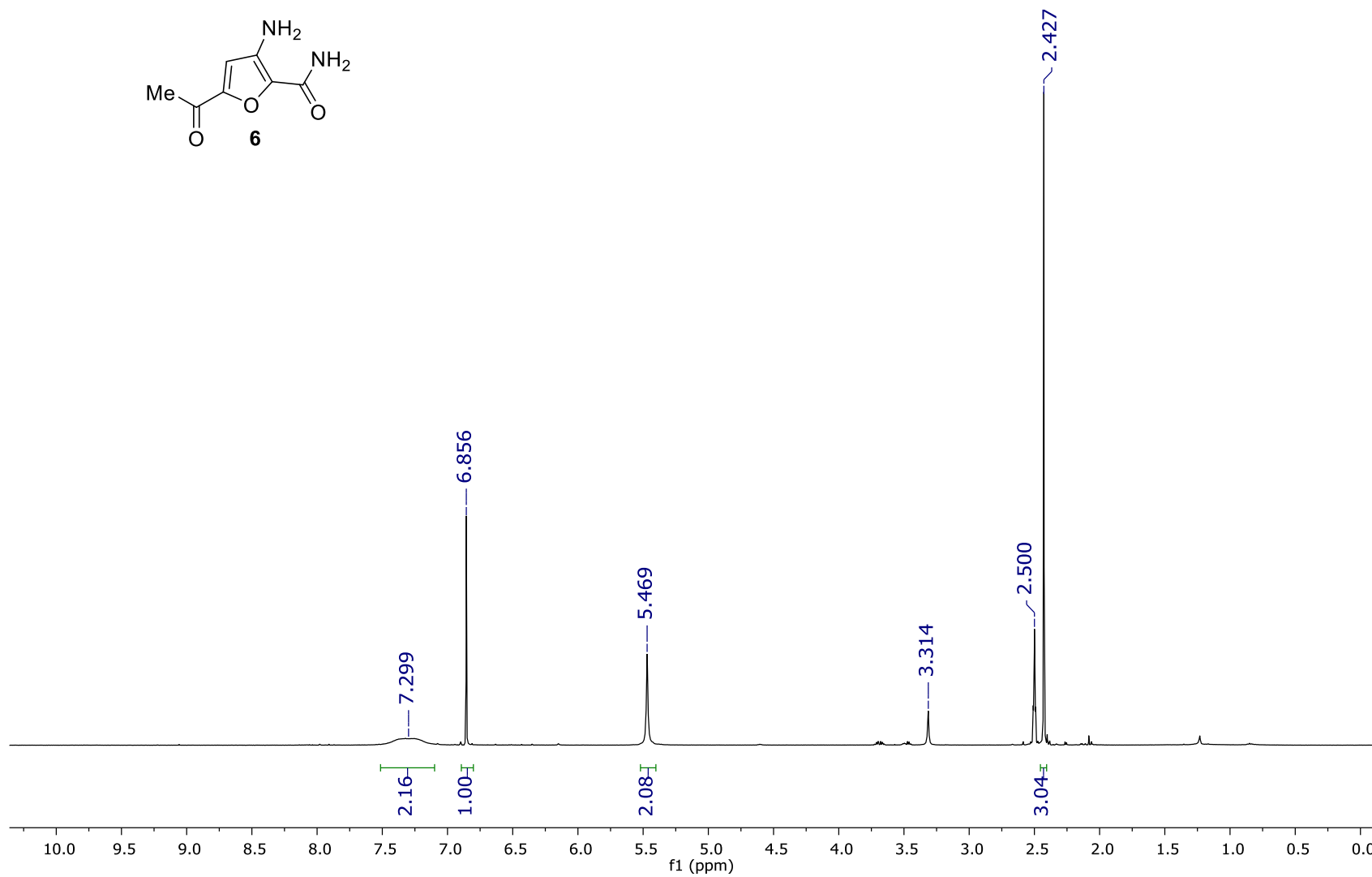
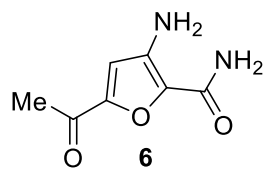
[j.sperry@auckland.ac.nz](mailto:j.sperry@auckland.ac.nz)

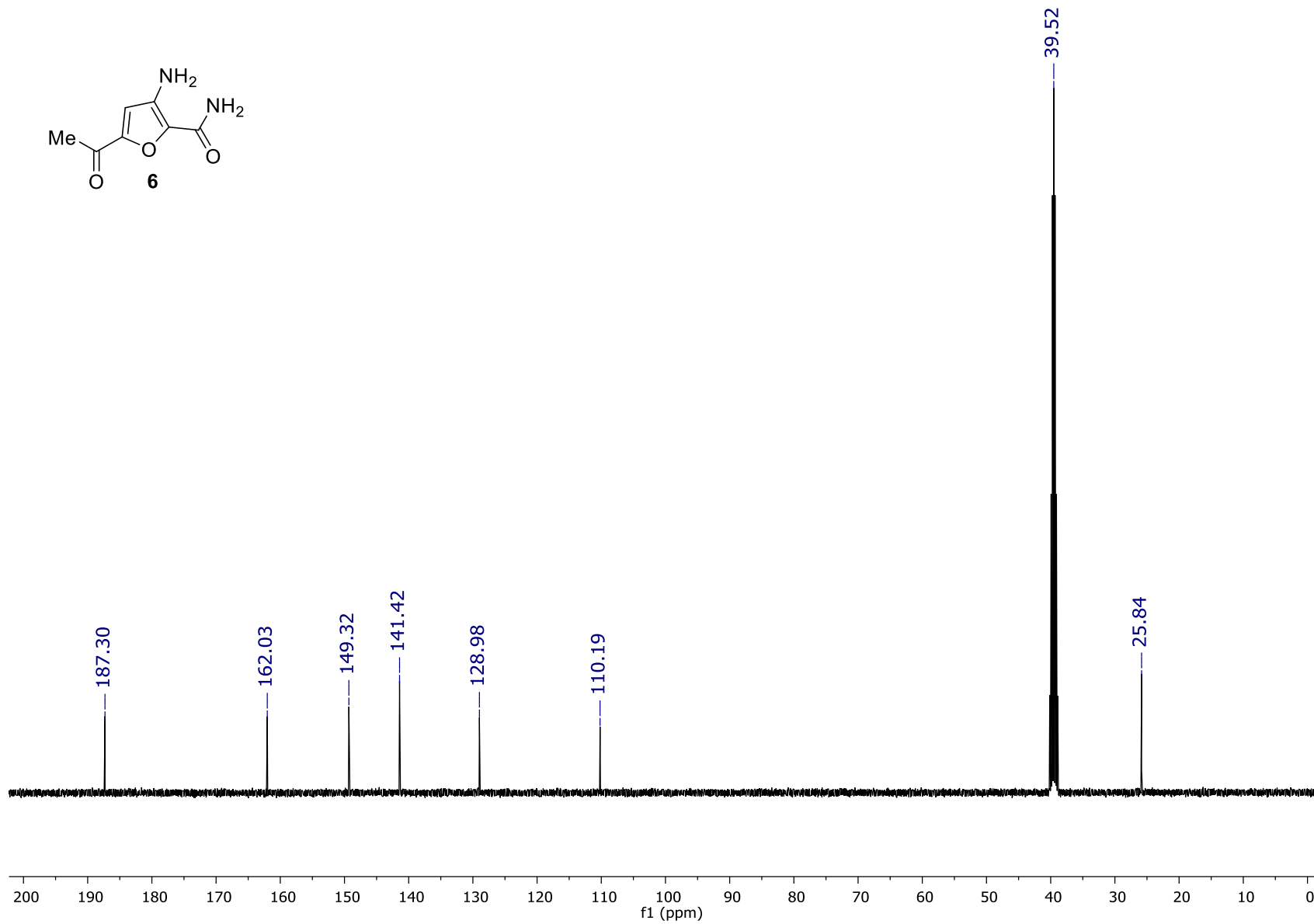
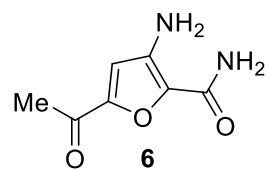
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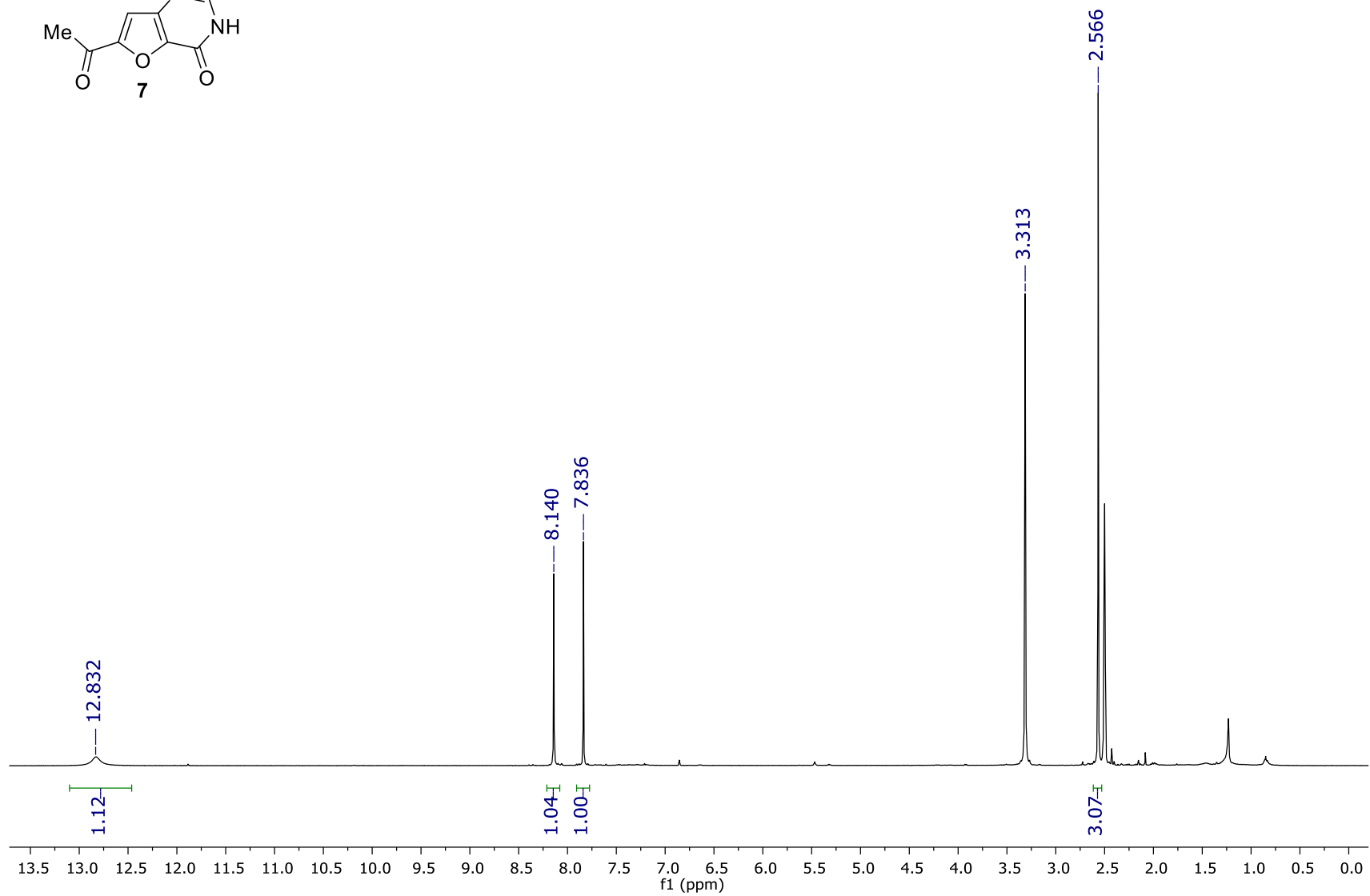
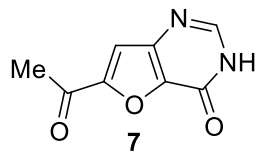
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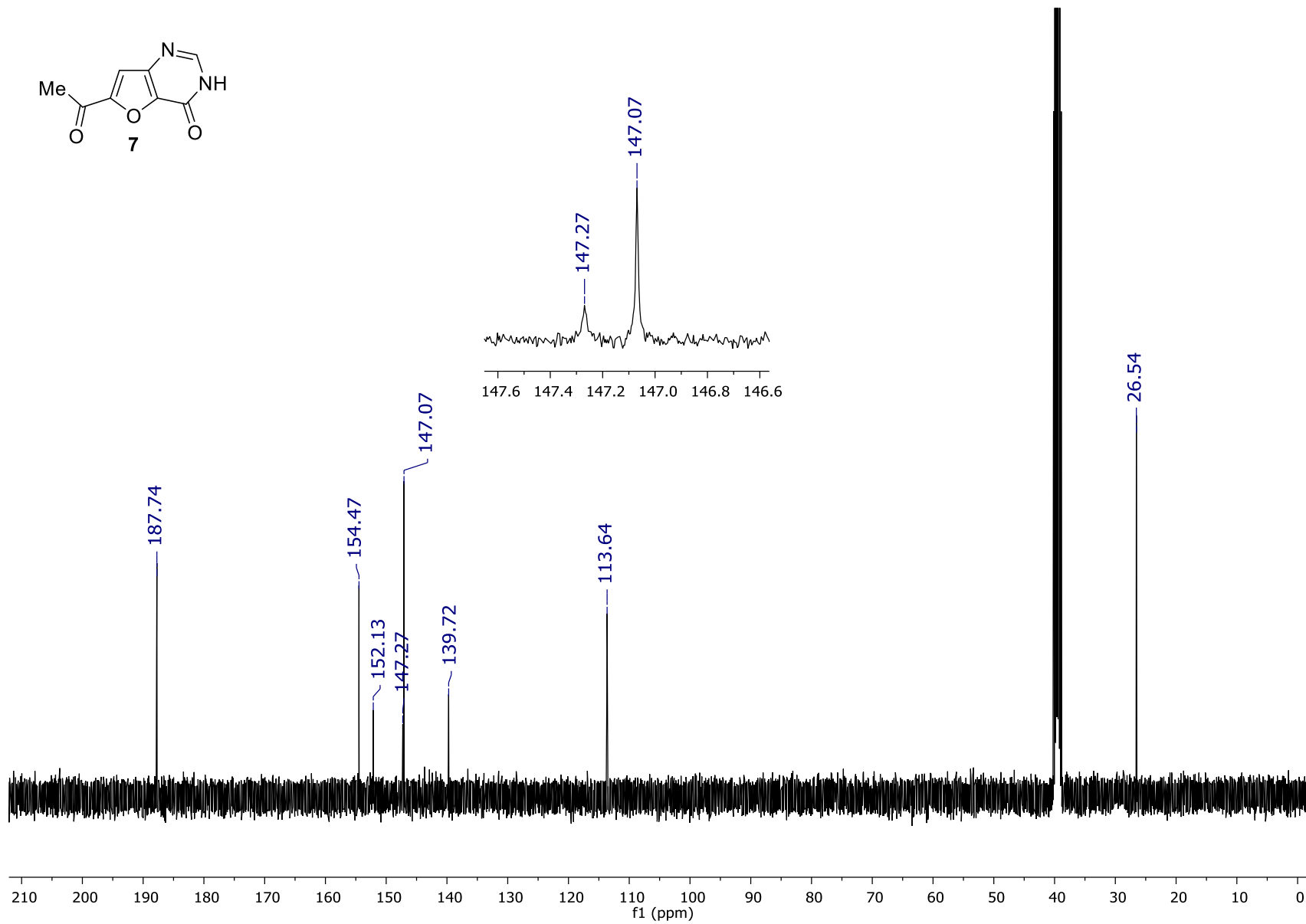
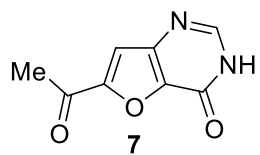


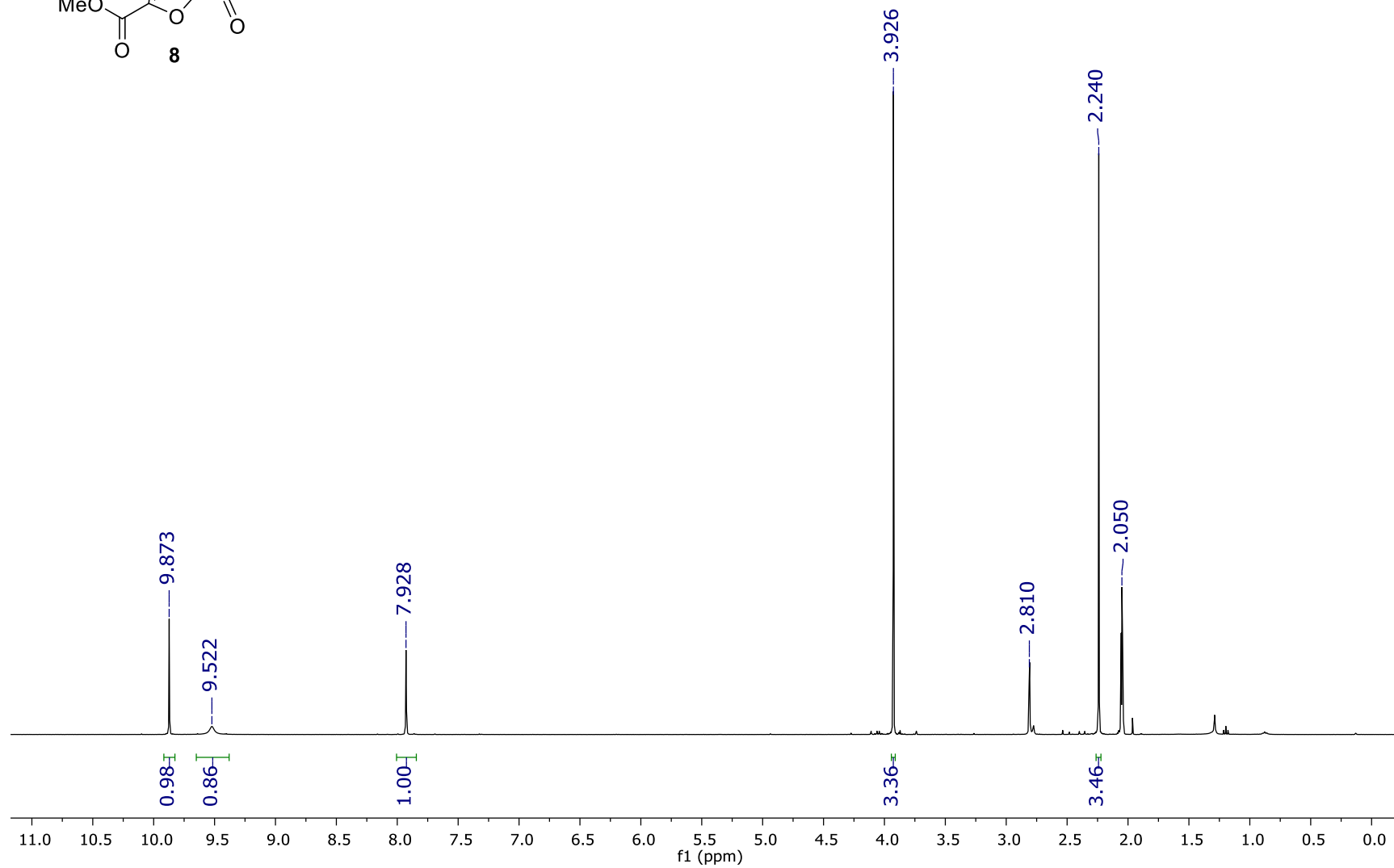
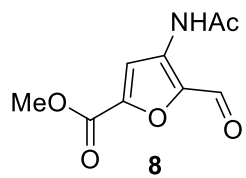


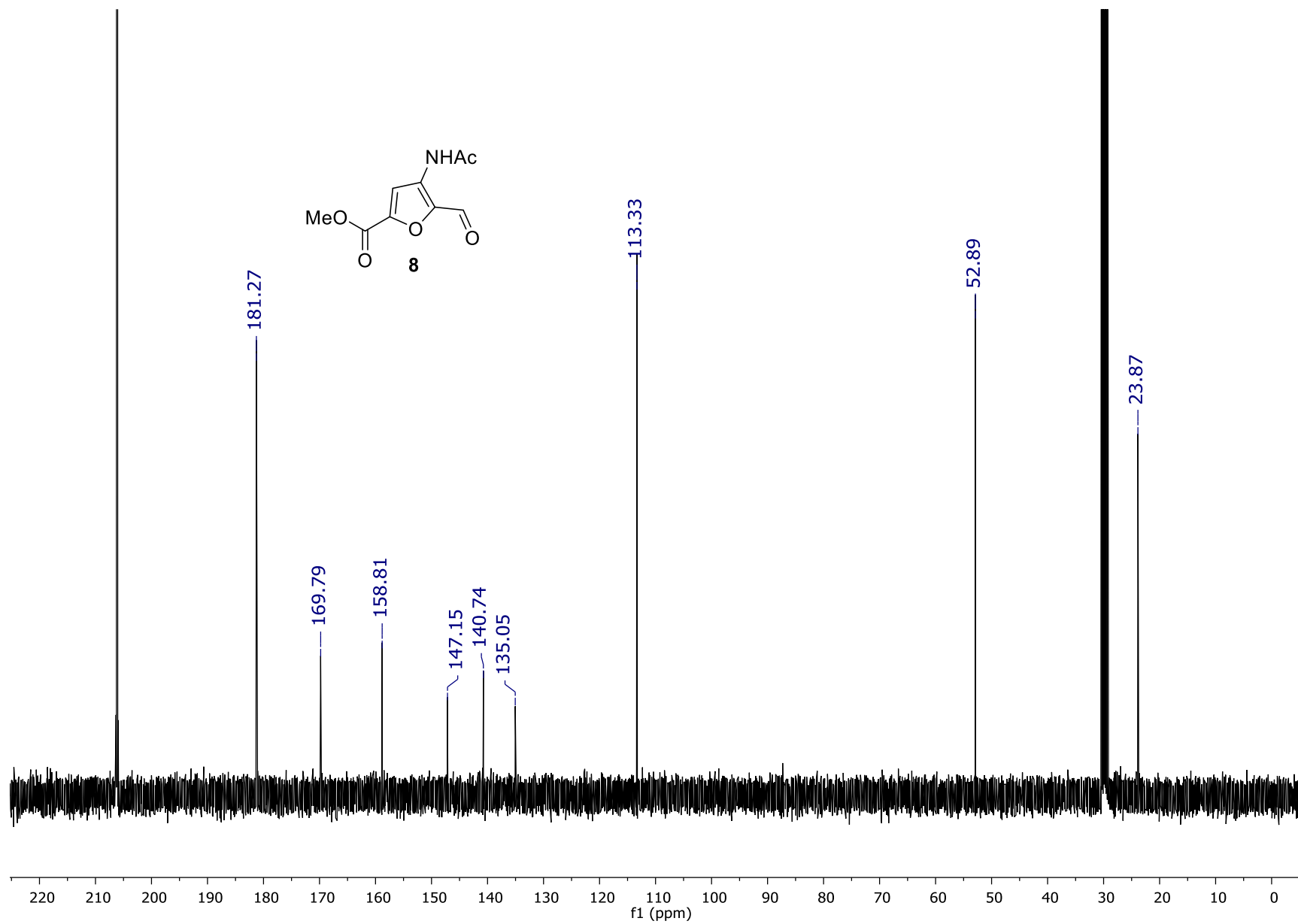


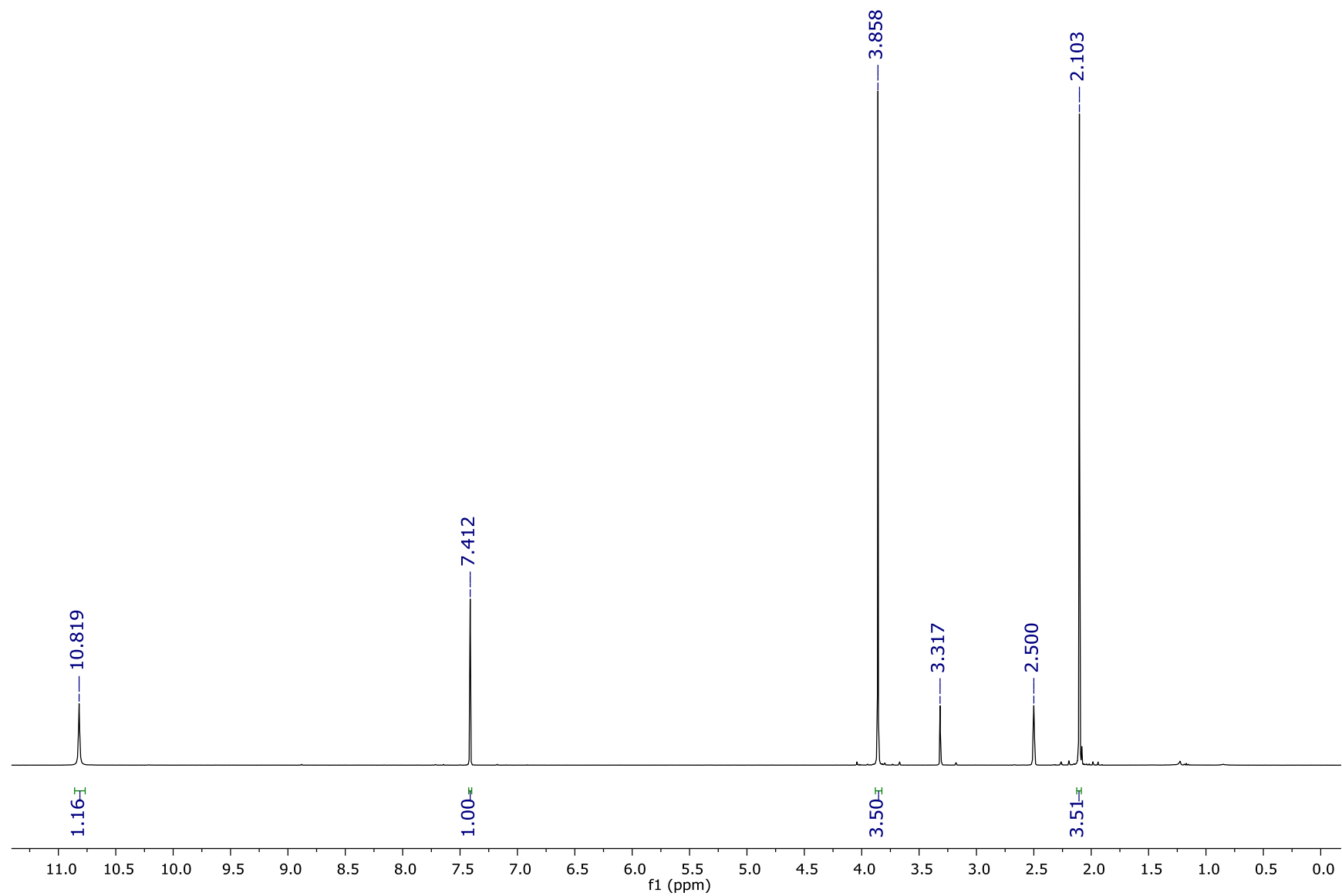
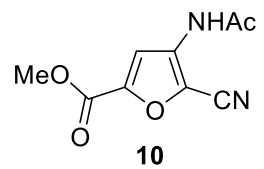


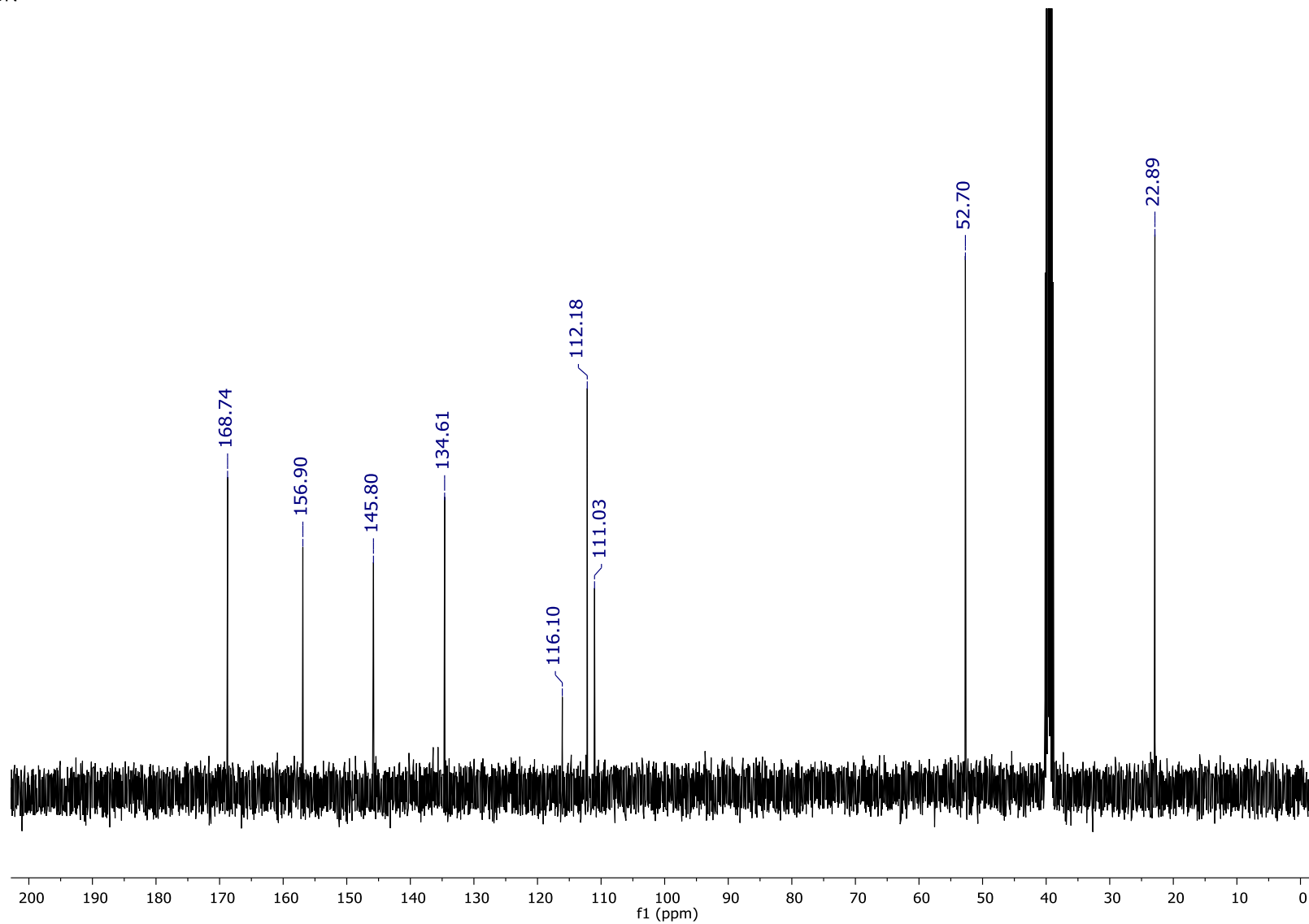
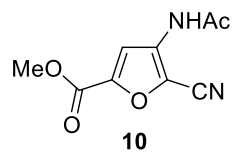


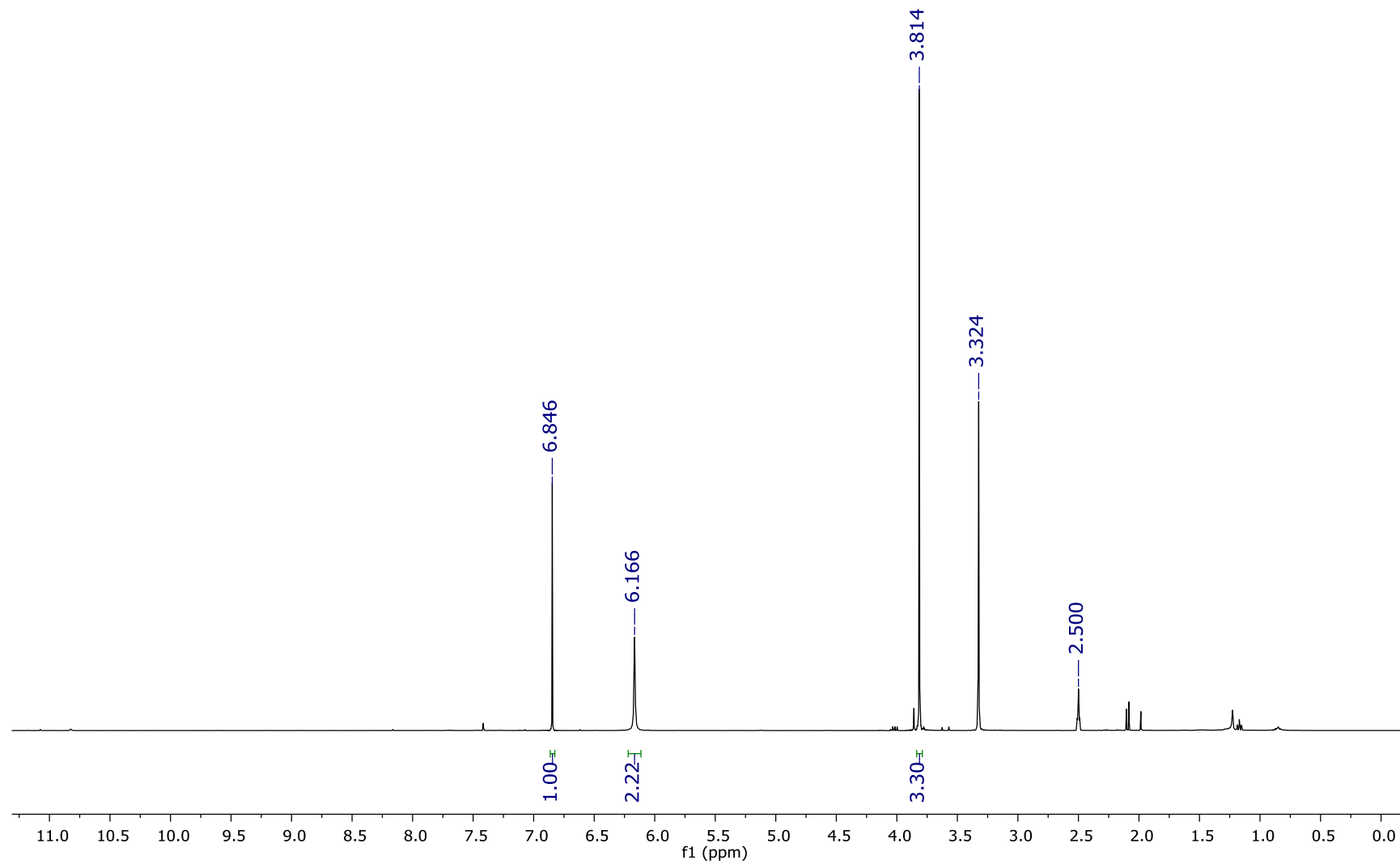
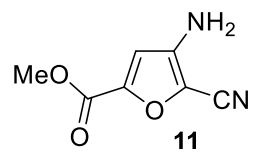


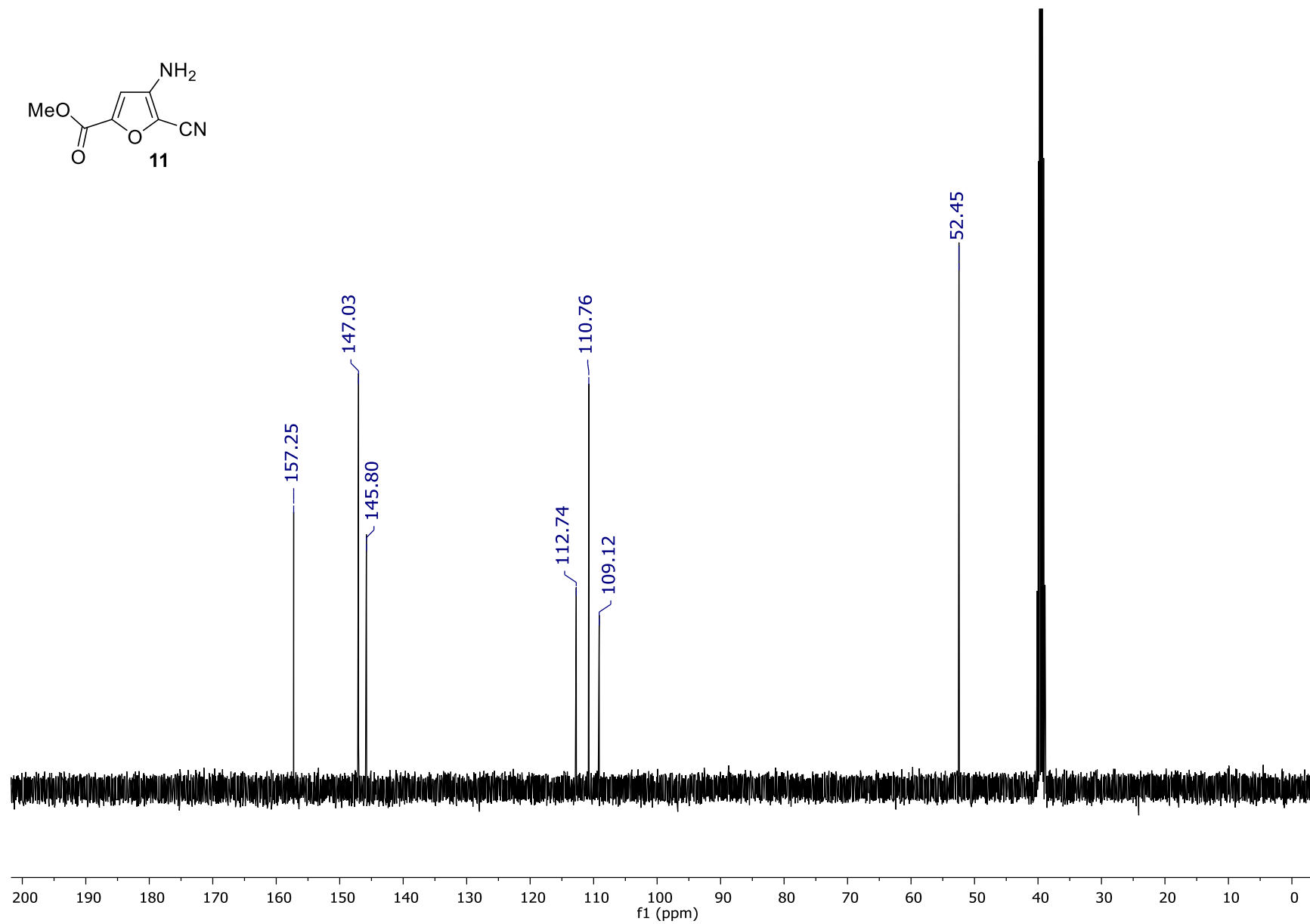
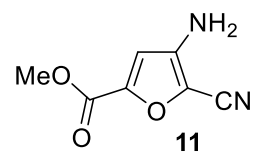


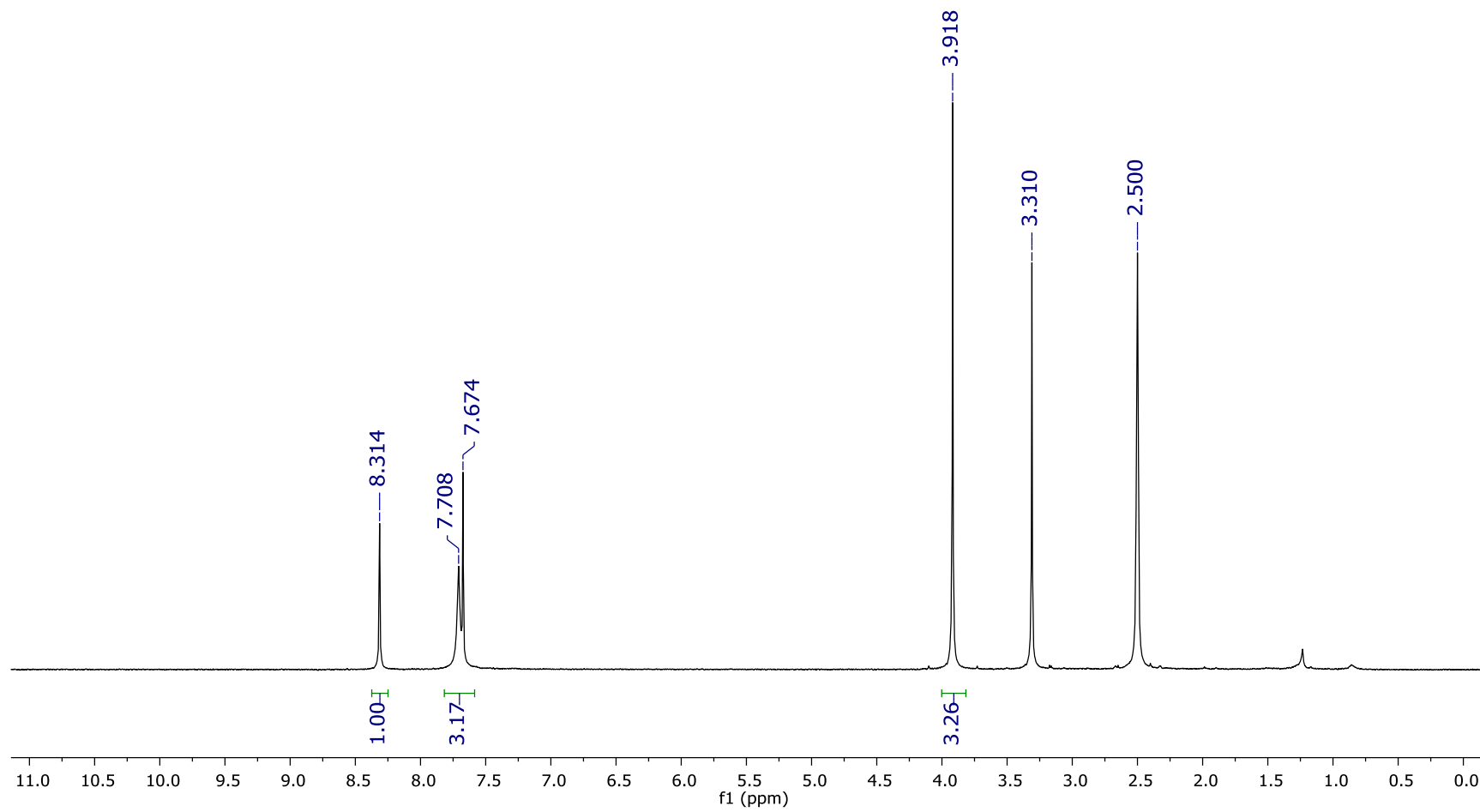
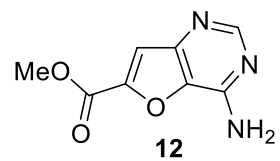


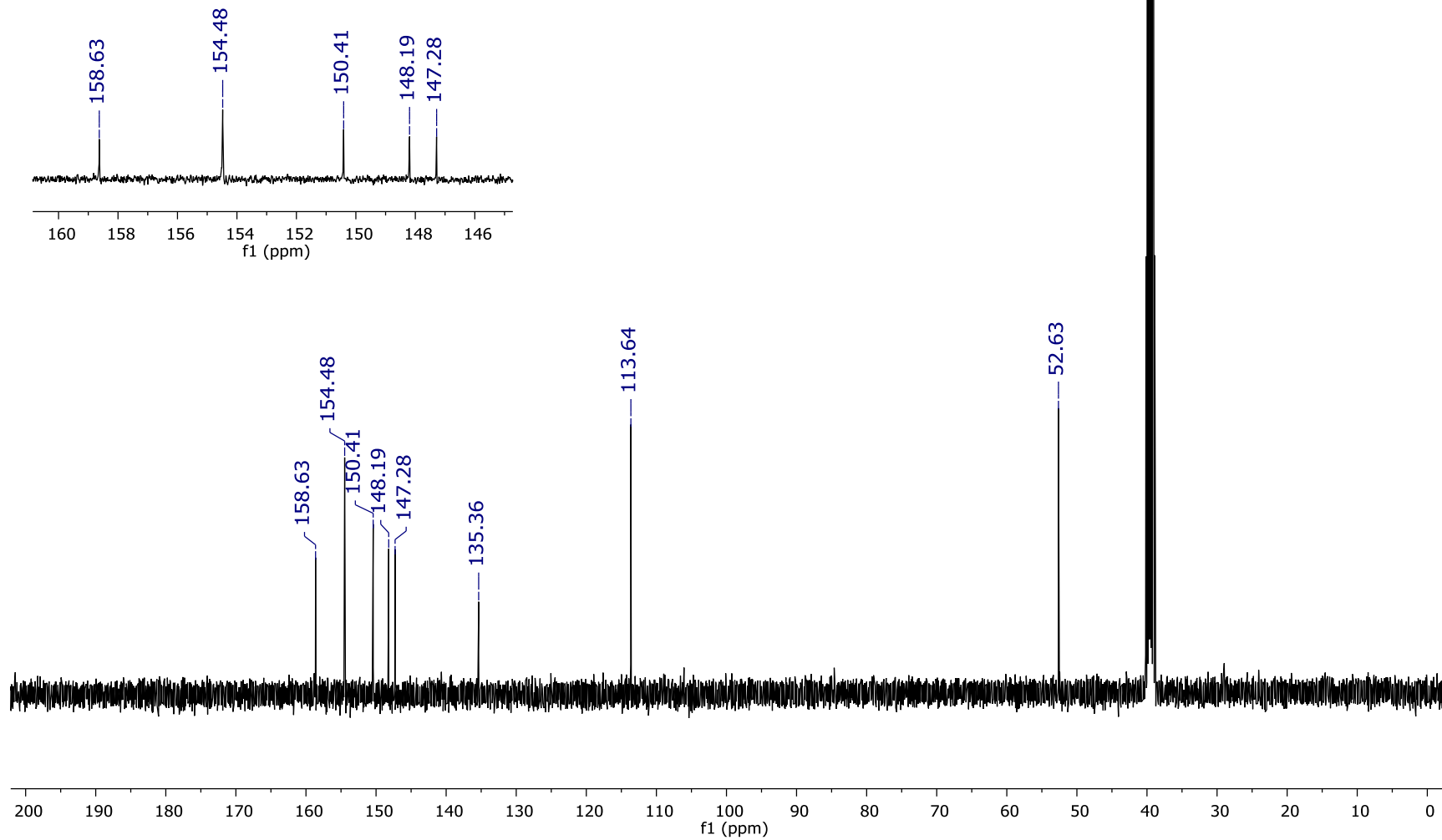
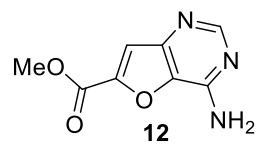


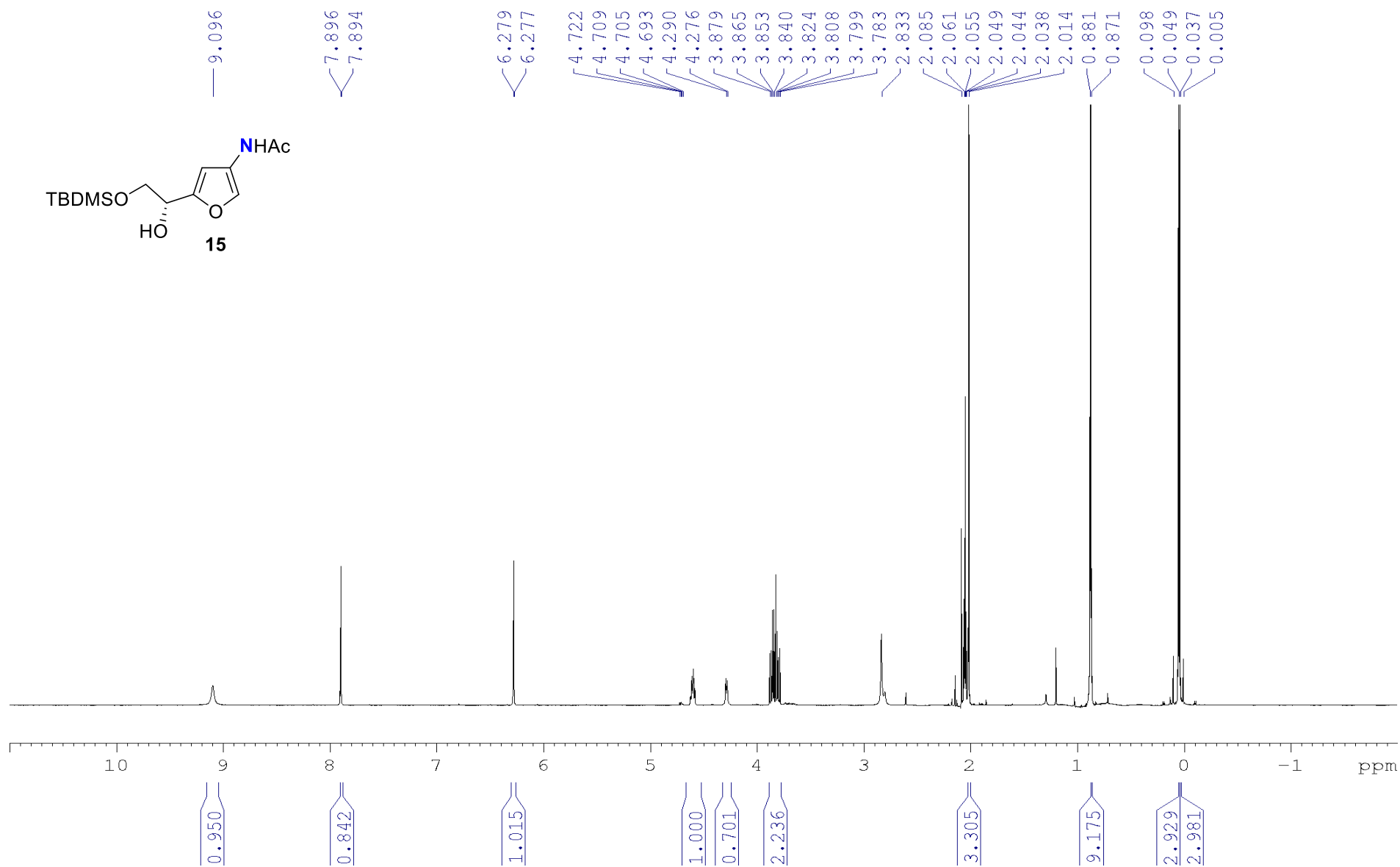


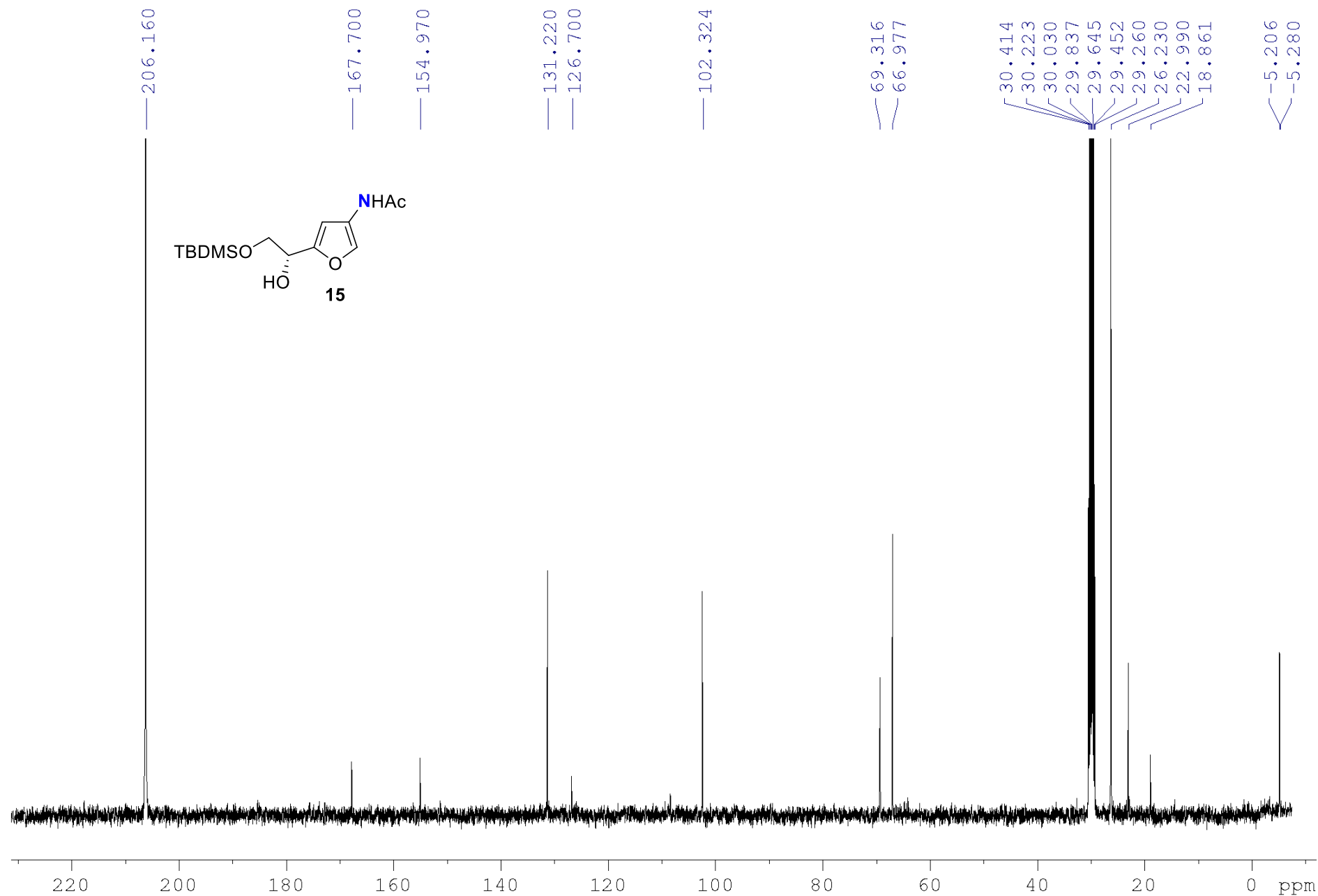


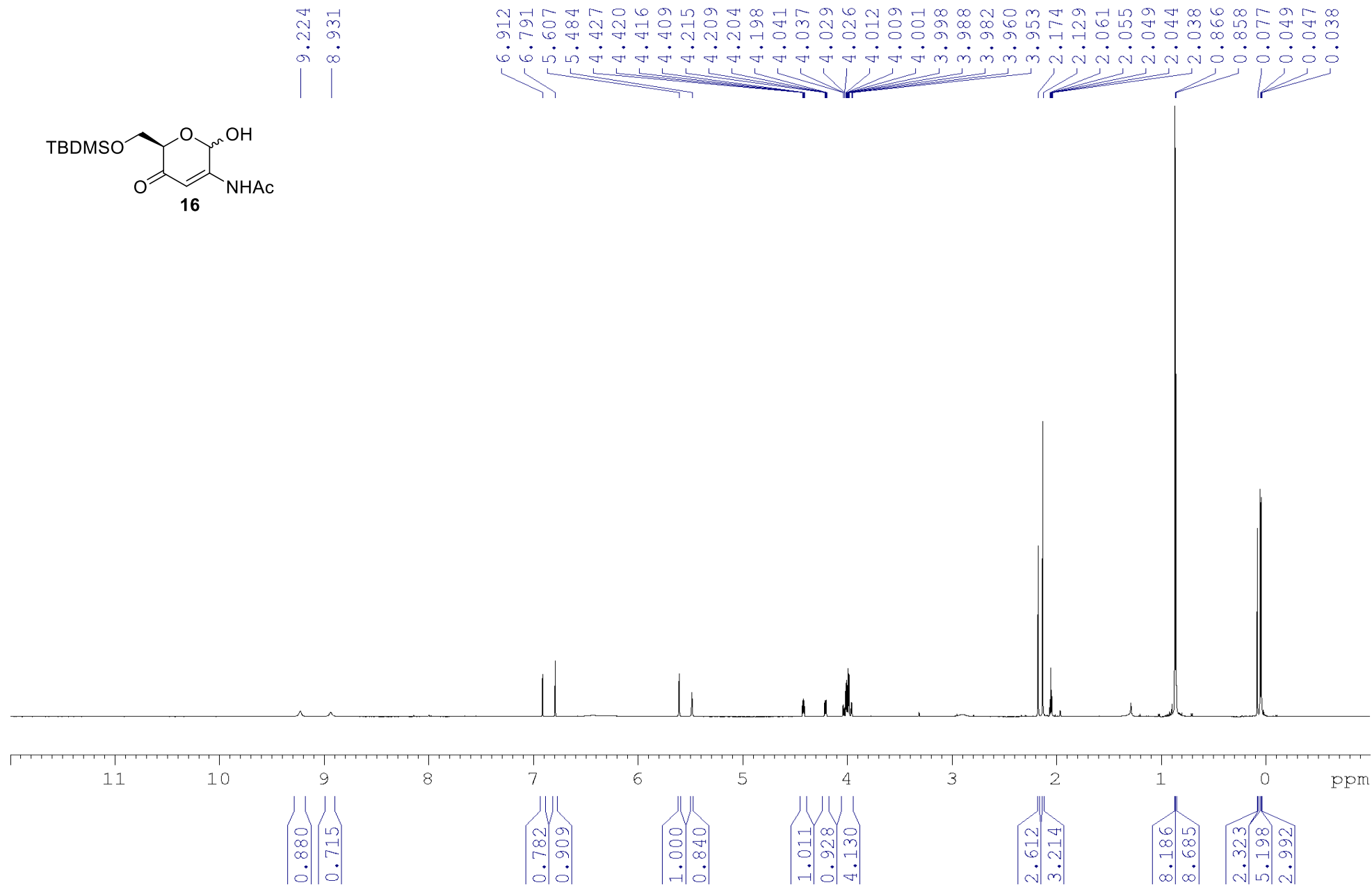
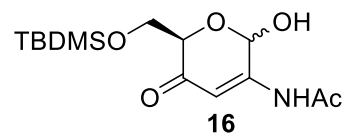


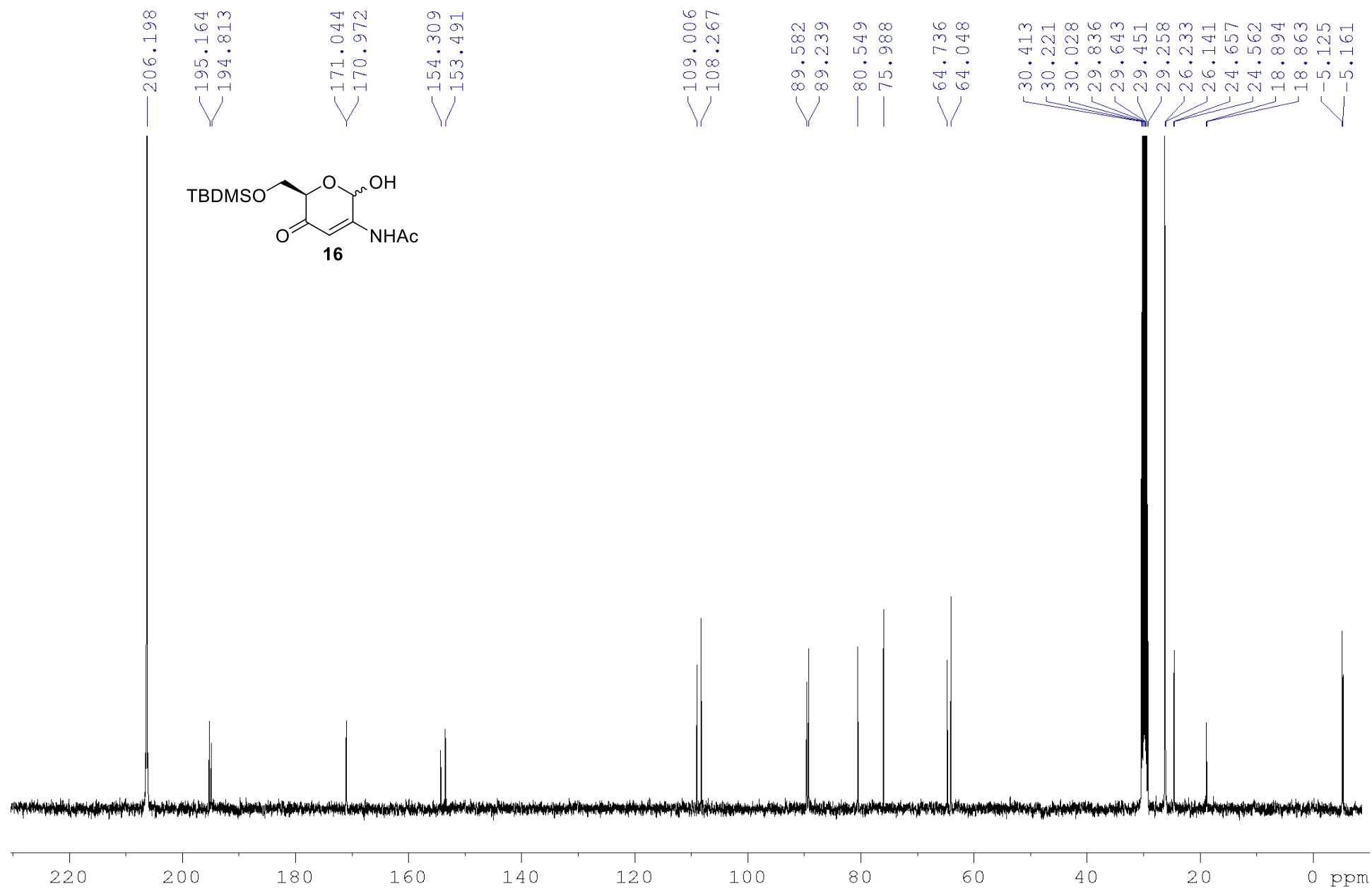


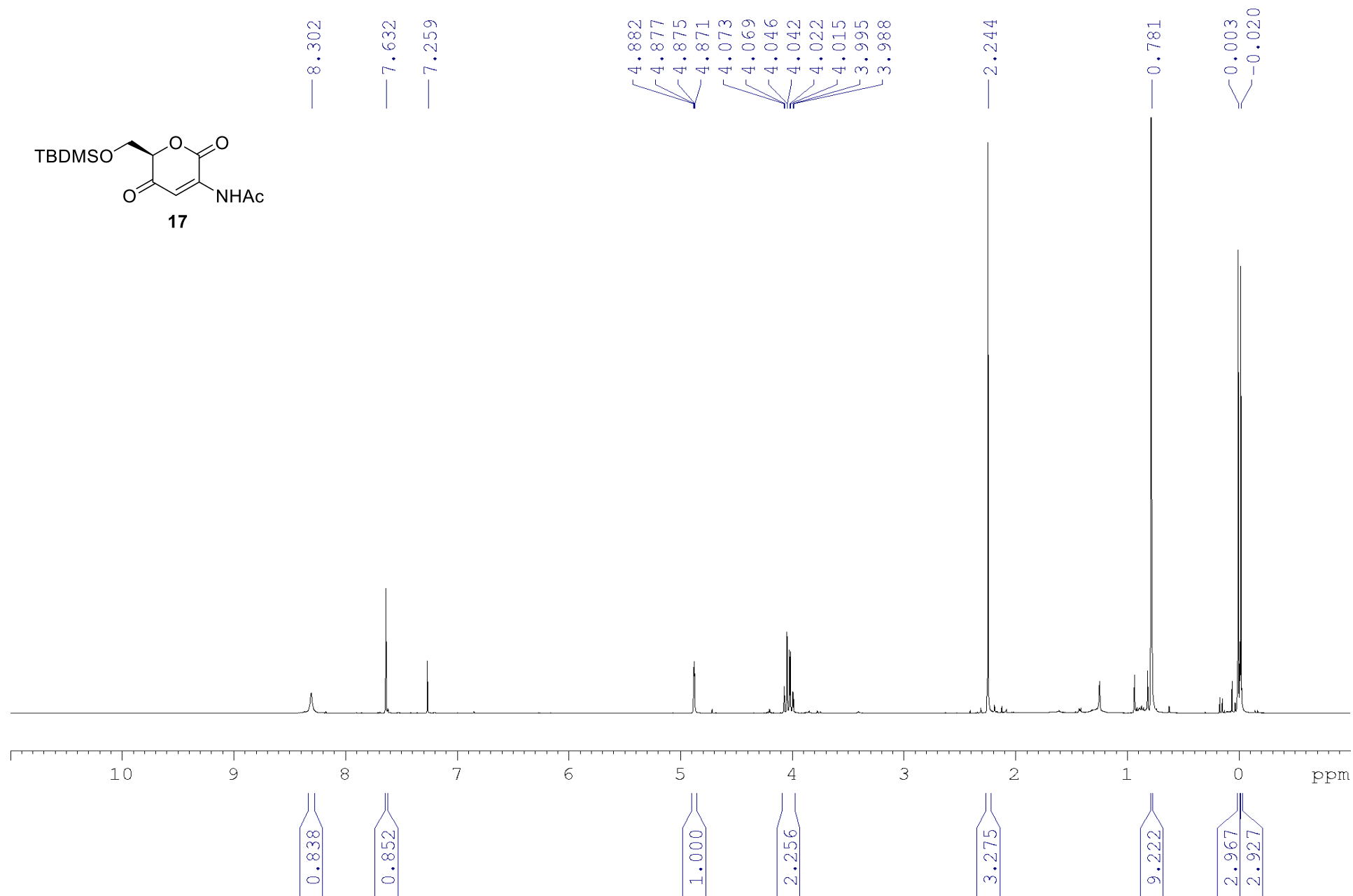


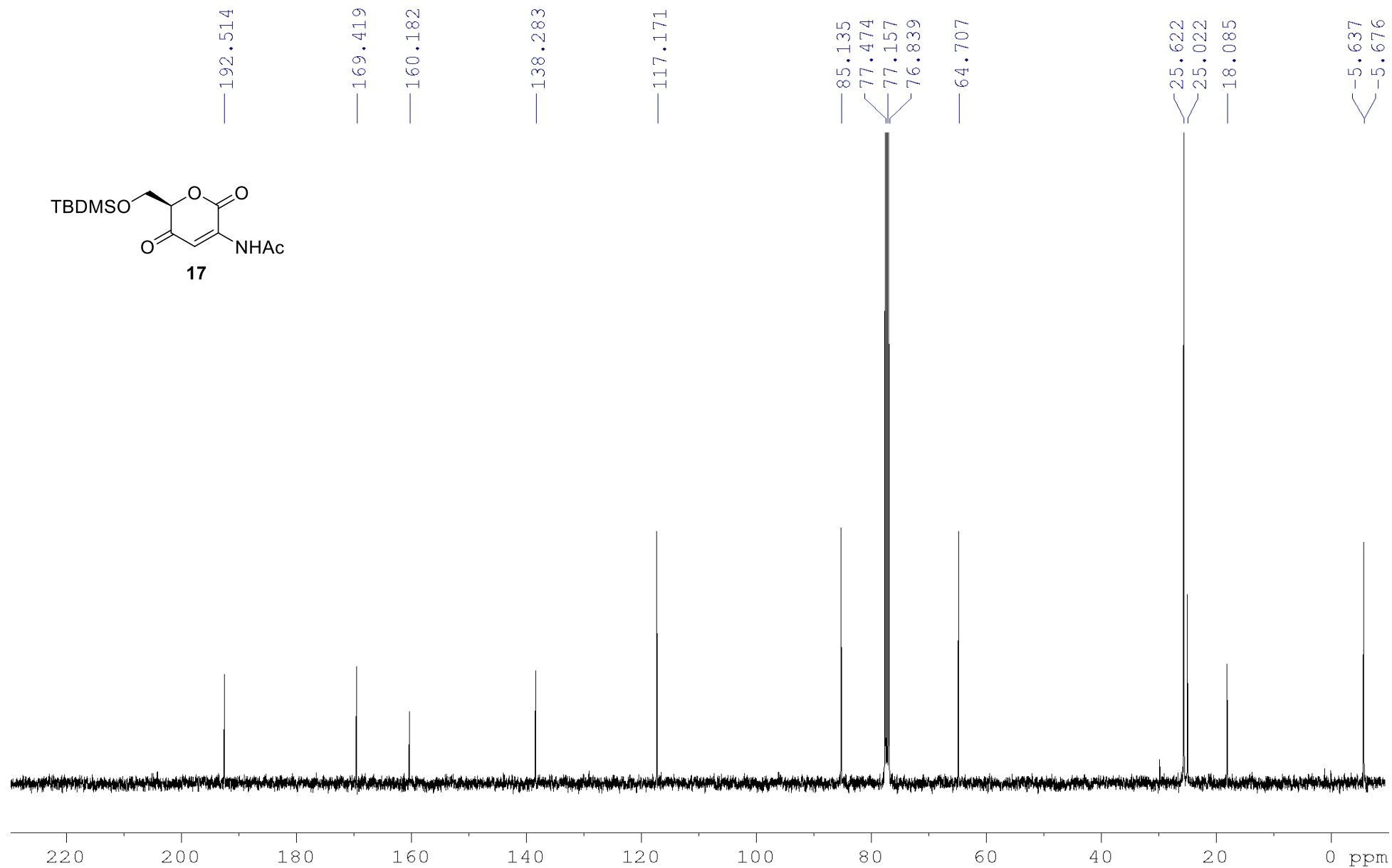


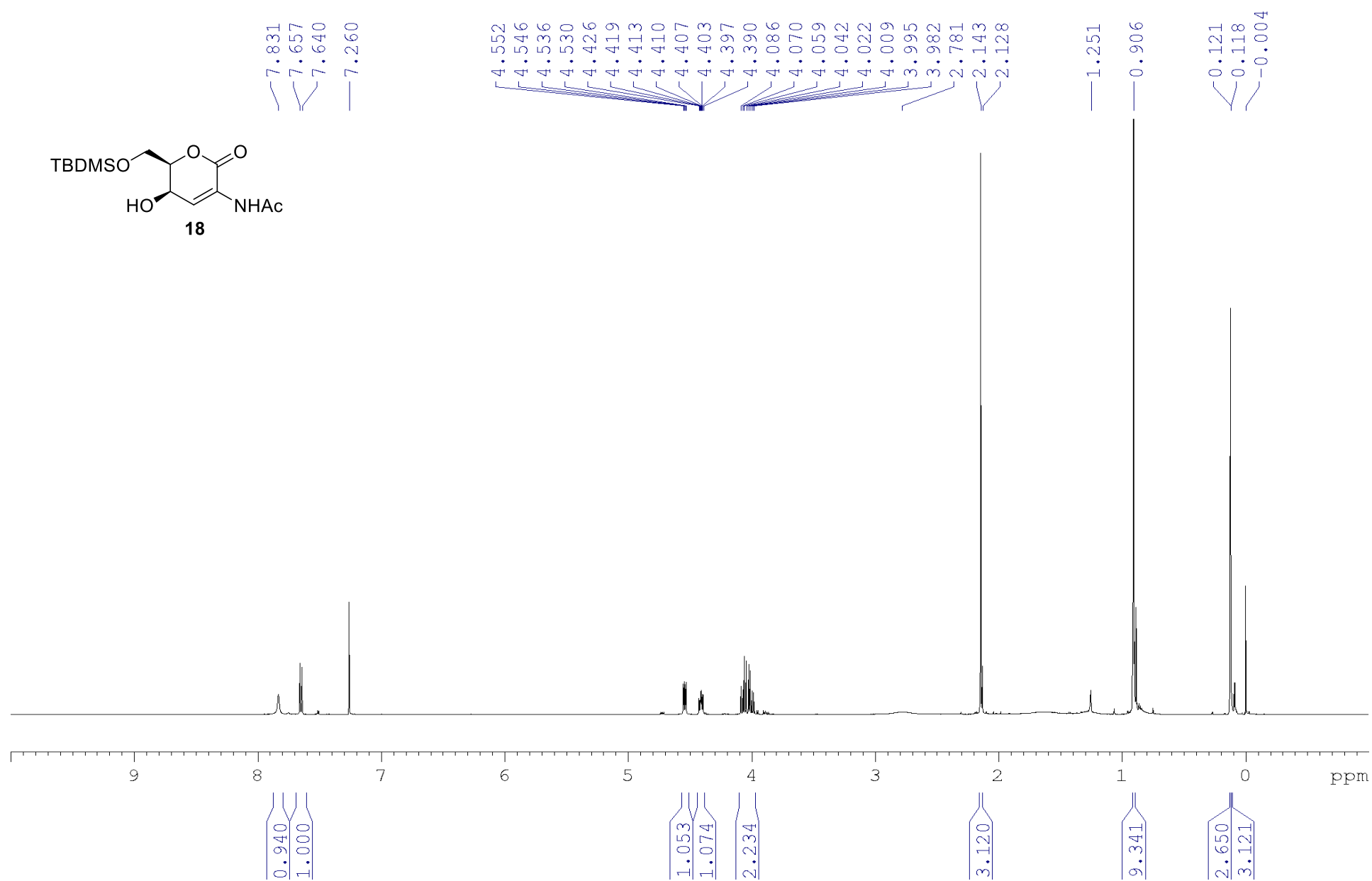
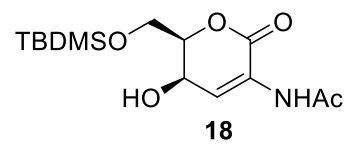


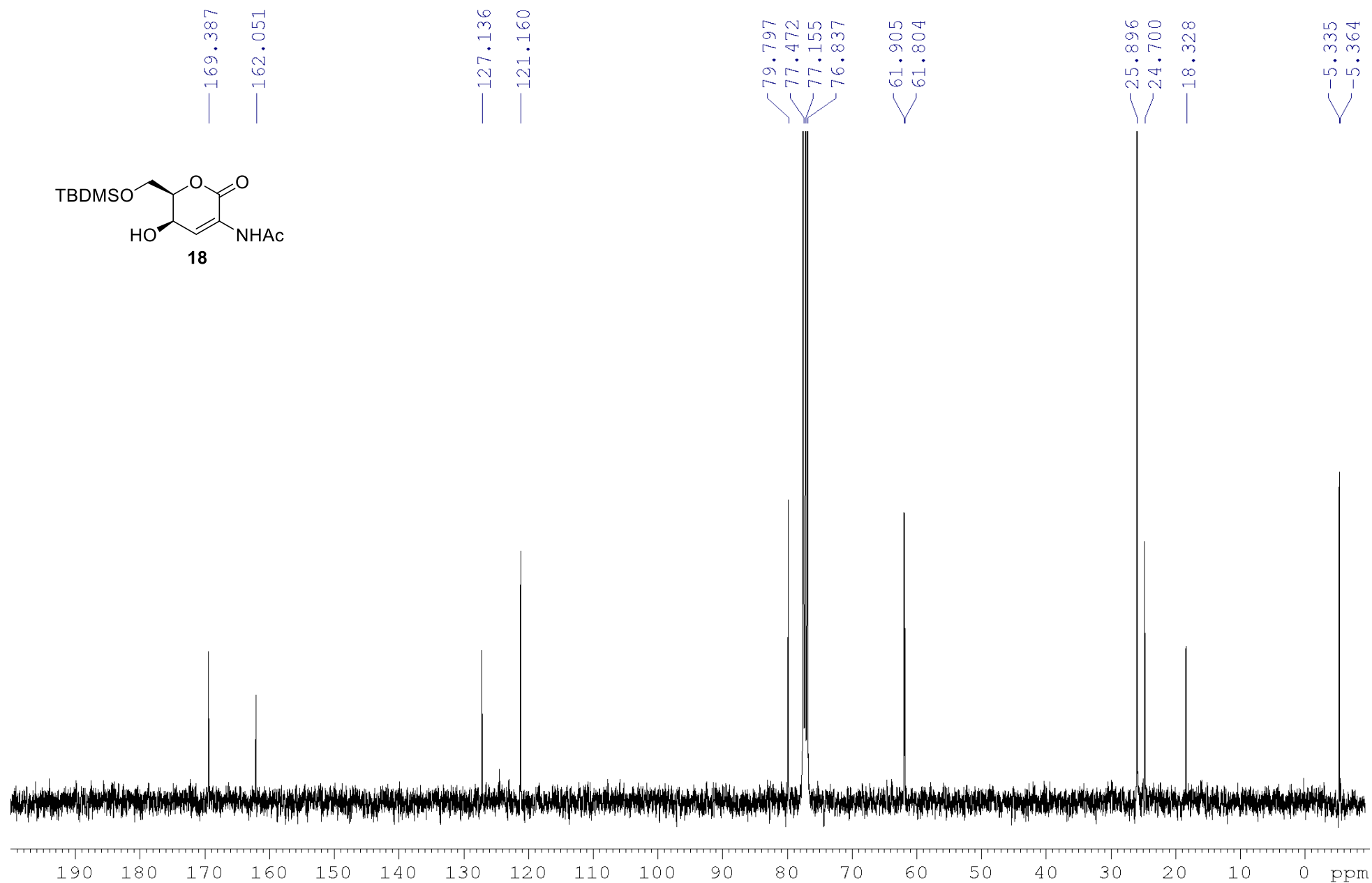
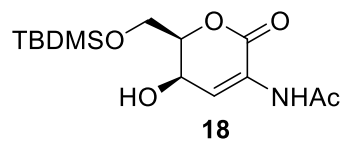












## Crystal data and structure refinement for 18

|                                             |                                                    |
|---------------------------------------------|----------------------------------------------------|
| Empirical formula                           | C <sub>14</sub> H <sub>25</sub> NO <sub>5</sub> Si |
| Formula weight                              | 315.44                                             |
| Temperature/K                               | 120.01(10)                                         |
| Crystal system                              | monoclinic                                         |
| Space group                                 | P2 <sub>1</sub> /c                                 |
| a/Å                                         | 19.8492(11)                                        |
| b/Å                                         | 11.2915(5)                                         |
| c/Å                                         | 7.7679(4)                                          |
| $\alpha$ /°                                 | 90                                                 |
| $\beta$ /°                                  | 98.811(5)                                          |
| $\gamma$ /°                                 | 90                                                 |
| Volume/Å <sup>3</sup>                       | 1720.45(15)                                        |
| Z                                           | 4                                                  |
| $\rho_{\text{calc}}$ /mg/mm <sup>3</sup>    | 1.218                                              |
| $\mu$ /mm <sup>-1</sup>                     | 1.381                                              |
| F(000)                                      | 680.0                                              |
| Crystal size/mm <sup>3</sup>                | 0.25 × 0.05 × 0.02                                 |
| 2 $\theta$ range for data collection        | 9.036 to 145.066°                                  |
| Index ranges                                | -24 ≤ h ≤ 23, -13 ≤ k ≤ 10, -9 ≤ l ≤ 9             |
| Reflections collected                       | 12438                                              |
| Independent reflections                     | 3249[R(int) = 0.0643]                              |
| Data/restraints/parameters                  | 3249/0/197                                         |
| Goodness-of-fit on F <sup>2</sup>           | 1.038                                              |
| Final R indexes [I ≥ 2σ (I)]                | R <sub>1</sub> = 0.0615, wR <sub>2</sub> = 0.1641  |
| Final R indexes [all data]                  | R <sub>1</sub> = 0.0704, wR <sub>2</sub> = 0.1722  |
| Largest diff. peak/hole / e Å <sup>-3</sup> | 0.70/-0.42                                         |