

## Supporting Information

### 2-Methoxypyridine Derivatives: Synthesis, Liquid Crystalline and Photo-physical Properties

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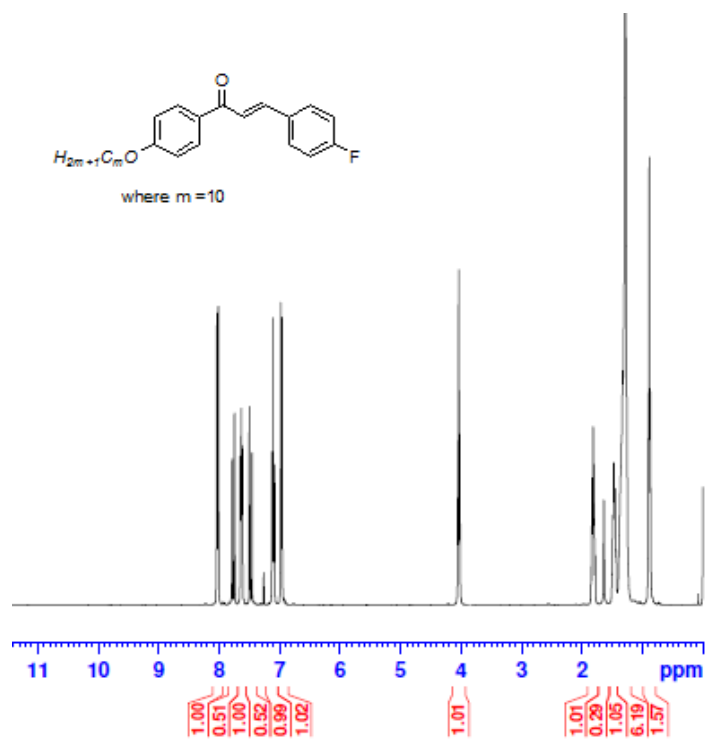
E-mail addresses: avadhikari123@yahoo.co.in, avchem@nitk.ac.in, avachem@gmail.com.

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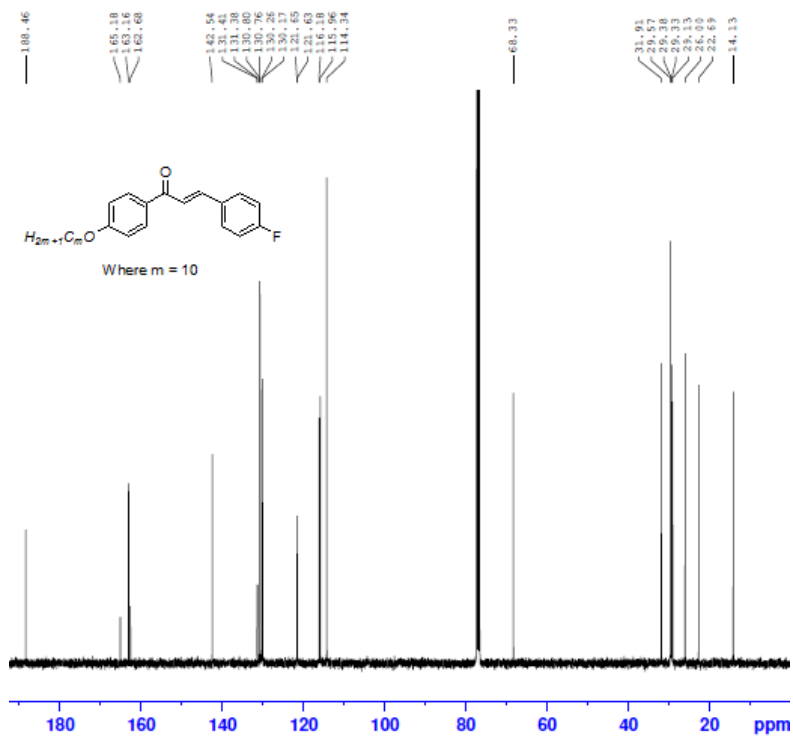
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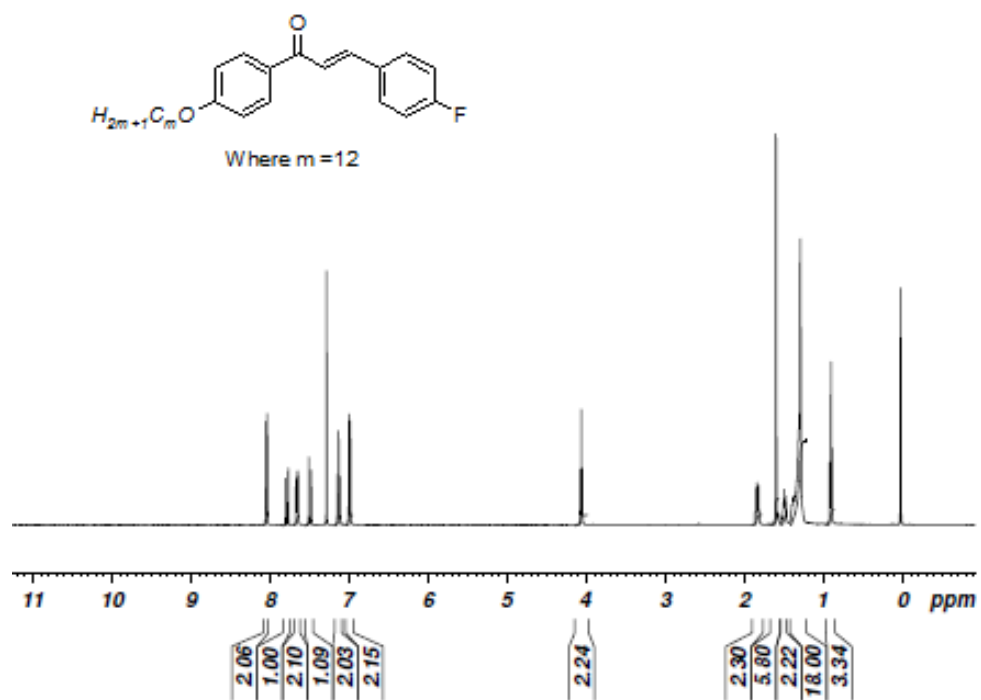
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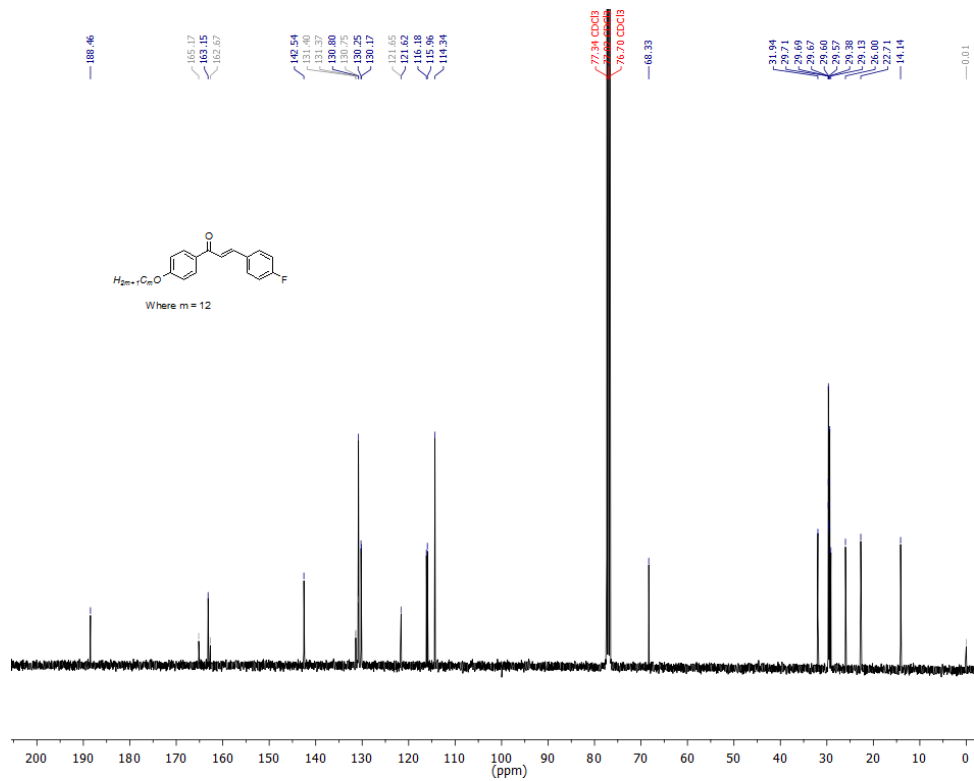
$^1\text{H}$  NMR spectrum of **3a**



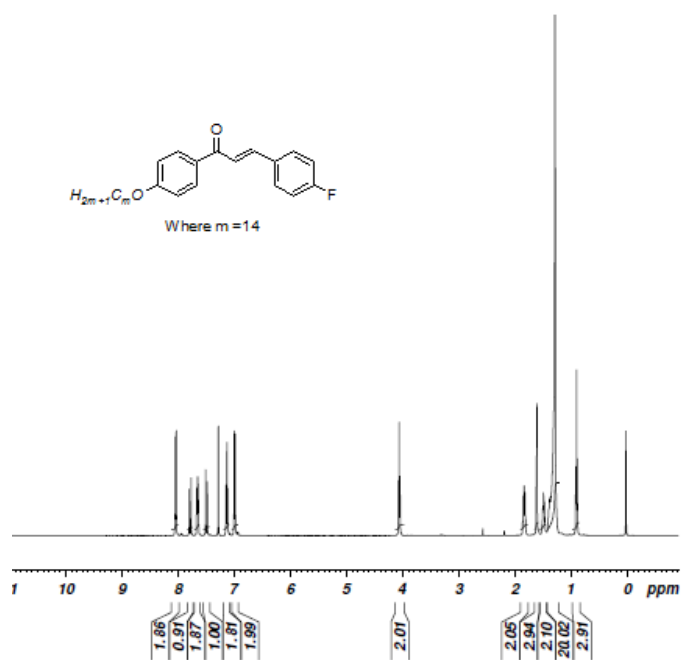
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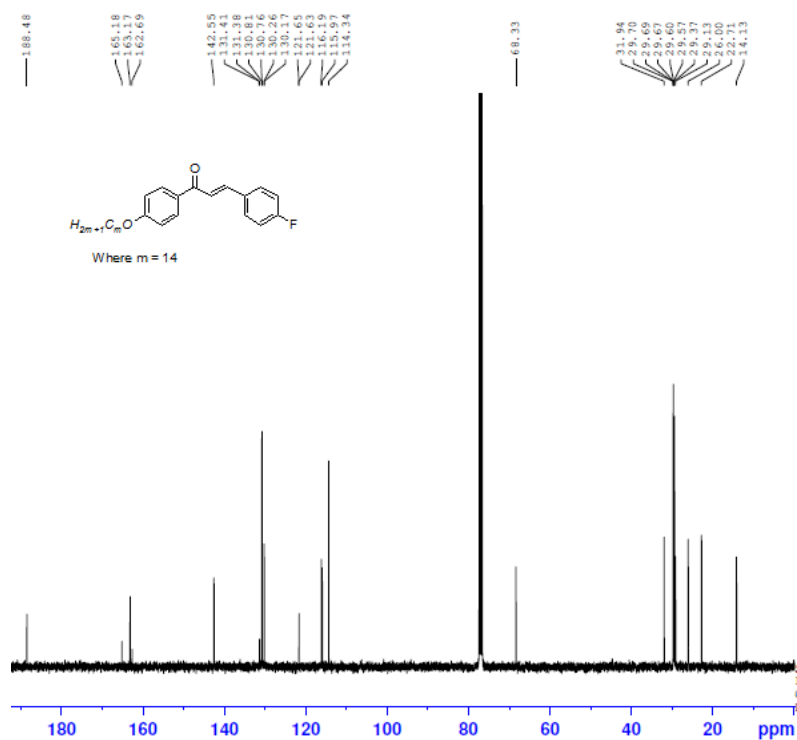
$^1\text{H}$  NMR spectrum of **3b**



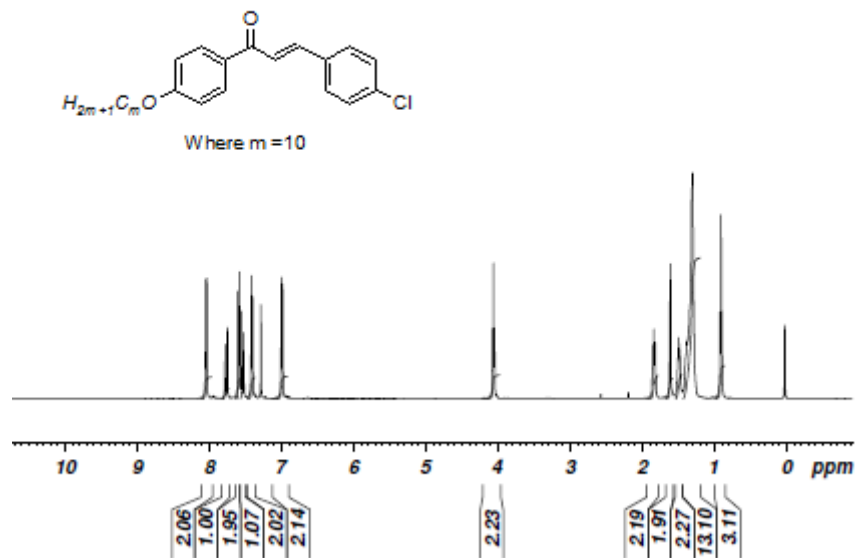
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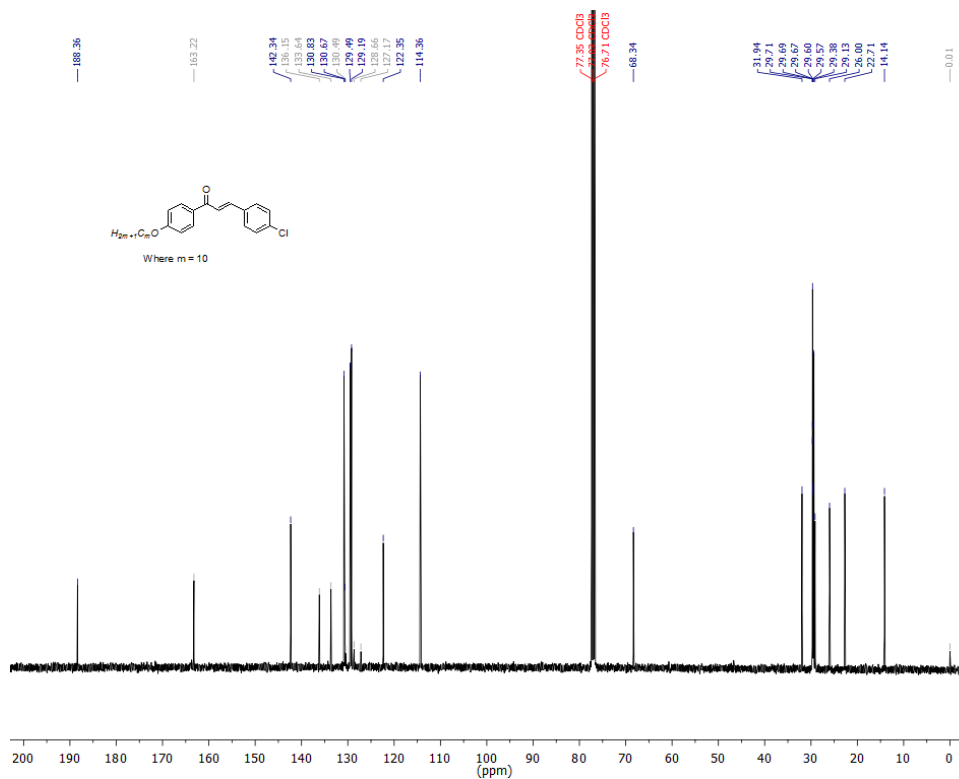
$^1\text{H}$  NMR spectrum of **3c**



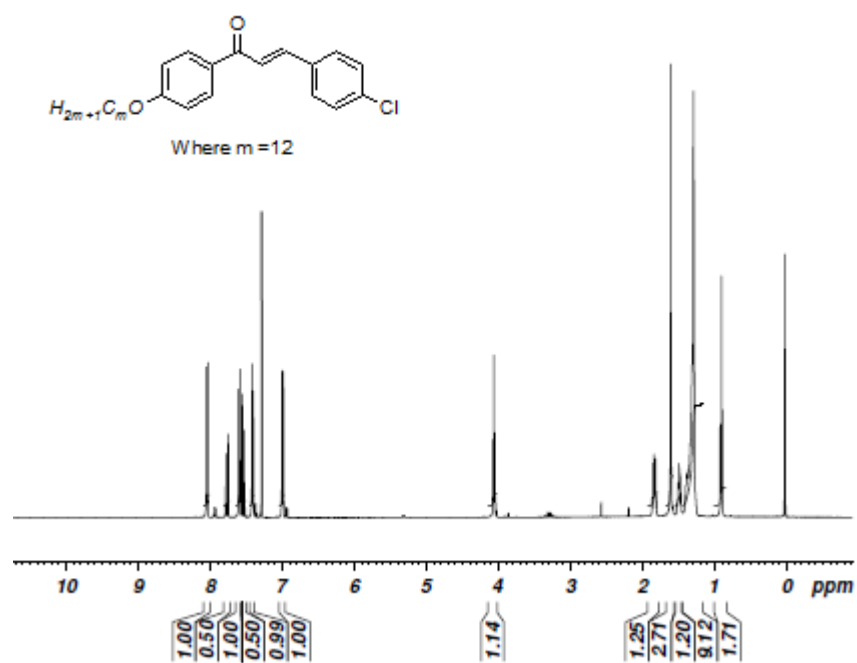
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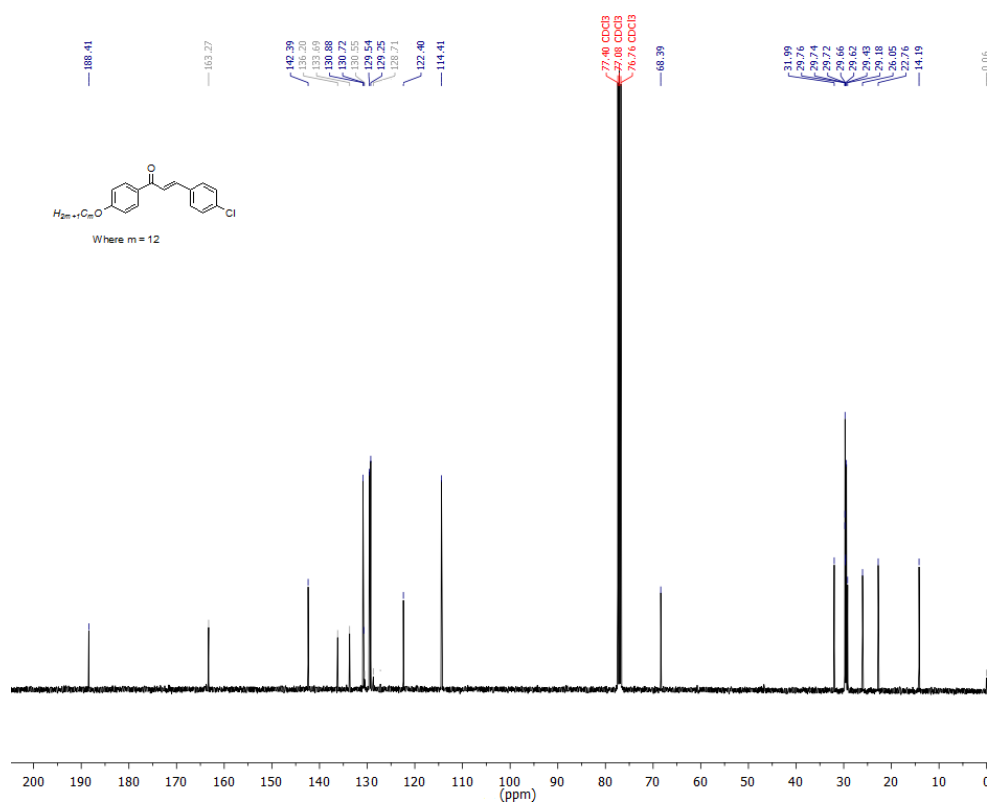
$^1\text{H}$  NMR spectrum of **3d**



$^{13}\text{C}$  NMR spectrum of **3d**

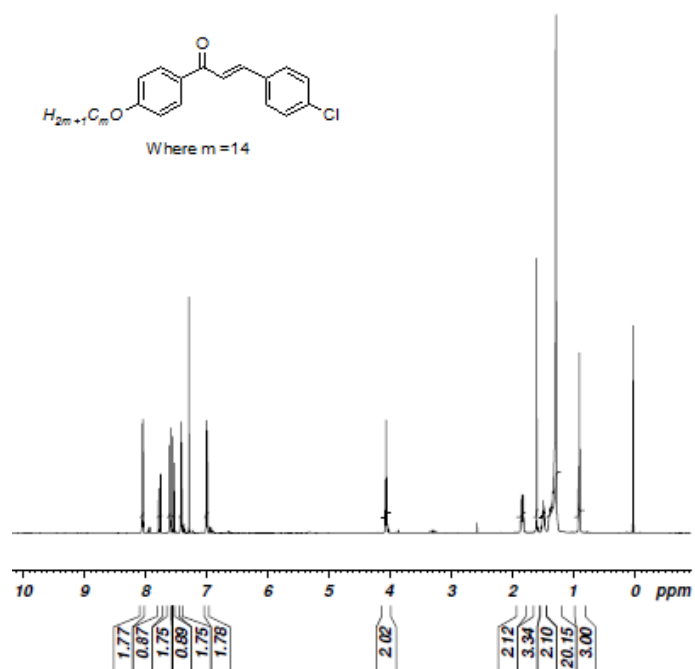


$^1\text{H}$  NMR spectrum of **3e**

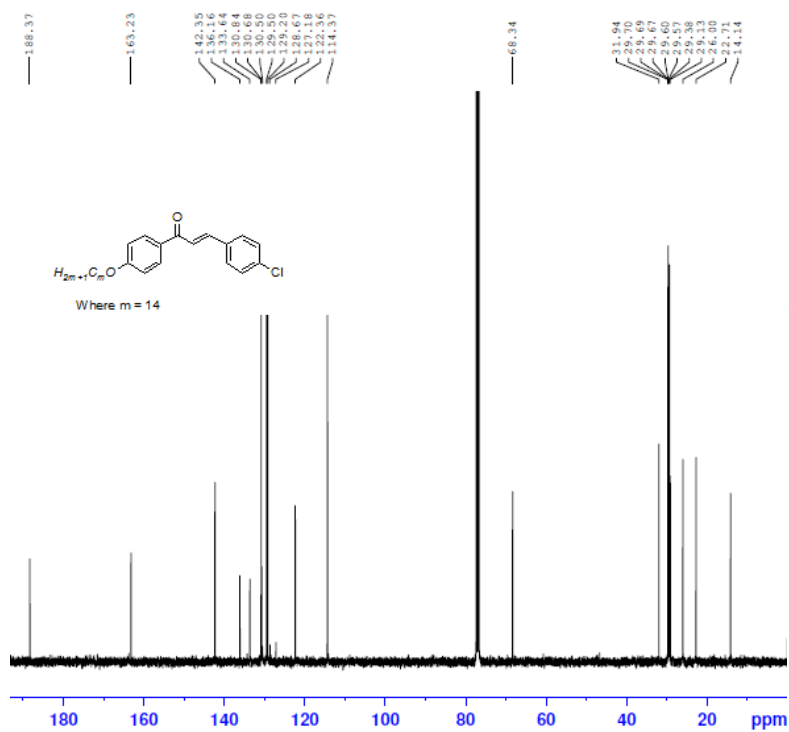


$^{13}\text{C}$  NMR spectrum of **3e**

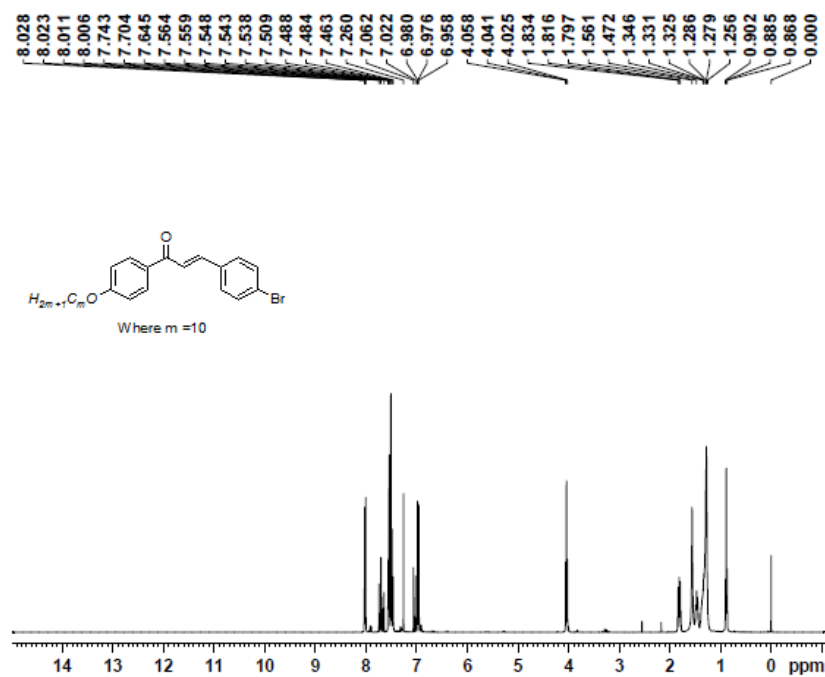




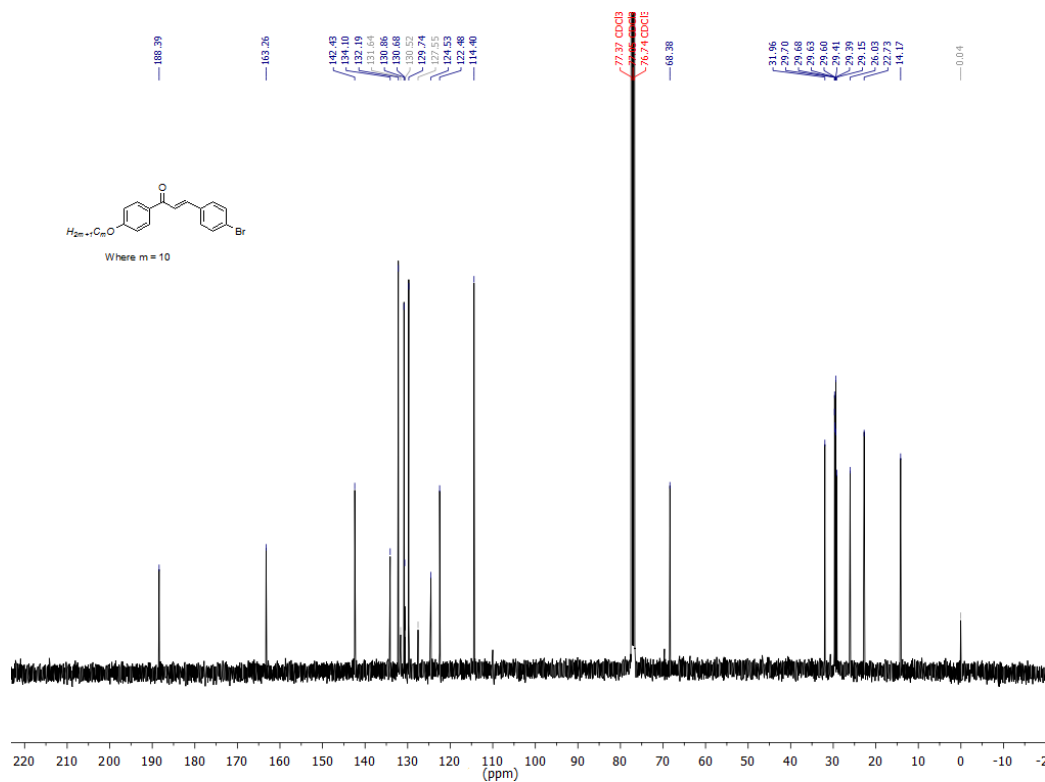
$^1\text{H}$  NMR spectrum of **3f**



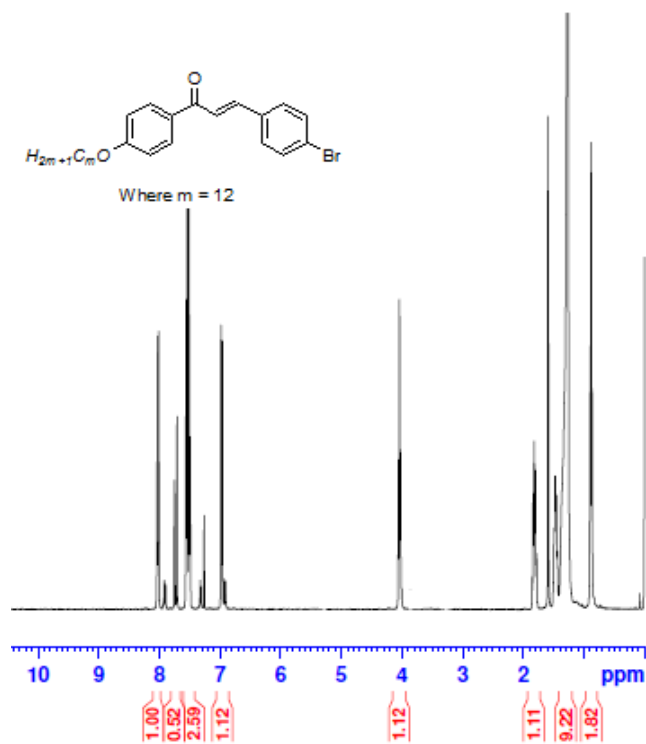
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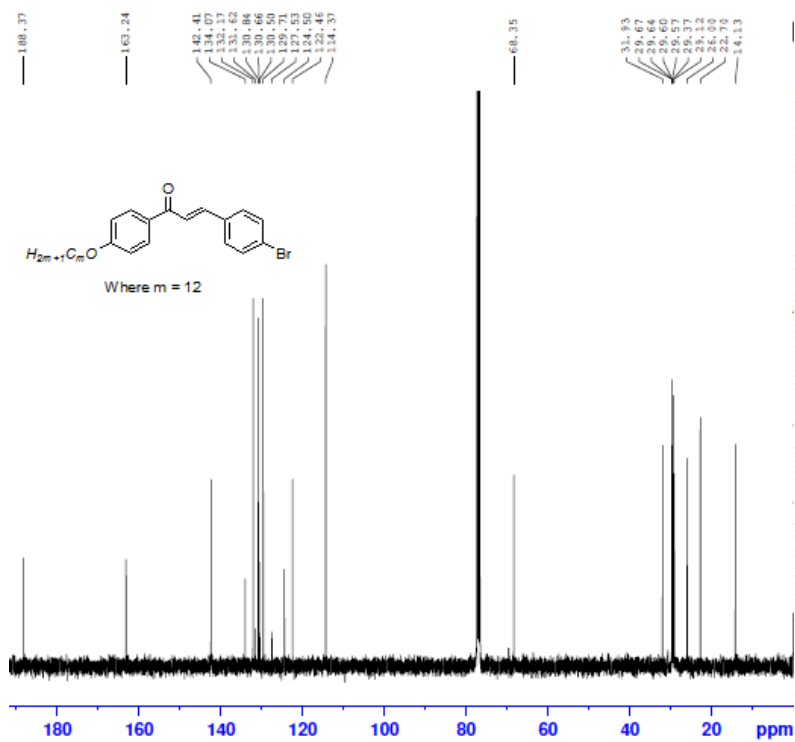
<sup>1</sup>H NMR spectrum of **3g**



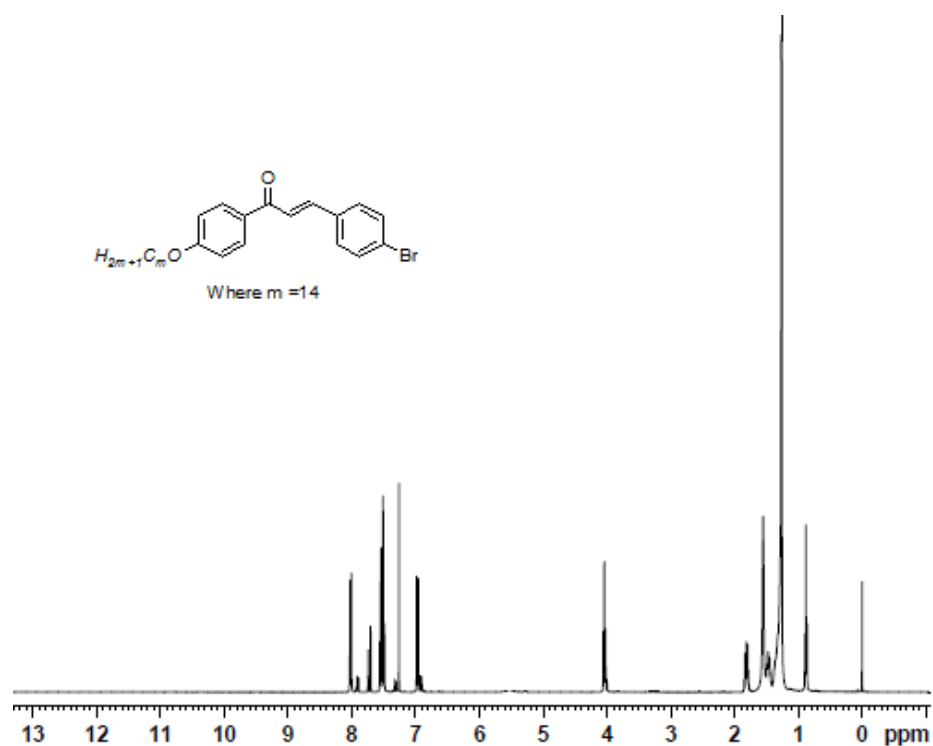
<sup>13</sup>C NMR spectrum of **3g**



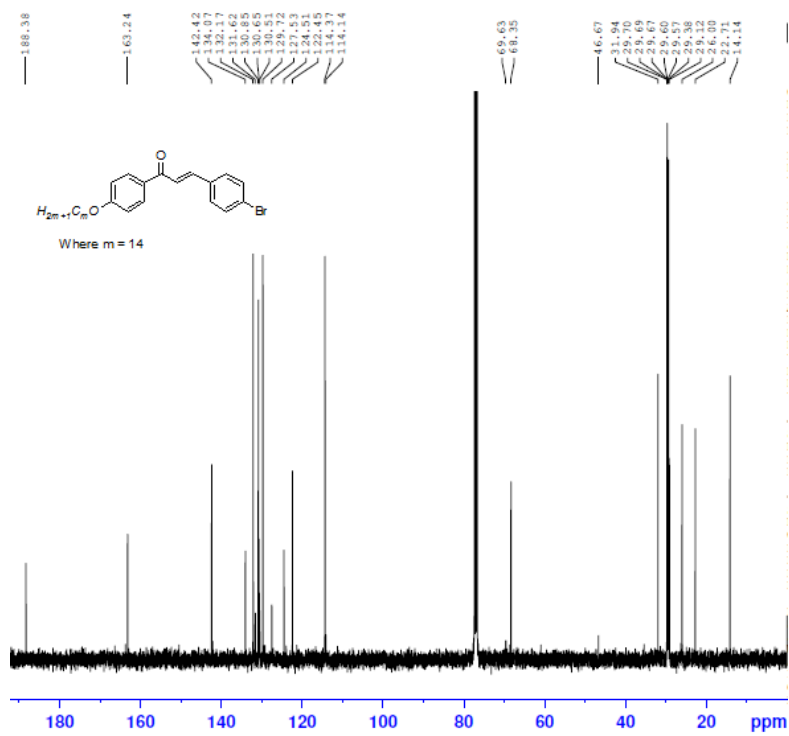
<sup>1</sup>H NMR spectrum of **3h**



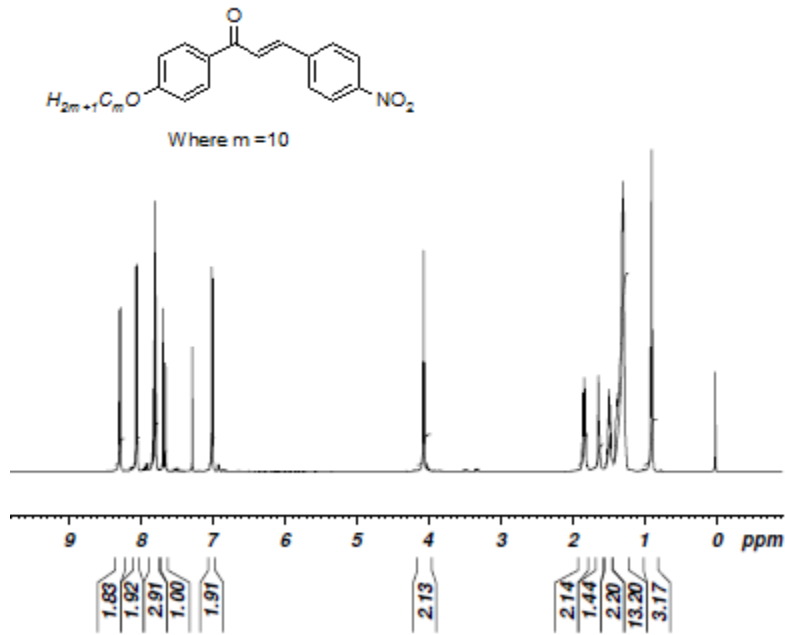
<sup>13</sup>C NMR spectrum of **3h**



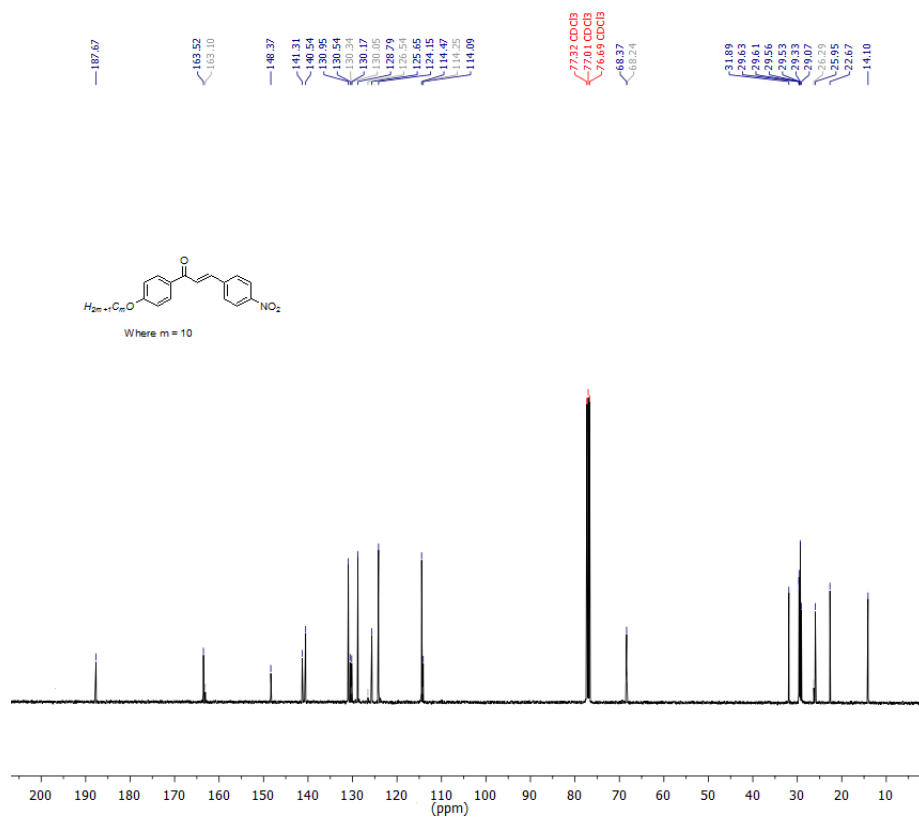
$^1\text{H}$  NMR spectrum of **3i**



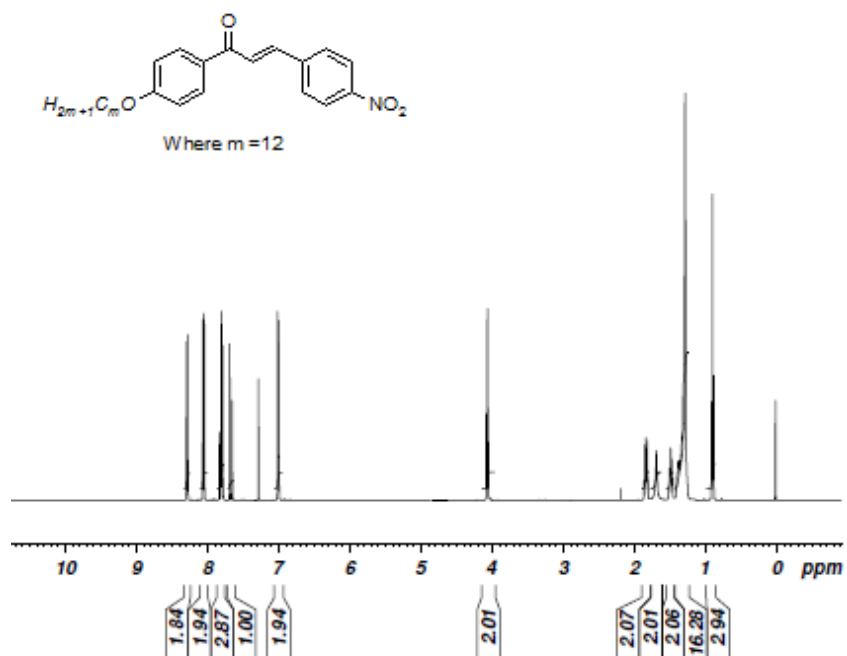
$^{13}\text{C}$  NMR spectrum of **3i**



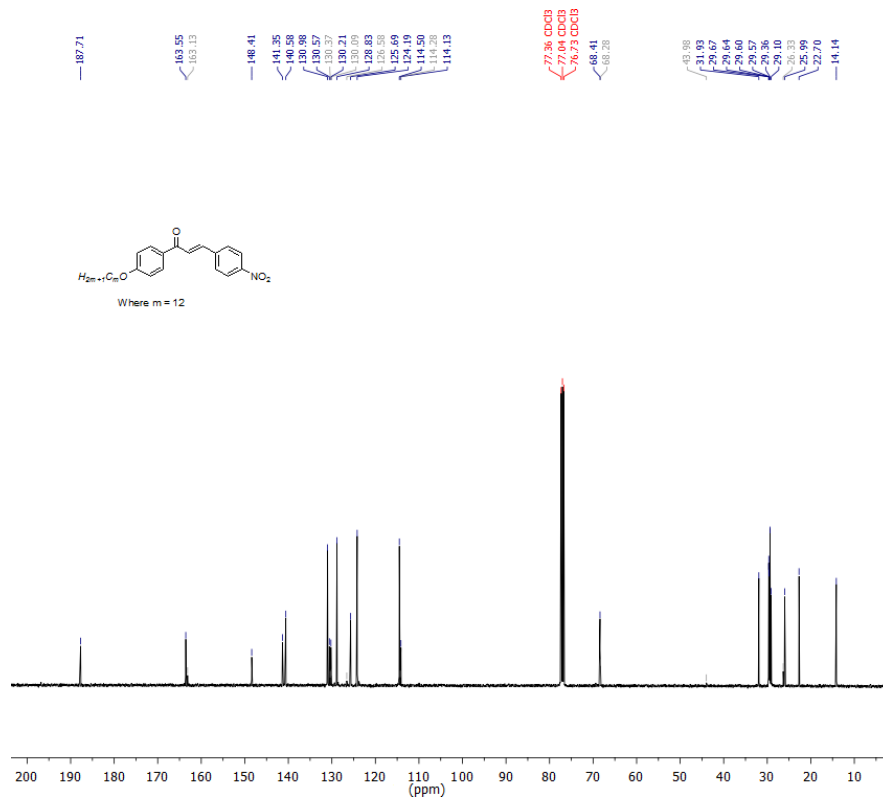
<sup>1</sup>H NMR spectrum of **3j**



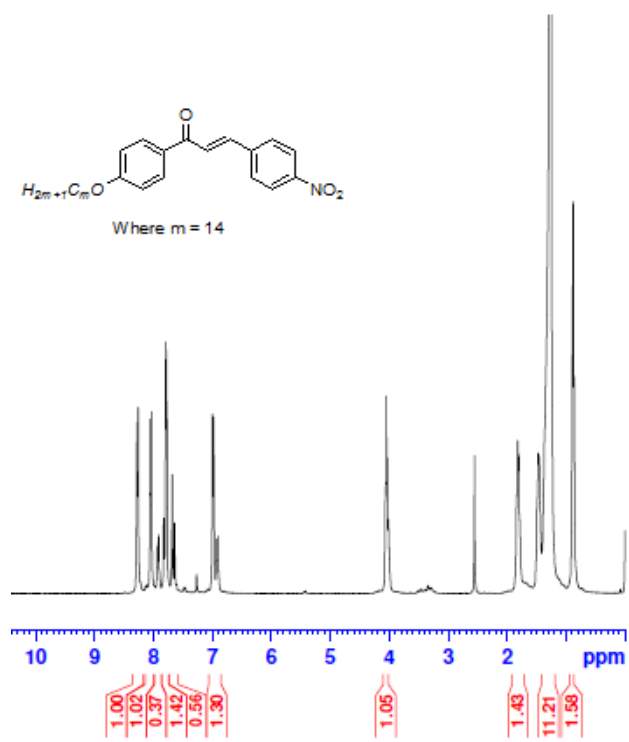
<sup>13</sup>C NMR spectrum of **3j**



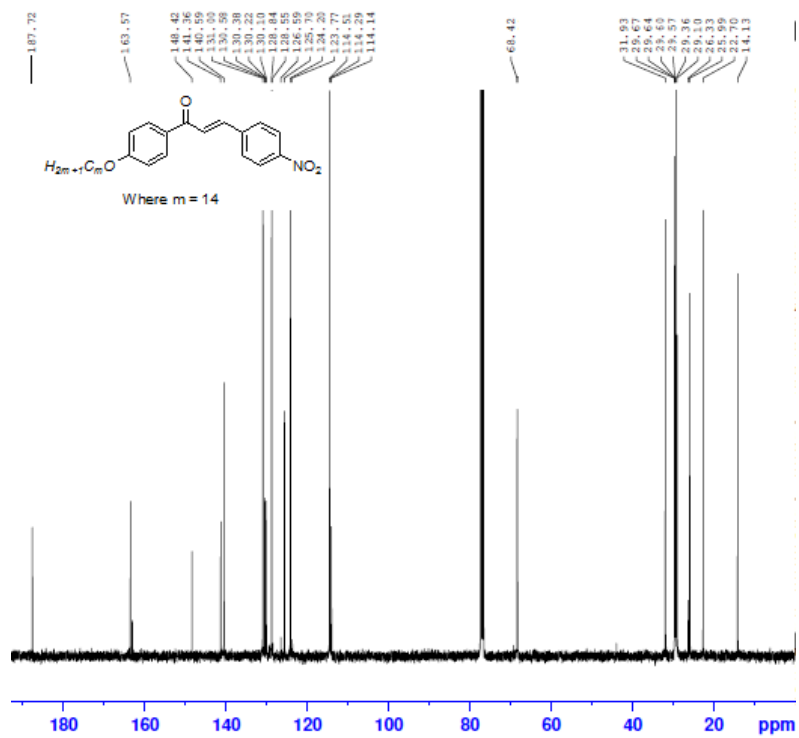
$^1\text{H}$  NMR spectrum of **3k**



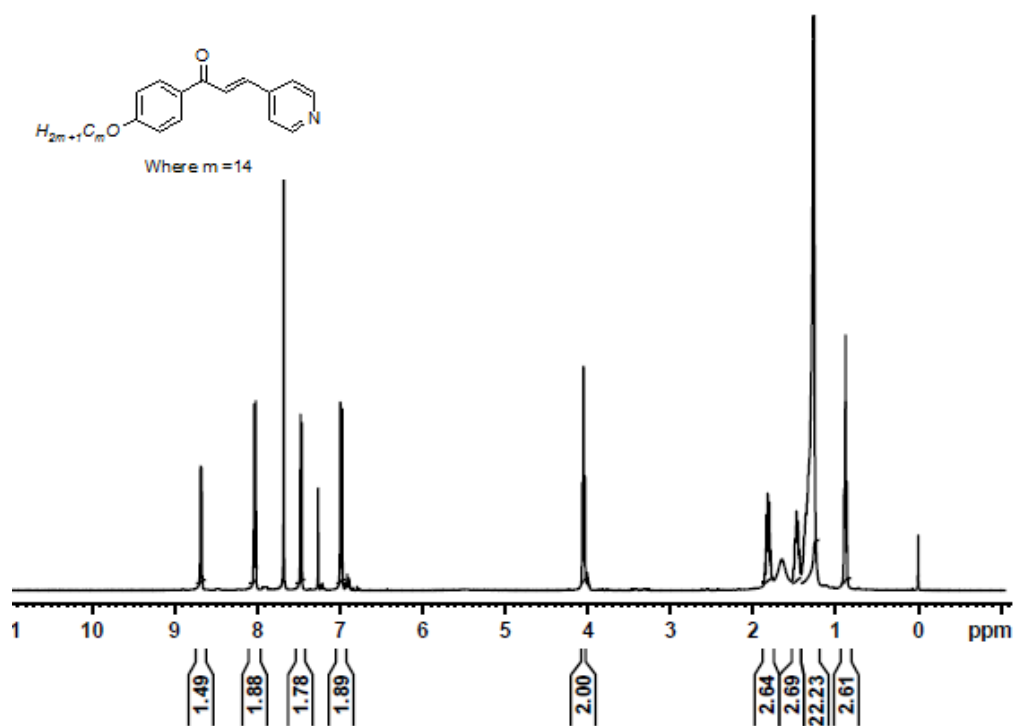
$^{13}\text{C}$  NMR spectrum of **3k**



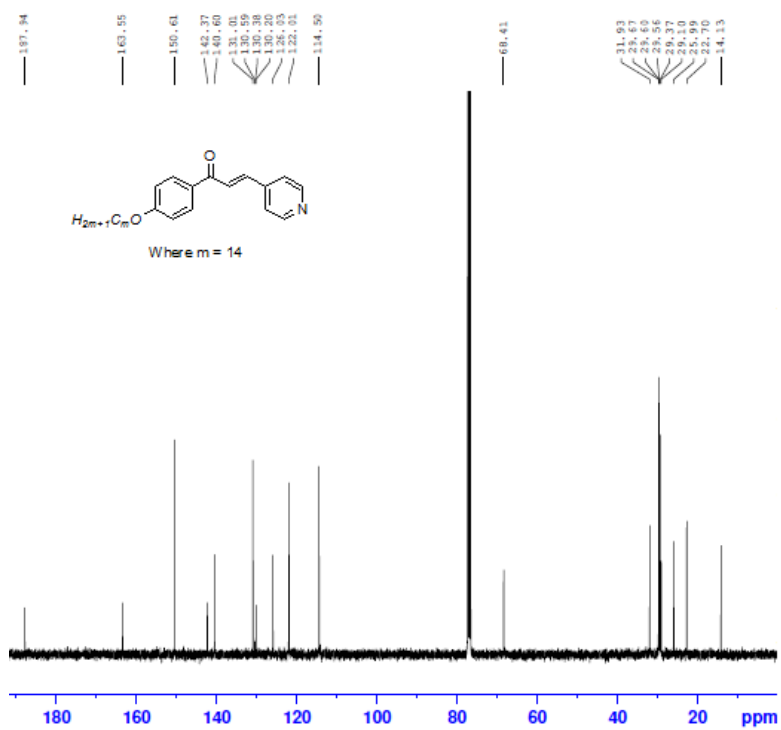
$^1\text{H}$  NMR spectrum of **31**



$^{13}\text{C}$  NMR spectrum of **31**

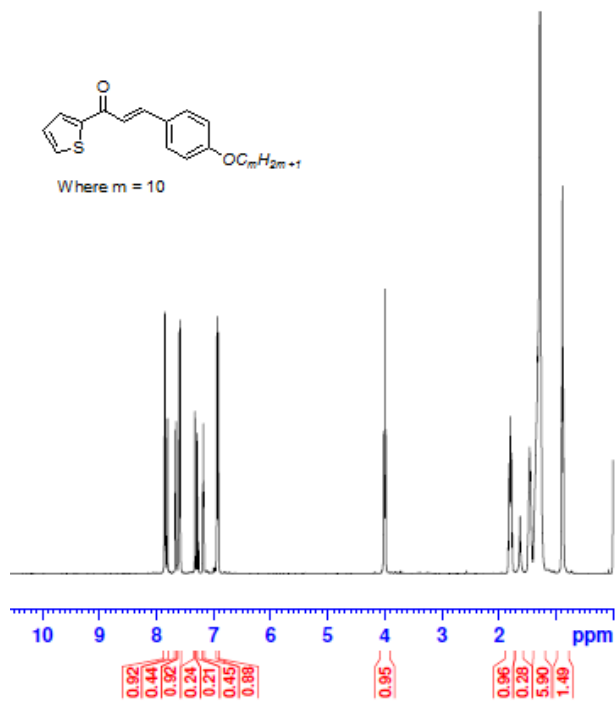


$^1H$  NMR spectrum of **3m**

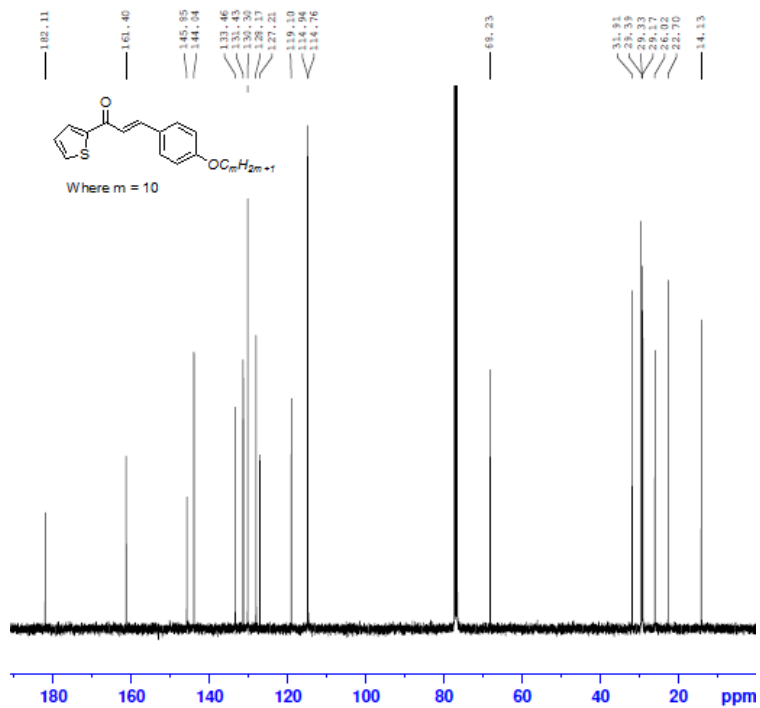


$^{13}C$  NMR spectrum of **3m**

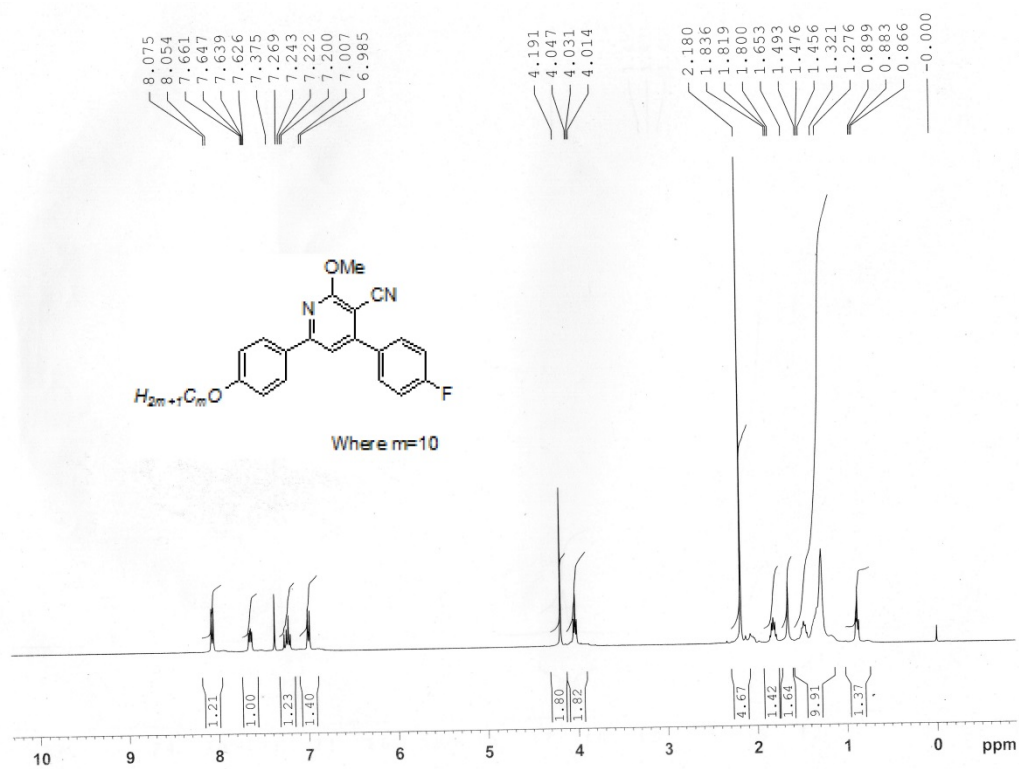




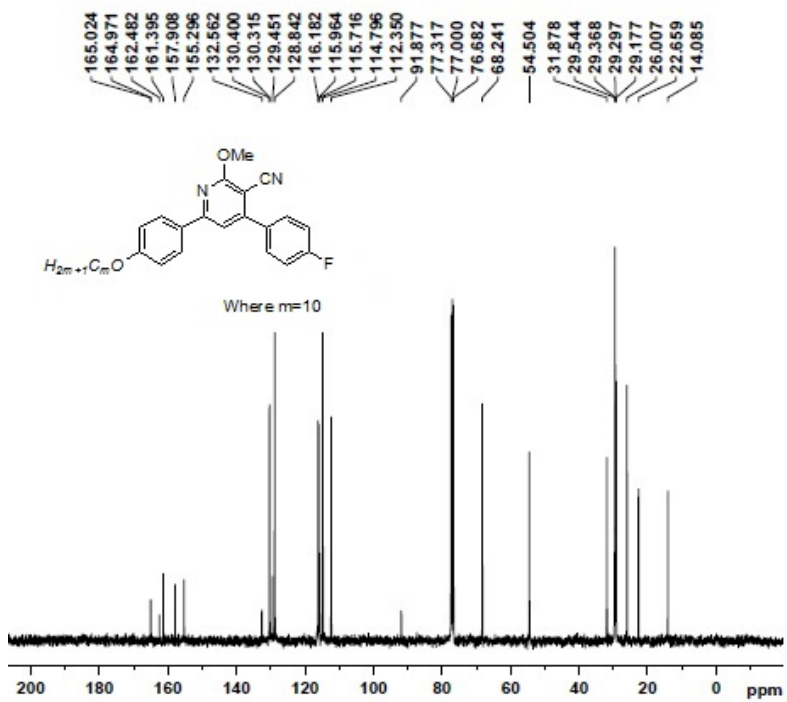
<sup>1</sup>H NMR spectrum of **3n**



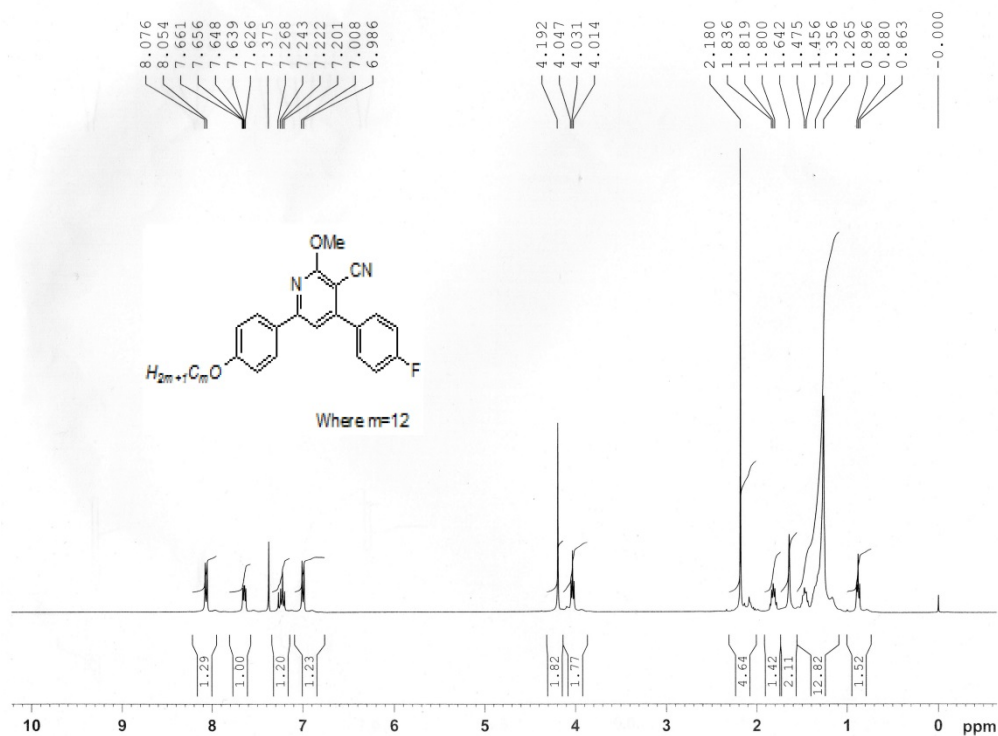
<sup>13</sup>C NMR spectrum of **3n**



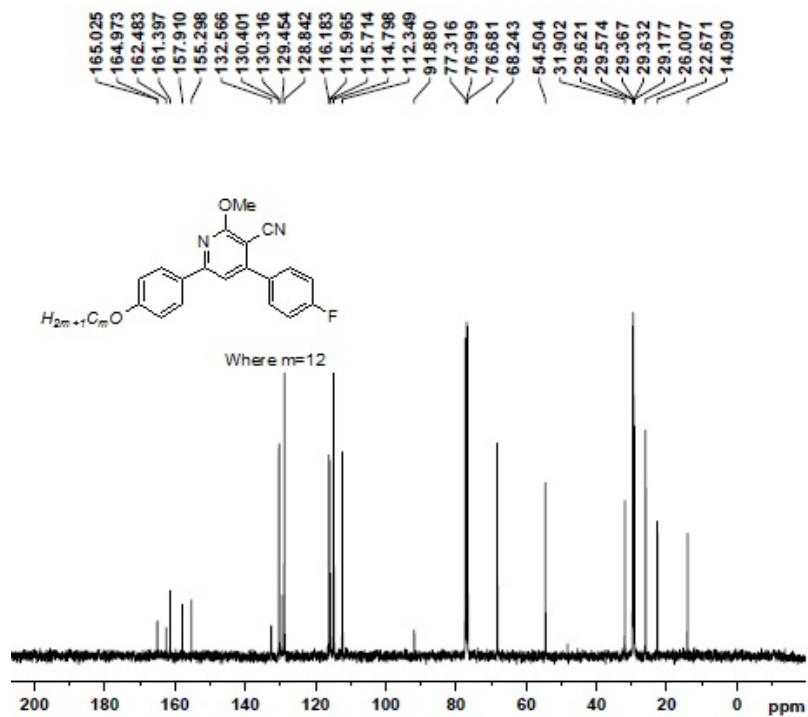
$^1\text{H}$  NMR spectrum of **4a**



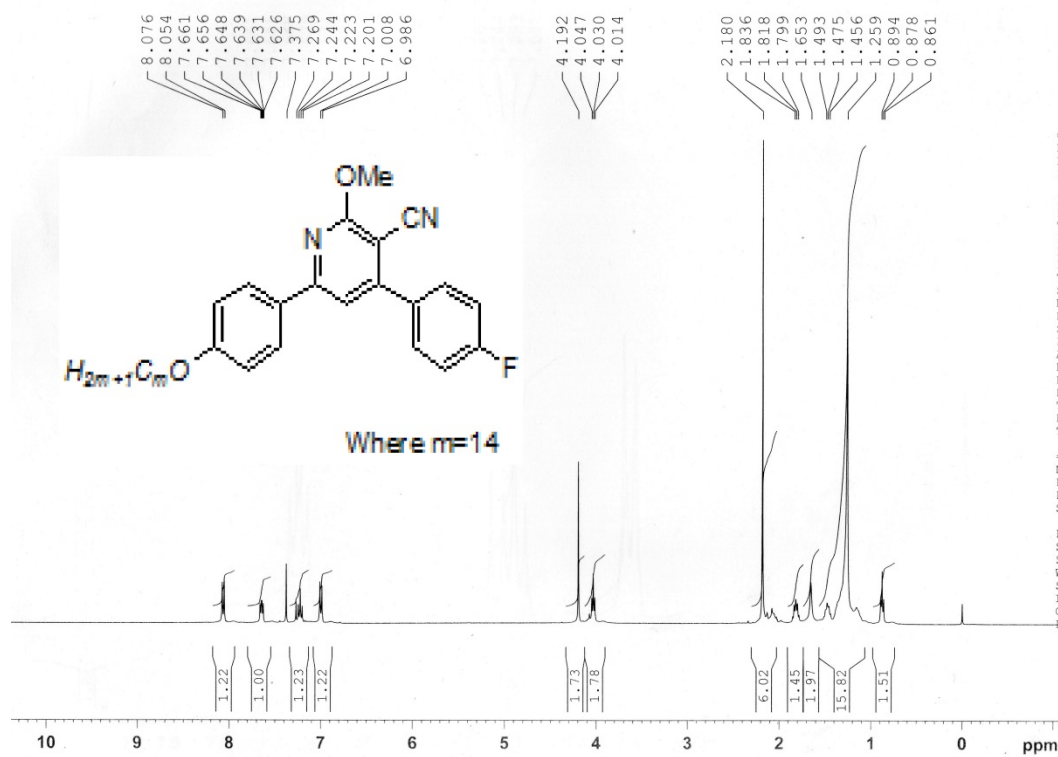
$^{13}\text{C}$  NMR spectrum of **4a**



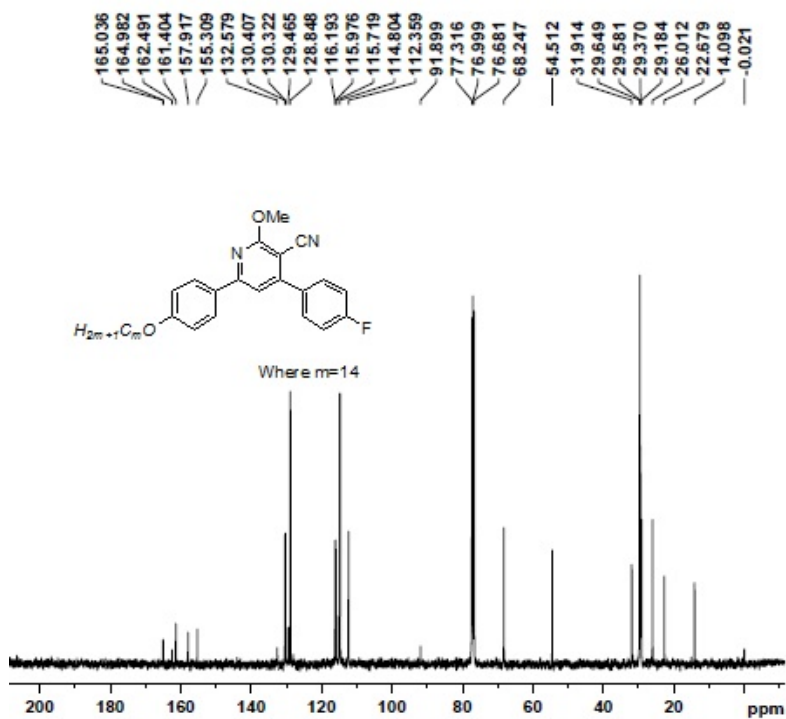
$^1\text{H}$  NMR spectrum of **4b**



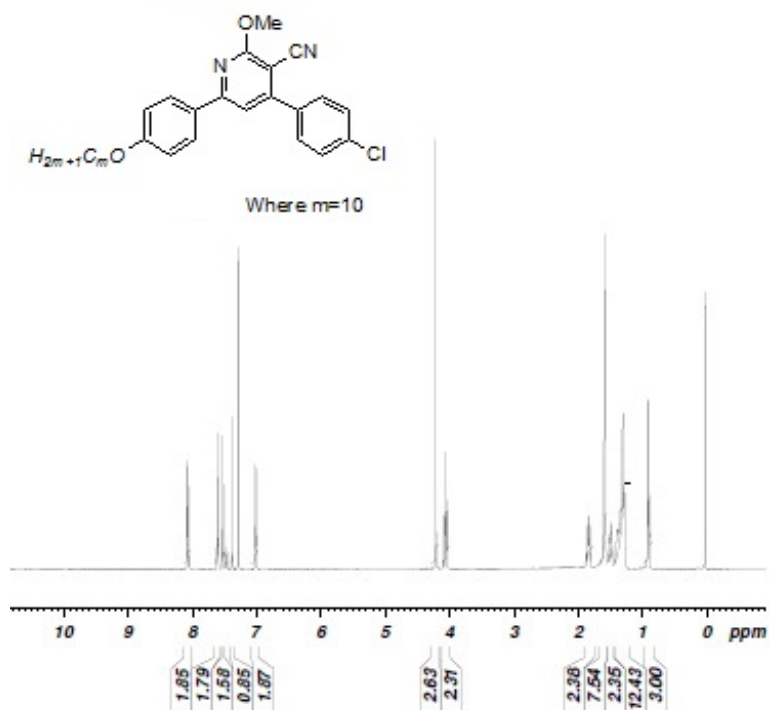
$^{13}\text{C}$  NMR spectrum of **4b**



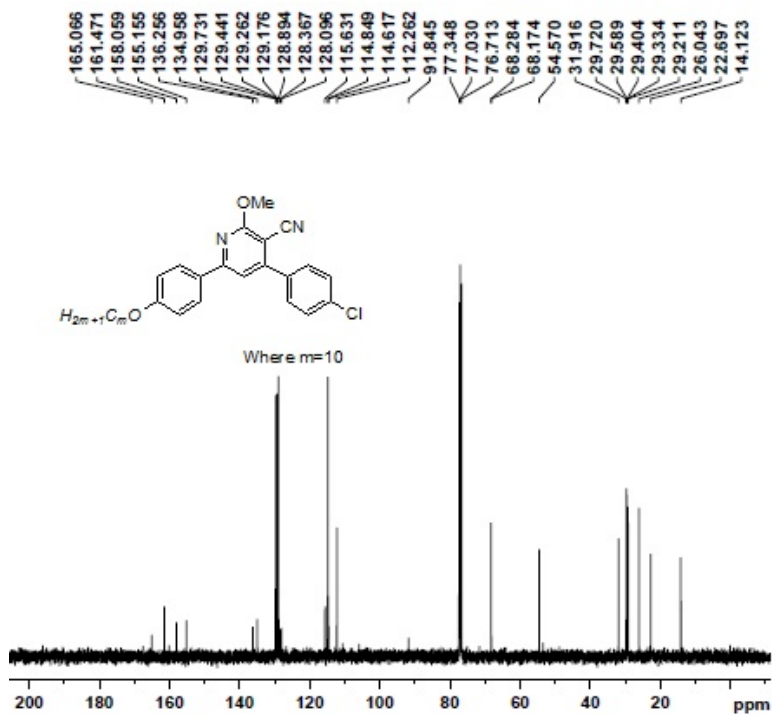
<sup>1</sup>H NMR spectrum of **4c**



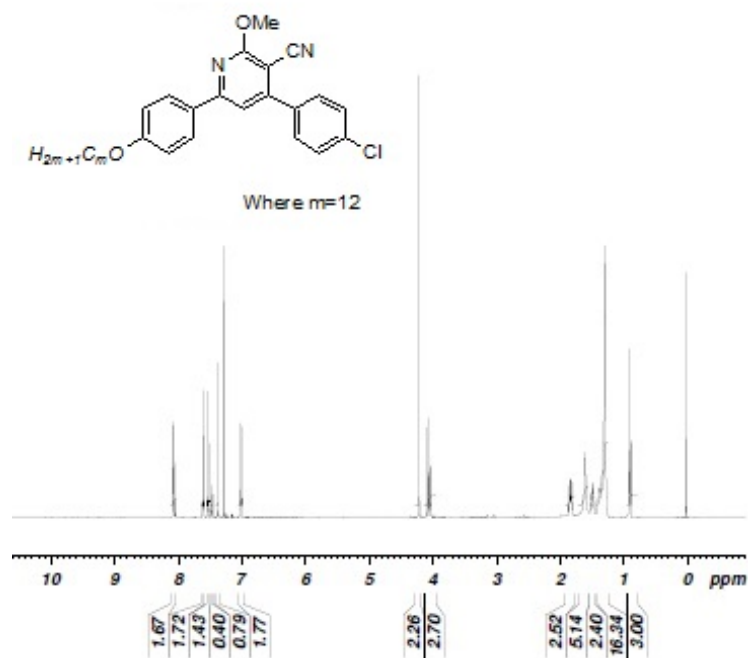
<sup>13</sup>C NMR spectrum of **4c**



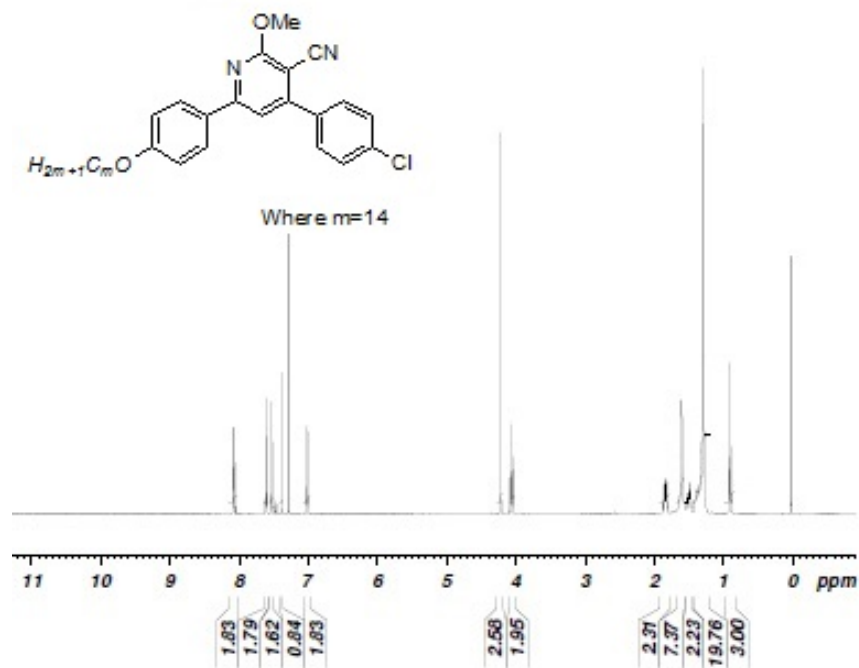
$^1\text{H}$  NMR spectrum of **4d**



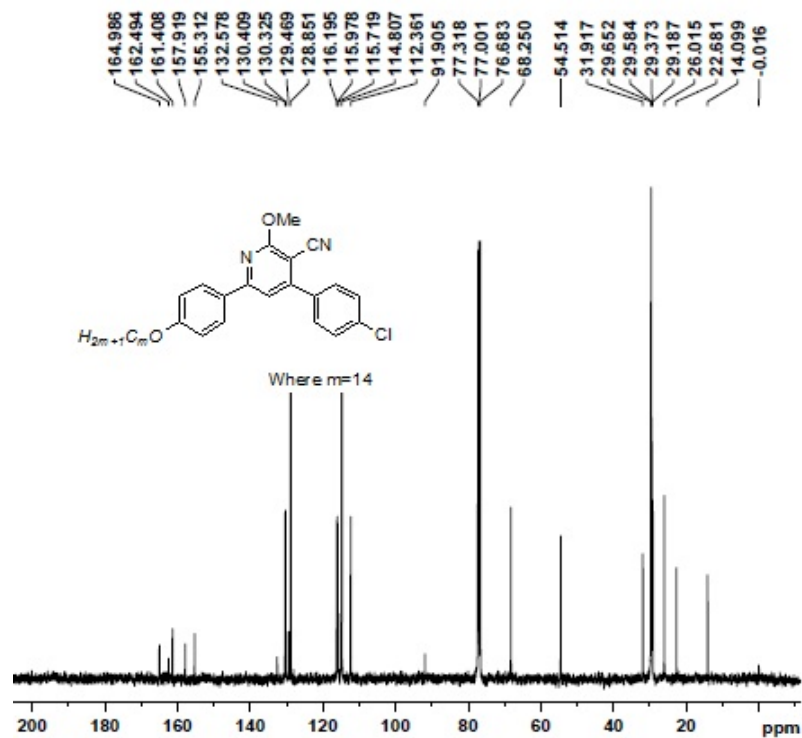
$^{13}\text{C}$  NMR spectrum of **4d**



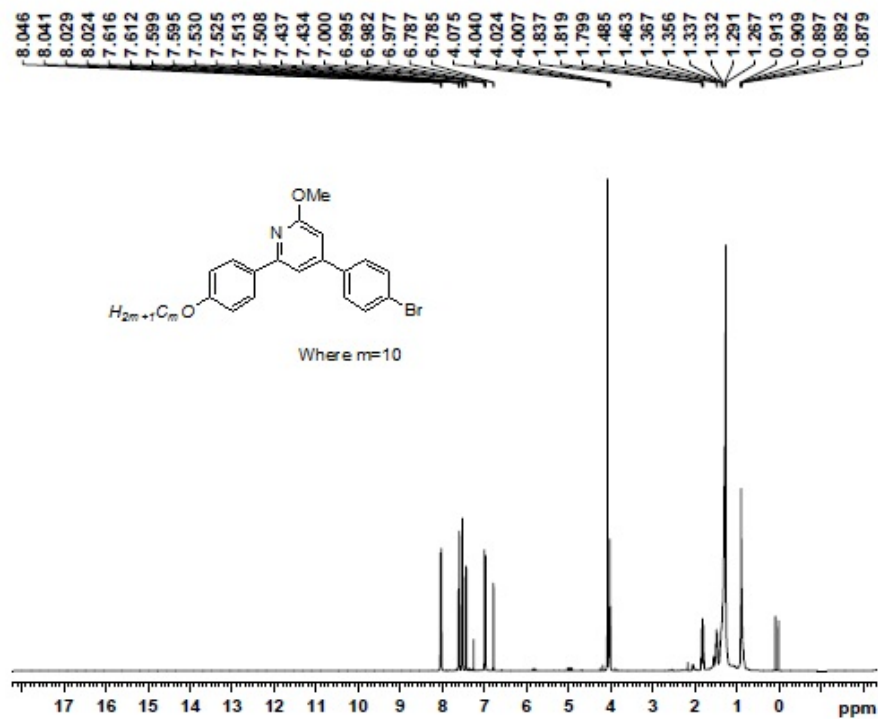
$^1\text{H}$  NMR spectrum of **4e**



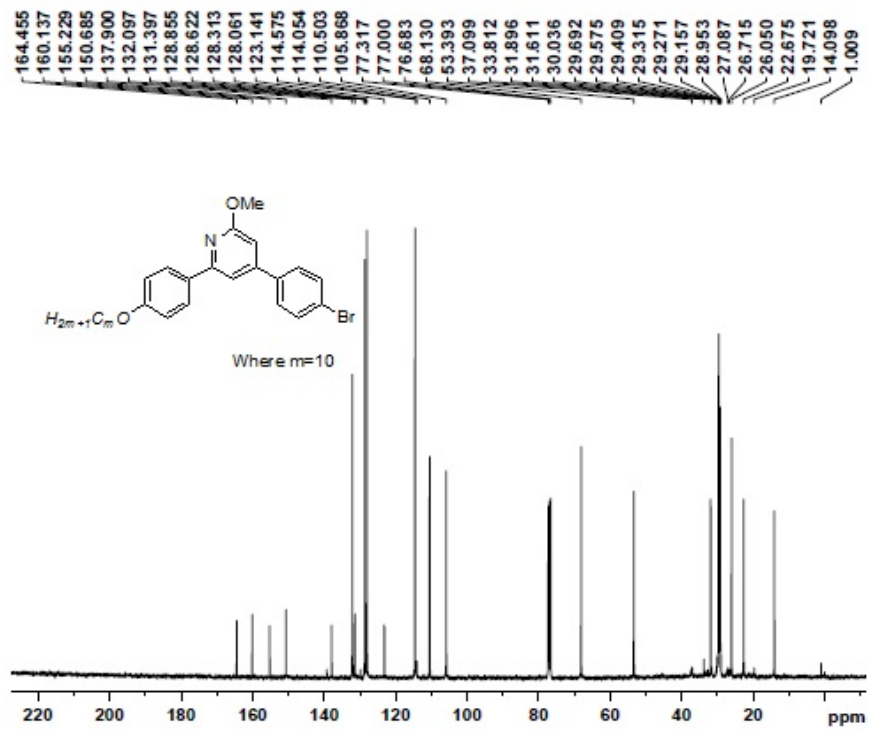
$^1\text{H}$  NMR spectrum of **4f**



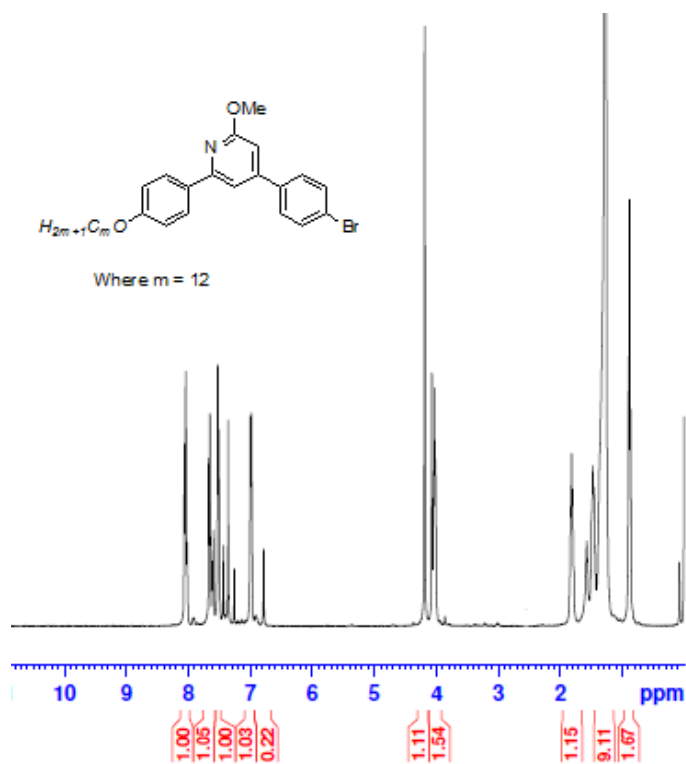
$^{13}C$  NMR spectrum of **4f**



$^1H$  NMR spectrum of **4g**

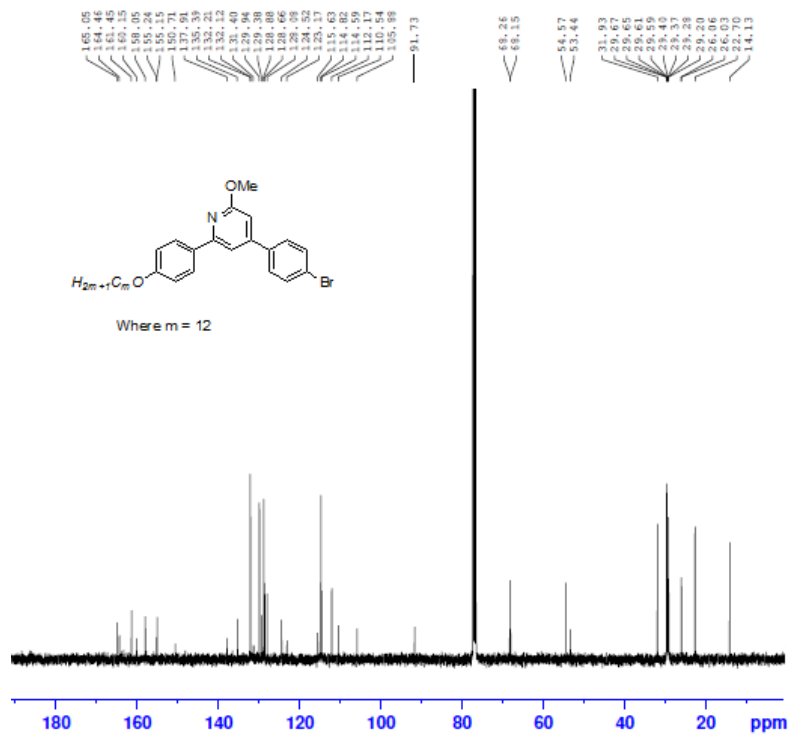


$^{13}\text{C}$  NMR spectrum of **4g**

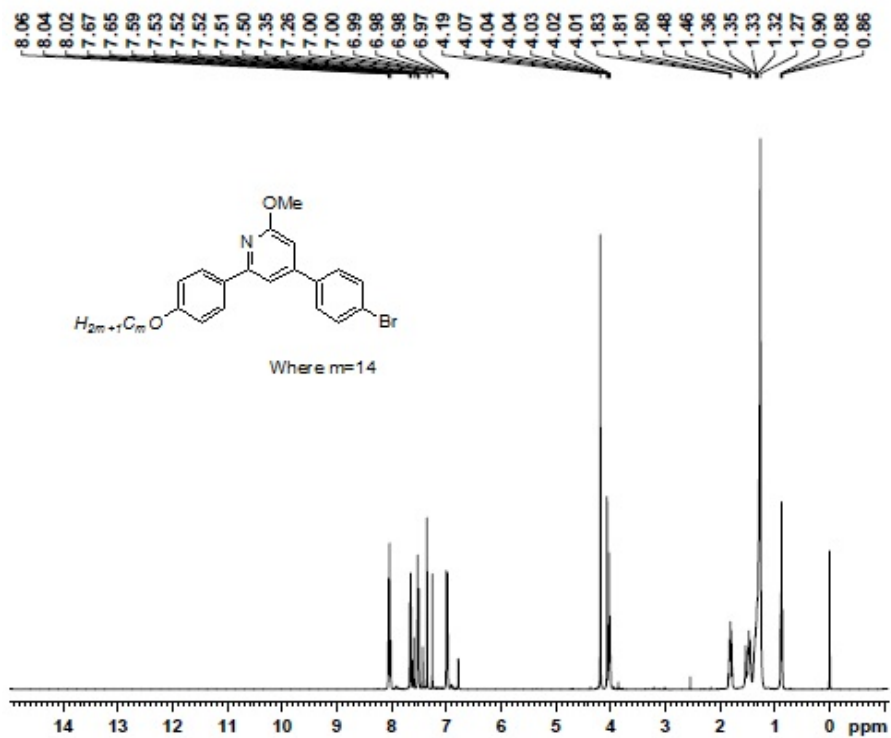


$^1\text{H}$  NMR spectrum of **4h**

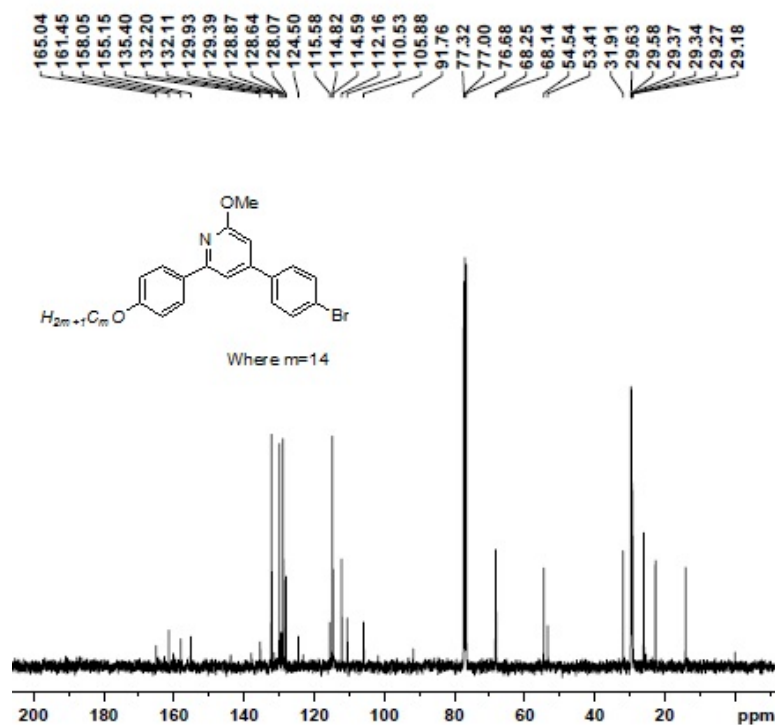




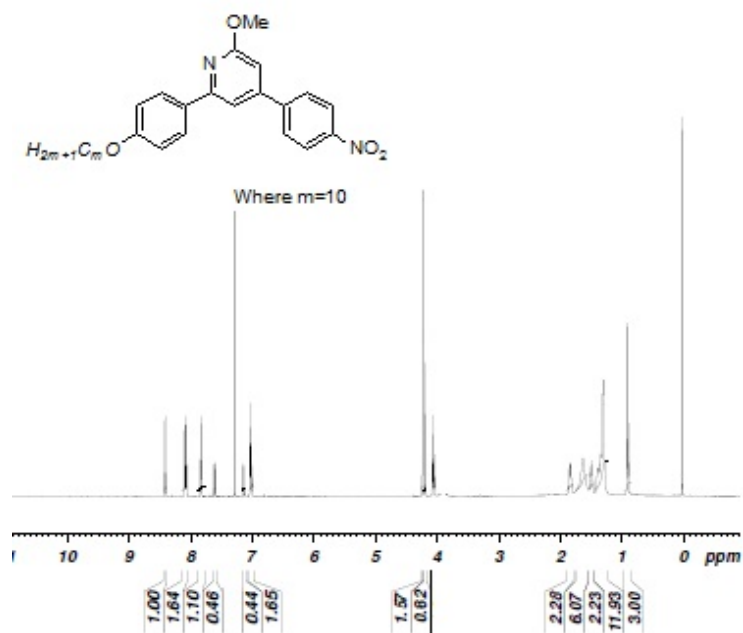
$^{13}\text{C}$  NMR spectrum of **4h**



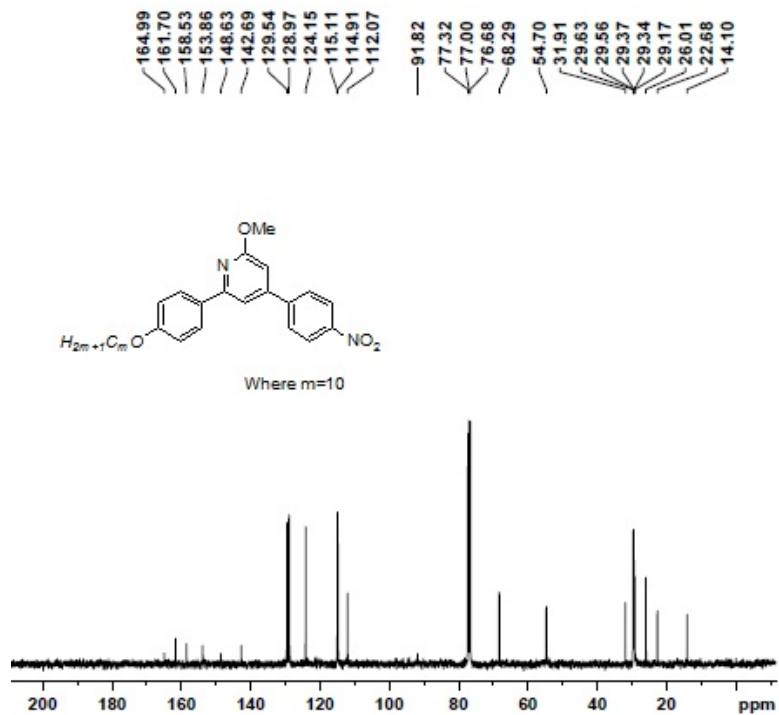
$^1\text{H}$  NMR spectrum of **4i**



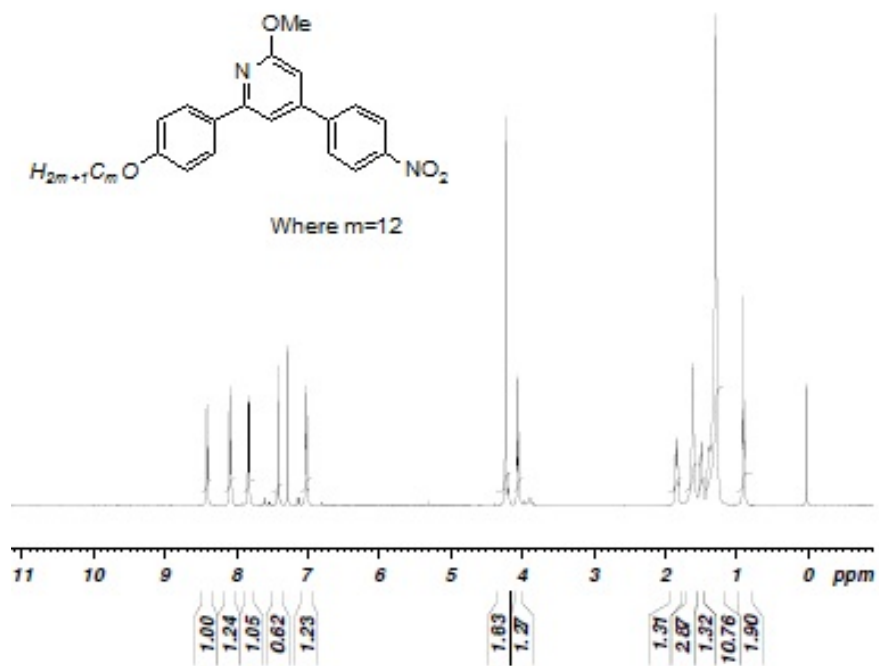
$^{13}C$  NMR spectrum of **4i**



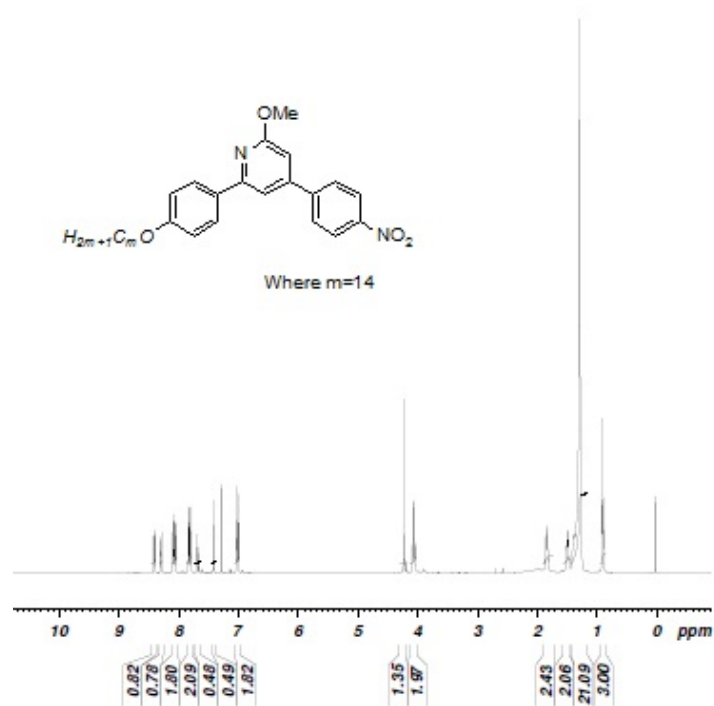
$^1H$  NMR spectrum of **4j**



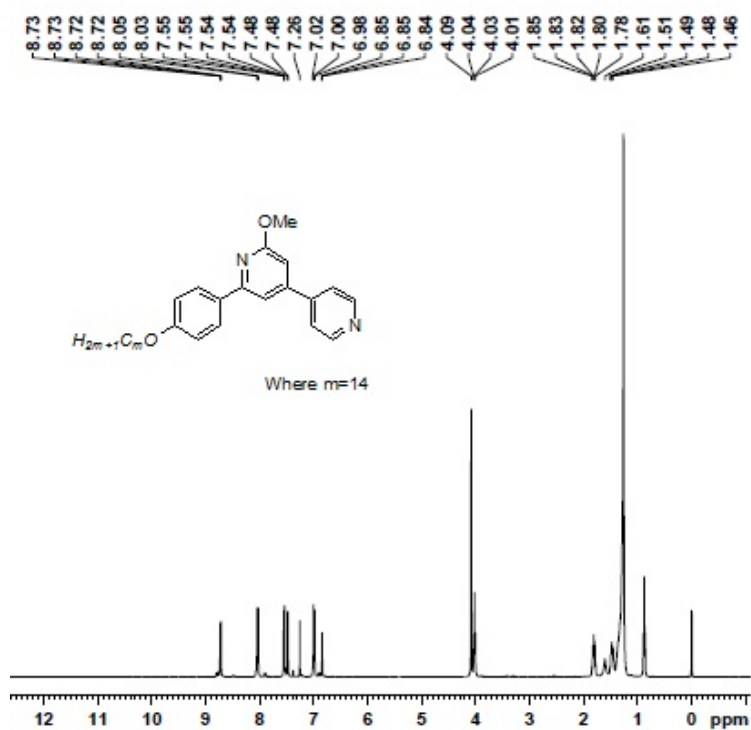
<sup>13</sup>C NMR spectrum of **4j**



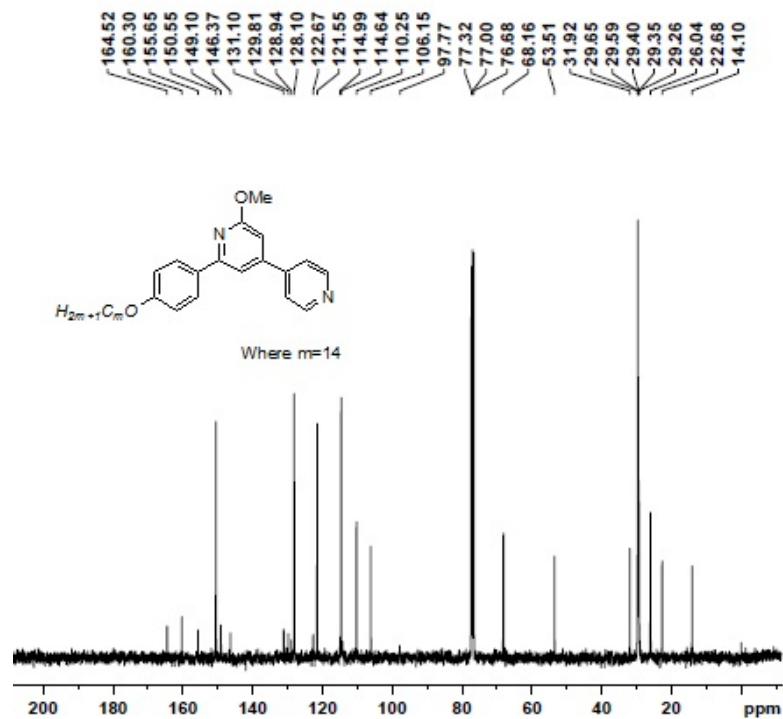
<sup>1</sup>H NMR spectrum of **4k**



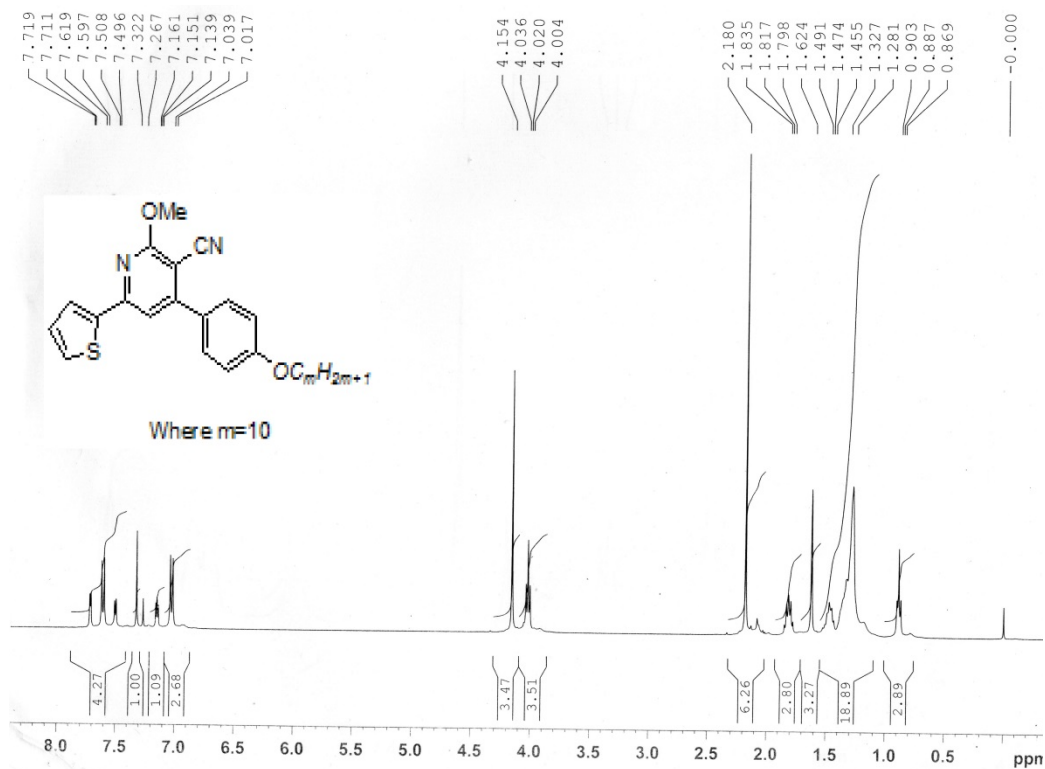
$^1\text{H}$  NMR spectrum of **4l**



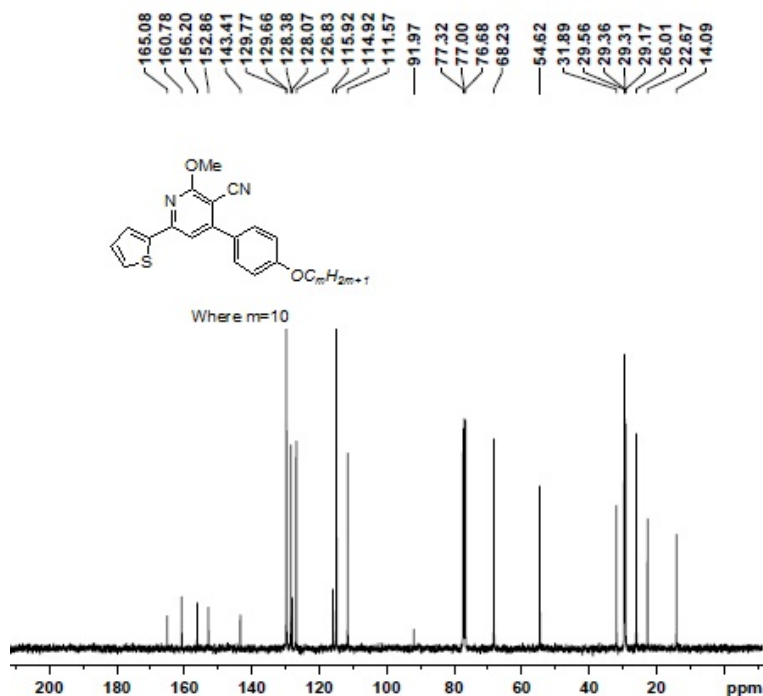
$^1\text{H}$  NMR spectrum of **4m**



$^{13}\text{C}$  NMR spectrum of **4m**



$^1\text{H}$  NMR spectrum of **4n**



<sup>13</sup>C NMR spectrum of **4n**

### Single crystal X-ray crystallography (SCXRD)

**Table S1** The selected bond lengths (Å) and bond angles (°) for compound **4m**.

| Bond Lengths (Å) |           |          |           |
|------------------|-----------|----------|-----------|
| O1-C10           | 1.378 (3) | C15-H15B | 0.9700    |
| O1-C11           | 1.440 (2) | C16-C17  | 1.525 (3) |
| O2-C28           | 1.361 (3) | C16-H16A | 0.9700    |
| O2-C29           | 1.436 (3) | C16-H16B | 0.9700    |
| N1-C1            | 1.334 (3) | C17-C18  | 1.525 (3) |
| N1-C25           | 1.342 (3) | C17-H17A | 0.9700    |
| N2-C28           | 1.329 (3) | C17-H17B | 0.9700    |
| N2-C6            | 1.363 (3) | C18-C19  | 1.525 (3) |
| C1-C2            | 1.376 (3) | C18-H18A | 0.9700    |
| C1-H1            | 0.9300    | C18-H18B | 0.9700    |
| C2-C3            | 1.389 (3) | C19-C20  | 1.530 (3) |
| C2-H2            | 0.9300    | C19-H19A | 0.9700    |
| C3-C26           | 1.392 (3) | C19-H19B | 0.9700    |
| C3-C4            | 1.472 (3) | C20-C21  | 1.525 (3) |
| Bond Angles (°)  |           |          |           |

|            |             |               |             |
|------------|-------------|---------------|-------------|
| C10-O1-C11 | 116.87 (17) | C18-C17-H17A  | 108.9       |
| C28-O2-C29 | 116.17 (18) | C16-C17-H17A  | 108.9       |
| C1-N1-C25  | 114.8 (2)   | C18-C17-H17B  | 108.9       |
| C28-N2-C6  | 117.51 (19) | C16-C17-H17B  | 108.9       |
| N1-C1-C2   | 124.3 (2)   | H17A-C17-H17B | 107.7       |
| N1-C1-H1   | 117.9       | C17-C18-C19   | 113.18 (19) |
| C2-C1-H1   | 117.9       | C17-C18-H18A  | 108.9       |
| C1-C2-C3   | 120.2 (2)   | C19-C18-H18A  | 108.9       |
| C1-C2-H2   | 119.9       | C17-C18-H18B  | 108.9       |
| C3-C2-H2   | 119.9       | C19-C18-H18B  | 108.9       |
| C2-C3-C26  | 115.8 (2)   | H18A-C18-H18B | 107.8       |
| C2-C3-C4   | 122.1 (2)   | C18-C19-C20   | 114.18 (19) |
| C26-C3-C4  | 122.0 (2)   | C18-C19-H19A  | 108.7       |
| C27-C4-C5  | 117.4 (2)   | C20-C19-H19A  | 108.7       |

**Table S2** The selected bond lengths (Å) and bond angles (°) for compound **4n**.

| Bond Lengths (Å) |          |             |           |
|------------------|----------|-------------|-----------|
| S2-C2            | 1.700(5) | C3-C16      | 1.405(7)  |
| S2-C30           | 1.701(6) | N1-C23      | 1.141(7)  |
| O1-C10           | 1.367(6) | C12-C29     | 1.391(7)  |
| O1-C39           | 1.436(6) | C12-C14     | 1.396(7)  |
| O2-C21           | 1.440(7) | C30-C38     | 1.355(9)  |
| N4-C10           | 1.322(7) | C41-C42     | 1.245(17) |
| N4-C18           | 1.337(6) | C43-C44     | 1.49(4)   |
| C8-C9            | 1.401(7) | C44-C45     | 1.65(3)   |
| C8-C27           | 1.422(7) | C45-C46     | 1.55(4)   |
| C2-C18           | 1.453(7) | C48-C47     | 1.61(3)   |
| C2-C4            | 1.453(7) | C47-C46     | 1.39(4)   |
| Bond Angles (°)  |          |             |           |
| C2-S2-C30        | 92.7(3)  | C15-C16-C3  | 121.0(4)  |
| C10-O1-C39       | 116.7(4) | N4-C18-C27  | 122.9(4)  |
| C10-N4-C18       | 117.8(4) | N4-C18-C2   | 116.3(4)  |
| C9-C8-C27        | 116.8(5) | O2-C21-C34  | 107.6(5)  |
| C18-C2-S2        | 120.3(4) | N1-C23-C9   | 176.5(6)  |
| C10-C9-C23       | 119.8(4) | C18-C27-C8  | 119.4(4)  |
| N4-C10-O1        | 119.9(4) | C12-C29-C3  | 121.1(4)  |
| N4-C10-C9        | 124.6(5) | C30-C38-C4  | 114.5(5)  |
| O1-C10-C9        | 115.4(4) | C42-C41-C43 | 113.5(17) |
| C29-C12-C14      | 119.3(4) | C41-C42-C34 | 117.0(12) |
| O2-C14-C15       | 115.7(4) | C43-C44-C45 | 117(3)    |
| O2-C14-C12       | 124.6(4) | C47-C46-C45 | 122(3)    |