

## Supplementary Information

**Vilsmeier-Haack reaction of the 7-acetyl-2-arylindoles: A convenient method for the synthesis of 6-oxo-6*H*-pyrrolo[3,2,1-*ij*]quinoline-1,5-dicarbaldehydes**

- S1: Copies of NMR spectra of compounds 1b, 1e & 1g and their corresponding precursors**
- S2: Copies of NMR spectra of compounds 2a–g and 3a–g**

S1. Copies of NMR spectra for compounds 1b, 1e & 1g and their precursors

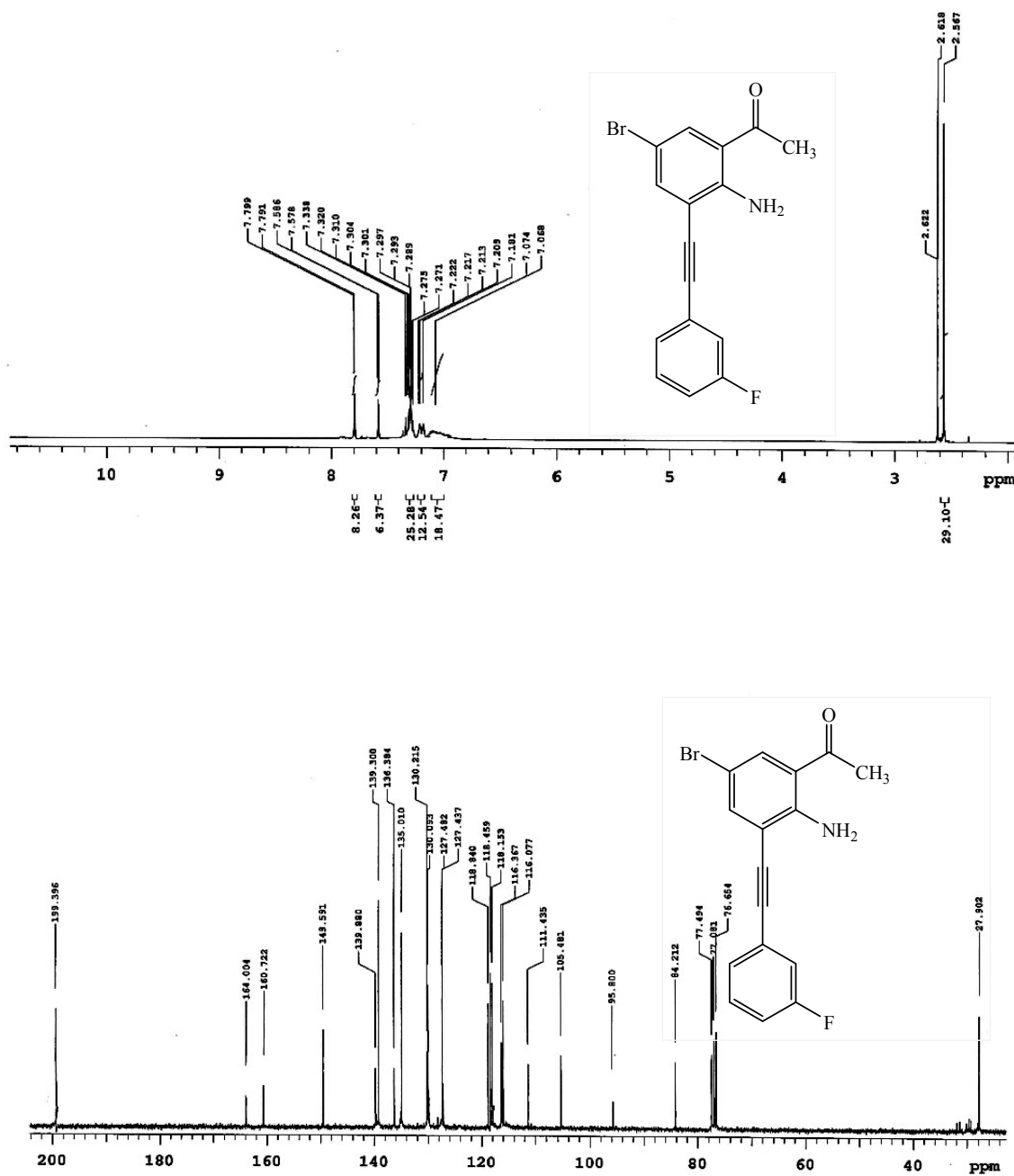
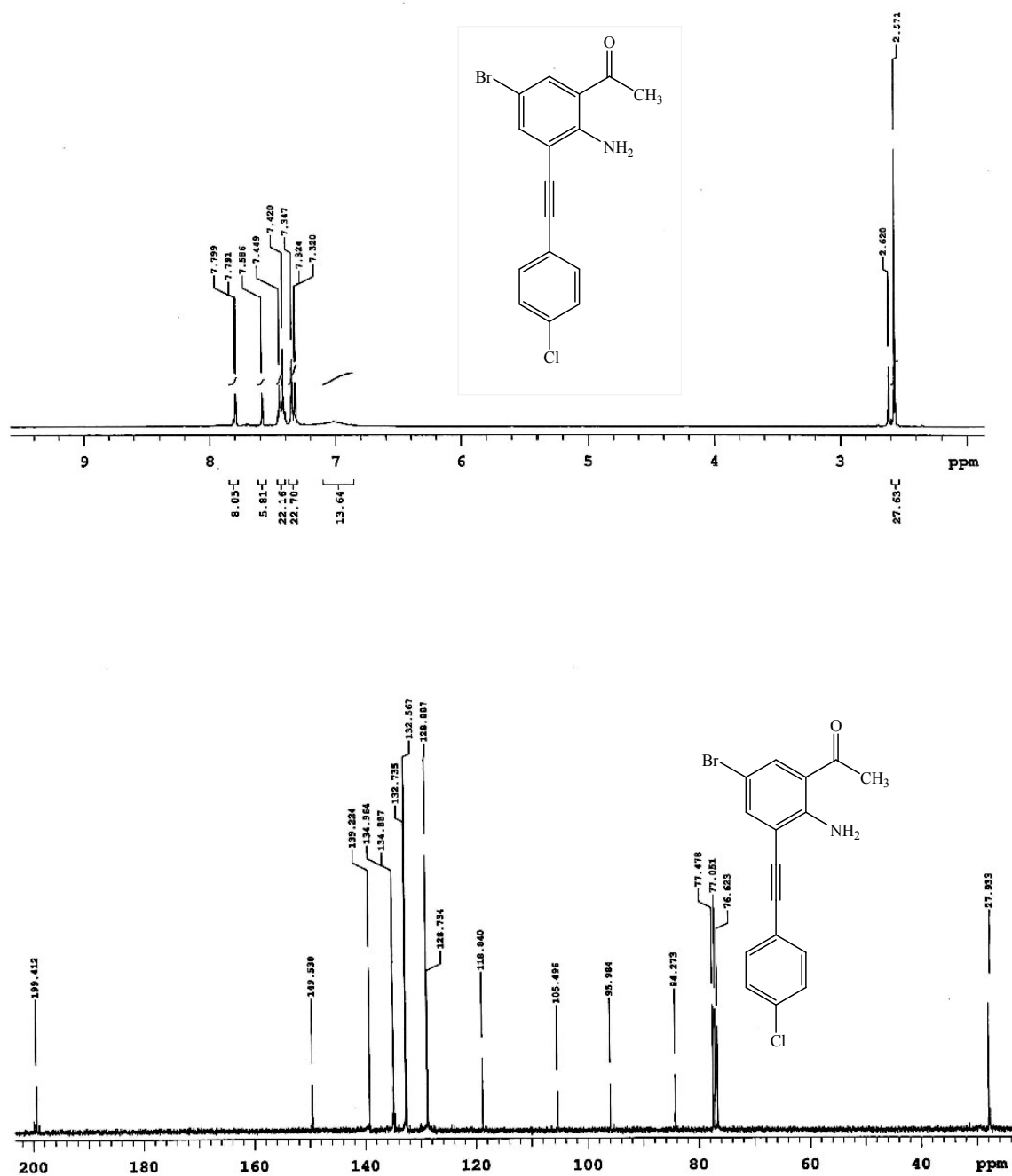
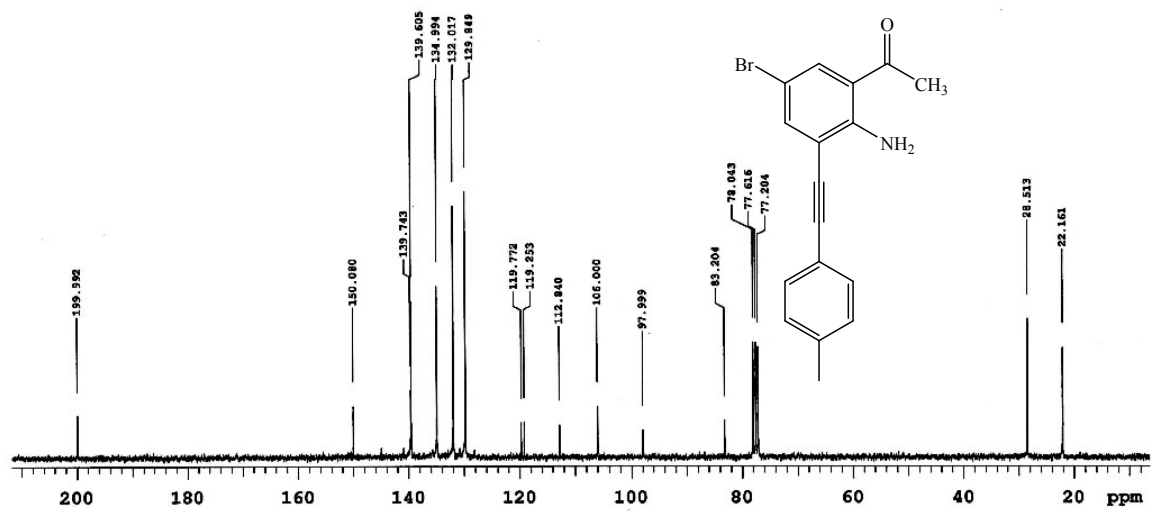
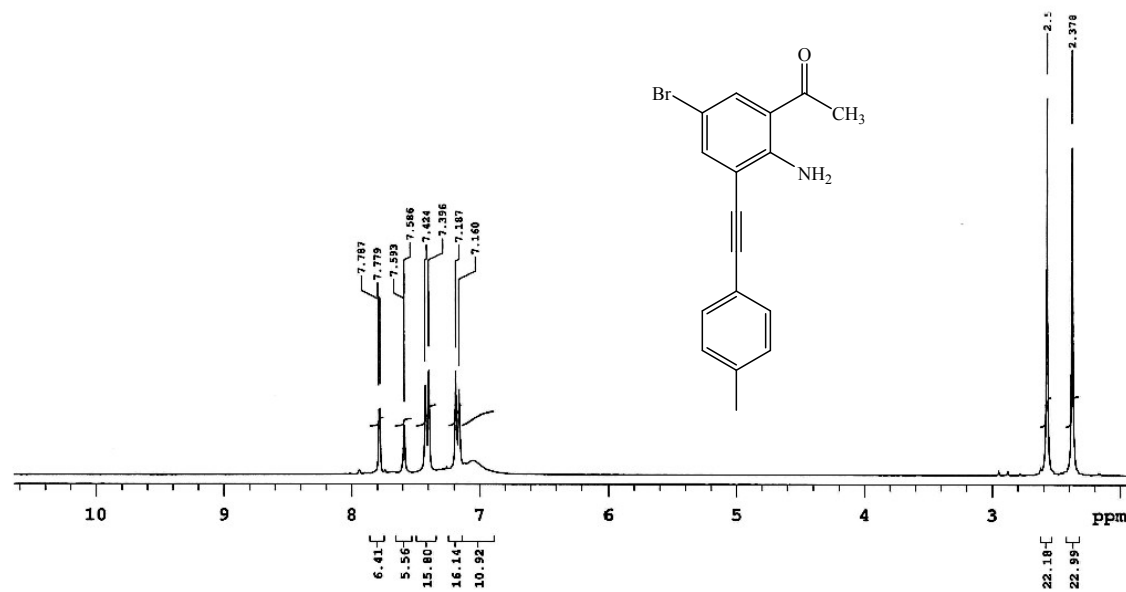


Figure S1.1:  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR spectra of 1-(2-amino-5-bromo-3-(2-(3-fluorophenyl)ethynyl)phenyl)ethanone in  $\text{CDCl}_3$  at 300 and 75 MHz, respectively.



**Figure S1.2:** <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 1-(2-amino-5-bromo-3-(2-(4-chlorophenyl)ethynyl)phenyl)ethanone in CDCl<sub>3</sub> at 300 and 75 MHz, respectively.



**Figure S1.3:** <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 1-(2-amino-5-bromo-3-(2-p-tolylolethynyl)phenyl)ethanone in CDCl<sub>3</sub> at 300 and 75 MHz, respectively.

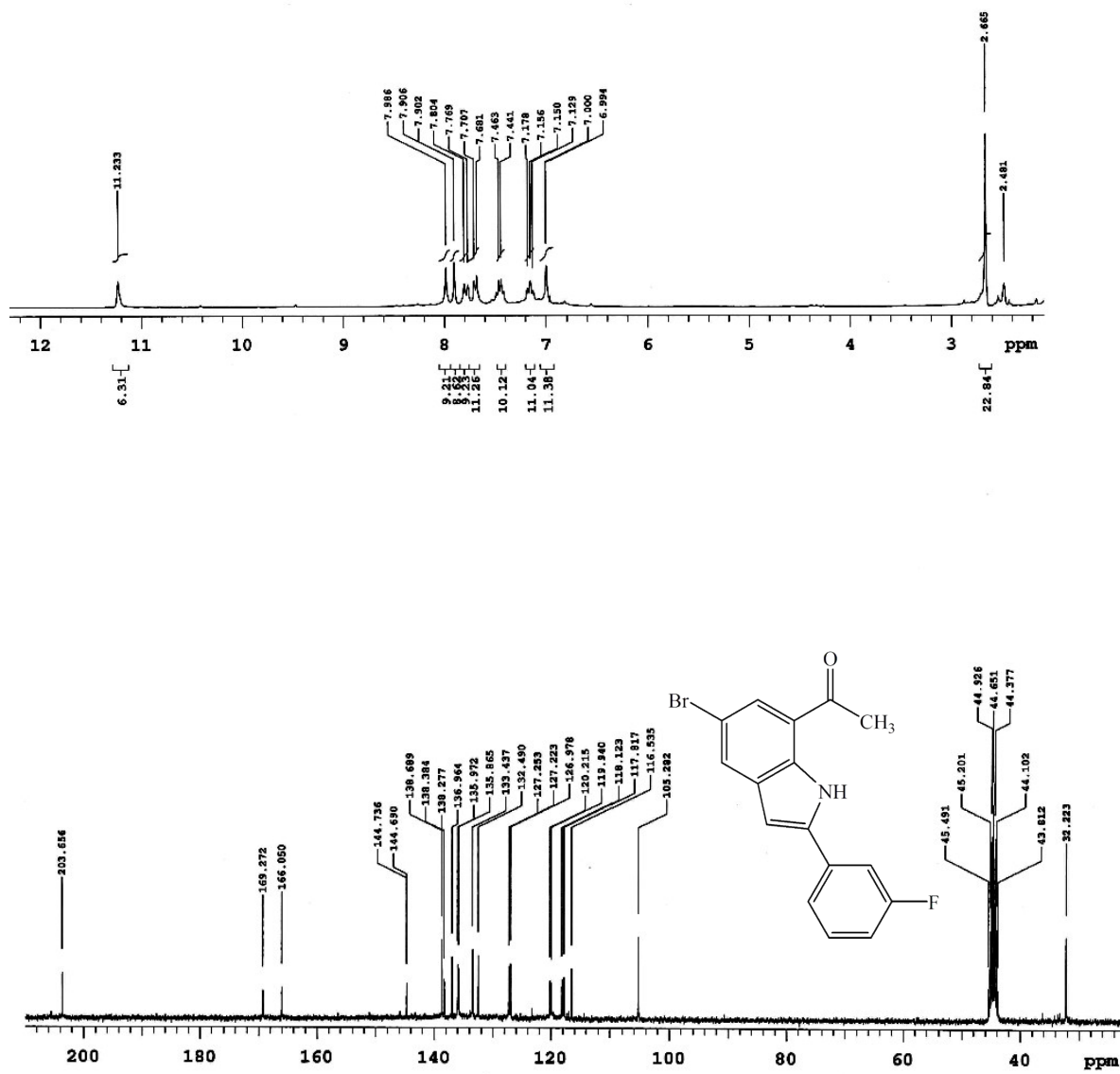


Figure S1.4: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **1b** in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively

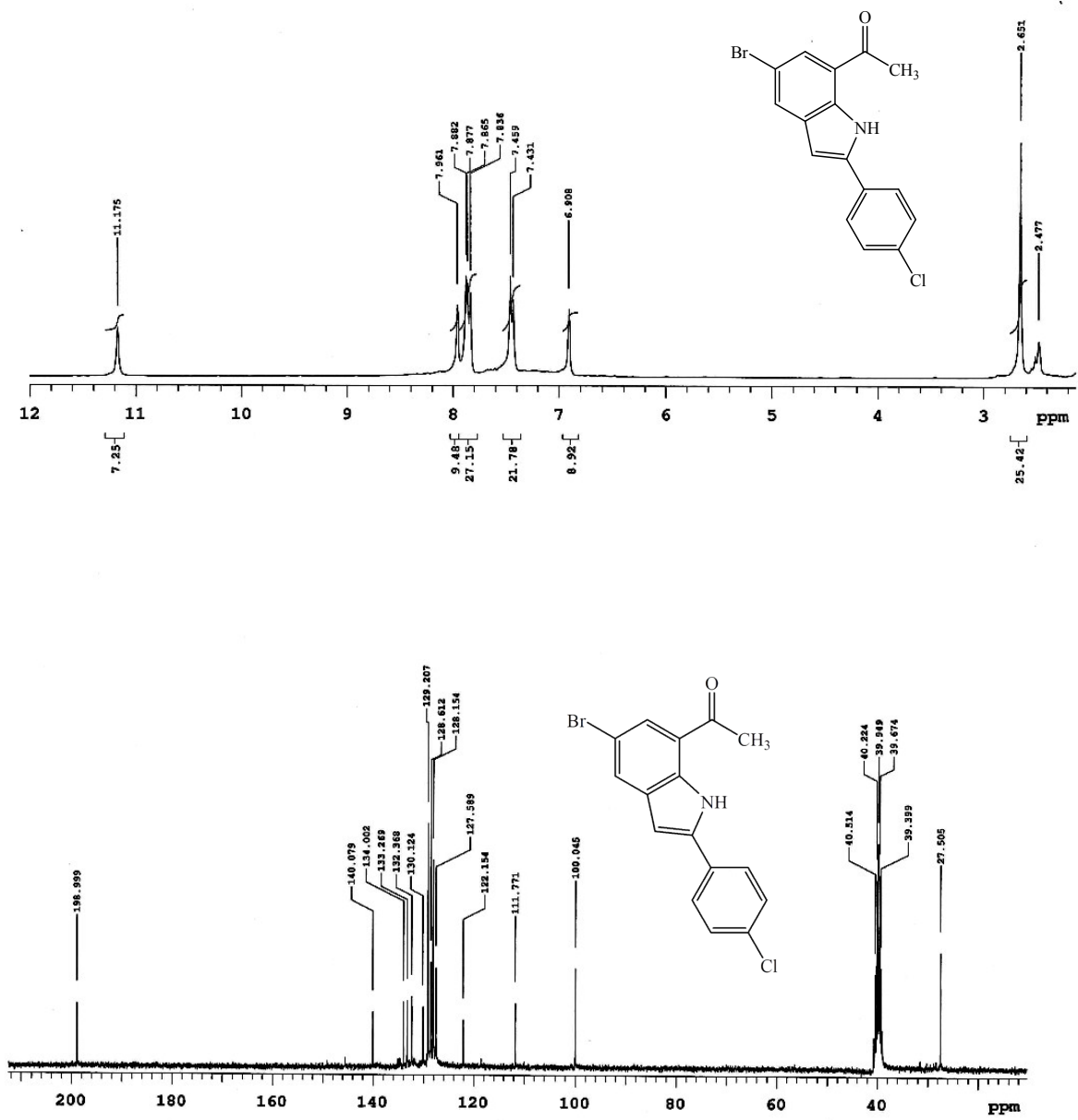


Figure S1.5: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **1e** in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively

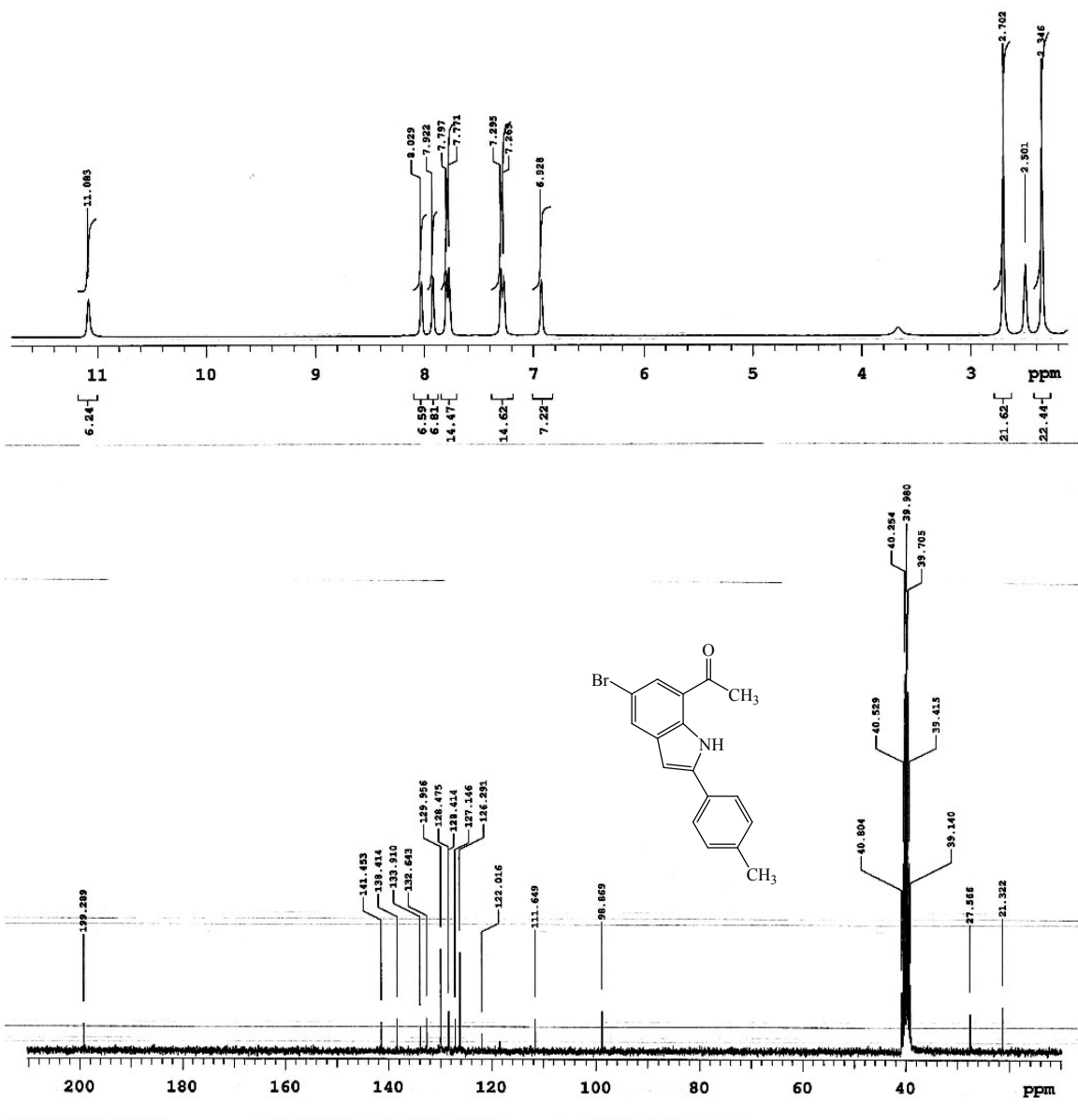


Figure S1.6:  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR spectra of **1g** in  $\text{DMSO-}d_6$  at 300 and 75 MHz, respectively

S2. Copies of NMR spectra of compounds 2a-f, 3e, 4a-d and 5a-g.

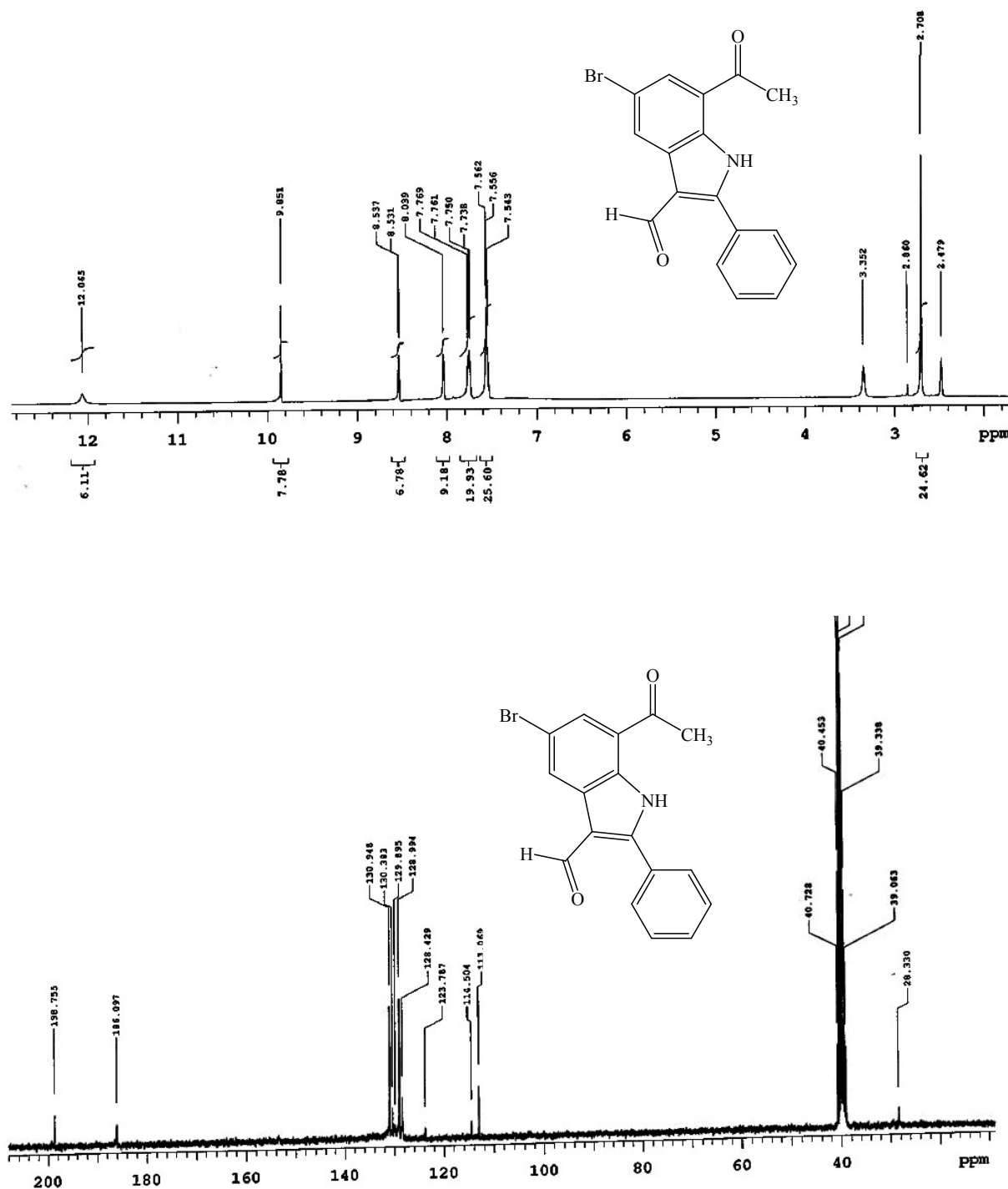


Figure S2.1: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 2a in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively.



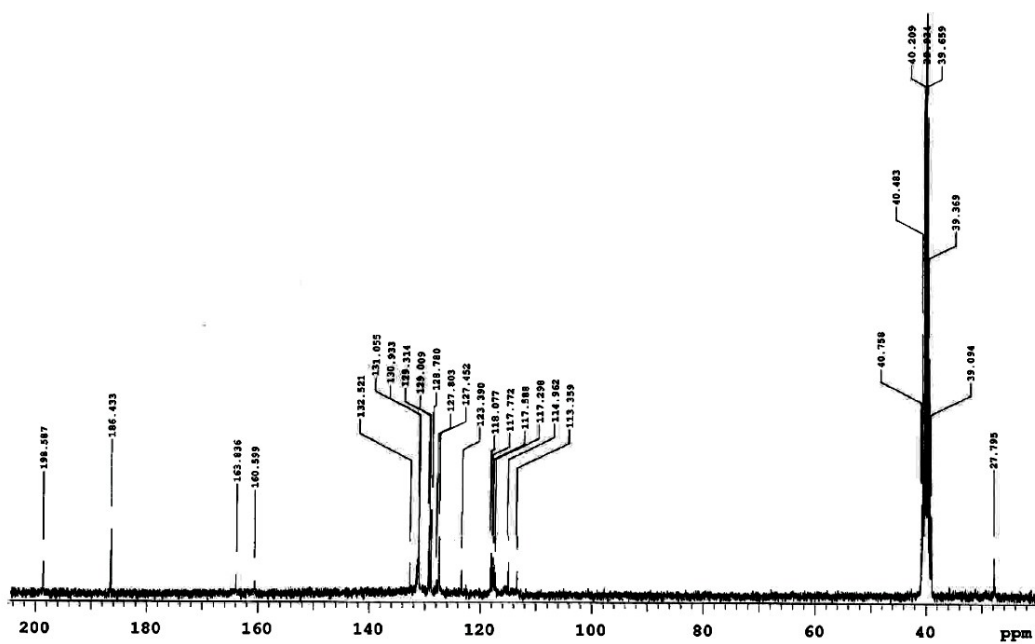
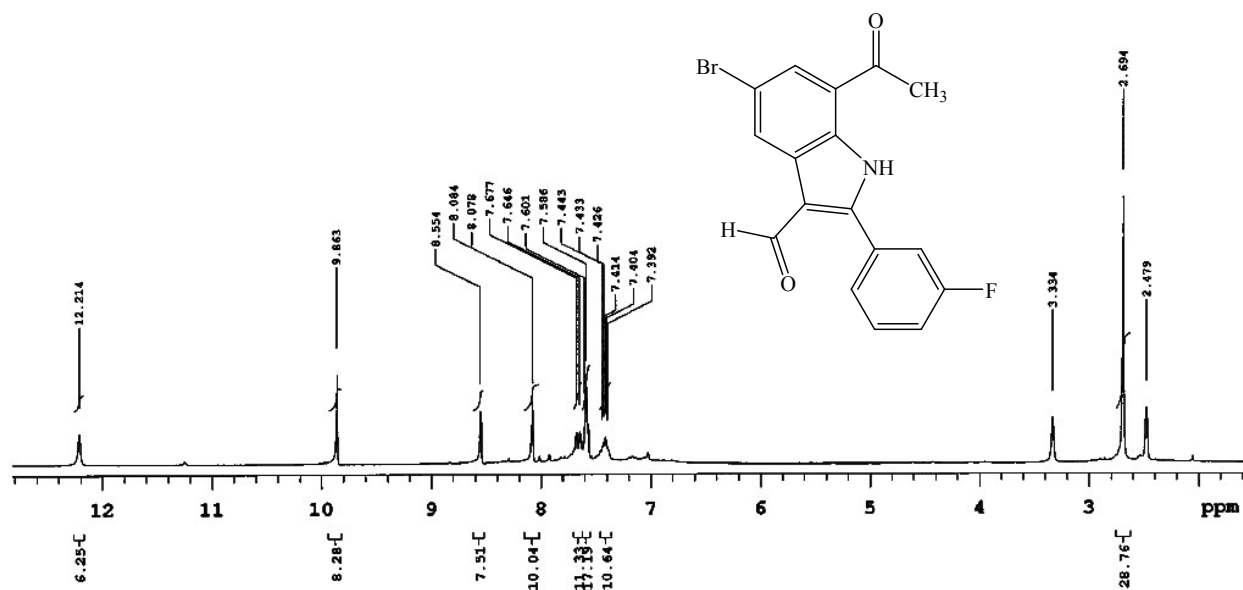


Figure S2.2: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **2b** in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively.

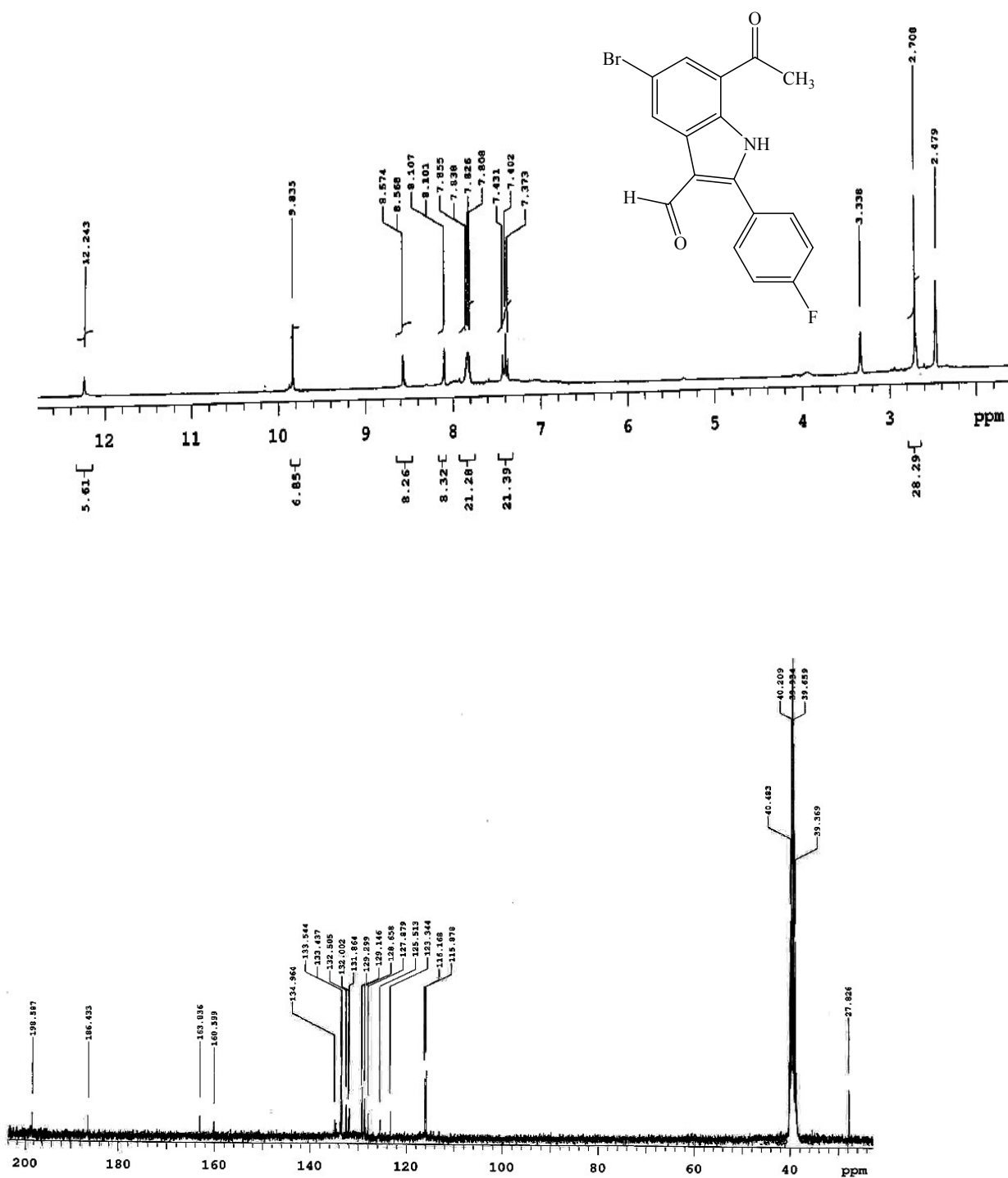


Figure S2.3: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 2c in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively.

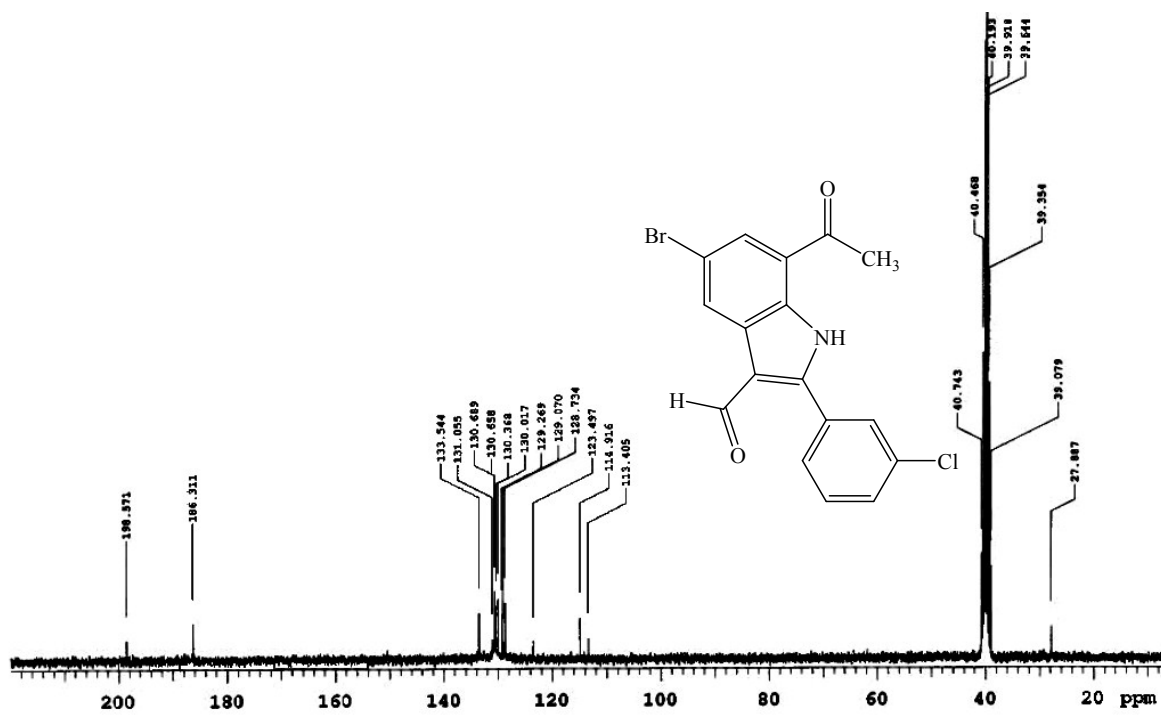
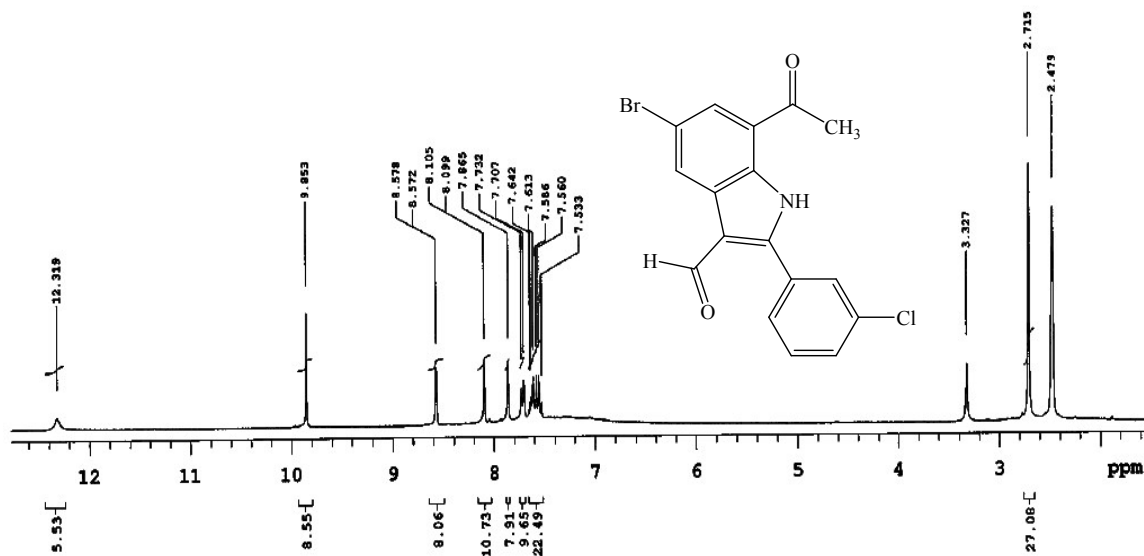


Figure S2.4: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **2d** in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively.

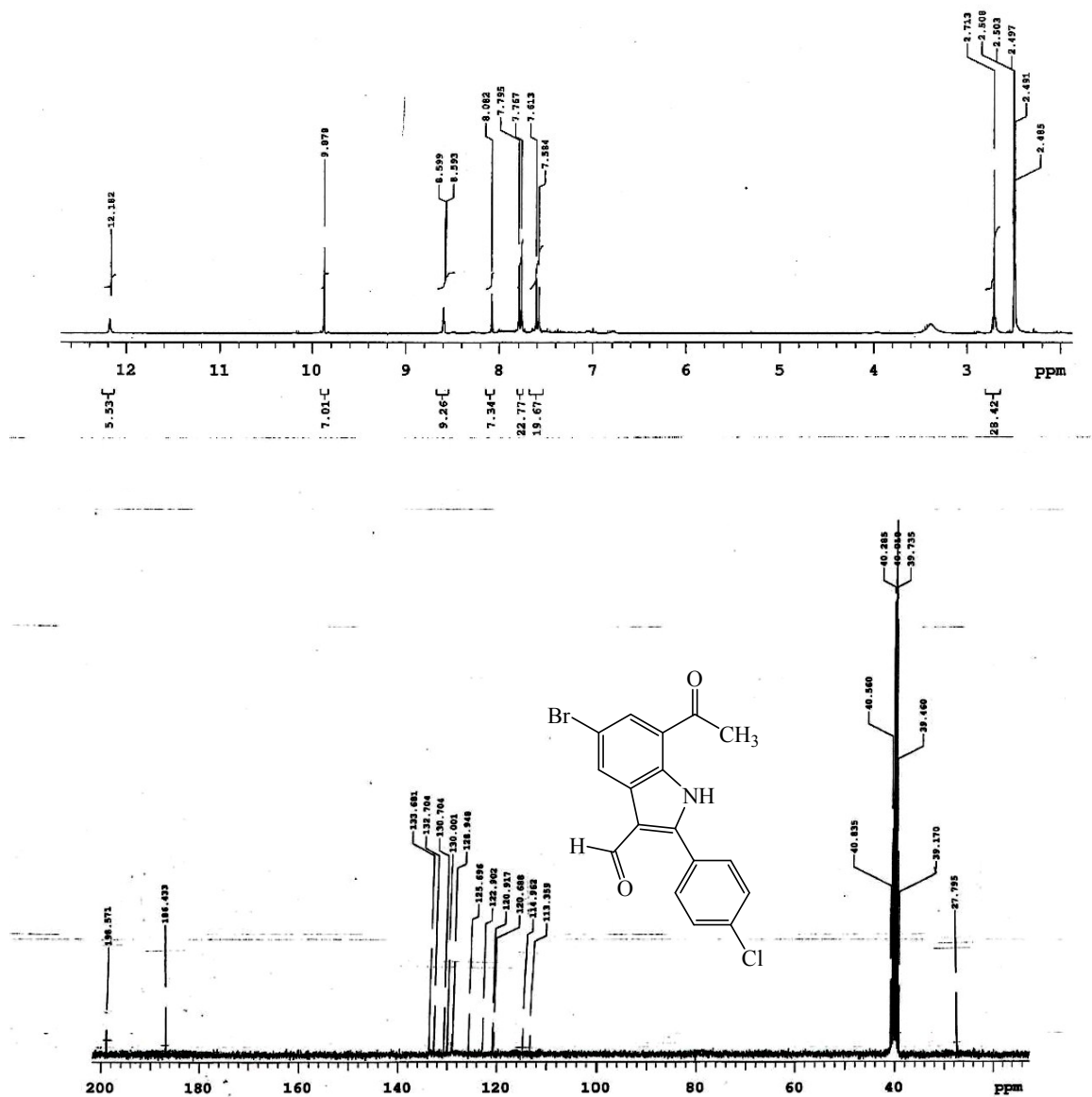


Figure S2.5: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 2e in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively.

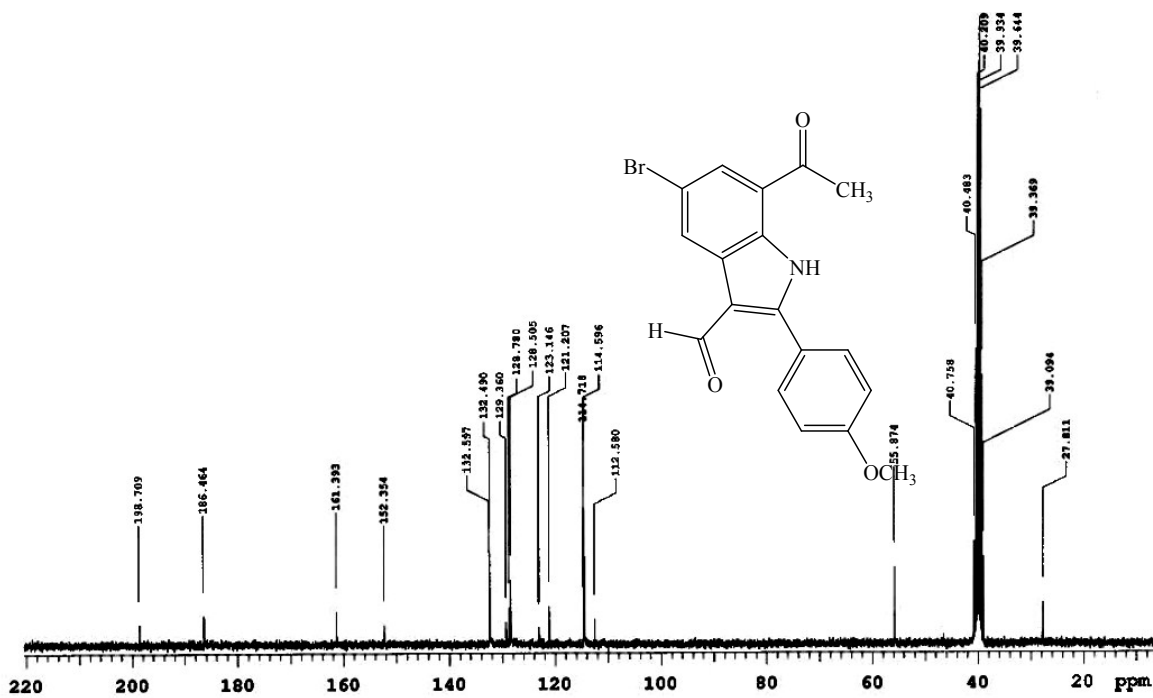
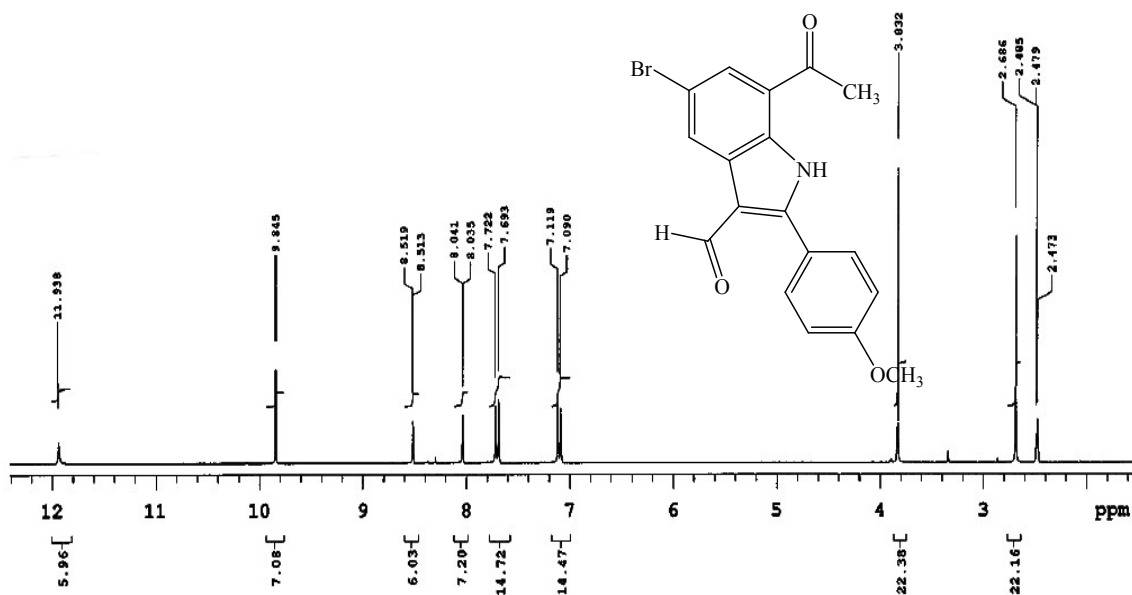


Figure S2.6: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 2f in DMSO-*d*<sub>6</sub> at 300 and 75 MHz, respectively.

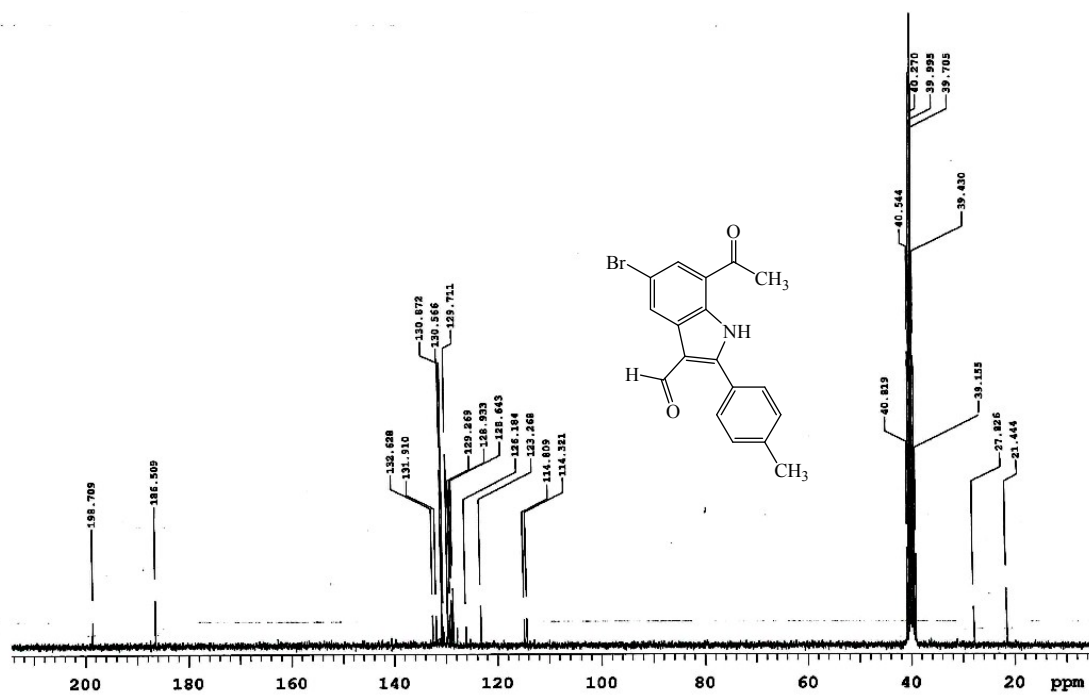
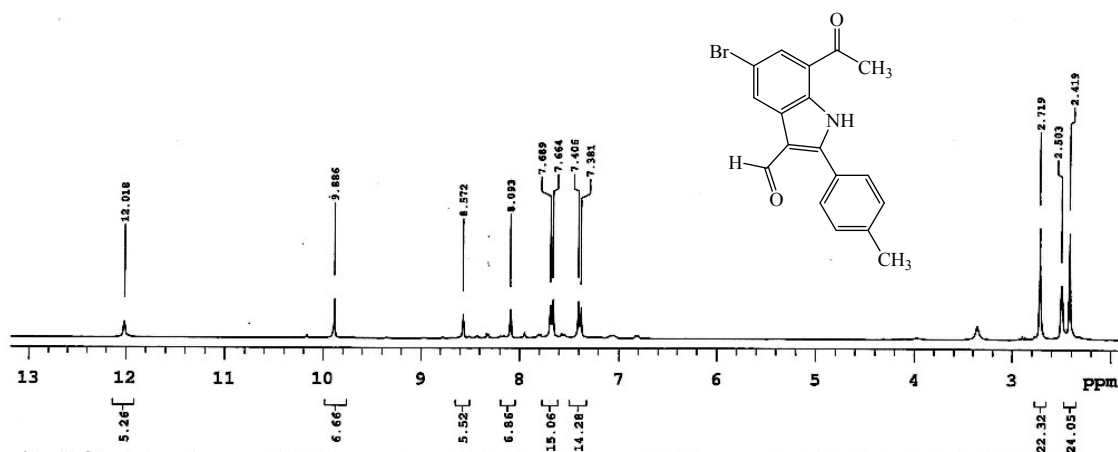


Figure S2.7:  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR spectra of **2g** in  $\text{DMSO-}d_6$  at 300 and 75 MHz, respectively.

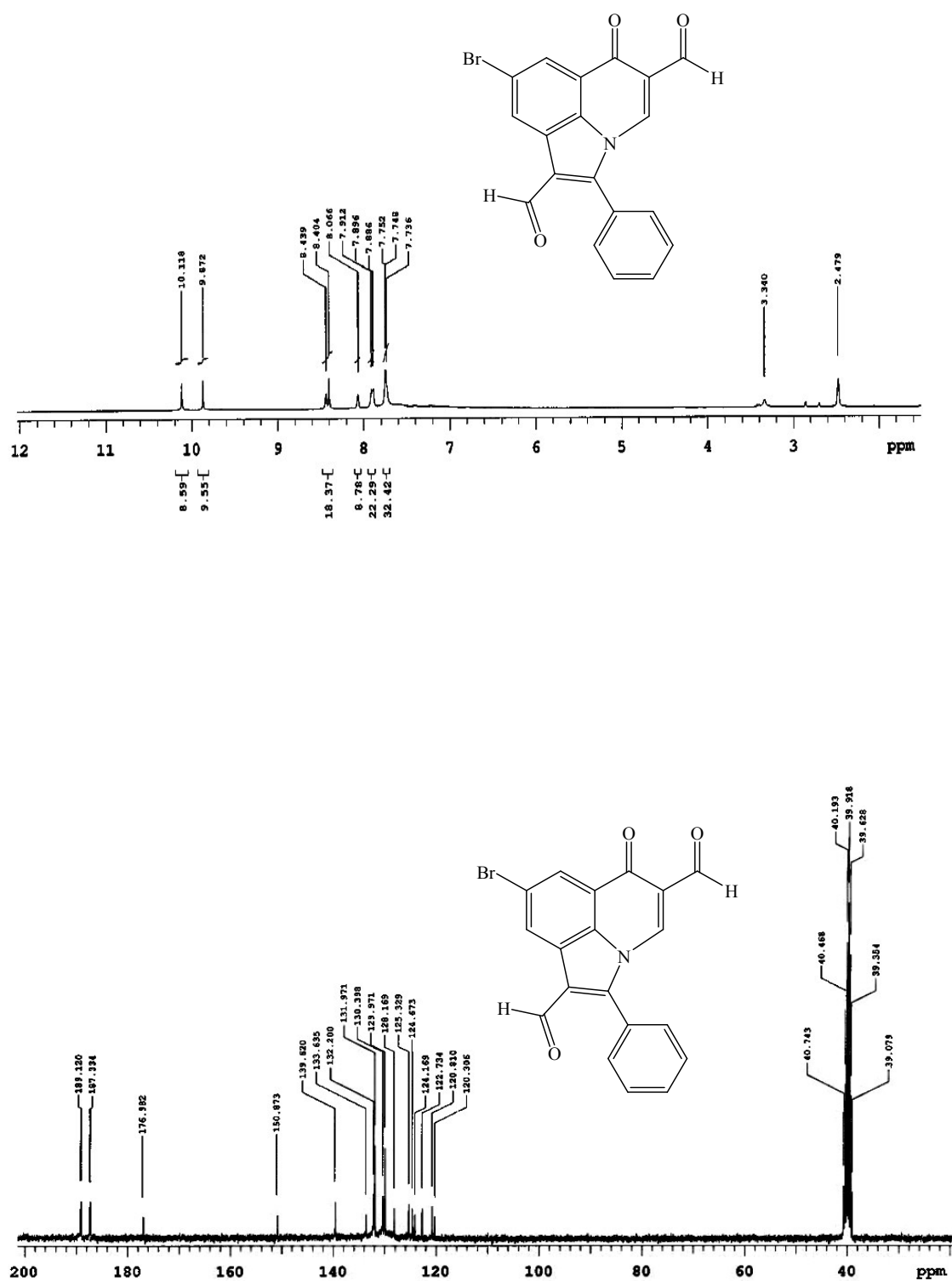


Figure S2.8: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **3a** in DMSO-*d*<sub>6</sub> at 300 MHz and 75 MHz, respectively.

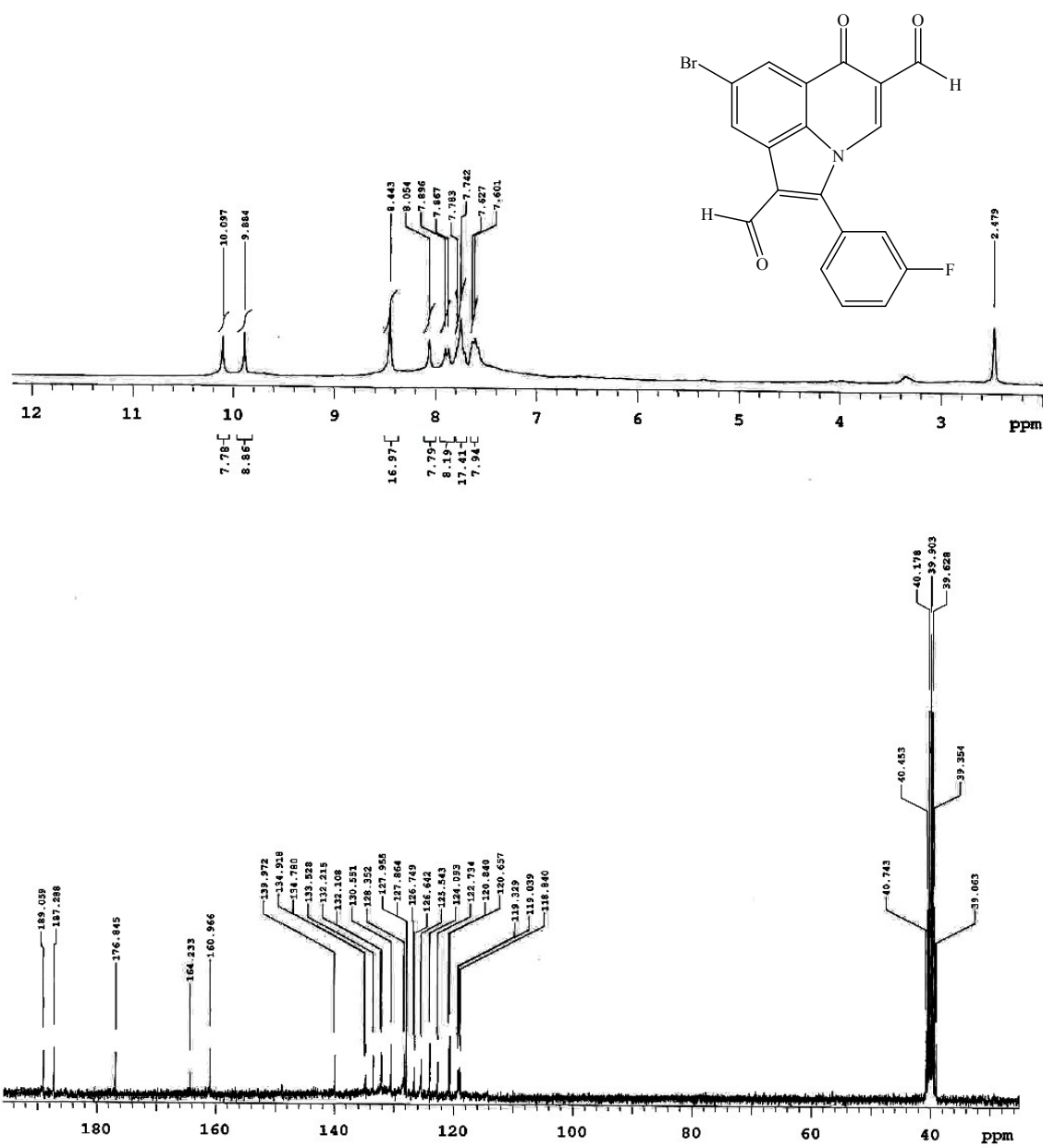


Figure S2.9: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **3b** in DMSO-*d*<sub>6</sub> at 300 MHz and 75 MHz, respectively.



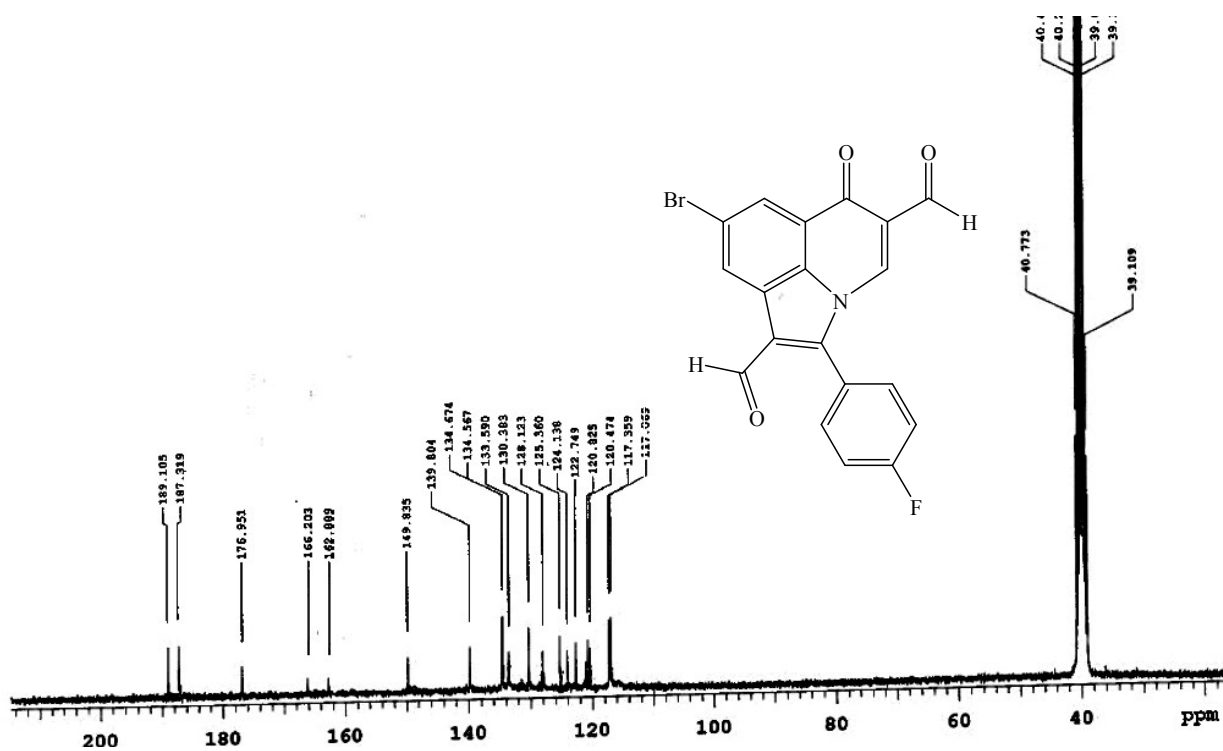
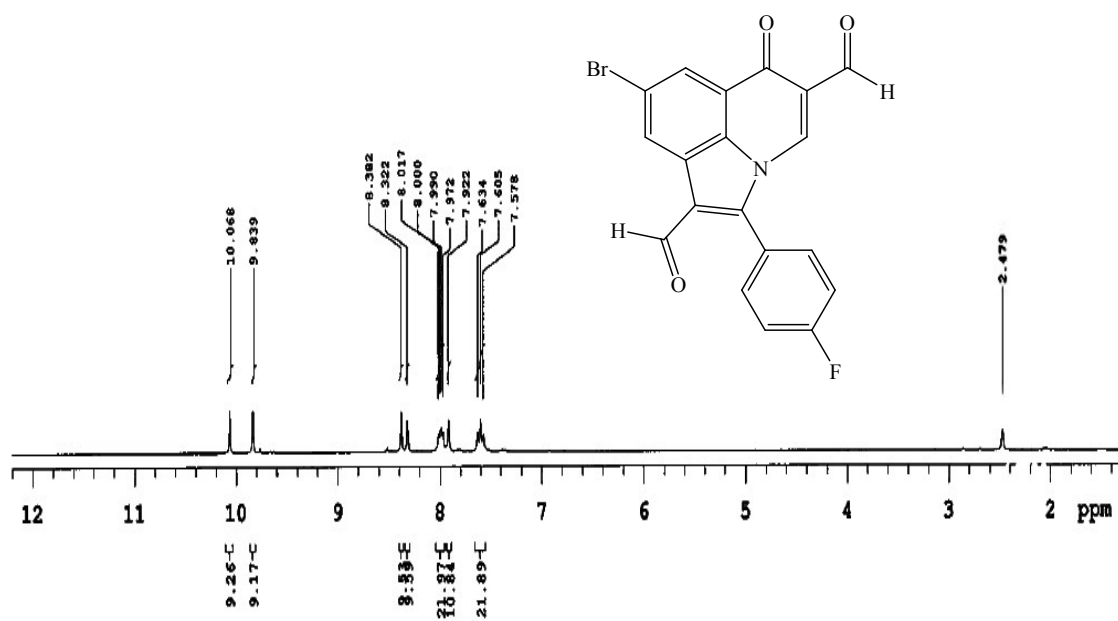


Figure S2.10:  $^1\text{H}$ - and  $^{13}\text{C}$ -NMR spectra of **3c** in  $\text{DMSO-}d_6$  at 300 MHz and 75 MHz, respectively.

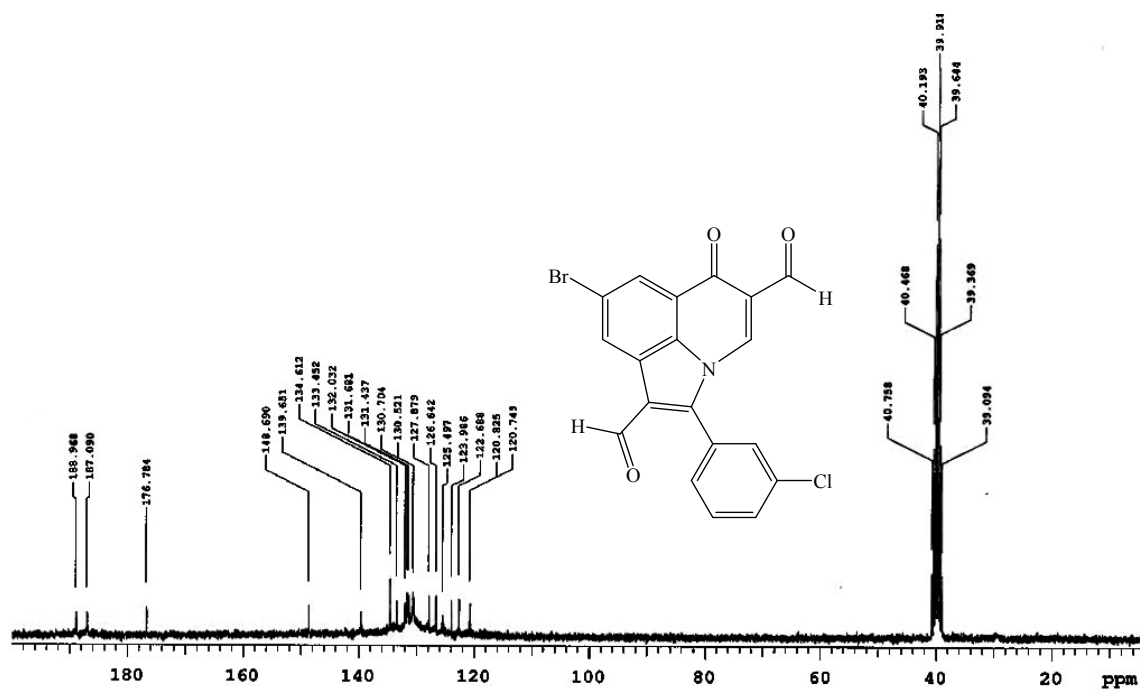
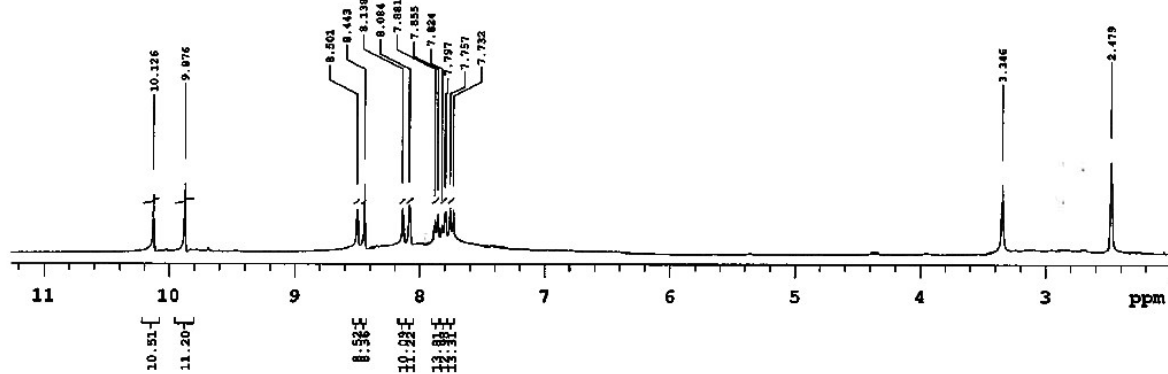
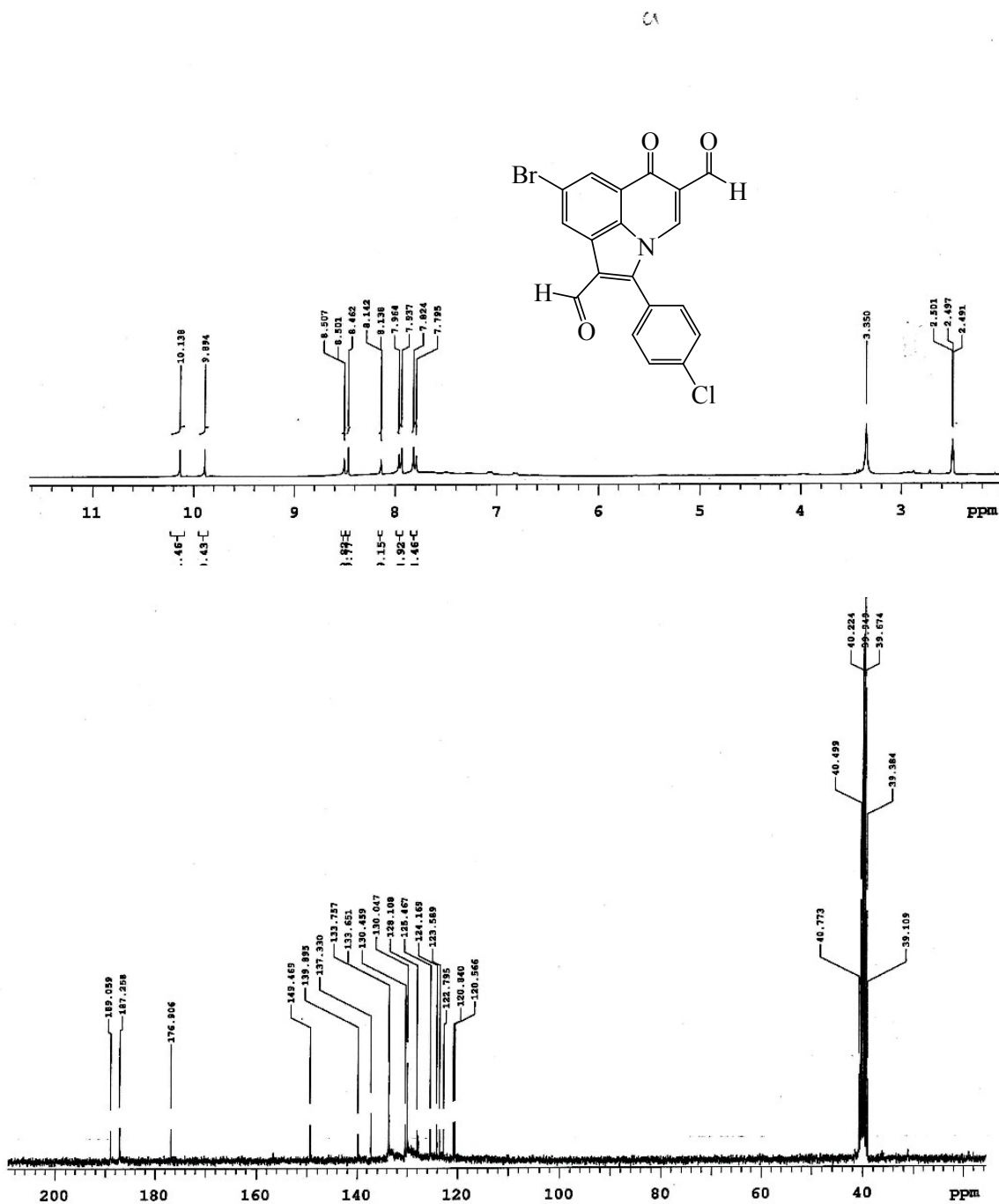


Figure S2.11: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **3d** in DMSO-*d*<sub>6</sub> at 300 MHz and 75 MHz, respectively.



**Figure S2.12:** <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **3e** in DMSO-*d*<sub>6</sub> at 300 MHz and 75 MHz, respectively.

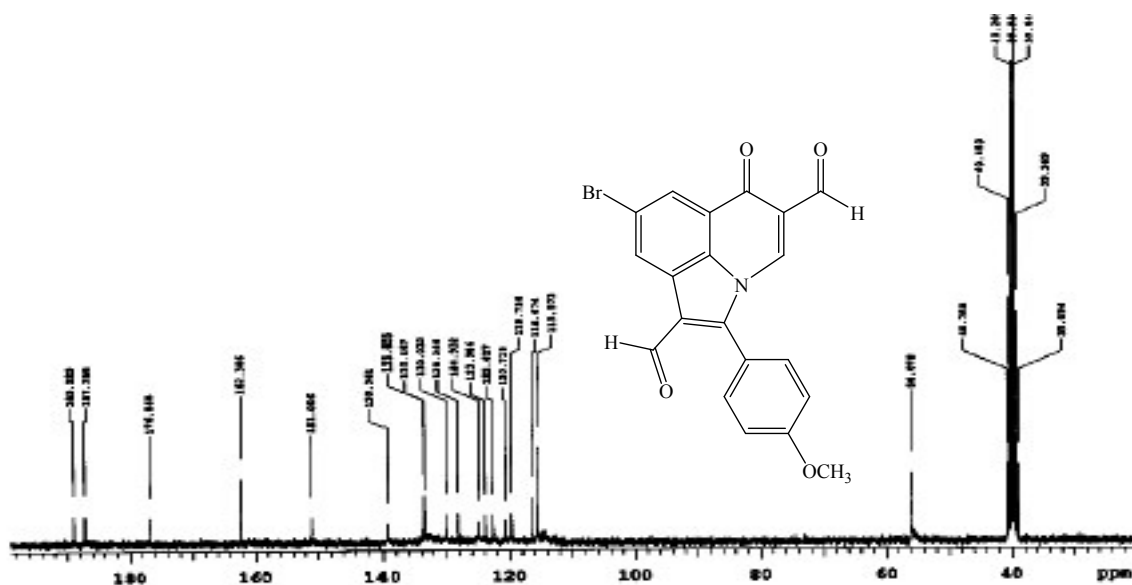
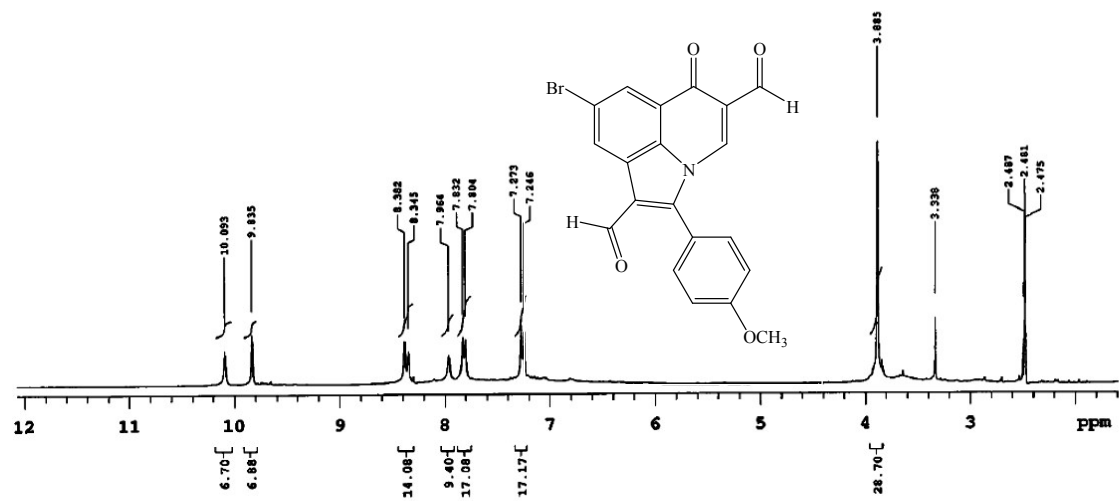


Figure S2.13: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of 3f in DMSO-*d*<sub>6</sub> at 300 MHz and 75 MHz, respectively.

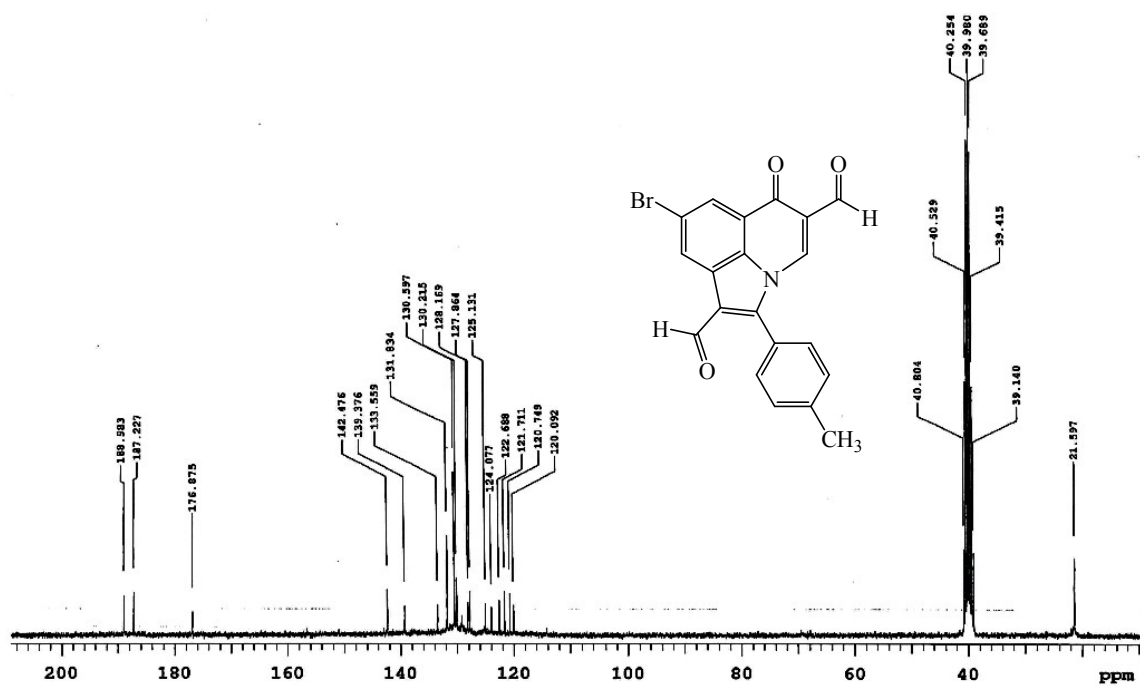
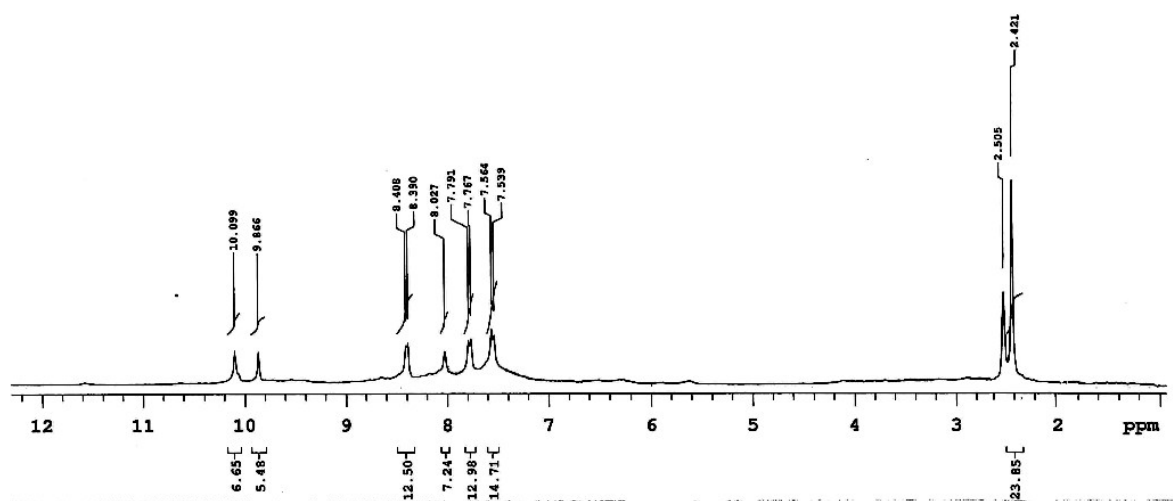


Figure S2.14: <sup>1</sup>H- and <sup>13</sup>C-NMR spectra of **3g** in DMSO-*d*<sub>6</sub> at 300 MHz and 75 MHz, respectively.