

# Supplementary Information

## Chemical Constituents Isolated from the Bark of *Guatteria blepharophylla* (Annonaceae) and their Antiproliferative and Antimicrobial Activities

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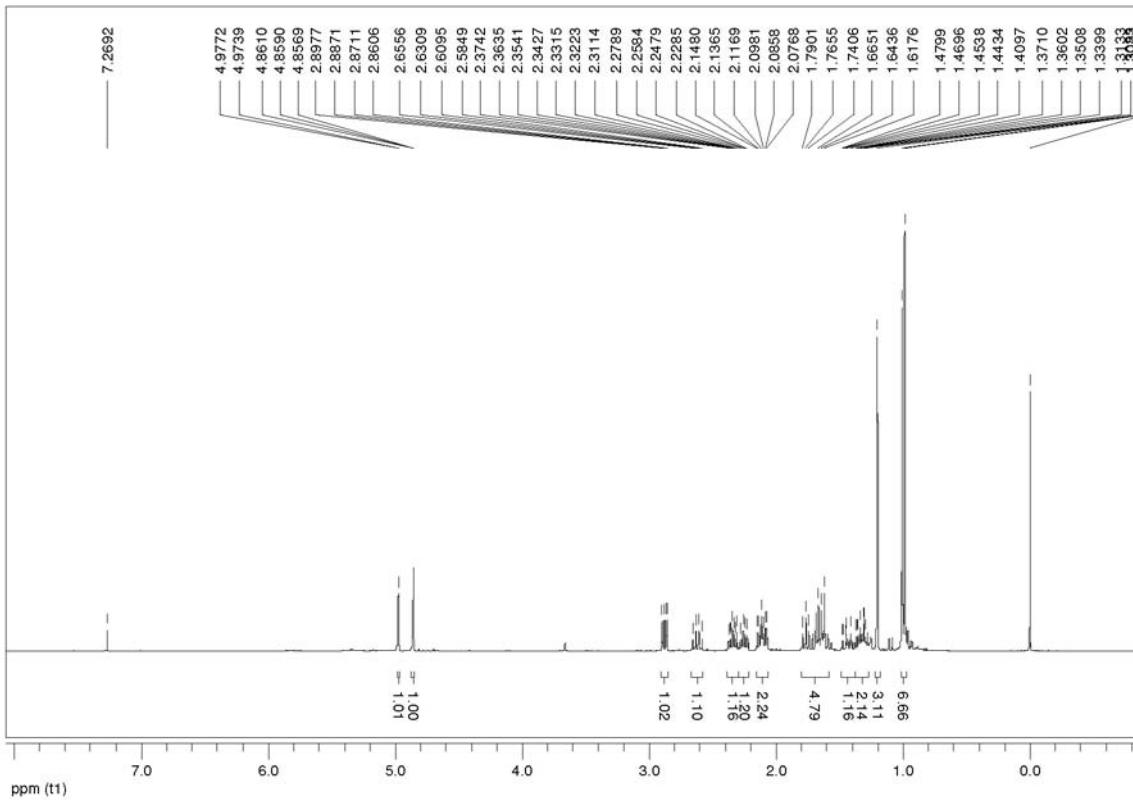
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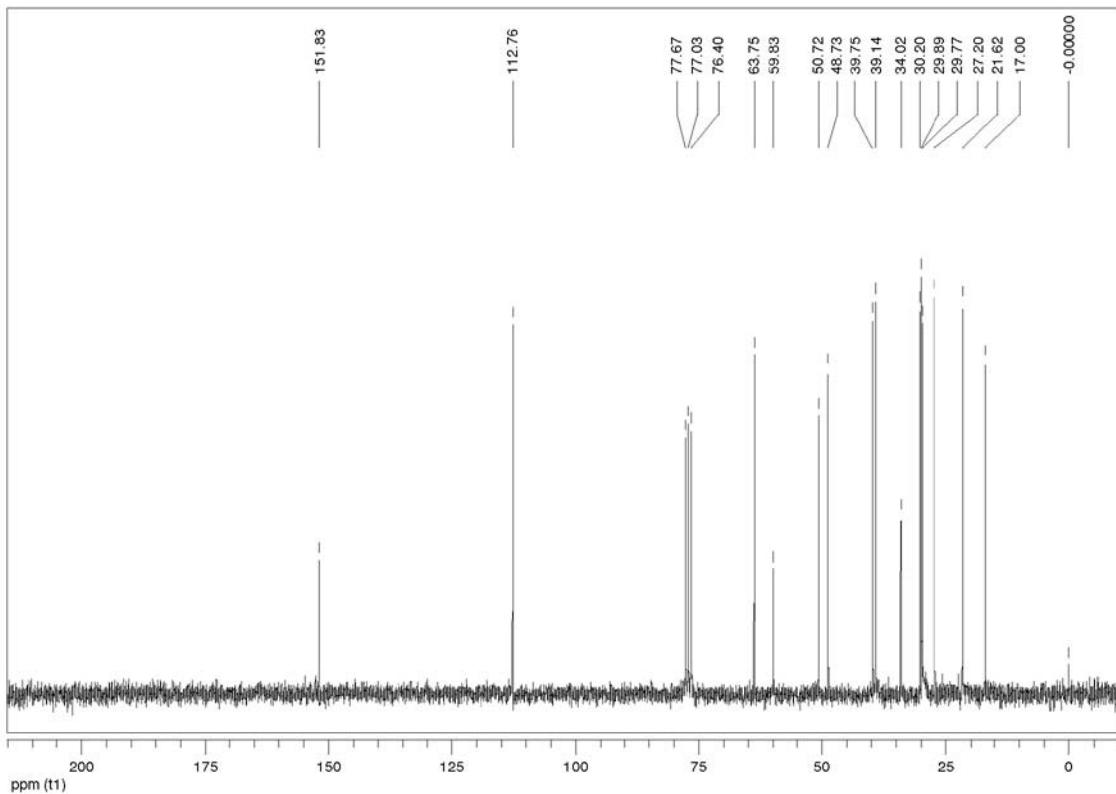
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**Table S1.** Chemical constituents isolated from the bark of *Guatteria blepharophylla* and the respective morphology and data spectra numbering (Figure S\_)

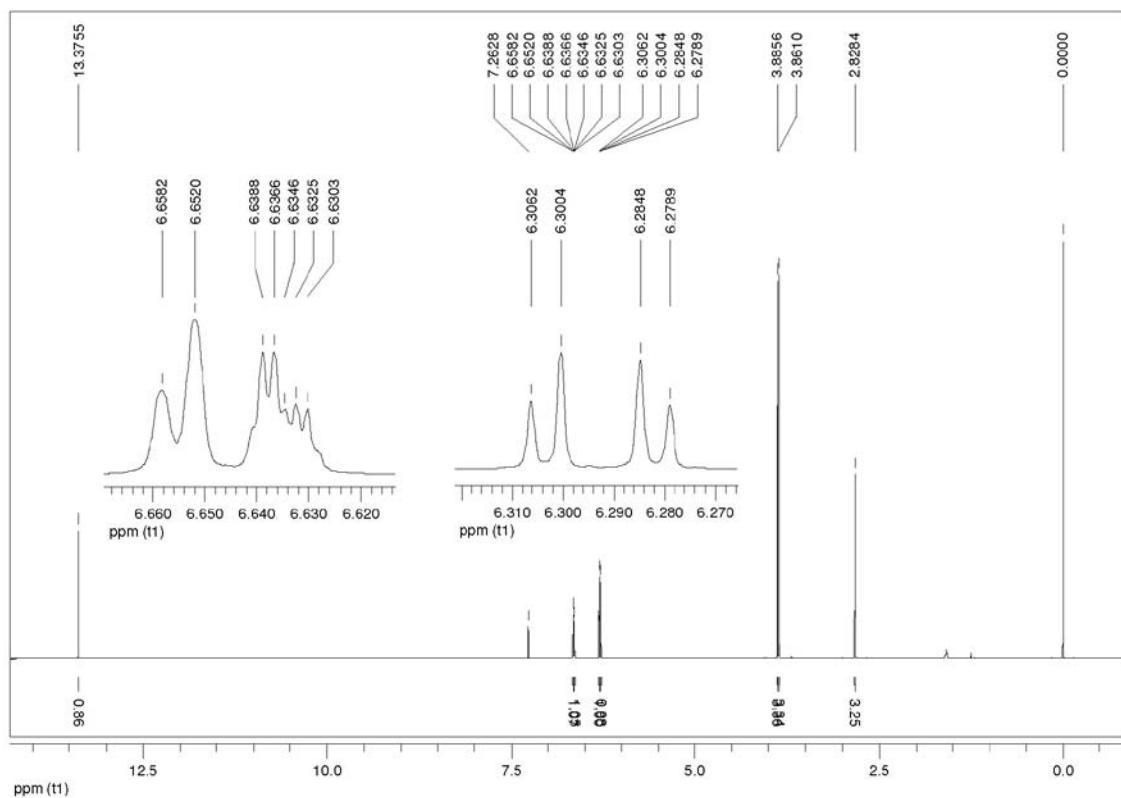
Caryophyllene oxide ( <b>1</b> ):	Colorless oil. EI-MS <i>m/z</i> 220 [M] <sup>+</sup> . <sup>1</sup> H NMR (S1). <sup>13</sup> C NMR (S2).
Lichexanthone ( <b>2</b> ):	Light yellow needles (CHCl <sub>3</sub> ). Mp 189-190 °C. <sup>1</sup> H NMR (S3). <sup>13</sup> C NMR (S4).
Spathulenol ( <b>3</b> ):	Colorless oil. EI-MS <i>m/z</i> 220 [M] <sup>+</sup> . <sup>1</sup> H NMR (S5). <sup>13</sup> C NMR (S6).
Mixture of β-sitosterol ( <b>4</b> ) and stigmasterol ( <b>5</b> ):	White needles (Hexane:CH <sub>2</sub> Cl <sub>2</sub> 2:1). <sup>1</sup> H NMR (S7). <sup>13</sup> C NMR (S8).
O-methylmoschatoline ( <b>6</b> ):	Orange needles (CHCl <sub>3</sub> ); mp 182-183 °C. <sup>1</sup> H NMR (S9). <sup>13</sup> C NMR (S10).
Lysicamine ( <b>7</b> ):	Yellow needles (CHCl <sub>3</sub> ); mp 186-187 °C. <sup>1</sup> H NMR (S11). <sup>13</sup> C NMR (S12).
Nornuciferine ( <b>8</b> ):	Brown amorphous solid. <sup>1</sup> H NMR (S13). <sup>13</sup> C NMR (S14).
Liriodenine ( <b>9</b> ):	Yellow needles (CHCl <sub>3</sub> :MeOH 2:1); mp 279-280 °C. <sup>1</sup> H NMR (S15). HSQC (S16). HMBC (S17).
Isocoreximine ( <b>10</b> ):	Light yellowish prisms (CHCl <sub>3</sub> :MeOH 2:1); mp 241-242 °C. <sup>1</sup> H NMR (S18). <sup>13</sup> C NMR (S19).
Subsessiline ( <b>11</b> ):	Orange needles (CHCl <sub>3</sub> :MeOH 2:1). <sup>1</sup> H NMR (S20). <sup>13</sup> C NMR (S21). HSQC (S22). HMBC (S23).
Isomoschatoline ( <b>12</b> ):	Blue needles (CHCl <sub>3</sub> :MeOH 2:1). <sup>1</sup> H NMR (S24). <sup>13</sup> C NMR (S25). HSQC (S26). HMBC (S27).



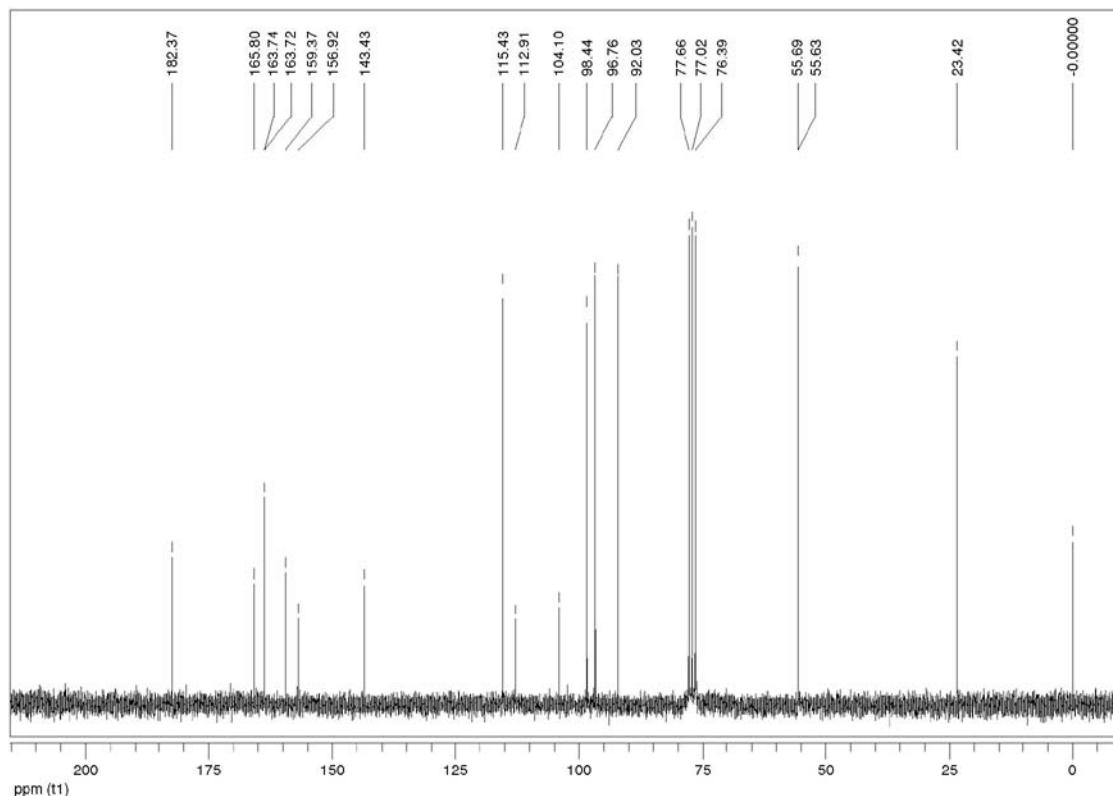
**Figure S1.**  $^1\text{H}$  NMR spectrum of compound **1** in  $\text{CDCl}_3$  at 400 MHz.



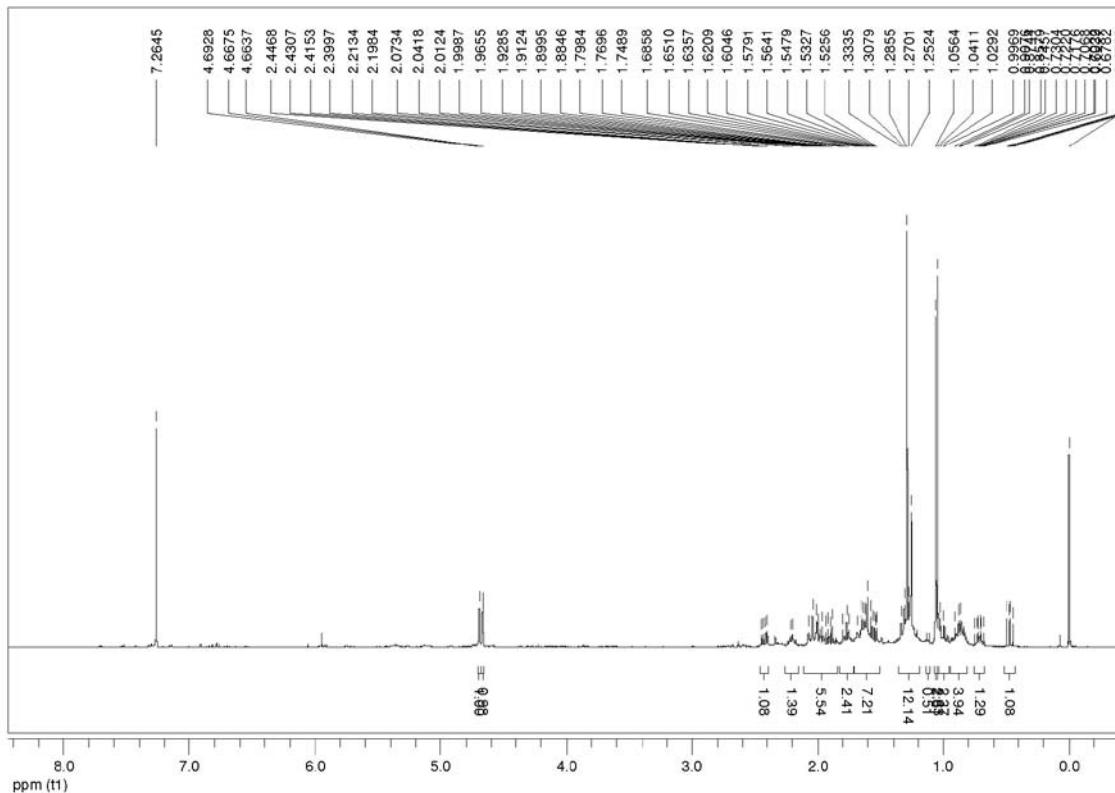
**Figure S2.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **1** in  $\text{CDCl}_3$  at 100 MHz.



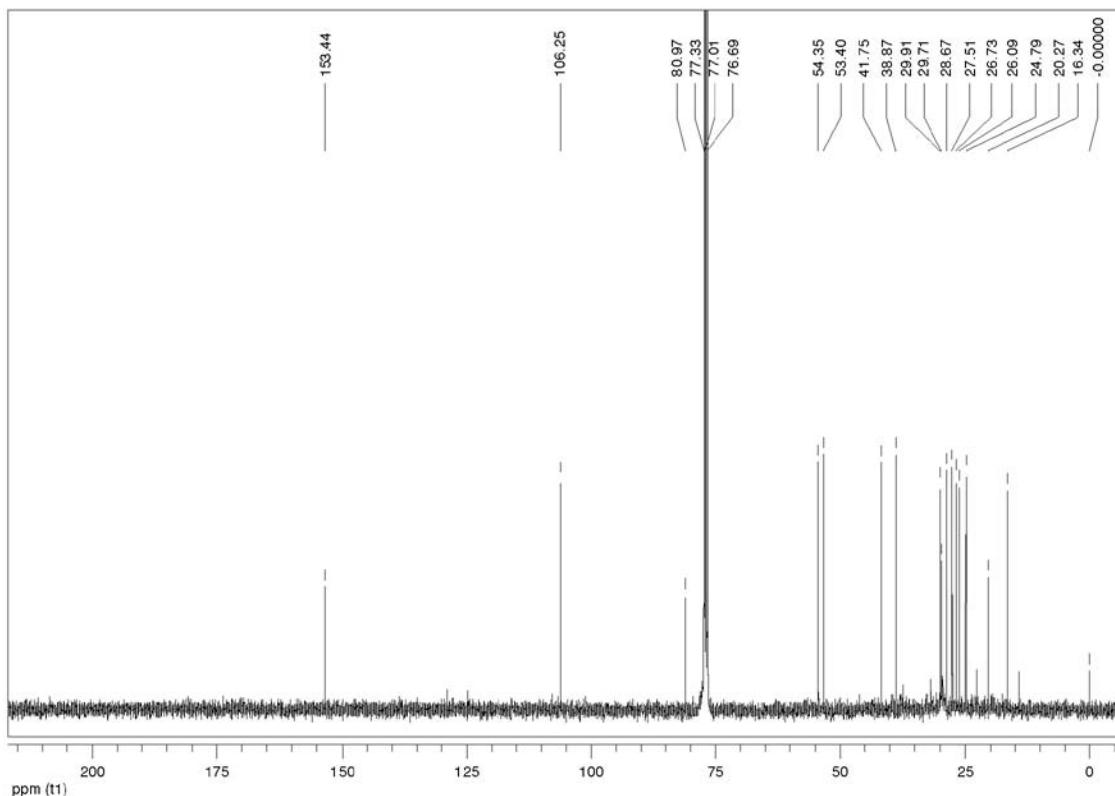
**Figure S3.**  $^1\text{H}$  NMR spectrum of compound **2** in  $\text{CDCl}_3$  at 400 MHz.



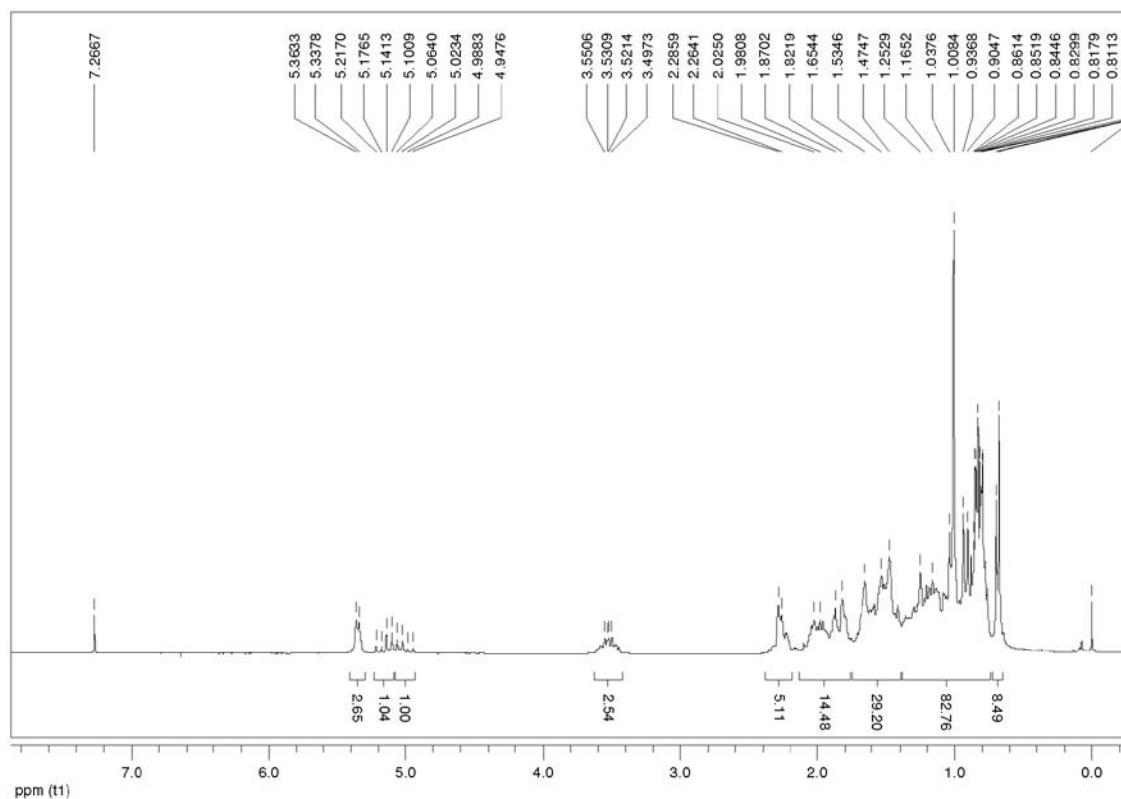
**Figure S4.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **2** in  $\text{CDCl}_3$  at 100 MHz.



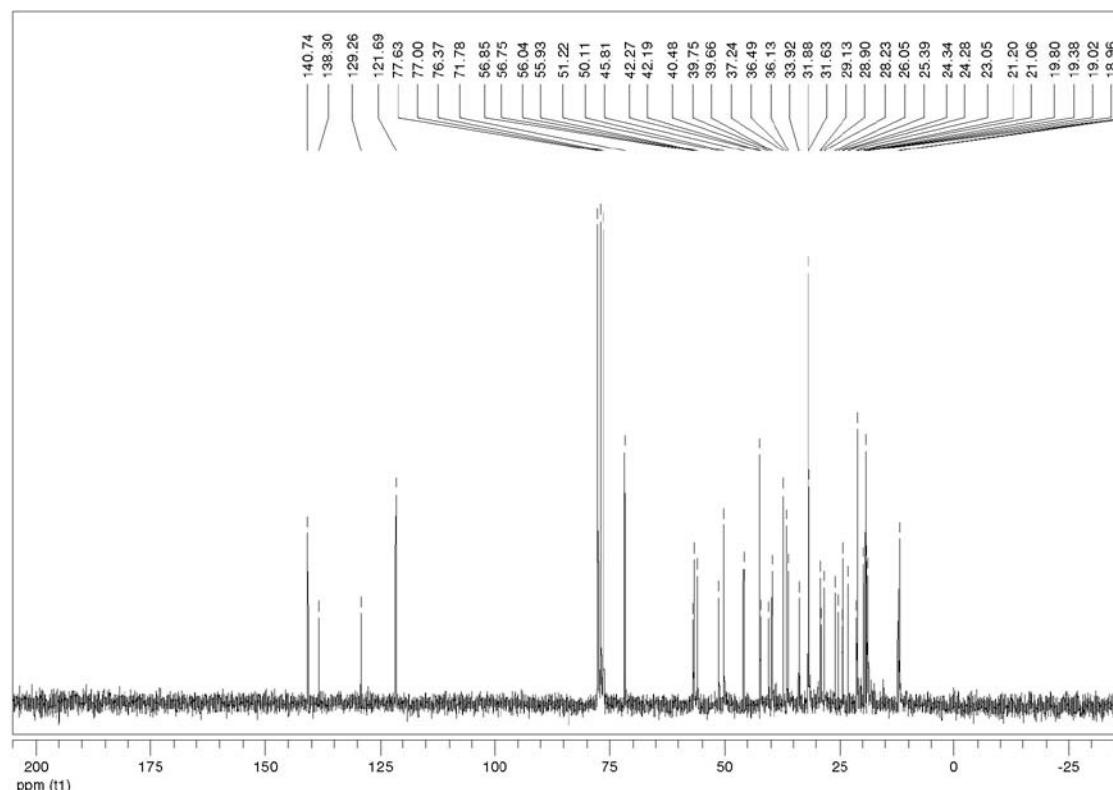
**Figure S5.**  $^1\text{H}$  NMR spectrum of compound 3 in  $\text{CDCl}_3$  at 400 MHz.



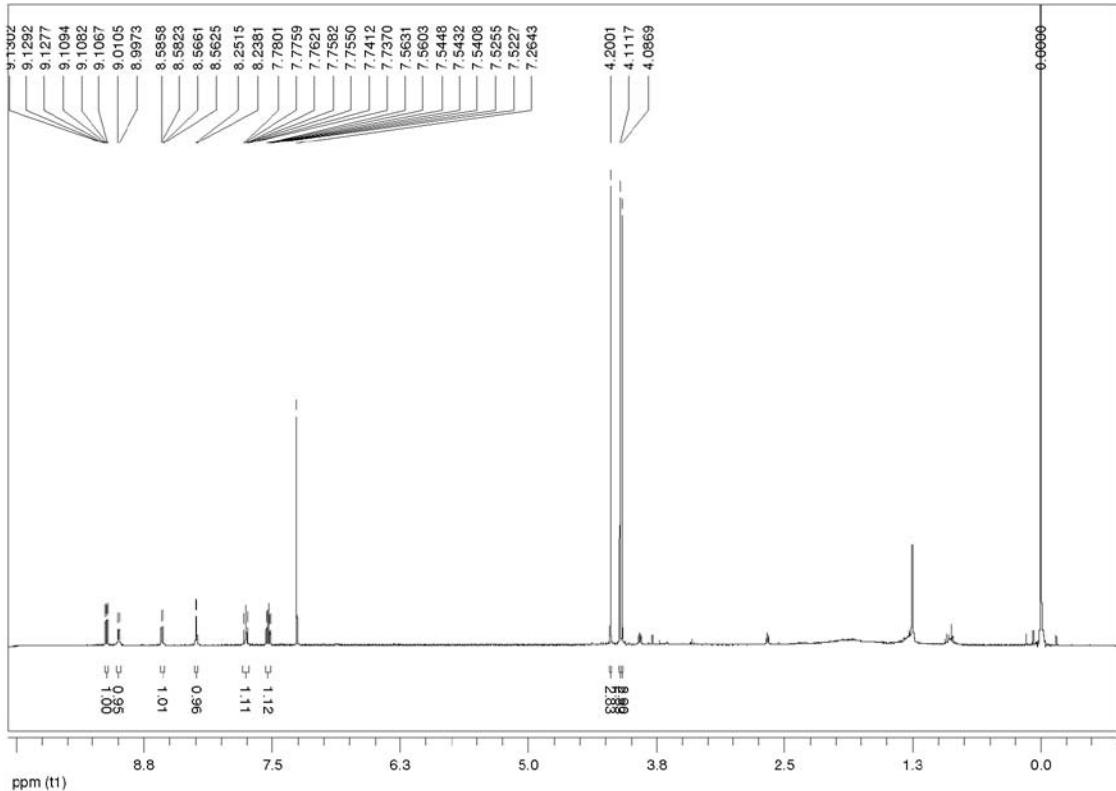
**Figure S6.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound 3 in  $\text{CDCl}_3$  at 100 MHz.



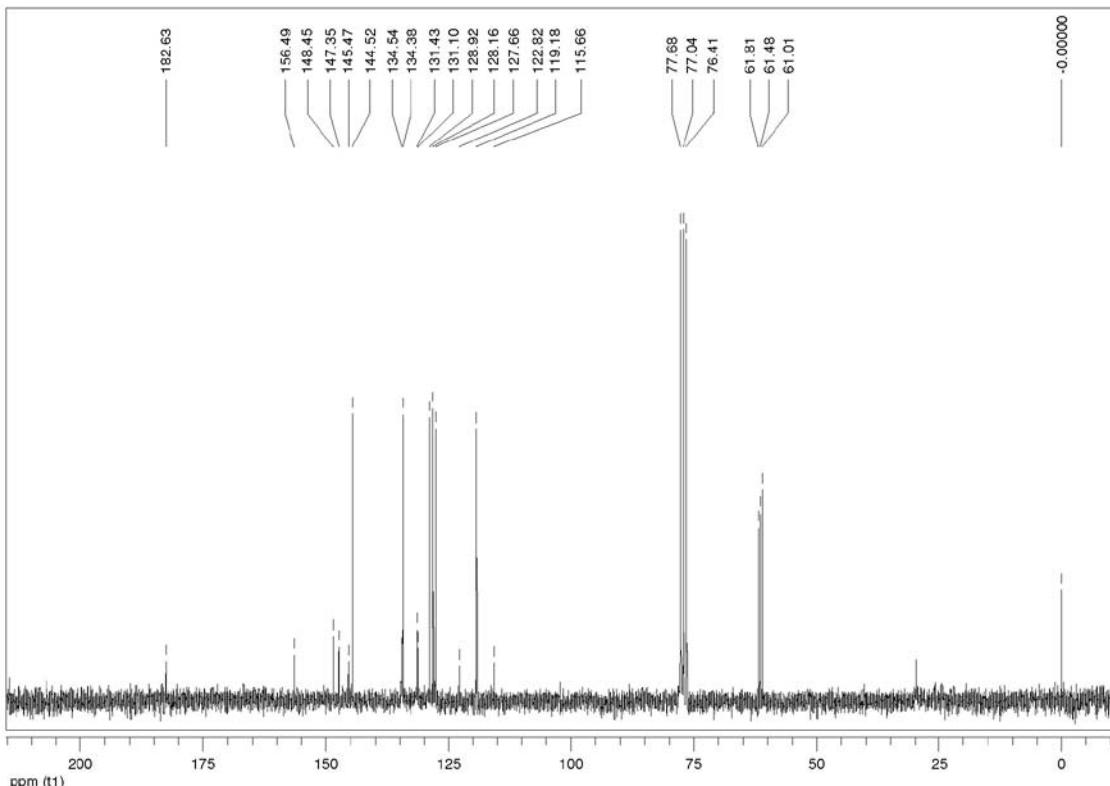
**Figure S7.**  $^1\text{H}$  NMR spectrum of the mixture of compounds **4** and **5** in  $\text{CDCl}_3$  at 200 MHz.



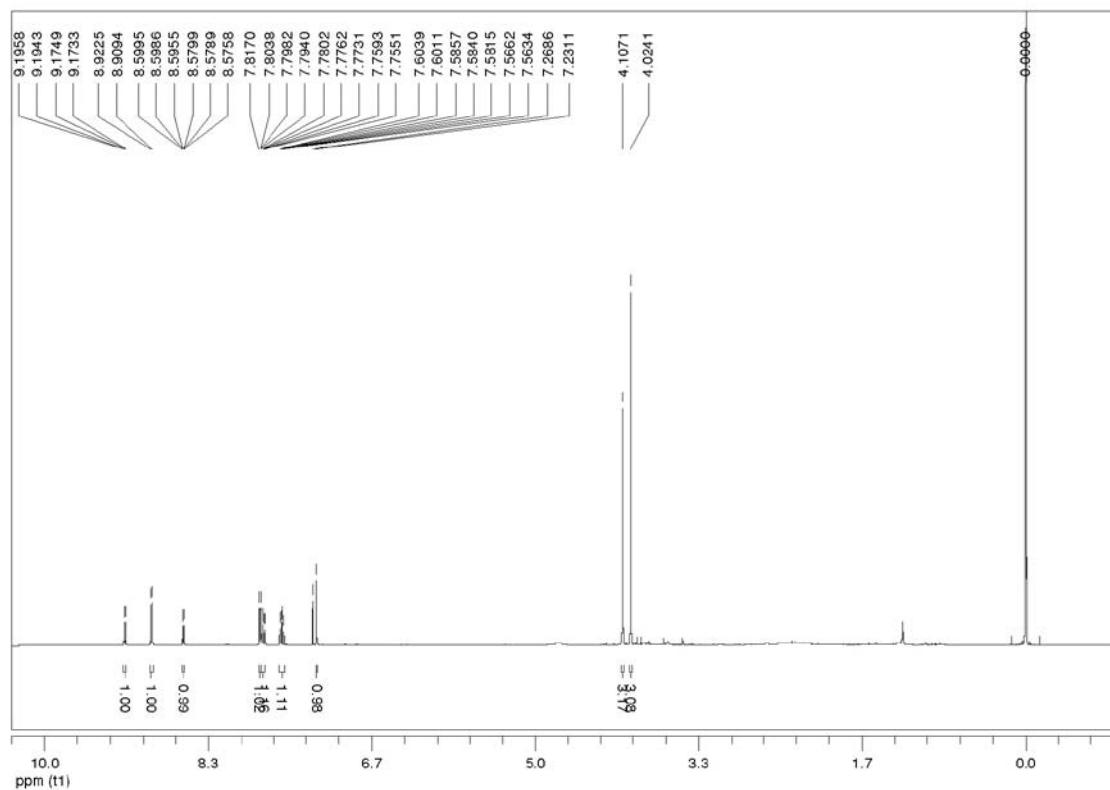
**Figure S8.**  $^{13}\text{C}\{^1\text{H}\}$  NMR spectrum of the mixture of compounds **4** and **5** in  $\text{CDCl}_3$  at 50 MHz.



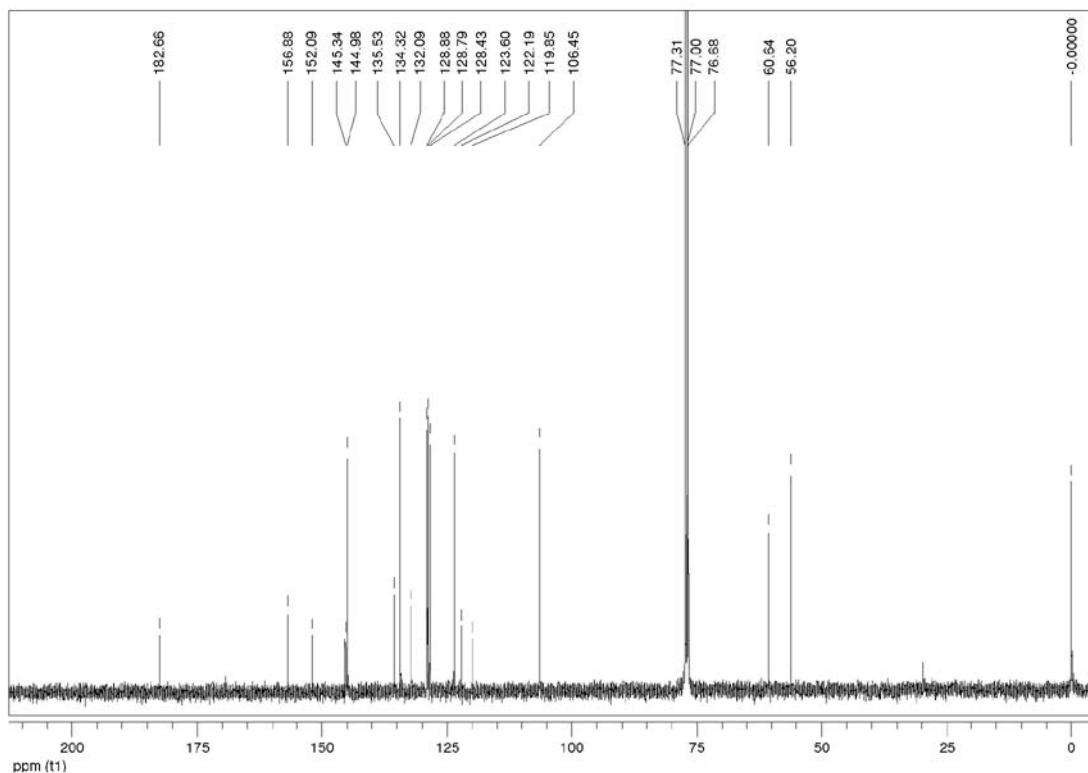
**Figure S9.**  $^1\text{H}$  NMR spectrum of compound **6** in  $\text{CDCl}_3$  at 400 MHz.



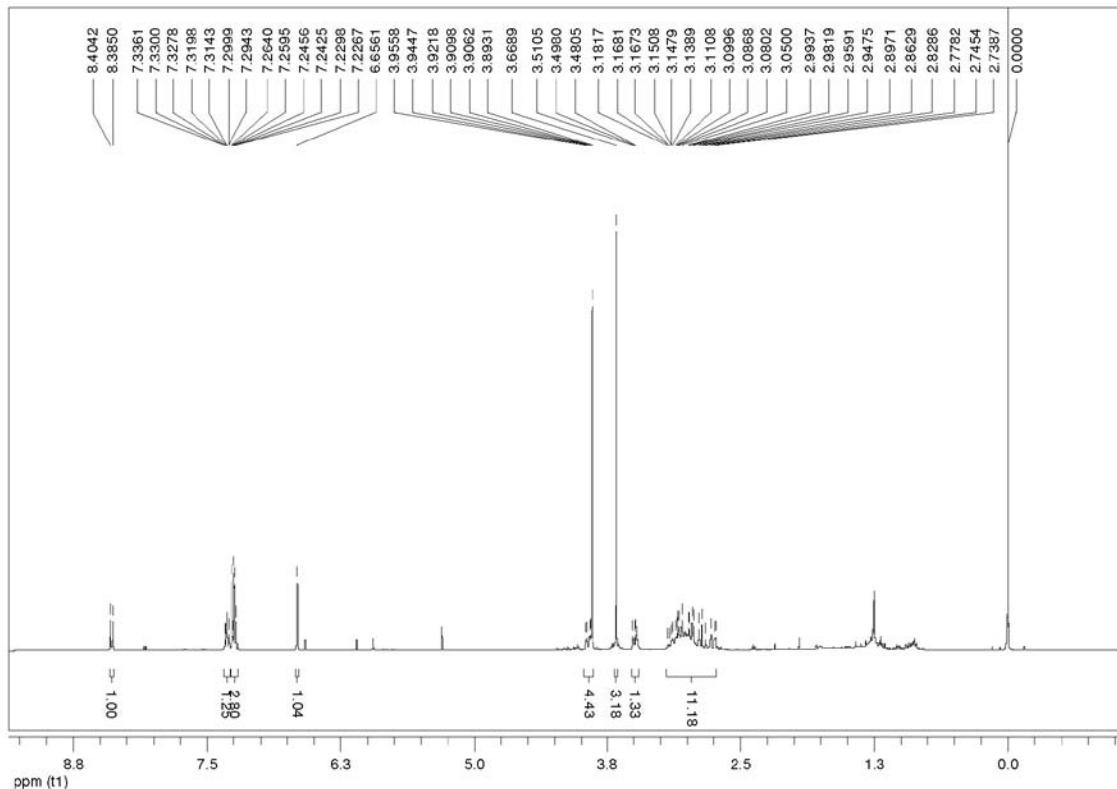
**Figure S10.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **6** in  $\text{CDCl}_3$  at 100 MHz.



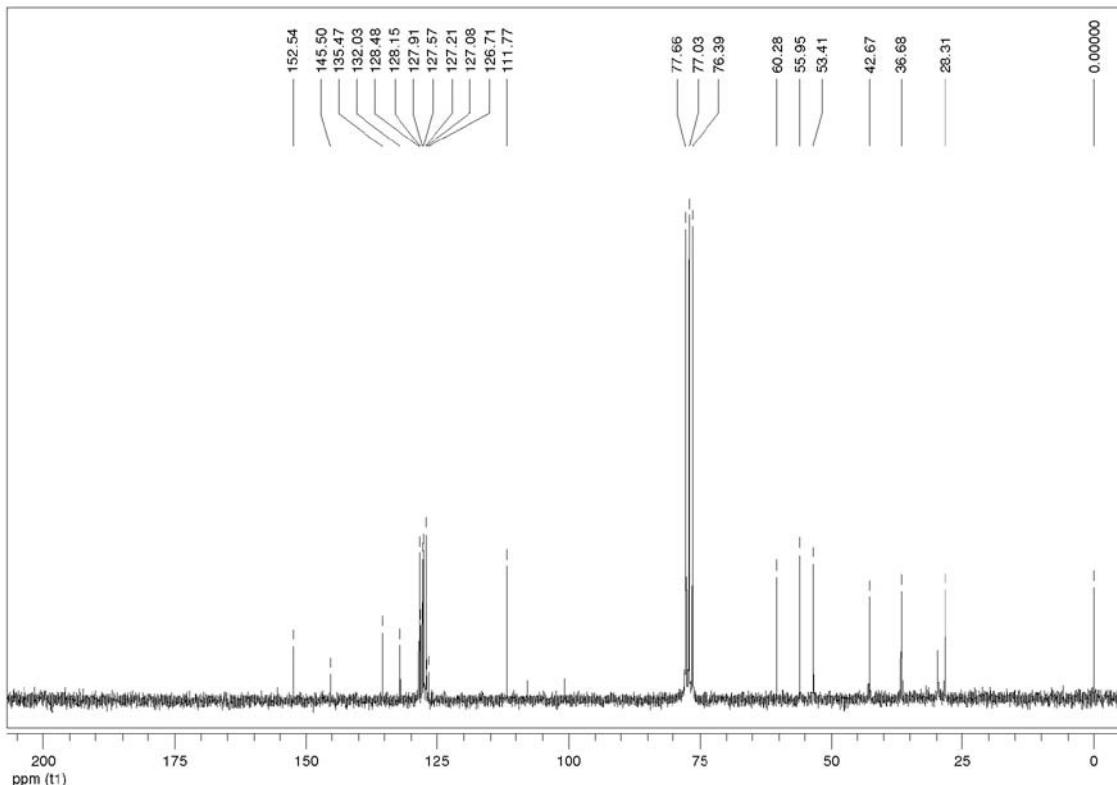
**Figure S11.**  $^1\text{H}$  NMR spectrum of compound 7 in  $\text{CDCl}_3$  at 400 MHz.



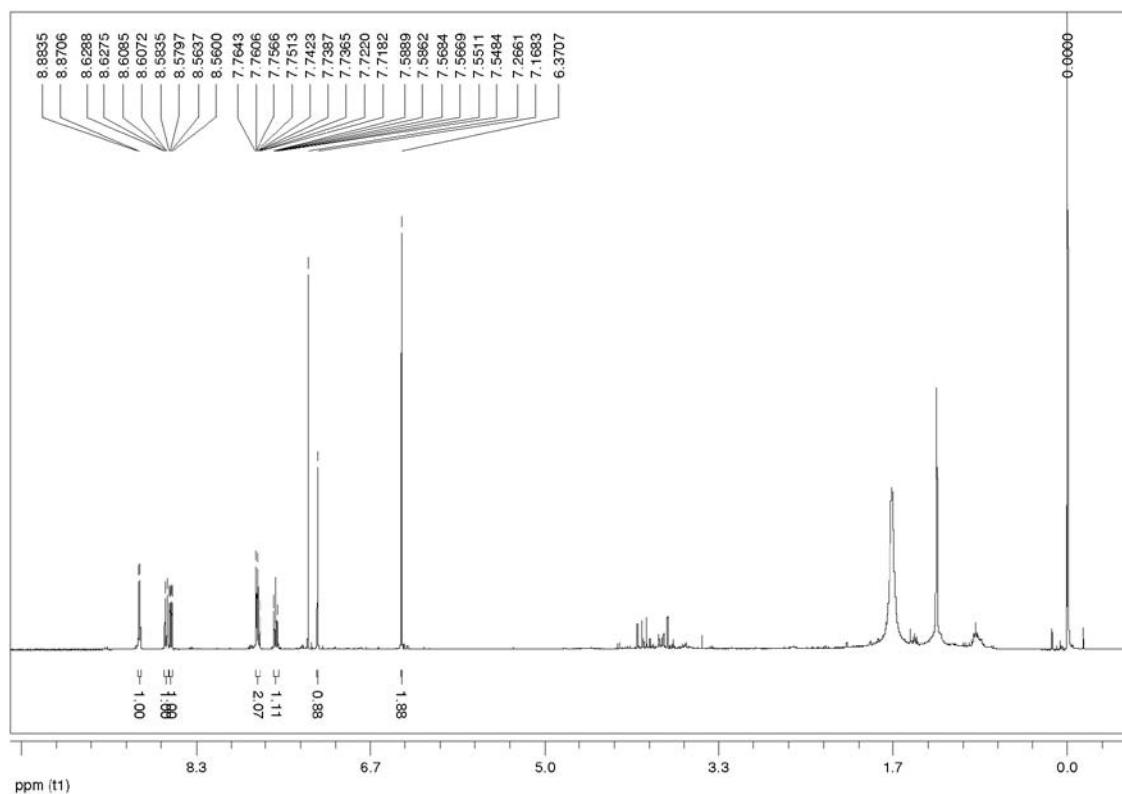
**Figure S12.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound 7 in  $\text{CDCl}_3$  at 100 MHz.



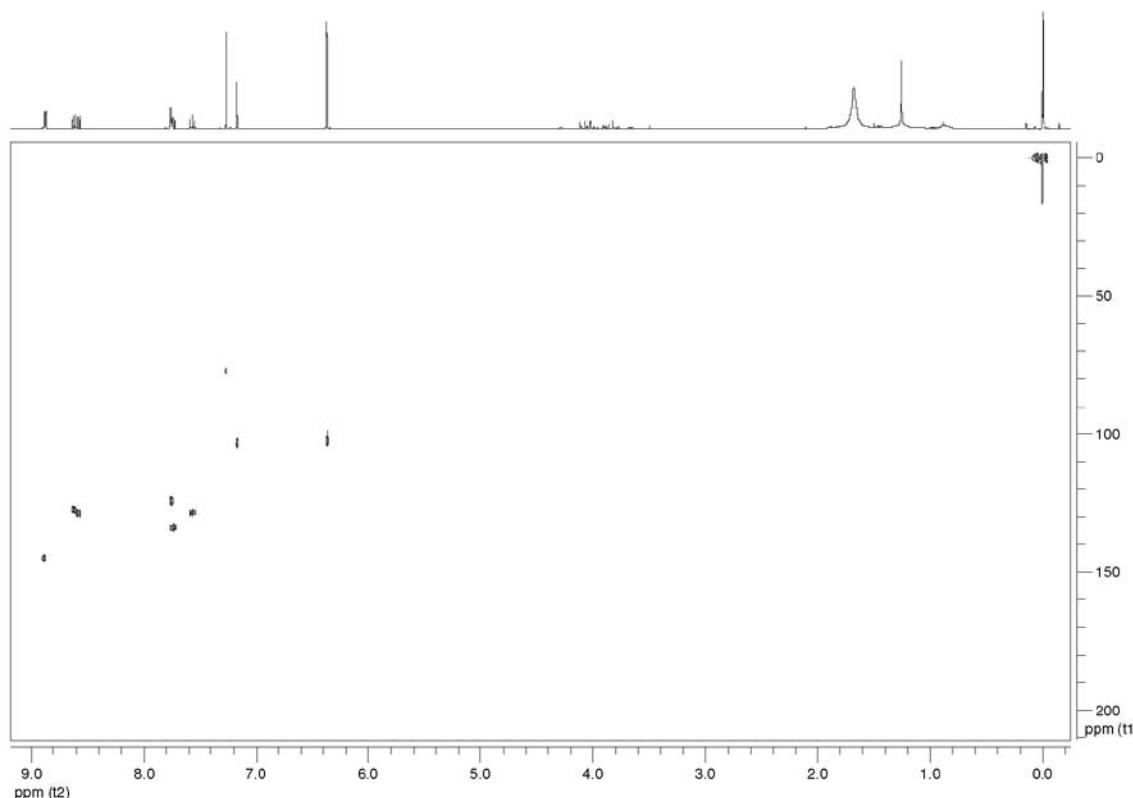
**Figure S13.**  $^1\text{H}$  NMR spectrum of compound **8** in  $\text{CDCl}_3$  at 400 MHz.



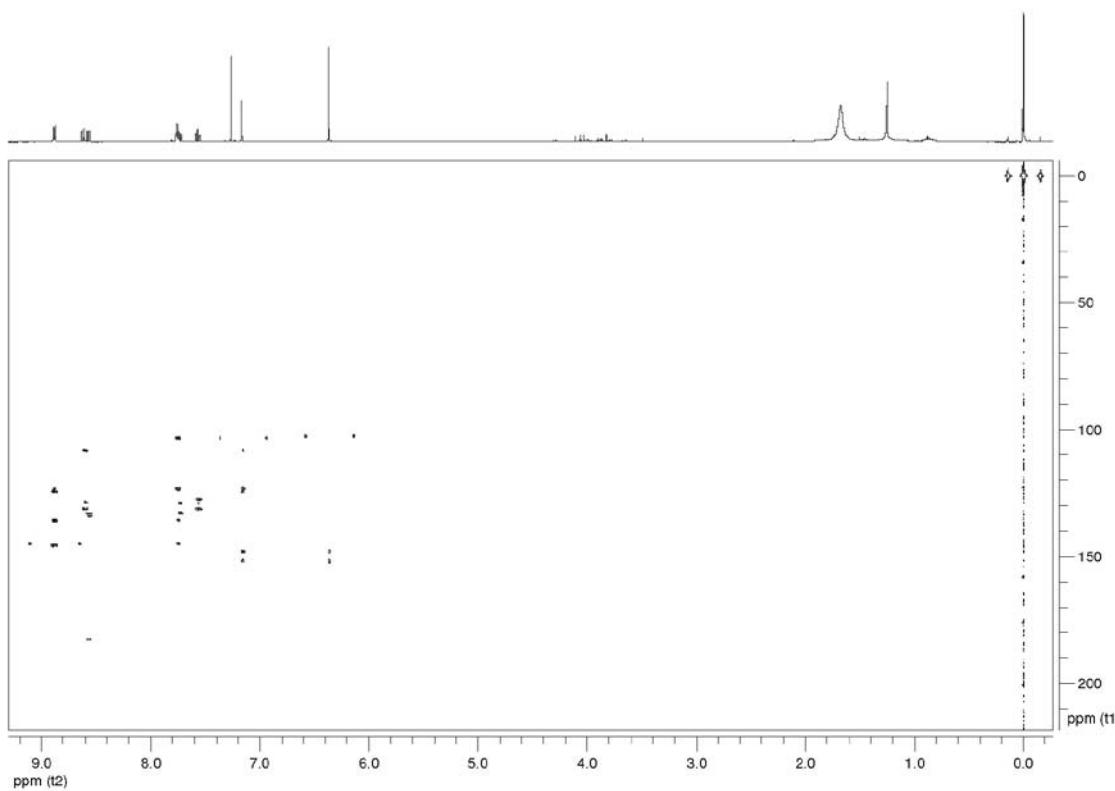
**Figure S14.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **8** in  $\text{CDCl}_3$  at 100 MHz.



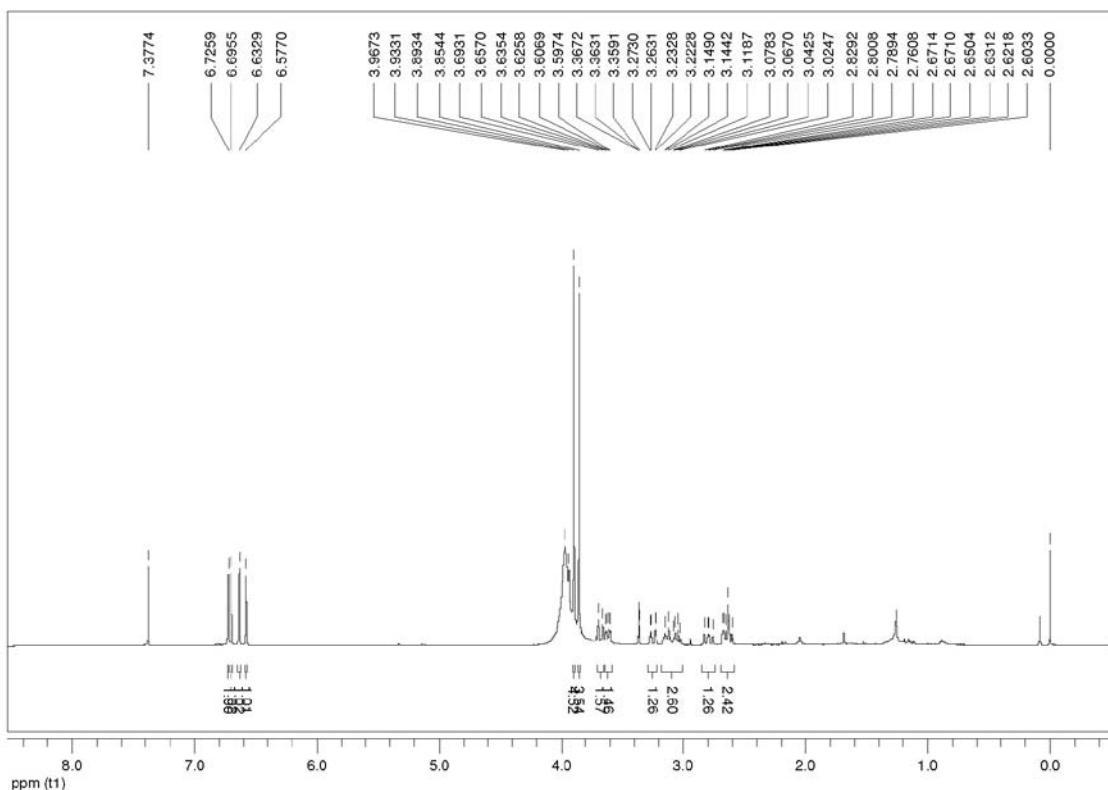
**Figure S15.** <sup>1</sup>H NMR spectrum of compound 9 in  $\text{CDCl}_3$  at 400 MHz.



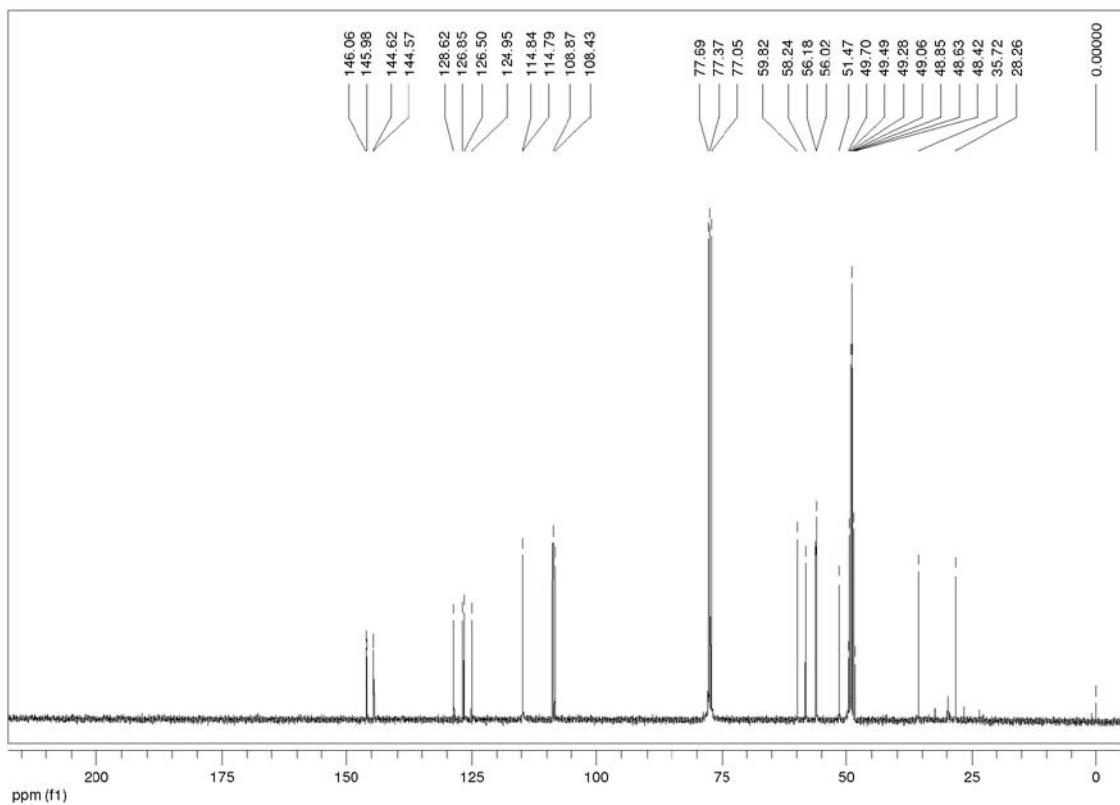
**Figure S16.** <sup>1</sup>H-<sup>13</sup>C one-bond correlation map from HSQC NMR experiment of compound 9 in  $\text{CDCl}_3$  at 400 and 100 MHz.



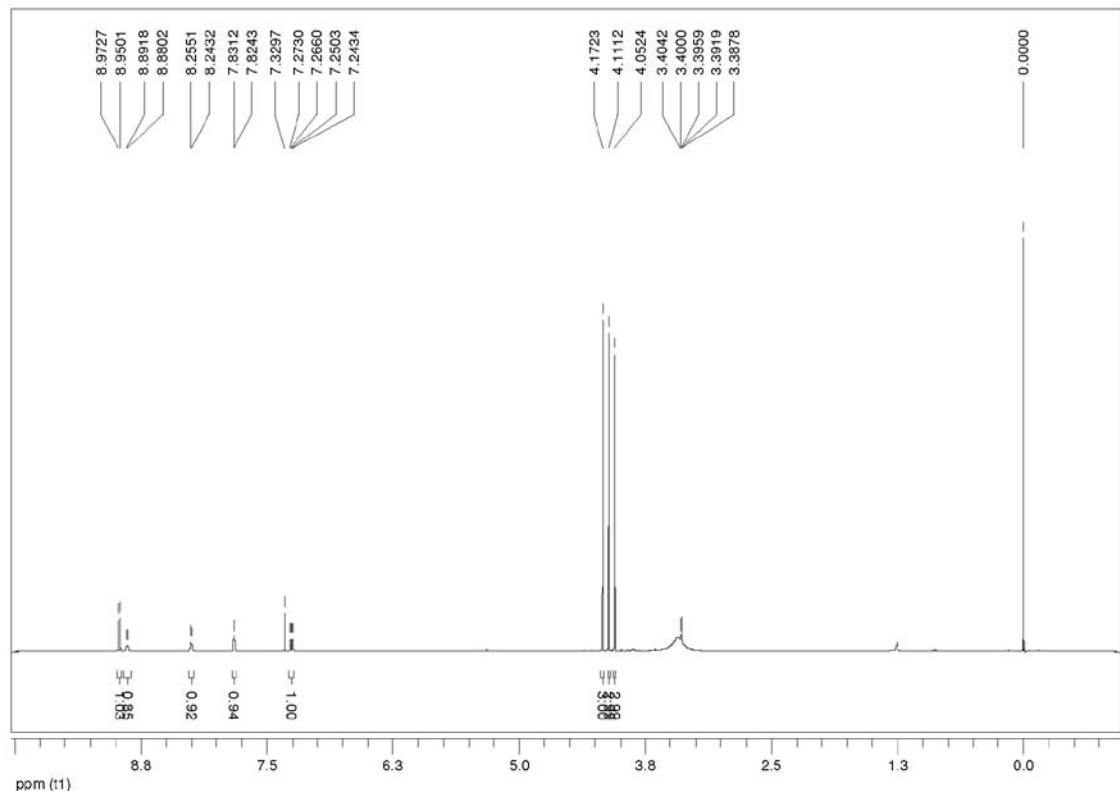
**Figure S17.**  $^1\text{H}$ - $^{13}\text{C}$  long-range correlation map from HMBC NMR experiment of compound **9** in  $\text{CDCl}_3$  at 400 and 100 MHz.



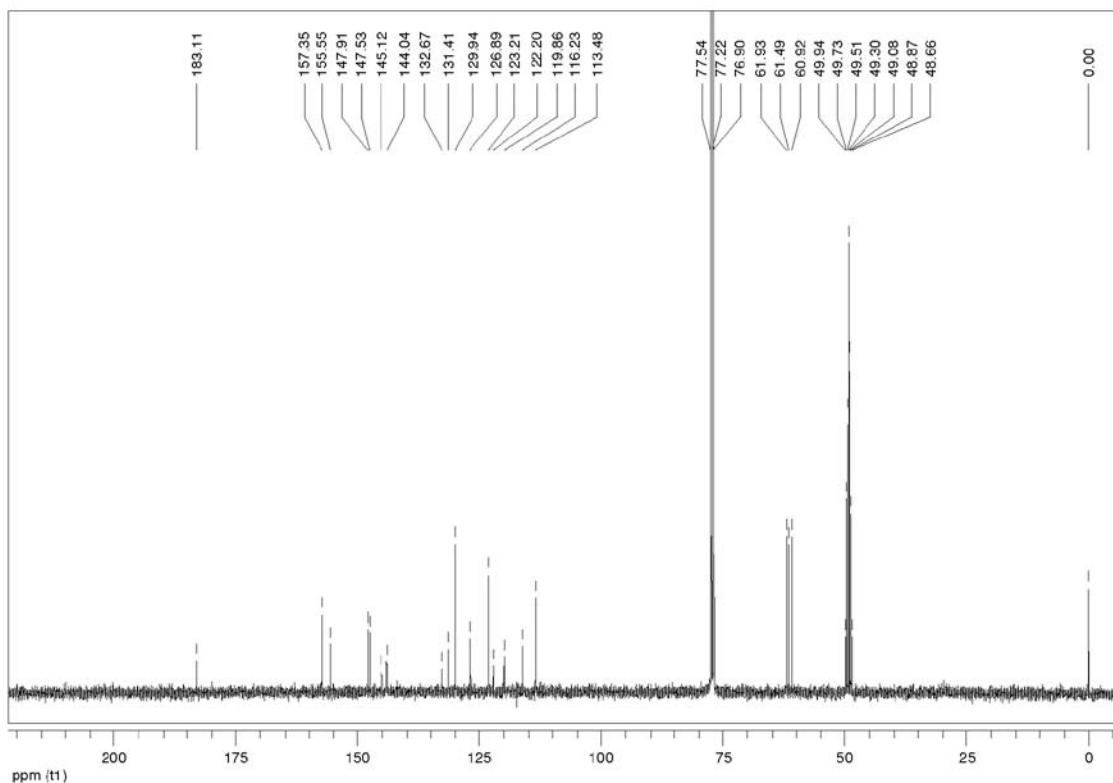
**Figure S18.**  $^1\text{H}$  NMR spectrum of compound **10** in  $\text{CDCl}_3$  + drops of  $\text{CD}_3\text{OD}$  at 400 MHz.



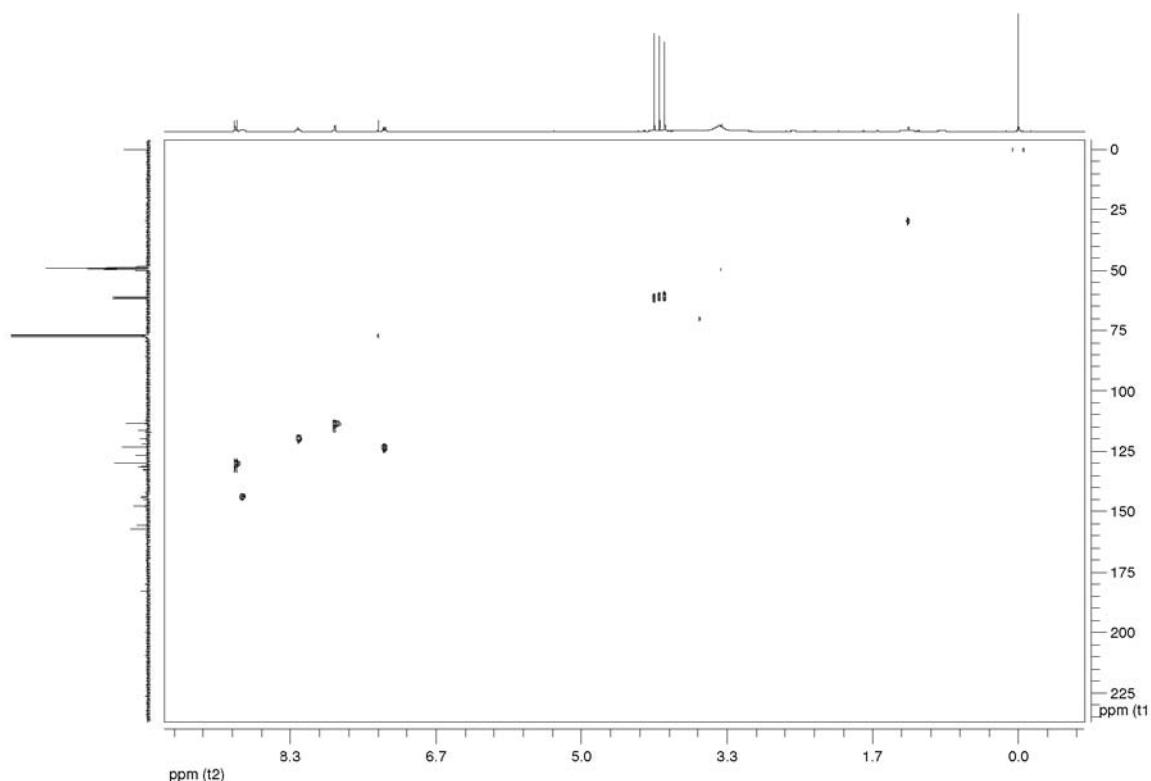
**Figure S19.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **10** in  $\text{CDCl}_3 + \text{drops of CD}_3\text{OD}$  at 100 MHz.



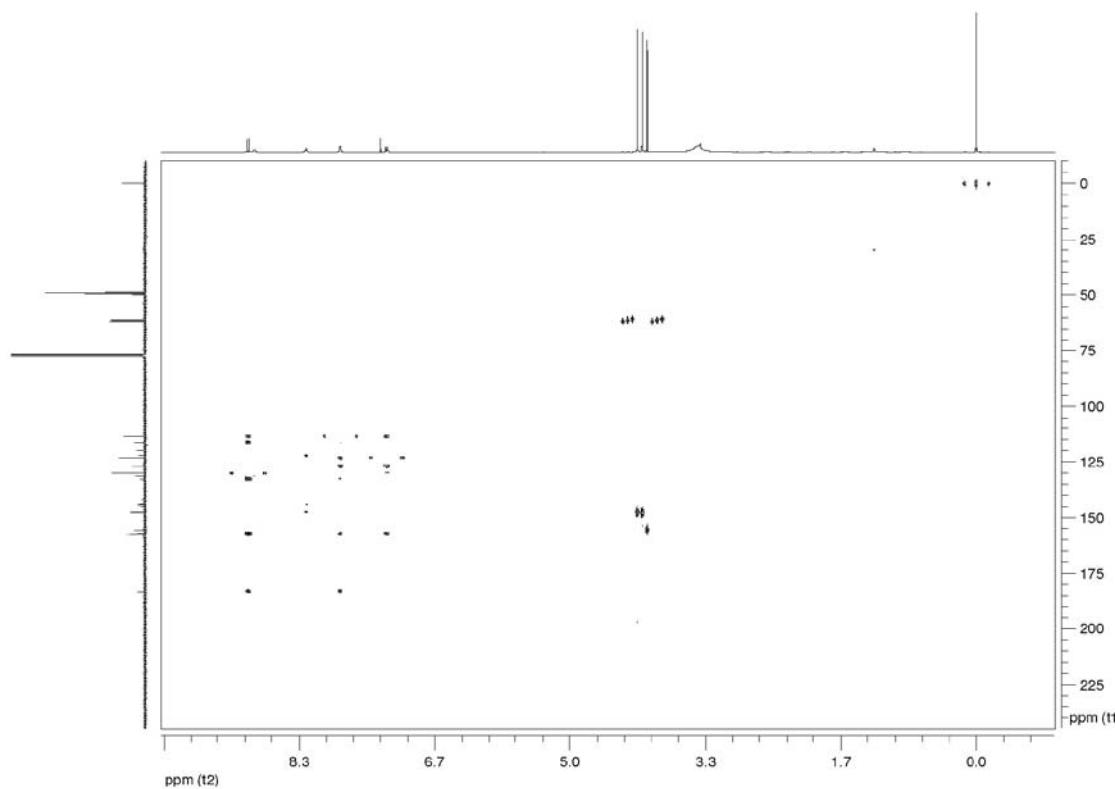
**Figure S20.**  $^1\text{H}$  NMR spectrum of compound **11** in  $\text{CDCl}_3 + \text{drops of CD}_3\text{OD}$  at 400 MHz.



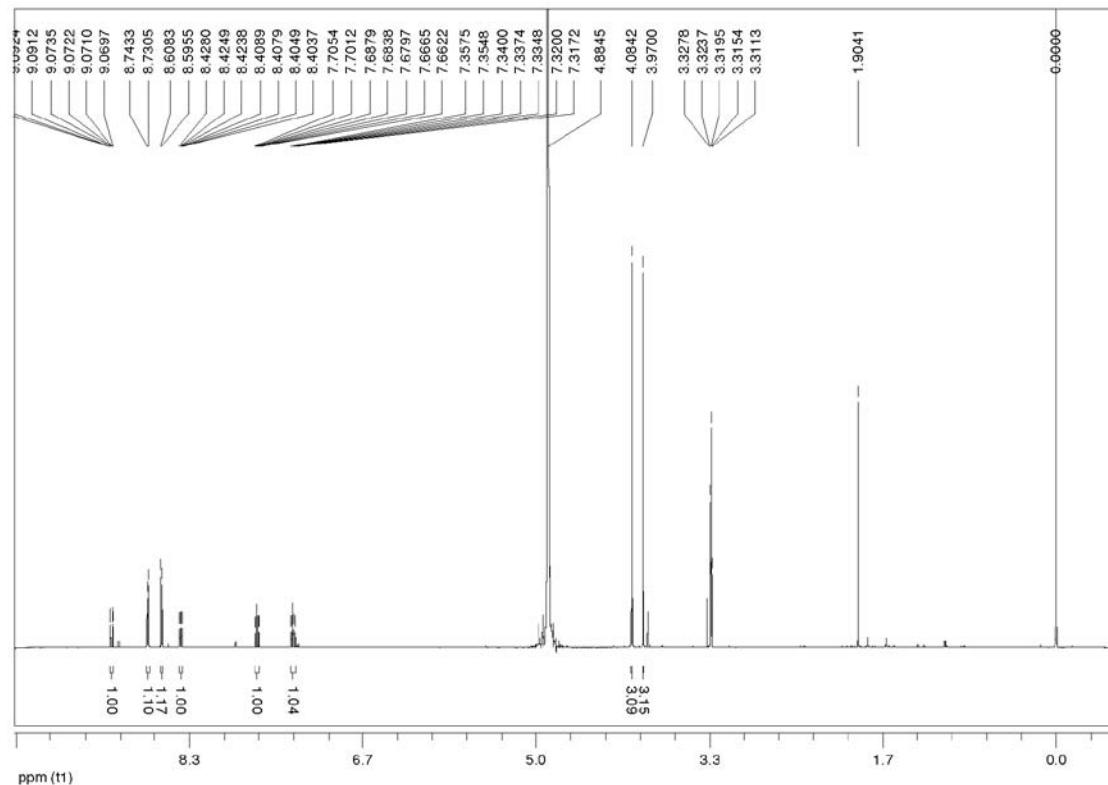
**Figure S21.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **11** in  $\text{CDCl}_3 + \text{drops of } \text{CD}_3\text{OD}$  at 100 MHz.



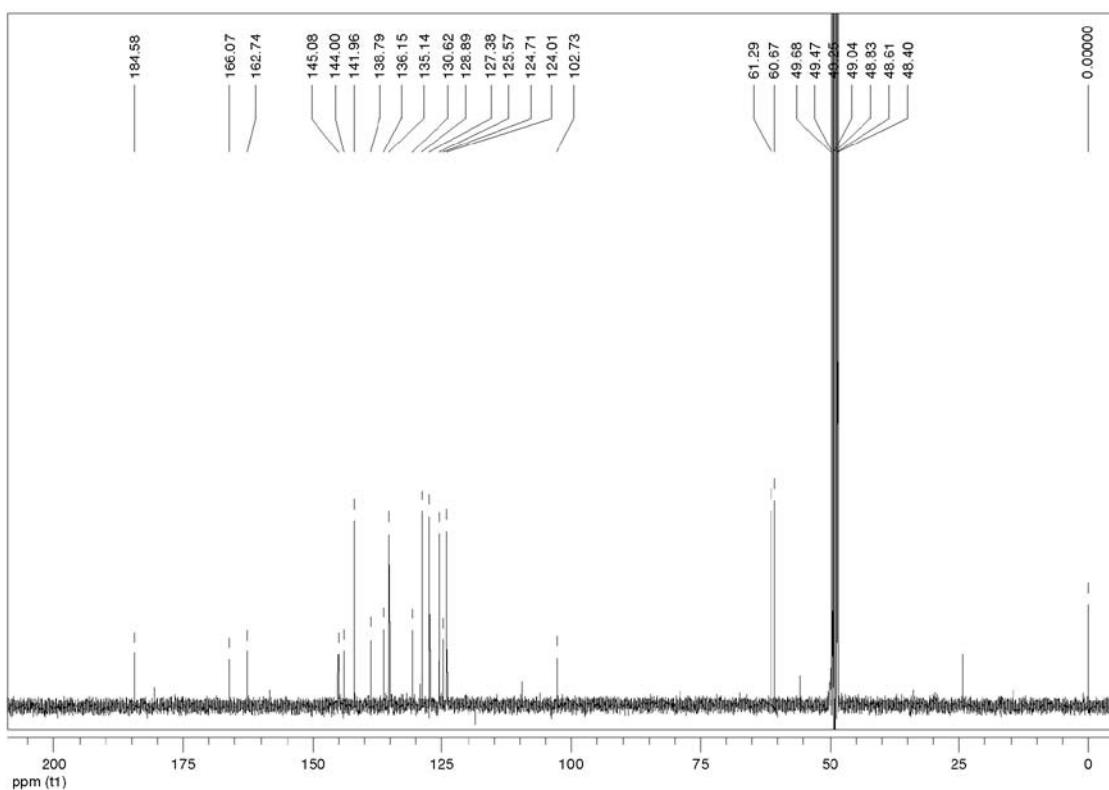
**Figure S22.**  $^1\text{H}$ - $^{13}\text{C}$  one-bond correlation map from HSQC NMR experiment of compound **11** in  $\text{CDCl}_3 + \text{drops of } \text{CD}_3\text{OD}$  at 400 and 100 MHz.



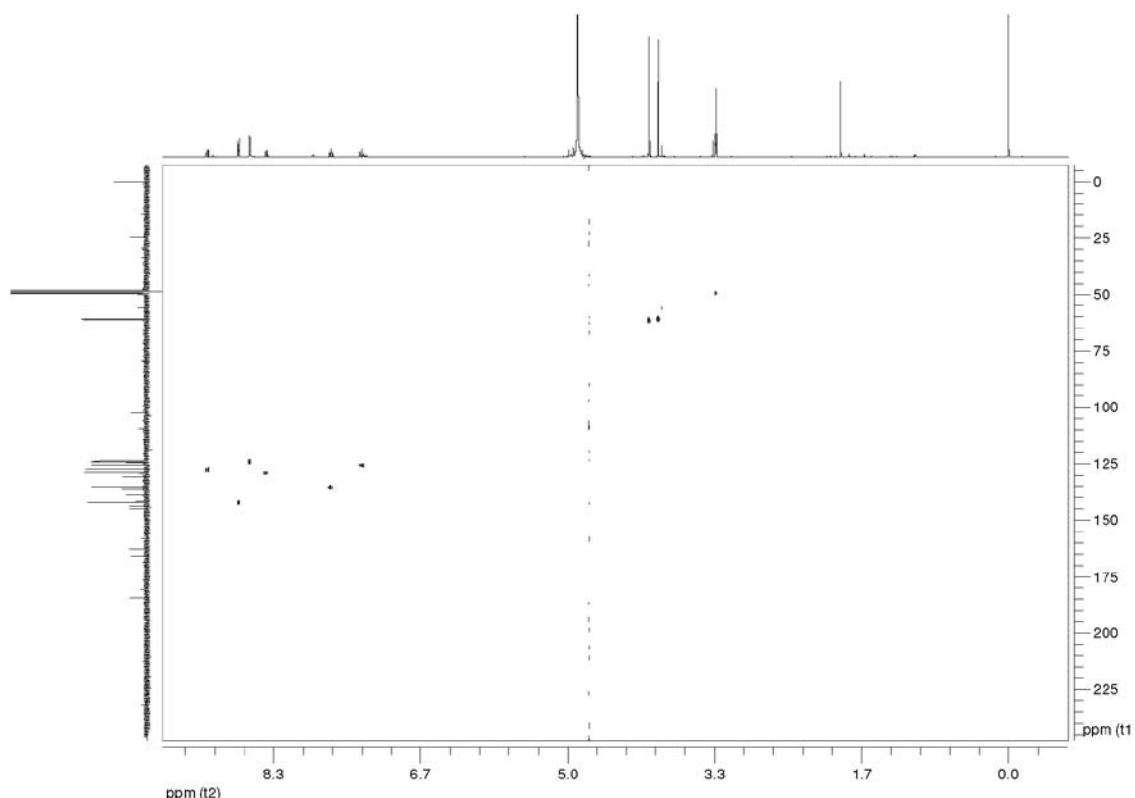
**Figure S23.**  $^1\text{H}$ - $^{13}\text{C}$  long-range correlation map from HMBC NMR experiment of compound **11** in  $\text{CDCl}_3$  + drops of  $\text{CD}_3\text{OD}$  at 400 and 100 MHz.



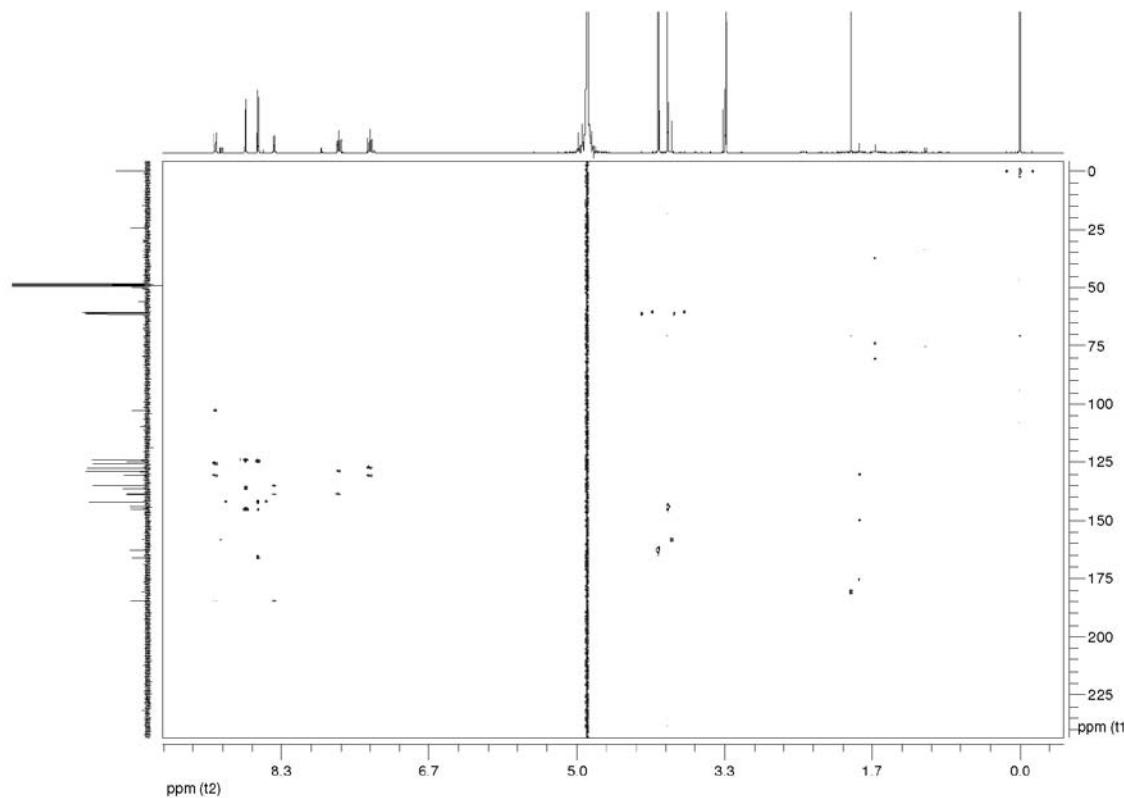
**Figure S24.**  $^1\text{H}$  NMR spectrum of compound **12** in  $\text{CD}_3\text{OD}$  at 400 MHz.



**Figure S25.**  $^{13}\text{C}\{\text{H}\}$  NMR spectrum of compound **12** in  $\text{CD}_3\text{OD}$  at 100 MHz.



**Figure S26.**  $^1\text{H}$ - $^{13}\text{C}$  one-bond correlation map from HSQC NMR experiment of compound **12** in  $\text{CD}_3\text{OD}$  at 400 and 100 MHz.



**Figure S27.** <sup>1</sup>H-<sup>13</sup>C long-range correlation map from HMBC NMR experiment of compound **12** in CD<sub>3</sub>OD at 400 and 100 MHz.