

# SUPPORTING INFORMATION

## Polyoxypregnane Ester Derivatives and Lignans from *Euphorbia gossypina* var. *coccinea* Pax.

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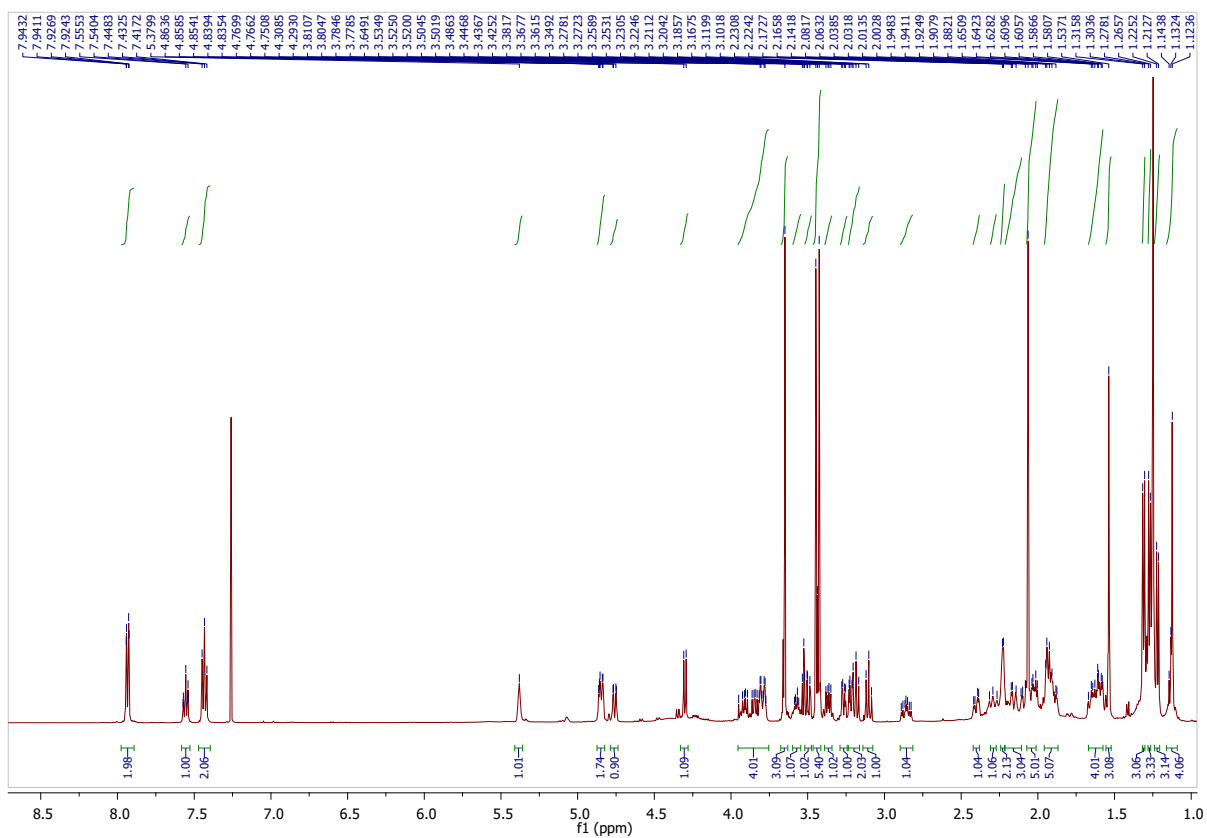
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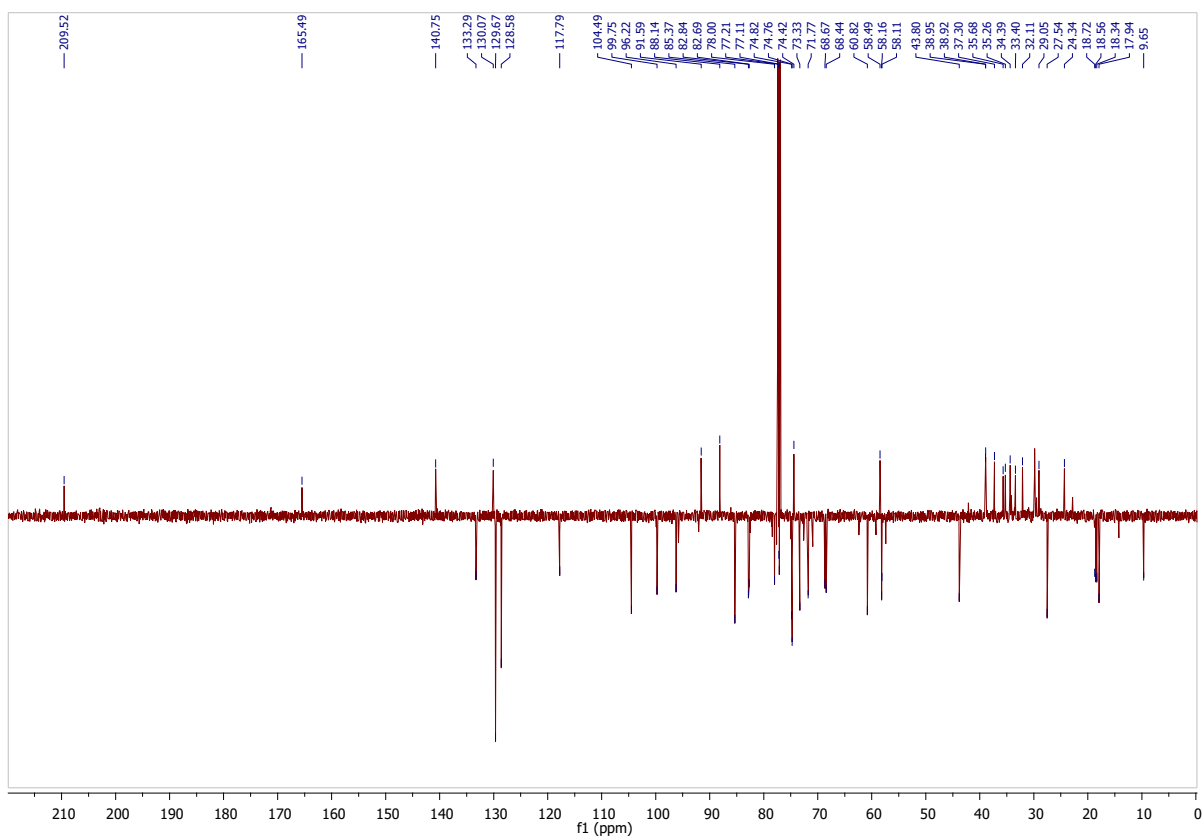
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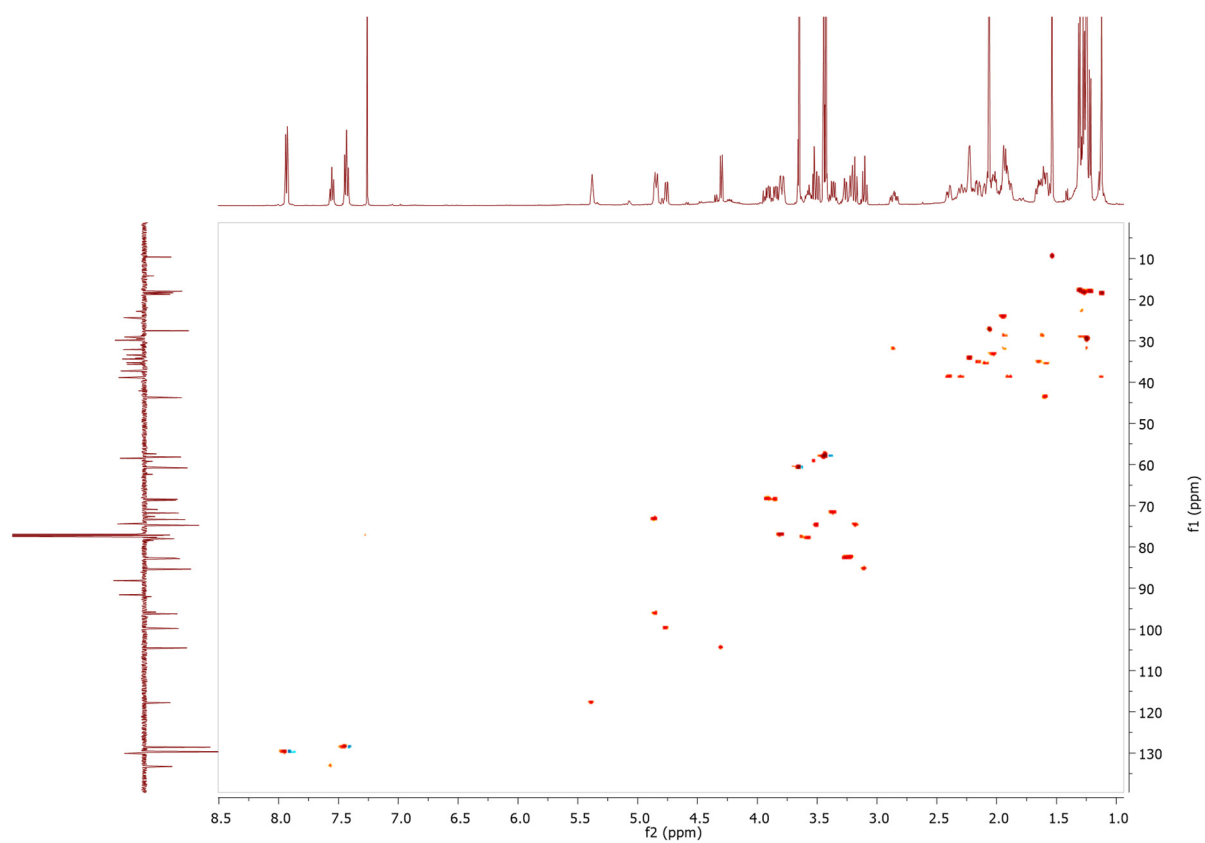


**Figure S1.** <sup>1</sup>H NMR spectrum of compound **1** (500 MHz, in CDCl<sub>3</sub>).

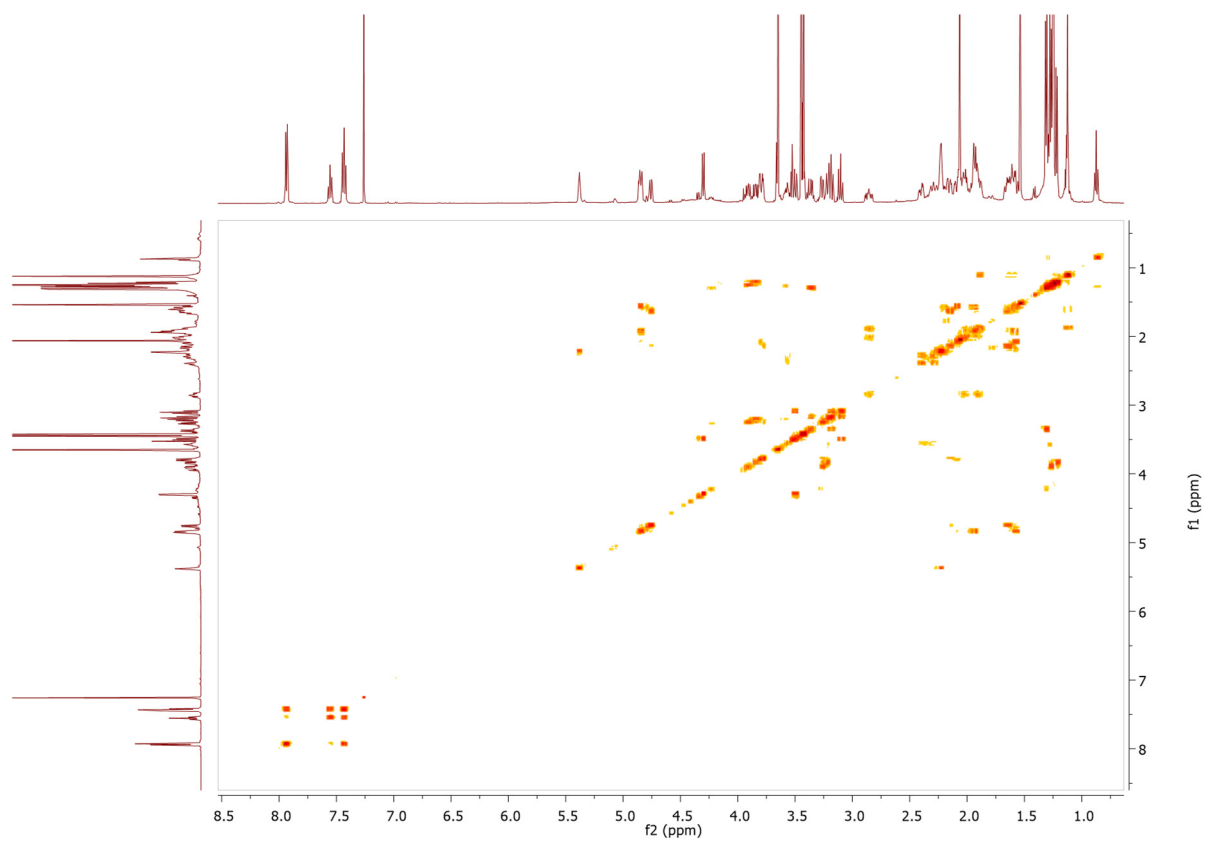


**Figure S2.** <sup>13</sup>C (JMOD) NMR spectrum of compound **1** (125 MHz, in CDCl<sub>3</sub>).

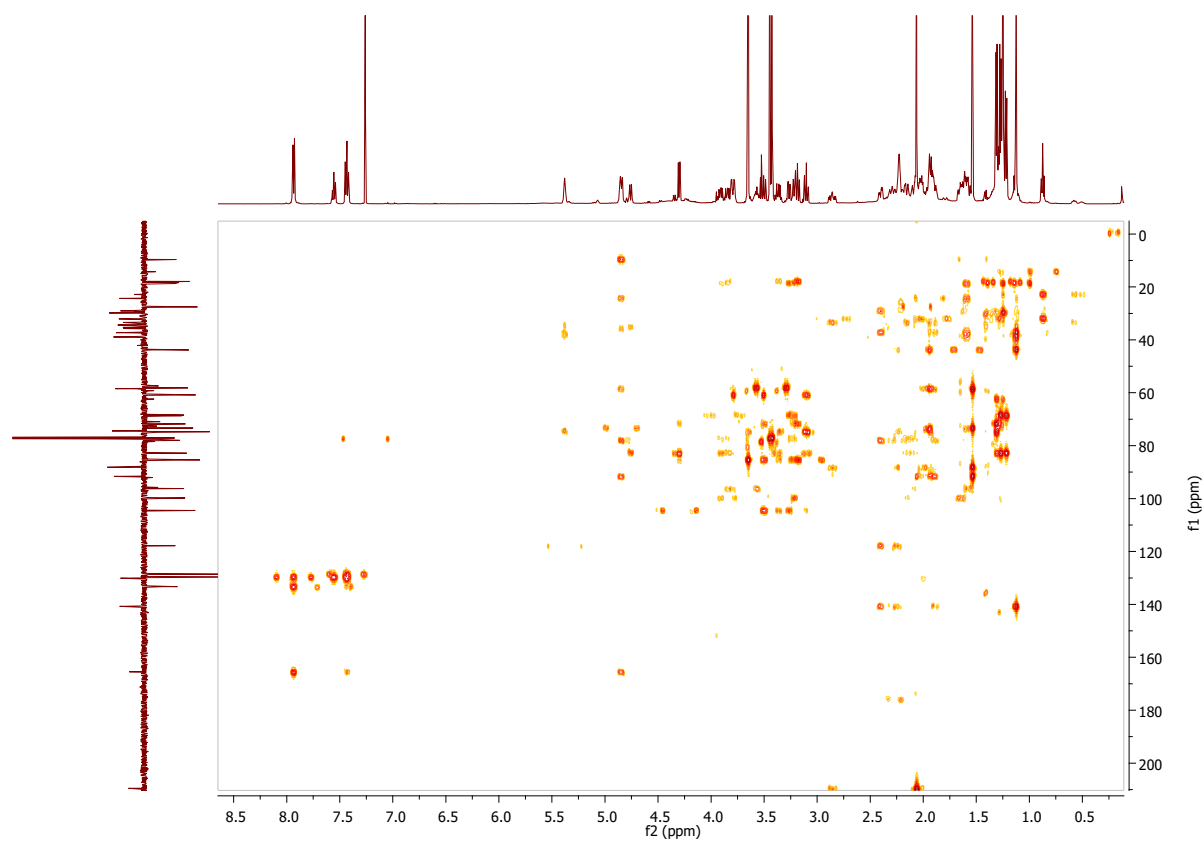




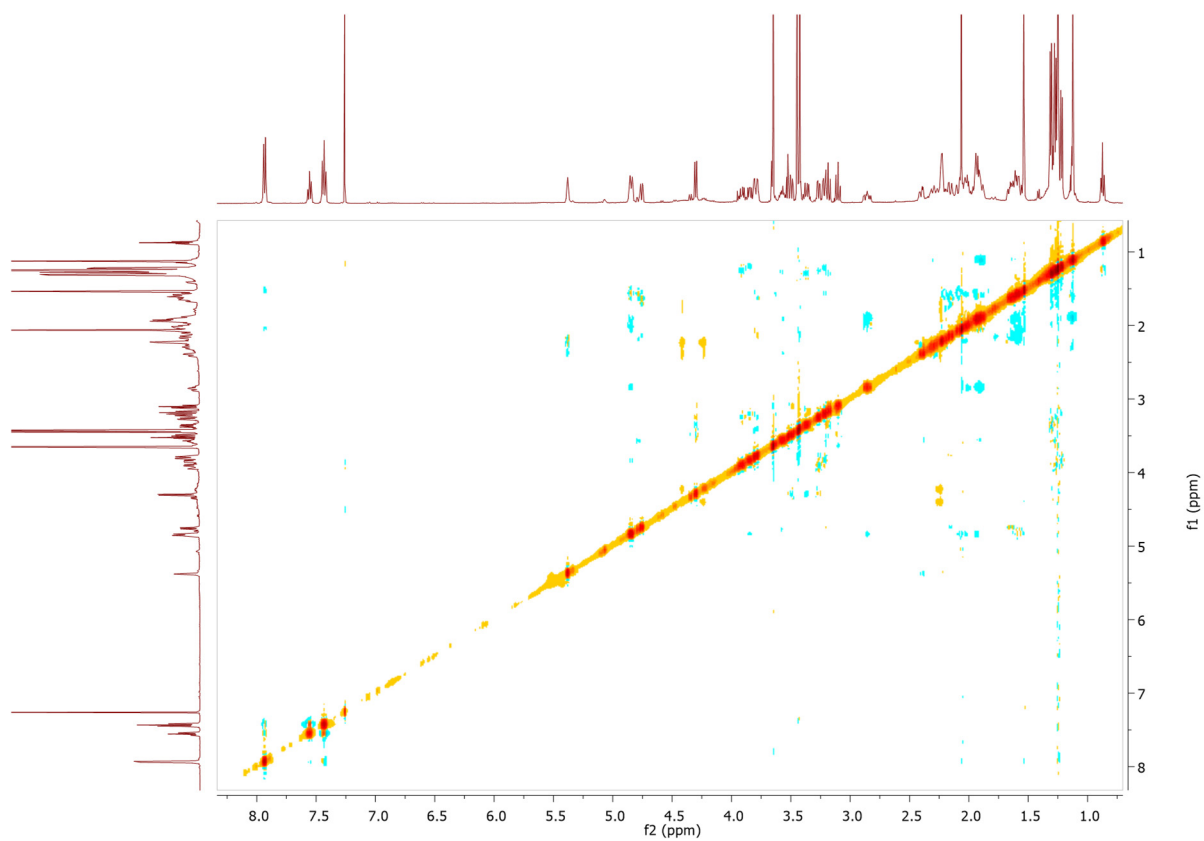
**Figure S3.** HSQC spectrum of compound **1** (in  $\text{CDCl}_3$ ).



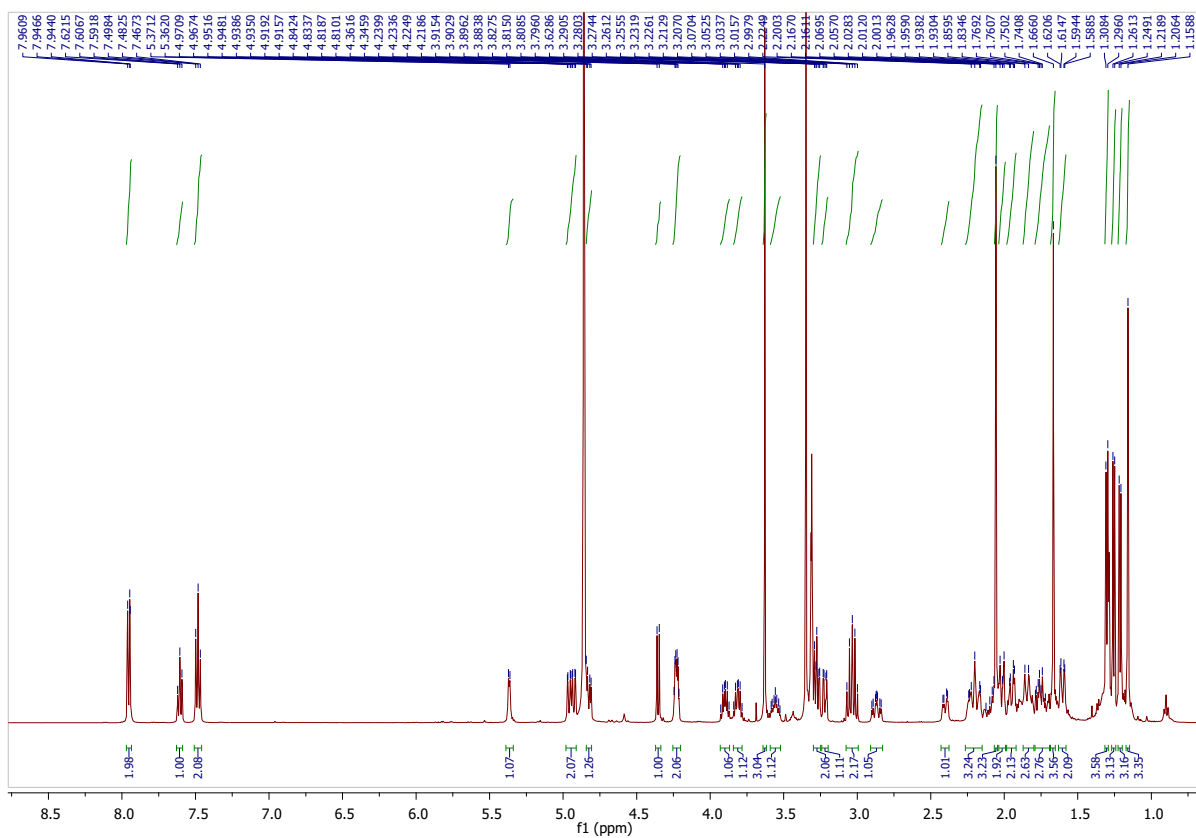
**Figure S4.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **1** (in  $\text{CDCl}_3$ ).

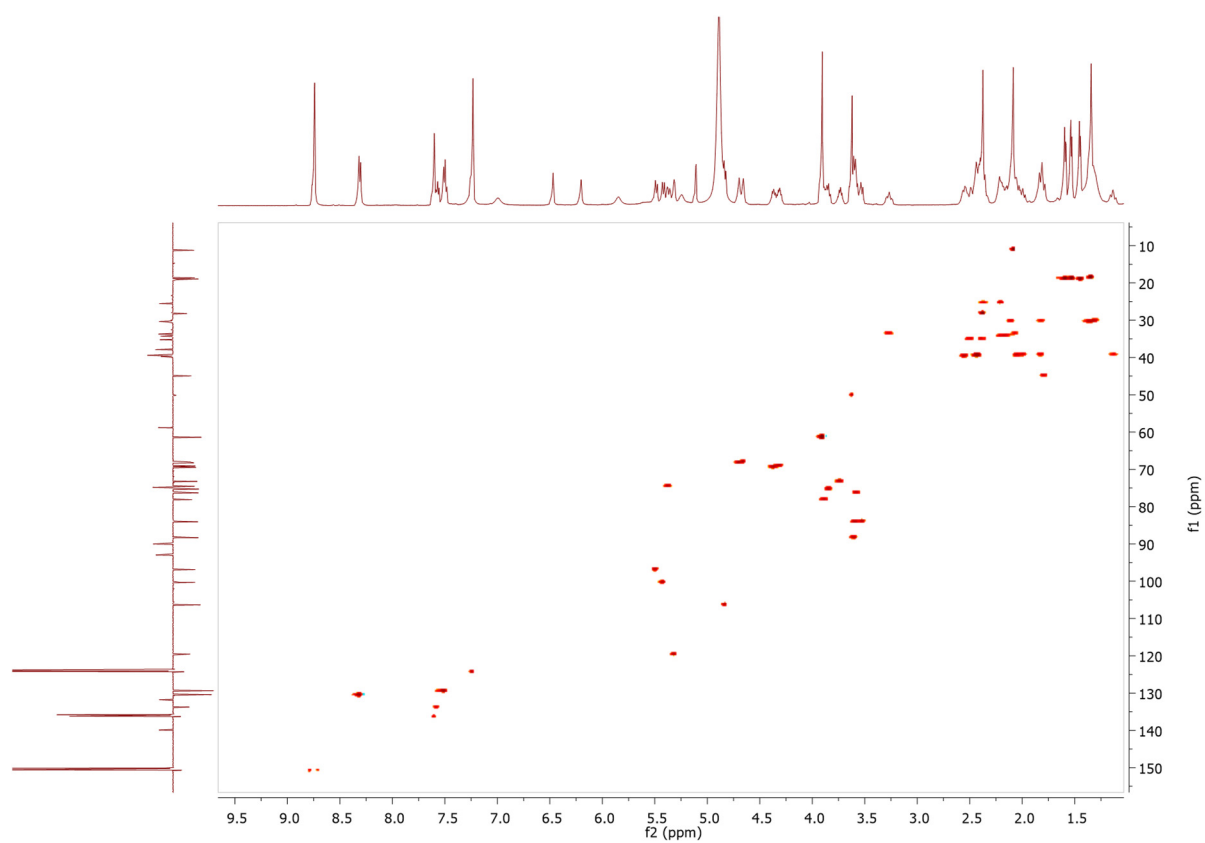


**Figure S5.** HMBC spectrum of compound **1** (in CDCl<sub>3</sub>).

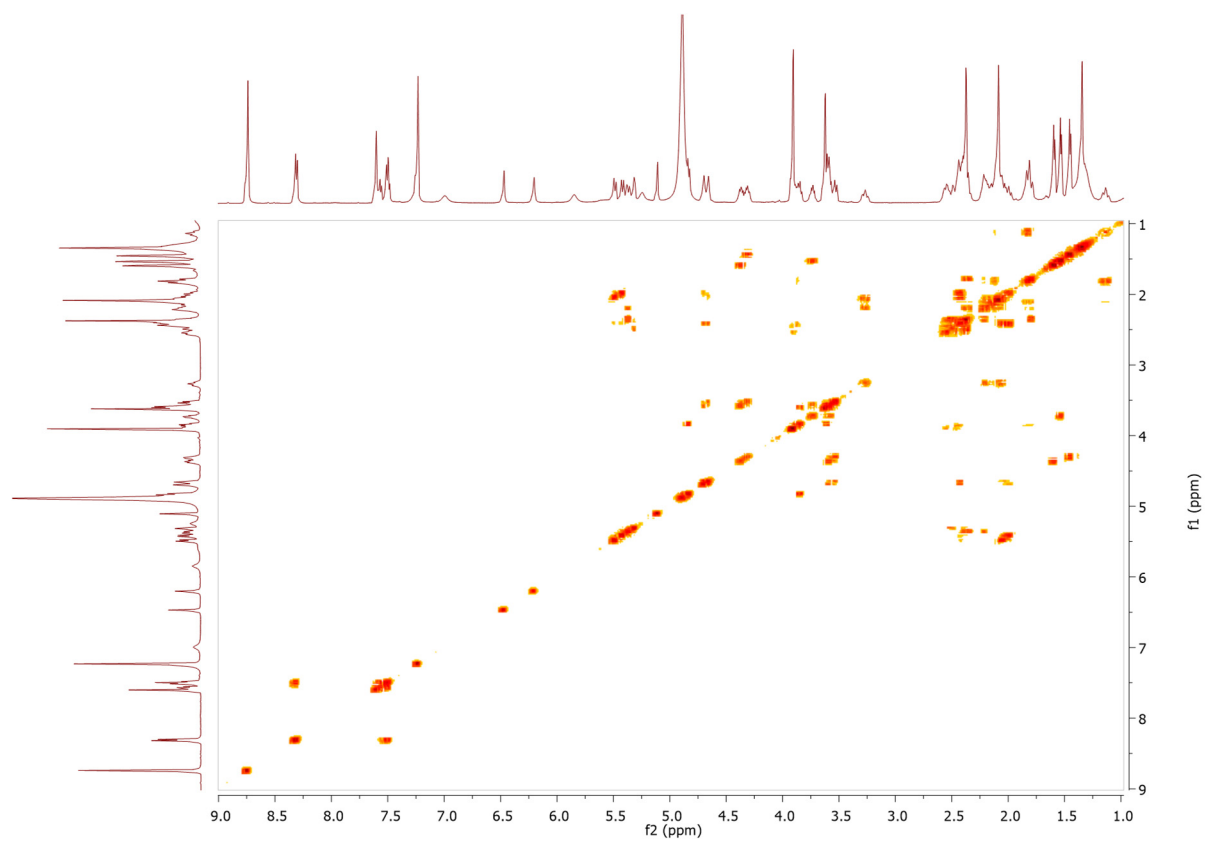


**Figure S6.** NOESY spectrum of compound **1** (in CDCl<sub>3</sub>).

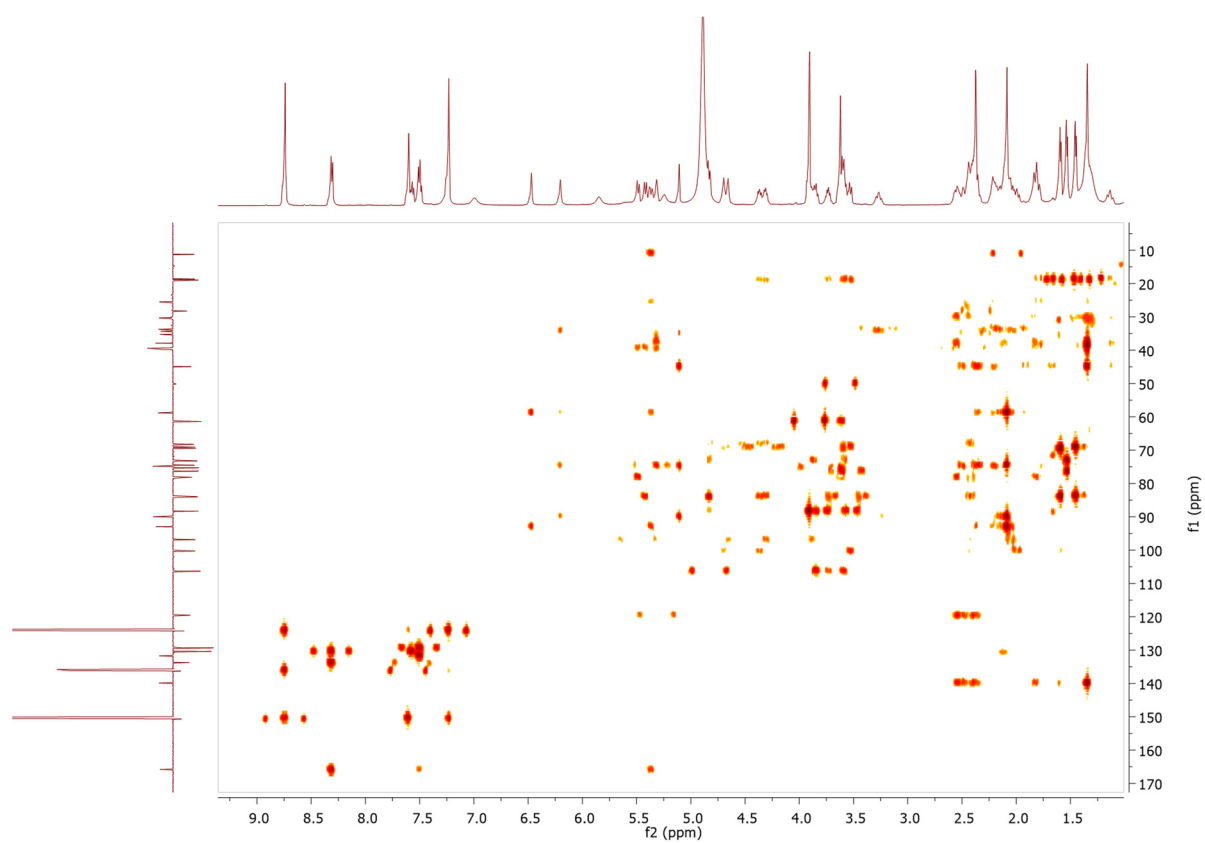




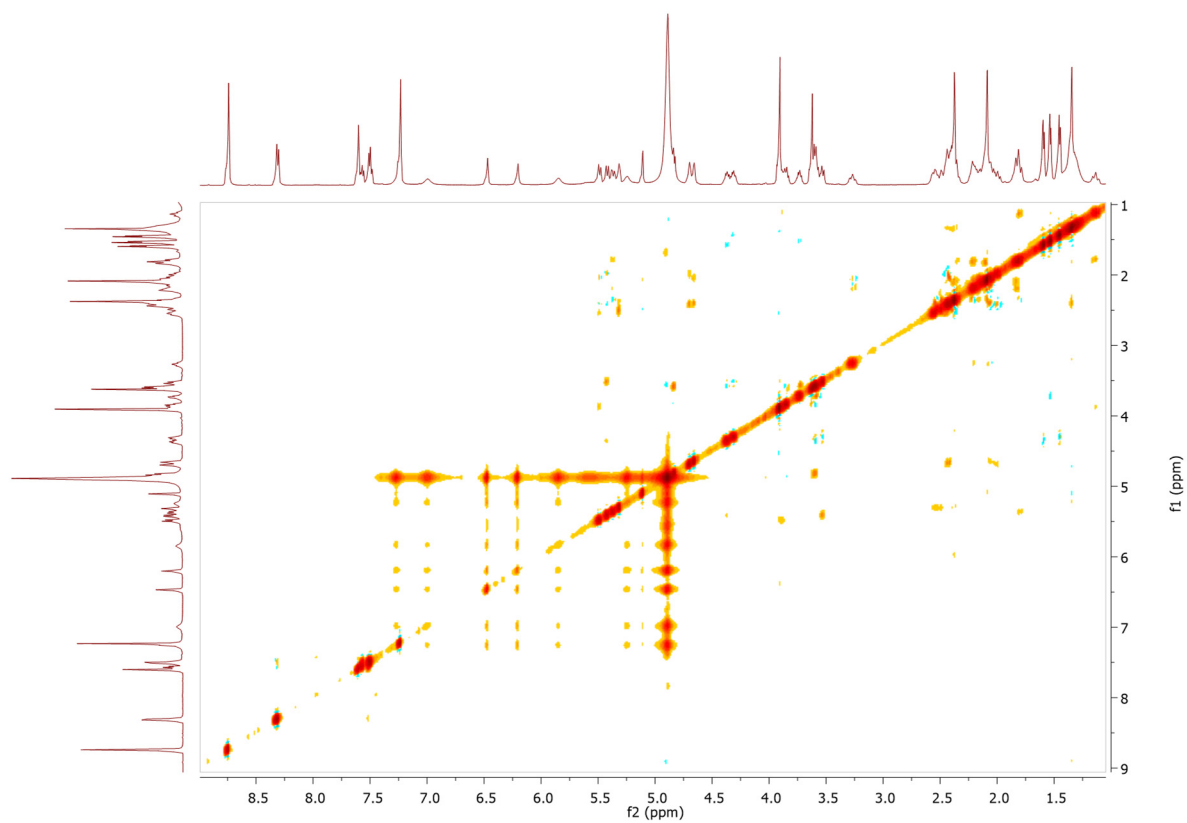
**Figure S9.** HSQC spectrum of compound **2** (in  $C_5D_5N$ ).



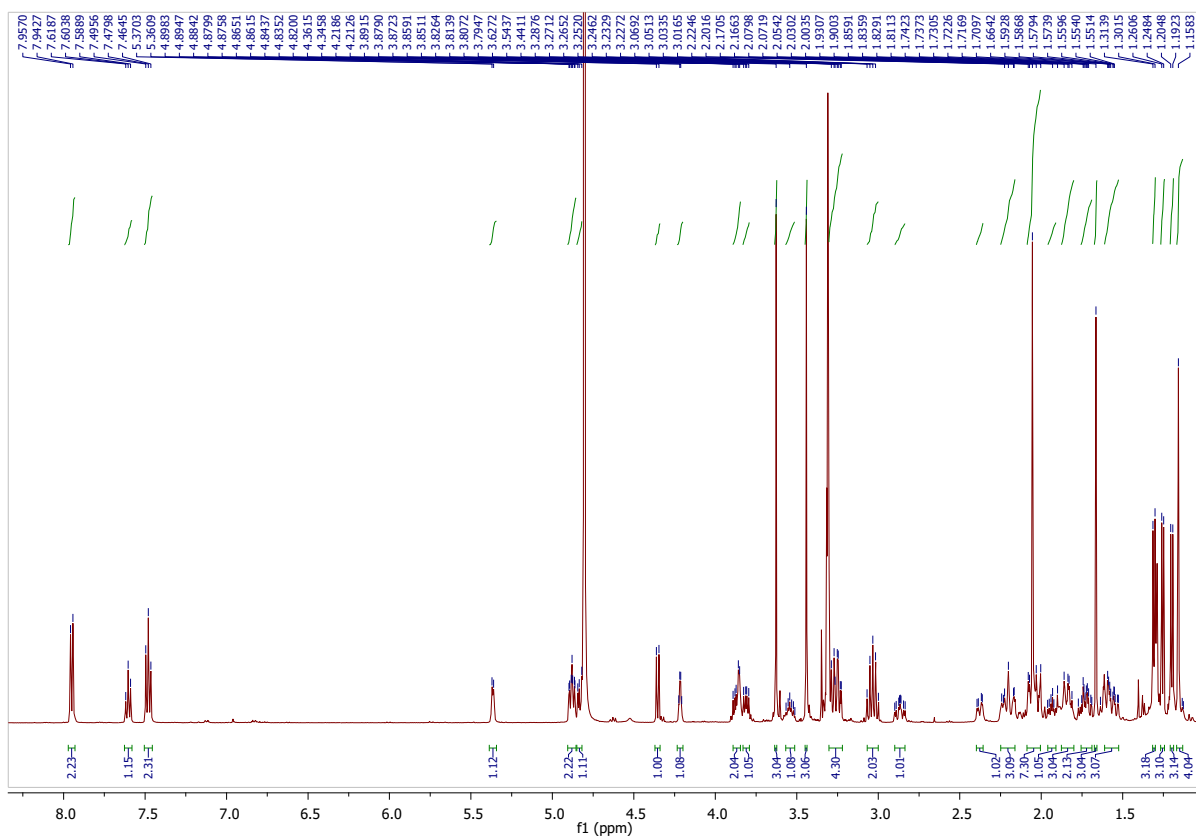
**Figure S10.**  $^1H$ - $^1H$  COSY spectrum of compound **2** (in  $C_5D_5N$ ).



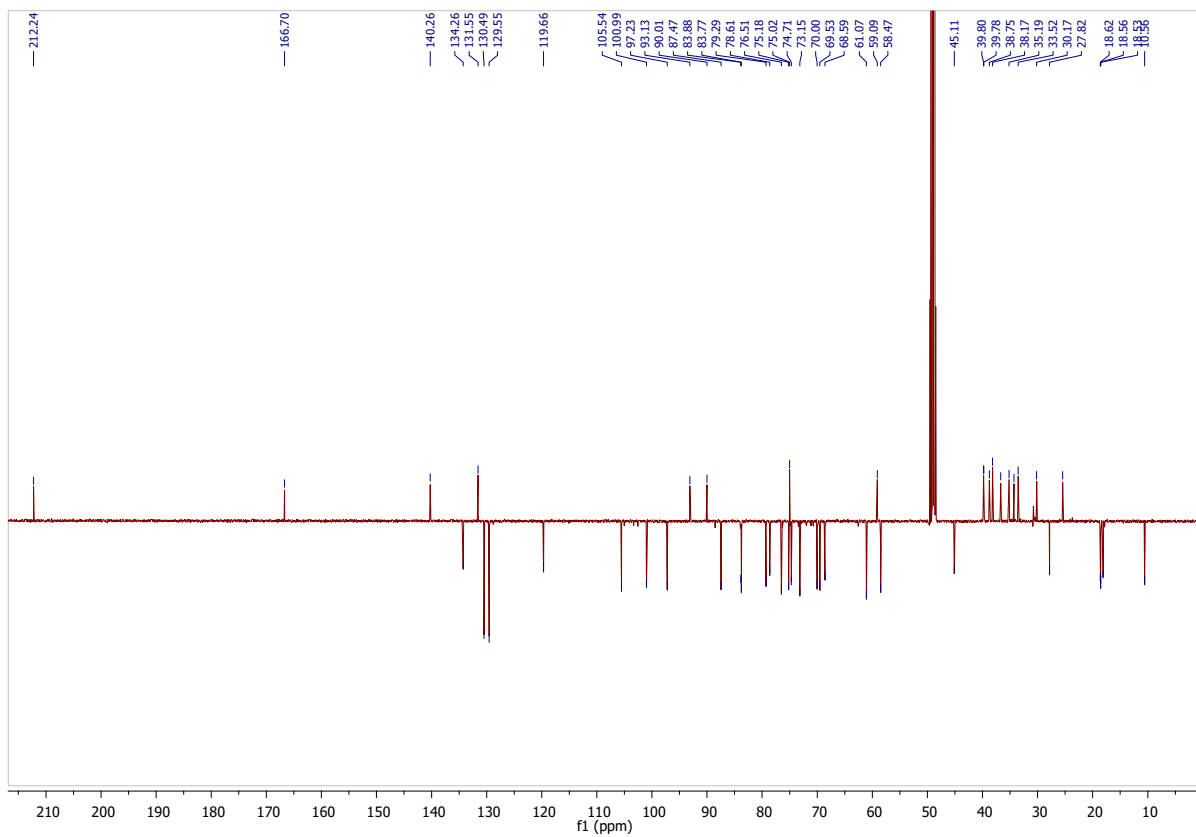
**Figure S11.** HMBC spectrum of compound **2** (in  $C_5D_5N$ ).



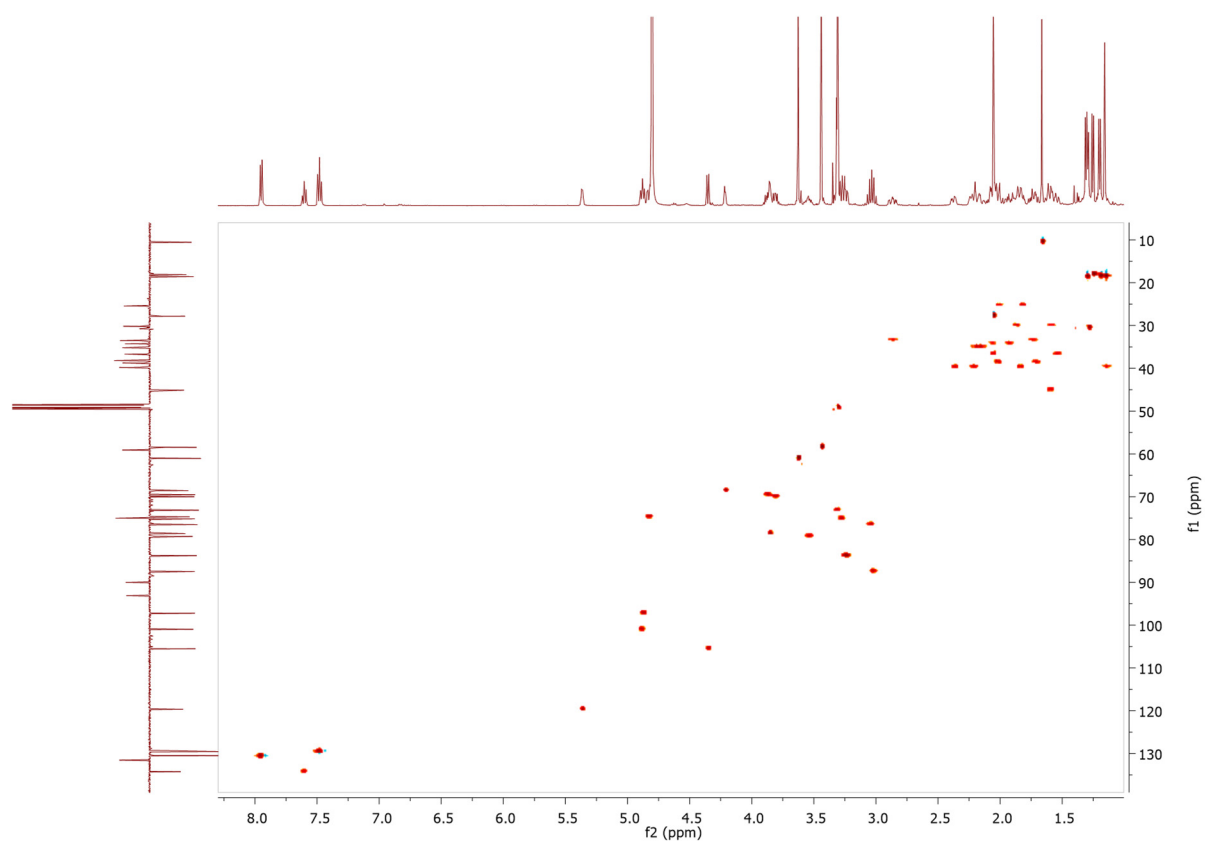
**Figure S12.** NOESY spectrum of compound **2** (in  $C_5D_5N$ ).



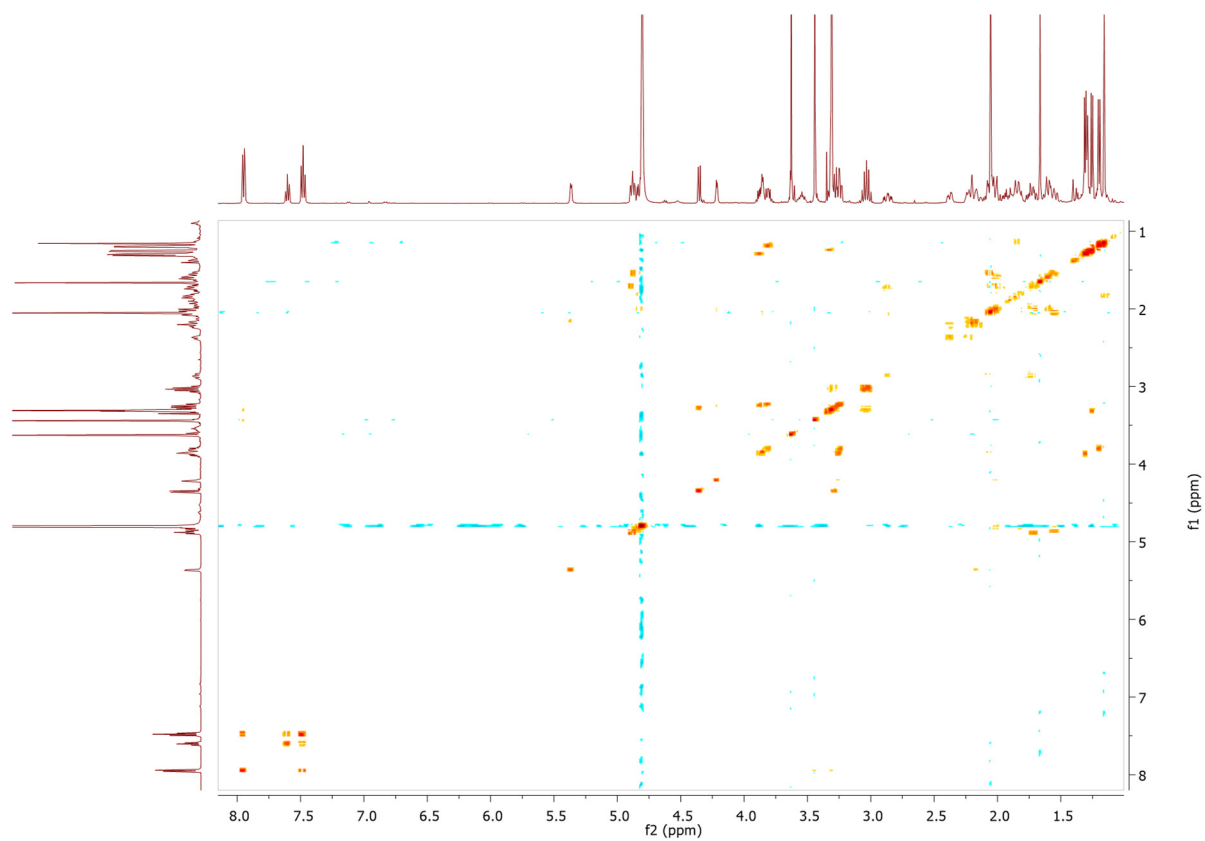
**Figure S13.** <sup>1</sup>H NMR spectrum of compound **3** (500 MHz, in CD<sub>3</sub>OD).



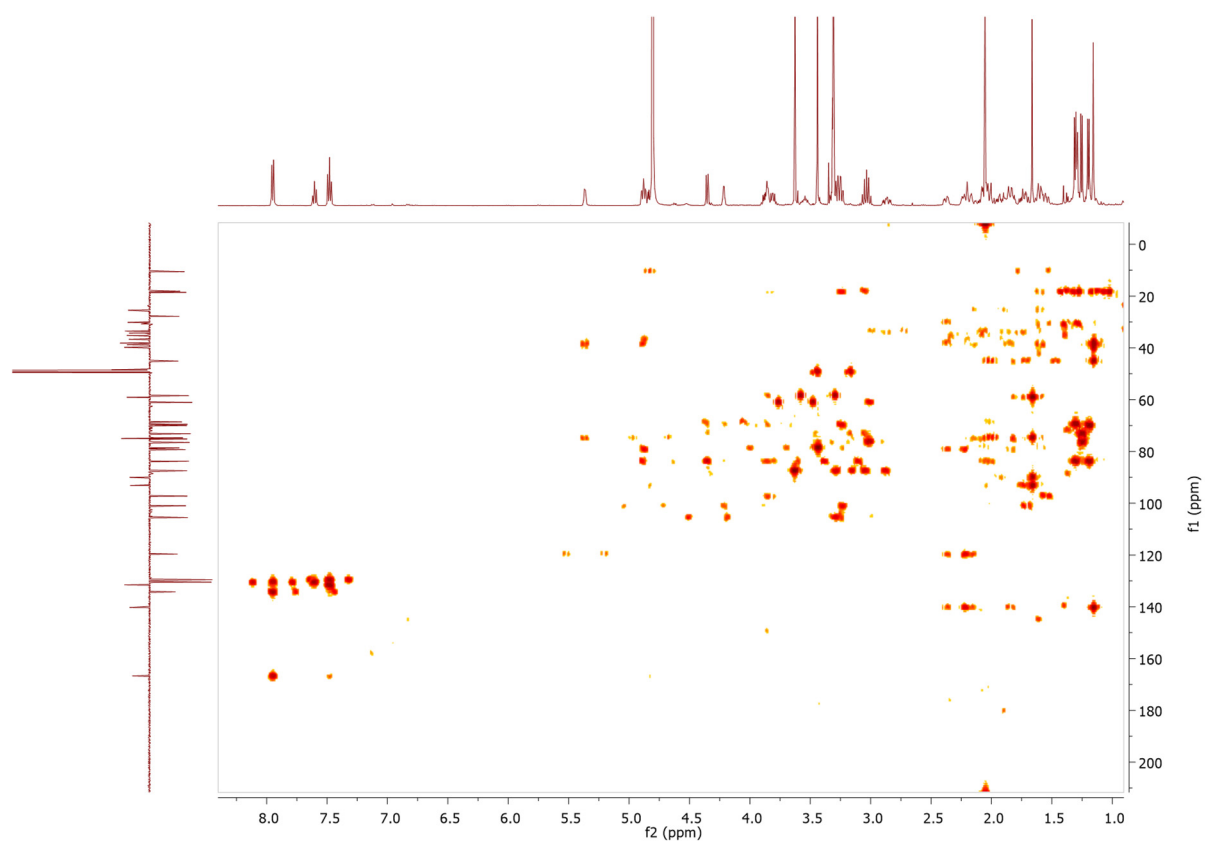
**Figure S14.** <sup>13</sup>C (JMOD) NMR spectrum of compound **3** (125 MHz, in CD<sub>3</sub>OD).



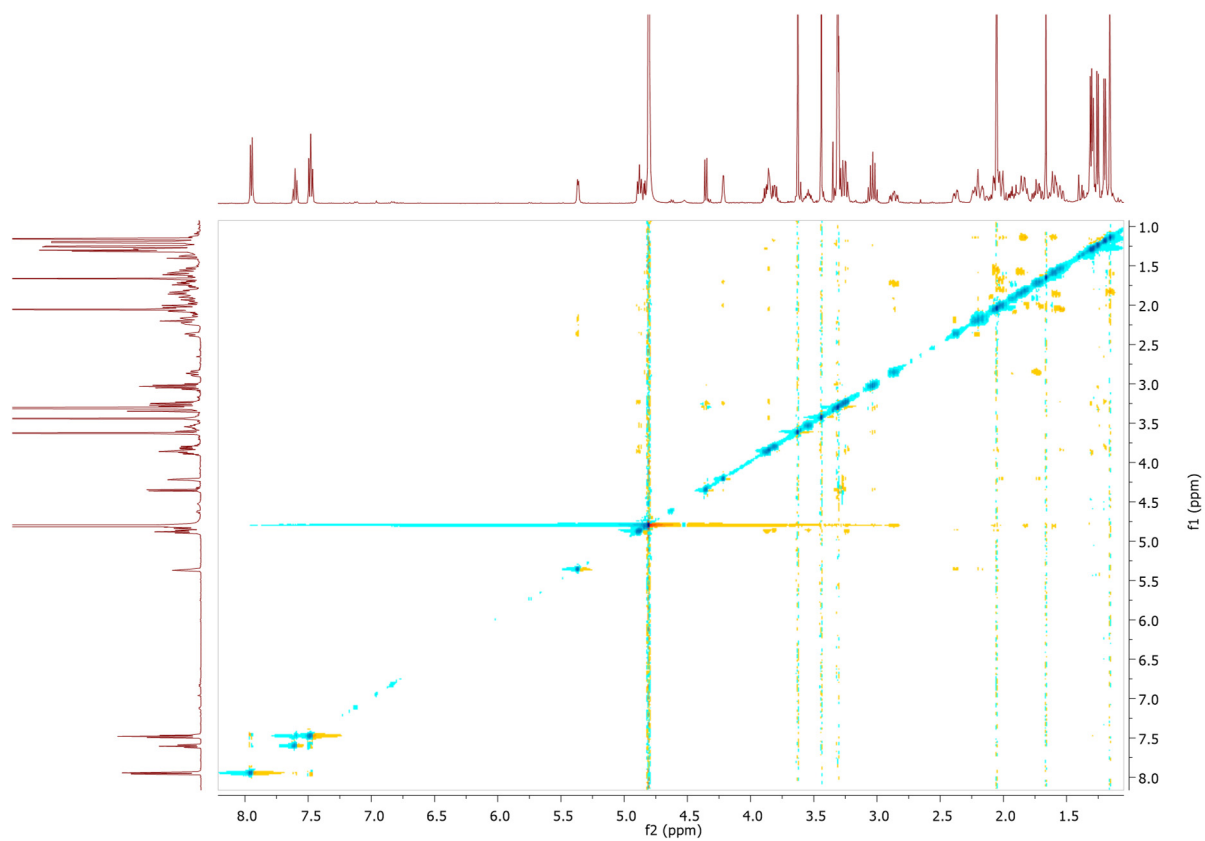
**Figure S15.** HSQC spectrum of compound **3** (in CD<sub>3</sub>OD).



**Figure S16.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound **3** (in CD<sub>3</sub>OD).

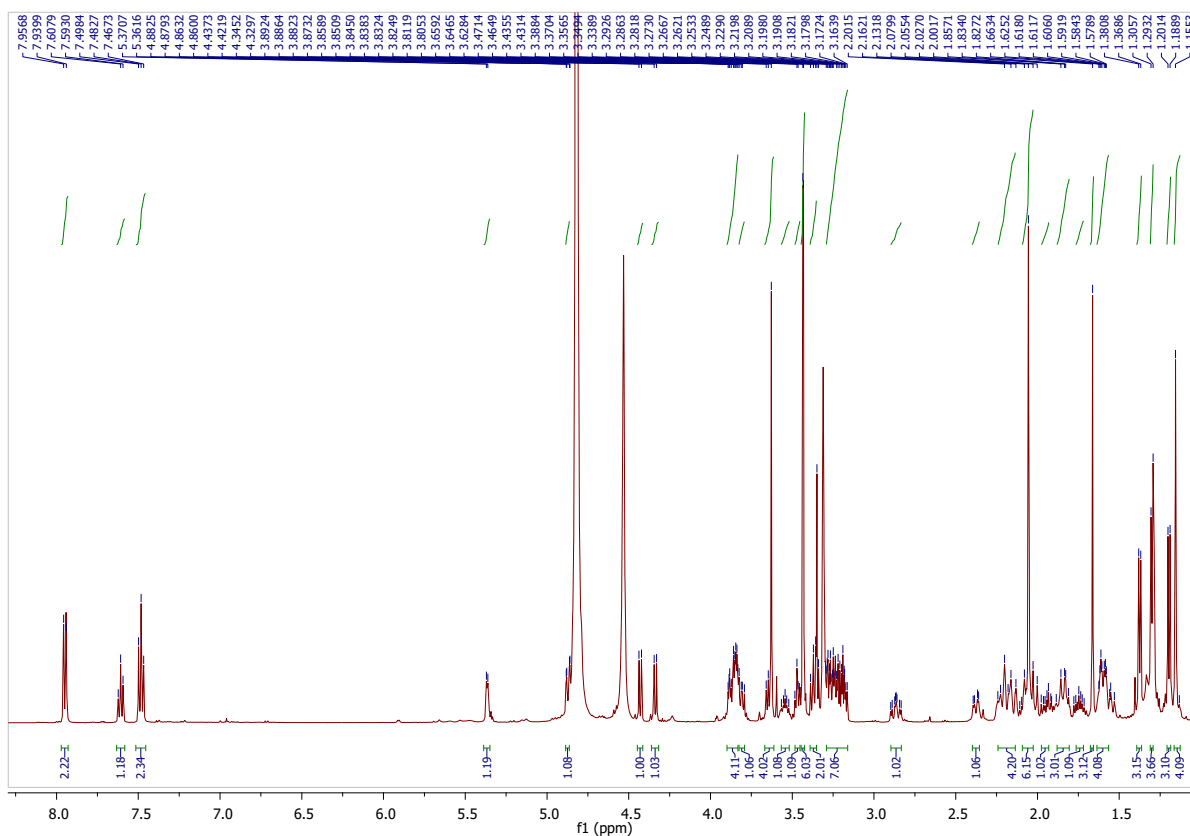


**Figure S17.** HMBC spectrum of compound **3** (in CD<sub>3</sub>OD).

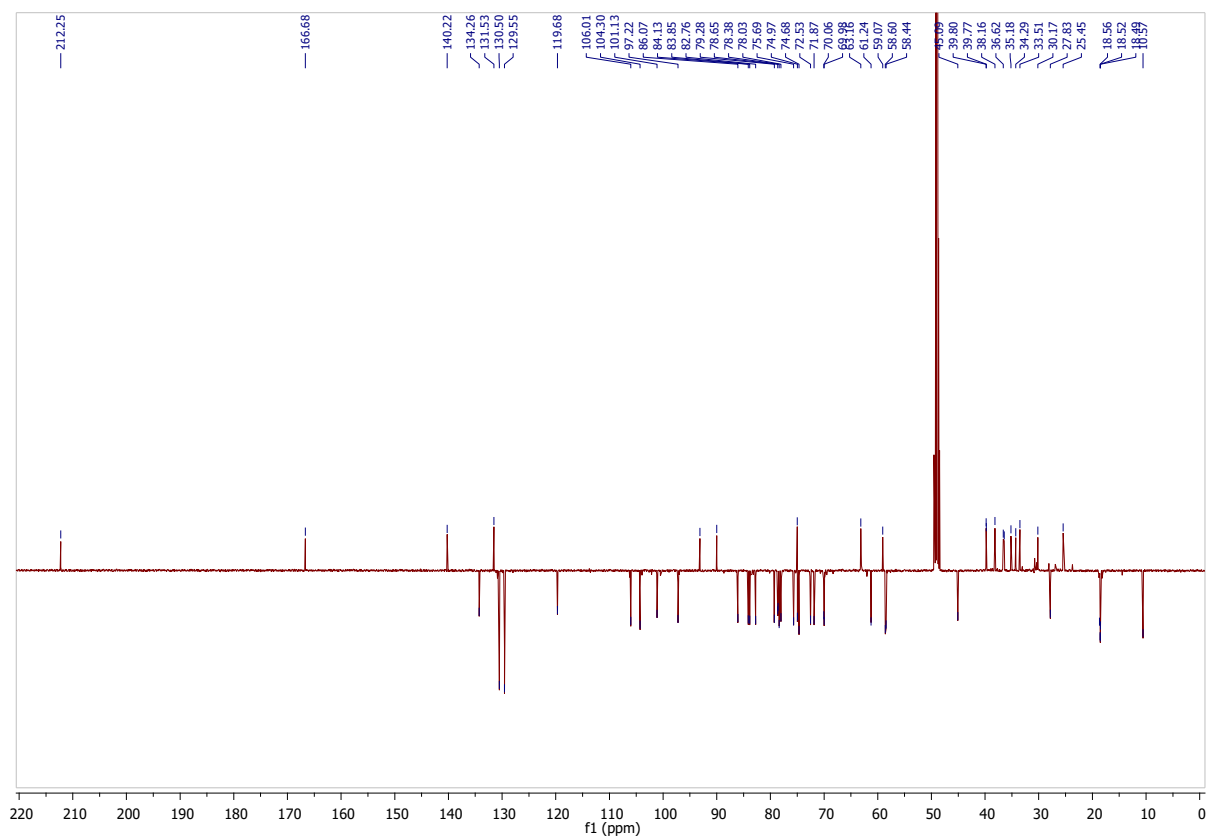


**Figure S18.** NOESY spectrum of compound **3** (in CD<sub>3</sub>OD).

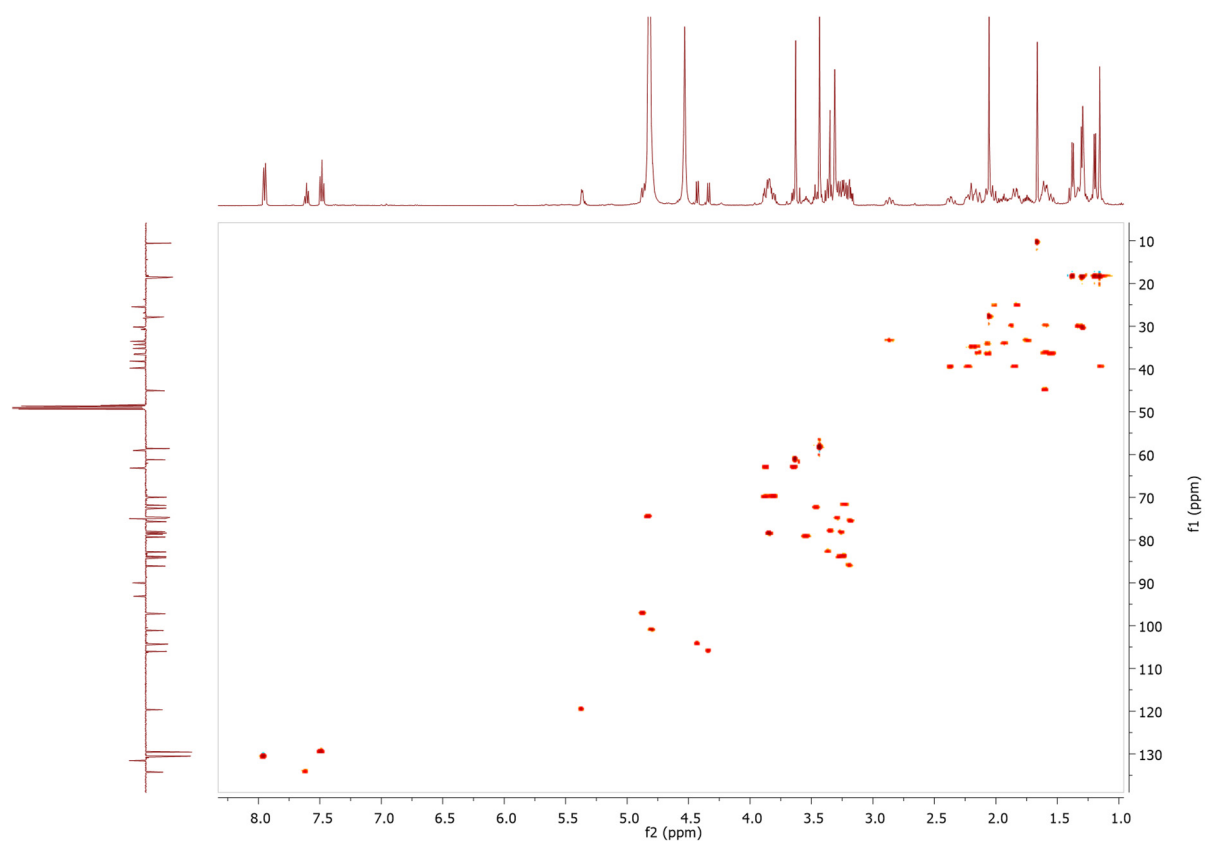




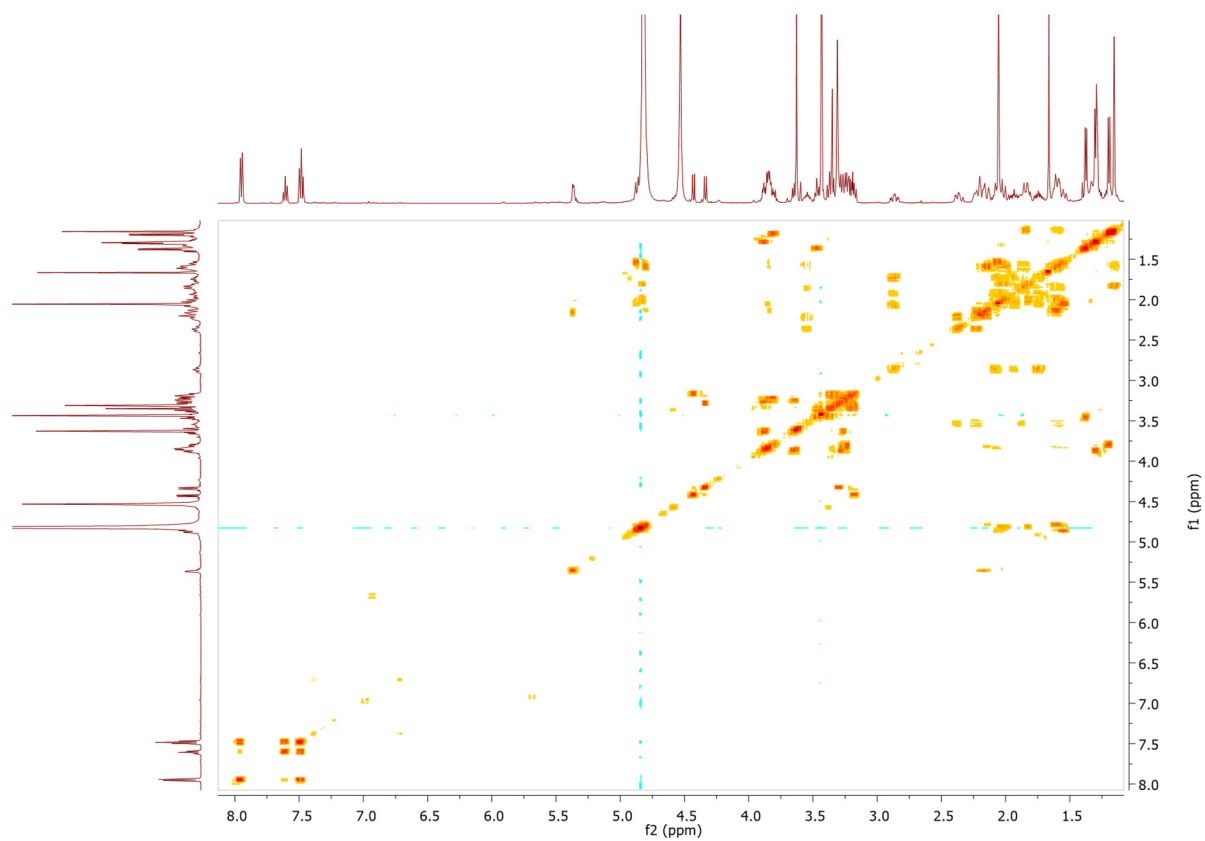
**Figure S19.** <sup>1</sup>H NMR spectrum of compound **4** (500 MHz, in CD<sub>3</sub>OD).



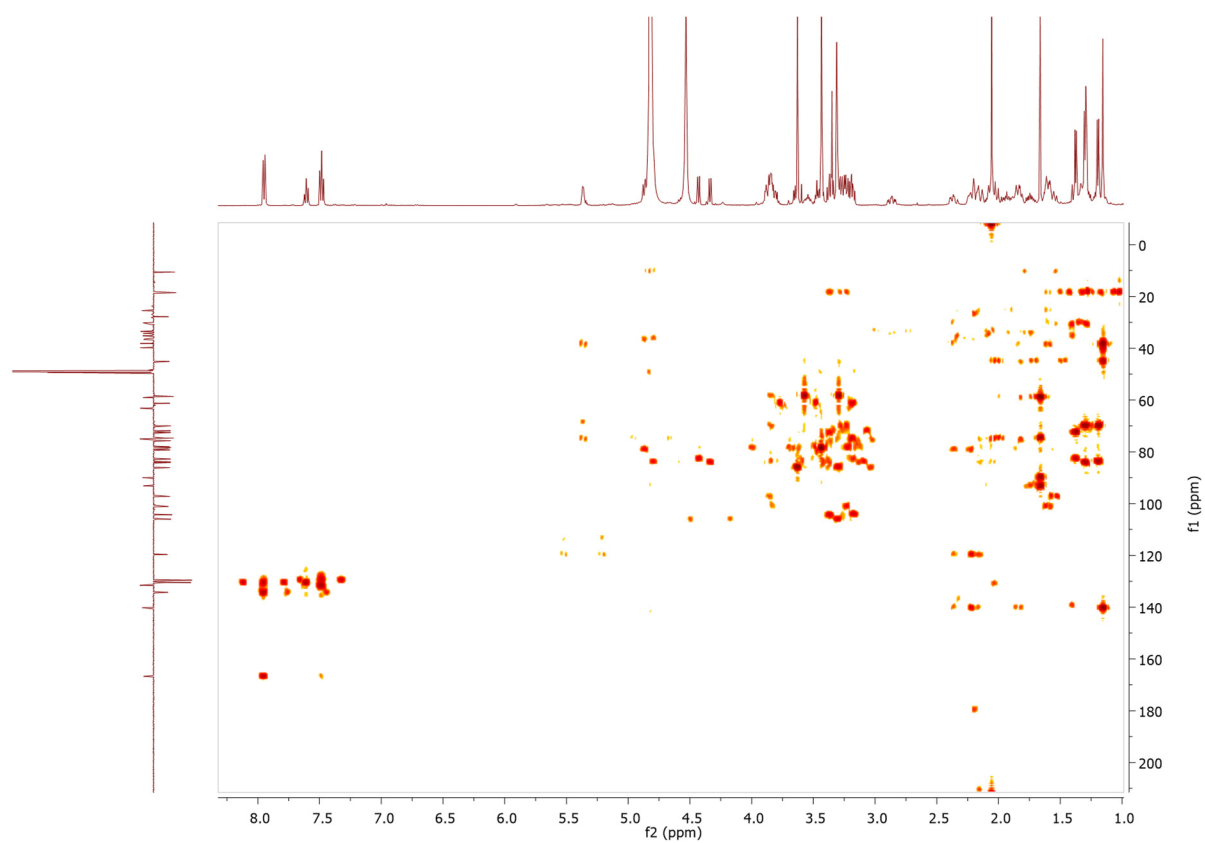
**Figure S20.** <sup>13</sup>C (JMOD) NMR spectrum of compound **4** (125 MHz, in CD<sub>3</sub>OD).



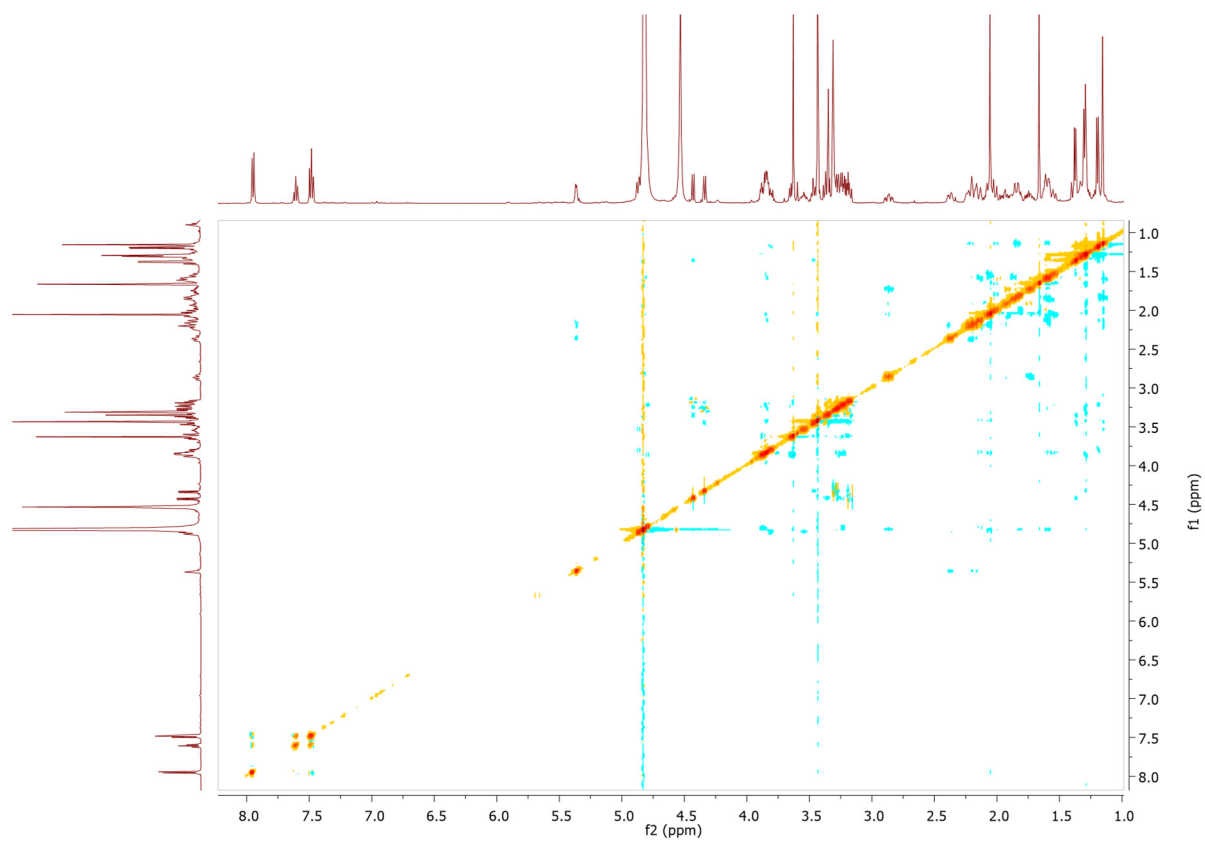
**Figure S21.** HSQC spectrum of compound **4** (in CD<sub>3</sub>OD).



**Figure S22.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound **4** (in CD<sub>3</sub>OD).



**Figure S23.** HMBC spectrum of compound **4** (in CD<sub>3</sub>OD).



**Figure S24.** NOESY spectrum of compound **4** (in CD<sub>3</sub>OD).

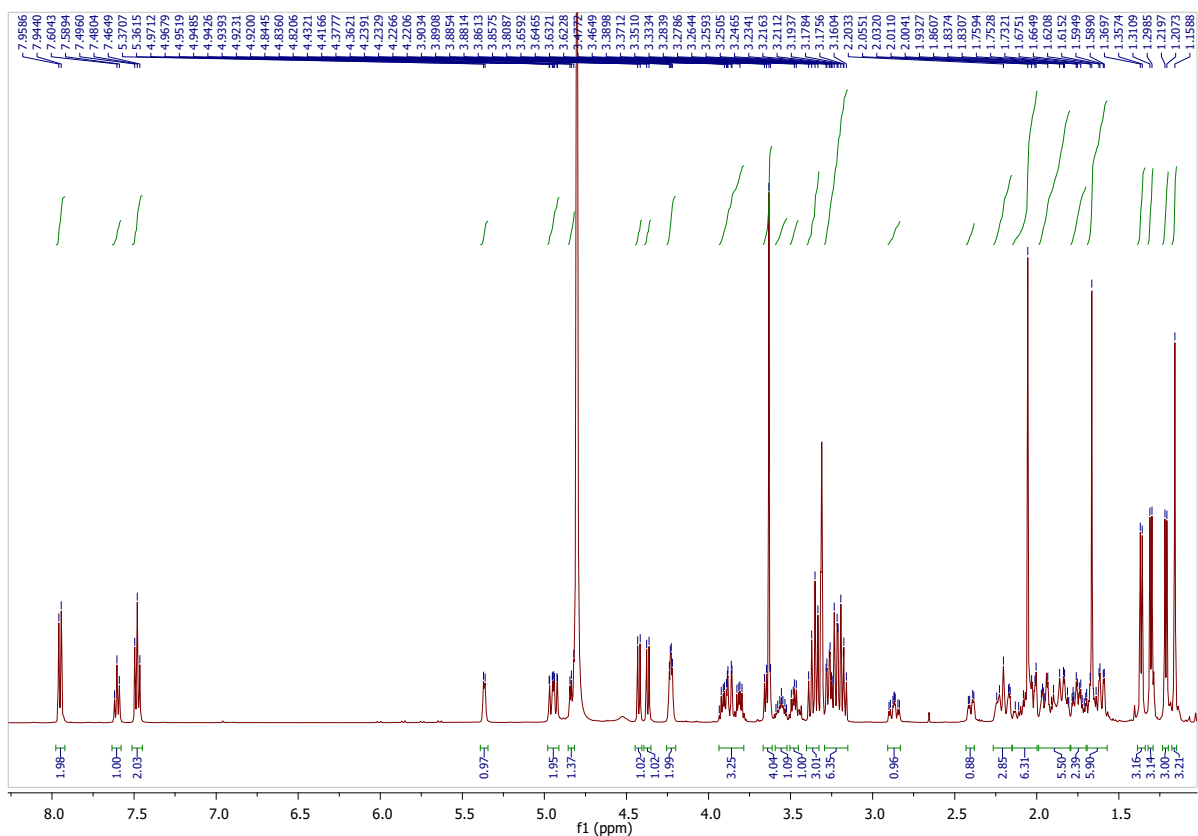


Figure S25. <sup>1</sup>H NMR spectrum of compound 5 (500 MHz, in CD<sub>3</sub>OD).

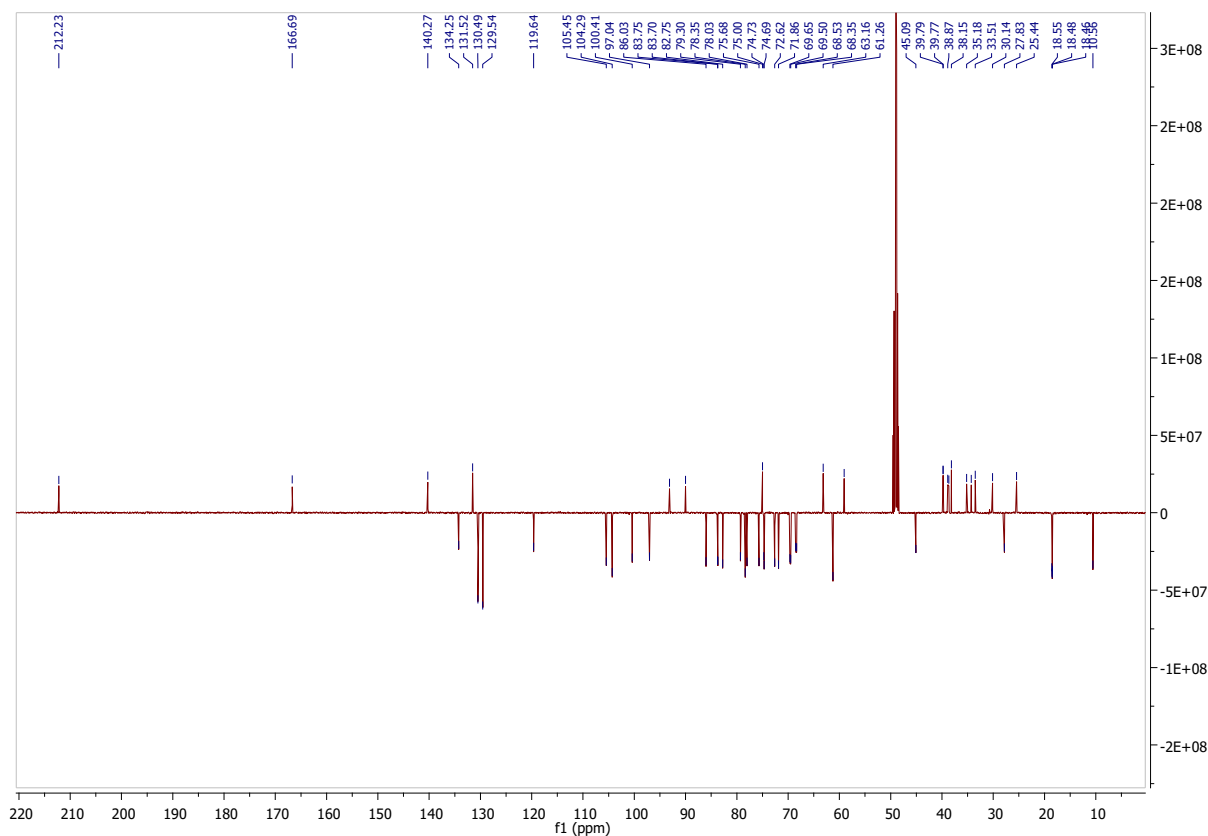
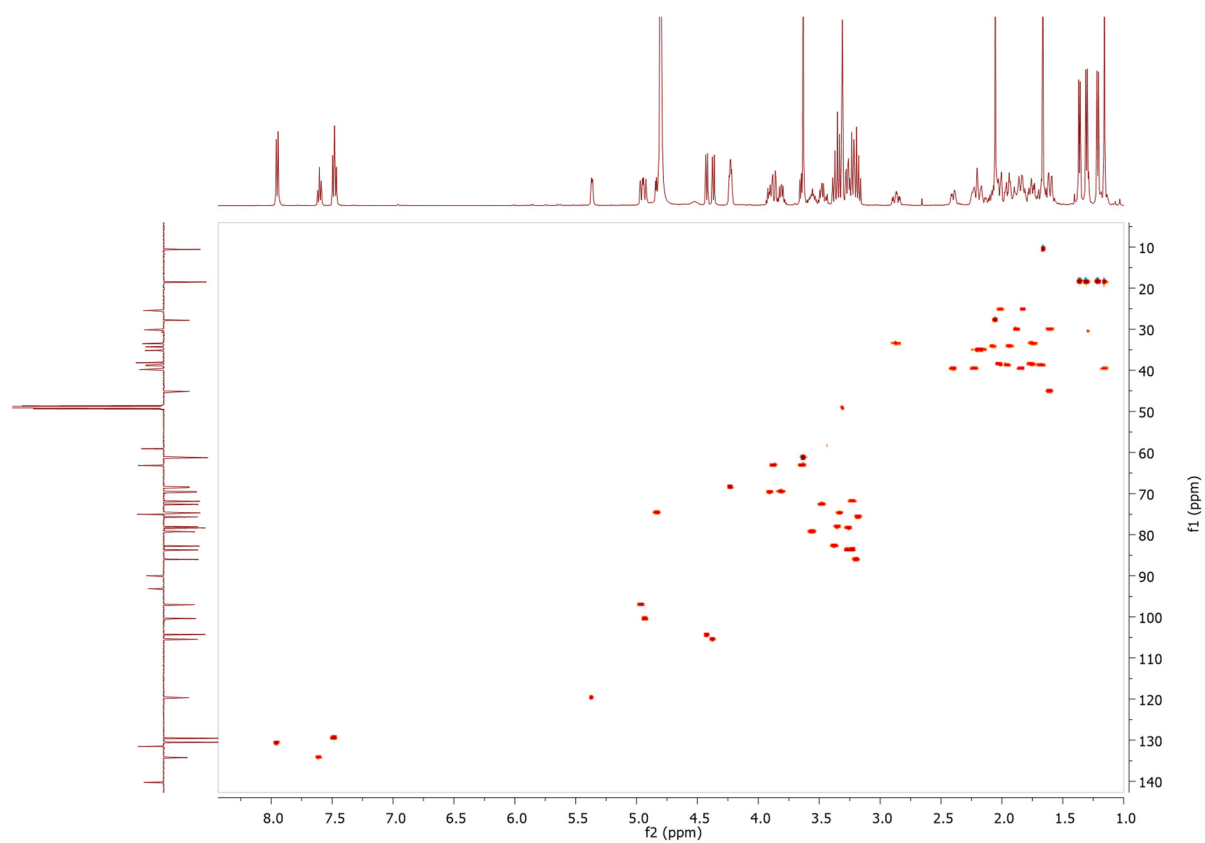
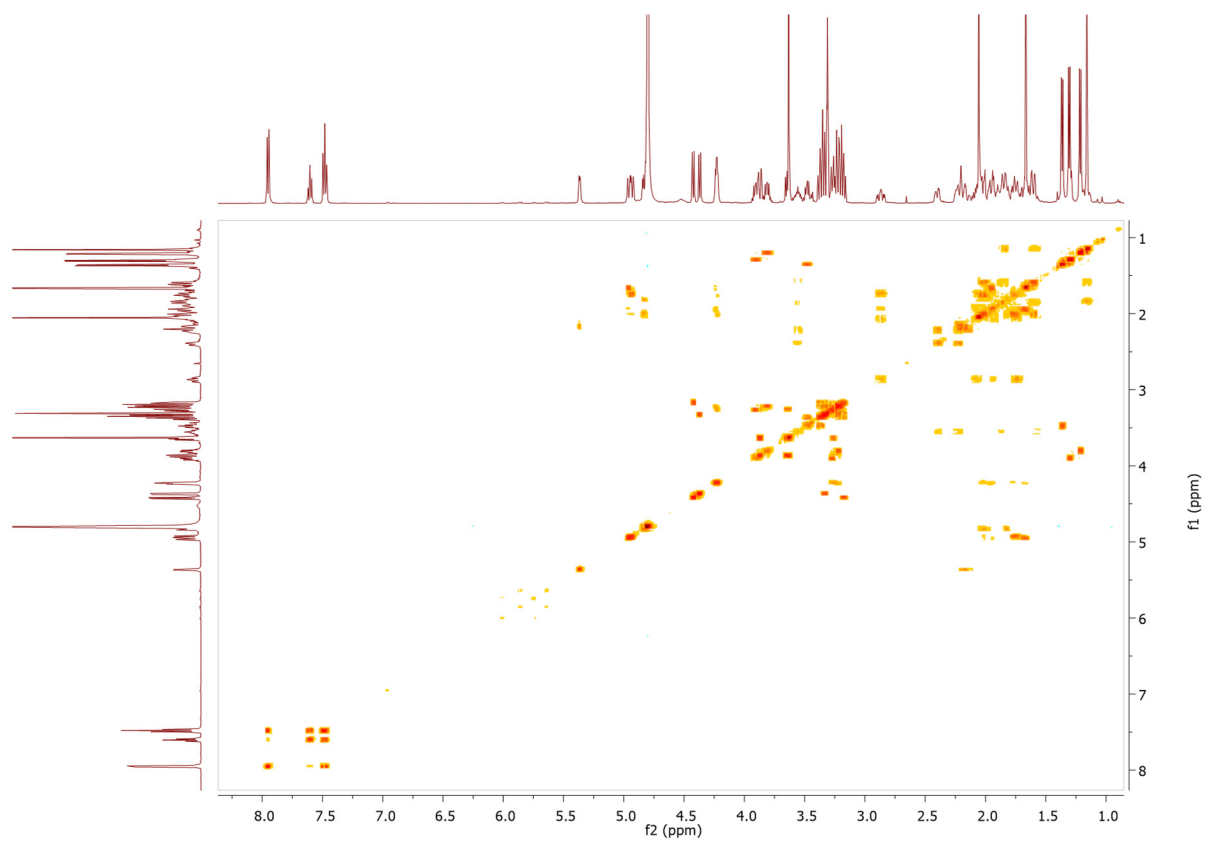


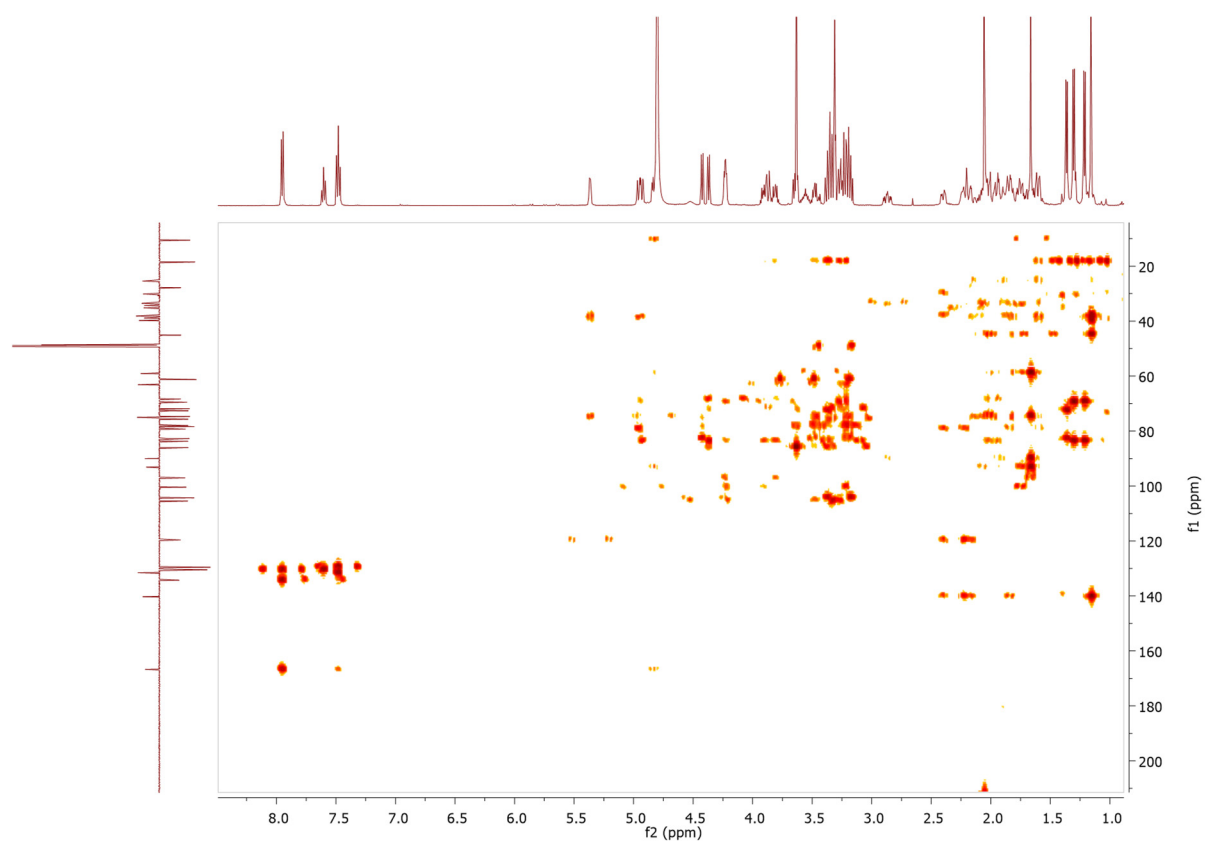
Figure S25. <sup>13</sup>C (JMOD) NMR spectrum of compound 5 (125 MHz, in CD<sub>3</sub>OD).



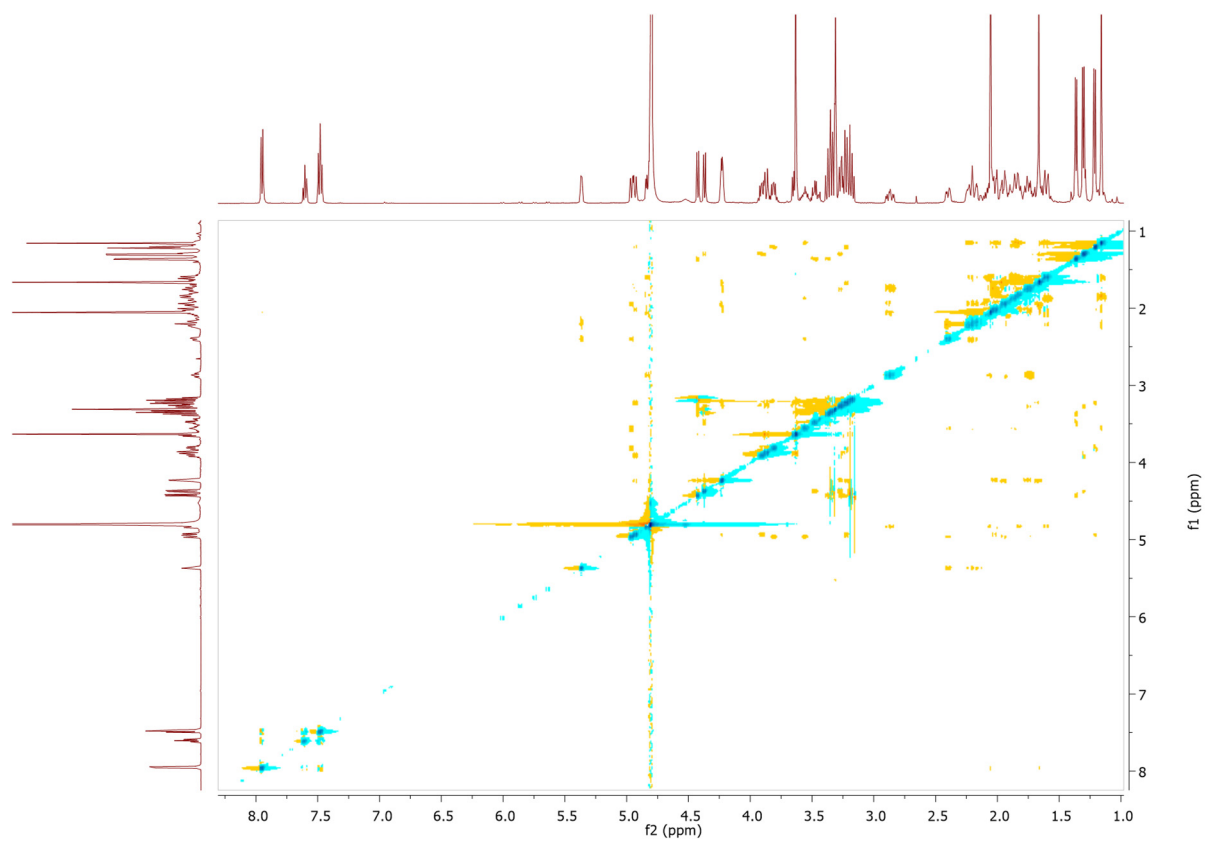
**Figure S26.** HSQC spectrum of compound **5** (in CD<sub>3</sub>OD).



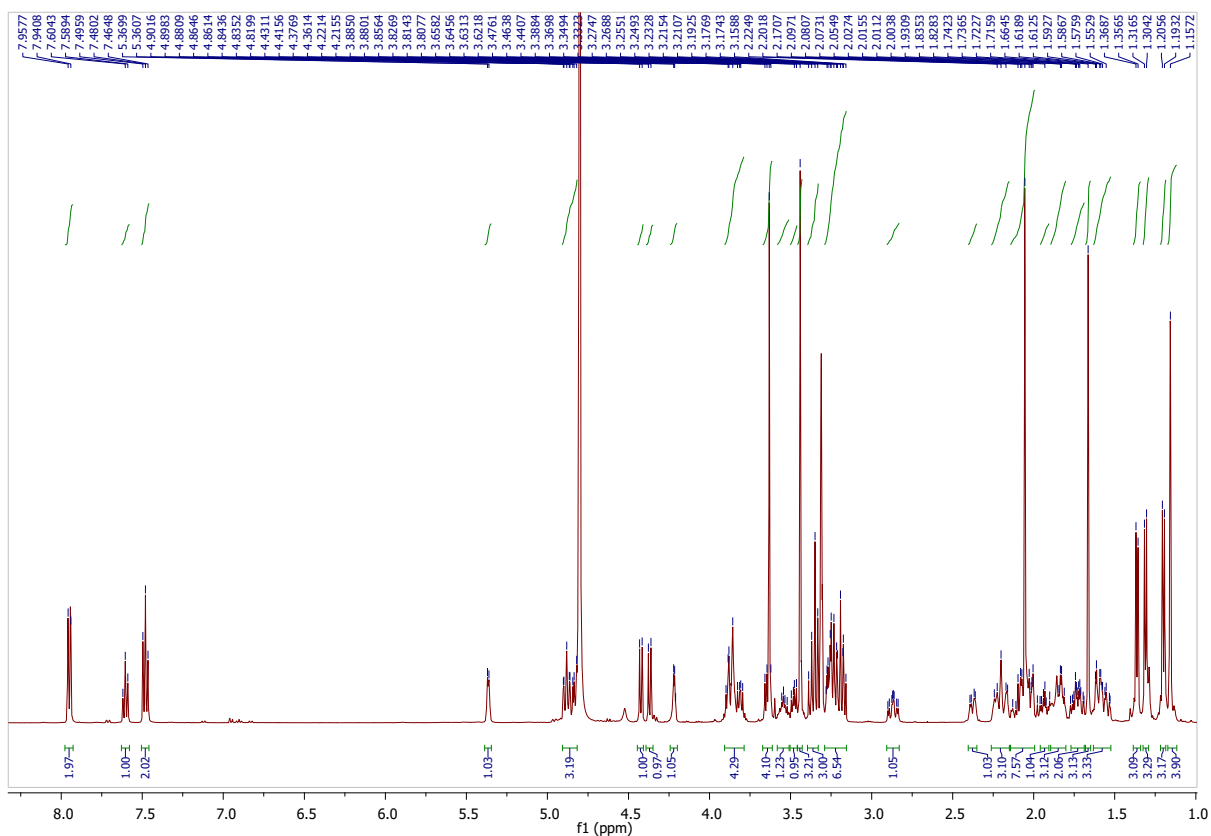
**Figure S27.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound **5** (in CD<sub>3</sub>OD).



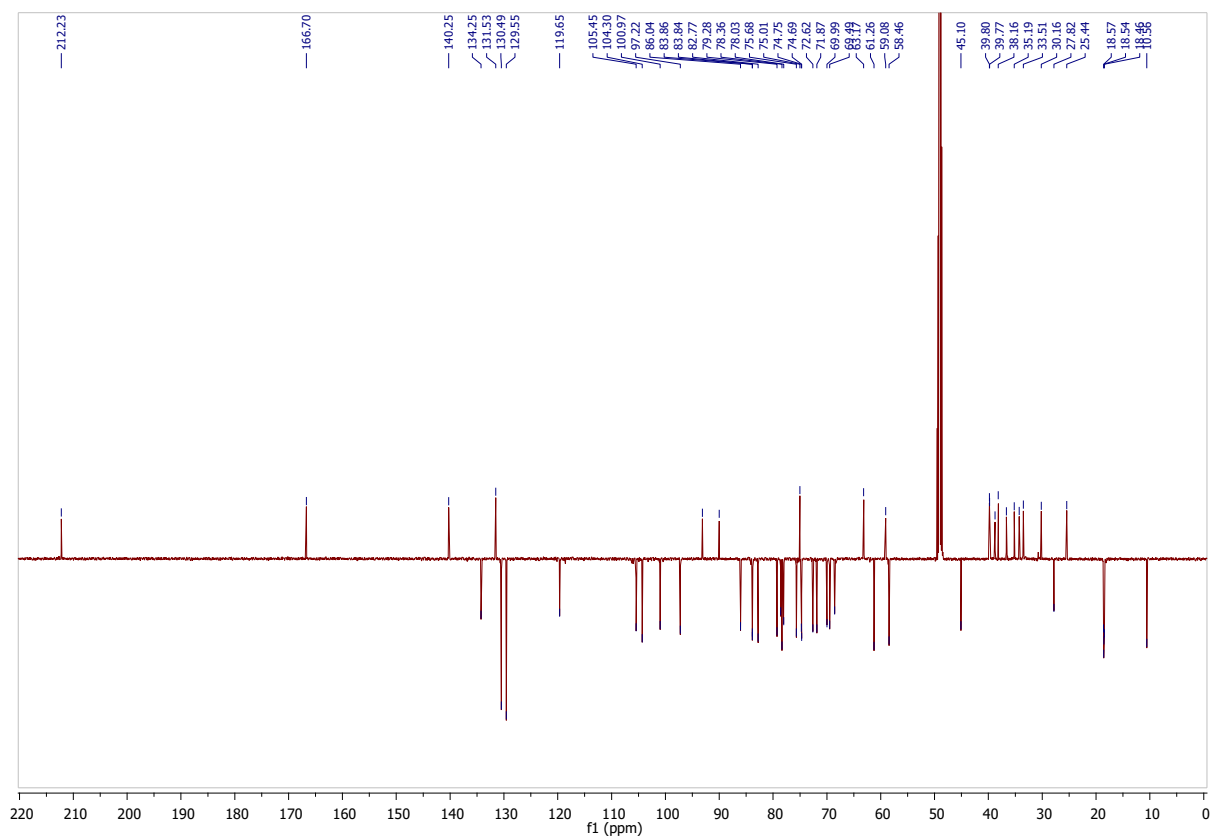
**Figure S28.** HMBC spectrum of compound **5** (in CD<sub>3</sub>OD).



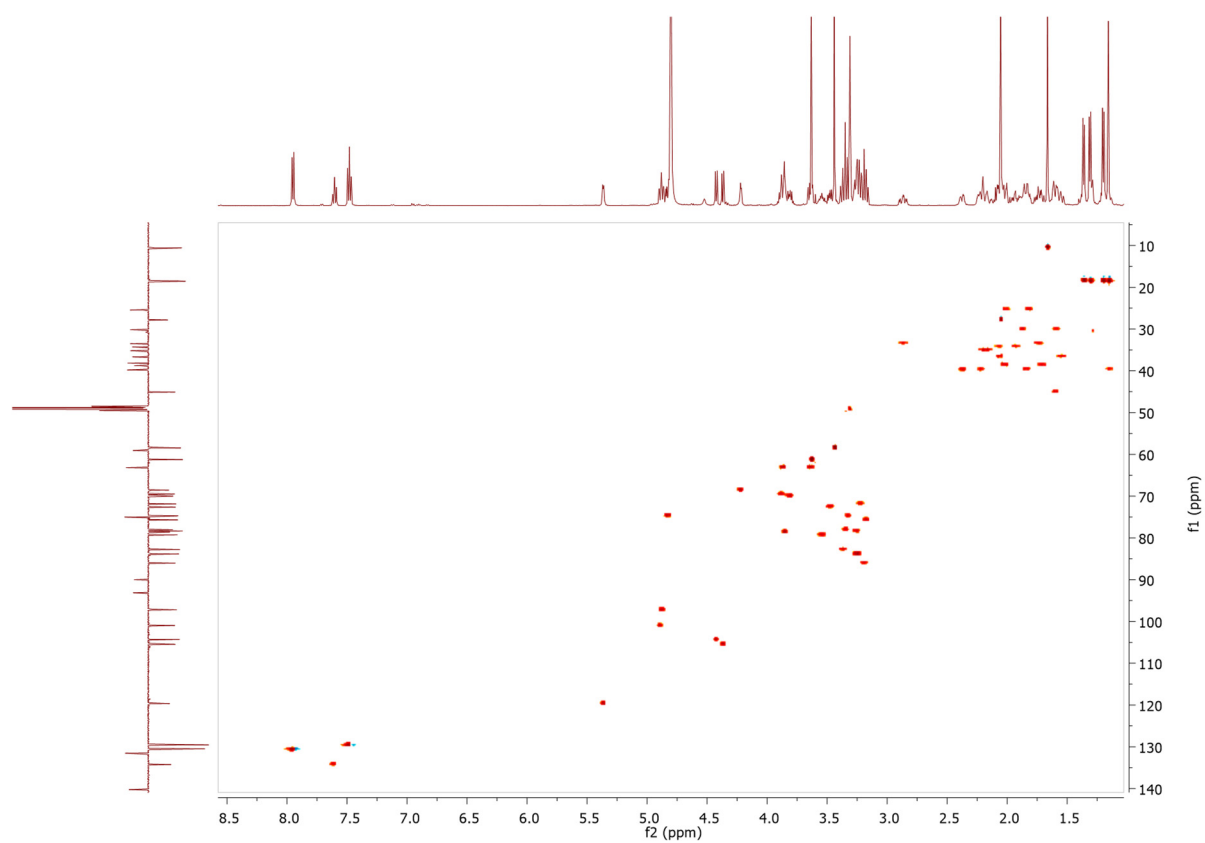
**Figure S29.** NOESY spectrum of compound **5** (in CD<sub>3</sub>OD).



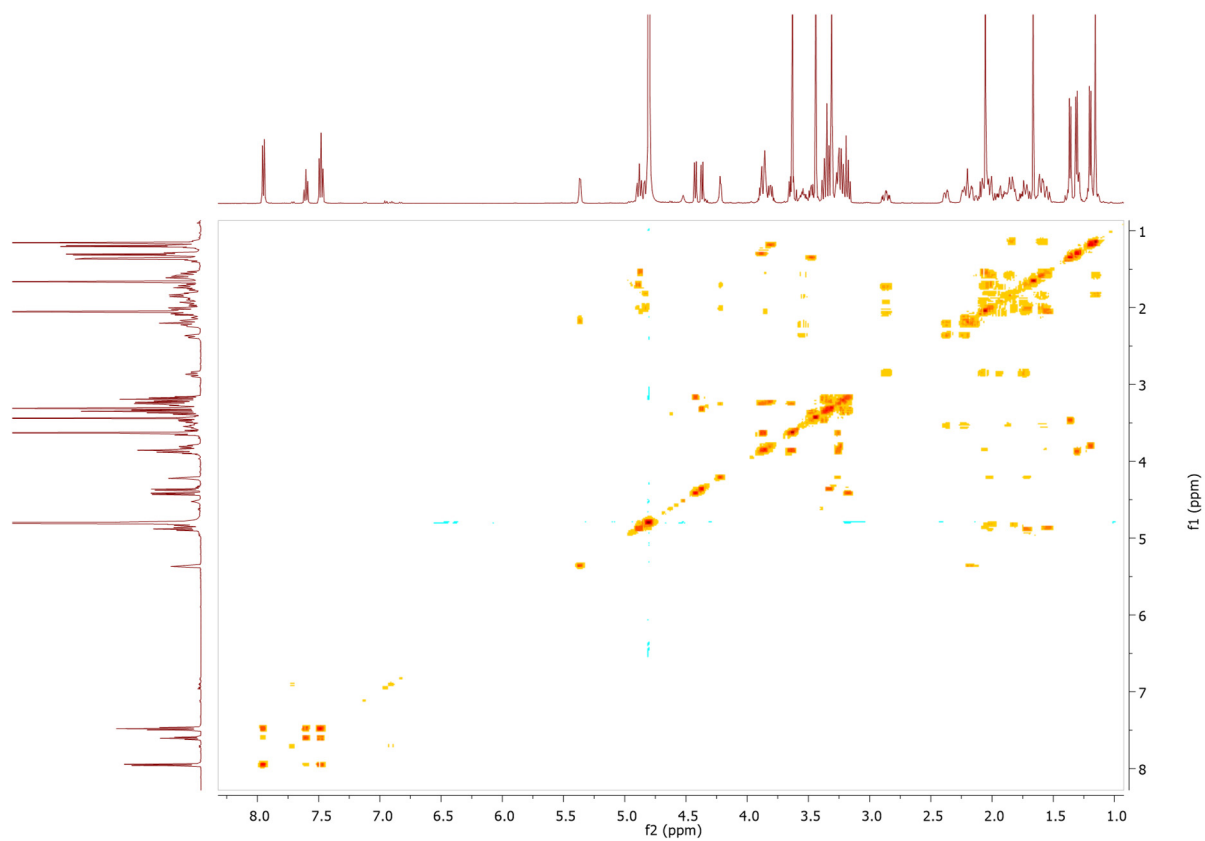
**Figure S30.** <sup>1</sup>H NMR spectrum of compound **6** (500 MHz, in CD<sub>3</sub>OD).



**Figure S31.** <sup>13</sup>C (JMOD) NMR spectrum of compound **6** (125 MHz, in CD<sub>3</sub>OD).

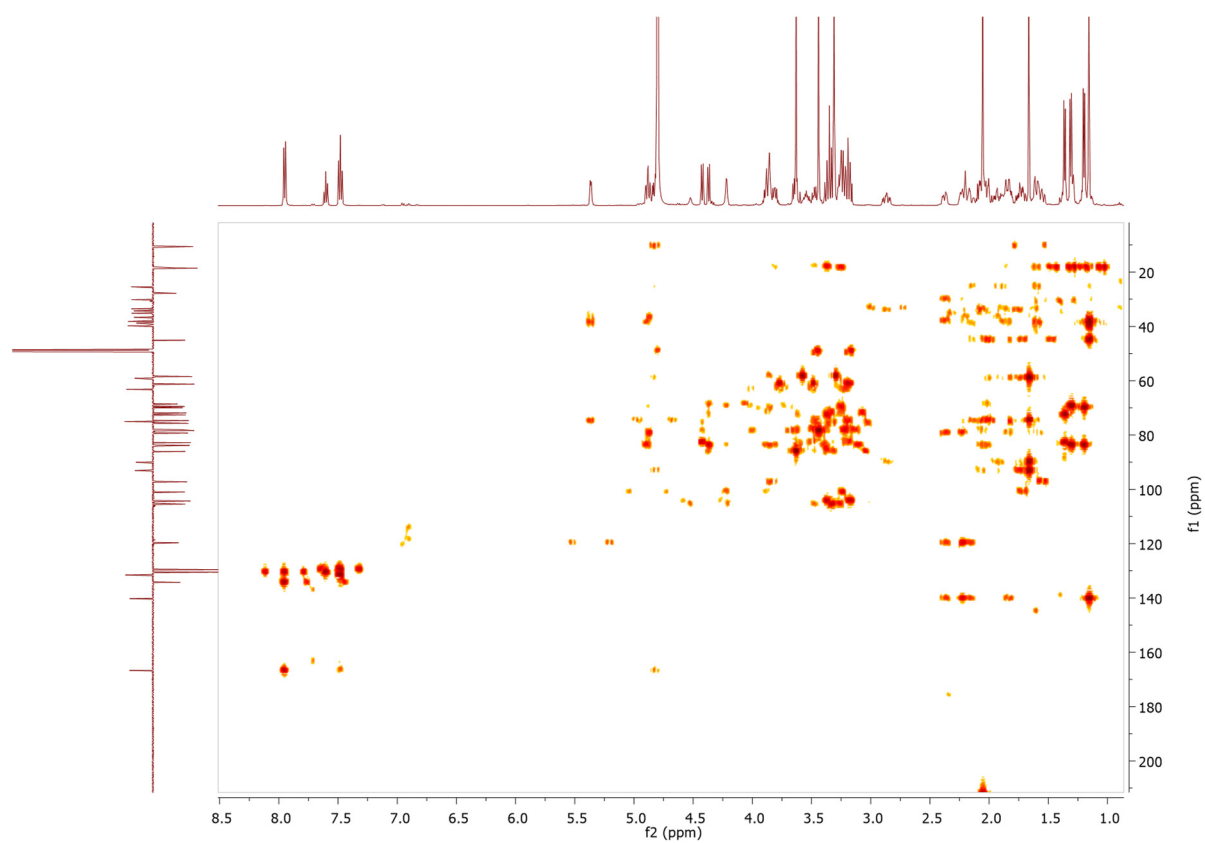


**Figure S32.** HSQC spectrum of compound **6** (in CD<sub>3</sub>OD).

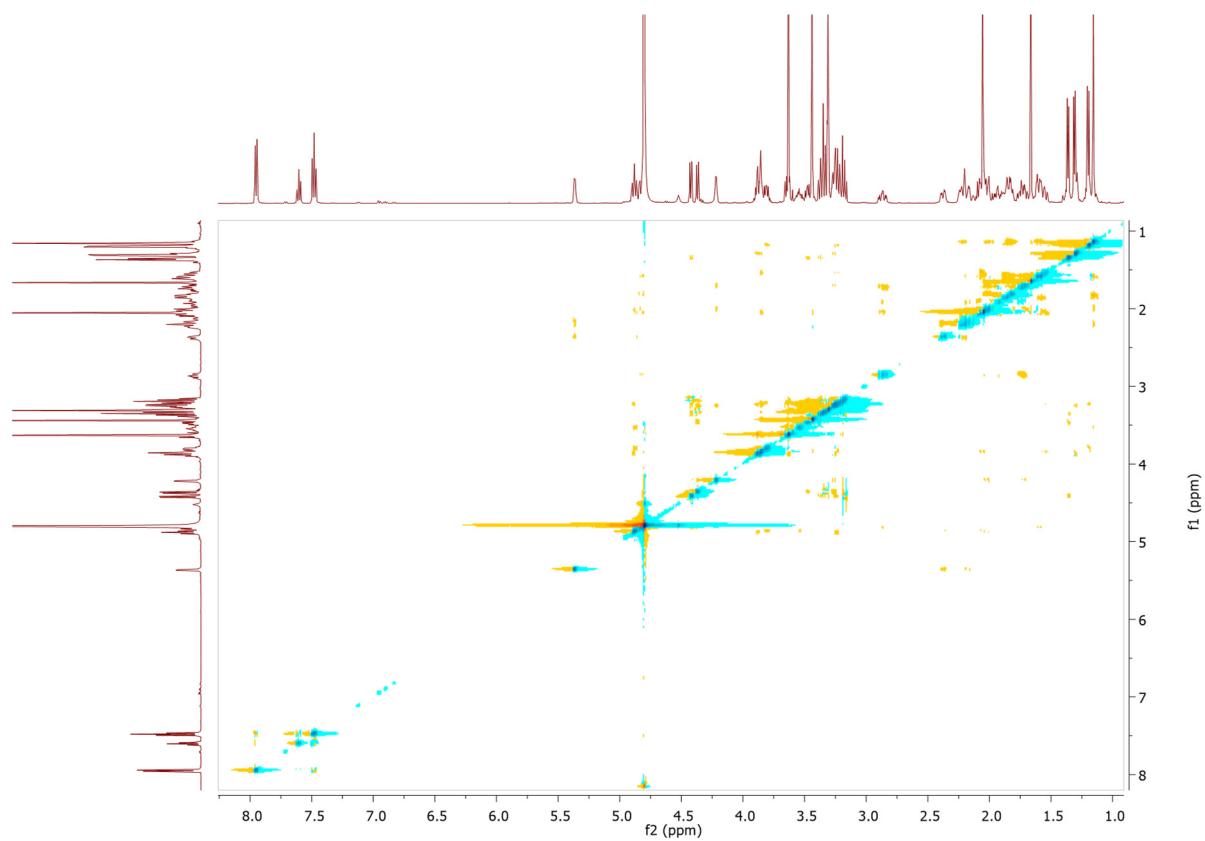


**Figure S33.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound **6** (in CD<sub>3</sub>OD).





**Figure S34.** HMBC spectrum of compound **6** (in CD<sub>3</sub>OD).



**Figure S35.** NOESY spectrum of compound **6** (in CD<sub>3</sub>OD).

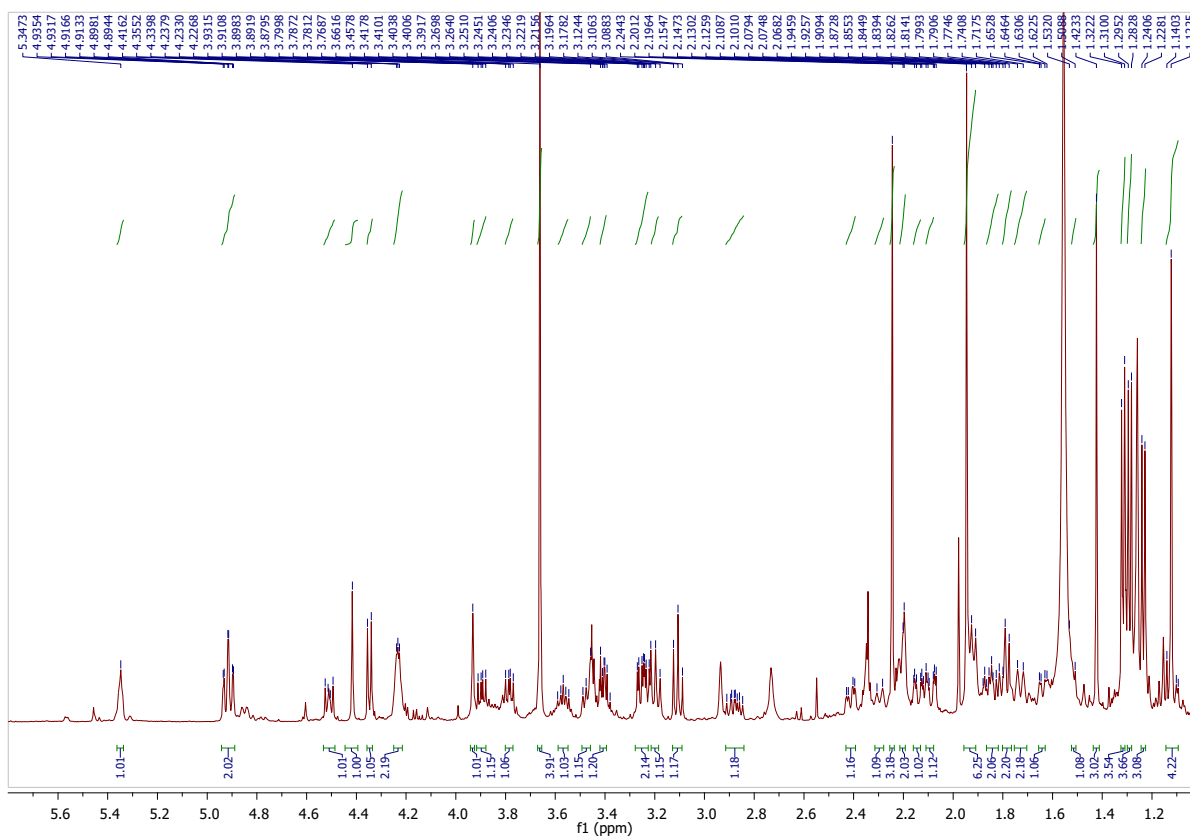


Figure S36. <sup>1</sup>H NMR spectrum of compound **7** (500 MHz, in CDCl<sub>3</sub>).

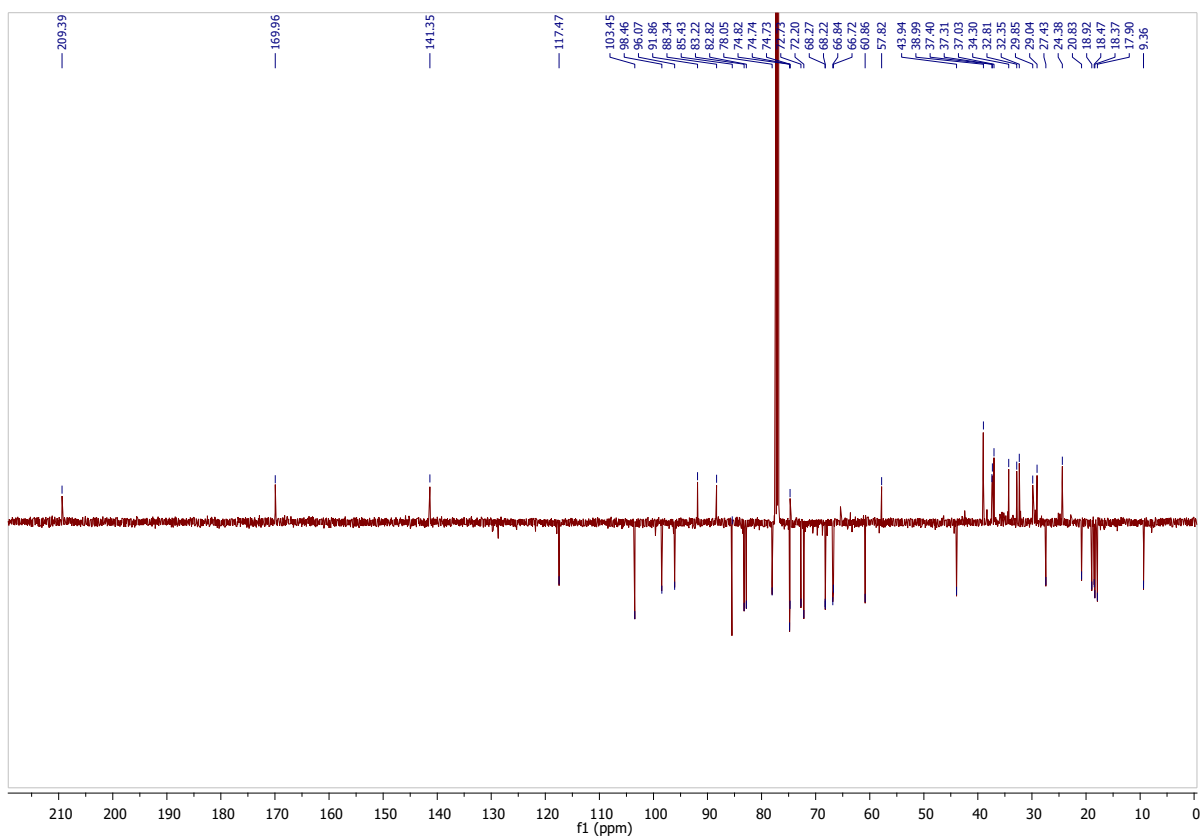
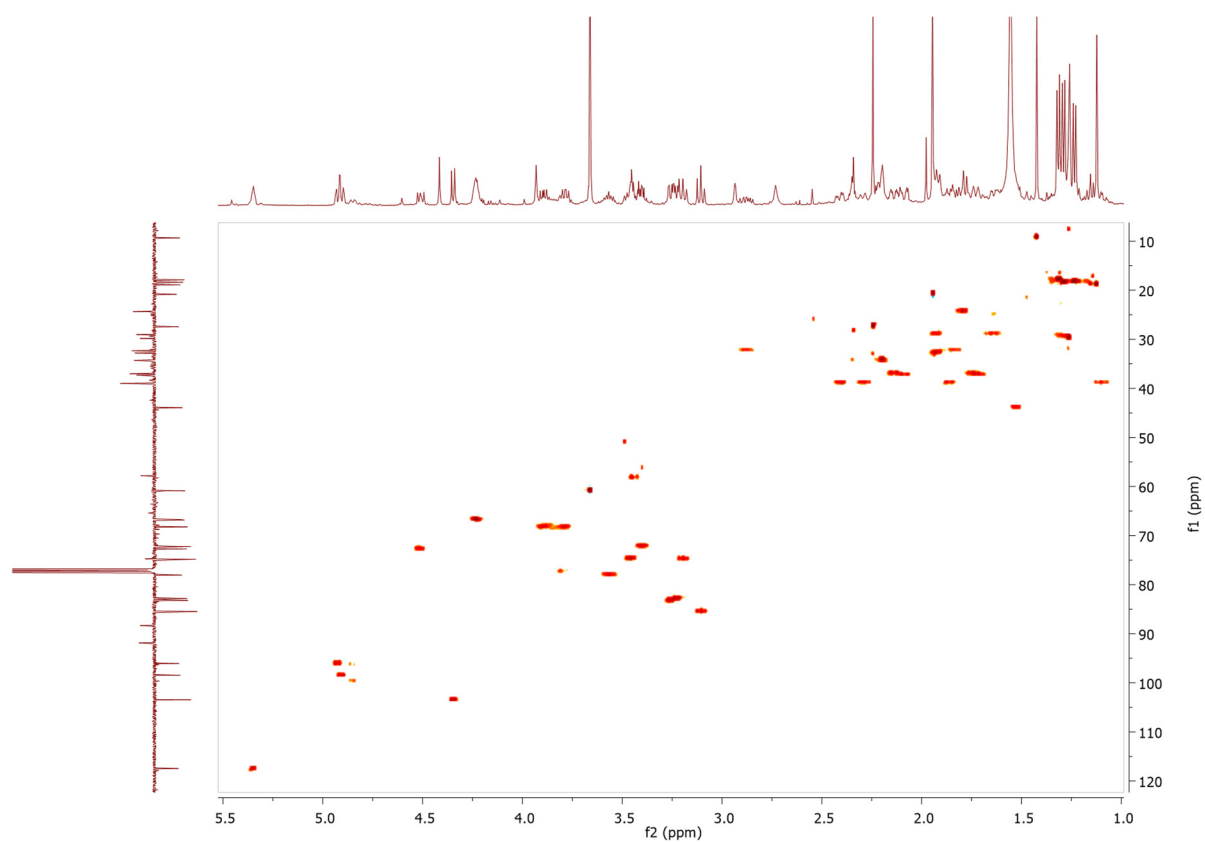
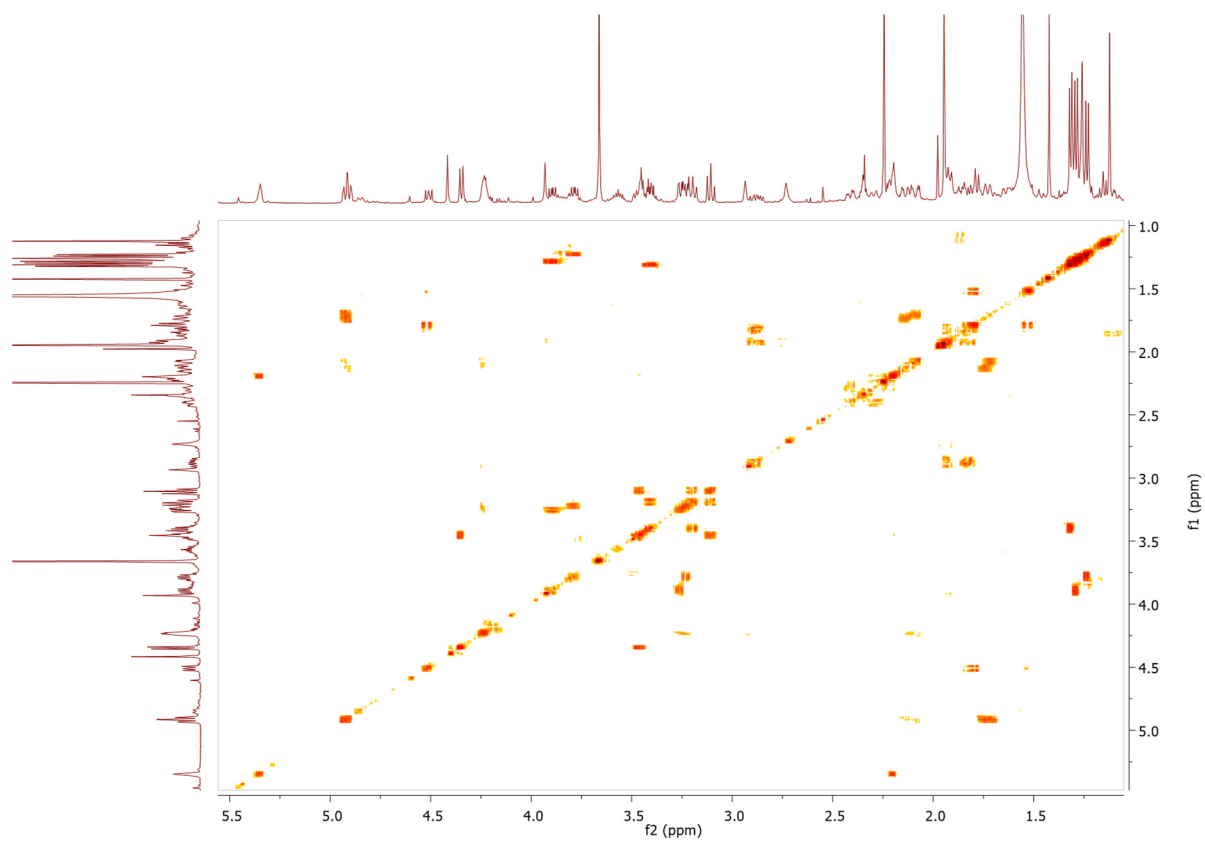


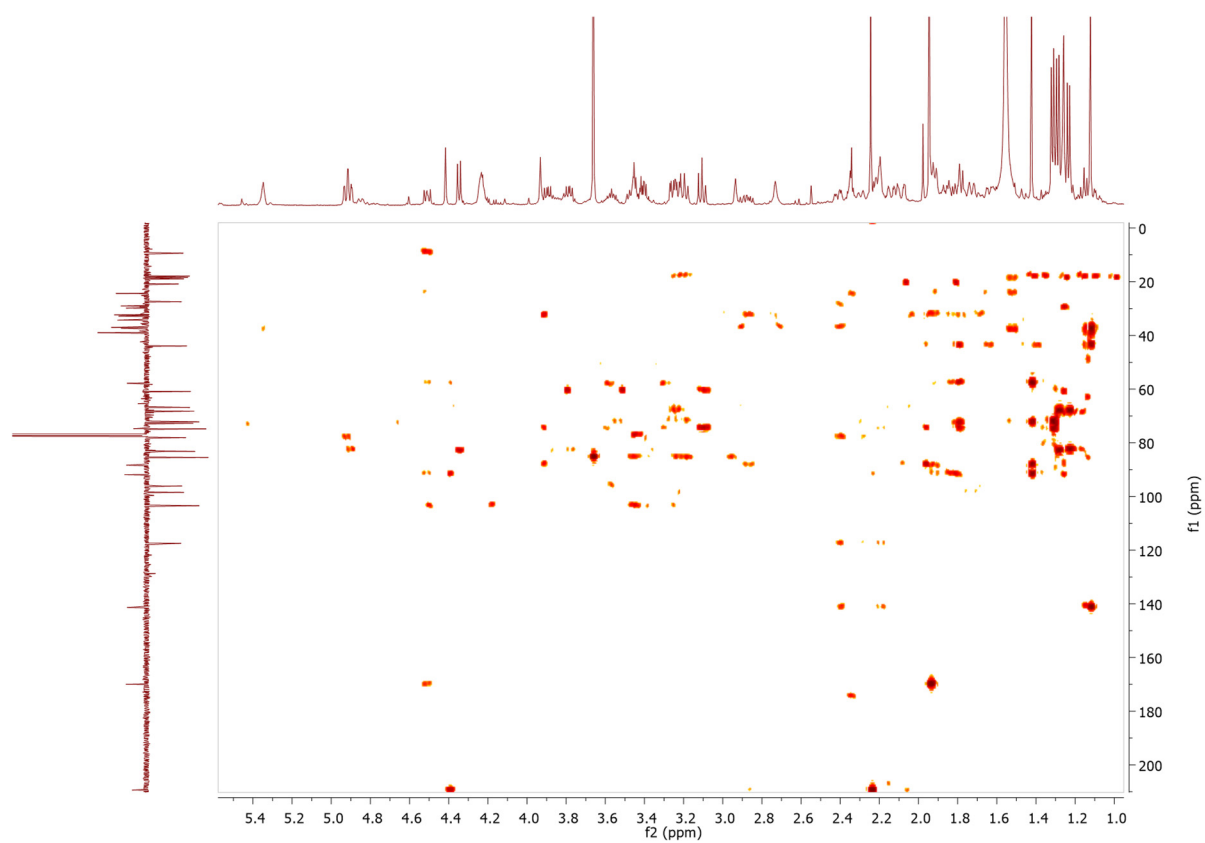
Figure S37. <sup>13</sup>C (JMOD) spectrum of compound **7** (125 MHz, in CDCl<sub>3</sub>).



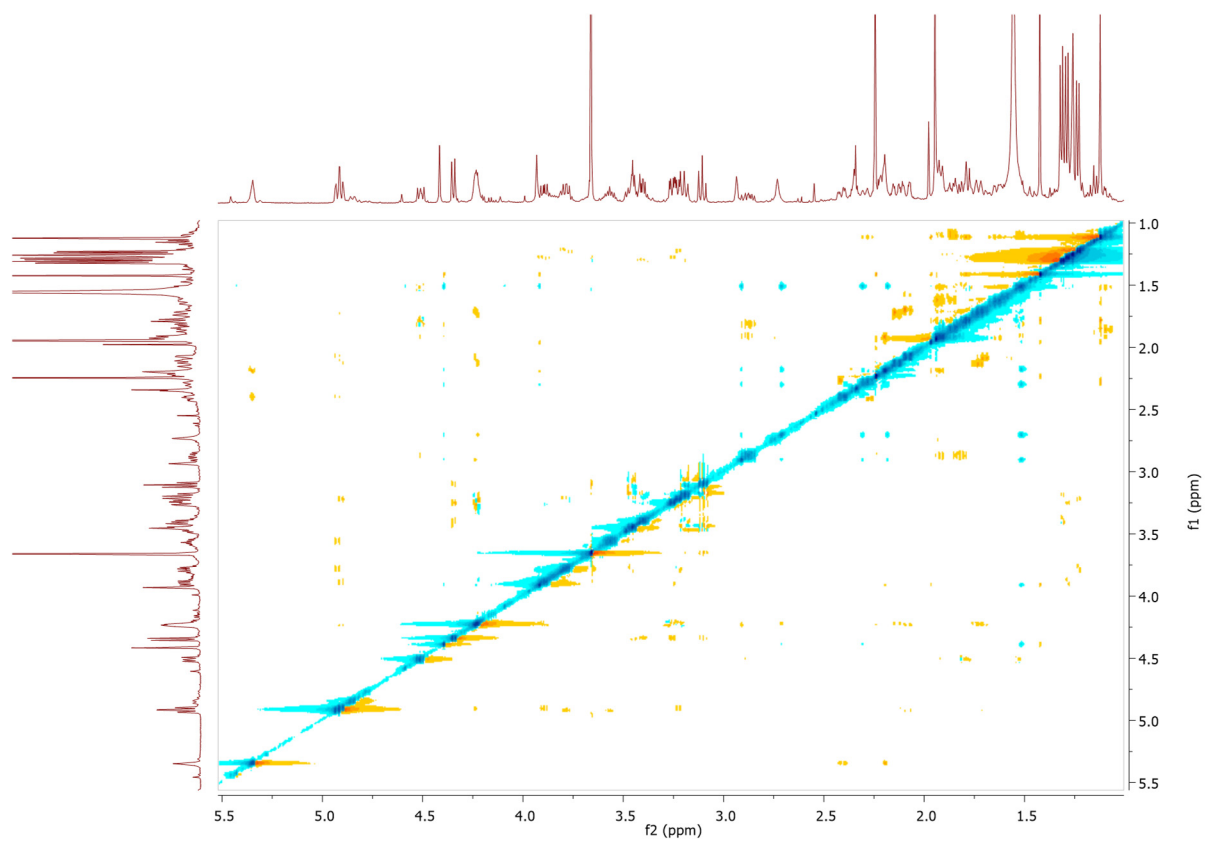
**Figure S38.** HSQC spectrum of compound **7** (in CDCl<sub>3</sub>).



**Figure S39.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound **7** (in CDCl<sub>3</sub>).



**Figure S40.** HMBC spectrum of compound **7** (in CDCl<sub>3</sub>).



**Figure S41.** NOESY spectrum of compound **7** (in CDCl<sub>3</sub>).

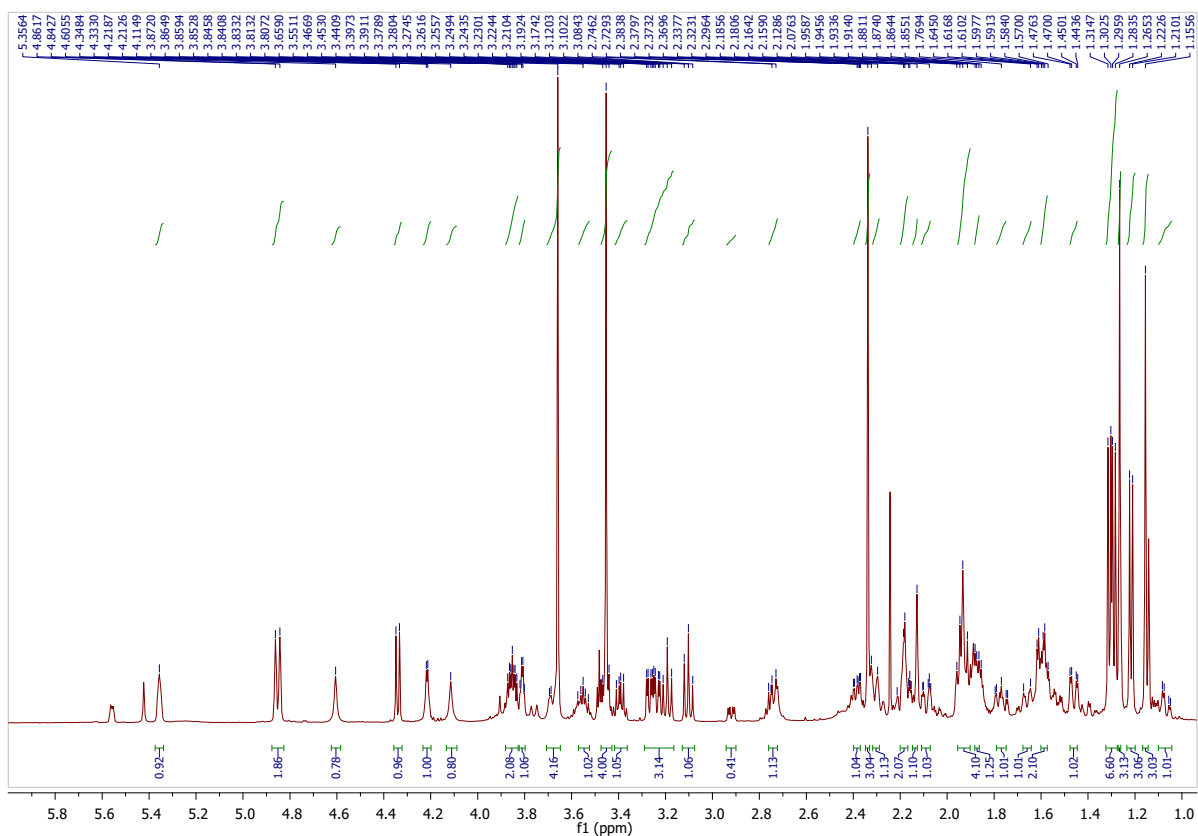


Figure S42. <sup>1</sup>H NMR spectrum of compound **8** (500 MHz, in CDCl<sub>3</sub>).

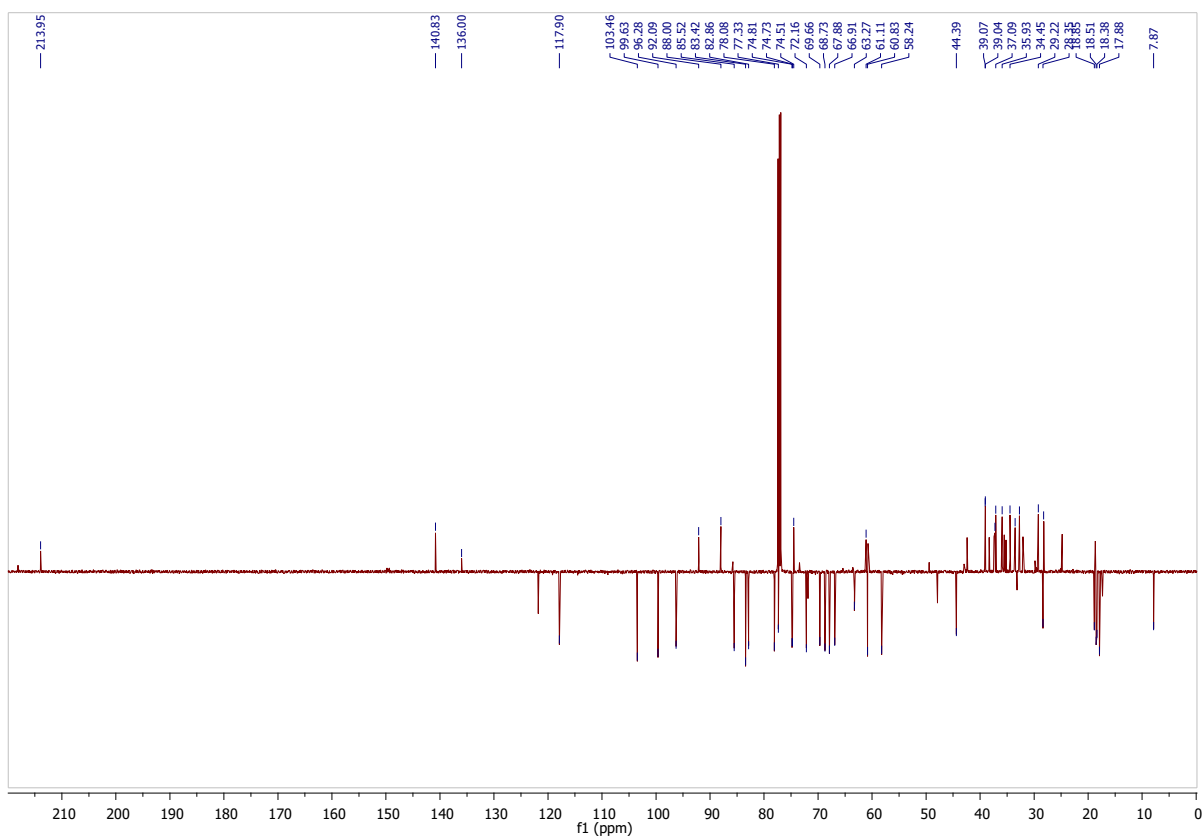
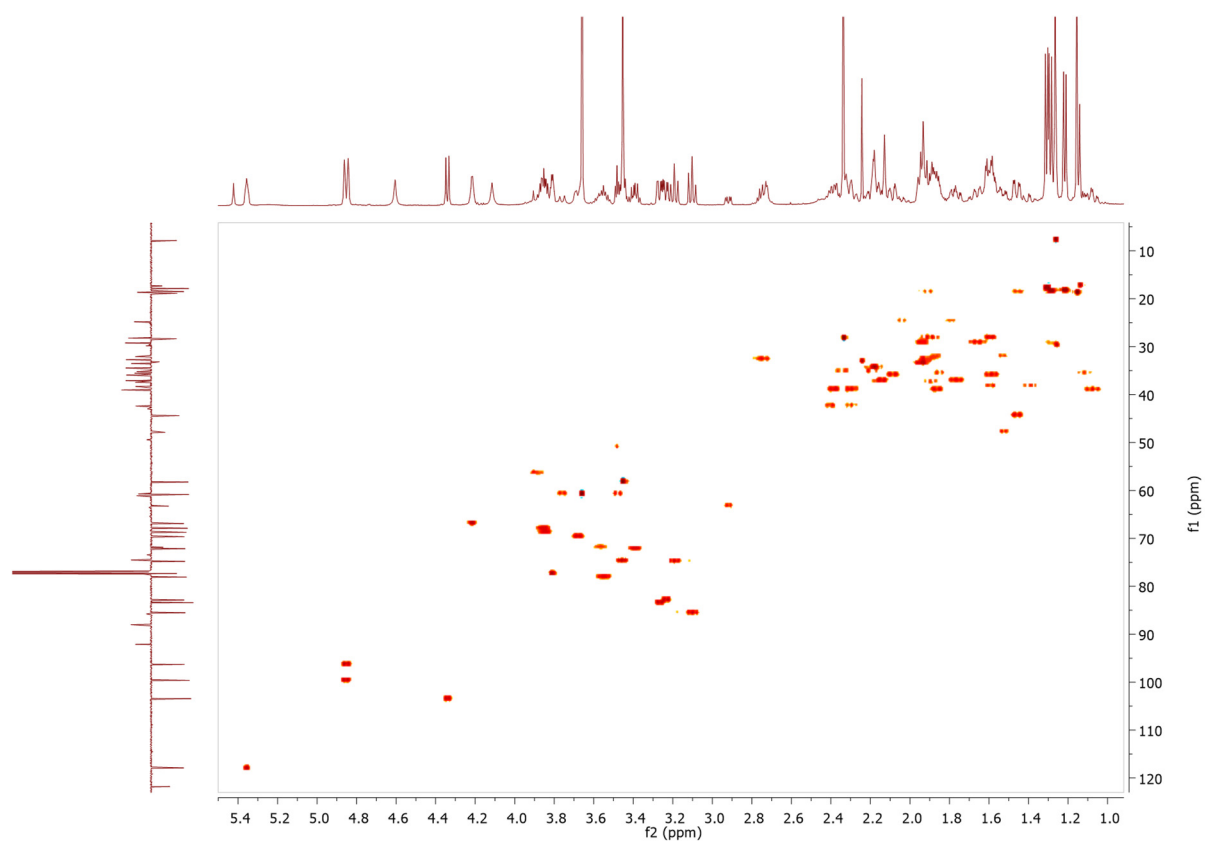
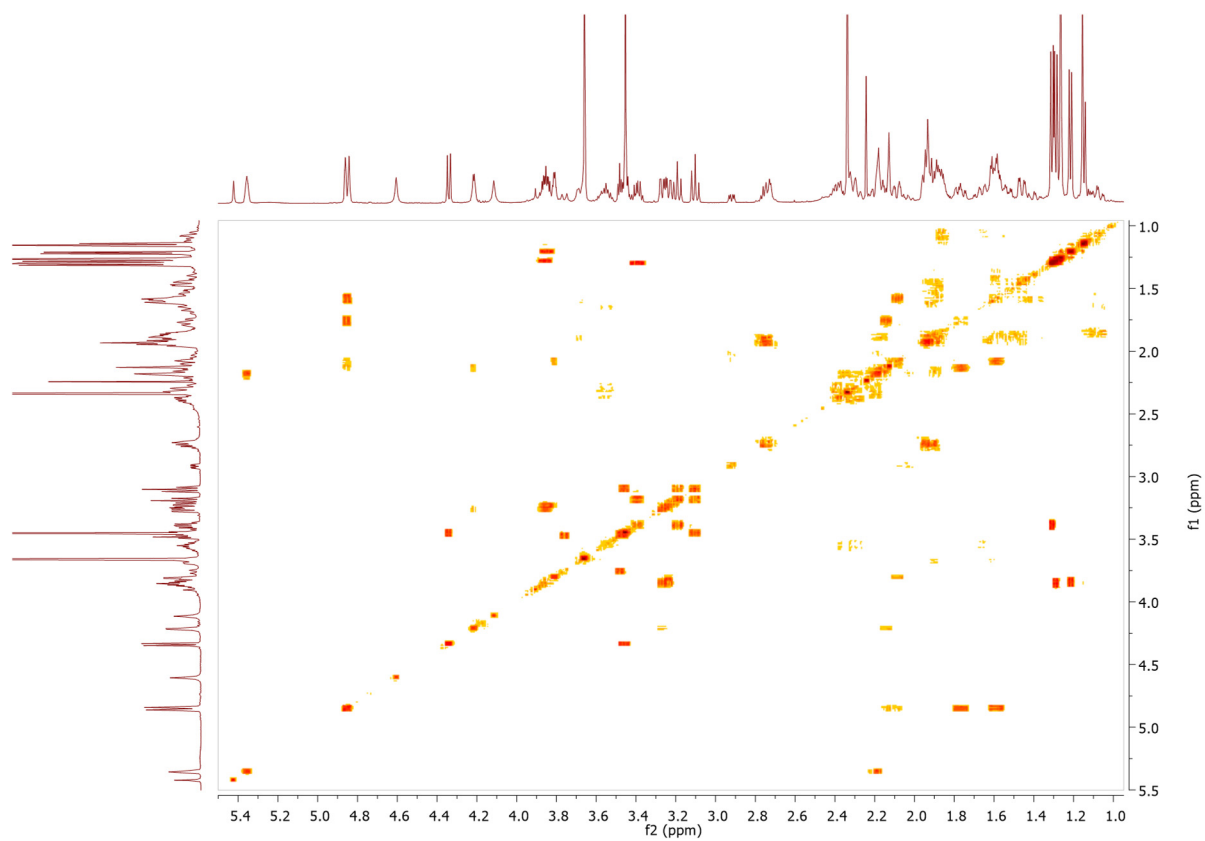


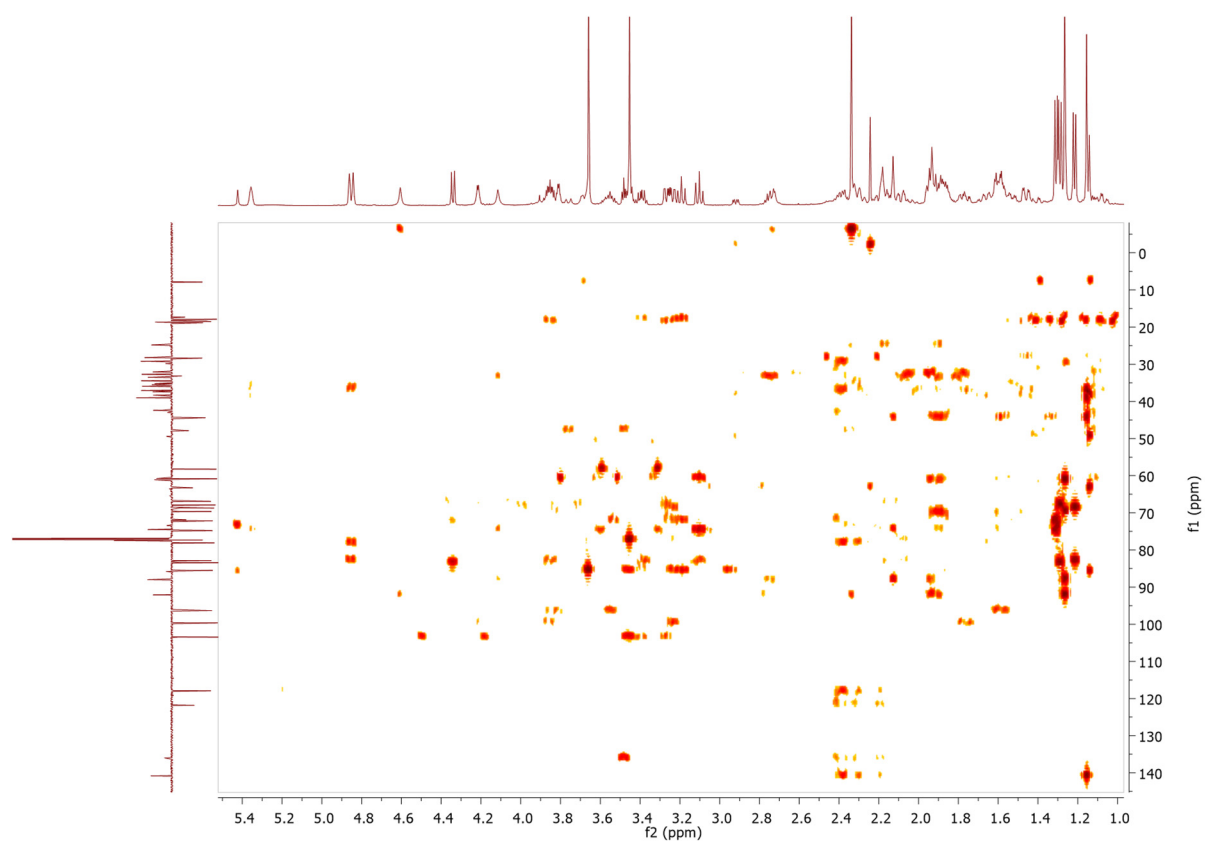
Figure S43. <sup>13</sup>C (JMOD) NMR spectrum of compound **8** (125 MHz, in CDCl<sub>3</sub>).



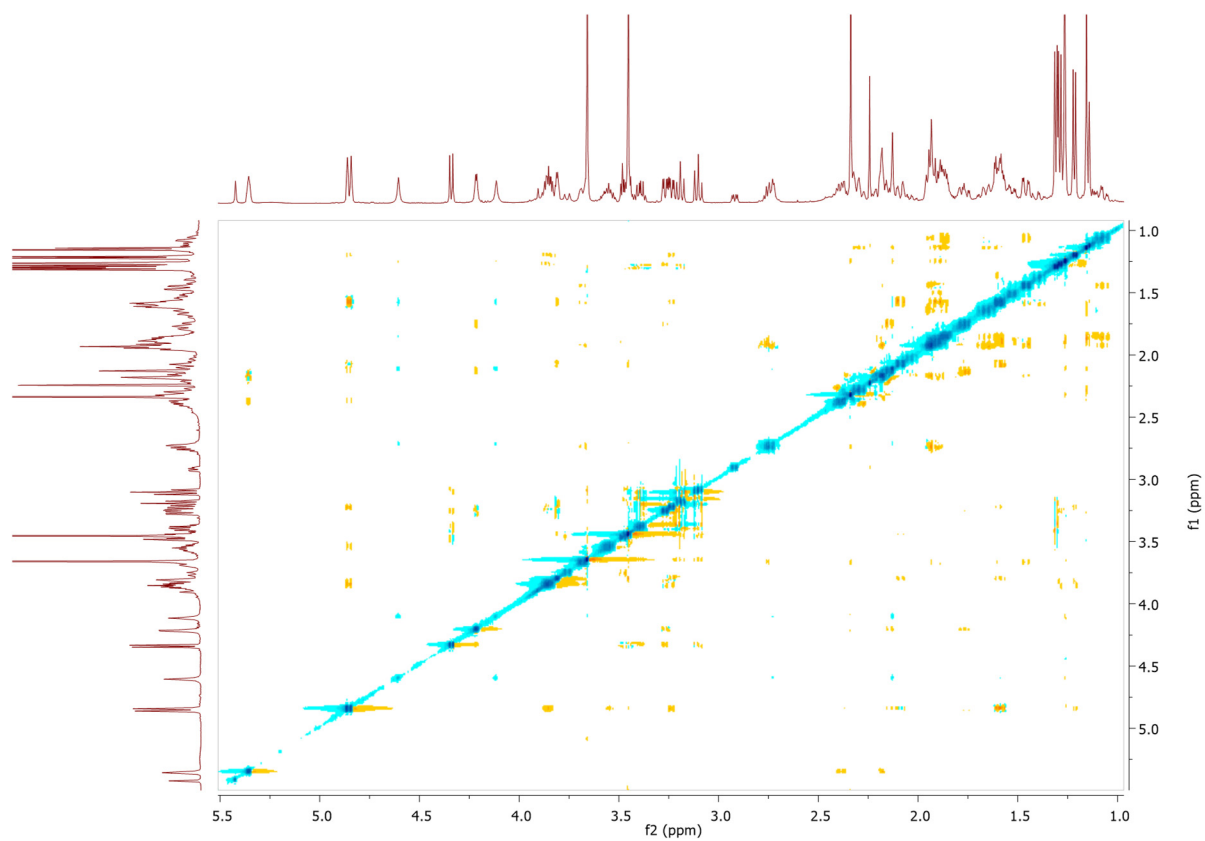
**Figure S44.** HSQC spectrum of compound **8** (in  $\text{CDCl}_3$ ).



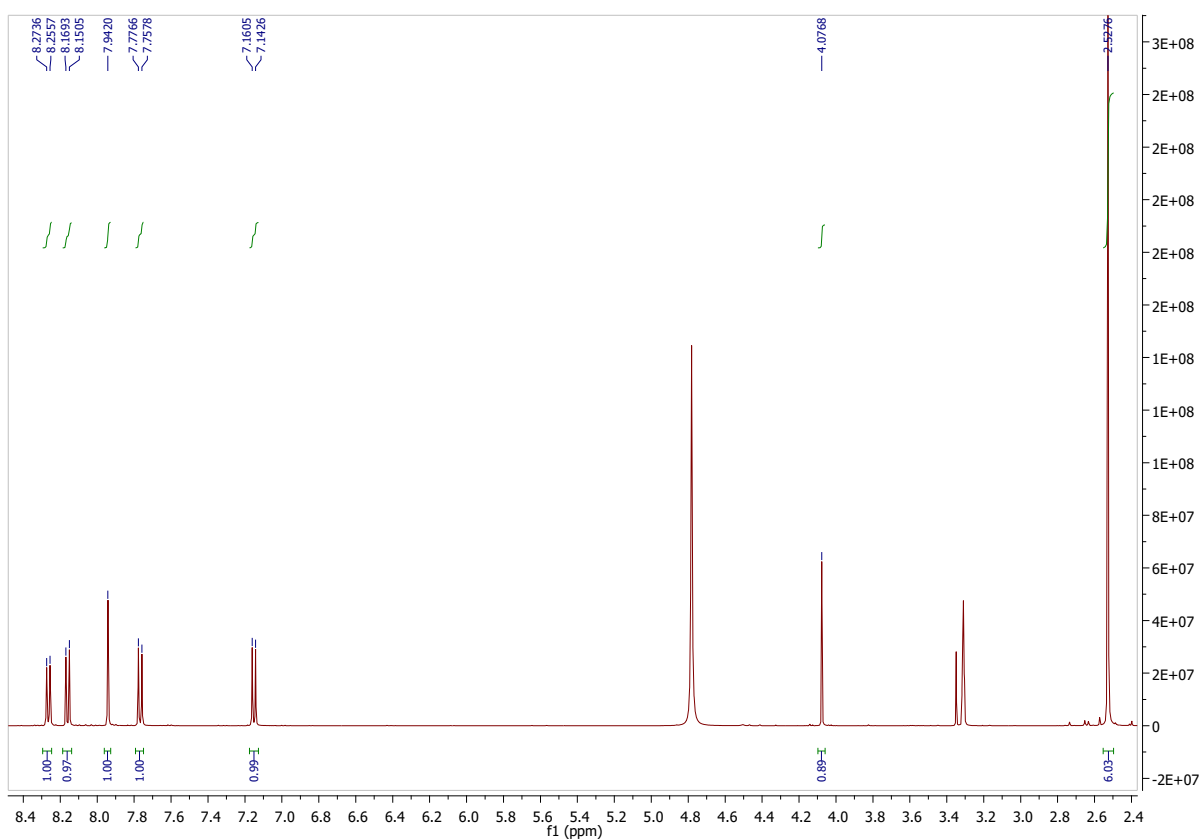
**Figure S45.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **8** (in  $\text{CDCl}_3$ ).



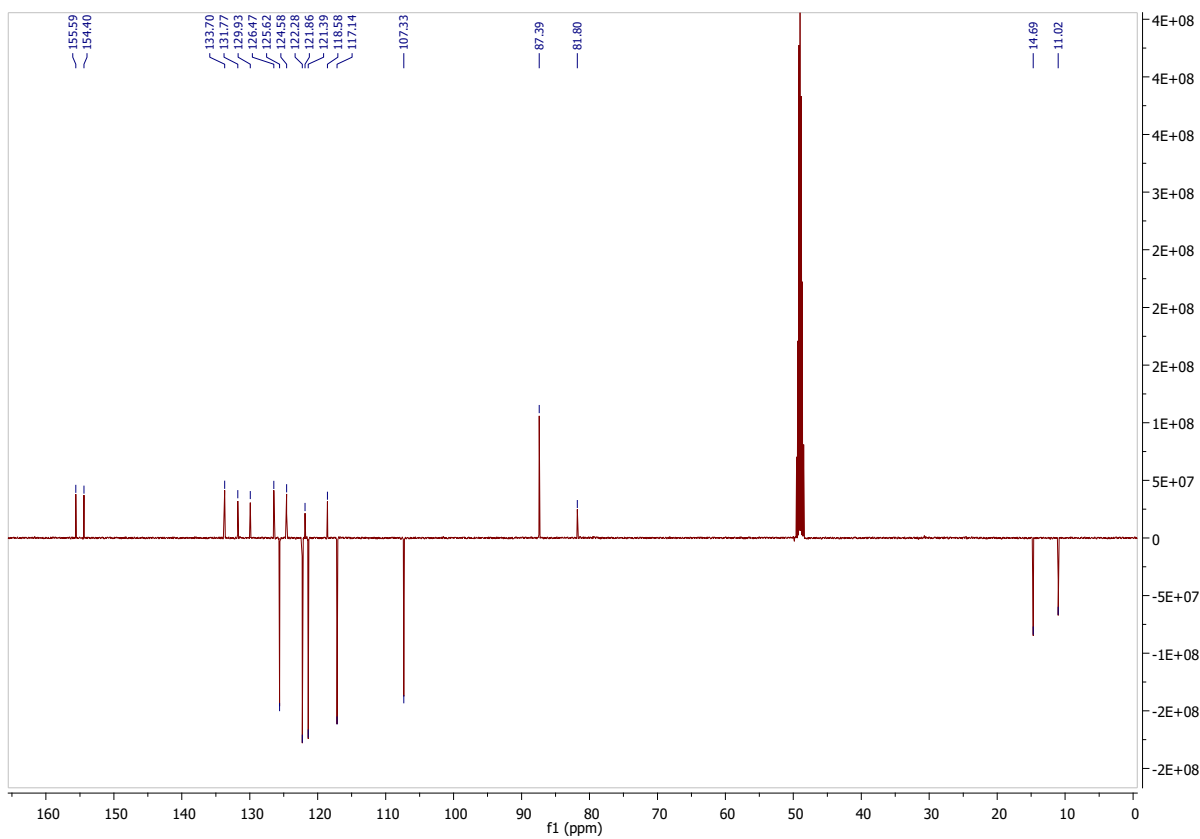
**Figure S46.** HMBC spectrum of compound **8** (in CDCl<sub>3</sub>).



**Figure S47.** NOESY spectrum of compound **8** (in CDCl<sub>3</sub>).

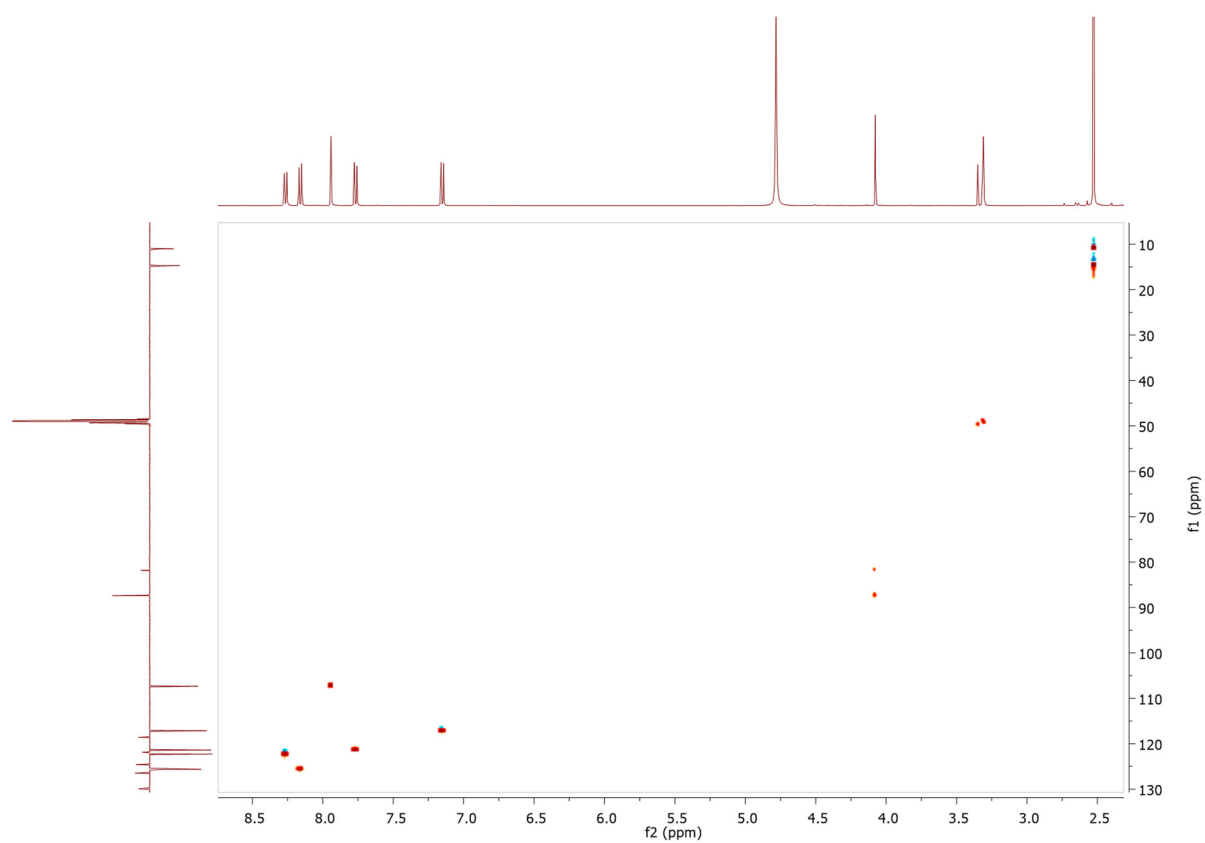


**Figure S48.** <sup>1</sup>H NMR spectrum of compound **9** (500 Mz, in CD<sub>3</sub>OD).

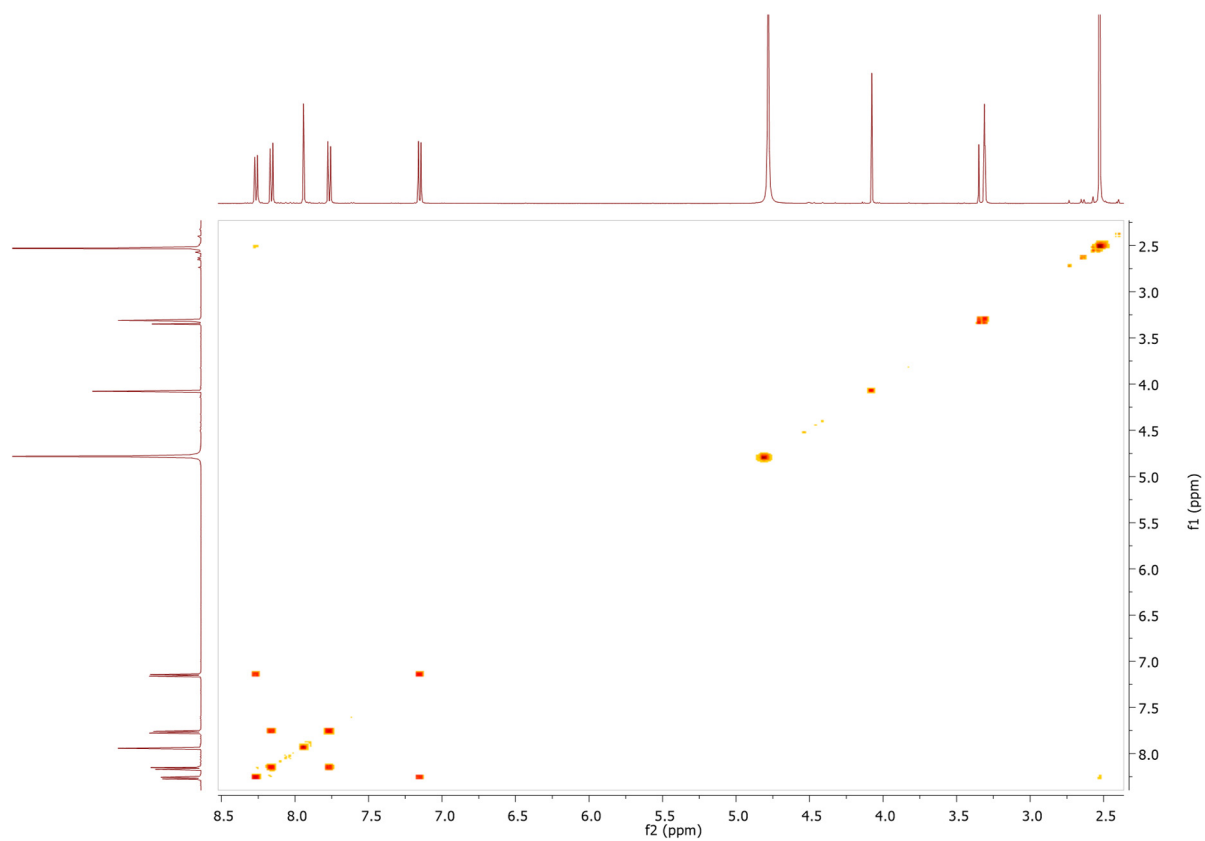


**Figure S49.** <sup>13</sup>C (JMOD) NMR spectrum of compound **9** (125 MHz, in CD<sub>3</sub>OD).

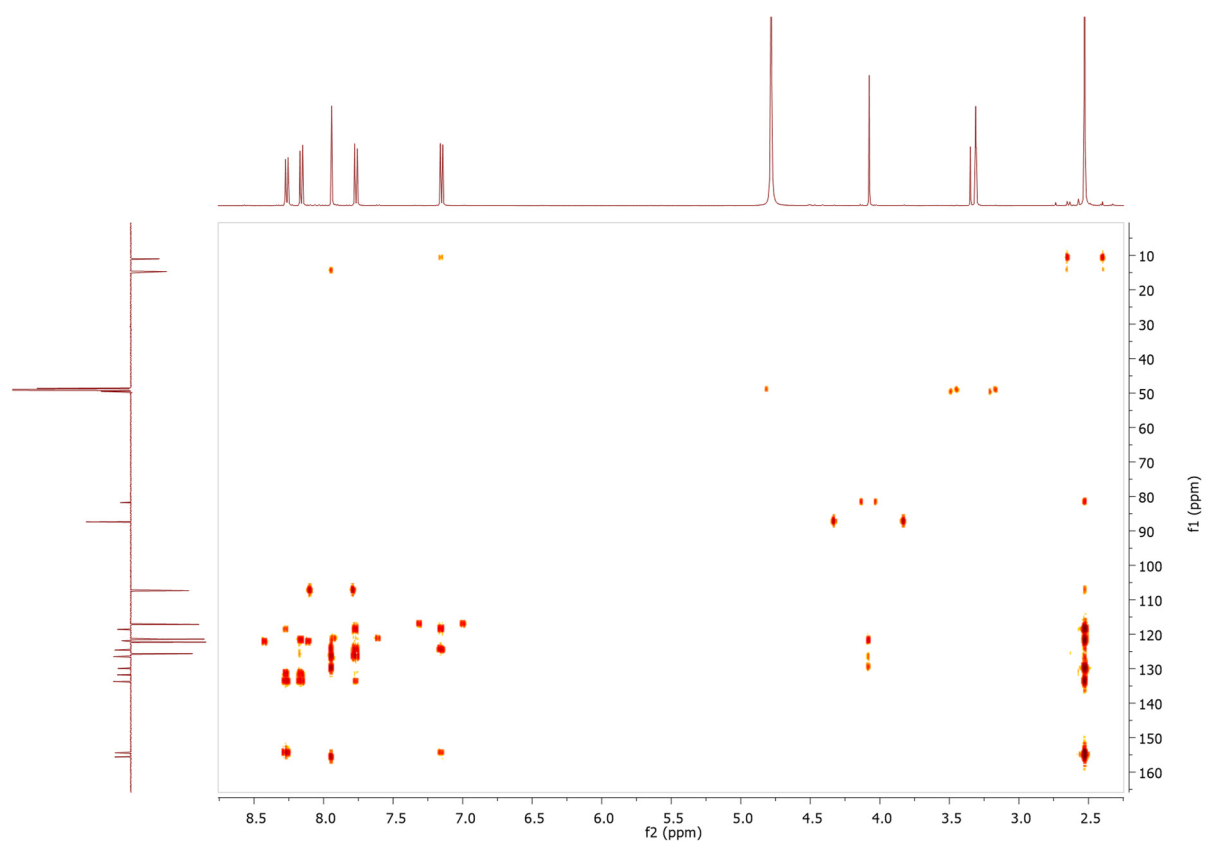




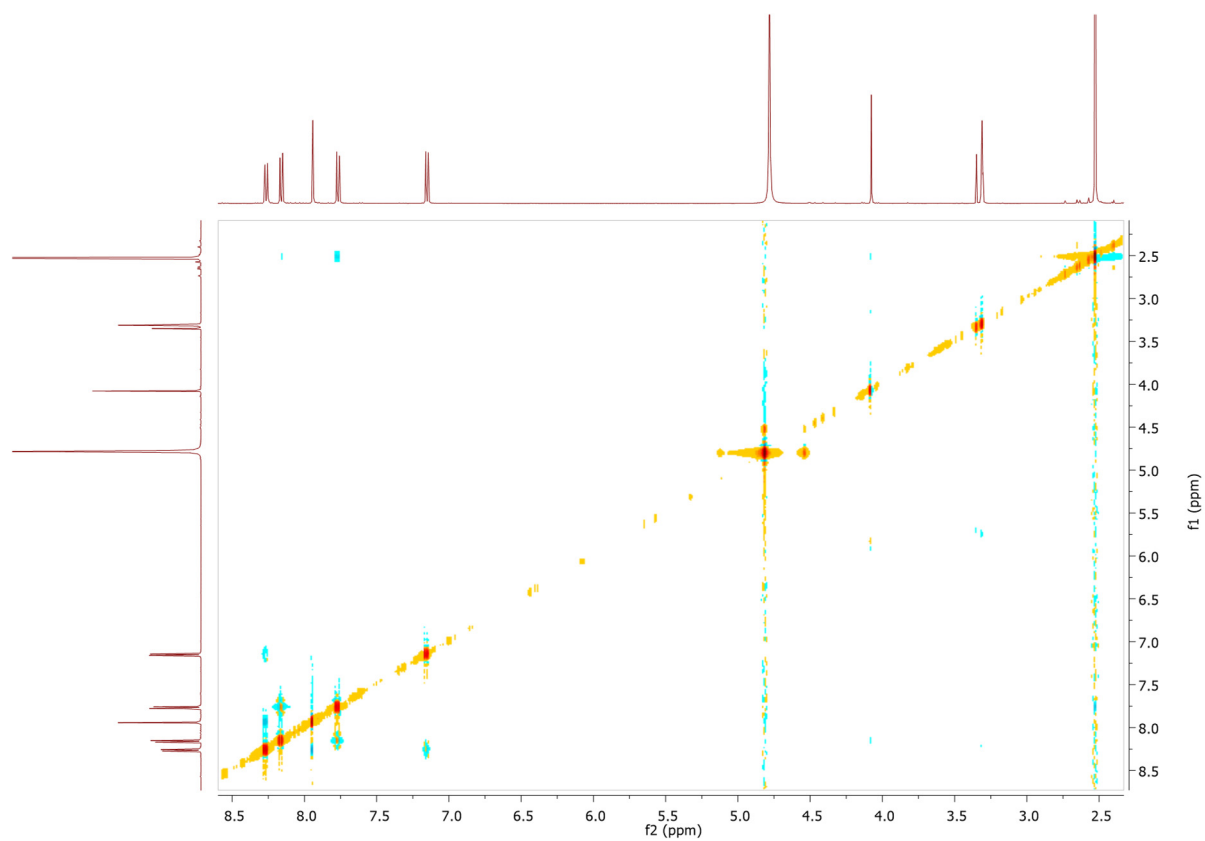
**Figure S50.** HSQC spectrum of compound **9** (in CD<sub>3</sub>OD).



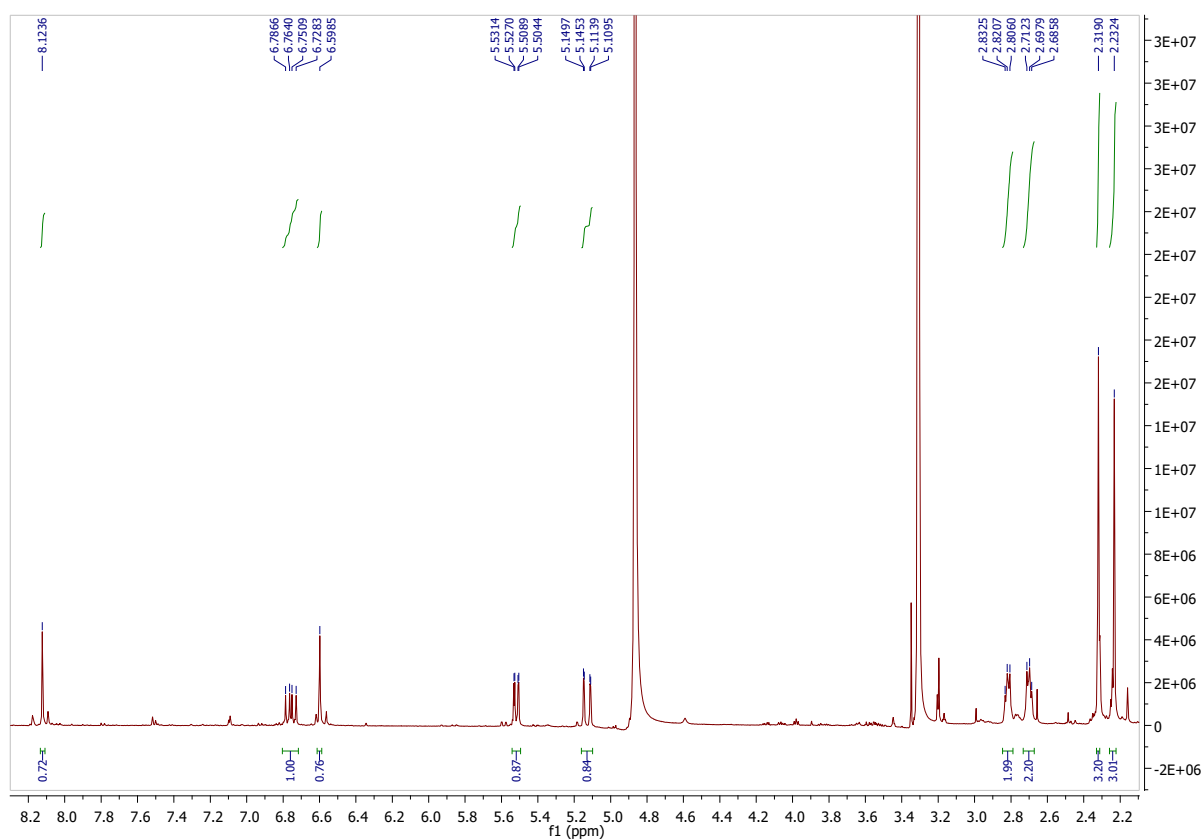
**Figure S51.** <sup>1</sup>H-<sup>1</sup>H COSY spectrum of compound **9** (in CD<sub>3</sub>OD).



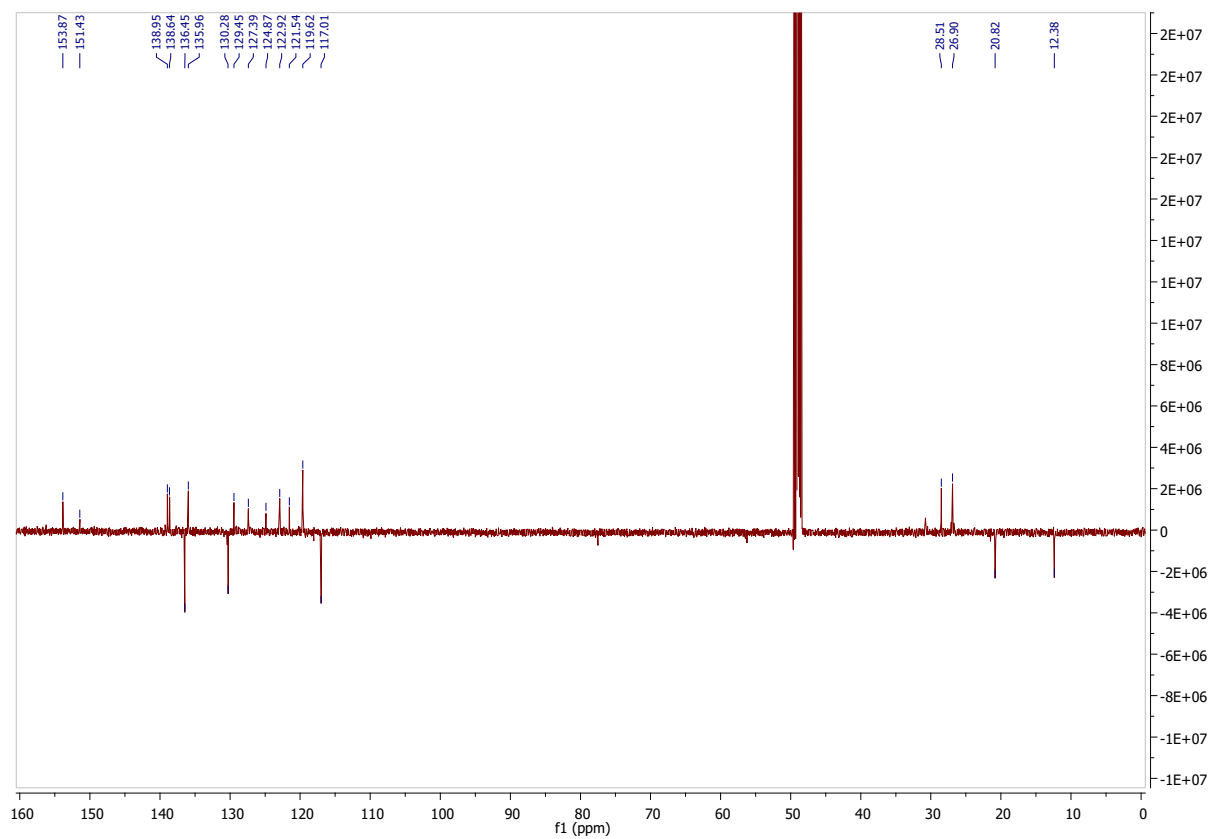
**Figure S52.** HMBC spectrum of compound **9** (in CD<sub>3</sub>OD).



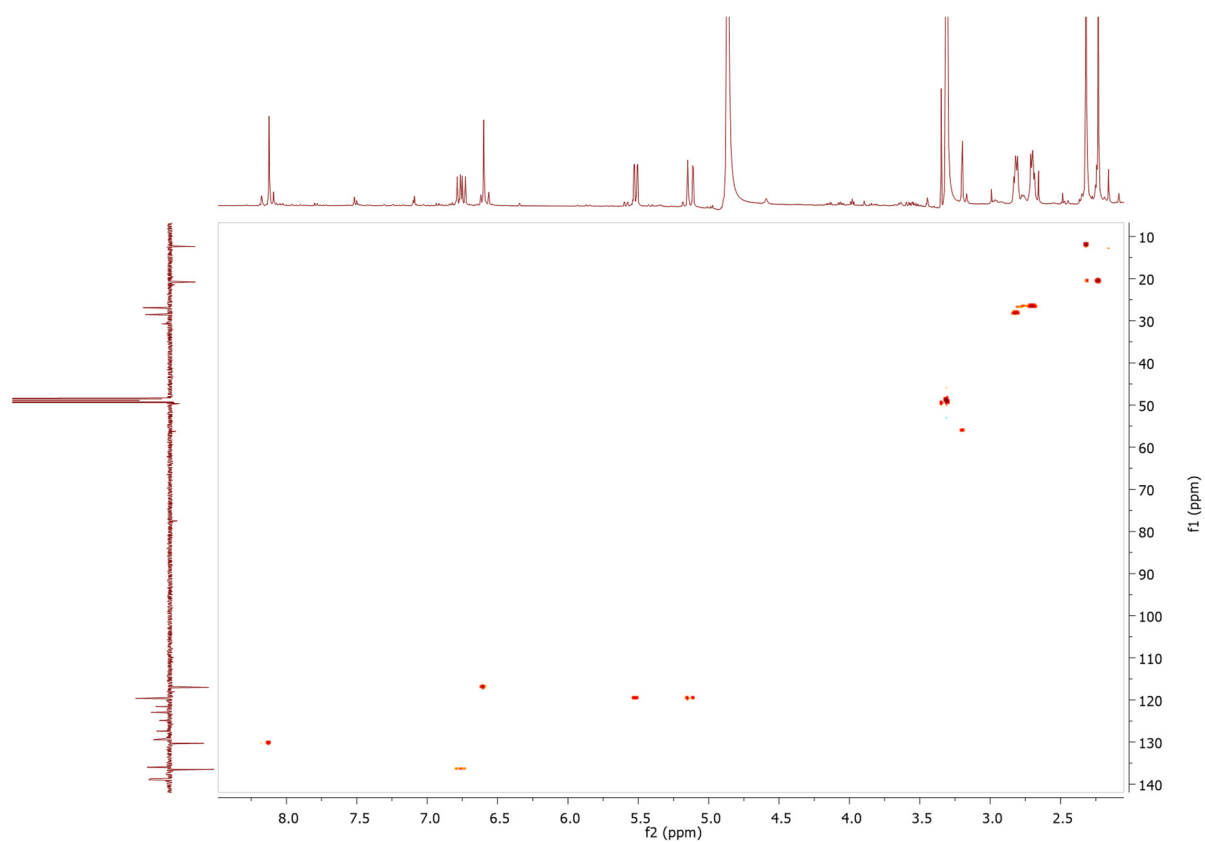
**Figure S53.** NOESY spectrum of compound **9** (in CD<sub>3</sub>OD).



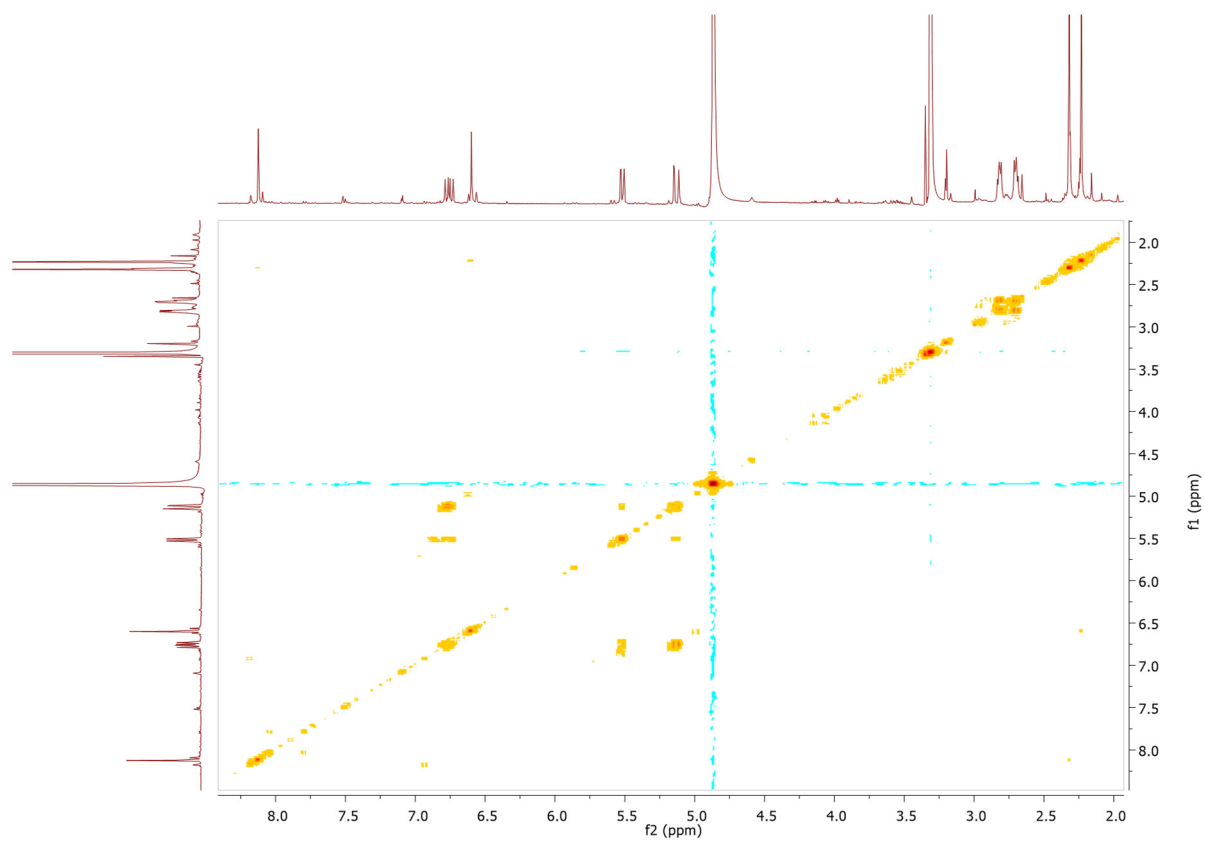
**Figure S54.**  $^1\text{H}$  NMR spectrum of compound **10** (500 Mz, in  $\text{CD}_3\text{OD}$ ).



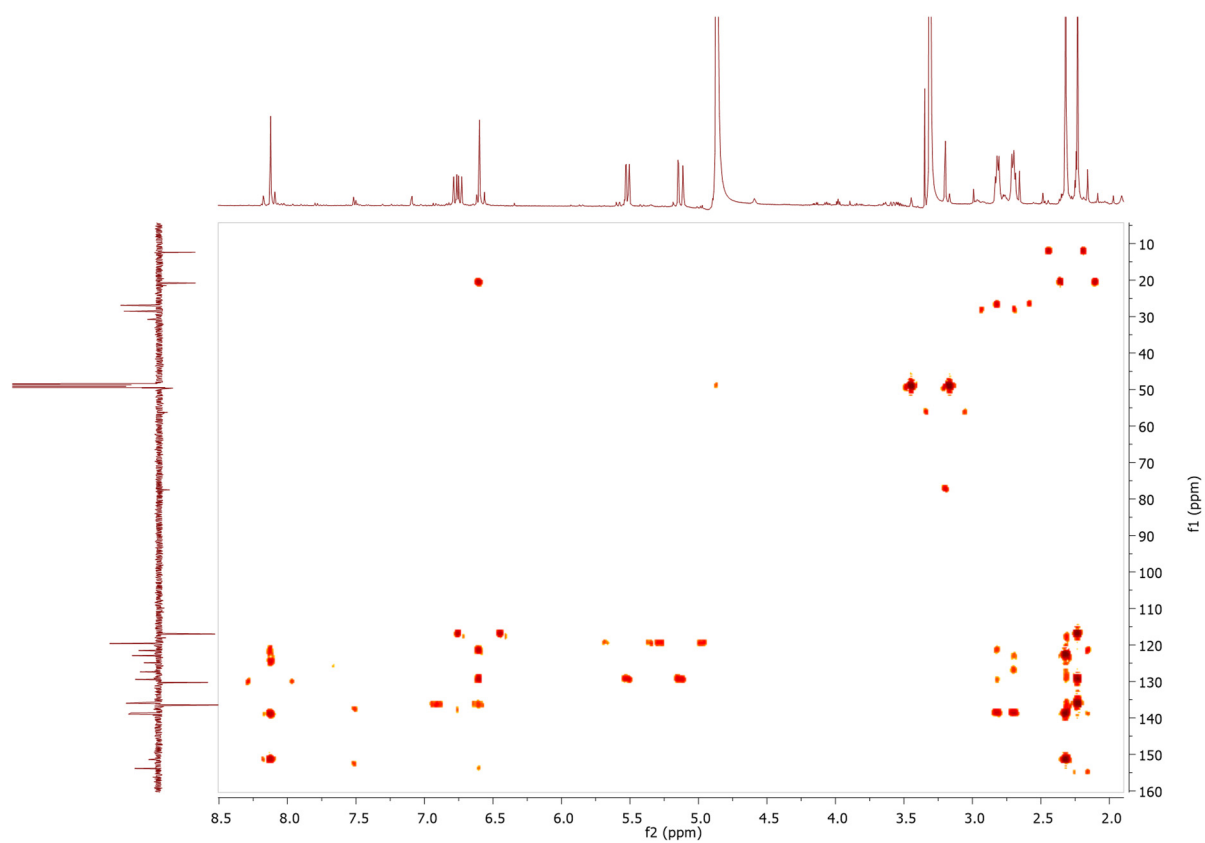
**Figure S55.**  $^{13}\text{C}$  (JMOD) NMR spectrum of compound **10** (125 MHz, in  $\text{CD}_3\text{OD}$ ).



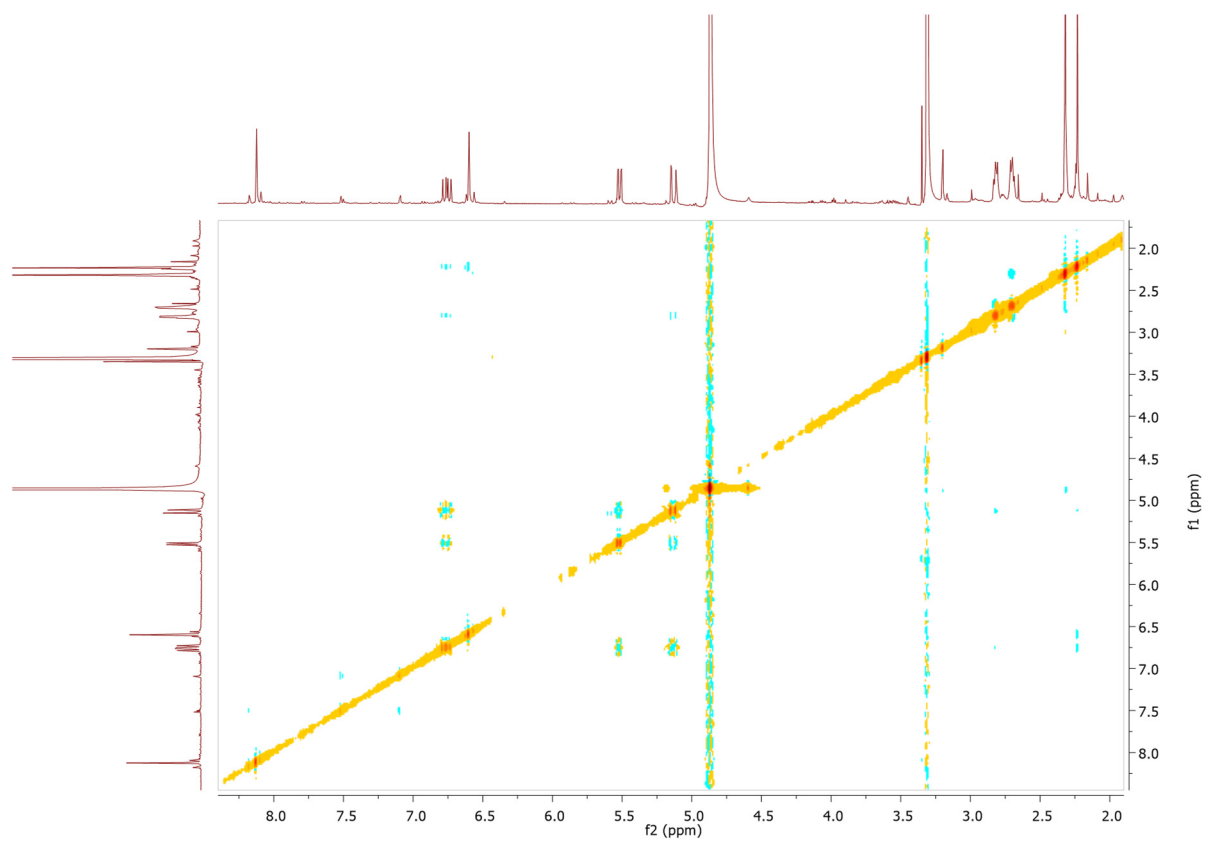
**Figure S56.** HSQC spectrum of compound **10** (in  $\text{CD}_3\text{OD}$ ).



**Figure S57.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **10** (in  $\text{CD}_3\text{OD}$ ).



**Figure S58.** HMBC spectrum of compound **10** (in CD<sub>3</sub>OD).



**Figure S59.** NOESY spectrum of compound **10** (in CD<sub>3</sub>OD).

**Table S1.** Antiproliferative activity of the isolated compounds (**1-3**, **5-12**) in HeLa cell line.

Compounds	IC <sub>50</sub> (μM)	SD (+/-)
<b>1</b>	52,38	0,23
<b>2</b>	>100	-
<b>3</b>	>100	-
<b>5</b>	>100	-
<b>6</b>	>100	-
<b>7</b>	>100	-
<b>8</b>	>100	-
<b>9</b>	>100	-
<b>10</b>	>100	-
<b>11</b>	>100	-
<b>12</b>	>100	-
<b>DOX</b>	0,02	0,003
<b>CIS</b>	2,07	0,07
<b>DMSO</b>	>2 V/V%	-