

## **Isolation and target identification of antihepatoma polyprenylphenols from edible mushroom *Suillus granulatus***

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**Fig. S1.** HRESI-MS of compound **2**

**Fig. S2.**  $^1\text{H}$  NMR spectrum of compound **2**

**Fig. S3.**  $^{13}\text{C}$  NMR spectrum of compound **2**

**Fig. S4.** HSQC spectrum of compound **2**

**Fig. S5.** HMBC spectrum of compound **2**

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**Fig. S9.**  $^1\text{H}$  NMR spectrum of compound **3**

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**Fig. S17.**  $^{13}\text{C}$  NMR spectrum of compound **4**

**Fig. S18.** HSQC spectrum of compound **4**

**Fig. S19.** HMBC spectrum of compound **4**

**Fig. S20.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **4**

**Fig. S21.** Noesy spectrum of compound **4**

**Fig. S22.** HRESI-MS of compound **5**

**Fig. S23.**  $^1\text{H}$  NMR spectrum of compound **5**

**Fig. S24.**  $^{13}\text{C}$  NMR spectrum of compound **5**

**Fig. S25.** HSQC spectrum of compound **5**

**Fig. S26.** HMBC spectrum of compound **5**

**Fig. S27.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **5**

**Fig. S28.** HRESI-MS of compound **6**

**Fig. S29.**  $^1\text{H}$  NMR spectrum of compound **6**

**Fig. S30.**  $^{13}\text{C}$  NMR spectrum of compound **6**

**Fig. S31.** HSQC spectrum of compound **6**

**Fig. S32.** HMBC spectrum of compound **6**

**Fig. S33.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **6**

**Fig. S34.** Noesy spectrum of compound **6**

**Fig. S35.** HRESI-MS of compound **7**

**Fig. S36.**  $^1\text{H}$  NMR spectrum of compound **7**

**Fig. S37.**  $^{13}\text{C}$  NMR spectrum of compound **7**

**Fig. S38.** HSQC spectrum of compound **7**

**Fig. S39.** HMBC spectrum of compound **7**

**Fig. S40.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **7**

**Fig. S41.** Noesy spectrum of compound **7**

**Fig. S42.** HRESI-MS of compound **8**

**Fig. S43.**  $^1\text{H}$  NMR spectrum of compound **8**

**Fig. S44.**  $^{13}\text{C}$  NMR spectrum of compound **8**

**Fig. S45.** HSQC spectrum of compound **8**

**Fig. S46.** HMBC spectrum of compound **8**

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**Fig. S48.** The TIC of LC-MS/MS identification

**Fig. S49.** HSP90AA1 peptide mass spectrograms

**Fig. S50.** The original image of the full gel

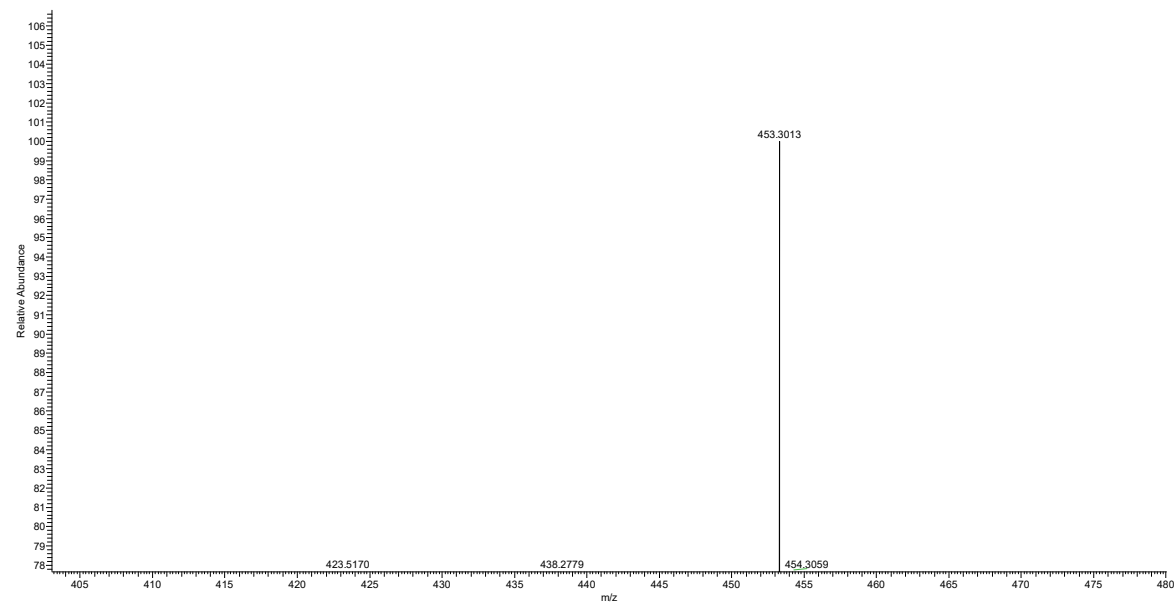


Fig. S1. HRESI-MS of compound 2

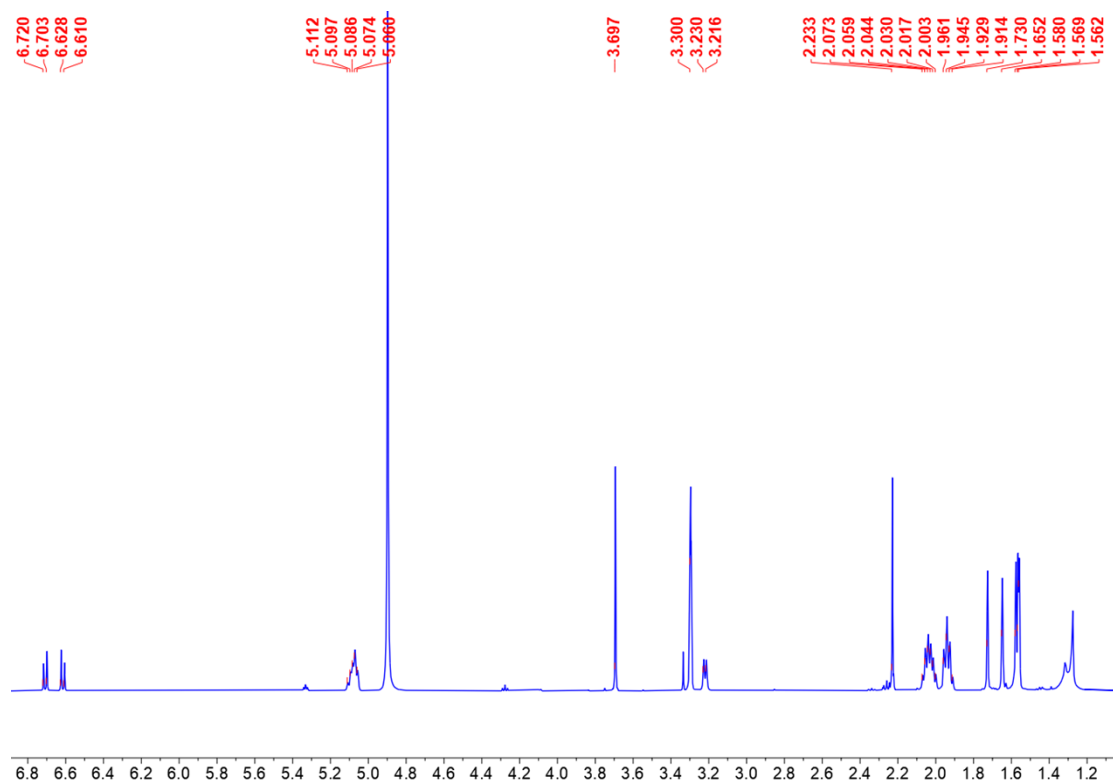


Fig. S2. <sup>1</sup>H NMR spectrum of compound 2

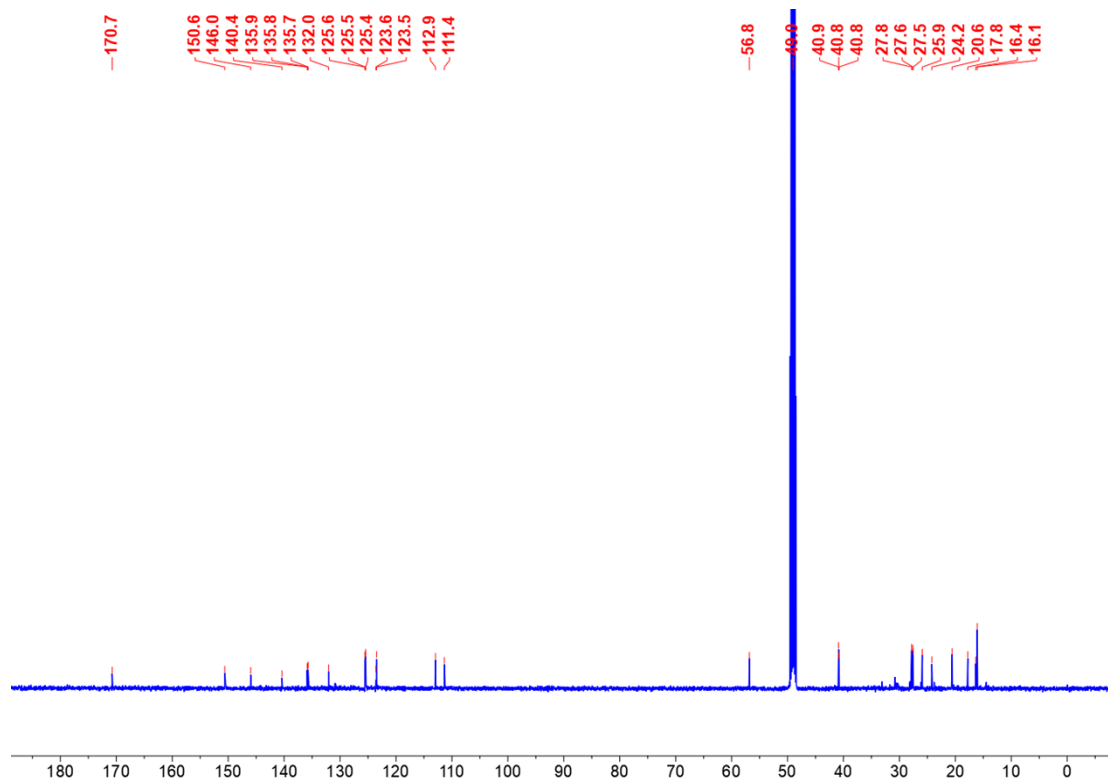


Fig. S3.  $^{13}\text{C}$  NMR spectrum of compound 2

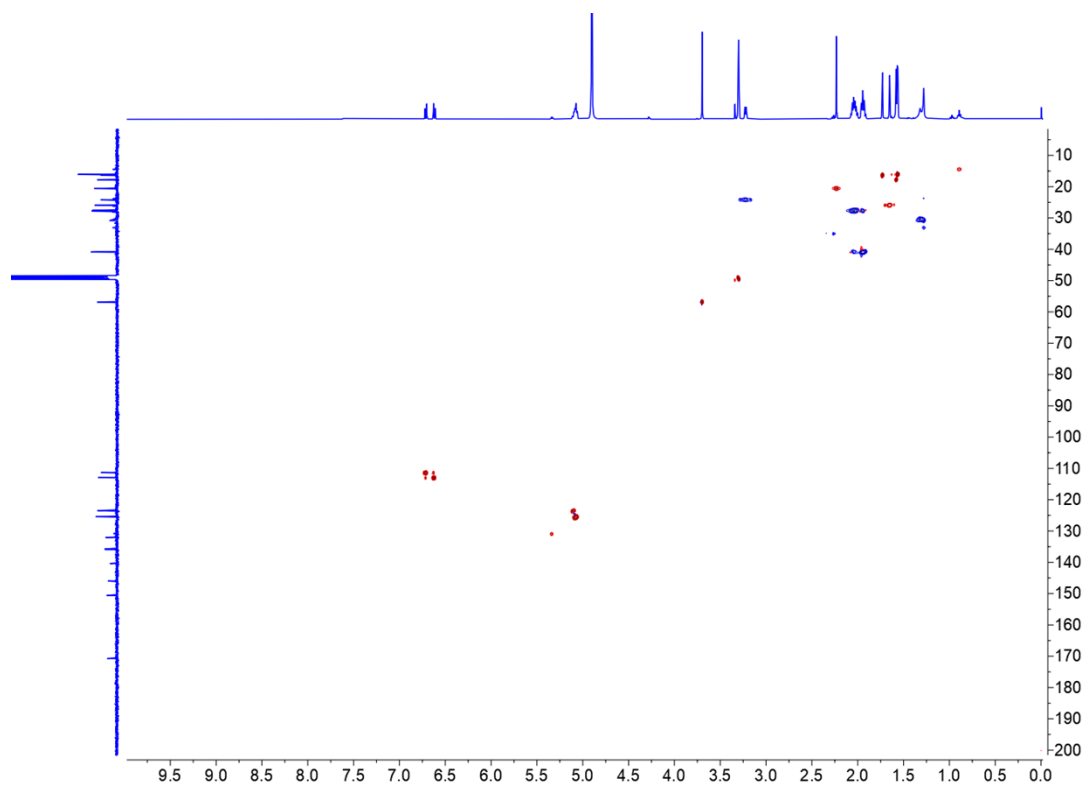


Fig. S4. HSQC spectrum of compound 2

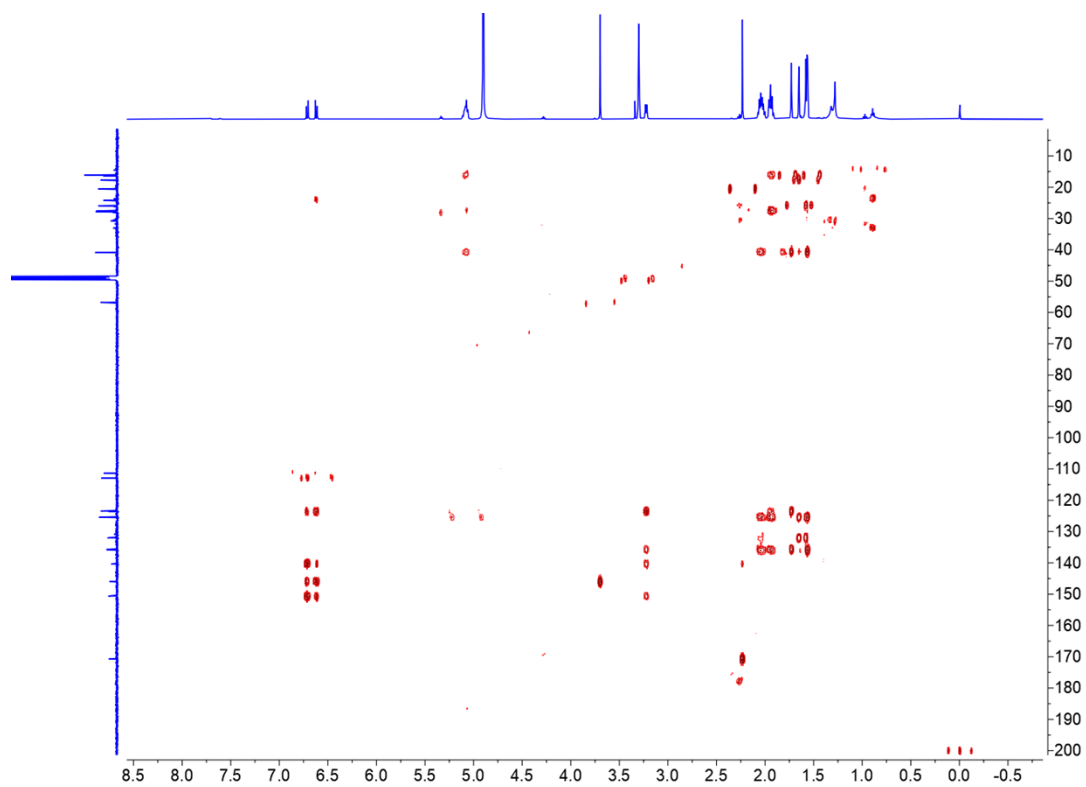


Fig. S5. HMBC spectrum of compound 2

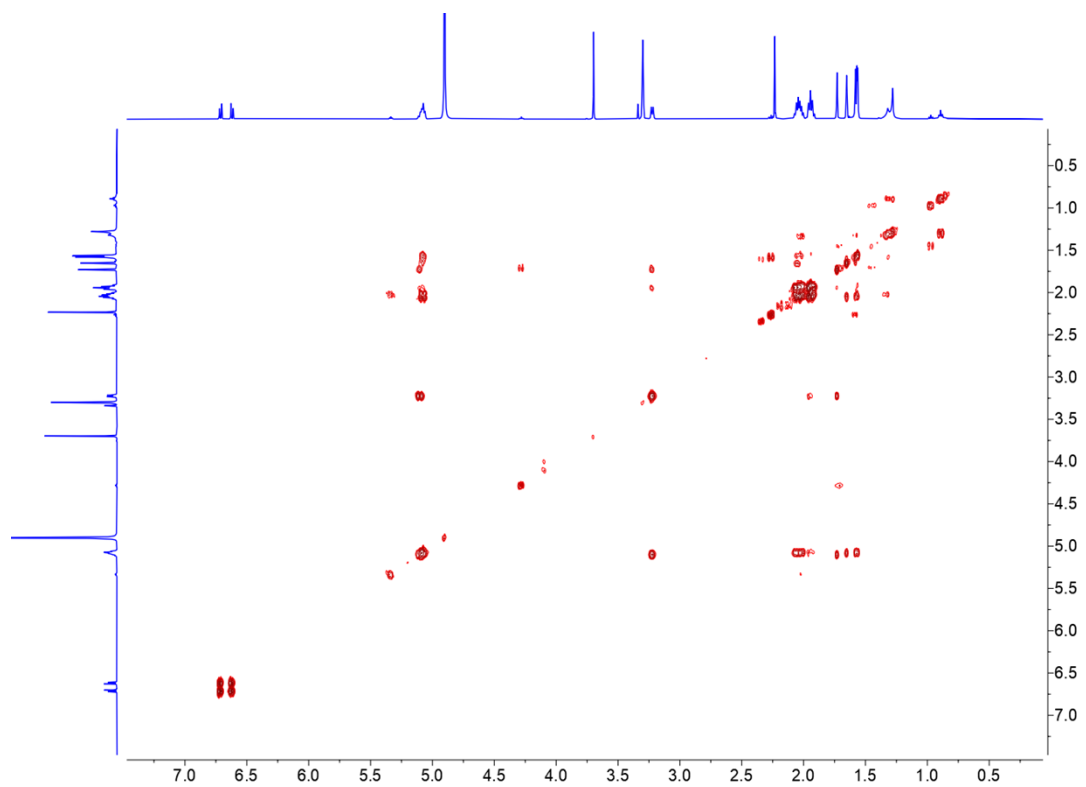
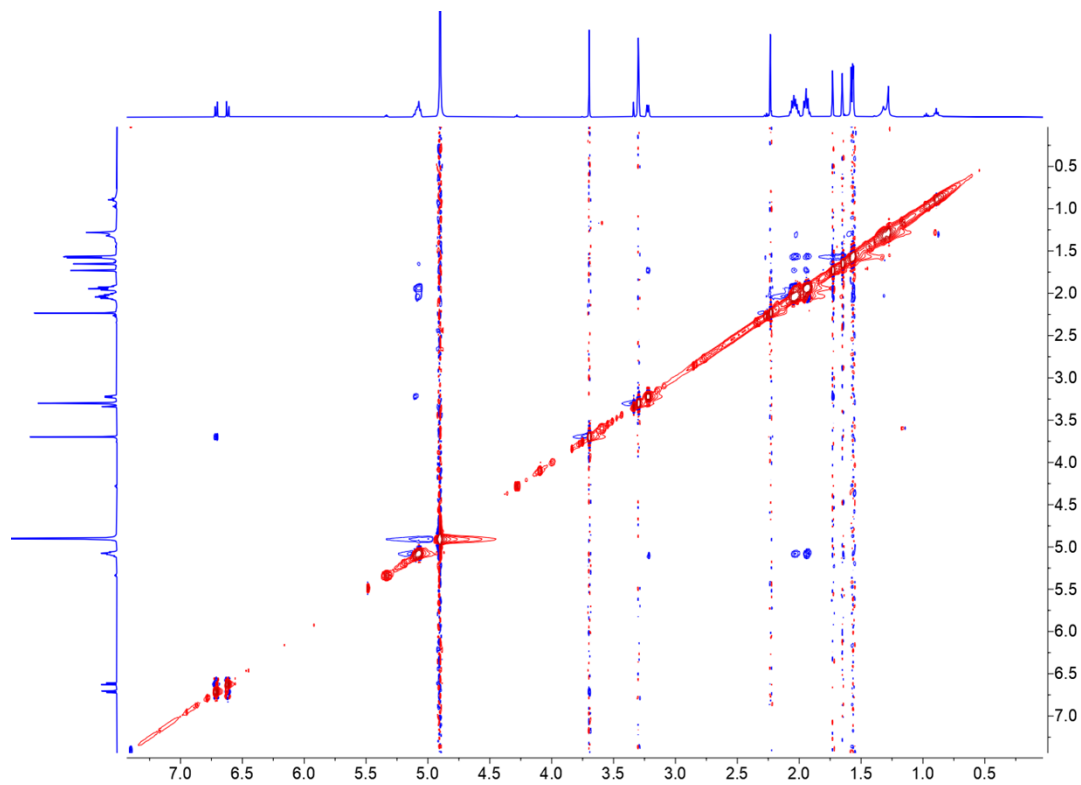
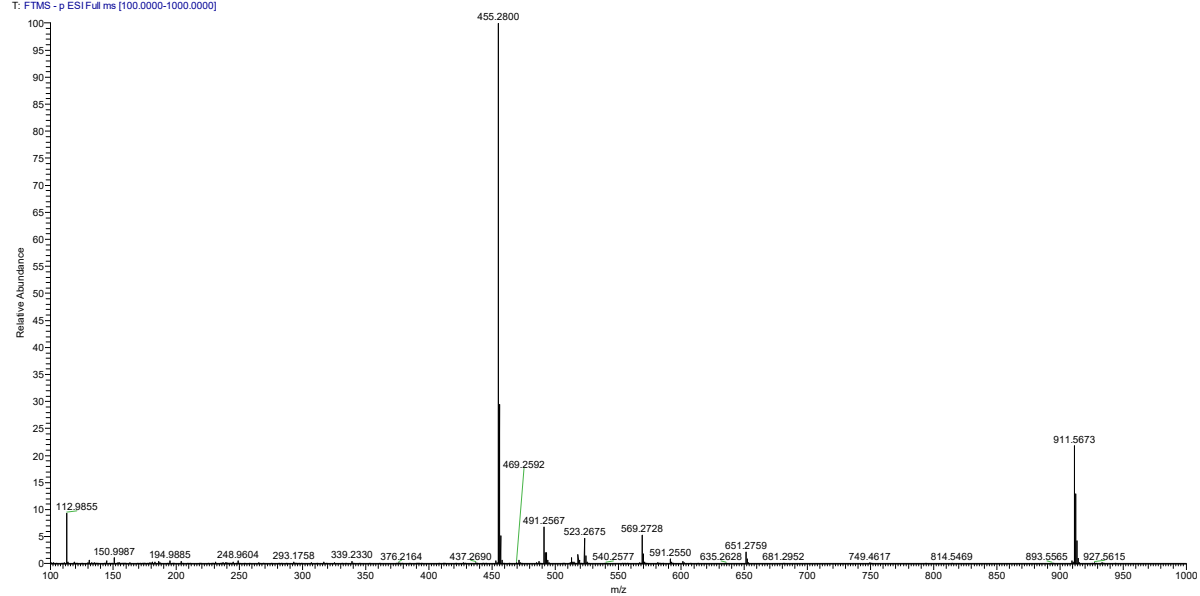


Fig. S6.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 2



**Fig. S7.** Noesy spectrum of compound 2

CB #28 RT: 0.15 AV: 1 NL: 8.87E8  
T: FTMS -p ESI Full ms [100.0000-1000.0000]



**Fig. S8.** HRESI-MS of compound 3

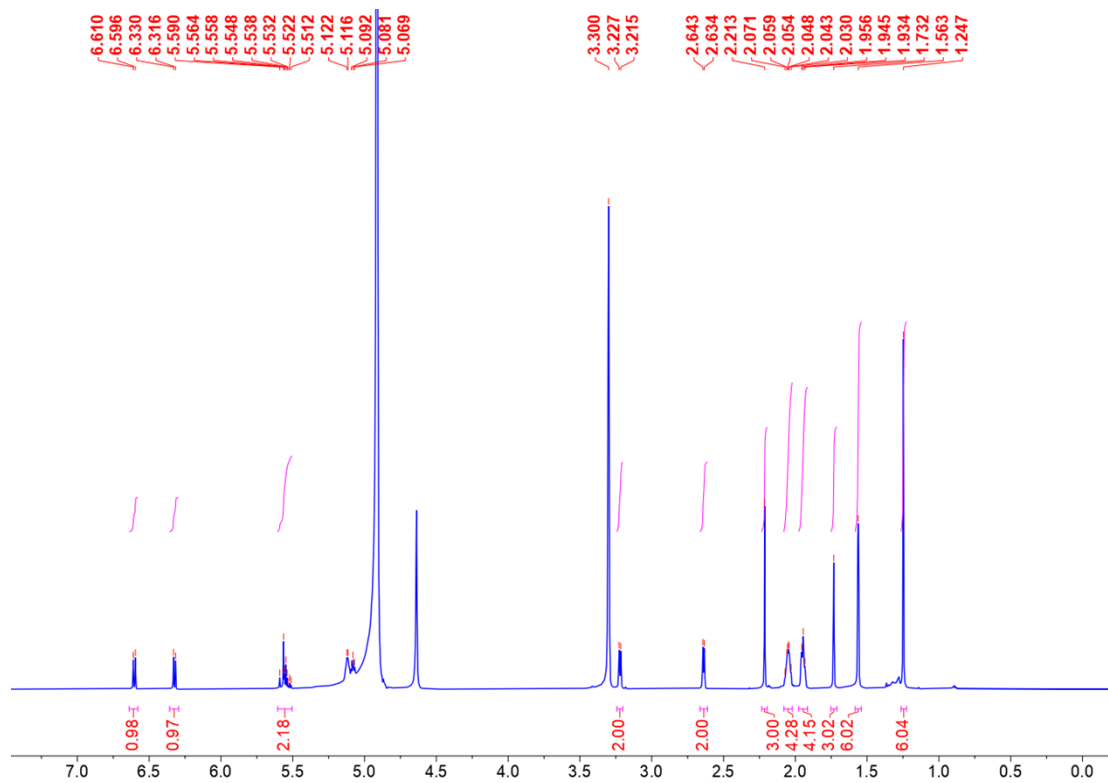


Fig. S9.  $^1\text{H}$  NMR spectrum of compound **3**

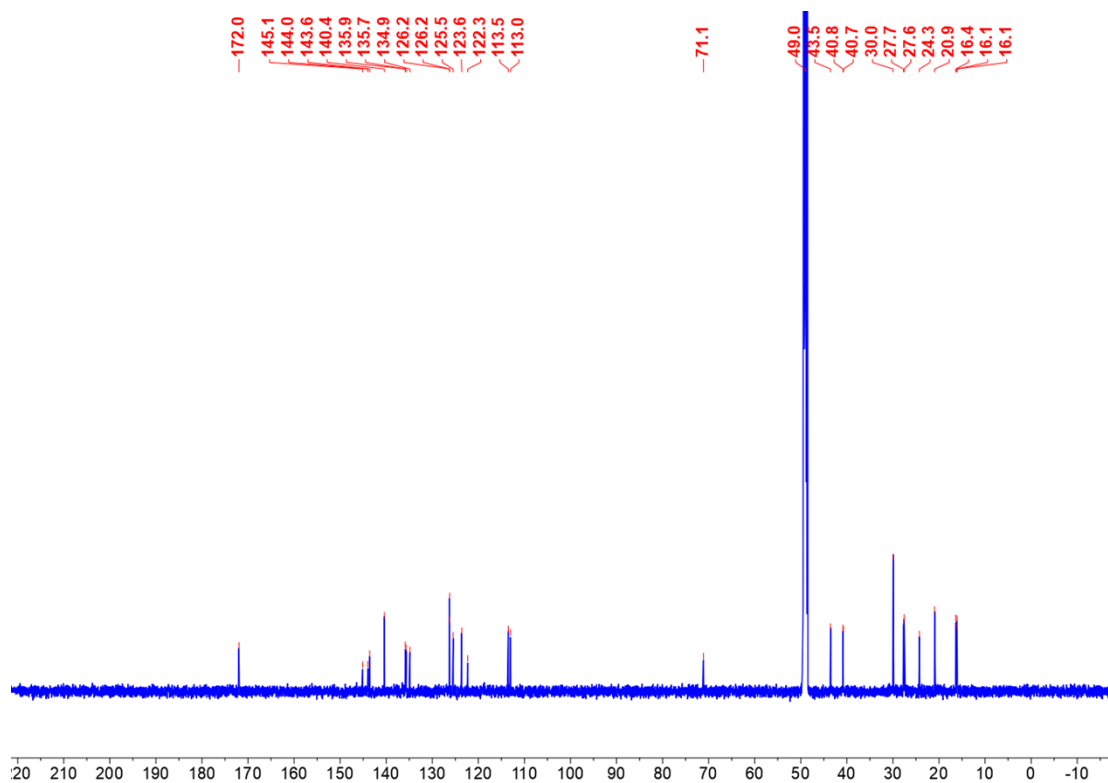


Fig. S10.  $^{13}\text{C}$  NMR spectrum of compound **3**



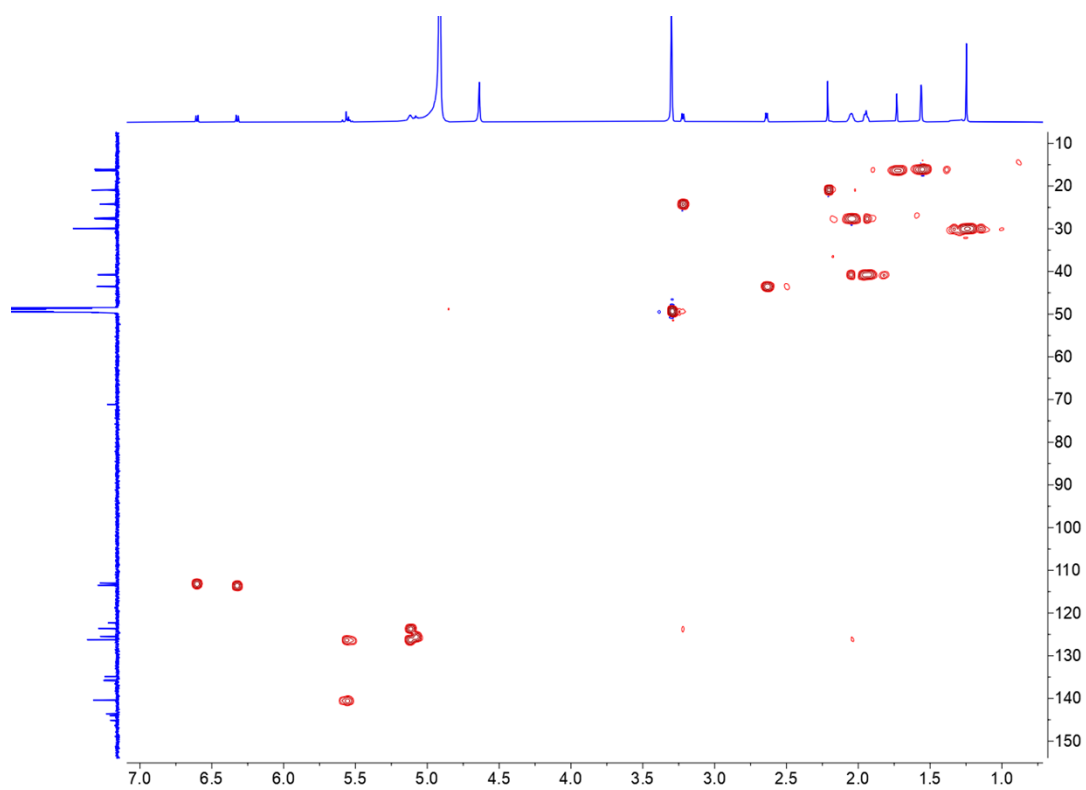


Fig. S11. HSQC spectrum of compound **3**

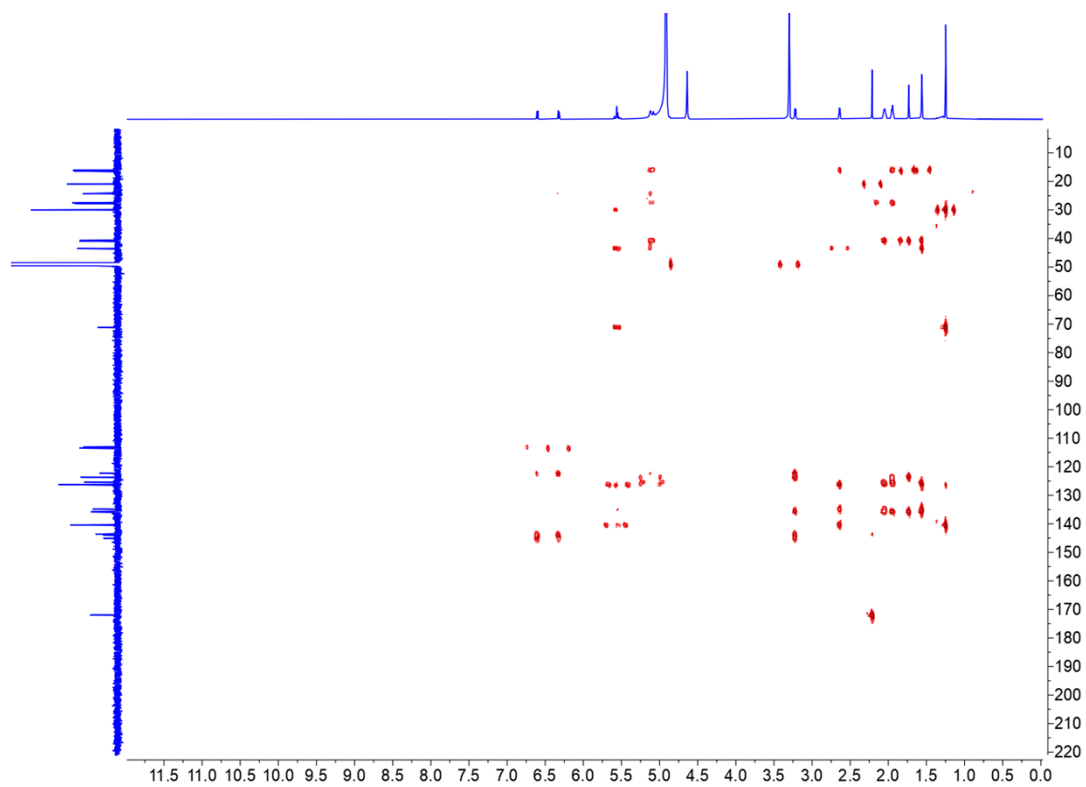
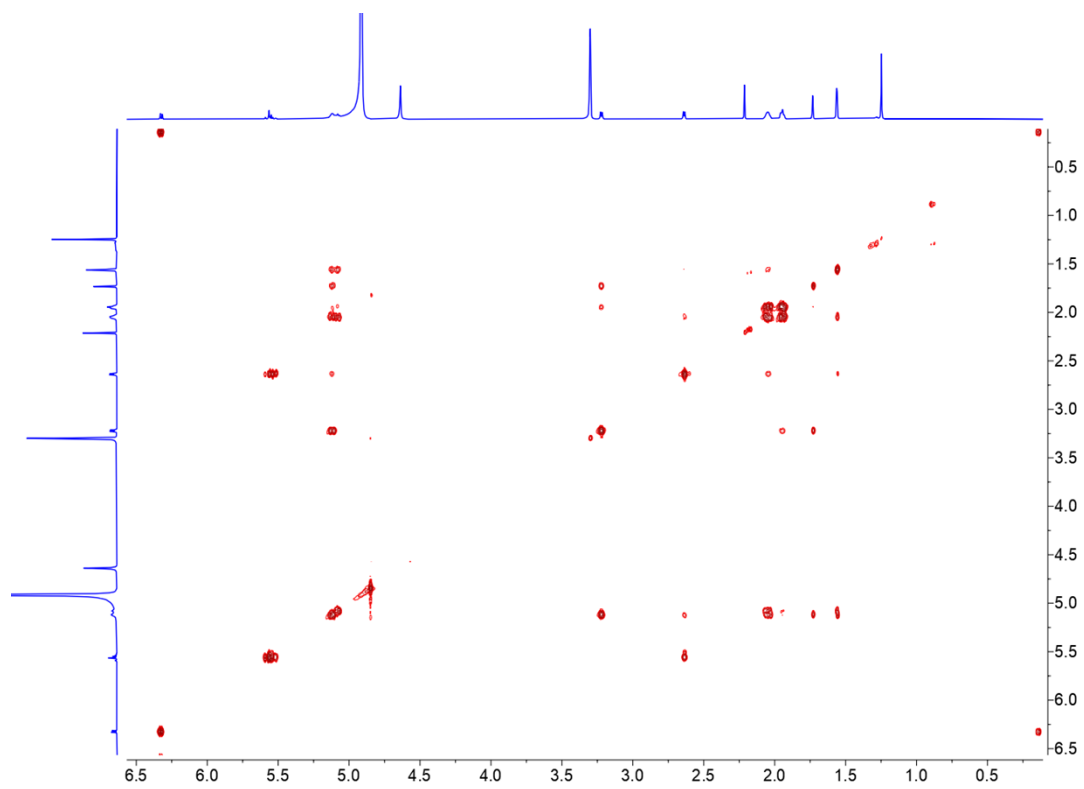
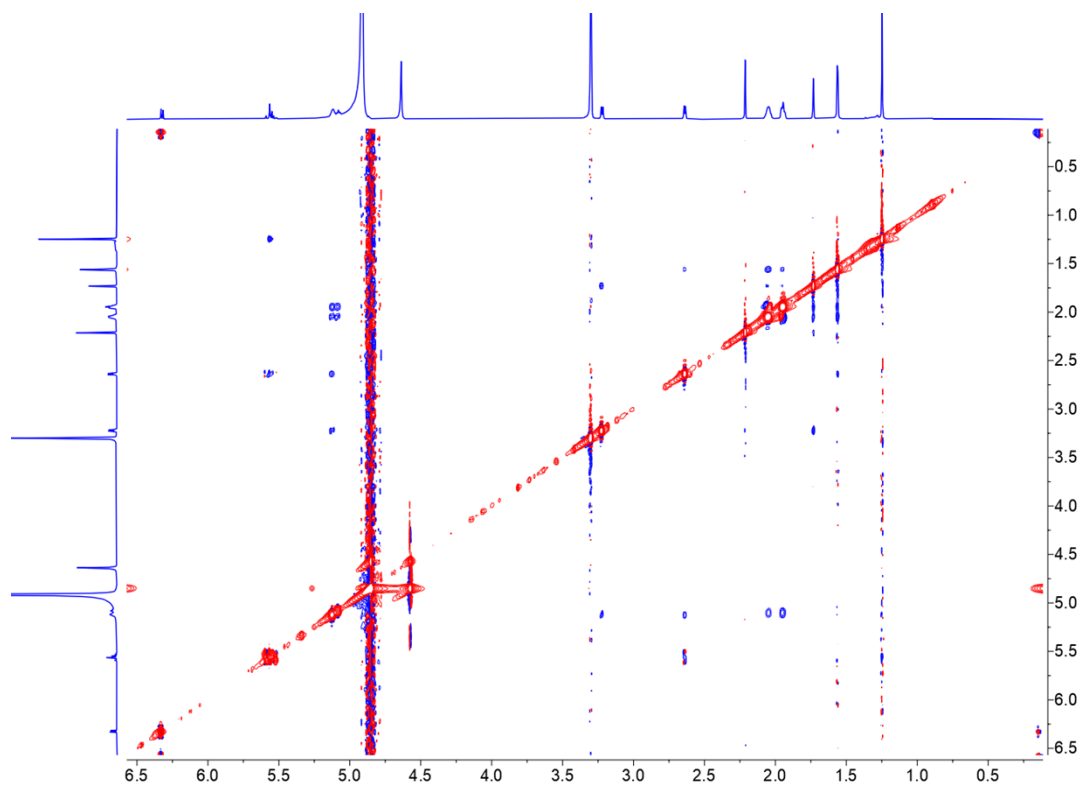


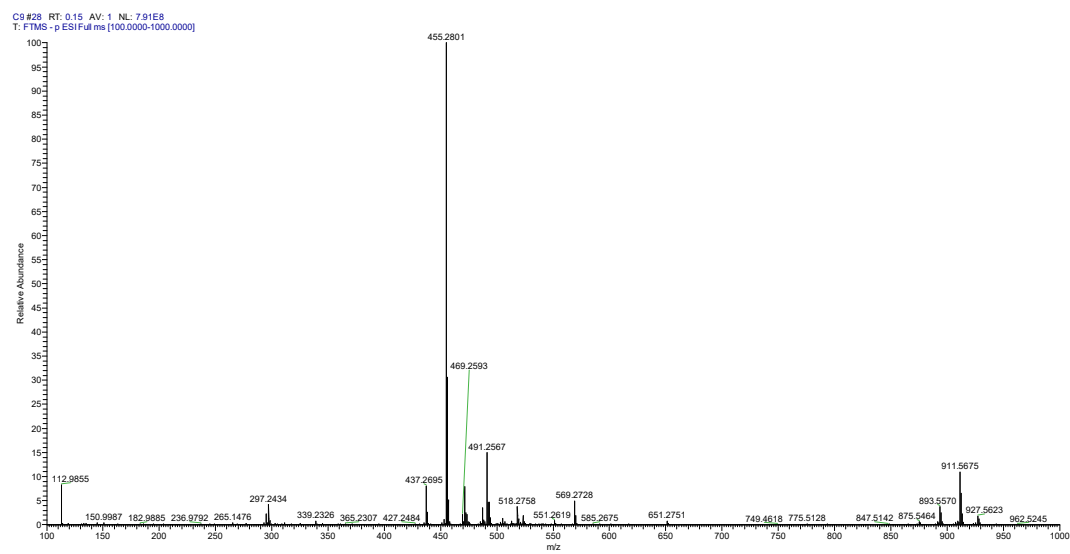
Fig. S12. HMBC spectrum of compound **3**



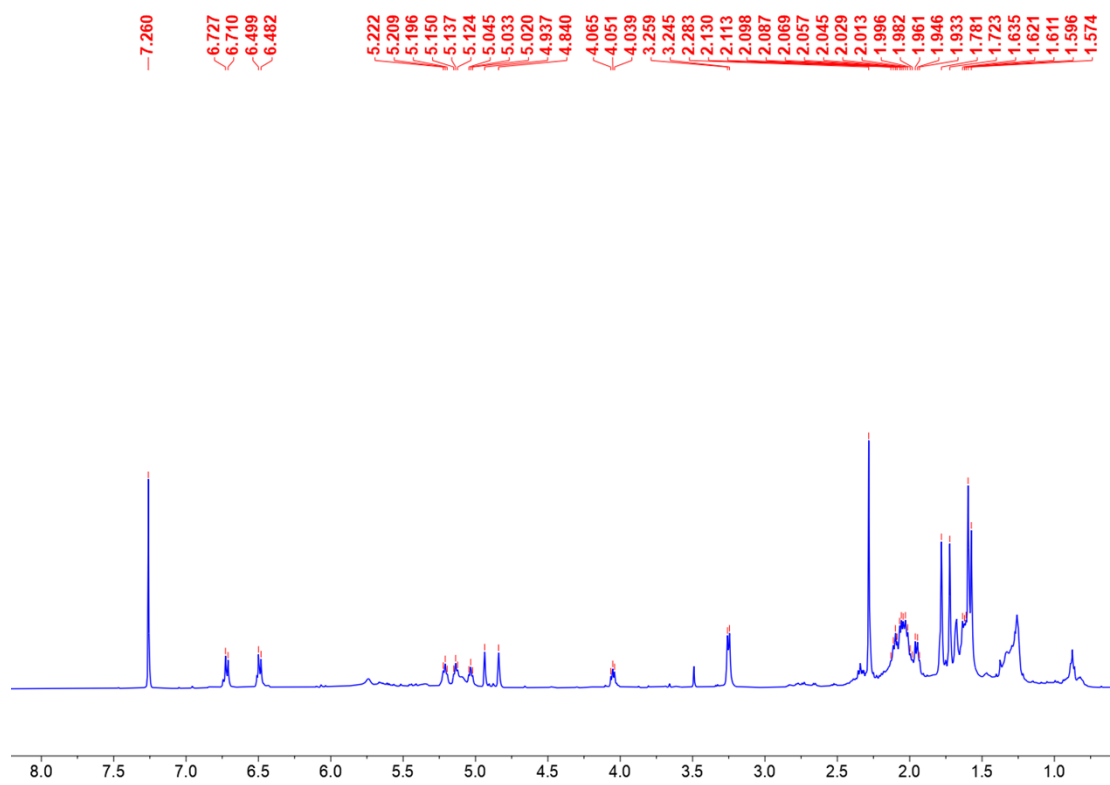
**Fig. S13.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **3**



**Fig. S14.** Noesy spectrum of compound **3**



**Fig. S15.** HRESI-MS of compound **4**



**Fig. S16.**  $^1\text{H}$  NMR spectrum of compound **4**

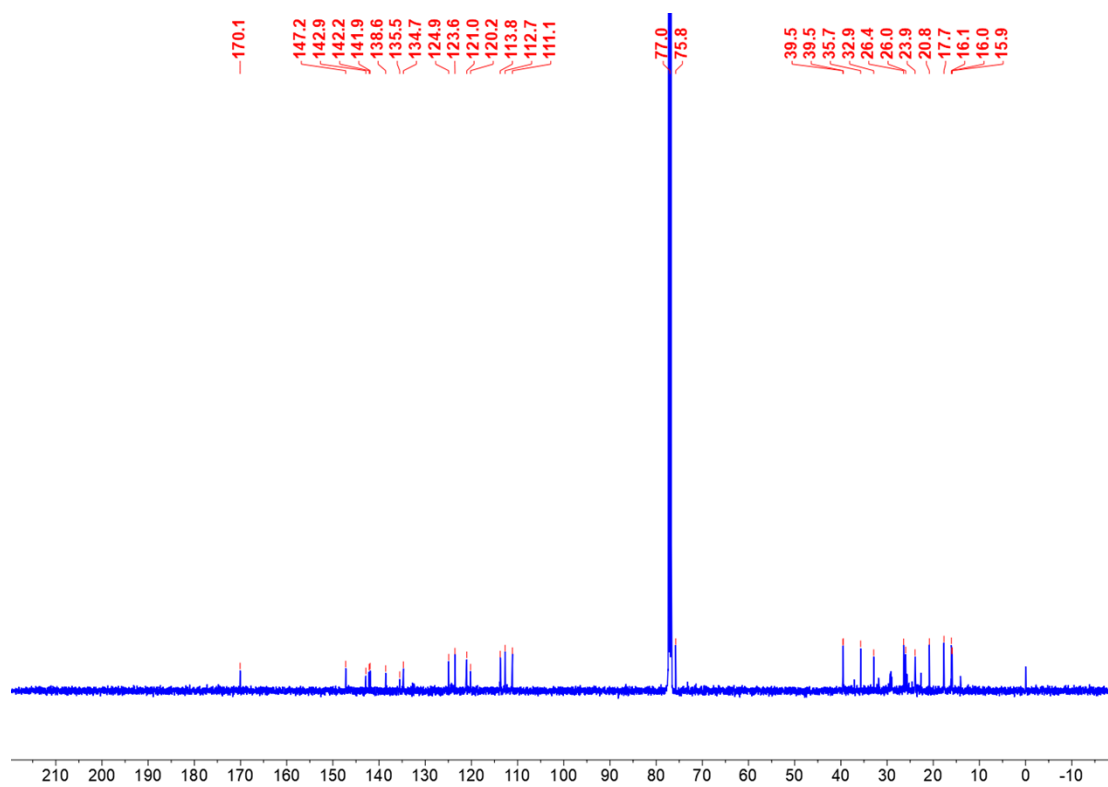


Fig. S17. <sup>13</sup>C NMR spectrum of compound 4

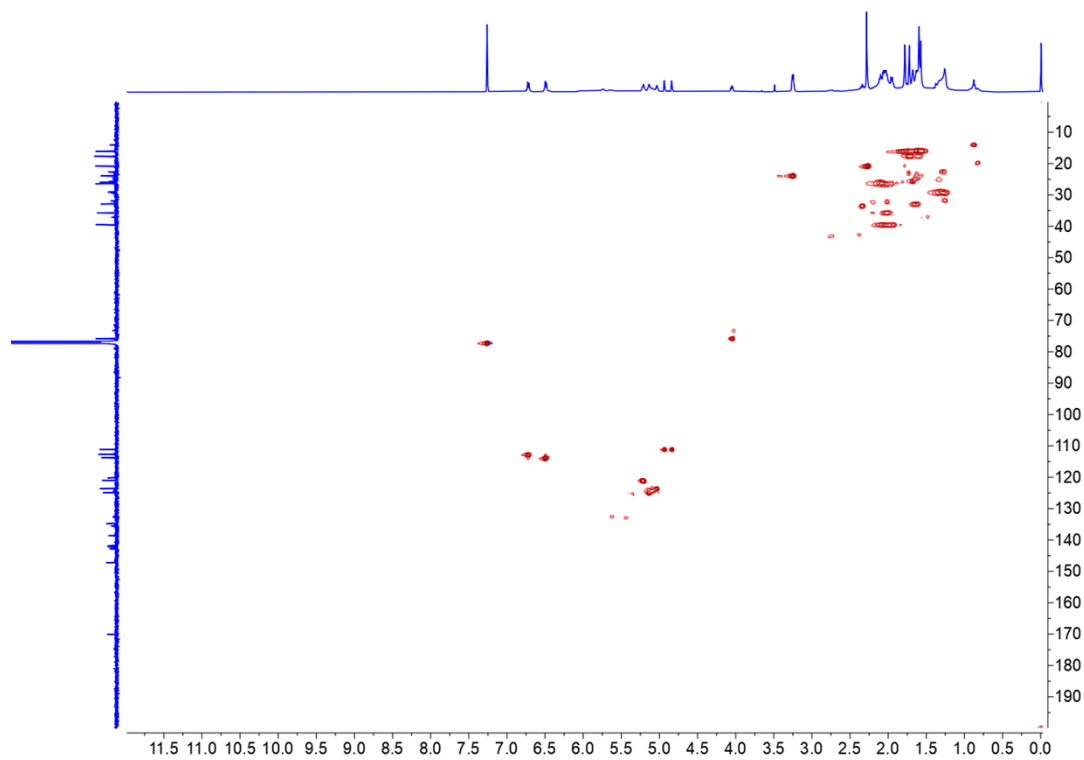
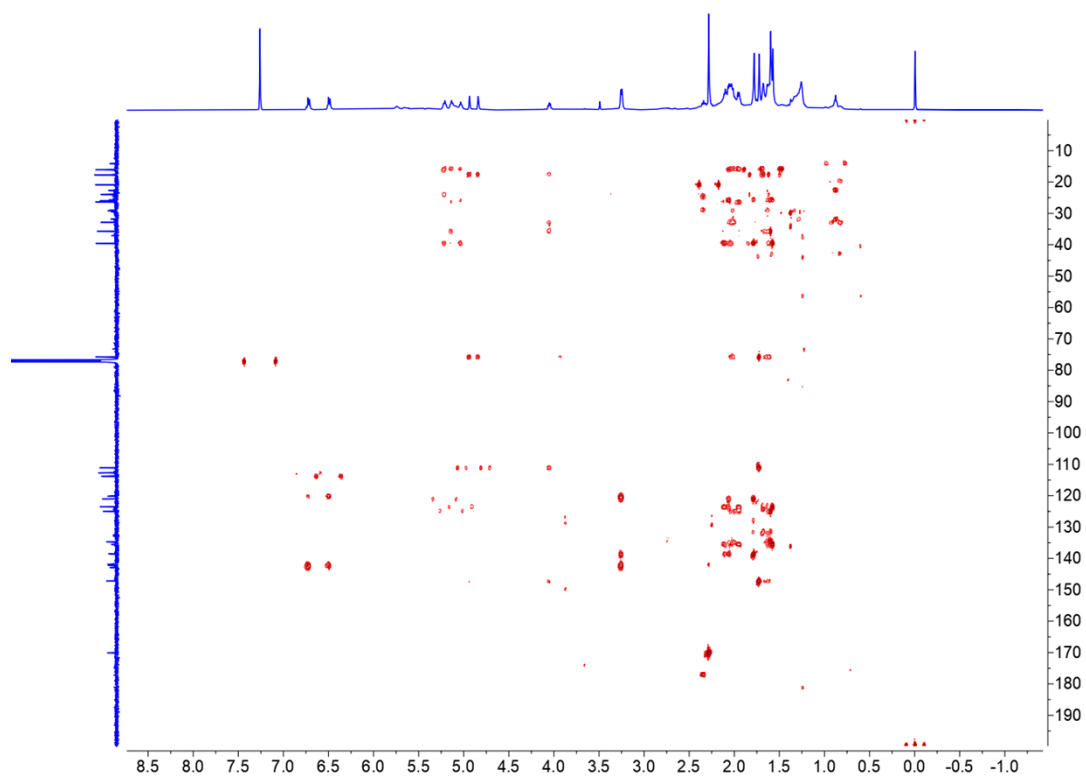
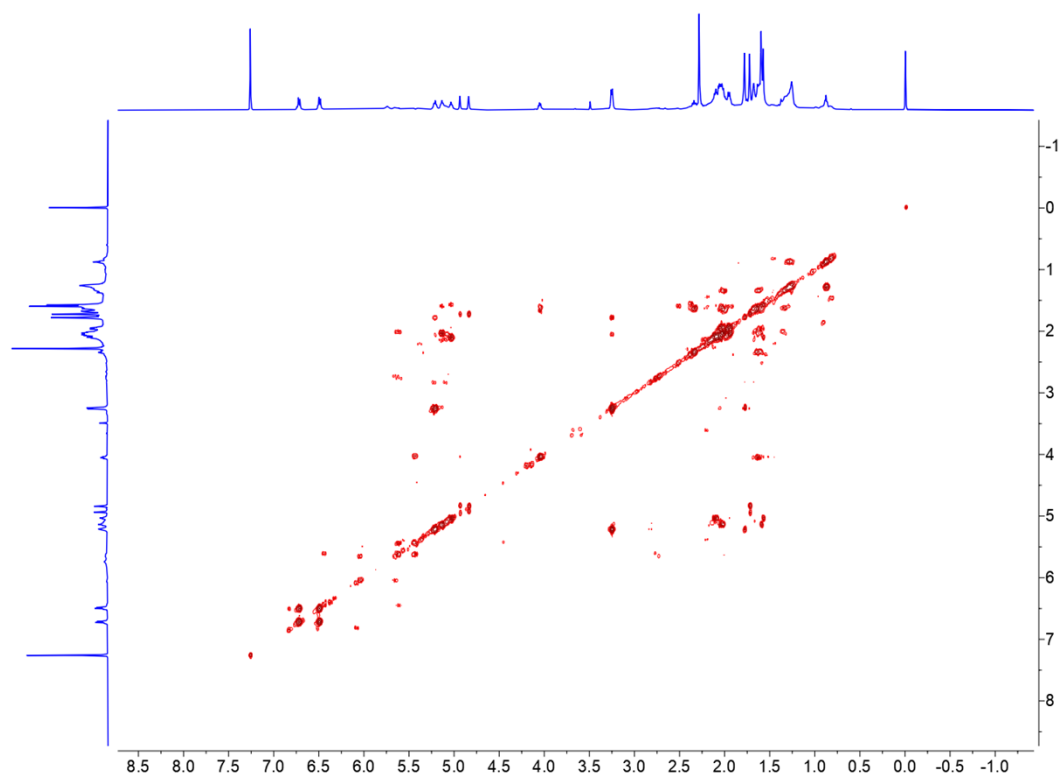


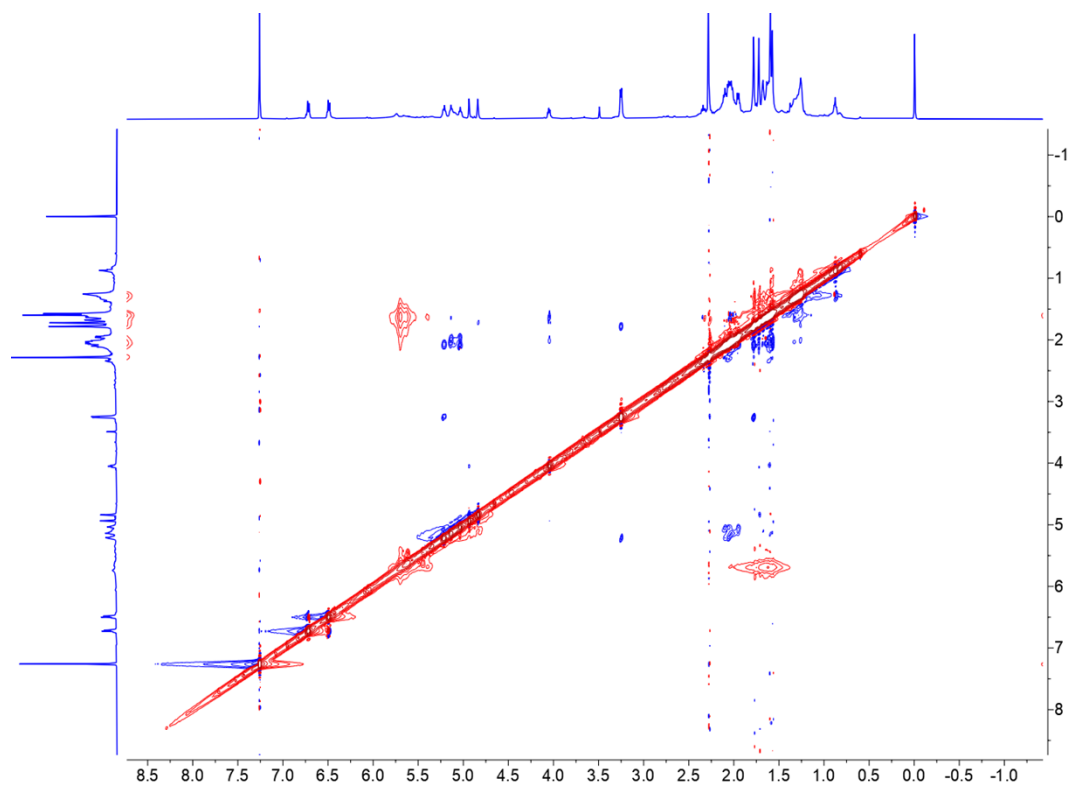
Fig. S18. HSQC spectrum of compound 4



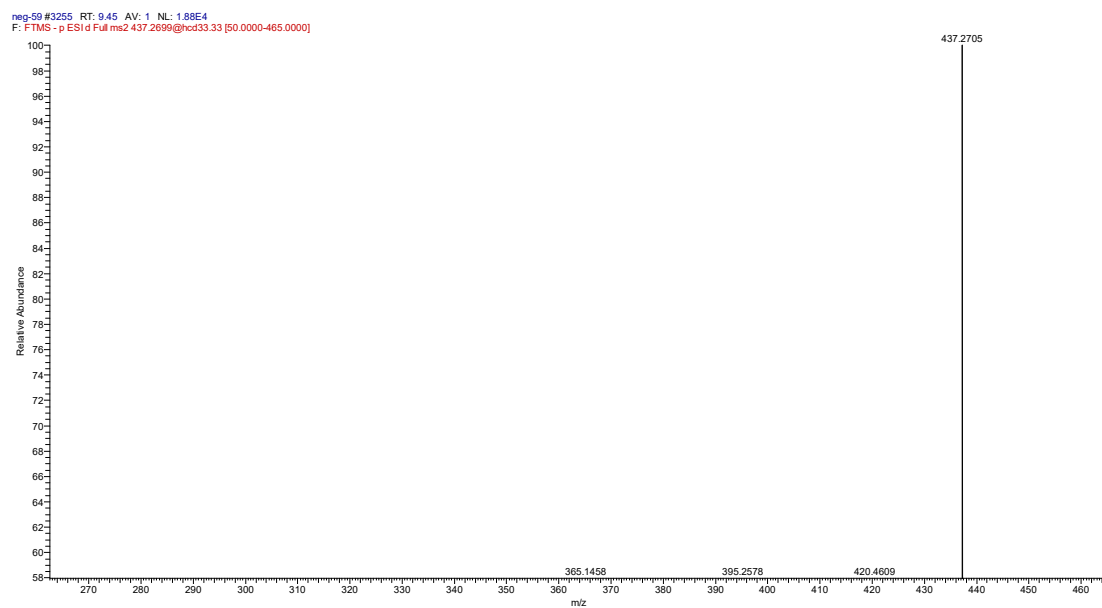
**Fig. S19.** HMBC spectrum of compound 4



**Fig. S20.**  $^1\text{H}$ - $^{13}\text{C}$  HOSY spectrum of compound 4



**Fig. S21.** Noesy spectrum of compound 4



**Fig. S22.** HRESI-MS of compound 5

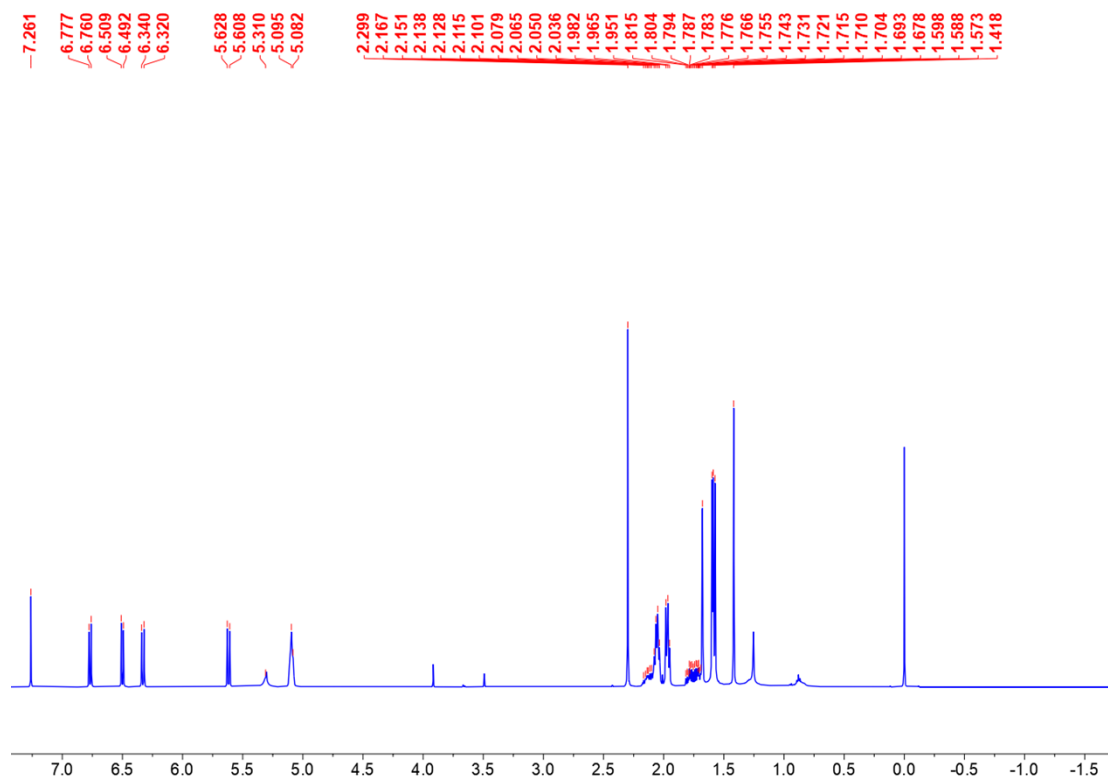


Fig. S23.  $^1\text{H}$  NMR spectrum of compound 5

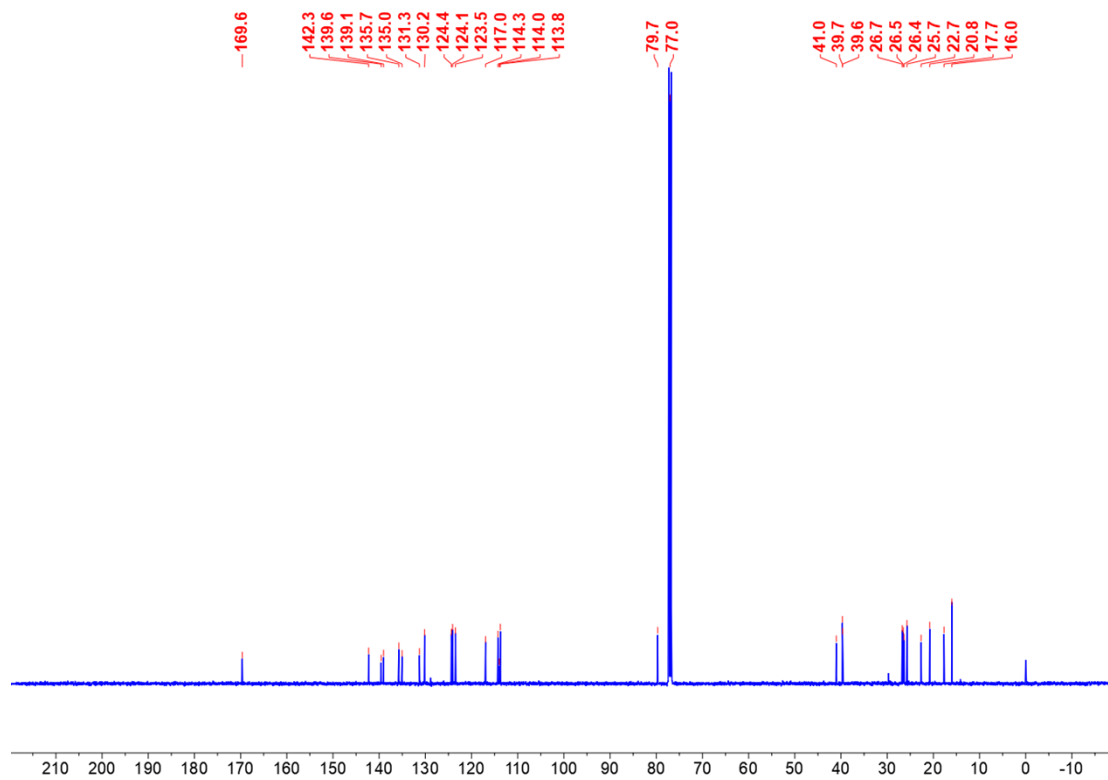


Fig. S24.  $^{13}\text{C}$  NMR spectrum of compound 5

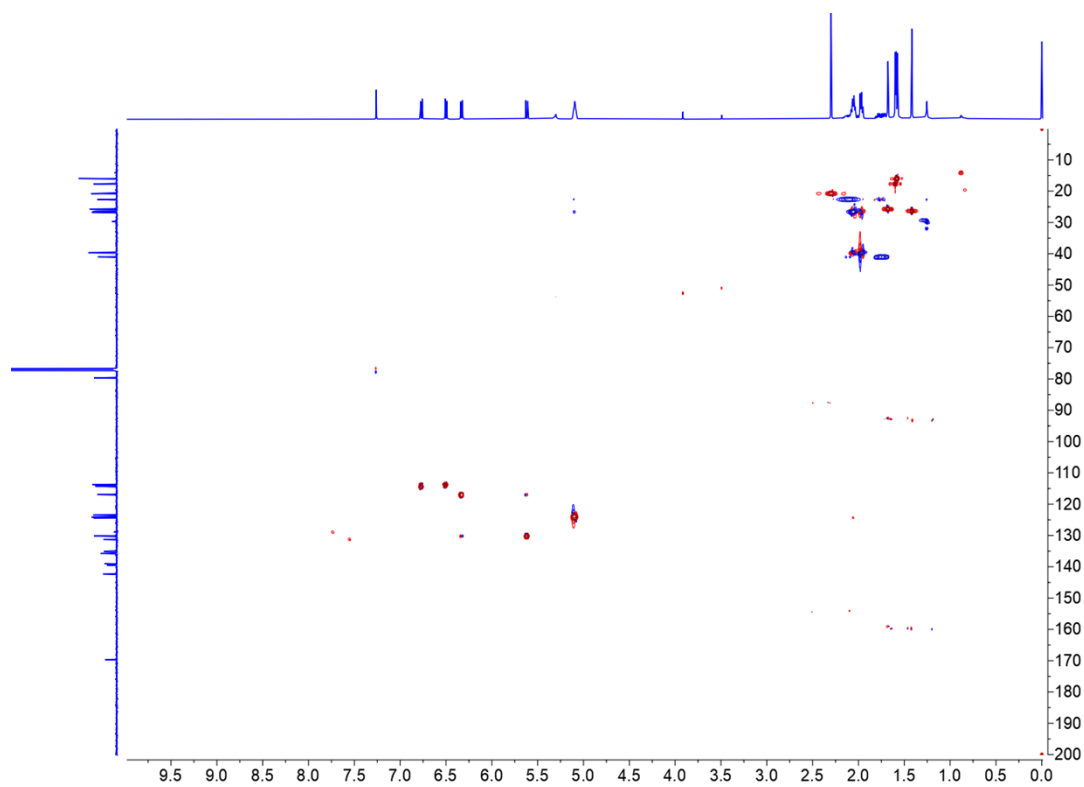


Fig. S25. HSQC spectrum of compound 5

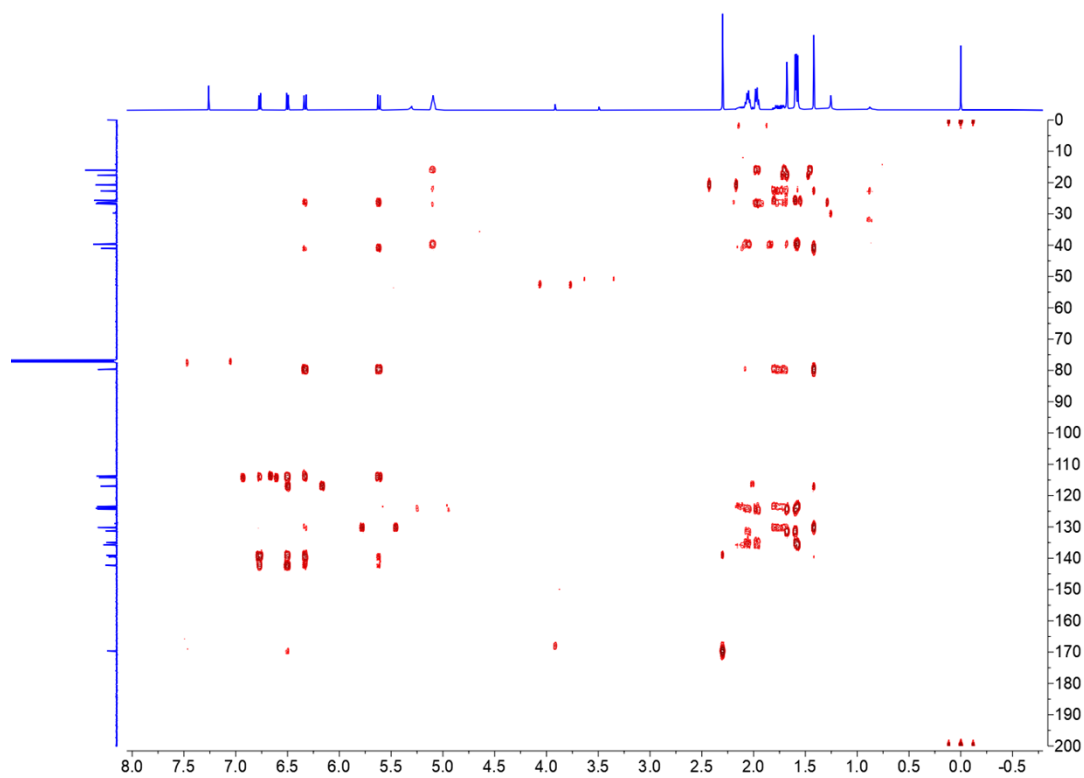
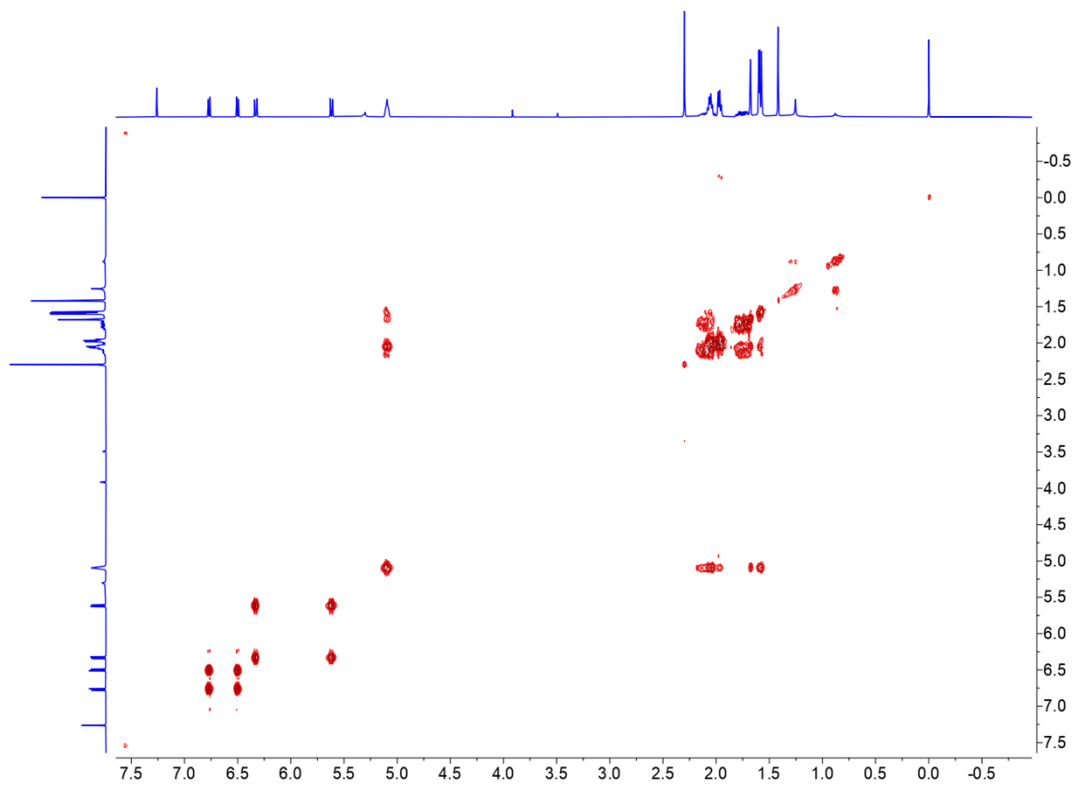
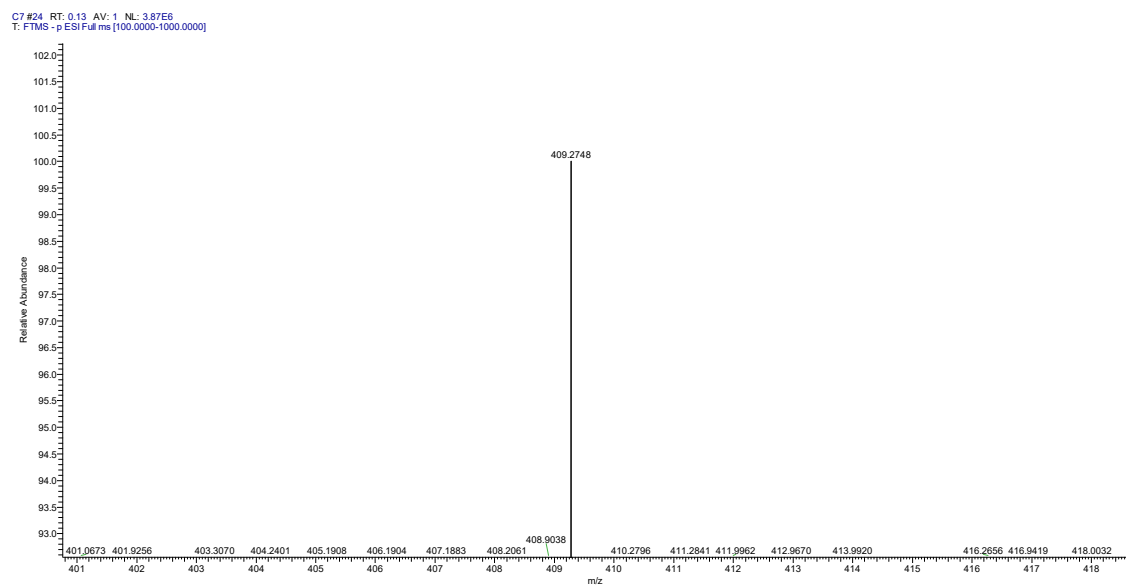


Fig. S26. HMBC spectrum of compound 5





**Fig. S27.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound **5**



**Fig. S28.** HRESI-MS of compound **6**

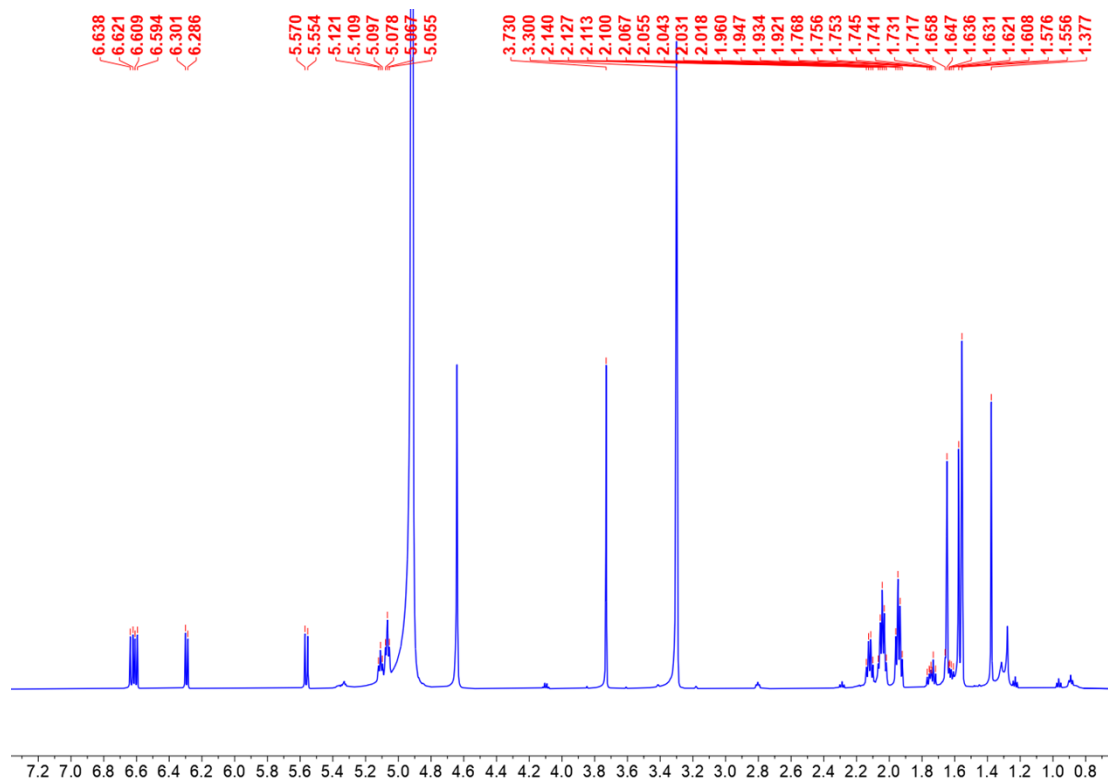


Fig. S29.  $^1\text{H}$  NMR spectrum of compound 6

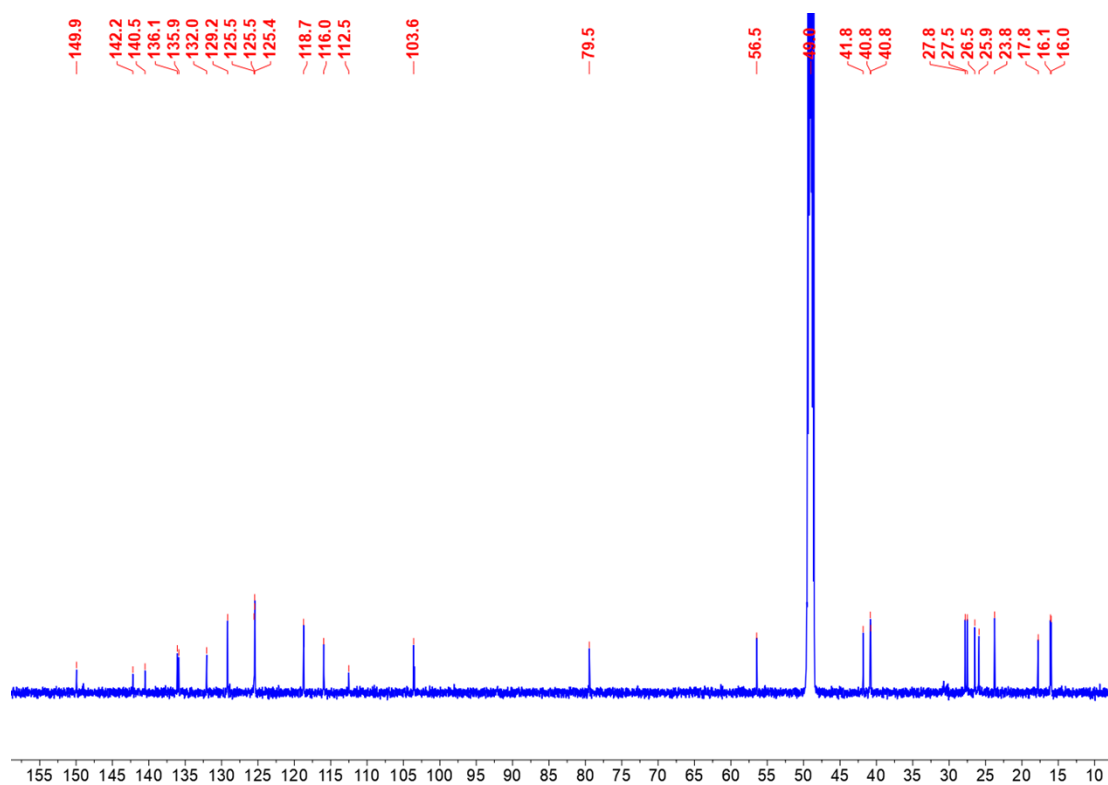
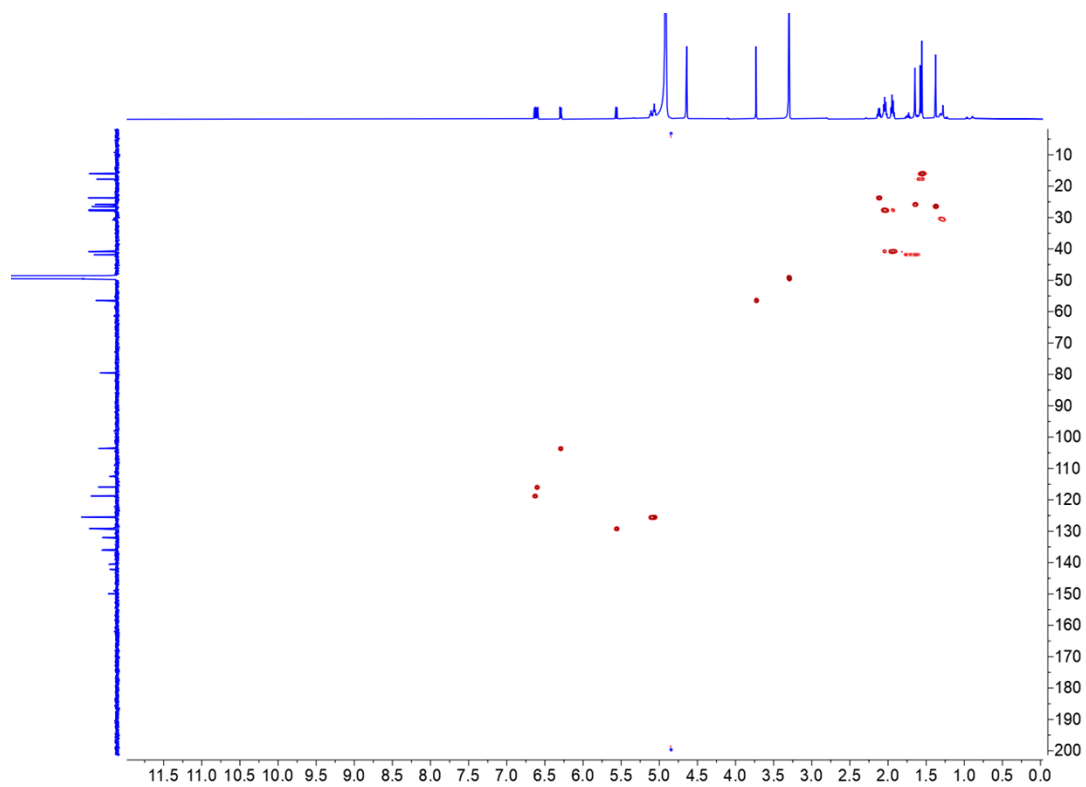
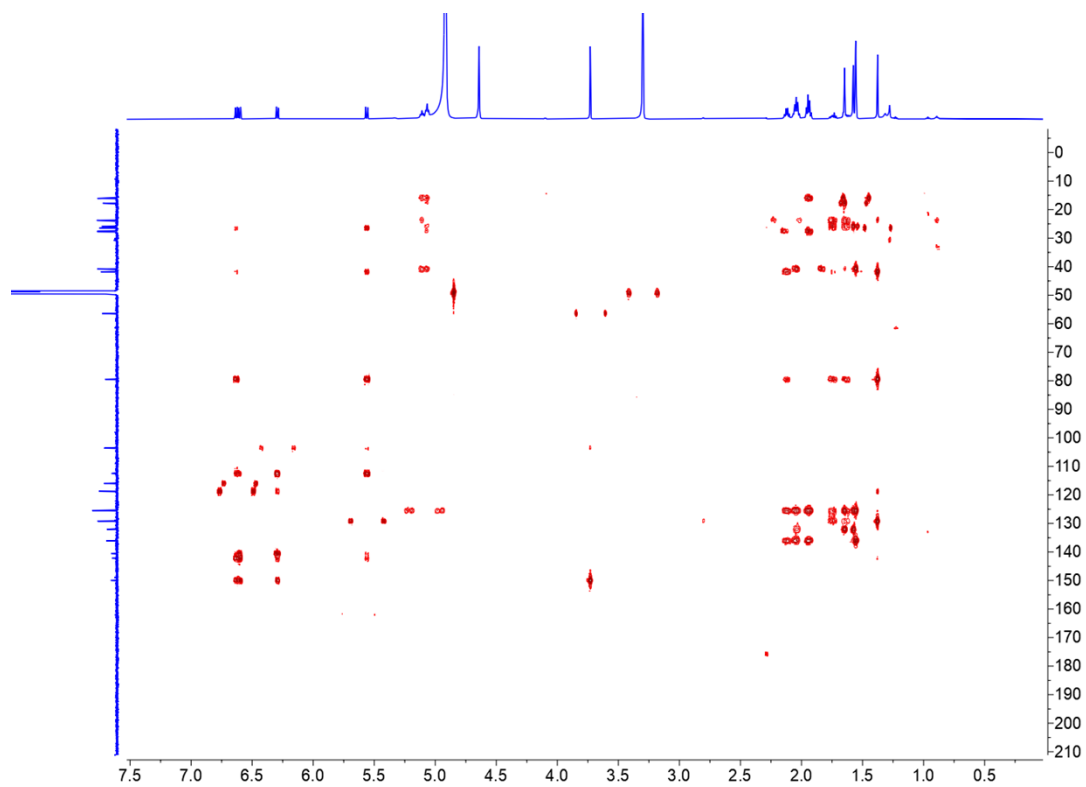


Fig. S30.  $^{13}\text{C}$  NMR spectrum of compound 6



**Fig. S31.** HSQC spectrum of compound **6**



**Fig. S32.** HMBC spectrum of compound **6**

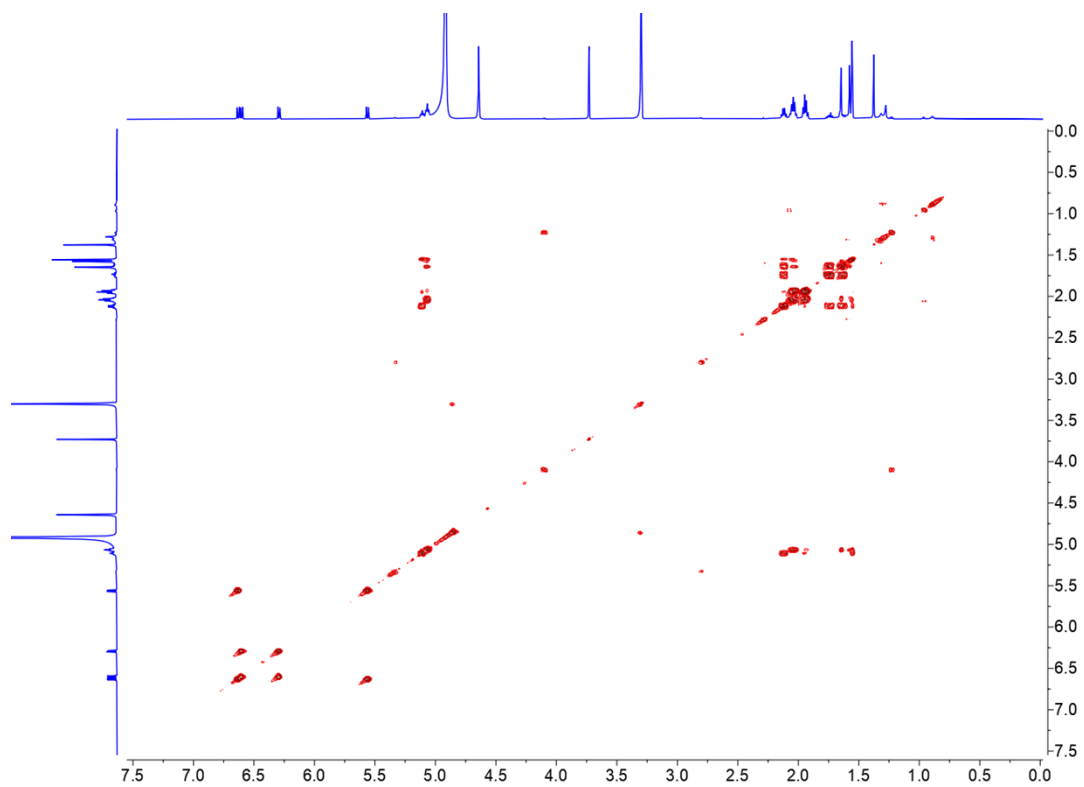


Fig. S33.  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of compound 6

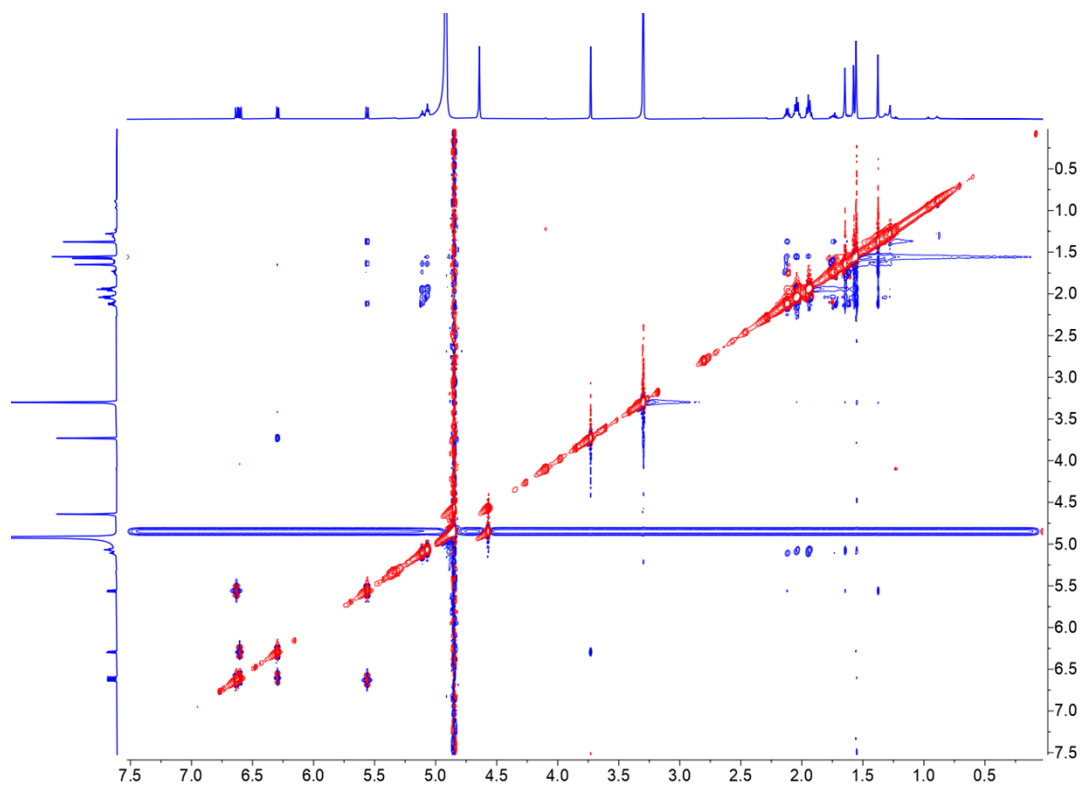


Fig. S34. Noesy spectrum of compound 6

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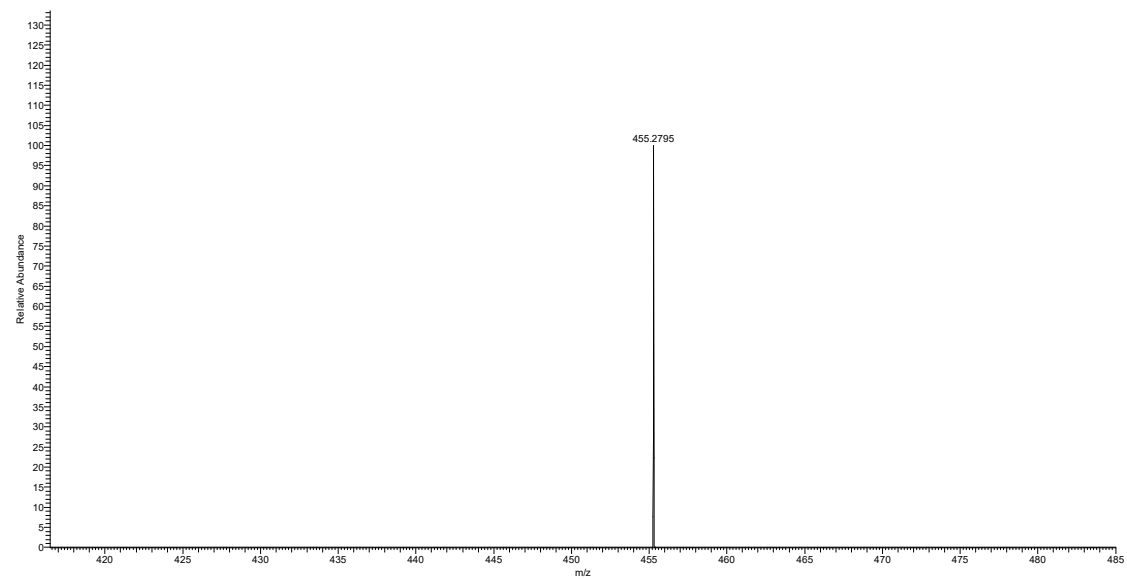


Fig. S35. HRESI-MS of compound 7

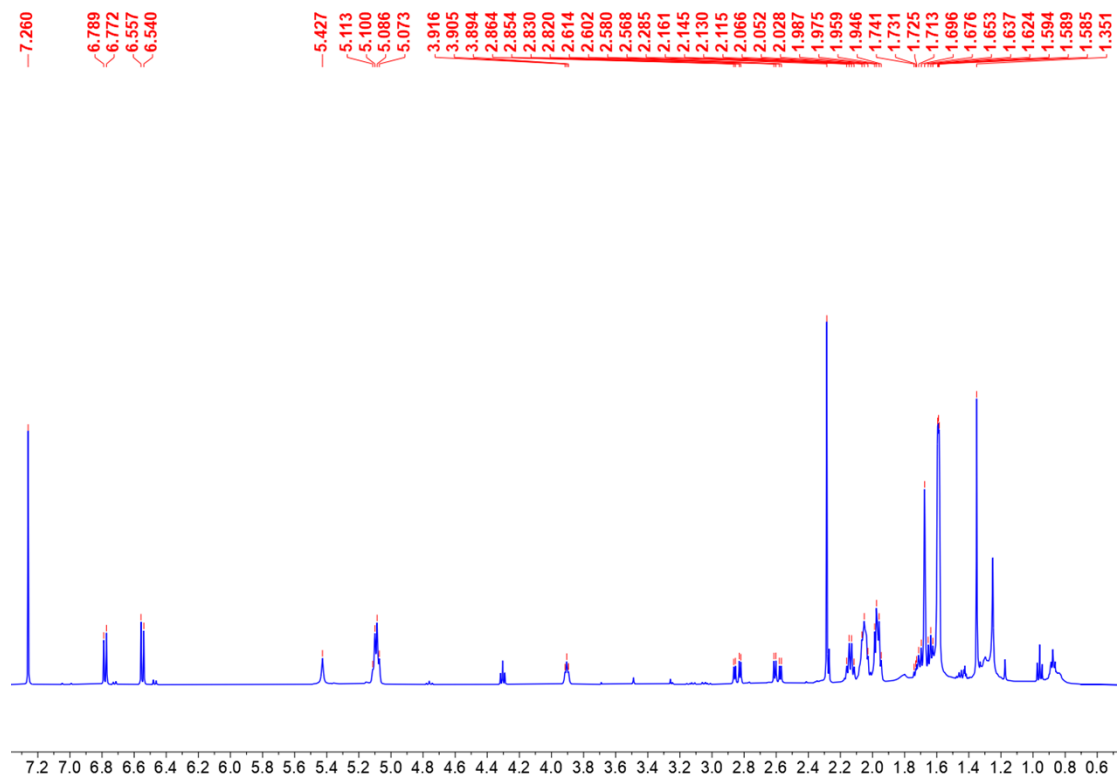


Fig. S36. <sup>1</sup>H NMR spectrum of compound 7

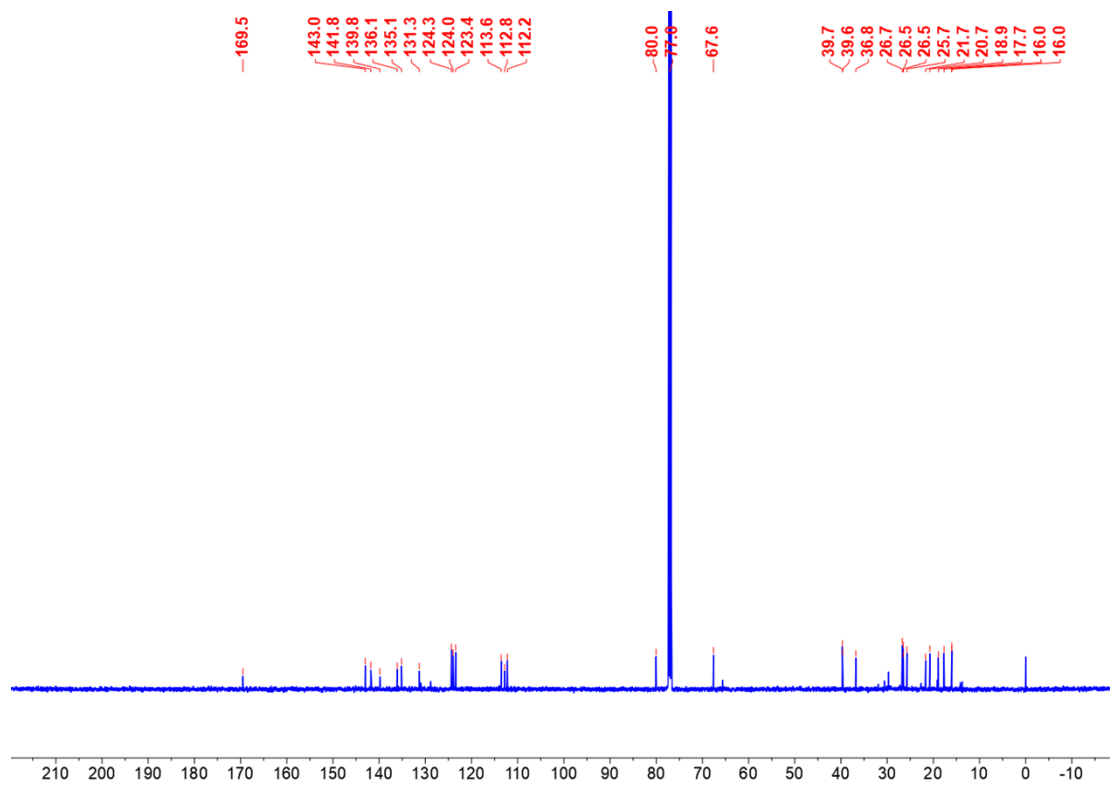


Fig. S37.  $^{13}\text{C}$  NMR spectrum of compound 7

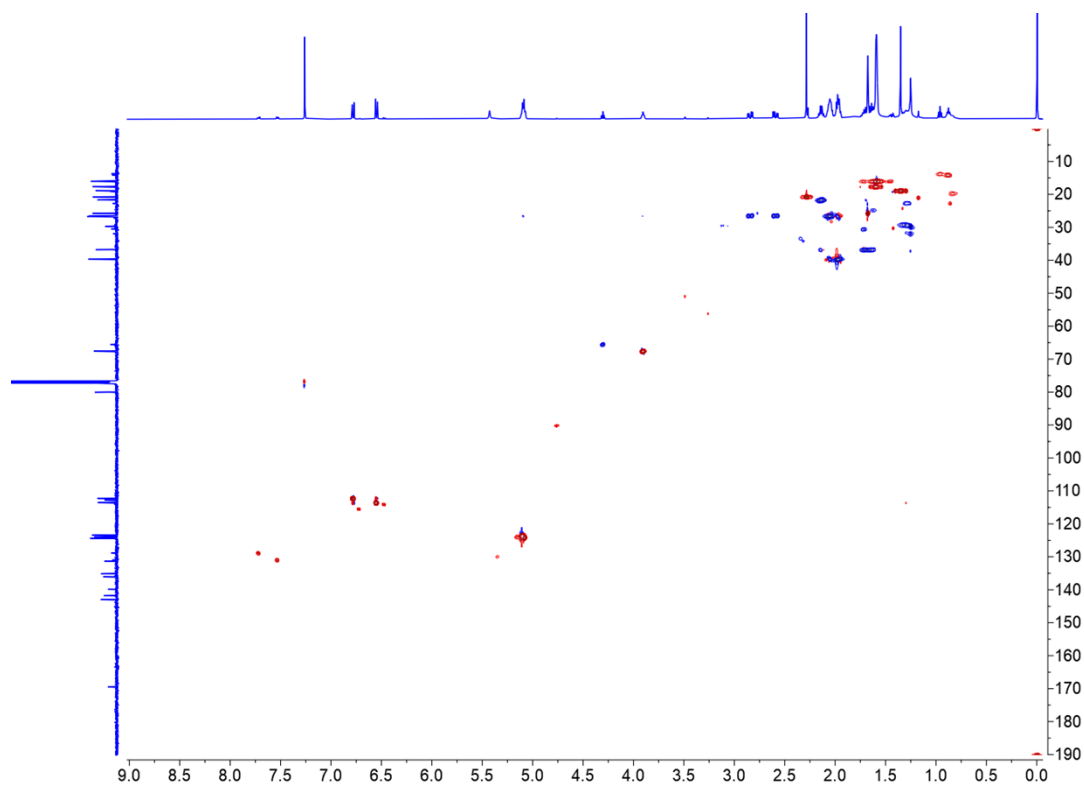


Fig. S38. HSQC spectrum of compound 7

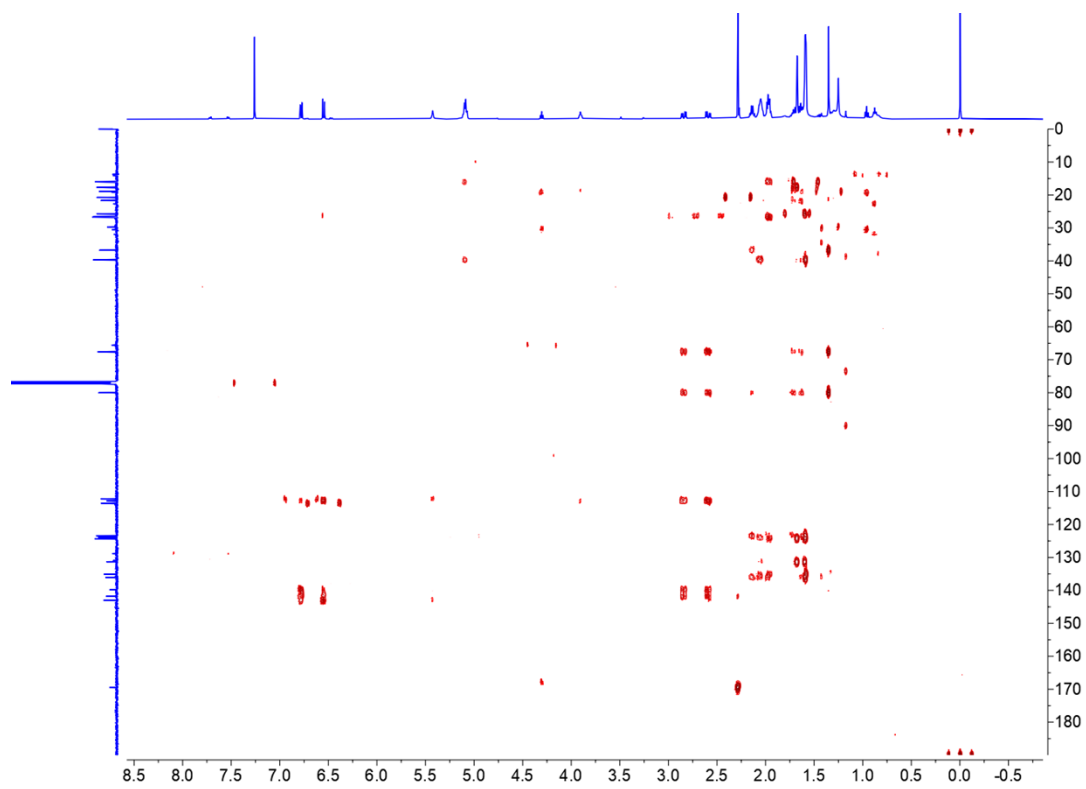


Fig. S39. HMBC spectrum of compound 7

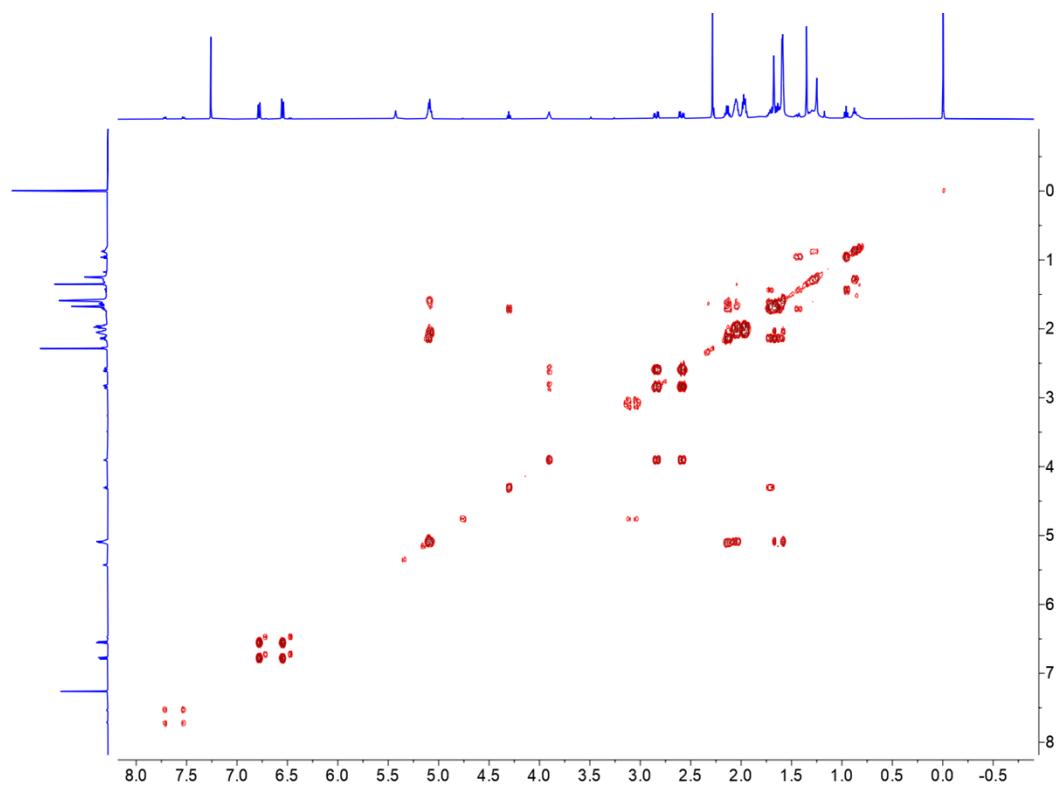
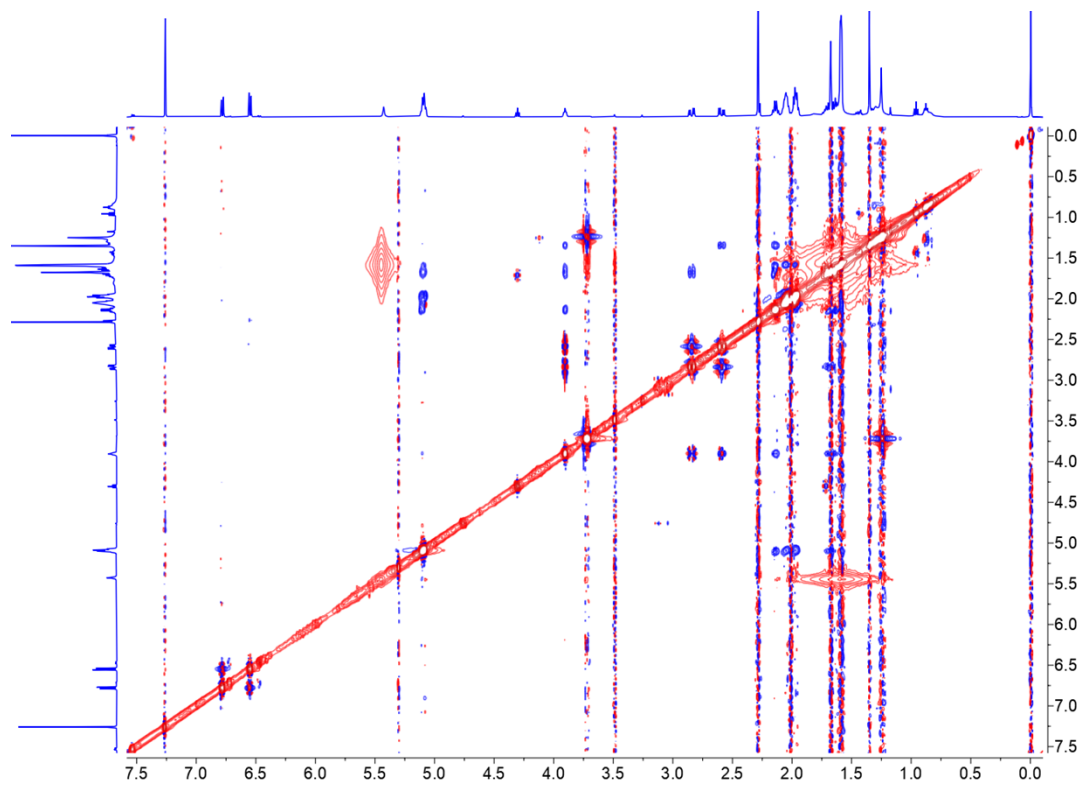
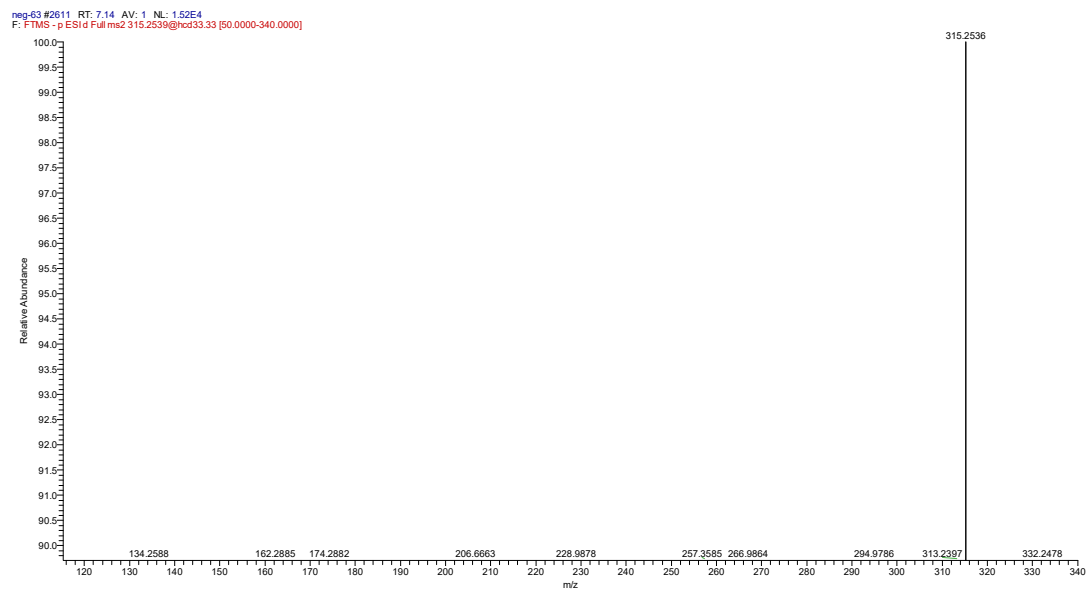


Fig. S40.  $^1\text{H}$ - $^{13}\text{C}$  HOSY spectrum of compound 7



**Fig. S41.** Noesy spectrum of compound **7**



**Fig. S42.** HRESI-MS of compound **8**



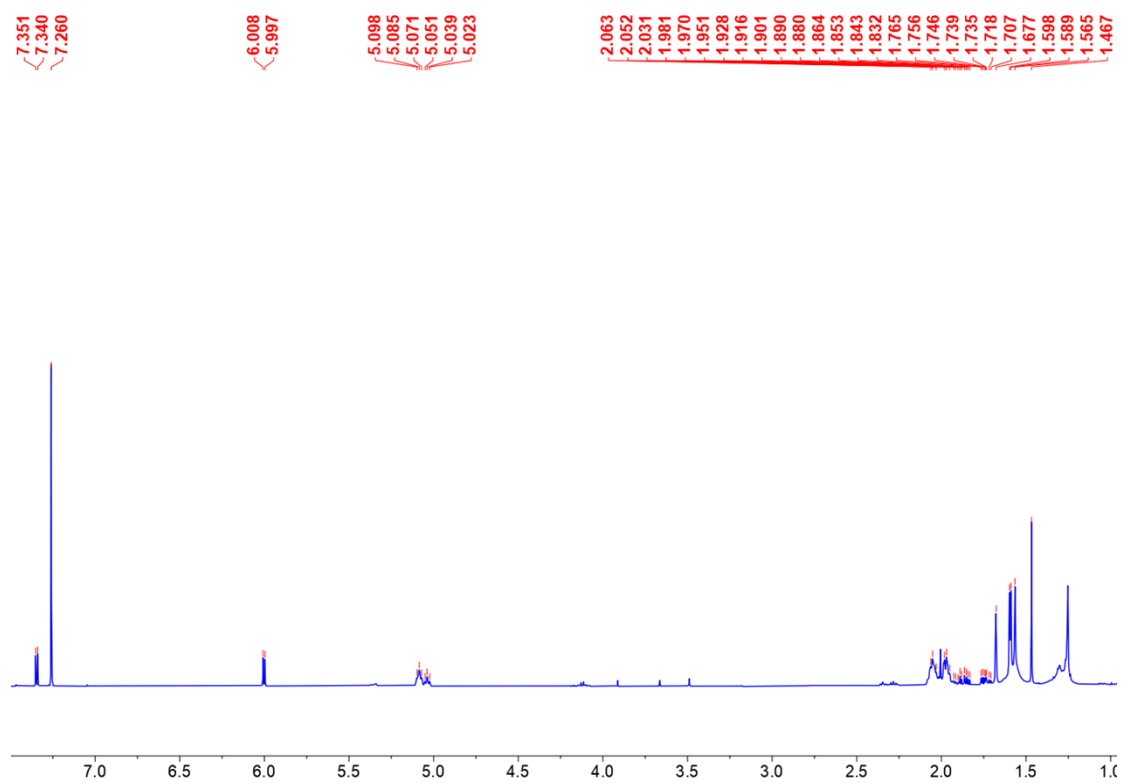


Fig. S43.  $^1\text{H}$  NMR spectrum of compound **8**

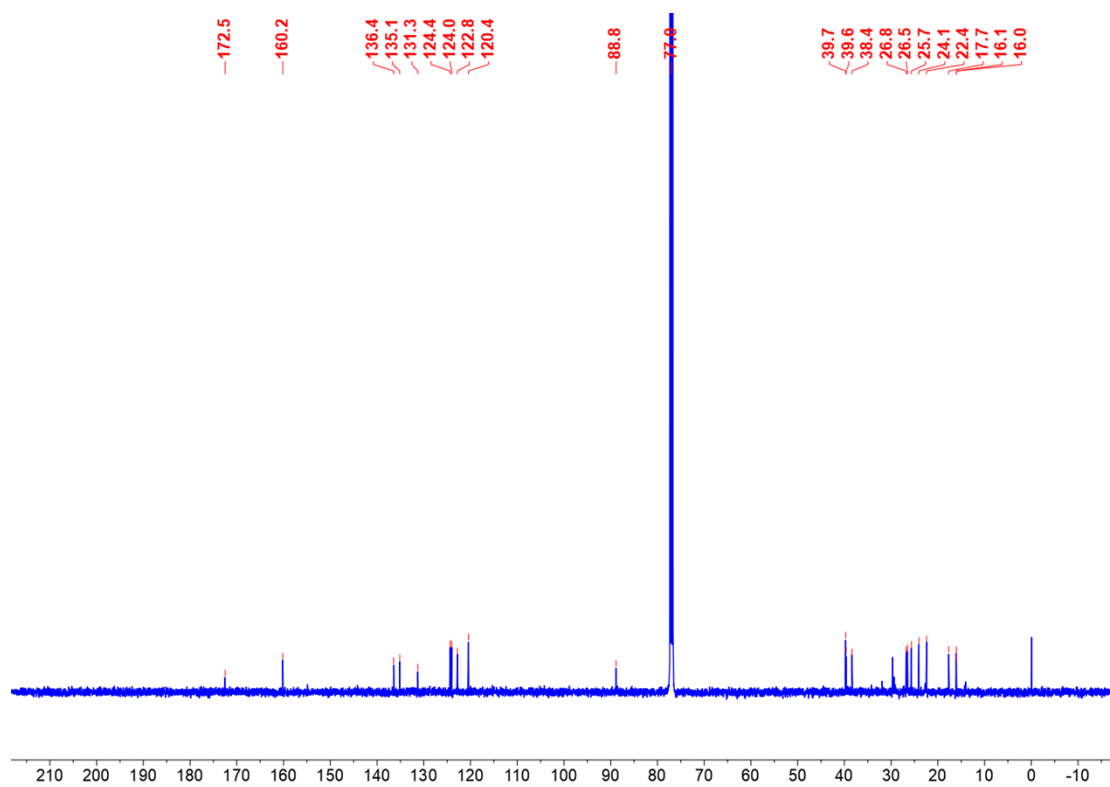
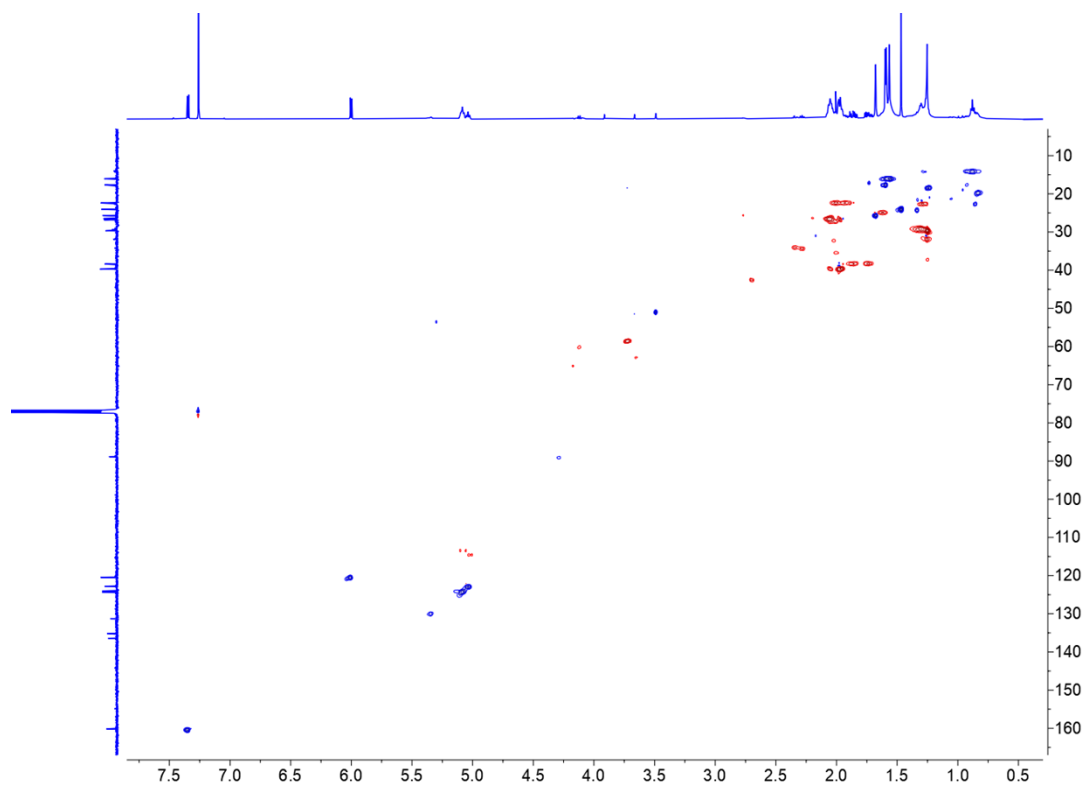
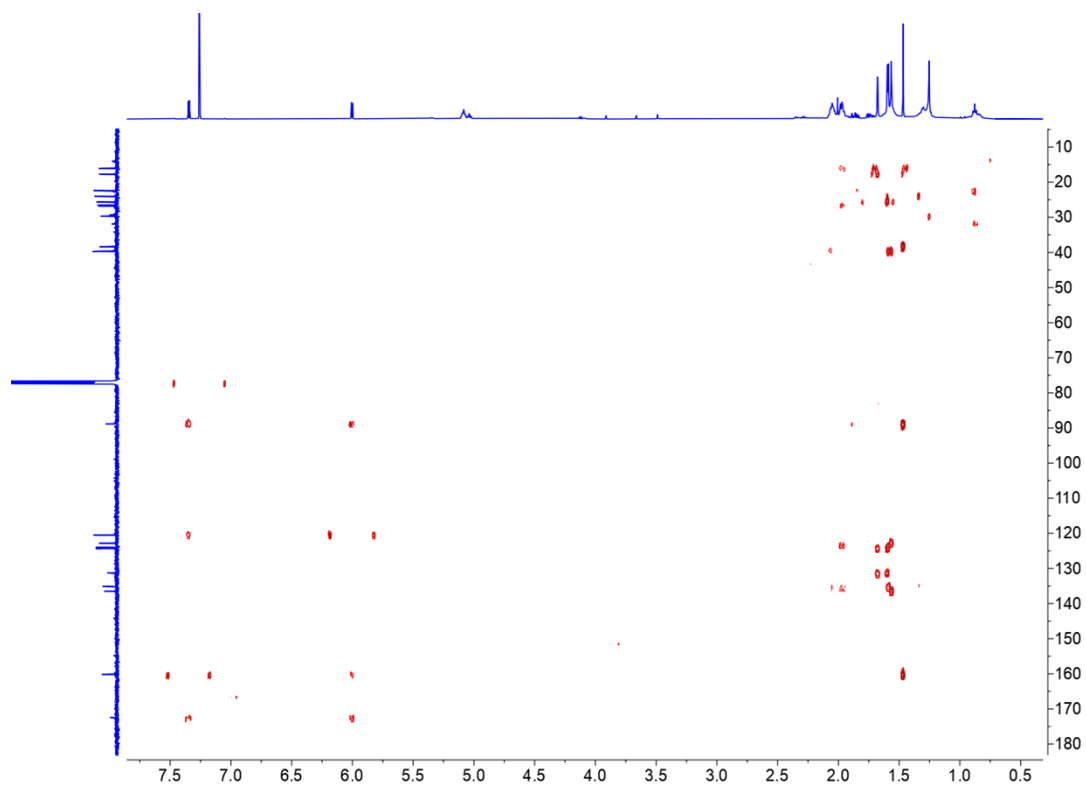


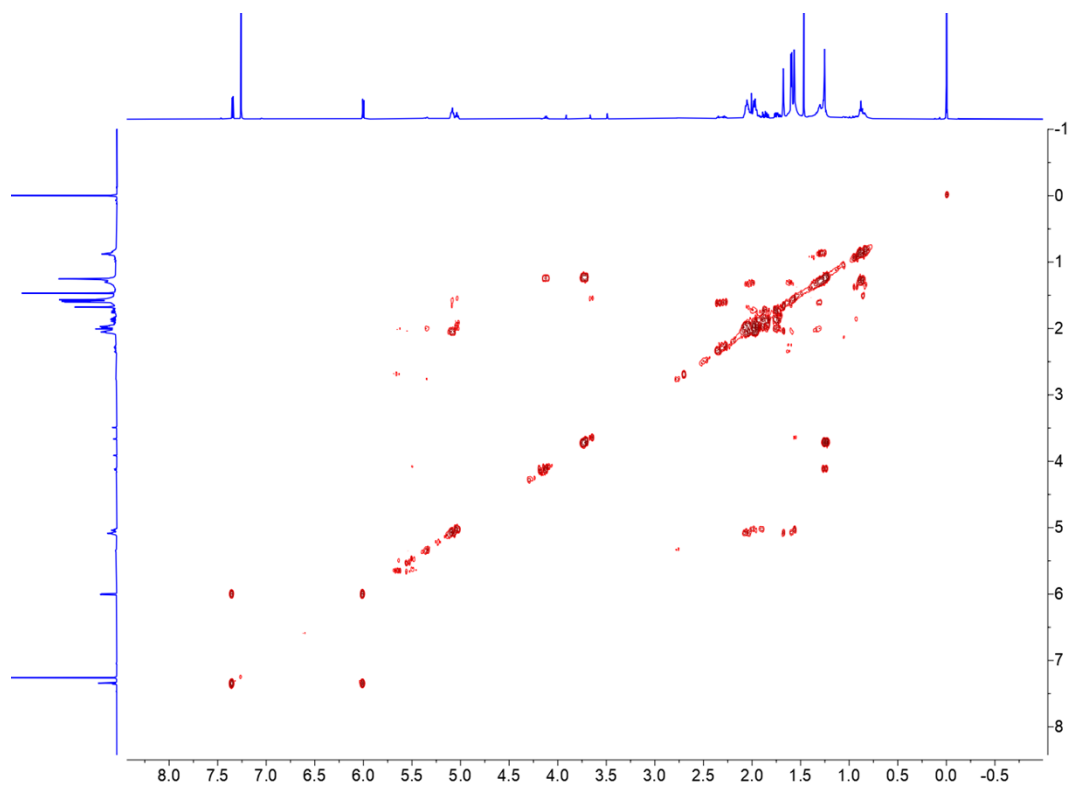
Fig. S44.  $^{13}\text{C}$  NMR spectrum of compound **8**



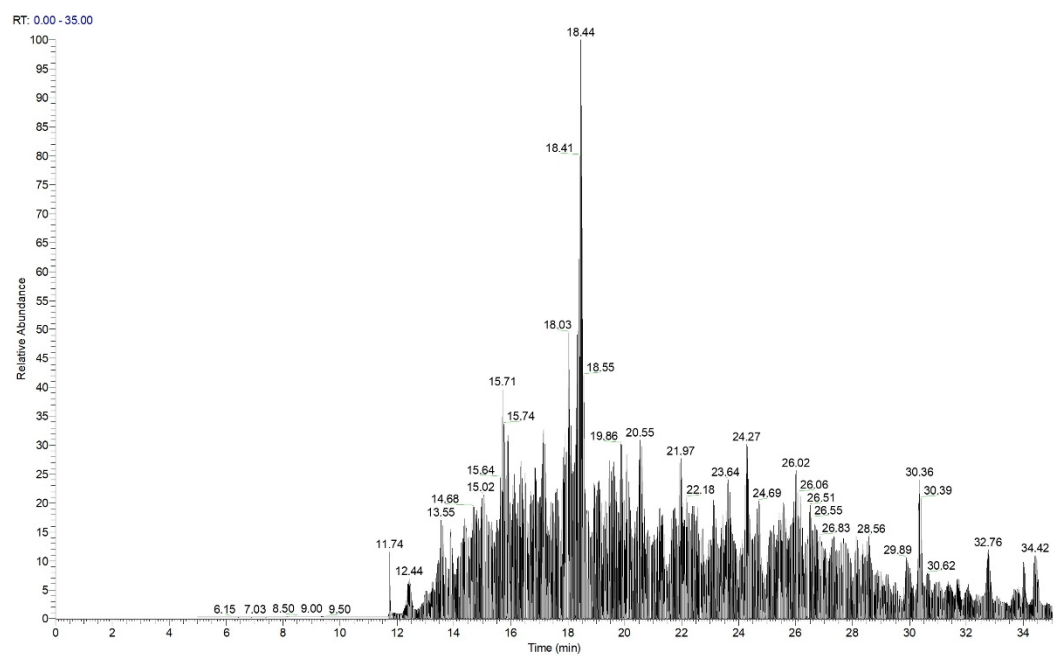
**Fig. S45.** HSQC spectrum of compound **8**



**Fig. S46.** HMBC spectrum of compound **8**



**Fig. S47.**  $^1\text{H}$ - $^1\text{H}$ COSY spectrum of compound **8**



**Fig. S48.** The TIC of LC-MS/MS identification

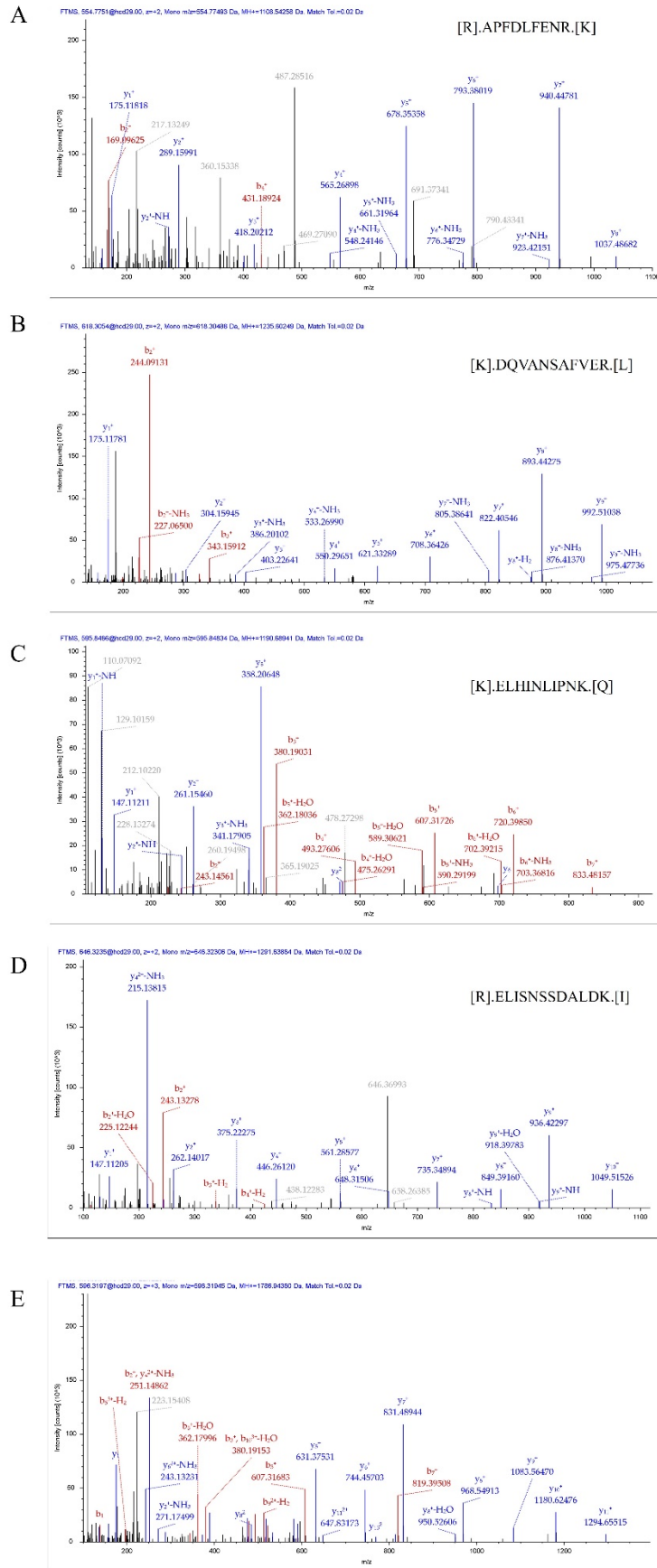
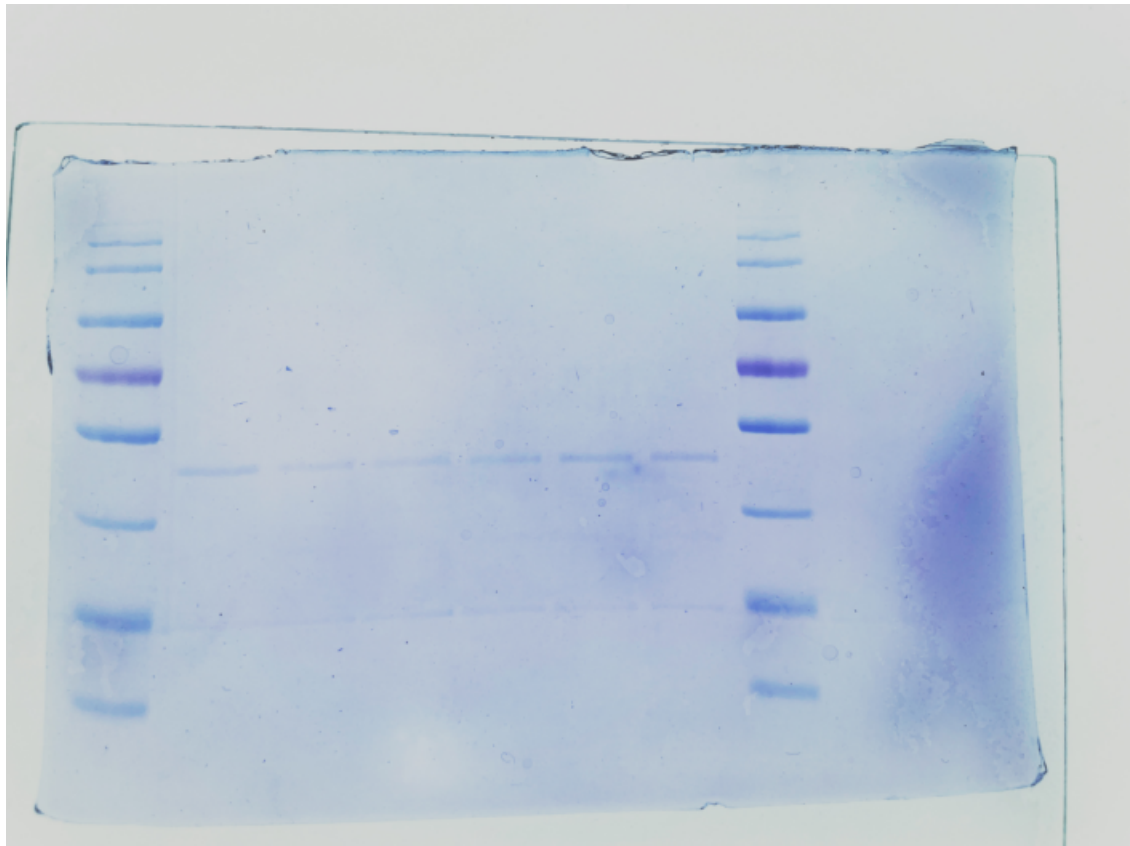


Fig. S49. HSP90AA1 peptide mass spectrograms



**Fig. S50.** The original image of the full gel