

## Supporting Information

### Sulawesins A–C, Furanoesterterpene Tetronic Acids That Inhibit USP7, from a *Psammocinia* sp. Marine Sponge

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S2 **Figure S1.**  $^1\text{H}$  NMR spectrum of **1** in MeOH-*d*<sub>4</sub>.

S3 **Figure S2.**  $^{13}\text{C}$  NMR spectrum of **1** in MeOH-*d*<sub>4</sub>.

S4 **Figure S3.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **1** MeOH-*d*<sub>4</sub>.

S5 **Figure S4.** HMQC spectrum of **1** in MeOH-*d*<sub>4</sub>.

S6 **Figure S5.** HMBC spectrum of **1** in MeOH-*d*<sub>4</sub>.

S7 **Figure S6.**  $^1\text{H}$  NMR spectrum of **2** in MeOH-*d*<sub>4</sub>.

S8 **Figure S7.**  $^{13}\text{C}$ - NMR spectrum of **2** in MeOH-*d*<sub>4</sub>.

S9 **Figure S8.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **2** MeOH-*d*<sub>4</sub>.

S10 **Figure S9.** HMQC spectrum of **2** in MeOH-*d*<sub>4</sub>.

S11 **Figure S10.** HMBC spectrum of **2** in MeOH-*d*<sub>4</sub>.

S12 **Figure S11.**  $^1\text{H}$  NMR spectrum of **3** in MeOH-*d*<sub>4</sub>.

S13 **Figure S12.**  $^{13}\text{C}$  NMR spectrum of **3** in MeOH-*d*<sub>4</sub>.

S14 **Figure S13.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **3** MeOH-*d*<sub>4</sub>.

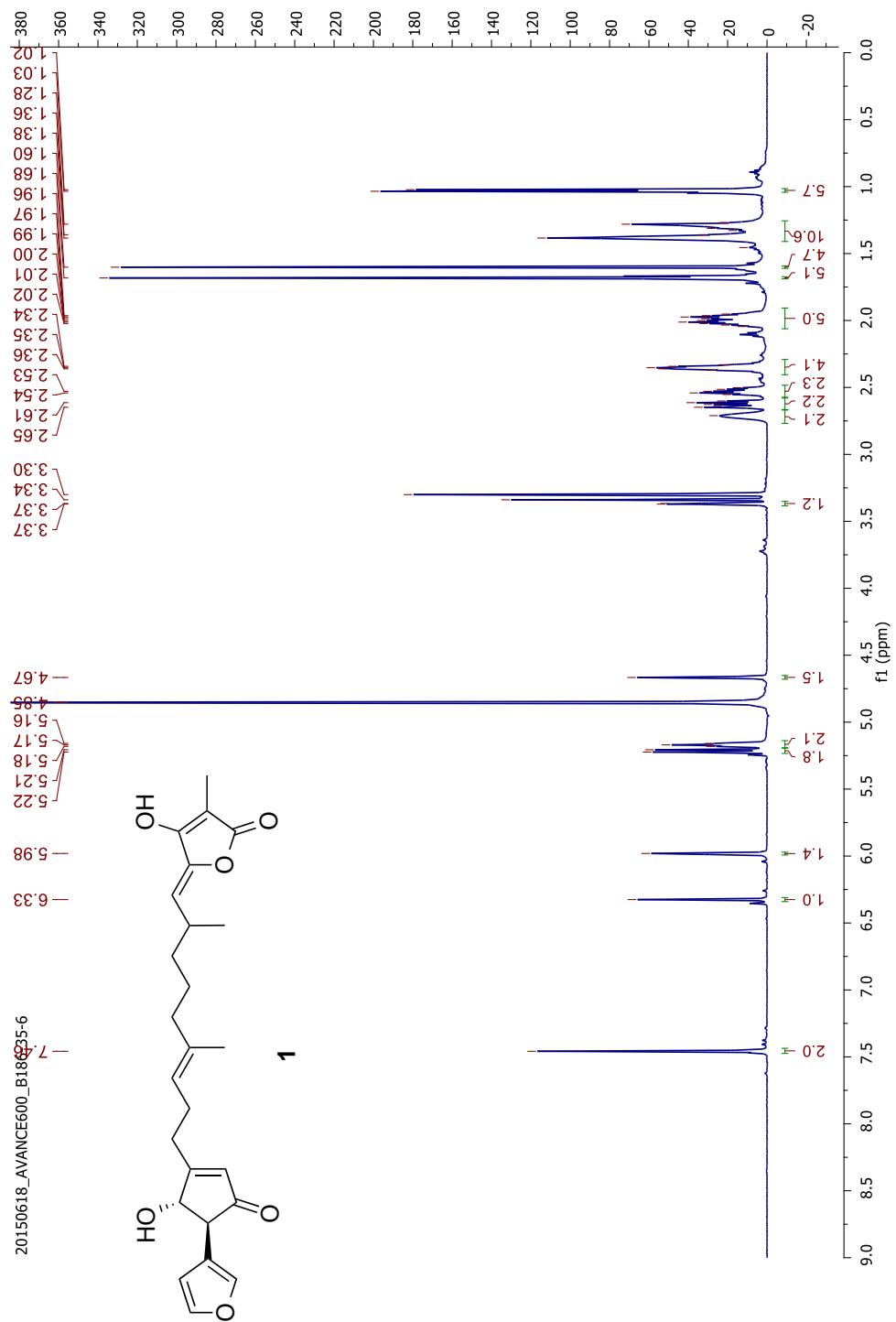
S15 **Figure S14.** HMQC spectrum of **3** in MeOH-*d*<sub>4</sub>.

S16 **Figure S15.** HMBC spectrum of **3** in MeOH-*d*<sub>4</sub>.

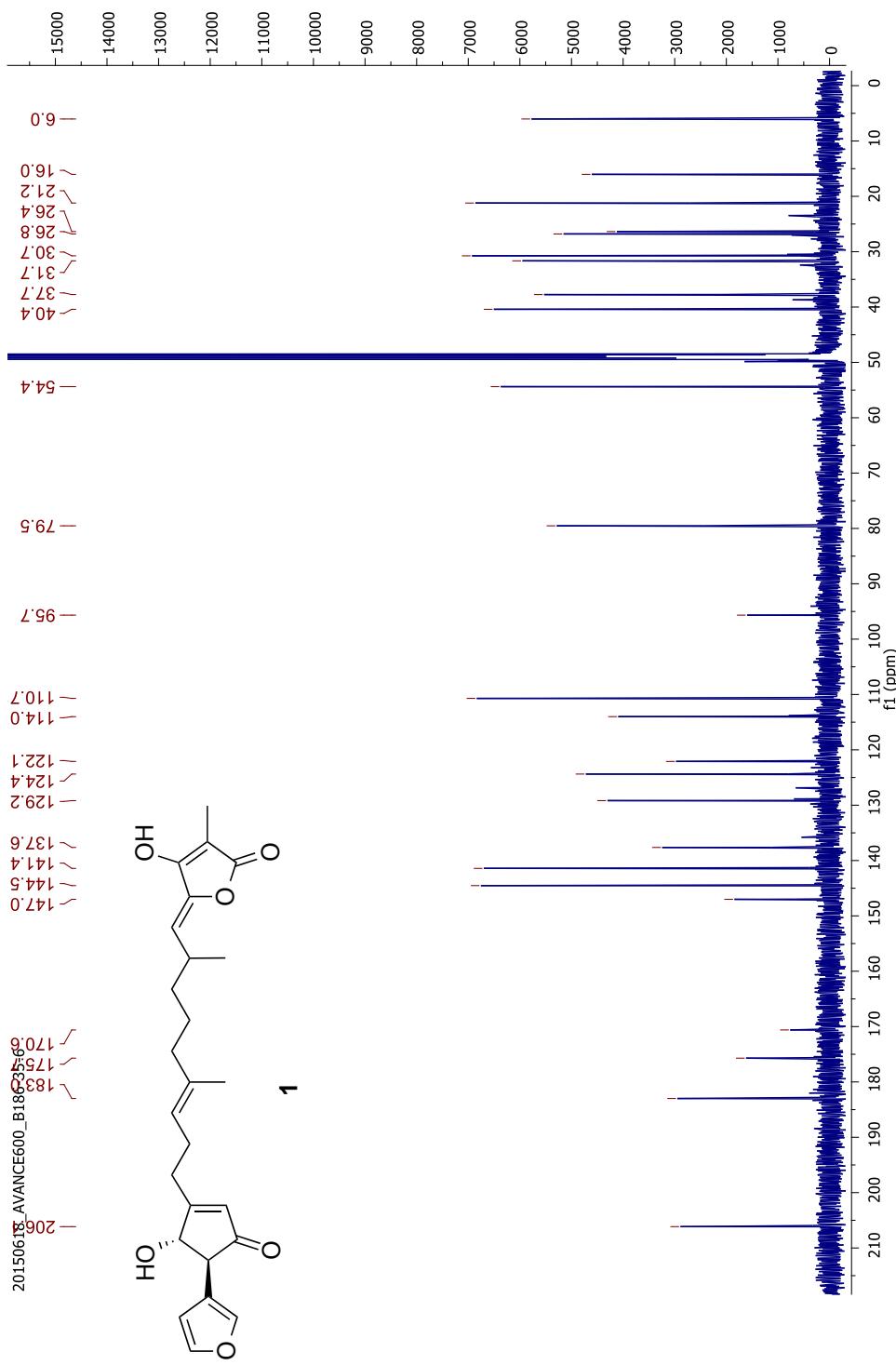
S17 **Figure S16.** (a) ECD spectra of (+)- and (-)-**4**. (b) LC-ESI-MS chromatograms of **4** and **5** and their separated enantiomers with an ODS column extracted at 254 nm. (c) LC-ESI-MS chromatograms of **1a–1d** with an ODS column extracted at 254 nm. (d) LC-ESI-MS chromatograms of **2a–2d** with an ODS column extracted at 254 nm.

S17 **Figure S17.** A picture of a *Psammocinia* sp. marine sponge.

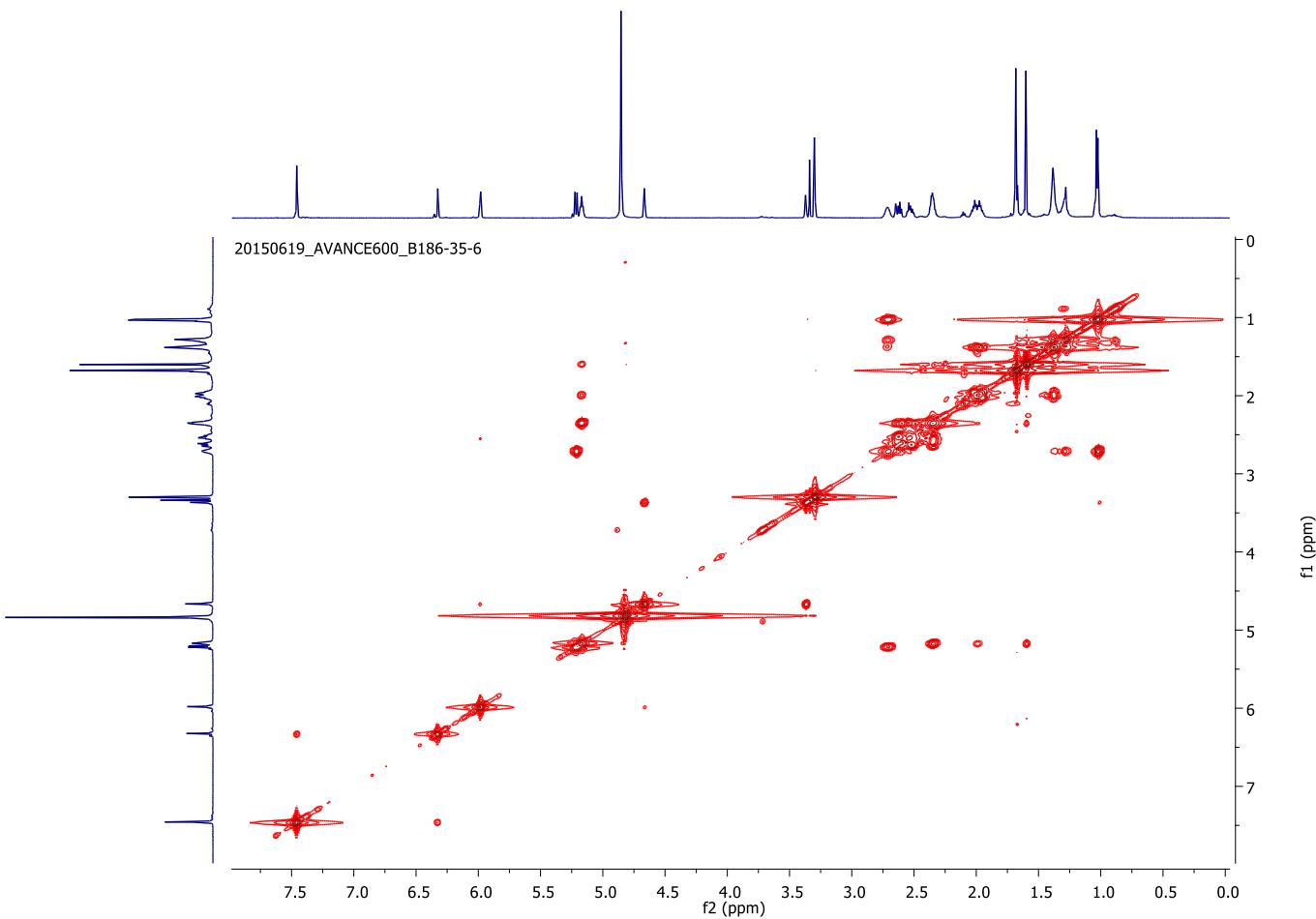
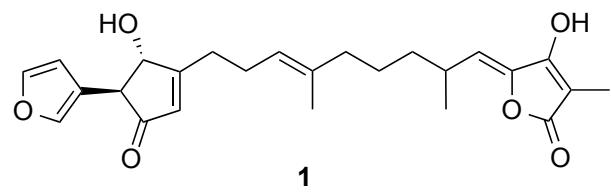
S18 **Table S1.** Observed  $^{13}\text{C}$  Chemical Shifts (MeOH-*d*<sub>4</sub>) for **1** and **2** and Calculated  $^{13}\text{C}$  Chemical Shifts of the Simplified Isomers, **6** and **7**.



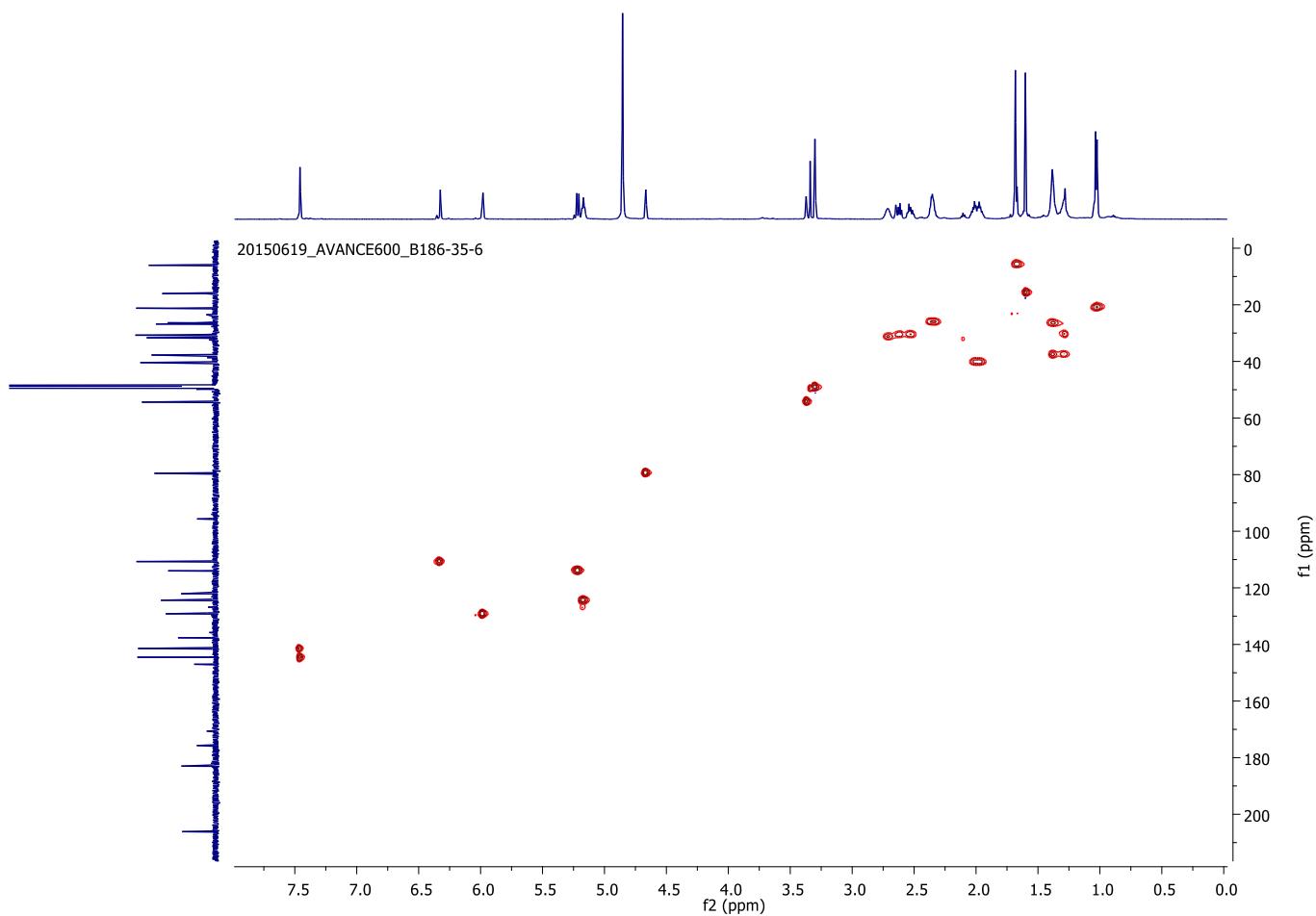
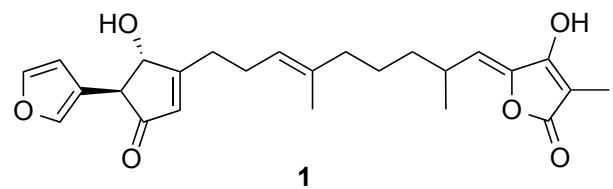
**Figure S1.** <sup>1</sup>H NMR spectrum of **1** in MeOH-*d*<sub>4</sub>.



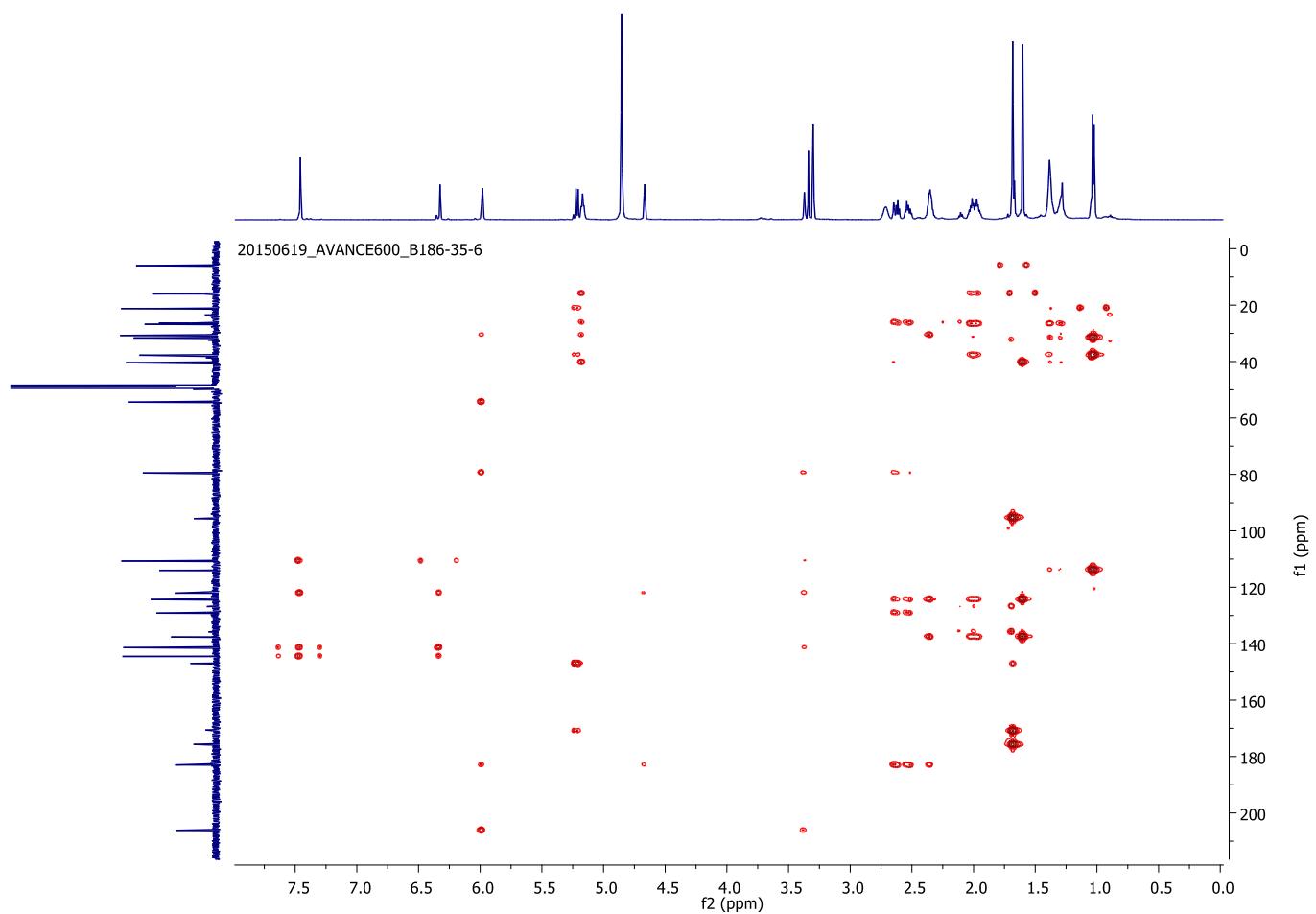
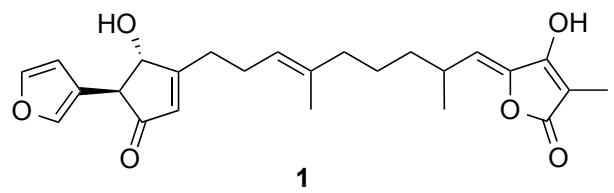
**Figure S2.**  $^{13}\text{C}$  NMR spectrum of **1** in MeOH- $d_4$ .



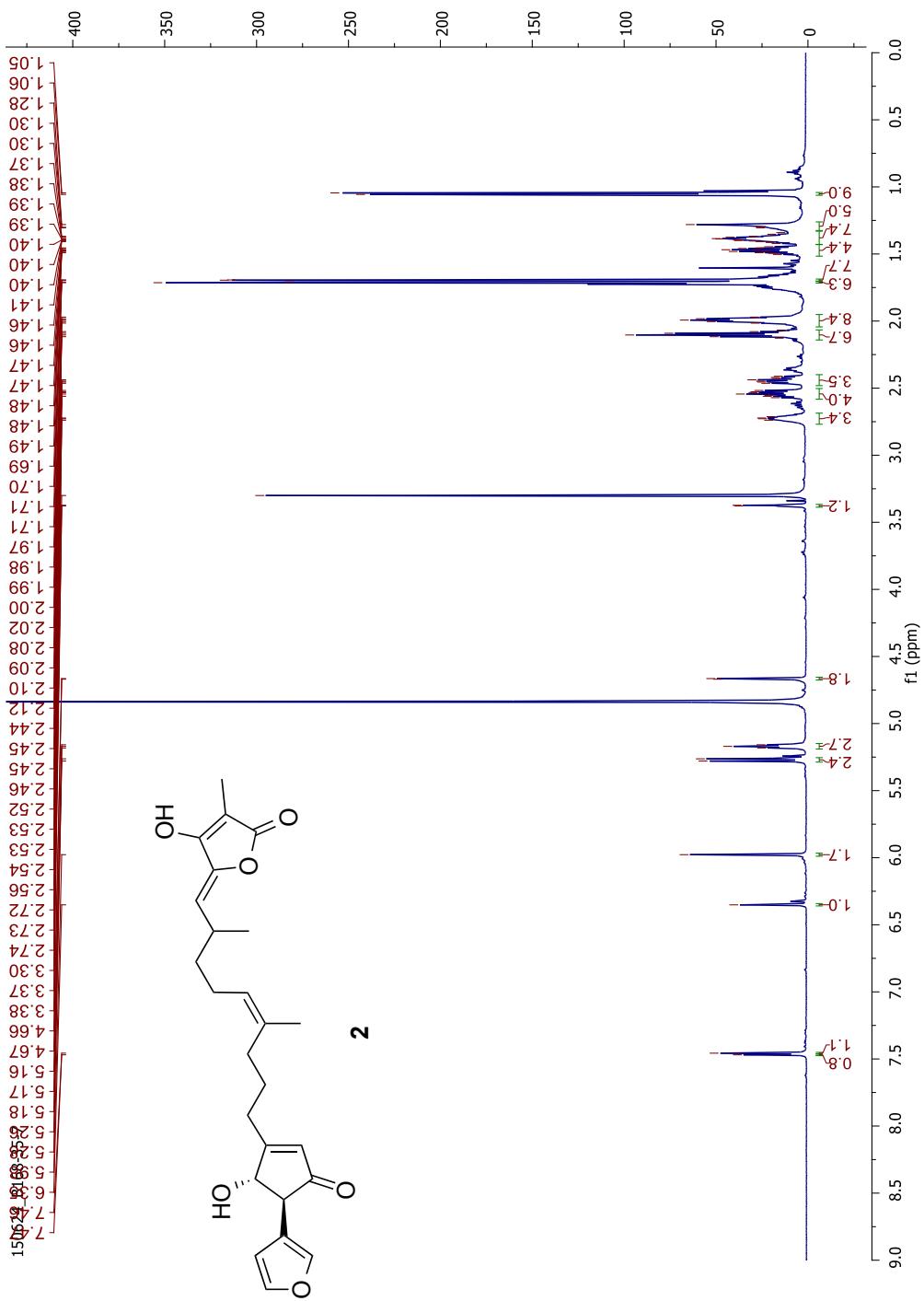
**Figure S3.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **1** in  $\text{MeOH}-d_4$ .



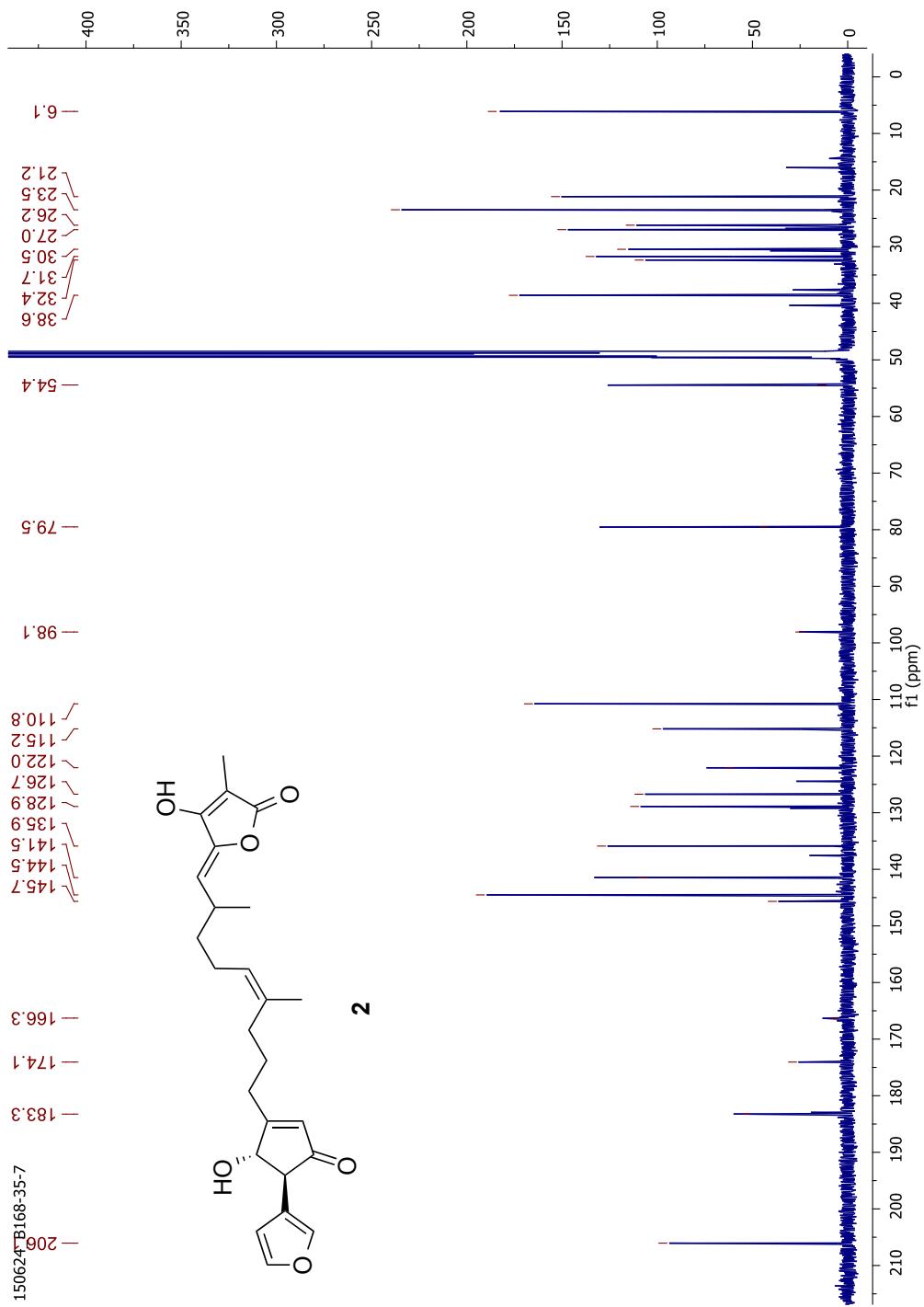
**Figure S4.** HSQC spectrum of **1** in MeOH-*d*<sub>4</sub>.



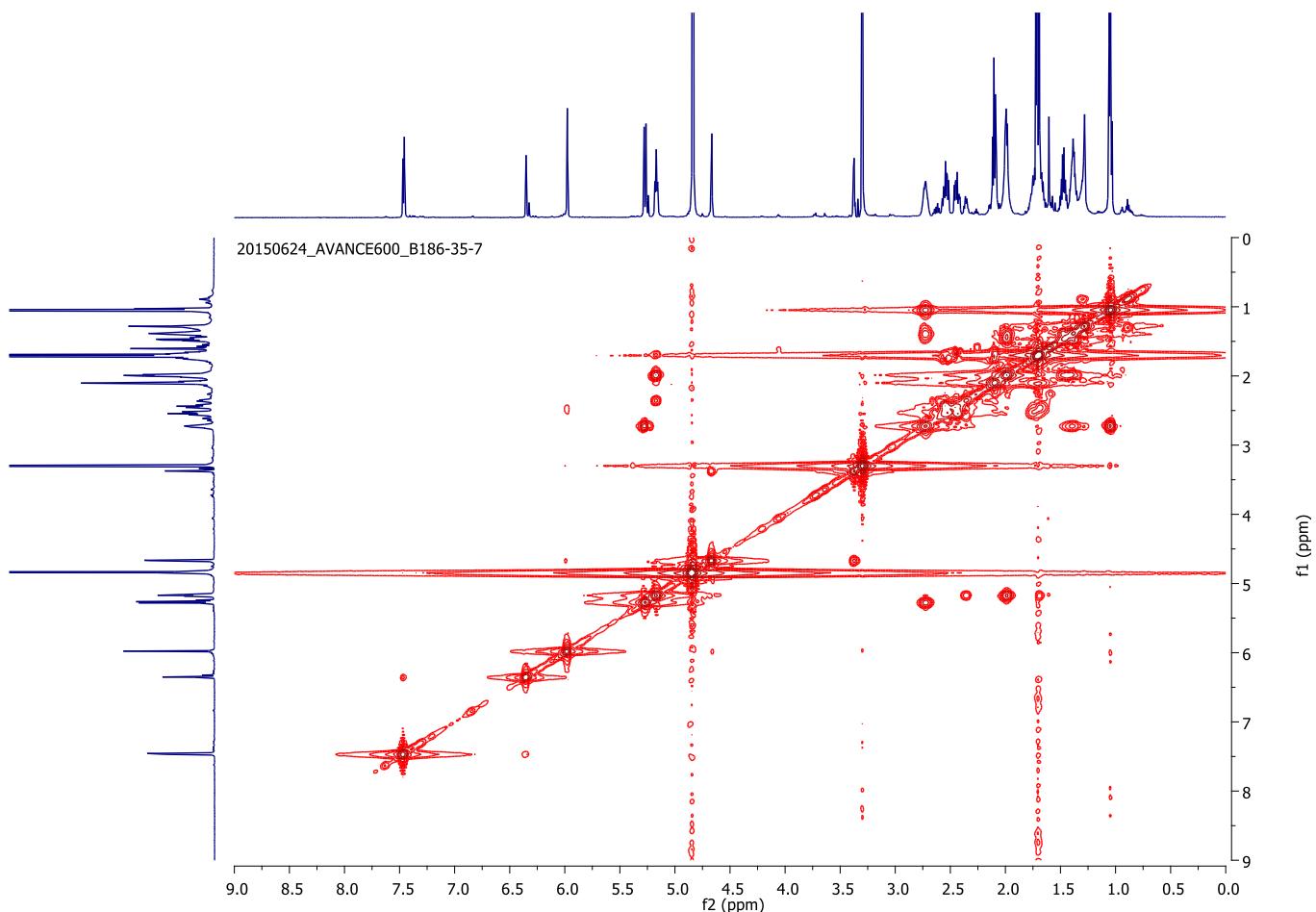
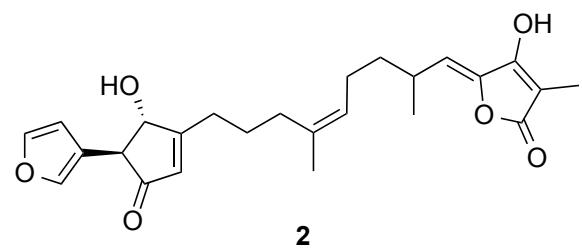
**Figure S5.** HMBC spectrum of **1** in  $\text{MeOH}-d_4$ .



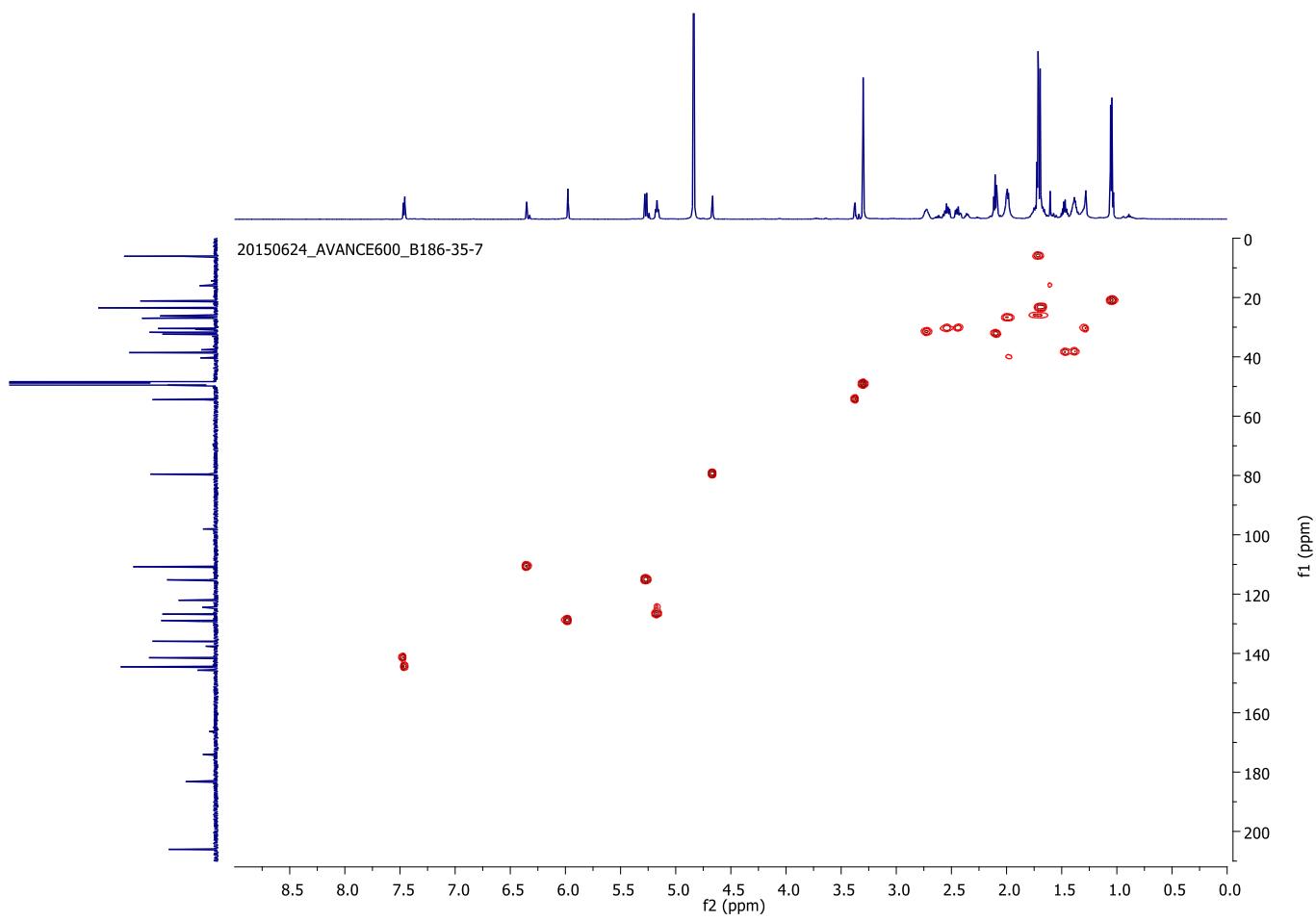
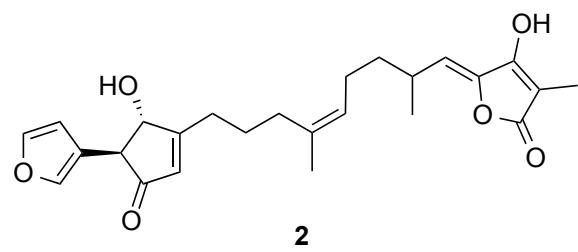
**Figure 6.**  $^1\text{H}$  NMR spectrum of **2** in MeOH-*d*<sub>4</sub>.



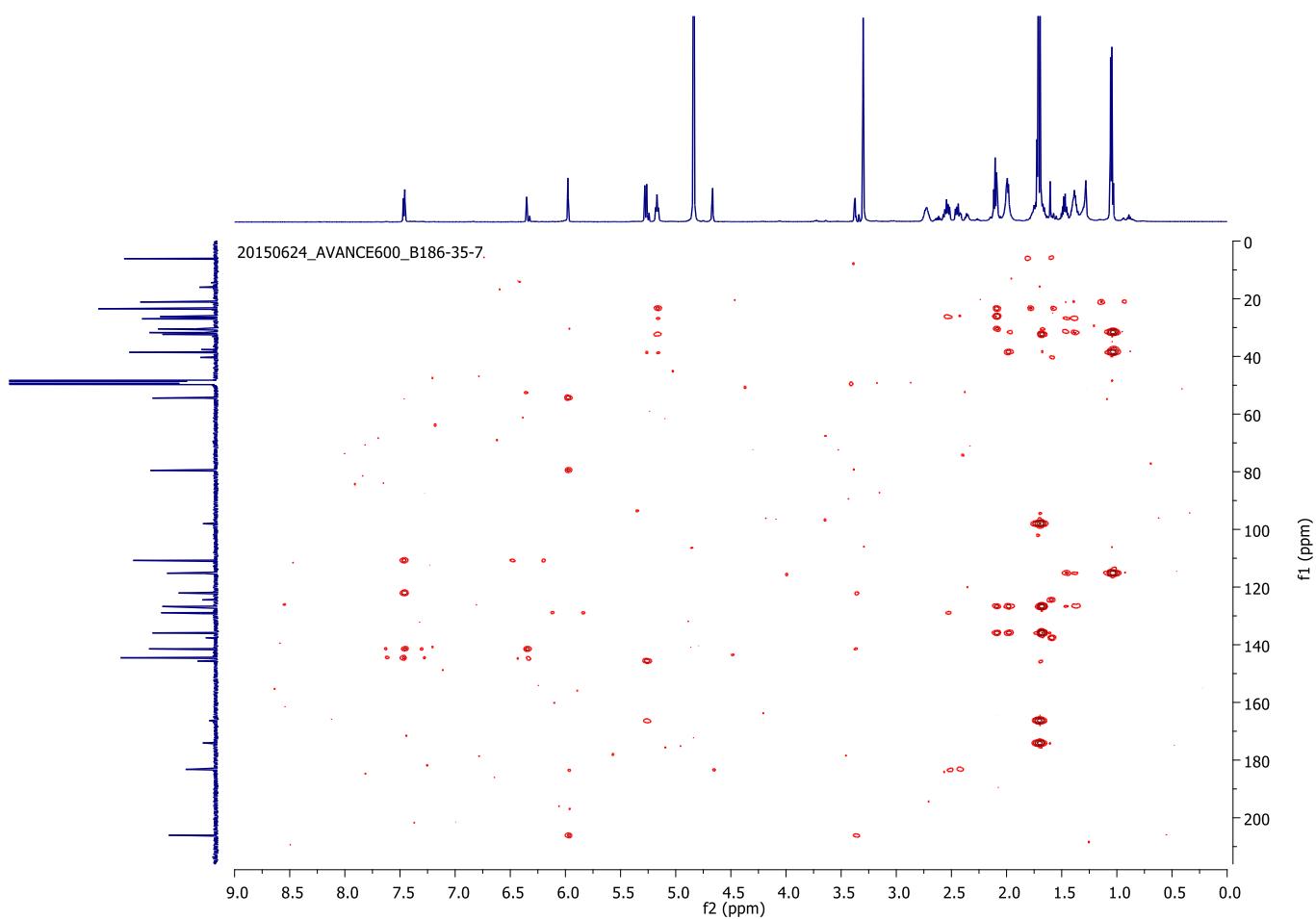
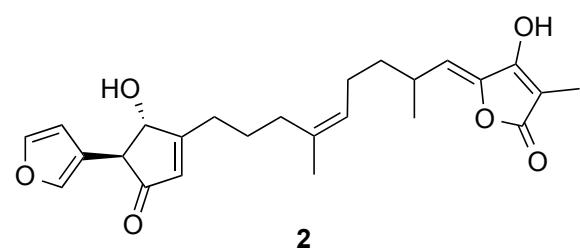
**Figure S7.**  $^1\text{H}$  NMR spectrum of **2** in  $\text{MeOH}-d_4$ .



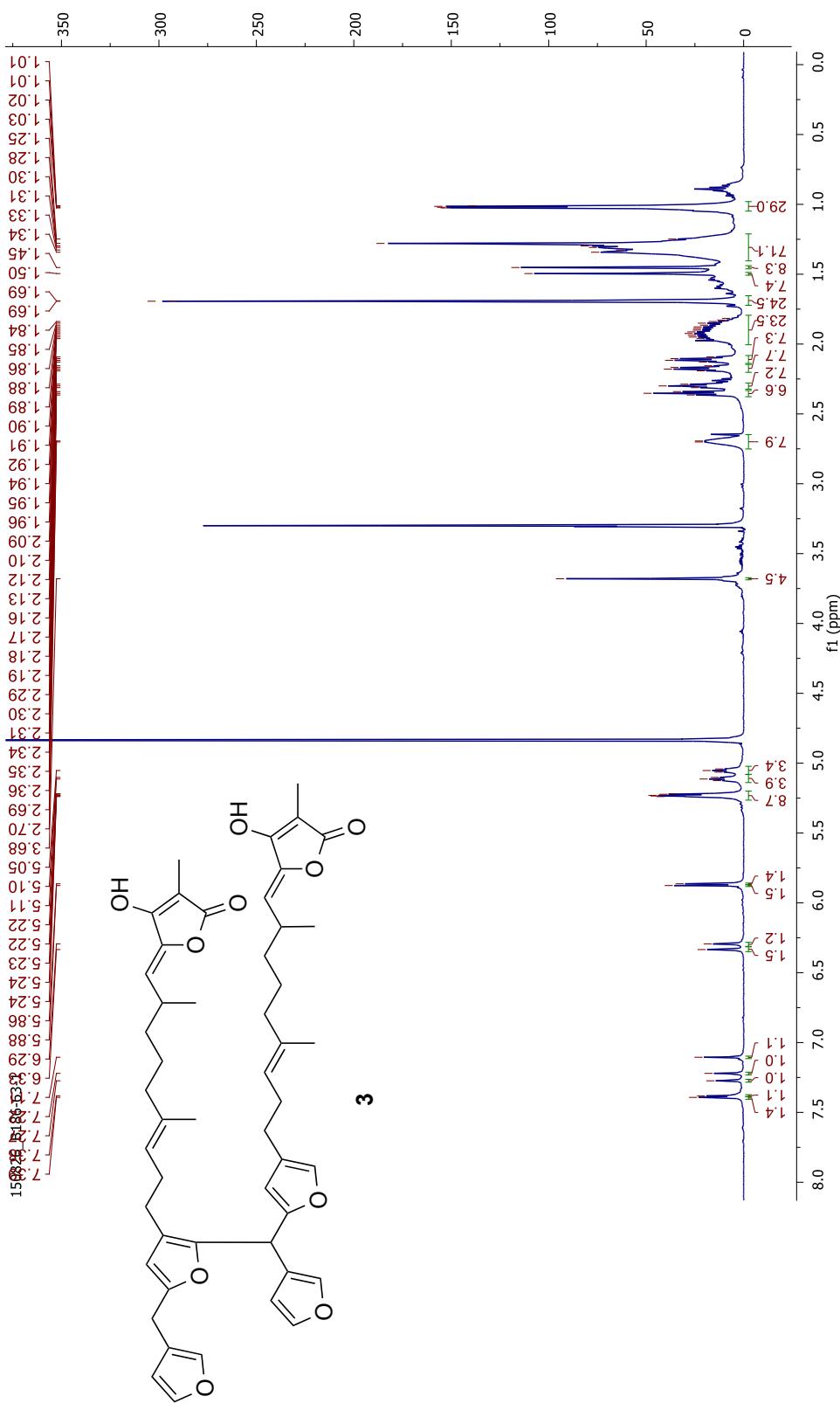
**Figure S8.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **2** in  $\text{MeOH}-d_4$ .



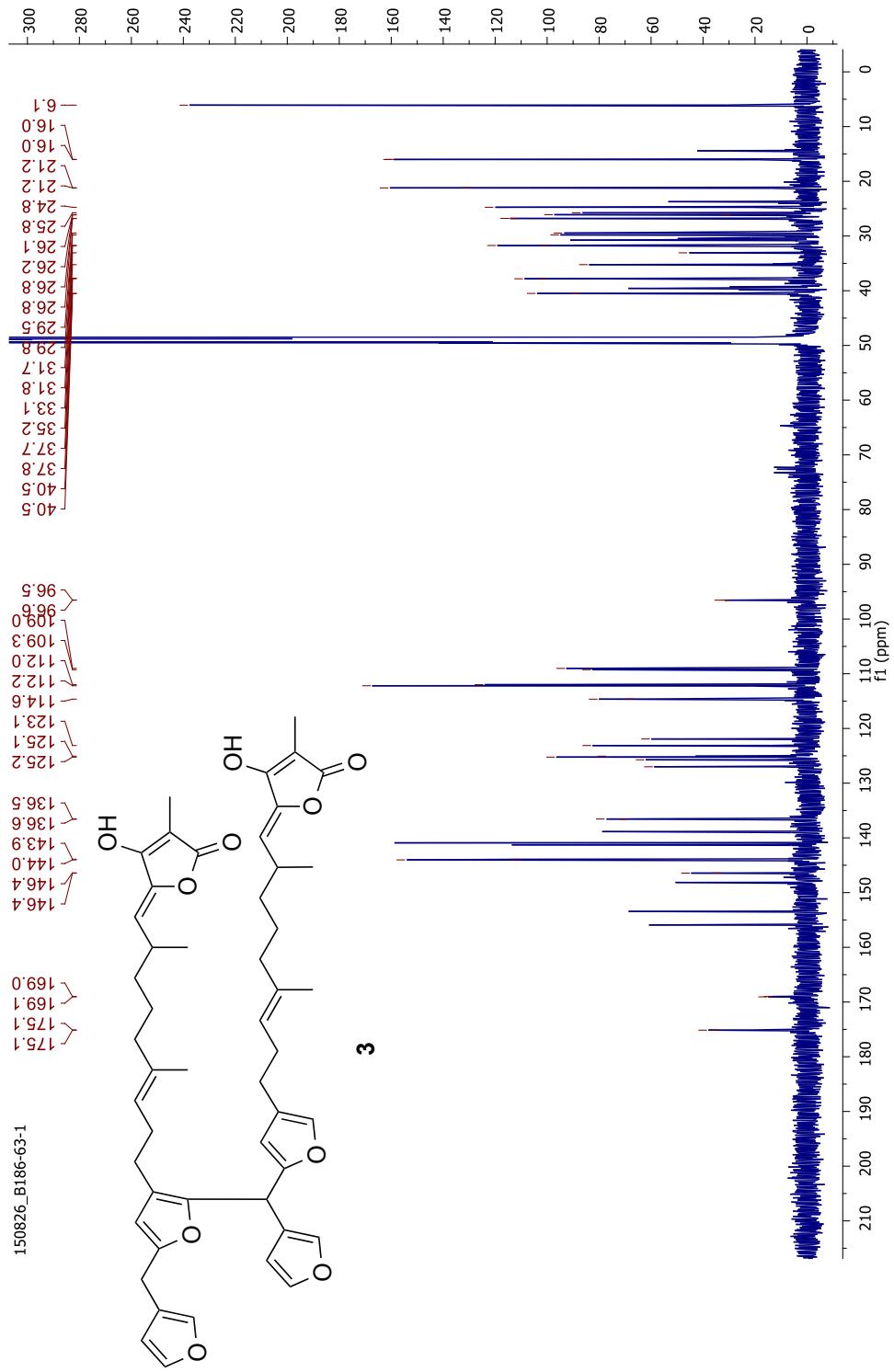
**Figure S9.** HSQC spectrum of **2** in  $\text{MeOH}-d_4$ .



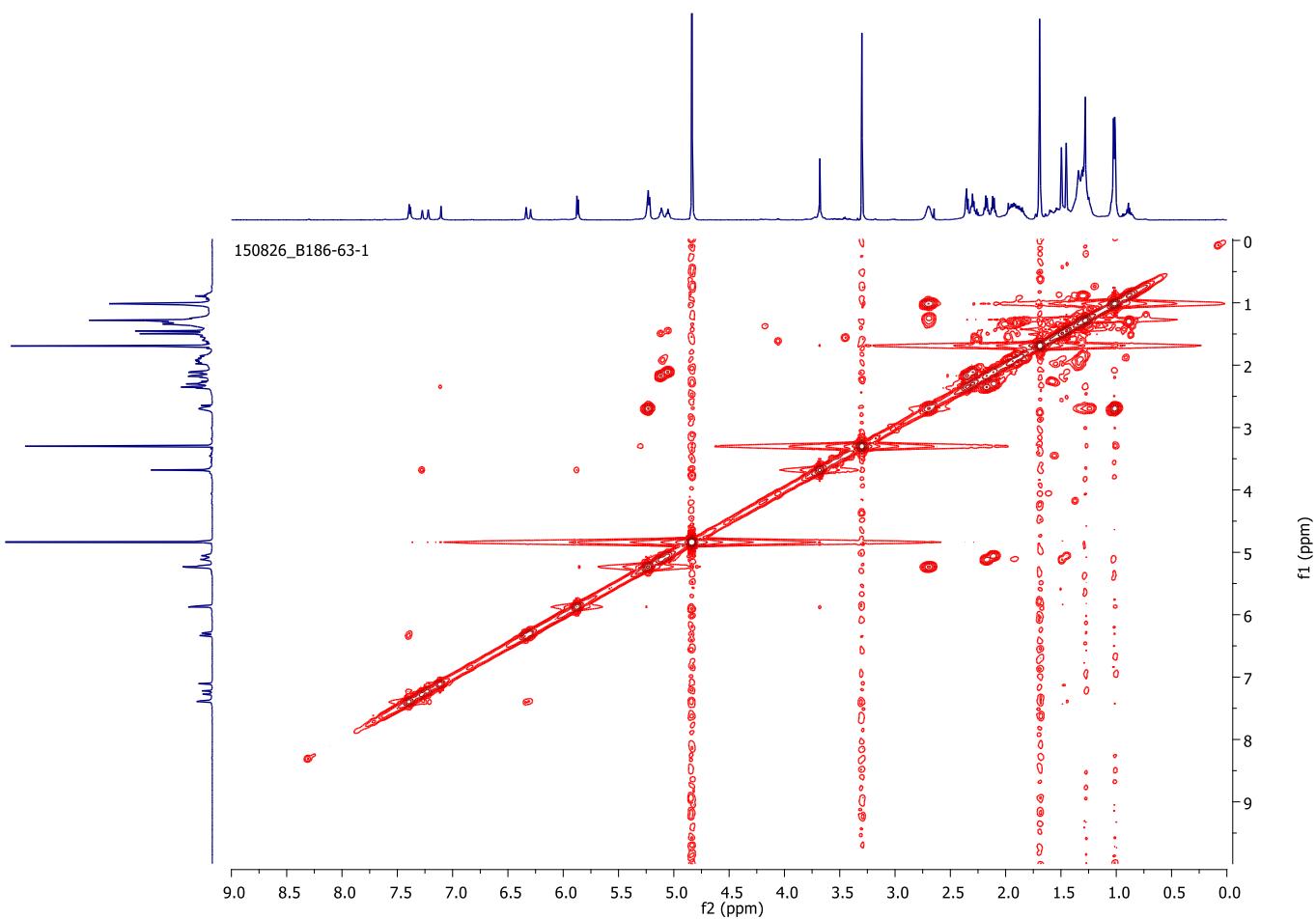
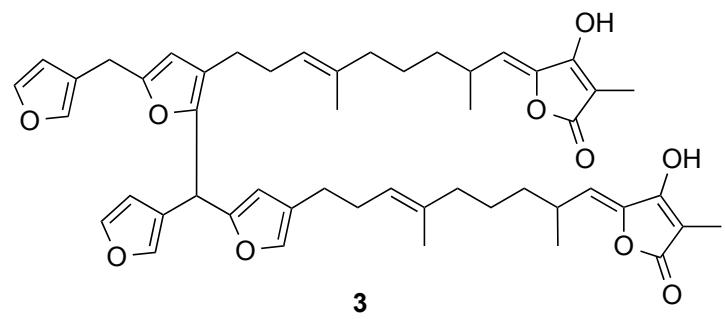
**Figure S10.** HMBC spectrum of **2** in  $\text{MeOH}-d_4$ .



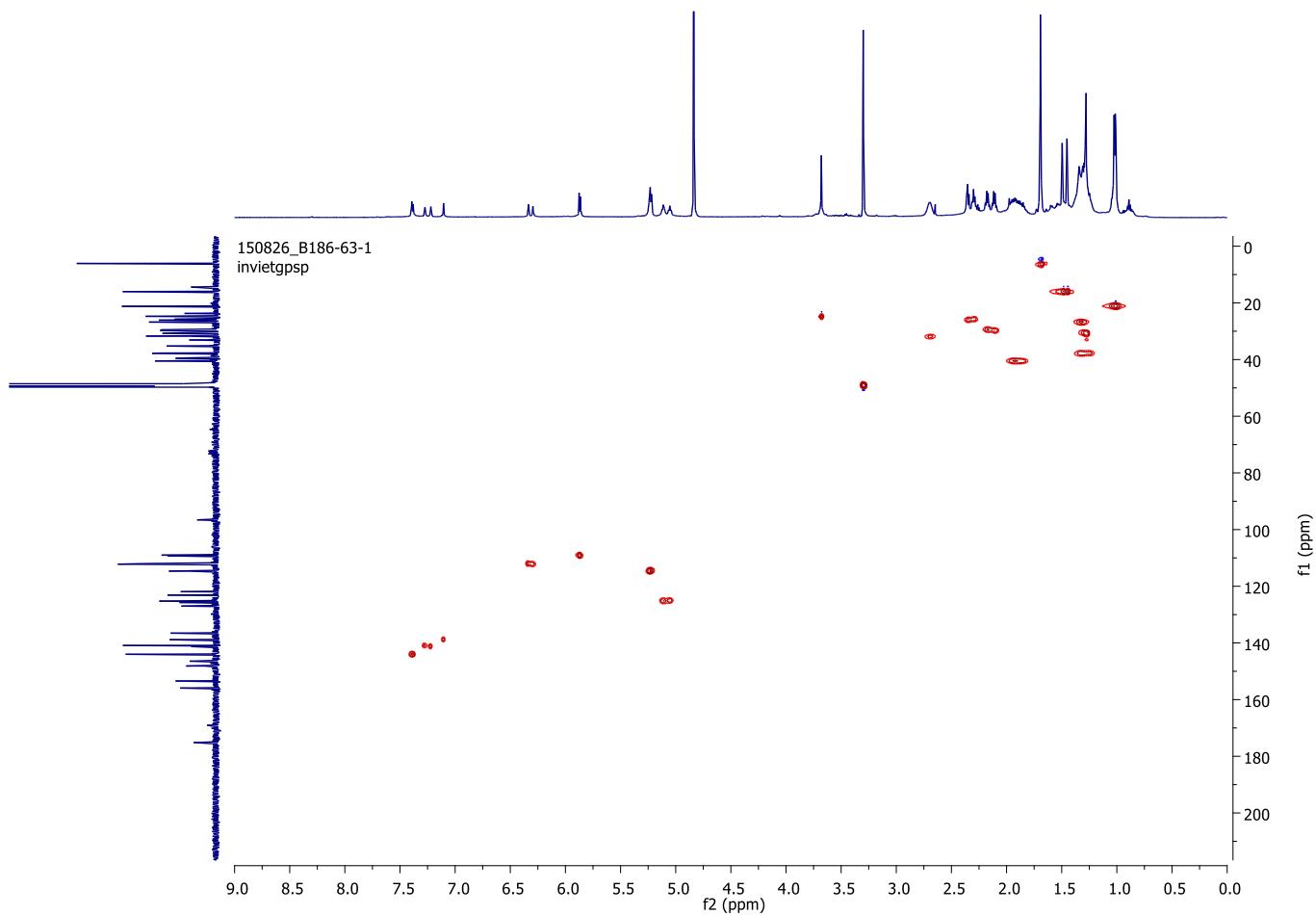
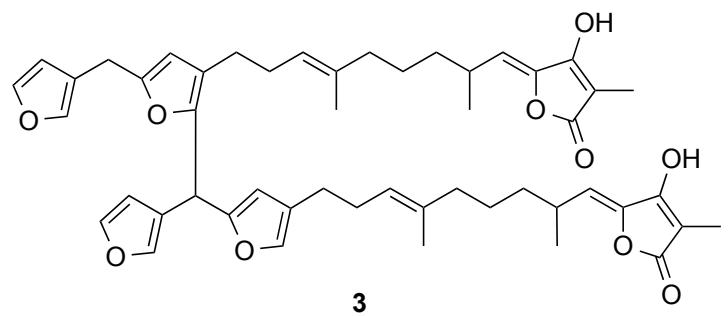
**Figure S11.**  $^1\text{H}$  NMR spectrum of **3** in  $\text{MeOH}-d_4$ .



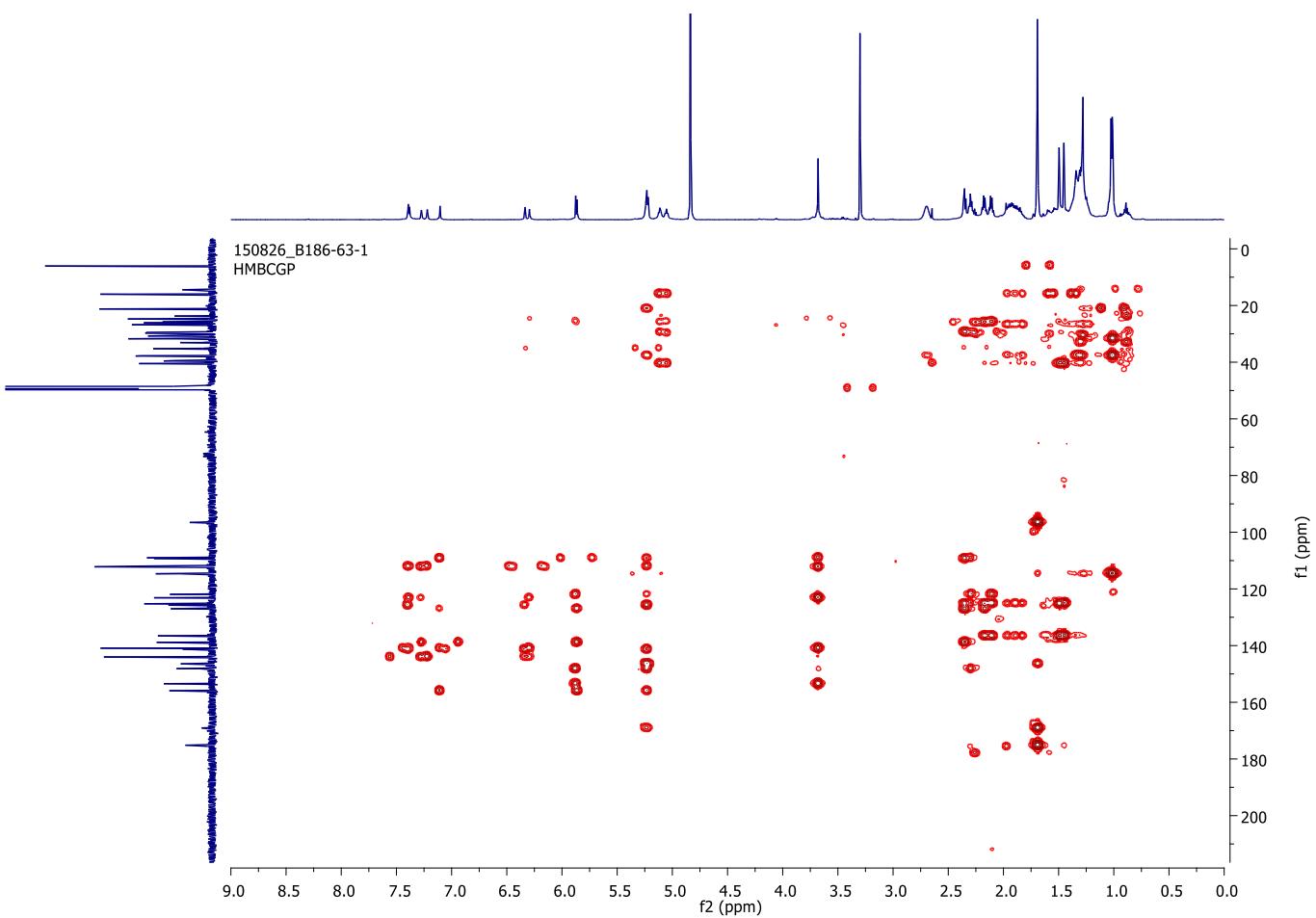
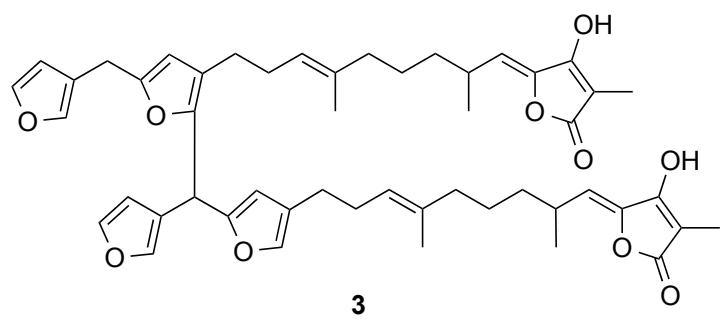
**Figure S12.**  $^{13}\text{C}$  NMR spectrum of **3** in MeOH- $d_4$ .



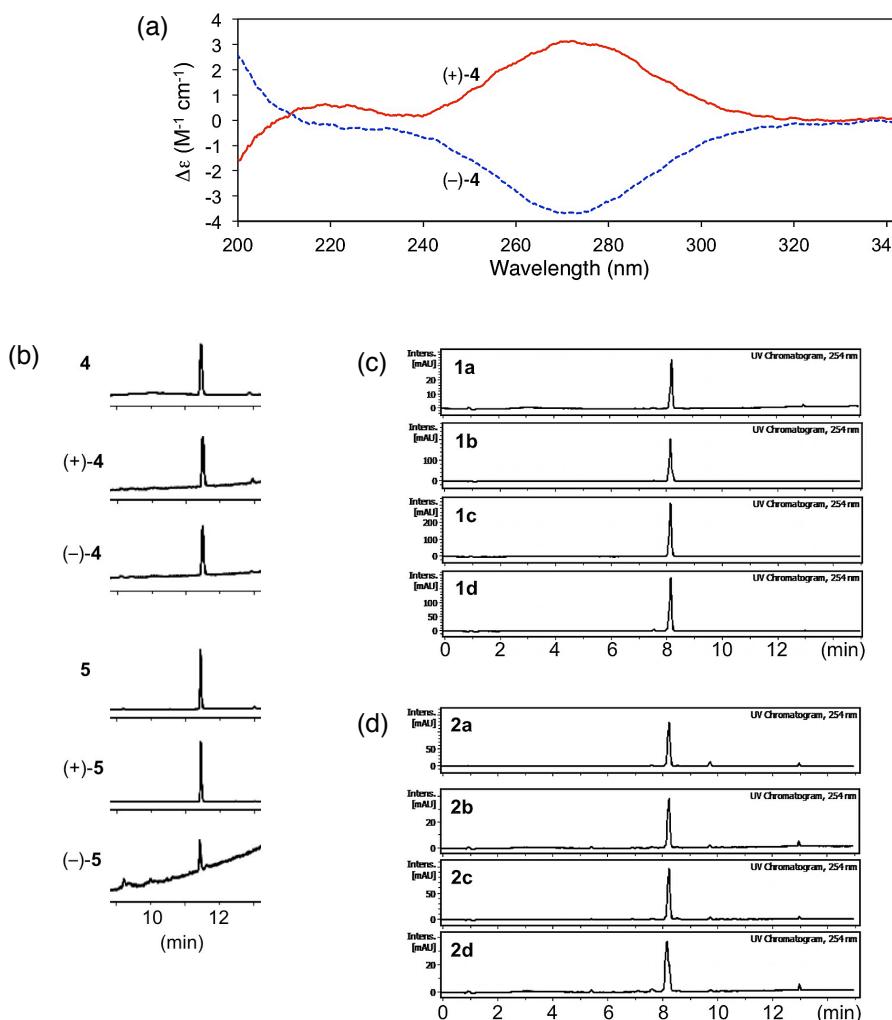
**Figure S13.**  $^1\text{H}$ - $^1\text{H}$  COSY spectrum of **3** in  $\text{MeOH}-d_4$ .



**Figure S14.** HSQC spectrum of **3** in  $\text{MeOH}-d_4$ .



**Figure S15.** HMBC spectrum of **3** in MeOH-*d*<sub>4</sub>.



**Figure S16.** (a) ECD spectra of (+)- and (-)-4. (b) LC-ESI-MS chromatograms of **4** and **5** and their separated enantiomers with an ODS column extracted at 254 nm. (c) LC-ESI-MS chromatograms of **1a–1d** with an ODS column extracted at 254 nm. (d) LC-ESI-MS chromatograms of **2a–2d** with an ODS column extracted at 254 nm.



**Figure S17.** A picture of a *Psammocinia* sp. marine sponge.

**Table S1. Observed  $^{13}\text{C}$  Chemical Shifts (MeOH- $d_4$ ) for 1 and 2 and Calculated  $^{13}\text{C}$  Chemical Shifts of the Simplified Isomers, 6 and 7.**

No	6	7	1	2
1	140.9	139.6	144.5	144.5
2	117.0	120.3	110.7	110.8
3	111.8	110.4	122.1	122.1
4	141.1	140.5	141.4	141.4
5	46.1	53.6	54.4	54.5
6	204.4	199.9	206.1	206.1
7	129.6	129.9	129.2	128.9
8	179.4	175.8	182.9	183.2
9	73.9	80.5	79.0	79.5