

## Supporting Information

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### Triterpenoids from *Acokanthera schimperi* in Ethiopia

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*Lupeol (2)*: white amorphous powder;  $^1\text{H-NMR}$  (600 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{H}}$ : 4.68 (1H, br.s, H-29), 4.56 (1H, br.s, H-29), 3.18 (1H, dd,  $J = 11.5, 4.7$  Hz, H-3), 1.68, 1.02, 0.96, 0.94, 0.82, 0.78, 0.76 (each 3H, s,  $7 \times \text{CH}_3$ ).  $^{13}\text{C-NMR}$  (150 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{C}}$ : 150.9 (C-20), 109.2 (C-29), 78.9 (C-3), 55.2 (C-5), 50.3 (C-9), 48.2 (C-18), 47.9 (C-19), 42.9 (C-17), 42.7 (C-14), 40.7 (C-8), 39.9 (C-22), 38.8 (C-4), 38.6 (C-1), 38.0 (C-13), 37.1 (C-10), 35.5 (C-16), 34.2 (C-7), 29.8 (C-21), 27.9 (C-23), 27.4 (C-2), 27.3 (C-15), 25.1 (C-12), 20.8 (C-11), 19.2 (C-30), 18.2 (C-6), 17.9 (C-28), 16.0 (C-25), 15.9 (C-26), 15.3 (C-24), 14.5 (C-27).

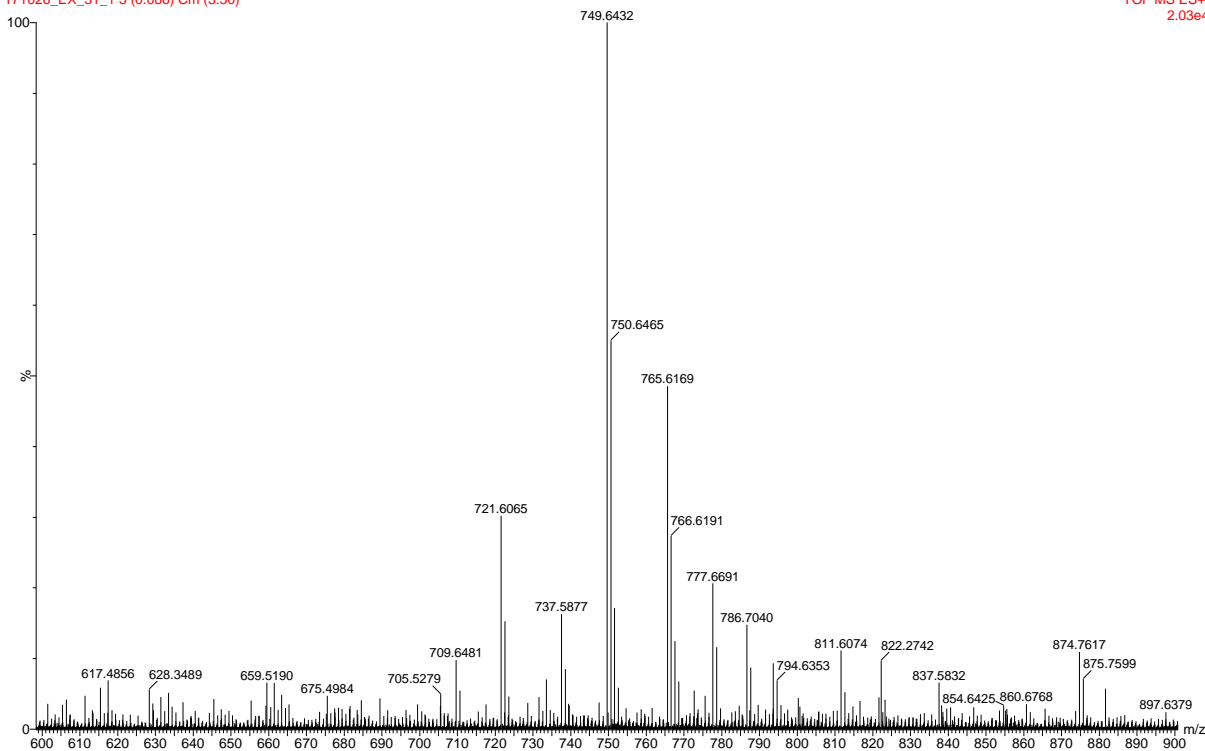
*28-Nor-urs-12-ene-3 $\beta$ ,17 $\beta$ -diol (3)*: white amorphous powder;  $^1\text{H-NMR}$  (600 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{H}}$ : 5.30 (1H, br.s, H-12), 3.22 (1H, dd,  $J = 11.2, 4.2$  Hz, H-3), 1.08, 1.00, 0.99, 0.95, 0.79 (each 3H, s,  $5 \times \text{CH}_3$ ), 0.93 (3H, d,  $J = 6.1$  Hz,  $\text{CH}_3$ ), 0.82 (3H, d,  $J = 6.4$  Hz,  $\text{CH}_3$ ).  $^{13}\text{C-NMR}$  (150 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{C}}$ : 137.3 (C-13), 127.7 (C-12), 78.9 (C-3), 72.0 (C-17), 60.5 (C-18), 55.1 (C-5), 47.5 (C-9), 41.8 (C-14), 41.5 (C-19), 40.3 (C-22), 39.7 (C-8), 39.2 (C-20), 38.7 (C-4), 38.6 (C-1), 36.9 (C-10), 32.9 (C-7), 32.2 (C-21), 28.3 (C-16), 28.1 (C-23), 27.1 (C-2), 25.9 (C-15), 23.5 (C-11), 23.0 (C-27), 20.6 (C-30), 18.2 (C-6), 17.2 (C-29), 17.0 (C-26), 15.6 (C-24), 15.4 (C-25).

*Ursolic aldehyde (4)*: white amorphous powder;  $^1\text{H-NMR}$  (600 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{H}}$ : 9.34 (1H, s, H-28), 5.32 (1H, m, H-12), 3.22 (1H, dd,  $J = 11.5, 4.8$  Hz, H-3), 1.10, 1.00, 0.93, 0.79, 0.78 (each 3H, s,  $5 \times \text{CH}_3$ ), 0.98 (3H, d,  $J = 6.4$  Hz,  $\text{CH}_3$ ), 0.89 (3H, d,  $J = 6.4$  Hz,  $\text{CH}_3$ ).  $^{13}\text{C-NMR}$  (150 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{C}}$ : 207.4 (C-28), 137.7 (C-13), 126.1 (C-12), 78.9 (C-3), 55.1 (C-5), 52.5 (C-18), 50.1 (C-17), 47.5 (C-9), 42.1 (C-14), 39.7 (C-8), 38.9 (C-19), 38.7 (C-20), 38.7 (C-4), 38.6 (C-1), 36.9 (C-10), 33.0 (C-22), 31.8 (C-7), 30.1 (C-21), 28.1 (C-15), 27.1 (C-2), 26.8 (C-23), 23.2 (C-11), 23.2 (C-16), 23.2 (C-27), 21.0 (C-30), 18.2 (C-6), 17.1 (C-26), 16.6 (C-29), 15.6 (C-24), 15.5 (C-25).

*3 $\beta$ -Hydroxy-oleana-11,13(18)-dien-28-oic acid (5)*: white amorphous powder;  $^1\text{H-NMR}$  (600 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{H}}$ : 6.42 (1H, dd,  $J = 10.5, 2.5$  Hz, H-11), 5.64 (1H, d,  $J = 10.3$  Hz, H-12), 3.24 (1H, dd,  $J = 11.5, 4.7$  Hz, H-3), 0.93, 0.97, 0.94, 0.90, 0.79, 0.78, 0.78 (each 3H, s,  $7 \times \text{CH}_3$ ).  $^{13}\text{C-NMR}$  (100 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{C}}$ : 181.3 (C-28), 137.0 (C-13), 131.1 (C-18), 127.1 (C-12), 125.2 (C-11), 79.0 (C-3), 54.8 (C-5), 54.3 (C-9), 48.0 (C-17), 42.0 (C-14), 40.7 (C-8), 40.4 (C-19), 38.8 (C-4), 37.9 (C-1), 36.8 (C-21), 36.6 (C-10), 35.5 (C-22), 32.5 (C-15), 32.4 (C-7), 32.1 (C-20), 31.9 (C-29), 27.8 (C-23), 27.1 (C-2), 24.9 (C-16), 24.0 (C-30), 19.7 (C-27), 18.2 (C-6), 18.0 (C-25), 16.4 (C-26), 15.0 (C-24).

*Oleanolic acid (7)*: white amorphous powder;  $^1\text{H-NMR}$  (400 MHz,  $\text{CDCl}_3 + \text{CD}_3\text{OD}$ )  $\delta_{\text{H}}$ : 5.25 (1H, br.s, H-12), 3.16 (1H, m, H-3), 1.12, 0.95, 0.91, 0.89, 0.88, 0.76, 0.75 (each 3H, s,  $7 \times \text{CH}_3$ ).  $^{13}\text{C-NMR}$  (100 MHz,  $\text{CDCl}_3 + \text{CD}_3\text{OD}$ )  $\delta_{\text{C}}$ : 181.0 (C-28), 144.1 (C-13), 122.5 (C-12), 79.0 (C-3), 55.5 (C-5), 47.9 (C-9), 46.6 (C-17), 46.2 (C-19), 41.9 (C-14), 41.5 (C-18), 39.5 (C-8), 38.9 (C-1), 38.7 (C-4), 37.2 (C-10), 34.1 (C-21), 33.2 (C-29), 33.0 (C-7), 32.8 (C-22), 30.8 (C-20), 28.1 (C-23), 27.9 (C-15), 26.9 (C-2), 26.0 (C-27), 23.6 (C-30), 23.6 (C-16), 23.2 (C-11), 18.5 (C-6), 17.0 (C-26), 15.7 (C-24), 15.4 (C-25).

*Ursolic acid lactone (8)*: white amorphous powder;  $^1\text{H-NMR}$  (400 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{H}}$ : 5.96 (1H, d,  $J = 10.3$  Hz, H-12), 5.53 (1H, dd,  $J = 10.3, 3.1$  Hz, H-11), 3.22 (1H, dd,  $J = 11.2, 5.0$  Hz, H-3), 1.16, 1.05, 0.98, 0.98, 0.78 (each 3H, s,  $5 \times \text{CH}_3$ ), 0.99 (3H, d,  $J = 6.0$  Hz,  $\text{CH}_3$ ), 0.92 (3H, d,  $J = 7.5$  Hz,  $\text{CH}_3$ ).  $^{13}\text{C-NMR}$  (100 MHz,  $\text{CDCl}_3$ )  $\delta_{\text{C}}$ : 179.9 (C-28), 133.4 (C-12), 128.8 (C-11), 89.6 (C-13), 78.8 (C-3), 60.5 (C-18), 54.7 (C-5), 53.0 (C-9), 45.0 (C-17), 41.9 (C-8), 41.7 (C-14), 40.2 (C-19), 38.9 (C-4), 38.2 (C-1), 38.1 (C-20), 36.3 (C-10), 31.3 (C-22), 31.2 (C-7), 30.8 (C-21), 27.7 (C-23), 27.0 (C-2), 25.5 (C-15), 22.8 (C-16), 19.1 (C-25), 18.8 (C-26), 17.9 (C-30), 17.8 (C-29), 17.6 (C-6), 16.1 (C-27), 14.9 (C-24).



## Elemental Composition Report

### Single Mass Analysis

Tolerance = 100.0 PPM / DBE: min = -1.5, max = 50.0

Selected filters: None

### Monoisotopic Mass, Even Electron Ions

112 formula(e) evaluated with 20 results within limits (up to 5 closest results for each mass)

Elements Used:

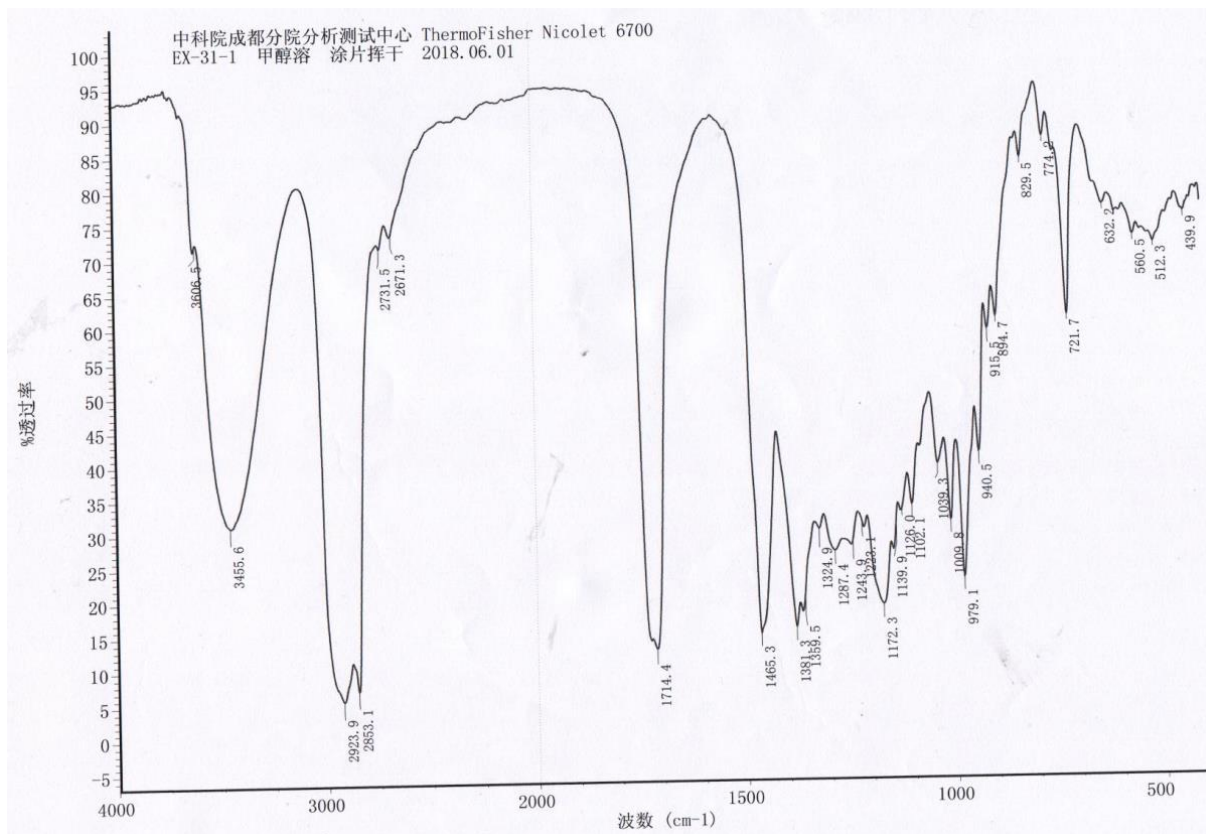
C: 0-200 H: 0-200 O: 0-5 Na: 0-1

Minimum: -1.5

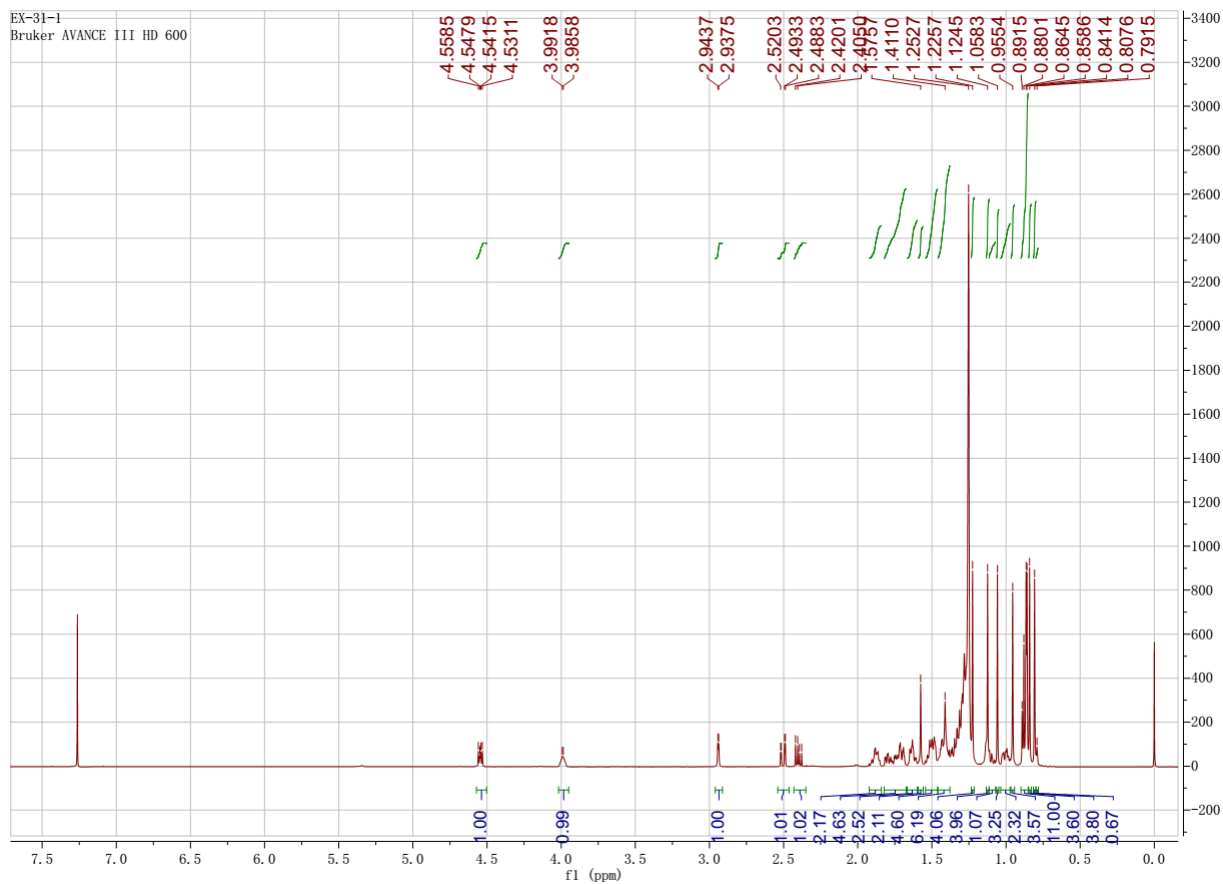
Maximum: 5.0 100.0 50.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Formula
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	749.6448	-1.6	-2.1	8.5	7.4	C50 H85 O4
	749.6576	-14.4	-19.2	9.5	57.6	C52 H86 O Na
	749.6600	-16.8	-22.4	12.5	98.6	C54 H85 O
	749.6237	9.5	26.0	13.5	95.2	C53 H81 O2

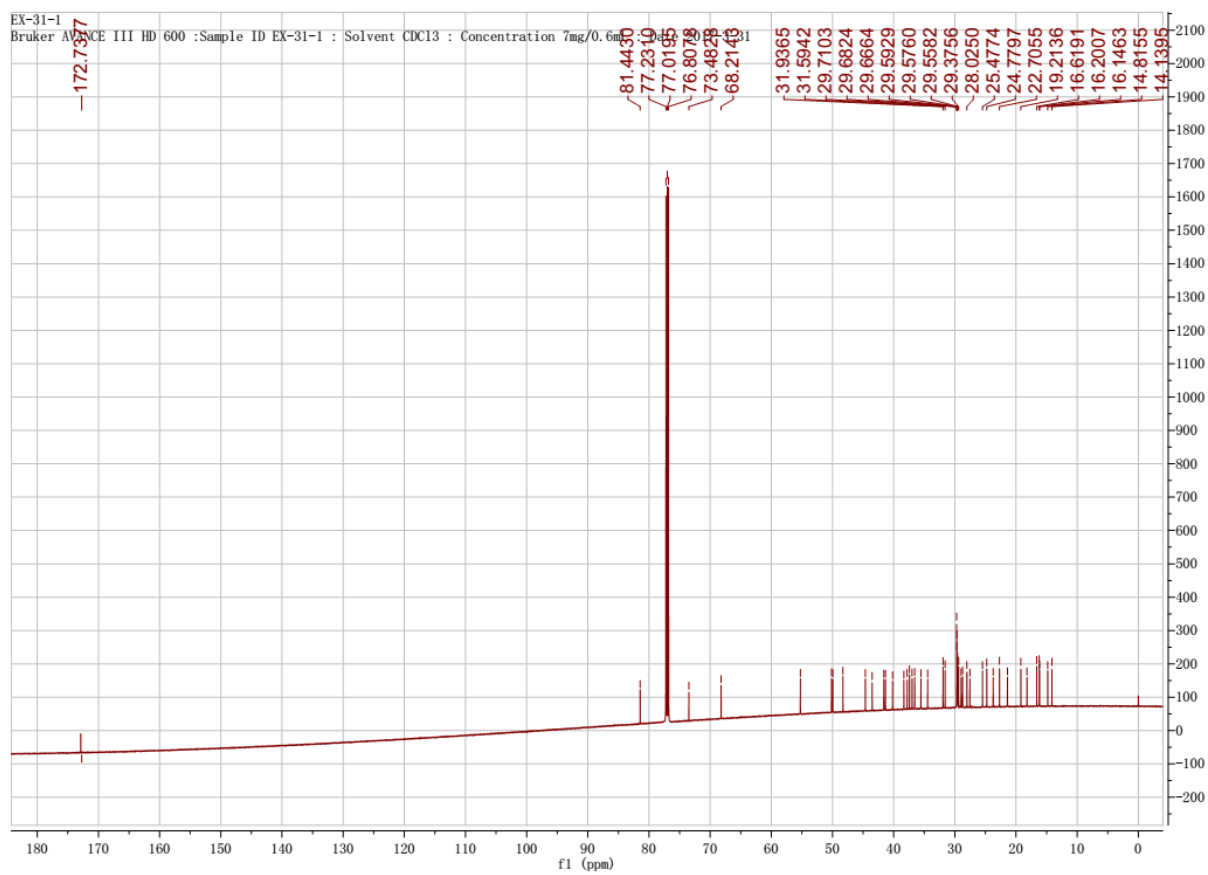
**Figure S1: HRESIMS Spectrum of Compound 1**



**Figure S2: IR Spectrum of Compound 1**

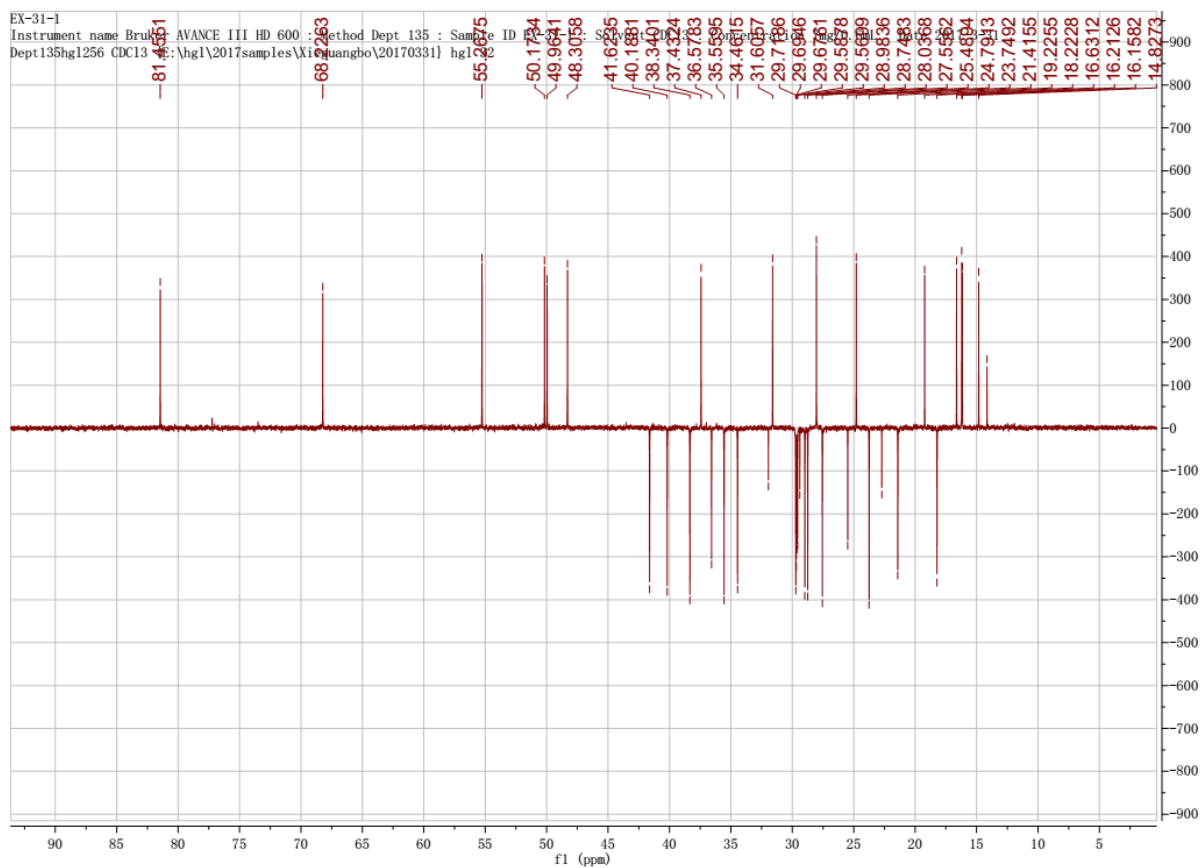


**Figure S3:**  $^1\text{H}$ -NMR Spectrum of Compound 1

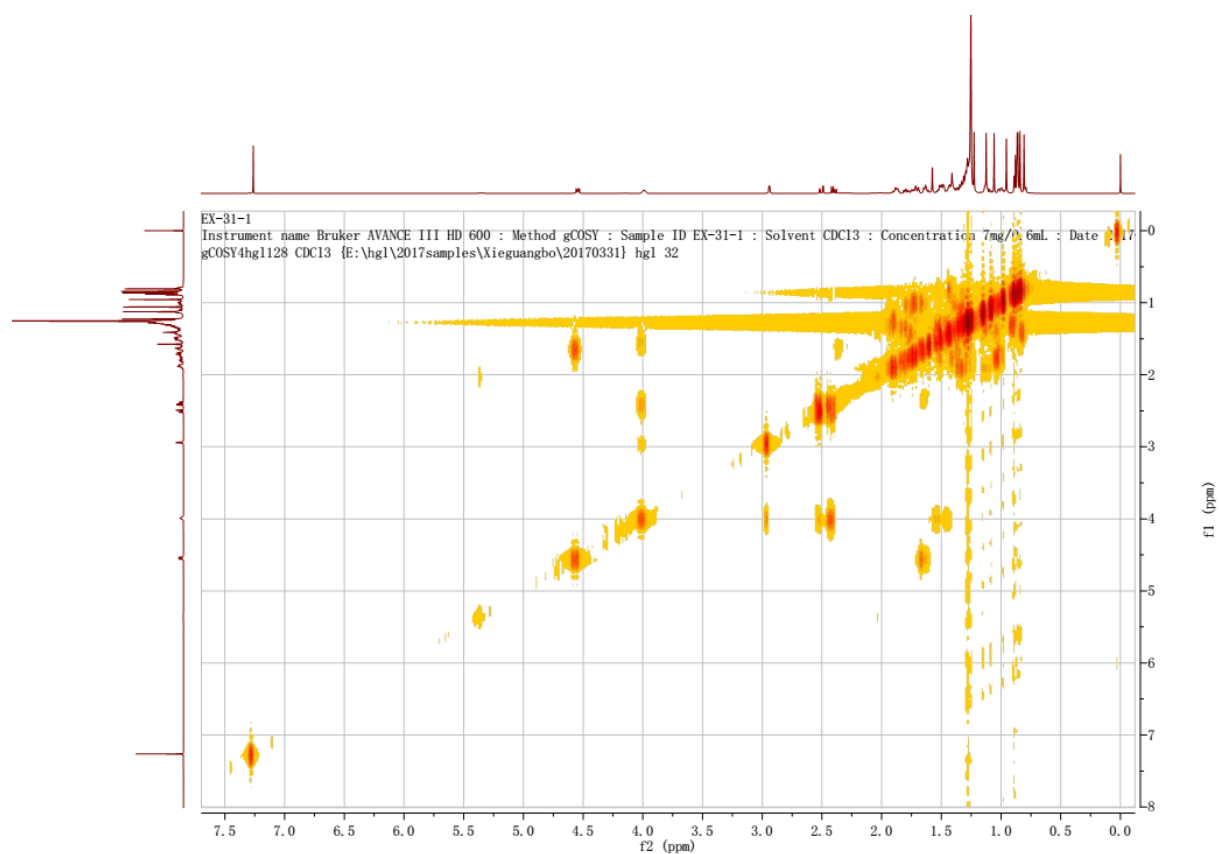


**Figure S4:**  $^{13}\text{C}$ -NMR Spectrum of Compound 1

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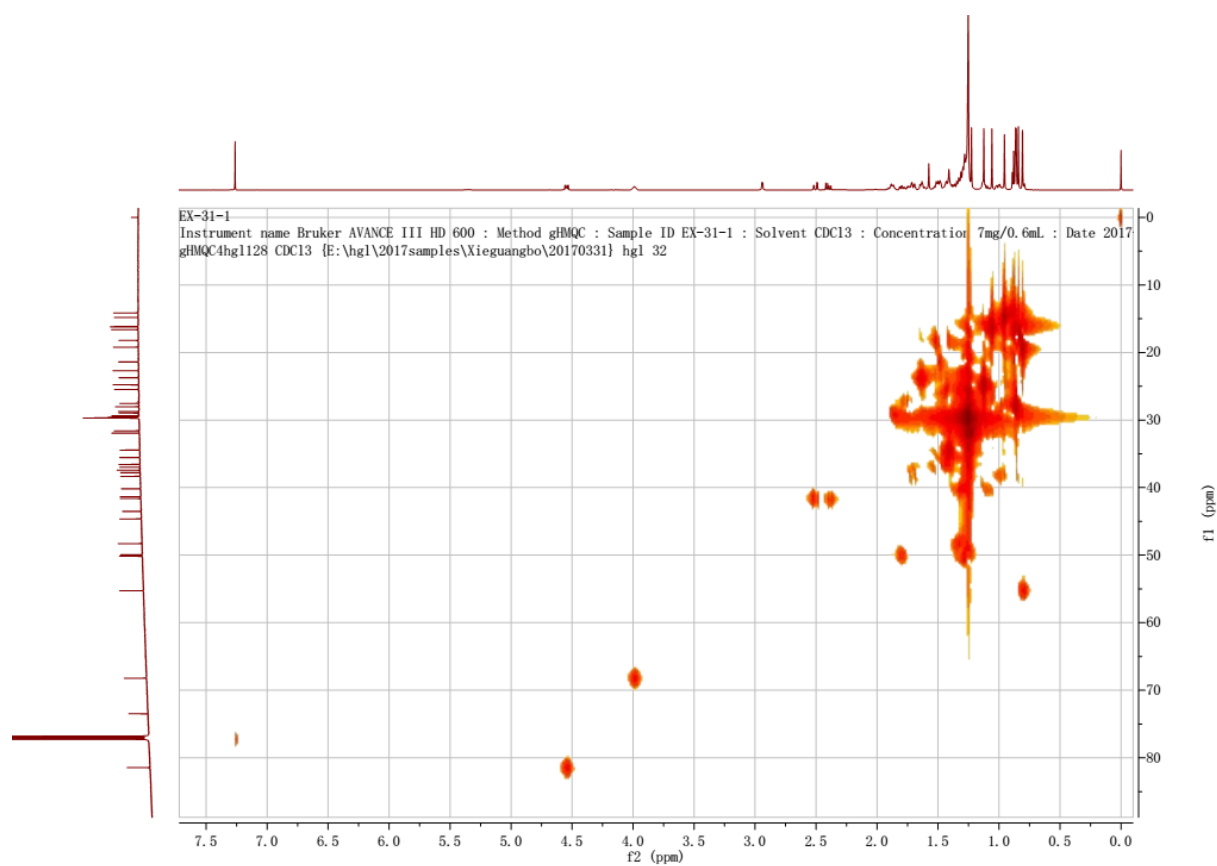


**Figure S5: DEPT Spectrum of Compound 1**

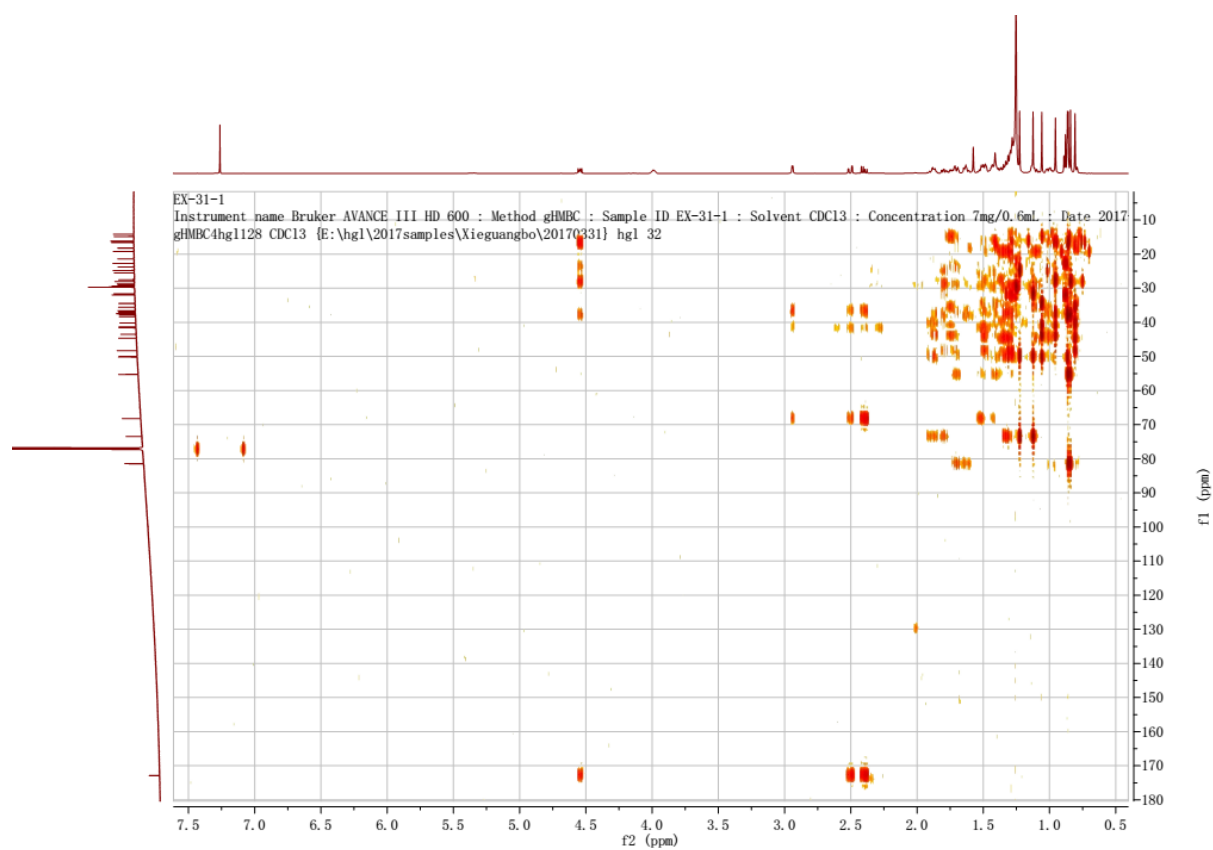


**Figure S6:**  $^1\text{H}$ - $^1\text{H}$  COSY Spectrum of Compound **1**





**Figure S7: HMQC Spectrum of Compound 1**



**Figure S8: HMBC Spectrum of Compound 1**