Supporting Information

***Rec. Nat. Prod*. 17:2 (2023) 232-240**

A New Monoterpene Alkaloid From the Stems of *Rauvolfia vomitoria*

Kailing Yang , Tao Yang , Xiaolei Li , Ruixi Zhou,

Rongkun Miao, Yuyan Guan, Yang Teng,

Guanqun Zhan and Zengjun Guo

[1] *School of Pharmacy, Health Science Center, Xi'an Jiaotong University, Xi'an 710061, P. R. China*

[2] *School of Pharmacy, Jiamuisi University, Jiamusi 154007, P. R. China*

Table of Contents	Page

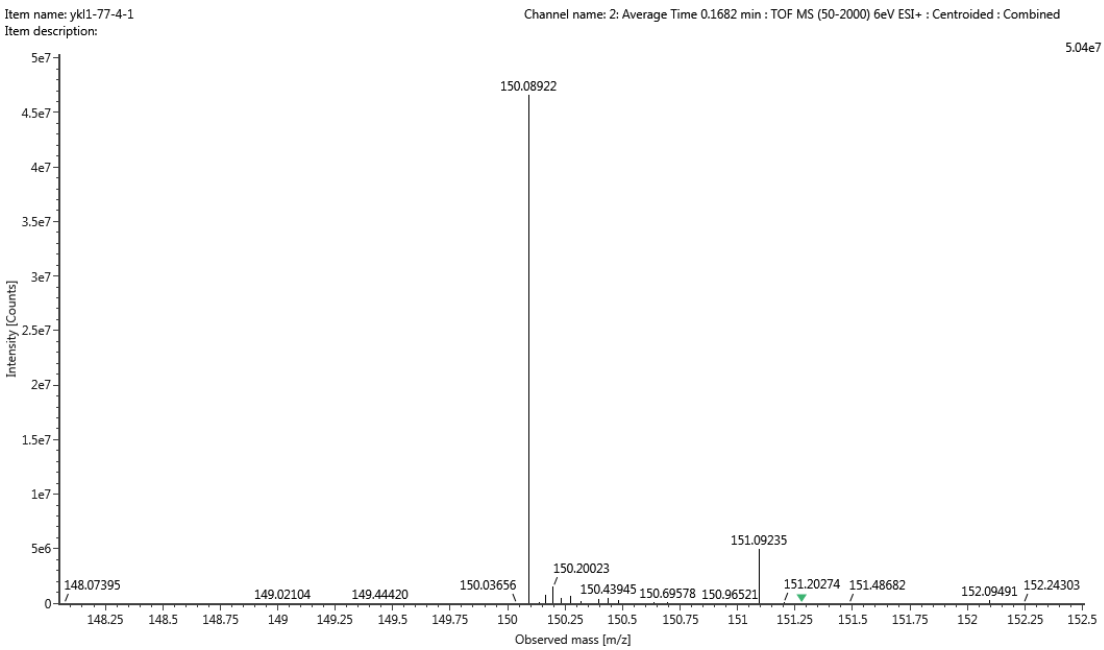


Figure S1: HR-ESI-MS spectrum of **1**

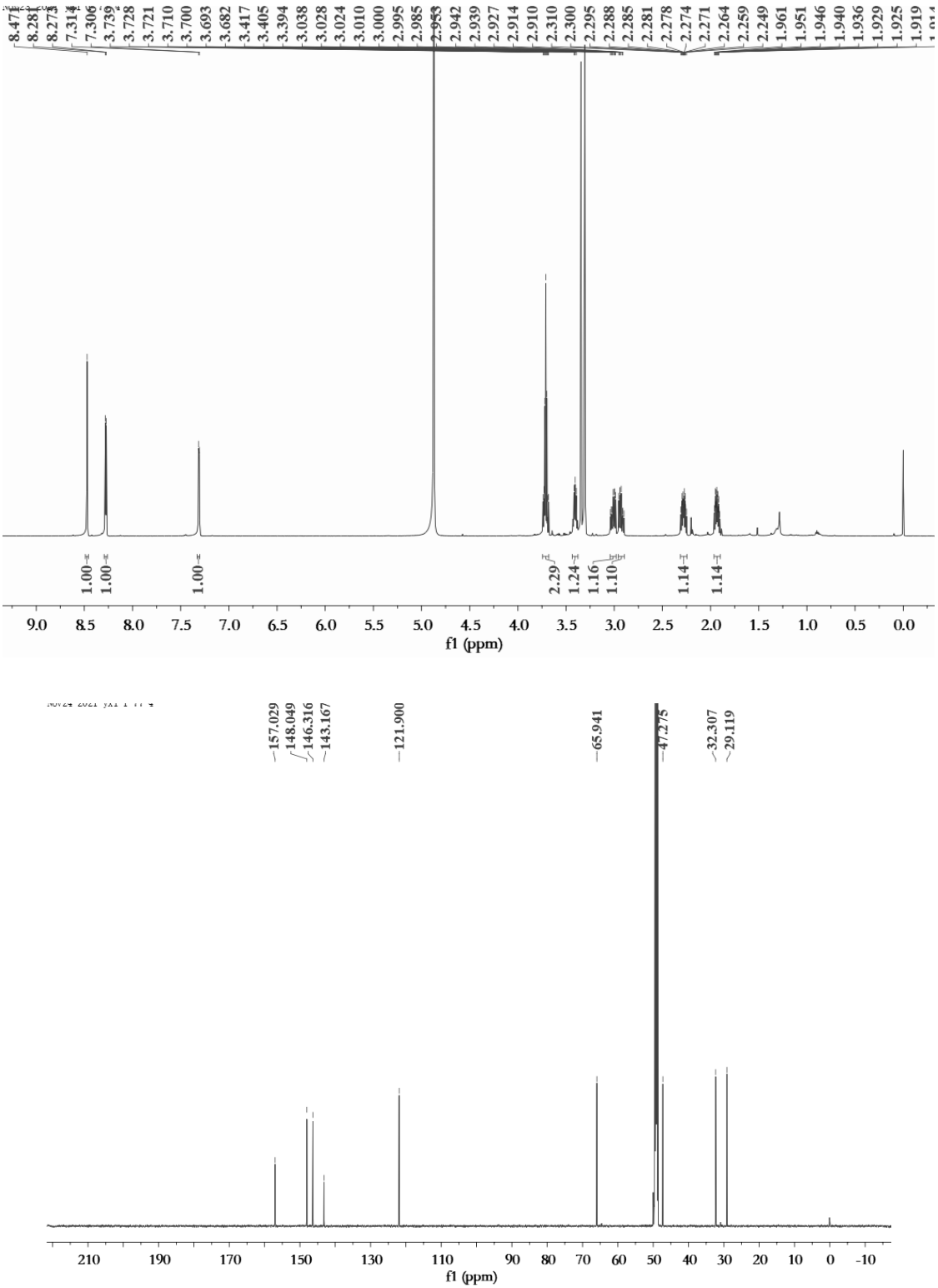


Figure S2: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **1**

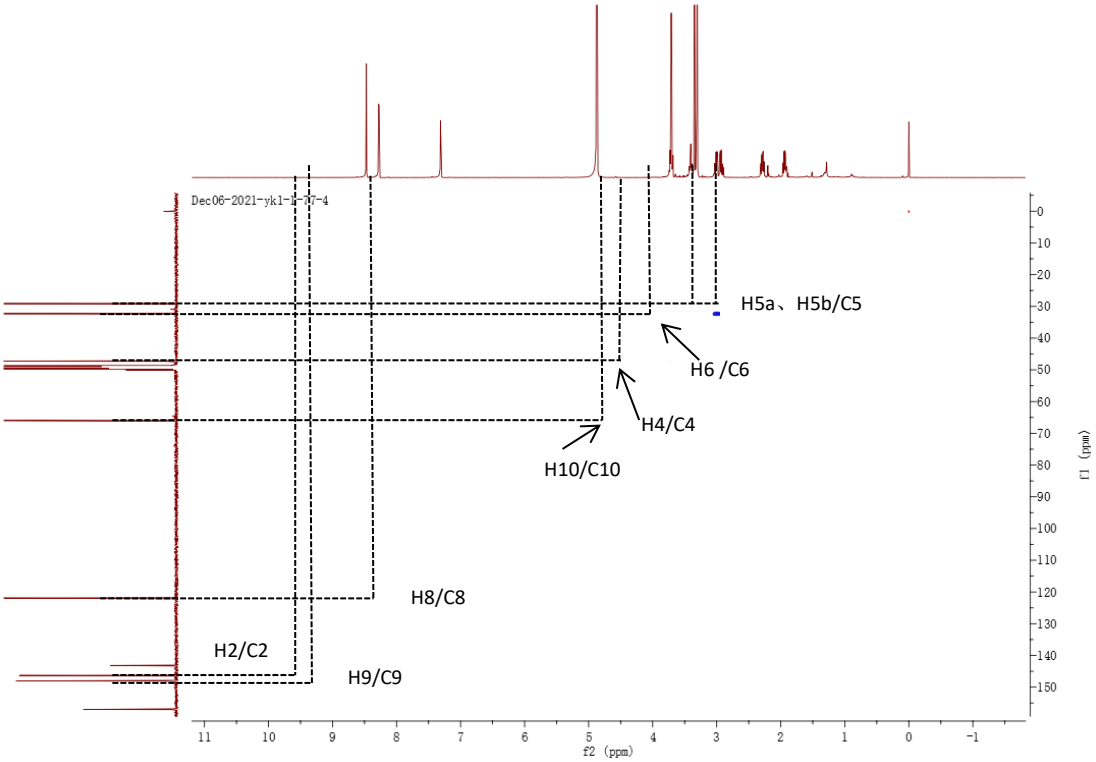


Figure S3: HSQC spectrum of **1**

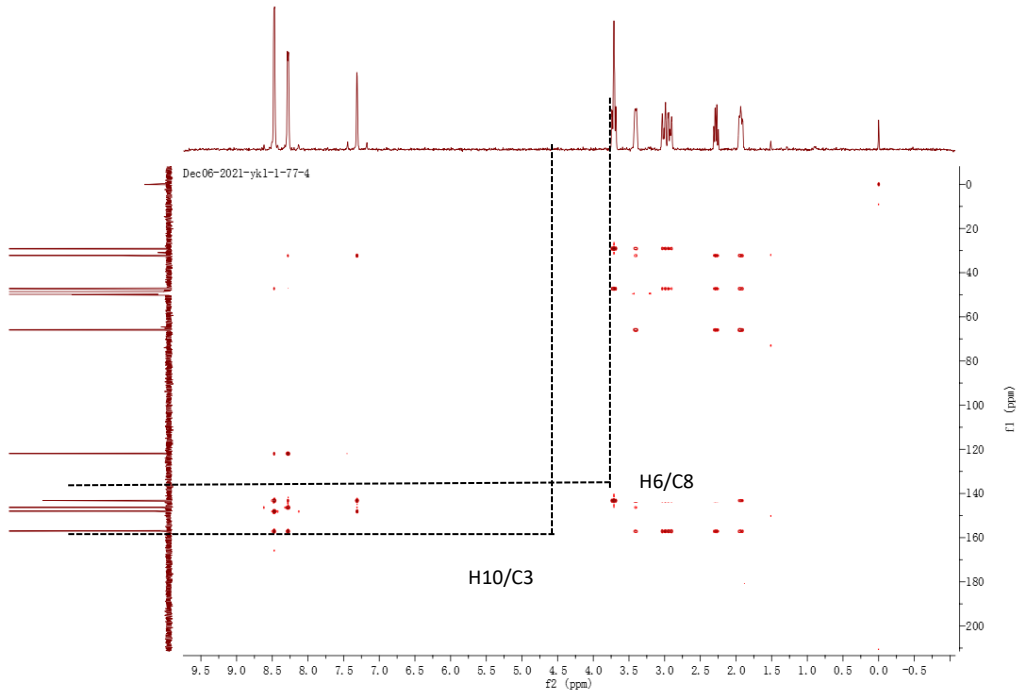


Figure S4: HMBC spectrum of **1**

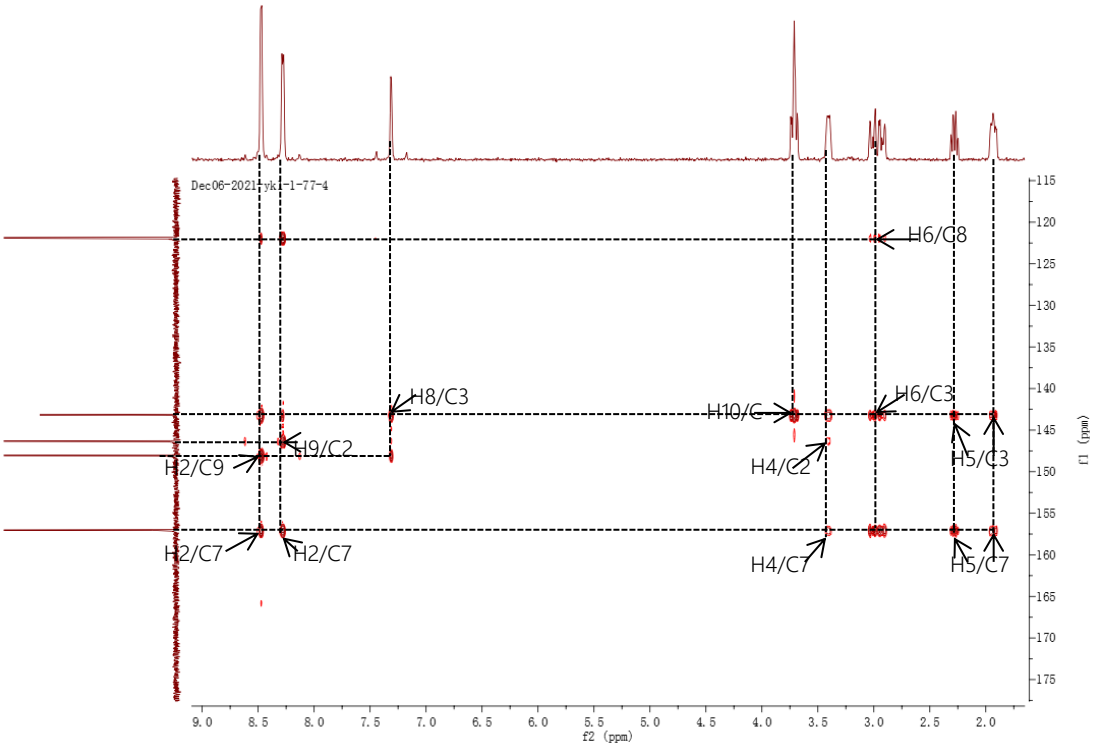


Figure S5: HMBC spectrum of **1** (From δ_C 115 ppm to δ_C 160 ppm)

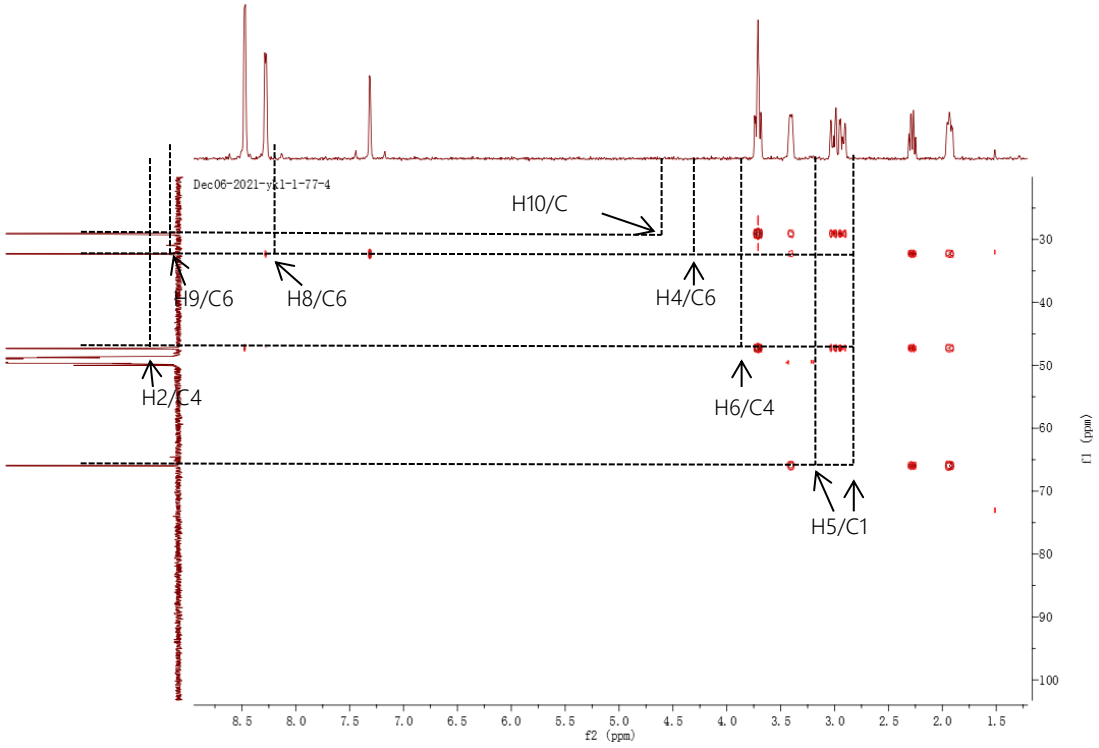


Figure S6: HMBC spectrum of **1** (From δ_C 25 ppm to δ_C 90 ppm)

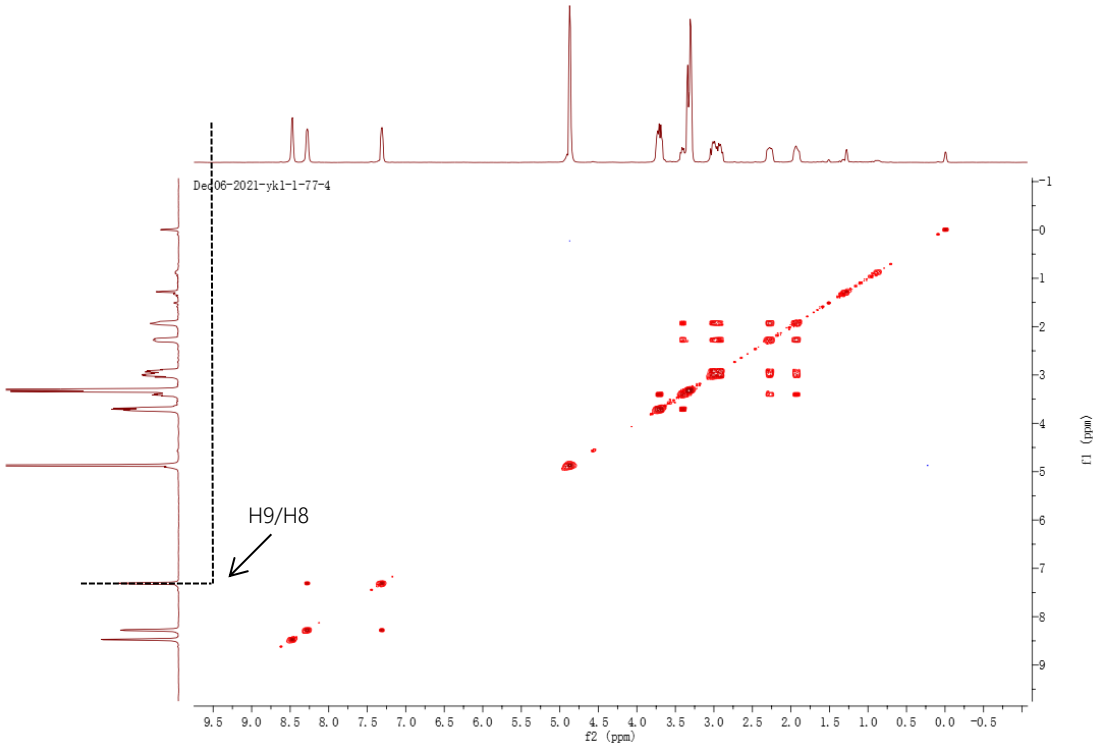


Figure S7: ^{1}H-^{1}H COSY spectrum of **1**

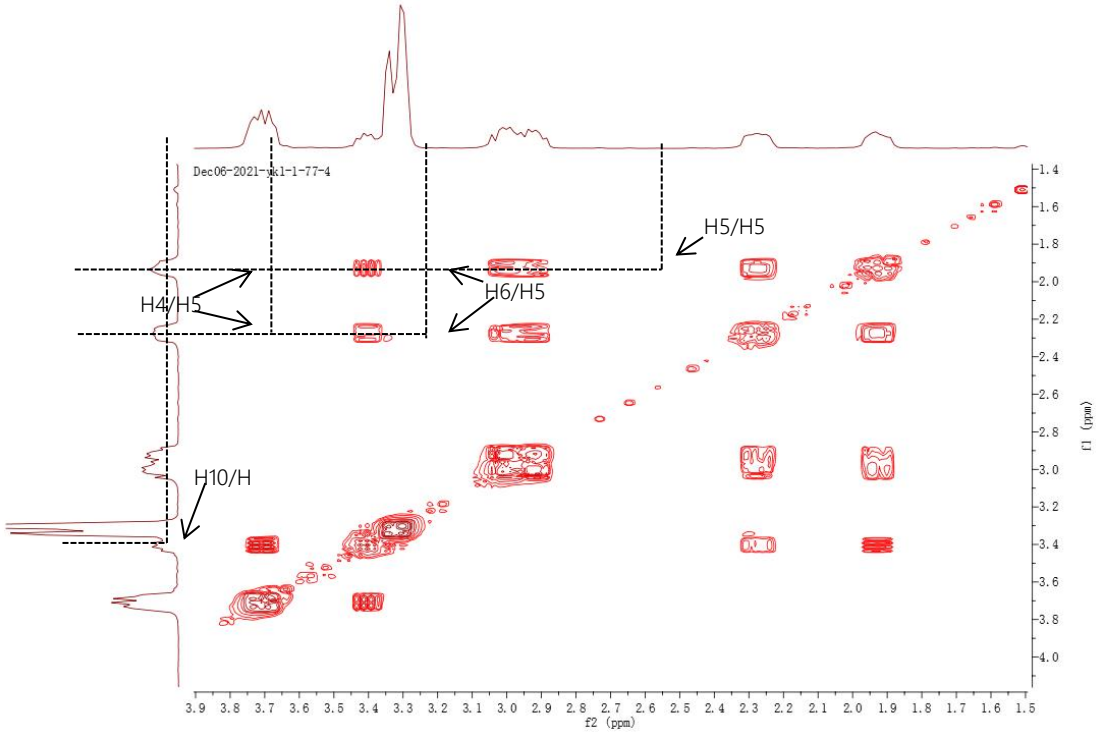


Figure S8: ^{1}H-^{1}H COSY spectrum of **1**(From δ_H 1.5 ppm to δ_H 4.0 ppm)

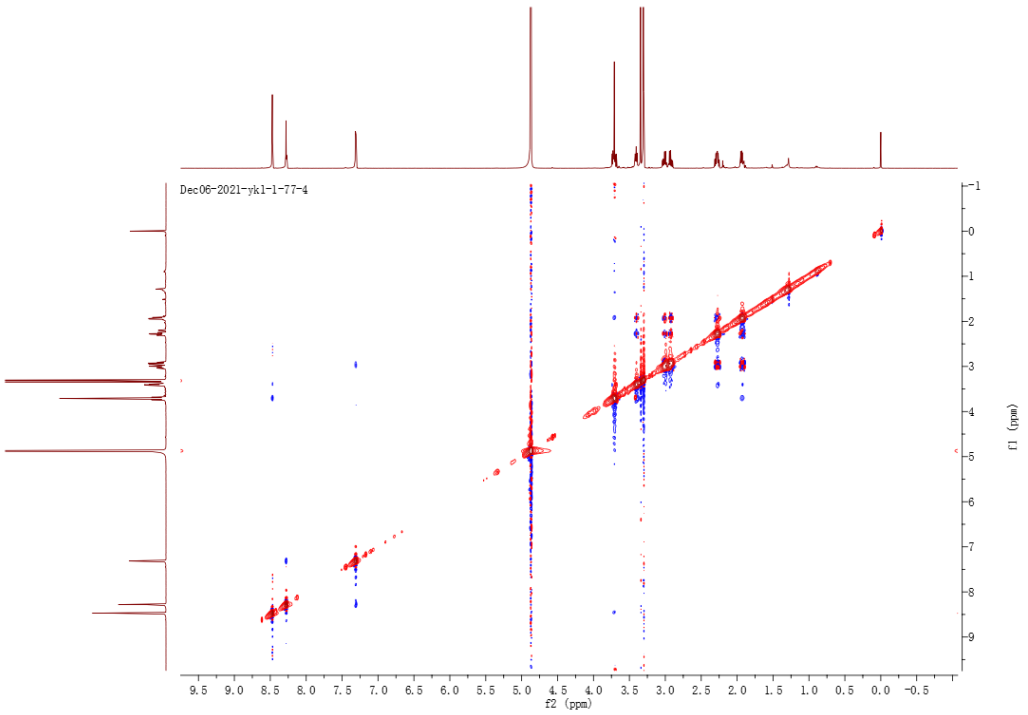


Figure S9: NOESY spectrum of **1**

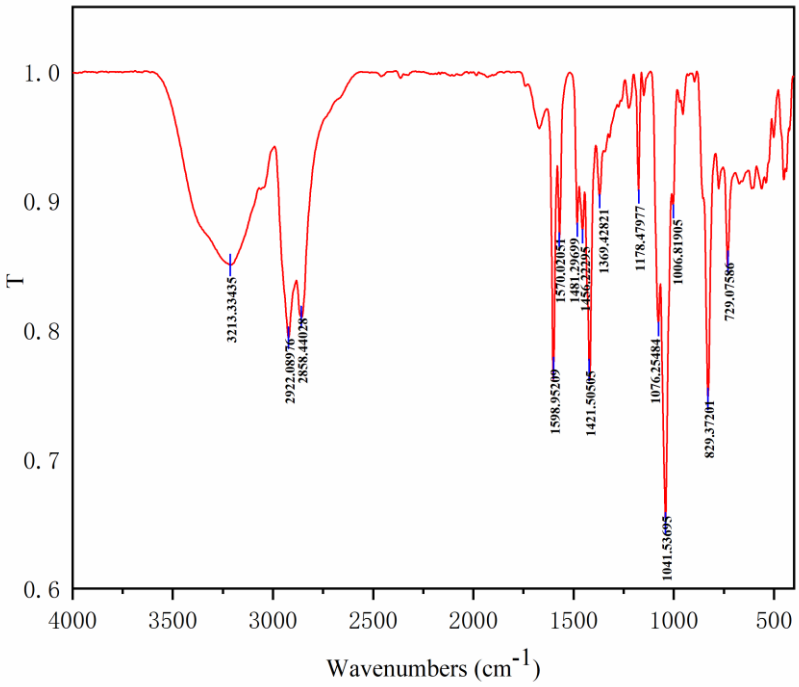


Figure S10: FT-IR spectrum of **1**

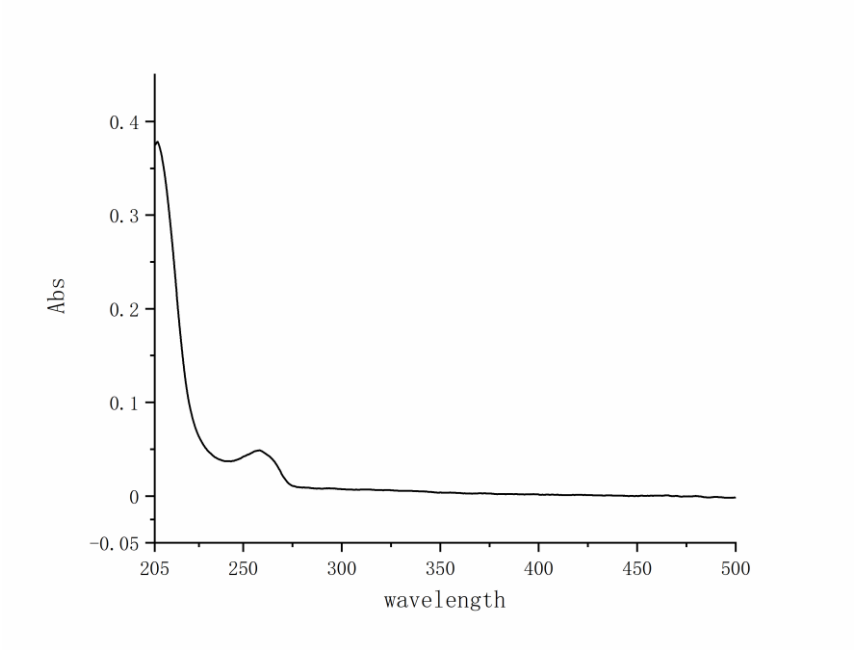


Figure S11: UV spectrum of **1**

CAS SciFinder^{n}

Substances (0)

View in SciFinder^{n}

We couldn't find any results. Please update your search query and try again.

Substances with (0) results

Figure S12: Scifinder search of new compound **1**

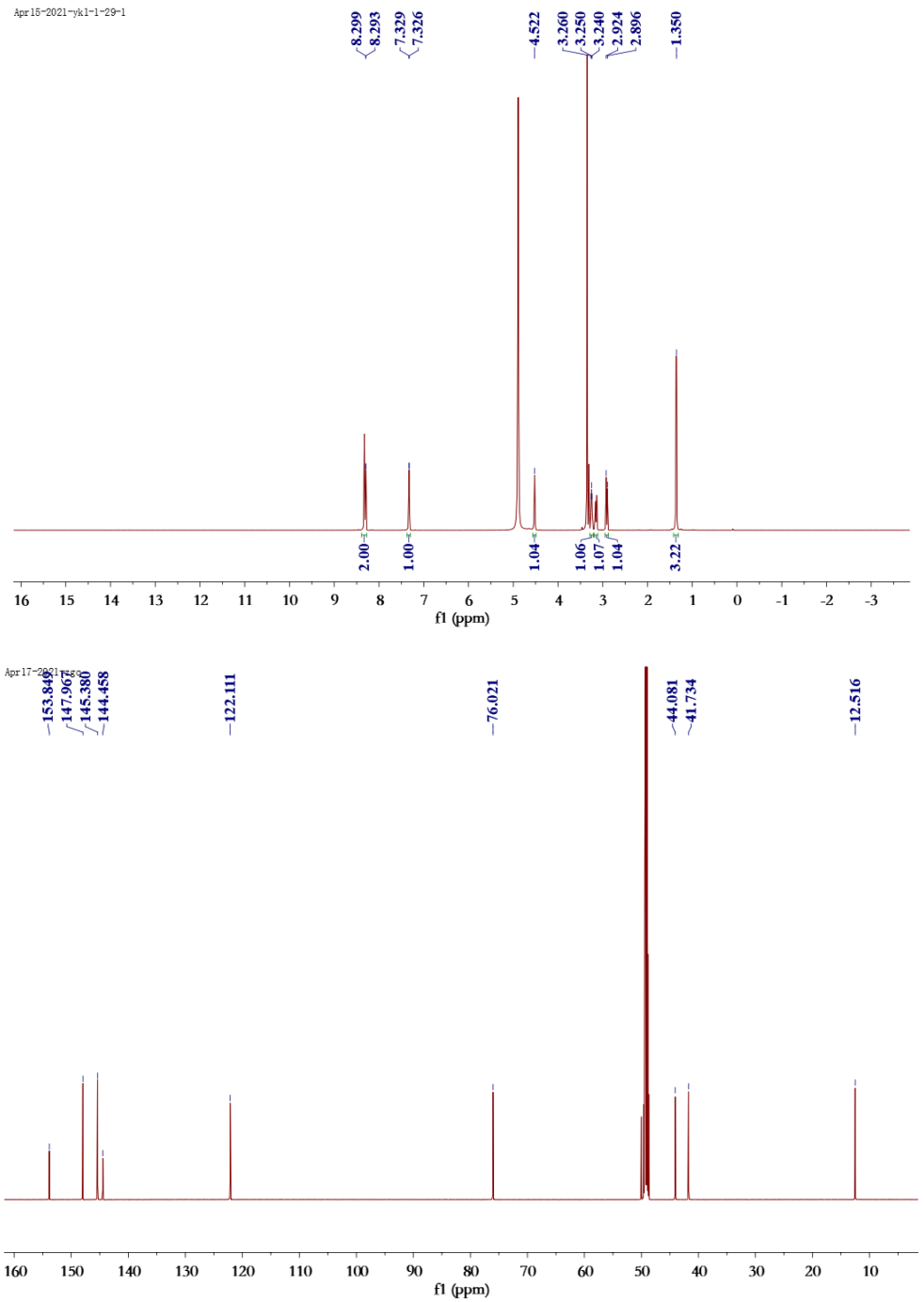


Figure S13: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **2**

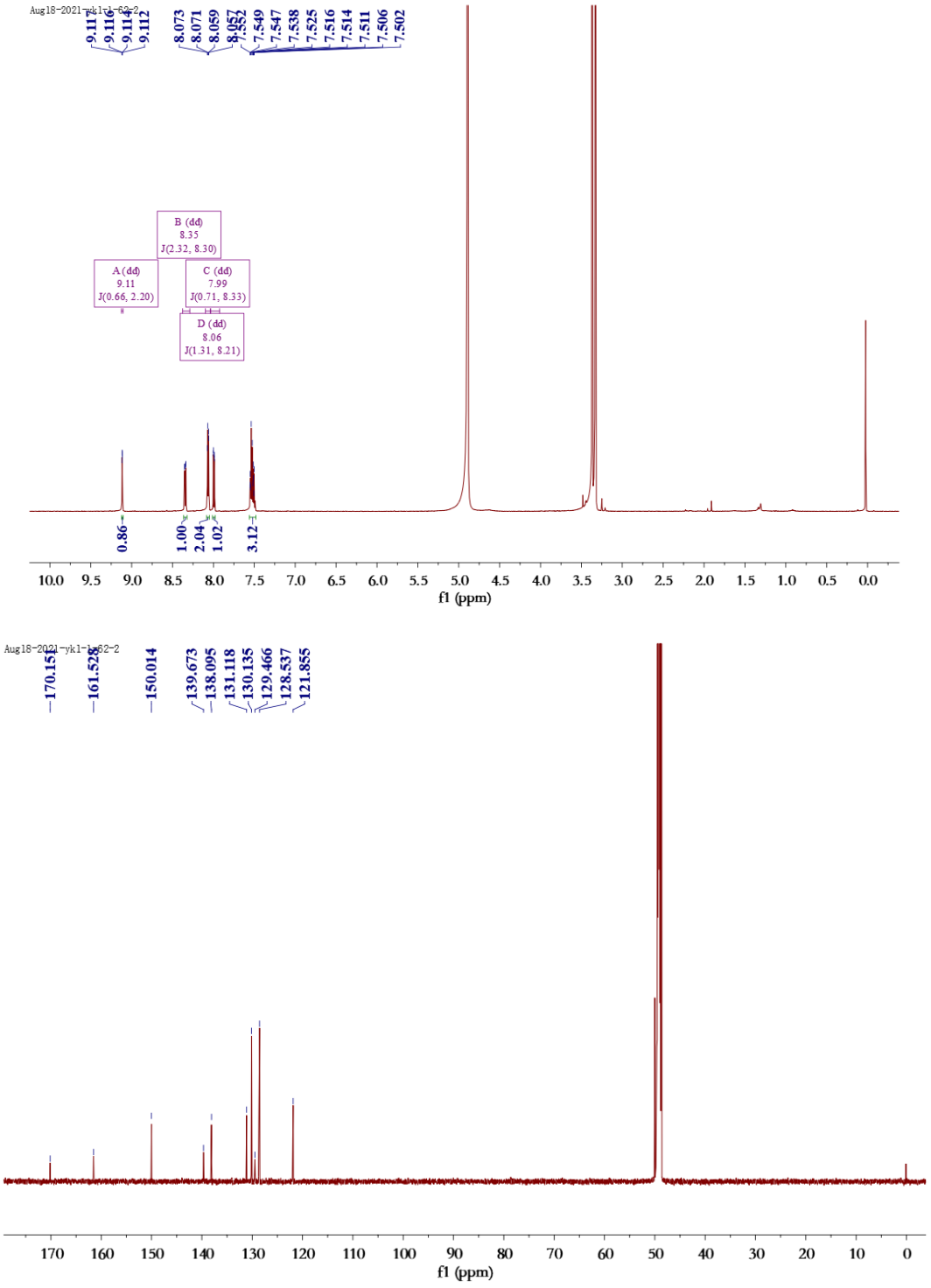


Figure S14: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **3**

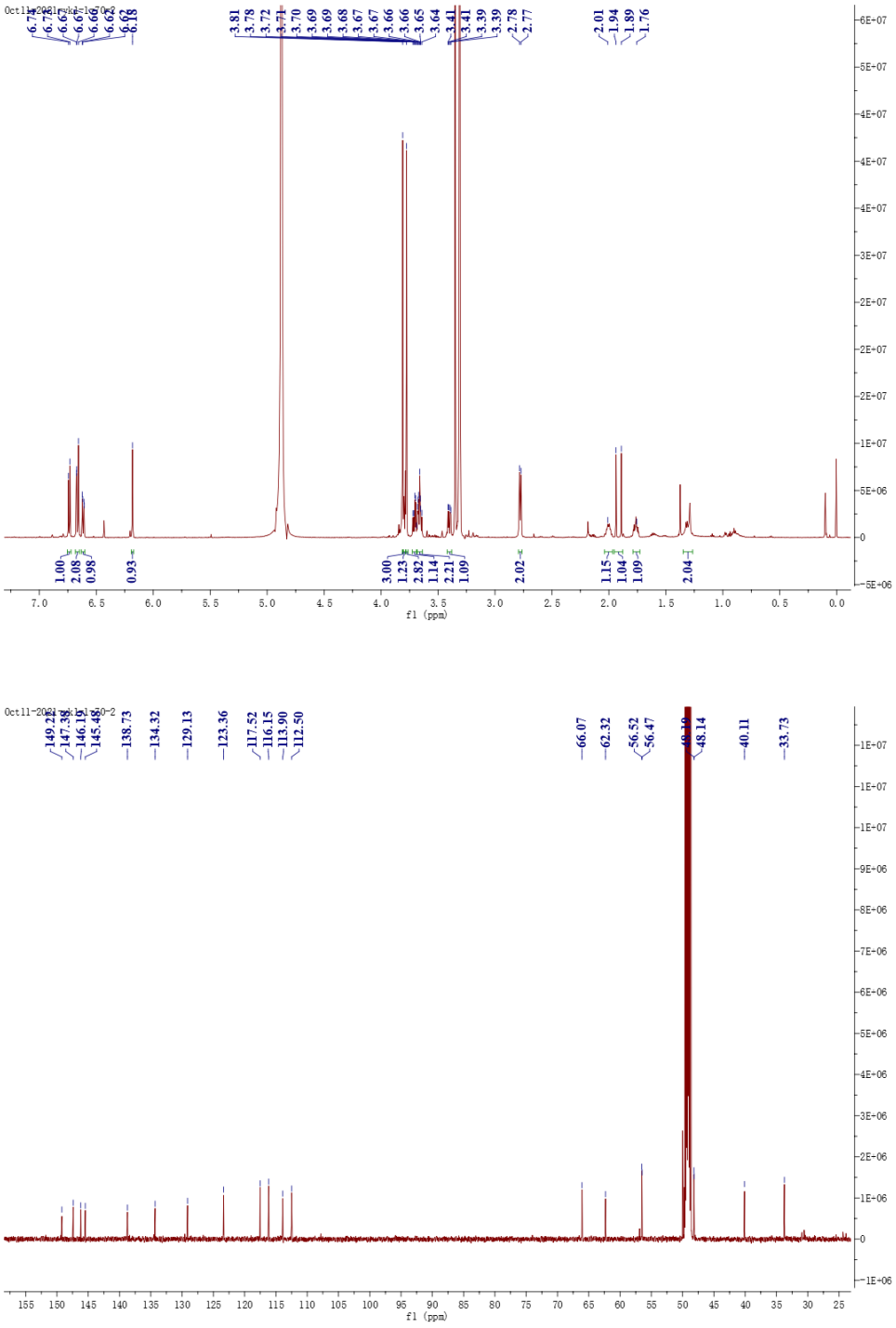


Figure S15: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **4**

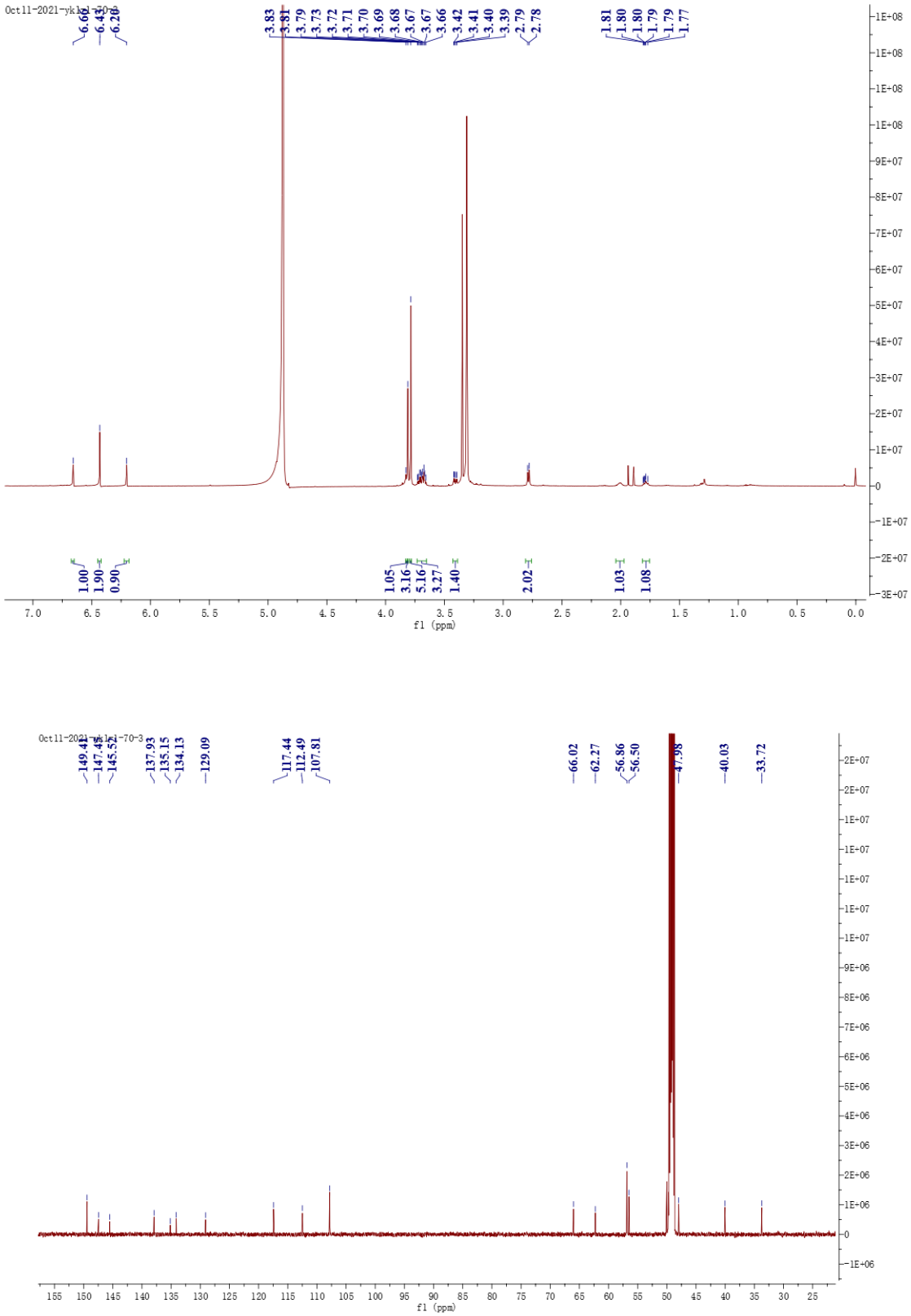


Figure S16: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **5**

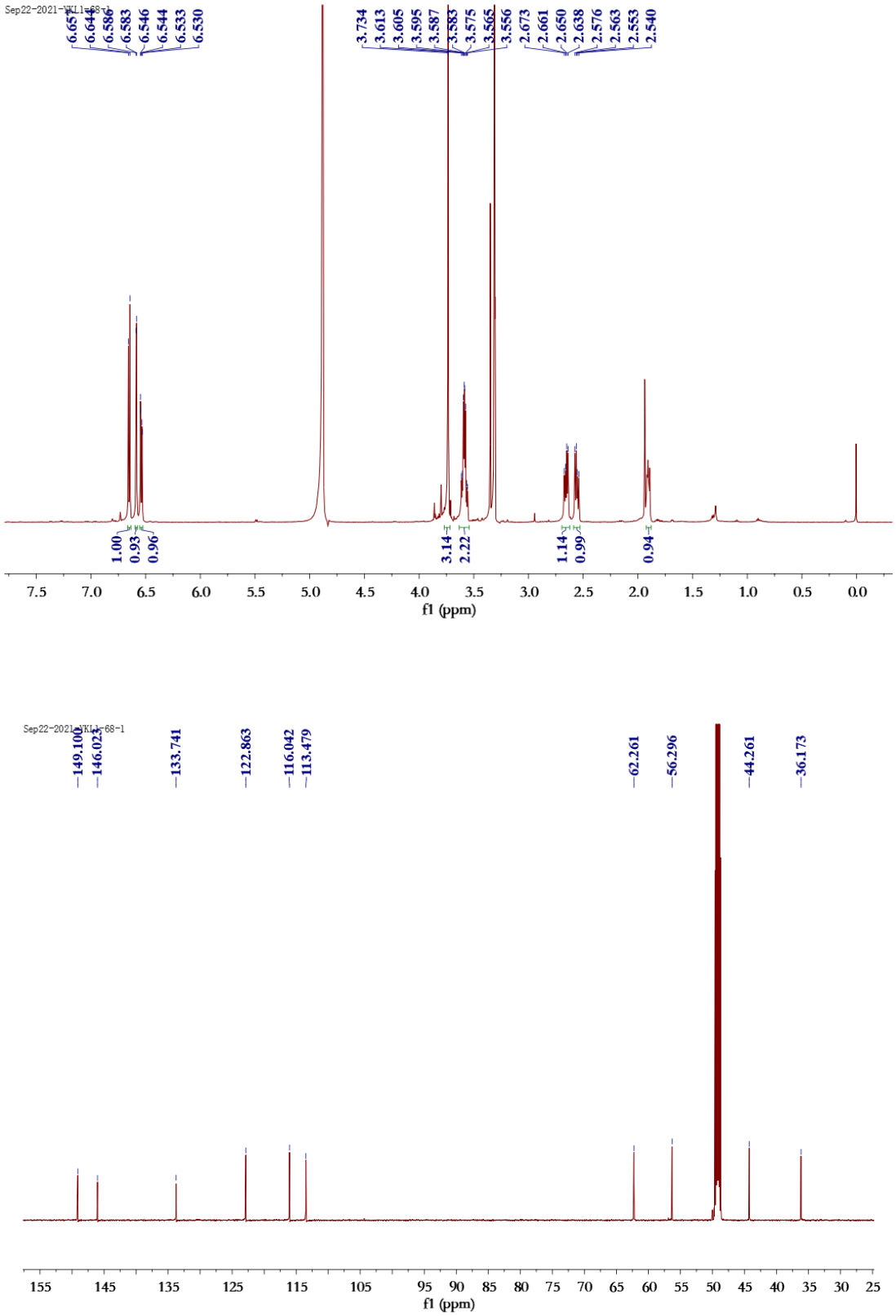


Figure S17: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **6**

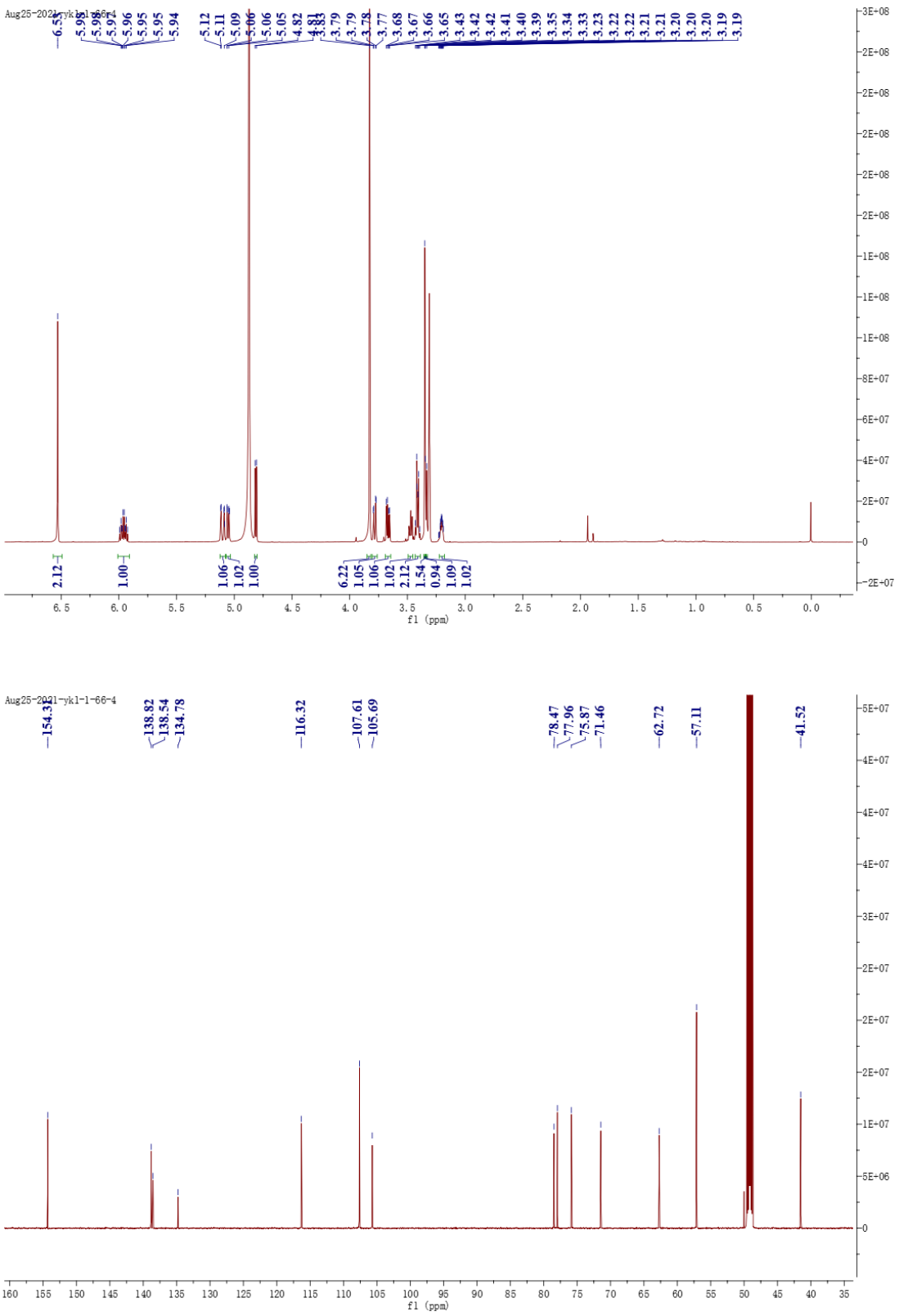


Figure S18: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **7**

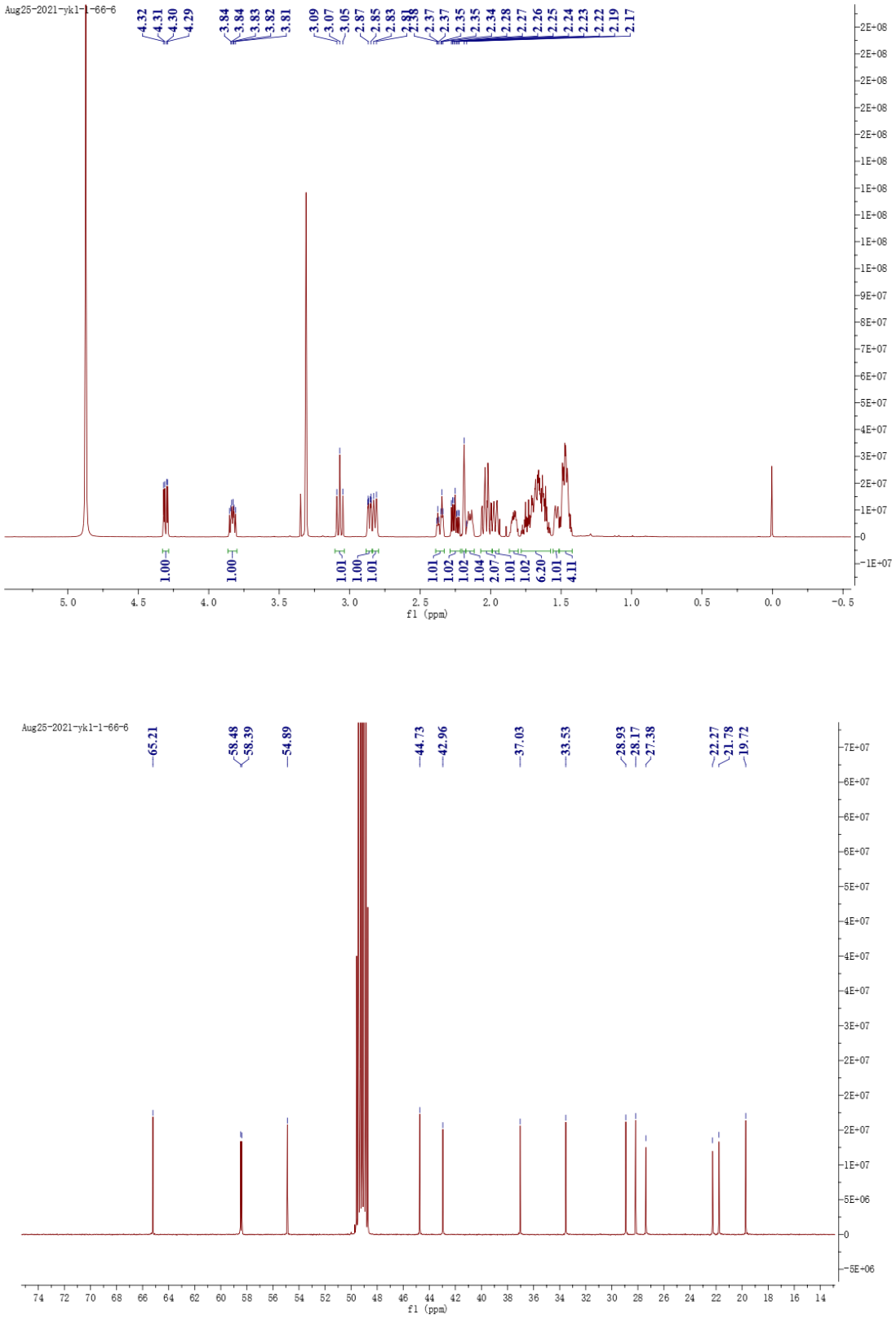


Figure S19: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **8**

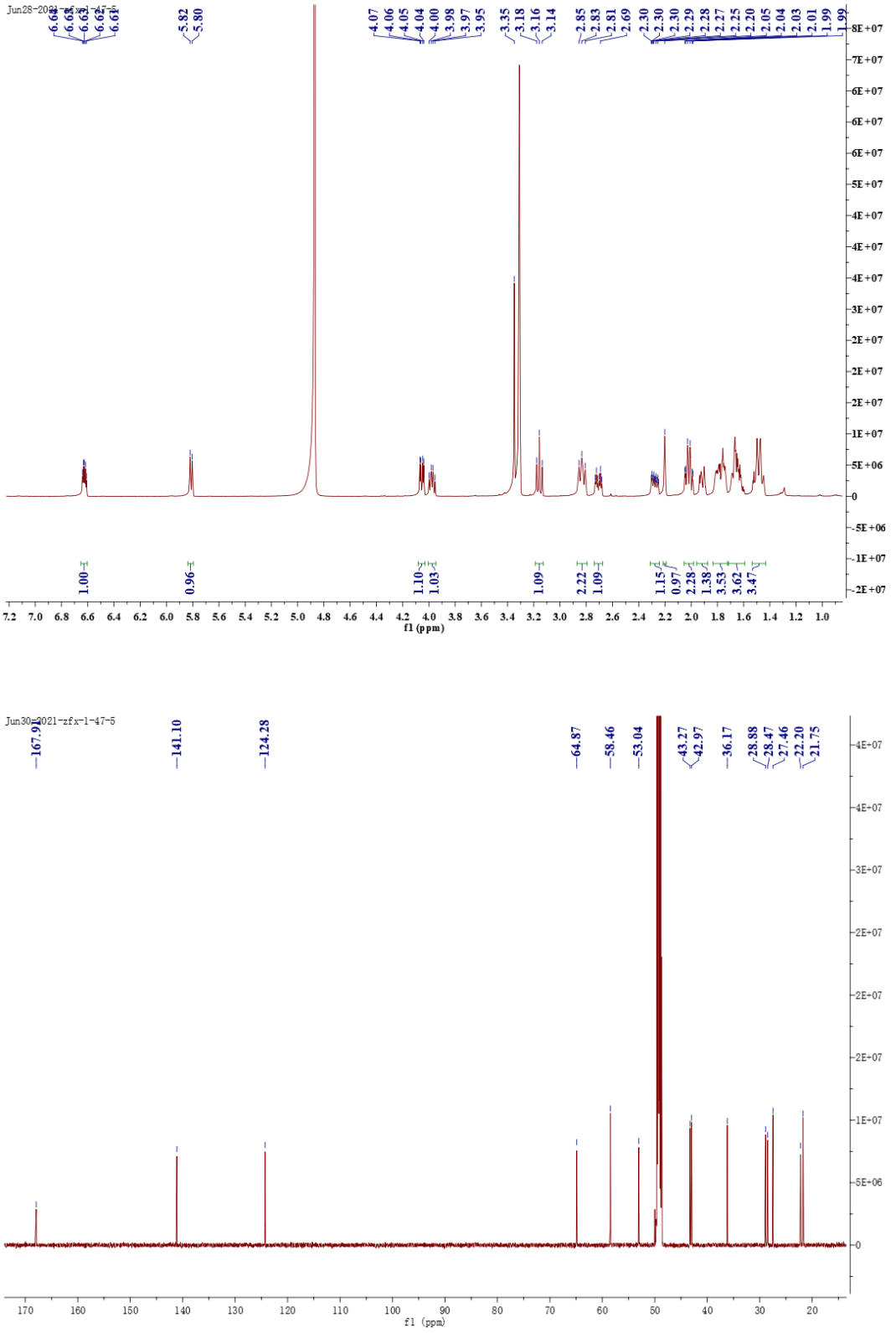


Figure S20: ^{1}H-NMR (600 MHz, CD_3OD) and ^{13}C-NMR (150 MHz, CD_3OD) spectrum of **9**

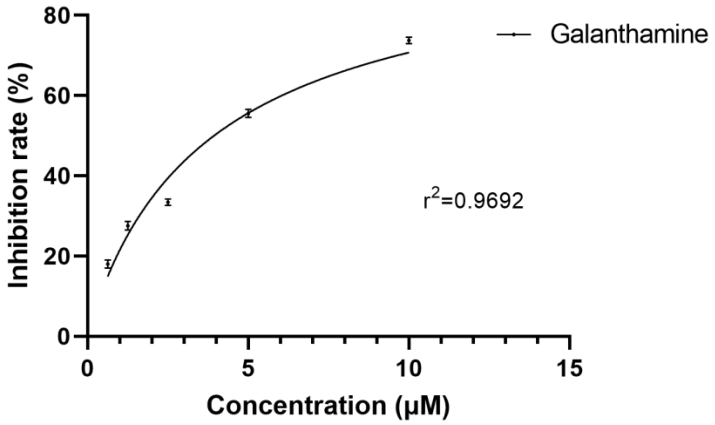


Figure S21: The inhibition rate curves of acetylcholinesterase inhibition activity

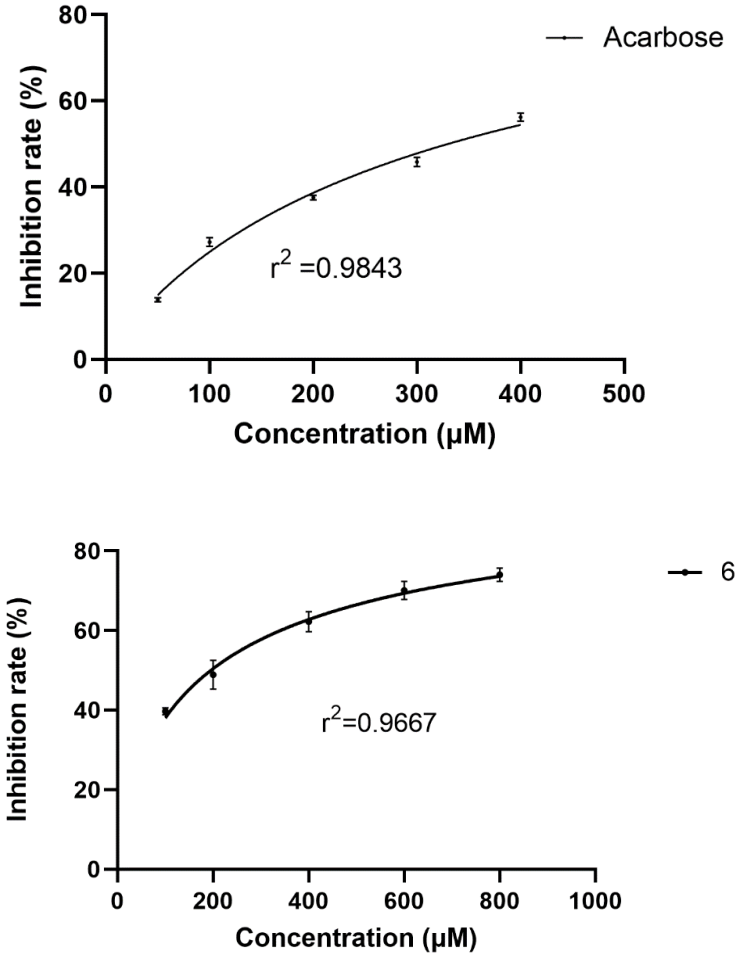


Figure S22: The inhibition rate curves of α-glucosidase inhibitory activity

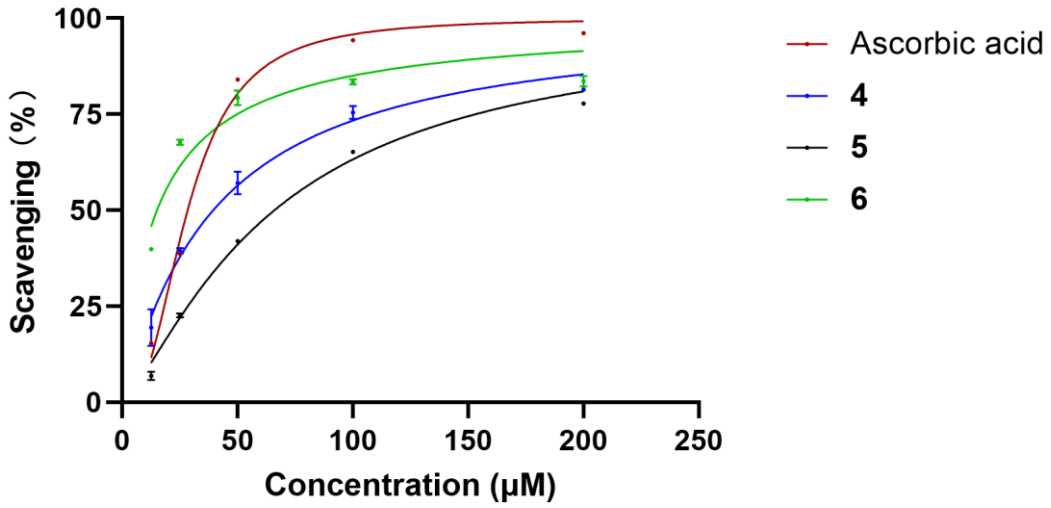


Figure S23: The inhibition rate curves of DPPH radical scavenging activity

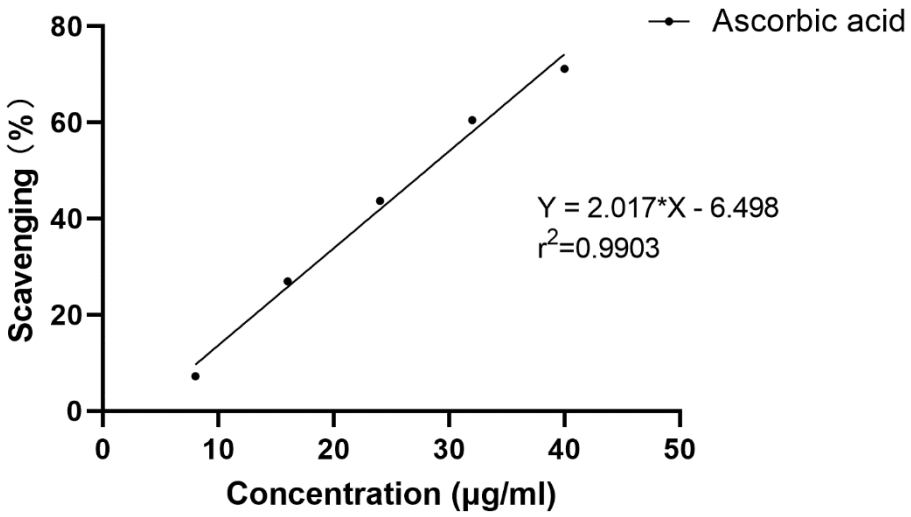
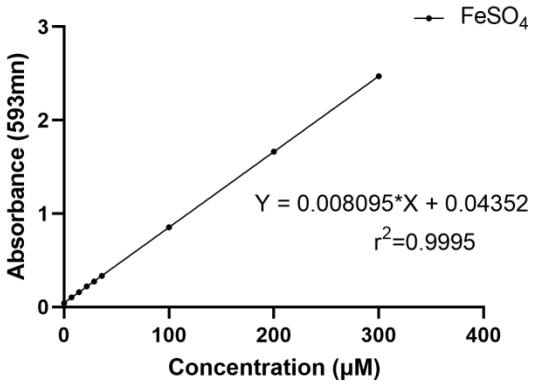
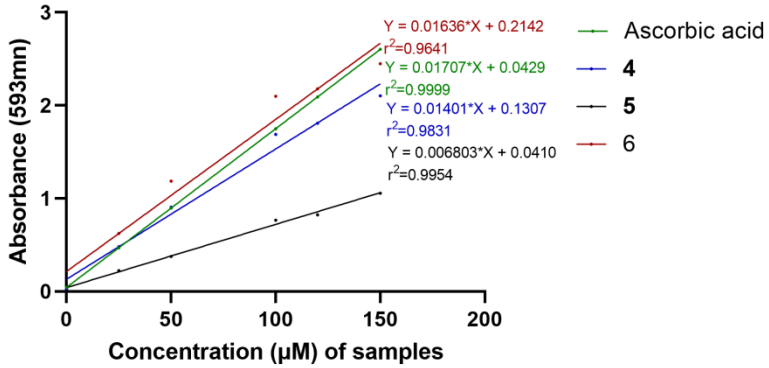


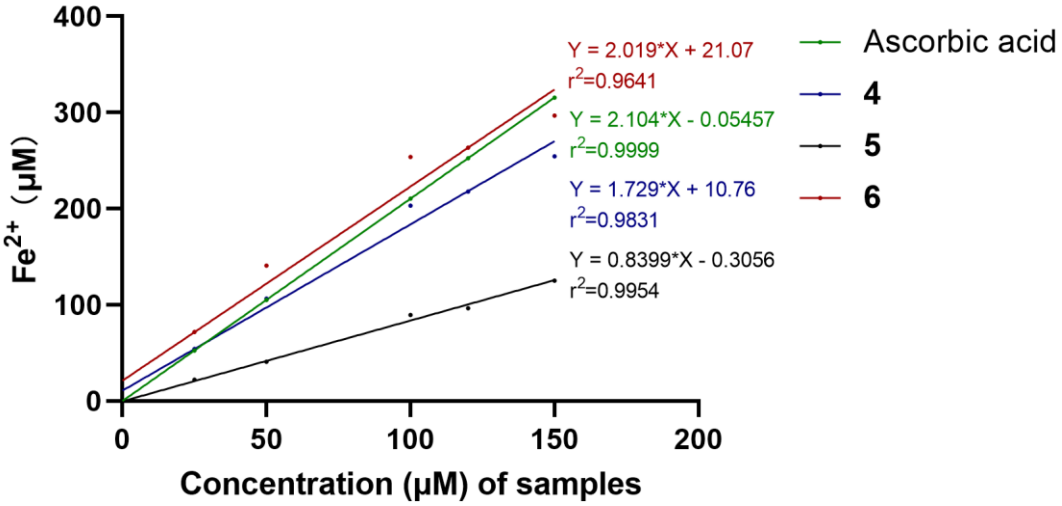
Figure S24: The inhibition rate curves of hydroxyl radical scavenging activity



(a)



(b)



(c)

Figure S25: The inhibition rate curves of FRAP activity

(a) Liner regression analysis between $FeSO_4$ and absorbance at 593 nm ;

(b) Liner regression analysis between samples and absorbance at 593 nm;

(c) Liner regression analysis between samples and $FeSO_4$

Table S1: The inhibitory rates of compounds **1**–**9** at the test concentrations*

No.	**AChE inhibition activity[a]**	**α-Glucosidase inhibitory activity[b]**	**DPPH radical scavenging capacity[c]**	**FRAP value[d]**	**Hydroxyl radical scavenging capacity[e]**
	Inhibitory rates(%)	Inhibitory rates(%)	Scavenging rates(%)	μM Fe^{2+}/250 μM samples	Scavenging rates(%)
1	0.09 ± 0.01	8.52 ± 1.04	0.32 ± 0.07	–6.06 ± 0.23	–4.39 ± 1.52
2	–2.62 ± 0.04	1.20 ± 1.71	5.00 ± 0.42	5.85 ± 0.31	–1.29 ± 0.38
3	–4.76 ± 0.05	5.71 ± 0.90	2.55 ± 0.32	–2.90 ± 0.18	1.46 ± 0.74
4	–8.21 ± 0.02	6.37 ± 0.47	85.70 ± 0.13	295.04 ± 1.48	–32.46 ± 2.16
5	–3.56 ± 0.04	–5.69 ± 0.18	83.27 ± 0.18	171.25 ± 1.40	–21.07 ± 2.27
6	–5.39 ± 0.06	41.08 ± 0.69	86.98 ± 0.14	317.73 ± 4.28	–33.37 ± 1.27
7	1.19 ± 0.01	–17.75 ± 0.23	–0.32 ± 0.52	–3.06 ± 0.48	0.12 ± 0.20
8	–3.79 ± 0.01	6.63 ± 1.15	1.22 ± 0.50	–5.32 ± 0.57	0.76 ± 0.37
9	–0.67 ± 0.02	–0.76 ± 0.51	1.92 ± 0.71	–0.44 ± 0.30	1.42 ± 0.46

*Result values are expressed as the mean ± SD (n = 3)

The test concentrations a: 100 μM; b: 400 μM; c: 200 μM;

d: 250 μM (525.21 μM Fe^{2+}/250 μM ascorbic acid); e:250 μM.

Table S2: Optical rotation value of **4**–**6** ($[\alpha]_D^{20}$)

Compounds	Optical rotation
4	16.8°
5	10.8°
6	–16.1°