

Cannabinoid Ester Constituents from High Potency *Cannabis Sativa*

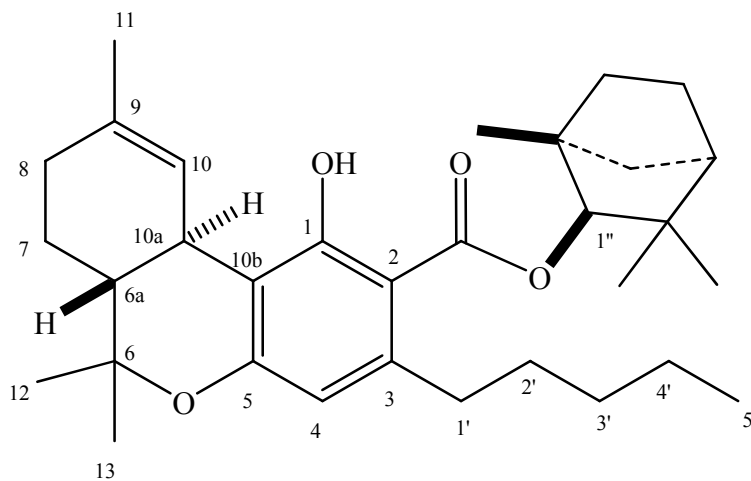
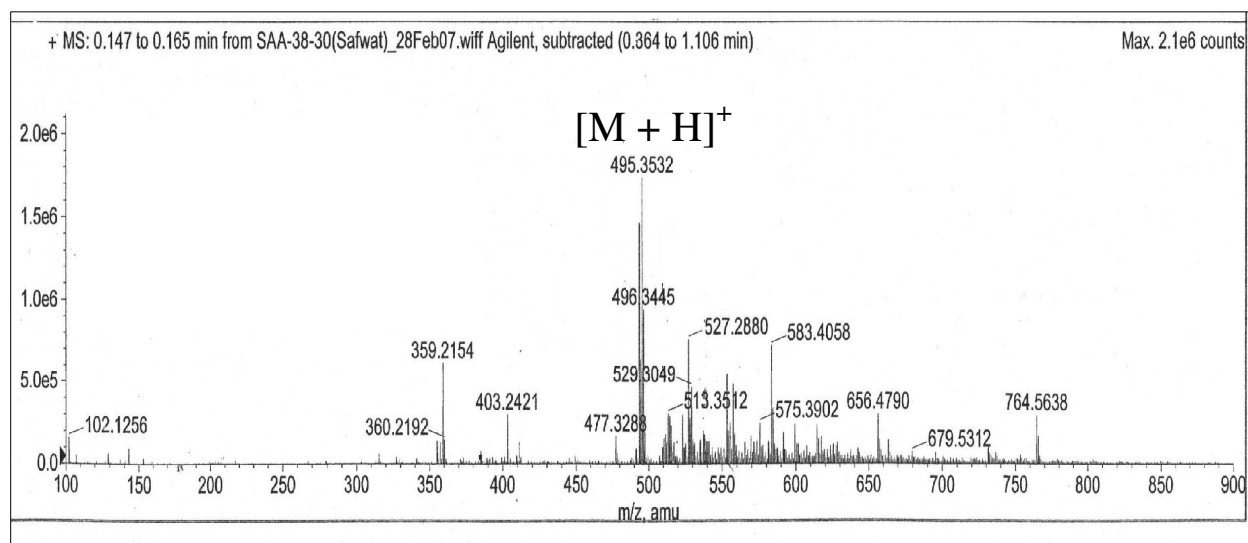
Safwat A. Ahmed, Samir A. Ross,* Desmond Slade, Mohamed M. Radwan, Fazila Zulfiqar, and
Mahmoud A. ElSohly

*National Center for Natural Products Research, Department of Pharmacognosy, and Department of
Pharmaceutics, Research Institute of Pharmaceutical Sciences, School of Pharmacy, The University of
Mississippi, University, Mississippi 38677, USA*

* To whom correspondence should be addressed. Tel: +1-662-915-1031. Fax: +1-662-915-1006. E-mail:
sross@olemiss.edu.

<u>Contents</u>		<u>Page</u>
Figure S1	HRESIMS (positive mode) of 1	S2
Figure S2	GCMS of 1	S3
Figure S3	GCMS trimethylsilyl derivatization of 1	S4
Figure S4	¹ H-NMR: Δ ⁹ -THCA v 1 (400 MHz, CDCl ₃)	S5
Figure S5	¹³ C-NMR: Δ ⁹ -THCA v 1 (400 MHz, CDCl ₃)	S6
Figure S6	DEPT 135 of 1 (100 MHz, CDCl ₃)	S7
Figure S7	HMQC of 1 (400 MHz, CDCl ₃)	S8
Figure S8	HMBC of 1 (400 MHz, CDCl ₃)	S9
Figure S9	HPLC chromatograms of isolated compounds.	S10
Table S1	GCMS data of isolated compounds.	S11

Figure S1. HRESIMS (positive mode) of **1**



Compound **1**

Figure S2. GCMS of 1

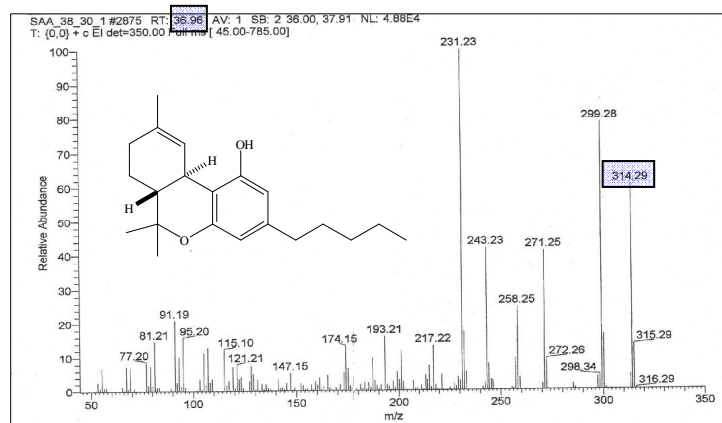
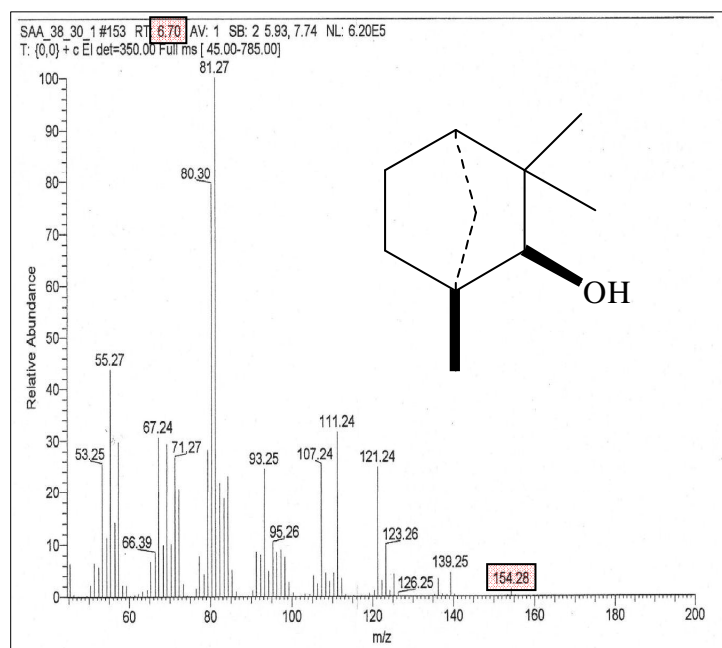
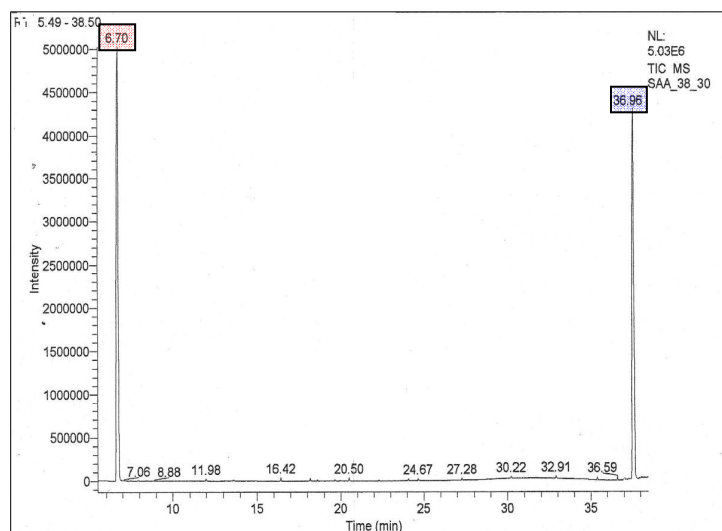


Figure S3. GCMS trimethylsilyl derivatization of 1

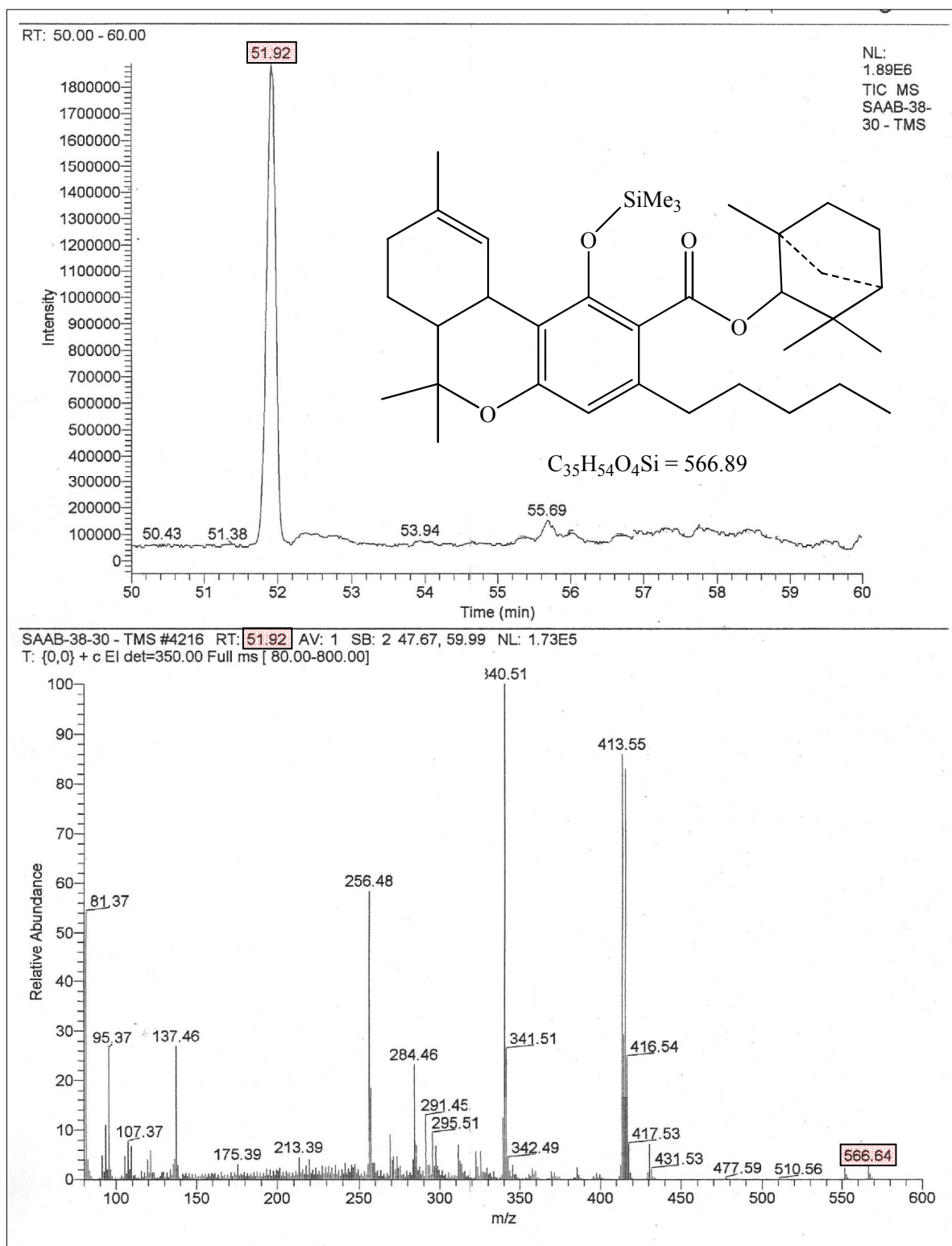


Figure S4. $^1\text{H-NMR}$: Δ^9 -THCA v 1 (400 MHz, CDCl_3)

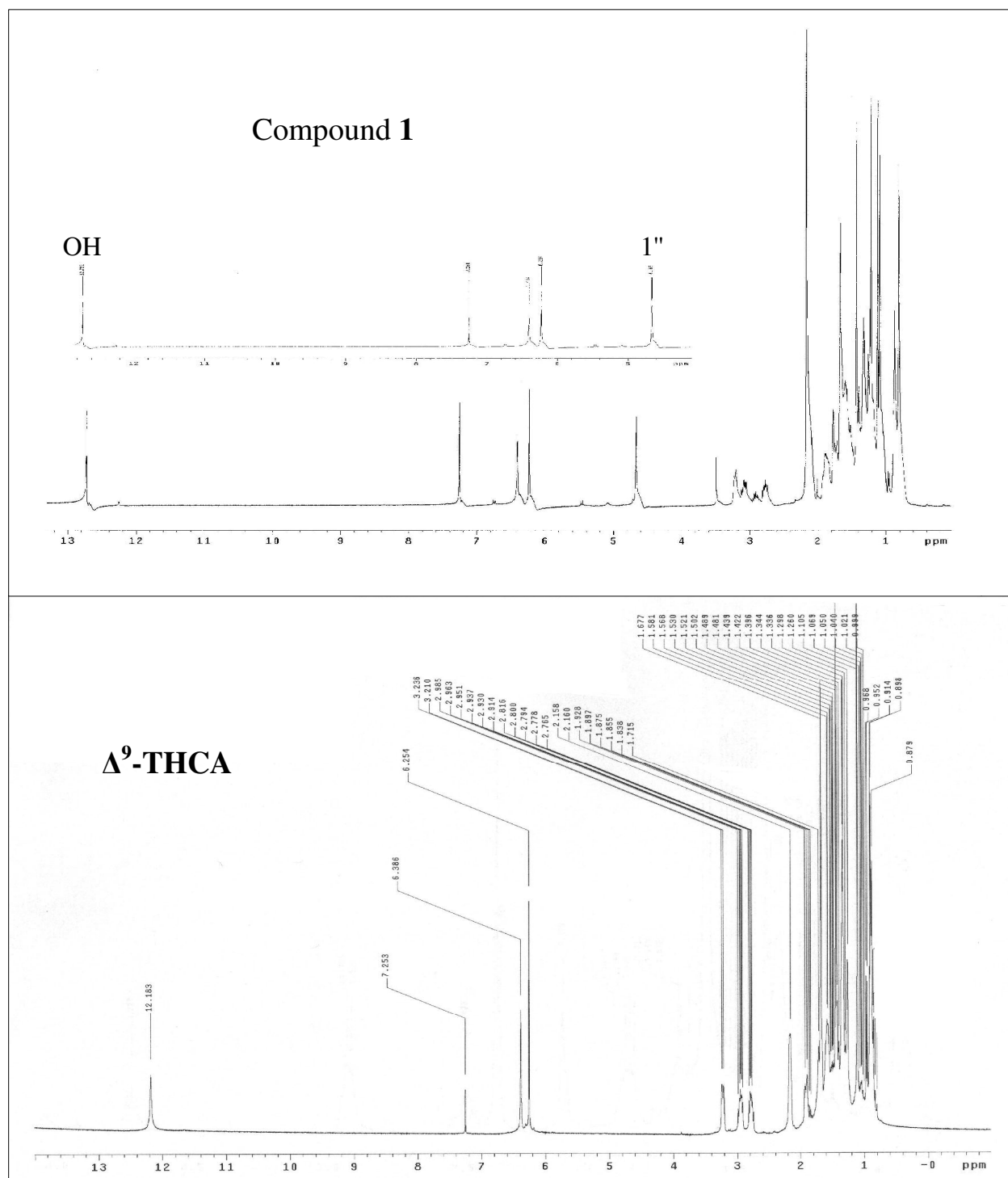


Figure S5. ^{13}C -NMR: Δ^9 -THCA v 1 (400 MHz, CDCl_3)

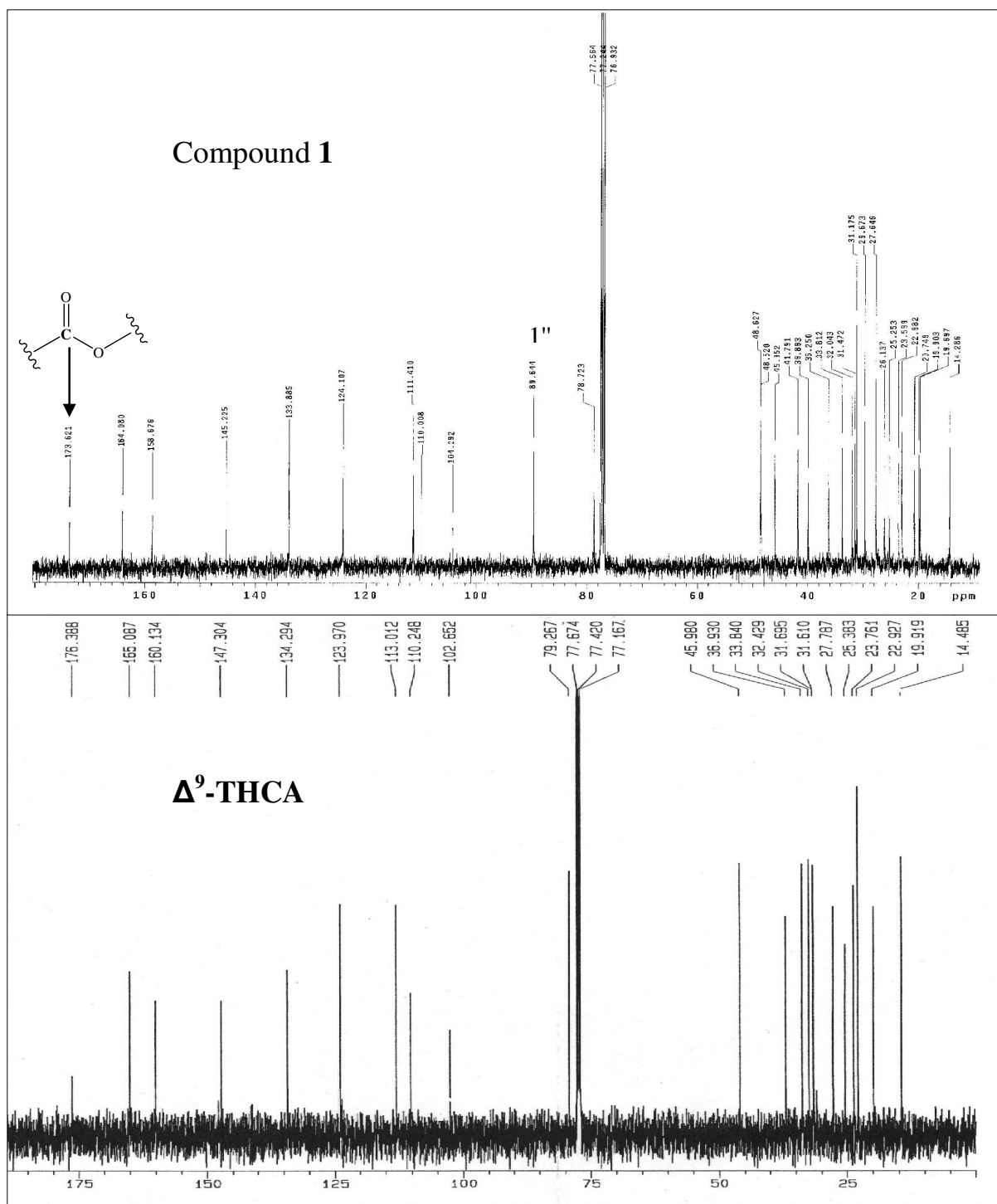


Figure S6. DEPT 135 of **1** (100 MHz, CDCl₃)

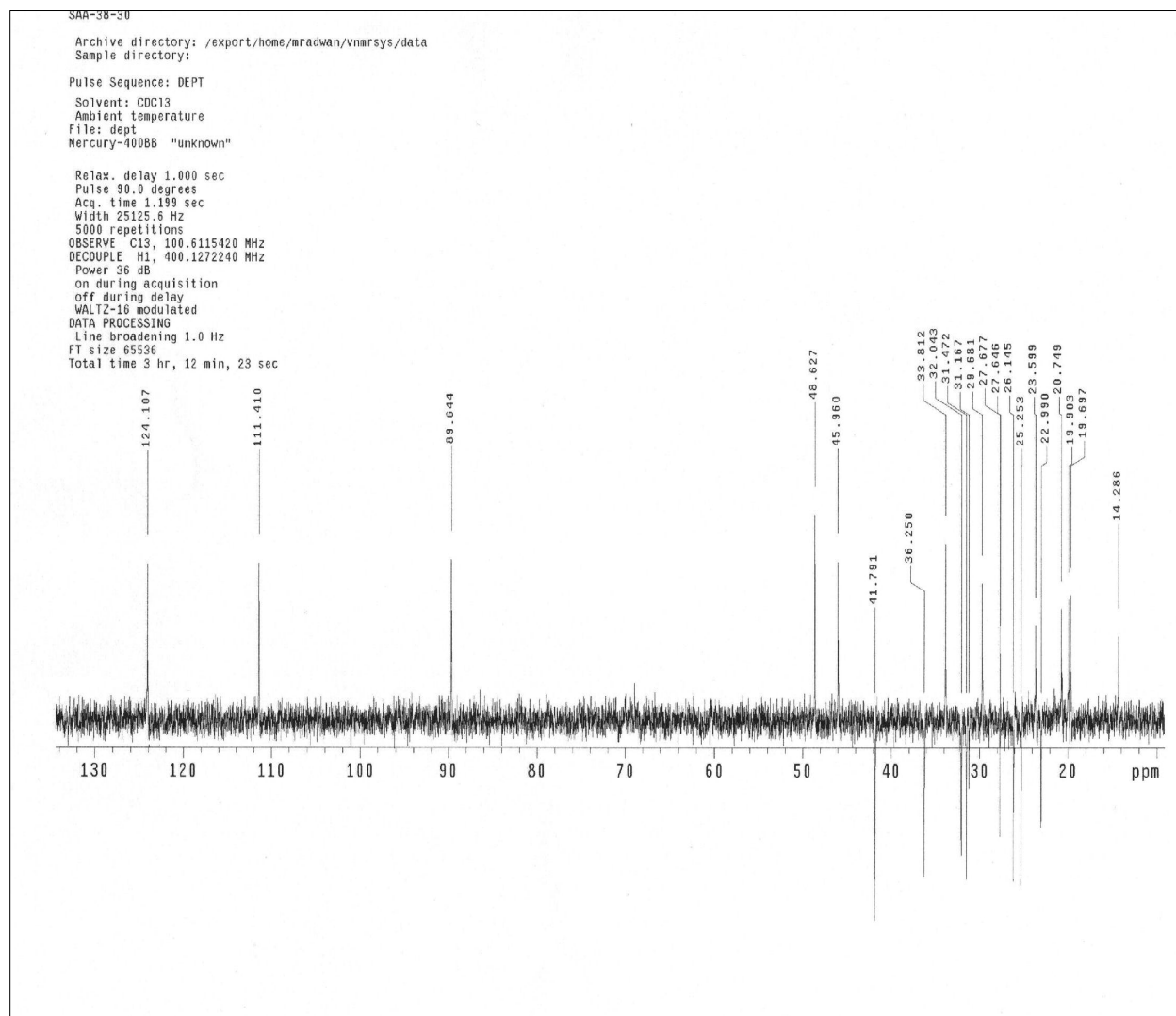


Figure S7. HMQC of **1** (400 MHz, CDCl₃)

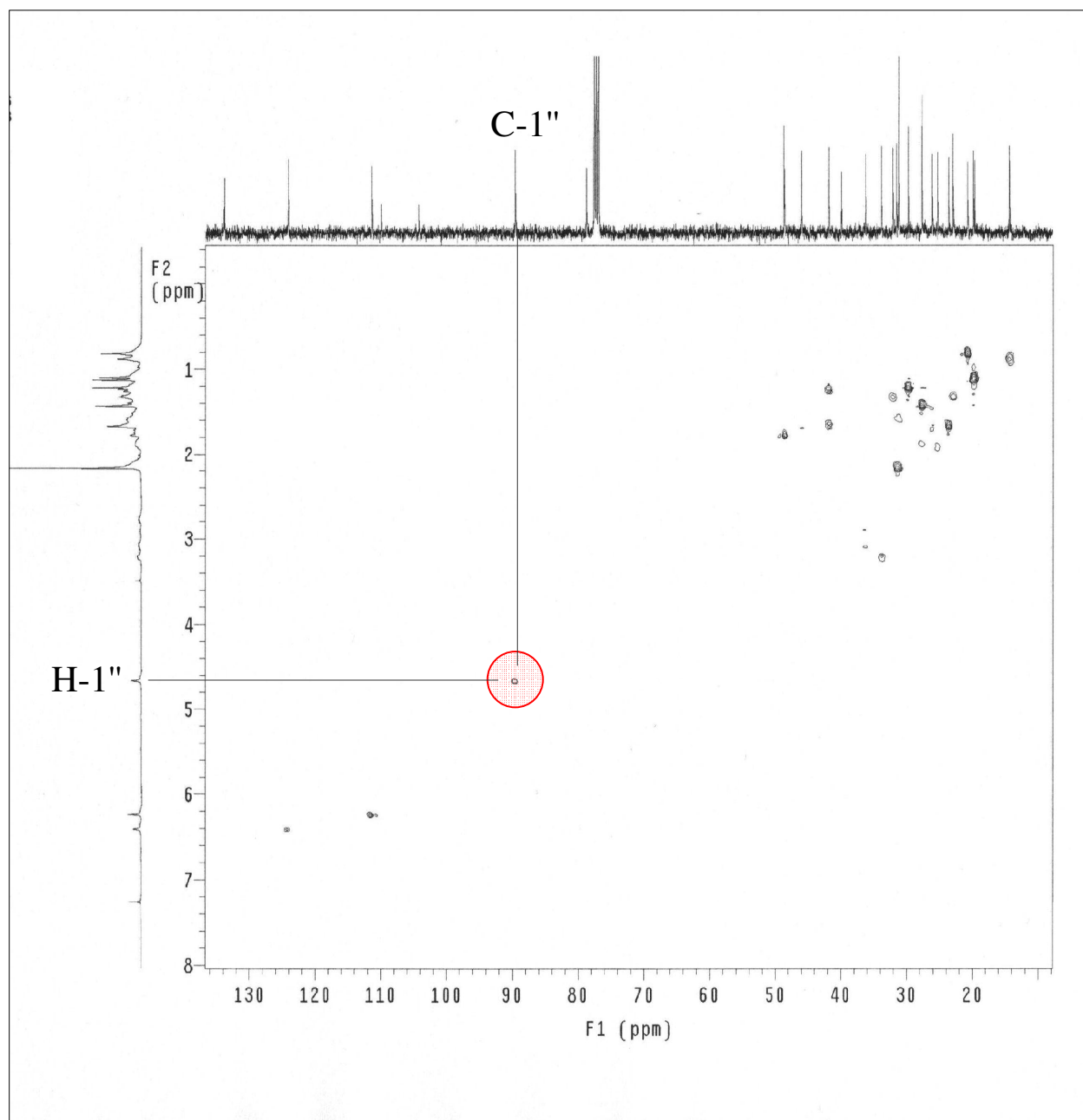


Figure S8. HMBC of **1** (400 MHz, CDCl₃)

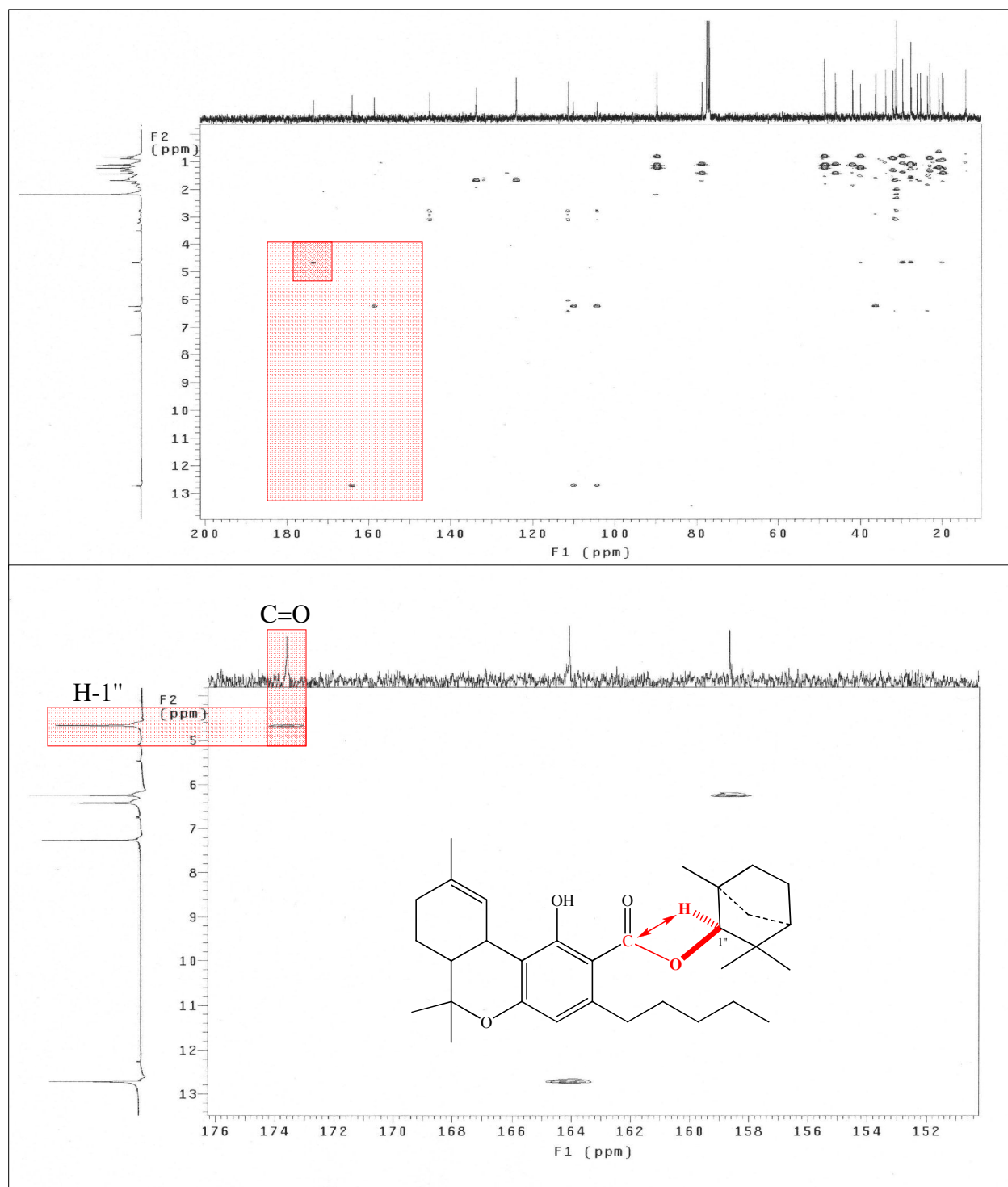


Figure S9. HPLC chromatograms of isolated compounds.

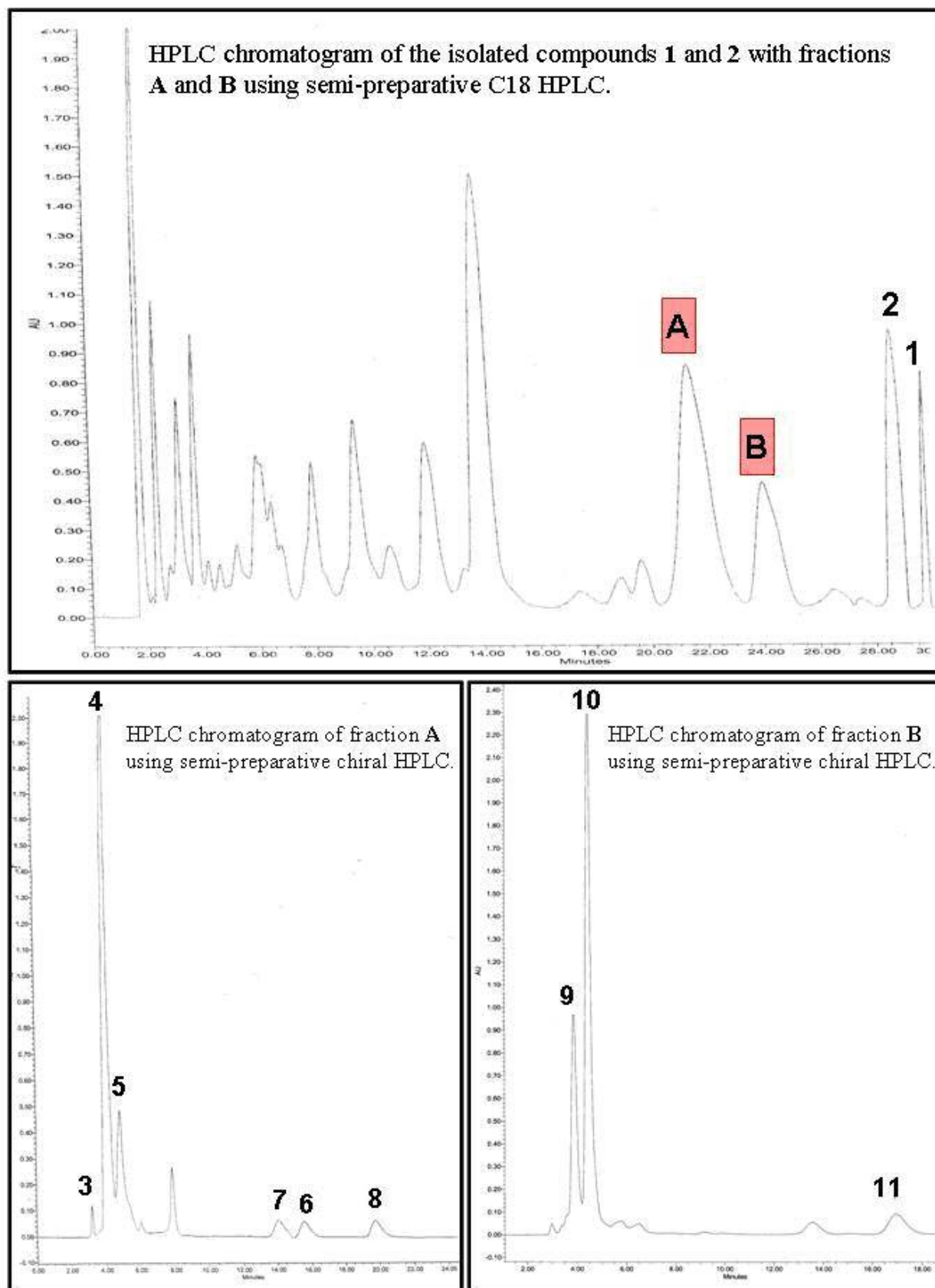


Table S1. GCMS data of isolated compounds.

Mono- and sesquiterpenol^a	<i>t_R</i>	<i>M</i>⁺	Base peak	Parent ester
α -fenchol	6.61	154	81	10
β -fenchol	6.70	154	81	1
borneol	7.82	154	95	9
<i>epi</i> -borneol	7.89	154	95	2
4-terpineol	8.08	154	71	4 and 8
α -terpineol	8.38	154	59	3
α -cadinol	20.05	222	95	5 and 11
γ -eudesmol	21.02	222	81	6 and 7
Δ^9-THC	36.96	314	231	-
Δ^9-THCA	36.96 ^b	314	231	-
CBNA	37.76 ^b	316	193	-
CBGA	37.93 ^b	310	295	-

^aComponents are listed according to their retention times (*t_R*).

^bRetention time of decarboxylated cannabinoid acid.