

Supplementary Information for

Volatile compounds analysis and biomarkers identification of four native apricot (*Prunus armeniaca* L.) cultivars grown in Xinjiang region of China

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Supplementary Figures

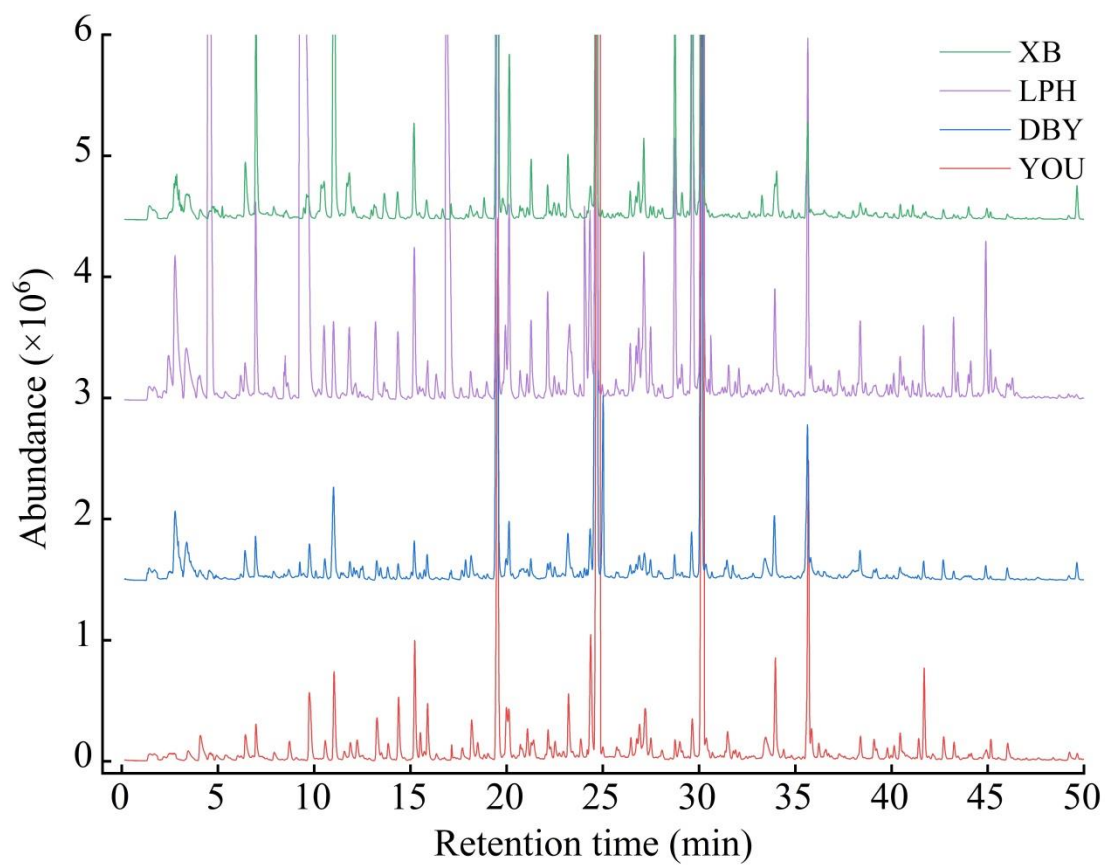


Figure S1.

The chromatograms in the HS-SPME-GC-MS/MS analysis of the four apricot cultivars.

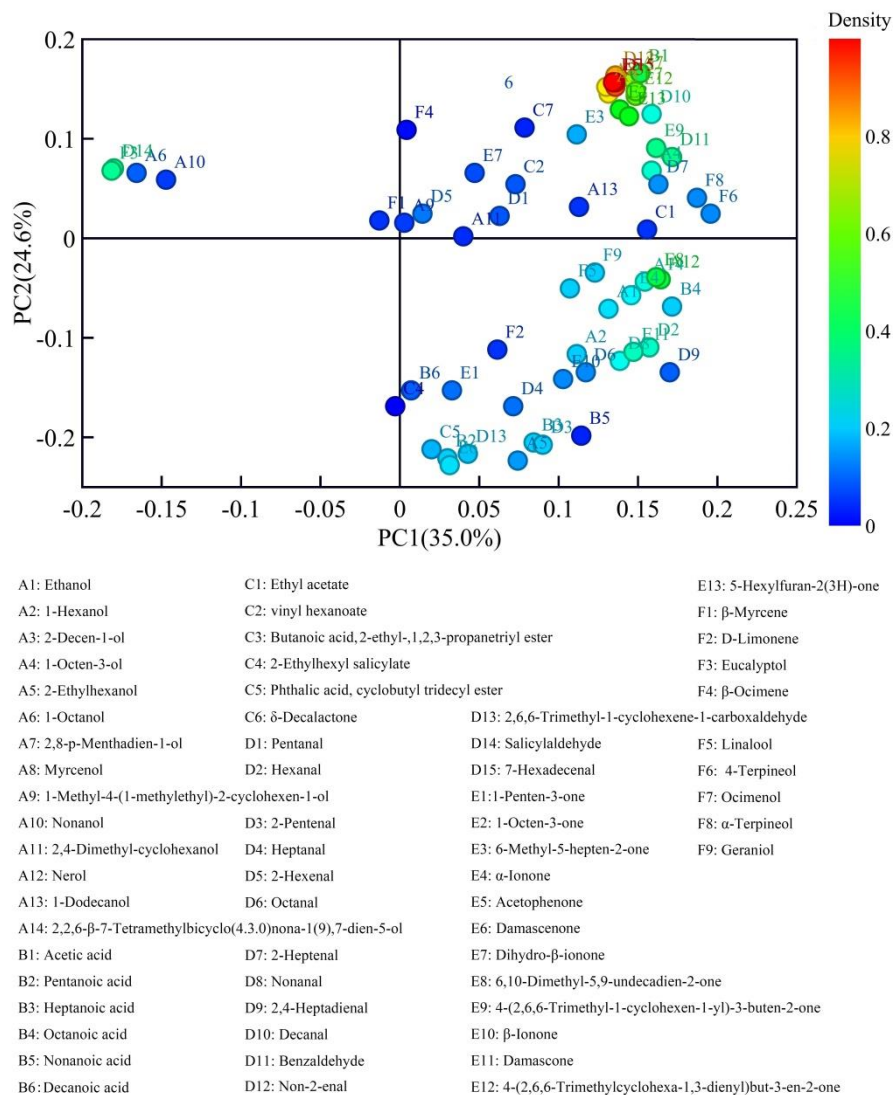


Figure S2.

The loading graph of PLS-DA analysis of volatile compounds in four apricot cultivars.

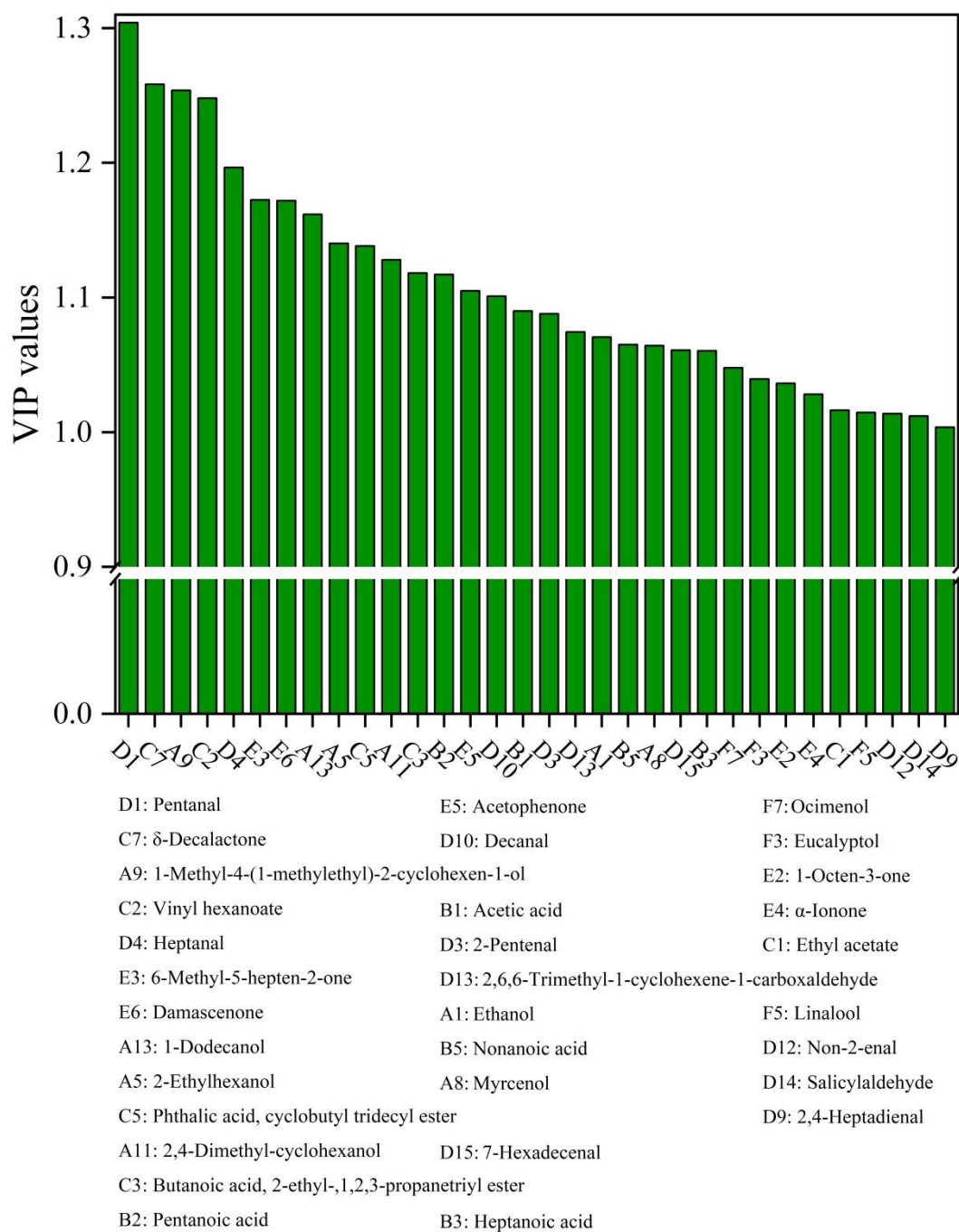


Figure S3.

The volatile compounds of VIP>1 in four apricot cultivars.

Supplementary Table

Table S1. Concentration of volatile compounds in four apricot cultivars (µg/kg).

Volatiles categories	Compounds	Apricot cultivars			
		DBY	LPH	YOU	XB
Alcohols	Ethanol	13.31 ± 1.90 ^a	12.30 ± 4.67 ^a	2.23 ± 0.60 ^b	2.86 ± 1.59 ^b
	1-Hexanol	1.64 ± 1.42 ^a	0.64 ± 0.57 ^a	1.97 ± 0.88 ^a	nd
	2-Decen-1-ol	nd	20.48 ± 16.07	nd	nd
	1-Octen-3-ol	3.67 ± 3.20	9.31 ± 4.93	nd	nd
	2-Ethylhexanol	3.59 ± 0.35 ^a	0.70 ± 0.13 ^b	0.82 ± 0.18 ^b	nd
	1-Octanol	nd	nd	nd	22.51 ± 12.94
	2,8-p-Menthadien-1-ol	nd	17.54 ± 9.61	8.58 ± 1.13	nd
	Myrcenol	nd	6.91 ± 2.92	nd	nd
	1-Methyl-4-(1-methylethyl)-2-cyclohexen-1-ol	nd	nd	2.53 ± 1.19	0.17 ± 0.18
	Nonanol	nd	nd	nd	0.11 ± 0.10
	2,4-Dimethyl-cyclohexanol	nd	nd	20.42 ± 13.81	nd
	Nerol	0.82 ± 0.71 ^a	0.98 ± 0.08 ^a	1.04 ± 0.45 ^a	nd
	1-Dodecanol	2.95 ± 0.81 ^b	5.23 ± 4.86 ^b	13.65 ± 3.11 ^a	0.22 ± 0.31 ^b
	2,2,6-β-7-Tetramethylbicyclo(4.3.0)nona-1(9),7-dien-5-ol	1.22 ± 1.07 ^a	1.21 ± 1.05 ^a	1.33 ± 0.51 ^a	nd

Supplementary Table S1. (continued)

Acids	Acetic acid	nd	3.28 ± 0.47	1.66 ± 0.11	nd
	Pentanoic acid	2.70 ± 0.82	nd	0.64 ± 0.33	nd
	Heptanoic acid	2.86 ± 0.47^a	1.06 ± 0.97^b	0.93 ± 0.20^b	nd
	Octanoic acid	5.76 ± 0.44^a	5.76 ± 2.68^a	3.37 ± 1.02^a	nd
	Nonanoic acid	4.07 ± 0.66^a	1.30 ± 0.29^b	2.54 ± 1.08^b	nd
	Decanoic acid	1.05 ± 1.06	nd	0.45 ± 0.40	nd
Esters	Ethyl acetate	15.07 ± 1.64	21.19 ± 12.96	nd	nd
	Vinyl hexanoate	nd	0.68 ± 0.63	2.58 ± 0.41	nd
	Butanoic acid, 2-ethyl-,1,2,3-propanetriyl ester	nd	0.82 ± 0.15	0.57 ± 0.09	nd
	2-Ethylhexyl salicylate	2.69 ± 2.08^a	nd	0.30 ± 0.53^a	0.20 ± 0.26^a
	Phthalic acid, cyclobutyl tridecyl ester	1.05 ± 0.33	nd	nd	nd
	δ -Decalactone	nd	1.41 ± 0.16^b	2.71 ± 0.16^a	0.39 ± 0.02^c
Aldehydes	Pentanal	1.79 ± 0.34^b	4.18 ± 1.50^b	20.49 ± 2.42^a	nd
	Hexanal	2.37 ± 0.90^a	1.55 ± 1.48^a	1.31 ± 0.16^a	nd
	2-Pentenal	40.31 ± 13.09^a	9.81 ± 4.07^b	6.50 ± 1.26^b	nd

Supplementary Table S1. (continued)

	Heptanal	6.92 ± 0.58^a	0.83 ± 0.73^b	7.64 ± 1.74^a	nd
	2-Hexenal	14.89 ± 12.07^a	17.25 ± 6.50^a	12.99 ± 4.81^a	18.43 ± 6.33^a
	Octanal	6.68 ± 6.72^a	3.22 ± 0.49^a	5.44 ± 1.19^a	nd
	2-Heptenal	4.98 ± 2.41^{ab}	9.57 ± 4.00^a	2.78 ± 1.00^b	nd
	Nonanal	3.25 ± 2.82^a	1.98 ± 0.61^{ab}	1.85 ± 0.34^{ab}	0.09 ± 0.10^b
	2,4-Heptadienal	15.34 ± 3.08^a	11.11 ± 1.96^b	7.95 ± 1.18^b	0.18 ± 0.02^c
	Decanal	1.98 ± 0.86^b	11.18 ± 0.34^a	2.80 ± 0.59^b	nd
	Benzaldehyde	1.73 ± 0.69^b	4.49 ± 2.72^a	1.03 ± 0.54^b	0.08 ± 0.07^b
	Non-2-enal	nd	2.54 ± 1.37^a	0.23 ± 0.22^b	0.12 ± 0.12^b
	2,6,6-Trimethyl-1-cyclohexene-1-carboxaldehyde	25.10 ± 12.33	nd	nd	0.09 ± 0.11
	Salicylaldehyde	nd	nd	nd	0.09 ± 0.03
	7-Hexadecenal	nd	1.28 ± 0.56	nd	nd
Ketones	1-Penten-3-one	0.69 ± 0.60^a	nd	0.79 ± 0.16^a	0.22 ± 0.39^a
	1-Octen-3-one	0.36 ± 0.42^b	8.51 ± 3.08^a	7.73 ± 2.91^a	nd
	6-Methyl-5-hepten-2-one	nd	3.74 ± 1.57^b	6.61 ± 1.51^a	0.23 ± 0.07^c
	α -Ionone	4.11 ± 2.17	4.29 ± 1.41	nd	nd

Supplementary Table S1. (continued)

	Acetophenone	nd	1.21 ± 0.35	nd	nd
	Damascenone	1.18 ± 0.12	nd	nd	nd
	Dihydro-β-ionone	nd	7.52 ± 11.57	1.23 ± 0.26	nd
	6,10-Dimethyl-5,9-undecadien-2-one	2.96 ± 1.24 ^a	3.25 ± 0.36 ^a	4.56 ± 2.65 ^a	0.07 ± 0.02 ^b
	4-(2,6,6-Trimethyl-1-cyclohexen-1-yl)-3-buten-2-one	0.79 ± 0.70 ^a	2.5 ± 1.51 ^a	0.57 ± 0.60 ^a	nd
	β-Ionone	4.78 ± 2.08 ^a	2.95 ± 3.44 ^a	2.34 ± 0.64 ^a	nd
	Damascone	3.50 ± 1.62 ^a	2.96 ± 1.49 ^a	2.10 ± 0.57 ^{ab}	0.22 ± 0.23 ^b
	4-(2,6,6-Trimethylcyclohexa-1,3-dienyl)but-3-en-2-one	nd	3.81 ± 2.60	3.21 ± 1.20	nd
	5-Hexylfuran-2(3H)-one	2.54 ± 0.27 ^b	15.33 ± 9.90 ^a	1.12 ± 1.10 ^b	nd
Terpenes	β-Myrcene	2.49 ± 0.62 ^a	2.47 ± 0.97 ^a	4.50 ± 2.63 ^a	4.03 ± 4.04 ^a
	D-Limonene	5.06 ± 5.26 ^a	nd	8.01 ± 7.23 ^a	0.33 ± 0.48 ^a
	Eucalyptol	nd	nd	nd	0.26 ± 0.05
	β-Ocimene	nd	0.74 ± 0.04 ^a	1.41 ± 0.84 ^a	0.80 ± 0.94 ^a
	Linalool	291.25 ± 13.88 ^{ab}	195.74 ± 94.71 ^b	600.22 ± 390.09 ^a	2.39 ± 2.10 ^b
	4-Terpineol	2.89 ± 1.04 ^a	4.72 ± 1.77 ^a	3.43 ± 2.20 ^a	nd
	Ocimenol	4.08 ± 1.58 ^b	57.14 ± 22.68 ^a	5.11 ± 3.55 ^b	0.12 ± 0.05 ^b

Supplementary Table S1. (continued)

α -Terpineol	198.42 ± 32.41^{ab}	364.88 ± 157.96^a	305.33 ± 212.07^a	0.22 ± 0.38^b
Geraniol	34.55 ± 1.66^a	28.69 ± 26.74^a	66.08 ± 46.49^a	nd

Notes: Values were presented as mean \pm standard deviation (n=3). nd= not detected.

The different superscripts in the column meant significant differences ($P < 0.05$, Duncan's test) for different apricot cultivars.