Supporting information for

Volatile Components in the Extracts from 20 Herbaceous Plant Flowers

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Proof of authorization for Tables

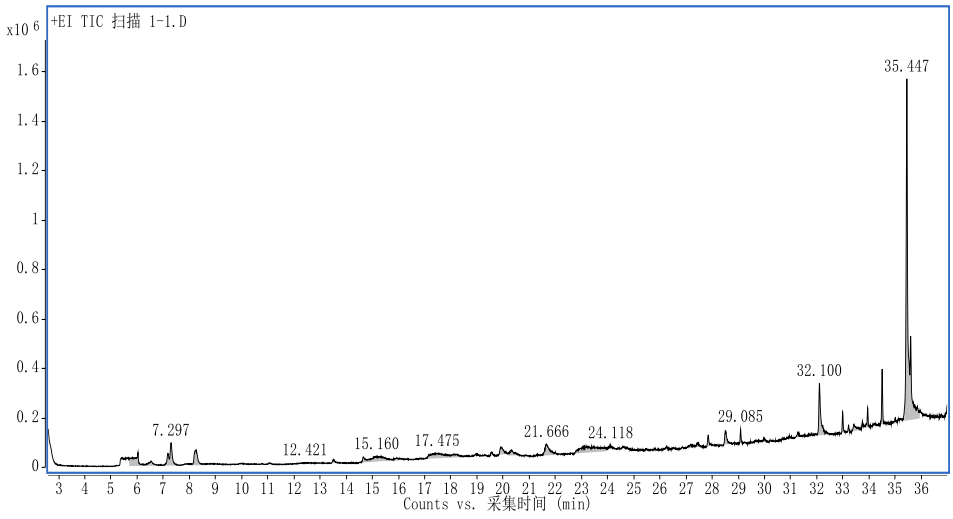

Fig S1: Total ion chromatograms of GC-MS for the ethanol extracts of the flowers of *Taraxacum mongolicum* Hand.-Mazz.

Table S1: GC-MS analysis result of ethanol extract from *Taraxacum mongolicum* Hand.-Mazz.

Number	materials	relative content
1	Dicyclopentadiene diepoxide	0.23%
2	Methylephedrine	4.18%
3	3-trsns-(1,1-dimethylethyl)-4-trans-methoxycyclohexanol	1.49%
4	Benzoic acid, 2-(dimethylamino)ethyl ester	1.38%
5	6-Hepten-3-one, 5-hydroxy-4-methyl-	2.84%
6	(Methoxymethyl)trimethylsilane	3.67%
7	(2-Methyl-1-cyclohexenyl)methanol, TMS derivative	0.25%
8	4-Cyclohexene-1,2-diol	0.29%
9	Decanoic acid, 3-hydroxy-, methyl ester	0.52%
10	Dodecane, 1-fluoro-	0.88%
11	5-Hepten-2-amine, N,6-dimethyl-	3.84%
12	1-Deoxy-d-mannitol	6.48%
13	5,7-Dodecadiyn-1,12-diol	0.19%
14	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	0.32%
15	3-n-Butylthiolane	1.54%
16	Melezitose	2.21%
17	4-Cyanothiophenol	3.43%
18	7-Ethyl-4-decen-6-one	6.63%
19	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	0.37%
20	2-Cyclohexylpiperidine	0.82%
21	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	6.12%
22	Ethyl stearate, 9,12-diepoxy	0.99%
23	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	1.68%
24	Triisobutyl(3-phenylpropoxy)silane	0.65%
25	Tetradecanoic acid	5.83%
26	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.18%
27	Hexadecanoic acid, methyl ester	2.96%
28	n-Hexadecanoic acid	29.92%
29	Estra-1,3,5(10)-trien-17.beta.-ol	10.09%

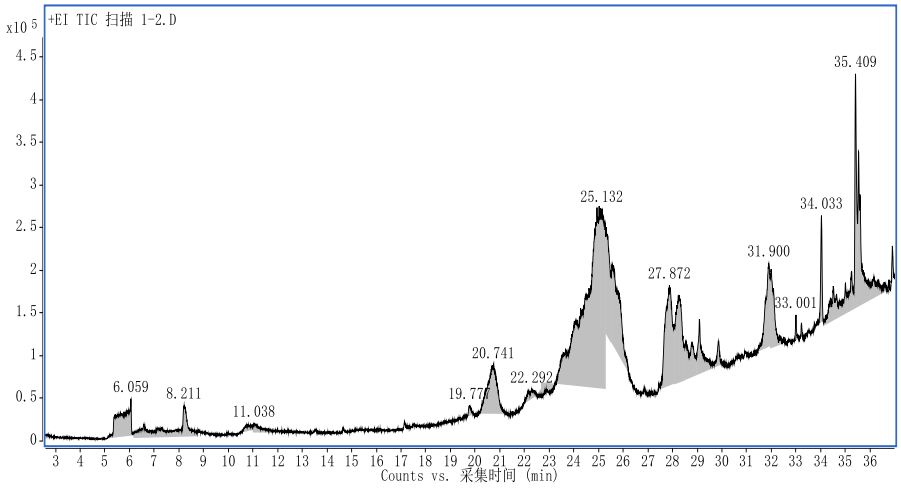

Fig S2: Total ion chromatograms of GC-MS for the ethanol extracts of the flowers of *Cirsium arvense* var. *integrifolium* Wimm. & Grab.

Table S2: GC-MS analysis result of ethanol extract of *Cirsium arvense* var. *integrifolium* Wimm. & Grab.

Number	materials	relative content
1	Cyclotrisiloxane, hexamethyl-	0.31%
2	Trifluoroethanol, TBDMS derivative	3.55%
3	Benzamide, N-[6-(2-furyl)-2-oxo-2H-pyran-3-yl]-	1.96%
4	Benzoyl isothiocyanate	2.29%
5	1,3-Propanediol, 2-methyl-, dipropanoate	1.16%
6	Methyl 12,13-tetradecadienoate	0.83%
7	Dodecane, 1-fluoro-	4.64%
8	15-Tetracosenoic acid, methyl ester, (Z)-	43.87%
9	9,12-Octadecadienoic acid (Z,Z)-	13.80%
10	9,12-Octadecadienoyl chloride, (Z,Z)-	1.53%
11	trans-13-Octadecenoic acid	2.36%
12	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	0.68%
13	Tetracosanoic acid, methyl ester	6.39%
14	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	11.01%
15	tert-Hexadecanethiol	1.40%
16	Estra-1,3,5(10)-trien-17.beta.-ol	3.86%
17	Glycidyl (Z)-9-Heptadecenoate	0.36%

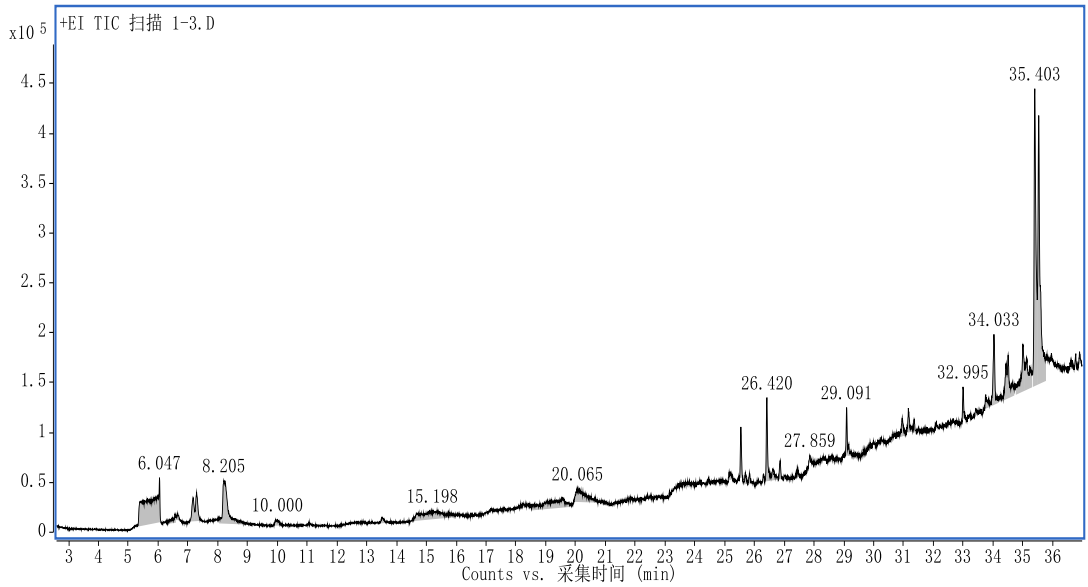

Fig S3: Total ion chromatograms of GC-MS for the ethanol extracts of the flowers of *Cyanus segetum* Hill.

Table S3: GC-MS analysis result of ethanol extract of *Cyanus segetum* Hill.

Number	materials	relative content
1	Trifluoroethanol, TBDMS derivative	11.99%
2	Methanone, (4-bromo-5-methyl-2-nitro-3-thienyl)(phenyl)-	0.71%
3	1,3-Propanediol, TMS derivative	0.34%
4	Benzoic acid, 2-(dimethylamino)ethyl ester	1.36%
5	Methcathinone	1.75%
6	Ethanol, TMS derivative	6.31%
7	1,5-Anhydro-d-mannitol	0.50%
8	Dodecane, 1-fluoro-	5.46%
9	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	5.67%
10	3-n-Butylthiolane	3.50%
11	Melezitose	1.57%
12	Methyl 4,7,10,13-hexadecatetraenoate	1.46%
13	2,5-Octadecadiynoic acid, methyl ester	0.90%
14	tert-Hexadecanethiol	2.98%
15	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	20.16%
16	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	1.77%
17	5,8,11-Eicosatrienoic acid, (Z)-, TMS derivative	1.22%
18	Estra-1,3,5(10)-trien-17.beta.-ol	14.53%
19	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	16.64%
20	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	1.18%

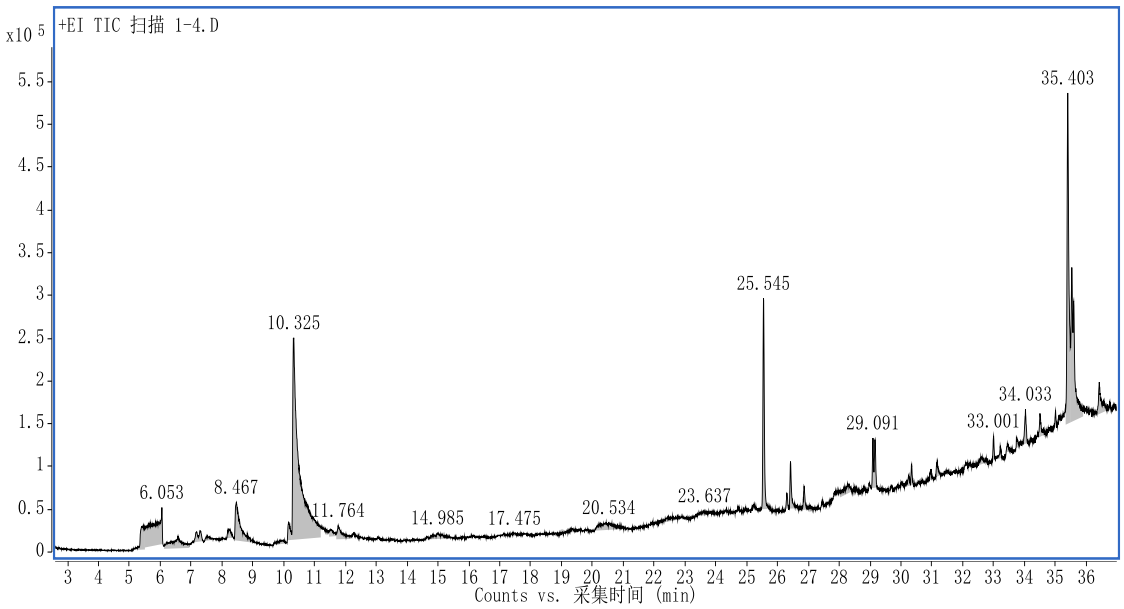

Fig S4: Total ion chromatograms of GC-MS for the ethanol of *Hemisteptia lyrata* (Bunge) Fisch. & C. A. Mey.

Table S4: GC-MS analysis result of ethanol extract of *Hemisteptia lyrata* (Bunge) Fisch. & C. A. Mey.

Number	materials	relative content
1	Dicyclopentadiene diepoxide	2.16%
2	Perfluoropropionic acid, TBDMS derivative	7.20%
3	Benzoic acid, 2-(dimethylamino)ethyl ester	0.54%
4	Ephedrine	0.55%
5	1,3-Propanediol, TMS derivative	0.64%
6	3-(Methylthio)propyl benzoate	4.39%
7	1,3-Propanediol, 2-methyl-, dipropanoate	3.20%
8	Propanoic acid, butyl ester	28.28%
9	.beta.-D-Glucopyranoside, methyl	1.40%
10	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	2.03%
11	3-n-Butylthiolane	2.18%
12	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.20%
13	*Caryophyllene*	6.43%
14	2,5-Octadecadiynoic acid, methyl ester	2.72%
15	tert-Hexadecanethiol	1.59%
16	5,8,11-Eicosatrienoic acid, (Z)-, TMS derivative	0.21%
17	*.alpha.-Linolenic acid, TMS derivative*	1.29%
18	2,5-Octadecadiynoic acid, methyl ester	1.13%

Number	materials	relative content
19	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	11.55%
20	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	1.36%
21	Estra-1,3,5(10)-trien-17.beta.-ol	13.80%
22	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	5.03%
23	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	2.12%

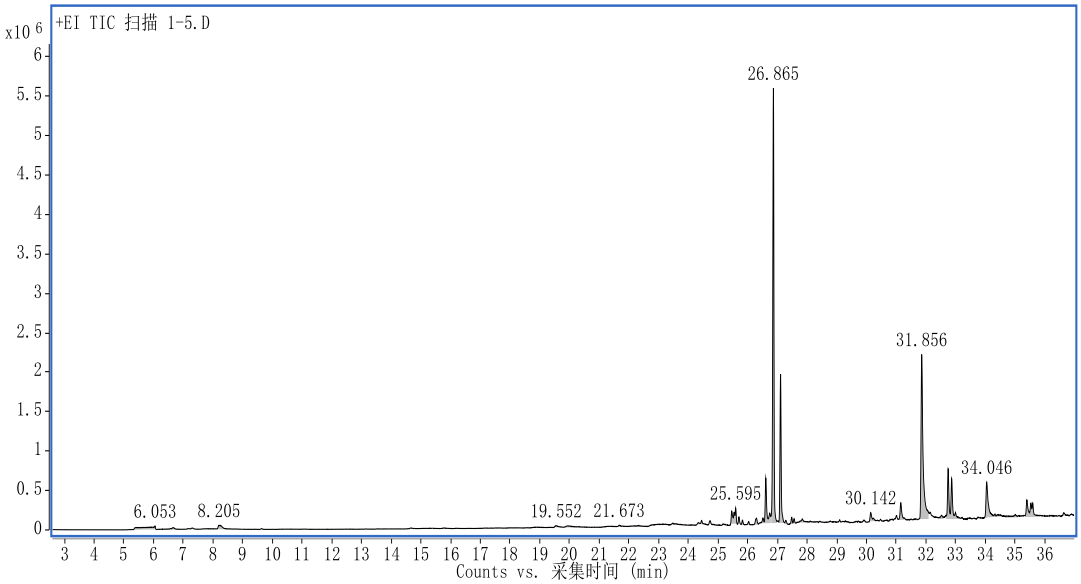

Fig S5: Total ion chromatograms of GC-MS for the ethanol of *Coreopsis basalis* (A. Dietr.) S. F. Blake.

Table S5: GC-MS analysis result of ethanol extract of *Coreopsis basalis* (A. Dietr.) S. F. Blake

Number	materials	relative content
1	Perfluoropropionic acid, TBDMS derivative	2.26%
2	1,3-Propanediol, TMS derivative	1.37%
3	Undec-10-ynoic acid, heptyl ester	0.30%
4	3-n-Butylthiolane	0.84%
5	1,3-Disilacyclobutane, 1,1,3,3-tetramethyl-	0.38%
6	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	0.89%
7	7-Ethyl-4-decen-6-one	0.74%
8	Methyl 2,4-tridecadiynoate	0.16%
9	2,5-Octadecadiynoic acid, methyl ester	3.82%
10	Melezitose	0.25%

Number	materials	relative content
11	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.22%
12	（(1R,2S,6S,7S,8S)-8-Isopropyl-1-methyl-3-methylenetricyclo[4.4.0.02,7]decane-rel-	31.29%
13	.beta.-Longipinene	0.75%
14	cis-.alpha.-Bergamotene	0.92%
15	Methyl 4,7,10,13-hexadecatetraenoate	0.33%
16	Methyl 3,5-tetradecadiynoate	0.29%
17	Ylangene	0.40%
18	*Benzene, 1-(1,5-dimethyl-4-hexenyl)-4-methyl-*	3.44%
19	*.beta.-Bisabolene*	9.74%
20	Bicyclo[4.4.0]dec-1-ene, 2-isopropyl-5-methyl-9-methylene-	0.21%
21	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	1.07%
22	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	5.62%
23	5,8,11-Eicosatrienoic acid, (Z)-, TMS derivative	0.36%
24	Benzene, 1,3,5-heptatriyn-1-yl-	18.77%
25	3-(1,5-Dimethyl-hex-4-enyl)-2,2-dimethyl-cyclopent-3-enol	7.13%
26	Dibenzothiophene, 4-methyl-	4.55%
27	1,25-Dihydroxyvitamin D3, TMS derivative三烯-1,3*β*-二醇	0.66%
28	Estra-1,3,5(10)-trien-17.beta.-ol	1.77%
29	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	1.11%
30	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.35%

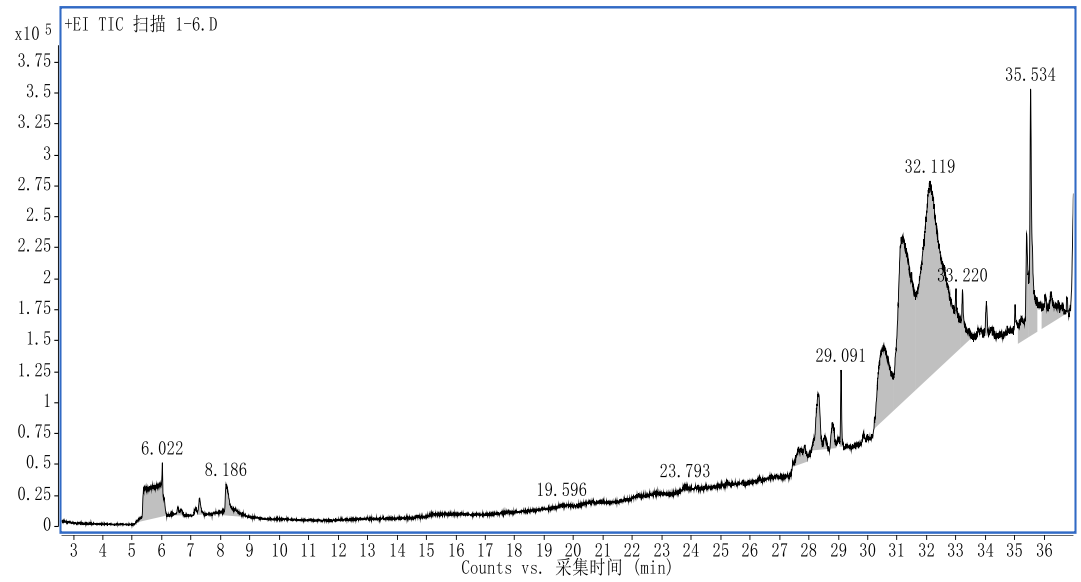

Fig S6: Total ion chromatograms of GC-MS for the ethanol of *Trifolium repens* L.

Table S6: GC-MS analysis result of ethanol extract from *Trifolium repens* L.

Number	materials	relative content
1	Methanol, tris(methylenecyclopropyl)-	5.93%
2	Methanone, (4-bromo-5-methyl-2-nitro-3-thienyl)(phenyl)-	0.32%
3	S(-)-Methcathinone	0.36%
4	Benzoyl isothiocyanate	1.70%
5	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	0.26%
6	2,5-Octadecadiynoic acid, methyl ester	0.22%
7	.alpha.-Linolenic acid, TMS derivative	1.37%
8	Linoleic acid ethyl ester	2.33%
9	2,5-Octadecadiynoic acid, methyl ester	1.12%
10	Triisobutyl(3-phenylpropoxy)silane	0.79%
11	3,7,11,14,18-Pentaoxa-2,19-disilaeicosane, 2,2,19,19-tetramethyl-	72.44%
12	3,7,11,14,18-Pentaoxa-2,19-disilaeicosane, 2,2,19,19-tetramethyl-	0.53%
13	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	3.18%
14	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	5.95%
15	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	3.49%

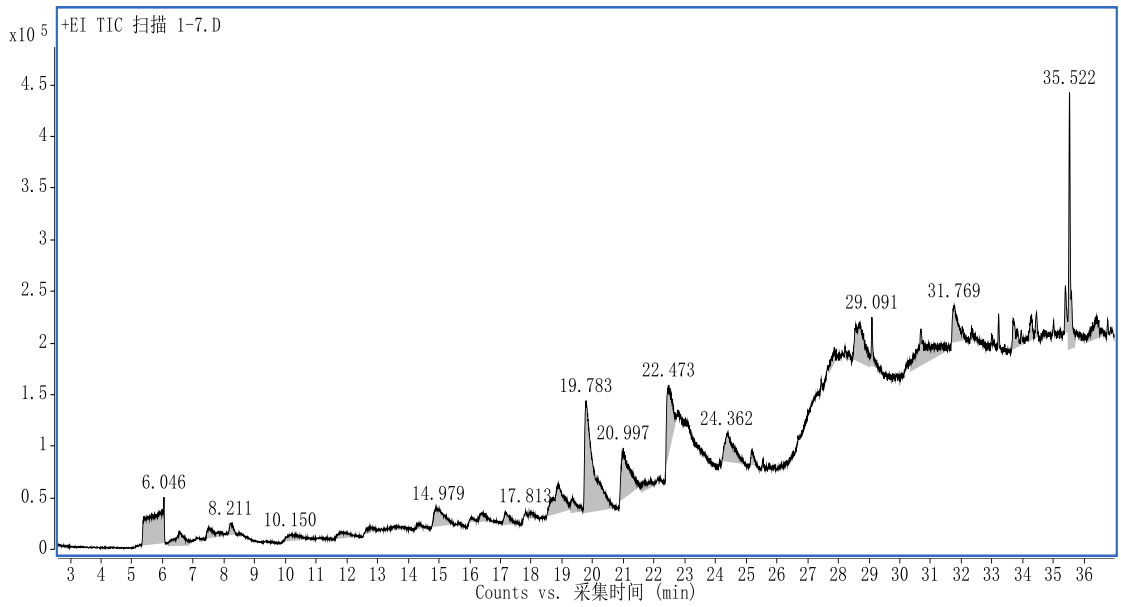

Fig S7: Total ion chromatograms of GC-MS for the ethanol of *Paeonia lactiflora* Pall.

Table S7: GC-MS compound analysis of ethanol extract from *Paeonia lactiflora* Pall.

Number	materials	relative content
1	Perfluoropropionic acid, TBDMS derivative	9.02%
2	Benzamide, N-[6-(2-furyl)-2-oxo-2H-pyran-3-yl]-	2.32%
3	1-Propanone, 2-bromo-1-phenyl-	0.08%
4	1,3-Propanediol, TMS derivative	0.84%
5	3,5-Dimethylpyrazole	1.18%
6	trans-4-Methylcyclohexanol, trifluoroacetate	0.59%
7	4-Methylcyclohexaneacetic acid (stereoisomer 1)	0.58%
8	2,5,6-Trimethyl-1,3-oxathiane	0.37%
9	3-n-Butylthiolane	19.25%
10	Phenyl-.beta.-D-glucoside	0.30%
11	2,5,6-Trimethyl-1,3-oxathiane	0.91%
12	Lactose	1.31%
13	Ethylene glycol, O,O-di(pivaloyl)-	0.63%
14	Pyrovalerone	5.05%
15	Methyl 6-oxoheptanoate	1.40%
16	Hexanediamide, N,N'-di-benzoyloxy-	6.62%
17	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	1.95%
18	4-Mercaptophenol	5.91%

Number	materials	relative content
19	Melezitose	4.36%
20	Methyl 3,5-tetradecadiynoate	0.09%
21	Gallacetophenone-4'-methylether	0.10%
22	Resorcinol, TMS derivative	11.93%
23	Gallacetophenone-4'-methylether	7.60%
24	4-Hexenoic acid, 4-methyl-6-(fluorodimethylsilyl)-6-trimethylsilyl-	0.37%
25	5,8,11-Eicosatriynoic acid, tert-butyldimethylsilyl ester	0.15%
26	.alpha.-D-Galactopyranose, 6-O-(trimethylsilyl)-, cyclic 1,2:3,4-bis(methylboronate)	0.57%
27	.alpha.-D-Galactopyranose, 6-O-(trimethylsilyl)-, cyclic 1,2:3,4-bis(methylboronate)	7.25%
28	5,8,11,14-Eicosatetraynoic acid, TMS derivative	0.40%
29	（1,25-Dihydroxyvitamin D3, TMS derivative	1.35%
30	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	7.51%

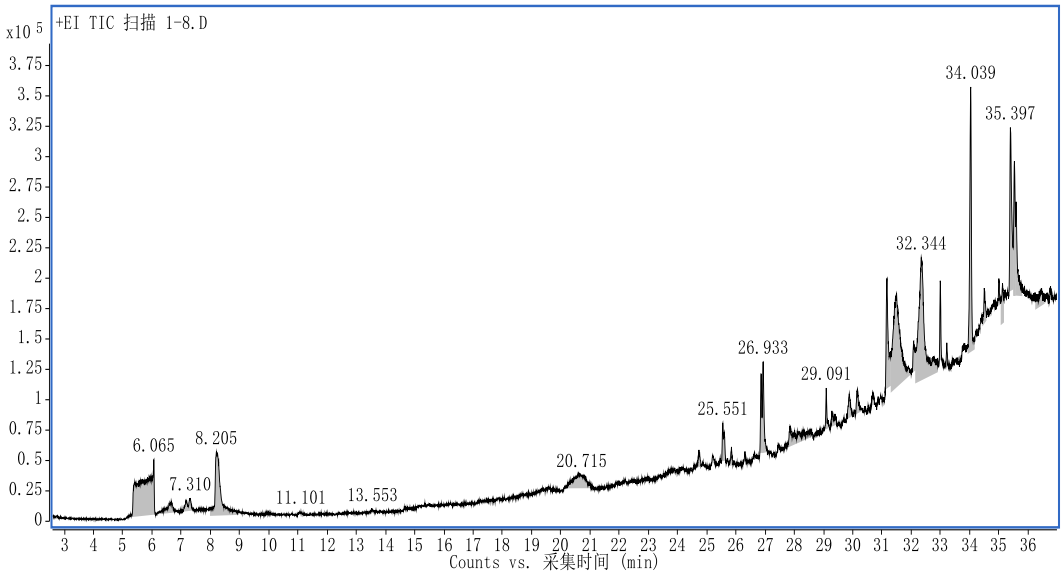

Fig S8: Total ion chromatograms of GC-MS for the ethanol of *Erigeron annuus* (L.) Pers.

Table S8: GC-MS analysis result of ethanol extract of *Erigeron annuus* (L.) Pers.

Number	materials	relative content
1	Perfluoropropionic acid, TBDMS derivative	12.14%
2	Methanone, (4-bromo-5-methyl-2-nitro-3-thienyl)(phenyl)-	1.28%
3	Benzoyl isothiocyanate	0.49%
4	Ephedrine	0.53%

Number	materials	relative content
5	Ethanol, TMS derivative	7.13%
6	2-Dimethylsilyloxytridecane	0.10%
7	Lactose	3.35%
8	Arachidonic acid, TMS derivative	0.59%
9	10-Undecynoic acid, TMS derivative	0.22%
10	Methyl 4,7,10,13-hexadecatetraenoate	1.36%
11	2,5-Octadecadiynoic acid, methyl ester	5.10%
12	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	4.52%
13	(1R,2S,6S,7S,8S)-8-Isopropyl-1-methyl-3-methylenetricyclo[4.4.0.02,7]decane-rel-	1.72%
14	Methyl 4,7,10,13-hexadecatetraenoate	2.61%
15	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	20.09%
16	1,25-Dihydroxyvitamin D3, TMS derivative	2.92%
17	10-Undecynoic acid, TMS derivative	13.05%
18	1-Heptatriacotanol	1.35%
19	tert-Hexadecanethiol	8.42%
20	1,25-Dihydroxyvitamin D3, TMS derivative	2.13%
21	Estra-1,3,5(10)-trien-17.beta.-ol	5.63%
22	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	3.65%
23	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	1.62%

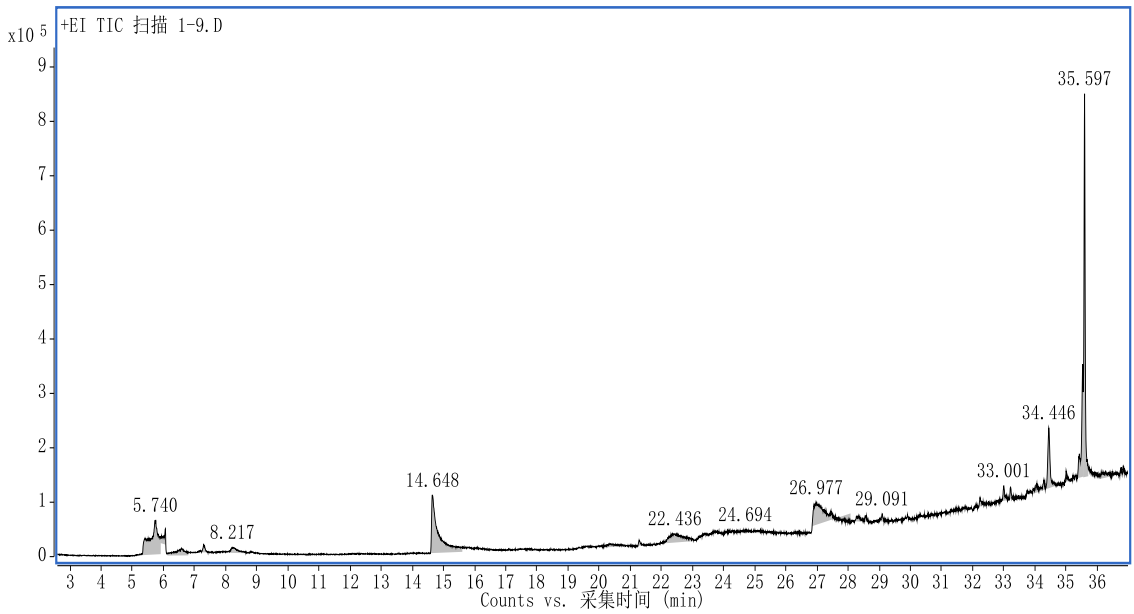

Fig S9: Total ion chromatograms of GC-MS for the ethanol of *Oxalis corymbosa* DC.

Table S9: GC-MS analysis result of ethanol extract from *Oxalis corymbosa* DC.

Number	materials	relative content
1	Trifluoromethyltrimethylsilane	12.74%
2	Perfluoropropionic acid, TBDMS derivative	1.55%
3	3-(6,7-Dimethoxy-2H-1,3-benzodioxol-5-yl)-1-phenylprop-2-en-1-one	3.05%
4	Pseudoephedrine	0.77%
5	Benzoyl isothiocyanate	2.09%
6	2-Amino-2-methyl-1,3-propanediol	17.14%
7	3-n-Butylthiolane	1.67%
8	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.44%
9	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	5.79%
10	Melezitose	1.76%
11	Ethyl pipecolinate	7.49%
12	2-Cyclohexylpiperidine	1.45%
13	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	6.47%
14	1,25-Dihydroxyvitamin D3, TMS derivative	0.99%
15	tert-Hexadecanethiol	6.18%
16	Arachidonic Acid, TBDMS derivative	0.63%
17	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	8.18%
18	Hexadecanoic acid, ethyl ester	21.34%
19	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.27%

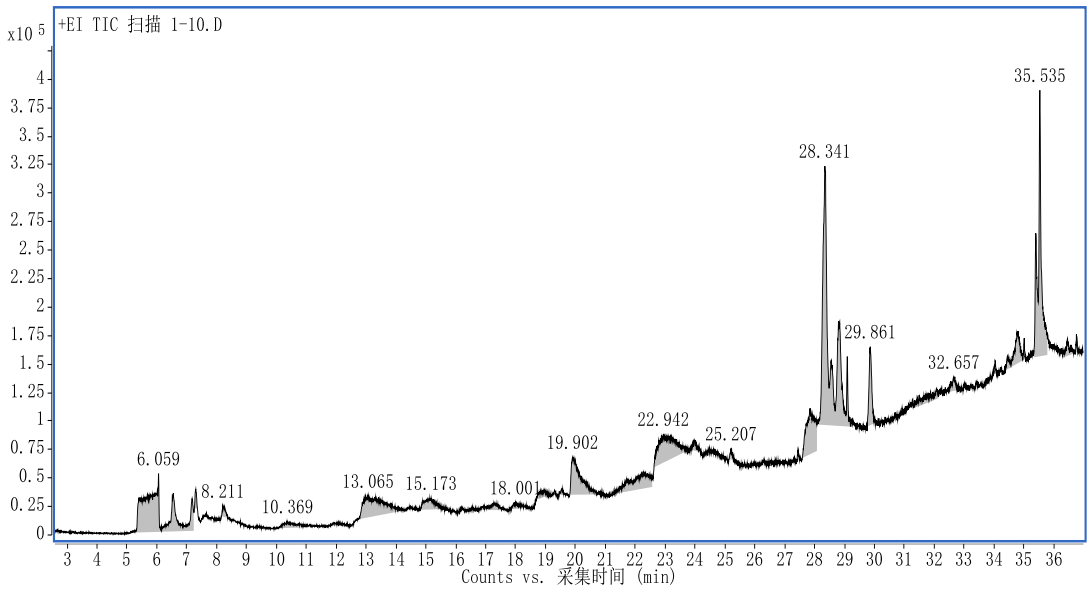

Fig S10: Total ion chromatograms of GC-MS for the ethanol of *Hemerocallis fulva* 'Golden Doll'

Table S10: GC-MS analysis result of ethanol extract from *Hemerocallis fulva* 'Golden Doll.'

Number	materials	relative content
1	Trifluoroethanol, TBDMS derivative	10.14%
2	3-Hexen-1-ol benzoate	3.16%
3	Benzoic acid, 2-(dimethylamino)ethyl ester	1.66%
4	6-Hepten-3-one, 5-hydroxy-4-methyl-	0.42%
5	1,3-Propanediol, TMS derivative	0.35%
6	1H-Pyrazole, 1,5-dimethyl-	0.27%
7	3-Furanmethanol	6.17%
8	3-n-Butylthiolane	7.12%
9	Dodecane, 1-fluoro-	0.56%
10	Cholestan-22(26)-epoxy-3,16-dione	0.69%
11	Methyl 6-oxoheptanoate	0.09%
12	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	4.70%
13	7-Ethyl-4-decen-6-one	6.69%
14	t-Butyl(4,5-dihydrofuran-2-yl)dimethylsilane	0.60%
15	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.34%
16	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.15%
17	Melezitose	6.63%

Number	materials	relative content
18	Ethyl 9.cis.,11.trans.-octadecadienoate	15.05%
19	trans-13-Octadecenoic acid	3.39%
20	*.alpha.-Linolenic acid, TMS derivative*	6.86%
21	9,12-Octadecadiynoic acid, tert-butyldimethylsilyl ester	1.36%
22	Octadecanoic acid, ethyl ester	3.19%
23	10-Undecynoic acid, TMS derivative	2.91%
24	1,25-Dihydroxyvitamin D3, TMS derivative	3.17%
25	Estra-1,3,5(10)-trien-17.beta.-ol	3.78%
26	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	9.31%
27	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	0.95%
28	Doconexent, TBDMS derivative	0.28%

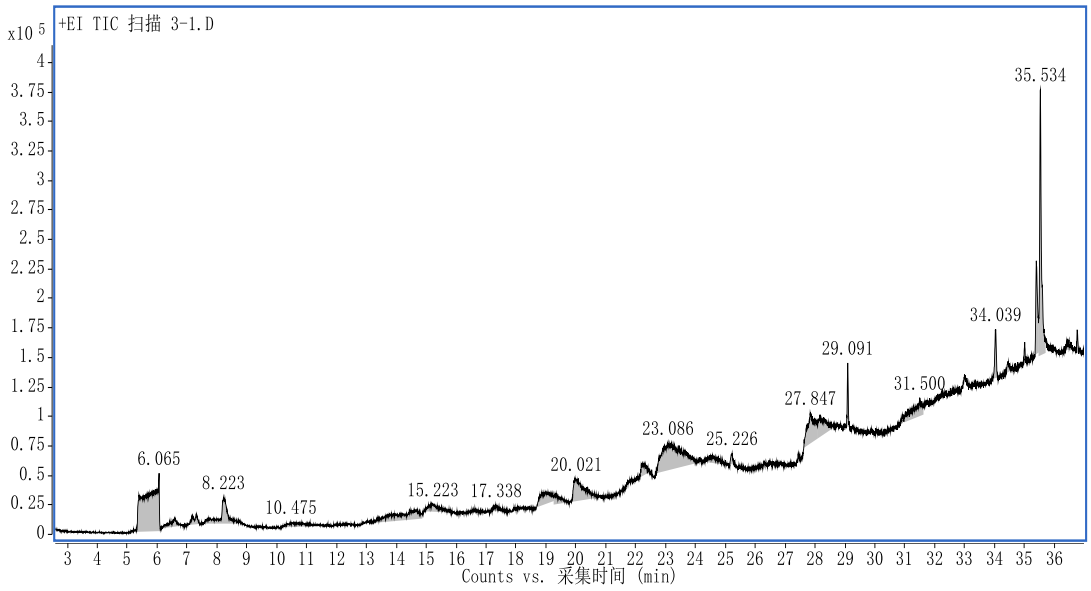

Fig S11: Total ion chromatograms of GC-MS for the ethanol of *Hosta plantaginea* (Lam.) Aschers..

Table S11: GC-MS analysis result of ethanol extract of *Hosta plantaginea* (Lam.) Aschers..

Number	materials	relative content
1	Trifluoroethanol, TBDMS derivative	18.59%
2	3-Buten-2-ol, benzoate	0.60%
3	Benzenemethanol, .alpha.-[1-(methylamino)ethyl]-, [S-(R*,S*)]-	0.62%
4	Benzoyl isothiocyanate	5.16%
5	2,5,6-Trimethyl-1,3-oxathiane	6.26%
6	3-n-Butylthiolane	8.27%
7	*Alpha-l-rhamnopyranose*	0.70%
8	5-Thio-D-glucose	0.37%
9	Thymine	3.31%
10	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	17.01%
11	D-Fructose, diethyl mercaptal, pentaacetate	1.55%
12	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.56%
13	Methyl 3,5-tetradecadiynoate	0.33%
14	Melezitose	9.89%
15	Triisobutyl(3-phenylpropoxy)silane	1.60%
16	10-Undecynoic acid, TMS derivative	3.96%
17	1,25-Dihydroxyvitamin D3, TMS derivative	1.99%
18	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	1.35%
19	Estra-1,3,5(10)-trien-17.beta.-ol	4.27%
20	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	12.99%
21	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.62%

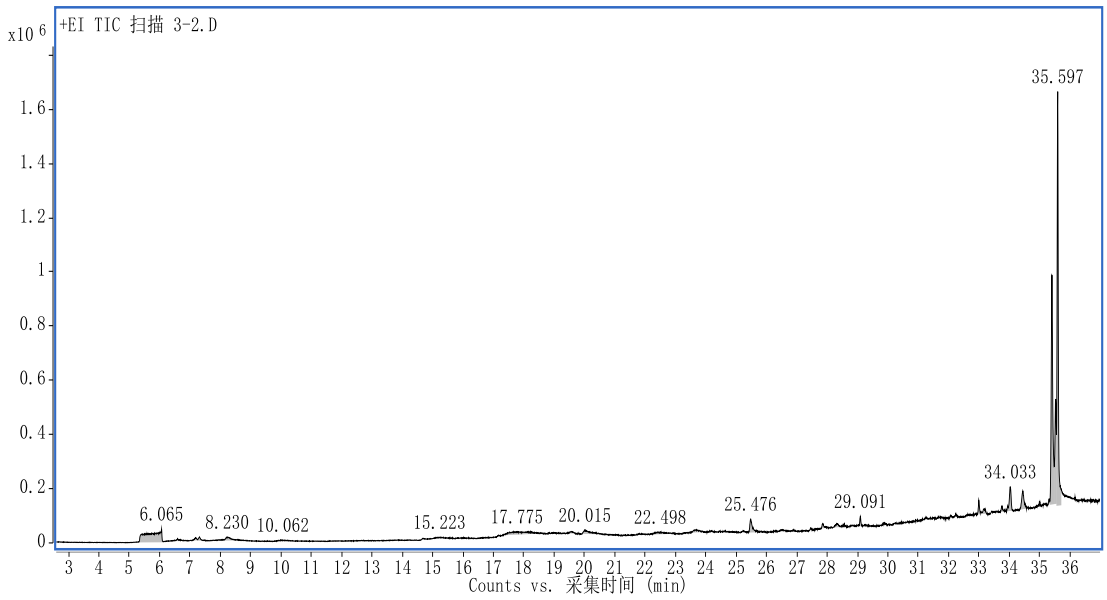

Fig S12: Total ion chromatograms of GC-MS for the ethanol of *Setaria viridis* (L.) Beauv.

Table S12: GC-MS analysis result of ethanol extract from *Setaria viridis* (L.) Beauv.

Number	materials	relative content
1	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	10.44%
2	Benzamide, N-[6-(2-furyl)-2-oxo-2H-pyran-3-yl]-	0.62%
3	Benzoic acid, 2-(dimethylamino)ethyl ester	0.39%
4	Ephedrine	0.52%
5	1,3-Propanediol, TMS derivative	1.57%
6	1-Deoxy-d-mannitol	0.80%
7	Ethyl(dimethyl)ethoxysilane	3.44%
8	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	2.17%
9	2,5-Octadecadiynoic acid, methyl ester	2.76%
10	Thymidine	2.25%
11	Methyl 3,5-tetradecadiynoate	0.57%
12	Phenol, 3,5-bis(1,1-dimethylethyl)-	0.16%
13	Ethyl stearate, 9,12-diepoxy	0.59%
14	Undec-10-ynoic acid, butyl ester	0.73%
15	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	4.14%
16	1,25-Dihydroxyvitamin D3, TMS derivative	0.64%
17	tert-Hexadecanethiol	5.61%
18	n-Hexadecanoic acid	22.07%

Number	materials	relative content
19	Phthalic acid, butyl oct-3-yl ester	8.83%
20	Hexadecanoic acid, ethyl ester	31.70%

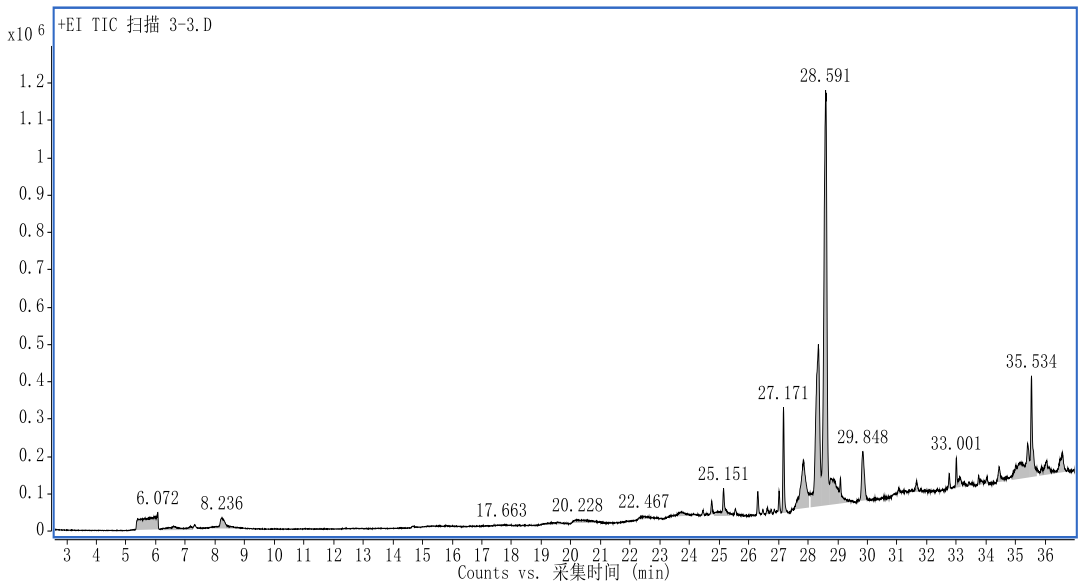

Fig S13: Total ion chromatograms of GC-MS for the ethanol of *Cyperus rotundus L.*

Table S13: GC-MS analysis result of ethanol extract from *Cyperus rotundus* L.

Number	materials	relative content
1	Hexadecanoic acid, ethyl ester	5.21%
2	Benzamide, N-[6-(2-furyl)-2-oxo-2H-pyran-3-yl]-	1.50%
3	1,3-Propanediol, TMS derivative	1.95%
4	1-Deoxy-d-mannitol	0.18%
5	Methyl 6-oxoheptanoate	0.72%
6	3-n-Butylthiolane	1.18%
7	2,5-Octadecadiynoic acid, methyl ester	1.56%
8	cis-5,8,11,14,17-Eicosapentaenoic acid	0.48%
9	Melezitose	2.04%
10	Methyl 4,7,10,13-hexadecatetraenoate	1.23%
11	1H-Cyclopropa[a]naphthalene, decahydro-1,1,3a-trimethyl-7-methylene-, [1aS-(1a.alpha.,3a.alpha.,7a.beta.,7b.alpha.)]-	3.42%
12	cis-13-Octadecenoic acid	10.70%
13	Ethyl 9.cis.,11.trans.-octadecadienoate	15.56%

Number	materials	relative content
14	(E)-9-Octadecenoic acid ethyl ester	30.61%
15	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	15.32%
16	Octadecanoic acid, ethyl ester	3.28%
17	Doconexent, TMS derivative	0.41%
18	Tricyclo[5.4.3.0(1,8)]tetradecan-6-one, 4-ethenyl-3-hydroxy-2,4,7,14-tetramethyl	4.65%

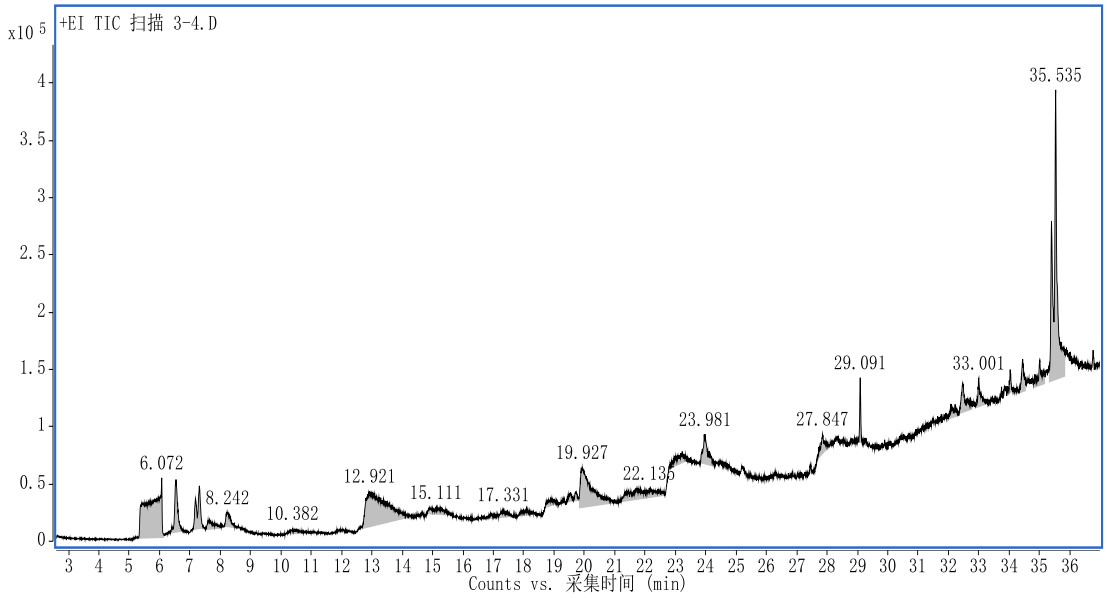

Fig S14: Total ion chromatograms of GC-MS for the ethanol of *Hemerocallis hybrida* Bergmans.

Table S14: GC-MS analysis result of ethanol extract from *Hemerocallis hybrida* Bergmans.

Number	materials	relative content
1	Perfluoropropionic acid, TBDMS derivative	14.69%
2	Furan, 3-methyl-	3.33%
3	Benzoic acid, 2-(dimethylamino)ethyl ester	3.34%
4	1,3-Propanediol, TMS derivative	1.58%
5	1,1-Cyclohexanedimethanol	0.45%
6	1H-Imidazole-4-methanol	14.69%
7	3-n-Butylthiolane	11.28%
8	Dodecane, 1-fluoro-	2.60%
9	Thymine	0.99%
10	tert-Nonyl mercaptan	0.63%

Number	materials	relative content
11	2-Hexene, 1,1-diethoxy-	0.51%
12	1-Methoxy-1-methyl-1-silacyclohexane	5.08%
13	4-Mercaptophenol	1.99%
14	Melezitose	4.98%
15	2-tert-Butyl-4-methylphenol, tert-butyldimethylsilyl ether	1.42%
16	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	3.07%
17	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	5.17%
18	1,25-Dihydroxyvitamin D3, TMS derivative	2.75%
19	Estra-1,3,5(10)-trien-17.beta.-ol	6.70%
20	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	14.46%
21	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.30%

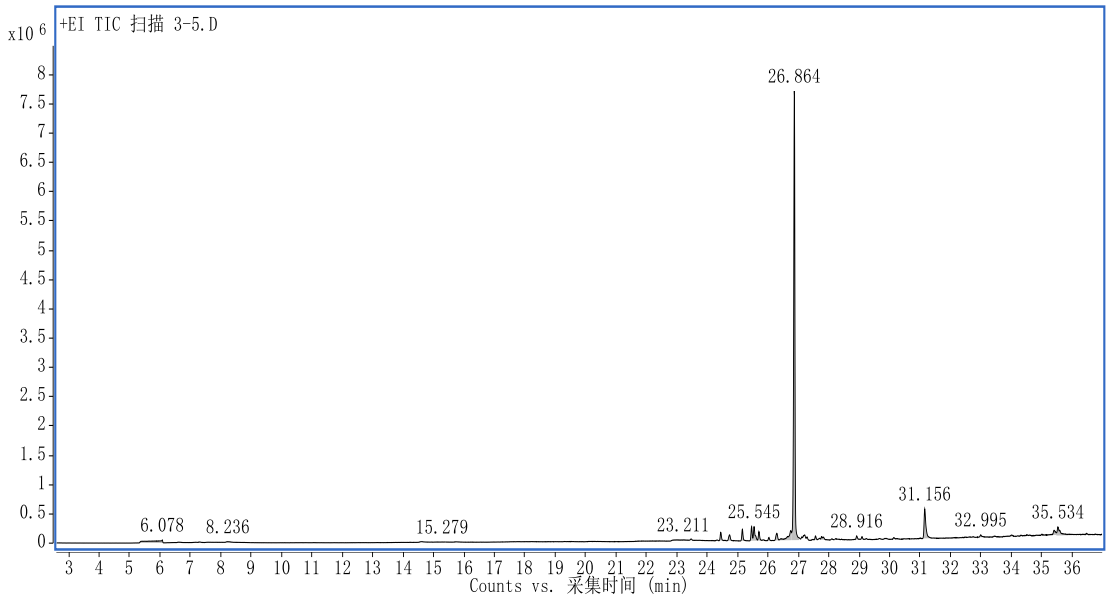

Fig S15: Total ion chromatograms of GC-MS for the ethanol of *Echinacea purpurea.*

Table S15: GC-MS analysis result of ethanol extract of *Echinacea purpurea.*

Number	materials	relative content
1	Perfluoropropionic acid, TBDMS derivative	4.11%
2	Ephedrine	1.04%
3	1,3-Propanediol, TMS derivative	0.38%
4	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	1.43%
5	1-Deoxy-d-mannitol	1.61%
6	Copaene	1.16%
7	(1R,2S,6S,7S,8S)-8-Isopropyl-1-methyl-3-methylenetricyclo[4.4.0.02,7]decane-rel-	68.00%
8	cis-.alpha.-Bergamotene	1.56%
9	Tricyclo[4.4.0.0(2,7)]decane, 1-methyl-3-methylene-8-(1-methylethyl)-, stereoisomer	1.79%
10	*Caryophyllene*	2.52%
11	(1R,2S,6S,7S,8S)-8-Isopropyl-1-methyl-3-methylenetricyclo[4.4.0.02,7]decane-rel-	1.34%
12	Tau-Cadinol acetate	0.50%
13	Methyl 4,7,10,13-hexadecatetraenoate	0.44%
14	2,5-Octadecadiynoic acid, methyl ester	0.82%
15	（Cyclohexanol, 3-ethenyl-3-methyl-2-(1-methylethenyl)-6-(1-methylethyl)-, [1R-(1.alpha.,2.alpha.,3.beta.,6.alpha.)]-	0.65%
16	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	6.62%
17	(1R,7S,E)-7-Isopropyl-4,10-dimethylenecyclodec-5-enol	6.03%

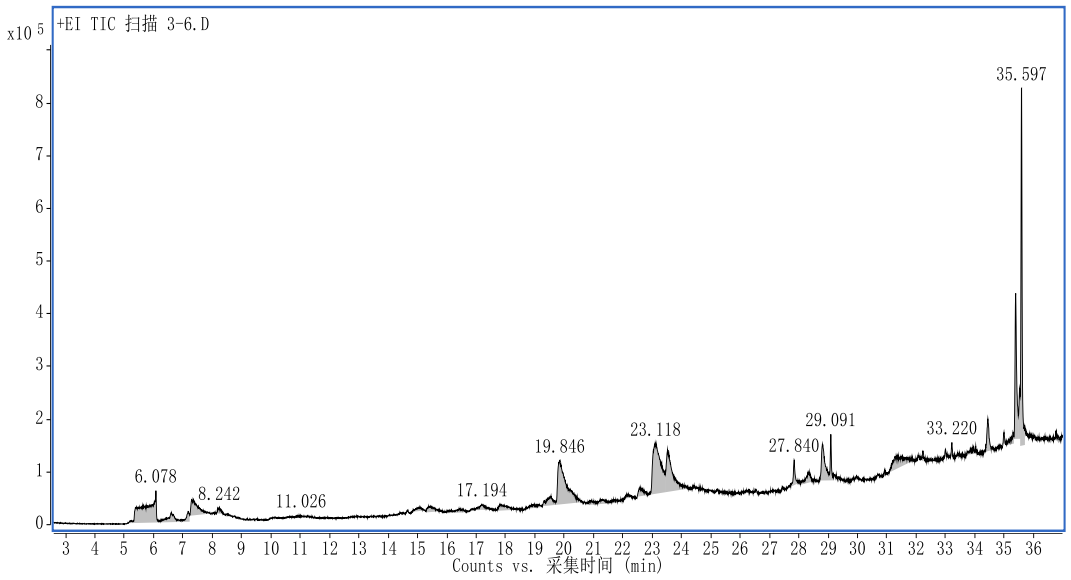

Fig S16: Total ion chromatograms of GC-MS for the ethanol of *Orychophragmus violaceus* (L.) O. E. Schulz.

Table S16: GC-MS analysis result of ethanol extract of flowers from *Orychophragmus violaceus* (L.) O. E. Schulz.

Number	materials	relative content
1	Trifluoroethanol, TBDMS derivative	9.94%
2	Methanone, (4-bromo-5-methyl-2-nitro-3-thienyl)(phenyl)-	2.00%
3	Benzoic acid, 2-(dimethylamino)ethyl ester	1.59%
4	Sedoheptulosan	0.85%
5	Dodecane, 1-fluoro-	4.33%
6	3-n-Butylthiolane	0.64%
7	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	28.02%
8	3-n-Butylthiolane	11.23%
9	6-O-Methyl-2,4-methylene-.beta.-sedoheptitol	0.44%
10	Methyl 3,5-tetradecadiynoate	0.08%
11	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	1.41%
12	2,5-Octadecadiynoic acid, methyl ester	1.56%
13	3,6-Diazahomoadamantan-9-one Hydrazone	3.98%
14	2,6-Di-tert-butyl-4-hydroxy-4-methylcyclohexa-2,5-dien-1-one	1.82%
15	5,8,11-Eicosatrienoic acid, (Z)-, TMS derivative	0.27%
16	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	4.15%
17	10-Undecynoic acid, TMS derivative	4.63%
18	1,25-Dihydroxyvitamin D3, TMS derivative	1.05%
19	Estra-1,3,5(10)-trien-17.beta.-ol	7.09%
20	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	1.78%
21	Hexadecanoic acid, ethyl ester	13.15%

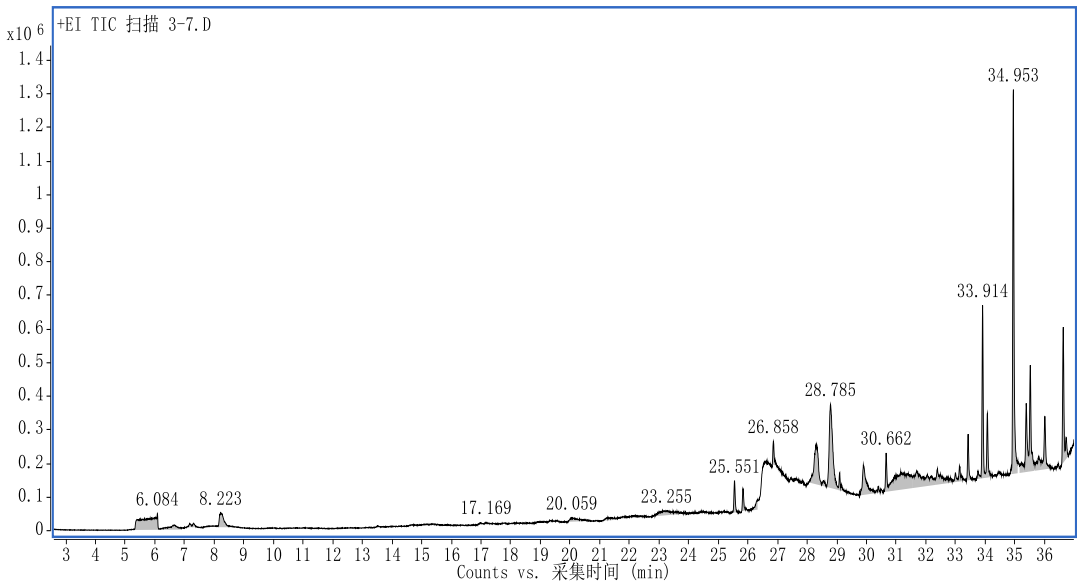

Fig S17: Total ion chromatograms of GC-MS for the ethanol of *Leucanthemum maximum* (Ramood) DC.

Table S17: GC-MS analysis result of ethanol extract of *Leucanthemum maximum* (Ramood) DC.

Number	materials	relative content
1	Trifluoroethanol, TBDMS derivative	6.11%
2	Benzamide, N-[6-(2-furyl)-2-oxo-2H-pyran-3-yl]-	1.27%
3	Benzoic acid, 2-(dimethylamino)ethyl ester	0.22%
4	Methcathinone	0.27%
5	(Methoxymethyl)trimethylsilane	2.01%
6	3-n-Butylthiolane	1.23%
7	Methyl.alpha.d-rhamnopyranoside	0.16%
8	(2-Benzyloxy-2-oxiran-2-ylethoxy)-t-butyldimethylsilane	0.24%
9	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	3.17%
10	2,5-Octadecadiynoic acid, methyl ester	0.89%
11	.alpha.,.beta.-Gluco-octonic acid lactone	0.51%
12	Methyl 4,7,10,13-hexadecatetraenoate	1.17%
13	cis-5,8,11,14,17-Eicosapentaenoic acid	0.89%
14	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.65%
15	9,12-Octadecadiynoic acid, trimethylsilyl ester	0.89%
16	Linoleic acid ethyl ester	13.41%
17	9,12-Octadecadiynoic acid, tert-butyldimethylsilyl ester	0.83%
18	11-Dodecenoic acid, 10-hydroxy-, methyl ester	3.55%

Number	materials	relative content
19	10-Undecynoic acid, TMS derivative	17.27%
20	bis[(4E)-Hex-4-en-1-yloxy](dimethyl)silane	1.48%
21	Methyl 5,7-hexadecadiynoate	1.64%
22	1,25-Dihydroxyvitamin D3, TMS derivative	1.21%
23	9,12-Octadecadienoic acid (Z,Z)-	5.55%
24	5,8,11-Eicosatriynoic acid, methyl ester	7.20%
25	5,8,11,14-Eicosatetraynoic acid	17.63%
26	Estra-1,3,5(10)-trien-17.beta.-ol	3.49%
27	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	4.75%
28	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	1.40%
29	5,8,11,14-Eicosatetraynoic acid, TMS derivative	0.91%

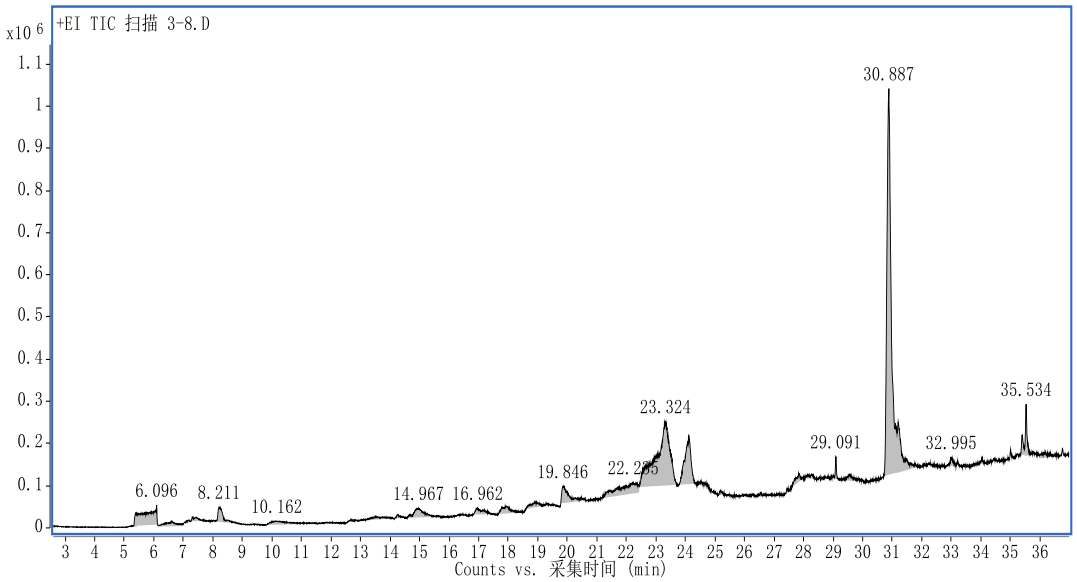

Fig S18: Total ion chromatograms of GC-MS for the ethanol of *Oenothera speciosa* Nutt.

Table S18: GC-MS analysis result of ethanol extract from *Oenothera speciosa* Nutt.

Number	materials	relative content
1	10,12-Octadecadiynoic acid	0.73%
2	Perfluoropropionic acid, TBDMS derivative	4.72%
3	(1S,2S)-(+)-N-Methylpseudoephedrine	1.22%
4	Ephedrine	0.19%
5	Methoxymethyl)trimethylsilane	1.45%

Number	materials	relative content
6	Benzoyl isothiocyanate	0.33%
7	4-Cyclohexene-1,2-diol	0.30%
8	2,5,6-Trimethyl-1,3-oxathiane	1.12%
9	3-n-Butylthiolane	4.85%
10	5-Thio-D-glucose	2.56%
11	Methyl 6-oxoheptanoate	0.94%
12	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	4.91%
13	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	19.99%
14	5,8,11,14-Eicosatetraynoic acid	6.54%
15	t-Butyl(4,5-dihydrofuran-2-yl)dimethylsilane	0.47%
16	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	0.22%
17	Melezitose	1.34%
18	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	1.39%
19	4-Hexenoic acid, 4-methyl-6-(fluorodimethylsilyl)-6-trimethylsilyl-	6.36%
20	Benzene, 5-heptene-1,3-diyn-1-yl-	36.79%
21	10-Undecynoic acid, TMS derivative	0.65%
22	1,25-Dihydroxyvitamin D3, TMS derivative	0.22%
23	9,10-Secocholesta-5,7,10(19)-triene-3,24,25-triol, (3.beta.,5Z,7E)-	0.82%
24	Phen-1,4-diol, 2,3-dimethyl-5-trifluoromethyl-	1.89%

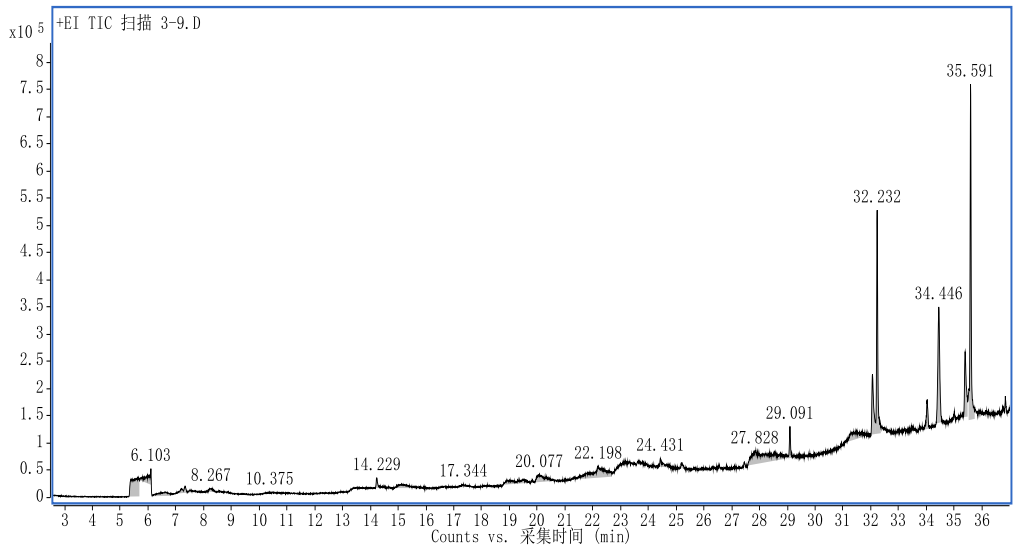

Fig S19: Total ion chromatograms of GC-MS for the ethanol of *Iris tectorum* Maxim.

Table S19: GC-MS analysis result of ethanol extract from *Iris tectorum* Maxim.

Number	materials	relative content
1	Perfluoropropionic acid, TBDMS derivative	6.50%
2	Trifluoroethanol, TBDMS derivative	2.45%
3	Ephedrine	1.24%
4	1,3-Propanediol, TMS derivative	0.59%
5	Benzoyl isothiocyanate	0.33%
6	Tetraethyl silicate	0.81%
7	3-n-Butylthiolane	4.77%
8	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	9.09%
9	Methyl 6-oxoheptanoate	2.65%
10	tert-Nonyl mercaptan	0.15%
11	2,2-Dimethyl-5-[2-(2-trimethylsilylethoxymethoxy)-propyl]-[1,3]dioxolane-4-carboxaldehyde	1.87%
12	10-Undecynoic acid, TMS derivative	3.76%
13	Melezitose	10.41%
14	1-Tributylsilyloxy-3-phenylpropane	1.76%
15	Tetradecanoic acid	5.19%
16	Tetradecanoic acid, ethyl ester	11.82%
17	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	2.21%
18	tert-Hexadecanethiol	10.00%
19	Estra-1,3,5(10)-trien-17.beta.-ol	5.29%
20	Hexadecanoic acid, ethyl ester	18.46%
21	9,10-Secocholesta-5,7,10(19)-triene-3,24,25-triol, (3.beta.,5Z,7E)-	0.65%

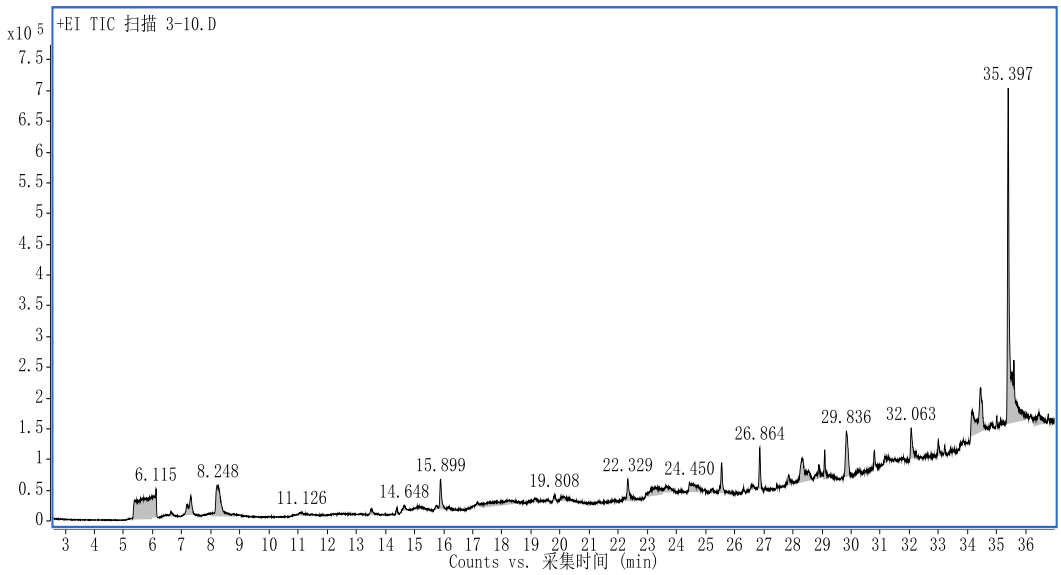

Fig S20: Total ion chromatograms of GC-MS for the ethanol of *Gaillardia pulchella* Foug.

Table S20: GC-MS analysis result of ethanol extract from *Gaillardia pulchella* Foug.

Number	materials	relative content
1	10,12-Octadecadiynoic acid	10.49%
2	Perfluoropropionic acid, TBDMS derivative	2.71%
3	Methanone, (4-bromo-5-methyl-2-nitro-3-thienyl)(phenyl)-	0.69%
4	Benzoic acid, 2-(dimethylamino)ethyl ester	2.18%
5	Methoxymethyl)trimethylsilane	5.80%
6	1,3-Propanediol, 2-methyl-, dipropanoate	1.18%
7	Nonanoic acid	0.18%
8	2-Dimethylsilyloxytridecane	0.56%
9	(E)-3,7-Dimethyl-2,6-octadien-1-yl propionate	0.32%
10	3-Azabutyl-1-ol, 4-cyclopropyl-3,3-dimethyl-, bromide	0.39%
11	Dodecane, 1-fluoro-	0.71%
12	(+)-cis-Verbenol, trimethylacetate	0.26%
13	Eucalyptol	1.82%
14	3-trsns-(1,1-dimethylethyl)-4-trans-methoxycyclohexanol	0.13%
15	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	5.70%
16	3-n-Butylthiolane	1.01%
17	.alpha.-Linolenic acid, TMS derivative	1.94%
18	Pregnane-3,20-diol, (3.alpha.,5.beta.,20S)-, 2TMS derivative	2.82%
19	Melezitose	3.79%

Number	materials	relative content
20	.beta.-D-Glucopyranose, 1-thio-,1-[N-hydroxy-5-(methylthio)pentanimidate]	0.31%
21	2,5-Octadecadiynoic acid, methyl ester	3.74%
22	(1R,2S,6S,7S,8S)-8-Isopropyl-1-methyl-3-methylenetricyclo[4.4.0.02,7]decane-rel-	1.79%
23	[1-(3,3-Dimethyloxiran-2-ylmethyl)-3,7-dimethylocta-2,6-dienyl]trimethylsilane	0.96%
24	[1,1'-Bicyclopropyl]-2-octanoic acid, 2'-hexyl-, methyl ester	4.34%
25	9,12-Octadecadiynoic acid, tert-butyldimethylsilyl ester	1.48%
26	Octadecanoic acid, ethyl ester	3.91%
27	2,2-Dimethyl-6-methylene-1-[3,5-dihydroxy-1-pentenyl]cyclohexan-1-perhydrol	7.54%
28	2,5-Octadecadiynoic acid, methyl ester	0.55%
29	Estra-1,3,5(10)-trien-17.beta.-ol	22.01%
30	7-Methyl-Z-tetradecen-1-ol acetate	7.92%
31	Arachidonic Acid, TBDMS derivative	0.24%
32	5,8,11-Eicosatrienoic acid, (Z)-, TMS derivative	2.30%
33	t-Butyl-(2-[3-(2,2-dimethyl-6-methylene-cyclohexyl)-propyl]-[1,3]dithian-2-yl)-dimethyl-silane	0.23%

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