

# 烟草抽取物的 GC/MS 分析

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烟叶广为世界各国种植。烟叶产地不同, 品质差异甚大; 成品烟中调配香精的不同, 也在很大程度上影响烟民的品味。因此, 有必要研究不同品种烟叶中化学成分差异及调配香精的组成。我们对成品烟丝和调配前的烟丝共 50 种样品的二氯甲烷抽取物进行了 GC/MS 分析和部分组成的标准品验证。结果发现样品中化学成分的种类和含量都有较大的差别。抽取物中鉴定出成分最多的有 50 余种, 包括呋喃甲醛、苯乙醛、苯乙醇、尼古丁、茄酮、大麻酮、香叶基丙酮、金合欢基丙酮、植二烯、叶绿醇等重要香精和烟中固有成分, 为研究不同烟种成分提供了大量参考数据, 同时也为调配香精提供可靠依据。

GC/MS 条件: Shimadzu Qp-5000 型色质联用仪。汽化室: 300℃; 柱子: SE-30(60m × 0.22mm); 界面: 260℃; 柱温: 60℃(5min)以 5℃/min 升温至 150℃, 再以 8℃/min 升至 260℃ (25min); EI 源: 70ev; 扫描质量范围: 33-400amu; NIST 标准谱库。  
测定结果: 成分较多的样品测定结果见表 1。

表 1 成分较多的样品测定结果

化合物	保留时间 (min)	化合物名称
1	5.533	2-Furaldehyde
2	5.707	2-Cyclopentene-1,4-dione
3	6.114	3-hexen-1-ol
4	6.540	Pyrazine, 2,6-dimethyl
5	7.081	Pentanoic acid
6	7.533	Hexanoic acid
7	8.025	Benzeneacetaldehyde
8	9.248	Benzeneethanol
9	10.258	Menthol
10	14.235	n-dodecane
11	16.241	Anethol
12	16.825	Indole
13	17.184	Eguenol
14	18.527	Nicotine
15	19.257	Solanone
16	19.854	.beta.Damascenone, Trans-
17	19.950	Dihydro-beta-ionone
18	20.136	Naphthalene,1,2-dihydro-1,1,6-trimethyl
19	20.153	Dihydrocarveol acetate

20	20.303	2,3-Dehydro-4-oxo-beta-ionol
21	20.801	Beta-ionone
22	20.850	2-Butanone,4-[2,6,6-trimethyl-3-cyclohexen-1-yl]-
23	21.156	n-Tetradecane
24	22.034	Cis-Geranylacetone
25	22.354	1-Dodecaen-4-ol acetone
26	22.753	1,3,7,7-tetramethyl-9-oxo-2-oxabicyclo 4.4.0 dec-5ene
27	23.850	2,3-dihydro-1H-Inden-1-one
28	24.067	Phenol,2,6,-di[1,1-dimethylethyl]-4-methyl-
29	24.351	n-Pentadecane
30	24.750	1,3,5-trimethyl-nonanol, acetone
31	25.281	Megastigmatrienone A
32	25.965	Megastigmatrienone B
33	26.750	3,8-dimethyl-4,6-decadiyne-3,8-diol
34	26.879	Megastigmatrienone C
35	27.267	Megastigmatrienone D
36	27.632	n-hexadecane
37	32.213	Solavetivone
38	33.368	Velleral
39	34.183	Rutone
40	34.574	Neophytadiene
41	36.063	Farnesylacetone
42	36.821	1,2-Benzenedicarboxylic acid, dibutyl ester
43	37.856	Dalmitic acid, ethyl ester
44	38.932	Dalmitic acid
45	43.317	Duvatviendiol
46	43.852	Phytol
47	44.417	Linoleic acid, methyl ester
48	45.653	Linoleic acid
49	47.333	Stearic acid, ethyl ester
50	57.622	1,2-Benzeneidcarboxylic acid, dioctyl ester

## The Analysis of Tobacco Abstraction by GC/MS

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### Abstract

In this paper, tobacco abstraction in dichormethane was analyzed with GC/MS. Fifty compounds have been identified. The results are useful to study tobacco component and adjust tobacco flavor.