Easy Enrichment of Beer Aroma with MonoTrap®

Protocol

Sample

← Can Beer 30ml

Trapping (Stirring)

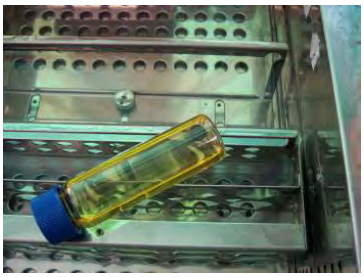
← MonoTrap DCC18 : 2pcs
Stir at 60℃ for 30 mins @ 90r.p.m.

Solvent Extraction

← Mixed Diethyl Ethel/n-Pentane = 1:1 (200 μL)
Ultrasonication for 5 mins

GC/MS

Effective trapping can be conducted by heating and stirring.



GC Condition

System : SHIMADZU GC-2010、GCMS-QP2010

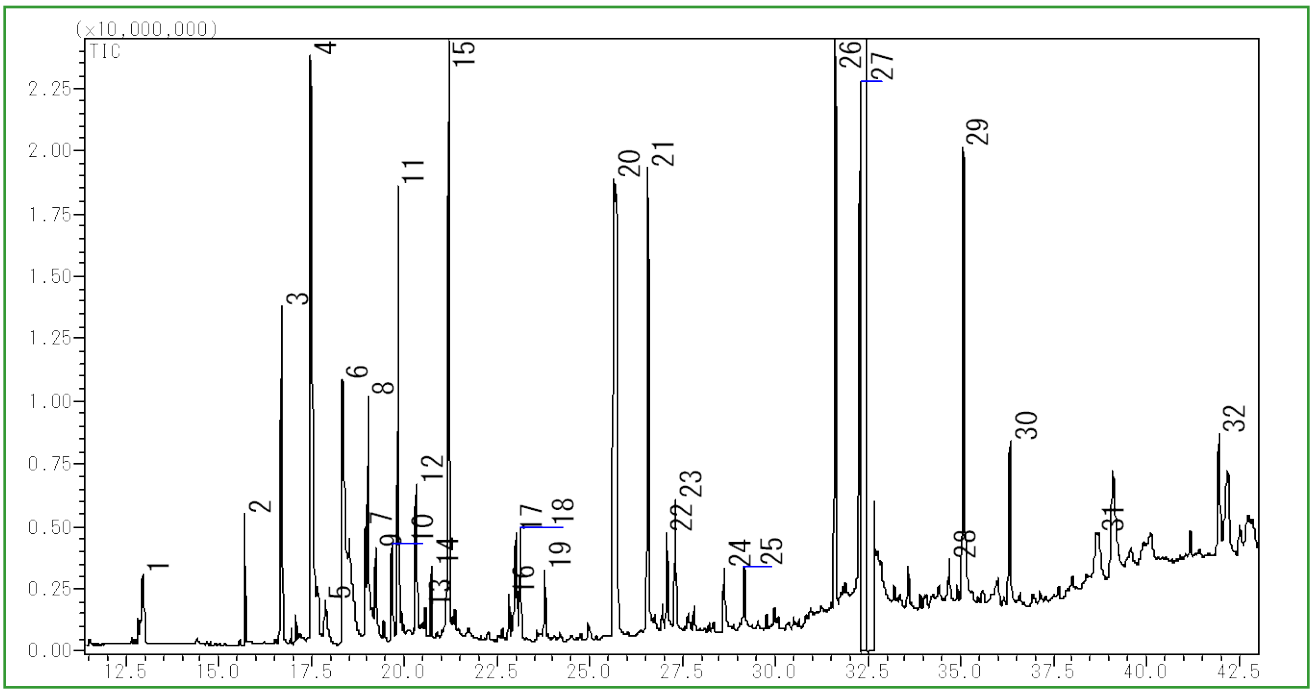
Column : InertCap Pure-WAX
0.25mmI.D.×30m df=0.25μm

Column Temp : 40℃(5min)→6℃/min→250℃(5min)

Carrier Gas : He 90kPa

Injection : Splitless, 1μL
250℃

Detection : MS Scan (m/z;35-450)



1 Acetaldehyde
2 Acetol
3 Furfural
4 Acetic acid
5 5-(Hydroxymethyl)-2(5H)-furanone
6 Formic acid
7 5-Methyl-2-furaldehyde
8 2,3-Butanediol
9 2-Cyclopentene-1,4-dione
10 2,3-Butanediol
11 2-Oxopentanedioic acid
12 Isomaltol
13 4-Hydroxybutanoic acid
14 2-Oxopentanedioic acid
15 2-Furanmethanol
16 2(5H)-Furanone
17 α-Cumyl alcohol
18 1,2-Cyclopentanedione
19 2-Cyclohexen-1-ol
20 Phenylethyl Alcohol
21 Maltol
22 2H-Pyran-2,6(3H)-dione
23 Methyl 2-furoate
24 dl-Glyceraldehyde dimer
25 4,5-Dimethyl-1,3-dioxol-2-one
26 3,5-Dihydroxy-6-methyl-2,3-dihydro-4H-pyran-4-one
27 Glycerin
28 5-Hydroxymethyldihydrofuran-2-one
29 5-Hydrxoymethylfurfural
30 4-Hydroxydihydro-2(3H)-furanone
31 D-Allose
32 p-Hydroxyphenethyl alcohol