

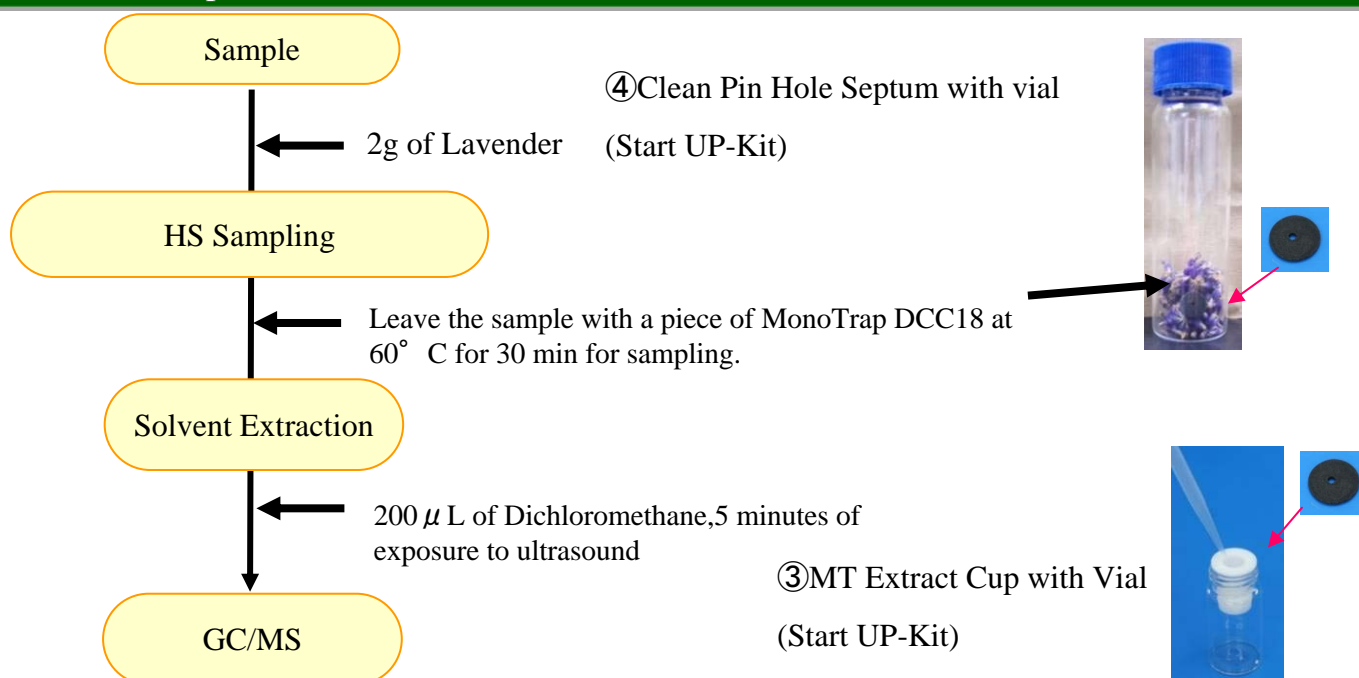
Simple analysis of the aroma components of Lavender after concentration

MonoTrap™ is a silica-based adsorptive. This product can be characterized by through pour (due to the monolith structure of the silica base) and a large surface (due to the pores within the silica frame). Active carbon is used as an adsorptive on the silica frame surface to which octadecyl (ODS) group has been conjugated.

MonoTrap™ can be viewed as a new hybrid adsorptive having a large surface area and possessing the features of silica gel, active carbon and ODS group.

MonoTrap™ DCC18 (containing activated carbon) was used for the simple analysis of the aroma components of lavender after concentration. Concentration and analysis can be conducted using simple procedures that merely involve putting MonoTrap™ DCC18 in a vial with a sample. β -Linalool, an aroma component that is characteristic of lavender, was identified through this analysis. The large surface area ensures that a larger amount of sample is trapped, allowing a high level of sensitivity that enables producing a lot of data, even using the solvent extraction method in which the sample is diluted.

Pretreatment procedures



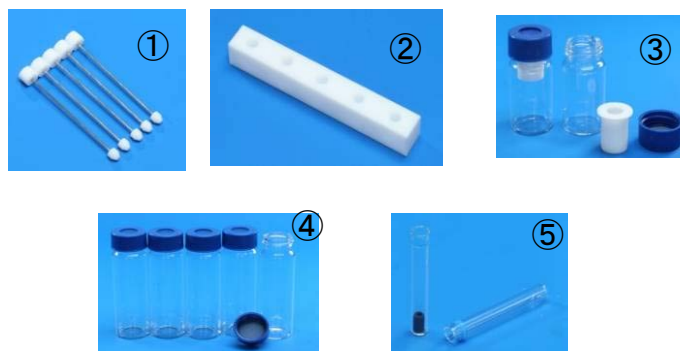
MonoTrap™ Series ~ a new hybrid adsorptive !!~

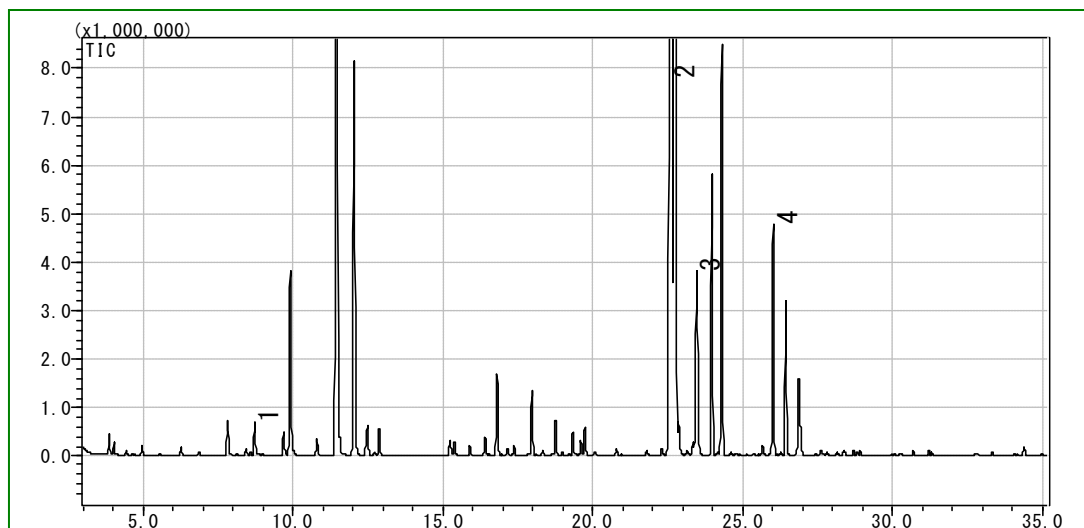
Cat.No	Product name	Type	size	Constituent	Functional group	Use
1050-72101	MonoTrap DCC18	Disk	O.D10mmx thick 1mm	Active carbon	C18	Hydrophobic with medium to high b.p.
1050-72201	MonoTrap RCC18	Rod	O.D2.9mmxH5mm	Active carbon	C18	Hydrophobic with medium to high b.p.
1050-71101	MonoTrap DSC18	Disk	O.D10mmx thick 1mm	Silica only	C18	Polar,hydrophobic with low to medium b.p.
1050-71201	MonoTrap RSC18	Rod	O.D2.9mmxH5mm	Silica only	C18	Polar,hydrophobic with low to medium b.p.



MonoTrap™ Start-UP-KIT for easy concentration and extraction!

Name	amount
① MT Holder	5
② MT Stand	1
③ MT Extract Cup with Vial(20ml)	5
④ Clean Pin Hole Septum with vial(40ml)	5
⑤ 200 µ L Glass insert (Flat bottom)	40
⑥ MonoTrap™ DCC18	20
⑦ MonoTrap™ RCC18	20
⑧ MonoTrap™ DSC18	20
⑨ MonoTrap™ RSC18	20





- 1 β -Myrcene
- 2 β -Linalool
- 3 Caryophyllene
- 4 β -Farnesene

※ Identified with standard sample

GC/MS analysis

System : SHIMADZU GC-2010, GCMS-QP2010

Column : **InertCap Pure-WAX**(Cat.1010-68142)**New!!**
0.25mmI.D. × 30m df=0.25 μ m

Column Temp : 40°C(5min)→4°C/min→180°C→20°C→250°C

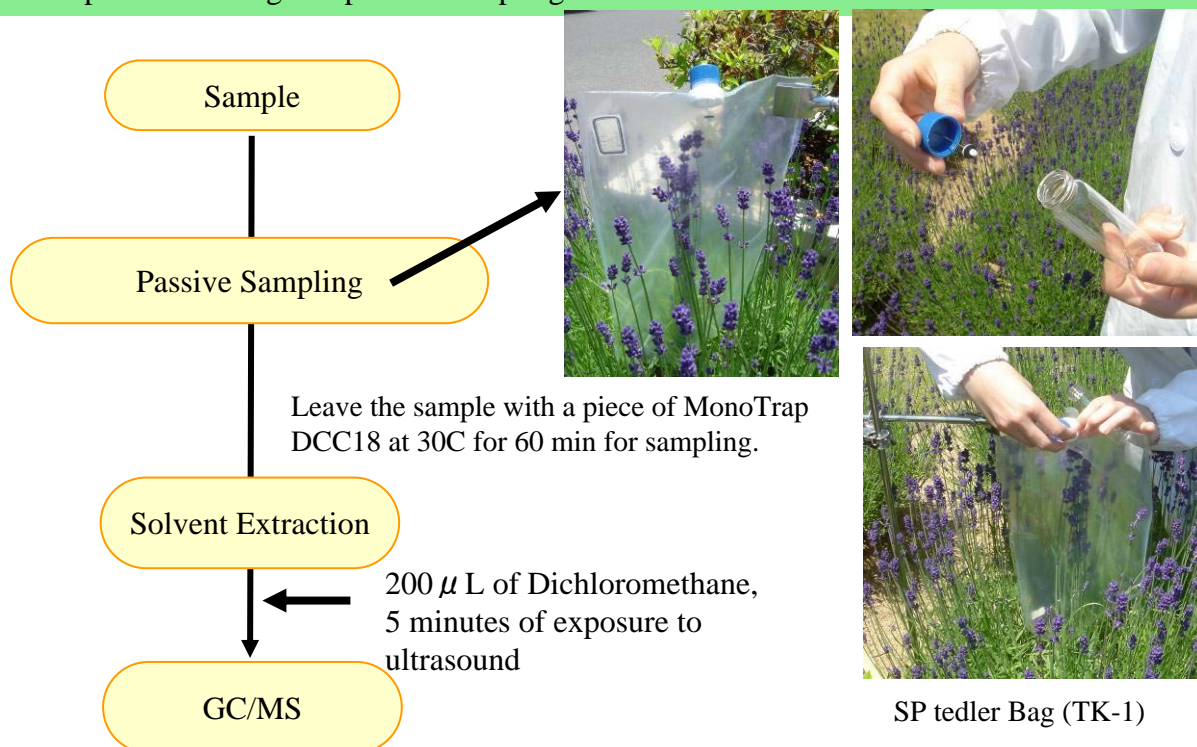
Carrier Gas : He 120kPa

Injection : Split 1:10, 1 μ L
250°C

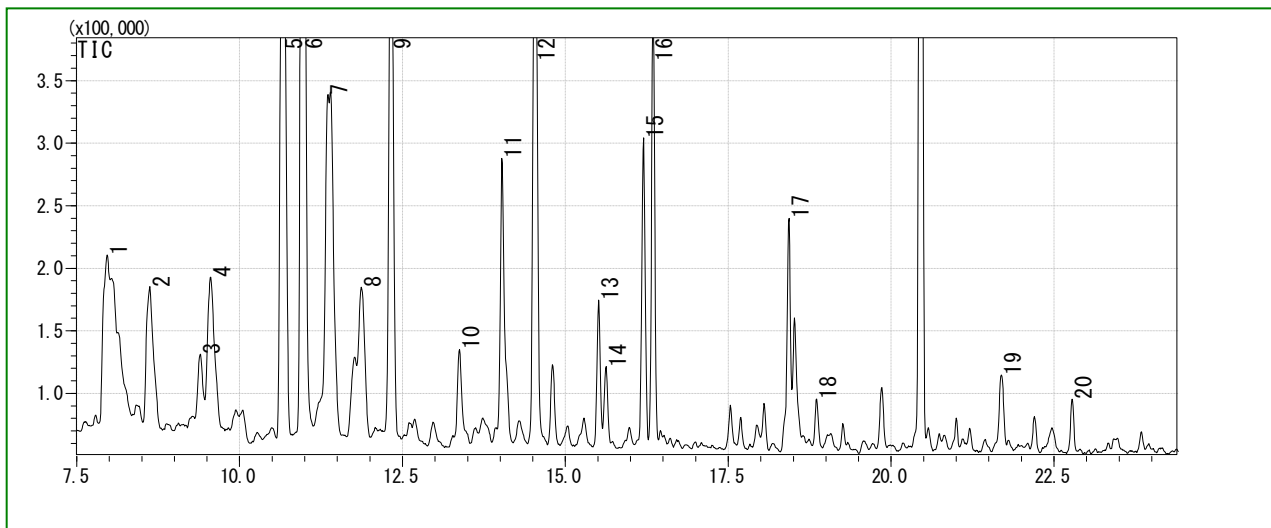
Detection : MS Scan (m/z;40-350)

Passive Sampling, Sampling Time 1 hour

In the current experiment, MonoTrap™ DCC18 (containing activated carbon) was used for the simple analysis of the aroma components of Lavender after concentration. MonoTrap™ was put in a sack-shaped Tedler Bag and passive sampling was conducted.



Passive Sampling , Lavender



1	11	β -Farnesene
2	12	Borneol
3	13	Nerol acetate
4	14	Epoxylinolol
5	15	γ -Cadinene
6	16	Geraniol acetate
7	17	p-Cymen-8-ol
8	18	Geranyl Acetone
9	19	Caryophyllene oxide
10	20	Teresantalol

※Identified with spectral libraries

GC Condition

System : SHIMADZU GC-2010、GCMS-QP2010

Column : **InertCap Pure-WAX**(Cat.1010-68142)
0.25mmI.D. × 30m df=0.25 μ m

Column Temp : 70°C→4°C/min→220°C

Carrier Gas : He 75kPa

Injection : Split /Splitless,1uL
250°C

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



Contact us
<http://www.glsciences.com/products.html>