

## Simple analysis of change aroma components by over time in case of cherry blossom

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.

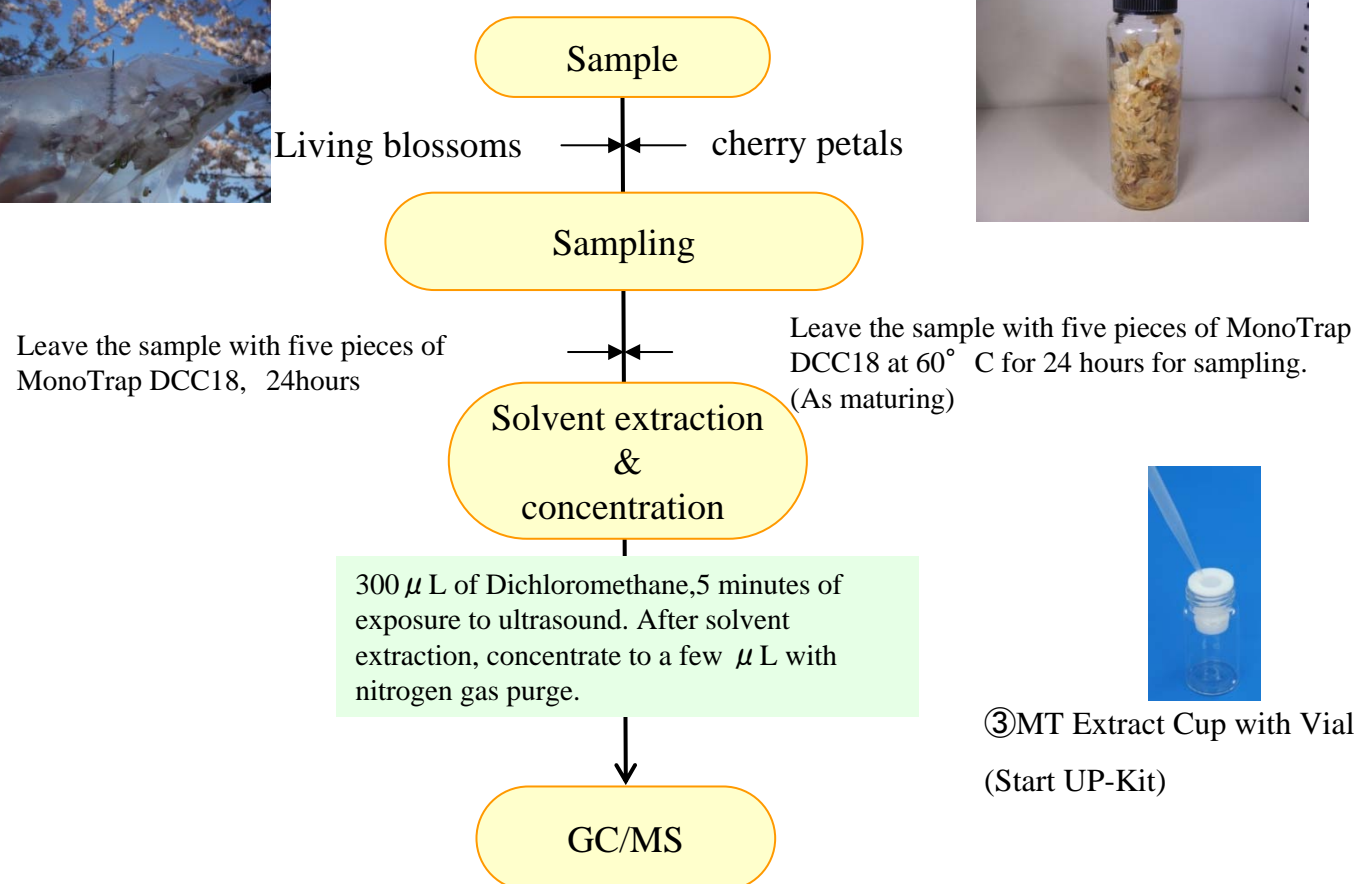
In the case of flowers, the aroma components are subject to change over time (due to maturation or other reasons). To analyze such changes simply, living cherry blossoms and cherry petals that had been matured after heating for an extended period were subjected to simple analysis after concentration with MonoTrap™ DCC18 (containing activated carbon), to follow the changes in the aroma components. By using MonoTrap™ DCC18, components that are not observed in living blossoms, such as coumarine, were confirmed to exist in the matured petals. Coumarine is an aroma component created through the maturation of cherry petals by salting. Coumarine is used especially for adding flavor to rice cakes filled with sweet bean paste wrapped in pickled cherry leaves.

### Pretreatment procedures

#### Living blossoms



#### matured petals



#### GC/MS analysis

**System** : SHIMADZU GC-2010, GCMS-QP2010

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

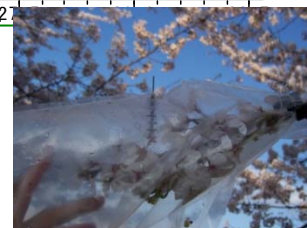
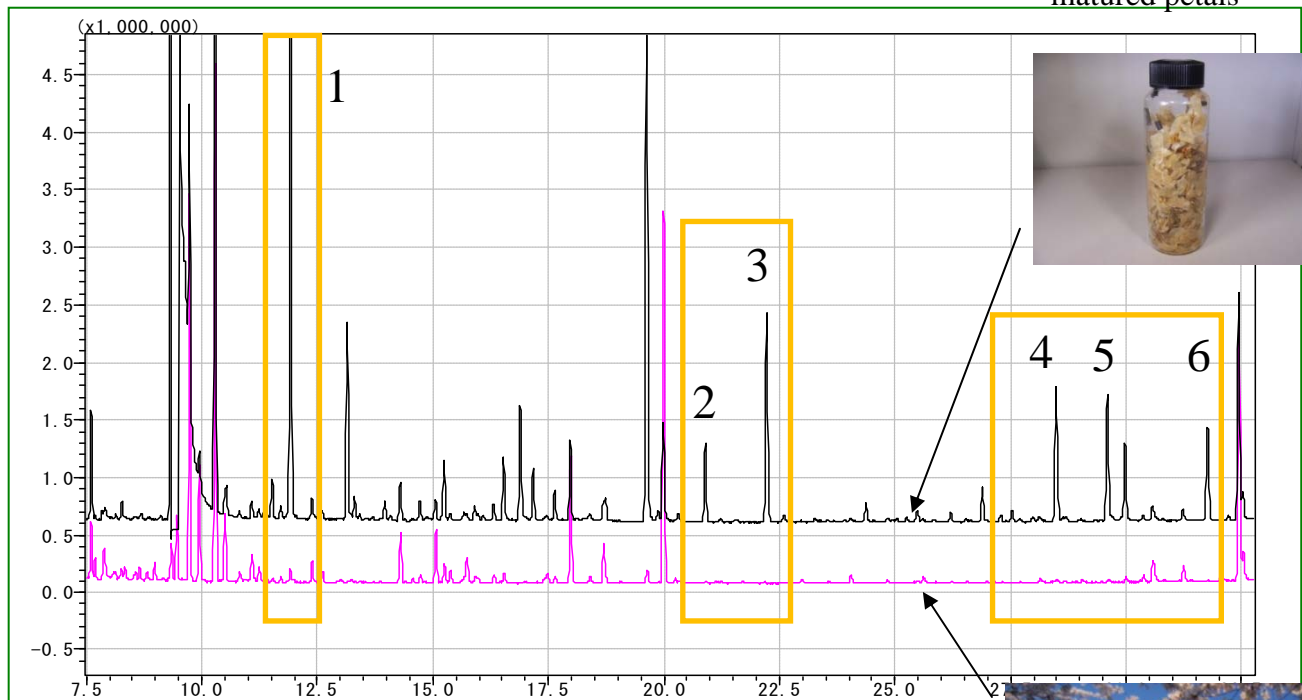
**Column Temp** : 40°C (5min) → 4°C/min → 180°C → 20°C/min → 250°C (5min)

**Carrier Gas** : He 120kPa

**Injection** : Split 1:10, 1 μ L  
250°C

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

matured petals



Living blossoms

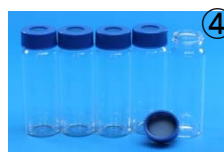
- 1 Clorius
- 2 2,6-Dimethyl-3,7-octadiene-2,6-diol
- 3 p-Anisaldehyde
- 4 3,5-Dimethoxybenzaldehyde
- 5 8-Hydroxylinalool
- 6 Coumarine

※Identified with spectral libraries

Red characters •••Identified with standard sample

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



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