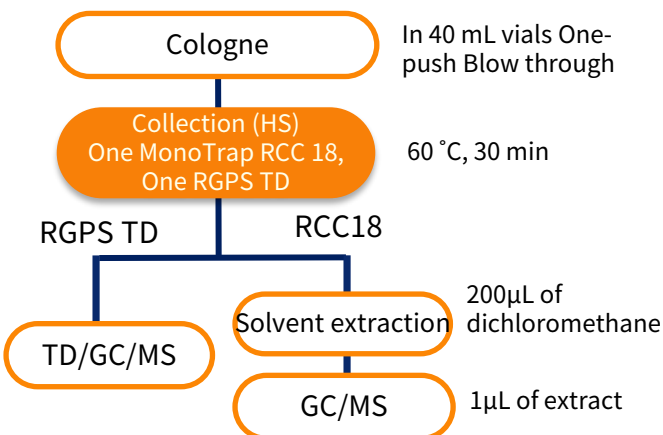


Simple Concentration Analysis of Lavender Flavor Components - Using MonoTrap RCC18 (solvent-extraction)

HandyTD portable thermal desorber and MonoTrap simple enrichment tools were used to conduct an analysis of the volatile constituents in commercial cologne for women. MonoTrap RCC18 and MonoTrap RGPS TD were suspended in the headspace of vials and cologne samples were blown into the vials to collect the volatile fragrance compounds. After collection, the MonoTrap RCC18 was eluted with dichloromethane, and the MonoTrap RGPS TD was heat-desorbed using the HandyTD TD265. GC/MS analysis was performed for each of the extracts. For solvent extraction, a few microliters of the extract can be introduced into the GC/MS, which is less sensitive than thermal desorption, but remaining extracted sample can be easily re-assayed. On the other hand, using thermal desorption, the sample can only be used for a single analysis. If the sample has to be re-analyzed it must be repeated from the pre-treatment step. However it has the benefit of greater sensitivity because of reduced dilution.

Preliminary processing procedure

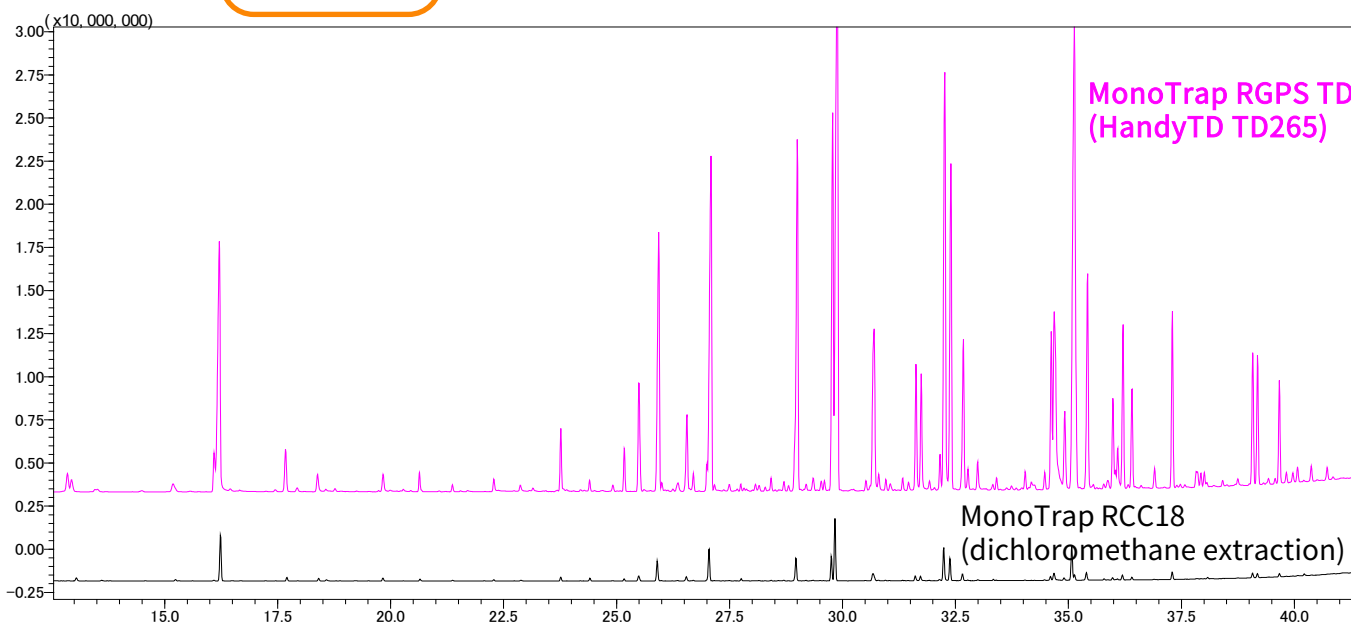


GC Conditions

System	: Thermal Desorption GC/MS (thermal desorption) GC/MS (solvent extraction)
Column	: InertCap Pure-WAX 0.25 mm I.D. x 60 m, df = 0.25 μm
Col. Cat. No.	: 1010-68162
Col.Temp.	: 40 °C (5 min) - 6 °C/min - 250 °C
Carrier Gas	: He, 2.0 mL/min
GC Inlet	: 250 °C Split 9: 1 (heat-desorption) Splitless (solvent-extraction)
Detection	: MS Scan (<i>m/z</i> : 45-450)

HandyTD TD265 Conditions

Desorb Temp.	: 40 °C - 45 °C/sec - 250 °C (1.5 min)
Desorb Press.	: 114 kPa



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