GT006

GL Sciences Inc.

Easy Enrichment of Potato Distilled Spirit by Stirring Method with MonoTrap

MonoTrap is a hybrid novel adsorbent that combines a large surface area and the properties of silica gel, activated carbon, and ODS. Due to the large surface area of porous silica and the adsorption effect caused by the inclusion of activated carbon, a high collection efficiency is obtained. Therefore, high-sensitivity analysis can be performed in a short time. In this study, MonoTrap DCC18 (with activated carbon) was used to analyze the simple enrichment of potato shochu fragrance components. The water repellency of the ODS groups chemically modified on the surface allows them to float as shown in the bottom panel, and agitation with the sample can improve the collection efficiency more.

Column: InertCap Pure-WAX(Cat.1010-68142) 0.25mml.D.×30m df=0.25µm

Sample Potato Distilled Spirit 10 mL Stirring Method MonoTrap; DCC18 1 pc Stir at 60 °C, 3 hours, 160 rpm, then wipe the surface with kimwipes after stirring Solvent Extraction Diethyl Ether/n-Pentane=1:1 Mixed Solvent 1000 µL, Ultrasonication 5 mins Enrich by N₂ purge to a few µL GC/MS

GC Condition

System : SHIMADZU GC-2010, GCMS-QP2010

Column : InertCap Pure-WAX (Cat.No. 1010-68142)

 $0.25 \text{ mm I.D.} \times 30 \text{ m df} = 0.25 \,\mu\text{m}$

Column Temp: $40 \,^{\circ}\text{C} \, (5 \, \text{min}) \rightarrow 4 \,^{\circ}\text{C/min} \rightarrow 250 \,^{\circ}\text{C} \, (5 \, \text{min})$

Carrier Gas : He 120 kPa

Injection : Split/Splitless,1 μL

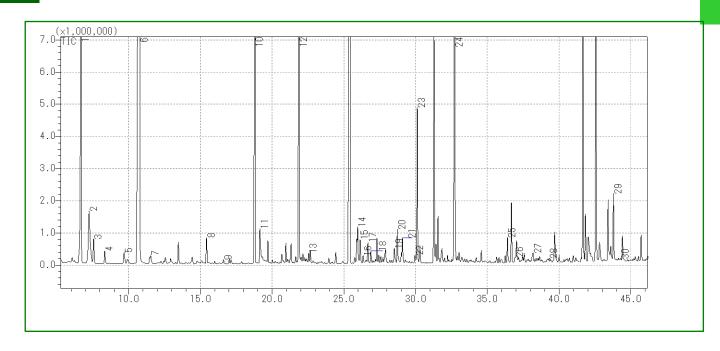
250 °C

Detection : MS Scan (m/z: 55-400)

Ultra inert WAX column InertCap Pure-WAX is highly recommended to analyze aromatic compounds together with MonoTrap

Please contact GL SciencesInc for the shakers

GL Sciences GC Technical Note



- 1 Isobutyl alcohol
- 2 Isoamyl acetate
- 3 2-Pentanol
- 4 1-Butanol
- 5 D-Limonene
- 6 Isopentyl alcohol
- 7 Ethyl hexanoate
- 8 Ethyl lactate
- 9 3-Ethoxy-1-propanol
- 10 Ethyl octanoate
- 11 Acetic acid
- 12 3-Methoxy-1,2-propanediol
- 13 β-Linalool
- 14 Citronellol acetate
- 15 β-Farnesene

- 16 Clorius
- 17 4-Carene
- 18 α-Terpieol
- 19 α-Farnesene
- 20 Methyl salicylate
- 21 **B**-Citronellol
- 22 Nerol
- 23 Phenethyl acetate
- 24 Phenylethyl Alcohol
- 25 Nerolidol
- 26 Octanoic Acid
- 27 Ethylcinnamiate
- 28 2-phenylethylhexanoate
- 29 Farnesol
- 30 Coumaran

 $\mathsf{Red} \cdot \cdot \cdot \mathsf{[Food]}$ Fragrance Encyclopedia by Japan Perfumery & Flavoring Association

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