NEW

*The world's first large-capacity solid-phase extraction element !*
Polar Magic Chemisorber (MC-PEG)

This is an innovative solid-phase extraction element having PEG (polyethylene glycol) as a stationary phase. It features a high selectivity toward alcohols and carboxylic acids.

Features

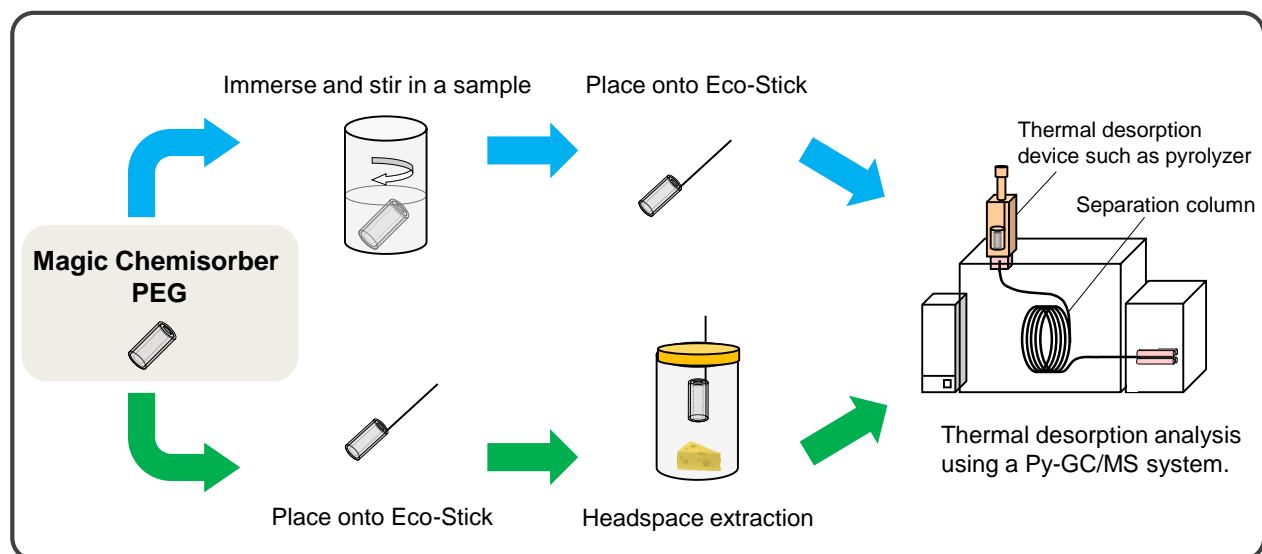PEG layer immobilized on the outer wall of a deactivated stainless steel tube.
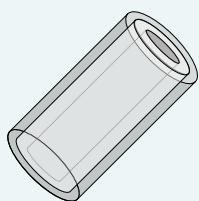
(Film thickness: 30 μm)

● High selectivity toward polar compounds

● Quick and simple sample pretreatment at low cost

● Repeatedly usable

Using Magic Chemisorber PEG (MC-PEG)

The MC-PEG is allowed to suspend or is stirred in a sample (gas, liquid or solid) under given conditions to extract the target compounds. The thermal desorption (TD)-GC analysis is then performed using a pyrolyzer. The extraction element is usually cleaned automatically during GC analysis; therefore, it can be reused immediately for the next sample run.
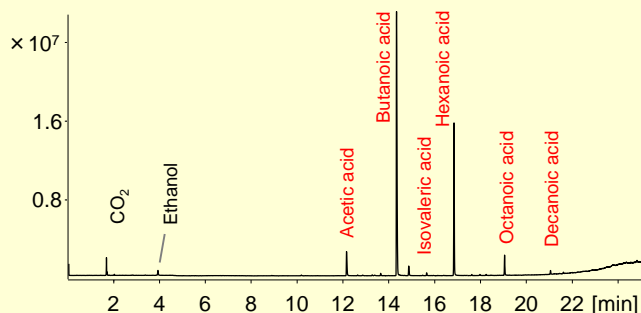

Magic Chemisorber PEG

Immerse and stir in a sample

Place onto Eco-Stick

Thermal desorption device such as pyrolyzer

Separation column

Place onto Eco-Stick

Headspace extraction

Thermal desorption analysis using a Py-GC/MS system.

Analysis examples using polar MC-PEG and non-polar MC-PDMS

Headspace analysis of cheese

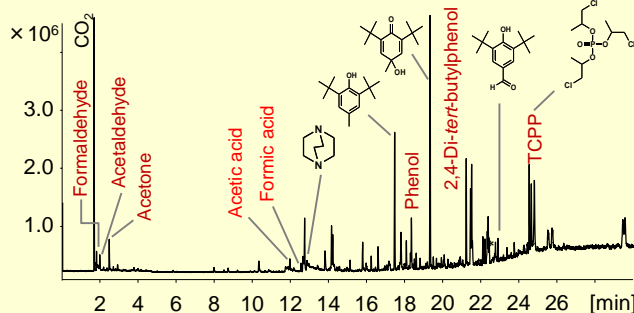*Note the selectivity for polar compounds!*
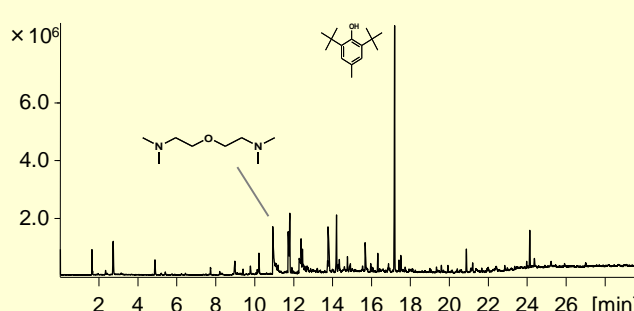
1) Polar MC-PEG (this product)

$\times 10^7$ — 1.6, 0.8; labeled peaks: CO_2, Ethanol, Acetic acid, Butanoic acid, Isovaleric acid, Hexanoic acid, Octanoic acid, Decanoic acid; x-axis: 2 4 6 8 10 12 14 16 18 20 22 [min]

2) Non-polar MC-PDMS

$\times 10^7$ — 0.8, 0.4; labeled peaks: CO_2, 2-Pentanone, Ethyl butanoate, 2-Heptanone, Ethyl hexanoate, Isoamyl butanoate, Ethyl octanoate; x-axis: 2 4 6 8 10 12 14 16 18 20 22 [min]
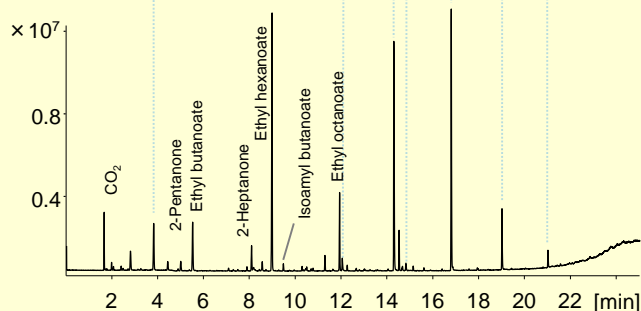
Odor analysis of a new car

Note the selectivity for polar compounds!

1) Polar MC-PEG (this product)

$\times 10^6$ — 3.0, 2.0, 1.0; labeled peaks: CO_2, Formaldehyde, Acetaldehyde, Acetone, Acetic acid, Formic acid, Phenol, 2,4-Di-*tert*-butylphenol, TCPP; x-axis: 2 4 6 8 10 12 14 16 18 20 22 24 26 [min]

2) Non-polar MC-PDMS

$\times 10^6$ — 6.0, 4.0, 2.0; x-axis: 2 4 6 8 10 12 14 16 18 20 22 24 26 [min]

< Analytical conditions >
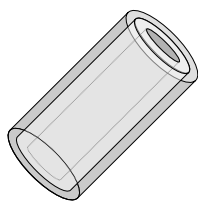Column: UA-CW (PEG, 30 m, 0.25 ㎜, 0.25 um, Frontier Labs), GC oven temperature: 40 (3 min hold) - (10 ºC/min) - 250 ºC

Specifications

- Dimensions : L=12.5 mm, od. 3.2 mm, id. 1.9 mm, df. 30 µm
- Stationary phase   : Polyethylene glycol
- Main material (core)   : Deactivated stainless steel
- Max use temperature : 250 ºC (He)

Product name	Product number	Contents
Magic Chemisorber PEG Kit	PY1-MC04P-K	Magic Chemisorber PEG (5 ea.) and Eco-stick GD (5 ea.)

* Visit our website for details of non-polar Magic Chemisorber (MC-PDMS) of which stationary phase is polydimethylsiloxane.

FRONTIER LABORATORIES LTD.

http://www.frontier-lab.com/