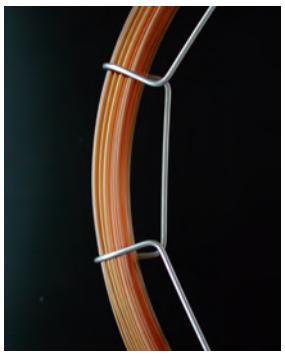


Chiral GC Columns

for the separation of enantiomers

Cyclodextrin Derivatives suspended in Polysiloxanes

Separation of Enantiomeres

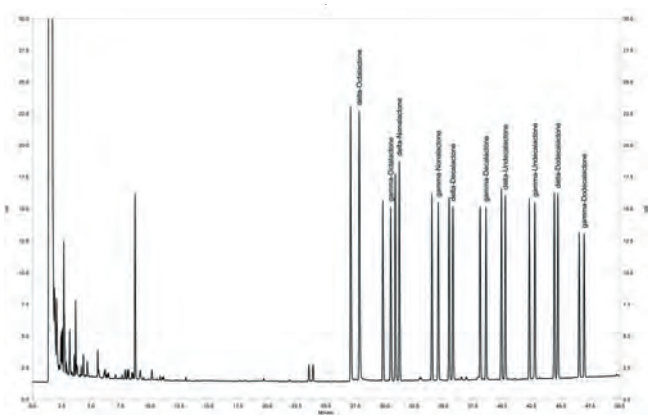
Capillary columns with cyclodextrin derivatives can be used for the separation of a broad range of enantiomers. For most of the compounds no specific derivatisation is needed, in some cases a simple acetylation or methylation of polar groups is neccessary. To achieve a maximum of separation efficiency and resolution the cyclodextrin derivatives are suspended in midpolar polysiloxanes. These columns are very durable and stable.

The mechanism of chiral recognition is not known in detail. So it's difficult to predict the cyclodextrin that shows the best resolution. This is the reason why we do offer seven different cyclodextrin phases and an application service to find the most convenient column for you.

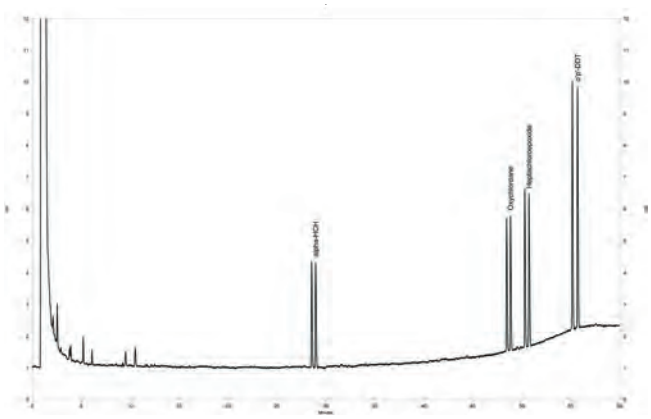
Cyclodextrin-Phases

BGB-172	*20% tert-butyldimethylsilyl-beta-cyclodextrin* dissolved in BGB-15 (15% phenyl-, 85% methylpolysiloxane)
BGB-173	*50% 2,3-diacetyl-6-tert-butyldimethylsilyl-alpha-cyclodextrin* dissolved in BGB-1701 (14% cyanopropylphenyl-, 86% methylpolysiloxane)
BGB-174	*30% 2,3-diacetyl-6-tert-butyldimethylsilyl-beta-cyclodextrin* dissolved in BGB-1701 (14% cyanopropylphenyl-, 86% methylpolysiloxane)
BGB-175	*50% 2,3-diacetyl-6-tert-butyldimethylsilyl-gamma-cyclodextrin* dissolved in BGB-1701 (14% cyanopropylphenyl-, 86% methylpolysiloxane)
BGB-176	*30% 2,3-dimethyl-6-tert-butyldimethylsilyl-beta-cyclodextrin* dissolved in BGB-15 (15% phenyl-, 85% methylpolysiloxane)
BGB-176SE	*30% 2,3-dimethyl-6-tert-butyldimethylsilyl-beta-cyclodextrin* dissolved in SE-52 (5% phenyl-, 95% methylpolysiloxane)
BGB-177	20% *2,6-dimethyl-3-pentyl-beta-cyclodextrin* dissolved in BGB 15 (15% phenyl-, 85% methyl polysiloxane)
BGB-178	*30% 2,3-diethyl-6-tert-butyldimethylsilyl-beta-cyclodextrin* dissolved in BGB-15 (15% phenyl-, 85% methylpolysiloxane)
BGB-178PH	*30% 2,3-diethyl-6-tert-butyldimethylsilyl-beta-cyclodextrin* dissolved in BGB-15 (15% phenyl-, 85% methylpolysiloxane)

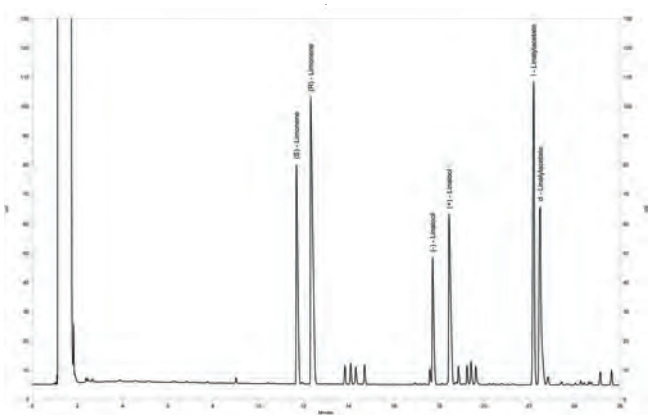
Lactones on a BGB-174



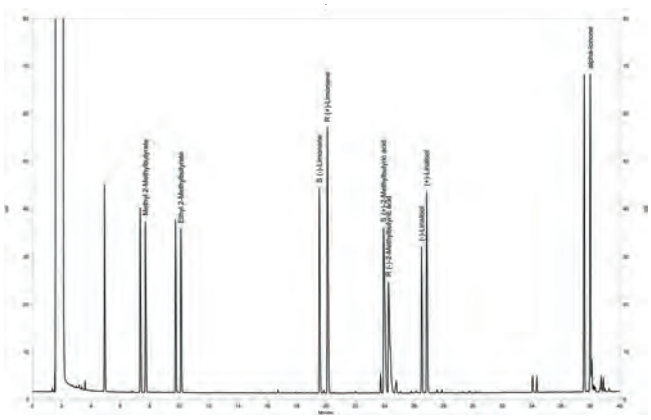
Pesticides on a BGB-172



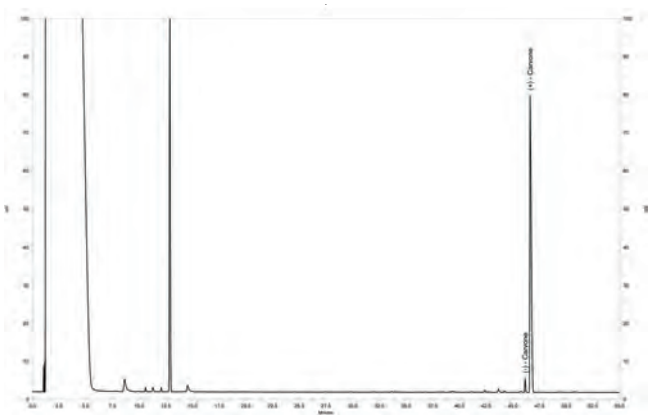
Bergamot Flavour Artificial on a BGB-178



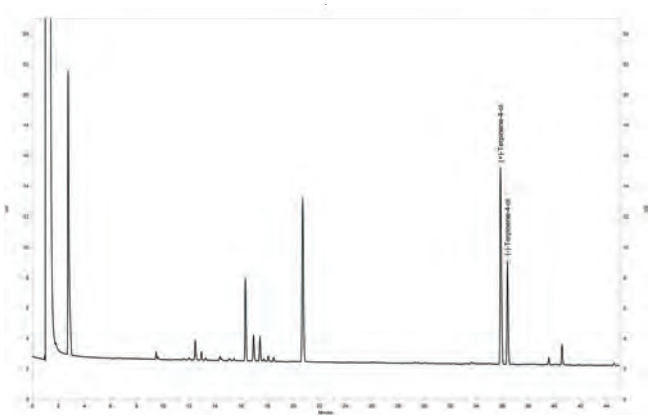
Flavour Compounds on a BGB-176



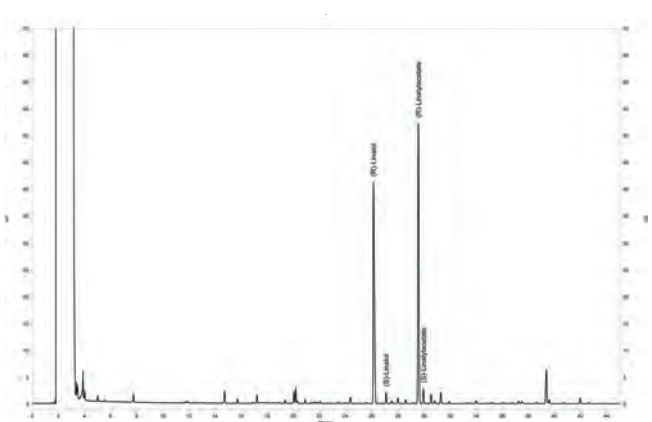
Caraway Oil on a BGB-174



Tea Tree Oil on a BGB-176SE



Lavender Oil on a BGB-178PH



Order Information:

Phase	Length	ID	film	T_{max}.(i/c)	Part No.
BGB-172	30m	0.25mm	0.18µm	250°/270°	27230-018
BGB-172	30m	0.25mm	0.25µm	250°/250°	27230-025
BGB-173	30m	0.25mm	0.25µm	220°/240°	27330-025
BGB-174	30m	0.25mm	0.25µm	220°/240°	27430-025
BGB-175	30m	0.25mm	0.25µm	220°/240°	27530-025
BGB-176	30m	0.25mm	0.25µm	220°/240°	27630-025
BGB-176SE	30m	0.25mm	0.25µm	220°/240°	27630-025SE
BGB-177	30m	0.25mm	0.25µm	220°/240°	27730-025
BGB-178	30m	0.25mm	0.25µm	220°/240°	27830-025
BGB-178PH	25m	0.25mm	0.25µm	220°/240°	27825-025PH