MCCA®

gas chromatography solutions

NEW

mega 5-MS AO

Why we developed

At MEGA, we have been developing unique and innovative solutions for gas chromatography columns since 1980.
Alongside the established product lines for the most classic and used analytical methods, we design customized products to meet specific needs.

With the new **MEGA-5 MS AQ**, we introduce a new column developed based on our 5-MS phase but to be **more resistant to repeated injections of aqueous matrix samples**.

NEW mega 5-MS AQ

In addition to maintaining a very **high separative efficiency**, typical of all our columns, we worked on a **specific deactivation treatment suitable for aqueous samples** and we applied a **proprietary intense Crossbonding process**; in this way we obtained an even more robust column, ideal for high water content injections.

In the following pages, we present the analytical results obtained with the MEGA-5 MS AQ GC column, highlighting its **efficiency**, **applicability**, and **lifetime durability**.

Contact us at **info@mega.mi.it** for any more information.

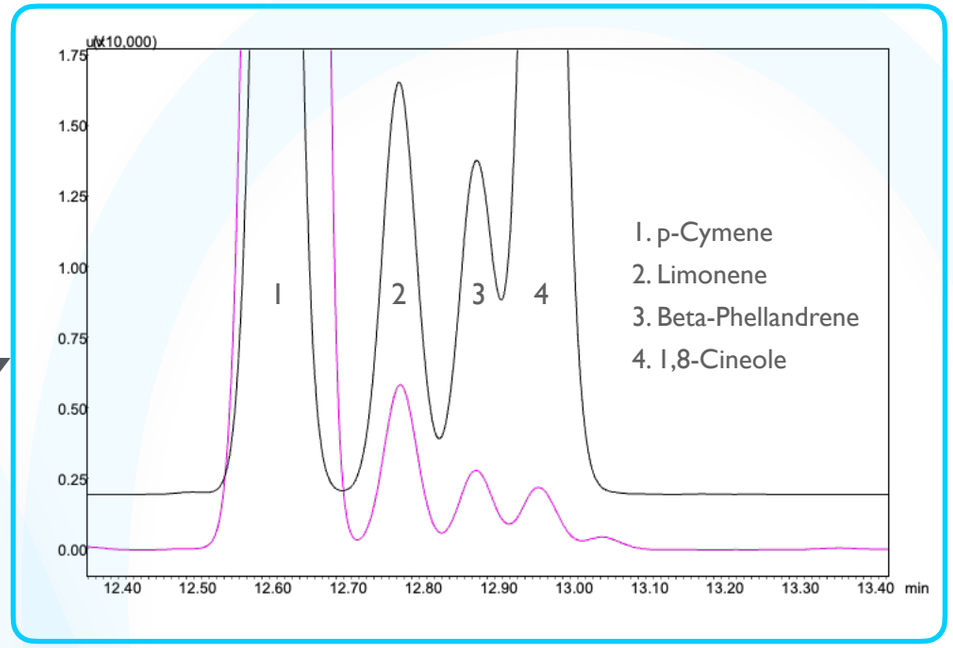


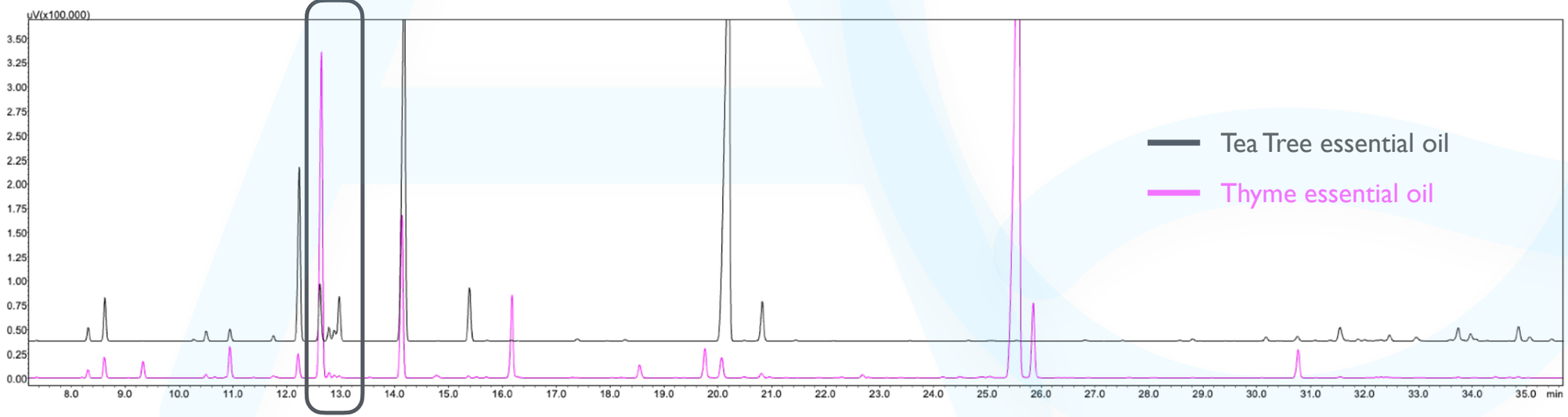
Efficiency

Column: **MEGA-5 MS AQ - 0.18mm, 0.35µm, 20m**
Catalog Code: MS-5AQ-018-035-20

Conditions:

Oven Program: 50°C, 2°C/min, 250°C.
Carrier Gas: Helium, 0.8 mL/min.
Detector: FID 250°C.





Acknowledgement: **Cagliero C., Bicchi C., Marengo A., Sgorbini B., Rubiolo P.,** Università di Torino, Dipartimento di Scienza e Tecnologia del Farmaco, Via Pietro Giuria, 9 - Torino - Italy.

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Literature references:

Bechis G., Quaranta G., Bicchi C., Marengo A., Sgorbini B., Rubiolo P., Cagliero C.

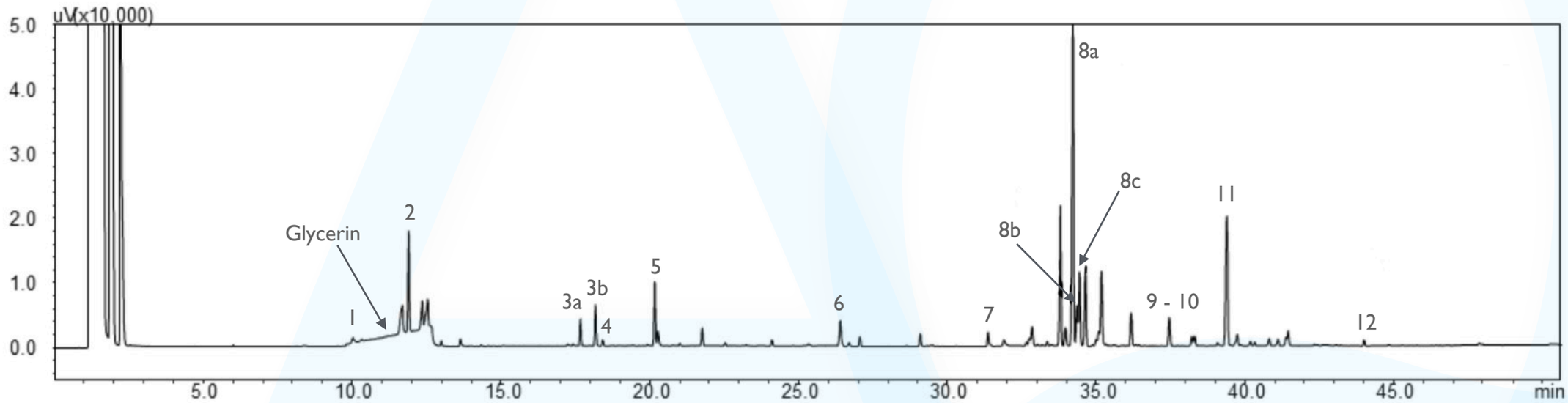
Development, validation, and assessment of a reliable and white method for the analysis of water-based perfumes by pipette-tip micro-solid-phase extraction combined with dual detection gas chromatography.

Anal Bioanal Chem. 2025 Jul; 417(16): 3579-3596.

Aqueous samples

Dual detection MS/FID system *

Analysis of aqueous sample – water based perfume with cosmetic additives (glycerin).



Acknowledgement: **Bechis G., Quaranta G., Bicchi C., Marengo A., Sgorbini B., Rubiolo P., Cagliero C.,** Università di Torino, Dipartimento di Scienza e Tecnologia del Farmaco, Via Pietro Giuria, 9 - Torino - Italy.

Column: **MEGA-5 MS AQ - 0.18mm, 0.35µm, 20m**

Catalog Code: MS-5AQ-018-035-20

Conditions:

Oven Program: 50°C (0.62min), 4°C/min, 250°C.

Carrier Gas: Helium, 172.4 kPa.

*: see next page.

1. Beta-pinene
2. Limonene
3a. Ethyl Linalool
3b. Ethyl Linalool
4. 1,4-dibromobenzene
5. Linalyl acetate
6. *trans*-beta-caryophyllene
7. Helional
8a. Iso e super
8b. Iso e super
8c. Iso e super
9. Benzyl benzoate
10. Ambroxide
11. Galaxolide
12. 4-4'-dibromobiphenyl

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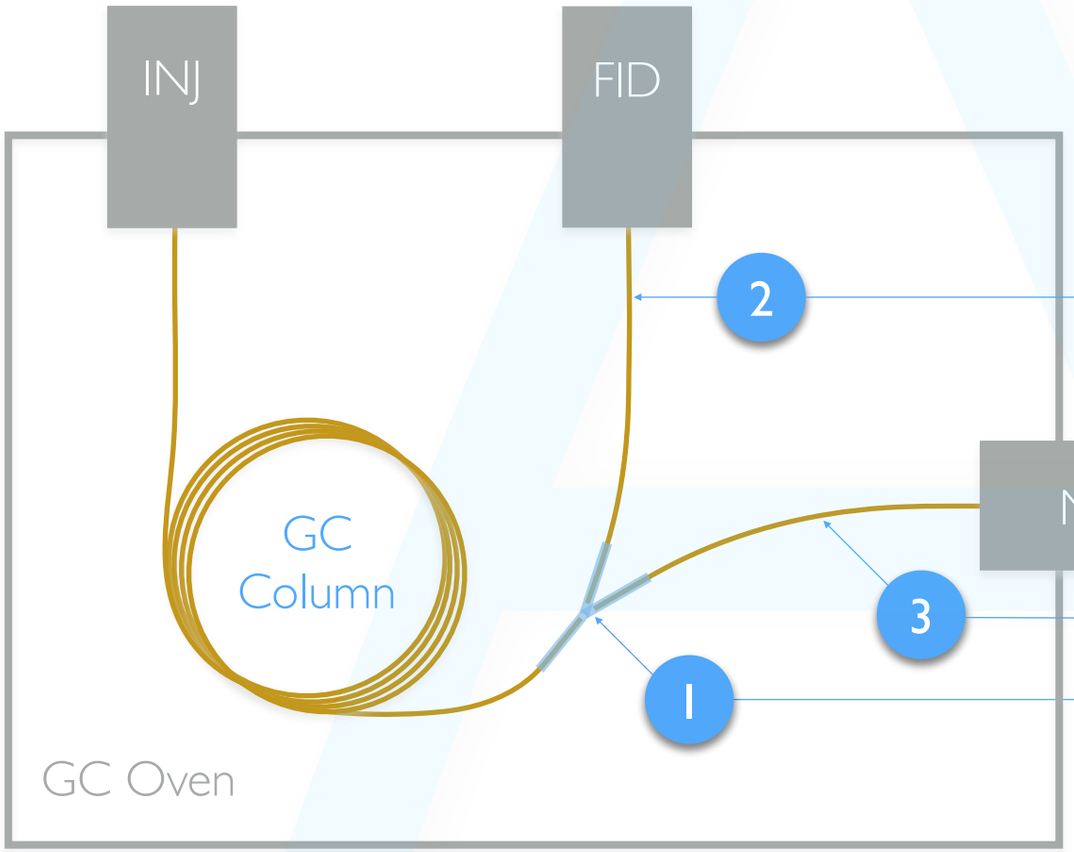
Literature references:

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Development, validation, and assessment of a reliable and white method for the analysis of water-based perfumes by pipette-tip micro-solid-phase extraction combined with dual detection gas chromatography.

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Dual detection MS/FID system



Kit parts:

Retention Gap - DPMTDS - 0.18mm, 2m
Catalog Code: RETG-DPTMDS-018-2

Retention Gap - DPMTDS - 0.10mm, 1m
Catalog Code: RETG-DPTMDS-010-1

Press-Fit "Y" 3-ways connector, universal
Catalog Code: PFITY-UNVR-1

Acknowledgement: **Bechis G., Quaranta G., Bicchi C., Marengo A., Sgorbini B., Rubiolo P., Cagliero C.,** Università di Torino, Dipartimento di Scienza e Tecnologia del Farmaco, Via Pietro Giuria, 9 - Torino - Italy.

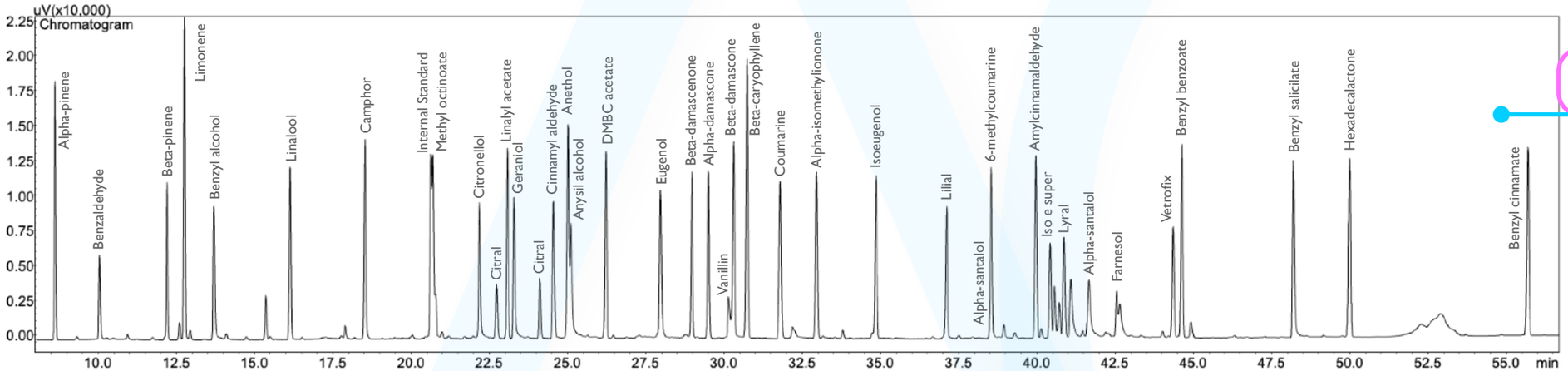
Column lifetime

Column: **MEGA-5 MS AQ - 0.18mm, 0.35µm, 20m**
Catalog Code: MS-5AQ-018-035-20

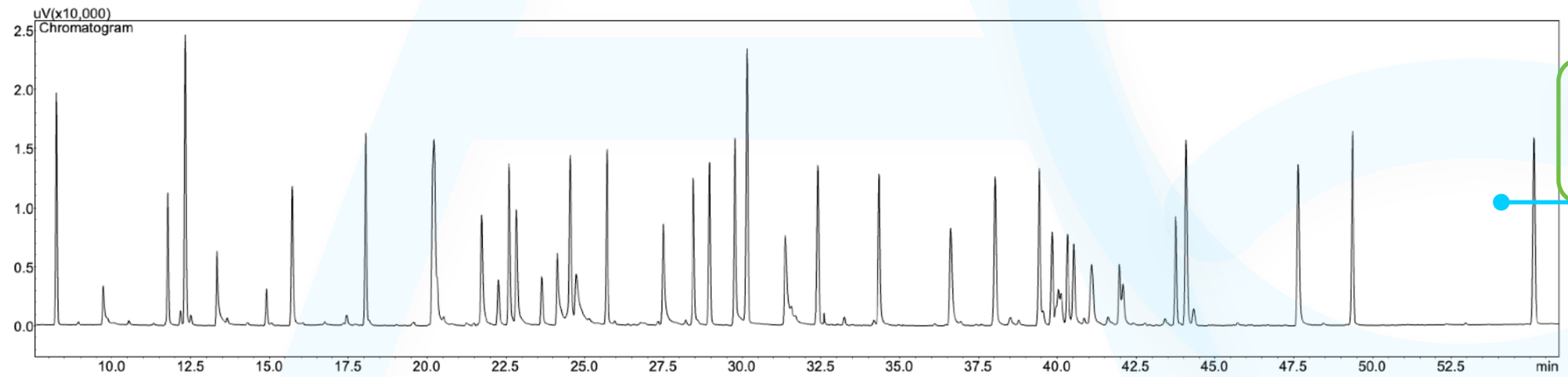
Conditions:

Oven Program: 50°C, 2°C/min, 250°C.
Carrier Gas: Helium, 0.8 mL/min.
Detector: FID 250°C.

Analysis of suspected cosmetic allergens standard mixture.



New column



After > 4000 analysis,
of which more than 2000
with high water content

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since 1980

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info@mega.mi.it

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