

new

*mega*

**5-MS** *Xil*<sup>TM</sup>

improve Your GC-MS analysis

since  
**1980**



**The new MEGA-5 MS Xil is a new low-bleeding stationary phase ideal for GC-MS applications.**

The MEGA-5 MS Xil is a low polar phase with a selectivity equivalent to the 5% diphenyl - 95% methylpolysiloxane available columns, developed to assure the minimal bleeding at high temperatures.

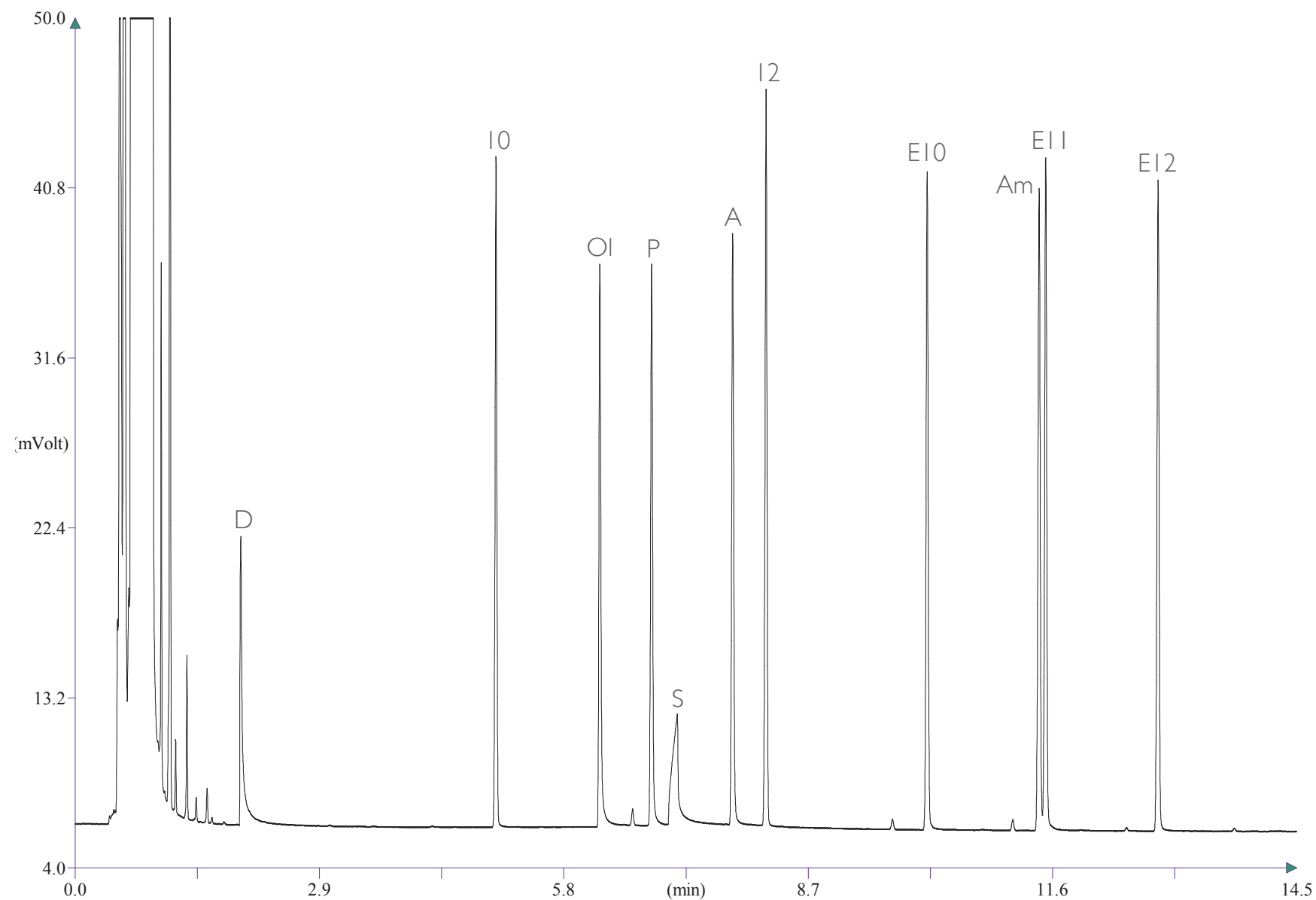
*mega*  
**5-MS Xil**<sup>TM</sup>  
ultra-low bleeding column

**Extremely low-bleeding, outstanding inertness, high long-term performances** are the main features of this new column.

For over 30 years, MEGA has guaranteed excellent quality and high reproducibility. We produce and test one by one every single column using the original Grob Test mix as quality assurance test.

The new MEGA-5 MS Xil is available in the most classical GC-MS dimensions but also in the new configuration with the 0.15mm I.D. tubing, one of the best compromise between resolution power and faster GC analysis.

As with all our other products, you can ask us to make the MEGA-5 MS Xil phase with completely custom dimensions and configurations. Please contact us at [info@mega.mi.it](mailto:info@mega.mi.it).



**Figure 1.** Grob Test chromatogram performed with the new MEGA-5 MS Xil 0.25mm, 0.25 $\mu$ m, 30m. The test conditions were: 40°C - 200°C @ 10°C/min, Hydrogen carrier gas @ 80kPa (constant pressure), Split injector (250°C) with split ratio 1:20, 1 $\mu$ L injection volume, FID detector (250°C). Grob Test Mix (Fluka cat. # 86501) composition: 2,3-Butanediol (D), Decane (I0), 1-Octanol (OI), 2,6-Dimethylphenol (P), 2-Ethylcaproic acid (S), 2,6-Dimethylaniline (A), Dodecane (I2), methyl Decanoate (E10), Dicyclohexylamine (Am), methyl Undecanoate (E11), methyl Laurate (E12).

# Bleeding

mega  
5-MS X<sup>TM</sup>  
ultra-low bleeding column

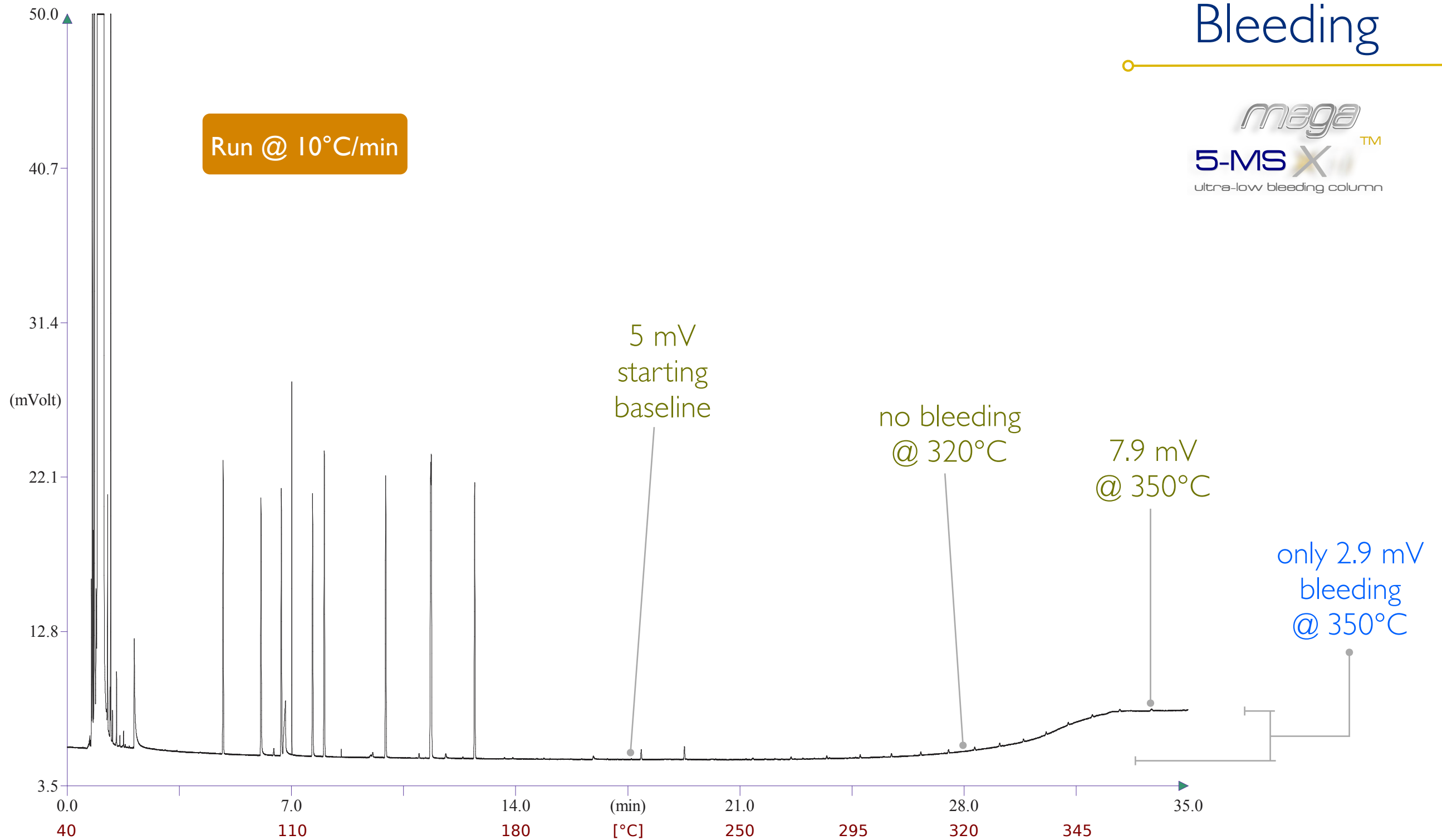


Figure 2. A Grob Test run performed on the new MEGA-5 MS Xil 0.25mm, 0.25µm, 30m is shown to highlight the bleeding level. Even with a temperature rate of 10°C/min (from 40°C to 350°C) the bleeding remains extremely low. The chromatogram shows a very flat baseline with no bleeding at 320°C and a minimal growth of the signal at the end of the analysis at high temperature (350°C).

MEGA®

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- |                       |                             |                          |
|-----------------------|-----------------------------|--------------------------|
| 1. Etridiazole        | 13. Heptachlor              | 26. Perthane             |
| 2. Chloroneb          | 14. DCPA                    | 27. Chlorobenzilate      |
| 3. Propachlor         | 15. Aldrin                  | 28. Endosulfan-II        |
| 4. Trifluralin        | 16. Isodrin                 | 29. cis-Nonachlor        |
| 5. <i>alpha</i> -HCH  | 17. Heptachlor-epoxide      | 30. pp-DDD               |
| 6. HCB                | 18. Captan                  | 31. Endrin aldehyde      |
| 7. Dicloran           | 19. <i>gamma</i> -Chlordane | 32. Carbophenothion      |
| 8. Quintozene         | 20. <i>alpha</i> -Chlordane | 33. Endosulfan sulfate   |
| 9. <i>beta</i> -HCH   | 21. Endosulfan-I            | 34. pp-DDT               |
| 10. <i>gamma</i> -HCH | 22. <i>t</i> -Nonachlor     | 35. Endrin ketone        |
| 11. Chlorotalonil     | 23. pp-DDE                  | 36. Methoxychlor         |
| 12. <i>delta</i> -HCH | 24. Dieldrin                | 37. Mirex                |
|                       | 25. Endrin                  | 38. <i>c</i> -Permethrin |
|                       |                             | 39. <i>t</i> -Permethrin |

Accustandard mix M-680P, M508P-B-R and M-617-2 (1 ng/ $\mu$ L each compound).

Column: **MEGA-5 MS Xil** - 0.25mm, 0.25 $\mu$ m, 30m

Catalog Code: MS-5XIL-025-025-30

**Conditions \***

Oven Program: 60°C (5min), 8°C/min, 300°C (10min).

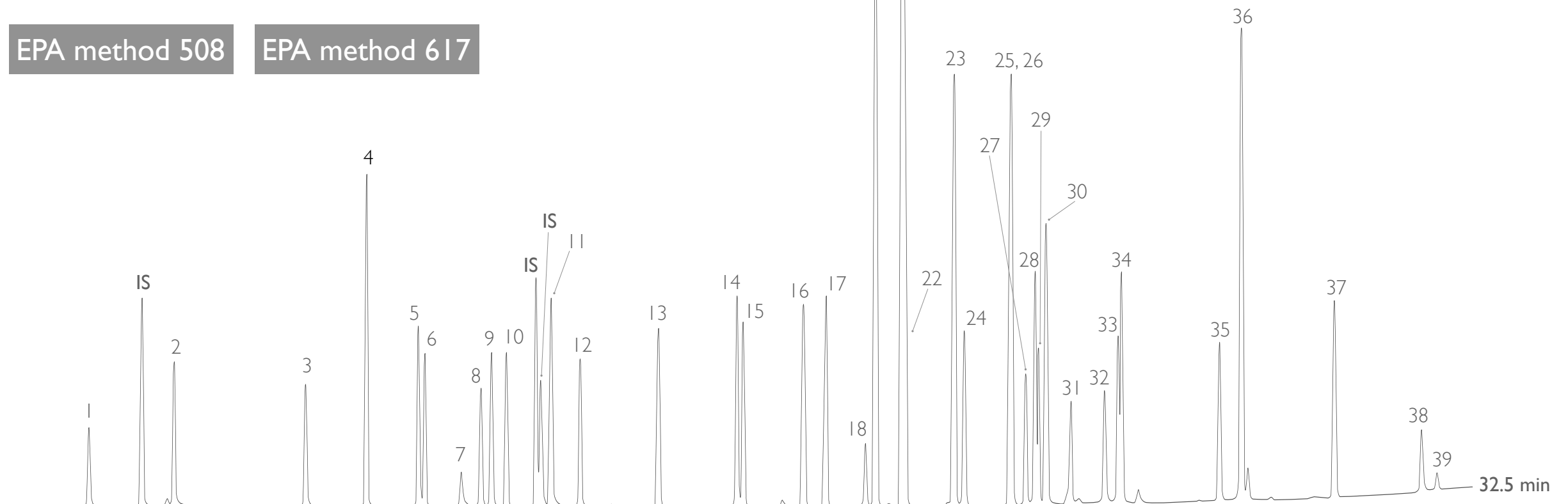
Carrier Gas: Helium, 1.5mL/min, constant flow.

Injector: Split 275°C, 30mL/min split flow (1min Splitless).

MS: transfer line 300°C, source 225°C, segmented scan 45-450 amu.

EPA method 508

EPA method 617



Acknowledgement: **Cromlab S.L.**, Acer 30-32, 08038 Barcelona.

\*: conditions used are not optimized for separations but are standard conditions used for a round-robin comparison.

TIC MS



- |                         |                       |                     |
|-------------------------|-----------------------|---------------------|
| 1. Dichlorvos           | 28. Crotoxyphos       | 36. Carbophenothion |
| 2. Mevinphos            | 29. Tetrachlorvinphos | 37. Phosmet         |
| 3. Demeton-S            | 30. Tokuthion         | 38. EPN             |
| 4. Ethoprop             | 31. Tribuphos         | 39. Leptophos       |
| 5. Naled                | 32. Fensulfothion     | 40. Azinphos-methyl |
| 6. Sulfotep             | 33. Ethion            | 41. Azinphos-ethyl  |
| 7. Phorate              | 34. Sulprophos        | 42. Coumaphos       |
| 8. Demeton-O            | 35. Famphur           |                     |
| 9. Dimethoate           |                       |                     |
| 10. Dioxathion          |                       |                     |
| 11. Terbufos            |                       |                     |
| 12. Fonophos            |                       |                     |
| 13. Diazinon            |                       |                     |
| 14. Disulfoton          |                       |                     |
| 15. Dichlorofenthion    |                       |                     |
| 16. Chlorpyrifos-methyl |                       |                     |
| 17. Parathion-methyl    |                       |                     |
| 18. Fenchlorphos        |                       |                     |
| 19. Fenitrothion        |                       |                     |
| 20. Aspon               |                       |                     |
| 21. Malathion           |                       |                     |
| 22. Chlorpyrifos-ethyl  |                       |                     |
| 23. Fenthion            |                       |                     |
| 24. Trichloronate       |                       |                     |
| 25. Parathion-ethyl     |                       |                     |
| 26. Chlorfenvinphos     |                       |                     |
| 27. Merphos             |                       |                     |

## EPA method 8140, 8141

Column: MEGA-5 MS Xil - 0.25mm, 0.25µm, 30m

Catalog Code: MS-5XIL-025-025-30

### Conditions \*

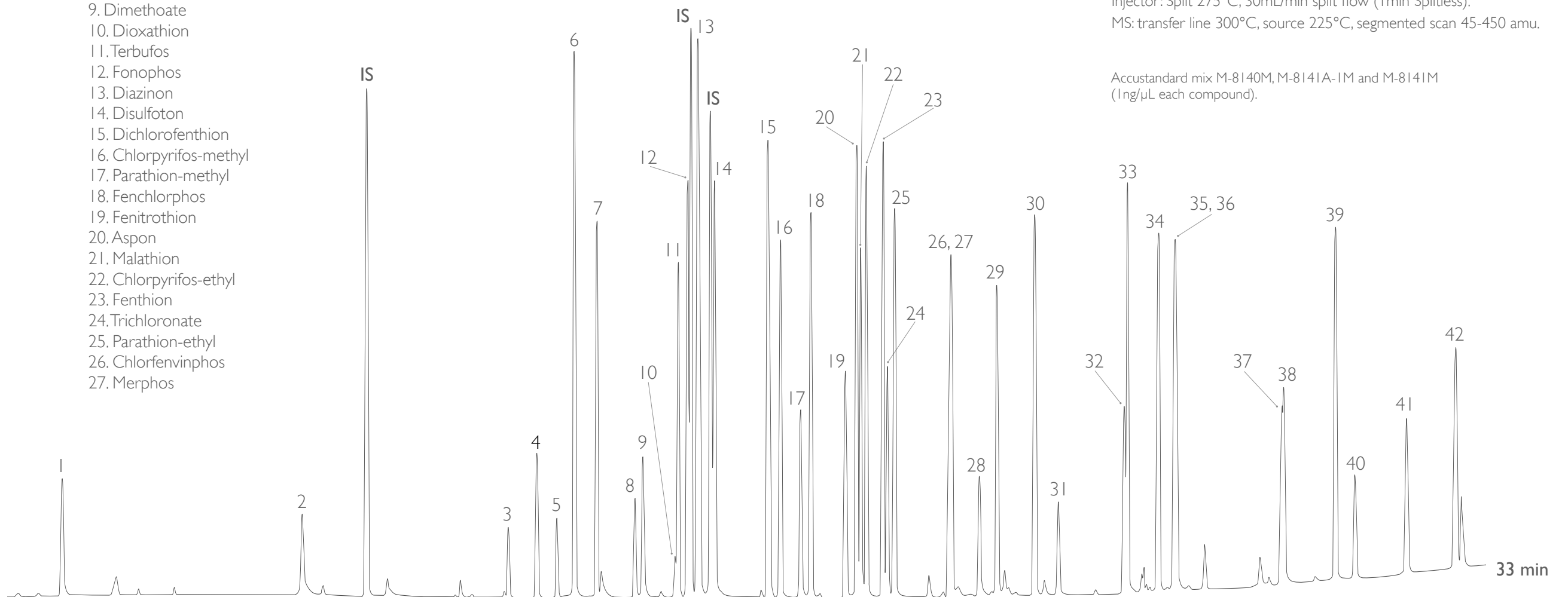
Oven Program: 60°C (5min), 8°C/min, 300°C (10min).

Carrier Gas: Helium, 1.5mL/min, constant flow.

Injector: Split 275°C, 30mL/min split flow (1min Splitless).

MS: transfer line 300°C, source 225°C, segmented scan 45-450 amu.

Accustandard mix M-8140M, M-8141A-1M and M-8141M  
(1ng/µL each compound).



Acknowledgement: Cromlab S.L., Acer 30-32, 08038 Barcelona.

\*: conditions used are not optimized for separations but are standard conditions used for a round-robin comparison.

TIC MS

[www.mega.mi.it](http://www.mega.mi.it)



# Triazines



Column: MEGA-5 MS Xil - 0.25mm, 0.25µm, 30m

Catalog Code: MS-5XIL-025-025-30

## Conditions \*

Oven Program: 60°C (5min), 8°C/min, 300°C (10min).

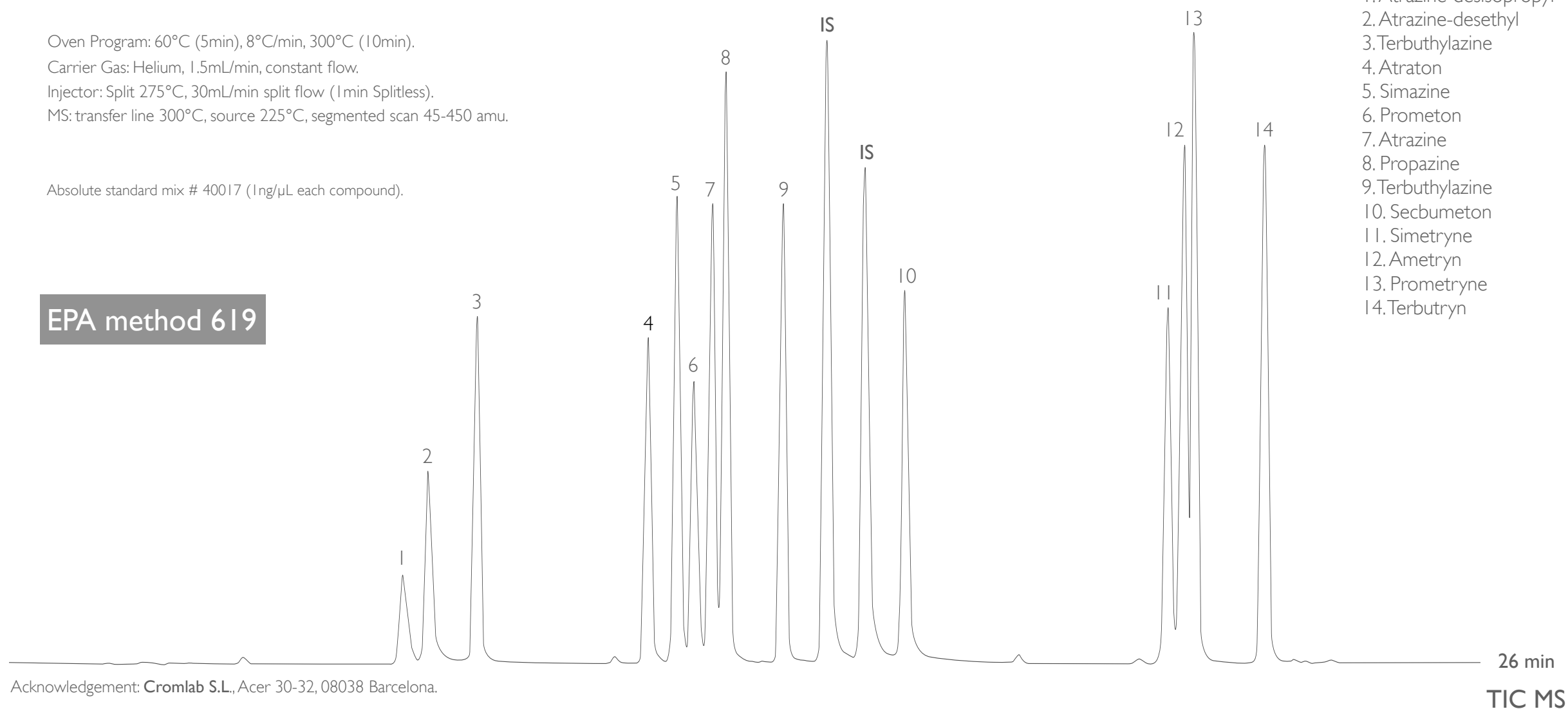
Carrier Gas: Helium, 1.5mL/min, constant flow.

Injector: Split 275°C, 30mL/min split flow (1 min Splitless).

MS: transfer line 300°C, source 225°C, segmented scan 45-450 amu.

Absolute standard mix # 40017 (1 ng/µL each compound).

EPA method 619



Acknowledgement: Cromlab S.L., Acer 30-32, 08038 Barcelona.

\*: conditions used are not optimized for separations but are standard conditions used for a round-robin comparison.

# Other Separations



Column: MEGA-5 MS Xil - 0.25mm, 0.25µm, 30m  
Catalog Code: MS-5XIL-025-025-30

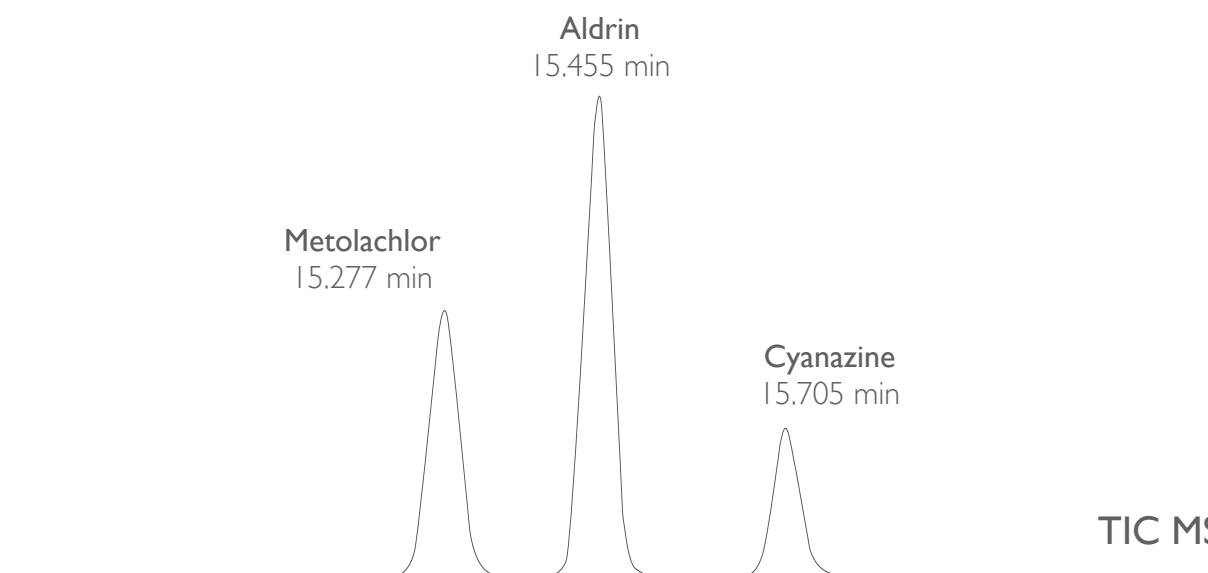
## Conditions \*

Oven Program: 45°C (2min), 50°C/min, 160°C (1min), 6°C/min, 320°C (2min).

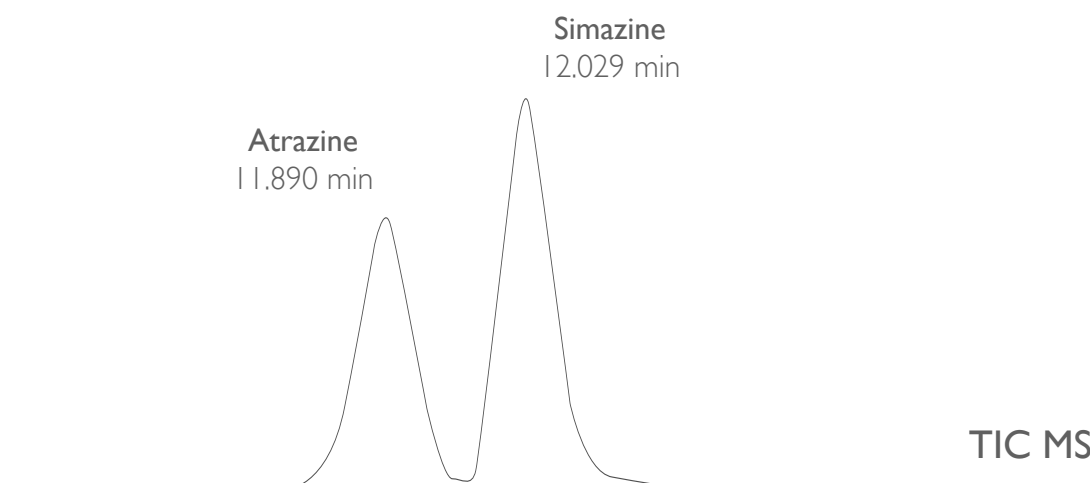
Carrier Gas: Helium, 1.0mL/min, constant flow.

Injector: Split 250°C, 50mL/min split flow, 1 µL injection volume.

MS: full scan mode.



## EPA method 525.2 mix



\*: conditions used are not optimized for separations but are standard conditions used for a round-robin comparison.



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*since*  
**1980** 