



Dear \$SPALTE1 \$NAME

we are pleased to present Frontier Laboratories Europe's Highlights February 2019:



Our new European Homepage is online : www.emsca.de

As independent consultancy company, EMSCA MS Consulting is representing Frontier Lab in Europe, supporting both European Frontier Lab business partners and their customers.

Since October 2018, the new EMSCA website is online.

Here you find an overview about (please click on links):

- [Frontier Lab's main products and applications](#)
- [Frontier Lab's business partners in Europe](#)
- [Download section for Newsletters](#) and [other literature](#).

We would like to highlight the menu "Coming Events & Conferences" what is showing our:

[Schedule for coming conferences or exhibitions in Europe](#) (will be updated regularly):

The new Homepage is available in German and English language.

Please visit www.emsca.de or www.flab-europe.com

Of course, www.frontier-lab.com remains Frontier Laboratories' main international website !!



New Technical Notes Available !

The applicability of your GC/MS system greatly expands using Frontier Lab's pyrolyzer and μ -Reactors. We always look for new applications and transfer these into easy-to-read technical notes. Currently, we have more than 200 technical notes downloadable for you in our searchable database - and it is growing continuously. Recently, some new technical notes have been added:

- PYA3-027E: Analysis of oil-based black inks - Comparison of good and defective inks –
- **PYT-036E: Operating principle of Selective Sampler**
- PYA1-095E: Analysis of brominated flame retardants in a waste plastic using thermal desorption (TD)-GC/MS - Part 1 Qualitative analysis
- **PYA1-096E: Analysis of brominated flame retardants in a waste plastic using thermal desorption (TD)-GC/MS - Part 2 Determination of TBBPA**

[click here to download technical notes](#)



New Publications in Journals

PCI Magazine :

[“Failure Analysis of Synthetic Dyes Using Pyrolysis-GC/MS Technique”](#)

written by Rojin Belganeh and William Pipkin.

if the link above doesn't work visit: [:https://bit.ly/2Dz9hdX](https://bit.ly/2Dz9hdX)

Cannabis Science & Technology :

[“Rapid Screening of Cannabinoids in Edibles Using TD-GC/MS”](#) written by

Rojin Belganeh and William Pipkin (See Page 50)

Rubber and Plastic News:

["Analysis of phthalates in polymeric substrates"](#) written by Rojin Belganeh and William Pipkin



Webinar Feb. 19, 2019: Advanced Material Characterization Using Multi-Mode Pyrolyzer in 3D Printing, Smart Coatings, and Nanomaterials

The formulation details of the polymer parts are often not known to the manufacturer or other steps in the supply chain. The same part number in the supply chain can result in a polymer part that is not made with the same formulation, yet the apparent polymer properties seem to be equivalent. Pyrolysis performed correctly is a valuable and easy to use sample introduction technique for GC and GC/MS. It allows the user to characterize any solid or viscous organic materials that otherwise could not be analyzed by GC. Using this technique, there is no need for any sample preparation or solvent extraction as the lighter compounds and volatiles are thermally extracted from the heavier/polymeric mixture. The applications include reverse engineering, material proper validation, coating compositions, and nanomaterial characterizations in 3D printing, paint & coating, rubbers, and plastics.

Key webinar take-aways:

- Learn how Pyrolysis GC/MS technique using the Multi-Mode Pyrolyzer can be used for performing reverse engineering, material characterization, failure analysis for supply chain, and comparative
- Learn the material property validation and the coating compositions using Evolved Gas Analysis and Heart-Cutting-MS techniques.
- Discover capabilities of the Multi-Mode Pyrolyzer and its modes of operations for varies applications in paints & coatings, 3D printing, rubbers, plastics, and nano-materials.

Presenters:

**Professor Rigoberto Advincula, PhD (Case Western Reserve University),
Rojin Belganeh and Terry Ramus (Frontier Lab)**

[Live Webinar: February 19, 2019 / Registration Page \(click\)](#)

(if the link above doesn't work please visit: <https://www.lqa.com/webinar-advanced-material-characterization-using-pyrolyzer/>)



Featured Product

Frontier Laboratories is offering a broad range of innovative products around Analytical Pyrolyzer or μ -Reactor to increase the performance and flexibility of your PY-GC/MS system.

[In this newsletter \(click\): Autoshot AS-1020E](#)

Features:

Auto-Shot Sampler: AS-1020E has been developed to allow multiple samples to analyze in various technical areas. This equipment provides significant cost savings by reducing the workload and great improvement in the reliability of analysis results when combined with the Multi-Shot Pyrolyzer EGA/PY-3030D of Frontier Laboratories Ltd.

- Continuous Operation for up to 48 samples
- Sample can be analyzed by any of the four analytical methods
- Eliminates variations owing to operators
- Minimizes variations due to unexpected factors such as sampling errors

Assuming the average time to obtain a pyrogram is one hour, analysis of 48 samples will require whole one week. The same results can be obtained in two days if the Auto-Shot sampler is used. Further, the operator can work on other tasks simultaneously.

IMPRESSUM

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