

## **Press Release**

A-GB-11006 July 04, 2011

## New tool for routines polymer analysis: Multi-Shot EGA/PY-3030D/S pyrolyzer

Shimadzu, one of the worldwide leading manufacturers in analytical instrumentation and Frontier Lab provide a new versatile tool for the comprehensive analysis of polymer samples. It consists of Shimadzu's GCMS-QP2010 quadrupole series and Frontier Lab's new Multi-Shot EGA/PY-3030D(S) vertical micro furnace pyrolyzer. Both companies have teamed up in Pyrolysis-GCMS for years.

The PY-3030D is equipped with a low thermal mass ceramic heater featuring improved thermal stability and an extended temperature range from ambient + 10 °C to 1050 °C. This enables the analysis of temperature-sensitive compounds as well as the cracking of highly temperature-stable polymers using high-temperature pyrolysis. The low mass ceramic heater and the new design of the pyrolysis/GC interface contribute to increased heating and cooling rates, leading to higher productivity because of very short heater cycle times.

Optimized temperature control ensures increased reproducibility of pyrolysis data, particularly at higher temperatures. In addition, the outstanding performance of the GCMS-QP2010 series contributes to the excellent reproducibility of the data.

## New accessories for polymer analysis

The wide range of new accessories opens up new potentials for the analysis of polymers – a configuration is available for nearly every analytical challenge. The sample introduction systems offer increased application possibilities including the analysis of weathering products and reactions at high pressure. By simply changing the sampler, different sample introduction methods such as single-shot/double-shot pyrolysis, liquid injection, reactive pyrolysis or sample irradiation with UV light can be selected.

## Search software and library updates

Analysis and interpretation of complex pyrolysis data is now easier and more effective with the new version 3.1 of the F-Search software. This software offers a unique patented search algorithm for library search of total chromatograms, independent from analytical conditions or the separation column.

A list of special libraries including pyrograms, thermograms, pyrolyzates and additives as well as the possibility to build own libraries complete the software package. The EGA and pyrogram libraries have been upgraded recently with approx. 100 pyrograms and EGA thermograms. The PY-3030S is a classical Single-Shot pyrolyzer (isothermal pyrolysis) featuring excellent price/performance ratio - the ideal model for routine polymer analysis.



Image 1: Multi-Shot pyrolyzer EGA/PY-3030D

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