



O-Analysis

The determination of Oxygen is a separate analysis

- 1 The samples are weighed in silver capsules.
- 2 These capsules are dropped into a pyrolysis reactor kept at a temperature of 1060 °C and crossed by a helium stream.
- 3 The sample are undergone an immediate pyrolysis
- 4 Pyrolysis gases are passed on a nickel-plated carbon layer that ensures a quantitative conversion of organic oxygen into carbon monoxide.
- 5 Carbon monoxide is separated from the other pyrolysis gases (CH₄, N₂, H₂ and other acid gases) formed during the pyrolysis in a GC column packed with molecular sieves kept at a temperature of 65 °C.
- 6 The gases are detected by a thermo conductivity detector.
- 7 The resulting signals, proportional to the amount of eluted gases, are analysed by an automatic workstation which provides the sample elemental composition report

**Fraunhofer-Institut für
Angewandte Polymerforschung**

Wissenschaftspark Golm
Geiselbergstraße 69
14476 Potsdam
Germany

Phone +49(0)331/568-10
Fax +49(0)331/568-3000
E-mail info@iap.fraunhofer.de
www.iap.fraunhofer.de