

CHNS-Analysis

The determination of Carbon, Hydrogen, Nitrogen and Sulphur content is carried out by a simultaneous analysis.

- 1 Solid and liquid samples, weighed in tin capsules, are introduced into a vertical quartz reactor heated at a temperature of 1000 °C with a constant flow of helium stream.
- 2 A few seconds before introduction the helium stream was enriched with high purity oxygen
- 3 The combustion gas mixture is driven through an tungsten oxide zone to achieved a complete quantitative oxidation following by a reduction step in a copper zone to reduce nitrogen oxides and sulphuric anhydride to nitrogen and sulphurous anhydride
- 4 The resulting 4 components N₂, CO₂, H₂O und SO₂ are separated in a chromatographic column and detected by a thermo conductivity detector.
- 5 The resulting signals, proportional to the amount of eluted gases, are analysed by an automatic workstation which provides the sample elemental composition report

References:

Instruction manual EA 1110
Elemental Analyzer

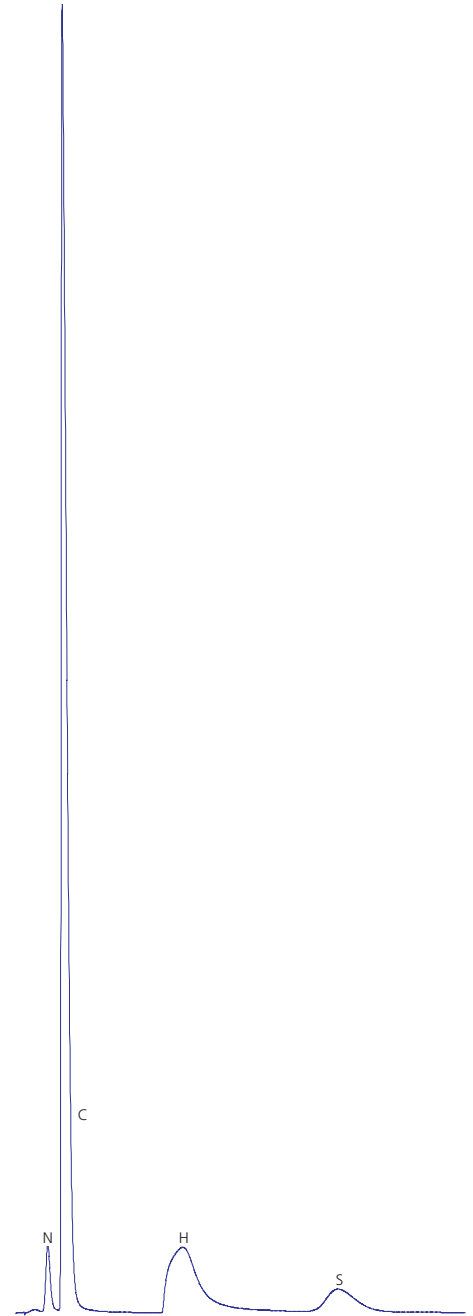


Abbildung 1

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