NC TECHNOLOGIES

Innovative Elemental μ-Analysis

ECS8040 | ORGANIC ELEMENTAL ANALYZER

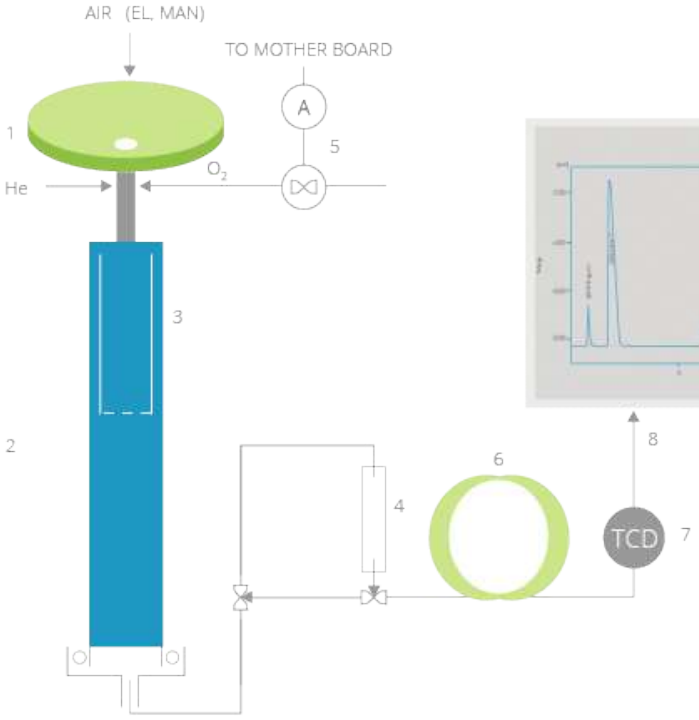
CHNS-O Analyzer

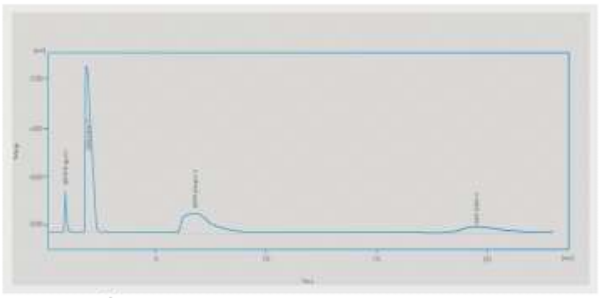
ECS 8040 – CHNS-O Analyzer
Organic Elemental Analysis

ECS 8040 is a C-H-N-S-O Elemental Analyzer Model based on the Dumas combustion method.

ECS 8040 is a state-of-the-art system for the elemental analysis based on sample combustion and separation of gases with a chromatographic column.

The combustion products, i.e. CO2, H2O, N2 and SO2, are separated and quantified by a high resolution TCD detector.





ECS 8040 is fully automatic, from the available samplers to the oxygen dosage, from the monitoring of consumables status to the automatic leak test.

ECS 80 SERIES

ECS 8040 is composed by:

Singlefurnace combustion system (for a better combustion and optimization of catalysts)
Safety quick fit system for reactors connection (easy and safe way to set the instrument)
Customized GC column
Detection system
Data acquisition and handling

Several configurations may be set for the determination of the target element.
Typical configurations are for:
CHNS; CHN; CN; CNS; O

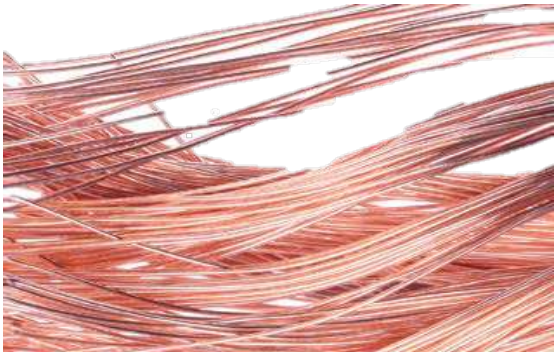
Choose the best configuration by choosing the right chemicals, consumables and prepacked reactors.

The versatility of ECS 8040 can be expressed as:

Sample weight

Sample type

Liquid or solid sample



ECS 8040 CHNS-O

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Three different samplers are available:

Pneumatic autosampler up to 147 positions
Electronic autosampler with 32, 50, 100 positions
Manual sampler

Automatisms make it particularly user-friendly:

Automatic oxygen dosage system

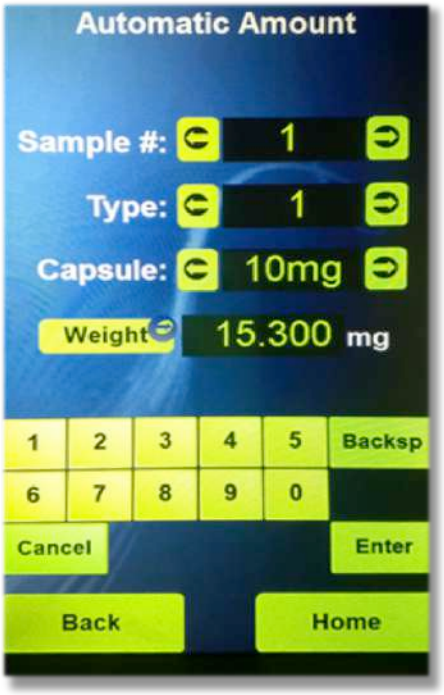
(for a better consumption of oxygen and consumables)

Automatic consumables status monitoring

Automatic leak test

Standby mode

(gas, energy and time savings)



Automatic oxygen dosage: main highlights.

Details of sample are registered:
Position
Type
Weight

ECS 8040 will dose the oxygen for the right combustion. No oxygen or consumables wastes.

ECS 8040 is particularly indicated for linking to other units for determination of the isotopic ratios of stable isotopes in elements.

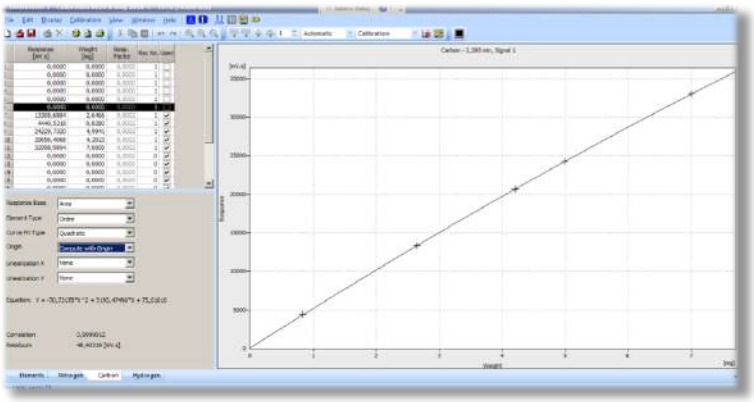
ECS 8040 CHNS-O

EAS Clarity

Powerful softwarefor powerful instrument
Getting data, analyzing data, presenting data

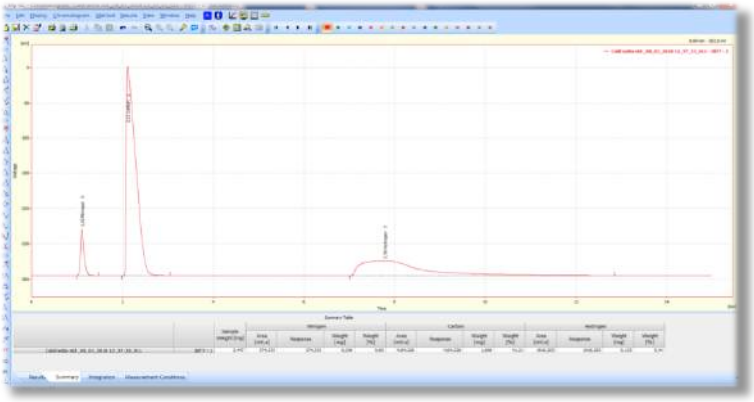
Integration

There is extensive possibility to modify chromatograms. The chromatogram can be changed by entering global parameters or interactively, through direct graphic modification of the baseline.



Overlay

Simultaneously displays a virtually unlimited number of chromatograms and their mathematical modification.



Calibration

Internal and external standard calculation methods.

Automated measuring support

Sequence tables for any set of samples.

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What the user can do

Summary result tables
Displays and prints selected results from all simultaneously displayed chromatograms.

User settings
User selects parameters for peak display and the specification for axes, including color from an extensive array of color settings. Text labels and lines, either as part of the area or anchored to a chromatogram, may also be inserted.

Export
Optional exportation of all results, with or without the chromatogram, in various formats, into a file or clipboard.

Import
Imports chromatograms or mathematical curves, which have been saved in text or AIA formats, from other programs.

Special features

LIMS
Clarity offers connectivity with LIMS both for sample submission and result output. This can be done via convenient ASCII transfers.

Method and calibration history
Each chromatogram can easily be displayed under the same conditions as when it was printed, exported or saved.

Column performance
Calculations of peaks in terms of symmetry, efficiency, resolution; all by several methods.

Batch
Automatically batch processes, displays, exports or prints any number of chromatograms.

Language localization available
Basic version in English language.
At the moment, there are French, German, Russian, Spanish and Chinese localizations available in single installation package.

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ECS 8040 key points

- Fully automated analysis system
- High sensitivity, accuracy and precision
- Flexibility and versatility of applications
- Detector does not require reference gas
- Powerful software for viewing results from a computer
- Touch-screen display for an easy settings management
- Consumables status monitoring for an optimization of catalysts usage
- Three types of samplers available: electronic / pneumatic / manual.
- Easy connection to Mass Spectrometers and other detectors for stable isotopes analysis
- Low operation and management costs
- Standby mode for gas, energy and time savings

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