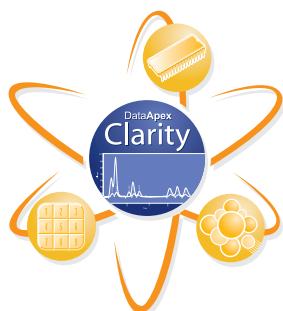


Clarity EA Extension



Software module for Elemental Analysis

Determining the Carbon, Hydrogen, Nitrogen, Oxygen, and Sulphur (CHNS-O) content of unknowns is one of the most basic and essential needs of any chemist.

EA Extension provides a simplified version of the Clarity user interface that speeds up the workflow with elemental analyzers equipped by autosamplers.

EA Extension is an optional addition to Clarity software, it cannot be used as a standalone program.

CLARITY SOFTWARE

CONTROLS

EXTENSIONS

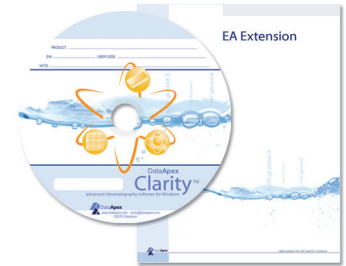
HARDWARE

Clarity EA Extension

Software module for Elemental Analysis

The EA Extension is an optional fully integrated addition to Clarity software. It can be ordered as a part of new software or as an extension to existing software. It is designed for use with elemental analyzers using the combustion/gas chromatography technique.

The Clarity Chromatography Software is designed to acquire and evaluate data from up to four multidetector chromatographs at a time (four independent timebases). The EA mode is selectable for any Instrument within a station. The EA Extension is also compatible with Clarity Offline software.



Features

Calibration: Simplified work with template method and calibration. One setting is shared for all samples in the same sequence.

Standard Table: For your convenience, the software contains Standard Table with a list of the most commonly used calibration standards and their elemental composition.

Reporting: Clarity EA supports the printing of user defined protocols. Its configuration is saved in a report style, which defines the content and form through the printout. Protocols can be printed to the PDF file.

Analytical balance: The Clarity Elemental Analysis Software provides direct interface with the analytical balance (Sartorius and Mettler). After weighing the sample, the operator presses the print key on the balance (or uses software instruction) to directly transfer the sample weight to the software sample information field thereby eliminating any possible transcription errors.

Sequence Table: Measurement is managed using the Sequence Table. The Summary Table displays results clearly. ASCII and AIA data formats can be exported or imported directly.

Database: Results can be exported in the .txt and .dbf format.

Specification

- Part No.:** A30
- Related products:** Clarity (p/n C50) - required
Analytical Balance Control module (p/n A24 or A22)
- Interface:** any elemental analyzer equipped with analog data output
- EA technique:** combustion/gas chromatography

The screenshot displays the Clarity Chromatography software interface. At the top, there is a menu bar and a toolbar. Below the menu bar is a 'Sequence EA_demo' window showing a table of sample runs. The table includes columns for Run, SV, EV, IV, Sample ID, Sample Name, Sample Weight, Inj Vol, File Name, EA Sample Type, Method Name, EA Standard Name, and various elemental percentages (Nitrogen, Carbon, Hydrogen, Sulphur, Oxygen, Open Carb, Open Calc, Print).

Run	SV	EV	IV	Sample ID	Sample Name	Sample Weight [g]	Inj Vol [μl]	File Name	EA Sample Type	Method Name	EA Standard Name	Nitrogen [%]	Carbon [%]	Hydrogen [%]	Sulphur [%]	Oxygen [%]	Open Carb	Open Calc	Print
1	36	36	1	std1_Niv	6,400	0,000	0,000	Nitro...	Standard	1 CHLNET	Acetanilide	10,36	71,09	6,71	0,00	11,84			
2	37	37	1	std2_Niv	9,100	0,000	0,000	Nitro...	Standard	2 CHLNET	Acetanilide	10,36	71,09	6,71	0,00	11,84			
3	38	38	1	std3_Niv	12,200	0,000	0,000	Nitro...	Standard	3 CHLNET	Acetanilide	10,36	71,09	6,71	0,00	11,84			
4	39	39	1	blank_Niv	0,000	0,000	0,000	Nitro...	Blank	CHLNET	Acetanilide	10,36	71,09	6,71	0,00	11,84			
5	40	40	1	sample1...	6,800	0,000	0,000	Nitro...	Unknown	CHLNET									
6	41	41	1	sample1...	11,100	0,000	0,000	Nitro...	Unknown	CHLNET									
7	42	42	1	sample2...	7,400	0,000	0,000	Nitro...	Unknown	CHLNET									
8	43	43	1	sample2...	10,600	0,000	0,000	Nitro...	Unknown	CHLNET									
9	44	44	1	std4_Niv	9,100	0,000	0,000	Nitro...	Standard	4 CHLNET	Acetanilide	10,36	71,09	6,71	0,00	11,84			
10	45	45	1	std5_Niv	9,100	0,000	0,000	Nitro...	Standard	5 CHLNET	Azoxane	4,84	29,36	8,01	0,00	26,29			
11	46	46	1	std6_Niv	9,100	0,000	0,000	Nitro...	Standard	6 CHLNET	Cydoxan...	20,34	51,79	5,07	0,00	0,00			
12																			

Below the sequence table, there are several chromatograms showing peaks for Nitrogen, Carbon, and Hydrogen. A 'Waiting' dialog box is also visible. At the bottom, there are two result tables. The first table is for 'ESTD - SULFAN' and the second is for 'ESTD - sample2_43_26-V-2005_008'.

Reten. Time [min]	Response	Amount [g]	Amount [%]	Peak Type	Compound Name
1	1,130	5171,707	0,181	16,2	Order Nitro
2	1,690	36120,408	0,465	41,8	Order Car
3	3,487	13949,978	0,192	4,7	Order Hyd
4	7,617	6049,288	0,196	17,6	Order Sul
Total			1,114	80,3	

Reten. Time [min]	Response	Amount [mg]	Amount [%]	Peak Type	Compound Name
1	2,238	159,792	0,689	6,5	Refer Nitrogen
2	2,675	2385,944	4,535	42,8	Refer Carbon
3	12,810	1396,532	0,708	6,7	Order Hydrogen
Total		10,600	56,0		

