



Elemental Analyser – Multi EA

Multi EA 4000: a versatile tool for the automated determination of TS (Total Sulphur), TC (Total Carbon), TOC (Total Organic Carbon), TIC (Total Inorganic Carbon) and TC-EC (Determination of carbon after pyrolysis) samples, with autosampler control in a single analysis process.



Samples

Macro elemental analyses of loose soil samples, sediments, construction materials, ashes, polymers, wastes, catalysts, minerals and fertilizers. Sample particle sizes <200 µm are recommended for more uniform combustion and better repeatability between measurements. However, analyses are possible with particle sizes <1 mm.

Benefits

- Sample weights up to 3 g
- Simultaneous detection of carbon and sulfur
- Low operating costs
- Automated solids sampler
- Wide-range NDIR detector for carbon and sulfur

Limitations

- Flammable or explosive materials are prohibited.
- No corrosive substances (e.g. concentrated acids) can be analysed.

Applications

Table 4 - EA4000 Applications (applications in grey may be possible in the future but require further development)

Application	TC+TS_inorg_ with_TIC_auto	TS_inorg_ with_TIC_auto	TOC_Difference _inorg	TIC_auto	EC_TC_inorg_ with_TIC_auto
Results unit	%	%	%	%	%
Sample type	Solid geological, construction materials, ashes, polymers, wastes, catalysts, minerals and fertilizers	Solid geological, construction materials, ashes, polymers, wastes, catalysts, minerals and fertilizers	Solid geological, construction materials, ashes, polymers, wastes, catalysts, minerals and fertilizers	Solid geological, construction materials, ashes, polymers, wastes, catalysts, minerals and fertilizers	Solid geological, construction materials, ashes, polymers, wastes, catalysts, minerals and fertilizers
Analytes	Total Sulfur and Total Carbon	Total Sulfur	Total Inorganic Carbon and Total Carbon	Total Inorganic Carbon	Potential analyses requiring development and/or validation
LLD	393.83 µg (TC) and 39.24 µg (TS)	39.24 µg	55.06 µg (TIC) and 393.83 µg (TC)	55.06 µg	
Maximum Concentration	100%	100%	100%	100%	
Validation	In progress	In progress	In progress	In progress	
Analysis time per sample	10 min	10 min	20 min	10 min	