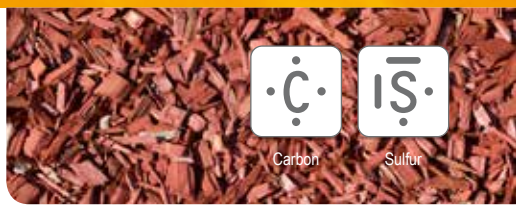
ELTRA
ELEMENTAL ANALYZERS

C, S determination in wood samples



Suitable analyzers

- CS-580 series
- CS-2000 (resistance furnace)

Resistance furnace

Used accessories

- Disposable porcelain boats (90160)
- Suitable calibration material (NIST or other)

Settings

- Furnace temperature: 1350 °C
- Comparator level: 20 mV
- Minimum analysis time: 60 sec
- Maximum analysis time: 180 sec

CS-580 series

CS-2000 (resistance furnace)

Sample preparation

For best results grind the sample down to a particle size of approx. 200 µm.
Dry the sample to constant mass at 105 °C (at least 1 hour).

Procedure

- Prepare and clean the ELTRA analyzer (e.g. exchange anhydrone, sodium hydroxide) and set the furnace temperature to 1350 °C
- Run at least three warm up samples (e.g. ELTRA 92511-3020) with a medium sample weight of 200 mg until the results are consistent
- Calibrate the system with a suitable calibration material (NIST or other):
  (1) Weigh in 150 mg of sample in a porcelain boat (90160)
  (2) Start analysis (F5 Button)
  (3) Load the sample into the furnace and wait until the PC calculates results

Repeat Step (1) – (3) at least three times;
Mark the results and use the calibration function in the software

-> Now start with the actual analysis.
Please introduce the wood samples slowly into the analyzer.

Typical results	
Wood chips	
% C	**% S**
49.72	0.022
49.72	0.022
49.68	0.019
49.95	0.019
49.49	0.018
49.99	0.020
49.59	0.020
49.33	0.021
50.01	0.020
49.75	0.020
Average values	
49.72	0.020
Deviation	
0.220 / 0.44 %	0.001 / 5.96 %

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