

## Elemental analyzer C, H, S, N

### Description/Parameters

Elemental analyzer CHN628 (LECO) is a combustion elemental carbon, hydrogen, and nitrogen instrument that utilizes only pure oxygen in the furnace, ensuring complete combustion and superior recovery of the elements of interest. A combustion gas collection and handling system lowers the overall cost-per-analysis and extends reagent lifetimes. A carrier gas sweeps the combustion gas to separate infrared cells utilized for the detection of H<sub>2</sub>O and CO<sub>2</sub>, while a thermal conductivity cell is used for the detection of nitrogen. Sulphur add-on module provides independent sulphur determination of macro samples (350 mg).

### Utilization/Services

Carbon, hydrogen, and nitrogen determination is part of the ultimate analysis of solid fuel materials, helping to characterize the materials and provide information that can be utilized in calculating material/energy balances and efficiencies, as well as emissions potentials for the solid fuel materials. High-temperature combustion technique allows for **sulphur** analysis times of less than two minutes.

- Sample Type: A representative, uniform sample is required, 100 mg weight (nominal).
- Accessories: 502-186 Tin Foil Cups, 501-441 Sucrose.
- Calibration Samples: 502-642 Phenylalanine, 502-092 EDTA, 501-050 Nicotinic Acid, or other suitable pure compounds.

### Analysis Parameters

- Combustion Temperature: 950 – 1050 °C.
- Afterburner Temperature: 850 °C.



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