

Available for Services

Organic Elemental Analyzer (CHNS)

Thermo Scientific Model: FlashSmart™



Chemical Engineering
Mahidol University

Thermo Scientific™ FlashSmart™ Elemental Analyzer operates based on the Modified Dumas Method, where samples are combusted at high temperature in an oxygen-rich environment to convert C, H, N, and S into measurable gases (CO_2 , H_2O , N_2 , SO_2). These gases are quantified using a Thermal Conductivity Detector (TCD), and the elemental percentages are accurately calculated. The fully automated software ensures precise, reproducible, and traceable results in compliance with laboratory standards. The system supports advanced research in chemistry, materials science, environmental studies, and biology, with comprehensive data processing and reporting capabilities.

Capabilities :

- **Chemistry & Biochemistry:** Structural studies and synthesis control.
- **Materials & Polymers:** Elemental analysis of advanced materials.
- **Energy & Petrochemical:** Composition of fuels, coal, and bioenergy.
- **Environmental:** Carbon and nitrogen analysis in soil and biomass.
- **Pharmaceutical:** Elemental verification of APIs and raw materials.

Service fees

Details	Students and staff within the university/ institute partners (MOU)	External personnel (government organization)	External personnel (private organization)
Organic Elemental Analyzer (CHNS) • CHN Analysis	900 THB/ Sample	1,000 THB/ Sample	1,100 THB/ Sample
• CHNS Analysis	1,000 THB/ Sample	1,100 THB/ Sample	1,200 THB/ Sample

Contact Info



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