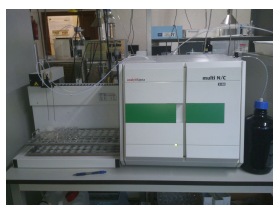


Chemical Analysis Service for other determinations

These determinations make it possible to quantify the total carbon and different nitrogen species in other matrices.



Contact information

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Technological Offers type

Technological scientific services

Research and innovation areas

- Agriculture, Forestry, Natural Resources, Land Use and Blue Growth

ODS



Available from: 2012

Keywords: | Ammonium | Chemical analysis | Fertilisers | floors | leachate | nitrates | OCD | soil extracts | substrates | TNb | Total carbon in solids | Total nitrogen in solids

Other analytical determinations for other matrices

By using different equipment and techniques, it is possible to quantify the total Carbon in solid samples (0.5 - 1 g) and liquid samples (soil extracts, water and leachates), as well as various types of Nitrogen in solid (total) or liquid (nitrate, ammonia or combined total) samples in soil extracts, water and leachates.

Description of the services offered

Determinations in soil extracts, water and leachates:

- Determining NO_3^- , NH_4^+
+ using Flow Injection spectroscopy (Keeney and Nelson, 1982)
- Determining total organic and inorganic carbon (TOC) (IR Detector)
- Determining total combined nitrogen (TN_b) (Chemiluminescence Detector)

Determining soil, substrate, plant and food solid macrosamples:

- Determining *Carbon* (IR Detector)
- Determining total Nitrogen (Thermal Conductivity Detector) using the Dumas method.

Determining fertilisers:

- Determining total nitrogen (Kjeldhal method or Dumas method)
- Determining total phosphorus (Gravimetry) or assimilable phosphorus (Olsen method)
- Determining Potassium, Calcium and Magnesium content.
- Determining micro-nutrients: Iron, Manganese, Copper and Zinc.

Needs requested and applications

Green space managers and maintainers (gardens, golf courses and other sports spaces) and other people or companies doing sustainable land management.

Research groups.

Sector or area of application

Agriculture, food

Where it is

The laboratories are on the first floor of Edificio Agrícolas at the Higher Technical School for Agronomy, Food and Biosystems

Engineering.

To analyse the nitrate content in soil extracts, water and leachates, a Futura model segmented flow analyser made by Alliance is available, while for determining the ammonium ion content there is a Perkin-Elmer FIAS-400 Flow injection Spectrophotometer, along with a Perkin-Elmer Lambda 25 spectrophotometer.

Analytik Jena Multi CN 3100 instrumentation is used to determine the total Carbon (TOC) and combined total Nitrogen (TN_b) in soil extracts.

Leco Trumac CN instrumentation is used to determine the total Carbon and total Nitrogen in soil macrosamples.
