

# **Central Laboratory**

# accredited by the Polish Centre for Accreditation No. AB 325

PHYSICOCHEMICAL ANALYSES OF WATER, WASTEWATER, WASTE, SOLID RECOVERED FUELS, SOIL AND SEWAGE SLUDGE

THE SCOPE OF ACCREDITATION INCLUDES 6 SAMPLING METHODS AND 44 RESEARCH METHODS AND PROCEDURES, ACCORDING TO WHICH 94 PARAMETERS ARE DETERMINED



# www.ietu.pl

# **Institute for Ecology of Industrial Areas**

# Water and wastewater

- physicochemical parameters: pH, electrical conductivity, total dissolved substances (TDS), hardness, CODCr, total organic carbon (TOC)
- jons: chlorides, sulphates, orthophosphates, nitrates, nitrites, ammonium ion
- elements: calcium, magnesium, sodium, potassium, iron, manganese, barium, zinc, cadmium, lead, chromium, copper, nickel, cobalt, strontium, mercury, arsenic, selenium, antimony, boron
- polycyclic aromatic hydrocarbons (PAHs): fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b) fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(ghi)perylene, dibenzo(ah)anthracene, indeno (1,2,3-cd) pyrene

# Soil

- physicochemical parameters: pH, electrical conductivity, dry mass, water content
- metals: zinc, cadmium, lead, chromium, copper, nickel, cobalt, barium, molybdenum, tin, mercury, arsenic
- polycyclic aromatic hydrocarbons (PAHs): fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b) fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, benzo(ghi)perylene, dibenzo(ah)anthracene, indeno(1,2,3 -cd)pyrene

# MBT stabilised products, municipal waste, compost

AT4 respiratory activity

# Sludge

- metals: zinc, cadmium, lead, chromium, copper, nickel and mercury
- 🔵 dry residue, water content

# Solid recovered fuels

- biomass, content of chlorine, sulphur, fluorine, mercury, hydrogen and coal
- 🔵 heat of combustion, calorific value

# Municipal and industrial waste\*

- dry matter, water content, loss on ignition, residue on ignition
- 🔵 biomass, chlorine, sulphur and fluorine content
- heat of combustion, calorific value
- water extracts from waste\* pH, electrical conductivity, concentration of total organic carbon, sulphates, chlorides, metals, elements, including mercury and arsenic

 $\ensuremath{^*}$  tests for waste with identification codes specified in the scope of accreditation

# Contact



Research laboratory accredited by PCA, ILAC MRA signatory no. AB 325 performs physicochemical analyses of water, wastewater, waste, solid recovered fuels, soil and sewage sludge



We apply research methods based on PN, EN, ISO and EPA standards as well as our own research procedures.

The quality of the performed tests is confirmed by certified reference materials and regular participation in national and international inter-laboratory research.

Apart from tests referred to in the accreditation IETU laboratory also performs analyses of other physicochemical parameters.

The offer for water, wastewater, soil, sewage sludge, waste and plant material includes the determination of the following parameters:

- sulphides, cyanides, total phosphorus, BZT5, suspensions, Cr<sup>+6</sup> for water and wastewater
- Organic carbon (Tiurin's method)
- assimilated phosphorus and potassium (Egner-Riehm method)
- O available magnesium (Schatschabel's method)
- hydrolytic acidity (Kappen's method)

We offer cooperation in the field of environmental monitoring, environmental remediation as well as implementation of technologies and R&D works.

- granulometry (Prószyński's areometric method)
- 🕤 bulk density
- 📁 cation exchange capacity (CEC)
- 🕤 🛛 nitrogen (Kjeldahl's method)
- 🅤 🛛 soil specific surface area
- fineness, free lime and oxide composition for ashes

Prices of the performed analyses can be negotiated depending on the size of the series.

More information: www.ietu.pl/en/services/ietu-central-laboratory2/

# Contact

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