

THE ATRES GROUP

ANAEROBIC TECHNOLOGY.
REGENERATIVE ENERGY SYSTEMS.

ANALYTICS

Specialized Laboratory

The atres group offers products and services for biogas plant planners, constructors and professional operators. The company stands for individual process engineering and biological solutions with the goal of achieving maximum efficiency and profitability.

RESEARCH

Piloting · Research · Development

atres runs its own independent laboratory in Freising-Weihenstephan that specialises in biogas with modern analytics. Attached is a pilot plant for research and development.

ACADEMY

Seminars · Training

The owner-run company was founded in 2006 by Gunther Pesta after many years of research at the Technical University of Munich in Weiherstephan. His recognised specialist knowledge, the interdisciplinary team of the atres group, and the close cooperation with science and research means that atres works with cutting-edge technology.

CONSULTING

Studies · Engineering

PRODUCTS

Supporting anaerobic processes

This particular competence distinguishes the academy and atres. Customers can use atres to guide them through the entire project - from planning and starting up to operating and expanding a biogas or waste water treatment plant - or just through the individual steps.

Specialist biogas
laboratories · Pilot plant

YOUR INDEPENDENT LABORATORY
WITH FLEXIBLE SERVICE.

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THE ATRES SPECIALIST BIOGAS LABORATORY

Modern equipment, professional team

We are the specialists: in Weihenstephan, atres operates one of the few independent specialist biogas laboratories and offers solutions for specific demands. We focus on the parameters necessary for biological process monitoring in biogas plants.

In the atres specialist labs, all the work is carried out by trained biogas specialists - from the sample taking the communication of the results to the customer.

THE ATRES ANALYSIS

Fast handling, reliable results

We use the most modern analysis equipment: the key analytical processes include gas chromatography, inductive coupled plasma with optical emission spectroscopy (ICP-OES) and photometry. Our wide offer includes:

- short-chained, volatile fatty acids (C₂-C₆)
- trace elements and heavy metals
- total solids (TS) and volatile solids (VS)
- pH and electrical conductivity
- ammonium nitrogen (NH₄-N), total Kjeldahl nitrogen (TKN), total nitrogen (TN)
- volatile organic acids, buffer capacity, FOS/TAC
- chemical oxygen demand (COD), soluble
- COD, total or in solid fraction
- acetic acid equivalent, as evidence to obtain the so-called "dry fermentation bonus" or "Trockenfermentations-Bonus", the technology bonus offered by the German Renewable Energy law (§ 8, Abs. 4 EEG 21. Juli 2004)
- gas quality (CH₄, CO₂, O₂, H₂S)

Feel free to ask us for other services.

We will gladly search for an appropriate laboratory for you.

WEIHENSTEPHAN BIOGAS POTENTIAL TEST WBT®

- biogas yield from feedstocks
- remaining biogas yield from digestate
- remaining biogas potential after 60 days (according to VDI RL 3475 Blatt 4)

The WBT® is our standardised batch anaerobic digestion test following the German norm VDI RL4630. The WBT® delivers reliable data about the gas yield - quantitative and qualitative. The graphic representation of accumulated biogas yield over the course of the test and beyond is a key component of our investigation reports.

The atres academy

We are not satisfied with just keeping touch with technological developments. We stay in close contact with science and research, so that we're always ahead. We are happy to let you benefit from this during courses and training.

In the atres academy we offer seminars as well as training for professional biogas plant operators. We adapt the topics and content to your needs and wishes.



THE ATRES SERVICE

Individual concepts, professional implementation

We have the experience: you can completely rely on the know-how and competence of your personal atres contact person. We develop analysis concepts and implement them professionally. We arrange your individual service package out of the following components:

- sample containers and packaging material
- delivery costs
- individual sampling plan
- notification by telephone of sample collection
- sample collection at your plant using a courier service
- delivery of results within 24 hours
- delivery of results according to your workflow
- consideration of your interfaces

We would be happy to offer you insight into our work: we are an open lab and visits for our customers are possible any time.

THE ATRES OFFER

Completion of our service

The atres pilot plant

The atres pilot plant is perfectly equipped to deal with your diverse questions at laboratory and pilot scale. One of the big advantages of atres is the close contact with science and research.

The atres second-level support

We are there for you when you have difficult or complex problems. We can support you during operation and optimisation in the form of a project or an outline contract.

The atres C-Plus series

The right catalyst for your biogas plant: the liquid additives of the C-Plus series were developed by atres and are among the top products on the market. Using organic chelating complexes we protect the trace elements and increase their biological availability.

Neutral, independent, discreet

We are financially and personally independent from all employers and are associated with small businesses - this is very important to us. This is the only way we can remain free from commercial influences and can guarantee 100% discretion.

The only guidelines for our work are our high quality standards. You can rely on our long experience, modern laboratory equipment, mature logistics system and highly qualified staff.

Quality and control

Our regular and successful participation in inter-laboratory comparison tests confirms top quality experimental procedures and high reliability of the results. The independently co-ordinated comparison with other laboratories is a key element of our regular quality control:

- LfL inter-laboratory tests (national)
 - KTBL inter-laboratory tests (national)
 - Adril inter-laboratory tests (international)
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