

Organigram

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About us

State Institute of Agricultural Engineering and Bioenergy

represents an interface between university research and agricultural practice

Characteristics:

- Practical research
- Special consultancy for farmers
- Technical consultancy for companies
- Training for teaching and consulting staff

Research focus

- Sustainable energy and resource management
- Bioenergy production and network system services
- Bioeconomy research
- Platform chemicals
- Energy applications of residual materials and nutrient management

Research equipment and facilities

- Laboratory for the determination of biogas and methane yields in continuous and batch digesters
- Solid-phase anaerobic digestion in lab scale
- Two-stage anaerobic digestion plants in lab scale
- Batch and continuous high pressure methane reactors up to 200 bars
- Research biogas plant in practical scale (355 kW_{el})
- Process monitoring through gas chromatography, HPLC and TC/IC analysis

Projects

Research topics

- Renewable Energies
- Anaerobic digestion and biogas utilization
- Research into the use of agriculture and food industry byproducts for anaerobic digestion
- Research into mechanical pretreatment of biogas substrates
- Use of trace elements to increase process stability and efficiency
- Effect of enzymes in anaerobic digestion
- Online measurement of process parameters with innovative technology
- Energy efficiency of biogas plants
- Development of two-stage anaerobic digestion processes
- Development of a autogenerative high pressure biogas reactor for the production of a high calorific biogas
- Research into platform chemicals
- Research into the kinetics of anaerobic digestion
- Quantification of the metabolism of microorganisms that participates in anaerobic digestion
- Microbiological hydrogen conversion for biomethane production (Power to Gas)
- Load-dependent Biogas production

Services

- National and international scientific cooperation
- Partnerships for research and development with the agricultural industry
- Co-development and scientific monitoring of agricultural pilot projects



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Hohenheim Biogas Yield Test (left)
 High Pressure fermentation (right)



Horizontal Digesters for Semi-Continuous and Batch-mode (left) / Two-phase anaerobic digestion (right)



Public Relations

Research for agricultural practice

