

## Profil

The Laboratory for Materials Testing of the Bielefeld University of Applied Sciences was headed by Prof. Dr. Wolf-Berend Busch from 2000 to 2015 and was then officially handed over to Prof. Dr. Thomas Kordisch.

Main topic of the Laboratory for Materials Testing is the efficient and material-compliant application of materials in different fields of mechanical engineering. To achieve these goals, different groups of materials, like steel, nonferrous metals, composites, and hybrid materials are investigated in order to determine their properties, characteristic material values, as well as the relevant damage mechanisms.

For this purpose, mechanical and non-destructive testing, microstructural and metallographic investigations as well as corrosion tests are applied.

Bachelor- and Master-Students have the possibility to use conventional testing methods and modern equipment while carrying out projects within their studies or final theses. By doing this they got a first impression of ongoing research projects.

Prof. Dr. Kordisch is a founding member of the Bielefeld Institute for Applied Materials Research (BIFAM). In this institute, synergy effects are used through interdisciplinary cooperation and innovative solutions related to the topic "materials" are developed.



## Contact

### Laboratory for Materials Testing

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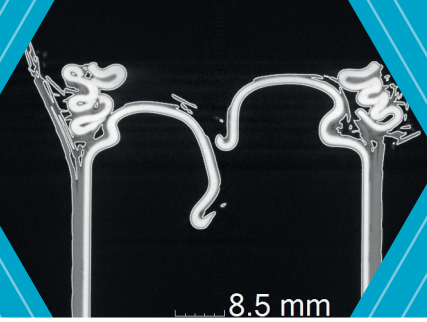
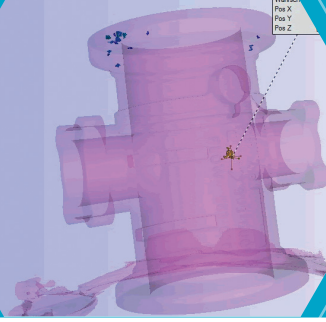
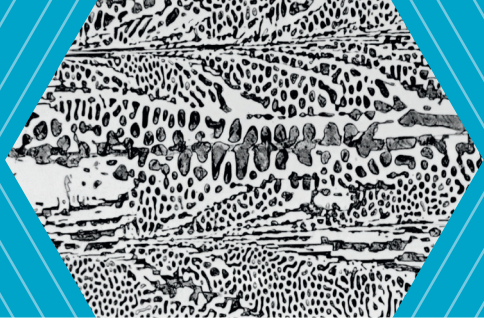
## Laboratory



Faculty of  
Engineering and Mathematics

## Laboratory for Materials Testing

**FH Bielefeld**  
University of  
Applied Sciences



## Technical Equipment

- Universal Testing Machines with a load range up to 600 kN
- Servohydraulic Testing Machine up to 100 kN
- Charpy Impact Testing up to 300 J
- Hardness Measurement (Rockwell, Vickers, Brinell)
- Scanning Electron Microscopy with EDX
- Optical Microscopy
- Spectral Analysis
- Salt Spray Test
- Climate Test Chamber

## Technical Equipment

- X-Ray Facility with Computed Tomography Unit
- Ultrasonic Testing
- Penetrant Testing
- Magnetic Leakage Flux Testing
- Multifunctional Device: Fischerscope
- Metallography
- Chamber Furnace up to 1280 °C
- Air Circulation Furnace up to 850 °C

## Courses and Key Working Areas

### Courses in Bachelor- and Master-Studies:

- Materials Engineering
- Materials Science and Testing
- Fatigue Behaviour
- Light Weight Materials
- Fibre-Reinforced Plastics
- Specific Projects, Practical Courses, Final Theses (Bachelor and Master)

### Key Working Areas:

- Characterisation of Materials
- Fatigue Behaviour
- Light Weight Materials and Hybrid Materials
- Investigation of Damage Mechanisms
- Failure Analysis

