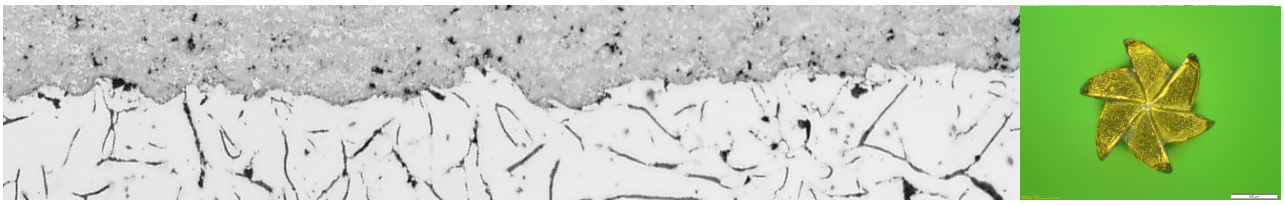
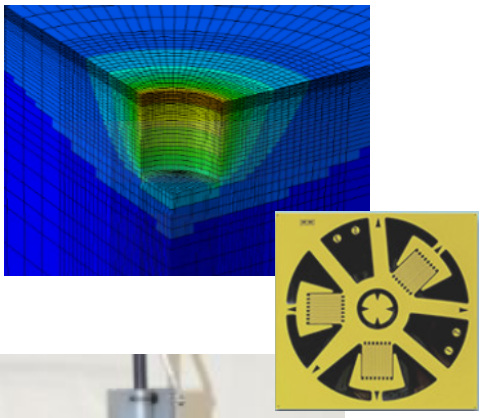


In the laboratory for materials science, laser and joining technology, we not only offer the opportunity to carry out procedures and processes, but also to qualify and examine them. In this way, conclusions can be quickly drawn about the properties and quality of manufactured components. We offer good equipment and uncomplicated interdisciplinary teamwork.

One focus in the investigation of components is the determination of residual stress states in components. Residual stresses are stresses that inevitably arise during the production of components, for example during welding, and can have a significant influence on component properties. In this field, we continuously offer both bachelor's and master's theses, as well as individual study projects.

Thesis (Bachelor/Master)

Further development of the hole drilling method for experimental determination of residual stress states



The thesis can focus on one or more of the following topics:

- Simulation of the borehole method using FEM (abaqus) to determine calibration data
- Further development of the test rig and the associated software, programming of data acquisition using LabVIEW
- Execution of borehole tests Components manufactured by laser deposition welding

If you are interested, please contact us.

Contact:

Prof. Dr.-Ing. Esther Held
Materials Engineering
Department of Technology – Mechanical Engineering
Room T231 /T53
Constantiaplatz 4
26723 Emden
Phone +49 4921 807-1425
» esther.held@hs-emden-leer.de