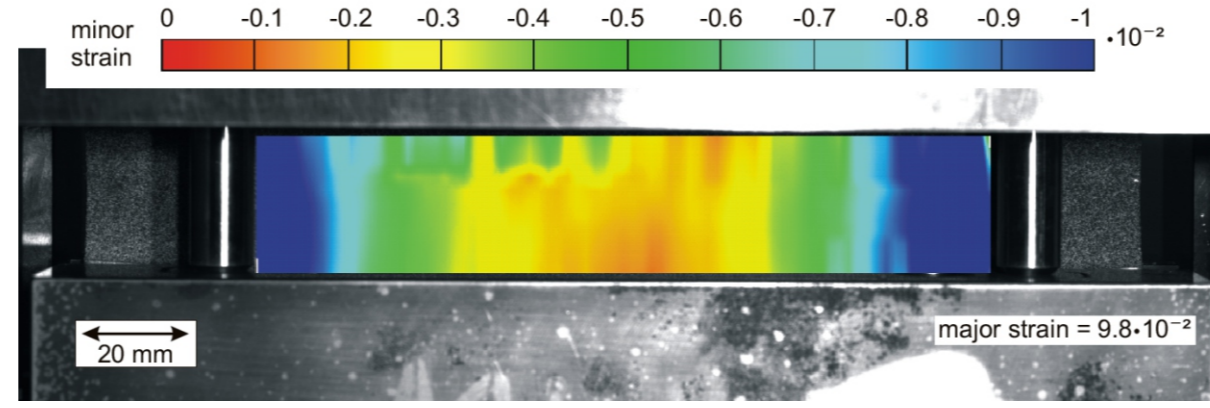


Electro- and electroless plating

- anodic oxidation
- plasma anodic oxidation
- electrolytic deposition
- chemical deposition

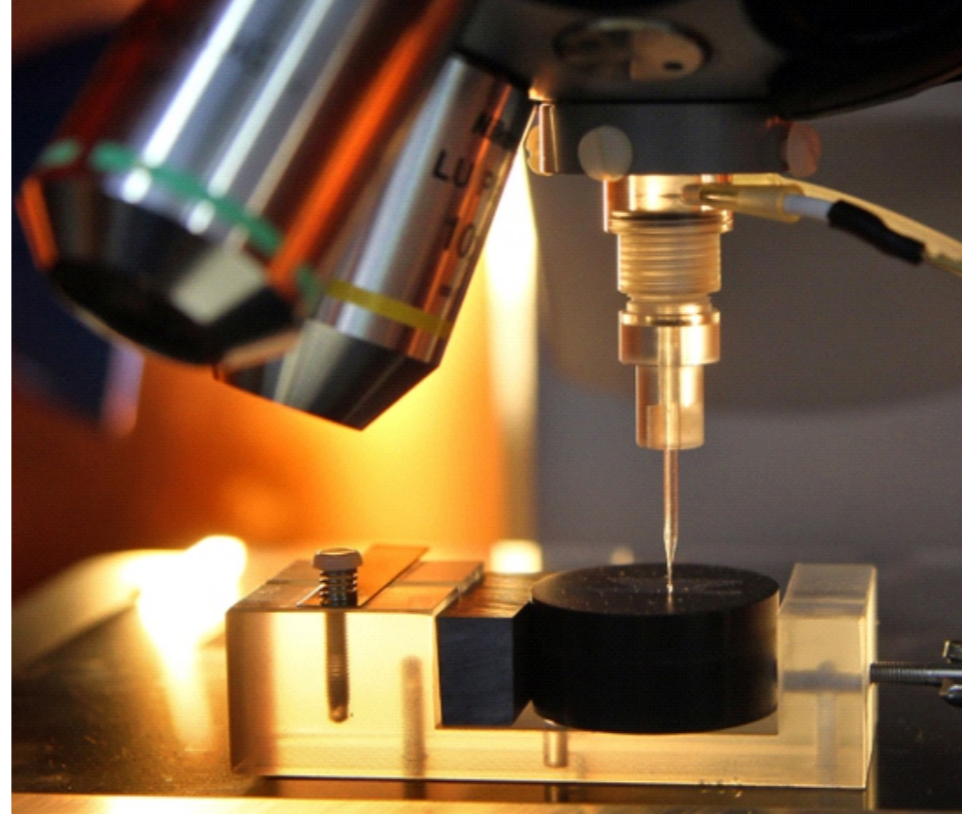


Fatigue and wear behavior

- wear testing of different length-scales
- scratch testing and nanoindentation

Bonding technologies

- soldering light metals
- joining of composite materials
- process development and optimization

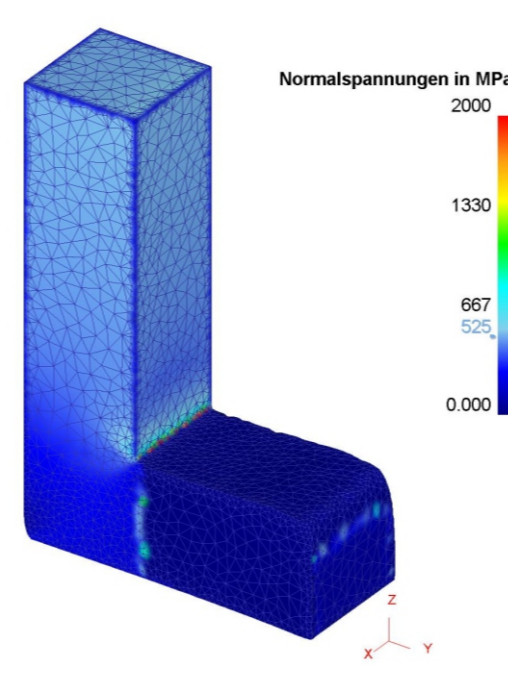
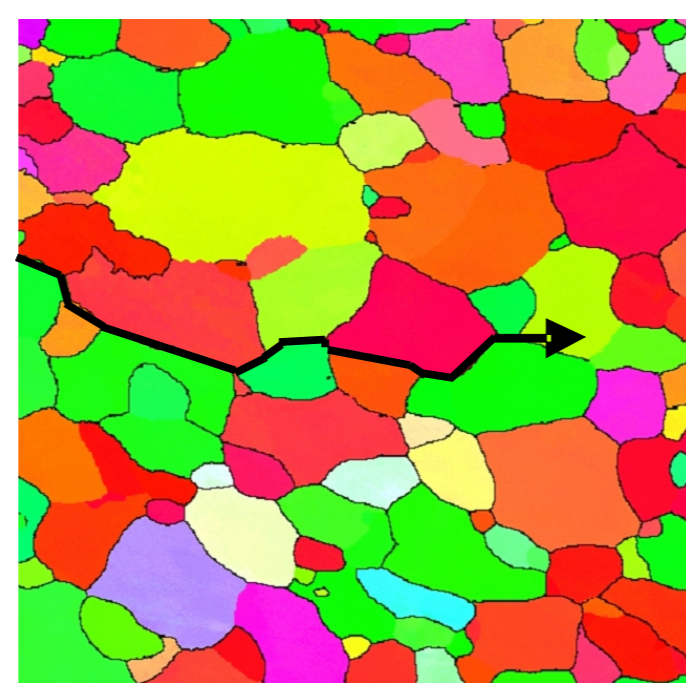


Corrosion science

- micro- and macro-electrochemical methods
- environmental tests with varying humidity, temperature and UV-ray intensity

Characterization of microstructure

- scanning electron microscopy
- transmission electron microscopy
- X-ray diffraction
- ...



Modelling and simulation

- finite element method
- process optimization
- calculation of material properties
- ...

New hybrid materials

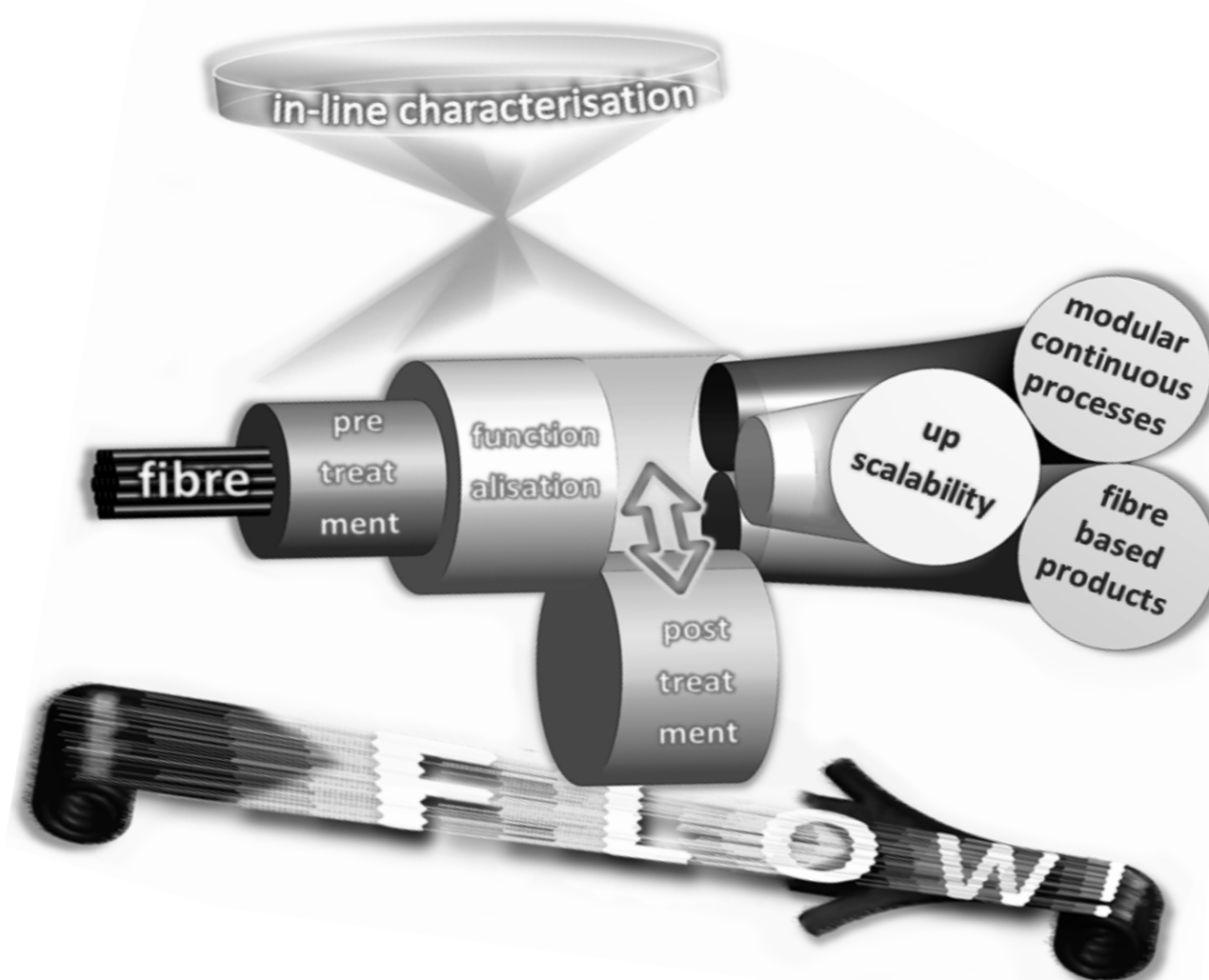


New properties

New applications

Approach:

- modular design
- continuous processes
- lightweight materials
- high flexibility
- integration of new processes in existing technologies
- scalability



Aims:

- multifunctional materials
- resource efficiency
- environmental friendliness
- recyclability

