



Hochschule  
Kaiserslautern  
University of  
Applied Sciences

Applied Research Center

Highly Efficient Technical Systems



## Equipment at the department Materials Science and Materials Testing WWHK

### **Mechanical materials testing:**

Various testing machines (electromechanical, servo-hydraulic) (up to 160 kN dynamic, up to 400 kN quasi-static), equipped with optical and electrical sensor systems (e.g. strain measurement, thermography, resistometry, magnetic field sensors).

### **Material characterization:**

Fully equipped metallography laboratory (including microhardness testing), with various stereo, reflected light and confocal microscopes as well as 2D surface perthometers.

### **Analytics:**

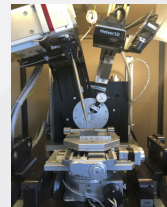
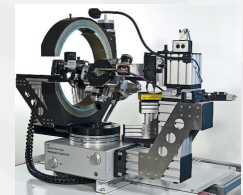
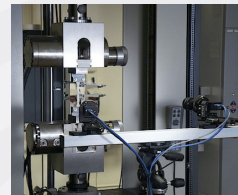
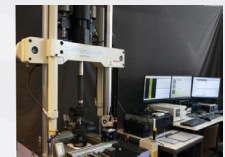
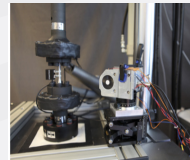
2 x-ray diffractometers, atomic force microscope, scanning electron microscope (user group on campus Zweibrücken), spectral analysis.

### **Material treatment:**

Heat treatment furnaces (up to 1200°C, vacuum).

### **Non-destructive testing:**

Thermography, high frequency pulse analysis, Barkhausen noise, ultrasonic testing, various magnetic field sensors.



Laboratory equipment at WWHK

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