

MRD Industry Day 2024

Science for Innovation



May 16, 2024

Ruhr-Universität Bochum, ZGH



Materials
Research
Department



MATERIALS
ENGINEERING SCIENCE



**Materials
Research
Department**

Schedule

8:30 - 9:00 am **Registration and Morning Lounge**

9:00 - 9:10 am **Opening**
Günther Meschke - *Ruhr-Universität Bochum*
Vice rector for research and transfer

Session 1: Materials Informatics

9:10 - 9:30 am **Markus Stricker** - *Ruhr-Universität Bochum*
Improving materials characterization by combining existing methods with machine learning

9:30 - 9:50 am **Alfred Ludwig** - *xemX*
Data-driven development of materials for electrochemical processes

9:50 - 10:10 am **Peter-Christian Zinn** - *Industrial Analytics Lab*
Automated characterization of particle-like structures in light and electron microscopic image data

10:10 - 10:40 am **Coffee Break**

Session 2: Condition Monitoring

10:40 - 11:00 am **Inka Mueller** - *Hochschule Bochum*
Structural health monitoring – how a symphony of sensors become guardians of structures

11:00 - 11:20 am **Lisa Schmitt** - *mechIC*
Mechanical integrated circuits – mechIC: We build sensors that do not need electrical energy

11:20 - 11:40 am **Elisabeth Schloten** - *KIOTERA*
Real life examples and benefits of condition monitoring in manufacturing

11:40 - 1:10 pm **Lunch Break at Q-West**

Session 3: Laser Technologies

1:10 - 1:30 pm **Andreas Ostendorf** - *Ruhr-Universität Bochum*
From precision to ultra-precision by shorter laser pulses

1:30 - 1:50 pm **Célia Millon** - *RayVen*
RayVen, a 2.1 μm ultrafast laser innovation

1:50 - 2:10 pm **Oliver Prochnow** - *VALO Innovations-A Part of Hübner Photonics*
New ultrafast lasers for biomedical imaging

2:10 - 2:40 pm

Coffee Break

2:40 - 3:40 pm

Founders Talk

Michelle Twardzik - *Worldfactory Start-up Center*

Alexander Kanitz - *Lidrotec*

Innovative laser technology in cutting microchips and devices for a variety of industries

Célia Millon - *RayVen*

Ultrafast lasers emitting at 2.1 μm wavelength enabling material processing and surgery

Philip Schmitt - *mechIC*

Pioneering strain sensors for energy-independent, fail-safe, robust, and easy to integrate component monitoring

3:40 - 4:00 pm

Coffee Break

4:00 - 4:30 pm

**Lab Tour at the
Center for Interface-Dominated
High Performance Materials (ZGH)**
including

Cleanroom, Scanning Electron Microscope,
Focused Ion Beam, Transmission Electron Microscope,
Atom Probe Tomography

Partners



Materials Science Transfer

In the **Materials Research Department** (MRD) researchers from various disciplines develop novel materials with previously untapped properties, cooperating with international research institutions.

The **Incubator Materials** forms part of the start-up consulting network at RUB, the Worldfactory Start-up Center (WSC), promoting *sciencepreneurs* with innovations in materials science.

Stay in Touch



You are interested in transfer and want to become part of the ecosystem?



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Upcoming Events in 2024

June 11	Early Career Researchers Day
June 26	ChemInnovation Summit
July 25	WSC Founders Talk
September 12	Materials Chain International Conference