

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

Materials Informatics

Session Chair: Santiago Benito

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

Condition Monitoring

Session Chair: Claudia Bock

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

Laser Technologies

Session Chair: Ilia Tumkin

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

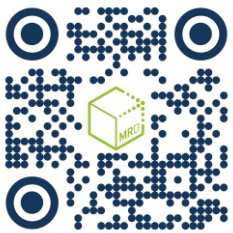
Partners

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?



Contact:
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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

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