

Partner

This event is jointly organized by:

European Space Agency (ESA)
Human Spaceflight,
Microgravity and Exploration



Max-Planck-Institut für Eisenforschung GmbH



Deutsches Zentrum für Luft- und Raumfahrt (DLR) e.V.



Contact

Workshop Location:

Max-Planck-Institut für Eisenforschung GmbH
Max-Planck-Straße 1
40237 Düsseldorf
Germany

Phone (Reception):
+49 - (0)211 - 6792-0

Organisation:

SPRINT Initiative Project Office
Rüngsdorfer Str. 17
53173 Bonn
Germany

Phone: +49 - (0)228 - 36886-0
Fax: +49 - (0)228 - 36886-66
Email: info@kbp-bonn.de

Map of the Region



Local Map



Invitation

The European Space Agency (ESA) and the German Aerospace Center (DLR) in cooperation with the Max Planck Institut für Eisenforschung (MPIE) are pleased to invite you to a workshop titled:

Industry Forum for Material Research and Microgravity

The workshop will take place on:

**Thursday, 8 May 2008,
10.00 - 16.15 hours**

at the Max Planck Institut für Eisenforschung GmbH, Düsseldorf, Germany.

The workshop language is German. The participation is free of charge.

Background

Space for Innovation

Gravity can be undesirable in certain industrial production processes, which are dominated by the distorting effects of gravity. Therefore, the solutions to scientific questions can be applied to practical problems, potentially leading to the discovery and introduction of new processes with a major industrial and economic impact.

For example, melting and solidification are strongly influenced by gravity-driven processes. The opportunity to investigate e.g. thermophysical properties of technical alloys under microgravity can help to gain better data for computer aided simulations or to develop a more fundamental understanding of the production process. This possibly leads to an improvement of the product quality or to the introduction of new products with superior properties.



Space for Innovation

Industry Forum for Material Research and Microgravity

Thursday, 8 May 2008

10.00 - 16.15

Duesseldorf

Germany

**Workshop Language:
German**



9:45 – 10:00

Registration

10:00 – 10:10

Welcome

Prof. Georg Frommeyer, Max-Planck-Institut für Eisenforschung GmbH

10:10 – 10:25

Introduction – Objectives of the Day

Dr. Andreas Diekmann, European Space Agency (ESA)

Dr. Hartmut Ripken, German Space Agency (DLR)

10:25 – 10:45

Innovation: Critical Success Factors for Industries

Stefan Reschke, Fraunhofer-Institut für naturwissenschaftlich-technische Trendanalysen (requested)

10:45 – 11:10

Microgravity – a “Tool” for Industrial Research

Martin Zell, European Space Agency (ESA)

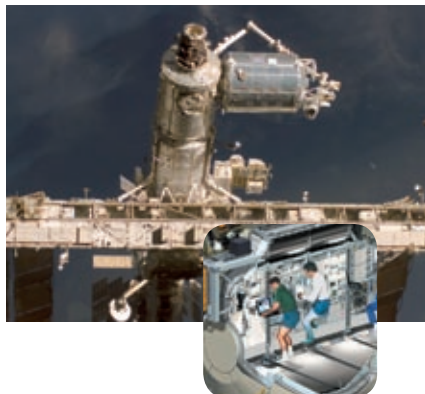
11:10 – 11:30

Development of High-Temperature Titanium and Nickel Aluminium Intermetallics based on Microgravity Processing

Prof. Dr. Georg Frommeyer, Max-Planck-Institut für Eisenforschung GmbH



11:30 – 11:45 **Coffee Break**



11:45 – 12:05

Material Research with the TEMPUS Facility on Parabolic Flights and Sounding Rockets

Prof. Dr. Ivan Egry, German Aerospace Center (DLR)

12:05 – 12:25

High-Performance Soft Magnetic Iron-Silicon Alloys for Industrial Applications Processed under Microgravity

Dr. Frank Stein, Max-Planck-Institut für Eisenforschung GmbH

12:25 – 12:45

Innovation through Microgravity Research – Testing Aluminium Alloys in Space

Gerd-Ulrich Grün, Hydro Aluminium Deutschland GmbH

12:45 – 14:00 **Lunch Break**

14:00 – 14:20

Electro-Magnetic Levitator Research Facilities: Experiment Execution on board of Parabolic Airplane, Sounding Rocket and International Space Station

Dr. Jörg Piller, EADS Astrium Space Transportation

14:20 – 14:40

Plasma – Application oriented Research supported by Microgravity

Dr. Hubertus Thomas, Max-Planck-Institut für extraterrestrische Physik

14:40 – 15:00

Aerogels

15:00 – 15:20

Financing, Networks and Support

Dr. Michael Massow, Commercial Agent ESA

15:20 – 15:40

Outlook – First Steps towards Industry-driven Experiments

Peter Bütfering, Commercial Agent ESA

15:40 – 16:00

Discussion



16:00 – 16:15 **Closing Remarks**
