Registration

We kindly ask you to register until 15 November 2007 at

Department of Physical Metallurgy and Materials Testing
University of Leoben

Franz-Josef-Straße 18
A-8700 Leoben

Tel.: +43 3842 402 4201
Fax: +43 3842 402 4202

E-mail: imw-forschung@mu-leoben.at

Titel .....

First name .....

Family name .....

Affiliation .....

Tel./Fax .....

E-mail .....

Participation: Dec. 4 ☐ Dec. 5 ☐

Accomodation: Please contact directly the hotels listed below and ask for University rates.

Hotel Kindler Leoben (www.kindler.at)
Hotel Kongress Leoben (www.hotelkongress.at)

Other accomodations can be found at *www.leoben.at*

Invitation

Symposium on

“Microstructural Characterisation down to the Atomic Scale”

on the occasion of the opening of the 3D atom probe with laser pulse module

4 - 5 December 2007

Department of Physical Metallurgy and Materials Testing
University of Leoben

www.mu-leoben.at

Presentation

University of Leoben

The commercialisation of nanotechnology presents unique challenges to researchers and industry around the globe. Thus, new analytical technologies are required to analyse high-performance materials at the atomic scale.
Recently, a 3D atom probe (LEAP 3000X HR) which combines 3D atomic scale structural information with elemental composition was installed at the Department of Physical Metallurgy and Materials Testing at the University of Leoben. Additionally, a picosecond pulsed laser can be used to initiate field evaporation, allowing analysis of less conductive materials such as ceramics and semiconductors.
The symposium “Microstructural Characterisation down to the Atomic Scale” is held on the occasion of the inauguration of the new 3D atom probe at the University of Leoben. It aims to bring together people from academia and industry to discuss and exchange the applicability of the 3D atom probe. Moreover, additional analytical techniques are presented which also allow materials characterisation down to the atomic scale. In combination these methods provide a comprehensive understanding of the constitution of complex engineering materials.

Tuesday, 4 December 2007

16:00 Uhr **Come together and welcome**

Presentation of the 3D atom probe (LEAP 3000 X HR)

Styrian buffet

Wednesday, 5 December 2007

08:30 Uhr Welcome
Prof. Dr. Helmut Clemens, University of Leoben

08:40 Uhr Atom Probe Tomography: Basic Principles and Developments
Prof. Dr. Alfred Cerezo, University of Oxford

Program

Department of Physical Metallurgy and Materials Testing

09:25 Uhr Atomic Scale Characterisation of Functional Materials
Dr. Tom Kelly, Imago Scientific Instruments

10:10 Uhr Coffee break

10:30 Uhr Engineering Materials at the Atomic Level
Dr. Frédéric Danoix, University of Rouen

11:15 Uhr Energy-filtered Transmission Electron Microscopy in Materials Science
Prof. Dr. Ferdinand Hofer, Graz Centre for Electron Microscopy

12:00 Uhr Lunch

13:30 Uhr Aberration corrected TEM of Solid-Solid and Solid-Liquid Interfaces
Prof. Wayne D. Kaplan, Israel Institute of Technology, Haifa

14:15 Uhr In-situ Characterisation of Creep Damage Evolution in Metallic Materials using Synchrotron Tomography
Prof. Anke Pyzalla, Max-Planck-Institut für Eisenforschung

15:00 Uhr Small-Angle Neutron Scattering for the Analysis of Nano-Particles
Dr. Peter Staron, GKSS Research Centre Geesthacht

15:45 Uhr Coffee break

16:15 Uhr Presentations of young scientists of the Department of Physical Metallurgy and Materials Testing

17:15 Uhr Closing remarks