



14th of July 2009

Austrian most powerful transmission electron microscope

Inauguration on 6th of July 2009 / Summer School from 7th – 10th of July 2009



The most powerful Austrian transmission electron microscope was inaugurated with a symposium on the 6th of July 2009. From 7th to 10th of July 2009 an International Summer School dealing with micro-mechanical experiments took place at the Erich Schmid Institute of Materials Science.

Picture: ESI

The transmission electron microscope JEM JEOL 2100F, installed at the Erich Schmid Institute of Materials Science (ESI) of the Austrian Academy of Sciences (ÖAW) and the Department of Materials Physics, achieves a resolution below 0.14 nanometers, enabling scientific research on the atomic scale.

Inauguration – Symposium on 6th of July 2009

The official inauguration of the transmission electron microscope took place in the Aula of the University of Leoben. The symposium started with introductory words from Wolfhard Wegscheider, the rector of the University of Leoben, followed by Kurt Komarek, a member of the ÖAW as a representative of the Presiding Committee and Gerhard Dehm, director of the ESI and head of the Department of Materials Physics of the University of Leoben. International experts from Berkeley, USA (Andrew Minor), Liverpool, England (Andrew Bleloch), Ljubljana, Slovenia (Miran Ceh) and Ulm, Germany (Ute Kaiser) gave scientific lectures and afterwards, all electron microscopes, available at the ESI, were presented during a lab tour.

International Summer School from 7th to 10th of July 2009

The ESI invited to a summer school on small-scale testing, which was co-organised with Steve Roberts from the Department of Materials (University of Oxford). Experts from Great Britain, Germany, Switzerland, United States of America and from the ESI gave lectures on the fundamentals of micromechanical experiments and state-of-the-art methods. These methods are capable of answering questions in the field of microelectronics, sensors and diagnostics – including the needs of a future fusion reactor such as ITER.

Erich Schmid Institute of Materials Science

The Erich Schmid Institute of Materials Science of the Austrian Academy of Sciences and the Department of Materials Physics of the University of Leoben are engaged in investigation complex materials from the macro- down to nano-dimensions. The aim of the research is to gain a deeper understanding of the dependence of materials properties on the structure of materials. For this purpose, electron microscopy, X-ray- and synchrotron-techniques as well as in-situ experiments are developed to gain new insights into the microcosm of materials and to transfer them to novel material physics concepts.

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