



TECHNISCHE
UNIVERSITÄT
WIEN

Vienna University of Technology

INSTITUT FÜR
ANGEWANDTE PHYSIK
Institute of Applied Physics
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IAP-SEMINAR

EINLADUNG

Termin: **Dienstag, 14.1.2014 um 16:00 Uhr**
Ort: **Technische Universität Wien,
Institut für Angewandte Physik,
Seminarraum 134A, Turm B (gelbe Leitfarbe), 5. OG
1040 Wien, Wiedner Hauptstraße 8-10**

Vortragende: **Dipl.-Ing. Katharina Dobes**
TU Wien, IAP

Thema: **Erosion of Fusion Relevant Surfaces Under Ion Impact**

Kurzfassung

The international thermonuclear experimental fusion reactor ITER is currently under construction in the south of France. Its aim is to demonstrate the feasibility of using nuclear fusion as a safe and eco-friendly source for energy production. One of the greatest challenges in the successful realization of the ITER project, is handling the interaction of the hot fusion plasma with the walls of its vacuum vessel.

At the Institute of Applied Physics we study plasma-wall-interaction phenomena under controlled laboratory conditions using a highly sensitive quartz crystal microbalance technique. By this we are able to investigate the evolution of fusion relevant surfaces under impact of ions which will be present in the fusion plasma. These in-situ studies give us a unique insight into the dynamics of material mixing, erosion phenomena and particle retention processes. After a short introduction into the key concepts of fusion research, some of our experimental results will be presented.

*Alle interessierten Kolleginnen und Kollegen sind zu diesem Seminar
(45 min mit anschließender gemeinsamer Diskussion) herzlich eingeladen.*

*F. Aumayr e.h.
(Seminar-Chairperson)*

*H. Störi e.h.
(LVA-Leiter)*