

EINLADUNG

zum Vortrag von

Dr. Christian Linsmeier
Max-Planck-Institut für Plasmaphysik
Garching bei München, Deutschland

Material Challenges and Solutions for Nuclear Fusion

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Dienstag, 8. März 2011, um 17.30 Uhr

Ort: Lise-Meitner-Hörsaal, Fakultät für Physik, Universität Wien,
1090 Wien, Strudlhofgasse 4 / Boltzmannngasse 5, 1. Stock

Barrierefreier Zugang: Boltzmannngasse 5, Lift, 1. Stock rechts über den Gang zum Hintereingang des Hörsaals

Abstract:

Plasma-wall interaction processes and the high heat and particle fluxes to the wall components determine the material selection for the next generation of fusion devices. New material concepts are required in order to achieve the compatibility of the first wall with the plasma, to facilitate the removal of the thermal power, as well as to guarantee the passive safety of a fusion power plant. Besides carbon-based materials of today's fusion experiments, beryllium as well as tungsten-based materials are foreseen for ITER and following fusion reactors. The presentation will illuminate the material requirements, demonstrate several innovative material concepts, and describe advanced analysis approaches in order to characterize the materials and components with respect to their various properties.

CHEMISCH-PHYSIKALISCHE GESELLSCHAFT

c/o Universität Wien, Fakultät für Physik, 1090 Wien, Strudlhofgasse 4/Boltzmannngasse 5, Austria
Tel.: +43-(0)1-4277/51108 - Fax: ++43-(0)1-4277 9511 - E-Mail: Christl.Langstadlinger@univie.ac.at
<http://www.cpg.univie.ac.at>

Konto: Bank Austria Nr. 08644408000 - BLZ 12000 - IBAN: AT22 1100 0086 4440 8000 - BIC: BKAUATWW
Vorsitzender 2010/11: Ao.Univ.Prof. Dr. Peter Mohn, Institut für Angewandte Physik, TU Wien