TECHNISCHE UNIVERSITÄT WIEN
Vienna University of Technology

INSTITUT FÜR ANGEWANDTE PHYSIK
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IAP-SEMINAR

EINLADUNG

Termin: **Dienstag, 20.3.2012 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

Vortragender: **Prof. Mirko Černák**
Department of Physical Electronics, Masaryk University
Brno, Czech Republic

Thema: **Mechanism and applications of Diffuse Coplanar Surface Barrier Discharge**

Kurzfassung

In a contrast to common plasma applications for surface modifications of high-added value materials for microelectronics, medicine, etc. a novel type of atmospheric plasma source based on the Diffuse Coplanar Surface Barrier Discharge (DCSBD) developed at Masaryk University, Brno and Comenius University, Bratislava makes possible low-cost in-line treatment of a wide scale of standard flat and web materials.
Advantageously in comparison to competitive plasma techniques this plasma source is capable of generating visually uniform “cold” high-power-density diffuse plasmas in any working gas, including ambient air and atmospheric-pressure oxygen, without the use of He or Ar. Very high plasma power densities achieved (~100 W/cm^3) allows for short plasma exposure times on the order of 0.1 s and, consequently, high treatment speeds.
In the talk the basic physical mechanism of DCSBD and results on in-line air-plasma polypropylene fabrics activation, inorganic nanofibers calcination, glass, ITO and Al surface cleaning, and other applications will be discussed.

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

H. Störi e.h.
(LVA-Leiter)