



TECHNISCHE
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IAP-SEMINAR

EINLADUNG

- Termin: **Dienstag, 11.1.2011 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. Asena Kuzucan**
Cern/CH
- Thema: **Secondary Electron Yield on Cryogenic Surfaces as a
function of physisorbed gases**

Kurzfassung

In LHC the electron cloud (EC) induced by photoelectrons, gas ionization and secondary electrons emitted from the beam pipe walls could be a limitation of the performance. The EC induces heat load on the cryogenic system, causes pressure rise, emittance growth and beam instabilities, which in the end will limit the beam's lifetime. The secondary electron yield (SEY) is one of the key parameters for the electron cloud build up and the multipacting phenomenon. It has been extensively studied on room temperature samples but uncertainties remain for samples at cryogenic temperature. Indeed, at low surface temperature SEY is strongly dependent on the nature of the physisorbed gases and on the surface coverage. In this work the SEY of different physisorbed gases (N_2 , Kr, CH_4 , CO, CO_2 , C_2H_6) on copper and aluminium samples has been measured and discussed.

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

*H. Störi e.h.
(LVA-Leiter)*