



TECHNISCHE
UNIVERSITÄT
WIEN

Vienna University of Technology

INSTITUT FÜR
ANGEWANDTE PHYSIK
Institute of Applied Physics
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IAP-SEMINAR

ANNOUNCEMENT

- Date: **Tuesday, 16.2.2016**
Time: **16:00 p.m.**
Location: **Technische Universität Wien, Institut für Angewandte Physik, E134**
yellow tower „B“, 5th floor, Sem.R. DB gelb 05 B (room number DB05L03), 1040 Wien, Wiedner Hauptstraße 8-10
- Lecturer: **Prof. Dr. Thomas Greber**
Physik-Institut der Universität Zürich/CH
- Subject: **Let's go 2D: From Nanomesh in the Vacuum to Smart Membranes in Liquids**
- Abstract: In the slipstream of graphene, hexagonal boron nitride emerged as an other important two dimensional material with similar stability and lattice constant, though as an insulator with different affinity to ions. I will briefly review the single layer of h-BN superhoneycomb on rhodium metal (nanomesh) as a significant modifier of the surface properties. Then recent results of the use of this interface system in view of an ultimately thin membrane are discussed. Intercalation of hydrogen in vacuum and in a liquid electrolyte are first examples. I will also show on how we produce 2 nm holes (nanovoids) in the nanomesh with the can-opener effect, how such single domain h-BN may be exfoliated and how it may eventually be applied as smart membranes to come.

*All interested colleagues are welcome to this seminar lecture
(45 minutes presentation followed by discussion).*

*U. Diebold e.h.
(Seminar-Chairperson)*

*H. Störi e.h.
(LVA-Leiter)*