

# EINLADUNG

zum Vortrag  
von

**Prof. Dr. Thomas Greber**  
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CH

**Let's go 2D: From Nanomesh in the Vacuum to Smart Membranes in Liquids**

am

**Dienstag, 16. Februar 2016, um 16:00**

Technische Universität Wien, Institut für Angewandte Physik, E134  
yellow tower „B“, 5<sup>th</sup> floor, Sem.R. DB gelb 05 B (room number DB05L03),  
1040 Wien, Wiedner Hauptstraße 8-10

## 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.

**FWF SFB F45 „Functional Oxide Surfaces and Interfaces (FOXSI)“**

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