



TECHNISCHE  
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Vienna University of Technology

INSTITUT FÜR  
ANGEWANDTE PHYSIK  
Institute of Applied Physics  
vormals/formerly  
Institut für Allgemeine Physik



Wiedner Hauptstraße 8-10/E134, 1040 Wien/Vienna, Austria – Tel: +43 1 58801 13401 / Fax: +43 1 58801 13499 – E-mail: [office@iap.tuwien.ac.at](mailto:office@iap.tuwien.ac.at) / <http://www.iap.tuwien.ac.at>

# IAP-SEMINAR

## EINLADUNG

Termin: **Dienstag, 3.5.2011 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**

Vortragender: **Bernhard Stöger**  
TU Wien, IAP

Thema: **Graphene grown on Ni(111)**

### Kurzfassung

The atomic structure of graphene grown on the Ni(111) surface was investigated by Scanning Tunneling Microscopy (STM). Graphene layers were prepared by the decomposition of toluene. With the help of STM, growth conditions were determined to produce the regular honeycomb structure. However, each graphene layer showed some defects and different rotational relationships with the underlying substrate, resulting in moiré patterns. The most common defects were point defects on the graphene layer, bubbles, wrinkles and ripples of the graphene film. Bulk dissolved carbon segregates to the surface upon cooling, forming nickel carbide patches, which strongly influence the local epitaxial match. Areas adjacent to the interfacial carbide are highly disordered.

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

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

*H. Störi e.h.  
(LVA-Leiter)*