

# FORNEL

Bavarian Research Cooperation for Nanoelectronics

## 2<sup>nd</sup> FORNEL Workshop on Nanoelectronics

Würzburg, March 15, 2006

Invitation and Preliminary Program



Bayerische  
Forschungsförderung



## **2<sup>nd</sup> FORNEL Workshop on Nanoelectronics Würzburg, March 15, 2006**

In all technical fields and in almost every aspect of life including health care, mobility, safety and security, communication, as well as entertainment micro and nanoelectronics play an essential role. From a social and economic point of view, innovations in nanoelectronics have a tremendous impact. Due to the fast development of microelectronics associated with the transition to nanoelectronics, however, physical and economic limits will soon be reached. To guarantee the maintenance of technological competitiveness, we have to face these challenges for the realization of novel electron devices and circuits on a nanometer scale.

The Bayerische Forschungsstiftung stays abreast of this development by the support of the Bavarian Research Cooperation for Nanoelectronics (FORNEL), an association of partners from industry and academia which started its work in 2004 and has established itself as an efficient and successful network of Bavarian nanoelectronics research.

Results of FORNEL but also other important topics from nanoelectronics with international high-class speakers will be presented at the 2<sup>nd</sup> FORNEL Workshop on Nanoelectronics to be held in Würzburg on March 15, 2006. The talks cover top issues of research with industrial relevance. We cordially invite you to participate in the workshop. A program of the workshop is included.

Please return the attached reply form by fax or mail to the indicated address not later than February 28, 2006.

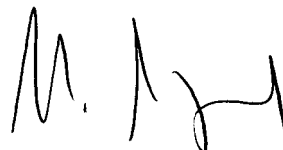
Looking forward to seeing you in Würzburg!

With best regards,



Prof. Dr. Alfred Forchel

University of Würzburg



Prof. Dr. Heiner Ryssel

University of Erlangen-Nuremberg  
Fraunhofer IISB, Erlangen

Speaker of FORNEL

## 2<sup>nd</sup> FORNEL Workshop on Nanoelectronics Würzburg, March 15, 2006

- 9:00 **Welcome and Presentation of FORNEL**  
A. Forchel, University of Würzburg, and H. Ryssel, University of Erlangen-Nuremberg
- 9:15 **Vertical Field Effect Transistors**  
L. Höllt, Bundeswehr University, Munich
- 9:45 **X-ray Detectors**  
J. Kemmer, KETEK, Munich
- 10:15 **Y Transistors**  
L. Worschech, University of Würzburg
- 10:45 **Nanotechnology: Challenges for Future MOSFET Generations**  
J. Lindolf, Infineon Technologies, Munich
- 11:15 *Coffee Break*
- 11:30 **Roadmap of Organic Devices: From OLEDs to Charge Transport through Single Molecules**  
W. Riess and H. Riel, IBM Zürich
- 12:00 **Molecular Devices, Circuits, and Architectures**  
P. Lugli, F. Brunetti, G. Csaba, C. Erlen, and G. Scarpa, TU Munich
- 12:30 **Nanowire Technology and Characterization**  
P. Pauzauskie, University of Berkeley
- 13:00 *Lunch*
- 14:00 **Atomic Layer Deposition of Silicon Nitride**  
B. Fabel, TU Munich
- 14:30 **Hafnium Silicate Layers as High-k Gate Dielectrics for Future CMOS Generations**  
M. Lemberger, University of Erlangen-Nuremberg
- 15:00 **Silicate Formation in High-k Dielectric Layers**  
D. Schmeißer, Cottbus
- 15:30 **Achieving Ultra Low-k Dielectric Constants for Nanoelectronic Interconnect Systems**  
T. Gessner and S. E. Schulz, Fraunhofer IZM, Chemnitz
- 16:00 *Coffee Break*
- 16:15 **State of the Art: Nanoimprint Lithography by Suss MicroTec**  
S. Hansen, Suss MicroTec, Garching
- 16:45 **UV Polymers for Nanoimprint Lithography**  
H. Schmitt, University of Erlangen-Nuremberg, and C. Lehrer, Fraunhofer IISB, Erlangen
- 17:15 *Coffee Break*
- 17:30 **Mesoscopic Fluctuations of Nonlinear Conductance**  
M. Polianski, University of Geneva
- 18:00 **Perspectives and Challenges in Nanoscale Device Modeling**  
G. Iannaccone, University of Pisa
- 18:30 **Closing of the Meeting**  
A. Forchel, University of Würzburg, and H. Ryssel, University of Erlangen-Nuremberg



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**Reply to:**

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**2<sup>nd</sup> FORNEL Workshop on Nanoelectronics**  
**Würzburg, March 15, 2006**

**Location:**

Hörsaal Alte Augenklinik  
Röntgenring 12  
97070 Würzburg  
Germany

(For directions and map: <http://www.uni-wuerzburg.de/lageplan/> → Lageplan Nord)

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Title / First name / Last name

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Address

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Phone / Fax / E-mail

I will participate in the 2<sup>nd</sup> FORNEL Workshop on Nanoelectronics

- Yes
- No

.....  
Date / Signature