Scope

The conference will provide a forum for presenting current research and for discussions of future developments related to reliability and stress-induced phenomena in nanoelectronics. Stresses arising in metal structures and surrounding dielectric materials due to novel process steps and advanced materials can lead to degradation and failure of micro- and nanoelectronic products, and therefore, they bring new challenges for process integration, design optimization and reliability. Following the spirit of previous workshops, new research results and advances in basic understanding are emphasized.

Call for Papers

One-page abstracts must be received by **November 30, 2015**. Address the abstracts to the Chair: ehrenfried.zschech@ikts.fraunhofer.de
Notice of acceptance of papers will be given by **January 10, 2016**. Accepted abstracts will be published in the conference abstract booklet as submitted.

Special Journal Issue

Selected papers will be published in IEEE Transactions on Device and Materials Reliability (TDMR). The deadline for submission of manuscripts will be **June 30, 2016**.

Topics

- On-chip and 3D interconnect stacks: Synthesis, functionality and performance
- Scaling limitations of interconnects: Metals and dielectrics
- Thermo-mechanical properties and stress: Measurements and simulation
- Role of microstructure and interfaces on mechanical behaviour of nanostructures
- Reliability physics and engineering, damage and failure mechanisms
- Stress-induced degradation phenomena and failure: Cu stress, EM, SIV, TDDB
- Multi-scale modelling, materials data / database
- Advanced materials characterization techniques
- Lifetime and ageing of nanoscale materials, structures and systems
- Design and test for reliability
- Component (device / interconnect) reliability vs. system reliability

Invited Speakers

- Andre Clausner, Fraunhofer IKTS Dresden, Germany
- Reinhold Dauskardt, Stanford University, Palo Alto/CA, USA
- Christof Eberl, Fraunhofer IWS Freiburg, Germany
- Christoph Kirchlechner, Max-Planck-Institut Düsseldorf, Germany
- Paul Ho, UT Austin/TX, USA

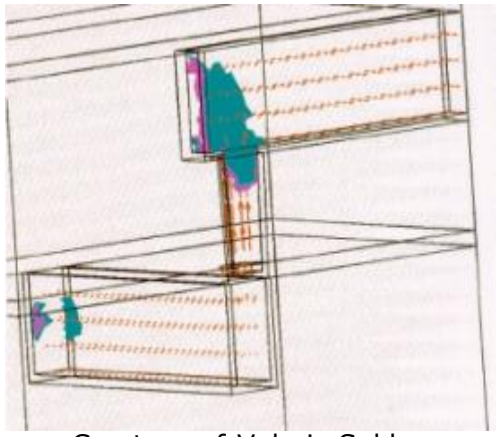
1st Announcement

14th International Conference

Reliability and Stress-Related Phenomena in Nanoelectronics –

Experiment and Simulation

("Stress Workshop")



Courtesy of Valeriy Sukharev

May 30 – June 1, 2016

Dresden, Germany

http://irsp2016.malab.com/

Conference management:

Innotec21 GmbH

Co-Chairs

• Ehrenfried Zschech, Fraunhofer IKTS, Dresden, Germany
• Paul Ho, UT Austin/TX, US
• Jon Molina, IMDEA Materials, Madrid, Spain
• Tony Oates, TSMC, Hsinchu, Taiwan
• Valeriy Sukharev, Mentor Graphics, Fremont/CA, US

Scientific Committee

• Martin Gall, Fraunhofer IKTS, Dresden, Germany (co-chair)
• C. K. Hu, IBM Yorktown Heights/NY, US (co-chair)
• Bob Rosenberg, IBM Yorktown Heights/NY, US (co-chair)
• Andreas Aal, Volkswagen, Wolfsburg, Germany
• Reinhold Dauskardt, Stanford University, Palo Alto/CA, US
• Alex Dommann, EMPA, Switzerland
• Junichi Koike, Tohoku University, Sendai, Japan
• Zhiyong Ma, Intel, Hillsboro/OR, US
• Mireille Mouis, Minatec, Grenoble, France
• Tomiji Nakamura, Fujitsu, Tokyo, Japan
• Alexander Narr, GLOBALFOUNDRIES, Dresden, Germany
• Jungwoo Pyun, Samsung, Korea
• Riko Radojcic, San Diego/CA, US
• Marco Sebastiani, University Rome, Italy
• Olivier Thomas, Aix Marseille Université, France
• King-Ning Tu, UCLA, Los Angelos/CA, US
• Xiaopeng Xu, Synopsis, San Jose/CA, US

Registration

Registration fee

The registration fee includes technical sessions, 3 days lunches and coffee breaks, a conference dinner, a tour (walk) into the breathtaking Elbe sandstone region and the abstract booklet.

- Early Registration – **Euro 400** (payment must be received by **January 31, 2016**)
- Late Registration – **Euro 480** (payments received after **January 31, 2016**, and on the conference site)

Form of Payment

After receiving the registration for the 14th International Conference „Reliability and Stress-Related Phenomena in Nanoelectronics – Experiment and Simulation", the detailed payment information will be provided.

Register Now

The number of participants will be limited in order to maintain the intimate atmosphere of the conference. Please provide your registration through the form under the "Registration" heading of our conference web page
http://irsp2016.malab.com/.

Conference Contact

Ehrenfried Zschech
Phone +49 351 88815 543
Email ehrenfried.zschech@ikts.fraunhofer.de

Location

Conference venue

Hotel Elbresidenz Bad Schandau, near Dresden, Germany:
http://www.elbresidenz-bad-schandau.de/en/start-page/

Accommodation

A block of rooms is reserved at the conference hotel. There are several other hotels (different price categories) available in walking distance. Reservations must be made by **April 15, 2016**, to guarantee a room. Please identify yourself as being with the **IRSP 2016** to get a room from the reserved block of rooms.


Image: Dresden, Frauenkirche (Courtesy of Marian Kratina)