



THIOX NEWS AND COMING EVENTS, JANUARY, 2006

Dear Colleagues,

A Happy New Year to you and the whole THIOX community, we wish you all an excellent year 2006, full of success. You will find below information on the planned activities of our THIOX ESF network for 2006.

Firstly, some information on the THIOX midterm report review which took place in November/December 2005. The review committee was very pleased by the quality of our work and the outcome so far. They were very positive about the role that the THIOX countries play in the field of oxide electronics. The number of exchange students is rapidly increasing, which is beneficial for the visibility of THIOX. The high level of our workshops as well as supported conferences, like WOE, is a clear confirmation that Europe plays a growing important role.

Criticism focused on the involvement with industry. The suggested workshop on *impact of THIOX for industry and society* is heavily supported. Furthermore, more attention on joint publications is needed. At the end this will be one of the measurable criteria of success.

Let's work on these subjects!

1) THIOX meetings

Future THIOX meetings:

A topical meeting organized by **Thomas Tybell in Trondheim, Norway, March 20-22** will focus on *“Materials for thin film device applications”*.

Topics include:

- Ferroelectric and dielectric materials
- Ferromagnetic and superconducting materials
- Multiferroic materials
- Engineered materials including superlattices
- Novel components



The conference will start on March 20 in the morning (so plan your arrival on March 19 late afternoon) and will end on March 21 in the afternoon (departure on March 21 late afternoon or March 22 in the morning, bus transportation will be arranged).

The deadline for abstract submission is February 15. Abstracts should be sent by mail to: Ørnulf Nordseth or Thomas Tybell.

ornulf.nordseth@iet.ntnu.no or thomas.tybell@iet.ntnu.no

More information can be found on the workshop website:

<http://www.iet.ntnu.no/projects/thiox/>

The **WOE13** conference will take place **on the Ischia Island, close to Naples Italy, October 9-11, 2006**. The organizing committee will be composed of **R. Vaglio, F. Miletto, M. Salluzzo, and L. Maritato from Naples, and D. Marré from Genoa**.

The **WOE14** conference will be organized **in South Korea in 2007**. The organizers will be **T. Noh (Seoul Univ.), M. Kawasaki (Tohoku Univ.) and H. Tabata (Osaka Univ.)**.

2) Joint THIOX meetings

An international conference organized jointly with the ESF π -Shift network on :

“Trends in future electronics: Quantum digital circuits, materials with exceptional electronic properties, novel device concepts and applications”

will take place in **Bordeaux (France), May 6-10 2006.**



This joint workshop of the European Science Foundation programs π -Shift and THIOX aims at exchanging ideas and results on novel concepts for future electronic devices. A particular, but not exclusive, focus will be on electronically active structures based on superconducting and/or oxide-electronic materials. Experimental as well as theoretical aspects will be discussed.

Some examples of particular interest are: Josephson (quantum)-electronics, oxide materials and interfaces with exceptional electronic characteristics, interplay between various ordering phenomena in materials such as superconductivity and magnetism.

The conference organizers and chairmen are: **A. Buzdin, H. Hilgenkamp, and J. Mannhart.**

More information on the location and deadlines can be found on:

<http://www.cpmoh.u-bordeaux.fr/>

3) Meetings supported by THIOX

The Nanoscale Superconductivity and Magnetism (NSM2006) conference in school format will take place in **Leuven (Vaalbeek, Belgium) from July 6th to July 8th 2006**, as a satellite to the M²S-HTSC-VIII conference.

Financial support for the conference is given by the European Science Foundation programmes "Thin Films for Novel Oxide Devices" (THIOX) and "Arrays of Quantum Dots and Josephson Junctions" (AQDJJ).

The conference is focused on the confinement and quantization effects in superconducting, magnetic and superconductor/ferromagnet hybrid nanostructures. Experts working in this field will review the most exciting recent developments and outline the perspectives for practical applications of nanosuperconductors and nanomagnets. These invited review lectures will be combined with traditional posters and short oral contributed presentations. The conference will be organized in "all included" format and participants will have all the lectures, oral and poster presentations as well as all meals together in a beautiful location close to Leuven. This format will stimulate intense discussions and exchange of ideas.

The meeting organizers are: **Victor Moshchalkov, Johan Vanacken, and Gunther Jelu.**

For further information, please consult: <http://fys.kuleuven.be/nsm2006/>.

4) European School on Nanosciences and Nanotechnologies (ESONN)

The third edition of the European School on Nanosciences and Nanotechnologies (ESONN) will be held in **Grenoble, France from August 27th to September 15th, 2006.**

This European School is aimed at providing training for graduate students, postdoctoral and junior scientists from universities and laboratories in the field of Nanosciences and Nanotechnologies.

The academic and practical courses will cover the fabrication, principles and characterisation of nano-objects and nanostructures. A key point of the training is the emphasis given to practicals (half of the program), which will be held in clean room facilities and research laboratories in Grenoble.

All the relevant information can be found on: <http://www.esonn.inpg.fr/>

(Information provided by Catherine Dubourdieu, Associate director of ESONN on behalf of the Organizing Committee).

5) THIOX Brochure

The THIOX brochure describing the interest, programme, aims and objectives as well as the various activities of the THIOX ESF network is now available. The brochure can be obtained directly from Jochen Mannhart (jochen.mannhart@physik.uni-augsburg.de) or downloaded from the ESF website at <http://www.esf.org/thiox> .

6) ESF-THIOX Award for young researchers

The first ESF-THIOX awards for young researchers will be partly distributed in Trondheim during the next THIOX meeting in March and in Bordeaux during the π -Shift-THIOX joint meeting in May.

The award consists of a diploma describing the outstanding research and an invitation to present the work in an invited honorary talk at a THIOX workshop.

Proposals can be submitted electronically **anytime** by any group leader as described in: <http://www.ims.tnw.utwente.nl/thiox/News/award.doc/index.html>

MORE INFORMATION ON THIOX CAN BE FOUND ON THE THIOX WEBSITE:

<http://www.thiox.nl>

We look forward to seeing you soon, and, certainly, in one of the future THIOX meetings.

Sincerely,

Dave Blank, Jochen Mannhart, and Jean-Marc Triscone