

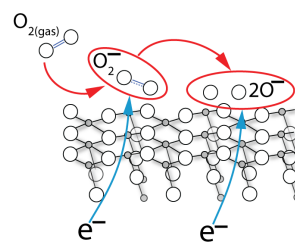
4th GOSPEL Workshop on:

Gas sensors based on semiconducting metal oxides: basic understanding & applications



ISOCS

International Society for
Olfaction and Chemical Sensing



Tübingen (Germany), 6th and 7th of June, 2011

Workshop organizers:

Nicolae Barsan¹, Kengo Shimanoe² and Udo Weimar¹

1. - University of Tübingen, Germany

2. - Kyushu University, Japan

Tentative list of invited speakers:

Prof. Ulrike Diebold, TU Wien, Austria

Surface structure and reactivity of transparent conducting oxides

Dr. Kiyoshi Fukui, New Cosmos Electric, Japan

Practical type gas sensors based on sintered metal oxide semiconductors for detection of hydrogen and odor

Prof. Jan-Dierk Grunwaldt, KIT, Germany

Shining light on metal oxide based gas sensor: Operando synchrotron radiation experiments

Prof. Vincenzo Guidi, University of Ferrara, Italy

Classical and semiclassical approaches for determination of the intergranular energy barrier height in metal-oxide nanograins

Dr. Tateo Hyodo/Prof. Yasuhiro Shimizu, Nagasaki University, Japan

Microstructural design of gas-sensing materials by utilizing various templates

Prof. Jong-Heun Lee, Korea University, Korea

Gas sensors using oxide nanowire networks

Dr. Ichiro Matsubara, AIST, Japan

Inorganic-organic hybrid materials for gas sensors

Prof. Emeritus Noboru Yamazoe, Kyushu University, Japan

Gas reception and transduction in oxide semiconductor gas sensor

Mr. Kenichi Yoshioka, Figaro Engineering, Japan

CH₄ sensor using MEMS technology for battery operation

The workshop is the fourth in a series of Gospel workshops (<http://www.gospel-network.org>) and will be organized by the International Society for Olfaction and Chemical Sensing (ISOCS, <http://www.olfactionsociety.org>)

The goal of the workshop is to provide an opportunity for a thorough discussion among experts on the most important developments in the field of semiconducting metal oxide based gas sensors. We aim to bring together academia and industry and help the latter identify which of the new developments are the most relevant to it. Now, after decades of R&D effort, we see that gas sensors are used in a host of applications, that companies are commercializing millions of devices each year and that the number of related publications is increasing. But there is also the feeling that many fundamental issues are still poorly understood and that we need breakthroughs in both technology and basic understanding to be able to bring about new advancements in the field. After very much looking to technological aspects in the third workshop, we feel that there is now the right time to have a

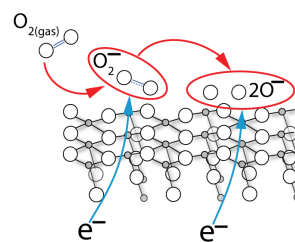
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look at the advancements in the basic understanding of sensing and to new application fields.

The workshop will start on the 6th of June, in the morning and will end in the evening of the 7th of June; the registration and a come together social event will take place on the 5th of June.

Programme

The workshop aims at providing plenty of discussion time around the most exciting developments in the basic understanding of sensing with semiconducting metal oxides based devices and their applications. Accordingly, there will be two oral sessions in the two days of the workshop: **Basic understanding** and **New applications**.

For each of the sessions there will be 4 to 5 invited contributions provided by renowned experts from the industry and academia. Besides them, there will be additional oral contributions selected from the submitted ones. Thorough discussions will be encouraged by providing enough time after each presentation. In the evening of the 6th of June, a poster session will be organized. Owing to the submissions and suggestions from the participants, it will be possible to organize a panel discussion around one of the most interesting topics.

Location

The workshop will take place in Tübingen, Germany in the "Hotel Stadt Tübingen". For details about the hotel, please have a look at: <http://www.hotel-stadt-tuebingen.de/>. The hotel offers excellent conference facilities.

Tübingen is extremely easy to reach from the Stuttgart Airport (25 minutes drive), which is connected with all major European airports.

Participation

The attendance is limited to a maximum of 75 participants. In the case in which the demand will be higher, the selection – for non-authors – will be made on a first come, first served basis.

Costs & Hotel arrangement

The workshop participation fee is 420€ (for ISOCS members 390€). It includes lunch and coffee breaks on both days and dinner on the 6th of June. We already booked a number of hotel rooms for three nights (the 5th, 6th and the 7th of June) at a very good price (77€ or 85€ incl. breakfast) at Hotel Stadt Tuebingen. Reservations to be made until the 8th of May directly by fax +49 7071 38245 or email info@hotel-stadt-tuebingen.de, reference GOSPEL Workshop).

Registration and abstract submission

Two-page abstracts should be submitted until the 1st of May, 2011; please use the online form! The confirmation of acceptance will be provided until the 15th of May, 2011. The registration is open until the 20th of May 2011.

Further information:

You can email gssmo2011@ipc.uni-tuebingen.de with any queries about logistics or the workshop organizers for enquiries about the programme and content.