

ISOCS Short Course Winter 2014

9 – 14 February 2014 – Les Houches – Chamonix Valley France

ÉCOLE DE PHYSIQUE
des HOUCHES



Université
Joseph Fourier
GRENOBLE

COST
EUROPEAN COOPERATION
IN SCIENCE AND TECHNOLOGY

Reactivity of solids, Kinetics, Catalysis, Definitions and Applications of Chemical Sensors

Develop your knowledge on chemical sensors systems and applications at the ISOCS Short Course in Les Houches (Chamonix Valley), France

This Short Course will cover topics including:

- Adsorption and kinetics of transformation in solids
- Catalysis for gas-solid interactions
- Point defects in solids
- Biosensors
- Electronic Noses and their application
- Definition of sensors
- Nano-sensor preparation
- Automotive gas sensors
- Food application of Electronic Nose
- Practical demonstrations
- Presentation COST Action EuNetAir

Speakers

- Prof. Michèle Pijolat, EMSE St-Etienne
- Dr. Philippe Vernoux, Institute of Catalysis Lyon
- Dr. Jean-Paul Viricelle, EMSE St-Etienne
- Prof. Krishna Persaud SCEAS University of Manchester
- Prof. Julian Gardner, University of Warwick
- Prof. Corrado Di Natale, University Tor Vergata, Roma
- Prof. Elisabetta Comini, University of Brescia
- Prof. Christophe Pijolat, EMSE St-Etienne
- Dr. Veronica Sberveglieri, University Modena e Reggio Emilia
- Dr. Jan Mitrovics, JLM Innovation, Tübingen, Germany
- Dr. Michele Penza, ENEA, Brindisi, Italy

Who should attend?

The Short Course is ideal for anyone with an interest in chemical sensors and olfaction, and is new to the field; for example, PhD students, researchers, technologists and industrialists.

Short Courses organized by ISOCS are a unique combination of fundamental theory lectures and practical application exercises. They provide an introduction into selected topics of current research and new developments in the area of chemical sensing and olfaction. Most lecturers will be present throughout the duration of the course. Ample opportunity is given for discussion and networking.

Register now! Limited places available only!

For more information please visit www.olfactionsociety.org/wintercourse2014

ISOCS

International Society for
Olfaction and Chemical Sensing



CMC2

Club Micro Capteurs Chimiques

Les Houches is a village located in the Chamonix valley, in the French Alps. Established in 1951, the Physics School is situated at 1150 m above sea level in natural surroundings, with breathtaking views on the Mont-Blanc mountain range. Les Houches Physics School is affiliated with Université Joseph Fourier Grenoble I (UJF) and is funded by the UJF, the Centre National de la Recherche Scientifique (CNRS) and the Direction des Sciences de la Matière of Commissariat à l'Energie Atomique (CEA/DSM).

Ecole de Physique des Houches, Côte des Chavants, F-74310 Les Houches, France.

<http://houches.ujf-grenoble.fr>

ISOCS Course Winter 9 – 14 Feb. 2014 – Les Houches - France

The ISOCS Short Course is delivered by active researchers with international reputations.

Dr. Jan Mitrovics is founder and CEO of JLM Innovation, where he develops sensor networks, electronic nose and data analysis tools for a broad range of industrial, consumer, safety and research applications.

Pr. Julian Gardner is Professor of Electronic Engineering at Warwick University, UK. His current research interests include the smart sensors, biomimetic MEMS devices, and artificial olfaction.

Dr. Elisabetta Comini is a researcher at the University of Brescia. She is specialist on growth of metal oxides, nanowires, thin films, electronic, functional and structural properties for chemical sensing.

Pr. Corrado Di Natale is Professor at the University of Rome Tor Vergata. His research activity is focused on bio-sensors, artificial sensing, olfaction, taste, and organic and molecular materials.

Dr. Veronica Sberveglieri is post - doc at the University of Modena e Reggio Emilia in the field of microbial contamination of food, Electronic Nose and technics to evaluate microbial metabolism.

Pr. Michele Pijolat is Professor at the Ecole des Mines de St-Etienne with an expertise in kinetics and mechanisms of solid state reactions applied to powders engineering and high temperature corrosion.

Dr. Philippe Vernoux is a CNRS researcher at the Institute on Catalysis in Lyon. His current interests include exhaust treatments, SOFC, chemical sensors and Electrochemical Promotion of Catalysis.

Pr. Jean-Paul Viricelle is Professor at the Ecole des Mines de Saint-Etienne. His research activities are focused on electrical properties of solids for chemical gas sensors, SOFC and micro-reactors.

Pr. Krishna C. Persaud, is Professor at the University of Manchester. His research interests are focused on biochemistry, olfaction, conducting polymers sensors, electronics for pattern recognition.

Pr. Christophe Pijolat is Professor at the Ecole des Mines de St-Etienne with a research activity on gas-solid interactions, gas sensors developments and instrumentation for industrial processes.

Dr Michele Penza, is Chair of COST Action TD1105 EuNetAir. His research interests are nanomaterials, gas sensors, portable sensor-systems, applications, environmental technologies and measurements.

The Short Course explores the area of chemical sensing and its application. We have put together an exciting program that will provide attendees with both theoretical background and practical experience in the above areas.

Topics will be delivered by lectures, discussion and laboratory demonstration sessions. Participants will need to bring their own laptops, but will be supplied with sample data and evaluation software. The computing laboratories do not need a high performance computer and can be carried out on a basic laptop running the windows operating system.

The Short Course is residential and the programme allows plenty of scope for networking with lecturers and attendees. Lectures take place in the morning, with the afternoon free for participants to network, consolidate their knowledge, or enjoy the outdoors. We encourage people to ski in the afternoon and we have amongst us, the organisers, some keen skiers. Discussion sessions and labs resume in the early evening before evening dinner.

The venue is the Ecole de Physique des Houches, located closed to the ski slopes, and in the valley of Chamonix offering a closed access to many famous ski resorts. The price (795 €) includes all accommodation (single room) and meals. Students will receive **free ISOCS membership for 2014**. Possibility for few accompanying partners with a special price.

For full programme and conditions visit: www.olfactionsociety.org/wintercourse2014/

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