

## Editorial

Welcome to the newly designed EMMI newsletter. We will inform you regularly on the activities of EMMI and its members.

Following the end of the FAME project, which has financed most of our network activities so far, EMMI now has to stand on its own feet. The start is very promising, with two new European project applications being successful, and the first three industry members attained. For more details see the corresponding articles in this issue.

This newsletter will be published 2 to 3 times per year; for regular updates please visit the News section of the EMMI website [www.emmi-materials.eu](http://www.emmi-materials.eu)



## Governing Board meets to shape EMMI for the future

The EMMI Governing Board convened on Oct 7, 2008, in Starnberg near Munich, for its first meeting. It took a number of important decisions on EMMI's legal and organisational structure.

As its first Chairman, the Governing Board elected Prof. Ulrich Buller, who is Vice Chairman of the Fraunhofer Society. Dr. Lorenz Kaiser, Director of Legal Affairs of the Fraunhofer Society became Vice Chairman of the EMMI Governing Board.

The Board approved EMMI's Internal Regulation, with an amendment allowing speedy approval of new members. It also approved the first three industry members: Bosch AG, Merck KaAG and Rhodia SA.

An Industry Support Group (ISG) was formed, which will advise EMMI on its strategic decisions, in particular future directions for research. A specific meeting on this latter topic will be held in early 2009.

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The Board elected Peter Reynders from Merck KaAG as speaker of the ISG.

The Governing Board also created a Research Board and an Educational Board.

Prof Wolfram Jaegermann, TU Darmstadt, and Prof Bernard Raveau from CRISMAT Caen are the Chairman and Vice Chairman of the Research Board, respectively.

Dr. Francois Weiss from Grenoble INP was elected Chairman of the Educational Board, and Prof Alain Jonas from Uni Louvain is Vice Chairman. The Educational Board will focus specifically on possibilities to create an integrated PhD programme and later Doctoral School, complementary to the FAME Master Programme.

The successful series of FAME summer schools will also be continued. A student meeting is planned for 20-24 July 2009 in Bordeaux, with FAME Master students and Co-supervised PhD students.

## **AWARDS**

### **‘La Recherche 2008’ - Research Award for Philippe Ghosez and Eric Bousquet at Liege University**

Philippe Ghosez and Eric Bousquet from the Materials Physics Dept at Liege University, together with colleagues from Geneva University, have been awarded with the Research Prize of the French Journal ‘La Recherche’.

The award was made for their patented invention of artificial superlattices showing ‘improper ferroelectricity’ (see *Nature* 10, April 2008 ; **452** (7188) 732-736).

<http://www.larecherche.fr>

### **Matthew Rosseinsky elected Royal Society Fellow**

Matt Rosseinsky from the Chemistry Department of University of Liverpool has been elected a Fellow of the Royal Society, the UK's national academy of science.

[The Royal Society's citation](#) described Professor Rosseinsky as, "probably the best Materials Chemist of the younger generation in Britain today".

His work focuses on the development of new complex materials with specific characteristics by assembling atoms and molecules into novel forms as the basis for next-generation technologies. By deploying new synthetic tools he has identified and crystallised several novel types of crystalline inorganic and metal-organic compounds, opening new aspects of chemical reactivity and new physics.

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## **Two new European SSCP projects initiated by EMMI**

The EMMI network has entered several project applications in the latest round of project calls for ‘Small-Scale Collaborative Projects’ from the European Commission in the domain of Materials Science.

Two of the applications passed all selection thresholds in both stages of evaluation, and are expected to be selected for funding by the Commission.

METACHEM - *“Nanochemistry and self-assembly routes to metamaterials for visible*

*light”*, will be coordinated by the Centre de Recherche Paul Pascal (CRPP-CNRS) in Bordeaux.

The second project OXIDES – *“Engineering Exotic Phenomena at Oxide Interfaces”* was initiated by the Materials Physics Group at Liege University.

A complete list of ‘spin-off projects’ and PhD theses can be found on the EMMI website under >> Research >> Projects

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## **Job Offers in EMMI labs (and beyond)**

### **Post-doc Offer Uni Liege: Logic Schemes in Nanostructures**

A post-doc position is available in the theoretical physical chemistry group at the University of Liege. The aim of the research project is to design logic schemes on nanostructures or molecular systems by electrical or optical addressing using quantum chemistry modeling and dynamics.

For more info see the project website [www.moloc.ulg.ac.be](http://www.moloc.ulg.ac.be)

### **Post Doc offer LMGP Grenoble: Growth of LaZrO films by MOD**

The Grenoble Laboratoire des Matériaux et du Génie Physique (LMGP) offers a 12 month post-doc position in the field of growth of epitaxial films of LaZrO by Metal Organic Deposition on textured metal substrates for superconducting tapes.

For more information and contact details please contact Carmen.Jimenez'at'inp.g.fr, or visit the EMMI website.

### PhD Offer Bordeaux-Barcelona: Phosphor-based materials for white LEDs

A PhD project on development of new materials for white Light-Emitting Diodes is offered starting October 2008. The thesis is jointly supervised by the Research Institutes ICMCB (CNRS / Uni Bordeaux 1) and ICMB (CSIC / Uni Barcelona) in collaboration with Rhodia SA. The research work includes synthesis of inorganic phosphor materials, structural characterisation (XRD, SEM, TEM, ICP) and luminescence spectroscopy.

For more information please contact [agarcia@icmcb-bordeaux.cnrs.fr](mailto:agarcia@icmcb-bordeaux.cnrs.fr), or visit the EMMI website.

### PhD offer at TKK Helsinki: Nanostructured metamaterials based on spherical resonators

PhD Thesis position available at Helsinki University of Technology (TKK); Department of Radio Science and Engineering, research group of Prof. Sergei Tretyakov.

For details please visit the EMMI website.

**Updates on Job Offers** can be found on the EMMI website [www.emmi-materials.eu](http://www.emmi-materials.eu) under >> News >> Jobs

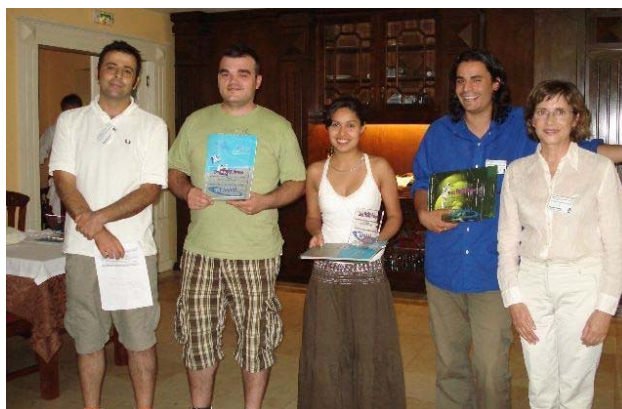
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## Summer School on Inorganic Functional Materials, São Pedro do Sul, 6-11 July 2008



Sixty young researchers - postdocs, PhD and FAME Master students - met with 14 leading researchers at the FAME/EMMI Summer School on Inorganic Functional Materials, held from 6 to the 11th July this year in São Pedro do Sul, Portugal.

The scientific programme covered a broad range of topics around ceramic materials, with the morning periods filled with 50 min invited lectures by senior scientists. One recurring theme was the important role of interfaces in materials properties, for example in ionic conductors and ferroelectrics.



The afternoons were filled with shorter presentations from younger FAME researchers and flash-presentations of all students' posters, which remained exposed during the entire School time. Best poster prizes were awarded to Michelle Murga (MSc, Grenoble), Eddy Domingues (MSc, Aveiro) Emiliana Dvininov (PhD, Liverpool) and Emmanuel Arveux (PhD, Bordeaux/Darmstadt). Integration of students in the FAME community was one main concern of the School and subject of debate in a dedicated Student Workshop.

## Fourth Hybrid Materials Summer School, Almeria 14-18 Sept 2008

The fourth Hybrids Summer School took place in Almeria (Spain) from 14 to 19 September 2008 with 79 participants from 6 countries, and from different scientific communities: physicists (Optical properties, magnetic resonance, Neutron and electron scattering), Chemists (Hybrid materials, ceramists, nanochemistry, catalysis) and biologists (cellular biology, biochemistry).

Thirteen general lectures of 90 min were given on various subjects. and additional sessions were organized to allow the

participants to show their first results from the collaborations initiated by the FAME/EMMI network. These sessions produced many interesting scientific discussions and ideas.

One afternoon break was dedicated to a sight-seeing tour: Alcazaba's castle, a fortress of Arab origin with three huge walled enclosures, is one of the many places of interest in the beautiful region of Almeria Spain.



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## Winter School on "Physics of Solar Cells", Les Houches, 8-13 Feb 2009

A Training School on "Physics of Solar Cells: From Basics to Latest Developments" is taking place from February 8 to 13, 2009, in Les Houches in the French Alps.

For detailed information please consult the school's website at [www.lmgp.grenoble-inp.fr/PV\\_school/](http://www.lmgp.grenoble-inp.fr/PV_school/)

## 3rd International Congress on Advanced Electromagnetic Materials in Microwaves and Optics

London, UK, Aug 30th-Sept 4th, 2009

Metamorphose Doctoral School:  
August 30-31 (Sunday-Monday).

Technical Sessions:  
September 1-4 (Tuesday- Friday).

Conference website:  
<http://congress2009.metamorphose-vi.org/>

## Hybrids Materials Conference, Tours, 15-19 March 2009

The First International Conference on Multifunctional, Hybrid and Nanomaterials will take place in Tours, France, on 15-19 March 2009.

The main objective of this new interdisciplinary conference is to bring together, for the first time at a truly international level, people with shared interests in hybrid materials.

The conference will start on Sunday (15 March) at 14:00 and finish on Thursday (19 March) at 16:00. Each day will start with a Plenary Lecture followed by 3 parallel

symposia focusing on the following topics: Biohybrids and biomaterials; Bottom-up approaches to functional nanomaterials and nanocomposites; Functional porous materials.

Abstracts are invited for oral and poster presentation on the above topics. Abstracts should be submitted via the Online Submission Form. For online submission and further information see the conference website

<http://www.hybridmaterialsconference.com>

*EMMI NEWS AND VIEWS* is published electronically 2 to 3 times per year by the EMMI Executive Board

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