

## INTERNATIONAL MATERIALS FORUM 2005

### FRONTIERS IN MATERIALS SCIENCE & TECHNOLOGY



**CONFERENCE**  
1 and 2 August 2005  
Bayreuth, Germany



UNIVERSITÄT  
BAYREUTH



Kompetenzzentrum  
Neue Materialien

THE KNOW-HOW COMPANY

### GENERAL INFORMATION.

Conference fee	835,- EUR
Junior Scientist	350,- EUR
Ladies Programme	80,- EUR
Conference Dinner extra	60,- EUR (on 1 August)

All fees plus VAT (16 %). The conference fee includes lunches and refreshments during conference, conference publication, conference dinner with Baroque Fountains and get together on 31 July 2005.

For the junior scientist fee we request a certificate attesting the status as student or postgraduate.

Please use a separate registration form for each participant. Your participation will be confirmed first by email and afterwards by the participant's information (venue, journey, check-in, cultural and ladies programme) and the invoice.

In case of cancellation before 15 June 2005 we have to charge 100,- EUR + VAT. If you cancel after this date no refund of the paid registration fee will be granted but substitutes can be accepted.

We recommend an early hotel reservation due to the period of the Wagner Festival ([www.bayreuth-tourismus.de](http://www.bayreuth-tourismus.de), phone +49 921 885 88 / Fax +49 921 885 55).

**Please notice that the number of participants to the conference is limited.**

**Contact and further information:  
Kompetenzzentrum Neue Materialien Nordbayern GmbH  
(Center of Excellence New Materials)**

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**[www.new-materials.de](http://www.new-materials.de)**

Subject to modifications and amendments.

### REGISTRATION FORM

**Please complete the form and return it via Fax +49 921 507 36 199 or by mail.**

Please send me further information

**Please register me for the INTERNATIONAL MATERIALS FORUM 2005 1 AND 2 AUGUST 2005**

Regular  Ladies Programme  
 Junior Scientist  Conference Dinner extra

Total Amount: \_\_\_\_\_ EUR + VAT

I am interested in the Get Together on 31 July (included)

\_\_\_\_\_  
surname, first name, title

\_\_\_\_\_  
company / institution

\_\_\_\_\_  
street, nr.

\_\_\_\_\_  
country, postcode, city

\_\_\_\_\_  
telephone, fax

\_\_\_\_\_  
email

\_\_\_\_\_  
date and signature

## THE CONFERENCE.

The **International Materials Forum – Frontiers in Materials Science and Technology** is concentrating on the leading edge of materials science and the visions for technical applications. The conference, organized by the University of Bayreuth and the Centre of Excellence New Materials, will focus on two selected aspects of materials science

## Organic Functional Materials and Inorganic Functional Materials

introduced by Nobel Laureates Alan J. Heeger (University of California at Santa Barbara) and Sir Harold Kroto (University of Sussex, Brighton).

Their contributions will be enhanced by high ranking invited lectures in the respective fields to give an international audience a survey on the most recent developments, novel scientific approaches and potentials for innovations.

This should lead to an interdisciplinary dialogue with the international experts and as well within the high ranking audience working in areas of industrial and academic materials science. For this reason the number of participants will be limited.

The conference will be enriched by a splendid social and cultural programme on the stage of Baroque gardens and palaces.

31 July 2005			
19:00 - 21:00 Get Together			
1 August 2005			
ORGANIC FUNCTIONAL MATERIALS			
09:00		<b>Opening</b>	<b>Helmut Ruppert</b> President of the University of Bayreuth
		<b>Introduction</b>	<b>Wolfgang Faul</b> Center of Excellence New Materials <b>Dietrich Haarer</b> University of Bayreuth
Session I			
09:30	I-1	<b>Key Note: Conjugated Polymers: From "Plastic Electronics" to Biosensors</b>	<b>Alan J. Heeger</b> University of California at Santa Barbara Santa Barbara, USA
10:15	I-2	<b>Mesoscopic Organic Solar Cells for Electricity Generation from Sunlight</b>	<b>Michael Grätzel</b> Swiss Federal Institute of Technology Lausanne, CH
10:50	Coffee & Tea		
11:30	I-3	<b>Roadmap of Organic Devices</b>	<b>Walter Riess</b> IBM Research GmbH Zurich Research Laboratory Rüschlikon, CH
12:05	I-4	<b>Nanomaterials for Healthcare</b>	<b>Hans Hofstraat</b> Philips Research Eindhoven, NL
12:40	Lunch		
Session II			
14:00	II-1	<b>Holographic Data Storage Materials</b>	<b>Hans-Werner Schmidt</b> University of Bayreuth Bayreuth, D
14:35	II-2	<b>Making Things small: Using Polymers in Nanofabrication for Applications from Microelectronics to Biotechnology</b>	<b>Christopher K. Ober</b> Cornell University Ithaca, USA
15:10	Coffee & Tea		
15:40	II-3	<b>Nanotechnologies for Organic Electronics and Optoelectronics</b>	<b>Günther Leising</b> Joanneum Research GmbH Weiz, A
16:15	II-4	<b>Inorganic Nanocrystals for renewable Energy Technologies</b>	<b>Paul Alivisatos</b> University of California at Berkeley Berkeley, USA
18:30	Baroque Fountains and Conference Dinner		
		<b>Welcome</b>	<b>Dr. Dieter Mronz</b> Major of the City of Bayreuth

2 August 2005			
INORGANIC FUNCTIONAL MATERIALS			
09:00		<b>Introduction</b>	<b>Günther Ziegler</b> University of Bayreuth
Session III			
09:10	III-1	<b>Key Note: Some New Insights in to the Mechanisms of Fullerene and Nanotube Formation</b>	<b>Sir Harold Kroto</b> University of Sussex Brighton, UK
09:55	III-2	<b>Amorphous Materials: Phase Transformations and Mechanical Behaviour</b>	<b>Frans A. Spaepen</b> Harvard University Cambridge, MA, USA
10:30	Coffee & Tea		
11:10	III-3	<b>Deviations from Stoichiometry and Molecularity in the Solar Cell Material CuInS<sub>2</sub></b>	<b>Joop Schoonmann</b> Delft University of Technology Delft, NL
11:45	III-4	<b>Nano Technology drives LED Advancements</b>	<b>Norbert Stath</b> OSRAM Opto Semiconductors GmbH Regensburg, D
12:20	Lunch		
Session IV			
13:45	IV-1	<b>Innovations through new Ceramic Materials and Processes: When Innovations meet Market Needs</b>	<b>Ludwig J. Gauckler</b> Swiss Federal Institute of Technology Zurich, CH
14:20	IV-2	<b>Functional Ceramics for Electronics and Energy Technology</b>	<b>Alexander Michaelis</b> Fraunhofer Institut für Keramische Technologien und Sinterwerkstoffe Dresden, D
14:55	Coffee & Tea		
15:20	IV-3	<b>Functional Materials for Gas Sensors</b>	<b>Ralf Moos</b> University of Bayreuth Bayreuth, D
15:55	IV-4	<b>Functional Interfacing of Semiconductor Chips with Nerve Cells and Brain Tissue</b>	<b>Peter Fromherz</b> Max-Planck-Institut für Biochemie Martinsried, D
16:30	<b>Closing Remarks</b>		