

**FP7 – STREP project: HYMEC**  
Hybrid organic/inorganic memory elements  
for integration of electronic and photonic circuitry

**6<sup>th</sup> WINTERSCHOOL ON ORGANIC ELECTRONICS**  
Self-Assembly and Hybrid Devices

# Information



**March 4<sup>th</sup> – 9<sup>th</sup>, 2012**  
**Universitaets-Sportheim Planneralm**  
**Donnersbach, Austria**  
**<http://www.if.tugraz.at/ws2012/>**

The goals of the Collaborative Project "Hybrid organic/inorganic memory elements for integration of electronic and photonic circuitry" (HYMEC) are to resolve fundamental issues of materials science and to realize new hybrid inorganic /organic devices with functionality far beyond current state-of-the-art. Specifically, HYMEC performs research towards understanding and controlling all relevant properties of systems comprising inorganic metal nanoparticles embedded in matrices of conjugated organic materials (organic semiconductors), and we will demonstrate the function of such material hybrids as non-volatile memory elements that can be addressed electrically and optically. HYMEC targets implementing cost-efficient production routes, such as printing, as well as exploring the ultimate miniaturization of such memory elements by novel sublimation- and imprinting-based nanostructuring processes.

HYMEC is a network of scientific groups from Europe (Norbert Koch, Humboldt-Universität zu Berlin (D); Martin Brinkmann, Institut Charles Sadron CNRS, Strasbourg (F); Annalisa Bonfiglio, Università di Cagliari (I); Jacques Pireaux, Facultés Universitaires Notre-Dame de la Paix, Namur (B); J. Grobel, G. Celichowski, University of Lodz (PL); Emil List, NanotechCenter, Weiz (A); Frank Schreiber, Universität Tübingen (D); Piero Cossedu, TechOnYou s.r.l. (I); Aldo Di Carlo, Università di Roma "Tor Vergata" (I)).

The winterschool will be focused on self-assembly within thin films, the basic properties of organic hybrid structures and their devices, contributions on that topic will be preferably selected as short lectures.

## The Organising Committee:

**Roland Resel**, Institute of Solid State Physics, Graz University of Technology, Austria

**Norbert Koch**, Humboldt University, Berlin, Germany

**Egbert Zojer**, Institute of Solid State Physics, Graz University of Technology, Austria

## Scientific Program

### 13 Tutorial Lectures (40 min. & 20 min. Discussion)

confirmed invited speakers:

**Fabio Biscarini**, Institute for Nanostructured Materials, CNR Bologna

**Annalisa Bonfiglio**, Dept. of Electrical and Electronic Engineering, University of Cagliari and CNR-INFN S3

**Franco Cacialli**, London Centre for Nanotechnology, UCL and Imperial College London

**Chris Groves**, School of Engineering and Computing Sciences, Durham University

**Wolfgang Heiss**, Solid State Physics, Johannes Kepler University Linz

**Emil List**, NanoTec Center Weiz

**Annamaria Petrozza**, Center for Nano Science and Technology of IIT@PoliMI, Milano

**Sergej Ponomarenko**, Institute of Synthetic Polymer Materials, Russian Academy of Sciences, Moscow

**Maria Anita Rampi**, Dipartimento di Chimica, Università di Ferrara

**Frank Schreiber**, Institut für Angewandte Physik, Universität Tübingen

**Christof Wöll**, Institut für Funktionelle Grenzflächen, Karlsruher Institut für Technologie

**Claudio Zannoni**, Dipartimento di Chimica Fisica ed Inorganica, Università di Bologna

**Michael Zharnikov**, Applied Physical Chemistry, University of Heidelberg

**Christian Teichert**, Institute of Physics, University Leoben

### 18 short lectures (20min. & 10 min. Discussion)

The short lectures will be selected from the submitted abstracts.

## Poster Sessions

To stimulate the discussion amongst the participants, all Poster contributions can be presented during the whole winterschool. Special time slots are scheduled from Sunday March 4<sup>th</sup> – Thursday March 8<sup>th</sup> before and after the last talk in the evening.

## Schedule:

	March 3rd	March 4th	March 5th	March 6th	March 7th	March 8th	March 9th
	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 – 9:30		Tutorial 1	Tutorial 4	Tutorial 6	Tutorial 9	Tutorial 12	Tutorial 15
9:30 – 10:00		short talk 1	short talk 4	short talk 9	short talk 12	short talk 15	short talk 18
		break	break	break	break	break	SUMMARY
10:30 – 11:30		Tutorial 2	short talks 5-7	Tutorial 7	Tutorial 10	Tutorial 13	
11:30 – 12:00		short talk 2		short talk 10	short talk 13	short talk 16	
12:00		lunch	lunch	lunch	lunch	lunch	lunch
13:00 – 17:00		leisure and social activities	leisure and social activities	leisure and social activities	leisure and social activities	leisure and social activities	
17:00 – 18:00		Tutorial 3	Tutorial 5	Tutorial 8	Tutorial 11	Tutorial 14	
18:00	dinner	dinner	dinner	dinner	dinner	dinner	
19:00 – 19:30	WELCOME	POSTER	POSTER	POSTER	POSTER	POSTER	
19:30		short talk 3	short talk 8	short talk 11	short talk 14	short talk 17	
20:00		POSTER	POSTER	POSTER	POSTER	POSTER	

The scientific contributions of the winterschool (tutorial lectures, contributed talks as well as the posters) will be collected during the winterschool and distributed within the participants as pdf-files.

The winterschool is currently in approval for the label EURO-DOTS. This label guarantees a high level school for PhD students including a certificate of attendance after a final exam. In addition, the PhD students can cover their registration fee via the EURO-DOT organisation.

## Deadlines & Addresses

### DEADLINES:

Abstract submission: December 9<sup>th</sup>, 2011  
Abstract confirmation: January 16<sup>th</sup>, 2012  
Registration: January 27<sup>th</sup>, 2012  
Final program: February 20<sup>th</sup>, 2012  
Payment: February 20<sup>th</sup>, 2012  
Date of the winterschool: March 4<sup>th</sup> – 9<sup>th</sup>, 2012

### CONTACT ADDRESS (Secretary):

Birgit Kunert  
Institute of Solid State Physics, Graz University of Technology  
Petersgasse 16, A-8010 Graz, Austria  
Phone: +43 316 873 8961  
Fax: +43 316 873 8466  
E-mail: [birgit.kunert@tugraz.at](mailto:birgit.kunert@tugraz.at)  
<http://www.if.tugraz.at/ws2012/>

### Winterschool Site:

Universitaets-Sportheim Graz  
Planneralm 15, 8953 Donnersbach, Austria  
Phone: +43 3683 3167  
Fax: +43 3683 31674

Due to the limited capacity of the site only 70 participants can be accepted to participate in the winterschool.

## **Abstract Submission**

Please submit an abstract to the winterschool. The selection of the participants will be based on the submitted abstracts. All participants can present their work either as a contributed talk or as a poster.

A template for abstract preparation is available in MSWord 2011. Please download the template from the homepage of the winterschool <http://www.if.tugraz.at/ws2012/>. The abstract should have a maximum length of one page.

Please submit your abstract as a WORD file and send it directly to [birgit.kunert@tugraz.at](mailto:birgit.kunert@tugraz.at)  
Deadline for abstract submission is December 9<sup>th</sup>.

## **Registration:**

All attendees of the winterschool including the tutorial speakers are kindly asked to register. Please fill the registration form via the homepage of the winterschool <http://www.if.tugraz.at/ws2012/>  
You will get back a confirmation of your registration together with an invoice.

## **Registration fees:**

**540 €** for a full registration, **460 €** for a student registration

The registration fee includes the accommodation for six nights with full board (breakfast, lunch, dinner). Skiing teachers and lift passes are not included; the rate for skiing teachers for one week will be 80 € (full) / 50 € (students).

## **Payment:**

After your registration you will get an invoice, deadline for payment is February 20<sup>th</sup>, 2010:

please address your payment to following account:

winterschool on organic electronics

bank account: 51656 101 844

bank: Bank Austria

BLZ: 12000,

address: Bank Austria, Herrengasse 15, 8010 Graz, Austria

IBAN: AT02 1200 0516 5610 1844

BIC: BKAUATWW

Please do not forget to give your name and your university.

## General Information

### Location:

The site of the winterschool is located in the middle of the Austrian Alps at the mountain range of the so called "Niedere Tauern" at an altitude of 1600 m. The Planneralp is a winter resort ([www.planneralp.at](http://www.planneralp.at), only German), which gives all possibilities for winter sport activities like skiing and snowboarding. In this resort you can find 2 chair lifts and 3 t-bar lifts. There are limited possibilities for cross-country skiing.



It is a small ski resort with a minimal infrastructure, where you can find a small shop, a bar, a pub and further hotels! There is no bank or cash machine, but you can pay nearly everywhere with *MAESTRO*, Visa or Master/Eurocard. So be sure, that you have everything with you. The next village is approx. 30 min by car.

The Universitaets-Sportheim gives the possibility to combine university education with winter sport activities. Approved teachers for skiing, snowboarding, ski-tours will be available for the participants of the winterschool. You have the chance to rent skis, ski sticks and ski boots on site for approximately 100 € for five days. If you are interested in this service, please contact [birgit.kunert@tugraz.at](mailto:birgit.kunert@tugraz.at). The ski lift ticket for half a day will cost approximately 30 €, for five full days about 150€.

You will need some warm clothes and suitable clothes for skiing (wind and waterproof). It can be cold (-15 °C) in the nights, but it also can be warmer than 0 °C during daytime when sunny. Sunglasses, a ski cap or hat, a shawl, warm gloves, a small rucksack, a thick winter coat and warm winter shoes for cold days are necessary. Casual clothes to wear after skiing are required in the Sportheim.

**Slippers are a must for the Sportheim.**

There will be a significant time-slot each day reserved for social interaction and leisure activities. These can for example include skiing. Skiing is associated with an increased risk of injury. Please note that these leisure activities are not an official part of the winterschool. Therefore, the organizers cannot accept any liability for injuries in connection with the winterschool. The participants are required to ensure proper insurance for medical treatment in Austria and for any follow-up costs as well as for mountain rescue when participating in skiing tours. The organizers cannot accept any liability for costs arising from improper insurance.



## Accommodation

The conference fee includes the accommodation for 6 nights at the Sportheim and the meals (breakfast, lunch and dinner). The Universitaets-Sportheim could accommodate 70 guests in 2, 3 or 4-persons bedrooms. In detail there are 15 bedrooms for 2 persons, 9 bedrooms for 3 persons and 2 bedrooms for 4 persons available. The standard of the rooms is not very high. The bathrooms and toilettes are in the corridors on each floor. But you will enjoy the familiar and homelike atmosphere.

A modern lecture room, with a video projector, a video- and TV-set, a slide projector, an overhead projector and a flip chart, is located in the Universitaets-Sportheim. Furthermore you can find lounges, a library, a TV-room, a gym and a sauna.

## Travel Information:

### General:

Recommended arrival on Saturday, March 3<sup>rd</sup> 2012, before 18:00  
Departure Friday, March 9<sup>th</sup> 2012, 12:00

### by plane:

Nearby international airports are in Graz, Linz, Salzburg, and Vienna. From there, choose a train connection to the railway station in Stainach-Irdning (see below); for public transport connections from the airports choose Airport "City" when searching for train connections on the homepage of the Austrian Railways; Note: "Flughafen" means airport in German.

Please inform the conference secretary about your travel plans.

### by train:

The Eurocity (EC) and Intereurocity (IC) station Stainach-Irdning is located close to the conference site. The transfer from the railway station Stainach-Irdning – Planneralp to the winterschool site takes approximately 1h. Please contact the conference secretary for organising a taxi transfer, the costs are approximately 50€ for one taxi, which can be shared when several people travel at the same time. Alternatively, a ski bus connects the train station with the Planneralp once a day.

Please inform the conference secretary about your travel plans.

### by car:

**Please** note, that using motorways (Autobahn, signs with a blue background) in Austria, will require a toll vignette for the car. These vignettes can be purchased at any customs office at the frontier and Austrian tobacco shops (Trafik). The vignette for 10 days costs 7,70€.

**Please** also make sure, that your car is ready for winter. The right equipment can help you avoid winter-driving accidents. In Austria winter tyres (S+M tyres) are obligatory at that time of the year. Please also make sure, that you have **snow chains** with you. The Planneralp is at an altitude of 1600 m!!



### From Salzburg (Germany), Villach(Italy)

Motorway **E55/ A10** to **Eben**

Federal road **B 320**, via Schladming to **Trautenfels**

Federal road **B75** via Irdning to **Donnersbach**

To continue along the green road signs **PLANNERALM** for approx. 30 minutes!

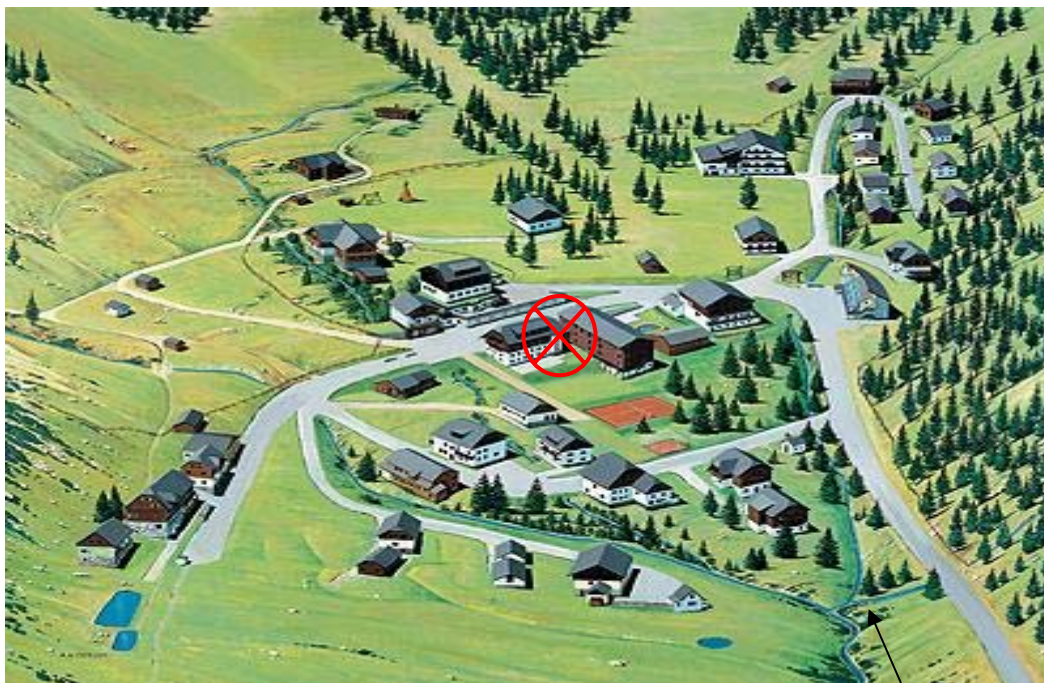
### From Linz, Graz, Wien

Motorway **A9** to **Liezen**

Federal road **B 320** via Stainach to **Trautenfels**

Federal road **B75** via Irdning to **Donnersbach**

To continue along the green road signs **PLANNERALM** for approx. 30 minutes!



This is the map of the winter resort Planneralm. The marked two houses are the location of the winterschool.