

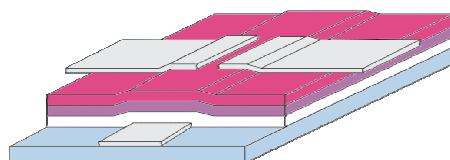
# WINTERSCHOOL ON ORGANIC ELECTRONICS

## Fundamental Properties of Devices – Sensors, Transistors and Solar Cells

**March 6<sup>th</sup> – March 12<sup>th</sup>, 2010**  
**Universitäts-Sportheim Planneralm**  
**Donnersbach, Austria**

	March 6th	March 7th	March 8th	March 9th	March 10th	March 11th	March 12th
	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
8:30 - 9:30		S. Sariciftci (Linz)	B. Stadlober (Weiz)	A.F. Morpurgo (Geneva)	K. Leo (Dresden)	P. Puschnig (Leoben)	J. Krenn (Graz)
9:30 - 10:00		E. Spadafora (Grenoble)	T. Haber (Graz)	M. Marchl (Graz)	M. Bednorz (Linz)	E. Zojer (Graz)	S. Bauer (Linz)
		break	break	break	break	break	SUMMARY
10:30 - 11:00		G. Trimmel (Graz)	E.C.P. Smits (Eindhoven)	K. Zojer (Graz)	C. Simbrunner (Linz)	P. Jelinek (Prag)	
11:00 - 11:30			H.-G. Flesch (Graz)				
11:30 - 12:00		V. Kamm (Mainz)	Q. Shen (Leoben)	M. Sams (Linz)	F. Quochi (Cagliari)	A. Fleming (Graz)	
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		C. McNeill (Cambridge)	P. Samori (Strasbourg)	G.G. Malliaras (Gardanne)	M.A. Loi (Groningen)	N. Koch (Berlin)	
18:00	dinner	dinner	dinner	dinner	dinner	dinner	
19:00 - 20:15		POSTER A	POSTER A	NFN-Meeting	POSTER B	POSTER B	
20:15 - 20:45	WELCOME	A. Pivrikas (Linz)	P. Zeppenfeld (Linz)	T. Griesser (Leoben)	H. Yoshida (Kyoto)	J. Stettner (Graz)	

Tutorial talks
Contributed talks
POSTER



FWF

Der Wissenschaftsfonds.

This winterschool is organized by the National Research Network (NFN) funded by the Austrian Science Foundation. It is a network of scientific groups from Austria, which are working together to perform joint research on basic science of organic thin films and their application in organic electronics.

## Poster A

### **Color tuning on para-sexiphenyl based OLEDs**

I. Watzinger, G. Hernandez-Sosa, C. Simbrunner, H. Sitter

### **Parameter-extraction of organic light-emitting devices by using transient measurement-techniques**

K.A. Brossi, M.T. Neukom, E. Knapp, N.A. Reinke, B. Ruhstaller

### **Photo-CELIV transients of organic bulk heterojunction solar cells**

M.T. Neukom, K.A. Brossi, N.A. Reinke, B. Ruhstaller

### **Polymer guest host system and their potential applications for opto-electronic devices**

U. Abaci, D.A.M. Egbe, E. Arici-Bogner

### **New low band gap based 3,6 bithiophencarbazole polymers for the organic photovoltaic**

N. Berton, C. Ottone, F.R. Bettignies, F. Chandezon, S. Sadki

### **Temperature and carrier concentration dependent mobility in pentacene films, characterized by photo-CELIV**

M.S. White, A. Pivrikas, N.S. Sariciftci

### **Low voltage complementary organic inverters on glass**

T. Rothländer, U. Palfinger, B. Stadlober, A. Haase, H. Gold, G. Jakopic, J.R. Krenn

### **Controlling the electronic properties and morphology of the active layer in organic thin film transistors by an interfacial photoreactive layer**

S. Kirnstötter, M. Marchl, T. Obermüller, A. Haase, M. Edler, T. Griesser, E. Zojer

### **Parylene gate dielectric for organic field effect transistors**

G. Schwabegger, C. Simbrunner, M. Ullah, G. Hernandez-Sosa, H. Sitter

### **Ultra violet light sensitive polymer as gate dielectric in organic field effect transistors**

A. Montaigne Ramil, T. Griesser, N.S. Sariciftci, W. Kern, Q. Shen, C. Teichert

### **Dependence of Meyer-Neldel Energy on energetic disorder in organic materials**

M. Ullah, A.K. Kadashchuk, P. Stadler, A. Pivrikas, C. Simbrunner, N.S. Sariciftci, H. Sitter

**The electronic structure of pristine and doped molecular films**

S. Berkebile, E. Reinisch, T. Ules, T. Seyller, M.G. Ramsey, G. Koller

**The applications of momentum-resolved electronic structure of organic molecules and films**

S. Berkebile, T. Ules, P. Puschnig, G. Koller, A. Fleming, K. Emtsev, Th. Seyller, C. Ambrosch-Draxl, F.P. Netzer, M.G. Ramsey

**Structure of pentacene thin films deposited on organic dielectrics**

A. Moser, H.-G. Flesch, A. Neuhold, M. Edler, T. Griesser, M. Marchl, A. Golubkov, G. Trimmel, A. Haase, D.-M. Smilgies, J. Jakabovic, E. Zojer, R. Resel

**Fiber-textured and epitaxial growth of perfluoropentacene and pentacene hetero-structures on amorphous and single crystalline substrates**

I. Salzmänn, M. Oehzelt, S. Duhm, B. Wedl, D. Nabok, J.P. Rabe, N. Koch

**Growth of sexi-thiophene on muscovite mica**

C. Simbrunner, G. Hernandez-Sosa, M. Oehzelt, R. Resel, T. Djuric, D. Nabok, L. Romaner, P. Puschnig, C. Ambrosch-Draxl, H. Sitter

**Island formation and coalescence stage during rubrene film growth**

K. Rehman, H. Sitter

**Air-stable molecular donors for electron injection interlayers on metal electrodes**

B. Bröker, R.-P. Blum, G. Heimel, J. Frisch, J.P. Rabe, N. Koch, L. Beverina, M. Sassi, R. Ruffo, G.A. Pagani, O.T. Hofmann, E. Zojer, R. Rieger, K. Müllen, A. Vollmer

**Epitaxial growth of sexiphenyl and sexithiophene on Ag(110)**

M. Oehzelt, I. Salzmänn, G. Weidlinger, D.R. Fritz, S. Duhm, Th. Wagner, L.D. Sun, T. Djuric, M. Koini, R. Resel, S. Berkebile, G. Koller, M.G. Ramsey, P. Zeppenfeld

**Growth of  $\alpha$ -6T needles on Ag(110) imaged by PEEM**

D.R. Fritz, Th. Wagner, M. Oehzelt, P. Zeppenfeld

**Application of laser scanning confocal microscopy to the characterization of organic thin films - rubrene on mica (001)**

H. Zaglmayr, L.D. Sun, G. Weidlinger, P. Zeppenfeld, Sh.M. Abd Albaqi, G. Hernandez-Sosa, C. Simbrunner, H. Sitter, D. Nabok, C. Ambrosch-Draxl

**Conductive atomic force microscopy investigations of organic thin films**

A. Pavitschitz, I. Beinik, M. Kratzer, C. Teichert, S.-V. Radl, T. Griesser, W. Kern

**UV-patterning and surface modification using the photochemistry of spiropyranes**

L. Hauser, M. Jäger, T. Griesser, W. Kern, G. Trimmel

**Patterning and functionalization of organic thin layers on silicon surfaces by means of UV light**

M. Edler, T. Griesser, W. Kern, G. Trimmel, Q. Shen, C. Teichert, H.-G. Flesch, S. Ausserlechner, M. Marchl, E. Zojer, R. Resel, A.M. Track, G. Koller, M.G. Ramsey

## Poster B

### **Organic heterostructure photodiodes - thin film morphologies and crystal structures of the organic layers**

A. Neuhold, S. Fladischer, N. Matsko, S. Mitsche, A. Moser, H.-G. Flesch, E. Kraker, D.-M. Smilgies, A. Haase, W. Grogger, R. Resel

### **Organic photodiodes for multianalyte-sensor application**

E. Kraker, B. Lamprecht, A. Haase, G. Jakopic, T. Abel, C. Konrad, S. Köstler, M. Tscherner, T. Mayr, J.R. Krenn

### **Silver-nanowires as a transparent electrode for organic solar cells**

C. Sachse, L. Müller-Meskamp, M. Machala, K. Leo

### **Investigation of excitonic effects in organic thin-film transistors by means of a two-dimensional drift-diffusion approach**

M. Gruber, M. Marchl, B.A. Stickler, F. Schürerer, E. Zojer, A. Haase, K. Zojer

### **Theoretical investigation of the influence of material parameters on the device performance of organic-inorganic hybrid solar cells by two-dimensional drift-diffusion simulations**

B.A. Stickler, M. Gruber, G. Trimmel, K. Zojer, F. Schürerer

### **Design and synthesis of alternating regioregular $\pi$ -conjugated oligomers and polymers for organic photovoltaic cells**

Z. Yahya, F. Lincker, Y. Kervella, P. Rannou, R. De Bettignies, B. Grevin, A. Pron, R. Demadrille, J.-P. Travers

### **Investigation of transport properties of a new donor-acceptor polymer, poly-2-dodecyl-4,7-di(thiophene-2-yl)-2H-benzo[1,2,3]triazole (PTBT)**

S. Tekoglu, A. Montaigne Ramil, B. Meana-Esteban, A. Balan, D. Baran, L. Toppare, H. Neugebauer, N.S. Sariciftci

### **Impact of chemically reactive alkyltrichlorosilane layers on the threshold voltage of organic thin film transistors**

S. Ausserlechner, H.-G. Flesch, M. Marchl, P. Pacher, T. Obermüller, A.W. Golubkov, S.K. Possanner, A. Haase, B. Stadlober, G. Trimmel, R. Resel, K. Zojer, F. Schürerer, E. Zojer

### **Air stable organic field effect transistor based on poly(2-methoxy-5-(2-ethyl-hexyloxy)-1,4-phenylenevinylene)**

M. Abbas, E. Arici-Bogner, N.S. Sariciftci

**Selective dispersion of single-walled carbon nanotubes for field effect transistor application**

J. Gao, M.A. Loi

**Reversible p- and n-doping of pentacene: from spectroscopy to devices**

S. Schaur, B. Meana Esteban, P. Stadler, H. Neugebauer, N.S. Sariciftci

**Fully printed, flexible large area organic optothermal sensors for human-machine-interfaces**

J. Magnien, M. Zirkl, G. Scheipl, B. Stadlober, A. Haase, G. Jakopic, J. Krenn

**Triplet exciton diffusion in conjugated polymers**

O.V. Mikhnenko, P.W.M. Blom, M.A. Loi

**A semi-classical model for fast estimation of the work function modification induced by charge transfer monolayers**

O.T. Hofmann, B. Bröker, R.-P. Blum, F. Rissner, G.M. Rangger, R. Rieger, K. Müllen, N. Koch, E. Zojer

**The energetics of mixed self-assembled monolayers: a DFT study.**

F. Rissner, D.A. Egger, L. Romaner, G. Heimel, E. Zojer

**UPS investigations to understand the relation between energy level alignment and device performance**

A.M. Track, P. Stadler, M. Ullah, H. Sitter, G.J. Matt, T.B. Singh, H. Neugebauer, N.S. Sariciftci, G. Koller, M.G. Ramsey

**The initial stages of sexiphenyl (6P) and pentacene (5A) film growth**

T. Ules, S. Berkebile, A. Fleming, Fanghua Li, T. Djuric, R. Resel, M.G. Ramsey

**Epitaxially grown films of standing and lying pentacene molecules on Cu(110) surfaces**

T. Djuric, H.-G. Flesch, T. Ules, S. Berkebile, G. Koller, H. Plank, Q. Shen, C. Teichert, M.G. Ramsey, R. Resel

**Equilibrium geometries of the organic rod-like molecules on dielectric substrates**

D. Nabok, L. Romaner, P. Puschnig, C. Simbrunner, G. Hernandez-Sosa, M. Oehzelt, R. Resel, T. Djuric, H. Sitter, C. Ambrosch-Draxl

**Thin film growth, thermal stability and desorption kinetics of HAT-CN on Au(111) and Ag(111)**

P. Frank, T. Djuric, M. Koini, N. Koch, R. Rieger, K. Müllen, R. Resel, A. Winkler

**Para-sexiphenyl templates for alpha-sexithiophene aligned nanostructures**

G. Hernandez-Sosa, C. Simbrunner, M. Oehzelt, R. Resel, H. Sitter

**Sub-monolayer growth investigations of para-sexiphenyl on silicon dioxide**

S. Lorbek, G. Hlawacek, C. Teichert

**Initial stages of para-hexaphenyl film growth on sputter-modified mica(001)**

T. Potocar, Q. Shen, S. Lorbek, C. Teichert, A. Winkler