

### 1.2.1.2 - Project 02 (PI Kern)

common publications with other NFN members are in bold

#### Publications in Scientific Journals:

1. T. Höfler, T. Grießer, M. Gruber, G. Jakopic, G. Trimmel and W. Kern, Photo-Fries Rearrangement in Polymeric Media: An Investigation on Fully Aromatic Esters Containing the Naphthyl Chromophore, *Macromol. Chem. Phys.*, 209, 488 (2008).
2. **A. Lex, P. Pacher, O. Werzer, A. Track, Q. Shen, R. Schennach, G. Koller, G. Hlawacek, E. Zojer, R. Resel, M. Ramsey, C. Teichert, W. Kern and G. Trimmel, Synthesis of a Photosensitive Thiocyanate-Functionalized Trialkoxysilane and Its Application in Patterned Surface Modifications, *Chem. Mater.*, 20, 2009 (2008).**
3. T. Griesser, T. Höfler, S. Temmel, W. Kern and G. Trimmel, Photolithographic Patterning of Polymer Surfaces Using the Photo-Fries Rearrangement: Selective Postexposure Reactions, *Chem. Mater.*, 19, 3011 (2007).
4. U. Daschiel, T. Hoefler, G. Jakopic, V. Schmidt, and W. Kern, Selected polymers that contain aromatic ester units: Synthesis, photoreactions, and refractive index modulation, *Macromol. Chem. Phys.*, 208, 1190 (2007).
5. T. Griesser, T. Rath, H. Stecher, R. Saf, W. Kern and G. Trimmel, Photoreactive Polynorbornene Bearing 4-(Diphenylamino)benzoate Groups: Synthesis and Application in Electroluminescent Devices, *Monatsh. Chem.*, 138, 269 (2007).
6. T. Höfler, T. Griesser, X. Gstrein, G. Trimmel, G. Jakopic and W. Kern, UV reactive polymers for refractive index modulation based on the photo-Fries rearrangement, *Polymer*, 48, 1930 (2007).
7. M. Weinberger, S. Rentenberger, and W. Kern, Selective Immobilization of Gold Nanoparticles on the Surface of a Photoreactive Polymer, *Monatsh. Chem.* 138, 309-314 (2006).
8. **G. Hernandez-Sosa, C. Simbrunner, T. Höfler, A. Moser, O. Werzer, B. Kunert, G. Trimmel, W. Kern, R. Resel and H. Sitter, Modification of Para-sexiphenyl layer growth by UV induced polarity changes of polymeric substrates (submitted)**
9. T. Griesser, J. Adams, J. Wappel, W. Kern, G. J. Leggett and G. Trimmel, Micro- and nanometre scale patterning of self assembled monolayers using the photo-Fries rearrangement: towards selective execution of molecular transformations. (submitted)
10. T. Griesser, J.-C. Kuhlmann, M. Wieser, G. Jakopic, W. Kern, and G. Trimmel, Tuning of the material properties of photo reactive polymers based on the photo-Fries rearrangement of aryl amides. (submitted).
11. **G. Hlawacek, Q. Shen, A. Lex, G. Trimmel, W. Kern, C. Teichert Hierarchy of adhesion forces in patterned photoreactive surface layers (submitted)**

#### 1.2.1.4 Project 04 (PI Ramsey)

##### Publications in Scientific Journals:

1. McNeill, CR; Halls, JJM; Wilson, R; Whiting, GL; Berkebile, S; Ramsey, MG; Friend, RH; Greenham NC;  
"Efficient Polythiophene/Polyfluorene Co-Polymer Bulk Heterojunction Photovoltaic Devices: Device Physics and Annealing Effects"  
ADVANCED FUNCTIONAL MATERIALS, 18, 1-13, 2008
2. Cerminara, M; Tubino, R; Meinardi, F; Ivanco, J; Netzer, FP; Ramsey, MG  
"Optical properties of sexithiophene films grown on ordered and disordered TiO<sub>2</sub>(110) surfaces"  
THIN SOLID FILMS, 516 (12): 4247-4251 APR 30 2008
3. **Lex, A; Pacher, P; Werzer, O; Track, A; Shen, Q; Schermach, R; Koller, G; Hlawacek, G; Zojer, E; Resel, R; Ramsey, M; Teichert, C; Kern, WG; Trimmel, G**  
**"Synthesis of a photosensitive thiocyanate-functionalized trialkoxysilane and its application in patterned surface modifications"**  
**CHEMISTRY OF MATERIALS, 20 (5): 2009-2015 MAR 11 2008**
4. **Berkebile, S; Puschnig, P; Koller, G; Oehzelt, M; Netzer, FP; Ambrosch-Draxl, C; Ramsey, MG;**  
**"Electronic band structure of pentacene: An experimental and theoretical study"**  
**PHYSICAL REVIEW B, 77 (11): Art. No. 115312 MAR 2008**
5. Koller, G; Berkebile, S; Ivanco, J; Netzer, FP; Ramsey, MG  
„Device relevant organic films and interfaces: A surface science approach“  
SURFACE SCIENCE, 601 (24): 5683-5689 DEC 15 2007
6. Ivanco, J; Netzer, FP; Ramsey, MG  
"Dissociation of sexithiophene on Al(111) surface"  
ORGANIC ELECTRONICS, 8 (5): 545-551 OCT 2007
7. Oehzelt, M; Grill, L; Berkebile, S; Koller, G; Netzer, FP; Ramsey, MG  
"The molecular orientation of para-sexiphenyl on Cu(110) and Cu(110) p(2x1)O"  
CHEMPHYSICHEM, 8 (11): 1707-1712 AUG 6 2007
8. **Koller, G; Berkebile, S; Oehzelt, M; Puschnig, P; Ambrosch-Draxl, C; Netzer, FP; Ramsey, MG;**  
**"Intra- and intermolecular band dispersion in an organic crystal"**  
**SCIENCE, 317 (5836): 351-355 JUL 20 2007**
9. **Koller, G; Berkebile, S; Oehzelt, M; Puschnig, P; Ambrosch-Draxl, C; Netzer, FP; Ramsey, MG**  
**"Supporting online material for: Intra- and intermolecular band dispersion in an organic crystal"**  
**SCIENCE, 317 (5836): 351-355 JUL 20 2007**
10. Ivanco, J; Netzer, FP; Ramsey, MG  
"On validity of the Schottky-Mott rule in organic semiconductors: Sexithiophene on various substrates"  
JOURNAL OF APPLIED PHYSICS, 101 (10): Art. No. 103712 MAY 15 2007
11. Koller, G; Winter, B; Oehzelt, M; Ivanco, J; Netzer, FP; Ramsey, MG

- “The electronic band alignment on nanoscopically patterned substrates”  
ORGANIC ELECTRONICS, 8 (1): 63-68 FEB 2007
12. **Ivanco, J; Haber, T; Krenn, JR; Netzer, FP; Resel, R; Ramsey, MG Sexithiophene films on ordered and disordered TiO<sub>2</sub>(110) surfaces: Electronic, structural and morphological properties”**  
**SURFACE SCIENCE, 601 (1): 178-187 JAN 1 2007**
  13. **Berkebile, S; Koller, G; Hlawacek, G; Teichert, C; Netzer, FP; Ramsey, MG “Diffusion versus sticking anisotropy: Anisotropic growth of organic molecular films”**  
**SURFACE SCIENCE, 600 (24): L313-L317 DEC 15 2006**
  14. **Resel, R; Oehzelt, M; Lengyel, O; Haber, T; Schulli, TU; Thierry, A; Hlawacek, G; Teichert, C; Berkebile, S; Koller, G; Ramsey, MG “The epitaxial sexiphenyl (001) monolayer on TiO<sub>2</sub>(110): A grazing incidence X-ray diffraction study”**  
**SURFACE SCIENCE, 600 (19): 4645-4649 OCT 1 2006**
  15. **Oehzelt, M; Koller, G; Ivanco, J; Berkebile, S; Haber, T; Resel, R; Netzer, FP; Ramsey, MG “Organic heteroepitaxy: p-sexiphenyl on uniaxially oriented alpha-sexithiophene”**  
**ADVANCED MATERIALS, 18 (18): 2466-+ SEP 18 2006**
  16. **Ivanco, J; Haber, T; Resel, R; Netzer, FP; Ramsey, MG “Electronic and geometric structure of electro-optically active organic films and associated interfaces “**  
**THIN SOLID FILMS, 514 (1-2): 156-164 AUG 30 2006**
  17. **Winter, B; Berkebile, S; Ivanco, J; Koller, G; Netzer, FP; Ramsey, MG “Oxygen induced molecular reorientation on aluminium”**  
**APPLIED PHYSICS LETTERS, 88 (25): Art. No. 253111 JUN 19 2006**
  18. **Koller, G; Berkebile, S; Krenn, JR; Netzer, FP; Oehzelt, M; Haber, T; Resel, R; Ramsey, MG “Heteroepitaxy of organic - Organic nanostructures”**  
**NANO LETTERS, 6 (6): 1207-1212 JUN 2006**
  19. **Sun, LD; Hohage, M; Zeppenfeld, P; Berkebile, S; Koller, G; Netzer, FP; Ramsey, MG „Online measurement of the optical anisotropy during the growth of crystalline organic films”**  
**APPLIED PHYSICS LETTERS, 88 (12): Art. No. 121913 MAR 20 2006**

### **Book contributions:**

1. **H. Sitter, R. Resel, G. Koller, M.G. Ramsey, A. Andreev, C. Teichert**  
**Book chapter: ”Fundamentals of organic film growth and characterisation”, in Springer Series “Materials Science “New organic nanostructures for next generation devices”, Editors: K. Al-Shamery, H.-G. Rubahn, and H. Sitter Springer-Verlag GmbH (Januar 2008) ISBN-10: 3540719229**
2. **G. Koller, M.G. Ramsey**  
**Book chapter: “Growth and electronic structure of homo- and hetero-epitaxial organic nanostructures”, in Springer Series “Materials Science “New organic nanostructures for next generation devices”, Editors: K. Al-Shamery, H.-G. Rubahn, and H. Sitter Springer-Verlag GmbH (Januar 2008) ISBN-10: 3540719229**

### **Submitted papers:**

1. Flemming, AJ; Surnev, S; Netzer, FP; Ramsey, MG;  
“Growth and Desorption Kinetics of Sexiphenyl Needles: an in-situ AFM/PEEM Study”  
SPRINGER PROCEEDINGS IN PHYSICS, submitted
2. M. Oehzelt, S. Berkebile, G. Koller, J. Ivanco, S. Surnev, M.G. Ramsey;  
“ $\alpha$ -sexithiophene on Cu(110) and Cu(110)-(2x1)O: STM and NEXAFS”  
Surface Science
3. **M. Koini, T. Haber, S. Berkebile, M. Oehzelt, G. Koller, M. G. Ramsey, R. Resel;**  
**“Growth of sexithiophene on Cu(110) and Cu(110)/Cu(110)-(2x1)O stripe phase –**  
**the influence of surface corrugation”**  
Surface Science
4. **M. Koini, T. Haber, O. Werzer, S. Berkebile, G. Koller, M. Oehzelt, M.G. Ramsey, R.**  
**Resel;**  
**“Epitaxial Order of Pentacene on Cu(110)-(2x1)O investigated by Polefigure**  
**Technique”**  
ChemPhysChem.
5. **M. Oehzelt, S. Berkebile, G. Koller, T. Haber, M. Koini, O. Werzer, R. Resel, M. G.**  
**Ramsey;**  
**„ $\alpha$ -sexithiophene films grown on Cu(110) and –(2x1)O surfaces: from monolayer**  
**to multilayers”**  
Springer Proceedings in Physics, submitted (Spring Meeting of the European  
Materials Research Society, Symposium O “Interface Controlled and  
Functionalised Organic Films” 26-30 May 2008, Strasbourg, France)

### **Synchrotron Reports (\* indicates experimentalist):**

1. **Koller G\*; Oehzelt M.\*; Haber T.\*; Ramsey MG; Resel. R; Schuelli T\*;**  
**Experiment “Structural development from sexiphenyl mono- to multilayers on**  
**Cu(110)p(2x1)O” Experiment number: SI 1536 on beamline BM32.**  
**ESRF user report 2007**
2. **Koller G\*; Oehzelt M.\*; Haber T.\*; Ivanco J\*; Resel R; Ramsey MG;**  
**Experiment “In situ growth studies of sexiphenyl/sexithiophene heterostructures**  
**on TiO<sub>2</sub>(110)” Experiment number: SI-1293 on beamline BM32.**  
**ESRF user report 2006**
3. **Haber T.\*; Werzer O.\*; Resel R.\*; Lengyel O.\*; Wondergem H.\*; Ivanco J.\*;**  
**Experiment “Evolution of epitaxial order in sexithiophene films grown on**  
**TiO<sub>2</sub>(110)” Experiment number: SI-1160 on beamline ID10B.**  
**ESRF user report 2006**
4. G. Koller\*, S. Berkebile\*, M. Oehzelt\*, M.G. Ramsey\*  
Experiment “Growth of pentacene heterostructures on single crystalline films of  
sexiphenyl and sexithiophene”  
BESSY Report 2006

### 1.2.1.6 Project 06 (PI Sitter)

#### Publications

1. A. Andreev, F. Quochi, F. Cordella, A. Mura, G. Hlawacek, G. Bongiovanni, H. Sitter, C. Teichert, N. S. Sariciftci  
*Coherent random lasing in the deep blue from self-assembled organic nanofibers*  
J.Appl.Phys. 99, 034305.1-034305.6 (2006)
2. A. Montaigne Ramil, H. Sitter, Th. B. Singh, N. Marjanovic, S. Günes, G. J. Matt, N. S. Sariciftci, A. Andreev, N. Haber, R. Resel  
*Influence of film growth conditions on carrier mobility of Hot Wall epitaxial grown fullerene based transistors.*  
J. of Cryst.Growth 288, 123-127 (2006)
3. A. Yu. Andreev, A. Montaigne, G. Hlawacek, H. Sitter, C. Teichert  
*Para-Sexiphenyl Thin Films Grown by Hot Wall Epitaxy on KCl(100) substrates*  
J. of Vac. Sci. and Technol. A, 24/4, 1660-1663 (2006)
4. G. J. Matt, Th. B. Singh, N. S. Sariciftci, A. Montaigne Ramil, H. Sitter  
*Switching in C60-fullerene based field effect transistors*  
Appl.Phys.Lett, 88, 263516/ 1-3 (2006)
5. C. Teichert, G. Hlawacek, A. Yu. Andreev, H. Sitter, P. Frank, A. Winkler, N. S. Sariciftci  
*Spontaneous rearrangement of para-sexiphenyl crystallites into nano-fibers (invited rapid communication)*  
Appl. Phys. A , Invited rapid communication 82, 665-669 (2006)
6. B. Singh, G. Hernandez-Sosa, H. Neugebauer, A. Andreev, H. Sitter, N. S. Sariciftci  
*Electrical transport properties of hot wall epitaxially grown para-sexiphenyl nano-needles*  
Phys. Stat. Sol. (b) 243, No.13, 3329-3332 (2006)
7. T. Anthopoulos, B. Singh, N. Marjanovic, N. S. Sariciftci, A. Ramil, H. Sitter, M. Cölle, D. de Leeuw  
*High performance n-channel organic field-effect transistors and ring oscillators based on C60 fullerene films*  
Appl.Phys.Lett 89, 213504/1-3 (2006)
8. T. Haber, M. Oehzelt, R. Resel, A. Andreev, A. Thierry, H. Sitter, D. -M. Smilgies, W. Schaffer, W. Grogger  
*Single crystalline nature of para-sexiphenyl crystallites grown on KCl(100)*  
J. of Nanoscience and Nanotechnology, 6, 698-703 (2006)
9. Th. B. Singh, N. S. Sariciftci, H. Yang, L. Yang, B. Plochberger, H. Sitter  
*Correlation of crystalline and structural properties of C60 thin films grown at various temperature with charge carrier mobility*  
Appl. Phys. Lett. 90, 213512/1-3 (2007)
10. P. Frank, G. Hernandez-Sosa, H. Sitter, A. Winkler  
*Search for a wetting layer in thin film growth of para-hexaphenyl on*

**KCI(001)**

**Thin Sol. Films, DOI:10.1016/j.tsf.2007.08.142 (2007)**

11. **Th. B. Singh, H. Yang, B. Plochberger, L. Yang, H. Sitter, H. Neugebauer, N. S. Sariciftci**  
***Characterization of highly crystalline C60 thin films and their field-effect mobility***  
Phys. Stat. Sol (b), 224 (11), 3845-3848 (2007)  
DOI:10.1002/pssb.200776122
12. F. Cordella, F. Quochi, M. Saba, A. Andreev, H. Sitter, N. S. Sariciftci, A. Mura, G. Bongiovanni  
***Optical Gain Performance of Epitaxially Grown para-Sexiphenyl Films***  
Adv. Mat., 19, 2252-2256 (2007)  
DOI: 10.1002/adma.200701041
13. F. Quochi, M. Saba, F. Cordella, A. Gocalinska, R. Corpino, M. Marceddu, A. Anedda, A. Andreev, H. Sitter, N. S. Sariciftci, A. Mura, G. Bongiovanni  
***Temperature tuning of lasing threshold in self-assembled oligophenyl nanofibers under nanosecond optical excitation***  
Adv. Mat., 2008  
DOI.10.1002/adma.20080059
14. O. Lengyel, A. Satka, T. Haber, J. Kovac, H. Sitter, R. Resel  
***The influence of substrate temperature on the growth of sexiphenyl on mica (001)***  
Cryst. Res. Technol., 43 (1), 44-49 (2007)  
DOI 10.1002/crat.200711047
15. K.-J. Liu, G. Hernandez-Sosa, H. Sitter, C.-F. Zhang, Z.-W. Dong, Y.-L. You, S.-X. Qian  
***Two-photon absorption induced photoluminescence in para-sexiphenyl nano-needles***  
Chem. Phys. Lett., 446, 83-86 (2007)
16. **H. Sitter, R. Resel, G. Koller, M. G. Ramsey, A. Andreev, C. Teichert,**  
***“Fundamentals of organic film growth and characterization”***, book chapter  
in **“Organic Nanostructures for Next Generation Devices”**, Springer Series  
in Materials Science 101, K. Al-Shamiri, H.-G. Rubahn, H. Sitter (Eds.),  
(Springer Berlin 2008), pp. 3-19.
17. H. Sitter,  
***“Hot-Wall Epitaxial Growth of Films of conjugated molecules”***, book chapter in  
“Organic Nanostructures for Next Generation Devices”, Springer Series in  
Materials Science 101, K. Al-Shamiri, H.-G. Rubahn, H. Sitter (Eds.), (Springer  
Berlin 2008), pp. 89 -119.
18. **Mihai Irimia-Vladu, Nenad Marjanovic, Angela Vlad, Alberto Montaigne  
Ramil, Gerardo Hernandez-Sosa, Reinhard Schwödiauer, Siegfried Bauer  
and Niyazi Serdar Sariciftci,**  
***Vacuum processed polyaniline – C60 organic field effect transistors***  
Advanced Materials, 2008 (in print)

**Submitted papers:**

1. **G. Hernandez-Sosa, C. Simbrunner, T.Höfler, A. Moser, O. Werzer, B. Kunert,  
G.Trimmel, W.Kern, R.Resel and H. Sitter,**

***Modification of Para-sexiphenyl layer growth by UV induced polarity changes of polymeric substrates***  
Chemistry of Materials, submitted

2. **G. Hernandez-Sosa, C. Simbrunner, T.Höfler, A. Moser, O. Werzer, B. Kunert, G. Trimmel, W. Kern, R. Resel and H. Sitter**  
***Para-sexiphenyl layers grown on light sensitive polymer substrates***  
Proceedings of the EMRS spring meeting 2008, accepted.
3. **Mujeeb Ullah, Th. B. Singh, G.J. Matt, C. Simbrunner, G. Hernandez-Sosa, S.N. Sariciftci, H. Sitter**  
***Temperature dependence of charge Transport in C60 based Organic***  
Proceedings of the EMRS spring meeting 2008, accepted.
4. **Sh. M. Abd Al-Baqi, G. Hernandez-Sosa, H. Sitter, B. Th. Singh, Ph. Stadler, N.S. Sariciftci**  
***Rubrene thin film characteristics on mica substrates***  
Proceedings of the EMRS spring meeting 2008, accepted
5. **A. Kadashchuk, Yu. Skryshevski, I. Beynik, Ch. Teichert, G. Hernandez-Sosa, H. Sitter, A. Andreev, P. Frank and A. Winkler**  
***Spectroscopy of defects in epitaxially grown para-sexiphenyl nanostructures***  
Proceedings of the EMRS spring meeting 2008, accepted
6. **T. Djuric, H.G. Flesch, M. Koini, Sh. M. Abd Al-Baqi, H. Sitter, R. Resel**  
***Structural properties of rubrene thin films grown on mica surfaces***  
Proceedings of the EMRS spring meeting 2008, accepted
7. **B. A. Paez, Sh. M. Abd Al-Baqi, G. Hernandez-Sosa, A. Andreev, Ch. Winder, F. Padinger, C. Simbrunner, H. Sitter**  
***Crystalline stages of rubrene films probed by Raman spectroscopy***  
Proceedings of the EMRS spring meeting 2008, accepted
8. **G. Hlawacek, Xiao Ming He, Sh. Abd Al-Baqi, H. Sitter, Ch. Teichert**  
***Rubrene on mica: from the early growth stage to a late crystallisation***  
Proceedings of the EMRS spring meeting 2008, accepted
9. **A. Kadashchuk, Yu. Skryshevski, Yu. Piryatinski, I. Beynik, C. Teichert, G. Hernandez-Sosa, H. Sitter, A. Andreev, P. Frank, A. Winkler,**  
**“Origin of the low-energy emission band in epitaxially grown para-sexiphenyl nanocrystallites”,**  
J. Chem. Phys. submitted June 2008.

**T. Haber, R. Resel, A. Andreev, H. Sitter, M. Oehlzelt, D.-M. Smilgies**  
***Evolution of epitaxial order of para-sexiphenyl on CKI(100)***  
J. Cryst. Growth, (submitted 2007)

### 1.2.1.7 Project 07 (PI Teichert)

joint publications in bold with project members underlined

#### publications in peer refereed journals

- [1] T. Haber, M. Oehzelt, R. Resel, A. Andreev, A. Thierry, H. Sitter, D. Smilgies, B. Schaffer, W. Grogger, R. Resel, "Single crystalline nature of para-sexiphenyl crystallites grown on KCl(100)", J. Nanoscience and Nanotechnology 6 (2006) 698-703.
- [2] R.A. Montaigne, T.B. Singh, T. Haber, N. Marjanović, S. Günes, A. Andreev, G.J. Matt, R. Resel, H. Sitter, N.S. Sariciftci, "Influence of film growth conditions on carrier mobility of hot wall epitaxially grown fullerene based transistors", J. Cryst. Growth 288 (2006) 123-127.
- [3] C. Teichert, C. Hofer, G. Hlawacek, "Self-organization of inorganic and organic semiconductor nanostructures", Invited Review, Adv. Eng. Mat. 8 (2006) 1057-1065.
- [4] R. Resel, M. Oehzelt, O. Lengyel, T. Haber, T. Schüllli, A. Thierry, G. Hlawacek, C. Teichert, S. Berkebile, G. Koller, M. Ramsey, "The epitaxial sexiphenyl (001) monolayer on TiO<sub>2</sub>(110): A grazing incidence X-ray diffraction study", Surf. Sci. 600 (2006) 4645-4649.
- [5] S. Berkebile, G. Koller, G. Hlawacek, C. Teichert, F. P. Netzer, M. G. Ramsey, "Diffusion versus Sticking Anisotropy: Anisotropic Growth of Organic Molecules", Surf. Sci. 600 (2006) L313-L317.
- [6] F. Cordella, F. Quochi, M. Saba, A. Andreev, H. Sitter, N.S. Sariciftci, A. Mura, G. Bongiovanni, "Optical gain performance of epitaxially grown para-sexiphenyl films" Adv. Mat. 19 (2007) 2252-2256.
- [7] S. Müllegger, G. Hlawacek, T. Haber, P. Frank, C. Teichert, R. Resel, A. Winkler, "The influence of substrate temperature on the structure and morphology of sexiphenyl thin films on Au(111)", Appl. Phys. A 87 (2007) 103-111.
- [8] P. Frank, G. Hlawacek, O. Lengyel, A. Satka, C. Teichert, R. Resel, A. Winkler, "Influence of surface temperature and surface modifications on the initial layer growth of para-hexaphenyl on mica (001)", Surf. Sci. 601 (2007) 2152-2160.
- [9] G. Hlawacek, Q. Shen, C. Teichert, R. Resel, D. Smilgies, "Controlling molecular orientation of OMBE grown 6P thin films on mica(001)", Surf. Sci. 601 (2007) 2584-2587.
- [10] A. Lex, P. Pacher, O. Werzer, A. Track, Q. Shen, R. Schennach, G. Koller, G. Hlawacek, E. Zojer, R. Resel, M. Ramsey, C. Teichert, W. Kern, G. Trimmel "Synthesis of a photosensitive thiocyanate-functionalized trialkoxysilane and its application in patterned surface modifications", Chem. Mater. 20 (2008) 2009-2015.
- [11] G. Hlawacek, P. Puschnig, P. Frank, A. Winkler, C. Ambrosch-Draxl, C. Teichert, "Characterization of step-edge barrier in organic thin-film growth", Science, 321 (2008) 108-111.
- [12] A. Andreev, F. Quochi, M. Saba, F. Cordella, A. Gocalinska, R. Corpino, M. Marceddu, A. Anedda, H. Sitter, N. S. Sariciftci, A. Mura, G. Bongiovanni Temperature Tuning of Nonlinear Exciton Processes in Self-Assembled Oligophenyl Nanofibers under Laser Action. Adv. Mat. (2008) in print, 1-5.



[13] A. Kadashchuk, Yu. Skryshevski, I. Beynik, C. Teichert, G. Hernandez-Sosa, H. Sitter, A. Andreev, P. Frank, A. Winkler, "Spectroscopy of Defects in Epitaxially Grown Para-sexiphenyl Nanostructures", submitted to "Springer Proceedings", May 2008.

[14] G. Hlawacek, S. Abd-al Baqi, X.-M. He, H. Sitter, C. Teichert, "Rubrene on mica: from the early growth stage to late crystallization", submitted to "Springer Proceedings", June 2008.

[15] A. Kadashchuk, Yu. Skryshevski, Yu. Piryatinski, I. Beynik, C. Teichert, G. Hernandez-Sosa, H. Sitter, A. Andreev, P. Frank, A. Winkler, "Origin of the low-energy emission band in epitaxially grown para-sexiphenyl nanocrystallites", submitted to J. Chem. Phys., June 2008.

[16] G. Hlawacek, Q. Shen, C. Teichert, A. Lex, G. Trimmel, W. Kern, "Hierarchy of adhesion forces in patterns of photo reactive surface", submitted to J. Chem. Phys., July 2008.

#### Book contributions:

[1] A. Andreev, C. Teichert, B. Singh, N. S. Sariciftci, "Fabrication and Characterization of Self Organized Nanostructured Organic Thin Films and Devices", book chapter in "Organic Nanostructures for Next Generation Devices", Springer Series in Materials Science 101, K. Al-Shamiri, H.-G. Rubahn, H. Sitter (Eds.), (Springer Berlin 2008), pp. 263-300.

[2] H. Sitter, R. Resel, G. Koller, M. G. Ramsey, A. Andreev, C. Teichert, "Fundamentals of organic film growth and characterization", book chapter in "Organic Nanostructures for Next Generation Devices", Springer Series in Materials Science 101, K. Al-Shamiri, H.-G. Rubahn, H. Sitter (Eds.), (Springer Berlin 2008), pp. 3-19.

### 1.2.1.8 Project 08 (PI Resel)

common publications with other NFN members are in bold  
co-workers of the project part 08 are underlined

#### publications in peer refereed journals

1. **T. Haber**, J. Ivanco, M. G. Ramsey, **R. Resel**,  
*Epitaxial growth of sexithiophene on TiO<sub>2</sub>(110)*  
Journal of Crystal Growth, vol. 310, p. 101-9 (2008)
2. **O. Lengyel**, A. Šatka, **T. Haber**, J. Kovač, H. Sitter, **R. Resel**,  
*The influence of substrate temperature on the growth of sexiphenyl on mica(001)*  
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### **1.2.1.10 project 10 (D.Meissner – H.Sitter)**

#### **Publications**

1. Pat.Nr. 503818: „Vorrichtung zum Umwandeln infraroter Strahlung in elektrischen Strom“. Patentanmelder J.K. Universität Linz, Inventors: Matt Gebhard und Fromherz Thomas vom Institut für Festkörper und Halbleiterphysik.

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