

II. PUBLICATIONS

Veröffentlichungen

1. **Indigo - A Natural Pigment for High Performance Ambipolar Organic Field Effect Transistors and Circuits**
M. Irimia-Vladu, E. Głowacki, P. Troshin, G. Schwabegger, L. Leonat, D. Susarova, O. Krystal, M. Ullah, Y. Kanbur, M. Bodea, V. Razumov, H. Sitter, S. Bauer, N. S. Sariciftci
Advanced Materials 24 (2012), 375
2. **Supramolecular Chemistry for Organic Photovoltaics**
P. Troshin, N.S. Sariciftci
Supramolecular Chemistry: From Molecules to Nanomaterials. Edited by P.A. Gale and J.W. Steed
John Wiley & Sons, Ltd. ISBN: 978-0-0470-74640-0. 8 Volume Set
3. **Photo-Fries-based photosensitive polymeric interlayers for patterned organic devices**
A. Montaigne Ramil, G. Hernandez-Sosa, T. Griesser, C. Simbrunner, T. Höfler, G. Trimmel, W. Kern, Q. Shen, C. Teichert, G. Schwabegger, H. Sitter, N. S. Sariciftci
Applied Physics A 107 (2012), 985
4. **Vacuum-processed polyethylene as a dielectric for low operating voltage organic field effect transistors**
Y. Kanbur, M. Irimia-Vladu, E. D. Głowacki, G. Voss, M. Baumgartner, G. Schwabegger, L. Leonat, M. Ullah, H. Sarica, S. Erten-Ela, R. Schwödäuer, H. Sitter, Z. Küçükyavuz, S. Bauer, N. S. Sariciftci
Organic Electronics 13 (2012), 919
5. **Ultrathin and lightweight organic solar cells with high flexibility**
M. Kaltenbrunner, M. S. White, E. D. Głowacki, T. Sekitani, T. Someya, N. S. Sariciftci, S. Bauer
Nature Communications 3 (2012), Article number 770
6. **Ultra-thin anodic alumina capacitor films for plastic electronics**
A. I. Mardare, M. Kaltenbrunner, N.S. Sariciftci, S. Bauer, A.W. Hassel
Physica Status Solidi A 209, No. 5, (2012), 813
7. **Electrochemical doping for lowering contact barriers in organic field effect transistors**
S. Schaur, P. Stadler, B. Meana-Esteban, H. Neugebauer, N.S. Sariciftci
Organic Electronics 13 (2012), 1296

8. **Indigo and Tyrian Purple – From Ancient Natural Dyes to Modern Organic Semiconductors**
E. D. Głowacki, G. Voss, L. Leonat, M. Irimia-Vladu, S. Bauer, N. S. Sariciftci
Israel Journal of Chemistry 52 (2012)
9. **Realization of solution processed multi-layer bulk heterojunction organic solar cells by electro-spray deposition**
M. Ali, M. Abbas, S. Karim Shah, R. Tuerhong, A. Generosi, B. Paci, L. Hirsch, R. Gunnella
Organic Electronics 13 (2012), 2130
10. **Electrocatalytic and photocatalytic reduction of carbon dioxide to carbon monoxide using the alkynyl-substituted rhenium(I) complex (5,5'-bisphenylethynyl-2,2'-bipyridyl)Re(CO)3Cl**
E. Portenkirchner, K. Oppelt, C. Ulbricht, D.A.M. Egbe, H. Neugebauer, G. Knör, N. S. Sariciftci
Journal of Organometallic Chemistry 716 (2012), 19
11. **Effect of blend ratio on poly(p-phenylene-ethynylene)-alt-poly (p-phenylene-vinylene)polymer solar cell**
N. Tore, E. A. Parlak, O. Usluer, D.A.M.Egbe, S.E.San, P. Aydogan
Solar Energy Materials & Solar Cells 104 (2012), 39
12. **Charge Carrier Mobility, Photovoltaic, and Electroluminescent Properties of Anthracene-Based Conjugated Polymers Bearing Randomly Distributed Side Chains**
Ö. Usluer, C. Kästner, M. Abbas, C. Ulbricht, V. Cimrova, A. Wild, E. Birckner, N. Tekin, N. S. Sariciftci, H. Hoppe, S. Rathgeber, D.A. M. Egbe
Journal of Polymer Science Part A: Polymer Chemistry 50 (2012), 3425
13. **Electrical properties of pSi/[6,6] phenyl-C61 butyric acid methyl ester/Al hybrid heterojunctions: Experimental and theoretical evaluation of diode operation**
M. Bednorz, T. Fromherz, G. Matt, C. Brabec, M. Scharber, N. S. Sariciftci
Journal of Applied Physics 112 (2012), 114508
14. **Morphology evaluation of a polymer-fullerene bulk heterojunction ensemble generated by the fullerene derivatization**
C. Kästner, D. K. Susarova, R. Jadhav, C. Ulbricht, D. A. M. Egbe, S. Rathgeber, P. Troshin, H. Hoppe
Journal of Materials Chemistry 22 (2012), 15987
15. **Intermolecular hydrogen-bonded organic semiconductors—Quinacridone versus pentacene**
E. Głowacki, L. Leonat, M. Irimia-Vladu, R. Schwödiauer, M. Ullah, H. Sitter, S. Bauer, N. S. Sariciftci
Applied Physics Letters 101 (2012), 023305

16. **Electric field dependence of charge-carrier hopping transport at large carrier concentrations in disordered organic solids: Meyer-Neldel and Gill energies**
I. Fishchuk, A. Kadashchuk, M. Ullah, H. Sitter, N. S. Sariciftci, H. Bässler
Journal of Physics: Conference Series 376 (2012), 012011
17. **Balanced charge carrier mobilities in bulk heterojunction organic solar cells**
M. Abbas, N. Tekin
Applied Physics Letters 101 (2012), 073302
18. **Material solubility and molecular compatibility effects in the design of fullerene/polymer composites for organic bulk heterojunction solar cells**
P. Troshin, D. Susarova, E. Khakina, A. Goryachev, O. Borshehev, S. Ponomarenko, V. Razumova, N. S. Sariciftci
Journal of Materials Chemistry 22 (2012), 18433
19. **Electron and hole transport in an anthracene-based conjugated polymer**
N. Camaioni, F. Tinti, A. Degli Esposti, S. Righi, O. Usluer, S. Boudiba, D.A.M. Egbe
Applied Physics Letters 101 (2012), 053302
20. **Material structure–composite morphology–photovoltaic performance relationship for organic bulk heterojunction solar cells**
P. Troshin, O. Mukhacheva, A. Goryachev, N. Dremova, D. Voylov, C. Ulbricht, D.A.M. Egbe, N.S. Sariciftci, V. Razumov
Chem Comm 48 (2012), 9477
21. **Green and biodegradable electronics**
M. Irimia-Vladu, E. Głowacki, G. Voss, S. Bauer, N. S. Sariciftci
Materials Today Vol 15, Nr 7-8, (2012), 340
22. **Photosensitizing porphyrin–triazine compound for bulk heterojunction solar cells**
A. Luechai, J. Gasiorowski, A. Petsom, H. Neugebauer, N. S. Sariciftci, P. Thamyongkit
Journal of Materials Chemistry, 22 (2012), 23030
23. **Thermal, optical, electrochemical, and electrochromic characteristics of novel polyimides bearing the Acridine Yellow moiety**
M. Grucela-Zajac, M. Filapek, L. Skorka, J. Gasiorowski, E. D. Glowacki, H. Neugebauer, E. Schab-Balcerzak
Materials Chemistry and Physics 137 (2012), 221

24. **Organic Solar Cells**
E. Glowacki, N.S. Sariciftci, C. W. Tang
Bookchapter in Encyclopedia of Sustainability Science and Technology, Eds. R.A. Meyers (2012), 97-128, ISBN 978-0-387-89469-0
25. **Electrochemical characterization of sub-micro-gram amounts of organic semiconductors using scanning droplet cell microscopy**
J. Gasiorowski, A. Mardare, N.S. Sariciftci, A. Hassel
Journal of Electroanalytical Chemistry 691 (2013), 77
26. **Improved Photovoltaic Performance of PPV-Based Copolymers Using Optimized Fullerene-Based Counterparts**
P. A. Troshin, O. A. Mukhacheva, Ö. Usluer, A. E. Goryachev, A. V. Akkuratov, D. K. Susarova, N. N. Dremova, S. Rathgeber, N. S. Sariciftci, V. F. Razumov, D. A. M. Egbe
Advanced Energy Materials 3 (2013), 161
27. **Optical and electrical properties of electrochemically doped organic field effect transistors**
C. Yumusak, M. Abbas, N.S. Sariciftci
Journal of Luminescence, 134 (2013), 107
28. **Electronic and optoelectronic materials and devices inspired by nature**
P. Meredith, C. Bettinger, M. Irimia-Vladu, A. Mostert, P. Schwenn
Reports on Progress in Physics 76 (2013), 034501
29. **Stability of Diodes with Poly(3-hexylthiophene) and Polyazomethines Thin Organic Layer**
H. Bednarski, J. Gasiorowski, M. Domanski, B. Hajduk, J. Jurusik, B. Jarzabek, J. Weszka
Acta Physica Polonica A

in print/submitted

1. **Electrocatalytic reduction of carbon dioxide to carbon monoxide by a polymerized film of the alkynyl-substituted rhenium(I) complex (5,5'-bisphenylethynyl-2,2'-bipyridyl)Re(CO)₃Cl**
E. Portenkirchner, J. Gasiorowski, K. Oppelt, S. Schlager, C. Schwarzinger, H. Neugebauer, G. Knör, N. S. Sariciftci
Chem Cat Chem, submitted

2. **Hydrogen-Bonded Semiconducting Pigments for Air-Stable Field-Effect Transistors**
E. Głowacki, M. Irimia-Vladu , M. Kaltenbrunner , J. Gasiorowski, M. White, U. Monkowius, G. Romanazzi, G. Suranna, P. Mastrorilli, T. Sekitani, S. Bauer, T. Someya, L. Torsi, N. S. Sariciftci
Advanced Materials, in press

3. **Doping-Induced Immobile Charge Carriers in Polyazomethine: ASpectroscopic Study**
J. Gąsiorowski, E. Głowacki, B. Hajduk, M. Siwy, M. Chwastek-Ogierman, J. Weszka, H. Neugebauer, N. S. Sariciftci
The Journal of Physical Chemistry, in press