

II. PUBLICATIONS

Veröffentlichungen

1. **Infrared signatures of positive and negative charge carriers in conjugated polymers with low band gaps**
H. Neugebauer
Journal of Electroanalytical Chemistry Vol 563 (2004) 153-159
2. **Anomalous photoinduced absorption of conjugated polymer/fullerene mixtures at low temperatures and high frequencies**
M. Scharber, C. Winder, H. Neugebauer, N.S. Sariciftci
Synthetic Metals Special Issue Vol 141 (2004) 109-112
3. **Modelling of optical absorption in conjugated polymer/fullerene bulk-heterojunction plastic solar cells**
H. Hoppe, N. Arnold, D. Meissner, N.S. Sariciftci
Thin Solid Films Vol 451-452 (2004) 589-592
4. **A systematic study of the anisotropic optical properties of thin poly(3-octylthiophene)-films in dependence on growth parameters**
U. Zhokhavets, G. Gobsch, H. Hoppe, N.S. Sariciftci
Thin Solid Films Vol 451-452 (2004) 69-73
5. **Hybrid solar cells based on inorganic nanoclusters and conjugated polymers**
E. Arici, H. Hoppe, F. Schäffler, D. Meissner, M.A. Malik, N.S. Sariciftci
Thin Solid Films Vol 451-452 (2004) 612-618
6. **Investigation of excited states in polymer/fullerene solar cells by means of photoinduced reflection-/absorption spectroscopy**
C. Arndt, U. Zhokhavets, G. Gobsch, C. Winder, C. Lungenschmied, N.S. Sariciftci
Thin Solid Films Vol 451-452 (2004) 60-63
7. **Low bandgap polymers for photon harvesting in bulk heterojunction solar cells**
C. Winder, N.S. Sariciftci
Journal of Materials Chemistry 14 (2004) 1077-1086

8. **Anisotropic optical properties of thin poly(3-octylthiophene)-films as a function of preparation conditions**
U. Zhokhavets, G. Gobsch, H. Hoppe, N.S. Sariciftci
Synthetic Metals 143 (2004) 113-117
9. **Morphology effects in nanocrystalline CuInSe₂-conjugated polymer hybrid systems**
E. Arici, H. Hoppe, F. Schäffler, D. Meissner, M. Malik, N.S. Sariciftci
Applied Physics A 79 (2004) 59-64
10. **Novel regiospecific MDMO-PPV copolymer with improved charge transport for bulk heterojunction solar cells**
A.J. Mozer, P. Denk, M.C. Scharber, H. Neugebauer, N.S. Sariciftci, P. Wagner, L. Lutsen and D. Vanderzande
J. Phys. Chem. B 108 (2004) 5235-5242
11. **Negative electric field dependence of charge carrier drift mobility in conjugated, semiconducting polymers**
A.J. Mozer, N.S. Sariciftci
Chemical Physics Letters 389 (2004) 438-442
12. **Random laser action in self-organized para-sexiphenyl nano-fibers grown by hot wall epitaxy**
F. Quochi, F. Cordella, R. Orru, J.E. Communal, P. Verzeroli, A. Mura, G. Bongiovanni, A. Andreev, H. Sitter, N.S. Sariciftci
Applied Physics Letters Vol 84 No 22 (2004) 4454-4456
13. **Morphology and growth kinetics of organic thin films deposited by hot wall epitaxy**
A. Andreev, C. Teichert, G. Hlawacek, H. Hoppe, R. Resel, D.M. Smilgies, H. Sitter, N.S. Sariciftci
Organic Electronics 5 (2004) 23-27
14. **Photophysics and photovoltaic device properties of phthalocyanine-fullerene dyad: conjugated polymer mixtures**
H. Neugebauer, M. Loi, C. Winder, N.S. Sariciftci, G. Cerullo, A. Gouloumis, P. Vazquez, T. Torres
Solar Energy Materials and Solar Cells Vol 83 (2004) 201-209
15. **Patterns of efficiency and degradation of composite polymer solar cells**
T. Jeranko, H. Tributsch, N.S. Sariciftci, J.C. Hummelen
Solar Energy Materials & Solar Cells 83 (2004) 247-262

16. **Nonvolatile organic field-effect transistor memory element with a polymeric gate electret**
Th. B. Singh, N. Marjanovic, G. J. Matt, N.S. Sariciftci, R. Schwödiauer and S. Bauer
Applied Physics Letters Vol 85 No. 22 (2004) 5409
17. **Hybrid solar cells**
E. Arici, D. Meissner, N.S. Sariciftci
Encyclopedia of Nanotechnology, Edited by Hari Singh Nalwa, Vol. 3 (2004) 929-944
18. **Nanostructured bipolar organic polymers**
A. Cravino, H. Neugebauer, N.S. Sariciftci
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19. **Anomalous charge transport behavior of fullerene based diodes**
G.J. Matt, N.S. Sariciftci, T. Fromherz
Applied Physics Letters Nr. 9 Vol 84 (2004) 1570-1572
20. **Nanoscale morphology of conjugated polymer/fullerene based bulk-heterojunction solar cells**
H. Hoppe, M. Niggemann, C. Winder, J. Kraut, R. Hiesgen, A. Hinsch, D. Meissner, N.S. Sariciftci
Advanced Functional Materials 14 (2004) 1005
21. **Organic solar cells: an overview**
H. Hoppe, N.S. Sariciftci
J. Mater. Res. 19 (2004) 1924
22. **Photovoltaic action of conjugated polymer/fullerene bulk heterojunction solar cells using novel PPE-PPV copolymers**
H. Hoppe, D.A.M. Egbe, D. Mühlbacher, N.S. Sariciftci
J. Mater. Chem. 14 (2004) 3461
23. **Aggregate states and energetic disorder in highly-ordered nanostructures of para-sexiphenyl grown by hot wall epitaxy**
A. Kadashchuk, A. Andreev, H. Sitter, N.S. Sariciftci, Yu. Skryshevski, Yu. Piryatinski, I. Blonsky and D. Meissner
Advanced Functional Materials 14, No 10 (2004) 970

24. **Organic p-i-n solar cells**
B. Maennig, J. Drechsel, D. Gebeyehu, P. Simon, F. Kozlowski, A. Werner, F.Li.S. Grundmann, S. Sonntag, M. Koch, K. Leo, M. Pfeiffer, H. Hoppe, D. Meissner, N.S. Sariciftci, I. Riedel, V. Dyakonov and J. Parisi
Appl. Phys. A 79,1 (2004)

25. **MIP-type organic solar cells incorporating phthalocyanine/fullerene mixed layers and doped wide-gap transport layers**
J. Drechsel, B. Maennig, D. Gebeyehu, M. Pfeiffer, K. Leo and H. Hoppe
Org. Electron. 5, Issue 4 (2004) 175

26. **Blue emitting self-assembled nano-fibers of para-sexiphenyl grown by hot wall epitaxy**
A Andreev, F. Quochi, A. Kadashchuk, H. Sitter, C. Winder, H. Hoppe, N.S. Sariciftci, A. Mura and G. Bongiovanni
Physica Status Solidi (a) 201 Issue 10 (2004) 2288

Books:

1. **Organic photovoltaics mechanisms, materials, and devices**
Sam-Shajing Sun and N. S. Sariciftci
ISBN: 0-8247-5963-X, CRC Press (Taylor&Francis Group)

In print:

1. **Morphology and growth kinetic of molecular organic thin films deposited by hot wall epitaxy**
A. Andreev, H. Sitter, S. Sariciftci, R. Resel, D.M. Smilgies
Proceedings of Conference on Crystal Growth and Epitaxy, Vienna, 2002
2. **Self-organization in organic semiconductor thin films grown by hot wall epitaxy**
Ch. Teichert, G. Hlawacek, H. Sitter, A. Andreev, G. Matt, N.S. Sariciftci
Proceedings of 35th IUVSTA Workshop, Trofaiach, Austria
3. **Correlation of thin-film nanomorphology and ambipolar transport in organic field-effect transistors using conjugated polymer/fullerene blends**
Th.B. Singh, S. Günes, N. Marjanovic, R. Menon and N.S. Sariciftci
Journal of Applied Physics
4. **Tuning of the photoinduced charge transfer process in donor-acceptor “double cable” copolymers**
S. Luzzati, A. Mozer, P. Denk, M. Scharber, M. Catellani, N. Lupsac, F. Giacalone, J. Segura, N. Martin, H. Neugebauer, N.S. Sariciftci
Proceedings of the 48th SPIE, San Diego
5. **High-mobility n-channel organic field-effect transistor based on epitaxially grown C60 films**
Th.B. Singh, N. Marjanovic, G.J. Matt, S. Günes, N.S. Sariciftci, A. Montaigne Ramil, A. Andreev, H. Sitter, R. Schwödiauer and S. Bauer
Organic Electronics 6, (2005) 105-110
6. **Polymer based photovoltaic materials and devices**
A.J. Mozer and N.S. Sariciftci
Special issue of Comptes Rendus Chemie, Proceedings of the IPS-15 Conference, Paris
7. **Novel regiospecific MDMO-PPV polymers with improved charge transport properties for bulk heterojunction solar cells**
A.J. Mozer, P. Denk, M.C. Scharber, H. Neugebauer, N.S. Sariciftci, P. Wagner, L. Lutsen, D. Vanderzande, A. Kadashchuk, R. Staneva, R. Resel
Synthetic Metals
8. **Charge transport and recombination in donor-acceptor bulk heterojunction solar cells**
J. Poortmans and V. Arkhipov (eds), Wiley and Sons. (Expected by June 2005)
In Thin Film Solar Cells: Fabrication, Characterization and Applications

9. **Morphology and growth kinetics of organic thin films deposited by hot wall epitaxy on KCl substrates**
A. Andreev, T. Haber, D.M. Smilgies, R. Resel, H. Sitter, N.S. Sariciftci, L. Valek
Journal of Crystal Growth
10. **Low-threshold blue lasing in epitaxially grown para-sexiphenyl nanofibers**
F. Quochi, A. Andreev, F. Cordella, R. Orrù, A. Mura, G. Bongiovanni, H. Hoppe, H. Sitter, N.S. Sariciftci
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11. **Blue emitting self-assembled nano-crystals of para-sexiphenyl grown by hot wall epitaxy**
A. Andreev, F. Quochi, H. Sitter, H. Hoppe, N.S. Sariciftci, A. Mura and G. Bongiovanni
Microelectronics Journal
12. **Fabrication and characterisation of solution-processed methanofullerene-based organic field-effect transistors**
Th.B. Singh, N. Marjanovic, P. Stadler, M. Auinger, G.J. Matt, S. Günes, N.S. Sariciftci, R. Schwödiauer and S. Bauer
Journal of Applied Physics 97, 083714 (2005)
13. **Synthesis and properties of end-capped sexithiophenes incorporating the ethylene dithiophene unit**
C.R. Mason, P.J. Skabara, D. Cupertino, J. Schofield, F. Meghdadi, B. Ebner and N.S. Sariciftci
Journal of Materials Chemistry 15, (2005) 1446-1453

submitted to:

1. **Plastic solar cells based on novel PPE-PPV-copolymers**
H. Hoppe, D.A.M. Egbe, D. Mühlbacher, M. Koppe, N.S. Sariciftci
2. **Nano-crystalline fullerene phases in polymer/fullerene bulk-heterojunction solar cells:
a transmission electron microscopy study**
H. Hoppe, M. Drees, W. Schwinger, F. Schäffler, N.S. Sariciftci
3. **Efficient organic solar cells based on a multiple p-i-n architecture using doped wide-gap
transport layers**
J. Drechsel, B. Manning, F. Kozłowski, M. Pfeiffer, K. Leo, H. Hoppe
4. **Spectroscopic properties of poly(ethylenedithialthiophene) – the sulphur bridged analogue of
PEDOT**
A. Cravino, H. Neugebauer, A. Petr, P.J. Skabara, H.J. Spencer, L. Dunsch, N.S. Sariciftci
Abstract for ICSM 2004
5. **Electric field induced enhancement of the photoinduced absorption in conjugated polymer /
fullerene bulk heterojunction solar cells**
C. Winder, C. Lungenschmied, N.S. Sariciftci, C. Arndt, U. Zhokhovets, G. Gobsch
Organic Electronics