

II. PUBLICATIONS

Veröffentlichungen

1. Characterization of Large Area Flexible Plastic Solar Cells Based on Conjugated Polymer/Fullerene Composites

D. Gebeyehu, F. Padinger, C.J. Brabec, T. Fromherz, J.C. Hummelen, and N.S. Sariciftci

Int. J. of Photoenergy Vol. 1 (1999), 89-93
2. Infrared spectroelectrochemical investigations on the doping of soluble poly(isothianaphthene methine) (PIM)

H. Neugebauer, C. Kvarnström, C. Brabec, N.S. Sariciftci, R. Kiebooms, F. Wudl, S. Luzzati

J. Chem. Phys 110 (1999) 12108-12115
3. The spin signature of charged photoexcitations in carbazolyl substituted polydiacetylene

C. Brabec, H. Johansson, A. Cravino, N.S. Sariciftci, D. Comoretto, G. Dellepiane, I. Maggio

J. Chem. Phys. 111 (1999), 10354-10361
4. Photovoltaic Properties of Conjugated Polymer / Methanofullerene Composites Embedded in a Polystyrene Matrix

C.J. Brabec, F. Padinger, N.S. Sariciftci

J. Appl. Phys. 85/9 (1999) 6866-6872
5. Stability Studies and Degradation Analysis of Plastic Solar Cell Materials by FTIR Spectroscopy

H. Neugebauer, C. J. Brabec, J. C. Hummelen, R. A. J. Janssen and N. S. Sariciftci

Synth. Metals 102 (1999) 1002-1003

6. In Situ FTIR Spectroelectrochemical Characterization of Poly(3,4-Ethylene-dioxythiophene) Films

C. Kvarnström, H. Neugebauer, S. Blomquist, H. J. Ahonen, J. Kankare, A. Ivaska and N. S. Sariciftci

Synth. Metals 101 (1999) 66
7. Investigations of Fullerene Thin Films with In situ FTIR Spectroelectrochemistry

C. Kvarnström, H. Neugebauer, G. Matt, H. Sitter and N. S. Sariciftci

Synth. Metals 103 (1999) 2430-2431
8. Light Induced ESR Studies in Conjugated Polymer-Fullerene Composites

G. Zorinians, V. Dyakonov, M. Scharber, C. J. Brabec, R. A. J. Janssen, J. C. Hummelen and N. S. Sariciftci

Synth. Metals 102 (1999) 1241-1242
9. Realization of Large Area Flexible Fullerene - Conjugated Polymer Photocells: A Route to Plastic Solar Cells

C. J. Brabec, F. Padinger, J. C. Hummelen, R. A. J. Janssen and N. S. Sariciftci

Synth. Metals 102 (1999) 861-864
10. Photoinduced FTIR Spectroscopy of Conjugated Polymer/Fullerene Composites Embedded into Conventional Host Polymer Matrices

H. Johansson, C. J. Brabec, H. Neugebauer, J. C. Hummelen, R. A. J. Janssen and N. S. Sariciftci

Synth. Metals 101 (1999) 192
11. Time Resolved Photoinduced Electron Spin Resonance Studies on Conjugated Polymer Fullerene Mixtures in Solution

M. C. Scharber, C. J. Brabec, V. Dyakonov and N. S. Sariciftci

Synth. Metals 101 (1999) 356-357
12. Photoexcitations in Carbazolyl Substituted Polydiacetylene (PDA) Fullerene Composites

C. Brabec, M. Scharber, H. Johansson, D. Comoretto, G. Dellepiane, I. Moggio, A.

- Cravino, J.C. Hummelen, N.S. Sariciftci
Synth. Metals 101 (1999) 298-299
13. CW-Photocurrent Measurements of Conjugated Polymers and Fullerenes Blended into a Conventional Polymer Matrix
F. Padinger, C. J. Brabec, J. C. Hummelen, R. A. J. Janssen and N. S. Sariciftci
Synth. Metals 102 (1999) 1285-1286
14. Photoinduced Charge Carriers in Conjugated Polymer-Fullerene Composites Studied with Light-Induced Electron Spin Resonance (LESR)
V. Dyakonov, G. Zorinians, M. Scharber, C. J. Brabec, R. A. J. Janssen, J. C. Hummelen and N. S. Sariciftci
Phys. Rev. B 59/12 (1999) 8019-8025
15. Fullerene-Oligophenyl Bilayers Grown by Hot-Wall-Epitaxy
G. Matt, C. J. Brabec, T. Nguyen Manh, D. Stifter, H. Sitter and N. S. Sariciftci
Synth. Metals 101 (1999) 656-657
16. In Situ Spectroelectrochemical Characterization of Poly(3,4-ethylenedioxythiophene)
C. Kvarnström, H. Neugebauer, S. Blomquist, H.J. Ahonen, J. Kankare, A. Ivaska
Electrochimica Acta 44 (1999) 2739-2750
17. In situ ATR-FTIR spectroelectrochemical comparison of pristine and polymerized C60 films
H. Neugebauer, C. Kvarnström, H. Sitter, Ch. Jögl, H. Kuzmany and N.S. Sariciftci
CP486, Electronic Properties of Novel Materials - Sci. and Techn. of Molecular Nanostructures, ed. by H. Kuzmany, Proc. IWEPNM 99 Kirchberg, The American Inst. of Physics pp 16-19
18. Combinatorial Chemistry Approach to Development of Molecular Plastic Solar Cells
Godovsky, O. Inganäs, C. J. Brabec, N. S. Sariciftci, J. C. Hummelen, R. A. J. Janssen, M. Prato, M. Maggini, J. Segura, N. Martin
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19. Organic Semiconductors
N. S. Sariciftci
"Wiley Encyclopedia of Electrical and Electronics Engineering" edited by John G. Webster, John Wiley & Sons, Inc., 429-434 (1999), ISBN 0471-13956-4
20. Polymeric Photovoltaic Materials
N. Serdar Sariciftci
Current Opinion in Solid State & Material Science, 1999 4(4), 373-378
21. Fullerenes as photoinduced electron acceptors: from photophysics to photovoltaics
N. Serdar Sariciftci
Book Chapter of Fullerenes Vol. 7, edited by P.V. Kamat, D.M. Guldi, K.M. Kadish, "Recent Advances in the Chemistry and Physics of Fullerenes and Related Materials", ISBN 1-56677-234-6, p. 279-285
ECS-Proceedings Volume 99-12, Seattle, May 99

In print:

1. Comparison of photovoltaic devices containing various blends of polymer and fullerene derivatives
T. Fromherz, F. Padinger, D. Gebeyehu, C. Brabec, J.C. Hummelen, and N.S. Sariciftci
Publ. in 2000: Solar Energy Materials & Solar Cells (SEMISC) 61 (2000) 61-68
2. Photoinduced FT-IR Spectroscopy and CW-Photocurrent Measurements of Conjugated Polymers and Fullerenes Blended into a Conventional Polymer Matrix
C.J. Brabec, H. Johansson, F. Padinger, H. Neugebauer, J.C. Hummelen, and N.S. Sariciftci
Publ. in 2000: Solar Energy Materials & Solar Cells (SEMISC) 61 (2000) 19-33

3. Stability and Photodegradation Mechanisms of Conjugated Polymer / Fullerene Plastic Solar Cells

H. Neugebauer, C. Brabec, J.C. Hummelen, N.S. Sariciftci

Publ. in 2000: Solar Energy Materials and Solar Cells (SEMISC) 61 (2000) 35-42
4. Vibrational signatures of electrochemical p- and n-doping of poly(3,4-ethylenedioxythiophene) films: an in situ attenuated total reflection Fourier transform infrared (ATR-FTIR) study

C. Kvarnström, H. Neugebauer, A. Ivaska and N.S. Sariciftci

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5. Supramolecular Photophysics and Photovoltaic Devices of Fullerene/Conjugated Polymer Composites, N. S. Sariciftci, Chapter 3 of the "*Fullerene Polymers and Fullerene-Polymer Composites*" edited by P. C. Eklund and A. M. Rao

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6. Investigation of Photoinduced Charge Transfer in Composites of a Novel Precursor PPV Polymer and Fullerenes

C.J. Brabec, A. Cravino, G. Zerza, F. Padinger, N.S Sariciftci, R. Kiebooms, D. Vanderzande, J.C. Hummelen

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7. The Interconnection between Efficiency and Morphology of two component Systems in Plastic Solar Cells

F. Padinger, D. Gebeyehu, C.J. Brabec, T. Fromherz, N.S. Sariciftci, J.C. Hummelen

MRS Proceedings Boston 99
8. Highly Ordered Crystalline Thin Film Bilayers of para-Hexaphenyl and C60 Grown by Hot Wall Epitaxy

H. Sitter, G. Matt, A.Y. Andreev, C.J. Brabec, D. Badt, H. Neugebauer, N.S. Sariciftci

MRS Proceedings Boston 99

9. Quenching of the magnetic field effect on the photocurrent and photocurrent detected magnetic resonance in conjugated polymer - fullerene diodes

M.C. Scharber, C.J. Brabec, F. Padinger, N.S. Sariciftci

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10. The Influence of Ordering on the Photoinduced Charge Transfer in Composites of Phenyl-type Substituted Polythiophenes with Methanofullerenes

C.J. Brabec, C. Winder, M. Scharber, N.S. Sariciftci, M.R. Andersson, O. Inganäs, J.C. Hummelen

MRS Proceedings Boston 99

11. Infrared Photospectroelectrochemistry of Germanium/Pedot/Electrolyte Interfaces

H. Neugebauer, Y. Teketel, N.S. Sariciftci

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12. Electrochemically- and Photo-Induced IR Absorption of Low Band-Gap Polydithienothiophenes: a Comparative Study

A. Cravino, H. Neugebauer, N.S. Sariciftci, M. Catellani, S. Luzzati

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13. In Situ Attenuated Total Reflection FTIR Spectroelectrochemistry of Benzimidazobenzo-phenanthroline (BBL)

Y. Teketel, H. Neugebauer, N.S. Sariciftci, S.Yi, A.A. Jenekhe

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14. Conjugated Polymer Based Plastic Solar Cells

C.J. Brabec, N.S. Sariciftci

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Publ. in 2000: p 515-560, ISBN 3-527-29507-0

15. Highly Anisotropically Self-Assembled Structures of Para-Sexiphenyl Grown by Hot Wall Epitaxy

A. Andreev, G. Matt, C.J. Brabec, H. Sitter, Dirk Badt, H. Seyringer and N.S. Sariciftci

Publ. in 2000: Adv. Mat. 12, 629-633 (2000)

16. Multiple Electrochemical Doping Induced Insulator-to-Conductor Transitions Observed in Conjugated Ladder Polymer Polybenzimidazobenzophenanthroline (BBL)

Y. Teketel, H. Neugebauer, N.S. Sariciftci, S. Luzzati, M. Catellani, S. Yi and S.A. Jenekhe

J. Phys. Chem. B

17. Photovoltaic Properties of Conjugated Polymer/Fullerene Composites on Large Area Flexible substrates

D. Gebeyehu, F. Padinger, T. Fromherz, J.C. Hummelen and N.S. Sariciftci

Publ. in 2000: J. Bulletin of Chemical Society of Ethiopia Vol.14, No 1 (2000)

18. Electronic Properties of Fullerene/ π -Conjugated Polymer Composites, Chapter 11 of the "*Optical & Electronic Properties of Fullerenes and Fullerene-based Materials*", N. Serdar Sariciftci, edited by Z.V. Vardeny, Z. H. Kafafi and J. Shinar

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submitted to:

1. Infrared spectroelectrochemistry on conducting polymers and fullerenes

Carita Kvarnström, Helmut Neugebauer and Ari Ivaska

Advanced Functional Molecules and Polymers (4 Volumes), editet by H.S. Nalwa, Godon and Breach Sci. Publ., Tokyo, chapter

2. The Interplay of Efficiency and Morphology in Photovoltaic Devices Based on Interpenetrating Networks of Poly(3-octylthiophene) with Fullerenes

D. Gebeyehu, C.J.Brabec, F. Padinger, T. Fromherz, J.C. Hummelen, D. Badt, H. Schindler and N.S. Sariciftci

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3. Fabrication of large area photovoltaic devices containing various blends of polymer and fullerene derivatives by using the doctor blade technique

F. Padinger, C.J. Brabec, T. Fromherz, J.C. Hummelen and N.S. Sariciftci

EMRS Meeting Krakau 99, Optoelectronics Review