

books, book chapters and major review papers:

Photogeneration of Charge Carriers in Solution-Processable Organic Semiconductors

Heinz Bässler and Anna Köhler, Chapter 5 in "Solution-Processable Components for Organic Electronic Devices", Eds. J. Ulanski, B. Luszczynska, K. Matyjaszewski, Wiley-VCH (2019), ISBN 9783527344420, DOI:10.1002/9783527813872

Electronic Processes in Organic Semiconductors : An Introduction,

Anna Köhler and Heinz Bässler, Wiley-VCH (2015), ISBN: 978-3-527-33292-2

Charge transport in organic semiconductors,

Heinz Bässler and Anna Köhler, Top Curr Chem 312 (2012) 1-66

Triplet states in organic semiconductors,

Anna Köhler and Heinz Bässler, Materials Science and Engineering R 66 (2009) 71-109

articles in refereed journals

146 Polarized blue photoluminescence of mesoscopically ordered electrospun non-conjugated polyacrylonitrile nanofibers

X. Liao, F. J. Kahle, B. Liu, H. Bässler, X. Zhang, A. Köhler, A. Greiner
Mater. Horiz. (2020), DOI: 10.1039/D0MH00002G

145 What is the role of planarity and torsional freedom for aggregation in a pi-conjugated donor-acceptor model oligomer?

S. Wedler, A. Bourdick, S. Athanasopoulos, S. Gekle, F. Panzer, C. McDowell, T. Q. Nguyen, G. C. Bazan, A. Köhler
J. Mater. Chem. C 8 (2020) 4944

144 Influence of ω -Bromo Substitution on Structure and Optoelectronic Properties of Homopolymers and Gradient Copolymers of 3-Hexylthiophene

P. Schmode, K. Schötz, O. Dolynchuk, F. Panzer, A. Köhler, T. Thurn-Albrecht, M. Thelakkat
Macromol. 53 (2020) 2474

- 143 A Deep Blue B,N-Doped Heptacene Emitter That Shows Both Thermally Activated Delayed Fluorescence and Delayed Fluorescence by Triplet-Triplet Annihilation**
S. M. Suresh, E. Duda, D. Hall, Z. Yao, S. Bagnich, A. M. Z. Slawin, M. Z. Alexandra, H. Bässler, D. Beljonne, M. Buck, Y. Olivier, A. Köhler, E. Zysman-Colman, E
J. Am. Chem. Soc. 142 (2020) 6588
- 142 Investigating two-step MAPbI₃ thin film formation during spin coating by simultaneous in situ absorption and photoluminescence spectroscopy**
M. Chauhan, Y. Zhong, K Schötz, B. Tripathi, A. Köhler, S. Hüttner, F. Panzer
J. Mat. Chem. A 8 (2020) 5086
- 141 Double peak emission in lead halide perovskites by self-absorption**
K. Schötz, A. M. Askar, W. Peng, D. Seeberger, T. P. Gujar, M. Thelakkat, A. Köhler, S. Hüttner, O. M. Bakr, K. Shankar, F. Panzer
J. Mater. Chem. C 8 (2020) 2289
- 140 Environmental Control of Triplet Emission in Donor-Bridge-Acceptor Organometallics**
J. L. Feng, L. P. Yang, A. S. Romanov, J. Ratanapreechachai, A. P. M. Reponen, S. T. E. Jones, M. Linnolahti, T. J. H. Hele, A. Köhler, H. Bässler, M. Bochmann, D. Credgington,
Adv. Funct. Mater. 30 (2020) 1908715v
- 139 Improving Processability and Efficiency of Resonant TADF Emitters: A Design Strategy**
D. Hall, S. M. Suresh, P. L. dos Santos, E. Duda, S. Bagnich, A. Pershin, P. Rajamalli, D. B. Cordes, A. M. Z. Slawin, D. Beljonne, A. Köhler, I. D. W. Samuel, Y. Olivier, E. Zysman-Colman
Adv. Opt. Mater. 8 (2020) 190162
- 138 What is the binding energy of a charge transfer state in an organic solar cell?**
S. Athanasopoulos, F. Schauer, V. Nádaždy, M. Weiß, F. J. Kahle, U. Scherf, H. Bässler, A. Köhler
Adv. Energy. Mater. 9 (2019) 1900814
- 137 Disorder vs Delocalization: Which Is More Advantageous for High-Efficiency Organic Solar Cells?**
S. Athanasopoulos, H. Bässler, A. Köhler
J. Phys. Chem. Lett. 10 (2019) 7107
- 136 Atomic-Level Insight into the Postsynthesis Band Gap Engineering of a Lewis Base Polymer Using Lewis Acid Tris(pentafluorophenyl)borane**
B. Yurash, D. Leifert, G. N. M. Reddy, D. X. Cao, S. Biberger, V. V. Brus, M. Seifrid, P. J. Santiago, A. Köhler, B. F. Chmelka, G. C. Bazan, T. Q. Nguyen
Chem. Mater. 31 (2019) 6715

- 135 High Versatility and Stability of Mechanochemically Synthesized Halide Perovskite Powders for Optoelectronic Devices**
N. Leupold, K. Schötz, S. Cacovich, I. Bauer, M. Schultz, M. Daubinger, L. Kaiser, A. Rebai, J. Rousset, A. Köhler, P. Schulz, R. Moos, F. Panzer
ACS Appl. Mater. & Interf. 11 (2019) 30259
- 134 A New Series of Conjugated Platinum-co-Poly(p-phenylenebutadiynylene)s Polymers: Syntheses and Photophysical Properties**
M. K. Ahmed, M. M. Rahman, M. Naher, S. S. Mehdi, A. R. Khan, M. M. R. Khan, S. M. S. Islam, M. Younus, S. Wedler, S. Bagnich, A. L. Hofmann, A. Rudnick, A. Köhler
Macromol. Chem. and Phys. 220 (2019) 1800494
- 133 Dielectric-Semiconductor Interface Limits Charge Carrier Motion at Elevated Temperatures and Large Carrier Densities in a High-Mobility Organic Semiconductor**
I. Vladimirov, S. Müller, R. P. Baumann, T. Gesser, Z. Molla, S. Grigorian, A. Köhler, H. Bässler, U. Pietsch, R. T. Weitz
Adv. Funct. Mater. 29 (2019) 1807867
- 132 Organic Bidirectional Phototransistors Based on Diketopyrrolopyrrole and Fullerene**
F.-J. Kahle, T. Hahn, T. Mukhopadhyay, B. Puttaraju, S. Patil and A. Köhler
Adv. Funct. Mater. (2018) 1805684
- 131 Facile Synthesis and Chain-Length Dependence of the Optical and Structural Properties of Diketopyrrolopyrrole-Based Oligomers**
T. Mukhopadhyay, B. Puttaraju, P. Roy, J. Dasgupta, A. Meyer, A. Rudnick, St. Tscheuschner, F.-J. Kahle, A. Köhler and S. Patil
Chem. Eur. J. 23 (2017) 13718 – 13723
- 130 Unraveling the Role of Multiphonon Excitations and Disorder Concerning the Meyer-Neldel Type Compensation Effect in Organic Semiconductors**
I. I. Fishchuk, H. z Bässler, A. Köhler, J. Genoe and .y Kadashchuk
Phys. Rev. Applied 10 (2018) 054063
- 129 Elucidating Aggregation Pathways in the Donor–Acceptor Type Molecules p-DTS(FBTTh2)2 and p-SIDT(FBTTh2)2**
A. Bourdick, M. s Reichenberger, S. Wedler, A. Stradomska, G. o C. Bazan, T.- Q. Nguyen, A. Köhler and S. Gekle
J. Phys. Chem. B 122 (2018) 9191–9201
- 128 Does Electron Delocalization Influence Charge Separation at Donor–Acceptor Interfaces in Organic Photovoltaic Cells?**
F.-J. Kahle, C. Saller, S. Olthof, C. Li, J. Lebert, S. Weiß, E. M. Herzig, S. Hüttner, K. Meerholz, P. Strohmriegl and A. Köhler
J. Phys. Chem. C 122 (2018) 21792 – 21802

- 127 How to interpret absorption and fluorescence spectra of charge transfer states in an organic solar cell**
F.-J. Kahle, A. Rudnick, H. Bässler and A. Köhler
Mater. Horiz. 5 (2018) 837-848
- 126 Extracting structural information from MEH-PPV optical spectra**
J. D. Milward, M. Marcus, A. Köhler and W. Barford
J. Chem. Phys. 149 (2018) 044903
- 125 Impact of excess PbI_2 on the structure and the temperature dependent optical properties of methylammonium lead iodide perovskites**
T. Meier, T. P. Gujar, A. Schönleber, S. Olthof, K. Meerholz, S. van Smaalen, F. Panzer, M. Thelakkat and A. Köhler
J. Mater. Chem. C 6 (2018) 7512 - 7519
- 124 Negative field-dependent charge mobility in crystalline organic semiconductors with delocalized transport**
A. Kadashchuk, R. Janneck, F. Tong, I. I. Fishchuk, A. r Mityashin, E. n Pavlica, A. Köhler, P. Heremans, C. Rolin, G. Bratina and J. Genoe
Chemical Papers 72 (2018) 1685–1695
- 123 Facile Method for the Investigation of Temperature-Dependent C_{60} Diffusion in Conjugated Polymers**
C. Saller, F.-J. Kahle, T. Müller, T. Hahn, S. Tscheuschner, D. Priadko, P. Strohhriegl, H. Bässler and A. Köhler
ACS Appl. Mater. Interfaces 10 (2018) 21499–21509
- 122 Structural Information for Conjugated Polymers from Optical Modeling**
M. Marcus, J. D. Milward, A. Köhler and W. Barford
J. Phys. Chem. A 122 (2018) 3621–3625
- 121 Controlling Aggregate Formation in Conjugated Polymers by Spin-Coating Below the Critical Temperature of the Disorder–Order Transition**
M. Reichenberger, D. Kroh, G. M. M. Matrone, K. Schötz, . Pröller, O. Filonik, Ma. E. Thordardottir, E. M. Herzig, H. Bässler, N. Stingelin, A. Köhler
Polym. Phys. 56 (2018) 532–542
- 120 Direct observation of backbone planarization via side-chain alignment in single bulky-substituted polythiophenes**
D. Raithele, L. Simine, S. Pickel, K. Schötz, F. Panzer, S. Baderschneider, D. Schiefer, R. Lohwasser, J. Köhler, M. Thelakkat, M. Sommer, A. Köhler, P. J. Rosky and R. Hildner
PNAS 115 (2018) 2699-2704

- 119 Spin-Crossover Iron(II) Coordination Polymer with Fluorescent Properties: Correlation between Emission Properties and Spin State**
C. Lochenie, K. Schötz, F. Panzer, H. Kurz, B. Maier, F. Puchtler, S. Agarwal, A. Köhler and B. Weber
J. Am. Chem. Soc. 140 (2018) 700-709
- 118 The role of Pbl₂ in CH₃NH₃Pbl₃ perovskite stability, solar cell parameters and device degradation**
T. P. Gujar, T. Unger, A. Schönleber, M. Fried, F. Panzer, S. van Smaalen, A. Köhler and M. Thelakkat
Phys. Chem. Chem. Phys. 20 (2018) 605-614
- 117 The Impact of Driving Force and Temperature on the Electron Transfer in Donor–Acceptor Blend Systems**
T. Unger, S. Wedler, F.-J. Kahle, U. Scherf, H. Bässler and A. Köhler
J. Phys. Chem. C 121 (2017) 22739-22752
- 116 Facile Synthesis and Chain-Length Dependence of the Optical and Structural Properties of Diketopyrrolopyrrole-Based Oligomers**
T. Mukhopadhyay, B. Puttaraju, P. Roy, J. Dasgupta, A. Meyer, A. Rudnick, S. Tscheuschner, F.-J. Kahle, A. Köhler and S. Patil
Chem. Eur. J. 23 (2017) 13718 – 13723
- 115 Role of transport band edge variation on delocalized charge transport in high-mobility crystalline organic semiconductors**
A. Kadashchuk, F. Tong, R. Janneck, I. I. Fishchuk, A. Mityashin, E. Pavlica, A. Köhler, P. Heremans, C. Rolin, G. Bratina and J. Genoe
Phys. Rev. B 96 (2017) 125202
- 114 Excited State Dynamics and Conformations of a Cu(II)-Phthalocyanine-Perylenebisimide Dyad**
K. Wilma, T. Unger, S. T. Kostakoglu, M. Hollfelder, C.h Hunger, A. Lang, A. . Gurek, M. Thelakkat, J. Köhler, A. Köhler, . Gekle and R. Hildner
Phys. Chem. Chem. Phys. 19 (2017) 22169
- 113 Spectroscopic Study of Thiophene–Pyrrole-Containing S,N-Heteroheptacenes Compared to Acenes and Phenacenes**
A.r Rudnick, C. Wetzel, S. Tscheuschner, H. Schmalz, A. Vogt, A. Greiner, H. Bässler, E. Mena-Osteritz, P. Bäuerle and A. Köhler
J. Phys. Chem. B 121 (2017) 7492 – 7501
- 112 π -Conjugated Donor Polymers: Structure Formation and Morphology in Solution, Bulk and Photovoltaic Blends**
R. Hildner, A. Köhler, P.Müller-Buschbaum, F. Panzer and M. Thelakkat
Adv. Energy Mater. 7 (2017) 1700314
- 111 Crosslinked Semiconductor Polymers for Photovoltaic Applications**
F.-J. Kahle, C. Saller, A. Köhler and P. Strohriegl
Adv. Energy Mater. (2017) 1700306

- 110 Impact of Structural Dynamics on the Optical Properties of Methylammonium Lead Iodide Perovskites**
F. Panzer, C. Li, T. Meier, A. Köhler and S. Huettner
 Adv. Energy Mater. (2017) 1700286
- 109 Thiophene–pyrrole containing S,N-heteroheptacenes: synthesis, and optical and electrochemical characterisation**
C. Wetzel, A. Vogt, A. Rudnick, E.Mena-Osteritz, A. Köhler and P. Bäuerle
 Org. Chem. Front. 4 (2017) 1629-1635
- 108 Interplay of localized pyrene chromophores and π -conjugation in novel poly(2,7-pyrene) ladder polymers**
Al. Rudnick, K.-J. Kass, E. Preis, U. Scherf, H. Bässler and A.Köhler
 The Journal of Chemical Physics (2017) 174903
- 107 Efficient Charge Separation of Cold Charge-Transfer States in Organic Solar Cells Through Incoherent Hopping**
S. Athanasopoulos, S. Tscheuschner, H. Bässler and A. Köhler
 J. Phys. Chem. Lett. 8 (2017) 2093–2098
- 106 Temperature Induced Order–Disorder Transition in Solutions of Conjugated Polymers Probed by Optical Spectroscopy**
F. Panzer, H. Bässler and A. Köhler
 J. Phys. Chem. Lett. 8 (2017) 114–125
- 105 Monomolecular and Bimolecular Recombination of Electron– Hole Pairs at the Interface of a Bilayer Organic Solar Cell**
T. Hahn, S. Tscheuschner, F.-J. Kahle, M. Reichenberger, S. Athanasopoulos, C. Saller, G. C. Bazan, T.-Q.n Nguyen, P. Strohrriegl, H. Bässler and A. Köhler
 Adv. Funct. Mater. (2017) 27 1604906
- 104 Influence of Crosslinking on Charge Carrier Mobility in Crosslinkable Polyfluorene Derivatives**
F.-J. Kahle, I. Bauer, P. Strohrriegl and A. Köhler
 J. Polym. Sci. B: Polym. Phys. 55 (2017) 112–120
- 103 Initiator-free crosslinking of oxetane functionalized low bandgap polymers: an approach towards stabilized bulk heterojunction solar cells**
P. Knauer, T. Hahn, A. Köhler and P.r Strohrriegl
 J. Mater. Chem. C 4 (2016) 10347-10357
- 102 Role of Intrinsic Photogeneration in Single Layer and Bilayer Solar Cells with C60 and PCBM**
T. Hahn, S. Tscheuschner, C. Saller, P. Strohrriegl, P. Boregowda, T. Mukhopadhyay, S. Patil, D. Neher, H. Bässler and A. Köhler
 J. Phys. Chem. C 120 (2016) 25083–25091
- 101 Watching Paint Dry: The Impact of Diiodooctane on the Kinetics of Aggregate Formation in Thin Films of Poly(3-hexylthiophene)**
M. Reichenberger, S. Baderschneider, D. Kroh, S. Grauf, J. Köhler, R. Hildner and A. Köhler
 Macromol. 49 (2016) 6420-6430

- 100 Synthesis, spectroscopic characterization, thermal and luminescent properties of new organosulfur-functionalized platinum(II) bis(alkenylaryalkynyl) complexes**
Md. Mostafizur Rahman, M. Younus, M.n Naher, M. K. Masud, A. Nomoto, A. Ogawa, A. Rudnick, A. Köhler
J. Organomet. Chem. 818 (2016) 185-194
- 99 Effect of Thermal and Structural Disorder on the Electronic Structure of Hybrid Perovskite Semiconductor $\text{CH}_3\text{NH}_3\text{PbI}_3$**
S. Singh, C. Li, F. Panzer, K. L. Narasimhan, A. Graeser, T. P. Gujar, A. Köhler, M. Thelakkat, S. Huettner and D. Kabra
J. Phys. Chem. Lett. 7 (2016) 3014–3021
- 98 Emission Enhancement and Intermittency in Polycrystalline Organolead Halide Perovskite Films**
C. Li, Y. Zhong, C. A. M. Luna, T. Unger, K. Deichsel, A. Gräser, J. Köhler, A. Köhler, R. Hildner and S. Huettner
Molecules 21 (2016) 1081
- 97 The influence of torsion on excimer formation in bipolar host materials for blue phosphorescent OLEDs**
A. A. Rudnick, S. Bagnich, D. Wagner, S. Athanasopoulos, P. Strohhriegl and A. Köhler
J. Chem. Phys. 144 (2016) 214906
- 96 Reversible Laser Induced Amplified Spontaneous Emission from Coexisting Tetragonal and Orthorhombic Phases in Hybrid Lead Halide Perovskites**
F. Panzer, S. Baderschneider, T. P. Gujar, T. Unger, S. Bagnich, M. Jakoby, H. Bäessler, S. Hüttner, J. Köhler, R. Moos, M. Thelakkat, R. Hildner and A. Köhler
Adv. Optical Mater. 6 (2016) 917-928
- 95 Interplay between hopping and band transport in high-mobility disordered semiconductors at large carrier concentrations: The case of the amorphous oxide InGaZnO**
I. I. Fishchuk, A. Kadamchuk, A. Bhoolokam, A. de Jamblinne de Meux, G. Pourtois, M. M. Gavrilyuk, A. Köhler, H. Bäessler, P. Heremans and J. Genoe
Phys. Rev. B 93 (2016) 195204
- 94 Compact Layers of Hybrid Halide Perovskites Fabricated via the Aerosol Deposition Process - Uncoupling Material Synthesis and Layer Formation**
F. Panzer, D. Hanft, T. P. Gujar, F.-J. Kahle, M. Thelakkat, A. Köhler and R. Moos
Materials 9 (2016) 9040277
- 93 Iodine Migration and its Effect on Hysteresis in Perovskite Solar Cells**
C. Li, S. Tscheuschner, F. Paulus, P. E. Hopkinson, J. Kießling, A. Köhler, Y. Vaynzof, S. Huettner
Adv. Mater. 28 (2016) 2446-2454
- 92 The effect of intermolecular interaction on excited states in p – $\text{DTS}(\text{FBTTH}_2)_2$**
M. Reichenberger, J. A. Love, A. Rudnick, S. Bagnich, F. Panzer, A. Stradomska, G. C. Bazan, T.-Q. Nguyen and A. Köhler
J. Chem. Phys. 144 (2016) 074904
- 91 Revealing structure formation in PCPDTBT by optical spectroscopy**
C. Scharsich, F. S. U. Fischer, K. Wilma, R. Hildner, S. Ludwigs and A. Köhler
J. Polym. Sci. Part B: Polym. Phys. 20 (2015) 1416-1430

- 90 Organic solar cells with crosslinked polymeric exciton blocking layer**
T. Hahn, C. Saller, M. Weigl, I. Bauer, T. Unger, A. Köhler and P. Strohriegl
 Phys. Status Solidi A 212 (2015) 2162-2168
- 89 A Combined Theoretical and Experimental Study of Dissociation of Charge Transfer States at the Donor – Acceptor Interface of Organic Solar Cells**
S. Tscheuschner, H. Bässler, K. Huber and A. Köhler
 J. Phys. Chem. B, 119 (2015) 10359–10371
- 88 Triplet energies and excimer formation in meta- and para-linked carbazolebiphenyl matrix materials**
S. A. Bagnich, A. Rudnick, P. Schroegel, P. Strohriegl and A. Köhler
 Phil. Trans. R. Soc. A 373 (2015) 20140446
- 87 Relaxation dynamics and exciton energy transfer in the low-temperature phase of MEH-PPV**
C. Consani, F. Koch, F. Panzer, T. Unger, A. Köhler and T. Brixner
 J. Chem. Phys. 142 (2015) 212429
- 86 Ultrafast Energy Transfer between Disordered and Highly Planarized Chains of Poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] (MEH-PPV)**
T. Unger, F. Panzer, C. Consani, F. Koch, T. Brixner, H. Bässler and A. Köhler
 ACS Macro. Lett. 4 (2015) 412-416
- 85 Spectroscopic Signature of Two Distinct H-Aggregate Species in Poly(3-hexylthiophene)**
F. Panzer, M. Sommer, H. Bässler, M. Thelakkat and A. Köhler
 Macromol. 48 (2015) 1543–1553
- 84 Does Excess Energy Assist Photogeneration in an Organic Low-Bandgap Solar Cell?**
T. Hahn, J. Geiger, X. Blase, I. Duchemin, D. Niedzialek, S. Tscheuschner, D. Beljonne, H. Bässler and A. Köhler
 Adv. Funct. Mater. 8 (2015) 1287-1295
- 83 Excimer Formation by Steric Twisting in Carbazole and Triphenylamine-Based Host Materials**
S. A. Bagnich, S. Athanasopoulos, A. Rudnick, P. Schroegel, I. Bauer, N. C. Greenham, P. Strohriegl and A. Köhler
 J. Phys. Chem. C 119 (2015) 2380-2387
- 82 “Hot or cold”: how do charge transfer states at the donor–acceptor interface of an organic solar cell dissociate?**
H. Bässler and A. Köhler
 Phys. Chem. Chem. Phys. 17 (2015) 28451-28462
- 81 Origin of Meyer-Neldel type compensation behavior in organic semiconductors at large carrier concentrations: Disorder versus thermodynamic description**
I. I. Fishchuk, A. Kadashchuk, A. Mityashin, M. M. Gavriluk, A. Köhler, H. Bässler, J. Genoe, H. Sitter and N. S. Sariciftci
 Phys. Rev. 90 (2014) 245201

- 80 Ground State Bleaching at Donor–Acceptor Interfaces**
C. Schwarz, F. Milan, T. Hahn, M. Reichenberger, S. Kümmel and A. Köhler
 Adv. Func. Mater. 41 (2014) 6439–6448
- 79 Measuring Reduced C₆₀ Diffusion in Crosslinked Polymer Films by Optical Spectroscopy**
F. Fischer, T. Hahn, H. Bässler, I. Bauer, P. Strohrriegl and A. Köhler
 Adv. Funct. Mater. 39 (2014) 6172–6177
- 78 The Impact of Polydispersity and Molecular Weight on the Order– Disorder Transition in Poly(3-hexylthiophene)**
F. Panzer, H. Bässler, R. Lohwasser, M. Thelakkat and A. Köhler
 J. Phys. Chem. Lett. 5 (2014) 2742–2747
- 77 Influence of the Excited-State Charge-Transfer Character on the Exciton Dissociation in Donor–Acceptor Copolymers**
K. Neumann, C. Schwarz, A. Köhler and M. Thelakkat
 J. Phys. Chem. C 118 (2014) 27–36
- 76 Rod-Like Nano-Light Harvester**
J. Ling, Z. Zheng, A. Köhler, A. H. E. Müller
 Macromol. Rapid Commun. 35 (2014) 52–55
- 75 Triazine Based Bipolar Host Materials for Blue Phosphorescent OLEDs**
D. Wagner, S. T. Hoffmann, U. Heinemeyer, I. Münster, A. Köhler and P. Strohrriegl
 Chem. Mater. 25 (2013) 3758–3765
- 74 The red-phase of poly[2-methoxy-5-(2-ethylhexyloxy)-1,4-phenylenevinylene] (MEH-PPV): A disordered HJ-aggregate**
H. Yamagata, N. J. Hestand, F.C. Spano, A. Köhler, C. Scharsich, S. T. Hoffmann and H. Bässler
 J. Chem. Phys. 139 (2013) 114903
- 73 Unified description for hopping transport in organic semiconductors including both energetic disorder and polaronic contributions**
I. I. Fishchuk, A. Kadashchuk, S. T. Hoffmann, S. Athanasopoulos, J. Genoe, H. Bässler and A. Köhler
 Physical Review B 88 (2013) 125202
- 72 Controlling the π -Stacking Behavior of Pyrene Derivatives: Influence of H-Bonding and Steric Effects in Different States of Aggregation**
A. T. Haedler, H. Misslitz, C. Buehlmeyer, R. Q. Albuquerque, A. Köhler and H.-W. Schmidt
 Chem. Phys. Chem. 14 (2013) 1818 – 1829
- 71 To Hop or Not to Hop? Understanding the Temperature Dependence of Spectral Diffusion in Organic Semiconductors**
S. Athanasopoulos, S. T. Hoffmann, H. Bässler, A. Köhler and D. Beljonne
 J. Phys. Chem. Lett. 4 (2013) 1694–1700

- 70 Role of the effective mass and interfacial dipoles on exciton dissociation in organic donor-acceptor solar cells**
C. Schwarz, S. Tscheuschner, J. Frisch, S. Winkler, N. Koch, H. Bässler and A. Köhler
 Phys. Rev. B. 87 (2013) 155205
- 69 How Do Disorder, Reorganization, and Localization Influence the Hole Mobility in Conjugated Copolymers?**
S. T. Hoffmann, F. Jaiser, A. Hayer, H. Bässler, T. Unger, S. Athanasopoulos, D. Neher and A. Köhler
 J. Am. Chem. Soc. 135 (2013) 1772-1782
- 68 How do Triplets and Charges Move in Disordered Organic Semiconductors? A Monte Carlo Study Comprising the Equilibrium and Nonequilibrium Regime**
S. T. Hoffmann, S. Athanasopoulos, D. Beljonne, H. Bässler and A. Köhler
 J. Phys. Chem. C 116 (2012) 16371–16383
- 67 An Order–Disorder Transition in the Conjugated Polymer MEH-PPV**
A. Köhler, S. T. Hoffmann and H. Bässler
 J. Am. Chem. Soc. 134 (2012) 11594–11601
- 66 Why Does the Electrical Conductivity in PEDOT:PSS Decrease with PSS Content? A Study Combining Thermoelectric Measurements with Impedance Spectroscopy**
T. Stöcker, A. Köhler, R. Moos
 J. Poly. Sci. B: Polymer Physics 50 (2012) 976–983
- 65 Control of Aggregate Formation in Poly(3-hexylthiophene) by Solvent, Molecular Weight and Synthetic Method**
C. Scharsich, R. H. Lohwasser, M. Sommer, U. Asawapirom, U. Scherf, M. Thelakkat, D. Neher, A. Köhler
 J. Poly. Sci. B: Polymer Physics 50 (2012) 442–453
- 64 The role of C-H and C-C stretching modes in the intrinsic non-radiative decay of triplet states in a Pt-containing conjugated phenylene ethynylene**
A. Köhler, A. L. T. Khan, J. S. Wilson, C. Dosche, M. K. Al-Suti, H. H. Shah, M. S. Khan
 J. Chem. Phys. 136 (2012) 094905
- 63 On the Formation Mechanism for Electrically Generated Exciplexes in a Carbazole-Pyridine Copolymer**
A. Hayer, T. Van Regemorter, B. Höfer, C. S. K. Mak, D. Beljonne, A. Köhler
 J. Poly. Sci. B: Polymer Physics 50 (2012) 361-369
- 62 Does conjugation help exciton dissociation? A study on poly(p-phenylene)s in planar heterojunctions with C₆₀ or TNF**
C. Schwarz, H. Bässler, I. Bauer, J.-M. Koenen, E. Preis, U. Scherf and A. Köhler
 Adv. Mater. 24 (2012) 922–925
- 61 Charge transport in organic semiconductors**
H. Bässler, A. Köhler
 Top. Curr. Chem. 312 (2012) 1-66

- 60 Role of Structural Order and Excess Energy on Ultrafast Free Charge Generation in Hybrid Polythiophene/Si Photovoltaics Probed in Real Time by Near-Infrared Broadband Transient Absorption**
D. Herrmann, S. Niesar, C. Scharsich, A. Köhler, M. Stutzmann and E. Riedle
J. Am. Chem. Soc. 133 (2011) 18220-18233
- 59 Triplet-Triplet Annihilation in a Series of Poly(p-phenylene) Derivatives**
S.T. Hoffmann, J.M. Koenen, U. Scherf, I. Bauer, P. Strohriegl, H. Bässler, A. Köhler
J. Phys. Chem. B 115 (2011) 8417-8423
- 58 Diffusion-Limited Energy Transfer in Blends of Oligofluorenes with an Anthracene Derivative**
R.Q. Albuquerque, C.C. Hofmann, J. Köhler, A. Köhler
J. Phys. Chem. B 115 (2011) 8063-8070
- 57 Triplet Excimer Emission in a Series of 4,4'-Bis(N-carbazolyl)-2,2'-biphenyl Derivatives**
ST Hoffmann, P Schrögel, M Rothmann, R Albuquerque, P Strohriegl and A Köhler
J. Phys. Chem. B 115 (2011) 414-421
- 56 Synthesis and characterization of platinum (II) di-ynes and poly-ynes incorporating ethylenedioxythiophene (EDOT) spacers in the backbone**
M. S. Khan, M. K. Al-Suti, H. H. Shah, S. Al-Humaimi, F. R. Al-Battashi, J. K. Bjernemose, L. Male, P. R. Raithby, N. Zhang, A. Köhler and J. E. Warrend
J. Chem. Soc. Dalton Trans. 40 (2011) 10174-1083
- 55 A series of CBP-derivatives as host materials for blue phosphorescent organic light-emitting diodes**
P. Schrögel, A. Tomkeviciene, P. Strohriegl, S. T. Hoffmann, A. Köhler and C. Lennartz
J. Mat. Chem. 21 (2011) 2266-2273
- 54 What controls triplet exciton transfer in organic semiconductors?**
A. Köhler, H. Bässler
J. Mater. Chem. 21 (2011) 4003-4011
- 53 What Determines Inhomogeneous Broadening of Electronic Transitions in Conjugated Polymers?**
S. T. Hoffmann, H. Bässler, A. Köhler
J. Phys. Chem. B 114 (2010) 17037–17048
- 52 Hole-transporting host-polymer series consisting of triphenylamine basic structures for phosphorescent polymer light-emitting diodes**
M. W. Thesen, B. Höfer, M. Debeaux, S. Janietz, A. Wedel, A. Köhler, H. H. Johannes, H. Krueger
J. Pol. Sc. A 48 (2010) 3417-3430
- 51 Triplet energy transfer in conjugated polymers. III. An experimental assessment regarding the influence of disorder on polaronic transport**
S. T. Hoffmann, E. Scheler, J.M. Koenen, M. Forster, U. Scherf, P. Strohriegl, H. Bässler, A. Köhler
Phys. Rev. B 81 (2010) 165208

- 50 Spectral diffusion in poly(para-phenylene)-type polymers with different energetic disorder**
S. T. Hoffmann, H. Bässler, J. M. Koenen, M. Forster, U. Scherf, E. Scheler, P. Strohsriegl, A. Köhler
Phys. Rev. B 81 (2010) 115103
- 49 Triplet states in organic semiconductors**
A. Köhler, H. Bässler
Materials Science and Engineering R 66 (2009) 71-109
- 48 Synthesis and comparison of the optical properties of platinum (II) poly-ynes with fused and non-fused oligothiophenes**
L. Sudha Devi, M. K. Al-Suti, N. Yhang, S. J. Teat, L. Male, H. A. Sparkes, P. R. Raithby, M. S. Khan, A. Köhler
Macromol. 42 (2009) 1131-1141
- 47 Effect of solvent on the conformation of isolated MEH-PPV chains intercalated into SnS₂**
E. Aharon, S. Breuer, F. Jaiser, A. Köhler, G. L. Frey
Chem. Phys. Chem. 9 (2008) 1430-1436
- 46 Triplet energy transfer in conjugated polymers. I. Experimental investigation of a weakly disordered compound**
L. Sudha Devi, M. K. Al-Suti, C. Dosche, M. S. Khan, R. H. Friend, A. Köhler
Phys. Rev. B 78 (2008) 045210
- 45 Triplet energy transfer in conjugated polymers. II. A polaron theory description addressing the influence of disorder**
I. I. Fishchuk, A. Kadashchuk, L. Sudha Devi, P. Heremans, H. Bässler, A. Köhler
Phys. Rev. B 78 (2008) 045211
- 44 Exciton dynamics in blends of phosphorescent emitters**
C Schuetz, B Höfer, F Jaiser, H Krueger, M Thesen, S Janietz, A Köhler
Physica status solidi B 245 (2008) 810-813
- 43 Dimensionality-dependent energy transfer in polymer-intercalated SnS₂ nanocomposites**
P. Parkinson, E. Aharon, M. H. Chang, C. Dosche, G. Frey, A. Köhler, L. M. Herz
Phys. Rev. B 75 (2007) 165206
- 42 The effect of delocalization on the exchange energy in meta- and para-linked Pt-containing carbazole polymers and monomers**
N. Zhang, A. Hayer, M. K. Al-Suti, R. A. Al-Belushi, M. S. Khan and A. Köhler
J. Chem. Phys. 124 (2006) 244701
- 41 Triplet Energy Back Transfer in Conjugated Polymers with Pendant Phosphorescent Iridium Complexes**
N. R. Evans, L. Sudha Devi, C. S. K. Mak, S. E. Watkins, S. I. Pascu, A. Köhler, R. H. Friend, C. K. Williams and A. B. Holmes
J. Am. Chem. Soc. 128 (2006) 6647-6656

- 40 Highly Fluorescent Crystalline and Liquid Crystalline Columnar Phases of Pyrene-Based Structures**
A. Hayer, V. de Halleux, A. Köhler, A. El-Garouhy, E. W. Meijer, J. Barberá, J. Tant, J. Levin, M. Lehmann, J. Gierschner, J. Cornil and Y. H. Geerts
J. Phys. Chem. B 110 (2006) 7653-7659
- 39 Large Magnetoresistance in nonmagnetic pi-conjugated semiconductor thin film devices**
O. Mermer, G. Veeraraghavan, T.L. Francis, Y. Sheng, D.T. Nguyen, M. Wohlgenannt, A. Köhler, M.K. Al-Suti, M.S. Khan
Phys. Rev. B. 72 (2005) 205202
- 38 Morphology dependence of the triplet excited state formation and absorption in polyfluorene**
A. Hayer, A. L. T. Khan, R. H. Friend, A. Köhler
Phys. Rev. B 71 (2005) 241302
- 37 Blue-to-green electrophosphorescence of iridium based cyclometallated materials**
C.S. D. Mak, A. Hayer, S. I. Pascu, S.E. Watkins, A.B. Holmes, A. Köhler, R.H. Friend
Chem. Comm. (2005) 4708-4710
- 36 Polymer light-emitting diodes with spin-polarised charge injection**
A. Hayer, A. Köhler, E. Arisi, I. Bergenti, A. Dediu, C. Taliani, M. Al-Suti, M.S. Khan
Synth. Met. 147 (2004) 155-158
- 35 Spectroscopic study of spin-dependent exciton formation rates in pi-conjugated semiconductors: Comparison with electroluminescence techniques**
C. Yang, ZV Vardeny, A. Köhler, M. Wohlgenannt, M.K. Al-Suti, M.S. Khan
Phys. Rev. B 70 (2004) 241202
- 34 Solution-Processable Conjugated Electrophosphorescent Polymers**
A.J. Sandee, C.K. Williams, N. Evans, J.R. Davies, C.E. Boothby, A. Köhler, R.H. Friend and A.B. Holmes
J. Am. Chem. Soc. 126 (2004) 7041-7048
- 33 Morphology-dependent energy transfer within polyfluorene thin films**
A.L.T. Khan, P. Sreearunothai, L.M. Herz, M.J. Banach, A. Köhler
Phys. Rev. B. 69 (2004) 085201
- 32 The singlet-triplet exchange energy in conjugated polymers**
A. Köhler und D. Beljonne
Adv. Funct. Mater. 14 (2004) 11-18
- 31 Synthesis, characterisation and optical spectroscopy of platinum(II) di-ynes and poly-ynes incorporating condensed aromatic spacers in the backbone**
M.S. Khan, M.R.A. Al-Mandhary, M.K. Al-Suti, F.R. Al-Battashi, S. Al-Saadi, B. Ahrens, J.K. Bjernemose, M.F. Mahon, P.R. Raithby, M. Younus, N. Chawdhury, A. Köhler, E.A. Marseglia, E. Tedesco, N. Feeder, S.J. Teat
J. Chem. Soc. Dalton Trans. 15 (2004) 2377-2385

- 30 Control of beta-phase formation in polyfluorene thin films via Franck-Condon Analysis**
A.L.T. Khan, M.J. Banach and A. Köhler
Synth. Met. 139 (2003) 905-907
- 29 Phosphorescence and spin-dependent exciton formation in conjugated polymers**
A. Köhler and J.S. Wilson
Organic Electronics 4 (2003) 179 – 189
- 28 Low-energy vibrational modes in phenylene oligomers studied by THz time-domain spectroscopy**
M.B. Johnston, L.M. Herz, A.L.T. Khan, A. Köhler, A.G. Davies, E.H. Linfield
Chem. Phys. Lett. 377 (2003) 256-262
- 27 Polarization of Singlet and Triplet Excited States in a Platinum-Containing Conjugated Polymer**
J.S. Wilson, R.J. Wilson, R.H. Friend, M.K. Al-Suti, M.R.A. Al-Mandhary, M.S. Khan, A. Köhler
Phys. Rev. B 67 (2003) 125206
- 26 Effect of interchain interactions on the absorption and emission of poly(3-hexylthiophene)**
P.J. Brown, D.S. Thomas, A. Köhler, J.S. Wilson, J.S. Kim, C.M. Ramsdale, H. Siringhaus, R.H. Friend
Phys. Rev. B. 67 (2003) 064203
- 25 Synthesis and characterisation of new acetylide-functionalised aromatic and hetero-aromatic ligands and their dinuclear platinum complexes**
M.S. Khan, M.K. Al-Suti, M.R.A. Al-Mandhary, B. Ahrens, J.K. Bjernemose, M.F. Mahon, L. Male, P.R. Raithby, J. Wilson, R.H. Friend, A. Köhler
J. Chem. Soc. Dalton Trans. (2003) 65-73
- 24 Synthesis, characterisation and optical spectroscopy of diynes and poly-yne containing derivatised fluorenes in the backbone**
M.S. Khan, M.R.A. Al-Mandhary, M.K. Al-Suti, B. Ahrens, M.F. Mahon, L. Male, P.R. Raithby, C.E. Boothby, A. Köhler
J. Chem. Soc. Dalton Trans. (2003) 74-84
- 23 Synthesis and optical characterisation of platinum (II) poly-yne polymers incorporating substituted 1,4-diethylbenzene derivatives and investigation of the intermolecular interactions in the diethylbenzene molecular precursors**
M.S. Khan, M.R.A. Al-Mandhary, M.K. Al-Suti, T.C. Corcoran, Y. Al-Mahrooqi, J.P. Attfield, N. Feeder, W.I.F. David, K. Shankland, R.H. Friend, A. Köhler, E.A. Marseglia, E. Tedesco, C.C. Tang, P.R. Raithby, J.C. Collings, K.P. Roscoe, A.S. Batsanov, L.M. Stimson, T.B. Marder
N. J. Chem. 27 (2003) 140-149
- 22 Fluorescence and Phosphorescence in Organic Materials**
A. Köhler, J.S. Wilson, R.H. Friend
Adv. Eng. Mater. 4 (2002) 453-459
- 21 The singlet-triplet energy gap in organic and Pt-containing phenylene ethynylene polymers and monomers**
A. Köhler, J.S. Wilson, R.H. Friend, M.K. Al-Suti, M.S. Khan, A. Gerhard, H. Bässler
J. Chem. Phys. 116 (2002) 9457-9463

- 20 Fluorescence and Phosphorescence in Organic Materials**
A. Köhler, J.S. Wilson, R.H. Friend
 Adv. Mater. 14 (2002) 701-707
- 19 Structural characterisation of a series of acetylide-functionalised oligopyridines and the synthesis, characterisation and optical spectroscopy of platinum di-yne and poly-yne containing oligopyridyl linker groups in the backbone**
M.S. Khan, M.R.A. Al-Mandhary, M.K. Al-Suti, A.K. Hisahm, P.R. Raithby, B. Ahrens, M.F. Mahon, L. Male, E.A. Marseglia, E. Tedesco, R.H. Friend, A. Köhler, N. Feeder, S.J. Teat
 J. Chem. Soc. Dalton Trans. (2002) 1358-1368
- 18 Synthesis, characterisation and electronic properties of a series of platinum(II) poly-yne containing novel thienyl-pyridine linker groups**
M.S. Khan, M.R.A. Al-Mandhary, M. Al-Suti, N. Feeder, S. Nahar, A. Köhler, R.H. Friend, P.J. Wilson, P.R. Raithby
 J. Chem. Soc. Dalton Trans. (2002) 2441-2448
- 17 Spin-dependent exciton formation in pi-conjugated compounds**
J.S. Wilson, A.S. Dhoot, A.J.A.B. Seeley, M.S. Khan, A. Köhler, R.H. Friend
 Nature 413 (2001) 828-831
- 16 The Energy Gap Law for Triplet States in Pt-containing Conjugated Polymers and Monomers**
J.S. Wilson, N. Chawdhury, M.R.A. Al-Mandhary, M. Younus, M.S. Khan, P.R. Raithby, A. Köhler, R.H. Friend
 J. Am. Chem. Soc. 123 (2001) 9412-9417
- 15 Triplet states in a series of Pt containing ethynylenes**
J.S. Wilson, A. Köhler, R.H. Friend, M.K. Al-Suti, M.R.A. Al-Mandhary, M.S. Khan, P.R. Raithby
 J. Chem. Phys. 113 (2000) 7627-7634
- 14 The effects of H₂O and O₂ on the photocurrent spectra of MEH-PPV**
N. Chawdhury, A. Köhler, M.G. Harrison, D.H. Hwang, A.B. Holmes, R.H. Friend
 Synth. Met. 102 (1999) 871-872
- 13 Donor-Acceptor interactions in organometallic and organic poly-yne**
A. Köhler, M. Younus, M.R.A. Al-Mandhary, P.R. Raithby, M.S. Khan, R.H. Friend
 Synth. Met. 101 (1999) 246-247
- 12 Evolution of lowest singlet and triplet excited states with number of thienyl rings in platinum poly-yne**
N. Chawdhury, A. Köhler, R.H. Friend, W.Y. Wong, M. Younus, P.R. Raithby, J. Lewis, M.R.A. Al-Mandhary, Y.C. Coreoran, M.S. Khan
 J. Chem. Phys. 110 (1999) 4963-4970
- 11 Charge separation in localised and delocalised electronic states in polymeric semiconductor**
A. Köhler, D.A. Dos Santos, D. Beljonne, Z. Shuai, J.L. Brédas, R.H. Friend, A.B. Holmes, A. Kraus, K. Müllen
 Nature 392 (1998) 903-906

- 10 Synthesis and Electronic Structure of Platinum-containing Poly-ynes with Aromatic and Heteroaromatic Rings**
N. Chauwdhury, A. Köhler, R.H. Friend, M. Younus, N.J. Long, P.R. Raithby, J. Lewis
Macromolecules 31 (1998) 722-727
- 9 Synthesis, Electrochemistry and Spectroscopy of blue platinum(II) Poly-ynes and Di-ynes**
M. Younus, A. Köhler, S. Cron, N. Chawdhury, M.R.A. Al-Mandhary, M.S. Khan, J. Lewis, N.J. Long,
R.H. Friend, P.R. Raithby
Angew. Chemie, Internat. Ed. 37 (1998) 3036-3039
- 8 Electronic Excitations in luminescent conjugated polymers**
R.H. Friend, G.J. Denton, J.J.M. Halls, N.T. Harrisson, A.B. Holmes, A. Köhler, A. Lux, S.C. Moratti,
K. Pichler, N. Tessler, K. Towns, H.F. Wittmann
Solid State Commun. 102 (1997) 249-258
- 7 Electronic Processes of Conjugated Polymers in Semiconductor Device Structures**
R.H. Friend, G.J. Denton, J.J.M. Halls, N.T. Harrisson, A.B. Holmes, A. Köhler, A. Lux, S.C. Moratti,
K. Pichler, N. Tessler, K. Towns, H.F. Wittmann
Synth. Met. 84 (1997) 463-470
- 6 UV photocurrent spectroscopy in poly(p-phenylene vinylene) and derivatives**
A. Köhler, D.A. Dos Santos, D. Beljonne, Z. Shuai, J.L. Brédas, R.H. Friend, S.C. Moratti, A.B. Holmes
Synth. Met. 84 (1997) 675-676
- 5 Spatial extent of the singlet and triplet excitons in transition metal-containing poly-ynes**
D. Beljonne, H.F. Wittmann, A. Köhler, S. Graham, M. Younus, J. Lewis, P.R. Raithby, M.S. Khan,
R.H. Friend, J.L. Brédas
J. Chem. Phys. 105 (1996) 3868-3877
- 4 Enhanced photocurrent response in photocells made with platinum-poly-yne/C₆₀ blends by photoinduced electron-transfer**
A. Köhler, H.F. Wittmann, R.H. Friend, M.S. Khan, J. Lewis
Synth. Met. 77 (1996) 147-150
- 3 Synthesis of new conjugated thiophene polymers**
R. Cervini, A.B. Holmes, S.C. Moratti, A. Köhler, R.H. Friend
Synth. Met. 76 (1996) 169-171
- 2 Photocurrent measurements on aggregates in ladder-type poly(p-phenylene)**
A. Köhler, J. Grüner, R.H. Friend, K. Müllen, U. Scherf
Chem. Phys. Lett. 243 (1995) 456-461
- 1 The Photovoltaic Effect in a Platinum Poly-yne**
A. Köhler, H.F. Wittmann, R.H. Friend, M.S. Khan, J. Lewis,
Synth. Met. 67 (1994) 245-249