Markus Clark Scharber

List of Publications by Year
in descending order

111	17,068	66234	27345
papers	citations	42 h-index	106 g-index

112	112	112	15937
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wide-bandgap organic solar cells with a novel perylene-based non-fullerene acceptor enabling open-circuit voltages beyond 1.4 V. Journal of Materials Chemistry A, 2022, 10, 2888-2906.	5.2	21
2	Ion-driven nanograin formation in early-stage degradation of tri-cation perovskite films. Nanoscale, 2022, 14, 2605-2616.	2.8	6
3	Phenyleneâ€Bridged Perylene Monoimides as Acceptors for Organic Solar Cells: A Study on the Structureâ€“Property Relationship. Chemistry - A European Journal, 2022, 28, .	1.7	5
4	Understanding the low voltage losses in high-performance non-fullerene acceptor-based organic solar cells. Materials Advances, 2021, 2, 4291-4302.	2.6	24
5	Low Band Gap Conjugated Semiconducting Polymers. Advanced Materials Technologies, 2021, 6, 2000857.	3.0	112
6	Overcoming intra-molecular repulsions in PEDTT by sulphate counter-ion. Science and Technology of Advanced Materials, 2021, 22, 985-997.	2.8	5
7	Tunable Properties of Nature-Inspired N,Nâ€²-Alkylated Riboflavin Semiconductors. Molecules, 2021, 26, 27.	1.7	10
8	Highly fluorescent thin films formation by water-enhanced colloidal perovskite nanoparticles. , 2021, , .		0
9	Controlling Quantum Confinement in Luminescent Perovskite Nanoparticles for Optoelectronic Devices by the Addition of Water. ACS Applied Nano Materials, 2020, 3, 1242-1249.	2.4	21
10	Conducting Polymerâ€Based Biocomposites Using Deoxyribonucleic Acid (DNA) as Counterion. Advanced Materials Technologies, 2020, 5, 1900699.	3.0	13
11	Impedance Spectroscopy of Perovskite Solar Cells: Studying the Dynamics of Charge Carriers Before and After Continuous Operation. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2000291.	0.8	54
12	Are Polyaniline and Polypyrrole Electrocatalysts for Oxygen (O₂) Reduction to Hydrogen Peroxide (H₂O₂)?. ACS Applied Energy Materials, 2020, 3, 10611-10618.	2.5	30
13	Synthesis conditions influencing formation of MAPbBr3 perovskite nanoparticles prepared by the ligand-assisted precipitation method. Scientific Reports, 2020, 10, 15720.	1.6	26
14	Designing Ultraflexible Perovskite Xâ€Ray Detectors through Interface Engineering. Advanced Science, 2020, 7, 2002586.	5.6	44
15	Anti-Stokes photoluminescence study on a methylammonium lead bromide nanoparticle film. Nanoscale, 2020, 12, 16556-16561.	2.8	8
16	Universal Transfer Printing of Micelle-Templated Nanoparticles Using Plasma-Functionalized Graphene. ACS Applied Materials & Interfaces, 2020, 12, 46530-46538.	4.0	4
17	Nanoscale Charge Accumulation and Its Effect on Carrier Dynamics in Tri-cation Perovskite Structures. ACS Applied Materials & Interfaces, 2020, 12, 48057-48066.	4.0	21
18	Substrate-assisted Transfer of Nanoparticles by Graphene on Metal-Organic Interfaces. , 2020, , .		0

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19	Comparison of fluorene, silafluorene and carbazole as linkers in perylene monoimide based non-fullerene acceptors. Materials Advances, 2020, 1, 2095-2106.	2.6	7
20	Plasmon-Assisted Direction- and Polarization-Sensitive Organic Thin-Film Detector. Nanomaterials, 2020, 10, 1866.	1.9	10
21	Microwave-Assisted Preparation of Organo-Lead Halide Perovskite Single Crystals. Crystal Growth and Design, 2020, 20, 1388-1393.	1.4	20
22	Improving the Performance of Perovskite Solar Cells using a Polyphosphazene Interfacing Layer. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1900436.	0.8	9
23	Acetylacetone Improves the Performance of Mixed Halide Perovskite Solar Cells. Journal of Physical Chemistry C, 2019, 123, 23807-23816.	1.5	12
24	Reverse Micelle Templating Route to Ordered Monodispersed Spherical Organo-Lead Halide Perovskite Nanoparticles for Light Emission. ACS Applied Nano Materials, 2019, 2, 4121-4132.	2.4	32
25	Optoelectronic Properties of Layered Perovskite Solar Cells. Solar Rrl, 2019, 3, 1900126.	3.1	13
26	Photoconductive Properties of Dibenzotetrathiafulvalene-Tetracyanoquinodimethane (DBTTF-TCNQ) Nanorods Prepared by the Reprecipitation Method. Journal of Nanoscience and Nanotechnology, 2019, 19, 4599-4602.	0.9	2
27	Stable Hall voltages in presence of dynamic quasi-continuum bands in poly(3,4-ethylene-dioxythiophene). Organic Electronics, 2019, 65, 412-418.	1.4	3
28	The influence of perovskite precursor composition on the morphology and photovoltaic performance of mixed halide MAPbI3-xClx solar cells. Solar Energy, 2018, 163, 215-223.	2.9	36
29	Size control of CH3NH3PbBr3 perovskite cuboid fine crystals synthesized by ligand-free reprecipitation method. Microsystem Technologies, 2018, 24, 619-623.	1.2	2
30	Degradation kinetics in different polymerâ€“fullerene blends investigated by electron spin resonance. Journal of Materials Research, 2018, 33, 1853-1859.	1.2	9
31	Inverted (pâ€“iâ€“n) perovskite solar cells using a low temperature processed TiO_xinterlayer. RSC Advances, 2018, 8, 24836-24846.	1.7	17
32	Optical and electronic properties of mixed halide (X = I, Cl, Br) methylammonium lead perovskite solar cells. Journal of Materials Chemistry C, 2017, 5, 1714-1723.	2.7	120
33	Magnetic Field Effects on the Current of PCPDTBT-based Diode. Journal of Physical Chemistry C, 2017, 121, 11727-11732.	1.5	6
34	Andersonâ€Localization and the Mottâ€“Ioffeâ€“Regel Limit in Glassyâ€Metallic PEDOT. Advanced Electronic Materials, 2017, 3, 1700050.	2.6	34
35	Enhancing the c-TiO2 based perovskite solar cell performance via modification by a serial of boronic acid derivative self-assembled monolayers. Applied Surface Science, 2017, 423, 521-527.	3.1	22
36	Confining metal-halide perovskites in nanoporous thin films. Science Advances, 2017, 3, e1700738.	4.7	103

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37	Photon management in organic light-emitting diodes with multilayered plasmonic nanostars. , 2017, , .		0
38	Different Device Architectures for Bulk-Heterojunction Solar Cells. Frontiers in Materials, 2016, 3, .	1.2	10
39	Hybrid Multilayered Plasmonic Nanostars for Coherent Random Lasing. Journal of Physical Chemistry C, 2016, 120, 23707-23715.	1.5	15
40	Performance Boost of Organic Lightâ€Emitting Diodes with Plasmonic Nanostars. Advanced Optical Materials, 2016, 4, 772-781.	3.6	45
41	Systematic Investigation of Porphyrinâ€Thiophene Conjugates for Ternary Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2016, 6, 1600957.	10.2	25
42	Local order drives the metallic state in PEDOT:PSS. Journal of Materials Chemistry C, 2016, 4, 6982-6987.	2.7	19
43	Solution processed perovskite solar cells using highly conductive PEDOT:PSS interfacial layer. Solar Energy Materials and Solar Cells, 2016, 157, 318-325.	3.0	69
44	On the Efficiency Limit of Conjugated Polymer:Fullereneâ€Based Bulk Heterojunction Solar Cells. Advanced Materials, 2016, 28, 1994-2001.	11.1	176
45	Factors determining large observed increases in power conversion efficiency of P3HT:PCBM solar cells embedded with Mo6S9â^'xIx nanowires. Synthetic Metals, 2016, 212, 105-112.	2.1	16
46	The Role of Heteroatoms Leading to Hydrogen Bonds in View of Extended Chemical Stability of Organic Semiconductors. Advanced Functional Materials, 2015, 25, 6679-6688.	7.8	24
47	Electrocatalytic Reduction of Carbon Dioxide using Sol-gel Processed Copper Indium Sulfide (CIS) Immobilized on ITO-Coated Glass Electrode. Electrocatalysis, 2015, 6, 405-413.	1.5	14
48	Iodideâ€Capped PbS Quantum Dots: Full Optical Characterization of a Versatile Absorber. Advanced Materials, 2015, 27, 1533-1539.	11.1	14
49	Reversible Photochemical Isomerization of N,Nâ€²-Di(t-butoxycarbonyl)indigos. Journal of Physical Chemistry A, 2015, 119, 3563-3568.	1.1	29
50	CuI as versatile hole-selective contact for organic solar cell based on anthracene-containing PPEâ€“PPV. Solar Energy Materials and Solar Cells, 2015, 143, 369-374.	3.0	35
51	Transparent conductive ZnO layers on polymer substrates: Thin film deposition and application in organic solar cells. Thin Solid Films, 2015, 591, 97-104.	0.8	38
52	Flexible high power-per-weight perovskite solar cells with chromium oxideâ€“metal contacts for improved stability in air. Nature Materials, 2015, 14, 1032-1039.	13.3	807
53	Substrateâ€Oriented Nanorod Scaffolds in Polymerâ€“Fullerene Bulk Heterojunction Solar Cells. ChemPhysChem, 2014, 15, 1070-1075.	1.0	12
54	Charge Separation in PCPDTBT:PCBM Blends from an EPR Perspective. Journal of Physical Chemistry C, 2014, 118, 28482-28493.	1.5	61

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55	Photoinduced Energy Transfer from Poly(Nâ€vinylcarbazole) to Tricarbonylchloroâ€(2,2â€²â€bipyridyl)rhenium(I). ChemPhysChem, 2014, 15, 3634-3638.	1.0	8
56	4% Efficient Polymer Solar Cells on Paper Substrates. Journal of Physical Chemistry C, 2014, 118, 16813-16817.	1.5	85
57	Electrochemical Self-Assembly of Nanostructured CuSCN/Rhodamine B Hybrid Thin Film and Its Dye-Sensitized Photocathodic Properties. Journal of Physical Chemistry C, 2014, 118, 16581-16590.	1.5	28
58	Inverted bulk-heterojunction solar cell with cross-linked hole-blocking layer. Organic Electronics, 2014, 15, 997-1001.	1.4	41
59	Ultrathin, highly flexible and stretchable PLEDs. Nature Photonics, 2013, 7, 811-816.	15.6	832
60	Efficiency of bulk-heterojunction organic solar cells. Progress in Polymer Science, 2013, 38, 1929-1940.	11.8	881
61	Silicon/organic hybrid heterojunction infrared photodetector operating in the telecom regime. Organic Electronics, 2013, 14, 1344-1350.	1.4	41
62	Electrical properties of pSi/[6,6] phenyl-C61 butyric acid methyl ester/Al hybrid heterojunctions: Experimental and theoretical evaluation of diode operation. Journal of Applied Physics, 2012, 112, 114508.	1.1	6
63	Exciton diffusion length in narrow bandgap polymers. Energy and Environmental Science, 2012, 5, 6960.	15.6	207
64	Nano-morphology characterization of organic bulk heterojunctions based on mono and bis-adduct fullerenes. Organic Electronics, 2012, 13, 1315-1321.	1.4	16
65	Charge transfer excitons in low band gap polymer based solar cells and the role of processing additives. Energy and Environmental Science, 2011, 4, 5077.	15.6	66
66	Lowâ€Temperature Behaviour of Charge Transfer Excitons in Narrowâ€Bandgap Polymerâ€Based Bulk Heterojunctions. Advanced Energy Materials, 2011, 1, 604-609.	10.2	83
67	Charge Transport and Recombination in Lowâ€Bandgap Bulk Heterojunction Solar Cell using Bisâ€adduct Fullerene. Advanced Energy Materials, 2011, 1, 1162-1168.	10.2	108
68	Nanomorphology and Charge Generation in Bulk Heterojunctions Based on Lowâ€Bandgap Dithiophene Polymers with Different Bridging Atoms. Advanced Functional Materials, 2010, 20, 1180-1188.	7.8	173
69	Near IR Sensitization of Organic Bulk Heterojunction Solar Cells: Towards Optimization of the Spectral Response of Organic Solar Cells. Advanced Functional Materials, 2010, 20, 338-346.	7.8	276
70	Fabrication, Optical Modeling, and Color Characterization of Semitransparent Bulkâ€Heterojunction Organic Solar Cells in an Inverted Structure. Advanced Functional Materials, 2010, 20, 1592-1598.	7.8	182
71	Influence of the Bridging Atom on the Performance of a Lowâ€Bandgap Bulk Heterojunction Solar Cell. Advanced Materials, 2010, 22, 367-370.	11.1	323
72	Bimolecular Crystals of Fullerenes in Conjugated Polymers and the Implications of Molecular Mixing for Solar Cells. Advanced Functional Materials, 2009, 19, 1173-1179.	7.8	392

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73	Polymerâ€Fullerene Bulkâ€Heterojunction Solar Cells. Advanced Materials, 2009, 21, 1323-1338.	11.1	3,060
74	Determination of vertical phase separation in a polyfluorene copolymer: fullerene derivative solar cell blend by X-ray photoelectron spectroscopy. Journal of Materials Chemistry, 2009, 19, 4899.	6.7	43
75	Bipolar Charge Transport in PCPDTBTâ€PCBM Bulkâ€Heterojunctions for Photovoltaic Applications. Advanced Functional Materials, 2008, 18, 1757-1766.	7.8	156
76	Design Rules for Donors in Bulkâ€Heterojunction Tandem Solar Cellsï¿½Towards 15 % Energyâ€Conversion Efficiency. Advanced Materials, 2008, 20, 579-583.	11.1	502
77	Performance improvement of organic solar cells with moth eye anti-reflection coating. Thin Solid Films, 2008, 516, 7167-7170.	0.8	141
78	Two Novel Cyclopentadithiophene-Based Alternating Copolymers as Potential Donor Components for High-Efficiency Bulk-Heterojunction-Type Solar Cells. Chemistry of Materials, 2008, 20, 4045-4050.	3.2	179
79	Realization, characterization, and optical modeling of inverted bulk-heterojunction organic solar cells. Journal of Applied Physics, 2008, 103, .	1.1	90
80	Angle dependence of external and internal quantum efficiencies in bulk-heterojunction organic solar cells. Journal of Applied Physics, 2007, 102, .	1.1	152
81	Double-injection current transients as a way of measuring transport in insulating organic films. Journal of Applied Physics, 2007, 101, 114505.	1.1	26
82	Alternating quinoxaline/oligothiophene copolymersâ€”synthesis and unexpected absorption properties. Journal of Materials Chemistry, 2007, 17, 1353-1355.	6.7	54
83	Panchromatic Conjugated Polymers Containing Alternating Donor/Acceptor Units for Photovoltaic Applications. Macromolecules, 2007, 40, 1981-1986.	2.2	428
84	Polyterthiophenes as Donors for Polymer Solar Cells. Advanced Functional Materials, 2007, 17, 1371-1376.	7.8	89
85	Charge Transfer Excitons in Bulk Heterojunctions of a Polyfluorene Copolymer and a Fullerene Derivative. Advanced Functional Materials, 2007, 17, 2111-2116.	7.8	197
86	Organic Fieldâ€Effect Devices as Tool to Characterize the Bipolar Transport in Polymerâ€Fullerene Blends: The Case of P3HTâ€PCBM. Advanced Functional Materials, 2007, 17, 3274-3283.	7.8	98
87	The Influence of Interchain Branches on Solid State Packing, Hole Mobility and Photovoltaic Properties of Poly(3â€hexylthiophene) (P3HT). Macromolecular Rapid Communications, 2007, 28, 1781-1785.	2.0	58
88	Physics of organic bulk heterojunction devices for photovoltaic applications. Journal of Applied Physics, 2006, 99, 104503.	1.1	227
89	Long-Lived Photoinduced Charges in Donorâ^'Acceptor Anthraquinone-Substituted Thiophene Copolymers. Journal of Physical Chemistry B, 2006, 110, 5351-5358.	1.2	27
90	Design Rules for Donors in Bulk-Heterojunction Solar Cellsâ€”Towards 10â€‰% Energy-Conversion Efficiency. Advanced Materials, 2006, 18, 789-794.	11.1	4,534

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91	Photoinduced Electron Transfer in Solid C60Donor/Acceptor Complexes Studied by Light-Induced Electron-Spin Resonance. Molecular Crystals and Liquid Crystals, 2005, 427, 3/[315]-21/[333].	0.4	11
92	Double injection as a technique to study charge carrier transport and recombination in bulk-heterojunction solar cells. Applied Physics Letters, 2005, 87, 222110.	1.5	45
93	Bimolecular Recombination Coefficient as a Sensitive Testing Parameter for Low-Mobility Solar-Cell Materials. Physical Review Letters, 2005, 94, 176806.	2.9	297
94	Stabilization of the nanomorphology of polymerâ€“fullerene â€œbulk heterojunctionâ€•blends using a novel polymerizable fullerene derivative. Journal of Materials Chemistry, 2005, 15, 5158.	6.7	221
95	Novel Regiospecific MDMO-PPV Polymers with Improved Charge Transport Properties for Bulk Heterojunction Solar Cells. Synthetic Metals, 2005, 153, 81-84.	2.1	16
96	Novel Regiospecific MDMOâ^'PPV Copolymer with Improved Charge Transport for Bulk Heterojunction Solar Cells. Journal of Physical Chemistry B, 2004, 108, 5235-5242.	1.2	86
97	Anomalous photoinduced absorption of conjugated polymer/fullerene mixtures at low temperatures and high frequencies. Synthetic Metals, 2004, 141, 109-112.	2.1	6
98	Tuning of the photoinduced charge transfer process in donor-acceptor double-cable copolymers. , 2004, 5215, 41.		0
99	Spectroscopic properties of PEDOTEHIITN. Synthetic Metals, 2003, 137, 1435-1436.	2.1	24
100	Ultrafast spectroscopy of polaron pairs in polymer solar cells. Synthetic Metals, 2003, 137, 1475-1476.	2.1	4
101	Tuning of the photoinduced charge transfer process in donorâ€“acceptor double-cable copolymers. Synthetic Metals, 2003, 139, 731-733.	2.1	12
102	Photoinduced electron transfer in solid C60 donor/acceptor complexes. Synthetic Metals, 2001, 121, 1127-1128.	2.1	17
103	Magnetic resonance studies on conjugated polymer fullerene mixtures. Synthetic Metals, 2001, 121, 1567-1568.	2.1	1
104	Influence of disorder on the photoinduced excitations in phenyl substituted polythiophenes. Journal of Chemical Physics, 2001, 115, 7235-7244.	1.2	34
105	Photoinduced Charge Transfer between Tetracyano-Anthraquino-Dimethane Derivatives and Conjugated Polymers for Photovoltaics. Journal of Physical Chemistry A, 2000, 104, 8315-8322.	1.1	35
106	Photoinduced charge carriers in conjugated polymerâ€“fullerene composites studied with light-induced electron-spin resonance. Physical Review B, 1999, 59, 8019-8025.	1.1	150
107	Photoexcitations in carbazolyl substituted polydiacetylene (PDA) fullerene composites. Synthetic Metals, 1999, 101, 298-299.	2.1	3
108	Time resolved photoinduced electron spin resonance studies on conjugated polymer fullerene mixtures in solution. Synthetic Metals, 1999, 101, 356-357.	2.1	4

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109	Light-induced ESR studies in conjugated polymer-fullerene composites. Synthetic Metals, 1999, 102, 1241-1242.	2.1	12
110	Dielectric and electro-optic studies of a novel ferroelectric liquid crystal mixture. , 1998, , .		0
111	Radiative Recombination in Bulkâ€Heterojunction Solar Cells. Israel Journal of Chemistry, 0, , .	1.0	1