Dieter Neher

List of Publications by Year
in descending order

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351	32,169	2544	5120
papers	citations	96 h-index	166 g-index

362	362	362	22107
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Monolithic perovskite/silicon tandem solar cell with >29% efficiency by enhanced hole extraction. Science, 2020, 370, 1300-1309.	12.6	1,120
2	Polyfluorene Homopolymers: Conjugated Liquid-Crystalline Polymers for Bright Blue Emission and Polarized Electroluminescence. Macromolecular Rapid Communications, 2001, 22, 1365-1385.	3.9	813
3	Improving Carbon Nitride Photocatalysis by Supramolecular Preorganization of Monomers. Journal of the American Chemical Society, 2013, 135, 7118-7121.	13.7	781
4	Visualization and suppression of interfacial recombination for high-efficiency large-area pin perovskite solar cells. Nature Energy, 2018, 3, 847-854.	39.5	721
5	Efficient charge generation by relaxed charge-transfer states at organic interfaces. Nature Materials, 2014, 13, 63-68.	27.5	667
6	Effect of Molecular Weight and Annealing of Poly(3-hexylthiophene)s on the Performance of Organic Field-Effect Transistors. Advanced Functional Materials, 2004, 14, 757-764.	14.9	648
7	The impact of energy alignment and interfacial recombination on the internal and external open-circuit voltage of perovskite solar cells. Energy and Environmental Science, 2019, 12, 2778-2788.	30.8	570
8	Improving the performance of doped Ï€-conjugated polymers for use in organic light-emitting diodes. Nature, 2000, 405, 661-665.	27.8	534
9	Competition between recombination and extraction of free charges determines the fill factor of organic solar cells. Nature Communications, 2015, 6, 7083.	12.8	517
10	Intrinsic non-radiative voltage losses in fullerene-based organic solar cells. Nature Energy, 2017, 2, .	39.5	494
11	How to Make over 20% Efficient Perovskite Solar Cells in Regular (<i>nâ€“iâ€“p</i>) and Inverted (<i>pâ€“iâ€“n</i>) Architectures. Chemistry of Materials, 2018, 30, 4193-4201.	6.7	473
12	Nonradiative Recombination in Perovskite Solar Cells: The Role of Interfaces. Advanced Materials, 2019, 31, e1902762.	21.0	422
13	Aggregation in a High-Mobility n-Type Low-Bandgap Copolymer with Implications on Semicrystalline Morphology. Journal of the American Chemical Society, 2012, 134, 18303-18317.	13.7	395
14	Novel approaches to polymer blends based on polymer nanoparticles. Nature Materials, 2003, 2, 408-412.	27.5	394
15	Blue Polarized Electroluminescence from a Liquid Crystalline Polyfluorene. Advanced Materials, 1999, 11, 671-675.	21.0	387
16	Effect of Molecular Weight on the Structure and Crystallinity of Poly(3-hexylthiophene). Macromolecules, 2006, 39, 2162-2171.	4.8	385
17	Fluorinated Copolymer PCPDTBT with Enhanced Open-Circuit Voltage and Reduced Recombination for Highly Efficient Polymer Solar Cells. Journal of the American Chemical Society, 2012, 134, 14932-14944.	13.7	361
18	Improving the Performance of Polyfluorene-Based Organic Light-Emitting Diodes via End-capping. Advanced Materials, 2001, 13, 565-570.	21.0	360

#	Article	IF	Citations
19	Semiconducting Polymer Nanospheres in Aqueous Dispersion Prepared by a Miniemulsion Process. Advanced Materials, 2002, 14, 651-655.	21.0	341
20	Highly Efficient Polymeric Electrophosphorescent Diodes. Advanced Materials, 2006, 18, 948-954.	21.0	338
21	Relationship between energetic disorder and open-circuit voltage in bulk heterojunction organic solar cells. Physical Review B, 2011, 84, .	3.2	338
22	A History and Perspective of Nonâ€Fullerene Electron Acceptors for Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003570.	19.5	323
23	Influence of Aggregation on the Performance of Allâ€Polymer Solar Cells Containing Lowâ€Bandgap Naphthalenediimide Copolymers. Advanced Energy Materials, 2012, 2, 369-380.	19.5	316
24	Approaching the fill factor Shockleyâ€“Queisser limit in stable, dopant-free triple cation perovskite solar cells. Energy and Environmental Science, 2017, 10, 1530-1539.	30.8	311
25	Comprehensive picture of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-type doping of P3HT with the molecular acceptor F<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>TCNQ. Physical Review B, 2013, 87, .	3.2	302
26	Circularly Polarized Electroluminescence from Liquid-Crystalline Chiral Polyfluorenes. Advanced Materials, 2000, 12, 362-365.	21.0	283
27	Drastic Control of Texture in a High Performance n-Type Polymeric Semiconductor and Implications for Charge Transport. Macromolecules, 2011, 44, 5246-5255.	4.8	278
28	On the Relation between the Openâ€Circuit Voltage and Quasiâ€Fermi Level Splitting in Efficient Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1901631.	19.5	275
29	Nongeminate Recombination and Charge Transport Limitations in Diketopyrrolopyrroleâ€Based Solutionâ€Processed Small Molecule Solar Cells. Advanced Functional Materials, 2013, 23, 3584-3594.	14.9	268
30	From anisotropic photo-fluidity towards nanomanipulation in the optical near-field. Nature Materials, 2005, 4, 699-703.	27.5	258
31	Barrierless Free Charge Generation in the Highâ€Performance PM6:Y6 Bulk Heterojunction Nonâ€Fullerene Solar Cell. Advanced Materials, 2020, 32, e1906763.	21.0	258
32	Impact of charge transport on currentâ€“voltage characteristics and power-conversion efficiency of organic solar cells. Nature Communications, 2015, 6, 6951.	12.8	255
33	Polarized light emission from LEDs prepared by the Langmuir-Blodgett technique. Advanced Materials, 1996, 8, 146-149.	21.0	252
34	Mobility-Controlled Performance of Thick Solar Cells Based on Fluorinated Copolymers. Journal of the American Chemical Society, 2014, 136, 15566-15576.	13.7	249
35	Moderate doping leads to high performance of semiconductor/insulator polymer blend transistors. Nature Communications, 2013, 4, 1588.	12.8	240
36	Liquid-Based Growth of Polymeric Carbon Nitride Layers and Their Use in a Mesostructured Polymer Solar Cell with V_{oc} Exceeding 1 V. Journal of the American Chemical Society, 2014, 136, 13486-13489.	13.7	227

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37	The Role of Regioregularity, Crystallinity, and Chain Orientation on Electron Transport in a High-Mobility n-Type Copolymer. Journal of the American Chemical Society, 2014, 136, 4245-4256.	13.7	226
38	Highly Efficient Single-Layer Polymer Electrophosphorescent Devices. Advanced Materials, 2004, 16, 161-166.	21.0	217
39	Reduced Interfaceâ€Mediated Recombination for High Openâ€Circuit Voltages in CH₃NH₃PbI₃ Solar Cells. Advanced Materials, 2017, 29, 1700159.	21.0	210
40	Control of aggregate formation in poly(3â€hexylthiophene) by solvent, molecular weight, and synthetic method. Journal of Polymer Science, Part B: Polymer Physics, 2012, 50, 442-453.	2.1	209
41	Efficient Polymer Solar Cells Based on M3EHâ^'PPV. Chemistry of Materials, 2005, 17, 6532-6537.	6.7	207
42	â€œThe Easier the Betterâ€•Preparation of Efficient Photocatalystsâ€"Metastable Poly(heptazine imide) Salts. Advanced Materials, 2017, 29, 1700555.	21.0	206
43	Impact of interfacial molecular orientation on radiative recombination and charge generation efficiency. Nature Communications, 2017, 8, 79.	12.8	198
44	Interplay of Thermochromicity and Liquid Crystalline Behavior in Poly(p-phenyleneethynylene)s:Â Ï€â^'Ï€ Interactions or Planarization of the Conjugated Backbone?. Macromolecules, 2000, 33, 652-654.	4.8	195
45	In Situ Formation of Heterojunctions in Modified Graphitic Carbon Nitride: Synthesis and Noble Metal Free Photocatalysis. Chemistry of Materials, 2014, 26, 5812-5818.	6.7	192
46	Control of color and efficiency of light-emitting diodes based on polyfluorenes blended with hole-transporting molecules. Applied Physics Letters, 2000, 76, 1810-1812.	3.3	189
47	Band Bending in Conjugated Polymer Layers. Physical Review Letters, 2011, 106, 216402.	7.8	188
48	Photogeneration and Recombination in P3HT/PCBM Solar Cells Probed by Time-Delayed Collection Field Experiments. Journal of Physical Chemistry Letters, 2011, 2, 700-705.	4.6	183
49	Perovskiteâ€“organic tandem solar cells with indium oxide interconnect. Nature, 2022, 604, 280-286.	27.8	181
50	On the Origin of the Ideality Factor in Perovskite Solar Cells. Advanced Energy Materials, 2020, 10, 2000502.	19.5	175
51	Third-harmonic generation in polyphenylacetylene: Exact determination of nonlinear optical susceptibilities in ultrathin films. Chemical Physics Letters, 1989, 163, 116-122.	2.6	170
52	Tuning the Work Function of Polar Zinc Oxide Surfaces using Modified Phosphonic Acid Selfâ€Assembled Monolayers. Advanced Functional Materials, 2014, 24, 7014-7024.	14.9	160
53	On the Field Dependence of Free Charge Carrier Generation and Recombination in Blends of PCPDTBT/PC₇₀BM: Influence of Solvent Additives. Journal of Physical Chemistry Letters, 2012, 3, 640-645.	4.6	153
54	Localized Charge Transfer in a Molecularly Doped Conducting Polymer. Advanced Materials, 2007, 19, 3257-3260.	21.0	152

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55	Potassium Poly(heptazine imides) from Aminotetrazoles: Shifting Band Gaps of Carbon Nitrideâ€like Materials for More Efficient Solar Hydrogen and Oxygen Evolution. ChemCatChem, 2017, 9, 167-174.	3.7	151
56	Chiroptical Properties of Poly(p-phenyleneethynylene) Copolymers in Thin Films:Â Largeg-Values. Journal of the American Chemical Society, 2002, 124, 6830-6831.	13.7	148
57	Chiroptical Properties of Chiral Substituted Polyfluorenes. Macromolecules, 2002, 35, 6792-6798.	4.8	147
58	Ordering, Graphoepitaxial Orientation, and Conformation of a Polyfluorene Derivative of the â€œHairy-Rodâ€•Type on an Oriented Substrate of Polyimide. Macromolecules, 2000, 33, 4490-4495.	4.8	145
59	Polymer electrophosphorescence devices with high power conversion efficiencies. Applied Physics Letters, 2004, 84, 2476-2478.	3.3	145
60	Bulk Electron Transport and Charge Injection in a High Mobility nâ€Type Semiconducting Polymer. Advanced Materials, 2010, 22, 2799-2803.	21.0	145
61	A Nanoparticle Approach To Control the Phase Separation in Polyfluorene Photovoltaic Devices. Macromolecules, 2004, 37, 4882-4890.	4.8	144
62	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081.	14.9	144
63	Nongeminate and Geminate Recombination in PTB7:PCBM Solar Cells. Advanced Functional Materials, 2014, 24, 1306-1311.	14.9	142
64	Quantitative Analysis of Bulk Heterojunction Films Using Linear Absorption Spectroscopy and Solar Cell Performance. Advanced Functional Materials, 2011, 21, 4640-4652.	14.9	137
65	How To Quantify the Efficiency Potential of Neat Perovskite Films: Perovskite Semiconductors with an Implied Efficiency Exceeding 28%. Advanced Materials, 2020, 32, e2000080.	21.0	134
66	Temperatureâ€Resolved Local and Macroscopic Charge Carrier Transport in Thin P3HT Layers. Advanced Functional Materials, 2010, 20, 2286-2295.	14.9	131
67	Emissive and charge-generating donorâ€“acceptor interfaces for organic optoelectronics with low voltage losses. Nature Materials, 2019, 18, 459-464.	27.5	131
68	Sub-picosecond charge-transfer at near-zero driving force in polymer:non-fullerene acceptor blends and bilayers. Nature Communications, 2020, 11, 833.	12.8	130
69	Tuning halide perovskite energy levels. Energy and Environmental Science, 2021, 14, 1429-1438.	30.8	124
70	Reducing Voltage Losses in Cascade Organic Solar Cells while Maintaining High External Quantum Efficiencies. Advanced Energy Materials, 2017, 7, 1700855.	19.5	122
71	Electromechanical Properties of an Ultrathin Layer of Directionally Aligned Helical Polypeptides. Science, 1998, 279, 57-60.	12.6	119
72	Charge Transport Anisotropy in Highly Oriented Thin Films of the Acceptor Polymer P(NDI2ODâ€T2). Advanced Energy Materials, 2014, 4, 1301659.	19.5	116

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73	Organic Light-Emitting Devices Fabricated from Semiconducting Nanospheres. Advanced Materials, 2003, 15, 800-804.	21.0	115
74	Colorâ€Tunable Photoluminescence and NIR Electroluminescence in Carbon Nitride Thin Films and Lightâ€Emitting Diodes. Advanced Optical Materials, 2015, 3, 913-917.	7.3	115
75	Measuring Aging Stability of Perovskite Solar Cells. Joule, 2018, 2, 1019-1024.	24.0	115
76	Perfluorinated Self-Assembled Monolayers Enhance the Stability and Efficiency of Inverted Perovskite Solar Cells. ACS Nano, 2020, 14, 1445-1456.	14.6	115
77	Thickness Dependence of the Crystalline Structure and Hole Mobility in Thin Films of Low Molecular Weight Poly(3-hexylthiophene). Macromolecules, 2008, 41, 6800-6808.	4.8	114
78	Halide Segregation versus Interfacial Recombination in Bromide-Rich Wide-Gap Perovskite Solar Cells. ACS Energy Letters, 2020, 5, 2728-2736.	17.4	114
79	Solution Processable Organic Field-Effect Transistors Utilizing an Î±,Î±â€˜-Dihexylpentathiophene-Based Swivel Cruciform. Journal of the American Chemical Society, 2006, 128, 3914-3915.	13.7	111
80	Efficient White-Electrophosphorescent Devices Based on a Single Polyfluorene Copolymer. Advanced Functional Materials, 2007, 17, 1085-1092.	14.9	110
81	Charge Transport Layers Limiting the Efficiency of Perovskite Solar Cells: How To Optimize Conductivity, Doping, and Thickness. ACS Applied Energy Materials, 2019, 2, 6280-6287.	5.1	110
82	Effect of molecular p-doping on hole density and mobility in poly(3-hexylthiophene). Applied Physics Letters, 2012, 100, .	3.3	108
83	2D/3D perovskite engineering eliminates interfacial recombination losses in hybrid perovskite solar cells. CheM, 2021, 7, 1903-1916.	11.7	108
84	It Takes Two to Tangoâ€”Double-Layer Selective Contacts in Perovskite Solar Cells for Improved Device Performance and Reduced Hysteresis. ACS Applied Materials & Interfaces, 2017, 9, 17245-17255.	8.0	107
85	Dendronized Perylene Diimide Emitters:Â Synthesis, Luminescence, and Electron and Energy Transfer Studies. Macromolecules, 2004, 37, 8297-8306.	4.8	106
86	On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells. Advanced Materials, 2014, 26, 2533-2539.	21.0	106
87	A Conclusive View on Charge Generation, Recombination, and Extraction in Asâ€Prepared and Annealed P3HT:PCBM Blends: Combined Experimental and Simulation Work. Advanced Energy Materials, 2014, 4, 1301401.	19.5	104
88	Upconversion-Agent Induced Improvement of g-C₃N₄ Photocatalyst under Visible Light. ACS Applied Materials & Interfaces, 2014, 6, 16481-16486.	8.0	104
89	Probing the pathways of free charge generation in organic bulk heterojunction solar cells. Nature Communications, 2018, 9, 2038.	12.8	104
90	Efficient Light Management by Textured Nanoimprinted Layers for Perovskite Solar Cells. ACS Photonics, 2017, 4, 1232-1239.	6.6	103

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91	A Compact Device for the Efficient, Electrically Driven Generation of Highly Circularly Polarized Light. Advanced Materials, 2001, 13, 577-580.	21.0	102
92	Bimodal Temperature Behavior of Structure and Mobility in High Molecular Weight P3HT Thin Films. Macromolecules, 2009, 42, 4651-4660.	4.8	102
93	Roadmap on organicâ€“inorganic hybrid perovskite semiconductors and devices. APL Materials, 2021, 9, .	5.1	102
94	Impact of molecular quadrupole moments on the energy levels at organic heterojunctions. Nature Communications, 2019, 10, 2466.	12.8	101
95	Dispersion measurements of the third-order nonlinear susceptibility of polythiophene thin films. Chemical Physics Letters, 1990, 175, 11-16.	2.6	100
96	A New Figure of Merit for Organic Solar Cells with Transport-limited Photocurrents. Scientific Reports, 2016, 6, 24861.	3.3	98
97	Photoaddressable Alignment Layers for Fluorescent Polymers in Polarized Electroluminescence Devices. Advanced Functional Materials, 2002, 12, 49.	14.9	97
98	Phase Separation of Binary Blends in Polymer Nanoparticles. Small, 2007, 3, 1041-1048.	10.0	96
99	Effect of Solvent Additive on Generation, Recombination, and Extraction in PTB7:PCBM Solar Cells: A Conclusive Experimental and Numerical Simulation Study. Journal of Physical Chemistry C, 2015, 119, 8310-8320.	3.1	96
100	Preparation of oriented multilayers of poly(silanes) by the Langmuir-Blodgett technique. Macromolecules, 1991, 24, 5068-5075.	4.8	95
101	Understanding Performance Limiting Interfacial Recombination in pin Perovskite Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	95
102	Swivel-cruciform oligothiophene dimers. Journal of Materials Chemistry, 2006, 16, 3177.	6.7	92
103	Efficient blue light emitting devices based on rigid-rod polyelectrolytes. Advanced Materials, 1996, 8, 585-588.	21.0	90
104	Interface Engineering of Solution-Processed Hybrid Organohalide Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 21681-21687.	8.0	89
105	Quantifying Charge Extraction in Organic Solar Cells: The Case of Fluorinated PCPDTBT. Journal of Physical Chemistry Letters, 2014, 5, 1131-1138.	4.6	88
106	The Optical, Electronic, and Electroluminescent Properties of Novel Poly(p-phenylene)-Related Polymers. Macromolecules, 1996, 29, 7432-7445.	4.8	87
107	Voltage-Dependent Photoluminescence and How It Correlates with the Fill Factor and Open-Circuit Voltage in Perovskite Solar Cells. ACS Energy Letters, 2019, 4, 2887-2892.	17.4	86
108	Comparative Study of M3EHâ^'PPV-Based Bilayer Photovoltaic Devices. Macromolecules, 2006, 39, 4018-4022.	4.8	85

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109	The Role of Mobility on Charge Generation, Recombination, and Extraction in Polymerâ€Based Solar Cells. Advanced Energy Materials, 2018, 8, 1703355.	19.5	82
110	25.1% Highâ€Efficiency Monolithic Perovskite Silicon Tandem Solar Cell with a High Bandgap Perovskite Absorber. Solar Rrl, 2020, 4, 2000152.	5.8	81
111	pâ€Type Doping of Poly(3â€hexylthiophene) with the Strong Lewis Acid Tris(pentafluorophenyl)borane. Advanced Electronic Materials, 2016, 2, 1600204.	5.1	80
112	Optical Anisotropy in Films of Photoaddressable Polymers. Macromolecules, 1999, 32, 8496-8503.	4.8	79
113	On the Question of the Need for a Builtâ€In Potential in Perovskite Solar Cells. Advanced Materials Interfaces, 2020, 7, 2000041.	3.7	79
114	Light management in PCPDTBT:PC70BM solar cells: A comparison of standard and inverted device structures. Organic Electronics, 2012, 13, 615-622.	2.6	78
115	Constructing the Electronic Structure of CH₃NH₃PbI₃ and CH₃NH₃PbBr₃ Perovskite Thin Films from Single-Crystal Band Structure Measurements. Journal of Physical Chemistry Letters, 2019, 10, 601-609.	4.6	78
116	Charge carrier photogeneration, trapping, and space-charge field formation in PVK-based photorefractive materials. Physical Review B, 2000, 61, 13515-13527.	3.2	77
117	Capacitive scanning dilatometry and frequency-dependent thermal expansion of polymer films. Physical Review E, 2000, 61, 1755-1764.	2.1	76
118	Overcoming Geminate Recombination and Enhancing Extraction in Solutionâ€Processed Small Molecule Solar Cells. Advanced Energy Materials, 2014, 4, 1400230.	19.5	76
119	Bi-functional interfaces by poly(ionic liquid) treatment in efficient pin and nip perovskite solar cells. Energy and Environmental Science, 2021, 14, 4508-4522.	30.8	76
120	Microcavity effects in singleâ€layer lightâ€emitting devices based on poly(pâ€phenylene vinylene). Journal of Applied Physics, 1996, 79, 3299-3306.	2.5	75
121	Narrow-band emissions from conjugated-polymer films. Chemical Physics Letters, 1997, 265, 320-326.	2.6	75
122	Extraordinarily long diffusion length in PM6:Y6 organic solar cells. Journal of Materials Chemistry A, 2020, 8, 7854-7860.	10.3	74
123	Nonlinear optical response of C_60 and C_70. Optics Letters, 1992, 17, 1491.	3.3	73
124	Blue Solid-State Photoluminescence and Electroluminescence from Novel Poly(para-phenyleneethynylene) Copolymers. Chemistry of Materials, 2001, 13, 2691-2696.	6.7	73
125	Thermodynamic Theory of Light-Induced Material Transport in Amorphous Azobenzene Polymer Films. Journal of Physical Chemistry B, 2005, 109, 19428-19436.	2.6	73
126	Absorption Tails of Donor:C₆₀ Blends Provide Insight into Thermally Activated Charge-Transfer Processes and Polaron Relaxation. Journal of the American Chemical Society, 2017, 139, 1699-1704.	13.7	73

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127	Strong light-matter coupling for reduced photon energy losses in organic photovoltaics. Nature Communications, 2019, 10, 3706.	12.8	72
128	Dielectric and Mechanical Properties of Azobenzene Polymer Layers under Visible and Ultraviolet Irradiation. Macromolecules, 2005, 38, 3894-3902.	4.8	71
129	Substituted Rigid Rod-Like Polymersâ€"Building Blocks for Photonic Devices. Advanced Materials, 1995, 7, 691-702.	21.0	70
130	Understanding and suppressing non-radiative losses in methylammonium-free wide-bandgap perovskite solar cells. Energy and Environmental Science, 2022, 15, 714-726.	30.8	68
131	Controlled Mineralization and Assembly of Hydrolysis-Based Nanoparticles in Organic Solvents Combining Polymer Micelles and Microwave Techniques. Advanced Materials, 1998, 10, 473-475.	21.0	67
132	Reliable electron-only devices and electron transport in n-type polymers. Journal of Applied Physics, 2009, 105, .	2.5	67
133	Direct determination of the emission zone in a polymer light-emitting diode. Advanced Materials, 1997, 9, 964-968.	21.0	65
134	Charge-Transferâ€"Solvent Interaction Predefines Doping Efficiency in p-Doped P3HT Films. Chemistry of Materials, 2016, 28, 4432-4439.	6.7	65
135	Correlation between the Open Circuit Voltage and the Energetics of Organic Bulk Heterojunction Solar Cells. Journal of Physical Chemistry Letters, 2013, 4, 3865-3871.	4.6	64
136	Synthesis, Characterization, and Photophysical, Electrochemical, Electroluminescent, and Photovoltaic Properties of Yne-Containing CNâ^'PPVs. Macromolecules, 2004, 37, 8863-8873.	4.8	62
137	Comparative Study of the Field-Effect Mobility of a Copolymer and a Binary Blend Based on Poly(3-alkylthiophene)s. Chemistry of Materials, 2005, 17, 781-786.	6.7	61
138	Efficient Polymer Electrophosphorescent Devices with Interfacial Layers. Advanced Functional Materials, 2006, 16, 2156-2162.	14.9	61
139	Alkylated-C60 based soft materials: regulation of self-assembly and optoelectronic properties by chain branching. Journal of Materials Chemistry C, 2013, 1, 1943.	5.5	61
140	Charge Separation in PCPDTBT:PCBM Blends from an EPR Perspective. Journal of Physical Chemistry C, 2014, 118, 28482-28493.	3.1	61
141	Charge Generation and Recombination in an Organic Solar Cell with Low Energetic Offsets. Advanced Energy Materials, 2018, 8, 1701073.	19.5	60
142	The Role of Bulk and Interface Recombination in Highâ€Efficiency Lowâ€Dimensional Perovskite Solar Cells. Advanced Materials, 2019, 31, e1901090.	21.0	59
143	27.9% Efficient Monolithic Perovskite/Silicon Tandem Solar Cells on Industry Compatible Bottom Cells. Solar Rrl, 2021, 5, 2100244.	5.8	59
144	Microcavity devices based on a ladderâ€type poly(pâ€phenylene) emitting blue, green, and red light. Applied Physics Letters, 1996, 69, 608-610.	3.3	57

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145	High open circuit voltages in pin-type perovskite solar cells through strontium addition. Sustainable Energy and Fuels, 2019, 3, 550-563.	4.9	57
146	Excitons Dominate the Emission from PM6:Y6 Solar Cells, but This Does Not Help the Open-Circuit Voltage of the Device. ACS Energy Letters, 2021, 6, 557-564.	17.4	57
147	Effects of energetic disorder in bulk heterojunction organic solar cells. Energy and Environmental Science, 2022, 15, 2806-2818.	30.8	57
148	SiO2/carbon nitride composite materials: The role of surfaces for enhanced photocatalysis. Catalysis Today, 2014, 225, 185-190.	4.4	56
149	Rationalizing the Molecular Design of Holeâ€Selective Contacts to Improve Charge Extraction in Perovskite Solar Cells. Advanced Energy Materials, 2019, 9, 1900990.	19.5	56
150	Light-induced softening of azobenzene dye-doped polymer films probed with quartz crystal resonators. Applied Physics Letters, 2000, 77, 963.	3.3	55
151	Energy-Gap Law for Photocurrent Generation in Fullerene-Based Organic Solar Cells: The Case of Low-Donor-Content Blends. Journal of the American Chemical Society, 2019, 141, 2329-2341.	13.7	54
152	Large-Grain Double Cation Perovskites with 18 Î¼s Lifetime and High Luminescence Yield for Efficient Inverted Perovskite Solar Cells. ACS Energy Letters, 2021, 6, 1045-1054.	17.4	54
153	Piezoelectricity and electrostriction of dyeâ€doped polymer electrets. Applied Physics Letters, 1994, 64, 1347-1349.	3.3	53
154	Influence of Glass-Transition Temperature and Chromophore Content on the Steady-State Performance of Poly(N-vinylcarbazole)-Based Photorefractive Polymers. Advanced Materials, 1999, 11, 123-127.	21.0	53
155	Layer-Thinning Effects on Ferroelectricity and the Ferroelectric-to-Paraelectric Phase Transition of Vinylidene Fluorideâ˜Trifluoroethylene Copolymer Layers. Macromolecules, 2000, 33, 8269-8279.	4.8	53
156	Dispersive Non-Geminate Recombination in an Amorphous Polymer:Fullerene Blend. Scientific Reports, 2016, 6, 26832.	3.3	53
157	Synthesis and spectroscopic properties of phthalocyanine dimers in solution. Chemical Physics Letters, 1995, 245, 23-29.	2.6	52
158	Universal Current Losses in Perovskite Solar Cells Due to Mobile Ions. Advanced Energy Materials, 2021, 11, 2101447.	19.5	52
159	Amphiphilic dyes for nonlinear optics: Dependence of second harmonic generation on functional group substitution. Advanced Materials, 1991, 3, 54-58.	21.0	51
160	Mobility relaxation and electron trapping in a donor/acceptor copolymer. Physical Review B, 2013, 87, .	3.2	51
161	Highly Crystalline Films of PCPDTBT with Branched Side Chains by Solvent Vapor Crystallization: Influence on Optoâ€Electronic Properties. Advanced Materials, 2015, 27, 1223-1228.	21.0	51
162	On the Molecular Origin of Charge Separation at the Donorâ€“Acceptor Interface. Advanced Energy Materials, 2018, 8, 1702232.	19.5	51

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163	The Relationship between the Electric Field-Induced Dissociation of Charge Transfer Excitons and the Photocurrent in Small Molecular/Polymeric Solar Cells. Journal of Physical Chemistry Letters, 2010, 1, 982-986.	4.6	50
164	How Do Disorder, Reorganization, and Localization Influence the Hole Mobility in Conjugated Copolymers?. Journal of the American Chemical Society, 2013, 135, 1772-1782.	13.7	50
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