Harald Ade

List of Publications by Year
in descending order

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432 papers	44,022 citations	1371 108 h-index	2629 194 g-index
441 all docs	441 docs citations	441 times ranked	18753 citing authors

#	Article	IF	Citations
1	Aggregation and morphology control enables multiple cases of high-efficiency polymer solar cells. Nature Communications, 2014, 5, 5293.	12.8	2,854
2	Efficient organic solar cells processed from hydrocarbon solvents. Nature Energy, 2016, 1, .	39.5	2,129
3	Energyâ€Level Modulation of Smallâ€Molecule Electron Acceptors to Achieve over 12% Efficiency in Polymer Solar Cells. Advanced Materials, 2016, 28, 9423-9429.	21.0	1,307
4	Fast charge separation in a non-fullerene organic solar cell with a small driving force. Nature Energy, 2016, 1, .	39.5	1,167
5	A Largeâ€Bandgap Conjugated Polymer for Versatile Photovoltaic Applications with High Performance. Advanced Materials, 2015, 27, 4655-4660.	21.0	882
6	Alkyl Chain Tuning of Small Molecule Acceptors for Efficient Organic Solar Cells. Joule, 2019, 3, 3020-3033.	24.0	763
7	A Wide Band Gap Polymer with a Deep Highest Occupied Molecular Orbital Level Enables 14.2% Efficiency in Polymer Solar Cells. Journal of the American Chemical Society, 2018, 140, 7159-7167.	13.7	654
8	Interferometer-controlled scanning transmission X-ray microscopes at the Advanced Light Source. Journal of Synchrotron Radiation, 2003, 10, 125-136.	2.4	625
9	Absolute Measurement of Domain Composition and Nanoscale Size Distribution Explains Performance in PTB7:PC₇₁BM Solar Cells. Advanced Energy Materials, 2013, 3, 65-74.	19.5	605
10	Quantitative relations between interaction parameter, miscibility and function in organic solar cells. Nature Materials, 2018, 17, 253-260.	27.5	556
11	Fluorine Substituents Reduce Charge Recombination and Drive Structure and Morphology Development in Polymer Solar Cells. Journal of the American Chemical Society, 2013, 135, 1806-1815.	13.7	528
12	The influence of molecular orientation on organic bulk heterojunction solar cells. Nature Photonics, 2014, 8, 385-391.	31.4	439
13	The Importance of Fullerene Percolation in the Mixed Regions of Polymerâ€“Fullerene Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2013, 3, 364-374.	19.5	412
14	Achieving Highly Efficient Nonfullerene Organic Solar Cells with Improved Intermolecular Interaction and Openâ€Circuit Voltage. Advanced Materials, 2017, 29, 1700254.	21.0	363
15	Molecular Miscibility of Polymerâˆ’Fullerene Blends. Journal of Physical Chemistry Letters, 2010, 1, 3160-3166.	4.6	362
16	Chemical contrast in X-ray microscopy and spatially resolved XANES spectroscopy of organic specimens. Science, 1992, 258, 972-975.	12.6	356
17	A Highâ€Efficiency Organic Solar Cell Enabled by the Strong Intramolecular Electron Pushâ€“Pull Effect of the Nonfullerene Acceptor. Advanced Materials, 2018, 30, e1707170.	21.0	351
18	Designing ternary blend bulk heterojunction solar cells with reduced carrier recombination and a fill factor of 77%. Nature Energy, 2016, 1, .	39.5	330

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19	A History and Perspective of Nonâ€Fullerene Electron Acceptors for Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003570.	19.5	323
20	High Performance Allâ€Polymer Solar Cell via Polymer Sideâ€Chain Engineering. Advanced Materials, 2014, 26, 3767-3772.	21.0	320
21	Compatibilizing Bulk Polymer Blends by Using Organoclays. Macromolecules, 2006, 39, 4793-4801.	4.8	316
22	Improved Performance of Allâ€Polymer Solar Cells Enabled by Naphthodiperylenetetraimideâ€Based Polymer Acceptor. Advanced Materials, 2017, 29, 1700309.	21.0	306
23	Efficient Charge Transfer and Fineâ€Tuned Energy Level Alignment in a THFâ€Processed Fullereneâ€Free Organic Solar Cell with 11.3% Efficiency. Advanced Materials, 2017, 29, 1604241.	21.0	305
24	Ring-Fusion of Perylene Diimide Acceptor Enabling Efficient Nonfullerene Organic Solar Cells with a Small Voltage Loss. Journal of the American Chemical Society, 2017, 139, 16092-16095.	13.7	304
25	9.73% Efficiency Nonfullerene All Organic Small Molecule Solar Cells with Absorption-Complementary Donor and Acceptor. Journal of the American Chemical Society, 2017, 139, 5085-5094.	13.7	303
26	Miscibility, Crystallinity, and Phase Development in P3HT/PCBM Solar Cells: Toward an Enlightened Understanding of Device Morphology and Stability. Journal of Physical Chemistry Letters, 2011, 2, 3135-3145.	4.6	301
27	From Binary to Ternary Solvent: Morphology Fineâ€tuning of D/A Blends in PDPP3Tâ€based Polymer Solar Cells. Advanced Materials, 2012, 24, 6335-6341.	21.0	288
28	Domain Purity, Miscibility, and Molecular Orientation at Donor/Acceptor Interfaces in High Performance Organic Solar Cells: Paths to Further Improvement. Advanced Energy Materials, 2013, 3, 864-872.	19.5	283
29	Polarized X-ray scattering reveals non-crystalline orientational ordering in organic films. Nature Materials, 2012, 11, 536-543.	27.5	281
30	Trends in the Carbonyl Core (C 1S, O 1S) â†' Ï€*C=O Transition in the Near-Edge X-ray Absorption Fine Structure Spectra of Organic Molecules. Journal of Physical Chemistry B, 2002, 106, 8531-8538.	2.6	271
31	Achieving 19% Power Conversion Efficiency in Planarâ€Mixed Heterojunction Organic Solar Cells Using a Pseudosymmetric Electron Acceptor. Advanced Materials, 2022, 34, .	21.0	271
32	Manipulating Aggregation and Molecular Orientation in Allâ€Polymer Photovoltaic Cells. Advanced Materials, 2015, 27, 6046-6054.	21.0	264
33	NEXAFS microscopy and resonant scattering: Composition and orientation probed in real and reciprocal space. Polymer, 2008, 49, 643-675.	3.8	261
34	Highly Efficient Organic Solar Cells with Improved Vertical Donorâ€“Acceptor Compositional Gradient Via an Inverted Offâ€Center Spinning Method. Advanced Materials, 2016, 28, 967-974.	21.0	256
35	Calibrated NEXAFS spectra of some common polymers. Journal of Electron Spectroscopy and Related Phenomena, 2003, 128, 85-96.	1.7	249
36	Mobility-Controlled Performance of Thick Solar Cells Based on Fluorinated Copolymers. Journal of the American Chemical Society, 2014, 136, 15566-15576.	13.7	249

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37	A Quantitative Study of PCBM Diffusion during Annealing of P3HT:PCBM Blend Films. Macromolecules, 2009, 42, 8392-8397.	4.8	247
38	Controlling Blend Morphology for Ultrahigh Current Density in Nonfullerene Acceptor-Based Organic Solar Cells. ACS Energy Letters, 2018, 3, 669-676.	17.4	242
39	Rigidifying Nonplanar Perylene Diimides by Ring Fusion Toward Geometryâ€Tunable Acceptors for Highâ€Performance Fullereneâ€Free Solar Cells. Advanced Materials, 2016, 28, 951-958.	21.0	238
40	Highâ€Efficiency Nonfullerene Organic Solar Cells: Critical Factors that Affect Complex Multiâ€Length Scale Morphology and Device Performance. Advanced Energy Materials, 2017, 7, 1602000.	19.5	232
41	Highâ€Performance Nonâ€Fullerene Polymer Solar Cells Based on a Pair of Donorâ€“Acceptor Materials with Complementary Absorption Properties. Advanced Materials, 2015, 27, 7299-7304.	21.0	230
42	Highâ€Efficiency Allâ€Polymer Solar Cells Based on a Pair of Crystalline Lowâ€Bandgap Polymers. Advanced Materials, 2014, 26, 7224-7230.	21.0	228
43	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
44	Design of a New Smallâ€Molecule Electron Acceptor Enables Efficient Polymer Solar Cells with High Fill Factor. Advanced Materials, 2017, 29, 1704051.	21.0	224
45	Miscibilityâ€“Function Relations in Organic Solar Cells: Significance of Optimal Miscibility in Relation to Percolation. Advanced Energy Materials, 2018, 8, 1703058.	19.5	223
46	PolLux: A new facility for soft x-ray spectromicroscopy at the Swiss Light Source. Review of Scientific Instruments, 2008, 79, 113704.	1.3	222
47	A Vinyleneâ€Bridged Perylenediimideâ€Based Polymeric Acceptor Enabling Efficient Allâ€Polymer Solar Cells Processed under Ambient Conditions. Advanced Materials, 2016, 28, 8483-8489.	21.0	222
48	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. Nature Communications, 2019, 10, 1276.	12.8	222
49	Unveiling the operation mechanism of layered perovskite solar cells. Nature Communications, 2019, 10, 1008.	12.8	216
50	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	27.5	212
51	A Polythiophene Derivative with Superior Properties for Practical Application in Polymer Solar Cells. Advanced Materials, 2014, 26, 5880-5885.	21.0	205
52	Organic thermometry for chondritic parent bodies. Earth and Planetary Science Letters, 2008, 272, 446-455.	4.4	204
53	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	12.8	204
54	Enhanced Photovoltaic Performance by Modulating Surface Composition in Bulk Heterojunction Polymer Solar Cells Based on PBDTTTâ€Câ€T/PC₇₁BM. Advanced Materials, 2014, 26, 4043-4049.	21.0	203

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55	Understanding the Morphology of PTB7:PCBM Blends in Organic Photovoltaics. Advanced Energy Materials, 2014, 4, 1301377.	19.5	203
56	Efficient All-Polymer Solar Cells based on a New Polymer Acceptor Achieving 10.3% Power Conversion Efficiency. ACS Energy Letters, 2019, 4, 417-422.	17.4	196
57	A Printable Organic Cathode Interlayer Enables over 13% Efficiency for 1-cm2 Organic Solar Cells. Joule, 2019, 3, 227-239.	24.0	193
58	PDTâ€Sâ€T: A New Polymer with Optimized Molecular Conformation for Controlled Aggregation and Ï€â€“Ï€ Stacking and Its Application in Efficient Photovoltaic Devices. Advanced Materials, 2013, 25, 3449-3455.	21.0	190
59	Controlling Molecular Weight of a High Efficiency Donorâ€Acceptor Conjugated Polymer and Understanding Its Significant Impact on Photovoltaic Properties. Advanced Materials, 2014, 26, 4456-4462.	21.0	190
60	Spectromicroscopy of Poly(ethylene terephthalate):â€‰ Comparison of Spectra and Radiation Damage Rates in X-ray Absorption and Electron Energy Loss. Journal of Physical Chemistry B, 1997, 101, 1950-1960.	2.6	187
61	Characterization of the effects of soft X-ray irradiation on polymers. Journal of Electron Spectroscopy and Related Phenomena, 2002, 122, 65-78.	1.7	186
62	Significant Influence of the Methoxyl Substitution Position on Optoelectronic Properties and Molecular Packing of Smallâ€Molecule Electron Acceptors for Photovoltaic Cells. Advanced Energy Materials, 2017, 7, 1700183.	19.5	184
63	Quenching to the Percolation Threshold in Organic Solar Cells. Joule, 2019, 3, 443-458.	24.0	183
64	Nanomorphology of Bulk Heterojunction Photovoltaic Thin Films Probed with Resonant Soft X-ray Scattering. Nano Letters, 2010, 10, 2863-2869.	9.1	182
65	Efficient Nonfullerene Polymer Solar Cells Enabled by a Novel Wide Bandgap Small Molecular Acceptor. Advanced Materials, 2017, 29, 1606054.	21.0	181
66	Achieving Net Zero Energy Greenhouses by Integrating Semitransparent Organic Solar Cells. Joule, 2020, 4, 490-506.	24.0	179
67	Morphology changes upon scaling a high-efficiency, solution-processed solar cell. Energy and Environmental Science, 2016, 9, 2835-2846.	30.8	170
68	Polymerized small molecular acceptor based all-polymer solar cells with an efficiency of 16.16% via tuning polymer blend morphology by molecular design. Nature Communications, 2021, 12, 5264.	12.8	170
69	Influence of Processing Parameters and Molecular Weight on the Morphology and Properties of Highâ€Performance PffBT4Tâ€2OD:PC₇₁BM Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1501400.	19.5	166
70	X-ray Linear Dichroism Microscopy. Science, 1993, 262, 1427-1429.	12.6	161
71	Importance of Domain Purity and Molecular Packing in Efficient Solutionâ€Processed Smallâ€Molecule Solar Cells. Advanced Materials, 2015, 27, 1105-1111.	21.0	160
72	On the role of intermixed phases in organic photovoltaic blends. Energy and Environmental Science, 2013, 6, 2756.	30.8	157

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73	Highâ€Efficiency Allâ€Smallâ€Molecule Organic Solar Cells Based on an Organic Molecule Donor with Alkylsilylâ€Thienyl Conjugated Side Chains. Advanced Materials, 2018, 30, e1706361.	21.0	154
74	Disentangling the impact of side chains and fluorine substituents of conjugated donor polymers on the performance of photovoltaic blends. Energy and Environmental Science, 2013, 6, 316-326.	30.8	153
75	Surpassing 10% Efficiency Benchmark for Nonfullerene Organic Solar Cells by Scalable Coating in Air from Single Nonhalogenated Solvent. Advanced Materials, 2018, 30, 1705485.	21.0	150
76	Correlating the Efficiency and Nanomorphology of Polymer Blend Solar Cells Utilizing Resonant Soft X-ray Scattering. ACS Nano, 2012, 6, 677-688.	14.6	149
77	Regioâ€Regular Polymer Acceptors Enabled by Determined Fluorination on End Groups for Allâ€Polymer Solar Cells with 15.2â€‰% Efficiency. Angewandte Chemie - International Edition, 2021, 60, 10137-10146.	13.8	145
78	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081.	14.9	144
79	Asymmetric Alkoxy and Alkyl Substitution on Nonfullerene Acceptors Enabling Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003141.	19.5	144
80	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. Joule, 2019, 3, 1328-1348.	24.0	143
81	A multi-objective optimization-based layer-by-layer blade-coating approach for organic solar cells: rational control of vertical stratification for high performance. Energy and Environmental Science, 2019, 12, 3118-3132.	30.8	142
82	Near-edge X-ray absorption fine-structure microscopy of organic and magnetic materials. Nature Materials, 2009, 8, 281-290.	27.5	141
83	Multiple Cases of Efficient Nonfullerene Ternary Organic Solar Cells Enabled by an Effective Morphology Control Method. Advanced Energy Materials, 2018, 8, 1701370.	19.5	140
84	Crystallization in the Thin and Ultrathin Films of Poly(ethyleneâ’vinyl acetate) and Linear Low-Density Polyethylene. Macromolecules, 2004, 37, 3319-3327.	4.8	139
85	Defining the Nanostructured Morphology of Triblock Copolymers Using Resonant Soft X-ray Scattering. Nano Letters, 2011, 11, 3906-3911.	9.1	139
86	Optimized Active Layer Morphologies via Ternary Copolymerization of Polymer Donors for 17.6â€‰% Efficiency Organic Solar Cells with Enhanced Fill Factor. Angewandte Chemie - International Edition, 2021, 60, 2322-2329.	13.8	138
87	Quantitative organic and lightâ€element analysis of comet 81P/Wild 2 particles using Câ€, Nâ€, and Oâ€¼â€XANES. Meteoritics and Planetary Science, 2008, 43, 353-365.	1.6	137
88	An Easy and Effective Method to Modulate Molecular Energy Level of the Polymer Based on Benzodithiophene for the Application in Polymer Solar Cells. Advanced Materials, 2014, 26, 2089-2095.	21.0	137
89	Pseudo-bilayer architecture enables high-performance organic solar cells with enhanced exciton diffusion length. Nature Communications, 2021, 12, 468.	12.8	137
90	Highâ€Performance Allâ€Polymer Solar Cells: Synthesis of Polymer Acceptor by a Random Ternary Copolymerization Strategy. Angewandte Chemie - International Edition, 2020, 59, 15181-15185.	13.8	136

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91	Efficient Energy Funneling in Quasiâ€2D Perovskites: From Light Emission to Lasing. Advanced Materials, 2020, 32, e1906571.	21.0	134
92	Significance of Average Domain Purity and Mixed Domains on the Photovoltaic Performance of Highâ€Efficiency Solutionâ€Processed Smallâ€Molecule BHJ Solar Cells. Advanced Energy Materials, 2015, 5, 1500877.	19.5	133
93	Optimization Requirements of Efficient Polythiophene:Nonfullerene Organic Solar Cells. Joule, 2020, 4, 1278-1295.	24.0	133
94	The performance-stability conundrum of BTP-based organic solar cells. Joule, 2021, 5, 2129-2147.	24.0	133
95	Sequential Deposition of Organic Films with Ecoâ€Compatible Solvents Improves Performance and Enables Over 12%â€Efficiency Nonfullerene Solar Cells. Advanced Materials, 2019, 31, e1808153.	21.0	132
96	Rational Strategy to Stabilize an Unstable Highâ€Efficiency Binary Nonfullerene Organic Solar Cells with a Third Component. Advanced Energy Materials, 2019, 9, 1900376.	19.5	132
97	Thermodynamic Properties and Molecular Packing Explain Performance and Processing Procedures of Three D18:NFA Organic Solar Cells. Advanced Materials, 2020, 32, e2005386.	21.0	130
98	Non-fullerene acceptor organic photovoltaics with intrinsic operational lifetimes over 30 years. Nature Communications, 2021, 12, 5419.	12.8	128
99	Quantification of Nanoâ€and Mesoscale Phase Separation and Relation to Donor and Acceptor Quantum Efficiency, J_{sc}, and FF in Polymer:Fullerene Solar Cells. Advanced Materials, 2014, 26, 4234-4241.	21.0	127
100	The role of bulk and interfacial morphology in charge generation, recombination, and extraction in non-fullerene acceptor organic solar cells. Energy and Environmental Science, 2020, 13, 3679-3692.	30.8	126
101	A Difluorobenzoxadiazole Building Block for Efficient Polymer Solar Cells. Advanced Materials, 2016, 28, 1868-1873.	21.0	125
102	Alkylâ€Chain Branching of Nonâ€Fullerene Acceptors Flanking Conjugated Side Groups toward Highly Efficient Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2102596.	19.5	125
103	Quantitative Morphologyâ€“Performance Correlations in Organic Solar Cells: Insights from Soft Xâ€Ray Scattering. Advanced Energy Materials, 2017, 7, 1700084.	19.5	123
104	High performance tandem organic solar cells via a strongly infrared-absorbing narrow bandgap acceptor. Nature Communications, 2021, 12, 178.	12.8	122
105	Effect of Methyl Methacrylate/Polyhedral Oligomeric Silsesquioxane Random Copolymers in Compatibilization of Polystyrene and Poly(methyl methacrylate) Blends. Macromolecules, 2002, 35, 8029-8038.	4.8	120
106	A new bend-magnet beamline for scanning transmission X-ray microscopy at the Advanced Light Source. Journal of Synchrotron Radiation, 2002, 9, 254-257.	2.4	120
107	Xâ€ray spectromicroscopy with a zone plate generated microprobe. Applied Physics Letters, 1990, 56, 1841-1843.	3.3	119
108	Understanding, quantifying, and controlling the molecular ordering of semiconducting polymers: from novices to experts and amorphous to perfect crystals. Materials Horizons, 2022, 9, 577-606.	12.2	117

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109	Flexible Inorganic Ferroelectric Thin Films for Nonvolatile Memory Devices. Advanced Functional Materials, 2017, 27, 1700461.	14.9	111
110	Selective Hole and Electron Transport in Efficient Quaternary Blend Organic Solar Cells. Joule, 2020, 4, 1790-1805.	24.0	110
111	Color-neutral, semitransparent organic photovoltaics for power window applications. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21147-21154.	7.1	109
112	On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells. Advanced Materials, 2014, 26, 2533-2539.	21.0	106
113	Influence of Annealing and Interfacial Roughness on the Performance of Bilayer Donor/Acceptor Polymer Photovoltaic Devices. Advanced Functional Materials, 2010, 20, 4329-4337.	14.9	105
114	Determination of chemical-structural changes in vitrinite accompanying luminescence alteration using C-NEXAFS analysis. Organic Geochemistry, 1998, 28, 441-455.	1.8	104
115	Soft x-ray resonant reflectivity of low-Z material thin films. Applied Physics Letters, 2005, 87, 214109.	3.3	103
116	X-ray Microscopy of Photovoltaic Polyfluorene Blends:Â Relating Nanomorphology to Device Performance. Macromolecules, 2007, 40, 3263-3270.	4.8	102
117	Effect of Alkylsilyl Sideâ€Chain Structure on Photovoltaic Properties of Conjugated Polymer Donors. Advanced Energy Materials, 2018, 8, 1702324.	19.5	102
118	NEXAFS spectromicroscopy of polymers: overview and quantitative analysis of polyurethane polymers. Journal of Electron Spectroscopy and Related Phenomena, 1999, 100, 119-135.	1.7	101
119	Surface Morphology of Annealed Polystyrene and Poly(methyl methacrylate) Thin Film Blends and Bilayers. Macromolecules, 2003, 36, 3307-3314.	4.8	101
120	Highâ€Molecularâ€Weight Insulating Polymers Can Improve the Performance of Molecular Solar Cells. Advanced Materials, 2014, 26, 4168-4172.	21.0	101
121	Precise Manipulation of Multilength Scale Morphology and Its Influence on Ecoâ€Friendly Printed Allâ€Polymer Solar Cells. Advanced Functional Materials, 2017, 27, 1702016.	14.9	99
122	Modulation of End Groups for Lowâ€Bandgap Nonfullerene Acceptors Enabling Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1801203.	19.5	99
123	A scanning transmission x-ray microscope for materials science spectromicroscopy at the advanced light source. Review of Scientific Instruments, 1998, 69, 2964-2973.	1.3	96
124	Timeâ€Dependent Morphology Evolution of Solutionâ€Processed Small Molecule Solar Cells during Solvent Vapor Annealing. Advanced Energy Materials, 2016, 6, 1502579.	19.5	96
125	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. , 0, , .		96
126	Dramatic performance enhancement for large bandgap thick-film polymer solar cells introduced by a difluorinated donor unit. Nano Energy, 2015, 15, 607-615.	16.0	93

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127	Synthesis and Photovoltaic Properties of a Series of Narrow Bandgap Organic Semiconductor Acceptors with Their Absorption Edge Reaching 900 nm. Chemistry of Materials, 2017, 29, 10130-10138.	6.7	93
128	Modulation of Morphological, Mechanical, and Photovoltaic Properties of Ternary Organic Photovoltaic Blends for Optimum Operation. Advanced Energy Materials, 2021, 11, 2003506.	19.5	92
129	Fluorinated Polymer Yields High Organic Solar Cell Performance for a Wide Range of Morphologies. Advanced Functional Materials, 2013, 23, 3463-3470.	14.9	91
130	High Performance Organic Solar Cells Processed by Blade Coating in Air from a Benign Food Additive Solution. Chemistry of Materials, 2016, 28, 7451-7458.	6.7	91
131	Influence of Regio- and Chemoselectivity on the Properties of Fluoro-Substituted Thienothiophene and Benzodithiophene Copolymers. Journal of the American Chemical Society, 2015, 137, 7616-7619.	13.7	89
132	A Difluoroâ€Monobromo End Group Enables Highâ€Performance Polymer Acceptor and Efficient Allâ€Polymer Solar Cells Processable with Green Solvent under Ambient Condition. Advanced Functional Materials, 2021, 31, 2100791.	14.9	89
133	Quantifying Charge Extraction in Organic Solar Cells: The Case of Fluorinated PCPDTBT. Journal of Physical Chemistry Letters, 2014, 5, 1131-1138.	4.6	88
134	The Importance of Entanglements in Optimizing the Mechanical and Electrical Performance of All-Polymer Solar Cells. Chemistry of Materials, 2019, 31, 5124-5132.	6.7	88
135	Manipulation of Domain Purity and Orientational Ordering in High Performance All-Polymer Solar Cells. Chemistry of Materials, 2016, 28, 6178-6185.	6.7	87
136	Panchromatic Sequentially Cast Ternary Polymer Solar Cells. Advanced Materials, 2017, 29, 1604603.	21.0	87
137	X-ray spectromicroscopy of polymers and tribological surfaces at beamline X1A at the NSLS. Journal of Electron Spectroscopy and Related Phenomena, 1997, 84, 53-72.	1.7	86
138	Molecular Design toward Efficient Polymer Solar Cells with High Polymer Content. Journal of the American Chemical Society, 2013, 135, 8464-8467.	13.7	86
139	Charge Creation and Recombination in Multiâ€Length Scale Polymer:Fullerene BHJ Solar Cell Morphologies. Advanced Energy Materials, 2016, 6, 1600699.	19.5	85
140	Tailoring non-fullerene acceptors using selenium-incorporated heterocycles for organic solar cells with over 16% efficiency. Journal of Materials Chemistry A, 2020, 8, 23756-23765.	10.3	85
141	Enhanced hindrance from phenyl outer side chains on nonfullerene acceptor enables unprecedented simultaneous enhancement in organic solar cell performances with 16.7% efficiency. Nano Energy, 2020, 76, 105087.	16.0	85
142	Dual Sensitizer and Processing-Aid Behavior of Donor Enables Efficient Ternary Organic Solar Cells. Joule, 2019, 3, 846-857.	24.0	84
143	Effect of Carbon Black and Silica Fillers in Elastomer Blends. Macromolecules, 2001, 34, 7056-7065.	4.8	83
144	High-energy mechanical milling of poly(methyl methacrylate), polyisoprene and poly(ethylene- alt) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	3.8	80

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145	Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Twoâ€Donor Polymer Blend. Advanced Materials, 2019, 31, e1808279.	21.0	79
146	Inner-Shell Spectroscopy and Imaging of a Subbituminous Coal: In-Situ Analysis of Organic and Inorganic Microstructure Using C(1s)-, Ca(2p)-, and Cl(2s)-NEXAFS. Energy & Fuels, 1995, 9, 525-533.	5.1	77
147	Soft X-ray characterisation of organic semiconductor films. Journal of Materials Chemistry C, 2013, 1, 187-201.	5.5	75
148	Effect of Ringâ€Fusion on Miscibility and Domain Purity: Key Factors Determining the Performance of PDIâ€Based Nonfullerene Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1800234.	19.5	75
149	Asymmetrically noncovalently fused-ring acceptor for high-efficiency organic solar cells with reduced voltage loss and excellent thermal stability. Nano Energy, 2020, 74, 104861.	16.0	75
150	A Highly Crystalline Fusedâ€Ring nâ€Type Small Molecule for Nonâ€Fullerene Acceptor Based Organic Solar Cells and Fieldâ€Effect Transistors. Advanced Functional Materials, 2018, 28, 1802895.	14.9	74
151	The Role of Demixing and Crystallization Kinetics on the Stability of Nonâ€Fullerene Organic Solar Cells. Advanced Materials, 2020, 32, e2005348.	21.0	74
152	Unifying Charge Generation, Recombination, and Extraction in Lowâ€Offset Nonâ€Fullerene Acceptor Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2001203.	19.5	74
153	High Miscibility Compatible with Ordered Molecular Packing Enables an Excellent Efficiency of 16.2% in Allâ€Smallâ€Molecule Organic Solar Cells. Advanced Materials, 2022, 34, e2106316.	21.0	74
154	Long-Lived, Non-Geminate, Radiative Recombination of Photogenerated Charges in a Polymer/Small-Molecule Acceptor Photovoltaic Blend. Journal of the American Chemical Society, 2018, 140, 9996-10008.	13.7	73
155	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425.	17.4	73
156	Reduced Nonradiative Energy Loss Caused by Aggregation of Nonfullerene Acceptor in Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901823.	19.5	72
157	2D-Conjugated Benzodithiophene-Based Polymer Acceptor: Design, Synthesis, Nanomorphology, and Photovoltaic Performance. Macromolecules, 2015, 48, 7156-7163.	4.8	70
158	Identification and Quantitation of Urea Precipitates in Flexible Polyurethane Foam Formulations by X-ray Spectromicroscopy. Macromolecules, 2002, 35, 5873-5882.	4.8	69
159	Integrated circuits based on conjugated polymer monolayer. Nature Communications, 2018, 9, 451.	12.8	69
160	Quantifying and Understanding Voltage Losses Due to Nonradiative Recombination in Bulk Heterojunction Organic Solar Cells with Low Energetic Offsets. Advanced Energy Materials, 2019, 9, 1901077.	19.5	69
161	Reducing Energy Disorder of Hole Transport Layer by Charge Transfer Complex for High Performance pâ€“iâ€“n Perovskite Solar Cells. Advanced Materials, 2021, 33, e2006753.	21.0	69
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