Harald Ade

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3283030/publications.pdf

Version: 2024-02-01

432 papers	44,022 citations	1368 108 h-index	2617 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.	5.8	2,854
2	Efficient organic solar cells processed from hydrocarbon solvents. Nature Energy, 2016, 1, .	19.8	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.	11.1	1,307
4	Fast charge separation in a non-fullerene organic solar cell with a small driving force. Nature Energy, 2016, 1, .	19.8	1,167
5	A Largeâ€Bandgap Conjugated Polymer for Versatile Photovoltaic Applications with High Performance. Advanced Materials, 2015, 27, 4655-4660.	11.1	882
6	Alkyl Chain Tuning of Small Molecule Acceptors for Efficient Organic Solar Cells. Joule, 2019, 3, 3020-3033.	11.7	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.	6.6	654
8	Interferometer-controlled scanning transmission X-ray microscopes at the Advanced Light Source. Journal of Synchrotron Radiation, 2003, 10, 125-136.	1.0	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.	10.2	605
10	Quantitative relations between interaction parameter, miscibility and function in organic solar cells. Nature Materials, 2018, 17, 253-260.	13.3	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.	6.6	528
12	The influence of molecular orientation on organic bulk heterojunction solar cells. Nature Photonics, 2014, 8, 385-391.	15.6	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.	10.2	412
14	Achieving Highly Efficient Nonfullerene Organic Solar Cells with Improved Intermolecular Interaction and Openâ€Circuit Voltage. Advanced Materials, 2017, 29, 1700254.	11.1	363
15	Molecular Miscibility of Polymerâ^'Fullerene Blends. Journal of Physical Chemistry Letters, 2010, 1, 3160-3166.	2.1	362
16	Chemical contrast in X-ray microscopy and spatially resolved XANES spectroscopy of organic specimens. Science, 1992, 258, 972-975.	6.0	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.	11.1	351
18	Designing ternary blend bulk heterojunction solar cells with reduced carrier recombination and a fill factor of 77%. Nature Energy, 2016, 1, .	19.8	330

#	Article	IF	Citations
19	A History and Perspective of Nonâ€Fullerene Electron Acceptors for Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003570.	10.2	323
20	High Performance Allâ€Polymer Solar Cell via Polymer Sideâ€Chain Engineering. Advanced Materials, 2014, 26, 3767-3772.	11.1	320
21	Compatibilizing Bulk Polymer Blends by Using Organoclays. Macromolecules, 2006, 39, 4793-4801.	2.2	316
22	Improved Performance of Allâ€Polymer Solar Cells Enabled by Naphthodiperylenetetraimideâ€Based Polymer Acceptor. Advanced Materials, 2017, 29, 1700309.	11.1	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.	11.1	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.	6.6	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.	6.6	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.	2.1	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.	11.1	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.	10.2	283
29	Polarized X-ray scattering reveals non-crystalline orientational ordering in organic films. Nature Materials, 2012, 11, 536-543.	13.3	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.	1.2	271
31	Achieving 19% Power Conversion Efficiency in Planarâ€Mixed Heterojunction Organic Solar Cells Using a Pseudosymmetric Electron Acceptor. Advanced Materials, 2022, 34, .	11.1	271
32	Manipulating Aggregation and Molecular Orientation in Allâ€Polymer Photovoltaic Cells. Advanced Materials, 2015, 27, 6046-6054.	11.1	264
33	NEXAFS microscopy and resonant scattering: Composition and orientation probed in real and reciprocal space. Polymer, 2008, 49, 643-675.	1.8	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.	11.1	256
35	Calibrated NEXAFS spectra of some common polymers. Journal of Electron Spectroscopy and Related Phenomena, 2003, 128, 85-96.	0.8	249
36	Mobility-Controlled Performance of Thick Solar Cells Based on Fluorinated Copolymers. Journal of the American Chemical Society, 2014, 136, 15566-15576.	6.6	249

#	Article	IF	Citations
37	A Quantitative Study of PCBM Diffusion during Annealing of P3HT:PCBM Blend Films. Macromolecules, 2009, 42, 8392-8397.	2.2	247
38	Controlling Blend Morphology for Ultrahigh Current Density in Nonfullerene Acceptor-Based Organic Solar Cells. ACS Energy Letters, 2018, 3, 669-676.	8.8	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.	11.1	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.	10.2	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.	11.1	230
42	Highâ€Efficiency Allâ€Polymer Solar Cells Based on a Pair of Crystalline Lowâ€Bandgap Polymers. Advanced Materials, 2014, 26, 7224-7230.	11.1	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.	6.6	226
44	Design of a New Smallâ€Molecule Electron Acceptor Enables Efficient Polymer Solar Cells with High Fill Factor. Advanced Materials, 2017, 29, 1704051.	11.1	224
45	Miscibilityâ€“Function Relations in Organic Solar Cells: Significance of Optimal Miscibility in Relation to Percolation. Advanced Energy Materials, 2018, 8, 1703058.	10.2	223
46	PolLux: A new facility for soft x-ray spectromicroscopy at the Swiss Light Source. Review of Scientific Instruments, 2008, 79, 113704.	0.6	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.	11.1	222
48	Synthetic control over orientational degeneracy of spacer cations enhances solar cell efficiency in two-dimensional perovskites. Nature Communications, 2019, 10, 1276.	5.8	222
49	Unveiling the operation mechanism of layered perovskite solar cells. Nature Communications, 2019, 10, 1008.	5.8	216
50	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	13.3	212
51	A Polythiophene Derivative with Superior Properties for Practical Application in Polymer Solar Cells. Advanced Materials, 2014, 26, 5880-5885.	11.1	205
52	Organic thermometry for chondritic parent bodies. Earth and Planetary Science Letters, 2008, 272, 446-455.	1.8	204
53	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	5.8	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.	11.1	203

#	Article	IF	Citations
55	Understanding the Morphology of PTB7:PCBM Blends in Organic Photovoltaics. Advanced Energy Materials, 2014, 4, 1301377.	10.2	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.	8.8	196
57	A Printable Organic Cathode Interlayer Enables over 13% Efficiency for 1-cm2 Organic Solar Cells. Joule, 2019, 3, 227-239.	11.7	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.	11.1	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.	11.1	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.	1.2	187
61	Characterization of the effects of soft X-ray irradiation on polymers. Journal of Electron Spectroscopy and Related Phenomena, 2002, 122, 65-78.	0.8	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.	10.2	184
63	Quenching to the Percolation Threshold in Organic Solar Cells. Joule, 2019, 3, 443-458.	11.7	183
64	Nanomorphology of Bulk Heterojunction Photovoltaic Thin Films Probed with Resonant Soft X-ray Scattering. Nano Letters, 2010, 10, 2863-2869.	4.5	182
65	Efficient Nonfullerene Polymer Solar Cells Enabled by a Novel Wide Bandgap Small Molecular Acceptor. Advanced Materials, 2017, 29, 1606054.	11.1	181
66	Achieving Net Zero Energy Greenhouses by Integrating Semitransparent Organic Solar Cells. Joule, 2020, 4, 490-506.	11.7	179
67	Morphology changes upon scaling a high-efficiency, solution-processed solar cell. Energy and Environmental Science, 2016, 9, 2835-2846.	15.6	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.	5.8	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.	10.2	166
70	X-ray Linear Dichroism Microscopy. Science, 1993, 262, 1427-1429.	6.0	161
71	Importance of Domain Purity and Molecular Packing in Efficient Solutionâ€Processed Smallâ€Molecule Solar Cells. Advanced Materials, 2015, 27, 1105-1111.	11.1	160
72	On the role of intermixed phases in organic photovoltaic blends. Energy and Environmental Science, 2013, 6, 2756.	15.6	157

#	Article	IF	Citations
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.	11.1	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.	15.6	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.	11.1	150
76	Correlating the Efficiency and Nanomorphology of Polymer Blend Solar Cells Utilizing Resonant Soft X-ray Scattering. ACS Nano, 2012, 6, 677-688.	7.3	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.	7.2	145
78	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081.	7.8	144
79	Asymmetric Alkoxy and Alkyl Substitution on Nonfullerene Acceptors Enabling Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2003141.	10.2	144
80	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. Joule, 2019, 3, 1328-1348.	11.7	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.	15.6	142
82	Near-edge X-ray absorption fine-structure microscopy of organic and magnetic materials. Nature Materials, 2009, 8, 281-290.	13.3	141
83	Multiple Cases of Efficient Nonfullerene Ternary Organic Solar Cells Enabled by an Effective Morphology Control Method. Advanced Energy Materials, 2018, 8, 1701370.	10.2	140
84	Crystallization in the Thin and Ultrathin Films of Poly(ethyleneâ’vinyl acetate) and Linear Low-Density Polyethylene. Macromolecules, 2004, 37, 3319-3327.	2.2	139
85	Defining the Nanostructured Morphology of Triblock Copolymers Using Resonant Soft X-ray Scattering. Nano Letters, 2011, 11, 3906-3911.	4.5	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.	7.2	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.	0.7	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.	11.1	137
89	Pseudo-bilayer architecture enables high-performance organic solar cells with enhanced exciton diffusion length. Nature Communications, 2021, 12, 468.	5.8	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.	7.2	136

#	Article	IF	Citations
91	Efficient Energy Funneling in Quasiâ€2D Perovskites: From Light Emission to Lasing. Advanced Materials, 2020, 32, e1906571.	11.1	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.	10.2	133
93	Optimization Requirements of Efficient Polythiophene:Nonfullerene Organic Solar Cells. Joule, 2020, 4, 1278-1295.	11.7	133
94	The performance-stability conundrum of BTP-based organic solar cells. Joule, 2021, 5, 2129-2147.	11.7	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.	11.1	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.	10.2	132
97	Thermodynamic Properties and Molecular Packing Explain Performance and Processing Procedures of Three D18:NFA Organic Solar Cells. Advanced Materials, 2020, 32, e2005386.	11.1	130
98	Non-fullerene acceptor organic photovoltaics with intrinsic operational lifetimes over 30 years. Nature Communications, 2021, 12, 5419.	5.8	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.	11.1	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.	15.6	126
101	A Difluorobenzoxadiazole Building Block for Efficient Polymer Solar Cells. Advanced Materials, 2016, 28, 1868-1873.	11.1	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.	10.2	125
103	Quantitative Morphologyâ€“Performance Correlations in Organic Solar Cells: Insights from Soft Xâ€Ray Scattering. Advanced Energy Materials, 2017, 7, 1700084.	10.2	123
104	High performance tandem organic solar cells via a strongly infrared-absorbing narrow bandgap acceptor. Nature Communications, 2021, 12, 178.	5.8	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.	2.2	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.	1.0	120
107	Xâ€ray spectromicroscopy with a zone plate generated microprobe. Applied Physics Letters, 1990, 56, 1841-1843.	1.5	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.	6.4	117

#	Article	IF	Citations
109	Flexible Inorganic Ferroelectric Thin Films for Nonvolatile Memory Devices. Advanced Functional Materials, 2017, 27, 1700461.	7.8	111
110	Selective Hole and Electron Transport in Efficient Quaternary Blend Organic Solar Cells. Joule, 2020, 4, 1790-1805.	11.7	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.	3.3	109
112	On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells. Advanced Materials, 2014, 26, 2533-2539.	11.1	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.	7.8	105
114	Determination of chemical-structural changes in vitrinite accompanying luminescence alteration using C-NEXAFS analysis. Organic Geochemistry, 1998, 28, 441-455.	0.9	104
115	Soft x-ray resonant reflectivity of low-Z material thin films. Applied Physics Letters, 2005, 87, 214109.	1.5	103
116	X-ray Microscopy of Photovoltaic Polyfluorene Blends:Â Relating Nanomorphology to Device Performance. Macromolecules, 2007, 40, 3263-3270.	2.2	102
117	Effect of Alkylsilyl Sideâ€Chain Structure on Photovoltaic Properties of Conjugated Polymer Donors. Advanced Energy Materials, 2018, 8, 1702324.	10.2	102
118	NEXAFS spectromicroscopy of polymers: overview and quantitative analysis of polyurethane polymers. Journal of Electron Spectroscopy and Related Phenomena, 1999, 100, 119-135.	0.8	101
119	Surface Morphology of Annealed Polystyrene and Poly(methyl methacrylate) Thin Film Blends and Bilayers. Macromolecules, 2003, 36, 3307-3314.	2.2	101
120	Highâ€Molecularâ€Weight Insulating Polymers Can Improve the Performance of Molecular Solar Cells. Advanced Materials, 2014, 26, 4168-4172.	11.1	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.	7.8	99
122	Modulation of End Groups for Lowâ€Bandgap Nonfullerene Acceptors Enabling Highâ€Performance Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1801203.	10.2	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.	0.6	96
124	Timeâ€Dependent Morphology Evolution of Solutionâ€Processed Small Molecule Solar Cells during Solvent Vapor Annealing. Advanced Energy Materials, 2016, 6, 1502579.	10.2	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.	8.2	93

#	Article	IF	Citations
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.	3.2	93
128	Modulation of Morphological, Mechanical, and Photovoltaic Properties of Ternary Organic Photovoltaic Blends for Optimum Operation. Advanced Energy Materials, 2021, 11, 2003506.	10.2	92
129	Fluorinated Polymer Yields High Organic Solar Cell Performance for a Wide Range of Morphologies. Advanced Functional Materials, 2013, 23, 3463-3470.	7.8	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.	3.2	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.	6.6	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.	7.8	89
133	Quantifying Charge Extraction in Organic Solar Cells: The Case of Fluorinated PCPDTBT. Journal of Physical Chemistry Letters, 2014, 5, 1131-1138.	2.1	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.	3.2	88
135	Manipulation of Domain Purity and Orientational Ordering in High Performance All-Polymer Solar Cells. Chemistry of Materials, 2016, 28, 6178-6185.	3.2	87
136	Panchromatic Sequentially Cast Ternary Polymer Solar Cells. Advanced Materials, 2017, 29, 1604603.	11.1	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.	0.8	86
138	Molecular Design toward Efficient Polymer Solar Cells with High Polymer Content. Journal of the American Chemical Society, 2013, 135, 8464-8467.	6.6	86
139	Charge Creation and Recombination in Multiâ€Length Scale Polymer:Fullerene BHJ Solar Cell Morphologies. Advanced Energy Materials, 2016, 6, 1600699.	10.2	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.	5.2	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.	8.2	85
142	Dual Sensitizer and Processing-Aid Behavior of Donor Enables Efficient Ternary Organic Solar Cells. Joule, 2019, 3, 846-857.	11.7	84
143	Effect of Carbon Black and Silica Fillers in Elastomer Blends. Macromolecules, 2001, 34, 7056-7065.	2.2	83
144	High-energy mechanical milling of poly(methyl methacrylate), polyisoprene and poly(ethylene- alt) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.8	80

#	Article	IF	Citations
145	Highly Efficient, Stable, and Ductile Ternary Nonfullerene Organic Solar Cells from a Twoâ€Donor Polymer Blend. Advanced Materials, 2019, 31, e1808279.	11.1	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.	2.5	77
147	Soft X-ray characterisation of organic semiconductor films. Journal of Materials Chemistry C, 2013, 1, 187-201.	2.7	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.	10.2	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.	8.2	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.	7.8	74
151	The Role of Demixing and Crystallization Kinetics on the Stability of Nonâ€Fullerene Organic Solar Cells. Advanced Materials, 2020, 32, e2005348.	11.1	74
152	Unifying Charge Generation, Recombination, and Extraction in Lowâ€Offset Nonâ€Fullerene Acceptor Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2001203.	10.2	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.	11.1	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.	6.6	73
155	Deciphering the Role of Chalcogen-Containing Heterocycles in Nonfullerene Acceptors for Organic Solar Cells. ACS Energy Letters, 2020, 5, 3415-3425.	8.8	73
156	Reduced Nonradiative Energy Loss Caused by Aggregation of Nonfullerene Acceptor in Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901823.	10.2	72
157	2D-Conjugated Benzodithiophene-Based Polymer Acceptor: Design, Synthesis, Nanomorphology, and Photovoltaic Performance. Macromolecules, 2015, 48, 7156-7163.	2.2	70
158	Identification and Quantitation of Urea Precipitates in Flexible Polyurethane Foam Formulations by X-ray Spectromicroscopy. Macromolecules, 2002, 35, 5873-5882.	2.2	69
159	Integrated circuits based on conjugated polymer monolayer. Nature Communications, 2018, 9, 451.	5.8	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.	10.2	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.	11.1	69
162	A Chlorinated Donor Polymer Achieving Highâ€Performance Organic Solar Cells with a Wide Range of Polymer Molecular Weight. Advanced Functional Materials, 2021, 31, 2102413.	7.8	69

#	Article	IF	Citations
163	Towards a detailed understanding of the NEXAFS spectra of bulk polyethylene copolymers and related alkanes. Chemical Physics Letters, 2003, 370, 834-841.	1.2	67
164	Resonant soft x-ray reflectivity of organic thin films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 575-586.	0.9	67
165	A PCBM Electron Transport Layer Containing Small Amounts of Dual Polymer Additives that Enables Enhanced Perovskite Solar Cell Performance. Advanced Science, 2016, 3, 1500353.	5.6	67
166	Importance of 2D Conjugated Side Chains of Benzodithiophene-Based Polymers in Controlling Polymer Packing, Interfacial Ordering, and Composition Variations of All-Polymer Solar Cells. Chemistry of Materials, 2017, 29, 9407-9415.	3.2	67
167	Electronic structure of noncrystalline transition metal silicate and aluminate alloys. Applied Physics Letters, 2001, 79, 1775-1777.	1.5	66
168	Resonant soft x-ray scattering from structured polymer nanoparticles. Applied Physics Letters, 2006, 89, 124106.	1.5	66
169	Low Temperature Aggregation Transitions in N3 and Y6 Acceptors Enable Doubleâ€Annealing Method That Yields Hierarchical Morphology and Superior Efficiency in Nonfullerene Organic Solar Cells. Advanced Functional Materials, 2020, 30, 2005011.	7.8	66
170	Inner-Shell Excitation Spectroscopy of Polymer and Monomer Isomers of Dimethyl Phthalate. Journal of Physical Chemistry B, 1997, 101, 2267-2276.	1.2	65
171	Bulk and surface characterization of a dewetting thin film polymer bilayer. Applied Physics Letters, 1998, 73, 3775-3777.	1.5	64
172	Quantitative compositional analysis of organic thin films using transmission NEXAFS spectroscopy in an X-ray microscope. Journal of Electron Spectroscopy and Related Phenomena, 2012, 185, 119-128.	0.8	64
173	Tuning Open-Circuit Voltage in Organic Solar Cells with Molecular Orientation. ACS Applied Materials & Interfaces, 2015, 7, 13208-13216.	4.0	64
174	Conduction band-edge States associated with the removal of d-state degeneracies by the Jahn-Teller effect. IEEE Transactions on Device and Materials Reliability, 2005, 5, 65-83.	1.5	63
175	Aryl-Perfluoroaryl Interaction in Two-Dimensional Organicâ€“Inorganic Hybrid Perovskites Boosts Stability and Photovoltaic Efficiency. , 2019, 1, 171-176.		63
176	16.52% Efficiency Allâ€Polymer Solar Cells with High Tolerance of the Photoactive Layer Thickness. Advanced Materials, 2022, 34, e2108749.	11.1	63
177	Phase segregation in polymer thin films: Elucidations by X-ray and scanning force microscopy. Europhysics Letters, 1999, 45, 526-532.	0.7	62
178	X-ray spectromicroscopy of immiscible polymer blends: polystyreneâ€“poly(methyl methacrylate). Journal of Electron Spectroscopy and Related Phenomena, 2001, 121, 203-224.	0.8	62
179	A Facile Method to Fineâ€Tune Polymer Aggregation Properties and Blend Morphology of Polymer Solar Cells Using Donor Polymers with Randomly Distributed Alkyl Chains. Advanced Energy Materials, 2018, 8, 1701895.	10.2	62
180	Influence of Donor Polymer on the Molecular Ordering of Small Molecular Acceptors in Nonfullerene Polymer Solar Cells. Advanced Energy Materials, 2018, 8, 1701674.	10.2	60

#	Article	IF	Citations
181	Charge Generation and Recombination in an Organic Solar Cell with Low Energetic Offsets. Advanced Energy Materials, 2018, 8, 1701073.	10.2	60
182	Fullerene-Dependent Miscibility in the Silole-Containing Copolymer PSBTBT-08. Macromolecules, 2011, 44, 9747-9751.	2.2	59
183	Control of Mesoscale Morphology and Photovoltaic Performance in Diketopyrrolopyrroleâ€Based Small Band Gap Terpolymers. Advanced Energy Materials, 2017, 7, 1601138.	10.2	59
184	Random Polymerization Strategy Leads to a Family of Donor Polymers Enabling Wellâ€Controlled Morphology and Multiple Cases of Highâ€Performance Organic Solar Cells. Advanced Materials, 2020, 32, e2003500.	11.1	59
185	Characterizing morphology in organic systems with resonant soft X-ray scattering. Journal of Electron Spectroscopy and Related Phenomena, 2015, 200, 2-14.	0.8	58
186	High efficiency and stability small molecule solar cells developed by bulk microstructure fine-tuning. Nano Energy, 2016, 28, 241-249.	8.2	57
187	Surprising Effects upon Inserting Benzene Units into a Quaterthiopheneâ€Based Dâ€A Polymerâ€“Improving Nonâ€Fullerene Organic Solar Cells via Donor Polymer Design. Advanced Energy Materials, 2017, 7, 1602304.	10.2	57
188	Fluorinated Thiophene Units Improve Photovoltaic Device Performance of Donorâ€“Acceptor Copolymers. Chemistry of Materials, 2017, 29, 5990-6002.	3.2	57
189	A simple method for determining linear polarization and energy calibration of focused soft X-ray beams. Journal of Electron Spectroscopy and Related Phenomena, 2008, 162, 49-55.	0.8	56
190	Effect of the chlorine substitution position of the end-group on intermolecular interactions and photovoltaic performance of small molecule acceptors. Energy and Environmental Science, 2020, 13, 5028-5038.	15.6	56
191	Revealing the Impact of F4â€TCNQ as Additive on Morphology and Performance of Highâ€Efficiency Nonfullerene Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1806262.	7.8	55
192	Illumination for coherent soft X-ray applications: the new X1A beamline at the NSLS. Journal of Synchrotron Radiation, 2000, 7, 395-404.	1.0	54
193	Improved efficiency of bulk heterojunction poly(3-hexylthiophene):[6,6]-phenyl-C61-butyric acid methyl ester photovoltaic devices using discotic liquid crystal additives. Applied Physics Letters, 2010, 96, 183305.	1.5	54
194	Effect of an Interactive Surface on the Equilibrium Contact Angles in Bilayer Polymer Films. Langmuir, 2000, 16, 2369-2375.	1.6	53
195	Near-Edge X-ray Absorption Fine Structure Spectroscopy of MDI and TDI Polyurethane Polymers. Journal of Physical Chemistry B, 1999, 103, 4603-4610.	1.2	50
196	NEXAFS imaging of synthetic organic materials. Materials Today, 2012, 15, 148-157.	8.3	50
197	Gaining further insight into the effects of thermal annealing and solvent vapor annealing on time morphological development and degradation in small molecule solar cells. Journal of Materials Chemistry A, 2017, 5, 18101-18110.	5.2	50
198	Temperatureâ€Dependent Aggregation Donor Polymers Enable Highly Efficient Sequentially Processed Organic Photovoltaics Without the Need of Orthogonal Solvents. Advanced Functional Materials, 2019, 29, 1902478.	7.8	50

#	Article	IF	Citations
199	Isomeryâ€Dependent Miscibility Enables Highâ€Performance Allâ€Smallâ€Molecule Solar Cells. Small, 2019, 15, 1804271.	5.2	50
200	Effects of Shortâ€Axis Alkoxy Substituents on Molecular Selfâ€Assembly and Photovoltaic Performance of Indacenodithiopheneâ€Based Acceptors. Advanced Functional Materials, 2020, 30, 1906855.	7.8	50
201	Cryogenic Mechanical Alloying of Poly(methyl methacrylate) with Polyisoprene and Poly(ethylene-alt-propylene). Macromolecules, 2000, 33, 2595-2604.	2.2	49
202	Strong polymer molecular weight-dependent material interactions: impact on the formation of the polymer/fullerene bulk heterojunction morphology. Journal of Materials Chemistry A, 2017, 5, 13176-13188.	5.2	49
203	Introducing Lowâ€Cost Pyrazine Unit into Terpolymer Enables Highâ€Performance Polymer Solar Cells with Efficiency of 18.23%. Advanced Functional Materials, 2022, 32, 2109271.	7.8	49
204	Phase Separation of Polystyrene and Bromoâ^'Polystyrene Mixtures in Equilibrium Structures in Thin Films. Langmuir, 1998, 14, 4860-4864.	1.6	48
205	High-Energy Cryogenic Blending and Compatibilizing of Immiscible Polymers. Advanced Materials, 1999, 11, 1277-1281.	11.1	48
206	Direct Imaging and Spectroscopic Characterization of Stimulus-Responsive Microgels. Journal of the American Chemical Society, 2005, 127, 16808-16809.	6.6	48
207	A polymer design strategy toward green solvent processed efficient non-fullerene polymer solar cells. Journal of Materials Chemistry A, 2018, 6, 4324-4330.	5.2	48
208	Chlorinated Thiophene End Groups for Highly Crystalline Alkylated Non-Fullerene Acceptors toward Efficient Organic Solar Cells. Chemistry of Materials, 2019, 31, 6672-6676.	3.2	48
209	Modulating Energy Level on an Aâ€Dâ€Aâ€²â€Dâ€Aâ€Type Unfused Acceptor by a Benzothiadiazole Core Enables Organic Solar Cells with Simple Procedure and High Performance. Solar Rrl, 2020, 4, 2000421.	3.1	48
210	3,4â€Dicyanothiopheneâ€”a Versatile Building Block for Efficient Nonfullerene Polymer Solar Cells. Advanced Energy Materials, 2020, 10, 1904247.	10.2	48
211	Carboxylate substituted pyrazine: A simple and low-cost building block for novel wide bandgap polymer donor enables 15.3% efficiency in organic solar cells. Nano Energy, 2021, 82, 105679.	8.2	48
212	Balancing crop production and energy harvesting in organic solar-powered greenhouses. Cell Reports Physical Science, 2021, 2, 100381.	2.8	48
213	Attractive Migration and Coalescence: A Significant Process in the Coarsening ofTiSi2Islands on the Si(111) Surface. Physical Review Letters, 2003, 90, 136102.	2.9	47
214	Evolution of the nanomorphology of photovoltaic polyfluorene blends: sub-100 nm resolution with x-ray spectromicroscopy. Nanotechnology, 2008, 19, 424015.	1.3	47
215	Interplay of Solvent Additive Concentration and Active Layer Thickness on the Performance of Small Molecule Solar Cells. Advanced Materials, 2014, 26, 7308-7316.	11.1	47
216	Effect of Side-Chain Engineering of Bithienylbenzodithiophene-alt-fluorobenzotriazole-Based Copolymers on the Thermal Stability and Photovoltaic Performance of Polymer Solar Cells. Macromolecules, 2018, 51, 6028-6036.	2.2	47

#	Article	IF	Citations
217	A regioregular conjugated polymer for high performance thick-film organic solar cells without processing additive. Journal of Materials Chemistry A, 2017, 5, 10517-10525.	5.2	46
218	Soft X-ray spectromicroscopy development for materials science at the Advanced Light Source. Journal of Electron Spectroscopy and Related Phenomena, 1997, 84, 85-98.	0.8	45
219	NEXAFS SPECTROSCOPY AND MICROSCOPY OF NATURAL AND SYNTHETIC POLYMERS. Advanced Series in Physical Chemistry, 2002, , 285-355.	1.5	45
220	Polymer Side-Chain Variation Induces Microstructural Disparity in Nonfullerene Solar Cells. Chemistry of Materials, 2019, 31, 6568-6577.	3.2	45
221	Substrate dependence of morphology in thin film polymer blends of polystyrene and poly(methyl) Tj ETQq1 1 0.784314 rgBT /Overloc	1.6	44
222	Quantitative Characterization of Microscopic Variations in the Cross-Link Density of Gels. Macromolecules, 2002, 35, 1336-1341.	2.2	44
223	Interfacial Interactions in PP/MMT/SEBS Nanocomposites. Macromolecules, 2010, 43, 448-453.	2.2	44
224	Competition between morphological attributes in the thermal annealing and additive processing of polymer solar cells. Journal of Materials Chemistry C, 2013, 1, 5023.	2.7	44
225	Comparing non-fullerene acceptors with fullerene in polymer solar cells: a case study with FTAZ and PyCNTAZ. Journal of Materials Chemistry A, 2017, 5, 4886-4893.	5.2	44
226	Impact of Nonfullerene Molecular Architecture on Charge Generation, Transport, and Morphology in PTB7â€Thâ€Based Organic Solar Cells. Advanced Functional Materials, 2018, 28, 1802702.	7.8	44
227	Use of functionalized WS2 nanotubes to produce new polystyrene/polymethylmethacrylate nanocomposites. Polymer, 2003, 44, 2109-2115.	1.8	43
228	Evolution of Laterally Phase-Separated Polyfluorene Blend Morphology Studied by X-ray Spectromicroscopy. Macromolecules, 2009, 42, 3347-3352.	2.2	43
229	Influence of Fluorination and Molecular Weight on the Morphology and Performance of PTB7:PC₇₁BM Solar Cells. Journal of Physical Chemistry C, 2014, 118, 9918-9929.	1.5	43
230	Polymer non-fullerene solar cells of vastly different efficiencies for minor side-chain modification: impact of charge transfer, carrier lifetime, morphology and mobility. Journal of Materials Chemistry A, 2018, 6, 12484-12492.	5.2	43
231	Efficient DPP Donor and Nonfullerene Acceptor Organic Solar Cells with High Photonâ€toâ€Current Ratio and Low Energetic Loss. Advanced Functional Materials, 2019, 29, 1902441.	7.8	43
232	Synergistic Use of Pyridine and Selenophene in a Diketopyrrolopyrroleâ€Based Conjugated Polymer Enhances the Electron Mobility in Organic Transistors. Advanced Functional Materials, 2020, 30, 2000489.	7.8	43
233	Interfacial Widths of Conjugated Polymer Bilayers. Journal of the American Chemical Society, 2009, 131, 12538-12539.	6.6	42
234	Role of Solvent Trapping Effects in Determining the Structure and Morphology of Ternary Blend Organic Devices. Macromolecules, 2009, 42, 3098-3103.	2.2	42

#	Article	IF	Citations
235	Accurate and Facile Determination of the Index of Refraction of Organic Thin Films Near the Carbon<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mn>1</mml:mn><mml:mi>s</mml:mi></mml:math>Absorption Edge. Physical Review Letters, 2013, 110, 177401.	2.9	42
236	Fullerene-Free Polymer Solar Cells with Highly Reduced Bimolecular Recombination and Field-Independent Charge Carrier Generation. Journal of Physical Chemistry Letters, 2014, 5, 2815-2822.	2.1	42
237	Morphology control enables thickness-insensitive efficient nonfullerene polymer solar cells. Materials Chemistry Frontiers, 2017, 1, 2057-2064.	3.2	42
238	Selective chemical mapping of coal microheterogeneity by scanning transmission x-ray microscopy. Energy & Fuels, 1994, 8, 151-154.	2.5	41
239	Cryogenic mechanical alloying as an alternative strategy for the recycling of tires. Polymer, 2001, 42, 4453-4457.	1.8	41
240	The influence of spacer units on molecular properties and solar cell performance of non-fullerene acceptors. Journal of Materials Chemistry A, 2015, 3, 20108-20112.	5.2	41
241	Critical Role of Polymer Aggregation and Miscibility in Nonfullereneâ€Based Organic Photovoltaics. Advanced Energy Materials, 2020, 10, 1902430.	10.2	41
242	A Topâ€Down Strategy to Engineer ActiveLayer Morphology for Highly Efficient and Stable Allâ€Polymer Solar Cells. Advanced Materials, 2022, 34, .	11.1	41
243	Role of Polymer Segregation on the Mechanical Behavior of All-Polymer Solar Cell Active Layers. ACS Applied Materials & Interfaces, 2017, 9, 43886-43892.	4.0	40
244	Synthesis of High-Crystallinity DPP Polymers with Balanced Electron and Hole Mobility. Chemistry of Materials, 2017, 29, 10220-10232.	3.2	40
245	Green solvent-processed organic solar cells based on a low cost polymer donor and a small molecule acceptor. Journal of Materials Chemistry C, 2020, 8, 7718-7724.	2.7	40
246	Studying Polymer/Fullerene Intermixing and Miscibility in Laterally Patterned Films with Xâ€Ray Spectromicroscopy. Small, 2012, 8, 1920-1927.	5.2	39
247	Incorporation of alkylthio side chains on benzothiadiazole-based non-fullerene acceptors enables high-performance organic solar cells with over 16% efficiency. Journal of Materials Chemistry A, 2020, 8, 23239-23247.	5.2	39
248	Addition of a Block Copolymer to Polymer Blends Produced by Cryogenic Mechanical Alloying. Macromolecules, 2000, 33, 1163-1172.	2.2	38
249	Measuring Temperature-Dependent Miscibility for Polymer Solar Cell Blends: An Easily Accessible Optical Method Reveals Complex Behavior. Chemistry of Materials, 2018, 30, 3943-3951.	3.2	38
250	Chemical and vibronic effects in the high-resolution near-edge X-ray absorption fine structure spectra of polystyrene isotopomers. Chemical Physics Letters, 2000, 322, 412-418.	1.2	37
251	First Direct Imaging of Electrolyte-Induced Deswelling Behavior of pH-Responsive Microgels in Aqueous Media Using Scanning Transmission X-ray Microscopy. Langmuir, 2009, 25, 2588-2592.	1.6	37
252	â€œTwistedâ€•conjugated molecules as donor materials for efficient all-small-molecule organic solar cells processed with tetrahydrofuran. Journal of Materials Chemistry A, 2019, 7, 23008-23018.	5.2	37

#	Article	IF	Citations
253	Scanning photoelectron microscope with a zone plate generated microprobe. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1990, 291, 126-131.	0.7	36
254	Alkyl Chain Regiochemistry of Benzotriazoleâ€Based Donor Polymers Influencing Morphology and Performances of Nonâ€Fullerene Organic Solar Cells. Advanced Energy Materials, 2018, 8, 1702427.	10.2	36
255	Novel Bimodal Silver Nanowire Network as Top Electrodes for Reproducible and Highâ€Efficiency Semitransparent Organic Photovoltaics. Solar Rrl, 2020, 4, 2000328.	3.1	36
256	Designing Simple Conjugated Polymers for Scalable and Efficient Organic Solar Cells. ChemSusChem, 2021, 14, 3561-3568.	3.6	36
257	Improvement of Photovoltaic Performance of Polymer Solar Cells by Rational Molecular Optimization of Organic Molecule Acceptors. Advanced Energy Materials, 2018, 8, 1800815.	10.2	36
258	Diffusion-Controlled Reactive Coupling at Polymerâ^'Polymer Interfaces. Macromolecules, 2005, 38, 3543-3546.	2.2	35
259	Engineering biodegradable polymer blends containing flame retardant-coated starch/nanoparticles. Polymer, 2012, 53, 4787-4799.	1.8	35
260	Influence of fluorination on the properties and performance of isoindigoâ€“quaterthiophene-based polymers. Journal of Materials Chemistry A, 2016, 4, 5039-5043.	5.2	35
261	Highâ€Performance Wide Bandgap Copolymers Using an EDOT Modified Benzodithiophene Donor Block with 10.11% Efficiency. Advanced Energy Materials, 2018, 8, 1602773.	10.2	35
262	The Critical Impact of Material and Process Compatibility on the Active Layer Morphology and Performance of Organic Ternary Solar Cells. Advanced Energy Materials, 2019, 9, 1802293.	10.2	35
263	Development of a second generation scanning photoemission microscope with a zone plate generated microprobe at the National Synchrotron Light Source. Review of Scientific Instruments, 1995, 66, 1416-1418.	0.6	34
264	Shear-Enhanced Transfer Printing of Conducting Polymer Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 31560-31567.	4.0	34
265	Intramolecular Ï€-stacked perylene-diimide acceptors for non-fullerene organic solar cells. Journal of Materials Chemistry A, 2019, 7, 8136-8143.	5.2	34
266	Environmentally-friendly solvent processed fullerene-free organic solar cells enabled by screening halogen-free solvent additives. Science China Materials, 2017, 60, 697-706.	3.5	33
267	Precise Control of Phase Separation Enables 12% Efficiency in All Small Molecule Solar Cells. Advanced Energy Materials, 2020, 10, 2001589.	10.2	33
268	Baseplate Temperatureâ€Dependent Vertical Composition Gradient in Pseudoâ€Bilayer Films for Printing Nonâ€Fullerene Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2102135.	10.2	33
269	The effect of angle of incidence on the optical field distribution within thin film organic solar cells. Journal of Applied Physics, 2009, 106, .	1.1	32
270	Morphology linked to miscibility in highly amorphous semi-conducting polymer/fullerene blends. Polymer, 2014, 55, 4884-4889.	1.8	32

#	Article	IF	Citations
271	Near-Edge X-ray Absorption Fine Structure Spectroscopy on Ordered Films of an Amphiphilic Derivate of 2,5-Diphenyl-1,3,4-Oxadiazole. Langmuir, 1999, 15, 1291-1298.	1.6	31
272	Optimization of scanning transmission X-ray microscopy for the identification and quantitation of reinforcing particles in polyurethanes. Ultramicroscopy, 2001, 88, 33-49.	0.8	31
273	Comparative Photovoltaic Study of Physical Blending of Two Donorâ€“Acceptor Polymers with the Chemical Blending of the Respective Moieties. Macromolecules, 2016, 49, 2533-2540.	2.2	31
274	Black phosphorus nanoflakes as morphology modifier for efficient fullerene-free organic solar cells with high fill-factor and better morphological stability. Nano Research, 2019, 12, 777-783.	5.8	31
275	Competition between Exceptionally Longâ€Range Alkyl Sidechain Ordering and Backbone Ordering in Semiconducting Polymers and Its Impact on Electronic and Optoelectronic Properties. Advanced Functional Materials, 2019, 29, 1806977.	7.8	31
276	Anomalous Phase Inversion in Polymer Blends Prepared by Cryogenic Mechanical Alloying. Macromolecules, 2001, 34, 1536-1538.	2.2	30
277	Spectromicroscopy Study of Intercalation and Exfoliation in Polypropylene/Montmorillonite Nanocomposites. Journal of Physical Chemistry B, 2009, 113, 11160-11165.	1.2	30
278	Insights into Bulkâ€Heterojunction Organic Solar Cells Processed from Green Solvent. Solar Rrl, 2021, 5, 2100213.	3.1	30
279	Direct spincasting of polystyrene thin films onto poly(methyl methacrylate). Journal of Polymer Science, Part B: Polymer Physics, 2006, 44, 3234-3244.	2.4	29
280	Tuning Local Molecular Orientationâ€“Composition Correlations in Binary Organic Thin Films by Solution Shearing. Advanced Functional Materials, 2015, 25, 3131-3137.	7.8	29
281	Influence of sample preparation and processing on observed glass transition temperatures of polymer nanocomposites. Journal of Polymer Science, Part B: Polymer Physics, 2007, 45, 2270-2276.	2.4	28
282	The use of functionalized nanoparticles as nonâ€specific compatibilizers for polymer blends. Polymers for Advanced Technologies, 2011, 22, 65-71.	1.6	28
283	Morphological characterization of fullerene and fullerene-free organic photovoltaics by combined real and reciprocal space techniques. Journal of Materials Research, 2017, 32, 1921-1934.	1.2	28
284	The impact of fluorination on both donor polymer and non-fullerene acceptor: The more fluorine, the merrier. Nano Research, 2019, 12, 2400-2405.	5.8	28
285	Development of scanning X-ray microscopes for materials science spectromicroscopy at the Advanced Light Source. Journal of Synchrotron Radiation, 1998, 5, 1090-1092.	1.0	27
286	Spectroscopic studies of metal high-k dielectrics: transition metal oxides and silicates, and complex rare earth/transition metal oxides. Physica Status Solidi (B): Basic Research, 2004, 241, 2221-2235.	0.7	27
287	Interfaces in organic devices studied with resonant soft x-ray reflectivity. Journal of Applied Physics, 2011, 110, .	1.1	27
288	Crystallization of Sensitizers Controls Morphology and Performance in Si-/C-PCPDTBT-Sensitized P3HT:ICBA Ternary Blends. Macromolecules, 2017, 50, 2415-2423.	2.2	27

#	Article	IF	Citations
289	Donor polymer fluorination doubles the efficiency in non-fullerene organic photovoltaics. Journal of Materials Chemistry A, 2017, 5, 22536-22541.	5.2	27
290	Role of Secondary Thermal Relaxations in Conjugated Polymer Film Toughness. Chemistry of Materials, 2020, 32, 6540-6549.	3.2	27
291	Silicon Phthalocyanines for n-Type Organic Thin-Film Transistors: Development of Structureâ€"Property Relationships. ACS Applied Electronic Materials, 2021, 3, 325-336.	2.0	27
292	Effect of Palladiumâ€Tetrakis(Triphenylphosphine) Catalyst Traces on Charge Recombination and Extraction in Nonâ€Fullereneâ€based Organic Solar Cells. Advanced Functional Materials, 2021, 31, 2009363.	7.8	27
293	Origins of polarization-dependent anisotropic X-ray scattering from organic thin films. Journal of Synchrotron Radiation, 2016, 23, 219-227.	1.0	26
294	Effect of Replacing Thiophene by Selenophene on the Photovoltaic Performance of Wide Bandgap Copolymer Donors. Macromolecules, 2019, 52, 4776-4784.	2.2	26
295	Organic solar powered greenhouse performance optimization and global economic opportunity. Energy and Environmental Science, 2022, 15, 1659-1671.	15.6	26
296	The scanning transmission microscope at the NSLS. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1990, 291, 54-59.	0.7	25
297	Tuning Substrate Surface Energies for Blends of Polystyrene and Poly(methyl methacrylate). Langmuir, 2003, 19, 8526-8535.	1.6	25
298	Effects of fused-ring regiochemistry on the properties and photovoltaic performance of n-type organic semiconductor acceptors. Journal of Materials Chemistry A, 2018, 6, 15933-15941.	5.2	25
299	Impact of Isomer Design on Physicochemical Properties and Performance in High-Efficiency All-Polymer Solar Cells. Macromolecules, 2020, 53, 9026-9033.	2.2	25
300	Enhanced efficiency in nonfullerene organic solar cells by tuning molecular order and domain characteristics. Nano Energy, 2020, 77, 105310.	8.2	25
301	Scanning photoemission microscopy with synchrotron radiation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1992, 319, 311-319.	0.7	24
302	Nexafs microscopy of polymeric samples. Synchrotron Radiation News, 1994, 7, 11-15.	0.2	24
303	Instrumentation developments in scanning soft xâ€ray microscopy at the NSLS (invited). Review of Scientific Instruments, 1995, 66, 1271-1275.	0.6	24
304	Characterization of multicomponent polymer trilayers with resonant soft Xâ€ray reflectivity. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 1291-1299.	2.4	24
305	Coulomb Enhanced Charge Transport in Semicrystalline Polymer Semiconductors. Advanced Functional Materials, 2016, 26, 8011-8022.	7.8	24
306	Side-chain engineering of perylenediimide-vinylene polymer acceptors for high-performance all-polymer solar cells. Materials Chemistry Frontiers, 2017, 1, 1362-1368.	3.2	24

#	Article	IF	Citations
307	Solid state effects in the NEXAFS spectra of alkane-based van der Waals crystals: Breakdown of molecular model. Chemical Physics Letters, 2006, 430, 287-292.	1.2	23
308	Highâ€Performance Tandem Organic Solar Cells Using HSolar as the Interconnecting Layer. Advanced Energy Materials, 2020, 10, 2000823.	10.2	23
309	Near-infrared electron acceptors with fused nonacyclic molecular backbones for nonfullerene organic solar cells. Materials Chemistry Frontiers, 2020, 4, 1729-1738.	3.2	23
310	C-NEXAFS Microanalysis and Scanning X-ray Microscopy of Microheterogeneities in a High-Volatile A Bituminous Coal. Energy & Fuels, 1995, 9, 75-83.	2.5	22
311	Synthesis, solidâ€state, and chargeâ€transport properties of conjugated polythiopheneâ€S,Sâ€dioxides. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 48-56.	2.4	22
312	Controlling additive behavior to reveal an alternative morphology formation mechanism in polymerâ€‰:â€‰fullerene bulk-heterojunctions. Journal of Materials Chemistry A, 2016, 4, 16136-16147.	5.2	22
313	Efficient Organic Ternary Solar Cells Employing Narrow Band Gap Diketopyrrolopyrrole Polymers and Nonfullerene Acceptors. Chemistry of Materials, 2020, 32, 7309-7317.	3.2	22
314	The Critical Role of Materialsâ€™ Interaction in Realizing Organic Field-Effect Transistors Via High-Dilution Blending with Insulating Polymers. ACS Applied Materials & Interfaces, 2020, 12, 26239-26249.	4.0	22
315	Electronic structure of transition metal high-k dielectrics: interfacial band offset energies for microelectronic devices. Applied Surface Science, 2003, 212-213, 563-569.	3.1	21
316	Shape stability of TiSi2 islands on Si (111). Journal of Applied Physics, 2004, 95, 1572-1576.	1.1	21
317	Efficient Thick-Film Polymer Solar Cells with Enhanced Fill Factors via Increased Fullerene Loading. ACS Applied Materials & Interfaces, 2019, 11, 10794-10800.	4.0	21
318	Optimized Active Layer Morphologies via Ternary Copolymerization of Polymer Donors for 17.6â€‰% Efficiency Organic Solar Cells with Enhanced Fill Factor. Angewandte Chemie, 2021, 133, 2352-2359.	1.6	21
319	Optimization of active layer morphology by small-molecule donor design enables over 15% efficiency in small-molecule organic solar cells. Journal of Materials Chemistry A, 2021, 9, 13653-13660.	5.2	21
320	Temperature-induced morphological evolution in polymer blends produced by cryogenic mechanical alloying. Macromolecular Materials and Engineering, 2000, 274, 1-12.	1.7	20
321	Branched Alkoxy Side Chain Enables High-Performance Non-Fullerene Acceptors with High Open-Circuit Voltage and Highly Ordered Molecular Packing. Chemistry of Materials, 2022, 34, 2059-2068.	3.2	20
322	On the similarity of macromolecular responses to high-energy processes: mechanical milling vs. irradiation. Polymer Degradation and Stability, 2001, 72, 519-524.	2.7	19
323	Connecting Molecular Conformation to Aggregation in P3HT Using Near Edge X-ray Absorption Fine Structure Spectroscopy. Journal of Physical Chemistry C, 2017, 121, 21720-21728.	1.5	19
324	Investigation of the Effects of Isotopic Labeling at a PS/PMMA Interface Using SIMS and Mean-Field Theory. Macromolecules, 2006, 39, 1639-1645.	2.2	18

#	Article	IF	Citations
325	Influence of dielectric-dependent interfacial widths on device performance in top-gate P(NDI2OD-T2) field-effect transistors. Applied Physics Letters, 2012, 101, 093308.	1.5	18
326	Role of Solution Structure in Self-Assembly of Conjugated Block Copolymer Thin Films. Macromolecules, 2016, 49, 8187-8197.	2.2	18
327	The Role of FRET in Non-Fullerene Organic Solar Cells: Implications for Molecular Design. Journal of Physical Chemistry A, 2018, 122, 3764-3771.	1.1	18
328	Highâ€Performance Allâ€Polymer Solar Cells: Synthesis of Polymer Acceptor by a Random Ternary Copolymerization Strategy. Angewandte Chemie, 2020, 132, 15293-15297.	1.6	18
329	Semi-paracrystallinity in semi-conducting polymers. Materials Horizons, 2022, 9, 1196-1206.	6.4	18
330	Effect of Cyano Substitution on Conjugated Polymers for Bulk Heterojunction Solar Cells. ACS Applied Polymer Materials, 2019, 1, 3313-3322.	2.0	17
331	A decacyclic indacenodithiophene-based non-fullerene electron acceptor with meta-alkyl-phenyl substitutions for polymer solar cells. Journal of Materials Chemistry A, 2019, 7, 4063-4071.	5.2	17
332	Enhanced JSC of P3HT-based non-fullerene polymer solar cells by modulating aggregation effect of P3HT in solution state. Organic Electronics, 2019, 68, 15-21.	1.4	17
333	11. X-Ray Spectromicroscopy. Experimental Methods in the Physical Sciences, 1998, , 225-262.	0.1	16
334	Polystyrene/Poly(methyl methacrylate) Blends in the Presence of Cyclohexane:Â Selective Solvent Washing or Equilibrium Adsorption?. Macromolecules, 2006, 39, 7729-7733.	2.2	16
335	Lowest energy Frenkel and charge transfer exciton intermixing in one-dimensional copper phthalocyanine molecular lattice. Applied Physics Letters, 2016, 109, 213302.	1.5	16
336	Charge Photogeneration in Organic Photovoltaics: Role of Hot versus Cold Chargeâ€Transfer Excitons. Advanced Energy Materials, 2016, 6, 1301032.	10.2	16
337	Donor polymer based on alkylthiophene side chains for efficient non-fullerene organic solar cells: insights into fluorination and side chain effects on polymer aggregation and blend morphology. Journal of Materials Chemistry A, 2018, 6, 23270-23277.	5.2	16
338	Investigating the active layer thickness dependence of non-fullerene organic solar cells based on PM7 derivatives. Journal of Materials Chemistry C, 2020, 8, 15459-15469.	2.7	16
339	Low-temperature reactive coupling at polymerâ€“polymer interfaces facilitated by supercritical CO2. Polymer, 2005, 46, 10173-10179.	1.8	15
340	Topographic measurement of buried thin-film interfaces using a grazing resonant soft x-ray scattering technique. Physical Review B, 2014, 90, .	1.1	15
341	Morphological, Optical, and Electronic Consequences of Coexisting Crystal Orientations in Î²-Copper Phthalocyanine Thin Films. Journal of Physical Chemistry C, 2016, 120, 18616-18621.	1.5	15
342	Molecular engineering of perylene-diimide-based polymer acceptors containing heteroacene units for all-polymer solar cells. Organic Electronics, 2018, 58, 222-230.	1.4	15

#	Article	IF	Citations
343	Carboxylate substitution position influencing polymer properties and enabling non-fullerene organic solar cells with high open circuit voltage and low voltage loss. Journal of Materials Chemistry A, 2018, 6, 16874-16881.	5.2	15
344	Balanced Charge Transport Optimizes Industryâ€Relevant Ternary Polymer Solar Cells. Solar Rrl, 2020, 4, 2000538.	3.1	15
345	Resolving the Molecular Origin of Mechanical Relaxations in Donorâ€“Acceptor Polymer Semiconductors. Advanced Functional Materials, 2022, 32, 2105597.	7.8	15
346	Use of near Edge X-Ray Absorption Fine Structure Spectromicroscopy to Characterize Multicomponent Polymeric Systems. Applied Spectroscopy, 2001, 55, 1676-1681.	1.2	14
347	Utilizing Difluorinated Thiophene Units To Improve the Performance of Polymer Solar Cells. Macromolecules, 2019, 52, 6523-6532.	2.2	14
348	Functionalization of Benzotriazole-Based Conjugated Polymers for Solar Cells: Heteroatom vs Substituents. ACS Applied Polymer Materials, 2021, 3, 30-41.	2.0	14
349	Probing the Chain and Crystal Lattice Orientation in Polyethylene Thin Films by Near Edge X-ray Absorption Fine Structure (NEXAFS) Spectroscopy. Macromolecules, 2010, 43, 8153-8161.	2.2	13
350	The finale of a trilogy: comparing terpolymers and ternary blends with structurally similar backbones for use in organic bulk heterojunction solar cells. Journal of Materials Chemistry A, 2018, 6, 19190-19200.	5.2	13
351	Regioâ€Regular Polymer Acceptors Enabled by Determined Fluorination on End Groups for Allâ€Polymer Solar Cells with 15.2â€‰% Efficiency. Angewandte Chemie, 2021, 133, 10225-10234.	1.6	13
352	X-ray Microscopy and NEXAFS Spectroscopy of Macrophase-Separated Random Block Copolymer/Homopolymer Blends. Macromolecules, 1997, 30, 663-666.	2.2	12
353	A random donor polymer based on an asymmetric building block to tune the morphology of non-fullerene organic solar cells. Journal of Materials Chemistry A, 2017, 5, 22480-22488.	5.2	12
354	Multi-length scale morphology of nonfullerene all-small molecule blends and its relation to device function in organic solar cells. Materials Chemistry Frontiers, 2019, 3, 137-144.	3.2	12
355	The crucial role of end group planarity for fused-ring electron acceptors in organic solar cells. Materials Chemistry Frontiers, 2019, 3, 1642-1652.	3.2	12
356	Enhanced mid-wavelength infrared refractive index of organically modified chalcogenide (ORMOCHALC) polymer nanocomposites with thermomechanical stability. Optical Materials, 2020, 108, 110197.	1.7	12
357	Morphologicalâ€“Electrical Property Relation in Cu(In,Ga)(S,Se)₂ Solar Cells: Significance of Crystal Grain Growth and Band Grading by Potassium Treatment. Small, 2020, 16, e2003865.	5.2	12
358	A scanning photoelectron microscope (SPEM) at the NSLS. Physica Scripta, 1990, 41, 737-739.	1.2	11
359	Imaging electron emission from diamond and IIIâ€“V nitride surfaces with photo-electron emission microscopy. Applied Surface Science, 1999, 146, 287-294.	3.1	11
360	Investigation of Blend Miscibility of a Ternary PS/PCHMA/PMMA System Using SIMS and Mean-Field Theory. Macromolecules, 2005, 38, 10511-10515.	2.2	11

#	Article	IF	Citations
361	Changes in Thermodynamic Interactions at Highly Immiscible Polymer/Polymer Interfaces due to Deuterium Labeling. Journal of Physical Chemistry B, 2006, 110, 10602-10605.	1.2	11
362	Carbon-13 labeling for improved tracer depth profiling of organic materials using secondary ion mass spectrometry. Journal of the American Society for Mass Spectrometry, 2006, 17, 1142-1145.	1.2	11
363	Charge Generation and Mobility-Limited Performance of Bulk Heterojunction Solar Cells with a Higher Adduct Fullerene. Journal of Physical Chemistry C, 2017, 121, 10305-10316.	1.5	11
364	Conjugationâ€Curtailing of Benzodithionopyranâ€Cored Molecular Acceptor Enables Efficient Airâ€Processed Small Molecule Solar Cells. Small, 2019, 15, e1902656.	5.2	11
365	Optimizing spectral and morphological match of nonfullerene acceptors toward efficient indoor organic photovoltaics with enhanced light source adaptability. Nano Energy, 2022, 98, 107281.	8.2	11
366	Solid-State Blending of Polymers by Cryogenic Mechanical Alloying. Materials Research Society Symposia Proceedings, 2000, 629, 1.	0.1	10
367	A new Scanning Transmission X-ray Microscope at the ALS for operation up to 2500eV. , 2010, , .		10
368	Modulation of Building Block Size in Conjugated Polymers with Dâ€“A Structure for Polymer Solar Cells. Macromolecules, 2019, 52, 7929-7938.	2.2	10
369	Effect of main and side chain chlorination on the photovoltaic properties of benzodithiophene-alt-benzotriazole polymers. Journal of Materials Chemistry C, 2020, 8, 15426-15435.	2.7	10
370	Rigid valence band shift due to molecular surface counter-doping of MoS2. Surface Science, 2019, 679, 254-258.	0.8	9
371	Soft X-Ray Scattering Characterization of Polymer Semiconductors. , 2019, , 427-458.		9
372	X-ray Microscopy with the NSLS Soft X-ray Undulator. Physica Scripta, 1990, T31, 12-17.	1.2	8
373	Timeâ€“Temperature Superposition of Phase Separating Polymer Blend Films. High Performance Polymers, 2000, 12, 599-602.	0.8	8
374	Near-edge X-ray absorption fine structure (NEXAFS) microscopy of a polycarbonate/poly(acrylonitrile/butadiene/styrene) blend. Journal of Polymer Science, Part B: Polymer Physics, 2001, 39, 531-535.	2.4	8
375	Modifications in Morphology Resulting from Nanoimprinting Bulk Heterojunction Blends for Light Trapping Organic Solar Cell Designs. ACS Applied Materials & Interfaces, 2013, 5, 8225-8230.	4.0	8
376	Carbon-13 Labeled Polymers:â€‰ An Alternative Tracer for Depth Profiling of Polymer Films and Multilayers Using Secondary Ion Mass Spectrometry. Analytical Chemistry, 2006, 78, 3452-3460.	3.2	7
377	Toward Single-Crystal Hybrid-Carbon Electronics: Impact of Graphene Substrate Defect Density on Copper Phthalocyanine Film Growth. Crystal Growth and Design, 2014, 14, 4394-4401.	1.4	7
378	A time-resolved millimeter wave conductivity (TR-mmWC) apparatus for charge dynamical properties of semiconductors. Review of Scientific Instruments, 2018, 89, 104704.	0.6	7

#	Article	IF	Citations
379	High voltage all polymer solar cells with a polymer acceptor based on NDI and benzotriazole. Journal of Materials Chemistry C, 2019, 7, 9031-9037.	2.7	7
380	Organic Solar Cells with Large Insensitivity to Donor Polymer Molar Mass across All Acceptor Classes. ACS Applied Polymer Materials, 2020, 2, 5300-5308.	2.0	7
381	Timescales of excited state relaxation in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext><mml:mi>Ru observed by time-resolved two-photon photoemission spectroscopy. Physical Review B, 2021, 103, .	1.1	7
382	Upper and Apparent Lower Critical Solution Temperature Branches in the Phase Diagram of Polymer:Small Molecule Semiconducting Systems. Journal of Physical Chemistry Letters, 2021, 12, 10845-10853.	2.1	7
383	Ultrathin P(NDI2ODâ€T2) Films with High Electron Mobility in Both Bottomâ€Gate and Topâ€Gate Transistors. Advanced Electronic Materials, 2022, 8, .	2.6	7
384	X-RAY SPECTROMICROSCOPY. , 1999, , 225-262.		6
385	The case for soft X-rays: Improved compositional contrast for structure and morphology determination with real and reciprocal space methods. IOP Conference Series: Materials Science and Engineering, 2010, 14, 012020.	0.3	6
386	Differences in NEXAFS of odd/even long chain n-alkane crystals. Journal of Electron Spectroscopy and Related Phenomena, 2013, 191, 60-64.	0.8	6
387	Conjugated polymers with controllable interfacial order and energetics enable tunable heterojunctions in organic and colloidal quantum dot photovoltaics. Journal of Materials Chemistry A, 2022, 10, 1788-1801.	5.2	6
388	Silver Nanowire Composite Electrode Enabling Highly Flexible, Robust Organic Photovoltaics. Solar Rrl, 2022, 6, .	3.1	6
389	Revealing aggregation of non-fullerene acceptors in intermixed phase by ultraviolet-visible absorption spectroscopy. Cell Reports Physical Science, 2022, 3, 100983.	2.8	6
390	Interfacial properties of elastomer blends as studied by neutron reflectivity. Polymer, 2001, 42, 9133-9141.	1.8	5
391	Application of Scanning Transmission X-Ray Microscopy to the Rubber Industry. Rubber Chemistry and Technology, 2003, 76, 803-811.	0.6	5
392	Correlating domain purity with charge carrier mobility in bulk heterojunction polymer solar cells. Proceedings of SPIE, 2014, , .	0.8	5
393	Organic Solar Cells: Influence of Processing Parameters and Molecular Weight on the Morphology and Properties of High-Performance PffBT4T-2OD:PC71BM Organic Solar Cells (Adv. Energy Mater.) Tj ETQq1 1 0.784314 rgBT /Overlo	14.3	5
394	Monitoring Charge Separation Processes in Quasi-One-Dimensional Organic Crystalline Structures. Nano Letters, 2017, 17, 6056-6061.	4.5	5
395	Side-chain engineering of medium bandgap polymer donors for efficient polymer solar cells. Organic Electronics, 2020, 78, 105603.	1.4	5
396	A 3D nonfullerene electron acceptor with a 9,9â€²-bicarbazole backbone for high-efficiency organic solar cells. Organic Electronics, 2020, 84, 105784.	1.4	5

#	Article	IF	Citations
397	Optically Probing Field-Dependent Charge Dynamics in Non-Fullerene Organic Photovoltaics with Small Interfacial Energy Offsets. Journal of Physical Chemistry C, 2021, 125, 1714-1722.	1.5	5
398	<title>Chemical state mapping on material surfaces with the X1A second-generation scanning photoemission microscope (X1A SPEM-II)</title>. , 1995, 2516, 150.		4
399	SIMS depth profiling of deuterium labeled polymers in polymer multilayers. Applied Surface Science, 2006, 252, 7224-7227.	3.1	4
400	Carbon-13 Labeling for Quantitative Analysis of Molecular Movement in Heterogeneous Organic Materials Using Secondary Ion Mass Spectrometry. Analytical Chemistry, 2007, 79, 5358-5363.	3.2	4
401	Relationship between charge transfer state electroluminescence and the degradation of organic photovoltaics. Applied Physics Letters, 2021, 118, .	1.5	4
402	Morphology Changes Upon Scaling a High-Efficiency, Solution-Processed Solar Cell From Spin-Coating to Roll-to-Roll Coating. Energy and Environmental Science, 2016, 9, .	15.6	4
403	Orientation studies of Si-phthalocyanine sulfonic acids cast on SiO x substrates. Applied Physics A: Materials Science and Processing, 2003, 76, 177-182.	1.1	3
404	Soft Xâ€ray Microcopy at the ALS. Synchrotron Radiation News, 2003, 16, 16-27.	0.2	3
405	Scanning Transmission X-ray Microscopes at the Advanced Light Source: Performance and Experimental Capabilities. Microscopy and Microanalysis, 2004, 10, 1018-1019.	0.2	3
406	Thermally Induced Dewetting in Ultrathin C₆₀ Films on Copper Phthalocyanine. Journal of Physical Chemistry C, 2013, 117, 26007-26012.	1.5	3
407	Disruption of Molecular Ordering over Several Layers near the Au/2,8-Difluoro-5,11-bis(triethylsilylethynyl) Anthradithiophene Interface. Crystal Growth and Design, 2015, 15, 822-828.	1.4	3
408	Solar Cells: Surpassing 10% Efficiency Benchmark for Nonfullerene Organic Solar Cells by Scalable Coating in Air from Single Nonhalogenated Solvent (Adv. Mater. 8/2018). Advanced Materials, 2018, 30, 1870054.	11.1	3
409	Orientational Ordering within Semiconducting Polymer Fibrils. Advanced Functional Materials, 2021, 31, 2102522.	7.8	3
410	Low Voltageâ€Loss Organic Solar Cells Light the Way for Efficient Semitransparent Photovoltaics. Solar Rrl, 2022, 6, .	3.1	3
411	Applications of the Xia Scanning Photoemission Spectromicroscope for Element Identification on Material Surfaces. Materials Research Society Symposia Proceedings, 1994, 375, 303.	0.1	2
412	X-ray Linear Dichroism Microscopy of Crystalline Short Chain Alkanes and Semi-crystalline Polyethylene Thin Films. Microscopy and Microanalysis, 2004, 10, 1020-1021.	0.2	2
413	Conduction band states of transition metal (TM) high-k gate dielectrics as determined from X-ray absorption spectra. Microelectronics Reliability, 2005, 45, 827-830.	0.9	2
414	Mass fractionation of carbon and hydrogen secondary ions upon Cs+ and O2+ bombardment of organic materials. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2007, 25, 480-484.	0.9	2

#	Article	IF	Citations
415	Direct Optical Observation of Stimulated Emission from Hot Charge Transfer Excitons in Bulk Heterojunction Polymer Solar Cells. Journal of Physical Chemistry C, 2015, 119, 19697-19702.	1.5	2
416	Intrinsic Charge Trapping Observed as Surface Potential Variations in diF-TES-ADT Films. ACS Applied Materials & Interfaces, 2016, 8, 21490-21496.	4.0	2
417	Growth of thermally stable crystalline C₆₀ films on flat-lying copper phthalocyanine. Journal of Materials Chemistry A, 2016, 4, 1028-1032.	5.2	2
418	High-Resolution X-Ray Photoemission Electron Microscopy at the Advanced Light Source. Materials Research Society Symposia Proceedings, 1998, 524, 25.	0.1	1
419	Organic Solar Cells: Domain Purity, Miscibility, and Molecular Orientation at Donor/Acceptor Interfaces in High Performance Organic Solar Cells: Paths to Further Improvement (Adv. Energy) Tj ETQq1 1 0.784314 rgBT /Overlock	10.2	1
420	Photovoltaics: Quantification of Nanoâ€•and Mesoscale Phase Separation and Relation to Donor and Acceptor Quantum Efficiency, J_{sc}, and FF in Polymer:Fullerene Solar Cells (Adv.) Tj ETQq0 0 0 rgBT /Overlock	10	1
421	Organic Photovoltaics: Charge Photogeneration in Organic Photovoltaics: Role of Hot versus Cold Chargeâ€Transfer Excitons (Adv. Energy Mater. 1/2016). Advanced Energy Materials, 2016, 6, .	10.2	1
422	X-ray Microscopy of Soft Matter. Microscopy and Microanalysis, 2008, 14, 58-59.	0.2	0
423	Quantitative Soft X-ray Microscopy of Soft Matter. Microscopy and Microanalysis, 2010, 16, 888-889.	0.2	0
424	2011 ALS User Meeting and Workshops. Synchrotron Radiation News, 2012, 25, 4-8.	0.2	0
425	Soft X-ray Imaging of Polymers and Polymer Composites. Microscopy and Microanalysis, 2012, 18, 1612-1613.	0.2	0
426	Organic Solar Cells: On the Efficiency of Charge Transfer State Splitting in Polymer:Fullerene Solar Cells (Adv. Mater. 16/2014). Advanced Materials, 2014, 26, 2607-2607.	11.1	0
427	Thin Films: Tuning Local Molecular Orientation-Composition Correlations in Binary Organic Thin Films by Solution Shearing (Adv. Funct. Mater. 21/2015). Advanced Functional Materials, 2015, 25, 3106-3106.	7.8	0
428	Soft X-ray Microscopy: History, Status, and Future. Microscopy and Microanalysis, 2018, 24, 1000-1001.	0.2	0
429	Millimeter wave direct-current transmission and reflection spectral data of some organic photo-responsive materials. Data in Brief, 2020, 28, 104996.	0.5	0
430	Organic Solar Cells: Highâ€Performance Tandem Organic Solar Cells Using HSolar as the Interconnecting Layer (Adv. Energy Mater. 25/2020). Advanced Energy Materials, 2020, 10, 2070109.	10.2	0
431	Second-generation scanning photoemission microscope at the National Synchrotron Light Source. Proceedings Annual Meeting Electron Microscopy Society of America, 1993, 51, 650-651.	0.0	0
432	Competition between exceptionally long-range alkyl sidechain ordering and backbone ordering in semiconducting polymers and its impact on electronic and optoelectronic properties. Advanced Functional Materials, 2018, 29, .	7.8	0