Andrew Wadsworth

List of Publications by Year in Descending Order

213 papers	27,275 citations	75 h-index	164 g-index
225 ext. papers	31,148 ext. citations	16.9 avg, IF	7.31 L-index

#	Paper	IF	Citations
213	Semiconducting Polymers for Neural Applications.. *Chemical Reviews*, **2022**,	68.1	14
212	Infrared Organic Photodetectors Employing Ultralow Bandgap Polymer and Non-Fullerene Acceptors for Biometric Monitoring.. *Small*, **2022**, e2200580	11	3
211	Synthetic Nuances to Maximize n-Type Organic Electrochemical Transistor and Thermoelectric Performance in Fused Lactam Polymers.. *Journal of the American Chemical Society*, **2022**,	16.4	9
210	Stretchable Redox-active Semiconducting Polymers for High-performance Organic Electrochemical Transistors.. *Advanced Materials*, **2022**, e2201178	24	3
209	Propylene and butylene glycol: new alternatives to ethylene glycol in conjugated polymers for bioelectronic applications.. *Materials Horizons*, **2021**,	14.4	4
208	Lactone Backbone Density in Rigid Electron-Deficient Semiconducting Polymers Enabling High n-type Organic Thermoelectric Performance. *Angewandte Chemie - International Edition*, **2021**,	16.4	4
207	Electrolyte-gated transistors for enhanced performance bioelectronics.. *Nature Reviews Methods Primers*, **2021**, 1,		42
206	Unraveling the Unconventional Order of a High-Mobility Indacenodithiophene-Benzothiadiazole Copolymer.. *ACS Macro Letters*, **2021**, 10, 1306-1314	6.6	2
205	Oligoethylene Glycol Side Chains Increase Charge Generation in Organic Semiconductor Nanoparticles for Enhanced Photocatalytic Hydrogen Evolution. *Advanced Materials*, **2021**, e2105007	24	6
204	n-Type Rigid Semiconducting Polymers Bearing Oligo(Ethylene Glycol) Side Chains for High-Performance Organic Electrochemical Transistors. *Angewandte Chemie - International Edition*, **2021**, 60, 9368-9373	16.4	35
203	High-Gain Chemically Gated Organic Electrochemical Transistor. *Advanced Functional Materials*, **2021**, 31, 2010868	15.6	21
202	Microfluidic Integrated Organic Electrochemical Transistor with a Nanoporous Membrane for Amyloid-Detection. *ACS Nano*, **2021**, 15, 8130-8141	16.7	18
201	Challenges to the Success of Commercial Organic Photovoltaic Products. *Advanced Energy Materials* , **2021**, 11, 2100056	21.8	26
200	Adjusting the energy of interfacial states in organic photovoltaics for maximum efficiency. *Nature Communications*, **2021**, 12, 1772	17.4	12
199	Mixed Conduction in an N-Type Organic Semiconductor in the Absence of Hydrophilic Side-Chains. *Advanced Functional Materials*, **2021**, 31, 2010165	15.6	36
198	Correlating Charge-Transfer State Lifetimes with Material Energetics in Polymer:Non-Fullerene Acceptor Organic Solar Cells. *Journal of the American Chemical Society*, **2021**, 143, 7599-7603	16.4	19
197	Charge transport physics of a unique class of rigid-rod conjugated polymers with fused-ring conjugated units linked by double carbon-carbon bonds. *Science Advances*, **2021**, 7,	14.3	7

196	Controlling Electrochemically Induced Volume Changes in Conjugated Polymers by Chemical Design: from Theory to Devices. *Advanced Functional Materials*, **2021**, 31, 2100723	15.6	13
195	Influence of alkyne spacers on the performance of thiophene-based donors in bulk-heterojunction organic photovoltaic cells. *Dyes and Pigments*, **2021**, 188, 109152	4.6	2
194	Rapid single-molecule detection of COVID-19 and MERS antigens via nanobody-functionalized organic electrochemical transistors. *Nature Biomedical Engineering*, **2021**, 5, 666-677	19	78
193	Impact of Acceptor Quadrupole Moment on Charge Generation and Recombination in Blends of IDT-Based Non-Fullerene Acceptors with PCE10 as Donor Polymer. *Advanced Energy Materials*, **2021**, 11, 2100839	21.8	6
192	Regiochemistry-Driven Organic Electrochemical Transistor Performance Enhancement in Ethylene Glycol-Functionalized Polythiophenes. *Journal of the American Chemical Society*, **2021**, 143, 11007-11018	16.4	22
191	Elucidating the Role of Water-Related Traps in the Operation of Polymer Field-Effect Transistors. *Advanced Electronic Materials*, **2021**, 7, 2100393	6.4	2
190	Ternary organic photodetectors based on pseudo-binaries nonfullerene-based acceptors. *JPhys Materials*, **2021**, 4, 045001	4.2	2
189	Linking Glass-Transition Behavior to Photophysical and Charge Transport Properties of High-Mobility Conjugated Polymers. *Advanced Functional Materials*, **2021**, 31, 2007359	15.6	11
188	Polaron Delocalization in Donor-Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. *Angewandte Chemie - International Edition*, **2021**, 60, 7777-7785	16.4	41
187	Polaron Delocalization in Donor–Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. *Angewandte Chemie*, **2021**, 133, 7856-7864	3.6	12
186	Acene Ring Size Optimization in Fused Lactam Polymers Enabling High n-Type Organic Thermoelectric Performance. *Journal of the American Chemical Society*, **2021**, 143, 260-268	16.4	30
185	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. *Nature Materials*, **2021**, 20, 378-384	27	108
184	N-Doping improves charge transport and morphology in the organic non-fullerene acceptor O-IDTBR. *Journal of Materials Chemistry C*, **2021**, 9, 4486-4495	7.1	5
183	Non-fullerene-based organic photodetectors for infrared communication. *Journal of Materials Chemistry C*, **2021**, 9, 2375-2380	7.1	12
182	Operation mechanism of organic electrochemical transistors as redox chemical transducers. *Journal of Materials Chemistry C*, **2021**, 9, 12148-12158	7.1	4
181	A molecular interaction-diffusion framework for predicting organic solar cell stability. *Nature Materials*, **2021**, 20, 525-532	27	71
180	Influence of Side Chains on the n-Type Organic Electrochemical Transistor Performance. *ACS Applied Materials & Interfaces*, **2021**, 13, 4253-4266	9.5	34
179	n-Type Rigid Semiconducting Polymers Bearing Oligo(Ethylene Glycol) Side Chains for High-Performance Organic Electrochemical Transistors. *Angewandte Chemie*, **2021**, 133, 9454-9459	3.6	2

178	Non-fullerene acceptor photostability and its impact on organic solar cell lifetime. *Cell Reports Physical Science*, **2021**, 2, 100498	6.1	9
177	The Effect of Alkyl Spacers on the Mixed Ionic-Electronic Conduction Properties of N-Type Polymers. *Advanced Functional Materials*, **2021**, 31, 2008718	15.6	33
176	n-Type organic semiconducting polymers: stability limitations, design considerations and applications. *Journal of Materials Chemistry C*, **2021**, 9, 8099-8128	7.1	28
175	Anisotropy of Charge Transport in a Uniaxially Aligned Fused Electron-Deficient Polymer Processed by Solution Shear Coating. *Advanced Materials*, **2020**, 32, e2000063	24	18
174	Metal-free polymerization: synthesis and properties of fused benzo[1,2-b:4,5-b?]bis[b]benzothiophene (BBBT) polymers. *Polymer Chemistry*, **2020**, 11, 3695-3700	4.9	4
173	Water stable molecular n-doping produces organic electrochemical transistors with high transconductance and record stability. *Nature Communications*, **2020**, 11, 3004	17.4	51
172	Large-Area Uniform Polymer Transistor Arrays on Flexible Substrates: Towards High-Throughput Sensor Fabrication. *Advanced Materials Technologies*, **2020**, 5, 2000390	6.8	10
171	Monitoring supported lipid bilayers with n-type organic electrochemical transistors. *Materials Horizons*, **2020**, 7, 2348-2358	14.4	21
170	Exploiting Ternary Blends for Improved Photostability in High-Efficiency Organic Solar Cells. *ACS Energy Letters*, **2020**, 5, 1371-1379	20.1	83
169	Pulse Oximetry Using Organic Optoelectronics under Ambient Light. *Advanced Materials Technologies*, **2020**, 5, 1901122	6.8	16
168	Organic thin-film transistors with flame-annealed contacts. *Flexible and Printed Electronics*, **2020**, 5, 014015	3.1	3
167	Energetic Control of Redox-Active Polymers toward Safe Organic Bioelectronic Materials. *Advanced Materials*, **2020**, 32, e1908047	24	65
166	17.1% Efficient Single-Junction Organic Solar Cells Enabled by n-Type Doping of the Bulk-Heterojunction. *Advanced Science*, **2020**, 7, 1903419	13.6	110
165	Balancing Ionic and Electronic Conduction for High-Performance Organic Electrochemical Transistors. *Advanced Functional Materials*, **2020**, 30, 1907657	15.6	70
164	Influence of Polymer Aggregation and Liquid Immiscibility on Morphology Tuning by Varying Composition in PffBT4T-2DT/Nonfullerene Organic Solar Cells. *Advanced Energy Materials*, **2020**, 10, 1903248	21.8	18
163	Universal Spray-Deposition Process for Scalable, High-Performance, and Stable Organic Electrochemical Transistors. *ACS Applied Materials & Interfaces*, **2020**, 12, 20757-20764	9.5	26
162	Enhanced photocatalytic hydrogen evolution from organic semiconductor heterojunction nanoparticles. *Nature Materials*, **2020**, 19, 559-565	27	171
161	Reversible Electronic Solid-Gel Switching of a Conjugated Polymer. *Advanced Science*, **2020**, 7, 1901144	13.6	27

160	A universal solution processed interfacial bilayer enabling ohmic contact in organic and hybrid optoelectronic devices. *Energy and Environmental Science*, **2020**, 13, 268-276	35.4	26
159	The role of chemical design in the performance of organic semiconductors. *Nature Reviews Chemistry*, **2020**, 4, 66-77	34.6	205
158	Biofuel powered glucose detection in bodily fluids with an n-type conjugated polymer. *Nature Materials*, **2020**, 19, 456-463	27	105
157	Modification of Indacenodithiophene-Based Polymers and Its Impact on Charge Carrier Mobility in Organic Thin-Film Transistors. *Journal of the American Chemical Society*, **2020**, 142, 652-664	16.4	55
156	Energetic Disorder and Activation Energy in Efficient Ternary Organic Solar Cells with Nonfullerene Acceptor Eh-IDTBR as the Third Component. *Solar Rrl*, **2020**, 4, 1900403	7.1	33
155	Nonfullerene-Based Organic Photodetectors for Ultrahigh Sensitivity Visible Light Detection. *ACS Applied Materials & Interfaces*, **2020**, 12, 48836-48844	9.5	15
154	Long-range exciton diffusion in molecular non-fullerene acceptors. *Nature Communications*, **2020**, 11, 5220	17.4	87
153	Exciton and Charge Carrier Dynamics in Highly Crystalline PTQ10:IDIC Organic Solar Cells. *Advanced Energy Materials*, **2020**, 10, 2001149	21.8	24
152	The Chemistry and Applications of Heteroisoindigo Units as Enabling Links for Semiconducting Materials. *Accounts of Chemical Research*, **2020**, 53, 2855-2868	24.3	24
151	Side Chain Redistribution as a Strategy to Boost Organic Electrochemical Transistor Performance and Stability. *Advanced Materials*, **2020**, 32, e2002748	24	88
150	The effect of aromatic ring size in electron deficient semiconducting polymers for n-type organic thermoelectrics. *Journal of Materials Chemistry C*, **2020**, 8, 15150-15157	7.1	15
149	Ethylene Glycol-Based Side Chain Length Engineering in Polythiophenes and its Impact on Organic Electrochemical Transistor Performance. *Chemistry of Materials*, **2020**, 32, 6618-6628	9.6	47
148	Tracking Charge Transfer to Residual Metal Clusters in Conjugated Polymers for Photocatalytic Hydrogen Evolution. *Journal of the American Chemical Society*, **2020**, 142, 14574-14587	16.4	56
147	The Bulk Heterojunction in Organic Photovoltaic, Photodetector, and Photocatalytic Applications. *Advanced Materials*, **2020**, 32, e2001763	24	68
146	Ion Coordination and Chelation in a Glycolated Polymer Semiconductor: Molecular Dynamics and X-ray Fluorescence Study. *Chemistry of Materials*, **2020**, 32, 7301-7308	9.6	9
145	Photocatalysts Based on Organic Semiconductors with Tunable Energy Levels for Solar Fuel Applications. *Advanced Energy Materials*, **2020**, 10, 2001935	21.8	39
144	A Multilayered Electron Extracting System for Efficient Perovskite Solar Cells. *Advanced Functional Materials*, **2020**, 30, 2004273	15.6	8
143	Correlating the Phase Behavior with the Device Performance in Binary Poly-3-hexylthiophene: Nonfullerene Acceptor Blend Using Optical Probes of the Microstructure. *Chemistry of Materials*, **2020**, 32, 8294-8305	9.6	13

142	The role of exciton lifetime for charge generation in organic solar cells at negligible energy-level offsets. *Nature Energy*, **2020**, 5, 711-719	62.3	110
141	High-density polyethylene: An inert additive with stabilizing effects on organic field-effect transistors. *Journal of Materials Chemistry C*, **2020**, 8, 15406-15415	7.1	8
140	Membrane-Free Detection of Metal Cations with an Organic Electrochemical Transistor. *Advanced Functional Materials*, **2019**, 29, 1904403	15.6	52
139	End Group Tuning in Acceptor–Donor–Acceptor Nonfullerene Small Molecules for High Fill Factor Organic Solar Cells. *Advanced Functional Materials*, **2019**, 29, 1808429	15.6	33
138	Suppression of Recombination Losses in Polymer:Nonfullerene Acceptor Organic Solar Cells due to Aggregation Dependence of Acceptor Electron Affinity. *Advanced Energy Materials*, **2019**, 9, 1901254	21.8	42
137	Short contacts between chains enhancing luminescence quantum yields and carrier mobilities in conjugated copolymers. *Nature Communications*, **2019**, 10, 2614	17.4	29
136	High-mobility, trap-free charge transport in conjugated polymer diodes. *Nature Communications*, **2019**, 10, 2122	17.4	61
135	Charge carrier transport and nanomorphology control for efficient non-fullerene organic solar cells. *Materials Today Energy*, **2019**, 12, 398-407	7	20
134	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. *Joule*, **2019**, 3, 1328-1348	27.8	74
133	P3HT Molecular Weight Determines the Performance of P3HT:O-IDTBR Solar Cells. *Solar Rrl*, **2019**, 3, 1900023	7.1	21
132	Highly selective chromoionophores for ratiometric Na+ sensing based on an oligoethyleneglycol bridged bithiophene detection unit. *Journal of Materials Chemistry C*, **2019**, 7, 5359-5365	7.1	7
131	The role of the third component in ternary organic solar cells. *Nature Reviews Materials*, **2019**, 4, 229-242	73.3	244
130	Toward Improved Environmental Stability of Polymer:Fullerene and Polymer:Nonfullerene Organic Solar Cells: A Common Energetic Origin of Light- and Oxygen-Induced Degradation. *ACS Energy Letters*, **2019**, 4, 846-852	20.1	49
129	The binding energy and dynamics of charge-transfer states in organic photovoltaics with low driving force for charge separation. *Journal of Chemical Physics*, **2019**, 150, 104704	3.9	26
128	Design and evaluation of conjugated polymers with polar side chains as electrode materials for electrochemical energy storage in aqueous electrolytes. *Energy and Environmental Science*, **2019**, 12, 1349-1357	35.4	74
127	Negligible Energy Loss During Charge Generation in Small-Molecule/Fullerene Bulk-Heterojunction Solar Cells Leads to Open-Circuit Voltage over 1.10 V. *ACS Applied Energy Materials*, **2019**, 2, 2717-2722	6.1	20
126	Twist and Degrade—Impact of Molecular Structure on the Photostability of Nonfullerene Acceptors and Their Photovoltaic Blends. *Advanced Energy Materials*, **2019**, 9, 1803755	21.8	62
125	Impact of Nonfullerene Acceptor Side Chain Variation on Transistor Mobility. *Advanced Electronic Materials*, **2019**, 5, 1900344	6.4	30

124	On the Role of Contact Resistance and Electrode Modification in Organic Electrochemical Transistors. *Advanced Materials*, **2019**, 31, e1902291	24	31
123	The Effect of Ring Expansion in Thienobenzo[]indacenodithiophene Polymers for Organic Field-Effect Transistors. *Journal of the American Chemical Society*, **2019**, 141, 18806-18813	16.4	23
122	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS as a Replacement for PEDOT:PSS. *Advanced Materials*, **2019**, 31, e1902965	24	384
121	Hybrid Alkyl Ethylene Glycol Side Chains Enhance Substrate Adhesion and Operational Stability in Accumulation Mode Organic Electrochemical Transistors. *Chemistry of Materials*, **2019**, 31, 9797-9806	9.6	51
120	Enhancing the Charge Extraction and Stability of Perovskite Solar Cells Using Strontium Titanate (SrTiO3) Electron Transport Layer. *ACS Applied Energy Materials*, **2019**, 2, 8090-8097	6.1	26
119	Excitation Wavelength-Dependent Internal Quantum Efficiencies in a P3HT/Nonfullerene Acceptor Solar Cell. *Journal of Physical Chemistry C*, **2019**, 123, 5826-5832	3.8	5
118	Role of the Anion on the Transport and Structure of Organic Mixed Conductors. *Advanced Functional Materials*, **2019**, 29, 1807034	15.6	68
117	Influence of Water on the Performance of Organic Electrochemical Transistors. *Chemistry of Materials*, **2019**, 31, 927-937	9.6	82
116	Materials in Organic Electrochemical Transistors for Bioelectronic Applications: Past, Present, and Future. *Advanced Functional Materials*, **2019**, 29, 1807033	15.6	92
115	Critical review of the molecular design progress in non-fullerene electron acceptors towards commercially viable organic solar cells. *Chemical Society Reviews*, **2019**, 48, 1596-1625	58.5	617
114	Redox-Stability of Alkoxy-BDT Copolymers and their Use for Organic Bioelectronic Devices. *Advanced Functional Materials*, **2018**, 28, 1706325	15.6	58
113	The Role of the Side Chain on the Performance of N-type Conjugated Polymers in Aqueous Electrolytes. *Chemistry of Materials*, **2018**, 30, 2945-2953	9.6	124
112	Carrier Transport and Recombination in Efficient All-Small-Molecule Solar Cells with the Nonfullerene Acceptor IDTBR. *Advanced Energy Materials*, **2018**, 8, 1800264	21.8	52
111	The Physics of Small Molecule Acceptors for Efficient and Stable Bulk Heterojunction Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1703298	21.8	96
110	Fused electron deficient semiconducting polymers for air stable electron transport. *Nature Communications*, **2018**, 9, 416	17.4	91
109	A Thieno[2,3-b]pyridine-Flanked Diketopyrrolopyrrole Polymer as an n-Type Polymer Semiconductor for All-Polymer Solar Cells and Organic Field-Effect Transistors. *Macromolecules*, **2018**, 51, 71-79	5.5	44
108	Barbiturate end-capped non-fullerene acceptors for organic solar cells: tuning acceptor energetics to suppress geminate recombination losses. *Chemical Communications*, **2018**, 54, 2966-2969	5.8	23
107	Enhanced n-Doping Efficiency of a Naphthalenediimide-Based Copolymer through Polar Side Chains for Organic Thermoelectrics. *ACS Energy Letters*, **2018**, 3, 278-285	20.1	159

106	Lipid bilayer formation on organic electronic materials. *Journal of Materials Chemistry C*, **2018**, 6, 5218-5227	7.1	11
105	Analyzing the efficiency, stability and cost potential for fullerene-free organic photovoltaics in one figure of merit. *Energy and Environmental Science*, **2018**, 11, 1355-1361	35.4	119
104	Direct metabolite detection with an n-type accumulation mode organic electrochemical transistor. *Science Advances*, **2018**, 4, eaat0911	14.3	114
103	Recent Progress in High-Mobility Organic Transistors: A Reality Check. *Advanced Materials*, **2018**, 30, e1801079	24	358
102	Performance Improvements in Conjugated Polymer Devices by Removal of Water-Induced Traps. *Advanced Materials*, **2018**, 30, e1801874	24	52
101	A Highly Crystalline Fused-Ring n-Type Small Molecule for Non-Fullerene Acceptor Based Organic Solar Cells and Field-Effect Transistors. *Advanced Functional Materials*, **2018**, 28, 1802895	15.6	63
100	Improving the Compatibility of Diketopyrrolopyrrole Semiconducting Polymers for Biological Interfacing by Lysine Attachment. *Chemistry of Materials*, **2018**, 30, 6164-6172	9.6	28
99	Conjugated Polymers in Bioelectronics. *Accounts of Chemical Research*, **2018**, 51, 1368-1376	24.3	235
98	Visible and Near-Infrared Imaging with Nonfullerene-Based Photodetectors. *Advanced Materials Technologies*, **2018**, 3, 1800104	6.8	60
97	Correlation of Disorder and Charge Transport in a Range of Indacenodithiophene-Based Semiconducting Polymers. *Advanced Electronic Materials*, **2018**, 4, 1700410	6.4	16
96	Why are SeÉ and SÖ non-covalent interactions stabilising?. *Journal of Materials Chemistry C*, **2018**, 6, 12413-12421	7.1	32
95	High performance ambient-air-stable FAPbI3 perovskite solar cells with molecule-passivated RuddlesdenÐopper/3D heterostructured film. *Energy and Environmental Science*, **2018**, 11, 3358-3366	35.4	154
94	Overcoming efficiency and stability limits in water-processing nanoparticular organic photovoltaics by minimizing microstructure defects. *Nature Communications*, **2018**, 9, 5335	17.4	57
93	A simple and robust approach to reducing contact resistance in organic transistors. *Nature Communications*, **2018**, 9, 5130	17.4	72
92	A new cross-linkable 9,10-diphenylanthracene derivative as a wide bandgap host for solution-processed organic light-emitting diodes. *Journal of Materials Chemistry C*, **2018**, 6, 12948-12954	7.1	17
91	An Analysis of the Factors Determining the Efficiency of Photocurrent Generation in Polymer:Nonfullerene Acceptor Solar Cells. *Advanced Energy Materials*, **2018**, 8, 1801537	21.8	20
90	Residual Pd Enables Photocatalytic H2 Evolution from Conjugated Polymers. *ACS Energy Letters*, **2018**, 3, 2846-2850	20.1	40
89	The Effect of Residual Palladium Catalyst Contamination on the Photocatalytic Hydrogen Evolution Activity of Conjugated Polymers. *Advanced Energy Materials*, **2018**, 8, 1802181	21.8	89

88	Visualizing the Solid-Liquid Interface of Conjugated Copolymer Films Using Fluorescent Liposomes.. *ACS Applied Bio Materials*, **2018**, 1, 1348-1354	4.1	8
87	Influence of Blend Morphology and Energetics on Charge Separation and Recombination Dynamics in Organic Solar Cells Incorporating a Nonfullerene Acceptor. *Advanced Functional Materials*, **2018**, 28, 1704389	15.6	68
86	Synthesis and properties of isoindigo and benzo[1,2-b:4,5-b']bis[b]benzothiophene oligomers. *Chemical Communications*, **2018**, 54, 11152-11155	5.8	8
85	Robust nonfullerene solar cells approaching unity external quantum efficiency enabled by suppression of geminate recombination. *Nature Communications*, **2018**, 9, 2059	17.4	141
84	Subthreshold Operation of Organic Electrochemical Transistors for Biosignal Amplification. *Advanced Science*, **2018**, 5, 1800453	13.6	55
83	Progress in Poly (3-Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. *Advanced Energy Materials*, **2018**, 8, 1801001	21.8	72
82	Charge Separation in Intermixed Polymer:PC70BM Photovoltaic Blends: Correlating Structural and Photophysical Length Scales as a Function of Blend Composition. *Journal of Physical Chemistry C*, **2017**, 121, 9790-9801	3.8	20
81	Highly Efficient and Reproducible Nonfullerene Solar Cells from Hydrocarbon Solvents. *ACS Energy Letters*, **2017**, 2, 1494-1500	20.1	74
80	Photophysical Study of DPPTT-T/PC70BM Blends and Solar Devices as a Function of Fullerene Loading: An Insight into EQE Limitations of DPP-Based Polymers. *Advanced Functional Materials*, **2017**, 27, 1604426	15.6	12
79	High operational and environmental stability of high-mobility conjugated polymer field-effect transistors through the use of molecular additives. *Nature Materials*, **2017**, 16, 356-362	27	276
78	Polymer:Nonfullerene Bulk Heterojunction Solar Cells with Exceptionally Low Recombination Rates. *Advanced Energy Materials*, **2017**, 7, 1701561	21.8	69
77	Dithiopheneindenofluorene (TIF) Semiconducting Polymers with Very High Mobility in Field-Effect Transistors. *Advanced Materials*, **2017**, 29, 1702523	24	61
76	Burn-in Free Nonfullerene-Based Organic Solar Cells. *Advanced Energy Materials*, **2017**, 7, 1700770	21.8	156
75	Intercalated vs Nonintercalated Morphologies in Donor-Acceptor Bulk Heterojunction Solar Cells: PBTTT:Fullerene Charge Generation and Recombination Revisited. *Journal of Physical Chemistry Letters*, **2017**, 8, 4061-4068	6.4	14
74	An Efficient, "Burn in" Free Organic Solar Cell Employing a Nonfullerene Electron Acceptor. *Advanced Materials*, **2017**, 29, 1701156	24	138
73	Quantifying local thickness and composition in thin films of organic photovoltaic blends by Raman scattering. *Journal of Materials Chemistry C*, **2017**, 5, 7270-7282	7.1	15
72	Reducing the efficiency-stability-cost gap of organic photovoltaics with highly efficient and stable small molecule acceptor ternary solar cells. *Nature Materials*, **2017**, 16, 363-369	27	807
71	Molecular Design of Semiconducting Polymers for High-Performance Organic Electrochemical Transistors. *Journal of the American Chemical Society*, **2016**, 138, 10252-9	16.4	189

70	N-type organic electrochemical transistors with stability in water. *Nature Communications*, **2016**, 7, 13066	17.4	170
69	Reduced voltage losses yield 10% efficient fullerene free organic solar cells with >1 V open circuit voltages. *Energy and Environmental Science*, **2016**, 9, 3783-3793	35.4	425
68	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. *Nature Communications*, **2016**, 7, 11585	17.4	903
67	ORGANIC DEVICES. Avoid the kinks when measuring mobility. *Science*, **2016**, 352, 1521-2	33.3	181
66	Singlet Exciton Lifetimes in Conjugated Polymer Films for Organic Solar Cells. *Polymers*, **2016**, 8,	4.5	81
65	A Novel Alkylated Indacenodithieno[3,2-b]thiophene-Based Polymer for High-Performance Field-Effect Transistors. *Advanced Materials*, **2016**, 28, 3922-7	24	100
64	Exploring the origin of high optical absorption in conjugated polymers. *Nature Materials*, **2016**, 15, 746-52	27	233
63	Azaisoindigo conjugated polymers for high performance n-type and ambipolar thin film transistor applications. *Journal of Materials Chemistry C*, **2016**, 4, 9704-9710	7.1	56
62	Controlling the mode of operation of organic transistors through side-chain engineering. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 12017-12022	11.5	251
61	Dual Function Additives: A Small Molecule Crosslinker for Enhanced Efficiency and Stability in Organic Solar Cells. *Advanced Energy Materials*, **2015**, 5, 1401426	21.8	54
60	Organic photovoltaics: Crosslinking for optimal morphology and stability. *Materials Today*, **2015**, 18, 425-435	21.8	105
59	Effect of fluorination of 2,1,3-benzothiadiazole. *Journal of Organic Chemistry*, **2015**, 80, 5045-8	4.2	77
58	Polaron pair mediated triplet generation in polymer/fullerene blends. *Nature Communications*, **2015**, 6, 6501	17.4	65
57	Non-fullerene electron acceptors for use in organic solar cells. *Accounts of Chemical Research*, **2015**, 48, 2803-12	24.3	944
56	Role of Polymer Fractionation in Energetic Losses and Charge Carrier Lifetimes of Polymer: Fullerene Solar Cells. *Journal of Physical Chemistry C*, **2015**, 119, 19668-19673	3.8	21
55	A thieno[3,2-b][1]benzothiophene isoindigo building block for additive- and annealing-free high-performance polymer solar cells. *Advanced Materials*, **2015**, 27, 4702-7	24	113
54	Chalcogenophene comonomer comparison in small band gap diketopyrrolopyrrole-based conjugated polymers for high-performing field-effect transistors and organic solar cells. *Journal of the American Chemical Society*, **2015**, 137, 1314-21	16.4	317
53	A rhodanine flanked nonfullerene acceptor for solution-processed organic photovoltaics. *Journal of the American Chemical Society*, **2015**, 137, 898-904	16.4	407

52	Towards optimisation of photocurrent from fullerene excitons in organic solar cells. *Energy and Environmental Science*, **2014**, 7, 1037	35.4	36
51	Morphological stability and performance of polymer-fullerene solar cells under thermal stress: the impact of photoinduced PC60BM oligomerization. *ACS Nano*, **2014**, 8, 1297-308	16.7	111
50	Approaching disorder-free transport in high-mobility conjugated polymers. *Nature*, **2014**, 515, 384-8	50.4	692
49	The effect of thiadiazole out-backbone displacement in indacenodithiophene semiconductor polymers. *Journal of Materials Chemistry C*, **2014**, 2, 8789-8795	7.1	19
48	Electron-deficient truxenone derivatives and their use in organic photovoltaics. *Journal of Materials Chemistry A*, **2014**, 2, 12348-12354	13	29
47	Polaron stability in semiconducting polymer neat films. *Chemical Communications*, **2014**, 50, 14425-8	5.8	12
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