Andrew Wadsworth

List of Publications by Year
in descending order

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223 papers	35,481 citations	3726 89 h-index	3402 183 g-index
225 all docs	225 docs citations	225 times ranked	18905 citing authors

#	Article	IF	Citations
1	A strong regioregularity effect in self-organizing conjugated polymer films and high-efficiency polythiophene:fullerene solar cells. Nature Materials, 2006, 5, 197-203.	13.3	2,208
2	Liquid-crystalline semiconducting polymers with high charge-carrier mobility. Nature Materials, 2006, 5, 328-333.	13.3	2,001
3	Materials and Applications for Large Area Electronics: Solution-Based Approaches. Chemical Reviews, 2010, 110, 3-24.	23.0	1,646
4	Non-Fullerene Electron Acceptors for Use in Organic Solar Cells. Accounts of Chemical Research, 2015, 48, 2803-2812.	7.6	1,063
5	High-efficiency and air-stable P3HT-based polymer solar cells with a new non-fullerene acceptor. Nature Communications, 2016, 7, 11585.	5.8	1,053
6	Reducing the efficiencyâ€“stabilityâ€“cost gap of organic photovoltaics with highly efficient and stable small molecule acceptor ternary solar cells. Nature Materials, 2017, 16, 363-369.	13.3	921
7	Thieno[3,2-b]thiopheneâ^'Diketopyrrolopyrrole-Containing Polymers for High-Performance Organic Field-Effect Transistors and Organic Photovoltaic Devices. Journal of the American Chemical Society, 2011, 133, 3272-3275.	6.6	854
8	Approaching disorder-free transport in high-mobility conjugated polymers. Nature, 2014, 515, 384-388.	13.7	844
9	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.	18.7	814
10	Recent Advances in the Development of Semiconducting DPPâ€Containing Polymers for Transistor Applications. Advanced Materials, 2013, 25, 1859-1880.	11.1	793
11	Indacenodithiophene Semiconducting Polymers for High-Performance, Air-Stable Transistors. Journal of the American Chemical Society, 2010, 132, 11437-11439.	6.6	529
12	Highâ€Performance Ambipolar Diketopyrrolopyrroleâ€Thieno[3,2â€b]thiophene Copolymer Fieldâ€Effect Transistors with Balanced Hole and Electron Mobilities. Advanced Materials, 2012, 24, 647-652.	11.1	521
13	Influence of blend microstructure on bulk heterojunction organic photovoltaic performance. Chemical Society Reviews, 2011, 40, 1185-1199.	18.7	511
14	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS₂ as a Replacement for PEDOT:PSS. Advanced Materials, 2019, 31, e1902965.	11.1	500
15	Recent Progress in Highâ€Mobility Organic Transistors: A Reality Check. Advanced Materials, 2018, 30, e1801079.	11.1	498
16	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.	15.6	477
17	Molecular origin of high field-effect mobility in an indacenodithiopheneâ€“benzothiadiazole copolymer. Nature Communications, 2013, 4, 2238.	5.8	456
18	A Rhodanine Flanked Nonfullerene Acceptor for Solution-Processed Organic Photovoltaics. Journal of the American Chemical Society, 2015, 137, 898-904.	6.6	446

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19	The role of chemical design in the performance of organic semiconductors. Nature Reviews Chemistry, 2020, 4, 66-77.	13.8	444
20	Molecular Packing of High-Mobility Diketo Pyrrolo-Pyrrole Polymer Semiconductors with Branched Alkyl Side Chains. Journal of the American Chemical Society, 2011, 133, 15073-15084.	6.6	381
21	Advances in Charge Carrier Mobilities of Semiconducting Polymers Used in Organic Transistors. Chemistry of Materials, 2014, 26, 647-663.	3.2	377
22	The role of the third component in ternary organic solar cells. Nature Reviews Materials, 2019, 4, 229-242.	23.3	370
23	Enhanced photocatalytic hydrogen evolution from organic semiconductor heterojunction nanoparticles. Nature Materials, 2020, 19, 559-565.	13.3	366
24	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.	3.3	364
25	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, 1314-1321.	6.6	363
26	Conjugated Polymers in Bioelectronics. Accounts of Chemical Research, 2018, 51, 1368-1376.	7.6	361
27	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.	13.3	345
28	Exploring the origin of high optical absorption in conjugated polymers. Nature Materials, 2016, 15, 746-753.	13.3	314
29	Molecular Design of Semiconducting Polymers for High-Performance Organic Electrochemical Transistors. Journal of the American Chemical Society, 2016, 138, 10252-10259.	6.6	270
30	Molecular-weight dependence of interchain polaron delocalization and exciton bandwidth in high-mobility conjugated polymers. Physical Review B, 2006, 74, .	1.1	262
31	Photocurrent Enhancement from Diketopyrrolopyrrole Polymer Solar Cells through Alkyl-Chain Branching Point Manipulation. Journal of the American Chemical Society, 2013, 135, 11537-11540.	6.6	258
32	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. Nature Materials, 2021, 20, 378-384.	13.3	257
33	The Effect of Poly(3â€hexylthiophene) Molecular Weight on Charge Transport and the Performance of Polymer:Fullerene Solar Cells. Advanced Functional Materials, 2008, 18, 2373-2380.	7.8	256
34	Design of Semiconducting Indacenodithiophene Polymers for High Performance Transistors and Solar Cells. Accounts of Chemical Research, 2012, 45, 714-722.	7.6	256
35	N-type organic electrochemical transistors with stability in water. Nature Communications, 2016, 7, 13066.	5.8	242
36	Rapid single-molecule detection of COVID-19 and MERS antigens via nanobody-functionalized organic electrochemical transistors. Nature Biomedical Engineering, 2021, 5, 666-677.	11.6	235

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37	A new thiophene substituted isoindigo based copolymer for high performance ambipolar transistors. Chemical Communications, 2012, 48, 3939.	2.2	225
38	Enhanced n-Doping Efficiency of a Naphthalenediimide-Based Copolymer through Polar Side Chains for Organic Thermoelectrics. ACS Energy Letters, 2018, 3, 278-285.	8.8	220
39	Solutionâ€Processed Small Moleculeâ€Polymer Blend Organic Thinâ€Film Transistors with Hole Mobility Greater than 5 cm²/Vs. Advanced Materials, 2012, 24, 2441-2446.	11.1	219
40	Effect of Fluorination on the Properties of a Donorâ€“Acceptor Copolymer for Use in Photovoltaic Cells and Transistors. Chemistry of Materials, 2013, 25, 277-285.	3.2	218
41	The role of exciton lifetime for charge generation in organic solar cells at negligible energy-level offsets. Nature Energy, 2020, 5, 711-719.	19.8	214
42	Avoid the kinks when measuring mobility. Science, 2016, 352, 1521-1522.	6.0	213
43	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	13.3	212
44	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	5.8	204
45	The Role of the Side Chain on the Performance of N-type Conjugated Polymers in Aqueous Electrolytes. Chemistry of Materials, 2018, 30, 2945-2953.	3.2	199
46	High performance ambient-air-stable FAPbI₃ perovskite solar cells with molecule-passivated Ruddlesdenâ€“Popper/3D heterostructured film. Energy and Environmental Science, 2018, 11, 3358-3366.	15.6	196
47	Burnâ€in Free Nonfullereneâ€Based Organic Solar Cells. Advanced Energy Materials, 2017, 7, 1700770.	10.2	191
48	Biofuel powered glucose detection in bodily fluids with an n-type conjugated polymer. Nature Materials, 2020, 19, 456-463.	13.3	187
49	Direct metabolite detection with an n-type accumulation mode organic electrochemical transistor. Science Advances, 2018, 4, eaat0911.	4.7	183
50	Side Chain Redistribution as a Strategy to Boost Organic Electrochemical Transistor Performance and Stability. Advanced Materials, 2020, 32, e2002748.	11.1	181
51	On the Energetic Dependence of Charge Separation in Low-Band-Gap Polymer/Fullerene Blends. Journal of the American Chemical Society, 2012, 134, 18189-18192.	6.6	180
52	Silaindacenodithiopheneâ€Based Low Band Gap Polymers â€“ The Effect of Fluorine Substitution on Device Performances and Film Morphologies. Advanced Functional Materials, 2012, 22, 1663-1670.	7.8	177
53	An Efficient, â€œBurn inâ€•Free Organic Solar Cell Employing a Nonfullerene Electron Acceptor. Advanced Materials, 2017, 29, 1701156.	11.1	175
54	17.1% Efficient Singleâ€Junction Organic Solar Cells Enabled by nâ€Type Doping of the Bulkâ€Heterojunction. Advanced Science, 2020, 7, 1903419.	5.6	173

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55	Electrolyte-gated transistors for enhanced performance bioelectronics. Nature Reviews Methods Primers, 2021, 1, .	11.8	172
56	The Bulk Heterojunction in Organic Photovoltaic, Photodetector, and Photocatalytic Applications. Advanced Materials, 2020, 32, e2001763.	11.1	168
57	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. Macromolecules, 2011, 44, 6649-6652.	2.2	165
58	Robust nonfullerene solar cells approaching unity external quantum efficiency enabled by suppression of geminate recombination. Nature Communications, 2018, 9, 2059.	5.8	164
59	Generation of long-lived charges in organic semiconductor heterojunction nanoparticles for efficient photocatalytic hydrogen evolution. Nature Energy, 2022, 7, 340-351.	19.8	164
60	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.	15.6	157
61	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. Joule, 2019, 3, 1328-1348.	11.7	143
62	Influence of Water on the Performance of Organic Electrochemical Transistors. Chemistry of Materials, 2019, 31, 927-937.	3.2	140
63	The Effect of Residual Palladium Catalyst Contamination on the Photocatalytic Hydrogen Evolution Activity of Conjugated Polymers. Advanced Energy Materials, 2018, 8, 1802181.	10.2	138
64	Correlating triplet yield, singlet oxygen generation and photochemical stability in polymer/fullerene blend films. Chemical Communications, 2013, 49, 1291.	2.2	136
65	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.	15.6	136
66	Fused electron deficient semiconducting polymers for air stable electron transport. Nature Communications, 2018, 9, 416.	5.8	133
67	Balancing Ionic and Electronic Conduction for Highâ€Performance Organic Electrochemical Transistors. Advanced Functional Materials, 2020, 30, 1907657.	7.8	131
68	The Influence of Polymer Purification on Photovoltaic Device Performance of a Series of Indacenodithiophene Donor Polymers. Advanced Materials, 2013, 25, 2029-2034.	11.1	129
69	Acceptor Energy Level Control of Charge Photogeneration in Organic Donor/Acceptor Blends. Journal of the American Chemical Society, 2010, 132, 12919-12926.	6.6	128
70	Materials in Organic Electrochemical Transistors for Bioelectronic Applications: Past, Present, and Future. Advanced Functional Materials, 2019, 29, 1807033.	7.8	128
71	Organic photovoltaics: Crosslinking for optimal morphology and stability. Materials Today, 2015, 18, 425-435.	8.3	127
72	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors. Chemistry of Materials, 2011, 23, 768-770.	3.2	126

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73	Exploiting Ternary Blends for Improved Photostability in High-Efficiency Organic Solar Cells. ACS Energy Letters, 2020, 5, 1371-1379.	8.8	126
74	Energetic Control of Redoxâ€Active Polymers toward Safe Organic Bioelectronic Materials. Advanced Materials, 2020, 32, e1908047.	11.1	124
75	n-Type organic semiconducting polymers: stability limitations, design considerations and applications. Journal of Materials Chemistry C, 2021, 9, 8099-8128.	2.7	123
76	Morphological Stability and Performance of Polymerâ€“Fullerene Solar Cells under Thermal Stress: The Impact of Photoinduced PC₆₀BM Oligomerization. ACS Nano, 2014, 8, 1297-1308.	7.3	122
77	The Influence of Film Morphology in Highâ€Mobility Smallâ€Molecule:Polymer Blend Organic Transistors. Advanced Functional Materials, 2010, 20, 2330-2337.	7.8	120
78	A Thieno[3,2â€b][1]benzothiophene Isoindigo Building Block for Additiveâ€•and Annealingâ€Free Highâ€Performance Polymer Solar Cells. Advanced Materials, 2015, 27, 4702-4707.	11.1	120
79	The Physics of Small Molecule Acceptors for Efficient and Stable Bulk Heterojunction Solar Cells. Advanced Energy Materials, 2018, 8, 1703298.	10.2	120
80	Tracking Charge Transfer to Residual Metal Clusters in Conjugated Polymers for Photocatalytic Hydrogen Evolution. Journal of the American Chemical Society, 2020, 142, 14574-14587.	6.6	118
81	A Novel Alkylated Indacenodithieno[3,2â€b]thiopheneâ€Based Polymer for Highâ€Performance Fieldâ€Effect Transistors. Advanced Materials, 2016, 28, 3922-3927.	11.1	117
82	Role of the Anion on the Transport and Structure of Organic Mixed Conductors. Advanced Functional Materials, 2019, 29, 1807034.	7.8	116
83	Singlet Exciton Lifetimes in Conjugated Polymer Films for Organic Solar Cells. Polymers, 2016, 8, 14.	2.0	111
84	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.	6.6	101
85	Hybrid Alkylâ€“Ethylene Glycol Side Chains Enhance Substrate Adhesion and Operational Stability in Accumulation Mode Organic Electrochemical Transistors. Chemistry of Materials, 2019, 31, 9797-9806.	3.2	97
86	Effect of Fluorination of 2,1,3-Benzothiadiazole. Journal of Organic Chemistry, 2015, 80, 5045-5048.	1.7	96
87	A simple and robust approach to reducing contact resistance in organic transistors. Nature Communications, 2018, 9, 5130.	5.8	96
88	Progress in Poly (3â€Hexylthiophene) Organic Solar Cells and the Influence of Its Molecular Weight on Device Performance. Advanced Energy Materials, 2018, 8, 1801001.	10.2	95
89	Twist and Degradeâ€”Impact of Molecular Structure on the Photostability of Nonfullerene Acceptors and Their Photovoltaic Blends. Advanced Energy Materials, 2019, 9, 1803755.	10.2	95
90	Understanding the Influence of Morphology on Poly(3-hexylselenothiophene):PCBM Solar Cells. Macromolecules, 2010, 43, 1169-1174.	2.2	92

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91	High-mobility, trap-free charge transport in conjugated polymer diodes. Nature Communications, 2019, 10, 2122.	5.8	92
92	Ethylene Glycol-Based Side Chain Length Engineering in Polythiophenes and its Impact on Organic Electrochemical Transistor Performance. Chemistry of Materials, 2020, 32, 6618-6628.	3.2	92
93	Photocatalysts Based on Organic Semiconductors with Tunable Energy Levels for Solar Fuel Applications. Advanced Energy Materials, 2020, 10, 2001935.	10.2	92
94	Overcoming efficiency and stability limits in water-processing nanoparticular organic photovoltaics by minimizing microstructure defects. Nature Communications, 2018, 9, 5335.	5.8	91
95	Visible and Nearâ€Infrared Imaging with Nonfullereneâ€Based Photodetectors. Advanced Materials Technologies, 2018, 3, 1800104.	3.0	90
96	Highly Efficient and Reproducible Nonfullerene Solar Cells from Hydrocarbon Solvents. ACS Energy Letters, 2017, 2, 1494-1500.	8.8	89
97	Enhancing Fullereneâ€Based Solar Cell Lifetimes by Addition of a Fullerene Dumbbell. Angewandte Chemie - International Edition, 2014, 53, 12870-12875.	7.2	86
98	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.	7.8	84
99	Polaron Delocalization in Donorâ€“Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. Angewandte Chemie - International Edition, 2021, 60, 7777-7785.	7.2	84
100	nâ€Type Rigid Semiconducting Polymers Bearing Oligo(Ethylene Glycol) Side Chains for Highâ€Performance Organic Electrochemical Transistors. Angewandte Chemie - International Edition, 2021, 60, 9368-9373.	7.2	84
101	Water stable molecular n-doping produces organic electrochemical transistors with high transconductance and record stability. Nature Communications, 2020, 11, 3004.	5.8	82
102	Dithiopheneindenofluorene (TIF) Semiconducting Polymers with Very High Mobility in Fieldâ€Effect Transistors. Advanced Materials, 2017, 29, 1702523.	11.1	81
103	Subthreshold Operation of Organic Electrochemical Transistors for Biosignal Amplification. Advanced Science, 2018, 5, 1800453.	5.6	81
104	Membraneâ€Free Detection of Metal Cations with an Organic Electrochemical Transistor. Advanced Functional Materials, 2019, 29, 1904403.	7.8	80
105	Thieno[3,2â€b]thiopheneâ€diketopyrrolopyrrole Containing Polymers for Inverted Solar Cells Devices with High Short Circuit Currents. Advanced Functional Materials, 2013, 23, 5647-5654.	7.8	78
106	Redoxâ€Stability of Alkoxyâ€BDT Copolymers and their Use for Organic Bioelectronic Devices. Advanced Functional Materials, 2018, 28, 1706325.	7.8	77
107	Polymer:Nonfullerene Bulk Heterojunction Solar Cells with Exceptionally Low Recombination Rates. Advanced Energy Materials, 2017, 7, 1701561.	10.2	76
108	Influence of Side Chains on the n-Type Organic Electrochemical Transistor Performance. ACS Applied Materials & Interfaces, 2021, 13, 4253-4266.	4.0	76

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109	Polaron pair mediated triplet generation in polymer/fullerene blends. Nature Communications, 2015, 6, 6501.	5.8	74
110	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
111	Regiochemistry-Driven Organic Electrochemical Transistor Performance Enhancement in Ethylene Glycol-Functionalized Polythiophenes. Journal of the American Chemical Society, 2021, 143, 11007-11018.	6.6	74
112	The phase behavior of a polymerâ€fullerene bulk heterojunction system that contains bimolecular crystals. Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 499-503.	2.4	71
113	Material Crystallinity as a Determinant of Triplet Dynamics and Oxygen Quenching in Donor Polymers for Organic Photovoltaic Devices. Advanced Functional Materials, 2014, 24, 1474-1482.	7.8	71
114	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.	8.8	71
115	Mixed Conduction in an Nâ€Type Organic Semiconductor in the Absence of Hydrophilic Sideâ€Chains. Advanced Functional Materials, 2021, 31, 2010165.	7.8	71
116	Performance Improvements in Conjugated Polymer Devices by Removal of Waterâ€Induced Traps. Advanced Materials, 2018, 30, e1801874.	11.1	69
117	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.	6.6	68
118	The Effect of Alkyl Spacers on the Mixed Ionicâ€Electronic Conduction Properties of Nâ€Type Polymers. Advanced Functional Materials, 2021, 31, 2008718.	7.8	67
119	Azaisoindigo conjugated polymers for high performance n-type and ambipolar thin film transistor applications. Journal of Materials Chemistry C, 2016, 4, 9704-9710.	2.7	65
120	Challenges to the Success of Commercial Organic Photovoltaic Products. Advanced Energy Materials, 2021, 11, 2100056.	10.2	65
121	Carrier Transport and Recombination in Efficient â€œAllâ€Smallâ€Moleculeâ€•Solar Cells with the Nonfullerene Acceptor IDTBR. Advanced Energy Materials, 2018, 8, 1800264.	10.2	63
122	Synthetic Nuances to Maximize n-Type Organic Electrochemical Transistor and Thermoelectric Performance in Fused Lactam Polymers. Journal of the American Chemical Society, 2022, 144, 4642-4656.	6.6	63
123	Dual Function Additives: A Small Molecule Crosslinker for Enhanced Efficiency and Stability in Organic Solar Cells. Advanced Energy Materials, 2015, 5, 1401426.	10.2	61
124	Short contacts between chains enhancing luminescence quantum yields and carrier mobilities in conjugated copolymers. Nature Communications, 2019, 10, 2614.	5.8	60
125	Microfluidic Integrated Organic Electrochemical Transistor with a Nanoporous Membrane for Amyloid-Î² Detection. ACS Nano, 2021, 15, 8130-8141.	7.3	59
126	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.	6.6	59

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127	Semiconducting Polymers for Neural Applications. Chemical Reviews, 2022, 122, 4356-4396.	23.0	59
128	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.	2.2	58
129	Efficient Charge Photogeneration by the Dissociation of PC70BM Excitons in Polymer/Fullerene Solar Cells. Journal of Physical Chemistry Letters, 2012, 3, 140-144.	2.1	56
130	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.	10.2	54
131	Germaindacenodithiophene based low band gap polymers for organic solar cells. Chemical Communications, 2012, 48, 2955.	2.2	53
132	Why are Sâ€“F and Sâ€“O non-covalent interactions stabilising?. Journal of Materials Chemistry C, 2018, 6, 12413-12421.	2.7	52
133	Residual Pd Enables Photocatalytic H₂ Evolution from Conjugated Polymers. ACS Energy Letters, 2018, 3, 2846-2850.	8.8	52
134	On the Role of Contact Resistance and Electrode Modification in Organic Electrochemical Transistors. Advanced Materials, 2019, 31, e1902291.	11.1	52
135	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.	2.5	51
136	Pyrroloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. Journal of Materials Chemistry, 2011, 21, 18744.	6.7	50
137	Pulse Oximetry Using Organic Optoelectronics under Ambient Light. Advanced Materials Technologies, 2020, 5, 1901122.	3.0	50
138	Stretchable Redoxâ€Active Semiconducting Polymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2201178.	11.1	50
139	A Systematic Approach to the Design Optimization of Lightâ€Absorbing Indenofluorene Polymers for Organic Photovoltaics. Advanced Energy Materials, 2012, 2, 260-265.	10.2	48
140	Efficient truxenone-based acceptors for organic photovoltaics. Journal of Materials Chemistry A, 2013, 1, 73-76.	5.2	48
141	Universal Spray-Deposition Process for Scalable, High-Performance, and Stable Organic Electrochemical Transistors. ACS Applied Materials & Interfaces, 2020, 12, 20757-20764.	4.0	48
142	Energetic Disorder and Activation Energy in Efficient Ternary Organic Solar Cells with Nonfullerene Acceptor Ehâ€IDTBR as the Third Component. Solar Rrl, 2020, 4, 1900403.	3.1	47
143	The Chemistry and Applications of Heteroisoindigo Units as Enabling Links for Semiconducting Materials. Accounts of Chemical Research, 2020, 53, 2855-2868.	7.6	46
144	Highâ€Gain Chemically Gated Organic Electrochemical Transistor. Advanced Functional Materials, 2021, 31, 2010868.	7.8	46

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145	Impact of Nonfullerene Acceptor Side Chain Variation on Transistor Mobility. Advanced Electronic Materials, 2019, 5, 1900344.	2.6	45
146	The Effect of Ring Expansion in Thienobenzo[b]indacenodithiophene Polymers for Organic Field-Effect Transistors. Journal of the American Chemical Society, 2019, 141, 18806-18813.	6.6	45
147	Reversible Electronic Solidâ€“Gel Switching of a Conjugated Polymer. Advanced Science, 2020, 7, 1901144.	5.6	45
148	Green Synthesis of Lactoneâ€Based Conjugated Polymers for nâ€Type Organic Electrochemical Transistors. Advanced Functional Materials, 2022, 32, .	7.8	45
149	Towards optimisation of photocurrent from fullerene excitons in organic solar cells. Energy and Environmental Science, 2014, 7, 1037.	15.6	42
150	Monitoring supported lipid bilayers with n-type organic electrochemical transistors. Materials Horizons, 2020, 7, 2348-2358.	6.4	42
151	End Group Tuning in Acceptorâ€“Donorâ€“Acceptor Nonfullerene Small Molecules for High Fill Factor Organic Solar Cells. Advanced Functional Materials, 2019, 29, 1808429.	7.8	41
152	A universal solution processed interfacial bilayer enabling ohmic contact in organic and hybrid optoelectronic devices. Energy and Environmental Science, 2020, 13, 268-276.	15.6	40
153	Nonfullerene-Based Organic Photodetectors for Ultrahigh Sensitivity Visible Light Detection. ACS Applied Materials & Interfaces, 2020, 12, 48836-48844.	4.0	40
154	Exciton and Charge Carrier Dynamics in Highly Crystalline PTQ10:IDIC Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2001149.	10.2	40
155	Infrared Organic Photodetectors Employing Ultralow Bandgap Polymer and Nonâ€Fullerene Acceptors for Biometric Monitoring. Small, 2022, 18, e2200580.	5.2	39
156	Anisotropy of Charge Transport in a Uniaxially Aligned Fused Electronâ€Deficient Polymer Processed by Solution Shear Coating. Advanced Materials, 2020, 32, e2000063.	11.1	38
157	Chemical Design Rules for Nonâ€Fullerene Acceptors in Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2102363.	10.2	38
158	Improving the Compatibility of Diketopyrrolopyrrole Semiconducting Polymers for Biological Interfacing by Lysine Attachment. Chemistry of Materials, 2018, 30, 6164-6172.	3.2	37
159	Non-fullerene-based organic photodetectors for infrared communication. Journal of Materials Chemistry C, 2021, 9, 2375-2380.	2.7	37
160	Controlling Electrochemically Induced Volume Changes in Conjugated Polymers by Chemical Design: from Theory to Devices. Advanced Functional Materials, 2021, 31, 2100723.	7.8	35
161	Non-fullerene acceptor photostability and its impact on organic solar cell lifetime. Cell Reports Physical Science, 2021, 2, 100498.	2.8	35
162	Ion Pair Uptake in Ion Gel Devices Based on Organic Mixed Ionicâ€Electronic Conductors. Advanced Functional Materials, 2021, 31, 2104301.	7.8	35

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163	Oligoethylene Glycol Side Chains Increase Charge Generation in Organic Semiconductor Nanoparticles for Enhanced Photocatalytic Hydrogen Evolution. Advanced Materials, 2022, 34, e2105007.	11.1	33
164	Electron-deficient truxenone derivatives and their use in organic photovoltaics. Journal of Materials Chemistry A, 2014, 2, 12348-12354.	5.2	32
165	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.	1.2	32
166	Facilely Accessible Porous Conjugated Polymers toward High-Performance and Flexible Organic Electrochemical Transistors. Chemistry of Materials, 2022, 34, 1666-1676.	3.2	30
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