Iain McCulloch

List of Publications by Year
in descending order

506 papers	54,162 citations	1070 116 h-index	1964 213 g-index
519 all docs	519 docs citations	519 times ranked	28459 citing authors

#	Article	IF	Citations
1	Highâ€Efficiency Ionâ€Exchange Doping of Conducting Polymers. Advanced Materials, 2022, 34, e2102988.	11.1	67
2	Co-delivery of NIR-II semiconducting polymer and pH-sensitive doxorubicin-conjugated prodrug for photothermal/chemotherapy. Acta Biomaterialia, 2022, 137, 238-251.	4.1	18
3	Oligoethylene Glycol Side Chains Increase Charge Generation in Organic Semiconductor Nanoparticles for Enhanced Photocatalytic Hydrogen Evolution. Advanced Materials, 2022, 34, e2105007.	11.1	33
4	Lactone Backbone Density in Rigid Electronâ€Deficient Semiconducting Polymers Enabling High nâ€type Organic Thermoelectric Performance. Angewandte Chemie, 2022, 134, .	1.6	8
5	Lactone Backbone Density in Rigid Electronâ€Deficient Semiconducting Polymers Enabling High nâ€type Organic Thermoelectric Performance. Angewandte Chemie - International Edition, 2022, 61, .	7.2	26
6	Highâ€Currentâ€Density Organic Electrochemical Diodes Enabled by Asymmetric Active Layer Design. Advanced Materials, 2022, 34, e2107355.	11.1	8
7	Propylene and butylene glycol: new alternatives to ethylene glycol in conjugated polymers for bioelectronic applications. Materials Horizons, 2022, 9, 973-980.	6.4	23
8	Green Synthesis of Lactoneâ€Based Conjugated Polymers for nâ€Type Organic Electrochemical Transistors. Advanced Functional Materials, 2022, 32, .	7.8	45
9	Semiconducting Polymers for Neural Applications. Chemical Reviews, 2022, 122, 4356-4396.	23.0	59
10	An Electroactive Filter with Tunable Porosity Based on Glycolated Polythiophene. Small Science, 2022, 2, .	5.8	3
11	Facilely Accessible Porous Conjugated Polymers toward High-Performance and Flexible Organic Electrochemical Transistors. Chemistry of Materials, 2022, 34, 1666-1676.	3.2	30
12	Structural and Dynamic Disorder, Not Ionic Trapping, Controls Charge Transport in Highly Doped Conducting Polymers. Journal of the American Chemical Society, 2022, 144, 3005-3019.	6.6	45
13	Introduction: Organic Bioelectronics. Chemical Reviews, 2022, 122, 4323-4324.	23.0	13
14	Allâ€Solidâ€State Vertical Threeâ€Terminal Nâ€Type Organic Synaptic Devices for Neuromorphic Computing. Advanced Functional Materials, 2022, 32, .	7.8	28
15	Infrared Organic Photodetectors Employing Ultralow Bandgap Polymer and Nonâ€Fullerene Acceptors for Biometric Monitoring. Small, 2022, 18, e2200580.	5.2	39
16	Generation of long-lived charges in organic semiconductor heterojunction nanoparticles for efficient photocatalytic hydrogen evolution. Nature Energy, 2022, 7, 340-351.	19.8	164
17	Efficient n-Type Small-Molecule Mixed Ion-Electron Conductors and Application in Hydrogen Peroxide Sensors. ACS Applied Materials & Interfaces, 2022, 14, 16477-16486.	4.0	22
18	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

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19	Sources and Mechanism of Degradation in p-Type Thiophene-Based Organic Electrochemical Transistors. ACS Applied Electronic Materials, 2022, 4, 1391-1404.	2.0	11
20	Stretchable Redoxâ€Active Semiconducting Polymers for Highâ€Performance Organic Electrochemical Transistors. Advanced Materials, 2022, 34, e2201178.	11.1	50
21	Donor Functionalization Tuning the Nâ€Type Performance of Donorâ€“Acceptor Copolymers for Aqueousâ€Based Electrochemical Devices. Advanced Functional Materials, 2022, 32, .	7.8	25
22	Highly Efficient Mixed Conduction in Nâ€type Fused Small Molecule Semiconductors. Advanced Functional Materials, 2022, 32, .	7.8	27
23	Tuning Organic Electrochemical Transistor Threshold Voltage using Chemically Doped Polymer Gates. Advanced Materials, 2022, 34, .	11.1	14
24	Operation Mechanism of nâ€Type Organic Electronic Metabolite Sensors. Advanced Electronic Materials, 2022, 8, .	2.6	12
25	Efficient Electronic Tunneling Governs Transport in Conducting Polymer-Insulator Blends. Journal of the American Chemical Society, 2022, 144, 10368-10376.	6.6	26
26	Convection Driven Ultrarapid Protein Detection via Nanobodyâ€Functionalized Organic Electrochemical Transistors. Advanced Materials, 2022, 34, .	11.1	36
27	Single Atom Selenium Substitutionâ€Mediated Pâ€Type Doping in Polythiophenes toward Highâ€Performance Organic Electronics and Thermoelectrics. Advanced Electronic Materials, 2022, 8, .	2.6	4
28	Conjugated Polymers for Microwave Applications: Untethered Sensing Platforms and Multifunctional Devices. Advanced Materials, 2022, 34, .	11.1	11
29	Waterâ€Insensitive Electron Transport and Photoactive Layers for Improved Underwater Stability of Organic Photovoltaics. Advanced Functional Materials, 2022, 32, .	7.8	8
30	Highly Deformed o â€Carborane Functionalised Nonâ€linear Polycyclic Aromatics with Exceptionally Long Câ”C Bonds. Chemistry - A European Journal, 2021, 27, 1970-1975.	1.7	8
31	Scaling-up perovskite solar cells on hydrophobic surfaces. Nano Energy, 2021, 81, 105633.	8.2	46
32	Linking Glassâ€Transition Behavior to Photophysical and Charge Transport Properties of Highâ€Mobility Conjugated Polymers. Advanced Functional Materials, 2021, 31, 2007359.	7.8	26
33	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
34	Polaron Delocalization in Donorâ€“Acceptor Polymers and its Impact on Organic Electrochemical Transistor Performance. Angewandte Chemie, 2021, 133, 7856-7864.	1.6	16
35	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
36	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. Nature Materials, 2021, 20, 378-384.	13.3	257

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37	N-Doping improves charge transport and morphology in the organic non-fullerene acceptor O-IDTBR. Journal of Materials Chemistry C, 2021, 9, 4486-4495.	2.7	17
38	Non-fullerene-based organic photodetectors for infrared communication. Journal of Materials Chemistry C, 2021, 9, 2375-2380.	2.7	37
39	Coupling molecular rigidity and flexibility on fused backbones for NIR-II photothermal conversion. Chemical Science, 2021, 12, 5177-5184.	3.7	32
40	Operation mechanism of organic electrochemical transistors as redox chemical transducers. Journal of Materials Chemistry C, 2021, 9, 12148-12158.	2.7	17
41	A molecular interactionâ€“diffusion framework for predicting organic solar cell stability. Nature Materials, 2021, 20, 525-532.	13.3	212
42	Influence of Side Chains on the n-Type Organic Electrochemical Transistor Performance. ACS Applied Materials & Interfaces, 2021, 13, 4253-4266.	4.0	76
43	Microfluidics integrated n-type organic electrochemical transistor for metabolite sensing. Sensors and Actuators B: Chemical, 2021, 329, 129251.	4.0	35
44	n â€Type Rigid Semiconducting Polymers Bearing Oligo(Ethylene Glycol) Side Chains for Highâ€Performance Organic Electrochemical Transistors. Angewandte Chemie, 2021, 133, 9454-9459.	1.6	17
45	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
46	Highâ€Gain Chemically Gated Organic Electrochemical Transistor. Advanced Functional Materials, 2021, 31, 2010868.	7.8	46
47	Microfluidic Integrated Organic Electrochemical Transistor with a Nanoporous Membrane for Amyloid-Î² Detection. ACS Nano, 2021, 15, 8130-8141.	7.3	59
48	Challenges to the Success of Commercial Organic Photovoltaic Products. Advanced Energy Materials, 2021, 11, 2100056.	10.2	65
49	Adjusting the energy of interfacial states in organic photovoltaics for maximum efficiency. Nature Communications, 2021, 12, 1772.	5.8	27
50	Mixed Conduction in an Nâ€Type Organic Semiconductor in the Absence of Hydrophilic Sideâ€Chains. Advanced Functional Materials, 2021, 31, 2010165.	7.8	71
51	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
52	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, .	4.7	28
53	Controlling Electrochemically Induced Volume Changes in Conjugated Polymers by Chemical Design: from Theory to Devices. Advanced Functional Materials, 2021, 31, 2100723.	7.8	35
54	Influence of alkyne spacers on the performance of thiophene-based donors in bulk-heterojunction organic photovoltaic cells. Dyes and Pigments, 2021, 188, 109152.	2.0	9

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55	Suppressing bias stress degradation in high performance solution processed organic transistors operating in air. Nature Communications, 2021, 12, 2352.	5.8	48
56	Inkjet Printed Circuits with 2D Semiconductor Inks for Highâ€Performance Electronics. Advanced Electronic Materials, 2021, 7, 2100112.	2.6	46
57	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
58	Impact of Acceptor Quadrupole Moment on Charge Generation and Recombination in Blends of IDTâ€Based Nonâ€Fullerene Acceptors with PCE10 as Donor Polymer. Advanced Energy Materials, 2021, 11, 2100839.	10.2	23
59	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
60	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. Joule, 2021, 5, 1566-1586.	11.7	119
61	Elucidating the Role of Waterâ€Related Traps in the Operation of Polymer Fieldâ€Effect Transistors. Advanced Electronic Materials, 2021, 7, 2100393.	2.6	13
62	Ternary organic photodetectors based on pseudo-binaries nonfullerene-based acceptors. JPhys Materials, 2021, 4, 045001.	1.8	9
63	Non-fullerene acceptor photostability and its impact on organic solar cell lifetime. Cell Reports Physical Science, 2021, 2, 100498.	2.8	35
64	Ion Pair Uptake in Ion Gel Devices Based on Organic Mixed Ionicâ€“Electronic Conductors. Advanced Functional Materials, 2021, 31, 2104301.	7.8	35
65	Ambipolar inverters based on cofacial vertical organic electrochemical transistor pairs for biosignal amplification. Science Advances, 2021, 7, eabh1055.	4.7	46
66	Design of experiment optimization of aligned polymer thermoelectrics doped by ion-exchange. Applied Physics Letters, 2021, 119, .	1.5	10
67	A molecular design approach towards elastic and multifunctional polymer electronics. Nature Communications, 2021, 12, 5701.	5.8	75
68	Low-Defect, High Molecular Weight Indacenodithiophene (IDT) Polymers Via a Câ€“H Activation: Evaluation of a Simpler and Greener Approach to Organic Electronic Materials. , 2021, 3, 1503-1512.		19
69	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
70	n-Type organic semiconducting polymers: stability limitations, design considerations and applications. Journal of Materials Chemistry C, 2021, 9, 8099-8128.	2.7	123
71	Electrolyte-gated transistors for enhanced performance bioelectronics. Nature Reviews Methods Primers, 2021, 1, .	11.8	172
72	Chemical Design Rules for Nonâ€Fullerene Acceptors in Organic Solar Cells. Advanced Energy Materials, 2021, 11, 2102363.	10.2	38

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73	Unraveling the Unconventional Order of a High-Mobility Indacenodithiopheneâ€“Benzothiadiazole Copolymer. ACS Macro Letters, 2021, 10, 1306-1314.	2.3	20
74	Printed Memtransistor Utilizing a Hybrid Perovskite/Organic Heterojunction Channel. ACS Applied Materials & Interfaces, 2021, 13, 51592-51601.	4.0	9
75	Aldol Polymerization to Construct Half-Fused Semiconducting Polymers. Macromolecules, 2021, 54, 10312-10320.	2.2	15
76	Chemical Design Rules for Nonâ€Fullerene Acceptors in Organic Solar Cells (Adv. Energy Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 6	10.2	2
77	Organic neuromorphic electronics for sensorimotor integration and learning in robotics. Science Advances, 2021, 7, eabl5068.	4.7	54
78	Reversible Electronic Solidâ€“Gel Switching of a Conjugated Polymer. Advanced Science, 2020, 7, 1901144.	5.6	45
79	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
80	Afterglow Effects as a Tool to Screen Emissive Nongeminate Charge Recombination Processes in Organic Photovoltaic Composites. ACS Applied Materials & Interfaces, 2020, 12, 2695-2707.	4.0	5
81	The role of chemical design in the performance of organic semiconductors. Nature Reviews Chemistry, 2020, 4, 66-77.	13.8	444
82	Biofuel powered glucose detection in bodily fluids with an n-type conjugated polymer. Nature Materials, 2020, 19, 456-463.	13.3	187
83	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
84	Low-Temperature Cross-Linking Benzocyclobutene Based Polymer Dielectric for Organic Thin Film Transistors on Plastic Substrates. Journal of Organic Chemistry, 2020, 85, 277-283.	1.7	17
85	Phototuning Selectively Hole and Electron Transport in Optically Switchable Ambipolar Transistors. Advanced Functional Materials, 2020, 30, 1908944.	7.8	27
86	Energetic Disorder and Activation Energy in Efficient Ternary Organic Solar Cells with Nonfullerene Acceptor Ehâ€DTBR as the Third Component. Solar Rrl, 2020, 4, 1900403.	3.1	47
87	Slow charge transfer from pentacene triplet states at the Marcus optimum. Nature Chemistry, 2020, 12, 63-70.	6.6	36
88	Nonfullerene-Based Organic Photodetectors for Ultrahigh Sensitivity Visible Light Detection. ACS Applied Materials & Interfaces, 2020, 12, 48836-48844.	4.0	40
89	Organic Solar Cells: Exciton and Charge Carrier Dynamics in Highly Crystalline PTQ10:IDIC Organic Solar Cells (Adv. Energy Mater. 38/2020). Advanced Energy Materials, 2020, 10, 2070158.	10.2	2
90	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	5.8	204

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91	Exciton and Charge Carrier Dynamics in Highly Crystalline PTQ10:IDIC Organic Solar Cells. Advanced Energy Materials, 2020, 10, 2001149.	10.2	40
92	Effects of Fluorination on Fused Ring Electron Acceptor for Active Layer Morphology, Exciton Dissociation, and Charge Recombination in Organic Solar Cells. ACS Applied Materials & Interfaces, 2020, 12, 56231-56239.	4.0	15
93	Resolving Different Physical Origins toward Crystallite Imperfection in Semiconducting Polymers: Crystallite Size vs Paracrystallinity. Journal of Physical Chemistry B, 2020, 124, 10529-10538.	1.2	12
94	The Chemistry and Applications of Heteroisoindigo Units as Enabling Links for Semiconducting Materials. Accounts of Chemical Research, 2020, 53, 2855-2868.	7.6	46
95	Side Chain Redistribution as a Strategy to Boost Organic Electrochemical Transistor Performance and Stability. Advanced Materials, 2020, 32, e2002748.	11.1	181
96	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.	2.7	28
97	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
98	Hidden Perils of Lead in the Lab: Guidelines for Containing, Monitoring, and Decontaminating Lead in the Context of Perovskite Research. Chemistry of Materials, 2020, 32, 7141-7149.	3.2	3
99	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
100	The Bulk Heterojunction in Organic Photovoltaic, Photodetector, and Photocatalytic Applications. Advanced Materials, 2020, 32, e2001763.	11.1	168
101	Thermally Induced Formation of HF₄TCNQ^{â€“} in F₄TCNQ-Doped Regioregular P3HT. Journal of Physical Chemistry Letters, 2020, 11, 6586-6592.	2.1	13
102	Low-Voltage, Dual-Gate Organic Transistors with High Sensitivity and Stability toward Electrostatic Biosensing. ACS Applied Materials & Interfaces, 2020, 12, 40581-40589.	4.0	26
103	Ion Coordination and Chelation in a Glycolated Polymer Semiconductor: Molecular Dynamics and X-ray Fluorescence Study. Chemistry of Materials, 2020, 32, 7301-7308.	3.2	21
104	High-Performance Perovskite Single-Junction and Textured Perovskite/Silicon Tandem Solar Cells via Slot-Die-Coating. ACS Energy Letters, 2020, 5, 3034-3040.	8.8	134
105	Photocatalysts Based on Organic Semiconductors with Tunable Energy Levels for Solar Fuel Applications. Advanced Energy Materials, 2020, 10, 2001935.	10.2	92
106	A Multilayered Electron Extracting System for Efficient Perovskite Solar Cells. Advanced Functional Materials, 2020, 30, 2004273.	7.8	17
107	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.	3.2	21
108	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

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109	High-density polyethyleneâ€”an inert additive with stabilizing effects on organic field-effect transistors. Journal of Materials Chemistry C, 2020, 8, 15406-15415.	2.7	15
110	Self-Assembled Monolayer Enables Hole Transport Layer-Free Organic Solar Cells with 18% Efficiency and Improved Operational Stability. ACS Energy Letters, 2020, 5, 2935-2944.	8.8	425
111	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
112	Metal-free polymerization: synthesis and properties of fused benzo[1,2-b:4,5-bâ€²]bis[b]benzothiophene (BBBT) polymers. Polymer Chemistry, 2020, 11, 3695-3700.	1.9	6
113	Side-chain tuning in conjugated polymer photocatalysts for improved hydrogen production from water. Energy and Environmental Science, 2020, 13, 1843-1855.	15.6	92
114	Engineering Optically Switchable Transistors with Improved Performance by Controlling Interactions of Diarylethenes in Polymer Matrices. Journal of the American Chemical Society, 2020, 142, 11050-11059.	6.6	37
115	Water stable molecular n-doping produces organic electrochemical transistors with high transconductance and record stability. Nature Communications, 2020, 11, 3004.	5.8	82
116	Largeâ€Area Uniform Polymer Transistor Arrays on Flexible Substrates: Towards Highâ€Throughput Sensor Fabrication. Advanced Materials Technologies, 2020, 5, 2000390.	3.0	19
117	Correlating the Structural and Photophysical Properties of Ortho, Meta, and Paraâ€Carboranylâ€“Anthracene Dyads. Advanced Electronic Materials, 2020, 6, 2000312.	2.6	13
118	Monitoring supported lipid bilayers with n-type organic electrochemical transistors. Materials Horizons, 2020, 7, 2348-2358.	6.4	42
119	Exploiting Ternary Blends for Improved Photostability in High-Efficiency Organic Solar Cells. ACS Energy Letters, 2020, 5, 1371-1379.	8.8	126
120	Pulse Oximetry Using Organic Optoelectronics under Ambient Light. Advanced Materials Technologies, 2020, 5, 1901122.	3.0	50
121	Temperature-resilient solid-state organic artificial synapses for neuromorphic computing. Science Advances, 2020, 6, .	4.7	131
122	Organic thin-film transistors with flame-annealed contacts. Flexible and Printed Electronics, 2020, 5, 014015.	1.5	5
123	Energetic Control of Redoxâ€Active Polymers toward Safe Organic Bioelectronic Materials. Advanced Materials, 2020, 32, e1908047.	11.1	124
124	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
125	Conjugated Polymers: Reversible Electronic Solidâ€“Gel Switching of a Conjugated Polymer (Adv. Sci.) Tj ETQq1 1 0.784314 rgBT /Ov	5.6	1
126	Balancing Ionic and Electronic Conduction for Highâ€Performance Organic Electrochemical Transistors. Advanced Functional Materials, 2020, 30, 1907657.	7.8	131

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127	Influence of Polymer Aggregation and Liquid Immiscibility on Morphology Tuning by Varying Composition in PffBT4Tâ€2DT/Nonfullerene Organic Solar Cells. Advanced Energy Materials, 2020, 10, 1903248.	10.2	23
128	Universal Spray-Deposition Process for Scalable, High-Performance, and Stable Organic Electrochemical Transistors. ACS Applied Materials & Interfaces, 2020, 12, 20757-20764.	4.0	48
129	Enhanced photocatalytic hydrogen evolution from organic semiconductor heterojunction nanoparticles. Nature Materials, 2020, 19, 559-565.	13.3	366
130	Influence of Polymer Aggregation and Liquid Immiscibility on Morphology Tuning by Varying Composition in PffBT4T-2DT/Non-Fullerene Organic Solar Cells. Advanced Energy Materials, 2020, 10, .	10.2	0
131	Fused Pyrazineâ€and Carbazoleâ€Containing Azaacenes: Synthesis and Properties. ChemPlusChem, 2019, 84, 1257-1262.	1.3	5
132	Impact of Nonfullerene Acceptor Side Chain Variation on Transistor Mobility. Advanced Electronic Materials, 2019, 5, 1900344.	2.6	45
133	On the Role of Contact Resistance and Electrode Modification in Organic Electrochemical Transistors. Advanced Materials, 2019, 31, e1902291.	11.1	52
134	Heavy-Metal-Free Flexible Hybrid Polymer-Nanocrystal Photodetectors Sensitive to 1.5 Î¼m Wavelength. ACS Applied Materials & Interfaces, 2019, 11, 42571-42579.	4.0	12
135	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
136	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS₂ as a Replacement for PEDOT:PSS. Advanced Materials, 2019, 31, e1902965.	11.1	500
137	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
138	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
139	Carrier Extraction from Perovskite to Polymeric Charge Transport Layers Probed by Ultrafast Transient Absorption Spectroscopy. Journal of Physical Chemistry Letters, 2019, 10, 6921-6928.	2.1	19
140	An Intrinsically Stretchable Highâ€Performance Polymer Semiconductor with Low Crystallinity. Advanced Functional Materials, 2019, 29, 1905340.	7.8	120
141	Use of the Phenâ€NaDPO:Sn(SCN)₂ Blend as Electron Transport Layer Results to Consistent Efficiency Improvements in Organic and Hybrid Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1905810.	7.8	41
142	Membraneâ€Free Detection of Metal Cations with an Organic Electrochemical Transistor. Advanced Functional Materials, 2019, 29, 1904403.	7.8	80
143	Nanoscale Ion-Doped Polymer Transistors. Nano Letters, 2019, 19, 1712-1718.	4.5	25
144	Solvent Engineering for Highâ€Performance nâ€Type Organic Electrochemical Transistors. Advanced Electronic Materials, 2019, 5, 1900249.	2.6	59

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145	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
146	Polaron spin dynamics in high-mobility polymeric semiconductors. Nature Physics, 2019, 15, 814-822.	6.5	40
147	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
148	Short contacts between chains enhancing luminescence quantum yields and carrier mobilities in conjugated copolymers. Nature Communications, 2019, 10, 2614.	5.8	60
149	High-mobility, trap-free charge transport in conjugated polymer diodes. Nature Communications, 2019, 10, 2122.	5.8	92
150	Charge carrier transport and nanomorphology control for efficient non-fullerene organic solar cells. Materials Today Energy, 2019, 12, 398-407.	2.5	23
151	Delineation of Thermodynamic and Kinetic Factors that Control Stability in Non-fullerene Organic Solar Cells. Joule, 2019, 3, 1328-1348.	11.7	143
152	P3HT Molecular Weight Determines the Performance of P3HT:Oâ€IDTBR Solar Cells. Solar Rrl, 2019, 3, 1900023.	3.1	27
153	Highly selective chromoionophores for ratiometric Na+ sensing based on an oligoethyleneglycol bridged bithiophene detection unit. Journal of Materials Chemistry C, 2019, 7, 5359-5365.	2.7	13
154	New synthetic methodology paves the way to prepare electron deficient semiconducting mesopolymers with very high performance. Science China Chemistry, 2019, 62, 885-886.	4.2	0
155	Long spin diffusion lengths in doped conjugated polymers due to enhanced exchange coupling. Nature Electronics, 2019, 2, 98-107.	13.1	62
156	The role of the third component in ternary organic solar cells. Nature Reviews Materials, 2019, 4, 229-242.	23.3	370
157	Investigation of the thermoelectric response in conducting polymers doped by solid-state diffusion. Materials Today Physics, 2019, 8, 112-122.	2.9	40
158	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
159	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
160	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
161	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.	2.5	27
162	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

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163	Spectroscopic Investigation of the Effect of Microstructure and Energetic Offset on the Nature of Interfacial Charge Transfer States in Polymer: Fullerene Blends. Journal of the American Chemical Society, 2019, 141, 4634-4643.	6.6	34
164	Excitation Wavelength-Dependent Internal Quantum Efficiencies in a P3HT/Nonfullerene Acceptor Solar Cell. Journal of Physical Chemistry C, 2019, 123, 5826-5832.	1.5	6
165	Role of the Anion on the Transport and Structure of Organic Mixed Conductors. Advanced Functional Materials, 2019, 29, 1807034.	7.8	116
166	Influence of Water on the Performance of Organic Electrochemical Transistors. Chemistry of Materials, 2019, 31, 927-937.	3.2	140
167	Double doping of conjugated polymers with monomer molecular dopants. Nature Materials, 2019, 18, 149-155.	13.3	225
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