Kilwon Cho

List of Publications by Year
in descending order

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347 papers	18,793 citations	10979 71 h-index	17580 121 g-index
360 all docs	360 docs citations	360 times ranked	19259 citing authors

#	Article	IF	Citations
1	Critical assessment of charge mobility extraction in FETs. Nature Materials, 2018, 17, 2-7.	13.3	571
2	Linearly and Highly Pressureâ€Sensitive Electronic Skin Based on a Bioinspired Hierarchical Structural Array. Advanced Materials, 2016, 28, 5300-5306.	11.1	523
3	Super-Hydrophobic PDMS Surface with Ultra-Low Adhesive Force. Macromolecular Rapid Communications, 2005, 26, 1805-1809.	2.0	336
4	Recent Advances in Organic Transistor Printing Processes. ACS Applied Materials & Interfaces, 2013, 5, 2302-2315.	4.0	331
5	Surface-Directed Molecular Assembly of Pentacene on Monolayer Graphene for High-Performance Organic Transistors. Journal of the American Chemical Society, 2011, 133, 4447-4454.	6.6	309
6	UV-Driven Reversible Switching of a Roselike Vanadium Oxide Film between Superhydrophobicity and Superhydrophilicity. Journal of the American Chemical Society, 2007, 129, 4128-4129.	6.6	300
7	Conducting AFM and 2D GIXD Studies on Pentacene Thin Films. Journal of the American Chemical Society, 2005, 127, 11542-11543.	6.6	291
8	Pressure/Temperature Sensing Bimodal Electronic Skin with Stimulus Discriminability and Linear Sensitivity. Advanced Materials, 2018, 30, e1803388.	11.1	271
9	A Highâ€Performance Solutionâ€Processed Organic Photodetector for Nearâ€Infrared Sensing. Advanced Materials, 2020, 32, e1906027.	11.1	270
10	Switchable Transparency and Wetting of Elastomeric Smart Windows. Advanced Materials, 2010, 22, 5013-5017.	11.1	267
11	Enhanced Performance in Polymer Solar Cells by Surface Energy Control. Advanced Functional Materials, 2010, 20, 4381-4387.	7.8	250
12	Work-Function Engineering of Graphene Electrodes by Self-Assembled Monolayers for High-Performance Organic Field-Effect Transistors. Journal of Physical Chemistry Letters, 2011, 2, 841-845.	2.1	237
13	Effect of Annealing Solvent Solubility on the Performance of Poly(3-hexylthiophene)/Methanofullerene Solar Cells. Journal of Physical Chemistry C, 2009, 113, 17579-17584.	1.5	233
14	Side-Chain-Induced Rigid Backbone Organization of Polymer Semiconductors through Semifluoroalkyl Side Chains. Journal of the American Chemical Society, 2016, 138, 3679-3686.	6.6	229
15	Singleâ€Gate Bandgap Opening of Bilayer Graphene by Dual Molecular Doping. Advanced Materials, 2012, 24, 407-411.	11.1	228
16	Liquid-Crystalline Semiconducting Copolymers with Intramolecular Donorâ^'Acceptor Building Blocks for High-Stability Polymer Transistors. Journal of the American Chemical Society, 2009, 131, 6124-6132.	6.6	225
17	Effect of the Phase States of Self-Assembled Monolayers on Pentacene Growth and Thin-Film Transistor Characteristics. Journal of the American Chemical Society, 2008, 130, 10556-10564.	6.6	221
18	Highâ€Efficiency Organic Solar Cells Based on Preformed Poly(3â€hexylthiophene) Nanowires. Advanced Functional Materials, 2011, 21, 480-486.	7.8	216

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19	Solubilityâ€Induced Ordered Polythiophene Precursors for Highâ€Performance Organic Thinâ€Film Transistors. Advanced Functional Materials, 2009, 19, 1200-1206.	7.8	214
20	Organic Thinâ€film Transistors Based on Polythiophene Nanowires Embedded in Insulating Polymer. Advanced Materials, 2009, 21, 1349-1353.	11.1	214
21	Versatile Use of Verticalâ€Phaseâ€Separationâ€Induced Bilayer Structures in Organic Thinâ€Film Transistors. Advanced Materials, 2008, 20, 1141-1145.	11.1	209
22	A Nonfullerene Small Molecule Acceptor with 3D Interlocking Geometry Enabling Efficient Organic Solar Cells. Advanced Materials, 2016, 28, 69-76.	11.1	205
23	Three-dimensional monolithic integration in flexible printed organic transistors. Nature Communications, 2019, 10, 54.	5.8	201
24	High efficiency polymer solar cells with wet deposited plasmonic gold nanodots. Organic Electronics, 2009, 10, 416-420.	1.4	200
25	Transparent, Lowâ€Power Pressure Sensor Matrix Based on Coplanarâ€Gate Graphene Transistors. Advanced Materials, 2014, 26, 4735-4740.	11.1	185
26	Side-Chain Engineering of Nonfullerene Acceptors for Near-Infrared Organic Photodetectors and Photovoltaics. ACS Energy Letters, 2019, 4, 1401-1409.	8.8	182
27	Recent Advances in Morphology Optimization for Organic Photovoltaics. Advanced Materials, 2018, 30, e1800453.	11.1	175
28	ZnTe/ZnSe (Core/Shell) Type-II Quantum Dots: Their Optical and Photovoltaic Properties. Chemistry of Materials, 2010, 22, 233-240.	3.2	173
29	Tunable Anisotropic Wettability of Rice Leafâ€Like Wavy Surfaces. Advanced Functional Materials, 2013, 23, 547-553.	7.8	167
30	Highâ€Efficiency Organic Solar Cells Based on Endâ€Functionalâ€Groupâ€Modified Poly(3â€hexylthiophene). Advanced Materials, 2010, 22, 1355-1360.	11.1	164
31	25th Anniversary Article: Microstructure Dependent Bias Stability of Organic Transistors. Advanced Materials, 2014, 26, 1660-1680.	11.1	156
32	Stretchable and Transparent Organic Semiconducting Thin Film with Conjugated Polymer Nanowires Embedded in an Elastomeric Matrix. Advanced Electronic Materials, 2016, 2, 1500250.	2.6	154
33	Control of the Morphology and Structural Development of Solutionâ€Processed Functionalized Acenes for Highâ€Performance Organic Transistors. Advanced Functional Materials, 2009, 19, 1515-1525.	7.8	147
34	Bulk heterojunction solar cells based on preformed polythiophene nanowires via solubility-induced crystallization. Journal of Materials Chemistry, 2010, 20, 7398.	6.7	147
35	Transparent Superhydrophobic/Translucent Superamphiphobic Coatings Based on Silicaâ€“Fluoropolymer Hybrid Nanoparticles. Langmuir, 2013, 29, 15051-15057.	1.6	139
36	Control of Graphene Fieldâ€Effect Transistors by Interfacial Hydrophobic Selfâ€Assembled Monolayers. Advanced Materials, 2011, 23, 3460-3464.	11.1	138

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37	Enhancing 2D growth of organic semiconductor thin films with macroporous structures via a small-molecule heterointerface. Nature Communications, 2014, 5, 4752.	5.8	138
38	Highly crystalline low-bandgap polymer nanowires towards high-performance thick-film organic solar cells exceeding 10% power conversion efficiency. Energy and Environmental Science, 2017, 10, 247-257.	15.6	131
39	Solvent Vapor-Induced Nanowire Formation in Poly(3-hexylthiophene) Thin Films. Macromolecular Rapid Communications, 2005, 26, 834-839.	2.0	130
40	Low-voltage and high-field-effect mobility organic transistors with a polymer insulator. Applied Physics Letters, 2006, 88, 072101.	1.5	130
41	Synthetic Tailoring of Solid-State Order in Diketopyrrolopyrrole-Based Copolymers via Intramolecular Noncovalent Interactions. Chemistry of Materials, 2015, 27, 829-838.	3.2	125
42	Bandgap Narrowing in Nonâ€Fullerene Acceptors: Single Atom Substitution Leads to High Optoelectronic Response Beyond 1000 nm. Advanced Energy Materials, 2018, 8, 1801212.	10.2	125
43	High Performance Organic Photovoltaic Cells Using Polymerâ€Hybridized ZnO Nanocrystals as a Cathode Interlayer. Advanced Energy Materials, 2011, 1, 690-698.	10.2	123
44	Semiconductorâ€Dielectric Blends: A Facile All Solution Route to Flexible Allâ€Organic Transistors. Advanced Materials, 2009, 21, 4243-4248.	11.1	120
45	Perovskite solar cells with an MoS₂ electron transport layer. Journal of Materials Chemistry A, 2019, 7, 7151-7158.	5.2	116
46	Quantifying the Nongeminate Recombination Dynamics in Nonfullerene Bulk Heterojunction Organic Solar Cells. Advanced Energy Materials, 2019, 9, 1901438.	10.2	115
47	Superhydrophobic to Superhydrophilic Wetting Transition with Programmable Ionâ€Pairing Interaction. Advanced Materials, 2008, 20, 4438-4441.	11.1	114
48	Three-Dimensional, Inkjet-Printed Organic Transistors and Integrated Circuits with 100% Yield, High Uniformity, and Long-Term Stability. ACS Nano, 2016, 10, 10324-10330.	7.3	112
49	Understanding Solidification of Polythiophene Thin Films during Spin-Coating: Effects of Spin-Coating Time and Processing Additives. Scientific Reports, 2015, 5, 13288.	1.6	111
50	High-mobility low-temperature ZnO transistors with low-voltage operation. Applied Physics Letters, 2010, 96, .	1.5	110
51	An ultrathin conformable vibration-responsive electronic skin for quantitative vocal recognition. Nature Communications, 2019, 10, 2468.	5.8	108
52	Exploiting Ï€â€“Ï€ Stacking for Stretchable Semiconducting Polymers. Macromolecules, 2018, 51, 2572-2579.	2.2	104
53	Workâ€Functionâ€Tuned Reduced Graphene Oxide via Direct Surface Functionalization as Source/Drain Electrodes in Bottomâ€Contact Organic Transistors. Advanced Materials, 2013, 25, 5856-5862.	11.1	102
54	Evaporation-Induced Self-Organization of Inkjet-Printed Organic Semiconductors on Surface-Modified Dielectrics for High-Performance Organic Transistors. Langmuir, 2009, 25, 5404-5410.	1.6	101

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55	Extremely Efficient Liquid Exfoliation and Dispersion of Layered Materials by Unusual Acoustic Cavitation. Scientific Reports, 2014, 4, 5133.	1.6	101
56	Organometal Halide Perovskite Solar Cells with Improved Thermal Stability via Grain Boundary Passivation Using a Molecular Additive. Advanced Functional Materials, 2017, 27, 1703546.	7.8	101
57	Inkjetâ€Printed Singleâ€Droplet Organic Transistors Based on Semiconductor Nanowires Embedded in Insulating Polymers. Advanced Functional Materials, 2010, 20, 3292-3297.	7.8	100
58	Hydrolytic degradation behavior of poly(butylene succinate)s with different crystalline morphologies. Journal of Applied Polymer Science, 2001, 79, 1025-1033.	1.3	99
59	Fabrication of a bionic superhydrophobic metal surface by sulfur-induced morphological development. Journal of Materials Chemistry, 2005, 15, 3089.	6.7	98
60	Control of mesoscale and nanoscale ordering of organic semiconductors at the gate dielectric/semiconductor interface for organic transistors. Journal of Materials Chemistry, 2010, 20, 2549.	6.7	97
61	Inkjet-Printed Reduced Graphene Oxide/Poly(Vinyl Alcohol) Composite Electrodes for Flexible Transparent Organic Field-Effect Transistors. Journal of Physical Chemistry C, 2012, 116, 7520-7525.	1.5	95
62	Design of Nonfullerene Acceptors with Nearâ€Infrared Light Absorption Capabilities. Advanced Energy Materials, 2018, 8, 1801209.	10.2	95
63	An ABA triblock copolymer strategy for intrinsically stretchable semiconductors. Journal of Materials Chemistry C, 2015, 3, 3599-3606.	2.7	93
64	The Influence of the Solvent Evaporation Rate on the Phase Separation and Electrical Performances of Soluble Aceneâ€Polymer Blend Semiconductors. Advanced Functional Materials, 2012, 22, 267-281.	7.8	90
65	Dependence of Exciton Diffusion Length on Crystalline Order in Conjugated Polymers. Journal of Physical Chemistry C, 2014, 118, 760-766.	1.5	86
66	A Pseudoâ€Regular Alternating Conjugated Copolymer Using an Asymmetric Monomer: A Highâ€Mobility Organic Transistor in Nonchlorinated Solvents. Advanced Materials, 2015, 27, 3626-3631.	11.1	84
67	Advances in Biodegradable Electronic Skin: Material Progress and Recent Applications in Sensing, Robotics, and Humanâ€“Machine Interfaces. Advanced Materials, 2023, 35, .	11.1	82
68	Effective Use of Electrically Insulating Units in Organic Semiconductor Thin Films for Highâ€Performance Organic Transistors. Advanced Electronic Materials, 2017, 3, 1600240.	2.6	80
69	Influence of the dielectric constant of a polyvinyl phenol insulator on the field-effect mobility of a pentacene-based thin-film transistor. Applied Physics Letters, 2005, 87, 152105.	1.5	77
70	Boosting Photon Harvesting in Organic Solar Cells with Highly Oriented Molecular Crystals via Grapheneâ€“Organic Heterointerface. ACS Nano, 2015, 9, 8206-8219.	7.3	77
71	An Ultrastable Ionic Chemiresistor Skin with an Intrinsically Stretchable Polymer Electrolyte. Advanced Materials, 2018, 30, e1706851.	11.1	75
72	Hierarchical gecko-inspired nanohairs with a high aspect ratio induced by nanoyielding. Soft Matter, 2012, 8, 4905.	1.2	74

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73	Layered Molecular Ordering of Self-Organized Poly(3-hexylthiophene) Thin Films on Hydrophobized Surfaces. Macromolecules, 2006, 39, 5843-5847.	2.2	73
74	Wettingâ€Assisted Crackâ€•and Wrinkleâ€Free Transfer of Waferâ€Scale Graphene onto Arbitrary Substrates over a Wide Range of Surface Energies. Advanced Functional Materials, 2016, 26, 2070-2077.	7.8	73
75	Chirality detection of amino acid enantiomers by organic electrochemical transistor. Biosensors and Bioelectronics, 2018, 105, 121-128.	5.3	73
76	Userâ€Interactive Thermotherapeutic Electronic Skin Based on Stretchable Thermochromic Strain Sensor. Advanced Science, 2020, 7, 2001184.	5.6	73
77	Fingerpadâ€Inspired Multimodal Electronic Skin for Material Discrimination and Texture Recognition. Advanced Science, 2021, 8, 2002606.	5.6	73
78	A bis(2-oxoindolin-3-ylidene)-benzodifuran-dione containing copolymer for high-mobility ambipolar transistors. Chemical Communications, 2014, 50, 3180.	2.2	72
79	Cactusâ€Spineâ€Inspired Sweatâ€Collecting Patch for Fast and Continuous Monitoring of Sweat. Advanced Materials, 2021, 33, e2102740.	11.1	72
80	Negative Transconductance Heterojunction Organic Transistors and their Application to Fullâ€Swing Ternary Circuits. Advanced Materials, 2019, 31, e1808265.	11.1	70
81	Two-Dimensionally Extended Ï€-Conjugation of Donorâ€“Acceptor Copolymers via Oligothienyl Side Chains for Efficient Polymer Solar Cells. Macromolecules, 2015, 48, 1723-1735.	2.2	69
82	Donorâ€“Acceptor Alternating Copolymer Nanowires for Highly Efficient Organic Solar Cells. Advanced Materials, 2014, 26, 6706-6714.	11.1	68
83	Electrical Performance of Organic Solar Cells with Additiveâ€Assisted Vertical Phase Separation in the Photoactive Layer. Advanced Energy Materials, 2014, 4, 1300612.	10.2	67
84	Sideâ€Chain Engineering for Fineâ€Tuning of Energy Levels and Nanoscale Morphology in Polymer Solar Cells. Advanced Energy Materials, 2014, 4, 1400087.	10.2	67
85	Waterâ€Free Transfer Method for CVDâ€Grown Graphene and Its Application to Flexible Airâ€Stable Graphene Transistors. Advanced Materials, 2014, 26, 3213-3217.	11.1	67
86	Polymer blends with semiconducting nanowires for organic electronics. Journal of Materials Chemistry, 2012, 22, 4244.	6.7	66
87	Critical factors governing vertical phase separation in polymerâ€“PCBM blend films for organic solar cells. Journal of Materials Chemistry A, 2016, 4, 15522-15535.	5.2	64
88	Enhancing the power conversion efficiency of perovskite solar cells via the controlled growth of perovskite nanowires. Nano Energy, 2018, 51, 192-198.	8.2	64
89	Biasâ€Stressâ€Induced Charge Trapping at Polymer Chain Ends of Polymer Gateâ€Dielectrics in Organic Transistors. Advanced Functional Materials, 2012, 22, 4833-4839.	7.8	63
90	Conformation-Insensitive Ambipolar Charge Transport in a Diketopyrrolopyrrole-Based Co-polymer Containing Acetylene Linkages. Chemistry of Materials, 2014, 26, 3928-3937.	3.2	63

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91	Clean Transfer of Wafer-Scale Graphene via Liquid Phase Removal of Polycyclic Aromatic Hydrocarbons. ACS Nano, 2015, 9, 4726-4733.	7.3	61
92	Controlling Electrostatic Interaction in PEDOT:PSS to Overcome Thermoelectric Tradeoff Relation. Advanced Functional Materials, 2019, 29, 1905590.	7.8	60
93	Solubility-driven polythiophene nanowires and their electrical characteristics. Journal of Materials Chemistry, 2011, 21, 2338-2343.	6.7	59
94	Self-stratified semiconductor/dielectric polymer blends: vertical phase separation for facile fabrication of organic transistors. Journal of Materials Chemistry C, 2013, 1, 3989.	2.7	59
95	Evaporationâ€Induced Selfâ€Alignment and Transfer of Semiconductor Nanowires by Wrinkled Elastomeric Templates. Advanced Materials, 2013, 25, 2162-2166.	11.1	59
96	Recent Advances in the Bias Stress Stability of Organic Transistors. Advanced Functional Materials, 2020, 30, 1904590.	7.8	59
97	Effect of Crystallization Modes in TIPS-pentacene/Insulating Polymer Blends on the Gas Sensing Properties of Organic Field-Effect Transistors. Scientific Reports, 2019, 9, 21.	1.6	58
98	Selfâ€Organization of Inkjetâ€Printed Organic Semiconductor Films Prepared in Inkjetâ€Etched Microwells. Advanced Functional Materials, 2013, 23, 5224-5231.	7.8	55
99	Atomically Thin Epitaxial Template for Organic Crystal Growth Using Graphene with Controlled Surface Wettability. Nano Letters, 2015, 15, 2474-2484.	4.5	55
100	High Electron Mobility in [1]Benzothieno[3,2-b][1]benzothiophene-Based Field-Effect Transistors: Toward n-Type BTBTs. Chemistry of Materials, 2019, 31, 5254-5263.	3.2	55
101	Substrate-Induced Solvent Intercalation for Stable Graphene Doping. ACS Nano, 2013, 7, 1155-1162.	7.3	54
102	Design, Synthesis, and Versatile Processing of Indolo[3,2â€b]indoleâ€Based Ï€â€Conjugated Molecules for Highâ€Performance Organic Fieldâ€Effect Transistors. Advanced Functional Materials, 2016, 26, 2966-2973.	7.8	54
103	Biomimetic Fabrication of Vaterite Film from Amorphous Calcium Carbonate on Polymer Melt:Â Effect of Polymer Chain Mobility and Functionality. Chemistry of Materials, 2005, 17, 136-141.	3.2	53
104	Heterogeneous Solid Carbon Sourceâ€Assisted Growth of Highâ€Quality Graphene via CVD at Low Temperatures. Advanced Functional Materials, 2016, 26, 562-568.	7.8	52
105	Understanding and Countering Illumination-Sensitive Dark Current: Toward Organic Photodetectors with Reliable High Detectivity. ACS Nano, 2021, 15, 1753-1763.	7.3	52
106	Combinatorial Study of Temperatureâ€Dependent Nanostructure and Electrical Conduction of Polymer Semiconductors: Even Bimodal Orientation Can Enhance 3D Charge Transport. Advanced Functional Materials, 2016, 26, 4627-4634.	7.8	51
107	Bar-Coated Ultrathin Semiconductors from Polymer Blend for One-Step Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2018, 10, 21510-21517.	4.0	50
108	Design of narrow bandgap non-fullerene acceptors for photovoltaic applications and investigation of non-geminate recombination dynamics. Journal of Materials Chemistry C, 2020, 8, 15175-15182.	2.7	50

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109	New Donorâ€“Donor Type Copolymers with Rigid and Coplanar Structures for High-Mobility Organic Field-Effect Transistors. Chemistry of Materials, 2014, 26, 6907-6910.	3.2	49
110	Effect of donorâ€“acceptor molecular orientation on charge photogeneration in organic solar cells. NPG Asia Materials, 2018, 10, 469-481.	3.8	49
111	High field-effect mobility pentacene thin-film transistors with nanoparticle polymer composite/polymer bilayer insulators. Applied Physics Letters, 2009, 94, .	1.5	48
112	Molecular Engineering of Organic Spacer Cations for Efficient and Stable Formamidinium Perovskite Solar Cell. Advanced Energy Materials, 2020, 10, 2001759.	10.2	48
113	Effect of rubbed polyimide layer on the field-effect mobility in pentacene thin-film transistors. Applied Physics Letters, 2008, 92, 052107.	1.5	47
114	Germaniumâ€•and Siliconâ€Substituted Donorâ€“Acceptor Type Copolymers: Effect of the Bridging Heteroatom on Molecular Packing and Photovoltaic Device Performance. Advanced Energy Materials, 2014, 4, 1400527.	10.2	46
115	Oligo(ethylene glycol)-incorporated hybrid linear alkyl side chains for n-channel polymer semiconductors and their effect on the thin-film crystalline structure. Chemical Communications, 2015, 51, 1524-1527.	2.2	46
116	Reinforcement of Amorphous and Semicrystalline Polymer Interfaces via in-Situ Reactive Compatibilization. Macromolecules, 1998, 31, 7495-7505.	2.2	45
117	Effect of the microstructure of copper oxide on the adhesion behavior of epoxy/copper leadframe joints. Journal of Adhesion Science and Technology, 2000, 14, 1333-1353.	1.4	45
118	Solubilityâ€Controlled Structural Ordering of Narrow Bandgap Conjugated Polymers. Advanced Energy Materials, 2011, 1, 63-67.	10.2	43
119	Naphthodithiophene-Based Conjugated Polymer with Linear, Planar Backbone Conformation and Strong Intermolecular Packing for Efficient Organic Solar Cells. ACS Applied Materials & Interfaces, 2015, 7, 21159-21169.	4.0	43
120	Tailoring Morphology and Structure of Inkjetâ€Printed Liquidâ€Crystalline Semiconductor/Insulating Polymer Blends for Highâ€Stability Organic Transistors. Advanced Functional Materials, 2016, 26, 3003-3011.	7.8	43
121	Direct CVD Growth of a Graphene/MoS₂ Heterostructure with Interfacial Bonding for Two-Dimensional Electronics. Chemistry of Materials, 2020, 32, 4544-4552.	3.2	42
122	Ultrasensitive N-Channel Graphene Gas Sensors by Nondestructive Molecular Doping. ACS Nano, 2022, 16, 2176-2187.	7.3	42
123	Omnidirectionally and Highly Stretchable Conductive Electrodes Based on Noncoplanar Zigzag Mesh Silver Nanowire Arrays. Advanced Electronic Materials, 2016, 2, 1600158.	2.6	41
124	Roomâ€Temperature Selfâ€Organizing Characteristics of Soluble Acene Fieldâ€Effect Transistors. Advanced Functional Materials, 2008, 18, 560-565.	7.8	40
125	Doping Graphene with an Atomically Thin Two Dimensional Molecular Layer. Advanced Materials, 2014, 26, 8141-8146.	11.1	40
126	Medium-Bandgap Conjugated Polymers Containing Fused Dithienobenzochalcogenadiazoles: Chalcogen Atom Effects on Organic Photovoltaics. Macromolecules, 2016, 49, 9358-9370.	2.2	40

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127	Accurate Extraction of Charge Carrier Mobility in 4â€Probe Fieldâ€Effect Transistors. Advanced Functional Materials, 2018, 28, 1707105.	7.8	40
128	Precise Side-Chain Engineering of Thienylenevinyleneâ€“Benzotriazole-Based Conjugated Polymers with Coplanar Backbone for Organic Field Effect Transistors and CMOS-like Inverters. ACS Applied Materials & Interfaces, 2017, 9, 2758-2766.	4.0	39
129	Oneâ€Step Solution Phase Growth of Transition Metal Dichalcogenide Thin Films Directly on Solid Substrates. Advanced Materials, 2017, 29, 1700291.	11.1	39
130	Decoupling the Biasâ€Stressâ€Induced Charge Trapping in Semiconductors and Gateâ€Dielectrics of Organic Transistors Using a Double Stretchedâ€Exponential Formula. Advanced Functional Materials, 2013, 23, 690-696.	7.8	38
131	Selfâ€Assembled, Millimeterâ€Sized TIPSâ€Pentacene Spherulites Grown on Partially Crosslinked Polymer Gate Dielectric. Advanced Functional Materials, 2015, 25, 3658-3665.	7.8	38
132	Graphene as a metal passivation layer: Corrosion-accelerator and inhibitor. Carbon, 2017, 116, 232-239.	5.4	38
133	Suppression of Oxidative Degradation of Tinâ€“Lead Hybrid Organometal Halide Perovskite Solar Cells by Ag Doping. ACS Energy Letters, 2020, 5, 3285-3294.	8.8	38
134	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
135	Graphene oxide as a multi-functional p-dopant of transparent single-walled carbon nanotube films for optoelectronic devices. Nanoscale, 2012, 4, 7735.	2.8	37
136	Heatâ€Sinkâ€Free Flexible Organic Thermoelectric Generator Vertically Operating with Chevron Structure. Advanced Materials Technologies, 2018, 3, 1700335.	3.0	37
137	Hall Effect in Polycrystalline Organic Semiconductors: The Effect of Grain Boundaries. Advanced Functional Materials, 2020, 30, 1903617.	7.8	37
138	Bandgap Tailored Nonfullerene Acceptors for Low-Energy-Loss Near-Infrared Organic Photovoltaics. , 2020, 2, 395-402.		37
139	Thermal and mechanical properties of thermoplastic polyurethane elastomers from different polymerization methods. Polymer International, 1993, 31, 329-333.	1.6	36
140	Positional effects of fluorination in conjugated side chains on photovoltaic properties of donorâ€“acceptor copolymers. Chemical Communications, 2017, 53, 1176-1179.	2.2	36
141	Ternary Organic Solar Cells Based on a Wide-Bandgap Polymer with Enhanced Power Conversion Efficiencies. Scientific Reports, 2019, 9, 12081.	1.6	36
142	Ternary Blend Strategy for Achieving Highâ€Efficiency Organic Photovoltaic Devices for Indoor Applications. Chemistry - A European Journal, 2019, 25, 6154-6161.	1.7	36
143	Perovskite Granular Wire Photodetectors with Ultrahigh Photodetectivity. Advanced Materials, 2020, 32, e2002357.	11.1	36
144	Enhancing the Durability and Carrier Selectivity of Perovskite Solar Cells Using a Blend Interlayer. ACS Applied Materials & Interfaces, 2017, 9, 18103-18112.	4.0	35

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145	Enhanced Sensitivity of Iontronic Graphene Tactile Sensors Facilitated by Spreading of Ionic Liquid Pinned on Graphene Grid. Advanced Functional Materials, 2020, 30, 1908993.	7.8	35
146	Notch sensitivity of polycarbonate and toughened polycarbonate. Journal of Applied Polymer Science, 2003, 89, 3115-3121.	1.3	34
147	A Novel Thermally Reversible Solubleâ€Insoluble Conjugated Polymer with Semiâ€Fluorinated Alkyl Chains: Enhanced Transistor Performance by Fluorophobic Selfâ€Organization and Orthogonal Hydrophobic Patterning. Advanced Materials, 2013, 25, 6416-6422.	11.1	34
148	Organic Solar Cells Based on Three-Dimensionally Percolated Polythiophene Nanowires with Enhanced Charge Transport. ACS Applied Materials & Interfaces, 2014, 6, 5640-5650.	4.0	34
149	One-Step Interface Engineering for All-Inkjet-Printed, All-Organic Components in Transparent, Flexible Transistors and Inverters: Polymer Binding. ACS Applied Materials & Interfaces, 2017, 9, 8819-8829.	4.0	34
150	18.42% efficiency polymer solar cells enabled by terpolymer donors with optimal miscibility and energy levels. Journal of Materials Chemistry A, 2022, 10, 7878-7887.	5.2	34
151	Surface-Order Mediated Assembly of Ï€-Conjugated Molecules on Self-Assembled Monolayers with Controlled Grain Structures. Chemistry of Materials, 2015, 27, 4669-4676.	3.2	33
152	Decoupling Charge Transfer and Transport at Polymeric Hole Transport Layer in Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 6546-6553.	4.0	33
153	Fused Heptacyclic-Based Acceptorâ€“Donorâ€“Acceptor Small Molecules: N-Substitution toward High-Performance Solution-Processable Field-Effect Transistors. Chemistry of Materials, 2019, 31, 2027-2035.	3.2	33
154	Toughening of polycarbonate: Effect of particle size and rubber phase contents of the core-shell impact modifier. Journal of Applied Polymer Science, 2005, 95, 748-755.	1.3	32
155	Bis(2-oxoindolin-3-ylidene)-benzodifuran-dione-based Dâ€“A polymers for high-performance n-channel transistors. Polymer Chemistry, 2015, 6, 2531-2540.	1.9	32
156	Tailoring Structure and Field-Effect Characteristics of Ultrathin Conjugated Polymer Films via Phase Separation. ACS Applied Materials & Interfaces, 2018, 10, 9602-9611.	4.0	32
157	Control of Concentration of Nonhydrogen-Bonded Hydroxyl Groups in Polymer Dielectrics for Organic Field-Effect Transistors with Operational Stability. ACS Applied Materials & Interfaces, 2018, 10, 24055-24063.	4.0	32
158	Synthesis and photovoltaic properties of benzo[1,2-b:4,5-bâ€²]dithiophene derivative-based polymers with deep HOMO levels. Journal of Materials Chemistry, 2012, 22, 17709.	6.7	31
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