

Joon Hak Oh

List of Publications by Year in descending order

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159
papers

13,449
citations

18482

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22832

112
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164
all docs

164
docs citations

164
times ranked

14587
citing authors

#	ARTICLE	IF	CITATIONS
1	Nitrogenated holey two-dimensional structures. <i>Nature Communications</i> , 2015, 6, 6486.	12.8	923
2	High-Performance Air-Stable n-Channel Organic Thin Film Transistors Based on Halogenated Perylene Bisimide Semiconductors. <i>Journal of the American Chemical Society</i> , 2009, 131, 6215-6228.	13.7	619
3	Crystalline Ultrasmooth Self-Assembled Monolayers of Alkylsilanes for Organic Field-Effect Transistors. <i>Journal of the American Chemical Society</i> , 2009, 131, 9396-9404.	13.7	562
4	Boosting the Ambipolar Performance of Solution-Processable Polymer Semiconductors via Hybrid Side-Chain Engineering. <i>Journal of the American Chemical Society</i> , 2013, 135, 9540-9547.	13.7	460
5	Two-dimensional polyaniline (C ₃ N) from carbonized organic single crystals in solid state. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 7414-7419.	7.1	380
6	Use of a 1 <i>H</i> -Benzoimidazole Derivative as an <i>n</i> -Type Dopant and To Enable Air-Stable Solution-Processed <i>n</i> -Channel Organic Thin-Film Transistors. <i>Journal of the American Chemical Society</i> , 2010, 132, 8852-8853.	13.7	353
7	Solution-Processable Ambipolar Diketopyrrolopyrrole "Selenophene Polymer with Unprecedentedly High Hole and Electron Mobilities. <i>Journal of the American Chemical Society</i> , 2012, 134, 20713-20721.	13.7	341
8	A Crystal-Engineered Hydrogen-Bonded Octachloroperylene Diimide with a Twisted Core: An <i>n</i> -Channel Organic Semiconductor. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 740-743.	13.8	337
9	Chlorination: A General Route toward Electron Transport in Organic Semiconductors. <i>Journal of the American Chemical Society</i> , 2009, 131, 3733-3740.	13.7	334
10	Selective dispersion of high purity semiconducting single-walled carbon nanotubes with regioregular poly(3-alkylthiophene)s. <i>Nature Communications</i> , 2011, 2, 541.	12.8	333
11	Investigation of Structure-Property Relationships in Diketopyrrolopyrrole-Based Polymer Semiconductors via Side-Chain Engineering. <i>Chemistry of Materials</i> , 2015, 27, 1732-1739.	6.7	244
12	Flexible FET-Type VEGF Aptasensor Based on Nitrogen-Doped Graphene Converted from Conducting Polymer. <i>ACS Nano</i> , 2012, 6, 1486-1493.	14.6	232
13	Core-Fluorinated Perylene Bisimide Dyes: Air Stable <i>n</i> -Channel Organic Semiconductors for Thin Film Transistors with Exceptionally High On-Off Current Ratios. <i>Advanced Materials</i> , 2007, 19, 3692-3695.	21.0	230
14	The Role of OTS Density on Pentacene and C ₆₀ Nucleation, Thin Film Growth, and Transistor Performance. <i>Advanced Functional Materials</i> , 2009, 19, 1962-1970.	14.9	227
15	High-Performance Air-Stable <i>n</i> -Type Organic Transistors Based on Core-Chlorinated Naphthalene Tetracarboxylic Diimides. <i>Advanced Functional Materials</i> , 2010, 20, 2148-2156.	14.9	221
16	Solution-processed, high-performance n-channel organic microwire transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6065-6070.	7.1	218
17	Tuning Mechanical and Optoelectrical Properties of Poly(3-hexylthiophene) through Systematic Regioregularity Control. <i>Macromolecules</i> , 2015, 48, 4339-4346.	4.8	194
18	High-Performance Phototransistors Based on Single-Crystalline <i>n</i> -Channel Organic Nanowires and Photogenerated Charge-Carrier Behaviors. <i>Advanced Functional Materials</i> , 2013, 23, 629-639.	14.9	177

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19	Flexible Field-Effect Transistor-Type Sensors Based on Conjugated Molecules. <i>CheM</i> , 2017, 3, 724-763.	11.7	158
20	Side Chain Optimization of Naphthalenediimide- <i>π</i> -Bithiophene-Based Polymers to Enhance the Electron Mobility and the Performance in All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2016, 26, 1543-1553.	14.9	155
21	Solvent-Resistant Organic Transistors and Thermally Stable Organic Photovoltaics Based on Cross-linkable Conjugated Polymers. <i>Chemistry of Materials</i> , 2012, 24, 215-221.	6.7	154
22	Fabrication of a Highly Transparent Conductive Thin Film from Polypyrrole/Poly(methyl methacrylate) Core/Shell Nanospheres. <i>Advanced Functional Materials</i> , 2005, 15, 494-502.	14.9	151
23	Boosting the performance and stability of quasi-two-dimensional tin-based perovskite solar cells using the formamidinium thiocyanate additive. <i>Journal of Materials Chemistry A</i> , 2018, 6, 18173-18182.	10.3	149
24	Air-stable n-channel organic thin-film transistors with high field-effect mobility based on N,N'-bis(heptafluorobutyl)-3,4,9,10-perylene diimide. <i>Applied Physics Letters</i> , 2007, 91, .	3.3	147
25	Toward Environmentally Robust Organic Electronics: Approaches and Applications. <i>Advanced Materials</i> , 2017, 29, 1703638.	21.0	142
26	Wearable high-performance pressure sensors based on three-dimensional electrospun conductive nanofibers. <i>NPG Asia Materials</i> , 2018, 10, 540-551.	7.9	141
27	Enhancing 2D growth of organic semiconductor thin films with macroporous structures via a small-molecule heterointerface. <i>Nature Communications</i> , 2014, 5, 4752.	12.8	138
28	<i>π</i> -Extended perylene diimide double-heterohelicenes as ambipolar organic semiconductors for broadband circularly polarized light detection. <i>Nature Communications</i> , 2021, 12, 142.	12.8	137
29	Aryl- <i>π</i> -Perfluoroaryl Substituted Tetracene: Induction of Face-to-Face <i>π</i> - <i>π</i> Stacking and Enhancement of Charge Carrier Properties. <i>Chemistry of Materials</i> , 2011, 23, 1646-1649.	6.7	135
30	Importance of Electron Transport Ability in Naphthalene Diimide-Based Polymer Acceptors for High-Performance, Additive-Free, All-Polymer Solar Cells. <i>Chemistry of Materials</i> , 2015, 27, 5230-5237.	6.7	131
31	Determining Optimal Crystallinity of Diketopyrrolopyrrole-Based Terpolymers for Highly Efficient Polymer Solar Cells and Transistors. <i>Chemistry of Materials</i> , 2014, 26, 6963-6970.	6.7	130
32	Organic Transistor-Based Chemical Sensors for Wearable Bioelectronics. <i>Accounts of Chemical Research</i> , 2018, 51, 2829-2838.	15.6	130
33	Supramolecular Nanostructures of Chiral Perylene Diimides with Amplified Chirality for High-Performance Chiroptical Sensing. <i>Advanced Materials</i> , 2017, 29, 1605828.	21.0	129
34	Facile Fabrication of Photochromic Dye- <i>π</i> -Conducting Polymer Core- <i>π</i> -Shell Nanomaterials and Their Photoluminescence. <i>Advanced Materials</i> , 2003, 15, 977-980.	21.0	121
35	Nitrogen-Doped Graphene Nanoplatelets from Simple Solution Edge-Functionalization for n-Type Field-Effect Transistors. <i>Journal of the American Chemical Society</i> , 2013, 135, 8981-8988.	13.7	113
36	Recent advances in organic sensors for health self-monitoring systems. <i>Journal of Materials Chemistry C</i> , 2018, 6, 8569-8612.	5.5	110

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37	Branched Flexible Side Chain Substituted Diketopyrrolopyrrole-Containing Polymers Designed for High Hole and Electron Mobilities. <i>Advanced Functional Materials</i> , 2015, 25, 247-254.	14.9	108
38	Highly Flexible Organic Nanofiber Phototransistors Fabricated on a Textile Composite for Wearable Photosensors. <i>Advanced Functional Materials</i> , 2016, 26, 1445-1453.	14.9	103
39	Large-Scale Graphene Micropattern Nano-biohybrids: High-Performance Transducers for FET-Type Flexible Fluidic HIV Immunoassays. <i>Advanced Materials</i> , 2013, 25, 4177-4185.	21.0	97
40	A facile synthesis of polypyrrole nanotubes using a template-mediated vapor deposition polymerization and the conversion to carbon nanotubes. <i>Chemical Communications</i> , 2004, , 882.	4.1	92
41	Naphthalene Diimide Incorporated Thiophene-Free Copolymers with Acene and Heteroacene Units: Comparison of Geometric Features and Electron-Donating Strength of Co-units. <i>Chemistry of Materials</i> , 2013, 25, 3251-3259.	6.7	91
42	Amplified circularly polarized phosphorescence from co-assemblies of platinum($\text{Pt}(\text{II})$) complexes. <i>Chemical Science</i> , 2019, 10, 1294-1301.	7.4	89
43	Inversion of Dominant Polarity in Ambipolar Polydiketopyrrolopyrrole with Thermally Removable Groups. <i>Advanced Functional Materials</i> , 2012, 22, 4128-4138.	14.9	87
44	Influence of intermolecular interactions of electron donating small molecules on their molecular packing and performance in organic electronic devices. <i>Journal of Materials Chemistry A</i> , 2013, 1, 14538.	10.3	86
45	Ultrasensitive artificial synapse based on conjugated polyelectrolyte. <i>Nano Energy</i> , 2018, 48, 575-581.	16.0	85
46	Chiral self-sorted multifunctional supramolecular biocoordination polymers and their applications in sensors. <i>Nature Communications</i> , 2018, 9, 3933.	12.8	85
47	Interplay between Energetic and Kinetic Factors on the Ambient Stability of n-Channel Organic Transistors Based on Perylene Diimide Derivatives. <i>Chemistry of Materials</i> , 2009, 21, 5508-5518.	6.7	84
48	High-Mobility Air-Stable Solution-Shear-Processed n-Channel Organic Transistors Based on Core-Chlorinated Naphthalene Diimides. <i>Advanced Functional Materials</i> , 2011, 21, 4173-4181.	14.9	82
49	Stretchable and Self-Healable Conductive Hydrogels for Wearable Multimodal Touch Sensors with Thermoresponsive Behavior. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 26134-26143.	8.0	81
50	Fabrication of Photoluminescent-Dye Embedded Poly(methyl methacrylate) Nanofibers and Their Fluorescence Resonance Energy Transfer Properties. <i>Advanced Materials</i> , 2006, 18, 2216-2219.	21.0	79
51	High-Performance UV-Vis-NIR Phototransistors Based on Single-Crystalline Organic Semiconductor-Gold Hybrid Nanomaterials. <i>Advanced Functional Materials</i> , 2017, 27, 1604528.	14.9	79
52	Visible-Near Infrared Absorbing Polymers Containing Thienoisindigo and Electron-Rich Units for Organic Transistors with Tunable Polarity. <i>Advanced Functional Materials</i> , 2013, 23, 5317-5325.	14.9	77
53	Point-of-Use Detection of Amphetamine-Type Stimulants with Host-Molecule-Functionalized Organic Transistors. <i>CheM</i> , 2017, 3, 641-651.	11.7	76
54	Novel crystalline supramolecular assemblies of amorphous polypyrrole nanoparticles through surfactant templating Electronic supplementary information (ESI) available: FT-IR spectrum and the peak assignment of PPy nanoparticles. See http://www.rsc.org/suppdata/cc/b2/b207744m/ . <i>Chemical Communications</i> , 2002, , 2200-2201.	4.1	75

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55	Molecular n-type doping for air-stable electron transport in vacuum-processed n-channel organic transistors. <i>Applied Physics Letters</i> , 2010, 97, .	3.3	75
56	Acceptor-acceptor type isoindigo-based copolymers for high-performance n-channel field-effect transistors. <i>Chemical Communications</i> , 2014, 50, 2180.	4.1	73
57	Flexible Organic Phototransistor Array with Enhanced Responsivity via Metal-Ligand Charge Transfer. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 7291-7299.	8.0	72
58	Facile fabrication of polymer and carbon nanocapsules using polypyrrole core/shell nanomaterials Electronic Supplementary Information (ESI) available: Experimental details for the synthesis and carbonization of PPy nanocapsules, instrumentation, XRD pattern and Raman spectrum. See http://www.rsc.org/suppdata/cc/b3/b316881f/ . <i>Chemical Communications</i> , 2004, , 794.	4.1	71
59	Curing behavior of tetrafunctional epoxy resin/hyperbranched polymer system. <i>Polymer</i> , 2001, 42, 8339-8347.	3.8	69
60	Solution-Shear-Processed Quaterylene Diimide Thin-Film Transistors Prepared by Pressure-Assisted Thermal Cleavage of Swallow Tails. <i>Journal of the American Chemical Society</i> , 2011, 133, 4204-4207.	13.7	68
61	Highly Sensitive and Selective Biosensors Based on Organic Transistors Functionalized with Cucurbit[6]uril Derivatives. <i>Advanced Functional Materials</i> , 2015, 25, 4882-4888.	14.9	66
62	Synergistic Effects of Cation and Anion in an Ionic Imidazolium Tetrafluoroborate Additive for Improving the Efficiency and Stability of Half-Mixed Pb-Sn Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2021, 31, 2008801.	14.9	66
63	Ethanol-Processable, Highly Crystalline Conjugated Polymers for Eco-Friendly Fabrication of Organic Transistors and Solar Cells. <i>Macromolecules</i> , 2017, 50, 4415-4424.	4.8	63
64	Effect of the alkyl spacer length on the electrical performance of diketopyrrolopyrrole-thiophene vinylene thiophene polymer semiconductors. <i>Journal of Materials Chemistry C</i> , 2015, 3, 11697-11704.	5.5	62
65	Direct Solvothermal Synthesis of B/N-Doped Graphene. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 2398-2401.	13.8	61
66	Regular H-Bonding-Containing Polymers with Stretchability up to 100% External Strain for Self-Healable Plastic Transistors. <i>Chemistry of Materials</i> , 2020, 32, 1914-1924.	6.7	60
67	Chemically Robust Ambipolar Organic Transistor Array Directly Patterned by Photolithography. <i>Advanced Materials</i> , 2017, 29, 1605282.	21.0	59
68	A Hippocampus-Inspired Dual-Gated Organic Artificial Synapse for Simultaneous Sensing of a Neurotransmitter and Light. <i>Advanced Materials</i> , 2021, 33, e2100119.	21.0	59
69	Siloxane Side Chains: A Universal Tool for Practical Applications of Organic Field-Effect Transistors. <i>Macromolecules</i> , 2016, 49, 3739-3748.	4.8	58
70	Highly Sensitive and Selective Liquid-Phase Sensors Based on a Solvent-Resistant Organic Transistor Platform. <i>Advanced Materials</i> , 2015, 27, 1540-1546.	21.0	57
71	Lyotropic Liquid-Crystalline Solutions of High-Concentration Dispersions of Single-Walled Carbon Nanotubes with Conjugated Polymers. <i>Small</i> , 2009, 5, 1019-1024.	10.0	55
72	Semiconducting Carbon Nanotubes for Improved Efficiency and Thermal Stability of Polymer-Fullerene Solar Cells. <i>Advanced Functional Materials</i> , 2016, 26, 51-65.	14.9	54

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73	Fluorinated Benzothiadiazole (BT) Groups as a Powerful Unit for High-Performance Electron-Transporting Polymers. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 20390-20399.	8.0	53
74	Ambipolar Semiconducting Polymers with π -Spacer Linked Bis-Benzothiadiazole Blocks as Strong Accepting Units. <i>Chemistry of Materials</i> , 2014, 26, 4933-4942.	6.7	53
75	Highly Conductive Graphene/Ag Hybrid Fibers for Flexible Fiber-Type Transistors. <i>Scientific Reports</i> , 2015, 5, 16366.	3.3	53
76	Efficient and Air-Stable Aqueous-Processed Organic Solar Cells and Transistors: Impact of Water Addition on Processability and Thin-Film Morphologies of Electroactive Materials. <i>Advanced Energy Materials</i> , 2018, 8, 1802674.	19.5	52
77	Direct Patterning of Organic Thin-Film Transistor Arrays via a "Dry-Taping" Approach. <i>Advanced Materials</i> , 2009, 21, 1266-1270.	21.0	50
78	A Role of Side-Chain Regiochemistry of Thienylene-Vinylene Thienylene (TVT) in the Transistor Performance of Isomeric Polymers. <i>Macromolecules</i> , 2017, 50, 884-890.	4.8	49
79	Highly flexible chemical sensors based on polymer nanofiber field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2019, 7, 1525-1531.	5.5	49
80	High-Performance Furan-Containing Conjugated Polymer for Environmentally Benign Solution Processing. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 15652-15661.	8.0	46
81	A novel synthesis of nanocapsules using identical polymer core/shell nanospheres. <i>Journal of Materials Chemistry</i> , 2004, 14, 2872.	6.7	45
82	Crystallization Behavior of Poly(ethylene terephthalate) Blended with Hyperbranched Polymers: The Effect of Terminal Groups and Composition of Hyperbranched Polymers. <i>Macromolecules</i> , 2000, 33, 1864-1870.	4.8	44
83	β -Alkyl substituted Dithieno[2,3-d;2',3'-d]benzo[1,2-b;4,5-b']dithiophene Semiconducting Materials and Their Application to Solution-Processed Organic Transistors. <i>Chemistry of Materials</i> , 2012, 24, 3464-3472.	6.7	40
84	Boosting the Performance of Organic Optoelectronic Devices Using Multiple-Patterned Plasmonic Nanostructures. <i>Advanced Materials</i> , 2016, 28, 4976-4982.	21.0	40
85	Fabrication of Photoluminescent Dyes/Poly(acrylonitrile) Coaxial Nanotubes Using Vapor Deposition Polymerization. <i>Chemistry of Materials</i> , 2006, 18, 5002-5008.	6.7	38
86	Solution-processed flexible organic transistors showing very-low subthreshold slope with a bilayer polymeric dielectric on plastic. <i>Applied Physics Letters</i> , 2009, 94, 203301.	3.3	37
87	Perovskite Granular Wire Photodetectors with Ultrahigh Photodetectivity. <i>Advanced Materials</i> , 2020, 32, e2002357.	21.0	36
88	Graphene-Ruthenium Complex Hybrid Photodetectors with Ultrahigh Photoresponsivity. <i>Small</i> , 2014, 10, 3700-3706.	10.0	35
89	High-Performance Visible-Blind UV Phototransistors Based on n-Type Naphthalene Diimide Nanomaterials. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 11826-11836.	8.0	34
90	High-Performance Flexible Organic Nano-Floating Gate Memory Devices Functionalized with Cobalt Ferrite Nanoparticles. <i>Small</i> , 2015, 11, 4976-4984.	10.0	33

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91	Furan-flanked diketopyrrolopyrrole-based chalcogenophene copolymers with siloxane hybrid side chains for organic field-effect transistors. <i>Polymer Chemistry</i> , 2019, 10, 2854-2862.	3.9	33
92	Surface-Doped Quasi-2D Chiral Organic Single Crystals for Chiroptical Sensing. <i>ACS Nano</i> , 2020, 14, 14146-14156.	14.6	33
93	Highly Enantioselective Graphene-Based Chemical Sensors Prepared by Chiral Noncovalent Functionalization. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 36194-36201.	8.0	32
94	Deformable and Stretchable Electrodes for Soft Electronic Devices. <i>Macromolecular Research</i> , 2019, 27, 625-639.	2.4	32
95	Water Processable Polythiophene Nanowires by Photo-Cross-Linking and Click-Functionalization. <i>Nano Letters</i> , 2015, 15, 5689-5695.	9.1	31
96	A Top-Down Approach to Fullerene Fabrication Using a Polymer Nanoparticle Precursor. <i>Advanced Materials</i> , 2004, 16, 1650-1653.	21.0	30
97	Highly Efficient Hole Transport Layer-Free Low Bandgap Mixed Pb-Sn Perovskite Solar Cells Enabled by a Binary Additive System. <i>Advanced Functional Materials</i> , 2022, 32, 2110069.	14.9	30
98	Ultra-narrow-bandgap thienoisindigo polymers: structure-property correlations in field-effect transistors. <i>Journal of Materials Chemistry C</i> , 2016, 4, 9554-9560.	5.5	28
99	Morphogenesis and Optoelectronic Properties of Supramolecular Assemblies of Chiral Perylene Diimides in a Binary Solvent System. <i>Scientific Reports</i> , 2017, 7, 5508.	3.3	28
100	Organic n-Channel Transistors Based on [1]Benzothieno[3,2-b]benzothiophene-Rylene Diimide Donor-Acceptor Conjugated Polymers. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 32444-32453.	8.0	28
101	Stretchable N-Type High-Performance Polymers Based on Asymmetric Thierylvinyl-1,1-Dicyanomethylene-3-Indanone for Plastic Electronics. <i>Chemistry of Materials</i> , 2022, 34, 1554-1566.	6.7	27
102	Electrical Transport through Single Nanowires of Dialkyl Perylene Diimide. <i>Journal of Physical Chemistry C</i> , 2013, 117, 10743-10749.	3.1	26
103	Understanding of Fluorination Dependence on Electron Mobility and Stability of Naphthalenediimide-Based Polymer Transistors in Environment with 100% Relative Humidity. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 40347-40357.	8.0	26
104	Solution-Assembled Blends of Regioregularity-Controlled Polythiophenes for Coexistence of Mechanical Resilience and Electronic Performance. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 14120-14128.	8.0	25
105	Polarity and Air-Stability Transitions in Field-Effect Transistors Based on Fullerenes with Different Solubilizing Groups. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 4865-4871.	8.0	24
106	Effect of alkyl chain spacer on charge transport in n-type dominant polymer semiconductors with a diketopyrrolopyrrole-thiophene-bithiazole acceptor-donor-acceptor unit. <i>Journal of Materials Chemistry C</i> , 2017, 5, 3616-3622.	5.5	23
107	Tuning the supramolecular chirality and optoelectronic performance of chiral perylene diimide nanowires via N-substituted side chain engineering. <i>Journal of Materials Chemistry C</i> , 2019, 7, 8688-8697.	5.5	23
108	Neuromorphic bioelectronics based on semiconducting polymers. <i>Journal of Polymer Science</i> , 2022, 60, 348-376.	3.8	23

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109	Ultrasensitive Near-Infrared Circularly Polarized Light Detection Using 3D Perovskite Embedded with Chiral Plasmonic Nanoparticles. <i>Advanced Science</i> , 2022, 9, e2104598.	11.2	23
110	Morphogenesis of Evaporation-Induced Self-Assemblies of Polypyrrole Nanoparticles Dispersed in a Liquid Medium. <i>Langmuir</i> , 2004, 20, 8419-8422.	3.5	22
111	Photoinduced Charge-Carrier Dynamics of Phototransistors Based on Perylene Diimide/Reduced Graphene Oxide Core/Shell p-n Junction Nanowires. <i>Advanced Optical Materials</i> , 2015, 3, 241-247.	7.3	22
112	Requirements for Forming Efficient 3-D Charge Transport Pathway in Diketopyrrolopyrrole-Based Copolymers: Film Morphology vs Molecular Packing. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 12307-12315.	8.0	22
113	Flexible high-performance graphene hybrid photodetectors functionalized with gold nanostars and perovskites. <i>NPG Asia Materials</i> , 2020, 12, .	7.9	21
114	Siloxane-Based Hybrid Semiconducting Polymers Prepared by Fluoride-Mediated Suzuki Polymerization. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 4657-4660.	13.8	20
115	Bioderived and Eco-Friendly Solvent-Processed High-Mobility Ambipolar Plastic Transistors through Controlled Irregularity of the Polymer Backbone. <i>Chemistry of Materials</i> , 2019, 31, 3831-3839.	6.7	20
116	Flexible Low-Power Operative Organic Source-Gated Transistors. <i>Advanced Functional Materials</i> , 2019, 29, 1900650.	14.9	20
117	Diazapentalene-Containing Ultralow-Band-Gap Copolymers for High-Performance Near-Infrared Organic Phototransistors. <i>Chemistry of Materials</i> , 2021, 33, 7499-7508.	6.7	19
118	Fabrication of One-Dimensional Organic Nanomaterials and Their Optoelectronic Applications. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 1282-1302.	0.9	18
119	Highly stretchable fiber transistors with all-stretchable electronic components and graphene hybrid electrodes. <i>Organic Electronics</i> , 2019, 69, 320-328.	2.6	18
120	Wafer-Scale Patterning of Reduced Graphene Oxide Electrodes by Transfer and Reverse Stamping for High Performance OFETs. <i>Small</i> , 2013, 9, 2817-2825.	10.0	17
121	High-Performance Ambipolar Organic Phototransistors Based on Core-Shell p-n Junction Organic Single Crystals. <i>ACS Applied Electronic Materials</i> , 2020, 2, 9-18.	4.3	17
122	In situ FT-IR spectroscopic investigation on the microstructure of hyperbranched aliphatic polyesters. <i>Polymer</i> , 1999, 40, 5985-5992.	3.8	16
123	Molecular structure-device performance relationship in polymer solar cells based on indene-C60 bis-adduct derivatives. <i>Korean Journal of Chemical Engineering</i> , 2015, 32, 261-267.	2.7	16
124	Bay-Substitution Effect of Perylene Diimides on Supramolecular Chirality and Optoelectronic Properties of Their Self-Assembled Nanostructures. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 12278-12285.	8.0	16
125	Fused Aromatic Network with Exceptionally High Carrier Mobility. <i>Advanced Materials</i> , 2021, 33, e2004707.	21.0	16
126	Fabrication of Stretchable and Transparent Core-Shell Polymeric Nanofibers Using Coaxial Electrospinning and Their Application to Phototransistors. <i>Advanced Electronic Materials</i> , 2021, 7, 2001000.	5.1	15

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127	Usefulness of Polar and Bulky Phosphonate Chain-End Solubilizing Groups in Polymeric Semiconductors. <i>Macromolecules</i> , 2022, 55, 4367-4377.	4.8	15
128	Impact of regioregularity on thin-film transistor and photovoltaic cell performances of pentacene-containing polymers. <i>Journal of Materials Chemistry</i> , 2012, 22, 4356.	6.7	14
129	Structural Investigation of Chemiresistive Sensing Mechanism in Redox-Active Porous Coordination Network. <i>Inorganic Chemistry</i> , 2017, 56, 8735-8738.	4.0	14
130	Micro-/nano-sized multifunctional heterochiral metal-organic frameworks for high-performance visible-blind UV photodetectors. <i>Journal of Materials Chemistry C</i> , 2021, 9, 7310-7318.	5.5	14
131	Phenyl Derivative of Dibenzothiopheno[6,5- <i>b</i> :6',5'-thieno[3,2- <i>b</i>]thiophene (DP δ BTTT): High Thermally Durable Organic Semiconductor for High-Performance Organic Field-Effect Transistors. <i>Advanced Electronic Materials</i> , 2017, 3, 1700142.	5.1	13
132	A Flexible High-Performance Photoimaging Device Based on Bioinspired Hierarchical Multiple-Patterned Plasmonic Nanostructures. <i>Small</i> , 2018, 14, e1703890.	10.0	13
133	Ambipolar organic phototransistors based on 6,6-dibromoindigo. <i>RSC Advances</i> , 2018, 8, 14747-14752.	3.6	13
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