Thomas D Anthopoulos

List of Publications by Year
in descending order

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436	31,817	3325	6454
papers	citations	91 h-index	157 g-index

449	449	449	22113
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Morphology evolution via self-organization and lateral and vertical diffusion in polymer:fullerene solar cell blends. Nature Materials, 2008, 7, 158-164.	13.3	1,396
2	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. Nature Energy, 2020, 5, 131-140.	19.8	894
3	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
4	Organic Transistors in Optical Displays and Microelectronic Applications. Advanced Materials, 2010, 22, 3778-3798.	11.1	576
5	Indacenodithiophene Semiconducting Polymers for High-Performance, Air-Stable Transistors. Journal of the American Chemical Society, 2010, 132, 11437-11439.	6.6	529
6	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
7	Metal oxide semiconductor thin-film transistors for flexible electronics. Applied Physics Reviews, 2016, 3, 021303.	5.5	511
8	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS₂ as a Replacement for PEDOT:PSS. Advanced Materials, 2019, 31, e1902965.	11.1	500
9	Recent Progress in Highâ€Mobility Organic Transistors: A Reality Check. Advanced Materials, 2018, 30, e1801079.	11.1	498
10	An Alkylated Indacenodithieno[3,2â€b]thiopheneâ€Based Nonfullerene Acceptor with High Crystallinity Exhibiting Single Junction Solar Cell Efficiencies Greater than 13% with Low Voltage Losses. Advanced Materials, 2018, 30, 1705209.	11.1	474
11	Molecular origin of high field-effect mobility in an indacenodithiopheneâ€"benzothiadiazole copolymer. Nature Communications, 2013, 4, 2238.	5.8	456
12	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
13	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
14	Damp heatâ€"stable perovskite solar cells with tailored-dimensionality 2D/3D heterojunctions. Science, 2022, 376, 73-77.	6.0	366
15	Highâ€Performance Polymerâ€Small Molecule Blend Organic Transistors. Advanced Materials, 2009, 21, 1166-1171.	11.1	351
16	Diketopyrrolopyrroleâ€"Diketopyrrolopyrrole-Based Conjugated Copolymer for High-Mobility Organic Field-Effect Transistors. Journal of the American Chemical Society, 2012, 134, 16532-16535.	6.6	339
17	Transistors based on two-dimensional materials for future integrated circuits. Nature Electronics, 2021, 4, 786-799.	13.1	335
18	Hybridization of Local Exciton and Charge-Transfer States Reduces Nonradiative Voltage Losses in Organic Solar Cells. Journal of the American Chemical Society, 2019, 141, 6362-6374.	6.6	307

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19	Ambipolar Organic Field-Effect Transistors Based on a Solution-Processed Methanofullerene. Advanced Materials, 2004, 16, 2174-2179.	11.1	276
20	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. Nature Materials, 2021, 20, 378-384.	13.3	257
21	A Simple n-Dopant Derived from Diquat Boosts the Efficiency of Organic Solar Cells to 18.3%. ACS Energy Letters, 2020, 5, 3663-3671.	8.8	253
22	Solution-processable metal oxide semiconductors for thin-film transistor applications. Chemical Society Reviews, 2013, 42, 6910.	18.7	250
23	High performance n-channel organic field-effect transistors and ring oscillators based on C60 fullerene films. Applied Physics Letters, 2006, 89, 213504.	1.5	239
24	Air-Stable Complementary-like Circuits Based on Organic Ambipolar Transistors. Advanced Materials, 2006, 18, 1900-1904.	11.1	224
25	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. Joule, 2019, 3, 1963-1976.	11.7	222
26	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
27	Highâ€Mobility Lowâ€Voltage ZnO and Liâ€Doped ZnO Transistors Based on ZrO₂ Highâ€k Dielectric Grown by Spray Pyrolysis in Ambient Air. Advanced Materials, 2011, 23, 1894-1898.	11.1	217
28	Copper(I) Thiocyanate (CuSCN) Holeâ€Transport Layers Processed from Aqueous Precursor Solutions and Their Application in Thinâ€Film Transistors and Highly Efficient Organic and Organometal Halide Perovskite Solar Cells. Advanced Functional Materials, 2017, 27, 1701818.	7.8	208
29	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. ACS Energy Letters, 2020, 5, 793-798.	8.8	208
30	Realâ€Time Investigation of Crystallization and Phaseâ€Segregation Dynamics in P3HT:PCBM Solar Cells During Thermal Annealing. Advanced Functional Materials, 2011, 21, 1701-1708.	7.8	207
31	Long-range exciton diffusion in molecular non-fullerene acceptors. Nature Communications, 2020, 11, 5220.	5.8	204
32	Solution-processed organic transistors based on semiconducting blends. Journal of Materials Chemistry, 2010, 20, 2562.	6.7	201
33	Highâ€Performance Zinc Oxide Transistors and Circuits Fabricated by Spray Pyrolysis in Ambient Atmosphere. Advanced Materials, 2009, 21, 2226-2231.	11.1	197
34	Holeâ€Transporting Transistors and Circuits Based on the Transparent Inorganic Semiconductor Copper(I) Thiocyanate (CuSCN) Processed from Solution at Room Temperature. Advanced Materials, 2013, 25, 1504-1509.	11.1	196
35	Air-stable ambipolar organic transistors. Applied Physics Letters, 2007, 90, 122105.	1.5	194
36	Systematic Improvement in Charge Carrier Mobility of Air Stable Triarylamine Copolymers. Journal of the American Chemical Society, 2009, 131, 10814-10815.	6.6	186

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37	Organic complementary-like inverters employing methanofullerene-based ambipolar field-effect transistors. Applied Physics Letters, 2004, 85, 4205-4207.	1.5	179
38	Highâ€Efficiency, Solutionâ€Processed, Multilayer Phosphorescent Organic Lightâ€Emitting Diodes with a Copper Thiocyanate Holeâ€Injection/Holeâ€Transport Layer. Advanced Materials, 2015, 27, 93-100.	11.1	178
39	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
40	Solution-Processable Red Phosphorescent Dendrimers for Light-Emitting Device Applications. Advanced Materials, 2004, 16, 557-560.	11.1	175
41	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
42	Over 14% efficiency all-polymer solar cells enabled by a low bandgap polymer acceptor with low energy loss and efficient charge separation. Energy and Environmental Science, 2020, 13, 5017-5027.	15.6	170
43	Ambipolar charge transport in organic field-effect transistors. Physical Review B, 2006, 73, .	1.1	169
44	Low band gap selenopheneâ€“diketopyrrolopyrrolepolymers exhibiting high and balanced ambipolar performance in bottom-gate transistors. Chemical Science, 2012, 3, 181-185.	3.7	169
45	Electric field-induced hole transport in copper(i) thiocyanate (CuSCN) thin-films processed from solution at room temperature. Chemical Communications, 2013, 49, 4154-4156.	2.2	169
46	Small Molecule/Polymer Blend Organic Transistors with Hole Mobility Exceeding 13 cm² V^{â^'1} s^{â^'1}. Advanced Materials, 2016, 28, 7791-7798.	11.1	166
47	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. Macromolecules, 2011, 44, 6649-6652.	2.2	165
48	Generation of long-lived charges in organic semiconductor heterojunction nanoparticles for efficient photocatalytic hydrogen evolution. Nature Energy, 2022, 7, 340-351.	19.8	164
49	Printable CsPbI₃ Perovskite Solar Cells with PCE of 19% via an Additive Strategy. Advanced Materials, 2020, 32, e2001243.	11.1	157
50	Highâ€Performance ZnO Transistors Processed Via an Aqueous Carbonâ€Free Metal Oxide Precursor Route at Temperatures Between 80â€“180 Â°C. Advanced Materials, 2013, 25, 4340-4346.	11.1	156
51	Doping Approaches for Organic Semiconductors. Chemical Reviews, 2022, 122, 4420-4492.	23.0	153
52	High mobility n-channel organic field-effect transistors based on soluble C60 and C70 fullerene derivatives. Synthetic Metals, 2008, 158, 468-472.	2.1	151
53	Key Parameters Requirements for Nonâ€Fullereneâ€Based Organic Solar Cells with Power Conversion Efficiency >20%. Advanced Science, 2019, 6, 1802028.	5.6	149
54	Encapsulated Cores: Host-Free Organic Light-Emitting Diodes Based on Solution-Processible Electrophosphorescent Dendrimers. Advanced Materials, 2005, 17, 1945-1948.	11.1	148

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55	Heterojunction oxide thin-film transistors with unprecedented electron mobility grown from solution. Science Advances, 2017, 3, e1602640.	4.7	148
56	Fused Dithienogermolodithiophene Low Band Gap Polymers for High-Performance Organic Solar Cells without Processing Additives. Journal of the American Chemical Society, 2013, 135, 2040-2043.	6.6	145
57	Near-Infrared Light-Emitting Ambipolar Organic Field-Effect Transistors. Advanced Materials, 2007, 19, 734-738.	11.1	140
58	High Electron Mobility Thinâ€Film Transistors Based on Solutionâ€Processed Semiconducting Metal Oxide Heterojunctions and Quasiâ€Superlattices. Advanced Science, 2015, 2, 1500058.	5.6	134
59	Electrolyte Engineering Enables High Stability and Capacity Alloying Anodes for Sodium and Potassium Ion Batteries. ACS Energy Letters, 2020, 5, 766-776.	8.8	134
60	Highâ€Efficiency Organic Photovoltaic Cells Based on the Solutionâ€Processable Hole Transporting Interlayer Copper Thiocyanate (CuSCN) as a Replacement for PEDOT:PSS. Advanced Energy Materials, 2015, 5, 1401529.	10.2	133
61	Remarkable Enhancement of the Hole Mobility in Several Organic Smallâ€Molecules, Polymers, and Smallâ€Molecule:Polymer Blend Transistors by Simple Admixing of the Lewis Acid pâ€Dopant B(C₆F₅)₃. Advanced Science, 2018, 5, 1700290.	5.6	131
62	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
63	Highly efficient single-layer dendrimer light-emitting diodes with balanced charge transport. Applied Physics Letters, 2003, 82, 4824-4826.	1.5	128
64	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors. Chemistry of Materials, 2011, 23, 768-770.	3.2	126
65	High Mobility Fieldâ€Effect Transistors with Versatile Processing from a Smallâ€Molecule Organic Semiconductor. Advanced Materials, 2013, 25, 4352-4357.	11.1	126
66	Metal Halide Perovskites for Highâ€Energy Radiation Detection. Advanced Science, 2020, 7, 2002098.	5.6	126
67	Low-voltage ZnO thin-film transistors based on Y2O3 and Al2O3 high-k dielectrics deposited by spray pyrolysis in air. Applied Physics Letters, 2011, 98, 123503.	1.5	122
68	Interfacial Model Deciphering Highâ€Voltage Electrolytes for High Energy Density, High Safety, and Fastâ€Charging Lithiumâ€Ion Batteries. Advanced Materials, 2021, 33, e2102964.	11.1	122
69	Airâ€Stable and Highâ€Mobility nâ€Channel Organic Transistors Based on Smallâ€Molecule/Polymer Semiconducting Blends. Advanced Materials, 2012, 24, 3205-3211.	11.1	121
70	18.4â€‰% Organic Solar Cells Using a High Ionization Energy Selfâ€Assembled Monolayer as Holeâ€Extraction Interlayer. ChemSusChem, 2021, 14, 3569-3578.	3.6	121
71	The Influence of Film Morphology in Highâ€Mobility Smallâ€Molecule:Polymer Blend Organic Transistors. Advanced Functional Materials, 2010, 20, 2330-2337.	7.8	120
72	Fullerene/Cobalt Porphyrin Hybrid Nanosheets with Ambipolar Charge Transporting Characteristics. Journal of the American Chemical Society, 2012, 134, 7204-7206.	6.6	119

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73	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
74	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
75	Metalâ€Halide Perovskite Transistors for Printed Electronics: Challenges and Opportunities. Advanced Materials, 2017, 29, 1702838.	11.1	117
76	Effect of Systematically Tuning Conjugated Donor Polymer Lowest Unoccupied Molecular Orbital Levels via Cyano Substitution on Organic Photovoltaic Device Performance. Chemistry of Materials, 2016, 28, 5110-5120.	3.2	115
77	Low-voltage organic transistors based on solution processed semiconductors and self-assembled monolayer gate dielectrics. Applied Physics Letters, 2008, 93, .	1.5	111
78	Random benzotrithiophene-based donorâ€“acceptor copolymers for efficient organic photovoltaic devices. Chemical Communications, 2012, 48, 5832.	2.2	111
79	Liquid phase exfoliation of MoS₂ and WS₂ in aqueous ammonia and their application in highly efficient organic solar cells. Journal of Materials Chemistry C, 2020, 8, 5259-5264.	2.7	109
80	Sprayâ€Deposited Liâ€Doped ZnO Transistors with Electron Mobility Exceeding 50 cm²/Vs. Advanced Materials, 2010, 22, 4764-4769.	11.1	105
81	Alkylated Selenophene-Based Ladder-Type Monomers via a Facile Route for High-Performance Thin-Film Transistor Applications. Journal of the American Chemical Society, 2017, 139, 8552-8561.	6.6	105
82	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. Nature Materials, 2020, 19, 1300-1306.	13.3	104
83	p-channel thin-film transistors based on spray-coated Cu2O films. Applied Physics Letters, 2013, 102, .	1.5	101
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	Structural and Electrical Characterization of ZnO Films Grown by Spray Pyrolysis and Their Application in Thinâ€Film Transistors. Advanced Functional Materials, 2011, 21, 525-531.	7.8	100
86	Lithiumâ€Ion Desolvation Induced by Nitrate Additives Reveals New Insights into High Performance Lithium Batteries. Advanced Functional Materials, 2021, 31, 2101593.	7.8	100
87	Solution processible organic transistors and circuits based on a C70 methanofullerene. Journal of Applied Physics, 2005, 98, 054503.	1.1	99
88	Unraveling the New Role of an Ethylene Carbonate Solvation Shell in Rechargeable Metal Ion Batteries. ACS Energy Letters, 2021, 6, 69-78.	8.8	99
89	28.2%-efficient, outdoor-stable perovskite/silicon tandem solar cell. Joule, 2021, 5, 3169-3186.	11.7	99
90	Low-voltage ambipolar phototransistors based on a pentacene/PC61BM heterostructure and a self-assembled nano-dielectric. Organic Electronics, 2010, 11, 1250-1254.	1.4	98

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91	Vertical Phase Separation in Small Molecule:Polymer Blend Organic Thin Film Transistors Can Be Dynamically Controlled. Advanced Functional Materials, 2016, 26, 1737-1746.	7.8	98
92	N-type organic thermoelectrics: demonstration of ZTâ€‰>â€‰0.3. Nature Communications, 2020, 11, 5694.	5.8	98
93	Influence of Side-Chain Regiochemistry on the Transistor Performance of High-Mobility, All-Donor Polymers. Journal of the American Chemical Society, 2014, 136, 15154-15157.	6.6	97
94	Over 18% ternary polymer solar cells enabled by a terpolymer as the third component. Nano Energy, 2022, 92, 106681.	8.2	97
95	Modulationâ€Doped In₂O₃/ZnO Heterojunction Transistors Processed from Solution. Advanced Materials, 2017, 29, 1605837.	11.1	96
96	Reduced Graphene Oxide Electrodes for Large Area Organic Electronics. Advanced Materials, 2011, 23, 1558-1562.	11.1	92
97	A low band gap co-polymer of dithienogermole and 2,1,3-benzothiadiazole by Suzuki polycondensation and its application in transistor and photovoltaic cells. Journal of Materials Chemistry, 2011, 21, 16257.	6.7	91
98	Amphipathic Side Chain of a Conjugated Polymer Optimizes Dopant Location toward Efficient Nâ€Type Organic Thermoelectrics. Advanced Materials, 2021, 33, e2006694.	11.1	91
99	Air-Stable n-Channel Organic Transistors Based on a Soluble C84 Fullerene Derivative. Advanced Materials, 2006, 18, 1679-1684.	11.1	89
100	Cyano substituted benzothiadiazole: a novel acceptor inducing n-type behaviour in conjugated polymers. Journal of Materials Chemistry C, 2015, 3, 265-275.	2.7	89
101	Stretchable and Transparent Conductive PEDOT:PSSâ€Based Electrodes for Organic Photovoltaics and Strain Sensors Applications. Advanced Functional Materials, 2020, 30, 2001251.	7.8	88
102	Influence of the heteroatom on the optoelectronic properties and transistor performance of soluble thiophene-, selenophene- and telluropheneâ€“vinylene copolymers. Chemical Science, 2016, 7, 1093-1099.	3.7	84
103	Copper(I) thiocyanate (CuSCN) as a hole-transport material for large-area opto/electronics. Semiconductor Science and Technology, 2015, 30, 104002.	1.0	83
104	Water stable molecular n-doping produces organic electrochemical transistors with high transconductance and record stability. Nature Communications, 2020, 11, 3004.	5.8	82
105	Electro-optical circuits based on light-sensing ambipolar organic field-effect transistors. Applied Physics Letters, 2007, 91, 113513.	1.5	81
106	Indium Oxide Thin-Film Transistors Processed at Low Temperature via Ultrasonic Spray Pyrolysis. ACS Applied Materials & Interfaces, 2015, 7, 782-790.	4.0	79
107	Ambipolar organic transistors and near-infrared phototransistors based on a solution-processable squarilium dye. Journal of Materials Chemistry, 2010, 20, 3673.	6.7	77
108	Sub-15-nm patterning of asymmetric metal electrodes and devices by adhesion lithography. Nature Communications, 2014, 5, 3933.	5.8	77

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109	Partially oxidized graphene as a precursor to graphene. Journal of Materials Chemistry, 2011, 21, 11217.	6.7	76
110	Post-fabrication, in situ laser reduction of graphene oxide devices. Applied Physics Letters, 2013, 102, .	1.5	76
111	High-performance organic integrated circuits based on solution processable polymer-small molecule blends. Applied Physics Letters, 2008, 93, .	1.5	74
112	Efficient organic solar cells using copper(I) iodide (CuI) hole transport layers. Applied Physics Letters, 2015, 106, .	1.5	73
113	The Energy Level Conundrum of Organic Semiconductors in Solar Cells. Advanced Materials, 2022, 34, .	11.1	72
114	Photoinduced Transient Stark Spectroscopy in Organic Semiconductors: A Method for Charge Mobility Determination in the Picosecond Regime. Physical Review Letters, 2006, 96, 106601.	2.9	71
115	Thiophene fluorination to enhance photovoltaic performance in low band gap donorâ€“acceptor polymers. Chemical Communications, 2012, 48, 11130.	2.2	68
116	Ambient blade coating of mixed cation, mixed halide perovskites without dripping: in situ investigation and highly efficient solar cells. Journal of Materials Chemistry A, 2020, 8, 1095-1104.	5.2	68
117	Alkyl Chain Extension as a Route to Novel Thieno[3,2-b]thiophene Flanked Diketopyrrolopyrrole Polymers for Use in Organic Solar Cells and Field Effect Transistors. Macromolecules, 2013, 46, 5961-5967.	2.2	67
118	Optoelectronic Ferroelectric Domainâ€Wall Memories Made from a Single Van Der Waals Ferroelectric. Advanced Functional Materials, 2020, 30, 2004206.	7.8	67
119	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
120	Electronic properties of ZnO field-effect transistors fabricated by spray pyrolysis in ambient air. Applied Physics Letters, 2009, 95, 133507.	1.5	65
121	High mobility p-channel organic field effect transistors on flexible substrates using a polymer-small molecule blend. Synthetic Metals, 2009, 159, 2365-2367.	2.1	65
122	Effect of Acene Length on Electronic Properties in 5â€, 6â€, and 7â€Ringed Heteroacenes. Advanced Materials, 2011, 23, 3698-3703.	11.1	65
123	Self-Powered Perovskite/CdS Heterostructure Photodetectors. ACS Applied Materials & Interfaces, 2019, 11, 40204-40213.	4.0	65
124	The Mobility and Decay Kinetics of Charge Carriers in Pulse-Ionized Microcrystalline PCBM Powder. Advanced Functional Materials, 2006, 16, 2274-2280.	7.8	64
125	Electronic Properties of Copper(I) Thiocyanate (CuSCN). Advanced Electronic Materials, 2017, 3, 1600378.	2.6	64
126	Flexible diodes for radio frequency (RF) electronics: a materials perspective. Semiconductor Science and Technology, 2017, 32, 123002.	1.0	64

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127	Phase Inversion Strategy to Flexible Freestanding Electrode: Critical Coupling of Binders and Electrolytes for High Performance Liâ€“S Battery. Advanced Functional Materials, 2018, 28, 1802244.	7.8	64
128	Addition of the Lewis Acid Zn(C₆F₅)₂ Enables Organic Transistors with a Maximum Hole Mobility in Excess of 20 cm² V^{â^'1} s^{â^'1}. Advanced Materials, 2019, 31, e1900871.	11.1	64
129	Synthesis of novel thieno[3,2-b]thienobis(silolothiophene) based low bandgap polymers for organic photovoltaics. Chemical Communications, 2012, 48, 7699.	2.2	63
130	BPTs: thiophene-flanked benzodipyrrolidone conjugated polymers for ambipolar organic transistors. Chemical Communications, 2013, 49, 4465.	2.2	63
131	Significant Stability Enhancement in Highâ€Efficiency Polymer:Fullerene Bulk Heterojunction Solar Cells by Blocking Ultraviolet Photons from Solar Light. Advanced Science, 2016, 3, 1500269.	5.6	63
132	The Impact of Molecular pâ€Doping on Charge Transport in Highâ€Mobility Smallâ€Molecule/Polymer Blend Organic Transistors. Advanced Electronic Materials, 2018, 4, 1700464.	2.6	63
133	Advantageous 3D Ordering of Ïâ€Conjugated Systems: A New Approach Towards Efficient Charge Transport in any Direction. Advanced Materials, 2007, 19, 4438-4442.	11.1	61
134	Quasi Two-Dimensional Dye-Sensitized In₂O₃ Phototransistors for Ultrahigh Responsivity and Photosensitivity Photodetector Applications. ACS Applied Materials & Interfaces, 2016, 8, 4894-4902.	4.0	61
135	Microstructural Control of Charge Transport in Organic Blend Thinâ€Film Transistors. Advanced Functional Materials, 2014, 24, 5969-5976.	7.8	60
136	Effect of multiple adduct fullerenes on charge generation and transport in photovoltaic blends with poly(3â€hexylthiopheneâ€2,5â€diyl). Journal of Polymer Science, Part B: Polymer Physics, 2011, 49, 45-51.	2.4	59
137	Influence of the Electron Deficient Coâ€Monomer on the Optoelectronic Properties and Photovoltaic Performance of Dithienogermoleâ€based Coâ€Polymers. Advanced Functional Materials, 2014, 24, 678-687.	7.8	59
138	Laser-Assisted Reduction of Graphene Oxide for Flexible, Large-Area Optoelectronics. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 106-115.	1.9	59
139	Using Molecular Design to Increase Hole Transport: Backbone Fluorination in the Benchmark Material		

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145	High electron mobility thin-film transistors based on Ga2O3 grown by atmospheric ultrasonic spray pyrolysis at low temperatures. Applied Physics Letters, 2014, 105, .	1.5	56
146	Study of the Hole Transport Processes in Solutionâ€Processed Layers of the Wide Bandgap Semiconductor Copper(I) Thiocyanate (CuSCN). Advanced Functional Materials, 2015, 25, 6802-6813.	7.8	56
147	An Airâ€Stable Semiconducting Polymer Containing Dithieno[3,2â€b:2â€²,3â€²â€d]arsole. Angewandte Chemie - International Edition, 2016, 55, 7148-7151.	7.2	56
148	Isostructural, Deeper Highest Occupied Molecular Orbital Analogues of Poly(3-hexylthiophene) for High-Open Circuit Voltage Organic Solar Cells. Chemistry of Materials, 2013, 25, 4239-4249.	3.2	55
149	Comparative Study of the Nâ€Type Doping Efficiency in Solutionâ€processed Fullerenes and Fullerene Derivatives. Advanced Functional Materials, 2014, 24, 7116-7124.	7.8	55
150	Enabling thin-film transistor technologies and the device metrics that matter. Nature Communications, 2018, 9, 5264.	5.8	55
151	Use of side-chain for rational design of n-type diketopyrrolopyrrole-based conjugated polymers: what did we find out?. Physical Chemistry Chemical Physics, 2014, 16, 17253-17265.	1.3	54
152	Germaindacenodithiophene based low band gap polymers for organic solar cells. Chemical Communications, 2012, 48, 2955.	2.2	53
153	Observation of Unusual, Highly Conductive Grain Boundaries in Highâ€Mobility Phase Separated Organic Semiconducting Blend Films Probed by Lateralâ€Transport Conductiveâ€AFM. Advanced Materials, 2013, 25, 4320-4326.	11.1	53
154	Copper thiocyanate: An attractive hole transport/extraction layer for use in organic photovoltaic cells. Applied Physics Letters, 2015, 107, .	1.5	53
155	Doping of Large Ionization Potential Indenopyrazine Polymers via Lewis Acid Complexation with Tris(pentafluorophenyl)borane: A Simple Method for Improving the Performance of Organic Thin-Film Transistors. Chemistry of Materials, 2016, 28, 8016-8024.	3.2	53
156	Indolo-naphthyridine-6,13-dione Thiophene Building Block for Conjugated Polymer Electronics: Molecular Origin of Ultrahigh n-Type Mobility. Chemistry of Materials, 2016, 28, 8366-8378.	3.2	52
157	On the Role of Contact Resistance and Electrode Modification in Organic Electrochemical Transistors. Advanced Materials, 2019, 31, e1902291.	11.1	52
158	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
159	Pushing the Limits of Flexibility and Stretchability of Solar Cells: A Review. Advanced Materials, 2021, 33, e2101469.	11.1	51
160	TiO 2 thin-film transistors fabricated by spray pyrolysis. Applied Physics Letters, 2010, 96, .	1.5	50
161	Pyrroloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. Journal of Materials Chemistry, 2011, 21, 18744.	6.7	50
162	pâ€Doping of Copper(I) Thiocyanate (CuSCN) Holeâ€Transport Layers for Highâ€Performance Transistors and Organic Solar Cells. Advanced Functional Materials, 2018, 28, 1802055.	7.8	50

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