Antonio Facchetti

List of Publications by Year
in descending order

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525 papers	61,582 citations	699 121 h-index	1109 231 g-index
568 all docs	568 docs citations	568 times ranked	34177 citing authors

#	Article	IF	Citations
1	A high-mobility electron-transporting polymer for printed transistors. Nature, 2009, 457, 679-686.	13.7	2,780
2	Ï€-Conjugated Polymers for Organic Electronics and Photovoltaic Cell Applications. Chemistry of Materials, 2011, 23, 733-758.	3.2	2,071
3	Rylene and Related Diimides for Organic Electronics. Advanced Materials, 2011, 23, 268-284.	11.1	1,548
4	Metal oxides for optoelectronic applications. Nature Materials, 2016, 15, 383-396.	13.3	1,203
5	Low-temperature fabrication of high-performance metal oxide thin-film electronics via combustion processing. Nature Materials, 2011, 10, 382-388.	13.3	1,093
6	nâ€Type Organic Semiconductors in Organic Electronics. Advanced Materials, 2010, 22, 3876-3892.	11.1	1,077
7	Gate Dielectrics for Organic Field-Effect Transistors: New Opportunities for Organic Electronics. Advanced Materials, 2005, 17, 1705-1725.	11.1	975
8	Tuning Orbital Energetics in Arylene Diimide Semiconductors. Materials Design for Ambient Stability of n-Type Charge Transport. Journal of the American Chemical Society, 2007, 129, 15259-15278.	6.6	960
9	Polymer solar cells with enhanced fill factors. Nature Photonics, 2013, 7, 825-833.	15.6	887
10	Imide- and Amide-Functionalized Polymer Semiconductors. Chemical Reviews, 2014, 114, 8943-9021.	23.0	874
11	High-Mobility Air-Stable n-Type Semiconductors with Processing Versatility: Dicyanoperylene-3,4:9,10-bis(dicarboximides). Angewandte Chemie - International Edition, 2004, 43, 6363-6366.	7.2	808
12	Material insights and challenges for non-fullerene organic solar cells based on small molecular acceptors. Nature Energy, 2018, 3, 720-731.	19.8	808
13	High-k Organic, Inorganic, and Hybrid Dielectrics for Low-Voltage Organic Field-Effect Transistors. Chemical Reviews, 2010, 110, 205-239.	23.0	801
14	Semiconductors for organic transistors. Materials Today, 2007, 10, 28-37.	8.3	760
15	Polymer donorâ€“polymer acceptor (all-polymer) solar cells. Materials Today, 2013, 16, 123-132.	8.3	645
16	n-Channel Semiconductor Materials Design for Organic Complementary Circuits. Accounts of Chemical Research, 2011, 44, 501-510.	7.6	643
17	Universal quinone electrodes for long cycle life aqueous rechargeable batteries. Nature Materials, 2017, 16, 841-848.	13.3	615
18	Organic and Polymeric Semiconductors Enhanced by Noncovalent Conformational Locks. Chemical Reviews, 2017, 117, 10291-10318.	23.0	575

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19	Molecular Selfâ€Assembled Monolayers and Multilayers for Organic and Unconventional Inorganic Thinâ€Film Transistor Applications. Advanced Materials, 2009, 21, 1407-1433.	11.1	556
20	Naphthalenedicarboximide- vs Perylenedicarboximide-Based Copolymers. Synthesis and Semiconducting Properties in Bottom-Gate N-Channel Organic Transistors. Journal of the American Chemical Society, 2009, 131, 8-9.	6.6	540
21	Organic light-emitting transistors with an efficiency that outperforms the equivalent light-emitting diodes. Nature Materials, 2010, 9, 496-503.	13.3	535
22	High-k Gate Dielectrics for Emerging Flexible and Stretchable Electronics. Chemical Reviews, 2018, 118, 5690-5754.	23.0	530
23	Fabrication of fully transparent nanowire transistors for transparent and flexible electronics. Nature Nanotechnology, 2007, 2, 378-384.	15.6	505
24	Role of Gallium Doping in Dramatically Lowering Amorphousâ€Oxide Processing Temperatures for Solutionâ€Derived Indium Zinc Oxide Thinâ€Film Transistors. Advanced Materials, 2010, 22, 1346-1350.	11.1	493
25	Design, Synthesis, and Characterization of Ladder-Type Molecules and Polymers. Air-Stable, Solution-Processable n-Channel and Ambipolar Semiconductors for Thin-Film Transistors via Experiment and Theory. Journal of the American Chemical Society, 2009, 131, 5586-5608.	6.6	481
26	A Naphthodithiophene-Diketopyrrolopyrrole Donor Molecule for Efficient Solution-Processed Solar Cells. Journal of the American Chemical Society, 2011, 133, 8142-8145.	6.6	474
27	Gate Dielectric Chemical Structureâ^'Organic Field-Effect Transistor Performance Correlations for Electron, Hole, and Ambipolar Organic Semiconductors. Journal of the American Chemical Society, 2006, 128, 12851-12869.	6.6	454
28	Allâ€Polymer Solar Cells: Recent Progress, Challenges, and Prospects. Angewandte Chemie - International Edition, 2019, 58, 4129-4142.	7.2	448
29	Large modulation of carrier transport by grain-boundary molecular packing and microstructure in organic thin films. Nature Materials, 2009, 8, 952-958.	13.3	416
30	Building Blocks for n-Type Organic Electronics: Regiochemically Modulated Inversion of Majority Carrier Sign in Perfluoroarene-Modified Polythiophene Semiconductors. Angewandte Chemie - International Edition, 2003, 42, 3900-3903.	7.2	402
31	Low-Voltage Organic Field-Effect Transistors and Inverters Enabled by Ultrathin Cross-Linked Polymers as Gate Dielectrics. Journal of the American Chemical Society, 2005, 127, 10388-10395.	6.6	401
32	Aggregation in a High-Mobility n-Type Low-Bandgap Copolymer with Implications on Semicrystalline Morphology. Journal of the American Chemical Society, 2012, 134, 18303-18317.	6.6	395
33	Polymer Gate Dielectric Surface Viscoelasticity Modulates Pentacene Transistor Performance. Science, 2007, 318, 76-80.	6.0	377
34	Easily Processable Phenyleneâ^'Thiophene-Based Organic Field-Effect Transistors and Solution-Fabricated Nonvolatile Transistor Memory Elements. Journal of the American Chemical Society, 2003, 125, 9414-9423.	6.6	373
35	Organic Thin-Film Transistors Based on Carbonyl-Functionalized Quaterthiophenes:Â High Mobility N-Channel Semiconductors and Ambipolar Transport. Journal of the American Chemical Society, 2005, 127, 1348-1349.	6.6	365
36	Building Blocks for N-Type Molecular and Polymeric Electronics. Perfluoroalkyl- versus Alkyl-Functionalized Oligothiophenes (nTs;n= 2â^'6). Systematic Synthesis, Spectroscopy, Electrochemistry, and Solid-State Organization. Journal of the American Chemical Society, 2004, 126, 13480-13501.	6.6	362

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37	Unconventional Faceâ€On Texture and Exceptional Inâ€Plane Order of a High Mobility nâ€Type Polymer. Advanced Materials, 2010, 22, 4359-4363.	11.1	344
38	Synthesis, Characterization, and Transistor Response of Semiconducting Silole Polymers with Substantial Hole Mobility and Air Stability. Experiment and Theory. Journal of the American Chemical Society, 2008, 130, 7670-7685.	6.6	342
39	Fluorination Effects on Indacenodithienothiophene Acceptor Packing and Electronic Structure, End-Group Redistribution, and Solar Cell Photovoltaic Response. Journal of the American Chemical Society, 2019, 141, 3274-3287.	6.6	336
40	High-performance transparent inorganicâ€“organic hybrid thin-film n-type transistors. Nature Materials, 2006, 5, 893-900.	13.3	330
41	Dithienosiloleâˆ’ and Dibenzosiloleâˆ’Thiophene Copolymers as Semiconductors for Organic Thin-Film Transistors. Journal of the American Chemical Society, 2006, 128, 9034-9035.	6.6	323
42	Building Blocks for n-Type Molecular and Polymeric Electronics. Perfluoroalkyl- versus Alkyl-Functionalized Oligothiophenes (nT;n= 2â^6). Systematics of Thin Film Microstructure, Semiconductor Performance, and Modeling of Majority Charge Injection in Field-Effect Transistors. Journal of the American Chemical Society, 2004, 126, 13859-13874.	6.6	321
43	Slip-Stacked Perylenediimides as an Alternative Strategy for High Efficiency Nonfullerene Acceptors in Organic Photovoltaics. Journal of the American Chemical Society, 2014, 136, 16345-16356.	6.6	320
44	n-Type Building Blocks for Organic Electronics: A Homologous Family of Fluorocarbon-Substituted Thiophene Oligomers with High Carrier Mobility. Advanced Materials, 2003, 15, 33-38.	11.1	318
45	Influence of Aggregation on the Performance of Allâ€Polymer Solar Cells Containing Lowâ€Bandgap Naphthalenediimide Copolymers. Advanced Energy Materials, 2012, 2, 369-380.	10.2	316
46	Mechanically Flexible Conductors for Stretchable and Wearable Eâ€Skin and Eâ€Textile Devices. Advanced Materials, 2019, 31, e1901408.	11.1	313
47	n-Channel Polymers by Design: Optimizing the Interplay of Solubilizing Substituents, Crystal Packing, and Field-Effect Transistor Characteristics in Polymeric Bithiophene-Imide Semiconductors. Journal of the American Chemical Society, 2008, 130, 9679-9694.	6.6	308
48	Fluorocarbon-Modified Organic Semiconductors:Â Molecular Architecture, Electronic, and Crystal Structure Tuning of Arene- versus Fluoroarene-Thiophene Oligomer Thin-Film Properties. Journal of the American Chemical Society, 2006, 128, 5792-5801.	6.6	302
49	Macroscopic and high-throughput printing of aligned nanostructured polymer semiconductors for MHz large-area electronics. Nature Communications, 2015, 6, 8394.	5.8	280
50	Drastic Control of Texture in a High Performance n-Type Polymeric Semiconductor and Implications for Charge Transport. Macromolecules, 2011, 44, 5246-5255.	2.2	278
51	All-Polymer Solar Cell Performance Optimized via Systematic Molecular Weight Tuning of Both Donor and Acceptor Polymers. Journal of the American Chemical Society, 2016, 138, 1240-1251.	6.6	276
52	Tuning the Semiconducting Properties of Sexithiophene byÎ±,Ï‰-Substitutionâ€”Î±,Ï‰-Diperfluorohexylsexithiophene: The First n-Type Sexithiophene for Thin-Film Transistors. Angewandte Chemie - International Edition, 2000, 39, 4547-4551.	7.2	273
53	The journey of conducting polymers from discovery to application. Nature Materials, 2020, 19, 922-928.	13.3	272
54	Efficient Squaraine-Based Solution Processable Bulk-Heterojunction Solar Cells. Journal of the American Chemical Society, 2008, 130, 17640-17641.	6.6	271

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55	Air-Stable, Solution-Processable n-Channel and Ambipolar Semiconductors for Thin-Film Transistors Based on the Indenofluorenebis(dicyanovinylene) Core. Journal of the American Chemical Society, 2008, 130, 8580-8581.	6.6	259
56	Ultralarge Hyperpolarizability Twisted Ï€-Electron System Electro-Optic Chromophores:Â Synthesis, Solid-State and Solution-Phase Structural Characteristics, Electronic Structures, Linear and Nonlinear Optical Properties, and Computational Studies. Journal of the American Chemical Society, 2007, 129, 3267-3286.	6.6	258
57	From The Cover: Â-Â molecular dielectric multilayers for low-voltage organic thin-film transistors. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4678-4682.	3.3	257
58	High Electron Mobility in Vacuum and Ambient for PDIF-CN₂ Single-Crystal Transistors. Journal of the American Chemical Society, 2009, 131, 2462-2463.	6.6	257
59	Bithiopheneimideâ€“Dithienosilole/Dithienogermole Copolymers for Efficient Solar Cells: Information from Structureâ€“Propertyâ€“Device Performance Correlations and Comparison to Thieno[3,4-c]pyrrole-4,6-dione Analogues. Journal of the American Chemical Society, 2012, 134, 18427-18439.	6.6	257
60	Bandâ€Like Electron Transport in Organic Transistors and Implication of the Molecular Structure for Performance Optimization. Advanced Materials, 2012, 24, 503-508.	11.1	255
61	Cyanonaphthalene Diimide Semiconductors for Air-Stable, Flexible, and Optically Transparent n-Channel Field-Effect Transistors. Chemistry of Materials, 2007, 19, 2703-2705.	3.2	243
62	Metal-Free Tetrathienoacene Sensitizers for High-Performance Dye-Sensitized Solar Cells. Journal of the American Chemical Society, 2015, 137, 4414-4423.	6.6	243
63	Heavily n-Dopable Ï€-Conjugated Redox Polymers with Ultrafast Energy Storage Capability. Journal of the American Chemical Society, 2015, 137, 4956-4959.	6.6	242
64	High-Performance Solution-Processed Amorphous Zincâ€“Indiumâ€“Tin Oxide Thin-Film Transistors. Journal of the American Chemical Society, 2010, 132, 10352-10364.	6.6	235
65	Thieno[3,4-c]pyrrole-4,6-dione-Based Polymer Semiconductors: Toward High-Performance, Air-Stable Organic Thin-Film Transistors. Journal of the American Chemical Society, 2011, 133, 13685-13697.	6.6	232
66	Bithiophene-Imide-Based Polymeric Semiconductors for Field-Effect Transistors: Synthesis, Structureâ€“Property Correlations, Charge Carrier Polarity, and Device Stability. Journal of the American Chemical Society, 2011, 133, 1405-1418.	6.6	231
67	Nanostructured organic semiconductor films for molecular detection with surface-enhanced Raman spectroscopy. Nature Materials, 2017, 16, 918-924.	13.3	229
68	High-Performance n-Type Polymer Semiconductors: Applications, Recent Development, and Challenges. CheM, 2020, 6, 1310-1326.	5.8	229
69	Highâ€Efficiency Allâ€Polymer Solar Cells Based on a Pair of Crystalline Lowâ€Bandgap Polymers. Advanced Materials, 2014, 26, 7224-7230.	11.1	228
70	Morphologyâ€Performance Relationships in Highâ€Efficiency Allâ€Polymer Solar Cells. Advanced Energy Materials, 2014, 4, 1300785.	10.2	227
71	The Role of Regioregularity, Crystallinity, and Chain Orientation on Electron Transport in a High-Mobility n-Type Copolymer. Journal of the American Chemical Society, 2014, 136, 4245-4256.	6.6	226
72	High-Mobility Ambipolar Transport in Organic Light-Emitting Transistors. Advanced Materials, 2006, 18, 1416-1420.	11.1	220

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73	Combining Electron-Neutral Building Blocks with Intramolecular â€œConformational Locksâ€•Affords Stable, High-Mobility P- and N-Channel Polymer Semiconductors. Journal of the American Chemical Society, 2012, 134, 10966-10973.	6.6	220
74	A Circuits and Systems Perspective of Organic/Printed Electronics: Review, Challenges, and Contemporary and Emerging Design Approaches. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2017, 7, 7-26.	2.7	214
75	Crystallography, Morphology, Electronic Structure, and Transport in Non-Fullerene/Non-Indacenodithienothiophene Polymer:Y6 Solar Cells. Journal of the American Chemical Society, 2020, 142, 14532-14547.	6.6	214
76	Transparent Active Matrix Organic Light-Emitting Diode Displays Driven by Nanowire Transistor Circuitry. Nano Letters, 2008, 8, 997-1004.	4.5	213
77	Allâ€Printed Flexible Organic Transistors Enabled by Surface Tensionâ€Guided Blade Coating. Advanced Materials, 2014, 26, 5722-5727.	11.1	204
78	Effects of Arylene Diimide Thin Film Growth Conditions on nâ€Channel OFET Performance. Advanced Functional Materials, 2008, 18, 1329-1339.	7.8	198
79	Poly(3-hexylthiophene): synthetic methodologies and properties in bulk heterojunction solar cells. Energy and Environmental Science, 2012, 5, 8457.	15.6	197
80	Semiconducting Polymers Prepared by Direct Arylation Polycondensation. Angewandte Chemie - International Edition, 2012, 51, 3520-3523.	7.2	197
81	Anthracenedicarboximides as Air-Stable N-Channel Semiconductors for Thin-Film Transistors with Remarkable Current Onâ^'Off Ratios. Journal of the American Chemical Society, 2007, 129, 13362-13363.	6.6	196
82	Novel Heterocycle-Based Two-Photon Absorbing Dyes. Organic Letters, 2002, 4, 1495-1498.	2.4	195
83	Enhanced Efficiency of Hotâ€Cast Largeâ€Area Planar Perovskite Solar Cells/Modules Having Controlled Chloride Incorporation. Advanced Energy Materials, 2017, 7, 1601660.	10.2	191
84	Marked Alkyl- vs Alkenyl-Substitutent Effects on Squaraine Dye Solid-State Structure, Carrier Mobility, and Bulk-Heterojunction Solar Cell Efficiency. Journal of the American Chemical Society, 2010, 132, 4074-4075.	6.6	186
85	Dialkoxybithiazole: A New Building Block for Head-to-Head Polymer Semiconductors. Journal of the American Chemical Society, 2013, 135, 1986-1996.	6.6	184
86	High Performance Solution-Processed Indium Oxide Thin-Film Transistors. Journal of the American Chemical Society, 2008, 130, 12580-12581.	6.6	182
87	Remarkable Enhancement of Hole Transport in Topâ€Gated Nâ€Type Polymer Fieldâ€Effect Transistors by a Highâ€k Dielectric for Ambipolar Electronic Circuits. Advanced Materials, 2012, 24, 5433-5439.	11.1	176
88	Spray-combustion synthesis: Efficient solution route to high-performance oxide transistors. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3217-3222.	3.3	175
89	Oxygen â€œGetterâ€•Effects on Microstructure and Carrier Transport in Low Temperature Combustion-Processed a-InXZnO (X = Ga, Sc, Y, La) Transistors. Journal of the American Chemical Society, 2013, 135, 10729-10741.	6.6	174
90	Flexible and stretchable metalÂoxide nanofiber networks for multimodal and monolithically integrated wearable electronics. Nature Communications, 2020, 11, 2405.	5.8	174

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91	Very Low Degree of Energetic Disorder as the Origin of High Mobility in an nâ€channel Polymer Semiconductor. Advanced Functional Materials, 2011, 21, 3371-3381.	7.8	169
92	High Electron Mobility in Solution-Cast and Vapor-Deposited Phenacylâ^'Quaterthiophene-Based Field-Effect Transistors:Â Toward N-Type Polythiophenes. Journal of the American Chemical Society, 2005, 127, 13476-13477.	6.6	166
93	A Chemically Doped Naphthalenediimideâ€Bithiazole Polymer for nâ€Type Organic Thermoelectrics. Advanced Materials, 2018, 30, e1801898.	11.1	165
94	A Distinctive Example of the Cooperative Interplay of Structure and Environment in Tuning of Intramolecular Charge Transfer in Second-Order Nonlinear Optical Chromophores. Chemistry - A European Journal, 2003, 9, 1991-2007.	1.7	161
95	Bithiophene Imide and Benzodithiophene Copolymers for Efficient Inverted Polymer Solar Cells. Advanced Materials, 2012, 24, 2242-2248.	11.1	158
96	Naphthalenediimide (NDI) polymers for all-polymer photovoltaics. Materials Today, 2018, 21, 377-390.	8.3	158
97	Dopantâ€Free Hole Transporting Polymers for High Efficiency, Environmentally Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600502.	10.2	156
98	Tin-Free Direct Câ€“H Arylation Polymerization for High Photovoltaic Efficiency Conjugated Copolymers. Journal of the American Chemical Society, 2016, 138, 15699-15709.	6.6	156
99	Solution-Processable Low-Molecular Weight Extended Arylacetylenes: Versatile p-Type Semiconductors for Field-Effect Transistors and Bulk Heterojunction Solar Cells. Journal of the American Chemical Society, 2010, 132, 6108-6123.	6.6	155
100	Processing Strategies for an Organic Photovoltaic Module with over 10% Efficiency. Joule, 2020, 4, 189-206.	11.7	154
101	Teaching an Old Anchoring Group New Tricks: Enabling Low-Cost, Eco-Friendly Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 16632-16643.	6.6	154
102	Synthesis and Characterization of Diperfluorooctyl-Substituted Phenyleneâ^'Thiophene Oligomers as n-Type Semiconductors. Molecular Structureâ^'Film Microstructureâ^'Mobility Relationships, Organic Field-Effect Transistors, and Transistor Nonvolatile Memory Elements. Chemistry of Materials, 2004, 16, 4715-4727.	3.2	153
103	Transition metal-catalysed molecular n-doping of organic semiconductors. Nature, 2021, 599, 67-73.	13.7	152
104	Layer-by-Layer Self-Assembled Pyrrole-Based Donorâ^'Acceptor Chromophores as Electro-Optic Materials. Chemistry of Materials, 2003, 15, 1064-1072.	3.2	150
105	Low Operating Voltage Single ZnO Nanowire Field-Effect Transistors Enabled by Self-Assembled Organic Gate Nanodielectrics. Nano Letters, 2005, 5, 2281-2286.	4.5	150
106	Charge Injection Engineering of Ambipolar Field-Effect Transistors for High-Performance Organic Complementary Circuits. ACS Applied Materials & Interfaces, 2011, 3, 3205-3214.	4.0	150
107	Thiazole Imideâ€Based Allâ€Acceptor Homopolymer: Achieving Highâ€Performance Unipolar Electron Transport in Organic Thinâ€Film Transistors. Advanced Materials, 2018, 30, 1705745.	11.1	150
108	Thermal Stabilisation of Polymerâ€“Fullerene Bulk Heterojunction Morphology for Efficient Photovoltaic Solar Cells. Advanced Materials, 2014, 26, 5831-5838.	11.1	149

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109	Role of photoactive layer morphology in high fill factor all-polymer bulk heterojunction solar cells. Journal of Materials Chemistry, 2011, 21, 5891.	6.7	146
110	Bulk Electron Transport and Charge Injection in a High Mobility nâ€Type Semiconducting Polymer. Advanced Materials, 2010, 22, 2799-2803.	11.1	145
111	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in Allâ€Polymer Solar Cells. Advanced Functional Materials, 2014, 24, 4068-4081.	7.8	144
112	High Electron Mobility and Ambient Stability in Solutionâ€Processed Peryleneâ€Based Organic Fieldâ€Effect Transistors. Advanced Materials, 2009, 21, 1573-1576.	11.1	139
113	Organic n-Channel Field-Effect Transistors Based on Arylenediimide-Thiophene Derivatives. Journal of the American Chemical Society, 2010, 132, 8440-8452.	6.6	134
114	Competitive Absorption and Inefficient Exciton Harvesting: Lessons Learned from Bulk Heterojunction Organic Photovoltaics Utilizing the Polymer Acceptor P(NDI2ODâ€T2). Advanced Functional Materials, 2014, 24, 6989-6998.	7.8	134
115	Air Stable Cross-Linked Cytop Ultrathin Gate Dielectric for High Yield Low-Voltage Top-Gate Organic Field-Effect Transistors. Chemistry of Materials, 2010, 22, 1559-1566.	3.2	133
116	Exceptional Molecular Hyperpolarizabilities in Twisted Ï€-Electron System Chromophores. Angewandte Chemie - International Edition, 2005, 44, 7922-7925.	7.2	131
117	Twisted Ï€-System Chromophores for All-Optical Switching. Journal of the American Chemical Society, 2011, 133, 6675-6680.	6.6	128
118	Closely packed, low reorganization energy Ï€-extended postfullerene acceptors for efficient polymer solar cells. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E8341-E8348.	3.3	126
119	High-mobility bottom-contact n-channel organic transistors and their use in complementary ring oscillators. Applied Physics Letters, 2006, 88, 082104.	1.5	125
120	Systematic Merging of Nonfullerene Acceptor Ï€-Extension and Tetrafluorination Strategies Affords Polymer Solar Cells with >16% Efficiency. Journal of the American Chemical Society, 2021, 143, 6123-6139.	6.6	125
121	Very large electro-optic responses in H-bonded heteroaromatic films grown by physical vapour deposition. Nature Materials, 2004, 3, 910-917.	13.3	124
122	Dithienocoronenediimideâ€Based Copolymers as Novel Ambipolar Semiconductors for Organic Thinâ€Film Transistors. Advanced Materials, 2012, 24, 3678-3684.	11.1	123
123	Novel heteroaromatic-based multi-branched dyes with enhanced two-photon absorption activityElectronic supplementary information (ESI) available: Experimental section. See http://www.rsc.org/suppdata/cc/b3/b305995b/. Chemical Communications, 2003, , 2144.	2.2	122
124	A Narrowâ€Bandgap nâ€Type Polymer Semiconductor Enabling Efficient Allâ€Polymer Solar Cells. Advanced Materials, 2019, 31, e1905161.	11.1	121
125	Combustion Synthesized Zinc Oxide Electronâ€Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900265.	7.8	121
126	Organic Nanodielectrics for Low Voltage Carbon Nanotube Thin Film Transistors and Complementary Logic Gates. Journal of the American Chemical Society, 2005, 127, 13808-13809.	6.6	120

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127	Gate Dielectric Microstructural Control of Pentacene Film Growth Mode and Fieldâ€Effect Transistor Performance. Advanced Materials, 2007, 19, 2561-2566.	11.1	120
128	Printable Cross-Linked Polymer Blend Dielectrics. Design Strategies, Synthesis, Microstructures, and Electrical Properties, with Organic Field-Effect Transistors as Testbeds. Journal of the American Chemical Society, 2008, 130, 6867-6878.	6.6	120
129	Exploratory Combustion Synthesis: Amorphous Indium Yttrium Oxide for Thin-Film Transistors. Journal of the American Chemical Society, 2012, 134, 9593-9596.	6.6	120
130	Remarkable Order of a High-Performance Polymer. Nano Letters, 2013, 13, 2522-2527.	4.5	120
131	A biomass-derived safe medium to replace toxic dipolar solvents and access cleaner Heck coupling reactions. Green Chemistry, 2015, 17, 365-372.	4.6	120
132	High Electron Mobility in Air for N,Nâ€²â€²-1H,1Hâ€²Perfluorobutyldicyanoperylene Carboxydiâ€imide Solutionâ€Crystallized Thinâ€Film Transistors on Hydrophobic Surfaces. Advanced Materials, 2011, 23, 3681-3685.	11.1	119
133	Flexible spray-coated TIPS-pentacene organic thin-film transistors as ammonia gas sensors. Journal of Materials Chemistry C, 2013, 1, 6532.	2.7	118
134	Solution Processed Topâ€Gate nâ€Channel Transistors and Complementary Circuits on Plastics Operating in Ambient Conditions. Advanced Materials, 2008, 20, 3393-3398.	11.1	117
135	Ultraâ€Flexible, â€œInvisibleâ€•Thinâ€Film Transistors Enabled by Amorphous Metal Oxide/Polymer Channel Layer Blends. Advanced Materials, 2015, 27, 2390-2399.	11.1	116
136	Flexible Low-Voltage Organic Thin-Film Transistors Enabled by Low-Temperature, Ambient Solution-Processable Inorganic/Organic Hybrid Gate Dielectrics. Journal of the American Chemical Society, 2010, 132, 17426-17434.	6.6	112
137	Current methodologies for a sustainable approach to Ï€-conjugated organic semiconductors. Energy and Environmental Science, 2016, 9, 763-786.	15.6	112
138	Supported Metallocene Catalysis for In Situ Synthesis of High Energy Density Metal Oxide Nanocomposites. Journal of the American Chemical Society, 2007, 129, 766-767.	6.6	111
139	Aggregation control in natural brush-printed conjugated polymer films and implications for enhancing charge transport. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10066-E10073.	3.3	110
140	Modeling Electron and Hole Transport in Fluoroareneâ€Oligothiopene Semiconductors: Investigation of Geometric and Electronic Structure Properties. Advanced Functional Materials, 2008, 18, 332-340.	7.8	109
141	From Monolayer to Multilayer Nâ€Channel Polymeric Fieldâ€Effect Transistors with Precise Conformational Order. Advanced Materials, 2012, 24, 951-956.	11.1	109
142	Solution-Deposited Organicâ€“Inorganic Hybrid Multilayer Gate Dielectrics. Design, Synthesis, Microstructures, and Electrical Properties with Thin-Film Transistors. Journal of the American Chemical Society, 2011, 133, 10239-10250.	6.6	108
143	UVâ€“Ozone Interfacial Modification in Organic Transistors for Highâ€Sensitivity NO₂ Detection. Advanced Materials, 2017, 29, 1701706.	11.1	106
144	Functionalized anthradithiophenes for organic field-effect transistors. Journal of Materials Chemistry, 2008, 18, 1029.	6.7	105

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145	High-Performance n-Channel Carbonyl-Functionalized Quaterthiophene Semiconductors:â€‰ Thin-Film Transistor Response and Majority Carrier Type Inversion via Simple Chemical Protection/Deprotection. Chemistry of Materials, 2007, 19, 4864-4881.	3.2	104
146	Click-chemistry approaches to Ï€-conjugated polymers for organic electronics applications. Chemical Science, 2016, 7, 6298-6308.	3.7	104
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