

Antonio Facchetti

List of Publications by Citations

Source: <https://exaly.com/author-pdf/6307897/antonio-facchetti-publications-by-citations.pdf>

Version: 2024-04-10

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

528 papers	52,739 citations	116 h-index	216 g-index
568 ext. papers	57,319 ext. citations	13.2 avg, IF	8.11 L-index

#	Paper	IF	Citations
528	A high-mobility electron-transporting polymer for printed transistors. <i>Nature</i> , 2009 , 457, 679-86	50.4	2542
527	Conjugated Polymers for Organic Electronics and Photovoltaic Cell Applications <i>Chemistry of Materials</i> , 2011 , 23, 733-758	9.6	1887
526	Rylene and related diimides for organic electronics. <i>Advanced Materials</i> , 2011 , 23, 268-84	24	1366
525	n-Type organic semiconductors in organic electronics. <i>Advanced Materials</i> , 2010 , 22, 3876-92	24	963
524	Low-temperature fabrication of high-performance metal oxide thin-film electronics via combustion processing. <i>Nature Materials</i> , 2011 , 10, 382-8	27	957
523	Metal oxides for optoelectronic applications. <i>Nature Materials</i> , 2016 , 15, 383-96	27	903
522	Gate Dielectrics for Organic Field-Effect Transistors: New Opportunities for Organic Electronics. <i>Advanced Materials</i> , 2005 , 17, 1705-1725	24	901
521	Tuning orbital energetics in arylene diimide semiconductors. materials design for ambient stability of n-type charge transport. <i>Journal of the American Chemical Society</i> , 2007 , 129, 15259-78	16.4	887
520	Polymer solar cells with enhanced fill factors. <i>Nature Photonics</i> , 2013 , 7, 825-833	33.9	806
519	High-mobility air-stable n-type semiconductors with processing versatility: dicyanoperylene-3,4:9,10-bis(dicarboximides). <i>Angewandte Chemie - International Edition</i> , 2004 , 43, 6363-6	16.4	760
518	Imide- and amide-functionalized polymer semiconductors. <i>Chemical Reviews</i> , 2014 , 114, 8943-9021	68.1	721
517	High-k organic, inorganic, and hybrid dielectrics for low-voltage organic field-effect transistors. <i>Chemical Reviews</i> , 2010 , 110, 205-39	68.1	718
516	Semiconductors for organic transistors. <i>Materials Today</i> , 2007 , 10, 28-37	21.8	697
515	Polymer donor-polymer acceptor (all-polymer) solar cells. <i>Materials Today</i> , 2013 , 16, 123-132	21.8	596
514	n-Channel semiconductor materials design for organic complementary circuits. <i>Accounts of Chemical Research</i> , 2011 , 44, 501-10	24.3	585
513	Material insights and challenges for non-fullerene organic solar cells based on small molecular acceptors. <i>Nature Energy</i> , 2018 , 3, 720-731	62.3	580
512	Molecular Self-Assembled Monolayers and Multilayers for Organic and Unconventional Inorganic Thin-Film Transistor Applications. <i>Advanced Materials</i> , 2009 , 21, 1407-1433	24	519

511	Naphthalenedicarboximide- vs perylenedicarboximide-based copolymers. Synthesis and semiconducting properties in bottom-gate N-channel organic transistors. <i>Journal of the American Chemical Society</i> , 2009 , 131, 8-9	16.4	501
510	Fabrication of fully transparent nanowire transistors for transparent and flexible electronics. <i>Nature Nanotechnology</i> , 2007 , 2, 378-84	28.7	470
509	A naphthodithiophene-diketopyrrolopyrrole donor molecule for efficient solution-processed solar cells. <i>Journal of the American Chemical Society</i> , 2011 , 133, 8142-5	16.4	460
508	Organic light-emitting transistors with an efficiency that outperforms the equivalent light-emitting diodes. <i>Nature Materials</i> , 2010 , 9, 496-503	27	460
507	Role of gallium doping in dramatically lowering amorphous-oxide processing temperatures for solution-derived indium zinc oxide thin-film transistors. <i>Advanced Materials</i> , 2010 , 22, 1346-50	24	448
506	Universal quinone electrodes for long cycle life aqueous rechargeable batteries. <i>Nature Materials</i> , 2017 , 16, 841-848	27	432
505	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. <i>Journal of the American Chemical Society</i> , 2009 , 131, 5586-608	16.4	431
504	Gate dielectric chemical structure-organic field-effect transistor performance correlations for electron, hole, and ambipolar organic semiconductors. <i>Journal of the American Chemical Society</i> , 2006 , 128, 12851-69	16.4	418
503	Organic and Polymeric Semiconductors Enhanced by Noncovalent Conformational Locks. <i>Chemical Reviews</i> , 2017 , 117, 10291-10318	68.1	377
502	Large modulation of carrier transport by grain-boundary molecular packing and microstructure in organic thin films. <i>Nature Materials</i> , 2009 , 8, 952-8	27	376
501	Building blocks for n-type organic electronics: regiochemically modulated inversion of majority carrier sign in perfluoroarene-modified polythiophene semiconductors. <i>Angewandte Chemie - International Edition</i> , 2003 , 42, 3900-3	16.4	371
500	Low-voltage organic field-effect transistors and inverters enabled by ultrathin cross-linked polymers as gate dielectrics. <i>Journal of the American Chemical Society</i> , 2005 , 127, 10388-95	16.4	369
499	High- k Gate Dielectrics for Emerging Flexible and Stretchable Electronics. <i>Chemical Reviews</i> , 2018 , 118, 5690-5754	68.1	354
498	Easily processable phenylene-thiophene-based organic field-effect transistors and solution-fabricated nonvolatile transistor memory elements. <i>Journal of the American Chemical Society</i> , 2003 , 125, 9414-23	16.4	352
497	Polymer gate dielectric surface viscoelasticity modulates pentacene transistor performance. <i>Science</i> , 2007 , 318, 76-80	33.3	344
496	Building blocks for N-type molecular and polymeric electronics. Perfluoroalkyl- versus alkyl-functionalized oligothiophenes (nTs; n = 2-6). Systematic synthesis, spectroscopy, electrochemistry, and solid-state organization. <i>Journal of the American Chemical Society</i> , 2004 , 126, 13480-501	16.4	344
495	Aggregation in a high-mobility n-type low-bandgap copolymer with implications on semicrystalline morphology. <i>Journal of the American Chemical Society</i> , 2012 , 134, 18303-17	16.4	329
494	Synthesis, characterization, and transistor response of semiconducting silole polymers with substantial hole mobility and air stability. Experiment and theory. <i>Journal of the American Chemical Society</i> , 2008 , 130, 7670-85	16.4	326

493	Organic thin-film transistors based on carbonyl-functionalized quaterthiophenes: high mobility N-channel semiconductors and ambipolar transport. <i>Journal of the American Chemical Society</i> , 2005 , 127, 1348-9	16.4	325
492	Unconventional face-on texture and exceptional in-plane order of a high mobility n-type polymer. <i>Advanced Materials</i> , 2010 , 22, 4359-63	24	317
491	Dithienosilole- and dibenzosilole-thiophene copolymers as semiconductors for organic thin-film transistors. <i>Journal of the American Chemical Society</i> , 2006 , 128, 9034-5	16.4	310
490	Building blocks for n-type molecular and polymeric electronics. Perfluoroalkyl- versus alkyl-functionalized oligothiophenes (nT; n = 2-6). Systematics of thin film microstructure, semiconductor performance, and modeling of majority charge injection in field-effect transistors. <i>Journal of the American Chemical Society</i> , 2004 , 126, 13859-74	16.4	305
489	All-Polymer Solar Cells: Recent Progress, Challenges, and Prospects. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 4129-4142	16.4	305
488	n-Type Building Blocks for Organic Electronics: A Homologous Family of Fluorocarbon-Substituted Thiophene Oligomers with High Carrier Mobility. <i>Advanced Materials</i> , 2003 , 15, 33-38	24	298
487	High-performance transparent inorganic-organic hybrid thin-film n-type transistors. <i>Nature Materials</i> , 2006 , 5, 893-900	27	297
486	Influence of Aggregation on the Performance of All-Polymer Solar Cells Containing Low-Bandgap Naphthalenediimide Copolymers. <i>Advanced Energy Materials</i> , 2012 , 2, 369-380	21.8	292
485	Slip-stacked perylenediimides as an alternative strategy for high efficiency nonfullerene acceptors in organic photovoltaics. <i>Journal of the American Chemical Society</i> , 2014 , 136, 16345-56	16.4	290
484	Fluorocarbon-modified organic semiconductors: molecular architecture, electronic, and crystal structure tuning of arene- versus fluoroarene-thiophene oligomer thin-film properties. <i>Journal of the American Chemical Society</i> , 2006 , 128, 5792-801	16.4	280
483	n-channel polymers by design: optimizing the interplay of solubilizing substituents, crystal packing, and field-effect transistor characteristics in polymeric bithiophene-imide semiconductors. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9679-94	16.4	267
482	Efficient squaraine-based solution processable bulk-heterojunction solar cells. <i>Journal of the American Chemical Society</i> , 2008 , 130, 17640-1	16.4	261
481	Drastic Control of Texture in a High Performance n-Type Polymeric Semiconductor and Implications for Charge Transport. <i>Macromolecules</i> , 2011 , 44, 5246-5255	5.5	250
480	Tuning the Semiconducting Properties of Sexithiophene by alpha,omega-Substitution-alpha,omega-Diperfluorohexylsexithiophene: The First n-Type Sexithiophene for Thin-Film Transistors We thank DARPA (N00421-98-1187) and the NSF-MRSEC (DMR-0112660) for their support. <i>Advanced Materials</i> , 2006 , 18, 2222-2226	16.4	250
479	Air-stable, solution-processable n-channel and ambipolar semiconductors for thin-film transistors based on the indenofluorenebis(dicyanovinylene) core. <i>Journal of the American Chemical Society</i> , 2008 , 130, 8580-1	16.4	241
478	Macroscopic and high-throughput printing of aligned nanostructured polymer semiconductors for MHz large-area electronics. <i>Nature Communications</i> , 2015 , 6, 8394	17.4	240
477	Bithiopheneimide-dithienosilole/dithienogermole copolymers for efficient solar cells: information from structure-property-device performance correlations and comparison to thieno[3,4-c]pyrrole-4,6-dione analogues. <i>Journal of the American Chemical Society</i> , 2012 , 134, 18427-39	16.4	239
476	High electron mobility in vacuum and ambient for PDIF-CN2 single-crystal transistors. <i>Journal of the American Chemical Society</i> , 2009 , 131, 2462-3	16.4	239

475	All-Polymer Solar Cell Performance Optimized via Systematic Molecular Weight Tuning of Both Donor and Acceptor Polymers. <i>Journal of the American Chemical Society</i> , 2016 , 138, 1240-51	16.4	237
474	Sigma-pi molecular dielectric multilayers for low-voltage organic thin-film transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 4678-82	11.5	234
473	Band-like electron transport in organic transistors and implication of the molecular structure for performance optimization. <i>Advanced Materials</i> , 2012 , 24, 503-8	24	233
472	Ultralarge hyperpolarizability twisted pi-electron system electro-optic chromophores: synthesis, solid-state and solution-phase structural characteristics, electronic structures, linear and nonlinear optical properties, and computational studies. <i>Journal of the American Chemical Society</i> , 2007 , 129, 3267-86	16.4	230
471	Cyanonaphthalene Diimide Semiconductors for Air-Stable, Flexible, and Optically Transparent n-Channel Field-Effect Transistors. <i>Chemistry of Materials</i> , 2007 , 19, 2703-2705	9.6	228
470	Fluorination Effects on Indacenodithienothiophene Acceptor Packing and Electronic Structure, End-Group Redistribution, and Solar Cell Photovoltaic Response. <i>Journal of the American Chemical Society</i> , 2019 , 141, 3274-3287	16.4	226
469	High-efficiency all-polymer solar cells based on a pair of crystalline low-bandgap polymers. <i>Advanced Materials</i> , 2014 , 26, 7224-30	24	218
468	Thieno[3,4-c]pyrrole-4,6-dione-based polymer semiconductors: toward high-performance, air-stable organic thin-film transistors. <i>Journal of the American Chemical Society</i> , 2011 , 133, 13685-97	16.4	213
467	Metal-free tetrathienoacene sensitizers for high-performance dye-sensitized solar cells. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4414-23	16.4	210
466	Morphology-Performance Relationships in High-Efficiency All-Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2014 , 4, 1300785	21.8	210
465	High-performance solution-processed amorphous zinc-indium-tin oxide thin-film transistors. <i>Journal of the American Chemical Society</i> , 2010 , 132, 10352-64	16.4	210
464	Bithiophene-imide-based polymeric semiconductors for field-effect transistors: synthesis, structure-property correlations, charge carrier polarity, and device stability. <i>Journal of the American Chemical Society</i> , 2011 , 133, 1405-18	16.4	206
463	High-Mobility Ambipolar Transport in Organic Light-Emitting Transistors. <i>Advanced Materials</i> , 2006 , 18, 1416-1420	24	205
462	The role of regioregularity, crystallinity, and chain orientation on electron transport in a high-mobility n-type copolymer. <i>Journal of the American Chemical Society</i> , 2014 , 136, 4245-56	16.4	200
461	Transparent active matrix organic light-emitting diode displays driven by nanowire transistor circuitry. <i>Nano Letters</i> , 2008 , 8, 997-1004	11.5	197
460	Mechanically Flexible Conductors for Stretchable and Wearable E-Skin and E-Textile Devices. <i>Advanced Materials</i> , 2019 , 31, e1901408	24	193
459	Effects of Arylene Diimide Thin Film Growth Conditions on n-Channel OFET Performance. <i>Advanced Functional Materials</i> , 2008 , 18, 1329-1339	15.6	191
458	Heavily n-Dopable EConjugated Redox Polymers with Ultrafast Energy Storage Capability. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4956-9	16.4	188

457	Anthracenedicarboximides as air-stable N-channel semiconductors for thin-film transistors with remarkable current on-off ratios. <i>Journal of the American Chemical Society</i> , 2007 , 129, 13362-3	16.4	188
456	Semiconducting polymers prepared by direct arylation polycondensation. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 3520-3	16.4	186
455	Novel heterocycle-based two-photon absorbing dyes. <i>Organic Letters</i> , 2002 , 4, 1495-8	6.2	179
454	All-printed flexible organic transistors enabled by surface tension-guided blade coating. <i>Advanced Materials</i> , 2014 , 26, 5722-7	24	178
453	Marked alkyl- vs alkenyl-substituent effects on squaraine dye solid-state structure, carrier mobility, and bulk-heterojunction solar cell efficiency. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4074-5	16.4	175
452	Combining electron-neutral building blocks with intramolecular "conformational locks" affords stable, high-mobility p- and n-channel polymer semiconductors. <i>Journal of the American Chemical Society</i> , 2012 , 134, 10966-73	16.4	174
451	Poly(3-hexylthiophene): synthetic methodologies and properties in bulk heterojunction solar cells. <i>Energy and Environmental Science</i> , 2012 , 5, 8457	35.4	174
450	High performance solution-processed indium oxide thin-film transistors. <i>Journal of the American Chemical Society</i> , 2008 , 130, 12580-1	16.4	166
449	Enhanced Efficiency of Hot-Cast Large-Area Planar Perovskite Solar Cells/Modules Having Controlled Chloride Incorporation. <i>Advanced Energy Materials</i> , 2017 , 7, 1601660	21.8	164
448	Dialkoxybithiazole: a new building block for head-to-head polymer semiconductors. <i>Journal of the American Chemical Society</i> , 2013 , 135, 1986-96	16.4	164
447	Remarkable enhancement of hole transport in top-gated N-type polymer field-effect transistors by a high-k dielectric for ambipolar electronic circuits. <i>Advanced Materials</i> , 2012 , 24, 5433-9	24	164
446	A distinctive example of the cooperative interplay of structure and environment in tuning of intramolecular charge transfer in second-order nonlinear optical chromophores. <i>Chemistry - A European Journal</i> , 2003 , 9, 1991-2007	4.8	156
445	High electron mobility in solution-cast and vapor-deposited phenacyl-quaterthiophene-based field-effect transistors: toward N-type polythiophenes. <i>Journal of the American Chemical Society</i> , 2005 , 127, 13476-7	16.4	154
444	Very Low Degree of Energetic Disorder as the Origin of High Mobility in an n-channel Polymer Semiconductor. <i>Advanced Functional Materials</i> , 2011 , 21, 3371-3381	15.6	153
443	A Circuits and Systems Perspective of Organic/Printed Electronics: Review, Challenges, and Contemporary and Emerging Design Approaches. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2017 , 7, 7-26	5.2	152
442	Oxygen "getter" effects on microstructure and carrier transport in low temperature combustion-processed a-InXZnO (X = Ga, Sc, Y, La) transistors. <i>Journal of the American Chemical Society</i> , 2013 , 135, 10729-41	16.4	152
441	Spray-combustion synthesis: efficient solution route to high-performance oxide transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 3217-22	11.5	151
440	Nanostructured organic semiconductor films for molecular detection with surface-enhanced Raman spectroscopy. <i>Nature Materials</i> , 2017 , 16, 918-924	27	149

439	Solution-processable low-molecular weight extended arylacetylenes: versatile p-type semiconductors for field-effect transistors and bulk heterojunction solar cells. <i>Journal of the American Chemical Society</i> , 2010 , 132, 6108-23	16.4	145
438	Synthesis and Characterization of Diperfluorooctyl-Substituted Phenylene–Thiophene Oligomers as n-Type Semiconductors. Molecular Structure–Film Microstructure–Mobility Relationships, Organic Field-Effect Transistors, and Transistor Nonvolatile Memory Elements. <i>Chemistry of Materials</i> , 2004 , 16, 4715–4727	9.6	143
437	Bithiophene imide and benzodithiophene copolymers for efficient inverted polymer solar cells. <i>Advanced Materials</i> , 2012 , 24, 2242-8	24	142
436	Layer-by-Layer Self-Assembled Pyrrole-Based Donor–Acceptor Chromophores as Electro-Optic Materials. <i>Chemistry of Materials</i> , 2003 , 15, 1064-1072	9.6	142
435	Dopant-Free Hole Transporting Polymers for High Efficiency, Environmentally Stable Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1600502	21.8	141
434	Bulk electron transport and charge injection in a high mobility n-type semiconducting polymer. <i>Advanced Materials</i> , 2010 , 22, 2799-803	24	139
433	Low operating voltage single ZnO nanowire field-effect transistors enabled by self-assembled organic gate nanodielectrics. <i>Nano Letters</i> , 2005 , 5, 2281-6	11.5	139
432	Thermal stabilisation of polymer-fullerene bulk heterojunction morphology for efficient photovoltaic solar cells. <i>Advanced Materials</i> , 2014 , 26, 5831-8	24	137
431	Charge injection engineering of ambipolar field-effect transistors for high-performance organic complementary circuits. <i>ACS Applied Materials & Interfaces</i> , 2011 , 3, 3205-14	9.5	137
430	Role of photoactive layer morphology in high fill factor all-polymer bulk heterojunction solar cells. <i>Journal of Materials Chemistry</i> , 2011 , 21, 5891		135
429	High-Mobility Air-Stable n-Type Semiconductors with Processing Versatility: Dicyanoperylene-3,4:9,10-bis(dicarboximides). <i>Angewandte Chemie</i> , 2004 , 116, 6523-6526	3.6	132
428	High Electron Mobility and Ambient Stability in Solution-Processed Perylene-Based Organic Field-Effect Transistors. <i>Advanced Materials</i> , 2009 , 21, 1573-1576	24	131
427	Correlated Donor/Acceptor Crystal Orientation Controls Photocurrent Generation in All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 4068-4081	15.6	129
426	Air Stable Cross-Linked Cytop Ultrathin Gate Dielectric for High Yield Low-Voltage Top-Gate Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , 2010 , 22, 1559-1566	9.6	128
425	Organic n-channel field-effect transistors based on arylenediimide-thiophene derivatives. <i>Journal of the American Chemical Society</i> , 2010 , 132, 8440-52	16.4	125
424	The journey of conducting polymers from discovery to application. <i>Nature Materials</i> , 2020 , 19, 922-928	27	124
423	A Chemically Doped Naphthalenediimide-Bithiazole Polymer for n-Type Organic Thermoelectrics. <i>Advanced Materials</i> , 2018 , 30, e1801898	24	123
422	High-mobility bottom-contact n-channel organic transistors and their use in complementary ring oscillators. <i>Applied Physics Letters</i> , 2006 , 88, 082104	3.4	122

421	Thiazole Imide-Based All-Acceptor Homopolymer: Achieving High-Performance Unipolar Electron Transport in Organic Thin-Film Transistors. <i>Advanced Materials</i> , 2018 , 30, 1705745	24	121
420	High-Performance n-Type Polymer Semiconductors: Applications, Recent Development, and Challenges. <i>CheM</i> , 2020 , 6, 1310-1326	16.2	120
419	Competitive Absorption and Inefficient Exciton Harvesting: Lessons Learned from Bulk Heterojunction Organic Photovoltaics Utilizing the Polymer Acceptor P(NDI2OD-T2). <i>Advanced Functional Materials</i> , 2014 , 24, 6989-6998	15.6	120
418	Crystallography, Morphology, Electronic Structure, and Transport in Non-Fullerene/Non-Indacenodithienothiophene Polymer:Y6 Solar Cells. <i>Journal of the American Chemical Society</i> , 2020 , 142, 14532-14547	16.4	120
417	Naphthalenediimide (NDI) polymers for all-polymer photovoltaics. <i>Materials Today</i> , 2018 , 21, 377-390	21.8	118
416	Tin-Free Direct C-H Arylation Polymerization for High Photovoltaic Efficiency Conjugated Copolymers. <i>Journal of the American Chemical Society</i> , 2016 , 138, 15699-15709	16.4	117
415	Dithienocoronenediimide-based copolymers as novel ambipolar semiconductors for organic thin-film transistors. <i>Advanced Materials</i> , 2012 , 24, 3678-84	24	117
414	Novel heteroaromatic-based multi-branched dyes with enhanced two-photon absorption activity. <i>Chemical Communications</i> , 2003 , 2144	5.8	117
413	Organic nanodielectrics for low voltage carbon nanotube thin film transistors and complementary logic gates. <i>Journal of the American Chemical Society</i> , 2005 , 127, 13808-9	16.4	116
412	Exceptional molecular hyperpolarizabilities in twisted pi-electron system chromophores. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 7922-5	16.4	115
411	Solution Processed Top-Gate n-Channel Transistors and Complementary Circuits on Plastics Operating in Ambient Conditions. <i>Advanced Materials</i> , 2008 , 20, 3393-3398	24	114
410	Exploratory combustion synthesis: amorphous indium yttrium oxide for thin-film transistors. <i>Journal of the American Chemical Society</i> , 2012 , 134, 9593-6	16.4	113
409	High electron mobility in air for N,NM1H,1H-perfluorobutyldicyanoperylene carboxydi-imide solution-crystallized thin-film transistors on hydrophobic surfaces. <i>Advanced Materials</i> , 2011 , 23, 3681-5	24	112
408	Gate Dielectric Microstructural Control of Pentacene Film Growth Mode and Field-Effect Transistor Performance. <i>Advanced Materials</i> , 2007 , 19, 2561-2566	24	112
407	Remarkable order of a high-performance polymer. <i>Nano Letters</i> , 2013 , 13, 2522-7	11.5	111
406	Printable cross-linked polymer blend dielectrics. Design strategies, synthesis, microstructures, and electrical properties, with organic field-effect transistors as testbeds. <i>Journal of the American Chemical Society</i> , 2008 , 130, 6867-78	16.4	111
405	Twisted Bsystem chromophores for all-optical switching. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6675-80	16.4	109
404	Supported metallocene catalysis for in situ synthesis of high energy density metal oxide nanocomposites. <i>Journal of the American Chemical Society</i> , 2007 , 129, 766-7	16.4	106

403	From monolayer to multilayer N-channel polymeric field-effect transistors with precise conformational order. <i>Advanced Materials</i> , 2012 , 24, 951-6	24	104
402	Flexible low-voltage organic thin-film transistors enabled by low-temperature, ambient solution-processable inorganic/organic hybrid gate dielectrics. <i>Journal of the American Chemical Society</i> , 2010 , 132, 17426-34	16.4	104
401	Modeling Electron and Hole Transport in Fluoroarene-Oligothiophene Semiconductors: Investigation of Geometric and Electronic Structure Properties. <i>Advanced Functional Materials</i> , 2008 , 18, 332-340	15.6	104
400	Very large electro-optic responses in H-bonded heteroaromatic films grown by physical vapour deposition. <i>Nature Materials</i> , 2004 , 3, 910-7	27	104
399	A biomass-derived safe medium to replace toxic dipolar solvents and access cleaner Heck coupling reactions. <i>Green Chemistry</i> , 2015 , 17, 365-372	10	101
398	Flexible spray-coated TIPS-pentacene organic thin-film transistors as ammonia gas sensors. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 6532	7.1	101
397	Ultra-flexible, "invisible" thin-film transistors enabled by amorphous metal oxide/polymer channel layer blends. <i>Advanced Materials</i> , 2015 , 27, 2390-9	24	100
396	High-performance flexible transparent thin-film transistors using a hybrid gate dielectric and an amorphous zinc indium tin oxide channel. <i>Advanced Materials</i> , 2010 , 22, 2333-7	24	99
395	High-Performance n-Channel Carbonyl-Functionalized Quaterthiophene Semiconductors: Thin-Film Transistor Response and Majority Carrier Type Inversion via Simple Chemical Protection/Deprotection. <i>Chemistry of Materials</i> , 2007 , 19, 4864-4881	9.6	98
394	Functionalized anthradithiophenes for organic field-effect transistors. <i>Journal of Materials Chemistry</i> , 2008 , 18, 1029		98
393	Aggregation control in natural brush-printed conjugated polymer films and implications for enhancing charge transport. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, E10066-E10073	11.5	97
392	A "zig-zag" naphthodithiophene core for increased efficiency in solution-processed small molecule solar cells. <i>Chemical Communications</i> , 2012 , 48, 8511-3	5.8	97
391	High speeds complementary integrated circuits fabricated with all-printed polymeric semiconductors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2011 , 49, 62-67	2.6	96
390	Current methodologies for a sustainable approach to conjugated organic semiconductors. <i>Energy and Environmental Science</i> , 2016 , 9, 763-786	35.4	95
389	Solution-deposited organic-inorganic hybrid multilayer gate dielectrics. Design, synthesis, microstructures, and electrical properties with thin-film transistors. <i>Journal of the American Chemical Society</i> , 2011 , 133, 10239-50	16.4	95
388	High-Performance Solution-Deposited n-Channel Organic Transistors and their Complementary Circuits. <i>Advanced Materials</i> , 2007 , 19, 4028-4032	24	95
387	UV-Ozone Interfacial Modification in Organic Transistors for High-Sensitivity NO Detection. <i>Advanced Materials</i> , 2017 , 29, 1701706	24	92
386	Combustion Synthesized Zinc Oxide Electron-Transport Layers for Efficient and Stable Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2019 , 29, 1900265	15.6	92

- 385 All-amorphous-oxide transparent, flexible thin-film transistors. Efficacy of bilayer gate dielectrics. *Journal of the American Chemical Society*, **2010**, 132, 11934-42 16.4 92
- 384 Azinium(Bridge)Pyrrole NLO-Phores: Influence of Heterocycle Acceptors on Chromophoric and Self-Assembled Thin-Film Properties#. *Chemistry of Materials*, **2002**, 14, 4996-5005 9.6 92
- 383 Synthesis and characterization of electron-deficient and highly soluble (Bis)indeno[1,2-b]fluorene building blocks for n-type semiconducting polymers. *Organic Letters*, **2008**, 10, 1385-8 6.2 91
- 382 Towards 15% energy conversion efficiency: a systematic study of the solution-processed organic tandem solar cells based on commercially available materials. *Energy and Environmental Science*, **2013**, 6, 3407 35.4 90
- 381 Click-chemistry approaches to π -conjugated polymers for organic electronics applications. *Chemical Science*, **2016**, 7, 6298-6308 9.4 87
- 380 Conjugated anthracene derivatives as donor materials for bulk heterojunction solar cells: olefinic versus acetylenic spacers. *Chemical Communications*, **2009**, 1380-2 5.8 87
- 379 Variable Temperature Mobility Analysis of n-Channel, p-Channel, and Ambipolar Organic Field-Effect Transistors. *Advanced Functional Materials*, **2010**, 20, 50-58 15.6 87
- 378 Processing Strategies for an Organic Photovoltaic Module with over 10% Efficiency. *Joule*, **2020**, 4, 189-206 20.6 87
- 377 Fluorinated copper phthalocyanine nanowires for enhancing interfacial electron transport in organic solar cells. *Nano Letters*, **2012**, 12, 6315-21 11.5 86
- 376 Solution-Processed All-Oxide Transparent High-Performance Transistors Fabricated by Spray-Combustion Synthesis. *Advanced Electronic Materials*, **2016**, 2, 1500427 6.4 85
- 375 N-type polymers as electron extraction layers in hybrid perovskite solar cells with improved ambient stability. *Journal of Materials Chemistry A*, **2016**, 4, 2419-2426 13 85
- 374 Closely packed, low reorganization energy π -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 11.5 85
- 373 High-performance single-crystalline arsenic-doped indium oxide nanowires for transparent thin-film transistors and active matrix organic light-emitting diode displays. *ACS Nano*, **2009**, 3, 3383-90 16.7 82
- 372 Marked Consequences of Systematic Oligothiophene Catenation in Thieno[3,4-c]pyrrole-4,6-dione and Bithiopheneimide Photovoltaic Copolymers. *Journal of the American Chemical Society*, **2015**, 137, 12565-79 16.4 80
- 371 One-pot [1+1+1] synthesis of dithieno[2,3-b:3',2'-d]thiophene (DTT) and their functionalized derivatives for organic thin-film transistors. *Chemical Communications*, **2009**, 1846-8 5.8 80
- 370 Facile, Regioselective Synthesis of Highly Solvatochromic Thiophene-Spaced N-Alkylpyridinium Dicyanomethanides for Second-Harmonic Generation. *Journal of Organic Chemistry*, **1997**, 62, 5755-5765 4.2 80
- 369 In-situ probe of gate dielectric-semiconductor interfacial order in organic transistors: origin and control of large performance sensitivities. *Journal of the American Chemical Society*, **2012**, 134, 11726-33 16.4 78
- 368 Self-propagating molecular assemblies as interlayers for efficient inverted bulk-heterojunction solar cells. *Journal of the American Chemical Society*, **2010**, 132, 12528-30 16.4 77

367	A Narrow-Bandgap n-Type Polymer Semiconductor Enabling Efficient All-Polymer Solar Cells. <i>Advanced Materials</i> , 2019 , 31, e1905161	24	76
366	Alkoxy-Functionalized Thienyl-Vinylene Polymers for Field-Effect Transistors and All-Polymer Solar Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 2782-2793	15.6	76
365	Influence of Thiol Self-Assembled Monolayer Processing on Bottom-Contact Thin-Film Transistors Based on n-Type Organic Semiconductors. <i>Advanced Functional Materials</i> , 2012 , 22, 1856-1869	15.6	76
364	Thiophene-diazine molecular semiconductors: synthesis, structural, electrochemical, optical, and electronic structural properties; implementation in organic field-effect transistors. <i>Chemistry - A European Journal</i> , 2009 , 15, 5023-39	4.8	76
363	Teaching an Old Anchoring Group New Tricks: Enabling Low-Cost, Eco-Friendly Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. <i>Journal of the American Chemical Society</i> , 2020 , 142, 16632-16643	16.4	74
362	Ultrahigh Mobility in Solution-Processed Solid-State Electrolyte-Gated Transistors. <i>Advanced Materials</i> , 2017 , 29, 1605685	24	73
361	Flexible and stretchable metal oxide nanofiber networks for multimodal and monolithically integrated wearable electronics. <i>Nature Communications</i> , 2020 , 11, 2405	17.4	73
360	Ambipolar all-polymer bulk heterojunction field-effect transistors. <i>Journal of Materials Chemistry</i> , 2010 , 20, 1317-1321		73
359	Flexible Inorganic/Organic Hybrid Thin-Film Transistors Using All-Transparent Component Materials. <i>Advanced Materials</i> , 2007 , 19, 3252-3256	24	73
358	Versatile π -Disubstituted Tetrathienoacene Semiconductors for High Performance Organic Thin-Film Transistors. <i>Advanced Functional Materials</i> , 2012 , 22, 48-60	15.6	71
357	Self-assembled electrooptic thin films with remarkably blue-shifted optical absorption based on an X-shaped chromophore. <i>Journal of the American Chemical Society</i> , 2004 , 126, 15974-5	16.4	71
356	Electrical stability of inkjet-patterned organic complementary inverters measured in ambient conditions. <i>Applied Physics Letters</i> , 2009 , 94, 233307	3.4	70
355	Strategies for electrooptic film fabrication. Influence of pyrrole-pyridine-based dibranched chromophore architecture on covalent self-assembly, thin-film microstructure, and nonlinear optical response. <i>Journal of the American Chemical Society</i> , 2006 , 128, 2142-53	16.4	70
354	Perfluoroalkyl-Functionalized Thiazole-Thiophene Oligomers as N-Channel Semiconductors in Organic Field-Effect and Light-Emitting Transistors. <i>Chemistry of Materials</i> , 2014 , 26, 6542-6556	9.6	69
353	Heterocycles as donor and acceptor units in push-pull conjugated molecules. Part 1. <i>Journal of Physical Organic Chemistry</i> , 1997 , 10, 514-524	2.1	69
352	BODIPY-thiophene copolymers as p-channel semiconductors for organic thin-film transistors. <i>Advanced Materials</i> , 2013 , 25, 4327-34	24	68
351	Orientation-dependent electronic structures and charge transport mechanisms in ultrathin polymeric n-channel field-effect transistors. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 4417-22	9.5	68
350	Single-crystal organic charge-transfer interfaces probed using Schottky-gated heterostructures. <i>Nature Materials</i> , 2012 , 11, 788-94	27	67

- 349 Assembly of crystalline halogen-bonded materials by physical vapor deposition. *Journal of the American Chemical Society*, **2008**, 130, 8162-3 16.4 67
- 348 Monolayer to multilayer nanostructural growth transition in N-type oligothiophenes on Au(111) and implications for organic field-effect transistor performance. *Nano Letters*, **2006**, 6, 2447-55 11.5 67
- 347 Noncovalent Se₂S₂O Conformational Locks for Constructing High-Performing Optoelectronic Conjugated Polymers. *Advanced Materials*, **2017**, 29, 1606025 24 65
- 346 Controlled charge transport by polymer blend dielectrics in top-gate organic field-effect transistors for low-voltage-operating complementary circuits. *ACS Applied Materials & Interfaces*, **2012**, 4, 6176-84 9.5 65
- 345 Synergistic approach to high-performance oxide thin film transistors using a bilayer channel architecture. *ACS Applied Materials & Interfaces*, **2013**, 5, 7983-8 9.5 64
- 344 High performance ZnO nanowire field effect transistors with organic gate nanodielectrics: effects of metal contacts and ozone treatment. *Nanotechnology*, **2007**, 18, 155201 3.4 64
- 343 Ambipolar Organic Field-Effect Transistors from Cross-Conjugated Aromatic Quaterthiophenes; Comparisons with Quinoidal Parent Materials. *Advanced Functional Materials*, **2009**, 19, 386-394 15.6 63
- 342 Metal Oxide Transistors via Polyethylenimine Doping of the Channel Layer: Interplay of Doping, Microstructure, and Charge Transport. *Advanced Functional Materials*, **2016**, 26, 6179-6187 15.6 63
- 341 Synthesis, Electronic Structure, and Charge Transport Characteristics of Naphthalenediimide-Based Co-Polymers with Different Oligothiophene Donor Units. *Advanced Functional Materials*, **2014**, 24, 1151-1162 15.6 62
- 340 Rational design of ambipolar organic semiconductors: is core planarity central to ambipolarity in thiophene-naphthalene semiconductors?. *Chemistry - A European Journal*, **2012**, 18, 532-43 4.8 62
- 339 Fully-printed, all-polymer, bendable and highly transparent complementary logic circuits. *Organic Electronics*, **2015**, 20, 132-141 3.5 62
- 338 Reduced contact resistance in inkjet printed high-performance amorphous indium gallium zinc oxide transistors. *ACS Applied Materials & Interfaces*, **2012**, 4, 1614-9 9.5 62
- 337 Functionalized dithieno[2,3-b:3',2'-d]thiophenes (DTTs) for organic thin-film transistors. *Organic Electronics*, **2010**, 11, 801-813 3.5 62
- 336 Charge Transport Orthogonality in All-Polymer Blend Transistors, Diodes, and Solar Cells. *Advanced Energy Materials*, **2014**, 4, 1301409 21.8 61
- 335 Ultraflexible polymer solar cells using amorphous zinc-indium-tin oxide transparent electrodes. *Advanced Materials*, **2014**, 26, 1098-104 24 61
- 334 Low-temperature solution-processed amorphous indium tin oxide field-effect transistors. *Journal of the American Chemical Society*, **2009**, 131, 10826-7 16.4 61
- 333 Simultaneous Bottom-Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Small-Molecule Electrolytes. *Advanced Materials*, **2019**, 31, e1903239 24 59
- 332 Ambient-processable high capacitance hafnia-organic self-assembled nanodielectrics. *Journal of the American Chemical Society*, **2013**, 135, 8926-39 16.4 59

331	Two-photon pumped frequency-upconversion lasing of a new blue-green dye material. <i>Optics Communications</i> , 1997 , 140, 49-52	2	59
330	Imide-Functionalized Thiazole-Based Polymer Semiconductors: Synthesis, Structure-Property Correlations, Charge Carrier Polarity, and Thin-Film Transistor Performance. <i>Chemistry of Materials</i> , 2018 , 30, 7988-8001	9.6	59
329	Small Molecule Acceptor and Polymer Donor Crystallinity and Aggregation Effects on Microstructure Templating: Understanding Photovoltaic Response in Fullerene-Free Solar Cells. <i>Chemistry of Materials</i> , 2017 , 29, 4432-4444	9.6	58
328	Charge conduction and breakdown mechanisms in self-assembled nanodielectrics. <i>Journal of the American Chemical Society</i> , 2009 , 131, 7158-68	16.4	58
327	Vapor phase self-assembly of molecular gate dielectrics for thin film transistors. <i>Journal of the American Chemical Society</i> , 2008 , 130, 7528-9	16.4	58
326	Delayed ignition of autocatalytic combustion precursors: low-temperature nanomaterial binder approach to electronically functional oxide films. <i>Journal of the American Chemical Society</i> , 2012 , 134, 11583-93	16.4	57
325	3,6-Dithiophen-2-yl-diketopyrrolo[3,2-b]pyrrole (isoDPPT) as an Acceptor Building Block for Organic Opto-Electronics. <i>Macromolecules</i> , 2013 , 46, 3895-3906	5.5	57
324	Low-voltage, high speed inkjet-printed flexible complementary polymer electronic circuits. <i>Organic Electronics</i> , 2013 , 14, 1407-1418	3.5	57
323	Phenacyl-thiophene and quinone semiconductors designed for solution processability and air-stability in high mobility n-channel field-effect transistors. <i>Chemistry - A European Journal</i> , 2010 , 16, 1911-28	4.8	57
322	Synthesis, characterization, and transistor response of tetrathia-[7]-helicene precursors and derivatives. <i>Organic Electronics</i> , 2009 , 10, 1511-1520	3.5	56
321	Interface studies of ZnO nanowire transistors using low-frequency noise and temperature-dependent I-V measurements. <i>Applied Physics Letters</i> , 2008 , 92, 022104	3.4	56
320	Probing the surface glass transition temperature of polymer films via organic semiconductor growth mode, microstructure, and thin-film transistor response. <i>Journal of the American Chemical Society</i> , 2009 , 131, 9122-32	16.4	55
319	Indolic Squaraines as Two-Photon Absorbing Dyes in the Visible Region: X-ray Structure, Electrochemical, and Nonlinear Optical Characterization. <i>Chemistry of Materials</i> , 2008 , 20, 3242-3244	9.6	55
318	Novel soluble pentacene and anthradithiophene derivatives for organic thin-film transistors. <i>Organic Electronics</i> , 2010 , 11, 1363-1375	3.5	54
317	Vapor phase self-assembly of electrooptic thin films via triple hydrogen bonds. <i>Journal of the American Chemical Society</i> , 2003 , 125, 11496-7	16.4	54
316	High performance and stable N-channel organic field-effect transistors by patterned solvent-vapor annealing. <i>ACS Applied Materials & Interfaces</i> , 2013 , 5, 10745-52	9.5	53
315	From organic single crystals to solution processed thin-films: Charge transport and trapping with varying degree of order. <i>Journal of Applied Physics</i> , 2013 , 113, 133707	2.5	52
314	Low-Dimensional Arylacetylenes for Solution-Processable Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , 2009 , 21, 2592-2594	9.6	52

313	Carbohydrate-Assisted Combustion Synthesis To Realize High-Performance Oxide Transistors. <i>Journal of the American Chemical Society</i> , 2016 , 138, 7067-74	16.4	52
312	Stokes shift/emission efficiency trade-off in donor-acceptor perylenemonoimides for luminescent solar concentrators. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 8045-8054	13	51
311	Self-assembly from the gas-phase: design and implementation of small-molecule chromophore precursors with large nonlinear optical responses. <i>Journal of the American Chemical Society</i> , 2009 , 131, 12595-612	16.4	51
310	Structure-performance correlations in vapor phase deposited self-assembled nanodielectrics for organic field-effect transistors. <i>Journal of the American Chemical Society</i> , 2009 , 131, 11080-90	16.4	51
309	Photoactive Blend Morphology Engineering through Systematically Tuning Aggregation in All-Polymer Solar Cells. <i>Advanced Energy Materials</i> , 2018 , 8, 1702173	21.8	50
308	Naphthalenediimide Polymers with Finely Tuned In-Chain π -Conjugation: Electronic Structure, Film Microstructure, and Charge Transport Properties. <i>Advanced Materials</i> , 2016 , 28, 9169-9174	24	49
307	Tuning the Morphology of All-Polymer OPVs through Altering Polymer-Solvent Interactions. <i>Chemistry of Materials</i> , 2014 , 26, 5020-5027	9.6	49
306	The unusual electronic structure of ambipolar dicyanovinyl-substituted diketopyrrolopyrrole derivatives. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 6376	7.1	49
305	Anthracenedicarboximide-based semiconductors for air-stable, n-channel organic thin-film transistors: materials design, synthesis, and structural characterization. <i>Journal of Materials Chemistry</i> , 2012 , 22, 4459-4472		49
304	Complementary integrated circuits on plastic foil using inkjet printed n- and p-type organic semiconductors: Fabrication, characterization, and circuit analysis. <i>Organic Electronics</i> , 2012 , 13, 1686-1692	3.5	49
303	Bithiophenesulfonamide Building Block for π -Conjugated Donor-Acceptor Semiconductors. <i>Journal of the American Chemical Society</i> , 2016 , 138, 6944-7	16.4	49
302	Substantial photovoltaic response and morphology tuning in benzo[1,2-b:6,5-b']dithiophene (bBDT) molecular donors. <i>Chemical Communications</i> , 2014 , 50, 4099-101	5.8	48
301	Micro-/Nanostructured Highly Crystalline Organic Semiconductor Films for Surface-Enhanced Raman Spectroscopy Applications. <i>Advanced Functional Materials</i> , 2015 , 25, 5669-5676	15.6	48
300	1/f noise of SnO ₂ nanowire transistors. <i>Applied Physics Letters</i> , 2008 , 92, 243120	3.4	48
299	Metal chelation aptitudes of bis(o-azaheteroaryl)methanes as tuned by heterocycle charge demands. <i>Journal of Organic Chemistry</i> , 2002 , 67, 5753-72	4.2	48
298	Ultra-High-Response, Multiply Twisted Electro-optic Chromophores: Influence of π -System Elongation and Interplanar Torsion on Hyperpolarizability. <i>Journal of the American Chemical Society</i> , 2015 , 137, 12521-38	16.4	47
297	Corrugated Heterojunction Metal-Oxide Thin-Film Transistors with High Electron Mobility via Vertical Interface Manipulation. <i>Advanced Materials</i> , 2018 , 30, e1804120	24	47
296	Self-assembled metallic nanowire-based vertical organic field-effect transistor. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 2149-52	9.5	47

295	Molecular engineering of organic semiconductors enables noble metal-comparable SERS enhancement and sensitivity. <i>Nature Communications</i> , 2019 , 10, 5502	17.4	47
294	New Semiconductors Based on 2,2'-Ethyne-1,2-diylbis[3-(alk-1-yn-1-yl)thiophene] for Organic Opto-Electronics. <i>Chemistry of Materials</i> , 2012 , 24, 2929-2942	9.6	46
293	Transport Property and Charge Trap Comparison for N-Channel Perylene Diimide Transistors with Different Air-Stability. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 20387-20393	3.8	46
292	A skin-like two-dimensionally pixelized full-color quantum dot photodetector. <i>Science Advances</i> , 2019 , 5, eaax8801	14.3	46
291	Fluorinating π -Extended Molecular Acceptors Yields Highly Connected Crystal Structures and Low Reorganization Energies for Efficient Solar Cells. <i>Advanced Energy Materials</i> , 2020 , 10, 2000635	21.8	45
290	On the Molecular Origin of Charge Separation at the Donor-Acceptor Interface. <i>Advanced Energy Materials</i> , 2018 , 8, 1702232	21.8	45
289	Efficient polymer solar cells based on the synergy effect of a novel non-conjugated small-molecule electrolyte and polar solvent. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 2530-2536	13	45
288	Solution-Processable Dithienothiophenoquinoid (DTTQ) Structures for Ambient-Stable n-Channel Organic Field Effect Transistors. <i>Advanced Functional Materials</i> , 2017 , 27, 1606761	15.6	44
287	Chain-growth polycondensation of perylene diimide-based copolymers: a new route to regio-regular perylene diimide-based acceptors for all-polymer solar cells and n-type transistors. <i>Polymer Chemistry</i> , 2014 , 5, 3404-3411	4.9	44
286	Novel coordinating motifs for lanthanide(III) ions based on 5-(2-pyridyl)tetrazole and 5-(2-pyridyl-1-oxide)tetrazole. Potential new contrast agents. <i>Chemical Communications</i> , 2004 , 1770-1	5.8	44
285	Solution-Processable BODIPY-Based Small Molecules for Semiconducting Microfibers in Organic Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14077-87	9.5	44
284	Diketopyrrolopyrrole (DPP) functionalized tetrathienothiophene (TTA) small molecules for organic thin film transistors and photovoltaic cells. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 8932-8941	7.1	43
283	Tailoring the molecular structure to suppress extrinsic disorder in organic transistors. <i>Advanced Materials</i> , 2014 , 26, 1254-60	24	43
282	Dipyrrolo[2,3-b:2',3'-d']pyrazine-2,6(1H,5H)-dione based conjugated polymers for ambipolar organic thin-film transistors. <i>Chemical Communications</i> , 2013 , 49, 484-6	5.8	43
281	Novel Semiconductors Based on Functionalized Benzo[d,d']thieno[3,2-b;4,5-b']dithiophenes and the Effects of Thin Film Growth Conditions on Organic Field Effect Transistor Performance. <i>Chemistry of Materials</i> , 2010 , 22, 5031-5041	9.6	43
280	Reversible Soft-Contact Lamination and Delamination for Non-Invasive Fabrication and Characterization of Bulk-Heterojunction and Bilayer Organic Solar Cells. <i>Chemistry of Materials</i> , 2010 , 22, 4931-4938	9.6	43
279	Influence of substrate surface chemistry on the performance of top-gate organic thin-film transistors. <i>Journal of the American Chemical Society</i> , 2011 , 133, 9968-71	16.4	43
278	Quantum chemical analysis of electronic structure and n- and p-type charge transport in perfluoroarene-modified oligothiophene semiconductors. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 24361-70	3.4	43

277	Effects of gate dielectrics and their solvents on characteristics of solution-processed N-channel polymer field-effect transistors. <i>Journal of Materials Chemistry</i> , 2012 , 22, 21138		42
276	Building Blocks for n-Type Organic Electronics: Regiochemically Modulated Inversion of Majority Carrier Sign in Perfluoroarene-Modified Polythiophene Semiconductors. <i>Angewandte Chemie</i> , 2003 , 115, 4030-4033	3.6	42
275	Efficient Naphthalenediimide-Based Hole Semiconducting Polymer with Vinylene Linkers between Donor and Acceptor Units. <i>Chemistry of Materials</i> , 2016 , 28, 8580-8590	9.6	41
274	Enhancing Polymer Photovoltaic Performance via Optimized Intramolecular Ester-Based Noncovalent Sulfur⋯Oxygen Interactions. <i>Macromolecules</i> , 2018 , 51, 3874-3885	5.5	41
273	Molecular-shape-controlled photovoltaic performance probed via soluble π -conjugated arylacetylenic semiconductors. <i>Advanced Materials</i> , 2011 , 23, 3827-31	24	41
272	Efficient synthesis and structural characteristics of zwitterionic twisted π -electron system biaryls. <i>Organic Letters</i> , 2005 , 7, 3721-4	6.2	41
271	Efficient Tin-Free Route to a Donor-Acceptor Semiconducting Copolymer with Variable Molecular Weights. <i>Macromolecules</i> , 2014 , 47, 3845-3851	5.5	40
270	Transition metal-catalysed molecular n-doping of organic semiconductors. <i>Nature</i> , 2021 , 599, 67-73	50.4	40
269	A simple structured and efficient triazine-based molecule as an interfacial layer for high performance organic electronics. <i>Energy and Environmental Science</i> , 2016 , 9, 2595-2602	35.4	40
268	Solution-processed ambipolar vertical organic field effect transistor. <i>Applied Physics Letters</i> , 2012 , 100, 263306	3.4	39
267	Semiconducting Polymeric Materials. <i>Polymer Reviews</i> , 2008 , 48, 423-431	14	39
266	Fullerene-Free Polymer Solar Cells with Highly Reduced Bimolecular Recombination and Field-Independent Charge Carrier Generation. <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 2815-22	6.4	38
265	Spray-printed organic field-effect transistors and complementary inverters. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 1500	7.1	38
264	Hybrid organic/inorganic thin-film multijunction solar cells exceeding 11% power conversion efficiency. <i>Advanced Materials</i> , 2015 , 27, 1262-7	24	38
263	Investigation of the Optoelectronic Properties of Organic Light-Emitting Transistors Based on an Intrinsically Ambipolar Material. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 12993-12999	3.8	38
262	Nanoscale n-channel and ambipolar organic field-effect transistors. <i>Applied Physics Letters</i> , 2006 , 88, 183102	3.4	38
261	Extended lithium ion pair indicator scale in tetrahydrofuran. <i>Canadian Journal of Chemistry</i> , 1998 , 76, 765-769	0.9	38
260	Buta-1,3-diyne-Based π -Conjugated Polymers for Organic Transistors and Solar Cells. <i>Macromolecules</i> , 2017 , 50, 1430-1441	5.5	37

259	High Electron Mobility in [1]Benzothieno[3,2-b][1]benzothiophene-Based Field-Effect Transistors: Toward n-Type BTBTs. <i>Chemistry of Materials</i> , 2019 , 31, 5254-5263	9.6	37
258	Amorphous oxide alloys as interfacial layers with broadly tunable electronic structures for organic photovoltaic cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 7897-902	11.5	37
257	Tuning the Semiconducting Properties of Sexithiophene by π -Substitution: π -Diphenylhexylsexithiophene: The First n-Type Sexithiophene for Thin-Film Transistors. <i>Angewandte Chemie</i> , 2000 , 112, 4721-4725	3.6	37
256	Synthesis of Octabromoperylene Dianhydride and Diimides: Evidence of Halogen Bonding and Semiconducting Properties. <i>Organic Letters</i> , 2016 , 18, 472-5	6.2	36
255	Very Large Silacyclic Substituent Effects on Response in Silole-Based Polymer Transistors. <i>Chemistry of Materials</i> , 2011 , 23, 2185-2200	9.6	36
254	High-Performance Thin-Film Transistors from Solution-Processed Cadmium Selenide and a Self-Assembled Multilayer Gate Dielectric. <i>Advanced Materials</i> , 2008 , 20, 2319-2324	24	36
253	Solution-processed barium salts as charge injection layers for high performance N-channel organic field-effect transistors. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 9614-21	9.5	35
252	Fine Structural Tuning of Cyanated Dithieno[3,2-b:2',3'-d]silole-Dithiophene Copolymers: Synthesis, Characterization, and Photovoltaic Response. <i>Macromolecules</i> , 2013 , 46, 6419-6430	5.5	35
251	Synthesis and thin-film transistor performance of benzodipyrrolinone and bithiophene donor-acceptor copolymers. <i>Journal of Materials Chemistry</i> , 2012 , 22, 22282		35
250	Supramolecular Order of Solution-Processed Perylenediimide Thin Films: High-Performance Small-Channel n-Type Organic Transistors. <i>Advanced Functional Materials</i> , 2011 , 21, 4479-4486	15.6	35
249	Organic Complementary D Flip-Flops Enabled by Perylene Diimides and Pentacene. <i>IEEE Electron Device Letters</i> , 2006 , 27, 737-739	4.4	35
248	Hyperbolic Dispersion Arising from Anisotropic Excitons in Two-Dimensional Perovskites. <i>Physical Review Letters</i> , 2018 , 121, 127401	7.4	35
247	High-Efficiency All-Polymer Solar Cells with Poly-Small-Molecule Acceptors Having π -Extended Units with Broad Near-IR Absorption. <i>ACS Energy Letters</i> , 2021 , 6, 728-738	20.1	35
246	Simultaneous extraction of charge density dependent mobility and variable contact resistance from thin film transistors. <i>Applied Physics Letters</i> , 2014 , 104, 193501	3.4	34
245	High performance In ₂ O ₃ nanowire transistors using organic gate nanodielectrics. <i>Applied Physics Letters</i> , 2008 , 92, 222105	3.4	34
244	Systematic Merging of Nonfullerene Acceptor π -Extension and Tetrafluorination Strategies Affords Polymer Solar Cells with >16% Efficiency. <i>Journal of the American Chemical Society</i> , 2021 , 143, 6123-6139	16.4	34
243	Breath figure-derived porous semiconducting films for organic electronics. <i>Science Advances</i> , 2020 , 6, eaaz1042	14.3	33
242	On-surface solvent-free crystal-to-co-crystal conversion by non-covalent interactions. <i>Journal of the American Chemical Society</i> , 2014 , 136, 11926-9	16.4	33

241	Diperfluorophenyl Fused Thiophene Semiconductors for n-Type Organic Thin Film Transistors (OTFTs). <i>Advanced Electronic Materials</i> , 2015 , 1, 1500098	6.4	33
240	Bulk Heterojunction Solar Cells Tuning of the HOMO and LUMO Energy Levels of Pyrrolic Squaraine Dyes. <i>European Journal of Organic Chemistry</i> , 2011 , 2011, 5555-5563	3.2	33
239	Selective remanent ambipolar charge transport in polymeric field-effect transistors for high-performance logic circuits fabricated in ambient. <i>Advanced Materials</i> , 2014 , 26, 7438-43	24	32
238	Isomeric carbazolocarbazoles: synthesis, characterization and comparative study in Organic Field Effect Transistors. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 1959	7.1	32
237	Azine- and Azole-Functionalized Oligo- and Polythiophene Semiconductors for Organic Thin-Film Transistors. <i>Materials</i> , 2010 , 3, 1533-1558	3.5	32
236	Twisted Electron System Electrooptic Chromophores. Structural and Electronic Consequences of Relaxing Twist-Inducing Nonbonded Repulsions. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 8005-8015	3.8	32
235	Effect of Backbone Regiochemistry on Conductivity, Charge Density, and Polaron Structure of n-Doped Donor-Acceptor Polymers. <i>Chemistry of Materials</i> , 2019 , 31, 3395-3406	9.6	31
234	Readily Accessible Benzo[d]thiazole Polymers for Nonfullerene Solar Cells with >16% Efficiency and Potential Pitfalls. <i>ACS Energy Letters</i> , 2020 , 5, 1780-1787	20.1	31
233	Intramolecular Locked Dithioalkylbithiophene-Based Semiconductors for High-Performance Organic Field-Effect Transistors. <i>Advanced Materials</i> , 2017 , 29, 1702414	24	31
232	Cation Size Effects on the Electronic and Structural Properties of Solution-Processed In ₂ O ₃ Thin Films. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500146	6.4	31
231	Single-walled carbon nanotube transparent conductive films fabricated by reductive dissolution and spray coating for organic photovoltaics. <i>Applied Physics Letters</i> , 2014 , 105, 253301	3.4	31
230	High-speed organic single-crystal transistors gated with short-channel air gaps: Efficient hole and electron injection in organic semiconductor crystals. <i>Organic Electronics</i> , 2013 , 14, 1656-1662	3.5	31
229	Effects of bias stress on ZnO nanowire field-effect transistors fabricated with organic gate nanodielectrics. <i>Applied Physics Letters</i> , 2006 , 89, 193506	3.4	31
228	Polymer Doping Enables a Two-Dimensional Electron Gas for High-Performance Homo Junction Oxide Thin-Film Transistors. <i>Advanced Materials</i> , 2019 , 31, e1805082	24	31
227	Naphthalene Bis(4,8-diamino-1,5-dicarboxyl)amide Building Block for Semiconducting Polymers. <i>Journal of the American Chemical Society</i> , 2017 , 139, 14356-14359	16.4	30
226	Photovoltaic Blend Microstructure for High Efficiency Post-Fullerene Solar Cells. To Tilt or Not To Tilt?. <i>Journal of the American Chemical Society</i> , 2019 , 141, 13410-13420	16.4	30
225	Molecular and electronic-structure basis of the ambipolar behavior of naphthalimide-terthiophene derivatives: implementation in organic field-effect transistors. <i>Chemistry - A European Journal</i> , 2013 , 19, 12458-67	4.8	30
224	Fused Thiophene Semiconductors: Crystal Structure Film Microstructure Transistor Performance Correlations. <i>Advanced Functional Materials</i> , 2013 , 23, 3850-3865	15.6	30

223	Enhanced Light Absorption in Fluorinated Ternary Small-Molecule Photovoltaics. <i>ACS Energy Letters</i> , 2017 , 2, 1690-1697	20.1	30
222	Charge transport model for photovoltaic devices based on printed polymer: Fullerene nanoparticles. <i>Solar Energy Materials and Solar Cells</i> , 2015 , 141, 171-177	6.4	30
221	Pentacene transistors fabricated on photocurable polymer gate dielectrics: tuning surface viscoelasticity and device response. <i>Advanced Materials</i> , 2010 , 22, 342-6	24	30
220	Suppressing Defect Formation Pathways in the Direct C ₆₀ Arylation Polymerization of Photovoltaic Copolymers. <i>Macromolecules</i> , 2018 , 51, 9140-9155	5.5	30
219	Building Blocks for High-Efficiency Organic Photovoltaics: Interplay of Molecular, Crystal, and Electronic Properties in Post-Fullerene ITIC Ensembles. <i>ChemPhysChem</i> , 2019 , 20, 2608-2626	3.2	29
218	Influence of Semiconductor Thickness and Molecular Weight on the Charge Transport of a Naphthalenediimide-Based Copolymer in Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 12478-87	9.5	29
217	Metal Composition and Polyethylenimine Doping Capacity Effects on Semiconducting Metal Oxide-Polymer Blend Charge Transport. <i>Journal of the American Chemical Society</i> , 2018 , 140, 5457-5473	16.4	29
216	Time-of-flight measurements and vertical transport in a high electron-mobility polymer. <i>Applied Physics Letters</i> , 2011 , 99, 183310	3.4	29
215	Design and Preparation of Zwitterionic Organic Thin Films: Self-Assembled Siloxane-Based, Thiophene-Spaced N-Benzylpyridinium Dicyanomethanides as Nonlinear Optical Materials. <i>Langmuir</i> , 2001 , 17, 5939-5942	4	29
214	Benzo[d][1,2,3]thiadiazole (isoBT): Synthesis, Structural Analysis, and Implementation in Semiconducting Polymers. <i>Chemistry of Materials</i> , 2016 , 28, 6390-6400	9.6	29
213	Synergistic Boron Doping of Semiconductor and Dielectric Layers for High-Performance Metal Oxide Transistors: Interplay of Experiment and Theory. <i>Journal of the American Chemical Society</i> , 2018 , 140, 12501-12510	16.4	29
212	Nitroacetylacetone as a Cofuel for the Combustion Synthesis of High-Performance Indium-Gallium-Zinc Oxide Transistors. <i>Chemistry of Materials</i> , 2018 , 30, 3323-3329	9.6	28
211	Controllable growth of LiMn ₂ O ₄ by carbohydrate-assisted combustion synthesis for high performance Li-ion batteries. <i>Nano Energy</i> , 2019 , 64, 103936	17.1	28
210	Incisive structure-spectroscopic correlation in oligothiophenes functionalized with (+/-) inductive/mesomeric fluorine groups: joint Raman and DFT study. <i>Journal of the American Chemical Society</i> , 2005 , 127, 13364-72	16.4	28
209	Alkynyl-Functionalized Head-to-Head Linkage Containing Bithiophene as a Weak Donor Unit for High-Performance Polymer Semiconductors. <i>Chemistry of Materials</i> , 2017 , 29, 4109-4121	9.6	27
208	Epitaxial Growth of β -Cyclodextrin-Containing Metal-Organic Frameworks Based on a Host-Guest Strategy. <i>Journal of the American Chemical Society</i> , 2018 , 140, 11402-11407	16.4	27
207	Systematic evaluation of structure-property relationships in heteroacene β -diketopyrrolopyrrole molecular donors for organic solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 9217-9232	13	26
206	Charge-trap flash-memory oxide transistors enabled by copper-zirconia composites. <i>Advanced Materials</i> , 2014 , 26, 7170-7	24	26

205	Self-assembled nanodielectrics and silicon nanomembranes for low voltage, flexible transistors, and logic gates on plastic substrates. <i>Applied Physics Letters</i> , 2009 , 95, 183504	3.4	26
204	Expedition, scalable solution growth of metal oxide films by combustion blade coating for flexible electronics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019 , 116, 9230-9238	11.5	25
203	Thermal Conductivity Comparison of Indium Gallium Zinc Oxide Thin Films: Dependence on Temperature, Crystallinity, and Porosity. <i>Journal of Physical Chemistry C</i> , 2016 , 120, 7467-7475	3.8	25
202	Light- and bias-induced effects in pentacene-based thin film phototransistors with a photocurable polymer dielectric. <i>Organic Electronics</i> , 2016 , 28, 147-154	3.5	25
201	Functionalized perylenes: origin of the enhanced electrical performances. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 95, 303-308	2.6	25
200	Hole (donor) and electron (acceptor) transporting organic semiconductors for bulk-heterojunction solar cells. <i>EnergyChem</i> , 2020 , 2, 100042	36.9	25
199	Mobility versus Alignment of a Semiconducting π -Extended Discotic Liquid-Crystalline Triindole. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26964-26971	9.5	25
198	New donor polymer with tetrafluorinated blocks for enhanced performance in perylenediimide-based solar cells. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 5351-5361	13	24
197	Stable Postfullerene Solar Cells via Direct C-H Arylation Polymerization. Morphology-Performance Relationships. <i>Chemistry of Materials</i> , 2019 , 31, 4313-4321	9.6	24
196	Solution Processable Pseudo n-Thienoacenes via Intramolecular S _N 2 Lock for High Performance Organic Field Effect Transistors. <i>Chemistry of Materials</i> , 2020 , 32, 1422-1429	9.6	24
195	Over 14% Efficiency Folding-Flexible ITO-free Organic Solar Cells Enabled by Eco-friendly Acid-Processed Electrodes. <i>IScience</i> , 2020 , 23, 100981	6.1	24
194	Solution-Processed Crystalline n-Type Organic Transistors Stable against Electrical Stress and Photooxidation. <i>Advanced Functional Materials</i> , 2016 , 26, 2365-2370	15.6	24
193	Selecting Semiconducting Single-Walled Carbon Nanotubes with Narrow Bandgap Naphthalene Diimide-Based Polymers. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500074	6.4	24
192	Polymersolarzellen: Fortschritt, Herausforderungen und Perspektiven. <i>Angewandte Chemie</i> , 2019 , 131, 4173-4186	3.6	24
191	Efficient and Versatile Interconnection Layer by Solvent Treatment of PEDOT:PSS Interlayer for Air-Processed Organic Tandem Solar Cells. <i>Advanced Materials Interfaces</i> , 2016 , 3, 1600770	4.6	23
190	Porous Semiconducting Polymers Enable High-Performance Electrochemical Transistors. <i>Advanced Materials</i> , 2021 , 33, e2007041	24	23
189	Naphthalene diimide-based polymeric semiconductors. Effect of chlorine incorporation and n-channel transistors operating in water. <i>MRS Communications</i> , 2016 , 6, 47-60	2.7	23
188	Symmetric naphthalenediimidequaterthiophenes for electropolymerized electrochromic thin films. <i>Journal of Materials Chemistry C</i> , 2015 , 3, 5985-5994	7.1	22

187	Device performance and density of trap states of organic and inorganic field-effect transistors. <i>Organic Electronics</i> , 2016 , 28, 306-313	3.5	22
186	Naphtalenediimide-based donor-acceptor copolymer prepared by chain-growth catalyst-transfer polycondensation: evaluation of electron-transporting properties and application in printed polymer transistors. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 5149-5154	7.1	22
185	Low-Temperature Postfunctionalization of Highly Conductive Oxide Thin-Films toward Solution-Based Large-Scale Electronics. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 26191-26200	9.5	22
184	Fast switching characteristics in vertical organic field effect transistors. <i>Applied Physics Letters</i> , 2013 , 103, 073502	3.4	22
183	Downscaling of n-channel organic field-effect transistors with inkjet-printed electrodes. <i>Organic Electronics</i> , 2012 , 13, 320-328	3.5	21
182	Self-Assembled Nanodielectrics for High-Speed, Low-Voltage Solution-Processed Polymer Logic Circuits. <i>Advanced Electronic Materials</i> , 2015 , 1, 1500226	6.4	21
181	Organic field-effect transistors based on a crosslinkable polymer blend as the semiconducting layer. <i>Applied Physics Letters</i> , 2005 , 87, 183501	3.4	21
180	Presence of Short Intermolecular Contacts Screens for Kinetic Stability in Packing Polymorphs. <i>Journal of the American Chemical Society</i> , 2018 , 140, 7519-7525	16.4	21
179	Solution-Processed High-Performance Tetrathienothiophene-Based Small Molecular Blends for Ambipolar Charge Transport. <i>Advanced Functional Materials</i> , 2018 , 28, 1801025	15.6	21
178	Coulomb Enhanced Charge Transport in Semicrystalline Polymer Semiconductors. <i>Advanced Functional Materials</i> , 2016 , 26, 8011-8022	15.6	20
177	Proton radiation hardness of single-nanowire transistors using robust organic gate nanodielectrics. <i>Applied Physics Letters</i> , 2006 , 89, 073510	3.4	20
176	Design and synthesis of heterocyclic multi-branched dyes for two-photon absorption. <i>Synthetic Metals</i> , 2003 , 139, 795-797	3.6	20
175	Cross-Linkable Molecular Hole-Transporting Semiconductor for Solid-State Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 16967-16975	3.8	19
174	Enhanced Thin-Film Transistor Performance by Combining 13,6-N-Sulfinylacetamidopentacene with Printed PEDOT:PSS Electrodes. <i>Chemistry of Materials</i> , 2011 , 23, 1061-1069	9.6	19
173	Morphological Characterization of H Aggregates in Langmuir-Blodgett Films of Pyridinium Dicyanomethanide Dyes. <i>Langmuir</i> , 1999 , 15, 2149-2151	4	19
172	Green solvents for organic thin-film transistor processing. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 5786-5794	18	18
171	Novel unsymmetrical squaraine-based small molecules for organic solar cells. <i>Journal of Materials Chemistry C</i> , 2018 , 6, 847-854	7.1	18
170	Dithienylbenzodiimide: a new electron-deficient unit for n-type polymer semiconductors. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 9559-9569	7.1	18

169	Coordination polymer nanostructures. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 6001-3	16.4	18
168	Ambipolar field-effect transistor based on 2,2',5,5'-dihexylquaterthiophene and 2,2',5,5'-diperfluoroquaterthiophene vertical heterojunction. <i>Microelectronics Reliability</i> , 2010 , 50, 1861-1865	1.2	18
167	Comparative passivation effects of self-assembled mono- and multilayers on GaAs junction field effect transistors. <i>Applied Physics Letters</i> , 2008 , 92, 123509	3.4	18
166	Ion pair first and second acidities of some beta-diketones and aggregation of their lithium and cesium enediolates in THF. <i>Journal of Organic Chemistry</i> , 2004 , 69, 8345-55	4.2	18
165	Printed diodes operating at mobile phone frequencies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 11917-8	11.5	17
164	Ion pair pKs of some amines: extension of the computed lithium pK scale. <i>Journal of Organic Chemistry</i> , 2012 , 77, 985-90	4.2	17
163	Reinforced self-assembled nanodielectrics for high-performance transparent thin film transistors. <i>Advanced Materials</i> , 2011 , 23, 992-7	24	17
162	Diheteroarylmethanes. 8.(1) Mapping Charge and Electron-Withdrawing Power of the 1,2,4-Triazol-5-yl Substituent. <i>Journal of Organic Chemistry</i> , 1999 , 64, 6756-6763	4.2	17
161	Solution-Processable Quinoidal Dithioalkylterthiophene-Based Small Molecules Pseudo-Pentathienoacenes an Intramolecular S \cdots S Lock for High-Performance n-Type Organic Field-Effect Transistors. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 25081-25091	9.5	16
160	Synthesis and properties of semiconducting bispyrrolothiophenes for organic field-effect transistors. <i>Chemistry - A European Journal</i> , 2014 , 20, 5938-45	4.8	16
159	Cyano-disubstituted dipyrrolopyrazinedione (CNPzDP) small molecules for solution processed n-channel organic thin-film transistors. <i>Journal of Materials Chemistry C</i> , 2013 , 1, 5624	7.1	16
158	Durch direkte arylierende Polykondensation zu halbleitenden Polymeren. <i>Angewandte Chemie</i> , 2012 , 124, 3578-3581	3.6	16
157	PushPull π -Electron Phosphonic-Acid-Based Self-Assembled Multilayer Nanodielectrics Fabricated in Ambient for Organic Transistors. <i>Chemistry of Materials</i> , 2009 , 21, 1173-1175	9.6	16
156	π -Extended Naphthalene Diimide Derivatives for n-Type Semiconducting Polymers. <i>Chemistry of Materials</i> , 2020 , 32, 5317-5326	9.6	16
155	Experimental and theoretical evidence for hydrogen doping in polymer solution-processed indium gallium oxide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 18231-18239	11.5	16
154	Engineering Intrinsic Flexibility in Polycrystalline Molecular Semiconductor Films by Grain Boundary Plasticization. <i>Journal of the American Chemical Society</i> , 2020 , 142, 5487-5492	16.4	15
153	Empirically based device modeling of bulk heterojunction organic photovoltaics. <i>Journal of Applied Physics</i> , 2013 , 113, 154506	2.5	15
152	Open circuit voltage tuning through molecular design in hydrazone end capped donors for bulk heterojunction solar cells. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 2631	13	15

151	Enhanced Fill Factor through Chalcogen Side-Chain Manipulation in Small-Molecule Photovoltaics. <i>ACS Energy Letters</i> , 2017 , 2, 2415-2421	20.1	15
150	The Dipole Moment Inversion Effects in Self-Assembled Nanodielectrics for Organic Transistors. <i>Chemistry of Materials</i> , 2017 , 29, 9974-9980	9.6	15
149	Sustainable synthetic approach to π -conjugated arylacetylenic semiconductors for bulk heterojunction solar cells. <i>RSC Advances</i> , 2013 , 3, 9288	3.7	15
148	Organic Light-Emitting Diodes with Field-Effect-Assisted Electron Transport Based on π -Bi, π -Bi, π -Diperfluorohexyl-quaterthiophene. <i>Advanced Functional Materials</i> , 2008 , 18, 3645-3652	15.6	15
147	Ion Pair Acidities and Aggregation of Some Amide and Oxazoline Enolates in THF. <i>Journal of Organic Chemistry</i> , 1999 , 64, 2281-2286	4.2	15
146	New Benzo[1,2-d:4,5-d']bis([1,2,3]thiadiazole) (iso-BBT)-Based Polymers for Application in Transistors and Solar Cells. <i>Chemistry of Materials</i> , 2019 , 31, 6519-6529	9.6	14
145	Frequency-Agile Low-Temperature Solution-Processed Alumina Dielectrics for Inorganic and Organic Electronics Enhanced by Fluoride Doping. <i>Journal of the American Chemical Society</i> , 2020 , 142, 12440-12452	16.4	14
144	Annulated Thienyl-Vinylene-Thienyl Building Blocks for π -Conjugated Copolymers: Ring Dimensions and Isomeric Structure Effects on π -Conjugation Length and Charge Transport. <i>Chemistry of Materials</i> , 2016 , 28, 5772-5783	9.6	14
143	Cinnamate-Functionalized Natural Carbohydrates as Photopatternable Gate Dielectrics for Organic Transistors. <i>Chemistry of Materials</i> , 2019 , 31, 7608-7617	9.6	14
142	Functionalized benzothieno[3,2 b]thiophenes (BTTs) for high performance organic thin-film transistors (OTFTs). <i>Journal of Materials Chemistry C</i> , 2014 , 2, 7599	7.1	14
141	Studies of Photogenerated Charge Carriers from Donor-Acceptor Interfaces in Organic Field Effect Transistors. Implications for Organic Solar Cells. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 20609-20613	3.8	14
140	Electron Transport and Nanomorphology in Solution-Processed Polymeric Semiconductor n-Doped with an Air-Stable Organometallic Dimer. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600546	6.4	13
139	Facial synthesis of highly active polymer vanadium molybdate nanocomposite: Improved thermoelectric and antimicrobial studies. <i>Journal of Physics and Chemistry of Solids</i> , 2019 , 131, 148-155	3.9	13
138	Ultrahigh Vacuum Self-Assembly of Rotationally Commensurate C8-BTBT/MoS ₂ /Graphene Mixed-Dimensional Heterostructures. <i>Chemistry of Materials</i> , 2019 , 31, 1761-1766	9.6	13
137	Synthesis and Properties of New N-Heteroheptacenes for Solution-Based Organic Field Effect Transistors. <i>Chemistry - A European Journal</i> , 2017 , 23, 12542-12549	4.8	13
136	Interface properties of OFETs based on an air-stable n-channel perylene tetracarboxylic diimide semiconductor. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2012 , 209, 585-593	1.6	13
135	High-performance GaAs metal-insulator-semiconductor field-effect transistors enabled by self-assembled nanodielectrics. <i>Applied Physics Letters</i> , 2006 , 89, 142101	3.4	13
134	Design and synthesis of new functional polymers for nonlinear optical applications. <i>Synthetic Metals</i> , 2003 , 139, 629-632	3.6	13

133	8-Purinyl versus 2-Benzimidazolyl Carbanions: Charge Demands of the Heterocycles and Ligand Properties of the Bis(heteroaryl)methanes(1). <i>Journal of Organic Chemistry</i> , 1998 , 63, 436-444	4.2	13
132	Performance, Morphology, and Charge Recombination Correlations in Ternary Squaraine Solar Cells. <i>Chemistry of Materials</i> , 2018 , 30, 6810-6820	9.6	13
131	Mixed-flow design for microfluidic printing of two-component polymer semiconductor systems. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 17551-17557	11.5	12
130	Molecular-Scale Characterization of Photoinduced Charge Separation in Mixed-Dimensional InSe-Organic van der Waals Heterostructures. <i>ACS Nano</i> , 2020 , 14, 3509-3518	16.7	12
129	Solution-Processed Self-Assembled Nanodielectrics on Template-Stripped Metal Substrates. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26360-6	9.5	12
128	Exceptional Molecular Hyperpolarizabilities in Twisted π -Electron System Chromophores. <i>Angewandte Chemie</i> , 2005 , 117, 8136-8139	3.6	12
127	Benzotrithiophene versus Benzo/Naphthodithiophene Building Blocks: The Effect of Star-Shaped versus Linear Conjugation on Their Electronic Structures. <i>Chemistry - A European Journal</i> , 2016 , 22, 6374-81	4.8	12
126	Thienoisindigo (TII)-Based Quinoidal Small Molecules for High-Performance n-Type Organic Field Effect Transistors. <i>Advanced Science</i> , 2020 , 8, 2002930	13.6	12
125	Direct Printing of Graphene Electrodes for High-Performance Organic Inverters. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15988-15995	9.5	11
124	Marked Cofuel Tuning of Combustion Synthesis Pathways for Metal Oxide Semiconductor Films. <i>Advanced Electronic Materials</i> , 2019 , 5, 1900540	6.4	11
123	Aggregated Structures in Langmuir-Blodgett Films of Pyridinium-Dicyanomethanide Dyes. <i>Langmuir</i> , 1997 , 13, 5787-5790	4	11
122	High-capacitance organic nanodielectrics: effective medium models of their response. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 22394-9	3.4	11
121	Regio(ir)regular naphthalenediimide- and perylenediimide-bithiophene copolymers: how MO localization controls the bandgap. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 9405-9410	7.1	11
120	A Solution Processable Dithioalkyl Dithienothiophene (DSDTT) Based Small Molecule and Its Blends for High Performance Organic Field Effect Transistors. <i>ACS Nano</i> , 2021 , 15, 727-738	16.7	11
119	Self-Assembled Photochromic Molecular Dipoles for High-Performance Polymer Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 21492-21498	9.5	11
118	Low-Loss Near-Infrared Hyperbolic Metamaterials with Epitaxial ITO-In ₂ O ₃ Multilayers. <i>ACS Photonics</i> , 2018 , 5, 2000-2007	6.3	10
117	Combining Optical Transparency with Electrical Conductivity: Challenges and Prospects 2010 , 1-29		10
116	Langmuir-Blodgett Films of a New Pyridinium-Dicyanomethanide Dye and Their Potential Optical Applications. <i>Langmuir</i> , 1997 , 13, 3434-3437	4	10

115	Comparisons of ion pair acidities of some acidic carbon acids. <i>Journal of Organic Chemistry</i> , 2000 , 65, 4195-7	4.2	10
114	Systematically Controlling Acceptor Fluorination Optimizes Hierarchical Morphology, Vertical Phase Separation, and Efficiency in Non-Fullerene Organic Solar Cells. <i>Advanced Energy Materials</i> , 2021 , 11, 2102172	21.8	10
113	Photoresponse of pentacene-based transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014 , 211, 460-466	1.6	9
112	Gate-planarized low-operating voltage organic field-effect transistors enabled by hot polymer pressing/embedding of conducting metal lines. <i>Journal of the American Chemical Society</i> , 2006 , 128, 4928-9	16.4	9
111	Crosslinked Poly(amido-amine)s as Superior Matrices for Chemical Incorporation of Highly Efficient Organic Nonlinear Optical Dyes. <i>Macromolecular Rapid Communications</i> , 2003 , 24, 397-402	4.8	9
110	Structure-Charge Transport Relationships in Fluoride-Doped Amorphous Semiconducting Indium Oxide: Combined Experimental and Theoretical Analysis. <i>Chemistry of Materials</i> , 2020 , 32, 805-820	9.6	9
109	Guest Editorial Organic/Printed Electronics: A Circuits and Systems Perspective. <i>IEEE Journal on Emerging and Selected Topics in Circuits and Systems</i> , 2017 , 7, 1-6	5.2	8
108	Carbonyl-functionalized quaterthiophenes: a study of the vibrational Raman and electronic absorption/emission properties guided by theoretical calculations. <i>ChemPhysChem</i> , 2012 , 13, 168-76	3.2	8
107	Information storage based on photochemical effects in mixed Langmuir-Blodgett films. <i>Thin Solid Films</i> , 1999 , 340, 218-220	2.2	8
106	Non-fullerene acceptors with direct and indirect hexa-fluorination afford >17% efficiency in polymer solar cells. <i>Energy and Environmental Science</i> ,	35.4	8
105	Self-Assembled Nanodielectrics for Solution-Processed Top-Gate Amorphous IGZO Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 15399-15408	9.5	8
104	Insights Into Interface Treatments in p-Channel Organic Thin-Film Transistors Based on a Novel Molecular Semiconductor. <i>IEEE Transactions on Electron Devices</i> , 2017 , 64, 2338-2344	2.9	7
103	Recent Advances in Squaraine Dyes for Bulk-Heterojunction Organic Solar Cells. <i>Organic Photonics and Photovoltaics</i> , 2019 , 6, 1-16	5	7
102	Nanostrukturierte Koordinationspolymere. <i>Angewandte Chemie</i> , 2011 , 123, 6125-6127	3.6	7
101	Synthesis and characterization of solution-processable core-cyanated perylene-3,4,9,10-bis(dicarboximide) derivatives. <i>Organic Letters</i> , 2010 , 12, 4852-5	6.2	7
100	Realization of dual-channel organic field-effect transistors and their applications to chemical sensing. <i>Applied Physics Letters</i> , 2008 , 93, 133304	3.4	7
99	Control mechanisms for transport and nonlinear optical response in organic materials: a tale of twists and barriers. <i>Inorganica Chimica Acta</i> , 2004 , 357, 3980-3990	2.7	7
98	Printable Organic-Inorganic Nanoscale Multilayer Gate Dielectrics for Thin-Film Transistors Enabled by a Polymeric Organic Interlayer. <i>Advanced Functional Materials</i> , 2020 , 30, 2005069	15.6	7

97	Host-Free Deep-Blue Organic Light-Emitting Transistors Based on a Novel Fluorescent Emitter. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 40558-40565	9.5	7
96	Recent Advances in Multi-Layer Light-Emitting Heterostructure Transistors. <i>Small</i> , 2021 , 17, e2007661	11	7
95	Polypyridyl complexes as electron transporting materials for inverted bulk heterojunction solar cells: the metal center effect. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 4634-4639	7.1	7
94	Oxide-Polymer Heterojunction Diodes with a Nanoscopic Phase-Separated Insulating Layer. <i>Nano Letters</i> , 2019 , 19, 471-476	11.5	7
93	Fluorine Tuning of Morphology, Energy Loss, and Carrier Dynamics in Perylenediimide Polymer Solar Cells. <i>ACS Energy Letters</i> , 2019 ,	20.1	6
92	Polymeric and Small-Molecule Semiconductors for Organic Field-Effect Transistors 2015 , 1-100		6
91	Transparent Oxide Semiconductors: Fundamentals and Recent Progress 2010 , 31-59		6
90	Organic Semiconductors for Transparent Electronics 2018 , 13-49		6
89	Dielectric materials for electrolyte gated transistor applications. <i>Journal of Materials Chemistry C</i> , 2021 , 9, 9348-9376	7.1	6
88	Heteroalkyl-Substitution in Molecular Organic Semiconductors: Chalcogen Effect on Crystallography, Conformational Lock, and Charge Transport. <i>Advanced Functional Materials</i> , 2020 , 30, 200880	15.6	6
87	P-176: Innovative Trilayer Organic Light Emitting Transistor (OLET) Structure for Blue Emission. <i>Digest of Technical Papers SID International Symposium</i> , 2016 , 47, 1779-1782	0.5	5
86	Even and odd oligothiophene-bridged bis-naphthalimides for n-type and ambipolar organic field effect transistors. <i>Journal of Materials Chemistry C</i> , 2017 , 5, 9439-9450	7.1	5
85	Langmuir-Blodgett films of pyridinium-dicyanomethanide dyes mixtures with photobleachable absorption bands. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 1999 , 150, 289-296	5.1	5
84	Novel hybrid organic-inorganic sol-gel materials based on highly efficient heterocyclic push-pull chromophores 1999 , 3803, 18		5
83	Synthesis and Characterization of Squaraine-Based Photocrosslinkable Resists for Bulk Heterojunction Solar Cells. <i>European Journal of Organic Chemistry</i> , 2016 , 2016, 4032-4040	3.2	5
82	New Opportunities for High-Performance Source-Gated Transistors Using Unconventional Materials. <i>Advanced Science</i> , 2021 , 8, e2101473	13.6	5
81	Lead Halide Perovskites as Charge Generation Layers for Electron Mobility Measurement in Organic Semiconductors. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 42011-42019	9.5	4
80	. <i>Journal of Display Technology</i> , 2015 , 11, 533-540		4

79	Measuring Dipole Inversion in Self-Assembled Nano-Dielectric Molecular Layers. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 6484-6490	9.5	4
78	Materials science: Polymers make charge flow easy. <i>Nature</i> , 2016 , 539, 499-500	50.4	4
77	Synthesis, characterization, and photoinduced electron transfer properties of core-functionalized perylene-3,4:9,10-bis(dicarboximide)s with pendant anthracenes. <i>Journal of Materials Chemistry</i> , 2011 , 21, 19049		4
76	Lead Oxides: Synthesis and Applications 2010 , 89-101		4
75	Organic Semiconductor Materials 2004 , 83-159		4
74	To Fluorinate or Not to Fluorinate in Organic Solar Cells: Achieving a Higher PCE of 15.2% when the Donor Polymer is Halogen-Free. <i>Advanced Energy Materials</i> , 2102648	21.8	4
73	Vertically Stacked Full Color Quantum Dots Phototransistor Arrays for High-Resolution and Enhanced Color-Selective Imaging. <i>Advanced Materials</i> , 2021 , e2106215	24	4
72	Flexible complementary circuits operating at sub-0.5 V via hybrid organic-inorganic electrolyte-gated transistors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	4
71	Enabling Wearable and Other Novel Applications through Flexible TFTs. <i>Information Display</i> , 2016 , 32, 6-11	0.8	4
70	Conjugated donor-acceptor small molecule thin-films on gold electrodes for reducing the metal work-function. <i>Thin Solid Films</i> , 2016 , 616, 320-327	2.2	4
69	Ultraviolet Light-Densified Oxide-Organic Self-Assembled Dielectrics: Processing Thin-Film Transistors at Room Temperature. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 3445-3453	9.5	4
68	Processable High Electron Mobility Copolymers via Mesoscale Backbone Conformational Ordering. <i>Advanced Functional Materials</i> , 2021 , 31, 2009359	15.6	4
67	Foundry-compatible high-resolution patterning of vertically phase-separated semiconducting films for ultraflexible organic electronics. <i>Nature Communications</i> , 2021 , 12, 4937	17.4	4
66	2,3-Diphenylthieno[3,4-b]pyrazines as Hole-Transporting Materials for Stable, High-Performance Perovskite Solar Cells. <i>ACS Energy Letters</i> , 2118-2127	20.1	4
65	Facile organic surfactant removal of various dimensionality nanomaterials using low-temperature photochemical treatment.. <i>RSC Advances</i> , 2019 , 9, 730-737	3.7	3
64	Organic Thin-Film Transistors: Thiazole Imide-Based All-Acceptor Homopolymer: Achieving High-Performance Unipolar Electron Transport in Organic Thin-Film Transistors (Adv. Mater. 10/2018). <i>Advanced Materials</i> , 2018 , 30, 1870071	24	3
63	Analysis of the persistent photoresponse of C8BTBT transistors in the near-bandgap spectral region. <i>Organic Electronics</i> , 2016 , 30, 83-91	3.5	3
62	33.4: Flexible IGZO TFTs with a Disruptive Photo-patternable and Thermally Stable Organic Gate Insulator. <i>Digest of Technical Papers SID International Symposium</i> , 2015 , 46, 486-489	0.5	3

61	A First Study of Langmuir-Blodgett Films of 1-[N-(n-Hexadecyl)-4-pyridinio]-2-[5-(dicyano-methanidyl)thien-2-yl]ethene. <i>Langmuir</i> , 1997 , 13, 4182-4184	4	3
60	Doping Indium Oxide Films with Amino-Polymers of Varying Nitrogen Content Markedly Affects Charge Transport and Mechanical Flexibility. <i>Advanced Functional Materials</i> , 2021 , 31, 2100451	15.6	3
59	54-3: Invited Paper: Flexible Active-Matrix OLET Display on a Plastic Substrate. <i>Digest of Technical Papers SID International Symposium</i> , 2016 , 47, 739-742	0.5	3
58	High-Quality Solution-Processed Metal-Oxide Gate Dielectrics Realized With a Photo-Activated Metal-Oxide Nanocluster Precursor. <i>IEEE Electron Device Letters</i> , 2018 , 39, 1668-1671	4.4	3
57	Molecular Encapsulation of Naphthalene Diimide (NDI) Based Conjugated Polymers: A Tool for Understanding Photoluminescence. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 25005-25012	16.4	3
56	Application of Transparent Oxide Semiconductors for Flexible Electronics 2010 , 265-297		2
55	Deposition and Performance Challenges of Transparent Conductive Oxides on Plastic Substrates 2010 , 103-140		2
54	Oxide Semiconductors: From Materials to Devices 2010 , 141-183		2
53	High mobility solution-processed n-channel organic thin film transistors 2007 ,		2
52	N- and P-Type Building Blocks for Organic Electronics Based on Oligothiophene Cores. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 771, 1281		2
51	N- and P-Type Building Blocks for Organic Electronics Based on Oligothiophene Cores. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 769, 1181		2
50	Nano Pt-decorated transparent solution-processed oxide semiconductor sensor with ppm detection capability.. <i>RSC Advances</i> , 2019 , 9, 6193-6198	3.7	1
49	Organic gate insulator materials for amorphous metal oxide TFTs 2015 ,		1
48	3D versus 2D Electrolyte/Semiconductor Interfaces in Rylene-diimide-Based Electron-Transporting Water-Gated Organic Field-Effect Transistors. <i>Advanced Electronic Materials</i> , 2020 , 6, 2000638	6.4	1
47	Materials and Processes for Stretchable and Wearable e-Textile Devices 2020 , 305-334		1
46	Cross-Plane Thermal Conductance of Phosphonate-Based Self-Assembled Monolayers and Self-Assembled Nanodielectrics. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 34901-34909	9.5	1
45	Probing the density of trap states in the middle of the bandgap using ambipolar organic field-effect transistors. <i>Journal of Applied Physics</i> , 2018 , 123, 161574	2.5	1
44	Polymeric Acceptor Semiconductors for Organic Solar Cells 2014 , 239-300		1

43	Organic Transistors: Supramolecular Order of Solution-Processed Perylenediimide Thin Films: High-Performance Small-Channel n-Type Organic Transistors (Adv. Funct. Mater. 23/2011). <i>Advanced Functional Materials</i> , 2011 , 21, 4478-4478	15.6	1
42	Organic Complementary Circuits: Remarkable Enhancement of Hole Transport in Top-Gated N-Type Polymer Field-Effect Transistors by a High-k Dielectric for Ambipolar Electronic Circuits (Adv. Mater. 40/2012). <i>Advanced Materials</i> , 2012 , 24, 5402-5402	24	1
41	P-194L: Late-News Poster: Through-Breaking Organic TFT Materials for Active Matrix Display Backplane Application. <i>Digest of Technical Papers SID International Symposium</i> , 2010 , 41, 1679	0.5	1
40	Transparent OLED Displays 2010 , 299-323		1
39	Oxide-Based Electrochromics 2010 , 325-341		1
38	p-Type Wide-Band-Gap Semiconductors for Transparent Electronics 2010 , 61-87		1
37	Carbon Nanotube Transparent Electrodes 2010 , 185-211		1
36	Application of Transparent Amorphous Oxide Thin Film Transistors to Electronic Paper 2010 , 213-229		1
35	Charge Transport and Recombination in Organic Solar Cells (OSCs) 2014 , 19-52		1
34	A facile approach for significantly enhancing fluorescent gas sensing by oxygen plasma treatments. <i>Sensors and Actuators B: Chemical</i> , 2021 , 331, 129397	8.5	1
33	Across the Board: Antonio Facchetti. <i>ChemSusChem</i> , 2018 , 11, 3829-3833	8.3	1
32	Conjugated Semiconductors for Organic n-Channel Transistors and Complementary Circuits 2012 , 137-195		0
31	Processing-Structure-Performance Relationship in Organic Transistors: Experiments and Model. <i>Electronics (Switzerland)</i> , 2022 , 11, 197	2.6	0
30	Interplay between Charge Injection, Electron Transport, and Quantum Efficiency in Ambipolar Trilayer Organic Light-Emitting Transistors. <i>Advanced Materials Interfaces</i> , 2019 , 12, 2101926	4.6	0
29	Paper-based substrates for sustainable (opto)electronic devices 2022 , 339-390		0
28	High-performance organic circuits based on precisely aligned single-crystal arrays.. <i>RSC Advances</i> , 2018 , 8, 17417-17420	3.7	0
27	50.2: Invited Paper: Organic Materials for High-Performance and Flexible TFT Backplanes. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 608-608	0.5	0
26	Perovskite Solar Cells: Simultaneous Bottom-Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Small-Molecule Electrolytes (Adv. Mater. 40/2019). <i>Advanced Materials</i> , 2019 , 31, 1970283	24	

- 25 New Alkoxy-Functionalized Naphthodithiophene-Based Semiconducting Oligomers and Polymers. *Israel Journal of Chemistry*, **2014**, 54, 796-816 3.4
- 24 CHAPTER 4: Self-Assembled Mono- and Multilayers for Functional Opto-Electronic Devices. *RSC Smart Materials*, **2014**, 119-172 0.6
- 23 Polymer Solar Cells: Bithiophene Imide and Benzodithiophene Copolymers for Efficient Inverted Polymer Solar Cells (Adv. Mater. 17/2012). *Advanced Materials*, **2012**, 24, 2362-2362 24
- 22 Organic Field-Effect Transistors: High Electron Mobility in Air for N,N'-1H,1H-Perfluorobutylidicyanoperylene Carboxydi-imide Solution-Crystallized Thin-Film Transistors on Hydrophobic Surfaces (Adv. Mater. 32/2011). *Advanced Materials*, **2011**, 23, 3680-3680 24
- 21 High performance n-type organic thin-film transistors with inert contact metals. *Materials Research Society Symposia Proceedings*, **2009**, 1154, 1
- 20 Naphthodithiophene-Diketopyrrolopyrrole Small Molecule Donors for Efficient Solution-Processed Solar Cells. *Materials Research Society Symposia Proceedings*, **2012**, 1390, 34
- 19 Transparent Metal Oxide Nanowire Electronics **2010**, 243-263
- 18 Transparent Solar Cells Based on Organic Polymers **2010**, 343-372
- 17 Organic Electro-Optic Modulators with Substantially Enhanced Performance Based on Transparent Electrodes **2010**, 373-401
- 16 Naphthalenetetracarboxylic Diimides as Transparent Organic Semiconductors **2010**, 403-415
- 15 Transparent Metal Oxide Semiconductors as Gas Sensors **2010**, 417-442
- 14 Solution-Processed Electronics Based on Transparent Conductive Oxides **2010**, 231-242
- 13 Effect of Polymer Gate Dielectric Surface Viscoelasticity on Pentacene Thin-Film Transistor Performance. *Materials Research Society Symposia Proceedings*, **2008**, 1091, 1
- 12 Interfacial Phenomena Affecting Charge Transport In Small Molecule Organic Thin-Film Transistors. *Materials Research Society Symposia Proceedings*, **2006**, 965, 1
- 11 Organic Electronics. Materials, Manufacturing and Applications. Herausgegeben von Hagen Klauk.. *Angewandte Chemie*, **2007**, 119, 1389-1390 3.6
- 10 Electron-Transporting Thiophene-Based Semiconductors Exhibiting Very High Field Effect Mobilities. *Materials Research Society Symposia Proceedings*, **2004**, 814, 96
- 9 Synthesis and Unprecedented Electro-Optic Response Properties of Twisted π -System Chromophores. *Materials Research Society Symposia Proceedings*, **2005**, 866, 126
- 8 Molecular Dielectric Multilayers for Ultra-Low-Voltage Organic Thin Film Transistors. *Materials Research Society Symposia Proceedings*, **2005**, 871, 1

- | | | |
|---|---|------|
| 7 | Novel Dielectric Materials for Organic Electronics. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 871, 1 | |
| 6 | Bisperfluorophenyl-Substituted Thiophene Oligomers. Organic Semiconductors with Complementary-Type Carrier Mobility. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 736, 1 | |
| 5 | Organic Transistors Based on Molecular and Polymeric Dielectric Materials. <i>Springer Proceedings in Physics</i> , 2009 , 199-203 | 0.2 |
| 4 | Molecular conformation-induced interfacial stress at the origin of the instability of organic transistors. <i>Science China Chemistry</i> , 2021 , 64, 1437-1438 | 7.9 |
| 3 | Oxide Transistors: Metal Oxide Transistors via Polyethylenimine Doping of the Channel Layer: Interplay of Doping, Microstructure, and Charge Transport (Adv. Funct. Mater. 34/2016). <i>Advanced Functional Materials</i> , 2016 , 26, 6320-6320 | 15.6 |
| 2 | 22.1: Invited Paper: Active and Passive Organic Materials for Mechanically Flexible and Stable Transistors for Backplane Applications. <i>Digest of Technical Papers SID International Symposium</i> , 2021 , 52, 143-143 | 0.5 |
| 1 | Low-Temperature Thin-Film Combustion Synthesis of Metal-Oxide Semiconductors: Science and Technology 2022 , 159-184 | |