Thomas D Anthopoulos

List of Publications by Citations

412 papers	24,197 citations	80 h-index	138 g-index
449 ext. papers	27,801 ext. citations	12.2 avg, IF	7.06 L-index

#	Paper	IF	Citations
412	Morphology evolution via self-organization and lateral and vertical diffusion in polymer:fullerene solar cell blends. *Nature Materials*, **2008**, 7, 158-64	27	1331
411	Thieno[3,2-b]thiophene-diketopyrrolopyrrole-containing polymers for high-performance organic field-effect transistors and organic photovoltaic devices. *Journal of the American Chemical Society*, **2011**, 133, 3272-5	16.4	809
410	Managing grains and interfaces via ligand anchoring enables 22.3%-efficiency inverted perovskite solar cells. *Nature Energy*, **2020**, 5, 131-140	62.3	552
409	Organic transistors in optical displays and microelectronic applications. *Advanced Materials*, **2010**, 22, 3778-98	24	532
408	High-performance ambipolar diketopyrrolopyrrole-thieno[3,2-b]thiophene copolymer field-effect transistors with balanced hole and electron mobilities. *Advanced Materials*, **2012**, 24, 647-52	24	488
407	Indacenodithiophene semiconducting polymers for high-performance, air-stable transistors. *Journal of the American Chemical Society*, **2010**, 132, 11437-9	16.4	463
406	An Alkylated Indacenodithieno[3,2-b]thiophene-Based Nonfullerene Acceptor with High Crystallinity Exhibiting Single Junction Solar Cell Efficiencies Greater than 13% with Low Voltage Losses. *Advanced Materials*, **2018**, 30, 1705209	24	399
405	17% Efficient Organic Solar Cells Based on Liquid Exfoliated WS as a Replacement for PEDOT:PSS. *Advanced Materials*, **2019**, 31, e1902965	24	384
404	Molecular origin of high field-effect mobility in an indacenodithiophene-benzothiadiazole copolymer. *Nature Communications*, **2013**, 4, 2238	17.4	384
403	Metal oxide semiconductor thin-film transistors for flexible electronics. *Applied Physics Reviews*, **2016**, 3, 021303	17.3	380
402	Recent Progress in High-Mobility Organic Transistors: A Reality Check. *Advanced Materials*, **2018**, 30, e1801079	24	358
401	Molecular packing of high-mobility diketo pyrrolo-pyrrole polymer semiconductors with branched alkyl side chains. *Journal of the American Chemical Society*, **2011**, 133, 15073-84	16.4	353
400	High-Performance Polymer-Small Molecule Blend Organic Transistors. *Advanced Materials*, **2009**, 21, 1166-1171	24	326
399	Diketopyrrolopyrrole-diketopyrrolopyrrole-based conjugated copolymer for high-mobility organic field-effect transistors. *Journal of the American Chemical Society*, **2012**, 134, 16532-5	16.4	307
398	Self-Assembled Monolayer Enables Hole Transport Layer-Free Organic Solar Cells with 18% Efficiency and Improved Operational Stability. *ACS Energy Letters*, **2020**, 5, 2935-2944	20.1	244
397	High performance n-channel organic field-effect transistors and ring oscillators based on C60 fullerene films. *Applied Physics Letters*, **2006**, 89, 213504	3.4	222
396	Ambipolar Organic Field-Effect Transistors Based on a Solution-Processed Methanofullerene. *Advanced Materials*, **2004**, 16, 2174-2179	24	220

395	Air-Stable Complementary-like Circuits Based on Organic Ambipolar Transistors. *Advanced Materials*, **2006**, 18, 1900-1904	24	210
394	Solution-processable metal oxide semiconductors for thin-film transistor applications. *Chemical Society Reviews*, **2013**, 42, 6910-23	58.5	207
393	Solution-processed small molecule-polymer blend organic thin-film transistors with hole mobility greater than 5 cm2/Vs. *Advanced Materials*, **2012**, 24, 2441-6	24	202
392	Real-Time Investigation of Crystallization and Phase-Segregation Dynamics in P3HT:PCBM Solar Cells During Thermal Annealing. *Advanced Functional Materials*, **2011**, 21, 1701-1708	15.6	197
391	High-mobility low-voltage ZnO and Li-doped ZnO transistors based on ZrO high-k dielectric grown by spray pyrolysis in ambient air. *Advanced Materials*, **2011**, 23, 1894-8	24	195
390	Hybridization of Local Exciton and Charge-Transfer States Reduces Nonradiative Voltage Losses in Organic Solar Cells. *Journal of the American Chemical Society*, **2019**, 141, 6362-6374	16.4	188
389	High-Performance Zinc Oxide Transistors and Circuits Fabricated by Spray Pyrolysis in Ambient Atmosphere. *Advanced Materials*, **2009**, 21, 2226-2231	24	185
388	Solution-processed organic transistors based on semiconducting blends. *Journal of Materials Chemistry*, **2010**, 20, 2562		181
387	Air-stable ambipolar organic transistors. *Applied Physics Letters*, **2007**, 90, 122105	3.4	180
386	A Simple n-Dopant Derived from Diquat Boosts the Efficiency of Organic Solar Cells to 18.3%. *ACS Energy Letters*, **2020**, 5, 3663-3671	20.1	175
385	Hole-transporting transistors and circuits based on the transparent inorganic semiconductor copper(I) thiocyanate (CuSCN) processed from solution at room temperature. *Advanced Materials*, **2013**, 25, 1504-9	24	171
384	Silaindacenodithiophene-Based Low Band Gap Polymers The Effect of Fluorine Substitution on Device Performances and Film Morphologies. *Advanced Functional Materials*, **2012**, 22, 1663-1670	15.6	170
383	Organic complementary-like inverters employing methanofullerene-based ambipolar field-effect transistors. *Applied Physics Letters*, **2004**, 85, 4205-4207	3.4	167
382	Copper(I) Thiocyanate (CuSCN) Hole-Transport Layers Processed from Aqueous Precursor Solutions and Their Application in Thin-Film Transistors and Highly Efficient Organic and Organometal Halide Perovskite Solar Cells. *Advanced Functional Materials*, **2017**, 27, 1701818	15.6	159
381	Low band gap selenophene diketopyrrolopyrrole polymers exhibiting high and balanced ambipolar performance in bottom-gate transistors. *Chemical Science*, **2012**, 3, 181-185	9.4	158
380	Solution-Processable Red Phosphorescent Dendrimers for Light-Emitting Device Applications. *Advanced Materials*, **2004**, 16, 557-560	24	158
379	Quantum Dots Supply Bulk- and Surface-Passivation Agents for Efficient and Stable Perovskite Solar Cells. *Joule*, **2019**, 3, 1963-1976	27.8	154
378	Indacenodithiophene-co-benzothiadiazole Copolymers for High Performance Solar Cells or Transistors via Alkyl Chain Optimization. *Macromolecules*, **2011**, 44, 6649-6652	5.5	152

377	Ambipolar charge transport in organic field-effect transistors. *Physical Review B*, **2006**, 73,	3.3	152
376	Systematic improvement in charge carrier mobility of air stable triarylamine copolymers. *Journal of the American Chemical Society*, **2009**, 131, 10814-5	16.4	148
375	High-efficiency, solution-processed, multilayer phosphorescent organic light-emitting diodes with a copper thiocyanate hole-injection/hole-transport layer. *Advanced Materials*, **2015**, 27, 93-100	24	146
374	Small Molecule/Polymer Blend Organic Transistors with Hole Mobility Exceeding 13 cm(2) V(-1) s(-1). *Advanced Materials*, **2016**, 28, 7791-8	24	141
373	Electric field-induced hole transport in copper(I) thiocyanate (CuSCN) thin-films processed from solution at room temperature. *Chemical Communications*, **2013**, 49, 4154-6	5.8	140
372	Encapsulated Cores: Host-Free Organic Light-Emitting Diodes Based on Solution-Processible Electrophosphorescent Dendrimers. *Advanced Materials*, **2005**, 17, 1945-1948	24	139
371	High-performance ZnO transistors processed via an aqueous carbon-free metal oxide precursor route at temperatures between 80-180 ℃. *Advanced Materials*, **2013**, 25, 4340-6	24	137
370	Fused dithienogermolodithiophene low band gap polymers for high-performance organic solar cells without processing additives. *Journal of the American Chemical Society*, **2013**, 135, 2040-3	16.4	135
369	High mobility n-channel organic field-effect transistors based on soluble C60 and C70 fullerene derivatives. *Synthetic Metals*, **2008**, 158, 468-472	3.6	133
368	Near-Infrared Light-Emitting Ambipolar Organic Field-Effect Transistors. *Advanced Materials*, **2007**, 19, 734-738	24	129
367	Silaindacenodithiophene Semiconducting Polymers for Efficient Solar Cells and High-Mobility Ambipolar Transistors *Chemistry of Materials*, **2011**, 23, 768-770	9.6	120
366	The influence of polymer purification on photovoltaic device performance of a series of indacenodithiophene donor polymers. *Advanced Materials*, **2013**, 25, 2029-34	24	119
365	Over 14% efficiency all-polymer solar cells enabled by a low bandgap polymer acceptor with low energy loss and efficient charge separation. *Energy and Environmental Science*, **2020**, 13, 5017-5027	35.4	117
364	Air-stable and high-mobility n-channel organic transistors based on small-molecule/polymer semiconducting blends. *Advanced Materials*, **2012**, 24, 3205-11	24	116
363	High mobility field-effect transistors with versatile processing from a small-molecule organic semiconductor. *Advanced Materials*, **2013**, 25, 4352-7	24	116
362	High-Efficiency Organic Photovoltaic Cells Based on the Solution-Processable Hole Transporting Interlayer Copper Thiocyanate (CuSCN) as a Replacement for PEDOT:PSS. *Advanced Energy Materials*, **2015**, 5, 1401529	21.8	115
361	Low-voltage ZnO thin-film transistors based on Y2O3 and Al2O3 high-k dielectrics deposited by spray pyrolysis in air. *Applied Physics Letters*, **2011**, 98, 123503	3.4	113
360	17.1% Efficient Single-Junction Organic Solar Cells Enabled by n-Type Doping of the Bulk-Heterojunction. *Advanced Science*, **2020**, 7, 1903419	13.6	110

359	The Influence of Film Morphology in High-Mobility Small-Molecule:Polymer Blend Organic Transistors. *Advanced Functional Materials*, **2010**, 20, 2330-2337	15.6	110
358	Random benzotrithiophene-based donor-acceptor copolymers for efficient organic photovoltaic devices. *Chemical Communications*, **2012**, 48, 5832-4	5.8	108
357	Intrinsic efficiency limits in low-bandgap non-fullerene acceptor organic solar cells. *Nature Materials*, **2021**, 20, 378-384	27	108
356	Key Parameters Requirements for Non-Fullerene-Based Organic Solar Cells with Power Conversion Efficiency >20. *Advanced Science*, **2019**, 6, 1802028	13.6	107
355	High Electron Mobility Thin-Film Transistors Based on Solution-Processed Semiconducting Metal Oxide Heterojunctions and Quasi-Superlattices. *Advanced Science*, **2015**, 2, 1500058	13.6	107
354	Highly efficient single-layer dendrimer light-emitting diodes with balanced charge transport. *Applied Physics Letters*, **2003**, 82, 4824-4826	3.4	107
353	Low-voltage organic transistors based on solution processed semiconductors and self-assembled monolayer gate dielectrics. *Applied Physics Letters*, **2008**, 93, 013303	3.4	106
352	Remarkable Enhancement of the Hole Mobility in Several Organic Small-Molecules, Polymers, and Small-Molecule:Polymer Blend Transistors by Simple Admixing of the Lewis Acid p-Dopant B(CF). *Advanced Science*, **2018**, 5, 1700290	13.6	104
351	Fullerene/cobalt porphyrin hybrid nanosheets with ambipolar charge transporting characteristics. *Journal of the American Chemical Society*, **2012**, 134, 7204-6	16.4	104
350	Heterojunction oxide thin-film transistors with unprecedented electron mobility grown from solution. *Science Advances*, **2017**, 3, e1602640	14.3	101
349	Chlorine Vacancy Passivation in Mixed Halide Perovskite Quantum Dots by Organic Pseudohalides Enables Efficient Rec. 2020 Blue Light-Emitting Diodes. *ACS Energy Letters*, **2020**, 5, 793-798	20.1	100
348	A Novel Alkylated Indacenodithieno[3,2-b]thiophene-Based Polymer for High-Performance Field-Effect Transistors. *Advanced Materials*, **2016**, 28, 3922-7	24	100
347	Spray-deposited Li-doped ZnO transistors with electron mobility exceeding 50 cm²/Vs. *Advanced Materials*, **2010**, 22, 4764-9	24	99
346	Solution processible organic transistors and circuits based on a C70 methanofullerene. *Journal of Applied Physics*, **2005**, 98, 054503	2.5	98
345	Structural and Electrical Characterization of ZnO Films Grown by Spray Pyrolysis and Their Application in Thin-Film Transistors. *Advanced Functional Materials*, **2011**, 21, 525-531	15.6	96
344	Metal-Halide Perovskite Transistors for Printed Electronics: Challenges and Opportunities. *Advanced Materials*, **2017**, 29, 1702838	24	92
343	Electrolyte Engineering Enables High Stability and Capacity Alloying Anodes for Sodium and Potassium Ion Batteries. *ACS Energy Letters*, **2020**, 5, 766-776	20.1	91
342	Effect of Systematically Tuning Conjugated Donor Polymer Lowest Unoccupied Molecular Orbital Levels via Cyano Substitution on Organic Photovoltaic Device Performance. *Chemistry of Materials*, **2016**, 28, 5110-5120	9.6	91

341	Influence of side-chain regiochemistry on the transistor performance of high-mobility, all-donor polymers. *Journal of the American Chemical Society*, **2014**, 136, 15154-7	16.4	88
340	Printable CsPbI Perovskite Solar Cells with PCE of 19% via an Additive Strategy. *Advanced Materials*, **2020**, 32, e2001243	24	88
339	Long-range exciton diffusion in molecular non-fullerene acceptors. *Nature Communications*, **2020**, 11, 5220	17.4	87
338	Vertical Phase Separation in Small Molecule:Polymer Blend Organic Thin Film Transistors Can Be Dynamically Controlled. *Advanced Functional Materials*, **2016**, 26, 1737-1746	15.6	85
337	Air-Stable n-Channel Organic Transistors Based on a Soluble C84 Fullerene Derivative. *Advanced Materials*, **2006**, 18, 1679-1684	24	84
336	p-channel thin-film transistors based on spray-coated Cu2O films. *Applied Physics Letters*, **2013**, 102, 163505	3.4	83
335	Reduced graphene oxide electrodes for large area organic electronics. *Advanced Materials*, **2011**, 23, 1558-62	24	83
334	A low band gap co-polymer of dithienogermole and 2,1,3-benzothiadiazole by Suzuki polycondensation and its application in transistor and photovoltaic cells. *Journal of Materials Chemistry*, **2011**, 21, 16257		81
333	Alkylated Selenophene-Based Ladder-Type Monomers via a Facile Route for High-Performance Thin-Film Transistor Applications. *Journal of the American Chemical Society*, **2017**, 139, 8552-8561	16.4	80
332	Influence of the heteroatom on the optoelectronic properties and transistor performance of soluble thiophene-, selenophene- and tellurophene-vinylene copolymers. *Chemical Science*, **2016**, 7, 1093-1099	9.4	72
331	Cyano substituted benzothiadiazole: a novel acceptor inducing n-type behaviour in conjugated polymers. *Journal of Materials Chemistry C*, **2015**, 3, 265-275	7.1	71
330	Ambipolar organic transistors and near-infrared phototransistors based on a solution-processable squarilium dye. *Journal of Materials Chemistry*, **2010**, 20, 3673		71
329	Electro-optical circuits based on light-sensing ambipolar organic field-effect transistors. *Applied Physics Letters*, **2007**, 91, 113513	3.4	71
328	Copper(I) thiocyanate (CuSCN) as a hole-transport material for large-area opto/electronics. *Semiconductor Science and Technology*, **2015**, 30, 104002	1.8	69
327	Indium oxide thin-film transistors processed at low temperature via ultrasonic spray pyrolysis. *ACS Applied Materials & Interfaces*, **2015**, 7, 782-90	9.5	69
326	Modulation-Doped In O /ZnO Heterojunction Transistors Processed from Solution. *Advanced Materials*, **2017**, 29, 1605837	24	67
325	Alkyl Chain Extension as a Route to Novel Thieno[3,2-b]thiophene Flanked Diketopyrrolopyrrole Polymers for Use in Organic Solar Cells and Field Effect Transistors. *Macromolecules*, **2013**, 46, 5961-5967	5.5	67
324	Low-voltage ambipolar phototransistors based on a pentacene/PC61BM heterostructure and a self-assembled nano-dielectric. *Organic Electronics*, **2010**, 11, 1250-1254	3.5	67

323	High-performance organic integrated circuits based on solution processable polymer-small molecule blends. *Applied Physics Letters*, **2008**, 93, 253301	3.4	67
322	Partially oxidized graphene as a precursor to graphene. *Journal of Materials Chemistry*, **2011**, 21, 11217		66
321	Post-fabrication, in situ laser reduction of graphene oxide devices. *Applied Physics Letters*, **2013**, 102, 093115	3.4	65
320	Photoinduced transient stark spectroscopy in organic semiconductors: a method for charge mobility determination in the picosecond regime. *Physical Review Letters*, **2006**, 96, 106601	7.4	65
319	Electronic properties of ZnO field-effect transistors fabricated by spray pyrolysis in ambient air. *Applied Physics Letters*, **2009**, 95, 133507	3.4	64
318	Effect of acene length on electronic properties in 5-, 6-, and 7-ringed heteroacenes. *Advanced Materials*, **2011**, 23, 3698-703	24	61
317	Sub-15-nm patterning of asymmetric metal electrodes and devices by adhesion lithography. *Nature Communications*, **2014**, 5, 3933	17.4	60
316	Thiophene fluorination to enhance photovoltaic performance in low band gap donor-acceptor polymers. *Chemical Communications*, **2012**, 48, 11130-2	5.8	60
315	Synthesis of novel thieno[3,2-b]thienobis(silolothiophene) based low bandgap polymers for organic photovoltaics. *Chemical Communications*, **2012**, 48, 7699-701	5.8	60
314	The Mobility and Decay Kinetics of Charge Carriers in Pulse-Ionized Microcrystalline PCBM Powder. *Advanced Functional Materials*, **2006**, 16, 2274-2280	15.6	60
313	BPTs: thiophene-flanked benzodipyrrolidone conjugated polymers for ambipolar organic transistors. *Chemical Communications*, **2013**, 49, 4465-7	5.8	58
312	Advantageous 3D Ordering of π-Conjugated Systems: A New Approach Towards Efficient Charge Transport in any Direction. *Advanced Materials*, **2007**, 19, 4438-4442	24	58
311	Efficient organic solar cells using copper(I) iodide (CuI) hole transport layers. *Applied Physics Letters*, **2015**, 106, 243302	3.4	57
310	Damp heat-stable perovskite solar cells with tailored-dimensionality 2D/3D heterojunctions.. *Science*, **2022**, eabm5784	33.3	57
309	Effect of multiple adduct fullerenes on charge generation and transport in photovoltaic blends with poly(3-hexylthiophene-2,5-diyl). *Journal of Polymer Science, Part B: Polymer Physics*, **2011**, 49, 45-51	2.6	56
308	High mobility p-channel organic field effect transistors on flexible substrates using a polymer-small molecule blend. *Synthetic Metals*, **2009**, 159, 2365-2367	3.6	55
307	Modification of Indacenodithiophene-Based Polymers and Its Impact on Charge Carrier Mobility in Organic Thin-Film Transistors. *Journal of the American Chemical Society*, **2020**, 142, 652-664	16.4	55
306	Metal Halide Perovskites for High-Energy Radiation Detection. *Advanced Science*, **2020**, 7, 2002098	13.6	55

305	Influence of the Electron Deficient Co-Monomer on the Optoelectronic Properties and Photovoltaic Performance of Dithienogermole-based Co-Polymers. *Advanced Functional Materials*, **2014**, 24, 678-687	15.6	54
304	Tuning of emission color for blue dendrimer blend light-emitting diodes. *Applied Physics Letters*, **2004**, 85, 1463-1465	3.4	54
303	18.4 % Organic Solar Cells Using a High Ionization Energy Self-Assembled Monolayer as Hole-Extraction Interlayer. *ChemSusChem*, **2021**, 14, 3569-3578	8.3	54
302	Microstructural Control of Charge Transport in Organic Blend Thin-Film Transistors. *Advanced Functional Materials*, **2014**, 24, 5969-5976	15.6	53
301	N-type organic thermoelectrics: demonstration of ZT > 0.3. *Nature Communications*, **2020**, 11, 5694	17.4	53
300	The Impact of Molecular p-Doping on Charge Transport in High-Mobility Small-Molecule/Polymer Blend Organic Transistors. *Advanced Electronic Materials*, **2018**, 4, 1700464	6.4	52
299	Air-stable solution-processed hybrid transistors with hole and electron mobilities exceeding 2 cm2 V-1 s-1. *Advanced Materials*, **2010**, 22, 3598-602	24	52
298	Significant Stability Enhancement in High-Efficiency Polymer:Fullerene Bulk Heterojunction Solar Cells by Blocking Ultraviolet Photons from Solar Light. *Advanced Science*, **2016**, 3, 1500269	13.6	52
297	Water stable molecular n-doping produces organic electrochemical transistors with high transconductance and record stability. *Nature Communications*, **2020**, 11, 3004	17.4	51
296	Transistors based on two-dimensional materials for future integrated circuits. *Nature Electronics*, **2021**, 4, 786-799	28.4	51
295	Isostructural, Deeper Highest Occupied Molecular Orbital Analogues of Poly(3-hexylthiophene) for High-Open Circuit Voltage Organic Solar Cells. *Chemistry of Materials*, **2013**, 25, 4239-4249	9.6	50
294	Benzotrithiophene Co-polymers with High Charge Carrier Mobilities in Field-Effect Transistors. *Chemistry of Materials*, **2011**, 23, 4025-4031	9.6	50
293	Germaindacenodithiophene based low band gap polymers for organic solar cells. *Chemical Communications*, **2012**, 48, 2955-7	5.8	49
292	Ambient blade coating of mixed cation, mixed halide perovskites without dripping: in situ investigation and highly efficient solar cells. *Journal of Materials Chemistry A*, **2020**, 8, 1095-1104	13	49
291	Addition of the Lewis Acid Zn(C F) Enables Organic Transistors with a Maximum Hole Mobility in Excess of 20 cm V s. *Advanced Materials*, **2019**, 31, e1900871	24	48
290	Copper thiocyanate: An attractive hole transport/extraction layer for use in organic photovoltaic cells. *Applied Physics Letters*, **2015**, 107, 013301	3.4	48
289	Observation of unusual, highly conductive grain boundaries in high-mobility phase separated organic semiconducting blend films probed by lateral-transport conductive-AFM. *Advanced Materials*, **2013**, 25, 4320-6	24	48
288	Laser-Assisted Reduction of Graphene Oxide for Flexible, Large-Area Optoelectronics. *IEEE Journal of Selected Topics in Quantum Electronics*, **2014**, 20, 106-115	3.8	48

287	Pyrroloindacenodithiophene containing polymers for organic field effect transistors and organic photovoltaics. *Journal of Materials Chemistry*, **2011**, 21, 18744		48
286	An Air-Stable Semiconducting Polymer Containing Dithieno[3,2-b:2',3'-d]arsole. *Angewandte Chemie - International Edition*, **2016**, 55, 7148-51	16.4	48
285	Phase Inversion Strategy to Flexible Freestanding Electrode: Critical Coupling of Binders and Electrolytes for High Performance Li□ Battery. *Advanced Functional Materials*, **2018**, 28, 1802244	15.6	48
284	Using Molecular Design to Increase Hole Transport: Backbone Fluorination in the Benchmark Material Poly(2,5-bis(3-alkylthiophen-2-yl)thieno[3,2-b]-thiophene (pBTTT). *Advanced Functional Materials*, **2015**, 25, 7038-7048	15.6	47
283	Electronic Properties of Copper(I) Thiocyanate (CuSCN). *Advanced Electronic Materials*, **2017**, 3, 160037	6.4	46
282	Liquid phase exfoliation of MoS2 and WS2 in aqueous ammonia and their application in highly efficient organic solar cells. *Journal of Materials Chemistry C*, **2020**, 8, 5259-5264	7.1	46
281	Oxygen induced p-doping of □hickel phthalocyanine vacuum sublimed films: Implication for its use in organic photovoltaics. *Applied Physics Letters*, **2003**, 82, 1628-1630	3.4	46
280	Stretchable and Transparent Conductive PEDOT:PSS-Based Electrodes for Organic Photovoltaics and Strain Sensors Applications. *Advanced Functional Materials*, **2020**, 30, 2001251	15.6	46
279	Indolo-naphthyridine-6,13-dione Thiophene Building Block for Conjugated Polymer Electronics: Molecular Origin of Ultrahigh n-Type Mobility. *Chemistry of Materials*, **2016**, 28, 8366-8378	9.6	45
278	Quasi Two-Dimensional Dye-Sensitized In2O3 Phototransistors for Ultrahigh Responsivity and Photosensitivity Photodetector Applications. *ACS Applied Materials & Interfaces*, **2016**, 8, 4894-902	9.5	45
277	Use of side-chain for rational design of n-type diketopyrrolopyrrole-based conjugated polymers: what did we find out?. *Physical Chemistry Chemical Physics*, **2014**, 16, 17253-65	3.6	45
276	High-Entropy Mixtures of Pristine Fullerenes for Solution-Processed Transistors and Solar Cells. *Advanced Materials*, **2015**, 27, 7325-31	24	45
275	TiO2 thin-film transistors fabricated by spray pyrolysis. *Applied Physics Letters*, **2010**, 96, 082116	3.4	45
274	Study of the Hole Transport Processes in Solution-Processed Layers of the Wide Bandgap Semiconductor Copper(I) Thiocyanate (CuSCN). *Advanced Functional Materials*, **2015**, 25, 6802-6813	15.6	44
273	Exploring Two-Dimensional Transport Phenomena in Metal Oxide Heterointerfaces for Next-Generation, High-Performance, Thin-Film Transistor Technologies. *Small*, **2015**, 11, 5472-82	11	44
272	The synthesis and properties of iridium cored dendrimers with carbazole dendrons. *Organic Electronics*, **2006**, 7, 85-98	3.5	44
271	Doping of Large Ionization Potential Indenopyrazine Polymers via Lewis Acid Complexation with Tris(pentafluorophenyl)borane: A Simple Method for Improving the Performance of Organic Thin-Film Transistors. *Chemistry of Materials*, **2016**, 28, 8016-8024	9.6	44
270	Flexible diodes for radio frequency (RF) electronics: a materials perspective. *Semiconductor Science and Technology*, **2017**, 32, 123002	1.8	43

269	Influence of molecular structure on the properties of dendrimer light-emitting diodes. *Organic Electronics*, **2003**, 4, 71-76	3.5	43
268	Concurrent cationic and anionic perovskite defect passivation enables 27.4% perovskite/silicon tandems with suppression of halide segregation. *Joule*, **2021**, 5, 1566-1586	27.8	43
267	Conjugated Copolymers of Vinylene Flanked Naphthalene Diimide. *Macromolecules*, **2016**, 49, 6384-6393	5.5	42
266	Distinguishing the influence of structural and energetic disorder on electron transport in fullerene multi-adducts. *Materials Horizons*, **2015**, 2, 113-119	14.4	42
265	The Negative Effect of High-Temperature Annealing on Charge-Carrier Lifetimes in Microcrystalline PCBM. *Advanced Materials*, **2006**, 18, 2294-2298	24	42
264	Amphipathic Side Chain of a Conjugated Polymer Optimizes Dopant Location toward Efficient N-Type Organic Thermoelectrics. *Advanced Materials*, **2021**, 33, e2006694	24	42
263	Synthesis, Characterization, and Field Effect Transistor Properties of Regioregular Poly(3-alkyl-2,5-selenylenevinylene). *Macromolecules*, **2011**, 44, 5194-5199	5.5	41
262	Solid-state processing of organic semiconductors. *Advanced Materials*, **2010**, 22, 3942-7	24	41
261	Ledge-directed epitaxy of continuously self-aligned single-crystalline nanoribbons of transition metal dichalcogenides. *Nature Materials*, **2020**, 19, 1300-1306	27	41
260	Unraveling the New Role of an Ethylene Carbonate Solvation Shell in Rechargeable Metal Ion Batteries. *ACS Energy Letters*, **2021**, 6, 69-78	20.1	41
259	A Nature-Inspired Conjugated Polymer for High Performance Transistors and Solar Cells. *Macromolecules*, **2015**, 48, 5148-5154	5.5	40
258	New Fused Bis-Thienobenzothienothiophene Copolymers and Their Use in Organic Solar Cells and Transistors. *Macromolecules*, **2013**, 46, 727-735	5.5	40
257	Radio Frequency Coplanar ZnO Schottky Nanodiodes Processed from Solution on Plastic Substrates. *Small*, **2016**, 12, 1993-2000	11	40
256	Enabling thin-film transistor technologies and the device metrics that matter. *Nature Communications*, **2018**, 9, 5264	17.4	40
255	Alternating 5,5-Dimethylcyclopentadiene and Diketopyrrolopyrrole Copolymer Prepared at Room Temperature for High Performance Organic Thin-Film Transistors. *Journal of the American Chemical Society*, **2017**, 139, 8094-8097	16.4	39
254	High electron mobility thin-film transistors based on Ga2O3 grown by atmospheric ultrasonic spray pyrolysis at low temperatures. *Applied Physics Letters*, **2014**, 105, 092105	3.4	39
253	Comparative Optoelectronic Study between Copolymers of Peripherally Alkylated Dithienosilole and Dithienogermole. *Macromolecules*, **2012**, 45, 735-742	5.5	39
252	Analysis of Recombination Losses in a Pentacene/C60 Organic Bilayer Solar Cell. *Journal of Physical Chemistry Letters*, **2011**, 2, 2759-2763	6.4	39

251	Percolation behaviour in high mobility p-channel polymer/small-molecule blend organic field-effect transistors. *Organic Electronics*, **2011**, 12, 143-147	3.5	39
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