Yan Zhao

List of Publications by Year
in descending order

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Version: 2024-02-01

87 papers	7,184 citations	101543 36 h-index	54911 84 g-index
89 all docs	89 docs citations	89 times ranked	9308 citing authors

#	Article	IF	Citations
1	A stable solution-processed polymer semiconductor with record high-mobility for printed transistors. Scientific Reports, 2012, 2, 754.	3.3	800
2	Highly Ï€â€Extended Copolymers with Diketopyrrolopyrrole Moieties for Highâ€Performance Fieldâ€Effect Transistors. Advanced Materials, 2012, 24, 4618-4622.	21.0	707
3	25th Anniversary Article: Recent Advances in nâ€Type and Ambipolar Organic Fieldâ€Effect Transistors. Advanced Materials, 2013, 25, 5372-5391.	21.0	608
4	Preparation of MnCo₂O₄@Ni(OH)₂ Coreâ€“Shell Flowers for Asymmetric Supercapacitor Materials with Ultrahigh Specific Capacitance. Advanced Functional Materials, 2016, 26, 4085-4093.	14.9	517
5	A Potential Perylene Diimide Dimerâ€Based Acceptor Material for Highly Efficient Solutionâ€Processed Nonâ€Fullerene Organic Solar Cells with 4.03% Efficiency. Advanced Materials, 2013, 25, 5791-5797.	21.0	444
6	Solution processed organic thermoelectrics: towards flexible thermoelectric modules. Energy and Environmental Science, 2015, 8, 401-422.	30.8	360
7	Dithiocarbamate Assembly on Gold. Journal of the American Chemical Society, 2005, 127, 7328-7329.	13.7	255
8	A self-roughened and biodegradable superhydrophobic coating with UV shielding, solar-induced self-healing and versatile oilâ€“water separation ability. Journal of Materials Chemistry A, 2019, 7, 2122-2128.	10.3	205
9	Allâ€Solutionâ€Processed, Highâ€Performance nâ€Channel Organic Transistors and Circuits: Toward Lowâ€Cost Ambient Electronics. Advanced Materials, 2011, 23, 2448-2453.	21.0	172
10	Organic printed photonics: From microring lasers to integrated circuits. Science Advances, 2015, 1, e1500257.	10.3	172
11	Solution-Processed DPP-Based Small Molecule that Gives High Photovoltaic Efficiency with Judicious Device Optimization. ACS Applied Materials & Interfaces, 2013, 5, 2033-2039.	8.0	163
12	Inkjet Printing Highâ€Resolution, Largeâ€Area Graphene Patterns by Coffeeâ€Ring Lithography. Advanced Materials, 2012, 24, 436-440.	21.0	154
13	Semiconducting polymer blends that exhibit stable charge transport at high temperatures. Science, 2018, 362, 1131-1134.	12.6	147
14	Highly mobile charge-transfer excitons in two-dimensional WS ₂ /tetracene heterostructures. Science Advances, 2018, 4, eaao3104.	10.3	132
15	Naphthalenediimide-Based Copolymers Incorporating Vinyl-Linkages for High-Performance Ambipolar Field-Effect Transistors and Complementary-Like Inverters under Air. Chemistry of Materials, 2013, 25, 3589-3596.	6.7	119
16	Substrateâ€Free Ultraâ€Flexible Organic Fieldâ€Effect Transistors and Fiveâ€Stage Ring Oscillators. Advanced Materials, 2013, 25, 5455-5460.	21.0	106
17	Conjugation-Break Spacers in Semiconducting Polymers: Impact on Polymer Processability and Charge Transport Properties. Macromolecules, 2015, 48, 2048-2053.	4.8	106
18	3D Printing Fabrication of Amorphous Thermoelectric Materials with Ultralow Thermal Conductivity. Small, 2015, 11, 5889-5894.	10.0	93

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19	Large-area, flexible imaging arrays constructed by light-charge organic memories. Scientific Reports, 2013, 3, 1080.	3.3	92
20	Diketopyrrolopyrrole-Based Ï€-Conjugated Copolymer Containing Î²-Unsubstituted Quintetthiophene Unit: A Promising Material Exhibiting High Hole-Mobility for Organic Thin-Film Transistors. Chemistry of Materials, 2012, 24, 4350-4356.	6.7	85
21	Inkjet Printing Shortâ€Channel Polymer Transistors with Highâ€Performance and Ultrahigh Photoresponsivity. Advanced Materials, 2014, 26, 4683-4689.	21.0	82
22	Meltâ€Processing of Complementary Semiconducting Polymer Blends for High Performance Organic Transistors. Advanced Materials, 2017, 29, 1605056.	21.0	82
23	Organic Synaptic Transistors: The Evolutionary Path from Memory Cells to the Application of Artificial Neural Networks. Advanced Functional Materials, 2021, 31, 2101951.	14.9	73
24	Dithiocarbamate-Coated SERS Substrates: Sensitivity Gain by Partial Surface Passivation. Langmuir, 2009, 25, 13833-13839.	3.5	61
25	Complementary Semiconducting Polymer Blends: The Influence of Conjugation-Break Spacer Length in Matrix Polymers. Macromolecules, 2016, 49, 2601-2608.	4.8	61
26	Interfacial Heterogeneity of Surface Energy in Organic Fieldâ€Effect Transistors. Advanced Materials, 2011, 23, 1009-1014.	21.0	60
27	Band Gap Tunable Zn2SnO4 Nanocubes through Thermal Effect and Their Outstanding Ultraviolet Light Photoresponse. Scientific Reports, 2014, 4, 6847.	3.3	60
28	Symmetry Breaking in Side Chains Leading to Mixed Orientations and Improved Charge Transport in Isoindigo-alt-Bithiophene Based Polymer Thin Films. ACS Applied Materials & Interfaces, 2017, 9, 25426-25433.	8.0	58
29	Complementary Semiconducting Polymer Blends for Efficient Charge Transport. Chemistry of Materials, 2015, 27, 7164-7170.	6.7	57
30	Morphology Optimization for the Fabrication of High Mobility Thinâ€Film Transistors. Advanced Materials, 2011, 23, 3128-3133.	21.0	55
31	Hot-Injection Synthesis of Cu-Doped Cu₂ZnSnSe₄ Nanocrystals to Reach Thermoelectric zT of 0.70 at 450 Â°C. ACS Applied Materials & Interfaces, 2015, 7, 24403-24408.	8.0	55
32	Topâ€Gate Organic Thinâ€Film Transistors Constructed by a General Lamination Approach. Advanced Materials, 2010, 22, 3537-3541.	21.0	47
33	Recent progress in organic fieldâ€effect transistorâ€based integrated circuits. Journal of Polymer Science, 2022, 60, 311-327.	3.8	46
34	Recent progress in hollow sphere-based electrodes for high-performance supercapacitors. Nanotechnology, 2016, 27, 342001.	2.6	43
35	Effects of structure-manipulated molecular stacking on solid-state optical properties and device performances. Polymer Chemistry, 2012, 3, 2832.	3.9	41
36	Continuous Meltâ€Drawing of Highly Aligned Flexible and Stretchable Semiconducting Microfibers for Organic Electronics. Advanced Functional Materials, 2018, 28, 1705584.	14.9	39

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37	Effect of polymer chain conformation on field-effect transistor performance: synthesis and properties of two arylene imide based Dâ€“A copolymers. Journal of Materials Chemistry, 2012, 22, 14639.	6.7	37
38	Ultrafast In Situ Synthesis of Large-Area Conductive Metalâ€“Organic Frameworks on Substrates for Flexible Chemiresistive Sensing. ACS Applied Materials & Interfaces, 2020, 12, 57235-57244.	8.0	34
39	Amineâ€“boranes bearing borane-incompatible functionalities: application to selective amine protection and surface functionalization. Chemical Communications, 2016, 52, 11885-11888.	4.1	32
40	A comprehensive nano-interpenetrating semiconducting photoresist toward all-photolithography organic electronics. Science Advances, 2021, 7, .	10.3	31
41	Electrically Conductive Metalâ€“Organic Framework Thin Filmâ€Based Onâ€Chip Microâ€Biosensor: A Platform to Unravel Surface Morphologyâ€Dependent Biosensing. Advanced Functional Materials, 2021, 31, 2102855.	14.9	31
42	Thermoelectric Enhancement of Ternary Copper Chalcogenide Nanocrystals by Magnetic Nickel Doping. Advanced Electronic Materials, 2016, 2, 1500473.	5.1	30
43	Inkjetâ€Printed Organic Electrodes for Bottomâ€Contact Organic Fieldâ€Effect Transistors. Advanced Functional Materials, 2011, 21, 786-791.	14.9	29
44	Benzodifuranâ€containing wellâ€defined Ïâ€conjugated polymers for photovoltaic cells. Journal of Polymer Science Part A, 2012, 50, 2935-2943.	2.3	29
45	Wide band gap copolymers based on phthalimide: synthesis, characterization, and photovoltaic properties with 3.70% efficiency. Polymer Chemistry, 2013, 4, 2174.	3.9	28
46	Toward Efficient Charge Transport of Polymer-Based Organic Field-Effect Transistors: Molecular Design, Processing, and Functional Utilization. Accounts of Materials Research, 2021, 2, 1047-1058.	11.7	27
47	An all-Câ€“H-activation strategy to rapidly synthesize high-mobility well-balanced ambipolar semiconducting polymers. Matter, 2022, 5, 1953-1968.	10.0	27
48	Phenanthro[1,10,9,8-cdefg]carbazole-containing copolymer for high performance thin-film transistors and polymer solar cells. Journal of Materials Chemistry, 2012, 22, 3696.	6.7	26
49	Isomeric Acceptorâ€“Acceptor Polymers: Enabling Electron Transport with Strikingly Different Semiconducting Properties in n-Channel Organic Thin-Film Transistors. Chemistry of Materials, 2022, 34, 1403-1413.	6.7	26
50	Synthesis and charge-transporting properties of electron-deficient CN2â€“fluorene based Dâ€“A copolymers. Polymer Chemistry, 2012, 3, 2170.	3.9	24
51	A two-dimensional molecule with a large conjugation degree: synthesis, two-photon absorption and charge transport ability. Journal of Materials Chemistry C, 2017, 5, 5199-5206.	5.5	24
52	Nanoprobe implantation into mammalian cells by cationic transfectionElectronic supplementary information (ESI) available: details of instrumentation, nanoprobe implantation and additional microscopy images. See http://www.rsc.org/suppdata/cc/b3/b317061f/. Chemical Communications, 2004, , 784.	4.1	23
53	Complementary Semiconducting Polymer Blends: Influence of Side Chains of Matrix Polymers. Macromolecules, 2017, 50, 6202-6209.	4.8	23
54	Wafer-scale integration of stretchable semiconducting polymer microstructures via capillary gradient. Nature Communications, 2021, 12, 7038.	12.8	23

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55	Attaining Melt Processing of Complementary Semiconducting Polymer Blends at 130 Â°C via Side-Chain Engineering. ACS Applied Materials & Interfaces, 2018, 10, 4904-4909.	8.0	22
56	High-Performance Hydrogen Storage Nanoparticles Inside Hierarchical Porous Carbon Nanofibers with Stable Cycling. ACS Applied Materials & Interfaces, 2017, 9, 15502-15509.	8.0	20
57	Thiadiazoloquinoxaline-Fused Acenaphthenequinone imide: A Highly Electron-Withdrawing Acceptor for Ambipolar Semiconducting Polymers with Strong Near-Infrared Absorption. Macromolecules, 2021, 54, 3120-3129.	4.8	20
58	Low Bandgap Donor-Acceptor Ï€-Conjugated Polymers From Diarylcyclopentadienone-Fused Naphthalimides. Frontiers in Chemistry, 2019, 7, 362.	3.6	19
59	Bioinspired Slippery Lubricant-Infused Surfaces With External Stimuli Responsive Wettability: A Mini Review. Frontiers in Chemistry, 2019, 7, 826.	3.6	18
60	Multifunctional Highly Oleophobic and Superhydrophilic Fabric Coatings Prepared by Facile Photopolymerization. Advanced Sustainable Systems, 2020, 4, 2000049.	5.3	18
61	Solution-Processed and Air-Stable n-Type Organic Thin-Film Transistors Based on Thiophene-Fused Dicyanoquinonediimine (DCNQI) Deriatives. ACS Applied Materials & Interfaces, 2012, 4, 3994-4000.	8.0	16
62	Bisâ€isoindigos: New Electronâ€Deficient Building Blocks for Constructing Conjugated Polymers with Extended Electron Delocalization. Asian Journal of Organic Chemistry, 2018, 7, 2248-2253.	2.7	15
63	A sulfur-containing hetero-octulene: synthesis, hostâ€“guest properties, and transistor applications. Chemical Communications, 2020, 56, 9990-9993.	4.1	15
64	Direct arylation polymerization of asymmetric pushâ€“pull aryl halides. Polymer Chemistry, 2017, 8, 2438-2441.	3.9	14
65	Bis-acenaphthoquinone diimides with high electron deficiency and good coplanar conformation. Chemical Communications, 2021, 57, 7822-7825.	4.1	13
66	Achieving Efficient pâ€Type Organic Thermoelectrics by Modulation of Acceptor Unit in Photovoltaic Ï€â€Conjugated Copolymers. Advanced Science, 2022, 9, e2103646.	11.2	13
67	Crystal Engineering of Angular-Shaped Heteroarenes Based on Cyclopenta[b]thiopyran for Controlling the Charge Carrier Mobility. Journal of the American Chemical Society, 2021, 143, 11088-11101.	13.7	11
68	Asymmetric Supercapacitors: Preparation of MnCo₂O₄@Ni(OH)₂ Coreâ€“Shell Flowers for Asymmetric Supercapacitor Materials with Ultrahigh Specific Capacitance (Adv. Funct. Mater. 23/2016). Advanced Functional Materials, 2016, 26, 4038-4038.	14.9	9
69	Synthesis and properties of a series of quinoxaline-based copolymers: an example to understand the effect of the structure of the mainchain and sidechain on the charge transport ability of the polymers. Materials Chemistry Frontiers, 2017, 1, 2085-2093.	5.9	9
70	Zoneâ€Annealingâ€Assisted Solventâ€Free Processing of Complementary Semiconducting Polymer Blends for Organic Fieldâ€Effect Transistors. Advanced Electronic Materials, 2018, 4, 1700414.	5.1	9
71	Dielectric properties and dielectric relaxation process of polymethylphenylsiloxane/silicon dioxide nanocomposites. Journal of Applied Polymer Science, 2022, 139, .	2.6	9
72	Molecular Packing and Charge Transport Behaviors of Semiconducting Polymers Over a Wide Temperature Range. Advanced Functional Materials, 2022, 32, .	14.9	8

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73	Anisotropic Chargeâ€Carrier Transport in Highâ€Mobility Donorâ€“Acceptor Conjugated Polymer Semiconductor Films. Chemistry - an Asian Journal, 2016, 11, 2725-2729.	3.3	7
74	Preparation of durable, self-cleaning and photocatalytic superhydrophobic Ni3S2 coating on 304 stainless steel surface against contaminations. Journal of Materials Science, 2021, 56, 6719-6731.	3.7	7
75	Regulation of the backbone structure and optoelectrical properties of bis-pyridal[2,1,3]thiadiazole-based ambipolar semiconducting polymers via a fluorination strategy. Journal of Materials Chemistry C, 2021, 9, 15083-15094.	5.5	7
76	A flexible biohybrid reflex arc mimicking neurotransmitter transmission. Cell Reports Physical Science, 2022, 3, 100962.	5.6	6
77	Two-dimensional copolymers with Dâ€“A type side chains for organic thin-film transistors: Synthesis and properties. Polymer Chemistry, 2011, 2, 2842.	3.9	5
78	A structurally ordered thiophene-thiazole copolymer for organic thin-film transistors. Science China Chemistry, 2012, 55, 760-765.	8.2	5
79	Differentiating Two Nitrosylruthenium Isomeric Complexes by Steady-State and Ultrafast Infrared Spectroscopies. Journal of Physical Chemistry B, 2016, 120, 11502-11509.	2.6	4
80	Role of inâ€situ polymethylâ€methacrylate in addition type silicone rubber with specific reference to adhesion and damping properties. Journal of Applied Polymer Science, 2021, 138, 50252.	2.6	4
81	Significantly enhanced thermal stability from a new kind of n-type organic semiconductor DFA4: a fully fused F8IC. Journal of Materials Chemistry C, 2021, 9, 13625-13629.	5.5	4
82	An OFETâ€Based Involutive Logic Circuit with Wideâ€Range Threshold Shift Compensability. Advanced Electronic Materials, 2022, 8, .	5.1	2
83	Transistors: Inkjet Printing Shortâ€Channel Polymer Transistors with Highâ€Performance and Ultrahigh Photoresponsivity (Adv. Mater. 27/2014). Advanced Materials, 2014, 26, 4752-4752.	21.0	1
84	3D Printing: 3D Printing Fabrication of Amorphous Thermoelectric Materials with Ultralow Thermal Conductivity (Small 44/2015). Small, 2015, 11, 5888-5888.	10.0	1
85	Structural dynamics of nitrosylruthenium isomeric complexes studied with steady-state and transient pump-probe infrared spectroscopies. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2016, 166, 62-67.	3.9	1
86	Constrain Effect of Charge Traps in Organic Field-Effect Transistors with Ferroelectric Polymer as a Dielectric Interfacial Layer. ACS Applied Materials & Interfaces, 2022, , .	8.0	1
87	Organic Thin-Film Transistors: Interfacial Heterogeneity of Surface Energy in Organic Field-Effect Transistors (Adv. Mater. 8/2011). Advanced Materials, 2011, 23, 1008-1008.	21.0	0