Ming Wang

List of Publications by Year
in descending order

77 papers	6,389 citations	87886 38 h-index	79691 73 g-index
78 all docs	78 docs citations	78 times ranked	7209 citing authors

#	Article	IF	Citations
1	Inverted polymer solar cells with 8.4% efficiency by conjugated polyelectrolyte. Energy and Environmental Science, 2012, 5, 8208.	30.8	616
2	Donorâ€“Acceptor Conjugated Polymer Based on Naphtho[1,2-c:5,6-c]bis[1,2,5]thiadiazole for High-Performance Polymer Solar Cells. Journal of the American Chemical Society, 2011, 133, 9638-9641.	13.7	598
3	Highâ€Mobility Fieldâ€Effect Transistors Fabricated with Macroscopic Aligned Semiconducting Polymers. Advanced Materials, 2014, 26, 2993-2998.	21.0	524
4	An Unexpected Role of a Trace Amount of Water in Catalyzing Proton Transfer in Phosphine-Catalyzed (3 + 2) Cycloaddition of Allenoates and Alkenes. Journal of the American Chemical Society, 2007, 129, 3470-3471.	13.7	427
5	General Strategy for Self-Assembly of Highly Oriented Nanocrystalline Semiconducting Polymers with High Mobility. Nano Letters, 2014, 14, 2764-2771.	9.1	416
6	Domain Purity, Miscibility, and Molecular Orientation at Donor/Acceptor Interfaces in High Performance Organic Solar Cells: Paths to Further Improvement. Advanced Energy Materials, 2013, 3, 864-872.	19.5	283
7	High Open Circuit Voltage in Regioregular Narrow Band Gap Polymer Solar Cells. Journal of the American Chemical Society, 2014, 136, 12576-12579.	13.7	216
8	Harvesting the Full Potential of Photons with Organic Solar Cells. Advanced Materials, 2016, 28, 1482-1488.	21.0	190
9	Ultraflexible Nearâ€Infrared Organic Photodetectors for Conformal Photoplethysmogram Sensors. Advanced Materials, 2018, 30, e1802359.	21.0	171
10	Donor Polymers Containing Benzothiadiazole and Four Thiophene Rings in Their Repeating Units with Improved Photovoltaic Performance. Macromolecules, 2009, 42, 4410-4415.	4.8	150
11	A Membraneâ€Intercalating Conjugated Oligoelectrolyte with Highâ€Efficiency Photodynamic Antimicrobial Activity. Angewandte Chemie - International Edition, 2017, 56, 5031-5034.	13.8	147
12	Towards understanding the doping mechanism of organic semiconductors by Lewis acids. Nature Materials, 2019, 18, 1327-1334.	27.5	144
13	Novel Silafluorene-Based Conjugated Polymers with Pendant Acceptor Groups for High Performance Solar Cells. Macromolecules, 2010, 43, 5262-5268.	4.8	134
14	Synthesis of Quinoxaline-Based Donorâ€'Acceptor Narrow-Band-Gap Polymers and Their Cyclized Derivatives for Bulk-Heterojunction Polymer Solar Cell Applications. Macromolecules, 2011, 44, 894-901.	4.8	127
15	Simultaneously Improved Efficiency and Stability in All-Polymer Solar Cells by a Pâ€“iâ€“N Architecture. ACS Energy Letters, 2019, 4, 2277-2286.	17.4	127
16	Electronic structure and photovoltaic application of BiI3. Applied Physics Letters, 2015, 107, .	3.3	125
17	Solution-based electrical doping of semiconducting polymer films over a limited depth. Nature Materials, 2017, 16, 474-480.	27.5	121
18	Polymer Solar Cells with a Lowâ€Temperatureâ€Annealed Solâ€“Gelâ€Derived MoO_x Film as a Hole Extraction Layer. Advanced Energy Materials, 2012, 2, 523-527.	19.5	97

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19	Antibacterial Narrowâ€Bandâ€Gap Conjugated Oligoelectrolytes with High Photothermal Conversion Efficiency. Angewandte Chemie - International Edition, 2017, 56, 16063-16066.	13.8	92
20	Highâ€Performance Inverted Organic Photovoltaics with Over 1â€Î¼m Thick Active Layers. Advanced Energy Materials, 2014, 4, 1400378.	19.5	83
21	Limits for Recombination in a Low Energy Loss Organic Heterojunction. ACS Nano, 2016, 10, 10736-10744.	14.6	79
22	Electrical Instability Induced by Electron Trapping in Lowâ€Bandgap Donorâ€“Acceptor Polymer Fieldâ€Effect Transistors. Advanced Materials, 2015, 27, 7004-7009.	21.0	78
23	High Mobility Organic Field-Effect Transistors from Majority Insulator Blends. Chemistry of Materials, 2016, 28, 1256-1260.	6.7	75
24	Linear Conjugated Polymer Backbones Improve Alignment in Nanogroove-Assisted Organic Field-Effect Transistors. Journal of the American Chemical Society, 2017, 139, 17624-17631.	13.7	72
25	Design and Synthesis of Copolymers of Indacenodithiophene and Naphtho[1,2-c:5,6-c]bis(1,2,5-thiadiazole) for Polymer Solar Cells. Macromolecules, 2013, 46, 3950-3958.	4.8	69
26	Quantifying and Understanding Voltage Losses Due to Nonradiative Recombination in Bulk Heterojunction Organic Solar Cells with Low Energetic Offsets. Advanced Energy Materials, 2019, 9, 1901077.	19.5	69
27	Significantly Increasing the Ductility of High Performance Polymer Semiconductors through Polymer Blending. ACS Applied Materials & Interfaces, 2016, 8, 14037-14045.	8.0	68
28	Charge Generation and Recombination in an Organic Solar Cell with Low Energetic Offsets. Advanced Energy Materials, 2018, 8, 1701073.	19.5	60
29	Measuring the competition between bimolecular charge recombination and charge transport in organic solar cells under operating conditions. Energy and Environmental Science, 2018, 11, 3019-3032.	30.8	59
30	NEXAFS Spectroscopy Reveals the Molecular Orientation in Blade-Coated Pyridal[2,1,3]thiadiazole-Containing Conjugated Polymer Thin Films. Macromolecules, 2015, 48, 6606-6616.	4.8	56
31	Fluorine substitution influence on benzo[2,1,3]thiadiazole based polymers for field-effect transistor applications. Chemical Communications, 2016, 52, 3207-3210.	4.1	56
32	Electrical Doubleâ€Slope Nonideality in Organic Fieldâ€Effect Transistors. Advanced Functional Materials, 2018, 28, 1707221.	14.9	54
33	The Density of States and the Transport Effective Mass in a Highly Oriented Semiconducting Polymer: Electronic Delocalization in 1D. Advanced Materials, 2015, 27, 7759-7765.	21.0	52
34	Doping Polymer Semiconductors by Organic Salts: Toward High-Performance Solution-Processed Organic Field-Effect Transistors. ACS Nano, 2018, 12, 3938-3946.	14.6	52
35	Hole Mobility and Electron Injection Properties of Dâ€A Conjugated Copolymers with Fluorinated Phenylene Acceptor Units. Advanced Materials, 2017, 29, 1603830.	21.0	45
36	Rational Design of a Narrow-Bandgap Conjugated Polymer Using the Quinoidal Thieno[3,2-b]thiophene-Based Building Block for Organic Field-Effect Transistor Applications. Macromolecules, 2019, 52, 4749-4756.	4.8	41

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37	Plastic Deformation of Polymer Blends as a Means to Achieve Stretchable Organic Transistors. Advanced Electronic Materials, 2017, 3, 1600388.	5.1	39
38	Fullerene Additives Convert Ambipolar Transport to pâ€Type Transport while Improving the Operational Stability of Organic Thin Film Transistors. Advanced Functional Materials, 2016, 26, 4472-4480.	14.9	38
39	Investigation into the Sensing Process of Highâ€Performance H₂S Sensors Based on Polymer Transistors. Chemistry - A European Journal, 2016, 22, 3654-3659.	3.3	37
40	[1,2,5]Thiadiazolo[3,4-f]benzotriazole based narrow band gap conjugated polymers with photocurrent response up to 1.1Ì¼m. Organic Electronics, 2013, 14, 2459-2467.	2.6	34
41	Toward High Efficiency Polymer Solar Cells: Rearranging the Backbone Units into a Readily Accessible Random Tetrapolymer. Advanced Energy Materials, 2018, 8, 1701668.	19.5	32
42	23% enhanced efficiency of polymer solar cells processed with 1-chloronaphthalene as the solvent additive. Synthetic Metals, 2013, 164, 1-5.	3.9	31
43	Doping Highâ€Mobility Donorâ€“Acceptor Copolymer Semiconductors with an Organic Salt for Highâ€Performance Thermoelectric Materials. Advanced Electronic Materials, 2020, 6, 1900945.	5.1	30
44	Cavity-Enhanced Near-Infrared Organic Photodetectors Based on a Conjugated Polymer Containing [1,2,5]Selenadiazolo[3,4-c]Pyridine. Chemistry of Materials, 2021, 33, 5147-5155.	6.7	29
45	Effect of chiral 2-ethylhexyl side chains on chiroptical properties of the narrow bandgap conjugated polymers PCPDTBT and PCDTPT. Chemical Science, 2016, 7, 5313-5321.	7.4	28
46	A Membraneâ€Intercalating Conjugated Oligoelectrolyte with Highâ€Efficiency Photodynamic Antimicrobial Activity. Angewandte Chemie, 2017, 129, 5113-5116.	2.0	27
47	Improving Electrical Stability and Ideality in Organic Fieldâ€Effect Transistors by the Addition of Fullerenes: Understanding the Working Mechanism. Advanced Functional Materials, 2017, 27, 1701358.	14.9	26
48	High-k Fluoropolymer Gate Dielectric in Electrically Stable Organic Field-Effect Transistors. ACS Applied Materials & Interfaces, 2019, 11, 15821-15828.	8.0	23
49	Effect of Molecular Order on the Performance of Naphthobisthiadiazoleâ€Based Polymer Solar Cells. Advanced Energy Materials, 2014, 4, 1301601.	19.5	22
50	Solvent Effect Leading to High Performance of Bulk Heterojunction Polymer Solar Cells by Novel Polysilafluorene Derivatives. Journal of Physical Chemistry C, 2011, 115, 2314-2319.	3.1	18
51	Narrow bandgap conjugated polymers based on a high-mobility polymer template for visibly transparent photovoltaic devices. Journal of Materials Chemistry A, 2016, 4, 17333-17343.	10.3	17
52	Understanding the Selection Mechanism of the Polymer Wrapping Technique toward Semiconducting Carbon Nanotubes. Small Methods, 2018, 2, 1700335.	8.6	17
53	Fabricating Lowâ€Cost Ionicâ€Organic Electronic Ratchets with Graphite Pencil and Adhesive Tape. Advanced Electronic Materials, 2016, 2, 1500344.	5.1	16
54	Influence of molecular structure on the performance of low V_{oc} loss polymer solar cells. Journal of Materials Chemistry A, 2016, 4, 15232-15239.	10.3	15

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55	Donorâ€“Acceptorâ€Type Copolymers Based on a Naphtho[1,2â€c:5,6â€c]bis(1,2,5â€thiadiazole) Scaffold for Highâ€Efficiency Polymer Solar Cells. Chemistry - an Asian Journal, 2014, 9, 2104-2112.	3.3	13
56	Carrierâ€Selective Traps: A New Approach for Fabricating Circuit Elements with Ambipolar Organic Semiconductors. Advanced Electronic Materials, 2017, 3, 1600537.	5.1	13
57	Understanding the Device Physics in Polymerâ€Based Ionicâ€“Organic Ratchets. Advanced Materials, 2017, 29, 1606464.	21.0	12
58	Structural variations to a donor polymer with low energy losses. Journal of Materials Chemistry A, 2017, 5, 18618-18626.	10.3	12
59	A New Nanoâ€Structured Flameâ€Retardant Poly(ethylene terephthalate). Journal of Macromolecular Science - Pure and Applied Chemistry, 2006, 43, 1867-1875.	2.2	10
60	Topological Transformation of Ï€â€Conjugated Molecules Reduces Resistance to Crystallization. Angewandte Chemie - International Edition, 2017, 56, 9318-9321.	13.8	10
61	Antibacterial Narrowâ€Bandâ€Gap Conjugated Oligoelectrolytes with High Photothermal Conversion Efficiency. Angewandte Chemie, 2017, 129, 16279-16282.	2.0	9
62	Solutionâ€Processed Ionâ€Free Organic Ratchets with Asymmetric Contacts. Advanced Materials, 2018, 30, 1804794.	21.0	8
63	Acceptor Percolation Determines How Electron-Accepting Additives Modify Transport of Ambipolar Polymer Organic Field-Effect Transistors. ACS Nano, 2018, 12, 7134-7140.	14.6	8
64	Improving the all-polymer solar cell performance by adding a narrow bandgap polymer as the second donor. RSC Advances, 2020, 10, 38344-38350.	3.6	7
65	Topological Transformation of Ï€â€Conjugated Molecules Reduces Resistance to Crystallization. Angewandte Chemie, 2017, 129, 9446-9449.	2.0	6
66	Improving the fill factor of N2200-based all polymer solar cells by introducing EPPDI as a solid additive. Organic Electronics, 2021, 99, 106319.	2.6	6
67	Polymer Photovoltaic Cells Based on Polymethacrylate Bearing Semiconducting Side Chains. Macromolecular Rapid Communications, 2012, 33, 2097-2102.	3.9	5
68	Design and synthesis of two conjugated semiconductors containing quinoidal cyclopentadithiophene core. Dyes and Pigments, 2021, 190, 109336.	3.7	5
69	Low Voltageâ€Loss Organic Solar Cells Light the Way for Efficient Semitransparent Photovoltaics. Solar Rrl, 2022, 6, .	5.8	3
70	Robust Unipolar Electron Conduction Using an Ambipolar Polymer Semiconductor with Solution-Processable Blends. Chemistry of Materials, 2020, 32, 6831-6837.	6.7	2
71	Multiwavelength Photodetectors Based on an Azobenzene Polymeric Ionic Liquid. ACS Applied Polymer Materials, 2021, 3, 5125-5133.	4.4	2
72	Synthesis of 2-R1-2-(4-(2-fluoroethoxy)benzamido)acetate as potential PET imaging agents. Medicinal Chemistry Research, 2012, 21, 944-951.	2.4	1

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73	Improving the field-effect transistor performance of (E)-1,2-di(thiophen-2-yl)ethenyl-co-naphthalenyl-based polymers by introducing alkoxy sidechains. Synthetic Metals, 2021, 278, 116801.	3.9	1
74	(S)-2-((S)-2-(4-(3-[18F]fluoropropyl)benzamido)-3-phenylpropanamido)pentanedioic acid labeled with 18F. Journal of Radioanalytical and Nuclear Chemistry, 2010, 286, 135-140.	1.5	0
75	Frontispiece: Investigation into the Sensing Process of High-Performance H2S Sensors Based on Polymer Transistors. Chemistry - A European Journal, 2016, 22, n/a-n/a.	3.3	0
76	Semiconductor Blends: Fullerene Additives Convert Ambipolar Transport to pâ€Type Transport while Improving the Operational Stability of Organic Thin Film Transistors (Adv. Funct. Mater. 25/2016). Advanced Functional Materials, 2016, 26, 4616-4616.	14.9	0
77	Organic Semiconductors: Carrierâ€Selective Traps: A New Approach for Fabricating Circuit Elements with Ambipolar Organic Semiconductors (Adv. Electron. Mater. 3/2017). Advanced Electronic Materials, 2017, 3, .	5.1	0