Binghao Wang

List of Publications by Year
in descending order

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71 papers	4,244 citations	126907 33 h-index	110387 64 g-index
73 all docs	73 docs citations	73 times ranked	6538 citing authors

#	Article	IF	Citations
1	Selfâ€Powered and Interfaceâ€Independent Tactile Sensors Based on Bilayer Singleâ€Electrode Triboelectric Nanogenerators for Robotic Electronic Skin. Advanced Intelligent Systems, 2023, 5, 2100120.	6.1	17
2	Combustion Synthesis and Polymer Doping of Metal Oxides for High-Performance Electronic Circuitry. Accounts of Chemical Research, 2022, 55, 429-441.	15.6	6
3	Systematic Analysis of Self-Assembled Nanodielectric Architecture and Organization Effects on Organic Transistor Switching. ACS Applied Electronic Materials, 2022, 4, 2015-2025.	4.3	2
4	On-skin paintable biogel for long-term high-fidelity electroencephalogram recording. Science Advances, 2022, 8, .	10.3	58
5	Molecular doping of near-infrared organic photodetectors for photoplethysmogram sensors. Journal of Materials Chemistry C, 2021, 9, 3129-3135.	5.5	6
6	Ultraviolet Light-Densified Oxide-Organic Self-Assembled Dielectrics: Processing Thin-Film Transistors at Room Temperature. ACS Applied Materials & Interfaces, 2021, 13, 3445-3453.	8.0	9
7	Processable High Electron Mobility Ï€â€Copolymers via Mesoscale Backbone Conformational Ordering. Advanced Functional Materials, 2021, 31, 2009359.	14.9	16
8	Porous Semiconducting Polymers Enable Highâ€Performance Electrochemical Transistors. Advanced Materials, 2021, 33, e2007041.	21.0	61
9	Self-Assembled Nanodielectrics for Solution-Processed Top-Gate Amorphous IGZO Thin-Film Transistors. ACS Applied Materials & Interfaces, 2021, 13, 15399-15408.	8.0	24
10	Doping Indium Oxide Films with Aminoâ€Polymers of Varying Nitrogen Content Markedly Affects Charge Transport and Mechanical Flexibility. Advanced Functional Materials, 2021, 31, 2100451.	14.9	10
11	Waterproof Mechanically Robust Multifunctional Conformal Sensors for Underwater Interactive Humanâ€“Machine Interfaces. Advanced Intelligent Systems, 2021, 3, 2100056.	6.1	27
12	Foundry-compatible high-resolution patterning of vertically phase-separated semiconducting films for ultraflexible organic electronics. Nature Communications, 2021, 12, 4937.	12.8	19
13	Robust, self-adhesive, reinforced polymeric nanofilms enabling gas-permeable dry electrodes for long-term application. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	57
14	Processing Strategies for an Organic Photovoltaic Module with over 10% Efficiency. Joule, 2020, 4, 189-206.	24.0	154
15	Structureâ€“Charge Transport Relationships in Fluoride-Doped Amorphous Semiconducting Indium Oxide: Combined Experimental and Theoretical Analysis. Chemistry of Materials, 2020, 32, 805-820.	6.7	16
16	Percolative polymer composites for dielectric capacitors: a brief history, materials, and multilayer interface design. Journal of Materials Chemistry A, 2020, 8, 18515-18537.	10.3	35
17	Polar Isotactic and Syndiotactic Polypropylenes by Organozirconiumâ€Catalyzed Maskingâ€Reagentâ€Free Propylene and Aminoâ€“Olefin Copolymerization. Angewandte Chemie - International Edition, 2020, 59, 20522-20528.	13.8	25
18	Experimental and theoretical evidence for hydrogen doping in polymer solution-processed indium gallium oxide. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 18231-18239.	7.1	31

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19	Polar Isotactic and Syndiotactic Polypropylenes by Organozirconiumâ€Catalyzed Maskingâ€Reagentâ€Free Propylene and Aminoâ€“Olefin Copolymerization. Angewandte Chemie, 2020, 132, 20703-20709.	2.0	4
20	Flexible and stretchable metalÂoxide nanofiber networks for multimodal and monolithically integrated wearable electronics. Nature Communications, 2020, 11, 2405.	12.8	174
21	Frequency-Agile Low-Temperature Solution-Processed Alumina Dielectrics for Inorganic and Organic Electronics Enhanced by Fluoride Doping. Journal of the American Chemical Society, 2020, 142, 12440-12452.	13.7	27
22	Breath figureâ€“derived porous semiconducting films for organic electronics. Science Advances, 2020, 6, eaaz1042.	10.3	81
23	Cross-Plane Thermal Conductance of Phosphonate-Based Self-Assembled Monolayers and Self-Assembled Nanodielectrics. ACS Applied Materials & Interfaces, 2020, 12, 34901-34909.	8.0	3
24	Mixed-flow design for microfluidic printing of two-component polymer semiconductor systems. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17551-17557.	7.1	24
25	Engineering Intrinsic Flexibility in Polycrystalline Molecular Semiconductor Films by Grain Boundary Plasticization. Journal of the American Chemical Society, 2020, 142, 5487-5492.	13.7	30
26	Cinnamate-Functionalized Natural Carbohydrates as Photopatternable Gate Dielectrics for Organic Transistors. Chemistry of Materials, 2019, 31, 7608-7617.	6.7	23
27	Simultaneous Bottomâ€Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Smallâ€Molecule Electrolytes. Advanced Materials, 2019, 31, e1903239.	21.0	89
28	Marked Cofuel Tuning of Combustion Synthesis Pathways for Metal Oxide Semiconductor Films. Advanced Electronic Materials, 2019, 5, 1900540.	5.1	13
29	Controllable growth of LiMn2O4 by carbohydrate-assisted combustion synthesis for high performance Li-ion batteries. Nano Energy, 2019, 64, 103936.	16.0	47
30	Perovskite Solar Cells: Simultaneous Bottomâ€Up Interfacial and Bulk Defect Passivation in Highly Efficient Planar Perovskite Solar Cells using Nonconjugated Smallâ€Molecule Electrolytes (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 T	21.0	0
31	Mechanically Flexible Conductors for Stretchable and Wearable Eâ€Skin and Eâ€Textile Devices. Advanced Materials, 2019, 31, e1901408.	21.0	313
32	Expeditious, scalable solution growth of metal oxide films by combustion blade coating for flexible electronics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 9230-9238.	7.1	35
33	Processing, Structure, and Transistor Performance: Combustion versus Pulsed Laser Growth of Amorphous Oxides. ACS Applied Electronic Materials, 2019, 1, 548-557.	4.3	15
34	Significant Polar Comonomer Enchainment in Zirconiumâ€Catalyzed, Masking Reagentâ€Free, Ethylene Copolymerizations. Angewandte Chemie, 2019, 131, 7104-7108.	2.0	15
35	Significant Polar Comonomer Enchainment in Zirconiumâ€Catalyzed, Masking Reagentâ€Free, Ethylene Copolymerizations. Angewandte Chemie - International Edition, 2019, 58, 7030-7034.	13.8	37
36	Combustion Synthesized Zinc Oxide Electronâ€Transport Layers for Efficient and Stable Perovskite Solar Cells. Advanced Functional Materials, 2019, 29, 1900265.	14.9	121

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37	Gradient structure based dual-robust superhydrophobic surfaces with high-adhesive force. Applied Surface Science, 2019, 463, 427-434.	6.1	38
38	Oxideâ€“Polymer Heterojunction Diodes with a Nanoscopic Phase-Separated Insulating Layer. Nano Letters, 2019, 19, 471-476.	9.1	9
39	Polymer Doping Enables a Twoâ€Dimensional Electron Gas for Highâ€Performance Homojunction Oxide Thinâ€Film Transistors. Advanced Materials, 2019, 31, e1805082.	21.0	43
40	Metal Composition and Polyethylenimine Doping Capacity Effects on Semiconducting Metal Oxideâ€“Polymer Blend Charge Transport. Journal of the American Chemical Society, 2018, 140, 5457-5473.	13.7	39
41	Nitroacetylacetone as a Cofuel for the Combustion Synthesis of High-Performance Indiumâ€“Galliumâ€“Zinc Oxide Transistors. Chemistry of Materials, 2018, 30, 3323-3329.	6.7	35
42	Low-Loss Near-Infrared Hyperbolic Metamaterials with Epitaxial ITO-In₂O₃ Multilayers. ACS Photonics, 2018, 5, 2000-2007.	6.6	14
43	Cross-Plane Thermal Conductivity Measurements in Self-Assembled Nanodielectric Heterostructures. , 2018, , .		0
44	Synergistic Boron Doping of Semiconductor and Dielectric Layers for High-Performance Metal Oxide Transistors: Interplay of Experiment and Theory. Journal of the American Chemical Society, 2018, 140, 12501-12510.	13.7	43
45	High-k Gate Dielectrics for Emerging Flexible and Stretchable Electronics. Chemical Reviews, 2018, 118, 5690-5754.	47.7	530
46	Highly Transparent and Conductive W-Doped ZnO/Cu/W-Doped ZnO Multilayer Source/Drain Electrodes for Metal-Oxide Thin-Film Transistors. IEEE Electron Device Letters, 2018, 39, 967-970.	3.9	7
47	Lowâ€Temperature Atomic Layer Deposition of MoS₂ Films. Angewandte Chemie, 2017, 129, 5073-5077.	2.0	15
48	UVâ€“Ozone Interfacial Modification in Organic Transistors for Highâ€Sensitivity NO₂ Detection. Advanced Materials, 2017, 29, 1701706.	21.0	106
49	Lowâ€Temperature Atomic Layer Deposition of MoS₂ Films. Angewandte Chemie - International Edition, 2017, 56, 4991-4995.	13.8	127
50	Enhanced Efficiency of Hotâ€Cast Largeâ€Area Planar Perovskite Solar Cells/Modules Having Controlled Chloride Incorporation. Advanced Energy Materials, 2017, 7, 1601660.	19.5	191
51	Scandiumâ€Catalyzed Selfâ€Assisted Polar Coâ€monomer Enchainment in Ethylene Polymerization. Angewandte Chemie - International Edition, 2017, 56, 15964-15968.	13.8	63
52	Organic Thinâ€Film Transistors: UVâ€“Ozone Interfacial Modification in Organic Transistors for Highâ€Sensitivity NO₂ Detection (Adv. Mater. 31/2017). Advanced Materials, 2017, 29, .	21.0	0
53	The Dipole Moment Inversion Effects in Self-Assembled Nanodielectrics for Organic Transistors. Chemistry of Materials, 2017, 29, 9974-9980.	6.7	18
54	Aggregation control in natural brush-printed conjugated polymer films and implications for enhancing charge transport. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E10066-E10073.	7.1	110

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55	New Type of 2D Perovskites with Alternating Cations in the Interlayer Space, (C(NH₂)₃)(CH₃NH₃)_nPb_nI<sub>3n Structure, Properties, and Photovoltaic Performance. Journal of the American Chemical Society, 2017, 139, 16297-16309.	13.7	374
56	Scandiumâ€Catalyzed Selfâ€Assisted Polar Coâ€monomer Enchainment in Ethylene Polymerization. Angewandte Chemie, 2017, 129, 16180-16184.	2.0	21
57	Metal Oxide Transistors via Polyethylenimine Doping of the Channel Layer: Interplay of Doping, Microstructure, and Charge Transport. Advanced Functional Materials, 2016, 26, 6179-6187.	14.9	77
58	Dopantâ€Free Hole Transporting Polymers for High Efficiency, Environmentally Stable Perovskite Solar Cells. Advanced Energy Materials, 2016, 6, 1600502.	19.5	156
59	Carbohydrate-Assisted Combustion Synthesis To Realize High-Performance Oxide Transistors. Journal of the American Chemical Society, 2016, 138, 7067-7074.	13.7	61
60	Oxide Transistors: Metal Oxide Transistors via Polyethylenimine Doping of the Channel Layer: Interplay of Doping, Microstructure, and Charge Transport (Adv. Funct. Mater. 34/2016). Advanced Functional Materials, 2016, 26, 6320-6320.	14.9	0
61	Growth of Highly Oriented Ultrathin Crystalline Organic Microstripes: Effect of Alkyl Chain Length. Langmuir, 2016, 32, 9109-9117.	3.5	11
62	Solutionâ€Processed Allâ€Oxide Transparent Highâ€Performance Transistors Fabricated by Sprayâ€Combustion Synthesis. Advanced Electronic Materials, 2016, 2, 1500427.	5.1	101
63	Fast patterning of oriented organic microstripes for field-effect ammonia gas sensors. Nanoscale, 2016, 8, 3954-3961.	5.6	23
64	Addressable growth of oriented organic semiconductor ultra-thin films on hydrophobic surface by direct dip-coating. Organic Electronics, 2015, 24, 170-175.	2.6	33
65	Fabrication and origin of high-k carbon nanotube/epoxy composites with low dielectric loss through layer-by-layer casting technique. Carbon, 2015, 85, 28-37.	10.3	82
66	Boost up dielectric constant and push down dielectric loss of carbon nanotube/cyanate ester composites via gradient and layered structure design. Journal of Materials Chemistry A, 2015, 3, 23162-23169.	10.3	29
67	Thermal behavior and properties of chitosan fibers enhanced polysaccharide hydrogels. Thermochimica Acta, 2014, 583, 8-14.	2.7	14
68	Dielectric properties and mechanism of composites by superposing expanded graphite/cyanate ester layer with carbon nanotube/cyanate ester layer. Composites Science and Technology, 2014, 91, 8-15.	7.8	39
69	High-k Materials with Low Dielectric Loss Based on Two Superposed Gradient Carbon Nanotube/Cyanate Ester Composites. Journal of Physical Chemistry C, 2013, 117, 15487-15495.	3.1	33
70	Chitosan fibers enhanced gellan gum hydrogels with superior mechanical properties and water-holding capacity. Carbohydrate Polymers, 2013, 97, 152-158.	10.2	57
71	Two-layer materials of polyethylene and a carbon nanotube/cyanate ester composite with high dielectric constant and extremely low dielectric loss. Carbon, 2013, 54, 224-233.	10.3	118