Wei Huang

List of Publications by Year
in descending order

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53 papers	2,563 citations	201674 27 h-index	197818 49 g-index
53 all docs	53 docs citations	53 times ranked	3304 citing authors

#	Article	IF	Citations
1	High-k Gate Dielectrics for Emerging Flexible and Stretchable Electronics. Chemical Reviews, 2018, 118, 5690-5754.	47.7	530
2	Flexible and stretchable metalÂoxide nanofiber networks for multimodal and monolithically integrated wearable electronics. Nature Communications, 2020, 11, 2405.	12.8	174
3	Teaching an Old Anchoring Group New Tricks: Enabling Low-Cost, Eco-Friendly Hole-Transporting Materials for Efficient and Stable Perovskite Solar Cells. Journal of the American Chemical Society, 2020, 142, 16632-16643.	13.7	154
4	Systematic Merging of Nonfullerene Acceptor Ï€-Extension and Tetrafluorination Strategies Affords Polymer Solar Cells with >16% Efficiency. Journal of the American Chemical Society, 2021, 143, 6123-6139.	13.7	125
5	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
6	UVâ€“Ozone Interfacial Modification in Organic Transistors for Highâ€Sensitivity NO₂ Detection. Advanced Materials, 2017, 29, 1701706.	21.0	106
7	Highly stretchable organic electrochemical transistors with strain-resistant performance. Nature Materials, 2022, 21, 564-571.	27.5	86
8	Breath figureâ€“derived porous semiconducting films for organic electronics. Science Advances, 2020, 6, eaaz1042.	10.3	81
9	Lattice-contraction triggered synchronous electrochromic actuator. Nature Communications, 2018, 9, 4798.	12.8	80
10	Polymer dielectric layer functionality in organic field-effect transistor based ammonia gas sensor. Organic Electronics, 2013, 14, 3453-3459.	2.6	74
11	Non-fullerene acceptors with direct and indirect hexa-fluorination afford >17% efficiency in polymer solar cells. Energy and Environmental Science, 2022, 15, 645-659.	30.8	65
12	Readily Accessible Benzo[d]thiazole Polymers for Nonfullerene Solar Cells with >16% Efficiency and Potential Pitfalls. ACS Energy Letters, 2020, 5, 1780-1787.	17.4	58
13	Hole (donor) and electron (acceptor) transporting organic semiconductors for bulk-heterojunction solar cells. EnergyChem, 2020, 2, 100042.	19.1	55
14	Systematically Controlling Acceptor Fluorination Optimizes Hierarchical Morphology, Vertical Phase Separation, and Efficiency in Nonâ€Fullerene Organic Solar Cells. Advanced Energy Materials, 2022, 12, .	19.5	46
15	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
16	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
17	Dielectric materials for electrolyte gated transistor applications. Journal of Materials Chemistry C, 2021, 9, 9348-9376.	5.5	36
18	Hysteresis mechanism and control in pentacene organic field-effect transistors with polymer dielectric. AIP Advances, 2013, 3, .	1.3	35

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19	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
20	Flexible complementary circuits operating at sub-0.5 V via hybrid organicâ€“inorganic electrolyte-gated transistors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	34
21	Performance enhancement of poly(3-hexylthiophene) organic field-effect transistor by inserting poly(methylmethacrylate) buffer layer. Applied Physics Letters, 2013, 102, 111607.	3.3	33
22	Photovoltaic Blend Microstructure for High Efficiency Post-Fullerene Solar Cells. To Tilt or Not To Tilt?. Journal of the American Chemical Society, 2019, 141, 13410-13420.	13.7	33
23	To Fluorinate or Not to Fluorinate in Organic Solar Cells: Achieving a Higher PCE of 15.2% when the Donor Polymer is Halogenâ€Free. Advanced Energy Materials, 2021, 11, 2102648.	19.5	33
24	Ï€-Extended Naphthalene Diimide Derivatives for n-Type Semiconducting Polymers. Chemistry of Materials, 2020, 32, 5317-5326.	6.7	32
25	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
26	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
27	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
28	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
29	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
30	Cinnamate-Functionalized Natural Carbohydrates as Photopatternable Gate Dielectrics for Organic Transistors. Chemistry of Materials, 2019, 31, 7608-7617.	6.7	23
31	Performance, Morphology, and Charge Recombination Correlations in Ternary Squaraine Solar Cells. Chemistry of Materials, 2018, 30, 6810-6820.	6.7	22
32	Biocompatible/Degradable Silk Fibroin:Poly(Vinyl Alcohol)-Blended Dielectric Layer Towards High-Performance Organic Field-Effect Transistor. Nanoscale Research Letters, 2016, 11, 439.	5.7	21
33	Efficient room temperature catalytic synthesis of alternating conjugated copolymers via C-S bond activation. Nature Communications, 2022, 13, 144.	12.8	21
34	Effect of UV/ozone treatment on polystyrene dielectric and its application on organic field-effect transistors. Nanoscale Research Letters, 2014, 9, 479.	5.7	20
35	Source/drain electrodes contact effect on the stability of bottom-contact pentacene field-effect transistors. AIP Advances, 2012, 2, 022113.	1.3	19
36	Foundry-compatible high-resolution patterning of vertically phase-separated semiconducting films for ultraflexible organic electronics. Nature Communications, 2021, 12, 4937.	12.8	19

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37	Performance improvement of a pentacene organic field-effect transistor through a DNA interlayer. Journal Physics D: Applied Physics, 2014, 47, 205402.	2.8	19
38	The Dipole Moment Inversion Effects in Self-Assembled Nanodielectrics for Organic Transistors. Chemistry of Materials, 2017, 29, 9974-9980.	6.7	18
39	High-mobility flexible pentacene-based organic field-effect transistors with PMMA/PVP double gate insulator layers and the investigation on their mechanical flexibility and thermal stability. RSC Advances, 2015, 5, 95273-95279.	3.6	17
40	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
41	Low-Loss Near-Infrared Hyperbolic Metamaterials with Epitaxial ITO-In₂O₃ Multilayers. ACS Photonics, 2018, 5, 2000-2007.	6.6	14
42	High performance pentacene organic field-effect transistors consisting of biocompatible PMMA/silk fibroin bilayer dielectric. Chinese Physics B, 2014, 23, 038505.	1.4	13
43	Performance enhancement of organic thin-film transistors with improved copper phthalocyanine crystallization by inserting ultrathin pentacene buffer. Thin Solid Films, 2012, 520, 6677-6680.	1.8	12
44	Printable Organicâ€Inorganic Nanoscale Multilayer Gate Dielectrics for Thinâ€Film Transistors Enabled by a Polymeric Organic Interlayer. Advanced Functional Materials, 2020, 30, 2005069.	14.9	12
45	Enhanced charge carrier injection in heterojunction organic field-effect transistor by inserting an MoO ₃ buffer layer. Chinese Physics B, 2012, 21, 117307.	1.4	10
46	Suppressed Oxidation and Photodarkening of Hybrid Tin Iodide Perovskite Achieved with Reductive Organic Small Molecule. ACS Applied Energy Materials, 2021, 4, 4704-4710.	5.1	10
47	Oxideâ€“Polymer Heterojunction Diodes with a Nanoscopic Phase-Separated Insulating Layer. Nano Letters, 2019, 19, 471-476.	9.1	9
48	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
49	Organic circuits reach new heights. Nature Electronics, 2021, 4, 544-545.	26.0	7
50	Role of Fluoride Doping in Low-Temperature Combustion-Synthesized ZrO_x Dielectric Films. ACS Applied Materials & Interfaces, 2022, 14, 12340-12349.	8.0	7
51	Combustion Synthesis and Polymer Doping of Metal Oxides for High-Performance Electronic Circuitry. Accounts of Chemical Research, 2022, 55, 429-441.	15.6	6
52	Organic field-effect transistors with a sandwich structure from inserting 2,2â€²,2â€³-(1,3,5-benzenetriyl)tris[1-phenyl-1H-benzimidazole] in the pentacene active layer. EPJ Applied Physics, 2013, 62, 20101.	0.7	5
53	Discrepancies in performance for heterojunction organic field-effect transistors with different channel lengths. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 062401.	1.2	0