Wei Huang

List of Publications by Year
in descending order

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	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
2	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
3	Efficient room temperature catalytic synthesis of alternating conjugated copolymers via C-S bond activation. Nature Communications, 2022, 13, 144.	12.8	21
4	Combustion Synthesis and Polymer Doping of Metal Oxides for High-Performance Electronic Circuitry. Accounts of Chemical Research, 2022, 55, 429-441.	15.6	6
5	Role of Fluoride Doping in Low-Temperature Combustion-Synthesized ZrO_{<i>x</i>} Dielectric Films. ACS Applied Materials & Interfaces, 2022, 14, 12340-12349.	8.0	7
6	Highly stretchable organic electrochemical transistors with strain-resistant performance. Nature Materials, 2022, 21, 564-571.	27.5	86
7	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
8	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
9	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
10	Foundry-compatible high-resolution patterning of vertically phase-separated semiconducting films for ultraflexible organic electronics. Nature Communications, 2021, 12, 4937.	12.8	19
11	Organic circuits reach new heights. Nature Electronics, 2021, 4, 544-545.	26.0	7
12	Dielectric materials for electrolyte gated transistor applications. Journal of Materials Chemistry C, 2021, 9, 9348-9376.	5.5	36
13	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
14	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
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	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
17	Hole (donor) and electron (acceptor) transporting organic semiconductors for bulk-heterojunction solar cells. EnergyChem, 2020, 2, 100042.	19.1	55
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	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
20	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
21	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
22	Flexible and stretchable metalÂoxide nanofiber networks for multimodal and monolithically integrated wearable electronics. Nature Communications, 2020, 11, 2405.	12.8	174
23	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
24	Breath figureâ€“derived porous semiconducting films for organic electronics. Science Advances, 2020, 6, eaaz1042.	10.3	81
25	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
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	Ï€-Extended Naphthalene Diimide Derivatives for n-Type Semiconducting Polymers. Chemistry of Materials, 2020, 32, 5317-5326.	6.7	32
28	Cinnamate-Functionalized Natural Carbohydrates as Photopatternable Gate Dielectrics for Organic Transistors. Chemistry of Materials, 2019, 31, 7608-7617.	6.7	23
29	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
30	Oxideâ€“Polymer Heterojunction Diodes with a Nanoscopic Phase-Separated Insulating Layer. Nano Letters, 2019, 19, 471-476.	9.1	9
31	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
32	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
33	Low-Loss Near-Infrared Hyperbolic Metamaterials with Epitaxial ITO-In₂O₃ Multilayers. ACS Photonics, 2018, 5, 2000-2007.	6.6	14
34	Lattice-contraction triggered synchronous electrochromic actuator. Nature Communications, 2018, 9, 4798.	12.8	80
35	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
36	Performance, Morphology, and Charge Recombination Correlations in Ternary Squaraine Solar Cells. Chemistry of Materials, 2018, 30, 6810-6820.	6.7	22

#	Article	IF	Citations
37	High-<i>k</i> Gate Dielectrics for Emerging Flexible and Stretchable Electronics. Chemical Reviews, 2018, 118, 5690-5754.	47.7	530
38	UVâ€"Ozone Interfacial Modification in Organic Transistors for Highâ€Sensitivity NO₂ Detection. Advanced Materials, 2017, 29, 1701706.	21.0	106
39	The Dipole Moment Inversion Effects in Self-Assembled Nanodielectrics for Organic Transistors. Chemistry of Materials, 2017, 29, 9974-9980.	6.7	18
40	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
41	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
42	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
43	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
44	High performance pentacene organic field-effect transistors consisting of biocompatible PMMA/silk fibroin bilayer dielectric. Chinese Physics B, 2014, 23, 038505.	1.4	13
45	Performance improvement of a pentacene organic field-effect transistor through a DNA interlayer. Journal Physics D: Applied Physics, 2014, 47, 205402.	2.8	19
46	Polymer dielectric layer functionality in organic field-effect transistor based ammonia gas sensor. Organic Electronics, 2013, 14, 3453-3459.	2.6	74
47	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
48	Hysteresis mechanism and control in pentacene organic field-effect transistors with polymer dielectric. AIP Advances, 2013, 3, .	1.3	35
49	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
50	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
51	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
52	Source/drain electrodes contact effect on the stability of bottom-contact pentacene field-effect transistors. AIP Advances, 2012, 2, 022113.	1.3	19
53	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