Honglei Wang

List of Publications by Year
in descending order

70 papers	2,117 citations	201674 27 h-index	254184 43 g-index
71 all docs	71 docs citations	71 times ranked	2666 citing authors

#	Article	IF	Citations
1	Highâ€Performance Bismuthâ€Doped Nickel Aerogel Electrocatalyst for the Methanol Oxidation Reaction. Angewandte Chemie - International Edition, 2020, 59, 13891-13899.	13.8	179
2	High-density array of ferroelectric nanodots with robust and reversibly switchable topological domain states. Science Advances, 2017, 3, e1700919.	10.3	125
3	Efficient and carbon-based hole transport layer-free CsPbI₂Br planar perovskite solar cells using PMMA modification. Journal of Materials Chemistry C, 2019, 7, 3852-3861.	5.5	102
4	Flexible, Semitransparent, and Inorganic Resistive Memory based on BaTi_{0.95}Co_{0.05}O₃ Film. Advanced Materials, 2017, 29, 1700425.	21.0	89
5	A Robust PtNi Nanoframe/Nâ€Doped Graphene Aerogel Electrocatalyst with Both High Activity and Stability. Angewandte Chemie - International Edition, 2021, 60, 9590-9597.	13.8	88
6	Low-temperature fabrication of sputtered high-k HfO2 gate dielectric for flexible a-IGZO thin film transistors. Applied Physics Letters, 2018, 112, .	3.3	84
7	Current rectifying and resistive switching in high density BiFeO3 nanocapacitor arrays on Nb-SrTiO3 substrates. Scientific Reports, 2015, 5, 9680.	3.3	68
8	Promoting the Hole Extraction with Co₃O₄ Nanomaterials for Efficient Carbonâ€Based CsPbI₂Br Perovskite Solar Cells. Solar Rrl, 2019, 3, 1800315.	5.8	65
9	Controlling Resistance Switching Polarities of Epitaxial BaTiO₃ Films by Mediation of Ferroelectricity and Oxygen Vacancies. Advanced Electronic Materials, 2015, 1, 1500069.	5.1	64
10	Resistive switching induced by charge trapping/detrapping: a unified mechanism for colossal electroresistance in certain Nb:SrTiO₃-based heterojunctions. Journal of Materials Chemistry C, 2017, 5, 7317-7327.	5.5	61
11	All-sputtered, flexible, bottom-gate IGZO/Al₂O₃ bi-layer thin film transistors on PEN fabricated by a fully room temperature process. Journal of Materials Chemistry C, 2017, 5, 7043-7050.	5.5	56
12	High Mobility Amorphous Indium-Gallium-Zinc-Oxide Thin-Film Transistor by Aluminum Oxide Passivation Layer. IEEE Electron Device Letters, 2017, 38, 879-882.	3.9	54
13	Enhanced performance of CH3NH3PbI3â^'x Cl x perovskite solar cells by CH3NH3I modification of TiO2-perovskite layer interface. Nanoscale Research Letters, 2016, 11, 316.	5.7	50
14	Preparation of epitaxial hexagonal YMnO3 thin films and observation of ferroelectric vortex domains. Npj Quantum Materials, 2016, 1, .	5.2	49
15	Optimization of hierarchical structure and nanoscale-enabled plasmonic refraction for window electrodes in photovoltaics. Nature Communications, 2016, 7, 12825.	12.8	46
16	Ferroelectric Diodes with Charge Injection and Trapping. Physical Review Applied, 2017, 7, .	3.8	43
17	A Practical ITO Replacement Strategy: Sputteringâ€Free Processing of a Metallic Nanonetwork. Advanced Materials Technologies, 2017, 2, 1700061.	5.8	39
18	High mobility solution-processed C₈-BTBT organic thin-film transistors via UV-ozone interface modification. Journal of Materials Chemistry C, 2017, 5, 10652-10659.	5.5	39

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19	Aqueous Synthesis of Covalent Organic Frameworks as Photocatalysts for Hydrogen Peroxide Production. CCS Chemistry, 2022, 4, 3751-3761.	7.8	39
20	High-performance flexible oxide TFTs: optimization of a-IGZO film by modulating the voltage waveform of pulse DC magnetron sputtering without post treatment. Journal of Materials Chemistry C, 2018, 6, 2522-2532.	5.5	38
21	Enhanced energy storage performance and thermal stability in relaxor ferroelectric (1â€x)BiFeO₃â€x(0.85BaTiO₃â€0.15Bi(Sn_{0.5}Zn_{0.5})O₃) ceramics. Journal of the American Ceramic Society, 2021, 104, 2646-2654.	3.8	38
22	Oriented Growth of Thin Films of Covalent Organic Frameworks with Large Single-Crystalline Domains on the Water Surface. Journal of the American Chemical Society, 2022, 144, 3233-3241.	13.7	38
23	Flexible, Fatigue-Free, and Large-Scale Bi_{3.25}La_{0.75}Ti₃O₁₂ Ferroelectric Memories. ACS Applied Materials & Interfaces, 2018, 10, 21428-21433.	8.0	35
24	Nonvolatile FerroelectricâEDomainâEWall Memory Embedded in a Complex Topological Domain Structure. Advanced Materials, 2022, 34, e2107711.	21.0	32
25	Nanoporous and Highly Thermal Conductive Thin Film of Single-Crystal Covalent Organic Frameworks Ribbons. Journal of the American Chemical Society, 2021, 143, 3927-3933.	13.7	31
26	An Unusual Mechanism for Negative Differential Resistance in Ferroelectric Nanocapacitors: Polarization Switching-Induced Charge Injection Followed by Charge Trapping. ACS Applied Materials & Interfaces, 2017, 9, 27120-27126.	8.0	30
27	Colossal Figure of Merit in TransparentâECconducting Metallic Ribbon Networks. Advanced Materials Technologies, 2016, 1, .	5.8	29
28	Large electroresistance and tunable photovoltaic properties of ferroelectric nanoscale capacitors based on ultrathin super-tetragonal BiFeO₃films. Journal of Materials Chemistry C, 2017, 5, 3323-3329.	5.5	29
29	Morphology Modulation of Direct Inkjet Printing by Incorporating Polymers and Surfactants into a Solâ€“Gel Ink System. Langmuir, 2018, 34, 6413-6419.	3.5	28
30	A Simple Method for High-Performance, Solution-Processed, Amorphous ZrO2 Gate Insulator TFT with a High Concentration Precursor. Materials, 2017, 10, 972.	2.9	24
31	Tungsten Oxide/Reduced Graphene Oxide Aerogel with Lowâ€Content Platinum as Highâ€Performance Electrocatalyst for Hydrogen Evolution Reaction. Small, 2021, 17, e2102159.	10.0	24
32	Boosting Both Electrocatalytic Activity and Durability of Metal Aerogels via Intrinsic Hierarchical Porosity and Continuous Conductive Network Backbone Preservation. Advanced Energy Materials, 2021, 11, 2002276.	19.5	24
33	Highâ€Performance Bismuthâ€Doped Nickel Aerogel Electrocatalyst for the Methanol Oxidation Reaction. Angewandte Chemie, 2020, 132, 13995-14003.	2.0	22
34	Tuning electrical conductivity, charge transport, and ferroelectricity in epitaxial BaTiO3 films by Nb-doping. Applied Physics Letters, 2017, 110, 182903.	3.3	18
35	Mobility Enhancement in Amorphous In-Ga-Zn-O Thin-Film Transistor by Induced Metallic in Nanoparticles and Cu Electrodes. Nanomaterials, 2018, 8, 197.	4.1	18
36	A Mixed Antisolvent-Assisted Crystallization Strategy for Efficient All-Inorganic CsPbIBr₂ Perovskite Solar Cells by a Low-Temperature Process. ACS Applied Energy Materials, 2022, 5, 2881-2889.	5.1	18

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37	Electronic Structure and Charge-Trapping Characteristics of the Al2O3-TiAlO-SiO2 Gate Stack for Nonvolatile Memory Applications. Nanoscale Research Letters, 2017, 12, 270.	5.7	17
38	A Simple, Low Cost Ink System for Drop-on-Demand Printing High Performance Metal Oxide Dielectric Film at Low Temperature. ACS Applied Materials & Interfaces, 2019, 11, 5193-5199.	8.0	16
39	Creation of a two-dimensional polymer and graphene heterostructure. Nanoscale, 2020, 12, 5170-5174.	5.6	16
40	Brownian motion and entropic torque driven motion of domain walls in antiferromagnets. Physical Review B, 2018, 97, .	3.2	14
41	Functional Metal Oxide Ink Systems for Drop-on-Demand Printed Thin-Film Transistors. Langmuir, 2020, 36, 8655-8667.	3.5	14
42	Self-assembled nanoscale capacitor cells based on ultrathin BiFeO3 films. Applied Physics Letters, 2014, 104, 182903.	3.3	13
43	Simultaneously enhanced J_{sc} and FF by employing two solution-processed interfacial layers for inverted planar perovskite solar cells. RSC Advances, 2017, 7, 39523-39529.	3.6	13
44	Room Temperature Fabrication of High Quality ZrO₂Dielectric Films for High Performance Flexible Organic Transistor Applications. IEEE Electron Device Letters, 2018, 39, 280-283.	3.9	13
45	Guanidine Thiocyanateâ€Induced Highâ€Quality Perovskite Film for Efficient Tinâ€Based Perovskite Solar Cells. Solar Rrl, 2022, 6, .	5.8	12
46	A room temperature strategy towards enhanced performance and bias stability of oxide thin film transistor with a sandwich structure channel layer. Applied Physics Letters, 2017, 110, .	3.3	11
47	Surfactants Mediated Synthesis of Highly Crystalline Thin Films of Imineâ€Linked Covalent Organic Frameworks on Water Surface. Chinese Journal of Chemistry, 0, , .	4.9	11
48	Inorganic Solar Cells Based on Electrospun ZnO Nanofibrous Networks and Electrodeposited Cu2O. Nanoscale Research Letters, 2015, 10, 465.	5.7	10
49	Islandâ€Like AZO/Al₂O₃ Bilayer Channel Structure for Thin Film Transistors. Advanced Materials Interfaces, 2017, 4, 1700063.	3.7	10
50	Facile Room Temperature Routes to Improve Performance of IGZO Thin-Film Transistors by an Ultrathin Al₂O₃Passivation Layer. IEEE Transactions on Electron Devices, 2018, 65, 537-541.	3.0	10
51	Bias Stability Enhancement in Thin-Film Transistor with a Solution-Processed ZrO2 Dielectric as Gate Insulator. Applied Sciences (Switzerland), 2018, 8, 806.	2.5	9
52	Investigation of direct inkjet-printed versus spin-coated ZrO2 for sputter IGZO thin film transistor. Nanoscale Research Letters, 2019, 14, 80.	5.7	9
53	A Robust PtNi Nanoframe/Nâ€Doped Graphene Aerogel Electrocatalyst with Both High Activity and Stability. Angewandte Chemie, 2021, 133, 9676-9683.	2.0	9
54	Synthesis of Thin Film of a <scp>Threeâ€Dimensional</scp> Covalent Organic Framework as Antiâ€counterfeiting Label. Chinese Journal of Chemistry, 2022, 40, 1171-1176.	4.9	9

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55	Highly Conductive and Transparent AZO Films Fabricated by PLD as Source/Drain Electrodes for TFTs. Materials, 2018, 11, 2480.	2.9	8
56	Induced nano-scale self-formed metal-oxide interlayer in amorphous silicon tin oxide thin film transistors. Scientific Reports, 2018, 8, 4160.	3.3	7
57	Direct evidence for the coexistence of nanoscale high-conduction and low-conduction phases in VO2 films. Applied Physics Letters, 2018, 113, .	3.3	7
58	Plasmonic refractionâ€induced ultrahigh transparency of highly conducting metallic networks. Laser and Photonics Reviews, 2016, 10, 465-472.	8.7	6
59	High Conductivity and Adhesion of Cu-Cr-Zr Alloy for TFT Gate Electrode. Applied Sciences (Switzerland), 2017, 7, 820.	2.5	6
60	Oxygen vacancy mediated conductivity and charge transport properties of epitaxial Ba0.6La0.4TiO3â" Î´ thin films. Applied Physics Letters, 2019, 114, .	3.3	6
61	MnO2-doping induced enhanced multiferroicity in Bi0.83Sm0.17Fe0.95Sc0.05O3 ceramics. Applied Physics Letters, 2020, 116, .	3.3	6
62	Enhancement of ferroelectricity and homogeneity of orthorhombic phase in Hf_{0.5}Zr_{0.5}O₂ thin films. Nanotechnology, 2021, 32, 335704.	2.6	6
63	Properties-Adjustable Alumina-Zirconia Nanolaminate Dielectric Fabricated by Spin-Coating. Nanomaterials, 2017, 7, 419.	4.1	5
64	Vertically Free-Standing Ordered Pb(Zr0.52Ti0.48)O3 Nanocup Arrays by Template-Assisted Ion Beam Etching. Nanoscale Research Letters, 2016, 11, 225.	5.7	4
65	Enhanced Stability of Antiferromagnetic Skyrmion during Its Motion by Anisotropic Dzyaloshinskiiâ€"Moriya Interaction. Physica Status Solidi - Rapid Research Letters, 2020, 14, 2000157.	2.4	4
66	Controllable Coercive Field of Ferroelectric HfO₂ Films via UV-Ozone Surface Modification. IEEE Transactions on Electron Devices, 2022, 69, 3094-3099.	3.0	4
67	Reaction-Induced Phase Separation and Morphology Evolution of Benzoxazine/Epoxy/Imidazole Ternary Blends. Polymers, 2021, 13, 2945.	4.5	3
68	Binary Solvent Systems for Piezoelectric Printing Crack-Free PAM/ZrO_x Hybrid Thin Films through Nanostructure Modulation. Langmuir, 2021, 37, 5979-5985.	3.5	2
69	Epitaxial strain tunable conductivity and charge transport of Ba0.6La0.4TiO3 thin films deposited by pulsed laser deposition. Journal of Applied Physics, 2021, 129, .	2.5	1
70	Metallic Nanonetworks: A Practical ITO Replacement Strategy: Sputteringâ€Free Processing of a Metallic Nanonetwork (Adv. Mater. Technol. 8/2017). Advanced Materials Technologies, 2017, 2, .	5.8	0