Zhi Gen Yu

List of Publications by Year
in descending order

66 papers	3,096 citations	172457 29 h-index	161849 54 g-index
66 all docs	66 docs citations	66 times ranked	4692 citing authors

#	Article	IF	Citations
1	Recent progress on 2D materials-based artificial synapses. Critical Reviews in Solid State and Materials Sciences, 2022, 47, 665-690.	12.3	11
2	Modified Embeddedâ€Atom Method Potentials for the Plasticity and Fracture Behaviors of Unary HCP Metals. Advanced Theory and Simulations, 2022, 5, 2100377.	2.8	2
3	Wafer-scale solution-processed 2D material analog resistive memory array for memory-based computing. Nature Communications, 2022, 13, .	12.8	60
4	A first-principles-based high fidelity, high throughput approach for the design of high entropy alloys. Scientific Reports, 2022, 12, .	3.3	12
5	Nonvolatile Logicâ€inâ€Memory Computing based on Solutionâ€Processed CuI Memristor. Advanced Electronic Materials, 2022, 8, .	5.1	4
6	A first-principles study on strain engineering of monolayer stanene for enhanced catalysis of CO2 reduction. Chemosphere, 2021, 268, 129317.	8.2	7
7	Unravelling V₆O₁₃ Diffusion Pathways via CO₂ Modification for High-Performance Zinc Ion Battery Cathode. ACS Nano, 2021, 15, 1273-1281.	14.6	67
8	Deciphering NH₃ Adsorption Kinetics in Ternary Niâ€“Cuâ€“Fe Oxyhydroxide toward Efficient Ammonia Oxidation Reaction. Small, 2021, 17, e2005616.	10.0	34
9	Synergizing Cu dimers and N atoms in graphene towards an active catalyst for hydrogen evolution reaction. Nanoscale Advances, 2021, 3, 5332-5338.	4.6	1
10	Machineâ€Learningâ€Assisted Autonomous Humidity Management System Based on Solarâ€Regenerated Super Hygroscopic Complex. Advanced Science, 2021, 8, 2003939.	11.2	34
11	Chemical-Affinity Disparity and Exclusivity Drive Atomic Segregation, Short-Range Ordering, and Cluster Formation in High-Entropy Alloys. Acta Materialia, 2021, 206, 116638.	7.9	45
12	Modified embedded-atom method potentials for the plasticity and fracture behaviors of unary fcc metals. Physical Review B, 2021, 103, .	3.2	5
13	CVD Polycrystalline Graphene as Sensing Film of Extended-Gate ISFET for Low-Drift pH Sensor. Journal of the Electrochemical Society, 2021, 168, 067520.	2.9	3
14	Simultaneously enhancing the ultimate strength and ductility of high-entropy alloys via short-range ordering. Nature Communications, 2021, 12, 4953.	12.8	116
15	Bct-C5: A new body-centered tetragonal carbon allotrope. Diamond and Related Materials, 2021, 119, 108571.	3.9	6
16	Hall-Petch and inverse Hall-Petch relations in high-entropy CoNiFeAlxCu1-x alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 773, 138873.	5.6	93
17	Strain stabilized nickel hydroxide nanoribbons for efficient water splitting. Energy and Environmental Science, 2020, 13, 229-237.	30.8	78
18	A new carbon allotrope: T5-carbon. Scripta Materialia, 2020, 189, 72-77.	5.2	12

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19	Remarkably high thermal-driven MoS₂ grain boundary migration mobility and its implications on defect healing. Nanoscale, 2020, 12, 17746-17753.	5.6	6
20	A Moistureâ€Hungry Copper Complex Harvesting Air Moisture for Potable Water and Autonomous Urban Agriculture. Advanced Materials, 2020, 32, e2002936.	21.0	81
21	Full Defects Passivation Enables 21% Efficiency Perovskite Solar Cells Operating in Air. Advanced Energy Materials, 2020, 10, 2001958.	19.5	117
22	Materializing efficient methanol oxidation via electron delocalization in nickel hydroxide nanoribbon. Nature Communications, 2020, 11, 4647.	12.8	117
23	Generalized small set of ordered structures method for the solid-solution phase of high-entropy alloys. Physical Review B, 2020, 102, .	3.2	10
24	Ultrasensitive and robust two-dimensional indium selenide flexible electronics and sensors for human motion detection. Nano Energy, 2020, 76, 105020.	16.0	28
25	Shallow defects levels and extract detrapped charges to stabilize highly efficient and hysteresis-free perovskite photovoltaic devices. Nano Energy, 2020, 71, 104556.	16.0	51
26	Interlayer Engineering of MnO₂ with High Charge Density Bi³⁺ for High Rate and Stable Aqueous Supercapacitor. Batteries and Supercaps, 2020, 3, 519-526.	4.7	27
27	First Demonstration of a Fully-Printed Mos2Rram on Flexible Substrate with Ultra-Low Switching Voltage and its Application as Electronic Synapse. , 2019, , .		8
28	Electronic-reconstruction-enhanced hydrogen evolution catalysis in oxide polymorphs. Nature Communications, 2019, 10, 3149.	12.8	42
29	A Fully Printed Flexible MoS₂ Memristive Artificial Synapse with Femtojoule Switching Energy. Advanced Electronic Materials, 2019, 5, 1900740.	5.1	123
30	Artificial Synapses Based on Multiterminal Memtransistors for Neuromorphic Application. Advanced Functional Materials, 2019, 29, 1901106.	14.9	192
31	Metalâ€“organic framework-derived hierarchical MoS₂/CoS₂ nanotube arrays as pH-universal electrocatalysts for efficient hydrogen evolution. Journal of Materials Chemistry A, 2019, 7, 13339-13346.	10.3	133
32	Nitrogen-Doped Cobalt Phosphide for Enhanced Hydrogen Evolution Activity. ACS Applied Materials & Interfaces, 2019, 11, 17359-17367.	8.0	40
33	Defect Engineering of Oxygenâ€Deficient Manganese Oxide to Achieve Highâ€Performing Aqueous Zinc Ion Battery. Advanced Energy Materials, 2019, 9, 1803815.	19.5	504
34	Ultrasensitive Flexible Strain Sensor based on Two-Dimensional InSe for Human Motion Surveillance. , 2019, , .		3
35	Strain and defect engineered monolayer Ni-MoS₂ for pH-universal hydrogen evolution catalysis. Nanoscale, 2019, 11, 18329-18337.	5.6	56
36	Direct n- to p-Type Channel Conversion in Monolayer/Few-Layer WS₂ Field-Effect Transistors by Atomic Nitrogen Treatment. ACS Nano, 2018, 12, 2506-2513.	14.6	107

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37	Simultaneous edge and electronic control of MoS₂ nanosheets through Fe doping for an efficient oxygen evolution reaction. Nanoscale, 2018, 10, 20113-20119.	5.6	63
38	Highly Stable New Organicâ€“Inorganic Hybrid 3D Perovskite CH₃NH₃PdI₃ and 2D Perovskite (CH₃NH₃)₃Pd₂I₇: DFT Analysis, Synthesis, Structure, Transition Behavior, and Physical Properties. Journal of Physical Chemistry Letters, 2018, 9, 5862-5872.	4.6	26
39	Boosted electrochemical properties from the surface engineering of ultrathin interlaced Ni(OH)₂ nanosheets with Co(OH)₂ quantum dot modification. Nanoscale, 2018, 10, 10554-10563.	5.6	44
40	Realizing Indirect-to-Direct Band Gap Transition in Few-Layer Two-Dimensional MX₂ (M =) Tj ETQq0 0 0 rgBT /Overlock 10 T	5.1	19
41	oâ€Benzenediolâ€Functionalized Carbon Nanosheets as Low Selfâ€Discharge Aqueous Supercapacitors. ChemSusChem, 2018, 11, 3307-3314.	6.8	27
42	Formaldehyde assisted reduction achieved p-type orthorhombic tin oxide film prepared by an inexpensive chemical method. Materials Research Express, 2017, 4, 116411.	1.6	2
43	Tuning deep dopants to shallow ones in 2D semiconductors by substrate screening: The case of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">X</mml:mi><mml:mi mathvariant="normal">S</mml:mi></mml:msub></mml:math> (X = Cl, Br, I) in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:	3.2	18
44	Physical Review B, 2017, 95, . Strain-Robust and Electric Field Tunable Band Alignments in van der Waals WSe₂â€“Graphene Heterojunctions. Journal of Physical Chemistry C, 2016, 120, 22702-22709.	3.1	34
45	Effect of spin orbit coupling on formation of native defects in Weyl fermion semimetals: The case of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>T</mml:mi><mml:mi>X</mml:mi></mml:mrow></mml:ma <mml:math		

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55	Significant improvement in electronic properties of transparent amorphous indium zinc oxide through yttrium doping. Europhysics Letters, 2014, 106, 17006.	2.0	3
56	Selection guidelines for ionic dielectrics with gigantic dielectric response (GDR) based on polaronic phase transition criteria. Materials Research Society Symposia Proceedings, 2013, 1535, 6701.	0.1	0
57	First-principles investigation of nitrosyl formation in zirconia. Physical Review B, 2012, 85, .	3.2	5
58	Defects in codoped NiO with gigantic dielectric response. Physical Review B, 2009, 79, .	3.2	12
59	A universal theoretical approach for examining the efficiency of doping processes in semiconductors. Journal of Applied Physics, 2009, 105, 113711.	2.5	1
60	p -type conduction in unintentional carbon-doped ZnO thin films. Applied Physics Letters, 2007, 91, .	3.3	143
61	Control of p- and n-type conductivities in P doped ZnO thin films by using radio-frequency sputtering. Applied Physics Letters, 2006, 88, 132114.	3.3	52
62	Lattice dynamics and electrical properties of wurtzite ZnO determined by a density functional theory method. Journal of Crystal Growth, 2006, 287, 199-203.	1.5	37
63	Dopant Sources Choice for Formation of p-Type ZnO: Phosphorus Compound Sources.. ChemInform, 2005, 36, no.	0.0	0
64	Study on anomalous n-type conduction of P-doped ZnO using P2O5 dopant source. Applied Physics Letters, 2005, 86, 212105.	3.3	23
65	Study on p -type ZnO: a potential new source of solid state lighting. , 2005, 5941, 83.		0
66	Dopant Sources Choice for Formation of p-Type ZnO:â€‰ Phosphorus Compound Sources. Chemistry of Materials, 2005, 17, 852-855.	6.7	39