

Zhiyuan Zeng

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100
papers

14,656
citations

47
h-index

105
g-index

105
ext. papers

16,426
ext. citations

13.1
avg, IF

6.61
L-index

#	Paper	IF	Citations
100	Nitrogen-induced interfacial electronic structure of NiS ₂ /CoS ₂ with optimized water and hydrogen binding abilities for efficient alkaline hydrogen evolution electrocatalysis. <i>Journal of Materials Chemistry A</i> , 2022 , 10, 719-725	13	6
99	High-yield production of mono- or few-layer transition metal dichalcogenide nanosheets by an electrochemical lithium ion intercalation-based exfoliation method.. <i>Nature Protocols</i> , 2022 ,	18.8	16
98	In situ TEM visualization of LiF nanosheet formation on the cathode-electrolyte interphase (CEI) in liquid-electrolyte lithium-ion batteries. <i>Matter</i> , 2022 ,	12.7	10
97	A long-standing polarized electric field in TiO ₂ @BaTiO ₃ /CdS nanocomposite for effective photocatalytic hydrogen evolution. <i>Fuel</i> , 2022 , 314, 122758	7.1	4
96	Rational design of fly ash-based composites for sustainable lithium-ion battery anodes. <i>Electrochimica Acta</i> , 2022 , 410, 140035	6.7	2
95	InVO ₄ -based photocatalysts for energy and environmental applications. <i>Chemical Engineering Journal</i> , 2022 , 428, 131145	14.7	7
94	Self-Sacrifice Template Construction of Uniform Yolk-Shell ZnS@C for Superior Alkali-Ion Storage.. <i>Advanced Science</i> , 2022 , e2200247	13.6	3
93	Simultaneous electrochemical exfoliation and covalent functionalization of MoS membrane for ion sieving.. <i>Advanced Materials</i> , 2022 , e2201416	24	3
92	Transient Solid-State Laser Activation of Indium for High-Performance Reduction of CO to Formate.. <i>Small</i> , 2022 , e2201311	11	5
91	Stabilizing zinc anode via a chelation and desolvation electrolyte additive 2021 ,		23
90	Investigation into the Phase-Activity Relationship of MnO Nanomaterials toward Ozone-Assisted Catalytic Oxidation of Toluene. <i>Small</i> , 2021 , e2103052	11	5
89	High-Yield Exfoliation of Ultrathin 2D Ni Cr P S and Ni Cr P Se Nanosheets. <i>Small</i> , 2021 , 17, e2006866	11	2
88	A Safe Flexible Self-Powered Wristband System by Integrating Defective MnO Nanosheet-Based Zinc-Ion Batteries with Perovskite Solar Cells. <i>ACS Nano</i> , 2021 , 15, 10597-10608	16.7	33
87	Direct Detection and Visualization of the H Reaction Process in a VO Cathode for Aqueous Zinc-Ion Batteries. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 7076-7084	6.4	1
86	Self-Assembly of 2D Nanosheets into 1D Nanostructures for Sensing NO ₂ . <i>Small Structures</i> , 2021 , 2, 2108067	10.67	3
85	Recent Developments of Two-Dimensional Anode Materials and Their Composites in Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2021 , 4, 7440-7461	6.1	9
84	Recent advances in wearable self-powered energy systems based on flexible energy storage devices integrated with flexible solar cells. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 18887-18905	13	6

83	Gold-based nanoalloys: synthetic methods and catalytic applications. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 19025-19053	13	3
82	MnO ₂ -Based Materials for Environmental Applications. <i>Advanced Materials</i> , 2021 , 33, e2004862	24	90
81	Size-selective synthesis of platinum nanoparticles on transition-metal dichalcogenides for the hydrogen evolution reaction. <i>Chemical Communications</i> , 2021 , 57, 2879-2882	5.8	23
80	Emerging elemental two-dimensional materials for energy applications. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 18793-18817	13	3
79	ZnIn ₂ S ₄ -Based Photocatalysts for Energy and Environmental Applications.. <i>Small Methods</i> , 2021 , 5, e2100888	12.7	15
78	Highly efficient photocatalytic hydrogen evolution and simultaneous formaldehyde degradation over Z-scheme ZnIn ₂ S ₄ -NiO/BiVO ₄ hierarchical heterojunction under visible light irradiation. <i>Chemical Engineering Journal</i> , 2021 , 423, 130164	14.7	21
77	Periodic nanostructures: preparation, properties and applications. <i>Chemical Society Reviews</i> , 2021 , 50, 6423-6482	58.5	16
76	Investigation into the Phase Activity Relationship of MnO ₂ Nanomaterials toward Ozone-Assisted Catalytic Oxidation of Toluene (Small 50/2021). <i>Small</i> , 2021 , 17, 2170265	11	0
75	Intercalation and exfoliation chemistries of transition metal dichalcogenides. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 15417-15444	13	69
74	Exploration of Energy Storage Materials for Water Desalination via Next-Generation Capacitive Deionization. <i>Frontiers in Chemistry</i> , 2020 , 8, 415	5	8
73	Mn dopant induced high-valence Ni ³⁺ sites and oxygen vacancies for enhanced water oxidation. <i>Materials Chemistry Frontiers</i> , 2020 , 4, 1993-1999	7.8	14
72	Electrode roughness dependent electrodeposition of sodium at the nanoscale. <i>Nano Energy</i> , 2020 , 72, 104721	17.1	34
71	Printable Ink Design towards Customizable Miniaturized Energy Storage Devices 2020 , 2, 1041-1056		29
70	Electrochemical biosensing platforms on the basis of reduced graphene oxide and its composites with Au nanodots. <i>Analyst, The</i> , 2020 , 145, 3749-3756	5	4
69	Metallic 1T Phase Enabling MoS ₂ Nanodots as an Efficient Agent for Photoacoustic Imaging Guided Photothermal Therapy in the Near-Infrared-II Window. <i>Small</i> , 2020 , 16, e2004173	11	76
68	Stretchable transparent conductive elastomers for skin-integrated electronics. <i>Journal of Materials Chemistry C</i> , 2020 , 8, 15105-15111	7.1	8
67	Formation of two-dimensional transition metal oxide nanosheets with nanoparticles as intermediates. <i>Nature Materials</i> , 2019 , 18, 970-976	27	114
66	Crystallization of Morденite Platelets using Cooperative Organic Structure-Directing Agents. <i>Journal of the American Chemical Society</i> , 2019 , 141, 20155-20165	16.4	20

65	Liquid Cell TEM Study of Nucleation and Growth of Dendrites. <i>Microscopy and Microanalysis</i> , 2018 , 24, 250-251	0.5	
64	Surface-Confined Fabrication of Ultrathin Nickel Cobalt-Layered Double Hydroxide Nanosheets for High-Performance Supercapacitors. <i>Advanced Functional Materials</i> , 2018 , 28, 1803272	15.6	149
63	Visualization of Colloidal Nanocrystal Formation and Electrode-Electrolyte Interfaces in Liquids Using TEM. <i>Accounts of Chemical Research</i> , 2017 , 50, 1808-1817	24.3	31
62	Visualization of Electrochemical Reaction Dynamics in Liquids Using TEM. <i>Microscopy and Microanalysis</i> , 2017 , 23, 884-885	0.5	
61	Preparation of Single-Layer MoS(2x)Se2(1-x) and Mo(x)W(1-x)S2 Nanosheets with High-Concentration Metallic 1T Phase. <i>Small</i> , 2016 , 12, 1866-74	11	91
60	In Situ Study of Lithiation and Delithiation of MoS2 Nanosheets Using Electrochemical Liquid Cell Transmission Electron Microscopy. <i>Nano Letters</i> , 2015 , 15, 5214-20	11.5	115
59	Surface modification-induced phase transformation of hexagonal close-packed gold square sheets. <i>Nature Communications</i> , 2015 , 6, 6571	17.4	157
58	Liquid-phase epitaxial growth of two-dimensional semiconductor hetero-nanostructures. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 1841-5	16.4	79
57	Liquid-Phase Epitaxial Growth of Two-Dimensional Semiconductor Hetero-nanostructures. <i>Angewandte Chemie</i> , 2015 , 127, 1861-1865	3.6	22
56	Visualization of electrode-electrolyte interfaces in LiPF6/EC/DEC electrolyte for lithium ion batteries via in situ TEM. <i>Nano Letters</i> , 2014 , 14, 1745-50	11.5	252
55	Growth of noble metal nanoparticles on single-layer TiS2 and TaS2 nanosheets for hydrogen evolution reaction. <i>Energy and Environmental Science</i> , 2014 , 7, 797-803	35.4	292
54	Preparation of MoS2/MoO3 Hybrid Nanomaterials for Light-Emitting Diodes. <i>Angewandte Chemie</i> , 2014 , 126, 12768-12773	3.6	30
53	Preparation of MoS2-MoO3 hybrid nanomaterials for light-emitting diodes. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 12560-5	16.4	62
52	TaS2 nanosheet-based room-temperature dosage meter for nitric oxide. <i>APL Materials</i> , 2014 , 2, 092506	5.7	12
51	In situ TEM study of the Li-Au reaction in an electrochemical liquid cell. <i>Faraday Discussions</i> , 2014 , 176, 95-107	3.6	47
50	Atomic-layer-deposition-assisted formation of carbon nanoflakes on metal oxides and energy storage application. <i>Small</i> , 2014 , 10, 300-7	11	56
49	Synthesis of free-standing metal sulfide nanoarrays via anion exchange reaction and their electrochemical energy storage application. <i>Small</i> , 2014 , 10, 766-73	11	367
48	A Solution-Processed Hole Extraction Layer Made from Ultrathin MoS2 Nanosheets for Efficient Organic Solar Cells. <i>Advanced Energy Materials</i> , 2013 , 3, 1262-1268	21.8	203

47	A novel graphene-polysulfide anode material for high-performance lithium-ion batteries. <i>Scientific Reports</i> , 2013 , 3, 2341	4.9	66
46	Three-dimensional graphene foam supported FeO lithium battery anodes with long cycle life and high rate capability. <i>Nano Letters</i> , 2013 , 13, 6136-43	11.5	670
45	A facile, relative green, and inexpensive synthetic approach toward large-scale production of SnS ₂ nanoplates for high-performance lithium-ion batteries. <i>Nanoscale</i> , 2013 , 5, 1456-9	7.7	158
44	Memory devices using a mixture of MoS ₂ and graphene oxide as the active layer. <i>Small</i> , 2013 , 9, 727-31	11	130
43	Metal dichalcogenide nanosheets: preparation, properties and applications. <i>Chemical Society Reviews</i> , 2013 , 42, 1934-46	58.5	1595
42	Synthesis of few-layer MoS ₂ nanosheet-coated TiO ₂ nanobelt heterostructures for enhanced photocatalytic activities. <i>Small</i> , 2013 , 9, 140-7	11	1059
41	Investigation of MoS ₂ and graphene nanosheets by magnetic force microscopy. <i>ACS Nano</i> , 2013 , 7, 2842-9	16.7	105
40	Solution-phase epitaxial growth of noble metal nanostructures on dispersible single-layer molybdenum disulfide nanosheets. <i>Nature Communications</i> , 2013 , 4, 1444	17.4	658
39	Forest of gold nanowires: a new type of nanocrystal growth. <i>ACS Nano</i> , 2013 , 7, 2733-40	16.7	105
38	Single-layer MoS ₂ -based nanoprobe for homogeneous detection of biomolecules. <i>Journal of the American Chemical Society</i> , 2013 , 135, 5998-6001	16.4	874
37	Fabrication of metal oxide nanobranches on atomic-layer-deposited TiO ₂ nanotube arrays and their application in energy storage. <i>Nanoscale</i> , 2013 , 5, 6040-7	7.7	77
36	One-step synthesis of Ni ₃ S ₂ nanorod@Ni(OH) ₂ nanosheet core-shell nanostructures on a three-dimensional graphene network for high-performance supercapacitors. <i>Energy and Environmental Science</i> , 2013 , 6, 2216-2221	35.4	503
35	Three-dimensional graphene network composites for detection of hydrogen peroxide. <i>Small</i> , 2013 , 9, 1703-7	11	99
34	Formation of monometallic Au and Pd and bimetallic AuPd nanoparticles confined in mesopores via Ar glow-discharge plasma reduction and their catalytic applications in aerobic oxidation of benzyl alcohol. <i>Journal of Catalysis</i> , 2012 , 289, 105-117	7.3	139
33	Hollow core-shell nanostructure supercapacitor electrodes: gap matters. <i>Energy and Environmental Science</i> , 2012 , 5, 9085	35.4	169
32	A general method for the large-scale synthesis of uniform ultrathin metal sulphide nanocrystals. <i>Nature Communications</i> , 2012 , 3, 1177	17.4	334
31	Induced coiling action: exploring the intrinsic defects in five-fold twinned silver nanowires. <i>ACS Nano</i> , 2012 , 6, 6033-9	16.7	21
30	Integrated photoelectrochemical energy storage: solar hydrogen generation and supercapacitor. <i>Scientific Reports</i> , 2012 , 2, 981	4.9	75

29	Graphene-based electrodes. <i>Advanced Materials</i> , 2012 , 24, 5979-6004	24	756
28	An Effective Method for the Fabrication of Few-Layer-Thick Inorganic Nanosheets. <i>Angewandte Chemie</i> , 2012 , 124, 9186-9190	3.6	31
27	An effective method for the fabrication of few-layer-thick inorganic nanosheets. <i>Angewandte Chemie - International Edition</i> , 2012 , 51, 9052-6	16.4	453
26	Preparation of MoS ₂ /polyvinylpyrrolidone nanocomposites for flexible nonvolatile rewritable memory devices with reduced graphene oxide electrodes. <i>Small</i> , 2012 , 8, 3517-22	11	337
25	Fabrication of flexible MoS ₂ thin-film transistor arrays for practical gas-sensing applications. <i>Small</i> , 2012 , 8, 2994-9	11	725
24	Electrochemically reduced single-layer MoS ₂ nanosheets: characterization, properties, and sensing applications. <i>Small</i> , 2012 , 8, 2264-70	11	333
23	Fabrication of graphene nanomesh by using an anodic aluminum oxide membrane as a template. <i>Advanced Materials</i> , 2012 , 24, 4138-42	24	169
22	Controlling reversible elastic deformation of carbon nanotube rings. <i>Journal of the American Chemical Society</i> , 2011 , 133, 9654-7	16.4	43
21	Hierarchical protonated titanate nanostructures for lithium-ion batteries. <i>Nanoscale</i> , 2011 , 3, 4074-7	7.7	32
20	Cobalt Oxide Nanowall Arrays on Reduced Graphene Oxide Sheets with Controlled Phase, Grain Size, and Porosity for Li-Ion Battery Electrodes. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 8400-8406	3.8	181
19	Graphene oxide as a carbon source for controlled growth of carbon nanowires. <i>Small</i> , 2011 , 7, 1199-202	11	72
18	Single-Layer Semiconducting Nanosheets: High-Yield Preparation and Device Fabrication. <i>Angewandte Chemie</i> , 2011 , 123, 11289-11293	3.6	183
17	Single-layer semiconducting nanosheets: high-yield preparation and device fabrication. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 11093-7	16.4	1349
16	Controlled Synthesis of Hollow Hemispheric ZnO Shells/Cages on Graphite Fiber. <i>ISRN Nanotechnology</i> , 2011 , 2011, 1-5		
15	Electrochemical deposition of Pt nanoparticles on carbon nanotube patterns for glucose detection. <i>Analyst, The</i> , 2010 , 135, 1726-30	5	44
14	Electrochemical investigation on nanoflower-like CuO/Ni composite film as anode for lithium ion batteries. <i>Electrochimica Acta</i> , 2009 , 54, 1160-1165	6.7	92
13	Electrochemical investigation on silicon/titanium carbide nanocomposite film anode for Li-ion batteries. <i>Thin Solid Films</i> , 2009 , 517, 4767-4771	2.2	17
12	Nickel Foam-Supported Porous NiO/Ag Film Electrode for Lithium-Ion Batteries. <i>Journal of the Electrochemical Society</i> , 2008 , 155, A438	3.9	68

11	Electrochemical Properties of a Mesoporous Si/TiO ₂ Nanocomposite Film Anode for Lithium-Ion Batteries. <i>Electrochemical and Solid-State Letters</i> , 2008 , 11, A105		19
10	Electrochemical performance of ZnO nanoplates as anode materials for Ni/Zn secondary batteries. <i>Journal of Power Sources</i> , 2008 , 179, 395-400	8.9	100
9	Electrochemical performances of nanostructured Ni ₃ P/Ni films electrodeposited on nickel foam substrate. <i>Journal of Power Sources</i> , 2008 , 185, 519-525	8.9	47
8	Electrochemical properties of Si/LiTi ₂ O ₄ nanocomposite as anode materials for Li-ion secondary batteries. <i>Journal of Electroanalytical Chemistry</i> , 2008 , 616, 7-13	4.1	19
7	Nanostructured Si/TiC composite anode for Li-ion batteries. <i>Electrochimica Acta</i> , 2008 , 53, 2724-2728	6.7	36
6	Modification Strategies of Layered Double Hydroxides for Superior Supercapacitors. <i>Advanced Energy and Sustainability Research</i> , 2100183	1.6	1
5	Strategies of regulating Zn ²⁺ solvation structures for dendrite-free and side reaction-suppressed zinc-ion batteries. <i>Energy and Environmental Science</i> ,	35.4	36
4	Flexible electronics based on 2D transition metal dichalcogenides. <i>Journal of Materials Chemistry A</i> ,	13	9
3	Advanced Electron Energy Loss Spectroscopy for Battery Studies. <i>Advanced Functional Materials</i> , 2107190	5.6	0
2	Laser-induced graphene for environmental applications: progress and opportunities. <i>Materials Chemistry Frontiers</i> ,	7.8	12
1	Design of 3d transition metal anchored B ₅ N ₃ catalysts for electrochemical CO ₂ reduction to methane. <i>Journal of Materials Chemistry A</i> ,	13	4