

Jiantao Zai

List of Publications by Citations

Source: <https://exaly.com/author-pdf/1226877/jiantao-zai-publications-by-citations.pdf>

Version: 2024-04-25

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

109
papers

4,865
citations

42
h-index

67
g-index

116
ext. papers

5,555
ext. citations

8.6
avg, IF

5.74
L-index

#	Paper	IF	Citations
109	Highly efficient Ag ₂ O/Bi ₂ O ₃ /TiO ₂ p-n heterojunction photocatalysts with improved visible-light responsive activity. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 11698-705	9.5	224
108	Novel Bi ₂ S ₃ /Bi ₂ O ₂ CO ₃ heterojunction photocatalysts with enhanced visible light responsive activity and wastewater treatment. <i>Journal of Materials Chemistry A</i> , 2014 , 2, 4208	13	189
107	Bottom-up synthesis of high surface area mesoporous crystalline silicon and evaluation of its hydrogen evolution performance. <i>Nature Communications</i> , 2014 , 5, 3605	17.4	176
106	Utilizing the Space-Charge Region of the FeNi-LDH/CoP p-n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 11903-11909	16.4	163
105	Hierarchical Bi ₂ O ₂ CO ₃ microspheres with improved visible-light-driven photocatalytic activity. <i>CrystEngComm</i> , 2011 , 13, 4010	3.3	155
104	High stability and superior rate capability of three-dimensional hierarchical SnS ₂ microspheres as anode material in lithium ion batteries. <i>Journal of Power Sources</i> , 2011 , 196, 3650-3654	8.9	154
103	Co ₃ O ₄ nanorods/graphene nanosheets nanocomposites for lithium ion batteries with improved reversible capacity and cycle stability. <i>Journal of Power Sources</i> , 2012 , 202, 230-235	8.9	147
102	Dual conductive network-enabled graphene/SiO ₂ composite anode with high areal capacity for lithium-ion batteries. <i>Nano Energy</i> , 2014 , 6, 211-218	17.1	137
101	3D hierarchical FeSe ₂ microspheres: Controlled synthesis and applications in dye-sensitized solar cells. <i>Nano Energy</i> , 2015 , 15, 205-215	17.1	122
100	MnFe ₂ O ₄ -graphene nanocomposites with enhanced performances as anode materials for Li-ion batteries. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 3939-45	3.6	110
99	Highly active nanostructured CoS/CoS heterojunction electrocatalysts for aqueous polysulfide/iodide redox flow batteries. <i>Nature Communications</i> , 2019 , 10, 3367	17.4	106
98	Honeycomb-like metallic nickel selenide nanosheet arrays as binder-free electrodes for high-performance hybrid asymmetric supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 22527-22535	13	94
97	Ultrathin FeSe ₂ nanosheets: controlled synthesis and application as a heterogeneous catalyst in dye-sensitized solar cells. <i>Chemistry - A European Journal</i> , 2015 , 21, 4085-91	4.8	94
96	3D-hierarchical SnS ₂ micro/nano-structures: controlled synthesis, formation mechanism and lithium ion storage performances. <i>CrystEngComm</i> , 2012 , 14, 1364-1375	3.3	92
95	Polydopamine functionalized graphene/NiFe ₂ O ₄ nanocomposite with improving Li storage performances. <i>Nano Energy</i> , 2014 , 6, 51-58	17.1	85
94	Self-assembled heavy lanthanide orthovanadate architecture with controlled dimensionality and morphology. <i>Chemistry - A European Journal</i> , 2009 , 15, 1233-40	4.8	84
93	Regeneration of Metal Sulfides in the Delithiation Process: The Key to Cyclic Stability. <i>Advanced Energy Materials</i> , 2016 , 6, 1601056	21.8	83

92	3D hierarchical ZnIn ₂ S ₄ : The preparation and photocatalytic properties on water splitting. <i>International Journal of Hydrogen Energy</i> , 2012 , 37, 16986-16993	6.7	83
91	Electrospun carbon nanofibers with surface-attached platinum nanoparticles as cost-effective and efficient counter electrode for dye-sensitized solar cells. <i>Nano Energy</i> , 2015 , 11, 550-556	17.1	81
90	Boron-doped porous Si anode materials with high initial coulombic efficiency and long cycling stability. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 3022-3027	13	81
89	Crystallization of a perovskite film for higher performance solar cells by controlling water concentration in methyl ammonium iodide precursor solution. <i>Nanoscale</i> , 2016 , 8, 2693-703	7.7	81
88	Interfacial Study To Suppress Charge Carrier Recombination for High Efficiency Perovskite Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26445-54	9.5	77
87	Rationally designed n-n heterojunction with highly efficient solar hydrogen evolution. <i>ChemSusChem</i> , 2015 , 8, 1218-25	8.3	76
86	3D-hierarchical Cu ₃ SnS ₄ flowerlike microspheres: controlled synthesis, formation mechanism and photocatalytic activity for H ₂ evolution from water. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 4316	13	75
85	Conversion of Cu ₂ O nanocrystals into hollow Cu _{2-x} Se nanocages with the preservation of morphologies. <i>Chemical Communications</i> , 2006 , 4548-50	5.8	73
84	3D-hierarchical NiO/graphene nanosheet composites as anodes for lithium ion batteries with improved reversible capacity and cycle stability. <i>RSC Advances</i> , 2012 , 2, 3410	3.7	72
83	Nearly monodispersed In(OH) ₃ hierarchical nanospheres and nanocubes: tunable ligand-assisted synthesis and their conversion into hierarchical In ₂ O ₃ for gas sensing. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 735-745	13	71
82	Synthesis of 3-D Hierarchical Dendrites of Lead Chalcogenides in Large Scale via Microwave-Assistant Method. <i>Crystal Growth and Design</i> , 2007 , 7, 425-429	3.5	67
81	CoFeO-Graphene Nanocomposites Synthesized through An Ultrasonic Method with Enhanced Performances as Anode Materials for Li-ion Batteries. <i>Nano-Micro Letters</i> , 2014 , 6, 307-315	19.5	65
80	TiO ₂ coated urchin-like SnO ₂ microspheres for efficient dye-sensitized solar cells. <i>Nano Research</i> , 2014 , 7, 1154-1163	10	63
79	Rose-like I-doped BiOCl microspheres with enhanced visible light response: DFT calculation, synthesis and photocatalytic performance. <i>Journal of Hazardous Materials</i> , 2017 , 321, 464-472	12.8	62
78	Improved rate capability of Si/C composite anodes by boron doping for lithium-ion batteries. <i>Electrochemistry Communications</i> , 2013 , 36, 29-32	5.1	60
77	The role of Mott-Schottky heterojunctions in Ag-Ag ₈ SnS ₆ as counter electrodes in dye-sensitized solar cells. <i>ChemSusChem</i> , 2015 , 8, 817-20	8.3	54
76	Band gap-tunable (CuIn) _x Zn _{2(1-x)} S ₂ solid solutions: preparation and efficient photocatalytic hydrogen production from water under visible light without noble metals. <i>Journal of Materials Chemistry</i> , 2012 , 22, 23929		54
75	Three dimensional metal oxides/graphene composites and their applications in lithium ion batteries. <i>RSC Advances</i> , 2015 , 5, 8814-8834	3.7	51

74	Incorporation of Co into MoS ₂ /graphene nanocomposites: One effective way to enhance the cycling stability of Li/Na storage. <i>Journal of Power Sources</i> , 2018 , 373, 103-109	8.9	47
73	Rational design and fabrication of skeletal Cu ₇ S ₄ nanocages for efficient counter electrode in quantum dot-sensitized solar cells. <i>Nano Energy</i> , 2015 , 12, 186-196	17.1	46
72	Rice husk-derived hybrid lithium-ion capacitors with ultra-high energy. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 24502-24507	13	44
71	3D Hierarchical Co-Al Layered Double Hydroxides with Long-Term Stabilities and High Rate Performances in Supercapacitors. <i>Nano-Micro Letters</i> , 2017 , 9, 21	19.5	43
70	Silica Wastes to High-Performance Lithium Storage Materials: A Rational Designed Al ₂ O ₃ Coating Assisted Magnesiothermic Process. <i>Small</i> , 2016 , 12, 5281-5287	11	43
69	Control of the morphology and composition of yttrium fluoride via a salt-assisted hydrothermal method. <i>CrystEngComm</i> , 2010 , 12, 199-206	3.3	42
68	Atomically thin layered NiFe double hydroxides assembled 3D microspheres with promoted electrochemical performances. <i>Journal of Power Sources</i> , 2016 , 325, 675-681	8.9	42
67	Porous Si@C ball-in-ball hollow spheres for lithium-ion capacitors with improved energy and power densities. <i>Journal of Materials Chemistry A</i> , 2018 , 6, 21098-21103	13	42
66	Incorporation of plasmonic Au nanostars into photoanodes for high efficiency dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 545-551	13	41
65	The role of Mott-Schottky heterojunctions in PtCo-Cu ₂ ZnGeS ₄ as counter electrodes in dye-sensitized solar cells. <i>Chemical Communications</i> , 2015 , 51, 8950-3	5.8	39
64	Improving the catalytic performance of Ni ₃ S ₄ -PtCo heteronanorods via Mott-Schottky effect toward the reduction of iodine couples in dye-sensitized solar cells. <i>Electrochimica Acta</i> , 2017 , 241, 89-97	6.7	38
63	Well-defined CoSe@MoSe hollow heterostructured nanocubes with enhanced dissociation kinetics for overall water splitting. <i>Nanoscale</i> , 2020 , 12, 326-335	7.7	36
62	N-type hedgehog-like CuBi ₂ O ₄ hierarchical microspheres: room temperature synthesis and their photoelectrochemical properties. <i>CrystEngComm</i> , 2015 , 17, 4019-4025	3.3	35
61	A hierarchical CoFeS/reduced graphene oxide composite for highly efficient counter electrodes in dye-sensitized solar cells. <i>Dalton Transactions</i> , 2017 , 46, 9511-9516	4.3	35
60	Na ₂ Ge ₄ O ₉ nanoparticles encapsulated in 3D carbon networks with long-term stability and superior rate capability in lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 10552-10557	13	34
59	One-step construction of multi-doped nanoporous carbon-based nanoarchitecture as an advanced bifunctional oxygen electrode for Zn-Air batteries. <i>Applied Catalysis B: Environmental</i> , 2020 , 265, 118594	21.8	34
58	Direct growth of SnO ₂ nanorods on graphene as high capacity anode materials for lithium ion batteries. <i>RSC Advances</i> , 2013 , 3, 20573	3.7	32
57	Efficient Counter Electrode Manufactured from Ag ₂ S Nanocrystal Ink for Dye-Sensitized Solar Cells. <i>Chemistry - A European Journal</i> , 2015 , 21, 15153-7	4.8	32

56	Formation of NiFeO/Expanded Graphite Nanocomposites with Superior Lithium Storage Properties. <i>Nano-Micro Letters</i> , 2017 , 9, 34	19.5	31
55	Homogenously hexagonal prismatic AgBiS ₂ nanocrystals: controlled synthesis and application in quantum dot-sensitized solar cells. <i>CrystEngComm</i> , 2015 , 17, 1902-1905	3.3	31
54	Synthesis of Ni-doped NiO/RGONS nanocomposites with enhanced rate capabilities as anode materials for Li ion batteries. <i>CrystEngComm</i> , 2013 , 15, 6663	3.3	31
53	FeC nanoparticles encapsulated in highly crystalline porous graphite: salt-template synthesis and enhanced electrocatalytic oxygen evolution activity and stability. <i>Chemical Communications</i> , 2018 , 54, 3158-3161	5.8	30
52	Hierarchical Cu ₇ S ₄ nanotubes assembled by hexagonal nanoplates with high catalytic performance for quantum dot-sensitized solar cells. <i>Journal of Power Sources</i> , 2015 , 299, 212-220	8.9	29
51	Synergistically Enhanced Electrochemical Performance of NiS-PtX (X = Fe, Ni) Heteronanorods as Heterogeneous Catalysts in Dye-Sensitized Solar Cells. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 27607-27617	9.5	26
50	Efficient Ag ₈ GeS ₆ counter electrode prepared from nanocrystal ink for dye-sensitized solar cells. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 20359-20365	13	25
49	SnO ₂ /C composites fabricated by a biotemplating method from cotton and their electrochemical performances. <i>CrystEngComm</i> , 2014 , 16, 3318-3322	3.3	24
48	Dye-Sensitized Solar Cells Based on Porous Hollow Tin Oxide Nanofibers. <i>IEEE Transactions on Electron Devices</i> , 2015 , 62, 2027-2032	2.9	23
47	Glycerol-crosslinked PEDOT:PSS as bifunctional binder for Si anodes: Improved interfacial compatibility and conductivity. <i>Journal of Colloid and Interface Science</i> , 2020 , 565, 270-277	9.3	22
46	Fe doping promoted electrocatalytic N ₂ reduction reaction of 2H MoS ₂ . <i>Chinese Chemical Letters</i> , 2020 , 31, 2487-2490	8.1	21
45	Co stabilized metallic 1Td MoS ₂ monolayers: Bottom-up synthesis and enhanced capacitance with ultra-long cycling stability. <i>Materials Today Energy</i> , 2018 , 7, 10-17	7	21
44	Activation of Passive Nanofillers in Composite Polymer Electrolyte for Higher Performance Lithium-Ion Batteries. <i>Advanced Sustainable Systems</i> , 2017 , 1, 1700043	5.9	20
43	Catalyst-Free Decarboxylation of Carboxylic Acids and Deoxygenation of Alcohols by Electro-Induced Radical Formation. <i>Chemistry - A European Journal</i> , 2020 , 26, 3226-3230	4.8	20
42	Facile Synthesis of Porous Zn-Sn-O Nanocubes and Their Electrochemical Performances. <i>Nano-Micro Letters</i> , 2016 , 8, 174-181	19.5	20
41	High power and stable P-doped yolk-shell structured Si@C anode simultaneously enhancing conductivity and Li ⁺ diffusion kinetics. <i>Nano Research</i> , 2021 , 14, 1004-1011	10	20
40	Colloidal synthesis of wurtz-stannite Cu ₂ CdGeS ₄ nanocrystals with high catalytic activity toward iodine redox couples in dye-sensitized solar cells. <i>Chemical Communications</i> , 2016 , 52, 10866-9	5.8	19
39	Multi-functional NiS ₂ /FeS ₂ /N-doped carbon nanorods derived from metal-organic frameworks with fast reaction kinetics for high performance overall water splitting and lithium-ion batteries. <i>Journal of Power Sources</i> , 2019 , 436, 226857	8.9	19

38	Magnetite modified graphene nanosheets with improved rate performance and cyclic stability for Li ion battery anodes. <i>RSC Advances</i> , 2012 , 2, 4397	3.7	18
37	A candidate strategy to achieve high initial Coulombic efficiency and long cycle life of Si anode materials: exterior carbon coating on porous Si microparticles. <i>Materials Today Energy</i> , 2017 , 5, 299-304	7	17
36	The combination of intercalation and conversion reactions to improve the volumetric capacity of the cathode in LiB batteries. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 3618-3623	13	16
35	Hierarchical Cu ₂ Se nanotubes constructed by two-unit-cell-thick nanosheets: room-temperature synthesis and promoted electrocatalytic activity towards polysulfides. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 4790-4796	13	16
34	AgInxGa1-xS2 solid solution nanocrystals: synthesis, band gap tuning and photocatalytic activity. <i>CrystEngComm</i> , 2014 , 16, 10123-10130	3.3	16
33	Nanoscale control of grain boundary potential barrier, dopant density and filled trap state density for higher efficiency perovskite solar cells. <i>Information Materials</i> , 2020 , 2, 409-423	23.1	16
32	Cube-in-cube hollow Cu ₉ S ₅ nanostructures with enhanced photocatalytic activities in solar H ₂ evolution. <i>Chemistry - A European Journal</i> , 2014 , 20, 13576-82	4.8	14
31	Utilizing the Space-Charge Region of the FeNi-LDH/CoP p-n Junction to Promote Performance in Oxygen Evolution Electrocatalysis. <i>Angewandte Chemie</i> , 2019 , 131, 12029-12035	3.6	13
30	Si@SiOx/Graphene Nanosheets Composite: Ball Milling Synthesis and Enhanced Lithium Storage Performance. <i>Frontiers in Materials</i> , 2018 , 4,	4	13
29	Design and synthesis of the composites of multiporous NiMnO ₃ micro-nano structure spheres and graphene with alleviated side reaction and enhanced performances as anode materials for lithium ion batteries. <i>Journal of Alloys and Compounds</i> , 2017 , 716, 270-277	5.7	11
28	Chemical Coupled PEDOT:PSS/Si Electrode: Suppressed Electrolyte Consumption Enables Long-Term Stability. <i>Nano-Micro Letters</i> , 2021 , 13, 54	19.5	10
27	The fabrication of hollow cubic-like CuInS ₂ cages using Cu ₂ O crystals as sacrificing template. <i>Materials Chemistry and Physics</i> , 2013 , 143, 15-18	4.4	9
26	Fe _{1-x} Co _x S ₂ Solid Solutions with Tunable Energy Structures to Enhance the Performance of Triiodide Reduction in Dye-Sensitized Solar Cells. <i>ChemNanoMat</i> , 2018 , 4, 1043-1047	3.5	8
25	Controlled synthesis of monodispersed AgGaS ₂ 3D nanoflowers and the shape evolution from nanoflowers to colloids. <i>Journal of Solid State Chemistry</i> , 2011 , 184, 1227-1235	3.3	8
24	Self-Supported NaTi(PO) Nanorod Arrays: Balancing Na and Electron Kinetics via Optimized Carbon Coating for High-Power Sodium-Ion Capacitor. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 50388-50396	8.5	8
23	Cu ₂ CoGeS ₄ nanocrystals for high performance aqueous polysulfide/iodide redox flow batteries: enhanced selectively towards the electrocatalytic conversion of polysulfides. <i>Sustainable Energy and Fuels</i> , 2020 , 4, 2892-2899	5.8	7
22	Sandwiched Cu ₇ S ₄ @graphite felt electrode for high performance aqueous polysulfide/iodide redox flow batteries: Enhanced cycling stability and electrocatalytic dynamics of polysulfides. <i>Materials Chemistry and Physics</i> , 2020 , 250, 123143	4.4	6
21	Flower-like SnS composite with 3D pyrolyzed bacterial cellulose as the anode for lithium-ion batteries with ultralong cycle life and superior rate capability. <i>Dalton Transactions</i> , 2019 , 48, 833-838	4.3	6

20	Water Soluble CuInSe ₂ Nanoplates: Controlled Synthesis, Photoelectric Response and Electrocatalytic Reduction of Polysulfides. <i>ChemNanoMat</i> , 2015 , 1, 52-57	3.5	5
19	Donor-Acceptor Heterosystem-Functionalized Porous Hollow Carbon Microsphere for High-Performance Li-S Cathode Materials with S up to 93 wt. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 48872-48880	9.5	5
18	Photovoltaic Counter Electrodes: An Alternative Approach to Extend Light Absorption Spectra and Enhance Performance of Dye-Sensitized Solar Cells. <i>ChemPlusChem</i> , 2019 , 84, 241-246	2.8	5
17	AlO coated metal sulfides: one-pot synthesis and enhanced lithium storage stability via localized in situ conversion reactions. <i>Dalton Transactions</i> , 2017 , 46, 1260-1265	4.3	4
16	Carbon coated porous silicon flakes with high initial coulombic efficiency and long-term cycling stability for lithium ion batteries. <i>Sustainable Energy and Fuels</i> , 2019 , 3, 2361-2365	5.8	4
15	A Facile Synthesis of Urchin-Like ZnMn ₂ O ₄ Architectures with Enhanced Electrochemical Lithium Storage. <i>ChemistrySelect</i> , 2020 , 5, 1491-1495	1.8	4
14	Copper vacancy activated plasmonic Cu ₃ SnS ₄ for highly efficient photocatalytic hydrogen generation: Broad solar absorption, efficient charge separation and decreased HER overpotential. <i>Nano Research</i> , 2021 , 14, 3358-3364	10	4
13	Light absorption, photocarrier dynamic properties of hierarchical SnS ₂ microspheres and their performances on photodegradation of high concentration Rhodamine B. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2021 , 415, 113320	4.7	3
12	A highly efficient nano-graphite electron transport layer for high performance ZnO/Si solar cells. <i>Sustainable Energy and Fuels</i> , 2018 , 2, 820-826	5.8	2
11	Porous urchin-like 3D Co(II)Co(III) layered double hydroxides for high performance heterogeneous Fenton degradation. <i>CrystEngComm</i> , 2021 , 23, 1234-1242	3.3	2
10	Artificial cathode solid electrolyte interphase to endow highly stable lithium storage of FeF ₂ nanocrystals. <i>Science China Materials</i> , 1	7.1	2
9	Cube-in-Cube Hollow Cu ₉ S ₅ Nanostructures with Enhanced Photocatalytic Activities in Solar H ₂ Evolution. <i>Chemistry - A European Journal</i> , 2014 , 20, 13413-13413	4.8	1
8	Low cost, robust, environmentally friendly, wood supported 3D-hierarchical CuSnS for efficient solar powered steam generation.. <i>Journal of Colloid and Interface Science</i> , 2022 , 615, 707-715	9.3	1
7	Metal Oxide Nanocrystals and Their Properties for Application in Solar Cells 2014 , 671-707		1
6	Bioinspired Activation of N ₂ on Asymmetrical Coordinated Fe Grafted 1T MoS ₂ at Room Temperature <i>Chinese Journal of Chemistry</i> , 2021 , 39, 1898-1904	4.9	1
5	A sol-hydrothermal route to truncated tetragonal bipyramid nanocrystals and hierarchical hollow microspheres of anatase TiO ₂ for application in dye-sensitized solar cells. <i>RSC Advances</i> , 2016 , 6, 69798-69806	3.7	1
4	Interlocked 3D active carbon fibers and monolithic I-doped Bi ₂ O ₂ CO ₃ structure built by 2D face-to-face interaction: endowed with cycling stability and photocatalytic activity. <i>CrystEngComm</i> , 2021 , 23, 3204-3211	3.3	1
3	Morphology genetic 3D hierarchical SnO ₂ microstructures constructed by Sub 5 nm nanocrystals for highly sensitive ethanol-sensor. <i>Nanotechnology</i> , 2021 , 32,	3.4	1

- 2 Flow Electrochemistry Enables Microbial Atmospheric CO₂ Fixation via Coupling with Iodine-Mediated Organic Reactions. *ACS Sustainable Chemistry and Engineering*, **2022**, 10, 541-551 8.3 1
- 1 Photogenerated reactive oxygen species and hyperthermia by CuSnS nanoflakes for advanced photocatalytic and photothermal antibacterial therapy.. *Journal of Nanobiotechnology*, **2022**, 20, 195 9.4 1