

Jian-Bo Wu

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.

121
papers

7,904
citations

41
h-index

88
g-index

123
ext. papers

9,706
ext. citations

11.8
avg, IF

6.39
L-index

#	Paper	IF	Citations
121	Structural evolution of Pt-based oxygen reduction reaction electrocatalysts. <i>Chinese Journal of Catalysis</i> , 2022 , 43, 47-58	11.3	2
120	Single-site Pt-doped RuO hollow nanospheres with interstitial C for high-performance acidic overall water splitting.. <i>Science Advances</i> , 2022 , 8, eabl9271	14.3	14
119	Mastering the surface strain of platinum catalysts for efficient electrocatalysis. <i>Nature</i> , 2021 , 598, 76-81	50.4	37
118	Deposition of Atomically Thin Pt Shells on Amorphous Palladium Phosphide Cores for Enhancing the Electrocatalytic Durability. <i>ACS Nano</i> , 2021 , 15, 7348-7356	16.7	13
117	Highly Surface-Distorted Pt Superstructures for Multifunctional Electrocatalysis. <i>Nano Letters</i> , 2021 , 21, 5075-5082	11.5	6
116	Understanding of Strain-Induced Electronic Structure Changes in Metal-Based Electrocatalysts: Using Pd@Pt Core-Shell Nanocrystals as an Ideal Platform. <i>Small</i> , 2021 , 17, e2100559	11	6
115	Shape Transformation Mechanism of GalliumIndium Alloyed Liquid Metal Nanoparticles. <i>Advanced Materials Interfaces</i> , 2021 , 8, 2001874	4.6	7
114	High-performance diluted nickel nanoclusters decorating ruthenium nanowires for pH-universal overall water splitting. <i>Energy and Environmental Science</i> , 2021 , 14, 3194-3202	35.4	19
113	Atomistic Imaging of Competition between Surface Diffusion and Phase Transition during the Intermetallic Formation of Faceted Particles. <i>ACS Nano</i> , 2021 , 15, 5284-5293	16.7	4
112	Atomically Dispersed Indium Sites for Selective CO Electroreduction to Formic Acid. <i>ACS Nano</i> , 2021 , 15, 5671-5678	16.7	38
111	Heterostructure of ZnO Nanosheets/Zn with a Highly Enhanced Edge Surface for Efficient CO Electrochemical Reduction to CO. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 10837-10844	9.5	8
110	A Large-Scalable, Surfactant-Free, and Ultrastable Ru-Doped PtCo Oxygen Reduction Catalyst. <i>Nano Letters</i> , 2021 , 21, 6625-6632	11.5	10
109	Design of Highly Durable Core-Shell Catalysts by Controlling Shell Distribution Guided by In-Situ Corrosion Study. <i>Advanced Materials</i> , 2021 , 33, e2101511	24	3
108	Proton selective adsorption on PtNi nano-thorn array electrodes for superior hydrogen evolution activity. <i>Energy and Environmental Science</i> , 2021 , 14, 1594-1601	35.4	17
107	Manipulation of Electron Transfer between Pd and TiO for Improved Electrocatalytic Hydrogen Evolution Reaction Performance. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 27037-27044	9.5	6
106	Boosting Oxygen and Peroxide Reduction Reactions on PdCu Intermetallic Cubes. <i>ChemElectroChem</i> , 2020 , 7, 2614-2620	4.3	4
105	Strain-Induced Corrosion Kinetics at Nanoscale Are Revealed in Liquid: Enabling Control of Corrosion Dynamics of Electrocatalysis. <i>Chem</i> , 2020 , 6, 2257-2271	16.2	24

104	High-efficiency direct methane conversion to oxygenates on a cerium dioxide nanowires supported rhodium single-atom catalyst. <i>Nature Communications</i> , 2020 , 11, 954	17.4	70
103	Confinement Effect of Mesopores: In Situ Synthesis of Cationic Tungsten-Vacancies for a Highly Ordered Mesoporous Tungsten Phosphide Electrocatalyst. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 22741-22750	9.5	17
102	Real-Time Visualization of Solid-Phase Ion Migration Kinetics on Nanowire Monolayer. <i>Journal of the American Chemical Society</i> , 2020 , 142, 7968-7975	16.4	7
101	Butterfly Wing Inspired High Performance Infrared Detection with Spectral Selectivity. <i>Advanced Optical Materials</i> , 2020 , 8, 1901647	8.1	3
100	Lattice-mismatch-induced growth of ultrathin Pt shells with high-index facets for boosting oxygen reduction catalysis. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 16477-16486	13	12
99	Amorphous CrWO-Modified WO Nanowires with a Large Specific Surface Area and Rich Lewis Acid Sites: A Highly Efficient Catalyst for Oxidative Desulfurization. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 38140-38152	9.5	15
98	Reconsidering the Benchmarking Evaluation of Catalytic Activity in Oxygen Reduction Reaction. <i>IScience</i> , 2020 , 23, 101532	6.1	18
97	Vapor detection through dynamic process of molecule desorption from butterfly wings. <i>Pure and Applied Chemistry</i> , 2020 , 92, 223-232	2.1	1
96	Metal-Level Thermally Conductive yet Soft Graphene Thermal Interface Materials. <i>ACS Nano</i> , 2019 , 13, 11561-11571	16.7	117
95	Electrically Driven Interfacial Evaporation for High-Efficiency Steam Generation and Sterilization. <i>ACS Omega</i> , 2019 , 4, 16603-16611	3.9	11
94	Patterned Surfaces for Solar-Driven Interfacial Evaporation. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 7584-7590	9.5	36
93	Probing the dynamics of nanoparticle formation from a precursor at atomic resolution. <i>Science Advances</i> , 2019 , 5, eaau9590	14.3	29
92	A Non-Pt Electronically Coupled Semiconductor Heterojunction for Enhanced Oxygen Reduction Electrocatalytic Property. <i>ChemistrySelect</i> , 2019 , 4, 5264-5268	1.8	2
91	Visualization of fast hydrogen pump in core-shell nanostructured Mg@Pt through hydrogen-stabilized Mg ₃ Pt. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 14629-14637	13	30
90	High-Efficiency Superheated Steam Generation for Portable Sterilization under Ambient Pressure and Low Solar Flux. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 18466-18474	9.5	48
89	Magnetically-accelerated large-capacity solar-thermal energy storage within high-temperature phase-change materials. <i>Energy and Environmental Science</i> , 2019 , 12, 1613-1621	35.4	74
88	Self-propelled rotation of paper-based Leidenfrost rotor. <i>Applied Physics Letters</i> , 2019 , 114, 113703	3.4	6
87	Butterfly Wing Hears Sound: Acoustic Detection Using Biophotonic Nanostructure. <i>Nano Letters</i> , 2019 , 19, 2627-2633	11.5	17

86	Solar-driven high-temperature steam generation at ambient pressure. <i>Progress in Natural Science: Materials International</i> , 2019 , 29, 10-15	3.6	11
85	Ethylene glycol-based solar-thermal fluids dispersed with reduced graphene oxide.. <i>RSC Advances</i> , 2019 , 9, 10282-10288	3.7	9
84	A Paper-Like Inorganic Thermal Interface Material Composed of Hierarchically Structured Graphene/Silicon Carbide Nanorods. <i>ACS Nano</i> , 2019 , 13, 1547-1554	16.7	93
83	Strong Electronic Interaction of Amorphous Fe ₂ O ₃ Nanosheets with Single-Atom Pt toward Enhanced Carbon Monoxide Oxidation. <i>Advanced Functional Materials</i> , 2019 , 29, 1904278	15.6	32
82	Origin of Photocatalytic Activity in Ti ⁴⁺ /Ti ³⁺ Core-Shell Titanium Oxide Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 20949-20959	3.8	12
81	Fe containing MoO ₃ nanowires grown along the [110] direction and their fast selective adsorption of quasi-phenothiazine dyes. <i>CrystEngComm</i> , 2019 , 21, 5106-5114	3.3	6
80	Coalescence, Spreading, and Rebound of Two Water Droplets with Different Temperatures on a Superhydrophobic Surface. <i>ACS Omega</i> , 2019 , 4, 17615-17622	3.9	7
79	In Situ Transmission Electron Microscopy Study of Nanocrystal Formation for Electrocatalysis. <i>ChemNanoMat</i> , 2019 , 5, 1439-1455	3.5	7
78	Three-Dimensional Porous Solar-Driven Interfacial Evaporator for High-Efficiency Steam Generation under Low Solar Flux. <i>ACS Omega</i> , 2019 , 4, 3546-3555	3.9	39
77	An open thermo-electrochemical cell enabled by interfacial evaporation. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 6514-6521	13	27
76	Bubble-Enabled Underwater Motion of a Light-Driven Motor. <i>Small</i> , 2019 , 15, e1804959	11	11
75	Surface strategies for catalytic CO reduction: from two-dimensional materials to nanoclusters to single atoms. <i>Chemical Society Reviews</i> , 2019 , 48, 5310-5349	58.5	365
74	Pyroelectric Synthesis of Metal-BaTiO ₃ Hybrid Nanoparticles with Enhanced Pyrocatalytic Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2019 , 7, 2602-2609	8.3	16
73	Form-Stable Solar Thermal Heat Packs Prepared by Impregnating Phase-Changing Materials within Carbon-Coated Copper Foams. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 3417-3427	9.5	49
72	Plasmonic-Enhanced Oxygen Reduction Reaction of Silver/Graphene Electrocatalysts. <i>Nano Letters</i> , 2019 , 19, 1371-1378	11.5	49
71	Nanoscale kinetics of asymmetrical corrosion in core-shell nanoparticles. <i>Nature Communications</i> , 2018 , 9, 1011	17.4	64
70	Facets Matching of Platinum and Ferric Oxide in Highly Efficient Catalyst Design for Low-Temperature CO Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 15322-15327	9.5	8
69	AgPO electrocatalyst for oxygen reduction reaction: enhancement from positive charge.. <i>RSC Advances</i> , 2018 , 8, 5382-5387	3.7	3

68	Thermal conductivity of suspended few-layer MoS. <i>Nanoscale</i> , 2018 , 10, 2727-2734	7.7	46
67	Multimetallic AuPd@Pd@Pt core-interlayer-shell icosahedral electrocatalysts for highly efficient oxygen reduction reaction. <i>Science Bulletin</i> , 2018 , 63, 494-501	10.6	26
66	Neighboring Pt Atom Sites in an Ultrathin FePt Nanosheet for the Efficient and Highly CO-Tolerant Oxygen Reduction Reaction. <i>Nano Letters</i> , 2018 , 18, 5905-5912	11.5	58
65	Coupling Interface Constructions of MoS /Fe Ni S Heterostructures for Efficient Electrochemical Water Splitting. <i>Advanced Materials</i> , 2018 , 30, e1803151	24	163
64	Bioinspired Infrared Sensing Materials and Systems. <i>Advanced Materials</i> , 2018 , 30, e1707632	24	23
63	Clean water generation with switchable dispersion of multifunctional Fe ₃ O ₄ -reduced graphene oxide particles. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 422-429	3.6	18
62	Photothermally Enabled Pyro-Catalysis of a BaTiO Nanoparticle Composite Membrane at the Liquid/Air Interface. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 21246-21253	9.5	27
61	Coupling effects in 3D plasmonic structures templated by Morpho butterfly wings. <i>Nanoscale</i> , 2018 , 10, 533-537	7.7	7
60	Hydrogen evolution from silicon nanowire surfaces.. <i>RSC Advances</i> , 2018 , 8, 41657-41662	3.7	1
59	Combined In Situ and Ex Situ Study on Synthesis of Nanostructured Catalyst in Solid State. <i>Microscopy and Microanalysis</i> , 2018 , 24, 288-289	0.5	
58	Temperature effect and thermal impact in lithium-ion batteries: A review. <i>Progress in Natural Science: Materials International</i> , 2018 , 28, 653-666	3.6	282
57	Solar-driven interfacial evaporation. <i>Nature Energy</i> , 2018 , 3, 1031-1041	62.3	715
56	Bioinspired Color Change through Guided Reflection. <i>Advanced Optical Materials</i> , 2018 , 6, 1800464	8.1	0
55	Integrating plasmonic nanostructures with natural photonic architectures in Pd-modified butterfly wings for sensitive hydrogen gas sensing.. <i>RSC Advances</i> , 2018 , 8, 32395-32400	3.7	25
54	In Situ Vertical Growth of FeNi Layered Double-Hydroxide Arrays on FeNi Alloy Foil: Interfacial Layer Enhanced Electrocatalyst with Small Overpotential for Oxygen Evolution Reaction. <i>ACS Energy Letters</i> , 2018 , 3, 2357-2365	20.1	90
53	Intraoperative Raman-Guided Chemo-Photothermal Synergistic Therapy of Advanced Disseminated Ovarian Cancers. <i>Small</i> , 2018 , 14, e1801022	11	41
52	Waste heat recovery in an oscillating heat pipe using interfacial electrical double layers. <i>Applied Physics Letters</i> , 2018 , 112, 243903	3.4	5
51	PdCu alloy nanodendrites with tunable composition as highly active electrocatalysts for methanol oxidation. <i>RSC Advances</i> , 2017 , 7, 5800-5806	3.7	16

50	Oxygen Reduction Reaction: Tuning Surface Structure and Strain in PdPt CoreShell Nanocrystals for Enhanced Electrocatalytic Oxygen Reduction (Small 7/2017). <i>Small</i> , 2017 , 13,	11	2
49	Dissolution Kinetics of Oxidative Etching of Cubic and Icosahedral Platinum Nanoparticles Revealed by in Situ Liquid Transmission Electron Microscopy. <i>ACS Nano</i> , 2017 , 11, 1696-1703	16.7	65
48	Paper-based membranes on silicone floaters for efficient and fast solar-driven interfacial evaporation under one sun. <i>Journal of Materials Chemistry A</i> , 2017 , 5, 16359-16368	13	127
47	Enhancing the Photocatalytic Hydrogen Evolution Performance of a Metal/Semiconductor Catalyst through Modulation of the Schottky Barrier Height by Controlling the Orientation of the Interface. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 12494-12500	9.5	33
46	Platinum-Based Nanowires as Active Catalysts toward Oxygen Reduction Reaction: In Situ Observation of Surface-Diffusion-Assisted, Solid-State Oriented Attachment. <i>Advanced Materials</i> , 2017 , 29, 1703460	24	74
45	Vapor-Enabled Propulsion for Plasmonic Photothermal Motor at the Liquid/Air Interface. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12362-12365	16.4	29
44	Quantitative Analysis of Different Formation Modes of Platinum Nanocrystals Controlled by Ligand Chemistry. <i>Nano Letters</i> , 2017 , 17, 6146-6150	11.5	43
43	Dynamics of Transformation from Platinum Icosahedral Nanoparticles to Larger FCC Crystal at Millisecond Time Resolution. <i>Scientific Reports</i> , 2017 , 7, 17243	4.9	6
42	Floating rGO-based black membranes for solar driven sterilization. <i>Nanoscale</i> , 2017 , 9, 19384-19389	7.7	68
41	Dynamic tuning of optical absorbers for accelerated solar-thermal energy storage. <i>Nature Communications</i> , 2017 , 8, 1478	17.4	101
40	Ternary PtPdAg alloy nanoflowers for oxygen reduction reaction electrocatalysis. <i>CrystEngComm</i> , 2017 , 19, 6964-6971	3.3	18
39	Strain-induced Stranski-Krastanov growth of Pd@Pt core-shell hexapods and octapods as electrocatalysts for methanol oxidation. <i>Nanoscale</i> , 2017 , 9, 11077-11084	7.7	35
38	Tuning Surface Structure and Strain in Pd-Pt Core-Shell Nanocrystals for Enhanced Electrocatalytic Oxygen Reduction. <i>Small</i> , 2017 , 13, 1603423	11	76
37	Controllable assembly of Pd nanosheets: a solution for 2D materials storage. <i>CrystEngComm</i> , 2017 , 19, 3439-3444	3.3	10
36	Efficient Solar-Thermal Energy Harvest Driven by Interfacial Plasmonic Heating-Assisted Evaporation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 23412-8	9.5	109
35	In Situ Environmental TEM in Imaging Gas and Liquid Phase Chemical Reactions for Materials Research. <i>Advanced Materials</i> , 2016 , 28, 9686-9712	24	88
34	Substrateless Welding of Self-Assembled Silver Nanowires at Air/Water Interface. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 20483-90	9.5	32
33	Single-crystalline Pd square nanoplates enclosed by {100} facets on reduced graphene oxide for formic acid electro-oxidation. <i>Chemical Communications</i> , 2016 , 52, 14204-14207	5.8	23

32	Stably dispersed high-temperature Fe ₃ O ₄ /silicone-oil nanofluids for direct solar thermal energy harvesting. <i>Journal of Materials Chemistry A</i> , 2016 , 4, 17503-17511	13	35
31	Bioinspired Multifunctional Paper-Based rGO Composites for Solar-Driven Clean Water Generation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 14628-36	9.5	187
30	Bioinspired Bifunctional Membrane for Efficient Clean Water Generation. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 772-9	9.5	152
29	Fabrication and performance evaluation of flexible heat pipes for potential thermal control of foldable electronics. <i>Applied Thermal Engineering</i> , 2016 , 95, 445-453	5.8	33
28	In Situ Observation of Pt Icosahedral Nanoparticles Transformation into FCC Single Crystal. <i>Microscopy and Microanalysis</i> , 2016 , 22, 766-767	0.5	
27	In situ ETEM study of composition redistribution in Pt-Ni octahedral catalysts for electrochemical reduction of oxygen. <i>AIChE Journal</i> , 2016 , 62, 399-407	3.6	19
26	Epitaxial Growth of Multimetallic Pd@PtM (M = Ni, Rh, Ru) Core-Shell Nanoplates Realized by in Situ-Produced CO from Interfacial Catalytic Reactions. <i>Nano Letters</i> , 2016 , 16, 7999-8004	11.5	80
25	Facile synthesis of PtCu ₃ alloy hexapods and hollow nanoframes as highly active electrocatalysts for methanol oxidation. <i>CrystEngComm</i> , 2016 , 18, 7823-7830	3.3	13
24	Self-Heating Approach to the Fast Production of Uniform Metal Nanostructures. <i>ChemNanoMat</i> , 2016 , 2, 37-41	3.5	5
23	Growth of Au on Pt icosahedral nanoparticles revealed by low-dose in situ TEM. <i>Nano Letters</i> , 2015 , 15, 2711-5	11.5	90
22	Epitaxial Growth of Twinned Au-Pt Core-Shell Star-Shaped Decahedra as Highly Durable Electrocatalysts. <i>Nano Letters</i> , 2015 , 15, 7808-15	11.5	168
21	The impact of surface chemistry on the performance of localized solar-driven evaporation system. <i>Scientific Reports</i> , 2015 , 5, 13600	4.9	117
20	Enhancing Localized Evaporation through Separated Light Absorbing Centers and Scattering Centers. <i>Scientific Reports</i> , 2015 , 5, 17276	4.9	50
19	Ultrathin and stable AgAu alloy nanowires. <i>Science China Materials</i> , 2015 , 58, 595-602	7.1	11
18	Facile synthesis of Rh-Pd alloy nanodendrites as highly active and durable electrocatalysts for oxygen reduction reaction. <i>Nanoscale</i> , 2014 , 6, 7012-8	7.7	47
17	Platinum-based oxygen reduction electrocatalysts. <i>Accounts of Chemical Research</i> , 2013 , 46, 1848-57	24.3	774
16	Highly uniform platinum icosahedra made by hot injection-assisted GRAILS method. <i>Nano Letters</i> , 2013 , 13, 2870-4	11.5	150
15	Enhanced stability of (111)-surface-dominant core-shell nanoparticle catalysts towards the oxygen reduction reaction. <i>ChemSusChem</i> , 2013 , 6, 1888-92	8.3	18

14	Icosahedral platinum alloy nanocrystals with enhanced electrocatalytic activities. <i>Journal of the American Chemical Society</i> , 2012 , 134, 11880-3	16.4	445
13	In situ chemical vapor reaction in molten salts for preparation of platinum nanosheets via bubble breakage. <i>Journal of Materials Chemistry</i> , 2012 , 22, 12046		14
12	Surface lattice-engineered bimetallic nanoparticles and their catalytic properties. <i>Chemical Society Reviews</i> , 2012 , 41, 8066-74	58.5	215
11	Study of the Durability of Faceted Pt ₃ Ni Oxygen Reduction Electrocatalysts. <i>ChemCatChem</i> , 2012 , 4, 1572-1577	5.2	8
10	Shape and composition-controlled platinum alloy nanocrystals using carbon monoxide as reducing agent. <i>Nano Letters</i> , 2011 , 11, 798-802	11.5	407
9	Synthesis and electrocatalytic oxygen reduction properties of truncated octahedral Pt ₃ Ni nanoparticles. <i>Nano Research</i> , 2011 , 4, 72-82	10	72
8	Truncated octahedral Pt ₃ Ni oxygen reduction reaction electrocatalysts. <i>Journal of the American Chemical Society</i> , 2010 , 132, 4984-5	16.4	459
7	Synthesis and Oxygen Reduction Electrocatalytic Property of Platinum Hollow and Platinum-on-Silver Nanoparticles. <i>Chemistry of Materials</i> , 2010 , 22, 1098-1106	9.6	138
6	Electrochemical synthesis and catalytic property of sub-10 nm platinum cubic nanoboxes. <i>Nano Letters</i> , 2010 , 10, 1492-6	11.5	123
5	Supportless oxygen reduction electrocatalysts of CoCuPt hollow nanoparticles. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2010 , 368, 4261-74	3	10
4	General solution route for nanoplates of hexagonal oxide or hydroxide. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 11196-8	3.4	33
3	Stability of single-atom catalysts for electrocatalysis. <i>Journal of Materials Chemistry A</i> ,	13	7
2	Construction of 3D Conductive Network in Liquid Gallium with Enhanced Thermal and Electrical Performance. <i>Advanced Materials Technologies</i> , 2100970	6.8	3
1	Chemical Synthesis of Nanoscale Heterogeneous Catalysts 9-29		