Tao Yao

List of Publications by Year
in descending order

98 papers	19,179 citations	28274 55 h-index	34986 98 g-index
100 all docs	100 docs citations	100 times ranked	15969 citing authors

#	Article	IF	Citations
1	Single Cobalt Atoms with Precise Nâ€Coordination as Superior Oxygen Reduction Reaction Catalysts. Angewandte Chemie - International Edition, 2016, 55, 10800-10805.	13.8	1,836
2	Design of N-Coordinated Dual-Metal Sites: A Stable and Active Pt-Free Catalyst for Acidic Oxygen Reduction Reaction. Journal of the American Chemical Society, 2017, 139, 17281-17284.	13.7	1,220
3	Ionic Exchange of Metalâ€“Organic Frameworks to Access Single Nickel Sites for Efficient Electroreduction of CO₂. Journal of the American Chemical Society, 2017, 139, 8078-8081.	13.7	1,115
4	Single-Atom Pd₁/Graphene Catalyst Achieved by Atomic Layer Deposition: Remarkable Performance in Selective Hydrogenation of 1,3-Butadiene. Journal of the American Chemical Society, 2015, 137, 10484-10487.	13.7	905
5	Regulation of Coordination Number over Single Co Sites: Triggering the Efficient Electroreduction of CO₂. Angewandte Chemie - International Edition, 2018, 57, 1944-1948.	13.8	888
6	Engineering the electronic structure of single atom Ru sites via compressive strain boosts acidic water oxidation electrocatalysis. Nature Catalysis, 2019, 2, 304-313.	34.4	757
7	Vacancy-Induced Ferromagnetism of MoS₂ Nanosheets. Journal of the American Chemical Society, 2015, 137, 2622-2627.	13.7	659
8	Identification of single-atom active sites in carbon-based cobalt catalysts during electrocatalytic hydrogen evolution. Nature Catalysis, 2019, 2, 134-141.	34.4	629
9	Uncoordinated Amine Groups of Metalâ€“Organic Frameworks to Anchor Single Ru Sites as Chemoselective Catalysts toward the Hydrogenation of Quinoline. Journal of the American Chemical Society, 2017, 139, 9419-9422.	13.7	558
10	CoOOH Nanosheets with High Mass Activity for Water Oxidation. Angewandte Chemie - International Edition, 2015, 54, 8722-8727.	13.8	547
11	Synergistic effect of well-defined dual sites boosting the oxygen reduction reaction. Energy and Environmental Science, 2018, 11, 3375-3379.	30.8	528
12	Bottom-up precise synthesis of stable platinum dimers on graphene. Nature Communications, 2017, 8, 1070.	12.8	466
13	Enhanced Photoexcited Carrier Separation in Oxygenâ€Doped ZnIn₂S₄ Nanosheets for Hydrogen Evolution. Angewandte Chemie - International Edition, 2016, 55, 6716-6720.	13.8	454
14	Iridium single-atom catalyst on nitrogen-doped carbon for formic acid oxidation synthesized using a general hostâ€“guest strategy. Nature Chemistry, 2020, 12, 764-772.	13.6	452
15	Atomically dispersed iron hydroxide anchored on Pt for preferential oxidation of CO in H2. Nature, 2019, 565, 631-635.	27.8	423
16	Dynamic oxygen adsorption on single-atomic Ruthenium catalyst with high performance for acidic oxygen evolution reaction. Nature Communications, 2019, 10, 4849.	12.8	416
17	Singleâ€Site Active Cobaltâ€Based Photocatalyst with a Long Carrier Lifetime for Spontaneous Overall Water Splitting. Angewandte Chemie - International Edition, 2017, 56, 9312-9317.	13.8	393
18	Uncovering near-free platinum single-atom dynamics during electrochemical hydrogen evolution reaction. Nature Communications, 2020, 11, 1029.	12.8	379

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19	Single Cobalt Atoms with Precise Nâ€Coordination as Superior Oxygen Reduction Reaction Catalysts. Angewandte Chemie, 2016, 128, 10958-10963.	2.0	373
20	Atomic layer confined vacancies for atomic-level insights into carbon dioxide electroreduction. Nature Communications, 2017, 8, 14503.	12.8	365
21	Efficient and Robust Carbon Dioxide Electroreduction Enabled by Atomically Dispersed Sn<i>^{Î´}</i>⁺ Sites. Advanced Materials, 2019, 31, e1808135.	21.0	321
22	Atomicâ€Level Insight into Optimizing the Hydrogen Evolution Pathway over a Co₁â€N₄ Singleâ€Site Photocatalyst. Angewandte Chemie - International Edition, 2017, 56, 12191-12196.	13.8	269
23	Regulation of Coordination Number over Single Co Sites: Triggering the Efficient Electroreduction of CO₂. Angewandte Chemie, 2018, 130, 1962-1966.	2.0	244
24	Regulating the coordination environment of Co single atoms for achieving efficient electrocatalytic activity in CO2 reduction. Applied Catalysis B: Environmental, 2019, 240, 234-240.	20.2	224
25	Carbon Dioxide Electroreduction into Syngas Boosted by a Partially Delocalized Charge in Molybdenum Sulfide Selenide Alloy Monolayers. Angewandte Chemie - International Edition, 2017, 56, 9121-9125.	13.8	205
26	Efficient and Robust Hydrogen Evolution: Phosphorus Nitride Imide Nanotubes as Supports for Anchoring Single Ruthenium Sites. Angewandte Chemie - International Edition, 2018, 57, 9495-9500.	13.8	205
27	Unraveling the enzyme-like activity of heterogeneous single atom catalyst. Chemical Communications, 2019, 55, 2285-2288.	4.1	205
28	Unconventional CN vacancies suppress iron-leaching in Prussian blue analogue pre-catalyst for boosted oxygen evolution catalysis. Nature Communications, 2019, 10, 2799.	12.8	202
29	Understanding the Nature of the Kinetic Process in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>VO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>Metal-Insulator Transition. Physical Review Letters, 2010, 105, 226405.	7.8	171
30	Aligned Fe2TiO5-containing nanotube arrays with low onset potential for visible-light water oxidation. Nature Communications, 2014, 5, 5122.	12.8	161
31	Single Atomic Cerium Sites with a High Coordination Number for Efficient Oxygen Reduction in Proton-Exchange Membrane Fuel Cells. ACS Catalysis, 2021, 11, 3923-3929.	11.2	156
32	Carbon Dioxide Electroreduction into Syngas Boosted by a Partially Delocalized Charge in Molybdenum Sulfide Selenide Alloy Monolayers. Angewandte Chemie, 2017, 129, 9249-9253.	2.0	154
33	Atomically Precise Dinuclear Site Active toward Electrocatalytic CO₂ Reduction. Journal of the American Chemical Society, 2021, 143, 11317-11324.	13.7	153
34	Insights into Initial Kinetic Nucleation of Gold Nanocrystals. Journal of the American Chemical Society, 2010, 132, 7696-7701.	13.7	151
35	Simultaneous oxidative and reductive reactions in one system by atomic design. Nature Catalysis, 2021, 4, 134-143.	34.4	132
36	X-ray absorption fine structure spectroscopy in nanomaterials. Science China Materials, 2015, 58, 313-341.	6.3	112

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37	N-Coordinated Dual-Metal Single-Site Catalyst for Low-Temperature CO Oxidation. ACS Catalysis, 2020, 10, 2754-2761.	11.2	112
38	Cation-Exchange Induced Precise Regulation of Single Copper Site Triggers Room-Temperature Oxidation of Benzene. Journal of the American Chemical Society, 2020, 142, 12643-12650.	13.7	110
39	Single Iron Site Nanozyme for Ultrasensitive Glucose Detection. Small, 2020, 16, e2002343.	10.0	103
40	Oxyhydroxide Nanosheets with Highly Efficient Electronâ€“Hole Pair Separation for Hydrogen Evolution. Angewandte Chemie - International Edition, 2016, 55, 2137-2141.	13.8	99
41	Engineering the Electronic Structure of Submonolayer Pt on Intermetallic Pd₃Pb via Charge Transfer Boosts the Hydrogen Evolution Reaction. Journal of the American Chemical Society, 2019, 141, 19964-19968.	13.7	99
42	Singleâ€Site Active Cobaltâ€Based Photocatalyst with a Long Carrier Lifetime for Spontaneous Overall Water Splitting. Angewandte Chemie, 2017, 129, 9440-9445.	2.0	95
43	Substrate strain tunes operando geometric distortion and oxygen reduction activity of CuN2C2 single-atom sites. Nature Communications, 2021, 12, 6335.	12.8	95
44	Single Pt Atom with Highly Vacant d-Orbital for Accelerating Photocatalytic H₂ Evolution. ACS Applied Energy Materials, 2018, 1, 6082-6088.	5.1	93
45	Single Ni sites distributed on N-doped carbon for selective hydrogenation of acetylene. Chemical Communications, 2017, 53, 11568-11571.	4.1	88
46	High-Content Metallic 1T Phase in MoS₂-Based Electrocatalyst for Efficient Hydrogen Evolution. Journal of Physical Chemistry C, 2017, 121, 15071-15077.	3.1	85
47	Probing Nucleation Pathways for Morphological Manipulation of Platinum Nanocrystals. Journal of the American Chemical Society, 2012, 134, 9410-9416.	13.7	71
48	Hexane-Driven Icosahedral to Cuboctahedral Structure Transformation of Gold Nanoclusters. Journal of the American Chemical Society, 2012, 134, 17997-18003.	13.7	70
49	Ni-Doped Overlayer Hematite Nanotube: A Highly Photoactive Architecture for Utilization of Visible Light. Journal of Physical Chemistry C, 2012, 116, 24060-24067.	3.1	69
50	A Supported Nickel Catalyst Stabilized by a Surface Digging Effect for Efficient Methane Oxidation. Angewandte Chemie - International Edition, 2019, 58, 18388-18393.	13.8	69
51	Recover the activity of sintered supported catalysts by nitrogen-doped carbon atomization. Nature Communications, 2020, 11, 335.	12.8	69
52	Laser-assisted high-performance PtRu alloy for pH-universal hydrogen evolution. Energy and Environmental Science, 2022, 15, 102-108.	30.8	66
53	Synergetic enhancement of plasmonic hot-electron injection in Au cluster-nanoparticle/C₃N₄ for photocatalytic hydrogen evolution. Journal of Materials Chemistry A, 2017, 5, 19649-19655.	10.3	61
54	Coordination-Engineered Cuâ€“N_{<i>x</i>} Single-Site Catalyst for Enhancing Oxygen Reduction Reaction. ACS Applied Energy Materials, 2019, 2, 6497-6504.	5.1	58

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55	Strong Surface Hydrophilicity in Co-Based Electrocatalysts for Water Oxidation. ACS Applied Materials & Interfaces, 2017, 9, 26867-26873.	8.0	57
56	Ultrathin Nanosheets of Halfâ€Metallic Monoclinic Vanadium Dioxide with a Thermally Induced Phase Transition. Angewandte Chemie - International Edition, 2013, 52, 7554-7558.	13.8	52
57	Unidirectional Thermal Diffusion in Bimetallic Cu@Au Nanoparticles. ACS Nano, 2014, 8, 1886-1892.	14.6	48
58	Graphene Activating Room-Temperature Ferromagnetic Exchange in Cobalt-Doped ZnO Dilute Magnetic Semiconductor Quantum Dots. ACS Nano, 2014, 8, 10589-10596.	14.6	44
59	Ultrathin CoOOH Oxides Nanosheets Realizing Efficient Photocatalytic Hydrogen Evolution. Journal of Physical Chemistry C, 2015, 119, 26362-26366.	3.1	43
60	XAFS in dilute magnetic semiconductors. Dalton Transactions, 2013, 42, 13779.	3.3	42
61	Enhanced Photoexcited Carrier Separation in Oxygenâ€Doped ZnIn₂S₄ Nanosheets for Hydrogen Evolution. Angewandte Chemie, 2016, 128, 6828-6832.	2.0	42
62	Synergistic Modulation at Atomically Dispersed Fe/Au Interface for Selective CO₂ Electroreduction. Nano Letters, 2021, 21, 686-692.	9.1	41
63	Active Sites of Single-Atom Iron Catalyst for Electrochemical Hydrogen Evolution. Journal of Physical Chemistry Letters, 2020, 11, 6691-6696.	4.6	37
64	Atomicâ€Level Insight into Optimizing the Hydrogen Evolution Pathway over a Co₁â€N₄ Singleâ€Site Photocatalyst. Angewandte Chemie, 2017, 129, 12359-12364.	2.0	36
65	Atomic Filtration by Graphene Oxide Membranes to Access Atomically Dispersed Single Atom Catalysts. ACS Catalysis, 2020, 10, 10468-10475.	11.2	36
66	Surface Oxygen Injection in Tin Disulfide Nanosheets for Efficient CO2 Electroreduction to Formate and Syngas. Nano-Micro Letters, 2021, 13, 189.	27.0	36
67	Dualâ€Metal Sites Boosting Polarization of Nitrogen Molecules for Efficient Nitrogen Photofixation. Advanced Science, 2021, 8, 2100302.	11.2	32
68	Integration of plasmonic and amorphous effects in MoO_{3â^’x} spheres for efficient photoelectrochemical water oxidation. Journal of Materials Chemistry A, 2017, 5, 12022-12026.	10.3	28
69	Dynamic Surface Reconstruction of Single-Atom Bimetallic Alloy under <i>Operando</i> Electrochemical Conditions. Nano Letters, 2020, 20, 8319-8325.	9.1	28
70	Controllable synthesis of gold nanoparticles with ultrasmall size and high monodispersity via continuous supplement of precursor. Dalton Transactions, 2012, 41, 11725.	3.3	27
71	Realizing Ferromagnetic Coupling in Diluted Magnetic Semiconductor Quantum Dots. Journal of the American Chemical Society, 2014, 136, 1150-1155.	13.7	27
72	Oxyhydroxide Nanosheets with Highly Efficient Electronâ€"Hole Pair Separation for Hydrogen Evolution. Angewandte Chemie, 2016, 128, 2177-2181.	2.0	26

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73	<i>Operando</i>evidence of Cu⁺stabilization<i>via</i>a single-atom modifier for CO₂electroreduction. Journal of Materials Chemistry A, 2020, 8, 25970-25977.	10.3	26
74	Solvent Influence on the Role of Thiols in Growth of Thiols-Capped Au Nanocrystals. Journal of Physical Chemistry C, 2014, 118, 714-719.	3.1	25
75	Coupling confinement activating cobalt oxide ultra-small clusters for high-turnover oxygen evolution electrocatalysis. Journal of Materials Chemistry A, 2018, 6, 15684-15689.	10.3	25
76	Adsorption kinetic process of thiol ligands on gold nanocrystals. Nanoscale, 2013, 5, 11795.	5.6	23
77	A single palladium site catalyst as a bridge for converting homogeneous to heterogeneous in dimerization of terminal aryl acetylenes. Materials Chemistry Frontiers, 2018, 2, 1317-1322.	5.9	23
78	ZnO@S-doped ZnO core/shell nanocomposites for highly efficient solar water splitting. Journal of Power Sources, 2014, 269, 24-30.	7.8	22
79	Grain boundaries modulating active sites in RhCo porous nanospheres for efficient CO2 hydrogenation. Nano Research, 2018, 11, 2357-2365.	10.4	21
80	Regulating the Coordination Environment of Ruthenium Cluster Catalysts for the Alkaline Hydrogen Evolution Reaction. Journal of Physical Chemistry Letters, 2021, 12, 8016-8023.	4.6	21
81	Determination of the role of O vacancy in Co:ZnO magnetic film. Journal of Applied Physics, 2010, 108, .	2.5	20
82	A Supported Nickel Catalyst Stabilized by a Surface Digging Effect for Efficient Methane Oxidation. Angewandte Chemie, 2019, 131, 18559-18564.	2.0	20
83	Strong Niâ€“S Hybridization in a Crystalline NiS Electrocatalyst for Robust Acidic Oxygen Evolution. Journal of Physical Chemistry C, 2020, 124, 2756-2761.	3.1	20
84	Synergistically electronic tuning of metalloid CdSe nanorods for enhanced electrochemical CO2 reduction. Science China Materials, 2021, 64, 2997-3006.	6.3	20
85	High-Temperature Ferromagnetism of Hybrid Nanostructure Agâˆ’Zn0.92Co0.08O Dilute Magnetic Semiconductor. Journal of Physical Chemistry C, 2009, 113, 3581-3585.	3.1	17
86	Insight into Fe Activating One-Dimensional Î±-Ni(OH)₂ Nanobelts for Efficient Oxygen Evolution Reaction. Journal of Physical Chemistry C, 2021, 125, 20301-20308.	3.1	17
87	Modifying the Atomic and Electronic Structures of Gold Nanocrystals via Changing the Chain Length of <i>n</i>-Alkanethiol Ligands. Journal of Physical Chemistry C, 2012, 116, 24999-25003.	3.1	16
88	In Situ Investigation on Doping Effect in Co-Doped Tungsten Diselenide Nanosheets for Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2021, 125, 6229-6236.	3.1	16
89	Plasmon-assisted photocatalytic CO₂ reduction on Au decorated ZrO₂ catalysts. Dalton Transactions, 2021, 50, 6076-6082.	3.3	16
90	Mediating distribution of magnetic Co ions by Cr-codoping in (Co,Cr): ZnO thin films. Applied Physics Letters, 2010, 97, 042504.	3.3	15

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91	Dehydrogenation of Ethylene on Supported Palladium Nanoparticles: A Double View from Metal and Hydrocarbon Sides. Nanomaterials, 2020, 10, 1643.	4.1	14
92	Partial-surface-passivation strategy for transition-metal-based copperâ€"gold nanocage. Chemical Communications, 2016, 52, 6617-6620.	4.1	12
93	Relationship between Voltage Hysteresis and Voltage Decay in Lithium-Rich Layered Oxide Cathodes. Journal of Physical Chemistry C, 2021, 125, 16913-16920.	3.1	12
94	A reasonable approach for the generation of hollow icosahedral kernels in metal nanoclusters. Nature Communications, 2021, 12, 6186.	12.8	12
95	XAFS study on single-atomic-site Cu1/N-graphene catalyst for oxygen reduction reaction. Radiation Physics and Chemistry, 2020, 175, 108230.	2.8	11
96	Solvent-induced desorption of alkanethiol ligands from Au nanoparticles. Physical Chemistry Chemical Physics, 2016, 18, 15927-15933.	2.8	6
97	Frontispiece: Singleâ€Site Active Cobaltâ€Based Photocatalyst with a Long Carrier Lifetime for Spontaneous Overall Water Splitting. Angewandte Chemie - International Edition, 2017, 56, .	13.8	1
98	Frontispiz: Singleâ€Site Active Cobaltâ€Based Photocatalyst with a Long Carrier Lifetime for Spontaneous Overall Water Splitting. Angewandte Chemie, 2017, 129, .	2.0	0