Kun Jiang

List of Publications by Year
in descending order

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72 papers	9,198 citations	61857 43 h-index	95083 68 g-index
74 all docs	74 docs citations	74 times ranked	9799 citing authors

#	Article	IF	Citations
1	Reduced Mesoporous Co₃O₄ Nanowires as Efficient Water Oxidation Electrocatalysts and Supercapacitor Electrodes. Advanced Energy Materials, 2014, 4, 1400696.	10.2	852
2	Isolated Ni single atoms in graphene nanosheets for high-performance CO₂ reduction. Energy and Environmental Science, 2018, 11, 893-903.	15.6	811
3	Large-Scale and Highly Selective CO2 Electrocatalytic Reduction on Nickel Single-Atom Catalyst. Joule, 2019, 3, 265-278.	11.7	663
4	Metal ion cycling of Cu foil for selective Câ€“C coupling in electrochemical CO2 reduction. Nature Catalysis, 2018, 1, 111-119.	16.1	600
5	Highly selective oxygen reduction to hydrogen peroxide on transition metal single atom coordination. Nature Communications, 2019, 10, 3997.	5.8	528
6	Recent Advances in Electrochemical CO₂â€toâ€CO Conversion on Heterogeneous Catalysts. Advanced Materials, 2018, 30, e1802066.	11.1	397
7	B-Doped Pd Catalyst: Boosting Room-Temperature Hydrogen Production from Formic Acidâ€“Formate Solutions. Journal of the American Chemical Society, 2014, 136, 4861-4864.	6.6	364
8	Transition-Metal Single Atoms in a Graphene Shell as Active Centers for Highly Efficient Artificial Photosynthesis. CheM, 2017, 3, 950-960.	5.8	326
9	Boosting Formate Production in Electrocatalytic CO₂ Reduction over Wide Potential Window on Pd Surfaces. Journal of the American Chemical Society, 2018, 140, 2880-2889.	6.6	310
10	Electrocatalysis of formic acid on palladium and platinum surfaces: from fundamental mechanisms to fuel cell applications. Physical Chemistry Chemical Physics, 2014, 16, 20360-20376.	1.3	296
11	The Role of Defect Sites in Nanomaterials for Electrocatalytic Energy Conversion. CheM, 2019, 5, 1371-1397.	5.8	273
12	Confined local oxygen gas promotes electrochemical water oxidation to hydrogen peroxide. Nature Catalysis, 2020, 3, 125-134.	16.1	252
13	Fluoride-Induced Dynamic Surface Self-Reconstruction Produces Unexpectedly Efficient Oxygen-Evolution Catalyst. Nano Letters, 2019, 19, 530-537.	4.5	210
14	From HCOOH to CO at Pd Electrodes: A Surface-Enhanced Infrared Spectroscopy Study. Journal of the American Chemical Society, 2011, 133, 14876-14879.	6.6	207
15	Effects of Surface Roughness on the Electrochemical Reduction of CO₂ over Cu. ACS Energy Letters, 2020, 5, 1206-1214.	8.8	172
16	Catalyst Design for Electrochemical Oxygen Reduction toward Hydrogen Peroxide. Advanced Functional Materials, 2020, 30, 2003321.	7.8	170
17	Integrating Rh Species with NiFe-Layered Double Hydroxide for Overall Water Splitting. Nano Letters, 2020, 20, 136-144.	4.5	129
18	Li Electrochemical Tuning of Metal Oxide for Highly Selective CO₂ Reduction. ACS Nano, 2017, 11, 6451-6458.	7.3	123

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19	Ptâ€“CoP/C as an alternative PtRu/C catalyst for direct methanol fuel cells. Journal of Materials Chemistry A, 2016, 4, 18607-18613.	5.2	122
20	The Critical Role of Additive Sulfate for Stable Alkaline Seawater Oxidation on Nickelâ€Based Electrodes. Angewandte Chemie - International Edition, 2021, 60, 22740-22744.	7.2	108
21	Nanostructured palladium catalyst poisoning depressed by cobalt phosphide in the electro-oxidation of formic acid for fuel cells. Nano Energy, 2016, 30, 355-361.	8.2	107
22	Pdâ€“Cu/C electrocatalysts synthesized by one-pot polyol reduction toward formic acid oxidation: Structural characterization and electrocatalytic performance. International Journal of Hydrogen Energy, 2015, 40, 1726-1734.	3.8	97
23	Theoretical Investigations into Defected Graphene for Electrochemical Reduction of CO₂. ACS Sustainable Chemistry and Engineering, 2017, 5, 11080-11085.	3.2	93
24	Direct and continuous generation of pure acetic acid solutions via electrocatalytic carbon monoxide reduction. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	93
25	Electrocatalytic Activities of Oxygen Reduction Reaction on Pd/C and Pdâ€“B/C Catalysts. Journal of Physical Chemistry C, 2017, 121, 3416-3423.	1.5	91
26	Surfactant-Free Synthesis of Carbon-Supported Palladium Nanoparticles and Size-Dependent Hydrogen Production from Formic Acidâ€“Formate Solution. ACS Applied Materials & Interfaces, 2017, 9, 24678-24687.	4.0	91
27	Bioâ€Inspired Leafâ€Mimicking Nanosheet/Nanotube Heterostructure as a Highly Efficient Oxygen Evolution Catalyst. Advanced Science, 2015, 2, 1500003.	5.6	90
28	Facile synthesis of Ag@Pd satellitesâ€“Fe3O4 core nanocomposites as efficient and reusable hydrogenation catalysts. Chemical Communications, 2011, 47, 11924.	2.2	89
29	Mechanistic Analysis-Guided Pd-Based Catalysts for Efficient Hydrogen Production from Formic Acid Dehydrogenation. ACS Catalysis, 2020, 10, 3921-3932.	5.5	82
30	Manipulating the oxygen reduction reaction pathway on Pt-coordinated motifs. Nature Communications, 2022, 13, 685.	5.8	82
31	In situ spectroscopic investigation of CO accumulation and poisoning on Pd black surfaces in concentrated HCOOH. Journal of Power Sources, 2012, 199, 165-169.	4.0	80
32	Carbon supported Pd-Pt-Cu nanocatalysts for formic acid electrooxidation: Synthetic screening and componential functions. Applied Catalysis B: Environmental, 2014, 147, 185-192.	10.8	80
33	Electrocatalysis of Ethylene Glycol Oxidation on Bare and Bi-Modified Pd Concave Nanocubes in Alkaline Solution: An Interfacial Infrared Spectroscopic Investigation. ACS Catalysis, 2017, 7, 2033-2041.	5.5	77
34	Pdâ€“PdO Interface as Active Site for HCOOH Selective Dehydrogenation at Ambient Condition. Journal of Physical Chemistry C, 2018, 122, 2081-2088.	1.5	75
35	Small Addition of Boron in Palladium Catalyst, Big Improvement in Fuel Cellâ€™s Performance: What May Interfacial Spectroelectrochemistry Tell?. ACS Applied Materials & Interfaces, 2016, 8, 7133-7138.	4.0	71
36	Atomically Dispersed Highâ€Density Alâ€“N₄ Sites in Porous Carbon for Efficient Photodriven CO₂ Cycloaddition. Advanced Materials, 2021, 33, e2103186.	11.1	69

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37	Probing the enhanced methanol electrooxidation mechanism on platinum-metal oxide catalyst. Applied Catalysis B: Environmental, 2021, 280, 119393.	10.8	68
38	Production of C₂/C₃ Oxygenates from Planar Copper Nitride-Derived Mesoporous Copper via Electrochemical Reduction of CO₂. Chemistry of Materials, 2020, 32, 3304-3311.	3.2	64
39	Electrocatalysis over Graphene-Defect-Coordinated Transition-Metal Single-Atom Catalysts. CheM, 2018, 4, 194-195.	5.8	61
40	Silver Nanoparticles with Surface-Bonded Oxygen for Highly Selective CO₂ Reduction. ACS Sustainable Chemistry and Engineering, 2017, 5, 8529-8534.	3.2	58
41	Spectrometric Study of Electrochemical CO₂ Reduction on Pd and Pd-B Electrodes. ACS Catalysis, 2021, 11, 840-848.	5.5	56
42	The Critical Role of Additive Sulfate for Stable Alkaline Seawater Oxidation on Nickelâ€Based Electrodes. Angewandte Chemie, 2021, 133, 22922-22926.	1.6	53
43	Lithium Electrochemical Tuning for Electrocatalysis. Advanced Materials, 2018, 30, e1800978.	11.1	51
44	Resolving local reaction environment toward an optimized CO₂-to-CO conversion performance. Energy and Environmental Science, 2022, 15, 749-759.	15.6	48
45	Large-Scale, Low-Cost, and High-Efficiency Water-Splitting System for Clean H₂ Generation. ACS Applied Materials & Interfaces, 2019, 11, 3971-3977.	4.0	46
46	Carbon monoxide mediated chemical deposition of Pt or Pd quasi-monolayer on Au surfaces with superior electrocatalysis for ethanol oxidation in alkaline media. Chemical Communications, 2016, 52, 374-377.	2.2	39
47	Selective Reduction of CO₂ to CO on an Sb-Modified Cu Electrode: Spontaneous Fabrication and Physical Insight. ACS Catalysis, 2021, 11, 6846-6856.	5.5	37
48	Manganese Dioxide Coated Graphene Nanoribbons Supported Palladium Nanoparticles as an Efficient Catalyst for Ethanol Electrooxidation in Alkaline Media. Electrochimica Acta, 2016, 203, 91-98.	2.6	33
49	Electrochemical Hydrogen Peroxide Synthesis from Selective Oxygen Reduction over Metal Selenide Catalysts. Nano Letters, 2022, 22, 1257-1264.	4.5	33
50	Changing the Product Selectivity for Electrocatalysis of CO₂ Reduction Reaction on Plated Cu Electrodes. ChemCatChem, 2019, 11, 6139-6146.	1.8	31
51	Facile Aqueous Phase Synthesis of Carbon Supported B-doped Pt3Ni Nanocatalyst for Efficient Oxygen Reduction Reaction. Electrochimica Acta, 2017, 246, 242-250.	2.6	26
52	Enhanced Electrocatalysis of Ethanol on Dealloyed Pd-Ni-P Film in Alkaline Media: an Infrared Spectroelectrochemical Investigation. Electrochimica Acta, 2015, 162, 100-107.	2.6	23
53	Revisiting the Acetaldehyde Oxidation Reaction on a Pt Electrode by High-Sensitivity and Wide-Frequency Infrared Spectroscopy. Journal of Physical Chemistry Letters, 2020, 11, 8727-8734.	2.1	21
54	A comparative investigation of electrocatalysis at Pt monolayers on shape-controlled Au nanocrystals: facet effect versus strain effect. Journal of Materials Chemistry A, 2016, 4, 15845-15850.	5.2	19

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55	Nanoparticle-Assisted Niâ€“Co Binary Single-Atom Catalysts Supported on Carbon Nanotubes for Efficient Electroreduction of CO₂ to Syngas with Controllable CO/H₂ Ratios. ACS Applied Energy Materials, 2021, 4, 9572-9581.	2.5	19
56	Formic acid oxidation at palladium electrode in acidic media containing chloride anions: An in situ ATR-SEIRAS investigation. Journal of Electroanalytical Chemistry, 2017, 800, 77-81.	1.9	17
57	Facile preparation of Cu@Pt/rGO hybrids and their electrocatalytic activities for methanol oxidation. Electrochimica Acta, 2013, 107, 419-424.	2.6	16
58	Effect of total suspended solids and various treatment on rheological characteristics of municipal sludge. Research on Chemical Intermediates, 2018, 44, 5123-5138.	1.3	16
59	A convenient light initiated synthesis of silver and gold nanoparticles using a single source precursor. Chemical Communications, 2013, 49, 3991.	2.2	15
60	Local Coordination and Reactivity of a Pt Single-Atom Catalyst as Probed by Spectroelectrochemical and Computational Approaches. CCS Chemistry, 2021, 3, 241-251.	4.6	13
61	Boosting electrocatalytic oxidation of formic acid on SnO2-decorated Pd nanosheets. Journal of Catalysis, 2021, 399, 8-14.	3.1	11
62	Liquid-Phase-Deposited Silicon Oxide Film as a Mask for Single-Sided Texturing of Monocrystalline Si Wafers. ACS Applied Materials & Interfaces, 2014, 6, 1207-1212.	4.0	6
63	Dealloyed RuNiO_x as a robust electrocatalyst for the oxygen evolution reaction in acidic media. Dalton Transactions, 2021, 50, 5124-5127.	1.6	6
64	Electrocatalytic CO2 and HCOOH interconversion on Pd-based catalysts. , 2022, 1, 100007.		6
65	Synthesis and Performance Characterizations of Transition Metal Single Atom Catalyst for Electrochemical CO₂ Reduction. Journal of Visualized Experiments, 2018, , .	0.2	5
66	Simulation and Analysis of Flow Field in Sludge Anaerobic Digestion Reactor based on Computational Fluid Dynamics. International Journal of Chemical Reactor Engineering, 2018, 16, .	0.6	2
67	Highly band-selective meta-surfaces exhibiting perfect near infrared absorption and concurrent visible band sensing: A numerical study. Science China Technological Sciences, 2022, 65, 809-816.	2.0	1
68	(Invited) B-Doped Pd Catalyst to Boost Formate Production in Electrochemical CO2 Reduction. ECS Meeting Abstracts, 2018, , .	0.0	0
69	Applying Battery Tuning Method on Metal Oxide for Highly Selective CO2 Reduction. ECS Meeting Abstracts, 2018, , .	0.0	0
70	Metal Ion Cycling of Cu Foil for Selective C-C Coupling in Electrochemical CO2 Reduction. ECS Meeting Abstracts, 2018, , .	0.0	0
71	Designing Carbon-Based Materials for Effective Electrochemical Reduction of CO2. ECS Meeting Abstracts, 2018, , .	0.0	0
72	Selective Oxygen Reduction to Hydrogen Peroxide on Transition Metal Single Atom Coordination. ECS Meeting Abstracts, 2020, MA2020-02, 2855-2855.	0.0	0