Xiaochun Zhou

List of Publications by Year
in descending order

61 papers	3,388 citations	236925 25 h-index	144013 57 g-index
61 all docs	61 docs citations	61 times ranked	3660 citing authors

#	Article	IF	Citations
1	Performance improvement of air-breathing proton exchange membrane fuel cell (PEMFC) with a condensing-tower-like curved flow field. Chinese Chemical Letters, 2023, 34, 107441.	9.0	8
2	Plasma treated carbon paper electrode greatly improves the performance of iron-hydrogen battery for low-cost energy storage. Chinese Chemical Letters, 2022, 33, 1095-1099.	9.0	13
3	Highly flat and highly homogeneous carbon paper with ultra-thin thickness for high-performance proton exchange membrane fuel cell (PEMFC). Journal of Power Sources, 2022, 520, 230832.	7.8	15
4	Uncovering growth species of multivariate MOFs in liquid phase by mass spectrometry. Chinese Chemical Letters, 2022, 33, 3993-3998.	9.0	6
5	Highly Safe, Durable, Adaptable, and Flexible Fuel Cell Using Gel/Sponge Composite Material (Adv.) Tj ETQq1 1 0.784314 rgBT /Overlo	19.5	0
6	Determining factors in the growth of MOF single crystals unveiled by in situ interface imaging. CheM, 2022, 8, 1637-1657.	11.7	22
7	Highly Safe, Durable, Adaptable, and Flexible Fuel Cell Using Gel/Sponge Composite Material. Advanced Energy Materials, 2022, 12, .	19.5	6
8	Ultralight, Safe, Economical, and Portable Oxygen Generators with Low Energy Consumption Prepared by Air-Breathing Electrochemical Extraction. ACS Applied Materials & Interfaces, 2022, 14, 28114-28122.	8.0	2
9	One-step to prepare high-performance gas diffusion layer (GDL) with three different functional layers for proton exchange membrane fuel cells (PEMFCs). International Journal of Hydrogen Energy, 2022, 47, 25769-25779.	7.1	12
10	<i>In situ</i> self-doped biomass-derived porous carbon as an excellent oxygen reduction electrocatalyst for fuel cells and metalâ€“air batteries. Journal of Materials Chemistry A, 2021, 9, 14331-14343.	10.3	22
11	Singleâ€Nanoparticle Coulometry Method with High Sensitivity and High Throughput to Study the Electrochemical Activity and Oscillation of Single Nanocatalysts. Small, 2021, 17, e2007302.	10.0	7
12	Lowâ€Temperature Methanolâ€Water Reforming Over Alcohol Dehydrogenase and Immobilized Ruthenium Complex. ChemSusChem, 2021, 14, 3867-3875.	6.8	6
13	Well-Dispersed Nafion Array Prepared by the Freeze-Drying Method to Effectively Improve the Performance of Proton Exchange Membrane Fuel Cells. ACS Sustainable Chemistry and Engineering, 2021, 9, 16770-16777.	6.7	18
14	Flexible and Adaptable Fuel Cell Pack with High Energy Density Realized by a Bifunctional Catalyst. ACS Applied Materials & Interfaces, 2020, 12, 4473-4481.	8.0	19
15	All-solid-state passive direct methanol fuel cells with great orientation stability and high energy density based on solid methanol fuels. Journal of Power Sources, 2020, 450, 227669.	7.8	16
16	Hydrogen Generation from Catalytic Reforming of Paraformaldehyde and Water by Polymeric Bifunctional Catalysts Comprising Ruthenium and Sulfonic Acid Units. ChemPlusChem, 2020, 85, 1646-1654.	2.8	4
17	Second Sphere Ligand Promoted Organoiridium Catalysts for Methanol Dehydrogenation under Mild Conditions. ChemCatChem, 2020, 12, 4024-4028.	3.7	8
18	Immobilized iridium complexes for hydrogen evolution from formic acid dehydrogenation. Sustainable Energy and Fuels, 2020, 4, 2519-2526.	4.9	11

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19	Evolution of single nanobubbles through multi-state dynamics. Chinese Chemical Letters, 2020, 31, 2442-2446.	9.0	22
20	An ultra-thin, flexible, low-cost and scalable gas diffusion layer composed of carbon nanotubes for high-performance fuel cells. Journal of Materials Chemistry A, 2020, 8, 5986-5994.	10.3	43
21	Great improvement in the performance and lifetime of a fuel cell using a highly dense, well-ordered, and cone-shaped Nafion array. Journal of Materials Chemistry A, 2020, 8, 5489-5500.	10.3	34
22	Highly Distorted Platinum Nanorods for High-Efficiency Fuel Cell Catalysis. CCS Chemistry, 2020, 2, 401-412.	7.8	16
23	Critical importance of current collector property to the performance of flexible electrochemical power sources. Chinese Chemical Letters, 2019, 30, 1282-1288.	9.0	14
24	Dark-field spectroscopy: development, applications and perspectives in single nanoparticle catalysis. Journal of Physics Condensed Matter, 2019, 31, 473001.	1.8	23
25	Methanolâ€“Water Aqueousâ€Phase Reforming with the Assistance of Dehydrogenases at Nearâ€Room Temperature. ChemSusChem, 2018, 11, 864-871.	6.8	12
26	Cooperative communication within and between single nanocatalysts. Nature Chemistry, 2018, 10, 607-614.	13.6	95
27	Hydrogen Generation from <i>s</i>-Trioxane and Water Catalytic Reforming: A Solid Organic Hydrogen Carrier. ACS Applied Energy Materials, 2018, 1, 4860-4866.	5.1	9
28	Carbon Defect-Induced Reversible Carbonâ€“Oxygen Interfaces for Efficient Oxygen Reduction. ACS Applied Materials & Interfaces, 2018, 10, 39735-39744.	8.0	45
29	Revealing the Activity Distribution of a Single Nanocatalyst by Locating Single Nanobubbles with Super-Resolution Microscopy. Journal of Physical Chemistry Letters, 2018, 9, 5630-5635.	4.6	26
30	Imaging Catalytic Hotspots on Single Plasmonic Nanostructures via Correlated Super-Resolution and Electron Microscopy. ACS Nano, 2018, 12, 5570-5579.	14.6	89
31	Flexible and Lightweight Fuel Cell with High Specific Power Density. ACS Nano, 2017, 11, 5982-5991.	14.6	88
32	Imaging the Site-Specific Activity and Kinetics on a Single Nanomaterial by Microchamber Array. ACS Catalysis, 2017, 7, 3607-3614.	11.2	16
33	Hydrogen generation from glucose catalyzed by organoruthenium catalysts under mild conditions. Chemical Communications, 2017, 53, 4230-4233.	4.1	10
34	Hydrogen generation from methanol at near-room temperature. Chemical Science, 2017, 8, 7498-7504.	7.4	62
35	Nanobubbles: An Effective Way to Study Gas-Generating Catalysis on a Single Nanoparticle. Journal of the American Chemical Society, 2017, 139, 14277-14284.	13.7	71
36	Promotion of iridium complex catalysts for HCOOH dehydrogenation by trace oxygen. Kinetics and Catalysis, 2017, 58, 499-505.	1.0	8

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37	Highly Active Carbon Supported Pdâ€"Ag Nanofacets Catalysts for Hydrogen Production from HCOOH. ACS Applied Materials & Interfaces, 2016, 8, 20839-20848.	8.0	53
38	Multifunctions of Net Surface Charge in the Reaction on a Single Nanoparticle. Journal of Physical Chemistry C, 2016, 120, 16608-16616.	3.1	5
39	Massively Screening the Temporal Spectra of Single Nanoparticles to Uncover the Mechanism of Nanosynthesis. Small, 2016, 12, 5049-5057.	10.0	5
40	â€œHot spotsâ€•growth on single nanowire controlled by electric charge. Nanoscale, 2016, 8, 12029-12034.	5.6	6
41	Optical super-resolution microscopy and its applications in nano-catalysis. Nano Research, 2015, 8, 441-455.	10.4	22
42	Fluorescence enhancement on silver nanoplates at the single- and sub-nanoparticle level. Nanoscale, 2015, 7, 20132-20141.	5.6	21
43	Single-Molecule Kinetics Reveals a Hidden Surface Reaction Intermediate in Single-Nanoparticle Catalysis. Journal of Physical Chemistry C, 2014, 118, 26902-26911.	3.1	47
44	Insights into the promotion effect of macrocycle molecule on HCOOH electro-oxidation. Journal of Electroanalytical Chemistry, 2014, 734, 38-42.	3.8	2
45	Spatiotemporal catalytic dynamics within single nanocatalysts revealed by single-molecule microscopy. Chemical Society Reviews, 2014, 43, 1107-1117.	38.1	135
46	Single-Molecule Catalysis Mapping Quantifies Site-Specific Activity and Uncovers Radial Activity Gradient on Single 2D Nanocrystals. Journal of the American Chemical Society, 2013, 135, 1845-1852.	13.7	189
47	Scalable Parallel Screening of Catalyst Activity at the Single-Particle Level and Subdiffraction Resolution. ACS Catalysis, 2013, 3, 1448-1453.	11.2	62
48	How Does a Single Pt Nanocatalyst Behave in Two Different Reactions? A Single-Molecule Study. Nano Letters, 2012, 12, 1253-1259.	9.1	102
49	Quantitative super-resolution imaging uncovers reactivity patterns on single nanocatalysts. Nature Nanotechnology, 2012, 7, 237-241.	31.5	264
50	Available hydrogen from formic acid decomposed by rare earth elements promoted Pdâ€Au/C catalysts at low temperature. ChemSusChem, 2010, 3, 1379-1382.	6.8	110
51	Novel PdAu@Au/C Coreâ^'Shell Catalyst: Superior Activity and Selectivity in Formic Acid Decomposition for Hydrogen Generation. Chemistry of Materials, 2010, 22, 5122-5128.	6.7	226
52	Size-Dependent Catalytic Activity and Dynamics of Gold Nanoparticles at the Single-Molecule Level. Journal of the American Chemical Society, 2010, 132, 138-146.	13.7	499
53	Single-molecule fluorescence imaging of nanocatalytic processes. Chemical Society Reviews, 2010, 39, 4560.	38.1	152
54	Single-Molecule Electrocatalysis by Single-Walled Carbon Nanotubes. Nano Letters, 2009, 9, 3968-3973.	9.1	105

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55	Single-nanoparticle catalysis at single-turnover resolution. Chemical Physics Letters, 2009, 470, 151-157.	2.6	61
56	Platinum-macrocycle co-catalysts for electro-oxidation of formic acid. Journal of Power Sources, 2008, 179, 481-488.	7.8	41
57	The mechanism of formic acid electrooxidation on iron tetrasulfophthalocyanine-modified platinum electrode. Electrochemistry Communications, 2008, 10, 131-135.	4.7	23
58	High-quality hydrogen from the catalyzed decomposition of formic acid by Pdâ€“Au/C and Pdâ€“Ag/C. Chemical Communications, 2008, , 3540.	4.1	315
59	Platinum-macrocycle co-catalyst for electro-oxidation of formic acid. Electrochemistry Communications, 2007, 9, 1469-1473.	4.7	45
60	A new flow field and its two-dimension model for polymer electrolyte membrane fuel cells (PEMFCs). Journal of Power Sources, 2006, 158, 1209-1221.	7.8	14
61	Preparation and simulation of an additional catalyst layer for direct methanol fuel cell. Journal of Electroanalytical Chemistry, 2006, 588, 129-139.	3.8	6