Changpeng Liu

List of Publications by Year
in descending order

118 papers	11,005 citations	36303 51 h-index	30087 103 g-index
119 all docs	119 docs citations	119 times ranked	11016 citing authors

#	Article	IF	Citations
1	Recent advances in catalysts for direct methanol fuel cells. Energy and Environmental Science, 2011, 4, 2736.	30.8	868
2	Meso/Macroporous Nitrogenâ€Doped Carbon Architectures with Iron Carbide Encapsulated in Graphitic Layers as an Efficient and Robust Catalyst for the Oxygen Reduction Reaction in Both Acidic and Alkaline Solutions. Advanced Materials, 2015, 27, 2521-2527.	21.0	521
3	Chemically activating MoS2 via spontaneous atomic palladium interfacial doping towards efficient hydrogen evolution. Nature Communications, 2018, 9, 2120.	12.8	461
4	Surface Oxidized Cobalt-Phosphide Nanorods As an Advanced Oxygen Evolution Catalyst in Alkaline Solution. ACS Catalysis, 2015, 5, 6874-6878.	11.2	441
5	Climbing the Apex of the ORR Volcano Plot via Binuclear Site Construction: Electronic and Geometric Engineering. Journal of the American Chemical Society, 2019, 141, 17763-17770.	13.7	436
6	Microporous Framework Induced Synthesis of Single-Atom Dispersed Fe-N-C Acidic ORR Catalyst and Its in Situ Reduced Fe-N₄ Active Site Identification Revealed by X-ray Absorption Spectroscopy. ACS Catalysis, 2018, 8, 2824-2832.	11.2	433
7	Identification of binuclear Co2N5 active sites for oxygen reduction reaction with more than one magnitude higher activity than single atom CoN4 site. Nano Energy, 2018, 46, 396-403.	16.0	319
8	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
9	Singleâ€Atom Crâˆ’N₄ Sites Designed for Durable Oxygen Reduction Catalysis in Acid Media. Angewandte Chemie - International Edition, 2019, 58, 12469-12475.	13.8	307
10	An Effective Pdâ€“Ni₂P/C Anode Catalyst for Direct Formic Acid Fuel Cells. Angewandte Chemie - International Edition, 2014, 53, 122-126.	13.8	306
11	Engineering Energy Level of Metal Center: Ru Single-Atom Site for Efficient and Durable Oxygen Reduction Catalysis. Journal of the American Chemical Society, 2019, 141, 19800-19806.	13.7	288
12	Ni2P enhances the activity and durability of the Pt anode catalyst in direct methanol fuel cells. Energy and Environmental Science, 2014, 7, 1628.	30.8	235
13	Preferentially Engineering FeN₄ Edge Sites onto Graphitic Nanosheets for Highly Active and Durable Oxygen Electrocatalysis in Rechargeable Znâ€“Air Batteries. Advanced Materials, 2020, 32, e2004900.	21.0	235
14	Enhanced electrocatalytic performance for the hydrogen evolution reaction through surface enrichment of platinum nanoclusters alloying with ruthenium <i>in situ</i> embedded in carbon. Energy and Environmental Science, 2018, 11, 1232-1239.	30.8	230
15	Novel PdAu@Au/C Coreâˆ’Shell Catalyst: Superior Activity and Selectivity in Formic Acid Decomposition for Hydrogen Generation. Chemistry of Materials, 2010, 22, 5122-5128.	6.7	226
16	Recent development of methanol electrooxidation catalysts for direct methanol fuel cell. Journal of Energy Chemistry, 2018, 27, 1618-1628.	12.9	215
17	Metalâ€“Organic Framework-Induced Synthesis of Ultrasmall Encased NiFe Nanoparticles Coupling with Graphene as an Efficient Oxygen Electrode for a Rechargeable Znâ€“Air Battery. ACS Catalysis, 2016, 6, 6335-6342.	11.2	210
18	Fundamental understanding of the acidic oxygen evolution reaction: mechanism study and state-of-the-art catalysts. Nanoscale, 2020, 12, 13249-13275.	5.6	183

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19	Confined Ir single sites with triggered lattice oxygen redox: Toward boosted and sustained water oxidation catalysis. Joule, 2021, 5, 2164-2176.	24.0	183
20	Bridge Bonded Oxygen Ligands between Approximated FeN₄ Sites Confer Catalysts with High ORR Performance. Angewandte Chemie - International Edition, 2020, 59, 13923-13928.	13.8	176
21	Pyrolyzed Mâ€"N_x catalysts for oxygen reduction reaction: progress and prospects. Energy and Environmental Science, 2021, 14, 2158-2185.	30.8	170
22	Recent progress in hydrogen production from formic acid decomposition. International Journal of Hydrogen Energy, 2018, 43, 7055-7071.	7.1	155
23	Core-shell structured Ni12P5/Ni3(PO4)2 hollow spheres as difunctional and efficient electrocatalysts for overall water electrolysis. Applied Catalysis B: Environmental, 2017, 204, 486-496.	20.2	148
24	Discontinuously covered IrO₂â€"RuO₂@Ru electrocatalysts for the oxygen evolution reaction: how high activity and long-term durability can be simultaneously realized in the synergistic and hybrid nano-structure. Journal of Materials Chemistry A, 2017, 5, 17221-17229.	10.3	133
25	Ptâ€"CoP/C as an alternative PtRu/C catalyst for direct methanol fuel cells. Journal of Materials Chemistry A, 2016, 4, 18607-18613.	10.3	122
26	Controllable Synthesis of Pd Nanocatalysts for Direct Formic Acid Fuel Cell (DFAFC) Application:â€‰ From Pd Hollow Nanospheres to Pd Nanoparticles. Journal of Physical Chemistry C, 2007, 111, 17305-17310.	3.1	118
27	Selfâ€Healing Protonâ€Exchange Membranes Composed of Nafionâ€"Poly(vinyl alcohol) Complexes for Durable Direct Methanol Fuel Cells. Advanced Materials, 2018, 30, e1707146.	21.0	116
28	Ultrathin cobalt phosphide nanosheets as efficient bifunctional catalysts for a water electrolysis cell and the origin for cell performance degradation. Green Chemistry, 2016, 18, 2287-2295.	9.0	108
29	Reactant friendly hydrogen evolution interface based on di-anionic MoS2 surface. Nature Communications, 2020, 11, 1116.	12.8	108
30	Nanostructured palladium catalyst poisoning depressed by cobalt phosphide in the electro-oxidation of formic acid for fuel cells. Nano Energy, 2016, 30, 355-361.	16.0	107
31	Study of ruthenium oxide catalyst for electrocatalytic performance in oxygen evolution. Journal of Molecular Catalysis A, 2006, 247, 7-13.	4.8	106
32	Correlating Fe source with Fe-N-C active site construction: Guidance for rational design of high-performance ORR catalyst. Journal of Energy Chemistry, 2018, 27, 1668-1673.	12.9	104
33	Boosted Performance of Ir Species by Employing TiN as the Support toward Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2018, 10, 38117-38124.	8.0	100
34	Sulfur-Doped Nickel Phosphide Nanoplates Arrays: A Monolithic Electrocatalyst for Efficient Hydrogen Evolution Reactions. ACS Applied Materials & Interfaces, 2018, 10, 26303-26311.	8.0	97
35	Nanostructured PtRu/C catalyst promoted by CoP as an efficient and robust anode catalyst in direct methanol fuel cells. Nano Energy, 2015, 15, 462-469.	16.0	93
36	Highly polarized carbon nano-architecture as robust metal-free catalyst for oxygen reduction in polymer electrolyte membrane fuel cells. Nano Energy, 2018, 49, 23-30.	16.0	90

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37	COâ€Tolerant PEMFC Anodes Enabled by Synergistic Catalysis between Iridium Singleâ€Atom Sites and Nanoparticles. Angewandte Chemie - International Edition, 2021, 60, 26177-26183.	13.8	81
38	Selectively doping pyridinic and pyrrolic nitrogen into a 3D porous carbon matrix through template-induced edge engineering: enhanced catalytic activity towards the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 21709-21714.	10.3	76
39	Pdâ€"PdO Interface as Active Site for HCOOH Selective Dehydrogenation at Ambient Condition. Journal of Physical Chemistry C, 2018, 122, 2081-2088.	3.1	75
40	Rapid synthesis of a PtRu nano-sponge with different surface compositions and performance evaluation for methanol electrooxidation. Nanoscale, 2015, 7, 9467-9471.	5.6	71
41	Significantly enhanced oxygen reduction reaction performance of N-doped carbon by heterogeneous sulfur incorporation: synergistic effect between the two dopants in metal-free catalysts. Journal of Materials Chemistry A, 2016, 4, 7422-7429.	10.3	71
42	High activity of Pdâ€"WO3/C catalyst as anodic catalyst for direct formic acid fuel cell. Journal of Power Sources, 2011, 196, 2469-2474.	7.8	66
43	Nanoporous IrO₂ catalyst with enhanced activity and durability for water oxidation owing to its micro/mesoporous structure. Nanoscale, 2017, 9, 9291-9298.	5.6	66
44	Sulfonated Poly(arylene-co-naphthalimide)s Synthesized by Copolymerization of Primarily Sulfonated Monomer and Fluorinated Naphthalimide Dichlorides as Novel Polymers for Proton Exchange Membranes. Macromolecules, 2006, 39, 6425-6432.	4.8	65
45	Growth mechanism and active site probing of Fe₃C@N-doped carbon nanotubes/C catalysts: guidance for building highly efficient oxygen reduction electrocatalysts. Journal of Materials Chemistry A, 2015, 3, 21451-21459.	10.3	65
46	Pt nanoparticles supported on WO3/C hybrid materials and their electrocatalytic activity for methanol electro-oxidation. Journal of Power Sources, 2011, 196, 2621-2626.	7.8	63
47	Enhanced activity of Pt nano-crystals supported on a novel TiO2@N-doped C nano-composite for methanol oxidation reaction. Journal of Materials Chemistry, 2012, 22, 19718.	6.7	63
48	Strongly coupled Pt nanotubes/N-doped graphene as highly active and durable electrocatalysts for oxygen reduction reaction. Nano Energy, 2015, 13, 318-326.	16.0	62
49	Promotion effect of TiO2 on catalytic activity and stability of Pt catalyst for electrooxidation of methanol. Journal of Power Sources, 2012, 218, 93-99.	7.8	61
50	Nanostructured PtRu/C as Anode Catalysts Prepared in a Pseudomicroemulsion with Ionic Surfactant for Direct Methanol Fuel Cell. Journal of Physical Chemistry B, 2005, 109, 14325-14330.	2.6	59
51	The construction of nitrogen-doped graphitized carbonâ€"TiO2 composite to improve the electrocatalyst for methanol oxidation. Carbon, 2014, 72, 114-124.	10.3	58
52	Single passive direct methanol fuel cell supplied with pure methanol. Journal of Power Sources, 2011, 196, 2750-2753.	7.8	50
53	Atomic-level dispersed catalysts for PEMFCs: Progress and future prospects. EnergyChem, 2019, 1, 100018.	19.1	50
54	Recent developments of iridium-based catalysts for the oxygen evolution reaction in acidic water electrolysis. Journal of Materials Chemistry A, 2022, 10, 13170-13189.	10.3	47

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55	The enhancement effect of MoOx on Pd/C catalyst for the electrooxidation of formic acid. Electrochimica Acta, 2011, 56, 2051-2056.	5.2	46
56	Sea urchin-like Aucore@Pdshell electrocatalysts with high FAOR performance: Coefficient of lattice strain and electrochemical surface area. Applied Catalysis B: Environmental, 2020, 260, 118200.	20.2	46
57	Monocrystalline Ni₁₂P₅hollow spheres with ultrahigh specific surface areas as advanced electrocatalysts for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2016, 4, 9755-9759.	10.3	45
58	Platinum nanoparticles partially-embedded into carbon sphere surfaces: a low metal-loading anode catalyst with superior performance for direct methanol fuel cells. Journal of Materials Chemistry A, 2017, 5, 19857-19865.	10.3	45
59	High activity PtRu/C catalysts synthesized by a modified impregnation method for methanol electro-oxidation. Electrochimica Acta, 2009, 54, 7274-7279.	5.2	44
60	Cobalt phosphosulfide in the tetragonal phase: a highly active and durable catalyst for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2018, 6, 12353-12360.	10.3	43
61	Accelerated oxygen reduction on Fe/N/C catalysts derived from precisely-designed ZIF precursors. Nano Research, 2020, 13, 2420-2426.	10.4	41
62	Ni₂P Makes Application of the PtRu Catalyst Much Stronger in Direct Methanol Fuel Cells. ChemSusChem, 2015, 8, 3340-3347.	6.8	40
63	Bridge Bonded Oxygen Ligands between Approximated FeN₄ Sites Confer Catalysts with High ORR Performance. Angewandte Chemie, 2020, 132, 14027-14032.	2.0	40
64	Stabilized Pt Cluster-Based Catalysts Used as Low-Loading Cathode in Proton-Exchange Membrane Fuel Cells. ACS Energy Letters, 2020, 5, 3021-3028.	17.4	39
65	Nanocluster PtNiP supported on graphene as an efficient electrocatalyst for methanol oxidation reaction. Nano Research, 2021, 14, 2853-2860.	10.4	39
66	Metal organic framework derived nitrogen-doped carbon anchored palladium nanoparticles for ambient temperature formic acid decomposition. International Journal of Hydrogen Energy, 2019, 44, 28402-28408.	7.1	38
67	Recent advances in active sites identification and regulation of M-N/C electro-catalysts towards ORR. Science China Chemistry, 2019, 62, 669-683.	8.2	38
68	Activity of Platinum/Carbon and Palladium/Carbon Catalysts Promoted by Ni₂P in Direct Ethanol Fuel Cells. ChemSusChem, 2014, 7, 3374-3381.	6.8	37
69	Nitrogen-doped carbonâ€“graphene composites enhance the electrocatalytic performance of the supported Pt catalysts for methanol oxidation. Chemical Communications, 2014, 50, 12201-12203.	4.1	37
70	The enhanced electrocatalytic activity and stability of supported Pt nanopartciles for methanol electro-oxidation through the optimized oxidation degree of carbon nanotubes. Journal of Power Sources, 2015, 281, 34-43.	7.8	35
71	NiCo2O4 3 dimensional nanosheet as effective and robust catalyst for oxygen evolution reaction. RSC Advances, 2015, 5, 61900-61905.	3.6	35
72	Proton exchange membrane fuel cells powered with both CO and H ₂. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	33

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73	High-quality hydrogen generated from formic acid triggered by in situ prepared Pd/C catalyst for fuel cells. Catalysis Science and Technology, 2015, 5, 2581-2584.	4.1	31
74	Reconstructed PtFe Alloy Nanoparticles with Bulk-Surface Differential Structure for Methanol Oxidation. Electrochimica Acta, 2014, 139, 61-68.	5.2	30
75	Singleâ€Atom Crâˆ’N₄ Sites Designed for Durable Oxygen Reduction Catalysis in Acid Media. Angewandte Chemie, 2019, 131, 12599-12605.	2.0	29
76	Electrocatalytic activity of Pt/C catalysts for methanol electrooxidation promoted by molybdovanadophosphoric acid. Catalysis Communications, 2011, 14, 10-14.	3.3	28
77	Low-temperature synthesis of nitrogen doped carbon nanotubes as promising catalyst support for methanol oxidation. Journal of Energy Chemistry, 2019, 28, 118-122.	12.9	28
78	Enhanced activity of molybdovanadophosphoric acid modified Pt electrode for the electrooxidation of methanol. Journal of Electroanalytical Chemistry, 2012, 664, 14-19.	3.8	27
79	TePbPt alloy nanotube as electrocatalyst with enhanced performance towards methanol oxidation reaction. Journal of Materials Chemistry A, 2018, 6, 16798-16803.	10.3	25
80	Evidence for interfacial geometric interactions at metalâ€“support interfaces and their influence on the electroactivity and stability of Pt nanoparticles. Journal of Materials Chemistry A, 2020, 8, 1368-1377.	10.3	25
81	Titanium dioxide encapsulated in nitrogen-doped carbon enhances the activity and durability of platinum catalyst for Methanol electro-oxidation reaction. Journal of Power Sources, 2015, 292, 78-86.	7.8	24
82	Fe, Cu-codoped metal-nitrogen-carbon catalysts with high selectivity and stability for the oxygen reduction reaction. Chinese Chemical Letters, 2021, 32, 506-510.	9.0	23
83	Pt/C catalysts with narrow size distribution prepared by colloidal-precipitation method for methanol electrooxidation. Journal of Power Sources, 2012, 217, 280-286.	7.8	22
84	An ultralow-loading platinum alloy efficient ORR electrocatalyst based on the surface-contracted hollow structure. Chemical Engineering Journal, 2022, 428, 131569.	12.7	22
85	Superior electrocatalytic activity from nanodendritic structure consisting of a PtFe bimetallic core and Pt shell. Chemical Communications, 2015, 51, 3215-3218.	4.1	21
86	Active Pt₃Ni (111) Surface of Pt₃Ni Icosahedron for Oxygen Reduction. ACS Applied Materials & Interfaces, 2016, 8, 30066-30071.	8.0	21
87	Carbon monoxide powered fuel cell towards H2-onboard purification. Science Bulletin, 2021, 66, 1305-1311.	9.0	21
88	Mass transport in anode gas diffusion layer of direct methanol fuel cell derived from compression effect. Journal of Power Sources, 2019, 427, 120-128.	7.8	20
89	Activating the Pd-Based catalysts via tailoring reaction interface towards formic acid dehydrogenation. International Journal of Hydrogen Energy, 2020, 45, 17575-17582.	7.1	20
90	Modulating Crystallinity and Surface Electronic Structure of IrO₂ via Gadolinium Doping to Promote Acidic Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2021, 9, 10710-10716.	6.7	20

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91	Electrooxidation of COadIntermediated from Methanol Oxidation on Polycrystalline Pt Electrode. Journal of Physical Chemistry B, 2006, 110, 4802-4807.	2.6	18
92	Highly dispersed L10-PtZn intermetallic catalyst for efficient oxygen reduction. Science China Materials, 2021, 64, 1671-1678.	6.3	18
93	Simultaneously Engineering Electron Conductivity, Site Density and Intrinsic Activity of MoS₂ via the Cation and Anion Codoping Strategy. ACS Applied Materials & Interfaces, 2019, 11, 39782-39788.	8.0	16
94	Preparation of Pt hollow nanotubes with adjustable diameters for methanol electrooxidation. RSC Advances, 2014, 4, 21176.	3.6	14
95	Construction and Regulation of a Surface Protophilic Environment to Enhance Oxygen Reduction Reaction Electrocatalytic Activity. ACS Applied Materials & Interfaces, 2020, 12, 41269-41276.	8.0	13
96	Structural Advantage Induced by Sulfur to Boost the Catalytic Performance of FeNC Catalyst towards the Oxygen Reduction Reaction. ChemCatChem, 2018, 10, 3653-3658.	3.7	13
97	TiO2 inserted carbon materials with fine-tuned pore structure as effective model supports for electrocatalysts of fuel cells. Carbon, 2016, 98, 126-137.	10.3	12
98	Formic acid electro-oxidation: Mechanism and electrocatalysts design. Nano Research, 2023, 16, 3607-3621.	10.4	12
99	Nitrogen, Iron-codoped Mesoporous Carbon with bimodal-pores as an Efficient Catalyst for the Oxygen Reduction Reaction. Electrochimica Acta, 2016, 209, 551-556.	5.2	11
100	Advanced architecture carbon with in-situ embedded ultrafine titanium dioxide as outstanding support material for platinum catalysts towards methanol electrooxidation. Electrochimica Acta, 2017, 235, 508-518.	5.2	11
101	Micro Galvanic Cell To Generate PtO and Extend the Triple-Phase Boundary during Self-Assembly of Pt/C and Nafion for Catalyst Layers of PEMFC. ACS Applied Materials & Interfaces, 2017, 9, 38165-38169.	8.0	11
102	Highly active PtAu alloy surface towards selective formic acid electrooxidation. Journal of Energy Chemistry, 2019, 37, 157-162.	12.9	11
103	Modelâ€based design and optimization of the microscale mass transfer structure in the anode catalyst layer for direct methanol fuel cell. AIChE Journal, 2013, 59, 780-786.	3.6	9
104	Micro-Membrane Electrode Assembly Design to Precisely Measure the in Situ Activity of Oxygen Reduction Reaction Electrocatalysts for PEMFC. Analytical Chemistry, 2017, 89, 6309-6313.	6.5	9
105	COâ€Tolerant PEMFC Anodes Enabled by Synergistic Catalysis between Iridium Singleâ€Atom Sites and Nanoparticles. Angewandte Chemie, 2021, 133, 26381.	2.0	9
106	Enhancing mass transport in direct methanol fuel cell by optimizing the microstructure of anode microporous layer. AIChE Journal, 2018, 64, 3519-3528.	3.6	8
107	Recent advances in active sites identification and new Mâ^'Nâ^'C catalysts development towards ORR. JPhys Materials, 2021, 4, 044008.	4.2	7
108	Direct electrochemistry behavior of Cytochrome c on silicon dioxide nanoparticles-modified electrode. Science in China Series B: Chemistry, 2007, 50, 304-307.	0.8	6

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109	Promotion of Mesoporous Vanadium Carbide Incorporated on Resorcinolâ€"Formaldehyde Resin Carbon Composites with Highâ€Surfaceâ€Areas on Platinum Catalysts for Methanol Electrooxidation. ChemCatChem, 2014, 6, 3387-3395.	3.7	6
110	Oxygen-vacancy-rich TiO2 enables highly active and durable water electrolysis of urchin-like RuO2 catalyst. Science China Technological Sciences, 2022, 65, 2317-2324.	4.0	6
111	Revealing the true origin of size-dependent Pd/C catalytic behavior towards formic acid decomposition. Chinese Chemical Letters, 2023, 34, 107221.	9.0	3
112	Preparation Strategy Using Pre-Nucleation Coupled with In Situ Reduction for a High-Performance Catalyst towards Selective Hydrogen Production from Formic Acid. Catalysts, 2022, 12, 325.	3.5	3
113	RuCo Alloy Nanoparticles Embedded into N-Doped Carbon for High Efficiency Hydrogen Evolution Electrocatalyst. Energies, 2022, 15, 2908.	3.1	3
114	Polymer-chelation approach to high-performance Fe-Nx-C catalyst towards oxygen reduction reaction. Chinese Chemical Letters, 2023, 34, 107455.	9.0	3
115	Recent progress in active sites for non-noble metal carbon-based oxygen reduction catalysts. Scientia Sinica Chimica, 2017, 47, 554-564.	0.4	2
116	Reductive-heat-treated platinum tungsten oxide catalyst with improved CO oxidation activity and CO gas sensing property. Analytical Methods, 2019, 11, 1811-1815.	2.7	1
117	Reply to â€œComment on â€˜Electrooxidation of COadIntermediated from Methanol Oxidation on Polycrystalline Pt Electrode'â€• Journal of Physical Chemistry B, 2006, 110, 18725-18728.	2.6	0
118	Pd@Pt/C catalysts fabricated using chemisorbed CO as in situ reductant: advanced catalytic behaviour for formic acid oxidation. RSC Advances, 2014, 4, 57819-57822.	3.6	0