Zhen-Xing Liang

List of Publications by Year
in descending order

96 papers	6,150 citations	66315 42 h-index	69214 77 g-index
96 all docs	96 docs citations	96 times ranked	7211 citing authors

#	Article	IF	Citations
1	Fiveâ€Memberedâ€Heterocycle Bridged Viologen with High Voltage and Superior Stability for Flow Battery. Advanced Functional Materials, 2022, 32, .	7.8	25
2	Ultrafast Carbothermal Shock Constructing Ni₃Fe_{1â€“x}Cr_x Intermetallic Integrated Electrodes for Efficient and Durable Overall Water Splitting. ACS Applied Materials & Interfaces, 2022, 14, 19524-19533.	4.0	10
3	è¿‡æ¸¡é‡‘å±žç¡«åŒ–ç‰©çº³ç±³æ°´/æžæ°§åŒ–å‰‚ç”µå‚¬åŒ–å‰‚ç©¿è¿›å±•. Chinese Science Bulletin, 2022, , .	2.4	2
4	Modulating pâ€Orbital of Bismuth Nanosheet by Nickel Doping for Electrocatalytic Carbon Dioxide Reduction Reaction. ChemSusChem, 2022, 15, .	3.6	7
5	Faradaic Counter for Liposomes Loaded with Potassium, Sodium Ions, or Protonated Dopamine. Analytical Chemistry, 2021, 93, 9495-9504.	3.2	9
6	Radical Stabilization of a Tripyridiniumâ€“Triazine Molecule Enables Reversible Storage of Multiple Electrons. Angewandte Chemie - International Edition, 2021, 60, 20921-20925.	7.2	42
7	Radical Stabilization of a Tripyridiniumâ€“Triazine Molecule Enables Reversible Storage of Multiple Electrons. Angewandte Chemie, 2021, 133, 21089-21093.	1.6	7
8	Viologen-Decorated TEMPO for Neutral Aqueous Organic Redox Flow Batteries. Energy Material Advances, 2021, 2021, .	4.7	29
9	Phenyleneâ€Bridged Bispyridinium with High Capacity and Stability for Aqueous Flow Batteries. Advanced Materials, 2021, 33, e2005839.	11.1	63
10	Low-dimensional nitrogen-doped carbon for Br2/Brâ¯ redox reaction in zinc-bromine flow battery. Chemical Engineering Journal, 2020, 380, 122606.	6.6	31
11	Iron/Quinone-based all-in-one solar rechargeable flow cell for highly efficient solar energy conversion and storage. Nano Energy, 2020, 76, 104907.	8.2	12
12	Oxygen reduction reaction on single Pt nanoparticle. Journal of Energy Chemistry, 2020, 49, 323-326.	7.1	23
13	Nitrogen-doped 3D hierarchical ordered mesoporous carbon supported palladium electrocatalyst for the simultaneous detection of ascorbic acid, dopamine, and glucose. Ionics, 2019, 25, 6061-6070.	1.2	23
14	Facile synthesis strategy of NicorePtshell electrocatalyst for oxygen reduction reaction. Journal of Energy Chemistry, 2019, 37, 192-196.	7.1	9
15	Efficient Nitrogenâ€Doped Carbon for Zincâ€“Bromine Flow Battery. Small, 2019, 15, e1901848.	5.2	65
16	A robust photocatalyst of Au₂₅@ZIF-8@TiO₂-ReP with dual photoreductive sites to promote photoelectron utilization in H₂O splitting to H₂ and CO₂ reduction to CO. Chemical Communications, 2019, 55, 12976-12979.	2.2	15
17	Enhancement of Electricity Generation in Single Chamber Microbial Fuel Cell Using Binuclear-Cobalt-Phthalocyanine and Cerium Oxide Co-Supported on Ordered Mesoporous Carbon as Cathode Catalyst. Journal of the Electrochemical Society, 2019, 166, F9-F17.	1.3	11
18	Synthesis of nitrogen-doped mesoporous carbon nanosheets for oxygen reduction electrocatalytic activity enhancement in acid and alkaline media. International Journal of Hydrogen Energy, 2019, 44, 4423-4431.	3.8	16

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19	Electrochemical Dynamics of a Single Platinum Nanoparticle Collision Event for the Hydrogen Evolution Reaction. Angewandte Chemie, 2018, 130, 3522-3526.	1.6	37
20	Nitrogen-doped carbon nanoflower with superior ORR performance in both alkaline and acidic electrolyte and enhanced durability. International Journal of Hydrogen Energy, 2018, 43, 4311-4320.	3.8	33
21	Electrochemical Dynamics of a Single Platinum Nanoparticle Collision Event for the Hydrogen Evolution Reaction. Angewandte Chemie - International Edition, 2018, 57, 3464-3468.	7.2	68
22	Effective sulfur-doping in carbon by high-temperature molten salt bath and its electrocatalysis for oxygen reduction reaction. Electrochemistry Communications, 2018, 86, 53-56.	2.3	15
23	A highly efficient flower-like cobalt catalyst for electroreduction of carbon dioxide. Chinese Journal of Catalysis, 2018, 39, 914-919.	6.9	19
24	Electrochemistry of vanadium redox couples on nitrogen-doped carbon. Electrochimica Acta, 2018, 259, 687-693.	2.6	17
25	N, S-containing MOF-derived dual-doped mesoporous carbon as a highly effective oxygen reduction reaction electrocatalyst. Catalysis Science and Technology, 2018, 8, 335-343.	2.1	43
26	A Study of the Mechanism of the Hydrogen Evolution Reaction on Nickel by Surface Interrogation Scanning Electrochemical Microscopy. Journal of the American Chemical Society, 2017, 139, 4854-4858.	6.6	113
27	2D nitrogen-doped hierarchically porous carbon: Key role of low dimensional structure in favoring electrocatalysis and mass transfer for oxygen reduction reaction. Applied Catalysis B: Environmental, 2017, 209, 447-454.	10.8	94
28	Highly effective oxygen reduction reaction electrocatalysis: Nitrogen-doped hierarchically mesoporous carbon derived from interpenetrated nonporous metal-organic frameworks. Applied Catalysis B: Environmental, 2017, 218, 260-266.	10.8	70
29	Active sites and mechanism on nitrogen-doped carbon catalyst for hydrogen evolution reaction. Journal of Catalysis, 2017, 348, 151-159.	3.1	64
30	One-pot synthesis of ordered mesoporous Cu-KIT-6 and its improved catalytic behavior for the epoxidation of styrene: Effects of the pH value of the initial gel. Chinese Journal of Catalysis, 2017, 38, 518-528.	6.9	30
31	Fe/N/C carbon nanotubes with high nitrogen content as effective non-precious catalyst for oxygen reduction reaction in alkaline medium. International Journal of Hydrogen Energy, 2017, 42, 5908-5915.	3.8	35
32	Pt/CN-doped electrocatalysts: Superior electrocatalytic activity for methanol oxidation reaction and mechanistic insight into interfacial enhancement. Applied Catalysis B: Environmental, 2017, 203, 541-548.	10.8	153
33	Synthesis of 2D Nitrogen-Doped Mesoporous Carbon Catalyst for Oxygen Reduction Reaction. Materials, 2017, 10, 197.	1.3	11
34	Non-Precious Electrocatalysts for Oxygen Reduction Reaction in Alkaline Media: Latest Achievements on Novel Carbon Materials. Catalysts, 2016, 6, 159.	1.6	49
35	Nitrogen-doped ordered mesoporous carbon: Effect of carbon precursor on oxygen reduction reactions. Chinese Journal of Catalysis, 2016, 37, 1562-1567.	6.9	27
36	An ultrathin 2D semi-ordered mesoporous silica film: co-operative assembly and application. RSC Advances, 2016, 6, 75058-75062.	1.7	11

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37	Electrochemical Behavior of Vanadium Redox Couples on Carbon Electrode. Journal of the Electrochemical Society, 2016, 163, H937-H942.	1.3	21
38	Synthesis of nitrogen-doped ordered mesoporous carbon electrocatalyst: Nanoconfinement effect in SBA-15 template. International Journal of Hydrogen Energy, 2016, 41, 18027-18032.	3.8	32
39	Enhancement of the photocatalytic activity of a TiO₂/carbon aerogel based on a hydrophilic secondary pore structure. RSC Advances, 2016, 6, 68416-68423.	1.7	23
40	Photoassisted Oxygen Reduction Reaction in H₂â€“O₂ Fuel Cells. Angewandte Chemie - International Edition, 2016, 55, 14748-14751.	7.2	81
41	The dependence of photocatalytic activity on the selective and nonselective deposition of noble metal cocatalysts on the facets of rutile TiO2. Journal of Catalysis, 2016, 337, 36-44.	3.1	78
42	Effects of tailoring and dehydrated cross-linking on morphology evolution of ordered mesoporous carbons. RSC Advances, 2016, 6, 19515-19521.	1.7	9
43	Effect of Redox Cocatalysts Location on Photocatalytic Overall Water Splitting over Cubic NaTaO₃ Semiconductor Crystals Exposed with Equivalent Facets. ACS Catalysis, 2016, 6, 2182-2191.	5.5	149
44	Photoassisted Oxygen Reduction Reaction in H₂â€“O₂ Fuel Cells. Angewandte Chemie, 2016, 128, 14968-14971.	1.6	25
45	Conversion of Biomass Derivatives to Electricity in Photo Fuel Cells using Undoped and Tungstenâ€doped Bismuth Vanadate Photoanodes. ChemSusChem, 2015, 8, 4049-4055.	3.6	41
46	Polyaniline-Derived Ordered Mesoporous Carbon as an Efficient Electrocatalyst for Oxygen Reduction Reaction. Catalysts, 2015, 5, 1034-1045.	1.6	23
47	pH Effect on Electrochemistry of Nitrogen-Doped Carbon Catalyst for Oxygen Reduction Reaction. ACS Catalysis, 2015, 5, 4325-4332.	5.5	142
48	A TiN0.3/CeO2 photo-anode and its photo-electrocatalytic performance. Chinese Journal of Catalysis, 2015, 36, 550-554.	6.9	5
49	The determination of DNA methyltransferase activity by quenching of tris(2,2â€²-bipyridine)ruthenium electrogenerated chemiluminescence with ferrocene. Chemical Communications, 2015, 51, 9487-9490.	2.2	18
50	Effect of pyrolysis conditions on nitrogen-doped ordered mesoporous carbon electrocatalysts. Chinese Journal of Catalysis, 2015, 36, 1197-1204.	6.9	39
51	Three dimensional palladium nanoflowers with enhanced electrocatalytic activity towards the anodic oxidation of formic acid. Journal of Materials Chemistry A, 2015, 3, 973-977.	5.2	16
52	Nitrogen-doped ordered mesoporous carbon: synthesis and active sites for electrocatalysis of oxygen reduction reaction. Applied Catalysis B: Environmental, 2015, 165, 566-571.	10.8	172
53	Improvement of proton exchange membrane fuel cell performance in low-humidity conditions by adding hygroscopic agarose powder to the catalyst layer. Journal of Power Sources, 2015, 273, 168-173.	4.0	12
54	Ultralow platinum-loading PtPdRu@PtRuIr/C catalyst with excellent CO tolerance and high performance for the methanol oxidation reaction. Rare Metals, 2014, 33, 337-342.	3.6	5

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55	Ordered mesoporous tungsten carbide/carbon composites promoted Pt catalyst with high activity and stability for methanol electrooxidation. Applied Catalysis B: Environmental, 2014, 147, 518-525.	10.8	58
56	A novel high-energy-density positive electrolyte with multiple redox couples for redox flow batteries. Applied Energy, 2014, 136, 576-581.	5.1	36
57	Hybrid PdAg alloy-Au nanorods: Controlled growth, optical properties and electrochemical catalysis. Nano Research, 2013, 6, 571-580.	5.8	37
58	Immobilization of highly active Pd nano-catalysts on functionalized mesoporous silica supports using mercapto groups as anchoring sites and their catalytic performance for phenol hydrogenation. Chinese Journal of Catalysis, 2013, 34, 1519-1526.	6.9	11
59	Stability of hemin/C electrocatalyst for oxygen reduction reaction. International Journal of Hydrogen Energy, 2012, 37, 4606-4611.	3.8	21
60	High-performance LiFePO4/C materials: Effect of carbon source on microstructure and performance. Journal of Power Sources, 2012, 211, 52-58.	4.0	35
61	The roles of defect states in photoelectric and photocatalytic processes for Zn_xCd_{1â^'x}S. Energy and Environmental Science, 2011, 4, 466-470.	15.6	112
62	Hemin: A Highly Effective Electrocatalyst Mediating the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2011, 115, 2604-2610.	1.5	79
63	Effect of Pt Oxidation State on Methanol Oxidation Activity. Chinese Journal of Catalysis, 2011, 32, 86-92.	6.9	3
64	A miniature passive direct formic acid fuel cell based twin-cell stack with highly stable and reproducible long-term discharge performance. Journal of Power Sources, 2011, 196, 1107-1111.	4.0	15
65	Gelatin-assisted templating route to synthesize sponge-like mesoporous silica with bimodal porosity and lysozyme adsorption behavior. Microporous and Mesoporous Materials, 2011, 143, 263-269.	2.2	24
66	A mesoporous hollow silica sphere (MHSS): Synthesis through a facile emulsion approach and application of support for high performance Pd/MHSS catalyst for phenol hydrogenation. Applied Surface Science, 2011, 257, 4472-4477.	3.1	39
67	Anodic oxidation of ethanol on core-shell structured Ru@PtPd/C catalyst in alkaline media. Journal of Power Sources, 2011, 196, 6138-6143.	4.0	62
68	Oxygen reduction reaction operated on magnetically-modified PtFe/C electrocatalyst. International Journal of Hydrogen Energy, 2010, 35, 942-948.	3.8	38
69	Self-humidification of a PEM fuel cell using a novel Pt/SiO2/C anode catalyst. International Journal of Hydrogen Energy, 2010, 35, 7874-7880.	3.8	50
70	Noble metal nanowires incorporated NafionÂ® membranes for reduction of methanol crossover in direct methanol fuel cells. International Journal of Hydrogen Energy, 2010, 35, 9182-9185.	3.8	23
71	Recent Development of Anode Electrocatalysts for Direct Methanol Fuel Cells. Chinese Journal of Catalysis, 2010, 31, 141-149.	6.9	7
72	A novel cesium hydrogen sulfateâ€“zeolite inorganic composite electrolyte membrane for polymer electrolyte membrane fuel cell application. Journal of Power Sources, 2009, 193, 483-487.	4.0	14

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73	High-performance coreâ€“shell PdPt@Pt/C catalysts via decorating PdPt alloy cores with Pt. Journal of Power Sources, 2009, 194, 805-810.	4.0	70
74	Mechanism study of the ethanol oxidation reaction on palladium in alkaline media. Electrochimica Acta, 2009, 54, 2203-2208.	2.6	764
75	Preparation and characterization of carbon-supported sub-monolayer palladium decorated gold nanoparticles for the electro-oxidation of ethanol in alkaline media. Journal of Power Sources, 2009, 187, 80-84.	4.0	169
76	Performance of alkaline electrolyte-membrane-based direct ethanol fuel cells. Journal of Power Sources, 2009, 187, 387-392.	4.0	189
77	Effect of polymer binders in anode catalyst layer on performance of alkaline direct ethanol fuel cells. Journal of Power Sources, 2009, 190, 223-229.	4.0	97
78	Sulfonation of carbon-nanotube supported platinum catalysts for polymer electrolyte fuel cells. Journal of Power Sources, 2008, 176, 9-15.	4.0	101
79	Stabilization of the platinumâ€“ruthenium electrocatalyst against the dissolution of ruthenium with the incorporation of gold. Journal of Power Sources, 2008, 185, 166-170.	4.0	60
80	Carbon supported platinumâ€“gold alloy catalyst for direct formic acid fuel cells. Journal of Power Sources, 2008, 185, 857-861.	4.0	104
81	Facile Preparation of AuPt Alloy Nanoparticles from Organometallic Complex Precursor. Chemistry of Materials, 2008, 20, 1688-1690.	3.2	117
82	Synthesis of Active Platinumâ^'Silver Alloy Electrocatalyst toward the Formic Acid Oxidation Reaction. Journal of Physical Chemistry C, 2008, 112, 17362-17367.	1.5	98
83	New DMFC Anode Structure Consisting of Platinum Nanowires Deposited into a Nafion Membrane. Journal of Physical Chemistry C, 2007, 111, 8128-8134.	1.5	71
84	A simple method for the synthesis of PtRu nanoparticles on the multi-walled carbon nanotube for the anode of a DMFC. Electrochimica Acta, 2007, 52, 2649-2656.	2.6	130
85	Microscopic characterizations of membrane electrode assemblies prepared under different hot-pressing conditions. Electrochimica Acta, 2007, 53, 894-902.	2.6	46
86	Multiwalled Carbon Nanotube Supported PtRu for the Anode of Direct Methanol Fuel Cells. Journal of Physical Chemistry B, 2006, 110, 5245-5252.	1.2	275
87	Organic silica/NafionÂ® composite membrane for direct methanol fuel cells. Fuel Cells Bulletin, 2006, 2006, 12-16.	0.7	20
88	A glue method for fabricating membrane electrode assemblies for direct methanol fuel cells. Electrochimica Acta, 2006, 51, 6412-6418.	2.6	47
89	Effect of membrane thickness on the performance and efficiency of passive direct methanol fuel cells. Journal of Power Sources, 2006, 153, 61-67.	4.0	175
90	Organic silica/NafionÂ® composite membrane for direct methanol fuel cells. Journal of Membrane Science, 2006, 282, 450-455.	4.1	73

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91	The stability of a PtRu/C electrocatalyst at anode potentials in a direct methanol fuel cell. Journal of Power Sources, 2006, 160, 933-939.	4.0	73
92	Diphenylsilicate-incorporated NafionÂ® membranes for reduction of methanol crossover in direct methanol fuel cells. Journal of Membrane Science, 2006, 283, 219-224.	4.1	66
93	Direct methanol fuel cells: The effect of electrode fabrication procedure on MEAs structural properties and cell performance. Journal of Power Sources, 2005, 145, 495-501.	4.0	112
94	The effect of methanol and ethanol cross-over on the performance of PtRu/C-based anode DAFCs. Applied Catalysis B: Environmental, 2005, 55, 65-72.	10.8	141
95	Pd and Pd-Cu Alloy Deposited Nafion Membranes for Reduction of Methanol Crossover in Direct Methanol Fuel Cells. Journal of the Electrochemical Society, 2005, 152, A1390.	1.3	63
96	FT-IR study of the microstructure of NafionÂ® membrane. Journal of Membrane Science, 2004, 233, 39-44.	4.1	246