Zhangxun Xia

List of Publications by Year
in descending order

77 papers	5,827 citations	159525 30 h-index	71651 76 g-index
80 all docs	80 docs citations	80 times ranked	8411 citing authors

#	Article	IF	Citations
1	<i>In situ</i> coating of a N, S co-doped porous carbon thin film on carbon nanotubes as an advanced metal-free bifunctional oxygen electrocatalyst for Znâ€“air batteries. Catalysis Science and Technology, 2022, 12, 181-191.	2.1	6
2	Structural Evolution of a PtRh Nanodendrite Electrocatalyst and Its Ultrahigh Durability toward Oxygen Reduction Reaction. ACS Catalysis, 2022, 12, 3302-3308.	5.5	21
3	Investigation of phosphoric acid and water transport in the high temperature proton exchange membrane fuel cells using a multiphase model. AIChE Journal, 2022, 68, .	1.8	5
4	Effect of Flow Rate on the Characteristics of Atmospheric-Pressure AC Constant-Current Powered Gliding Arc Discharge. IEEE Transactions on Plasma Science, 2021, 49, 3113-3120.	0.6	2
5	Effect of an external electric field, aqueous solution and specific adsorption on segregation of Pt_{ML}/M_{ML}/Pt(111) (M = Cu, Pd, Au): a DFT study. Physical Chemistry Chemical Physics, 2021, 23, 1584-1589.	1.3	5
6	Feâ€“Nâ€“C with Intensified Exposure of Active Sites for Highly Efficient and Stable Direct Methanol Fuel Cells. ACS Applied Materials & Interfaces, 2021, 13, 16279-16288.	4.0	14
7	Platinum in-situ catalytic oleylamine combustion removal process for carbon supported platinum nanoparticles. Journal of Energy Chemistry, 2020, 41, 120-125.	7.1	13
8	Size-dependence of the electrochemical performance of Feâ€“Nâ€“C catalysts for the oxygen reduction reaction and cathodes of direct methanol fuel cells. Nanoscale, 2020, 12, 3418-3423.	2.8	26
9	Anodic engineering towards high-performance direct methanol fuel cells with non-precious-metal cathode catalysts. Journal of Materials Chemistry A, 2020, 8, 1113-1119.	5.2	28
10	Effect of the Anode Structure on the Stability of a Direct Methanol Fuel Cell. Energy & Fuels, 2020, 34, 3850-3857.	2.5	15
11	Electrochemical Interface Optimization toward Low Oxygen Transport Resistance in Highâ€Temperature Polymer Electrolyte Fuel Cells. Energy Technology, 2020, 8, 2000085.	1.8	4
12	Experimental measurement of proton conductivity and electronic conductivity of membrane electrode assembly for proton exchange membrane fuel cells. Progress in Natural Science: Materials International, 2020, 30, 912-917.	1.8	4
13	A Modified Fourâ€Probe Method to Separate Ionic Conductance from Composite Conductors. ChemElectroChem, 2020, 7, 3535-3538.	1.7	1
14	NiFe Layered Double Hydroxides with Unsaturated Metal Sites via Precovered Surface Strategy for Oxygen Evolution Reaction. ACS Catalysis, 2020, 10, 11127-11135.	5.5	101
15	Optimizing Platinum Location on Nickel Hydroxide Nanosheets to Accelerate the Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 24683-24692.	4.0	21
16	Revealing the effect of aluminum content on the electrochemical performance of magnesium anodes for aqueous batteries. Materials and Corrosion - Werkstoffe Und Korrosion, 2020, 71, 1812-1823.	0.8	3
17	Theoretical study of the strain effect on the oxygen reduction reaction activity and stability of FeNC catalyst. New Journal of Chemistry, 2020, 44, 6818-6824.	1.4	12
18	Iron, Copper and Nitrogen Coâ€doped Carbon with Enhanced Electrocatalytic Activity towards Oxygen Reduction. ChemElectroChem, 2020, 7, 3116-3122.	1.7	3

#	ARTICLE	IF	CITATIONS
19	Molecular sieve as an effective barrier for methanol crossover in direct methanol fuel cells. International Journal of Hydrogen Energy, 2020, 45, 8994-9003.	3.8	25
20	Atomically dispersed Fe-N-C derived from dual metal-organic frameworks as efficient oxygen reduction electrocatalysts in direct methanol fuel cells. Applied Catalysis B: Environmental, 2019, 259, 118042.	10.8	89
21	An Experimental Method to Measure Flow Distribution in the Cathode of Highâ€Temperature Polymer Electrolyte Membrane Fuel Cells Stack. Energy Technology, 2019, 7, 1900416.	1.8	2
22	Controllable Unzipping of Carbon Nanotubes as Advanced Pt Catalyst Supports for Oxygen Reduction. ACS Applied Energy Materials, 2019, 2, 5446-5455.	2.5	17
23	Performance enhancement by optimizing the reformer for an internal reforming methanol fuel cell. Energy Science and Engineering, 2019, 7, 2814-2824.	1.9	11
24	Degradation Studies of Single Cell and Short Stack for High Temperature Proton Exchange Membrane Fuel Cells Based on PBI/H 3 PO 4 Membrane. ChemistrySelect, 2019, 4, 12313-12319.	0.7	3
25	Efficient Design for a High-Energy and High-Power Capability Hybrid Electric Power Device with Enhanced Electrochemical Interfaces. ACS Applied Materials & Interfaces, 2019, 11, 19943-19949.	4.0	8
26	Insight into the role of Niâ€“Fe dual sites in the oxygen evolution reaction based on atomically metal-doped polymeric carbon nitride. Journal of Materials Chemistry A, 2019, 7, 14001-14010.	5.2	97
27	Substituent Effect of Imidazolium Ionic Liquid: A Potential Strategy for High Coulombic Efficiency Al Battery. Journal of Physical Chemistry C, 2019, 123, 11522-11528.	1.5	16
28	On-line alleviation of poisoning in direct methanol fuel cells with pulse potential strategy. Journal of Power Sources, 2019, 419, 155-161.	4.0	10
29	The mechanism and activity of oxygen reduction reaction on single atom doped graphene: a DFT method. RSC Advances, 2019, 9, 7086-7093.	1.7	31
30	Influencing Factors on the Stability of Direct Methanol Fuel Cells. Fuel Cells, 2019, 19, 731-739.	1.5	9
31	Pt nanoparticles embedded metal-organic framework nanosheets: A synergistic strategy towards bifunctional oxygen electrocatalysis. Applied Catalysis B: Environmental, 2019, 245, 389-398.	10.8	66
32	Carbonâ€Supported Divacancyâ€Anchored Platinum Singleâ€Atom Electrocatalysts with Superhigh Pt Utilization for the Oxygen Reduction Reaction. Angewandte Chemie, 2019, 131, 1175-1179.	1.6	73
33	Carbonâ€Supported Divacancyâ€Anchored Platinum Singleâ€Atom Electrocatalysts with Superhigh Pt Utilization for the Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2019, 58, 1163-1167.	7.2	252
34	Modeling and optimization of Scaffold-like macroporous electrodes for highly efficient direct methanol fuel cells. Applied Energy, 2018, 221, 239-248.	5.1	12
35	Influence of Fe(III) doping on the crystal structure and properties of hydrothermally prepared Î²-Ni(OH)2 nanostructures. Journal of Alloys and Compounds, 2018, 750, 687-695.	2.8	30
36	Crystalâ€Planeâ€Dependent Activity of Spinel Co₃O₄ Towards Water Splitting and the Oxygen Reduction Reaction. ChemElectroChem, 2018, 5, 1080-1086.	1.7	47

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37	Chemical Foaming Coupled Self-Etching: A Multiscale Processing Strategy for Ultrahigh-Surface-Area Carbon Aerogels. ACS Applied Materials & Interfaces, 2018, 10, 2819-2827.	4.0	5
38	Reducing the Cost of Zincâ€“Oxygen Batteries by Oxygen Recycling. Energy Technology, 2018, 6, 246-250.	1.8	3
39	A Self-Charging Hybrid Electric Power Device with High Specific Energy and Power. ACS Energy Letters, 2018, 3, 2425-2432.	8.8	30
40	Graphitization induced by KOH etching for the fabrication of hierarchical porous graphitic carbon sheets for high performance supercapacitors. Journal of Materials Chemistry A, 2018, 6, 14170-14177.	5.2	66
41	Durable Platinumâ€Based Electrocatalyst Supported by Multiwall Carbon Nanotubes Modified with CeO₂. ChemElectroChem, 2018, 5, 2442-2448.	1.7	18
42	Pt_{0.61}Ni/C for High-Efficiency Cathode of Fuel Cells with Superhigh Platinum Utilization. Journal of Physical Chemistry C, 2018, 122, 14691-14697.	1.5	11
43	Hybrid Polymer Nanoarrays with Bifunctional Conductance of Ions and Electrons and Enhanced Electrochemical Interfaces. ACS Applied Materials & Interfaces, 2017, 9, 18276-18282.	4.0	5
44	An Exceptionally Facile Synthesis of Highly Efficient Oxygen Evolution Electrodes for Zincâ€Oxygen Batteries. ChemElectroChem, 2017, 4, 2190-2195.	1.7	15
45	Hierarchically ordered arrays with platinum coated PANI nanowires for highly efficient fuel cell electrodes. Journal of Materials Chemistry A, 2017, 5, 15260-15265.	5.2	25
46	High performance platinum single atom electrocatalyst for oxygen reduction reaction. Nature Communications, 2017, 8, 15938.	5.8	569
47	Hybrid polymer matrix composite containing polyaniline and Nafion as novel precursor of the enhanced catalyst for oxygen reduction reaction. RSC Advances, 2016, 6, 59961-59969.	1.7	3
48	Electrochemically synthesized freestanding 3D nanoporous silver electrode with high electrocatalytic activity. Catalysis Science and Technology, 2016, 6, 7163-7171.	2.1	18
49	Aligned polyaniline nanorods in situ grown on gas diffusion layer and their application in polymer electrolyte membrane fuel cells. International Journal of Hydrogen Energy, 2016, 41, 3655-3663.	3.8	28
50	Highly stable poly(ethylene glycol)-grafted alkaline anion exchange membranes. Journal of Materials Chemistry A, 2016, 4, 3886-3892.	5.2	60
51	A â€œcopolymer-co-morphologyâ€• conception for shape-controlled synthesis of Prussian blue analogues and as-derived spinel oxides. Nanoscale, 2016, 8, 2333-2342.	2.8	53
52	Bio-inspired Construction of Advanced Fuel Cell Cathode with Pt Anchored in Ordered Hybrid Polymer Matrix. Scientific Reports, 2015, 5, 16100.	1.6	48
53	Comparison of alkaline stability of quaternary ammonium- and 1,2-methylimidazolium-based alkaline anion exchange membranes. Journal of Membrane Science, 2015, 487, 12-18.	4.1	38
54	Highly alkaline stable N1-alkyl substituted 2-methylimidazolium functionalized alkaline anion exchange membranes. Journal of Materials Chemistry A, 2015, 3, 8559-8565.	5.2	32

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55	Superior cycling stability and high rate capability of three-dimensional Zn/Cu foam electrodes for zinc-based alkaline batteries. RSC Advances, 2015, 5, 83781-83787.	1.7	73
56	Rational design of a highly efficient Pt/grapheneâ€"NafionÂ® composite fuel cell electrode architecture. Journal of Materials Chemistry A, 2015, 3, 1641-1648.	5.2	29
57	Effect of Surface Manganese Valence of Manganese Oxides on the Activity of the Oxygen Reduction Reaction in Alkaline Media. ACS Catalysis, 2014, 4, 457-463.	5.5	306
58	Hierarchically porous carbons with partially graphitized structures for high rate supercapacitors. Journal of Materials Science, 2014, 49, 363-370.	1.7	11
59	Polyol-synthesized Pt2.6Sn1Ru0.4/C as a high-performance anode catalyst for direct ethanol fuel cells. Chinese Journal of Catalysis, 2014, 35, 1394-1401.	6.9	21
60	Partially graphitized ordered mesoporous carbons for high-rate supercapacitors. Journal of Solid State Electrochemistry, 2014, 18, 2175-2182.	1.2	7
61	Vertically oriented polypyrrolenanowire arrays on Pd-plated NafionÂ® membrane and its application in direct methanolfuel cells. Journal of Materials Chemistry A, 2013, 1, 491-494.	5.2	53
62	Iron Encapsulated within Podâ€like Carbon Nanotubes for Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2013, 52, 371-375.	7.2	1,152
63	A Pumpless Methanol Feeding Method for Application in Direct Methanol Fuel Cell Systems. Fuel Cells, 2010, 10, 608-612.	1.5	1
64	Theoretical and Experimental Studies on the Relationship between the Structures of Molybdenum Nitrides and Their Catalytic Activities toward the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2010, 114, 18159-18166.	1.5	64
65	Promoting Effect of Ni in PtNi Bimetallic Electrocatalysts for the Methanol Oxidation Reaction in Alkaline Media: Experimental and Density Functional Theory Studies. Journal of Physical Chemistry C, 2010, 114, 19714-19722.	1.5	129
66	Preparation, Structural Characterization, and Activity for Ethanol Oxidation of Carbon-Supported PtSnIn Catalyst. Energy & Fuels, 2009, 23, 403-407.	2.5	35
67	Effect of Reaction Atmosphere on the Electrocatalytic Activities of Pt/C and PtRu/C Obtained in a Polyol Process. Journal of Physical Chemistry C, 2007, 111, 15192-15200.	1.5	38
68	Design and Preparation of Highly Active Ptâ˜Pd/C Catalyst for the Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2007, 111, 5605-5617.	1.5	166
69	Studies on Electrocatalysts, MEAs and Compact Stacks of Direct Alcohol Fuel Cells. , 2006, , 1191.		0
70	Electrode catalysts behavior during direct ethanol fuel cell life-time test. Electrochemistry Communications, 2005, 7, 663-668.	2.3	48
71	Determination of ionic resistance and optimal composition in the anodic catalyst layers of DMFC using AC impedance. International Journal of Hydrogen Energy, 2005, 30, 1003-1010.	3.8	50
72	Multi-walled carbon nanotubes supported Pt-Fe cathodic catalyst for direct methanol fuel cell. Reaction Kinetics and Catalysis Letters, 2004, 82, 235-240.	0.6	16

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73	Direct methanol fuel cells : Methanol crossover and its influence on single DMFC performance. Ionics, 2004, 10, 458-462.	1.2	39
74	Studies on performance degradation of a direct methanol fuel cell (DMFC) in life test. Physical Chemistry Chemical Physics, 2004, 6, 134.	1.3	135
75	Preparation and Characterization of Multiwalled Carbon Nanotube-Supported Platinum for Cathode Catalysts of Direct Methanol Fuel Cells. Journal of Physical Chemistry B, 2003, 107, 6292-6299.	1.2	1,079
76	Preparation of highly active Pt/C cathode electrocatalysts for DMFCs by an improved aqueous impregnation method. Physical Chemistry Chemical Physics, 2003, 5, 5485.	1.3	48
77	Comparative study of different activation procedures of high temperature proton exchange membrane fuel cell. Energy Technology, 0, , .	1.8	2