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	Iron Encapsulated within Podâ€like Carbon Nanotubes for Oxygen Reduction Reaction. Angewandte Chemie - International Edition, 2013, 52, 371-375.	7.2	1,152
2	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
3	High performance platinum single atom electrocatalyst for oxygen reduction reaction. Nature Communications, 2017, 8, 15938.	5.8	569
4	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
5	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
6	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
7	Studies on performance degradation of a direct methanol fuel cell (DMFC) in life test. Physical Chemistry Chemical Physics, 2004, 6, 134.	1.3	135
8	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
9	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
10	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
11	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
12	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
13	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
14	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
15	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
16	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
17	Highly stable poly(ethylene glycol)-grafted alkaline anion exchange membranes. Journal of Materials Chemistry A, 2016, 4, 3886-3892.	5.2	60
18	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

#	Article	IF	Citations
19	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
20	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
21	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
22	Electrode catalysts behavior during direct ethanol fuel cell life-time test. Electrochemistry Communications, 2005, 7, 663-668.	2.3	48
23	Bio-inspired Construction of Advanced Fuel Cell Cathode with Pt Anchored in Ordered Hybrid Polymer Matrix. Scientific Reports, 2015, 5, 16100.	1.6	48
24	Crystalâ€Planeâ€Dependent Activity of Spinel Co₃O₄ Towards Water Splitting and the Oxygen Reduction Reaction. ChemElectroChem, 2018, 5, 1080-1086.	1.7	47
25	Direct methanol fuel cells : Methanol crossover and its influence on single DMFC performance. Ionics, 2004, 10, 458-462.	1.2	39
26	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
27	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
28	Preparation, Structural Characterization, and Activity for Ethanol Oxidation of Carbon-Supported PtSnIn Catalyst. Energy & Fuels, 2009, 23, 403-407.	2.5	35
29	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
30	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
31	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
32	A Self-Charging Hybrid Electric Power Device with High Specific Energy and Power. ACS Energy Letters, 2018, 3, 2425-2432.	8.8	30
33	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
34	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
35	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
36	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

#	Article	IF	Citations
37	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
38	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
39	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
40	Optimizing Platinum Location on Nickel Hydroxide Nanosheets to Accelerate the Hydrogen Evolution Reaction. ACS Applied Materials & Interfaces, 2020, 12, 24683-24692.	4.0	21
41	Structural Evolution of a PtRh Nanodendrite Electrocatalyst and Its Ultrahigh Durability toward Oxygen Reduction Reaction. ACS Catalysis, 2022, 12, 3302-3308.	5.5	21
42	Electrochemically synthesized freestanding 3D nanoporous silver electrode with high electrocatalytic activity. Catalysis Science and Technology, 2016, 6, 7163-7171.	2.1	18
43	Durable Platinumâ€Based Electrocatalyst Supported by Multiwall Carbon Nanotubes Modified with CeO₂. ChemElectroChem, 2018, 5, 2442-2448.	1.7	18
44	Controllable Unzipping of Carbon Nanotubes as Advanced Pt Catalyst Supports for Oxygen Reduction. ACS Applied Energy Materials, 2019, 2, 5446-5455.	2.5	17
45	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
46	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
47	An Exceptionally Facile Synthesis of Highly Efficient Oxygen Evolution Electrodes for Zincâ€Oxygen Batteries. ChemElectroChem, 2017, 4, 2190-2195.	1.7	15
48	Effect of the Anode Structure on the Stability of a Direct Methanol Fuel Cell. Energy & Fuels, 2020, 34, 3850-3857.	2.5	15
49	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
50	Platinum in-situ catalytic oleylamine combustion removal process for carbon supported platinum nanoparticles. Journal of Energy Chemistry, 2020, 41, 120-125.	7.1	13
51	Modeling and optimization of Scaffold-like macroporous electrodes for highly efficient direct methanol fuel cells. Applied Energy, 2018, 221, 239-248.	5.1	12
52	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
53	Hierarchically porous carbons with partially graphitized structures for high rate supercapacitors. Journal of Materials Science, 2014, 49, 363-370.	1.7	11
54	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

#	Article	IF	Citations
55	Performance enhancement by optimizing the reformer for an internal reforming methanol fuel cell. Energy Science and Engineering, 2019, 7, 2814-2824.	1.9	11
56	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
57	Influencing Factors on the Stability of Direct Methanol Fuel Cells. Fuel Cells, 2019, 19, 731-739.	1.5	9
58	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
59	Partially graphitized ordered mesoporous carbons for high-rate supercapacitors. Journal of Solid State Electrochemistry, 2014, 18, 2175-2182.	1.2	7
60	<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
61	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
62	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
63	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
64	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
65	Electrochemical Interface Optimization toward Low Oxygen Transport Resistance in Highâ€Temperature Polymer Electrolyte Fuel Cells. Energy Technology, 2020, 8, 2000085.	1.8	4
66	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
67	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
68	Reducing the Cost of Zincâ€“Oxygen Batteries by Oxygen Recycling. Energy Technology, 2018, 6, 246-250.	1.8	3
69	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
70	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
71	Iron, Copper and Nitrogen Coâ€doped Carbon with Enhanced Electrocatalytic Activity towards Oxygen Reduction. ChemElectroChem, 2020, 7, 3116-3122.	1.7	3
72	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

#	Article	IF	Citations
73	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
74	Comparative study of different activation procedures of high temperature proton exchange membrane fuel cell. Energy Technology, 0, , .	1.8	2
75	A Pumpless Methanol Feeding Method for Application in Direct Methanol Fuel Cell Systems. Fuel Cells, 2010, 10, 608-612.	1.5	1
76	A Modified Fourâ€Probe Method to Separate Ionic Conductance from Composite Conductors. ChemElectroChem, 2020, 7, 3535-3538.	1.7	1
77	Studies on Electrocatalysts, MEAs and Compact Stacks of Direct Alcohol Fuel Cells. , 2006, , 1191.		0