Siyu Ye

List of Publications by Year
in descending order

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121	11,925	53794 45	25787 108
papers	citations	h-index	g-index

128	128	128	13855
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Batteries and fuel cells for emerging electric vehicle markets. Nature Energy, 2018, 3, 279-289.	39.5	1,944
2	High oxygen-reduction activity and durability of nitrogen-doped graphene. Energy and Environmental Science, 2011, 4, 760.	30.8	1,153
3	Recent advances in activity and durability enhancement of Pt/C catalytic cathode in PEMFC. Journal of Power Sources, 2007, 172, 145-154.	7.8	949
4	Single-atom Catalysis Using Pt/Graphene Achieved through Atomic Layer Deposition. Scientific Reports, 2013, 3, .	3.3	719
5	Nitrogen doping effects on the structure of graphene. Applied Surface Science, 2011, 257, 9193-9198.	6.1	476
6	Recent advances in activity and durability enhancement of Pt/C catalytic cathode in PEMFC. Journal of Power Sources, 2007, 172, 133-144.	7.8	458
7	A review of the stability and durability of non-precious metal catalysts for the oxygen reduction reaction in proton exchange membrane fuel cells. Journal of Power Sources, 2015, 285, 334-348.	7.8	457
8	Current Status and Future Development of Catalyst Materials and Catalyst Layers for Proton Exchange Membrane Fuel Cells: An Industrial Perspective. ACS Energy Letters, 2017, 2, 629-638.	17.4	443
9	Bridging the gap between highly active oxygen reduction reaction catalysts and effective catalyst layers for proton exchange membrane fuel cells. Nature Energy, 2021, 6, 475-486.	39.5	252
10	Extremely Stable Platinum Nanoparticles Encapsulated in a Zirconia Nanocage by Areaâ€Selective Atomic Layer Deposition for the Oxygen Reduction Reaction. Advanced Materials, 2015, 27, 277-281.	21.0	238
11	Nitrogen Doping Effects on Carbon Nanotubes and the Origin of the Enhanced Electrocatalytic Activity of Supported Pt for Proton-Exchange Membrane Fuel Cells. Journal of Physical Chemistry C, 2011, 115, 3769-3776.	3.1	228
12	Ordered bilayer ruthenium–platinum core-shell nanoparticles as carbon monoxide-tolerant fuel cell catalysts. Nature Communications, 2013, 4, 2466.	12.8	200
13	Enhanced stability of Pt electrocatalysts by nitrogen doping in CNTs for PEM fuel cells. Electrochemistry Communications, 2009, 11, 2071-2076.	4.7	196
14	Critical advancements in achieving high power and stable nonprecious metal catalyst–based MEAs for real-world proton exchange membrane fuel cell applications. Science Advances, 2018, 4, eaar7180.	10.3	189
15	3-D composite electrodes for high performance PEM fuel cells composed of Pt supported on nitrogen-doped carbon nanotubes grown on carbon paper. Electrochemistry Communications, 2009, 11, 438-441.	4.7	152
16	Rh(I)-Catalyzed Intramolecular [3 + 2] Cycloaddition of trans-Vinylcyclopropane-enes. Journal of the American Chemical Society, 2008, 130, 7178-7179.	13.7	139
17	Is the rapid initial performance loss of Fe/N/C non precious metal catalysts due to micropore flooding?. Energy and Environmental Science, 2017, 10, 296-305.	30.8	127
18	Titanium carbide and its core-shelled derivative TiC@TiO2 as catalyst supports for proton exchange membrane fuel cells. Electrochimica Acta, 2012, 69, 397-405.	5.2	126

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19	Multigrain Platinum Nanowires Consisting of Oriented Nanoparticles Anchored on Sulfurâ€Doped Graphene as a Highly Active and Durable Oxygen Reduction Electrocatalyst. Advanced Materials, 2015, 27, 1229-1234.	21.0	126
20	Integrating PGMâ€Free Catalysts into Catalyst Layers and Proton Exchange Membrane Fuel Cell Devices. Advanced Materials, 2019, 31, e1804846.	21.0	121
21	Pt/Pd Single-Atom Alloys as Highly Active Electrochemical Catalysts and the Origin of Enhanced Activity. ACS Catalysis, 2019, 9, 9350-9358.	11.2	106
22	Non-noble metal oxygen reduction electrocatalysts based on carbon nanotubes with controlled nitrogen contents. Journal of Power Sources, 2011, 196, 1795-1801.	7.8	105
23	Atomicâ€Scale Preparation of Octopod Nanoframes with Highâ€Index Facets as Highly Active and Stable Catalysts. Advanced Materials, 2017, 29, .	21.0	89
24	Measurement of effective gas diffusion coefficients of catalyst layers of PEM fuel cells with a Loschmidt diffusion cell. Journal of Power Sources, 2011, 196, 674-678.	7.8	87
25	3D Porous Fe/N/C Spherical Nanostructures As High-Performance Electrocatalysts for Oxygen Reduction in Both Alkaline and Acidic Media. ACS Applied Materials & Interfaces, 2017, 9, 36944-36954.	8.0	83
26	Electrocatalytic activity and durability of Pt/NbO2 and Pt/Ti4O7 nanofibers for PEM fuel cell oxygen reduction reaction. Electrochimica Acta, 2012, 59, 538-547.	5.2	81
27	An active and robust Si-Fe/N/C catalyst derived from waste reed for oxygen reduction. Applied Catalysis B: Environmental, 2018, 237, 85-93.	20.2	78
28	Non-noble metal-carbonized aerogel composites as electrocatalysts for the oxygen reduction reaction. Electrochemistry Communications, 2003, 5, 272-275.	4.7	74
29	Accelerated Stress Testing by Rotating Disk Electrode for Carbon Corrosion in Fuel Cell Catalyst Supports. Journal of the Electrochemical Society, 2015, 162, F783-F788.	2.9	69
30	Rational design of porous structures via molecular layer deposition as an effective stabilizer for enhancing Pt ORR performance. Nano Energy, 2019, 60, 111-118.	16.0	62
31	A New Fuel Cell Electrocatalyst Based on Carbonized Polyacrylonitrile Foam: The Nature of Platinumâ€Support Interactions. Journal of the Electrochemical Society, 1997, 144, 90-95.	2.9	58
32	Optimization of sulfur-doped graphene as an emerging platinum nanowires support for oxygen reduction reaction. Nano Energy, 2016, 19, 27-38.	16.0	58
33	A transient PEMFC model with CO poisoning and mitigation by O2 bleeding and Ru-containing catalyst. Journal of Power Sources, 2007, 166, 1-21.	7.8	57
34	Atomic layer deposition assisted Pt-SnO2 hybrid catalysts on nitrogen-doped CNTs with enhanced electrocatalytic activities for low temperature fuel cells. International Journal of Hydrogen Energy, 2011, 36, 11085-11092.	7.1	57
35	Web-like 3D Architecture of Pt Nanowires and Sulfur-Doped Carbon Nanotube with Superior Electrocatalytic Performance. ACS Sustainable Chemistry and Engineering, 2018, 6, 93-98.	6.7	57
36	Spectroscopic Investigation of a Polypyrroleâ€‰/â€‰MoS4 2â€‰â”â€‰â€‰/â€‰MoS3 Composite Film Electrode in Aqueous KCl Solution. Journal of the Electrochemical Society, 1995, 142, 2296-2301.	2.9	56

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37	Effect of Pt-loaded carbon support nanostructure on oxygen reduction catalysis. Journal of Power Sources, 2011, 196, 5438-5445.	7.8	55
38	Nanocrystalline tungsten carbide (WC) synthesis/characterization and its possible application as a PEM fuel cell catalyst support. Electrochimica Acta, 2012, 61, 198-206.	5.2	55
39	Effect of carbon support nanostructure on the oxygen reduction activity of Pt/C catalysts. Journal of Materials Chemistry A, 2013, 1, 2812.	10.3	53
40	Origin of achieving the enhanced activity and stability of Pt electrocatalysts with strong metal-support interactions via atomic layer deposition. Nano Energy, 2018, 53, 716-725.	16.0	53
41	Total Synthesis of (+)â€Asteriscanolide: Further Exploration of the Rhodium(I)â€Catalyzed [(5+2)+1] Reaction of Eneâ€Vinylcyclopropanes and CO. Chemistry - an Asian Journal, 2012, 7, 593-604.	3.3	51
42	High stability and activity of Pt electrocatalyst on atomic layer deposited metal oxide/nitrogen-doped graphene hybrid support. International Journal of Hydrogen Energy, 2014, 39, 15967-15974.	7.1	51
43	Impedance study of polypyrrole films doped with tetrathiomolybdate anions and containing molybdenum trisulfide. The Journal of Physical Chemistry, 1993, 97, 12373-12378.	2.9	48
44	Atomic layer deposited tantalum oxide to anchor Pt/C for a highly stable catalyst in PEMFCs. Journal of Materials Chemistry A, 2017, 5, 9760-9767.	10.3	48
45	Gold(I)-Catalyzed Ring Expansions of Unactivated Alkynylcyclopropanes to (E)-2-Alkylidenecyclobutanamines in the Presence of Sulfonamides. Organic Letters, 2010, 12, 804-807.	4.6	47
46	Low equivalent weight short-side-chain perfluorosulfonic acid ionomers in fuel cell cathode catalyst layers. Journal of Power Sources, 2011, 196, 6168-6176.	7.8	47
47	Ultralow Loading and High-Performing Pt Catalyst for a Polymer Electrolyte Membrane Fuel Cell Anode Achieved by Atomic Layer Deposition. ACS Catalysis, 2019, 9, 5365-5374.	11.2	47
48	Polypyrrole film electrodes electrochemically doped with tetrathiomolybdate anions: preparation and characterization. Journal of Electroanalytical Chemistry, 1992, 334, 35-55.	3.8	46
49	Cobalt-carbonized aerogel nanocomposites electrocatalysts for the oxygen reduction reaction. International Journal of Hydrogen Energy, 2005, 30, 1011-1015.	7.1	46
50	Ptâ€“SnO2/nitrogen-doped CNT hybrid catalysts for proton-exchange membrane fuel cells (PEMFC): Effects of crystalline and amorphous SnO2 by atomic layer deposition. Journal of Power Sources, 2013, 238, 144-149.	7.8	44
51	A New Fuel Cell Electrocatalyst Based on Highly Porous Carbonized Polyacrylonitrile Foam with Very Low Platinum Loading. Journal of the Electrochemical Society, 1996, 143, L7-L9.	2.9	43
52	A Study of the Catalytic Interface for O₂ Electroreduction on Pt: The Interaction between Carbon Support Meso/Microstructure and Ionomer (Nafion) Distribution. Journal of Physical Chemistry C, 2009, 113, 298-307.	3.1	43
53	New insights into non-precious metal catalyst layer designs for proton exchange membrane fuel cells: Improving performance and stability. Journal of Power Sources, 2017, 344, 39-45.	7.8	43
54	Novel Mesoporous Carbon Supports for PEMFC Catalysts. Catalysts, 2015, 5, 1046-1067.	3.5	39

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55	Top-down bottom-up graphene synthesis. Nano Futures, 2019, 3, 042003.	2.2	39
56	Electrochemical preparation and characterization of conducting copolymers: poly (aniline-co-N-butylaniline). Synthetic Metals, 1997, 88, 65-72.	3.9	38
57	3D boron doped carbon nanorods/carbon-microfiber hybrid composites: synthesis and applications in a highly stable proton exchange membrane fuel cell. Journal of Materials Chemistry, 2011, 21, 18195.	6.7	38
58	Pt-SnO2â˜Pd/C Electrocatalyst with Enhanced Activity and Durability for the Oxygen Reduction Reaction at Low Pt Loading: The Effect of Carbon Support Type and Activation. Journal of Physical Chemistry C, 2010, 114, 16488-16504.	3.1	37
59	Understanding the Corrosion Resistance of Meso- and Micro-Porous Carbons for Application in PEM Fuel Cells. Journal of the Electrochemical Society, 2018, 165, F3230-F3240.	2.9	37
60	Improving the corrosion resistance of proton exchange membrane fuel cell carbon supports by pentafluorophenyl surface functionalization. Journal of Power Sources, 2018, 378, 732-741.	7.8	36
61	Oxygen reduction on a new electrocatalyst based on highly porous carbonized polyacrylonitrile microcellular foam with very low platinum loading. Journal of Electroanalytical Chemistry, 1996, 415, 115-121.	3.8	35
62	Carbonâ€“Nb0.07Ti0.93O2 composite supported Ptâ€“Pd electrocatalysts for PEM fuel cell oxygen reduction reaction. Electrochimica Acta, 2012, 75, 220-228.	5.2	35
63	Effect of CeOx Crystallite Size on the Chemical Stability of CeOx Nanoparticles. Journal of the Electrochemical Society, 2014, 161, F1075-F1080.	2.9	35
64	Embellished hollow spherical catalyst boosting activity and durability for oxygen reduction reaction. Nano Energy, 2018, 51, 745-753.	16.0	33
65	Evaluation of the Corrosion Resistance of Carbons for Use as PEM Fuel Cell Cathode Supports. Journal of the Electrochemical Society, 2015, 162, F1333-F1341.	2.9	32
66	TfOH-catalyzed tandem cyclopropane ring enlargement/Câ€“C formation/etherification of alkynylcyclopropanes and 1,3-diketones to cyclobutane-fused dihydrofurans. Chemical Communications, 2011, 47, 794-796.	4.1	31
67	Wettability of Nafion and Nafion/Vulcan Carbon Composite Films. Langmuir, 2012, 28, 6698-6705.	3.5	31
68	Electrochemistry of poly(aniline-co-N-butylaniline) copolymer: Comparison with polyaniline and poly(N-butylaniline). Journal of Electroanalytical Chemistry, 1995, 381, 71-80.	3.8	30
69	Highly Durable Platinum-Cobalt Nanowires by Microwave Irradiation as Oxygen Reduction Catalyst for PEM Fuel Cell. Electrochemical and Solid-State Letters, 2012, 15, B83.	2.2	30
70	First time investigation of Pt nanocatalysts deposited inside carbon mesopores of controlled length and diameter. Journal of Materials Chemistry, 2012, 22, 7164.	6.7	29
71	Oxygen reduction activity dependence on the mesoporous structure of imprinted carbon supports. Electrochemistry Communications, 2010, 12, 1666-1669.	4.7	28
72	Mechanisms of BrÃ¸nsted Acid Catalyzed Additions of Phenols and Protected Amines to Olefins: A DFT Study. European Journal of Organic Chemistry, 2008, 2008, 4296-4303.	2.4	27

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73	Electrocatalytic Oxygen Reduction Performance of Silver Nanoparticle Decorated Electrochemically Exfoliated Graphene. Langmuir, 2015, 31, 9718-9727.	3.5	27
74	Effects of crossover hydrogen on platinum dissolution and agglomeration. Journal of Power Sources, 2011, 196, 7985-7988.	7.8	26
75	Surface Characteristics of Microporous and Mesoporous Carbons Functionalized with Pentafluorophenyl Groups. ACS Applied Materials & Interfaces, 2018, 10, 2130-2142.	8.0	25
76	New insights into the surface properties of hard-templated ordered mesoporous carbons. Carbon, 2018, 127, 707-717.	10.3	25
77	Oxygen evolution on titanium anodes coated with conductive metallic oxides: Kinetics and mechanism in alkaline solution. Electrochimica Acta, 1996, 41, 827-834.	5.2	24
78	Fractal Dimension of Platinum Particles Dispersed in Highly Porous Carbonized Polyacrylonitrile Microcellular Foam. Journal of the Electrochemical Society, 1997, 144, 1734-1738.	2.9	23
79	Wettability of colloid-imprinted carbons by contact angle kinetics and water vapor sorption measurements. Carbon, 2015, 87, 44-60.	10.3	23
80	Degradation Resistant Cathodes in Polymer Electrolyte Membrane Fuel Cells. ECS Transactions, 2006, 3, 657-666.	0.5	22
81	PEM Fuel Cell Catalysts: The Importance of Catalyst Support. ECS Transactions, 2008, 16, 2101-2113.	0.5	22
82	Nb-doped TiO2/carbon composite supports synthesized by ultrasonic spray pyrolysis for proton exchange membrane (PEM) fuel cell catalysts. Journal of Power Sources, 2012, 220, 1-9.	7.8	22
83	A regularization method for constructing trend function in Kriging model. Structural and Multidisciplinary Optimization, 2019, 59, 1221-1239.	3.5	21
84	Characterization of Catalyst Layer Structural Changes in PEMFC as a Function of Durability Testing. ECS Transactions, 2006, 3, 743-751.	0.5	20
85	Electrochemical and In Situ Spectroelectrochemical Study on Polypyrrole/Disulfide Composite Electrode. Journal of the Electrochemical Society, 1994, 141, L49-L50.	2.9	19
86	Oxygen reduction on an iron?carbonized aerogel nanocomposite electrocatalyst. Journal of Solid State Electrochemistry, 2005, 9, 146-153.	2.5	19
87	Controlling the deposition of Pt nanoparticles within the surface region of Nafion. Journal of Membrane Science, 2011, 376, 162-169.	8.2	19
88	Effects of synthesis condition on formation of desired crystal structures of doped-TiO2/carbon composite supports for ORR electrocatalysts. Electrochimica Acta, 2012, 77, 225-231.	5.2	19
89	UVâ€“visible spectroscopy method for screening the chemical stability of potential antioxidants for proton exchange membrane fuel cells. Journal of Power Sources, 2015, 281, 238-242.	7.8	18
90	Doped Ceria Nanoparticles with Reduced Solubility and Improved Peroxide Decomposition Activity for PEM Fuel Cells. Journal of the Electrochemical Society, 2021, 168, 024507.	2.9	18

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91	A penalized blind likelihood Kriging method for surrogate modeling. Structural and Multidisciplinary Optimization, 2020, 61, 457-474.	3.5	17
92	A New Polypyrrole/Disulfide Electrode Studied by Electrochemistry and the Electrochemical Quartz Crystal Microbalance. The Journal of Physical Chemistry, 1996, 100, 15848-15855.	2.9	15
93	A new electrocatalyst consisting of a molecularly homogeneous platinumâ€“aerogel nanocomposite. Canadian Journal of Chemistry, 1997, 75, 1666-1673.	1.1	15
94	Tailoring Carbon Nanotube Microsphere Architectures with Controlled Porosity. Advanced Functional Materials, 2019, 29, 1903983.	14.9	15
95	Electrically Bloomed Platinum Nanoflowers on Exfoliated Graphene: An Efficient Alcohol Oxidation Catalyst. Journal of the Electrochemical Society, 2016, 163, D615-D621.	2.9	14
96	Composite Carbon Nanotube Microsphere Coatings for Use as Electrode Supports. Advanced Functional Materials, 2018, 28, 1803713.	14.9	14
97	Lateral growth of polypyrrole at an ionically conducting polymer coated dual electrode assembly. Journal of Electroanalytical Chemistry, 1993, 344, 395-400.	3.8	11
98	Graphene modified nanosized Ag electrocomposites. Materials Research Bulletin, 2017, 89, 42-50.	5.2	10
99	Reactive Sensor for Investigation of Gas Diffusion Layer Hydrophobicity in PEM Fuel Cells. Electrochemical and Solid-State Letters, 2008, 11, B148.	2.2	9
100	Cavitation Mediated 3D Microstructured Architectures from Nanocarbon. Advanced Functional Materials, 2018, 28, 1706832.	14.9	9
101	Polynomial Response Surface based on basis function selection by multitask optimization and ensemble modeling. Complex & Intelligent Systems, 2022, 8, 1015-1034.	6.5	8
102	Anodic oxidation of cyclic 1,3-diketones. Electrochimica Acta, 1991, 36, 597-603.	5.2	7
103	Selective anodic oxidation of camphor. Tetrahedron, 1991, 47, 5463-5470.	1.9	7
104	Liquid Crystalline Phase Templated Platinum Catalyst for Oxygen Reduction. Journal of the Electrochemical Society, 2009, 156, B1169.	2.9	7
105	Unexpected hydrogen oxidation selectivity of Pt/NbTiO2 catalysts. Nano Energy, 2016, 27, 157-166.	16.0	7
106	Facile Aza-Michael Additions of Uracil Derivatives to Acrylates. Journal of Chemical Research, 2012, 36, 114-117.	1.3	6
107	Nafion Film-Templated Platinum Electrodes for Oxygen Reduction. Electrocatalysis, 2010, 1, 22-27.	3.0	5
108	CO-tolerant Catalysts. , 2008, , 759-834.		5

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109	Single-phase La0.8Sr0.2Co1-Mn O3- electrocatalyst as a triple H+/O2-/e- conductor enabling high-performance intermediate-temperature water electrolysis. Journal of Materiomics, 2022, 8, 1020-1030.	5.7	5
110	Reversal-tolerant Catalyst Layers. , 2008, , 835-860.		4
111	Anodic Oxidation of 1,3-Cyclohexanedione to 1,2,3-Cyclohexanetrione. Chemistry Letters, 1992, 21, 609-612.	1.3	3
112	Electrochemical properties and stabilization of conducting poly(diarylanilines) in acetonitrile. Synthetic Metals, 1995, 73, 157-164.	3.9	3
113	Structural and Morphological Properties of Carbon Supports: Effect on Catalyst Degradation. ECS Transactions, 2010, 33, 425-431.	0.5	2
114	An Effective Surrogate Ensemble Modeling Method for Satellite Coverage Traffic Volume Prediction. Applied Sciences (Switzerland), 2019, 9, 3689.	2.5	2
115	Characterization of the Catalyst Layer in a PEMFC During Subzero Operation. ECS Transactions, 2008, 12, 13-19.	0.5	1
116	Selective exposure of platinum catalyst embedded in protective oxide layer on conductive titanium carbide support. Materials Today Energy, 2019, 13, 353-361.	4.7	1
117	Anodic Oxidation of Norcamphor in Aqueous Electrolytes. Journal FÃ¼r Praktische Chemie, Chemiker-Zeitung, 1992, 334, 37-40.	0.5	0
118	Surfactant Assisted Catalyst Layer Deposition for PEM Fuel Cells. ECS Transactions, 2009, 16, 1787-1794.	0.5	0
119	Corrosion Study of Mesoporous Carbon Supports for Use in PEM Fuel Cells. ECS Meeting Abstracts, 2013, , .	0.0	0
120	Carbonaceous Nanowire Supports for Polymer Electrolyte Membrane Fuel Cells. ECS Transactions, 2015, 69, 1151-1166.	0.5	0
121	Carbonaceous Nanowire Supports for Polymer Electrolyte Membrane Fuel Cells. Journal of the Electrochemical Society, 2016, 163, F115-F121.	2.9	0