

Siyu Ye

List of Publications by Year in descending order

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121
papers

11,925
citations

53660

45
h-index

25716

108
g-index

128
all docs

128
docs citations

128
times ranked

13855
citing authors

#	ARTICLE	IF	CITATIONS
1	Batteries and fuel cells for emerging electric vehicle markets. <i>Nature Energy</i> , 2018, 3, 279-289.	19.8	1,944
2	High oxygen-reduction activity and durability of nitrogen-doped graphene. <i>Energy and Environmental Science</i> , 2011, 4, 760.	15.6	1,153
3	Recent advances in activity and durability enhancement of Pt/C catalytic cathode in PEMFC. <i>Journal of Power Sources</i> , 2007, 172, 145-154.	4.0	949
4	Single-atom Catalysis Using Pt/Graphene Achieved through Atomic Layer Deposition. <i>Scientific Reports</i> , 2013, 3, .	1.6	719
5	Nitrogen doping effects on the structure of graphene. <i>Applied Surface Science</i> , 2011, 257, 9193-9198.	3.1	476
6	Recent advances in activity and durability enhancement of Pt/C catalytic cathode in PEMFC. <i>Journal of Power Sources</i> , 2007, 172, 133-144.	4.0	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. <i>Journal of Power Sources</i> , 2015, 285, 334-348.	4.0	457
8	Current Status and Future Development of Catalyst Materials and Catalyst Layers for Proton Exchange Membrane Fuel Cells: An Industrial Perspective. <i>ACS Energy Letters</i> , 2017, 2, 629-638.	8.8	443
9	Bridging the gap between highly active oxygen reduction reaction catalysts and effective catalyst layers for proton exchange membrane fuel cells. <i>Nature Energy</i> , 2021, 6, 475-486.	19.8	252
10	Extremely Stable Platinum Nanoparticles Encapsulated in a Zirconia Nanocage by Area-Selective Atomic Layer Deposition for the Oxygen Reduction Reaction. <i>Advanced Materials</i> , 2015, 27, 277-281.	11.1	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. <i>Journal of Physical Chemistry C</i> , 2011, 115, 3769-3776.	1.5	228
12	Ordered bilayer ruthenium-platinum core-shell nanoparticles as carbon monoxide-tolerant fuel cell catalysts. <i>Nature Communications</i> , 2013, 4, 2466.	5.8	200
13	Enhanced stability of Pt electrocatalysts by nitrogen doping in CNTs for PEM fuel cells. <i>Electrochemistry Communications</i> , 2009, 11, 2071-2076.	2.3	196
14	Critical advancements in achieving high power and stable nonprecious metal catalyst-based MEAs for real-world proton exchange membrane fuel cell applications. <i>Science Advances</i> , 2018, 4, eaar7180.	4.7	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. <i>Electrochemistry Communications</i> , 2009, 11, 438-441.	2.3	152
16	Rh(I)-Catalyzed Intramolecular [3 + 2] Cycloaddition of <i>trans</i> -Vinylcyclopropane-enes. <i>Journal of the American Chemical Society</i> , 2008, 130, 7178-7179.	6.6	139
17	Is the rapid initial performance loss of Fe/N/C non precious metal catalysts due to micropore flooding?. <i>Energy and Environmental Science</i> , 2017, 10, 296-305.	15.6	127
18	Titanium carbide and its core-shelled derivative TiC@TiO ₂ as catalyst supports for proton exchange membrane fuel cells. <i>Electrochimica Acta</i> , 2012, 69, 397-405.	2.6	126

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19	Multigrain Platinum Nanowires Consisting of Oriented Nanoparticles Anchored on Sulfur-Doped Graphene as a Highly Active and Durable Oxygen Reduction Electrocatalyst. <i>Advanced Materials</i> , 2015, 27, 1229-1234.	11.1	126
20	Integrating PGM-Free Catalysts into Catalyst Layers and Proton Exchange Membrane Fuel Cell Devices. <i>Advanced Materials</i> , 2019, 31, e1804846.	11.1	121
21	Pt/Pd Single-Atom Alloys as Highly Active Electrochemical Catalysts and the Origin of Enhanced Activity. <i>ACS Catalysis</i> , 2019, 9, 9350-9358.	5.5	106
22	Non-noble metal oxygen reduction electrocatalysts based on carbon nanotubes with controlled nitrogen contents. <i>Journal of Power Sources</i> , 2011, 196, 1795-1801.	4.0	105
23	Atomic-Scale Preparation of Octopod Nanoframes with High-Index Facets as Highly Active and Stable Catalysts. <i>Advanced Materials</i> , 2017, 29, .	11.1	89
24	Measurement of effective gas diffusion coefficients of catalyst layers of PEM fuel cells with a Loschmidt diffusion cell. <i>Journal of Power Sources</i> , 2011, 196, 674-678.	4.0	87
25	3D Porous Fe/N/C Spherical Nanostructures As High-Performance Electrocatalysts for Oxygen Reduction in Both Alkaline and Acidic Media. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 36944-36954.	4.0	83
26	Electrocatalytic activity and durability of Pt/NbO ₂ and Pt/Ti ₄ O ₇ nanofibers for PEM fuel cell oxygen reduction reaction. <i>Electrochimica Acta</i> , 2012, 59, 538-547.	2.6	81
27	An active and robust Si-Fe/N/C catalyst derived from waste reed for oxygen reduction. <i>Applied Catalysis B: Environmental</i> , 2018, 237, 85-93.	10.8	78
28	Non-noble metal-carbonized aerogel composites as electrocatalysts for the oxygen reduction reaction. <i>Electrochemistry Communications</i> , 2003, 5, 272-275.	2.3	74
29	Accelerated Stress Testing by Rotating Disk Electrode for Carbon Corrosion in Fuel Cell Catalyst Supports. <i>Journal of the Electrochemical Society</i> , 2015, 162, F783-F788.	1.3	69
30	Rational design of porous structures via molecular layer deposition as an effective stabilizer for enhancing Pt ORR performance. <i>Nano Energy</i> , 2019, 60, 111-118.	8.2	62
31	A New Fuel Cell Electrocatalyst Based on Carbonized Polyacrylonitrile Foam: The Nature of Platinum-Support Interactions. <i>Journal of the Electrochemical Society</i> , 1997, 144, 90-95.	1.3	58
32	Optimization of sulfur-doped graphene as an emerging platinum nanowires support for oxygen reduction reaction. <i>Nano Energy</i> , 2016, 19, 27-38.	8.2	58
33	A transient PEMFC model with CO poisoning and mitigation by O ₂ bleeding and Ru-containing catalyst. <i>Journal of Power Sources</i> , 2007, 166, 1-21.	4.0	57
34	Atomic layer deposition assisted Pt-SnO ₂ hybrid catalysts on nitrogen-doped CNTs with enhanced electrocatalytic activities for low temperature fuel cells. <i>International Journal of Hydrogen Energy</i> , 2011, 36, 11085-11092.	3.8	57
35	Web-like 3D Architecture of Pt Nanowires and Sulfur-Doped Carbon Nanotube with Superior Electrocatalytic Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 93-98.	3.2	57
36	Spectroscopic Investigation of a Polypyrrole/MoS ₄ 2- MoS ₃ Composite Film Electrode in Aqueous KCl Solution. <i>Journal of the Electrochemical Society</i> , 1995, 142, 2296-2301.	1.3	56

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37	Effect of Pt-loaded carbon support nanostructure on oxygen reduction catalysis. <i>Journal of Power Sources</i> , 2011, 196, 5438-5445.	4.0	55
38	Nanocrystalline tungsten carbide (WC) synthesis/characterization and its possible application as a PEM fuel cell catalyst support. <i>Electrochimica Acta</i> , 2012, 61, 198-206.	2.6	55
39	Effect of carbon support nanostructure on the oxygen reduction activity of Pt/C catalysts. <i>Journal of Materials Chemistry A</i> , 2013, 1, 2812.	5.2	53
40	Origin of achieving the enhanced activity and stability of Pt electrocatalysts with strong metal-support interactions via atomic layer deposition. <i>Nano Energy</i> , 2018, 53, 716-725.	8.2	53
41	Total Synthesis of (+)- <i>Asteriscanolide</i> : Further Exploration of the Rhodium(I)-Catalyzed [(5+2)+1] Reaction of Ene- <i>Vinylcyclopropanes</i> and CO. <i>Chemistry - an Asian Journal</i> , 2012, 7, 593-604.	1.7	51
42	High stability and activity of Pt electrocatalyst on atomic layer deposited metal oxide/nitrogen-doped graphene hybrid support. <i>International Journal of Hydrogen Energy</i> , 2014, 39, 15967-15974.	3.8	51
43	Impedance study of polypyrrole films doped with tetrathiomolybdate anions and containing molybdenum trisulfide. <i>The Journal of Physical Chemistry</i> , 1993, 97, 12373-12378.	2.9	48
44	Atomic layer deposited tantalum oxide to anchor Pt/C for a highly stable catalyst in PEMFCs. <i>Journal of Materials Chemistry A</i> , 2017, 5, 9760-9767.	5.2	48
45	Gold(I)-Catalyzed Ring Expansions of Unactivated Alkynylcyclopropanes to (<i>E</i>)-2-Alkylidenecyclobutanamines in the Presence of Sulfonamides. <i>Organic Letters</i> , 2010, 12, 804-807.	2.4	47
46	Low equivalent weight short-side-chain perfluorosulfonic acid ionomers in fuel cell cathode catalyst layers. <i>Journal of Power Sources</i> , 2011, 196, 6168-6176.	4.0	47
47	Ultralow Loading and High-Performing Pt Catalyst for a Polymer Electrolyte Membrane Fuel Cell Anode Achieved by Atomic Layer Deposition. <i>ACS Catalysis</i> , 2019, 9, 5365-5374.	5.5	47
48	Polypyrrole film electrodes electrochemically doped with tetrathiomolybdate anions: preparation and characterization. <i>Journal of Electroanalytical Chemistry</i> , 1992, 334, 35-55.	1.9	46
49	Cobalt-carbonized aerogel nanocomposites electrocatalysts for the oxygen reduction reaction. <i>International Journal of Hydrogen Energy</i> , 2005, 30, 1011-1015.	3.8	46
50	Pt-SnO ₂ /nitrogen-doped CNT hybrid catalysts for proton-exchange membrane fuel cells (PEMFC): Effects of crystalline and amorphous SnO ₂ by atomic layer deposition. <i>Journal of Power Sources</i> , 2013, 238, 144-149.	4.0	44
51	A New Fuel Cell Electrocatalyst Based on Highly Porous Carbonized Polyacrylonitrile Foam with Very Low Platinum Loading. <i>Journal of the Electrochemical Society</i> , 1996, 143, L7-L9.	1.3	43
52	A Study of the Catalytic Interface for O ₂ Electroreduction on Pt: The Interaction between Carbon Support Meso/Microstructure and Ionomer (Nafion) Distribution. <i>Journal of Physical Chemistry C</i> , 2009, 113, 298-307.	1.5	43
53	New insights into non-precious metal catalyst layer designs for proton exchange membrane fuel cells: Improving performance and stability. <i>Journal of Power Sources</i> , 2017, 344, 39-45.	4.0	43
54	Novel Mesoporous Carbon Supports for PEMFC Catalysts. <i>Catalysts</i> , 2015, 5, 1046-1067.	1.6	39

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55	Top-down bottom-up graphene synthesis. <i>Nano Futures</i> , 2019, 3, 042003.	1.0	39
56	Electrochemical preparation and characterization of conducting copolymers: poly(aniline-co-N-butylaniline). <i>Synthetic Metals</i> , 1997, 88, 65-72.	2.1	38
57	3D boron doped carbon nanorods/carbon-microfiber hybrid composites: synthesis and applications in a highly stable proton exchange membrane fuel cell. <i>Journal of Materials Chemistry</i> , 2011, 21, 18195.	6.7	38
58	Pt-SnO ₂ ~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. <i>Journal of Physical Chemistry C</i> , 2010, 114, 16488-16504.	1.5	37
59	Understanding the Corrosion Resistance of Meso- and Micro-Porous Carbons for Application in PEM Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2018, 165, F3230-F3240.	1.3	37
60	Improving the corrosion resistance of proton exchange membrane fuel cell carbon supports by pentafluorophenyl surface functionalization. <i>Journal of Power Sources</i> , 2018, 378, 732-741.	4.0	36
61	Oxygen reduction on a new electrocatalyst based on highly porous carbonized polyacrylonitrile microcellular foam with very low platinum loading. <i>Journal of Electroanalytical Chemistry</i> , 1996, 415, 115-121.	1.9	35
62	Carbon~Nb _{0.07} Ti _{0.93} O ₂ composite supported Pt~Pd electrocatalysts for PEM fuel cell oxygen reduction reaction. <i>Electrochimica Acta</i> , 2012, 75, 220-228.	2.6	35
63	Effect of CeOx Crystallite Size on the Chemical Stability of CeOx Nanoparticles. <i>Journal of the Electrochemical Society</i> , 2014, 161, F1075-F1080.	1.3	35
64	Embellished hollow spherical catalyst boosting activity and durability for oxygen reduction reaction. <i>Nano Energy</i> , 2018, 51, 745-753.	8.2	33
65	Evaluation of the Corrosion Resistance of Carbons for Use as PEM Fuel Cell Cathode Supports. <i>Journal of the Electrochemical Society</i> , 2015, 162, F1333-F1341.	1.3	32
66	TfOH-catalyzed tandem cyclopropane ring enlargement/C~C formation/etherification of alkynylcyclopropanes and 1,3-diketones to cyclobutane-fused dihydrofurans. <i>Chemical Communications</i> , 2011, 47, 794-796.	2.2	31
67	Wettability of Nafion and Nafion/Vulcan Carbon Composite Films. <i>Langmuir</i> , 2012, 28, 6698-6705.	1.6	31
68	Electrochemistry of poly(aniline-co-N-butylaniline) copolymer: Comparison with polyaniline and poly(N-butylaniline). <i>Journal of Electroanalytical Chemistry</i> , 1995, 381, 71-80.	1.9	30
69	Highly Durable Platinum-Cobalt Nanowires by Microwave Irradiation as Oxygen Reduction Catalyst for PEM Fuel Cell. <i>Electrochemical and Solid-State Letters</i> , 2012, 15, B83.	2.2	30
70	First time investigation of Pt nanocatalysts deposited inside carbon mesopores of controlled length and diameter. <i>Journal of Materials Chemistry</i> , 2012, 22, 7164.	6.7	29
71	Oxygen reduction activity dependence on the mesoporous structure of imprinted carbon supports. <i>Electrochemistry Communications</i> , 2010, 12, 1666-1669.	2.3	28
72	Mechanisms of Brønsted Acid Catalyzed Additions of Phenols and Protected Amines to Olefins: A DFT Study. <i>European Journal of Organic Chemistry</i> , 2008, 2008, 4296-4303.	1.2	27

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73	Electrocatalytic Oxygen Reduction Performance of Silver Nanoparticle Decorated Electrochemically Exfoliated Graphene. <i>Langmuir</i> , 2015, 31, 9718-9727.	1.6	27
74	Effects of crossover hydrogen on platinum dissolution and agglomeration. <i>Journal of Power Sources</i> , 2011, 196, 7985-7988.	4.0	26
75	Surface Characteristics of Microporous and Mesoporous Carbons Functionalized with Pentafluorophenyl Groups. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 2130-2142.	4.0	25
76	New insights into the surface properties of hard-templated ordered mesoporous carbons. <i>Carbon</i> , 2018, 127, 707-717.	5.4	25
77	Oxygen evolution on titanium anodes coated with conductive metallic oxides: Kinetics and mechanism in alkaline solution. <i>Electrochimica Acta</i> , 1996, 41, 827-834.	2.6	24
78	Fractal Dimension of Platinum Particles Dispersed in Highly Porous Carbonized Polyacrylonitrile Microcellular Foam. <i>Journal of the Electrochemical Society</i> , 1997, 144, 1734-1738.	1.3	23
79	Wettability of colloid-imprinted carbons by contact angle kinetics and water vapor sorption measurements. <i>Carbon</i> , 2015, 87, 44-60.	5.4	23
80	Degradation Resistant Cathodes in Polymer Electrolyte Membrane Fuel Cells. <i>ECS Transactions</i> , 2006, 3, 657-666.	0.3	22
81	PEM Fuel Cell Catalysts: The Importance of Catalyst Support. <i>ECS Transactions</i> , 2008, 16, 2101-2113.	0.3	22
82	Nb-doped TiO ₂ /carbon composite supports synthesized by ultrasonic spray pyrolysis for proton exchange membrane (PEM) fuel cell catalysts. <i>Journal of Power Sources</i> , 2012, 220, 1-9.	4.0	22
83	A regularization method for constructing trend function in Kriging model. <i>Structural and Multidisciplinary Optimization</i> , 2019, 59, 1221-1239.	1.7	21
84	Characterization of Catalyst Layer Structural Changes in PEMFC as a Function of Durability Testing. <i>ECS Transactions</i> , 2006, 3, 743-751.	0.3	20
85	Electrochemical and In Situ Spectroelectrochemical Study on Polypyrrole/Disulfide Composite Electrode. <i>Journal of the Electrochemical Society</i> , 1994, 141, L49-L50.	1.3	19
86	Oxygen reduction on an iron?carbonized aerogel nanocomposite electrocatalyst. <i>Journal of Solid State Electrochemistry</i> , 2005, 9, 146-153.	1.2	19
87	Controlling the deposition of Pt nanoparticles within the surface region of Nafion. <i>Journal of Membrane Science</i> , 2011, 376, 162-169.	4.1	19
88	Effects of synthesis condition on formation of desired crystal structures of doped-TiO ₂ /carbon composite supports for ORR electrocatalysts. <i>Electrochimica Acta</i> , 2012, 77, 225-231.	2.6	19
89	UV-Vis spectroscopy method for screening the chemical stability of potential antioxidants for proton exchange membrane fuel cells. <i>Journal of Power Sources</i> , 2015, 281, 238-242.	4.0	18
90	Doped Ceria Nanoparticles with Reduced Solubility and Improved Peroxide Decomposition Activity for PEM Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2021, 168, 024507.	1.3	18

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91	A penalized blind likelihood Kriging method for surrogate modeling. <i>Structural and Multidisciplinary Optimization</i> , 2020, 61, 457-474.	1.7	17
92	A New Polypyrrole/Disulfide Electrode Studied by Electrochemistry and the Electrochemical Quartz Crystal Microbalance. <i>The Journal of Physical Chemistry</i> , 1996, 100, 15848-15855.	2.9	15
93	A new electrocatalyst consisting of a molecularly homogeneous platinum aerogel nanocomposite. <i>Canadian Journal of Chemistry</i> , 1997, 75, 1666-1673.	0.6	15
94	Tailoring Carbon Nanotube Microsphere Architectures with Controlled Porosity. <i>Advanced Functional Materials</i> , 2019, 29, 1903983.	7.8	15
95	Electrically Bloomed Platinum Nanoflowers on Exfoliated Graphene: An Efficient Alcohol Oxidation Catalyst. <i>Journal of the Electrochemical Society</i> , 2016, 163, D615-D621.	1.3	14
96	Composite Carbon Nanotube Microsphere Coatings for Use as Electrode Supports. <i>Advanced Functional Materials</i> , 2018, 28, 1803713.	7.8	14
97	Lateral growth of polypyrrole at an ionically conducting polymer coated dual electrode assembly. <i>Journal of Electroanalytical Chemistry</i> , 1993, 344, 395-400.	1.9	11
98	Graphene modified nanosized Ag electrocomposites. <i>Materials Research Bulletin</i> , 2017, 89, 42-50.	2.7	10
99	Reactive Sensor for Investigation of Gas Diffusion Layer Hydrophobicity in PEM Fuel Cells. <i>Electrochemical and Solid-State Letters</i> , 2008, 11, B148.	2.2	9
100	Cavitation Mediated 3D Microstructured Architectures from Nanocarbon. <i>Advanced Functional Materials</i> , 2018, 28, 1706832.	7.8	9
101	Polynomial Response Surface based on basis function selection by multitask optimization and ensemble modeling. <i>Complex & Intelligent Systems</i> , 2022, 8, 1015-1034.	4.0	8
102	Anodic oxidation of cyclic 1,3-diketones. <i>Electrochimica Acta</i> , 1991, 36, 597-603.	2.6	7
103	Selective anodic oxidation of camphor. <i>Tetrahedron</i> , 1991, 47, 5463-5470.	1.0	7
104	Liquid Crystalline Phase Templated Platinum Catalyst for Oxygen Reduction. <i>Journal of the Electrochemical Society</i> , 2009, 156, B1169.	1.3	7
105	Unexpected hydrogen oxidation selectivity of Pt/NbTiO ₂ catalysts. <i>Nano Energy</i> , 2016, 27, 157-166.	8.2	7
106	Facile Aza-Michael Additions of Uracil Derivatives to Acrylates. <i>Journal of Chemical Research</i> , 2012, 36, 114-117.	0.6	6
107	Nafion Film-Templated Platinum Electrodes for Oxygen Reduction. <i>Electrocatalysis</i> , 2010, 1, 22-27.	1.5	5
108	CO-tolerant Catalysts. , 2008, , 759-834.		5

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109	Single-phase La _{0.8} Sr _{0.2} Co ₁ MnO ₃ - electrocatalyst as a triple H ⁺ /O ₂ /e ⁻ conductor enabling high-performance intermediate-temperature water electrolysis. <i>Journal of Materiomics</i> , 2022, 8, 1020-1030.	2.8	5
110	Reversal-tolerant Catalyst Layers. , 2008, , 835-860.		4
111	Anodic Oxidation of 1,3-Cyclohexanedione to 1,2,3-Cyclohexanetrione. <i>Chemistry Letters</i> , 1992, 21, 609-612.	0.7	3
112	Electrochemical properties and stabilization of conducting poly(diarylanilines) in acetonitrile. <i>Synthetic Metals</i> , 1995, 73, 157-164.	2.1	3
113	Structural and Morphological Properties of Carbon Supports: Effect on Catalyst Degradation. <i>ECS Transactions</i> , 2010, 33, 425-431.	0.3	2
114	An Effective Surrogate Ensemble Modeling Method for Satellite Coverage Traffic Volume Prediction. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3689.	1.3	2
115	Characterization of the Catalyst Layer in a PEMFC During Subzero Operation. <i>ECS Transactions</i> , 2008, 12, 13-19.	0.3	1
116	Selective exposure of platinum catalyst embedded in protective oxide layer on conductive titanium carbide support. <i>Materials Today Energy</i> , 2019, 13, 353-361.	2.5	1
117	Anodic Oxidation of Norcamphor in Aqueous Electrolytes. <i>Journal für Praktische Chemie, Chemiker-Zeitung</i> , 1992, 334, 37-40.	0.5	0
118	Surfactant Assisted Catalyst Layer Deposition for PEM Fuel Cells. <i>ECS Transactions</i> , 2009, 16, 1787-1794.	0.3	0
119	Corrosion Study of Mesoporous Carbon Supports for Use in PEM Fuel Cells. <i>ECS Meeting Abstracts</i> , 2013, , .	0.0	0
120	Carbonaceous Nanowire Supports for Polymer Electrolyte Membrane Fuel Cells. <i>ECS Transactions</i> , 2015, 69, 1151-1166.	0.3	0
121	Carbonaceous Nanowire Supports for Polymer Electrolyte Membrane Fuel Cells. <i>Journal of the Electrochemical Society</i> , 2016, 163, F115-F121.	1.3	0