Qingying Jia

List of Publications by Year
in descending order

61 papers	9,703 citations	76326 40 h-index	123424 61 g-index
62 all docs	62 docs citations	62 times ranked	9539 citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrafine jagged platinum nanowires enable ultrahigh mass activity for the oxygen reduction reaction. Science, 2016, 354, 1414-1419.	12.6	1,292
2	Activity Descriptor Identification for Oxygen Reduction on Nonprecious Electrocatalysts: Linking Surface Science to Coordination Chemistry. Journal of the American Chemical Society, 2013, 135, 15443-15449.	13.7	719
3	Highly active oxygen reduction non-platinum group metal electrocatalyst without direct metalâ€“nitrogen coordination. Nature Communications, 2015, 6, 7343.	12.8	583
4	Experimental Observation of Redox-Induced Feâ€“N Switching Behavior as a Determinant Role for Oxygen Reduction Activity. ACS Nano, 2015, 9, 12496-12505.	14.6	499
5	Structural and mechanistic basis for the high activity of Feâ€“Nâ€“C catalysts toward oxygen reduction. Energy and Environmental Science, 2016, 9, 2418-2432.	30.8	472
6	Elucidating Oxygen Reduction Active Sites in Pyrolyzed Metalâ€“Nitrogen Coordinated Non-Precious-Metal Electrocatalyst Systems. Journal of Physical Chemistry C, 2014, 118, 8999-9008.	3.1	461
7	Identification of catalytic sites in cobalt-nitrogen-carbon materials for the oxygen reduction reaction. Nature Communications, 2017, 8, 957.	12.8	443
8	Microporous Framework Induced Synthesis of Single-Atom Dispersed Fe-N-C Acidic ORR Catalyst and Its in Situ Reduced Fe-N₄ Active Site Identification Revealed by X-ray Absorption Spectroscopy. ACS Catalysis, 2018, 8, 2824-2832.	11.2	433
9	Charge-Transfer Effects in Niâ€“Fe and Niâ€“Feâ€“Co Mixed-Metal Oxides for the Alkaline Oxygen Evolution Reaction. ACS Catalysis, 2016, 6, 155-161.	11.2	413
10	Chemical vapour deposition of Feâ€“Nâ€“C oxygen reduction catalysts with full utilization of dense Feâ€“N4 sites. Nature Materials, 2021, 20, 1385-1391.	27.5	359
11	Recent Insights into the Oxygen-Reduction Electrocatalysis of Fe/N/C Materials. ACS Catalysis, 2019, 9, 10126-10141.	11.2	295
12	Spectroscopic insights into the nature of active sites in ironâ€“nitrogenâ€“carbon electrocatalysts for oxygen reduction in acid. Nano Energy, 2016, 29, 65-82.	16.0	269
13	Unifying the Hydrogen Evolution and Oxidation Reactions Kinetics in Base by Identifying the Catalytic Roles of Hydroxyl-Water-Cation Adducts. Journal of the American Chemical Society, 2019, 141, 3232-3239.	13.7	220
14	Experimental Proof of the Bifunctional Mechanism for the Hydrogen Oxidation in Alkaline Media. Angewandte Chemie - International Edition, 2017, 56, 15594-15598.	13.8	194
15	Nano-structured non-platinum catalysts for automotive fuel cell application. Nano Energy, 2015, 16, 293-300.	16.0	190
16	Evolution Pathway from Iron Compounds to Fe₁(II)â€“N₄ Sites through Gas-Phase Iron during Pyrolysis. Journal of the American Chemical Society, 2020, 142, 1417-1423.	13.7	185
17	Unraveling the Nature of Sites Active toward Hydrogen Peroxide Reduction in Feâ€Nâ€C Catalysts. Angewandte Chemie - International Edition, 2017, 56, 8809-8812.	13.8	176
18	Roles of Mo Surface Dopants in Enhancing the ORR Performance of Octahedral PtNi Nanoparticles. Nano Letters, 2018, 18, 798-804.	9.1	162

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19	g-C₃N₄ promoted MOF derived hollow carbon nanopolyhedra doped with high density/fraction of single Fe atoms as an ultra-high performance non-precious catalyst towards acidic ORR and PEM fuel cells. Journal of Materials Chemistry A, 2019, 7, 5020-5030.	10.3	152
20	Activity Descriptor Identification for Oxygen Reduction on Platinum-Based Bimetallic Nanoparticles: <i>In Situ</i> Observation of the Linear Compositionâ€“Strainâ€“Activity Relationship. ACS Nano, 2015, 9, 387-400.	14.6	148
21	Metal and Metal Oxide Interactions and Their Catalytic Consequences for Oxygen Reduction Reaction. Journal of the American Chemical Society, 2017, 139, 7893-7903.	13.7	135
22	Atomically Dispersed MnN₄ Catalysts <i>via</i> Environmentally Benign Aqueous Synthesis for Oxygen Reduction: Mechanistic Understanding of Activity and Stability Improvements. ACS Catalysis, 2020, 10, 10523-10534.	11.2	123
23	Composite Ni/NiO-Cr₂O₃ Catalyst for Alkaline Hydrogen Evolution Reaction. Journal of Physical Chemistry C, 2015, 119, 5467-5477.	3.1	121
24	Improved Oxygen Reduction Activity and Durability of Dealloyed PtCo_{<i>x</i>} Catalysts for Proton Exchange Membrane Fuel Cells: Strain, Ligand, and Particle Size Effects. ACS Catalysis, 2015, 5, 176-186.	11.2	119
25	Asymmetric Volcano Trend in Oxygen Reduction Activity of Pt and Non-Pt Catalysts: <i>In Situ</i> Identification of the Site-Blocking Effect. Journal of the American Chemical Society, 2017, 139, 1384-1387.	13.7	114
26	Synthesis of highly-active Feâ€“Nâ€“C catalysts for PEMFC with carbide-derived carbons. Journal of Materials Chemistry A, 2018, 6, 14663-14674.	10.3	94
27	Resolving the Iron Phthalocyanine Redox Transitions for ORR Catalysis in Aqueous Media. Journal of Physical Chemistry Letters, 2017, 8, 2881-2886.	4.6	89
28	Hydrogen oxidation reaction in alkaline media: Relationship between electrocatalysis and electrochemical double-layer structure. Nano Energy, 2017, 41, 765-771.	16.0	89
29	Interfacial water shuffling the intermediates of hydrogen oxidation and evolution reactions in aqueous media. Energy and Environmental Science, 2020, 13, 3064-3074.	30.8	80
30	Effect of Pyrolysis Atmosphere and Electrolyte pH on the Oxygen Reduction Activity, Stability and Spectroscopic Signature of FeN_x Moieties in Fe-N-C Catalysts. Journal of the Electrochemical Society, 2019, 166, F3311-F3320.	2.9	70
31	Current understandings of the sluggish kinetics of the hydrogen evolution and oxidation reactions in base. Current Opinion in Electrochemistry, 2018, 12, 209-217.	4.8	64
32	Circumventing Metal Dissolution Induced Degradation of Pt-Alloy Catalysts in Proton Exchange Membrane Fuel Cells: Revealing the Asymmetric Volcano Nature of Redox Catalysis. ACS Catalysis, 2016, 6, 928-938.	11.2	63
33	Synthesis, Structure and Electrochemistry of Lithium Vanadium Phosphate Cathode Materials. Journal of the Electrochemical Society, 2011, 158, A1250.	2.9	59
34	Experimental Sabatier plot for predictive design of active and stable Pt-alloy oxygen reduction reaction catalysts. Nature Catalysis, 2022, 5, 513-523.	34.4	57
35	Palladiumâ€“Ceria Catalysts with Enhanced Alkaline Hydrogen Oxidation Activity for Anion Exchange Membrane Fuel Cells. ACS Applied Energy Materials, 2019, 2, 4999-5008.	5.1	56
36	Engendering anion immunity in oxygen consuming cathodes based on Fe-Nx electrocatalysts: Spectroscopic and electrochemical advanced characterizations. Applied Catalysis B: Environmental, 2016, 198, 318-324.	20.2	53

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37	Anion Resistant Oxygen Reduction Electrocatalyst in Phosphoric Acid Fuel Cell. ACS Catalysis, 2018, 8, 3833-3843.	11.2	53
38	Tuning Nbâ€“Pt Interactions To Facilitate Fuel Cell Electrocatalysis. ACS Catalysis, 2017, 7, 4936-4946.	11.2	49
39	Xâ€Ray Absorption Spectroscopy Characterizations on PGMâ€Free Electrocatalysts: Justification, Advantages, and Limitations. Advanced Materials, 2019, 31, e1805157.	21.0	48
40	Cobalt Phthalocyanine Catalyzed Lithium-Air Batteries. Journal of the Electrochemical Society, 2013, 160, A1577-A1586.	2.9	46
41	The role of electronic properties of Pt and Pt alloys for enhanced reformate electro-oxidation in polymer electrolyte membrane fuel cells. Electrochimica Acta, 2013, 107, 155-163.	5.2	42
42	Compressive Strain Reduces the Hydrogen Evolution and Oxidation Reaction Activity of Platinum in Alkaline Solution. ACS Catalysis, 2021, 11, 8165-8173.	11.2	37
43	<i>In Situ</i> Spectroscopic Evidence for Ordered Coreâ€“Ultrathin Shell Pt₁Co₁ Nanoparticles with Enhanced Activity and Stability as Oxygen Reduction Electrocatalysts. Journal of Physical Chemistry C, 2014, 118, 20496-20503.	3.1	36
44	Spectroscopic in situ Measurements of the Relative Pt Skin Thicknesses and Porosities of Dealloyed PtMn (Ni, Co) Electrocatalysts. Journal of Physical Chemistry C, 2015, 119, 757-765.	3.1	35
45	The Role of OOH Binding Site and Pt Surface Structure on ORR Activities. Journal of the Electrochemical Society, 2014, 161, F1323-F1329.	2.9	32
46	Fundamental Aspects of ad-Metal Dissolution and Contamination in Low and Medium Temperature Fuel Cell Electrocatalysis: A Cu Based Case Study Using In Situ Electrochemical X-ray Absorption Spectroscopy. Journal of Physical Chemistry C, 2013, 117, 4585-4596.	3.1	30
47	In Situ Identification of Non-Specific Adsorption of Alkali Metal Cations on Pt Surfaces and Their Catalytic Roles in Alkaline Solutions. ACS Catalysis, 2020, 10, 11099-11109.	11.2	27
48	Highly Active and Stable Feâ€“Nâ€“C Catalyst for Oxygen Depolarized Cathode Applications. Langmuir, 2017, 33, 9246-9253.	3.5	23
49	Experimental Proof of the Bifunctional Mechanism for the Hydrogen Oxidation in Alkaline Media. Angewandte Chemie, 2017, 129, 15800-15804.	2.0	23
50	Operando X-ray absorption and infrared fuel cell spectroscopy. Electrochimica Acta, 2011, 56, 8827-8832.	5.2	22
51	The Challenge of Achieving a High Density of Fe-Based Active Sites in a Highly Graphitic Carbon Matrix. Catalysts, 2019, 9, 144.	3.5	22
52	Physical vapor deposition process for engineering Pt based oxygen reduction reaction catalysts on NbOx templated carbon support. Journal of Power Sources, 2020, 451, 227709.	7.8	22
53	Enhancement of oxygen reduction reaction activity by grain boundaries in platinum nanostructures. Nano Research, 2020, 13, 3310-3314.	10.4	17
54	Unraveling the Nature of Sites Active toward Hydrogen Peroxide Reduction in Feâ€Nâ€C Catalysts. Angewandte Chemie, 2017, 129, 8935-8938.	2.0	16

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55	1D PtCo nanowires as catalysts for PEMFCs with low Pt loading. Science China Materials, 2022, 65, 704-711.	6.3	16
56	Actualizing In Situ X-ray Absorption Spectroscopy Characterization of PEMFC-Cycled Pt-Electrodes. Journal of the Electrochemical Society, 2018, 165, F597-F603.	2.9	12
57	In situ XAFS studies of the oxygen reduction reaction on carbon supported Pt and PtNi(1:1) catalysts. Journal of Physics: Conference Series, 2009, 190, 012157.	0.4	11
58	Understanding the ORR Electrocatalysis on Coâ€“Mn Oxides. Journal of Physical Chemistry C, 2021, 125, 25470-25477.	3.1	11
59	Electrochemical and In Situ Spectroscopic Evidences toward Empowering Ruthenium-Based Chalcogenides as Solid Acid Fuel Cell Cathodes. ACS Catalysis, 2017, 7, 581-591.	11.2	10
60	In situ X-ray absorption spectroscopy on probing the enhanced electrochemical activity of ternary PtRu@Pb catalysts. Electrochimica Acta, 2013, 108, 288-295.	5.2	7
61	<i>Operando</i> X-ray absorption spectroscopy of a Pd/Î³-NiOOH 2 nm cubes hydrogen oxidation catalyst in an alkaline membrane fuel cell. Catalysis Science and Technology, 2021, 11, 1337-1344.	4.1	4