Lei Zhao

List of Publications by Year
in descending order

89 papers	3,518 citations	125106 35 h-index	175968 55 g-index
89 all docs	89 docs citations	89 times ranked	4486 citing authors

#	Article	IF	Citations
1	Trigger Na+-solvent co-intercalation to achieve high-performance sodium-ion batteries at subzero temperature. Chemical Engineering Journal, 2022, 430, 132750.	6.6	13
2	Hierarchical 3D porous carbon with facilely accessible Feâ€“N₄ single-atom sites for Znâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 5925-5929.	5.2	37
3	Zinc/graphitic carbon nitride co-mediated dual-template synthesis of densely populated Feâ€“N_x-embedded 2D carbon nanosheets towards oxygen reduction reactions for Znâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 5971-5980.	5.2	12
4	Hollow structured Zn0.76Co0.24Sâ€“Co9S8 composite with two-phase synergistic effect as bifunctional catalysts. International Journal of Hydrogen Energy, 2022, 47, 8811-8819.	3.8	8
5	Vacuum vapor migration strategy for atomâ€“nanoparticle composite catalysts boosting bifunctional oxygen catalysis and rechargeable Znâ€“air batteries. Journal of Materials Chemistry A, 2022, 10, 3112-3121.	5.2	17
6	Coupling fine Pt nanoparticles and Co-Nx moiety as a synergistic bi-active site catalyst for oxygen reduction reaction in acid media. Journal of Colloid and Interface Science, 2022, 613, 276-284.	5.0	16
7	Surfactant-assisted synthesis of platinum nanoparticle catalysts for proton exchange membrane fuel cells. International Journal of Hydrogen Energy, 2022, 47, 15001-15011.	3.8	11
8	Engineering Electrochemical Surface for Efficient Carbon Dioxide Upgrade. Advanced Energy Materials, 2022, 12, .	10.2	33
9	Materials Engineering toward Durable Electrocatalysts for Proton Exchange Membrane Fuel Cells. Advanced Energy Materials, 2022, 12, .	10.2	61
10	Preparation and electrochemical properties of natural spherical graphite materials coated with manganese chloride. Ionics, 2022, 28, 3187-3195.	1.2	1
11	Galvanic replacement mediated synthesis of Pd-Cu Alloy Nanospheres as Electrocatalysts for Formic Acid Oxidation. Materials Today Sustainability, 2022, , 100140.	1.9	5
12	Tailoring Nitrogen Terminals on MXene Enables Fast Charging and Stable Cycling Na-Ion Batteries at Low Temperature. Nano-Micro Letters, 2022, 14, .	14.4	28
13	Intercalation-pseudocapacitance hybrid anode for high rate and energy lithium-ion capacitors. Journal of Energy Chemistry, 2021, 55, 459-467.	7.1	26
14	Boosting ion/eâ^' transfer of Ti3C2 via interlayered and interfacial co-modification for high-performance Li-ion capacitors. Chemical Engineering Journal, 2021, 404, 127116.	6.6	32
15	Selfâ€Templated Hierarchically Porous Carbon Nanorods Embedded with Atomic Feâ€N₄ Active Sites as Efficient Oxygen Reduction Electrocatalysts in Znâ€Air Batteries. Advanced Functional Materials, 2021, 31, 2008085.	7.8	117
16	Microporous framework membranes for precise molecule/ion separations. Chemical Society Reviews, 2021, 50, 986-1029.	18.7	191
17	Stabilizing fluorine to achieve high-voltage and ultra-stable Na3V2(PO4)2F3 cathode for sodium ion batteries. Nano Energy, 2021, 82, 105659.	8.2	60
18	Metal-support interactions in designing noble metal-based catalysts for electrochemical CO2 reduction: Recent advances and future perspectives. Nano Research, 2021, 14, 3795-3809.	5.8	80

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19	A Gasâ€Phase Migration Strategy to Synthesize Atomically Dispersed Mnâ€Nâ€C Catalysts for Znâ€“Air Batteries. Small Methods, 2021, 5, e2100024.	4.6	44
20	How to appropriately assess the oxygen reduction reaction activity of platinum group metal catalysts with rotating disk electrode. IScience, 2021, 24, 103024.	1.9	33
21	Recent advances in highâ€loading catalysts for lowâ€temperature fuel cells: From nanoparticle to single atom. SusMat, 2021, 1, 569-592.	7.8	35
22	Fabrication of C@Mo Ti1â^'O2â^'Î´ nanocrystalline with functionalized interface as efficient and robust PtRu catalyst support for methanol electrooxidation. Journal of Energy Chemistry, 2020, 40, 7-14.	7.1	11
23	A phosphotungstic acid coupled silica-Nafion composite membrane with significantly enhanced ion selectivity for vanadium redox flow battery. Journal of Energy Chemistry, 2020, 41, 177-184.	7.1	37
24	A sponge-templated sandwich-like cobalt-embedded nitrogen-doped carbon polyhedron/graphene composite as a highly efficient catalyst for Znâ€“air batteries. Nanoscale, 2020, 12, 973-982.	2.8	74
25	Nitrogen doped carbon coated Mo modified TiO2 nanowires (NC@MTNWs-FI) with functionalized interfacial as advanced PtRu catalyst support for methanol electrooxidation. Electrochimica Acta, 2020, 331, 135410.	2.6	10
26	Effect of polytetrafluoroethylene (PTFE) in current collecting layer on the performance of zinc-air battery. Progress in Natural Science: Materials International, 2020, 30, 861-867.	1.8	6
27	Advanced non-noble materials in bifunctional catalysts for ORR and OER toward aqueous metalâ€“air batteries. Nanoscale, 2020, 12, 21534-21559.	2.8	91
28	Materializing efficient methanol oxidation via electron delocalization in nickel hydroxide nanoribbon. Nature Communications, 2020, 11, 4647.	5.8	117
29	Metal-free amino acid glycine-derived nitrogen-doped carbon aerogel with superhigh surface area for highly efficient Zn-Air batteries. Carbon, 2020, 167, 75-84.	5.4	43
30	Tantalum-Based Electrocatalyst for Polysulfide Catalysis and Retention for High-Performance Lithium-Sulfur Batteries. Matter, 2020, 3, 920-934.	5.0	104
31	Template-guided synthesis of Co nanoparticles embedded in hollow nitrogen doped carbon tubes as a highly efficient catalyst for rechargeable Zn-air batteries. Nano Energy, 2020, 71, 104592.	8.2	157
32	Bioinspired Graphene Oxide Membranes with Dual Transport Mechanisms for Precise Molecular Separation. Advanced Functional Materials, 2019, 29, 1905229.	7.8	75
33	Phosphotungstic acid immobilized nanofibers-Nafion composite membrane with low vanadium permeability and high selectivity for vanadium redox flow battery. Journal of Colloid and Interface Science, 2019, 542, 177-186.	5.0	39
34	Ultrathin Graphitic Carbon Coated Molybdenum Phosphide as Nobleâ€Metalâ€Free Electrocatalyst for Hydrogen Evolution. ChemistrySelect, 2019, 4, 846-852.	0.7	5
35	A highly proton-/vanadium-selective perfluorosulfonic acid membrane for vanadium redox flow batteries. New Journal of Chemistry, 2019, 43, 11374-11381.	1.4	18
36	Interface Functionalized Mo_xTi_{1â€“x}O_{2â^'Î´} Composite via a Postgrowth Modification Approach as High Performance PtRu Catalyst Support for Methanol Electrooxidation. ACS Applied Energy Materials, 2019, 2, 4882-4889.	2.5	3

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37	Hierarchical CoP3/NiMoO4 heterostructures on Ni foam as an efficient bifunctional electrocatalyst for overall water splitting. Ceramics International, 2019, 45, 17128-17136.	2.3	40
38	Oneâ€Step Interfacial Functionalization and Synthesis of Moâ€“Modified TiO 2 Nanocrystalline as Composite PtRu Anode Catalyst Support for DMFCs. ChemistrySelect, 2019, 4, 5055-5063.	0.7	1
39	Ultraâ€High Ion Selectivity of a Modified Nafion Composite Membrane for Vanadium Redox Flow Battery by Incorporation of Phosphotungstic Acid Coupled UiOâ€66â€NH₂. ChemistrySelect, 2019, 4, 4633-4641.	0.7	27
40	Hierarchical Heterostructured Mo₂C/Mo₃Co₃C Bouquet-like Nanowire Arrays: An Efficient Electrocatalyst for Hydrogen Evolution Reaction. ACS Sustainable Chemistry and Engineering, 2019, 7, 7294-7303.	3.2	41
41	Carbonâ€Coated and Interfacialâ€Functionalized Mixedâ€Phase Mo x Ti 1â^' x O 2â€Î´ Nanotubes as Highly Active and Durable PtRu Catalyst Support for Methanol Electrooxidation. Chemistry - an Asian Journal, 2019, 14, 1549-1556.	1.7	2
42	High energy and power lithium-ion capacitors based on Mn3O4/3D-graphene as anode and activated polyaniline-derived carbon nanorods as cathode. Chemical Engineering Journal, 2019, 370, 1485-1492.	6.6	86
43	Controlling the surface roughness of chain-like Pd nanowires by pH values as excellent catalysts for oxygen reduction reaction. International Journal of Hydrogen Energy, 2019, 44, 6551-6559.	3.8	24
44	Thermal-induced interlayer defect engineering toward super high-performance sodium ion capacitors. Nano Energy, 2019, 59, 17-25.	8.2	36
45	Facile one-step carbothermal reduction synthesis of Na3V2(PO4)2F3/C serving as cathode for sodium ion batteries. Electrochimica Acta, 2019, 298, 459-467.	2.6	56
46	Ultra-High Proton/Vanadium Selectivity of Polybenzimidazole Membrane by Incorporating Phosphotungstic Acid Functionalized Nanofibers for Vanadium Redox Flow Battery. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2019, 35, 1372-1381.	2.2	4
47	Supramolecular assembly promoted synthesis of three-dimensional nitrogen doped graphene frameworks as efficient electrocatalyst for oxygen reduction reaction and methanol electrooxidation. Applied Catalysis B: Environmental, 2018, 231, 224-233.	10.8	131
48	Mesoporous g-C3N4 derived nano-titanium nitride modified carbon black as ultra-fine PtRu catalyst support for Methanol electro-oxidation. International Journal of Hydrogen Energy, 2018, 43, 5153-5162.	3.8	27
49	One-Pot Synthesis of Co/CoFe₂O₄Nanoparticles Supported on N-Doped Graphene for Efficient Bifunctional Oxygen Electrocatalysis. ACS Sustainable Chemistry and Engineering, 2018, 6, 3556-3564.	3.2	85
50	WO3/C supported Pd catalysts for formic acid electro-oxidation activity. International Journal of Hydrogen Energy, 2018, 43, 407-416.	3.8	21
51	1D N-doped hierarchically porous hollow carbon tubes derived from a supramolecular template as metal-free electrocatalysts for a highly efficient oxygen reduction reaction. Journal of Materials Chemistry A, 2018, 6, 6212-6219.	5.2	69
52	Investigation of the mechanical properties of the modified poly(p-phenylene benzobisoxazole) fibers based on 2-(4-aminophenyl)-1H-benzimidazol-5-amine. High Performance Polymers, 2018, 30, 511-518.	0.8	5
53	Nitrogen-doped graphene aerogel with an open structure assisted by in-situ hydrothermal restructuring of ZIF-8 as excellent Pt catalyst support for methanol electro-oxidation. International Journal of Hydrogen Energy, 2018, 43, 21899-21907.	3.8	22
54	Pt Supported on Carbonâ€coating Antimony Tin Oxide as Anode Catalyst for Direct Methanol Fuel Cell. Fuel Cells, 2018, 18, 763-770.	1.5	10

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55	Construction of Anti-Ultraviolet â€œShielding Clothesâ€•on Poly(p-phenylene benzobisoxazole) Fibers: Metal Organic Framework-Mediated Absorption Strategy. ACS Applied Materials & Interfaces, 2018, 10, 43262-43274.	4.0	51
56	Supramolecular Assembly Templated Nitrogen-Doped Hollow Carbon Tubes as Highly Active and Durable Catalytic Support for Methanol Electrooxidation. ACS Applied Energy Materials, 2018, 1, 4096-4105.	2.5	10
57	Cobalt and Nitrogen Codoped Carbon Nanosheets Templated from NaCl as Efficient Oxygen Reduction Electrocatalysts. Chemistry - an Asian Journal, 2018, 13, 3057-3062.	1.7	24
58	Fenton-Reaction-Derived Fe/N-Doped Graphene with Encapsulated Fe3C Nanoparticles for Efficient Photo-Fenton Catalysis. Catalysis Letters, 2018, 148, 2528-2536.	1.4	8
59	One-pot synthesis of Co/N-doped mesoporous graphene with embedded Co/CoO_x nanoparticles for efficient oxygen reduction reaction. Nanoscale, 2017, 9, 10233-10239.	2.8	69
60	Three-dimensional hybrid aerogels built from graphene and polypyrrole-derived nitrogen-doped carbon nanotubes as a high-efficiency Pt-based catalyst support. Carbon, 2017, 121, 518-526.	5.4	26
61	Interfacial Separation-Enabled All-Dry Approach for Simultaneous Visualization, Transfer, and Enhanced Raman Analysis of Latent Fingerprints. ACS Applied Materials & Interfaces, 2017, 9, 37350-37356.	4.0	7
62	Hybrid of molybdenum trioxide and carbon as high performance platinum catalyst support for methanol electrooxidation. International Journal of Hydrogen Energy, 2017, 42, 2045-2053.	3.8	14
63	An Investigation of the High Performance of a Novel Type of Benzobisoxazole Fiber Based on 3,3-Diaminobenzidine. Polymers, 2016, 8, 420.	2.0	2
64	Effect of N-doped carbon quantum dots/multiwall-carbon nanotube composite support on Pt catalytic performance for methanol electrooxidation. RSC Advances, 2016, 6, 67096-67101.	1.7	10
65	Protein immobilization and fluorescence quenching on polydopamine thin films. Journal of Colloid and Interface Science, 2016, 477, 123-130.	5.0	33
66	Patterning of Metal Films on Arbitrary Substrates by Using Polydopamine as a UV-Sensitive Catalytic Layer for Electroless Deposition. Langmuir, 2016, 32, 5285-5290.	1.6	40
67	Nitrogen-doped carbon with mesoporous structure as high surface area catalyst support for methanol oxidation reaction. RSC Advances, 2016, 6, 39310-39316.	1.7	11
68	Simultaneous Transfer and Imaging of Latent Fingerprints Enabled by Interfacial Separation of Polydopamine Thin Film. Analytical Chemistry, 2016, 88, 10357-10361.	3.2	17
69	Nitrogen-doped carbon nanotubes for high-performance platinum-based catalysts in methanol oxidation reaction. Carbon, 2016, 108, 561-567.	5.4	57
70	Three-dimensional TiO₂@C nano-network with high porosity as a highly efficient Pt-based catalyst support for methanol electrooxidation. RSC Advances, 2016, 6, 79254-79262.	1.7	10
71	Ultra-fine Pt nanoparticles supported on 3D porous N-doped graphene aerogel as a promising electro-catalyst for methanol electrooxidation. Catalysis Communications, 2016, 86, 46-50.	1.6	48
72	3D Hierarchical Pt-Nitrogen-Doped-Graphene-Carbonized Commercially Available Sponge as a Superior Electrocatalyst for Low-Temperature Fuel Cells. ACS Applied Materials & Interfaces, 2016, 8, 16026-16034.	4.0	80

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73	Effect of different structures of carbon supports for cathode catalyst on performance of direct methanol fuel cell. International Journal of Hydrogen Energy, 2016, 41, 1859-1870.	3.8	37
74	Effect of core/shell structured TiO₂@C nanowire support on the Pt catalytic performance for methanol electrooxidation. Catalysis Science and Technology, 2016, 6, 3767-3775.	2.1	15
75	Hybrid of carbon-supported Pt nanoparticles and three dimensional graphene aerogel as high stable electrocatalyst for methanol electrooxidation. Electrochimica Acta, 2016, 189, 175-183.	2.6	65
76	Investigation on Electrocatalytic Activity and Stability of Pt/C Catalyst Prepared by Facile Solvothermal Synthesis for Direct Methanol Fuel Cell. Fuel Cells, 2015, 15, 619-627.	1.5	9
77	Highly Durable Direct Methanol Fuel Cell with Double-Layered Catalyst Cathode. Journal of Nanomaterials, 2015, 2015, 1-8.	1.5	3
78	Multiwall-carbon nanotube modified by N-doped carbon quantum dots as Pt catalyst support for methanol electrooxidation. Journal of Power Sources, 2015, 289, 63-70.	4.0	83
79	One-step electrodeposition of CuInxGa1âˆ'xSe2 thin films from a mixture system of ionic liquid and ethanol. New Journal of Chemistry, 2015, 39, 7742-7745.	1.4	8
80	Facile one-pot synthesis of Pt/graphene-TiO2 hybrid catalyst with enhanced methanol electrooxidation performance. Journal of Power Sources, 2015, 279, 210-217.	4.0	72
81	Honeycomb-like mesoporous nitrogen-doped carbon supported Pt catalyst for methanol electrooxidation. Carbon, 2015, 93, 1050-1058.	5.4	84
82	A rapid synthesis of TiO2 nanotubes in an ethylene glycol system by anodization as a Pt-based catalyst support for methanol electrooxidation. RSC Advances, 2015, 5, 35518-35523.	1.7	18
83	A newly-designed sandwich-structured grapheneâ€“Ptâ€“graphene catalyst with improved electrocatalytic performance for fuel cells. Journal of Materials Chemistry A, 2015, 3, 5313-5320.	5.2	55
84	Stabilization of gold nanoparticles on glass surface with polydopamine thin film for reliable LSPR sensing. Journal of Colloid and Interface Science, 2015, 460, 258-263.	5.0	34
85	One-pot synthesis of a three-dimensional graphene aerogel supported Pt catalyst for methanol electrooxidation. RSC Advances, 2015, 5, 98160-98165.	1.7	25
86	Multiphase sodium titanate/titania composite nanostructures as Pt-based catalyst supports for methanol oxidation. Journal of Materials Chemistry A, 2015, 3, 840-846.	5.2	31
87	Effect of multiwalled carbon nanotubes with different specific surface areas on the stability of supported Pt catalysts. Journal of Power Sources, 2014, 245, 637-643.	4.0	49
88	Effect of pH value on H2Ti2O5/TiO2 composite nanotubes as Pt catalyst support for methanol oxidation. Journal of Power Sources, 2014, 272, 196-202.	4.0	27
89	One-pot preparation and continuous spinning of carbon nanotube/poly(p-phenylene benzobisoxazole) copolymer fibers. Journal of Materials Chemistry, 2012, 22, 19863.	6.7	49