Zai-Lai Xie

List of Publications by Year
in descending order

74 papers	3,690 citations	126708 33 h-index	133063 59 g-index
78 all docs	78 docs citations	78 times ranked	5098 citing authors

#	Article	IF	Citations
1	Nature of the Nâ€“Pd Interaction in Nitrogen-Doped Carbon Nanotube Catalysts. ACS Catalysis, 2015, 5, 2740-2753.	5.5	355
2	Highly Selective CO₂ Electroreduction to CH₄ by Inâ€…Situ Generated Cu₂O Singleâ€Type Sites on a Conductive MOF: Stabilizing Key Intermediates with Hydrogen Bonding. Angewandte Chemie - International Edition, 2020, 59, 23641-23648.	7.2	335
3	Carbonâ€Doped BN Nanosheets for the Oxidative Dehydrogenation of Ethylbenzene. Angewandte Chemie - International Edition, 2017, 56, 8231-8235.	7.2	185
4	Biomass derived 2D carbonsviaa hydrothermal carbonization method as efficient bifunctional ORR/HER electrocatalysts. Journal of Materials Chemistry A, 2017, 5, 23481-23488.	5.2	166
5	Biomass-derived hierarchical porous carbons: boosting the energy density of supercapacitors via an ionothermal approach. Journal of Materials Chemistry A, 2017, 5, 13009-13018.	5.2	159
6	Propane Dehydrogenation over Pt Clusters Localized at the Sn Single-Site in Zeolite Framework. ACS Catalysis, 2020, 10, 818-828.	5.5	136
7	Hierarchical porous carbonaceous materials via ionothermal carbonization of carbohydrates. Journal of Materials Chemistry, 2011, 21, 7434.	6.7	131
8	Highly compressible three-dimensional graphene hydrogel for foldable all-solid-state supercapacitor. Journal of Power Sources, 2018, 384, 214-222.	4.0	98
9	In-situ fabrication of nitrogen-doped carbon nanosheets containing highly dispersed single iron atoms for oxygen reduction reaction. Journal of Power Sources, 2019, 412, 125-133.	4.0	92
10	Hydrothermal synthesis of core-shell MoO2/Î±-Mo2C heterojunction as high performance electrocatalyst for hydrogen evolution reaction. Applied Surface Science, 2018, 427, 693-701.	3.1	88
11	Multiple heteroatom-doped few-layer carbons for the electrochemical oxygen reduction reaction. Journal of Materials Chemistry A, 2018, 6, 22277-22286.	5.2	81
12	Improving ORR activity of carbon nanotubes by hydrothermal carbon deposition method. Journal of Energy Chemistry, 2017, 26, 712-718.	7.1	74
13	Biomolecule-derived N/S co-doped CNT-graphene hybrids exhibiting excellent electrochemical activities. Journal of Power Sources, 2019, 413, 408-417.	4.0	72
14	Transparent, flexible, and paramagnetic ionogels based on PMMA and the iron-based ionic liquid 1-butyl-3-methylimidazolium tetrachloroferrate(iii) [Bmim][FeCl4]. Journal of Materials Chemistry, 2010, 20, 9543.	6.7	70
15	Ionothermal synthesis of microporous and mesoporous carbon aerogels from fructose as electrode materials for supercapacitors. Journal of Materials Chemistry A, 2016, 4, 4497-4505.	5.2	66
16	A Novel Method to Immobilize Ru Nanoparticles on SBA-15 Firmly by Ionic Liquid and Hydrogenation of Arene. Catalysis Letters, 2005, 103, 59-62.	1.4	63
17	Ionic Liquid Based Approaches to Carbon Materials Synthesis. European Journal of Inorganic Chemistry, 2015, 2015, 1137-1147.	1.0	63
18	Self-template synthesis of hollow Fe-doped CoP prisms with enhanced oxygen evolution reaction activity. Journal of Energy Chemistry, 2021, 62, 415-422.	7.1	60

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19	Thermomorphic Behavior of the Ionic Liquids [C₄mim][FeCl₄] and [C₁₂mim][FeCl₄]. ChemPhysChem, 2011, 12, 364-368.	1.0	56
20	Ionic-liquid-induced ferroelectric polarization in poly(vinylidene fluoride) thin films. Applied Physics Letters, 2012, 100, .	1.5	56
21	Surfactant-assisted hydrothermal synthesis of nitrogen doped Mo2C@C composites as highly efficient electrocatalysts for hydrogen evolution reaction. International Journal of Hydrogen Energy, 2019, 44, 3702-3710.	3.8	55
22	A transparent, flexible, ion conductive, and luminescent PMMA ionogel based on a Pt/Eu bimetallic complex and the ionic liquid [Bmim][N(Tf)2]. Journal of Materials Chemistry, 2012, 22, 8110.	6.7	54
23	Propane dehydrogenation catalyzed by single Lewis acid site in Sn-Beta zeolite. Journal of Catalysis, 2021, 395, 155-167.	3.1	54
24	Two dimensional nanocarbons from biomass and biological molecules: Synthetic strategies and energy related applications. Journal of Energy Chemistry, 2021, 54, 795-814.	7.1	52
25	Carbonâ€Doped BN Nanosheets for the Oxidative Dehydrogenation of Ethylbenzene. Angewandte Chemie, 2017, 129, 8343-8347.	1.6	51
26	Surface Engineering of Rh Catalysts with N/S-Codoped Carbon Nanosheets toward High-Performance Hydrogen Evolution from Seawater. ACS Sustainable Chemistry and Engineering, 2019, 7, 18835-18843.	3.2	47
27	Porous carbon nanosheets from biological nucleobase precursor as efficient pH-independent oxygen reduction electrocatalyst. Carbon, 2020, 156, 179-186.	5.4	45
28	Methanol conversion on borocarbonitride catalysts: Identification and quantification of active sites. Science Advances, 2020, 6, eaba5778.	4.7	45
29	Nitrogen-Doped Carbon Nanotube-Supported Pd Catalyst for Improved Electrocatalytic Performance toward Ethanol Electrooxidation. Nano-Micro Letters, 2017, 9, 28.	14.4	39
30	Biomass Derived Grapheneâ€Like Carbons for Electrocatalytic Oxygen Reduction Reaction. ChemNanoMat, 2019, 5, 682-689.	1.5	39
31	Fine decoration of carbon nanotubes with metal organic frameworks for enhanced performance in supercapacitance and oxygen reduction reaction. Science Bulletin, 2017, 62, 1132-1141.	4.3	37
32	Recent progress of carbon-based metal-free materials in thermal-driven catalysis. Journal of Energy Chemistry, 2021, 58, 318-335.	7.1	35
33	Dyelonogels: Protonâ€Responsive Ionogels Based on a Dyeâ€Ionic Liquid Exhibiting Reversible Color Change. Advanced Functional Materials, 2014, 24, 2837-2843.	7.8	34
34	Pd-Supported N/S-Codoped Graphene-Like Carbons Boost Quinoline Hydrogenation Activity. ACS Sustainable Chemistry and Engineering, 2019, 7, 11369-11376.	3.2	34
35	Spatial Sites Separation Strategy to Fabricate Atomically Isolated Nickel Catalysts for Efficient CO2 Electroreduction. , 2021, 3, 454-461.		34
36	Template-free synthesis of graphene-like carbons as efficient carbocatalysts for selective oxidation of alkanes. Green Chemistry, 2020, 22, 1291-1300.	4.6	33

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37	The multifunctional roles of the ionic liquid [Bmim][BF4] in the creation of cadmium metalâ€“organic frameworks. CrystEngComm, 2012, 14, 4894.	1.3	32
38	Mesoporous graphite nanoflakes via ionothermal carbonization of fructose and their use in dye removal. RSC Advances, 2014, 4, 37423-37430.	1.7	31
39	Glucose-derived hydrothermal carbons as energy storage booster for vanadium redox flow batteries. Journal of Energy Chemistry, 2020, 45, 31-39.	7.1	27
40	Mg²⁺ incorporated Co-based MOF precursors for hierarchical CNT-containing porous carbons with ORR activity. Dalton Transactions, 2018, 47, 2810-2819.	1.6	25
41	Smallâ€Sized CuS Nanoparticles/N, S Coâ€Doped rGO Composites as the Anode Materials for Highâ€Performance Lithiumâ€Ion Batteries. Advanced Materials Interfaces, 2019, 6, 1900038.	1.9	25
42	Dualâ€Emission Luminescence of Magnesium Coordination Polymers Based on Mixed Organic Ligands. Chemistry - A European Journal, 2016, 22, 1334-1339.	1.7	24
43	2D quasi-ordered nitrogen and sulfur co-doped carbon materials from ionic liquid as metal-free electrocatalysts for ORR. RSC Advances, 2017, 7, 17941-17949.	1.7	22
44	Synthesis of mesoporous carbon/iron carbide hybrids with unusually high surface areas from the ionic liquid precursor [Bmim][FeCl4]. CrystEngComm, 2012, 14, 4946.	1.3	20
45	Hybrid organic-inorganic dyeionogels: Reversibly pH-responsive materials based dye-ionic liquids with improved structural stability and flexibility. Sensors and Actuators B: Chemical, 2017, 249, 486-492.	4.0	20
46	Nucleobase derived boron and nitrogen co-doped carbon nanosheets as efficient catalysts for selective oxidation and reduction reactions. Nanoscale, 2020, 12, 7797-7803.	2.8	20
47	Role of carbon quantum dots on Nickel titanate to promote water oxidation reaction under visible light illumination. Journal of Colloid and Interface Science, 2022, 607, 203-209.	5.0	19
48	Identification of active sites of B/N co-doped nanocarbons in selective oxidation of benzyl alcohol. Journal of Colloid and Interface Science, 2022, 608, 2801-2808.	5.0	18
49	An ionothermally synthesized Mg-based coordination polymer as a precursor for preparing porous carbons. CrystEngComm, 2015, 17, 4288-4292.	1.3	17
50	Microporous carbons derived from organosilica-containing carbon dots with outstanding supercapacitance. Dalton Transactions, 2018, 47, 5961-5967.	1.6	17
51	One-Step Synthesis of N, P-Codoped Carbon Nanosheets Encapsulated CoP Particles for Highly Efficient Oxygen Evolution Reaction. Frontiers in Chemistry, 2019, 7, 805.	1.8	17
52	Building microsphereâ€“nanosheet structures in N-doped carbon to improve its performance in the oxygen reduction reaction and vanadium redox flow batteries. Sustainable Energy and Fuels, 2020, 4, 559-570.	2.5	16
53	Formation of Nâ€rich Hierarchically Porous Carbon via Direct Growth ZIFâ€8 on C₃N₄ Nanosheet with Enhancing Electrochemical Performance. ChemistrySelect, 2018, 3, 6440-6449.	0.7	15
54	A generalized approach to adjust the catalytic activity of borocarbonitride for alkane oxidative dehydrogenation reactions. Journal of Catalysis, 2022, 405, 105-115.	3.1	15

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55	Photo-fluorination of nanodiamonds catalyzing oxidative dehydrogenation reaction of ethylbenzene. Nature Communications, 2021, 12, 6542.	5.8	14
56	Fluorinated poly(fluorenyl ether)s with linear multi-cationic side chains for vanadium redox flow batteries. Science China Materials, 2021, 64, 349-361.	3.5	13
57	A photochromic dual-functional Mg-CP exhibits white-emission after modification with CuI. Journal of Materials Chemistry C, 2016, 4, 2438-2441.	2.7	12
58	Single-atom cobalt-fused biomolecule-derived nitrogen-doped carbon nanosheets for selective oxidation reactions. Physical Chemistry Chemical Physics, 2021, 23, 14276-14283.	1.3	12
59	New insight into structural transformations of borocarbonitride in oxidative dehydrogenation of propane. Applied Catalysis A: General, 2021, 628, 118402.	2.2	12
60	Higher Alcohol Synthesis Over Rh Catalysts: Conditioning of Rh/N-CNTs by Co and Mn Entrapped in the Support. Catalysis Letters, 2016, 146, 2417-2424.	1.4	11
61	Modification of the carbide microstructure by N- and S-functionalization of the support in Mo_xC/CNT catalysts. Catalysis Science and Technology, 2016, 6, 3468-3475.	2.1	10
62	Three-dimensional mesoporous graphene-like carbons derived from a biomolecule exhibiting high-performance oxygen reduction activity. Sustainable Energy and Fuels, 2019, 3, 2809-2818.	2.5	10
63	Chloromethylation and Quaternization of Poly(aryl ether ketone sulfone)s with Clustered Electron-rich Phenyl Groups for Anion Exchange Membranes. Chinese Journal of Polymer Science (English Edition), 2020, 38, 278-287.	2.0	10
64	Three-Dimensional Porous Hexagonal Boron Nitride Fibers as Metal-Free Catalysts with Enhanced Catalytic Activity for Oxidative Dehydrogenation of Propane. Industrial & Engineering Chemistry Research, 2021, 60, 17949-17958.	1.8	10
65	Hydration of phenylacetylene on sulfonated carbon materials: active site and intrinsic catalytic activity. RSC Advances, 2018, 8, 38150-38156.	1.7	9
66	Organosilica-based ionogel derived nitrogen-doped microporous carbons for high performance supercapacitor electrodes. Inorganic Chemistry Frontiers, 2018, 5, 3091-3098.	3.0	9
67	The role of carbon dots â€“ derived underlayer in hematite photoanodes. Nanoscale, 2020, 12, 20220-20229.	2.8	9
68	Microcrystalline cellulose derived hierarchically porous nanocarbons via a template-free method for high performance supercapacitors. Diamond and Related Materials, 2021, 117, 108462.	1.8	7
69	Coupled porosity and heterojunction engineering: MOF-derived porous Co3O4 embedded on TiO2 nanotube arrays for water remediation. Chemosphere, 2021, 274, 129799.	4.2	5
70	Boosting the HER electrocatalytic activity over RuCu-supported carbon nanosheets as efficient pH-independent catalysts. FlatChem, 2021, 30, 100302.	2.8	5
71	Higher Alcohol Synthesis: Product Analysis Using the Concept of Effective Carbon Numbers. Chemie-Ingenieur-Technik, 2013, 85, 1290-1293.	0.4	3
72	Luminescent Ionogels with Excellent Transparency, High Mechanical Strength, and High Conductivity. Nanomaterials, 2020, 10, 2521.	1.9	3

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73	Mesoporous Carbons Derived from Pyrolysis of Organosilicaâ€Based Ionogels for Oxygen Reduction Reaction. ChemistrySelect, 2019, 4, 13828-13834.	0.7	1
74	Copper Sulfides: Smallâ€Sized CuS Nanoparticles/N, S Coâ€Doped rGO Composites as the Anode Materials for Highâ€Performance Lithiumâ€Ion Batteries (Adv. Mater. Interfaces 6/2019). Advanced Materials Interfaces, 2019, 6, 1970040.	1.9	0