Lei Ge

List of Publications by Year in descending order

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44069 34986 10,051 112 48 98 citations h-index g-index papers 114 114 114 12043 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Ultrathin Ironâ€Cobalt Oxide Nanosheets with Abundant Oxygen Vacancies for the Oxygen Evolution Reaction. Advanced Materials, 2017, 29, 1606793.	21.0	1,144
2	Twoâ€Step Boron and Nitrogen Doping in Graphene for Enhanced Synergistic Catalysis. Angewandte Chemie - International Edition, 2013, 52, 3110-3116.	13.8	863
3	Synthesis, characterization and evaluation of cation-ordered LnBaCo2O5+ as materials of oxygen permeation membranes and cathodes of SOFCs. Acta Materialia, 2008, 56, 4876-4889.	7.9	461
4	Metal organic framework based mixed matrix membranes: an overview on filler/polymer interfaces. Journal of Materials Chemistry A, 2018, 6, 293-312.	10.3	377
5	Direct evidence of boosted oxygen evolution over perovskite by enhanced lattice oxygen participation. Nature Communications, 2020, 11, 2002.	12.8	366
6	Advances and challenges in electrochemical CO ₂ reduction processes: an engineering and design perspective looking beyond new catalyst materials. Journal of Materials Chemistry A, 2020, 8, 1511-1544.	10.3	305
7	Facile synthesis of nitrogen doped reduced graphene oxide as a superior metal-free catalyst for oxidation. Chemical Communications, 2013, 49, 9914.	4.1	294
8	Gas diffusion electrodes (GDEs) for electrochemical reduction of carbon dioxide, carbon monoxide, and dinitrogen to value-added products: a review. Energy and Environmental Science, 2021, 14, 1959-2008.	30.8	243
9	A Surfactantâ€Free and Scalable General Strategy for Synthesizing Ultrathin Twoâ€Dimensional Metal–Organic Framework Nanosheets for the Oxygen Evolution Reaction. Angewandte Chemie - International Edition, 2019, 58, 13565-13572.	13.8	205
10	Selectivity Control for Electrochemical CO ₂ Reduction by Charge Redistribution on the Surface of Copper Alloys. ACS Catalysis, 2019, 9, 9411-9417.	11.2	172
11	Defectâ€Induced Pt–Co–Se Coordinated Sites with Highly Asymmetrical Electronic Distribution for Boosting Oxygenâ€Involving Electrocatalysis. Advanced Materials, 2019, 31, e1805581.	21.0	168
12	Tuning oxygen vacancies in two-dimensional iron-cobalt oxide nanosheets through hydrogenation for enhanced oxygen evolution activity. Nano Research, 2018, 11, 3509-3518.	10.4	167
13	Mixed Matrix Membranes with Strengthened MOFs/Polymer Interfacial Interaction and Improved Membrane Performance. ACS Applied Materials & Samp; Interfaces, 2014, 6, 5609-5618.	8.0	163
14	Ionic Liquids as the MOFs/Polymer Interfacial Binder for Efficient Membrane Separation. ACS Applied Materials & Samp; Interfaces, 2016, 8, 32041-32049.	8.0	157
15	High-Performance PEDOT:PSS Flexible Thermoelectric Materials and Their Devices by Triple Post-Treatments. Chemistry of Materials, 2019, 31, 5238-5244.	6.7	153
16	Amphiphobic PVDF composite membranes for anti-fouling direct contact membrane distillation. Journal of Membrane Science, 2016, 505, 61-69.	8.2	141
17	Mixed matrix membranes incorporated with size-reduced Cu-BTC for improved gas separation. Journal of Materials Chemistry A, 2013, 1, 6350.	10.3	140
18	High activity electrocatalysts from metal–organic framework-carbon nanotube templates for the oxygen reduction reaction. Carbon, 2015, 82, 417-424.	10.3	140

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19	High performance cobalt-free perovskite cathode for intermediate temperature solid oxide fuel cells. Journal of Materials Chemistry, 2010, 20, 9619.	6.7	133
20	Highâ€Performance Perovskite Composite Electrocatalysts Enabled by Controllable Interface Engineering. Small, 2021, 17, e2101573.	10.0	128
21	Mixed-Matrix Membranes with Metal–Organic Framework-Decorated CNT Fillers for Efficient CO ₂ Separation. ACS Applied Materials & Samp; Interfaces, 2015, 7, 14750-14757.	8.0	124
22	Electrochemical Reduction of CO ₂ to Ethane through Stabilization of an Ethoxy Intermediate. Angewandte Chemie - International Edition, 2020, 59, 19649-19653.	13.8	122
23	Systematic investigation on new SrCo1â^'yNbyO3â^'δ ceramic membranes with high oxygen semi-permeability. Journal of Membrane Science, 2008, 323, 436-443.	8.2	114
24	Novel B-site ordered double perovskite Ba ₂ Bi _{0.1} Sc _{0.2} Co _{1.7} O _{6â^x} for highly efficient oxygen reduction reaction. Energy and Environmental Science, 2011, 4, 872-875.	30.8	112
25	Properties and performance of A-site deficient (Ba0.5Sr0.5)1â°'xCo0.8Fe0.2O3â°'δ for oxygen permeating membrane. Journal of Membrane Science, 2007, 306, 318-328.	8.2	111
26	Enhanced gas permeability by fabricating functionalized multi-walled carbon nanotubes and polyethersulfone nanocomposite membrane. Separation and Purification Technology, 2011, 78, 76-82.	7.9	109
27	In situ synthesis of zeolitic imidazolate frameworks/carbon nanotube composites with enhanced CO2 adsorption. Dalton Transactions, 2014, 43, 7028.	3.3	108
28	Anti-fouling membranes by manipulating surface wettability and their anti-fouling mechanism. Desalination, 2017, 413, 127-135.	8.2	108
29	Porous Polyethersulfone-Supported Zeolitic Imidazolate Framework Membranes for Hydrogen Separation. Journal of Physical Chemistry C, 2012, 116, 13264-13270.	3.1	96
30	Halloysite-Nanotube-Supported Ru Nanoparticles for Ammonia Catalytic Decomposition to Produce CO _{<i>x</i>} -Free Hydrogen. Energy & Energy	5.1	88
31	Electrochemical CO2 reduction in membrane-electrode assemblies. CheM, 2022, 8, 663-692.	11.7	86
32	Investigation of Gas Permeability in Carbon Nanotube (CNT)â^'Polymer Matrix Membranes via Modifying CNTs with Functional Groups/Metals and Controlling Modification Location. Journal of Physical Chemistry C, 2011, 115, 6661-6670.	3.1	83
33	Amorphous Iron Oxide Decorated 3D Heterostructured Electrode for Highly Efficient Oxygen Reduction. Chemistry of Materials, 2011, 23, 4193-4198.	6.7	80
34	Shape-tuned electrodeposition of bismuth-based nanosheets on flow-through hollow fiber gas diffusion electrode for high-efficiency CO2 reduction to formate. Applied Catalysis B: Environmental, 2021, 286, 119945.	20.2	77
35	New Undisputed Evidence and Strategy for Enhanced Latticeâ€Oxygen Participation of Perovskite Electrocatalyst through Cation Deficiency Manipulation. Advanced Science, 2022, 9, e2200530.	11.2	75
36	Rational Design of a Waterâ€Storable Hierarchical Architecture Decorated with Amorphous Barium Oxide and Nickel Nanoparticles as a Solid Oxide Fuel Cell Anode with Excellent Sulfur Tolerance. Advanced Science, 2017, 4, 1700337.	11.2	74

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37	Synthesis and characterization of three amino-functionalized metal–organic frameworks based on the 2-aminoterephthalic ligand. Dalton Transactions, 2015, 44, 8190-8197.	3.3	72
38	Evaluation and optimization of Bilâ^'xSrxFeO3â^'Î perovskites as cathodes of solid oxide fuel cells. International Journal of Hydrogen Energy, 2011, 36, 3179-3186.	7.1	70
39	Tuning the Product Selectivity of the Cu Hollow Fiber Gas Diffusion Electrode for Efficient CO ₂ Reduction to Formate by Controlled Surface Sn Electrodeposition. ACS Applied Materials & Diffusion and Surface Sn Electrodeposition. ACS Applied Materials & Diffusion and Surface Sn Electrodeposition.	8.0	69
40	Propylene/propane selective mixed matrix membranes with grape-branched MOF/CNT filler. Journal of Materials Chemistry A, 2016, 4, 6084-6090.	10.3	65
41	A Surfactantâ€Free and Scalable General Strategy for Synthesizing Ultrathin Twoâ€Dimensional Metal–Organic Framework Nanosheets for the Oxygen Evolution Reaction. Angewandte Chemie, 2019, 131, 13699-13706.	2.0	64
42	Toward Excellence of Transition Metalâ€Based Catalysts for CO ₂ Electrochemical Reduction: An Overview of Strategies and Rationales. Small Methods, 2020, 4, 2000033.	8.6	60
43	Composite cathodes for protonic ceramic fuel cells: Rationales and materials. Composites Part B: Engineering, 2022, 238, 109881.	12.0	59
44	Highly active nickel–cobalt/nanocarbon thin films as efficient water splitting electrodes. Nanoscale, 2016, 8, 18507-18515.	5.6	56
45	Fine-Tuning the Coordinatively Unsaturated Metal Sites of Metal–Organic Frameworks by Plasma Engraving for Enhanced Electrocatalytic Activity. ACS Applied Materials & Interfaces, 2019, 11, 44300-44307.	8.0	53
46	High-performance metal-organic framework-perovskite hybrid as an important component of the air-electrode for rechargeable Zn-Air battery. Journal of Power Sources, 2020, 468, 228377.	7.8	52
47	Hierarchically structured metal–organic framework/vertically-aligned carbon nanotubes hybrids for CO2 capture. RSC Advances, 2013, 3, 25360.	3.6	51
48	Surface-etched halloysite nanotubes in mixed matrix membranes for efficient gas separation. Separation and Purification Technology, 2017, 173, 63-71.	7.9	50
49	Deactivation and Regeneration of Oxygen Reduction Reactivity on Double Perovskite Ba ₂ Bi _{0.1} Cathode for Intermediate-Temperature Solid Oxide Fuel Cells. Chemistry of Materials, 2011, 23, 1618-1624.	6.7	49
50	Pore channel surface modification for enhancing anti-fouling membrane distillation. Applied Surface Science, 2018, 443, 217-226.	6.1	48
51	Oxygen selective membranes based on B-site cation-deficient (Ba0.5Sr0.5)(Co0.8Fe0.2)yO3â^Î perovskite with improved operational stability. Journal of Membrane Science, 2008, 318, 182-190.	8.2	47
52	Halloysite Nanotube Supported Ru Nanocatalysts Synthesized by the Inclusion of Preformed Ru Nanoparticles for Preferential Oxidation of CO in H ₂ -Rich Atmosphere. Journal of Physical Chemistry C, 2013, 117, 4141-4151.	3.1	46
53	From scheelite BaMoO4 to perovskite BaMoO3: Enhanced electrocatalysis toward the hydrogen evolution in alkaline media. Composites Part B: Engineering, 2020, 198, 108214.	12.0	46
54	The preparation of activated carbon discs from tar pitch and coal powder for adsorption of CO 2 , CH 4 and N 2 . Microporous and Mesoporous Materials, 2017 , 238 , 19 - 26 .	4.4	45

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55	Calcium Looping for CO ₂ Capture at a Constant High Temperature. Energy & Camp; Fuels, 2014, 28, 307-318.	5.1	43
56	Bronze alloys with tin surface sites for selective electrochemical reduction of CO ₂ . Chemical Communications, 2018, 54, 13965-13968.	4.1	43
57	Interfacial engineering of a polymer–MOF composite by <i>in situ</i> vitrification. Chemical Communications, 2020, 56, 3609-3612.	4.1	43
58	Enabling Process Intensification by 3 D Printing of Catalytic Structures. ChemCatChem, 2017, 9, 4132-4138.	3.7	39
59	Facile autocombustion synthesis of La0.6Sr0.4Co0.2Fe0.8O3â^'Î^ (LSCF) perovskite via a modified complexing sol–gel process with NH4NO3 as combustion aid. Journal of Alloys and Compounds, 2008, 450, 338-347.	5.5	38
60	A comparison study of catalytic oxidation and acid oxidation to prepare carbon nanotubes for filling with Ru nanoparticles. Carbon, 2011, 49, 2022-2032.	10.3	38
61	Surface functionalization of graphene oxide by amino acids for Thermomyces lanuginosus lipase adsorption. Journal of Colloid and Interface Science, 2019, 546, 211-220.	9.4	38
62	Orientated growth of copper-based MOF for acetylene storage. Chemical Engineering Journal, 2019, 357, 320-327.	12.7	36
63	Modulated Sn Oxidation States over a Cu ₂ O-Derived Substrate for Selective Electrochemical CO ₂ Reduction. ACS Applied Materials & Interfaces, 2020, 12, 22760-22770.	8.0	36
64	Activated carbon derived from bio-waste hemp hurd and retted hemp hurd for CO2 adsorption. Composites Communications, 2017, 5, 27-30.	6.3	35
65	Stand-alone asymmetric hollow fiber gas-diffusion electrodes with distinguished bronze phases for high-efficiency CO2 electrochemical reduction. Applied Catalysis B: Environmental, 2021, 298, 120538.	20.2	35
66	Vertically-aligned carbon nanotube membranes for hydrogen separation. RSC Advances, 2012, 2, 5329.	3.6	33
67	Electrochemical Reduction of CO ₂ to Ethane through Stabilization of an Ethoxy Intermediate. Angewandte Chemie, 2020, 132, 19817-19821.	2.0	33
68	Improved enzymatic activity by oriented immobilization on graphene oxide with tunable surface heterogeneity. Composites Part B: Engineering, 2021, 216, 108788.	12.0	32
69	Anisotropic coal permeability estimation by determining cleat compressibility using mercury intrusion porosimetry and stress–strain measurements. International Journal of Coal Geology, 2019, 205, 75-86.	5.0	31
70	Catalyst–Electrolyte Interactions in Aqueous Reline Solutions for Highly Selective Electrochemical CO ₂ Reduction. ChemSusChem, 2020, 13, 304-311.	6.8	29
71	Activation of peroxydisulfate by defect-rich CuO nanoparticles supported on layered MgO for organic pollutants degradation: An electron transfer mechanism. Chemical Engineering Journal, 2022, 431, 134026.	12.7	29
72	Double-site yttria-doped Sr1â^'xYxCo1â^'yYyO3â^'Î^ perovskite oxides as oxygen semi-permeable membranes. Journal of Alloys and Compounds, 2009, 474, 477-483.	5 . 5	28

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73	Permeability enhancement of coal by chemical-free fracturing using high-voltage electrohydraulic discharge. Journal of Natural Gas Science and Engineering, 2018, 57, 1-10.	4.4	28
74	Interfacial microenvironment for lipase immobilization: Regulating the heterogeneity of graphene oxide. Chemical Engineering Journal, 2020, 394, 125038.	12.7	28
75	Catalysis based on ferroelectrics: controllable chemical reaction with boosted efficiency. Nanoscale, 2021, 13, 7096-7107.	5.6	27
76	Evaluation of mixedâ€conducting lanthanumâ€strontiumâ€cobaltite ceramic membrane for oxygen separation. AICHE Journal, 2009, 55, 2603-2613.	3.6	26
77	Effect of sonication and hydrogen peroxide oxidation of carbon nanotube modifiers on the microstructure of pitch-derived activated carbon foam discs. Carbon, 2017, 124, 142-151.	10.3	24
78	Flexible A-site doping La0.6-xMxSr0.4Co0.2Fe0.8O3 (M=Ca, Ba, Bi; x=0, 0.1, 0.2) as novel cathode material for intermediate-temperature solid oxide fuel cells: A first-principles study and experimental exploration. Journal of Power Sources, 2021, 490, 229564.	7.8	24
79	Characterisation and evaluation of shockwave generation in water conditions for coal fracturing. Journal of Natural Gas Science and Engineering, 2019, 66, 255-264.	4.4	22
80	Co-localization of glucose oxidase and catalase enabled by a self-assembly approach: Matching between molecular dimensions and hierarchical pore sizes. Food Chemistry, 2019, 275, 197-205.	8.2	21
81	Regulating the reaction zone of electrochemical CO2 reduction on gas-diffusion electrodes by distinctive hydrophilic-hydrophobic catalyst layers. Applied Catalysis B: Environmental, 2022, 310, 121362.	20.2	21
82	Effects of preparation methods on the oxygen nonstoichiometry, B-site cation valences and catalytic efficiency of perovskite La0.6Sr0.4Co0.2Fe0.8O3ⴴδ. Ceramics International, 2009, 35, 3201-3206.	4.8	20
83	Unveiling the effects of dimensionality of tin oxide-derived catalysts on CO ₂ reduction by using gas-diffusion electrodes. Reaction Chemistry and Engineering, 2021, 6, 345-352.	3.7	20
84	The preparation, structures, and properties of poly(vinylidene fluoride)/multiwall carbon nanotubes nanocomposites. Journal of Applied Polymer Science, 2012, 125, E592.	2.6	19
85	Effect of rheological properties of mesophase pitch and coal mixtures on pore development in activated carbon discs with high compressive strength. Fuel Processing Technology, 2018, 177, 219-227.	7.2	19
86	Difference in the cooperative interaction between carbon nanotubes and Ru particles loaded on their internal/external surface. RSC Advances, 2013, 3, 12641.	3.6	18
87	Combined Adsorption and Covalent Linking of Paclitaxel on Functionalized Nano-Graphene Oxide for Inhibiting Cancer Cells. ACS Omega, 2018, 3, 2396-2405.	3.5	18
88	Laser-Induced N- and B-Codoped Graphene Nanozymes with Intrinsic Peroxidase-Like Activities for Bactericidal Application. ACS Sustainable Chemistry and Engineering, 2022, 10, 2750-2760.	6.7	18
89	Affinity induced immobilization of adenylate cyclase from the crude cell lysate for ATP conversion. Colloids and Surfaces B: Biointerfaces, 2018, 164, 155-164.	5.0	16
90	A nitrogen-doped electrocatalyst from metal–organic framework-carbon nanotube composite. Journal of Materials Research, 2018, 33, 538-545.	2.6	16

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91	Crystal Facet Engineering of Copper-Based Metal–Organic Frameworks with Inorganic Modulators. Crystal Growth and Design, 2021, 21, 926-934.	3.0	16
92	Enhanced hydrogen separation by vertically-aligned carbon nanotube membranes with zeolite imidazolate frameworks as a selective layer. RSC Advances, 2012, 2, 11793.	3.6	15
93	Gas storage potential and electrohydraulic discharge (EHD) stimulation of coal seam interburden from the Surat Basin. International Journal of Coal Geology, 2019, 208, 24-36.	5.0	14
94	Carbon Monoliths by Assembling Carbon Spheres for Gas Adsorption. Industrial & Engineering Chemistry Research, 2019, 58, 4957-4969.	3.7	14
95	Low-temperature synthesis of La0.6Sr0.4Co0.2Fe0.8O3â^Î perovskite powder via asymmetric sol–gel process and catalytic auto-combustion. Ceramics International, 2009, 35, 2809-2815.	4.8	13
96	Facile auto-combustion synthesis for oxygen separation membrane application. Journal of Membrane Science, 2009, 329, 219-227.	8.2	13
97	Improved adenylate cyclase activity via affinity immobilization onto co-modified GO with bio-inspired adhesive and PEI. Colloids and Surfaces B: Biointerfaces, 2021, 205, 111888.	5.0	13
98	Silver-Perovskite Hybrid Electrocatalysts for Oxygen Reduction Reaction in Alkaline Media. Journal of the Electrochemical Society, 2018, 165, H524-H529.	2.9	12
99	Electron acceptor design for 2D/2D iodinene/carbon nitride heterojunction boosting charge transfer and CO2 photoreduction. Chemical Engineering Journal, 2022, 433, 133594.	12.7	11
100	The controllable synthesis of urchin-shaped hierarchical superstructure MOFs with high catalytic activity and stability. Chemical Communications, 2021, 57, 8758-8761.	4.1	10
101	Efficient organic enrichment from sludge filtrate via a forward osmosis membrane process. Journal of Environmental Chemical Engineering, 2020, 8, 104042.	6.7	9
102	Stabilizing bienzymatic cascade catalysis via immobilization in ZIF-8/GO composites obtained by GO assisted co-growth. Colloids and Surfaces B: Biointerfaces, 2022, 217, 112585.	5.0	6
103	Effect of oxidation and silane surface treatments of coal powders on relative permeability in packed coal beds. Journal of Natural Gas Science and Engineering, 2019, 69, 102931.	4.4	5
104	Understanding the Effects of Anion Interactions with Ag Electrodes on Electrochemical CO 2 Reduction in Choline Halide Electrolytes. ChemSusChem, 2021, 14, 2601-2611.	6.8	5
105	A phase inversion polymer coating to prevent swelling and spalling of clay fines in coal seam gas wells. International Journal of Coal Science and Technology, 2018, 5, 179-190.	6.0	4
106	Perovskite Materials in Electrocatalysis. Materials Horizons, 2020, , 209-250.	0.6	4
107	Study on the Controllable Scale-Up Growth of Vertically-Aligned Carbon Nanotube Arrays. Journal of Nanoscience and Nanotechnology, 2012, 12, 2722-2732.	0.9	3
108	Cracking Behavior and Mechanism of Gibbsite Crystallites during Calcination. Crystal Research and Technology, 2019, 54, 1800201.	1.3	3

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109	Cracking behaviour and mechanism at grain boundary of gibbsite during calcination. Ceramics International, 2020, 46, 12067-12072.	4.8	2
110	Toward controlled geometric structure and surface property heterogeneities of TiO2 for lipase immobilization. Process Biochemistry, 2021, 110, 118-128.	3.7	2
111	Revealing cracking and breakage behaviours of gibbsite particles. Ceramics International, 2021, 47, 4625-4632.	4.8	1
112	Smart, Porous Polymer Coatings to Bind Clay Minerals in Coal Bed Methane Wells. , 2016, , .		0