

Jiajian Gao

List of Publications by Year in descending order

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Version: 2024-02-01

63
papers

10,662
citations

93792

39
h-index

145109

60
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64
all docs

64
docs citations

64
times ranked

12791
citing authors

#	ARTICLE	IF	CITATIONS
1	One-pot synthesis of Cr ^{1±} Mn ¹² CeTiO _x mixed oxides as NH ₃ -SCR catalysts with enhanced low-temperature catalytic activity and sulfur resistance. <i>Chemical Engineering Science</i> , 2022, 251, 117450.	1.9	19
2	Experimental and in situ DRIFTS studies on confined metallic copper stabilized Pd species for enhanced CO ₂ reduction to formate. <i>Applied Catalysis B: Environmental</i> , 2022, 309, 121239.	10.8	17
3	Ni-Ni ₃ /P/SiO ₂ Catalyst for Highly Selective Production of Silicon Tetrachloride via Silicon Hydrochlorination. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 5066-5079.	1.8	4
4	Structural Evolution and Underlying Mechanism of Single-Atom Centers on Mo ₂ C(100) Support during Oxygen Reduction Reaction. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 17075-17084.	4.0	4
5	Progress of Nonprecious-Metal-Based Electrocatalysts for Oxygen Evolution in Acidic Media. <i>Advanced Materials</i> , 2021, 33, e2003786.	11.1	166
6	Selective catalytic reduction of NO _x in marine engine exhaust gas over supported transition metal oxide catalysts. <i>Chemical Engineering Journal</i> , 2021, 414, 128794.	6.6	23
7	Orbital coupling of hetero-diatom nickel-iron site for bifunctional electrocatalysis of CO ₂ reduction and oxygen evolution. <i>Nature Communications</i> , 2021, 12, 4088.	5.8	259
8	Promotion Effect of Chromium on the Activity and SO ₂ Resistance of CeO ₂ -TiO ₂ Catalysts for the NH ₃ -SCR Reaction. <i>Industrial & Engineering Chemistry Research</i> , 2021, 60, 11676-11688.	1.8	18
9	Elucidating the Electrocatalytic CO ₂ Reduction Reaction over a Model Single-Atom Nickel Catalyst. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 798-803.	7.2	315
10	Elucidating the Electrocatalytic CO ₂ Reduction Reaction over a Model Single-Atom Nickel Catalyst. <i>Angewandte Chemie</i> , 2020, 132, 808-813.	1.6	33
11	Innentitelbild: Elucidating the Electrocatalytic CO ₂ Reduction Reaction over a Model Single-Atom Nickel Catalyst (Angew. Chem. 2/2020). <i>Angewandte Chemie</i> , 2020, 132, 518-518.	1.6	1
12	Microenvironment modulation of single-atom catalysts and their roles in electrochemical energy conversion. <i>Science Advances</i> , 2020, 6, .	4.7	214
13	Coordination engineering of iridium nanocluster bifunctional electrocatalyst for highly efficient and pH-universal overall water splitting. <i>Nature Communications</i> , 2020, 11, 4246.	5.8	221
14	Amorphous Multimetal Alloy Oxygen Evolving Catalysts. , 2020, 2, 624-632.		45
15	Rational Design of an Iridium-Tungsten Composite with an Iridium-Rich Surface for Acidic Water Oxidation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 25991-26001.	4.0	36
16	Amorphous versus Crystalline in Water Oxidation Catalysis: A Case Study of NiFe Alloy. <i>Nano Letters</i> , 2020, 20, 4278-4285.	4.5	201
17	Enhancing catalytic toluene oxidation over MnO ₂ @Co ₃ O ₄ by constructing a coupled interface. <i>Chinese Journal of Catalysis</i> , 2020, 41, 1873-1883.	6.9	57
18	Metal organic frameworks for adsorption-based separation of fluorocompounds: a review. <i>Materials Advances</i> , 2020, 1, 310-320.	2.6	53

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19	Progress of Electrochemical Hydrogen Peroxide Synthesis over Single Atom Catalysts. , 2020, 2, 1008-1024.		129
20	Design of hierarchical, three-dimensional free-standing single-atom electrode for H ₂ O ₂ production in acidic media. , 2020, 2, 276-282.		56
21	Enabling Direct H ₂ O ₂ Production in Acidic Media through Rational Design of Transition Metal Single Atom Catalyst. Chem, 2020, 6, 658-674.	5.8	418
22	Self-assembly of three-dimensional CdS nanosphere/graphene networks for efficient photocatalytic hydrogen evolution. Journal of Energy Chemistry, 2019, 31, 34-38.	7.1	35
23	Layered Structure Causes Bulk NiFe Layered Double Hydroxide Unstable in Alkaline Oxygen Evolution Reaction. Advanced Materials, 2019, 31, e1903909.	11.1	345
24	Bifunctional N-CoSe ₂ /3D-MXene as Highly Efficient and Durable Cathode for Rechargeable Zn-Air Battery. , 2019, 1, 432-439.		90
25	Breaking Long-Range Order in Iridium Oxide by Alkali Ion for Efficient Water Oxidation. Journal of the American Chemical Society, 2019, 141, 3014-3023.	6.6	337
26	Expedient synthesis of <i>E</i> -hydrazone esters and 1 <i>H</i> -indazole scaffolds through heterogeneous single-atom platinum catalysis. Science Advances, 2019, 5, eaay1537.	4.7	31
27	Fluorocarbon Separation in a Thermally Robust Zirconium Carboxylate Metal-Organic Framework. Chemistry - an Asian Journal, 2018, 13, 977-981.	1.7	16
28	Identifying Active Sites of Nitrogen-Doped Carbon Materials for the CO ₂ Reduction Reaction. Advanced Functional Materials, 2018, 28, 1800499.	7.8	244
29	An Earth-Abundant Catalyst-Based Seawater Photoelectrolysis System with 17.9% Solar Hydrogen Efficiency. Advanced Materials, 2018, 30, e1707261.	11.1	189
30	Atomically dispersed Ni(i) as the active site for electrochemical CO ₂ reduction. Nature Energy, 2018, 3, 140-147.	19.8	1,594
31	Nitrogen and sulfur Co-doped graphene inlaid with cobalt clusters for efficient oxygen reduction reaction. Materials Today Energy, 2018, 10, 184-190.	2.5	24
32	A strategy to regenerate coked and sintered Ni/Al ₂ O ₃ catalyst for methanation reaction. International Journal of Hydrogen Energy, 2018, 43, 20661-20670.	3.8	42
33	Single Cobalt Atoms Anchored on Porous N-Doped Graphene with Dual Reaction Sites for Efficient Fenton-like Catalysis. Journal of the American Chemical Society, 2018, 140, 12469-12475.	6.6	1,044
34	Adsorption separation of R134a, R125, and R143a fluorocarbon mixtures using 13X and surface modified 5A zeolites. AIChE Journal, 2018, 64, 640-648.	1.8	19
35	Direct and selective hydrogenation of CO ₂ to ethylene and propene by bifunctional catalysts. Catalysis Science and Technology, 2017, 7, 5602-5607.	2.1	118
36	Controllable synthesis of δ -MoCl _x and δ -Mo ₂ C nanowires for highly selective CO ₂ reduction to CO. Catalysis Communications, 2016, 84, 147-150.	1.6	66

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37	Sustainable hydrogen and chemical production via photo-electrochemical reforming of biomass-derived alcohols. Nano Research, 2016, 9, 3388-3393.	5.8	20
38	Identification of Surface Reactivity Descriptor for Transition Metal Oxides in Oxygen Evolution Reaction. Journal of the American Chemical Society, 2016, 138, 9978-9985.	6.6	345
39	Tuning chemical bonding of MnO ₂ through transition-metal doping for enhanced CO oxidation. Journal of Catalysis, 2016, 341, 82-90.	3.1	132
40	Adsorption Separation of R ₁₂₂ , R _{132a} and R ₁₂₅ Fluorocarbons using 4A Molecular Sieve Zeolite. ChemistrySelect, 2016, 1, 3718-3722.	0.7	20
41	The thermodynamics analysis and experimental validation for complicated systems in CO ₂ hydrogenation process. Journal of Energy Chemistry, 2016, 25, 1027-1037.	7.1	72
42	Identification of catalytic sites for oxygen reduction and oxygen evolution in N-doped graphene materials: Development of highly efficient metal-free bifunctional electrocatalyst. Science Advances, 2016, 2, e1501122.	4.7	1,078
43	Ni-MnO _x Catalysts Supported on Al ₂ O ₃ -Modified Si Waste with Outstanding CO Methanation Catalytic Performance. Industrial & Engineering Chemistry Research, 2015, 54, 12516-12524.	1.8	29
44	One-pot synthesis of ordered mesoporous Ni-V-Al catalysts for CO methanation. Journal of Catalysis, 2015, 326, 127-138.	3.1	127
45	Recent advances in methanation catalysts for the production of synthetic natural gas. RSC Advances, 2015, 5, 22759-22776.	1.7	411
46	Preparation of high-surface-area Ni γ -Al ₂ O ₃ catalysts for improved CO methanation. RSC Advances, 2015, 5, 7539-7546.	1.7	28
47	VO _x promoted Ni catalysts supported on the modified bentonite for CO and CO ₂ methanation. Fuel Processing Technology, 2015, 135, 34-46.	3.7	90
48	Coking-resistant Ni-ZrO ₂ /Al ₂ O ₃ catalyst for CO methanation. Journal of Energy Chemistry, 2014, 23, 761-770.	7.1	61
49	Highly active and stable Ni γ -Al ₂ O ₃ catalysts selectively deposited with CeO ₂ for CO methanation. RSC Advances, 2014, 4, 16094-16103.	1.7	94
50	MnO _x -CeO ₂ supported on a three-dimensional and networked SBA-15 monolith for NO _x -assisted soot combustion. RSC Advances, 2014, 4, 14879.	1.7	41
51	Effect of nickel nanoparticle size in Ni γ -Al ₂ O ₃ on CO methanation reaction for the production of synthetic natural gas. Catalysis Science and Technology, 2013, 3, 2009.	2.1	110
52	Enhanced fluidized bed methanation over a Ni/Al ₂ O ₃ catalyst for production of synthetic natural gas. Chemical Engineering Journal, 2013, 219, 183-189.	6.6	69
53	Nickel catalysts supported on calcium titanate for enhanced CO methanation. Catalysis Science and Technology, 2013, 3, 490-499.	2.1	76
54	Ni/Al ₂ O ₃ catalysts for CO methanation: Effect of Al ₂ O ₃ supports calcined at different temperatures. Journal of Energy Chemistry, 2013, 22, 919-927.	7.1	105

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55	Template preparation of high-surface-area barium hexaaluminate as nickel catalyst support for improved CO methanation. RSC Advances, 2013, 3, 18156.	1.7	34
56	A thermodynamic analysis of methanation reactions of carbon oxides for the production of synthetic natural gas. RSC Advances, 2012, 2, 2358.	1.7	619
57	Template-free synthesis of Cu@Cu ₂ O core-shell microspheres and their application as copper-based catalysts for dimethyldichlorosilane synthesis. Chemical Engineering Journal, 2012, 211-212, 421-431.	6.6	32
58	Nanostructured trimetallic Pt/FeRuC, Pt/NiRuC, and Pt/CoRuC catalysts for methanol electrooxidation. Journal of Materials Chemistry, 2012, 22, 13643.	6.7	65
59	Nickel Catalysts Supported on Barium Hexaaluminate for Enhanced CO Methanation. Industrial & Engineering Chemistry Research, 2012, 51, 10345-10353.	1.8	89
60	Shape-controlled synthesis of Cu ₂ O microparticles and their catalytic performances in the Rochow reaction. Catalysis Science and Technology, 2012, 2, 1207.	2.1	54
61	Facile Synthesis of Mesoporous Cu ₂ O Microspheres with Improved Catalytic Property for Dimethyldichlorosilane Synthesis. Industrial & Engineering Chemistry Research, 2012, 51, 1264-1274.	1.8	67
62	Enhanced Investigation of CO Methanation over Ni/Al ₂ O ₃ Catalysts for Synthetic Natural Gas Production. Industrial & Engineering Chemistry Research, 2012, 51, 4875-4886.	1.8	260
63	Flower-like CuO microspheres with enhanced catalytic performance for dimethyldichlorosilane synthesis. RSC Advances, 2012, 2, 2254.	1.7	44