Xiaoyan Liu

List of Publications by Citations

99 papers	8,141 citations	37 h-index	90 g-index
108 ext. papers	10,228 ext. citations	10.6 avg, IF	6.05 L-index

#	Paper	IF	Citations
99	FeOx-supported platinum single-atom and pseudo-single-atom catalysts for chemoselective hydrogenation of functionalized nitroarenes. *Nature Communications*, **2014**, 5, 5634	17.4	708
98	Remarkable performance of Ir1/FeO(x) single-atom catalyst in water gas shift reaction. *Journal of the American Chemical Society*, **2013**, 135, 15314-7	16.4	646
97	Discriminating Catalytically Active FeN Species of Atomically Dispersed Fe-N-C Catalyst for Selective Oxidation of the C-H Bond. *Journal of the American Chemical Society*, **2017**, 139, 10790-10798	16.4	499
96	Single-atom dispersed Co-N-C catalyst: structure identification and performance for hydrogenative coupling of nitroarenes. *Chemical Science*, **2016**, 7, 5758-5764	9.4	455
95	Ag Alloyed Pd Single-Atom Catalysts for Efficient Selective Hydrogenation of Acetylene to Ethylene in Excess Ethylene. *ACS Catalysis*, **2015**, 5, 3717-3725	13.1	400
94	Strong metal-support interactions between gold nanoparticles and ZnO nanorods in CO oxidation. *Journal of the American Chemical Society*, **2012**, 134, 10251-8	16.4	398
93	Highly Efficient Catalysis of Preferential Oxidation of CO in H2-Rich Stream by Gold Single-Atom Catalysts. *ACS Catalysis*, **2015**, 5, 6249-6254	13.1	290
92	Non defect-stabilized thermally stable single-atom catalyst. *Nature Communications*, **2019**, 10, 234	17.4	274
91	Au-Cu Alloy nanoparticles confined in SBA-15 as a highly efficient catalyst for CO oxidation. *Chemical Communications*, **2008**, 3187-9	5.8	269
90	Performance of Cu-Alloyed Pd Single-Atom Catalyst for Semihydrogenation of Acetylene under Simulated Front-End Conditions. *ACS Catalysis*, **2017**, 7, 1491-1500	13.1	245
89	Synthesis of Thermally Stable and Highly Active Bimetallic Au□Ag Nanoparticles on Inert Supports. *Chemistry of Materials*, **2009**, 21, 410-418	9.6	239
88	PdZn Intermetallic Nanostructure with Pd□Zn□Pd Ensembles for Highly Active and Chemoselective Semi-Hydrogenation of Acetylene. *ACS Catalysis*, **2016**, 6, 1054-1061	13.1	234
87	Structural changes of Au□Cu bimetallic catalysts in CO oxidation: In situ XRD, EPR, XANES, and FT-IR characterizations. *Journal of Catalysis*, **2011**, 278, 288-296	7.3	232
86	Co□N□C Catalyst for C□C Coupling Reactions: On the Catalytic Performance and Active Sites. *ACS Catalysis*, **2015**, 5, 6563-6572	13.1	205
85	Efficient and Durable Au Alloyed Pd Single-Atom Catalyst for the Ullmann Reaction of Aryl Chlorides in Water. *ACS Catalysis*, **2014**, 4, 1546-1553	13.1	184
84	A Durable Nickel Single-Atom Catalyst for Hydrogenation Reactions and Cellulose Valorization under Harsh Conditions. *Angewandte Chemie - International Edition*, **2018**, 57, 7071-7075	16.4	163
83	Understanding the synergistic effects of gold bimetallic catalysts. *Journal of Catalysis*, **2013**, 308, 258-271	7.3	143

82	Unraveling the coordination structure-performance relationship in Pt/FeO single-atom catalyst. *Nature Communications*, **2019**, 10, 4500	17.4	137
81	Strong Metal-Support Interactions between Pt Single Atoms and TiO. *Angewandte Chemie - International Edition*, **2020**, 59, 11824-11829	16.4	119
80	Promotional effect of Pd single atoms on Au nanoparticles supported on silica for the selective hydrogenation of acetylene in excess ethylene. *New Journal of Chemistry*, **2014**, 38, 2043	3.6	117
79	Iridium Single-Atom Catalyst Performing a Quasi-homogeneous Hydrogenation Transformation of CO2 to Formate. *CheM*, **2019**, 5, 693-705	16.2	110
78	Strong metal-support interaction promoted scalable production of thermally stable single-atom catalysts. *Nature Communications*, **2020**, 11, 1263	17.4	107
77	Influence of pretreatment temperature on catalytic performance of rutile TiO2-supported ruthenium catalyst in CO2 methanation. *Journal of Catalysis*, **2016**, 333, 227-237	7.3	105
76	ZnAl-Hydrotalcite-Supported Au Nanoclusters as Precatalysts for Chemoselective Hydrogenation of 3-Nitrostyrene. *Angewandte Chemie - International Edition*, **2017**, 56, 2709-2713	16.4	97
75	Aerobic oxidative coupling of alcohols and amines over Au□Pd/resin in water: Au/Pd molar ratios switch the reaction pathways to amides or imines. *Green Chemistry*, **2013**, 15, 2680	10	96
74	Acid-Promoter-Free Ethylene Methoxycarbonylation over Ru-Clusters/Ceria: The Catalysis of Interfacial Lewis Acid-Base Pair. *Journal of the American Chemical Society*, **2018**, 140, 4172-4181	16.4	94
73	Structural and catalytic properties of supported Ni□Ir alloy catalysts for H2 generation via hydrous hydrazine decomposition. *Applied Catalysis B: Environmental*, **2014**, 147, 779-788	21.8	90
72	Theoretical Insights and the Corresponding Construction of Supported Metal Catalysts for Highly Selective CO2 to CO Conversion. *ACS Catalysis*, **2017**, 7, 4613-4620	13.1	69
71	Remarkable effect of alkalis on the chemoselective hydrogenation of functionalized nitroarenes over high-loading Pt/FeO catalysts. *Chemical Science*, **2017**, 8, 5126-5131	9.4	65
70	Corking and Uncorking a Catalytic Yolk-Shell Nanoreactor: Stable Gold Catalyst in Hollow Silica Nanosphere. *Journal of Physical Chemistry Letters*, **2011**, 2, 2984-2988	6.4	65
69	Highly Selective Hydrogenation of CO to Ethanol via Designed Bifunctional Ir-InO Single-Atom Catalyst. *Journal of the American Chemical Society*, **2020**, 142, 19001-19005	16.4	63
68	Crystal phase effects on the structure and performance of ruthenium nanoparticles for CO2 hydrogenation. *Catalysis Science and Technology*, **2014**, 4, 2058-2063	5.5	59
67	Synergy of the catalytic activation on Ni and the CeO2□TiO2/Ce2Ti2O7 stoichiometric redox cycle for dramatically enhanced solar fuel production. *Energy and Environmental Science*, **2019**, 12, 767-779	35.4	57
66	Acetylene-Selective Hydrogenation Catalyzed by Cationic Nickel Confined in Zeolite. *Journal of the American Chemical Society*, **2019**, 141, 9920-9927	16.4	51
65	Dynamic Behavior of Single-Atom Catalysts in Electrocatalysis: Identification of Cu-N as an Active Site for the Oxygen Reduction Reaction. *Journal of the American Chemical Society*, **2021**, 143, 14530-14539	16.4	49

64	Defect-Mediated Gold Substitution Doping in ZnO Mesocrystals and Catalysis in CO Oxidation. *ACS Catalysis*, **2016**, 6, 115-122	13.1	48
63	Controlling CO Hydrogenation Selectivity by Metal-Supported Electron Transfer. *Angewandte Chemie - International Edition*, **2020**, 59, 19983-19989	16.4	40
62	A Durable Nickel Single-Atom Catalyst for Hydrogenation Reactions and Cellulose Valorization under Harsh Conditions. *Angewandte Chemie*, **2018**, 130, 7189-7193	3.6	37
61	Cleavage of lignin C□O bonds over a heterogeneous rhenium catalyst through hydrogen transfer reactions. *Green Chemistry*, **2019**, 21, 5556-5564	10	36
60	Ru/TiO2 Catalysts with Size-Dependent Metal/Support Interaction for Tunable Reactivity in Fischer□Tropsch Synthesis. *ACS Catalysis*, **2020**, 10, 12967-12975	13.1	34
59	RuO2/rutile-TiO2: a superior catalyst for N2O decomposition. *Journal of Materials Chemistry A*, **2014**, 2, 5178-5181	13	32
58	Highly selective and robust single-atom catalyst Ru/NC for reductive amination of aldehydes/ketones. *Nature Communications*, **2021**, 12, 3295	17.4	32
57	ZnAl-Hydrotalcite-Supported Au25 Nanoclusters as Precatalysts for Chemoselective Hydrogenation of 3-Nitrostyrene. *Angewandte Chemie*, **2017**, 129, 2753-2757	3.6	30
56	Isolation of Pd atoms by Cu for semi-hydrogenation of acetylene: Effects of Cu loading. *Chinese Journal of Catalysis*, **2017**, 38, 1540-1548	11.3	29
55	Photo-thermo Catalytic Oxidation over a TiO -WO -Supported Platinum Catalyst. *Angewandte Chemie - International Edition*, **2020**, 59, 12909-12916	16.4	29
54	Engineering of Yolk/Core-Shell Structured Nanoreactors for Thermal Hydrogenations. *Small*, **2021**, 17, e1906250	11	29
53	Amorphous Cobalt Oxide Nanoparticles as Active Water-Oxidation Catalysts. *ChemCatChem*, **2017**, 9, 3641-3645	5.2	28
52	SiO 2 -supported Au-Ni bimetallic catalyst for the selective hydrogenation of acetylene. *Chinese Journal of Catalysis*, **2017**, 38, 1338-1346	11.3	28
51	Metabolomic profiling of emodin-induced cytotoxicity in human liver cells and mechanistic study. *Toxicology Research*, **2015**, 4, 948-955	2.6	27
50	Selective hydrogenation of acetylene in an ethylene-rich stream over silica supported Ag-Ni bimetallic catalysts. *Applied Catalysis A: General*, **2017**, 545, 90-96	5.1	27
49	Effects of divalent metal ions of hydrotalcites on catalytic behavior of supported gold nanocatalysts for chemoselective hydrogenation of 3-nitrostyrene. *Journal of Catalysis*, **2018**, 364, 174-182	7.3	26
48	A novel CeO2□SnO2/Ce2Sn2O7 pyrochlore cycle for enhanced solar thermochemical water splitting. *AICHE Journal*, **2017**, 63, 3450-3462	3.6	25
47	Strong Metal□Support Interactions between Pt Single Atoms and TiO2. *Angewandte Chemie*, **2020**, 132, 11922-11927	3.6	25

46	Selective Hydrogenation of Acetylene over SBA-15 Supported Au□Cu Bimetallic Catalysts. *Journal of the Chinese Chemical Society*, **2013**, 60, 907-914	1.5	23
45	Immobilized Ni Clusters in Mesoporous Aluminum Silica Nanospheres for Catalytic Hydrogenolysis of Lignin. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 19034-19041	8.3	22
44	High-loading and thermally stable Pt1/MgAl1.2Fe0.8O4 single-atom catalysts for high-temperature applications. *Science China Materials*, **2020**, 63, 949-958	7.1	21
43	A Novel Single-Atom Electrocatalyst Ti /rGO for Efficient Cathodic Reduction in Hybrid Photovoltaics. *Advanced Materials*, **2020**, 32, e2000478	24	20
42	Dual-Functional Titanium(IV) Immobilized Metal Affinity Chromatography Approach for Enabling Large-Scale Profiling of Protein Mannose-6-Phosphate Glycosylation and Revealing Its Predominant Substrates. *Analytical Chemistry*, **2019**, 91, 11589-11597	7.8	19
41	Phosphorus coordinated Rh single-atom sites on nanodiamond as highly regioselective catalyst for hydroformylation of olefins. *Nature Communications*, **2021**, 12, 4698	17.4	18
40	Metabolomic Responses of Human Hepatocytes to Emodin, Aristolochic Acid, and Triptolide: Chemicals Purified from Traditional Chinese Medicines. *Journal of Biochemical and Molecular Toxicology*, **2015**, 29, 533-43	3.4	16
39	A metabolomics study of the inhibitory effect of 17-beta-estradiol on osteoclast proliferation and differentiation. *Molecular BioSystems*, **2015**, 11, 635-46		16
38	High-Efficiency Water Gas Shift Reaction Catalysis on □MoC Promoted by Single-Atom Ir Species. *ACS Catalysis*, **2021**, 11, 5942-5950	13.1	16
37	Rapid and sensitive analysis of parishin and its metabolites in rat plasma using ultra high performance liquid chromatography-fluorescence detection. *Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences*, **2014**, 973C, 104-109	3.2	15
36	Tuning the coordination environment of single-atom catalyst M-N-C towards selective hydrogenation of functionalized nitroarenes. *Nano Research*,1	10	15
35	Synthesis of bio-based methylcyclopentadiene via direct hydrodeoxygenation of 3-methylcyclopent-2-enone derived from cellulose. *Nature Communications*, **2021**, 12, 46	17.4	15
34	Hierarchical Echinus-like Cu-MFI Catalysts for Ethanol Dehydrogenation. *ACS Catalysis*, **2020**, 10, 13624-13629	13.1	14
33	Identification of Angiotensin I-Converting Enzyme Inhibitors in Peptides Mixture of Hydrolyzed Red Deer Plasma with Proteomic Approach. *Chinese Journal of Chemistry*, **2010**, 28, 1665-1672	4.9	13
32	Sulfate-Modified NiAl Mixed Oxides as Effective C□H Bond-Breaking Agents for the Sole Production of Ethylene from Ethane. *ACS Catalysis*, **2020**, 10, 7619-7629	13.1	12
31	Sustainable Carbon Materials toward Emerging Applications.. *Small Methods*, **2021**, 5, e2001250	12.8	12
30	Effective removal of the protective ligands from Au nanoclusters by ambient pressure nonthermal plasma treatment for CO oxidation. *Chinese Journal of Catalysis*, **2018**, 39, 929-936	11.3	12
29	Detecting Proteins Glycosylation by a Homogeneous Reaction System with Zwitterionic Gold Nanoclusters. *Analytical Chemistry*, **2017**, 89, 4339-4343	7.8	10

28	Synthesis of Subnanometer-Sized Gold Clusters by a Simple Milling-Mediated Solid Reduction Method. *Chinese Journal of Chemistry*, **2018**, 36, 329-332	4.9	10
27	Crystal Plane Effect of ZnO on the Catalytic Activity of Gold Nanoparticles for the Acetylene Hydrogenation Reaction. *Journal of Physical Chemistry C*, **2017**, 121, 19727-19734	3.8	10
26	Atomic Pyridinic Nitrogen Sites Promoting Levulinic Acid Hydrogenations over Double-Shelled Hollow Ru/C Nanoreactors. *Small*, **2021**, 17, e2101271	11	9
25	Producing of cinnamyl alcohol from cinnamaldehyde over supported gold nanocatalyst. *Chinese Journal of Catalysis*, **2021**, 42, 470-481	11.3	9
24	Crystal-Phase-Mediated Restructuring of Pt on TiO2 with Tunable Reactivity: Redispersion versus Reshaping. *ACS Catalysis*, **2022**, 12, 3634-3643	13.1	9
23	One-Step SH2 Superbinder-Based Approach for Sensitive Analysis of Tyrosine Phosphoproteome. *Journal of Proteome Research*, **2019**, 18, 1870-1879	5.6	8
22	Water-soluble Au nanoclusters for multiplexed mass spectrometry imaging. *Chemical Communications*, **2017**, 53, 12688-12691	5.8	8
21	Photo‐thermo Catalytic Oxidation over a TiO2-WO3-Supported Platinum Catalyst. *Angewandte Chemie*, **2020**, 132, 13009-13016	3.6	8
20	Nonprecious bimetallic Fe, Mo-embedded N-enriched porous biochar for efficient oxidation of aqueous organic contaminants. *Journal of Hazardous Materials*, **2022**, 422, 126776	12.8	8
19	Dual-Functional Ti(IV)-IMAC Material Enables Simultaneous Enrichment and Separation of Diverse Glycopeptides and Phosphopeptides. *Analytical Chemistry*, **2021**, 93, 8568-8576	7.8	7
18	Acute nephrotoxicity of aristolochic acid in vitro: metabolomics study for intracellular metabolic time-course changes. *Biomarkers*, **2016**, 21, 233-42	2.6	6
17	Near 100% ethene selectivity achieved by tailoring dual active sites to isolate dehydrogenation and oxidation. *Nature Communications*, **2021**, 12, 5447	17.4	5
16	Relation between Water Oxidation Activity and Coordination Environment of C,N-Coordinated Mononuclear Co Catalyst. *ACS Catalysis*, **2022**, 12, 491-496	13.1	5
15	Design of an Amphiphilic Perylene Diimide for Optical Recognition of Anticancer Drug through a Chirality-Induced Helical Structure. *Chemistry - A European Journal*, **2019**, 25, 9834-9839	4.8	4
14	Effect of IB-metal on Ni/SiO2 catalyst for selective hydrogenation of acetylene. *Chinese Journal of Catalysis*, **2020**, 41, 1099-1108	11.3	4
13	Strong Metal‐Support Interaction of Ru on TiO2 Derived from the Co-Reduction Mechanism of RuxTi1−xO2 Interphase. *ACS Catalysis*, **2022**, 12, 1697-1705	13.1	4
12	Metal-Support Synergy of Supported Gold Nanoclusters in Selective Oxidation of Alcohols. *Catalysts*, **2020**, 10, 107	4	4
11	Synthesis and characterization of iron-nitrogen-doped biochar catalysts for organic pollutant removal and hexavalent chromium reduction.. *Journal of Colloid and Interface Science*, **2021**, 610, 334-348	9.3	3

List of Publications

10	Controlling CO2 Hydrogenation Selectivity by Metal-Supported Electron Transfer. *Angewandte Chemie*, **2020**, 132, 20158-20164	3.6	3
9	Study of Surface Plasmon Assisted Reactions to Understand the Light-Induced Decarboxylation of N719 Sensitizer. *European Journal of Inorganic Chemistry*, **2019**, 2019, 23-28	2.3	3
8	Constructing the Supporting Service, Education Guidance, Management System of Network Education and Examination **2013**,		2
7	Selective catalytic oxidation of ammonia to nitric oxide via chemical looping.. *Nature Communications*, **2022**, 13, 718	17.4	2
6	Highly Efficient Enrichment of O-GalNAc Glycopeptides by Using Immobilized Metal Ion Affinity Chromatography. *Analytical Chemistry*, **2021**, 93, 7579-7587	7.8	2
5	Submicroreactors: Enhanced Hydrogenation Performance over Hollow Structured Co-CoOx@N-C Capsules (Adv. Sci. 22/2019). *Advanced Science*, **2019**, 6, 1970135	13.6	2
4	Oxidative coupling of methane over Mo-Sn catalysts. *Chemical Communications*, **2021**, 57, 13297-13300	5.8	1
3	A New Workflow for the Analysis of Phosphosite Occupancy in Paired Samples by Integration of Proteomics and Phosphoproteomics Data Sets. *Journal of Proteome Research*, **2020**, 19, 3807-3816	5.6	1
2	Chemoselective hydrogenation of 3-nitrostyrene over supported gold catalysts: Effect of loadings of gold. *Journal of the Chinese Chemical Society*, **2021**, 68, 444-450	1.5	1
1	Crystallinity-Modulated Co2VxO4 Nanoplates for Efficient Electrochemical Water Oxidation. *ACS Catalysis*,14884-14891	13.1	0