Lichen Liu

List of Publications by Year
in descending order

59 papers	8,307 citations	71102 41 h-index	128289 60 g-index
62 all docs	62 docs citations	62 times ranked	10193 citing authors

#	Article	IF	Citations
1	Metal Catalysts for Heterogeneous Catalysis: From Single Atoms to Nanoclusters and Nanoparticles. Chemical Reviews, 2018, 118, 4981-5079.	47.7	3,103
2	Generation of subnanometric platinum with high stability during transformation of a 2D zeolite intoÂ3D. Nature Materials, 2017, 16, 132-138.	27.5	505
3	Regioselective generation and reactivity control of subnanometric platinum clusters in zeolites for high-temperature catalysis. Nature Materials, 2019, 18, 866-873.	27.5	339
4	Complete Photocatalytic Reduction of CO₂ to Methane by H₂ under Solar Light Irradiation. Journal of the American Chemical Society, 2014, 136, 6798-6801.	13.7	247
5	Investigation of the structure, acidity, and catalytic performance of CuO/Ti0.95Ce0.05O2 catalyst for the selective catalytic reduction of NO by NH3 at low temperature. Applied Catalysis B: Environmental, 2014, 150-151, 315-329.	20.2	221
6	Confining isolated atoms and clusters in crystalline porous materials forÂcatalysis. Nature Reviews Materials, 2021, 6, 244-263.	48.7	219
7	Determination of the Evolution of Heterogeneous Single Metal Atoms and Nanoclusters under Reaction Conditions: Which Are the Working Catalytic Sites?. ACS Catalysis, 2019, 9, 10626-10639.	11.2	197
8	Structural modulation and direct measurement of subnanometric bimetallic PtSn clusters confined in zeolites. Nature Catalysis, 2020, 3, 628-638.	34.4	182
9	Non-noble metal catalysts for hydrogenation: A facile method for preparing Co nanoparticles covered with thin layered carbon. Journal of Catalysis, 2016, 340, 1-9.	6.2	181
10	Engineering the Cu2Oâ€“reduced graphene oxide interface to enhance photocatalytic degradation of organic pollutants under visible light. Applied Catalysis B: Environmental, 2016, 181, 495-503.	20.2	163
11	In Situ Loading Transition Metal Oxide Clusters on TiO₂ Nanosheets As Co-catalysts for Exceptional High Photoactivity. ACS Catalysis, 2013, 3, 2052-2061.	11.2	151
12	Evolution and stabilization of subnanometric metal species in confined space by in situ TEM. Nature Communications, 2018, 9, 574.	12.8	140
13	Evolution of Isolated Atoms and Clusters in Catalysis. Trends in Chemistry, 2020, 2, 383-400.	8.5	138
14	Crystal-Plane Effects on the Catalytic Properties of Au/TiO₂. ACS Catalysis, 2013, 3, 2768-2775.	11.2	120
15	Nanolayered Coâ€“Moâ€“S Catalysts for the Chemoselective Hydrogenation of Nitroarenes. ACS Catalysis, 2017, 7, 2698-2708.	11.2	107
16	Base-Controlled Heck, Suzuki, and Sonogashira Reactions Catalyzed by Ligand-Free Platinum or Palladium Single Atom and Sub-Nanometer Clusters. Journal of the American Chemical Society, 2019, 141, 1928-1940.	13.7	107
17	In situ loading of ultra-small Cu2O particles on TiO2 nanosheets to enhance the visible-light photoactivity. Nanoscale, 2012, 4, 6351.	5.6	106
18	Efficient fabrication of active CuO-CeO2/SBA-15 catalysts for preferential oxidation of CO by solid state impregnation. Applied Catalysis B: Environmental, 2014, 146, 201-212.	20.2	105

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19	Sunlight-assisted hydrogenation of CO 2 into ethanol and C2+ hydrocarbons by sodium-promoted Co@C nanocomposites. Applied Catalysis B: Environmental, 2018, 235, 186-196.	20.2	101
20	A new strategy to transform mono and bimetallic non-noble metal nanoparticles into highly active and chemoselective hydrogenation catalysts. Journal of Catalysis, 2017, 350, 218-225.	6.2	95
21	Structural transformations of solid electrocatalysts and photocatalysts. Nature Reviews Chemistry, 2021, 5, 256-276.	30.2	93
22	Anion-Assisted Synthesis of TiO₂ Nanocrystals with Tunable Crystal Forms and Crystal Facets and Their Photocatalytic Redox Activities in Organic Reactions. Journal of Physical Chemistry C, 2013, 117, 18578-18587.	3.1	92
23	Synthesis of sandwich-like TiO2@C composite hollow spheres with high rate capability and stability for lithium-ion batteries. Journal of Power Sources, 2013, 221, 141-148.	7.8	90
24	Hydrothermal Synthesis of Ruthenium Nanoparticles with a Metallic Core and a Ruthenium Carbide Shell for Low-Temperature Activation of CO₂ to Methane. Journal of the American Chemical Society, 2019, 141, 19304-19311.	13.7	86
25	Engineering the TiO₂â€“Graphene Interface to Enhance Photocatalytic H₂ Production. ChemSusChem, 2014, 7, 618-626.	6.8	81
26	Nanolayered Cobaltâ€“Molybdenum Sulfides as Highly Chemo- and Regioselective Catalysts for the Hydrogenation of Quinoline Derivatives. ACS Catalysis, 2018, 8, 4545-4557.	11.2	78
27	Stabilized Naked Sub-nanometric Cu Clusters within a Polymeric Film Catalyze Câ€“N, Câ€“C, Câ€“O, Câ€“S, and Câ€“P Bond-Forming Reactions. Journal of the American Chemical Society, 2015, 137, 3894-3900.	13.7	71
28	Low-Temperature Catalytic NO Reduction with CO by Subnanometric Pt Clusters. ACS Catalysis, 2019, 9, 11530-11541.	11.2	70
29	Investigation of surface synergetic oxygen vacancy in CuOâ€“CoO binary metal oxides supported on Î³-Al2O3 for NO removal by CO. Journal of Colloid and Interface Science, 2013, 390, 158-169.	9.4	67
30	A PdAg bimetallic nanocatalyst for selective reductive amination of nitroarenes. Chemical Communications, 2013, 49, 6843.	4.1	65
31	Crystal-plane effects on surface and catalytic properties of Cu2O nanocrystals for NO reduction by CO. Applied Catalysis A: General, 2015, 505, 334-343.	4.3	65
32	Identification of the active sites in supported subnanometric metal catalysts. Nature Catalysis, 2021, 4, 453-456.	34.4	58
33	A new molecular pathway allows the chemoselective reduction of nitroaromatics on non-noble metal catalysts. Journal of Catalysis, 2018, 364, 19-30.	6.2	57
34	Promotion effect of tungsten oxide on SCR of NO with NH3 for the V2O5â€“WO3/Ti0.5Sn0.5O2 catalyst: Experiments combined with DFT calculations. Journal of Molecular Catalysis A, 2011, 346, 29-38.	4.8	56
35	Controlling Dynamic Structural Transformation of Atomically Dispersed CuO_x Species and Influence on Their Catalytic Performances. ACS Catalysis, 2019, 9, 9840-9851.	11.2	52
36	Single-Atom Ce-Modified Î±-Fe₂O₃ for Selective Catalytic Reduction of NO with NH₃. Environmental Science & Technology, 2022, 56, 10442-10453.	10.0	52

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37	Efficient fabrication of ZrO2-doped TiO2 hollow nanospheres with enhanced photocatalytic activity of rhodamine B degradation. Journal of Colloid and Interface Science, 2011, 364, 288-297.	9.4	50
38	Generation of gold nanoclusters encapsulated in an MCM-22 zeolite for the aerobic oxidation of cyclohexane. Chemical Communications, 2019, 55, 1607-1610.	4.1	48
39	Regioselective Generation of Singleâ€Site Iridium Atoms and Their Evolution into Stabilized Subnanometric Iridium Clusters in MWW Zeolite. Angewandte Chemie - International Edition, 2020, 59, 15695-15702.	13.8	46
40	Tuning the Catalytic Performance of Cobalt Nanoparticles by Tungsten Doping for Efficient and Selective Hydrogenation of Quinolines under Mild Conditions. ACS Catalysis, 2021, 11, 8197-8210.	11.2	46
41	Modulating the catalytic behavior of non-noble metal nanoparticles by inter-particle interaction for chemoselective hydrogenation of nitroarenes into corresponding azoxy or azo compounds. Journal of Catalysis, 2019, 369, 312-323.	6.2	43
42	Promotional effect of CO pretreatment on CuO/CeO2 catalyst for catalytic reduction of NO by CO. Journal of Rare Earths, 2014, 32, 139-145.	4.8	42
43	Facile Synthesis of Surface-Clean Monodispersed CuOx Nanoparticles and Their Catalytic Properties for Oxidative Coupling of Alkynes. ACS Catalysis, 2016, 6, 2211-2221.	11.2	38
44	Improving the dispersion of CeO2 on Î³-Al2O3 to enhance the catalytic performances of CuO/CeO2/Î³-Al2O3 catalysts for NO removal by CO. Catalysis Communications, 2014, 51, 95-99.	3.3	33
45	Hierarchical Mordenite Dedicated to the Fluid Catalytic Cracking Process: Catalytic Performance Regarding Textural and Acidic Properties. Journal of Physical Chemistry C, 2014, 118, 28043-28054.	3.1	33
46	Getting Insights into the Temperature-Specific Active Sites on Platinum Nanoparticles for CO Oxidation: A Combined in Situ Spectroscopic and ab Initio Density Functional Theory Study. ACS Catalysis, 2019, 9, 7759-7768.	11.2	33
47	Atomic-level understanding on the evolution behavior of subnanometric Pt and Sn species during high-temperature treatments for generation of dense PtSn clusters in zeolites. Journal of Catalysis, 2020, 391, 11-24.	6.2	30
48	Tutorial: structural characterization of isolated metal atoms and subnanometric metal clusters in zeolites. Nature Protocols, 2021, 16, 1871-1906.	12.0	30
49	Direct assessment of confinement effect in zeolite-encapsulated subnanometric metal species. Nature Communications, 2022, 13, 821.	12.8	30
50	Influence of cerium modification methods on catalytic performance of Au/mordenite catalysts in CO oxidation. Applied Catalysis B: Environmental, 2012, 127, 234-245.	20.2	26
51	Isolated metal atoms and clusters for alkane activation: Translating knowledge from enzymatic and homogeneous to heterogeneous systems. CheM, 2021, 7, 2347-2384.	11.7	25
52	Crystal-plane-dependent metalâ€“support interaction in Au/TiO₂. Physical Chemistry Chemical Physics, 2015, 17, 5133-5140.	2.8	23
53	Direct synthesis of the organic and Ge free Al containing BOG zeolite (ITQ-47) and its application for transformation of biomass derived molecules. Chemical Science, 2020, 11, 12103-12108.	7.4	14
54	A Career in Catalysis: Avelino Corma. ACS Catalysis, 2022, 12, 7054-7123.	11.2	14

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55	Bimetallic CuFe nanoparticles as active and stable catalysts for chemoselective hydrogenation of biomass-derived platform molecules. Catalysis Science and Technology, 2021, 11, 3353-3363.	4.1	12
56	Assessment of metal-metal interactions and catalytic behavior in platinum-tin bimetallic subnanometric clusters by using reactive characterizations. Journal of Catalysis, 2021, 404, 393-399.	6.2	10
57	Regioselective Generation of Singleâ€Site Iridium Atoms and Their Evolution into Stabilized Subnanometric Iridium Clusters in MWW Zeolite. Angewandte Chemie, 2020, 132, 15825-15832.	2.0	5
58	Multiscale structural characterization of shaped catalysts. Trends in Chemistry, 2021, 3, 898-901.	8.5	1
59	Two-dimensional PdOx rafts as superior catalysts for methane combustion. Science China Chemistry, 0, , 1.	8.2	0