Botao Qiao

List of Publications by Year
in descending order

109 papers	19,494 citations	36303 51 h-index	24982 109 g-index
115 all docs	115 docs citations	115 times ranked	13251 citing authors

#	Article	IF	Citations
1	Synergic effect between gold and vanadate substituted hydroxyapatite support for synthesis of methyl methacrylate by one-step oxidative esterification. Chemical Engineering Journal, 2022, 431, 133207.	12.7	13
2	Atom-by-atom fabrication of metal clusters for efficient selective hydrogenation. Science China Chemistry, 2022, 65, 202-203.	8.2	2
3	Selective Hydrogenation of Nitroarenes by Single-Atom Pt Catalyst Through Hydrogen Transfer Reaction. Topics in Catalysis, 2022, 65, 1604-1608.	2.8	2
4	Highly coke-resistant Ni-La2O2CO3 catalyst with low Ni loading for dry reforming of methane with carbon dioxide. Catalysis Today, 2022, 402, 189-201.	4.4	4
5	Enhancement effect of strong metal-support interaction (SMSI) on the catalytic activity of substituted-hydroxyapatite supported Au clusters. Journal of Catalysis, 2022, 410, 194-205.	6.2	13
6	Photo-thermo semi-hydrogenation of acetylene on Pd1/TiO2 single-atom catalyst. Nature Communications, 2022, 13, 2648.	12.8	61
7	Pd single-atom catalysts derived from strong metal-support interaction for selective hydrogenation of acetylene. Nano Research, 2022, 15, 10037-10043.	10.4	28
8	High Performance of Singleâ€atom Catalyst Pd₁/MgO for Semiâ€hydrogenation of Acetylene to Ethylene in Excess Ethylene. ChemNanoMat, 2021, 7, 526-529.	2.8	14
9	High-Efficiency Water Gas Shift Reaction Catalysis on Î±-MoC Promoted by Single-Atom Ir Species. ACS Catalysis, 2021, 11, 5942-5950.	11.2	65
10	Highly active and stable Ir nanoclusters derived from Ir1/MgAl2O4 single-atom catalysts. Journal of Chemical Physics, 2021, 154, 131105.	3.0	5
11	Oxidative Strong Metalâ€“Support Interactions. Catalysts, 2021, 11, 896.	3.5	16
12	Blocking the non-selective sites through surface plasmon-induced deposition of metal oxide on Au/TiO2 for CO-PROX reaction. Chem Catalysis, 2021, 1, 456-466.	6.1	17
13	Methane oxidation to methanol over copper-containing zeolite. CheM, 2021, 7, 2270-2272.	11.7	4
14	Hydrogenated TiO2 supported Ru for selective methanation of CO in practical conditions. Applied Catalysis B: Environmental, 2021, 298, 120597.	20.2	19
15	Atomic-Scale Pd on 2D Titania Sheets for Selective Oxidation of Methane to Methanol. ACS Catalysis, 2021, 11, 14038-14046.	11.2	41
16	H-D exchange and cis-to-trans isomerization over atomically dispersed Pd1/Cu2O and Pd1/Cu3N. Chem Catalysis, 2021, 1, 1362-1365.	6.1	0
17	Pd1/CeO2 single-atom catalyst for alkoxycarbonylation of aryl iodides. Science China Materials, 2020, 63, 959-964.	6.3	24
18	Identification of Active Sites on High-Performance Pt/Al₂O₃ Catalyst for Cryogenic CO Oxidation. ACS Catalysis, 2020, 10, 8815-8824.	11.2	54

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19	Controlling CO 2 Hydrogenation Selectivity by Metalâ€Supported Electron Transfer. Angewandte Chemie, 2020, 132, 20158-20164.	2.0	8
20	Controlling CO₂ Hydrogenation Selectivity by Metalâ€Supported Electron Transfer. Angewandte Chemie - International Edition, 2020, 59, 19983-19989.	13.8	114
21	Size-dependent strong metal-support interaction in TiO2 supported Au nanocatalysts. Nature Communications, 2020, 11, 5811.	12.8	147
22	Single-Atom Catalysts Based on the Metalâ€“Oxide Interaction. Chemical Reviews, 2020, 120, 11986-12043.	47.7	486
23	Catalytic production of 1,4-pentanediol from furfural in a fixed-bed system under mild conditions. Green Chemistry, 2020, 22, 3532-3538.	9.0	27
24	Highly Active and Carbon-Resistant Nickel Single-Atom Catalysts for Methane Dry Reforming. Catalysts, 2020, 10, 630.	3.5	42
25	High-loading and thermally stable Pt1/MgAl1.2Fe0.8O4 single-atom catalysts for high-temperature applications. Science China Materials, 2020, 63, 949-958.	6.3	31
26	Strong metal-support interaction promoted scalable production of thermally stable single-atom catalysts. Nature Communications, 2020, 11, 1263.	12.8	198
27	A highly active Rh₁/CeO₂ single-atom catalyst for low-temperature CO oxidation. Chemical Communications, 2020, 56, 4870-4873.	4.1	62
28	A Hydrothermally Stable Irreducible Oxideâ€Modified Pd/MgAl₂O₄ Catalyst for Methane Combustion. Angewandte Chemie, 2020, 132, 18680-18684.	2.0	14
29	A Hydrothermally Stable Irreducible Oxideâ€Modified Pd/MgAl₂O₄ Catalyst for Methane Combustion. Angewandte Chemie - International Edition, 2020, 59, 18522-18526.	13.8	64
30	Styrene Hydroformylation with In Situ Hydrogen: Regioselectivity Control by Coupling with the Lowâ€Temperature Waterâ€“Gas Shift Reaction. Angewandte Chemie, 2020, 132, 7500-7504.	2.0	7
31	Styrene Hydroformylation with In Situ Hydrogen: Regioselectivity Control by Coupling with the Lowâ€Temperature Waterâ€“Gas Shift Reaction. Angewandte Chemie - International Edition, 2020, 59, 7430-7434.	13.8	74
32	Boosting the catalysis of gold by O2 activation at Au-SiO2 interface. Nature Communications, 2020, 11, 558.	12.8	98
33	A Novel Singleâ€Atom Electrocatalyst Ti₁/rGO for Efficient Cathodic Reduction in Hybrid Photovoltaics. Advanced Materials, 2020, 32, e2000478.	21.0	31
34	Strong Metalâ€“Support Interactions between Pt Single Atoms and TiO₂. Angewandte Chemie, 2020, 132, 11922-11927.	2.0	46
35	Enhanced stability of Pt/Al2O3 modified by Zn promoter for catalytic dehydrogenation of ethane. Journal of Energy Chemistry, 2020, 51, 14-20.	12.9	25
36	Strong Metalâ€“Support Interactions between Pt Single Atoms and TiO₂. Angewandte Chemie - International Edition, 2020, 59, 11824-11829.	13.8	309

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37	The catalytic activity of alkali metal alkoxides and titanium alkoxides in the hydrosilylation of unfunctionalized olefins. Phosphorus, Sulfur and Silicon and the Related Elements, 2019, 194, 83-86.	1.6	1
38	Superior activity of Rh1/ZnO single-atom catalyst for CO oxidation. Chinese Journal of Catalysis, 2019, 40, 1847-1853.	14.0	47
39	Electrostatic Stabilization of Single-Atom Catalysts by Ionic Liquids. CheM, 2019, 5, 3207-3219.	11.7	131
40	Remarkable active-site dependent H2O promoting effect in CO oxidation. Nature Communications, 2019, 10, 3824.	12.8	96
41	Highlights of Major Progress on Single-Atom Catalysis in 2017. Catalysts, 2019, 9, 135.	3.5	23
42	Nanodisperse gold catalysts in oxidation of benzyl alcohol: comparison of various supports under different conditions. Reaction Kinetics, Mechanisms and Catalysis, 2019, 128, 71-95.	1.7	15
43	Atomically dispersed nickel as coke-resistant active sites for methane dry reforming. Nature Communications, 2019, 10, 5181.	12.8	398
44	Non defect-stabilized thermally stable single-atom catalyst. Nature Communications, 2019, 10, 234.	12.8	452
45	Titanium-catalyzed hydrosilylation of olefins: A comparison study on Cp₂TiCl₂/Sm and Cp₂TiCl₂/LiAlH₄ catalyst system. Phosphorus, Sulfur and Silicon and the Related Elements, 2019, 194, 64-68.	1.6	1
46	Catalytic cascade conversion of furfural to 1,4-pentanediol in a single reactor. Green Chemistry, 2018, 20, 1770-1776.	9.0	71
47	Single-atom catalysis: Bridging the homo- and heterogeneous catalysis. Chinese Journal of Catalysis, 2018, 39, 893-898.	14.0	199
48	Maximizing the Number of Interfacial Sites in Singleâ€Atom Catalysts for the Highly Selective, Solventâ€Free Oxidation of Primary Alcohols. Angewandte Chemie - International Edition, 2018, 57, 7795-7799.	13.8	151
49	Maximizing the Number of Interfacial Sites in Singleâ€Atom Catalysts for the Highly Selective, Solventâ€Free Oxidation of Primary Alcohols. Angewandte Chemie, 2018, 130, 7921-7925.	2.0	18
50	Identifying Size Effects of Pt as Single Atoms and Nanoparticles Supported on FeO_{<i>x</i>} for the Water-Gas Shift Reaction. ACS Catalysis, 2018, 8, 859-868.	11.2	140
51	Sizeâ€Dependency of Gold Nanoparticles on TiO₂ for CO Oxidation. Small Methods, 2018, 2, 1800273.	8.6	16
52	Reactivity of Methanol Steam Reforming on ZnPd Intermetallic Catalyst: Understanding from Microcalorimetric and FT-IR Studies. Journal of Physical Chemistry C, 2018, 122, 12395-12403.	3.1	25
53	Oxidative strong metalâ€“support interactions (OMSI) of supported platinum-group metal catalysts. Chemical Science, 2018, 9, 6679-6684.	7.4	89
54	More active Ir subnanometer clusters than singleâ€atoms for catalytic oxidation of CO at low temperature. AIChE Journal, 2017, 63, 4003-4012.	3.6	41

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55	Highlights of the major progress in single-atom catalysis in 2015 and 2016. Chinese Journal of Catalysis, 2017, 38, 1498-1507.	14.0	49
56	Classical strong metalâ€“support interactions between gold nanoparticles and titanium dioxide. Science Advances, 2017, 3, e1700231.	10.3	361
57	Experimental investigation and theoretical exploration of single-atom electrocatalysis in hybrid photovoltaics: The powerful role of Pt atoms in triiodide reduction. Nano Energy, 2017, 39, 1-8.	16.0	25
58	Enhanced performance of Rh₁/TiO₂ catalyst without methanation in waterâ€gas shift reaction. AICHE Journal, 2017, 63, 2081-2088.	3.6	74
59	Synthesis of Anchored Bimetallic Catalysts via Epitaxy. Catalysts, 2016, 6, 88.	3.5	3
60	Catalytically Active Rh Subâ€Nanoclusters on TiO₂ for CO Oxidation at Cryogenic Temperatures. Angewandte Chemie - International Edition, 2016, 55, 2820-2824.	13.8	127
61	RÃ¼cktitelbild: Catalytically Active Rh Subâ€Nanoclusters on TiO₂ for CO Oxidation at Cryogenic Temperatures (Angew. Chem. 8/2016). Angewandte Chemie, 2016, 128, 2998-2998.	2.0	0
62	Catalysis by Supported Single Metal Atoms. Microscopy and Microanalysis, 2016, 22, 860-861.	0.4	12
63	RÃ¼cktitelbild: Hydroformylation of Olefins by a Rhodium Single-Atom Catalyst with Activity Comparable to RhCl(PPh3)3 (Angew. Chem. 52/2016). Angewandte Chemie, 2016, 128, 16412-16412.	2.0	1
64	Ultrastable Hydroxyapatite/Titaniumâ€Dioxideâ€Supported Gold Nanocatalyst with Strong Metalâ€“Support Interaction for Carbon Monoxide Oxidation. Angewandte Chemie, 2016, 128, 10764-10769.	2.0	29
65	Ultrastable Hydroxyapatite/Titaniumâ€Dioxideâ€Supported Gold Nanocatalyst with Strong Metalâ€“Support Interaction for Carbon Monoxide Oxidation. Angewandte Chemie - International Edition, 2016, 55, 10606-10611.	13.8	192
66	Hydroformylation of Olefins by a Rhodium Singleâ€Atom Catalyst with Activity Comparable to RhCl(PPh₃)₃. Angewandte Chemie, 2016, 128, 16288-16292.	2.0	67
67	Hydroformylation of Olefins by a Rhodium Singleâ€Atom Catalyst with Activity Comparable to RhCl(PPh₃)₃. Angewandte Chemie - International Edition, 2016, 55, 16054-16058.	13.8	376
68	Single atom gold catalysts for low-temperature CO oxidation. Chinese Journal of Catalysis, 2016, 37, 1580-1586.	14.0	85
69	Highly active and sintering-resistant heteroepitaxy of Au nanoparticles on ZnO nanowires for CO oxidation. Journal of Energy Chemistry, 2016, 25, 361-370.	12.9	24
70	Catalytically Active Rh Subâ€Nanoclusters on TiO₂ for CO Oxidation at Cryogenic Temperatures. Angewandte Chemie, 2016, 128, 2870-2874.	2.0	31
71	Strong Metalâ€“Support Interactions between Gold Nanoparticles and Nonoxides. Journal of the American Chemical Society, 2016, 138, 56-59.	13.7	357
72	Aberration-corrected STEM Study of Atomically Dispersed Pti/FeOx Catalyst with High Loading of Pt. Microscopy and Microanalysis, 2015, 21, 1733-1734.	0.4	2

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73	Photochemical Deposition of Highly Dispersed Pt Nanoparticles on Porous CeO₂ Nanofibers for the Waterâ€Gas Shift Reaction. Advanced Functional Materials, 2015, 25, 4153-4162.	14.9	75
74	Ultrastable single-atom gold catalysts with strong covalent metal-support interaction (CMSI). Nano Research, 2015, 8, 2913-2924.	10.4	422
75	Hetero-epitaxially anchoring Au nanoparticles onto ZnO nanowires for CO oxidation. Chemical Communications, 2015, 51, 15332-15335.	4.1	34
76	High Activity of Au/Î³-Fe₂O₃ for CO Oxidation: Effect of Support Crystal Phase in Catalyst Design. ACS Catalysis, 2015, 5, 3528-3539.	11.2	119
77	Little do more: a highly effective Pt₁/FeO_x single-atom catalyst for the reduction of NO by H₂. Chemical Communications, 2015, 51, 7911-7914.	4.1	107
78	Highly Efficient Catalysis of Preferential Oxidation of CO in H₂-Rich Stream by Gold Single-Atom Catalysts. ACS Catalysis, 2015, 5, 6249-6254.	11.2	380
79	Highly active Au1/Co3O4 single-atom catalyst for CO oxidation at room temperature. Chinese Journal of Catalysis, 2015, 36, 1505-1511.	14.0	93
80	FeOx-supported platinum single-atom and pseudo-single-atom catalysts for chemoselective hydrogenation of functionalized nitroarenes. Nature Communications, 2014, 5, 5634.	12.8	890
81	Ferric Oxide-Supported Pt Subnano Clusters for Preferential Oxidation of CO in H₂-Rich Gas at Room Temperature. ACS Catalysis, 2014, 4, 2113-2117.	11.2	96
82	Supported Single Pt₁/Au₁ Atoms for Methanol Steam Reforming. ACS Catalysis, 2014, 4, 3886-3890.	11.2	204
83	Remarkable effects of hydroxyl species on low-temperature CO (preferential) oxidation over Ir/Fe(OH) x catalyst. Journal of Catalysis, 2014, 319, 142-149.	6.2	71
84	La-doped Al₂O₃ supported Au nanoparticles: highly active and selective catalysts for PROX under PEMFC operation conditions. Chemical Communications, 2014, 50, 2721-2724.	4.1	26
85	Theoretical and Experimental Investigations on Single-Atom Catalysis: Ir₁/FeO_{<i>x</i>} for CO Oxidation. Journal of Physical Chemistry C, 2014, 118, 21945-21951.	3.1	145
86	Highly Active Small Palladium Clusters Supported on Ferric Hydroxide for Carbon Monoxideâ€Tolerant Hydrogen Oxidation. ChemCatChem, 2014, 6, 547-554.	3.7	23
87	The roles of hydroxyapatite and FeOx in a Au/FeOx hydroxyapatite catalyst for CO oxidation. Chinese Journal of Catalysis, 2013, 34, 1386-1394.	14.0	27
88	Remarkable Performance of Ir₁/FeO_{<i>x</i>} Single-Atom Catalyst in Water Gas Shift Reaction. Journal of the American Chemical Society, 2013, 135, 15314-15317.	13.7	811
89	Origin of the high activity of Au/FeOx for low-temperature CO oxidation: Direct evidence for a redox mechanism. Journal of Catalysis, 2013, 299, 90-100.	6.2	170
90	Single-Atom Catalysts: A New Frontier in Heterogeneous Catalysis. Accounts of Chemical Research, 2013, 46, 1740-1748.	15.6	3,405

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91	Catalytic co-oxidation of CO and H2 over FeOx-supported Pd catalyst at low temperatures. Journal of Catalysis, 2012, 294, 29-36.	6.2	46
92	Design of a Highly Active Ir/Fe(OH)_{<i>x</i>} Catalyst: Versatile Application of Ptâ€Group Metals for the Preferential Oxidation of Carbon Monoxide. Angewandte Chemie - International Edition, 2012, 51, 2920-2924.	13.8	183
93	A highly active and sintering-resistant Au/FeO_xâ€"hydroxyapatite catalyst for CO oxidation. Chemical Communications, 2011, 47, 1779-1781.	4.1	102
94	Single-atom catalysis of CO oxidation using Pt1/FeOx. Nature Chemistry, 2011, 3, 634-641.	13.6	5,149
95	A novel Au&Pd/Fe(OH)x catalyst for CO+H2 co-oxidations at low temperatures. Journal of Catalysis, 2011, 279, 361-365.	6.2	14
96	Exerting the structural advantages of Ir-in-CeO2 and Ir-on-CeO2 to widen the operating temperature window for preferential CO oxidation. Chemical Engineering Journal, 2011, 168, 822-826.	12.7	16
97	Highly effective CuO/Fe(OH)x catalysts for selective oxidation of CO in H2-rich stream. Applied Catalysis B: Environmental, 2011, 105, 103-110.	20.2	40
98	Preparation of highly effective ferric hydroxide supported noble metal catalysts for CO oxidations: From gold to palladium. Journal of Catalysis, 2009, 261, 241-244.	6.2	105
99	Novel chemoselective hydrogenation of aromatic nitro compounds over ferric hydroxide supported nanocluster gold in the presence of CO and H2O. Chemical Communications, 2009, , 653-655.	4.1	84
100	Greatly enhanced fluorescence of dicyanamide anion based ionic liquids confined into mesoporous silica gel. Chemical Physics Letters, 2008, 461, 229-234.	2.6	44
101	Low-temperature prepared highly effective ferric hydroxide supported gold catalysts for carbon monoxide selective oxidation in the presence of hydrogen. Applied Catalysis A: General, 2008, 340, 220-228.	4.3	40
102	Ferric hydroxide supported gold subnano clusters or quantum dots: enhanced catalytic performance in chemoselective hydrogenation. Dalton Transactions, 2008, , 2542.	3.3	48
103	Solubilities of the Gaseous and Liquid Solutes and Their Thermodynamics of Solubilization in the Novel Room-Temperature Ionic Liquids at Infinite Dilution by Gas Chromatography. Journal of Chemical & Engineering Data, 2007, 52, 2277-2283.	1.9	133
104	Effective Au-Au+-Clx/Fe(OH)y catalysts containing Clâ˘ for selective CO oxidations at lower temperatures. Applied Catalysis B: Environmental, 2006, 66, 241-248.	20.2	32
105	Effect of ZSM-5 on the aromatization performance in cracking catalyst. Journal of Molecular Catalysis A, 2004, 215, 195-199.	4.8	86
106	Title is missing!. Angewandte Chemie, 2003, 115, 3379-3382.	2.0	50
107	Alternatives to Phosgene and Carbon Monoxide: Synthesis of Symmetric Urea Derivatives with Carbon Dioxide in Ionic Liquids.. ChemInform, 2003, 34, no.	0.0	0
108	Alternatives to Phosgene and Carbon Monoxide: Synthesis of Symmetric Urea Derivatives with Carbon Dioxide in Ionic Liquids. Angewandte Chemie - International Edition, 2003, 42, 3257-3260.	13.8	241

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109	Highly effective ferric hydroxide supported gold catalyst for selective oxidation of CO in the presence of H2This work was financially supported by The National Natural Science Foundation of China (No. 20173068).. Chemical Communications, 2003, , 2192.	4.1	53