Mingshu Chen

List of Publications by Year
in descending order

97 papers	9,010 citations	81900 39 h-index	39675 94 g-index
98 all docs	98 docs citations	98 times ranked	10287 citing authors

#	Article	IF	Citations
1	Promotion Effect of Cu for CO Oxidation on Ceria Supported Pd_{<i>x</i>}Cu_{<i>y</i>} Bimetallic Catalysts. Journal of Physical Chemistry C, 2022, 126, 1420-1425.	3.1	2
2	<scp>NO</scp> Reduction on <scp>Cuâ€Based</scp> Model Catalysts Studied by <i>inâ€situ</i><scp>IRAS</scp>. Chinese Journal of Chemistry, 2022, 40, 1267-1274.	4.9	3
3	Seizing gaseous Fe²⁺ to densify O₂-accessible Feâ€“N₄ sites for high-performance proton exchange membrane fuel cells. Energy and Environmental Science, 2022, 15, 3033-3040.	30.8	49
4	Applications of in-situ wide spectral range infrared absorption spectroscopy for CO oxidation over Pd/SiO2 and Cu/SiO2 catalysts. Chinese Journal of Catalysis, 2022, 43, 2001-2009.	14.0	4
5	In situ FTIR and ex situ XPS/HS-LEIS study of supported Cu/Al2O3 and Cu/ZnO catalysts for CO2 hydrogenation. Chinese Journal of Catalysis, 2021, 42, 367-375.	14.0	73
6	Sulfur vacancy-rich MoS2 as a catalyst for the hydrogenation of CO2 to methanol. Nature Catalysis, 2021, 4, 242-250.	34.4	308
7	Onâ€Surface Decarboxylation Coupling Facilitated by Lockâ€toâ€Unlock Variation of Molecules upon the Reaction. Angewandte Chemie - International Edition, 2021, 60, 17435-17439.	13.8	12
8	Onâ€Surface Decarboxylation Coupling Facilitated by Lockâ€toâ€Unlock Variation of Molecules upon the Reaction. Angewandte Chemie, 2021, 133, 17575-17579.	2.0	2
9	The role of ruthenium in improving the kinetics of hydrogen oxidation and evolution reactions of platinum. Nature Catalysis, 2021, 4, 711-718.	34.4	182
10	Exsolutionâ€“Dissolution of Supported Metals on High-Entropy Co₃MnNiCuZnO<i>_x</i>: Toward Sintering-Resistant Catalysis. ACS Catalysis, 2021, 11, 12247-12257.	11.2	39
11	Insight into the high efficiency of Cu/CeO2(1 1 0) catalysts for preferential oxidation of CO from hydrogen rich fuel. Applied Surface Science, 2021, 566, 150707.	6.1	11
12	Self-regeneration of supported transition metals by a high entropy-driven principle. Nature Communications, 2021, 12, 5917.	12.8	30
13	Electron penetration triggering interface activity of Pt-graphene for CO oxidation at room temperature. Nature Communications, 2021, 12, 5814.	12.8	37
14	Long-range ordered and atomic-scale control of graphene hybridization by photocycloaddition. Nature Chemistry, 2020, 12, 1035-1041.	13.6	41
15	Single-pass transformation of syngas into ethanol with high selectivity by triple tandem catalysis. Nature Communications, 2020, 11, 827.	12.8	156
16	Site-specific deposition creates electron-rich Pd atoms for unprecedented Câˆ’H activation in aerobic alcohol oxidation. Chinese Journal of Catalysis, 2020, 41, 1240-1247.	14.0	13
17	Activation of CO and surface carbon species for conversion of syngas to light olefins on ZnCrO -Al2O3 catalysts. Applied Surface Science, 2019, 494, 353-360.	6.1	25
18	Surface Compositions of Oxide Supported Bimetallic Catalysts: A Compared Study by Highâ€Sensitivity Low Energy Ion Scattering Spectroscopy and Xâ€Ray Photoemission Spectroscopy. Chemical Record, 2019, 19, 1432-1443.	5.8	4

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19	Reaction of propane with the ordered NiO/Rh(1â€¯1â€¯1) studied by XPS and LEISS. Applied Surface Science, 2018, 439, 569-576.	6.1	17
20	Disclosure of the Surface Composition of TiO₂-Supported Goldâ€"Palladium Bimetallic Catalysts by High-Sensitivity Low-Energy Ion Scattering Spectroscopy. ACS Catalysis, 2018, 8, 1790-1795.	11.2	35
21	CO-tolerant PtRu@h-BN/C coreâ€"shell electrocatalysts for proton exchange membrane fuel cells. Applied Surface Science, 2018, 450, 244-250.	6.1	28
22	Evidence of the Encapsulation Model for Strong Metalâ€"Support Interaction under Oxidized Conditions: A Case Study on TiO_{<i>x</i>}/Pt(111) for CO Oxidation by in Situ Wide Spectral Range Infrared Reflection Adsorption Spectroscopy. ACS Catalysis, 2018, 8, 10156-10163.	11.2	37
23	Direct Conversion of Syngas into Methyl Acetate, Ethanol, and Ethylene by Relay Catalysis via the Intermediate Dimethyl Ether. Angewandte Chemie - International Edition, 2018, 57, 12012-12016.	13.8	142
24	Multiscale structural and electronic control of molybdenum disulfide foam for highly efficient hydrogen production. Nature Communications, 2017, 8, 14430.	12.8	488
25	New Insights into the Role of Al₂O₃ in the Promotion of CuZnAl Catalysts: A Model Study. Chemistry - A European Journal, 2017, 23, 10632-10637.	3.3	11
26	The Formation of Surface Lithiumâ€"Iron Ternary Hydride and its Function on Catalytic Ammonia Synthesis at Low Temperatures. Angewandte Chemie - International Edition, 2017, 56, 8716-8720.	13.8	58
27	Catalysis under shell: Improved CO oxidation reaction confined in Pt@h-BN coreâ€"shell nanoreactors. Nano Research, 2017, 10, 1403-1412.	10.4	53
28	Hydrogenation of methyl acetate to ethanol over a highly stable Cu/SiO2 catalyst: Reaction mechanism and structural evolution. Applied Catalysis A: General, 2017, 531, 79-88.	4.3	57
29	The effect of the support on the surface composition of PtCu alloy nanocatalysts: In situ XPS and HS-LEIS studies. Chinese Journal of Catalysis, 2017, 38, 1229-1236.	14.0	32
30	A Highly Porous Carbon Support Rich in Graphiticâ€N Stabilizes Copper Nanocatalysts for Efficient Ethanol Dehydrogenation. ChemCatChem, 2017, 9, 505-510.	3.7	34
31	Promoting Effect of Bismuth Oxide on Palladium for Lowâ€Temperature Carbon Monoxide Oxidation. ChemCatChem, 2017, 9, 499-504.	3.7	6
32	Low charge overpotential of lithium-oxygen batteries with metallic Co encapsulated in single-layer graphene shell as the catalyst. Nano Energy, 2016, 30, 877-884.	16.0	67
33	Adsorption of Dye Molecules on Single Crystalline Semiconductor Surfaces: An Electrochemical Shell-Isolated Nanoparticle Enhanced Raman Spectroscopy Study. Journal of Physical Chemistry C, 2016, 120, 22500-22507.	3.1	15
34	Preparation and characterization of a highly dispersed and stable Ni catalyst with a microporous nanosilica support. RSC Advances, 2016, 6, 81237-81244.	3.6	25
35	Real-space characterization of reactivity towards water at theBi2Te3(111) surface. Physical Review B, 2016, 93, .	3.2	8
36	Performance of CO Oxidation over Highly Dispersed Gold Catalyst on TiO_{<i>x</i>}/SiO₂ Composite Supports. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2015, 31, 1753-1760.	4.9	2

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37	Enhanced CO Oxidation on the Oxide/Metal Interface: From Ultraâ€High Vacuum to Nearâ€Atmospheric Pressures. ChemCatChem, 2015, 7, 2620-2627.	3.7	47
38	Design and Preparation of Supported Au Catalyst with Enhanced Catalytic Activities by Rationally Positioning Au Nanoparticles on Anatase. Journal of Physical Chemistry Letters, 2015, 6, 2345-2349.	4.6	32
39	An HREELS investigation of MnO /Rh(100) model catalyst. Surface Science, 2015, 641, 78-81.	1.9	4
40	The study of the active surface for CO oxidation over supported Pd catalysts. Science China Chemistry, 2015, 58, 174-179.	8.2	10
41	Model catalysis studies of the oxidation of propane over VOx-based catalysts. Catalysis Today, 2015, 245, 172-178.	4.4	2
42	Hexagonal Boron Nitride Cover on Pt(111): A New Route to Tune Moleculeâ€"Metal Interaction and Metal-Catalyzed Reactions. Nano Letters, 2015, 15, 3616-3623.	9.1	131
43	Ammonia-assisted synthesis towards a phyllosilicate-derived highly-dispersed and long-lived Ni/SiO₂catalyst. Catalysis Science and Technology, 2015, 5, 5095-5099.	4.1	68
44	Graphene cover-promoted metal-catalyzed reactions. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17023-17028.	7.1	183
45	Facile Preparation of Well-Dispersed CeO₂â€"ZnO Composite Hollow Microspheres with Enhanced Catalytic Activity for CO Oxidation. ACS Applied Materials & Interfaces, 2014, 6, 421-428.	8.0	98
46	Effect of Surface Oxygen on the Activation of Methane on Palladium and Platinum Surfaces. ACS Catalysis, 2014, 4, 2598-2604.	11.2	43
47	Interfacial Effects in Iron-Nickel Hydroxideâ€"Platinum Nanoparticles Enhance Catalytic Oxidation. Science, 2014, 344, 495-499.	12.6	591
48	Kinetics and Active Surfaces for CO Oxidation on Pt-Group Metals Under Oxygen Rich Conditions. Topics in Catalysis, 2013, 56, 1299-1313.	2.8	21
49	Effects of O2 pressure on the oxidation of VOx/Pt(111). Physical Chemistry Chemical Physics, 2013, 15, 12124.	2.8	10
50	Synergistic Effects of VO_{<i>x</i>}â€"Pt Probed by the Oxidation of Propane on VO_{<i>x</i>}/Pt(111). Langmuir, 2013, 29, 9090-9097.	3.5	17
51	The Structureâ€"Sensitivity of <i>n</i>-Heptane Dehydrocyclization on Pt/SiO₂ Model Catalysts. Journal of Physical Chemistry C, 2012, 116, 18155-18159.	3.1	12
52	Effect of Dispersion on Catalytic Performance of Supported Pt Catalysts for CO Oxidation. Chinese Journal of Catalysis, 2012, 33, 1901-1905.	14.0	24
53	Growth and vibrational properties of MnO thin films on Rh(111). Surface Science, 2012, 606, 1507-1511.	1.9	24
54	Enhance catalytic activity for CO oxidation over titania supported gold catalysts that dispersed on SiO2. Catalysis Today, 2011, 160, 144-152.	4.4	11

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55	Size and support effects for CO oxidation on supported Pd catalysts. Science China Chemistry, 2010, 53, 2047-2056.	8.2	33
56	Active Surfaces for CO Oxidation on Palladium in the Hyperactive State. Langmuir, 2010, 26, 18113-18118.	3.5	37
57	Comment on â€œCatalytic Activity of the Rh Surface Oxide: CO Oxidation over Rh(111) under Realistic Conditionsâ€• Journal of Physical Chemistry C, 2010, 114, 22369-22371.	3.1	10
58	CO oxidation trends on Pt-group metals from ultrahigh vacuum to near atmospheric pressures: A combined in situ PM-IRAS and reaction kinetics study. Surface Science, 2009, 603, 65-70.	1.9	106
59	CO Oxidation on Pt-Group Metals from Ultrahigh Vacuum to Near Atmospheric Pressures. 1. Rhodium. Journal of Physical Chemistry C, 2009, 113, 182-192.	3.1	60
60	Sintering of Au Particles Supported on TiO₂(110) during CO Oxidation. Journal of Physical Chemistry C, 2009, 113, 254-260.	3.1	105
61	Promotional Effects of Au in Pd-Au Catalysts for Vinyl Acetate Synthesis. Chinese Journal of Catalysis, 2008, 29, 1178-1186.	14.0	44
62	Catalytically active gold on ordered titania supports. Chemical Society Reviews, 2008, 37, 1860.	38.1	314
63	Vinyl Acetate Synthesis over Model Pdâ^'Sn Bimetallic Catalysts. Journal of Physical Chemistry C, 2008, 112, 8332-8337.	3.1	12
64	Ultrathin, ordered oxide films on metal surfaces. Journal of Physics Condensed Matter, 2008, 20, 264013.	1.8	50
65	Chapter 5 Oxide-supported metal clusters. Chemical Physics of Solid Surfaces, 2007, 12, 201-269.	0.3	3
66	The structure of ordered Au films on TiOx. Surface Science, 2007, 601, 632-637.	1.9	30
67	Reply to comment on â€œThe structure of monolayer SiO2 on Mo(112): A 2-D [Siâ€"Oâ€"Si] network or isolated [SiO4] units?â€• Surface Science, 2007, 601, 591-593.	1.9	10
68	Asymmetric adsorption-site of potassium atoms in the (3Ã—2)-p2mg structure formed on Cu(001). Surface Science, 2007, 601, 5162-5169.	1.9	5
69	CO oxidation on ruthenium: The nature of the active catalytic surface. Surface Science, 2007, 601, L124-L126.	1.9	78
70	Highly active surfaces for CO oxidation on Rh, Pd, and Pt. Surface Science, 2007, 601, 5326-5331.	1.9	346
71	Interaction of Au with titania: the role of reduced Ti. Topics in Catalysis, 2007, 44, 41-47.	2.8	49
72	Synthesis of vinyl acetate on Pd-based catalysts. Catalysis Today, 2007, 123, 77-85.	4.4	104

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73	Reply to comment on â€œCO oxidation on ruthenium: The nature of the active catalytic surfaceâ€•by H. Over, M. Muhler, A.P. Seitsonen. Surface Science, 2007, 601, 5663-5665.	1.9	34
74	Catalytically Active Gold:â€‰ From Nanoparticles to Ultrathin Films. Accounts of Chemical Research, 2006, 39, 739-746.	15.6	473
75	NO Adsorption and Dissociation on Rh(111):Â PM-IRAS Study. Journal of Physical Chemistry B, 2006, 110, 6245-6249.	2.6	26
76	Characterization of ultra-thin TiO2 films grown on Mo(112). Thin Solid Films, 2006, 515, 1475-1479.	1.8	44
77	On the Origin of the Unique Properties of Supported Au Nanoparticles. Journal of the American Chemical Society, 2006, 128, 6341-6346.	13.7	221
78	Kinetic and Spectroscopic Studies of Vinyl Acetate Synthesis Over Pd(100). Catalysis Letters, 2006, 106, 1-5.	2.6	23
79	The structure of monolayer SiO2 on Mo(112): A 2-D [Siâ€“Oâ€“Si] network or isolated [SiO4] units?. Surface Science, 2006, 600, L255-L259.	1.9	36
80	Structureâ€“activity relationships in supported Au catalysts. Catalysis Today, 2006, 111, 22-33.	4.4	357
81	The nature of the active site for vinyl acetate synthesis over Pdâ€“Au. Catalysis Today, 2006, 117, 37-45.	4.4	100
82	An investigation of the TiOxâ€“SiO2/Mo(112) interface. Surface Science, 2005, 574, 259-268.	1.9	21
83	Synthesis of well-ordered ultra-thin titanium oxide films on Mo(112). Surface Science, 2005, 581, 115-121.	1.9	53
84	Electronic and vibrational properties of ultrathinSiO2films grown on Mo(112). Physical Review B, 2005, 72, .	3.2	50
85	The Promotional Effect of Gold in Catalysis by Palladium-Gold. Science, 2005, 310, 291-293.	12.6	936
86	Structure of thinSiO2films grown on Mo(112). Physical Review B, 2004, 69, .	3.2	104
87	Ordered mixed surface structures formed by coadsorption of dissimilar metal atoms on Cu(001). Vacuum, 2004, 74, 121-131.	3.5	5
88	The interaction of water with silica thin films grown on Mo(112). Surface Science, 2004, 565, 107-120.	1.9	65
89	Adsorbate lone-pair-electron stimulated charge transfer between surface dangling bonds: methanol chemisorption on Si(111)-7Ã—7. Chemical Physics Letters, 2004, 388, 190-194.	2.6	10
90	Adsorption of Benzene on a Mo(112)â^'c(2 Ã— 2)-[SiO4] Surface. Journal of Physical Chemistry B, 2004, 108, 17940-17945.	2.6	14

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91	The Structure of Catalytically Active Gold on Titania. Science, 2004, 306, 252-255.	12.6	1,541
92	An ordered surface alloy formed by attractive interaction between coadsorbates: c(2Ã—2) on Cu(001) by Mg and Bi. Surface Science, 2003, 530, L307-L312.	1.9	7
93	Determination of ()R26.7Â° structures formed on Cu(001) by coadsorption of Bi and K(Cs): on-top site adsorption of K(Cs). Surface Science, 2003, 536, L415-L422.	1.9	5
94	In situ FT-IR studies on the CO2 hydrogenation over the SiO2-supported RhM (M=Cr, Mo, W) complex catalysts. Journal of Molecular Catalysis A, 2001, 166, 331-335.	4.8	3
95	In situ time-resolved FTIR investigation on the reaction mechanism of partial oxidation of methane to syngas over supported Rh and Ru catalysts. Science Bulletin, 2000, 45, 2236-2240.	1.7	3
96	Title is missing!. Catalysis Letters, 1998, 53, 43-50.	2.6	30
97	Oxidative coupling of methane over BaF2-promoted rare earth oxides with variable valence. Applied Catalysis A: General, 1997, 159, 171-185.	4.3	18