Jingguang G Chen

List of Publications by Year
in descending order

185 papers	28,904 citations	5268 83 h-index	5120 166 g-index
187 all docs	187 docs citations	187 times ranked	21856 citing authors

#	Article	IF	Citations
1	Beyond fossil fuelâ€“driven nitrogen transformations. Science, 2018, 360, .	12.6	1,379
2	Active sites for CO ₂ hydrogenation to methanol on Cu/ZnO catalysts. Science, 2017, 355, 1296-1299.	12.6	1,180
3	A selective and efficient electrocatalyst for carbon dioxide reduction. Nature Communications, 2014, 5, 3242.	12.8	1,111
4	Review of Pt-Based Bimetallic Catalysis: From Model Surfaces to Supported Catalysts. Chemical Reviews, 2012, 112, 5780-5817.	47.7	1,082
5	Catalytic reduction of CO₂ by H₂ for synthesis of CO, methanol and hydrocarbons: challenges and opportunities. Energy and Environmental Science, 2016, 9, 62-73.	30.8	979
6	Correlating the hydrogen evolution reaction activity in alkaline electrolytes with the hydrogen binding energy on monometallic surfaces. Energy and Environmental Science, 2013, 6, 1509.	30.8	869
7	Recent Advances in Carbon Dioxide Hydrogenation to Methanol via Heterogeneous Catalysis. Chemical Reviews, 2020, 120, 7984-8034.	47.7	825
8	Tuning Selectivity of CO₂ Hydrogenation Reactions at the Metal/Oxide Interface. Journal of the American Chemical Society, 2017, 139, 9739-9754.	13.7	823
9	Correlating hydrogen oxidation and evolution activity on platinum at different pH with measured hydrogen binding energy. Nature Communications, 2015, 6, 5848.	12.8	784
10	Carbide and Nitride Overlayers on Early Transition Metal Surfaces:Â Preparation, Characterization, and Reactivities. Chemical Reviews, 1996, 96, 1477-1498.	47.7	677
11	Surface Chemistry of Transition Metal Carbides. Chemical Reviews, 2005, 105, 185-212.	47.7	677
12	Adsorbate-mediated strong metalâ€“support interactions in oxide-supported Rh catalysts. Nature Chemistry, 2017, 9, 120-127.	13.6	609
13	Optimizing Binding Energies of Key Intermediates for CO₂ Hydrogenation to Methanol over Oxide-Supported Copper. Journal of the American Chemical Society, 2016, 138, 12440-12450.	13.7	565
14	Nanostructured Electrodes for Highâ€Performance Pseudocapacitors. Angewandte Chemie - International Edition, 2013, 52, 1882-1889.	13.8	501
15	Lowâ€Cost Hydrogenâ€Evolution Catalysts Based on Monolayer Platinum on Tungsten Monocarbide Substrates. Angewandte Chemie - International Edition, 2010, 49, 9859-9862.	13.8	499
16	A New Class of Electrocatalysts for Hydrogen Production from Water Electrolysis: Metal Monolayers Supported on Low-Cost Transition Metal Carbides. Journal of the American Chemical Society, 2012, 134, 3025-3033.	13.7	482
17	The Central Role of Bicarbonate in the Electrochemical Reduction of Carbon Dioxide on Gold. Journal of the American Chemical Society, 2017, 139, 3774-3783.	13.7	479
18	Monolayer bimetallic surfaces: Experimental and theoretical studies of trends in electronic and chemical properties. Surface Science Reports, 2008, 63, 201-254.	7.2	472

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19	Highly porous non-precious bimetallic electrocatalysts for efficient hydrogen evolution. Nature Communications, 2015, 6, 6567.	12.8	440
20	Mechanistic Insights into Electrochemical Nitrogen Reduction Reaction on Vanadium Nitride Nanoparticles. Journal of the American Chemical Society, 2018, 140, 13387-13391.	13.7	438
21	Using first principles to predict bimetallic catalysts for the ammonia decomposition reaction. Nature Chemistry, 2010, 2, 484-489.	13.6	381
22	Hydrogenation of CO₂ to Methanol: Importance of Metalâ€“Oxide and Metalâ€“Carbide Interfaces in the Activation of CO₂. ACS Catalysis, 2015, 5, 6696-6706.	11.2	374
23	Electrochemical reduction of CO₂to synthesis gas with controlled CO/H₂ratios. Energy and Environmental Science, 2017, 10, 1180-1185.	30.8	341
24	Molybdenum Carbide as Alternative Catalysts to Precious Metals for Highly Selective Reduction of CO₂ to CO. Angewandte Chemie - International Edition, 2014, 53, 6705-6709.	13.8	329
25	Net reduction of CO2 via its thermocatalytic and electrocatalytic transformation reactions in standard and hybrid processes. Nature Catalysis, 2019, 2, 381-386.	34.4	317
26	Using natureâ€™s blueprint to expand catalysis with Earth-abundant metals. Science, 2020, 369, .	12.6	306
27	Non-precious metal electrocatalysts with high activity for hydrogen oxidation reaction in alkaline electrolytes. Energy and Environmental Science, 2014, 7, 1719-1724.	30.8	276
28	Selective electroreduction of CO2 to acetone by single copper atoms anchored on N-doped porous carbon. Nature Communications, 2020, 11, 2455.	12.8	265
29	CO₂ Hydrogenation over Oxideâ€Supported PtCo Catalysts: The Role of the Oxide Support in Determining the Product Selectivity. Angewandte Chemie - International Edition, 2016, 55, 7968-7973.	13.8	261
30	Exploring the ternary interactions in Cuâ€“ZnOâ€“ZrO2 catalysts for efficient CO2 hydrogenation to methanol. Nature Communications, 2019, 10, 1166.	12.8	258
31	CO₂ Hydrogenation to Methanol over ZrO₂-Containing Catalysts: Insights into ZrO₂ Induced Synergy. ACS Catalysis, 2019, 9, 7840-7861.	11.2	253
32	CO2 hydrogenation on Pt, Pt/SiO2 and Pt/TiO2: Importance of synergy between Pt and oxide support. Journal of Catalysis, 2016, 343, 115-126.	6.2	250
33	Monolayer platinum supported on tungsten carbides as low-cost electrocatalysts: opportunities and limitations. Energy and Environmental Science, 2011, 4, 3900.	30.8	243
34	A General Method to Probe Oxygen Evolution Intermediates at Operating Conditions. Joule, 2019, 3, 1498-1509.	24.0	243
35	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie - International Edition, 2019, 58, 9464-9469.	13.8	226
36	Promoting H2O2 production via 2-electron oxygen reduction by coordinating partially oxidized Pd with defect carbon. Nature Communications, 2020, 11, 2178.	12.8	209

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37	Electrochemical Conversion of CO₂ to Syngas with Controllable CO/H₂ Ratios over Co and Ni Singleâ€Atom Catalysts. Angewandte Chemie - International Edition, 2020, 59, 3033-3037.	13.8	203
38	Low Pressure CO₂ Hydrogenation to Methanol over Gold Nanoparticles Activated on a CeO_{<i>x</i>}/TiO₂ Interface. Journal of the American Chemical Society, 2015, 137, 10104-10107.	13.7	200
39	Toward Benchmarking in Catalysis Science: Best Practices, Challenges, and Opportunities. ACS Catalysis, 2016, 6, 2590-2602.	11.2	190
40	Selective Hydrodeoxygenation of Biomassâ€Derived Oxygenates to Unsaturated Hydrocarbons using Molybdenum Carbide Catalysts. ChemSusChem, 2013, 6, 798-801.	6.8	173
41	Activity and Selectivity Control in CO₂ Electroreduction to Multicarbon Products over CuO_{<i>x</i>} Catalysts via Electrolyte Design. ACS Catalysis, 2018, 8, 10012-10020.	11.2	173
42	Accelerating CO₂ Electroreduction to CO Over Pd Singleâ€Atom Catalyst. Advanced Functional Materials, 2020, 30, 2000407.	14.9	173
43	Trends in the catalytic reduction of CO2 by hydrogen over supported monometallic and bimetallic catalysts. Journal of Catalysis, 2013, 301, 30-37.	6.2	168
44	Comparison of electrochemical stability of transition metal carbides (WC, W2C, Mo2C) over a wide pH range. Journal of Power Sources, 2012, 202, 11-17.	7.8	157
45	Tuning the activity and selectivity of electroreduction of CO2 to synthesis gas using bimetallic catalysts. Nature Communications, 2019, 10, 3724.	12.8	156
46	Revealing Energetics of Surface Oxygen Redox from Kinetic Fingerprint in Oxygen Electrocatalysis. Journal of the American Chemical Society, 2019, 141, 13803-13811.	13.7	151
47	Computational and experimental demonstrations of one-pot tandem catalysis for electrochemical carbon dioxide reduction to methane. Nature Communications, 2019, 10, 3340.	12.8	150
48	Bimetallic effects in the hydrodeoxygenation of meta-cresol on Î³-Al2O3 supported Ptâ€"Ni and Ptâ€"Co catalysts. Green Chemistry, 2012, 14, 1388.	9.0	149
49	Trends in Electrochemical Stability of Transition Metal Carbides and Their Potential Use As Supports for Low-Cost Electrocatalysts. ACS Catalysis, 2014, 4, 1558-1562.	11.2	142
50	N2 Fixation by Plasma-Activated Processes. Joule, 2021, 5, 300-315.	24.0	139
51	Metal overlayer on metal carbide substrate: unique bimetallic properties for catalysis and electrocatalysis. Chemical Society Reviews, 2012, 41, 8021.	38.1	137
52	Shapeâ€Controlled CO₂ Electrochemical Reduction on Nanosized Pd Hydride Cubes and Octahedra. Advanced Energy Materials, 2019, 9, 1802840.	19.5	132
53	Strong Evidence of the Role of H2O in Affecting Methanol Selectivity from CO2 Hydrogenation over Cu-ZnO-ZrO2. CheM, 2020, 6, 419-430.	11.7	130
54	Best Practices in Pursuit of Topics in Heterogeneous Electrocatalysis. ACS Catalysis, 2017, 7, 6392-6393.	11.2	126

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55	Carbon dioxide reduction in tandem with light-alkane dehydrogenation. Nature Reviews Chemistry, 2019, 3, 638-649.	30.2	124
56	Enhancing Activity and Reducing Cost for Electrochemical Reduction of CO₂ by Supporting Palladium on Metal Carbides. Angewandte Chemie - International Edition, 2019, 58, 6271-6275.	13.8	123
57	Recent advances in carbon dioxide hydrogenation to produce olefins and aromatics. CheM, 2021, 7, 2277-2311.	11.7	122
58	Review of Plasma-Assisted Catalysis for Selective Generation of Oxygenates from CO₂ and CH₄. ACS Catalysis, 2020, 10, 2855-2871.	11.2	118
59	Reducing Iridium Loading in Oxygen Evolution Reaction Electrocatalysts Using Coreâ€“Shell Particles with Nitride Cores. ACS Catalysis, 2018, 8, 2615-2621.	11.2	117
60	Reforming and oxidative dehydrogenation of ethane with CO2 as a soft oxidant over bimetallic catalysts. Journal of Catalysis, 2016, 343, 168-177.	6.2	115
61	Tuning CO2 hydrogenation selectivity via metal-oxide interfacial sites. Journal of Catalysis, 2019, 374, 60-71.	6.2	115
62	Effect of surface carbon on the hydrogen evolution reactivity of tungsten carbide (WC) and Pt-modified WC electrocatalysts. International Journal of Hydrogen Energy, 2012, 37, 3019-3024.	7.1	114
63	Combining CO2 reduction with propane oxidative dehydrogenation over bimetallic catalysts. Nature Communications, 2018, 9, 1398.	12.8	113
64	Atomic layer deposition synthesis of platinumâ€“tungsten carbide coreâ€“shell catalysts for the hydrogen evolution reaction. Chemical Communications, 2012, 48, 1063-1065.	4.1	111
65	Hydrogenation of CO2 to methanol over CuCeTiO catalysts. Applied Catalysis B: Environmental, 2017, 206, 704-711.	20.2	109
66	General trend for adsorbate-induced segregation of subsurface metal atoms in bimetallic surfaces. Journal of Chemical Physics, 2009, 130, 174709.	3.0	108
67	Differentiation of Oâ€“H and Câ€“H Bond Scission Mechanisms of Ethylene Glycol on Pt and Ni/Pt Using Theory and Isotopic Labeling Experiments. Journal of the American Chemical Society, 2011, 133, 7996-8004.	13.7	107
68	Molybdenum Carbide as a Highly Selective Deoxygenation Catalyst for Converting Furfural to 2â€Methylfuran. ChemSusChem, 2014, 7, 2146-2149.	6.8	105
69	Active sites for tandem reactions of CO ₂ reduction and ethane dehydrogenation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8278-8283.	7.1	105
70	Dry Reforming of Ethane and Butane with CO₂ over PtNi/CeO₂ Bimetallic Catalysts. ACS Catalysis, 2016, 6, 7283-7292.	11.2	103
71	Density functional theory studies of transition metal carbides and nitrides as electrocatalysts. Chemical Society Reviews, 2021, 50, 12338-12376.	38.1	103
72	Oxygen induced promotion of electrochemical reduction of CO2 via co-electrolysis. Nature Communications, 2020, 11, 3844.	12.8	102

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73	Transition Metal Nitrides as Promising Catalyst Supports for Tuning CO/H₂Syngas Production from Electrochemical CO₂Reduction. Angewandte Chemie - International Edition, 2020, 59, 11345-11348.	13.8	100
74	Identifying Different Types of Catalysts for CO₂ Reduction by Ethane through Dry Reforming and Oxidative Dehydrogenation. Angewandte Chemie - International Edition, 2015, 54, 15501-15505.	13.8	99
75	Correlating extent of Ptâ€"Ni bond formation with low-temperature hydrogenation of benzene and 1,3-butadiene over supported Pt/Ni bimetallic catalysts. Journal of Catalysis, 2010, 271, 239-250.	6.2	95
76	Opportunities and Challenges in Utilizing Metal-Modified Transition Metal Carbides as Low-Cost Electrocatalysts. Joule, 2017, 1, 253-263.	24.0	94
77	Challenges and Opportunities in Utilizing MXenes of Carbides and Nitrides as Electrocatalysts. Advanced Energy Materials, 2021, 11, 2002967.	19.5	94
78	Correlating hydrogenation activity with binding energies of hydrogen and cyclohexene on M/Pt(111) (M = Fe, Co, Ni, Cu) bimetallic surfaces. Journal of Catalysis, 2008, 257, 297-306.	6.2	91
79	Effectively Increased Efficiency for Electroreduction of Carbon Monoxide Using Supported Polycrystalline Copper Powder Electrocatalysts. ACS Catalysis, 2019, 9, 4709-4718.	11.2	91
80	Theoretical and experimental studies of the adsorption geometry and reaction pathways of furfural over FeNi bimetallic model surfaces and supported catalysts. Journal of Catalysis, 2014, 317, 253-262.	6.2	88
81	Quantification of Active Sites and Elucidation of the Reaction Mechanism of the Electrochemical Nitrogen Reduction Reaction on Vanadium Nitride. Angewandte Chemie - International Edition, 2019, 58, 13768-13772.	13.8	86
82	Identifying Surface Reaction Intermediates in Plasma Catalytic Ammonia Synthesis. ACS Catalysis, 2020, 10, 14763-14774.	11.2	86
83	Reactions of water and C1 molecules on carbide and metal-modified carbide surfaces. Chemical Society Reviews, 2017, 46, 1807-1823.	38.1	85
84	Pd-Modified Tungsten Carbide for Methanol Electro-oxidation: From Surface Science Studies to Electrochemical Evaluation. ACS Catalysis, 2012, 2, 751-758.	11.2	84
85	Electrochemical Conversion of CO₂ to Syngas with Palladium-Based Electrocatalysts. Accounts of Chemical Research, 2020, 53, 1535-1544.	15.6	81
86	Correlating Ethylene Glycol Reforming Activity with In Situ EXAFS Detection of Ni Segregation in Supported NiPt Bimetallic Catalysts. ACS Catalysis, 2012, 2, 2290-2296.	11.2	80
87	Hydrodeoxygenation of biomass-derived oxygenates over metal carbides: from model surfaces to powder catalysts. Green Chemistry, 2018, 20, 2679-2696.	9.0	80
88	Electrochemical Stability of Tungsten and Tungsten Monocarbide (WC) Over Wide pH and Potential Ranges. Journal of the Electrochemical Society, 2010, 157, F179.	2.9	79
89	Enhancing Câ€"C Bond Scission for Efficient Ethanol Oxidation using PtIr Nanocube Electrocatalysts. ACS Catalysis, 2019, 9, 7618-7625.	11.2	79
90	Understanding the Role of Functional Groups in Polymeric Binder for Electrochemical Carbon Dioxide Reduction on Gold Nanoparticles. Advanced Functional Materials, 2018, 28, 1804762.	14.9	76

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91	Understanding the Role of M/Pt(111) (M = Fe, Co, Ni, Cu) Bimetallic Surfaces for Selective Hydrodeoxygenation of Furfural. ACS Catalysis, 2017, 7, 5758-5765.	11.2	76
92	Effects of oxide supports on the CO2 reforming of ethane over Pt-Ni bimetallic catalysts. Applied Catalysis B: Environmental, 2019, 245, 376-388.	20.2	75
93	Trends and Descriptors of Metal-Modified Transition Metal Carbides for Hydrogen Evolution in Alkaline Electrolyte. ACS Catalysis, 2019, 9, 2415-2422.	11.2	74
94	CO₂ hydrogenation over heterogeneous catalysts at atmospheric pressure: from electronic properties to product selectivity. Green Chemistry, 2021, 23, 249-267.	9.0	74
95	Potential Application of Tungsten Carbides as Electrocatalysts:â€‰ 4. Reactions of Methanol, Water, and Carbon Monoxide over Carbide-Modified W(110). Journal of Physical Chemistry B, 2003, 107, 2029-2039.	2.6	68
96	Insight into the synergistic effect between nickel and tungsten carbide for catalyzing urea electrooxidation in alkaline electrolyte. Applied Catalysis B: Environmental, 2018, 232, 365-370.	20.2	68
97	LaFe0.9Ni0.1O3 perovskite catalyst with enhanced activity and coke-resistance for dry reforming of ethane. Journal of Catalysis, 2018, 358, 168-178.	6.2	67
98	Cobalt-modified molybdenum carbide as a selective catalyst for hydrodeoxygenation of furfural. Applied Catalysis B: Environmental, 2018, 233, 160-166.	20.2	64
99	Tandem Reactions of CO₂ Reduction and Ethane Aromatization. Journal of the American Chemical Society, 2019, 141, 17771-17782.	13.7	62
100	Combining CO₂ Reduction with Ethane Oxidative Dehydrogenation by Oxygen-Modification of Molybdenum Carbide. ACS Catalysis, 2018, 8, 5374-5381.	11.2	58
101	Bimetallic Electrocatalysts for CO2 Reduction. Topics in Current Chemistry, 2018, 376, 41.	5.8	57
102	Elucidating the roles of metallic Ni and oxygen vacancies in CO2 hydrogenation over Ni/CeO2 using isotope exchange and in situ measurements. Applied Catalysis B: Environmental, 2019, 245, 360-366.	20.2	57
103	Interfacial Active Sites for CO2 Assisted Selective Cleavage of Câ€“C/Câ€“H Bonds in Ethane. CheM, 2020, 6, 2703-2716.	11.7	57
104	Theoretical prediction and experimental verification of low loading of platinum on titanium carbide as low-cost and stable electrocatalysts. Journal of Catalysis, 2014, 312, 216-220.	6.2	56
105	Identifying Dynamic Structural Changes of Active Sites in Ptâ€“Ni Bimetallic Catalysts Using Multimodal Approaches. ACS Catalysis, 2018, 8, 4120-4131.	11.2	54
106	Controlling reaction pathways of selective Câ€“O bond cleavage of glycerol. Nature Communications, 2018, 9, 4612.	12.8	54
107	Insight into Acetic Acid Synthesis from the Reaction of CH₄ and CO₂. ACS Catalysis, 2021, 11, 3384-3401.	11.2	53
108	Reactions of methanol and water over carbide-modified Mo(). Surface Science, 2003, 536, 75-87.	1.9	52

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109	Controlling Câ€“O, Câ€“C and Câ€“H bond scission for deoxygenation, reforming, and dehydrogenation of ethanol using metal-modified molybdenum carbide surfaces. Green Chemistry, 2014, 16, 777-784.	9.0	51
110	Reaction Pathways of Biomassâ€Derived Oxygenates over Metals and Carbides: From Model Surfaces to Supported Catalysts. ChemCatChem, 2015, 7, 1402-1421.	3.7	50
111	Comparison of Oâˆ'H, Câˆ'H, and Câˆ'O Bond Scission Sequence of Methanol on Tungsten Carbide Surfaces Modified by Ni, Rh, and Au. Journal of Physical Chemistry C, 2011, 115, 6644-6650.	3.1	49
112	High selectivity of CO₂ hydrogenation to CO by controlling the valence state of nickel using perovskite. Chemical Communications, 2018, 54, 7354-7357.	4.1	49
113	Reactions of CO2 and ethane enable CO bond insertion for production of C3 oxygenates. Nature Communications, 2020, 11, 1887.	12.8	49
114	Enhancing H₂ and CO Production from Glycerol Using Bimetallic Surfaces. ChemSusChem, 2008, 1, 524-526.	6.8	47
115	Generating Defectâ€Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. Angewandte Chemie, 2019, 131, 9564-9569.	2.0	47
116	Electrochemical reduction of acetonitrile to ethylamine. Nature Communications, 2021, 12, 1949.	12.8	47
117	Role of Surface Oxophilicity in Copper-Catalyzed Water Dissociation. ACS Catalysis, 2018, 8, 9327-9333.	11.2	46
118	Theoretical and Experimental Studies of Câ€“C versus Câ€“O Bond Scission of Ethylene Glycol Reaction Pathways via Metal-Modified Molybdenum Carbides. ACS Catalysis, 2014, 4, 1409-1418.	11.2	45
119	Glycolaldehyde as a Probe Molecule for Biomass Derivatives: Reaction of Câ€"OH and Câ•O Functional Groups on Monolayer Ni Surfaces. Journal of the American Chemical Society, 2011, 133, 20528-20535.	13.7	42
120	Constant Electrode Potential Quantum Mechanical Study of CO₂ Electrochemical Reduction Catalyzed by N-Doped Graphene. ACS Catalysis, 2019, 9, 8197-8207.	11.2	42
121	Achieving complete electrooxidation of ethanol by single atomic Rh decoration of Pt nanocubes. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2112109119.	7.1	40
122	Catalysis Center for Energy Innovation for Biomass Processing: Research Strategies and Goals. Catalysis Letters, 2010, 140, 77-84.	2.6	38
123	Electrochemical CO2 Reduction via Low-Valent Nickel Single-Atom Catalyst. Joule, 2018, 2, 587-589.	24.0	38
124	The effects of bimetallic interactions for CO₂â€assisted oxidative dehydrogenation and dry reforming of propane. AIChE Journal, 2019, 65, e16670.	3.6	38
125	Enhancing CO Tolerance of Electrocatalysts: Electro-oxidation of CO on WC and Pt-Modified WC. Electrochemical and Solid-State Letters, 2008, 11, B63.	2.2	37
126	Response to Comment on â€œActive sites for CO ₂ hydrogenation to methanol on Cu/ZnO catalystsâ€• Science, 2017, 357, .	12.6	37

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127	Ringâ€Opening Reaction of Furfural and Tetrahydrofurfuryl Alcohol on Hydrogenâ€Predosed Iridium(1â€‰1â€‰1) and Cobalt/Iridium(1â€‰1â€‰1) Surfaces. ChemCatChem, 2017, 9, 1701-1707.	3.7	34
128	Reaction Pathways of Propanal and 1-Propanol on Fe/Ni(111) and Cu/Ni(111) Bimetallic Surfaces. Journal of Physical Chemistry C, 2014, 118, 11340-11349.	3.1	33
129	Oxidative dehydrogenation and dry reforming of n-butane with CO2 over NiFe bimetallic catalysts. Applied Catalysis B: Environmental, 2018, 231, 213-223.	20.2	33
130	Reactions of methanol and ethylene glycol on Ni/Pt: Bridging the materials gap between single crystal and polycrystalline bimetallic surfaces. Surface Science, 2009, 603, 2630-2638.	1.9	32
131	Boosting Activity and Selectivity of CO₂ Electroreduction by Preâ€Hydridizing Pd Nanocubes. Small, 2020, 16, e2005305.	10.0	32
132	Challenges and opportunities in correlating bimetallic model surfaces and supported catalysts. Journal of Catalysis, 2013, 308, 2-10.	6.2	31
133	Enhancing Activity and Reducing Cost for Electrochemical Reduction of CO₂ by Supporting Palladium on Metal Carbides. Angewandte Chemie, 2019, 131, 6337-6341.	2.0	31
134	Pt/Mo2C/C-cp as a highly active and stable catalyst for ethanol electrooxidation. Journal of Power Sources, 2017, 345, 182-189.	7.8	30
135	Quantum Mechanical Study of N-Heterocyclic Carbene Adsorption on Au Surfaces. Journal of Physical Chemistry A, 2017, 121, 2674-2682.	2.5	29
136	Electrochemical CO₂ Reduction Reaction over Cu Nanoparticles with Tunable Activity and Selectivity Mediated by Functional Groups in Polymeric Binder. Jacs Au, 2022, 2, 214-222.	7.9	29
137	Conversion of CO₂ on a highly active and stable Cu/FeO_x/CeO₂ catalyst: tuning catalytic performance by oxide-oxide interactions. Catalysis Science and Technology, 2019, 9, 3735-3742.	4.1	28
138	CO₂-Assisted propane aromatization over phosphorus-modified Ga/ZSM-5 catalysts. Catalysis Science and Technology, 2020, 10, 1881-1888.	4.1	28
139	Replacing Precious Metals with Carbide Catalysts for Hydrogenation Reactions. Topics in Catalysis, 2015, 58, 240-246.	2.8	27
140	Computational and experimental identification of strong synergy of the Fe/ZnO catalyst in promoting acetic acid synthesis from CH₄ and CO₂. Chemical Communications, 2020, 56, 3983-3986.	4.1	27
141	Transition metal carbides and nitrides as catalysts for thermochemical reactions. Journal of Catalysis, 2021, 404, 929-942.	6.2	27
142	Bimetallic-Derived Catalysts and Their Application in Simultaneous Upgrading of CO2 and Ethane. Matter, 2021, 4, 408-440.	10.0	26
143	General Descriptors for CO₂-Assisted Selective Câ€"H/Câ€"C Bond Scission in Ethane. Journal of the American Chemical Society, 2022, 144, 4186-4195.	13.7	26
144	Tungsten Carbide and Cobalt Modified Nickel Nanoparticles Supported on Multiwall Carbon Nanotubes as Highly Efficient Electrocatalysts for Urea Oxidation in Alkaline Electrolyte. ACS Applied Materials & Interfaces, 2018, 10, 41338-41343.	8.0	25

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145	Mechanistic study of dry reforming of ethane by CO₂ on a bimetallic PtNi(111) model surface. Catalysis Science and Technology, 2018, 8, 3748-3758.	4.1	24
146	Effect of Oxide Support on Catalytic Performance of FeNiâ€based Catalysts for CO₂â€assisted Oxidative Dehydrogenation of Ethane. ChemCatChem, 2020, 12, 494-503.	3.7	24
147	Oxygenate Production from Plasma-Activated Reaction of CO₂ and Ethane. ACS Energy Letters, 2022, 7, 236-241.	17.4	24
148	Methanol Synthesis from CO₂ Hydrogenation over CuZnCeTi Mixed Oxide Catalysts. Industrial & Engineering Chemistry Research, 2019, 58, 7922-7928.	3.7	23
149	Synthesis and electrocatalytic applications of flower-like motifs and associated composites of nitrogen-enriched tungsten nitride (W2N3). Nano Research, 2020, 13, 1434-1443.	10.4	23
150	Trends and descriptors for tuning CO2 electroreduction to synthesis gas over Ag and Au supported on transition metal carbides and nitrides. Chemical Engineering Journal, 2021, 426, 130781.	12.7	23
151	Electrochemical Conversion of CO 2 to Syngas with Controllable CO/H 2 Ratios over Co and Ni Singleâ€Atom Catalysts. Angewandte Chemie, 2020, 132, 3057-3061.	2.0	22
152	Metal-modified niobium carbides as low-cost and impurity-resistant electrocatalysts for hydrogen evolution in acidic and alkaline electrolytes. International Journal of Hydrogen Energy, 2016, 41, 5948-5954.	7.1	21
153	Controlled Synthesis of Fe₃O₄ Nanospheres Coated with Nitrogen-Doped Carbon for High Performance Supercapacitors. ACS Applied Energy Materials, 2018, 1, 4599-4605.	5.1	21
154	CO2-assisted ethane aromatization over zinc and phosphorous modified ZSM-5 catalysts. Applied Catalysis B: Environmental, 2022, 304, 120956.	20.2	21
155	Trends in Hydrogen Evolution Activity of Metalâ€Modified Molybdenum Carbides in Alkaline and Acid Electrolytes. ChemElectroChem, 2016, 3, 1686-1693.	3.4	19
156	Comparison of Heterogeneous Hydroformylation of Ethylene and Propylene over RhCo₃/MCM-41 Catalysts. ACS Catalysis, 2021, 11, 14575-14585.	11.2	19
157	Can CO2-assisted alkane dehydrogenation lead to negative CO2 emissions?. Joule, 2022, 6, 269-273.	24.0	18
158	Isotopic effect on electrochemical CO₂ reduction activity and selectivity in H₂O- and D₂O-based electrolytes over palladium. Chemical Communications, 2020, 56, 106-108.	4.1	17
159	Exploring electrocatalytic stability and activity of unmodified and platinum-modified tungsten and niobium nitrides. International Journal of Hydrogen Energy, 2020, 45, 22883-22892.	7.1	17
160	Tuning Reaction Pathways of Electrochemical Conversion of CO₂ by Growing Pd Shells on Ag Nanocubes. Nano Letters, 2022, 22, 4576-4582.	9.1	17
161	Chemical properties of carbon-modified titanium: reaction pathways of cyclohexene and ethylene over Ti(0001) and C/Ti(0001). Surface Science, 2004, 557, 144-158.	1.9	16
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