Jingguang G Chen

List of Publications by Citations

179 papers	19,741 citations	70 h-index	139 g-index
187 ext. papers	24,106 ext. citations	15.1 avg, IF	7.58 L-index

#	Paper	IF	Citations
179	A selective and efficient electrocatalyst for carbon dioxide reduction. *Nature Communications*, **2014**, 5, 3242	17.4	930
178	Review of Pt-based bimetallic catalysis: from model surfaces to supported catalysts. *Chemical Reviews*, **2012**, 112, 5780-817	68.1	919
177	Active sites for CO hydrogenation to methanol on Cu/ZnO catalysts. *Science*, **2017**, 355, 1296-1299	33.3	788
176	Beyond fossil fuel-driven nitrogen transformations. *Science*, **2018**, 360,	33.3	772
175	Catalytic reduction of CO2 by H2 for synthesis of CO, methanol and hydrocarbons: challenges and opportunities. *Energy and Environmental Science*, **2016**, 9, 62-73	35.4	673
174	Correlating the hydrogen evolution reaction activity in alkaline electrolytes with the hydrogen binding energy on monometallic surfaces. *Energy and Environmental Science*, **2013**, 6, 1509	35.4	624
173	Surface chemistry of transition metal carbides. *Chemical Reviews*, **2005**, 105, 185-212	68.1	574
172	Carbide and Nitride Overlayers on Early Transition Metal Surfaces: Preparation, Characterization, and Reactivities. *Chemical Reviews*, **1996**, 96, 1477-1498	68.1	566
171	Correlating hydrogen oxidation and evolution activity on platinum at different pH with measured hydrogen binding energy. *Nature Communications*, **2015**, 6, 5848	17.4	556
170	Tuning Selectivity of CO Hydrogenation Reactions at the Metal/Oxide Interface. *Journal of the American Chemical Society*, **2017**, 139, 9739-9754	16.4	522
169	Low-cost hydrogen-evolution catalysts based on monolayer platinum on tungsten monocarbide substrates. *Angewandte Chemie - International Edition*, **2010**, 49, 9859-62	16.4	449
168	Monolayer bimetallic surfaces: Experimental and theoretical studies of trends in electronic and chemical properties. *Surface Science Reports*, **2008**, 63, 201-254	12.9	433
167	Nanostructured electrodes for high-performance pseudocapacitors. *Angewandte Chemie - International Edition*, **2013**, 52, 1882-9	16.4	431
166	Adsorbate-mediated strong metal-support interactions in oxide-supported Rh catalysts. *Nature Chemistry*, **2017**, 9, 120-127	17.6	401
165	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, 3025-33	16.4	398
164	Highly porous non-precious bimetallic electrocatalysts for efficient hydrogen evolution. *Nature Communications*, **2015**, 6, 6567	17.4	359
163	Recent Advances in Carbon Dioxide Hydrogenation to Methanol via Heterogeneous Catalysis. *Chemical Reviews*, **2020**, 120, 7984-8034	68.1	337

162	Optimizing Binding Energies of Key Intermediates for CO2 Hydrogenation to Methanol over Oxide-Supported Copper. *Journal of the American Chemical Society*, **2016**, 138, 12440-50	16.4	333
161	The Central Role of Bicarbonate in the Electrochemical Reduction of Carbon Dioxide on Gold. *Journal of the American Chemical Society*, **2017**, 139, 3774-3783	16.4	324
160	Using first principles to predict bimetallic catalysts for the ammonia decomposition reaction. *Nature Chemistry*, **2010**, 2, 484-9	17.6	314
159	Mechanistic Insights into Electrochemical Nitrogen Reduction Reaction on Vanadium Nitride Nanoparticles. *Journal of the American Chemical Society*, **2018**, 140, 13387-13391	16.4	300
158	Hydrogenation of CO2 to Methanol: Importance of Metal□Oxide and Metal□Carbide Interfaces in the Activation of CO2. *ACS Catalysis*, **2015**, 5, 6696-6706	13.1	278
157	Electrochemical reduction of CO2 to synthesis gas with controlled CO/H2 ratios. *Energy and Environmental Science*, **2017**, 10, 1180-1185	35.4	257
156	Molybdenum carbide as alternative catalysts to precious metals for highly selective reduction of CO2 to CO. *Angewandte Chemie - International Edition*, **2014**, 53, 6705-9	16.4	249
155	Monolayer platinum supported on tungsten carbides as low-cost electrocatalysts: opportunities and limitations. *Energy and Environmental Science*, **2011**, 4, 3900	35.4	221
154	Non-precious metal electrocatalysts with high activity for hydrogen oxidation reaction in alkaline electrolytes. *Energy and Environmental Science*, **2014**, 7, 1719-1724	35.4	211
153	Generating Defect-Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. *Angewandte Chemie - International Edition*, **2019**, 58, 9464-9469	16.4	178
152	Net reduction of CO2 via its thermocatalytic and electrocatalytic transformation reactions in standard and hybrid processes. *Nature Catalysis*, **2019**, 2, 381-386	36.5	174
151	CO2 hydrogenation on Pt, Pt/SiO2 and Pt/TiO2: Importance of synergy between Pt and oxide support. *Journal of Catalysis*, **2016**, 343, 115-126	7.3	174
150	CO2 Hydrogenation over Oxide-Supported PtCo Catalysts: The Role of the Oxide Support in Determining the Product Selectivity. *Angewandte Chemie - International Edition*, **2016**, 55, 7968-73	16.4	172
149	Low Pressure CO2 Hydrogenation to Methanol over Gold Nanoparticles Activated on a CeO(x)/TiO2 Interface. *Journal of the American Chemical Society*, **2015**, 137, 10104-7	16.4	166
148	Selective hydrodeoxygenation of biomass-derived oxygenates to unsaturated hydrocarbons using molybdenum carbide catalysts. *ChemSusChem*, **2013**, 6, 798-801	8.3	148
147	Toward Benchmarking in Catalysis Science: Best Practices, Challenges, and Opportunities. *ACS Catalysis*, **2016**, 6, 2590-2602	13.1	139
146	Comparison of electrochemical stability of transition metal carbides (WC, W2C, Mo2C) over a wide pH range. *Journal of Power Sources*, **2012**, 202, 11-17	8.9	135
145	Bimetallic effects in the hydrodeoxygenation of meta-cresol on □Al2O3 supported Pt□Ni and Pt□Co catalysts. *Green Chemistry*, **2012**, 14, 1388	10	132

144	Exploring the ternary interactions in Cu-ZnO-ZrO catalysts for efficient CO hydrogenation to methanol. *Nature Communications*, **2019**, 10, 1166	17.4	130
143	Trends in the catalytic reduction of CO2 by hydrogen over supported monometallic and bimetallic catalysts. *Journal of Catalysis*, **2013**, 301, 30-37	7.3	129
142	CO2 Hydrogenation to Methanol over ZrO2-Containing Catalysts: Insights into ZrO2 Induced Synergy. *ACS Catalysis*, **2019**, 9, 7840-7861	13.1	125
141	Using nature's blueprint to expand catalysis with Earth-abundant metals. *Science*, **2020**, 369,	33.3	124
140	Selective electroreduction of CO to acetone by single copper atoms anchored on N-doped porous carbon. *Nature Communications*, **2020**, 11, 2455	17.4	121
139	Metal overlayer on metal carbide substrate: unique bimetallic properties for catalysis and electrocatalysis. *Chemical Society Reviews*, **2012**, 41, 8021-34	58.5	121
138	A General Method to Probe Oxygen Evolution Intermediates at Operating Conditions. *Joule*, **2019**, 3, 1498-1509	27.8	115
137	Trends in Electrochemical Stability of Transition Metal Carbides and Their Potential Use As Supports for Low-Cost Electrocatalysts. *ACS Catalysis*, **2014**, 4, 1558-1562	13.1	110
136	Electrochemical Conversion of CO to Syngas with Controllable CO/H Ratios over Co and Ni Single-Atom Catalysts. *Angewandte Chemie - International Edition*, **2020**, 59, 3033-3037	16.4	110
135	Activity and Selectivity Control in CO2 Electroreduction to Multicarbon Products over CuOx Catalysts via Electrolyte Design. *ACS Catalysis*, **2018**, 8, 10012-10020	13.1	105
134	Differentiation of O-H and C-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	16.4	101
133	Tuning the activity and selectivity of electroreduction of CO to synthesis gas using bimetallic catalysts. *Nature Communications*, **2019**, 10, 3724	17.4	100
132	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	6.7	99
131	Atomic layer deposition synthesis of platinum-tungsten carbide core-shell catalysts for the hydrogen evolution reaction. *Chemical Communications*, **2012**, 48, 1063-5	5.8	98
130	General trend for adsorbate-induced segregation of subsurface metal atoms in bimetallic surfaces. *Journal of Chemical Physics*, **2009**, 130, 174709	3.9	97
129	Molybdenum carbide as a highly selective deoxygenation catalyst for converting furfural to 2-methylfuran. *ChemSusChem*, **2014**, 7, 2146-9	8.3	93
128	Reforming and oxidative dehydrogenation of ethane with CO2 as a soft oxidant over bimetallic catalysts. *Journal of Catalysis*, **2016**, 343, 168-177	7.3	88
127	Enhancing Activity and Reducing Cost for Electrochemical Reduction of CO by Supporting Palladium on Metal Carbides. *Angewandte Chemie - International Edition*, **2019**, 58, 6271-6275	16.4	87

126	Revealing Energetics of Surface Oxygen Redox from Kinetic Fingerprint in Oxygen Electrocatalysis. *Journal of the American Chemical Society*, **2019**, 141, 13803-13811	16.4	87
125	Correlating extent of PtNi 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	7.3	87
124	Shape-Controlled CO2 Electrochemical Reduction on Nanosized Pd Hydride Cubes and Octahedra. *Advanced Energy Materials*, **2019**, 9, 1802840	21.8	85
123	Computational and experimental demonstrations of one-pot tandem catalysis for electrochemical carbon dioxide reduction to methane. *Nature Communications*, **2019**, 10, 3340	17.4	81
122	Promoting HO production via 2-electron oxygen reduction by coordinating partially oxidized Pd with defect carbon. *Nature Communications*, **2020**, 11, 2178	17.4	79
121	Pd-Modified Tungsten Carbide for Methanol Electro-oxidation: From Surface Science Studies to Electrochemical Evaluation. *ACS Catalysis*, **2012**, 2, 751-758	13.1	78
120	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	7.3	78
119	Accelerating CO2 Electroreduction to CO Over Pd Single-Atom Catalyst. *Advanced Functional Materials*, **2020**, 30, 2000407	15.6	77
118	Reducing Iridium Loading in Oxygen Evolution Reaction Electrocatalysts Using Core–Shell Particles with Nitride Cores. *ACS Catalysis*, **2018**, 8, 2615-2621	13.1	77
117	Dry Reforming of Ethane and Butane with CO2 over PtNi/CeO2 Bimetallic Catalysts. *ACS Catalysis*, **2016**, 6, 7283-7292	13.1	76
116	Identifying Different Types of Catalysts for CO2 Reduction by Ethane through Dry Reforming and Oxidative Dehydrogenation. *Angewandte Chemie - International Edition*, **2015**, 54, 15501-5	16.4	75
115	Carbon dioxide reduction in tandem with light-alkane dehydrogenation. *Nature Reviews Chemistry*, **2019**, 3, 638-649	34.6	72
114	Combining CO reduction with propane oxidative dehydrogenation over bimetallic catalysts. *Nature Communications*, **2018**, 9, 1398	17.4	72
113	Correlating Ethylene Glycol Reforming Activity with In Situ EXAFS Detection of Ni Segregation in Supported NiPt Bimetallic Catalysts. *ACS Catalysis*, **2012**, 2, 2290-2296	13.1	72
112	Electrochemical Stability of Tungsten and Tungsten Monocarbide (WC) Over Wide pH and Potential Ranges. *Journal of the Electrochemical Society*, **2010**, 157, F179	3.9	72
111	Hydrogenation of CO2 to methanol over CuCeTiOx catalysts. *Applied Catalysis B: Environmental*, **2017**, 206, 704-711	21.8	70
110	Active sites for tandem reactions of CO reduction and ethane dehydrogenation. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 8278-8283	11.5	70
109	Opportunities and Challenges in Utilizing Metal-Modified Transition Metal Carbides as Low-Cost Electrocatalysts. *Joule*, **2017**, 1, 253-263	27.8	69

108	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	7.3	67
107	Reactions of water and C1 molecules on carbide and metal-modified carbide surfaces. *Chemical Society Reviews*, **2017**, 46, 1807-1823	58.5	66
106	Potential Application of Tungsten Carbides as Electrocatalysts: 4. Reactions of Methanol, Water, and Carbon Monoxide over Carbide-Modified W(110). *Journal of Physical Chemistry B*, **2003**, 107, 2029-2039	3.4	66
105	Hydrodeoxygenation of biomass-derived oxygenates over metal carbides: from model surfaces to powder catalysts. *Green Chemistry*, **2018**, 20, 2679-2696	10	58
104	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	16.4	57
103	Transition Metal Nitrides as Promising Catalyst Supports for Tuning CO/H Syngas Production from Electrochemical CO Reduction. *Angewandte Chemie - International Edition*, **2020**, 59, 11345-11348	16.4	56
102	Strong Evidence of the Role of H2O in Affecting Methanol Selectivity from CO2 Hydrogenation over Cu-ZnO-ZrO2. *CheM*, **2020**, 6, 419-430	16.2	54
101	Tuning CO2 hydrogenation selectivity via metal-oxide interfacial sites. *Journal of Catalysis*, **2019**, 374, 60-71	7.3	51
100	Review of Plasma-Assisted Catalysis for Selective Generation of Oxygenates from CO2 and CH4. *ACS Catalysis*, **2020**, 10, 2855-2871	13.1	51
99	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	13.1	48
98	Effectively Increased Efficiency for Electroreduction of Carbon Monoxide Using Supported Polycrystalline Copper Powder Electrocatalysts. *ACS Catalysis*, **2019**, 9, 4709-4718	13.1	47
97	LaFe0.9Ni0.1O3 perovskite catalyst with enhanced activity and coke-resistance for dry reforming of ethane. *Journal of Catalysis*, **2018**, 358, 168-178	7.3	47
96	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	7.3	47
95	Controlling C□O, C□C and C□H bond scission for deoxygenation, reforming, and dehydrogenation of ethanol using metal-modified molybdenum carbide surfaces. *Green Chemistry*, **2014**, 16, 777-784	10	47
94	Enhancing H2 and CO production from glycerol using bimetallic surfaces. *ChemSusChem*, **2008**, 1, 524-6	8.3	46
93	Electrochemical Conversion of CO to Syngas with Palladium-Based Electrocatalysts. *Accounts of Chemical Research*, **2020**, 53, 1535-1544	24.3	46
92	Comparison of O□H, C□H, and C□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	3.8	45
91	Enhancing C□C Bond Scission for Efficient Ethanol Oxidation using PtIr Nanocube Electrocatalysts. *ACS Catalysis*, **2019**, 9, 7618-7625	13.1	44

90	Understanding the Role of Functional Groups in Polymeric Binder for Electrochemical Carbon Dioxide Reduction on Gold Nanoparticles. *Advanced Functional Materials*, **2018**, 28, 1804762	15.6	44
89	Reaction Pathways of Biomass-Derived Oxygenates over Metals and Carbides: From Model Surfaces to Supported Catalysts. *ChemCatChem*, **2015**, 7, 1402-1421	5.2	42
88	Cobalt-modified molybdenum carbide as a selective catalyst for hydrodeoxygenation of furfural. *Applied Catalysis B: Environmental*, **2018**, 233, 160-166	21.8	42
87	Reactions of methanol and water over carbide-modified Mo(). *Surface Science*, **2003**, 536, 75-87	1.8	42
86	Effects of oxide supports on the CO2 reforming of ethane over Pt-Ni bimetallic catalysts. *Applied Catalysis B: Environmental*, **2019**, 245, 376-388	21.8	42
85	Trends and Descriptors of Metal-Modified Transition Metal Carbides for Hydrogen Evolution in Alkaline Electrolyte. *ACS Catalysis*, **2019**, 9, 2415-2422	13.1	41
84	Glycolaldehyde as a probe molecule for biomass derivatives: reaction of C-OH and C?O functional groups on monolayer Ni surfaces. *Journal of the American Chemical Society*, **2011**, 133, 20528-35	16.4	41
83	N2 Fixation by Plasma-Activated Processes. *Joule*, **2021**, 5, 300-315	27.8	41
82	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	21.8	40
81	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	21.8	39
80	Combining CO2 Reduction with Ethane Oxidative Dehydrogenation by Oxygen-Modification of Molybdenum Carbide. *ACS Catalysis*, **2018**, 8, 5374-5381	13.1	38
79	Identifying Dynamic Structural Changes of Active Sites in Pt□Ni Bimetallic Catalysts Using Multimodal Approaches. *ACS Catalysis*, **2018**, 8, 4120-4131	13.1	38
78	Theoretical and Experimental Studies of C□ versus C□ Bond Scission of Ethylene Glycol Reaction Pathways via Metal-Modified Molybdenum Carbides. *ACS Catalysis*, **2014**, 4, 1409-1418	13.1	38
77	Enhancing CO Tolerance of Electrocatalysts: Electro-oxidation of CO on WC and Pt-Modified WC. *Electrochemical and Solid-State Letters*, **2008**, 11, B63		37
76	Catalysis Center for Energy Innovation for Biomass Processing: Research Strategies and Goals. *Catalysis Letters*, **2010**, 140, 77-84	2.8	36
75	Oxygen induced promotion of electrochemical reduction of CO via co-electrolysis. *Nature Communications*, **2020**, 11, 3844	17.4	35
74	Challenges and Opportunities in Utilizing MXenes of Carbides and Nitrides as Electrocatalysts. *Advanced Energy Materials*, **2021**, 11, 2002967	21.8	33
73	Bimetallic Electrocatalysts for CO Reduction. *Topics in Current Chemistry*, **2018**, 376, 41	7.2	33

72	Role of Surface Oxophilicity in Copper-Catalyzed Water Dissociation. *ACS Catalysis*, **2018**, 8, 9327-9333	13.1	32
71	Sustainable Ammonia Synthesis Exploring the scientific challenges associated with discovering alternative, sustainable processes for ammonia production		32
70	Identifying Surface Reaction Intermediates in Plasma Catalytic Ammonia Synthesis. *ACS Catalysis*, **2020**, 10, 14763-14774	13.1	31
69	Generating Defect-Rich Bismuth for Enhancing the Rate of Nitrogen Electroreduction to Ammonia. *Angewandte Chemie*, **2019**, 131, 9564-9569	3.6	30
68	Tandem Reactions of CO Reduction and Ethane Aromatization. *Journal of the American Chemical Society*, **2019**, 141, 17771-17782	16.4	30
67	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	3.8	30
66	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	1.8	30
65	Electrochemical CO2 Reduction via Low-Valent Nickel Single-Atom Catalyst. *Joule*, **2018**, 2, 587-589	27.8	29
64	High selectivity of CO hydrogenation to CO by controlling the valence state of nickel using perovskite. *Chemical Communications*, **2018**, 54, 7354-7357	5.8	29
63	Controlling reaction pathways of selective C-O bond cleavage of glycerol. *Nature Communications*, **2018**, 9, 4612	17.4	29
62	Interfacial Active Sites for CO2 Assisted Selective Cleavage of C/CH Bonds in Ethane. *CheM*, **2020**, 6, 2703-2716	16.2	28
61	Pt/Mo2C/C-cp as a highly active and stable catalyst for ethanol electrooxidation. *Journal of Power Sources*, **2017**, 345, 182-189	8.9	25
60	The effects of bimetallic interactions for CO2-assisted oxidative dehydrogenation and dry reforming of propane. *AICHE Journal*, **2019**, 65, e16670	3.6	25
59	Constant Electrode Potential Quantum Mechanical Study of CO2 Electrochemical Reduction Catalyzed by N-Doped Graphene. *ACS Catalysis*, **2019**, 9, 8197-8207	13.1	25
58	Response to Comment on "Active sites for CO hydrogenation to methanol on Cu/ZnO catalysts". *Science*, **2017**, 357,	33.3	25
57	Ring-Opening Reaction of Furfural and Tetrahydrofurfuryl Alcohol on Hydrogen-Predosed Iridium(1 1 1) and Cobalt/Iridium(1 1 1) Surfaces. *ChemCatChem*, **2017**, 9, 1701-1707	5.2	24
56	Challenges and opportunities in correlating bimetallic model surfaces and supported catalysts. *Journal of Catalysis*, **2013**, 308, 2-10	7.3	24
55	Recent advances in carbon dioxide hydrogenation to produce olefins and aromatics. *CheM*, **2021**, 7, 2277-2311	23.5	24

54	Quantum Mechanical Study of N-Heterocyclic Carbene Adsorption on Au Surfaces. *Journal of Physical Chemistry A*, **2017**, 121, 2674-2682	2.8	23
53	Reactions of CO and ethane enable CO bond insertion for production of C3 oxygenates. *Nature Communications*, **2020**, 11, 1887	17.4	23
52	Replacing Precious Metals with Carbide Catalysts for Hydrogenation Reactions. *Topics in Catalysis*, **2015**, 58, 240-246	2.3	22
51	CO2 hydrogenation over heterogeneous catalysts at atmospheric pressure: from electronic properties to product selectivity. *Green Chemistry*, **2021**, 23, 249-267	10	22
50	Mechanistic study of dry reforming of ethane by CO2 on a bimetallic PtNi(111) model surface. *Catalysis Science and Technology*, **2018**, 8, 3748-3758	5.5	19
49	Conversion of CO2 on a highly active and stable Cu/FeOx/CeO2 catalyst: tuning catalytic performance by oxide-oxide interactions. *Catalysis Science and Technology*, **2019**, 9, 3735-3742	5.5	18
48	Effect of Oxide Support on Catalytic Performance of FeNi-based Catalysts for CO2-assisted Oxidative Dehydrogenation of Ethane. *ChemCatChem*, **2020**, 12, 494-503	5.2	18
47	Enhancing Activity and Reducing Cost for Electrochemical Reduction of CO2 by Supporting Palladium on Metal Carbides. *Angewandte Chemie*, **2019**, 131, 6337-6341	3.6	17
46	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	6.7	17
45	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	9.5	17
44	Oxidative dehydrogenation and dry reforming of n-butane with CO2 over NiFe bimetallic catalysts. *Applied Catalysis B: Environmental*, **2018**, 231, 213-223	21.8	16
43	Controlled Synthesis of Fe3O4 Nanospheres Coated with Nitrogen-Doped Carbon for High Performance Supercapacitors. *ACS Applied Energy Materials*, **2018**, 1, 4599-4605	6.1	16
42	Boosting Activity and Selectivity of CO Electroreduction by Pre-Hydridizing Pd Nanocubes. *Small*, **2020**, 16, e2005305	11	16
41	Methanol Synthesis from CO2 Hydrogenation over CuZnCeTi Mixed Oxide Catalysts. *Industrial & Engineering Chemistry Research*, **2019**, 58, 7922-7928	3.9	15
40	Trends in Hydrogen Evolution Activity of Metal-Modified Molybdenum Carbides in Alkaline and Acid Electrolytes. *ChemElectroChem*, **2016**, 3, 1686-1693	4.3	15
39	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	1.8	14
38	Electrochemical Conversion of CO2 to Syngas with Controllable CO/H2 Ratios over Co and Ni Single-Atom Catalysts. *Angewandte Chemie*, **2020**, 132, 3057-3061	3.6	12
37	Insight into Acetic Acid Synthesis from the Reaction of CH4 and CO2. *ACS Catalysis*, **2021**, 11, 3384-3401	13.1	12

36	Electrochemical reduction of acetonitrile to ethylamine. *Nature Communications*, **2021**, 12, 1949	17.4	12
35	L-Phenylalanine-Templated Platinum Catalyst with Enhanced Performance for Oxygen Reduction Reaction. *ACS Applied Materials & Interfaces*, **2018**, 10, 21321-21327	9.5	12
34	Isotopic effect on electrochemical CO reduction activity and selectivity in HO- and DO-based electrolytes over palladium. *Chemical Communications*, **2019**, 56, 106-108	5.8	11
33	Density functional theory studies of transition metal carbides and nitrides as electrocatalysts. *Chemical Society Reviews*, **2021**, 50, 12338-12376	58.5	11
32	Grand Canonical Quantum Mechanical Study of the Effect of the Electrode Potential on N-Heterocyclic Carbene Adsorption on Au Surfaces. *Journal of Physical Chemistry C*, **2017**, 121, 24618-24625	3.8	10
31	CO2-Assisted propane aromatization over phosphorus-modified Ga/ZSM-5 catalysts. *Catalysis Science and Technology*, **2020**, 10, 1881-1888	5.5	10
30	Growth of Nanoparticles with Desired Catalytic Functions by Controlled Doping-Segregation of Metal in Oxide. *Chemistry of Materials*, **2018**, 30, 1585-1592	9.6	10
29	A Comparative Study of Hydrodeoxygenation of Furfural Over Fe/Pt(111) and Fe/Mo2C Surfaces. *Topics in Catalysis*, **2018**, 61, 439-445	2.3	10
28	Comparison of Methodologies of Activation Barrier Measurements for Reactions with Deactivation. *Industrial & Engineering Chemistry Research*, **2017**, 56, 1360-1364	3.9	9
27	Theoretical and Experimental Studies of Ethanol Decomposition and Electrooxidation over Pt-Modified Tungsten Carbide. *Journal of the Electrochemical Society*, **2014**, 161, E3165-E3170	3.9	9
26	Correlating furfural reaction pathways with interactions between furfural and monometallic surfaces. *Catalysis Today*, **2020**, 339, 289-295	5.3	9
25	Synthesis and electrocatalytic applications of flower-like motifs and associated composites of nitrogen-enriched tungsten nitride (W2N3). *Nano Research*, **2020**, 13, 1434-1443	10	8
24	Computational and experimental identification of strong synergy of the Fe/ZnO catalyst in promoting acetic acid synthesis from CH and CO. *Chemical Communications*, **2020**, 56, 3983-3986	5.8	8
23	Exploring electrocatalytic stability and activity of unmodified and platinum-modified tungsten and niobium nitrides. *International Journal of Hydrogen Energy*, **2020**, 45, 22883-22892	6.7	8
22	Bimetallic-Derived Catalysts and Their Application in Simultaneous Upgrading of CO2 and Ethane. *Matter*, **2021**, 4, 408-440	12.7	8
21	1,2-Propanediol as a Surrogate Molecule of Glycerol for Mechanistic Studies of Selective Hydrodeoxygenation Reactions over Mo2C and Cu/Mo2C Surfaces. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 8077-8082	8.3	7
20	Understanding the effect of Mo2C support on the activity of Cu for the hydrodeoxygenation of glycerol. *Journal of Catalysis*, **2020**, 388, 141-153	7.3	7
19	Palladium-Modified Tungsten Carbide for Ethanol Electrooxidation: From Surface Science Studies to Electrochemical Evaluation. *Journal of the Electrochemical Society*, **2018**, 165, J3031-J3038	3.9	7

18	Identifying Different Types of Catalysts for CO2 Reduction by Ethane through Dry Reforming and Oxidative Dehydrogenation. *Angewandte Chemie*, **2015**, 127, 15721-15725	3.6	6
17	Transition Metal Nitrides as Promising Catalyst Supports for Tuning CO/H2 Syngas Production from Electrochemical CO2 Reduction. *Angewandte Chemie*, **2020**, 132, 11441-11444	3.6	5
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