

Wen-Chi Liu

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

185
papers

13,300
citations

65
h-index

111
g-index

191
ext. papers

14,555
ext. citations

9.1
avg, IF

6.78
L-index

#	Paper	IF	Citations
185	Advancing the frontiers in nanocatalysis, biointerfaces, and renewable energy conversion by innovations of surface techniques. <i>Journal of the American Chemical Society</i> , 2009 , 131, 16589-605	16.4	457
184	Break-up of stepped platinum catalyst surfaces by high CO coverage. <i>Science</i> , 2010 , 327, 850-3	33.3	406
183	Molecular factors of catalytic selectivity. <i>Angewandte Chemie - International Edition</i> , 2008 , 47, 9212-28	16.4	392
182	Size and Shape Control of Metal Nanoparticles for Reaction Selectivity in Catalysis. <i>ChemCatChem</i> , 2012 , 4, 1512-1524	5.2	376
181	Ethylene Hydrogenation on Pt(111) Monitored in Situ at High Pressures Using Sum Frequency Generation. <i>Journal of the American Chemical Society</i> , 1996 , 118, 2942-2949	16.4	370
180	Size effect of ruthenium nanoparticles in catalytic carbon monoxide oxidation. <i>Nano Letters</i> , 2010 , 10, 2709-13	11.5	329
179	Surface Science Approach to Modeling Supported Catalysts. <i>Catalysis Reviews - Science and Engineering</i> , 1997 , 39, 77-168	12.6	321
178	Enhanced CO oxidation rates at the interface of mesoporous oxides and Pt nanoparticles. <i>Journal of the American Chemical Society</i> , 2013 , 135, 16689-96	16.4	311
177	Copper Nanocrystals Encapsulated in Zr-based Metal-Organic Frameworks for Highly Selective CO Hydrogenation to Methanol. <i>Nano Letters</i> , 2016 , 16, 7645-7649	11.5	285
176	Modern Surface Science and Surface Technologies: An Introduction. <i>Chemical Reviews</i> , 1996 , 96, 1223-1286	26.1	259
175	Colloid Science of Metal Nanoparticle Catalysts in 2D and 3D Structures. Challenges of Nucleation, Growth, Composition, Particle Shape, Size Control and Their Influence on Activity and Selectivity. <i>Topics in Catalysis</i> , 2008 , 49, 126-135	2.3	253
174	Chemical Environment Control and Enhanced Catalytic Performance of Platinum Nanoparticles Embedded in Nanocrystalline Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , 2015 , 137, 7810-6	16.4	241
173	Role of hot electrons and metal-oxide interfaces in surface chemistry and catalytic reactions. <i>Chemical Reviews</i> , 2015 , 115, 2781-817	68.1	230
172	Sum Frequency Generation and Catalytic Reaction Studies of the Removal of Organic Capping Agents from Pt Nanoparticles by UV/Ozone Treatment. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 6150-6155	3.8	230
171	Clusters, surfaces, and catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 10577-83	11.5	208
170	Anisotropic phase segregation and migration of Pt in nanocrystals en route to nanoframe catalysts. <i>Nature Materials</i> , 2016 , 15, 1188-1194	27	205
169	Bioinspired Metal-Organic Framework Catalysts for Selective Methane Oxidation to Methanol. <i>Journal of the American Chemical Society</i> , 2018 , 140, 18208-18216	16.4	176

168	Furfuraldehyde hydrogenation on titanium oxide-supported platinum nanoparticles studied by sum frequency generation vibrational spectroscopy: acid-base catalysis explains the molecular origin of strong metal-support interactions. <i>Journal of the American Chemical Society</i> , 2012 , 134, 14208-16	16.4	174
167	Evidence of highly active cobalt oxide catalyst for the Fischer-Tropsch synthesis and CO ₂ hydrogenation. <i>Journal of the American Chemical Society</i> , 2014 , 136, 2260-3	16.4	173
166	Activation of Cu(111) surface by decomposition into nanoclusters driven by CO adsorption. <i>Science</i> , 2016 , 351, 475-8	33.3	169
165	Charge-Transfer Interaction of Poly(vinylpyrrolidone) with Platinum and Rhodium Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 6288-6295	3.8	168
164	Atomic Structure of Pt ₃ Ni Nanoframe Electrocatalysts by in Situ X-ray Absorption Spectroscopy. <i>Journal of the American Chemical Society</i> , 2015 , 137, 15817-24	16.4	163
163	Impact of surface chemistry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 917-24	11.5	162
162	High structure sensitivity of vapor-phase furfural decarbonylation/hydrogenation reaction network as a function of size and shape of Pt nanoparticles. <i>Nano Letters</i> , 2012 , 12, 5196-201	11.5	161
161	Synthetic Insertion of Gold Nanoparticles into Mesoporous Silica. <i>Chemistry of Materials</i> , 2003 , 15, 1242-1248	11.5	157
160	Encapsulation of Metal (Au, Ag, Pt) Nanoparticles into the Mesoporous SBA-15 Structure. <i>Langmuir</i> , 2003 , 19, 4396-4401	4	154
159	Surface-Induced Ferroelectric Ice on Pt(111). <i>Physical Review Letters</i> , 1998 , 80, 1533-1536	7.4	154
158	Fabrication of Sub-10-nm Silicon Nanowire Arrays by Size Reduction Lithography. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 3340-3343	3.4	153
157	The Role of Organic Capping Layers of Platinum Nanoparticles in Catalytic Activity of CO Oxidation. <i>Catalysis Letters</i> , 2009 , 129, 1-6	2.8	149
156	Molecular surface chemistry by metal single crystals and nanoparticles from vacuum to high pressure. <i>Chemical Society Reviews</i> , 2008 , 37, 2155-62	58.5	142
155	The evolution of model catalytic systems; studies of structure, bonding and dynamics from single crystal metal surfaces to nanoparticles, and from low pressure (10 ⁻³ Torr) to liquid interfaces. <i>Physical Chemistry Chemical Physics</i> , 2007 , 9, 3500-13	3.6	141
154	Identification of the strong Brønsted acid site in a metal-organic framework solid acid catalyst. <i>Nature Chemistry</i> , 2019 , 11, 170-176	17.6	134
153	Tandem Catalysis for CO Hydrogenation to C-C Hydrocarbons. <i>Nano Letters</i> , 2017 , 17, 3798-3802	11.5	124
152	Pressure Dependence (10 ⁻¹⁰ -700 Torr) of the Vibrational Spectra of Adsorbed CO on Pt(111) Studied by Sum Frequency Generation. <i>Physical Review Letters</i> , 1996 , 77, 3858-3860	7.4	115
151	A Comparison of Photocatalytic Activities of Gold Nanoparticles Following Plasmonic and Interband Excitation and a Strategy for Harnessing Interband Hot Carriers for Solution Phase Photocatalysis. <i>ACS Central Science</i> , 2017 , 3, 482-488	16.8	111

150	Dendrimer-Stabilized Metal Nanoparticles as Efficient Catalysts for Reversible Dehydrogenation/Hydrogenation of N-Heterocycles. <i>Journal of the American Chemical Society</i> , 2017 , 139, 18084-18092	16.4	110
149	High-performance hybrid oxide catalyst of manganese and cobalt for low-pressure methanol synthesis. <i>Nature Communications</i> , 2015 , 6, 6538	17.4	106
148	Catalyst Chemical State during CO Oxidation Reaction on Cu(111) Studied with Ambient-Pressure X-ray Photoelectron Spectroscopy and Near Edge X-ray Adsorption Fine Structure Spectroscopy. <i>Journal of the American Chemical Society</i> , 2015 , 137, 11186-90	16.4	106
147	SFG-surface vibrational spectroscopy studies of structure sensitivity and insensitivity in catalytic reactions: cyclohexene dehydrogenation and ethylene hydrogenation on Pt (1 1 1) and Pt (1 0 0) crystal surfaces. <i>Journal of Molecular Catalysis A</i> , 2000 , 163, 43-53		98
146	Foundations and strategies of the construction of hybrid catalysts for optimized performances. <i>Nature Catalysis</i> , 2018 , 1, 318-325	36.5	97
145	Reproducibility of Turnover Rates in Heterogeneous Metal Catalysis: Compilation of Data and Guidelines for Data Analysis. <i>Catalysis Reviews - Science and Engineering</i> , 1997 , 39, 49-76	12.6	97
144	Nanocatalysis I: Synthesis of Metal and Bimetallic Nanoparticles and Porous Oxides and Their Catalytic Reaction Studies. <i>Catalysis Letters</i> , 2015 , 145, 233-248	2.8	95
143	Supported Dendrimer-Encapsulated Metal Clusters: Toward Heterogenizing Homogeneous Catalysts. <i>Accounts of Chemical Research</i> , 2017 , 50, 1894-1901	24.3	94
142	Side Chain, Chain Length, and Sequence Effects on Amphiphilic Peptide Adsorption at Hydrophobic and Hydrophilic Surfaces Studied by Sum-Frequency Generation Vibrational Spectroscopy and Quartz Crystal Microbalance. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 255-261	3.8	89
141	Formation of nanometer-sized surface platinum oxide clusters on a stepped Pt(557) single crystal surface induced by oxygen: a high-pressure STM and ambient-pressure XPS study. <i>Nano Letters</i> , 2012 , 12, 1491-7	11.5	88
140	CO ₂ Hydrogenation Studies on Co and CoPt Bimetallic Nanoparticles Under Reaction Conditions Using TEM, XPS and NEXAFS. <i>Topics in Catalysis</i> , 2011 , 54, 778-785	2.3	88
139	A Pt-cluster-based heterogeneous catalyst for homogeneous catalytic reactions: X-ray absorption spectroscopy and reaction kinetic studies of their activity and stability against leaching. <i>Journal of the American Chemical Society</i> , 2011 , 133, 13527-33	16.4	88
138	Model Catalysts Fabricated Using Electron Beam Lithography and Pulsed Laser Deposition. <i>Journal of Physical Chemistry B</i> , 1997 , 101, 9973-9977	3.4	88
137	Silica-Supported Cationic Gold(I) Complexes as Heterogeneous Catalysts for Regio- and Enantioselective Lactonization Reactions. <i>Journal of the American Chemical Society</i> , 2015 , 137, 7083-6	16.4	86
136	Thermal and Chemical Stability and Adhesion Strength of Pt Nanoparticle Arrays Supported on Silica Studied by Transmission Electron Microscopy and Atomic Force Microscopy. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 7286-7292	3.4	86
135	Influence of size-induced oxidation state of platinum nanoparticles on selectivity and activity in catalytic methanol oxidation in the gas phase. <i>Nano Letters</i> , 2013 , 13, 2976-9	11.5	83
134	Nanocrystal Templating of Silica Mesopores with Tunable Pore Sizes. <i>Nano Letters</i> , 2002 , 2, 907-910	11.5	81
133	Dependence of Gas-Phase Crotonaldehyde Hydrogenation Selectivity and Activity on the Size of Pt Nanoparticles (1.7-1.1 nm) Supported on SBA-15. <i>Catalysis Letters</i> , 2009 , 128, 1-8	2.8	76

132	Preparation of mesoporous oxides and their support effects on Pt nanoparticle catalysts in catalytic hydrogenation of furfural. <i>Journal of Colloid and Interface Science</i> , 2013 , 392, 122-128	9.3	75
131	Dissociative Carbon Dioxide Adsorption and Morphological Changes on Cu(100) and Cu(111) at Ambient Pressures. <i>Journal of the American Chemical Society</i> , 2016 , 138, 8207-11	16.4	74
130	The Role of Carbon Deposition from CO Dissociation on Platinum Crystal Surfaces during Catalytic CO Oxidation: Effects on Turnover Rate, Ignition Temperature, and Vibrational Spectra. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 10854-10863	3.4	74
129	Supported Au Nanoparticles with N-Heterocyclic Carbene Ligands as Active and Stable Heterogeneous Catalysts for Lactonization. <i>Journal of the American Chemical Society</i> , 2018 , 140, 4144-4149	16.4	73
128	Hierarchically Nanoporous Zeolites and Their Heterogeneous Catalysis: Current Status and Future Perspectives. <i>Catalysis Letters</i> , 2015 , 145, 193-213	2.8	72
127	Preparation of size-tunable, highly monodisperse PVP-protected Pt-nanoparticles by seed-mediated growth. <i>Journal of Nanoparticle Research</i> , 2008 , 10, 1063-1069	2.3	71
126	Molecular catalysis science: Perspective on unifying the fields of catalysis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 5159-66	11.5	71
125	Novel Two-Step Synthesis of Controlled Size and Shape Platinum Nanoparticles Encapsulated in Mesoporous Silica. <i>Catalysis Letters</i> , 2002 , 81, 137-140	2.8	70
124	High Pressure Scanning Tunneling Microscopy Study of CO Poisoning of Ethylene Hydrogenation on Pt(111) and Rh(111) Single Crystals. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 13300-13306	3.4	70
123	Reaction selectivity in heterogeneous catalysis. <i>Reaction Kinetics and Catalysis Letters</i> , 2009 , 96, 191-208		67
122	The genesis and importance of oxide-metal interface controlled heterogeneous catalysis; the catalytic nanodiode. <i>Topics in Catalysis</i> , 2007 , 46, 217-222	2.3	67
121	In situ IR and X-ray high spatial-resolution microspectroscopy measurements of multistep organic transformation in flow microreactor catalyzed by Au nanoclusters. <i>Journal of the American Chemical Society</i> , 2014 , 136, 3624-9	16.4	66
120	Mesoporous Aluminosilicate Catalysts for the Selective Isomerization of n-Hexane: The Roles of Surface Acidity and Platinum Metal. <i>Journal of the American Chemical Society</i> , 2015 , 137, 10231-7	16.4	63
119	Spectroscopic Study of Platinum and Rhodium Dendrimer (PAMAM G4OH) Compounds: Structure and Stability. <i>Journal of Physical Chemistry C</i> , 2011 , 115, 4757-4767	3.8	62
118	Efficient Hydrogen Production from Methanol Using a Single-Site Pt/CeO Catalyst. <i>Journal of the American Chemical Society</i> , 2019 , 141, 17995-17999	16.4	59
117	Dynamics of surface catalyzed reactions; the roles of surface defects, surface diffusion, and hot electrons. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 20014-22	3.4	59
116	Surface Composition and Catalytic Evolution of Au _x Pd _{1-x} (x = 0.25, 0.50 and 0.75) Nanoparticles Under CO/O ₂ Reaction in Torr Pressure Regime and at 200 °C. <i>Catalysis Letters</i> , 2011 , 141, 633-640	2.8	58
115	Selective Nanocatalysis of Organic Transformation by Metals: Concepts, Model Systems, and Instruments. <i>Topics in Catalysis</i> , 2010 , 53, 832-847	2.3	57

114	The Flexible Surface: Molecular Studies Explain the Extraordinary Diversity of Surface Chemical Properties. <i>Journal of Chemical Education</i> , 1998 , 75, 161	2.4	57
113	Preparation and structure of 18 monolayer thick epitaxial iron oxide films grown on Pt(111). <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1993 , 11, 2138-2144	2.9	57
112	Evolution of the surface science of catalysis from single crystals to metal nanoparticles under pressure. <i>Journal of Chemical Physics</i> , 2008 , 128, 182504	3.9	56
111	Platinum and Other Transition Metal Nanoclusters (Pd, Rh) Stabilized by PAMAM Dendrimer as Excellent Heterogeneous Catalysts: Application to the Methylcyclopentane (MCP) Hydrogenative Isomerization. <i>Nano Letters</i> , 2017 , 17, 1853-1862	11.5	54
110	Cobalt Particle Size Effects in the Fischer-Tropsch Synthesis and in the Hydrogenation of CO ₂ Studied with Nanoparticle Model Catalysts on Silica. <i>Topics in Catalysis</i> , 2014 , 57, 500-507	2.3	54
109	Polymer-Encapsulated Metallic Nanoparticles as a Bridge Between Homogeneous and Heterogeneous Catalysis. <i>Catalysis Letters</i> , 2015 , 145, 126-138	2.8	53
108	Hydroisomerization of n-Hexane Using Acidified Metal-Organic Framework and Platinum Nanoparticles. <i>Journal of the American Chemical Society</i> , 2017 , 139, 12382-12385	16.4	53
107	Colloidal Metal Nanocatalysts: Synthesis, Characterization, and Catalytic Applications. <i>Journal of Cluster Science</i> , 2014 , 25, 83-114	3	52
106	The Development of Molecular Surface Science and the Surface Science of Catalysis: The Berkeley Contribution. <i>Journal of Physical Chemistry B</i> , 2000 , 104, 2969-2979	3.4	52
105	Reactions on single-crystal surfaces. <i>Accounts of Chemical Research</i> , 1976 , 9, 248-256	24.3	52
104	Fluoroethylene Carbonate as a Directing Agent in Amorphous Silicon Anodes: Electrolyte Interface Structure Probed by Sum Frequency Vibrational Spectroscopy and Ab Initio Molecular Dynamics. <i>Nano Letters</i> , 2018 , 18, 1145-1151	11.5	49
103	Molecular studies of model surfaces of metals from single crystals to nanoparticles under catalytic reaction conditions. Evolution from prenatal and postmortem studies of catalysts. <i>Langmuir</i> , 2010 , 26, 16190-203	4	49
102	The Role of an Organic Cap in Nanoparticle Catalysis: Reversible Restructuring of Carbonaceous Material Controls Catalytic Activity of Platinum Nanoparticles for Ethylene Hydrogenation and Methanol Oxidation. <i>Catalysis Letters</i> , 2012 , 142, 1286-1294	2.8	48
101	High pressure, high temperature scanning tunneling microscopy. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1999 , 17, 1080		48
100	An in Situ Time-Dependent Study of CO Oxidation on Pt(111) in Aqueous Solution by Voltammetry and Sum Frequency Generation. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 1840-1844	3.4	46
99	Specific Metal-Support Interactions between Nanoparticle Layers for Catalysts with Enhanced Methanol Oxidation Activity. <i>ACS Catalysis</i> , 2018 , 8, 5391-5398	13.1	44
98	An SFG study of interfacial amino acids at the hydrophilic SiO ₂ and hydrophobic deuterated polystyrene surfaces. <i>Journal of the American Chemical Society</i> , 2011 , 133, 6243-53	16.4	44
97	The impact of surface science on the commercialization of chemical processes. <i>Catalysis Letters</i> , 2007 , 115, 87-98	2.8	43

96	In Situ Spectroscopic Investigation into the Active Sites for Crotonaldehyde Hydrogenation at the Pt Nanoparticle/TiO ₂ Interface. <i>ACS Catalysis</i> , 2016 , 6, 7140-7147	13.1	41
95	Major Successes of Theory-and-Experiment-Combined Studies in Surface Chemistry and Heterogeneous Catalysis. <i>Topics in Catalysis</i> , 2010 , 53, 311-325	2.3	41
94	Surface Segregation of Methyl Side Branches Monitored by Sum Frequency Generation (SFG) Vibrational Spectroscopy for a Series of Random Poly(ethylene-co-propylene) Copolymers. <i>Journal of Physical Chemistry B</i> , 2002 , 106, 5212-5220	3.4	41
93	Sum Frequency Generation Vibrational Spectroscopy of Colloidal Platinum Nanoparticle Catalysts: Disorder versus Removal of Organic Capping. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 17540-17546	3.8	40
92	Reaction of CO with Preadsorbed Oxygen on Low-Index Copper Surfaces: An Ambient Pressure X-ray Photoelectron Spectroscopy and Scanning Tunneling Microscopy Study. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 14669-14674	3.8	39
91	Determination of molecular surface structure, composition, and dynamics under reaction conditions at high pressures and at the solid-liquid interface. <i>Angewandte Chemie - International Edition</i> , 2011 , 50, 10116-29	16.4	39
90	Evidence of Structure Sensitivity in the Fischer-Tropsch Reaction on Model Cobalt Nanoparticles by Time-Resolved Chemical Transient Kinetics. <i>Angewandte Chemie - International Edition</i> , 2017 , 56, 7415-7419	16.4	38
89	Model catalysts fabricated by electron beam lithography: AFM and TPD surface studies and hydrogenation/dehydrogenation of cyclohexene + H ₂ on a Pt nanoparticle array supported by silica. <i>Topics in Catalysis</i> , 2000 , 13, 33-41	2.3	38
88	Investigations of Structure Sensitivity in Heterogeneous Catalysis: From Single Crystals to Monodisperse Nanoparticles. <i>Topics in Catalysis</i> , 2013 , 56, 1277-1283	2.3	37
87	Oligomerization of Light Olefins Catalyzed by Brønsted-Acidic Metal-Organic Framework-808. <i>Journal of the American Chemical Society</i> , 2019 , 141, 11557-11564	16.4	36
86	Sum Frequency Generation Vibrational Spectroscopy of Pyridine Hydrogenation on Platinum Nanoparticles. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 11865-11868	3.8	36
85	In-Situ Observation of Allyl <i>c</i> -C ₆ H ₉ Intermediate during High-Pressure Cyclohexene Catalytic Reactions on Pt(111) Using Sum Frequency Generation Vibrational Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 5267-5272	3.4	36
84	Fluoroethylene Carbonate Induces Ordered Electrolyte Interface on Silicon and Sapphire Surfaces as Revealed by Sum Frequency Generation Vibrational Spectroscopy and X-ray Reflectivity. <i>Nano Letters</i> , 2018 , 18, 2105-2111	11.5	35
83	The Methanol Economy: Methane and Carbon Dioxide Conversion. <i>Topics in Catalysis</i> , 2018 , 61, 530-541	2.3	35
82	Site-Selective Oxidative Coupling Reactions for the Attachment of Enzymes to Glass Surfaces through DNA-Directed Immobilization. <i>Journal of the American Chemical Society</i> , 2017 , 139, 1967-1974	16.4	34
81	In Situ Surface and Reaction Probe Studies with Model Nanoparticle Catalysts. <i>ACS Catalysis</i> , 2012 , 2, 2250-2258	13.1	33
80	On the move. <i>Nature</i> , 2004 , 430, 730	50.4	33
79	Selective Amplification of C=O Bond Hydrogenation on Pt/TiO ₂ : Catalytic Reaction and Sum-Frequency Generation Vibrational Spectroscopy Studies of Crotonaldehyde Hydrogenation. <i>Angewandte Chemie</i> , 2014 , 126, 3473-3476	3.6	32

78	Molecular surface studies of adsorption and catalytic reaction on crystal (Pt, Rh) surfaces under high pressure conditions (atmospheres) using sum frequency generation (SFG) surface vibrational spectroscopy and scanning tunneling microscopy (STM). <i>Topics in Catalysis</i> , 1999 , 8, 23-34	2.3	32
77	Metal Nanoparticles Catalyzed Selective Carbon-Carbon Bond Activation in the Liquid Phase. <i>Journal of the American Chemical Society</i> , 2016 , 138, 8533-7	16.4	31
76	Peptides Adsorbed on Hydrophobic Surfaces: A Sum Frequency Generation Vibrational Spectroscopy and Modeling Study. <i>Israel Journal of Chemistry</i> , 2007 , 47, 51-58	3.4	31
75	Activation of Tungsten Oxide for Propane Dehydrogenation and Its High Catalytic Activity and Selectivity. <i>Catalysis Letters</i> , 2017 , 147, 622-632	2.8	29
74	Detection of Immobilized Protein on Latex Microspheres by Infrared Visible Sum Frequency Generation and Scanning Force Microscopy. <i>Langmuir</i> , 2003 , 19, 3563-3566	4	29
73	Selective CO ₂ electrocatalysis at the pseudocapacitive nanoparticle/ordered-ligand interlayer. <i>Nature Energy</i> , 2020 , 5, 1032-1042	62.3	28
72	Rh _{1-x} Pd _x Nanoparticle Composition Dependence in CO Oxidation by NO. <i>Catalysis Letters</i> , 2011 , 141, 235-241	2.8	28
71	Nanocatalysis II: In Situ Surface Probes of Nano-Catalysts and Correlative Structure-Reactivity Studies. <i>Catalysis Letters</i> , 2015 , 145, 249-271	2.8	27
70	Hot Electron Surface Chemistry at Oxide-Metal Interfaces: Foundation of Acid-base Catalysis. <i>Catalysis Letters</i> , 2016 , 146, 1-11	2.8	27
69	Pre-prepared platinum nanoparticles supported on SBA-15: preparation, pretreatment conditions and catalytic properties. <i>Catalysis Letters</i> , 2007 , 113, 19-28	2.8	27
68	Fluorinated End-Groups in Electrolytes Induce Ordered Electrolyte/Anode Interface Even at Open-Circuit Potential as Revealed by Sum Frequency Generation Vibrational Spectroscopy. <i>Advanced Energy Materials</i> , 2017 , 7, 1602060	21.8	26
67	Effects of Nanoparticle Size and Metal/Support Interactions in Pt-Catalyzed Methanol Oxidation Reactions in Gas and Liquid Phases. <i>Catalysis Letters</i> , 2014 , 144, 1930-1938	2.8	26
66	Monodisperse Metal Nanoparticle Catalysts: Synthesis, Characterizations, and Molecular Studies Under Reaction Conditions. <i>Topics in Catalysis</i> , 2012 , 55, 1257-1275	2.3	26
65	The catalytic nanodiode. Its role in catalytic reaction mechanisms in a historical perspective. <i>Catalysis Letters</i> , 2005 , 101, 1-3	2.8	26
64	A mini review of cobalt-based nanocatalyst in Fischer-Tropsch synthesis. <i>Applied Catalysis A: General</i> , 2020 , 602, 117701	5.1	24
63	Active sites and states in the heterogeneous catalysis of carbon-hydrogen bonds. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2005 , 363, 879-900; discussion 1035-40	3	24
62	Structure and chemical state of the Pt(557) surface during hydrogen oxidation reaction studied by in situ scanning tunneling microscopy and X-ray photoelectron spectroscopy. <i>Journal of the American Chemical Society</i> , 2013 , 135, 12560-3	16.4	23
61	Reaction layer formation and fracture at chemically vapor deposited diamond/metal interfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1994 , 12, 1513-1518	2.9	23

60	Rh Thin-Film Nanocatalysts as Chemical Sensors [The Hot Electron Effect. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 17660-17664	3.8	22
59	Adsorption of Amino Acids and Dipeptides to the Hydrophobic Polystyrene Interface Studied by SFG and QCM: The Special Case of Phenylalanine. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 9947-9954	3.8	21
58	Scanning Tunneling Microscopy (STM) at High Pressures. Adsorption and Catalytic Reaction Studies on Platinum and Rhodium Single Crystal Surfaces. <i>Catalysis Letters</i> , 2006 , 107, 131-141	2.8	21
57	Fabrication and characterization of the Ag-based high-technology model nanocluster catalyst for ethylene epoxidation manufactured by electron beam lithography. <i>Topics in Catalysis</i> , 2000 , 10, 107-113	2.3	20
56	Ambient Pressure X-ray Photoelectron Spectroscopy for Probing Monometallic, Bimetallic and Oxide-Metal Catalysts Under Reactive Atmospheres and Catalytic Reaction Conditions. <i>Topics in Catalysis</i> , 2016 , 59, 420-438	2.3	19
55	The interaction of short-chain model lubricants with the surfaces of hydrogenated amorphous carbon films. <i>Tribology Letters</i> , 1995 , 1, 47-58	2.8	19
54	Promotion of Hydrogenation of Organic Molecules by Incorporating Iron into Platinum Nanoparticle Catalysts: Displacement of Inactive Reaction Intermediates. <i>ACS Catalysis</i> , 2013 , 3, 2371-2375	13.1	18
53	Reforming of C6 Hydrocarbons Over Model Pt Nanoparticle Catalysts. <i>Topics in Catalysis</i> , 2012 , 55, 723-730	3.0	18
52	Structure, reactivity, and mobility of carbonaceous overlayers during olefin hydrogenation on platinum and rhodium single crystal surfaces. <i>Topics in Catalysis</i> , 2005 , 34, 121-128	2.3	18
51	Isomerization of n-Hexane Catalyzed by Supported Monodisperse PtRh Bimetallic Nanoparticles. <i>Catalysis Letters</i> , 2013 , 143, 907-911	2.8	17
50	Combined surface characterization and tribological (friction and wear) studies of CVD diamond films. <i>Journal of Materials Research</i> , 1993 , 8, 2577-2586	2.5	17
49	New Insights into Aldol Reactions of Methyl Isocyanacetate Catalyzed by Heterogenized Homogeneous Catalysts. <i>Nano Letters</i> , 2017 , 17, 584-589	11.5	16
48	Structure Effects on Pyridine Hydrogenation over Pt(111) and Pt(100) Studied with Sum Frequency Generation Vibrational Spectroscopy. <i>Catalysis Letters</i> , 2010 , 137, 118-122	2.8	16
47	The 13th International Symposium on Relations Between Homogeneous and Heterogeneous Catalysis: An Introduction. <i>Topics in Catalysis</i> , 2008 , 48, 1-7	2.3	16
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