Charles T Campbell

List of Publications by Year
in descending order

165 papers	16,084 citations	17440 63 h-index	16183 124 g-index
173 all docs	173 docs citations	173 times ranked	14851 citing authors

#	Article	IF	Citations
1	Ultrathin metal films and particles on oxide surfaces: structural, electronic and chemisorptive properties. Surface Science Reports, 1997, 27, 1-111.	7.2	1,529
2	CHEMISTRY: Oxygen Vacancies and Catalysis on Ceria Surfaces. Science, 2005, 309, 713-714.	12.6	1,103
3	The Effect of Size-Dependent Nanoparticle Energetics on Catalyst Sintering. Science, 2002, 298, 811-814.	12.6	907
4	Ceria Maintains Smaller Metal Catalyst Particles by Strong Metal-Support Bonding. Science, 2010, 329, 933-936.	12.6	763
5	Electronic perturbations. Nature Chemistry, 2012, 4, 597-598.	13.6	610
6	Degree of Rate Control: How Much the Energies of Intermediates and Transition States Control Rates. Journal of the American Chemical Society, 2009, 131, 8077-8082.	13.7	461
7	A benchmark database for adsorption bond energies to transition metal surfaces and comparison to selected DFT functionals. Surface Science, 2015, 640, 36-44.	1.9	396
8	SPR microscopy and its applications to high-throughput analyses of biomolecular binding events and their kinetics. Biomaterials, 2007, 28, 2380-2392.	11.4	367
9	The Entropies of Adsorbed Molecules. Journal of the American Chemical Society, 2012, 134, 18109-18115.	13.7	364
10	PHYSICS: The Active Site in Nanoparticle Gold Catalysis. Science, 2004, 306, 234-235.	12.6	327
11	The Degree of Rate Control: A Powerful Tool for Catalysis Research. ACS Catalysis, 2017, 7, 2770-2779.	11.2	327
12	Surface Characterization of Hydroxyapatite and Related Calcium Phosphates by XPS and TOF-SIMS. Analytical Chemistry, 2000, 72, 2886-2894.	6.5	300
13	The Energetics of Supported Metal Nanoparticles: Relationships to Sintering Rates and Catalytic Activity. Accounts of Chemical Research, 2013, 46, 1712-1719.	15.6	300
14	Future Directions and Industrial Perspectives Micro- and macro-kinetics: Their relationship in heterogeneous catalysis. Topics in Catalysis, 1994, 1, 353-366.	2.8	266
15	Finding the Rate-Determining Step in a Mechanism. Journal of Catalysis, 2001, 204, 520-524.	6.2	255
16	Kinetics and mechanism of the water-gas shift reaction catalysed by the clean and Cs-promoted Cu(110) surface: a comparison with Cu(111). Journal of the Chemical Society, Faraday Transactions, 1990, 86, 2725.	1.7	245
17	The physical chemistry and materials science behind sinter-resistant catalysts. Chemical Society Reviews, 2018, 47, 4314-4331.	38.1	236
18	Enthalpies and Entropies of Adsorption on Well-Defined Oxide Surfaces: Experimental Measurements. Chemical Reviews, 2013, 113, 4106-4135.	47.7	211

#	Article	IF	Citations
19	The kinetics of CO oxidation by adsorbed oxygen on wellâ€defined gold particles on TiO2(110). Catalysis Letters, 1999, 63, 143-151.	2.6	203
20	Toward Benchmarking in Catalysis Science: Best Practices, Challenges, and Opportunities. ACS Catalysis, 2016, 6, 2590-2602.	11.2	190
21	n-alkanes on Pt(111) and on C(0001)â ˆ•Pt(111): Chain length dependence of kinetic desorption parameters. Journal of Chemical Physics, 2006, 125, 234308.	3.0	170
22	Anchored metal nanoparticles: Effects of support and size on their energy, sintering resistance and reactivity. Faraday Discussions, 2013, 162, 9.	3.2	161
23	Methanol synthesis and reverse water-gas shift kinetics over clean polycrystalline copper. Catalysis Letters, 1995, 31, 313-324.	2.6	157
24	n-alkanes on MgO(100). II. Chain length dependence of kinetic desorption parameters for small n-alkanes. Journal of Chemical Physics, 2005, 122, 164708.	3.0	156
25	Kinetic model for sintering of supported metal particles with improved size-dependent energetics and applications to Au onTiO2(110). Physical Review B, 2007, 75, .	3.2	136
26	Calorimetric Measurement of the Heat of Adsorption of Benzene on Pt(111)â€. Journal of Physical Chemistry B, 2004, 108, 14627-14633.	2.6	130
27	A Sinterâ€Resistant Catalytic System Based on Platinum Nanoparticles Supported on TiO₂ Nanofibers and Covered by Porous Silica. Angewandte Chemie - International Edition, 2010, 49, 8165-8168.	13.8	125
28	A novel single-crystal adsorption calorimeter and additions for determining metal adsorption and adhesion energies. Review of Scientific Instruments, 1998, 69, 2427-2438.	1.3	124
29	A Highly Reactive and Sinterâ€Resistant Catalytic System Based on Platinum Nanoparticles Embedded in the Inner Surfaces of CeO₂ Hollow Fibers. Angewandte Chemie - International Edition, 2012, 51, 9543-9546.	13.8	121
30	Trends in Adhesion Energies of Metal Nanoparticles on Oxide Surfaces: Understanding Support Effects in Catalysis and Nanotechnology. ACS Nano, 2017, 11, 1196-1203.	14.6	121
31	n-alkanes on MgO(100). I. Coverage-dependent desorption kinetics of n-butane. Journal of Chemical Physics, 2005, 122, 164707.	3.0	120
32	Hindered Translator and Hindered Rotor Models for Adsorbates: Partition Functions and Entropies. Journal of Physical Chemistry C, 2016, 120, 9719-9731.	3.1	113
33	Trends in preexponential factors and activation energies in dehydrogenation and dissociation of adsorbed species. Chemical Physics Letters, 1991, 179, 53-57.	2.6	107
34	Sticking Probabilities in Adsorption of Alkanethiols from Liquid Ethanol Solution onto Gold. Journal of Physical Chemistry B, 2000, 104, 11168-11178.	2.6	107
35	Degree of rate control approach to computational catalyst screening. Journal of Catalysis, 2015, 330, 197-207.	6.2	105
36	The dissociative adsorption of H2 and D2 on Cu(110): activation barriers and dynamics. Surface Science, 1991, 259, 1-17.	1.9	101

#	Article	IF	Citations
37	A Sinter-Resistant Catalytic System Fabricated by Maneuvering the Selectivity of SiO₂ Deposition onto the TiO₂ Surface versus the Pt Nanoparticle Surface. Nano Letters, 2013, 13, 4957-4962.	9.1	101
38	Quantification of Tight Binding to Surface-Immobilized Phospholipid Vesicles Using Surface Plasmon Resonance:â€‰ Binding Constant of Phospholipase A2. Journal of the American Chemical Society, 2000, 122, 4177-4184.	13.7	100
39	Equilibrium Constants and Rate Constants for Adsorbates: Two-Dimensional (2D) Ideal Gas, 2D Ideal Lattice Gas, and Ideal Hindered Translator Models. Journal of Physical Chemistry C, 2016, 120, 10283-10297.	3.1	94
40	Velocity-resolved kinetics of site-specific carbon monoxide oxidation on platinum surfaces. Nature, 2018, 558, 280-283.	27.8	92
41	Chemical Potential of Metal Atoms in Supported Nanoparticles: Dependence upon Particle Size and Support. ACS Catalysis, 2017, 7, 8460-8466.	11.2	88
42	Small Pd Clusters, up to the Tetramer At Least, Are Highly Mobile on the MgO(100) Surface. Physical Review Letters, 2005, 95, 146103.	7.8	87
43	Electrocatalytic Hydrogenation of Phenol over Platinum and Rhodium: Unexpected Temperature Effects Resolved. ACS Catalysis, 2016, 6, 7466-7470.	11.2	86
44	Probing ensemble effects in surface reactions. 1. Site-size requirements for the dehydrogenation of cyclic hydrocarbons on platinum(111) revealed by bismuth site blocking. The Journal of Physical Chemistry, 1989, 93, 806-814.	2.9	83
45	Kinetic Prefactors of Reactions on Solid Surfaces. Zeitschrift Fur Physikalische Chemie, 2013, 227, .	2.8	81
46	DFT-Based Method for More Accurate Adsorption Energies: An Adaptive Sum of Energies from RPBE and vdW Density Functionals. Journal of Physical Chemistry C, 2017, 121, 4937-4945.	3.1	80
47	Metal Adsorption and Adhesion Energies on MgO(100). Journal of the American Chemical Society, 2002, 124, 9212-9218.	13.7	79
48	Transition Metal Oxides: Extra Thermodynamic Stability as Thin Films. Physical Review Letters, 2006, 96, 066106.	7.8	78
49	Insights into catalysis by gold nanoparticles and their support effects through surface science studies of model catalysts. Faraday Discussions, 2011, 152, 227.	3.2	78
50	Growth, Structure, and Stability of Ag on CeO₂(111): Synchrotron Radiation Photoemission Studies. Journal of Physical Chemistry C, 2011, 115, 6715-6725.	3.1	78
51	Energy of Supported Metal Catalysts: From Single Atoms to Large Metal Nanoparticles. ACS Catalysis, 2015, 5, 5673-5678.	11.2	78
52	Particle-size dependent heats of adsorption of CO on supported Pd nanoparticles as measured with a single-crystal microcalorimeter. Physical Review B, 2010, 81, .	3.2	77
53	Surface-Bound Intermediates in Low-Temperature Methanol Synthesis on Copper: Participants and Spectators. ACS Catalysis, 2015, 5, 7328-7337.	11.2	77
54	Probing ensemble effects in surface reactions. 3. Cyclohexane adsorption on clean and bismuth-covered platinum(111). The Journal of Physical Chemistry, 1989, 93, 826-835.	2.9	75

#	Article	IF	Citations
55	Thermodynamics of Statherin Adsorption onto Hydroxyapatite. Biochemistry, 2006, 45, 5576-5586.	2.5	74
56	Reactivity and sintering kinetics of Au/TiO2(110) model catalysts: particle size effects. Topics in Catalysis, 2007, 44, 3-13.	2.8	74
57	Heat of Adsorption of Naphthalene on Pt(111) Measured by Adsorption Calorimetry. Journal of Physical Chemistry B, 2006, 110, 17539-17545.	2.6	73
58	Apparent Activation Energies in Complex Reaction Mechanisms: A Simple Relationship via Degrees of Rate Control. ACS Catalysis, 2019, 9, 9465-9473.	11.2	71
59	Energetics of Adsorbed Methanol and Methoxy on Pt(111) by Microcalorimetry. Journal of the American Chemical Society, 2012, 134, 20388-20395.	13.7	70
60	Aqueous phase catalytic and electrocatalytic hydrogenation of phenol and benzaldehyde over platinum group metals. Journal of Catalysis, 2020, 382, 372-384.	6.2	68
61	Title is missing!. Topics in Catalysis, 2000, 14, 43-51.	2.8	67
62	Ag Adsorption on Reduced CeO₂(111) Thin Films. Journal of Physical Chemistry C, 2010, 114, 17166-17172.	3.1	67
63	Water Dissociative Adsorption on NiO(111): Energetics and Structure of the Hydroxylated Surface. ACS Catalysis, 2016, 6, 7377-7384.	11.2	67
64	Energetics of Cyclohexene Adsorption and Reaction on Pt(111) by Low-Temperature Microcalorimetry. Journal of the American Chemical Society, 2008, 130, 10247-10257.	13.7	65
65	Energies of Formation Reactions Measured for Adsorbates on Late Transition Metal Surfaces. Journal of Physical Chemistry C, 2016, 120, 25161-25172.	3.1	63
66	Energetics of Oxygen Adatoms, Hydroxyl Species and Water Dissociation on Pt(111). Journal of Physical Chemistry C, 2012, 116, 25772-25776.	3.1	62
67	Energy of Molecularly Adsorbed Water on Clean Pt(111) and Pt(111) with Coadsorbed Oxygen by Calorimetry. Journal of Physical Chemistry C, 2011, 115, 9164-9170.	3.1	61
68	Calorimeter for adsorption energies of larger molecules on single crystal surfaces. Review of Scientific Instruments, 2004, 75, 4471-4480.	1.3	60
69	An improved single crystal adsorption calorimeter for determining gas adsorption and reaction energies on complex model catalysts. Review of Scientific Instruments, 2011, 82, 024102.	1.3	58
70	Metal adsorption calorimetry and adhesion energies on clean single-crystal surfaces. Journal of Chemical Physics, 1997, 107, 5547-5553.	3.0	57
71	Impact of pH on Aqueous-Phase Phenol Hydrogenation Catalyzed by Carbon-Supported Pt and Rh. ACS Catalysis, 2019, 9, 1120-1128.	11.2	55
72	Improved pyroelectric detectors for single crystal adsorption calorimetry from 100 to 350 K. Review of Scientific Instruments, 2010, 81, 024102.	1.3	54

#	Article	IF	Citations
73	A Simple Bond-Additivity Model Explains Large Decreases in Heats of Adsorption in Solvents Versus Gas Phase: A Case Study with Phenol on Pt(111) in Water. ACS Catalysis, 2019, 9, 8116-8127.	11.2	52
74	A microcalorimetric study of the heat of adsorption of copper on well-defined oxide thin film surfaces: MgO(100), p(2Ã—1) oxide on Mo(100) and disordered W oxide. Faraday Discussions, 1999, 114, 195-208.	3.2	51
75	Built-In Potential in Conjugated Polymer Diodes with Changing Anode Work Function: Interfacial States and Deviation from the Schottkyâ€“Mott Limit. Journal of Physical Chemistry Letters, 2012, 3, 1202-1207.	4.6	50
76	Carbon-supported Pt during aqueous phenol hydrogenation with and without applied electrical potential: X-ray absorption and theoretical studies of structure and adsorbates. Journal of Catalysis, 2018, 368, 8-19.	6.2	49
77	The Energy of Adsorbed Hydroxyl on Pt(111) by Microcalorimetry. Journal of Physical Chemistry C, 2011, 115, 11586-11594.	3.1	47
78	Energetics of Cu Adsorption and Adhesion onto Reduced CeO₂(111) Surfaces by Calorimetry. Journal of Physical Chemistry C, 2015, 119, 17209-17217.	3.1	47
79	Catalytic reaction energetics by single crystal adsorption calorimetry: hydrocarbons on Pt(111). Chemical Society Reviews, 2008, 37, 2172.	38.1	46
80	Calcium Adsorption on MgO(100):â€‰ Energetics, Structure, and Role of Defects. Journal of the American Chemical Society, 2008, 130, 2314-2322.	13.7	45
81	The Energy of Hydroxyl Coadsorbed with Water on Pt(111). Journal of Physical Chemistry C, 2011, 115, 23008-23012.	3.1	45
82	Energetics of Formic Acid Conversion to Adsorbed Formates on Pt(111) by Transient Calorimetry. Journal of the American Chemical Society, 2014, 136, 3964-3971.	13.7	44
83	Ni Nanoparticles on CeO₂(111): Energetics, Electron Transfer, and Structure by Ni Adsorption Calorimetry, Spectroscopies, and Density Functional Theory. ACS Catalysis, 2020, 10, 5101-5114.	11.2	42
84	Quantifying Adsorption of Organic Molecules on Platinum in Aqueous Phase by Hydrogen Site Blocking and in Situ X-ray Absorption Spectroscopy. ACS Catalysis, 2019, 9, 6869-6881.	11.2	40
85	Energies of Adsorbed Catalytic Intermediates on Transition Metal Surfaces: Calorimetric Measurements and Benchmarks for Theory. Accounts of Chemical Research, 2019, 52, 984-993.	15.6	38
86	Nature of the Active Sites on Ni/CeO₂ Catalysts for Methane Conversions. ACS Catalysis, 2021, 11, 10604-10613.	11.2	37
87	Pyroelectric detector for single-crystal adsorption microcalorimetry: analysis of pulse shape and intensity. Sensors and Actuators B: Chemical, 2000, 62, 13-22.	7.8	33
88	Energetics of Adsorbed CH₃ on Pt(111) by Calorimetry. Journal of the American Chemical Society, 2013, 135, 5208-5211.	13.7	33
89	Direct Measurements of Half-Cycle Reaction Heats during Atomic Layer Deposition by Calorimetry. Chemistry of Materials, 2017, 29, 8566-8577.	6.7	33
90	Introduction: Advanced Materials and Methods for Catalysis and Electrocatalysis by Transition Metals. Chemical Reviews, 2021, 121, 563-566.	47.7	33

#	Article	IF	Citations
91	The chemisorption of methanol on Cu films on ZnO(000ï¿½1)-O. Catalysis Letters, 1994, 25, 277-292.	2.6	32
92	Energetics of Adsorbed Phenol on Ni(111) and Pt(111) by Calorimetry. Journal of Physical Chemistry C, 2019, 123, 7627-7632.	3.1	32
93	Ca Carboxylate Formation at the Calcium/Poly(methyl methacrylate) Interface. Journal of Physical Chemistry C, 2012, 116, 20465-20471.	3.1	31
94	The kinetics of elementary thermal reactions in heterogeneous catalysis. Nature Reviews Chemistry, 2019, 3, 723-732.	30.2	31
95	Origin of Thermal and Hyperthermal CO₂ from CO Oxidation on Pt Surfaces: The Role of Postâ€Transitionâ€State Dynamics, Active Sites, and Chemisorbed CO₂. Angewandte Chemie - International Edition, 2019, 58, 6916-6920.	13.8	31
96	Organofunctionalization of TiO2(110):â€‰ (3,3,3-Trifluoropropyl)trimethoxysilane Adsorption. Journal of Physical Chemistry B, 1998, 102, 4536-4543.	2.6	30
97	Magic-angle thermal desorption mass spectroscopy. Surface Science, 1990, 226, 250-256.	1.9	29
98	Adsorption and Adhesion of Au on Reduced CeO₂(111) Surfaces at 300 and 100 K. Journal of Physical Chemistry C, 2016, 120, 12113-12124.	3.1	29
99	Adsorbed Hydroxyl and Water on Ni(111): Heats of Formation by Calorimetry. ACS Catalysis, 2018, 8, 1485-1489.	11.2	29
100	Calorimetric measurements of the energetics of Pb adsorption and adhesion to Mo(100). Physical Review B, 1997, 56, 13496-13502.	3.2	28
101	Methanol Decomposition on Pt/ZnO(0001)âˆ'Zn Model Catalysts. Journal of Physical Chemistry B, 2001, 105, 9273-9279.	2.6	26
102	Adsorption Microcalorimetry: Recent Advances in Instrumentation and Application. Annual Review of Analytical Chemistry, 2011, 4, 41-58.	5.4	26
103	Energetics of adsorbed benzene on Ni(111) and Pt(111) by calorimetry. Surface Science, 2018, 676, 9-16.	1.9	26
104	Bond Energies of Molecular Fragments to Metal Surfaces Track Their Bond Energies to H Atoms. Journal of the American Chemical Society, 2014, 136, 4137-4140.	13.7	25
105	The degree of rate control of catalyst-bound intermediates in catalytic reaction mechanisms: Relationship to site coverage. Journal of Catalysis, 2020, 381, 53-62.	6.2	25
106	Predicting a Key Catalyst-Performance Descriptor for Supported Metal Nanoparticles: Metal Chemical Potential. ACS Catalysis, 2021, 11, 8284-8291.	11.2	25
107	Energetics of Adsorbed CH₃ and CH on Pt(111) by Calorimetry: Dissociative Adsorption of CH₃I. Journal of Physical Chemistry C, 2013, 117, 6325-6336.	3.1	24
108	Kinetic Isotope Effects: Interpretation and Prediction Using Degrees of Rate Control. ACS Catalysis, 2020, 10, 4181-4192.	11.2	24

#	Article	IF	Citations
109	Silver Nanoparticles on Fe₃O₄(111): Energetics by Ag Adsorption Calorimetry and Structure by Surface Spectroscopies. Journal of Physical Chemistry C, 2013, 117, 24932-24936.	3.1	23
110	Adsorption Energy of <i>tert</i>-Butyl on Pt(111) by Dissociation of <i>tert</i>-Butyl Iodide: Calorimetry and DFT. Journal of Physical Chemistry C, 2014, 118, 427-438.	3.1	22
111	SURFACE SCIENCE: Enhanced: Waltzing with O2. Science, 2003, 299, 357-357.	12.6	21
112	Adsorption calorimetry during metal vapor deposition on single crystal surfaces: Increased flux, reduced optical radiation, and real-time flux and reflectivity measurements. Review of Scientific Instruments, 2013, 84, 123901.	1.3	21
113	Energetics of adsorbed formate and formic acid on Ni(111) by calorimetry. Journal of Catalysis, 2017, 352, 300-304.	6.2	21
114	Cyclohexane Dehydrogenation and H2 Adsorption on Pt Particles on ZnO(0001)â˜O. Journal of Physical Chemistry B, 2003, 107, 1180-1188.	2.6	20
115	Heats of adsorption of Pb on pristine and electron-irradiated poly(methyl methacrylate) by microcalorimetry. Surface Science, 2005, 598, 22-34.	1.9	20
116	Energetics of Adsorbed Methyl and Methyl Iodide on Ni(111) by Calorimetry: Comparison to Pt(111) and Implications for Catalysis. ACS Catalysis, 2017, 7, 1286-1294.	11.2	20
117	Enhanced Bonding of Pentagonâ€"Heptagon Defects in Graphene to Metal Surfaces: Insights from the Adsorption of Azulene and Naphthalene to Pt(111). Chemistry of Materials, 2020, 32, 1041-1053.	6.7	20
118	Pyroelectric heat detector for measuring adsorption energies on thicker single crystals. Sensors and Actuators B: Chemical, 2005, 107, 454-460.	7.8	19
119	Forward and Reverse Waterâ€"Gas Shift Reactions on Model Copper Catalysts. ACS Symposium Series, 1992, , 130-142.	0.5	18
120	Enthalpies of adsorption of metal atoms on single-crystalline surfaces by microcalorimetry. Journal of Chemical Thermodynamics, 2001, 33, 333-345.	2.0	18
121	Energetics of methanol and formic acid oxidation on Pt(111): Mechanistic insights from adsorption calorimetry. Surface Science, 2016, 650, 140-143.	1.9	17
122	A simple means for reproducibly dosing low vapor pressure and/or reactive gases to surfaces in ultrahigh vacuum. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 10-13.	2.1	16
123	Calcium Vapor Adsorption on the Metalâ€"Organic Framework NU-1000: Structure and Energetics. Journal of Physical Chemistry C, 2016, 120, 16850-16862.	3.1	16
124	Energy requirements for the dissociative adsorption of hydrogen on Cu(110). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 1693-1697.	2.1	15
125	Ion scattering spectroscopy intensities for supported nanoparticles: The hemispherical cap model. Surface Science, 2015, 641, 166-169.	1.9	15
126	Using degrees of rate control to improve selective n-butane oxidation over model MOF-encapsulated catalysts: sterically-constrained Ag₃Pd(111). Faraday Discussions, 2016, 188, 21-38.	3.2	15

#	Article	IF	Citations
127	The influence of chlorine on the dispersion of Cu particles on Cu/ZnO(0001) model catalysts. Catalysis Letters, 2000, 65, 159-168.	2.6	14
128	Energetics of 2D and 3D Gold Nanoparticles on MgO(100): Influence of Particle Size and Defects on Gold Adsorption and Adhesion Energies. ACS Catalysis, 2017, 7, 2151-2163.	11.2	14
129	Adhesion Energies of Solvent Films to Pt(111) and Ni(111) Surfaces by Adsorption Calorimetry. ACS Catalysis, 2019, 9, 11819-11825.	11.2	14
130	Effects of Solvents on Adsorption Energies: A General Bond-Additivity Model. Journal of Physical Chemistry C, 2021, 125, 24371-24380.	3.1	14
131	Structure of coadsorbed bismuth and hydrocarbons on Pt(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 2128-2132.	2.1	13
132	Energetics of Adsorbed CH₂ and CH on Pt(111) by Calorimetry: The Dissociative Adsorption of Diiodomethane. Journal of Physical Chemistry C, 2014, 118, 29310-29321.	3.1	13
133	Calcium Thin Film Growth on Phenyl-C₆₁-Butyric Acid Methyl Ester (PCBM): Interface Structure and Energetics. Journal of Physical Chemistry C, 2015, 119, 18444-18451.	3.1	13
134	Benzene Adsorption and Dehydrogenation on Pt/ZnO(0001)âˆ’O Model Catalysts. Journal of Physical Chemistry B, 2003, 107, 1174-1179.	2.6	12
135	A high pressure cell and transfer rod for ultrahigh vacuum chambers. Review of Scientific Instruments, 1995, 66, 4370-4374.	1.3	11
136	Surface kinetics and energetics from single crystal adsorption calorimetry lineshape analysis: Methyl from methyl iodide on Pt(111). Journal of Catalysis, 2013, 308, 114-121.	6.2	11
137	Energetics of van der Waals Adsorption on the Metalâ€"Organic Framework NU-1000 with Zr₆-oxo, Hydroxo, and Aqua Nodes. Journal of the American Chemical Society, 2018, 140, 328-338.	13.7	11
138	Energetics and Structure of Nickel Atoms and Nanoparticles on MgO(100). Journal of Physical Chemistry C, 2020, 124, 14685-14695.	3.1	10
139	Quantitative Investigation of the Decomposition of Cyclooctene on Pt(111) Using BPTDS. The Journal of Physical Chemistry, 1996, 100, 8402-8407.	2.9	9
140	Formic Acid Dissociative Adsorption on NiO(111): Energetics and Structure of Adsorbed Formate. Journal of Physical Chemistry C, 2017, 121, 28001-28006.	3.1	9
141	Analysis and prediction of reaction kinetics using the degree of rate control. Journal of Catalysis, 2021, 404, 647-660.	6.2	9
142	Influence of Adhesion on the Chemical Potential of Supported Nanoparticles as Modeled with Spherical Caps. ACS Catalysis, 2022, 12, 2302-2308.	11.2	9
143	Heats of Adsorption of N₂, CO, Ar, and CH₄ versus Coverage on the Zr-Based MOF NU-1000: Measurements and DFT Calculations. Journal of Physical Chemistry C, 2019, 123, 6586-6591.	3.1	8
144	Energetics of Ag Adsorption on and Adhesion to Rutile TiO₂(100) Studied by Microcalorimetry. Journal of Physical Chemistry C, 2021, 125, 3036-3046.	3.1	8

#	Article	IF	Citations
145	Bond Energies of Adsorbed Intermediates to Metal Surfaces: Correlation with Hydrogenâ€“Ligand and Hydrogenâ€“Surface Bond Energies and Electronegativities. Angewandte Chemie - International Edition, 2018, 57, 16877-16881.	13.8	7
146	Energetics of Adsorbed Methanol and Methoxy on Ni(111): Comparisons to Pt(111). ACS Catalysis, 2018, 8, 10089-10095.	11.2	7
147	Origin of Thermal and Hyperthermal CO₂ from CO Oxidation on Pt Surfaces: The Role of Postâ€Transitionâ€State Dynamics, Active Sites, and Chemisorbed CO₂. Angewandte Chemie, 2019, 131, 6990-6994.	2.0	7
148	Size-Dependent Adsorption and Adhesion Energetics of Ag Nanoparticles on Graphene Films on Ni(111) by Calorimetry. ACS Catalysis, 2022, 12, 2888-2897.	11.2	7
149	Quantitative modeling of electron spectroscopy intensities for supported nanoparticles: The hemispherical cap model for non-normal detection. Surface Science, 2015, 632, L5-L8.	1.9	6
150	Reply to â€œComment on â€˜Equilibrium Constants and Rate Constants for Adsorbates: Two-Dimensional (2D) Ideal Gas, 2D Ideal Lattice Gas, and Ideal Hindered Translator Modelsâ€™â€. Journal of Physical Chemistry C, 2016, 120, 20481-20482.	3.1	5
151	Catalysis: Quantifying charge transfer. Nature Energy, 2016, 1, .	39.5	5
152	Calorimetric measurement of adsorption and adhesion energies of Cu on Pt(111). Surface Science, 2017, 657, 58-62.	1.9	5
153	Kinetic Prefactors of Reactions on Solid Surfaces. Zeitschrift Fur Physikalische Chemie, 2013, .	2.8	5
154	Comment on: Interaction of carbon dioxide with clean and oxygenated Cu(110) surfaces, by T. Schneider and W. Hirschwald. Catalysis Letters, 1992, 16, 455-457.	2.6	4
155	D. W. (â€œWayneâ€) Goodman: A Pioneer in Elucidating the Relationships Between Surface Structure of Catalysts and Their Performance, and in Using Model Catalysts for That Purpose. Topics in Catalysis, 2013, 56, 1273-1276.	2.8	4
156	Energetics of Au Adsorption and Film Growth on Pt(111) by Single-Crystal Adsorption Calorimetry. Journal of Physical Chemistry C, 2019, 123, 5557-5561.	3.1	4
157	Silver Adsorption on Calcium Niobate(001) Nanosheets: Calorimetric Energies That Explain Sinter-Resistant Support. Journal of the American Chemical Society, 2020, 142, 15751-15763.	13.7	4
158	Low-Temperature Growth Improves Metal/Polymer Interfaces: Vapor-Deposited Ca on PMMA. Journal of Physical Chemistry C, 2014, 118, 6352-6358.	3.1	3
159	Method for direct deconvolution of heat signals in transient adsorption calorimetry. Surface Science, 2015, 633, 17-23.	1.9	3
160	Catalytic properties of model supported nanoparticles. Journal of Chemical Physics, 2020, 152, 140401.	3.0	3
161	Adhesion Energies of Liquid Hydrocarbon Solvents onto Pt(111), MgO(100), Graphene, and TiO₂(110) from Temperature-Programmed Desorption Energies. Journal of Physical Chemistry C, 2021, 125, 27931-27937.	3.1	3
162	Bond Energies of Adsorbed Intermediates to Metal Surfaces: Correlation with Hydrogenâ€“Ligand and Hydrogenâ€“Surface Bond Energies and Electronegativities. Angewandte Chemie, 2018, 130, 17119-17123.	2.0	2

#	Article	IF	Citations
163	Calorimetric metal vapor adsorption energies for characterizing industrial catalyst support materials. Journal of Catalysis, 2020, 392, 209-216.	6.2	2
164	Acetonitrile Adsorption and Adhesion Energies onto the Pt(111) Surface by Calorimetry. ACS Catalysis, 2022, 12, 156-163.	11.2	2
165	A New Single-Crystal Adsorption Calorimeter for Determining Metal Adsorption and Adhesion Energies. Materials Research Society Symposia Proceedings, 1996, 440, 103.	0.1	1