

Swetlana Schauerermann

List of Publications by Year in descending order

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84
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109321

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4055
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanisms Acting in Ligand-Directed Heterogeneous Catalysis: Electronic, Geometric, and Enol-Induced Effects. <i>Journal of Physical Chemistry C</i> , 2022, 126, 4907-4920.	3.1	6
2	Water and Carbon Dioxide Adsorption on CaO(001) Studied via Single Crystal Adsorption Calorimetry. <i>Topics in Catalysis</i> , 2021, 64, 1030-1040.	2.8	2
3	Understanding Ligand-Directed Heterogeneous Catalysis: When the Dynamically Changing Nature of the Ligand Layer Controls the Hydrogenation Selectivity. <i>Angewandte Chemie</i> , 2021, 133, 16485-16490.	2.0	4
4	Understanding Ligand-Directed Heterogeneous Catalysis: When the Dynamically Changing Nature of the Ligand Layer Controls the Hydrogenation Selectivity. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16349-16354.	13.8	14
5	Formation and Real-Space Distribution of Acetophenone Dimers on H-containing Pt(111). <i>Journal of Physical Chemistry C</i> , 2021, 125, 19311-19324.	3.1	7
6	Competing Reaction Pathways in Heterogeneously Catalyzed Hydrogenation of Allyl Cyanide: The Chemical Nature of Surface Species. <i>Chemistry - A European Journal</i> , 2021, 27, 17240-17254.	3.3	4
7	Disordered Two-Dimensional Self-Organization of Ethyl Pyruvate Molecules on the Pt(111) Surface. <i>Journal of Physical Chemistry C</i> , 2021, 125, 26167-26179.	3.1	4
8	Coverage-Dependent Adsorption Geometry of Acetophenone on Pt(111). <i>Journal of Physical Chemistry C</i> , 2020, 124, 557-566.	3.1	14
9	Temperature-Dependent Formation of Acetophenone Oligomers Accompanied by Keto-Enol Tautomerism: Real Space Distribution. <i>Journal of Physical Chemistry C</i> , 2020, 124, 14262-14271.	3.1	9
10	Adsorption geometry and self-assembling of chiral modifier (<i>R</i>)-(+)-1-(1-naphthylethylamine) on Pt(111). <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15696-15706.	2.8	9
11	Tuning the Strength of Molecular Bonds in Oxygenates via Surface-Assisted Intermolecular Interactions: Atomistic Insights. <i>Journal of Physical Chemistry C</i> , 2020, 124, 28159-28168.	3.1	9
12	Thin Oxide Films as Model Systems for Heterogeneous Catalysts. <i>Springer Handbooks</i> , 2020, , 267-328.	0.6	1
13	Formation and Stabilization Mechanisms of Enols on Pt through Multiple Hydrogen Bonding. <i>ACS Catalysis</i> , 2019, 9, 6882-6889.	11.2	20
14	Molecular beam/infrared reflection-absorption spectroscopy apparatus for probing heterogeneously catalyzed reactions on functionalized and nanostructured model surfaces. <i>Review of Scientific Instruments</i> , 2019, 90, 053903.	1.3	14
15	Keto-Enol Tautomerization as a First Step in Hydrogenation of Carbonyl Compounds. <i>Journal of Physical Chemistry C</i> , 2019, 123, 29271-29277.	3.1	20
16	3. Model studies on hydrogenation reactions. , 2018, , 43-74.		0
17	CO ₂ Adsorption on Magnetite Fe ₃ O ₄ (111). <i>Journal of Physical Chemistry C</i> , 2018, 122, 27433-27441.	3.1	25
18	Surface-Driven Keto-Enol Tautomerization: Atomistic Insights into Enol Formation and Stabilization Mechanisms. <i>Angewandte Chemie</i> , 2018, 130, 16901-16906.	2.0	6

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19	Surface-Driven Keto-Enol Tautomerization: Atomistic Insights into Enol Formation and Stabilization Mechanisms. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16659-16664.	13.8	22
20	Partial Hydrogenation of Unsaturated Carbonyl Compounds: Toward Ligand-Directed Heterogeneous Catalysis. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 5555-5566.	4.6	16
21	Initial stages of CO ₂ adsorption on CaO: a combined experimental and computational study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 4231-4242.	2.8	47
22	Catalysis beyond frontier molecular orbitals: Selectivity in partial hydrogenation of multi-unsaturated hydrocarbons on metal catalysts. <i>Science Advances</i> , 2017, 3, e1700939.	10.3	41
23	Selective Partial Hydrogenation of Acrolein on Pd: A Mechanistic Study. <i>ACS Catalysis</i> , 2017, 7, 5523-5533.	11.2	28
24	Adsorption of isophorone and trimethyl-cyclohexanone on Pd(111): A combination of infrared reflection absorption spectroscopy and density functional theory studies. <i>Surface Science</i> , 2016, 650, 149-160.	1.9	19
25	Adsorption of acrolein, propanal, and allyl alcohol on Pd(111): a combined infrared reflection-absorption spectroscopy and temperature programmed desorption study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13960-13973.	2.8	45
26	Selective Hydrogenation of Acrolein Over Pd Model Catalysts: Temperature and Particle-Size Effects. <i>Chemistry - A European Journal</i> , 2016, 22, 15856-15863.	3.3	20
27	Supports and modified nano-particles for designing model catalysts. <i>Faraday Discussions</i> , 2016, 188, 309-321.	3.2	18
28	Water Interaction with Iron Oxides. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 13942-13946.	13.8	62
29	Chirally-modified metal surfaces: energetics of interaction with chiral molecules. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 22726-22735.	2.8	14
30	Spectators Control Selectivity in Surface Chemistry: Acrolein Partial Hydrogenation Over Pd. <i>Journal of the American Chemical Society</i> , 2015, 137, 13496-13502.	13.7	65
31	Model Approach in Heterogeneous Catalysis: Kinetics and Thermodynamics of Surface Reactions. <i>Accounts of Chemical Research</i> , 2015, 48, 2775-2782.	15.6	44
32	Interaction of Isophorone with Pd(111): A Combination of Infrared Reflection-Absorption Spectroscopy, Near-Edge X-ray Absorption Fine Structure, and Density Functional Theory Studies. <i>Journal of Physical Chemistry C</i> , 2014, 118, 27833-27842.	3.1	14
33	A fresh look at an old nano-technology: catalysis. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 8148.	2.8	55
34	How Absorbed Hydrogen Affects the Catalytic Activity of Transition Metals. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 13371-13375.	13.8	73
35	Single-Crystal Adsorption Calorimetry on Well-Defined Surfaces: From Single Crystals to Supported Nanoparticles. <i>Chemical Record</i> , 2014, 14, 759-774.	5.8	7
36	Kinetic Evidence for a Non-Langmuir-Hinshelwood Surface Reaction: H/D Exchange over Pd Nanoparticles and Pd(111). <i>ChemPhysChem</i> , 2013, 14, 1686-1695.	2.1	14

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37	Energetics of elementary reaction steps relevant for CO oxidation: CO and O ₂ adsorption on model Pd nanoparticles and Pd(111). <i>Faraday Discussions</i> , 2013, 162, 341.	3.2	18
38	Model studies on heterogeneous catalysts at the atomic scale: From supported metal particles to two-dimensional zeolites. <i>Journal of Catalysis</i> , 2013, 308, 154-167.	6.2	27
39	Temperature dependence of the 2-butene hydrogenation over supported Pd nanoparticles and Pd(111). <i>Journal of Molecular Catalysis A</i> , 2013, 377, 137-142.	4.8	5
40	Nanoparticles for Heterogeneous Catalysis: New Mechanistic Insights. <i>Accounts of Chemical Research</i> , 2013, 46, 1673-1681.	15.6	347
41	Tuning the Surface Chemistry of Pd by Atomic C and H: A Microscopic Picture. <i>Chemistry - A European Journal</i> , 2013, 19, 1335-1345.	3.3	28
42	Trends in the Binding Strength of Surface Species on Nanoparticles: How Does the Adsorption Energy Scale with the Particle Size?. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 5175-5179.	13.8	66
43	Toward Low-Temperature Dehydrogenation Catalysis: Isophorone Adsorbed on Pd(111). <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 582-586.	4.6	33
44	Size Dependence of the Adsorption Energy of CO on Metal Nanoparticles: A DFT Search for the Minimum Value. <i>Nano Letters</i> , 2012, 12, 2134-2139.	9.1	155
45	Subsurface Hydrogen Diffusion into Pd Nanoparticles: Role of Low-Coordinated Surface Sites and Facilitation by Carbon. <i>Journal of Physical Chemistry C</i> , 2012, 116, 3539-3544.	3.1	79
46	A kinetic study on the conversion of cis-2-butene with deuterium on a Pd/Fe ₃ O ₄ model catalyst. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 966-977.	2.8	21
47	Adsorption energetics of CO on supported Pd nanoparticles as a function of particle size by single crystal microcalorimetry. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 16800.	2.8	41
48	Morphological and chemical influences on alumina-supported palladium catalysts active for the gas phase hydrogenation of crotonaldehyde. <i>Journal of Chemical Physics</i> , 2011, 134, 214704.	3.0	15
49	Olefin hydrogenation on Pd model supported catalysts: New mechanistic insights. <i>Journal of Catalysis</i> , 2011, 284, 148-156.	6.2	82
50	Model Studies in Catalysis. <i>Topics in Catalysis</i> , 2011, 54, 4-12.	2.8	50
51	Innovative Measurement Techniques in Surface Science. <i>ChemPhysChem</i> , 2011, 12, 79-87.	2.1	28
52	An improved single crystal adsorption calorimeter for determining gas adsorption and reaction energies on complex model catalysts. <i>Review of Scientific Instruments</i> , 2011, 82, 024102.	1.3	58
53	Role of Low-Coordinated Surface Sites in Olefin Hydrogenation: A Molecular Beam Study on Pd Nanoparticles and Pd(111). <i>ChemPhysChem</i> , 2010, 11, 2319-2322.	2.1	46
54	Hydrogen Diffusion into Palladium Nanoparticles: Pivotal Promotion by Carbon. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4743-4746.	13.8	91

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55	Role of hydrogen in olefin isomerization and hydrogenation: a molecular beam study on Pd model supported catalysts. Dalton Transactions, 2010, 39, 8484.	3.3	14
56	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
57	Conversion of cis- and trans-2-butene with Deuterium on a Pd/Fe ₃ O ₄ model catalyst. Journal of Catalysis, 2009, 265, 191-198.	6.2	38
58	Influence of Carbon Deposition on the Hydrogen Distribution in Pd Nanoparticles and Their Reactivity in Olefin Hydrogenation. Angewandte Chemie - International Edition, 2008, 47, 9289-9293.	13.8	165
59	Isomerization and Hydrogenation of <i>cis</i> -2-Butene on Pd Model Catalyst. Journal of Physical Chemistry C, 2008, 112, 11408-11420.	3.1	94
60	Oxidation, Reduction, and Reactivity of Supported Pd Nanoparticles: Mechanism and Microkinetics. Journal of Physical Chemistry C, 2007, 111, 938-949.	3.1	38
61	Particle size dependent adsorption and reaction kinetics on reduced and partially oxidized Pd nanoparticles. Physical Chemistry Chemical Physics, 2007, 9, 1347.	2.8	79
62	Formation and catalytic activity of partially oxidized Pd nanoparticles. Topics in Catalysis, 2007, 42-43, 387-391.	2.8	10
63	Formation of interface and surface oxides on supported Pd nanoparticles. Surface Science, 2006, 600, 2528-2542.	1.9	56
64	Oxygen-induced Restructuring of a Pd/Fe ₃ O ₄ Model Catalyst. Catalysis Letters, 2006, 107, 189-196.	2.6	70
65	Model studies in heterogeneous catalysis at the microscopic level: from the structure and composition of surfaces to reaction kinetics. Mikrochimica Acta, 2006, 156, 9-20.	5.0	6
66	CO oxidation on partially oxidized Pd nanoparticles. Journal of Catalysis, 2006, 242, 58-70.	6.2	73
67	Size-Dependent Oxidation Mechanism of Supported Pd Nanoparticles. Angewandte Chemie - International Edition, 2006, 45, 3693-3697.	13.8	140
68	Oxygen Storage at the Metal/Oxide Interface of Catalyst Nanoparticles. Angewandte Chemie - International Edition, 2005, 44, 7601-7605.	13.8	115
69	CO adsorption and thermal stability of Pd deposited on a thin FeO(111) film. Surface Science, 2005, 586, 174-182.	1.9	25
70	Model Studies in Heterogeneous Catalysis. From Structure to Kinetics. Monatshefte für Chemie, 2005, 136, 59-75.	1.8	19
71	Adsorbate mobilities on catalyst nanoparticles studied via the angular distribution of desorbing products. Surface Science, 2004, 561, L218-L224.	1.9	24
72	Surface reactivity of Pd nanoparticles supported on polycrystalline substrates as compared to thin film model catalysts: infrared study of CH ₃ OH adsorption. Journal of Catalysis, 2004, 223, 64-73.	6.2	41

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73	On the Role of Different Adsorption and Reaction Sites on Supported Nanoparticles during a Catalytic Reaction: NO Decomposition on a Pd/Alumina Model Catalyst. Journal of Physical Chemistry B, 2004, 108, 14244-14254.	2.6	29
74	Surface Reactivity of Pd Nanoparticles Supported on Polycrystalline Substrates As Compared to Thin Film Model Catalysts: Infrared Study of CO Adsorption. Journal of Physical Chemistry B, 2004, 108, 3603-3613.	2.6	110
75	CO Adsorption on Pd Nanoparticles: Density Functional and Vibrational Spectroscopy Studies. Journal of Physical Chemistry B, 2003, 107, 255-264.	2.6	262
76	In-situ-Schwingungsspektroskopie zur Untersuchung der Aktivität und Adsorbatplatzbesetzung von Katalysator-Nanopartikeln. Angewandte Chemie, 2003, 115, 3143-3147.	2.0	6
77	Site Occupation and Activity of Catalyst Nanoparticles Monitored by In Situ Vibrational Spectroscopy. Angewandte Chemie - International Edition, 2003, 42, 3035-3038.	13.8	32
78	Low temperature decomposition of NO on ordered alumina films. Chemical Physics Letters, 2003, 381, 298-305.	2.6	27
79	Interaction of NO with alumina supported palladium model catalysts. Physical Chemistry Chemical Physics, 2003, 5, 5139-5148.	2.8	11
80	Adsorption, decomposition and oxidation of methanol on alumina supported palladium particles. Physical Chemistry Chemical Physics, 2002, 4, 3909-3918.	2.8	60
81	Katalytische Aktivität und Vergiftung spezifischer aktiver Zentren von Metall-Nanopartikeln auf Trägern. Angewandte Chemie, 2002, 114, 2643-2646.	2.0	26
82	Catalytic Activity and Poisoning of Specific Sites on Supported Metal Nanoparticles. Angewandte Chemie - International Edition, 2002, 41, 2532-2535.	13.8	170
83	Nanofacet-resolved CO oxidation kinetics on alumina-supported Pd particles. Chemical Physics Letters, 2002, 354, 403-408.	2.6	33
84	The Molecular Origins of Selectivity in Methanol Decomposition on Pd Nanoparticles. Catalysis Letters, 2002, 84, 209-217.	2.6	41