Johan Gustafson

List of Publications by Year in descending order

79 papers	3,433 citations	117453 34 h-index	143772 57 g-index
80 all docs	80 docs citations	80 times ranked	2537 citing authors

#	Article	IF	Citations
1	Steps and catalytic reactions: CO oxidation with preadsorbed O on Rh(553). Surface Science, 2022, 715, 121928.	0.8	2
2	Oxygen induced faceting of Cu(911). Surface Science, 2022, 715, 121933.	0.8	3
3	Optical demonstration of crystallography and reciprocal space using laser diffraction from Au microdisc arrays. Journal of Applied Crystallography, 2022, 55, 168-171.	1.9	0
4	Structural Changes in Monolayer Cobalt Oxides under Ambient Pressure CO and O₂ Studied by In Situ Grazing-Incidence X-ray Absorption Fine Structure Spectroscopy. Journal of Physical Chemistry C, 2022, 126, 3411-3418.	1.5	9
5	Role of hydroxylation for the atomic structure of a non-polar vicinal zinc oxide. Communications Chemistry, 2021, 4, .	2.0	6
6	HIPPIE: a new platform for ambient-pressure X-ray photoelectron spectroscopy at the MAX IV Laboratory. Journal of Synchrotron Radiation, 2021, 28, 624-636.	1.0	60
7	Bridging the Pressure Gap in CO Oxidation. ACS Catalysis, 2021, 11, 9128-9135.	5.5	14
8	High energy surface x-ray diffraction applied to model catalyst surfaces at work. Journal of Physics Condensed Matter, 2021, 33, 073001.	0.7	11
9	Catalytic Oxidation of CO on a Curved Pt(111) Surface: Simultaneous Ignition at All Facets through a Transient COâ€O Complex**. Angewandte Chemie - International Edition, 2020, 59, 20037-20043.	7.2	13
10	Catalytic Oxidation of CO on a Curved Pt(111) Surface: Simultaneous Ignition at All Facets through a Transient COâ€O Complex**. Angewandte Chemie, 2020, 132, 20212-20218.	1.6	1
11	Structure of two-dimensional Fe3O4. Journal of Chemical Physics, 2020, 152, 114705.	1.2	10
12	CO Chemisorption on Vicinal Rh(111) Surfaces Studied with a Curved Crystal. Journal of Physical Chemistry C, 2020, 124, 9305-9313.	1.5	13
13	Surface optical reflectance combined with x-ray techniques during gas-surface interactions. Journal Physics D: Applied Physics, 2020, 53, 224001.	1.3	15
14	Combining high-energy X-ray diffraction with Surface Optical Reflectance and Planar Laser Induced Fluorescence for operando catalyst surface characterization. Review of Scientific Instruments, 2019, 90, 033703.	0.6	20
15	The Role of Oxides in Catalytic CO Oxidation over Rhodium and Palladium. ACS Catalysis, 2018, 8, 4438-4445.	5.5	69
16	Structureâ€"function relationship during CO₂ methanation over Rh/Al₂O₃ and Rh/SiO₂ catalysts under atmospheric pressure conditions. Catalysis Science and Technology, 2018, 8, 2686-2696.	2.1	26
17	Catalytic Oxidation of Carbon Monoxide on a Curved Pd Crystal: Spatial Variation of Active and Poisoning Phases in Stationary Conditions. Journal of the American Chemical Society, 2018, 140, 16245-16252.	6.6	24
18	Copper-Modified Zeolites and Silica for Conversion of Methane to Methanol. Catalysts, 2018, 8, 545.	1.6	25

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19	Steps Control the Dissociation of CO₂ on Cu(100). Journal of the American Chemical Society, 2018, 140, 12974-12979.	6.6	70
20	Initial oxidation of Cu(100) studied by X-ray photo-electron spectroscopy and density functional theory calculations. Surface Science, 2018, 675, 64-69.	0.8	17
21	Understanding the Intrinsic Surface Reactivity of Single-Layer and Multilayer PdO(101) on Pd(100). ACS Catalysis, 2018, 8, 8553-8567.	5.5	38
22	Combining synchrotron light with laser technology in catalysis research. Journal of Synchrotron Radiation, 2018, 25, 1389-1394.	1.0	9
23	The influence of incommensurability on the long-range periodicity of the Pd(100)-(<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Surface Science, 2017, 660, 1-8.	0.8	11
24	Surface-Sensitive X-ray Diffraction Across the Pressure Gap. Springer Series in Chemical Physics, 2017, , 59-87.	0.2	7
25	Planar Laser Induced Fluorescence Applied to Catalysis. Springer Series in Chemical Physics, 2017, , 131-149.	0.2	4
26	Simultaneous Imaging of Gas Phase over and Surface Reflectance of a Pd(100) Single Crystal during CO Oxidation. Journal of Physical Chemistry C, 2017, 121, 23511-23519.	1.5	20
27	Novel in Situ Techniques for Studies of Model Catalysts. Accounts of Chemical Research, 2017, 50, 2326-2333.	7.6	39
28	Redox behavior of iron at the surface of an O(100) single crystal studied by ambient-pressure photoelectron spectroscopy. Journal of Lithic Studies, 2017, 3, 95-103.	0.1	8
29	Strain Dependent Light-off Temperature in Catalysis Revealed by Planar Laser-Induced Fluorescence. ACS Catalysis, 2017, 7, 110-114.	5.5	36
30	Visualization of Gas Distribution in a Model AP-XPS Reactor by PLIF: CO Oxidation over a Pd(100) Catalyst. Catalysts, 2017, 7, 29.	1.6	23
31	High-energy x-ray diffraction from surfaces and nanoparticles. Physical Review B, 2017, 96, .	1.1	22
32	Comparison of AP-XPS and PLIF Measurements During CO Oxidation Over Pd Single Crystals. Topics in Catalysis, 2016, 59, 478-486.	1.3	21
33	Tuning the Reactivity of Ultrathin Oxides: NO Adsorption on Monolayer FeO(111). Angewandte Chemie - International Edition, 2016, 55, 9267-9271.	7.2	16
34	Step dynamics and oxide formation during CO oxidation over a vicinal Pd surface. Physical Chemistry Chemical Physics, 2016, 18, 20312-20320.	1.3	14
35	2D and 3D imaging of the gas phase close to an operating model catalyst by planar laser induced fluorescence. Journal of Physics Condensed Matter, 2016, 28, 453002.	0.7	30
36	X-ray photoemission analysis of clean and carbon monoxide-chemisorbed platinum(111) stepped surfaces using a curved crystal. Nature Communications, 2015, 6, 8903.	5.8	48

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37	Real-Time Gas-Phase Imaging over a Pd(110) Catalyst during CO Oxidation by Means of Planar Laser-Induced Fluorescence. ACS Catalysis, 2015, 5, 2028-2034.	5.5	26
38	Growth of Ultrathin Iron Oxide Films on Ag(100). Journal of Physical Chemistry C, 2015, 119, 2572-2582.	1.5	32
39	Faceting of Rhodium(553) in Realistic Reaction Mixtures of Carbon Monoxide and Oxygen. Journal of Physical Chemistry C, 2015, 119, 11646-11652.	1.5	8
40	Evidence for the Active Phase of Heterogeneous Catalysts through In Situ Reaction Product Imaging and Multiscale Modeling. ACS Catalysis, 2015, 5, 4514-4518.	5.5	41
41	Transient Structures of PdO during CO Oxidation over Pd(100). Journal of Physical Chemistry C, 2015, 119, 15469-15476.	1.5	41
42	An in situ sample environment reaction cell for spatially resolved x-ray absorption spectroscopy studies of powders and small structured reactors. Review of Scientific Instruments, 2015, 86, 033112.	0.6	9
43	Spatially and temporally resolved gas distributions around heterogeneous catalysts using infrared planar laser-induced fluorescence. Nature Communications, 2015, 6, 7076.	5.8	41
44	Quantitative surface structure determination using in situ high-energy SXRD: Surface oxide formation on Pd(100) during catalytic CO oxidation. Surface Science, 2014, 630, 229-235.	0.8	32
45	A high pressure x-ray photoelectron spectroscopy study of CO oxidation over Rh(100). Journal of Physics Condensed Matter, 2014, 26, 055003.	0.7	9
46	Effects of non-local exchange on core level shifts for gas-phase and adsorbed molecules. Journal of Chemical Physics, 2014, 141, 034706.	1.2	29
47	High-Energy Surface X-ray Diffraction for Fast Surface Structure Determination. Science, 2014, 343, 758-761.	6.0	144
48	CO Adsorption on Clean and Oxidized Pd(111). Journal of Physical Chemistry C, 2014, 118, 1118-1128.	1.5	69
49	A high pressure X-ray photoelectron spectroscopy study of oxidation and reduction of Rh(100) and Rh nanoparticles. Surface Science, 2014, 628, 153-158.	0.8	22
50	Reactivity and Mass Transfer of Lowâ€Dimensional Catalysts. Chemical Record, 2014, 14, 857-868.	2.9	4
51	Intrinsic Ligand Effect Governing the Catalytic Activity of Pd Oxide Thin Films. ACS Catalysis, 2014, 4, 3330-3334.	5.5	79
52	InÂSituX-Ray Photoelectron Spectroscopy of Model Catalysts: At the Edge of the Gap. Physical Review Letters, 2013, 110, 117601.	2.9	107
53	Dissociative Adsorption of Hydrogen on PdO(101) Studied by HRCLS and DFT. Journal of Physical Chemistry C, 2013, 117, 13510-13519.	1.5	25
54	The Rh(100)-(3 Ã— 1)-2O structure. Journal of Physics Condensed Matter, 2012, 24, 225006.	0.7	5

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55	Anin situset up for the detection of CO2from catalytic CO oxidation by using planar laser-induced fluorescence. Review of Scientific Instruments, 2012, 83, 053104.	0.6	35
56	Structure of the Rh2O3(0001) surface. Surface Science, 2012, 606, 1416-1421.	0.8	34
57	The Active Phase of Palladium during Methane Oxidation. Journal of Physical Chemistry Letters, 2012, 3, 678-682.	2.1	183
58	Oxygen-Stabilized Rh Adatoms: 0D Oxides on a Vicinal Surface. Journal of Physical Chemistry Letters, 2011, 2, 2747-2751.	2.1	5
59	Surface structure and reactivity of Pd(100) during CO oxidation near ambient pressures. Physical Chemistry Chemical Physics, 2011, 13, 13167.	1.3	104
60	Oxidation and reduction of Pd(100) and aerosol-deposited Pd nanoparticles. Physical Review B, 2011, 83, .	1.1	79
61	Reply to â€œComment on â€˜Catalytic Activity of the Rh Surface Oxide: CO Oxidation over Rh(111) under Realistic Conditionsâ€â€™. Journal of Physical Chemistry C, 2010, 114, 22372-22373.	1.5	14
62	Catalytic Activity of the Rh Surface Oxide: CO Oxidation over Rh(111) under Realistic Conditions. Journal of Physical Chemistry C, 2010, 114, 4580-4583.	1.5	88
63	Comment on â€œCO Oxidation on Pt-Group Metals from Ultrahigh Vacuum to Near Atmospheric Pressures. 2. Palladium and Platinumâ€• Journal of Physical Chemistry C, 2010, 114, 6875-6876.	1.5	54
64	Lack of surface oxide layers and facile bulk oxide formation on Pd(110). Physical Review B, 2009, 80, .	1.1	41
65	Structure and catalytic reactivity of Rh oxides. Catalysis Today, 2009, 145, 227-235.	2.2	71
66	Structure and reactivity of a model catalyst alloy under realistic conditions. Journal of Physics Condensed Matter, 2008, 20, 184018.	0.7	47
67	Sensitivity of catalysis to surface structure: The example of CO oxidation on Rh under realistic conditions. Physical Review B, 2008, 78, .	1.1	86
68	Step-Orientation-Dependent Oxidation: From 1D to 2D Oxides. Physical Review Letters, 2008, 101, 266104.	2.9	49
69	Oxidation of Pd(553): From ultrahigh vacuum to atmospheric pressure. Physical Review B, 2007, 76, .	1.1	70
70	Kinetics of the Reduction of the Rh(111) Surface Oxide:Â Linking Spectroscopy and Atomic-Scale Information. Journal of Physical Chemistry B, 2006, 110, 9966-9975.	1.2	27
71	Oxygen-induced step bunching and faceting of Rh(553): Experiment andab initiocalculations. Physical Review B, 2006, 74, .	1.1	71
72	The surface oxide as a source of oxygen on Rh(1â€‰1â€‰1). Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 367-372.	0.8	62

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73	A surface x-ray study of the structure and morphology of the oxidized Pd(001) surface. Journal of Chemical Physics, 2005, 122, 044706.	1.2	48
74	Structure of a thin oxide film on Rh(100). Physical Review B, 2005, 71, .	1.1	101
75	Kinetic Hindrance during the Initial Oxidation of Pd(100) at Ambient Pressures. Physical Review Letters, 2004, 92, 046101.	2.9	209
76	High-Coverage Oxygen Structures on Rh(111): Adsorbate Repulsion and Site Preference Is Not Enough. Physical Review Letters, 2004, 93, 266103.	2.9	46
77	Self-Limited Growth of a Thin Oxide Layer on Rh(111). Physical Review Letters, 2004, 92, 126102.	2.9	198
78	The Pd()â€“R27Â°-O surface oxide revisited. Surface Science, 2003, 541, 101-112.	0.8	201
79	Identification of Step Atoms by High Resolution Core Level Spectroscopy. Physical Review Letters, 2003, 91, 056102.	2.9	33