

Jeppe V Lauritsen

List of Publications by Year in descending order

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124
papers

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citations

34016

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127
all docs

127
docs citations

127
times ranked

9905
citing authors

#	ARTICLE	IF	CITATIONS
1	Atomic-Scale Structure of Single-Layer MoS ₂ Nanoclusters. Physical Review Letters, 2000, 84, 951-954.	2.9	801
2	Size-dependent structure of MoS ₂ nanocrystals. Nature Nanotechnology, 2007, 2, 53-58.	15.6	638
3	One-Dimensional Metallic Edge States in MoS ₂ . Physical Review Letters, 2001, 87, 196803.	2.9	563
4	Location and coordination of promoter atoms in Co- and Ni-promoted MoS ₂ -based hydrotreating catalysts. Journal of Catalysis, 2007, 249, 220-233.	3.1	428
5	Atomic-scale insight into structure and morphology changes of MoS ₂ nanoclusters in hydrotreating catalysts. Journal of Catalysis, 2004, 221, 510-522.	3.1	379
6	Atomic-Scale Structure of Co@MoS Nanoclusters in Hydrotreating Catalysts. Journal of Catalysis, 2001, 197, 1-5.	3.1	331
7	Hydrodesulfurization reaction pathways on MoS ₂ nanoclusters revealed by scanning tunneling microscopy. Journal of Catalysis, 2004, 224, 94-106.	3.1	308
8	Recent STM, DFT and HAADF-STEM studies of sulfide-based hydrotreating catalysts: Insight into mechanistic, structural and particle size effects. Catalysis Today, 2008, 130, 86-96.	2.2	265
9	Controllable etching of MoS ₂ basal planes for enhanced hydrogen evolution through the formation of active edge sites. Nano Energy, 2018, 49, 634-643.	8.2	220
10	Chemistry of one-dimensional metallic edge states in MoS ₂ nanoclusters. Nanotechnology, 2003, 14, 385-389.	1.3	212
11	Cluster-Support Interactions and Morphology of MoS ₂ Nanoclusters in a Graphite-Supported Hydrotreating Model Catalyst. Journal of the American Chemical Society, 2006, 128, 13950-13958.	6.6	172
12	Size Threshold in the Dibenzothiophene Adsorption on MoS ₂ Nanoclusters. ACS Nano, 2010, 4, 4677-4682.	7.3	158
13	Van der Waals Epitaxy of Two-Dimensional MoS ₂ Graphene Heterostructures in Ultrahigh Vacuum. ACS Nano, 2015, 9, 6502-6510.	7.3	153
14	Chemical identification of point defects and adsorbates on a metal oxide surface by atomic force microscopy. Nanotechnology, 2006, 17, 3436-3441.	1.3	149
15	The role of reaction pathways and support interactions in the development of high activity hydrotreating catalysts. Catalysis Today, 2005, 107-108, 12-22.	2.2	145
16	Stabilization Principles for Polar Surfaces of ZnO. ACS Nano, 2011, 5, 5987-5994.	7.3	144
17	<i>In Situ</i> Detection of Active Edge Sites in Single-Layer MoS ₂ Catalysts. ACS Nano, 2015, 9, 9322-9330.	7.3	144
18	Electronic Structure of Epitaxial Single-Layer MoS ₂ . Physical Review Letters, 2015, 114, 046802.	2.9	140

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19	Observation of Ultrafast Free Carrier Dynamics in Single Layer MoS ₂ . Nano Letters, 2015, 15, 5883-5887.	4.5	138
20	Structure and Electronic Properties of <i>In Situ</i> Synthesized Single-Layer MoS ₂ on a Gold Surface. ACS Nano, 2014, 8, 6788-6796.	7.3	136
21	Single-layer MoS_2 on Au(111): Band gap renormalization and substrate interaction. Physical Review B, 2016, 93, .		
22	Synthesis of Epitaxial Single-Layer MoS ₂ on Au(111). Langmuir, 2015, 31, 9700-9706.	1.6	119
23	Edge reactivity and water-assisted dissociation on cobalt oxide nanoislands. Nature Communications, 2017, 8, 14169.	5.8	117
24	Atomic-scale insight into adsorption of sterically hindered dibenzothiophenes on MoS ₂ and CoMoS hydrotreating catalysts. Journal of Catalysis, 2012, 295, 146-154.	3.1	116
25	Atomic Scale Kelvin Probe Force Microscopy Studies of the Surface Potential Variations on the TiO_2 Surface. Journal of Catalysis, 2010, 272, 195-203.	2.9	115
26	Comparative atomic-scale analysis of promotional effects by late 3d-transition metals in MoS ₂ hydrotreating catalysts. Journal of Catalysis, 2010, 272, 195-203.	3.1	108
27	Atom-resolved scanning tunneling microscopy investigations of molecular adsorption on MoS ₂ and CoMoS hydrodesulfurization catalysts. Journal of Catalysis, 2015, 328, 49-58.	3.1	104
28	MoS ₂ nanoparticle morphologies in hydrodesulfurization catalysis studied by scanning tunneling microscopy. Journal of Catalysis, 2013, 308, 306-318.	3.1	101
29	A complete reaction mechanism for standard and fast selective catalytic reduction of nitrogen oxides on low coverage VO _x /TiO ₂ (001) catalysts. Journal of Catalysis, 2017, 346, 188-197.	3.1	101
30	Noncontact atomic force microscopy studies of vacancies and hydroxyls of TiO_2 surfaces. Physical Review B, 2007, 76, .	1.1	92
31	Ultrafast Band Structure Control of a Two-Dimensional Heterostructure. ACS Nano, 2016, 10, 6315-6322.	7.3	90
32	The Structure of the Cobalt Oxide/Au Catalyst Interface in Electrochemical Water Splitting. Angewandte Chemie - International Edition, 2018, 57, 11893-11897.	7.2	90
33	Imaging of the Hydrogen Subsurface Site in Rutile TiO_2 . Physical Review Letters, 2009, 102, 136103.	2.9	84
34	Detailed scanning probe microscopy tip models determined from simultaneous atom-resolved AFM and STM studies of the TiO_2 surface. Physical Review B, 2008, 78, .	1.1	81
35	Interface Controlled Oxidation States in Layered Cobalt Oxide Nanoislands on Gold. ACS Nano, 2015, 9, 2445-2453.	7.3	78
36	Stabilization mechanism for the polar ZnO(0001) surface. Physical Review B, 2013, 87, .	1.1	77

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37	Visualizing hydrogen-induced reshaping and edge activation in MoS ₂ and Co-promoted MoS ₂ catalyst clusters. Nature Communications, 2018, 9, 2211.	5.8	71
38	Growth and electronic structure of epitaxial single-layer WS ₂ on Au(111). Physical Review B, 2015, 92, .	0.1	68
39	Model Catalyst Surfaces Investigated by Scanning Tunneling Microscopy. Advances in Catalysis, 2006, 50, 97-147.	2.2	68
40	From atom-resolved scanning tunneling microscopy (STM) studies to the design of new catalysts. Catalysis Today, 2006, 111, 34-43.	4.5	68
41	Atomic-Scale Structure of MoS ₂ Nanowires. Nano Letters, 2008, 8, 3928-3931.	3.1	67
42	Atomic-scale insight into the origin of pyridine inhibition of MoS ₂ -based hydrotreating catalysts. Journal of Catalysis, 2010, 271, 280-289.	0.7	67
43	Atomic resolution non-contact atomic force microscopy of clean metal oxide surfaces. Journal of Physics Condensed Matter, 2010, 22, 263001.	1.3	65
44	Morphology and atomic-scale structure of single-layer WS ₂ nanoclusters. Physical Chemistry Chemical Physics, 2013, 15, 15971.	18.7	64
45	Scanning tunneling microscopy as a tool to study catalytically relevant model systems. Chemical Society Reviews, 2008, 37, 2191.	3.1	64
46	Spectroscopy, microscopy and theoretical study of NO adsorption on MoS ₂ and CoMoS hydrotreating catalysts. Journal of Catalysis, 2011, 279, 337-351.	3.1	61
47	Scanning tunneling microscopy studies of TiO ₂ -supported hydrotreating catalysts: Anisotropic particle shapes by edge-specific MoS ₂ support bonding. Journal of Catalysis, 2009, 263, 98-103.	1.5	61
48	Effect of Particle Morphology on the Ripening of Supported Pt Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 5646-5653.	0.8	58
49	Atomic-scale surface science phenomena studied by scanning tunneling microscopy. Surface Science, 2009, 603, 1315-1327.	2.9	58
50	Atomic-Scale Structure and Stability of the $\sqrt{31} \times \sqrt{31}$ of Al_2O_3 on Pt . Physical Review Letters	5.8	57
51	Enhanced wetting of Cu on ZnO by migration of subsurface oxygen vacancies. Nature Communications, 2015, 6, 8845.	0.8	54
52	Cobalt growth on two related close-packed noble metal surfaces. Surface Science, 2007, 601, 1967-1972.	3.1	53
53	Atomic scale analysis of sterical effects in the adsorption of 4,6-dimethyldibenzothiophene on a CoMoS hydrotreating catalyst. Journal of Catalysis, 2016, 344, 121-128.	1.3	53
54	The reaction mechanism for the SCR process on monomer V ⁵⁺ sites and the effect of modified Brønsted acidity. Physical Chemistry Chemical Physics, 2016, 18, 17071-17080.		

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55	Atomically Defined Iron Carbide Surface for Fischer-Tropsch Synthesis Catalysis. ACS Catalysis, 2019, 9, 1264-1273.	5.5	48
56	STM studies of model catalysts. Nano Today, 2007, 2, 30-39.	6.2	46
57	Stable Cation Inversion at the MgAl_2O_4 Surface. ACS Catalysis, 2019, 9, 1264-1273.	2.9	45
58	Site-dependent reactivity of MoS ₂ nanoparticles in hydrodesulfurization of thiophene. Nature Communications, 2020, 11, 4369.	5.8	44
59	Morphology, Dispersion, and Stability of Cu Nanoclusters on Clean and Hydroxylated $\text{Al}_2\text{O}_3(001)$ Substrates. Journal of Physical Chemistry C, 2008, 112, 16953-16960.	1.5	40
60	Morphology and Atomic-Scale Structure of MoS ₂ Nanoclusters Synthesized with Different Sulfiding Agents. Topics in Catalysis, 2014, 57, 207-214.	1.3	39
61	Gold-supported two-dimensional cobalt oxyhydroxide (CoOOH) and multilayer cobalt oxide islands. Physical Chemistry Chemical Physics, 2017, 19, 2425-2433.	1.3	38
62	The Effect of Fe Dopant Location in Co(Fe)OOH Nanoparticles for the Oxygen Evolution Reaction. ACS Nano, 2021, 15, 18226-18236.	7.3	37
63	Single-layer MoS ₂ formation by sulfidation of molybdenum oxides in different oxidation states on Au(111). Physical Chemistry Chemical Physics, 2017, 19, 14020-14029.	1.3	36
64	Coexistence of Square Pyramidal Structures of Oxo Vanadium (+5) and (+4) Species Over Low-Coverage VO _x /TiO ₂ (101) and (001) Anatase Catalysts. Journal of Physical Chemistry C, 2015, 119, 23445-23452.	1.5	34
65	Coexistence of Square Pyramidal Structures of Oxo Vanadium (+5) and (+4) Species Over Low-Coverage VO _x /TiO ₂ (101) and (001) Anatase Catalysts. Journal of Physical Chemistry C, 2015, 119, 23445-23452.		

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73	Adsorption of nitrogenous inhibitor molecules on MoS ₂ and CoMoS hydrodesulfurization catalysts particles investigated by scanning tunneling microscopy. <i>Journal of Catalysis</i> , 2019, 370, 232-240.	3.1	26
74	Structural Dynamics of Ultrathin Cobalt Oxide Nanoislands under Potential Control. <i>Advanced Functional Materials</i> , 2021, 31, 2009923.	7.8	26
75	Quantification of tip-broadening in non-contact atomic force microscopy with carbon nanotube tips. <i>Nanotechnology</i> , 2012, 23, 405705.	1.3	24
76	Effects of particle size and edge structure on the electronic structure, spectroscopic features, and chemical properties of Au(111)-supported MoS ₂ nanoparticles. <i>Faraday Discussions</i> , 2016, 188, 323-343.	1.6	22
77	Basal plane oxygen exchange of epitaxial MoS ₂ without edge oxidation. <i>2D Materials</i> , 2019, 6, 045013.	2.0	22
78	The role of tip size and orientation, tip surface relaxations and surface impurities in simultaneous AFM and STM studies on the TiO ₂ (110) surface. <i>Nanotechnology</i> , 2009, 20, 264020.	1.3	21
79	Atomic-Scale View of the Oxidation and Reduction of Supported Ultrathin FeO Islands. <i>ACS Nano</i> , 2019, 13, 11632-11641.	7.3	21
80	Non-contact atomic force microscopy study of hydroxyl groups on the spinel MgAl ₂ O ₄ (100) surface. <i>Nanotechnology</i> , 2012, 23, 325703.	1.3	19
81	Subsurface hydrogen bonds at the polar Zn-terminated ZnO(0001) surface. <i>Physical Review B</i> , 2016, 94, .	1.1	19
82	Formation and sintering of Pt nanoparticles on vicinal TiO ₂ surfaces. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 21289-21299.	1.3	17
83	Coverage-dependent oxidation and reduction of vanadium supported on anatase TiO ₂ (110). <i>Journal of Catalysis</i> , 2018, 360, 118-126.	3.1	16
84	The Structure of the Cobalt Oxide/Au Catalyst Interface in Electrochemical Water Splitting. <i>Angewandte Chemie</i> , 2018, 130, 12069-12073.	1.6	16
85	Non-contact atomic force microscopy imaging of atomic structure and cation defects of the polar MgAl ₂ O ₄ (100) surface. Experiments and first-principles simulations. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9424-9431.	1.1	15
86	Facile embedding of single vanadium atoms at the anatase TiO ₂ (101) surface. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9424-9431.	1.3	15
87	Sulfur-driven switching of the Ullmann coupling on Au(111). <i>Chemical Communications</i> , 2018, 54, 3621-3624.	2.2	15
88	Monolayer Iron Carbide Films on Au(111) as a Fischer-Tropsch Model Catalyst. <i>ACS Catalysis</i> , 2014, 4, 3255-3260.	5.5	14
89	Structure and Stability of Au-Supported Layered Cobalt Oxide Nanoislands in Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2019, 123, 9176-9182.	1.5	14
90	Structural and electronic properties of Fe dopants in cobalt oxide nanoislands on Au(111). <i>Journal of Chemical Physics</i> , 2019, 150, 041731.	1.2	14

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91	Noncontact atomic force microscopy study of the spinel $\text{MgAl}_2\text{O}_4(111)$ surface. <i>Beilstein Journal of Nanotechnology</i> , 2012, 3, 192-197. Atomic Structure of a Spinel-Like Transition	1.5	13
92	Step edge structures on the anatase $\text{TiO}_2(001)$ surface studied by atomic-resolution TEM and STM. <i>Faraday Discussions</i> , 2018, 208, 325-338.	1.6	13
93	Nanoscale Chevrel-Phase Mo_6S_8 Prepared by a Molecular Precursor Approach for Highly Efficient Electrocatalysis of the Hydrogen Evolution Reaction in Acidic Media. <i>ACS Applied Energy Materials</i> , 2021, 4, 13015-13026.	2.5	12
94	Enevoldsen <i>et al.</i> Reply. <i>Physical Review Letters</i> , 2010, 104, .	2.9	11
95	$\text{Al}_2\text{O}_3(112\bar{1},0)$ surface as a template for the ordered growth of Ni and Co nanoclusters. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 2092.	1.3	11
96	NH_3 adsorption on anatase- $\text{TiO}_2(101)$. <i>Journal of Chemical Physics</i> , 2018, 148, 124704.	1.2	11
97	Structure of CoO Thin Films on $\text{Pt}(111)$ in Oxidation of CO. <i>Journal of Physical Chemistry C</i> , 2019, 123, 17407-17415.	1.5	11
98	Ordering of monodisperse Ni nanoclusters by templating on high-temperature reconstructed $\bar{1}\pm\text{-Al}_2\text{O}_3(0001)$. <i>Nanotechnology</i> , 2010, 21, 265602.	1.3	10
99	Adsorption and reaction of methanol on $\text{Fe}_3\text{O}_4(001)$. <i>Journal of Chemical Physics</i> , 2020, 152, 064703.	1.2	10
100	Correlation between stoichiometry and surface structure of the polar $\text{MgAl}_2\text{O}_4(100)$ surface as a function of annealing temperature. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 5795-5804.	1.3	9
101	Dissociation of water on atomically-defined cobalt oxide nanoislands on $\text{Pt}(111)$ and its effect on the adsorption of CO. <i>Journal of Materials Research</i> , 2019, 34, 379-393.	1.2	9
102	Spectroscopic view of ultrafast charge carrier dynamics in single- and bilayer transition metal dichalcogenide semiconductors. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2021, 250, 147093.	0.8	9
103	WO_3 Monomers Supported on Anatase $\text{TiO}_2(101)$, $\bar{1}10(001)$, and Rutile $\text{TiO}_2(110)$: A Comparative STM and XPS Study. <i>Journal of Physical Chemistry C</i> , 2022, 126, 2493-2502.	1.5	8
104	Applications of high-resolution scanning probe microscopy in hydroprocessing catalysis studies. <i>Journal of Catalysis</i> , 2021, 403, 4-15.	3.1	7
105	Electronic properties of single-layer $\text{CoO}/\text{Au}(111)$. <i>2D Materials</i> , 2021, 8, 035050.	2.0	7
106	The cobalt oxidation state in preferential CO oxidation on $\text{CoO}/\text{Pt}(111)$ investigated by <i>operando</i> X-ray photoemission spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2022, , .	1.3	7
107	Cubes on a string: a series of linear coordination polymers with cubane-like nodes and dicarboxylate linkers. <i>Nanoscale</i> , 2020, 12, 11601-11611.	2.8	6

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109	Molecular Nanowire Bonding to Epitaxial Single-Layer MoS ₂ by an On-Surface Ullmann Coupling Reaction. <i>Small</i> , 2020, 16, 1906892.	5.2	6
110	A versatile electrochemical cell for hanging meniscus or flow cell measurement of planar model electrodes characterized with scanning tunneling microscopy and x-ray photoelectron spectroscopy. <i>Review of Scientific Instruments</i> , 2021, 92, 094101.	0.6	5
111	Monomeric two-dimensionally ordered tungsten trioxide clusters on anatase TiO ₂ : Diffusion mechanisms and the effect of intermolecular repulsion. <i>Physical Review Materials</i> , 2020, 4,	0.9	5
112	Electrically Tunable Reactivity of Substrate-Supported Cobalt Oxide Nanocrystals. <i>Small</i> , 2022, 18, e2106407.	5.2	5
113	Iron carbide formation on thin iron films grown on Cu(1 0 0): FCC iron stabilized by a stable surface carbide. <i>Applied Surface Science</i> , 2022, 585, 152684.	3.1	5
114	Anisotropic iron-doping patterns in two-dimensional cobalt oxide nanoislands on Au(111). <i>Nano Research</i> , 2019, 12, 2364-2372.	5.8	4
115	Preparation and Characterization of V ₂ O ₅ /a-TiO ₂ (101) Model Catalysts. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26916-26924.	1.5	4
116	Direct Integration of Few-Layer MoS ₂ at Plasmonic Au Nanostructure by Substrate-Diffusion Delivered Mo. <i>Advanced Materials Interfaces</i> , 2020, 7, 1902093.	1.9	4
117	Size-dependent phase stability in transition metal dichalcogenide nanoparticles controlled by metal substrates. <i>Nanoscale</i> , 2021, 13, 10167-10180.	2.8	4
118	Lateral Interfaces between Monolayer MoS ₂ Edges and Armchair Graphene Nanoribbons on Au(111). <i>ACS Nano</i> , 2021, 15, 6699-6708.	7.3	4
119	Noncontact AFM Imaging of Atomic Defects on the Rutile TiO ₂ (110) Surface. <i>Springer Series in Surface Sciences</i> , 2015, , 241-272.	0.3	2
120	Water dissociation on Mixed Co-Fe oxide bilayer nanoislands on Au(111). <i>Journal of Physics Condensed Matter</i> , 2022, , .	0.7	2
121	Application of Atom-resolved Scanning Tunneling Microscopy in Catalysis Research. <i>Nanoscience and Technology</i> , 2007, , 197-224.	1.5	1
122	Monomeric two-dimensionally ordered tungsten trioxide clusters on anatase TiO ₂	0.9	1
123	Adsorption and Reaction of NH ₃ on Rutile TiO ₂ (110): An STM Study. <i>Journal of Physical Chemistry C</i> , 2022, 126, 6590-6600.	1.5	1
124	Surface Topotactic Growth of Edge-Terminated MoS ₂ Catalysts. <i>Microscopy and Microanalysis</i> , 2019, 25, 1456-1457.	0.2	0