Jeppe V Lauritsen

List of Publications by Year
in descending order

124 papers	9,546 citations	34016 52 h-index	37111 96 g-index
127 all docs	127 docs citations	127 times ranked	9905 citing authors

#	Article	IF	Citations
1	Electrically Tunable Reactivity of Substrateâ€Supported Cobalt Oxide Nanocrystals. Small, 2022, 18, e2106407.	5.2	5
2	Water dissociation on Mixed Co-Fe oxide bilayer nanoislands on Au(111). Journal of Physics Condensed Matter, 2022, , .	0.7	2
3	Iron carbide formation on thin iron films grown on Cu(1 0 0): FCC iron stabilized by a stable surface carbide. Applied Surface Science, 2022, 585, 152684.	3.1	5
4	WO₃ Monomers Supported on Anatase TiO₂(101), â^'(001), and Rutile TiO₂(110): A Comparative STM and XPS Study. Journal of Physical Chemistry C, 2022, 126, 2493-2502.	1.5	8
5	The cobalt oxidation state in preferential CO oxidation on CoO_x/Pt(111) investigated by operando X-ray photoemission spectroscopy. Physical Chemistry Chemical Physics, 2022, , .	1.3	7
6	Adsorption and Reaction of NH₃ on Rutile TiO₂(110): An STM Study. Journal of Physical Chemistry C, 2022, 126, 6590-6600.	1.5	1
7	Size-dependent phase stability in transition metal dichalcogenide nanoparticles controlled by metal substrates. Nanoscale, 2021, 13, 10167-10180.	2.8	4
8	Applications of high-resolution scanning probe microscopy in hydroprocessing catalysis studies. Journal of Catalysis, 2021, 403, 4-15.	3.1	7
9	Lateral Interfaces between Monolayer MoS2 Edges and Armchair Graphene Nanoribbons on Au(111). ACS Nano, 2021, 15, 6699-6708.	7.3	4
10	Electronic properties of single-layer CoO₂/Au(111). 2D Materials, 2021, 8, 035050.	2.0	7
11	Spectroscopic view of ultrafast charge carrier dynamics in single- and bilayer transition metal dichalcogenide semiconductors. Journal of Electron Spectroscopy and Related Phenomena, 2021, 250, 147093.	0.8	9
12	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. Review of Scientific Instruments, 2021, 92, 094101.	0.6	5
13	Structural Dynamics of Ultrathin Cobalt Oxide Nanoislands under Potential Control. Advanced Functional Materials, 2021, 31, 2009923.	7.8	26
14	Nanoscale Chevrel-Phase Mo₆S₈ Prepared by a Molecular Precursor Approach for Highly Efficient Electrocatalysis of the Hydrogen Evolution Reaction in Acidic Media. ACS Applied Energy Materials, 2021, 4, 13015-13026.	2.5	12
15	The Effect of Fe Dopant Location in Co(Fe)OOH_x Nanoparticles for the Oxygen Evolution Reaction. ACS Nano, 2021, 15, 18226-18236.	7.3	37
16	Preparation and Characterization of V₂O₅/a-TiO₂(101) Model Catalysts. Journal of Physical Chemistry C, 2020, 124, 26916-26924.	1.5	4
17	Site-dependent reactivity of MoS2 nanoparticles in hydrodesulfurization of thiophene. Nature Communications, 2020, 11, 4369.	5.8	44
18	Cubes on a string: a series of linear coordination polymers with cubane-like nodes and dicarboxylate linkers. Nanoscale, 2020, 12, 11601-11611.	2.8	6

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19	Direct Integration of Fewâ€Layer MoS 2 at Plasmonic Au Nanostructure by Substrateâ€Diffusion Delivered Mo. Advanced Materials Interfaces, 2020, 7, 1902093.	1.9	4
20	Molecular Nanowire Bonding to Epitaxial Singleâ€Layer MoS 2 by an Onâ€Surface Ullmann Coupling Reaction. Small, 2020, 16, 1906892.	5.2	6
21	Adsorption and reaction of methanol on Fe3O4(001). Journal of Chemical Physics, 2020, 152, 064703.	1.2	10
22	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi mathvariant="normal">NH</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> on anatase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml	0.9	5
23	Diffusion mechanisms and the effect of intermolecular repulsion. Physical Review Materials, 2020, 4, <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">W</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> clusters on anatase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ti</mml:mi><mml:msub><mml:mi	0.9	1
24	Anisotropic iron-doping patterns in two-dimensional cobalt oxide nanoislands on Au(111). Nano Research, 2019, 12, 2364-2372.	5.8	4
25	Basal plane oxygen exchange of epitaxial MoS ₂ without edge oxidation. 2D Materials, 2019, 6, 045013.	2.0	22
26	Structure of CoO_x Thin Films on Pt(111) in Oxidation of CO. Journal of Physical Chemistry C, 2019, 123, 17407-17415.	1.5	11
27	Atomic-Scale View of the Oxidation and Reduction of Supported Ultrathin FeO Islands. ACS Nano, 2019, 13, 11632-11641.	7.3	21
28	Surface Topotactic Growth of Edge-Terminated MoS2 Catalysts. Microscopy and Microanalysis, 2019, 25, 1456-1457.	0.2	0
29	Dissociation of water on atomically-defined cobalt oxide nanoislands on Pt(111) and its effect on the adsorption of CO. Journal of Materials Research, 2019, 34, 379-393.	1.2	9
30	Structure and Stability of Au-Supported Layered Cobalt Oxide Nanoislands in Ambient Conditions. Journal of Physical Chemistry C, 2019, 123, 9176-9182.	1.5	14
31	Structural and electronic properties of Fe dopants in cobalt oxide nanoislands on Au(111). Journal of Chemical Physics, 2019, 150, 041731.	1.2	14
32	Atomically Defined Iron Carbide Surface for Fischerâ€“Tropsch Synthesis Catalysis. ACS Catalysis, 2019, 9, 1264-1273.	5.5	48
33	Adsorption of nitrogenous inhibitor molecules on MoS2 and CoMoS hydrodesulfurization catalysts particles investigated by scanning tunneling microscopy. Journal of Catalysis, 2019, 370, 232-240.	3.1	26
34	Coverage-dependent oxidation and reduction of vanadium supported on anatase TiO2(1â€¯0â€¯1). Journal of Catalysis, 2018, 360, 118-126.	3.1	16
35	Step edge structures on the anatase TiO₂ (001) surface studied by atomic-resolution TEM and STM. Faraday Discussions, 2018, 208, 325-338.	1.6	13
36	Controllable etching of MoS2 basal planes for enhanced hydrogen evolution through the formation of active edge sites. Nano Energy, 2018, 49, 634-643.	8.2	220

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37	NH3 adsorption on anatase-TiO2(101). Journal of Chemical Physics, 2018, 148, 124704.	1.2	11
38	Sulfur-driven switching of the Ullmann coupling on Au(111). Chemical Communications, 2018, 54, 3621-3624.	2.2	15
39	Phase Transitions of Cobalt Oxide Bilayers on Au(111) and Pt(111): The Role of Edge Sites and Substrate Interactions. Journal of Physical Chemistry B, 2018, 122, 561-571.	1.2	26
40	Water Dissociation and Hydroxyl Ordering on Anatase <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>TiO</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m stretchy="false">(</mml:mo><mml:mn>001</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 612 Td (stretchy="false">)</mn		

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55	The reaction mechanism for the SCR process on monomer V⁵⁺ sites and the effect of modified BrÃ¸nsted acidity. Physical Chemistry Chemical Physics, 2016, 18, 17071-17080.	1.3	53
56	Effects of particle size and edge structure on the electronic structure, spectroscopic features, and chemical properties of Au(111)-supported MoS₂ nanoparticles. Faraday Discussions, 2016, 188, 323-343.	1.6	22
57	Correlation between stoichiometry and surface structure of the polar MgAl₂O₄(100) surface as a function of annealing temperature. Physical Chemistry Chemical Physics, 2015, 17, 5795-5804.	1.3	9
58	Atom-resolved scanning tunneling microscopy investigations of molecular adsorption on MoS2 and CoMoS hydrodesulfurization catalysts. Journal of Catalysis, 2015, 328, 49-58.	3.1	104
59	Van der Waals Epitaxy of Two-Dimensional MoS₂â€“Graphene Heterostructures in Ultrahigh Vacuum. ACS Nano, 2015, 9, 6502-6510.	7.3	153
60	Growth and electronic structure of epitaxial single-layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mtext>WS</mml:mtext><mml:mn>2</mml:mn></mml:msub Au(111). Physical Review B, 2015, 92, .	1.1	70
61	Noncontact AFM Imaging of Atomic Defects on the Rutile TiO2(110) Surface. Springer Series in Surface Sciences, 2015, , 241-272.	0.3	2
62	Electronic Structure of Epitaxial Single-Layer<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi>MoS</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2015, 114, 046802.	2.9	140
63	Interface Controlled Oxidation States in Layered Cobalt Oxide Nanoislands on Gold. ACS Nano, 2015, 9, 2445-2453.	7.3	78
64	In Situ Detection of Active Edge Sites in Single-Layer MoS₂ Catalysts. ACS Nano, 2015, 9, 9322-9330.	7.3	144
65	Coexistence of Square Pyramidal Structures of Oxo Vanadium (+5) and (+4) Species Over Low-Coverage VO_X/TiO₂ (101) and (001) Anatase Catalysts. Journal of Physical Chemistry C, 2015, 119, 23445-23452.	1.5	34
66	Synthesis of Epitaxial Single-Layer MoS₂ on Au(111). Langmuir, 2015, 31, 9700-9706.	1.6	119
67	Observation of Ultrafast Free Carrier Dynamics in Single Layer MoS₂. Nano Letters, 2015, 15, 5883-5887.	4.5	138
68	Enhanced wetting of Cu on ZnO by migration of subsurface oxygen vacancies. Nature Communications, 2015, 6, 8845.	5.8	57
69	Nucleation and growth of Pt nanoparticles on reduced and oxidized rutile TiO2 (110). Journal of Chemical Physics, 2014, 141, 214702.	1.2	27
70	Morphology and Atomic-Scale Structure of MoS2 Nanoclusters Synthesized with Different Sulfiding Agents. Topics in Catalysis, 2014, 57, 207-214.	1.3	39
71	Formation and sintering of Pt nanoparticles on vicinal rutile TiO₂ surfaces. Physical Chemistry Chemical Physics, 2014, 16, 21289-21299.	1.3	17
72	Atomic Structure of a Spinel-Like Transition<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Al</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:mrow><mml:msub><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow><mml:mo stretchy="false">(</mml:mo><mml:mn>100</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 47 Td (stretchy="false">)</mml	2.9	13

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73	Monolayer Iron Carbide Films on Au(111) as a Fischerâ€“Tropsch Model Catalyst. ACS Catalysis, 2014, 4, 3255-3260.	5.5	14
74	Structure and Electronic Properties of In Situ Synthesized Single-Layer MoS₂ on a Gold Surface. ACS Nano, 2014, 8, 6788-6796.	7.3	136
75	Stabilization mechanism for the polar ZnO(000<mml:math) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 672 Td (xmlns:mml="http:/ Physical Review B, 2013, 87, .	1.1	77
76	MoS2 nanoparticle morphologies in hydrodesulfurization catalysis studied by scanning tunneling microscopy. Journal of Catalysis, 2013, 308, 306-318.	3.1	101
77	Morphology and atomic-scale structure of single-layer WS2 nanoclusters. Physical Chemistry Chemical Physics, 2013, 15, 15971.	1.3	65
78	Quantification of tip-broadening in non-contact atomic force microscopy with carbon nanotube tips. Nanotechnology, 2012, 23, 405705.	1.3	24
79	Non-contact atomic force microscopy study of hydroxyl groups on the spinel MgAl2O4(100) surface. Nanotechnology, 2012, 23, 325703.	1.3	19
80	Atomic-scale insight into adsorption of sterically hindered dibenzothiophenes on MoS2 and Coâ€“Moâ€“S hydrotreating catalysts. Journal of Catalysis, 2012, 295, 146-154.	3.1	116
81	Al2O3(112Ì„0) surface as a template for the ordered growth of Ni and Co nanoclusters. Physical Chemistry Chemical Physics, 2012, 14, 2092.	1.3	11
82	Effect of Particle Morphology on the Ripening of Supported Pt Nanoparticles. Journal of Physical Chemistry C, 2012, 116, 5646-5653.	1.5	61
83	Noncontact atomic force microscopy study of the spinel MgAl₂O₄(111) surface. Beilstein Journal of Nanotechnology, 2012, 3, 192-197.	1.5	13
84	Stabilization Principles for Polar Surfaces of ZnO. ACS Nano, 2011, 5, 5987-5994.	7.3	144
85	Spectroscopy, microscopy and theoretical study of NO adsorption on MoS2 and Coâ€“Moâ€“S hydrotreating catalysts. Journal of Catalysis, 2011, 279, 337-351.	3.1	64
86	An atomic-scale investigation of carbon in MoS2 hydrotreating catalysts sulfided by organosulfur compounds. Journal of Catalysis, 2011, 281, 345-351.	3.1	30
87	Stable Cation Inversion at the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>MgAl</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:mo Noncontact atomic force microscopy imaging of atomic structure and cation defects of the polar<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>O<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>4</mml:mn></mml:msub></mml:math>(100) surface: Experiments and first-principles simula	2.9	45
88	Atomic-scale insight into the origin of pyridine inhibition of MoS2-based hydrotreating catalysts. Journal of Catalysis, 2010, 271, 280-289.	3.1	67
89	Comparative atomic-scale analysis of promotional effects by late 3d-transition metals in MoS2 hydrotreating catalysts. Journal of Catalysis, 2010, 272, 195-203.	3.1	108
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91	EnevoldsenetÂal.Reply:. Physical Review Letters, 2010, 104, .	2.9	11
92	Ordering of monodisperse Ni nanoclusters by templating on high-temperature reconstructed Î±-Al2O3(0001). Nanotechnology, 2010, 21, 265602.	1.3	10
93	Atomic resolution non-contact atomic force microscopy of clean metal oxide surfaces. Journal of Physics Condensed Matter, 2010, 22, 263001.	0.7	67
94	Size Threshold in the Dibenzothiophene Adsorption on MoS₂Nanoclusters. ACS Nano, 2010, 4, 4677-4682.	7.3	158
95	Unravelling the atomic structure of cross-linked (1 Ã— 2) TiO2(110). Physical Chemistry Chemical Physics, 2010, 12, 12436.	1.3	26
96	Imaging of the Hydrogen Subsurface Site in Rutile<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2009, 102, 136103.	2.9	84
97	The role of tip size and orientation, tipâ€“surface relaxations and surface impurities in simultaneous AFM and STM studies on the TiO2(110) surface. Nanotechnology, 2009, 20, 264020.	1.3	21
98	Scanning tunneling microscopy studies of TiO2-supported hydrotreating catalysts: Anisotropic particle shapes by edge-specific MoS2â€“support bonding. Journal of Catalysis, 2009, 263, 98-103.	3.1	61
99	Atomic-scale surface science phenomena studied by scanning tunneling microscopy. Surface Science, 2009, 603, 1315-1327.	0.8	58
100	Atomic-Scale Structure and Stability of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msqrt><mml:mn>31</mml:mn></mml:msqrt><mml:mo>Ã—</mml:mo><mml:msqrt><mml:mn>31</mml:mn></mml:msqrt></mml:math> of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>Al</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="bold">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> st. Physical Review Letters	2.9	58
101	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
102	Morphology, Dispersion, and Stability of Cu Nanoclusters on Clean and Hydroxylated Î±-Al₂O₃(0001) Substrates. Journal of Physical Chemistry C, 2008, 112, 16953-16960.	1.5	40
103	Scanning tunneling microscopy as a tool to study catalytically relevant model systems. Chemical Society Reviews, 2008, 37, 2191.	18.7	64
104	Atomic-Scale Structure of Mo₆S₆ Nanowires. Nano Letters, 2008, 8, 3928-3931.	4.5	68
105	Detailed scanning probe microscopy tip models determined from simultaneous atom-resolved AFM and STM studies of the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:mrow></mml:math> Physical Review B, 2008, 78, .	1.1	81
106	Atomic Scale Kelvin Probe Force Microscopy Studies of the Surface Potential Variations on the<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:mn>110</mml:mn><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 127 Td (stretchy="false">)</mml:mo>	2.9	115
107	Restructuring of Cobalt Nanoparticles Induced by Formation and Diffusion of Monodisperse Metal-Sulfur Complexes. Physical Review Letters, 2008, 100, 116104.	2.9	28
108	STM studies of model catalysts. Nano Today, 2007, 2, 30-39.	6.2	46

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109	Size-dependent structure of MoS2 nanocrystals. Nature Nanotechnology, 2007, 2, 53-58.	15.6	638
110	Location and coordination of promoter atoms in Co- and Ni-promoted MoS2-based hydrotreating catalysts. Journal of Catalysis, 2007, 249, 220-233.	3.1	428
111	Noncontact atomic force microscopy studies of vacancies and hydroxyls of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="normal">Ti</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mn>110</mml:mn> Experiments and atomistic simulations. Physical Review B, 2007, 76, .	1.1	92
112	Cobalt growth on two related close-packed noble metal surfaces. Surface Science, 2007, 601, 1967-1972.	0.8	54
113	Application of Atom-resolved Scanning Tunneling Microscopy in Catalysis Research. Nanoscience and Technology, 2007, , 197-224.	1.5	1
114	Clusterâ^'Support Interactions and Morphology of MoS2Nanoclusters in a Graphite-Supported Hydrotreating Model Catalyst. Journal of the American Chemical Society, 2006, 128, 13950-13958.	6.6	172
115	Model Catalyst Surfaces Investigated by Scanning Tunneling Microscopy. Advances in Catalysis, 2006, 50, 97-147.	0.1	68
116	Chemical identification of point defects and adsorbates on a metal oxide surface by atomic force microscopy. Nanotechnology, 2006, 17, 3436-3441.	1.3	149
117	From atom-resolved scanning tunneling microscopy (STM) studies to the design of new catalysts. Catalysis Today, 2006, 111, 34-43.	2.2	68
118	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
119	Atomic-scale insight into structure and morphology changes of MoS2 nanoclusters in hydrotreating catalysts. Journal of Catalysis, 2004, 221, 510-522.	3.1	379
120	Hydrodesulfurization reaction pathways on MoS2 nanoclusters revealed by scanning tunneling microscopy. Journal of Catalysis, 2004, 224, 94-106.	3.1	308
121	Chemistry of one-dimensional metallic edge states in MoS2nanoclusters. Nanotechnology, 2003, 14, 385-389.	1.3	212
122	Atomic-Scale Structure of Coâ€“Moâ€“S Nanoclusters in Hydrotreating Catalysts. Journal of Catalysis, 2001, 197, 1-5.	3.1	331
123	One-Dimensional Metallic Edge States inMoS2. Physical Review Letters, 2001, 87, 196803.	2.9	563
124	Atomic-Scale Structure of Single-LayerMoS2Nanoclusters. Physical Review Letters, 2000, 84, 951-954.	2.9	801