

# Mats A GÃthelid

## List of Publications by Year in descending order

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123  
papers

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186209

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124  
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124  
docs citations

124  
times ranked

3122  
citing authors

#	ARTICLE	IF	CITATIONS
1	The thickness of native oxides on aluminum alloys and single crystals. Applied Surface Science, 2015, 349, 826-832.	3.1	174
2	Water Adsorption on ZnO(0001): Transition from Triangular Surface Structures to a Disordered Hydroxyl Terminated phase. Journal of Physical Chemistry C, 2010, 114, 11157-11161.	1.5	93
3	Atomic structure of Cu <sub>2</sub> O(111). Surface Science, 2009, 603, 257-264.	0.8	92
4	Studies on the adsorption of chromium(VI) onto 3-Mercaptopropionic acid coated superparamagnetic iron oxide nanoparticles. Journal of Colloid and Interface Science, 2014, 425, 36-43.	5.0	87
5	Surface core-level shifts of Si(111)7Å-7: A fundamental reassessment. Physical Review B, 1994, 50, 14277-14282.	1.1	74
6	Adsorption of Sn on Si(111)7 Å-7: reconstructions in the monolayer regime. Surface Science, 1994, 314, 179-187.	0.8	68
7	Bridge-bonded atomic oxygen on Pt(110). Physical Review B, 2000, 61, 13144-13149.	1.1	67
8	Sm- and Yb-induced reconstructions of the Si(111) surface. Physical Review B, 1993, 48, 11014-11019.	1.1	60
9	Role of Defects in Surface Chemistry on Cu <sub>2</sub> O(111). Journal of Physical Chemistry C, 2013, 117, 19357-19364.	1.5	52
10	Studies of highly oriented CeO <sub>2</sub> films grown on Si(111) by pulsed laser deposition. Thin Solid Films, 1999, 348, 3-7.	0.8	50
11	The Surface Structure of Cu <sub>2</sub> O(100). Journal of Physical Chemistry C, 2016, 120, 4373-4381.	1.5	46
12	Sn-induced surface reconstructions on the Ge(111) surface studied with scanning tunneling microscopy. Surface Science, 1992, 271, L357-L361.	0.8	42
13	Adatom and rest-atom contributions in Ge(111)c(2Å-8) and Ge(111)-Sn(7Å-7) core-level spectra. Physical Review B, 1993, 48, 2012-2015.	1.1	42
14	Oxygen structures on Fe(110). Surface Science, 2003, 527, 163-172.	0.8	42
15	Strong Interactions in Dye-Sensitized Interfaces. Journal of Physical Chemistry C, 2008, 112, 5972-5977.	1.5	42
16	Initial growth of silver on Ge(111) studied by scanning tunneling microscopy. Physical Review B, 1993, 47, 15669-15674.	1.1	41
17	Reaction of I <sub>2</sub> with the (001) surfaces of GaAs, InAs, and InSb. I. Chemical interaction with the substrate. Physical Review B, 1996, 54, 2101-2113.	1.1	40
18	4-tert-Butyl Pyridine Bond Site and Band Bending on TiO <sub>2</sub> (110). Journal of Physical Chemistry C, 2010, 114, 2315-2320.	1.5	40

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19	Hydrogen adsorption on the -Sn surface alloy studied by high resolution core level photoelectron spectroscopy. Applied Surface Science, 1996, 99, 371-378.	3.1	37
20	Bonding of metal-free phthalocyanine to TiO <sub>2</sub> (110) single crystal. Solar Energy Materials and Solar Cells, 2006, 90, 3602-3613.	3.0	35
21	An Incommensurate Reconstruction Studied with Scanning Tunnelling Microscopy and Surface X-Ray Diffraction. Microscopy Microanalysis Microstructures, 1997, 8, 167-174.	0.4	35
22	Electronic and geometric structure of clean Pt <sub>3</sub> Ti(111). Physical Review B, 1994, 50, 5620-5627.	1.1	34
23	Adsorption of tin on the Ge(111)-c(2 $\sqrt{3}$ × 8) surface studied with scanning tunneling microscopy and photoelectron spectroscopy. Surface Science, 1995, 328, 80-94.	0.8	33
24	NH <sub>3</sub> on Si(111) 7 $\sqrt{3}$ × 7: Dissociation and surface reactions. Physical Review B, 1998, 57, 2327-2333.	1.1	33
25	STM and XPS characterization of zinc phthalocyanine on InSb(001). Surface Science, 2008, 602, 452-459.	0.8	33
26	Atomic structure of the As-rich InAs(100) $\sqrt{2}$ × $\sqrt{2}$ (2 $\sqrt{3}$ × 4) surface. Physical Review B, 1999, 59, 15285-15289.	1.1	31
27	Structural and electronic evolution on the Ge(111)-Ag surface. Physical Review B, 1995, 52, 14104-14110.	1.1	30
28	Reaction of oxygen and sulphur dioxide with Cu(100)-c(2 $\sqrt{3}$ × 2)-Mn surface alloy. Surface Science, 1998, 408, 326-334.	0.8	29
29	Electrochemical Performance and in Operando Charge Efficiency Measurements of Cu/Sn-Doped Nano Iron Electrodes. Batteries, 2019, 5, 1.	2.1	29
30	Solution of Ge(111)-(4 $\sqrt{3}$ × 4)-Ag structure using direct methods applied to X-ray diffraction data. Surface Science, 1998, 418, 395-406.	0.8	28
31	Oxygen-deficient SnO <sub>2</sub> (110): a STM, LEED and XPS study. Surface Science, 2001, 477, 50-58.	0.8	28
32	Electronic structure of SnO <sub>2</sub> (110)-4 $\sqrt{3}$ × 1 and sputtered SnO <sub>2</sub> (110) revealed by resonant photoemission. Surface Science, 2002, 499, 85-93.	0.8	28
33	Adsorption geometry, molecular interaction, and charge transfer of triphenylamine-based dye on rutile TiO <sub>2</sub> (110). Journal of Chemical Physics, 2010, 133, 224704.	1.2	28
34	Iodine reaction and passivation of the Ge(111) surface. Surface Science, 1997, 371, 264-276.	0.8	26
35	Inhomogeneous charge transfer within monolayer zinc phthalocyanine absorbed on TiO <sub>2</sub> (110). Journal of Chemical Physics, 2012, 136, 154703.	1.2	25
36	Self-Assembled Monolayers as Inhibitors for the Atmospheric Corrosion of Copper Induced by Formic Acid: A Comparison between Hexanethiol and Hexaneselenol. Journal of the Electrochemical Society, 2014, 161, C50-C56.	1.3	25

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37	NiFeOx as a Bifunctional Electrocatalyst for Oxygen Reduction (OR) and Evolution (OE) Reaction in Alkaline Media. <i>Catalysts</i> , 2018, 8, 328.	1.6	25
38	Synchrotron radiation photoelectron spectroscopy study of Pb-Pc thin films on InSb(100)-(4Å <sup>2</sup> )/c(8Å <sup>2</sup> ). <i>Surface Science</i> , 2001, 486, 55-64.	0.8	24
39	Modification of Charge Transfer and Energy Level Alignment at Organic/TiO <sub>2</sub> Interfaces. <i>Journal of Physical Chemistry C</i> , 2009, 113, 13765-13771.	1.5	24
40	Geometry of the Ge(111)-Au(√3 Å × √3)R30° reconstruction. <i>Physical Review B</i> , 1994, 50, 4470-4475.	1.1	23
41	Observation of true c(8 Å × 2) symmetry in scanning tunnelling microscopy images of the clean InSb(001) surface. <i>Surface Science</i> , 1996, 350, L221-L226.	0.8	23
42	Dehydrogenation of methanol on Cu <sub>2</sub> O(100) and (111). <i>Journal of Chemical Physics</i> , 2017, 146, 244702.	1.2	23
43	High-resolution core-level studies of VC <sub>0.80</sub> surfaces. <i>Physical Review B</i> , 1993, 47, 10769-10774.	1.1	22
44	Influence of O and Co on the early stages of sintering of WC-Co: a surface study by AES and STM. <i>Acta Materialia</i> , 2000, 48, 4357-4362.	3.8	22
45	Etching and a disordered overlayer on the Ge(100)-S surface. <i>Applied Surface Science</i> , 1997, 115, 87-95.	3.1	21
46	Reactivity at the Cu <sub>2</sub> O(100):CuH <sub>2</sub> O interface: a combined DFT and PES study. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 30570-30584.	1.3	21
47	Adsorption of SO <sub>2</sub> on Cu(100) and Cu(100)-c(2 Å × 2)-O surfaces studied with photoelectron spectroscopy. <i>Vacuum</i> , 1998, 49, 171-174.	1.6	20
48	CeO <sub>2</sub> on Si(111) 7 Å × 7 and Si(111)H 1 Å × 1, an interface study by high-resolution photoelectron spectroscopy. <i>Applied Surface Science</i> , 1999, 148, 164-170.	3.1	20
49	Investigation of the surface phase diagram of Fe(S). <i>Surface Science</i> , 2002, 515, 135-142.	0.8	19
50	Highly crystalline MAPbI <sub>3</sub> perovskite grain formation by irreversible poor-solvent diffusion aggregation, for efficient solar cell fabrication. <i>Nano Energy</i> , 2020, 78, 105346.	8.2	19
51	Light-induced rearrangements of chemisorbed dyes on anatase(101). <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 10780.	1.3	18
52	CO Oxidation Efficiency and Hysteresis Behavior over Mesoporous Pd/SiO <sub>2</sub> Catalyst. <i>Catalysts</i> , 2021, 11, 131.	1.6	17
53	Atomic origins of the Si 2 p surface core-level shifts of the prototypical Si(111) √3 Å × √3 R(30°)-Ag structure. <i>Europhysics Letters</i> , 1999, 45, 65-70.	0.7	16
54	SO <sub>2</sub> interaction with Zn(0001) and ZnO(0001) and the influence of water. <i>Surface Science</i> , 2013, 608, 31-43.	0.8	15

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55	CO bonding on tin modified Pt(111). Surface Science, 2003, 526, 184-192.	0.8	14
56	Self-ordering of metal-free phthalocyanine on InAs(100) and InSb(100). Journal of Physics Condensed Matter, 2006, 18, 10707-10723.	0.7	14
57	Etching of silicon nanowires on Ag(110) by atomic hydrogen. Surface Science, 2009, 603, 3350-3354.	0.8	14
58	Photoluminescence and photoresponse from InSb/InAs-based quantum dot structures. Optics Express, 2012, 20, 21264.	1.7	14
59	Interaction between oxygen and InAs(111) surfaces, influence of the electron accumulation layer. Applied Surface Science, 2003, 212-213, 589-594.	3.1	13
60	Site-dependent charge transfer at the Pt(111)-ZnPc interface and the effect of iodine. Journal of Chemical Physics, 2014, 140, 174702.	1.2	13
61	Mixed monolayers of alkane thiols with polar terminal group on gold: Investigation of structure dependent surface properties. Journal of Colloid and Interface Science, 2016, 484, 279-290.	5.0	13
62	Stoichiometry of the ALD-Al <sub>2</sub> O <sub>3</sub> /SiC interface by synchrotron-based XPS. Journal Physics D: Applied Physics, 2016, 49, 255308.	1.3	13
63	Naphthalene on Ni(111): Experimental and Theoretical Insights into Adsorption, Dehydrogenation, and Carbon Passivation. Journal of Physical Chemistry C, 2017, 121, 22199-22207.	1.5	13
64	Surface electronic structure of InSb(111) studied by angle-resolved photoelectron spectroscopy and scanning tunneling microscopy. Physical Review B, 1994, 50, 18172-18178.	1.1	12
65	Clean and Cs-exposed Si(111) surface studied with high-resolution photoemission. Physical Review B, 1995, 52, 11165-11171.	1.1	12
66	Influence of charged impurities on the surface phases of Sn/Ge(111). Surface Science, 2001, 477, 227-234.	0.8	12
67	High resolution photoemission study on SnO <sub>2</sub> gas sensors. Thin Solid Films, 2001, 391, 192-197.	0.8	11
68	Photoelectron microscopy of filiform corrosion of aluminum. Applied Surface Science, 2003, 218, 155-162.	3.1	11
69	Crystallization-Induced Charge-Transfer Change in TiOPc Thin Films Revealed by Resonant Photoemission Spectroscopy. Journal of Physical Chemistry C, 2011, 115, 14969-14977.	1.5	11
70	Interaction of Sulfur Dioxide and Near-Ambient Pressures of Water Vapor with Cuprous Oxide Surfaces. Journal of Physical Chemistry C, 2017, 121, 24011-24024.	1.5	11
71	Adsorption and Decomposition of Ethanol on Cu <sub>2</sub> O(111) and (100). Journal of Physical Chemistry C, 2019, 123, 20384-20392.	1.5	11
72	Reaction of I <sub>2</sub> with the (001) surfaces of GaAs, InAs, and InSb. II. Ordering of the iodine overlayer. Physical Review B, 1996, 54, 2114-2120.	1.1	10

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73	Corrosive adsorption of Sn on the Pt(110)(1 $\times$ 2) surface. Surface Science, 2002, 515, 462-470.	0.8	10
74	Cerium-induced reconstructions on the Si(111) surface. Surface Science, 2004, 558, 49-56.	0.8	10
75	Band bending and structure dependent HOMO energy at the ZnO(0001)-titanyl phthalocyanine interface. Surface Science, 2007, 601, 4222-4226.	0.8	10
76	The nature of self-assembled octadecylphosphonic acid (ODPA) layers on copper substrates. Journal of Colloid and Interface Science, 2021, 581, 816-825.	5.0	10
77	Li-induced phase transition from the Ge(111)3 $\times$ 1 surface reconstruction to the Ge(111)3 $\times$ 3: Lithium germanide. Physical Review B, 2000, 61, 4963-4967.	1.1	9
78	Adsorption site, core level shifts and charge transfer on the Pd(111) $\sqrt{3}\times\sqrt{3}$ surface. Surface Science, 2006, 600, 3093-3098.	0.8	9
79	Scanning tunneling microscopy of Fe- and O-sublattices on (100). Ultramicroscopy, 2008, 108, 540-544.	0.8	9
80	Electronic structure of bismuth terminated InAs(100). Surface Science, 2009, 603, 190-196.	0.8	9
81	Surface concentration dependent structures of iodine on Pd(110). Journal of Chemical Physics, 2012, 137, 204703.	1.2	9
82	An ordered layer of molecular iodine on Ge(100) 2 $\times$ 1. Surface Science, 2004, 556, 203-212.	0.8	8
83	Surface phase transitions at metal $\rightarrow$ semiconductor interfaces: a revisit is needed. Applied Surface Science, 2004, 234, 274-285.	3.1	8
84	High resolution spectroscopic and microscopic signatures of ordered growth of ferrous sulfate in SO <sub>2</sub> assisted corrosion of Fe <sub>3</sub> O <sub>4</sub> (100). Applied Physics Letters, 2007, 91, 093107.	1.5	8
85	Surface structures on sputtered/annealed WC(0001). Journal of Physics Condensed Matter, 1999, 12, 773-782.	0.7	7
86	Oxidation of Ce on Si(111) studied by high-resolution photoelectron spectroscopy. Surface Science, 2000, 464, 117-122.	0.8	7
87	The surface behavior of mercury on iron systems. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2006, 37, 1049-1056.	1.0	7
88	InSb $\rightarrow$ TiOPc interfaces: Band alignment, ordering and structure dependent HOMO splitting. Surface Science, 2009, 603, 3160-3169.	0.8	7
89	Correlated development of a (2 $\times$ 2) reconstruction and a charge accumulation layer on the InAs(111) $\sqrt{3}\times\sqrt{3}$ Bi surface. Surface Science, 2011, 605, 12-17.	0.8	7
90	Electronic structure of CeSe probed by resonant photoemission spectroscopy: A test case for the single-impurity Anderson Hamiltonian. Physical Review B, 1998, 57, 12030-12035.	1.1	6

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91	Chemical reaction and interface formation on InAs(111)â€“Co surfaces. Surface Science, 2005, 574, 181-192.	0.8	6
92	Adsorption of Cs on InAs(111) surfaces. Applied Surface Science, 2006, 252, 5267-5270.	3.1	6
93	Creation of a metallic channel at theSnâˆ™InAs(111)Bsurface studied using synchrotron-radiation photoelectron spectroscopy. Physical Review B, 2006, 74, .	1.1	6
94	From Quantum Dots to Micro Crystals: Organolead Triiodide Perovskite Crystal Growth from Isopropanol Solution. ECS Journal of Solid State Science and Technology, 2016, 5, P614-P620.	0.9	6
95	InSb(111)â€“1: New surface reconstruction. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1996, 14, 957.	1.6	5
96	High-resolution X-ray photoemission spectroscopy study of AlN nano-columns grown by nitridation of Al nano-squares on Si(111) substrates with ammonia. Thin Solid Films, 2010, 518, 3632-3639.	0.8	5
97	Study of spatial homogeneity and nitridation of an Al nanopattern template with spectroscopic photoemission and low energy electron microscopy. Applied Surface Science, 2013, 264, 349-357.	3.1	5
98	Perturbation of Ge(111) and Si(111)âˆ™Sn surfaces by adsorption of dopants. Surface Science, 2006, 600, 3154-3159.	0.8	4
99	Molecular Growth Determined by Surface Domain Patterns. Journal of Physical Chemistry C, 2008, 112, 6887-6890.	1.5	4
100	Photoemission and low energy electron microscopy study on the formation and nitridation of indium droplets on Si (111)7Å—7 surfaces. Thin Solid Films, 2013, 531, 61-69.	0.8	4
101	Hexane selenol dissociation on Cu: The protective role of oxide and water. Applied Surface Science, 2017, 423, 716-720.	3.1	4
102	Pb induced charge accumulation on InAs(111)B. Surface Science, 2007, 601, 3246-3252.	0.8	3
103	The effect of hard nitridation on Al <sub>2</sub> O <sub>3</sub> using a radio frequency operated plasma cell. Thin Solid Films, 2011, 519, 7796-7802.	0.8	3
104	Room temperature deposition of self-assembled Al nanoclusters on stepped sapphire (0001) surface and subsequent nitridation. Thin Solid Films, 2011, 520, 64-73.	0.8	3
105	Multifunctional silicon inspired by a wing of male Papilio ulyse. Applied Physics Letters, 2012, 100, 033109.	1.5	3
106	A micro-spectroscopy study on the influence of chemical residues from nanofabrication on the nitridation chemistry of Al nanopatterns. Applied Surface Science, 2012, 258, 4497-4506.	3.1	3
107	Applicability of MOS structures in monitoring catalytic properties, as exemplified for monolayer-iron-oxide-coated porous platinum films. Journal of Catalysis, 2016, 344, 583-590.	3.1	3
108	Investigation of the surface species during temperature dependent dehydrogenation of naphthalene on Ni(111). Journal of Chemical Physics, 2019, 150, 244704.	1.2	3

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109	Miniature CoCr laser welds under cyclic shear: Fatigue evolution and crack growth. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 99, 93-103.	1.5	3
110	Formation of an iodine zig-zag chain c(2 Å– 4) reconstruction on the Ge(111) surface. Microscopy Microanalysis Microstructures, 1994, 5, 277-282.	0.4	3
111	STM and photoelectron spectroscopy studies of silicon-cerium dioxide interface formation. Vacuum, 1998, 49, 175-179.	1.6	2
112	Surface structure and local bonding on the Si(111)â€“Ce surface. Applied Surface Science, 2000, 166, 209-213.	3.1	2
113	Surface chemistry of mercury on zinc and copper. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2006, 37, 1057-1066.	1.0	2
114	Ultrafast electron dynamics and recombination at the		