Svetlozar Surnev

List of Publications by Year
in descending order

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120 papers	4,442 citations	101496 36 h-index	118793 62 g-index
124 all docs	124 docs citations	124 times ranked	3620 citing authors

#	Article	IF	Citations
1	Vanadium oxide surface studies. Progress in Surface Science, 2003, 73, 117-165.	3.8	347
2	Surface and subsurface oxygen on Pd(111). Surface Science, 2000, 445, 380-393.	0.8	191
3	Oxidation of vanadium nitride and titanium nitride coatings. Surface Science, 2007, 601, 1153-1159.	0.8	186
4	CO adsorption on Pd(111): a high-resolution core level photoemission and electron energy loss spectroscopy study. Surface Science, 2000, 470, 171-185.	0.8	163
5	Structureâ€“Property Relationship and Chemical Aspects of Oxideâ€“Metal Hybrid Nanostructures. Chemical Reviews, 2013, 113, 4314-4372.	23.0	160
6	Growth and Surface Structure of Zinc Oxide Layers on a Pd(111) Surface. Journal of Physical Chemistry C, 2010, 114, 15432-15439.	1.5	153
7	Growth and structure of ultrathin vanadium oxide layers on Pd(111). Physical Review B, 2000, 61, 13945-13954.	1.1	124
8	Novel Interface-Mediated Metastable Oxide Phases: Vanadium Oxides on Pd(111). Physical Review Letters, 2001, 87, 086102.	2.9	112
9	Growth and thermal properties of ultrathin cerium oxide layers on Rh(). Surface Science, 2002, 520, 173-185.	0.8	106
10	Low-dimensional oxide nanostructures on metals: Hybrid systems with novel properties. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2010, 28, 1-16.	0.6	95
11	Atomic-level growth study of vanadium oxide nanostructures on Rh(111). Physical Review B, 2004, 69, .	1.1	87
12	Surface structures of ultrathin vanadium oxide films on Pd(). Surface Science, 2001, 495, 91-106.	0.8	79
13	Planar Vanadium Oxide Clusters: Two-Dimensional Evaporation and Diffusion on Rh(111). Physical Review Letters, 2004, 92, 206103.	2.9	77
14	Reduction of vanadium-oxide monolayer structures. Physical Review B, 2005, 71, .	1.1	76
15	Strain-induced formation of arrays of catalytically active sites at the metalâ€“oxide interface. Surface Science, 2004, 554, L120-L126.	0.8	70
16	V2O3(0001) surface terminations: from oxygen- to vanadium-rich. Surface Science, 2004, 555, 101-117.	0.8	67
17	First-principles calculations for VxOy grown on Pd(111). Surface Science, 2001, 492, 329-344.	0.8	66
18	V2O3(0001) surface terminations: a density functional study. Surface Science, 2004, 555, 118-134.	0.8	64

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19	Vanadium oxide nanostructures: from zero- to three-dimensional. Journal of Physics Condensed Matter, 2006, 18, R1-R14.	0.7	63
20	Formation of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mi mathvariant="normal">Mn</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>4</mml:mn></mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mn>001</mml:mn> MnO(001): Surface and interface structural stability. Physical Review B, 2007, 76, .	1.1	62
21	Density functional study of the polarMnO(111)surface. Physical Review B, 2006, 73, .	1.1	61
22	Nature, growth, and stability of vanadium oxides on Pd(111). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1999, 17, 1743-1749.	0.9	59
23	High-resolution electron spectroscopy of different adsorption states of ethylene on Pd(111). Surface Science, 2003, 545, 122-136.	0.8	56
24	Metal Tungstates at the Ultimate Two-Dimensional Limit: Fabrication of a CuWO₄ Nanophase. ACS Nano, 2014, 8, 3947-3954.	7.3	53
25	Unusual CO Adsorption Sites on Vanadium Oxideâ^'Pd(111) â€œInverse Model Catalystâ€•Surfaces. Journal of Physical Chemistry B, 2003, 107, 4777-4785.	1.2	50
26	Step energetics of Pb(111) vicinal surfaces from facet shape. Surface Science, 1999, 424, 271-277.	0.8	49
27	Epitaxial stabilization of MnO(111) overlayers on a Pd(100) surface. Physical Review B, 2007, 75, .	1.1	47
28	Metal supported oxide nanostructures: model systems for advanced catalysis. Topics in Catalysis, 2007, 46, 137-149.	1.3	47
29	Reversible Dynamic Behavior in Catalyst Systems: Oscillations of Structure and Morphology. Physical Review Letters, 2002, 89, 246101.	2.9	45
30	Experimental and Theoretical Study of a Surface Stabilized Monolayer Phase of Nickel Oxide on Pd(100). Journal of Physical Chemistry B, 2005, 109, 17197-17204.	1.2	45
31	Reactions on Inverse Model Catalyst Surfaces: Atomic Views by STM. Topics in Catalysis, 2005, 36, 91-105.	1.3	44
32	Chemical Reactivity of Ni-Rh Nanowires. Physical Review Letters, 2006, 97, 126102.	2.9	42
33	Structural and vibrational properties of two-dimensional<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Mn</mml:mtext></mml:mrow><mml:mi>x</mml:mi></mml:ms on Pd(100): Experiments and density functional theory calculations. Physical Review B, 2009, 79, .	1.1	42
34	Vanadium oxide nanostructures on Rh(111): Promotion effect of CO adsorption and oxidation. Surface Science, 2005, 580, 122-136.	0.8	39
35	Adsorption and Dissociation of CO on Bare and Ni-Decorated Stepped Rh(553) Surfaces. Journal of Physical Chemistry C, 2009, 113, 942-949.	1.5	39
36	Cobalt oxide nanolayers on Pd(100): The thickness-dependent structural evolution. Surface Science, 2010, 604, 2002-2011.	0.8	38

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37	Growth and thermal behaviour of NiO nanolayers on Pd(100). Surface Science, 2005, 599, 1-13.	0.8	37
38	Probing the metal sites of a vanadium oxideâ€“Pd(111) â€˜inverse catalystâ€™: adsorption of CO. Surface Science, 2000, 444, 211-220.	0.8	36
39	Growth and Desorption Kinetics of Ultrathin Zn Layers on Pd(111). Journal of Physical Chemistry C, 2009, 113, 9788-9796.	1.5	36
40	Two-dimensional manganese oxide nanolayers on Pd(100): the surface phase diagram. Journal of Physics Condensed Matter, 2009, 21, 134008.	0.7	35
41	Scanning tunneling microscopy of equilibrium crystal shapes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1998, 16, 1059-1065.	0.9	34
42	Vanadium surface oxides on Pd(111):â€‚â€‚A structural analysis. Physical Review B, 2003, 68, .	1.1	34
43	Thermodynamically Controlled Self-Assembly of Two-Dimensional Oxide Nanostructures. Angewandte Chemie - International Edition, 2004, 43, 5546-5549.	7.2	33
44	Interplay between magnetic, electronic, and vibrational effects in monolayer Mn3O4 grown on Pd(100). Journal of Chemical Physics, 2009, 130, 124707.	1.2	32
45	Î±-Sexithiophene on Cu(110) and Cu(110)â€“(2Ã—1)O: An STM and NEXAFS study. Surface Science, 2009, 603, 412-418.	0.8	32
46	Adsorption and reaction of CO on a ceriaâ€“Rh(111) â€œinverse model catalystâ€•surface. Surface Science, 2003, 536, 166-176.	0.8	31
47	Strain relaxation and surface morphology of nickel oxide nanolayers. Surface Science, 2006, 600, 1099-1106.	0.8	31
48	The growth of ultrathin films of vanadium oxide on TiO2(). Surface Science, 2004, 562, 150-156.	0.8	30
49	Structure and Bonding of Tungsten Oxide Clusters on Nanostructured Cu-O Surfaces. Journal of Physical Chemistry C, 2011, 115, 23480-23487.	1.5	30
50	Two-Dimensional Iron Tungstate: A Ternary Oxide Layer With Honeycomb Geometry. Journal of Physical Chemistry C, 2016, 120, 7629-7638.	1.5	28
51	Strained c(4Ã—2) CoO(100)-like monolayer on Pd(100): Experiment and theory. Surface Science, 2010, 604, 529-534.	0.8	27
52	The self-assembly of metallic nanowires. Surface Science, 2006, 600, L274-L280.	0.8	26
53	Deformed Surface Oxides: Uncommon Structure of a (6 Ã— 1) NiO Surface Oxide on Rh(111). Journal of Physical Chemistry Letters, 2012, 3, 186-190.	2.1	26
54	Vanadium on TiO2(): adsorption site and sub-surface migration. Surface Science, 2003, 546, 117-126.	0.8	25

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55	The metalâ€“insulator transition in V2O3(0001) thin films: surface termination effects. Journal of Physics Condensed Matter, 2005, 17, 4035-4047.	0.7	24
56	Growth and Oxidation of Ni Nanostructures on Stepped Rh Surfaces. Journal of Physical Chemistry C, 2008, 112, 19272-19278.	1.5	24
57	Metamorphosis of ultrathin Ni oxide nanostructures on Ag(100). Physical Review B, 2011, 84, .	1.1	24
58	The two-dimensional cobalt oxide (9 Ã— 2) phase on Pd(100). Journal of Chemical Physics, 2011, 134, 184706.	1.2	24
59	Kondo effect of cobalt adatoms on nanostructured Cu-O surfaces: Scanning tunneling spectroscopy experiments and first-principles calculations. Physical Review B, 2010, 81, .	1.1	23
60	Scanning tunneling microscopy imaging of NiO(100)(1Ã—1) islands embedded in Ag(100). Surface Science, 2012, 606, 803-807.	0.8	23
61	Scanning tunneling microscopy of equilibrium crystal shape of Pb particles: test of universality. Surface Science, 1998, 417, L160-L165.	0.8	22
62	Flatness and shape of (111) facets of equilibrated Pb crystals. Physical Review B, 1997, 56, 12131-12134.	1.1	21
63	Reactivity of V2O3(0001) surfaces: molecular vs dissociative adsorption of water. Physical Chemistry Chemical Physics, 2006, 8, 1614.	1.3	21
64	The growth of epitaxial VN(111) nanolayer surfaces. Surface Science, 2007, 601, 4817-4823.	0.8	21
65	Ordered Arrays of Size-Selected Oxide Nanoparticles. Physical Review Letters, 2012, 108, 195507.	2.9	21
66	Nanoscale Domain Structure and Defects in a 2-D WO₃ Layer on Pd(100). Journal of Physical Chemistry C, 2016, 120, 28682-28693.	1.5	21
67	Title is missing!. Topics in Catalysis, 2000, 14, 15-23.	1.3	20
68	Sexiphenyl on a Ni(1 1 0)(2 Ã— 1)-O surface: A single-molecule STM study. Surface Science, 2004, 559, L187-L193.	0.8	20
69	Oneâ€Dimensional Oxideâ€“Metal Hybrid Structures: Siteâ€Specific Enhanced Reactivity for CO Oxidation. ChemPhysChem, 2010, 11, 2506-2509.	1.0	20
70	Chemical reactivity of the Vâ€“Pd(1 1 1) subsurface alloy: adsorption of CO. Surface Science, 2002, 511, 392-400.	0.8	19
71	Surface structure of nickel oxide layers on a Rh(111) surface. Surface Science, 2013, 611, 86-93.	0.8	19
72	Oxygen adsorption on stepped Pd(100) surfaces. Surface Science, 2010, 604, 1813-1819.	0.8	18

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73	Nanostripe Pattern of NaCl Layers on Cu(110). Physical Review Letters, 2013, 110, 216101.	2.9	18
74	Surface structures of thallium on Ge(111). Surface Science, 2001, 491, 29-38.	0.8	17
75	Lattice Strain Defects in a Ceria Nanolayer. Journal of Physical Chemistry Letters, 2016, 7, 1303-1309.	2.1	17
76	Anisotropic profile decay on perturbed Au(111) vicinal surfaces. Surface Science, 1996, 360, 242-248.	0.8	16
77	Reactive growth of NiO ultrathin films on Pd(100): a multitechnique approach. Journal of Electron Spectroscopy and Related Phenomena, 2005, 144-147, 465-469.	0.8	16
78	Growth of cobalt on a VO(111) surface: Template, surfactant or encapsulant role of the oxide nanolayer?. Surface Science, 2008, 602, 2666-2674.	0.8	15
79	Molecular architecture via substrate templating: a submolecular resolution STM study of bithiophene on Ni(110) 4Ã—1-S. Surface Science, 2002, 504, 11-18.	0.8	14
80	The formation of sharp NiO(100)â€“cobalt interfaces. Surface Science, 2007, 601, L73-L76.	0.8	14
81	Atomic engineering of oxide nanostructure superlattices. Surface Science, 2010, 604, L43-L47.	0.8	14
82	Kinetic asymmetry in the growth of two-dimensional Mn oxide nanostripes. Physical Review B, 2013, 88, .	1.1	14
83	A photoelectron diffraction study of the surface-V2O3 (2Ã—2) layer on Pd(111). Surface Science, 2003, 529, L234-L238.	0.8	13
84	Squid-magnetometry on ferromagnetic Ni-nanowires embedded in oriented porous silicon channels. Journal of Magnetism and Magnetic Materials, 2005, 290-291, 735-737.	1.0	12
85	Metal-oxide boundary effects in vanadium oxide â€“ Rh(111) inverse model catalysts: a RAIRS, STM and TPD study. Topics in Catalysis, 2007, 46, 231-238.	1.3	12
86	Structure and Electronic Properties of CoO Nanostructures on a Vicinal Pd(100) Surface. Journal of Physical Chemistry C, 2013, 117, 18464-18474.	1.5	12
87	Epitaxial NiWO4 films on Ni(110): Experimental and theoretical study of surface stability. Surface Science, 2017, 659, 20-30.	0.8	12
88	Structure Concepts in Two-Dimensional Oxide Materials. Springer Series in Materials Science, 2016, , 1-38.	0.4	11
89	PECVD of carbon by inverted fireballs: From sputtering, bias enhanced nucleation to deposition. Diamond and Related Materials, 2016, 65, 96-104.	1.8	11
90	Ultrathin WO₃ Bilayer on Ag(100): A Model for the Structure of 2D WO₃ Nanosheets. Journal of Physical Chemistry C, 2019, 123, 27584-27593.	1.5	11

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91	Ordered Au Nanoparticle Array on Au(111) through Coverage Control of Precursor Metalâ€“Organic Chains. Journal of Physical Chemistry C, 2016, 120, 17418-17426.	1.5	10
92	Two-dimensional iron oxide bi-and trilayer structures on Pd(100). Surface Science, 2016, 645, 13-22.	0.8	10
93	Chemical properties of two-dimensional oxide systems: Adsorption of (WO3)3 clusters on CuWO4. Surface Science, 2015, 640, 96-103.	0.8	9
94	Synchrotron radiation applied to the study of heterogeneous model catalyst surfaces. Journal of Physics Condensed Matter, 2001, 13, 11305-11332.	0.7	8
95	Growth of Ceria Nano-Islands on a Stepped Au(788) Surface. Materials, 2015, 8, 5205-5215.	1.3	8
96	Model reaction studies on vanadium oxide nanostructures on Pd(111). Journal of Chemical Physics, 2006, 125, 074703.	1.2	7
97	Tailor-made ultrathin manganese oxide nanostripes: â€˜magic widthsâ€™ on Pd(1 1N) terraces. Journal of Physics Condensed Matter, 2012, 24, 042001.	0.7	7
98	Oxideâ€“Metal Nanowires by Oxidation of a One-Dimensional Mnâ€“Pd Alloy: Stability and Reactivity. Langmuir, 2010, 26, 16474-16480.	1.6	6
99	Alumina-Supported Array of Co Nanoparticles: Size-Dependent Oxidation Kinetics?. Journal of Physical Chemistry C, 2013, 117, 18112-18119.	1.5	6
100	Diamond Like Carbon Deposition by Inverted Fireballs. Materials Today: Proceedings, 2016, 3, S184-S189.	0.9	6
101	Phase behaviour of 2D MnWOxand FeWOxternary oxide layers on Pd(1â€‰0â€‰0). Journal of Physics Condensed Matter, 2017, 29, 234004.	0.7	6
102	Ultrathin oxide films: Epitaxy at the two-dimensional limit. Journal of Materials Research, 2017, 32, 3924-3935.	1.2	6
103	Fabrication of a Bimodal Ferromagnetic Nanosystem in an Etched Silicon Structure and its Magnetic and Magneto-Optic Characterization. Materials Research Society Symposia Proceedings, 2005, 872, 1.	0.1	5
104	Vanadium Oxide Overlayers on Vicinal Rh(15 15 13):â€‰ The Influence of Surface Steps. Journal of Physical Chemistry C, 2007, 111, 10503-10507.	1.5	5
105	Growth and reactivity of Zn and ZnO on Pd(111). Surface Engineering, 2012, 28, 87-90.	1.1	5
106	Interaction of Na with 2D WO₃ and MoO₃ Layers on Pd(100): From Doping to 2D Bronze Formation. Journal of Physical Chemistry C, 2022, 126, 3289-3300.	1.5	5
107	Atomic force microscopy and photoemission electron microscopy study of the low-pressure oxidation of transition metal nitrides. Journal of Applied Physics, 2007, 102, .	1.1	4
108	Orbital anisotropy in paramagnetic manganese oxide nanostripes. Physical Review B, 2013, 87, .	1.1	4

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109	Redox processes at a nanostructured interface under strong electric fields. Nanoscale, 2014, 6, 10589-10595.	2.8	4
110	Estimating soft-mode frequencies of surface overlayers by means of photoelectron diffraction: The(2Ã—2)surface-V2O3/Pd(111). Physical Review B, 2003, 68, .	1.1	3
111	Kondo versus magnetic coupling of cobalt dimers in a Cuâ€“O (2 Ã— 1) reconstruction. Journal of Physics Condensed Matter, 2010, 22, 222202.	0.7	3
112	Electronic structure of bimetallic Niâ€“Rh nanowires. Surface Science, 2010, 604, 1406-1413.	0.8	3
113	Surface morphologiesâ€”Equilibria and transient states. Progress in Surface Science, 1996, 53, 287-296.	3.8	2
114	Silver nanostructures on a c(4Ã—2)-NiOx/Pd(100) monolayer. Surface Science, 2008, 602, 499-505.	0.8	2
115	Decomposition of Methanol on Mixed CuOâ€“CuWO4 Surfaces. Journal of Physical Chemistry B, 2018, 122, 679-687.	1.2	2
116	Tungsten and Molybdenum Oxide nanostructures: Two-dimensional layers and nanoclusters. Journal of Physics Condensed Matter, 2022, , .	0.7	2
117	The (100)â†'(111) Transition in Epitaxial Manganese Oxide Nanolayers. Springer Proceedings in Physics, 2009, , 163-170.	0.1	1
118	Growth and Desorption Kinetics of Sexiphenyl Needles: an in-situ AFM/PEEM Study. Springer Proceedings in Physics, 2009, , 167-169.	0.1	1
119	Thermodynamically Controlled Self-Assembly of Two-Dimensional Oxide Nanostructures.. ChemInform, 2004, 35, no.	0.1	0
120	2D Ternary Oxide Layers: New Paradigms of Structure and Stoichiometry. , 2018, , 1-8.		0