

Structure of an ultrathin TiO_x film, formed by the strong interfacial interaction (SMSI), on Pt nanocrystals on TiO₂(110)

Surface Science

492, L677-L687

DOI: 10.1016/s0039-6028(01)01460-1

Citation Report

#	ARTICLE	IF	CITATIONS
1	Thermally induced formation of vacancy-islands on the atomic terraces of TiO ₂ ($\bar{1}00$) surface covered by Pt. Surface Science, 2002, 507-510, 643-648.	0.8	11
2	Surface Structures in the SMSI State; Pd on (1 $\bar{1}0$) Reconstructed TiO ₂ (110). Journal of Physical Chemistry B, 2002, 106, 4688-4696.	1.2	94
3	High temperature postgrowing of Pt-nanocrystallites supported and encapsulated on TiO ₂ (110) surface. Surface Science, 2003, 532-535, 390-395.	0.8	14
4	The surface science of titanium dioxide. Surface Science Reports, 2003, 48, 53-229.	3.8	6,917
5	Density Functional Theory Study of the Interaction of Cl[⁺] with Passivated Nickel Surfaces. Electrochemical and Solid-State Letters, 2003, 6, B47.	2.2	36
6	STEP REARRANGEMENT UPON LOW PRESSURE OXIDATION OF THE Pt ₃ Ti(510) SURFACE: A STUDY BY SCANNING TUNNELING MICROSCOPY. Surface Review and Letters, 2003, 10, 861-866.	0.5	2
7	Epitaxial growth of tin oxide on Pt(111): Structure and properties of wetting layers and SnO ₂ crystallites. Physical Review B, 2004, 69, .	1.1	41
8	Fundamental studies of titanium oxide/Pt(100) interfaces. Surface Science, 2004, 572, 127-145.	0.8	56
9	Dimethyl Methylphosphonate Decomposition on Titania-Supported Ni Clusters and Films: A Comparison of Chemical Activity on Different Ni Surfaces. Journal of Physical Chemistry B, 2004, 108, 11633-11644.	1.2	49
10	Formation of vacancy islands tailored by Pt nanocrystallites and Ar ⁺ sputtering on TiO ₂ (110) surface. Applied Surface Science, 2005, 246, 174-182.	3.1	7
11	A Mesoporous Pt/TiO ₂ Nanoarchitecture with Catalytic and Photocatalytic Functions. Chemistry - A European Journal, 2005, 11, 2997-3004.	1.7	150
12	Structure and growth of ultrathin titanium oxide films on Ru(0001). Surface Science, 2005, 576, 29-44.	0.8	38
13	Chemisorption and Reactions of Hydrogen. , 2005, , 93-152.		0
14	Epitaxial TiO ₂ nanoparticles on Pt(111): a structural study by photoelectron diffraction and scanning tunneling microscopy. Physical Chemistry Chemical Physics, 2005, 7, 697.	1.3	22
15	Ultrathin TiO _x Films on Pt(111): A LEED, XPS, and STM Investigation. Journal of Physical Chemistry B, 2005, 109, 24411-24426.	1.2	160
16	Interaction of Pt Clusters with the Anatase TiO ₂ (101) Surface: A First Principles Study. Journal of Physical Chemistry B, 2006, 110, 7463-7472.	1.2	95
17	In situ scanning tunneling microscopy studies of bimetallic cluster growth: Pt/Rh on TiO ₂ (110). Surface Science, 2006, 600, 2913-2923.	0.8	34
18	Chapter 5 Oxide-supported metal clusters. Chemical Physics of Solid Surfaces, 2007, 12, 201-269.	0.3	3

#	ARTICLE	IF	CITATIONS
19	Catalysis resolved using scanning tunnelling microscopy. <i>Chemical Society Reviews</i> , 2007, 36, 1656.	18.7	30
20	Effect of Surface Oxygen Vacancy on Pt Cluster Adsorption and Growth on the Defective Anatase TiO ₂ (101) Surface. <i>Journal of Physical Chemistry C</i> , 2007, 111, 16397-16404.	1.5	57
21	Structure of a TiO _x Zigzag-Like Monolayer on Pt(111). <i>Journal of Physical Chemistry C</i> , 2007, 111, 6095-6102.	1.5	45
22	Understanding the Reactivity of Oxide-Supported Bimetallic Clusters: Reaction of NO with CO on TiO ₂ (110)-Supported Pt ¹ Rh Clusters. <i>Journal of Physical Chemistry C</i> , 2007, 111, 2165-2176.	1.5	53
23	Probing the interactions of Pt, Rh and bimetallic Pt ¹ Rh clusters with the TiO ₂ (110) support. <i>Surface Science</i> , 2007, 601, 3099-3113.	0.8	36
24	Resolving catalytic phenomena with scanning tunnelling microscopy. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 3514.	1.3	20
25	Thin film Pt/TiO ₂ catalysts for the polymer electrolyte fuel cell. <i>Journal of Power Sources</i> , 2007, 163, 671-678.	4.0	104
26	Direct interactions between metal nanoparticles and support: STM studies of Pd on TiO ₂ (110). <i>Applied Surface Science</i> , 2008, 254, 4225-4229.	3.1	43
27	When an Encapsulating Oxide Layer Promotes Reaction on Noble Metals: Dewetting and In ¹ Situ Formation of an Inverted FeO _x /Pt Catalyst. <i>Catalysis Letters</i> , 2008, 126, 31-35.	1.4	46
28	Methanethiol chemistry on TiO ₂ -supported Ni clusters. <i>Surface Science</i> , 2008, 602, 3077-3088.	0.8	22
29	Bimetallic Pt ¹ Au Clusters on TiO ₂ (110): Growth, Surface Composition, and Metal ¹ Support Interactions. <i>Journal of Physical Chemistry C</i> , 2008, 112, 5490-5500.	1.5	97
30	Encapsulation of Pt Nanoparticles as a Result of Strong Metal ¹ Support Interaction with Fe ₃ O ₄ (111). <i>Journal of Physical Chemistry C</i> , 2008, 112, 10209-10213.	1.5	138
31	Real-time scanning tunneling microscopy observations of the oxidation of a Ti ¹ Pt(111)-(2 \times 2) surface alloy using O ₂ and NO ₂ . <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2008, 26, 1336-1342.	0.9	3
32	Direct evolution in oxide nanophases: The case of a zigzag-like Ti _x O _x phase on Pt(111). <i>Physical Review B</i> , 2008, 77, ..	1.1	43
33	Preparation, characterisation and structure of Ti and Al ultrathin oxide films on metals. <i>International Reviews in Physical Chemistry</i> , 2009, 28, 517-576.	0.9	75
34	Morphology and CO adsorption on platinum supported on thin Fe ₃ O ₄ (111) films. <i>Journal of Physics Condensed Matter</i> , 2009, 21, 134019.	0.7	37
35	Decomposition of Dimethyl Methylphosphonate on Pt, Au, and Au ¹ Pt Clusters Supported on TiO ₂ (110). <i>Langmuir</i> , 2009, 25, 216-225.	1.6	46
36	Formation and Thermal Stability of Platinum Oxides on Size-Selected Platinum Nanoparticles: Support Effects. <i>Journal of Physical Chemistry C</i> , 2010, 114, 22119-22133.	1.5	175

#	ARTICLE	IF	CITATIONS
37	Modeling the noble metal/TiO ₂ (110) interface with hybrid DFT functionals: A periodic electrostatic embedded cluster model study. <i>Journal of Chemical Physics</i> , 2010, 133, 164703.	1.2	59
38	Adsorbate-Induced Changes in the Surface Composition of Bimetallic Clusters: Pt ⁺ Au on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2010, 114, 21652-21663.	1.5	70
39	Surface Structures of Ultrathin TiO _x Films on Au(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 8643-8652.	1.5	58
40	Titania supported gold nanoparticles as photocatalyst. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 886-910.	1.3	652
41	Growth of ultrathin cobalt oxide films on Pt(111). <i>Physical Review B</i> , 2011, 84, .	1.1	50
42	Ordered SMSI Decoration Layer on Rh Nanoparticles Grown on TiO ₂ (110) Surface. <i>Journal of Physical Chemistry C</i> , 2011, 115, 9535-9544.	1.5	20
43	Overcoming the Strong Metal ⁺ Support Interaction State: CO Oxidation on TiO ₂ (110)-Supported Pt Nanoclusters. <i>ACS Catalysis</i> , 2011, 1, 385-389.	5.5	103
44	Advanced Electron Microscopy of Metal ⁺ Support Interactions in Supported Metal Catalysts. <i>ChemCatChem</i> , 2011, 3, 934-948.	1.8	256
45	Characterization of Pt ⁺ Au and Ni ⁺ Au Clusters on TiO ₂ (110). <i>Topics in Catalysis</i> , 2011, 54, 42-55.	1.3	38
46	Atomic layer deposition fabricated substoichiometric TiO _x nanorods as fuel cell catalyst supports. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2012, 30, .	0.9	9
47	Enhanced oxygen binding through surface mediated ionic bonds. <i>Surface Science</i> , 2012, 606, 965-970.	0.8	3
48	Understanding the Nucleation and Growth of Metals on TiO ₂ : Co Compared to Au, Ni, and Pt. <i>Journal of Physical Chemistry C</i> , 2013, 117, 7191-7201.	1.5	84
49	Catalysis by Doped Oxides. <i>Chemical Reviews</i> , 2013, 113, 4391-4427.	23.0	687
50	Structural and compositional characterization of ultrathin titanium oxide films grown on Pt ₃ Ti(111). <i>Journal of Physics Condensed Matter</i> , 2013, 25, 045013.	0.7	11
51	Processing and functionalization of conductive substoichiometric TiO ₂ catalyst supports for PEM fuel cell applications. <i>Journal of Materials Research</i> , 2013, 28, 461-467.	1.2	7
52	Structure ⁺ Property Relationship and Chemical Aspects of Oxide ⁺ Metal Hybrid Nanostructures. <i>Chemical Reviews</i> , 2013, 113, 4314-4372.	23.0	160
53	Thermal and adsorbate effects on the activity and morphology of size-selected Pd _n /TiO ₂ model catalysts. <i>Surface Science</i> , 2014, 621, 40-50.	0.8	20
54	Scanning Tunneling Microscopy Investigation of Ultrathin Titanium Oxide Films Grown on Pt ₃ Ti(111). <i>Journal of Physical Chemistry C</i> , 2014, 118, 6186-6192.	1.5	15

#	ARTICLE	IF	CITATIONS
55	Theoretical Studies on Anatase and Less Common TiO ₂ Phases: Bulk, Surfaces, and Nanomaterials. <i>Chemical Reviews</i> , 2014, 114, 9708-9753.	23.0	367
56	Ultrathin Oxide Films. , 0, , 585-640.		0
57	DFT study on microstructures and electronic structures of Pt mono-/bi-doped anatase TiO ₂ (101) surface. <i>RSC Advances</i> , 2015, 5, 17984-17992.	1.7	7
58	Trends in the Thermodynamic Stability of Ultrathin Supported Oxide Films. <i>Journal of Physical Chemistry C</i> , 2016, 120, 10351-10360.	1.5	19
59	Directing the Structure of Two-Dimensional Silica and Silicates. <i>Journal of Physical Chemistry C</i> , 2016, 120, 26770-26781.	1.5	36
60	Inverse Oxide/Metal Catalysts in Fundamental Studies and Practical Applications: A Perspective of Recent Developments. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2627-2639.	2.1	120
61	TiO _x thin films grown on Pd(100) and Pd(111) by chemical vapor deposition. <i>Surface Science</i> , 2016, 649, 80-89.	0.8	12
62	Nanoporous Platinum/(Mn,Al) ₃ O ₄ Nanosheet Nanocomposites with Synergistically Enhanced Ultrahigh Oxygen Reduction Activity and Excellent Methanol Tolerance. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 2485-2494.	4.0	36
63	Controlling the charge state of supported nanoparticles in catalysis: lessons from model systems. <i>Chemical Society Reviews</i> , 2018, 47, 8474-8502.	18.7	155
64	PtO _x -SnO _x -TiO ₂ catalyst system for methanol photocatalytic reforming: Influence of cocatalysts on the hydrogen production. <i>Catalysis Today</i> , 2018, 306, 71-80.	2.2	18
65	Surface characterization and formation mechanism of the ceramic TiO ₂ -xN _x spherical powder induced by annealing in air. <i>Powder Technology</i> , 2019, 351, 229-237.	2.1	9
66	Thermodynamics driving the strong metal-support interaction: Titanate encapsulation of supported Pd nanocrystals. <i>Physical Review Materials</i> , 2021, 5, .	0.9	3
67	Encapsulated Pd crystals on anatase supports: High precision determination of the titanate overlayer moiré structure. <i>Surface Science</i> , 2022, 715, 121941.	0.8	0
68	Surface Science Studies of Strong Metal-Oxide Interactions on Model Catalysts. , 2010, , 155-173.		2
69	Strain and stress effects on single crystal-supported titania and related nanostructures. <i>Semiconductor Science and Technology</i> , 2020, 35, 113001.	1.0	7
70	HOR Activity of Pt-TiO ₂ -Y at Unconventionally High Potentials Explained: The Influence of SMSI on the Electrochemical Behavior of Pt. <i>Journal of the Electrochemical Society</i> , 2020, 167, 084517.	1.3	24
71	Development of Model Catalysts for Metal Nanoclusters Supported on Oxide. <i>Hyomen Kagaku</i> , 2006, 27, 314-318.	0.0	1
72	High-pressure cell to study the catalytic behavior of bulk samples and surface deposited mass-selected nanoclusters at atmospheric conditions. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2021, 39, .	0.9	2