

Zdenek Dohnalek

List of Publications by Year in descending order

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99
papers

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citations

81900

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103
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times ranked

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citing authors

#	ARTICLE	IF	CITATIONS
1	Creating self-assembled arrays of mono-oxo (MoO_3) $1\text{-}n$ species on TiO_2 (101) via deposition and decomposition of (MoO_3) n oligomers. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	10
2	Formation of Gas-Phase Allyl Radicals from Glycerol on Rutile $\text{TiO}_2(110)$. Journal of Physical Chemistry C, 2021, 125, 7227-7239.	3.1	0
3	Conversion of Formic Acid on Single- and Nano-Crystalline Anatase $\text{TiO}_2(101)$. Journal of Physical Chemistry C, 2021, 125, 7686-7700.	3.1	10
4	Binding and stability of MgO monomers on anatase $\text{TiO}_2(101)$. Journal of Chemical Physics, 2021, 154, 204703.	3.0	3
5	Adsorption of ethane, ethene, and ethyne on reconstructed $\text{Fe}_3\text{O}_4(001)$. Surface Science, 2021, 714, 121932.	1.9	4
6	Binding of Formic Acid on Anatase $\text{TiO}_2(101)$. Journal of Physical Chemistry C, 2020, 124, 20228-20239.	3.1	24
7	Adsorption and reaction of methanol on $\text{Fe}_3\text{O}_4(001)$. Journal of Chemical Physics, 2020, 152, 064703.	3.0	10
8	Understanding Heterolytic H_2 Cleavage and Water-Assisted Hydrogen Spillover on $\text{Fe}_3\text{O}_4(001)$ -Supported Single Palladium Atoms. ACS Catalysis, 2019, 9, 7876-7887.	11.2	63
9	Low-Temperature Oxidation of Methanol to Formaldehyde on a Model Single-Atom Catalyst: Pd Atoms on $\text{Fe}_3\text{O}_4(001)$. ACS Catalysis, 2019, 9, 10977-10982.	11.2	50
10	Adsorption and Reaction of Methanol on Anatase $\text{TiO}_2(101)$ Single Crystals and Faceted Nanoparticles. Journal of Physical Chemistry C, 2019, 123, 24133-24145.	3.1	14
11	Understanding the Binding of Aromatic Hydrocarbons on Rutile $\text{TiO}_2(110)$. Journal of Physical Chemistry C, 2019, 123, 16766-16777.	3.1	16
12	Formation of Supported Graphene Oxide: Evidence for Enolate Species. Journal of the American Chemical Society, 2018, 140, 5102-5109.	13.7	14
13	Growth and Stability of Titanium Dioxide Nanoclusters on Graphene/ $\text{Ru}(0001)$. Journal of Physical Chemistry B, 2018, 122, 640-648.	2.6	10
14	Hydrogen adsorption and reaction on $\text{RuO}_2(110)$. Surface Science, 2018, 677, 264-270.	1.9	9
15	Structural motifs of water on metal oxide surfaces. Chemical Society Reviews, 2017, 46, 1785-1806.	38.1	170
16	Direct Deoxygenation of Phenylmethanol to Methylbenzene and Benzyl Radicals on Rutile $\text{TiO}_2(110)$. ACS Catalysis, 2017, 7, 2002-2006.	11.2	5
17	Probing equilibrium of molecular and deprotonated water on $\text{TiO}_2(110)$. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1801-1805.	7.1	90
18	Formation of Metastable Water Chains on Anatase $\text{TiO}_2(101)$. Journal of Physical Chemistry C, 2017, 121, 20413-20418.	3.1	26

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19	Adsorption and Photodesorption of CO from Charged Point Defects on TiO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 4565-4572.	4.6	20
20	Dynamics, Stability, and Adsorption States of Water on Oxidized RuO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2017, 121, 18505-18515.	3.1	11
21	Light Makes a Surface Banana-Bond Split: Photodesorption of Molecular Hydrogen from RuO ₂ (110). <i>Journal of the American Chemical Society</i> , 2016, 138, 8714-8717.	13.7	9
22	Interaction of Formaldehyde with the Rutile TiO ₂ (110) Surface: A Combined Experimental and Theoretical Study. <i>Journal of Physical Chemistry C</i> , 2016, 120, 12626-12636.	3.1	54
23	Catalytic Chemistry on Oxide Nanostructures. <i>Springer Series in Materials Science</i> , 2016, , 251-280.	0.6	0
24	Strong Temperature Dependence in the Reactivity of H ₂ on RuO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 2967-2970.	4.6	10
25	Editorial: Insights into Surface Phenomena: In Honor of John T. Yates Jr.. <i>Surface Science</i> , 2016, 652, 1.	1.9	0
26	Temperature-programmed desorption study of NO reactions on rutile TiO ₂ (110)-1 Å ⁻¹ . <i>Surface Science</i> , 2016, 652, 148-155.	1.9	6
27	Iso-oriented monolayer δ -MoO ₃ (010) films epitaxially grown on SrTiO ₃ (001). <i>Nanoscale</i> , 2016, 8, 3119-3124.	5.6	26
28	Adsorption of small hydrocarbons on rutile TiO ₂ (110). <i>Surface Science</i> , 2016, 650, 83-92.	1.9	38
29	Tracking Site-Specific C ¹³ Coupling of Formaldehyde Molecules on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2015, 119, 14267-14272.	3.1	21
30	Anticorrelation between Surface and Subsurface Point Defects and the Impact on the Redox Chemistry of TiO ₂ (110). <i>ChemPhysChem</i> , 2015, 16, 313-321.	2.1	41
31	Cerium Oxide Nanoclusters on Graphene/Ru(0001): Intercalation of Oxygen <i>via</i> Spillover. <i>ACS Nano</i> , 2015, 9, 8617-8626.	14.6	17
32	Low-Temperature Reductive Coupling of Formaldehyde on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2015, 119, 18452-18457.	3.1	19
33	Imaging of Formaldehyde Adsorption and Diffusion on TiO ₂ (110). <i>Topics in Catalysis</i> , 2015, 58, 103-113.	2.8	26
34	Deprotonated Water Dimers: The Building Blocks of Segmented Water Chains on Rutile RuO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2015, 119, 23552-23558.	3.1	33
35	Ammonia Formation from NO Reaction with Surface Hydroxyls on Rutile TiO ₂ (110)-1 Å ⁻¹ . <i>Journal of Physical Chemistry C</i> , 2015, 119, 1130-1135.	3.1	6
36	Adsorption, Desorption, and Displacement Kinetics of H ₂ O and CO ₂ on Forsterite, Mg ₂ SiO ₄ (011). <i>Journal of Physical Chemistry C</i> , 2014, 118, 29091-29100.	3.1	30

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37	Ethanol Conversion on Cyclic (MO ₃) ₃ (M = Mo, W) Clusters. <i>Journal of Physical Chemistry C</i> , 2014, 118, 4869-4877.	3.1	62
38	Dehydration, dehydrogenation, and condensation of alcohols on supported oxide catalysts based on cyclic (WO ₃) ₃ and (MoO ₃) ₃ clusters. <i>Chemical Society Reviews</i> , 2014, 43, 7664-7680.	38.1	99
39	Adsorption, Desorption, and Displacement Kinetics of H ₂ O and CO ₂ on TiO ₂ (110). <i>Journal of Physical Chemistry B</i> , 2014, 118, 8054-8061.	2.6	48
40	Dimerization Induced Deprotonation of Water on RuO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 3445-3450.	4.6	47
41	Molecular Hydrogen Formation from Proximal Glycol Pairs on TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2014, 136, 5559-5562.	13.7	16
42	Conversion of 1,2-Propylene Glycol on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2014, 118, 15339-15347.	3.1	16
43	Conversion of 1,3-Propylene Glycol on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2014, 118, 23181-23188.	3.1	13
44	Low-Temperature Desorption of N ₂ O from NO on Rutile TiO ₂ (110)-1 Å ⁻¹ . <i>Journal of Physical Chemistry C</i> , 2014, 118, 9544-9550.	3.1	8
45	Oxidation, Reduction, and Condensation of Alcohols over (MO ₃) ₃ (M = Mo, W) Nanoclusters. <i>Journal of Physical Chemistry C</i> , 2014, 118, 22620-22634.	3.1	37
46	Dehydration and dehydrogenation of ethylene glycol on rutile TiO ₂ (110). <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 12180.	2.8	24
47	Interaction of CO ₂ with oxygen adatoms on rutile TiO ₂ (110). <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 6190.	2.8	13
48	Site-Specific Imaging of Elemental Steps in Dehydration of Diols on TiO ₂ (110). <i>ACS Nano</i> , 2013, 7, 10414-10423.	14.6	20
49	Importance of Diffusion in Methanol Photochemistry on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2012, 116, 25465-25469.	3.1	66
50	The effect of oxygen vacancies on the binding interactions of NH ₃ with rutile TiO ₂ (110)-1 Å ⁻¹ . <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 15060.	2.8	15
51	Structure and Dynamics of CO ₂ on Rutile TiO ₂ (110)-1 Å ⁻¹ . <i>Journal of Physical Chemistry C</i> , 2012, 116, 26322-26334.	3.1	60
52	Unexpected Nondissociative Binding of N ₂ O on Oxygen Vacancies on a Rutile TiO ₂ (110)-1 Å ⁻¹ . <i>Journal of Physical Chemistry C</i> , 2012, 116, 1145-1150.	3.1	15
53	Alcohol Dehydration on Monooxo W [•] O and Dioxo O [•] W [•] O Species. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 2168-2172.	4.6	18
54	OH Group Dynamics of 1,3-Propanediol on TiO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3257-3263.	4.6	16

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55	Characterization of Nanoporous WO ₃ Films Grown via Ballistic Deposition. <i>Journal of Physical Chemistry C</i> , 2012, 116, 10649-10655.	3.1	15
56	Preparation, Characterization, and Catalytic Properties of Tungsten Trioxide Cyclic Trimers on FeO(111)/Pt(111). <i>Journal of Physical Chemistry C</i> , 2012, 116, 908-916.	3.1	27
57	Reactive Ballistic Deposition of Nanostructured Model Materials for Electrochemical Energy Conversion and Storage. <i>Accounts of Chemical Research</i> , 2012, 45, 434-443.	15.6	36
58	Polymerization of Formaldehyde and Acetaldehyde on Ordered (WO ₃) ₃ Films on Pt(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 9692-9700.	3.1	27
59	Determination of Absolute Coverages for Small Aliphatic Alcohols on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2011, 115, 22534-22539.	3.1	76
60	Growth of Ordered Ultrathin Tungsten Oxide Films on Pt(111). <i>Journal of Physical Chemistry C</i> , 2011, 115, 5773-5783.	3.1	40
61	Thermally-driven processes on rutile TiO ₂ (110)-(1 $\bar{1}$ —1): A direct view at the atomic scale. <i>Progress in Surface Science</i> , 2010, 85, 161-205.	8.3	282
62	Direct Observation of Site-Specific Molecular Chemisorption of O ₂ on TiO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 3524-3529.	4.6	69
63	Reactivity of Fe ⁰ Atoms with Mixed CCl ₄ and D ₂ O Films over FeO(111). <i>Journal of Physical Chemistry C</i> , 2010, 114, 17136-17141.	3.1	2
64	Formaldehyde Polymerization on (WO ₃) ₃ /TiO ₂ (110) Model Catalyst. <i>Journal of Physical Chemistry C</i> , 2010, 114, 17017-17022.	3.1	39
65	Water Interactions with Terminal Hydroxyls on TiO ₂ (110). <i>Journal of Physical Chemistry C</i> , 2010, 114, 17080-17084.	3.1	34
66	Formation of O adatom pairs and charge transfer upon O ₂ dissociation on reduced TiO ₂ (110). <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 6337.	2.8	98
67	Imaging Hindered Rotations of Alkoxy Species on TiO ₂ (110). <i>Journal of the American Chemical Society</i> , 2009, 131, 17926-17932.	13.7	40
68	Imaging Consecutive Steps of O ₂ Reaction with Hydroxylated TiO ₂ (110): Identification of HO ₂ and Terminal OH Intermediates. <i>Journal of Physical Chemistry C</i> , 2009, 113, 666-671.	3.1	75
69	Reactivity of C ₂ Cl ₆ and C ₂ Cl ₄ Multilayers with Fe ⁰ Atoms over FeO(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 10233-10241.	3.1	4
70	Reactivity of Fe ⁰ Atoms and Clusters with D ₂ O over FeO(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 4960-4969.	3.1	11
71	The Effect of the Incident Collision Energy on the Porosity of Vapor-Deposited Amorphous Solid Water Films. <i>Journal of Physical Chemistry B</i> , 2009, 113, 4000-4007.	2.6	27
72	Reactivity of Fe ⁰ Atoms, Clusters, and Nanoparticles with CCl ₄ Multilayers on FeO(111). <i>Journal of Physical Chemistry C</i> , 2009, 113, 1818-1829.	3.1	19

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73	Water as a Catalyst: Imaging Reactions of O ₂ with Partially and Fully Hydroxylated TiO ₂ (110) Surfaces. Journal of Physical Chemistry C, 2009, 113, 1908-1916.	3.1	88
74	Reactivity of FeO(111)/Pt(111) with Alcohols. Journal of Physical Chemistry C, 2009, 113, 20020-20028.	3.1	19
75	Chemical Reactivity of Reduced TiO ₂ (110): The Dominant Role of Surface Defects in Oxygen Chemisorption. Journal of Physical Chemistry C, 2009, 113, 12407-12411.	3.1	127
76	No Confinement Needed: Observation of a Metastable Hydrophobic Wetting Two-Layer Ice on Graphene. Journal of the American Chemical Society, 2009, 131, 12838-12844.	13.7	186
77	Infrared Spectroscopy and Optical Constants of Porous Amorphous Solid Water. Journal of Physical Chemistry B, 2009, 113, 4131-4140.	2.6	28
78	Catalytic Dehydration of 2-Propanol on (WO ₃) ₃ Clusters on TiO ₂ (110). Journal of the American Chemical Society, 2008, 130, 5059-5061.	13.7	76
79	Transient Mobility of Oxygen Adatoms upon O ₂ Dissociation on Reduced TiO ₂ (110). Journal of Physical Chemistry C, 2008, 112, 2649-2653.	3.1	118
80	Intrinsic Diffusion of Hydrogen on Rutile TiO ₂ (110). Journal of the American Chemical Society, 2008, 130, 9080-9088.	13.7	124
81	Understanding How Surface Morphology and Hydrogen Dissolution Influence Ethylene Hydrogenation on Palladium. Journal of Physical Chemistry C, 2008, 112, 15796-15801.	3.1	8
82	Vacancy-Assisted Diffusion of Alkoxy Species on Rutile $\text{TiO}_2(110)$ Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 367 Td (stretchy="false")	7.8	31
83	Imaging Intrinsic Diffusion of Bridge-Bonded Oxygen Vacancies on TiO ₂ (110). Physical Review Letters, 2007, 99, 126105.	7.8	86
84	Reactive Ballistic Deposition of Porous TiO ₂ Films: Growth and Characterization. Journal of Physical Chemistry C, 2007, 111, 4765-4773.	3.1	56
85	Crystalline ice growth on Pt(111) and Pd(111): Nonwetting growth on a hydrophobic water monolayer. Journal of Chemical Physics, 2007, 126, 114702.	3.0	66
86	Direct Visualization of 2-Butanol Adsorption and Dissociation on TiO ₂ (110). Journal of Physical Chemistry C, 2007, 111, 3021-3027.	3.1	62
87	Surface Chemistry of 2-Propanol on TiO ₂ (110): Low- and High-Temperature Dehydration, Isotope Effects, and Influence of Local Surface Structure. Journal of Physical Chemistry C, 2007, 111, 11059-11067.	3.1	73
88	Inductive Effect of Alkyl Chains on Alcohol Dehydration at Bridge-bonded Oxygen Vacancies of TiO ₂ (110). Catalysis Letters, 2007, 119, 1-4.	2.6	49
89	Imaging Adsorbate O-H Bond Cleavage: Methanol on TiO ₂ (110). Journal of the American Chemical Society, 2006, 128, 4198-4199.	13.7	211
90	Physisorption of N ₂ , O ₂ , and CO on Fully Oxidized TiO ₂ (110). Journal of Physical Chemistry B, 2006, 110, 6229-6235.	2.6	155

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91	Formation of Monodisperse (WO ₃) ₃ Clusters on TiO ₂ (110). <i>Angewandte Chemie - International Edition</i> , 2006, 45, 4786-4789.	13.8	92
92	Layer-by-layer growth of thin amorphous solid water films on Pt(111) and Pd(111). <i>Journal of Chemical Physics</i> , 2006, 125, 044713.	3.0	48
93	n-alkanes on Pt(111) and on C(0001)~Pt(111): Chain length dependence of kinetic desorption parameters. <i>Journal of Chemical Physics</i> , 2006, 125, 234308.	3.0	170
94	Methane adsorption and dissociation and oxygen adsorption and reaction with CO on Pd nanoparticles on MgO(100) and on Pd(111). <i>Surface Science</i> , 2005, 591, 90-107.	1.9	51
95	n-alkanes on MgO(100). I. Coverage-dependent desorption kinetics of n-butane. <i>Journal of Chemical Physics</i> , 2005, 122, 164707.	3.0	120
96	Crystalline Ice Growth on Pt(111): Observation of a Hydrophobic Water Monolayer. <i>Physical Review Letters</i> , 2005, 95, 166102.	7.8	195
97	n-alkanes on MgO(100). II. Chain length dependence of kinetic desorption parameters for small n-alkanes. <i>Journal of Chemical Physics</i> , 2005, 122, 164708.	3.0	156
98	Cryogenic CO ₂ Formation on Oxidized Gold Clusters Synthesized via Reactive Layer Assisted Deposition. <i>Journal of the American Chemical Society</i> , 2005, 127, 14592-14593.	13.7	33
99	Molecular Beam Studies of Nanoscale Films of Amorphous Solid Water. <i>Springer Series in Cluster Physics</i> , 2003, , 337-357.	0.3	17