Uwe Burghaus

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/5434462/publications.pdf

Version: 2024-02-01

109	2,703	201385	223531
papers	citations	27 h-index	46 g-index

110	110	110	2446
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stabilization of Polar ZnO Surfaces: Validating Microscopic Models by Using CO as a Probe Molecule. Physical Review Letters, 2003, 90, 106102.	2.9	164
2	Preparation and Characterization of Nanomaterials for Sustainable Energy Production. ACS Nano, 2010, 4, 5517-5526.	7.3	163
3	Surface chemistry of CO2 â€“ Adsorption of carbon dioxide on clean surfaces at ultrahigh vacuum. Progress in Surface Science, 2014, 89, 161-217.	3.8	139
4	Phase transition of dissociatively adsorbed oxygen on Ag(001). Physical Review B, 2000, 61, 213-227.	1.1	108
5	Interaction of hydrogen with metal oxides: the case of the polar ZnO(0001) surface. Surface Science, 2001, 486, L502-L506.	0.8	90
6	Unexpected Adsorption of Oxygen on TiO2Nanotube Arrays:Â Influence of Crystal Structure. Nano Letters, 2007, 7, 1091-1094.	4.5	75
7	Adsorption dynamics of CO on the polar surfaces of ZnO. Journal of Chemical Physics, 2000, 113, 6334-6343.	1.2	67
8	The adsorption of hydrogen on the rutile TiO2(110) surface. Physical Chemistry Chemical Physics, 2004, 6, 4203-4207.	1.3	59
9	Surface science perspective of carbon dioxide chemistryâ€”Adsorption kinetics and dynamics of CO2 on selected model surfaces. Catalysis Today, 2009, 148, 212-220.	2.2	58
10	Adsorption of CO2 on pristine Znâ€“ZnO(0001) and defected Znâ€“ZnO(0001): A thermal desorption spectroscopy study. Surface Science, 2005, 577, 158-166.	0.8	55
11	Adsorption dynamics of CO2 on Zn-ZnO(0001): A molecular beam study. Journal of Chemical Physics, 2005, 122, 044705.	1.2	55
12	Adsorption Kinetics and Dynamics of CO, NO, and CO₂ on Reduced CaO(100). Journal of Physical Chemistry C, 2008, 112, 7390-7400.	1.5	53
13	Adsorption of CO2 on oxidized, defected, hydrogen and oxygen covered rutile (1 ? 1)-TiO2(110). Physical Chemistry Chemical Physics, 2006, 8, 4805.	1.3	49
14	Oxygen interaction with disordered and nanostructured Ag(001) surfaces. Journal of Chemical Physics, 2001, 115, 3346-3355.	1.2	47
15	Adsorption dynamics of CO2 on Cu(110): A molecular beam study. Surface Science, 2006, 600, 583-590.	0.8	44
16	Adsorption dynamics of CO on Cu(110): a molecular beam study. Surface Science, 2001, 474, 114-128.	0.8	39
17	CO oxidation by atomically adsorbed oxygen on Ag(110) in the temperature range 100â€“300 K. Surface Science, 1997, 370, 17-31.	0.8	37
18	Evidence for two kinetically distinct atomic oxygen species on Ag(110): a molecular beam study of the CO oxidation reaction. Surface Science, 1995, 338, L869-L874.	0.8	35

#	Article	IF	Citations
19	HREELS study of CO oxidation on Ag(001) by O2 or O. Surface Science, 1997, 374, 1-8.	0.8	34
20	Adsorption Kinetics of Alcohols on Single-Wall Carbon Nanotubes: An Ultrahigh Vacuum Surface Chemistry Study. Journal of Physical Chemistry C, 2008, 112, 10114-10124.	1.5	34
21	Evidence for the oxidation of CO by molecular oxygen adsorbed on Ag(110). Surface Science, 1996, 364, 109-121.	0.8	33
22	Adsorption Dynamics of Alkanes on Single-Wall Carbon Nanotubes:â€‰ A Molecular Beam Scattering Study. Journal of Physical Chemistry C, 2007, 111, 8043-8049.	1.5	33
23	Methanol adsorption in carbon nanotubes. Chemical Physics Letters, 2007, 442, 344-347.	1.2	33
24	Adsorption kinetics of thiophene on single-walled carbon nanotubes (CNTs). Chemical Physics Letters, 2007, 447, 121-126.	1.2	33
25	Effect of preadsorbed oxygen on the adsorption of CO on Ir(110). Surface Science, 1997, 384, L869-L874.	0.8	32
26	Synthesis and characterization of WS2 nanotube supported cobalt catalyst for hydrodesulfurization. Materials Research Bulletin, 2012, 47, 1653-1660.	2.7	31
27	Adsorption of CO on rutile (1Ã—1)-TiO2(110): a molecular beam study. Surface Science, 2003, 544, 170-182.	0.8	28
28	Benzene adsorption on Ru(0001) and graphene/Ru(0001)â€”How to synthesize epitaxial graphene without STM or LEED?. Chemical Physics Letters, 2013, 590, 146-152.	1.2	28
29	Breakdown of normal energy scaling at high impact energy for O2 on Ag(001). Surface Science, 1998, 408, L693-L697.	0.8	27
30	Carbon dioxide adsorption on MgO(001)â€“CO2 kinetics and dynamics. Surface Science, 2013, 616, 171-177.	0.8	27
31	A molecular beam relaxation spectroscopy study of CO adsorption on Ag(110) and Pt(111). Surface Science, 1995, 331-333, 116-120.	0.8	26
32	Indications for Metal-support Interactions: The Case of CO2Adsorption on Cu/ZnO(0001). Catalysis Letters, 2005, 103, 219-223.	1.4	26
33	Adsorption of CO on the copper-precovered ZnO(0001) surface: A molecular-beam scattering study. Journal of Chemical Physics, 2005, 123, 184716.	1.2	26
34	Possible effect of carbon nanotube diameter on gasâ€“surface interactions â€“ The case of benzene, water, and n-pentane adsorption on SWCNTs at ultra-high vacuum conditions. Chemical Physics Letters, 2009, 476, 227-231.	1.2	26
35	Support effects in the adsorption of water on CVD graphene: an ultra-high vacuum adsorption study. Chemical Communications, 2015, 51, 11463-11466.	2.2	26
36	The ionic-to-neutral transition in alkali metal adsorption: Potassium on Ag(100). Surface Science, 1990, 234, L271-L274.	0.8	25

#	Article	IF	Citations
37	Reactivity screening of silica. Applied Surface Science, 2007, 253, 4860-4865.	3.1	25
38	Adsorption kinetics of alkanes on TiO2 nanotubesarray â€“ structureâ€“activity relationship. Surface Science, 2007, 601, 4620-4628.	0.8	25
39	MONTE CARLO SIMULATION OF THE ADSORBATE- ASSISTED ADSORPTION IN THE CASE OF CO/ZnO. Surface Review and Letters, 2001, 08, 353-360.	0.5	23
40	Effect of defects and pre-adsorbates on adsorption probabilities: a Monte Carlo simulation point of view. Surface Science, 2002, 507-510, 736-741.	0.8	23
41	Effect of oxygen vacancy sites on CO2 adsorption dynamics: The case of rutile (1Ã—1)-TiO2 (110). Chemical Physics Letters, 2006, 422, 461-465.	1.2	23
42	Adsorption kinetics and dynamics of small organic molecules on a silica wafer: Butane, pentane, nonane, thiophene, and methanol adsorption on SiO2/Si(111). Applied Surface Science, 2008, 254, 5271-5275.	3.1	23
43	The influence of surface reconstructions on the CO oxidation reaction rate for the surface. Surface Science, 1996, 352-354, 201-205.	0.8	22
44	Chemisorption of isobutane and neopentane on Ir(110). Surface Science, 2000, 446, 46-54.	0.8	22
45	Adsorption of water on graphene/Ru(0001)â€”an experimental ultra-high vacuum study. Chemical Communications, 2014, 50, 7698-7701.	2.2	21
46	Oxidation of CO by molecular oxygen adsorbed on Ag(110). Surface Science, 1996, 352-354, 253-257.	0.8	20
47	CO2 adsorption on Cr(110) and Cr2O3(0001)/Cr(110). Applied Surface Science, 2007, 253, 7108-7114.	3.1	20
48	Adsorption kinetics of benzene on graphene: An ultrahigh vacuum study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	20
49	Gasâ€“surface interactions with nanocatalysts: Particle size effects in the adsorption dynamics of CO on supported gold clusters. Chemical Physics Letters, 2009, 483, 250-253.	1.2	19
50	Structureâ€“activity relationship: the case of CO2 adsorption on H/Znâ€“ZnO(0001). Chemical Physics Letters, 2005, 403, 42-46.	1.2	18
51	Atomistic modeling of Zn deposition on the low index faces of Cu. Surface Science, 2006, 600, 195-204.	0.8	18
52	Unexpected high binding energy of CO₂ on CH₃NH₃PbI₃ lead-halide organicâ€“inorganic perovskites via bicarbonate formation. Chemical Communications, 2018, 54, 9949-9952.	2.2	18
53	Self-accelerating kinetics of CO2 formation on Ir(110). Surface Science, 1998, 396, 273-283.	0.8	17
54	Adsorption of Thiophene on Inorganic MoS2 Fullerene-Like Nanoparticles. Catalysis Letters, 2009, 129, 66-70.	1.4	17

#	Article	IF	Citations
55	MONTE CARLO SIMULATION OF ADSORPTION PROBABILITIES: THE CASE OF CO/DISORDEREDâ€“Cu(110) AND CO/Oâ€“Ir(110). Surface Review and Letters, 2003, 10, 7-12.	0.5	16
56	Adsorption of water on a hydrophobic surface â€“ The case of antimony(111). Chemical Physics Letters, 2011, 517, 46-50.	1.2	16
57	Gas-surface interactions on two-dimensional crystals. Surface Science Reports, 2019, 74, 141-177.	3.8	16
58	Adsorption of thiophene on silica-supported Mo clusters. Surface Science, 2010, 604, 1221-1229.	0.8	15
59	Adsorption Kinetics and Dynamics of CO₂ on Ru(0001) Supported Graphene Oxide. Journal of Physical Chemistry C, 2016, 120, 28049-28056.	1.5	15
60	Kinetic Monte Carlo simulations of the autocatalytic adsorption effect: CO on ZnO. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1284-1289.	0.9	14
61	Adsorption of iso-butane on ZnO(0001)â€“Zn. Surface Science, 2006, 600, 4855-4859.	0.8	14
62	Molecular beam scattering of linear and branched butane on graphite (HOPG). Surface Science, 2007, 601, 3421-3425.	0.8	14
63	Particle size effects in the adsorption dynamics of CO: The structureâ€“activity relationship in the case of Cu/Znâ€“ZnO. Chemical Physics Letters, 2005, 410, 131-135.	1.2	13
64	CO Oxidation on Anatase TiO2 Nanotubes Array and the Effect of Defects. Catalysis Letters, 2007, 118, 118-122.	1.4	13
65	Reactive and Non-reactive Interactions of Thiophene with WS2 Fullerene-like Nanoparticles: An Ultra-high Vacuum Surface Chemistry Study. Catalysis Letters, 2008, 125, 236-242.	1.4	13
66	Adsorption dynamics and kinetics of CO₂ on Fe/FeO_x nanoclusters supported on HOPG. Surface and Interface Analysis, 2008, 40, 893-898.	0.8	13
67	Adsorption Dynamics of CO on Silica Supported Gold Clusters: Cluster Size Effects in Molecular Beam Scattering Experiments. Catalysis Letters, 2010, 134, 228-232.	1.4	13
68	Adsorption kinetics and dynamics of CO on silica supported Au nanoclustersâ€”Utilizing physical vapor deposition and electron beam lithography. Journal of Molecular Catalysis A, 2010, 321, 101-109.	4.8	13
69	Adsorption dynamics of CO2 on copper-precovered ZnO(0001)â€“Zn: A molecular-beam scattering and thermal-desorption spectroscopy study. Journal of Chemical Physics, 2005, 123, 204710.	1.2	12
70	CO2 adsorption on the bimetallic Zn-on-Cu(110) system. Surface Science, 2006, 600, 1870-1876.	0.8	12
71	Coadsorption of CO and hydrogen on the Zn-terminated surface of ZnO: A molecular beam study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2003, 21, 1322-1325.	0.9	11
72	Adsorption of water on JSCâ€1A (simulated moon dust samples)â€”a surface science study. Surface and Interface Analysis, 2008, 40, 1423-1429.	0.8	11

#	Article	IF	Citations
73	Characterization of Niâ€Coated WS₂ Nanotubes for Hydrodesulfurization Catalysis. Israel Journal of Chemistry, 2012, 52, 1053-1062.	1.0	11
74	Adsorption of n-butane on graphene/Ru(0001)â€"A molecular beam scattering study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	11
75	Adsorption of Water on Two-Dimensional Crystals: Water/Graphene and Water/Silicatene. Inorganics, 2016, 4, 10.	1.2	11
76	ADSORPTION DYNAMICS OFCO2ON HYDROGEN PRECOVEREDZn-ZnO(0001): A MOLECULAR BEAM STUDY. Surface Review and Letters, 2004, 11, 521-529.	0.5	10
77	Adsorption of iso-/n-butane on an anatase thin film: a molecular beam scattering and TDS study. Catalysis Letters, 2007, 116, 9-14.	1.4	10
78	CO Adsorption on FeO x Nanoclusters Supported on HOPGâ€"Effect of Oxide Formation on Catalytic Activity. Catalysis Letters, 2008, 120, 179-183.	1.4	10
79	Multi-site kinetic Monte Carlo simulations of thermal desorption spectroscopy data. Surface Science, 2009, 603, 2494-2501.	0.8	10
80	Adsorption kinetics of methanol in carbon nanotubes revisited â€“ solvent effects and pitfalls in ultra-high vacuum surface science experiments. Chemical Physics Letters, 2009, 473, 131-134.	1.2	10
81	Adsorption Dynamics of CO on Silica Supported CuO_x Clusters: Utilizing Electron Beam Lithography To Study Methanol Synthesis Model Systems. Journal of Physical Chemistry C, 2012, 116, 5792-5801.	1.5	10
82	Water adsorption on two-dimensional silica films. Applied Surface Science, 2016, 364, 822-828.	3.1	10
83	Adsorption and reaction kinetics of small organic molecules on WS2 nanotubes: An ultra-high vacuum study. Chemical Physics Letters, 2009, 479, 109-112.	1.2	9
84	Effects of the support on the desorption kinetics of n-pentane from graphene: An ultrahigh vacuum adsorption study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, .	0.9	9
85	Surface Science Studies of Carbon Dioxide Chemistry. , 2013, , 27-47.		8
86	Adsorption Dynamics of CO on Silica-Supported Cu Clusters: A Molecular Beam Scattering Study. Journal of Physical Chemistry C, 2011, 115, 16590-16597.	1.5	7
87	Desulfurization-Related Surface Chemistry on Two-Dimensional Silica Films: Adsorption of Thiophene and Short-Chain Alkanes on Silicatene. Journal of Physical Chemistry C, 2018, 122, 8244-8253.	1.5	7
88	Molecular beam scattering of CO on iron oxide clusters supported on graphite (HOPG). Surface Science, 2008, 602, 811-818.	0.8	6
89	Adsorption dynamics of CO on copper and gold clusters supported on silica â€“ How special is nanogold?. Chemical Physics Letters, 2011, 517, 59-61.	1.2	6
90	Rim Effects in the Adsorption of CO₂ on Silica-Supported Copper Oxide Clusters: Identifying Active Sites Utilizing Electron Beam Lithography. Journal of Physical Chemistry C, 2012, 116, 18930-18936.	1.5	6

#	Article	IF	Citations
91	Adsorption of water on epitaxial graphene. Journal of Materials Research, 2021, 36, 129-139.	1.2	6
92	Adsorption and reaction kinetics of SO2 on graphene: An ultrahigh vacuum surface science study. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	6
93	Adsorption kinetics of small organic molecules on thick and thinner layers of carbon nanotubes. Chemical Physics Letters, 2009, 470, 300-303.	1.2	5
94	Adsorption and dissociation kinetics of alkanes on CaO(100). Surface Science, 2011, 605, 1537-1543.	0.8	5
95	Adsorption of Formic Acid on CH3NH3PbI3 Leadâ€“Halide Organicâ€“Inorganic Perovskites. Journal of Physical Chemistry C, 2019, 123, 22873-22886.	1.5	5
96	Benzene adsorption on two-dimensional silica films â€“ Benzene on silicatene. Chemical Physics Letters, 2017, 685, 490-495.	1.2	5
97	Identifying rims along nano-sized clusters as catalytically active sites â€“ The case of CuOx/silica model catalysts nanofabricated by electron beam lithography. Chemical Physics Letters, 2012, 544, 70-72.	1.2	4
98	Adsorption of alcohols on a two-dimensional SiO2 single crystal â€“ Alcohol adsorption on silicatene. Chemical Physics Letters, 2017, 689, 105-110.	1.2	4
99	Siteâ€specific Surface Chemistry on Nanotubes. Israel Journal of Chemistry, 2010, 50, 449-452.	1.0	3
100	Effect of carbon nanotubesâ€™ crystal structure on adsorption kinetics of small molecules. Journal of Thermal Analysis and Calorimetry, 2011, 106, 123-128.	2.0	3
101	Adsorption kinetics of small molecules on selenium foil. Surface Science, 2011, 605, 898-902.	0.8	3
102	Can Graphene Act as a (Noble) Metal-free Catalyst?. Current Physical Chemistry, 2022, 12, 2-10.	0.1	3
103	Unexpected bond activation of small organic molecules on a metal oxideâ€”butane/CaO(100). Chemical Communications, 2008, , 4073.	2.2	2
104	Reactivity Screening of Anatase TiO₂ Nanotubes Array and Anatase Thin Films: A Surface Chemistry Point of View. ACS Symposium Series, 2008, , 139-151.	0.5	2
105	Applications of electron beam lithography in surface science and catalysis â€“ model-nano-array catalysts. Catalysis, 2013, , 141-171.	0.6	1
106	REACTIVITY AND MORPHOLOGY OF Ni, Mo, AND Niâ€“Mo OXIDE CLUSTERS SUPPORTED ON MCM-48 TOWARD THIOPHENE HYDRODESULPHURIZATION. Surface Review and Letters, 2014, 21, 1450060.	0.5	1
107	Water adsorption on Al doped silicatene films grown on Mo(112). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, 041507.	0.9	1
108	Butane Adsorption on Silica Supported MoOx Clusters Nanofabricated by Electron Beam Lithography. ACS Symposium Series, 2013, , 295-310.	0.5	0

#	Article	IF	Citations
109	Adsorption of water on epitaxial graphene. Journal of Materials Research, 2021, 36, 1-11.	1.2	0