

Hendrik Bluhm

List of Publications by Year in descending order

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76
papers

7,518
citations

71102

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all docs

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docs citations

77
times ranked

9392
citing authors

#	ARTICLE	IF	CITATIONS
1	Prospects for the expansion of standing wave ambient pressure photoemission spectroscopy to reactions at elevated temperatures. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2022, 40, 013207.	2.1	2
2	Ambient pressure X-ray photoelectron spectroscopy study of room-temperature oxygen adsorption on Cu(1 0 0) and Cu(1 1 1). <i>Applied Surface Science</i> , 2022, 583, 152438.	6.1	15
3	Photoelectron angular distributions as sensitive probes of surfactant layer structure at the liquid-vapor interface. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 4796-4808.	2.8	11
4	Core level photoelectron spectroscopy of heterogeneous reactions at liquid-vapor interfaces: Current status, challenges, and prospects. <i>Journal of Chemical Physics</i> , 2021, 154, 060901.	3.0	36
5	Simultaneous ambient pressure x-ray photoelectron spectroscopy and grazing incidence x-ray scattering in gas environments. <i>Review of Scientific Instruments</i> , 2021, 92, 044102.	1.3	16
6	NO ₂ Interactions with MoO ₃ and CuO at Atmospherically Relevant Pressures. <i>Journal of Physical Chemistry C</i> , 2021, 125, 16489-16497.	3.1	5
7	Methanol Adsorption on Vanadium Oxide Surfaces Observed by Ambient Pressure X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2021, 125, 23192-23204.	3.1	1
8	Hydroxylation and Cation Segregation in (La _{0.5} Sr _{0.5})FeO _{3-δ} Electrodes. <i>Chemistry of Materials</i> , 2020, 32, 2926-2934.	6.7	12
9	Water-polyamide chemical interplay in desalination membranes explored by ambient pressure X-ray photoelectron spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 15658-15663.	2.8	3
10	Water adsorption on vanadium oxide thin films in ambient relative humidity. <i>Journal of Chemical Physics</i> , 2020, 152, 044715.	3.0	27
11	Quantitative Characterization of a Desalination Membrane Model System by X-ray Photoelectron Spectroscopy. <i>Langmuir</i> , 2019, 35, 11315-11321.	3.5	12
12	Water (Non-)Interaction with MoO ₃ . <i>Journal of Physical Chemistry C</i> , 2019, 123, 16836-16842.	3.1	35
13	Chemical, Structural, and Electronic Characterization of the (010) Surface of Single Crystalline Bismuth Vanadate. <i>Journal of Physical Chemistry C</i> , 2019, 123, 8347-8359.	3.1	28
14	Identifying the Role of Dynamic Surface Hydroxides in the Dehydrogenation of Ti-Doped NaAlH ₄ . <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 4930-4941.	8.0	19
15	Room temperature decomposition of dimethyl methylphosphonate on cuprous oxide yields atomic phosphorus. <i>Surface Science</i> , 2019, 680, 75-87.	1.9	20
16	Charge Transfer Across Oxide Interfaces Probed by in Situ X-ray Photoelectron and Absorption Spectroscopy Techniques. <i>Journal of Physical Chemistry C</i> , 2018, 122, 4841-4848.	3.1	11
17	Exciting H ₂ Molecules for Graphene Functionalization. <i>ACS Nano</i> , 2018, 12, 513-520.	14.6	24
18	Water Adsorption and Dissociation on Polycrystalline Copper Oxides: Effects of Environmental Contamination and Experimental Protocol. <i>Journal of Physical Chemistry B</i> , 2018, 122, 1000-1008.	2.6	61

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19	Coupling Ambient Pressure X-ray Photoelectron Spectroscopy with Density Functional Theory to Study Complex Surface Chemistry and Catalysis. <i>Topics in Catalysis</i> , 2018, 61, 2175-2184.	2.8	8
20	Dimethyl methylphosphonate adsorption and decomposition on MoO ₂ as studied by ambient pressure x-ray photoelectron spectroscopy and DFT calculations. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 134005.	1.8	19
21	Surface Orientation Dependent Water Dissociation on Rutile Ruthenium Dioxide. <i>Journal of Physical Chemistry C</i> , 2018, 122, 17802-17811.	3.1	44
22	Structure of Copper-Cobalt Surface Alloys in Equilibrium with Carbon Monoxide Gas. <i>Journal of the American Chemical Society</i> , 2018, 140, 6575-6581.	13.7	23
23	Enhancing Graphene Protective Coatings by Hydrogen-Induced Chemical Bond Formation. <i>ACS Applied Nano Materials</i> , 2018, 1, 4509-4515.	5.0	19
24	Visualization of Water-Induced Surface Segregation of Polarons on Rutile TiO ₂ (110). <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 4865-4871.	4.6	28
25	Thermal desorption of dimethyl methylphosphonate from MoO ₃ . <i>Journal of Lithic Studies</i> , 2017, 3, 112-118.	0.5	19
26	Reversed interfacial fractionation of carbonate and bicarbonate evidenced by X-ray photoemission spectroscopy. <i>Journal of Chemical Physics</i> , 2017, 146, .	3.0	21
27	Ambient pressure photoelectron spectroscopy: Practical considerations and experimental frontiers. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 053002.	1.8	63
28	Combined soft and hard X-ray ambient pressure photoelectron spectroscopy studies of semiconductor/electrolyte interfaces. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2017, 221, 106-115.	1.7	40
29	Direct observation of enhanced water and carbon dioxide reactivity on multivalent metal oxides and their composites. <i>Energy and Environmental Science</i> , 2017, 10, 919-923.	30.8	16
30	Direct Mapping of Band Positions in Doped and Undoped Hematite during Photoelectrochemical Water Splitting. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 5579-5586.	4.6	53
31	Impact of Ti Incorporation on Hydroxylation and Wetting of Fe ₃ O ₄ . <i>Journal of Physical Chemistry C</i> , 2017, 121, 19288-19295.	3.1	10
32	CO adsorption on Pd(100) studied by multimodal ambient pressure X-ray photoelectron and infrared reflection absorption spectroscopies. <i>Surface Science</i> , 2017, 665, 51-55.	1.9	25
33	Spectroscopic and Computational Investigation of Room-Temperature Decomposition of a Chemical Warfare Agent Simulant on Polycrystalline Cupric Oxide. <i>Chemistry of Materials</i> , 2017, 29, 7483-7496.	6.7	48
34	Adsorption of Dimethyl Methylphosphonate on MoO ₃ : The Role of Oxygen Vacancies. <i>Journal of Physical Chemistry C</i> , 2016, 120, 29077-29088.	3.1	66
35	Water at Interfaces. <i>Chemical Reviews</i> , 2016, 116, 7698-7726.	47.7	536
36	Graphene Membranes for Atmospheric Pressure Photoelectron Spectroscopy. <i>Journal of Physical Chemistry Letters</i> , 2016, 7, 1622-1627.	4.6	88

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37	A soft X-ray spectroscopic perspective of electron localization and transport in tungsten doped bismuth vanadate single crystals. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 31958-31965.	2.8	16
38	Activation of Cu(111) surface by decomposition into nanoclusters driven by CO adsorption. <i>Science</i> , 2016, 351, 475-478.	12.6	245
39	Redox activity of surface oxygen anions in oxygen-deficient perovskite oxides during electrochemical reactions. <i>Nature Communications</i> , 2015, 6, 6097.	12.8	297
40	Reactivity of Perovskites with Water: Role of Hydroxylation in Wetting and Implications for Oxygen Electrocatalysis. <i>Journal of Physical Chemistry C</i> , 2015, 119, 18504-18512.	3.1	88
41	Reaction of CO with Preadsorbed Oxygen on Low-Index Copper Surfaces: An Ambient Pressure X-ray Photoelectron Spectroscopy and Scanning Tunneling Microscopy Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 14669-14674.	3.1	43
42	Characterization of the Acetonitrile Aqueous Solution/Vapor Interface by Liquid-Jet X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2014, 118, 29378-29388.	3.1	59
43	Surface Chemistry of CO on Ru(0001) under the Confinement of Graphene Cover. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12391-12398.	3.1	51
44	Concentration and chemical-state profiles at heterogeneous interfaces with sub-nm accuracy from standing-wave ambient-pressure photoemission. <i>Nature Communications</i> , 2014, 5, 5441.	12.8	100
45	Water Reactivity on the LaCoO ₃ (001) Surface: An Ambient Pressure X-ray Photoelectron Spectroscopy Study. <i>Journal of Physical Chemistry C</i> , 2014, 118, 19733-19741.	3.1	84
46	In Situ Ambient Pressure X-ray Photoelectron Spectroscopy of Cobalt Perovskite Surfaces under Cathodic Polarization at High Temperatures. <i>Journal of Physical Chemistry C</i> , 2013, 117, 16087-16094.	3.1	89
47	Chemistry of NO _x on TiO ₂ Surfaces Studied by Ambient Pressure XPS: Products, Effect of UV Irradiation, Water, and Coadsorbed K ⁺ . <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 536-541.	4.6	79
48	Dealloying of Cobalt from CuCo Nanoparticles under Syngas Exposure. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6259-6266.	3.1	74
49	Experimental and theoretical investigation of the electronic structure of Cu ₂ O and CuO thin films on Cu(110) using x-ray photoelectron and absorption spectroscopy. <i>Journal of Chemical Physics</i> , 2013, 138, 024704.	3.0	219
50	Electrochemical intermediate species and reaction pathway in H ₂ oxidation on solid electrolytes. <i>Chemical Communications</i> , 2012, 48, 8338.	4.1	15
51	Ambient Pressure X-ray Photoelectron Spectroscopy and Molecular Dynamics Simulation Studies of Liquid/Vapor Interfaces of Aqueous NaCl, RbCl, and RbBr Solutions. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4545-4555.	3.1	58
52	Highly Enhanced Concentration and Stability of Reactive Ce ³⁺ on Doped CeO ₂ Surface Revealed In Operando. <i>Chemistry of Materials</i> , 2012, 24, 1876-1882.	6.7	169
53	In Situ Oxidation Study of Pt(110) and Its Interaction with CO. <i>Journal of the American Chemical Society</i> , 2011, 133, 20319-20325.	13.7	120
54	Autocatalytic Surface Hydroxylation of MgO(100) Terrace Sites Observed under Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2011, 115, 12864-12872.	3.1	71

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55	Formation of hydroxyl and water layers on MgO films studied with ambient pressure XPS. <i>Surface Science</i> , 2011, 605, 89-94.	1.9	130
56	Surface Chemical Properties of Eutectic and Frozen NaCl Solutions Probed by XPS and NEXAFS. <i>ChemPhysChem</i> , 2010, 11, 3859-3866.	2.1	38
57	Photoelectron spectroscopy of surfaces under humid conditions. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2010, 177, 71-84.	1.7	166
58	Note: Fixture for characterizing electrochemical devices in-operando in traditional vacuum systems. <i>Review of Scientific Instruments</i> , 2010, 81, 086104.	1.3	39
59	Water Adsorption on $\text{Fe}_2\text{O}_3(0001)$ at near Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2256-2266.	3.1	238
60	Break-Up of Stepped Platinum Catalyst Surfaces by High CO Coverage. <i>Science</i> , 2010, 327, 850-853.	12.6	456
61	Photoelectron spectroscopy under ambient pressure and temperature conditions. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2009, 601, 151-160.	1.6	221
62	NO_2 Adsorption on Ag(100) Supported MgO(100) Thin Films: Controlling the Adsorption State with Film Thickness. <i>Journal of Physical Chemistry C</i> , 2009, 113, 7355-7363.	3.1	32
63	Interfacial Behavior of Perchlorate versus Chloride Ions in Aqueous Solutions. <i>Journal of Physical Chemistry B</i> , 2009, 113, 15843-15850.	2.6	36
64	A combined droplet train and ambient pressure photoemission spectrometer for the investigation of liquid/vapor interfaces. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 3093.	2.8	54
65	Ion spatial distributions at the liquid-vapor interface of aqueous potassium fluoride solutions. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 4778.	2.8	103
66	Surface Chemistry of Cu in the Presence of CO_2 and H_2O . <i>Langmuir</i> , 2008, 24, 9474-9478.	3.5	178
67	Adsorption of Water on Cu_2O and Al_2O_3 Thin Films. <i>Journal of Physical Chemistry C</i> , 2008, 112, 9668-9672.	3.1	120
68	Ion Partitioning at the Liquid/Vapor Interface of a Multicomponent Alkali Halide Solution: A Model for Aqueous Sea Salt Aerosols. <i>Journal of Physical Chemistry A</i> , 2008, 112, 12378-12384.	2.5	79
69	Growth and Structure of Water on SiO_2 Films on Si Investigated by Kelvin Probe Microscopy and in Situ X-ray Spectroscopies. <i>Langmuir</i> , 2007, 23, 9699-9703.	3.5	157
70	Hydroxyl-Induced Wetting of Metals by Water at Near-Ambient Conditions. <i>Journal of Physical Chemistry C</i> , 2007, 111, 7848-7850.	3.1	138
71	The Nature of Water Nucleation Sites on $\text{TiO}_2(110)$ Surfaces Revealed by Ambient Pressure X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2007, 111, 8278-8282.	3.1	374
72	The Effect of an Organic Surfactant on the Liquid-Vapor Interface of an Electrolyte Solution. <i>Journal of Physical Chemistry C</i> , 2007, 111, 13497-13509.	3.1	115

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73	Electron Spectroscopy of Aqueous Solution Interfaces Reveals Surface Enhancement of Halides. <i>Science</i> , 2005, 307, 563-566.	12.6	611
74	In Situ Spectroscopic Study of the Oxidation and Reduction of Pd(111). <i>Journal of the American Chemical Society</i> , 2005, 127, 18269-18273.	13.7	218
75	Methanol Oxidation on a Copper Catalyst Investigated Using in Situ X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry B</i> , 2004, 108, 14340-14347.	2.6	221
76	A differentially pumped electrostatic lens system for photoemission studies in the millibar range. <i>Review of Scientific Instruments</i> , 2002, 73, 3872-3877.	1.3	453