Manfred Buck

List of Publications by Year
in descending order

113 papers	5,543 citations	76326 40 h-index	82547 72 g-index
116 all docs	116 docs citations	116 times ranked	4218 citing authors

#	Article	IF	Citations
1	Functionalizing hydrogen-bonded surface networks with self-assembled monolayers. Nature, 2008, 454, 618-621.	27.8	358
2	On the Importance of the Headgroup Substrate Bond in Thiol Monolayers:â€‰ A Study of Biphenyl-Based Thiols on Gold and Silver. Langmuir, 2001, 17, 1582-1593.	3.5	246
3	Vibrational spectroscopy of interfaces by infraredâ€“visible sum frequency generation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2001, 19, 2717.	2.1	240
4	Self-Assembly ofn-Alkanethiol Monolayers. A Study by IRâ^'Visible Sum Frequency Spectroscopy (SFG). Journal of Physical Chemistry B, 2000, 104, 576-584.	2.6	224
5	Self-Assembly of n-Alkanethiols:â€‰ A Kinetic Study by Second Harmonic Generation. Journal of Physical Chemistry B, 1999, 103, 2202-2213.	2.6	189
6	A Deep Blue B,N-Doped Heptacene Emitter That Shows Both Thermally Activated Delayed Fluorescence and Delayed Fluorescence by Tripletâ€“Triplet Annihilation. Journal of the American Chemical Society, 2020, 142, 6588-6599.	13.7	189
7	Self-Assembled Monolayers of Ï‰-Biphenylalkanethiols on Au(111):â€‰ Influence of Spacer Chain on Molecular Packing. Journal of Physical Chemistry B, 2004, 108, 4989-4996.	2.6	157
8	Pronounced Oddâ^'Even Changes in the Molecular Arrangement and Packing Density of Biphenyl-Based Thiol SAMs:Â A Combined STM and LEED Study. Langmuir, 2003, 19, 8262-8270.	3.5	155
9	Solvation of Oligo(ethylene glycol)-Terminated Self-Assembled Monolayers Studied by Vibrational Sum Frequency Spectroscopy. Langmuir, 2000, 16, 5849-5852.	3.5	152
10	Self-Assembled Monolayers from Organosulfur Compounds:â€‰ A Comparison between Sulfides, Disulfides, and Thiols. Langmuir, 1998, 14, 1103-1107.	3.5	146
11	Vibrational spectra of hydrogen on diamond C(111)-(1Ã—1). Physical Review B, 1992, 45, 1522-1524.	3.2	143
12	Oddâ^'Even Effects at the S-Metal Interface and in the Aromatic Matrix of Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers. Journal of Physical Chemistry B, 2001, 105, 6888-6894.	2.6	132
13	The effect of sulfurâ€“metal bonding on the structure of self-assembled monolayers. Physical Chemistry Chemical Physics, 2000, 2, 3359-3362.	2.8	129
14	An orientation analysis of differently endgroup-functionalised alkanethiols adsorbed on Au substrates. Thin Solid Films, 1997, 307, 183-191.	1.8	126
15	Coexistence of Different Structural Phases in Thioaromatic Monolayers on Au(111). Langmuir, 2003, 19, 4958-4968.	3.5	120
16	Self-Assembled Monolayers of Aromatic Selenolates on Noble Metal Substrates. Journal of Physical Chemistry B, 2005, 109, 13630-13638.	2.6	112
17	Investigation of self-organizing thiol films by optical second harmonic generation and X-ray photoelectron spectroscopy. Applied Physics A: Solids and Surfaces, 1991, 53, 552-556.	1.4	110
18	Adsorption of docosanethiol from solution on polycrystalline silver surfaces: an XPS and NEXAFS study. Journal of Electron Spectroscopy and Related Phenomena, 1998, 92, 139-149.	1.7	104

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19	Competition as a Design Concept:Â Polymorphism in Self-Assembled Monolayers of Biphenyl-Based Thiols. Journal of the American Chemical Society, 2006, 128, 13868-13878.	13.7	91
20	Redox mediation enabled by immobilised centres in the pores of a metalâ€“organic framework grown by liquid phase epitaxy. Chemical Communications, 2012, 48, 663-665.	4.1	91
21	Adsorption kinetics of nâ€alkyl thiols on gold studied by second harmonic generation and xâ€ray photoelectron spectroscopy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1992, 10, 926-929.	2.1	85
22	Response of Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers to Electron Irradiation:Â Damage Suppression and Oddâ^'Even Effects. Langmuir, 2002, 18, 3142-3150.	3.5	85
23	Fabrication of Thiol-Terminated Surfaces Using Aromatic Self-Assembled Monolayers. Journal of Physical Chemistry B, 2004, 108, 16806-16810.	2.6	81
24	Polymorphism in Biphenyl-Based Self-Assembled Monolayers of Thiols. Journal of the American Chemical Society, 2004, 126, 5960-5961.	13.7	77
25	Stress in Self-Assembled Monolayers:Â Ï‰-Biphenyl Alkane Thiols on Au(111). Journal of Physical Chemistry B, 2005, 109, 10902-10908.	2.6	77
26	Self-Assembly of a Pyridine-Terminated Thiol Monolayer on Au(111). Langmuir, 2009, 25, 959-967.	3.5	73
27	Electrode modification by electron-induced patterning of aromatic self-assembled monolayers. Applied Physics Letters, 2001, 79, 3323-3325.	3.3	68
28	Adsorption of Long-Chain Alkanethiols on Au(111): A Look from the Substrate by High Resolution X-ray Photoelectron Spectroscopy. Journal of Physical Chemistry C, 2010, 114, 7112-7119.	3.1	62
29	Influence of Molecular Structure on Phase Transitions:â€‰ A Study of Self-Assembled Monolayers of 2-(Aryl)-ethane Thiols. Journal of Physical Chemistry C, 2007, 111, 16909-16919.	3.1	60
30	Self-Assembled Monolayers of Semifluorinated Alkaneselenolates on Noble Metal Substrates. Langmuir, 2005, 21, 8204-8213.	3.5	58
31	Molecular orientation determined by second-harmonic generation: Self-assembled monolayers. Physical Review B, 1998, 58, 10860-10870.	3.2	52
32	Electrochemical and exchange studies of self-assembled monolayers of biphenyl based thiols on gold. Journal of Electroanalytical Chemistry, 2003, 550-551, 309-319.	3.8	52
33	Monolayers of trimesic and isophthalic acid on Cu and Ag: the influence of coordination strength on adsorption geometry. Chemical Science, 2013, 4, 4455.	7.4	49
34	Self-Assembled Monolayers of Oligophenylenecarboxylic Acids on Silver Formed at the Liquidâ€“Solid Interface. Langmuir, 2016, 32, 9397-9409.	3.5	47
35	Electrochemical stability of self-assembled monolayers of biphenyl based thiols studied by cyclic voltammetry and second harmonic generation. Surface Science, 2005, 581, 33-46.	1.9	46
36	Electrodeposition of Palladium onto a Pyridine-Terminated Self-Assembled Monolayer. Langmuir, 2011, 27, 2567-2574.	3.5	46

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37	Effects of pore modification on the templating of guest molecules in a 2D honeycomb network. Chemical Science, 2012, 3, 84-92.	7.4	46
38	Functionalized Fullerenes in Self-Assembled Monolayers. Langmuir, 2011, 27, 10977-10985.	3.5	45
39	Solvent Dependence of the Self-Assembly Process of an Endgroup-Modified Alkanethiol. Langmuir, 1998, 14, 4679-4682.	3.5	43
40	Self-Assembled Monolayers of a Bis(pyrazol-1-yl)pyridine-Substituted Thiol on Au(111). Langmuir, 2008, 24, 12883-12891.	3.5	40
41	Optical properties of a light-emitting polymer directly patterned by soft lithography. Applied Physics Letters, 2002, 81, 1955-1957.	3.3	39
42	Oddâ€“even effects in the cyclic voltammetry of self-assembled monolayers of biphenyl based thiols. Journal of Electroanalytical Chemistry, 2002, 524-525, 62-67.	3.8	39
43	Polar ordering of polar octahedra in [C2N2H10][VOF4(H2O)]. Journal of Materials Chemistry, 2005, 15, 4298.	6.7	39
44	On the Role of Extrinsic and Intrinsic Defects in the Underpotential Deposition of Cu on Thiol-Modified Au(111) Electrodes. Journal of Physical Chemistry C, 2008, 112, 3881-3890.	3.1	39
45	A Supramolecular Network as Sacrificial Mask for the Generation of a Nanopatterned Binary Selfâ€Assembled Monolayer. Small, 2010, 6, 391-394.	10.0	37
46	Structural Investigation of a Self-Assembled Monolayer of a p-Nitroanilino-Terminated Thiol. Langmuir, 1996, 12, 5330-5337.	3.5	35
47	Electrode modification by electron-induced patterning of self-assembled monolayers. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2002, 20, 2734.	1.6	35
48	Replicative generation of metal microstructures by template-directed electrometallization. Applied Physics Letters, 2005, 87, 024101.	3.3	34
49	A spectroscopic study of thiol layers prepared by contact printing. Applied Surface Science, 1999, 141, 237-243.	6.1	32
50	On the Importance of Purity for the Formation of Self-Assembled Monolayers from Thiocyanates. Langmuir, 2008, 24, 6609-6615.	3.5	32
51	Structure of isophthalic acid based monolayers and its relation to the initial stages of growth of metalâ€“organic coordination layers. Chemical Science, 2012, 3, 1858.	7.4	32
52	Structural changes accompanying the hydrogen desorption from the diamond C(111):H(1 Ã— 1)-surface revisited by helium atom scattering. Surface Science, 1997, 385, L958-L964.	1.9	30
53	How Penetrable Are Thioalkyl Self-Assembled Monolayers?. Journal of Physical Chemistry Letters, 2010, 1, 1917-1921.	4.6	29
54	Detection of Molecular Alignment in Confined Films. Science, 2000, 287, 468-470.	12.6	27

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55	A Supramolecular Hydrogenâ€Bonded Network as a Diffusion Barrier for Metal Adatoms. Angewandte Chemie - International Edition, 2009, 48, 3349-3352.	13.8	27
56	Electron-beam patterned self-assembled monolayers as templates for Cu electrodeposition and lift-off. Beilstein Journal of Nanotechnology, 2012, 3, 101-113.	2.8	27
57	Organic chemistry at interfaces studied by optical second-harmonic and IR-vis sum-frequency generation. Applied Physics A: Solids and Surfaces, 1992, 55, 395-402.	1.4	26
58	Mechanism of Charge Transport in Anisotropic Layers of a Phthalocyanine Polymer. Journal of Physical Chemistry B, 1999, 103, 3179-3186.	2.6	26
59	Isophthalic Acid: A Basis for Highly Ordered Monolayers. Angewandte Chemie - International Edition, 2010, 49, 6220-6223.	13.8	26
60	Diamond force microscope tips fabricated by chemical vapor deposition. Review of Scientific Instruments, 1992, 63, 4053-4055.	1.3	25
61	Porous Honeycomb Self-Assembled Monolayers: Tripodal Adsorption and Hidden Chirality of Carboxylate Anchored Triptycenes on Ag. ACS Nano, 2021, 15, 11168-11179.	14.6	25
62	Pulsed laser-induced desorption from molecular systems studied by time-of-flight analysis: measurement and interpretation. Journal of Electron Spectroscopy and Related Phenomena, 1987, 45, 237-247.	1.7	22
63	Electrochemical investigation of covalently post-synthetic modified SURGEL coatings. Chemical Communications, 2014, 50, 11129-11131.	4.1	22
64	Film Quality and Electronic Properties of a Surfaceâ€Anchored Metalâ€Organic Framework Revealed by using a Multiâ€technique Approach. ChemElectroChem, 2016, 3, 713-718.	3.4	22
65	Electrodeposition of gold templated by patterned thiol monolayers. Applied Surface Science, 2016, 373, 51-60.	6.1	21
66	What can we learn from the non-linear optical investigation of the liquidâˆ£solid interface?. Journal of Electroanalytical Chemistry, 1999, 473, 25-33.	3.8	20
67	Photothermal desorption spectroscopy with IR lasers. Surface Science, 1985, 161, 245-254.	1.9	17
68	Wavelength-dependent resonant surface heating and desorption with IR lasers: A new spectroscopic tool. Infrared Physics, 1985, 25, 245-250.	0.5	16
69	Monolayers of Biphenyl-3,4â€²,5-tricarboxylic Acid Formed on Cu and Ag from Solution. Journal of Physical Chemistry C, 2015, 119, 14114-14125.	3.1	16
70	Reactivity of self-assembled monolayers: formation of organized amino functionalities. Physical Chemistry Chemical Physics, 2000, 2, 1509-1514.	2.8	14
71	Normal incidence X-ray standing wave analysis of thin gold films. Surface Science, 2006, 600, 4825-4828.	1.9	14
72	Carbon Nanomembranes from Aromatic Carboxylate Precursors. ChemPhysChem, 2020, 21, 1006-1011.	2.1	14

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73	Nanoscale patterning of a self-assembled monolayer by modification of the moleculeâ€“substrate bond. Beilstein Journal of Nanotechnology, 2014, 5, 258-267.	2.8	13
74	Mercury induced reorientation of alkanethiolates adsorbed on gold. Applied Physics B: Lasers and Optics, 1999, 68, 595-598.	2.2	12
75	Ab initio calculations of vibrational spectra of 2-methoxy ethanol in the Câ€“H stretching range. Physical Chemistry Chemical Physics, 2003, 5, 18-25.	2.8	12
76	Self-assembly of 1,3,5-benzenetribenzoic acid on Ag and Cu at the liquid/solid interface. Physical Chemistry Chemical Physics, 2018, 20, 2731-2740.	2.8	12
77	A study of IR laser-induced desorption from benzene films by time-of-flight spectroscopy. Chemical Physics Letters, 1989, 158, 486-490.	2.6	11
78	Ablation of benzene from Van Der Waals films with excimer laser pulses at 248 nm. Applied Surface Science, 1989, 43, 358-362.	6.1	11
79	Heterogeneous nanotribological response of polymorphic self-assembled monolayers arising from domain and phase dependent friction. Physical Chemistry Chemical Physics, 2013, 15, 1302-1309.	2.8	11
80	Vibrational spectroscopy at interfaces by ir-vis sum-frequency generation using CLIO FEL. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 375, 657-661.	1.6	10
81	On the Interpretation of Multiple Waves in Cyclic Voltammograms of Self-Assembled Monolayers of n-Alkane Thiols on Gold. Zeitschrift Fur Physikalische Chemie, 2008, 222, 739-754.	2.8	10
82	Patterning of self-assembled monolayers based on differences in molecular conductance. Nanotechnology, 2009, 20, 245306.	2.6	9
83	Sequential nested assembly at the liquid/solid interface. Faraday Discussions, 2017, 204, 173-190.	3.2	9
84	Underpotential deposition of Cu on Au(111) from neutral chloride containing electrolyte. Physical Chemistry Chemical Physics, 2017, 19, 24146-24153.	2.8	9
85	Thiol adsorption on gold studied by resonant second harmonic generation and phase sensitive detection. Journal of Electron Spectroscopy and Related Phenomena, 1993, 64-65, 159-166.	1.7	8
86	Chemical Vapor Deposition of Diamond:â€‰ An in Situ Study by Vibrational Spectroscopy. Journal of the American Chemical Society, 2001, 123, 6732-6733.	13.7	8
87	In situ observation of particle-induced desorption from a self-assembled monolayer by laser-ionization mass spectrometry. Applied Physics Letters, 2003, 82, 1114-1116.	3.3	8
88	Friction and Adhesion on Different Phases of a Biphenyl-Alkanethiol Self-Assembled Monolayer on Gold Studied with Scanning Force Microscopy. Journal of Physical Chemistry C, 2008, 112, 19465-19469.	3.1	8
89	Bonding Asymmetry and Adatoms in Low-Density Self-Assembled Monolayers of Dithiols on Au(111). Journal of Physical Chemistry C, 2011, 115, 21800-21803.	3.1	8
90	Coordination controlled electrodeposition and patterning of layers of palladium/copper nanoparticles on top of a self-assembled monolayer. Nanoscale, 2019, 11, 13773-13782.	5.6	8

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91	Optical second-harmonic generation on the diamond C(111) surface. Diamond and Related Materials, 1995, 4, 544-547.	3.9	7
92	Formation of organic thin films at the liquid-solid interface studied by second harmonic spectroscopy. Thin Solid Films, 1996, 284-285, 396-399.	1.8	7
93	Phase-Dependent Desorption from Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers Induced by Ion Irradiation. Journal of Physical Chemistry C, 2008, 112, 2248-2251.	3.1	7
94	Self-Assembly of Di(pyrazol-1-yl)pyridine-benzoic Acid on Underpotentially Deposited Ag from Solution. Langmuir, 2018, 34, 9654-9664.	3.5	7
95	Shape controlled assembly of carboxylic acids: formation of a binary monolayer by intercalation into molecular nanotunnels. Physical Chemistry Chemical Physics, 2020, 22, 4205-4215.	2.8	7
96	Investigation of nucleation centres in diamond chemical vapour deposition with spatially resolved X-ray photoelectron spectroscopy. Diamond and Related Materials, 1993, 2, 1525-1528.	3.9	6
97	Accommodation of Lattice Mismatch in a Thiol Self-Assembled Monolayer. Journal of Physical Chemistry C, 2013, 117, 4647-4656.	3.1	6
98	Bestowing structure upon the pores of a supramolecular network. Chemical Communications, 2014, 50, 14175-14178.	4.1	6
99	Thiocyanate Anchors for Salt-like Iron(II) Complexes on Au(111): Promises and Caveats. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2014, 69, 1164-1180.	0.7	6
100	In-Situ Scrutiny of the Relationship between Polymorphic Phases and Properties of Self-Assembled Monolayers of a Biphenyl Based Thiol. Journal of Physical Chemistry B, 2018, 122, 657-665.	2.6	6
101	Nanopatterning by Molecular Self-assembly on Surfaces. Chimia, 2013, 67, 222-226.	0.6	5
102	New Experimental Approaches for the Study of Polymer/Metal Interphases. Journal of Adhesion, 1994, 45, 227-243.	3.0	4
103	Electron-Induced Modification of Self-Assembled Monolayers of Aromatic Carboxylic Acids. Journal of Physical Chemistry C, 2020, 124, 25107-25120.	3.1	4
104	Non-Destructive In Situ Analysis of Interface Processes and Thin Film Growth. Journal of Adhesion, 1996, 58, 227-241.	3.0	3
105	Comment on â€œThe structure and formation of hydrogen-bonded molecular networks on Au(111) surfaces revealed by scanning tunnelling and torsional-tapping atomic force microscopyâ€• by V. V. Korolkov, N. Mullin, S. Allen, C. J. Roberts, J. K. Hobbs and S. J. B. Tendler, Phys. Chem. Chem. Phys., 2012, 14, 15909. Physical Chemistry Chemical Physics, 2013, 15, 14126.	2.8	3
106	Polymer films on metals investigated by optical second harmonic generation. Fresenius' Journal of Analytical Chemistry, 1994, 349, 58-62.	1.5	2
107	Supramolecular effects in self-assembled monolayers: general discussion. Faraday Discussions, 2017, 204, 123-158.	3.2	2
108	Supramolecular systems at liquidâ€“solid interfaces: general discussion. Faraday Discussions, 2017, 204, 271-295.	3.2	2

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109	A step beyond flatland. Nature Chemistry, 2017, 9, 1152-1154.	13.6	2
110	Density Functional Theory Study of Pd Aggregation on a Pyridineâ€Terminated Selfâ€Assembled Monolayer. Chemistry - A European Journal, 2020, 26, 10555-10563.	3.3	1
111	Diamond nucleation by seeding from the gas phase. Applied Physics Letters, 1995, 67, 3898-3900.	3.3	0
112	Organic Monolayers, Networks, Electrochemistry: A Toolbox for the Nanoscale. , 2010, , .		0
113	Preparing macromolecular systems on surfaces: general discussion. Faraday Discussions, 2017, 204, 395-418.	3.2	0