

# Manfred Buck

## List of Publications by Citations

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116  
ext. papers

5,272  
ext. citations

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5.26  
L-index

#	Paper	IF	Citations
115	Functionalizing hydrogen-bonded surface networks with self-assembled monolayers. <i>Nature</i> , <b>2008</b> , 454, 618-21	50.4	333
114	On the Importance of the Headgroup Substrate Bond in Thiol Monolayers: A Study of Biphenyl-Based Thiols on Gold and Silver. <i>Langmuir</i> , <b>2001</b> , 17, 1582-1593	4	233
113	Vibrational spectroscopy of interfaces by infrared-visible sum frequency generation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2001</b> , 19, 2717	2.9	220
112	Self-Assembly of n-Alkanethiol Monolayers. A Study by IR-Visible Sum Frequency Spectroscopy (SFG). <i>Journal of Physical Chemistry B</i> , <b>2000</b> , 104, 576-584	3.4	207
111	Self-Assembly of n-Alkanethiols: A Kinetic Study by Second Harmonic Generation. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 2202-2213	3.4	178
110	Self-Assembled Monolayers of $\pi$ -Biphenylalkanethiols on Au(111): Influence of Spacer Chain on Molecular Packing. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 4989-4996	3.4	149
109	Pronounced Odd-Even Changes in the Molecular Arrangement and Packing Density of Biphenyl-Based Thiol SAMs: A Combined STM and LEED Study. <i>Langmuir</i> , <b>2003</b> , 19, 8262-8270	4	148
108	Solvation of Oligo(ethylene glycol)-Terminated Self-Assembled Monolayers Studied by Vibrational Sum Frequency Spectroscopy. <i>Langmuir</i> , <b>2000</b> , 16, 5849-5852	4	143
107	Self-Assembled Monolayers from Organosulfur Compounds: A Comparison between Sulfides, Disulfides, and Thiols. <i>Langmuir</i> , <b>1998</b> , 14, 1103-1107	4	134
106	Vibrational spectra of hydrogen on diamond C(111)-(1 x 1). <i>Physical Review B</i> , <b>1992</b> , 45, 1522-1524	3.3	132
105	Odd-Even Effects at the S-Metal Interface and in the Aromatic Matrix of Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , <b>2001</b> , 105, 6888-6894	3.4	129
104	The effect of sulfur-metal bonding on the structure of self-assembled monolayers. <i>Physical Chemistry Chemical Physics</i> , <b>2000</b> , 2, 3359-3362	3.6	122
103	An orientation analysis of differently endgroup-functionalised alkanethiols adsorbed on Au substrates. <i>Thin Solid Films</i> , <b>1997</b> , 307, 183-191	2.2	119
102	Coexistence of Different Structural Phases in Thioaromatic Monolayers on Au(111). <i>Langmuir</i> , <b>2003</b> , 19, 4958-4968	4	112
101	Self-assembled monolayers of aromatic selenolates on noble metal substrates. <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 13630-8	3.4	101
100	Adsorption of docosanethiol from solution on polycrystalline silver surfaces: an XPS and NEXAFS study. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1998</b> , 92, 139-149	1.7	98
99	Investigation of self-organizing thiol films by optical second harmonic generation and X-ray photoelectron spectroscopy. <i>Applied Physics A: Solids and Surfaces</i> , <b>1991</b> , 53, 552-556		97

98	Competition as a design concept: polymorphism in self-assembled monolayers of biphenyl-based thiols. <i>Journal of the American Chemical Society</i> , <b>2006</b> , 128, 13868-78	16.4	88
97	Adsorption kinetics of n-alkyl thiols on gold studied by second harmonic generation and x-ray photoelectron spectroscopy. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>1992</b> , 10, 926-929	2.9	84
96	Response of Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers to Electron Irradiation: Damage Suppression and Odd-Even Effects. <i>Langmuir</i> , <b>2002</b> , 18, 3142-3150	4	83
95	Redox mediation enabled by immobilised centres in the pores of a metal-organic framework grown by liquid phase epitaxy. <i>Chemical Communications</i> , <b>2012</b> , 48, 663-5	5.8	80
94	Fabrication of Thiol-Terminated Surfaces Using Aromatic Self-Assembled Monolayers. <i>Journal of Physical Chemistry B</i> , <b>2004</b> , 108, 16806-16810	3.4	78
93	Polymorphism in biphenyl-based self-assembled monolayers of thiols. <i>Journal of the American Chemical Society</i> , <b>2004</b> , 126, 5960-1	16.4	76
92	A Deep Blue B,N-Doped Heptacene Emitter That Shows Both Thermally Activated Delayed Fluorescence and Delayed Fluorescence by Triplet-Triplet Annihilation. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 6588-6599	16.4	71
91	Stress in self-assembled monolayers: omega-biphenyl alkane thiols on Au(111). <i>Journal of Physical Chemistry B</i> , <b>2005</b> , 109, 10902-8	3.4	70
90	Self-assembly of a pyridine-terminated thiol monolayer on Au(111). <i>Langmuir</i> , <b>2009</b> , 25, 959-67	4	66
89	Electrode modification by electron-induced patterning of aromatic self-assembled monolayers. <i>Applied Physics Letters</i> , <b>2001</b> , 79, 3323-3325	3.4	63
88	Adsorption of Long-Chain Alkanethiols on Au(111): A Look from the Substrate by High Resolution X-ray Photoelectron Spectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2010</b> , 114, 7112-7119	3.8	59
87	Self-assembled monolayers of semifluorinated alkaneselenolates on noble metal substrates. <i>Langmuir</i> , <b>2005</b> , 21, 8204-13	4	57
86	Influence of Molecular Structure on Phase Transitions: A Study of Self-Assembled Monolayers of 2-(Aryl)-ethane Thiols. <i>Journal of Physical Chemistry C</i> , <b>2007</b> , 111, 16909-16919	3.8	52
85	Molecular orientation determined by second-harmonic generation: Self-assembled monolayers. <i>Physical Review B</i> , <b>1998</b> , 58, 10860-10870	3.3	52
84	Electrochemical and exchange studies of self-assembled monolayers of biphenyl based thiols on gold. <i>Journal of Electroanalytical Chemistry</i> , <b>2003</b> , 550-551, 309-319	4.1	50
83	Electrodeposition of palladium onto a pyridine-terminated self-assembled monolayer. <i>Langmuir</i> , <b>2011</b> , 27, 2567-74	4	44
82	Electrochemical stability of self-assembled monolayers of biphenyl based thiols studied by cyclic voltammetry and second harmonic generation. <i>Surface Science</i> , <b>2005</b> , 581, 33-46	1.8	44
81	Effects of pore modification on the templating of guest molecules in a 2D honeycomb network. <i>Chemical Science</i> , <b>2012</b> , 3, 84-92	9.4	42

80	Functionalized fullerenes in self-assembled monolayers. <i>Langmuir</i> , <b>2011</b> , 27, 10977-85	4	42
79	Monolayers of trimesic and isophthalic acid on Cu and Ag: the influence of coordination strength on adsorption geometry. <i>Chemical Science</i> , <b>2013</b> , 4, 4455	9.4	41
78	Solvent Dependence of the Self-Assembly Process of an Endgroup-Modified Alkanethiol. <i>Langmuir</i> , <b>1998</b> , 14, 4679-4682	4	40
77	Self-assembled monolayers of a bis(pyrazol-1-yl)pyridine-substituted thiol on Au(111). <i>Langmuir</i> , <b>2008</b> , 24, 12883-91	4	38
76	On the Role of Extrinsic and Intrinsic Defects in the Underpotential Deposition of Cu on Thiol-Modified Au(111) Electrodes. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 3881-3890	3.8	36
75	Polar ordering of polar octahedra in [C <sub>2</sub> N <sub>2</sub> H <sub>10</sub> ][VOF <sub>4</sub> (H <sub>2</sub> O)]. <i>Journal of Materials Chemistry</i> , <b>2005</b> , 15, 4298		36
74	Odd-Even effects in the cyclic voltammetry of self-assembled monolayers of biphenyl based thiols. <i>Journal of Electroanalytical Chemistry</i> , <b>2002</b> , 524-525, 62-67	4.1	35
73	Replicative generation of metal microstructures by template-directed electrometallization. <i>Applied Physics Letters</i> , <b>2005</b> , 87, 024101	3.4	33
72	Structural Investigation of a Self-Assembled Monolayer of a p-Nitroanilino-Terminated Thiol. <i>Langmuir</i> , <b>1996</b> , 12, 5330-5337	4	33
71	A supramolecular network as sacrificial mask for the generation of a nanopatterned binary self-assembled monolayer. <i>Small</i> , <b>2010</b> , 6, 391-4	11	32
70	Optical properties of a light-emitting polymer directly patterned by soft lithography. <i>Applied Physics Letters</i> , <b>2002</b> , 81, 1955-1957	3.4	32
69	Electrode modification by electron-induced patterning of self-assembled monolayers. <i>Journal of Vacuum Science &amp; Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , <b>2002</b> , 20, 2734		32
68	Self-Assembled Monolayers of Oligophenylenecarboxylic Acids on Silver Formed at the Liquid-Solid Interface. <i>Langmuir</i> , <b>2016</b> , 32, 9397-409	4	31
67	On the importance of purity for the formation of self-assembled monolayers from thiocyanates. <i>Langmuir</i> , <b>2008</b> , 24, 6609-15	4	31
66	Structure of isophthalic acid based monolayers and its relation to the initial stages of growth of metal-organic coordination layers. <i>Chemical Science</i> , <b>2012</b> , 3, 1858	9.4	30
65	Structural changes accompanying the hydrogen desorption from the diamond C(111):H(1 × 1)-surface revisited by helium atom scattering. <i>Surface Science</i> , <b>1997</b> , 385, L958-L964	1.8	28
64	A spectroscopic study of thiol layers prepared by contact printing. <i>Applied Surface Science</i> , <b>1999</b> , 141, 237-243	6.7	28
63	A supramolecular hydrogen-bonded network as a diffusion barrier for metal adatoms. <i>Angewandte Chemie - International Edition</i> , <b>2009</b> , 48, 3349-52	16.4	26

62	Detection of molecular alignment in confined films. <i>Science</i> , <b>2000</b> , 287, 468-70	33.3	26
61	How Penetrable Are Thioalkyl Self-Assembled Monolayers?. <i>Journal of Physical Chemistry Letters</i> , <b>2010</b> , 1, 1917-1921	6.4	25
60	Isophthalic acid: a basis for highly ordered monolayers. <i>Angewandte Chemie - International Edition</i> , <b>2010</b> , 49, 6220-3	16.4	25
59	Mechanism of Charge Transport in Anisotropic Layers of a Phthalocyanine Polymer. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 3179-3186	3.4	24
58	Diamond force microscope tips fabricated by chemical vapor deposition. <i>Review of Scientific Instruments</i> , <b>1992</b> , 63, 4053-4055	1.7	24
57	Electron-beam patterned self-assembled monolayers as templates for Cu electrodeposition and lift-off. <i>Beilstein Journal of Nanotechnology</i> , <b>2012</b> , 3, 101-13	3	23
56	Organic chemistry at interfaces studied by optical second-harmonic and IR-vis sum-frequency generation. <i>Applied Physics A: Solids and Surfaces</i> , <b>1992</b> , 55, 395-402		23
55	Electrochemical investigation of covalently post-synthetic modified SURGEL coatings. <i>Chemical Communications</i> , <b>2014</b> , 50, 11129-31	5.8	21
54	Pulsed laser-induced desorption from molecular systems studied by time-of-flight analysis: measurement and interpretation. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1987</b> , 45, 237-247	1.7	21
53	Film Quality and Electronic Properties of a Surface-Anchored Metal-Organic Framework Revealed by using a Multi-technique Approach. <i>ChemElectroChem</i> , <b>2016</b> , 3, 713-718	4.3	19
52	Photothermal desorption spectroscopy with IR lasers. <i>Surface Science</i> , <b>1985</b> , 161, 245-254	1.8	17
51	What can we learn from the non-linear optical investigation of the liquid solid interface?. <i>Journal of Electroanalytical Chemistry</i> , <b>1999</b> , 473, 25-33	4.1	16
50	Wavelength-dependent resonant surface heating and desorption with IR lasers: A new spectroscopic tool. <i>Infrared Physics</i> , <b>1985</b> , 25, 245-250		16
49	Electrodeposition of gold templated by patterned thiol monolayers. <i>Applied Surface Science</i> , <b>2016</b> , 373, 51-60	6.7	14
48	Monolayers of Biphenyl-3,4,5-tricarboxylic Acid Formed on Cu and Ag from Solution. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 150527091612000	3.8	14
47	Normal incidence X-ray standing wave analysis of thin gold films. <i>Surface Science</i> , <b>2006</b> , 600, 4825-4828	1.8	14
46	Reactivity of self-assembled monolayers: formation of organized amino functionalities. <i>Physical Chemistry Chemical Physics</i> , <b>2000</b> , 2, 1509-1514	3.6	14
45	Self-assembly of 1,3,5-benzenetricarboxylic acid on Ag and Cu at the liquid/solid interface. <i>Physical Chemistry Chemical Physics</i> , <b>2018</b> , 20, 2731-2740	3.6	12

44	Nanoscale patterning of a self-assembled monolayer by modification of the molecule-substrate bond. <i>Beilstein Journal of Nanotechnology</i> , <b>2014</b> , 5, 258-67	3	11
43	Ab initio calculations of vibrational spectra of 2-methoxy ethanol in the C-H stretching range. <i>Physical Chemistry Chemical Physics</i> , <b>2003</b> , 5, 18-25	3.6	11
42	Ablation of benzene from Van Der Waals films with excimer laser pulses at 248 nm. <i>Applied Surface Science</i> , <b>1989</b> , 43, 358-362	6.7	11
41	Heterogeneous nanotribological response of polymorphic self-assembled monolayers arising from domain and phase dependent friction. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 1302-9	3.6	10
40	On the Interpretation of Multiple Waves in Cyclic Voltammograms of Self-Assembled Monolayers of n-Alkane Thiols on Gold. <i>Zeitschrift Fur Physikalische Chemie</i> , <b>2008</b> , 222, 739-754	3.1	10
39	Mercury induced reorientation of alkanethiolates adsorbed on gold. <i>Applied Physics B: Lasers and Optics</i> , <b>1999</b> , 68, 595-598	1.9	10
38	Vibrational spectroscopy at interfaces by ir-vis sum-frequency generation using CLIO FEL. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>1996</b> , 375, 657-661	1.2	10
37	A study of IR laser-induced desorption from benzene films by time-of-flight spectroscopy. <i>Chemical Physics Letters</i> , <b>1989</b> , 158, 486-490	2.5	10
36	Carbon Nanomembranes from Aromatic Carboxylate Precursors. <i>ChemPhysChem</i> , <b>2020</b> , 21, 1006-1011	3.2	9
35	Sequential nested assembly at the liquid/solid interface. <i>Faraday Discussions</i> , <b>2017</b> , 204, 173-190	3.6	8
34	Bonding Asymmetry and Adatoms in Low-Density Self-Assembled Monolayers of Dithiols on Au(111). <i>Journal of Physical Chemistry C</i> , <b>2011</b> , 115, 21800-21803	3.8	8
33	Patterning of self-assembled monolayers based on differences in molecular conductance. <i>Nanotechnology</i> , <b>2009</b> , 20, 245306	3.4	8
32	Friction and Adhesion on Different Phases of a Biphenyl-Alkanethiol Self-Assembled Monolayer on Gold Studied with Scanning Force Microscopy. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 19465-19469	3.8	8
31	Thiol adsorption on gold studied by resonant second harmonic generation and phase sensitive detection. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , <b>1993</b> , 64-65, 159-166	1.7	8
30	Optical second-harmonic generation on the diamond C(111) surface. <i>Diamond and Related Materials</i> , <b>1995</b> , 4, 544-547	3.5	7
29	Formation of organic thin films at the liquid-solid interface studied by second harmonic spectroscopy. <i>Thin Solid Films</i> , <b>1996</b> , 284-285, 396-399	2.2	7
28	Porous Honeycomb Self-Assembled Monolayers: Tripodal Adsorption and Hidden Chirality of Carboxylate Anchored Triptycenes on Ag. <i>ACS Nano</i> , <b>2021</b> ,	16.7	7
27	Self-Assembly of Di(pyrazol-1-yl)pyridine-benzoic Acid on Underpotentially Deposited Ag from Solution. <i>Langmuir</i> , <b>2018</b> , 34, 9654-9664	4	6

26	Coordination controlled electrodeposition and patterning of layers of palladium/copper nanoparticles on top of a self-assembled monolayer. <i>Nanoscale</i> , <b>2019</b> , 11, 13773-13782	7.7	6
25	Bestowing structure upon the pores of a supramolecular network. <i>Chemical Communications</i> , <b>2014</b> , 50, 14175-8	5.8	6
24	Accommodation of Lattice Mismatch in a Thiol Self-Assembled Monolayer. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 4647-4656	3.8	6
23	Phase-Dependent Desorption from Biphenyl-Substituted Alkanethiol Self-Assembled Monolayers Induced by Ion Irradiation. <i>Journal of Physical Chemistry C</i> , <b>2008</b> , 112, 2248-2251	3.8	6
22	In situ observation of particle-induced desorption from a self-assembled monolayer by laser-ionization mass spectrometry. <i>Applied Physics Letters</i> , <b>2003</b> , 82, 1114-1116	3.4	6
21	Chemical vapor deposition of diamond: an in situ study by vibrational spectroscopy. <i>Journal of the American Chemical Society</i> , <b>2001</b> , 123, 6732-3	16.4	6
20	Shape controlled assembly of carboxylic acids: formation of a binary monolayer by intercalation into molecular nanotunnels. <i>Physical Chemistry Chemical Physics</i> , <b>2020</b> , 22, 4205-4215	3.6	5
19	In-Situ Scrutiny of the Relationship between Polymorphic Phases and Properties of Self-Assembled Monolayers of a Biphenyl Based Thiol. <i>Journal of Physical Chemistry B</i> , <b>2018</b> , 122, 657-665	3.4	5
18	Underpotential deposition of Cu on Au(111) from neutral chloride containing electrolyte. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 24146-24153	3.6	5
17	Thiocyanate Anchors for Salt-like Iron(II) Complexes on Au(111): Promises and Caveats. <i>Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences</i> , <b>2014</b> , 69, 1164-1180	1	5
16	A Supramolecular Hydrogen-Bonded Network as a Diffusion Barrier for Metal Adatoms. <i>Angewandte Chemie</i> , <b>2009</b> , 121, 3399-3402	3.6	5
15	Nanopatterning by molecular self-assembly on surfaces. <i>Chimia</i> , <b>2013</b> , 67, 222-6	1.3	4
14	Investigation of nucleation centres in diamond chemical vapour deposition with spatially resolved X-ray photoelectron spectroscopy. <i>Diamond and Related Materials</i> , <b>1993</b> , 2, 1525-1528	3.5	4
13	New Experimental Approaches for the Study of Polymer/Metal Interphases <b>1994</b> , 45, 227-243		4
12	Comment on "The structure and formation of hydrogen-bonded molecular networks on Au(111) surfaces revealed by scanning tunnelling and torsional-tapping atomic force microscopy" by V. V. Korolkov, N. Mullin, S. Allen, C. J. Roberts, J. K. Hobbs and S. J. B. Tandler, Phys. Chem. Chem. Phys., 2012, 14, 15909. <i>Physical Chemistry Chemical Physics</i> , <b>2013</b> , 15, 14126-7	3.6	3
11	Non-Destructive In Situ Analysis of Interface Processes and Thin Film Growth <b>1996</b> , 58, 227-241		3
10	Supramolecular effects in self-assembled monolayers: general discussion. <i>Faraday Discussions</i> , <b>2017</b> , 204, 123-158	3.6	2
9	Supramolecular systems at liquid-solid interfaces: general discussion. <i>Faraday Discussions</i> , <b>2017</b> , 204, 271-295	3.6	2

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| 8 | Molecular organic networks: A step beyond flatland. <i>Nature Chemistry</i> , <b>2017</b> , 9, 1152-1154   | 17.6 | 2  |
| 7 | Electron-Induced Modification of Self-Assembled Monolayers of Aromatic Carboxylic Acids. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 25107-25120           | 3.8  | 2  |
| 6 | Isophthalsulfone als Basis für hochgeordnete Monoschichten. <i>Angewandte Chemie</i> , <b>2010</b> , 122, 6356-6360  | 3.6  | 1  |
| 5 | Polymer films on metals investigated by optical second harmonic generation. <i>Fresenius Journal of Analytical Chemistry</i> , <b>1994</b> , 349, 58-62                    |      | 1  |
| 4 | Density Functional Theory Study of Pd Aggregation on a Pyridine-Terminated Self-Assembled Monolayer. <i>Chemistry - A European Journal</i> , <b>2020</b> , 26, 10555-10563 | 4.8  | 0  |
| 3 | Preparing macromolecular systems on surfaces: general discussion. <i>Faraday Discussions</i> , <b>2017</b> , 204, 395-418  |      | 18 |
| 2 | Structure, Electrochemistry and Applications of Self-Assembled Monolayers of Thiols. <i>Advances in Electrochemical Science and Engineering</i> , <b>2011</b> , 197-255    |      |    |
| 1 | Diamond nucleation by seeding from the gas phase. <i>Applied Physics Letters</i> , <b>1995</b> , 67, 3898-3900   | 3.4  |    |