

Wolfgang M Heckl

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/10699076/publications.pdf>

Version: 2024-02-01

90
papers

6,170
citations

57758

44
h-index

69250

77
g-index

90
all docs

90
docs citations

90
times ranked

4675
citing authors

#	ARTICLE	IF	CITATIONS
1	Steering Self-Assembly of Three-Dimensional Iptycenes on Au(111) by Tuning Molecule-Surface Interactions. <i>Angewandte Chemie - International Edition</i> , 2022, , .	13.8	6
2	Initial Coupling and Reaction Progression of Directly Deposited Biradical Graphene Nanoribbon Monomers on Iodine-Passivated Versus Pristine Ag(111). <i>Chemistry</i> , 2022, 4, 259-269.	2.2	0
3	Evolution of adsorption heights in the on-surface synthesis and decoupling of covalent organic networks on Ag(111) by normal-incidence X-ray standing wave. <i>Nanoscale Horizons</i> , 2021, 7, 51-62.	8.0	15
4	Quantifying the Ultraslow Desorption Kinetics of 2,6-Naphthalenedicarboxylic Acid Monolayers at Liquid-Solid Interfaces. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 7320-7326.	4.6	4
5	Origin of Solvent-Induced Polymorphism in Self-Assembly of Trimesic Acid Monolayers at Solid-Liquid Interfaces. <i>Chemistry of Materials</i> , 2020, 32, 5057-5065.	6.7	29
6	The Role of Kinetics versus Thermodynamics in Surface-Assisted Ullmann Coupling on Gold and Silver Surfaces. <i>Journal of the American Chemical Society</i> , 2019, 141, 4824-4832.	13.7	83
7	Competitive Metal Coordination of Hexaaminotriphenylene on Cu(111) by Intrinsic Copper Versus Extrinsic Nickel Adatoms. <i>Chemistry - A European Journal</i> , 2019, 25, 1975-1983.	3.3	18
8	On-Surface Polymerization of 1,6-Dibromo-3,8-diiodopyrene-A Comparative Study on Au(111) Versus Ag(111) by STM, XPS, and NEXAFS. <i>Journal of Physical Chemistry C</i> , 2018, 122, 5967-5977.	3.1	29
9	Immersion-scanning-tunneling-microscope for long-term variable-temperature experiments at liquid-solid interfaces. <i>Review of Scientific Instruments</i> , 2018, 89, 053707.	1.3	5
10	The influence of <i>ortho</i> -methyl substitution in organometallic self-assembly - a comparative study on Cu(111) vs. Ag(111). <i>Chemical Communications</i> , 2018, 54, 9745-9748.	4.1	14
11	Solvent-free on-surface synthesis of boroxine COF monolayers. <i>Chemical Communications</i> , 2017, 53, 5147-5150.	4.1	36
12	What can be inferred from moiré patterns? A case study of trimesic acid monolayers on graphite. <i>Faraday Discussions</i> , 2017, 204, 331-348.	3.2	8
13	Reversible intercalation of iodine monolayers between on-surface synthesised covalent polyphenylene networks and Au(111). <i>Nanoscale</i> , 2017, 9, 4995-5001.	5.6	30
14	Post-Synthetic Decoupling of On-Surface-Synthesized Covalent Nanostructures from Ag(111). <i>Angewandte Chemie - International Edition</i> , 2016, 55, 7650-7654.	13.8	39
15	Frontispiece: Post-Synthetic Decoupling of On-Surface-Synthesized Covalent Nanostructures from Ag(111). <i>Angewandte Chemie - International Edition</i> , 2016, 55, .	13.8	0
16	Quantum technology: from research to application. <i>Applied Physics B: Lasers and Optics</i> , 2016, 122, 1.	2.2	42
17	From Au-Thiolate Chains to Thioether Sierpinski Triangles: The Versatile Surface Chemistry of 1,3,5-Tris(4-mercaptophenyl)benzene on Au(111). <i>ACS Nano</i> , 2016, 10, 10901-10911.	14.6	47
18	Postsynthetische Entkopplung oberflächensynthetisierter kovalenter Nanostrukturen von Ag(111). <i>Angewandte Chemie</i> , 2016, 128, 7780-7784.	2.0	8

#	ARTICLE	IF	CITATIONS
19	1,3-Diiodobenzene on Cu(111) – an exceptional case of on-surface Ullmann coupling. Chemical Communications, 2015, 51, 13301-13304.	4.1	44
20	From Benzenetrithiolate Self-Assembly to Copper Sulfide Adlayers on Cu(111): Temperature-Induced Irreversible and Reversible Phase Transitions. Journal of Physical Chemistry C, 2014, 118, 3590-3598.	3.1	4
21	Born –Haber Cycle for Monolayer Self-Assembly at the Liquid –Solid Interface: Assessing the Enthalpic Driving Force. Journal of the American Chemical Society, 2013, 135, 14854-14862.	13.7	66
22	Adsorption structure determination of a large polyaromatic trithiolate on Cu(111): combination of LEED-I(V) and DFT-vdW. Physical Chemistry Chemical Physics, 2013, 15, 11054.	2.8	13
23	Control of Intermolecular Bonds by Deposition Rates at Room Temperature: Hydrogen Bonds versus Metal Coordination in Trinitrile Monolayers. Journal of the American Chemical Society, 2013, 135, 691-695.	13.7	52
24	Solution Preparation of Two-Dimensional Covalently Linked Networks by Polymerization of 1,3,5-Tri(4-iodophenyl)benzene on Au(111). ACS Nano, 2013, 7, 3014-3021.	14.6	50
25	On-surface polymerization of 1,4-diethynylbenzene on Cu(111). Chemical Communications, 2013, 49, 2900.	4.1	97
26	Solvent-Dependent Stabilization of Metastable Monolayer Polymorphs at the Liquid –Solid Interface. ACS Nano, 2013, 7, 6711-6718.	14.6	46
27	On-surface radical addition of triply iodinated monomers on Au(111) –the influence of monomer size and thermal post-processing. Surface Science, 2012, 606, 999-1004.	1.9	51
28	Isorecticular Two-Dimensional Covalent Organic Frameworks Synthesized by On-Surface Condensation of Diboronic Acids. ACS Nano, 2012, 6, 7234-7242.	14.6	194
29	Laser –Raman and atomic force microscopy assessment of the chlorococcalean affinity of problematic microfossils. Journal of Raman Spectroscopy, 2012, 43, 32-39.	2.5	15
30	Nanobiotechnologien: Konzepte, Kontroversen, Kommunikation. Acatech-Diskussion, 2012, , 155-189.	0.2	0
31	Self-assembly of melem on Ag(111) –emergence of porous structures based on amino-heptazine hydrogen bonds. CrystEngComm, 2011, 13, 5559.	2.6	17
32	Incorporation Dynamics of Molecular Guests into Two-Dimensional Supramolecular Host Networks at the Liquid –Solid Interface. Langmuir, 2011, 27, 13563-13571.	3.5	53
33	Synthesis of Well-Ordered COF Monolayers: Surface Growth of Nanocrystalline Precursors versus Direct On-Surface Polycondensation. ACS Nano, 2011, 5, 9737-9745.	14.6	211
34	A leucine-rich repeat assembly approach for homology modeling of the human TLR5-10 and mouse TLR11-13 ectodomains. Journal of Molecular Modeling, 2011, 17, 27-36.	1.8	31
35	TollML: a database of toll-like receptor structural motifs. Journal of Molecular Modeling, 2010, 16, 1283-1289.	1.8	17
36	Nanostructure and mechanics of mummified type I collagen from the 5300-year-old Tyrolean Iceman. Proceedings of the Royal Society B: Biological Sciences, 2010, 277, 2301-2309.	2.6	45

#	ARTICLE	IF	CITATIONS
37	Combination of a Knudsen effusion cell with a quartz crystal microbalance: <i>In situ</i> measurement of molecular evaporation rates with a fully functional deposition source. Review of Scientific Instruments, 2010, 81, 015108.	1.3	27
38	Reversible Phase Transitions in Self-Assembled Monolayers at the Liquid~Solid Interface: Temperature-Controlled Opening and Closing of Nanopores. Journal of the American Chemical Society, 2010, 132, 5084-5090.	13.7	223
39	On the Scalability of Supramolecular Networks ~ High Packing Density vs Optimized Hydrogen Bonds in Tricarboxylic Acid Monolayers. Langmuir, 2010, 26, 10708-10716.	3.5	72
40	Inhibition of Toll-like receptors TLR4 and 7 signaling pathways by SIGIRR: A computational approach. Journal of Structural Biology, 2010, 169, 323-330.	2.8	63
41	Homology modeling of human Toll~like receptors TLR7, 8, and 9 ligand~binding domains. Protein Science, 2009, 18, 1684-1691.	7.6	70
42	Aromatic interaction vs. hydrogen bonding in self-assembly at the liquid~solid interface. Chemical Communications, 2009, , 680-682.	4.1	66
43	Isotopological Supramolecular Networks from Melamine and Fatty Acids. Journal of Physical Chemistry C, 2009, 113, 1014-1019.	3.1	40
44	Distinct Differences in Self-Assembly of Aromatic Linear Dicarboxylic Acids. Langmuir, 2009, 25, 968-972.	3.5	23
45	Surface mediated synthesis of 2D covalent organic frameworks: 1,3,5-tris(4-bromophenyl)benzene on graphite(001), Cu(111), and Ag(110). Chemical Communications, 2009, , 4456.	4.1	300
46	Carboxylic Acids: Versatile Building Blocks and Mediators for Two-Dimensional Supramolecular Self-Assembly. Langmuir, 2009, 25, 11307-11321.	3.5	197
47	LRRML: a conformational database and an XML description of leucine-rich repeats (LRRs). BMC Structural Biology, 2008, 8, 47.	2.3	31
48	Thermodynamical Equilibrium of Binary Supramolecular Networks at the Liquid~Solid Interface. Journal of the American Chemical Society, 2008, 130, 8502-8507.	13.7	177
49	TORSIONAL RESONANCE MODE ATOMIC FORCE MICROSCOPY OF A PROTEIN~DNA COMPLEX. Nano, 2008, 03, 443-448.	1.0	2
50	Structural investigations on native collagen type I fibrils using AFM. Biochemical and Biophysical Research Communications, 2007, 354, 27-32.	2.1	89
51	Solvent Induced Polymorphism in Supramolecular 1,3,5-Benzenetri benzoic Acid Monolayers. Journal of Physical Chemistry B, 2006, 110, 10829-10836.	2.6	206
52	Controlled Self-Assembly of Collagen Fibrils by an Automated Dialysis System. Journal of Biomechanical Engineering, 2006, 128, 792-796.	1.3	5
53	Manipulating genetic material. Materials Today, 2005, 8, 40-49.	14.2	3
54	Dynamics of Grain Boundaries in Two-Dimensional Hydrogen-Bonded Molecular Networks. Small, 2005, 1, 532-539.	10.0	88

#	ARTICLE	IF	CITATIONS
55	Focussed ion beam preparation and in situ nanoscopic study of Precambrian acritarchs. Precambrian Research, 2005, 140, 36-54.	2.7	50
56	Self-Assembly of Trimesic Acid at the Liquid-Solid Interface: A Study of Solvent-Induced Polymorphism. Langmuir, 2005, 21, 4984-4988.	3.5	292
57	Mediated Coadsorption at the Liquid-Solid Interface: A Stabilization through Hydrogen Bonds. Journal of Physical Chemistry B, 2005, 109, 14074-14078.	2.6	61
58	Self-Assembly of Benzene-Dicarboxylic Acid Isomers at the Liquid Solid Interface: A Steric Aspects of Hydrogen Bonding. Journal of Physical Chemistry B, 2004, 108, 13652-13655.	2.6	113
59	Generation of Chromosome Painting Probes from Single Chromosomes by Laser Microdissection and Linker-Adaptor PCR. Chromosome Research, 2004, 12, 337-343.	2.2	43
60	Room-Temperature Scanning Tunneling Microscopy Manipulation of Single C60 Molecules at the Liquid-Solid Interface: Playing Nanosoccer. Journal of Physical Chemistry B, 2004, 108, 11556-11560.	2.6	193
61	Incorporation and Manipulation of Coronene in an Organic Template Structure. Langmuir, 2004, 20, 9403-9407.	3.5	233
62	Combined nanomanipulation by atomic force microscopy and UV-laser ablation for chromosomal dissection. European Biophysics Journal, 2003, 32, 33-39.	2.2	49
63	Higher harmonics imaging in tapping-mode atomic-force microscopy. Review of Scientific Instruments, 2003, 74, 5111-5114.	1.3	138
64	Atomic force microscopy of Precambrian microscopic fossils. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 9117-9120.	7.1	47
65	Coronene on Ag(111) Investigated by LEED and STM in UHV. Journal of Physical Chemistry B, 2002, 106, 4482-4485.	2.6	61
66	Inverting dynamic force microscopy: From signals to time-resolved interaction forces. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 8473-8478.	7.1	196
67	Self-Assembled Two-Dimensional Molecular Host-Guest Architectures From Trimesic Acid. Single Molecules, 2002, 3, 25-31.	0.9	373
68	STM and STS of coronene on HOPG(0001) in UHV - adsorption of the smallest possible graphite flakes on graphite. Analytical and Bioanalytical Chemistry, 2002, 374, 685-687.	3.7	27
69	Molecular Self-Assembly and the Origin of Life. , 2002, , 361-372.		6
70	Molecular Self-Assembly. , 2002, , 505-517.		0
71	Thermomechanical noise of a free v-shaped cantilever for atomic-force microscopy. Ultramicroscopy, 2001, 86, 207-215.	1.9	161
72	Determination of shear stiffness based on thermal noise analysis in atomic force microscopy: Passive overtone microscopy. Physical Review B, 2001, 64, .	3.2	50

#	ARTICLE	IF	CITATIONS
73	Scanning probe microscopy studies of the surface of decagonal quasicrystals in ambient conditions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 294-296, 878-881.	5.6	9
74	Self-programmable, self-assembling two-dimensional genetic matter. Origins of Life and Evolution of Biospheres, 2000, 30, 81-99.	1.9	59
75	Noncontact scanning force microscopy based on a modified tuning fork sensor. Review of Scientific Instruments, 2000, 71, 3104-3107.	1.3	38
76	Fourier transformed atomic force microscopy: tapping mode atomic force microscopy beyond the Hookian approximation. Surface Science, 2000, 457, 219-228.	1.9	150
77	Spectroscopy of the anharmonic cantilever oscillations in tapping-mode atomic-force microscopy. Applied Physics Letters, 2000, 77, 3293-3295.	3.3	80
78	Tapping-mode atomic force microscopy and phase-imaging in higher eigenmodes. Applied Physics Letters, 1999, 74, 3296-3298.	3.3	95
79	The role of self-assembled monolayers of the purine and pyrimidine bases in the emergence of life. , 1998, 28, 283-310.		87
80	Determination of elastic properties of single aerogel powder particles with the AFM. Ultramicroscopy, 1998, 75, 161-169.	1.9	53
81	Scanning Tunneling Microscopy Image Contrast as a Function of Scan Angle in Hydrogen-Bonded Self-Assembled Monolayers. Langmuir, 1998, 14, 5195-5202.	3.5	36
82	Self-Assembly at the Prebiotic Solid~Liquid Interface: Structures of Self-Assembled Monolayers of Adenine and Guanine Bases Formed on Inorganic Surfaces. Journal of Physical Chemistry B, 1998, 102, 5914-5922.	2.6	110
83	Cut out or poke in~the key to the world of single genes: laser micromanipulation as a valuable tool on the look-out for the origin of disease. Genetic Analysis, Techniques and Applications, 1997, 14, 1-8.	1.5	61
84	Chiral symmetry breaking during the self-assembly of monolayers from achiral purine molecules. Journal of Molecular Evolution, 1996, 43, 419-424.	1.8	111
85	Scanning tunneling microscopy and atomic force microscopy on organic and biomolecules. Thin Solid Films, 1992, 210-211, 640-647.	1.8	35
86	Simultaneous measurement of tunneling current and force as a function of position through a lipid film on a solid substrate. Surface Science, 1991, 257, L653-L658.	1.9	12
87	Simultaneous measurement of tunneling current and force as a function of position through a lipid film on a solid substrate. Surface Science Letters, 1991, 257, L653-L658.	0.1	0
88	Electropolymerization of glutaraldehyde observed by scanning tunneling microscopy and its implications for scanning tunneling microscopy imaging of organic material. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 1991, 9, 1159.	1.6	10
89	Characterization of a covalently bound phospholipid on a graphite substrate by x-ray photoelectron spectroscopy and scanning tunneling microscopy. Langmuir, 1989, 5, 1433-1435.	3.5	30
90	Steering Self~Assembly of Three~Dimensional Iptycenes on Au(111) by Tuning Molecule~Surface Interactions. Angewandte Chemie, 0, , .	2.0	0