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	57719 44 h-index	69214 77 g-index

90 all docs	90 docs citations	90 times ranked	4675 citing authors

#	Article	IF	Citations
1	Steering Selfâ€Assembly of Threeâ€Dimensional Iptycenes on Au(111) by Tuning Moleculeâ€Surface Interactions. Angewandte Chemie - International Edition, 2022, , .	7.2	6
2	Initial Coupling and Reaction Progression of Directly Deposited Biradical Graphene Nanoribbon Monomers on Iodine-Passivated Versus Pristine Ag(111). Chemistry, 2022, 4, 259-269.	0.9	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. Nanoscale Horizons, 2021, 7, 51-62.	4.1	15
4	Quantifying the Ultraslow Desorption Kinetics of 2,6-Naphthalenedicarboxylic Acid Monolayers at Liquidâ€“Solid Interfaces. Journal of Physical Chemistry Letters, 2020, 11, 7320-7326.	2.1	4
5	Origin of Solvent-Induced Polymorphism in Self-Assembly of Trimesic Acid Monolayers at Solidâ€“Liquid Interfaces. Chemistry of Materials, 2020, 32, 5057-5065.	3.2	29
6	The Role of Kinetics versus Thermodynamics in Surface-Assisted Ullmann Coupling on Gold and Silver Surfaces. Journal of the American Chemical Society, 2019, 141, 4824-4832.	6.6	83
7	Competitive Metal Coordination of Hexaaminotriphenylene on Cu(111) by Intrinsic Copper Versus Extrinsic Nickel Adatoms. Chemistry - A European Journal, 2019, 25, 1975-1983.	1.7	18
8	On-Surface Polymerization of 1,6-Dibromo-3,8-diiodpyreneâ€”A Comparative Study on Au(111) Versus Ag(111) by STM, XPS, and NEXAFS. Journal of Physical Chemistry C, 2018, 122, 5967-5977.	1.5	29
9	Immersion-scanning-tunneling-microscope for long-term variable-temperature experiments at liquid-solid interfaces. Review of Scientific Instruments, 2018, 89, 053707.	0.6	5
10	The influence of ortho-methyl substitution in organometallic self-assembly â€“ a comparative study on Cu(111) vs. Ag(111). Chemical Communications, 2018, 54, 9745-9748.	2.2	14
11	Solvent-free on-surface synthesis of boroxine COF monolayers. Chemical Communications, 2017, 53, 5147-5150.	2.2	36
12	What can be inferred from moirÃ© patterns? A case study of trimesic acid monolayers on graphite. Faraday Discussions, 2017, 204, 331-348.	1.6	8
13	Reversible intercalation of iodine monolayers between on-surface synthesised covalent polyphenylene networks and Au(111). Nanoscale, 2017, 9, 4995-5001.	2.8	30
14	Postâ€Synthetic Decoupling of Onâ€Surfaceâ€Synthesized Covalent Nanostructures from Ag(111). Angewandte Chemie - International Edition, 2016, 55, 7650-7654.	7.2	39
15	Frontispiece: Post-Synthetic Decoupling of On-Surface-Synthesized Covalent Nanostructures from Ag(111). Angewandte Chemie - International Edition, 2016, 55, .	7.2	0
16	Quantum technology: from research to application. Applied Physics B: Lasers and Optics, 2016, 122, 1.	1.1	42
17	From Auâ€“Thiolate Chains to Thioether SierpiÅ„ski Triangles: The Versatile Surface Chemistry of 1,3,5-Tris(4-mercaptophenyl)benzene on Au(111). ACS Nano, 2016, 10, 10901-10911.	7.3	47
18	Postsynthetische Entkopplung oberflÃ¤chensynthetisierter kovalenter Nanostrukturen von Ag(111). Angewandte Chemie, 2016, 128, 7780-7784.	1.6	8

#	Article	IF	Citations
19	1,3-Diiodobenzene on Cu(111) â€“ an exceptional case of on-surface Ullmann coupling. Chemical Communications, 2015, 51, 13301-13304.	2.2	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.	1.5	4
21	Bornâ€“Haber Cycle for Monolayer Self-Assembly at the Liquidâ€“Solid Interface: Assessing the Enthalpic Driving Force. Journal of the American Chemical Society, 2013, 135, 14854-14862.	6.6	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.	1.3	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.	6.6	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.	7.3	50
25	On-surface polymerization of 1,4-diethynylbenzene on Cu(111). Chemical Communications, 2013, 49, 2900.	2.2	97
26	Solvent-Dependent Stabilization of Metastable Monolayer Polymorphs at the Liquidâ€“Solid Interface. ACS Nano, 2013, 7, 6711-6718.	7.3	46
27	On-surface radical addition of triply iodinated monomers on Au(111)â€”the influence of monomer size and thermal post-processing. Surface Science, 2012, 606, 999-1004.	0.8	51
28	Isoreticular Two-Dimensional Covalent Organic Frameworks Synthesized by On-Surface Condensation of Diboronic Acids. ACS Nano, 2012, 6, 7234-7242.	7.3	194
29	Laserâ€Raman and atomic force microscopy assessment of the chlorococcalean affinity of problematic microfossils. Journal of Raman Spectroscopy, 2012, 43, 32-39.	1.2	15
30	Nanobiotechnologien: Konzepte, Kontroversen, Kommunikation. Acatech-Diskussion, 2012, , 155-189.	0.2	0
31	Self-assembly of melem on Ag(111)â€”emergence of porous structures based on amino-heptazine hydrogen bonds. CrystEngComm, 2011, 13, 5559.	1.3	17
32	Incorporation Dynamics of Molecular Guests into Two-Dimensional Supramolecular Host Networks at the Liquidâ€“Solid Interface. Langmuir, 2011, 27, 13563-13571.	1.6	53
33	Synthesis of Well-Ordered COF Monolayers: Surface Growth of Nanocrystalline Precursors versus Direct On-Surface Polycondensation. ACS Nano, 2011, 5, 9737-9745.	7.3	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.	0.8	31
35	TollML: a database of toll-like receptor structural motifs. Journal of Molecular Modeling, 2010, 16, 1283-1289.	0.8	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.	1.2	45

#	Article	IF	Citations
37	Combination of a Knudsen effusion cell with a quartz crystal microbalance: In situ measurement of molecular evaporation rates with a fully functional deposition source. Review of Scientific Instruments, 2010, 81, 015108.	0.6	27
38	Reversible Phase Transitions in Self-Assembled Monolayers at the Liquidâ"Solid Interface: Temperature-Controlled Opening and Closing of Nanopores. Journal of the American Chemical Society, 2010, 132, 5084-5090.	6.6	223
39	On the Scalability of Supramolecular Networks â" High Packing Density vs Optimized Hydrogen Bonds in Tricarboxylic Acid Monolayers. Langmuir, 2010, 26, 10708-10716.	1.6	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.	1.3	63
41	Homology modeling of human Tollâ€like receptors TLR7, 8, and 9 ligandâ€binding domains. Protein Science, 2009, 18, 1684-1691.	3.1	70
42	Aromatic interaction vs.hydrogen bonding in self-assembly at the liquidâ€"solid interface. Chemical Communications, 2009, , 680-682.	2.2	66
43	Isotopological Supramolecular Networks from Melamine and Fatty Acids. Journal of Physical Chemistry C, 2009, 113, 1014-1019.	1.5	40
44	Distinct Differences in Self-Assembly of Aromatic Linear Dicarboxylic Acids. Langmuir, 2009, 25, 968-972.	1.6	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.	2.2	300
46	Carboxylic Acids: Versatile Building Blocks and Mediators for Two-Dimensional Supramolecular Self-Assembly. Langmuir, 2009, 25, 11307-11321.	1.6	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 Liquidâ"Solid Interface. Journal of the American Chemical Society, 2008, 130, 8502-8507.	6.6	177
49	TORSIONAL RESONANCE MODE ATOMIC FORCE MICROSCOPY OF A PROTEINâ€"DNA COMPLEX. Nano, 2008, 03, 443-448.	0.5	2
50	Structural investigations on native collagen type I fibrils using AFM. Biochemical and Biophysical Research Communications, 2007, 354, 27-32.	1.0	89
51	Solvent Induced Polymorphism in Supramolecular 1,3,5-Benzenetribenzoic Acid Monolayers. Journal of Physical Chemistry B, 2006, 110, 10829-10836.	1.2	206
52	Controlled Self-Assembly of Collagen Fibrils by an Automated Dialysis System. Journal of Biomechanical Engineering, 2006, 128, 792-796.	0.6	5
53	Manipulating genetic material. Materials Today, 2005, 8, 40-49.	8.3	3
54	Dynamics of Grain Boundaries in Two-Dimensional Hydrogen-Bonded Molecular Networks. Small, 2005, 1, 532-539.	5.2	88

#	Article	IF	Citations
55	Focussed ion beam preparation and in situ nanoscopic study of Precambrian acritarchs. Precambrian Research, 2005, 140, 36-54.	1.2	50
56	Self-Assembly of Trimesic Acid at the Liquidâ^'Solid Interfacea Study of Solvent-Induced Polymorphism. Langmuir, 2005, 21, 4984-4988.	1.6	292
57	Mediated Coadsorption at the Liquidâ^'Solid Interface:Â Stabilization through Hydrogen Bonds. Journal of Physical Chemistry B, 2005, 109, 14074-14078.	1.2	61
58	Self-Assembly of Benzeneâ^'Dicarboxylic Acid Isomers at the Liquid Solid Interface:Â Steric Aspects of Hydrogen Bonding. Journal of Physical Chemistry B, 2004, 108, 13652-13655.	1.2	113
59	Generation of Chromosome Painting Probes from Single Chromosomes by Laser Microdissection and Linker-Adaptor PCR. Chromosome Research, 2004, 12, 337-343.	1.0	43
60	Room-Temperature Scanning Tunneling Microscopy Manipulation of Single C60 Molecules at the Liquidâ^'Solid Interface:â€‰ Playing Nanosoccer. Journal of Physical Chemistry B, 2004, 108, 11556-11560.	1.2	193
61	Incorporation and Manipulation of Coronene in an Organic Template Structure. Langmuir, 2004, 20, 9403-9407.	1.6	233
62	Combined nanomanipulation by atomic force microscopy and UV-laser ablation for chromosomal dissection. European Biophysics Journal, 2003, 32, 33-39.	1.2	49
63	Higher harmonics imaging in tapping-mode atomic-force microscopy. Review of Scientific Instruments, 2003, 74, 5111-5114.	0.6	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.	3.3	47
65	Coronene on Ag(111) Investigated by LEED and STM in UHV. Journal of Physical Chemistry B, 2002, 106, 4482-4485.	1.2	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.	3.3	196
67	Self-Assembled Two-Dimensional Molecular Host-Guest Architectures From Trimesic Acid. Single Molecules, 2002, 3, 25-31.	1.6	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.	1.9	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.	0.8	161
72	Determination of shear stiffness based on thermal noise analysis in atomic force microscopy: Passive overtone microscopy. Physical Review B, 2001, 64, .	1.1	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.	2.6	9
74	Self-programmable, self-assembling two-dimensional genetic matter. Origins of Life and Evolution of Biospheres, 2000, 30, 81-99.	0.8	59
75	Noncontact scanning force microscopy based on a modified tuning fork sensor. Review of Scientific Instruments, 2000, 71, 3104-3107.	0.6	38
76	Fourier transformed atomic force microscopy: tapping mode atomic force microscopy beyond the Hookian approximation. Surface Science, 2000, 457, 219-228.	0.8	150
77	Spectroscopy of the anharmonic cantilever oscillations in tapping-mode atomic-force microscopy. Applied Physics Letters, 2000, 77, 3293-3295.	1.5	80
78	Tapping-mode atomic force microscopy and phase-imaging in higher eigenmodes. Applied Physics Letters, 1999, 74, 3296-3298.	1.5	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.	0.8	53
81	Scanning Tunneling Microscopy Image Contrast as a Function of Scan Angle in Hydrogen-Bonded Self-Assembled Monolayers. Langmuir, 1998, 14, 5195-5202.	1.6	36
82	Self-Assembly at the Prebiotic Solidâ^'Liquid Interface:â€‰ Structures of Self-Assembled Monolayers of Adenine and Guanine Bases Formed on Inorganic Surfaces. Journal of Physical Chemistry B, 1998, 102, 5914-5922.	1.2	110
83	Cut out or poke inâ€"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.	0.8	111
85	Scanning tunneling microscopy and atomic force microscopy on organic and biomolecules. Thin Solid Films, 1992, 210-211, 640-647.	0.8	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.	0.8	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.	1.6	30
90	Steering Selfâ€Assembly of Threeâ€Dimensional Iptycenes on Au(111) by Tuning Moleculeâ€Surface Interactions. Angewandte Chemie, 0, , .	1.6	0