

Willi Auwärter

List of Publications by Year in descending order

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117
papers

8,056
citations

41258

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123
all docs

123
docs citations

123
times ranked

7131
citing authors

#	ARTICLE	IF	CITATIONS
1	Boron Nitride Nanomesh. <i>Science</i> , 2004, 303, 217-220.	6.0	864
2	Porphyrins at interfaces. <i>Nature Chemistry</i> , 2015, 7, 105-120.	6.6	556
3	A surface-anchored molecular four-level conductance switch based on single proton transfer. <i>Nature Nanotechnology</i> , 2012, 7, 41-46.	15.6	255
4	Synthesis of One Monolayer of Hexagonal Boron Nitride on Ni(111) from B-Trichloroborazine (CIBNH) ₃ . <i>Chemistry of Materials</i> , 2004, 16, 343-345.	3.2	220
5	XPD and STM investigation of hexagonal boron nitride on Ni(111). <i>Surface Science</i> , 1999, 429, 229-236.	0.8	215
6	The Surface Trans Effect: Influence of Axial Ligands on the Surface Chemical Bonds of Adsorbed Metalloporphyrins. <i>Journal of the American Chemical Society</i> , 2011, 133, 6206-6222.	6.6	206
7	Controlled Metalation of Self-Assembled Porphyrin Nanoarrays in Two Dimensions. <i>ChemPhysChem</i> , 2007, 8, 250-254.	1.0	195
8	Boron Nitride on Cu(111): An Electronically Corrugated Monolayer. <i>Nano Letters</i> , 2012, 12, 5821-5828.	4.5	187
9	Chiral KagomÃ© Lattice from Simple Ditopic Molecular Bricks. <i>Journal of the American Chemical Society</i> , 2008, 130, 11778-11782.	6.6	184
10	Hexagonal boron nitride monolayers on metal supports: Versatile templates for atoms, molecules and nanostructures. <i>Surface Science Reports</i> , 2019, 74, 1-95.	3.8	184
11	Density functional theory investigation of the geometric and spintronic structure of h-BN/Ni(111) in view of photoemission and STM experiments. <i>Physical Review B</i> , 2003, 68, .	1.1	179
12	Zwitterionic self-assembly of L-methionine nanogratings on the Ag(111) surface. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 5279-5284.	3.3	163
13	Defect lines and two-domain structure of hexagonal boron nitride films on Ni(111). <i>Surface Science</i> , 2003, 545, L735-L740.	0.8	158
14	Self-assembly and conformation of tetrapyrrolyl-porphyrin molecules on Ag(111). <i>Journal of Chemical Physics</i> , 2006, 124, 194708.	1.2	144
15	Surface-assisted Dehydrogenative Homocoupling of Porphine Molecules. <i>Journal of the American Chemical Society</i> , 2014, 136, 9346-9354.	6.6	140
16	Quasicrystallinity expressed in two-dimensional coordination networks. <i>Nature Chemistry</i> , 2016, 8, 657-662.	6.6	140
17	Spin-polarized Fermi surface mapping. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2002, 124, 263-279.	0.8	133
18	Self-Assembly of Flexible One-Dimensional Coordination Polymers on Metal Surfaces. <i>Journal of the American Chemical Society</i> , 2010, 132, 6783-6790.	6.6	133

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19	Supramolecular gratings for tuneable confinement of electrons on metal surfaces. <i>Nature Nanotechnology</i> , 2007, 2, 99-103.	15.6	129
20	Site-specific electronic and geometric interface structure of Co-tetraphenyl-porphyrin layers on Ag(111). <i>Physical Review B</i> , 2010, 81, .	1.1	124
21	Five-vertex Archimedean surface tessellation by lanthanide-directed molecular self-assembly. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 6678-6681.	3.3	123
22	Conformational Adaptation and Selective Adatom Capturing of Tetrapyrrolyl-porphyrin Molecules on a Copper (111) Surface. <i>Journal of the American Chemical Society</i> , 2007, 129, 11279-11285.	6.6	122
23	Random two-dimensional string networks based on divergent coordination assembly. <i>Nature Chemistry</i> , 2010, 2, 131-137.	6.6	106
24	Fusing tetrapyrroles to graphene edges by surface-assisted covalent coupling. <i>Nature Chemistry</i> , 2017, 9, 33-38.	6.6	103
25	In vacuo interfacial tetrapyrrole metallation. <i>Chemical Society Reviews</i> , 2016, 45, 1629-1656.	18.7	97
26	Visualizing the Frontier Orbitals of a Conformationally Adapted Metalloporphyrin. <i>ChemPhysChem</i> , 2008, 9, 89-94.	1.0	96
27	Surface-Assisted Assembly of Discrete Porphyrin-Based Cyclic Supramolecules. <i>Nano Letters</i> , 2010, 10, 122-128.	4.5	95
28	Cis-dicarbonyl binding at cobalt and iron porphyrins with saddle-shape conformation. <i>Nature Chemistry</i> , 2011, 3, 114-119.	6.6	93
29	Assembly and Manipulation of Rotatable Cerium Porphyrinato Sandwich Complexes on a Surface. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 3872-3877.	7.2	91
30	Temperature dependence of conformation, chemical state, and metal-directed assembly of tetrapyrrolyl-porphyrin on Cu(111). <i>Journal of Chemical Physics</i> , 2008, 129, 214702.	1.2	90
31	Exploration of pyrazine-embedded antiaromatic polycyclic hydrocarbons generated by solution and on-surface azomethine ylide homocoupling. <i>Nature Communications</i> , 2017, 8, 1948.	5.8	88
32	How Surface Bonding and Repulsive Interactions Cause Phase Transformations: Ordering of a Prototype Macrocyclic Compound on Ag(111). <i>ACS Nano</i> , 2013, 7, 3139-3149.	7.3	85
33	Interaction of Cerium Atoms with Surface-Anchored Porphyrin Molecules. <i>Journal of Physical Chemistry C</i> , 2008, 112, 3453-3455.	1.5	81
34	Control of Molecular Organization and Energy Level Alignment by an Electronically Nanopatterned Boron Nitride Template. <i>ACS Nano</i> , 2014, 8, 430-442.	7.3	75
35	Hierarchic Self-Assembly of Nanoporous Chiral Networks with Conformationally Flexible Porphyrins. <i>ACS Nano</i> , 2010, 4, 4936-4942.	7.3	72
36	Dimerization Boosts One-Dimensional Mobility of Conformationally Adapted Porphyrins on a Hexagonal Surface Atomic Lattice. <i>Nano Letters</i> , 2008, 8, 4608-4613.	4.5	65

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37	Two-Dimensional Short-Range Disordered Crystalline Networks from Flexible Molecular Modules. ACS Nano, 2012, 6, 4258-4265.	7.3	65
38	Investigating the molecule-substrate interaction of prototypic tetrapyrrole compounds: Adsorption and self-metalation of porphine on Cu(111). Journal of Chemical Physics, 2013, 138, 154710.	1.2	64
39	Discriminative Response of Surface-Confined Metalloporphyrin Molecules to Carbon and Nitrogen Monoxide. Journal of the American Chemical Society, 2010, 132, 18141-18146.	6.6	63
40	Surface-Assisted Cyclodehydrogenation; Break the Symmetry, Enhance the Selectivity. Chemistry - A European Journal, 2015, 21, 12285-12290.	1.7	57
41	Determining adsorbate structures from substrate emission X-ray photoelectron diffraction. Surface Science, 2001, 472, 125-132.	0.8	56
42	Corrugation in the Weakly Interacting Hexagonal-BN/Cu(111) System: Structure Determination by Combining Noncontact Atomic Force Microscopy and X-ray Standing Waves. ACS Nano, 2017, 11, 9151-9161.	7.3	56
43	Supramolecular Assembly of Interfacial Nanoporous Networks with Simultaneous Expression of Metal-Organic and Organic Bonding Motifs. Chemistry - A European Journal, 2013, 19, 14143-14150.	1.7	55
44	Lanthanide-Directed Assembly of Interfacial Coordination Architectures-From Complex Networks to Functional Nanosystems. Accounts of Chemical Research, 2018, 51, 365-375.	7.6	54
45	Direct Identification and Determination of Conformational Response in Adsorbed Individual Nonplanar Molecular Species Using Noncontact Atomic Force Microscopy. Nano Letters, 2016, 16, 7703-7709.	4.5	53
46	Self-aligning atomic strings in surface-supported biomolecular gratings. Physical Review B, 2008, 78, .	1.1	52
47	Controlling Coordination Reactions and Assembly on a Cu(111) Supported Boron Nitride Monolayer. Journal of the American Chemical Society, 2015, 137, 2420-2423.	6.6	52
48	<sc>L-Tyrosine on Ag(111): Universality of the Amino Acid 2D Zwitterionic Bonding Scheme?. ACS Nano, 2010, 4, 1218-1226.	7.3	50
49	Orthogonal Insertion of Lanthanide and Transition-Metal Atoms in Metal-Organic Networks on Surfaces. Angewandte Chemie - International Edition, 2015, 54, 6163-6167.	7.2	50
50	Ab-initio calculations and STM observations on tetrapyrrolyl and Fe(II)-tetrapyrrolyl-porphyrin molecules on Ag(111). Surface Science, 2007, 601, 2409-2414.	0.8	46
51	Selective Supramolecular Fullerene-Porphyrin Interactions and Switching in Surface-Confined C60-Ce(TPP)2 Dyads. Nano Letters, 2012, 12, 4077-4083.	4.5	46
52	Co on h-BN/Ni(111): from island to island-chain formation and Co intercalation. Surface Science, 2002, 511, 379-386.	0.8	43
53	NO-Induced Reorganization of Porphyrin Arrays. ACS Nano, 2009, 3, 1789-1794.	7.3	43
54	Surface-Supported Robust 2D Lanthanide-Carboxylate Coordination Networks. Small, 2015, 11, 6358-6364.	5.2	43

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55	Controlled Interaction of Surface Quantum-Well Electronic States. <i>Nano Letters</i> , 2013, 13, 6130-6135.	4.5	42
56	Self-Assembly of α -Methionine on Cu(111): Steering Chiral Organization by Substrate Reactivity and Thermal Activation. <i>Journal of Physical Chemistry C</i> , 2009, 113, 12101-12108.	1.5	41
57	Self-Terminating Protocol for an Interfacial Complexation Reaction <i>in Vacuo</i> by Metal-Organic Chemical Vapor Deposition. <i>ACS Nano</i> , 2013, 7, 4520-4526.	7.3	41
58	Controlled Manipulation of Gadolinium-Coordinated Supramolecules by Low-Temperature Scanning Tunneling Microscopy. <i>Nano Letters</i> , 2014, 14, 1369-1373.	4.5	40
59	Molecular nanoscience and engineering on surfaces. <i>International Journal of Nanotechnology</i> , 2008, 5, 1171.	0.1	35
60	Five-Vertex Lanthanide Coordination on Surfaces: A Route to Sophisticated Nanoarchitectures and Tessellations. <i>Journal of Physical Chemistry C</i> , 2014, 118, 12908-12915.	1.5	34
61	Rocking-motion-induced charging of C ₆₀ on h ⁺ BN/Ni(111). <i>Physical Review B</i> , 2005, 71, .	1.1	33
62	Nanoscale Phase Engineering of Niobium Diselenide. <i>Chemistry of Materials</i> , 2017, 29, 9907-9914.	3.2	33
63	Tailoring Large Pores of Porphyrin Networks on Ag(111) by Metal-Organic Coordination. <i>Chemistry - A European Journal</i> , 2016, 22, 15298-15306.	1.7	32
64	Supramolecular Spangling, Crocheting, and Knitting of Functionalized Pyrene Molecules on a Silver Surface. <i>ACS Nano</i> , 2016, 10, 7665-7674.	7.3	32
65	Borophenes made easy. <i>Science Advances</i> , 2021, 7, eabk1490.	4.7	31
66	Effect of strain relaxations on heteroepitaxial metal-on-metal island nucleation and superlattice formation: Fe on Cu(111). <i>Physical Review B</i> , 2009, 79, .	1.1	30
67	Supramolecular Organization and Chiral Resolution of <i>p</i> -Terphenyl- <i>m</i> -Dicyanitrile on the Ag(111) Surface. <i>ChemPhysChem</i> , 2010, 11, 1446-1451.	1.0	29
68	Immobilised molecular catalysts and the role of the supporting metal substrate. <i>Chemical Communications</i> , 2015, 51, 9483-9486.	2.2	29
69	Tunable lanthanide-directed metallosupramolecular networks by exploiting coordinative flexibility through ligand stoichiometry. <i>Chemical Communications</i> , 2016, 52, 1618-1621.	2.2	29
70	Probing Nitrosyl Ligation of Surface-Confined Metalloporphyrins by Inelastic Electron Tunneling Spectroscopy. <i>ACS Nano</i> , 2013, 7, 5273-5281.	7.3	26
71	One-dimensional chains of C ₆₀ molecules on Cu(221). <i>Surface Science</i> , 2004, 566-568, 633-637.	0.8	25
72	Polycyclic aromatic chains on metals and insulating layers by repetitive [3+2] cycloadditions. <i>Nature Communications</i> , 2020, 11, 1490.	5.8	23

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73	THE FERMI SURFACE IN A MAGNETIC METAL-INSULATOR INTERFACE. <i>Surface Review and Letters</i> , 2002, 09, 1243-1250.	0.5	22
74	Competing Interactions in Surface Reticulation with a Prochiral Dicarbonitrile Linker. <i>Journal of Physical Chemistry C</i> , 2013, 117, 12858-12863.	1.5	22
75	Nature of the bias-dependent symmetry reduction of iron phthalocyanine on Cu(111). <i>Physical Review B</i> , 2015, 92, .	1.1	22
76	Exploration of Interfacial Porphine Coupling Schemes and Hybrid Systems by Bond-Resolved Scanning Probe Microscopy. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16030-16035.	7.2	21
77	Electron Coherence in a Melting Lead Monolayer. <i>Science</i> , 2004, 306, 2221-2224.	6.0	20
78	Dynamics and thermal stability of surface-confined metal-organic chains. <i>Surface Science</i> , 2016, 643, 91-97.	0.8	20
79	Exchange splitting of the three $\hat{\Gamma}$ surface states of Ni(111) from three-dimensional spin- and angle-resolved photoemission spectroscopy. <i>Physical Review B</i> , 2009, 80, .	1.1	19
80	Two-Level Spatial Modulation of Vibronic Conductance in Conjugated Oligophenylenes on Boron Nitride. <i>Nano Letters</i> , 2015, 15, 2242-2248.	4.5	19
81	Iron phthalocyanine on Cu(111): Coverage-dependent assembly and symmetry breaking, temperature-induced homocoupling, and modification of the adsorbate-surface interaction by annealing. <i>Journal of Chemical Physics</i> , 2016, 144, 094702.	1.2	19
82	On-Surface Synthesis of Nonmetal Porphyrins. <i>Journal of the American Chemical Society</i> , 2020, 142, 1871-1881.	6.6	19
83	Comparative study of the interfaces of graphene and hexagonal boron nitride with silver. <i>Physical Review B</i> , 2016, 94, .	1.1	18
84	Assembly and Manipulation of a Prototypical N-Heterocyclic Carbene with a Metalloporphyrin Pedestal on a Solid Surface. <i>Journal of the American Chemical Society</i> , 2021, 143, 4433-4439.	6.6	18
85	Restoring the Co Magnetic Moments at Interfacial Co-Porphyrin Arrays by Site-Selective Uptake of Iron. <i>ACS Nano</i> , 2015, 9, 3605-3616.	7.3	17
86	In Vacuo Porphyrin Metalation on Ag(111) via Chemical Vapor Deposition of $\text{Ru}_3(\text{CO})_{12}$: Mechanistic Insights. <i>Journal of Physical Chemistry C</i> , 2016, 120, 8751-8758.	1.5	17
87	Metalation of Porphyrins by Lanthanide Atoms at Interfaces: Direct Observation and Stimulation of Cerium Coordination to 2H-TPP/Ag(111). <i>Journal of Physical Chemistry C</i> , 2018, 122, 5083-5092.	1.5	17
88	Quantitative determination of a model organic/insulator/metal interface structure. <i>Nanoscale</i> , 2018, 10, 21971-21977.	2.8	15
89	Layered Insulator/Molecule/Metal Heterostructures with Molecular Functionality through Porphyrin Intercalation. <i>ACS Nano</i> , 2018, 12, 2677-2684.	7.3	14
90	Adsorption Conformation and Lateral Registry of Cobalt Porphine on Cu(111). <i>Journal of Physical Chemistry C</i> , 2018, 122, 5452-5461.	1.5	14

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91	Tunable Interface of Ruthenium Porphyrins and Silver. <i>Journal of Physical Chemistry C</i> , 2021, 125, 3215-3224.	1.5	14
92	Surface-Mediated Ring-Opening and Porphyrin Deconstruction via Conformational Distortion. <i>Journal of the American Chemical Society</i> , 2021, 143, 15131-15138.	6.6	14
93	Growth Morphologies and Defect Structure in Hexagonal Boron Nitride Films on Ni(111): A Combined STM and XPD Study. <i>E-Journal of Surface Science and Nanotechnology</i> , 2003, 1, 124-129.	0.1	13
94	Scrutinizing individual CoTPP molecule adsorbed on coinage metal surfaces from the interplay of STM experiment and theory. <i>Surface Science</i> , 2015, 635, 108-114.	0.8	12
95	Bottom-Up Fabrication of a Metal-Supported Oxoâ€Metal Porphyrin. <i>Journal of Physical Chemistry C</i> , 2019, 123, 31011-31025.	1.5	12
96	Conformational Control of Chemical Reactivity for Surfaceâ€Confined Ruâ€Porphyrins. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 16561-16567.	7.2	12
97	Snapshots of Dynamic Adaptation: Twoâ€Dimensional Molecular Architectonics with Linear Bisâ€Hydroxamic Acid Modules. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 18948-18956.	7.2	10
98	BNâ€Patterning of Metallic Substrates through Metal Coordination of Decoupled Borazines. <i>Chemistry - A European Journal</i> , 2018, 24, 9565-9571.	1.7	9
99	Actinide Coordination Chemistry on Surfaces: Synthesis, Manipulation, and Properties of Thorium Bis(porphyrinato) Complexes. <i>Journal of the American Chemical Society</i> , 2021, 143, 14581-14591.	6.6	9
100	Tetracene confinement in L-methionine gratings on the Ag(111) surface. <i>Surface Science</i> , 2016, 643, 87-90.	0.8	8
101	Photoelectron Diffraction for a Look inside Nanostructures. <i>Chimia</i> , 2006, 60, 795-799.	0.3	7
102	Preservation of electronic properties of double-decker complexes on metallic supports. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 8282-8287.	1.3	7
103	Charge State Control of F 16 CoPc on h â€BN/Cu(111). <i>Advanced Materials Interfaces</i> , 2020, 7, 2000080.	1.9	7
104	Synthesis, characterization, monolayer assembly and 2D lanthanide coordination of a linear terphenyl-di(propionitrile) linker on Ag(111). <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 327-335.	1.5	6
105	Exploration of Interfacial Porphine Coupling Schemes and Hybrid Systems by Bondâ€Resolved Scanning Probe Microscopy. <i>Angewandte Chemie</i> , 2018, 130, 16262-16267.	1.6	5
106	Snapshots of Dynamic Adaptation: Twoâ€Dimensional Molecular Architectonics with Linear Bisâ€Hydroxamic Acid Modules. <i>Angewandte Chemie</i> , 2019, 131, 19124-19132.	1.6	5
107	Inâ€Situ Growth of Gadolinium Phthalocyaninato Sandwich Complexes on the Ag(111) Surface. <i>ChemPhysChem</i> , 2019, 20, 2301-2304.	1.0	4
108	Surface-confined formation of conjugated porphyrin-based nanostructures on Ag(111). <i>Nanoscale</i> , 2021, 13, 19884-19889.	2.8	4

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109	Self-assembly and spectroscopic fingerprints of photoactive pyrenyl tectons on <i>h</i> BN/Cu(111). Beilstein Journal of Nanotechnology, 2020, 11, 1470-1483.	1.5	2
110	Conformational Control of Chemical Reactivity for Surface-Confined Ru-Porphyrins. Angewandte Chemie, 2021, 133, 16697-16703.	1.6	2
111	The Flexible On-Surface Self-Assembly of a Low-Symmetry Mabiq Ligand: An Unconventional Metal-Assisted Phase Transformation on Ag(111). Journal of Physical Chemistry C, 2021, 125, 23178-23191.	1.5	2
112	On-Surface Synthesis of Rigid Benzenoid- and Nonbenzenoid-Coupled Porphyrin-Graphene Nanoribbon Hybrids. Journal of Physical Chemistry C, 0, , .	1.5	2
113	Influence of an Atomic Grating on a Magnetic Fermi Surface. , 2001, , 411-417.		1
114	Correction to <i>In Vacuo</i> Porphyrin Metalation on Ag(111) via Chemical Vapor Deposition of Ru ₃ (CO) ₁₂ : Mechanistic Insights. Journal of Physical Chemistry C, 2017, 121, 12503-12503.	1.5	1
115	Frontispiz: Snapshots of Dynamic Adaptation: Two-Dimensional Molecular Architectonics with Linear Bis-Hydroxamic Acid Modules. Angewandte Chemie, 2019, 131, .	1.6	0
116	Frontispiece: Snapshots of Dynamic Adaptation: Two-Dimensional Molecular Architectonics with Linear Bis-Hydroxamic Acid Modules. Angewandte Chemie - International Edition, 2019, 58, .	7.2	0
117	Boron Nitride Monolayers: Charge State Control of F ₁₆ CoPc on <i>h</i> BN/Cu(111) (Adv. Tj ETQq _{1,1} 0.784314 rgBT		0