

Heiko Wolf

List of Publications by Year in descending order

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67
papers

5,549
citations

94269

37
h-index

133063

59
g-index

67
all docs

67
docs citations

67
times ranked

5688
citing authors

#	ARTICLE	IF	CITATIONS
1	Printing meets lithography: Soft approaches to high-resolution patterning. IBM Journal of Research and Development, 2001, 45, 697-719.	3.2	450
2	Nanoparticle printing with single-particle resolution. Nature Nanotechnology, 2007, 2, 570-576.	15.6	410
3	Autonomous Microfluidic Capillary System. Analytical Chemistry, 2002, 74, 6139-6144.	3.2	372
4	Controlled Particle Placement through Convective and Capillary Assembly. Langmuir, 2007, 23, 11513-11521.	1.6	332
5	Nanoscale Three-Dimensional Patterning of Molecular Resists by Scanning Probes. Science, 2010, 328, 732-735.	6.0	304
6	Real-Space Observation of Nanoscale Molecular Domains in Self-Assembled Monolayers. Langmuir, 1994, 10, 2869-2871.	1.6	262
7	Photoswitching of Azobenzene Derivatives Formed on Planar and Colloidal Gold Surfaces. Langmuir, 1998, 14, 6436-6440.	1.6	203
8	Polymer-supported bilayer on a solid substrate. Biophysical Journal, 1992, 63, 1667-1671.	0.2	198
9	Self-Assembled Monolayers containing Polydiacetylenes. Journal of the American Chemical Society, 1994, 116, 1050-1053.	6.6	172
10	Immobilization of Antibodies on a Photoactive Self-Assembled Monolayer on Gold. Langmuir, 1996, 12, 1997-2006.	1.6	158
11	Microcontact Printing Using Poly(dimethylsiloxane) Stamps Hydrophilized by Poly(ethylene oxide) Silanes. Langmuir, 2003, 19, 8749-8758.	1.6	150
12	Preparation of Metallic Films on Elastomeric Stamps and Their Application for Contact Processing and Contact Printing. Advanced Functional Materials, 2003, 13, 145-153.	7.8	141
13	End-Group-Dominated Molecular Order in Self-Assembled Monolayers. The Journal of Physical Chemistry, 1995, 99, 7102-7107.	2.9	140
14	Oriented Assembly of Gold Nanorods on the Single-Particle Level. Advanced Functional Materials, 2012, 22, 702-708.	7.8	140
15	Structure of Hydrophilic Self-Assembled Monolayers: A Combined Scanning Tunneling Microscopy and Computer Simulation Study. Langmuir, 1994, 10, 4116-4130.	1.6	128
16	Fabrication of Metal Nanowires Using Microcontact Printing. Langmuir, 2003, 19, 6301-6311.	1.6	126
17	Programmable colloidal molecules from sequential capillarity-assisted particle assembly. Science Advances, 2016, 2, e1501779.	4.7	109
18	Recognition of Individual Tail Groups in Self-Assembled Monolayers. Langmuir, 1995, 11, 3876-3881.	1.6	99

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19	Structure of Alkyl and Perfluoroalkyl Disulfide and Azobenzenethiol Monolayers on Gold(111) Revealed by Atomic Force Microscopy. <i>The Journal of Physical Chemistry</i> , 1996, 100, 2290-2301.	2.9	99
20	Domain and Molecular Superlattice Structure of Dodecanethiol Self-Assembled on Au(111). <i>Europhysics Letters</i> , 1994, 27, 365-370.	0.7	86
21	Printing Chemical Gradients. <i>Langmuir</i> , 2005, 21, 7796-7804.	1.6	85
22	Self-Assembled Monolayers of Discotic Liquid Crystalline Thioethers, Discoid Disulfides, and Thiols on Gold: A Molecular Engineering of Ordered Surfaces. <i>Journal of the American Chemical Society</i> , 1996, 118, 13051-13057.	6.6	83
23	Capillary assembly as a tool for the heterogeneous integration of micro- and nanoscale objects. <i>Soft Matter</i> , 2018, 14, 2978-2995.	1.2	77
24	Sub-10 Nanometer Feature Size in Silicon Using Thermal Scanning Probe Lithography. <i>ACS Nano</i> , 2017, 11, 11890-11897.	7.3	76
25	Self-Assembled Disulfide-Functionalized Amphiphilic Copolymers on Gold. <i>Langmuir</i> , 1994, 10, 1246-1250.	1.6	74
26	Closing the Gap Between Self-Assembly and Microsystems Using Self-Assembly, Transfer, and Integration of Particles. <i>Advanced Materials</i> , 2005, 17, 2438-2442.	11.1	73
27	Directed Placement of Gold Nanorods Using a Removable Template for Guided Assembly. <i>Nano Letters</i> , 2011, 11, 3957-3962.	4.5	72
28	Two-Dimensional Structure of Disulfides and Thiols on Gold(111). <i>Langmuir</i> , 1998, 14, 808-815.	1.6	71
29	Enhanced Second-Harmonic Generation from Sequential Capillarity-Assisted Particle Assembly of Hybrid Nanodimers. <i>Nano Letters</i> , 2017, 17, 5381-5388.	4.5	70
30	Positive Microcontact Printing. <i>Journal of the American Chemical Society</i> , 2002, 124, 3834-3835.	6.6	62
31	Diffusion of Alkanethiols in PDMS and Its Implications on Microcontact Printing ($\frac{1}{4}$ CP). <i>Langmuir</i> , 2005, 21, 622-632.	1.6	61
32	Insights into mechanisms of capillary assembly. <i>Faraday Discussions</i> , 2015, 181, 225-242.	1.6	60
33	Precise Placement of Gold Nanorods by Capillary Assembly. <i>Langmuir</i> , 2011, 27, 6305-6310.	1.6	54
34	Hybrid colloidal microswimmers through sequential capillary assembly. <i>Soft Matter</i> , 2017, 13, 4252-4259.	1.2	52
35	Sub-20 nm silicon patterning and metal lift-off using thermal scanning probe lithography. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, .	0.6	40
36	An in Situ Study of the Adsorption Behavior of Functionalized Particles on Self-Assembled Monolayers via Different Chemical Interactions. <i>Langmuir</i> , 2007, 23, 9990-9999.	1.6	39

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37	Electroless Deposition of NiB on 15 Inch Glass Substrates for the Fabrication of Transistor Gates for Liquid Crystal Displays. <i>Langmuir</i> , 2003, 19, 5923-5935.	1.6	38
38	High-Speed Microcontact Printing. <i>Journal of the American Chemical Society</i> , 2006, 128, 9296-9297.	6.6	38
39	Deterministic assembly of linear gold nanorod chains as a platform for nanoscale applications. <i>Nanoscale</i> , 2013, 5, 8680.	2.8	36
40	Programmable Assembly of Hybrid Nanoclusters. <i>Langmuir</i> , 2018, 34, 2481-2488.	1.6	33
41	Cascaded Assembly of Complex Multiparticle Patterns. <i>Langmuir</i> , 2014, 30, 90-95.	1.6	30
42	PH-Responsive release of fluorophore from homocysteine-carrying polymerized liposomes. <i>Macromolecules</i> , 1990, 23, 1958-1961.	2.2	24
43	Accurate Location and Manipulation of Nanoscaled Objects Buried under Spin-Coated Films. <i>ACS Nano</i> , 2015, 9, 6188-6195.	7.3	24
44	Formulation of Percolating Thermal Underfills Using Hierarchical Self-Assembly of Microparticles and Nanoparticles by Centrifugal Forces and Capillary Bridging. <i>Journal of Microelectronics and Electronic Packaging</i> , 2012, 9, 149-159.	0.8	21
45	Deformation-Free Topography from Combined Scanning Force and Tunnelling Experiments. <i>Europhysics Letters</i> , 1993, 23, 421-426.	0.7	20
46	Scanning surface harmonic microscopy of self-assembled monolayers on gold. <i>Applied Physics Letters</i> , 1993, 63, 147-149.	1.5	18
47	Selective Assembly of Submicrometer Polymer Particles. <i>Advanced Materials</i> , 2010, 22, 2804-2808.	11.1	16
48	Conversion of a Patterned Organic Resist into a High Performance Inorganic Hard Mask for High Resolution Pattern Transfer. <i>ACS Nano</i> , 2018, 12, 11152-11160.	7.3	16
49	Thermal stability of SrRuO ₃ epitaxial layers under forming-gas anneal. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 109, 113-116.	1.7	14
50	Precision Patterning with Luminescent Nanocrystal-Functionalized Beads. <i>Langmuir</i> , 2010, 26, 14294-14300.	1.6	11
51	Explaining the Transition from Diffusion Limited to Reaction Limited Surface Assembly of Molecular Species through Spatial Variations. <i>Langmuir</i> , 2018, 34, 73-80.	1.6	11
52	High-grade optical polydimethylsiloxane for microfluidic applications. <i>Biomedical Microdevices</i> , 2011, 13, 1027-1032.	1.4	9
53	Note: A microfluidic chip setup for capillarity-assisted particle assembly. <i>Review of Scientific Instruments</i> , 2012, 83, 086109.	0.6	9
54	Capillary assembly of cross-gradient particle arrays using a microfluidic chip. <i>Microelectronic Engineering</i> , 2015, 141, 12-16.	1.1	9

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55	Understanding How Charged Nanoparticles Electrostatically Assemble and Distribute in 1-D. Langmuir, 2016, 32, 13600-13610.	1.6	9
56	Enhanced centrifugal percolating thermal underfills based on neck formation by capillary bridging. , 2012, , .		8
57	Templated Self-Assembly of Particles. , 2010, , 187-210.		6
58	Enhanced Electrical and Thermal Interconnects by the Self-Assembly of Nanoparticle Necks Utilizing Capillary Bridging. Journal of Electronic Packaging, Transactions of the ASME, 2014, 136, .	1.2	6
59	Matrix effects on the surface plasmon resonance of dry supported gold nanocrystals. Optics Letters, 2008, 33, 806.	1.7	4
60	Testing the Equivalence between Spatial Averaging and Temporal Averaging in Highly Dilute Solutions. Langmuir, 2017, 33, 14539-14547.	1.6	3
61	Hybrid Colloids Produced by Sequential Capillarity-assisted Particle Assembly: A New Path for Complex Microparticles. Chimia, 2017, 71, 349.	0.3	2
62	Thermal Scanning Probe Lithography (t-SPL) for Nano-Fabrication. , 2019, , .		2
63	Direct write 3-dimensional nanopatterning using probes. , 2010, , .		1
64	Directed self-assembly of nanoparticles for novel electrical interconnects. , 2012, , .		1
65	Enhanced Electrical and Thermal Interconnects by the Self-Assembly of Nanoparticle Necks Utilizing Capillary Bridging. , 2013, , .		1
66	Thermal probe nanolithography for novel photonic devices. , 2015, , .		1
67	Etch transfer into silicon of patterns with a half-pitch of under 20nm. SPIE Newsroom, 0, , .	0.1	0