Michael Hirtz

List of Publications by Year
in descending order

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106 papers	2,922 citations	147801 31 h-index	206112 48 g-index
112 all docs	112 docs citations	112 times ranked	4136 citing authors

#	Article	IF	Citations
1	Langmuirâ€“Blodgett Patterning: A Bottomâ€“Up Way To Build Mesostructures over Large Areas. Accounts of Chemical Research, 2007, 40, 393-401.	15.6	207
2	Highâ€Performance and Tailorable Pressure Sensor Based on Ultrathin Conductive Polymer Film. Small, 2014, 10, 1466-1472.	10.0	189
3	Mechanoâ€•and Photochromism from Bulk to Nanoscale: Data Storage on Individual Selfâ€Assembled Ribbons. Advanced Functional Materials, 2016, 26, 5271-5278.	14.9	109
4	Multiplexed biomimetic lipid membranes on graphene by dip-pen nanolithography. Nature Communications, 2013, 4, 2591.	12.8	90
5	Advances in DNA-directed immobilization. Current Opinion in Chemical Biology, 2014, 18, 8-15.	6.1	90
6	Multiscale Origami Structures as Interface for Cells. Angewandte Chemie - International Edition, 2015, 54, 15813-15817.	13.8	87
7	Reactive Superhydrophobic Surface and Its Photoinduced Disulfide-ene and Thiol-ene (Bio)functionalization. Nano Letters, 2015, 15, 675-681.	9.1	86
8	Development of Dipâ€Pen Nanolithography (DPN) and Its Derivatives. Small, 2019, 15, e1900564.	10.0	75
9	Biomimetic Phospholipid Membrane Organization on Graphene and Graphene Oxide Surfaces: A Molecular Dynamics Simulation Study. ACS Nano, 2017, 11, 1613-1625.	14.6	66
10	Substrate-Independent Dip-Pen Nanolithography Based on Reactive Coatings. Journal of the American Chemical Society, 2010, 132, 18023-18025.	13.7	65
11	Micropatterning: Interdigitated Multicolored Bioink Micropatterns by Multiplexed Polymer Pen Lithography (Small 19/2013). Small, 2013, 9, 3265-3265.	10.0	64
12	On-chip microlasers for biomolecular detection via highly localized deposition of a multifunctional phospholipid ink. Lab on A Chip, 2013, 13, 2701.	6.0	53
13	Patterning of Polymer Electrodes by Nanoscratching. Advanced Materials, 2010, 22, 1374-1378.	21.0	51
14	Singleâ€•and Doubleâ€Sided Chemical Functionalization of Bilayer Graphene. Small, 2013, 9, 631-639.	10.0	49
15	Selective Adsorption of DNA on Chiral Surfaces: Supercoiled or Relaxed Conformation. Angewandte Chemie - International Edition, 2009, 48, 5282-5286.	13.8	44
16	Rapid Capture of Cancer Extracellular Vesicles by Lipid Patch Microarrays. Advanced Materials, 2021, 33, e2008493.	21.0	43
17	Structured Polymer Brushes by AFM Lithography. Small, 2009, 5, 919-923.	10.0	42
18	Langmuirâ€™Blodgett Patterning of Phospholipid Microstripes:â€‰ Effect of the Second Component. Journal of Physical Chemistry B, 2006, 110, 8039-8046.	2.6	40

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19	Site-Selective Surface-Initiated Polymerization by Langmuirâ€“Blodgett Lithography. Angewandte Chemie - International Edition, 2007, 46, 5231-5233.	13.8	40
20	Apertureless Cantilever-Free Pen Arrays for Scanning Photochemical Printing. Small, 2015, 11, 913-918.	10.0	39
21	â€œMolecular Activity Paintingâ€• Switchâ€like, Lightâ€Controlled Perturbations inside Living Cells. Angewandte Chemie - International Edition, 2017, 56, 5916-5920.	13.8	38
22	Toxic and non-toxic aggregates from the SBMA and normal forms of androgen receptor have distinct oligomeric structures. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2012, 1822, 1070-1078.	3.8	37
23	Largeâ€Scale Parallel Surface Functionalization of Gobletâ€type Whispering Gallery Mode Microcavity Arrays for Biosensing Applications. Small, 2014, 10, 3863-3868.	10.0	36
24	A Versatile Microarray Platform for Capturing Rare Cells. Scientific Reports, 2015, 5, 15342.	3.3	36
25	Vaporâ€Based Multicomponent Coatings for Antifouling and Biofunctional Synergic Modifications. Advanced Functional Materials, 2014, 24, 2281-2287.	14.9	35
26	Self-Organized Patterning: Regular and Spatially Tunable Luminescent Submicrometer Stripes Over Large Areas. Advanced Materials, 2005, 17, 2881-2885.	21.0	34
27	New Approaches for Bottom-Up Assembly of Tobacco Mosaic Virus-Derived Nucleoprotein Tubes on Defined Patterns on Silica- and Polymer-Based Substrates. Langmuir, 2012, 28, 14867-14877.	3.5	34
28	Allergen Arrays for Antibody Screening and Immune Cell Activation Profiling Generated by Parallel Lipid Dipâ€Pen Nanolithography. Small, 2012, 8, 585-591.	10.0	34
29	Comparative Height Measurements of Dip-Pen Nanolithography-Produced Lipid Membrane Stacks with Atomic Force, Fluorescence, and Surface-Enhanced Ellipsometric Contrast Microscopy. Langmuir, 2011, 27, 11605-11608.	3.5	33
30	Clickable Antifouling Polymer Brushes for Polymer Pen Lithography. ACS Applied Materials & Interfaces, 2017, 9, 12109-12117.	8.0	33
31	Fabrication of Gradient Mesostructures by Langmuirâ^'Blodgett Rotating Transfer. Langmuir, 2007, 23, 2280-2283.	3.5	32
32	Localization and Dynamics of Glucocorticoid Receptor at the Plasma Membrane of Activated Mast Cells. Small, 2014, 10, 1991-1998.	10.0	31
33	Combinatorial Synthesis of Macromolecular Arrays by Microchannel Cantilever Spotting (ÂµCS). Advanced Materials, 2018, 30, e1801632.	21.0	31
34	Capillary-Induced Contact Guidance. Langmuir, 2007, 23, 10216-10223.	3.5	29
35	Interdigitated Multicolored Bioink Micropatterns by Multiplexed Polymer Pen Lithography. Small, 2013, 9, 3266-3275.	10.0	29
36	A diffusive ink transport model for lipid dip-pen nanolithography. Nanoscale, 2015, 7, 15618-15634.	5.6	29

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37	Siteâ€Specific Surface Functionalization via Microchannel Cantilever Spotting (ÂµCS): Comparison between Azideâ€“Alkyne and Thiolâ€“Alkyne Click Chemistry Reactions. Small, 2018, 14, e1800131.	10.0	29
38	Chemical Surface Modification of Selfâ€Assembled Monolayers by Radical Nitroxide Exchange Reactions. Chemistry - A European Journal, 2011, 17, 9107-9112.	3.3	27
39	Multi-color polymer pen lithography for oligonucleotide arrays. Chemical Communications, 2016, 52, 12310-12313.	4.1	27
40	Control over Patterning of Organic Semiconductors: Stepâ€Edgeâ€Induced Areaâ€Selective Growth. Advanced Materials, 2009, 21, 4721-4725.	21.0	25
41	Site specific protein immobilization into structured polymer brushes prepared by AFM lithography. Soft Matter, 2011, 7, 9854.	2.7	24
42	Highâ€Resolution Tripleâ€Color Patterns Based on the Liquid Behavior of Organic Molecules. Small, 2011, 7, 1403-1406.	10.0	24
43	Clickâ€Chemistry Based Multiâ€Component Microarrays by Quillâ€Like Pens. Advanced Materials Interfaces, 2014, 1, 1300129.	3.7	24
44	Polymer Pen Lithography with Lipids for Large-Area Gradient Patterns. Langmuir, 2017, 33, 8739-8748.	3.5	24
45	Ink transport modelling in Dip-Pen Nanolithography and Polymer Pen Lithography. Nanofabrication, 2016, 2, .	1.1	23
46	Self-limiting multiplexed assembly of lipid membranes on large-area graphene sensor arrays. Nanoscale, 2016, 8, 15147-15151.	5.6	23
47	Aptamer Conformation-Cooperated Enzyme-Assisted Surface-Enhanced Raman Scattering Enabling Ultrasensitive Detection of Cell Surface Protein Biomarkers in Blood Samples. ACS Sensors, 2019, 4, 2605-2614.	7.8	23
48	Densely Packed Microgoblet Laser Pairs for Crossâ€Referenced Biomolecular Detection. Advanced Science, 2015, 2, 1500066.	11.2	22
49	Patterning of Quantum Dots by Dip-Pen and Polymer Pen Nanolithography. Nanofabrication, 2015, 2, .	1.1	22
50	Click-Chemistry Based Allergen Arrays Generated by Polymer Pen Lithography for Mast Cell Activation Studies. Small, 2016, 12, 5330-5338.	10.0	22
51	Diamond Nanophotonic Circuits Functionalized by Dipâ€pen Nanolithography. Advanced Optical Materials, 2015, 3, 328-335.	7.3	20
52	Facile Modification of Silica Substrates Provides a Platform for Directâ€Writing Surface Click Chemistry. Small, 2012, 8, 541-545.	10.0	19
53	Evaluation of Microfluidic Ceiling Designs for the Capture of Circulating Tumor Cells on a Microarray Platform. Advanced Biology, 2020, 4, 1900162.	3.0	19
54	Kinetics of island formation in organic film growth. Physical Review B, 2008, 77, .	3.2	18

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55	Measurement of Mass Transfer during Dipâ€Pen Nanolithography with Phospholipids. Small, 2011, 7, 2081-2086.	10.0	17
56	Selective deposition of organic molecules onto different densely packed self-assembled monolayers: A molecular dynamics study. Chemical Physics Letters, 2011, 507, 138-143.	2.6	17
57	Protein Microarray Immobilization via Epoxide Ringâ€Opening by Thiol, Amine, and Azide. Advanced Materials Interfaces, 2021, 8, 2002117.	3.7	17
58	Cucurbit[n]uril-Immobilized Sensor Arrays for Indicator-Displacement Assays of Small Bioactive Metabolites. ACS Applied Nano Materials, 2021, 4, 4676-4687.	5.0	17
59	Clickâ€Chemistry Immobilized 3Dâ€Infused Microarrays in Nanoporous Polymer Substrates. Advanced Materials Interfaces, 2016, 3, 1500469.	3.7	16
60	How Does Chemistry Influence Liquid Wettability on Liquid-Infused Porous Surface?. ACS Applied Materials & Interfaces, 2020, 12, 14531-14541.	8.0	16
61	Correlating Dynamics and Selectivity in Adsorption of Semiconductor Nanocrystals onto a Self-Organized Pattern. Nano Letters, 2007, 7, 3483-3488.	9.1	15
62	Influence of Substrate Treatment on Self-Organized Pattern Formation by Langmuirâ€'Blodgett Transfer. Journal of Physical Chemistry B, 2008, 112, 824-827.	2.6	15
63	Attoliter Chemistry for Nanoscale Functionalization of Graphene. ACS Applied Materials & Interfaces, 2016, 8, 33371-33376.	8.0	15
64	Selective Binding of DNA Origami on Biomimetic Lipid Patches. Small, 2015, 11, 5752-5758.	10.0	14
65	Catalyst-free site-specific surface modifications of nanocrystalline diamond films via microchannel cantilever spotting. RSC Advances, 2016, 6, 57820-57827.	3.6	14
66	â€œMolecular Activity Paintingâ€: schaltbare, lichtgesteuerte Manipulation in lebenden Zellen. Angewandte Chemie, 2017, 129, 6010-6014.	2.0	14
67	Porous polymer coatings as substrates for the formation of high-fidelity micropatterns by quill-like pens. Beilstein Journal of Nanotechnology, 2013, 4, 377-384.	2.8	13
68	Scannerâ€Based Capillary Stamping. Advanced Functional Materials, 2020, 30, 2001531.	14.9	13
69	Patterning of Functional Compounds by Multicomponent Langmuirâ€'Blodgett Transfer and Subsequent Chemical Modification. Langmuir, 2010, 26, 15388-15393.	3.5	12
70	Ultra-large scale AFM of lipid droplet arrays: investigating the ink transfer volume in dip pen nanolithography. Nanotechnology, 2015, 26, 175303.	2.6	12
71	Dip-Pen Nanolithography-Assisted Protein Crystallization. Journal of the American Chemical Society, 2015, 137, 154-157.	13.7	12
72	A Comparative Study of Thiolâ€Terminated Surface Modification by Click Reactions: Thiolâ€yne Coupling versus Thiolâ€ene Michael Addition. Advanced Materials Interfaces, 2018, 5, 1801343.	3.7	11

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73	Anisotropic growth of organic semiconductor based on mechanical contrast of pre-patterned monolayer. Soft Matter, 2010, 6, 5302.	2.7	10
74	Mesopattern of immobilised bone morphogenetic protein-2 created by microcontact printing and dip-pen nanolithography influence C2C12 cell fate. RSC Advances, 2014, 4, 56809-56815.	3.6	10
75	Branch Suppression and Orientation Control of Langmuirâ€“Blodgett Patterning on Prestructured Surfaces. Advanced Materials Interfaces, 2016, 3, 1600478.	3.7	10
76	Covalently Modulated and Transiently Visible Writing: Rational Association of Two Extremes of Water Wettabilities. ACS Applied Materials & Interfaces, 2020, 12, 2935-2943.	8.0	10
77	Highâ€Resolution Capillary Printing of Eutectic Gallium Alloys for Printed Electronics. Advanced Materials Technologies, 2021, 6, 2100650.	5.8	9
78	Enhanced Stability of Lipid Structures by Dip-Pen Nanolithography on Block-Type MPC Copolymer. Molecules, 2020, 25, 2768.	3.8	8
79	Controlled Surface Adhesion of Macrophages via Patterned Antifouling Polymer Brushes. Advanced NanoBiomed Research, 2021, 1, 2000029.	3.6	8
80	Writing Behavior of Phospholipids in Polymer Pen Lithography (PPL) for Bioactive Micropatterns. Polymers, 2019, 11, 891.	4.5	7
81	Evaluation of click chemistry microarrays for immunosensing of alpha-fetoprotein (AFP). Beilstein Journal of Nanotechnology, 2019, 10, 2505-2515.	2.8	7
82	Synergies between Surface Microstructuring and Molecular Nanopatterning for Controlling Cell Populations on Polymeric Biointerfaces. Polymers, 2020, 12, 655.	4.5	7
83	Simulation Modeling of Supported Lipid Membranes â€“ A Review. Current Topics in Medicinal Chemistry, 2014, 14, 617-623.	2.1	7
84	Direct-Write Patterning of Biomimetic Lipid Membranes In Situ with FluidFM. ACS Applied Materials & Interfaces, 2021, 13, 50774-50784.	8.0	7
85	Tunable Organic Heteroâ€Patterns via Molecule Diffusion Control. Small, 2014, 10, 3045-3049.	10.0	6
86	Phospholipid arrays on porous polymer coatings generated by micro-contact spotting. Beilstein Journal of Nanotechnology, 2017, 8, 715-722.	2.8	6
87	A multiplexed phospholipid membrane platform for curvature sensitive protein screening. Nanoscale, 2021, 13, 12642-12650.	5.6	6
88	Selective binding of oligonucleotide on TiO 2 surfaces modified by swift heavy ion beam lithography. Nuclear Instruments & Methods in Physics Research B, 2014, 339, 67-74.	1.4	5
89	Facilitating an International Research Experience Focused on Applied Nanotechnology and Surface Chemistry for American Undergraduate Students Collaborating with Mentors at a German Educational and Research Institution. Journal of Chemical Education, 2019, 96, 2441-2449.	2.3	5
90	Selective deposition of organic molecules onto DPPC templates â€“ A molecular dynamics study. Journal of Colloid and Interface Science, 2013, 389, 206-212.	9.4	4

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91	HIV-1 antibodies and vaccine antigen selectively interact with lipid domains. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2662-2669.	2.6	4
92	Printing Technologies for Integration of Electronic Devices and Sensors. NATO Science for Peace and Security Series C: Environmental Security, 2020, , 1-34.	0.2	4
93	Integration of Biofunctional Molecules into 3D-Printed Polymeric Micro-/Nanostructures. Polymers, 2022, 14, 1327.	4.5	4
94	Evaluation of Dibenzocyclooctyne and Bicyclononyne Click Reaction on Azidoâ€Functionalized Antifouling Polymer Brushes via Microspotting. Advanced Materials Interfaces, 2022, 9, .	3.7	4
95	Antifouling: Vaporâ€Based Multicomponent Coatings for Antifouling and Biofunctional Synergic Modifications (Adv. Funct. Mater. 16/2014). Advanced Functional Materials, 2014, 24, 2280-2280.	14.9	3
96	Locally Controlled Growth of Individual Lambdaâ€Shaped Carbon Nanofibers. Small, 2019, 15, e1803944.	10.0	2
97	Thioacetateâ€Based Initiators for the Synthesis of Thiolâ€Endâ€Functionalized Poly(2â€oxazoline)s. Macromolecular Rapid Communications, 2020, 41, 2000320.	3.9	2
98	FluidFM-Based Fabrication of Nanopatterns: Promising Surfaces for Platelet Storage Application. ACS Applied Materials & Interfaces, 2022, 14, 24133-24143.	8.0	2
99	Multiplexed Biomimetic Lipid Membranes on Graphene by Dip-Pen Nanolithography. Microscopy and Microanalysis, 2014, 20, 2058-2059.	0.4	1
100	Site-Specific Controlled Growth of Coiled Lambda-Shaped Carbon Nanofibers for Potential Application in Catalyst Support and Nanoelectronics. ACS Applied Nano Materials, 2020, 3, 7899-7907.	5.0	1
101	Highly efficient capture of circulating tumor cells by microarray in a microfluidic device. FASEB Journal, 2019, 33, lb230.	0.5	1
102	Protein spot arrays on graphene oxide coatings for efficient single-cell capture. Scientific Reports, 2022, 12, 3895.	3.3	1
103	Multiplexed Covalent Patterns on Doubleâ€Reactive Porous Coating. Chemistry - an Asian Journal, 2022, , .	3.3	1
104	Integrated Lasers for Polymer Lab-on-a-Chip Systems. , 2012, , .		0
105	Phospholipid-functionalized microgoblet lasers for biomolecular detection. , 2015, , .		0
106	High-precision tabletop microplotter for flexible on-demand material deposition in printed electronics and device functionalization. Review of Scientific Instruments, 2021, 92, 125104.	1.3	0