

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
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112
all docs

112
docs citations

112
times ranked

4136
citing authors

#	ARTICLE	IF	CITATIONS
1	Integration of Biofunctional Molecules into 3D-Printed Polymeric Micro-/Nanostructures. <i>Polymers</i> , 2022, 14, 1327.	4.5	4
2	Protein spot arrays on graphene oxide coatings for efficient single-cell capture. <i>Scientific Reports</i> , 2022, 12, 3895.	3.3	1
3	Multiplexed Covalent Patterns on Double-Responsive Porous Coating. <i>Chemistry - an Asian Journal</i> , 2022, , .	3.3	1
4	Evaluation of Dibenzocyclooctyne and Bicyclononyne Click Reaction on Azido-Functionalized Antifouling Polymer Brushes via Microspotting. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	4
5	FluidFM-Based Fabrication of Nanopatterns: Promising Surfaces for Platelet Storage Application. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 24133-24143.	8.0	2
6	Controlled Surface Adhesion of Macrophages via Patterned Antifouling Polymer Brushes. <i>Advanced NanoBiomed Research</i> , 2021, 1, 2000029.	3.6	8
7	A multiplexed phospholipid membrane platform for curvature sensitive protein screening. <i>Nanoscale</i> , 2021, 13, 12642-12650.	5.6	6
8	Protein Microarray Immobilization via Epoxide Ring-Opening by Thiol, Amine, and Azide. <i>Advanced Materials Interfaces</i> , 2021, 8, 2002117.	3.7	17
9	Cucurbit[<i>n</i>]uril-Immobilized Sensor Arrays for Indicator-Displacement Assays of Small Bioactive Metabolites. <i>ACS Applied Nano Materials</i> , 2021, 4, 4676-4687.	5.0	17
10	High-Resolution Capillary Printing of Eutectic Gallium Alloys for Printed Electronics. <i>Advanced Materials Technologies</i> , 2021, 6, 2100650.	5.8	9
11	Rapid Capture of Cancer Extracellular Vesicles by Lipid Patch Microarrays. <i>Advanced Materials</i> , 2021, 33, e2008493.	21.0	43
12	Direct-Write Patterning of Biomimetic Lipid Membranes In Situ with FluidFM. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 50774-50784.	8.0	7
13	High-precision tabletop microplotter for flexible on-demand material deposition in printed electronics and device functionalization. <i>Review of Scientific Instruments</i> , 2021, 92, 125104.	1.3	0
14	Covalently Modulated and Transiently Visible Writing: Rational Association of Two Extremes of Water Wettabilities. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 2935-2943.	8.0	10
15	Evaluation of Microfluidic Ceiling Designs for the Capture of Circulating Tumor Cells on a Microarray Platform. <i>Advanced Biology</i> , 2020, 4, 1900162.	3.0	19
16	Site-Specific Controlled Growth of Coiled Lambda-Shaped Carbon Nanofibers for Potential Application in Catalyst Support and Nanoelectronics. <i>ACS Applied Nano Materials</i> , 2020, 3, 7899-7907.	5.0	1
17	Thioacetate-Based Initiators for the Synthesis of Thiol-Functionalized Poly(2-oxazoline)s. <i>Macromolecular Rapid Communications</i> , 2020, 41, 2000320.	3.9	2
18	Synergies between Surface Microstructuring and Molecular Nanopatterning for Controlling Cell Populations on Polymeric Biointerfaces. <i>Polymers</i> , 2020, 12, 655.	4.5	7

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19	Enhanced Stability of Lipid Structures by Dip-Pen Nanolithography on Block-Type MPC Copolymer. <i>Molecules</i> , 2020, 25, 2768.	3.8	8
20	How Does Chemistry Influence Liquid Wettability on Liquid-Infused Porous Surface?. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 14531-14541.	8.0	16
21	Scanner-Based Capillary Stamping. <i>Advanced Functional Materials</i> , 2020, 30, 2001531.	14.9	13
22	Printing Technologies for Integration of Electronic Devices and Sensors. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2020, , 1-34.	0.2	4
23	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. <i>Journal of Chemical Education</i> , 2019, 96, 2441-2449.	2.3	5
24	Aptamer Conformation-Cooperated Enzyme-Assisted Surface-Enhanced Raman Scattering Enabling Ultrasensitive Detection of Cell Surface Protein Biomarkers in Blood Samples. <i>ACS Sensors</i> , 2019, 4, 2605-2614.	7.8	23
25	Writing Behavior of Phospholipids in Polymer Pen Lithography (PPL) for Bioactive Micropatterns. <i>Polymers</i> , 2019, 11, 891.	4.5	7
26	Development of Dip-Pen Nanolithography (DPN) and Its Derivatives. <i>Small</i> , 2019, 15, e1900564.	10.0	75
27	Evaluation of click chemistry microarrays for immunosensing of alpha-fetoprotein (AFP). <i>Beilstein Journal of Nanotechnology</i> , 2019, 10, 2505-2515.	2.8	7
28	Locally Controlled Growth of Individual Lambda-Shaped Carbon Nanofibers. <i>Small</i> , 2019, 15, e1803944.	10.0	2
29	Highly efficient capture of circulating tumor cells by microarray in a microfluidic device. <i>FASEB Journal</i> , 2019, 33, lb230.	0.5	1
30	Site-Specific Surface Functionalization via Microchannel Cantilever Spotting (μ CS): Comparison between Azide-Alkyne and Thiol-Alkyne Click Chemistry Reactions. <i>Small</i> , 2018, 14, e1800131.	10.0	29
31	A Comparative Study of Thiol-Terminated Surface Modification by Click Reactions: Thiol-Alkyne Coupling versus Thiol-Michael Addition. <i>Advanced Materials Interfaces</i> , 2018, 5, 1801343.	3.7	11
32	Combinatorial Synthesis of Macromolecular Arrays by Microchannel Cantilever Spotting (μ CS). <i>Advanced Materials</i> , 2018, 30, e1801632.	21.0	31
33	Biomimetic Phospholipid Membrane Organization on Graphene and Graphene Oxide Surfaces: A Molecular Dynamics Simulation Study. <i>ACS Nano</i> , 2017, 11, 1613-1625.	14.6	66
34	„Molecular Activity Painting“: schaltbare, lichtgesteuerte Manipulation in lebenden Zellen. <i>Angewandte Chemie</i> , 2017, 129, 6010-6014.	2.0	14
35	„Molecular Activity Painting“: Switch-like, Light-Controlled Perturbations inside Living Cells. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 5916-5920.	13.8	38
36	Clickable Antifouling Polymer Brushes for Polymer Pen Lithography. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 12109-12117.	8.0	33

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37	Polymer Pen Lithography with Lipids for Large-Area Gradient Patterns. <i>Langmuir</i> , 2017, 33, 8739-8748.	3.5	24
38	Phospholipid arrays on porous polymer coatings generated by micro-contact spotting. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 715-722.	2.8	6
39	Click-Chemistry Immobilized 3D-Infused Microarrays in Nanoporous Polymer Substrates. <i>Advanced Materials Interfaces</i> , 2016, 3, 1500469.	3.7	16
40	Attoliter Chemistry for Nanoscale Functionalization of Graphene. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 33371-33376.	8.0	15
41	Ink transport modelling in Dip-Pen Nanolithography and Polymer Pen Lithography. <i>Nanofabrication</i> , 2016, 2, .	1.1	23
42	Multi-color polymer pen lithography for oligonucleotide arrays. <i>Chemical Communications</i> , 2016, 52, 12310-12313.	4.1	27
43	Self-limiting multiplexed assembly of lipid membranes on large-area graphene sensor arrays. <i>Nanoscale</i> , 2016, 8, 15147-15151.	5.6	23
44	Click-Chemistry Based Allergen Arrays Generated by Polymer Pen Lithography for Mast Cell Activation Studies. <i>Small</i> , 2016, 12, 5330-5338.	10.0	22
45	Branch Suppression and Orientation Control of Langmuir-Blodgett Patterning on Prestructured Surfaces. <i>Advanced Materials Interfaces</i> , 2016, 3, 1600478.	3.7	10
46	Catalyst-free site-specific surface modifications of nanocrystalline diamond films via microchannel cantilever spotting. <i>RSC Advances</i> , 2016, 6, 57820-57827.	3.6	14
47	Mechano- and Photochromism from Bulk to Nanoscale: Data Storage on Individual Self-Assembled Ribbons. <i>Advanced Functional Materials</i> , 2016, 26, 5271-5278.	14.9	109
48	Densely Packed Microgoblet Laser Pairs for Cross-Referenced Biomolecular Detection. <i>Advanced Science</i> , 2015, 2, 1500066.	11.2	22
49	A Versatile Microarray Platform for Capturing Rare Cells. <i>Scientific Reports</i> , 2015, 5, 15342.	3.3	36
50	Multiscale Origami Structures as Interface for Cells. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 15813-15817.	13.8	87
51	Selective Binding of DNA Origami on Biomimetic Lipid Patches. <i>Small</i> , 2015, 11, 5752-5758.	10.0	14
52	Patterning of Quantum Dots by Dip-Pen and Polymer Pen Nanolithography. <i>Nanofabrication</i> , 2015, 2, .	1.1	22
53	Apertureless Cantilever-Free Pen Arrays for Scanning Photochemical Printing. <i>Small</i> , 2015, 11, 913-918.	10.0	39
54	Ultra-large scale AFM of lipid droplet arrays: investigating the ink transfer volume in dip pen nanolithography. <i>Nanotechnology</i> , 2015, 26, 175303.	2.6	12

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55	A diffusive ink transport model for lipid dip-pen nanolithography. <i>Nanoscale</i> , 2015, 7, 15618-15634.	5.6	29
56	Dip-Pen Nanolithography-Assisted Protein Crystallization. <i>Journal of the American Chemical Society</i> , 2015, 137, 154-157.	13.7	12
57	Reactive Superhydrophobic Surface and Its Photoinduced Disulfide-ene and Thiol-ene (Bio)functionalization. <i>Nano Letters</i> , 2015, 15, 675-681.	9.1	86
58	Diamond Nanophotonic Circuits Functionalized by Dip-Pen Nanolithography. <i>Advanced Optical Materials</i> , 2015, 3, 328-335.	7.3	20
59	Phospholipid-functionalized microgoblet lasers for biomolecular detection. , 2015, , .		0
60	Vapor-Based Multicomponent Coatings for Antifouling and Biofunctional Synergic Modifications. <i>Advanced Functional Materials</i> , 2014, 24, 2281-2287.	14.9	35
61	Antifouling: Vapor-Based Multicomponent Coatings for Antifouling and Biofunctional Synergic Modifications (<i>Adv. Funct. Mater.</i> 16/2014). <i>Advanced Functional Materials</i> , 2014, 24, 2280-2280.	14.9	3
62	Localization and Dynamics of Glucocorticoid Receptor at the Plasma Membrane of Activated Mast Cells. <i>Small</i> , 2014, 10, 1991-1998.	10.0	31
63	Mesopattern of immobilised bone morphogenetic protein-2 created by microcontact printing and dip-pen nanolithography influence C2C12 cell fate. <i>RSC Advances</i> , 2014, 4, 56809-56815.	3.6	10
64	Advances in DNA-directed immobilization. <i>Current Opinion in Chemical Biology</i> , 2014, 18, 8-15.	6.1	90
65	Large-Scale Parallel Surface Functionalization of Goblet-Type Whispering Gallery Mode Microcavity Arrays for Biosensing Applications. <i>Small</i> , 2014, 10, 3863-3868.	10.0	36
66	Tunable Organic Hetero-Patterns via Molecule Diffusion Control. <i>Small</i> , 2014, 10, 3045-3049.	10.0	6
67	Click-Chemistry Based Multi-Component Microarrays by Quill-Like Pens. <i>Advanced Materials Interfaces</i> , 2014, 1, 1300129.	3.7	24
68	HIV-1 antibodies and vaccine antigen selectively interact with lipid domains. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2014, 1838, 2662-2669.	2.6	4
69	High-Performance and Tailorable Pressure Sensor Based on Ultrathin Conductive Polymer Film. <i>Small</i> , 2014, 10, 1466-1472.	10.0	189
70	Selective binding of oligonucleotide on TiO ₂ surfaces modified by swift heavy ion beam lithography. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014, 339, 67-74.	1.4	5
71	Multiplexed Biomimetic Lipid Membranes on Graphene by Dip-Pen Nanolithography. <i>Microscopy and Microanalysis</i> , 2014, 20, 2058-2059.	0.4	1
72	Simulation Modeling of Supported Lipid Membranes – A Review. <i>Current Topics in Medicinal Chemistry</i> , 2014, 14, 617-623.	2.1	7

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73	Single- and Double-Sided Chemical Functionalization of Bilayer Graphene. <i>Small</i> , 2013, 9, 631-639.	10.0	49
74	Interdigitated Multicolored Bioink Micropatterns by Multiplexed Polymer Pen Lithography. <i>Small</i> , 2013, 9, 3266-3275.	10.0	29
75	On-chip microlasers for biomolecular detection via highly localized deposition of a multifunctional phospholipid ink. <i>Lab on A Chip</i> , 2013, 13, 2701.	6.0	53
76	Selective deposition of organic molecules onto DPPC templates – A molecular dynamics study. <i>Journal of Colloid and Interface Science</i> , 2013, 389, 206-212.	9.4	4
77	Micropatterning: Interdigitated Multicolored Bioink Micropatterns by Multiplexed Polymer Pen Lithography (<i>Small</i> 19/2013). <i>Small</i> , 2013, 9, 3265-3265.	10.0	64
78	Multiplexed biomimetic lipid membranes on graphene by dip-pen nanolithography. <i>Nature Communications</i> , 2013, 4, 2591.	12.8	90
79	Porous polymer coatings as substrates for the formation of high-fidelity micropatterns by quill-like pens. <i>Beilstein Journal of Nanotechnology</i> , 2013, 4, 377-384.	2.8	13
80	Integrated Lasers for Polymer Lab-on-a-Chip Systems. , 2012, , .		0
81	Toxic and non-toxic aggregates from the SBMA and normal forms of androgen receptor have distinct oligomeric structures. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2012, 1822, 1070-1078.	3.8	37
82	New Approaches for Bottom-Up Assembly of Tobacco Mosaic Virus-Derived Nucleoprotein Tubes on Defined Patterns on Silica- and Polymer-Based Substrates. <i>Langmuir</i> , 2012, 28, 14867-14877.	3.5	34
83	Allergen Arrays for Antibody Screening and Immune Cell Activation Profiling Generated by Parallel Lipid Dip-Pen Nanolithography. <i>Small</i> , 2012, 8, 585-591.	10.0	34
84	Facile Modification of Silica Substrates Provides a Platform for Direct-Writing Surface Click Chemistry. <i>Small</i> , 2012, 8, 541-545.	10.0	19
85	Site specific protein immobilization into structured polymer brushes prepared by AFM lithography. <i>Soft Matter</i> , 2011, 7, 9854.	2.7	24
86	Comparative Height Measurements of Dip-Pen Nanolithography-Produced Lipid Membrane Stacks with Atomic Force, Fluorescence, and Surface-Enhanced Ellipsometric Contrast Microscopy. <i>Langmuir</i> , 2011, 27, 11605-11608.	3.5	33
87	High-Resolution Triple-Color Patterns Based on the Liquid Behavior of Organic Molecules. <i>Small</i> , 2011, 7, 1403-1406.	10.0	24
88	Measurement of Mass Transfer during Dip-Pen Nanolithography with Phospholipids. <i>Small</i> , 2011, 7, 2081-2086.	10.0	17
89	Chemical Surface Modification of Self-Assembled Monolayers by Radical Nitroxide Exchange Reactions. <i>Chemistry - A European Journal</i> , 2011, 17, 9107-9112.	3.3	27
90	Selective deposition of organic molecules onto different densely packed self-assembled monolayers: A molecular dynamics study. <i>Chemical Physics Letters</i> , 2011, 507, 138-143.	2.6	17

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91	Patterning of Polymer Electrodes by Nanoscratching. <i>Advanced Materials</i> , 2010, 22, 1374-1378.	21.0	51
92	Patterning of Functional Compounds by Multicomponent Langmuir-Blodgett Transfer and Subsequent Chemical Modification. <i>Langmuir</i> , 2010, 26, 15388-15393.	3.5	12
93	Substrate-Independent Dip-Pen Nanolithography Based on Reactive Coatings. <i>Journal of the American Chemical Society</i> , 2010, 132, 18023-18025.	13.7	65
94	Anisotropic growth of organic semiconductor based on mechanical contrast of pre-patterned monolayer. <i>Soft Matter</i> , 2010, 6, 5302.	2.7	10
95	Control over Patterning of Organic Semiconductors: Step-Edge-Induced Area-Selective Growth. <i>Advanced Materials</i> , 2009, 21, 4721-4725.	21.0	25
96	Selective Adsorption of DNA on Chiral Surfaces: Supercoiled or Relaxed Conformation. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 5282-5286.	13.8	44
97	Structured Polymer Brushes by AFM Lithography. <i>Small</i> , 2009, 5, 919-923.	10.0	42
98	Influence of Substrate Treatment on Self-Organized Pattern Formation by Langmuir-Blodgett Transfer. <i>Journal of Physical Chemistry B</i> , 2008, 112, 824-827.	2.6	15
99	Kinetics of island formation in organic film growth. <i>Physical Review B</i> , 2008, 77, .	3.2	18
100	Correlating Dynamics and Selectivity in Adsorption of Semiconductor Nanocrystals onto a Self-Organized Pattern. <i>Nano Letters</i> , 2007, 7, 3483-3488.	9.1	15
101	Langmuir-Blodgett Patterning: A Bottom-Up Way To Build Mesostructures over Large Areas. <i>Accounts of Chemical Research</i> , 2007, 40, 393-401.	15.6	207
102	Capillary-Induced Contact Guidance. <i>Langmuir</i> , 2007, 23, 10216-10223.	3.5	29
103	Fabrication of Gradient Mesostructures by Langmuir-Blodgett Rotating Transfer. <i>Langmuir</i> , 2007, 23, 2280-2283.	3.5	32
104	Site-Selective Surface-Initiated Polymerization by Langmuir-Blodgett Lithography. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5231-5233.	13.8	40
105	Langmuir-Blodgett Patterning of Phospholipid Microstripes: Effect of the Second Component. <i>Journal of Physical Chemistry B</i> , 2006, 110, 8039-8046.	2.6	40
106	Self-Organized Patterning: Regular and Spatially Tunable Luminescent Submicrometer Stripes Over Large Areas. <i>Advanced Materials</i> , 2005, 17, 2881-2885.	21.0	34