

Bastian E Rapp

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

83
papers

2,673
citations

25
h-index

50
g-index

105
ext. papers

3,355
ext. citations

8.5
avg, IF

5.29
L-index

#	Paper	IF	Citations
83	Study of repellence on polymeric surfaces with two individually adjustable pore hierarchies. <i>Chemical Engineering Journal</i> , 2022 , 437, 135287	14.7	0
82	On-chip Liquid Metal Plug Generator.. <i>Advanced Materials</i> , 2022 , e2201469	24	1
81	Volumetric additive manufacturing of silica glass with microscale computed axial lithography.. <i>Science</i> , 2022 , 376, 308-312	33.3	11
80	3D Printing of Transparent Glasses. <i>Springer Series in Optical Sciences</i> , 2021 , 169-184	0.5	
79	Melt-Extrusion-Based Additive Manufacturing of Transparent Fused Silica Glass. <i>Advanced Science</i> , 2021 , 8, e2103180	13.6	4
78	Fused Deposition Modeling of Microfluidic Chips in Transparent Polystyrene. <i>Micromachines</i> , 2021 , 12,	3.3	2
77	High-throughput injection molding of transparent fused silica glass. <i>Science</i> , 2021 , 372, 182-186	33.3	12
76	Two-Photon Polymerization of Nanocomposites for the Fabrication of Transparent Fused Silica Glass Microstructures. <i>Advanced Materials</i> , 2021 , 33, e2006341	24	36
75	Facile fabrication of micro-/nanostructured, superhydrophobic membranes with adjustable porosity by 3D printing. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 21379-21386	13	6
74	High Resolution Patterning of an Organic-Inorganic Photoresin for the Fabrication of Platinum Microstructures. <i>Advanced Materials</i> , 2021 , 33, e2101992	24	2
73	Divide and print. <i>Nature Materials</i> , 2020 , 19, 131-133	27	4
72	Sacrificial template replication: fabrication of arbitrary embedded microfluidic channels in transparent fused silica glass 2020 ,		1
71	Generation of multi-level microstructures using a wavelength-selective photoresist and mask-less grayscale lithography 2020 ,		1
70	Facile integration of electronics in glass microfluidic devices for electrochemical synthesis and analysis 2020 ,		2
69	Fused Deposition Modeling of Microfluidic Chips in Polymethylmethacrylate. <i>Micromachines</i> , 2020 , 11,	3.3	26
68	Emerging Technologies and Materials for High-Resolution 3D Printing of Microfluidic Chips. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2020 , 1	1.7	4
67	Liquid Glass for Photovoltaics: Multifunctional Front Cover Glass for Solar Modules. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 35015-35022	9.5	6

66	A Nontoxic Battery with 3D-Printed Housing for On-Demand Operation of Microcontrollers in Microfluidic Sensors. <i>Micromachines</i> , 2019 , 10,	3.3	1
65	Analytical Solution of the Time-Dependent Microfluidic Poiseuille Flow in Rectangular Channel Cross-Sections and its Numerical Implementation in Microsoft Excel. <i>Biosensors</i> , 2019 , 9,	5.9	1
64	Fabrication of arbitrary three-dimensional suspended hollow microstructures in transparent fused silica glass. <i>Nature Communications</i> , 2019 , 10, 1439	17.4	42
63	High-Performance Materials for 3D Printing in Chemical Synthesis Applications. <i>Advanced Materials</i> , 2019 , 31, e1805982	24	44
62	3D printing of highly fluorinated methacrylates for the rapid prototyping of transparent and chemically-resistant microfluidic devices 2019 ,		1
61	Study of Biofilm Growth on Slippery Liquid-Infused Porous Surfaces Made from Fluoropor. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 4480-4487	9.5	34
60	Glassomer-Processing Fused Silica Glass Like a Polymer. <i>Advanced Materials</i> , 2018 , 30, e1707100	24	37
59	Phase change materials in microactuators: Basics, applications and perspectives. <i>Sensors and Actuators A: Physical</i> , 2018 , 271, 303-347	3.9	26
58	Towards Biofilm Spectroscopy A Novel Microfluidic Approach for Characterizing Biofilm Subpopulation by Microwave-Based Electrical Impedance Spectroscopy. <i>Frequenz</i> , 2018 , 72, 123-134	0.6	
57	vasQchip: A Novel Microfluidic, Artificial Blood Vessel Scaffold for Vascularized 3D Tissues. <i>Advanced Materials Technologies</i> , 2018 , 3, 1700246	6.8	12
56	Liquid PMMA: A High Resolution Polymethylmethacrylate Negative Photoresist as Enabling Material for Direct Printing of Microfluidic Chips. <i>Advanced Engineering Materials</i> , 2018 , 20, 1700699	3.5	18
55	Photolithographic structuring of soft, extremely foldable and autoclavable hydrophobic barriers in paper. <i>Analytical Methods</i> , 2018 , 10, 4028-4035	3.2	9
54	Long-term capability of polymer-coated surface transverse wave sensors for distinguishing vapors of similar hydrocarbons. <i>Sensors and Actuators B: Chemical</i> , 2018 , 274, 560-564	8.5	4
53	Highly Fluorinated Methacrylates for Optical 3D Printing of Microfluidic Devices. <i>Micromachines</i> , 2018 , 9,	3.3	28
52	Electrochemical Methods for Biomass and Biocorrosion Monitoring 2018 , 166-172		1
51	Additive manufacturing of microfluidic glass chips 2018 ,		3
50	Next-generation 3D printing of glass: the emergence of enabling materials 2018 ,		2
49	Three-dimensional printing of transparent fused silica glass. <i>Nature</i> , 2017 , 544, 337-339	50.4	396

48	Finite Difference Method 2017 , 623-631		2
47	Long-Term Stability of Polymer-Coated Surface Transverse Wave Sensors for the Detection of Organic Solvent Vapors. <i>Sensors</i> , 2017 , 17,	3.8	11
46	Polymer Structures on Surface Acoustic Wave Biosensors. <i>Procedia Technology</i> , 2017 , 27, 35-36		9
45	Suspended Liquid Subtractive Lithography: One-step generation of 3D channel geometries in viscous curable polymer matrices. <i>Scientific Reports</i> , 2017 , 7, 7387	4.9	8
44	Transparent, abrasion-insensitive superhydrophobic coatings for real-world applications. <i>Scientific Reports</i> , 2017 , 7, 15078	4.9	32
43	Taylor-Aris Dispersion 2017 , 401-417		
42	An Analytical Solution to Neumann-Type Mixed Boundary Poiseuille Microfluidic Flow in Rectangular Channel Cross-Sections (Slip/No-Slip) including a Numerical Technique to Derive It. <i>Journal of Biomedical Science and Engineering</i> , 2017 , 10, 205-218	0.7	3
41	An individual addressable and latchable actuator array for microfluidic systems. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	2
40	Liquid Glass: A Facile Soft Replication Method for Structuring Glass. <i>Advanced Materials</i> , 2016 , 28, 4646-50	5.1	46
39	Tacky cyclic olefin copolymer: a biocompatible bonding technique for the fabrication of microfluidic channels in COC. <i>Lab on A Chip</i> , 2016 , 16, 1561-4	7.2	22
38	Localized protein immobilization on microstructured polymeric surfaces for diagnostic applications. <i>Microfluidics and Nanofluidics</i> , 2016 , 20, 1	2.8	3
37	Functionalization of paper using photobleaching: A fast and convenient method for creating paper-based assays with colorimetric and fluorescent readout. <i>Engineering in Life Sciences</i> , 2016 , 16, 525-531	3.4	8
36	Numerics made easy: solving the Navier-Stokes equation for arbitrary channel cross-sections using Microsoft Excel. <i>Biomedical Microdevices</i> , 2016 , 18, 52	3.7	8
35	Polysiloxane layers created by sol-gel and photochemistry: ideal surfaces for rapid, low-cost and high-strength bonding of epoxy components to polydimethylsiloxane. <i>Lab on A Chip</i> , 2015 , 15, 1772-82	7.2	8
34	Quantification of the Influence of Endotoxins on the Mechanics of Adult and Neonatal Red Blood Cells. <i>Journal of Physical Chemistry B</i> , 2015 , 119, 7837-45	3.4	9
33	Acoustic Biosensors Coated With Phosphorylcholine Groups for Label-Free Detection of Human C-Reactive Protein in Serum. <i>IEEE Sensors Journal</i> , 2015 , 15, 4388-4392	4	10
32	Fluidic Platforms and Components of Lab-on-a-Chip devices 2015 , 83-139		
31	Bioinspired air-retaining nanofur for drag reduction. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 10651-5	9.5	63

30	Rational design of a peptide capture agent for CXCL8 based on a model of the CXCL8: CXCR1 complex. <i>RSC Advances</i> , 2015 , 5, 25657-25668	3.7	11
29	Synthetic enzyme supercomplexes: co-immobilization of enzyme cascades. <i>Analytical Methods</i> , 2015 , 7, 4030-4037	3.2	53
28	Optimization of enzyme immobilization on magnetic microparticles using 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide (EDC) as a crosslinking agent. <i>Analytical Methods</i> , 2015 , 7, 10291-10298	3.2	30
27	Multi-channel microfluidic biosensor platform applied for online monitoring and screening of biofilm formation and activity. <i>PLoS ONE</i> , 2015 , 10, e0117300	3.7	24
26	Advances in DNA-directed immobilization. <i>Current Opinion in Chemical Biology</i> , 2014 , 18, 8-15	9.7	77
25	Liquid polystyrene: a room-temperature photocurable soft lithography compatible pour-and-cure-type polystyrene. <i>Lab on A Chip</i> , 2014 , 14, 2698-708	7.2	23
24	Biofunctional Micropatterning of Thermoformed 3D Substrates. <i>Advanced Functional Materials</i> , 2014 , 24, 442-450	15.6	17
23	Microfluidics on liquid handling stations (E-on-LHS): an industry compatible chip interface between microfluidics and automated liquid handling stations. <i>Lab on A Chip</i> , 2013 , 13, 2337-43	7.2	21
22	Connecting microfluidic chips using a chemically inert, reversible, multichannel chip-to-world-interface. <i>Lab on A Chip</i> , 2013 , 13, 4343-51	7.2	29
21	Design and characterization of a platform for thermal actuation of up to 588 microfluidic valves. <i>Microfluidics and Nanofluidics</i> , 2013 , 14, 177-186	2.8	11
20	Online monitoring of biofilm growth and activity using a combined multi-channel impedimetric and amperometric sensor. <i>Biosensors and Bioelectronics</i> , 2013 , 47, 157-63	11.8	33
19	Rapid bonding of polydimethylsiloxane to stereolithographically manufactured epoxy components using a photogenerated intermediary layer. <i>Lab on A Chip</i> , 2013 , 13, 2268-71	7.2	13
18	Computer-aided microfluidics (CAMF): from digital 3D-CAD models to physical structures within a day. <i>Microfluidics and Nanofluidics</i> , 2013 , 15, 625-635	2.8	29
17	The chemistry of cyborgs--interfacing technical devices with organisms. <i>Angewandte Chemie - International Edition</i> , 2013 , 52, 13942-57	16.4	28
16	Chemie der Cyborgs [zur Verknüpfung technischer Systeme mit Lebewesen. <i>Angewandte Chemie</i> , 2013 , 125, 14190-14206	3.6	5
15	Biosensors for diagnostic applications. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2013 , 133, 115-48	1.7	24
14	Deposition of ultrathin parylene C films in the range of 18 nm to 142 nm: Controlling the layer thickness and assessing the closeness of the deposited films. <i>Thin Solid Films</i> , 2012 , 520, 4884-4888	2.2	16
13	Maskless projection lithography for the fast and flexible generation of grayscale protein patterns. <i>Small</i> , 2012 , 8, 1570-8	11	63

12	Let there be chipboards towards rapid prototyping of microfluidic devices: one-step manufacturing processes. <i>Analytical Methods</i> , 2011 , 3, 2681	3.2	235
11	Design and integration of a generic disposable array-compatible sensor housing into an integrated disposable indirect microfluidic flow injection analysis system. <i>Biomedical Microdevices</i> , 2011 , 13, 909-223-7	3.7	14
10	Hot embossing of high performance polymers. <i>Microsystem Technologies</i> , 2011 , 17, 585-592	1.7	114
9	Biosensors with label-free detection designed for diagnostic applications. <i>Analytical and Bioanalytical Chemistry</i> , 2010 , 398, 2403-12	4.4	92
8	Biosensor packaging adaptation of the surface modification procedure. <i>Procedia Engineering</i> , 2010 , 5, 363-366		1
7	Hot punching on an 8 inch substrate as an alternative technology to produce holes on a large scale. <i>Microsystem Technologies</i> , 2010 , 16, 1201-1206	1.7	7
6	Synthesis and application of photo curable perfluoropolyethers as new material for microfluidics. <i>Procedia Engineering</i> , 2010 , 5, 866-869		3
5	Surface Acoustic Wave (SAW) Biosensor Chip System - a Promising Alternative for Biomedical Applications. <i>IFMBE Proceedings</i> , 2009 , 73-76	0.2	5
4	An indirect microfluidic flow injection analysis (FIA) system allowing diffusion free pumping of liquids by using tetradecane as intermediary liquid. <i>Lab on A Chip</i> , 2009 , 9, 354-6	7.2	114
3	Surface acoustic wave biosensors: a review. <i>Analytical and Bioanalytical Chemistry</i> , 2008 , 391, 1509-19	4.4	546
2	Polymer coating behavior of Rayleigh-SAW resonators with gold electrode structure for gas sensor applications. <i>IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control</i> , 2007 , 54, 157-66	3.2	10
1	A Polystyrene Photoresin for Direct Lithography of Microfluidic Chips. <i>Advanced Materials Technologies</i> , 2200084	6.8	