## Bastian E Rapp

List of Publications by Year in descending order

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RASTIAN F RADD

| #  | Article   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Deterministic Lateral Displacement Microfluidic Chip for Minicell Purification. Micromachines, 2022, 13, 365.   | 2.9  | 9         |
| 2  | High-throughput manufacturing of transparent fused silica glass by injection molding and extrusion. , 2022, , .   |      | 1         |
| 3  | Study of repellence on polymeric surfaces with two individually adjustable pore hierarchies.<br>Chemical Engineering Journal, 2022, 437, 135287.                            | 12.7 | 4         |
| 4  | An On hip Liquid Metal Plug Generator. Advanced Materials, 2022, 34, e2201469.  | 21.0 | 10        |
| 5  | Volumetric additive manufacturing of silica glass with microscale computed axial lithography.<br>Science, 2022, 376, 308-312.   | 12.6 | 94        |
| 6  | A parallelized, perfused 3D triculture model of leukemia for in vitro drug testing of chemotherapeutics. Biofabrication, 2022, 14, 035011.                                  | 7.1  | 4         |
| 7  | Onâ€Chip Chemical Synthesis Using Oneâ€Step 3D Printed Polyperfluoropolyether.<br>Chemie-Ingenieur-Technik, 2022, 94, 975-982.  | 0.8  | 9         |
| 8  | A Polystyrene Photoresin for Direct Lithography of Microfluidic Chips. Advanced Materials<br>Technologies, 2022, 7, .   | 5.8  | 2         |
| 9  | Application of Micro/Nanoporous Fluoropolymers with Reduced Bioadhesion in Digital Microfluidics.<br>Nanomaterials, 2022, 12, 2201.   | 4.1  | 2         |
| 10 | Twoâ€Photon Polymerization of Nanocomposites for the Fabrication of Transparent Fused Silica Glass<br>Microstructures. Advanced Materials, 2021, 33, e2006341.              | 21.0 | 103       |
| 11 | Facile fabrication of micro-/nanostructured, superhydrophobic membranes with adjustable porosity<br>by 3D printing. Journal of Materials Chemistry A, 2021, 9, 21379-21386. | 10.3 | 30        |
| 12 | High-throughput injection molding of transparent fused silica glass. Science, 2021, 372, 182-186.   | 12.6 | 50        |
| 13 | High Resolution Patterning of an Organic–Inorganic Photoresin for the Fabrication of Platinum<br>Microstructures. Advanced Materials, 2021, 33, e2101992.                   | 21.0 | 11        |
| 14 | Meltâ€Extrusionâ€Based Additive Manufacturing of Transparent Fused Silica Glass. Advanced Science,<br>2021, 8, e2103180.  | 11.2 | 14        |
| 15 | Fused Deposition Modeling of Microfluidic Chips in Transparent Polystyrene. Micromachines, 2021, 12, 1348.  | 2.9  | 14        |
| 16 | 3D Printing of Transparent Glasses. Springer Series in Optical Sciences, 2021, , 169-184.   | 0.7  | 0         |
| 17 | Fused Deposition Modeling of Microfluidic Chips in Polymethylmethacrylate. Micromachines, 2020, 11, 873.  | 2.9  | 57        |
| 18 | Emerging Technologies and Materials for High-Resolution 3D Printing of Microfluidic Chips. Advances in Biochemical Engineering/Biotechnology, 2020, , 1.                    | 1.1  | 9         |

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|----|---|------|-----------|
| 19 | Divide and print. Nature Materials, 2020, 19, 131-133.  | 27.5 | 6         |
| 20 | Sacrificial template replication: fabrication of arbitrary embedded microfluidic channels in transparent fused silica glass. , 2020, , .  |      | 1         |
| 21 | Generation of multi-level microstructures using a wavelength-selective photoresist and mask-less grayscale lithography. , 2020, , .   |      | 2         |
| 22 | Facile integration of electronics in glass microfluidic devices for electrochemical synthesis and analysis. , 2020, , .   |      | 3         |
| 23 | Liquid Glass for Photovoltaics: Multifunctional Front Cover Glass for Solar Modules. ACS Applied Materials & Interfaces, 2019, 11, 35015-35022.   | 8.0  | 13        |
| 24 | A Nontoxic Battery with 3D-Printed Housing for On-Demand Operation of Microcontrollers in Microfluidic Sensors. Micromachines, 2019, 10, 588.   | 2.9  | 3         |
| 25 | Analytical Solution of the Time-Dependent Microfluidic Poiseuille Flow in Rectangular Channel<br>Cross-Sections and Its Numerical Implementation in Microsoft Excel. Biosensors, 2019, 9, 67. | 4.7  | 3         |
| 26 | Fabrication of arbitrary three-dimensional suspended hollow microstructures in transparent fused silica glass. Nature Communications, 2019, 10, 1439.   | 12.8 | 76        |
| 27 | Highâ€Performance Materials for 3D Printing in Chemical Synthesis Applications. Advanced Materials, 2019, 31, e1805982.   | 21.0 | 82        |
| 28 | Study of Biofilm Growth on Slippery Liquid-Infused Porous Surfaces Made from Fluoropor. ACS<br>Applied Materials & Interfaces, 2019, 11, 4480-4487.   | 8.0  | 54        |
| 29 | High-throughput thermal replication of transparent fused silica glass. , 2019, , .  |      | 1         |
| 30 | Suspended liquid subtractive lithography: printing three dimensional channels directly into uncured polymeric matrices. , 2019, , .   |      | 0         |
| 31 | 3D printing of highly fluorinated methacrylates for the rapid prototyping of transparent and chemically-resistant microfluidic devices. , 2019, , .   |      | 1         |
| 32 | Glassomer—Processing Fused Silica Glass Like a Polymer. Advanced Materials, 2018, 30, e1707100.   | 21.0 | 60        |
| 33 | Phase change materials in microactuators: Basics, applications and perspectives. Sensors and Actuators A: Physical, 2018, 271, 303-347.   | 4.1  | 43        |
| 34 | Towards Biofilm Spectroscopy – A Novel Microfluidic Approach for Characterizing Biofilm<br>Subpopulation by Microwave-Based Electrical Impedance Spectroscopy. Frequenz, 2018, 72, 123-134.   | 0.9  | 0         |
| 35 | vasQchip: A Novel Microfluidic, Artificial Blood Vessel Scaffold for Vascularized 3D Tissues.<br>Advanced Materials Technologies, 2018, 3, 1700246.   | 5.8  | 15        |
| 36 | Liquid PMMA: A High Resolution Polymethylmethacrylate Negative Photoresist as Enabling Material for Direct Printing of Microfluidic Chips. Advanced Engineering Materials, 2018, 20, 1700699. | 3.5  | 23        |

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|----|--|------|-----------|
| 37 | Photolithographic structuring of soft, extremely foldable and autoclavable hydrophobic barriers in paper. Analytical Methods, 2018, 10, 4028-4035.                               | 2.7  | 13        |
| 38 | Long-term capability of polymer-coated surface transverse wave sensors for distinguishing vapors of similar hydrocarbons. Sensors and Actuators B: Chemical, 2018, 274, 560-564. | 7.8  | 4         |
| 39 | Highly Fluorinated Methacrylates for Optical 3D Printing of Microfluidic Devices. Micromachines, 2018, 9, 115.   | 2.9  | 44        |
| 40 | Electrochemical Methods for Biomass and Biocorrosion Monitoring. , 2018, , 166-172.  |      | 1         |
| 41 | Additive manufacturing of microfluidic glass chips. , 2018, , .  |      | 6         |
| 42 | Next-generation 3D printing of glass: the emergence of enabling materials. , 2018, , .   |      | 3         |
| 43 | Suspended liquid subtractive lithography: printing three dimensional channels directly into uncured PDMS. , 2018, , .  |      | 0         |
| 44 | Structuring unbreakable hydrophobic barriers in paper. , 2018, , .   |      | 0         |
| 45 | Rapid structuring of proteins on filter paper using lithography. , 2017, , .   |      | 0         |
| 46 | Fast and cheap fabrication of molding tools for polymer replication. Proceedings of SPIE, 2017, , .  | 0.8  | 0         |
| 47 | Three-dimensional printing of transparent fused silica glass. Nature, 2017, 544, 337-339.  | 27.8 | 588       |
| 48 | Polymer Structures on Surface Acoustic Wave Biosensors. Procedia Technology, 2017, 27, 35-36.  | 1.1  | 9         |
| 49 | Suspended Liquid Subtractive Lithography: One-step generation of 3D channel geometries in viscous curable polymer matrices. Scientific Reports, 2017, 7, 7387.                   | 3.3  | 14        |
| 50 | Transparent, abrasion-insensitive superhydrophobic coatings for real-world applications. Scientific Reports, 2017, 7, 15078.   | 3.3  | 42        |
| 51 | Taylor-Aris Dispersion. , 2017, , 401-417.   |      | 0         |
| 52 | Finite Difference Method. , 2017, , 623-631.   |      | 3         |
|    |  |      |           |
| 53 | Long-Term Stability of Polymer-Coated Surface Transverse Wave Sensors for the Detection of Organic Solvent Vapors. Sensors, 2017, 17, 2529.                                      | 3.8  | 16        |

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|----|--|------|-----------|
| 55 | Functionalization of paper using photobleaching: A fast and convenient method for creating<br>paperâ€based assays with colorimetric and fluorescent readout. Engineering in Life Sciences, 2016, 16,<br>525-531. | 3.6  | 9         |
| 56 | Novel microfluidic system for online monitoring of biofilm dynamics by electrical impedance spectroscopy and amperometry. , 2016, , .  |      | 0         |
| 57 | Numerics made easy: solving the Navier–Stokes equation for arbitrary channel cross-sections using<br>Microsoft Excel. Biomedical Microdevices, 2016, 18, 52.   | 2.8  | 12        |
| 58 | Tacky COC: a solvent bonding technique for fabrication of microfluidic systems. Proceedings of SPIE, 2016, , .   | 0.8  | 0         |
| 59 | An individual addressable and latchable actuator array for microfluidic systems. Microfluidics and Nanofluidics, 2016, 20, 1.  | 2.2  | 2         |
| 60 | A latchable thermally activated phase change actuator for microfluidic systems. , 2016, , .  |      | 0         |
| 61 | Liquid Glass: A Facile Soft Replication Method for Structuring Glass. Advanced Materials, 2016, 28, 4646-4650.   | 21.0 | 78        |
| 62 | Tacky cyclic olefin copolymer: a biocompatible bonding technique for the fabrication of microfluidic channels in COC. Lab on A Chip, 2016, 16, 1561-1564.  | 6.0  | 30        |
| 63 | Localized protein immobilization on microstructured polymeric surfaces for diagnostic applications.<br>Microfluidics and Nanofluidics, 2016, 20, 1.  | 2.2  | 3         |
| 64 | Rational design of a peptide capture agent for CXCL8 based on a model of the CXCL8:CXCR1 complex. RSC Advances, 2015, 5, 25657-25668.  | 3.6  | 14        |
| 65 | Synthetic enzyme supercomplexes: co-immobilization of enzyme cascades. Analytical Methods, 2015, 7, 4030-4037.   | 2.7  | 63        |
| 66 | Optimization of enzyme immobilization on magnetic microparticles using<br>1-ethyl-3-(3-dimethylaminopropyl)carbodiimide (EDC) as a crosslinking agent. Analytical Methods, 2015,<br>7, 10291-10298.              | 2.7  | 41        |
| 67 | Polysiloxane layers created by sol–gel and photochemistry: ideal surfaces for rapid, low-cost and high-strength bonding of epoxy components to polydimethylsiloxane. Lab on A Chip, 2015, 15, 1772-1782.         | 6.0  | 9         |
| 68 | Quantification of the Influence of Endotoxins on the Mechanics of Adult and Neonatal Red Blood<br>Cells. Journal of Physical Chemistry B, 2015, 119, 7837-7845.  | 2.6  | 10        |
| 69 | Acoustic Biosensors Coated With Phosphorylcholine Groups for Label-Free Detection of Human<br>C-Reactive Protein in Serum. IEEE Sensors Journal, 2015, 15, 4388-4392.  | 4.7  | 13        |
| 70 | Rapid prototyping of glass microfluidic chips. , 2015, , .   |      | 1         |
| 71 | Fluidic Platforms and Components of Lab-on-a-Chip devices. , 2015, , 83-139.   |      | 0         |
| 72 | Bioinspired Air-Retaining Nanofur for Drag Reduction. ACS Applied Materials & Interfaces, 2015, 7, 10651-10655.  | 8.0  | 73        |

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|----|---|------|-----------|
| 73 | Protein assay structured on paper by using lithography. Proceedings of SPIE, 2015, , .  | 0.8  | 0         |
| 74 | Multi-Channel Microfluidic Biosensor Platform Applied for Online Monitoring and Screening of Biofilm Formation and Activity. PLoS ONE, 2015, 10, e0117300.  | 2.5  | 31        |
| 75 | Microfluidics on liquid handling stations (μF-on-LHS): a new industry-compatible microfluidic platform. Proceedings of SPIE, 2014, , .  | 0.8  | 0         |
| 76 | A chemically inert multichannel chip-to-world interface to connect microfluidic chips. , 2014, , .  |      | 0         |
| 77 | Rapid bonding of polydimethylsiloxane (PDMS) to various stereolithographically (STL) structurable epoxy resins using photochemically cross-linked intermediary siloxane layers. , 2014, , .         |      | 0         |
| 78 | Biofunctional Micropatterning of Thermoformed 3D Substrates. Advanced Functional Materials, 2014, 24, 442-450.  | 14.9 | 19        |
| 79 | Advances in DNA-directed immobilization. Current Opinion in Chemical Biology, 2014, 18, 8-15.   | 6.1  | 90        |
| 80 | Liquid polystyrene: a room-temperature photocurable soft lithography compatible pour-and-cure-type polystyrene. Lab on A Chip, 2014, 14, 2698-2708.   | 6.0  | 30        |
| 81 | Microfluidics on liquid handling stations (μF-on-LHS): an industry compatible chip interface between microfluidics and automated liquid handling stations. Lab on A Chip, 2013, 13, 2337.           | 6.0  | 23        |
| 82 | Connecting microfluidic chips using a chemically inert, reversible, multichannel chip-to-world-interface. Lab on A Chip, 2013, 13, 4343.  | 6.0  | 36        |
| 83 | Design and characterization of a platform for thermal actuation of up to 588 microfluidic valves.<br>Microfluidics and Nanofluidics, 2013, 14, 177-186.   | 2.2  | 12        |
| 84 | Online monitoring of biofilm growth and activity using a combined multi-channel impedimetric and amperometric sensor. Biosensors and Bioelectronics, 2013, 47, 157-163.                             | 10.1 | 48        |
| 85 | Rapid bonding of polydimethylsiloxane to stereolithographically manufactured epoxy components using a photogenerated intermediary layer. Lab on A Chip, 2013, 13, 2268.                             | 6.0  | 15        |
| 86 | Computer-aided microfluidics (CAMF): from digital 3D-CAD models to physical structures within a day.<br>Microfluidics and Nanofluidics, 2013, 15, 625-635.  | 2.2  | 38        |
| 87 | The Chemistry of Cyborgs—Interfacing Technical Devices with Organisms. Angewandte Chemie -<br>International Edition, 2013, 52, 13942-13957.   | 13.8 | 35        |
| 88 | Maskless Projection Lithography for the Fast and Flexible Generation of Grayscale Protein Patterns.<br>Small, 2012, 8, 1570-1578.   | 10.0 | 76        |
| 89 | Deposition of ultrathin parylene C films in the range of 18nm to 142nm: Controlling the layer thickness and assessing the closeness of the deposited films. Thin Solid Films, 2012, 520, 4884-4888. | 1.8  | 17        |
| 90 | Let there be chip—towards rapid prototyping of microfluidic devices: one-step manufacturing processes. Analytical Methods, 2011, 3, 2681.   | 2.7  | 298       |

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|-----|--|-----|-----------|
| 91  | Biosensors for Diagnostic Applications. Advances in Biochemical Engineering/Biotechnology, 2011, 133, 115-148.   | 1.1 | 31        |
| 92  | Design and integration of a generic disposable array-compatible sensor housing into an integrated disposable indirect microfluidic flow injection analysis system. Biomedical Microdevices, 2011, 13, 909-922. | 2.8 | 18        |
| 93  | Hot embossing of high performance polymers. Microsystem Technologies, 2011, 17, 585-592.   | 2.0 | 186       |
| 94  | Biosensors with label-free detection designed for diagnostic applications. Analytical and Bioanalytical Chemistry, 2010, 398, 2403-2412.   | 3.7 | 118       |
| 95  | Biosensor packaging — adaptation of the surface modification procedure. Procedia Engineering, 2010, 5, 363-366.  | 1.2 | 1         |
| 96  | Hot punching on an 8 inch substrate as an alternative technology to produce holes on a large scale.<br>Microsystem Technologies, 2010, 16, 1201-1206.  | 2.0 | 7         |
| 97  | Synthesis and application of photo curable perfluoropolyethers as new material for microfluidics.<br>Procedia Engineering, 2010, 5, 866-869.   | 1.2 | 3         |
| 98  | Surface Acoustic Wave (SAW) Biosensor Chip System - a Promising Alternative for Biomedical Applications. IFMBE Proceedings, 2009, , 73-76.   | 0.3 | 5         |
| 99  | Surface acoustic wave (SAW) biosensor system with an indirect microfluidic flow injection analysis system. , 2009, , .   |     | 0         |
| 100 | An indirect microfluidic flow injection analysis (FIA) system allowing diffusion free pumping of liquids by using tetradecane as intermediary liquid. Lab on A Chip, 2009, 9, 354-356.                         | 6.0 | 188       |
| 101 | Surface acoustic wave biosensors: a review. Analytical and Bioanalytical Chemistry, 2008, 391, 1509-1519.  | 3.7 | 677       |
| 102 | Polymer coating behavior of Rayleigh-SAW resonators with gold electrode structure for gas sensor applications. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2007, 54, 157-166.     | 3.0 | 13        |