

Axel Guenther

List of Publications by Citations

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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.

62

papers

4,831

citations

34

h-index

66

g-index

66

ext. papers

5,236

ext. citations

6.9

avg, IF

5.5

L-index

| # | Paper | IF | Citations |
|----|---|-------|-----------|
| 62 | Multiphase microfluidics: from flow characteristics to chemical and materials synthesis. <i>Lab on A Chip</i> , 2006 , 6, 1487-503 | 7.2 | 748 |
| 61 | Transport and reaction in microscale segmented gas-liquid flow. <i>Lab on A Chip</i> , 2004 , 4, 278-86 | 7.2 | 411 |
| 60 | Micromixing of miscible liquids in segmented gas-liquid flow. <i>Langmuir</i> , 2005 , 21, 1547-55 | 4 | 359 |
| 59 | Microfluidic synthesis of colloidal silica. <i>Langmuir</i> , 2004 , 20, 8604-11 | 4 | 357 |
| 58 | Flow-induced deformation of shallow microfluidic channels. <i>Lab on A Chip</i> , 2006 , 6, 500-7 | 7.2 | 233 |
| 57 | A microfabricated gas-liquid segmented flow reactor for high-temperature synthesis: the case of CdSe quantum dots. <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 5447-51 | 16.4 | 230 |
| 56 | Microfluidic Synthesis of Polymer and Inorganic Particulate Materials. <i>Annual Review of Materials Research</i> , 2010 , 40, 415-443 | 12.8 | 180 |
| 55 | Microfabricated Multiphase Reactors for the Selective Direct Fluorination of Aromatics. <i>Industrial & Engineering Chemistry Research</i> , 2003 , 42, 698-710 | 3.9 | 163 |
| 54 | Measurement of residence time distribution in microfluidic systems. <i>Chemical Engineering Science</i> , 2005 , 60, 5729-5737 | 4.4 | 138 |
| 53 | Effect of low-magnitude, high-frequency vibration on osteocytes in the regulation of osteoclasts. <i>Bone</i> , 2010 , 46, 1508-15 | 4.7 | 121 |
| 52 | Handheld skin printer: in situ formation of planar biomaterials and tissues. <i>Lab on A Chip</i> , 2018 , 18, 1440-1451 | 14.51 | 118 |
| 51 | A microfluidic platform for probing small artery structure and function. <i>Lab on A Chip</i> , 2010 , 10, 2341-9 | 7.2 | 100 |
| 50 | Mosaic hydrogels: one-step formation of multiscale soft materials. <i>Advanced Materials</i> , 2012 , 24, 3650-8 | 24 | 96 |
| 49 | Scaled-Out Multilayer Gas-Liquid Microreactor with Integrated Velocimetry Sensors. <i>Industrial & Engineering Chemistry Research</i> , 2005 , 44, 8997-9013 | 3.9 | 94 |
| 48 | A Microfabricated Gas-Liquid Segmented Flow Reactor for High-Temperature Synthesis: The Case of CdSe Quantum Dots. <i>Angewandte Chemie</i> , 2005 , 117, 5583-5587 | 3.6 | 88 |
| 47 | Apoptotic osteocytes regulate osteoclast precursor recruitment and differentiation in vitro. <i>Journal of Cellular Biochemistry</i> , 2011 , 112, 2412-23 | 4.7 | 78 |
| 46 | Microfluidic study of fast gas-liquid reactions. <i>Journal of the American Chemical Society</i> , 2012 , 134, 3127-30 | 30.4 | 74 |

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|----|---|------|----|
| 45 | Bubbles no more: in-plane trapping and removal of bubbles in microfluidic devices. <i>Lab on A Chip</i> , 2012 , 12, 595-601 | 7.2 | 74 |
| 44 | Multi-step microfluidic polymerization reactions conducted in droplets: the internal trigger approach. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9935-41 | 16.4 | 74 |
| 43 | Cell stimulus and lysis in a microfluidic device with segmented gas-liquid flow. <i>Analytical Chemistry</i> , 2005 , 77, 3629-36 | 7.8 | 74 |
| 42 | CMOS neurotransmitter microarray: 96-channel integrated potentiostat with on-die microsensors. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , 2013 , 7, 338-48 | 5.1 | 62 |
| 41 | Automated microfluidic platform for studies of carbon dioxide dissolution and solubility in physical solvents. <i>Lab on A Chip</i> , 2012 , 12, 1611-8 | 7.2 | 61 |
| 40 | Sample dispersion for segmented flow in microchannels with rectangular cross section. <i>Analytical Chemistry</i> , 2008 , 80, 1558-67 | 7.8 | 60 |
| 39 | Predictive microfluidic control of regulatory ligand trajectories in individual pluripotent cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 3264-9 | 11.5 | 56 |
| 38 | Turbulent flow in a channel at a low Reynolds number. <i>Experiments in Fluids</i> , 1998 , 25, 503-511 | 2.5 | 56 |
| 37 | Sphere-to-Wormlike Network Transition of Block Copolymer Micelles Containing CdSe Quantum Dots in the Corona. <i>Macromolecules</i> , 2010 , 43, 5066-5074 | 5.5 | 55 |
| 36 | Large-scale structures in a developed flow over a wavy wall. <i>Journal of Fluid Mechanics</i> , 2003 , 478, 257-285 | 7.8 | 48 |
| 35 | Microfluidic studies of CO ₂ sequestration by frustrated Lewis pairs. <i>Journal of the American Chemical Society</i> , 2014 , 136, 3875-80 | 16.4 | 47 |
| 34 | Artery-on-a-chip platform for automated, multimodal assessment of cerebral blood vessel structure and function. <i>Lab on A Chip</i> , 2015 , 15, 2660-9 | 7.2 | 44 |
| 33 | Microfluidic studies of carbon dioxide. <i>Angewandte Chemie - International Edition</i> , 2014 , 53, 7992-8002 | 16.4 | 42 |
| 32 | Increasing Productivity of Microreactors for Fast Gas-Liquid Reactions: The Case of Direct Fluorination of Toluene. <i>Industrial & Engineering Chemistry Research</i> , 2009 , 48, 1428-1434 | 3.9 | 41 |
| 31 | An integrated multiphase flow sensor for microchannels. <i>Experiments in Fluids</i> , 2004 , 36, 819-832 | 2.5 | 37 |
| 30 | A computational study of axial dispersion in segmented gas-liquid flow. <i>Physics of Fluids</i> , 2007 , 19, 072109 | 7.4 | 35 |
| 29 | Microfluidic co-culture platform for investigating osteocyte-osteoclast signalling during fluid shear stress mechanostimulation. <i>Journal of Biomechanics</i> , 2017 , 59, 35-42 | 2.9 | 34 |
| 28 | Switchable water: microfluidic investigation of liquid-liquid phase separation mediated by carbon dioxide. <i>Journal of the American Chemical Society</i> , 2014 , 136, 11972-9 | 16.4 | 31 |

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|----|--|------|----|
| 27 | Droplet production from disintegrating bubbles at water surfaces. Single vs. multiple bubbles. <i>International Journal of Multiphase Flow</i> , 2003 , 29, 795-811 | 3.6 | 30 |
| 26 | Handheld instrument for wound-conformal delivery of skin precursor sheets improves healing in full-thickness burns. <i>Biofabrication</i> , 2020 , 12, 025002 | 10.5 | 27 |
| 25 | Shaken, and stirred: oscillatory segmented flow for controlled size-evolution of colloidal nanomaterials. <i>Lab on A Chip</i> , 2014 , 14, 2309-18 | 7.2 | 27 |
| 24 | Temperature-controlled breathing of carbon dioxide bubbles. <i>Lab on A Chip</i> , 2011 , 11, 3545-50 | 7.2 | 25 |
| 23 | Dynamics of large-scale structures in turbulent flow over a wavy wall. <i>Journal of Fluid Mechanics</i> , 2003 , 485, 87-96 | 3.7 | 23 |
| 22 | Peclet Number Dependence of Mass Transfer in Microscale Segmented Gas-Liquid Flow. <i>Industrial & Engineering Chemistry Research</i> , 2015 , 54, 9046-9051 | 3.9 | 22 |
| 21 | Cruise control for segmented flow. <i>Lab on A Chip</i> , 2012 , 12, 4787-95 | 7.2 | 21 |
| 20 | Development and applications of a microfluidic reactor with multiple analytical probes. <i>Analyst, The</i> , 2012 , 137, 444-50 | 5 | 20 |
| 19 | Influence of the optical configuration on temperature measurements with fluid-dispersed TLCs. <i>Experiments in Fluids</i> , 2002 , 32, 533-541 | 2.5 | 19 |
| 18 | A CMOS-Microfluidic Chemiluminescence Contact Imaging Microsystem. <i>IEEE Journal of Solid-State Circuits</i> , 2012 , 47, 2822-2833 | 5.5 | 17 |
| 17 | Bubble gate for in-plane flow control. <i>Lab on A Chip</i> , 2013 , 13, 2519-27 | 7.2 | 14 |
| 16 | Structure of the temperature field in a flow over heated waves. <i>Experiments in Fluids</i> , 2002 , 33, 920-930 | 2.5 | 14 |
| 15 | Continuous Formation of Ultrathin, Strong Collagen Sheets with Tunable Anisotropy and Compaction. <i>ACS Biomaterials Science and Engineering</i> , 2020 , 6, 4236-4246 | 5.5 | 11 |
| 14 | Bubble pump: scalable strategy for in-plane liquid routing. <i>Lab on A Chip</i> , 2015 , 15, 2842-53 | 7.2 | 11 |
| 13 | Transport of salts and micron-sized particles entrained from a boiling water pool. <i>Experimental Thermal and Fluid Science</i> , 2003 , 27, 877-889 | 3 | 10 |
| 12 | 192-channel CMOS neurochemical microarray 2010 , | | 8 |
| 11 | Microfluidic Studies of Carbon Dioxide. <i>Angewandte Chemie</i> , 2014 , 126, 8126-8136 | 3.6 | 4 |
| 10 | Cover Picture: A Microfabricated Gas-Liquid Segmented Flow Reactor for High-Temperature Synthesis: The Case of CdSe Quantum Dots (Angew. Chem. Int. Ed. 34/2005). <i>Angewandte Chemie - International Edition</i> , 2005 , 44, 5349-5349 | 16.4 | 3 |

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|---|--|------|---|
| 9 | A hybrid CMOS-microfluidic contact imaging microsystem 2009 , | | 2 |
| 8 | One-Step Formation of Protein-Based Tubular Structures for Functional Devices and Tissues. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2001746 | 10.1 | 2 |
| 7 | Hydrogels: Mosaic Hydrogels: One-Step Formation of Multiscale Soft Materials (Adv. Mater. 27/2012). <i>Advanced Materials</i> , 2012 , 24, 3582-3582 | 24 | 1 |
| 6 | Multiphase Flow 2013 , 1-40 | | 1 |
| 5 | Titelbild: A Microfabricated Gas/Liquid Segmented Flow Reactor for High-Temperature Synthesis: The Case of CdSe Quantum Dots (Angew. Chem. 34/2005). <i>Angewandte Chemie</i> , 2005 , 117, 5483-5483 | 3.6 | 0 |
| 4 | Towards controlled bubble nucleation in microreactors for enhanced mass transport. <i>Reaction Chemistry and Engineering</i> , 2021 , 6, 1869-1877 | 4.9 | 0 |
| 3 | 514 Effect of Topical Platelet Rich Plasma on Burn Healing After Partial Thickness Burn Injury. <i>Journal of Burn Care and Research</i> , 2019 , 40, S233-S233 | 0.8 | |
| 2 | Fluid/Fluid and Fluid/Solid Mass Transfer 2013 , 303-322 | | |
| 1 | A polymer chip-based technology for the investigation of small resistance arteries. <i>FASEB Journal</i> , 2010 , 24, 1065.23 | 0.9 | |