

# Axel Guenther

## 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.

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	One-Step Formation of Protein-Based Tubular Structures for Functional Devices and Tissues. <i>Advanced Healthcare Materials</i> , <b>2021</b> , 10, e2001746	10.1	2
61	Towards controlled bubble nucleation in microreactors for enhanced mass transport. <i>Reaction Chemistry and Engineering</i> , <b>2021</b> , 6, 1869-1877	4.9	0
60	Continuous Formation of Ultrathin, Strong Collagen Sheets with Tunable Anisotropy and Compaction. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 4236-4246	5.5	11
59	Handheld instrument for wound-conformal delivery of skin precursor sheets improves healing in full-thickness burns. <i>Biofabrication</i> , <b>2020</b> , 12, 025002	10.5	27
58	514 Effect of Topical Platelet Rich Plasma on Burn Healing After Partial Thickness Burn Injury. <i>Journal of Burn Care and Research</i> , <b>2019</b> , 40, S233-S233	0.8	
57	Handheld skin printer: in situ formation of planar biomaterials and tissues. <i>Lab on A Chip</i> , <b>2018</b> , 18, 1440-1451	11.8	118
56	Microfluidic co-culture platform for investigating osteocyte-osteoclast signalling during fluid shear stress mechanostimulation. <i>Journal of Biomechanics</i> , <b>2017</b> , 59, 35-42	2.9	34
55	Artery-on-a-chip platform for automated, multimodal assessment of cerebral blood vessel structure and function. <i>Lab on A Chip</i> , <b>2015</b> , 15, 2660-9	7.2	44
54	Peclet Number Dependence of Mass Transfer in Microscale Segmented Gas-Liquid Flow. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2015</b> , 54, 9046-9051	3.9	22
53	Bubble pump: scalable strategy for in-plane liquid routing. <i>Lab on A Chip</i> , <b>2015</b> , 15, 2842-53	7.2	11
52	Microfluidic studies of CO <sub>2</sub> sequestration by frustrated Lewis pairs. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 3875-80	16.4	47
51	Microfluidic Studies of Carbon Dioxide. <i>Angewandte Chemie</i> , <b>2014</b> , 126, 8126-8136	3.6	4
50	Switchable water: microfluidic investigation of liquid-liquid phase separation mediated by carbon dioxide. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 11972-9	16.4	31
49	Shaken, and stirred: oscillatory segmented flow for controlled size-evolution of colloidal nanomaterials. <i>Lab on A Chip</i> , <b>2014</b> , 14, 2309-18	7.2	27
48	Microfluidic studies of carbon dioxide. <i>Angewandte Chemie - International Edition</i> , <b>2014</b> , 53, 7992-8002	16.4	42
47	CMOS neurotransmitter microarray: 96-channel integrated potentiostat with on-die microsensors. <i>IEEE Transactions on Biomedical Circuits and Systems</i> , <b>2013</b> , 7, 338-48	5.1	62
46	Bubble gate for in-plane flow control. <i>Lab on A Chip</i> , <b>2013</b> , 13, 2519-27	7.2	14

45	Multiphase Flow <b>2013</b> , 1-40		1
44	FluidFluid and FluidSolid Mass Transfer <b>2013</b> , 303-322		
43	Automated microfluidic platform for studies of carbon dioxide dissolution and solubility in physical solvents. <i>Lab on A Chip</i> , <b>2012</b> , 12, 1611-8	7.2	61
42	Development and applications of a microfluidic reactor with multiple analytical probes. <i>Analyst, The</i> , <b>2012</b> , 137, 444-50	5	20
41	Microfluidic study of fast gas-liquid reactions. <i>Journal of the American Chemical Society</i> , <b>2012</b> , 134, 3127-324	10.4	74
40	Bubbles no more: in-plane trapping and removal of bubbles in microfluidic devices. <i>Lab on A Chip</i> , <b>2012</b> , 12, 595-601	7.2	74
39	Cruise control for segmented flow. <i>Lab on A Chip</i> , <b>2012</b> , 12, 4787-95	7.2	21
38	A CMOS-Microfluidic Chemiluminescence Contact Imaging Microsystem. <i>IEEE Journal of Solid-State Circuits</i> , <b>2012</b> , 47, 2822-2833	5.5	17
37	Mosaic hydrogels: one-step formation of multiscale soft materials. <i>Advanced Materials</i> , <b>2012</b> , 24, 3650-824	24	96
36	Hydrogels: Mosaic Hydrogels: One-Step Formation of Multiscale Soft Materials (Adv. Mater. 27/2012). <i>Advanced Materials</i> , <b>2012</b> , 24, 3582-3582	24	1
35	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> , <b>2012</b> , 109, 3264-9	11.5	56
34	Temperature-controlled breathing of carbon dioxide bubbles. <i>Lab on A Chip</i> , <b>2011</b> , 11, 3545-50	7.2	25
33	Apoptotic osteocytes regulate osteoclast precursor recruitment and differentiation in vitro. <i>Journal of Cellular Biochemistry</i> , <b>2011</b> , 112, 2412-23	4.7	78
32	192-channel CMOS neurochemical microarray <b>2010</b> ,		8
31	Microfluidic Synthesis of Polymer and Inorganic Particulate Materials. <i>Annual Review of Materials Research</i> , <b>2010</b> , 40, 415-443	12.8	180
30	A microfluidic platform for probing small artery structure and function. <i>Lab on A Chip</i> , <b>2010</b> , 10, 2341-9	7.2	100
29	Sphere-to-Wormlike Network Transition of Block Copolymer Micelles Containing CdSe Quantum Dots in the Corona. <i>Macromolecules</i> , <b>2010</b> , 43, 5066-5074	5.5	55
28	Effect of low-magnitude, high-frequency vibration on osteocytes in the regulation of osteoclasts. <i>Bone</i> , <b>2010</b> , 46, 1508-15	4.7	121

27	A polymer chip-based technology for the investigation of small resistance arteries. <i>FASEB Journal</i> , <b>2010</b> , 24, 1065-23	0.9	
26	Increasing Productivity of Microreactors for Fast Gas-Liquid Reactions: The Case of Direct Fluorination of Toluene. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2009</b> , 48, 1428-1434	3.9	41
25	A hybrid CMOS-microfluidic contact imaging microsystem <b>2009</b> ,		2
24	Multi-step microfluidic polymerization reactions conducted in droplets: the internal trigger approach. <i>Journal of the American Chemical Society</i> , <b>2008</b> , 130, 9935-41	16.4	74
23	Sample dispersion for segmented flow in microchannels with rectangular cross section. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 1558-67	7.8	60
22	A computational study of axial dispersion in segmented gas-liquid flow. <i>Physics of Fluids</i> , <b>2007</b> , 19, 072109	4	35
21	Flow-induced deformation of shallow microfluidic channels. <i>Lab on A Chip</i> , <b>2006</b> , 6, 500-7	7.2	233
20	Multiphase microfluidics: from flow characteristics to chemical and materials synthesis. <i>Lab on A Chip</i> , <b>2006</b> , 6, 1487-503	7.2	748
19	Cell stimulus and lysis in a microfluidic device with segmented gas-liquid flow. <i>Analytical Chemistry</i> , <b>2005</b> , 77, 3629-36	7.8	74
18	Micromixing of miscible liquids in segmented gas-liquid flow. <i>Langmuir</i> , <b>2005</b> , 21, 1547-55	4	359
17	Measurement of residence time distribution in microfluidic systems. <i>Chemical Engineering Science</i> , <b>2005</b> , 60, 5729-5737	4.4	138
16	A microfabricated gas-liquid segmented flow reactor for high-temperature synthesis: the case of CdSe quantum dots. <i>Angewandte Chemie - International Edition</i> , <b>2005</b> , 44, 5447-51	16.4	230
15	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> , <b>2005</b> , 44, 5349-5349	16.4	3
14	A Microfabricated Gas-Liquid Segmented Flow Reactor for High-Temperature Synthesis: The Case of CdSe Quantum Dots. <i>Angewandte Chemie</i> , <b>2005</b> , 117, 5583-5587	3.6	88
13	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> , <b>2005</b> , 117, 5483-5483	3.6	0
12	Scaled-Out Multilayer Gas-Liquid Microreactor with Integrated Velocimetry Sensors. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2005</b> , 44, 8997-9013	3.9	94
11	An integrated multiphase flow sensor for microchannels. <i>Experiments in Fluids</i> , <b>2004</b> , 36, 819-832	2.5	37
10	Transport and reaction in microscale segmented gas-liquid flow. <i>Lab on A Chip</i> , <b>2004</b> , 4, 278-86	7.2	411

9	Microfluidic synthesis of colloidal silica. <i>Langmuir</i> , <b>2004</b> , 20, 8604-11	4	357
8	Transport of salts and micron-sized particles entrained from a boiling water pool. <i>Experimental Thermal and Fluid Science</i> , <b>2003</b> , 27, 877-889	3	10
7	Droplet production from disintegrating bubbles at water surfaces. Single vs. multiple bubbles. <i>International Journal of Multiphase Flow</i> , <b>2003</b> , 29, 795-811	3.6	30
6	Dynamics of large-scale structures in turbulent flow over a wavy wall. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 485, 87-96	3.7	23
5	Large-scale structures in a developed flow over a wavy wall. <i>Journal of Fluid Mechanics</i> , <b>2003</b> , 478, 257-285	3.7	48
4	Microfabricated Multiphase Reactors for the Selective Direct Fluorination of Aromatics. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2003</b> , 42, 698-710	3.9	163
3	Influence of the optical configuration on temperature measurements with fluid-dispersed TLCs. <i>Experiments in Fluids</i> , <b>2002</b> , 32, 533-541	2.5	19
2	Structure of the temperature field in a flow over heated waves. <i>Experiments in Fluids</i> , <b>2002</b> , 33, 920-930	2.5	14
1	Turbulent flow in a channel at a low Reynolds number. <i>Experiments in Fluids</i> , <b>1998</b> , 25, 503-511	2.5	56