

Don DeVoe

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.

141
papers

5,508
citations

40
h-index

70
g-index

155
ext. papers

6,174
ext. citations

5.2
avg, IF

5.75
L-index

#	Paper	IF	Citations
141	In situ photografting during direct laser writing in thermoplastic microchannels. <i>Scientific Reports</i> , 2021 , 11, 10980	4.9	2
140	Plasma Isolation in a Syringe by Conformal Integration of Inertial Microfluidics. <i>Annals of Biomedical Engineering</i> , 2021 , 49, 139-148	4.7	1
139	Reagent integration and controlled release for multiplexed nucleic acid testing in disposable thermoplastic 2D microwell arrays. <i>Biomicrofluidics</i> , 2021 , 15, 014103	3.2	1
138	Miniaturization of Hydrocyclones by High-Resolution 3D Printing for Rapid Microparticle Separation. <i>Advanced Materials Technologies</i> , 2020 , 5, 1901105	6.8	6
137	A programmable microfluidic platform for multisample injection, discretization, and droplet manipulation. <i>Biomicrofluidics</i> , 2020 , 14, 014112	3.2	1
136	Enhanced sample filling and discretization in thermoplastic 2D microwell arrays using asymmetric contact angles. <i>Biomicrofluidics</i> , 2020 , 14, 014113	3.2	3
135	Microfluidic on-demand droplet generation, storage, retrieval, and merging for single-cell pairing. <i>Lab on A Chip</i> , 2019 , 19, 493-502	7.2	26
134	High Throughput Nanoliposome Formation Using 3D Printed Microfluidic Flow Focusing Chips. <i>Advanced Materials Technologies</i> , 2019 , 4, 1800511	6.8	24
133	Isolation of intact bacteria from blood by selective cell lysis in a microfluidic porous silica monolith. <i>Microsystems and Nanoengineering</i> , 2019 , 5, 30	7.7	9
132	A Scalable Random Access Micro-traps Array for Formation, Selective Retrieval and Capturing of Individual Droplets. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2019 , 2019, 1054-1057	0.9	
131	Piezoelectric Disc Transformer Modeling Utilizing Extended Hamilton's Principle. <i>IEEE Transactions on Power Electronics</i> , 2019 , 34, 6583-6592	7.2	4
130	Electrical contact resistance force sensing in SOI-DRIE MEMS. <i>Sensors and Actuators A: Physical</i> , 2018 , 269, 474-482	3.9	5
129	Flow-through microfluidic immunosensors with refractive index-matched silica monoliths as volumetric optical detection elements. <i>Sensors and Actuators B: Chemical</i> , 2018 , 254, 878-886	8.5	4
128	Active or Passive On-Demand Droplet Merging in a Microfluidic Valve-Based Trap. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2018 , 2018, 5350-5353	0.9	2
127	Nano-printed miniature compound refractive lens for desktop hard x-ray microscopy. <i>PLoS ONE</i> , 2018 , 13, e0203319	3.7	3
126	Miniature bulk PZT traveling wave ultrasonic motors for low-speed high-torque rotary actuation. <i>Journal of Microelectromechanical Systems</i> , 2018 , 27, 547-554	2.5	10
125	Annular ultrasonic micromotors fabricated from bulk PZT 2017 ,		2

124	Staggered trap arrays for robust microfluidic sample digitization. <i>Lab on A Chip</i> , 2017 , 17, 4105-4112	7.2	7
123	Controlled droplet discretization and manipulation using membrane displacement traps. <i>Lab on A Chip</i> , 2017 , 17, 3717-3724	7.2	17
122	Novel functionalities of hybrid paper-polymer centrifugal devices for assay performance enhancement. <i>Biomicrofluidics</i> , 2017 , 11, 054101	3.2	10
121	Modeling and Analysis of Microfabricated Bulk Piezoelectric Disc Transformers 2017 ,		2
120	Screw-actuated displacement micropumps for thermoplastic microfluidics. <i>Lab on A Chip</i> , 2016 , 16, 3940-3946	7.2	8
119	Rapid real-time PCR and high resolution melt analysis in a self-filling thermoplastic chip. <i>Lab on A Chip</i> , 2016 , 16, 3524-31	7.2	25
118	Catalytic Propulsion and Magnetic Steering of Soft, Patchy Microcapsules: Ability to Pick-Up and Drop-Off Microscale Cargo. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 15676-83	9.5	40
117	Light-Directed Self-Assembly of Robust Alginate Gels at Precise Locations in Microfluidic Channels. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 17529-38	9.5	17
116	Impedimetric Immunosensing in a Porous Volumetric Microfluidic Detector. <i>Sensors and Actuators B: Chemical</i> , 2016 , 234, 493-497	8.5	5
115	Programmable digital droplet microfluidics using a multibarrel capillary bundle. <i>Sensors and Actuators B: Chemical</i> , 2015 , 220, 992-999	8.5	6
114	Optical detection enhancement in porous volumetric microfluidic capture elements using refractive index matching fluids. <i>Analyst, The</i> , 2015 , 140, 5724-31	5	10
113	Millimeter-Scale Traveling Wave Rotary Ultrasonic Motors. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 108-114	2.5	28
112	Large Vertical Displacement Electrostatic Zipper Microstage Actuators. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 896-903	2.5	9
111	Single-use thermoplastic microfluidic burst valves enabling on-chip reagent storage. <i>Microfluidics and Nanofluidics</i> , 2015 , 18, 1045-1053	2.8	9
110	Soft lithography microfabrication of functionalized thermoplastics by solvent casting. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2015 , 53, 1315-1323	2.6	7
109	High-Throughput Continuous Flow Production of Nanoscale Liposomes by Microfluidic Vertical Flow Focusing. <i>Small</i> , 2015 , 11, 5790-9	11	77
108	Microfluidic generation of uniform water droplets using gas as the continuous phase. <i>Journal of Colloid and Interface Science</i> , 2015 , 448, 275-9	9.3	18
107	Microfluidic preparation of liposomes to determine particle size influence on cellular uptake mechanisms. <i>Pharmaceutical Research</i> , 2014 , 31, 401-13	4.5	91

106	Microfluidic remote loading for rapid single-step liposomal drug preparation. <i>Lab on A Chip</i> , 2014 , 14, 3359-67	7.2	53
105	A facile route to the synthesis of monodisperse nanoscale liposomes using 3D microfluidic hydrodynamic focusing in a concentric capillary array. <i>Lab on A Chip</i> , 2014 , 14, 2403-9	7.2	48
104	Ex Situ Integration of Multifunctional Porous Polymer Monoliths into Thermoplastic Microfluidic Chips. <i>Sensors and Actuators B: Chemical</i> , 2014 , 202, 866-872	8.5	14
103	Microfluidic-enabled liposomes elucidate size-dependent transdermal transport. <i>PLoS ONE</i> , 2014 , 9, e92978	3.7	23
102	A chitosan coated monolith for nucleic acid capture in a thermoplastic microfluidic chip. <i>Biomicrofluidics</i> , 2014 , 8, 044109	3.2	13
101	Development of a microchip Europium nanoparticle immunoassay for sensitive point-of-care HIV detection. <i>Biosensors and Bioelectronics</i> , 2014 , 61, 177-83	11.8	35
100	Capturing rare cells from blood using a packed bed of custom-synthesized chitosan microparticles. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 4313-4319	7.3	13
99	Microfluidic assembly of Janus-like dimer capsules. <i>Langmuir</i> , 2013 , 29, 13624-9	4	15
98	Microfluidic formation of nanoscale liposomes for passive transdermal drug delivery 2013 ,		2
97	Microfluidic synthesis of PEG- and folate-conjugated liposomes for one-step formation of targeted stealth nanocarriers. <i>Pharmaceutical Research</i> , 2013 , 30, 1597-607	4.5	47
96	Pen microfluidics: rapid desktop manufacturing of sealed thermoplastic microchannels. <i>Lab on A Chip</i> , 2013 , 13, 1102-8	7.2	23
95	Glycomic analysis by glycoprotein immobilization for glycan extraction and liquid chromatography on microfluidic chip. <i>Analytical Chemistry</i> , 2013 , 85, 10117-25	7.8	26
94	Microfluidic device fabrication by thermoplastic hot-embossing. <i>Methods in Molecular Biology</i> , 2013 , 949, 115-23	1.4	22
93	Transverse Interdigitated Electrode Actuation of Homogeneous Bulk PZT. <i>Journal of Microelectromechanical Systems</i> , 2012 , 21, 1513-1518	2.5	18
92	Electro-optical BLM chips enabling dynamic imaging of ordered lipid domains. <i>Lab on A Chip</i> , 2012 , 12, 3142-9	7.2	4
91	Microscale patterning of thermoplastic polymer surfaces by selective solvent swelling. <i>Langmuir</i> , 2012 , 28, 12923-9	4	15
90	Thin-film piezoelectric traveling wave ultrasonic rotary motor 2012 ,		3
89	Microfabrication of bulk PZT transducers by dry film photolithography and micro powder blasting. <i>Journal of Micromechanics and Microengineering</i> , 2012 , 22, 085017	2	12

88	Traveling wave annular ultrasonic micromotors using bulk PZT 2012 ,		3
87	Visualizing the growth and dynamics of liquid-ordered domains during lipid bilayer folding in a microfluidic chip. <i>Small</i> , 2012 , 8, 3613-9	11	3
86	Microfluidic synthesis of macroporous polymer immunobeads. <i>Polymer</i> , 2012 , 53, 5469-5475	3.9	14
85	Integrated thin-film piezoelectric traveling wave ultrasonic motors. <i>Sensors and Actuators A: Physical</i> , 2012 , 188, 305-311	3.9	38
84	Microfluidic synthesis of monodisperse PDMS microbeads as discrete oxygen sensors. <i>Soft Matter</i> , 2012 , 8, 923-926	3.6	54
83	Dynamics of ceramide channels detected using a microfluidic system. <i>PLoS ONE</i> , 2012 , 7, e43513	3.7	10
82	Nanoparticle-functionalized porous polymer monolith detection elements for surface-enhanced Raman scattering. <i>Analytical Chemistry</i> , 2011 , 83, 2119-24	7.8	91
81	Rapid microfluidic perfusion enabling kinetic studies of lipid ion channels in a bilayer lipid membrane chip. <i>Annals of Biomedical Engineering</i> , 2011 , 39, 2242-51	4.7	10
80	A new approach to in-situ "micromanufacturing": microfluidic fabrication of magnetic and fluorescent chains using chitosan microparticles as building blocks. <i>Small</i> , 2011 , 7, 2470-6	11	18
79	Microfluidics: A New Approach to In-Situ Micromanufacturing—Microfluidic Fabrication of Magnetic and Fluorescent Chains Using Chitosan Microparticles as Building Blocks (<i>Small</i> 17/2011). <i>Small</i> , 2011 , 7, 2469-2469	11	23
78	Nanofilament silicon for matrix-free laser desorption/ionization mass spectrometry. <i>Methods in Molecular Biology</i> , 2011 , 790, 183-9	1.4	3
77	Microfluidic mixing and the formation of nanoscale lipid vesicles. <i>ACS Nano</i> , 2010 , 4, 2077-87	16.7	261
76	Mixed-mode electrokinetic and chromatographic peptide separations in a microvalve-integrated polymer chip. <i>Lab on A Chip</i> , 2010 , 10, 2122-9	7.2	23
75	Polyelectrolyte Multilayer-Treated Electrodes for Real-Time Electronic Sensing of Cell Proliferation. <i>Journal of Research of the National Institute of Standards and Technology</i> , 2010 , 115, 61-73 ^{1.3}		11
74	Flow-through immunosensors using antibody-immobilized polymer monoliths. <i>Biosensors and Bioelectronics</i> , 2010 , 26, 182-8	11.8	28
73	Interfacing microfluidics to LDI-MS by automatic robotic spotting. <i>Microfluidics and Nanofluidics</i> , 2010 , 8, 777-787	2.8	19
72	Bonding of thermoplastic polymer microfluidics. <i>Microfluidics and Nanofluidics</i> , 2009 , 6, 1-16	2.8	415
71	Polymer microchips integrating solid-phase extraction and high-performance liquid chromatography using reversed-phase polymethacrylate monoliths. <i>Analytical Chemistry</i> , 2009 , 81, 2545-54 ^{7.8}		98

70	High-pressure on-chip mechanical valves for thermoplastic microfluidic devices. <i>Lab on A Chip</i> , 2009 , 9, 3511-6	7.2	34
69	High-pressure needle interface for thermoplastic microfluidics. <i>Lab on A Chip</i> , 2009 , 9, 50-5	7.2	42
68	Microfluidic 2-D PAGE using multifunctional in situ polyacrylamide gels and discontinuous buffers. <i>Lab on A Chip</i> , 2009 , 9, 592-9	7.2	38
67	Optimization of sample transfer in two-dimensional microfluidic separation systems. <i>Lab on A Chip</i> , 2008 , 8, 1145-52	7.2	11
66	Single molecule measurements within individual membrane-bound ion channels using a polymer-based bilayer lipid membrane chip. <i>Lab on A Chip</i> , 2008 , 8, 602-8	7.2	39
65	Dynamic electrowetting on nanofilament silicon for matrix-free laser desorption/ionization mass spectrometry. <i>Analytical Chemistry</i> , 2008 , 80, 2973-81	7.8	41
64	Droplet formation from hydrodynamically coupled capillaries for parallel microfluidic contact spotting. <i>Journal of Micromechanics and Microengineering</i> , 2008 , 18, 025013	2	9
63	Preparation of nanoparticles by continuous-flow microfluidics. <i>Journal of Nanoparticle Research</i> , 2008 , 10, 925-934	2.3	184
62	Polyacrylamide gel plugs enabling 2-D microfluidic protein separations via isoelectric focusing and multiplexed sodium dodecyl sulfate gel electrophoresis. <i>Electrophoresis</i> , 2008 , 29, 2241-50	3.6	48
61	Nonlinear oscillations of piezoelectric microresonators with curved cross-sections. <i>Sensors and Actuators A: Physical</i> , 2008 , 144, 194-200	3.9	21
60	Comparison of electrokinetics-based multidimensional separations coupled with electrospray ionization-tandem mass spectrometry for characterization of human salivary proteins. <i>Analytical Chemistry</i> , 2007 , 79, 5785-92	7.8	60
59	A Microfabricated Flow Controller for Refrigerant Expansion. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 1106-1112	2.5	
58	Low temperature bonding of PMMA and COC microfluidic substrates using UV/ozone surface treatment. <i>Lab on A Chip</i> , 2007 , 7, 499-505	7.2	194
57	Integrated microfluidic gas sensor for detection of volatile organic compounds in water. <i>Sensors and Actuators B: Chemical</i> , 2007 , 121, 679-688	8.5	22
56	Proteomic analysis of steroid-triggered autophagic programmed cell death during <i>Drosophila</i> development. <i>Cell Death and Differentiation</i> , 2007 , 14, 916-23	12.7	31
55	Microfluidic directed formation of liposomes of controlled size. <i>Langmuir</i> , 2007 , 23, 6289-93	4	275
54	Sacrificial etching of Al _x Ga _{1-x} As for III-V MEMS surface micromachining. <i>Applied Physics A: Materials Science and Processing</i> , 2007 , 88, 711-714	2.6	15
53	Mass spectrometry-based tissue proteomics for cancer biomarker discovery. <i>Personalized Medicine</i> , 2007 , 4, 45-58	2.2	4

52	Proteome analysis of microdissected formalin-fixed and paraffin-embedded tissue specimens. <i>Journal of Histochemistry and Cytochemistry</i> , 2007 , 55, 763-72	3.4	119
51	Membrane proteome analysis of microdissected ovarian tumor tissues using capillary isoelectric focusing/reversed-phase liquid chromatography-tandem MS. <i>Analytical Chemistry</i> , 2007 , 79, 1002-9	7.8	53
50	Young's Modulus Measurements in Standard IC CMOS Processes Using MEMS Test Structures. <i>IEEE Electron Device Letters</i> , 2007 , 28, 960-963	4.4	19
49	Piezoelectric Disk Resonators Based on Epitaxial AlGaAs Films. <i>Journal of Microelectromechanical Systems</i> , 2007 , 16, 155-162	2.5	5
48	Capillary separations enabling tissue proteomics-based biomarker discovery. <i>Electrophoresis</i> , 2006 , 27, 3523-32	3.6	25
47	Microfluidic technologies for MALDI-MS in proteomics. <i>Electrophoresis</i> , 2006 , 27, 3559-68	3.6	57
46	Parametric identification of piezoelectric microscale resonators. <i>Journal of Micromechanics and Microengineering</i> , 2006 , 16, 1593-1601	2	45
45	Piezoelectric AlGaAs bimorph microactuators. <i>Journal of Micromechanics and Microengineering</i> , 2006 , 16, 1062-1066	2	11
44	Integrated microfluidic UV absorbance detector with attomol-level sensitivity for BSA. <i>Lab on A Chip</i> , 2006 , 6, 115-20	7.2	39
43	Piezoelectric Al/sub 0.3/Ga/sub 0.7/As longitudinal mode bar resonators. <i>Journal of Microelectromechanical Systems</i> , 2006 , 15, 465-470	2.5	6
42	Sensitivity, selectivity and stability of tin oxide nanostructures on large area arrays of microhotplates. <i>Nanotechnology</i> , 2006 , 17, 415-425	3.4	23
41	Characterization of the human salivary proteome by capillary isoelectric focusing/nanoreversed-phase liquid chromatography coupled with ESI-tandem MS. <i>Journal of Proteome Research</i> , 2006 , 5, 1469-78	5.6	126
40	Microfluidics-Based Proteome Analysis 2006 , 205-223		
39	Denaturing gradient-based two-dimensional gene mutation scanning in a polymer microfluidic network. <i>Lab on A Chip</i> , 2005 , 5, 392-400	7.2	21
38	Integrated capillary isoelectric focusing/nano-reversed phase liquid chromatography coupled with ESI-MS for characterization of intact yeast proteins. <i>Journal of Proteome Research</i> , 2005 , 4, 36-42	5.6	34
37	Polymer nanochannels fabricated by thermomechanical deformation for single-molecule analysis. <i>Analytical Chemistry</i> , 2005 , 77, 2252-8	7.8	42
36	Proteome analysis of microdissected tumor tissue using a capillary isoelectric focusing-based multidimensional separation platform coupled with ESI-tandem MS. <i>Analytical Chemistry</i> , 2005 , 77, 6549-56	7.8	78
35	Modeling and design of composite free-free beam piezoelectric resonators. <i>Sensors and Actuators A: Physical</i> , 2005 , 118, 63-69	3.9	17

34	High-power optical microswitch based on direct fiber actuation. <i>Sensors and Actuators A: Physical</i> , 2005 , 119, 512-519	3.9	22
33	Electrospray interfacing of polymer microfluidics to MALDI-MS. <i>Electrophoresis</i> , 2005 , 26, 3631-40	3.6	27
32	Microfabricated sequential-leaf time-delay mechanisms. <i>Journal of Microelectromechanical Systems</i> , 2005 , 14, 1051-1060	2.5	2
31	Moving reflector type micro optical switch for high-power transfer in a MEMS-based safety and arming system. <i>Journal of Micromechanics and Microengineering</i> , 2004 , 14, 138-146	2	9
30	Large-force electrothermal linear micromotors. <i>Journal of Micromechanics and Microengineering</i> , 2004 , 14, 226-234	2	87
29	DNA mutation detection in a polymer microfluidic network using temperature gradient gel electrophoresis. <i>Analytical Chemistry</i> , 2004 , 76, 874-81	7.8	44
28	Fabrication of piezoelectric Al _{0.3} Ga _{0.7} As microstructures. <i>Sensors and Actuators A: Physical</i> , 2004 , 115, 96-103	3.9	11
27	Efficient electrospray ionization from polymer microchannels using integrated hydrophobic membranes. <i>Lab on A Chip</i> , 2004 , 4, 363-7	7.2	67
26	Induced pressure pumping in polymer microchannels via field-effect flow control. <i>Analytical Chemistry</i> , 2004 , 76, 1942-7	7.8	37
25	Integration of isoelectric focusing with parallel sodium dodecyl sulfate gel electrophoresis for multidimensional protein separations in a plastic microfluidic [correction of microfluidic] network. <i>Analytical Chemistry</i> , 2004 , 76, 742-8	7.8	138
24	SOI/DRIE all-fiber optical switch for high-power applications 2003 , 4983, 65		
23	High-power optical microswitch fabricated by deep reactive ion etching (DRIE) 2003 , 4983, 75		7
22	Dynamic analyte introduction and focusing in plastic microfluidic devices for proteomic analysis. <i>Electrophoresis</i> , 2003 , 24, 193-9	3.6	44
21	Capillary isoelectric focusing-based multidimensional concentration/separation platform for proteome analysis. <i>Analytical Chemistry</i> , 2003 , 75, 3145-52	7.8	133
20	Sol-Gel PZT for MEMS Applications. <i>Integrated Ferroelectrics</i> , 2002 , 42, 25-37	0.8	14
19	Integrated Thin Film Temperature Sensors for Polycarbonate Microfluidics 2002 , 724-726		1
18	Large-displacement microactuators in deep reactive ion-etched single-crystal silicon 2001 , 4559, 138		5
17	Micromechanism fabrication using silicon fusion bonding. <i>Robotics and Computer-Integrated Manufacturing</i> , 2001 , 17, 131-137	9.2	26

16	Piezoelectric thin film micromechanical beam resonators. <i>Sensors and Actuators A: Physical</i> , 2001 , 88, 263-272	3.9	137
15	Surface micromachined piezoelectric resonant beam filters. <i>Sensors and Actuators A: Physical</i> , 2001 , 91, 313-320	3.9	60
14	Microhotplate platforms for chemical sensor research. <i>Sensors and Actuators B: Chemical</i> , 2001 , 77, 579-594	3.9	220
13	Integration of polymeric membranes with microfluidic networks for bioanalytical applications. <i>Electrophoresis</i> , 2001 , 22, 3857-67	3.6	56
12	Field-effect flow control in a polydimethylsiloxane-based microfluidic system. <i>Electrophoresis</i> , 2001 , 22, 3902-7	3.6	48
11	Nanoparticle engineering and control of tin oxide microstructures for chemical microsensor applications. <i>Nanotechnology</i> , 2001 , 12, 336-349	3.4	73
10	Surface micromachined piezoelectric accelerometers (PiXLs). <i>Journal of Microelectromechanical Systems</i> , 2001 , 10, 180-186	2.5	80
9	An electrohydrodynamic polarization micropump for electronic cooling. <i>Journal of Microelectromechanical Systems</i> , 2001 , 10, 98-106	2.5	100
8	A Silicon Microfluidic Multiplexer Using Field Effect Flow Control 2001 , 187-188		1
7	Active flow control using microelectromechanical systems 2000 ,		8
6	Microhotplate gas sensor arrays 1999 , 3857, 38		5
5	Fabrication of suspended piezoelectric microresonators. <i>Integrated Ferroelectrics</i> , 1999 , 24, 147-154	0.8	11
4	Micromachined Array Studies of Tin Oxide Films: Nucleation, Structure and Gas Sensing Characteristics. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 574, 213		5
3	Analysis of an optical energy interrupter for MEMS-based safety and arming systems 1999 , 3880, 101		7
2	Modeling and optimal design of piezoelectric cantilever microactuators. <i>Journal of Microelectromechanical Systems</i> , 1997 , 6, 266-270	2.5	237
1	Capillary Electrophoretic Separations for Clinical Proteomics73-88		