Levent Yobas

List of Publications by Year
in descending order

78 papers	2,857 citations	218677 26 h-index	175258 52 g-index
78 all docs	78 docs citations	78 times ranked	3519 citing authors

#	Article	IF	Citations
1	Microdevice for the isolation and enumeration of cancer cells from blood. Biomedical Microdevices, 2009, 11, 883-892.	2.8	346
2	High-performance flow-focusing geometry for spontaneous generation of monodispersed droplets. Lab on A Chip, 2006, 6, 1073.	6.0	245
3	Silicon-based microfilters for whole blood cell separation. Biomedical Microdevices, 2008, 10, 251-257.	2.8	235
4	Versatile label free biochip for the detection of circulating tumor cells from peripheral blood in cancer patients. Biosensors and Bioelectronics, 2010, 26, 1701-1705.	10.1	191
5	Formation and manipulation of ferrofluid droplets at a microfluidic<i>T</i>-junction. Journal of Micromechanics and Microengineering, 2010, 20, 045004.	2.6	113
6	A â€˜microfluidic pinballâ€™ for on-chip generation of Layer-by-Layer polyelectrolyte microcapsules. Lab on A Chip, 2011, 11, 1030.	6.0	106
7	Thermally mediated droplet formation in microchannels. Applied Physics Letters, 2007, 91, .	3.3	98
8	Digital microfluidics: Droplet based logic gates. Applied Physics Letters, 2007, 90, 054107.	3.3	93
9	Thermally mediated breakup of drops in microchannels. Applied Physics Letters, 2006, 89, 234101.	3.3	88
10	The vision of point-of-care PCR tests for the COVID-19 pandemic and beyond. TrAC - Trends in Analytical Chemistry, 2020, 130, 115984.	11.4	73
11	Thermally mediated control of liquid microdroplets at a bifurcation. Journal Physics D: Applied Physics, 2009, 42, 065503.	2.8	71
12	A novel integrable microvalve for refreshable braille display system. Journal of Microelectromechanical Systems, 2003, 12, 252-263.	2.5	70
13	Thermally controlled droplet formation in flow focusing geometry: formation regimes and effect of nanoparticle suspension. Journal Physics D: Applied Physics, 2008, 41, 165501.	2.8	69
14	Microdroplet formation of water and nanofluids in heat-induced microfluidic T-junction. Microfluidics and Nanofluidics, 2009, 6, 253-259.	2.2	64
15	Slowing DNA Translocation in a Nanofluidic Field-Effect Transistor. ACS Nano, 2016, 10, 3985-3994.	14.6	51
16	Experimental and computational analysis of droplet formation in a high-performance flow-focusing geometry. Sensors and Actuators A: Physical, 2007, 138, 203-212.	4.1	50
17	A novel bulk micromachined electrostatic microvalve with a curved-compliant structure applicable for a pneumatic tactile display. Journal of Microelectromechanical Systems, 2001, 10, 187-196.	2.5	48
18	Lateral patch-clamping in a standard 1536-well microplate format. Lab on A Chip, 2010, 10, 1044.	6.0	45

#	ARTICLE	IF	CITATIONS
19	Microfluidic integration of substantially round glass capillaries for lateral patch clamping on chip. Lab on A Chip, 2007, 7, 1357.	6.0	40
20	A disposable planar peristaltic pump for lab-on-a-chip. Lab on A Chip, 2008, 8, 660.	6.0	38
21	Label-Free Multiplexed Electrical Detection of Cancer Markers on a Microchip Featuring an Integrated Fluidic Diode Nanopore Array. ACS Nano, 2018, 12, 7892-7900.	14.6	37
22	Reliable addition of reagents into microfluidic droplets. Microfluidics and Nanofluidics, 2010, 8, 409-416.	2.2	34
23	Microfluidic systems for extracting nucleic acids for DNA and RNA analysis. Sensors and Actuators A: Physical, 2007, 133, 335-339.	4.1	31
24	Buried microfluidic channel for integrated patch-clamping assay. Applied Physics Letters, 2006, 89, 093902.	3.3	30
25	Design and fabrication of Poly(dimethylsiloxane) arrayed waveguide grating. Optics Express, 2010, 18, 21732.	3.4	26
26	Label-free enumeration of colorectal cancer cells from lymphocytes performed at a high cell-loading density by using interdigitated ring-array microelectrodes. Biosensors and Bioelectronics, 2014, 61, 434-442.	10.1	26
27	Self-sealed circular channels for micro-fluidics. Sensors and Actuators A: Physical, 2008, 142, 80-87.	4.1	24
28	Design and fabrication of Poly(dimethylsiloxane) single-mode rib waveguide. Optics Express, 2009, 17, 11739.	3.4	24
29	Cylindrical glass nanocapillaries patterned via coarse lithography (>1â€‰Î¼m) for biomicrofluidic applications. Biomicrofluidics, 2012, 6, 046502.	2.4	23
30	Monolithic integration of poly(dimethylsiloxane) waveguides and microfluidics for on-chip absorbance measurements. Sensors and Actuators B: Chemical, 2008, 134, 532-538.	7.8	22
31	Fast DNA Sieving through Submicrometer Cylindrical Glass Capillary Matrix. Analytical Chemistry, 2014, 86, 737-743.	6.5	22
32	A nanofluidic memristor based on ion concentration polarization. Analyst, The, 2019, 144, 7168-7172.	3.5	22
33	Gel-Free Electrophoresis of DNA and Proteins on Chips Featuring a 70 nm Capillaryâ€"Well Motif. ACS Nano, 2015, 9, 427-435.	14.6	21
34	A simple method for evaluating and predicting chaotic advection in microfluidic slugs. Chemical Engineering Science, 2010, 65, 5382-5391.	3.8	19
35	Railing cells along 3D microelectrode tracks for continuous-flow dielectrophoretic sorting. Lab on A Chip, 2018, 18, 3760-3769.	6.0	19
36	Dielectrophoretic isolation of cells using 3D microelectrodes featuring castellated blocks. Analyst, The, 2015, 140, 3397-3405.	3.5	18

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37	Microchannel plate electro-osmotic pump. Microfluidics and Nanofluidics, 2012, 13, 279-288.	2.2	17
38	Interdigitated 3-D Silicon Ring Microelectrodes for DEP-Based Particle Manipulation. Journal of Microelectromechanical Systems, 2013, 22, 363-371.	2.5	17
39	Label-Free Specific Detection of Femtomolar Cardiac Troponin Using an Integrated Nanoslit Array Fluidic Diode. Nano Letters, 2014, 14, 6983-6990.	9.1	17
40	Mechanical Characterization of Microengineered Epithelial Cysts by Using Atomic Force Microscopy. Biophysical Journal, 2017, 112, 398-409.	0.5	17
41	Continuous-Flow Electrokinetic-Assisted Plasmapheresis by Using Three-Dimensional Microelectrodes Featuring Sidewall Undercuts. Analytical Chemistry, 2016, 88, 5197-5204.	6.5	16
42	A self-contained fully-enclosed microfluidic cartridge for lab on a chip. Biomedical Microdevices, 2009, 11, 1279-1288.	2.8	15
43	Microfluidic emulsification through a monolithic integrated glass micronozzle suspended inside a flow-focusing geometry. Applied Physics Letters, 2015, 106, 174101.	3.3	14
44	Pressure-Driven Chromatographic Separation Modes in Self-Enclosed Integrated Nanocapillaries. Analytical Chemistry, 2016, 88, 11601-11608.	6.5	14
45	A Low-Backpressure Single-Cell Point Constriction for Cytosolic Delivery Based on Rapid Membrane Deformations. Analytical Chemistry, 2018, 90, 1836-1844.	6.5	14
46	A missing factor in chip-based patch clamp assay: gigaseal. Journal of Physics: Conference Series, 2006, 34, 187-191.	0.4	13
47	Nucleic Acid Extraction, Amplification, and Detection on Si-Based Microfluidic Platforms. IEEE Journal of Solid-State Circuits, 2007, 42, 1803-1813.	5.4	12
48	Continuous-Flow Electrophoresis of DNA and Proteins in a Two-Dimensional Capillary-Well Sieve. Analytical Chemistry, 2017, 89, 10022-10028.	6.5	12
49	Microsystems for cell-based electrophysiology. Journal of Micromechanics and Microengineering, 2013, 23, 083002.	2.6	11
50	Precise profile control of 3D lateral junction traps by 2D mask layout and isotropic etching. Journal of Micromechanics and Microengineering, 2005, 15, 386-393.	2.6	10
51	Microcapillary-assisted dielectrophoresis for single-particle positioning. Lab on A Chip, 2012, 12, 4085.	6.0	9
52	Monolithic integration of fine cylindrical glass microcapillaries on silicon for electrophoretic separation of biomolecules. Biomicrofluidics, 2012, 6, 036501.	2.4	9
53	Microchannel plate (MCP) functionalized with Ag nanorods as a high-porosity stable SERS-active membrane. Sensors and Actuators B: Chemical, 2013, 184, 235-242.	7.8	9
54	Single-Cell Point Constrictions for Reagent-Free High-Throughput Mechanical Lysis and Intact Nuclei Isolation. Micromachines, 2019, 10, 488.	2.9	9

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55	Conductance Interplay in Ion Concentration Polarization across 1D Nanochannels: Microchannel Surface Shunt and Nanochannel Conductance. Analytical Chemistry, 2020, 92, 1252-1259.	6.5	9
56	A SiN Microcalorimeter and a Non-Contact Precision Method of Temperature Calibration. Journal of Microelectromechanical Systems, 2020, 29, 1103-1105.	2.5	8
57	Self-formed cylindrical microcapillaries through surface migration of silicon and their application to single-cell analysis. Journal of Micromechanics and Microengineering, 2013, 23, 055001.	2.6	7
58	Flow-through electroporation of mammalian cells in decoupled flow streams using microcapillaries. Biomicrofluidics, 2014, 8, 052101.	2.4	7
59	Heat transfer time determination based on DNA melting curve analysis. Microfluidics and Nanofluidics, 2020, 24, 1.	2.2	7
60	A Sub-nL Chip Calorimeter and Its Application to the Measurement of the Photothermal Transduction Efficiency of Plasmonic Nanoparticles. Journal of Microelectromechanical Systems, 2021, 30, 759-769.	2.5	7
61	nanolithography toolboxâ€"Simplifying the design complexity of microfluidic chips. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 063002.	1.2	7
62	On-chip hydrodynamic chromatography of DNA through centimeters-long glass nanocapillaries. Analyst, The, 2017, 142, 2191-2198.	3.5	6
63	Analyzing proteinâ€"protein interactions in rare cells using microbead-based single-molecule pulldown assay. Lab on A Chip, 2021, 21, 3137-3149.	6.0	6
64	Micromixing crowded biological agents by folding slugs through pillars. Sensors and Actuators B: Chemical, 2007, 128, 340-348.	7.8	5
65	Microchannel plate as a novel bipolar electrode for highâ€performance enrichment of anions. Electrophoresis, 2013, 34, 1991-1997.	2.4	5
66	Induced hydraulic pumping via integrated submicrometer cylindrical glass capillaries. Electrophoresis, 2014, 35, 2353-2360.	2.4	4
67	Rapid Characterization of Biomoleculesâ€™ Thermal Stability in a Segmented Flow-Through Optofluidic Microsystem. Scientific Reports, 2020, 10, 6925.	3.3	3
68	Active control for droplet-based microfluidics. , 2006, 6416, 113.		2
69	Ordered surface crack patterns <i>in situ</i> formed under confinement on fluidic microchannel boundaries in polydimethylsiloxane. Lab on A Chip, 2021, 21, 668-673.	6.0	2
70	Electrokinetic oscillation, railing, and enrichment of submicron particles along 3D microelectrode tracks. Microfluidics and Nanofluidics, 2021, 25, 1.	2.2	2
71	The Effect of Asymmetry on Particle Focusing in Microchannels. Advanced Materials Research, 2011, 403-408, 482-485.	0.3	1
72	UVâ€illuminated dielectrophoresis by twoâ€dimensional electron gas (2DEG) in AlGaN/GaN heterojunction. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2223-2228.	1.8	1

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73	Microfluidics and bioMEMS in silicon. , 2020, , 547-563.		1
74	The Design and Fabrication of Poly(dimethylsiloxane) Single Mode Rib Waveguides for Lab-on-a-Chip Applications. Advanced Materials Research, 0, 74, 51-54.	0.3	0
75	Microfluidics and BioMEMS in Silicon. , 2015, , 565-581.		0
76	Multifunctional 3D Viaduct Microelectrodes for Continuous-Flow Dielectrophoretic Railing and Electroporation of Cells Under Modulated Activation. , 2021, , .		0
77	A Sub-nL Differential Scanning Calorimetry Chip for Liquid Crystal Phase Transition Characterization. , 2022, , .		0
78	Continuous-Flow Size Fractionation of Extracellular Vesicles Using A Micrifluidic Junction Featuring Electrode Microbridges. , 2022, , .		0