Sara Baratchi

List of Publications by Year
in descending order

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69 papers	2,625 citations	172207 29 h-index	197535 49 g-index
71 all docs	71 docs citations	71 times ranked	3321 citing authors

#	Article	IF	Citations
1	Dielectrophoretic platforms for bio-microfluidic systems. Biosensors and Bioelectronics, 2011, 26, 1800-1814.	5.3	318
2	Recent Advances on the Roles of NO in Cancer and Chronic Inflammatory Disorders. Current Medicinal Chemistry, 2009, 16, 2373-2394.	1.2	208
3	Molecular Sensors of Blood Flow in Endothelial Cells. Trends in Molecular Medicine, 2017, 23, 850-868.	3.5	135
4	Self-contained microfluidic systems: a review. Lab on A Chip, 2016, 16, 3177-3192.	3.1	117
5	Microfluidic platforms for biomarker analysis. Lab on A Chip, 2014, 14, 1496-1514.	3.1	116
6	Wearable sensors: At the frontier of personalised health monitoring, smart prosthetics and assistive technologies. Biosensors and Bioelectronics, 2021, 176, 112946.	5.3	100
7	Modulation of TRPV4 by diverse mechanisms. International Journal of Biochemistry and Cell Biology, 2016, 78, 217-228.	1.2	74
8	Shear stress mediates exocytosis of functional TRPV4 channels in endothelial cells. Cellular and Molecular Life Sciences, 2016, 73, 649-666.	2.4	70
9	Microfluidic Skinâ€onâ€aâ€Chip Models: Toward Biomimetic Artificial Skin. Small, 2020, 16, e2002515.	5.2	70
10	Transcatheter Aortic Valve Implantation Represents an Anti-Inflammatory Therapy Via Reduction of Shear Stressâ€“Induced, Piezo-1â€“Mediated Monocyte Activation. Circulation, 2020, 142, 1092-1105.	1.6	70
11	A Microfluidic System for Studying the Effects of Disturbed Flow on Endothelial Cells. Frontiers in Bioengineering and Biotechnology, 2019, 7, 81.	2.0	66
12	Dielectrophoretic manipulation and separation of microparticles using curved microelectrodes. Electrophoresis, 2009, 30, 3707-3717.	1.3	62
13	The TRPV4 Agonist GSK1016790A Regulates the Membrane Expression of TRPV4 Channels. Frontiers in Pharmacology, 2019, 10, 6.	1.6	59
14	Dynamic Analysis of Drug-Induced Cytotoxicity Using Chip-Based Dielectrophoretic Cell Immobilization Technology. Analytical Chemistry, 2011, 83, 2133-2144.	3.2	56
15	Shear Stress Regulates TRPV4 Channel Clustering and Translocation from Adherens Junctions to the Basal Membrane. Scientific Reports, 2017, 7, 15942.	1.6	52
16	Dielectrophoretic-activated cell sorter based on curved microelectrodes. Microfluidics and Nanofluidics, 2010, 9, 411-426.	1.0	51
17	Secreted amyloid precursor proteins promote proliferation and glial differentiation of adult hippocampal neural progenitor cells. Hippocampus, 2012, 22, 1517-1527.	0.9	48
18	On-chip separation of Lactobacillus bacteria from yeasts using dielectrophoresis. Microfluidics and Nanofluidics, 2012, 12, 597-606.	1.0	47

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19	Survivin: A target from brain cancer to neurodegenerative disease. Critical Reviews in Biochemistry and Molecular Biology, 2010, 45, 535-554.	2.3	46
20	Promises of Nanotechnology for Drug Delivery to Brain in Neurodegenerative Diseases. Current Nanoscience, 2009, 5, 15-25.	0.7	45
21	Porous PDMS structures for the storage and release of aqueous solutions into fluidic environments. Lab on A Chip, 2017, 17, 2517-2527.	3.1	43
22	Mechanosensing by Piezo1 and its implications for physiology and various pathologies. Biological Reviews, 2022, 97, 604-614.	4.7	42
23	Studying the Response of Aortic Endothelial Cells under Pulsatile Flow Using a Compact Microfluidic System. Analytical Chemistry, 2019, 91, 12077-12084.	3.2	41
24	Immunology on chip: Promises and opportunities. Biotechnology Advances, 2014, 32, 333-346.	6.0	40
25	Microfluidic Platforms for the Investigation of Intercellular Signalling Mechanisms. Small, 2014, 10, 4810-4826.	5.2	38
26	Examination of the role of transient receptor potential vanilloid type 4 in endothelial responses to shear forces. Biomicrofluidics, 2014, 8, 044117.	1.2	36
27	Size based separation of microparticles using a dielectrophoretic activated system. Journal of Applied Physics, 2010, 108, 034904.	1.1	34
28	Self-sufficient, low-cost microfluidic pumps utilising reinforced balloons. Lab on A Chip, 2019, 19, 2885-2896.	3.1	34
29	A self-sufficient pressure pump using latex balloons for microfluidic applications. Lab on A Chip, 2018, 18, 2730-2740.	3.1	32
30	Inertial Microfluidics with Integrated Vortex Generators Using Liquid Metal Droplets as Fugitive Ink. Advanced Functional Materials, 2019, 29, 1901998.	7.8	30
31	Proliferative and protective effects of SurR9-C84A on differentiated neural cells. Journal of Neuroimmunology, 2010, 227, 120-132.	1.1	27
32	Analyzing the shearâ€induced sensitization of mechanosensitive ion channel Piezoâ€1 in human aortic endothelial cells. Journal of Cellular Physiology, 2021, 236, 2976-2987.	2.0	25
33	Particle trapping using dielectrophoretically patterned carbon nanotubes. Electrophoresis, 2010, 31, 1366-1375.	1.3	24
34	Controlled Rotation and Vibration of Patterned Cell Clusters Using Dielectrophoresis. Analytical Chemistry, 2015, 87, 2389-2395.	3.2	24
35	Interfacing Cell-Based Assays in Environmental Scanning Electron Microscopy Using Dielectrophoresis. Analytical Chemistry, 2011, 83, 3217-3221.	3.2	23
36	A self-sufficient micro-droplet generation system using highly porous elastomeric sponges: A versatile tool for conducting cellular assays. Sensors and Actuators B: Chemical, 2018, 274, 645-653.	4.0	23

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37	Reconfigurable, Self-Sufficient Convective Heat Exchanger for Temperature Control of Microfluidic Systems. Analytical Chemistry, 2019, 91, 15784-15790.	3.2	22
38	Survivin Mutant Protects Differentiated Dopaminergic SK-N-SH Cells Against Oxidative Stress. PLoS ONE, 2011, 6, e15865.	1.1	22
39	Modifying Dielectrophoretic Response of Nonviable Yeast Cells by Ionic Surfactant Treatment. Analytical Chemistry, 2013, 85, 6364-6371.	3.2	19
40	Analysing calcium signalling of cells under high shear flows using discontinuous dielectrophoresis. Scientific Reports, 2015, 5, 11973.	1.6	18
41	Uncoupling the Vicious Cycle of Mechanical Stress and Inflammation in Calcific Aortic Valve Disease. Frontiers in Cardiovascular Medicine, 2022, 9, 783543.	1.1	18
42	Microfluidic models of the human circulatory system: versatile platforms for exploring mechanobiology and disease modeling. Biophysical Reviews, 2021, 13, 769-786.	1.5	17
43	Lateral trapezoid microfluidic platform for investigating mechanotransduction of cells to spatial shear stress gradients. Sensors and Actuators B: Chemical, 2017, 251, 963-975.	4.0	16
44	Evaluation of in vitro human skin models for studying effects of external stressors and stimuli and developing treatment modalities. View, 2022, 3, 20210012.	2.7	16
45	â€œDo-it-in-classroomâ€•fabrication of microfluidic systems by replica moulding of pasta structures. Biomicrofluidics, 2018, 12, 044115.	1.2	15
46	Novel survivin mutant protects differentiated SK-N-SH human neuroblastoma cells from activated T-cell neurotoxicity. Journal of Neuroimmunology, 2011, 233, 18-28.	1.1	14
47	Highly accurate and label-free discrimination of single cancer cell using a plasmonic oxide-based nanoprobe. Biosensors and Bioelectronics, 2022, 198, 113814.	5.3	14
48	Asynchronous generation of oil droplets using a microfluidic flow focusing system. Scientific Reports, 2019, 9, 10600.	1.6	13
49	Tunable Harmonic Flow Patterns in Microfluidic Systems through Simple Tube Oscillation. Small, 2020, 16, e2003612.	5.2	11
50	At a glance: Cellular biology for engineers. Computational Biology and Chemistry, 2008, 32, 315-331.	1.1	10
51	Generation of programmable dynamic flow patterns in microfluidics using audio signals. Lab on A Chip, 2021, 21, 4672-4684.	3.1	10
52	Concurrent shear stress and chemical stimulation of mechano-sensitive cells by discontinuous dielectrophoresis. Biomicrofluidics, 2016, 10, 024117.	1.2	9
53	Temperature-Controlled Microfluidic System Incorporating Polymer Tubes. Analytical Chemistry, 2019, 91, 2498-2505.	3.2	9
54	Dielectrophoretically patterned carbon nanotubes to sort microparticles. Electrophoresis, 2010, 31, 3380-3390.	1.3	8

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55	Reorientation of microfluidic channel enables versatile dielectrophoretic platforms for cell manipulations. Electrophoresis, 2013, 34, 1407-1414.	1.3	8
56	Helical flow: A means to identify unstable plaques and a new direction for the design of vascular grafts and stents. Atherosclerosis, 2020, 300, 34-36.	0.4	8
57	Generation of dynamic vortices in a microfluidic system incorporating stenosis barrier by tube oscillation. Lab on A Chip, 2022, 22, 1917-1928.	3.1	6
58	Studying the Mechanobiology of Aortic Endothelial Cells Under Cyclic Stretch Using a Modular 3D Printed System. Frontiers in Bioengineering and Biotechnology, 2021, 9, 791116.	2.0	4
59	Low power microwaves induce changes in gating function of Trpv4 ion channel proteins. , 2017, , .		2
60	Water Jacket Systems for Temperature Control of Petri Dish Cell Culture Chambers. Applied Sciences (Switzerland), 2019, 9, 621.	1.3	2
61	Investigating the mechanotransduction of transient shear stress mediated by Piezo1 ion channel using a 3D printed dynamic gravity pump. Lab on A Chip, 2022, 22, 262-271.	3.1	2
62	Mixing characterisation for a serpentine microchannel equipped with embedded barriers. Proceedings of SPIE, 2008, , .	0.8	1
63	Dielectrophoresis of micro/nano particles using curved microelectrodes. Proceedings of SPIE, 2011, , .	0.8	1
64	Editorial: Mechanobiology: Emerging Tools and Methods. Frontiers in Bioengineering and Biotechnology, 2020, 8, 289.	2.0	1
65	Design and Numerical Analysis of Magnetic Microrotors for Micromixing. , 2009, , .		0
66	Dielectrophoretic separation of Lactobacillus acidophillus bacteria from Saccharomyces cerevisiae yeasts. , 2012, , .		0
67	A microfluidic platform to study the mechano sensational properties of ion channels. Proceedings of SPIE, 2013, , .	0.8	0
68	Design and Simulation of an Interdigital-Chaotic Advection Micromixer for Lab-on-a-chip Applications. Houille Blanche, 2009, 95, 118-124.	0.3	0
69	Discontinuous Dielectrophoresis - A Technique for Investigating the Response of Loosely Adherent Cells to High Shear Stress. , 2016, , .		0