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	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
2	Mechanosensing by Piezo1 and its implications for physiology and various pathologies. Biological Reviews, 2022, 97, 604-614.	4.7	42
3	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
4	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
5	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
6	Uncoupling the Vicious Cycle of Mechanical Stress and Inflammation in Calcific Aortic Valve Disease. Frontiers in Cardiovascular Medicine, 2022, 9, 783543.	1.1	18
7	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
8	Wearable sensors: At the frontier of personalised health monitoring, smart prosthetics and assistive technologies. Biosensors and Bioelectronics, 2021, 176, 112946.	5.3	100
9	Microfluidic models of the human circulatory system: versatile platforms for exploring mechanobiology and disease modeling. Biophysical Reviews, 2021, 13, 769-786.	1.5	17
10	Generation of programmable dynamic flow patterns in microfluidics using audio signals. Lab on A Chip, 2021, 21, 4672-4684.	3.1	10
11	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
12	Tunable Harmonic Flow Patterns in Microfluidic Systems through Simple Tube Oscillation. Small, 2020, 16, e2003612.	5.2	11
13	Microfluidic Skinâ€onâ€aâ€Chip Models: Toward Biomimetic Artificial Skin. Small, 2020, 16, e2002515.	5.2	70
14	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
15	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
16	Editorial: Mechanobiology: Emerging Tools and Methods. Frontiers in Bioengineering and Biotechnology, 2020, 8, 289.	2.0	1
17	Studying the Response of Aortic Endothelial Cells under Pulsatile Flow Using a Compact Microfluidic System. Analytical Chemistry, 2019, 91, 12077-12084.	3.2	41
18	Asynchronous generation of oil droplets using a microfluidic flow focusing system. Scientific Reports, 2019, 9, 10600.	1.6	13

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19	Self-sufficient, low-cost microfluidic pumps utilising reinforced balloons. Lab on A Chip, 2019, 19, 2885-2896.	3.1	34
20	Reconfigurable, Self-Sufficient Convective Heat Exchanger for Temperature Control of Microfluidic Systems. Analytical Chemistry, 2019, 91, 15784-15790.	3.2	22
21	Inertial Microfluidics with Integrated Vortex Generators Using Liquid Metal Droplets as Fugitive Ink. Advanced Functional Materials, 2019, 29, 1901998.	7.8	30
22	A Microfluidic System for Studying the Effects of Disturbed Flow on Endothelial Cells. Frontiers in Bioengineering and Biotechnology, 2019, 7, 81.	2.0	66
23	The TRPV4 Agonist GSK1016790A Regulates the Membrane Expression of TRPV4 Channels. Frontiers in Pharmacology, 2019, 10, 6.	1.6	59
24	Water Jacket Systems for Temperature Control of Petri Dish Cell Culture Chambers. Applied Sciences (Switzerland), 2019, 9, 621.	1.3	2
25	Temperature-Controlled Microfluidic System Incorporating Polymer Tubes. Analytical Chemistry, 2019, 91, 2498-2505.	3.2	9
26	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
27	A self-sufficient pressure pump using latex balloons for microfluidic applications. Lab on A Chip, 2018, 18, 2730-2740.	3.1	32
28	â€œDo-it-in-classroomâ€•fabrication of microfluidic systems by replica moulding of pasta structures. Biomicrofluidics, 2018, 12, 044115.	1.2	15
29	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
30	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
31	Molecular Sensors of Blood Flow in Endothelial Cells. Trends in Molecular Medicine, 2017, 23, 850-868.	3.5	135
32	Shear Stress Regulates TRPV4 Channel Clustering and Translocation from Adherens Junctions to the Basal Membrane. Scientific Reports, 2017, 7, 15942.	1.6	52
33	Low power microwaves induce changes in gating function of Trpv4 ion channel proteins. , 2017, , .		2
34	Self-contained microfluidic systems: a review. Lab on A Chip, 2016, 16, 3177-3192.	3.1	117
35	Concurrent shear stress and chemical stimulation of mechano-sensitive cells by discontinuous dielectrophoresis. Biomicrofluidics, 2016, 10, 024117.	1.2	9
36	Modulation of TRPV4 by diverse mechanisms. International Journal of Biochemistry and Cell Biology, 2016, 78, 217-228.	1.2	74

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37	Shear stress mediates exocytosis of functional TRPV4 channels in endothelial cells. Cellular and Molecular Life Sciences, 2016, 73, 649-666.	2.4	70
38	Discontinuous Dielectrophoresis - A Technique for Investigating the Response of Loosely Adherent Cells to High Shear Stress. , 2016, , .		0
39	Analysing calcium signalling of cells under high shear flows using discontinuous dielectrophoresis. Scientific Reports, 2015, 5, 11973.	1.6	18
40	Controlled Rotation and Vibration of Patterned Cell Clusters Using Dielectrophoresis. Analytical Chemistry, 2015, 87, 2389-2395.	3.2	24
41	Examination of the role of transient receptor potential vanilloid type 4 in endothelial responses to shear forces. Biomicrofluidics, 2014, 8, 044117.	1.2	36
42	Microfluidic platforms for biomarker analysis. Lab on A Chip, 2014, 14, 1496-1514.	3.1	116
43	Immunology on chip: Promises and opportunities. Biotechnology Advances, 2014, 32, 333-346.	6.0	40
44	Microfluidic Platforms for the Investigation of Intercellular Signalling Mechanisms. Small, 2014, 10, 4810-4826.	5.2	38
45	Modifying Dielectrophoretic Response of Nonviable Yeast Cells by Ionic Surfactant Treatment. Analytical Chemistry, 2013, 85, 6364-6371.	3.2	19
46	Reorientation of microfluidic channel enables versatile dielectrophoretic platforms for cell manipulations. Electrophoresis, 2013, 34, 1407-1414.	1.3	8
47	A microfluidic platform to study the mechano sensational properties of ion channels. Proceedings of SPIE, 2013, , .	0.8	0
48	Dielectrophoretic separation of Lactobacillus acidophillus bacteria from Saccharomyces cerevisiae yeasts. , 2012, , .		0
49	Secreted amyloid precursor proteins promote proliferation and glial differentiation of adult hippocampal neural progenitor cells. Hippocampus, 2012, 22, 1517-1527.	0.9	48
50	On-chip separation of Lactobacillus bacteria from yeasts using dielectrophoresis. Microfluidics and Nanofluidics, 2012, 12, 597-606.	1.0	47
51	Dynamic Analysis of Drug-Induced Cytotoxicity Using Chip-Based Dielectrophoretic Cell Immobilization Technology. Analytical Chemistry, 2011, 83, 2133-2144.	3.2	56
52	Interfacing Cell-Based Assays in Environmental Scanning Electron Microscopy Using Dielectrophoresis. Analytical Chemistry, 2011, 83, 3217-3221.	3.2	23
53	Dielectrophoresis of micro/nano particles using curved microelectrodes. Proceedings of SPIE, 2011, , .	0.8	1
54	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

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55	Dielectrophoretic platforms for bio-microfluidic systems. Biosensors and Bioelectronics, 2011, 26, 1800-1814.	5.3	318
56	Survivin Mutant Protects Differentiated Dopaminergic SK-N-SH Cells Against Oxidative Stress. PLoS ONE, 2011, 6, e15865.	1.1	22
57	Survivin: A target from brain cancer to neurodegenerative disease. Critical Reviews in Biochemistry and Molecular Biology, 2010, 45, 535-554.	2.3	46
58	Dielectrophoretic-activated cell sorter based on curved microelectrodes. Microfluidics and Nanofluidics, 2010, 9, 411-426.	1.0	51
59	Proliferative and protective effects of SurR9-C84A on differentiated neural cells. Journal of Neuroimmunology, 2010, 227, 120-132.	1.1	27
60	Particle trapping using dielectrophoretically patterned carbon nanotubes. Electrophoresis, 2010, 31, 1366-1375.	1.3	24
61	Dielectrophoretically patterned carbon nanotubes to sort microparticles. Electrophoresis, 2010, 31, 3380-3390.	1.3	8
62	Size based separation of microparticles using a dielectrophoretic activated system. Journal of Applied Physics, 2010, 108, 034904.	1.1	34
63	Design and Numerical Analysis of Magnetic Microrotors for Micromixing. , 2009, , .		0
64	Recent Advances on the Roles of NO in Cancer and Chronic Inflammatory Disorders. Current Medicinal Chemistry, 2009, 16, 2373-2394.	1.2	208
65	Dielectrophoretic manipulation and separation of microparticles using curved microelectrodes. Electrophoresis, 2009, 30, 3707-3717.	1.3	62
66	Promises of Nanotechnology for Drug Delivery to Brain in Neurodegenerative Diseases. Current Nanoscience, 2009, 5, 15-25.	0.7	45
67	Design and Simulation of an Interdigital-Chaotic Advection Micromixer for Lab-on-a-chip Applications. Houille Blanche, 2009, 95, 118-124.	0.3	0
68	At a glance: Cellular biology for engineers. Computational Biology and Chemistry, 2008, 32, 315-331.	1.1	10
69	Mixing characterisation for a serpentine microchannel equipped with embedded barriers. Proceedings of SPIE, 2008, , .	0.8	1