

Rui Lima

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.

102
papers

1,955
citations

25
h-index

42
g-index

119
ext. papers

2,397
ext. citations

2.6
avg, IF

5.15
L-index

#	Paper	IF	Citations
102	Flow Visualizations in a PDMS Cerebral Aneurysm Biomodel. <i>Lecture Notes in Mechanical Engineering</i> , 2023 , 209-215	0.4	
101	Recent Developments on the Thermal Properties, Stability and Applications of Nanofluids in Machining, Solar Energy and Biomedicine. <i>Applied Sciences (Switzerland)</i> , 2022 , 12, 1115	2.6	3
100	Low-Cost Multifunctional Vacuum Chamber for Manufacturing PDMS Based Composites. <i>Machines</i> , 2022 , 10, 92	2.9	
99	Hemodynamic Studies in Coronary Artery Models Manufactured by 3D Printing. <i>Lecture Notes in Mechanical Engineering</i> , 2022 , 191-200	0.4	0
98	Organ-on-a-Chip Platforms for Drug Screening and Delivery in Tumor Cells: A Systematic Review.. <i>Cancers</i> , 2022 , 14,	6.6	4
97	Fluid Flow and Structural Numerical Analysis of a Cerebral Aneurysm Model. <i>Fluids</i> , 2022 , 7, 100	1.6	2
96	Properties and Applications of PDMS for Biomedical Engineering: A Review.. <i>Journal of Functional Biomaterials</i> , 2021 , 13,	4.8	28
95	Polydimethylsiloxane Composites Characterization and Its Applications: A Review. <i>Polymers</i> , 2021 , 13,	4.5	10
94	Hemodynamic study in 3D printed stenotic coronary artery models: experimental validation and transient simulation. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2021 , 24, 623-636	2.1	11
93	Manual and Automatic Image Analysis Segmentation Methods for Blood Flow Studies in Microchannels. <i>Micromachines</i> , 2021 , 12,	3.3	2
92	Numerical Optimization of a Microchannel Geometry for Nanofluid Flow and Heat Dissipation Assessment. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 2440	2.6	4
91	Thermal Conductivity of Nanofluids: A Review on Prediction Models, Controversies and Challenges. <i>Applied Sciences (Switzerland)</i> , 2021 , 11, 2525	2.6	12
90	Composite Material of PDMS with Interchangeable Transmittance: Study of Optical, Mechanical Properties and Wettability. <i>Journal of Composites Science</i> , 2021 , 5, 110	3	7
89	Experimental Studies of the Sedimentation, Stability and Thermal Conductivity of Two Different Nanofluids. <i>Engineering Proceedings</i> , 2021 , 4, 35	0.5	
88	Separation Microfluidic Device Fabricated by Micromilling Techniques. <i>Engineering Proceedings</i> , 2021 , 4, 37	0.5	
87	3D Printing Techniques and Their Applications to Organ-on-a-Chip Platforms: A Systematic Review. <i>Sensors</i> , 2021 , 21,	3.8	18
86	Blood Particulate Analogue Fluids: A Review. <i>Materials</i> , 2021 , 14,	3.5	9

85	Pool Boiling of Nanofluids on Biphilic Surfaces: An Experimental and Numerical Study. <i>Nanomaterials</i> , 2021 , 11,	5.4	7
84	Blood Flow Modeling in Coronary Arteries: A Review. <i>Fluids</i> , 2021 , 6, 53	1.6	10
83	Computational Simulations in Advanced Microfluidic Devices: A Review. <i>Micromachines</i> , 2021 , 12,	3.3	5
82	3D manufacturing of intracranial aneurysm biomodels for flow visualizations: Low cost fabrication processes. <i>Mechanics Research Communications</i> , 2020 , 107, 103535	2.2	15
81	3D Printed Biomodels for Flow Visualization in Stenotic Vessels: An Experimental and Numerical Study. <i>Micromachines</i> , 2020 , 11,	3.3	11
80	Fast, flexible and low-cost multiphase blood analogue for biomedical and energy applications. <i>Experiments in Fluids</i> , 2020 , 61, 1	2.5	7
79	Organ-on-a-Chip: A Preclinical Microfluidic Platform for the Progress of Nanomedicine. <i>Small</i> , 2020 , 16, e2003517	11	40
78	Visualization and Measurements of Blood Cells Flowing in Microfluidic Systems and Blood Rheology: A Personalized Medicine Perspective. <i>Journal of Personalized Medicine</i> , 2020 , 10,	3.6	12
77	Bubbles Moving in Blood Flow in a Microchannel Network: The Effect on the Local Hematocrit. <i>Micromachines</i> , 2020 , 11,	3.3	8
76	Blood Cells Separation and Sorting Techniques of Passive Microfluidic Devices: From Fabrication to Applications. <i>Micromachines</i> , 2019 , 10,	3.3	52
75	In vitro blood flow visualizations and cell-free layer (CFL) measurements in a microchannel network. <i>Experimental Thermal and Fluid Science</i> , 2019 , 109, 109847	3	13
74	A Microfluidic Deformability Assessment of Pathological Red Blood Cells Flowing in a Hyperbolic Converging Microchannel. <i>Micromachines</i> , 2019 , 10,	3.3	21
73	Biomechanical analysis of PDMS channels using different hyperelastic numerical constitutive models. <i>Mechanics Research Communications</i> , 2018 , 90, 26-33	2.2	13
72	Shrinkage and colour in the production of micro-sized PDMS particles for microfluidic applications. <i>Journal of Micromechanics and Microengineering</i> , 2018 , 28, 075002	2	12
71	Red Blood Cells (RBCs) Visualisation in Bifurcations and Bends. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2018 , 945-953	0.3	0
70	A Comparative Study of Image Processing Methods for the Assessment of the Red Blood Cells Deformability in a Microfluidic Device. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2018 , 923-929	0.3	
69	Multifunctional graphene-based magnetic nanocarriers for combined hyperthermia and dual stimuli-responsive drug delivery. <i>Materials Science and Engineering C</i> , 2018 , 93, 206-217	8.3	46
68	Microfluidic Devices Based on Biomechanics 2018 , 217-263		3

67	Deformation of Red Blood Cells, Air Bubbles, and Droplets in Microfluidic Devices: Flow Visualizations and Measurements. <i>Micromachines</i> , 2018 , 9,	3.3	48
66	Visualization and Measurement of the Cell-Free Layer (CFL) in a Microchannel Network. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2018 , 930-936	0.3	2
65	Numerical Simulation of Hyperelastic Behaviour in Aneurysm Models. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2018 , 937-944	0.3	1
64	Imaging of Healthy and Malaria-Mimicked Red Blood Cells in Polydimethylsiloxane Microchannels for Determination of Cells Deformability and Flow Velocity. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2018 , 915-922	0.3	
63	Microfluidic Deformability Study of an Innovative Blood Analogue Fluid Based on Giant Unilamellar Vesicles. <i>Journal of Functional Biomaterials</i> , 2018 , 9,	4.8	7
62	A Passive Microfluidic Device Based on Crossflow Filtration for Cell Separation Measurements: A Spectrophotometric Characterization. <i>Biosensors</i> , 2018 , 8,	5.9	12
61	Assessment of the Deformability and Velocity of Healthy and Artificially Impaired Red Blood Cells in Narrow Polydimethylsiloxane (PDMS) Microchannels. <i>Micromachines</i> , 2018 , 9,	3.3	24
60	A Tailor-Made Protocol to Synthesize Yolk-Shell Graphene-Based Magnetic Nanoparticles for Nanomedicine. <i>Journal of Carbon Research</i> , 2018 , 4, 55	3.3	4
59	Microbubble moving in blood flow in microchannels: effect on the cell-free layer and cell local concentration. <i>Biomedical Microdevices</i> , 2017 , 19, 6	3.7	20
58	Red blood cells deformability as a malaria biomarker 2017 ,		1
57	Hemozoin and hemoglobin characterization by optical absorption towards a miniaturized spectrophotometric malaria diagnostic system 2017 ,		4
56	particulate analogue fluids for experimental studies of rheological and hemorheological behavior of glucose-rich RBC suspensions. <i>Biomicrofluidics</i> , 2017 , 11, 054105	3.2	30
55	Smart devices 2017 , 331-369		2
54	Spectrophotometric characterization of hemozoin as a malaria biomarker 2017 ,		1
53	Automatic tracking and deformation measurements of red blood cells flowing through a microchannel with a microstenosis: the keyhole model. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , 2016 , 4, 229-237	0.9	3
52	Cell-free layer analysis in a polydimethylsiloxane microchannel: a global approach. <i>International Journal of Medical Engineering and Informatics</i> , 2016 , 8, 196	0.5	1
51	Haemocompatibility of iron oxide nanoparticles synthesized for theranostic applications: a high-sensitivity microfluidic tool. <i>Journal of Nanoparticle Research</i> , 2016 , 18, 1	2.3	35
50	A numerical and experimental study of acoustic micromixing in 3D microchannels for lab-on-a-chip devices. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2016 , 2016, 5660-5663	0.9	1

49	Wall expansion assessment of an intracranial aneurysm model by a 3D Digital Image Correlation System. <i>Measurement: Journal of the International Measurement Confederation</i> , 2016 , 88, 262-270	4.6	21
48	Red blood cells radial dispersion in blood flowing through microchannels: The role of temperature. <i>Journal of Biomechanics</i> , 2016 , 49, 2293-2298	2.9	25
47	Biomedical microfluidic devices by using low-cost fabrication techniques: A review. <i>Journal of Biomechanics</i> , 2016 , 49, 2280-2292	2.9	178
46	Computation of a Three-Dimensional Flow in a Square Microchannel: A Comparison Between a Particle Method and a Finite Volume Method. <i>Micro and Nanosystems</i> , 2016 , 7, 142-147	0.6	2
45	Blood Flow Visualization and Measurements in Microfluidic Devices Fabricated by a Micromilling Technique. <i>Micro and Nanosystems</i> , 2016 , 7, 148-153	0.6	8
44	Generation of micro-sized PDMS particles by a flow focusing technique for biomicrofluidics applications. <i>Biomicrofluidics</i> , 2016 , 10, 014122	3.2	30
43	In vitro blood flow and cell-free layer in hyperbolic microchannels: Visualizations and measurements. <i>Biochip Journal</i> , 2016 , 10, 9-15	4	19
42	Cell-Free Layer Measurements in a Network with Bifurcating Microchannels Using a Global Approach. <i>CIM Series in Mathematical Sciences</i> , 2015 , 53-65	0.8	
41	Degradation of diphenhydramine by photo-Fenton using magnetically recoverable iron oxide nanoparticles as catalyst. <i>Chemical Engineering Journal</i> , 2015 , 261, 45-52	14.7	77
40	A Rapid and Low-Cost Nonlithographic Method to Fabricate Biomedical Microdevices for Blood Flow Analysis. <i>Micromachines</i> , 2015 , 6, 121-135	3.3	44
39	A simple microfluidic device for the deformability assessment of blood cells in a continuous flow. <i>Biomedical Microdevices</i> , 2015 , 17, 108	3.7	50
38	Low cost microfluidic device for partial cell separation: Micromilling approach 2015 ,		15
37	Simple Methodology for the Quantitative Analysis of Fatty Acids in Human Red Blood Cells. <i>Chromatographia</i> , 2015 , 78, 1271-1281	2.1	4
36	An In Vitro Experimental Evaluation of the Displacement Field in an Intracranial Aneurysm Model. <i>Mechanisms and Machine Science</i> , 2015 , 261-268	0.3	9
35	Thermal Infrared Image Processing to Assess Heat Generated by Magnetic Nanoparticles for Hyperthermia Applications. <i>Lecture Notes in Computer Science</i> , 2015 , 25-34	0.9	1
34	Tracking Red Blood Cells Flowing through a Microchannel with a Hyperbolic Contraction: An Automatic Method. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2015 , 105-119	0.3	
33	Particulate Blood Analogues Reproducing the Erythrocytes Cell-Free Layer in a Microfluidic Device Containing a Hyperbolic Contraction. <i>Micromachines</i> , 2015 , 7,	3.3	27
32	Extensional flow-based microfluidic device: deformability assessment of red blood cells in contact with tumor cells. <i>Biochip Journal</i> , 2014 , 8, 42-47	4	37

31	Cell-Free Layer (CFL) Measurements in Complex Geometries: Contractions and Bifurcations. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2014 , 119-132	0.3	1
30	Flow of Red Blood Cells Suspensions Through Hyperbolic Microcontractions. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2014 , 151-163	0.3	4
29	The Effect of a Static Magnetic Field on the Flow of Iron Oxide Magnetic Nanoparticles Through Glass Capillaries. <i>Lecture Notes in Computational Vision and Biomechanics</i> , 2014 , 181-196	0.3	
28	A microfluidic device for partial cell separation and deformability assessment. <i>Biochip Journal</i> , 2013 , 7, 367-374	4	44
27	Automatic tracking of labeled red blood cells in microchannels. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2013 , 29, 977-87	2.6	20
26	Confocal Micro-PIV/PTV Measurements of the Blood Flow in Micro-channels 2013 , 131-151		5
25	Human red blood cell behavior under homogeneous extensional flow in a hyperbolic-shaped microchannel. <i>Biomicrofluidics</i> , 2013 , 7, 54110	3.2	59
24	Genetic algorithm and particle swarm optimization combined with Powell method 2013 ,		6
23	Automatic tracking of red blood cells in micro channels using OpenCV 2013 ,		1
22	Red blood cell motion in experimental micro-circulation and simulations 2013 , 375-376		
21	In Vitro Blood Flow Behaviour in Microchannels with Simple and Complex Geometries 2012 ,		9
20	Blood Flow Behavior in Microchannels: Past, Current and Future Trends 2012 , 513-547		23
19	Applied Biological Engineering - Principles and Practice 2012 ,		4
18	Asymmetry of red blood cell motions in a microchannel with a diverging and converging bifurcation. <i>Biomicrofluidics</i> , 2011 , 5, 44120-4412015	3.2	59
17	Microscale Flow Dynamics of Red Blood Cells in Microchannels: An Experimental and Numerical Analysis. <i>Computational Methods in Applied Sciences (Springer)</i> , 2011 , 297-309	0.4	6
16	Red Blood Cell Dispersion in 100 μ m Glass Capillaries: The Temperature Effect. <i>IFMBE Proceedings</i> , 2010 , 1067-1070	0.2	2
15	PDMS Anatomical Realistic Models for Hemodynamic Studies Using Rapid Prototyping Technology. <i>IFMBE Proceedings</i> , 2010 , 434-437	0.2	3
14	Motion of Red Blood Cells in a Glass MicroChannel: A Global Optimization Approach 2009 ,		1

13	Measurement of individual red blood cell motions under high hematocrit conditions using a confocal micro-PTV system. <i>Annals of Biomedical Engineering</i> , 2009 , 37, 1546-59	4.7	54
12	Red blood cell motions in high-hematocrit blood flowing through a stenosed microchannel. <i>Journal of Biomechanics</i> , 2009 , 42, 838-43	2.9	80
11	Axisymmetric polydimethylsiloxane microchannels for in vitro hemodynamic studies. <i>Biofabrication</i> , 2009 , 1, 035005	10.5	35
10	In vitro blood flow in a rectangular PDMS microchannel: experimental observations using a confocal micro-PIV system. <i>Biomedical Microdevices</i> , 2008 , 10, 153-67	3.7	131
9	Radial dispersion of red blood cells in blood flowing through glass capillaries: the role of hematocrit and geometry. <i>Journal of Biomechanics</i> , 2008 , 41, 2188-96	2.9	71
8	In vitro confocal micro-PIV measurements of blood flow in a square microchannel: the effect of the haematocrit on instantaneous velocity profiles. <i>Journal of Biomechanics</i> , 2007 , 40, 2752-7	2.9	68
7	Velocity measurements of blood flow in a rectangular PDMS microchannel assessed by confocal micro-PIV system 2007 , 283-286		2
6	A203 Blood Cell Motions and Interactions in Microchannels. <i>Journal of the Visualization Society of Japan</i> , 2007 , 27, 141-142	0	
5	P-01 OBSERVATION OF THE BLOOD FLOW IN MICROCHANNEL WITH STENOSIS BY CONFOCAL-MICRO-PIV. <i>The Proceedings of the Asian Pacific Conference on Biomechanics Emerging Science and Technology in Biomechanics</i> , 2007 , 2007.3, S89		
4	Confocal micro-PIV measurements of three-dimensional profiles of cell suspension flow in a square microchannel. <i>Measurement Science and Technology</i> , 2006 , 17, 797-808	2	127
3	Technical Note: An effective thermal technology for the detoxification of MSW fly ash. <i>International Journal of Environmental Technology and Management</i> , 2003 , 3, 212	0.6	2
2	Pollutant emissions from modern incinerators. <i>International Journal of Environment and Pollution</i> , 2002 , 18, 336	0.7	4
1	Blackburn Meadows wastewater treatment works. <i>International Journal of Water</i> , 2002 , 2, 35	0.9	