

# Joo M Miranda

## List of Publications by Citations

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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.

87  
papers

1,088  
citations

19  
h-index

28  
g-index

91  
ext. papers

1,306  
ext. citations

3.7  
avg, IF

4.8  
L-index

#	Paper	IF	Citations
87	Wide-ranging survey on the laminar flow of individual Taylor bubbles rising through stagnant Newtonian liquids. <i>International Journal of Multiphase Flow</i> , <b>2012</b> , 43, 131-148	3.6	63
86	Review on vertical gas-liquid slug flow. <i>International Journal of Multiphase Flow</i> , <b>2016</b> , 85, 348-368	3.6	59
85	Blood Cells Separation and Sorting Techniques of Passive Microfluidic Devices: From Fabrication to Applications. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	52
84	Deformation of Red Blood Cells, Air Bubbles, and Droplets in Microfluidic Devices: Flow Visualizations and Measurements. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	48
83	A Rapid and Low-Cost Nonlithographic Method to Fabricate Biomedical Microdevices for Blood Flow Analysis. <i>Micromachines</i> , <b>2015</b> , 6, 121-135	3.3	44
82	An improved numerical scheme to study mass transfer over a separation membrane. <i>Journal of Membrane Science</i> , <b>2001</b> , 188, 49-59	9.6	38
81	Estimation of water diffusivity parameters on grape dynamic drying. <i>Journal of Food Engineering</i> , <b>2010</b> , 97, 519-525	6	37
80	Piezoelectric actuators for acoustic mixing in microfluidic devices—Numerical prediction and experimental validation of heat and mass transport. <i>Sensors and Actuators B: Chemical</i> , <b>2014</b> , 205, 206-214	8.5	36
79	The effects of surface properties on Escherichia coli adhesion are modulated by shear stress. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2014</b> , 123, 1-7	6	35
78	The effect of glucose concentration and shaking conditions on Escherichia coli biofilm formation in microtiter plates. <i>Chemical Engineering Science</i> , <b>2013</b> , 94, 192-199	4.4	34
77	Micro- and macro-flow systems to study Escherichia coli adhesion to biomedical materials. <i>Chemical Engineering Science</i> , <b>2015</b> , 126, 440-445	4.4	29
76	Wide Range Simulation Study of Taylor Bubbles in Circular Milli and Microchannels. <i>Micromachines</i> , <b>2017</b> , 8, 154	3.3	27
75	96-well microtiter plates for biofouling simulation in biomedical settings. <i>Biofouling</i> , <b>2014</b> , 30, 535-46	3.3	26
74	Assessment of the Deformability and Velocity of Healthy and Artificially Impaired Red Blood Cells in Narrow Polydimethylsiloxane (PDMS) Microchannels. <i>Micromachines</i> , <b>2018</b> , 9,	3.3	24
73	Concentration polarization in a membrane placed under an impinging jet confined by a conical wall – a numerical approach. <i>Journal of Membrane Science</i> , <b>2001</b> , 182, 257-270	9.6	23
72	Experimental and numerical methodology to analyze flows in a coronary bifurcation. <i>European Journal of Mechanics, B/Fluids</i> , <b>2018</b> , 67, 341-356	2.4	21
71	Numerical study of micromixing combining alternate flow and obstacles. <i>International Communications in Heat and Mass Transfer</i> , <b>2010</b> , 37, 581-586	5.8	21

70	Mass transfer in the vicinity of a separation membrane: the applicability of the stagnant film theory. <i>Journal of Membrane Science</i> , <b>2002</b> , 202, 137-150	9.6	21
69	Microbubble moving in blood flow in microchannels: effect on the cell-free layer and cell local concentration. <i>Biomedical Microdevices</i> , <b>2017</b> , 19, 6	3.7	20
68	Flow of two consecutive Taylor bubbles through a vertical column of stagnant liquid: A CFD study about the influence of the leading bubble on the hydrodynamics of the trailing one. <i>Chemical Engineering Science</i> , <b>2013</b> , 97, 16-33	4.4	19
67	Simulation of slug flow systems under laminar regime: Hydrodynamics with individual and a pair of consecutive Taylor bubbles. <i>Journal of Petroleum Science and Engineering</i> , <b>2013</b> , 111, 1-14	4.4	17
66	Taylor bubbles rising through flowing non-Newtonian inelastic fluids. <i>Journal of Non-Newtonian Fluid Mechanics</i> , <b>2017</b> , 245, 49-66	2.7	16
65	Macroscale versus microscale methods for physiological analysis of biofilms formed in 96-well microtiter plates. <i>Journal of Microbiological Methods</i> , <b>2013</b> , 95, 342-9	2.8	16
64	High viscosity polymeric fluid droplet formation in a flow focusing microfluidic device: Experimental and numerical study. <i>Chemical Engineering Science</i> , <b>2019</b> , 195, 442-454	4.4	16
63	Geometrical effects in the hemodynamics of stenotic and non-stenotic left coronary arteries-numerical and in vitro approaches. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , <b>2019</b> , 35, e3207	2.6	15
62	Biofilm formation behaviour of marine filamentous cyanobacterial strains in controlled hydrodynamic conditions. <i>Environmental Microbiology</i> , <b>2019</b> , 21, 4411-4424	5.2	15
61	PDMS droplet formation and characterization by hydrodynamic flow focusing technique in a PDMS square microchannel. <i>Journal of Micromechanics and Microengineering</i> , <b>2016</b> , 26, 105013	2	15
60	Impinging jets confined by a conical wall: Laminar flow predictions. <i>AIChE Journal</i> , <b>1999</b> , 45, 2273-2285	3.6	14
59	FABRICATION OF 3D MILLI-SCALE CHANNELS FOR HEMODYNAMIC STUDIES. <i>Journal of Mechanics in Medicine and Biology</i> , <b>2015</b> , 15, 1550004	0.7	13
58	In vitro blood flow visualizations and cell-free layer (CFL) measurements in a microchannel network. <i>Experimental Thermal and Fluid Science</i> , <b>2019</b> , 109, 109847	3	13
57	Numerical prediction of acoustic streaming in a microcuvette. <i>Canadian Journal of Chemical Engineering</i> , <b>2014</b> , 92, 1988-1998	2.3	12
56	Numerical study of BSA ultrafiltration in the limiting flux regime: Effect of variable physical properties. <i>Desalination</i> , <b>2009</b> , 249, 1139-1150	10.3	12
55	Thermal Conductivity of Nanofluids: A Review on Prediction Models, Controversies and Challenges. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 2525	2.6	12
54	Review on Microbubbles and Microdroplets Flowing through Microfluidic Geometrical Elements. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	11
53	Yeasts identification in microfluidic devices using peptide nucleic acid fluorescence in situ hybridization (PNA-FISH). <i>Biomedical Microdevices</i> , <b>2017</b> , 19, 11	3.7	9

52	Artificial stenoses for computational hemodynamics. <i>Applied Mathematical Modelling</i> , <b>2018</b> , 59, 427-440	4.5	9
51	Numerical study of a hybrid membrane cell with semi and fully permeable membrane sub-sections. <i>Chemical Engineering Science</i> , <b>2007</b> , 62, 1215-1229	4.4	9
50	Use of Hybrid Membrane Cells To Improve the Apparent Selectivity in the Fractionation of Two Components: Computational Fluid Dynamics Study. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2010</b> , 49, 9978-9987	3.9	8
49	A new membrane fractionation process based on the combination of hybrid membrane cells and differential diffusion of two solutes. <i>Desalination</i> , <b>2009</b> , 241, 372-387	10.3	8
48	Impinging jets confined by a conical wall High Schmidt mass transfer predictions in laminar flow. <i>International Journal of Heat and Mass Transfer</i> , <b>2001</b> , 44, 1269-1284	4.9	8
47	Link between deviations from Murray's Law and occurrence of low wall shear stress regions in the left coronary artery. <i>Journal of Theoretical Biology</i> , <b>2016</b> , 402, 89-99	2.3	8
46	Bubbles Moving in Blood Flow in a Microchannel Network: The Effect on the Local Hematocrit. <i>Micromachines</i> , <b>2020</b> , 11,	3.3	8
45	Experimental and numerical 3D study of a Taylor drop rising in a stagnant heavier liquid. <i>Physics of Fluids</i> , <b>2017</b> , 29, 037109	4.4	7
44	Fabrication and Hydrodynamic Characterization of a Microfluidic Device for Cell Adhesion Tests in Polymeric Surfaces. <i>Micromachines</i> , <b>2019</b> , 10,	3.3	7
43	Cell-free layer measurements of in vitro blood flow in a microfluidic network: an automatic and manual approach. <i>Computer Methods in Biomechanics and Biomedical Engineering: Imaging and Visualization</i> , <b>2017</b> , 1-9	0.9	7
42	CFD Study of the Hydrodynamics of Slug Flow Systems: Interaction between Consecutive Taylor Bubbles. <i>International Journal of Chemical Reactor Engineering</i> , <b>2015</b> , 13, 541-549	1.2	7
41	Fast, flexible and low-cost multiphase blood analogue for biomedical and energy applications. <i>Experiments in Fluids</i> , <b>2020</b> , 61, 1	2.5	7
40	Pool Boiling of Nanofluids on Biphilic Surfaces: An Experimental and Numerical Study. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	7
39	PDMS microparticles produced in PDMS microchannels under the jetting regime for optimal optical suspensions. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2019</b> , 580, 123737	5.1	6
38	Rising of a single Taylor drop in a stagnant liquid 2D laminar flow and axisymmetry limits. <i>Physics of Fluids</i> , <b>2016</b> , 28, 057101	4.4	6
37	Production of hydrogel microparticles in microfluidic devices: a review. <i>Microfluidics and Nanofluidics</i> , <b>2021</b> , 25, 1	2.8	6
36	Mass transfer from a Taylor bubble to the surrounding flowing liquid at the micro-scale: a numerical approach. <i>Microfluidics and Nanofluidics</i> , <b>2019</b> , 23, 1	2.8	5
35	Blood Analog Fluid Flow in Vessels with Stenosis: Development of an Openfoam Code to Simulate Pulsatile Flow and Elasticity of the Fluid. <i>APCBEE Procedia</i> , <b>2013</b> , 7, 73-79		5

34	A Taylor drop rising in a liquid co-current flow. <i>International Journal of Multiphase Flow</i> , <b>2017</b> , 96, 134-143	3.6	5
33	Mass transport regimes in a laminar boundary layer with suction parallel flow and high Peclet number. <i>International Journal of Heat and Mass Transfer</i> , <b>2004</b> , 47, 775-785	4.9	5
32	A microparticle blood analogue suspension matching blood rheology. <i>Soft Matter</i> , <b>2021</b> , 17, 3963-3974	3.6	5
31	Isolated Taylor Bubbles in Co-Current with Shear Thinning CMC Solutions in Microchannels: A Numerical Study. <i>Processes</i> , <b>2020</b> , 8, 242	2.9	4
30	A Numerical Study of the Apparent Selectivity in the Fractionation of Two Macromolecules by Ultrafiltration. <i>Separation Science and Technology</i> , <b>2012</b> , 47, 936-949	2.5	4
29	Numerical Study of Single Taylor Bubble Movement Through a Microchannel Using Different CFD Packages. <i>Processes</i> , <b>2020</b> , 8, 1418	2.9	4
28	Numerical Optimization of a Microchannel Geometry for Nanofluid Flow and Heat Dissipation Assessment. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 2440	2.6	4
27	Effect of PVDF Piezoelectric Transducers Positioning on the Acoustic Streaming Flows. <i>Micromachines</i> , <b>2014</b> , 5, 654-666	3.3	3
26	The Effect of Variable Transport Properties in the Separation of Two Macromolecules by Differential Diffusivity in a Hybrid Membrane Cell: A CFD Study. <i>Separation Science and Technology</i> , <b>2011</b> , 46, 1685-1698	2.5	3
25	Interaction between the electric and concentration fields in the fractionation of two macromolecules using a Hybrid Membrane Cell: CFD study. <i>Desalination and Water Treatment</i> , <b>2011</b> , 35, 209-221		3
24	A numerical study on the heat transfer generated by a piezoelectric transducer in a microfluidic system. <i>Journal of Physics: Conference Series</i> , <b>2012</b> , 395, 012091	0.3	3
23	Numerical study of the effect of a charged membrane in the separation of electrically charged components. <i>Desalination and Water Treatment</i> , <b>2010</b> , 14, 201-207		3
22	A simple model to obtain mass transfer coefficients from a soluble solid to a flowing fluid in closed recirculating systems. <i>International Communications in Heat and Mass Transfer</i> , <b>2001</b> , 28, 575-584	5.8	3
21	Analysing the Initial Bacterial Adhesion to Evaluate the Performance of Antifouling Surfaces. <i>Antibiotics</i> , <b>2020</b> , 9,	4.9	3
20	Evaluation of the successive approximations method for acoustic streaming numerical simulations. <i>Journal of the Acoustical Society of America</i> , <b>2016</b> , 139, 2269	2.2	3
19	Membrane Characterization Based on PEG Rejection and CFD Analysis. <i>Separation Science and Technology</i> , <b>2015</b> , 50, 1823-1834	2.5	2
18	Heat Transfer and Fluid Flow Investigations in PDMS Microchannel Heat Sinks Fabricated by Means of a Low-Cost 3D Printer <b>2020</b> ,		2
17	Improving acoustic streaming effects in fluidic systems by matching SU-8 and polydimethylsiloxane layers. <i>Ultrasonics</i> , <b>2016</b> , 69, 47-57	3.5	2

16	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> , <b>2016</b> , 7, 142-147	0.6	2
15	Visualization and Measurement of the Cell-Free Layer (CFL) in a Microchannel Network. <i>Lecture Notes in Computational Vision and Biomechanics</i> , <b>2018</b> , 930-936	0.3	2
14	Cell adhesion in microchannel multiple constrictions - Evidence of mass transport limitations. <i>Colloids and Surfaces B: Biointerfaces</i> , <b>2021</b> , 198, 111490	6	2
13	A novel and extremely stable nanofluid based on iron oxide nanoparticles: Experimental investigations on the thermal performance. <i>Thermal Science and Engineering Progress</i> , <b>2021</b> , 26, 101085	3.6	2
12	Interaction between two consecutive axisymmetric Taylor drops flowing in a heavier liquid in a vertical tube. <i>International Journal of Heat and Fluid Flow</i> , <b>2017</b> , 68, 1-12	2.4	1
11	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> , <b>2016</b> , 2016, 5660-5663	0.9	1
10	BIV Analysis and Numerical Simulation of the Flow in Mili-scale Channels Developed for Studies in Hemodynamics. <i>APCBEE Procedia</i> , <b>2013</b> , 7, 132-137		1
9	The accuracy of the stagnant film equation in the study of electrophoretic migration of solutes near an ultrafiltration membrane numerical study. <i>Desalination and Water Treatment</i> , <b>2013</b> , 51, 7509-7522		1
8	Numerical study of the fractionation of two macromolecules with similar MW in a hybrid cell with electrically charged membranes. <i>Desalination</i> , <b>2013</b> , 317, 95-107	10.3	
7	Membrane Formation in Micro-Channels by Phase Inversion. <i>Procedia Engineering</i> , <b>2012</b> , 44, 1504-1506		
6	New Separation Hybrid Membrane Cells Applied to Ultrafiltration Processes. <i>Procedia Engineering</i> , <b>2012</b> , 44, 2027-2029		
5	Improving alternate flow mixing by obstacles located along a micro-channel. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2009</b> , 2009, 7034-6	0.9	
4	Blood Flow of Bubbles Moving in Microchannels with Bifurcations. <i>Lecture Notes in Computational Vision and Biomechanics</i> , <b>2019</b> , 571-577	0.3	
3	Experimental Studies of the Sedimentation, Stability and Thermal Conductivity of Two Different Nanofluids. <i>Engineering Proceedings</i> , <b>2021</b> , 4, 35	0.5	
2	Integration of FISH and Microfluidics. <i>Methods in Molecular Biology</i> , <b>2021</b> , 2246, 249-261	1.4	
1	Characterization of gelatin microparticle production in a flow focusing microfluidic system. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2022</b> , 647, 129079	5.1	