

# Adriano Mesquita Alencar

## List of Publications by Year in descending order

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73  
papers

2,253  
citations

279798

23  
h-index

223800

46  
g-index

75  
all docs

75  
docs citations

75  
times ranked

2599  
citing authors

#	ARTICLE	IF	CITATIONS
1	Random-walk model of the sodium-glucose transporter SGLT2 with stochastic steps and inhibition. <i>Journal of Physics Condensed Matter</i> , 2022, , .	1.8	2
2	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. , 2022, , 269-293.		0
3	How Small Is Too Small for the Capillarity Theory?. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5335-5348.	3.1	4
4	Alterations in cellular force parameters and cell projections in Nasal polyps-derived fibroblasts. <i>Auris Nasus Larynx</i> , 2020, 47, 98-104.	1.2	2
5	Impaired vascular smooth muscle cell force-generating capacity and phenotypic deregulation in Marfan Syndrome mice. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165587.	3.8	25
6	Random-walk model of cotransport. <i>Physical Review E</i> , 2020, 102, 022403.	2.1	2
7	Discriminating aspects of global metabolism of neonatal cardiomyocytes from wild type and KO-CSRP3 rats using proton magnetic resonance spectroscopy of culture media samples. <i>In Vitro Cellular and Developmental Biology - Animal</i> , 2020, 56, 604-613.	1.5	4
8	Modified 3D Ewald Summation for Slab Geometry at Constant Potential. <i>Journal of Physical Chemistry B</i> , 2020, 124, 7842-7848.	2.6	2
9	Neurally adjusted ventilatory assist vs. pressure support to deliver protective mechanical ventilation in patients with acute respiratory distress syndrome: a randomized crossover trial. <i>Annals of Intensive Care</i> , 2020, 10, 18.	4.6	13
10	Transport cycle of Escherichia coli lactose permease in a nonhomogeneous random walk model. <i>Physical Review E</i> , 2019, 99, 052411.	2.1	4
11	Nasal Polyposis: More than a Chronic Inflammatory Disorder – A Disease of Mechanical Dysfunction – The São Paulo Position. <i>International Archives of Otorhinolaryngology</i> , 2019, 23, 241-249.	0.8	9
12	Peri/epicellular protein disulfide isomerase-A1 acts as an upstream organizer of cytoskeletal mechanoadaptation in vascular smooth muscle cells. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2019, 316, H566-H579.	3.2	16
13	Quantification of alignment of vascular smooth muscle cells. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2018, 93, 533-539.	1.5	3
14	Validation of Capillarity Theory at the Nanometer Scale. II: Stability and Rupture of Water Capillary Bridges in Contact with Hydrophobic and Hydrophilic Surfaces. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1556-1569.	3.1	8
15	Freeze-drying of ovalbumin-loaded carboxymethyl chitosan nanocapsules: Impact of freezing and annealing procedures on physicochemical properties of the formulation during dried storage. <i>Drying Technology</i> , 2018, 36, 400-417.	3.1	14
16	Integrated molecular, biochemical, and physiological assessment unravels key extraction method mediated influences on rat neonatal cardiomyocytes. <i>Journal of Cellular Physiology</i> , 2018, 233, 5420-5430.	4.1	12
17	Irregular dynamics of the center of mass of droplets. <i>Journal of Applied Nonlinear Dynamics</i> , 2018, 7, 223-229.	0.3	0
18	Monitoring the electric activity of the diaphragm during noninvasive positive pressure ventilation: a case report. <i>BMC Pulmonary Medicine</i> , 2017, 17, 91.	2.0	2

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19	Neurally Adjusted Ventilatory Assist (NAVA) or Pressure Support Ventilation (PSV) during spontaneous breathing trials in critically ill patients: a crossover trial. BMC Pulmonary Medicine, 2017, 17, 139.	2.0	44
20	Effect of the Al <sub>2</sub> O <sub>3</sub> addition on the formation of silver nanoparticles in heat treated soda-lime silicate glasses. Journal of Non-Crystalline Solids, 2016, 453, 74-83.	3.1	18
21	Non-equilibrium cytoquake dynamics in cytoskeletal remodeling and stabilization. Soft Matter, 2016, 12, 8506-8511.	2.7	17
22	Human bronchial epithelial cells exposed in vitro to diesel exhaust particles exhibit alterations in cell rheology and cytotoxicity associated with decrease in antioxidant defenses and imbalance in pro- and anti-apoptotic gene expression. Environmental Science and Pollution Research, 2016, 23, 9862-9870.	5.3	21
23	Validation of Capillarity Theory at the Nanometer Scale by Atomistic Computer Simulations of Water Droplets and Bridges in Contact with Hydrophobic and Hydrophilic Surfaces. Journal of Physical Chemistry C, 2016, 120, 1597-1608.	3.1	24
24	Diesel exhaust particulates affect cell signaling, mucin profiles, and apoptosis in trachea explants of Balb/C mice. Environmental Toxicology, 2015, 30, 1297-1308.	4.0	23
25	Rapid and Localized Mechanical Stimulation and Adhesion Assay: TRPM7 Involvement in Calcium Signaling and Cell Adhesion. PLoS ONE, 2015, 10, e0126440.	2.5	10
26	Enriched inorganic compounds in diesel exhaust particles induce mitogen-activated protein kinase activation, cytoskeleton instability, and cytotoxicity in human bronchial epithelial cells. Experimental and Toxicologic Pathology, 2015, 67, 323-329.	2.1	10
27	Effects of Oropharyngeal Exercises on Snoring. Chest, 2015, 148, 683-691.	0.8	99
28	Smoking and Female Sex: Independent Predictors of Human Vascular Smooth Muscle Cells Stiffening. PLoS ONE, 2015, 10, e0145062.	2.5	9
29	Numeric reconstruction of 2D cellular actomyosin network from substrate displacement. Research on Biomedical Engineering, 2015, 31, 328-333.	2.2	0
30	Cardiac Mechanics Evaluated by Speckle Tracking Echocardiography. Arquivos Brasileiros De Cardiologia, 2014, 102, 403-12.	0.8	36
31	Variation of mechanical properties and quantitative proteomics of VSMC along the arterial tree. American Journal of Physiology - Heart and Circulatory Physiology, 2014, 306, H505-H516.	3.2	49
32	Characterization of crackles from patients with fibrosis, heart failure and pneumonia. Medical Engineering and Physics, 2013, 35, 448-456.	1.7	24
33	Crackling sound generation during the formation of liquid bridges: A lattice gas model. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 3409-3416.	2.6	11
34	How low-level laser therapy can change mechanical properties of cells. , 2013, , .		0
35	Dynamics of snoring sounds and its connection with obstructive sleep apnea. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 271-277.	2.6	24
36	Speckle patterns during the spreading of lung surfactant. Proceedings of SPIE, 2013, , .	0.8	0

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37	Vascular smooth muscle cells exhibit a progressive loss of rigidity with serial culture passaging. <i>Biorheology</i> , 2012, 49, 365-373.	0.4	10
38	Simulation Of Bead Dynamics In Optical Twisting Microscopy: Evaluating Errors And Jumps As Artifacts Of Tracking Algorithms. , 2011, , .		0
39	Pattern Of Snoring Events During Polysomnography Using A Simple Device. , 2011, , .		0
40	A Non-invasive Method for Assessing Airway Narrowing of Isolated Airways in Vitro. <i>IFMBE Proceedings</i> , 2011, , 137-140.	0.3	0
41	Ex Vivo And In Vitro Assessment Of Respiratory Mechanics: Effects Of Acute Exposure To Diesel Exhausted Particles. , 2010, , .		0
42	Airway Tree Model Of Lung Recruitment: Effect Of Alveolar Compliance On Pressure Volume Fluctuations. , 2010, , .		0
43	Biomechanical effects of environmental and engineered particles on human airway smooth muscle cells. <i>Journal of the Royal Society Interface</i> , 2010, 7, S331-40.	3.4	52
44	Mapping the cytoskeletal prestress. <i>American Journal of Physiology - Cell Physiology</i> , 2010, 298, C1245-C1252.	4.6	66
45	Thermodynamic origin of cooperativity in actomyosin interactions: The coupling of short-range interactions with actin bending stiffness in an Ising-like model. <i>Physical Review E</i> , 2009, 79, 041906.	2.1	7
46	Percolation in a network with long-range connections: Implications for cytoskeletal structure and function. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2009, 388, 1521-1526.	2.6	8
47	Prestress-dependent Rheology of Semiflexible Polymers of the Cytoskeleton. <i>Biophysical Journal</i> , 2009, 96, 133a.	0.5	0
48	Power-law creep behavior of a semiflexible chain. <i>Physical Review E</i> , 2008, 78, 041922.	2.1	12
49	Morphological Quantitation of Emphysema: A Debate. <i>Journal of Applied Physiology</i> , 2006, 100, 1419-1421.	2.5	18
50	Quantitative characterization of airspace enlargement in emphysema. <i>Journal of Applied Physiology</i> , 2006, 100, 186-193.	2.5	111
51	Monte Carlo simulation of liquid bridge rupture: Application to lung physiology. <i>Physical Review E</i> , 2006, 74, 026311.	2.1	16
52	Dynamics of Prestressed Semiflexible Polymer Chains as a Model of Cell Rheology. <i>Physical Review Letters</i> , 2006, 97, 168101.	7.8	33
53	Mechanical interactions between collagen and proteoglycans: implications for the stability of lung tissue. <i>Journal of Applied Physiology</i> , 2005, 98, 672-679.	2.5	221
54	Crackles and instabilities during lung inflation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2005, 357, 18-26.	2.6	18

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55	Relating Airway Diameter Distributions to Regular Branching Asymmetry in the Lung. Physical Review Letters, 2005, 95, 168101.	7.8	50
56	Acoustic evidence of airway opening during recruitment in excised dog lungs. Journal of Applied Physiology, 2004, 97, 592-598.	2.5	23
57	Perimeter growth of a branched structure: Application to crackle sounds in the lung. Physical Review E, 2003, 68, 011909.	2.1	9
58	Fluid transport in branched structures with temporary closures: A model for quasistatic lung inflation. Physical Review E, 2003, 67, 031912.	2.1	9
59	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. Fluctuation and Noise Letters, 2003, 03, R1-R25.	1.5	31
60	Lung and alveolar wall elastic and hysteretic behavior in rats: effects of in vivo elastase treatment. Journal of Applied Physiology, 2003, 95, 1926-1936.	2.5	71
61	Variable ventilation induces endogenous surfactant release in normal guinea pigs. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2003, 285, L370-L375.	2.9	108
62	Noisy Ventilation Improves Lung Function. AIP Conference Proceedings, 2003, , .	0.4	0
63	Dynamic instabilities in the inflating lung. Nature, 2002, 417, 809-811.	27.8	84
64	Avalanche Dynamics of Crackle Sound in the Lung. Physical Review Letters, 2001, 87, 088101.	7.8	40
65	Characterization of the Branching Structure of the Lung from "Macroscopic" Pressure-Volume Measurements. Physical Review Letters, 2001, 87, 058102.	7.8	9
66	Size distribution of recruited alveolar volumes in airway reopening. Journal of Applied Physiology, 2000, 89, 2030-2040.	2.5	29
67	Complexity of terminal airspace geometry assessed by lung computed tomography in normal subjects and patients with chronic obstructive pulmonary disease. Proceedings of the National Academy of Sciences of the United States of America, 1999, 96, 8829-8834.	7.1	321
68	Scaling behavior in crackle sound during lung inflation. Physical Review E, 1999, 60, 4659-4663.	2.1	26
69	Life-support system benefits from noise. Nature, 1998, 393, 127-128.	27.8	223
70	Asymmetric Flow in Symmetric Branched Structures. Physical Review Letters, 1998, 81, 926-929.	7.8	55
71	Self-organized percolation. Physical Review E, 1997, 56, R2379-R2382.	2.1	37
72	Ultrafast relaxation of hot minority carriers in p-GaAs. Journal of Applied Physics, 1993, 74, 2122-2124.	2.5	0

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73	High-field transport transient of minority carriers in GaAs. Applied Physics Letters, 1991, 59, 558-560.	3.3	13