

Adriano Mesquita Alencar

List of Publications by Year in descending order

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Version: 2024-02-01

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	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
2	Life-support system benefits from noise. Nature, 1998, 393, 127-128.	27.8	223
3	Mechanical interactions between collagen and proteoglycans: implications for the stability of lung tissue. Journal of Applied Physiology, 2005, 98, 672-679.	2.5	221
4	Quantitative characterization of airspace enlargement in emphysema. Journal of Applied Physiology, 2006, 100, 186-193.	2.5	111
5	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
6	Effects of Oropharyngeal Exercises on Snoring. Chest, 2015, 148, 683-691.	0.8	99
7	Dynamic instabilities in the inflating lung. Nature, 2002, 417, 809-811.	27.8	84
8	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
9	Mapping the cytoskeletal prestress. American Journal of Physiology - Cell Physiology, 2010, 298, C1245-C1252.	4.6	66
10	Asymmetric Flow in Symmetric Branched Structures. Physical Review Letters, 1998, 81, 926-929.	7.8	55
11	Biomechanical effects of environmental and engineered particles on human airway smooth muscle cells. Journal of the Royal Society Interface, 2010, 7, S331-40.	3.4	52
12	Relating Airway Diameter Distributions to Regular Branching Asymmetry in the Lung. Physical Review Letters, 2005, 95, 168101.	7.8	50
13	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
14	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
15	Avalanche Dynamics of Crackle Sound in the Lung. Physical Review Letters, 2001, 87, 088101.	7.8	40
16	Self-organized percolation. Physical Review E, 1997, 56, R2379-R2382.	2.1	37
17	Cardiac Mechanics Evaluated by Speckle Tracking Echocardiography. Arquivos Brasileiros De Cardiologia, 2014, 102, 403-12.	0.8	36
18	Dynamics of Prestressed Semiflexible Polymer Chains as a Model of Cell Rheology. Physical Review Letters, 2006, 97, 168101.	7.8	33

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19	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. Fluctuation and Noise Letters, 2003, 03, R1-R25.	1.5	31
20	Size distribution of recruited alveolar volumes in airway reopening. Journal of Applied Physiology, 2000, 89, 2030-2040.	2.5	29
21	Scaling behavior in crackle sound during lung inflation. Physical Review E, 1999, 60, 4659-4663.	2.1	26
22	Impaired vascular smooth muscle cell force-generating capacity and phenotypic deregulation in Marfan Syndrome mice. Biochimica Et Biophysica Acta - Molecular Basis of Disease, 2020, 1866, 165587.	3.8	25
23	Characterization of crackles from patients with fibrosis, heart failure and pneumonia. Medical Engineering and Physics, 2013, 35, 448-456.	1.7	24
24	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
25	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
26	Acoustic evidence of airway opening during recruitment in excised dog lungs. Journal of Applied Physiology, 2004, 97, 592-598.	2.5	23
27	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
28	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
29	Crackles and instabilities during lung inflation. Physica A: Statistical Mechanics and Its Applications, 2005, 357, 18-26.	2.6	18
30	Morphological Quantitation of Emphysema: A Debate. Journal of Applied Physiology, 2006, 100, 1419-1421.	2.5	18
31	Effect of the Al ₂ O ₃ 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
32	Non-equilibrium cytoquake dynamics in cytoskeletal remodeling and stabilization. Soft Matter, 2016, 12, 8506-8511.	2.7	17
33	Monte Carlo simulation of liquid bridge rupture: Application to lung physiology. Physical Review E, 2006, 74, 026311.	2.1	16
34	Peri/epicellular protein disulfide isomerase-A1 acts as an upstream organizer of cytoskeletal mechanoadaptation in vascular smooth muscle cells. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 316, H566-H579.	3.2	16
35	Freeze-drying of ovalbumin-loaded carboxymethyl chitosan nanocapsules: Impact of freezing and annealing procedures on physicochemical properties of the formulation during dried storage. Drying Technology, 2018, 36, 400-417.	3.1	14
36	High-field transport transient of minority carriers in GaAs. Applied Physics Letters, 1991, 59, 558-560.	3.3	13

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37	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
38	Power-law creep behavior of a semiflexible chain. <i>Physical Review E</i> , 2008, 78, 041922.	2.1	12
39	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
40	Crackling sound generation during the formation of liquid bridges: A lattice gas model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 3409-3416.	2.6	11
41	Vascular smooth muscle cells exhibit a progressive loss of rigidity with serial culture passaging. <i>Biorheology</i> , 2012, 49, 365-373.	0.4	10
42	Rapid and Localized Mechanical Stimulation and Adhesion Assay: TRPM7 Involvement in Calcium Signaling and Cell Adhesion. <i>PLoS ONE</i> , 2015, 10, e0126440.	2.5	10
43	Enriched inorganic compounds in diesel exhaust particles induce mitogen-activated protein kinase activation, cytoskeleton instability, and cytotoxicity in human bronchial epithelial cells. <i>Experimental and Toxicologic Pathology</i> , 2015, 67, 323-329.	2.1	10
44	Characterization of the Branching Structure of the Lung from "Macroscopic" Pressure-Volume Measurements. <i>Physical Review Letters</i> , 2001, 87, 058102.	7.8	9
45	Perimeter growth of a branched structure: Application to crackle sounds in the lung. <i>Physical Review E</i> , 2003, 68, 011909.	2.1	9
46	Fluid transport in branched structures with temporary closures: A model for quasistatic lung inflation. <i>Physical Review E</i> , 2003, 67, 031912.	2.1	9
47	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
48	Smoking and Female Sex: Independent Predictors of Human Vascular Smooth Muscle Cells Stiffening. <i>PLoS ONE</i> , 2015, 10, e0145062.	2.5	9
49	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
50	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
51	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
52	Transport cycle of <i>Escherichia coli</i> lactose permease in a nonhomogeneous random walk model. <i>Physical Review E</i> , 2019, 99, 052411.	2.1	4
53	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
54	How Small Is Too Small for the Capillarity Theory?. <i>Journal of Physical Chemistry C</i> , 2021, 125, 5335-5348.	3.1	4

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55	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
56	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
57	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
58	Random-walk model of cotransport. <i>Physical Review E</i> , 2020, 102, 022403.	2.1	2
59	Modified 3D Ewald Summation for Slab Geometry at Constant Potential. <i>Journal of Physical Chemistry B</i> , 2020, 124, 7842-7848.	2.6	2
60	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
61	Ultrafast relaxation of hot minority carriers in p-GaAs. <i>Journal of Applied Physics</i> , 1993, 74, 2122-2124.	2.5	0
62	Noisy Ventilation Improves Lung Function. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	0
63	Prestress-dependent Rheology of Semiflexible Polymers of the Cytoskeleton. <i>Biophysical Journal</i> , 2009, 96, 133a.	0.5	0
64	Ex Vivo And In Vitro Assessment Of Respiratory Mechanics: Effects Of Acute Exposure To Diesel Exhausted Particles. , 2010, , .		0
65	Airway Tree Model Of Lung Recruitment: Effect Of Alveolar Compliance On Pressure Volume Fluctuations. , 2010, , .		0
66	Simulation Of Bead Dynamics In Optical Twisting Microscopy: Evaluating Errors And Jumps As Artifacts Of Tracking Algorithms. , 2011, , .		0
67	Pattern Of Snoring Events During Polysomnography Using A Simple Device. , 2011, , .		0
68	How low-level laser therapy can change mechanical properties of cells. , 2013, , .		0
69	Speckle patterns during the spreading of lung surfactant. <i>Proceedings of SPIE</i> , 2013, , .	0.8	0
70	A Non-invasive Method for Assessing Airway Narrowing of Isolated Airways in Vitro. <i>IFMBE Proceedings</i> , 2011, , 137-140.	0.3	0
71	Numeric reconstruction of 2D cellular actomyosin network from substrate displacement. <i>Research on Biomedical Engineering</i> , 2015, 31, 328-333.	2.2	0
72	Irregular dynamics of the center of mass of droplets. <i>Journal of Applied Nonlinear Dynamics</i> , 2018, 7, 223-229.	0.3	0

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73	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. , 2022, , 269-293.		0