

# BÃ©la Suki

## List of Publications by Year in descending order

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170  
papers

7,766  
citations

47006

47  
h-index

60623

81  
g-index

174  
all docs

174  
docs citations

174  
times ranked

5810  
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechano-inflammatory sensitivity of ACE2: Implications for the regional distribution of SARS-CoV-2 injury in the lung. <i>Respiratory Physiology and Neurobiology</i> , 2022, 296, 103804.	1.6	3
2	Modeling maintenance and repair: The matrix loaded. , 2022, , 229-255.		0
3	Collagen supramolecular structures: Evolution, organization, and biogenesis. , 2022, , 55-76.		0
4	Collagen suprastructures: The data and the models. , 2022, , 77-111.		0
5	Introduction to structure-function relationships. , 2022, , 1-7.		1
6	Small leucine-rich proteoglycans: The tiny controllers of the extracellular matrix. , 2022, , 143-163.		0
7	Extracellular matrix background material: Building blocks, general structure, mechanics, relation to cells, and evolutionary aspects. , 2022, , 9-27.		0
8	Elastic fibers: The near ideal linear springs of the extracellular matrix. , 2022, , 193-227.		0
9	Hyaluronan and hyalectans: The good, the bad, and the ugly. , 2022, , 165-192.		0
10	The collagen molecule. , 2022, , 29-54.		1
11	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. , 2022, , 269-293.		0
12	Harmonic Distortion of Blood Pressure Waveform as a Measure of Arterial Stiffness. <i>Frontiers in Bioengineering and Biotechnology</i> , 2022, 10, 842754.	4.1	5
13	A Personalized Spring Network Representation of Emphysematous Lungs From CT Images. <i>Frontiers in Network Physiology</i> , 2022, 2, .	1.8	1
14	Breath Hold Facilitates Targeted Deposition of Aerosolized Droplets in a 3D Printed Bifurcating Airway Tree. <i>Annals of Biomedical Engineering</i> , 2021, 49, 812-821.	2.5	4
15	Percolation of collagen stress in a random network model of the alveolar wall. <i>Scientific Reports</i> , 2021, 11, 16654.	3.3	8
16	Stabilizing breathing pattern using local mechanical vibrations: comparison of deterministic and stochastic stimulations in rodent models of apnea of prematurity. <i>Biomedical Engineering Letters</i> , 2021, 11, 383-392.	4.1	1
17	Inflation instability in the lung: an analytical model of a thick-walled alveolus with wavy fibres under large deformations. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20210594.	3.4	9
18	Cellular and Extracellular Homeostasis in Fluctuating Mechanical Environments. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2020, , 83-121.	1.0	3

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19	A Synthetic Bioinspired Carbohydrate Polymer with Mucoadhesive Properties. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 704-710.	13.8	19
20	A Synthetic Bioinspired Carbohydrate Polymer with Mucoadhesive Properties. <i>Angewandte Chemie</i> , 2020, 132, 714-720.	2.0	11
21	Tissue traction microscopy to quantify muscle contraction within precision-cut lung slices. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2020, 318, L323-L330.	2.9	11
22	Modeling lung perfusion abnormalities to explain early COVID-19 hypoxemia. <i>Nature Communications</i> , 2020, 11, 4883.	12.8	95
23	Modeling Lung Derecruitment in VILI Due to Fluid-Occlusion: The Role of Emergent Behavior. <i>Frontiers in Physiology</i> , 2020, 11, 542744.	2.8	2
24	Random-walk model of cotransport. <i>Physical Review E</i> , 2020, 102, 022403.	2.1	2
25	A Markov chain model of particle deposition in the lung. <i>Scientific Reports</i> , 2020, 10, 13573.	3.3	12
26	Fractal Analysis of Lung Structure in Chronic Obstructive Pulmonary Disease. <i>Frontiers in Physiology</i> , 2020, 11, 603197.	2.8	19
27	Avalanches and power law behavior in aortic dissection propagation. <i>Science Advances</i> , 2020, 6, eaaz1173.	10.3	24
28	A High-Throughput System for Cyclic Stretching of Precision-Cut Lung Slices During Acute Cigarette Smoke Extract Exposure. <i>Frontiers in Physiology</i> , 2020, 11, 566.	2.8	17
29	An Analytical Model for Estimating Alveolar Wall Elastic Moduli From Lung Tissue Uniaxial Stress-Strain Curves. <i>Frontiers in Physiology</i> , 2020, 11, 121.	2.8	22
30	Tuning mitochondrial structure and function to criticality by fluctuation-driven mechanotransduction. <i>Scientific Reports</i> , 2020, 10, 407.	3.3	23
31	Tracking respiratory mechanics around natural breathing rates via variable ventilation. <i>Scientific Reports</i> , 2020, 10, 6722.	3.3	4
32	An Analytic Model of Tissue Self-Healing and Its Network Implementation: Application to Fibrosis and Aging. <i>Frontiers in Physiology</i> , 2020, 11, 583024.	2.8	5
33	Nonlinear elasticity of the lung extracellular microenvironment is regulated by macroscale tissue strain. <i>Acta Biomaterialia</i> , 2019, 92, 265-276.	8.3	49
34	Transition From Phasic to Tonic Contractility in Airway Smooth Muscle After Birth: An Experimental and Computational Modeling Study. <i>Journal of Engineering and Science in Medical Diagnostics and Therapy</i> , 2019, 2, .	0.5	2
35	Heart rate fluctuation after birth predicts subsequent cardiorespiratory stability in preterm infants. <i>Pediatric Research</i> , 2019, 86, 348-354.	2.3	8
36	Monitoring of respiratory resistance in the diagnosis of mild intermittent asthma. <i>Clinical and Experimental Allergy</i> , 2019, 49, 921-923.	2.9	3

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37	Linking Physiological Biomarkers of Ventilator-Induced Lung Injury to a Rich-Get-Richer Mechanism of Injury Progression. <i>Annals of Biomedical Engineering</i> , 2019, 47, 638-645.	2.5	5
38	CT Imaging-Based Low-Attenuation Super Clusters in Three Dimensions and the Progression of Emphysema. <i>Chest</i> , 2019, 155, 79-87.	0.8	14
39	Effect of continuous positive airway pressure on breathing variability in early preterm lung disease. <i>Pediatric Pulmonology</i> , 2018, 53, 755-761.	2.0	7
40	Blood pressure-induced physiological strain variability modulates wall structure and function in aorta rings. <i>Physiological Measurement</i> , 2018, 39, 105014.	2.1	9
41	The effect of mechanical or electrical stimulation on apnea length in mice. <i>Biomedical Engineering Letters</i> , 2018, 8, 329-335.	4.1	2
42	Topographic distribution of idiopathic pulmonary fibrosis: a hybrid physics- and agent-based model. <i>Physiological Measurement</i> , 2018, 39, 064007.	2.1	22
43	Design and nonlinear modeling of a sensitive sensor for the measurement of flow in mice. <i>Physiological Measurement</i> , 2018, 39, 075002.	2.1	5
44	Alveolar leak develops by a rich-get-richer process in ventilator-induced lung injury. <i>PLoS ONE</i> , 2018, 13, e0193934.	2.5	26
45	A time-varying biased random walk approach to human growth. <i>Scientific Reports</i> , 2017, 7, 7805.	3.3	7
46	Elastase-Induced Lung Emphysema Models in Mice. <i>Methods in Molecular Biology</i> , 2017, 1639, 67-75.	0.9	32
47	A microfluidic chamber-based approach to map the shear moduli of vascular cells and other soft materials. <i>Scientific Reports</i> , 2017, 7, 2305.	3.3	6
48	Optimization of Variable Ventilation for Physiology, Immune Response and Surfactant Enhancement in Preterm Lambs. <i>Frontiers in Physiology</i> , 2017, 8, 425.	2.8	15
49	Linking Ventilator Injury-Induced Leak across the Blood-Gas Barrier to Derangements in Murine Lung Function. <i>Frontiers in Physiology</i> , 2017, 8, 466.	2.8	31
50	Regulation of Mitochondrial Structure and Dynamics by the Cytoskeleton and Mechanical Factors. <i>International Journal of Molecular Sciences</i> , 2017, 18, 1812.	4.1	132
51	Assessing Structure-Function Relations in Mice Using the Forced Oscillation Technique and Quantitative Histology. <i>Methods in Molecular Biology</i> , 2017, 1639, 77-91.	0.9	5
52	Predicting Structure-Function Relations and Survival following Surgical and Bronchoscopic Lung Volume Reduction Treatment of Emphysema. <i>PLoS Computational Biology</i> , 2017, 13, e1005282.	3.2	9
53	Entropy Production and the Pressure-Volume Curve of the Lung. <i>Frontiers in Physiology</i> , 2016, 7, 73.	2.8	15
54	Mechanical Forces Accelerate Collagen Digestion by Bacterial Collagenase in Lung Tissue Strips. <i>Frontiers in Physiology</i> , 2016, 7, 287.	2.8	29

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55	Characterization of a Mouse Model of Emphysema Induced by Multiple Instillations of Low-Dose Elastase. <i>Frontiers in Physiology</i> , 2016, 7, 457.	2.8	36
56	Regulatory Roles of Fluctuation-Driven Mechanotransduction in Cell Function. <i>Physiology</i> , 2016, 31, 346-358.	3.1	21
57	Homeostatic maintenance via degradation and repair of elastic fibers under tension. <i>Scientific Reports</i> , 2016, 6, 27474.	3.3	10
58	Systems Biology and Clinical Practice in Respiratory Medicine. The Twain Shall Meet. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2016, 194, 1053-1061.	5.6	44
59	Multilineage transduction of resident lung cells in vivo by AAV2/8 for $\alpha$ 1-antitrypsin gene therapy. <i>Molecular Therapy - Methods and Clinical Development</i> , 2016, 3, 16042.	4.1	10
60	Network Approaches to the Mechanical Failure of Soft Tissues: Implications for Disease and Tissue Engineering. , 2016, , 417-437.		0
61	Changes in respiratory elastance after deep inspirations reflect surface film functionality in mice with acute lung injury. <i>Journal of Applied Physiology</i> , 2015, 119, 258-265.	2.5	6
62	Structural Defects Lead to Dynamic Entrapment in Cardiac Electrophysiology. <i>PLoS ONE</i> , 2015, 10, e0119535.	2.5	0
63	A Role of Myocardin Related Transcription Factor-A (MRTF-A) in Scleroderma Related Fibrosis. <i>PLoS ONE</i> , 2015, 10, e0126015.	2.5	77
64	Design of a Novel Equi-Biaxial Stretcher for Live Cellular and Subcellular Imaging. <i>PLoS ONE</i> , 2015, 10, e0140283.	2.5	21
65	Scale dependence of structure-function relationship in the emphysematous mouse lung. <i>Frontiers in Physiology</i> , 2015, 6, 146.	2.8	20
66	Fluctuation-driven mechanotransduction regulates mitochondrial-network structure and function. <i>Nature Materials</i> , 2015, 14, 1049-1057.	27.5	60
67	Biomechanics of the Aging Lung Parenchyma. <i>Engineering Materials and Processes</i> , 2015, , 95-133.	0.4	11
68	Computational modeling helps uncover mechanisms related to the progression of emphysema. <i>Drug Discovery Today: Disease Models</i> , 2015, 15, 9-15.	1.2	5
69	Correlated Variability in the Breathing Pattern and End-Expiratory Lung Volumes in Conscious Humans. <i>PLoS ONE</i> , 2015, 10, e0116317.	2.5	17
70	Phosphorylation of Myosin Light Chain (MLC) is Mitochondrial ATP Dependent and Rho Kinase Independent During Fluctuation-Driven Mechanotransduction. <i>FASEB Journal</i> , 2015, 29, 1029.6.	0.5	0
71	Mechanisms of the Shock Absorber Function in Proximal Aorta. <i>FASEB Journal</i> , 2015, 29, 804.2.	0.5	0
72	Aging impairs smooth muscle-mediated regulation of aortic stiffness: a defect in shock absorption function?. <i>American Journal of Physiology - Heart and Circulatory Physiology</i> , 2014, 307, H1252-H1261.	3.2	47

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73	Proteoglycans Maintain Lung Stability in an Elastase-Treated Mouse Model of Emphysema. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2014, 51, 26-33.	2.9	45
74	A network model of correlated growth of tissue stiffening in pulmonary fibrosis. <i>New Journal of Physics</i> , 2014, 16, 065022.	2.9	19
75	A computational model of the response of adherent cells to stretch and changes in substrate stiffness. <i>Journal of Applied Physiology</i> , 2014, 116, 825-834.	2.5	38
76	Epithelial and endothelial damage induced by mechanical ventilation modes. <i>Current Opinion in Critical Care</i> , 2014, 20, 17-24.	3.2	36
77	Assessing the Functional Mechanical Properties of Bioengineered Organs With Emphasis on the Lung. <i>Journal of Cellular Physiology</i> , 2014, 229, 1134-1140.	4.1	33
78	Tidal Stretches Differently Regulate the Contractile and Cytoskeletal Elements in Intact Airways. <i>PLoS ONE</i> , 2014, 9, e94828.	2.5	6
79	Emphysema and Mechanical Stress-Induced Lung Remodeling. <i>Physiology</i> , 2013, 28, 404-413.	3.1	60
80	A Mechanical Design Principle for Tissue Structure and Function in the Airway Tree. <i>PLoS Computational Biology</i> , 2013, 9, e1003083.	3.2	11
81	A novel device to stretch multiple tissue samples with variable patterns: Application for mRNA regulation in tissue-engineered constructs. <i>Biomatter</i> , 2013, 3, .	2.6	14
82	Combined Effects of Ventilation Mode and Positive End-Expiratory Pressure on Mechanics, Gas Exchange and the Epithelium in Mice with Acute Lung Injury. <i>PLoS ONE</i> , 2013, 8, e53934.	2.5	50
83	Variable ventilation enhances ventilation without exacerbating injury in preterm lambs with respiratory distress syndrome. <i>Pediatric Research</i> , 2012, 72, 384-392.	2.3	12
84	Monitoring the Temporal Changes of Respiratory Resistance: A Novel Test for the Management of Asthma. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2012, 185, 1330-1331.	5.6	28
85	Mechanical failure, stress redistribution, elastase activity and binding site availability on elastin during the progression of emphysema. <i>Pulmonary Pharmacology and Therapeutics</i> , 2012, 25, 268-275.	2.6	33
86	The Major Transitions of Life from a Network Perspective. <i>Frontiers in Physiology</i> , 2012, 3, 94.	2.8	10
87	Jamming dynamics of stretch-induced surfactant release by alveolar type II cells. <i>Journal of Applied Physiology</i> , 2012, 112, 824-831.	2.5	16
88	Roles of Mechanical Forces and Extracellular Matrix Properties in Cellular Signaling in the Lung. , 2012, , 158-178.		0
89	Emergent Structure-Function Relations in Emphysema and Asthma. <i>Critical Reviews in Biomedical Engineering</i> , 2011, 39, 263-280.	0.9	35
90	Microtubule Dynamics Regulate Cyclic Stretch-Induced Cell Alignment in Human Airway Smooth Muscle Cells. <i>PLoS ONE</i> , 2011, 6, e26384.	2.5	62

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91	Lung Parenchymal Mechanics. , 2011, 1, 1317-1351.		139
92	Lung tissue mechanics as an emergent phenomenon. Journal of Applied Physiology, 2011, 110, 1111-1118.	2.5	115
93	Temporal complexity in clinical manifestations of lung disease. Journal of Applied Physiology, 2011, 110, 1723-1731.	2.5	55
94	Structureâ€“Function Relations in an Elastase-Induced Mouse Model of Emphysema. American Journal of Respiratory Cell and Molecular Biology, 2011, 45, 517-524.	2.9	57
95	Dynamics of enzymatic digestion of elastic fibers and networks under tension. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9414-9419.	7.1	10
96	Complexity and Emergent Phenomena. , 2011, 1, 995-1029.		25
97	Linking Microscopic Spatial Patterns of Tissue Destruction in Emphysema to Macroscopic Decline in Stiffness Using a 3D Computational Model. PLoS Computational Biology, 2011, 7, e1001125.	3.2	39
98	Tidal stretches do not modulate responsiveness of intact airways in vitro. Journal of Applied Physiology, 2010, 109, 295-304.	2.5	75
99	In search of complexity. Journal of Applied Physiology, 2010, 109, 1571-1572.	2.5	8
100	Modeling the dynamics of airway constriction: effects of agonist transport and binding. Journal of Applied Physiology, 2010, 109, 553-563.	2.5	29
101	Variability of lung function predicts loss of asthma control following withdrawal of inhaled corticosteroid treatment. Thorax, 2010, 65, 403-408.	5.6	37
102	Mechanical Forces Regulate Elastase Activity and Binding Site Availability in Lung Elastin. Biophysical Journal, 2010, 99, 3076-3083.	0.5	49
103	Reply to Noble, Hernandez, Mitchell, and Janssen. Journal of Applied Physiology, 2010, 109, 940-941.	2.5	5
104	Variable stretch pattern enhances surfactant secretion in alveolar type II cells in culture. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2009, 296, L574-L581.	2.9	98
105	A zipper network model of the failure mechanics of extracellular matrices. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1081-1086.	7.1	33
106	Estimating the diameter of airways susceptible for collapse using crackle sound. Journal of Applied Physiology, 2009, 107, 1504-1512.	2.5	5
107	Three-dimensional measurement of alveolar airspace volumes in normal and emphysematous lungs using micro-CT. Journal of Applied Physiology, 2009, 107, 583-592.	2.5	62
108	Assessment of peripheral lung mechanics. Respiratory Physiology and Neurobiology, 2008, 163, 54-63.	1.6	40

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109	Extracellular matrix mechanics in lung parenchymal diseases. <i>Respiratory Physiology and Neurobiology</i> , 2008, 163, 33-43.	1.6	125
110	Mechanical and Failure Properties of Extracellular Matrix Sheets as a Function of Structural Protein Composition. <i>Biophysical Journal</i> , 2008, 94, 1916-1929.	0.5	64
111	Complexity of chronic asthma and chronic obstructive pulmonary disease: implications for risk assessment, and disease progression and control. <i>Lancet, The</i> , 2008, 372, 1088-1099.	13.7	133
112	Design of a new variable-ventilation method optimized for lung recruitment in mice. <i>Journal of Applied Physiology</i> , 2008, 104, 1329-1340.	2.5	43
113	Morphological mechanism of the development of pulmonary emphysema in klotho mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 2361-2365.	7.1	64
114	Linking Parenchymal Disease Progression to Changes in Lung Mechanical Function by Percolation. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2007, 176, 617-623.	5.6	119
115	Differential effects of static and cyclic stretching during elastase digestion on the mechanical properties of extracellular matrices. <i>Journal of Applied Physiology</i> , 2007, 103, 803-811.	2.5	24
116	Relationship between dynamic respiratory mechanics and disease heterogeneity in sheep lavage injury*. <i>Critical Care Medicine</i> , 2007, 35, 870-878.	0.9	93
117	Rheological Behavior of Living Cells Is Timescale-Dependent. <i>Biophysical Journal</i> , 2007, 93, L39-L41.	0.5	100
118	In silico modeling of interstitial lung mechanics: implications for disease development and repair. <i>Drug Discovery Today: Disease Models</i> , 2007, 4, 139-145.	1.2	26
119	Effects of reduced tidal volume ventilation on pulmonary function in mice before and after acute lung injury. <i>Journal of Applied Physiology</i> , 2007, 103, 1551-1559.	2.5	18
120	Effects of heterogeneities on the partitioning of airway and tissue properties in normal mice. <i>Journal of Applied Physiology</i> , 2007, 102, 859-869.	2.5	38
121	Design of a New Stretching Apparatus and the Effects of Cyclic Strain and Substratum on Mouse Lung Epithelial-12 Cells. <i>Annals of Biomedical Engineering</i> , 2007, 35, 1156-1164.	2.5	25
122	Quantitative characterization of airspace enlargement in emphysema. <i>Journal of Applied Physiology</i> , 2006, 100, 186-193.	2.5	111
123	Comparison of variable and conventional ventilation in a sheep saline lavage lung injury model*. <i>Critical Care Medicine</i> , 2006, 34, 439-445.	0.9	107
124	Early Emphysema in the Tight Skin and Pallid Mice. <i>American Journal of Respiratory Cell and Molecular Biology</i> , 2006, 34, 688-694.	2.9	51
125	Viscoelastic and dynamic nonlinear properties of airway smooth muscle tissue: roles of mechanical force and the cytoskeleton. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2006, 290, L1227-L1237.	2.9	42
126	Separable Least Squares Identification of Long Memory Block Structured Models: Application to Lung Tissue Viscoelasticity. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006, , .	0.5	0



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127	Effects of elastase on the mechanical and failure properties of engineered elastin-rich matrices. <i>Journal of Applied Physiology</i> , 2005, 98, 1434-1441.	2.5	33
128	Mechanics, nonlinearity, and failure strength of lung tissue in a mouse model of emphysema: possible role of collagen remodeling. <i>Journal of Applied Physiology</i> , 2005, 98, 503-511.	2.5	122
129	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
130	Risk of severe asthma episodes predicted from fluctuation analysis of airway function. <i>Nature</i> , 2005, 438, 667-670.	27.8	196
131	On the Role of Surface Tension in the Pathophysiology of Emphysema. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2005, 171, 300-304.	5.6	32
132	Relating Airway Diameter Distributions to Regular Branching Asymmetry in the Lung. <i>Physical Review Letters</i> , 2005, 95, 168101.	7.8	50
133	Biomechanics of the lung parenchyma: critical roles of collagen and mechanical forces. <i>Journal of Applied Physiology</i> , 2005, 98, 1892-1899.	2.5	263
134	Decreasing size of cardiogenic oscillations reflects decreasing compliance of the respiratory system during long-term ventilation. <i>Journal of Applied Physiology</i> , 2004, 96, 879-884.	2.5	555
135	Tissue heterogeneity in the mouse lung: effects of elastase treatment. <i>Journal of Applied Physiology</i> , 2004, 97, 204-212.	2.5	106
136	Rheology of airway smooth muscle cells is associated with cytoskeletal contractile stress. <i>Journal of Applied Physiology</i> , 2004, 96, 1600-1605.	2.5	128
137	Impact of microvascular circulation on peripheral lung stability. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2004, 287, L879-L889.	2.9	26
138	Perimeter growth of a branched structure: Application to crackle sounds in the lung. <i>Physical Review E</i> , 2003, 68, 011909.	2.1	9
139	FLUCTUATIONS, NOISE AND SCALING IN THE CARDIO-PULMONARY SYSTEM. <i>Fluctuation and Noise Letters</i> , 2003, 03, R1-R25.	1.5	31
140	On the Progressive Nature of Emphysema. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2003, 168, 516-521.	5.6	158
141	Lung and alveolar wall elastic and hysteretic behavior in rats: effects of in vivo elastase treatment. <i>Journal of Applied Physiology</i> , 2003, 95, 1926-1936.	2.5	71
142	Variable ventilation induces endogenous surfactant release in normal guinea pigs. <i>American Journal of Physiology - Lung Cellular and Molecular Physiology</i> , 2003, 285, L370-L375.	2.9	108
143	Temporal dynamics of recurrent airway symptoms and cellular random walk. <i>Journal of Applied Physiology</i> , 2003, 95, 2122-2127.	2.5	15
144	Variable Tidal Volume Ventilation Improves Lung Mechanics and Gas Exchange in a Rodent Model of Acute Lung Injury. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2002, 165, 366-371.	5.6	108

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145	Correlation properties of tidal volume and end-tidal $O_2$ and $CO_2$ concentrations in healthy infants. <i>Journal of Applied Physiology</i> , 2002, 92, 1817-1827.	2.5	49
146	Fluctuations and Power Laws in Pulmonary Physiology. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2002, 166, 133-137.	5.6	115
147	Dynamic instabilities in the inflating lung. <i>Nature</i> , 2002, 417, 809-811.	27.8	84
148	Hysteresivity of the lung and tissue strip in the normal rat: effects of heterogeneities. <i>Journal of Applied Physiology</i> , 2001, 91, 737-747.	2.5	50
149	Analysis of the harmonic content of the tidal flow waveforms in infants. <i>Journal of Applied Physiology</i> , 2001, 91, 1687-1693.	2.5	16
150	Roles of Mechanical Forces and Collagen Failure in the Development of Elastase-induced Emphysema. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2001, 164, 1920-1926.	5.6	150
151	Airway Constriction Pattern Is a Central Component of Asthma Severity. <i>American Journal of Respiratory and Critical Care Medicine</i> , 2001, 164, 207-215.	5.6	160
152	Avalanche Dynamics of Crackle Sound in the Lung. <i>Physical Review Letters</i> , 2001, 87, 088101.	7.8	40
153	Effects of collagenase and elastase on the mechanical properties of lung tissue strips. <i>Journal of Applied Physiology</i> , 2000, 89, 3-14.	2.5	134
154	Size distribution of recruited alveolar volumes in airway reopening. <i>Journal of Applied Physiology</i> , 2000, 89, 2030-2040.	2.5	29
155	A three-dimensional model of the human airway tree. <i>Journal of Applied Physiology</i> , 1999, 87, 2207-2217.	2.5	237
156	Scaling behavior in crackle sound during lung inflation. <i>Physical Review E</i> , 1999, 60, 4659-4663.	2.1	26
157	Parametric and Nonparametric Nonlinear System Identification of Lung Tissue Strip Mechanics. <i>Annals of Biomedical Engineering</i> , 1999, 27, 548-562.	2.5	24
158	A Frequency Domain Approach to Nonlinear and Structure Identification for Long Memory Systems: Application to Lung Mechanics. <i>Annals of Biomedical Engineering</i> , 1999, 27, 1-13.	2.5	16
159	Sensitivity Analysis for Evaluating Nonlinear Models of Lung Mechanics. <i>Annals of Biomedical Engineering</i> , 1998, 26, 230-241.	2.5	21
160	Sensitivity Analysis of Kernel Estimates: Implications in Nonlinear Physiological System Identification. <i>Annals of Biomedical Engineering</i> , 1998, 26, 488-501.	2.5	14
161	Factors Affecting Volterra Kernel Estimation: Emphasis on Lung Tissue Viscoelasticity. <i>Annals of Biomedical Engineering</i> , 1998, 26, 103-116.	2.5	14
162	Mathematical Modeling of the First Inflation of Degassed Lungs. <i>Annals of Biomedical Engineering</i> , 1998, 26, 608-617.	2.5	30

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163	Volume distributions of avalanches in lung inflation: A statistical mechanical approach. <i>Physical Review E</i> , 1997, 56, 3385-3394.	2.1	14
164	Partitioning of lung tissue response and inhomogeneous airway constriction at the airway opening. <i>Journal of Applied Physiology</i> , 1997, 82, 1349-1359.	2.5	69
165	Branching design of the bronchial tree based on a diameter-flow relationship. <i>Journal of Applied Physiology</i> , 1997, 82, 968-976.	2.5	68
166	Dynamic properties of lung parenchyma: mechanical contributions of fiber network and interstitial cells. <i>Journal of Applied Physiology</i> , 1997, 83, 1420-1431.	2.5	107
167	Avalanches in the Lung: A Statistical Mechanical Model. <i>Physical Review Letters</i> , 1996, 76, 2192-2195.	7.8	52
168	Harmonic distortion from nonlinear systems with broadband inputs: Applications to lung mechanics. <i>Annals of Biomedical Engineering</i> , 1995, 23, 672-681.	2.5	32
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