Daniel Navajas

List of Publications by Year
in descending order

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239 papers	37,647 citations	20817 60 h-index	2953 189 g-index
244 all docs	244 docs citations	244 times ranked	33177 citing authors

#	Article	IF	Citations
1	Standardisation of spirometry. European Respiratory Journal, 2005, 26, 319-338.	6.7	12,939
2	Interpretative strategies for lung function tests. European Respiratory Journal, 2005, 26, 948-968.	6.7	4,712
3	Standardisation of the measurement of lung volumes. European Respiratory Journal, 2005, 26, 511-522.	6.7	2,253
4	Standardisation of the single-breath determination of carbon monoxide uptake in the lung. European Respiratory Journal, 2005, 26, 720-735.	6.7	1,925
5	General considerations for lung function testing. European Respiratory Journal, 2005, 26, 153-161.	6.7	1,661
6	Scaling the Microrheology of Living Cells. Physical Review Letters, 2001, 87, 148102.	7.8	1,056
7	Force Triggers YAP Nuclear Entry by Regulating Transport across Nuclear Pores. Cell, 2017, 171, 1397-1410.e14.	28.9	927
8	Microrheology of Human Lung Epithelial Cells Measured by Atomic Force Microscopy. Biophysical Journal, 2003, 84, 2071-2079.	0.5	630
9	Universal physical responses to stretch in the living cell. Nature, 2007, 447, 592-595.	27.8	626
10	Collective cell durotaxis emerges from long-range intercellular force transmission. Science, 2016, 353, 1157-1161.	12.6	484
11	Effectiveness of CPAP Treatment in Daytime Function in Sleep Apnea Syndrome. American Journal of Respiratory and Critical Care Medicine, 2001, 164, 608-613.	5.6	320
12	Time scale and other invariants of integrative mechanical behavior in living cells. Physical Review E, 2003, 68, 041914.	2.1	317
13	Probing mechanical properties of living cells by atomic force microscopy with blunted pyramidal cantilever tips. Physical Review E, 2005, 72, 021914.	2.1	316
14	Alzheimerâ€™s Disease Mutant Mice Exhibit Reduced Brain Tissue Stiffness Compared to Wild-type Mice in both Normoxia and following Intermittent Hypoxia Mimicking Sleep Apnea. Frontiers in Neurology, 2018, 9, 1.	2.4	250
15	Force loading explains spatial sensing of ligands by cells. Nature, 2017, 552, 219-224.	27.8	244
16	Automatic control of tracheal tube cuff pressure in ventilated patients in semirecumbent position: A randomized trial*. Critical Care Medicine, 2007, 35, 1543-1549.	0.9	201
17	Intermittent hypoxia alters gut microbiota diversity in a mouse model of sleep apnoea. European Respiratory Journal, 2015, 45, 1055-1065.	6.7	199
18	Standardized Nanomechanical Atomic Force Microscopy Procedure (SNAP) for Measuring Soft and Biological Samples. Scientific Reports, 2017, 7, 5117.	3.3	195

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19	Intermittent hypoxia enhances cancer progression in a mouse model of sleep apnoea. European Respiratory Journal, 2012, 39, 215-217.	6.7	190
20	Micropatterning of Single Endothelial Cell Shape Reveals a Tight Coupling between Nuclear Volume in G1 and Proliferation. Biophysical Journal, 2008, 94, 4984-4995.	0.5	168
21	Past, present and future of atomic force microscopy in life sciences and medicine. Journal of Molecular Recognition, 2007, 20, 418-431.	2.1	165
22	Correction of Microrheological Measurements of Soft Samples with Atomic Force Microscopy for the Hydrodynamic Drag on the Cantilever. Langmuir, 2002, 18, 716-721.	3.5	161
23	Evaluation of nasal prongs for estimating nasal flow.. American Journal of Respiratory and Critical Care Medicine, 1997, 155, 211-215.	5.6	159
24	Mechanical properties of cultured human airway smooth muscle cells from 0.05 to 0.4 Hz. Journal of Applied Physiology, 2000, 89, 1619-1632.	2.5	146
25	Intermittent hypoxia increases melanoma metastasis to the lung in a mouse model of sleep apnea. Respiratory Physiology and Neurobiology, 2013, 186, 303-307.	1.6	143
26	Measurement of cell microrheology by magnetic twisting cytometry with frequency domain demodulation. Journal of Applied Physiology, 2001, 91, 1152-1159.	2.5	136
27	Viscoelasticity of human alveolar epithelial cells subjected to stretch. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2004, 287, L1025-L1034.	2.9	132
28	Stability of Microfabricated High Aspect Ratio Structures in Poly(dimethylsiloxane). Langmuir, 2005, 21, 5542-5548.	3.5	132
29	The local microenvironment limits the regenerative potential of the mouse neonatal heart. Science Advances, 2018, 4, eaao5553.	10.3	124
30	Hydraulic fracture during epithelial stretching. Nature Materials, 2015, 14, 343-351.	27.5	122
31	Obesity and intermittent hypoxia increase tumor growth in a mouse model of sleep apnea. Sleep Medicine, 2012, 13, 1254-1260.	1.6	117
32	Vascular Smooth Muscle Cell Phenotypic Changes in Patients With Marfan Syndrome. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, 960-972.	2.4	116
33	Accuracy of thermistors and thermocouples as flow-measuring devices for detecting hypopnoeas. European Respiratory Journal, 1998, 11, 179-182.	6.7	115
34	Response of Automatic Continuous Positive Airway Pressure Devices to Different Sleep Breathing Patterns. American Journal of Respiratory and Critical Care Medicine, 2002, 166, 469-473.	5.6	106
35	Electroencephalographic slowing heralds mild cognitive impairment in idiopathic REM sleep behavior disorder. Sleep Medicine, 2010, 11, 534-539.	1.6	97
36	Tissue Oxygenation in Brain, Muscle, and Fat in a Rat Model of Sleep Apnea: Differential Effect of Obstructive Apneas and Intermittent Hypoxia. Sleep, 2011, 34, 1127-1133.	1.1	93

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37	Snail1-Expressing Fibroblasts in the Tumor Microenvironment Display Mechanical Properties That Support Metastasis. Cancer Research, 2015, 75, 284-295.	0.9	92
38	Physical principles of membrane remodelling during cell mechanoadaptation. Nature Communications, 2015, 6, 7292.	12.8	91
39	Probing Micromechanical Properties of the Extracellular Matrix of Soft Tissues by Atomic Force Microscopy. Journal of Cellular Physiology, 2017, 232, 19-26.	4.1	91
40	Noninvasive monitoring of respiratory mechanics during sleep. European Respiratory Journal, 2004, 24, 1052-1060.	6.7	88
41	A comprehensive evaluation of popular proteomics software workflows for label-free proteome quantification and imputation. Briefings in Bioinformatics, 2018, 19, 1344-1355.	6.5	88
42	Assessment of Airflow Obstruction during CPAP by Means of Forced Oscillation in Patients with Sleep Apnea. American Journal of Respiratory and Critical Care Medicine, 1998, 157, 1526-1530.	5.6	85
43	Cytoskeletal mechanics in adherent human airway smooth muscle cells: probe specificity and scaling of protein-protein dynamics. American Journal of Physiology - Cell Physiology, 2004, 287, C643-C654.	4.6	85
44	Rheology of Passive and Adhesion-Activated Neutrophils Probed by Atomic Force Microscopy. Biophysical Journal, 2006, 91, 3508-3518.	0.5	85
45	Effects of freezing/thawing on the mechanical properties of decellularized lungs. Journal of Biomedical Materials Research - Part A, 2014, 102, 413-419.	4.0	85
46	Lung tissue rheology and 1/f noise. Annals of Biomedical Engineering, 1994, 22, 674-681.	2.5	82
47	Mechanobiology in Lung Epithelial Cells: Measurements, Perturbations, and Responses. , 2012, 2, 1-29.		82
48	Vibration Enhances Interleukin-8 Release in a Cell Model of Snoring-Induced Airway Inflammation. Sleep, 2005, 28, 1312-1316.	1.1	79
49	Respiratory input impedance in anesthetized paralyzed patients. Journal of Applied Physiology, 1990, 69, 1372-1379.	2.5	78
50	Sham continuous positive airway pressure for placebo-controlled studies in sleep apnoea. Lancet, The, 1999, 353, 1154.	13.7	77
51	Performance of Nasal Prongs in Sleep Studies. Chest, 2001, 119, 442-450.	0.8	77
52	Local micromechanical properties of decellularized lung scaffolds measured with atomic force microscopy. Acta Biomaterialia, 2013, 9, 6852-6859.	8.3	77
53	Noninvasive detection of expiratory flow limitation in COPD patients during nasal CPAP. European Respiratory Journal, 2006, 27, 983-991.	6.7	75
54	Rat Model of Chronic Recurrent Airway Obstructions to Study the Sleep Apnea Syndrome. Sleep, 2007, 30, 930-933.	1.1	74

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55	Mapping Cell-Matrix Stresses during Stretch Reveals Inelastic Reorganization of the Cytoskeleton. Biophysical Journal, 2008, 95, 464-471.	0.5	70
56	Effect of body posture on respiratory impedance. Journal of Applied Physiology, 1988, 64, 194-199.	2.5	69
57	Upper-Airway Inflammation Triggered by Vibration in a Rat Model of Snoring. Sleep, 2007, 30, 225-227.	1.1	67
58	Dynamic viscoelastic nonlinearity of lung parenchymal tissue. Journal of Applied Physiology, 1995, 79, 348-356.	2.5	66
59	Relevance of Linearizing Nasal Prongs for Assessing Hypopneas and Flow Limitation During Sleep. American Journal of Respiratory and Critical Care Medicine, 2001, 163, 494-497.	5.6	64
60	The temperature dependence of cell mechanics measured by atomic force microscopy. Physical Biology, 2009, 6, 025009.	1.8	64
61	Bidirectional mechanobiology between cells and their local extracellular matrix probed by atomic force microscopy. Seminars in Cell and Developmental Biology, 2018, 73, 71-81.	5.0	63
62	Automatic regulation of the cuff pressure in endotracheally-intubated patients. European Respiratory Journal, 2002, 20, 1010-1013.	6.7	62
63	Male Fertility Is Reduced by Chronic Intermittent Hypoxia Mimicking Sleep Apnea in Mice. Sleep, 2014, 37, 1757-1765.	1.1	61
64	Inspiratory dynamic obstruction detected by forced oscillation during CPAP. A model study.. American Journal of Respiratory and Critical Care Medicine, 1997, 155, 952-956.	5.6	60
65	Importance of the Pulse Oximeter Averaging Time When Measuring Oxygen Desaturation in Sleep Apnea. Sleep, 1998, 21, 386-390.	1.1	60
66	Bench Model To Simulate Upper Airway Obstruction for Analyzing Automatic Continuous Positive Airway Pressure Devices. Chest, 2006, 130, 350-361.	0.8	60
67	Nasal prongs in the detection of sleep-related disordered breathing in the sleep apnoea/hypopnoea syndrome. European Respiratory Journal, 1998, 11, 880-883.	6.7	59
68	Thrombin and histamine induce stiffening of alveolar epithelial cells. Journal of Applied Physiology, 2005, 98, 1567-1574.	2.5	59
69	Low-cost, easy-to-build noninvasive pressure support ventilator for under-resourced regions: open source hardware description, performance and feasibility testing. European Respiratory Journal, 2020, 55, 2000846.	6.7	58
70	Ventilation-Perfusion Mismatch after Methacholine Challenge in Patients with Mild Bronchial Asthma. The American Review of Respiratory Disease, 1991, 144, 88-94.	2.9	57
71	Differential Oxygenation in Tumor Microenvironment Modulates Macrophage and Cancer Cell Crosstalk: Novel Experimental Setting and Proof of Concept. Frontiers in Oncology, 2019, 9, 43.	2.8	56
72	A system to generate simultaneous forced oscillation and continuous positive airway pressure. European Respiratory Journal, 1997, 10, 1349-1353.	6.7	55

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73	Forced oscillation technique for the evaluation of severe sleep apnoea/hypopnoea syndrome: a pilot study. European Respiratory Journal, 1998, 11, 1128-1134.	6.7	52
74	Clinical Application of the Forced Oscillation Technique for CPAP Titration in the Sleep Apnea/Hypopnea Syndrome. American Journal of Respiratory and Critical Care Medicine, 1999, 160, 1550-1554.	5.6	51
75	Effects of the Decellularization Method on the Local Stiffness of Acellular Lungs. Tissue Engineering - Part C: Methods, 2014, 20, 412-422.	2.1	51
76	Heterogeneous micromechanical properties of the extracellular matrix in healthy and infarcted hearts. Acta Biomaterialia, 2014, 10, 3235-3242.	8.3	51
77	Fibroblast viability and phenotypic changes within glycated stiffened three-dimensional collagen matrices. Respiratory Research, 2015, 16, 82.	3.6	51
78	Proteomics Analysis of Extracellular Matrix Remodeling During Zebrafish Heart Regeneration. Molecular and Cellular Proteomics, 2019, 18, 1745-1755.	3.8	51
79	Upper airway collapse and reopening induce inflammation in a sleep apnoea model. European Respiratory Journal, 2008, 32, 399-404.	6.7	50
80	Inhomogeneity of local stiffness in the extracellular matrix scaffold of fibrotic mouse lungs. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 37, 186-195.	3.1	50
81	Collapsible upper airway segment to study the obstructive sleep apnea/hypopnea syndrome in rats. Respiratory Physiology and Neurobiology, 2003, 136, 199-209.	1.6	49
82	Nonlinear elasticity of the lung extracellular microenvironment is regulated by macroscale tissue strain. Acta Biomaterialia, 2019, 92, 265-276.	8.3	49
83	Intermittent Hypoxia Severity in Animal Models of Sleep Apnea. Frontiers in Physiology, 2018, 9, 1556.	2.8	47
84	Performance of mechanical ventilators at the patient's home: a multicentre quality control study. Thorax, 2006, 61, 400-404.	5.6	46
85	Pre-treatment with mesenchymal stem cells reduces ventilator-induced lung injury. European Respiratory Journal, 2012, 40, 939-948.	6.7	45
86	Head-to-head comparison of two engineered cardiac grafts for myocardial repair: From scaffold characterization to pre-clinical testing. Scientific Reports, 2018, 8, 6708.	3.3	45
87	A New mHealth application to support treatment of sleep apnoea patients. Journal of Telemedicine and Telecare, 2017, 23, 14-18.	2.7	43
88	Effects of Sustained and Intermittent Hypoxia on Human Lung Cancer Cells. American Journal of Respiratory Cell and Molecular Biology, 2019, 61, 540-544.	2.9	43
89	A Novel Chip for Cyclic Stretch and Intermittent Hypoxia Cell Exposures Mimicking Obstructive Sleep Apnea. Frontiers in Physiology, 2016, 7, 319.	2.8	42
90	Thrombin-induced contraction in alveolar epithelial cells probed by traction microscopy. Journal of Applied Physiology, 2006, 101, 512-520.	2.5	41

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91	Telemedicine-Based Approach for Obstructive Sleep Apnea Management: Building Evidence. Interactive Journal of Medical Research, 2014, 3, e6.	1.4	41
92	Cell dynamic adhesion and elastic properties probed with cylindrical atomic force microscopy cantilever tips. Journal of Molecular Recognition, 2007, 20, 459-466.	2.1	40
93	Definition of COPD: based on evidence or opinion?. European Respiratory Journal, 2008, 31, 681-682.	6.7	40
94	Servocontrolled generator to measure respiratory impedance from 0.25 to 26 Hz in ventilated patients at different PEEP levels. European Respiratory Journal, 1995, 8, 1222-1227.	6.7	39
95	Biological consequences of oxygen desaturation and respiratory effort in an acute animal model of obstructive sleep apnea (OSA). Sleep Medicine, 2009, 10, 892-897.	1.6	39
96	Role of Cyclooxygenase-2 on Intermittent Hypoxia-Induced Lung Tumor Malignancy in a Mouse Model of Sleep Apnea. Scientific Reports, 2017, 7, 44693.	3.3	38
97	Leaves of isopreneâ€emitting tobacco plants maintain PSII stability at high temperatures. New Phytologist, 2019, 223, 1307-1318.	7.3	38
98	In vitro comparative study of two decellularization protocols in search of an optimal myocardial scaffold for recellularization. American Journal of Translational Research (discontinued), 2015, 7, 558-73.	0.0	37
99	Respiratory mechanics in ventilated COPD patients: forced oscillation versus occlusion techniques. European Respiratory Journal, 1998, 12, 170-176.	6.7	36
100	Rapid detection of sepsis in rats through volatile organic compounds in breath. Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences, 2012, 881-882, 76-82.	2.3	36
101	A correction procedure for the asymmetry of differential pressure transducers in respiratory impedance measurements. IEEE Transactions on Biomedical Engineering, 1989, 36, 1137-1140.	4.2	35
102	Human respiratory impedance from 8 to 256 Hz corrected for upper airway shunt. Journal of Applied Physiology, 1989, 67, 1973-1981.	2.5	34
103	Mechanical properties of mouse lungs along organ decellularization by sodium dodecyl sulfate. Respiratory Physiology and Neurobiology, 2014, 200, 1-5.	1.6	34
104	Gas Partial Pressure in Cultured Cells: Patho-Physiological Importance and Methodological Approaches. Frontiers in Physiology, 2018, 9, 1803.	2.8	34
105	Morbidity due to obstructive sleep apnea: insights from animal models. Current Opinion in Pulmonary Medicine, 2008, 14, 530-536.	2.6	33
106	Changes in oxygen partial pressure of brain tissue in an animal model of obstructive apnea. Respiratory Research, 2010, 11, 3.	3.6	33
107	Silk-Reinforced Collagen Hydrogels with Raised Multiscale Stiffness for Mesenchymal Cells 3D Culture. Tissue Engineering - Part A, 2020, 26, 358-370.	3.1	33
108	Noninvasive assessment of respiratory resistance in severe chronic respiratory patients with nasal CPAP. European Respiratory Journal, 2000, 15, 314.	6.7	32

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109	Telemetric CPAP titration at home in patients with sleep apneaâ€“hypopnea syndrome. Sleep Medicine, 2011, 12, 153-157.	1.6	32
110	Intermittent Hypoxia Mimicking Sleep Apnea Increases Passive Stiffness of Myocardial Extracellular Matrix. A Multiscale Study. Frontiers in Physiology, 2018, 9, 1143.	2.8	32
111	Obstructive apneas induce early release of mesenchymal stem cells into circulating blood. Sleep, 2009, 32, 117-9.	1.1	32
112	Oscillatory Resistance Measured during Noninvasive Proportional Assist Ventilation. American Journal of Respiratory and Critical Care Medicine, 2001, 164, 790-794.	5.6	31
113	Integrin-Specific Mechanoresponses to Compression and Extension Probed by Cylindrical Flat-Ended AFM Tips in Lung Cells. PLoS ONE, 2012, 7, e32261.	2.5	31
114	Mechanical properties of acellular mouse lungs after sterilization by gamma irradiation. Journal of the Mechanical Behavior of Biomedical Materials, 2014, 40, 168-177.	3.1	31
115	Finite element simulation for the mechanical characterization of soft biological materials by atomic force microscopy. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 62, 222-235.	3.1	31
116	Effect of expiratory flow limitation on respiratory mechanical impedance: a model study. Journal of Applied Physiology, 1996, 81, 2399-2406.	2.5	30
117	Effects of Halothane and Isoflurane on Ventilation and Occlusion Pressure. Anesthesiology, 1994, 81, 563-571.	2.5	29
118	Forced oscillation assessment of respiratory mechanics in ventilated patients. Critical Care, 2001, 5, 3.	5.8	29
119	Development of a Three-Dimensional Bone-Like Construct in a Soft Self-Assembling Peptide Matrix. Tissue Engineering - Part A, 2013, 19, 870-881.	3.1	29
120	Brain Tissue Hypoxia and Oxidative Stress Induced by Obstructive Apneas is Different in Young and Aged Rats. Sleep, 2014, 37, 1249-1256.	1.1	29
121	Continuous Positive Airway Pressure (CPAP) Induces Early Nasal Inflammation. Sleep, 2008, 31, 127-131.	1.1	28
122	Pressure- and flow-controlled media perfusion differently modify vascular mechanics in lung decellularization. Journal of the Mechanical Behavior of Biomedical Materials, 2015, 49, 69-79.	3.1	28
123	Polarized cortical tension drives zebrafish epiboly movements. EMBO Journal, 2017, 36, 25-41.	7.8	28
124	Forced oscillation total respiratory resistance and spontaneous breathing lung resistance in COPD patients. European Respiratory Journal, 1999, 14, 172.	6.7	28
125	Evaluation of a simplified oscillation technique for assessing airway obstruction in sleep apnoea. European Respiratory Journal, 2001, 17, 456-461.	6.7	27
126	Effect of stretch on structural integrity and micromechanics of human alveolar epithelial cell monolayers exposed to thrombin. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2006, 290, L1104-L1110.	2.9	27

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127	First-in-human PeriCord cardiac bioimplant: Scalability and GMP manufacturing of an allogeneic engineered tissue graft. EBioMedicine, 2020, 54, 102729.	6.1	27
128	Assessment of bronchial reactivity by forced oscillation admittance avoids the upper airway artefact. European Respiratory Journal, 1999, 13, 761.	6.7	27
129	Elastic properties of hydrogels and decellularized tissue sections used in mechanobiology studies probed by atomic force microscopy. Microscopy Research and Technique, 2017, 80, 85-96.	2.2	26
130	Bioprintable Lung Extracellular Matrix Hydrogel Scaffolds for 3D Culture of Mesenchymal Stromal Cells. Polymers, 2021, 13, 2350.	4.5	26
131	Static and Dynamic Upper Airway Obstruction in Sleep Apnea. American Journal of Respiratory and Critical Care Medicine, 2003, 168, 659-663.	5.6	25
132	Low oxygen tension enhances the generation of lung progenitor cells from mouse embryonic and induced pluripotent stem cells. Physiological Reports, 2014, 2, e12075.	1.7	25
133	Bioprinting Decellularized Breast Tissue for the Development of Three-Dimensional Breast Cancer Models. ACS Applied Materials & Interfaces, 2022, 14, 29467-29482.	8.0	25
134	A new estimator to minimize the error due to breathing in the measurement of respiratory impedance. IEEE Transactions on Biomedical Engineering, 1988, 35, 1001-1005.	4.2	24
135	A portable forced oscillation device for respiratory home monitoring. European Respiratory Journal, 2002, 19, 146-150.	6.7	24
136	Early and mid-term effects of obstructive apneas in myocardial injury and inflammation. Sleep Medicine, 2011, 12, 1037-1040.	1.6	24
137	Flow-dependent Positive Airway Pressure to Maintain Airway Patency in Sleep Apneaâ€“Hypopnea Syndrome. American Journal of Respiratory and Critical Care Medicine, 1998, 157, 1855-1863.	5.6	23
138	Quality control of mechanical ventilation at the patient's home. Intensive Care Medicine, 2003, 29, 484-486.	8.2	23
139	Obstructive apneas induce early activation of mesenchymal stem cells and enhancement of endothelial wound healing. Respiratory Research, 2010, 11, 91.	3.6	22
140	Barrier-Protective Effects of Activated Protein C in Human Alveolar Epithelial Cells. PLoS ONE, 2013, 8, e56965.	2.5	22
141	Frequency and magnitude of intermittent hypoxia modulate endothelial wound healing in a cell culture model of sleep apnea. Journal of Applied Physiology, 2017, 123, 1047-1054.	2.5	22
142	Oscillometric assessment of airway obstruction in a mechanical model of vocal cord dysfunction. Journal of Biomechanics, 2004, 37, 37-43.	2.1	21
143	Animal model of unilateral ventilator-induced lung injury. Intensive Care Medicine, 2005, 31, 487-490.	8.2	21
144	Mesenchymal stem cells reduce inflammation in a rat model of obstructive sleep apnea. Respiratory Physiology and Neurobiology, 2010, 172, 210-212.	1.6	21

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145	Aging Reduces Intermittent Hypoxiaâ€“induced Lung Carcinoma Growth in a Mouse Model of Sleep Apnea. American Journal of Respiratory and Critical Care Medicine, 2018, 198, 1234-1236.	5.6	21
146	Early Impairment of Lung Mechanics in a Murine Model of Marfan Syndrome. PLoS ONE, 2016, 11, e0152124.	2.5	21
147	Forced oscillation measurements do not affect upper airway muscle tone or sleep in clinical studies. European Respiratory Journal, 2001, 18, 335-339.	6.7	19
148	Unsupervised self-testing of airway obstruction by forced oscillation at the patient's home. European Respiratory Journal, 2003, 22, 668-671.	6.7	19
149	Thermal activation and ATP dependence of the cytoskeleton remodeling dynamics. Physical Review E, 2009, 79, 051920.	2.1	19
150	Lung bioengineering: physical stimuli and stem/progenitor cell biology interplay towards biofabricating a functional organ. Respiratory Research, 2016, 17, 161.	3.6	19
151	Is Telemedicine a Key Tool for Improving Continuous Positive Airway Pressure Adherence in Patients with Sleep Apnea?. American Journal of Respiratory and Critical Care Medicine, 2018, 197, 12-14.	5.6	19
152	Analysis of the dynamic characteristics of pressure transducers for studying respiratory mechanics at high frequencies. Medical and Biological Engineering and Computing, 1989, 27, 531-537.	2.8	18
153	Assessment of upper airway mechanics during sleep. Respiratory Physiology and Neurobiology, 2008, 163, 74-81.	1.6	18
154	Potential Role of Adult Stem Cells in Obstructive Sleep Apnea. Frontiers in Neurology, 2012, 3, 112.	2.4	18
155	Evaluation of a method for assessing respiratory mechanics during noninvasive ventilation. European Respiratory Journal, 2000, 16, 704.	6.7	18
156	Density dependence of respiratory input and transfer impedances in humans. Journal of Applied Physiology, 1988, 65, 928-933.	2.5	17
157	Human lung impedance from spontaneous breathing frequencies to 32 Hz. Journal of Applied Physiology, 1994, 76, 1176-1183.	2.5	17
158	Comparative assessment of several automatic CPAP devices' responses: a bench test study. ERJ Open Research, 2015, 1, 00031-2015.	2.6	17
159	Baseline Stiffness Modulates the Non-Linear Response to Stretch of the Extracellular Matrix in Pulmonary Fibrosis. International Journal of Molecular Sciences, 2021, 22, 12928.	4.1	17
160	Time-domain digital filter to improve signal-to-noise ratio in respiratory impedance measurements. Medical and Biological Engineering and Computing, 1991, 29, 18-24.	2.8	16
161	Analog circuit for real-time computation of respiratory mechanical impedance in sleep studies. IEEE Transactions on Biomedical Engineering, 1997, 44, 1156-1159.	4.2	16
162	Obstructive Apneas Induce Early Release of Mesenchymal Stem Cells into Circulating Blood. Sleep, 2009, , .	1.1	16

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163	Non-invasive system for applying airway obstructions to model obstructive sleep apnea in mice. Respiratory Physiology and Neurobiology, 2011, 175, 164-168.	1.6	16
164	A bioreactor for subjecting cultured cells to fast-rate intermittent hypoxia. Respiratory Physiology and Neurobiology, 2012, 182, 47-52.	1.6	16
165	Chronic intermittent hypoxia preserves bone density in a mouse model of sleep apnea. Respiratory Physiology and Neurobiology, 2013, 189, 646-648.	1.6	16
166	Cost-Effectiveness of a New Internet-Based Monitoring Tool for Neonatal Post-Discharge Home Care. Journal of Medical Internet Research, 2013, 15, e38.	4.3	16
167	Effects of two different decellularization routes on the mechanical properties of decellularized lungs. PLoS ONE, 2017, 12, e0178696.	2.5	15
168	Novel Decellularization Method for Tissue Slices. Frontiers in Bioengineering and Biotechnology, 2022, 10, 832178.	4.1	15
169	Assessment of respiratory pressure-volume nonlinearity in rabbits during mechanical ventilation. Journal of Applied Physiology, 1996, 80, 1637-1648.	2.5	14
170	A simplified method for monitoring respiratory impedance during continuous positive airway pressure. European Respiratory Journal, 2000, 15, 185-191.	6.7	14
171	A Novel Simple Internet-Based System for Real Time Monitoring and Optimizing Home Mechanical Ventilation. , 2009, , .		14
172	Antioxidant effect of human adult adipose-derived stromal stem cells in alveolar epithelial cells undergoing stretch. Respiratory Physiology and Neurobiology, 2013, 188, 1-8.	1.6	14
173	Development of Cell-Derived Matrices for Three-Dimensional In Vitro Cancer Cell Models. ACS Applied Materials & Interfaces, 2021, 13, 44108-44123.	8.0	14
174	Potential Rebreathing After Continuous Positive Airway Pressure Failure During Sleep. Chest, 2002, 121, 196-200.	0.8	13
175	Technology for noninvasive mechanical ventilation: looking into the black box. ERJ Open Research, 2016, 2, 00004-2016.	2.6	13
176	Ageing and chronic intermittent hypoxia mimicking sleep apnea do not modify local brain tissue stiffness in healthy mice. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 71, 106-113.	3.1	13
177	Bioengineered Lungs: A Challenge and An Opportunity. Archivos De Bronconeumologia, 2018, 54, 31-38.	0.8	13
178	Lung cancer aggressiveness in an intermittent hypoxia murine model of postmenopausal sleep apnea. Menopause, 2020, 27, 706-713.	2.0	13
179	Actual performance of mechanical ventilators in ICU: a multicentric quality control study. Medical Devices: Evidence and Research, 2012, 5, 111.	0.8	12
180	Easy-to-build and affordable continuous positive airway pressure CPAP device for adult patients in low-income countries. European Respiratory Journal, 2019, 53, 1802290.	6.7	12

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181	Novel Approach for Providing Pediatric Continuous Positive Airway Pressure Devices in Low-Income, Underresourced Regions. American Journal of Respiratory and Critical Care Medicine, 2019, 199, 118-120.	5.6	12
182	Biophysically Preconditioning Mesenchymal Stem Cells Improves Treatment of Ventilator-Induced Lung Injury. Archivos De Bronconeumologia, 2020, 56, 179-181.	0.8	12
183	Condensation of the Drosophila nerve cord is oscillatory and depends on coordinated mechanical interactions. Developmental Cell, 2022, 57, 867-882.e5.	7.0	12
184	Dynamic elastance and tissue resistance of isolated liquid-filled rat lungs. Journal of Applied Physiology, 1995, 79, 1595-1600.	2.5	11
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