Karel RoubÃ-k

List of Publications by Year
in descending order

24 papers	104 citations	1478505 6 h-index	1372567 10 g-index
25 all docs	25 docs citations	25 times ranked	94 citing authors

#	Article	IF	Citations
1	Perlite is a suitable model material for experiments investigating breathing in high density snow. Scientific Reports, 2022, 12, 2070.	3.3	2
2	Tidal volume significantly affects oxygenation in healthy pigs during high-frequency oscillatory ventilation compared to conventional ventilation. BioMedical Engineering OnLine, 2022, 21, 14.	2.7	2
3	Pulse Oximeter Performance during Rapid Desaturation. Sensors, 2022, 22, 4236.	3.8	1
4	Design and performance of a flow sensor CoroQuant used with emergency lung ventilator CoroVent during COVID-19 pandemic. Measurement: Sensors, 2022, 22, 100383.	1.7	1
5	In Vitro Estimation of Relative Compliance during High-Frequency Oscillatory Ventilation. Applied Sciences (Switzerland), 2021, 11, 899.	2.5	1
6	Decrease in brain oxygenation is significantly less pronounced than decrease in SpO₂ during short-time breathing experiments in simulated avalanche snow. , 2021, , .		0
7	First Clinical Use of Rapidly Designed and Manufactured Mechanical Lung Ventilator CoroVent for COVID-19 Patients. , 2021, , .		1
8	Effects of pleural effusion drainage in the mechanically ventilated patient as monitored by electrical impedance tomography and end-expiratory lung volume: A pilot study. Journal of Critical Care, 2020, 59, 76-80.	2.2	9
9	COMPARISON OF END-EXPIRATORY LUNG VOLUME MEASUREMENT BY ELECTRICAL IMPEDANCE TOMOGRAPHY AND NITROGEN WASHOUT METHOD IN PIGS. Lekar A Technika, 2020, 50, 146-151.	0.1	0
10	MATERIALS SUITABLE TO SIMULATE SNOW DURING BREATHING EXPERIMENTS FOR AVALANCHE SURVIVAL RESEARCH. Lekar A Technika, 2020, 50, 32-39.	0.1	3
11	Breathing Experiments into the Simulated Avalanche Snow: Medical and Technical Issues of the Outdoor Breathing Trials. IFMBE Proceedings, 2019, , 711-717.	0.3	3
12	Intravenous administration of normal saline may be misinterpreted as a change of end-expiratory lung volume when using electrical impedance tomography. Scientific Reports, 2019, 9, 5775.	3.3	12
13	Model of SpO2 signal of the neonate. Current Directions in Biomedical Engineering, 2019, 5, 549-552.	0.4	1
14	Computer model of oxygenation in neonates. Current Directions in Biomedical Engineering, 2019, 5, 73-76.	0.4	1
15	Response time of indirectly accessed gas exchange depends on measurement method. Biomedizinische Technik, 2018, 63, 647-655.	0.8	6
16	Models of PaO₂response to the continuous distending pressure maneuver during high frequency oscillatory ventilation in healthy and ARDS lung model pigs. Experimental Lung Research, 2016, 42, 87-94.	1.2	6
17	Models of a PaO2 Course during a Stepwise Change of Continuous Distending Pressure in HFOV. , 2015, , .		0
18	Selection of the Baseline Frame for Evaluation of Electrical Impedance Tomography of the Lungs. , 2015, , .		3

#	Article	IF	Citations
19	Work of Breathing into Snow in the Presence versus Absence of an Artificial Air Pocket Affects Hypoxia and Hypercapnia of a Victim Covered with Avalanche Snow: A Randomized Double Blind Crossover Study. PLoS ONE, 2015, 10, e0144332.	2.5	20
20	Delivery of heliox with a semi-closed circuit during spontaneous breathing: a comparative economic theoretical study. BMC Pulmonary Medicine, 2015, 15, 65.	2.0	5
21	Continuous distending pressure effects on variables contributing to oxygenation in healthy and ARDS model pigs during HFOV. , 2014, , .		0
22	Spontaneous Breathing of Heliox Using a Semi-Closed Circuit: A Bench Study. International Journal of Artificial Organs, 2012, 35, 466-470.	1.4	4
23	Design and Control of a Demand Flow System Assuring Spontaneous Breathing of a Patient Connected to an HFO Ventilator. IEEE Transactions on Biomedical Engineering, 2011, 58, 3225-3233.	4.2	11
24	Demand flow facilitates spontaneous breathing during high-frequency oscillatory ventilation in a pig model. Critical Care Medicine, 2009, 37, 1068-1073.	0.9	11