

Maolin Cai

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

874
citations

566801

15
h-index

525886

27
g-index

60
all docs

60
docs citations

60
times ranked

719
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory and Application of Magnetic Flux Leakage Pipeline Detection. <i>Sensors</i> , 2015, 15, 31036-31055.	2.1	236
2	Detection of sputum by interpreting the time-frequency distribution of respiratory sound signal using image processing techniques. <i>Bioinformatics</i> , 2018, 34, 820-827.	1.8	42
3	The effects of air gap reflections during air-coupled leaky Lamb wave inspection of thin plates. <i>Ultrasonics</i> , 2016, 65, 282-295.	2.1	38
4	Theory and Application of Audio-Based Assessment of Cough. <i>Journal of Sensors</i> , 2018, 2018, 1-10.	0.6	37
5	Influence of bronchial diameter change on the airflow dynamics based on a pressure-controlled ventilation system. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2018, 34, e2929.	1.0	28
6	Detection of Respiratory Sounds Based on Wavelet Coefficients and Machine Learning. <i>IEEE Access</i> , 2020, 8, 155710-155720.	2.6	27
7	Numerical Analysis of Airway Mucus Clearance Effectiveness Using Assisted Coughing Techniques. <i>Scientific Reports</i> , 2020, 10, 2030.	1.6	26
8	Numerical simulation of volume-controlled mechanical ventilated respiratory system with 2 different lungs. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2017, 33, e2852.	1.0	24
9	Power characteristics of a new kind of air-powered vehicle. <i>International Journal of Energy Research</i> , 2016, 40, 1112-1121.	2.2	21
10	Study on air flow dynamic characteristic of mechanical ventilation of a lung simulator. <i>Science China Technological Sciences</i> , 2017, 60, 243-250.	2.0	21
11	Review of fluid and control technology of hydraulic wind turbines. <i>Frontiers of Mechanical Engineering</i> , 2017, 12, 312-320.	2.5	20
12	Dimensionless Study on Output Flow Characteristics of Expansion Energy Used Pneumatic Pressure Booster. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2013, 135, .	0.9	17
13	Pressure Dynamic Characteristics of Pressure Controlled Ventilation System of a Lung Simulator. <i>Computational and Mathematical Methods in Medicine</i> , 2014, 2014, 1-10.	0.7	17
14	Classification of Sputum Sounds Using Artificial Neural Network and Wavelet Transform. <i>International Journal of Biological Sciences</i> , 2018, 14, 938-945.	2.6	17
15	Literature review: Present state and future trends of air-powered vehicles. <i>Journal of Renewable and Sustainable Energy</i> , 2016, 8, .	0.8	16
16	Energy conversion characteristics of reciprocating piston quasi-isothermal compression systems using water sprays. <i>Science China Technological Sciences</i> , 2018, 61, 285-298.	2.0	16
17	Dimensionless Study on Efficiency and Speed Characteristics of a Compressed Air Engine. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , 2015, 137, .	1.4	15
18	Fuzzy logic speed control for the engine of an air-powered vehicle. <i>Advances in Mechanical Engineering</i> , 2016, 8, 168781401664183.	0.8	15

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19	Technologies and application of pipeline centerline and bending strain of In-line inspection based on inertial navigation. Transactions of the Institute of Measurement and Control, 2018, 40, 1554-1567.	1.1	15
20	Experiments on Air Compression with an Isothermal Piston for Energy Storage. Energies, 2019, 12, 3730.	1.6	15
21	Research Progress of Related Technologies of Electric-Pneumatic Pressure Proportional Valves. Applied Sciences (Switzerland), 2017, 7, 1074.	1.3	14
22	ANSYS-MATLAB co-simulation of mucus flow distribution and clearance effectiveness of a new simulated cough device. International Journal for Numerical Methods in Biomedical Engineering, 2018, 34, e2978.	1.0	14
23	A Novel Method for Automatic Identification of Breathing State. Scientific Reports, 2019, 9, 103.	1.6	13
24	Dynamic Characteristics of a Mechanical Ventilation System With Spontaneous Breathing. IEEE Access, 2019, 7, 172847-172859.	2.6	11
25	Modelling and Simulation of Volume Controlled Mechanical Ventilation System. Mathematical Problems in Engineering, 2014, 2014, 1-7.	0.6	10
26	Working characteristics of a new ventilator with automatic secretion clearance function. Science China Technological Sciences, 2015, 58, 1046-1052.	2.0	10
27	Dimensionless study on dynamics of pressure controlled mechanical ventilation system. Journal of Mechanical Science and Technology, 2015, 29, 431-439.	0.7	10
28	Pipeline Bending Strain Measurement and Compensation Technology Based on Wavelet Neural Network. Journal of Sensors, 2016, 2016, 1-7.	0.6	10
29	A Novel Isothermal Compression Method for Energy Conservation in Fluid Power Systems. Entropy, 2020, 22, 1015.	1.1	10
30	Cough Expired Volume and Cough Peak Flow Rate Estimation Based on GA-BP Method. Complexity, 2020, 2020, 1-9.	0.9	10
31	Part machining feature recognition based on a deep learning method. Journal of Intelligent Manufacturing, 2023, 34, 809-821.	4.4	10
32	Modelling and study on the output flow characteristics of expansion energy used hydropneumatic transformer. Journal of Mechanical Science and Technology, 2016, 30, 1163-1170.	0.7	8
33	Study of Fuel-Controlled Aircraft Engine for Fuel-Powered Unmanned Aerial Vehicle: Energy Conversion Analysis and Optimization. IEEE Access, 2019, 7, 109246-109258.	2.6	8
34	New advances in EMG control methods of anthropomorphic prosthetic hand. Science China Technological Sciences, 2017, 60, 1978-1979.	2.0	7
35	New advances in in-situ thermal desorption technology for contaminated soil. Science China Technological Sciences, 2019, 62, 2075-2076.	2.0	7
36	Various realization methods of machine-part classification based on deep learning. Journal of Intelligent Manufacturing, 2020, 31, 2019-2032.	4.4	7

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37	Working Characteristics of a Mechanical Insufflation-Exsufflation Device. <i>Mathematical Problems in Engineering</i> , 2014, 2014, 1-9.	0.6	6
38	Nonlinear Model Establishment and Experimental Verification of a Pneumatic Rotary Actuator Position Servo System. <i>Energies</i> , 2019, 12, 1096.	1.6	6
39	Water-Spray-Cooled Quasi-Isothermal Compression Method: Water-Spray Flow Improvement. <i>Entropy</i> , 2021, 23, 724.	1.1	6
40	Study on the Dynamics of Local Pressure Boosting Pneumatic System. <i>Mathematical Problems in Engineering</i> , 2015, 2015, 1-11.	0.6	4
41	New advances in monitoring and triggering of mechanical ventilation. <i>Science China Technological Sciences</i> , 2016, 59, 1791-1792.	2.0	4
42	Mechanical ventilation strategy for pulmonary rehabilitation based on patient-ventilator interaction. <i>Science China Technological Sciences</i> , 2021, 64, 869-878.	2.0	4
43	Mechanical Properties Evaluation for Pneumatic Actuator and Electric Actuator Based on AHP-FCE. , 2010, , .		3
44	Research on RBF neural network prediction of oil and gas pipe dent depth. , 2016, , .		3
45	Study on the effect of tilting-rotor structure on the lift of small tilt rotor aircraft. , 2017, , .		3
46	Theoretical study on the application of isothermal compression technology in vaporâ€compression refrigeration systems with an isothermal piston. <i>Energy Science and Engineering</i> , 2021, 9, 2321-2332.	1.9	3
47	Study on the temperature compensation technology of air-powered engine. <i>Journal of Renewable and Sustainable Energy</i> , 2015, 7, 023112.	0.8	2
48	Advances in motion control of gas pipeline detection robot. <i>Science China Technological Sciences</i> , 2020, 63, 877-878.	2.0	2
49	Novel assisted cough system based on simulating cough airflow dynamics. <i>Bio-Design and Manufacturing</i> , 2021, 4, 479-489.	3.9	2
50	Working Characteristics of Variable Intake Valve in Compressed Air Engine. <i>Scientific World Journal</i> , The, 2014, 2014, 1-9.	0.8	1
51	The Identification of Sputum Situation Based on the Sound from the Respiratory Tract. , 2018, , .		1
52	Electrical impedance tomography for clinical application. <i>Science China Technological Sciences</i> , 0, , 1.	2.0	1
53	Feature-Based and Process-Based Manufacturing Cost Estimation. <i>Machines</i> , 2022, 10, 319.	1.2	1
54	Study on evaluation methods of product-buying interest. , 2011, , .		0

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55	A review of energy saving technologies on compressed air system. , 2013, , .		0
56	Multi-body dynamic modeling, simulation and control strategy design of a Y6 tilt rotor UAV. , 2017, , .		0
57	Optimization of Fuel Injection Control System of Two-Stroke Aeroengine of UAV. Complexity, 2020, 2020, 1-12.	0.9	0
58	New advances in airflow measurements applied in airflow characteristics test of pneumatic components. Science China Technological Sciences, 2021, 64, 2781-2782.	2.0	0
59	Effect of different anesthetic dose of pentobarbital on respiratory activity in rabbits. Computers in Biology and Medicine, 2022, 145, 105501.	3.9	0
60	A New Precise High Flow Oxygen Therapy System Based on Sliding Mode Control Strategy. Complexity, 2022, 2022, 1-12.	0.9	0