Jiabin Jia

List of Publications by Year
in descending order

69 papers	**1,616** citations	236925 **25** h-index	302126 **39** g-index
69 all docs	**69** docs citations	**69** times ranked	**1062** citing authors

#	Article	IF	Citations
1	Image Reconstruction in Electrical Impedance Tomography Based on Structure-Aware Sparse Bayesian Learning. IEEE Transactions on Medical Imaging, 2018, 37, 2090-2102.	8.9	158
2	Accelerated Structure-Aware Sparse Bayesian Learning for Three-Dimensional Electrical Impedance Tomography. IEEE Transactions on Industrial Informatics, 2019, 15, 5033-5041.	11.3	92
3	Efficient Multitask Structure-Aware Sparse Bayesian Learning for Frequency-Difference Electrical Impedance Tomography. IEEE Transactions on Industrial Informatics, 2021, 17, 463-472.	11.3	88
4	An Image Reconstruction Algorithm for Electrical Impedance Tomography Using Adaptive Group Sparsity Constraint. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 2295-2305.	4.7	77
5	A novel tomographic sensing system for high electrically conductive multiphase flow measurement. Flow Measurement and Instrumentation, 2010, 21, 184-190.	2.0	75
6	A multi-frequency electrical impedance tomography system for real-time 2D and 3D imaging. Review of Scientific Instruments, 2017, 88, 085110.	1.3	75
7	A Miniature Electrical Impedance Tomography Sensor and 3-D Image Reconstruction for Cell Imaging. IEEE Sensors Journal, 2017, 17, 514-523.	4.7	75
8	Time Sequence Learning for Electrical Impedance Tomography Using Bayesian Spatiotemporal Priors. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6045-6057.	4.7	52
9	Electrical impedance tomography for real-time and label-free cellular viability assays of 3D tumour spheroids. Analyst, The, 2018, 143, 4189-4198.	3.5	47
10	Void fraction measurement of gas–liquid two-phase flow from differential pressure. Flow Measurement and Instrumentation, 2015, 41, 75-80.	2.0	46
11	V-Net Deep Imaging Method for Electrical Resistance Tomography. IEEE Sensors Journal, 2020, 20, 6460-6469.	4.7	46
12	A new visualisation and measurement technology for water continuous multiphase flows. Flow Measurement and Instrumentation, 2015, 46, 204-212.	2.0	44
13	A novel multi-electrode sensing strategy for electrical capacitance tomography with ultra-low dynamic range. Flow Measurement and Instrumentation, 2017, 53, 67-79.	2.0	42
14	A Wideband Electrical Impedance Tomography System Based on Sensitive Bioimpedance Spectrum Bandwidth. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 144-154.	4.7	42
15	Shape Reconstruction With Multiphase Conductivity for Electrical Impedance Tomography Using Improved Convolutional Neural Network Method. IEEE Sensors Journal, 2021, 21, 9277-9287.	4.7	38
16	Measurement of air distribution and void fraction of an upwards air–water flow using electrical resistance tomography and a wire-mesh sensor. Measurement Science and Technology, 2013, 24, 035403.	2.6	37
17	Measurement of vertical oil-in-water two-phase flow using dual-modality ERT–EMF system. Flow Measurement and Instrumentation, 2015, 46, 255-261.	2.0	36
18	Development of a Wearable Electrical Impedance Tomographic Sensor for Gesture Recognition With Machine Learning. IEEE Journal of Biomedical and Health Informatics, 2020, 24, 1550-1556.	6.3	34

#	ARTICLE	IF	CITATIONS
19	Real-time temperature field measurement based on acoustic tomography. Measurement Science and Technology, 2017, 28, 074002.	2.6	30
20	Scaffold-Based 3-D Cell Culture Imaging Using a Miniature Electrical Impedance Tomography Sensor. IEEE Sensors Journal, 2019, 19, 9071-9080.	4.7	30
21	Image Reconstruction for Electrical Impedance Tomography Using Enhanced Adaptive Group Sparsity With Total Variation. IEEE Sensors Journal, 2017, 17, 5589-5598.	4.7	29
22	A Micro EIT Sensor for Real-Time and Non-Destructive 3-D Cultivated Cell Imaging. IEEE Sensors Journal, 2018, 18, 5402-5412.	4.7	28
23	Electrical Resistance Tomography Sensor for Highly Conductive Oil-Water Two-Phase Flow Measurement. IEEE Sensors Journal, 2017, 17, 8224-8233.	4.7	27
24	Evaluation of EIT systems and algorithms for handling full void fraction range in two-phase flow measurement. Measurement Science and Technology, 2015, 26, 015305.	2.6	26
25	Liquid distribution and hold-up measurement in counter current flow packed column by electrical capacitance tomography. Chemical Engineering Journal, 2018, 353, 519-532.	12.7	26
26	Exploring the Potential of Electrical Impedance Tomography for Tissue Engineering Applications. Materials, 2018, 11, 930.	2.9	26
27	Effect of structured packing on EIT image reconstruction. , 2014, , .		25
28	Improved Time-of-Flight Estimation Method for Acoustic Tomography System. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 974-984.	4.7	24
29	Deep Learning Based Cell Imaging with Electrical Impedance Tomography. , 2020, , .		18
30	A hybrid Genetic Algorithm and Levenberg–Marquardt (GA–LM) method for cell suspension measurement with electrical impedance spectroscopy. Review of Scientific Instruments, 2020, 91, 124104.	1.3	15
31	Online Time-Resolved Reconstruction Method for Acoustic Tomography System. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4033-4041.	4.7	14
32	Imaging of gas–liquid annular flows for underbalanced drilling using electrical resistance tomography. Flow Measurement and Instrumentation, 2015, 46, 319-326.	2.0	13
33	Online conductivity calibration methods for EIT gas/oil in water flow measurement. Flow Measurement and Instrumentation, 2015, 46, 213-217.	2.0	12
34	A Novel Method for the Image Quality Improvement of Ultrasonic Tomography. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	4.7	12
35	Error-Constraint Deep Learning Scheme for Electrical Impedance Tomography (EIT). IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-11.	4.7	11
36	Nonlinear temperature field reconstruction using acoustic tomography. , 2017, , .		10

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37	Quantification of Gas Distribution and Void Fraction in Packed Bubble Column Using Electrical Resistance Tomography. IEEE Sensors Journal, 2018, 18, 8963-8970.	4.7	10
38	Exploring Respiratory Motion Tracking Through Electrical Impedance Tomography. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	4.7	10
39	A faster measurement strategy of electrical capacitance tomography using less sensing data. , 2015, , .		8
40	Ultrasonic Transmission Tomography Sensor Design for Bubble Identification in Gas-Liquid Bubble Column Reactors. Sensors, 2018, 18, 4256.	3.8	8
41	Calibrated Frequency-Difference Electrical Impedance Tomography for 3D Tissue Culture Monitoring. IEEE Sensors Journal, 2019, 19, 7813-7821.	4.7	8
42	Image reconstruction algorithm for electrical impedance tomography based on block sparse Bayesian learning. , 2017, , .		7
43	An optimisation method for the over-zero switching scheme. Flow Measurement and Instrumentation, 2012, 27, 47-52.	2.0	6
44	Automated Horizontal Slurry Flow Regime Recognition Using Statistical Analysis of the ERT Signal. Procedia Engineering, 2015, 102, 821-830.	1.2	6
45	3D image reconstruction on a miniature planar EIT sensor using sparsity with median filter. , 2017, , .		6
46	High Sensitive Capacitive Sensing Method for Thickness Detection of the Water Film on an Insulation Surface. IEEE Access, 2019, 7, 96384-96391.	4.2	6
47	Flow regime transition in countercurrent packed column monitored by ECT. Chemical Engineering Journal, 2021, 420, 129841.	12.7	6
48	Multiscale Voltage Reconstruction With Attention-Based Network for Volume Fraction Prediction of Industrial Oilâ€"Water Two-Phase Flow by EIT. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	6
49	Preliminary study of CO_2 frost formation during cryogenic carbon capture using tomography analysis. Fuel, 2022, 328, 125271.	6.4	6
50	Design and fabrication of microelectrodes for electrical impedance tomography of cell spheroids. , 2016, , .		5
51	A Novel Three-Phase Compact Saturated-Core Fault Current Limiter. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	5
52	Development and Analysis of Bridge-Type Saturated-Core Fault Current Limiter. IEEE Transactions on Magnetics, 2017, 53, 1-5.	2.1	5
53	IEEE Access Special Section Editorial: Multiphase Flow Measurement: Techniques and Applications. IEEE Access, 2018, 6, 32673-32675.	4.2	4
54	Position Calibration of a Single Cell Measurement With Electrochemical Impedance Spectroscopy. IEEE Sensors Journal, 2023, 23, 4336-4343.	4.7	4

#	Article	IF	Citations
55	Measuring 3D Cell Culture Viability in Multiple 3D Printed Scaffolds Within a Single Miniature Electrical Impedance Tomography Sensor. Advanced Engineering Materials, 2021, 23, 2100338.	3.5	3
56	Ultrasonic Testing of Carbon Fiber-Reinforced Polymer Composites. Journal of Sensors, 2022, 2022, 1-20.	1.1	3
57	An immune-algorithm-based dead-time elimination PWM control strategy in a single-phase inverter. , 2013, , .		2
58	Correlation analysis of solid particles' permittivity and composition using electrical capacitance tomography and Maxwell Garnett formula. , 2016, , .		2
59	Imaging cell-drug response in 3D bioscaffolds by electrical impedance tomography. , 2017, , .		2
60	Correlation of Volume Ratio and Normalized Permittivity in Particle Mixture. IEEE Access, 2017, 5, 15875-15882.	4.2	2
61	Determination of void fraction in wet-gas vertical flows via differential pressure measurement. Flow Measurement and Instrumentation, 2022, 83, 102080.	2.0	2
62	Comparison of regularisation methods in image reconstruction for micro-bioimpedance tomography. , 2017, , .		1
63	Simulation of Flooding Phenomenon in Packed Column using Electrical Capacitance Tomography. , 2019, , .		1
64	Diverse tomography applications. , 2022, , 853-875.		1
65	Flooding Prognostic in Packed Columns Based on Electrical Capacitance Tomography and Convolution Neural Network. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-14.	4.7	1
66	Effect of packing and liquid conductivity on gas distribution and holdup in reaction column. , 2016, , .		0
67	Simulation study of scaffold 3D cell culture imaging using a miniature planar EIT sensor. , 2017, , .		0
68	Real-Time Wind Velocity Monitoring Based on Acoustic Tomography. Springer Natural Hazards, 2019, , 135-149.	0.3	0
69	Fast Dual-LiDAR Reconstruction for Dynamic Wind Field Retrieval. Atmosphere, 2022, 13, 905.	2.3	0