

Ziqiang Cui

List of Publications by Year in descending order

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91
papers

996
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516710

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91
all docs

91
docs citations

91
times ranked

543
citing authors

#	ARTICLE	IF	CITATIONS
1	A review on image reconstruction algorithms for electrical capacitance/resistance tomography. <i>Sensor Review</i> , 2016, 36, 429-445.	1.8	155
2	A high-performance digital system for electrical capacitance tomography. <i>Measurement Science and Technology</i> , 2011, 22, 055503.	2.6	88
3	A new linear back projection algorithm to electrical tomography based on measuring data decomposition. <i>Measurement Science and Technology</i> , 2015, 26, 125402.	2.6	38
4	An Improved Tikhonov Regularization Method for Lung Cancer Monitoring Using Electrical Impedance Tomography. <i>IEEE Sensors Journal</i> , 2019, 19, 3049-3057.	4.7	37
5	Electrical Capacitance Tomography With Differential Sensor. <i>IEEE Sensors Journal</i> , 2015, 15, 5087-5094.	4.7	36
6	Image reconstruction based on L1 regularization and projection methods for electrical impedance tomography. <i>Review of Scientific Instruments</i> , 2012, 83, 104707.	1.3	34
7	Liquid Film Thickness Estimation using Electrical Capacitance Tomography. <i>Measurement Science Review</i> , 2014, 14, 8-15.	1.0	34
8	A Specific Data Acquisition Scheme for Electrical Tomography. , 2008, , .		30
9	A Dual-Modality Integrated Sensor for Electrical Capacitance Tomography and Electromagnetic Tomography. <i>IEEE Sensors Journal</i> , 2019, 19, 10016-10026.	4.7	30
10	Generative adversarial networks for dual-modality electrical tomography in multi-phase flow measurement. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 173, 108608.	5.0	29
11	Reconstruction of electrical impedance tomography (EIT) images based on the expectation maximum (EM) method. <i>ISA Transactions</i> , 2012, 51, 808-820.	5.7	26
12	An integrated ECT/ERT dual modality sensor. , 2009, , .		25
13	Online monitoring of gas-liquid two-phase flow using projected CG method in ECT image reconstruction. <i>Particuology</i> , 2013, 11, 204-215.	3.6	23
14	Adaptive L_p Regularization for Electrical Impedance Tomography. <i>IEEE Sensors Journal</i> , 2019, 19, 12297-12305.	4.7	22
15	Electrical Impedance Sensors for Multi-Phase Flow Measurement: A Review. <i>IEEE Sensors Journal</i> , 2021, 21, 27252-27267.	4.7	21
16	Electrical capacitance tomography using an accelerated proximal gradient algorithm. <i>Review of Scientific Instruments</i> , 2012, 83, 043704.	1.3	19
17	Dynamical lag correlation exponent based method for gas-liquid flow velocity measurement using twin-plane electrical capacitance tomography. <i>Measurement Science and Technology</i> , 2012, 23, 085301.	2.6	17
18	Separation of Gas-Liquid Two-Phase Flow Through Independent Component Analysis. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2010, 59, 1294-1302.	4.7	16

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19	ECT Image Reconstruction Based on Alternating Direction Approximate Newton Algorithm. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4873-4886.	4.7	16
20	Design of a non-magnetic shielded and integrated electromagnetic tomography system. Measurement Science and Technology, 2011, 22, 104007.	2.6	15
21	Fast reconstruction of electrical resistance tomography (ERT) images based on the projected CG method. Flow Measurement and Instrumentation, 2012, 27, 37-46.	2.0	14
22	A Novel ECT System Based on FPGA and DSP. , 2007, , .		13
23	Application of a high speed ECT system to online monitoring of pneumatic conveying process. Measurement: Journal of the International Measurement Confederation, 2014, 48, 29-42.	5.0	13
24	Impulsive noise reduction in digital phase-sensitive demodulation by nonlinear filtering. Measurement Science and Technology, 2015, 26, 075401.	2.6	12
25	Electrical Capacitance Tomography Sensor Using Internal Electrodes. IEEE Sensors Journal, 2020, 20, 3207-3216.	4.7	11
26	Modified sparse regularization for electrical impedance tomography. Review of Scientific Instruments, 2016, 87, 034702.	1.3	10
27	Independent component analysis of interface fluctuation of gas/liquid two-phase flows " experimental study. Flow Measurement and Instrumentation, 2009, 20, 220-229.	2.0	9
28	Image reconstruction for field-focusing capacitance imaging. Measurement Science and Technology, 2011, 22, 035501.	2.6	9
29	Further Development in Differential Electrical Capacitance Tomography. IEEE Sensors Journal, 2018, 18, 9781-9791.	4.7	9
30	Digital signal processing in electrical capacitance tomography. , 2008, , .		8
31	The design of a FPGA-based digital magnetic induction tomography (MIT) system for metallic object imaging. , 2010, , .		8
32	Application of electrical resistance tomography in bubble columns for volume fraction measurement. , 2012, , .		8
33	Amplitude demodulation for electrical capacitance tomography based on singular value decomposition. Review of Scientific Instruments, 2018, 89, 074705.	1.3	8
34	Electrical Capacitance Tomography Using Incomplete Measurement Set. IEEE Access, 2019, 7, 79555-79564.	4.2	8
35	Measurement of Flow Velocity Using Electrical Resistance Tomography and Cross-Correlation Technique. IEEE Sensors Journal, 2021, 21, 20714-20721.	4.7	8
36	Accelerated reconstruction of electrical impedance tomography images via patch based sparse representation. Review of Scientific Instruments, 2016, 87, 114707.	1.3	7

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37	Early lung cancer identification based on ERT measurements. , 2017, , .		7
38	2-D Median Filter-Based Impulsive Noise Reduction in Multifrequency Phase-sensitive Demodulation of Electrical Impedance Tomography. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 54-64.	4.7	7
39	Development of wire-mesh sensor in small bubble visualization based on differential measurement mode. , 2020, , .		7
40	Application of electrical resistance tomography for slug flow measurement in gas/liquid flow of horizontal pipe. , 2009, , .		6
41	An ECT/ERT dual-modality sensor for oil-water two-phase flow measurement. , 2014, , .		6
42	Patch-based sparse reconstruction for electrical impedance tomography. Sensor Review, 2017, 37, 257-269.	1.8	6
43	Planar Electrical Capacitance Tomography Dynamic Imaging for Non-Destructive Test. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	6
44	Development and application of ECT digital system for online flow measurement. , 2012, , .		5
45	Damage detection of CFRP composites using open electrical impedance tomography. , 2015, , .		5
46	An ECT/ERT dual-modality system based on an internal electrode sensor. , 2016, , .		5
47	A Fast Barzilai-Borwein Gradient Projection for Sparse Reconstruction Algorithm Based on 3D Modeling: Application to ERT Imaging. IEEE Access, 2021, 9, 152913-152922.	4.2	5
48	Cyclostationarity in electrical resistance tomography data from gas/liquid two-phase flow. , 2010, , .		4
49	Design of a dual camera children monitoring system based on motion tracking technology. , 2017, , .		4
50	Development of electromagnetic tomography system using LCR meter. , 2018, , .		4
51	Singular value decomposition based impulsive noise reduction in multi-frequency phase-sensitive demodulation of electrical impedance tomography. Review of Scientific Instruments, 2018, 89, 064702.	1.3	4
52	Evaluation of parasitic resistance in voltage-driven electrical resistance tomography. Measurement Science and Technology, 2020, 31, 055901.	2.6	4
53	Phase Sensitive Detector for Multi-electrode Electromagnetic Flowmeter. , 2021, , .		4
54	Change-point-detection-based method for solid velocity measurement using twin-plane electrical capacitance tomography. , 2012, , .		3

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55	Experimental research on two-phase flow visualization using a low-energy gamma CT system with sparse projections. Measurement Science and Technology, 2013, 24, 074008.	2.6	3
56	Optimization of equivalent circuit model for piezoelectric ultrasonic transducer. , 2018, , .		3
57	Magnetic permeability measurement method for particle materials. , 2018, , .		3
58	Electromagnetic Sensing and Imaging Methods in Industrial Flow Measurements. , 2019, , .		3
59	Lung Ventilation Monitoring Incorporating Prior Information by Electrical Impedance Tomography. , 2008, , .		2
60	Visualization imaging software design for Electrical Tomography. , 2011, , .		2
61	Eddy current testing on weld defect based on the dual frequency independent component analysis. , 2017, , .		2
62	ECT image reconstruction based on alternating direction approximate newton algorithm. , 2018, , .		2
63	Fluidization behavior monitoring of phosphogypsum in cyclone separator using electrical capacitance tomography. Review of Scientific Instruments, 2019, 90, 105108.	1.3	2
64	Measurement of transient flow structures of horizontal gas-liquid two-phase flows using wire-mesh sensor. , 2019, , .		2
65	An Image Reconstruction Algorithm Based on Two-Step Iterative Shrinkage/Thresholding for Electrical Resistance Tomography. , 2021, , .		2
66	Independent component analysis of the interface fluctuations of gas/liquid two-phase flow. , 2009, , .		1
67	Holding zero switching scheme for multi-channel impedance measurement. , 2009, , .		1
68	Flow velocity measurement by cross-correlation with tailored modulation. , 2015, , .		1
69	Level set based image segmentation for oil film monitoring using ECT. , 2016, , .		1
70	Preliminary study of damage detection in unidirectional CFRP based on open electrical impedance tomography. , 2016, , .		1
71	Impulsive noise removal in multi-frequency phase sensitive demodulation for electrical impedance tomography. , 2018, , .		1
72	FPGA Implementation of a Complex Permeability Measurement Instrument. , 2019, , .		1

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73	Visual inspection of CFRP laminates based on EIT. , 2019, , .		1
74	Optimal Measurements of Electromagnetic Flowmeter. , 2019, , .		1
75	Survey of signal clamping for digital phase sensitive detector. Review of Scientific Instruments, 2020, 91, 015109.	1.3	1
76	Hardware Implementation and Evaluation of Electromagnetic Flow Tomography System for Water-Continuous Flows. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	1
77	A fast Tikhonov regularization method based on homotopic mapping for electrical resistance tomography. Review of Scientific Instruments, 2022, 93, 043709.	1.3	1
78	Two-phase flow feature extraction and regime identification in horizontal pipe. , 2008, , .		0
79	An alternating direction algorithm for two-phase flow visualization using gamma computed tomography. Review of Scientific Instruments, 2012, 83, 123703.	1.3	0
80	Fuzzy clustering based fusion for ERT tomography image. , 2012, , .		0
81	Application of a digital ECT system for measurements of dense-phase gas-solid flows. , 2012, , .		0
82	Estimation of in-tube oil film thickness using electrical capacitance tomography. , 2013, , .		0
83	Evaluation of Voltage-driven Electrical Resistance Tomography Using LCR Meter-based Measurement System. , 2019, , .		0
84	Electrical Resistance Tomography using High And Low Conductivity Calibration. , 2020, , .		0
85	Linear Electrode Array for Flow Velocity Estimation. , 2021, , .		0
86	Design and Implementation of IoT Platform for Electrical Resistance Tomography System. , 2021, , .		0
87	An Improved Sparse Reconstruction Algorithm Based on Singular Value Decomposition for Electrical Resistance Tomography. , 2021, , .		0
88	An alternative excitation method for electrical impedance tomography. Review of Scientific Instruments, 2022, 93, 044710.	1.3	0
89	Gas Holdup Measurement of Gas-water Flow Using Microwave Transmission Line Method. , 2022, , .		0
90	Planar Electrical Capacitance Tomography with Hexagonal Sensor. , 2022, , .		0

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91	Velocity Profile Reconstruction Method for Electromagnetic Flow Tomography: A Simulation Study. , 2022, , .		0