Ziqiang Cui

List of Publications by Year
in descending order

91 papers	996 citations	516710 16 h-index	526287 27 g-index
91 all docs	91 docs citations	91 times ranked	543 citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	A fast Tikhonov regularization method based on homotopic mapping for electrical resistance tomography. Review of Scientific Instruments, 2022, 93, 043709.	1.3	1
3	An alternative excitation method for electrical impedance tomography. Review of Scientific Instruments, 2022, 93, 044710.	1.3	0
4	Planar Electrical Capacitance Tomography Dynamic Imaging for Non-Destructive Test. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-9.	4.7	6
5	Gas Holdup Measurement of Gas-water Flow Using Microwave Transmission Line Method. , 2022, , .		0
6	Planar Electrical Capacitance Tomography with Hexagonal Sensor. , 2022, , .		0
7	Velocity Profile Reconstruction Method for Electromagnetic Flow Tomography: A Simulation Study. , 2022, , .		0
8	Generative adversarial networks for dual-modality electrical tomography in multi-phase flow measurement. Measurement: Journal of the International Measurement Confederation, 2021, 173, 108608.	5.0	29
9	Linear Electrode Array for Flow Velocity Estimation. , 2021, , .		0
10	Design and Implementation of IoT Platform for Electrical Resistance Tomography System. , 2021, , .		0
11	An Image Reconstruction Algorithm Based on Two-Step Iterative Shrinkage/Thresholding for Electrical Resistance Tomography. , 2021, , .		2
12	Phase Sensitive Detector for Multi-electrode Electromagnetic Flowmeter. , 2021, , .		4
13	An Improved Sparse Reconstruction Algorithm Based on Singular Value Decomposition for Electrical Resistance Tomography. , 2021, , .		0
14	Measurement of Flow Velocity Using Electrical Resistance Tomography and Cross-Correlation Technique. IEEE Sensors Journal, 2021, 21, 20714-20721.	4.7	8
15	Electrical Impedance Sensors for Multi-Phase Flow Measurement: A Review. IEEE Sensors Journal, 2021, 21, 27252-27267.	4.7	21
16	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
17	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
18	Evaluation of parasitic resistance in voltage-driven electrical resistance tomography. Measurement Science and Technology, 2020, 31, 055901.	2.6	4

#	Article	IF	Citations
19	Electrical Resistance Tomography using High And Low Conductivity Calibration. , 2020, , .		0
20	Development of wire-mesh sensor in small bubble visualization based on differential measurement mode. , 2020, , .		7
21	ECT Image Reconstruction Based on Alternating Direction Approximate Newton Algorithm. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4873-4886.	4.7	16
22	Electrical Capacitance Tomography Sensor Using Internal Electrodes. IEEE Sensors Journal, 2020, 20, 3207-3216.	4.7	11
23	Survey of signal clamping for digital phase sensitive detector. Review of Scientific Instruments, 2020, 91, 015109.	1.3	1
24	FPGA Implementation of a Complex Permeability Measurement Instrument. , 2019, , .		1
25	A Dual-Modality Integrated Sensor for Electrical Capacitance Tomography and Electromagnetic Tomography. IEEE Sensors Journal, 2019, 19, 10016-10026.	4.7	30
26	Electrical Capacitance Tomography Using Incomplete Measurement Set. IEEE Access, 2019, 7, 79555-79564.	4.2	8
27	Adaptive L_{p} Regularization for Electrical Impedance Tomography. IEEE Sensors Journal, 2019, 19, 12297-12305.	4.7	22
28	Visual inspection of CFRP laminates based on EIT. , 2019, , .		1
29	Optimal Measurements of Electromagnetic Flowmeter. , 2019, , .		1
30	Evaluation of Voltage-driven Electrical Resistance Tomography Using LCR Meter-based Measurement System. , 2019, , .		0
31	Electromagnetic Sensing and Imaging Methods in Industrial Flow Measurements. , 2019, , .		3
32	Fluidization behavior monitoring of phosphogypsum in cyclone separator using electrical capacitance tomography. Review of Scientific Instruments, 2019, 90, 105108.	1.3	2
33	Measurement of transient flow structures of horizontal gas-liquid two-phase flows using wire-mesh sensor. , 2019, , .		2
34	An Improved Tikhonov Regularization Method for Lung Cancer Monitoring Using Electrical Impedance Tomography. IEEE Sensors Journal, 2019, 19, 3049-3057.	4.7	37
35	Further Development in Differential Electrical Capacitance Tomography. IEEE Sensors Journal, 2018, 18, 9781-9791.	4.7	9
36	Amplitude demodulation for electrical capacitance tomography based on singular value decomposition. Review of Scientific Instruments, 2018, 89, 074705.	1.3	8

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37	Development of electromagnetic tomography system using LCR meter. , 2018, , .		4
38	Optimization of equivalent circuit model for piezoelectric ultrasonic transducer. , 2018, , .		3
39	Magnetic permeability measurement method for particle materials. , 2018, , .		3
40	ECT image reconstruction based on alternating direction approximate newton algorithm. , 2018, , .		2
41	Impulsive noise removal in multi-frequency phase sensitive demodulation for electrical impedance tomography. , 2018, , .		1
42	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
43	Patch-based sparse reconstruction for electrical impedance tomography. Sensor Review, 2017, 37, 257-269.	1.8	6
44	Eddy current testing on weld defect based on the dual frequency independent component analysis. , 2017, , .		2
45	Design of a dual camera children monitoring system based on motion tracking technology. , 2017, , .		4
46	Early lung cancer identification based on ERT measurements. , 2017, , .		7
47	Modified sparse regularization for electrical impedance tomography. Review of Scientific Instruments, 2016, 87, 034702.	1.3	10
48	An ECT/ERT dual-modality system based on an internal electrode sensor. , 2016, , .		5
49	Level set based image segmentation for oil film monitoring using ECT. , 2016, , .		1
50	Accelerated reconstruction of electrical impedance tomography images via patch based sparse representation. Review of Scientific Instruments, 2016, 87, 114707.	1.3	7
51	A review on image reconstruction algorithms for electrical capacitance/resistance tomography. Sensor Review, 2016, 36, 429-445.	1.8	155
52	Preliminary study of damage detection in unidirectional CFRP based on open electrical impedance tomography. , 2016, , .		1
53	Flow velocity measurement by cross-correlation with tailored modulation. , 2015, , .		1
54	Damage detection of CFRP composites using open electrical impedance tomography. , 2015, , .		5

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55	A new linear back projection algorithm to electrical tomography based on measuring data decomposition. Measurement Science and Technology, 2015, 26, 125402.	2.6	38
56	Electrical Capacitance Tomography With Differential Sensor. IEEE Sensors Journal, 2015, 15, 5087-5094.	4.7	36
57	Impulsive noise reduction in digital phase-sensitive demodulation by nonlinear filtering. Measurement Science and Technology, 2015, 26, 075401.	2.6	12
58	Liquid Film Thickness Estimation using Electrical Capacitance Tomography. Measurement Science Review, 2014, 14, 8-15.	1.0	34
59	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
60	An ECT/ERT dual-modality sensor for oil-water two-phase flow measurement. , 2014, , .		6
61	Estimation of in-tube oil film thickness using electrical capacitance tomography. , 2013, , .		0
62	Online monitoring of gasâ€"solid two-phase flow using projected CG method in ECT image reconstruction. Particuology, 2013, 11, 204-215.	3.6	23
63	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
64	An alternating direction algorithm for two-phase flow visualization using gamma computed tomography. Review of Scientific Instruments, 2012, 83, 123703.	1.3	0
65	Fuzzy clustering based fusion for ERT tomography image. , 2012, , .		0
66	Electrical capacitance tomography using an accelerated proximal gradient algorithm. Review of Scientific Instruments, 2012, 83, 043704.	1.3	19
67	Application of a digital ECT system for measurements of dense-phase gas-solid flows. , 2012, , .		0
68	Image reconstruction based on L1 regularization and projection methods for electrical impedance tomography. Review of Scientific Instruments, 2012, 83, 104707.	1.3	34
69	Change-point-detection-based method for solid velocity measurement using twin-plane electrical capacitance tomography. , 2012, , .		3
70	Development and application of ECT digital system for online flow measurement. , 2012, , .		5
71	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
72	Reconstruction of electrical impedance tomography (EIT) images based on the expectation maximum (EM) method. ISA Transactions, 2012, 51, 808-820.	5.7	26

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73	Application of electrical resistance tomography in bubble columns for volume fraction measurement. , 2012, , .		8
74	Dynamical lag correlation exponent based method for gasâ€"solid flow velocity measurement using twin-plane electrical capacitance tomography. Measurement Science and Technology, 2012, 23, 085301.	2.6	17
75	Visualization imaging software design for Electrical Tomography. , 2011, , .		2
76	Design of a non-magnetic shielded and integrated electromagnetic tomography system. Measurement Science and Technology, 2011, 22, 104007.	2.6	15
77	Image reconstruction for field-focusing capacitance imaging. Measurement Science and Technology, 2011, 22, 035501.	2.6	9
78	A high-performance digital system for electrical capacitance tomography. Measurement Science and Technology, 2011, 22, 055503.	2.6	88
79	Separation of Gasâ€"Liquid Two-Phase Flow Through Independent Component Analysis. IEEE Transactions on Instrumentation and Measurement, 2010, 59, 1294-1302.	4.7	16
80	Cyclostationarity in electrical resistance tomography data from gas/liquid two-phase flow. , 2010, , .		4
81	The design of a FPGA-based digital magnetic induction tomography (MIT) system for metallic object imaging. , 2010, , .		8
82	Application of electrical resistance tomography for slug flow measurement in gas/liquid flow of horizontal pipe. , 2009, , .		6
83	Independent component analysis of the interface fluctuations of gas/liquid two-phase flow. , 2009, , .		1
84	Independent component analysis of interface fluctuation of gas/liquid two-phase flows â€" experimental study. Flow Measurement and Instrumentation, 2009, 20, 220-229.	2.0	9
85	Holding zero switching scheme for multi-channel impedance measurement. , 2009, , .		1
86	An integrated ECT/ERT dual modality sensor. , 2009, , .		25
87	A Specific Data Acquisition Scheme for Electrical Tomography. , 2008, , .		30
88	Lung Ventilation Monitoring Incorporating Prior Information by Electrical Impedance Tomography. , 2008, , .		2
89	Digital signal processing in electrical capacitance tomography. , 2008, , .		8
90	Two-phase flow feature extraction and regime identification in horizontal pipe. , 2008, , .		0

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91	A Novel ECT System Based on FPGA and DSP. , 2007, , .		13