

# Zhang

## List of Publications by Year in descending order

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151  
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citations

236612

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151  
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151  
docs citations

151  
times ranked

925  
citing authors

#	ARTICLE	IF	CITATIONS
1	Sparse Zernike Fitting for Dynamic LAS Tomographic Images of Temperature and Water Vapor Concentration. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-14.	2.4	7
2	Direct image reconstruction in electrical tomography and its applications. , 2022, , 389-425.		0
3	A Interferometer modulated TDLAS Temperature Sensor by using Coherent Demodulation. , 2022, , .		1
4	Temperature Telemetry with Synchronous Distance Detection System based on CM-TDLAS. , 2022, , .		0
5	Relative Entropy Regularized TDLAS Tomography for Robust Temperature Imaging. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	30
6	Noise Immune TDLAS Temperature Measurement Through Spectrum Shifting by Using a Mach-Zehnder Interferometer. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	9
7	Revised Calderon Method of Annular ECT for Imaging Flashback Flame of a Bluff-Body Burner. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	2.4	3
8	A Fuzzy PID-Controlled Iterative Calderon's Method for Binary Distribution in Electrical Capacitance Tomography. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	2.4	9
9	Precise wide-band electrical impedance spectroscopy measurement via an ADC operated below the Nyquist sampling rate. Measurement: Journal of the International Measurement Confederation, 2021, 174, 108995.	2.5	2
10	Absolute Wavenumber Determination for Distributed Feedback Laser from Absorption Spectral Profiles. , 2021, , .		0
11	Dynamic measurement of thickness distribution in a soap film by using a phase-modulated large lateral shearing interferometer. , 2021, , .		0
12	Ultra-Low Sampled and High Precision TDLAS Thermometry Via Artificial Neural Network. IEEE Photonics Journal, 2021, 13, 1-9.	1.0	6
13	Retrieval of Phase and Temperature Distributions in Axisymmetric Flames From Phase-Modulated Large Lateral Shearing Interferogram. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-12.	2.4	7
14	Real-Time 3-D Imaging and Velocity Measurement of Two-Phase Flow Using a Twin-Plane ECT Sensor. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	2.4	14
15	An FPGA-Based On-Chip Neural Network for TDLAS Tomography in Dynamic Flames. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-11.	2.4	15
16	Temperature imaging of Counterflow Diffusion Flames by using TDLAS Tomography. , 2021, , .		2
17	RBF-based reconstruction method for tomographic imaging of temperature and water vapor concentration in flames. , 2021, , .		0
18	Effects of water vapor addition on NO reduction of n-decane/air flames. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2020, 42, 1526-1540.	1.2	6

#	ARTICLE	IF	CITATIONS
19	A new simplified mechanism for combustion of RP-3/Jet-A kerosene. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2020, 42, 676-687.	1.2	4
20	A Compact Laser Absorption Spectroscopy Tomographic System With Short Spectral Scanning Time and Adjustable Frame Rate. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 8226-8237.	2.4	24
21	A Compact Noise-Immune TDLAS Temperature Sensor using Intensity Modulation. , 2020, , .		3
22	A flexibly reconfigurable data acquisition system for tunable diode laser absorption spectroscopy. , 2020, , .		0
23	Dynamic flashback induced by sound wave in a premixed bluff-body stabilized flame. <i>IOP Conference Series: Earth and Environmental Science</i> , 2020, 546, 042019.	0.2	0
24	A WMS Based TDLAS Tomographic System for Distribution Retrievals of Both Gas Concentration and Temperature in Dynamic Flames. <i>IEEE Sensors Journal</i> , 2020, 20, 4179-4188.	2.4	31
25	Frequency-Division Multiplexing and Main Peak Scanning WMS Method for TDLAS Tomography in Flame Monitoring. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 9087-9096.	2.4	56
26	A linear temperature extraction method from Voigt lineshape profile in laser absorption spectroscopy. , 2020, , .		1
27	Inverse Radon Method Based on Electrical Field Lines for Dual-Modality Electrical Tomography. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 8250-8260.	2.4	8
28	Lean blowout detection for bluff-body stabilized flame. <i>Fuel</i> , 2020, 266, 117008.	3.4	15
29	Estimation of Combustion Temperature Field From the Electrical Admittivity Distribution Obtained by Electrical Tomography. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, 69, 6271-6280.	2.4	22
30	Random vibration-driven continuous-wave CRDS system for calibration-free gas concentration measurement. <i>Optics Letters</i> , 2020, 45, 746.	1.7	2
31	Recent development of electromagnetic wave resistivity tools for logging-while-drilling. <i>Acta Geologica Sinica</i> , 2019, 93, 291-291.	0.8	0
32	Forward solver for deep earth exploration and induction logging using custom built Edge-Element FEM technique. <i>Acta Geologica Sinica</i> , 2019, 93, 302-304.	0.8	3
33	A survey of underground detection methods with a new proposal for urban underground detection. <i>Acta Geologica Sinica</i> , 2019, 93, 322-324.	0.8	0
34	Signal Demodulation Methods for Electrical Tomography: A Review. <i>IEEE Sensors Journal</i> , 2019, 19, 9026-9035.	2.4	12
35	Fast wavelength modulated TDLAS imaging system for flame monitoring. , 2019, , .		2
36	Adaptive Selection of Truncation Radius in Calderon's Method for Direct Image Reconstruction in Electrical Capacitance Tomography. <i>Sensors</i> , 2019, 19, 2014.	2.1	3

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37	A robust Doppler shift-based velocimetry via using tunable diode laser absorption spectroscopy. , 2019, , .		0
38	Verification for Electrical Tomography in Flame Monitoring by Ion Probe. , 2019, , .		4
39	Excitation Patterns in 3D Electrical Impedance Tomography for Breast Imaging. , 2019, , .		2
40	A Multi-frequency WMS Method for Tunable Diode Laser Absorption Spectroscopy Tomography. , 2019, , .		0
41	Direct Image Reconstruction for Electrical Capacitance Tomography Using Shortcut D-Bar Method. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 483-492.	2.4	24
42	An Agile Electrical Capacitance Tomography System With Improved Frame Rates. IEEE Sensors Journal, 2019, 19, 1416-1425.	2.4	16
43	Special Section on Imaging Systems and Techniques 2017. Measurement Science and Technology, 2019, 30, 020103.	1.4	0
44	Reconstruction of two-dimensional velocity distribution in scramjet by laser absorption spectroscopy tomography. Applied Optics, 2019, 58, 205.	0.9	23
45	µm-resolution thickness distribution measurement of transparent glass films by using a multi-wavelength phase-shift extraction method in the large lateral shearing interferometer. Optics Express, 2019, 27, 2899.	1.7	6
46	Bound states of solitons in a harmonic graphene-mode-locked fiber laser. Photonics Research, 2019, 7, 116.	3.4	41
47	Online Cross-Sectional Monitoring of a Swirling Flame Using TDLAS Tomography. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 1338-1348.	2.4	79
48	Particle sizing from Fraunhofer diffraction pattern using a digital micro-mirror device and a single photodiode. Powder Technology, 2018, 332, 351-358.	2.1	7
49	Prediction of equivalence ratio in pulse combustor from ion current amplitude spectrum. Fuel, 2018, 218, 179-187.	3.4	13
50	FPGA-Based Real-Time Implementation of Temperature Measurement via Tunable Diode Laser Absorption Spectroscopy. IEEE Sensors Journal, 2018, 18, 2751-2758.	2.4	12
51	An Iterative Algorithm Based on the Dual Integral Inversion for Particle Sizing. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 1729-1737.	2.4	3
52	Dynamic Characterization of Pulse Combustion by Image Series Processing. IEEE Sensors Journal, 2018, 18, 9682-9690.	2.4	4
53	Dual-Modality Electrical Tomography for Flame Monitoring. IEEE Sensors Journal, 2018, 18, 8847-8854.	2.4	27
54	Optimal selection of spectral lines for multispectral absorption tomography. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	4

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55	Iterative Reconstruction Algorithm for Electrical Capacitance Tomography Based on Calderon's Method. IEEE Sensors Journal, 2018, 18, 8450-8462.	2.4	18
56	A Recursive Demodulator for Real-Time Measurement of Multiple Sinusoids. IEEE Sensors Journal, 2018, 18, 6281-6289.	2.4	8
57	Real-Time Imaging and Holdup Measurement of Carbon Dioxide Under CCS Conditions Using Electrical Capacitance Tomography. IEEE Sensors Journal, 2018, 18, 7551-7559.	2.4	17
58	A Reconfigurable Parallel Data Acquisition System for Tunable Diode Laser Absorption Spectroscopy Tomography. IEEE Sensors Journal, 2017, 17, 8215-8223.	2.4	15
59	Flame monitoring of a model swirl injector using 1D tunable diode laser absorption spectroscopy tomography. Measurement Science and Technology, 2017, 28, 054002.	1.4	27
60	Support-vector-regression-based prediction of water holdup in horizontal oil-water flow by using a bicircular conductance probe array. Flow Measurement and Instrumentation, 2017, 57, 64-72.	1.0	5
61	Distribution retrieval of temperature from its histograms via the tunable diode laser absorption spectroscopy. , 2017, , .		2
62	Reconstruction of two-dimensional temperature distribution in swirling flames using TDLAS-based tomography. , 2017, , .		4
63	Ion current sensing-based lean blowout detection for a pulse combustor. Combustion and Flame, 2017, 176, 263-271.	2.8	34
64	Digital Recursive Demodulator Based on Kalman Filter. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 3138-3147.	2.4	21
65	A High-Speed Digital Electrical Capacitance Tomography System Combining Digital Recursive Demodulation and Parallel Capacitance Measurement. IEEE Sensors Journal, 2017, 17, 6690-6698.	2.4	46
66	Local integrated absorbance tomography based on revised iterative reconstruction-reprojection algorithm. , 2017, , .		0
67	Effects of views and spectral lines numbers on hyperspectral temperature distribution tomography. , 2016, , .		0
68	Reconstruction of temperature distribution for swirling flames using one-dimensional TDLAS tomography. , 2016, , .		0
69	Tunable diode laser absorption spectroscopy-based tomography system for on-line monitoring of two-dimensional distributions of temperature and H <sub>2</sub> O mole fraction. Review of Scientific Instruments, 2016, 87, 013101.	0.6	35
70	Water holdup measurement of oil-water two-phase flow in a horizontal well using a dual-circle conductance probe array. Measurement Science and Technology, 2016, 27, 115101.	1.4	7
71	Identification of Oil-water Flow Patterns in a Vertical Well Using a Dual-Ring Conductance Probe Array. IEEE Transactions on Instrumentation and Measurement, 2016, 65, 1249-1258.	2.4	25
72	A review on image reconstruction algorithms for electrical capacitance/resistance tomography. Sensor Review, 2016, 36, 429-445.	1.0	155

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73	Compressive sensing for particle size retrieval by using a digital micro-mirror device-based detector. Powder Technology, 2016, 304, 27-31.	2.1	3
74	Compressive sensing-based wideband capacitance measurement with a fixed sampling rate lower than the highest exciting frequency. Measurement Science and Technology, 2016, 27, 035006.	1.4	4
75	A chemi-ionization processing approach for characterizing flame flickering behavior. , 2015, , .		5
76	A noncontact conductivity detection method based on the principle of electromagnetic induction. , 2015, , .		0
77	Identification of oil-water flow patterns using conductance probe in vertical well. , 2015, , .		1
78	Direct methods for image reconstruction in electrical capacitance tomography. , 2015, , 377-399.		0
79	Performance analysis of a digital capacitance measuring circuit. Review of Scientific Instruments, 2015, 86, 054703.	0.6	62
80	Digital micro-mirror device-based detector for particle-sizing instruments via Fraunhofer diffraction. Applied Optics, 2015, 54, 5842.	2.1	7
81	Development of a fan-beam TDLAS-based tomographic sensor for rapid imaging of temperature and gas concentration. Optics Express, 2015, 23, 22494.	1.7	104
82	Water cut measurement of oil-water flow in vertical well by combining total flow rate and the response of a conductance probe. Measurement Science and Technology, 2015, 26, 095306.	1.4	8
83	Resolution-doubled one-dimensional wavelength modulation spectroscopy tomography for flame flatness validation of a flat-flame burner. Applied Physics B: Lasers and Optics, 2015, 120, 407-416.	1.1	36
84	Ghost imaging of binary-valued objects by using a CCD and an equivalent photodiode. , 2015, , .		0
85	A high-speed electrical impedance measurement circuit based on information-filtering demodulation. Measurement Science and Technology, 2014, 25, 075010.	1.4	26
86	Modified Landweber algorithm for robust particle sizing by using Fraunhofer diffraction. Applied Optics, 2014, 53, 6185.	0.9	14
87	Digital signal processor-based high-precision on-line Voigt lineshape fitting for direct absorption spectroscopy. Review of Scientific Instruments, 2014, 85, 123108.	0.6	14
88	Reconstruction of Axisymmetric Temperature and Gas Concentration Distributions by Combining Fan-Beam TDLAS With Onion-Peeling Deconvolution. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 3067-3075.	2.4	68
89	Manchester code telemetry system for well logging using quasi-parallel inductive-capacitive resonance. Review of Scientific Instruments, 2014, 85, 074704.	0.6	6
90	Factorization method for electrical resistance tomography with partial boundary measurements. , 2014, , .		1

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91	A digital demodulator based on the recursive Gauss-Newton method for electrical tomography. , 2014, , .		2
92	One-dimensional tomography of axisymmetric temperature distribution with limited TDLAS data by using three-point Abel deconvolution. , 2014, , .		0
93	A high precision method for mapping phase to amplitude in direct digital synthesis and its hardware implementation. Review of Scientific Instruments, 2014, 85, 114704.	0.6	2
94	Multiple parameters <sup>3</sup> estimation in horizontal well logging using a conductance-probe array. Flow Measurement and Instrumentation, 2014, 40, 192-198.	1.0	21
95	Four-Terminal Imaging Using a Two-Terminal Electrical Impedance Tomography System. IEEE Transactions on Instrumentation and Measurement, 2014, 63, 432-440.	2.4	22
96	Coil shape optimization of the electromagnetic flowmeter for different flow profiles. Flow Measurement and Instrumentation, 2014, 40, 256-262.	1.0	18
97	Analysis of the electromagnetic wave resistivity tool in deviated well drilling. , 2014, , .		0
98	Laser spot center location by using the gradient-based and least square algorithms. , 2013, , .		4
99	Direct image reconstruction for ERT by using measurements on partial boundary. , 2013, , .		3
100	Optimization of the Electromagnetic Wave Resistivity tool in Logging While Drilling. , 2013, , .		1
101	A Digital Switching Demodulator for Electrical Capacitance Tomography. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 1025-1033.	2.4	38
102	Direct Image Reconstruction for 3-D Electrical Resistance Tomography by Using the Factorization Method and Electrodes on a Single Plane. IEEE Transactions on Instrumentation and Measurement, 2013, 62, 999-1007.	2.4	19
103	Measurement of axisymmetric temperature distributions using single view fan-beam TDLAS tomography. , 2013, , .		3
104	Particle size influence on effective permittivity of particleâ€“gas mixture with particle clusters. Particuology, 2013, 11, 216-224.	2.0	7
105	Measurement of nonuniform temperature and concentration distributions by combining line-of-sight tunable diode laser absorption spectroscopy with regularization methods. Applied Optics, 2013, 52, 4827.	0.9	56
106	A recursive least squares-based demodulator for electrical tomography. Review of Scientific Instruments, 2013, 84, 044704.	0.6	19
107	A complex programmable logic device-based high-precision electrical capacitance tomography system. Measurement Science and Technology, 2013, 24, 074006.	1.4	16
108	Direct recovery of the electrical admittivities in 2D electrical tomography by using Calderon's method and two-terminal/electrode excitation strategies. Measurement Science and Technology, 2013, 24, 074007.	1.4	18

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109	2D image reconstruction of a human chest by using Calderon's method and the adjacent current pattern. Journal of Instrumentation, 2013, 8, P03004-P03004.	0.5	13
110	3D simulation on influence of insulating contents to contactless electromagnetic induction flowmeter. , 2012, , .		0
111	Direct image reconstruction for 3D electrical resistance tomography by using the factorization method. , 2012, , .		4
112	A digital demodulation method for electrical tomography based on sine wave rectification. , 2012, , .		2
113	Influence of installation angle of electromagnetic flowmeter on measurement accuracy. , 2012, , .		1
114	Image reconstruction algorithm for EMT based on modified Tikhonov regularization method. , 2012, , .		2
115	Normalized least-square method for water hold-up measurement in stratified oil-water flow. Flow Measurement and Instrumentation, 2012, 27, 71-80.	1.0	23
116	An alternative digital multiplication demodulation method for electrical capacitance tomography. , 2012, , .		3
117	An adaptive algorithm for cross-correlation velocity measurement. , 2012, , .		5
118	Simulation on measuring of nonuniform temperature distribution based on line-of-sight TDLAS by using Tikhonov regularization method. , 2012, , .		1
119	Fan-beam TDLAS tomography for gas concentration distribution with limited data. , 2012, , .		0
120	A high frequency digital induction system for low conductivity object measurements. , 2012, , .		0
121	A direct reconstruction algorithm for recovering the admittivities in 2D electrical tomography. , 2012, , .		0
122	Image Reconstruction for Invasive ERT in Vertical Oil Well Logging. Chinese Journal of Chemical Engineering, 2012, 20, 319-328.	1.7	11
123	$\ell_1$ -Norm-Based Reconstruction Algorithm for Particle Sizing. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 1395-1404.	2.4	17
124	Direct image reconstruction for electromagnetic tomography by using the factorization method. , 2011, , .		0
125	A simplified model for non-destructive thickness measurement immune to the lift-off effect. , 2011, , .		1
126	Weighting function-based coil size optimization for electromagnetic flowmeter. , 2011, , .		2



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127	DC bias compensation in digital AC-based capacitance measurement for ECT. , 2011, , .		1
128	A fast eddy current forward solver for EMT based on finite element method (FEM) and negligibly coupled field approximation. , 2011, , .		4
129	FPGA-based implementation of Prony demodulation in the multi-frequency EIT system. , 2011, , .		1
130	Electrical Capacitance Tomography for Sensors of Square Cross Sections Using Calderon's Method. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 900-907.	2.4	56
131	Four-terminal scheme used in a two-terminal EIT system. , 2011, , .		3
132	Direct image reconstruction for electromagnetic tomography(EMT) by using the dbar method. , 2011, , .		2
133	&#x2113;&lt;inf>1&lt;/inf> Norm based reconstruction algorithm for particle sizing. , 2011, , .		3
134	2D electrical capacitance tomography with sensors of non-circular cross sections using the factorization method. Measurement Science and Technology, 2011, 22, 114003.	1.4	8
135	Direct image reconstruction for electrical capacitance tomography by using the enclosure method. Measurement Science and Technology, 2011, 22, 104001.	1.4	18
136	Electrical capacitance tomography with a non-circular sensor using the dbar method. Measurement Science and Technology, 2010, 21, 015502.	1.4	38
137	2D ECT for sensors of non-circular cross sections using the factorization method. , 2010, , .		1
138	A direct reconstruction method of electromagnetic tomography(EMT) for high permeability and low conductivity distributions. , 2010, , .		2
139	The experimental research of vortex flowmeter in vertical upward oil-gas-water three-phase flow. , 2010, , .		2
140	Electrical resistance tomography(ERT) by using an ECT sensor. , 2010, , .		5
141	2D ECT with square sensor using Calderon's method. , 2009, , .		0
142	A new analytical inversion to Fraunhofer diffraction. , 2009, , .		0
143	On-line fuel identification using optical sensing and Support Vector Machines technique. , 2009, , .		4
144	Image reconstruction technique of electrical capacitance tomography for low-contrast dielectrics using Calderon's method. Measurement Science and Technology, 2009, 20, 104027.	1.4	46

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145	Integral inversion to Fraunhofer diffraction for particle sizing. Applied Optics, 2009, 48, 4842.	2.1	18
146	Electrical impedance tomography with an optimized calculable square sensor. Review of Scientific Instruments, 2008, 79, 103710.	0.6	30
147	A new strategy for robot path planning based on the finite element method. Proceedings of SPIE, 2008, , .	0.8	0
148	A calculable sensor for electrical impedance tomography. Sensors and Actuators A: Physical, 2007, 140, 156-161.	2.0	27
149	An image reconstruction algorithm based on total variation with adaptive mesh refinement for ECT. Flow Measurement and Instrumentation, 2007, 18, 262-267.	1.0	93
150	The Study of a 2D Model and Image Reconstruction Algorithms Based on EIT System. , 2006, , .		5
151	The Study of a 2D Model and Image Reconstruction Algorithms Based on EIT System. Conference Record - IEEE Instrumentation and Measurement Technology Conference, 2006, , .	0.0	0