

Lei Kang

List of Publications by Year in descending order

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56
papers

589
citations

623734

14
h-index

677142

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58
all docs

58
docs citations

58
times ranked

222
citing authors

#	ARTICLE	IF	CITATIONS
1	Numerical and experimental analysis of unidirectional meander-line coil electromagnetic acoustic transducers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2013, 60, 2657-2664.	3.0	65
2	Enhancement of signal amplitude of surface wave EMATs based on 3-D simulation analysis and orthogonal test method. NDT and E International, 2013, 59, 11-17.	3.7	64
3	3-D modeling and analysis of meander-line-coil surface wave EMATs. Mechatronics, 2012, 22, 653-660.	3.3	45
4	Enhancement of ultrasonic signal using a new design of Rayleigh-wave electromagnetic acoustic transducer. NDT and E International, 2017, 86, 36-43.	3.7	43
5	High-Frequency Measurement of Ultrasound Using Flexural Ultrasonic Transducers. IEEE Sensors Journal, 2018, 18, 5238-5244.	4.7	22
6	The electro-mechanical behaviour of flexural ultrasonic transducers. Applied Physics Letters, 2017, 110, .	3.3	21
7	Unidirectional Shear Horizontal Wave Generation With Side-Shifted Periodic Permanent Magnets Electromagnetic Acoustic Transducer. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2020, 67, 2757-2760.	3.0	21
8	Unidirectional Shear Horizontal Wave Generation by Periodic Permanent Magnets Electromagnetic Acoustic Transducer With Dual Linear-Coil Array. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 3135-3142.	3.0	21
9	Modeling of Lorentz forces and radiated wave fields for bulk wave electromagnetic acoustic transducers. Journal of Applied Physics, 2013, 114, .	2.5	19
10	The Dynamic Performance of Flexural Ultrasonic Transducers. Sensors, 2018, 18, 270.	3.8	18
11	Minimizing influence of multi-modes and dispersion of electromagnetic ultrasonic lamb waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2010, 57, 2725-2733.	3.0	17
12	Optimal Design of Lamb Wave Electromagnetic Acoustic Transducers for Improving Their Excitation Performance. Japanese Journal of Applied Physics, 2011, 50, 07HD01.	1.5	17
13	Analysis of multiple wavelengths of Lamb waves generated by meander-line coil EMATs. Ultrasonics, 2014, 54, 632-636.	3.9	16
14	Dynamic Nonlinearity in Piezoelectric Flexural Ultrasonic Transducers. IEEE Sensors Journal, 2019, 19, 6056-6066.	4.7	16
15	Nonlinearity in the Dynamic Response of Flexural Ultrasonic Transducers. , 2018, 2, 1-4.		14
16	The High Frequency Flexural Ultrasonic Transducer for Transmitting and Receiving Ultrasound in Air. IEEE Sensors Journal, 2020, 20, 7653-7660.	4.7	14
17	Flow Velocity Measurement Using a Spatial Averaging Method with Two-Dimensional Flexural Ultrasonic Array Technology. Sensors, 2019, 19, 4786.	3.8	12
18	Enhancement of the Unidirectional Radiation Pattern of Shear Horizontal Ultrasonic Waves Generated by Side-Shifted Periodic Permanent Magnets Electromagnetic Acoustic Transducers With Multiple Rows of Magnets. IEEE Sensors Journal, 2022, 22, 7637-7644.	4.7	12

#	ARTICLE	IF	CITATIONS
19	Optimal unidirectional generation of a dispersive wave mode with dual-array transducer. Mechanical Systems and Signal Processing, 2022, 177, 109138.	8.0	11
20	One-dimension frequency-wavenumber-domain based model for ultrasonic waves generated by dual-array transducers. Ultrasonics, 2022, 124, 106772.	3.9	10
21	Rail flaw detection system based on electromagnetic acoustic technique. , 2010, , .		9
22	Modeling and comparison of three bulk wave EMATs. , 2011, , .		8
23	Electromagnetic ultrasonic guided waves inspection of rail base. , 2014, , .		8
24	Coil parameter analysis of meander-line coil electromagnetic acoustic transducer-based Rayleigh waves. Transactions of the Institute of Measurement and Control, 2014, 36, 155-163.	1.7	8
25	Experimental Evaluation of Three Designs of Electrodynamic Flexural Transducers. Sensors, 2016, 16, 1363.	3.8	8
26	The Influence of Air Pressure on the Dynamics of Flexural Ultrasonic Transducers. Sensors, 2019, 19, 4710.	3.8	7
27	Characteristic research and analysis of EMAT's transduction efficiency for surface detection of aluminum plate. , 2009, , .		4
28	Design of bulk wave EMAT using a pulsed electromagnet. , 2014, , .		4
29	Design of flexural ultrasonic phased array for fluid-coupled applications. , 2016, , .		4
30	Venting in the Comparative Study of Flexural Ultrasonic Transducers to Improve Resilience at Elevated Environmental Pressure Levels. IEEE Sensors Journal, 2020, 20, 5776-5784.	4.7	4
31	Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate. , 2010, , .		3
32	Analysis of wavelength deviation of guided waves with electromagnetic acoustic transducers. Journal of Applied Physics, 2012, 112, 084913.	2.5	3
33	Radiation pattern of lamb waves generated by electromagnetic acoustic transducers. , 2014, , .		3
34	Flow measurement based on two-dimensional flexural ultrasonic phased arrays. Proceedings of Meetings on Acoustics, 2017, , .	0.3	3
35	Ultrasonic phased array for sound drift compensation in gas flow metering. , 2017, , .		3
36	Wideband electromagnetic dynamic acoustic transducers (WEMDATs) for air-coupled ultrasonic applications. Applied Physics Letters, 2019, 114, .	3.3	3

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37	A Novel Mathematical Model for Transit-time Ultrasonic Flow Measurement. , 2019, , .		3
38	Active damping of ultrasonic receiving sensors through engineered pressure waves. Journal Physics D: Applied Physics, 2021, 54, 13LT01.	2.8	3
39	Influence of Coil Parameters on Rayleigh Waves Excited by Meander-Line Coil EMATs. Communications in Computer and Information Science, 2013, , 94-103.	0.5	3
40	Computation of the radiation pattern of unidirectional SH wave generated by dual-PPM EMATs. , 2021, , .		3
41	Design and Dynamics of Oil Filled Flexural Ultrasonic Transducers for Elevated Pressures. IEEE Sensors Journal, 2022, 22, 12673-12680.	4.7	3
42	An inspection device based on multiple Lamb wave electromagnetic acoustic transducers. , 2014, , .		2
43	Electromagnetic ultrasonic tomography of plate defects based on omnidirectional Lamb-wave EMATs. , 2015, , .		2
44	Dynamic characteristics of flexural ultrasonic transducers. Proceedings of Meetings on Acoustics, 2017, , .	0.3	2
45	Analysis of Influence of Inconsistent Performances of Array Elements on Flexural Ultrasonic Phased Array for Measurement of Ultrasound in Fluids. , 2018, , .		2
46	Numerical Investigation of Application of Unidirectional Generation to Improve Signal Interpretation of Circumferential Guided Waves in Pipes for Defect Detection. Lecture Notes in Civil Engineering, 2023, , 61-70.	0.4	2
47	A method for optimizing excitation of electromagnetic ultrasonic Lamb wave. , 2010, , .		1
48	A new surface-wave EMAT design of enhanced transduction efficiency. , 2014, , .		1
49	Measurement using flexural ultrasonic transducers in high pressure environments. Proceedings of Meetings on Acoustics, 2019, , .	0.3	1
50	Higher order modal dynamics of the flexural ultrasonic transducer. Journal Physics D: Applied Physics, 2022, 55, 07LT01.	2.8	1
51	Modeling and analysis of surface wave EMAT and its acoustic field. , 2010, , .		0
52	HiFFUTs for high temperature ultrasound. Proceedings of Meetings on Acoustics, 2017, , .	0.3	0
53	Two-dimensional flexural ultrasonic phased array for flow measurement. , 2017, , .		0
54	An Experimental Platform for Electromagnetic Ultrasonic Guided Wave Tomography Technique. , 2017, , .		0

#	ARTICLE	IF	CITATIONS
55	The nonlinear dynamics of flexural ultrasonic transducers. Proceedings of Meetings on Acoustics, 2019, , .	0.3	0
56	Wideband Electromagnetic Dynamic Acoustic Transducer as a Standard Acoustic Source for Air-coupled Ultrasonic Sensors. , 2019, , .		0