

# Lei Kang

## List of Publications by Year in descending order

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56  
papers

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citations

623734

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docs citations

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times ranked

222  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Higher order modal dynamics of the flexural ultrasonic transducer. Journal Physics D: Applied Physics, 2022, 55, 07LT01.	2.8	1
3	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
4	Optimal unidirectional generation of a dispersive wave mode with dual-array transducer. Mechanical Systems and Signal Processing, 2022, 177, 109138.	8.0	11
5	One-dimension frequency-wavenumber-domain based model for ultrasonic waves generated by dual-array transducers. Ultrasonics, 2022, 124, 106772.	3.9	10
6	Design and Dynamics of Oil Filled Flexural Ultrasonic Transducers for Elevated Pressures. IEEE Sensors Journal, 2022, 22, 12673-12680.	4.7	3
7	Active damping of ultrasonic receiving sensors through engineered pressure waves. Journal Physics D: Applied Physics, 2021, 54, 13LT01.	2.8	3
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	Computation of the radiation pattern of unidirectional SH wave generated by dual-PPM EMATs. , 2021, , .		3
10	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
11	The High Frequency Flexural Ultrasonic Transducer for Transmitting and Receiving Ultrasound in Air. IEEE Sensors Journal, 2020, 20, 7653-7660.	4.7	14
12	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
13	Dynamic Nonlinearity in Piezoelectric Flexural Ultrasonic Transducers. IEEE Sensors Journal, 2019, 19, 6056-6066.	4.7	16
14	Wideband electromagnetic dynamic acoustic transducers (WEMDATs) for air-coupled ultrasonic applications. Applied Physics Letters, 2019, 114, .	3.3	3
15	Measurement using flexural ultrasonic transducers in high pressure environments. Proceedings of Meetings on Acoustics, 2019, , .	0.3	1
16	The nonlinear dynamics of flexural ultrasonic transducers. Proceedings of Meetings on Acoustics, 2019, , .	0.3	0
17	A Novel Mathematical Model for Transit-time Ultrasonic Flow Measurement. , 2019, , .		3
18	Wideband Electromagnetic Dynamic Acoustic Transducer as a Standard Acoustic Source for Air-coupled Ultrasonic Sensors. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
19	The Influence of Air Pressure on the Dynamics of Flexural Ultrasonic Transducers. Sensors, 2019, 19, 4710.	3.8	7
20	Flow Velocity Measurement Using a Spatial Averaging Method with Two-Dimensional Flexural Ultrasonic Array Technology. Sensors, 2019, 19, 4786.	3.8	12
21	Nonlinearity in the Dynamic Response of Flexural Ultrasonic Transducers. , 2018, 2, 1-4.		14
22	Analysis of Influence of Inconsistent Performances of Array Elements on Flexural Ultrasonic Phased Array for Measurement of Ultrasound in Fluids. , 2018, , .		2
23	High-Frequency Measurement of Ultrasound Using Flexural Ultrasonic Transducers. IEEE Sensors Journal, 2018, 18, 5238-5244.	4.7	22
24	The Dynamic Performance of Flexural Ultrasonic Transducers. Sensors, 2018, 18, 270.	3.8	18
25	The electro-mechanical behaviour of flexural ultrasonic transducers. Applied Physics Letters, 2017, 110, .	3.3	21
26	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
27	HiFFUTs for high temperature ultrasound. Proceedings of Meetings on Acoustics, 2017, , .	0.3	0
28	Flow measurement based on two-dimensional flexural ultrasonic phased arrays. Proceedings of Meetings on Acoustics, 2017, , .	0.3	3
29	Two-dimensional flexural ultrasonic phased array for flow measurement. , 2017, , .		0
30	Ultrasonic phased array for sound drift compensation in gas flow metering. , 2017, , .		3
31	Dynamic characteristics of flexural ultrasonic transducers. Proceedings of Meetings on Acoustics, 2017, , .	0.3	2
32	An Experimental Platform for Electromagnetic Ultrasonic Guided Wave Tomography Technique. , 2017, , .		0
33	Experimental Evaluation of Three Designs of Electrodynamical Flexural Transducers. Sensors, 2016, 16, 1363.	3.8	8
34	Design of flexural ultrasonic phased array for fluid-coupled applications. , 2016, , .		4
35	Electromagnetic ultrasonic tomography of plate defects based on omnidirectional Lamb-wave EMATs. , 2015, , .		2
36	An inspection device based on multiple Lamb wave electromagnetic acoustic transducers. , 2014, , .		2

#	ARTICLE	IF	CITATIONS
37	Radiation pattern of lamb waves generated by electromagnetic acoustic transducers. , 2014, , .		3
38	A new surface-wave EMAT design of enhanced transduction efficiency. , 2014, , .		1
39	Electromagnetic ultrasonic guided waves inspection of rail base. , 2014, , .		8
40	Design of bulk wave EMAT using a pulsed electromagnet. , 2014, , .		4
41	Analysis of multiple wavelengths of Lamb waves generated by meander-line coil EMATs. Ultrasonics, 2014, 54, 632-636.	3.9	16
42	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
43	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
44	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
45	Modeling of Lorentz forces and radiated wave fields for bulk wave electromagnetic acoustic transducers. Journal of Applied Physics, 2013, 114, .	2.5	19
46	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
47	Analysis of wavelength deviation of guided waves with electromagnetic acoustic transducers. Journal of Applied Physics, 2012, 112, 084913.	2.5	3
48	3-D modeling and analysis of meander-line-coil surface wave EMATs. Mechatronics, 2012, 22, 653-660.	3.3	45
49	Optimal Design of Lamb Wave Electromagnetic Acoustic Transducers for Improving Their Excitation Performance. Japanese Journal of Applied Physics, 2011, 50, 07HD01.	1.5	17
50	Modeling and comparison of three bulk wave EMATs. , 2011, , .		8
51	Modeling and analysis of surface wave EMAT and its acoustic field. , 2010, , .		0
52	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
53	Research on influence of lorentz force mechanism on EMAT's transduction efficiency in steel plate. , 2010, , .		3
54	Rail flaw detection system based on electromagnetic acoustic technique. , 2010, , .		9

#	ARTICLE	IF	CITATIONS
55	A method for optimizing excitation of electromagnetic ultrasonic Lamb wave. , 2010, , .		1
56	Characteristic research and analysis of EMAT's transduction efficiency for surface detection of aluminum plate. , 2009, , .		4