

Matthias Rutsch

List of Publications by Year in descending order

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21
papers

158
citations

1684188

5
h-index

2053705

5
g-index

21
all docs

21
docs citations

21
times ranked

45
citing authors

#	ARTICLE	IF	CITATIONS
1	Real-Time 3-D Imaging Using an Air-Coupled Ultrasonic Phased-Array. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2021, 68, 796-806.	3.0	41
2	Air-Coupled Ultrasonic Spiral Phased Array for High-Precision Beamforming and Imaging. IEEE Open Journal of Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 2, 40-54.	1.4	15
3	Versatile air-coupled phased array transducer for sensor applications. , 2015, , .		12
4	Visualization of Acoustic Energy Absorption in Confined Aqueous Solutions by PNIPAM Microgels: Effects of Bulk Viscosity. Langmuir, 2021, 37, 5854-5863.	3.5	11
5	Embedded Air-Coupled Ultrasonic 3D Sonar System with GPU Acceleration. , 2020, , .		10
6	Phased array transducer for emitting 40-kHz air-coupled ultrasound without grating lobes. , 2015, , .		9
7	Extending the receive performance of phased ultrasonic transducer arrays in air down to 40 kHz and below. , 2015, , .		8
8	Schlieren photography of 40 kHz leaky Lamb waves in air. , 2020, , .		7
9	Diffraction loss calculation based on boundary element method for an air-coupled phased array. , 2015, , .		6
10	Spiral Air-Coupled Ultrasonic Phased Array for High Resolution 3D Imaging. , 2020, , .		6
11	Waveguide for air-coupled ultrasonic phased-arrays with propagation time compensation and plug-in assembly. Journal of the Acoustical Society of America, 2021, 150, 3228-3237.	1.1	6
12	Lamb waves excited by an air-coupled ultrasonic phased array for non-contact, non-destructive detection of discontinuities in sheet materials. , 2021, , .		6
13	Wave propagation in an acoustic waveguide for ultrasonic phased arrays. , 2019, , .		5
14	Multipath Flow Metering of High-Velocity Gas Using Ultrasonic Phased-Arrays. IEEE Open Journal of Ultrasonics, Ferroelectrics, and Frequency Control, 2022, 2, 30-39.	1.4	5
15	Dictionary-Based Learning for 3D-Imaging with Air-Coupled Ultrasonic Phased Arrays. , 2020, , .		3
16	Single Microcontroller Air-coupled Waveguided Ultrasonic Sonar System. , 2021, , .		3
17	Air-coupled 40-KHZ ultrasonic 2D-phased array based on a 3D-printed waveguide structure. , 2017, , .		2
18	Protection layer for air-coupled waveguide ultrasonic phased arrays. , 2020, , .		2

#	ARTICLE	IF	CITATIONS
19	Air-coupled ultrasonic bending plate transducer with piezoelectric and electrostatic transduction element combination. , 2019, , .		1
20	Ray-tracing simulation of sound drift effect for multi-path ultrasonic high-velocity gas flow metering. , 2021, , .		0
21	Simulation of protection layers for air-coupled waveguided ultrasonic phased-arrays. , 2021, , .		0