

Stefan J Rupitsch

List of Publications by Year in descending order

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59
papers

773
citations

471509

17
h-index

552781

26
g-index

59
all docs

59
docs citations

59
times ranked

549
citing authors

#	ARTICLE	IF	CITATIONS
1	Inverse Method to estimate material parameters for piezoceramic disc actuators. Applied Physics A: Materials Science and Processing, 2009, 97, 735-740.	2.3	83
2	Complete characterization of piezoceramic materials by means of two block-shaped test samples. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2015, 62, 1403-1413.	3.0	54
3	Modeling and measurement of creep- and rate-dependent hysteresis in ferroelectric actuators. Sensors and Actuators A: Physical, 2011, 172, 245-252.	4.1	50
4	A Preisach-based hysteresis model for magnetic and ferroelectric hysteresis. Applied Physics A: Materials Science and Processing, 2010, 100, 425-430.	2.3	45
5	Acoustic Microscopy Technique to Precisely Locate Layer Delamination. IEEE Transactions on Instrumentation and Measurement, 2007, 56, 1429-1434.	4.7	40
6	Ultrasound transducers based on ferroelectret materials. IEEE Transactions on Dielectrics and Electrical Insulation, 2011, 18, 69-80.	2.9	40
7	Simulation based estimation of dynamic mechanical properties for viscoelastic materials used for vocal fold models. Journal of Sound and Vibration, 2011, 330, 4447-4459.	3.9	39
8	Reliable modeling of piezoceramic materials utilized in sensors and actuators. Acta Mechanica, 2012, 223, 1809-1821.	2.1	33
9	Determination of Dynamic Material Properties of Silicone Rubber Using One-Point Measurements and Finite Element Simulations. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 3031-3038.	4.7	27
10	Impedance-Based Temperature Sensing With Piezoceramic Devices. IEEE Sensors Journal, 2013, 13, 2442-2449.	4.7	25
11	Calculating the full leaky Lamb wave spectrum with exact fluid interaction. Journal of the Acoustical Society of America, 2019, 145, 3341-3350.	1.1	24
12	A modified Preisach hysteresis operator for the modeling of temperature dependent magnetic material behavior. Journal of Applied Physics, 2011, 109, 07D338.	2.5	23
13	Finite element based system simulation for piezoelectric vibration energy harvesting devices. Journal of Intelligent Material Systems and Structures, 2018, 29, 1333-1347.	2.5	22
14	A generalized Preisach approach for piezoceramic materials incorporating uniaxial compressive stress. Sensors and Actuators A: Physical, 2012, 186, 223-229.	4.1	21
15	Simultaneous Ultrasonic Measurement of Thickness and Speed of Sound in Elastic Plates Using Coded Excitation Signals. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2017, 64, 1744-1757.	3.0	19
16	Estimation of the surface normal velocity of high frequency ultrasound transducers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2008, 55, 225-235.	3.0	18
17	Influence of the fabrication process on the functionality of piezoceramic patch transducers embedded in aluminum die castings. Smart Materials and Structures, 2012, 21, 115014.	3.5	18
18	Classification of Sonar Targets in Air: A Neural Network Approach. Sensors, 2019, 19, 1176.	3.8	15

#	ARTICLE	IF	CITATIONS
19	A reliability study of light refractive tomography utilized for noninvasive measurement of ultrasound pressure fields. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2012, 59, 915-927.	3.0	12
20	Artifact reduction in non-destructive testing by means of complementary data fusion of x-ray computed tomography and ultrasonic pulse-echo testing. Measurement Science and Technology, 2013, 24, 125403.	2.6	12
21	Fibre-reinforced composite structures based on thermoplastic matrices with embedded piezoceramic modules. Smart Materials and Structures, 2014, 23, 025011.	3.5	12
22	Estimation of material parameters for piezoelectric actuators using electrical and mechanical quantities. , 2009, , .		9
23	Contactless Inspection of Flat-Panel Displays and Detector Panels by Capacitive Coupling. IEEE Transactions on Electron Devices, 2011, 58, 3453-3462.	3.0	8
24	On the stiffness hysteresis of profiled rail guides. Tribology International, 2021, 160, 107019.	5.9	8
25	Variation of Material Parameters for The Thickness Extensional Mode of Piezoceramic Discs in Case of Mechanical Loading. Procedia Engineering, 2011, 25, 1441-1444.	1.2	7
26	Enhancement of the inverse method enabling the material parameter identification for piezoceramics. , 2011, , .		6
27	Untersuchung analytischer und numerischer Modelle zur anwendungsspezifischen Dimensionierung eines Amplified Piezo Actuators. TM Technisches Messen, 2017, 84, 706-718.	0.7	6
28	Development of Materialâ€Integrated Actuatorâ€Sensorâ€Arrays for Obstacle Sensing. Advanced Engineering Materials, 2018, 20, 1800475.	3.5	6
29	Piezoelectric EMI Filter for Switched-Mode Power Supplies. IEEE Transactions on Power Electronics, 2021, 36, 6624-6643.	7.9	6
30	Simultaneous determination of speed of sound and sample thickness utilizing coded excitation. , 2012, , .		5
31	Extraction of Spatial Ultrasonic Wave Packet Features by Exploiting a Modified Hough Transform. IEEE Sensors Journal, 2014, 14, 2389-2395.	4.7	5
32	Hybrid Seminumerical Simulation Scheme to Predict Transducer Outputs of Acoustic Microscopes. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2016, 63, 275-289.	3.0	5
33	3â€D Scanning Acoustic Microscope for Investigation of Curvedâ€Structured Smart Material Compounds. Advanced Engineering Materials, 2018, 20, 1800409.	3.5	5
34	Implementation and Validation of a Two-Stage Energy Extraction Circuit for a Self Sustained Asset-Tracking System. Sensors, 2019, 19, 1330.	3.8	5
35	Identification procedure for real and imaginary material parameters of piezoceramic materials. , 2010, , .		4
36	Ultrasonic defect detection in multi-material, axis-symmetric devices with an improved synthetic aperture focusing technique (SAFT). , 2012, , .		4

#	ARTICLE	IF	CITATIONS
37	Efficient numerical simulation of transducer outputs for acoustic microscopes. , 2014, , .		4
38	Inverse Methode zur Charakterisierung des mechanischen Frequenzverhaltens isotroper Werkstoffe. TM Technisches Messen, 2016, 83, 123-130.	0.7	4
39	Entwicklung und Optimierung eines piezoelektrischen Energy-Harvesting-Systems zur Energieversorgung eines GÄ¼terverfolgungssystems im Logistikbereich. TM Technisches Messen, 2018, 85, 645-657.	0.7	4
40	Simulation-Based Characterization of Mechanical Parameters and Thickness of Homogeneous Plates Using Guided Waves. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2019, 66, 1898-1905.	3.0	4
41	Modeling and Simulation Approaches for Piezoelectric Vibration Energy Harvesting Systems. IEEE Sensors Journal, 2021, 21, 12926-12939.	4.7	4
42	Iteration Methods to Precisely Locate Edges of Hot Objects Using Simple Infrared-Sensing Elements. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 268-274.	4.7	3
43	Efficient compensation of nonlinear transfer characteristics for piezoceramic actuators. , 2013, , .		3
44	Numerical and experimental study on the frequency tuning characteristics of a rotating piezoelectric energy harvester. , 2014, , .		3
45	Determination of temperature dependences of material constants for lead-free (Na0.5K0.5)NbO3â€“Ba2NaNb5O15 piezoceramics by inverse method. Japanese Journal of Applied Physics, 2016, 55, 10TD02.	1.5	3
46	A matched model-based synthetic aperture focusing technique for acoustic microscopy. NDT and E International, 2019, 104, 51-57.	3.7	3
47	Messsystem zur Ultraschallmikroskopie an gekrÄ¼mmten Strukturen. TM Technisches Messen, 2017, 84, 251-262.	0.7	3
48	Verfahren zur ErhÃ¼hung der Ä¼rtlichen AuflÃ¶sung bei synthetisch fokussierten Ultraschalltransducern (A Method to Increase the Spatial Resolution of Synthetically Focussed) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 29		3
49	Inverse scheme to identify the temperature dependence of electromechanical coupling factors for piezoceramics. , 2013, , .		2
50	Investigation of the Synthetic Aperture Focusing Technique resolution for heavy rotor forging ultrasonic inspection. , 2013, , .		2
51	Homogenization and characterization of piezoelectric stack actuators by means of the inverse method. , 2016, , .		2
52	A model-based synthetic aperture focusing technique for acoustic microscopy. , 2016, , .		2
53	A spatially resolved modeling approach for piezoelectric composite structures based on finite elements. , 2016, , .		2
54	Simulation-based characterization of piezoceramic materials. , 2016, , .		1

#	ARTICLE	IF	CITATIONS
55	Piezoelektrisches Energy-Harvesting in niederfrequenter Anregungsumgebung mittels kontaktbasierter Frequency-Upconversion. TM Technisches Messen, 2018, 85, 275-290.	0.7	1
56	3D-analysis of bending-type transducers for distance measurement applications. , 2011, , .		0
57	Contactless Functionality Inspection of Flat-Panel-Display Pixels and Thin-Film Transistors by Capacitive Coupling. IEEE Transactions on Electron Devices, 2012, 59, 3411-3418.	3.0	0
58	Characterization of lead-free alkali niobate piezoceramics by the Inverse Method. , 2015, , .		0
59	Global load determination in linear guides based on the fusion of local rolling element loads determined from strain sensitive sensor groups. TM Technisches Messen, 2022, 89, 16-32.	0.7	0