

Libor Rufer

List of Publications by Year in descending order

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74
papers

488
citations

840728

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839512

18
g-index

76
all docs

76
docs citations

76
times ranked

513
citing authors

#	ARTICLE	IF	CITATIONS
1	Micro-structured PDMS piezoelectric enhancement through charging conditions. Smart Materials and Structures, 2016, 25, 105027.	3.5	43
2	An Integrated Floating-Electrode Electric Microgenerator. Journal of Microelectromechanical Systems, 2007, 16, 29-37.	2.5	38
3	Effect of bias conditions on pressure sensors based on AlGaIn/GaN High Electron Mobility Transistor. Sensors and Actuators A: Physical, 2013, 194, 247-251.	4.1	31
4	On-Chip Pseudorandom MEMS Testing. Journal of Electronic Testing: Theory and Applications (JETTA), 2005, 21, 233-241.	1.2	20
5	Built-in-self-test techniques for MEMS. Microelectronics Journal, 2006, 37, 1591-1597.	2.0	19
6	Reliability of BGA Solder Joints on the Au/Ni/Cu Bond Pad-Effect of Thicknesses of Au and Ni Layer. IEEE Transactions on Device and Materials Reliability, 2006, 6, 421-428.	2.0	17
7	AlGaIn/GaN heterostructure-based surface acoustic wave-structures for chemical sensors. Applied Surface Science, 2008, 255, 712-714.	6.1	17
8	Mems built-in-self-test using MLS. , 0, , .		15
9	Dielectric properties modelling of cellular structures with PDMS for micro-sensor applications. Smart Materials and Structures, 2015, 24, 125013.	3.5	15
10	Modeling and validation of acoustic performances of micro-acoustic sources for hearing applications. Sensors and Actuators A: Physical, 2016, 247, 614-628.	4.1	15
11	Partial discharge detection with on-chip spiral inductor as a loop antenna. Review of Scientific Instruments, 2021, 92, 094701.	1.3	14
12	A dynamical approach to generate chaos in a micromechanical resonator. Microsystems and Nanoengineering, 2021, 7, 17.	7.0	13
13	A CMOS Compatible Ultrasonic Transducer Fabricated With Deep Reactive Ion Etching. Journal of Microelectromechanical Systems, 2006, 15, 1766-1776.	2.5	10
14	Pressure and temperature dependence of GaN/AlGaIn high electron mobility transistor based sensors on a sapphire membrane. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 960-963.	0.8	10
15	Design, fabrication and characterization of a very low frequency piezoelectric energy harvester designed for heart beat vibration scavenging. Proceedings of SPIE, 2013, , .	0.8	10
16	Lumped-parameters equivalent circuit for condenser microphones modeling. Journal of the Acoustical Society of America, 2017, 142, 2121-2132.	1.1	10
17	AlN-on-Si Square Diaphragm Piezoelectric Micromachined Ultrasonic Transducer with Extended Range of Detection. Proceedings (mdpi), 2018, 2, 913.	0.2	10
18	On-chip testing of MEMS using pseudo-random test sequences. , 0, , .		9

#	ARTICLE	IF	CITATIONS
19	Piezoelectric cellular micro-structured PDMS material for micro-sensors and energy harvesting. Journal of Physics: Conference Series, 2015, 660, 012040.	0.4	9
20	Micro-acoustic Source for Hearing Applications Fabricated with 0.35 μ m CMOS-MEMS Process. Procedia Engineering, 2015, 120, 944-947.	1.2	9
21	Analytical and numerical modelling of AlGaIn/GaN/AlN heterostructure based cantilevers for mechanical sensing in harsh environments. Sensors and Actuators A: Physical, 2011, 172, 27-34.	4.1	8
22	Air-spaced PDMS piezo-electret cantilevers for vibration energy harvesting. Journal of Physics: Conference Series, 2016, 773, 012072.	0.4	7
23	<title>Behavioral modeling and simulation of a MEMS-based ultrasonic pulse-echo system</title> , 2002, , .		6
24	GaAs and GaN based SAW chemical sensors: acoustic part design and technology. , 2006, , .		6
25	Design of a SAW-based chemical sensor with its microelectronics front-end interface. Microelectronics Journal, 2010, 41, 723-732.	2.0	6
26	Electroacoustic Analysis of a Controlled Damping Planar CMOS-MEMS Electrodynamic Microphone. Archives of Acoustics, 2015, 40, 527-537.	0.8	6
27	Piezoelectric Micromachined Acoustic Transducer with Electrically-Tunable Resonant Frequency. , 2019, , .		6
28	Piezoelectric MEMS Acoustic Transducer with Electrically-Tunable Resonant Frequency. Micromachines, 2022, 13, 96.	2.9	6
29	Pseudorandom BIST for test and characterization of linear and nonlinear MEMS. Microelectronics Journal, 2009, 40, 1054-1061.	2.0	5
30	Wide-band aero-acoustic microphone with improved low-frequency characteristics. , 2013, , .		5
31	Application driven design, fabrication and characterization of piezoelectric energy scavenger for cardiac pacemakers. , 2013, , .		5
32	Performances Evaluation of On-Chip Large-Size-Tapped Transformer for MEMS Applications. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 7051-7060.	4.7	5
33	On-chip testing of embedded silicon transducers. , 0, , .		4
34	Highly flexible membrane systems for micromachined microphones - modeling and simulation. , 2009, , .		4
35	Low Frequency Test for RF MEMS Switches. , 2010, , .		4
36	Wide-band piezoresistive microphone for aero-acoustic applications. , 2012, , .		4

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37	Bulk micro-machined wide-band aero-acoustic microphone and its application to acoustic ranging. Journal of Micromechanics and Microengineering, 2013, 23, 105006.	2.6	4
38	Active electronic cancellation of nonlinearity in a High-Q longitudinal-mode silicon resonator by current biasing. , 2014, , .		4
39	Air-coupled Ultrasonic Rangefinder with Meter-long Detection Range Based on a Dual-electrode PMUT Fabricated Using a Multi-user MEMS Process. , 2019, , .		4
40	An implementation of memory-based on-chip analogue test signal generation. , 2003, , .		4
41	An implementation of memory-based on-chip analogue test signal generation. , 0, , .		3
42	Evaluation of Impulse Response-Based BIST Techniques for MEMS in the Presence of Weak Nonlinearities. , 0, , .		3
43	Electromagnetic modeling of an integrated micromachined inductive microphone. , 2009, , .		3
44	Surface acoustic wave excitation on SF6 plasma-treated AlGaIn/GaN heterostructure. Vacuum, 2009, 84, 231-234.	3.5	3
45	Behavioral modeling and simulation of a chemical sensor with its microelectronics front-end interface. , 2009, , .		3
46	The design, fabrication and characterization of a piezoresistive tactile sensor for fingerprint sensing. , 2010, , .		3
47	Wide-band piezoresistive aero-acoustic microphone. , 2011, , .		3
48	Highly Efficient Low-frequency Energy Harvester Using Bulk Piezoelectric Ceramics. Journal of Physics: Conference Series, 2013, 476, 012133.	0.4	3
49	Damped Aero-Acoustic Microphone With Improved High-Frequency Characteristics. Journal of Microelectromechanical Systems, 2014, 23, 1094-1100.	2.5	3
50	Optimization of Induced Voltage From CMOS-Compatible MEMS Electrodynamic Microphone With Coaxial Planar Inductances. IEEE Sensors Journal, 2016, 16, 6879-6889.	4.7	3
51	Mems Device with Piezoelectric Actuators for Driving Mechanical Vortexes in Aqueous Solution Drop. , 2019, , .		3
52	Chaotic ultrasound generation using a nonlinear piezoelectric microtransducer. Journal of Micromechanics and Microengineering, 2021, 31, 054002.	2.6	3
53	SAW chemical sensors based on AlGaIn/GaN piezoelectric material system: acoustic design and packaging considerations. , 0, , .		2
54	Aero-acoustic microphone with layer-transferred single-crystal silicon piezoresistors. , 2009, , .		2

#	ARTICLE	IF	CITATIONS
55	Analytical and numerical modeling of AlGaIn/GaN/AlN heterostructure based cantilevers for mechanical sensing in harsh environments. Procedia Engineering, 2010, 5, 91-94.	1.2	2
56	CMOS-MEMS technology with front-end surface etching of sacrificial SiO ₂ dedicated for acoustic devices. , 2013, , .		2
57	Magnetic-field CMOS microsensors for low-energy electric discharge detection. Journal of Sensors and Sensor Systems, 2018, 7, 569-575.	0.9	2
58	Using Signal Envelope Detection for Online and Offline RF MEMS Switch Testing. VLSI Design, 2008, 2008, 1-10.	0.5	1
59	Modelling and optimisation of a sapphire/GaN-based diaphragm structure for pressure sensing in harsh environments. , 2010, , .		1
60	High frequency calibration of MEMS microphones using spherical N-waves. AIP Conference Proceedings, 2015, , .	0.4	1
61	Experimental validation of diaphragms for acoustic micro-transducers. , 2015, , .		1
62	ONLINE TESTING EMBEDDED SYSTEMS: ADAPTING AUTOMATIC CONTROL TECHNIQUES TO MICROELECTRONICS TESTING. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 14-19.	0.4	0
63	Effect of Au and Ni Layer Thicknesses on the Reliability of BGA Solder Joints. , 0, , .		0
64	Solid state growth kinetics of complex intermetallics in the Pb-free ball grid array (BGA) solder joint for MEMS packaging. , 2006, , .		0
65	Infrastructures for mixed signals in biology and medicine. , 2008, , .		0
66	Surface Acoustic Wave Excitation on SF6 Plasma Treated AlGaIn/GaN Heterostructure. , 2008, , .		0
67	Electronics manufacturing infrastructures for education and commercialization. , 2008, 2008, 1571-4.		0
68	Study of built-in stress distribution in AlGaIn/GaN/AlN heterostructure based cantilevers for mechanical sensing in harsh environments. , 2011, , .		0
69	Electrical characterization of a buckling thermal energy harvester. Journal of Physics: Conference Series, 2015, 660, 012106.	0.4	0
70	Approaches to the design, fabrication, and test of electroacoustic micro-transducers. , 2016, , .		0
71	Capacitance link effect characterisation in the tapped on-chip planar transformer. , 2017, , .		0
72	Caractérisation des sources de bruit aérodynamique sur un ventilateur centrifuge à flux axial. European Physical Journal Special Topics, 1994, 04, C5-985-C5-988.	0.2	0

#	ARTICLE	IF	CITATIONS
73	Sensitivity and Performances Analysis of a Dynamic Pressure Narrow-Band Electrodynamic Micro-Sensor. , 2020, 25, 17-26.		0
74	On-chip Pseudorandom Testing for Linear and Nonlinear MEMS. , 2007, , 245-266.		0