Leandro Lorenzelli

List of Publications by Year
in descending order

122	4,234	159585	118850
papers	citations	30 h-index	62 g-index

124	124	124	5304
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Technologies for Printing Sensors and Electronics Over Large Flexible Substrates: A Review. IEEE Sensors Journal, 2015, 15, 3164-3185.	4.7	963
2	Ultra-thin chips for high-performance flexible electronics. Npj Flexible Electronics, 2018, 2, .	10.7	249
3	Stretchable wireless system for sweat pH monitoring. Biosensors and Bioelectronics, 2018, 107, 192-202.	10.1	247
4	Flexible Tactile Sensors Using Screen-Printed P(VDF-TrFE) and MWCNT/PDMS Composites. IEEE Sensors Journal, 2015, 15, 3146-3155.	4.7	171
5	New materials and advances in making electronic skin for interactive robots. Advanced Robotics, 2015, 29, 1359-1373.	1.8	155
6	Piezoelectric oxide semiconductor field effect transistor touch sensing devices. Applied Physics Letters, 2009, 95, .	3.3	145
7	Printable stretchable interconnects. Flexible and Printed Electronics, 2017, 2, 013003.	2.7	141
8	Towards Tactile Sensing System on Chip for Robotic Applications. IEEE Sensors Journal, 2011, 11, 3216-3226.	4.7	126
9	Development of ISFET array-based microsystems for bioelectrochemical measurements of cell populations. Biosensors and Bioelectronics, 2001, 16, 1043-1050.	10.1	87
10	Non-silicon MEMS platforms for gas sensors. Sensors and Actuators B: Chemical, 2016, 224, 700-713.	7.8	82
11	Recent sensing technologies for pathogen detection in milk: A review. Biosensors and Bioelectronics, 2014, 60, 8-21.	10.1	79
12	Gas-Drone: Portable gas sensing system on UAVs for gas leakage localization. , 2014, , .		71
13	Wafer Scale Transfer of Ultrathin Silicon Chips on Flexible Substrates for High Performance Bendable Systems. Advanced Electronic Materials, 2018, 4, 1700277.	5.1	67
14	Flexible Pressure Sensors Based on Screen-Printed P(VDF-TrFE) and P(VDF-TrFE)/MWCNTs. IEEE Transactions on Semiconductor Manufacturing, 2015, 28, 486-493.	1.7	66
15	Recent advances of conductive nanocomposites in printed and flexible electronics. Smart Materials and Structures, 2017, 26, 083001.	3.5	62
16	Modeling ISFET microsensor and ISFET-based microsystems: a review. Sensors and Actuators B: Chemical, 2005, 105, 14-27.	7.8	60
17	Symmetric toggle switchâ€"a new type of rf MEMS switch for telecommunication applications: Design and fabrication. Sensors and Actuators A: Physical, 2005, 123-124, 505-514.	4.1	60
18	SPICE model for lossy piezoelectric polymers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 387-395.	3.0	60

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19	Bioelectrochemical signal monitoring of in-vitro cultured cells by means of an automated microsystem based on solid state sensor-array. Biosensors and Bioelectronics, 2003, 18, 621-626.	10.1	56
20	Fabrication of single crystal silicon micro-/nanostructures and transferring them to flexible substrates. Microelectronic Engineering, 2012, 98, 502-507.	2.4	55
21	POSFET tactile sensing arrays using CMOS technology. Sensors and Actuators A: Physical, 2013, 202, 226-232.	4.1	55
22	Tactile Sensing Chips With POSFET Array and Integrated Interface Electronics. IEEE Sensors Journal, 2014, 14, 3448-3457.	4.7	52
23	A Smart Watch with Embedded Sensors to Recognize Objects, Grasps and Forearm Gestures. Procedia Engineering, 2012, 41, 1169-1175.	1.2	46
24	PDMS/Kapton Interface Plasma Treatment Effects on the Polymeric Package for a Wearable Thermoelectric Generator. ACS Applied Materials & Interfaces, 2013, 5, 6586-6590.	8.0	43
25	Temperature effects on the ISFET behaviour: simulations and measurements. Sensors and Actuators B: Chemical, 1998, 50, 60-68.	7.8	40
26	Linear temperature microhotplate gas sensor array for automotive cabin air quality monitoring. Sensors and Actuators B: Chemical, 2008, 134, 660-665.	7.8	40
27	Electroconductive and photocurrent generation properties of selfâ€assembled monolayers formed by functionalized, conformationallyâ€constrained peptides on gold electrodes. Journal of Peptide Science, 2008, 14, 184-191.	1.4	36
28	Development of a gas chromatography silicon-based microsystem in clinical diagnostics. Biosensors and Bioelectronics, 2005, 20, 1968-1976.	10.1	35
29	POSFET touch sensor with CMOS integrated signal conditioning electronics. Sensors and Actuators A: Physical, 2012, 188, 75-81.	4.1	34
30	Flexible MISFET Devices From Transfer Printed Si Microwires and Spray Coating. IEEE Journal of the Electron Devices Society, 2016, 4, 189-196.	2.1	34
31	Device Modelling for Bendable Piezoelectric FET-Based Touch Sensing System. IEEE Transactions on Circuits and Systems I: Regular Papers, 2016, 63, 2200-2208.	5.4	32
32	Flexible and biocompatible microelectrode arrays fabricated by supersonic cluster beam deposition on SU-8. Journal of Micromechanics and Microengineering, 2011, 21, 045013.	2.6	30
33	Deposition, processing and characterization of P(VDF-TrFE) thin films for sensing applications. , 2008, , .		28
34	POSFET Based Tactile Sensor Arrays. , 2007, , .		27
35	Temperature Compensated Tactile Sensing Using MOSFET With P(VDF-TrFE)/BaTiO₃ Capacitor as Extended Gate. IEEE Sensors Journal, 2019, 19, 435-442.	4.7	26
36	A WO3-based gas sensor array with linear temperature gradient for wine quality monitoring. Sensors and Actuators B: Chemical, 2006, 117, 115-122.	7.8	25

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37	A fully electronic sensor for the measurement of cDNA hybridization kinetics. Biosensors and Bioelectronics, 2007, 22, 2108-2114.	10.1	25
38	Logic with memory: and gates made of organic and inorganic memristive devices. Semiconductor Science and Technology, 2014, 29, 104009.	2.0	25
39	The development of solâ€“gel derived TiO₂ thin films and corresponding memristor architectures. RSC Advances, 2017, 7, 1654-1663.	3.6	24
40	POSFET devices based tactile sensing arrays. , 2010, , .		21
41	Self-assembled peptide monolayers on interdigitated gold microelectrodes. Materials Science and Engineering C, 2007, 27, 1309-1312.	7.3	18
42	Flexible FETs using ultrathin Si microwires embedded in solution processed dielectric and metal layers. Journal of Micromechanics and Microengineering, 2015, 25, 125019.	2.6	18
43	An unconventional approach to impedance microbiology: Detection of culture media conductivity variations due to bacteriophage generated lyses of host bacteria. Biosensors and Bioelectronics, 2015, 67, 615-620.	10.1	18
44	Planar Silicon-Polydimethylsiloxane Optofluidic Ring Resonator Sensors. IEEE Photonics Technology Letters, 2016, 28, 155-158.	2.5	18
45	Delamination phenomena in aluminum/polyimide deformable interconnects: In-situ micro-tensile testing. Materials and Design, 2016, 89, 121-128.	7.0	18
46	Experimental study and analysis of corner compensation structures for CMOS compatible bulk micromachining using 25wt% TMAH. Microelectronics Journal, 2011, 42, 127-134.	2.0	17
47	Sol-gel synthesis and characterization of undoped and Al-doped ZnO thin films for memristive application. AIP Advances, 2016, 6, .	1.3	16
48	Ultra-Thin Silicon based Piezoelectric Capacitive Tactile Sensor. Procedia Engineering, 2016, 168, 662-665.	1.2	16
49	Precise dot inkjet printing thought multifactorial statistical optimization of the piezoelectric actuator waveform. Flexible and Printed Electronics, 2020, 5, 045002.	2.7	16
50	Morphologic, structural, and optical characterization of sol-gel derived TiO2 thin films for memristive devices. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 192-196.	0.8	15
51	Temperature as an accelerating factor for lifetime estimation of RF-MEMS switches. Microelectronic Engineering, 2016, 160, 63-67.	2.4	14
52	Towards low voltage resistive switch in sol-gel derived TiO2/Ta2O5 stack thin films. Materials and Design, 2016, 105, 359-365.	7.0	13
53	Improving the Sensitivity of Chipless RFID Sensors: The Case of a Low-Humidity Sensor. Electronics (Switzerland), 2021, 10, 2861.	3.1	13
54	Conformable tactile sensing using screen printed P(VDF-TrFE) and MWCNT-PDMS composites. , 2014, , .		12

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55	Tactile sensing arrays for humanoid robots. , 2007, , .		11
56	Bio-inspired tactile sensing arrays. , 2009, , .		11
57	Integration of a technique for the deposition of nanostructured films with MEMS-based microfabrication technologies: Application to micro gas sensors. Microelectronic Engineering, 2009, 86, 1247-1249.	2.4	11
58	Design of microfluidic devices for drug screening on in-vitro cells for osteoporosis therapies. Microelectronic Engineering, 2011, 88, 1801-1806.	2.4	11
59	POSFET tactile sensing chips using CMOS technology. , 2013, , .		11
60	Sol-gel derived oriented multilayer ZnO thin films with memristive response. Thin Solid Films, 2016, 615, 427-436.	1.8	11
61	Fabrication of a MEMS-based separation module for liquid chromatography. Sensors and Actuators B: Chemical, 2008, 130, 181-186.	7.8	10
62	A novel approach to data analysis for semiconductor metal-oxide gas sensors in chromatographic systems. Sensors and Actuators B: Chemical, 2010, 147, 1-4.	7.8	10
63	A dielectrophoresis-based microdevice coated with nanostructured TiO2 for separation of particles and cells. Microfluidics and Nanofluidics, 2011, 10, 1211-1221.	2.2	10
64	Microfluidic Sample Preparation Methods for the Analysis of Milk Contaminants. Journal of Sensors, 2016, 2016, 1-9.	1.1	10
65	An H+-FET-based system for on-line detection of microorganisms in waters. Sensors and Actuators B: Chemical, 1996, 34, 245-251.	7.8	9
66	CMOS Implementation of POSFET Tactile Sensing Arrays with on Chip Readout. , 2010, , .		9
67	Development of an integrated electrochemical system for in vitro yeast viability testing. Biosensors and Bioelectronics, 2013, 40, 315-322.	10.1	9
68	Multifunctional flexible PVDF-TrFE/BaTiO<inf>3</inf> based tactile sensor for touch and temperature monitoring. , 2017, , .		9
69	Bendable ultra-thin silicon chips on foil. , 2012, , .		8
70	Development and characterization of a microthermoelectric generator with plated copper/constantan thermocouples. Microsystem Technologies, 2014, 20, 585-592.	2.0	8
71	Remote rehabilitation monitoring with an IoT-enabled embedded system for precise progress tracking. , 2016, , .		8
72	A Micro Polymerase Chain Reaction Module for Integrated and Portable DNA Analysis Systems. Journal of Sensors, 2011, 2011, 1-7.	1.1	7

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73	Long-Term Outdoor Reliability Assessment of a Wireless Unit for Air-Quality Monitoring Based on Nanostructured Films Integrated on Micromachined Platforms. Sensors, 2012, 12, 8176-8192.	3.8	7
74	Smart contact lens using passive structures. , 2014, , .		7
75	Energy neutral 32-channels embedded readout system for IoT-ready fitness equipments. , 2016, , .		7
76	Dual mode pressure sensing for prosthetic interfaces. , 2017, , .		7
77	A dry film technology for the manufacturing of 3-D multi-layered microstructures and buried channels for lab-on-chip. Microsystem Technologies, 2019, 25, 3219-3233.	2.0	7
78	Design of Experiment Rational Optimization of an Inkjet Deposition of Silver on Kapton. IEEE Sensors Journal, 2021, 21, 26304-26310.	4.7	7
79	Sensors Based on Technology â€œNano-on-Microâ€•for Wireless Instruments Preventing Ecological and Industrial Catastrophes. NATO Science for Peace and Security Series C: Environmental Security, 2009, , 205-227.	0.2	7
80	Printing of high concentration nanocomposites (MWNTs/PDMS) using 3D-printed shadow masks. , 2015, , .		6
81	Towards bendable piezoelectric oxide semiconductor field effect transistor based touch sensor. , 2016, , .		6
82	Design of a novel tri-axial force sensor for optimized design of prosthetic socket for lower limb amputees. , 2016, , .		6
83	Socketmaster: Integrated Sensors System for the Optimised Design of Prosthetic Socket for above Knee Amputees. , 2017, , .		6
84	Flexible AlN Coupled MOSFET Device for Touch Sensing. , 2018, , .		6
85	Developing a genomic-based point-of-care diagnostic system for rheumatoid arthritis and multiple sclerosis. , 2009, 2009, 827-30.		5
86	POSFET Tactile Sensing Arrays using CMOS Technology. Procedia Engineering, 2012, 47, 894-897.	1.2	5
87	Stretchable interconnects using screen printed nanocomposites of MWCNTs with PDMS and P(VDF-TrFE). , 2015, , .		5
88	Metal-organic Dual Layer Structure for Stretchable Interconnects. Procedia Engineering, 2016, 168, 1559-1562.	1.2	5
89	Continuous extraction of proteins with a miniaturized electrical split-flow cell equipped with suspended splitters fabricated by dry film lamination. Sensors and Actuators B: Chemical, 2018, 273, 627-634.	7.8	5
90	A Purely Electronic Method to Measure Transfection Efficiency in a Single-Cell Electroporation Biochip. ECS Transactions, 2007, 6, 1-11.	0.5	4

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91	State of the art and perspectives on the fabrication of functional contact lenses. , 2013, , .		4
92	Portable embedded systems for prosthetic interface stress mapping of lower limbs amputees. , 2016, , .		4
93	TACTILE SENSING ARRAYS FOR HUMANOID ROBOTS USING PIEZO-POLYMER-FET DEVICES. , 2008, , .		4
94	<title>Microhotplate-based silicon gas sensor arrays with linear temperature gradient for wine quality monitoring</title>. , 2005, , .		3
95	Stretchable pH sensing patch in a hybrid package. , 2017, , .		3
96	A liquid chromatography miniaturised system for agrofood applications. Microsystem Technologies, 2008, 14, 551-556.	2.0	2
97	Optimisation and memristive response of sol-gel derived TiO<inf>2</inf> thin films. , 2015, , .		2
98	Characterisation of Gold Patterns on PDMS Substrates. Lecture Notes in Electrical Engineering, 2015, , 255-258.	0.4	2
99	Design of aluminum/polyimide stretchable interconnects investigated through in-situ testing. , 2015, , .		2
100	Surface characterization of polydimethylsiloxane: An AFM study. , 2015, , .		2
101	Hybrid structure of stretchable interconnect for reliable E-skin application. , 2017, , .		2
102	A Miniaturized SPLITT System for On-Line Protein Separation. Proceedings (mdpi), 2017, 1, 527.	0.2	2
103	Dual Mode Pressure Sensing for Lower-Limb Prosthetic Interface. Proceedings (mdpi), 2017, 1, .	0.2	2
104	Micropatterning of Substrates for the Culture of Cell Networks by Stencil-Assisted Additive Nanofabrication. Micromachines, 2021, 12, 94.	2.9	2
105	Piezo-Polymer-FET Devices Based Tactile Sensors for Humanoid Robots. Lecture Notes in Electrical Engineering, 2010, , 369-372.	0.4	2
106	Design and simulation of interdigitated micro-electrode arrays for tumor cells separation and detection. , 2007, 6592, 253.		1
107	Modeling of lossy piezoelectric polymers in SPICE. Proceedings of SPIE, 2008, , .	0.8	1
108	Design of a cantilever-based system for DNA detection. , 2011, , .		1

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109	Design of a cantilever-based system for genomic applications. Procedia Engineering, 2011, 25, 399-402.	1.2	1
110	CMOS single-photon detector for advanced fluorescence sensing applications. , 2011, , .		1
111	Proof of Principle of a Novel Impedance Microbiology Method Based on Bacteriophages Functionalized Paramagnetic Nanobeads. Procedia Engineering, 2014, 87, 328-331.	1.2	1
112	Si microwires based FETs on flexible substrates. , 2015, , .		1
113	Design of an electrophoretic module for protein separation. , 2016, , .		1
114	Portable Immunosensor Based on Extended Gateâ€"Field Effect Transistor for Rapid, Sensitive Detection of Cancer Markers. Proceedings (mdpi), 2019, 15, .	0.2	1
115	Development of a pH Sensor with Integrated Reference Electrode for Cell Culture Monitoring. Lecture Notes in Electrical Engineering, 2014, , 481-485.	0.4	1
116	Progress Toward the Development of a Lytic Bacteriophages-Based Impedance Microbiology for Agro-Food Application. Lecture Notes in Electrical Engineering, 2015, , 83-87.	0.4	1
117	Development of MEMS-based liquid chromatography modules for agrofood applications. , 2007, , .		0
118	Errata for "SPICE model for lossy piezoelectric polymers" [Feb 09 387-395]. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 1288-1288.	3.0	0
119	Sensing technology for foodborne pathogen detection. , 2015, , .		0
120	Buckling waves in aluminum on a polyimide sea. Materials Today, 2015, 18, 299-300.	14.2	0
121	Merging the Solâ€"Gel Technique with the Pulsed Microplasma Cluster Source Deposition to Improve Control over the Memristive Response of TiO2 Thin Films. Coatings, 2021, 11, 348.	2.6	0
122	Embedded System for Prosthetic Interface Mapping of Lower Limbs Amputees. Lecture Notes in Electrical Engineering, 2018, , 124-131.	0.4	0