

# Leandro Lorenzelli

## List of Publications by Year in descending order

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122  
papers

4,234  
citations

159585  
30  
h-index

118850  
62  
g-index

124  
all docs

124  
docs citations

124  
times ranked

5304  
citing authors

#	ARTICLE	IF	CITATIONS
1	Merging the Sol-gel Technique with the Pulsed Microplasma Cluster Source Deposition to Improve Control over the Memristive Response of TiO <sub>2</sub> Thin Films. <i>Coatings</i> , 2021, 11, 348.	2.6	0
2	Micropatterning of Substrates for the Culture of Cell Networks by Stencil-Assisted Additive Nanofabrication. <i>Micromachines</i> , 2021, 12, 94.	2.9	2
3	Design of Experiment Rational Optimization of an Inkjet Deposition of Silver on Kapton. <i>IEEE Sensors Journal</i> , 2021, 21, 26304-26310.	4.7	7
4	Improving the Sensitivity of Chipless RFID Sensors: The Case of a Low-Humidity Sensor. <i>Electronics (Switzerland)</i> , 2021, 10, 2861.	3.1	13
5	Precise dot inkjet printing through multifactorial statistical optimization of the piezoelectric actuator waveform. <i>Flexible and Printed Electronics</i> , 2020, 5, 045002.	2.7	16
6	Portable Immunosensor Based on Extended Gate-Field Effect Transistor for Rapid, Sensitive Detection of Cancer Markers. <i>Proceedings (mdpi)</i> , 2019, 15, .	0.2	1
7	Temperature Compensated Tactile Sensing Using MOSFET With P(VDF-TrFE)/BaTiO <sub>3</sub> Capacitor as Extended Gate. <i>IEEE Sensors Journal</i> , 2019, 19, 435-442.	4.7	26
8	A dry film technology for the manufacturing of 3-D multi-layered microstructures and buried channels for lab-on-chip. <i>Microsystem Technologies</i> , 2019, 25, 3219-3233.	2.0	7
9	Wafer Scale Transfer of Ultrathin Silicon Chips on Flexible Substrates for High Performance Bendable Systems. <i>Advanced Electronic Materials</i> , 2018, 4, 1700277.	5.1	67
10	Stretchable wireless system for sweat pH monitoring. <i>Biosensors and Bioelectronics</i> , 2018, 107, 192-202.	10.1	247
11	Ultra-thin chips for high-performance flexible electronics. <i>Npj Flexible Electronics</i> , 2018, 2, .	10.7	249
12	Flexible AlN Coupled MOSFET Device for Touch Sensing. , 2018, , .		6
13	Continuous extraction of proteins with a miniaturized electrical split-flow cell equipped with suspended splitters fabricated by dry film lamination. <i>Sensors and Actuators B: Chemical</i> , 2018, 273, 627-634.	7.8	5
14	Embedded System for Prosthetic Interface Mapping of Lower Limbs Amputees. <i>Lecture Notes in Electrical Engineering</i> , 2018, , 124-131.	0.4	0
15	The development of sol-gel derived TiO <sub>2</sub> thin films and corresponding memristor architectures. <i>RSC Advances</i> , 2017, 7, 1654-1663.	3.6	24
16	Printable stretchable interconnects. <i>Flexible and Printed Electronics</i> , 2017, 2, 013003.	2.7	141
17	Recent advances of conductive nanocomposites in printed and flexible electronics. <i>Smart Materials and Structures</i> , 2017, 26, 083001.	3.5	62
18	Dual mode pressure sensing for prosthetic interfaces. , 2017, , .		7

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19	Multifunctional flexible PVDF-TrFE/BaTiO <sub>3</sub> based tactile sensor for touch and temperature monitoring. , 2017, , .		9
20	Socketmaster: Integrated Sensors System for the Optimised Design of Prosthetic Socket for above Knee Amputees. , 2017, , .		6
21	Stretchable pH sensing patch in a hybrid package. , 2017, , .		3
22	Hybrid structure of stretchable interconnect for reliable E-skin application. , 2017, , .		2
23	A Miniaturized SPLITT System for On-Line Protein Separation. Proceedings (mdpi), 2017, 1, 527.	0.2	2
24	Dual Mode Pressure Sensing for Lower-Limb Prosthetic Interface. Proceedings (mdpi), 2017, 1, .	0.2	2
25	Microfluidic Sample Preparation Methods for the Analysis of Milk Contaminants. Journal of Sensors, 2016, 2016, 1-9.	1.1	10
26	Towards bendable piezoelectric oxide semiconductor field effect transistor based touch sensor. , 2016, , .		6
27	Sol-gel synthesis and characterization of undoped and Al-doped ZnO thin films for memristive application. AIP Advances, 2016, 6, .	1.3	16
28	Remote rehabilitation monitoring with an IoT-enabled embedded system for precise progress tracking. , 2016, , .		8
29	Metal-organic Dual Layer Structure for Stretchable Interconnects. Procedia Engineering, 2016, 168, 1559-1562.	1.2	5
30	Design of an electrophoretic module for protein separation. , 2016, , .		1
31	Portable embedded systems for prosthetic interface stress mapping of lower limbs amputees. , 2016, , .		4
32	Ultra-Thin Silicon based Piezoelectric Capacitive Tactile Sensor. Procedia Engineering, 2016, 168, 662-665.	1.2	16
33	Design of a novel tri-axial force sensor for optimized design of prosthetic socket for lower limb amputees. , 2016, , .		6
34	Towards low voltage resistive switch in sol-gel derived TiO <sub>2</sub> /Ta <sub>2</sub> O <sub>5</sub> stack thin films. Materials and Design, 2016, 105, 359-365.	7.0	13
35	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
36	Sol-gel derived oriented multilayer ZnO thin films with memristive response. Thin Solid Films, 2016, 615, 427-436.	1.8	11

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37	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
38	Energy neutral 32-channels embedded readout system for IoT-ready fitness equipments. , 2016, , .		7
39	Planar Silicon-Polydimethylsiloxane Optofluidic Ring Resonator Sensors. IEEE Photonics Technology Letters, 2016, 28, 155-158.	2.5	18
40	Temperature as an accelerating factor for lifetime estimation of RF-MEMS switches. Microelectronic Engineering, 2016, 160, 63-67.	2.4	14
41	Delamination phenomena in aluminum/polyimide deformable interconnects: In-situ micro-tensile testing. Materials and Design, 2016, 89, 121-128.	7.0	18
42	Non-silicon MEMS platforms for gas sensors. Sensors and Actuators B: Chemical, 2016, 224, 700-713.	7.8	82
43	Sensing technology for foodborne pathogen detection. , 2015, , .		0
44	Buckling waves in aluminum on a polyimide sea. Materials Today, 2015, 18, 299-300.	14.2	0
45	Optimisation and memristive response of sol-gel derived TiO <sub>2</sub> thin films. , 2015, , .		2
46	Si microwires based FETs on flexible substrates. , 2015, , .		1
47	Stretchable interconnects using screen printed nanocomposites of MWCNTs with PDMS and P(VDF-TrFE). , 2015, , .		5
48	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
49	Technologies for Printing Sensors and Electronics Over Large Flexible Substrates: A Review. IEEE Sensors Journal, 2015, 15, 3164-3185.	4.7	963
50	Flexible Tactile Sensors Using Screen-Printed P(VDF-TrFE) and MWCNT/PDMS Composites. IEEE Sensors Journal, 2015, 15, 3146-3155.	4.7	171
51	Morphologic, structural, and optical characterization of sol-gel derived TiO <sub>2</sub> thin films for memristive devices. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 192-196.	0.8	15
52	Printing of high concentration nanocomposites (MWNTs/PDMS) using 3D-printed shadow masks. , 2015, , .		6
53	Characterisation of Gold Patterns on PDMS Substrates. Lecture Notes in Electrical Engineering, 2015, , 255-258.	0.4	2
54	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

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55	Design of aluminum/polyimide stretchable interconnects investigated through in-situ testing. , 2015, , .		2
56	Surface characterization of polydimethylsiloxane: An AFM study. , 2015, , .		2
57	New materials and advances in making electronic skin for interactive robots. Advanced Robotics, 2015, 29, 1359-1373.	1.8	155
58	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
59	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
60	Conformable tactile sensing using screen printed P(VDF-TrFE) and MWCNT-PDMS composites. , 2014, , .		12
61	Logic with memory: and gates made of organic and inorganic memristive devices. Semiconductor Science and Technology, 2014, 29, 104009.	2.0	25
62	Smart contact lens using passive structures. , 2014, , .		7
63	Gas-Drone: Portable gas sensing system on UAVs for gas leakage localization. , 2014, , .		71
64	Tactile Sensing Chips With POSFET Array and Integrated Interface Electronics. IEEE Sensors Journal, 2014, 14, 3448-3457.	4.7	52
65	Development and characterization of a microthermoelectric generator with plated copper/constantan thermocouples. Microsystem Technologies, 2014, 20, 585-592.	2.0	8
66	Recent sensing technologies for pathogen detection in milk: A review. Biosensors and Bioelectronics, 2014, 60, 8-21.	10.1	79
67	Proof of Principle of a Novel Impedance Microbiology Method Based on Bacteriophages Functionalized Paramagnetic Nanobeads. Procedia Engineering, 2014, 87, 328-331.	1.2	1
68	Development of a pH Sensor with Integrated Reference Electrode for Cell Culture Monitoring. Lecture Notes in Electrical Engineering, 2014, , 481-485.	0.4	1
69	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
70	POSFET tactile sensing arrays using CMOS technology. Sensors and Actuators A: Physical, 2013, 202, 226-232.	4.1	55
71	POSFET tactile sensing chips using CMOS technology. , 2013, , .		11
72	Development of an integrated electrochemical system for in vitro yeast viability testing. Biosensors and Bioelectronics, 2013, 40, 315-322.	10.1	9

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73	State of the art and perspectives on the fabrication of functional contact lenses. , 2013, , .		4
74	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
75	A Smart Watch with Embedded Sensors to Recognize Objects, Grasps and Forearm Gestures. Procedia Engineering, 2012, 41, 1169-1175.	1.2	46
76	Fabrication of single crystal silicon micro-/nanostructures and transferring them to flexible substrates. Microelectronic Engineering, 2012, 98, 502-507.	2.4	55
77	Bendable ultra-thin silicon chips on foil. , 2012, , .		8
78	POSFET touch sensor with CMOS integrated signal conditioning electronics. Sensors and Actuators A: Physical, 2012, 188, 75-81.	4.1	34
79	POSFET Tactile Sensing Arrays using CMOS Technology. Procedia Engineering, 2012, 47, 894-897.	1.2	5
80	Design of a cantilever-based system for DNA detection. , 2011, , .		1
81	Towards Tactile Sensing System on Chip for Robotic Applications. IEEE Sensors Journal, 2011, 11, 3216-3226.	4.7	126
82	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
83	Design of a cantilever-based system for genomic applications. Procedia Engineering, 2011, 25, 399-402.	1.2	1
84	A Micro Polymerase Chain Reaction Module for Integrated and Portable DNA Analysis Systems. Journal of Sensors, 2011, 2011, 1-7.	1.1	7
85	A dielectrophoresis-based microdevice coated with nanostructured TiO2 for separation of particles and cells. Microfluidics and Nanofluidics, 2011, 10, 1211-1221.	2.2	10
86	Design of microfluidic devices for drug screening on in-vitro cells for osteoporosis therapies. Microelectronic Engineering, 2011, 88, 1801-1806.	2.4	11
87	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
88	CMOS single-photon detector for advanced fluorescence sensing applications. , 2011, , .		1
89	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
90	POSFET devices based tactile sensing arrays. , 2010, , .		21

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91	CMOS Implementation of POSFET Tactile Sensing Arrays with on Chip Readout. , 2010, , .		9
92	Piezo-Polymer-FET Devices Based Tactile Sensors for Humanoid Robots. Lecture Notes in Electrical Engineering, 2010, , 369-372.	0.4	2
93	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
94	Bio-inspired tactile sensing arrays. , 2009, , .		11
95	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
96	Piezoelectric oxide semiconductor field effect transistor touch sensing devices. Applied Physics Letters, 2009, 95, .	3.3	145
97	Developing a genomic-based point-of-care diagnostic system for rheumatoid arthritis and multiple sclerosis. , 2009, 2009, 827-30.		5
98	SPICE model for lossy piezoelectric polymers. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2009, 56, 387-395.	3.0	60
99	Sensors Based on Technology "Nano-on-Micro" for Wireless Instruments Preventing Ecological and Industrial Catastrophes. NATO Science for Peace and Security Series C: Environmental Security, 2009, , 205-227.	0.2	7
100	Linear temperature microhotplate gas sensor array for automotive cabin air quality monitoring. Sensors and Actuators B: Chemical, 2008, 134, 660-665.	7.8	40
101	A liquid chromatography miniaturised system for agrofood applications. Microsystem Technologies, 2008, 14, 551-556.	2.0	2
102	Electroconductive and photocurrent generation properties of self-assembled monolayers formed by functionalized, conformationally-constrained peptides on gold electrodes. Journal of Peptide Science, 2008, 14, 184-191.	1.4	36
103	Fabrication of a MEMS-based separation module for liquid chromatography. Sensors and Actuators B: Chemical, 2008, 130, 181-186.	7.8	10
104	Deposition, processing and characterization of P(VDF-TrFE) thin films for sensing applications. , 2008, , .		28
105	Modeling of lossy piezoelectric polymers in SPICE. Proceedings of SPIE, 2008, , .	0.8	1
106	TACTILE SENSING ARRAYS FOR HUMANOID ROBOTS USING PIEZO-POLYMER-FET DEVICES. , 2008, , .		4
107	Development of MEMS-based liquid chromatography modules for agrofood applications. , 2007, , .		0
108	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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109	Design and simulation of interdigitated micro-electrode arrays for tumor cells separation and detection. , 2007, 6592, 253.		1
110	POSFET Based Tactile Sensor Arrays. , 2007, , .		27
111	Tactile sensing arrays for humanoid robots. , 2007, , .		11
112	A fully electronic sensor for the measurement of cDNA hybridization kinetics. Biosensors and Bioelectronics, 2007, 22, 2108-2114.	10.1	25
113	Self-assembled peptide monolayers on interdigitated gold microelectrodes. Materials Science and Engineering C, 2007, 27, 1309-1312.	7.3	18
114	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
115	<title>Microhotplate-based silicon gas sensor arrays with linear temperature gradient for wine quality monitoring</title>. , 2005, , .		3
116	Modeling ISFET microsensor and ISFET-based microsystems: a review. Sensors and Actuators B: Chemical, 2005, 105, 14-27.	7.8	60
117	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
118	Development of a gas chromatography silicon-based microsystem in clinical diagnostics. Biosensors and Bioelectronics, 2005, 20, 1968-1976.	10.1	35
119	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
120	Development of ISFET array-based microsystems for bioelectrochemical measurements of cell populations. Biosensors and Bioelectronics, 2001, 16, 1043-1050.	10.1	87
121	Temperature effects on the ISFET behaviour: simulations and measurements. Sensors and Actuators B: Chemical, 1998, 50, 60-68.	7.8	40
122	An H <sup>+</sup> -FET-based system for on-line detection of microorganisms in waters. Sensors and Actuators B: Chemical, 1996, 34, 245-251.	7.8	9