Luisa Petti

List of Publications by Year
in descending order

105 papers	3,203 citations	147566 31 h-index	168136 53 g-index
107 all docs	107 docs citations	107 times ranked	3882 citing authors

#	Article	IF	Citations
1	Metal oxide semiconductor thin-film transistors for flexible electronics. Applied Physics Reviews, 2016, 3, 021303.	5.5	511
2	Wafer-scale design of lightweight and transparent electronics that wraps around hairs. Nature Communications, 2014, 5, 2982.	5.8	279
3	Fabrication and Transfer of Flexible Few-Layers MoS₂ Thin Film Transistors to Any Arbitrary Substrate. ACS Nano, 2013, 7, 8809-8815.	7.3	185
4	Biodegradable and Highly Deformable Temperature Sensors for the Internet of Things. Advanced Functional Materials, 2017, 27, 1702390.	7.8	178
5	Flexible Self-Aligned Amorphous InGaZnO Thin-Film Transistors With Submicrometer Channel Length and a Transit Frequency of 135 MHz. IEEE Transactions on Electron Devices, 2013, 60, 2815-2820.	1.6	96
6	Biomimetic Microelectronics for Regenerative Neuronal Cuff Implants. Advanced Materials, 2015, 27, 6797-6805.	11.1	86
7	IGZO TFT-Based All-Enhancement Operational Amplifier Bent to a Radius of 5 mm. IEEE Electron Device Letters, 2013, 34, 1394-1396.	2.2	79
8	Stretchable and Conformable Oxide Thinâ€Film Electronics. Advanced Electronic Materials, 2015, 1, 1400038.	2.6	78
9	Flexible Self-Aligned Double-Gate IGZO TFT. IEEE Electron Device Letters, 2014, 35, 69-71.	2.2	69
10	Flexible aâ€IGZO Phototransistor for Instantaneous and Cumulative UVâ€Exposure Monitoring for Skin Health. Advanced Electronic Materials, 2016, 2, 1600273.	2.6	59
11	Bio-impedance and circuit parameters: An analysis for tracking fruit ripening. Postharvest Biology and Technology, 2020, 159, 110978.	2.9	58
12	Contact resistance and overlapping capacitance in flexible sub-micron long oxide thin-film transistors for above 100â€‰MHz operation. Applied Physics Letters, 2014, 105, .	1.5	57
13	Buckled Thin-Film Transistors and Circuits on Soft Elastomers for Stretchable Electronics. ACS Applied Materials & Interfaces, 2017, 9, 28750-28757.	4.0	54
14	Wearable Triboelectric Nanogenerator from Waste Materials for Autonomous Information Transmission via Morse Code. ACS Applied Materials & Interfaces, 2022, 14, 5328-5337.	4.0	52
15	Flexible double gate a-IGZO TFT fabricated on free standing polyimide foil. Solid-State Electronics, 2013, 84, 198-204.	0.8	49
16	Electrolyte-gated carbon nanotube field-effect transistor-based biosensors: Principles and applications. Applied Physics Reviews, 2021, 8, 041325.	5.5	49
17	Flexible a-IGZO TFT amplifier fabricated on a free standing polyimide foil operating at 1.2 MHz while bent to a radius of 5 mm. , 2012, , .		47
18	Design of Engineered Elastomeric Substrate for Stretchable Active Devices and Sensors. Advanced Functional Materials, 2018, 28, 1705132.	7.8	47

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19	Low-temperature spray-deposited indium oxide for flexible thin-film transistors and integrated circuits. Applied Physics Letters, 2015, 106, .	1.5	46
20	A Compact a-IGZO TFT Model Based on MOSFET SPICE ${m Level}=3$ Template for Analog/RF Circuit Designs. IEEE Electron Device Letters, 2013, 34, 1391-1393.	2.2	44
21	Textile integrated sensors and actuators for near-infrared spectroscopy. Optics Express, 2013, 21, 3213.	1.7	40
22	Influence of Mechanical Bending on Flexible InGaZnO-Based Ferroelectric Memory TFTs. IEEE Transactions on Electron Devices, 2014, 61, 1085-1092.	1.6	38
23	Entirely Flexible Onâ€Site Conditioned Magnetic Sensorics. Advanced Electronic Materials, 2016, 2, 1600188.	2.6	38
24	Review of recent trends in flexible metal oxide thin-film transistors for analog applications. Flexible and Printed Electronics, 2020, 5, 033001.	1.5	38
25	Flexible and Printed Electrochemical Immunosensor Coated with Oxygen Plasma Treated SWCNTs for Histamine Detection. Biosensors, 2020, 10, 35.	2.3	38
26	Combining electronics on flexible plastic strips with textiles. Textile Reseach Journal, 2013, 83, 1130-1142.	1.1	37
27	Flexible Inâ€“Gaâ€“Znâ€“O Thin-Film Transistors on Elastomeric Substrate Bent to 2.3% Strain. IEEE Electron Device Letters, 2015, 36, 781-783.	2.2	37
28	Flexible Quasi-Vertical In-Ga-Zn-O Thin-Film Transistor With 300-nm Channel Length. IEEE Electron Device Letters, 2015, 36, 475-477.	2.2	36
29	Development of Flexible Dispense-Printed Electrochemical Immunosensor for Aflatoxin M1 Detection in Milk. Sensors, 2019, 19, 3912.	2.1	36
30	Solution-processed p-type copper(I) thiocyanate (CuSCN) for low-voltage flexible thin-film transistors and integrated inverter circuits. Applied Physics Letters, 2017, 110, 113504.	1.5	33
31	Ferroelectricâ€Like Charge Trapping Thinâ€Film Transistors and Their Evaluation as Memories and Synaptic Devices. Advanced Electronic Materials, 2017, 3, 1700309.	2.6	33
32	22.5 dB open-loop gain, 31 kHz GBW pseudo-CMOS based operational amplifier with a-IGZO TFTs on a flexible film. , 2014, , .		32
33	Room temperature fabricated flexible NiO/IGZO pn diode under mechanical strain. Solid-State Electronics, 2013, 87, 17-20.	0.8	31
34	Charge Trapping Mechanism Leading to Sub-60-mV/decade-Swing FETs. IEEE Transactions on Electron Devices, 2017, 64, 2789-2796.	1.6	29
35	Flexible InGaZnO TFTs With ${f}$ $_{extsf{max}}$ Above 300 MHz. IEEE Electron Device Letters, 2018, 39, 1310-1313.	2.2	26
36	Polymer-sorted (6,5) single-walled carbon nanotubes for solution-processed low-voltage flexible microelectronics. Applied Physics Letters, 2015, 106, .	1.5	25

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37	Flexible Screen-Printed Electrochemical Sensors Functionalized with Electrodeposited Copper for Nitrate Detection in Water. ACS Omega, 2021, 6, 33523-33532.	1.6	24
38	Investigation of gate material ductility enables flexible a-IGZO TFTs bendable to a radius of 1.7 mm. , 2013, , .		23
39	Positive charge trapping phenomenon in n-channel thin-film transistors with amorphous alumina gate insulators. Journal of Applied Physics, 2016, 120, .	1.1	23
40	Optimization of a Low-Power Chemoresistive Gas Sensor: Predictive Thermal Modelling and Mechanical Failure Analysis. Sensors, 2021, 21, 783.	2.1	23
41	Flexible Screen Printed Aptasensor for Rapid Detection of Furaneol: A Comparison of CNTs and AgNPs Effect on Aptasensor Performance. Nanomaterials, 2020, 10, 1167.	1.9	22
42	Supervised binary classification methods for strawberry ripeness discrimination from bioimpedance data. Scientific Reports, 2021, 11, 11202.	1.6	22
43	Field-Effect Transistor-Based Biosensors for Environmental and Agricultural Monitoring. Sensors, 2022, 22, 4178.	2.1	21
44	Mechanically flexible vertically integrated a-IGZO thin-film transistors with 500 nm channel length fabricated on free standing plastic foil. , 2013, , .		19
45	An Aptasensor Based on a Flexible Screen-Printed Silver Electrode for the Rapid Detection of Chlorpyrifos. Sensors, 2022, 22, 2754.	2.1	17
46	A 70°phase margin OPAMP with positive feedback in flexible a-IGZO TFT technology. , 2015, , .		16
47	Flexible Inâ€“Gaâ€“Znâ€“O-Based Circuits With Two and Three Metal Layers: Simulation and Fabrication Study. IEEE Electron Device Letters, 2016, 37, 1582-1585.	2.2	15
48	Gain-Tunable Complementary Common-Source Amplifier Based on a Flexible Hybrid Thin-Film Transistor Technology. IEEE Electron Device Letters, 2017, 38, 1536-1539.	2.2	14
49	A transistor model for a-IGZO TFT circuit design built upon the RPI-aTFT model. , 2017, , .		14
50	Oxide Thin-Film Transistors on Fibers for Smart Textiles. Technologies, 2017, 5, 31.	3.0	14
51	Cherry-Hooper amplifiers with 33 dB gain at 400 kHz BW and 10 dB gain at 3.5 MHz BW in flexible self-aligned a-IGZO TFT technology. , 2014, , .		13
52	Focused ion beam milling for the fabrication of 160 nm channel length IGZO TFTs on flexible polymer substrates. Flexible and Printed Electronics, 2020, 5, 015007.	1.5	13
53	A 2.62 MHz 762 µW cascode amplifier in flexible a-IGZO thin-film technology for textile and wearable-electronics applications. , 2013, , .		12
54	High gain amplifiers in flexible self-aligned a-IGZO thin-film-transistor technology. , 2014, , .		12

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55	Design and Validation of a Portable AD5933â€“Based Impedance Analyzer for Smart Agriculture. IEEE Access, 2021, 9, 63656-63675.	2.6	12
56	Flexible Inâ€“Gaâ€“Znâ€“O Thin-Film Transistors With Sub-300-nm Channel Lengths Defined by Two-Photon Direct Laser Writing. IEEE Transactions on Electron Devices, 2018, 65, 3796-3802.	1.6	11
57	Laser-Induced Graphene Electrodes Modified with a Molecularly Imprinted Polymer for Detection of Tetracycline in Milk and Meat. Sensors, 2022, 22, 269.	2.1	11
58	Thermo-responsive nanofibers for on-demand biocompound delivery platform. Chemical Engineering Journal, 2022, 445, 136744.	6.6	11
59	Design and analysis of high-gain amplifiers in flexible self-aligned a-IGZO thin-film transistor technology. Analog Integrated Circuits and Signal Processing, 2016, 87, 213-222.	0.9	9
60	Fabrication and AC Performance of Flexible Indium-Gallium-Zinc-Oxide Thin-Film Transistors. ECS Transactions, 2019, 90, 55-63.	0.3	9
61	Bendable energy-harvesting module with organic photovoltaic, rechargeable battery, and a-IGZO TFT charging electronics. , 2015, , .		8
62	15 dB conversion gain, 20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas. , 2015, , .		8
63	Fabrication, Modeling, and Evaluation of a Digital Output Tilt Sensor With Conductive Microspheres. IEEE Sensors Journal, 2017, 17, 3635-3643.	2.4	8
64	Oxide Thin-Film Electronics on Carbon Fiber Reinforced Polymer Composite. IEEE Electron Device Letters, 2017, 38, 1043-1046.	2.2	8
65	Integration of solution-processed (7,5) SWCNTs with sputtered and spray-coated metal oxides for flexible complementary inverters. , 2014, , .		7
66	Radio frequency electronics in a-IGZO TFT technology. , 2016, , .		7
67	2.4 GHz Microstrip Patch Antenna Fabricated by Means of Laser Induced Graphitization of a Cellulose-based Paper Substrate. , 2021, , .		7
68	Flexible Green Perovskite Light Emitting Diodes. IEEE Journal of the Electron Devices Society, 2019, 7, 769-775.	1.2	6
69	Cost-effective, mask-less, and high-throughput prototyping of flexible hybrid electronic devices using dispense printing and conductive silver ink. , 2021, , .		6
70	In Tube Integrated Electronic Nose System on a Flexible Polymer Substrate. Sensors, 2012, 12, 13681-13693.	2.1	5
71	InGaZnO TFTs on a flexible membrane transferred to a curved surface with a radius of 2 mm. , 2013, , .		5
72	3.5mW 1MHz AM detector and digitally-controlled tuner in a-IGZO TFT for wireless communications in a fully integrated flexible system for audio bag. , 2016, , .		5

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73	Flexible carbon nanotube-based electrolyte-gated field-effect transistor for spermidine detection. , 2021, , .		5
74	Flexible screen-printed nitrate sensors with Cu nanoclusters: a comparative analysis on the effect of carbon nanotubes. , 2021, , .		5
75	Overview of the EC project FLEXIBILITY: Organic and thin-film ICs up to radio frequencies for multifunctional flexible systems. , 2013, , .		4
76	High performance flexible electronics for biomedical devices. , 2014, 2014, 4176-9.		4
77	A fully integrated audio amplifier in flexible a-IGZO TFT technology for printed piezoelectric loudspeakers. , 2015, , .		4
78	Flexible Dispense-Printed Electrochemical Biosensor for Aflatoxin M1 Detection Employing NaOH and Oxygen Plasma Electrode Pre-treatment. , 2019, , .		4
79	Advances in printing technologies for soft robotics devices applications. Advances in Chemical Engineering, 2021, , 45-89.	0.5	4
80	Aluminum oxide as a dielectric and passivation layer for (flexible) metal-oxide and 2D semiconductor devices. , 2021, , .		4
81	20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas. , 2015, , .		3
82	A PEDOT:PSS/SWCNT-Coated Screen Printed Immunosensor for Histamine Detection in Food Samples. , 2020, , .		3
83	Long-Term Aging of Al₂O₃ Passivated and Unpassivated Flexible a-IGZO TFTs. IEEE Transactions on Electron Devices, 2020, 67, 4934-4939.	1.6	3
84	FruitMeter: An AD5933-Based Portable Impedance Analyzer for Fruit Quality Characterization. , 2020, , .		3
85	Bioimpedance Data Statistical Modelling for Food Quality Classification and Prediction. , 2021, , .		3
86	Mechanically flexible double gate a-IGZO TFTs. , 2012, , .		2
87	Digital output flexible tilt sensor with conductive microspheres. , 2015, , .		2
88	Baseband amplifiers in a-IGZO TFT technology for flexible audio systems. , 2015, , .		2
89	Design of bendable high-frequency circuits based on short-channel InGaZnO TFTs. , 2019, , .		2
90	Selection of Cole Model Bio-Impedance Parameters for the Estimation of the Ageing Evolution of Apples. IFMBE Proceedings, 2020, , 25-32.	0.2	2

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91	Thermal Stability of Flexible IGZO/Ag Schottky Diodes on Cellulose Microfiber Paper Substrate. , 2021, , .		2
92	Flexible electronics based on oxide semiconductors. , 2014, , .		1
93	Radio frequency electronics on plastic. , 2015, , .		1
94	Sensors: Entirely Flexible Onâ€Site Conditioned Magnetic Sensorics (Adv. Electron. Mater. 8/2016). Advanced Electronic Materials, 2016, 2, .	2.6	1
95	20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT. , 2016, , .		1
96	20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT. , 2016, , .		1
97	Single-Walled Carbon Nanotube-Coated Flexible and Soft Screen-Printed Electrochemical Biosensor for Ochratoxin a Detection. , 2020, , .		1
98	Bendable metal oxide thin-film transistors and circuits for analog electronics applications. , 2021, , .		1
99	Optimization of Focused Ion Beam Patterning Parameters for Direct Integration of Plasmonic Nanostructures on Silicon Photodiodes. Engineering Proceedings, 2021, 10, 2.	0.4	1
100	Field-effect-transistor based biosensors: a review of their use in environmental monitoring applications. , 2021, , .		1
101	Design and simulation of a 800 Mbit/s data link for magnetic resonance imaging wearables. , 2015, 2015, 1323-6.		0
102	Mechanical and Electrical Design Strategies for Flexible InGaZnO Circuits. , 2021, , .		0
103	Oxide Thin-Film Electronics forÂtheÂFront-End Conditioning ofÂFlexible Magnetic Field Sensors. Minerals, Metals and Materials Series, 2021, , 294-302.	0.3	0
104	Flexible, biocompatible, and ridged silicone elastomers based robust sandwich-type triboelectric nanogenerator. , 2021, , .		0
105	Laser-fabricated flexible nanographene-based sensor for pH detection in saliva. , 2020, , .		0