Niko MÃ¼nzenrieder

List of Publications by Year
in descending order

130 papers	3,899 citations	147726 31 h-index	133188 59 g-index
134 all docs	134 docs citations	134 times ranked	4555 citing authors

#	Article	IF	Citations
1	The Influence of Climate Conditions and On-Skin Positioning on InGaZnO Thin-Film Transistor Performance. Frontiers in Electronics, 2022, 2, .	2.0	3
2	Lessons Learned inÂDeveloping Sensorised Textiles toÂCapture Body Shapes. Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering, 2022, , 365-380.	0.2	0
3	Flexible Electronics for Wireless Communication: A Technology and Circuit Design Review With an Application Example. IEEE Microwave Magazine, 2022, 23, 24-44.	0.7	8
4	Thin-film electronics on active substrates: review of materials, technologies and applications. Journal Physics D: Applied Physics, 2022, 55, 323002.	1.3	33
5	Coco Stretch: Strain Sensors Based on Natural Coconut Oil and Carbon Black Filled Elastomers. Advanced Materials Technologies, 2021, 6, 2000780.	3.0	13
6	Fabricating and Assembling Acoustic Metamaterials and Phononic Crystals. Advanced Engineering Materials, 2021, 23, 2000988.	1.6	34
7	Design and Characterisation of a Non-Contact Flexible Sensor Array for Electric Potential Imaging Applications. IEEE Sensors Journal, 2021, 21, 26328-26336.	2.4	6
8	Fabricating and Assembling Acoustic Metamaterials and Phononic Crystals. Advanced Engineering Materials, 2021, 23, 2170008.	1.6	7
9	Strain Sensors: Coco Stretch: Strain Sensors Based on Natural Coconut Oil and Carbon Black Filled Elastomers (Adv. Mater. Technol. 2/2021). Advanced Materials Technologies, 2021, 6, 2170012.	3.0	1
10	Aluminum oxide as a dielectric and passivation layer for (flexible) metal-oxide and 2D semiconductor devices. , 2021, , .		4
11	Bendable metal oxide thin-film transistors and circuits for analog electronics applications. , 2021, , .		1
12	Cost-effective, mask-less, and high-throughput prototyping of flexible hybrid electronic devices using dispense printing and conductive silver ink. , 2021, , .		6
13	Flexible carbon nanotube-based electrolyte-gated field-effect transistor for spermidine detection. , 2021, , .		5
14	Soft Gel-free ECG electrodes based on Biocompatible Coconut-Oil and Carbon Black. , 2021, , .		1
15	Fabrication of Flexible and Transferable RTDs via Fused Deposition Modelling 3D Printing. , 2021, , .		2
16	Mechanical and Electrical Design Strategies for Flexible InGaZnO Circuits. , 2021, , .		0
17	Non-contact thin-film sheet conductance measurement based on the attenuation of low frequency electric potentials. Journal Physics D: Applied Physics, 2021, 54, 414003.	1.3	0
18	A Low-Cost Method to Prepare Biocompatible Filaments with Enhanced Physico-Mechanical Properties for FDM 3D Printing. Current Drug Delivery, 2021, 18, 700-711.	0.8	6

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19	Inferring Complex Textile Shape from an Integrated Carbon Black-infused Ecoflex-based Bend and Stretch Sensor Array. , 2021, , .		4
20	Oxide Thin-Film Electronics forÂtheÂFront-End Conditioning ofÂFlexible Magnetic Field Sensors. Minerals, Metals and Materials Series, 2021, , 294-302.	0.3	0
21	Thermal Stability of Flexible IGZO/Ag Schottky Diodes on Cellulose Microfiber Paper Substrate. , 2021, , .		2
22	Recycled Carbon-based Strain Sensors: An Ecofriendly Approach using Char and Coconut Oil. , 2021, , .		3
23	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
24	Flexible Temperature Sensor Integration into E-Textiles Using Different Industrial Yarn Fabrication Processes. Sensors, 2020, 20, 73.	2.1	52
25	Review of recent trends in flexible metal oxide thin-film transistors for analog applications. Flexible and Printed Electronics, 2020, 5, 033001.	1.5	38
26	Long-Term Aging of Al₂O₃ Passivated and Unpassivated Flexible a-IGZO TFTs. IEEE Transactions on Electron Devices, 2020, 67, 4934-4939.	1.6	3
27	Flexible Micro-Scale Sensor Array for Non-Contact Electric Potential Imaging. , 2020, , .		2
28	Evaluation of a Pseudo Zero-Potential Flexible Readout Circuit for Resistive Sensor Matrixes. , 2020, , .		1
29	Non-contact Measurement of DC Potentials with Applications in Static Charge Imaging. , 2020, , .		4
30	Flexible Bootstrapped Cascode System with Feedback for Capacitive Through-Substrate Electric Potential Measurements with a 55 dB Relative Gain. , 2020, , .		2
31	Copper wire based electrical contacts for direct interfacing of stretchable sensors. , 2020, , .		2
32	Flexible IGZO TFTs and Their Suitability for Space Applications. IEEE Journal of the Electron Devices Society, 2019, 7, 1182-1190.	1.2	14
33	Directly 3D-printed monolithic soft robotic gripper with liquid metal microchannels for tactile sensing. Flexible and Printed Electronics, 2019, 4, 035001.	1.5	19
34	Flexible IGZO thin-film transistors with liquid EGaln gate contacts. , 2019, , .		1
35	Design of bendable high-frequency circuits based on short-channel InGaZnO TFTs. , 2019, , .		2
36	5â€“31-Hz 188-mu W Light-Sensing Oscillator With Two Active Inductors Fully Integrated on Plastic. IEEE Journal of Solid-State Circuits, 2019, 54, 2195-2206.	3.5	9

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37	Flexible Green Perovskite Light Emitting Diodes. IEEE Journal of the Electron Devices Society, 2019, 7, 769-775.	1.2	6
38	Fabrication and AC Performance of Flexible Indium-Gallium-Zinc-Oxide Thin-Film Transistors. ECS Transactions, 2019, 90, 55-63.	0.3	9
39	Flexible Sensorsâ€"From Materials to Applications. Technologies, 2019, 7, 35.	3.0	139
40	Non-contact long range AC voltage measurement. , 2019, , .		9
41	ShapeSense3D. , 2019, , .		8
42	Handâ€Ðrawn Resistors, Capacitors, Diodes, and Circuits for a Pressure Sensor System on Paper. Advanced Electronic Materials, 2018, 4, 1700600.	2.6	19
43	Low Temperature and Radiation Stability of Flexible IGZO TFTs and their Suitability for Space Applications. , 2018, , .		1
44	Improvement of contact resistance in flexible a-IGZO thin-film transistors by CF4/O2 plasma treatment. Solid-State Electronics, 2018, 150, 23-27.	0.8	12
45	Bendable Printed and Thin-film Electronics for Wireless Communications. , 2018, , .		1
46	Design of Engineered Elastomeric Substrate for Stretchable Active Devices and Sensors. Advanced Functional Materials, 2018, 28, 1705132.	7.8	47
47	Flexible InGaZnO TFTs With ${f}$ $_{extsf{max}}$ Above 300 MHz. IEEE Electron Device Letters, 2018, 39, 1310-1313.	2.2	26
48	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
49	Flexible IGZO TFT SPICE Model and Design of Active Strain-Compensation Circuits for Bendable Active Matrix Arrays. IEEE Electron Device Letters, 2018, 39, 1314-1317.	2.2	17
50	Fabrication, Modeling, and Evaluation of a Digital Output Tilt Sensor With Conductive Microspheres. IEEE Sensors Journal, 2017, 17, 3635-3643.	2.4	8
51	Charge Trapping Mechanism Leading to Sub-60-mV/decade-Swing FETs. IEEE Transactions on Electron Devices, 2017, 64, 2789-2796.	1.6	29
52	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
53	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
54	FerroelectricâŁLike Charge Trapping ThinâŁFilm Transistors and Their Evaluation as Memories and Synaptic Devices. Advanced Electronic Materials, 2017, 3, 1700309.	2.6	33

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55	Buckled Thin-Film Transistors and Circuits on Soft Elastomers for Stretchable Electronics. ACS Applied Materials & Interfaces, 2017, 9, 28750-28757.	4.0	54
56	Geometry-Based Tunability Enhancement of Flexible Thin-Film Varactors. IEEE Electron Device Letters, 2017, 38, 1117-1120.	2.2	4
57	Oxide Thin-Film Electronics on Carbon Fiber Reinforced Polymer Composite. IEEE Electron Device Letters, 2017, 38, 1043-1046.	2.2	8
58	Flexible CMOS electronics based on p-type Ge<inf>2</inf>Sb<inf>2</inf>Te<inf>5</inf> and n-type InGaZnO<inf>4</inf> semiconductors. , 2017, , .		3
59	A transistor model for a-IGZO TFT circuit design built upon the RPI-aTFT model. , 2017, , .		14
60	3â€“5 V, 3â€“3.8 MHz OOK modulator with a-IGZO TFTs for flexible wireless transmitter. , 2017, , .		6
61	Program FFlexCom â€” High frequency flexible bendable electronics for wireless communication systems. , 2017, , .		12
62	Oxide Thin-Film Transistors on Fibers for Smart Textiles. Technologies, 2017, 5, 31.	3.0	14
63	Metal oxide semiconductor thin-film transistors for flexible electronics. Applied Physics Reviews, 2016, 3, 021303.	5.5	511
64	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
65	Positive charge trapping phenomenon in n-channel thin-film transistors with amorphous alumina gate insulators. Journal of Applied Physics, 2016, 120, .	1.1	23
66	Sensors: Entirely Flexible Onâ€Site Conditioned Magnetic Sensorics (Adv. Electron. Mater. 8/2016). Advanced Electronic Materials, 2016, 2, .	2.6	1
67	Entirely Flexible Onâ€Site Conditioned Magnetic Sensorics. Advanced Electronic Materials, 2016, 2, 1600188.	2.6	38
68	Flexible aâ€IGZO Phototransistor for Instantaneous and Cumulative UVâ€Exposure Monitoring for Skin Health. Advanced Electronic Materials, 2016, 2, 1600273.	2.6	59
69	20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT. , 2016, , .		1
70	A wearable bluetooth LE sensor for patient monitoring during MRI scans. , 2016, 2016, 4975-4978.		7
71	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
72	20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT. , 2016, , .		1

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73	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
74	Bendable energy-harvesting module with organic photovoltaic, rechargeable battery, and a-IGZO TFT charging electronics. , 2015, , .		8
75	Design and simulation of a 800 Mbit/s data link for magnetic resonance imaging wearables. , 2015, 2015, 1323-6.		0
76	Biomimetic Microelectronics for Regenerative Neuronal Cuff Implants. Advanced Materials, 2015, 27, 6797-6805.	11.1	86
77	Digital output flexible tilt sensor with conductive microspheres. , 2015, , .		2
78	Baseband amplifiers in a-IGZO TFT technology for flexible audio systems. , 2015, , .		2
79	Low-temperature spray-deposited indium oxide for flexible thin-film transistors and integrated circuits. Applied Physics Letters, 2015, 106, .	1.5	46
80	20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas. , 2015, , .		3
81	15 dB Conversion gain, 20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas. , 2015, , .		6
82	A fully integrated audio amplifier in flexible a-IGZO TFT technology for printed piezoelectric loudspeakers. , 2015, , .		4
83	Radio frequency electronics on plastic. , 2015, , .		1
84	Stretchable and Conformable Oxide Thinâ€Film Electronics. Advanced Electronic Materials, 2015, 1, 1400038.	2.6	78
85	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
86	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
87	Programmable e-textile composite Circuit. , 2015, , .		5
88	15 dB conversion gain, 20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas. , 2015, , .		8
89	A 70°phase margin OPAMP with positive feedback in flexible a-IGZO TFT technology. , 2015, , .		16
90	Integration of solution-processed (7,5) SWCNTs with sputtered and spray-coated metal oxides for flexible complementary inverters. , 2014, , .		7

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91	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
92	22.5 dB open-loop gain, 31 kHz GBW pseudo-CMOS based operational amplifier with a-IGZO TFTs on a flexible film. , 2014, , .		32
93	High gain amplifiers in flexible self-aligned a-IGZO thin-film-transistor technology. , 2014, , .		12
94	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
95	High performance flexible electronics for biomedical devices. , 2014, 2014, 4176-9.		4
96	Influence of Mechanical Bending on Flexible InGaZnO-Based Ferroelectric Memory TFTs. IEEE Transactions on Electron Devices, 2014, 61, 1085-1092.	1.6	38
97	Wafer-scale design of lightweight and transparent electronics that wraps around hairs. Nature Communications, 2014, 5, 2982.	5.8	279
98	Flexible Self-Aligned Double-Gate IGZO TFT. IEEE Electron Device Letters, 2014, 35, 69-71.	2.2	69
99	Flexible electronics based on oxide semiconductors. , 2014, , .		1
100	Fabrication and Transfer of Flexible Few-Layers MoS₂ Thin Film Transistors to Any Arbitrary Substrate. ACS Nano, 2013, 7, 8809-8815.	7.3	185
101	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
102	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
103	Investigation of gate material ductility enables flexible a-IGZO TFTs bendable to a radius of 1.7 mm. , 2013, , .		23
104	A 2.62 MHz 762 µW cascode amplifier in flexible a-IGZO thin-film technology for textile and wearable-electronics applications. , 2013, , .		12
105	The influence of bending on the performance of flexible carbon black/polymer composite gas sensors. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 329-336.	2.4	15
106	Flexible double gate a-IGZO TFT fabricated on free standing polyimide foil. Solid-State Electronics, 2013, 84, 198-204.	0.8	49
107	Room temperature fabricated flexible NiO/IGZO pn diode under mechanical strain. Solid-State Electronics, 2013, 87, 17-20.	0.8	31
108	Textile integrated sensors and actuators for near-infrared spectroscopy. Optics Express, 2013, 21, 3213.	1.7	40

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109	InGaZnO TFTs on a flexible membrane transferred to a curved surface with a radius of 2 mm. , 2013, , .		5
110	Fabrication technologies for the integration of thin-film electronics into smart textiles. , 2013, , 227-252.		0
111	Combining electronics on flexible plastic strips with textiles. Textile Reseach Journal, 2013, 83, 1130-1142.	1.1	37
112	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
113	Mechanically flexible vertically integrated a-IGZO thin-film transistors with 500 nm channel length fabricated on free standing plastic foil. , 2013, , .		19
114	Overview of the EC project FLEXIBILITY: Organic and thin-film ICs up to radio frequencies for multifunctional flexible systems. , 2013, , .		4
115	2D Thin Film Temperature Sensors Fabricated onto 3D Nylon Yarn Surface for Smart Textile Applications. Research Journal of Textile and Apparel, 2013, 17, 16-20.	0.6	13
116	In Tube Integrated Electronic Nose System on a Flexible Polymer Substrate. Sensors, 2012, 12, 13681-13693.	2.1	5
117	Integration Method for Electronics in Woven Textiles. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2012, 2, 1107-1117.	1.4	48
118	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
119	Locally Reinforced Polymer-Based Composites for Elastic Electronics. ACS Applied Materials & Interfaces, 2012, 4, 2860-2864.	4.0	40
120	Mechanically flexible double gate a-IGZO TFTs. , 2012, , .		2
121	An electronic nose on flexible substrates integrated into a smart textile. Sensors and Actuators B: Chemical, 2012, 174, 81-86.	4.0	52
122	Woven active-matrix display. IEEE Transactions on Electron Devices, 2012, 59, 721-728.	1.6	19
123	Design Rules for IGZO Logic Gates on Plastic Foil Enabling Operation at Bending Radii of 3.5 mm. IEEE Transactions on Electron Devices, 2012, 59, 2153-2159.	1.6	47
124	6.2.4 Influence of Flexible Substrate Materials on the Performance of Polymer Composite Gas Sensors. , 2012, , .		3
125	A flexible InGaZnO based 1-bit SRAM under mechanical strain. , 2011, , .		7
126	Encapsulation for Flexible Electronic Devices. IEEE Electron Device Letters, 2011, 32, 1743-1745.	2.2	44

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127	The Effects of Mechanical Bending and Illumination on the Performance of Flexible IGZO TFTs. IEEE Transactions on Electron Devices, 2011, 58, 2041-2048.	1.6	152
128	Indium-gallium-zinc-oxide based mechanically flexible transimpedance amplifier. Electronics Letters, 2011, 47, 691.	0.5	15
129	Woven Electronic Fibers with Sensing and Display Functions for Smart Textiles. Advanced Materials, 2010, 22, 5178-5182.	11.1	355
130	Impact of Mechanical Bending on ZnO and IGZO Thin-Film Transistors. IEEE Electron Device Letters, 2010, , .	2.2	26