

# Niko Mnzenrieder

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

114  
papers

2,973  
citations

29  
h-index

52  
g-index

134  
ext. papers

3,406  
ext. citations

4.7  
avg, IF

5.13  
L-index

| #   | Paper  | IF   | Citations |
|-----|--|------|-----------|
| 114 | Metal oxide semiconductor thin-film transistors for flexible electronics. <i>Applied Physics Reviews</i> , <b>2016</b> , 3, 021303   | 17.3 | 380       |
| 113 | Woven electronic fibers with sensing and display functions for smart textiles. <i>Advanced Materials</i> , <b>2010</b> , 22, 5178-82   | 24   | 308       |
| 112 | Wafer-scale design of lightweight and transparent electronics that wraps around hairs. <i>Nature Communications</i> , <b>2014</b> , 5, 2982  | 17.4 | 249       |
| 111 | Fabrication and transfer of flexible few-layers MoS <sub>2</sub> thin film transistors to any arbitrary substrate. <i>ACS Nano</i> , <b>2013</b> , 7, 8809-15  | 16.7 | 158       |
| 110 | . <i>IEEE Transactions on Electron Devices</i> , <b>2011</b> , 58, 2041-2048   | 2.9  | 130       |
| 109 | Flexible Self-Aligned Amorphous InGaZnO Thin-Film Transistors With Submicrometer Channel Length and a Transit Frequency of 135 MHz. <i>IEEE Transactions on Electron Devices</i> , <b>2013</b> , 60, 2815-2820 | 2.9  | 80        |
| 108 | Flexible Sensors—from Materials to Applications. <i>Technologies</i> , <b>2019</b> , 7, 35   | 2.4  | 78        |
| 107 | Biomimetic Microelectronics for Regenerative Neuronal Cuff Implants. <i>Advanced Materials</i> , <b>2015</b> , 27, 6797-805  | 24   | 72        |
| 106 | IGZO TFT-Based All-Enhancement Operational Amplifier Bent to a Radius of 5 mm. <i>IEEE Electron Device Letters</i> , <b>2013</b> , 34, 1394-1396   | 4.4  | 67        |
| 105 | Flexible Self-Aligned Double-Gate IGZO TFT. <i>IEEE Electron Device Letters</i> , <b>2014</b> , 35, 69-71  | 4.4  | 56        |
| 104 | Stretchable and Conformable Oxide Thin-Film Electronics. <i>Advanced Electronic Materials</i> , <b>2015</b> , 1, 14000384  | 3.4  | 50        |
| 103 | An electronic nose on flexible substrates integrated into a smart textile. <i>Sensors and Actuators B: Chemical</i> , <b>2012</b> , 174, 81-86   | 8.5  | 49        |
| 102 | Flexible a-IGZO Phototransistor for Instantaneous and Cumulative UV-Exposure Monitoring for Skin Health. <i>Advanced Electronic Materials</i> , <b>2016</b> , 2, 1600273                                       | 6.4  | 47        |
| 101 | Contact resistance and overlapping capacitance in flexible sub-micron long oxide thin-film transistors for above 100 MHz operation. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 263504                 | 3.4  | 47        |
| 100 | Buckled Thin-Film Transistors and Circuits on Soft Elastomers for Stretchable Electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 28750-28757  | 9.5  | 40        |
| 99  | Design Rules for IGZO Logic Gates on Plastic Foil Enabling Operation at Bending Radii of 3.5 mm. <i>IEEE Transactions on Electron Devices</i> , <b>2012</b> , 59, 2153-2159                                    | 2.9  | 39        |
| 98  | Flexible double gate a-IGZO TFT fabricated on free standing polyimide foil. <i>Solid-State Electronics</i> , <b>2013</b> , 84, 198-204   | 1.7  | 39        |

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|----|---|------|----|
| 97 | Low-temperature spray-deposited indium oxide for flexible thin-film transistors and integrated circuits. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 092105                                 | 3.4  | 38 |
| 96 | . <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2012</b> , 2, 1107-1117   | 1.7  | 38 |
| 95 | 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 <b>2012</b> ,  |      | 38 |
| 94 | Influence of Mechanical Bending on Flexible InGaZnO-Based Ferroelectric Memory TFTs. <i>IEEE Transactions on Electron Devices</i> , <b>2014</b> , 61, 1085-1092                                     | 2.9  | 37 |
| 93 | Textile integrated sensors and actuators for near-infrared spectroscopy. <i>Optics Express</i> , <b>2013</b> , 21, 3213-243   | 2.3  | 37 |
| 92 | Encapsulation for Flexible Electronic Devices. <i>IEEE Electron Device Letters</i> , <b>2011</b> , 32, 1743-1745  | 4.4  | 36 |
| 91 | Locally reinforced polymer-based composites for elastic electronics. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2012</b> , 4, 2860-4  | 9.5  | 35 |
| 90 | A Compact a-IGZO TFT Model Based on MOSFET SPICE $\{\text{rm Level}\}=3\}$ Template for Analog/RF Circuit Designs. <i>IEEE Electron Device Letters</i> , <b>2013</b> , 34, 1391-1393                | 4.4  | 33 |
| 89 | Flexible InGaZnO Thin-Film Transistors on Elastomeric Substrate Bent to 2.3% Strain. <i>IEEE Electron Device Letters</i> , <b>2015</b> , 36, 781-783  | 4.4  | 31 |
| 88 | Room temperature fabricated flexible NiO/IGZO pn diode under mechanical strain. <i>Solid-State Electronics</i> , <b>2013</b> , 87, 17-20  | 1.7  | 30 |
| 87 | Combining electronics on flexible plastic strips with textiles. <i>Textile Reseach Journal</i> , <b>2013</b> , 83, 1130-1142.   | 4.7  | 30 |
| 86 | Design of Engineered Elastomeric Substrate for Stretchable Active Devices and Sensors. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1705132   | 15.6 | 29 |
| 85 | Ferroelectric-Like Charge Trapping Thin-Film Transistors and Their Evaluation as Memories and Synaptic Devices. <i>Advanced Electronic Materials</i> , <b>2017</b> , 3, 1700309                     | 6.4  | 27 |
| 84 | . <i>IEEE Electron Device Letters</i> , <b>2015</b> , 36, 475-477   | 4.4  | 27 |
| 83 | Entirely Flexible On-Site Conditioned Magnetic Sensorics. <i>Advanced Electronic Materials</i> , <b>2016</b> , 2, 1600184   | 3.4  | 26 |
| 82 | Solution-processed p-type copper(I) thiocyanate (CuSCN) for low-voltage flexible thin-film transistors and integrated inverter circuits. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 113504 | 3.4  | 25 |
| 81 | 22.5 dB open-loop gain, 31 kHz GBW pseudo-CMOS based operational amplifier with a-IGZO TFTs on a flexible film <b>2014</b> ,  |      | 25 |
| 80 | Flexible Temperature Sensor Integration into E-Textiles Using Different Industrial Yarn Fabrication Processes. <i>Sensors</i> , <b>2019</b> , 20,   | 3.8  | 23 |

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|----|--|-----|----|
| 79 | Charge Trapping Mechanism Leading to Sub-60-mV/decade-Swing FETs. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 2789-2796   | 2.9 | 22 |
| 78 | Impact of Mechanical Bending on ZnO and IGZO Thin-Film Transistors. <i>IEEE Electron Device Letters</i> , <b>2010</b> ,  | 4.4 | 21 |
| 77 | Flexible InGaZnO TFTs With $f_{max}$ Above 300 MHz. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 1310-1313  | 4.4 | 18 |
| 76 | Investigation of gate material ductility enables flexible a-IGZO TFTs bendable to a radius of 1.7 mm <b>2013</b> ,   |     | 18 |
| 75 | Woven active-matrix display. <i>IEEE Transactions on Electron Devices</i> , <b>2012</b> , 59, 721-728  | 2.9 | 17 |
| 74 | Review of recent trends in flexible metal oxide thin-film transistors for analog applications. <i>Flexible and Printed Electronics</i> , <b>2020</b> , 5, 033001                           | 3.1 | 17 |
| 73 | Positive charge trapping phenomenon in n-channel thin-film transistors with amorphous alumina gate insulators. <i>Journal of Applied Physics</i> , <b>2016</b> , 120, 244501               | 2.5 | 16 |
| 72 | <b>2013</b> ,  |     | 15 |
| 71 | Indium-gallium-zinc-oxide based mechanically flexible transimpedance amplifier. <i>Electronics Letters</i> , <b>2011</b> , 47, 691   | 1.1 | 14 |
| 70 | Flexible IGZO TFT SPICE Model and Design of Active Strain-Compensation Circuits for Bendable Active Matrix Arrays. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 1314-1317       | 4.4 | 12 |
| 69 | Gain-Tunable Complementary Common-Source Amplifier Based on a Flexible Hybrid Thin-Film Transistor Technology. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 1536-1539           | 4.4 | 11 |
| 68 | A 70° phase margin OPAMP with positive feedback in flexible a-IGZO TFT technology <b>2015</b> ,  |     | 11 |
| 67 | <b>2013</b> ,  |     | 11 |
| 66 | The influence of bending on the performance of flexible carbon black/polymer composite gas sensors. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , <b>2013</b> , 51, 329-336 | 2.6 | 11 |
| 65 | 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 <b>2014</b> ,   |     | 11 |
| 64 | 2D Thin Film Temperature Sensors Fabricated onto 3D Nylon Yarn Surface for Smart Textile Applications. <i>Research Journal of Textile and Apparel</i> , <b>2013</b> , 17, 16-20            | 1.1 | 11 |
| 63 | Directly 3D-printed monolithic soft robotic gripper with liquid metal microchannels for tactile sensing. <i>Flexible and Printed Electronics</i> , <b>2019</b> , 4, 035001                 | 3.1 | 10 |
| 62 | High gain amplifiers in flexible self-aligned a-IGZO thin-film-transistor technology <b>2014</b> ,   |     | 10 |

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|----|--|-----|----|
| 61 | Flexible InGaZnO-Based Circuits With Two and Three Metal Layers: Simulation and Fabrication Study. <i>IEEE Electron Device Letters</i> , <b>2016</b> , 37, 1582-1585                             | 4.4 | 10 |
| 60 | Fabricating and Assembling Acoustic Metamaterials and Phononic Crystals. <i>Advanced Engineering Materials</i> , <b>2021</b> , 23, 2000988   | 3.5 | 10 |
| 59 | Hand-Drawn Resistors, Capacitors, Diodes, and Circuits for a Pressure Sensor System on Paper. <i>Advanced Electronic Materials</i> , <b>2018</b> , 4, 1700600                                    | 6.4 | 9  |
| 58 | Flexible InGaZnO Thin-Film Transistors With Sub-300-nm Channel Lengths Defined by Two-Photon Direct Laser Writing. <i>IEEE Transactions on Electron Devices</i> , <b>2018</b> , 65, 3796-3802    | 2.9 | 8  |
| 57 | Focused ion beam milling for the fabrication of 160 nm channel length IGZO TFTs on flexible polymer substrates. <i>Flexible and Printed Electronics</i> , <b>2020</b> , 5, 015007                | 3.1 | 8  |
| 56 | Fabrication and AC Performance of Flexible Indium-Gallium-Zinc-Oxide Thin-Film Transistors. <i>ECS Transactions</i> , <b>2019</b> , 90, 55-63  | 1   | 7  |
| 55 | Design and analysis of high-gain amplifiers in flexible self-aligned a-IGZO thin-film transistor technology. <i>Analog Integrated Circuits and Signal Processing</i> , <b>2016</b> , 87, 213-222 | 1.2 | 7  |
| 54 | Flexible IGZO TFTs and Their Suitability for Space Applications. <i>IEEE Journal of the Electron Devices Society</i> , <b>2019</b> , 7, 1182-1190  | 2.3 | 7  |
| 53 | A transistor model for a-IGZO TFT circuit design built upon the RPI-aTFT model <b>2017</b> ,   |     | 7  |
| 52 | Integration of solution-processed (7,5) SWCNTs with sputtered and spray-coated metal oxides for flexible complementary inverters <b>2014</b> ,   |     | 7  |
| 51 | A flexible InGaZnO based 1-bit SRAM under mechanical strain <b>2011</b> ,  |     | 7  |
| 50 | Improvement of contact resistance in flexible a-IGZO thin-film transistors by CF <sub>4</sub> /O <sub>2</sub> plasma treatment. <i>Solid-State Electronics</i> , <b>2018</b> , 150, 23-27        | 1.7 | 7  |
| 49 | Fabrication, Modeling, and Evaluation of a Digital Output Tilt Sensor With Conductive Microspheres. <i>IEEE Sensors Journal</i> , <b>2017</b> , 17, 3635-3643                                    | 4   | 6  |
| 48 | Program FFlexCom [High frequency flexible bendable electronics for wireless communication systems <b>2017</b> ,  |     | 6  |
| 47 | Bendable energy-harvesting module with organic photovoltaic, rechargeable battery, and a-IGZO TFT charging electronics <b>2015</b> ,   |     | 6  |
| 46 | Coco Stretch: Strain Sensors Based on Natural Coconut Oil and Carbon Black Filled Elastomers. <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2000780                                  | 6.8 | 6  |
| 45 | 581-Hz 188- $\mu$ W Light-Sensing Oscillator With Two Active Inductors Fully Integrated on Plastic. <i>IEEE Journal of Solid-State Circuits</i> , <b>2019</b> , 54, 2195-2206                    | 5.5 | 5  |
| 44 | Oxide Thin-Film Electronics on Carbon Fiber Reinforced Polymer Composite. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 1043-1046  | 4.4 | 5  |

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| 43 | Oxide Thin-Film Transistors on Fibers for Smart Textiles. <i>Technologies</i> , <b>2017</b> , 5, 31   | 2.4 | 5 |
| 42 | 15 dB Conversion gain, 20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas <b>2015</b> ,   |     | 5 |
| 41 | InGaZnO TFTs on a flexible membrane transferred to a curved surface with a radius of 2 mm <b>2013</b> ,   |     | 5 |
| 40 | Non-contact long range AC voltage measurement <b>2019</b> ,   |     | 5 |
| 39 | ShapeSense3D <b>2019</b> ,  |     | 5 |
| 38 | Programmable e-textile composite Circuit <b>2015</b> ,  |     | 4 |
| 37 | 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 <b>2016</b> ,   |     | 4 |
| 36 | 3B V, 3B.8 MHz OOK modulator with a-IGZO TFTs for flexible wireless transmitter <b>2017</b> ,   |     | 4 |
| 35 | <b>2015</b> ,   |     | 4 |
| 34 | High performance flexible electronics for biomedical devices. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2014</b> , 2014, 4176-9              | 0.9 | 4 |
| 33 | In tube integrated electronic nose system on a flexible polymer substrate. <i>Sensors</i> , <b>2012</b> , 12, 13681-93  | 3.8 | 4 |
| 32 | Design and Characterisation of a Non-contact Flexible Sensor Array for Electric Potential Imaging Applications. <i>IEEE Sensors Journal</i> , <b>2021</b> , 1-1   | 4   | 4 |
| 31 | A wearable bluetooth LE sensor for patient monitoring during MRI scans. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2016</b> , 2016, 4975-4978 | 0.9 | 3 |
| 30 | Geometry-Based Tunability Enhancement of Flexible Thin-Film Varactors. <i>IEEE Electron Device Letters</i> , <b>2017</b> , 38, 1117-1120  | 4.4 | 3 |
| 29 | 20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas <b>2015</b> ,  |     | 3 |
| 28 | Overview of the EC project FLEXIBILITY: Organic and thin-film ICs up to radio frequencies for multifunctional flexible systems <b>2013</b> ,  |     | 3 |
| 27 | Non-contact Measurement of DC Potentials with Applications in Static Charge Imaging <b>2020</b> ,   |     | 3 |
| 26 | 6.2.4 Influence of Flexible Substrate Materials on the Performance of Polymer Composite Gas Sensors <b>2012</b> ,   |     | 3 |

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|----|--|-----|---|
| 25 | Flexible Electronics for Wireless Communication: A Technology and Circuit Design Review With an Application Example. <i>IEEE Microwave Magazine</i> , <b>2022</b> , 23, 24-44  | 1.2 | 3 |
| 24 | Design of bendable high-frequency circuits based on short-channel InGaZnO TFTs <b>2019</b> ,   |     | 2 |
| 23 | Flexible Green Perovskite Light Emitting Diodes. <i>IEEE Journal of the Electron Devices Society</i> , <b>2019</b> , 7, 769-775  | 2.3 | 2 |
| 22 | 15 dB conversion gain, 20 MHz carrier frequency AM receiver in flexible a-IGZO TFT technology with textile antennas <b>2015</b> ,  |     | 2 |
| 21 | Baseband amplifiers in a-IGZO TFT technology for flexible audio systems <b>2015</b> ,  |     | 2 |
| 20 | Mechanically flexible double gate a-IGZO TFTs <b>2012</b> ,  |     | 2 |
| 19 | Flexible Bootstrapped Cascode System with Feedback for Capacitive Through-Substrate Electric Potential Measurements with a 55 dB Relative Gain <b>2020</b> ,                   |     | 2 |
| 18 | Long-Term Aging of Al <sub>2</sub> O <sub>3</sub> Passivated and Unpassivated Flexible a-IGZO TFTs. <i>IEEE Transactions on Electron Devices</i> , <b>2020</b> , 67, 4934-4939 | 2.9 | 2 |
| 17 | Flexible Micro-Scale Sensor Array for Non-Contact Electric Potential Imaging <b>2020</b> ,   |     | 2 |
| 16 | Inferring Complex Textile Shape from an Integrated Carbon Black-infused Ecoflex-based Bend and Stretch Sensor Array <b>2021</b> ,  |     | 2 |
| 15 | Flexible IGZO thin-film transistors with liquid EGaIn gate contacts <b>2019</b> ,  |     | 1 |
| 14 | 20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT <b>2016</b> ,  |     | 1 |
| 13 | 20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT <b>2016</b> ,  |     | 1 |
| 12 | Flexible electronics based on oxide semiconductors <b>2014</b> ,   |     | 1 |
| 11 | Flexible CMOS electronics based on p-type Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> and n-type InGaZnO <sub>4</sub> semiconductors <b>2017</b> ,                         |     | 1 |
| 10 | Digital output flexible tilt sensor with conductive microspheres <b>2015</b> ,   |     | 1 |
| 9  | Copper wire based electrical contacts for direct interfacing of stretchable sensors <b>2020</b> ,  |     | 1 |
| 8  | Fabricating and Assembling Acoustic Metamaterials and Phononic Crystals. <i>Advanced Engineering Materials</i> , <b>2021</b> , 23, 2170008                                     | 3.5 | 1 |

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|---|--|-----|---|
| 7 | Strain Sensors: Coco Stretch: Strain Sensors Based on Natural Coconut Oil and Carbon Black Filled Elastomers (Adv. Mater. Technol. 2/2021). <i>Advanced Materials Technologies</i> , <b>2021</b> , 6, 2170012  | 6.8 | o |
| 6 | A Low-Cost Method to Prepare Biocompatible Filaments with Enhanced Physico-Mechanical Properties for FDM 3D Printing. <i>Current Drug Delivery</i> , <b>2021</b> , 18, 700-711   | 3.2 | o |
| 5 | Design and simulation of a 800 Mbit/s data link for magnetic resonance imaging wearables. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2015</b> , 2015, 1323-6 | 0.9 |   |
| 4 | Fabrication technologies for the integration of thin-film electronics into smart textiles <b>2013</b> , 227-252  |     |   |
| 3 | Non-contact thin-film sheet conductance measurement based on the attenuation of low frequency electric potentials. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 414003  | 3   |   |
| 2 | Oxide Thin-Film Electronics for the Front-End Conditioning of Flexible Magnetic Field Sensors. <i>Minerals, Metals and Materials Series</i> , <b>2021</b> , 294-302  | 0.3 |   |
| 1 | Lessons Learned in Developing Sensorised Textiles to Capture Body Shapes. <i>Lecture Notes of the Institute for Computer Sciences, Social-Informatics and Telecommunications Engineering</i> , <b>2022</b> , 365-380   | 0.2 |   |