

# Gerhard TrÃ¶ster

## List of Publications by Year in descending order

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76  
papers

3,706  
citations

172386

29  
h-index

133188

59  
g-index

78  
all docs

78  
docs citations

78  
times ranked

5276  
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	Smartphone-Based Recognition of States and State Changes in Bipolar Disorder Patients. IEEE Journal of Biomedical and Health Informatics, 2015, 19, 140-148.	3.9	296
3	Wafer-scale design of lightweight and transparent electronics that wraps around hairs. Nature Communications, 2014, 5, 2982.	5.8	279
4	Towards Measuring Stress with Smartphones and Wearable Devices During Workday and Sleep. BioNanoScience, 2013, 3, 172-183.	1.5	238
5	Biodegradable and Highly Deformable Temperature Sensors for the Internet of Things. Advanced Functional Materials, 2017, 27, 1702390.	7.8	178
6	Monitoring of mental workload levels during an everyday life office-work scenario. Personal and Ubiquitous Computing, 2013, 17, 229-239.	1.9	164
7	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
8	eHealth and mHealth interventions in the treatment of fatigued cancer survivors: A systematic review and meta-analysis. Psycho-Oncology, 2017, 26, 1239-1253.	1.0	134
9	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
10	Biomimetic Microelectronics for Regenerative Neuronal Cuff Implants. Advanced Materials, 2015, 27, 6797-6805.	11.1	86
11	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
12	On-skin liquid metal inertial sensor. Lab on A Chip, 2017, 17, 3272-3278.	3.1	79
13	Stretchable and Conformable Oxide Thin-Film Electronics. Advanced Electronic Materials, 2015, 1, 1400038.	2.6	78
14	Flexible Self-Aligned Double-Gate IGZO TFT. IEEE Electron Device Letters, 2014, 35, 69-71.	2.2	69
15	Fundamental Building Blocks for Circuits on Textiles. IEEE Transactions on Advanced Packaging, 2007, 30, 541-550.	1.7	68
16	Woven Thin-Film Metal Interconnects. IEEE Electron Device Letters, 2010, 31, 740-742.	2.2	64
17	Flexible IGZO Phototransistor for Instantaneous and Cumulative UV Exposure Monitoring for Skin Health. Advanced Electronic Materials, 2016, 2, 1600273.	2.6	59
18	Contact resistance and overlapping capacitance in flexible sub-micron long oxide thin-film transistors for above 100 MHz operation. Applied Physics Letters, 2014, 105, .	1.5	57

#	ARTICLE	IF	CITATIONS
19	Buckled Thin-Film Transistors and Circuits on Soft Elastomers for Stretchable Electronics. ACS Applied Materials & Interfaces, 2017, 9, 28750-28757.	4.0	54
20	Metal-Halide Perovskites for Gate Dielectrics in Field-Effect Transistors and Photodetectors Enabled by PMMA Lift-Off Process. Advanced Materials, 2018, 30, e1707412.	11.1	51
21	Encapsulation for Flexible Electronic Devices. IEEE Electron Device Letters, 2011, 32, 1743-1745.	2.2	44
22	A Compact a-IGZO TFT Model Based on MOSFET SPICE $\{m\text{ Level}\}=3$ Template for Analog/RF Circuit Designs. IEEE Electron Device Letters, 2013, 34, 1391-1393.	2.2	44
23	Feasibility and Usability Aspects of Continuous Remote Monitoring of Health Status in Palliative Cancer Patients Using Wearables. Oncology, 2020, 98, 386-395.	0.9	44
24	Entirely Flexible On-Site Conditioned Magnetic Sensorics. Advanced Electronic Materials, 2016, 2, 1600188.	2.6	38
25	Flexible In-Ga-Zn-O Thin-Film Transistors on Elastomeric Substrate Bent to 2.3% Strain. IEEE Electron Device Letters, 2015, 36, 781-783.	2.2	37
26	Mobile Health Technologies for Continuous Monitoring of Cancer Patients in Palliative Care Aiming to Predict Health Status Deterioration: A Feasibility Study. Journal of Palliative Medicine, 2020, 23, 678-685.	0.6	37
27	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
28	Ferroelectric-Like Charge Trapping Thin-Film Transistors and Their Evaluation as Memories and Synaptic Devices. Advanced Electronic Materials, 2017, 3, 1700309.	2.6	33
29	Rapid prototyping of smart garments for activity-aware applications. Journal of Ambient Intelligence and Smart Environments, 2009, 1, 87-101.	0.8	32
30	A wearable sensing system for timing analysis in tennis. , 2016, , .		30
31	Charge Trapping Mechanism Leading to Sub-60-mV/decade-Swing FETs. IEEE Transactions on Electron Devices, 2017, 64, 2789-2796.	1.6	29
32	Adsorbed Eutectic Galn Structures on a Neoprene Foam for Stretchable MRI Coils. Advanced Materials, 2017, 29, 1703744.	11.1	27
33	Impact of Mechanical Bending on ZnO and IGZO Thin-Film Transistors. IEEE Electron Device Letters, 2010, , .	2.2	26
34	Flexible InGaZnO TFTs With $\{f\} \$ \_{\text{extsf}\{\max\}}$ Above 300 MHz. IEEE Electron Device Letters, 2018, 39, 1310-1313.	2.2	26
35	Modeling arousal phases in daily living using wearable sensors. IEEE Transactions on Affective Computing, 2013, 4, 93-105.	5.7	25
36	Unobtrusive physiological monitoring in an airplane seat. Personal and Ubiquitous Computing, 2010, 14, 541-550.	1.9	23

#	ARTICLE	IF	CITATIONS
37	Investigation of gate material ductility enables flexible a-IGZO TFTs bendable to a radius of 1.7 mm. , 2013, , .		23
38	Participatory Bluetooth Scans Serving as Urban Crowd Probes. IEEE Sensors Journal, 2014, 14, 4196-4206.	2.4	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	Textile UWB antenna for on-body communications. , 2006, , .		20
41	A Fully Integrated Dual-Channel On-Coil CMOS Receiver for Array Coils in 1.5â€“10.5 T MRI. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 1245-1255.	2.7	20
42	On the Bending and Stretching of Liquid Metal Receive Coils for Magnetic Resonance Imaging. IEEE Transactions on Biomedical Engineering, 2019, 66, 1542-1548.	2.5	17
43	mHealth Technologies for Palliative Care Patients at the Interface of In-Patient to Outpatient Care: Protocol of Feasibility Study Aiming to Early Predict Deterioration of Patientâ€™s Health Status. JMIR Research Protocols, 2017, 6, e142.	0.5	17
44	A time to trust? The buffering effect of trust and its temporal variations in the context of highâ€“reliability teams. Journal of Organizational Behavior, 2018, 39, 1099-1112.	2.9	16
45	Influence of a loose-fitting sensing garment on posture recognition in rehabilitation. , 2008, , .		15
46	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
47	Naturalistic Recognition of Activities and Mood Using Wearable Electronics. IEEE Transactions on Affective Computing, 2016, 7, 272-285.	5.7	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	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
50	Program FFlexCom â€” High frequency flexible bendable electronics for wireless communication systems. , 2017, , .		12
51	Using ensemble classifier systems for handling missing data in emotion recognition from physiology: One step towards a practical system. , 2009, , .		11
52	Designing micro-patterned Ti films that survive up to 10% applied tensile strain. Applied Physics A: Materials Science and Processing, 2010, 100, 281-285.	1.1	11
53	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
54	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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55	Collection and curation of a large reference dataset for activity recognition. , 2011, , .		8
56	Bendable energy-harvesting module with organic photovoltaic, rechargeable battery, and a-IGZO TFT charging electronics. , 2015, , .		8
57	Fabrication, Modeling, and Evaluation of a Digital Output Tilt Sensor With Conductive Microspheres. IEEE Sensors Journal, 2017, 17, 3635-3643.	2.4	8
58	Oxide Thin-Film Electronics on Carbon Fiber Reinforced Polymer Composite. IEEE Electron Device Letters, 2017, 38, 1043-1046.	2.2	8
59	Automatic Resonance Frequency Retuning of Stretchable Liquid Metal Receive Coil for Magnetic Resonance Imaging. IEEE Transactions on Medical Imaging, 2019, 38, 1420-1426.	5.4	8
60	Integrated CMOS Receiver for Wearable Coil Arrays in MRI Applications. , 2015, , .		6
61	Remotely Monitoring Cancer-Related Fatigue Using the Smart-Phone: Results of an Observational Study. Information (Switzerland), 2018, 9, 271.	1.7	6
62	Flexible Green Perovskite Light Emitting Diodes. IEEE Journal of the Electron Devices Society, 2019, 7, 769-775.	1.2	6
63	Characteristic Impedance Deembedding of Printed Lines with the Probe-Tips Calibrations. , 2002, , .		5
64	Strap and row: Rowing technique analysis based on inertial measurement units implemented in mobile phones. , 2014, , .		5
65	Programmable e-textile composite Circuit. , 2015, , .		5
66	Geometry-Based Tunability Enhancement of Flexible Thin-Film Varactors. IEEE Electron Device Letters, 2017, 38, 1117-1120.	2.2	4
67	N-type to p-type transition upon phase change in Ge <sub>6</sub> Sb <sub>1</sub> Te <sub>2</sub> compounds. Applied Physics Letters, 2018, 113, .	1.5	4
68	Influence of Piano Key Vibration Level on Playersâ€™ Perception and Performance in Piano Playing. Applied Sciences (Switzerland), 2018, 8, 2697.	1.3	4
69	RFID-die. , 2014, , .		3
70	Evaluation of Piano Key Vibrations Among Different Acoustic Pianos and Relevance to Vibration Sensation. IEEE Transactions on Haptics, 2018, 11, 212-219.	1.8	3
71	Long-Term Aging of Al <sub>2</sub> O <sub>3</sub> Passivated and Unpassivated Flexible a-IGZO TFTs. IEEE Transactions on Electron Devices, 2020, 67, 4934-4939.	1.6	3
72	Deembedding of the Taper-fed CPW and Microstrip Lines Characteristic Impedance with Probe-tip Calibrations. , 2002, , .		1

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73	Sensors: Entirely Flexible On-Site Conditioned Magnetic Sensorics (Adv. Electron. Mater. 8/2016). Advanced Electronic Materials, 2016, 2, .	2.6	1
74	20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT. , 2016, , .		1
75	20.3dB 0.39mW AM detector with single-transistor active inductor in bendable a-IGZO TFT. , 2016, , .		1
76	S Matrix versus ABCD Chain Matrix Formulation in Probe-tip Calibrations. , 2002, , .		0