

Oliver Brand

List of Publications by Year in Descending Order

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Version: 2024-04-23

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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.

121
papers

1,334
citations

17
h-index

34
g-index

140
ext. papers

1,577
ext. citations

5.7
avg, IF

4.58
L-index

#	Paper	IF	Citations
121	Don't Forget About Human Factors: Lessons Learned from COVID-19 Point-of-Care Testing.. <i>Cell Reports Methods</i> , 2022 , 100222		1
120	Microfabrication, Coil Characterization, and Hermetic Packaging of Millimeter-Sized Free-Floating Neural Probes. <i>IEEE Sensors Journal</i> , 2021 , 21, 13837-13848	4	3
119	Amine-Functionalized Capacitive Carbon Dioxide Sensor Performance as a Function of Temperature and Sensing Film Thickness. <i>IEEE Sensors Journal</i> , 2021 , 1-1	4	0
118	The RADx Tech Clinical Studies Core: A Model for Academic Based Clinical Studies. <i>IEEE Open Journal of Engineering in Medicine and Biology</i> , 2021 , 2, 152-157	5.9	5
117	The RADx Tech Test Verification Core and the ACME POCT in the Evaluation of COVID-19 Testing Devices: A Model for Progress and Change. <i>IEEE Open Journal of Engineering in Medicine and Biology</i> , 2021 , 2, 142-151	5.9	4
116	The need for new test verification and regulatory support for innovative diagnostics. <i>Nature Biotechnology</i> , 2021 , 39, 1060-1062	44.5	1
115	All-Soft Supercapacitors Based on Liquid Metal Electrodes with Integrated Functionalized Carbon Nanotubes. <i>ACS Nano</i> , 2020 , 14, 5659-5667	16.7	27
114	Nanofabrication for all-soft and high-density electronic devices based on liquid metal. <i>Nature Communications</i> , 2020 , 11, 1002	17.4	46
113	In-Plane Vibration of Hammerhead Resonators for Chemical Sensing Applications. <i>ACS Sensors</i> , 2020 , 5, 73-82	9.2	5
112	Temperature Compensation of Thermally Actuated, In-Plane Resonant Gas Sensor Using Embedded Oxide-Filled Trenches. <i>Journal of Microelectromechanical Systems</i> , 2020 , 29, 936-941	2.5	0
111	Submicrometer-Scale All-Soft Electronics Based on Liquid Metal 2019 ,		1
110	Optimal Design of Passive Resonating Wireless Sensors for Wearable and Implantable Devices. <i>IEEE Sensors Journal</i> , 2019 , 19, 7460-7470	4	10
109	Diagnosis of acute serious illness: the role of point-of-care technologies. <i>Current Opinion in Biomedical Engineering</i> , 2019 , 11, 22-34	4.4	3
108	Automated High-Throughput Hermetic Failure Monitoring System for Millimeter-Sized Wireless Implantable Medical Devices 2019 ,		4
107	Point-of-Care Technology Research Network: An evolving model for collaborative translational research in biomedical engineering. <i>Current Opinion in Biomedical Engineering</i> , 2019 , 11, 145-148	4.4	4
106	3D-Integrated and Multifunctional All-Soft Physical Microsystems Based on Liquid Metal for Electronic Skin Applications. <i>Advanced Electronic Materials</i> , 2018 , 4, 1700434	6.4	35
105	Bio-inspired fluidic thermal angular accelerometer with inherent linear acceleration rejection. <i>Sensors and Actuators A: Physical</i> , 2018 , 279, 566-576	3.9	4

104	Multiscale and Uniform Liquid Metal Thin-Film Patterning Based on Soft Lithography for 3D Heterogeneous Integrated Soft Microsystems: Additive Stamping and Subtractive Reverse Stamping. <i>Advanced Materials Technologies</i> , 2018 , 3, 1800061	6.8	22
103	All-soft physical and chemical microsystems based on liquid metal for wearable electronics applications 2017 ,		5
102	All-soft, battery-free, and wireless chemical sensing platform based on liquid metal for liquid- and gas-phase VOC detection. <i>Lab on A Chip</i> , 2017 , 17, 2323-2329	7.2	27
101	Microfluidic Transduction Harnesses Mass Transport Principles to Enhance Gene Transfer Efficiency. <i>Molecular Therapy</i> , 2017 , 25, 2372-2382	11.7	15
100	ALD TiO ₂ as a top-gate dielectric and passivation layer for InGaZnO ₁₁₅ ISFETs. <i>Semiconductor Science and Technology</i> , 2017 , 32, 114004	1.8	3
99	Size-Scalable and High-Density Liquid-Metal-Based Soft Electronic Passive Components and Circuits Using Soft Lithography. <i>Advanced Functional Materials</i> , 2017 , 27, 1604466	15.6	73
98	Room-temperature CO ₂ sensing based on interdigitated capacitors and resonant cantilevers 2017 ,		1
97	Bio-inspired fluidic thermal angular accelerometer 2016 ,		2
96	All-soft sensing platform based on liquid metal for liquid- and gas-phase VOC detection 2016 ,		3
95	Analytical Modeling of a Novel High-Q Disk Resonator for Liquid-Phase Applications. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 38-49	2.5	1
94	A Low-Leakage Body-Guarded Analog Switch in 0.35- μm BiCMOS and Its Applications in Low-Speed Switched-Capacitor Circuits. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2015 , 62, 947-951	3.5	4
93	Fundamental Theory of Resonant MEMS Devices. <i>Advanced Micro & Nanosystems</i> , 2015 , 1-28		6
92	Frequency Response of Cantilever Beams Immersed in Viscous Fluids. <i>Advanced Micro & Nanosystems</i> , 2015 , 29-53		2
91	Damping in Resonant MEMS. <i>Advanced Micro & Nanosystems</i> , 2015 , 55-71		2
90	Parametrically Excited Micro- and Nanosystems. <i>Advanced Micro & Nanosystems</i> , 2015 , 73-95		5
89	Finite Element Modeling of Resonators. <i>Advanced Micro & Nanosystems</i> , 2015 , 97-117		1
88	Resonant MEMS Chemical Sensors. <i>Advanced Micro & Nanosystems</i> , 2015 , 355-390		1
87	MEMS Inertial Sensors. <i>Advanced Micro & Nanosystems</i> , 2015 , 327-353		2

86	Capacitive Resonators. <i>Advanced Micro & Nanosystems</i> , 2015 , 119-146		2
85	Energy Harvesting Devices. <i>Advanced Micro & Nanosystems</i> , 2015 , 451-474		1
84	Electrothermal Excitation of Resonant MEMS. <i>Advanced Micro & Nanosystems</i> , 2015 , 173-201		1
83	Fluid Property Sensors. <i>Advanced Micro & Nanosystems</i> , 2015 , 427-450		3
82	Lateral-Mode Vibration of Microcantilever-Based Sensors in Viscous Fluids Using Timoshenko Beam Theory. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 848-860	2.5	13
81	Continuous droplet removal upon dropwise condensation of humid air on a hydrophobic micropatterned surface. <i>Langmuir</i> , 2014 , 30, 10133-42	4	54
80	Timoshenko Beam Model for Lateral Vibration of Liquid-Phase Microcantilever-Based Sensors. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014 , 115-124	0.3	
79	Integrated silicon-based chemical microsystem for portable sensing applications. <i>Sensors and Actuators B: Chemical</i> , 2013 , 180, 50-59	8.5	8
78	Timoshenko beam effects in lateral-mode microcantilever-based sensors in liquids. <i>Micro and Nano Letters</i> , 2013 , 8, 762-765	0.9	2
77	Characteristics of laterally vibrating resonant microcantilevers in viscous liquid media. <i>Journal of Applied Physics</i> , 2012 , 111, 014907	2.5	38
76	Resonant characteristics of rectangular microcantilevers vibrating torsionally in viscous liquid media 2012 ,		3
75	A system for seismocardiography-based identification of quiescent heart phases: implications for cardiac imaging. <i>IEEE Transactions on Information Technology in Biomedicine</i> , 2012 , 16, 869-77		33
74	A trimodal system for the acquisition of synchronous echocardiography, electrocardiography, and seismocardiography data. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2011 , 2011, 6911-4	0.9	4
73	Damping and mass sensitivity of laterally vibrating resonant microcantilevers in viscous liquid media 2011 ,		3
72	Mass-sensitive detection of gas-phase volatile organics using disk microresonators. <i>Analytical Chemistry</i> , 2011 , 83, 3305-11	7.8	19
71	Thermal Excitation and Piezoresistive Detection of Cantilever In-Plane Resonance Modes for Sensing Applications. <i>Journal of Microelectromechanical Systems</i> , 2010 , 19, 1015-1017	2.5	73
70	Geometrical optimization of resonant cantilevers vibrating in in-plane flexural modes 2010 ,		5
69	An analytical model of a thermally excited microcantilever vibrating laterally in a viscous fluid 2010 ,		8

68	Resonant microcantilevers vibrating laterally in viscous liquid media 2010 ,		4
67	An iterative curve fitting method for accurate calculation of quality factors in resonators. <i>Review of Scientific Instruments</i> , 2009 , 80, 045105	1.7	7
66	Cancellation of environmental effects in resonant mass sensors based on resonance mode and effective mass. <i>Review of Scientific Instruments</i> , 2009 , 80, 063903	1.7	5
65	Dimensional considerations in achieving large quality factors for resonant silicon cantilevers in air. <i>Journal of Applied Physics</i> , 2009 , 105, 014908	2.5	60
64	Refractive X-Ray Lenses Produced by X-Ray Lithography. <i>Advanced Micro & Nanosystems</i> , 2008 , 233-242		
63	High Q -Factor In-Plane-Mode Resonant Microsensor Platform for Gaseous/Liquid Environment. <i>Journal of Microelectromechanical Systems</i> , 2008 , 17, 483-493	2.5	99
62	Temperature compensation method for resonant microsensors based on a controlled stiffness modulation. <i>Journal of Applied Physics</i> , 2008 , 104, 014911	2.5	5
61	Three-dimensional immobilization of beta-galactosidase on a silicon surface. <i>Biotechnology and Bioengineering</i> , 2008 , 99, 261-7	4.9	57
60	A CMOS-based integrated-system architecture for a static cantilever array. <i>Sensors and Actuators B: Chemical</i> , 2008 , 131, 254-264	8.5	15
59	Electromechanical Carbon Nanotube Transducers. <i>Advanced Micro & Nanosystems</i> , 2008 , 43-81		1
58	Carbon Nanotube Direct Integration into Microsystems. <i>Advanced Micro & Nanosystems</i> , 2008 , 83-124		
57	Multiscale Modeling and Simulation for Fluid Mechanics at the Nanoscale. <i>Advanced Micro & Nanosystems</i> , 2008 , 229-290		
56	Characterization of Carbon Nanotubes by Optical Spectroscopy. <i>Advanced Micro & Nanosystems</i> , 2008 , 125-180		0
55	RF Applications. <i>Advanced Micro & Nanosystems</i> , 2008 , 243-280		
54	Filled Resist Systems. <i>Advanced Micro & Nanosystems</i> , 2008 , 415-441		
53	Design for LIGA and Safe Manufacturing. <i>Advanced Micro & Nanosystems</i> , 2008 , 143-188		
52	Innovative Exposure Techniques for 3D Microfabrication. <i>Advanced Micro & Nanosystems</i> , 2008 , 51-68		
51	Exposure and Development Simulation for Deep X-Ray LIGA. <i>Advanced Micro & Nanosystems</i> , 2008 , 103-142		1

- 50 The Micro Harmonic Drive Gear. *Advanced Micro & Nanosystems*, **2008**, 351-394 1
- 49 Evolution of the Microspectrometer. *Advanced Micro & Nanosystems*, **2008**, 281-296 1
- 48 Commercialization of LIGA. *Advanced Micro & Nanosystems*, **2008**, 189-203
- 47 Application of Inspection Devices. *Advanced Micro & Nanosystems*, **2008**, 337-349
- 46 PTFE Photo-Fabrication by Synchrotron Radiation. *Advanced Micro & Nanosystems*, **2008**, 453-468
- 45 Microinjection Molding Machines. *Advanced Micro & Nanosystems*, **2008**, 395-414
- 44 Polymer Optics and Optical MEMS. *Advanced Micro & Nanosystems*, **2008**, 205-232
- 43 X-Ray Masks for LIGA Microfabrication. *Advanced Micro & Nanosystems*, **2008**, 11-50 2
- 42 Development of Microfluidic Devices Created via the LIGA Process. *Advanced Micro & Nanosystems*, **2008**, 323-335
- 41 Hot Embossing of LIGA Microstructures. *Advanced Micro & Nanosystems*, **2008**, 69-102
- 40 Dramatic Downsizing of Soft X-Ray Synchrotron Light Source from Compact to Tabletop. *Advanced Micro & Nanosystems*, **2008**, 443-452
- 39 Actuator Manufacture with LIGA Processes. *Advanced Micro & Nanosystems*, **2008**, 297-321
- 38 Introduction: LIGA and Its Applications. *Advanced Micro & Nanosystems*, **2008**, 1-10 2
- 37 Carbon Nanotubes in Microelectronic Applications. *Advanced Micro & Nanosystems*, **2008**, 1-41 10
- 36 Modeling the Properties of Carbon Nanotubes for Sensor-Based Devices. *Advanced Micro & Nanosystems*, **2008**, 181-227 2
- 35 Carbon Nanotube Field Emission Devices. *Advanced Micro & Nanosystems*, **2008**, 291-309 1
- 34 Carbon Nanotube Gas Sensors. *Advanced Micro & Nanosystems*, **2008**, 311-349 2
- 33 Reliability of a Capacitive Pressure Sensor. *Advanced Micro & Nanosystems*, **2007**, 185-203

32	Reliability of MEMS Variable Optical Attenuator. <i>Advanced Micro & Nanosystems</i> , 2007 , 239-266		1
31	Eco Scan MEMS Resonant Mirror. <i>Advanced Micro & Nanosystems</i> , 2007 , 267-290		
30	On-Chip Testing of MEMS. <i>Advanced Micro & Nanosystems</i> , 2007 , 163-183		
29	Microfluidics for generation and characterization of liquid and gaseous micro- and nanojets. <i>Sensors and Actuators A: Physical</i> , 2007 , 134, 119-127	3.9	15
28	Characterization of liquid and gaseous micro- and nanojets using microcantilever sensors. <i>Sensors and Actuators A: Physical</i> , 2007 , 134, 128-139	3.9	13
27	Novel Temperature Compensation Scheme Formicroresonators Based on Controlled Stiffnessmodulation 2007 ,		1
26	Liquid-Phase Biochemical Sensing with Disk-Type Resonant Microsensor 2007 ,		2
25	Elastoplastic Indentation Contact Mechanics of Homogeneous Materials and CoatingSubstrate Systems. <i>Advanced Micro & Nanosystems</i> , 2007 , 27-65		0
24	Uniaxial Tensile Test for MEMS Materials. <i>Advanced Micro & Nanosystems</i> , 2007 , 123-161		1
23	Evaluation of Mechanical Properties of MEMS Materials and Their Standardization. <i>Advanced Micro & Nanosystems</i> , 2007 , 1-25		2
22	High-Accuracy, High-Reliability MEMS Accelerometer. <i>Advanced Micro & Nanosystems</i> , 2007 , 225-237		
21	Thin-Film Characterization Using the Bulge Test. <i>Advanced Micro & Nanosystems</i> , 2007 , 67-121		12
20	Inertial Sensors. <i>Advanced Micro & Nanosystems</i> , 2007 , 205-223		0
19	CMOS-Based Microsensors. <i>ECS Transactions</i> , 2006 , 3, 447-461	1	
18	Single-chip mechatronic microsystem for surface imaging and force response studies. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 17011-5	11.5	35
17	Emerging Loop Heat Pipe Applications for Small-Sat, MARS Mission and ISS 2002 ,		2
16	A complementary-metal-oxide-semiconductor-field-effect-transistor-compatible atomic force microscopy tip fabrication process and integrated atomic force microscopy cantilevers fabricated with this process. <i>Ultramicroscopy</i> , 2002 , 91, 9-20	3.1	12
15	Using reactands in CMOS-based calorimetric sensors: new functional materials for electronic noses. <i>Analytical Sciences</i> , 2002 , 18, 109-11	1.7	3

14	Complementary metal oxide semiconductor cantilever arrays on a single chip: mass-sensitive detection of volatile organic compounds. <i>Analytical Chemistry</i> , 2002 , 74, 3084-95	7.8	239
13	CMOS-based microsensors and packaging. <i>Sensors and Actuators A: Physical</i> , 2001 , 92, 1-9	3.9	57
12	Packaging of CMOS MEMS. <i>Microelectronics Reliability</i> , 2000 , 40, 1255-1262	1.2	15
11	Discrimination of volatile organic compounds using CMOS capacitive chemical microsensors with thickness-adjusted polymer coating 1999 ,		8
10	Flip-chip packaged CMOS chemical microsystem for detection of volatile organic compounds 1998 ,		7
9	CMOS MEMS technology and CAD: the case of thermal microtransducers 1998 , 3328, 2		5
8	Determination of mechanical material properties of piezoelectric ZnO films 1998 ,		4
7	CMOS chemical microsensors based on resonant cantilever beams 1998 , 3328, 233		13
6	Devices with Embedded Channels. <i>Advanced Micro & Nanosystems</i> ,261-285		
5	Compensation, Tuning, and Trimming of MEMS Resonators. <i>Advanced Micro & Nanosystems</i> ,305-325		2
4	Hermetic Packaging for Resonant MEMS. <i>Advanced Micro & Nanosystems</i> ,287-304		
3	Organic Resonant MEMS Devices. <i>Advanced Micro & Nanosystems</i> ,233-260		1
2	Piezoelectric Resonant MEMS. <i>Advanced Micro & Nanosystems</i> ,147-172		6
1	Nanoelectromechanical Systems (NEMS). <i>Advanced Micro & Nanosystems</i> ,203-231		3