Remco John Wiegerink

List of Publications by Year
in descending order

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91	1,960	394421 19	302126 39
papers	citations	h-index	g-index

92	92	92	1255
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Air Damping Analysis of a Micro-Coriolis Mass Flow Sensor. Sensors, 2022, 22, 673.	3.8	0
2	Micro Coriolis Mass Flow Sensor with Piezoelectric Transducers for Both Actuation and Readout. , 2022, , .		0
3	Free Suspended Thin-Walled Nickel Electroplated Tubes for Microfluidic Density and Mass Flow Sensors. Journal of Microelectromechanical Systems, 2022, 31, 408-414.	2.5	5
4	Design, Fabrication, and Characterization of a Micro Coriolis Mass Flow Sensor Driven by PZT Thin Film Actuators. Journal of Microelectromechanical Systems, 2021, 30, 885-896.	2.5	6
5	5.7 A MEMS Coriolis Mass Flow Sensor with 300 Î¼ g/h/âˆšHz Resolution and Â± 0.8mg/h Zero Stability. , 2021, , .		2
6	Î¼-Coriolis Mass Flow Sensor With Differential Capacitive Readout. IEEE Sensors Journal, 2021, 21, 5886-5894.	4.7	3
7	Thin-Walled Cylindrical Nickel Electroplated Tubes for Application in Microfluidic Density and Mass Flow Sensors. , 2021, , .		1
8	Heavily-Doped Bulk Silicon Sidewall Electrodes Embedded between Free-Hanging Microfluidic Channels by Modified Surface Channel Technology. Micromachines, 2020, 11, 561.	2.9	3
9	Disposable DNA Amplification Chips with Integrated Low-Cost Heaters â€. Micromachines, 2020, 11, 238.	2.9	11
10	Magnetic field strength improvement for Lorentz actuation of a Î¼-Coriolis mass flow sensor. Microelectronic Engineering, 2020, 224, 111236.	2.4	4
11	Î¼-Coriolis Mass Flow Sensor with Resistive Readout. Micromachines, 2020, 11, 184.	2.9	10
12	A Flow-Through Microfluidic Relative Permittivity Sensor. Micromachines, 2020, 11, 325.	2.9	1
13	High Power Si Sidewall Heaters for Fluidic Applications Fabricated by Trench-Assisted Surface Channel Technology. , 2019, , .		0
14	Experimental analysis of thermomechanical noise in micro Coriolis mass flow sensors. Sensors and Actuators A: Physical, 2018, 271, 212-216.	4.1	10
15	On Frequency-Based Interface Circuits for Capacitive MEMS Accelerometers. Micromachines, 2018, 9, 488.	2.9	7
16	Inline relative permittivity sensing using silicon electrodes realized in surface channel technology. , 2018, , .		1
17	Integrated Pressure Sensing Using Capacitive Coriolis Mass Flow Sensors. Journal of Microelectromechanical Systems, 2017, 26, 653-661.	2.5	15
18	SUâ€“8â€‰micro coriolis mass flow sensor. Sensors and Actuators B: Chemical, 2017, 241, 744-749.	7.8	11

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19	A versatile technology platform for microfluidic handling systems, partÂI: fabrication and functionalization. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	18
20	A versatile technology platform for microfluidic handling systems, part II: channel design and technology. Microfluidics and Nanofluidics, 2017, 21, 1.	2.2	9
21	A 2D acoustic particle velocity sensor with perfectly orthogonal sensitivity directions. Sensors and Actuators A: Physical, 2016, 246, 28-34.	4.1	7
22	Towards nanogram per second Coriolis mass flow sensing. , 2016, , .		9
23	Improved capacitive detection method for Coriolis mass flow sensors enabling range/sensitivity tuning. Microelectronic Engineering, 2016, 159, 1-5.	2.4	7
24	A 2D Particle Velocity Sensor With Minimal Flow Disturbance. IEEE Sensors Journal, 2016, 16, 8706-8714.	4.7	13
25	Single-chip mass flow controller with integrated coriolis flow sensor and proportional control valve. , 2016, , .		3
26	Three-axis force-torque sensor with fully differential capacitive readout. , 2016, , .		8
27	Theoretical and experimental research on the in-plane comb-shaped capacitor for MEMS coriolis mass flow sensor. Microsystem Technologies, 2016, 22, 747-755.	2.0	4
28	Multi Parameter Flow Meter for On-Line Measurement of Gas Mixture Composition. Micromachines, 2015, 6, 452-461.	2.9	11
29	Miniature proportional control valve with top-mounted piezo bimorph actuator with millisecond response time. Journal of Micromechanics and Microengineering, 2015, 25, 105008.	2.6	6
30	Proportional Control Valves Integrated in Silicon Nitride Surface Channel Technology. Journal of Microelectromechanical Systems, 2015, 24, 1759-1767.	2.5	4
31	Differential capacitive sensing circuit for a multi-electrode capacitive force sensor. Sensors and Actuators A: Physical, 2015, 234, 168-179.	4.1	28
32	A piezoelectric micro control valve with integrated capacitive sensing for ambulant blood pressure waveform monitoring. Journal of Micromechanics and Microengineering, 2014, 24, 125020.	2.6	6
33	Parametric amplification in a micro Coriolis mass flow sensor. Journal of Applied Physics, 2014, 115, 194503.	2.5	6
34	Thermal Flow-Sensor Drift Reduction by Thermopile Voltage Cancellation via Power Feedback Control. Journal of Microelectromechanical Systems, 2014, 23, 908-917.	2.5	9
35	First results of PRECISEâ€"Development of a MEMS-based monopropellant micro chemical propulsion system. Acta Astronautica, 2014, 93, 77-83.	3.2	11
36	Three-axial force sensor with capacitive read-out using a differential relaxation oscillator. , 2013, , .		8

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37	Parametric amplification in a micro Coriolis mass flow sensor: Reduction of power dissipation without loss of sensitivity. , 2013, , .		2
38	PRECISE - preliminary results of the MEMS-based ÂµCPS. , 2013, , .		2
39	Imaging dipole flow sources using an artificial lateral-line system made of biomimetic hair flow sensors. Journal of the Royal Society Interface, 2013, 10, 20130162.	3.4	46
40	Compact Mass Flow Meter Based on a Micro Coriolis Flow Sensor. Micromachines, 2013, 4, 22-33.	2.9	28
41	A novel two dimensional particle velocity sensor. Proceedings of Meetings on Acoustics, 2013, , .	0.3	3
42	PRECISE - Development of a MEMS-based monopropellant micro Chemical Propulsion System. , 2012, , .		4
43	Towards a Casimir Force Measurement between Micromachined Parallel Plate Structures. Challenges, 2012, 3, 261-277.	1.7	3
44	Fully Integrated Micro Coriolis Mass Flow Sensor Operating at Atmospheric Pressure. TM Technisches Messen, 2012, 79, 4-9.	0.7	1
45	Parametric excitation of a micro Coriolis mass flow sensor. Applied Physics Letters, 2012, 101, 223511.	3.3	12
46	3D force sensor for biomechanical applications. Sensors and Actuators A: Physical, 2012, 182, 28-33.	4.1	31
47	Optimization of a micro Coriolis mass flow sensor using Lorentz force actuation. Sensors and Actuators A: Physical, 2012, 186, 48-53.	4.1	10
48	Integrated Thermal and Microcoriolis Flow Sensing System with a Dynamic Flow Range of More Than Five Decades. Micromachines, 2012, 3, 194-203.	2.9	13
49	Design Considerations for a Micromachined Proportional Control Valve. Micromachines, 2012, 3, 396-412.	2.9	10
50	Nano-slit electrospray emitters fabricated by a micro- to nanofluidic via technology. Microfluidics and Nanofluidics, 2012, 13, 29-35.	2.2	4
51	Artificial lateral-line system for imaging dipole sources using beamforming techniques. Procedia Engineering, 2011, 25, 779-782.	1.2	2
52	Optimization of a micro Coriolis mass flow sensor. Procedia Engineering, 2011, 25, 783-786.	1.2	1
53	Dipole-source localization using biomimetic flow-sensor arrays positioned as lateral-line system. Sensors and Actuators A: Physical, 2010, 162, 355-360.	4.1	53
54	Modeling, design, fabrication and characterization of a micro Coriolis mass flow sensor. Journal of Micromechanics and Microengineering, 2010, 20, 125001.	2.6	62

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55	Dipole source localisation using bio-mimetic flow-sensor arrays. Procedia Chemistry, 2009, 1, 891-894.	0.7	4
56	Thermal and Coriolis type micro flow sensors based on surface channel technology. Procedia Chemistry, 2009, 1, 1455-1458.	0.7	11
57	A MEMS-based gravity gradiometer for future planetary missions. Cryogenics, 2009, 49, 665-668.	1.7	28
58	Miniaturized thermal flow sensor with planar-integrated sensor structures on semicircular surface channels. Sensors and Actuators A: Physical, 2008, 143, 1-6.	4.1	73
59	A complete three-dimensional sound intensity sensor integrated on a single chip. Journal of Micromechanics and Microengineering, 2008, 18, 115004.	2.6	16
60	Analysis of the performance of a particle velocity sensor between two cylindrical obstructions. Journal of the Acoustical Society of America, 2007, 121, 2711-2722.	1.1	5
61	A versatile surface channel concept for microfluidic applications. Journal of Micromechanics and Microengineering, 2007, 17, 1971-1977.	2.6	51
62	Analysis of a three-dimensional particle velocity sensor for design optimization. Journal of Micromechanics and Microengineering, 2007, 17, S137-S146.	2.6	13
63	Cricket Inspired Flow-Sensor Arrays. , 2007, , .		25
64	Biomimetic Flow-Sensor Arrays Based on the Filiform Hairs on the Cerci of Crickets. , 2007, , .		7
65	Biomimetic micromechanical adaptive flow-sensor arrays. , 2007, , .		17
66	A capacitive RF power sensor based on MEMS technology. Journal of Micromechanics and Microengineering, 2006, 16, 1099-1107.	2.6	102
67	Fabrication of thick silicon nitride blocks embedded in low-resistivity silicon substrates for radio frequency applications. Journal of Micromechanics and Microengineering, 2006, 16, 862-868.	2.6	1
68	A micromachined capacitive incremental position sensor: part 1. Analysis and simulations. Journal of Micromechanics and Microengineering, 2006, 16, S116-S124.	2.6	17
69	A micromachined capacitive incremental position sensor: part 2. Experimental assessment. Journal of Micromechanics and Microengineering, 2006, 16, S125-S134.	2.6	16
70	MEMS based hair flow-sensors as model systems for acoustic perception studies. Nanotechnology, 2006, 17, S84-S89.	2.6	138
71	Radiative ballistic phonon transport in silicon-nitride membranes at low temperatures. Applied Physics Letters, 2005, 86, 251903.	3.3	56
72	Artificial sensory hairs based on the flow sensitive receptor hairs of crickets. Journal of Micromechanics and Microengineering, 2005, 15, S132-S138.	2.6	128

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73	Development of an array of transition edge sensors for application in X-ray astronomy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 520, 443-445.	1.6	13
74	A cryogenic imaging x-ray spectrometer for XEUS readout by frequency-division SQUID multiplexers. , 2004, , .		2
75	Development of arrays of transition edge sensors for application in X-ray astronomy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2003, 513, 143-146.	1.6	6
76	2D-finite-element simulations for long-range capacitive position sensor. Journal of Micromechanics and Microengineering, 2003, 13, S183-S189.	2.6	21
77	Micromachined structures for thermal measurements of fluid and flow parameters. Journal of Micromechanics and Microengineering, 2001, 11, 311-318.	2.6	62
78	High Capacity Silicon Load Cells. , 2001, , 71-76.		0
79	Quasi-monolithic silicon load cell for loads up to 1000 kg with insensitivity to non-homogeneous load distributions. Sensors and Actuators A: Physical, 2000, 80, 189-196.	4.1	13
80	Low-cost piezoresistive silicon load cell independent of force distribution. Journal of Micromechanics and Microengineering, 2000, 10, 200-203.	2.6	7
81	Low creep and hysteresis load cell based on a force-to-fluid pressure transformation. Sensors and Actuators A: Physical, 1999, 78, 74-80.	4.1	5
82	Some Design Aspects of a Two-Stage Rail-to-Rail CMOS Op Amp. Analog Integrated Circuits and Signal Processing, 1999, 21, 143-152.	1.4	1
83	BSM 7: RIE lag in high aspect ratio trench etching of silicon. Microelectronic Engineering, 1997, 35, 45-50.	2.4	125
84	Computer aided analysis and design of MOS translinear circuits operating in strong inversion. Analog Integrated Circuits and Signal Processing, 1996, 9, 181-187.	1.4	7
85	Variable-gamma circuit for colour television based on the MOS voltage-translinear principle. Analog Integrated Circuits and Signal Processing, 1996, 9, 189-195.	1.4	2
86	An HTS quasi-one junction SQUID-based periodic threshold comparator for a 4-bit superconductive flash A/D converter. IEEE Transactions on Applied Superconductivity, 1995, 5, 3452-3458.	1.7	13
87	CMOS low-voltage operational amplifiers with constant-gm rail-to-rail input stage. Analog Integrated Circuits and Signal Processing, 1994, 5, 135-146.	1.4	87
88	Rail-to-rail constant-g m input stage and class AB output stage for low-voltage CMOS op amps. Analog Integrated Circuits and Signal Processing, 1994, 6, 121-133.	1.4	34
89	Analysis and Synthesis of MOS Translinear Circuits. , 1993, , .		91
90	Generalized translinear circuit principle. IEEE Journal of Solid-State Circuits, 1991, 26, 1098-1102.	5.4	201

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91	Offset cancelling circuit. IEEE Journal of Solid-State Circuits, 1989, 24, 651-658.	5.4	18