Chris Van Hoof

List of Publications by Year
in descending order

298 papers	8,987 citations	53794 45 h-index	58581 82 g-index
313 all docs	313 docs citations	313 times ranked	8041 citing authors

#	Article	IF	Citations
1	Thermoelectric Converters of Human Warmth for Self-Powered Wireless Sensor Nodes. IEEE Sensors Journal, 2007, 7, 650-657.	4.7	323
2	A 60 muW 60 nV/$surd$Hz Readout Front-End for Portable Biopotential Acquisition Systems. IEEE Journal of Solid-State Circuits, 2007, 42, 1100-1110.	5.4	308
3	A 345 ÂµW Multi-Sensor Biomedical SoC With Bio-Impedance, 3-Channel ECG, Motion Artifact Reduction, and Integrated DSP. IEEE Journal of Solid-State Circuits, 2015, 50, 230-244.	5.4	256
4	A 30 muW Analog Signal Processor ASIC for Portable Biopotential Signal Monitoring. IEEE Journal of Solid-State Circuits, 2011, 46, 209-223.	5.4	246
5	Pseudo-Two-Dimensional Model for Double-Gate Tunnel FETs Considering the Junctions Depletion Regions. IEEE Transactions on Electron Devices, 2010, 57, 827-834.	3.0	223
6	Realization of a wearable miniaturized thermoelectric generator for human body applications. Sensors and Actuators A: Physical, 2009, 156, 95-102.	4.1	222
7	Harvesting energy from the motion of human limbs: the design and analysis of an impact-based piezoelectric generator. Smart Materials and Structures, 2009, 18, 035001.	3.5	218
8	A Configurable and Low-Power Mixed Signal SoC for Portable ECG Monitoring Applications. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 257-267.	4.0	214
9	Prostate-specific antigen immunosensing based on mixed self-assembled monolayers, camel antibodies and colloidal gold enhanced sandwich assays. Biosensors and Bioelectronics, 2005, 21, 483-490.	10.1	209
10	A 200 Î¼W Eight-Channel EEG Acquisition ASIC for Ambulatory EEG Systems. IEEE Journal of Solid-State Circuits, 2008, 43, 3025-3038.	5.4	199
11	Vital-sign monitoring and spatial tracking of multiple people using a contactless radar-based sensor. Nature Electronics, 2019, 2, 252-262.	26.0	190
12	CorNET: Deep Learning Framework for PPG-Based Heart Rate Estimation and Biometric Identification in Ambulant Environment. IEEE Transactions on Biomedical Circuits and Systems, 2019, 13, 282-291.	4.0	188
13	A $160~mu {m W}$ 8-Channel Active Electrode System for EEG Monitoring. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 555-567.	4.0	187
14	Soft, Comfortable Polymer Dry Electrodes for High Quality ECG and EEG Recording. Sensors, 2014, 14, 23758-23780.	3.8	177
15	Heart Rate Estimation From Wrist-Worn Photoplethysmography: A Review. IEEE Sensors Journal, 2019, 19, 6560-6570.	4.7	157
16	A Neural Probe With Up to 966 Electrodes and Up to 384 Configurable Channels in 0.13 mum SOI CMOS. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 510-522.	4.0	151
17	Large-scale wearable data reveal digital phenotypes for daily-life stress detection. Npj Digital Medicine, 2018, 1, 67.	10.9	145
18	Time Multiplexed Active Neural Probe with 1356 Parallel Recording Sites. Sensors, 2017, 17, 2388.	3.8	141

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19	A 160 <formula formulatype="inline"><tex Notation="TeX">$mu{m A}$</tex></formula> Biopotential Acquisition IC With Fully Integrated IA and Motion Artifact Suppression. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 552-561.	4.0	126
20	ECG Signal Compression and Classification Algorithm With Quad Level Vector for ECG Holter System. IEEE Transactions on Information Technology in Biomedicine, 2010, 14, 93-100.	3.2	121
21	Active Electrodes for Wearable EEG Acquisition: Review and Electronics Design Methodology. IEEE Reviews in Biomedical Engineering, 2017, 10, 187-198.	18.0	118
22	A Wearable 8-Channel Active-Electrode EEG/ETI Acquisition System for Body Area Networks. IEEE Journal of Solid-State Circuits, 2014, 49, 2005-2016.	5.4	102
23	Capacitive Power Management Circuit for Micropower Thermoelectric Generators With a 1.4 muA Controller. IEEE Journal of Solid-State Circuits, 2009, 44, 2824-2833.	5.4	100
24	Ultra-Low-Power Interface Chip for Autonomous Capacitive Sensor Systems. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2007, 54, 130-140.	0.1	96
25	A 15-Channel Digital Active Electrode System for Multi-Parameter Biopotential Measurement. IEEE Journal of Solid-State Circuits, 2015, 50, 2090-2100.	5.4	92
26	Motion Artifact Reduction for Wrist-Worn Photoplethysmograph Sensors Based on Different Wavelengths. Sensors, 2019, 19, 673.	3.8	89
27	A 769 Î¼W Battery-Powered Single-Chip SoC With BLE for Multi-Modal Vital Sign Monitoring Health Patches. IEEE Transactions on Biomedical Circuits and Systems, 2019, 13, 1506-1517.	4.0	87
28	A Multi(bio)sensor Acquisition System With Integrated Processor, Power Management, $8 imes 8$ LED Drivers, and Simultaneously Synchronized ECG, BIO-Z, GSR, and Two PPG Readouts. IEEE Journal of Solid-State Circuits, 2016, 51, 2584-2595.	5.4	80
29	Integrated Polarization Analyzing CMOS Image Sensor for Material Classification. IEEE Sensors Journal, 2011, 11, 1692-1703.	4.7	78
30	A Direct Phase-Tracking Doppler Radar Using Wavelet Independent Component Analysis for Non-Contact Respiratory and Heart Rate Monitoring. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 632-643.	4.0	71
31	A high aspect ratio SU-8 fabrication technique for hollow microneedles for transdermal drug delivery and blood extraction. Journal of Micromechanics and Microengineering, 2010, 20, 064006.	2.6	70
32	Measurement and Analysis of Current Noise in Chopper Amplifiers. IEEE Journal of Solid-State Circuits, 2013, 48, 1575-1584.	5.4	70
33	Optimization of a piezoelectric unimorph for shock and impact energy harvesting. Smart Materials and Structures, 2007, 16, 1125-1135.	3.5	69
34	A 13 <formula formulatype="inline"><tex Notation="TeX">$mu {m A}$</tex></formula> Analog Signal Processing IC for Accurate Recognition of Multiple Intra-Cardiac Signals. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 785-795.	4.0	65
35	Ultra-low-power biopotential interfaces and their applications in wearable and implantable systems. Microelectronics Journal, 2009, 40, 1313-1321.	2.0	64
36	Into the Wild: The Challenges of Physiological Stress Detection in Laboratory and Ambulatory Settings. IEEE Journal of Biomedical and Health Informatics, 2019, 23, 463-473.	6.3	63

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37	A silicon-based neural probe with densely-packed low-impedance titanium nitride microelectrodes for ultrahigh-resolution in vivo recordings. Biosensors and Bioelectronics, 2018, 106, 86-92.	10.1	61
38	5μW-to-10mW input power range inductive boost converter for indoor photovoltaic energy harvesting with integrated maximum power point tracking algorithm. , 2011, , .		56
39	Hierarchical Carbon Nanowire Microarchitectures Made by Plasma-Assisted Pyrolysis of Photoresist. ACS Nano, 2011, 5, 6593-6600.	14.6	55
40	Correlation Between Electrode-Tissue Impedance and Motion Artifact in Biopotential Recordings. IEEE Sensors Journal, 2012, 12, 3373-3383.	4.7	55
41	Unsupervised heart-rate estimation in wearables with Liquid states and a probabilistic readout. Neural Networks, 2018, 99, 134-147.	5.9	55
42	A low-power, wireless, 8-channel EEG monitoring headset. , 2010, 2010, 4197-200.		54
43	Biologically Inspired CMOS Image Sensor for Fast Motion and Polarization Detection. IEEE Sensors Journal, 2013, 13, 1065-1073.	4.7	53
44	Two-Dimensional Multi-Channel Neural Probes With Electronic Depth Control. IEEE Transactions on Biomedical Circuits and Systems, 2011, 5, 403-412.	4.0	51
45	18.3 A multi-parameter signal-acquisition SoC for connected personal health applications. , 2014, , .		49
46	Frequency-Tracking CW Doppler Radar Solving Small-Angle Approximation and Null Point Issues in Non-Contact Vital Signs Monitoring. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 671-680.	4.0	49
47	Human++: From technology to emerging health monitoring concepts. , 2008, , .		48
48	A 172 muW Compressively Sampled Photoplethysmographic (PPG) Readout ASIC With Heart Rate Estimation Directly From Compressively Sampled Data. IEEE Transactions on Biomedical Circuits and Systems, 2017, 11, 487-496.	4.0	48
49	Body-Heat Powered Autonomous Pulse Oximeter. , 2006, , .		46
50	22.7 A 966-electrode neural probe with 384 configurable channels in 0.13Âµm SOI CMOS. , 2016, , .		46
51	A 400 GÎ© Input-Impedance Active Electrode for Non-Contact Capacitively Coupled ECG Acquisition With Large Linear-Input-Range and High CM-Interference-Tolerance. IEEE Transactions on Biomedical Circuits and Systems, 2019, 13, 376-386.	4.0	46
52	Evaluation of a Multichannel Non-Contact ECG System and Signal Quality Algorithms for Sleep Apnea Detection and Monitoring. Sensors, 2018, 18, 577.	3.8	45
53	Human++: Emerging Technology for Body Area Networks. , 2006, , .		44
54	A 0.6-V, 0.015-mm², Time-Based ECG Readout for Ambulatory Applications in 40-nm CMOS. IEEE Journal of Solid-State Circuits, 2017, 52, 298-308.	5.4	44

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55	A 665 Î¼W Silicon Photomultiplier-Based NIRS/EEG/EIT Monitoring ASIC for Wearable Functional Brain Imaging. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1267-1277.	4.0	44
56	A 200Î¼W Eight-Channel Acquisition ASIC for Ambulatory EEG Systems. , 2008, , .		41
57	Wearable sensors: can they benefit patients with chronic kidney disease?. Expert Review of Medical Devices, 2017, 14, 505-519.	2.8	41
58	BiometricNet: Deep Learning based Biometric Identification using Wrist-Worn PPG. , 2018, , .		41
59	Artefact detection and quality assessment of ambulatory ECG signals. Computer Methods and Programs in Biomedicine, 2019, 182, 105050.	4.7	38
60	Enabling Robust Radar-Based Localization and Vital Signs Monitoring in Multipath Propagation Environments. IEEE Transactions on Biomedical Engineering, 2021, 68, 3228-3240.	4.2	37
61	The Photodetector Array Camera and Spectrometer (PACS) for the Herschel Space Observatory. Proceedings of SPIE, 2008, , .	0.8	35
62	A High Voltage Self-Biased Integrated DC-DC Buck Converter With Fully Analog MPPT Algorithm for Electrostatic Energy Harvesters. IEEE Journal of Solid-State Circuits, 2013, 48, 3002-3010.	5.4	35
63	A Bio-Impedance Readout IC With Digital-Assisted Baseline Cancellation for Two-Electrode Measurement. IEEE Journal of Solid-State Circuits, 2019, 54, 2969-2979.	5.4	35
64	Hybrid Thermoelectricâ€“Photovoltaic Generators in Wireless Electroencephalography Diadem and Electrocardiography Shirt. Journal of Electronic Materials, 2010, 39, 1674-1680.	2.2	34
65	A 160μW 8-channel active electrode system for EEG monitoring. , 2011, , .		34
66	A 680 nA ECG Acquisition IC for Leadless Pacemaker Applications. IEEE Transactions on Biomedical Circuits and Systems, 2014, 8, 779-786.	4.0	34
67	Time multiplexed active neural probe with 678 parallel recording sites. , 2016, , .		34
68	A 36 Î¼W 1.1 mm² Reconfigurable Analog Front-End for Cardiovascular and Respiratory Signals Recording. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 774-783.	4.0	34
69	Extended wavelength InGaAs on GaAs using InAlAs buffer for back-side-illuminated short-wave infrared detectors. Applied Physics Letters, 2003, 82, 2838-2840.	3.3	31
70	Wearable Autonomous Wireless Electro-encephalography System Fully Powered by Human Body Heat. , 2008, , .		31
71	Wearable Sensors for Healthier Pregnancies. Proceedings of the IEEE, 2015, 103, 179-191.	21.3	31
72	A 119dB Dynamic Range Charge Counting Light-to-Digital Converter For Wearable PPG/NIRS Monitoring Applications. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 800-810.	4.0	30

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73	A cryogenic analog to digital converter operating from 300 K down to 4.4 K. Review of Scientific Instruments, 2010, 81, 024702.	1.3	29
74	28.4 A battery-powered efficient multi-sensor acquisition system with simultaneous ECG, BIO-Z, GSR, and PPG. , 2016, , .		29
75	A 30µW Analog Signal Processor ASIC for biomedical signal monitoring. , 2010, , .		28
76	A low power ECG signal processor for ambulatory arrhythmia monitoring system. , 2010, , .		28
77	Comparison of Machine Learning Techniques for Psychophysiological Stress Detection. Communications in Computer and Information Science, 2016, , 13-22.	0.5	28
78	Thermoelectric and Hybrid Generators in Wearable Devices and Clothes. , 2009, , .		27
79	SU8 etch mask for patterning PDMS and its application to flexible fluidic microactuators. Microsystems and Nanoengineering, 2016, 2, 16045.	7.0	27
80	Binary CorNET: Accelerator for HR Estimation From Wrist-PPG. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 715-726.	4.0	27
81	Biologically inspired autonomous agent navigation using an integrated polarization analyzing CMOS image sensor. Procedia Engineering, 2010, 5, 673-676.	1.2	26
82	A low power configurable bio-impedance spectroscopy (BIS) ASIC with simultaneous ECG and respiration recording functionality. , 2015, , .		26
83	Potential and challenges of body area networks for personal health. , 2009, 2009, 6569-72.		24
84	Extreme ultraviolet detection using AlGaN-on-Si inverted Schottky photodiodes. Applied Physics Letters, 2011, 98, .	3.3	24
85	22.4 A 172ÂµW compressive sampling photoplethysmographic readout with embedded direct heart-rate and variability extraction from compressively sampled data. , 2016, , .		24
86	Wearable Multiple Modality Bio-Signal Recording and Processing on Chip: A Review. IEEE Sensors Journal, 2021, 21, 1108-1123.	4.7	24
87	Development of vertical and tapered via etch for 3D through wafer interconnect technology. , 2006, , .		23
88	Low-Power Low-Noise 8-Channel EEG Front-End ASIC for Ambulatory Acquisition Systems. , 2006, , .		23
89	Characterization and optimization of polycrystalline Si_{70%}Ge_{30%}for surface micromachined thermopiles in human body applications. Journal of Micromechanics and Microengineering, 2009, 19, 094011.	2.6	23
90	Challenges for Capillary Self-Assembly of Microsystems. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2011, 1, 133-149.	2.5	23

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91	Motion artifact reduction in ambulatory ECG monitoring. , 2011, , .		22
92	A self-biased 5-to-60V input voltage and 25-to-1600µW integrated DC-DC buck converter with fully analog MPPT algorithm reaching up to 88% end-to-end efficiency. , 2013, , .		22
93	Wearable Monitoring and Interpretable Machine Learning Can Objectively Track Progression in Patients during Cardiac Rehabilitation. Sensors, 2020, 20, 3601.	3.8	22
94	The LEDA512 integrated circuit anode array for the analog recording of mass spectra. International Journal of Mass Spectrometry, 2002, 215, 77-87.	1.5	21
95	High-density hybrid interconnect methodologies. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 531, 202-208.	1.6	21
96	Congestive heart failure patient monitoring using wearable Bio-impedance sensor technology. , 2015, 2015, 438-41.		21
97	Finite aperture correction for spectral cameras with integrated thin-film Fabryâ€“Perot filters. Applied Optics, 2018, 57, 7539.	1.8	21
98	Physiological Driver Monitoring Using Capacitively Coupled and Radar Sensors. Applied Sciences (Switzerland), 2019, 9, 3994.	2.5	21
99	A Near-Infrared Enhanced Silicon Single-Photon Avalanche Diode With a Spherically Uniform Electric Field Peak. IEEE Electron Device Letters, 2021, 42, 879-882.	3.9	21
100	Pulse Arrival Time Segmentation Into Cardiac and Vascular Intervals â€“ Implications for Pulse Wave Velocity and Blood Pressure Estimation. IEEE Transactions on Biomedical Engineering, 2021, 68, 2810-2820.	4.2	21
101	An 8-Bit Flash Analog-to-Digital Converter in Standard CMOS Technology Functional From 4.2 K to 300 K. IEEE Journal of Solid-State Circuits, 2009, 44, 2019-2025.	5.4	20
102	Ion-pair reversed-phase chromatography of short double-stranded deoxyribonucleic acid in silicon micro-pillar array columns: Retention model and applications. Journal of Chromatography A, 2013, 1294, 1-9.	3.7	20
103	Health-care improvements in a financially constrained environment. Lancet, The, 2016, 387, 646-647.	13.7	20
104	Poly-SiGe, a superb material for MEMS. Materials Research Society Symposia Proceedings, 2003, 782, 1.	0.1	19
105	A 2.4µA continuous-time electrode-skin impedance measurement circuit for motion artifact monitoring in ECG acquisition systems. , 2010, , .		19
106	Charge injection and storage in single-layer and multilayer inorganic electrets based on SiO₂and Si₃N₄. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 1253-1260.	2.9	19
107	A bio-impedance readout IC with frequency sweeping from 1k-to-1MHz for electrical impedance tomography. , 2017, , .		19
108	High performance Hybrid and Monolithic Backside Thinned CMOS Imagers realized using a new integration process. , 2006, , .		18

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109	The NeuroProbes project: A concept for electronic depth control. , 2008, 2008, 1857.		18
110	Integrated polarization analyzing CMOS Image sensor for autonomus navigation using polarized light. , 2010, , .		18
111	Integrated Polarization-Analyzing CMOS Image Sensor for Detecting the Incoming Light Ray Direction. IEEE Transactions on Instrumentation and Measurement, 2011, 60, 2759-2767.	4.7	18
112	Ultra-Thin Chip Package (UTCP) and stretchable circuit technologies for wearable ECG system. , 2011, 2011, 6886-9.		18
113	A 108 dB DR Î”â^-â^M Front-End With 720 mV_{pp} Input Range and >Â±300 mV Offset Removal for Multi-Parameter Biopotential Recording. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 199-209.	4.0	18
114	PHYSICS: The Best Materials for Tiny, Clever Sensors. Science, 2004, 306, 986-987.	12.6	17
115	Power-efficient readout circuit for miniaturized electronic nose. , 2012, , .		17
116	A 155 /spl mu/W 88-dB DR Discrete-Time /spl Delta/ /spl Sigma/ Modulator for Digital Hearing Aids Exploiting a Summing SAR ADC Quantizer. IEEE Transactions on Biomedical Circuits and Systems, 2013, 7, 573-582.	4.0	17
117	Motion artifact reduction in EEG recordings using multi-channel contact impedance measurements. , 2013, , .		17
118	24.4 A 680nA fully integrated implantable ECG-acquisition IC with analog feature extraction. , 2014, , .		17
119	The Added Value of In-Hospital Tracking of the Efficacy of Decongestion Therapy and Prognostic Value of a Wearable Thoracic Impedance Sensor in Acutely Decompensated Heart Failure With Volume Overload: Prospective Cohort Study. JMIR Cardio, 2020, 4, e12141.	1.7	17
120	Sequential hole tunneling inn-type AlAs/GaAs resonant-tunneling structures from time-resolved photoluminescence. Physical Review B, 1992, 46, 6982-6989.	3.2	16
121	Influence of Extreme Thinning on 130-nm Standard CMOS Devices for 3-D Integration. IEEE Electron Device Letters, 2008, 29, 322-324.	3.9	16
122	P300 Detection Based on Feature Extraction in On-line Brain-Computer Interface. Lecture Notes in Computer Science, 2009, , 339-346.	1.3	16
123	Power-Efficient Oscillator-Based Readout Circuit for Multichannel Resonant Volatile Sensors. IEEE Transactions on Biomedical Circuits and Systems, 2012, 6, 542-551.	4.0	16
124	Fabrication process for tall, sharp, hollow, high aspect ratio polymer microneedles on a platform. Journal of Micromechanics and Microengineering, 2013, 23, 075023.	2.6	16
125	Measurement and Analysis of Input-Signal Dependent Flicker Noise Modulation in Chopper Stabilized Instrumentation Amplifier. IEEE Solid-State Circuits Letters, 2018, 1, 90-93.	2.0	16
126	Miniaturized Electronic Circuit Design Challenges for Ingestible Devices. Journal of Microelectromechanical Systems, 2020, 29, 645-652.	2.5	16

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127	AlGaN-on-Si-Based 10-$muhbox{m}$ Pixel-to-Pixel Pitch Hybrid Imagers for the EUV Range. IEEE Electron Device Letters, 2011, 32, 1561-1563.	3.9	15
128	Silicon Based System for Single-Nucleotide-Polymorphism Detection: Chip Fabrication and Thermal Characterization of Polymerase Chain Reaction Microchamber. Japanese Journal of Applied Physics, 2012, 51, 04DL01.	1.5	15
129	24.7 A 60nV/√Hz 15-channel digital active electrode system for portable biopotential signal acquisition. , 2014, , .		15
130	20.8 A 500nW batteryless integrated electrostatic energy harvester interface based on a DC-DC converter with 60V maximum input voltage and operating from 1μW available power, including MPPT and cold start. , 2015, , .		15
131	Unsupervised Learning for Mental Stress Detection. , 2018, , .		15
132	Characteristics of InAs0.8Sb0.2photodetectors on GaAs substrates. Semiconductor Science and Technology, 2001, 16, 992-996.	2.0	14
133	A Cryogenic ADC operating Down to 4.2K. , 2007, , .		14
134	Ultra low power wireless ECG system with beat detection and real time impedance measurement. , 2010, , .		14
135	Capacitive multi-electrode array with real-time electrode selection for unobtrusive ECG & BIOZ monitoring. , 2019, 2019, 5621-5624.		14
136	A Power-Optimal Design Methodology for High-Resolution Low-Bandwidth SC $DeltaSigma$ Modulators. IEEE Transactions on Instrumentation and Measurement, 2012, 61, 2896-2904.	4.7	13
137	Self-calibration of walking speed estimations using smartphone sensors. , 2014, , .		13
138	Multiplexed site-specific electrode functionalization for multitarget biosensors. Bioelectrochemistry, 2016, 112, 61-66.	4.6	13
139	An Energy-Efficient and Reconfigurable Sensor IC for Bio-Impedance Spectroscopy and ECG Recording. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 616-626.	3.6	13
140	Using Biosensors and Digital Biomarkers to Assess Response to Cardiac Rehabilitation: Observational Study. Journal of Medical Internet Research, 2020, 22, e17326.	4.3	13
141	Relationship Between Chronic Stress and Heart Rate Over Time Modulated by Gender in a Cohort of Office Workers: Cross-Sectional Study Using Wearable Technologies. Journal of Medical Internet Research, 2020, 22, e18253.	4.3	13
142	The photodetector array camera and spectrometer (PACS) for the Herschel Space Observatory. , 2006, 6265, 69.		12
143	Leveling of Microvias by Electroplating for Wafer Level Packaging. ECS Transactions, 2007, 6, 123-133.	0.5	12
144	Scaling the Suspended-Gate FET: Impact of Dielectric Charging and Roughness. IEEE Transactions on Electron Devices, 2010, 57, 804-813.	3.0	12

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145	Computationally-efficient compressive sampling for low-power pulseoximeter system. , 2014, , .		12
146	Sensor Fusion of Capacitively Coupled ECG and Continuous-Wave Doppler Radar for Improved Unobtrusive Heart Rate Measurements. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2018, 8, 316-328.	3.6	12
147	A Data Driven Empirical Iterative Algorithm for GSR Signal Pre-Processing. , 2018, , .		12
148	A 196Î¼W, Reconfigurable Light-to-Digital Converter with 119dB Dynamic Range, for Wearable PPG/NIRS Sensors. , 2019, , .		12
149	Digital Linear Discrete FMCW Radar for Healthcare Applications. , 2019, , .		12
150	Towards personalized fluid monitoring in haemodialysis patients: thoracic bioimpedance signal shows strong correlation with fluid changes, a cohort study. BMC Nephrology, 2020, 21, 264.	1.8	12
151	Assessing the signal quality of electrocardiograms from varied acquisition sources: A generic machine learning pipeline for model generation. Computers in Biology and Medicine, 2021, 130, 104164.	7.0	12
152	Wearable Bioimpedance Monitoring: Viewpoint for Application in Chronic Conditions. JMIR Biomedical Engineering, 2021, 6, e22911.	1.2	12
153	Development of imaging arrays for solar UV observations based on wide band gap materials. , 2004, , .		11
154	Saw-tooth vernier ratchets for electrostatic inchworm actuators. Sensors and Actuators A: Physical, 2009, 156, 66-71.	4.1	11
155	Integrated polarization-analyzing CMOS image sensor for detecting incoming light ray direction. , 2010, , .		11
156	Integrated polarization-analyzing CMOS image sensor. , 2010, , .		11
157	Renewable energy microsystems integrated in maintenance-free wearable and textile-based devices: The capabilities and challenges. , 2010, , .		11
158	A 160μA biopotential acquisition ASIC with fully integrated IA and motion-artifact suppression. , 2012, , .		11
159	24-channel dual-band wireless neural recorder with activity-dependent power consumption. , 2013, , .		11
160	Intraneural active probe for bidirectional peripheral nerve interface. , 2017, , .		11
161	A Backside-Illuminated Charge-Focusing Silicon SPAD With Enhanced Near-Infrared Sensitivity. IEEE Transactions on Electron Devices, 2022, 69, 1129-1136.	3.0	11
162	InSb infrared pâ€“iâ€“n photodetectors grown on GaAs coated Si substrates by molecular beam epitaxy. Solid-State Electronics, 1998, 42, 1039-1044.	1.4	10

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163	Effect of deposition parameters on the stress gradient of CVD and PECVD poly-SiGe for MEMS applications. , 2004, , .		10
164	A 700µW 8-channel EEG/contact-impedance acquisition system for dry-electrodes. , 2012, , .		10
165	Highâ€Damping Carbon Nanotube Hinged Micromirrors. Small, 2012, 8, 2006-2010.	10.0	10
166	A novel feature extraction algorithm for on the sensor node processing of compressive sampled photoplethysmography signals. , 2015, , .		10
167	Relation between estimated cardiorespiratory fitness and running performance in free-living: An analysis of HRV4Training data. , 2017, , .		10
168	A Compact, Low-Power Analog Front-End With Event-Driven Input Biasing for High-Density Neural Recording in 22-nm FDSOI. IEEE Transactions on Circuits and Systems II: Express Briefs, 2022, 69, 804-808.	3.0	10
169	Vignetted-aperture correction for spectral cameras with integrated thin-film Fabryâ€“Perot filters. Applied Optics, 2019, 58, 1789.	1.8	10
170	Color lens-free imaging using multi-wavelength illumination based phase retrieval. Optics Express, 2020, 28, 33002.	3.4	10
171	Low-noise low-power readout electronics circuit development in standard CMOS technology for 4 K applications. , 2006, , .		9
172	A 20µW intra-cardiac signal-processing IC with 82dB bio-impedance measurement dynamic range and analog feature extraction for ventricular fibrillation detection. , 2013, , .		9
173	A 0.6V 3.8Î¼W ECG/bio-impedance monitoring IC for disposable health patch in 40nm CMOS. , 2018, , .		9
174	22.1 A 769Î¼W Battery-Powered Single-Chip SoC With BLE for Multi-Modal Vital Sign Health Patches. , 2019, , .		9
175	Real-time HR Estimation from wrist PPG using Binary LSTMs. , 2019, , .		9
176	Artefact Detection in Impedance Pneumography Signals: A Machine Learning Approach. Sensors, 2021, 21, 2613.	3.8	9
177	A 134 DB Dynamic Range Noise Shaping Slope Light-to-Digital Converter for Wearable Chest PPG Applications. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 1224-1235.	4.0	9
178	Capacitive Power-Management Circuit for Micropower Thermoelectric Generators with a 2.1Â¿W Controller. Digest of Technical Papers - IEEE International Solid-State Circuits Conference, 2008, , .	0.0	8
179	Reduction of Electrical Crosstalk in Hybrid Backside Illuminated CMOS Imagers using Deep Trench Isolation. , 2008, , .		8
180	10 µm pixel-to-pixel pitch hybrid backside illuminated AlGaN-on-Si imagers for solar blind EUV radiation detection. , 2010, , .		8

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181	Real time digitally assisted analog motion artifact reduction in ambulatory ECG monitoring system. , 2012, 2012, 2096-9.		8
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