Nicole Mcfarlane

List of Publications by Year
in descending order

53	327	840776 11	996975 15
papers	citations	h-index	g-index

53	53	53	238
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Glucose Biosensor Using CMOS Potentiostat and Vertically Aligned Carbon Nanofibers. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 807-816.	4.0	30
2	CMOS based whole cell impedance sensing: Challenges and future outlook. Biosensors and Bioelectronics, 2019, 143, 111600.	10.1	26
3	An Analog CMOS Silicon Photomultiplier Using Perimeter-Gated Single-Photon Avalanche Diodes. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 3830-3841.	5.4	20
4	Integrated real time bowel sound detector for artificial pancreas systems. Sensing and Bio-Sensing Research, 2016, 7, 84-89.	4.2	18
5	Wearables for the Next Pandemic. IEEE Access, 2020, 8, 184457-184474.	4.2	17
6	Characterization of Single-Photon Avalanche Diodes in a 0.5- Standard CMOS Processâ€”Part 2: Equivalent Circuit Model and Geiger Mode Readout. IEEE Sensors Journal, 2016, 16, 3075-3083.	4.7	16
7	A Wearable CMOS Impedance to Frequency Sensing System for Non-Invasive Impedance Measurements. IEEE Transactions on Biomedical Circuits and Systems, 2020, 14, 1108-1121.	4.0	16
8	Vertically Aligned Carbon Nanofiber based Biosensor Platform for Glucose Sensor. International Journal of High Speed Electronics and Systems, 2014, 23, 1450006.	0.7	14
9	A Tunable Dynamic Range Digital Single Photon Avalanche Diode. IEEE Electron Device Letters, 2017, 38, 60-63.	3.9	12
10	Carbon Nanotubes, Nanofibers and Nanospikes for Electrochemical Sensing: A Review. International Journal of High Speed Electronics and Systems, 2017, 26, 1740008.	0.7	12
11	A Digital CMOS Silicon Photomultiplier Using Perimeter Gated Single Photon Avalanche Diodes With Asynchronous AER Readout. IEEE Transactions on Circuits and Systems I: Regular Papers, 2020, 67, 4818-4828.	5.4	12
12	Vertically Aligned Carbon Nanofibers as a Cell Impedance Sensor. IEEE Nanotechnology Magazine, 2016, 15, 856-861.	2.0	9
13	Practical realisation of a return map immune Lorenzâ€based chaotic stream cipher in circuitry. IET Computers and Digital Techniques, 2018, 12, 297-305.	1.2	9
14	A differential ISFET pH sensor. , 2017, , .		7
15	Optimization of perimeter gated SPADs in a standard CMOS process. , 2014, , .		6
16	A single-chip ISFET based pH sensor. , 2016, , .		6
17	A tunable single photon avalanche diode pixel with improved time resolution. , 2017, , .		6
18	A CMOS Perimeter Gated SPAD Based Digital Silicon Photomultiplier with Asynchronous AER Readout for PET Applications. , 2018, , .		6

#	Article	IF	Citations
19	A Low-Power Voltage-Clamped CMOS pH to Frequency Sensor. , 2019, , .		6
20	Carbonization of 3D printed polymer structures for CMOS-compatible electrochemical sensors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2020, 38, 052203.	1.2	6
21	An Encryption Architecture Suitable for on Chip Integration With Sensors. IEEE Journal on Emerging and Selected Topics in Circuits and Systems, 2021, 11, 395-404.	3.6	6
22	A perimeter gated single photon avalanche diode based silicon photomultiplier as optical detector. , 2015, , .		5
23	A low power integrated bowel sound measurement system. , 2015, , .		5
24	A sub-Î¼W CMOS temperature to frequency sensor for implantable devices. , 2017, , .		5
25	A Comprehensive Survey of Readout Strategies for SiPMs Used in Nuclear Imaging Systems. Photonics, 2021, 8, 266.	2.0	5
26	A SPICE model for perimeter-gated single photon avalanche diode. , 2014, , .		4
27	A low power multi-frequency current mode lock-in amplifier for impedance sensing. , 2015, , .		4
28	Modeling and Simulation of PGSPAD-Based Silicon Photomultipliers. IEEE Transactions on Nuclear Science, 2021, 68, 279-291.	2.0	4
29	An analysis of the information efficiency of single photon avalanche diodes. , 2012, , .		3
30	A robust VACNF platform for electrochemical biosensor. , 2013, , .		3
31	A Temperature Sensing System With Encrypted Readout Using Analog Circuits. , 2019, , .		3
32	Fundamentals of Perimeter Gated Single Photon Avalanche Diodes used in Silicon Photomultipliers for Nuclear Imaging. , 2019, , .		3
33	Single Photon Avalanche Diode based Vision Sensor with On-Chip Memristive Spiking Neuromorphic Processing. , 2020, , .		3
34	A Portable CMOS Based pH Sensor. , 2020, , .		3
35	A Combined pH-Impedance System Suitable for Portable Continuous Sensing. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 390-401.	4.0	3
36	Low power current mode ramp ADC for multi-frequency cell impedance measurement. , 2012, , .		2

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37	Cell impedance sensing system based on vertically aligned carbon nanofibers. , 2015, , .		2
38	A low-power, reconfigurable, pipelined ADC for implantable bioimpedance measurement system with vertically aligned carbon nanofibers (VACNF) electrodes. Analog Integrated Circuits and Signal Processing, 2016, 89, 139-149.	1.4	2
39	A 10.6μm × 10.6μm CMOS SPAD with integrated readout. , 2013, , .		1
40	A Differential Low-Power Voltage-Clamped ISFET Topology for Biomedical Applications. , 2018, , .		1
41	Quasi-Digital Output Low Power CMOS Temperature Sensor. , 2018, , .		1
42	Live Demonstration: Portable Bowel Sound Idenfication System. , 2018, , .		1
43	Carbonized Polymer Nanostructures for Biosensing. , 2019, , .		1
44	Modeling of Silicon Photomultiplier Based on Perimeter Gated Single Photon Avalanche Diode. , 2019, , .		1
45	Live Demonstration: A Temperature Sensor with Analog Encryption. , 2019, , .		1
46	A Wireless Time-Scaling Chaotic Shift Keying Encryption System For Biosensing Systems. , 2021, 2021, 7594-7597.		1
47	Fabrication and characterization of vertically aligned carbon nanofibers as a biosensor platform for hypoglycemia. , 2012, , .		0
48	Simulation and Modeling of Single Photon Avalanche Diodes. International Journal of High Speed Electronics and Systems, 2015, 24, 1520006.	0.7	0
49	Perimeter Gated Single Photon Avalanche Diodes in Sub-Micron and Deep-Submicron CMOS Processes. International Journal of High Speed Electronics and Systems, 2018, 27, 1840018.	0.7	0
50	Low Cost Paper Based Electrochemical Sensing System. , 2019, , .		0
51	Guest Editorial Special Issue on Selected Papers From IEEE ISCAS 2020. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 366-368.	4.0	0
52	Carbon Nanotubes, Nanofibers and Nanospikes for Electrochemical Sensing: A Review. , 2017, , .		0
53	Perimeter Gated Single Photon Avalanche Diodes in Sub-Micron and Deep-Submicron CMOS Processes. Selected Topics in Electornics and Systems, 2019, , 71-89.	0.2	0