

Alberto J Palma

List of Publications by Year in descending order

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106
papers

3,493
citations

159585

30
h-index

155660

55
g-index

106
all docs

106
docs citations

106
times ranked

3633
citing authors

#	ARTICLE	IF	CITATIONS
1	Smart facemask for wireless CO2 monitoring. Nature Communications, 2022, 13, 72.	12.8	73
2	Commercial P-Channel Power VDMOSFET as X-ray Dosimeter. Electronics (Switzerland), 2022, 11, 918.	3.1	1
3	A design concept for radiation hardened RADFET readout system for space applications. Microprocessors and Microsystems, 2022, 90, 104486.	2.8	1
4	Digital Optical Ballistocardiographic System for Activity, Heart Rate, and Breath Rate Determination during Sleep. Sensors, 2022, 22, 4112.	3.8	2
5	Wireless wearable wristband for continuous sweat pH monitoring. Sensors and Actuators B: Chemical, 2021, 327, 128948.	7.8	30
6	Radiation sensitive MOSFETs irradiated with various positive gate biases. Journal of Radiation Research and Applied Sciences, 2021, 14, 353-357.	1.2	2
7	Acute Effects of Muscular Fatigue on Vertical Jump Performance in Acrobatic Gymnasts, Evaluated by Instrumented Insoles: A Pilot Study. Journal of Sensors, 2021, 2021, 1-6.	1.1	1
8	Development and Evaluation of a Low-Drift Inertial Sensor-Based System for Analysis of Alpine Skiing Performance. Sensors, 2021, 21, 2480.	3.8	6
9	Commercial photodiodes and phototransistors as dosimeters of photon beams for radiotherapy. Medical Physics, 2021, 48, 5440-5447.	3.0	3
10	Readout Circuit With Improved Sensitivity for Contactless LC Sensing Tags. IEEE Sensors Journal, 2020, 20, 885-891.	4.7	14
11	Light-Dependent Resistors as Dosimetric Sensors in Radiotherapy. Sensors, 2020, 20, 1568.	3.8	12
12	The effect of bending on laser-cut electro-textile inductors and capacitors attached on denim as wearable structures. Textile Research Journal, 2020, 90, 2355-2366.	2.2	6
13	General-purpose passive wireless point-of-care platform based on smartphone. Biosensors and Bioelectronics, 2019, 141, 111360.	10.1	36
14	Plantar Pressure Changes and Their Relationships with Low Back Pain during Pregnancy Using Instrumented Insoles. Journal of Sensors, 2019, 2019, 1-10.	1.1	6
15	Smartphone-Based Diagnosis of Parasitic Infections With Colorimetric Assays in Centrifuge Tubes. IEEE Access, 2019, 7, 185677-185686.	4.2	11
16	Asymmetric enhanced surface interdigitated electrode capacitor with two out-of-plane electrodes. Sensors and Actuators B: Chemical, 2018, 254, 588-596.	7.8	13
17	Compact readout system for chipless passive LC tags and its application for humidity monitoring. Sensors and Actuators A: Physical, 2018, 280, 287-294.	4.1	15
18	Flexible Passive near Field Communication Tag for Multigas Sensing. Analytical Chemistry, 2017, 89, 1697-1703.	6.5	78

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19	A compact dosimetric system for MOSFETs based on passive NFC tag and smartphone. Sensors and Actuators A: Physical, 2017, 267, 82-89.	4.1	13
20	Coupling Sensing and Imaging Devices: Towards a Complete Handheld Analytical System. Proceedings (mdpi), 2017, 1, 854.	0.2	0
21	Passive UHF RFID Tag for Multispectral Assessment. Sensors, 2016, 16, 1085.	3.8	28
22	Computer Vision-Based Portable System for Nitroaromatics Discrimination. Journal of Sensors, 2016, 2016, 1-10.	1.1	3
23	Hybrid printed device for simultaneous vapours sensing. IEEE Sensors Journal, 2016, , 1-1.	4.7	3
24	Printed electrodes structures as capacitive humidity sensors: A comparison. Sensors and Actuators A: Physical, 2016, 244, 56-65.	4.1	68
25	Thermal compensation technique using the parasitic diode for DMOS transistors. Sensors and Actuators A: Physical, 2016, 249, 249-255.	4.1	6
26	Dose verification system based on MOS transistor for real-time measurement. Sensors and Actuators A: Physical, 2016, 247, 269-276.	4.1	13
27	Flexible passive tag based on light energy harvesting for gas threshold determination in sealed environments. Sensors and Actuators B: Chemical, 2016, 236, 226-232.	7.8	14
28	Validation of Instrumented Insoles for Measuring Height in Vertical Jump. International Journal of Sports Medicine, 2016, 37, 374-381.	1.7	7
29	Development of a printed sensor for volatile organic compound detection at $\hat{1}/4\text{g/L}$ -level. Sensors and Actuators B: Chemical, 2016, 230, 115-122.	7.8	3
30	Evaluation of a reconfigurable portable instrument for copper determination based on luminescent carbon dots. Analytical and Bioanalytical Chemistry, 2016, 408, 3013-3020.	3.7	25
31	A preliminary study of the relation between back-pain and plantar-pressure evolution during pregnancy. , 2015, 2015, 1235-8.		1
32	Improved manufacturing process for printed cantilevers by using water removable sacrificial substrate. Sensors and Actuators A: Physical, 2015, 235, 171-181.	4.1	16
33	Parametrized ECT processing over FPGA for a reconfigurable application. , 2015, , .		1
34	Passive UHF RFID Tag with Multiple Sensing Capabilities. Sensors, 2015, 15, 26769-26782.	3.8	57
35	Passive UHF RFID tag for spectral fingerprint measurement. , 2015, , .		8
36	Cantilever Fabrication by a Printing and Bonding Process. Journal of Microelectromechanical Systems, 2015, 24, 880-886.	2.5	3

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37	A printed capacitive-resistive double sensor for toluene and moisture sensing. Sensors and Actuators B: Chemical, 2015, 210, 542-549.	7.8	35
38	Portable system for photodiode-based electrochemiluminescence measurement with improved limit of detection. Sensors and Actuators B: Chemical, 2015, 221, 956-961.	7.8	13
39	Comparative study of printed capacitive sensors. , 2015, , .		2
40	Fast lifetime and amplitude determination in luminescence exponential decays. Sensors and Actuators B: Chemical, 2015, 216, 595-602.	7.8	12
41	RADFET response to photon and electron beams. , 2015, , .		0
42	Comparative study of MOSFET response to photon and electron beams in reference conditions. Sensors and Actuators A: Physical, 2015, 225, 95-102.	4.1	14
43	Accuracy Improvement of MOSFET Dosimeters in Case of Variation in Thermal Parameters. IEEE Transactions on Nuclear Science, 2015, 62, 487-493.	2.0	10
44	Recent developments in computer vision-based analytical chemistry: A tutorial review. Analytica Chimica Acta, 2015, 899, 23-56.	5.4	220
45	HF RFID Tag as Humidity Sensor: Two Different Approaches. IEEE Sensors Journal, 2015, 15, 5726-5733.	4.7	45
46	A simplified thermal model for lateral MOSFET and its application to temperature monitoring. Semiconductor Science and Technology, 2014, 29, 095017.	2.0	4
47	General purpose MOSFETs for the dosimetry of electron beams used in intra-operative radiotherapy. Sensors and Actuators A: Physical, 2014, 210, 175-181.	4.1	20
48	Printed single-chip UHF passive radio frequency identification tags with sensing capability. Sensors and Actuators A: Physical, 2014, 220, 281-289.	4.1	33
49	Design and Development of Sensing RFID Tags on Flexible Foil Compatible With EPC Gen 2. IEEE Sensors Journal, 2014, 14, 4361-4371.	4.7	44
50	Smartphone-Based Simultaneous pH and Nitrite Colorimetric Determination for Paper Microfluidic Devices. Analytical Chemistry, 2014, 86, 9554-9562.	6.5	348
51	Design and characterization of a low thermal drift capacitive humidity sensor by inkjet-printing. Sensors and Actuators B: Chemical, 2014, 195, 123-131.	7.8	118
52	Properties and Printability of Inkjet and Screen-Printed Silver Patterns for RFID Antennas. Journal of Electronic Materials, 2014, 43, 604-617.	2.2	117
53	Embedded sensor insole for wireless measurement of gait parameters. Australasian Physical and Engineering Sciences in Medicine, 2014, 37, 25-35.	1.3	24
54	A novel electrode structure compared with interdigitated electrodes as capacitive sensor. Sensors and Actuators B: Chemical, 2014, 204, 552-560.	7.8	68

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55	Modeling of radiation effects in MOSFETs. , 2013, , .		2
56	Efficient wavelet-based ECG processing for single-lead FHR extraction. , 2013, 23, 1897-1909.		59
57	Subthreshold response of a MOSFET to radiation effects. , 2013, , .		0
58	Fast prototyping of paper-based microfluidic devices by contact stamping using indelible ink. RSC Advances, 2013, 3, 18811.	3.6	80
59	Using the mobile phone as Munsell soil-colour sensor: An experiment under controlled illumination conditions. Computers and Electronics in Agriculture, 2013, 99, 200-208.	7.7	113
60	An application of reconfigurable technologies for non-invasive fetal heart rate extraction. Medical Engineering and Physics, 2013, 35, 1005-1014.	1.7	25
61	Screen Printed Flexible Radiofrequency Identification Tag for Oxygen Monitoring. Analytical Chemistry, 2013, 85, 11098-11105.	6.5	76
62	Noise Suppression in ECG Signals through Efficient One-Step Wavelet Processing Techniques. Journal of Applied Mathematics, 2013, 2013, 1-13.	0.9	42
63	A Compact Optical Instrument with Artificial Neural Network for pH Determination. Sensors, 2012, 12, 6746-6763.	3.8	11
64	A compact and low cost dosimetry system based on MOSFET for in vivo radiotherapy. Sensors and Actuators A: Physical, 2012, 182, 146-152.	4.1	22
65	Portable reconfigurable instrument for analytical determinations using disposable electrochemiluminescent screen-printed electrodes. Sensors and Actuators B: Chemical, 2012, 169, 46-53.	7.8	19
66	Study of the subthreshold swing of a pMOSFET as a dosimetric parameter. Sensors and Actuators A: Physical, 2012, 187, 16-21.	4.1	4
67	Measuring the colour of virgin olive oils in a new colour scale using a low-cost portable electronic device. Journal of Food Engineering, 2012, 111, 247-254.	5.2	20
68	Multisensor probe for soil monitoring. Sensors and Actuators B: Chemical, 2011, 160, 52-58.	7.8	9
69	Compact optical instrument for simultaneous determination of oxygen and carbon dioxide. Mikrochimica Acta, 2011, 172, 455-464.	5.0	20
70	Recent developments in handheld and portable optosensing—A review. Analytica Chimica Acta, 2011, 696, 27-46.	5.4	127
71	Flexible ECG acquisition system based on analog and digital reconfigurable devices. Sensors and Actuators A: Physical, 2011, 165, 261-270.	4.1	34
72	Sensor array-based optical portable instrument for determination of pH. Sensors and Actuators B: Chemical, 2011, 156, 840-848.	7.8	36

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73	Mobile phone platform as portable chemical analyzer. <i>Sensors and Actuators B: Chemical</i> , 2011, 156, 350-359.	7.8	145
74	Readout techniques for linearity and resolution improvements in MOSFET dosimeters. <i>Sensors and Actuators A: Physical</i> , 2010, 157, 178-184.	4.1	24
75	Hand-held optical instrument for CO ₂ in gas phase based on sensing film coating optoelectronic elements. <i>Sensors and Actuators B: Chemical</i> , 2010, 144, 232-238.	7.8	18
76	A Portable Luminometer with a Disposable Electrochemiluminescent Biosensor for Lactate Determination. <i>Sensors</i> , 2009, 9, 7694-7710.	3.8	31
77	Digital and Analog Reconfiguration Techniques for Rapid Smart Sensor System Prototyping. <i>Sensor Letters</i> , 2009, 7, 1113-1118.	0.4	11
78	Development of an Electrical Capacitance Tomography system using four rotating electrodes. <i>Sensors and Actuators A: Physical</i> , 2008, 148, 366-375.	4.1	60
79	Portable light-emitting diode-based photometer with one-shot optochemical sensors for measurement in the field. <i>Review of Scientific Instruments</i> , 2008, 79, 103105.	1.3	11
80	Open Air Calibration with Temperature Compensation of a Luminescence Quenching-Based Oxygen Sensor for Portable Instrumentation. <i>Analytical Chemistry</i> , 2007, 79, 3173-3179.	6.5	14
81	Oxygen-sensing film coated photodetectors for portable instrumentation. <i>Analytica Chimica Acta</i> , 2007, 583, 166-173.	5.4	28
82	Microcontroller-based portable instrument for stabilised optical oxygen sensor. <i>Sensors and Actuators B: Chemical</i> , 2007, 121, 629-638.	7.8	25
83	Evaluation of a low-cost commercial mosfet as radiation dosimeter. <i>Sensors and Actuators A: Physical</i> , 2006, 125, 288-295.	4.1	80
84	A simplified measurement procedure and portable electronic photometer for disposable sensors based on ionophore-chromoionophore chemistry for potassium determination. <i>Analytical and Bioanalytical Chemistry</i> , 2006, 386, 1215-1224.	3.7	16
85	A simple model for analysing the effects of band non-parabolicity in nanostructures. <i>Semiconductor Science and Technology</i> , 2005, 20, 532-539.	2.0	3
86	Modeling of retention time degradation due to inelastic trap-assisted tunneling in EEPROM devices. <i>Microelectronics Reliability</i> , 2003, 43, 1495-1500.	1.7	9
87	Generation-recombination noise in highly asymmetrical p-n junctions. <i>Journal of Applied Physics</i> , 2002, 92, 320-329.	2.5	7
88	Direct and trap-assisted elastic tunneling through ultrathin gate oxides. <i>Journal of Applied Physics</i> , 2002, 91, 5116-5124.	2.5	77
89	Physical model for trap-assisted inelastic tunneling in metal-oxide-semiconductor structures. <i>Journal of Applied Physics</i> , 2001, 90, 3396-3404.	2.5	89
90	A simple subthreshold swing model for short channel MOSFETs. <i>Solid-State Electronics</i> , 2001, 45, 391-397.	1.4	56

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91	Contribution of injection in current noise due to generation and recombination of carriers in p-n junctions. Journal of Applied Physics, 2001, 90, 3998-4006.	2.5	13
92	Optimum design in a JFET for minimum generation-recombination noise. Microelectronics Reliability, 2000, 40, 1965-1968.	1.7	1
93	Effects of the inversion-layer centroid on the performance of double-gate MOSFETs. IEEE Transactions on Electron Devices, 2000, 47, 141-146.	3.0	72
94	Influence of technological parameters on the behavior of the hole effective mass in SiGe structures. Journal of Applied Physics, 2000, 88, 1978-1982.	2.5	5
95	Influence of mobility fluctuations on random telegraph signal amplitude in n-channel metal-oxide-semiconductor field-effect transistors. Journal of Applied Physics, 1997, 82, 4621-4628.	2.5	15
96	Influence of the doping profile and deep level trap characteristics on generation-recombination noise. Journal of Applied Physics, 1997, 82, 3351-3357.	2.5	9
97	Random telegraph signal amplitude in submicron n-channel metal oxide semiconductor field effect transistors. Applied Physics Letters, 1997, 70, 2153-2155.	3.3	9
98	Quantum two-dimensional calculation of time constants of random telegraph signals in metal-oxide-semiconductor structures. Physical Review B, 1997, 56, 9565-9574.	3.2	116
99	Electric Field Dependence of the Electron Capture Cross Section of Neutral Traps in SiO ₂ . Journal of the Electrochemical Society, 1996, 143, 2687-2690.	2.9	17
100	Monte Carlo study of the statistics of electron capture by shallow donors in silicon at low temperatures. Physical Review B, 1995, 51, 14147-14151.	3.2	8
101	Influence of the position of deep levels on generation-recombination noise. Applied Physics Letters, 1995, 67, 3581-3583.	3.3	5
102	Monte Carlo simulation of multiphonon capture mechanism by deep neutral impurities in Si in the presence of an electric field. Journal of Applied Physics, 1995, 78, 5448-5453.	2.5	1
103	Comprehensive Monte Carlo simulation of the nonradiative carrier capture process by impurities in semiconductors. Journal of Applied Physics, 1995, 77, 1998-2005.	2.5	2
104	Effects of oxide-charge space correlation on electron mobility in inversion layers. Semiconductor Science and Technology, 1994, 9, 1102-1107.	2.0	19
105	A comprehensive model for Coulomb scattering in inversion layers. Journal of Applied Physics, 1994, 75, 924-934.	2.5	83
106	Accurate determination of majority thermal-capture cross sections of deep impurities in p-n junctions. Journal of Applied Physics, 1993, 74, 2605-2612.	2.5	9