Angel Merlos

List of Publications by Year
in descending order

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47 papers	1,554 citations	361413 20 h-index	302126 39 g-index
47 all docs	47 docs citations	47 times ranked	1363 citing authors

#	Article	IF	Citations
1	Ion-sensitive field-effect transistors fabricated in a commercial CMOS technology. Sensors and Actuators B: Chemical, 1999, 57, 56-62.	7.8	291
2	TMAH/IPA anisotropic etching characteristics. Sensors and Actuators A: Physical, 1993, 37-38, 737-743.	4.1	154
3	Beam test results of a 16 ps timing system based on ultra-fast silicon detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 850, 83-88.	1.6	120
4	Multi-sensor array used as an â€œelectronic tongueâ€•for mineral water analysis. Sensors and Actuators B: Chemical, 2006, 116, 130-134.	7.8	106
5	Ultra-fast silicon detectors (UFSD). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 18-23.	1.6	84
6	Bioceramicsâ€”simulated body fluid interfaces: pH and its influence of hydroxyapatite formation. Journal of Materials Science: Materials in Medicine, 1996, 7, 399-402.	3.6	72
7	Microtechnologies for PH ISFET chemical sensors. Microelectronics Journal, 1997, 28, 389-405.	2.0	66
8	Recent technological developments on LGAD and iLGAD detectors for tracking and timing applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 831, 24-28.	1.6	63
9	Three-dimensional interdigitated electrode array as a transducer for label-free biosensors. Biosensors and Bioelectronics, 2008, 24, 729-735.	10.1	51
10	A study of the undercutting characteristics in the TMAH-IPA system. Journal of Micromechanics and Microengineering, 1992, 2, 181-183.	2.6	36
11	Radiation hardness of thin Low Gain Avalanche Detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 891, 68-77.	1.6	34
12	Optimized technology for the fabrication of piezoresistive pressure sensors. Journal of Micromechanics and Microengineering, 2000, 10, 204-208.	2.6	32
13	Design and fabrication of an optimum peripheral region for low gain avalanche detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 821, 93-100.	1.6	29
14	Beam test measurements of Low Gain Avalanche Detector single pads and arrays for the ATLAS High Granularity Timing Detector. Journal of Instrumentation, 2018, 13, P06017-P06017.	1.2	29
15	Multilayer ISFET membranes for microsystems applications. Sensors and Actuators B: Chemical, 1996, 35, 136-140.	7.8	28
16	Gain and time resolution of 45 Î¼m thin Low Gain Avalanche Detectors before and after irradiation up to a fluence of 10¹⁵n_{eq}/cm². Journal of Instrumentation, 2017, 12, P05003-P05003.	1.2	26
17	Characterisation of the interdigitated electrode array with tantalum silicide electrodes separated by insulating barriers. Electrochemistry Communications, 2008, 10, 1621-1624.	4.7	25
18	A wireless LC chemical sensor based on a high quality factor EIS capacitor. Sensors and Actuators B: Chemical, 2007, 126, 648-654.	7.8	24

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19	pH-ISFET with NMOS technology. Electroanalysis, 1991, 3, 355-360.	2.9	23
20	Study of integrated RF passive components performed using CMOS and Si micromachining technologies. Journal of Micromechanics and Microengineering, 1997, 7, 162-164.	2.6	23
21	<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll" id="d1e137" altimg="si4.gif"><mml:mn>50</mml:mn><mml:mspace width="1em" class="nbsp" /><mml:mi mathvariant="normal">Î¼</mml:mi><mml:mi mathvariant="normal">m</mml:mi></mml:math>thin Low Gain Avalanche Detectors (LGAD) for timing applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 924, 373-379.	1.6	19
22	High-Quality Factor Electrolyte Insulator Silicon Capacitor for Wireless Chemical Sensing. IEEE Electron Device Letters, 2007, 28, 27-29.	3.9	17
23	Integrated Multisensor for FIA-Based Electronic Tongue Applications. IEEE Sensors Journal, 2008, 8, 608-615.	4.7	16
24	Reconfigurable multiplexed point of Care System for monitoring type 1 diabetes patients. Biosensors and Bioelectronics, 2019, 136, 38-46.	10.1	15
25	Application of nickel electroless plating to the fabrication of low-cost backside contact ISFETs. Sensors and Actuators B: Chemical, 1995, 27, 336-340.	7.8	14
26	Studies of uniformity of 50ÂÎ¼m low-gain avalanche detectors at the Fermilab test beam. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 895, 158-172.	1.6	14
27	Application of simple thioether ionophores to silver ion-selective CHEMFETs. Sensors and Actuators B: Chemical, 1995, 27, 321-324.	7.8	13
28	Flow-through pH-ISFET as detector in automated determinations. Electroanalysis, 1991, 3, 349-354.	2.9	12
29	New technology for easy and fully IC-compatible fabrication of backside-contacted ISFETs. Sensors and Actuators B: Chemical, 1995, 24, 228-231.	7.8	12
30	Electrochemical etching of porous silicon sacrificial layers for micromachining applications. Journal of Micromechanics and Microengineering, 1997, 7, 131-132.	2.6	12
31	Influence of the degradation on the surface states and electrical characteristics of EOS structures. Surface Science, 1991, 251-252, 364-368.	1.9	11
32	Compact Electrochemical Flow System for the Analysis of Environmental Pollutants. Electroanalysis, 2014, 26, 497-506.	2.9	11
33	Mechanical sensors integrated in a commercial CMOS technology. Sensors and Actuators A: Physical, 1997, 62, 698-704.	4.1	10
34	An impedimetric chemical sensor for determination of detergents residues. Talanta, 2013, 106, 286-292.	5.5	10
35	Inverse Low Gain Avalanche Detectors (iLGADs) for precise tracking and timing applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2020, 958, 162545.	1.6	10
36	Technology developments and first measurements on inverse Low Gain Avalanche Detector (iLGAD) for high energy physics applications. Journal of Instrumentation, 2016, 11, C12039-C12039.	1.2	9

#	Article	IF	Citations
37	Radiation hardness of gallium doped low gain avalanche detectors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2018, 898, 53-59.	1.6	8
38	Results on proton-irradiated 3D pixel sensors interconnected to RD53A readout ASIC. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2019, 944, 162625.	1.6	8
39	Test beam characterization of irradiated 3D pixel sensors. Journal of Instrumentation, 2020, 15, C03017-C03017.	1.2	5
40	Effect of wall tilt on the optical properties of integrated directional couplers. Optics Letters, 2002, 27, 601.	3.3	4
41	Modelization and fabrication of ISFET based sensors. Microelectronic Engineering, 1991, 15, 423-426.	2.4	3
42	Conservation of the Optical Properties of SRO after CMOS IC Processing. Procedia Technology, 2014, 17, 587-594.	1.1	3
43	EIS-Capacitor-Based LC Wireless Chemical Sensors. , 2007, , .		2
44	Design kit for microsystems design for an enhanced CMOS process. , 0, , .		0
45	<title>Industrial microsystems on top of CMOS design and process</title>. , 1996, , .		0
46	Design of a CMOS transducer interface for an UV silicon sensor. , 2010, , .		0
47	Readout electronics for LGAD sensors. Journal of Instrumentation, 2017, 12, C02069-C02069.	1.2	0