

# Augusto Nascetti

## List of Publications by Year in descending order

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146  
papers

1,539  
citations

257357

24  
h-index

377752

34  
g-index

151  
all docs

151  
docs citations

151  
times ranked

1264  
citing authors

#	ARTICLE	IF	CITATIONS
1	High-Gain S-band Patch Antenna System for Earth-Observation CubeSat Satellites. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 434-437.	2.4	72
2	Analysis of lead oxide (PbO) layers for direct conversion X-ray detection. IEEE Transactions on Nuclear Science, 2005, 52, 2035-2040.	1.2	62
3	Maximum power point tracker for portable photovoltaic systems with resistive-like load. Solar Energy, 2006, 80, 982-988.	2.9	60
4	Hydrogenated amorphous silicon ultraviolet sensor for deoxyribonucleic acid analysis. Applied Physics Letters, 2006, 88, 083904.	1.5	48
5	Aptamer-based sandwich assay for on chip detection of Ochratoxin A by an array of amorphous silicon photosensors. Sensors and Actuators B: Chemical, 2016, 230, 31-39.	4.0	48
6	Chemiluminescence lateral flow immunoassay cartridge with integrated amorphous silicon photosensors array for human serum albumin detection in urine samples. Analytical and Bioanalytical Chemistry, 2016, 408, 8869-8879.	1.9	46
7	Reconfigurable S-band patch antenna system for cubesat satellites. IEEE Aerospace and Electronic Systems Magazine, 2016, 31, 6-13.	2.3	45
8	Counting and Integrating Readout for Direct Conversion X-ray Imaging: Concept, Realization and First Prototype Measurements. IEEE Transactions on Nuclear Science, 2007, 54, 383-390.	1.2	43
9	Microfluidic Chip With Integrated a-Si:H Photodiodes for Chemiluminescence-Based Bioassays. IEEE Sensors Journal, 2013, 13, 2595-2602.	2.4	38
10	On-chip detection of multiple serum antibodies against epitopes of celiac disease by an array of amorphous silicon sensors. RSC Advances, 2014, 4, 2073-2080.	1.7	38
11	Multifunctional System-on-Glass for Lab-on-Chip applications. Biosensors and Bioelectronics, 2017, 93, 315-321.	5.3	38
12	PbO as direct conversion x-ray detector material. , 2004, , .		34
13	Multiwell cartridge with integrated array of amorphous silicon photosensors for chemiluminescence detection: development, characterization and comparison with cooled-CCD luminograph. Analytical and Bioanalytical Chemistry, 2014, 406, 5645-5656.	1.9	34
14	Lab-on-chip system combining a microfluidic-ELISA with an array of amorphous silicon photosensors for the detection of celiac disease epitopes. Sensing and Bio-Sensing Research, 2015, 6, 51-58.	2.2	33
15	Amorphous Silicon p-i-n Structure Acting as Light and Temperature Sensor. Sensors, 2015, 15, 12260-12272.	2.1	32
16	Polydimethylsiloxane material as hydrophobic and insulating layer in electrowetting-on-dielectric systems. Microelectronics Journal, 2014, 45, 1684-1690.	1.1	31
17	Integrated chemiluminescence-based lab-on-chip for detection of life markers in extraterrestrial environments. Biosensors and Bioelectronics, 2019, 123, 195-203.	5.3	31
18	Detailed Study of Amorphous Silicon Ultraviolet Sensor With Chromium Silicide Window Layer. IEEE Transactions on Electron Devices, 2008, 55, 452-456.	1.6	29

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19	Amorphous Silicon Photosensors for Detection of Ochratoxin a in Wine. IEEE Sensors Journal, 2012, 12, 2674-2679.	2.4	29
20	Monitoring of Temperature Distribution in a Thin Film Heater by an Array of a-Si:H Temperature Sensors. IEEE Sensors Journal, 2012, 12, 1209-1213.	2.4	28
21	Spectral tuned amorphous silicon for DNA detection. Journal of Non-Crystalline Solids, 2006, 352, 2004-2006.	1.5	27
22	Smart thin layer chromatography plate. Lab on A Chip, 2007, 7, 978.	3.1	27
23	Design and experimental characterization of thin film heaters on glass substrate for Lab-on-Chip applications. Sensors and Actuators A: Physical, 2015, 229, 203-210.	2.0	26
24	Amorphous Silicon Sensors for Single and Multicolor Detection of Biomolecules. IEEE Sensors Journal, 2007, 7, 1274-1280.	2.4	25
25	Lab-on-Glass System for DNA Analysis using Thin and Thick Film Technologies. Materials Research Society Symposia Proceedings, 2009, 1191, 48.	0.1	24
26	Infrared photodetection at room temperature using photocapacitance in amorphous silicon structures. Applied Physics Letters, 1998, 72, 1229-1231.	1.5	23
27	Characterization of chromium silicide thin layer formed on amorphous silicon films. Journal of Non-Crystalline Solids, 2008, 354, 2171-2175.	1.5	23
28	Innovative Detection System of Ochratoxin A by Thin Film Photodiodes. Sensors, 2007, 7, 1317-1322.	2.1	22
29	A prototype hybrid pixel detector ASIC for the CLIC experiment. Journal of Instrumentation, 2014, 9, C01012-C01012.	0.5	21
30	On-chip LAMP-BART reaction for viral DNA real-time bioluminescence detection. Sensors and Actuators B: Chemical, 2018, 262, 1024-1033.	4.0	21
31	Design and fabrication of microfluidics system integrated with temperature actuated microvalve. Sensors and Actuators A: Physical, 2015, 236, 206-213.	2.0	20
32	Fluorescent Label-Free Aptasensor Integrated in a Lab-on-Chip System for the Detection of Ochratoxin A in Beer and Wheat. ACS Applied Bio Materials, 2019, 2, 5880-5887.	2.3	20
33	a-Si:H temperature sensor integrated in a thin film heater. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 708-711.	0.8	19
34	Metastability of hot-wire amorphous-silicon thin-film transistors. Journal of Non-Crystalline Solids, 2000, 266-269, 464-468.	1.5	15
35	Amorphous silicon photosensors integrated in microfluidic structures as a technological demonstrator of a Lab-on-Chip system. Sensing and Bio-Sensing Research, 2015, 3, 98-104.	2.2	15
36	High energy-barrier for defect creation in thin-film transistors based on hot-wire amorphous silicon. Applied Physics Letters, 1999, 75, 3674-3676.	1.5	14

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37	Improving the stability of amorphous silicon ultraviolet sensors. Thin Solid Films, 2007, 515, 7517-7521.	0.8	14
38	Integrated Optoelectronic Device for Detection of Fluorescent Molecules. IEEE Transactions on Biomedical Circuits and Systems, 2018, 12, 1337-1344.	2.7	14
39	On-chip real-time monitoring of multiple displacement amplification of DNA. Sensors and Actuators B: Chemical, 2019, 293, 16-22.	4.0	14
40	Amorphous silicon phototransistor as nonlinear optical device for high dynamic range imagers. IEEE Transactions on Electron Devices, 2002, 49, 395-399.	1.6	13
41	Implementation and Hardware-In-The-Loop Simulation of a Magnetic Detumbling and Pointing Control Based on Three-Axis Magnetometer Data. Aerospace, 2019, 6, 133.	1.1	13
42	Technologies for autonomous integrated lab-on-chip systems for space missions. Acta Astronautica, 2016, 128, 401-408.	1.7	12
43	Thermal control system based on thin film heaters and amorphous silicon diodes. , 2015, , .		11
44	An All-Glass Microfluidic Network with Integrated Amorphous Silicon Photosensors for on-Chip Monitoring of Enzymatic Biochemical Assay. Biosensors, 2017, 7, 58.	2.3	11
45	Integrated Sensor System for DNA Amplification and Separation Based on Thin Film Technology. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1141-1148.	1.4	11
46	Linear system models for lag in flat dynamic x-ray detectors. , 2005, , .		10
47	Two-Color Sensor for Biomolecule Detection. Sensor Letters, 2008, 6, 542-547.	0.4	10
48	Amorphous silicon balanced photodiode for detection of ultraviolet radiation. Sensors and Actuators A: Physical, 2009, 153, 1-4.	2.0	8
49	Electrowetting-on-dielectric system based on polydimethylsiloxane. , 2013, , .		8
50	On the relation between defect density and dopant concentration in amorphous silicon films. Journal of Non-Crystalline Solids, 2000, 266-269, 565-568.	1.5	7
51	Innovative design of amorphous/crystalline silicon heterojunction solar cell. Thin Solid Films, 2008, 516, 6771-6774.	0.8	7
52	Thermal characterization of a thin film heater on glass substrate for lab-on-chip applications. , 2014, , .		7
53	Amorphous silicon photosensors for on-chip detection in digital microfluidic system. Sensors and Actuators A: Physical, 2014, 216, 1-6.	2.0	7
54	On-chip detection performed by amorphous silicon balanced photosensor for lab-on chip application. Sensing and Bio-Sensing Research, 2015, 3, 53-58.	2.2	7

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55	Optoelectronic System for Mycotoxin Detection in Food Quality Control. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 1195-1202.	1.4	7
56	Reconfigurable S-Band Patch Antenna Radiation Patterns for Satellite Missions. , 2018, , .		7
57	On the Stability of Amorphous Silicon Temperature Sensors. IEEE Transactions on Electron Devices, 2020, 67, 3348-3354.	1.6	7
58	A new analytical model for the amorphous silicon bulk barrier phototransistor. Solid-State Electronics, 1998, 42, 339-348.	0.8	5
59	Microdoped and microcompensated amorphous silicon films for infrared detection. IEEE Photonics Technology Letters, 1998, 10, 1147-1149.	1.3	5
60	Study of the transient response of microcompensated amorphous silicon detector in the near infrared range. IEEE Transactions on Electron Devices, 1999, 46, 1140-1145.	1.6	5
61	Flat detector with integrated dose sensing. , 2003, 5030, 246.		5
62	Innovative window layer for amorphous silicon/amorphous silicon carbide UV sensor. Journal of Non-Crystalline Solids, 2006, 352, 1818-1821.	1.5	5
63	Chromatography system based on amorphous silicon sensor. Journal of Non-Crystalline Solids, 2008, 354, 2615-2618.	1.5	5
64	Modeling of the photo-response of a smart thin layer chromatography system. , 2011, , .		5
65	Fractional charge packet counting with constant relative resolution. International Journal of Circuit Theory and Applications, 2012, 40, 175-187.	1.3	5
66	Transparent Oxide/Metal/Oxide Thin Film Heater With Integrated Resistive Temperature Sensors. IEEE Sensors Journal, 2021, 21, 18847-18854.	2.4	5
67	Linear Photosensor Array for On-Chip Food Quality Control Based on Thin Layer Chromatography. Sensor Letters, 2010, 8, 465-469.	0.4	5
68	Split Aptamers Immobilized on Polymer Brushes Integrated in a Lab-on-Chip System Based on an Array of Amorphous Silicon Photosensors: A Novel Sensor Assay. Materials, 2021, 14, 7210.	1.3	5
69	Amorphous silicon thin film as tuneable and high sensitive photodetector in the UV and far UV spectral range. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 387, 243-245.	0.7	4
70	Accurate analog temperature control of a thin film microheater on glass substrate for lab-on-chip applications. , 2014, , .		4
71	DEMOCHEM: Integrated System for Mycotoxins Detection. Procedia Engineering, 2014, 87, 1354-1357.	1.2	4
72	Thermal characterization of thin film heater for lab-on-chip application. , 2015, , .		4

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73	The TIGRIsat camera A nanosatellite optical payload for detecting dust and sand storms. , 2015, , .		4
74	Chemiluminescence-Based Micro-Total-Analysis System with Amorphous Silicon Photodiodes. Lecture Notes in Electrical Engineering, 2014, , 207-211.	0.3	4
75	Sophie: A General Purpose Sub-Picoamps Current Readout Electronics. Lecture Notes in Electrical Engineering, 2015, , 285-289.	0.3	4
76	Innovative Amorphous Silicon Balanced Ultraviolet Photodiode. IEEE Electron Device Letters, 2008, 29, 1299-1301.	2.2	3
77	Multi-channel Very-low-noise Current Acquisition System with On-board Voltage Supply for Sensor Biasing and Readout. Procedia Engineering, 2014, 87, 1577-1580.	1.2	3
78	Improvement of the Thermal Resistance of Thin Film Heaters on Glass Substrate for Lab-on-Chip Applications. Procedia Engineering, 2014, 87, 959-962.	1.2	3
79	Thermally actuated microfluidic system for lab on chip applications. , 2015, , .		3
80	2-D digital microfluidic system for droplet handling using Printed Circuit Board technology. , 2015, , .		3
81	Thin Film Differential Photosensor for Reduction of Temperature Effects in Lab-on-Chip Applications. Sensors, 2016, 16, 267.	2.1	3
82	Integration of Capillary and EWOD Technologies for Autonomous and Low-power Consumption Micro-analytical Systems. Procedia Engineering, 2016, 168, 1370-1373.	1.2	3
83	Microfluidic cartridge with integrated array of amorphous silicon photosensors for chemiluminescence detection of viral DNA. Sensing and Bio-Sensing Research, 2016, 7, 127-132.	2.2	3
84	Experimental evidence of boron induced charged defects in amorphous silicon materials. Thin Solid Films, 1999, 348, 79-83.	0.8	2
85	Innovative Optoelectronic Approaches to Biomolecular Analysis with Arrays of Silicon Devices. , 2006, , .		2
86	On the fabrication and characterization of amorphous silicon ultra-violet sensor array. Thin Solid Films, 2009, 517, 6422-6425.	0.8	2
87	Amorphous silicon twin photodiode structure for differential current measurements. Thin Solid Films, 2009, 517, 6418-6421.	0.8	2
88	High dynamic range current-to-digital readout electronics for lab-on-chip applications. , 2011, , .		2
89	Detection of viral DNA by isothermal NASBA amplification and chemiluminescence gene probe hybridization assay in a microfluidic cartridge. Journal of Clinical Virology, 2015, 70, S91-S92.	1.6	2
90	Optical payload for high-resolution Earth imaging suitable for microsattelites. , 2015, , .		2

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91	Rapid prototyping of glass microfluidic chips based on autonomous capillary networks for physiological solutions. , 2015, , .		2
92	Portable detection system for Ochratoxin A by real time chromatography and a-Si:H photodiodes. , 2017, , .		2
93	Equivalent Electrical Model of a-Si:H Diodes for Lab-on-Chip Technology. , 2019, , .		2
94	Optoelectronic System-on-Glass for On-Chip Detection of Fluorescence. Lecture Notes in Electrical Engineering, 2018, , 143-149.	0.3	2
95	Modelling the interaction of the Astro Bio Cube Sat with the Van Allenâ€™s Belt radiative field using Monte Carlo transport codes. Radiation Detection Technology and Methods, 0, , 1.	0.4	2
96	A Novel Room Temperature Infrared Detector Using Micro-Compensated Amorphous Silicon. Materials Research Society Symposia Proceedings, 1998, 507, 219.	0.1	1
97	Near Infrared Response of Amorphous Silicon Detector Grown with Microcompensated Absorber Layer. Materials Research Society Symposia Proceedings, 1999, 557, 839.	0.1	1
98	Counting and Integrating Readout for Direct Conversion X-Ray Imaging - Concept, Realization and First Prototype Measurements. , 0, , .		1
99	An alternative system for mycotoxin detection based on amorphous silicon sensors. , 2007, , .		1
100	Charge to digital converter with constant resolution over the dynamic range. Nuclear Physics, Section B, Proceedings Supplements, 2009, 197, 302-305.	0.5	1
101	Amorphous silicon balanced photodiode for application in biomolecular analysis. , 2009, , .		1
102	Large area hybrid detector technology based on amorphous silicon photosensors. , 2009, , .		1
103	Performances of amorphous silicon photodiodes integrated in chemiluminescence based $\hat{I}^4$ -TAS. Proceedings of SPIE, 2013, , .	0.8	1
104	Amorphous silicon balanced photodiode for microfluidic applications. Proceedings of SPIE, 2013, , .	0.8	1
105	Multilayer integrated structure for selective detection of Ochratoxin A. , 2015, , .		1
106	Simultaneous measurement of light and temperature by a single amorphous silicon sensor. , 2015, , .		1
107	Drop position sensing in digital microfluidics based on capacitance measurement. , 2015, , .		1
108	Integration of Amorphous Silicon Balanced Photodiodes and Thin Film Heaters for Biosensing Application. Procedia Engineering, 2016, 168, 1434-1437.	1.2	1

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109	Lab-on-glass system for DNA treatments. , 2017, , .		1
110	Integrated System Based on Thin Film Technologies for Cell-Based Bioluminescence Assays. Proceedings (mdpi), 2017, 1, .	0.2	1
111	On-Glass Optoelectronic Platform for On-Chip Detection of DNA. Proceedings (mdpi), 2018, 2, 1014.	0.2	1
112	Development of an Electrochemiluminescence-based Lab-on-Chip Using Thin/Thick Film Technologies. , 2019, , .		1
113	Thin Film Sensor Platform for on-Chip Detection of Fluorescence-Based Aptamer Assay. , 2019, , .		1
114	Large-Area Thin Film Heater for Thermal Treatments in Lab-on-Chip. , 2021, , .		1
115	Amorphous Silicon Photosensors for Food Quality Control Applications. Lecture Notes in Electrical Engineering, 2015, , 249-253.	0.3	1
116	Amorphous Silicon Temperature Sensors Integrated with Thin Film Heaters for Thermal Treatments of Biomolecules. Lecture Notes in Electrical Engineering, 2018, , 183-193.	0.3	1
117	Micro-incubator Based on Lab-on-Glass Technology for Nanosatellite Missions. Lecture Notes in Electrical Engineering, 2020, , 83-89.	0.3	1
118	Non Linear Optical Gain in Bulk Barrier Amorphous Silicon Phototransistor. Materials Research Society Symposia Proceedings, 2000, 609, 1231.	0.1	0
119	A Junction Field Effect Transistor Based on Hydrogenated Amorphous Silicon. Materials Research Society Symposia Proceedings, 2000, 609, 3111.	0.1	0
120	Noise model of a-Si:H IR photodetectors. Journal of Non-Crystalline Solids, 2000, 266-269, 1193-1197.	1.5	0
121	Photocapacitance of Hydrogenated Amorphous Silicon Phototransistors. Materials Research Society Symposia Proceedings, 2001, 664, 2631.	0.1	0
122	Two-color amorphous silicon photodiode for multicolor detection of labeled DNA. , 2007, , .		0
123	Chromatographic System Based on Amorphous Silicon Photodiodes. , 2007, , .		0
124	Chromium silicide film on ceramic substrate for pressure measurement. Thin Solid Films, 2007, 515, 7647-7649.	0.8	0
125	Label-free DNA analysis system based on Lab-On-Glass technology. , 2008, , .		0
126	Detection system based on a novel large area hybrid detector. Microelectronics Journal, 2010, 41, 752-757.	1.1	0



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127	Characterization of the common mode rejection ratio of amorphous silicon balanced photodiode. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 1164-1167.	0.8	0
128	Stress-Induced Via Voiding in a 130-nm CMOS Imager Process. IEEE Transactions on Device and Materials Reliability, 2010, 10, 100-107.	1.5	0
129	Design of pixel electronics based on asynchronous self-reset approach with floating-point output representation for high dynamic range imagers. Journal of Instrumentation, 2011, 6, C01070-C01070.	0.5	0
130	Use of fractional packet counting for high dynamic range imaging applications. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 648, S146-S149.	0.7	0
131	Array of differential photodiodes for thermal effects minimization in biomolecular analysis. , 2015, , .		0
132	Integration of electrowetting technology inside an all-glass microfluidic network. , 2017, , .		0
133	Integration of Amorphous Silicon Photosensors with Thin Film Interferential Filter for Biomolecule Detection. Lecture Notes in Electrical Engineering, 2018, , 121-127.	0.3	0
134	Portable Optoelectronic System for Monitoring Enzymatic Chemiluminescent Reaction. Lecture Notes in Electrical Engineering, 2019, , 189-194.	0.3	0
135	On-Glass Integration of Thin Film Devices for Monitoring of Cell Bioluminescence. Lecture Notes in Electrical Engineering, 2019, , 45-51.	0.3	0
136	Design and Fabrication of Lab-on-chip for Fluorescence Detection of Ruthenium Complex. , 2019, , .		0
137	TECHNOLOGY OF LARGE AREA TWO-DIMENSIONAL COLOR IMAGE SENSOR. , 2000, , .		0
138	Detection of labelled DNA based on amorphous silicon devices. , 2008, , .		0
139	On The Realization Of Chromium Silicide Stress Sensor. , 2008, , .		0
140	Innovative Chromatographic System Based on Amorphous Silicon Sensors. Sensor Letters, 2008, 6, 537-541.	0.4	0
141	Thin Film Device for Background Photocurrent Rejection in Biomolecular Analysis Systems. Lecture Notes in Electrical Engineering, 2014, , 281-285.	0.3	0
142	Integrated Sensor based on a-Si:H Photodiodes and Diffused Glass Waveguides for Biomedical Applications. , 2017, , .		0
143	Design, Fabrication and Testing of a Capillary Microfluidic System with Stop-and-Go Valves Using EWOD Technology. Lecture Notes in Electrical Engineering, 2018, , 200-208.	0.3	0
144	Enhancement in PDMS-Based Microfluidic Network for On-Chip Thermal Treatment of Biomolecules. Lecture Notes in Electrical Engineering, 2018, , 99-106.	0.3	0

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145	Stability of Hydrogenated Amorphous Silicon Diodes as Thin Film Temperature Sensors. Lecture Notes in Electrical Engineering, 2020, , 259-264.	0.3	0
146	Innovative Optoelectronic Approaches to Biomolecular Analysis with Arrays of Silicon Devices. , 2008, , 37-53.		0