

Alessandro Fantoni

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

125
papers

477
citations

11
h-index

17
g-index

165
ext. papers

566
ext. citations

2.6
avg, IF

3.05
L-index

#	Paper	IF	Citations
125	Rib Waveguide Plasmonic Sensor for Lab-on-Chip Technology. <i>IFIP Advances in Information and Communication Technology</i> , 2022 , 187-196	0.5	
124	Thin Film Refractive Index and Thickness. <i>IFIP Advances in Information and Communication Technology</i> , 2020 , 179-188	0.5	
123	Computer simulation study about the dependence of amorphous silicon photonic waveguides efficiency on the material quality. <i>EPJ Applied Physics</i> , 2020 , 90, 30502	1.1	0
122	Characterization of AuNPs+rGO as a functionalized layer for LSPR sensors. <i>Materials Letters: X</i> , 2020 , 5, 100032	0.5	
121	Simulation of an Early Warning Fire System. <i>IFIP Advances in Information and Communication Technology</i> , 2019 , 305-317	0.5	
120	Plasmonic properties of gold nanospheres coupled to reduced graphene oxide for biosensing applications * 2019 ,		2
119	Indoor positioning and intuitive advertising using visible light communication 2019 ,		1
118	Bi-directional VLC LED-assisted navigation system for large indoor environments 2019 ,		1
117	A simulation analysis for dimensioning of an amorphous silicon planar waveguide structure suitable to be used as a surface plasmon resonance biosensor 2019 ,		1
116	Lithographic Mask Defects Analysis on an MMI 3 dB Splitter. <i>Photonics</i> , 2019 , 6, 118	2.2	1
115	Characterization of Plasmonic Effects in AuNP+rGO Composite as a Sensing Layer for a Low-cost Lab-on-chip Biosensor 2019 ,		1
114	Simulation and Analysis of Surface Plasmon Resonance Based Sensor. <i>IFIP Advances in Information and Communication Technology</i> , 2018 , 252-261	0.5	1
113	Finite-difference time-domain analysis of hydrogenated amorphous silicon and aluminum surface plasmon waveguides. <i>Optical Engineering</i> , 2018 , 57, 1	1.1	
112	A Simulation Study of Surface Plasmons in Metallic Nanoparticles: Dependence on the Properties of an Embedding a-Si:H Matrix. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018 , 215, 1700487	1.6	4
111	Analysis of metallic nanoparticles embedded in thin film semiconductors for optoelectronic applications. <i>Optical and Quantum Electronics</i> , 2018 , 50, 1	2.4	4
110	FDTD simulation of amorphous silicon waveguides for microphotonic applications 2017 ,		3
109	A model for the refractive index of amorphous silicon for FDTD simulation of photonics waveguides 2017 ,		2

108	Local Surface Plasmon Resonance of metallic nanoparticles embedded in amorphous silicon. <i>Ciência & Tecnologia Dos Materiais</i> , 2017 , 29, e146-e150		0
107	Simulation of localized surface plasmon in metallic nanoparticles embedded in amorphous silicon 2017 ,		1
106	VIS/NIR wavelength selector based on a multilayer pi'n/pin a-SiC:H optical filter. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2015 , 12, 1387-1392		
105	Logic functions based on optical bias controlled SiC tandem devices. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014 , 11, 211-216		2
104	Add/drop filters based on SiC technology for optical interconnects. <i>IOP Conference Series: Materials Science and Engineering</i> , 2014 , 56, 012008	0.4	
103	SiC pinpin photonic filters for linking the visible spectrum to the telecom gap. <i>Microelectronic Engineering</i> , 2014 , 126, 179-183	2.5	1
102	Simulation in Amorphous Silicon and Amorphous Silicon Carbide Pin Diodes. <i>IFIP Advances in Information and Communication Technology</i> , 2014 , 602-609	0.5	
101	Reconfigurable SiC Embedded Photonic Structures with Self Optical Bias Control. <i>Plasmonics</i> , 2013 , 8, 45-51	2.4	1
100	SiC Multilayer Structures as Light Controlled Photonic Active Filters. <i>Plasmonics</i> , 2013 , 8, 63-70	2.4	6
99	Integrated photonic filters based on SiC multilayer structures. <i>Applied Surface Science</i> , 2013 , 275, 185-192	2.7	2
98	Capacitive effects in pinpin photodiodes. <i>Microelectronic Engineering</i> , 2013 , 108, 195-199	2.5	2
97	Measurement of Photo Capacitance in Amorphous Silicon Photodiodes. <i>IFIP Advances in Information and Communication Technology</i> , 2013 , 547-554	0.5	1
96	Light-Activated Amplification in Si-C Tandem Devices: A Capacitive Active Filter Model. <i>IEEE Sensors Journal</i> , 2012 , 12, 1755-1762	4	29
95	DEMUX devices based on a-SiC:H. <i>Sensors and Actuators A: Physical</i> , 2012 , 186, 143-147	3.9	1
94	Novel device for implementation of WDM in the visible spectrum. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1438, 55		1
93	SiC multilayer photonic structures with self optical bias amplification. <i>Materials Research Society Symposia Proceedings</i> , 2012 , 1426, 229-235		2
92	SiC Multilayer Photonic Structures with Self Optical Bias Amplification. <i>International Federation for Information Processing</i> , 2012 , 511-518		
91	Photonics Active Filters Based on SiC Multilayer Structures: A Two Stage Active Circuit. <i>International Federation for Information Processing</i> , 2012 , 503-510		

90	Three Transducers Embedded into One Single SiC Photodetector: LSP Direct Image Sensor, Optical Amplifier and Demux Device 2011 ,		4
89	Semiconductor device as optical demultiplexer for short range optical communications. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 5318-22	1.3	3
88	Detection of change in fluorescence between reactive cyan and the yellow fluorophores using a-SiC:H multilayer transducers. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 8657-62	1.3	
87	Multilayer architectures based on a-SiC:H material: tunable wavelength filters in optical processing devices. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 5299-304	1.3	3
86	Photo-sensing devices using a-Si based materials. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 1079-1082		1
85	Light-triggered silicon-carbon p ⁺ n ⁺ pin devices with self amplification. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011 , 8, 1083-1086		
84	Optical bias controlled amplification in tandem Si-C pinpin devices. <i>Materials Research Society Symposia Proceedings</i> , 2011 , 1321, 417		
83	FDTD Simulation of Light Propagation Inside a-Si:H Structures. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1245, 1		2
82	Reviewing Photo-sensing Devices Using a-SiC Based Materials. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1245, 1		
81	a-SiC:H Based Devices as Optical Demultiplexers. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1246, 1		
80	Light-triggered Silicon-carbon Pi ⁺ n ⁺ pin Devices for Optical Communications: Theoretical and Electrical Approaches. <i>Materials Research Society Symposia Proceedings</i> , 2010 , 1245, 1		
79	Optical processing devices based on a-SiC:H multilayer architectures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010 , 7, NA-NA		2
78	Voltage controlled amorphous Si/SiC photodiodes and phototransistors as wavelength selective devices: Theoretical and electrical approaches. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1153, 1		8
77	Modeling a-SiC:H tandem pinpin and pinip photodiodes for color sensor application. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 4028-33	1.3	1
76	Fine Tuning of the Spectral Sensitivity in a-SiC:H Stacked p-i ⁺ n Graded Cells. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1153, 1		
75	Optical Processing Devices for Optical Communications: Multilayered a-SiC:H Architectures. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1153, 1		
74	a-Si:H p ⁺ i ⁺ n structures with extreme i-layer thickness. <i>Thin Solid Films</i> , 2009 , 517, 6426-6429	2.2	
73	Large area double p ⁺ i ⁺ n heterostructure for signal multiplexing and demultiplexing in the visible range. <i>Thin Solid Films</i> , 2009 , 517, 6435-6439	2.2	5

72	Optical multiplexer for short range communications. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2009 , 41, 1082-1085	3	13
71	Photocurrent and spectral response analysis of a-SiC:H pinip and pinpin photodiodes. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 4254-8	1.3	
70	Pinpi'n and pinpii'n multilayer devices with voltage controlled optical readout. <i>Journal of Nanoscience and Nanotechnology</i> , 2009 , 9, 4022-7	1.3	15
69	Non-selective optical wavelength-division multiplexing devices based on a-SiC:H multilayer heterostuctures. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1076, 1		
68	Improvement in pinpin Device Architectures for Imaging Applications. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1066, 1		
67	Multilayered a-SiC:H device for Wavelength-Division (de)Multiplexing applications in the visible spectrum. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1066, 1		2
66	Spectral response characterization of a-Si:H-based MIS-type photosensors. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2008 , 5, 3410-3413		3
65	Analysis and simulation of a-Si:H/a-SiC:H PINIP structures for color image detection. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2008 , 205, 2069-2074	1.6	1
64	Self-biasing effect in colour sensitive photodiodes based on double p-i-n a-SiC:H heterojunctions. <i>Vacuum</i> , 2008 , 82, 1512-1516	3.7	26
63	Bias sensitive multispectral structures for imaging applications. <i>Thin Solid Films</i> , 2007 , 515, 7566-7570	2.2	11
62	Preliminary Results on Large Area X-ray a-SiC:H Multilayer Detectors with Optically Addressed Readout. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 989, 2		1
61	Photocurrent Profile in a-SiC:H Monolithic Tandem Pinpin and Pinip Photodiodes. <i>Materials Research Society Symposia Proceedings</i> , 2007 , 989, 12		
60	An amorphous SiC/Si image photodetector with voltage-selectable spectral response. <i>Thin Solid Films</i> , 2006 , 511-512, 167-171	2.2	8
59	Light Filtering Properties in a-SiC:H Multilayer Structures: A SPICE model. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 910, 1		
58	Band Gap Engineering and Electrical Field Tailoring for Voltage Controlled Spectral Sensitivity. <i>Materials Research Society Symposia Proceedings</i> , 2006 , 910, 2		
57	Light filtering in a-SiC:H multilayers stacked devices using the LSP technique. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1809-1812	3.9	1
56	Spice model for a laser scanned photodiode tricolor image sensor. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1813-1817	3.9	1
55	a-SiC:H/a-Si:H tandem structure analysis for RGB color recognition in LSP devices. <i>Journal of Non-Crystalline Solids</i> , 2006 , 352, 1805-1808	3.9	

54	Colour filtering in a-SiC:H based p-i-n-p-i-n cells: A trade-off between bias polarity and absorption regions. <i>Sensors and Actuators A: Physical</i> , 2006 , 132, 218-223	3.9	1
53	Bias sensitive spectral sensitivity in double a-SiC:H pin structures. <i>Superlattices and Microstructures</i> , 2006 , 40, 619-625	2.8	
52	Fine-tuning of the spectral collection efficiency in multilayer junctions. <i>Thin Solid Films</i> , 2006 , 511-512, 84-88	2.2	
51	Tuning the spectral distribution of p ⁺ i ⁻ n a-SiC:H devices for colour detection. <i>Sensors and Actuators A: Physical</i> , 2005 , 120, 88-93	3.9	1
50	Image and color recognition using amorphous silicon p ⁺ i ⁻ n photodiodes. <i>Sensors and Actuators A: Physical</i> , 2005 , 123-124, 326-330	3.9	7
49	A two terminal optical signal and image processing p ⁺ i ⁻ n/p ⁺ i ⁻ n image and colour sensor. <i>Sensors and Actuators A: Physical</i> , 2005 , 123-124, 331-336	3.9	3
48	Enhanced short wavelength response in laser-scanned-photodiode image sensor using an a-SiC:H/a-Si:H tandem structure. <i>Sensors and Actuators A: Physical</i> , 2005 , 123-124, 343-348	3.9	2
47	Image and color sensitive detector based on double p-i-n/p-i-n a-SiC:H photodiode. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 862, 1341		12
46	Fine-Tuning of the Spectral Collection Efficiency in a Multilayer Junction Through the LSP Technique. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 872, 1		
45	Spectral Sensitivity and Color Selectivity in Multilayer Stacked Devices. <i>Materials Research Society Symposia Proceedings</i> , 2005 , 862, 921		1
44	A real-time optical signal and image processing p-i-n/p-i-n device. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 808, 257		
43	Stacked a-SiC:H Optical Transducers: the Influence of the Sensing Material. <i>Materials Science Forum</i> , 2004 , 455-456, 81-85	0.4	1
42	High Sensitive Image Sensors Based on a Tandem Laser Scanned Photodiode. <i>Materials Science Forum</i> , 2004 , 455-456, 91-95	0.4	
41	Large area single and stacked p-i-n photodiodes as a color image sensors. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 815, 100		
40	Two terminal large area single and double p-i-n devices for image and color recognition. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 808, 251		
39	Optical confinement and colour separation in a double colour laser scanned photodiode (D/CLSP). <i>Sensors and Actuators A: Physical</i> , 2004 , 114, 219-223	3.9	2
38	A non-pixel image reader for continuous image detection based on tandem heterostructures. <i>Sensors and Actuators A: Physical</i> , 2004 , 115, 191-195	3.9	
37	a-SiC:H/a-Si:H tandem photodiodes: a numerical simulation. <i>Sensors and Actuators A: Physical</i> , 2004 , 113, 324-328	3.9	3

36	Sensor element for a metal-insulator-semiconductor camera system (MISCam). <i>Sensors and Actuators A: Physical</i> , 2004 , 115, 331-335	3.9	3
35	Optoelectronic characterization of a-SiC:H stacked devices. <i>Journal of Non-Crystalline Solids</i> , 2004 , 338-340, 345-348	3.9	7
34	Optically addressed read/write device based on tandem heterostructure. <i>Journal of Non-Crystalline Solids</i> , 2004 , 338-340, 754-757	3.9	4
33	Stacked n-i-p-n-i-p Heterojunctions for Image Recognition. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 762, 18131		11
32	Bias controlled spectral sensitivity in a-SiC:H p-i-n devices. <i>Thin Solid Films</i> , 2003 , 427, 196-200	2.2	2
31	Biometric system based on one single large area a-SiC:H p-i-n photodiode. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 722, 1061		
30	Influence of the intrinsic layer characteristics on a-Si:H p-i-n solar cell performance analysed by means of a computer simulation. <i>Solar Energy Materials and Solar Cells</i> , 2002 , 73, 151-162	6.4	28
29	A new CLSP Sensor for Image Recognition and Color Separation. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 715, 431		10
28	Image capture devices based on p-i-n silicon carbides for biometric applications. <i>Journal of Non-Crystalline Solids</i> , 2002 , 299-302, 1245-1249	3.9	21
27	Photocurrent response time scanner. <i>Journal of Non-Crystalline Solids</i> , 2002 , 299-302, 1261-1266	3.9	
26	Dependence of the Lateral Photoeffect in a-Si:H P-I-N Structures on the Material Characteristics Studied by Means of a Numerical Simulation. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 715, 771		5
25	Analysis of the Bias Dependent Spectral Response of a-SiC:H p-i-n Photodiode. <i>Materials Research Society Symposia Proceedings</i> , 2002 , 715, 731		
24	LSP image sensors based on SiC heterostructures. <i>Applied Surface Science</i> , 2001 , 184, 471-476	6.7	5
23	Influence of the band offset on the performance of photodevices based on the c-Si/a-Si:H heterostructure. <i>Thin Solid Films</i> , 2001 , 383, 314-317	2.2	10
22	Controlling the Lateral Photoeffect in a-Si:H Heterojunction Structures: The Influence of the Band Offset Analysed Through A Numerical Simulation. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 664, 25111		9
21	Inhomogeneous transport in microcrystalline p-i-n devices. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 2000 , 80, 755-764		9
20	Influence of the Grain Boundary Band Offset on Charge Transport Mechanism in Microcrystalline Silicon Analysed by Numerical Simulation. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 609, 2721		
19	VIS/NIR detector based on a-Si:H p-i-n structures. <i>Thin Solid Films</i> , 2000 , 364, 204-208	2.2	3

18	A 3-phase model for VIS/NIR μ -Si:H p <i>n</i> detectors. <i>Sensors and Actuators A: Physical</i> , 2000 , 85, 175-180	3.9	
17	A three-path model for visible/near infrared μ -Si:H p <i>n</i> detectors. <i>Journal of Non-Crystalline Solids</i> , 2000 , 266-269, 1223-1227	3.9	
16	Transport properties in microcrystalline silicon solar cells under AM1.5 illumination analysed by two-dimensional numerical simulation. <i>Solid-State Electronics</i> , 1999 , 43, 1709-1714	1.7	3
15	Visible-infrared spectral response of microcrystalline hydrogenated silicon hetero-junctions. <i>Vacuum</i> , 1999 , 52, 121-124	3.7	2
14	Transport properties of μ -Si:H analyzed by means of numerical simulation. <i>Thin Solid Films</i> , 1999 , 337, 109-112	2.2	2
13	Simulation of hydrogenated amorphous and microcrystalline silicon optoelectronic devices. <i>Mathematics and Computers in Simulation</i> , 1999 , 49, 381-401	3.3	44
12	Anisotropic Transport in Microcrystalline P-I-N Devices. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 557, 549		2
11	Photocurrent in Microcrystalline Hydrogenated Silicon P-I-N Devices. <i>Materials Research Society Symposia Proceedings</i> , 1998 , 507, 193		1
10	Bidimensional Numerical Analysis of A μ -Si:H P-I-N Photodiode under Local Illumination. <i>Materials Research Society Symposia Proceedings</i> , 1997 , 467, 765		5
9	Wide spectral response in μ -Si:H photodiodes. <i>Thin Solid Films</i> , 1997 , 296, 164-167	2.2	16
8	Modelling a μ -Si:H p-i-n device under non-uniform illumination. <i>Thin Solid Films</i> , 1997 , 296, 110-113	2.2	1
7	Amorphous and microcrystalline silicon p-i-n optical speed sensors based on the flying spot technique. <i>Journal of Non-Crystalline Solids</i> , 1996 , 198-200, 1193-1197	3.9	
6	On the a-Si:H film growth: the role of the powder formation. <i>Journal of Non-Crystalline Solids</i> , 1996 , 198-200, 1207-1211	3.9	8
5	A two-dimensional numerical simulation of a non-uniformly illuminated amorphous silicon solar cell. <i>Journal Physics D: Applied Physics</i> , 1996 , 29, 3154-3159	3	18
4	Hydrogenated Amorphous Silicon Speed Sensor Based on the Flying Spot Technique. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 377, 839		3
3	Modelling Heteroface of P.I.N Solar Cells for Improving Stability. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 336, 711		10
2	AD-Layer for Spatial Control of Light Induced Degradation on Pin Devices. <i>Materials Research Society Symposia Proceedings</i> , 1994 , 336, 741		
1	Tailoring defects on amorphous silicon pin devices. <i>Journal of Non-Crystalline Solids</i> , 1993 , 164-166, 671-674		13

