Marco Balucani

List of Publications by Year in descending order

106 papers	715 citations	623734 14 h-index	677142 22 g-index
106 all docs	106 docs citations	106 times ranked	591 citing authors

#	Article	IF	Citations
1	Development of Micro-Grippers for Tissue and Cell Manipulation with Direct Morphological Comparison. Micromachines, 2015, 6, 1710-1728.	2.9	61
2	MEMS-Based Conjugate Surfaces Flexure Hinge. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	2.9	54
3	Operational characterization of CSFH MEMS technology based hinges. Journal of Micromechanics and Microengineering, 2018, 28, 055012.	2.6	32
4	Electrochemical Deposition and Characterization of Ni in Mesoporous Silicon. Journal of the Electrochemical Society, 2012, 159, D623-D627.	2.9	27
5	Electrochemical and hydrothermal deposition of ZnO on silicon: from continuous films to nanocrystals. Journal of Nanoparticle Research, 2011, 13, 5985-5997.	1.9	25
6	Aluminum-silicon Interdiffusion in Screen Printed Metal Contacts for Silicon based Solar Cells Applications. Energy Procedia, 2013, 43, 100-110.	1.8	24
7	Multilayer structures induced by plasma and laser beam treatments on a-Si:H and a-SiC:H thin films. Thin Solid Films, 2001, 383, 230-234.	1.8	23
8	Comparative study of initial stages of copper immersion deposition on bulk and porous silicon. Nanoscale Research Letters, 2013, 8, 85.	5.7	20
9	Oxidized Porous Silicon: From Dielectric Isolation to Integrated Optical Waveguides. Journal of Porous Materials, 2000, 7, 215-222.	2.6	19
10	Nanostructures formed by displacement of porous silicon with copper: from nanoparticles to porous membranes. Nanoscale Research Letters, 2012, 7, 477.	5.7	18
11	Self-aligned oxidised porous silicon optical waveguides with reduced loss. Electronics Letters, 2000, 36, 722.	1.0	17
12	Mechanical strength of porous silicon and its possible applications. Superlattices and Microstructures, 2008, 44, 374-377.	3.1	17
13	Formation of composite nanostructures by corrosive deposition of copper into porous silicon. Superlattices and Microstructures, 2008, 44, 583-587.	3.1	15
14	On-chip THz 3D antennas. , 2012, , .		15
15	Porous Silicon: A Buffer Layer for PbS Heteroepitaxy. Physica Status Solidi A, 2000, 182, 195-199.	1.7	14
16	Electrochemical Deposition of Ni into Mesoporous Silicon. ECS Transactions, 2012, 41, 111-118.	0.5	14
17	Electroplated contacts and porous silicon for silicon based solar cells applications. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2015, 194, 78-85.	3.5	13
18	Properties of ZrO2 thin films prepared by laser ablation. Materials Science in Semiconductor Processing, 2002, 5, 253-257.	4.0	12

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19	Properties of zirconium silicate thin films prepared by laser ablation. Materials Science in Semiconductor Processing, 2004, 7, 209-214.	4.0	12
20	Recent progress in integrated waveguides based on oxidized porous silicon. Optical Materials, 2005, 27, 776-780.	3.6	12
21	A Class-AB/D Audio Power Amplifier for Mobile Applications Integrated Into a 2.5G/3G Baseband Processor. IEEE Transactions on Circuits and Systems I: Regular Papers, 2010, 57, 1003-1016.	5.4	12
22	New Selective Processing Technique for Solar Cells. Energy Procedia, 2013, 43, 54-65.	1.8	12
23	Electric Field Enhancement in 3-D Tapered Helix Antenna for Terahertz Applications. IEEE Transactions on Terahertz Science and Technology, 2014, 4, 360-367.	3.1	12
24	Kinetostatic optimization of a MEMS-based compliant 3 DOF plane parallel platform. , 2013, , .		11
25	Fine structure of photoluminescence spectra from erbium incorporated with iron in oxidized porous silicon. Physica Status Solidi A, 2003, 197, 441-445.	1.7	10
26	The development of a MEMS/NEMS-based 3 D.O.F. compliant micro robot. , 2010, , .		10
27	Design, optimization and construction of MEMS-based micro grippers for cell manipulation. , 2013, , .		10
28	200 MHz optical signal modulation from a porous silicon light emitting device. Applied Physics Letters, 1998, 72, 639-640.	3.3	9
29	Bending properties in oxidized porous silicon waveguides. Materials Science in Semiconductor Processing, 2000, 3, 351-355.	4.0	9
30	Formation of intermediate SiCN interlayer during deposition of CNx on a-Si:H or a-SiC:H thin films. Applied Surface Science, 2001, 184, 96-100.	6.1	9
31	Optimization of Chemical Displacement Deposition of Copper on Porous Silicon. Journal of Nanoscience and Nanotechnology, 2012, 12, 8725-8731.	0.9	9
32	A model of radiative recombination in n-type porous siliconâ€“aluminum Schottky junction. Applied Physics Letters, 1999, 74, 1960-1962.	3.3	8
33	Er-doped oxidised porous silicon waveguides. Thin Solid Films, 2001, 396, 202-204.	1.8	7
34	Microthrusters in silicon for aerospace application. IEEE Aerospace and Electronic Systems Magazine, 2002, 17, 22-27.	1.3	7
35	Performance Analysis of Compliant MEMS Parallel Robots Through Pseudo-Rigid-Body Model Synthesis. , 2012, , .		7
36	Luminescence from porous silicon doped with erbiumâ€“ytterbium complexes. Journal of Luminescence, 1998, 80, 395-398.	3.1	6

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37	Cu-Si Nanocomposites Based on Porous Silicon Matrix. Solid State Phenomena, 2009, 151, 222-226.	0.3	6
38	Terahertz Sensor for Integrated Image Detector. Procedia Engineering, 2014, 87, 1131-1134.	1.2	6
39	Silicon Emitting Device Will Knock Down Communication Bottleneck?. Solid State Phenomena, 1997, 54, 8-12.	0.3	5
40	Characterization of silicon LEDs integrated with oxidized porous silicon SOI. Microelectronic Engineering, 1997, 36, 115-118.	2.4	5
41	X-ray diffractometry of Si epilayers grown on porous silicon. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2002, 91-92, 445-448.	3.5	5
42	Technological aspects of oxidated porous silicon waveguides. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 586-590.	2.7	5
43	Photoluminescence from erbium incorporated in oxidized porous silicon. Optical Materials, 2005, 27, 894-899.	3.6	5
44	Technology and design of innovative flexible electrode for biomedical applications. , 2011, , .		5
45	Smart flexible planar electrodes for electrochemotherapy and biosensing. , 2013, , .		5
46	New selective wet processing. , 2013, , .		5
47	High-amplitude high-frequency oscillations of temperature, electronâ€“hole pair concentration, and current in silicon-on-insulator structures. Journal of Applied Physics, 2000, 88, 6554-6559.	2.5	4
48	Buffer layer influence on guiding properties of oxidized porous silicon waveguides. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 574-579.	2.7	4
49	Electroplated Nickel/Tin Solder Pads for Rear Metallization of Solar Cells. IEEE Journal of Photovoltaics, 2016, 6, 404-411.	2.5	4
50	Humidity Sensor Based on Partially Oxidized Porous Silicon. Solid State Phenomena, 1997, 54, 75-85.	0.3	3
51	Characterization of Porous Silicon Light Emitting Diodes in High Current Density Conditions. Solid State Phenomena, 1997, 54, 21-26.	0.3	3
52	Investigation of Morphology of Porous Silicon Formed on N+ Type Silicon. Journal of Porous Materials, 2000, 7, 23-26.	2.6	3
53	Gettering Technology Based on Porous Silicon. Solid State Phenomena, 2001, 82-84, 405-410.	0.3	3
54	High density compliant contacting technology for integrated high power modules in automotive applications. , 2012, , .		3

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55	Development of a MEMS technology CSFH based microgripper. , 2014, , .		3
56	Design of a Tri-Axial Surface Micromachined MEMS Vibrating Gyroscope. Sensors, 2020, 20, 2822.	3.8	3
57	Formation Features of Deposits during a Cathode Treatment of Porous Silicon in Aqueous Solutions of Erbium Salts. Journal of the Electrochemical Society, 2000, 147, 655.	2.9	2
58	Visible photoluminescence of zinc oxide films electrochemically deposited on silicon substrates. Technical Physics Letters, 2009, 35, 1160-1162.	0.7	2
59	Transfer layer technology for the packaging of high power modules. , 2010, , .		2
60	A novel micromachined loudspeaker topology. , 2011, , .		2
61	Characterization of Copper Nanostructures Grown on Porous Silicon by Displacement Deposition. ECS Transactions, 2012, 41, 13-22.	0.5	2
62	Localized metal plating on aluminum back side PV cells. , 2014, , .		2
63	High uniformity and high speed copper pillar plating technique. , 2014, , .		2
64	Porous silicon technology, a breakthrough for silicon photonics: From packaging to monolithic integration. , 2014, , .		2
65	Realization of 3D silicon structures using a DRIE technique. , 2015, , .		2
66	STRONG ROOM-TEMPERATURE PHOTOLUMINESCENCE OF Er-Yb COMPLEXES EMBEDDED IN POROUS SILICON. , 1997, , .		2
67	Visible and IR Photoluminescence of Erbium Doped Porous Silicon Films. Solid State Phenomena, 1997, 54, 94-100.	0.3	1
68	Amorphous Silicon Photodetectors for Silicon Based Optical Waveguides. Solid State Phenomena, 1997, 54, 45-49.	0.3	1
69	Optical link for digital transmissions using porous silicon light emitting diode. Journal of Non-Crystalline Solids, 2000, 266-269, 1238-1240.	3.1	1
70	Model of the drain current saturation in long-gate JFETs and MESFETs. Solid-State Electronics, 2005, 49, 1251-1254.	1.4	1
71	Power Management Unit for a Ground Referenced audio amplifier for mobile phones in 65nm CMOS. , 2010, , .		1
72	4.55GHz phase and quadrature pulsed bias VCO in 40nm CMOS technology. , 2011, , .		1

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73	A novel series-parallel inverting charge pump topology in 40nm CMOS technology. , 2011, , .		1
74	ZnO Films and Crystals on Bulk Silicon and SOI Wafers: Formation, Properties and Applications. Advanced Materials Research, 0, 276, 3-19.	0.3	1
75	Electrochemical deposition of zinc oxide on a thin nickel buffer layer on silicon substrates. Electrochimica Acta, 2011, 56, 4031-4036.	5.2	1
76	Gold in Flux-less Bonding: Noble or not Noble. Materials Research Society Symposia Proceedings, 2011, 1299, 1.	0.1	1
77	Hydrogen storage materials for microthrusters: Basic performance analysis. Acta Astronautica, 2012, 80, 52-57.	3.2	1
78	60 GHz tapered-helix antenna for WPAN applications. , 2012, , .		1
79	Nano-klystron: New design and technology for THz source. , 2013, , .		1
80	Electrochemically etched TSV for porous silicon interposer technologies. , 2013, , .		1
81	Dielectric lens optimization for conical helix THz antennas. , 2014, , .		1
82	A new approach: Low cost masking material and efficient copper metallization for higher efficiency silicon solar cells. , 2015, , .		1
83	AMPERE: An European project aimed to decrease the Levelized Cost of Energy with innovative heterojunction bifacial module solution ready for the market.. , 2018, , .		1
84	INTEGRATED OPTICAL WAVEGUIDES BASED ON POROUS SILICON: STATE-OF-THE-ART AND OUTLOOK FOR PROGRESS. , 1999, , .		1
85	Light Emission Characterization of Al-Porous Silicon Schottky Junction. Solid State Phenomena, 1997, 54, 37-44.	0.3	0
86	Characterization of integrated optical waveguides based on oxidized porous silicon. , 1998, , .		0
87	Amorphous silicon photodetectors for optical integrated circuits. , 1998, , .		0
88	Laser treatment of a-SiC:H thin films for optoelectronic applications. , 1998, , .		0
89	Multilayer structures deposited by laser ablation. Sensors and Actuators A: Physical, 1999, 74, 27-30.	4.1	0
90	High-amplitude and high-frequency oscillations of temperature and current in SOI structure. Microelectronic Engineering, 1999, 48, 343-346.	2.4	0

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91	Similarity relation for Iâ€“V characteristics of FETs with different channel shape. Solid-State Electronics, 2000, 44, 1865-1867.	1.4	0
92	Influence of a-Si:H buffer layers on the properties of CN x materials. , 2001, 4430, 748.		0
93	Oxidized porous silicon waveguides losses. , 2001, , .		0
94	Propagation Losses in Curved Integrated Optical Waveguides Based on Oxidized Porous Silicon. Technical Physics Letters, 2005, 31, 225.	0.7	0
95	SEM AND XRD STUDY OF COPPER/POROUS SILICON NANOCOMPOSITES. , 2009, , .		0
96	FEATURES OF THE NICKEL ELECTROCHEMICAL DEPOSITION INTO MESOPOROUS SILICON. , 2009, , .		0
97	Editorial of the Special Issue of Microelectronics Journal on the IEEE International MOS-AK/GSA Workshop on Compact Modeling 2010 (MOS-AK/GSA Rome 2010). Microelectronics Journal, 2013, 44, 1-2.	2.0	0
98	3D Antenna for GHz application and vibration energy harvesting. , 2013, , .		0
99	Oxidized Porous Silicon Based SOI: Untapped Resources. , 2002, , 309-327.		0
100	COMPOSITE NANOSTRUCTURES BASED ON POROUS SILICON HOST. , 2003, , .		0
101	PHOTOLUMINESCENCE EXCITATION SPECTROSCOPY OF ERBIUM INCORPORATED WITH IRON IN OXIDIZED POROUS SILICON. , 2003, , .		0
102	IMMERSION DISPLACEMENT DEPOSITION OF COPPER ON POROUS SILICON FOR NANOSTRUCTURE FABRICATION. , 2011, , .		0
103	MULTILAYER STRUCTURE OF DENSE ANODIC ALUMINA FILMS. , 2013, , .		0
104	A Breakthrough in Pb-Free Solder Electroplating. ECS Meeting Abstracts, 2018, , .	0.0	0
105	Dynamic Liquid Drop/Meniscus: A New Route to Electrodeposition. ECS Meeting Abstracts, 2019, , .	0.0	0
106	A New Electrodeposition Approach for Multicomponent Solder Alloys. ECS Meeting Abstracts, 2020, MA2020-01, 1232-1232.	0.0	0