

# Marcelo Nelson PÃ¡ez CarreÃ±o

## List of Publications by Year in descending order

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50  
papers

653  
citations

567281

15  
h-index

610901

24  
g-index

50  
all docs

50  
docs citations

50  
times ranked

481  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thick SiO <sub>x</sub> N <sub>y</sub> and SiO <sub>2</sub> films obtained by PECVD technique at low temperatures. <i>Thin Solid Films</i> , 1998, 332, 40-45.	1.8	58
2	Microvoids in diamond-like amorphous silicon carbide. <i>Journal of Applied Physics</i> , 1994, 75, 538-542.	2.5	51
3	Wide optical band gap window layers for solar cells. <i>Solar Energy Materials and Solar Cells</i> , 2001, 66, 155-162.	6.2	46
4	The influence of "starving plasma" regime on carbon content and bonds in a-Si <sub>1-x</sub> C <sub>x</sub> :H thin films. <i>Journal of Applied Physics</i> , 1998, 84, 2371-2379.	2.5	44
5	On the structural properties of a-Si <sub>1-x</sub> C <sub>x</sub> :H thin films. <i>Journal of Applied Physics</i> , 1996, 79, 1324-1329.	2.5	36
6	Low temperature plasma enhanced chemical vapour deposition boron nitride. <i>Thin Solid Films</i> , 1997, 308-309, 219-222.	1.8	35
7	Evidence of quantum size effects in a-Si:H/a-SiC <sub>x</sub> :H superlattices. Observation of negative resistance in double barrier structures. <i>Journal of Non-Crystalline Solids</i> , 1987, 97-98, 871-874.	3.1	31
8	Post thermal annealing crystallization and reactive ion etching of SiC films produced by PECVD. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1392-1397.	3.1	31
9	Wide gap a-Si <sub>1-x</sub> C <sub>x</sub> :H thin films obtained under starving plasma deposition conditions. <i>Journal of Non-Crystalline Solids</i> , 1996, 201, 110-118.	3.1	30
10	PECVD-SiO <sub>x</sub> N <sub>y</sub> films for large area self-sustained grids applications. <i>Sensors and Actuators A: Physical</i> , 2002, 100, 295-300.	4.1	26
11	Mechanical properties of boron nitride thin films obtained by RF-PECVD at low temperatures. <i>Thin Solid Films</i> , 2000, 373, 273-276.	1.8	23
12	Self-sustained bridges of a-SiC:H films obtained by PECVD at low temperatures for MEMS applications. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 490-495.	3.1	21
13	Ultrasensitive microfluidic electrochemical immunosensor based on electrodeposited nanoporous gold for SOX-2 determination. <i>Analytica Chimica Acta</i> , 2020, 1127, 122-130.	5.4	21
14	Fabrication of PECVD-silicon oxynitride-based optical waveguides. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 112, 154-159.	3.5	18
15	N and p-type doping of PECVD a-SiC:H obtained under "silane starving plasma" condition with and without hydrogen dilution. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2006, 128, 44-49.	3.5	15
16	Membranes of SiO <sub>x</sub> N <sub>y</sub> with 3D topography formed by PECVD for MEMS applications. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 788-792.	3.1	12
17	Thermally actuated a-SiC:H MEMS fabricated by a PECVD process. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1822-1828.	3.1	12
18	Amorphous and excimer laser annealed SiC films for TFT fabrication. <i>Solid-State Electronics</i> , 2006, 50, 241-247.	1.4	12

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19	Negative resistance in a-SiC <sub>x</sub> :H double barrier devices – frequency dependence. Journal of Non-Crystalline Solids, 1989, 114, 762-764.	3.1	11
20	N-type doping in PECVD a-Si <sub>1-x</sub> C <sub>x</sub> :H obtained under 'starving plasma' condition. Journal of Non-Crystalline Solids, 1998, 227-230, 483-487.	3.1	11
21	Miniature Planar Fluxgate Magnetic Sensors Using a Single Layer of Coils. IEEE Sensors Journal, 2015, 15, 2365-2369.	4.7	11
22	Negative conductance and sequential tunneling in amorphous silicon-silicon carbide double barrier devices. Journal of Non-Crystalline Solids, 1989, 110, 175-178.	3.1	10
23	PECVD a-SiC <sub>x</sub> :H Young's modulus obtained by MEMS resonant frequency. Journal of Non-Crystalline Solids, 2008, 354, 2359-2364.	3.1	8
24	p-Type doping in a-Si <sub>1-x</sub> C <sub>x</sub> :H obtained by PECVD. Journal of Non-Crystalline Solids, 2000, 266-269, 699-703.	3.1	7
25	Preparation and characterization of nanocrystalline h-BN films prepared by PECVD method. Brazilian Journal of Physics, 2002, 32, 372-375.	1.4	7
26	Structural and electrical properties of low-temperature PECVD SiC/c-Si heterostructures. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 112, 144-146.	3.5	7
27	Effect of plasma etching, carbon concentration, and buffer layer on the properties of a-Si <sub>1-x</sub> C <sub>x</sub> :H/a-Si <sub>1-x</sub> C <sub>x</sub> :H multilayers. Journal of Applied Physics, 1994, 75, 543-548.	2.5	6
28	Challenges to implementing a ballast water remote monitoring system. Ocean and Coastal Management, 2016, 131, 25-38.	4.4	6
29	Mechanical and thermophysical properties of PECVD oxynitride films measured by MEMS. Thin Solid Films, 2001, 398-399, 626-631.	1.8	5
30	Integration of optical waveguides with micro-incandescent light. Journal of Non-Crystalline Solids, 2008, 354, 2538-2543.	3.1	5
31	Integral thin film technology amorphous silicon image sensor. Journal of Non-Crystalline Solids, 1989, 115, 90-92.	3.1	4
32	Highly ordered amorphous silicon-carbon alloys obtained by RF PECVD. Brazilian Journal of Physics, 2000, 30, 533-540.	1.4	4
33	Hydrogen effusion from highly-ordered near-stoichiometric a-SiC <sub>x</sub> :H. Journal of Non-Crystalline Solids, 2004, 338-340, 70-75.	3.1	4
34	Modification of electrode materials for plasma torches. Surface and Coatings Technology, 2005, 200, 254-257.	4.8	3
35	Complete Microfluidic System Fabricated in Glass Substrates. ECS Transactions, 2008, 14, 47-56.	0.5	3
36	Piezoelectric Stimulation of Microcantilever Beams for Young's Modulus Determination of Amorphous Hydrogenated Silicon Carbide. ECS Transactions, 2008, 14, 63-71.	0.5	3

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37	Simulator for Microfluidics Based on the Lattice Boltzmann Method. ECS Transactions, 2011, 39, 461-468.	0.5	3
38	Simulation of PECVD SiO <sub>2</sub> Deposition Using a Cellular Automata Approach. ECS Transactions, 2012, 49, 297-304.	0.5	3
39	Multiphase Thermal-fluid Flow through Geothermal Reservoirs. Energy Procedia, 2016, 95, 22-28.	1.8	3
40	Sample preparation method for scanning force microscopy. Brazilian Journal of Physics, 2001, 31, .	1.4	2
41	Observation of Negative Differential Resistance in $\hat{\mu}\text{c-Si:H/a-Si}_{1-x}\text{C}_x\text{:H}$ Double Barrier Devices. Japanese Journal of Applied Physics, 1999, 38, 1317-1319.	1.5	1
42	Optimization of the i-layer width of Cr-a-Si:H PIN X-ray detectors. Thin Solid Films, 2001, 396, 237-241.	1.8	1
43	Simple MEMS-based Incandescent Microlamps. ECS Transactions, 2007, 9, 489-496.	0.5	1
44	A Multi-Process Microfabrication Simulator on Cellular Automata. ECS Transactions, 2010, 31, 101-108.	0.5	1
45	Microfluidic biochip for phytoplankton cell counting. , 2013, , .		1
46	Silicon Microtips with Self-Asigned Integrated Electrodes. ECS Transactions, 2007, 9, 473-480.	0.5	0
47	3D Simulation Software for Visualization of MEMS Microfabrication Processes. ECS Transactions, 2008, 14, 99-108.	0.5	0
48	Simulation of Anisotropic Etching of Silicon using a Cellular Automata Model. ECS Transactions, 2008, 14, 37-46.	0.5	0
49	Microfluidic Systems in PDMS for Study of Foraging Abilities of Marine Microorganisms. ECS Transactions, 2010, 31, 449-455.	0.5	0
50	Development of MEMS based microCVD technique for new materials thin films deposition. , 2019, , .		0