Marco I Alayo

List of Publications by Year
in descending order

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84	824	471509 17	526287 27
papers	citations	h-index	g-index

84	84	84	626
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Real Time Water-In-Oil Emulsion Size Measurement in Optofluidic Channels. Sensors, 2022, 22, 4999.	3.8	1
2	Pedestal waveguides based on GeO2-Bi2O3, GeO2-PbO, Ta2O5 and SiOxNy cores as platforms for optical amplifiers and nonlinear optics applications: Review of recent advances. Journal of Luminescence, 2021, 236, 118113.	3.1	6
3	Nanophotonic devices based on oxide-cladding aluminum nitride photonic crystalsâ€"numerical studies. , 2020, , 81-108.		0
4	Analysis and measurement of the non-linear refractive index of SiO_x N_y using pedestal waveguides. , 2019, , .		0
5	A Pedestal Waveguide Coupler for Mode Division Multiplexing. , 2019, , .		0
6	Design of near-zero GVD slow light photonic crystal waveguides. , 2019, , .		0
7	Low-loss pedestal Ta2O5 nonlinear optical waveguides. Optics Express, 2019, 27, 37516.	3.4	17
8	Design and post-process of an integrated CMOS-MEMS IR emitter with an embedded detector. , 2018, , .		0
9	Study of the fabrication of pedestal based-optical waveguides for applications in nonlinear optics. , 2018, , .		0
10	Bend Coupling Through Near-Zero GVD Slow Light Photonic Crystal Waveguides. IEEE Photonics Journal, 2018, 10, 1-12.	2.0	4
11	A new fabrication process of pedestal waveguides based on metal dielectric composites of Yb3+/Er3+ codoped PbO-GeO2 thin films with gold nanoparticles. Optical Materials, 2018, 86, 433-440.	3.6	20
12	A review on pedestal waveguides for low loss optical guiding, optical amplifiers and nonlinear optics applications. Journal of Luminescence, 2018, 203, 135-144.	3.1	36
13	Stable propagation of Orbital Angular Momentum modes in Pedestal Waveguides. , 2018, , .		1
14	Influence of silicon nanocrystals on the performance of Yb3+/Er3+: Bi2O3-GeO2 pedestal waveguides for amplification at 1542 nm. , 2018, , .		0
15	Tellurite Thin Films Produced by RF Sputtering for Optical Waveguides and Memory Device Applications. Springer Series in Materials Science, 2017, , 241-257.	0.6	2
16	Influence of gold nanoparticles on the 805Ânm gain in Tm3+/Yb3+ codoped PbO-GeO2 pedestal waveguides. Optical Materials, 2017, 72, 518-523.	3.6	22
17	Pedestal platform for low loss doped amplifiers and nonlinear optics. , 2017, , .		0
18	Study of the pedestal process for reducing sidewall scattering in photonic waveguides. Optics Express, 2017, 25, 9755.	3.4	9

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19	Oxide-cladding aluminum nitride photonic crystal slab: Design and investigation of material dispersion and fabrication induced disorder. Journal of Applied Physics, 2016, 119, .	2.5	3
20	Random lasers for lab-on-chip applications. , 2016, , .		1
21	Challenges to implementing a ballast water remote monitoring system. Ocean and Coastal Management, 2016, 131, 25-38.	4.4	6
22	Directional random laser source consisting of a HC-ARROW reservoir connected to channels for spectroscopic analysis in microfluidic devices. Applied Optics, 2016, 55, 5393.	2.1	20
23	Slow Light Mach-Zehnder Electro-optic Modulator Based on Oxide-cladding Aluminum Nitride Photonic Crystal. , 2016, , .		0
24	Numerical modeling of the sidewall losses of Pedestal waveguides. , 2016, , .		0
25	High-Q and Small Mode-Volume Oxide-Cladding Aluminum Nitride Photonic Crystal Nanocavity. , 2016, , .		0
26	INFLUENCE OF ALN CRYSTALLINITY ON SAP WAVEGUIDES. , 2016, , .		0
27	Production of Yb³⁺/Er³⁺ codoped PbO-GeO<inf>2</inf> pedestal type waveguides for photonic applications. , 2015, , .		2
28	Photonic band gaps of wurtzite GaN and AlN photonic crystals at short wavelengths. Photonics and Nanostructures - Fundamentals and Applications, 2015, 14, 35-45.	2.0	10
29	Advances on the fabrication process of Er3+/Yb3+:GeO2â€“PbO pedestal waveguides for integrated photonics. Optical Materials, 2015, 49, 196-200.	3.6	21
30	Production and characterization of Tm3+/Yb3+ codoped pedestal-type PbOâ€“GeO2 waveguides. Canadian Journal of Physics, 2014, 92, 597-601.	1.1	3
31	Fabrication and characterization of aluminum nitride pedestal-type optical waveguide. Canadian Journal of Physics, 2014, 92, 951-954.	1.1	3
32	Design, simulation and fabrication of a hollow core ARROW waveguide in glass substrate for optofluidic applications. , 2014, , .		0
33	Pedestal height influence on AlN pedestal-type optical waveguides. , 2014, , .		0
34	Fabrication and characterization of pedestal optical waveguides using TeO2â€“WO3â€“Bi2O3 thin film as core layer. Thin Solid Films, 2014, 571, 225-229.	1.8	11
35	Fabrication of Yb3+/Er3+ codoped Bi2O3â€“WO3â€“TeO2 pedestal type waveguide for optical amplifiers. Optical Materials, 2014, 38, 198-203.	3.6	13
36	Deposition and characterization of AlN thin films obtained by radio frequency reactive magnetron sputtering. Canadian Journal of Physics, 2014, 92, 940-942.	1.1	3

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37	Production and characterization of Tm3+/Yb3+ codoped waveguides based on PbOâ€“GeO2 thin films. Journal of Alloys and Compounds, 2014, 586, S368-S372.	5.5	13
38	Photonic band gap maps for wurtzite GaN and AlN. , 2014, , .		0
39	Arrayed waveguide grating using the finite difference beam propagation method. , 2013, , .		0
40	Production of TeO<inf>2</inf>-WO<inf>3</inf>-Bi<inf>2</inf>O<inf>3</inf> thin films for fabrication of integrated optical sensors. , 2013, , .		0
41	Optical humidity sensor using Polypyrrole (PPy). Proceedings of SPIE, 2012, , .	0.8	2
42	Integration of a micro-incandescent lamp and an interferometric filter for optical applications. Proceedings of SPIE, 2011, , .	0.8	0
43	Pedestal anti-resonant reflecting optical waveguides. , 2011, , .		5
44	Development of micro-incandescent light sources on silicon substrate. , 2010, , .		1
45	Optimized-geometry ARROW waveguides using TiO2as anti-resonant layer. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, NA-NA.	0.8	1
46	TiO_xN_y antiâ€resonant layer ARROW waveguides. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 960-963.	0.8	1
47	Hollow core ARROW waveguides fabricated with SiO_xN_y films deposited at low temperatures. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 964-967.	0.8	2
48	AlN antiresonant layer ARROW waveguides. , 2010, , .		1
49	Silicon oxynitride-based integrated optical switch. Proceedings of SPIE, 2009, , .	0.8	0
50	Integrated incandescent microlamp coupled to SiO x N y waveguide. , 2009, , .		1
51	Tunable Bragg filter using silicon compound films. Journal of Non-Crystalline Solids, 2008, 354, 2816-2820.	3.1	3
52	Integration of optical waveguides with micro-incandescent light. Journal of Non-Crystalline Solids, 2008, 354, 2538-2543.	3.1	5
53	Development and fabrication of an optimized thermo-electro-optic device using a Machâ€“Zehnder interferometer. Journal of Non-Crystalline Solids, 2008, 354, 2565-2570.	3.1	4
54	MEMS-based incandescent microlamps for integrated optics applications. Journal of Optics, 2008, 10, 104022.	1.5	3

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55	a-SiC:H anti-resonant layer ARROW waveguides. Journal of Optics, 2008, 10, 104002.	1.5	7
56	Incandescent Microlamps based on MEMS and PECVD Materials. AIP Conference Proceedings, 2008, , .	0.4	0
57	ARROW Waveguides Fabricated with SiO[sub x]N[sub y] and a-SiC:H Films. AIP Conference Proceedings, 2008, , .	0.4	0
58	Polymeric Optical Waveguides Fabricated by Plasma Fluorination Process. AIP Conference Proceedings, 2008, , .	0.4	0
59	Tio2 Anti-Resonant Layer Arrow Waveguides. ECS Transactions, 2008, 14, 511-520.	0.5	0
60	Simulation, Fabrication and Characterization of a Tunable Bragg Reflector Based on Silicon Oxide and Silicon Nitride Dielectric Films Deposited by PECVD. ECS Transactions, 2007, 9, 497-504.	0.5	1
61	Electro-opto-mechanical cantilever-based logic gates. , 2007, , .		2
62	Simple MEMS-based Incandescent Microlamps. ECS Transactions, 2007, 9, 489-496.	0.5	1
63	Fabrication of an Electro-Optical Temperature Sensor Based on Silicon Oxynitride Films Deposited by PECVD. ECS Transactions, 2007, 4, 161-169.	0.5	0
64	Local bonding in PECVD-SiOxNy films. Journal of Non-Crystalline Solids, 2006, 352, 1298-1302.	3.1	7
65	Study of the mechanical and structural properties of silicon oxynitride films for optical applications. Journal of Non-Crystalline Solids, 2006, 352, 2319-2323.	3.1	20
66	Optical and structural characterization of PECVD-silicon oxynitride films for waveguide device applications. , 2005, , .		3
67	Structural analysis of silicon oxynitride films deposited by PECVD. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 112, 123-127.	3.5	23
68	Evidence of clusters size-dependent photoluminescence on silicon-rich silicon oxynitride films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 112, 116-119.	3.5	1
69	Fabrication of PECVD-silicon oxynitride-based optical waveguides. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2004, 112, 154-159.	3.5	18
70	Deposition and characterization of silicon oxynitride for integrated optical applications. Journal of Non-Crystalline Solids, 2004, 338-340, 76-80.	3.1	23
71	Fabrication and characterization of PECVD-silicon-oxynitride-based waveguides. , 2004, , .		2
72	Study of nitrogen-rich silicon oxynitride films obtained by PECVD. Materials Characterization, 2003, 50, 167-171.	4.4	44

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73	MOS capacitors with PECVD SiOxNy insulating layer. Materials Characterization, 2003, 50, 149-154.	4.4	5
74	Silicon clusters in PECVD silicon-rich SiOxNy. Materials Characterization, 2003, 50, 161-166.	4.4	10
75	Silicon rich silicon oxynitride films for photoluminescence applications. Thin Solid Films, 2003, 426, 200-204.	1.8	29
76	Structural investigation of Si-rich amorphous silicon oxynitride films. Thin Solid Films, 2003, 425, 275-281.	1.8	12
77	Local order structure of a-SiOxNy:H grown by PECVD. Brazilian Journal of Physics, 2002, 32, 366-368.	1.4	7
78	PECVD-SiOxNy films for large area self-sustained grids applications. Sensors and Actuators A: Physical, 2002, 100, 295-300.	4.1	26
79	On the nitrogen and oxygen incorporation in plasma-enhanced chemical vapor deposition (PECVD) SiOxNy films. Thin Solid Films, 2002, 402, 154-161.	1.8	146
80	Local structure and bonds of amorphous silicon oxynitride thin films. Thin Solid Films, 2002, 413, 59-64.	1.8	42
81	Chemical and morphological properties of amorphous silicon oxynitride films deposited by plasma enhanced chemical vapor deposition. Journal of Non-Crystalline Solids, 2001, 288, 88-95.	3.1	17
82	Mechanical and thermophysical properties of PECVD oxynitride films measured by MEMS. Thin Solid Films, 2001, 398-399, 626-631.	1.8	5
83	Thick SiO x N y and SiO 2 films obtained by PECVD technique at low temperatures. Thin Solid Films, 1998, 332, 40-45.	1.8	58
84	High quality low temperature DPECVD silicon dioxide. Journal of Non-Crystalline Solids, 1997, 212, 225-231.	3.1	59