

Marco I Alayo

List of Publications by Year in descending order

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docs citations

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times ranked

626
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| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | On the nitrogen and oxygen incorporation in plasma-enhanced chemical vapor deposition (PECVD) SiO _x N _y films. <i>Thin Solid Films</i> , 2002, 402, 154-161. | 1.8 | 146 |
| 2 | High quality low temperature DPECVD silicon dioxide. <i>Journal of Non-Crystalline Solids</i> , 1997, 212, 225-231. | 3.1 | 59 |
| 3 | Thick SiO _x N _y and SiO ₂ films obtained by PECVD technique at low temperatures. <i>Thin Solid Films</i> , 1998, 332, 40-45. | 1.8 | 58 |
| 4 | Study of nitrogen-rich silicon oxynitride films obtained by PECVD. <i>Materials Characterization</i> , 2003, 50, 167-171. | 4.4 | 44 |
| 5 | Local structure and bonds of amorphous silicon oxynitride thin films. <i>Thin Solid Films</i> , 2002, 413, 59-64. | 1.8 | 42 |
| 6 | A review on pedestal waveguides for low loss optical guiding, optical amplifiers and nonlinear optics applications. <i>Journal of Luminescence</i> , 2018, 203, 135-144. | 3.1 | 36 |
| 7 | Silicon rich silicon oxynitride films for photoluminescence applications. <i>Thin Solid Films</i> , 2003, 426, 200-204. | 1.8 | 29 |
| 8 | PECVD-SiO _x N _y films for large area self-sustained grids applications. <i>Sensors and Actuators A: Physical</i> , 2002, 100, 295-300. | 4.1 | 26 |
| 9 | Structural analysis of silicon oxynitride films deposited by PECVD. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004, 112, 123-127. | 3.5 | 23 |
| 10 | Deposition and characterization of silicon oxynitride for integrated optical applications. <i>Journal of Non-Crystalline Solids</i> , 2004, 338-340, 76-80. | 3.1 | 23 |
| 11 | Influence of gold nanoparticles on the 805 nm gain in Tm ³⁺ /Yb ³⁺ codoped PbO-GeO ₂ pedestal waveguides. <i>Optical Materials</i> , 2017, 72, 518-523. | 3.6 | 22 |
| 12 | Advances on the fabrication process of Er ³⁺ /Yb ³⁺ :GeO ₂ -PbO pedestal waveguides for integrated photonics. <i>Optical Materials</i> , 2015, 49, 196-200. | 3.6 | 21 |
| 13 | Study of the mechanical and structural properties of silicon oxynitride films for optical applications. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 2319-2323. | 3.1 | 20 |
| 14 | A new fabrication process of pedestal waveguides based on metal dielectric composites of Yb ³⁺ /Er ³⁺ codoped PbO-GeO ₂ thin films with gold nanoparticles. <i>Optical Materials</i> , 2018, 86, 433-440. | 3.6 | 20 |
| 15 | Directional random laser source consisting of a HC-ARROW reservoir connected to channels for spectroscopic analysis in microfluidic devices. <i>Applied Optics</i> , 2016, 55, 5393. | 2.1 | 20 |
| 16 | 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 |
| 17 | Chemical and morphological properties of amorphous silicon oxynitride films deposited by plasma enhanced chemical vapor deposition. <i>Journal of Non-Crystalline Solids</i> , 2001, 288, 88-95. | 3.1 | 17 |
| 18 | Low-loss pedestal Ta ₂ O ₅ nonlinear optical waveguides. <i>Optics Express</i> , 2019, 27, 37516. | 3.4 | 17 |

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|----|--|-----|-----------|
| 19 | Fabrication of Yb ³⁺ /Er ³⁺ codoped Bi ₂ O ₃ –WO ₃ –TeO ₂ pedestal type waveguide for optical amplifiers. <i>Optical Materials</i> , 2014, 38, 198-203. | 3.6 | 13 |
| 20 | Production and characterization of Tm ³⁺ /Yb ³⁺ codoped waveguides based on PbO–GeO ₂ thin films. <i>Journal of Alloys and Compounds</i> , 2014, 586, S368-S372. | 5.5 | 13 |
| 21 | Structural investigation of Si-rich amorphous silicon oxynitride films. <i>Thin Solid Films</i> , 2003, 425, 275-281. | 1.8 | 12 |
| 22 | Fabrication and characterization of pedestal optical waveguides using TeO ₂ –WO ₃ –Bi ₂ O ₃ thin film as core layer. <i>Thin Solid Films</i> , 2014, 571, 225-229. | 1.8 | 11 |
| 23 | Silicon clusters in PECVD silicon-rich SiOxNy. <i>Materials Characterization</i> , 2003, 50, 161-166. | 4.4 | 10 |
| 24 | Photonic band gaps of wurtzite GaN and AlN photonic crystals at short wavelengths. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2015, 14, 35-45. | 2.0 | 10 |
| 25 | Study of the pedestal process for reducing sidewall scattering in photonic waveguides. <i>Optics Express</i> , 2017, 25, 9755. | 3.4 | 9 |
| 26 | Local order structure of a-SiOxNy:H grown by PECVD. <i>Brazilian Journal of Physics</i> , 2002, 32, 366-368. | 1.4 | 7 |
| 27 | Local bonding in PECVD-SiOxNy films. <i>Journal of Non-Crystalline Solids</i> , 2006, 352, 1298-1302. | 3.1 | 7 |
| 28 | a-SiC:H anti-resonant layer ARROW waveguides. <i>Journal of Optics</i> , 2008, 10, 104002. | 1.5 | 7 |
| 29 | Challenges to implementing a ballast water remote monitoring system. <i>Ocean and Coastal Management</i> , 2016, 131, 25-38. | 4.4 | 6 |
| 30 | Pedestal waveguides based on GeO ₂ -Bi ₂ O ₃ , GeO ₂ -PbO, Ta ₂ O ₅ and SiOxNy cores as platforms for optical amplifiers and nonlinear optics applications: Review of recent advances. <i>Journal of Luminescence</i> , 2021, 236, 118113. | 3.1 | 6 |
| 31 | Mechanical and thermophysical properties of PECVD oxynitride films measured by MEMS. <i>Thin Solid Films</i> , 2001, 398-399, 626-631. | 1.8 | 5 |
| 32 | MOS capacitors with PECVD SiOxNy insulating layer. <i>Materials Characterization</i> , 2003, 50, 149-154. | 4.4 | 5 |
| 33 | Integration of optical waveguides with micro-incandescent light. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 2538-2543. | 3.1 | 5 |
| 34 | Pedestal anti-resonant reflecting optical waveguides. , 2011, , . | | 5 |
| 35 | Development and fabrication of an optimized thermo-electro-optic device using a Mach–Zehnder interferometer. <i>Journal of Non-Crystalline Solids</i> , 2008, 354, 2565-2570. | 3.1 | 4 |
| 36 | Bend Coupling Through Near-Zero GVD Slow Light Photonic Crystal Waveguides. <i>IEEE Photonics Journal</i> , 2018, 10, 1-12. | 2.0 | 4 |

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|----|---|-----|-----------|
| 37 | Optical and structural characterization of PECVD-silicon oxynitride films for waveguide device applications. , 2005, , . | | 3 |
| 38 | Tunable Bragg filter using silicon compound films. Journal of Non-Crystalline Solids, 2008, 354, 2816-2820. | 3.1 | 3 |
| 39 | MEMS-based incandescent microlamps for integrated optics applications. Journal of Optics, 2008, 10, 104022. | 1.5 | 3 |
| 40 | Production and characterization of Tm ³⁺ /Yb ³⁺ codoped pedestal-type PbO-GeO ₂ waveguides. Canadian Journal of Physics, 2014, 92, 597-601. | 1.1 | 3 |
| 41 | Fabrication and characterization of aluminum nitride pedestal-type optical waveguide. Canadian Journal of Physics, 2014, 92, 951-954. | 1.1 | 3 |
| 42 | 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 |
| 43 | 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 |
| 44 | Fabrication and characterization of PECVD-silicon-oxynitride-based waveguides. , 2004, , . | | 2 |
| 45 | Electro-opto-mechanical cantilever-based logic gates. , 2007, , . | | 2 |
| 46 | Hollow core ARROW waveguides fabricated with SiO _x N _y films deposited at low temperatures. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 964-967. | 0.8 | 2 |
| 47 | Optical humidity sensor using Polypyrrole (PPy). Proceedings of SPIE, 2012, , . | 0.8 | 2 |
| 48 | Production of Yb ³⁺ /Er ³⁺ codoped PbO-GeO ₂ pedestal type waveguides for photonic applications. , 2015, , . | | 2 |
| 49 | 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 |
| 50 | 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 |
| 51 | 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 |
| 52 | Simple MEMS-based Incandescent Microlamps. ECS Transactions, 2007, 9, 489-496. | 0.5 | 1 |
| 53 | Integrated incandescent microlamp coupled to SiO _x N _y waveguide. , 2009, , . | | 1 |
| 54 | Development of micro-incandescent light sources on silicon substrate. , 2010, , . | | 1 |

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|----|--|-----|-----------|
| 55 | Optimized-geometry ARROW waveguides using TiO ₂ as anti-resonant layer. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, NA-NA. | 0.8 | 1 |
| 56 | TiO _x N _y anti-resonant layer ARROW waveguides. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 960-963. | 0.8 | 1 |
| 57 | AlN antiresonant layer ARROW waveguides. , 2010, , . | | 1 |
| 58 | Random lasers for lab-on-chip applications. , 2016, , . | | 1 |
| 59 | Stable propagation of Orbital Angular Momentum modes in Pedestal Waveguides. , 2018, , . | | 1 |
| 60 | Real Time Water-In-Oil Emulsion Size Measurement in Optofluidic Channels. Sensors, 2022, 22, 4999. | 3.8 | 1 |
| 61 | Fabrication of an Electro-Optical Temperature Sensor Based on Silicon Oxynitride Films Deposited by PECVD. ECS Transactions, 2007, 4, 161-169. | 0.5 | 0 |
| 62 | Incandescent Microlamps based on MEMS and PECVD Materials. AIP Conference Proceedings, 2008, , . | 0.4 | 0 |
| 63 | ARROW Waveguides Fabricated with SiO _x N _y and a-SiC:H Films. AIP Conference Proceedings, 2008, , . | 0.4 | 0 |
| 64 | Polymeric Optical Waveguides Fabricated by Plasma Fluorination Process. AIP Conference Proceedings, 2008, , . | 0.4 | 0 |
| 65 | TiO ₂ Anti-Resonant Layer Arrow Waveguides. ECS Transactions, 2008, 14, 511-520. | 0.5 | 0 |
| 66 | Silicon oxynitride-based integrated optical switch. Proceedings of SPIE, 2009, , . | 0.8 | 0 |
| 67 | Integration of a micro-incandescent lamp and an interferometric filter for optical applications. Proceedings of SPIE, 2011, , . | 0.8 | 0 |
| 68 | Arrayed waveguide grating using the finite difference beam propagation method. , 2013, , . | | 0 |
| 69 | Production of TeO ₂ -WO ₃ -Bi ₂ O ₃ thin films for fabrication of integrated optical sensors. , 2013, , . | | 0 |
| 70 | Design, simulation and fabrication of a hollow core ARROW waveguide in glass substrate for optofluidic applications. , 2014, , . | | 0 |
| 71 | Pedestal height influence on AlN pedestal-type optical waveguides. , 2014, , . | | 0 |
| 72 | Photonic band gap maps for wurtzite GaN and AlN. , 2014, , . | | 0 |

| # | ARTICLE | IF | CITATIONS |
|----|---|----|-----------|
| 73 | Pedestal platform for low loss doped amplifiers and nonlinear optics. , 2017, , . | | 0 |
| 74 | Design and post-process of an integrated CMOS-MEMS IR emitter with an embedded detector. , 2018, , . | | 0 |
| 75 | Study of the fabrication of pedestal based-optical waveguides for applications in nonlinear optics. , 2018, , . | | 0 |
| 76 | Analysis and measurement of the non-linear refractive index of SiO _x N _y using pedestal waveguides. , 2019, , . | | 0 |
| 77 | A Pedestal Waveguide Coupler for Mode Division Multiplexing. , 2019, , . | | 0 |
| 78 | Design of near-zero GVD slow light photonic crystal waveguides. , 2019, , . | | 0 |
| 79 | Nanophotonic devices based on oxide-cladding aluminum nitride photonic crystalsâ€”numerical studies. , 2020, , 81-108. | | 0 |
| 80 | Slow Light Mach-Zehnder Electro-optic Modulator Based on Oxide-cladding Aluminum Nitride Photonic Crystal. , 2016, , . | | 0 |
| 81 | Numerical modeling of the sidewall losses of Pedestal waveguides. , 2016, , . | | 0 |
| 82 | High-Q and Small Mode-Volume Oxide-Cladding Aluminum Nitride Photonic Crystal Nanocavity. , 2016, , . | | 0 |
| 83 | INFLUENCE OF ALN CRYSTALLINITY ON SAP WAVEGUIDES. , 2016, , . | | 0 |
| 84 | Influence of silicon nanocrystals on the performance of Yb ³⁺ /Er ³⁺ : Bi ₂ O ₃ -GeO ₂ pedestal waveguides for amplification at 1542 nm. , 2018, , . | | 0 |