Vitaly F RodrÃ-guez-Esquerre

List of Publications by Year
in descending order

106 papers	491 citations

758635	752256
12 h-index	20 g-index

106 all docs	106 docs citations

106 times ranked	274 citing authors

#	Article	IF	Citations
1	Band gap of hexagonal 2D photonic crystals with elliptical holes recorded by interference lithography. Optics Express, 2006, 14, 4873.	1.7	61
2	Ge-Doped Defect-Core Microstructured Fiber Design by Genetic Algorithm for Residual Dispersion Compensation. IEEE Photonics Technology Letters, 2010, 22, 1337-1339.	1.3	51
3	Novel numerical method for the analysis of 2D photonic crystals: the cell method. Optics Express, 2002, 10, 1299.	1.7	44
4	Novel time-domain step-by-step scheme for integrated optical applications. IEEE Photonics Technology Letters, 2001, 13, 311-313.	1.3	37
5	Strategy of Search and Refinement by GA in 2-D Photonic Crystals With Absolute PBG. IEEE Journal of Quantum Electronics, 2011, 47, 431-438.	1.0	26
6	Finite-element analysis of photonic Crystal cavities: time and frequency domains. Journal of Lightwave Technology, 2005, 23, 1514-1521.	2.7	21
7	Finite-Element Time-Domain Analysis of 2-D Photonic Crystal Resonant Cavities. IEEE Photonics Technology Letters, 2004, 16, 816-818.	1.3	19
8	Analysis of Straight Periodic Segmented Waveguide Using the 2-D Finite Element Method. Journal of Lightwave Technology, 2014, 32, 2163-2169.	2.7	17
9	Frequency-dependent envelope finite-element time-domain analysis of dispersion materials. Microwave and Optical Technology Letters, 2005, 44, 13-16.	0.9	16
10	Genetic-algorithm and finite-element approach to the synthesis of dispersion-flattened fiber. Microwave and Optical Technology Letters, 2001, 31, 245-248.	0.9	15
11	Power splitters for waveguides composed by ultralow refractive index metallic nanostructures. Applied Physics Letters, 2005, 87, 091101.	1.5	14
12	Omnidirectional broadband absorber for visible light based on a modulated plasmonic multistack grating. Optics and Laser Technology, 2020, 124, 105981.	2.2	13
13	Power Coupling Optimization in 2D Waveguides by Evolutionary Algorithms. IEEE Photonics Technology Letters, 2015, 27, 1561-1564.	1.3	11
14	Wide-angle filters based on nanoresonators for the visible spectrum. Applied Optics, 2018, 57, 6755.	0.9	11
15	Design and Chromatic Aberration Analysis of Plasmonic Lenses Using the Finite Element Method. Journal of Lightwave Technology, 2013, 31, 1114-1119.	2.7	10
16	Novel FEM Approach for the Analysis of Cylindrically Symmetric Photonic Devices. Journal of Lightwave Technology, 2009, 27, 4717-4721.	2.7	8
17	Artificial Neural Networks for the Chromatic Dispersion Prediction of Photonic Crystal Fibers. Microwave and Optical Technology Letters, 2013, 55, 2179-2181.	0.9	8
18	Numerical Analysis of Periodic Segmented Waveguides Directional Couplers. , 2012, , .		8

#	Article	IF	Citations
19	Design of planar and wideangle resonant color absorbers for applications in the visible spectrum. Scientific Reports, 2019, 9, 7045.	1.6	7
20	Photonic crystal band gap optimization by generic algorithms. , 2007, , .		6
21	Coupling Properties of Novel Directional Couplers Composed of Silicon Nanowires Waveguides. , 2012, , .		6
22	Efficient Neural Network Modeling of Photonic Crystal Fiber Chromatic Dispersion. , 2010, , .		5
23	Design of Planar Reconfigurable, Tunable, and Wide Angle Resonant Absorbers for Applications in the IR Spectrum. Advanced Theory and Simulations, 2021, 4, 2100002.	1.3	5
24	Step Index Holey Fiber for Ultra-flattened Chromatic Dispersion. , 2006, , .		5
25	Propagation characteristics analysis of subwavelength grating waveguides. , 2011, , .		4
26	Temperature Dependence Analysis of Photonic Devices. , 2008, , .		4
27	Design of hybrid narrow-band plasmonic absorber based on chalcogenide phase change material in the infrared spectrum. Scientific Reports, 2021, 11, 21919.	1.6	4
28	Photonic crystal fiber design with Ge-doped core for residual chromatic dispersion compensation. , 2009, , .		3
29	Analysis and design of microstrip antennas by Artificial Neural Networks. , 2011, , .		3
30	Artificial immune systems optimization of the absolute bandgap of photonic crystals. , 2013, , .		3
31	Artificial immune system optimisation of complete bandgap of bidimensional anisotropic photonic crystals. IET Optoelectronics, 2015, 9, 333-340.	1.8	3
32	Optical properties of nanowire metamaterials with gain. Optics Communications, 2016, 379, 25-31.	1.0	3
33	Metamaterial waveguides as integrated optics sensor. Optik, 2020, 212, 164756.	1.4	3
34	Ultra-broadband plasmonic groove absorbers for visible light optimized by genetic algorithms. OSA Continuum, 2018, 1, 796.	1.8	3
35	Air core waveguides composed by elliptical metallic nanostructures operating at optical frequencies. , 2006, , .		2
36	Iterative-solvers for numerical analysis of photonic devices. Microwave and Optical Technology Letters, 2006, 48, 1182-1186.	0.9	2

#	Article	IF	Citations
37	Step index holey fiber for ultra wideband residual chromatic dispersion compensation. , 2009, , .		2
38	Photonic Bandgap Inspection in 2-D Sublattices. Journal of Lightwave Technology, 2012, 30, 2508-2513.	2.7	2
39	Coupling properties of directional couplers based on special waveguides. Microwave and Optical Technology Letters, 2013, 55, 949-951.	0.9	2
40	Power Coupling Optimization by Artificial Immune System. , 2014, , .		2
41	Propagation properties of metallic dielectric cladded waveguides. , 2016, , .		2
42	Inverse Design of a Taper by Scatter Search Metaheuristic. IEEE Photonics Journal, 2020, 12, 1-9.	1.0	2
43	Wavelength-Selective Near Unity Absorber Based on Fabry-PÃ©rot Nanoresonators. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2021, 20, 219-227.	0.4	2
44	Artificial Immune Network Design of Optical Multiplexers/Demultiplexers. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2015, 14, 229-237.	0.4	2
45	Surface plasmon polariton propagation in y-shaped metallic channels junctions. , 2006, , .		1
46	Analysis of optical switching circuits based on nonlinear photonic crystals by the frequency domain finite element method. , 2006, , .		1
47	Theoretical analysis of the minimization of thermal effects on the coupling length of directional couplers. , 2011, , .		1
48	Periodic segmented waveguide analysis by using the 2D finite element method. , 2011, , .		1
49	Exploring photonic band gaps in sub-lattices in unitary cells in air/silicon. , 2011, , .		1
50	Analysis of Multimode Interferometers based on subwavelength grating waveguides. , 2013, , .		1
51	Non-reciprocal optical devices based on linear silicon photonic crystals. , 2014, , .		1
52	Multimode interferometers based on non-conventional waveguides. Proceedings of SPIE, 2014, , .	0.8	1
53	Analysis of the Propagation Properties of 90Â°-bend Periodic Segmented Waveguides Using the 2D Finite Element Method. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2018, 17, 32-43.	0.4	1
54	Design of dielectric to plasmonic waveguide power transfer couplers. , 2017, , .		1

#	Article	IF	Citations
55	Sensors based on Metamaterial Cladded Waveguides. , 2018, , .		1
56	Neural Network Analysis and Design of Directional Couplers. , 2010, , .		1
57	Guided modes analysis in metamaterial bounded optical waveguides. , 2017, , .		1
58	Propagation properties of Fibonacci hypercrystal based on metamaterials. , 2018, , .		1
59	\<title>Design and fabrication of 2D photonic crystals by holographic lithography\</title>. , 2004, 5622, 896.		0
60	Power splitters for ultralow refractive index metallic nanostructures waveguides. , 0, , .		0
61	Novel frequency domain finite element formulation for optical circuits in nonlinear photonic crystals. , 2006, , .		0
62	Ultra-flattened chromatic dispersion using a step index holey fiber. , 2006, , .		0
63	A proposal of random excitation for the elements of a circular array. , 2007, , .		0
64	Numerical analysis of surface plasmon polariton interference in a single mode dielectric waveguide for TM modes. , 2007, , .		0
65	Coupling characteristics of step index holey fiber. , 2007, , .		0
66	2D Photonic Crystal Layers in Antimony-based films. AIP Conference Proceedings, 2008, , .	0.3	0
67	Analysis and design of subwavelength focusing by cylindrical lenses. , 2009, , .		0
68	Analysis of micro-to-nano coupling techniques. , 2011, , .		0
69	Analysis and design of directional couplers based on Al<inf>x</inf>Ga<inf>1&#x2212;x</inf>As by using an efficient neural networks: A design tool simulation implemented in C/C&#x002B;&#x002B;. , 2011, , .		0
70	Pedagogical microwave design of photonic crystal waveguides. , 2011, , .		0
71	Photonic band gaps exploration in air/silicon sub-lattices unitary cells. , 2011, , .		0
72	Simulation of segmented waveguide crossing using the 2D finite element method. , 2011, , .		0

#	Article	IF	Citations
73	Thermal effects in photonic crystals resonant cavities. , 2013, , .		0
74	Geometry dependence of light propagation through subwavelength metallic gratings. , 2013, , .		0
75	High-efficient and broadband nanoabsorbers and nanoreflectors based on metallic dielectric periodical structures. , 2014, , .		0
76	2D taper segmented design by differential evolution algorithm. , 2015, , .		0
77	Propagation characteristics of multilayered subwavelength gratings composed of metallic nanoparticles. Proceedings of SPIE, 2015, , .	0.8	0
78	Broadband absorption properties of apodized nanometric gratings. Optical Engineering, 2015, 54, 085103.	0.5	0
79	Power Coupling Optimization in Periodical Segmented Waveguides by Bio-Inspired Algorithms. , 2016, , .		0
80	Polarization independent metallic-dielectric trapezoidal grating for multiband absorption in the visible. Optical and Quantum Electronics, 2018, 50, 1.	1.5	0
81	Novel time-domain wave propagation scheme applied to integrated optics. , 2000, , .		0
82	Metallic-Dielectric Lenses Chromatic Aberration Analysis. , 2010, , .		0
83	Approximated Analysis of Multimode Interferometers Based on Non-Conventional Waveguides. , 2014, , .		0
84	Polarization independent asymmetric light absorption in plasmonic nanostructure. , 2017, , .		0
85	Polarization-independent multi-peak plasmonic absorber. , 2017, , .		0
86	Low-crosstalk optimization in 2D segmented waveguide crossings by evolutionary algorithms. , 2017, , .		0
87	Wideangle plasmonic filter for visible light applications. , 2017, , .		0
88	Subwavelength 2D segmented waveguide taper light coupling optimization by evolutionary algorithms. , 2017, , .		0
89	Ultrabroadband polarization-independent absorber based on hyperbolic metamaterial. , 2017, , .		0
90	Anomalous refraction of infrared waves through ultrathin all dielectric metasurfaces. , 2017, , .		0

#	Article	IF	Citations
91	Scatter Search Applied to the Taper Optimization. , 2018, , .		0
92	Ultrathin all-dielectric Metasurface for Infrared Waves Focusing. , 2018, , .		0
93	Analysis of Fibonacci Hypercrystal Metamaterials. , 2018, , .		0
94	Optical Logic Gates. , 2018, , .		0
95	Visible/Infrared narrow-band Resonant Absorber. , 2018, , .		0
96	Optical planar filter for visible RGB resonance. , 2018, , .		0
97	Ultra-broadband plasmonic groove absorbers for visible light optimized by genetic algorithms. , 2018, , .		0
98	Broadband polarization-independent absorber based on multilayered metamaterial. , 2018, , .		0
99	Metaheuristic optimization of tapers for coupling to periodical subwavelength waveguides. , 2018, , .		0
100	Asymmetrical absorption in plasmonic devices optimized by genetic algorithms. , 2018, , .		0
101	Engineering the dispersion properties of multilayered periodic segmented waveguides and nanowire waveguides. Optical Engineering, 2019, 58, 1.	0.5	0
102	Optical properties of liquid crystal periodically segmented waveguides. , 2019, , .		0
103	Narrowband polarization-dependent fractal based plasmonic absorbers. , 2019, , .		0
104	Inverse Design of Tapers by Bio-Inspired Algorithms. Journal of Microwaves, Optoelectronics and Electromagnetic Applications, 2020, 19, 39-49.	0.4	0
105	Metamaterial Waveguide Modelling by an Artificial Neural Network with Genetic Algorithm. , 2021, , .		0
106	Metamaterial waveguide modeling by a genetic algorithm-based artificial neural network. , 2022, , .		0