

Henri Benisty

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

100
papers

3,075
citations

31
h-index

53
g-index

122
ext. papers

3,504
ext. citations

3.5
avg, IF

4.87
L-index

#	Paper	IF	Citations
100	Radiation losses of waveguide-based two-dimensional photonic crystals: Positive role of the substrate. <i>Applied Physics Letters</i> , 2000 , 76, 532-534	3.4	169
99	Photonic-crystal GaN light-emitting diodes with tailored guided modes distribution. <i>Applied Physics Letters</i> , 2006 , 88, 061124	3.4	168
98	Implementation of PT symmetric devices using plasmonics: principle and applications. <i>Optics Express</i> , 2011 , 19, 18004-19	3.3	153
97	Low-loss channel waveguides with two-dimensional photonic crystal boundaries. <i>Applied Physics Letters</i> , 2000 , 77, 2813-2815	3.4	137
96	Miniband transmission in a photonic crystal coupled-resonator optical waveguide. <i>Optics Letters</i> , 2001 , 26, 1019-21	3	137
95	Photonic bands in two-dimensionally patterned multimode GaN waveguides for light extraction. <i>Applied Physics Letters</i> , 2005 , 87, 101107	3.4	126
94	Reduced electron-phonon relaxation rates in quantum-box systems: Theoretical analysis. <i>Physical Review B</i> , 1995 , 51, 13281-13293	3.3	126
93	Optimization of Light-Diffracting Photonic-Crystals for High Extraction Efficiency LEDs. <i>Journal of Display Technology</i> , 2007 , 3, 133-148		107
92	Photonic crystal laser lift-off GaN light-emitting diodes. <i>Applied Physics Letters</i> , 2006 , 88, 133514	3.4	106
91	Switching using PT symmetry in plasmonic systems: positive role of the losses. <i>Optics Express</i> , 2013 , 21, 21651-68	3.3	93
90	Coupled-mode theory and propagation losses in photonic crystal waveguides. <i>Optics Express</i> , 2003 , 11, 1490-6	3.3	87
89	GaAs photonic crystal cavity with ultrahigh Q: microwatt nonlinearity at 1.55 microm. <i>Optics Letters</i> , 2008 , 33, 1908-10	3	82
88	Coupled guide and cavity in a two-dimensional photonic crystal. <i>Applied Physics Letters</i> , 2001 , 78, 1487-1489	3.4	76
87	Spontaneous emission enhancement of quantum dots in a photonic crystal wire. <i>Physical Review Letters</i> , 2005 , 95, 183901	7.4	73
86	Submicrometer 3D structures fabrication enabled by one-photon absorption direct laser writing. <i>Optics Express</i> , 2013 , 21, 20964-73	3.3	69
85	Radiation losses in planar photonic crystals: two-dimensional representation of hole depth and shape by an imaginary dielectric constant. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2003 , 20, 469	1.7	63
84	Photonic crystal light-emitting sources. <i>Reports on Progress in Physics</i> , 2012 , 75, 126501	14.4	61

83	Omnidirectional and compact guided light extraction from Archimedean photonic lattices. <i>Applied Physics Letters</i> , 2003 , 83, 1283-1285	3-4	57
82	Toward ultrahigh-efficiency aluminum oxide microcavity light-emitting diodes: guided mode extraction by photonic crystals. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2002 , 8, 238-247	3-8	56
81	Fast factorization rule and plane-wave expansion method for two-dimensional photonic crystals with arbitrary hole-shape. <i>Physical Review B</i> , 2006 , 73,	3-3	46
80	Resonant and nonresonant transmission through waveguide bends in a planar photonic crystal. <i>Applied Physics Letters</i> , 2001 , 79, 2514-2516	3-4	43
79	Achievement of ultrahigh quality factors in GaAs photonic crystal membrane nanocavity. <i>Applied Physics Letters</i> , 2006 , 89, 221104	3-4	40
78	GaN light-emitting diodes with Archimedean lattice photonic crystals. <i>Applied Physics Letters</i> , 2006 , 88, 073510	3-4	40
77	Finite-depth and intrinsic losses in vertically etched two-dimensional photonic crystals. <i>Optical and Quantum Electronics</i> , 2002 , 34, 205-215	2-4	39
76	Models and measurements for the transmission of submicron-width waveguide bends defined in two-dimensional photonic crystals. <i>IEEE Journal of Quantum Electronics</i> , 2002 , 38, 770-785	2	38
75	Performance of waveguide-based two-dimensional photonic-crystal mirrors studied with Fabry-Perot resonators. <i>IEEE Journal of Quantum Electronics</i> , 2001 , 37, 237-243	2	38
74	Improved 60/spl deg/ bend transmission of submicron-width waveguides defined in two-dimensional photonic crystals. <i>Journal of Lightwave Technology</i> , 2002 , 20, 1198-1203	4	35
73	General recipe for flatbands in photonic crystal waveguides. <i>Optics Express</i> , 2009 , 17, 14634-48	3-3	33
72	Compact wavelength monitoring by lateral outcoupling in wedged photonic crystal multimode waveguides. <i>Applied Physics Letters</i> , 2005 , 86, 101107	3-4	33
71	Transverse periodic PT symmetry for modal demultiplexing in optical waveguides. <i>Physical Review A</i> , 2015 , 91,	2-6	32
70	Enhanced transmission through photonic-crystal-based bent waveguides by bend engineering. <i>Applied Physics Letters</i> , 2001 , 79, 3579-3581	3-4	32
69	Using optical PT-symmetry for switching applications. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2014 , 12, 305-311	2-6	31
68	Healing Near-PT-Symmetric Structures to Restore Their Characteristic Singularities: Analysis and Examples. <i>Journal of Lightwave Technology</i> , 2012 , 30, 2675-2683	4	31
67	Nanophotonic Polarization Diversity Demultiplexer Chip. <i>Journal of Lightwave Technology</i> , 2009 , 27, 417-425	4	27
66	Time-domain 2D modeling of slab-waveguide based photonic-crystal devices in the presence of radiation losses. <i>Microwave and Optical Technology Letters</i> , 2002 , 34, 387-393	1-2	27

65	Transmission properties of two-dimensional photonic crystal channel waveguides. <i>Optical and Quantum Electronics</i> , 2002 , 34, 171-181	2.4	26
64	Graphene nanoribbons: Photonic crystal waveguide analogy and minigap stripes. <i>Physical Review B</i> , 2009 , 79,	3.3	25
63	Innovative integrated system for real-time measurement of hybridization and melting on standard format microarrays. <i>BioTechniques</i> , 2008 , 44, 913-20	2.5	24
62	Topological edge modes with PT symmetry in a quasiperiodic structure. <i>Physical Review A</i> , 2017 , 96,	2.6	22
61	Directionally dependent confinement in photonic-crystal microcavities. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2000 , 17, 2043	1.7	22
60	High efficiency quasi-monochromatic infrared emitter. <i>Applied Physics Letters</i> , 2014 , 104, 081101	3.4	20
59	Photonic crystals in two-dimensions based on semiconductors: fabrication, physics and technology. <i>Applied Surface Science</i> , 2000 , 164, 205-218	6.7	19
58	Integration of grating couplers with a compact photonic crystal demultiplexer on an InP membrane. <i>Optics Letters</i> , 2008 , 33, 884-6	3	18
57	Investigation of Extracting Photonic Crystal Lattices for Guided Modes of GaAs-Based Heterostructures. <i>IEEE Journal of Quantum Electronics</i> , 2008 , 44, 777-789	2	17
56	Sensor-integrated fluorescent microarray for ultrahigh sensitivity direct-imaging bioassays: Role of a high rejection of excitation light. <i>Applied Physics Letters</i> , 2007 , 91, 083901	3.4	17
55	High extraction efficiency, laterally injected, light emitting diodes combining microcavities and photonic crystals. <i>Optical and Quantum Electronics</i> , 2002 , 34, 79-89	2.4	17
54	Compact and fault-tolerant photonic crystal add-drop filter. <i>Optics Letters</i> , 2003 , 28, 2246-8	3	17
53	Enhanced gain measurement at mode singularities in InP-based photonic crystal waveguides. <i>Optics Express</i> , 2004 , 12, 1569-74	3.3	17
52	Photonic-Crystal Demultiplexer With Improved Crosstalk by Second-Order Cavity Filtering. <i>Journal of Lightwave Technology</i> , 2010 , 28, 1201-1208	4	15
51	Two-mode fringes in planar photonic crystal waveguides with constrictions: a probe that is sensitive to propagation losses. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002 , 19, 2403-7	1.7	15
50	. <i>IEEE Journal of Quantum Electronics</i> , 2002 , 38, 816-824	2	14
49	Microsecond switchable thermal antenna. <i>Journal of Applied Physics</i> , 2014 , 116, 034306	2.5	12
48	Photonic crystal patterning of luminescent sol-gel films for light extraction. <i>Nanotechnology</i> , 2011 , 22, 365701	3.4	12

47	Spontaneous emission in GaN/InGaN photonic crystal nanopillars. <i>Optics Express</i> , 2007 , 15, 17991-8004	3.3	12
46	Analysis and Optimization of Compact Demultiplexer Monitor Based on Photonic-Crystal Waveguide. <i>Journal of Lightwave Technology</i> , 2007 , 25, 2385-2394	4	12
45	Advances in Photonic Crystals. <i>Physica Status Solidi (B): Basic Research</i> , 2000 , 221, 93-99	1.3	12
44	Ultrabroad acoustical limiting in nonlinear metamaterials due to adaptive-broadening band-gap effect. <i>Physical Review B</i> , 2020 , 101,	3.3	10
43	Advances in 2D semiconductor photonic crystals. <i>Synthetic Metals</i> , 2001 , 116, 449-452	3.6	10
42	Tailoring Spectral Properties of Binary PT-Symmetric Gratings by Duty-Cycle Methods. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016 , 22, 35-41	3.8	10
41	Photonic crystals. <i>Progress in Optics</i> , 2006 , 49, 177-313	3.4	9
40	Optimal [Formula: see text] -symmetric switch features exceptional point. <i>Scientific Reports</i> , 2017 , 7, 13299	4.9	8
39	Impact of Lithographic Grid Irregularity Assessed on Photonic Crystal Device Selectivity. <i>IEEE Photonics Technology Letters</i> , 2007 , 19, 282-284	2.2	8
38	Progress in the control of the light-matter interaction in semiconductors. <i>Solid State Communications</i> , 2005 , 135, 627-637	1.6	8
37	Extraction Length Determination in Patterned Luminescent Sol-Gel Films. <i>Advanced Optical Materials</i> , 2014 , 2, 81-87	8.1	7
36	Dark-field hyperlens exploiting a planar fan of tips. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2012 , 29, 2595	1.7	7
35	Photonic crystals and the real world of optical telecommunications. <i>Annales Des Telecommunications/Annals of Telecommunications</i> , 2003 , 58, 1197	2	7
34	Recent results and latest views on microcavity LEDs 2004 , 5366, 1		7
33	Detection of biological macromolecules on a biochip dedicated to UV specific absorption. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 1585-91	11.8	6
32	Spontaneous emission enhancement at a photonic wire miniband edge. <i>Optics Letters</i> , 2005 , 30, 2113-5	3	6
31	Ultra Wide Hybrid III-V on Silicon Tunable Laser 2018 ,		6
30	High aspect ratio submicrometer two-dimensional structures fabricated by one-photon absorption direct laser writing. <i>Microsystem Technologies</i> , 2014 , 20, 2097-2102	1.7	5

29	Simple wealth distribution model causing inequality-induced crisis without external shocks. <i>Physical Review E</i> , 2017 , 95, 052307	2.4	5
28	"Peak tracking chip" for label-free optical detection of bio-molecular interaction and bulk sensing. <i>Analyst, The</i> , 2012 , 137, 4785-94	5	5
27	Quantitative analysis of enhanced light irradiance in waveguide-based fluorescent microarrays. <i>Biosensors and Bioelectronics</i> , 2009 , 24, 2281-4	11.8	5
26	Emission control in broad periodic waveguides and critical coupling. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2010 , 8, 210-217	2.6	5
25	Oxide-Free Bonding of III-V-Based Material on Silicon and Nano-Structuration of the Hybrid Waveguide for Advanced Optical Functions. <i>Photonics</i> , 2015 , 2, 1054-1064	2.2	4
24	Real time hybridization studies by resonant waveguide gratings using nanopattern imaging for Single Nucleotide Polymorphism detection. <i>Biomedical Microdevices</i> , 2014 , 16, 287-99	3.7	4
23	Single-material coupling-tolerant semi-planar microresonator using Littrow diffraction. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2009 , 7, 115-127	2.6	4
22	Electrically injected parity-time symmetric distributed feedback laser diodes (DFB) for telecom applications. <i>Nanophotonics</i> , 2021 , 10, 1309-1317	6.3	4
21	Influence of emissivity tailoring on radiative membranes thermal behavior for gas sensing applications. <i>Sensors and Actuators B: Chemical</i> , 2015 , 213, 53-58	8.5	3
20	Metallic metasurface as a directional and monochromatic thermal emitter 2015 ,		3
19	Spontaneous Emission and Coupled-Mode Theory in Multimode 1-D Systems With Contradirectional Coupling. <i>IEEE Journal of Quantum Electronics</i> , 2011 , 47, 204-212	2	3
18	Omnidirectional light extraction in GaN LEDs using an Archimedean tiling photonic crystal 2006 , 6115, 343		3
17	Two-dimensional photonic crystals: new feasible confined optical systems. <i>Comptes Rendus Physique</i> , 2002 , 3, 89-102	1.4	3
16	Microcavities in Ecole Polytechnique Fédérale de Lausanne, Ecole Polytechnique (France) and elsewhere: past, present and future. <i>Physica Status Solidi (B): Basic Research</i> , 2005 , 242, 2345-2356	1.3	3
15	Parity-time Symmetric gratings in 1550 nm Distributed-Feedback lasers diodes: insight on device design rules. <i>Journal of the Optical Society of America B: Optical Physics</i> ,	1.7	3
14	Restoring robust binary switching operation and exceptional point using long-period grating-assisted parity-time symmetric couplers. <i>Journal Physics D: Applied Physics</i> , 2019 , 52, 255103	3	2
13	A Synergy Approach to Enhance Upconversion Luminescence Emission of Rare Earth Nanophosphors with Million-Fold Enhancement Factor. <i>Crystals</i> , 2021 , 11, 1187	2.3	2
12	Flat-Format Lens-Free Imaging Using an Organic Sensor With Guided Illumination and Application to Fingerprints. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016 , 22, 126-133	3.8	1

11	Using PT-symmetry in plasmonic systems for switching and dynamic memory applications 2013 ,		1
10	Low-index nanopatterned barrier for hybrid oxide-free III-V silicon conductive bonding. <i>Optics Express</i> , 2014 , 22, 23333-8	3.3	1
9	Towards portable, real-time, integrated fluorescence microarray diagnostics tools. <i>Irbm</i> , 2007 , 28, 216-223		1
8	Low-loss photonic crystal and monolithic InP integration: bands, bends, lasers, and filters 2004 , 5360, 119		1
7	Toward real-world devices in InP-based PCs 2004 , 5360, 77		1
6	Positive role of the long luminescence lifetime of upconversion nanophosphors on resonant surfaces for ultra-compact filter-free bio-assays. <i>Biomedical Optics Express</i> , 2021 , 12, 1-19	3.5	1
5	Elaboration and characterization of nanoporous SU-8 template using PMMA as porogen. <i>Journal of Porous Materials</i> , 2021 , 28, 813-823	2.4	1
4	Characterization of photonic crystal coupling to and from guided light by absorbance. <i>Journal of Nanophotonics</i> , 2014 , 8, 083992	1.1	0
3	Configuration barrier towards parity-time symmetry in randomly connected mesoscopic sets on a graph. <i>European Physical Journal B</i> , 2020 , 93, 1	1.2	0
2	Microcavities in Ecole Polytechnique Fédérale de Lausanne, Ecole Polytechnique (France) and Elsewhere: Past, Present and Future 287-302		
1	Système de diagnostic à partir de l'optimisation optique de biopuces à fluorescence 2022 , 17-23	0.1	