

Emmanuel

List of Publications by Year in descending order

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88
papers

1,312
citations

331670

21
h-index

377865

34
g-index

88
all docs

88
docs citations

88
times ranked

1197
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultra-High Q/V Fabry-Perot microcavity on SOI substrate. Optics Express, 2007, 15, 16090.	3.4	106
2	Seventy-fold enhancement of light extraction from a defectless photonic crystal made on silicon-on-insulator. Applied Physics Letters, 2003, 83, 2542-2544.	3.3	75
3	Highly doped silicon nanowires based electrodes for micro-electrochemical capacitor applications. Electrochemistry Communications, 2012, 25, 109-111.	4.7	75
4	3.2 μ m infrared resonant cavity light emitting diode. Applied Physics Letters, 1995, 67, 2591-2593.	3.3	64
5	On chip shapeable optical tweezers. Scientific Reports, 2013, 3, 2290.	3.3	56
6	Near-field interactions between a subwavelength tip and a small-volume photonic-crystal nanocavity. Physical Review B, 2007, 76, .	3.2	55
7	Photopumped infrared vertical-cavity surface-emitting laser. Applied Physics Letters, 1996, 68, 2480-2482.	3.3	47
8	Ultra-high-reflectivity photonic-bandgap mirrors in a ridge SOI waveguide. New Journal of Physics, 2006, 8, 204-204.	2.9	45
9	Ultra-compact microdisk resonator filters on SOI substrate. Optics Express, 2006, 14, 12814.	3.4	42
10	Assembly of microparticles by optical trapping with a photonic crystal nanocavity. Applied Physics Letters, 2012, 100, 101103.	3.3	41
11	Reduction of phonon mean free path: From low-temperature physics to room temperature applications in thermoelectricity. Comptes Rendus Physique, 2016, 17, 1154-1160.	0.9	38
12	Single-cell bacterium identification with a SOI optical microcavity. Applied Physics Letters, 2016, 109, .	3.3	36
13	Ultracompact silicon-on-insulator ridge-waveguide mirrors with high reflectance. Applied Physics Letters, 2006, 89, 171121.	3.3	33
14	Optical tweezing using tunable optical lattices along a few-mode silicon waveguide. Lab on A Chip, 2018, 18, 1750-1757.	6.0	31
15	An air-slotted nanoresonator relying on coupled high Q small V Fabry-Perot nanocavities. Applied Physics Letters, 2009, 94, .	3.3	30
16	Gram-type differentiation of bacteria with 2D hollow photonic crystal cavities. Applied Physics Letters, 2018, 113, .	3.3	29
17	Subwavelength imaging of light confinement in high-Q/small-V photonic crystal nanocavity. Applied Physics Letters, 2008, 92, 111111.	3.3	28
18	High-Qsilica microcavities on a chip: From microtoroid to microsphere. Applied Physics Letters, 2011, 99, 181123.	3.3	26

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19	Experimental demonstration of Bloch mode parity change in photonic crystal waveguide. Applied Physics Letters, 2004, 85, 2682-2684.	3.3	25
20	2.6 μm optically pumped vertical-cavity surface-emitting laser in the CdHgTe system. Applied Physics Letters, 1999, 75, 3763-3765.	3.3	23
21	HgCdTe molecular beam epitaxy material for microcavity light emitters: Application to gas detection in the 2–6 μm range. Journal of Electronic Materials, 2003, 32, 602-607.	2.2	23
22	Optofluidic Near-Field Optical Microscopy: Near-Field Mapping of a Silicon Nanocavity Using Trapped Microbeads. ACS Photonics, 2015, 2, 1410-1415.	6.6	21
23	Efficient coupling of Er-doped silicon-rich oxide to microdisk whispering gallery modes. Applied Physics Letters, 2005, 86, 111117.	3.3	19
24	Near-field modal microscopy of subwavelength light confinement in multimode silicon slot waveguides. Applied Physics Letters, 2008, 93, 251103.	3.3	19
25	Room-temperature optically pumped CdHgTe vertical-cavity surface-emitting laser for the 1.5 μm range. Applied Physics Letters, 1999, 75, 1661-1663.	3.3	18
26	Broadband optical characterization and modeling of photonic crystal waveguides for silicon optical interconnects. Journal of Applied Physics, 2004, 95, 1606-1608.	2.5	18
27	Highly N-doped Silicon Nanowires as a Possible Alternative to Carbon for On-chip Electrochemical Capacitors. Electrochemistry, 2013, 81, 777-782.	1.4	18
28	A near-field actuated optical nanocavity. Optics Express, 2008, 16, 279.	3.4	17
29	Quality factor control of Si-based two-dimensional photonic crystals with a Bragg mirror. Applied Physics Letters, 2006, 88, 091122.	3.3	16
30	Resonant-cavity infrared optoelectronic devices. Journal of Electronic Materials, 1997, 26, 667-672.	2.2	15
31	Transmission spectroscopy of photonic crystals in a silicon-on-insulator waveguide structure. Applied Physics Letters, 2002, 81, 2340-2342.	3.3	15
32	Subwavelength imaging of field confinement in a waveguide-integrated photonic crystal cavity. Journal of Applied Physics, 2005, 98, 086109.	2.5	15
33	Single-mode room-temperature emission with a silicon rod lattice. Applied Physics Letters, 2006, 89, 201111.	3.3	15
34	Degenerate epitaxy-driven defects in monolayer silicon oxide on ruthenium. Physical Review B, 2015, 92, .	3.2	11
35	Seven at One Blow: Particle Cluster Stability in a Single Plasmonic Trap on a Silicon Waveguide. ACS Photonics, 2020, 7, 1942-1949.	6.6	11
36	33- μm microcavity light emitter for gas detection. Optics Letters, 2000, 25, 725.	3.3	10

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37	Resonant optical microcavity based on crystalline silicon active layer. Journal of Applied Physics, 2002, 92, 2207-2209.	2.5	10
38	Nanobox array for silicon-on-insulator luminescence enhancement at room temperature. Applied Physics Letters, 2006, 88, 133120.	3.3	10
39	Tuning of an active photonic crystal cavity by an hybrid silica/silicon near-field probe. Optics Express, 2009, 17, 21672.	3.4	10
40	Optofluidic taming of a colloidal dimer with a silicon nanocavity. Applied Physics Letters, 2014, 105, 171108.	3.3	10
41	Phage susceptibility testing and infectious titer determination through wide-field lensless monitoring of phage plaque growth. PLoS ONE, 2021, 16, e0248917.	2.5	10
42	Resonant cavity light emitting diodes for the 3-5 μ m range. Solid-State Electronics, 1996, 40, 473-476.	1.4	9
43	Addressable subwavelength grids of confined light in a multislotting nanoresonator. Applied Physics Letters, 2011, 98, 081101.	3.3	9
44	On-Chip Optical Nano-Tweezers for Culture-Less Fast Bacterial Viability Assessment. Small, 2022, 18, e2103765.	10.0	9
45	Near-field spectroscopy of low-loss waveguide integrated microcavities. Applied Physics Letters, 2006, 88, 051112.	3.3	8
46	Realization of two-dimensional optical devices using photonic band gap structures on silicon-on-insulator. Microelectronic Engineering, 2002, 61-62, 545-548.	2.4	5
47	Erbium-Doped Photonic Crystal Microcavity for Light Extraction Enhancement at 300 K. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1592-1595.	2.9	5
48	Influence of dimensional fluctuations on the optical coupling between nanobeam twin cavities. Physical Review B, 2012, 85, .	3.2	5
49	Sensitive 3-omega measurements on epitaxial thermoelectric thin films. IOP Conference Series: Materials Science and Engineering, 2014, 68, 012005.	0.6	5
50	Mercury cadmium telluride-based resonant cavity light emitting diode. Journal of Electronic Materials, 1996, 25, 1388-1393.	2.2	4
51	Room temperature emission from Er-doped silicon-rich oxide microtorus. EPJ Applied Physics, 2006, 34, 81-84.	0.7	4
52	Photoluminescence from Er-doped silicon rich oxide thin films. Journal of Luminescence, 2006, 121, 242-244.	3.1	4
53	Luminescence of silicon thin film and SiGe multiple quantum wells realized on SOI. Optical Materials, 2001, 17, 107-110.	3.6	3
54	Type-I quantum-well VCSEL structure on GaSb emitting in the 2-2.5 μ m range. IEE Proceedings: Optoelectronics, 2002, 149, 22-26.	0.8	3

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55	Silicon-on-insulator based quasi 3D photonic crystal structures. , 2005, 5733, 23.		3
56	Nano-manipulation of confined electromagnetic fields with a near-field probe. Comptes Rendus Physique, 2008, 9, 24-30.	0.9	3
57	Whispering gallery modes in Er-doped silicon-rich oxide toroidal microcavities on chip. Physica E: Low-Dimensional Systems and Nanostructures, 2009, 41, 1127-1129.	2.7	3
58	Table-top deterministic and collective colloidal assembly using videoprojector lithography. Applied Surface Science, 2015, 349, 452-458.	6.1	3
59	On-chip photonic tweezers for photonics, microfluidics, and biology. Proceedings of SPIE, 2017, , .	0.8	3
60	Confinement induced enhancement of the emission in Er-implanted Si/SiO ₂ quantum wells fabricated on SOI substrates. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2001, 81, 43-45.	3.5	2
61	Room temperature operation of Er-doped silicon-rich oxide microcavities supporting high-Q whispering-gallery modes. , 2005, , .		2
62	Silicon-on-insulator photonic bandgap structures for future microphotonic devices. , 2004, , .		1
63	Two-Dimensional Photonic Crystals Coupled to One-Dimensional Bragg Mirrors. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1534-1538.	2.9	1
64	Compact add-and-drop and wavelength filter based on microdisk on SOI substrate. , 2006, 6125, 192.		1
65	Gram-type Differentiation of Bacteria with 2D Hollow Photonic Crystal Cavities. , 2018, , .		1
66	Bloch mode coupling investigation in silicon-on-insulator W1 photonic crystal waveguide. , 2004, , .		0
67	Far- and near-field characterization of a photonic-crystal-based microcavity on silicon-on-insulator. , 2004, , .		0
68	Resonant microcavity light emitters for onboard exhaust emissions IR sensor. , 2005, , .		0
69	Microcavity light emitters and microbolometer detectors for gas monitoring in the 2-5 μ m range. , 2005, 5739, 134.		0
70	Room temperature emission from Er-doped silicon-rich oxide toroidal microcavities. , 0, , .		0
71	Strong light extraction enhancement in erbium doped SOI based photonic crystals. , 0, , .		0
72	Si-based two-dimensional photonic crystals coupled to one-dimensional Bragg mirrors. Journal of Luminescence, 2006, 121, 286-289.	3.1	0

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73	Properties of Coupling a 2D SOI Photonic Crystal to a Bragg Mirror. , 2006, , .		0
74	Tracking light in high Q low V nanocavities. , 2006, , MB5.		0
75	Recycling losses and tapered lineic microcavities on SOI. , 2006, 6195, 427.		0
76	Imaging and manipulating confined electromagnetic fields in photonic crystal nanocavities with SNOM probes. , 2007, , .		0
77	Temperature tuning of ultra-high Q/V SOI microcavities. Proceedings of SPIE, 2008, , .	0.8	0
78	Influence of a NSOM probe shape on a photonic crystal microcavity mode coupling. , 2009, , .		0
79	Optical near field interactions. Proceedings of SPIE, 2010, , .	0.8	0
80	In a nanoscience lab. Comptes Rendus Physique, 2011, 12, 614-619.	0.9	0
81	Extraordinary tuning of a nanocavity by a near-field probe. Photonics and Nanostructures - Fundamentals and Applications, 2011, 9, 269-275.	2.0	0
82	Tunable optical lattices in the near-field of a few-mode nanophotonic waveguide. EPJ Web of Conferences, 2019, 215, 14001.	0.3	0
83	On-Chip Periodic Arrays of Optical Traps Based on the Superposition of Guided Modes in Silicon Waveguides. , 2019, , .		0
84	Optical Trapping and Gram-Type Differentiation of Living Bacteria in 2D Hollow Photonic Crystal Cavities. , 2019, , .		0
85	Bloch Modes Coupling in Photonic Crystal Waveguides. , 2005, , .		0
86	SUB-WAVELENGTH IMAGING OF LIGHT CONFINEMENT AND PROPAGATION IN SOI BASED PHOTONIC CRYSTAL DEVICES. , 2006, , .		0
87	Active near-field optical microscopy. , 2008, , .		0
88	Optronics. , 2007, , 619-664.		0