Guilhem Almuneau

List of Publications by Year
in descending order

102	882	471371 17	610775 24
papers	citations	h-index	g-index

102	102	102	542
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	88â€ŠÂ°C, continuous-wave operation of apertured, intracavity contacted, 1.55 Î¼m vertical-cavity surface-emitting lasers. Applied Physics Letters, 2001, 78, 1337-1339.	1.5	49
2	1.55-Î¼m InP-lattice-matched VCSELs with AlGaAsSb-AlAsSb DBRs. IEEE Journal of Selected Topics in Quantum Electronics, 2001, 7, 224-230.	1.9	48
3	Room-temperature, electrically-pumped multiple-active-region VCSELs with high differential efficiency at 1.55 [micro sign]m. Electronics Letters, 1999, 35, 1084.	0.5	42
4	Electrically-pumped, single-epitaxial VCSELs at 1.55 [micro sign]m with Sb-based mirrors. Electronics Letters, 1999, 35, 1337.	0.5	41
5	Room-temperature, CW operation of lattice-matched long-wavelength VCSELs. Electronics Letters, 2000, 36, 1465.	0.5	32
6	Numerical Analysis of High-Index Nano-Composite Encapsulant for Light-Emitting Diodes. Japanese Journal of Applied Physics, 2006, 45, 2546-2549.	0.8	32
7	GaInSb/AlGaAsSb strained quantum well semiconductor lasers for 1.55 m operation. Semiconductor Science and Technology, 1999, 14, 89-92.	1.0	29
8	Editorial on Dissipative Optical Solitons. European Physical Journal D, 2010, 59, 1-2.	0.6	28
9	Quantum-Dot Double Layer Polymer Waveguides by Evanescent Light Coupling. Journal of Lightwave Technology, 2013, 31, 2515-2525.	2.7	25
10	Long-wavelength (Ga, In)Sb/GaSb strained quantum well lasers grown by molecular beam epitaxy. Semiconductor Science and Technology, 1998, 13, 936-940.	1.0	22
11	Real-timein situmonitoring of wet thermal oxidation for precise confinement in VCSELs. Semiconductor Science and Technology, 2008, 23, 105021.	1.0	22
12	High reflectivity Te-doped GaAsSb/AlAsSb Bragg mirror for 1.5 [micro sign]m surface emitting lasers. Electronics Letters, 1997, 33, 140.	0.5	21
13	Molecular beam epitaxy growth and characterizations of AlGaAsSb/AlAsSb Bragg reflectors on InP. Journal of Crystal Growth, 1998, 183, 15-22.	0.7	21
14	Accurate control of Sb composition in AlGaAsSb alloys on InP substrates by molecular beam epitaxy. Journal of Crystal Growth, 2000, 208, 113-116.	0.7	20
15	Improved electrical and thermal properties of InP-AlGaAsSb Bragg mirrors for long-wavelength vertical-cavity lasers. IEEE Photonics Technology Letters, 2000, 12, 1322-1324.	1.3	20
16	Spotted Custom Lenses to Tailor the Divergence of Vertical-Cavity Surface-Emitting Lasers. IEEE Photonics Technology Letters, 2010, 22, 1592-1594.	1.3	20
17	Efficient excitation of photoluminescence in a two-dimensional waveguide consisting of a quantum dot-polymer sandwich-type structure. Optics Letters, 2014, 39, 4962.	1.7	17
18	Growth and characterization of vertical cavity structures on InP with GaAsSb/AlAsSb Bragg mirrors for 1.55Î¼m emission. Journal of Crystal Growth, 1999, 201-202, 1024-1027.	0.7	16

#	Article	IF	Citations
19	Observation of overstrain in the coalescence zone of AlAs/AlOx oxidation fronts. Applied Physics Letters, 2011, 98, 261921.	1.5	16
20	Vertically Coupled Microdisk Resonators Using AlGaAs/AlOx Technology. IEEE Photonics Technology Letters, 2015, 27, 982-985.	1.3	15
21	Photoluminescence and band offset of type-II AlGaAsSb/InP heterostructures. Semiconductor Science and Technology, 2006, 21, 681-685.	1.0	13
22	Toward an AlGaAs/AlOx near-infrared integrated optical parametric oscillator. Journal of the Optical Society of America B: Optical Physics, 2014, 31, 542.	0.9	13
23	Local stress-induced effects on AlGaAs/AlOx oxidation front shape. Applied Physics Letters, 2014, 105, .	1.5	13
24	Selectively etched undercut apertures in AlAsSb-based VCSELs. IEEE Photonics Technology Letters, 2001, 13, 97-99.	1.3	12
25	Highly reflective AlGaAsSb/InP Bragg reflector at 1.55Î¼m grown by MOVPE. Journal of Crystal Growth, 2006, 286, 247-254.	0.7	12
26	Anisotropy in the wet thermal oxidation of AlGaAs: influence of process parameters. Optical Materials Express, 2018, 8, 1788.	1.6	12
27	Lateral oxidation kinetics of AlAsSb and related alloys lattice matched to InP. Journal of Applied Physics, 2001, 89, 2458-2464.	1.1	11
28	Oxide-confined mid-infrared VCSELs. Electronics Letters, 2012, 48, 1616-1618.	0.5	11
29	Oxide confinement and high contrast grating mirrors for Mid-infrared VCSELs. Optical Materials Express, 2013, 3, 1576.	1.6	11
30	Scanning microwave microscopy applied to semiconducting GaAs structures. Review of Scientific Instruments, 2018, 89, 023704.	0.6	11
31	Free engineering of buried oxide patterns in GaAs/AlAs epitaxial structures. Electronics Letters, 2007, 43, 730.	0.5	10
32	Optimal control of AlAs oxidation via digital alloy heterostructure compositions. Journal Physics D: Applied Physics, 2009, 42, 175105.	1.3	10
33	High reflectivity monolithic sub-wavelength diffraction grating with GaAs/AlOxstack. Journal of Optics (United Kingdom), 2011, 13, 015505.	1.0	10
34	Single lithography-step self-aligned fabrication process for Vertical-Cavity Surface-Emitting Lasers. Materials Science in Semiconductor Processing, 2017, 61, 35-38.	1.9	10
35	Interband cascade Lasers with AlGaAsSb cladding layers emitting at 33â€…Âµm. Optics Express, 2019, 27, 31425.	1.7	10
36	Wet oxidation of AlAsSb alloys catalyzed by methanol. Applied Surface Science, 2000, 161, 426-433.	3.1	9

#	Article	IF	Citations
37	MOVPE growth of long wavelength AlGaAsSbâˆ•InP Bragg mirrors. Electronics Letters, 2004, 40, 940.	0.5	9
38	Modelling anisotropic lateral oxidation from circular mesas. Optical Materials Express, 2018, 8, 1762.	1.6	9
39	Molecular beam epitaxial growth of monolithic 1.55 Î¼m vertical cavity surface emitting lasers with AlGaAsSb/AlAsSb Bragg mirrors. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1601.	1.6	8
40	High sensitivity integrated lateral detection in VCSELs. Electronics Letters, 2005, 41, 129.	0.5	8
41	A new approach of planar oxidation of buried Al_xGa_{1â€“x}As/GaAs epitaxial structures for optical and electrical confinement applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 338-341.	0.8	8
42	Coupled-cavity vertical-emitting semiconductor laser for continuous-wave terahertz emission. IEE Proceedings: Optoelectronics, 2002, 149, 88-92.	0.8	7
43	Efficient lateral confinement by an oxide aperture in a mid-infrared GaSb-based vertical light-emitting source. Journal Physics D: Applied Physics, 2011, 44, 142001.	1.3	7
44	Vertical electro-absorption modulator design and its integration in a VCSEL. Journal Physics D: Applied Physics, 2018, 51, 145101.	1.3	7
45	Effect of low and staggered gap quantum wells inserted in GaAs tunnel junctions. Journal Physics D: Applied Physics, 2018, 51, 145107.	1.3	7
46	Thickness Limitation of Band-to-Band Tunneling Process in GaAsSb/InGaAs Type-II Tunnel Junctions Designed for Multi-Junction Solar Cells. ACS Applied Energy Materials, 2019, 2, 1149-1154.	2.5	7
47	Modelling of interband transitions in GaAs tunnel diode. Semiconductor Science and Technology, 2016, 31, 06LT01.	1.0	6
48	3.3 Âµm interband-cascade resonant-cavity light-emitting diode with narrow spectral emission linewidth. Semiconductor Science and Technology, 2020, 35, 125029.	1.0	6
49	Molecular beam epitaxy growth of 1.3 [micro sign]m high-reflectivity AlGaAsSb/AlAsSb Bragg mirror. Electronics Letters, 1997, 33, 1227.	0.5	5
50	Management of the electrical injection uniformity in broad-area top-emitting VCSELs. European Physical Journal D, 2010, 59, 53-57.	0.6	5
51	Multiband corrections for the semi-classical simulation of interband tunneling in GaAs tunnel junctions. Journal Physics D: Applied Physics, 2017, 50, 385109.	1.3	5
52	High frequency operation of an integrated electro-absorption modulator onto a vertical-cavity surface-emitting laser. JPhys Photonics, 2019, 1, 02LT01.	2.2	5
53	As-Grown InGaAsN Subcells for Multijunction Solar Cells by Molecular Beam Epitaxy. IEEE Journal of Photovoltaics, 2021, 11, 1271-1277.	1.5	5
54	Structure-induced effects on the selective wet thermal oxidation of digital AlxGa1â€“xAs alloys. Journal of Materials Research, 2008, 23, 3006-3012.	1.2	4

#	Article	IF	Citations
55	Method for improving the electrical insulating properties of wet thermal oxide of AlAsSb on GaSb substrates. Applied Physics Letters, 2013, 103, .	1.5	4
56	Anisotropic lateral oxidation of Al-IIIâ€“V semiconductors: inverse problem and circular aperture fabrication. Semiconductor Science and Technology, 2019, 34, 015014.	1.0	4
57	AlGaAs guided-wave second-harmonic generation at 223â€‰â€‰Î¼m from a quantum cascade laser. Applied Optics, 2014, 53, 5615.	0.9	3
58	Photoluminescence from InGaAs/GaAs quantum well regrown on a buried patterned oxidized AlAs layer. Applied Physics Letters, 2014, 104, 061912.	1.5	3
59	Coupled mode analysis of micro-disk resonators with an asymmetric-index-profile coupling region. , 2017, , .		3
60	Low-loss buried AlGaAs/AlOx waveguides using a quasi-planar process. Optics Express, 2017, 25, 19275.	1.7	3
61	Shaping vertical-cavity surface-emitting laser mode profiles with an antiresonant oxide island for improved single-mode emission. Journal of the Optical Society of America B: Optical Physics, 2018, 35, 2259.	0.9	3
62	Electro-Absorption Modulator Vertically Integrated on a VCSEL: Microstrip-Based High-Speed Electrical Injection on Top of a BCB Layer. Journal of Lightwave Technology, 2019, 37, 3861-3868.	2.7	3
63	Modeling the Lateral Wet Oxidation of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mtext>Al</mml:mtext><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mtext>Ga</mml:mtext> Arbitrary Mesa Geometries. Physical Review Applied, 2019, 11, .	1.5	3
64	Degradation Study of InGaAsN p-i-n Solar Cell Under 1-MeV Electron Irradiation. IEEE Transactions on Nuclear Science, 2021, 68, 1694-1700.	1.2	3
65	Longitudinal-optical phonon broadening due to nitrogen atom incorporation in InGaAsN/GaAs quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3887-3890.	0.8	2
66	Carrier lifetime reduction in 1.5Î¼m AlGaAsSb saturable absorbers with air and AlAsSb barriers. Applied Physics Letters, 2006, 89, 071114.	1.5	2
67	Lateral Waveguiding Properties of VCSELs for Integrated Optical Monitoring. Optical and Quantum Electronics, 2006, 38, 523-534.	1.5	2
68	Self-aligned BCB planarization method for high-frequency signal injection in a VCSEL with an integrated modulator. Proceedings of SPIE, 2016, , .	0.8	2
69	Oxide-confined VCSELs fabricated with a simple self-aligned process flow. Semiconductor Science and Technology, 2017, 32, 125004.	1.0	2
70	High frequency characterization of a vertical electro-absorption modulator for data communications. , 2018, , .		2
71	29GHz-Bandwidth Monolithically Integrated EAM-VCSEL. , 2019, , .		2
72	Nearâ€infrared electroabsorption inp+/nâ^'/n+GaSb diodes. Journal of Applied Physics, 1996, 79, 49-52.	1.1	1

#	Article	IF	Citations
73	Integrated photodetection in VCSELs. , 0, , .		1
74	Three dimensional confinement technology based on buried patterned AlOx layers: Potentials and applications for VCSEL arrays. , 2013, , .		1
75	Impact of 1 MeV proton irradiation on InGaAsN solar cells. Semiconductor Science and Technology, 0, , .	1.0	1
76	Design considerations in electrically-pumped, single-epitaxial VCSELs at 1.55 Î¼m with Sb-based mirrors. , 0, , .		0
77	1.55 Î¼m room temperature electrically pumped operation of fully lattice-matched Sb-based vertical cavity surface emitting lasers. , 0, , .		0
78	Epitaxial long wavelength DBRs on InP-AlAsSb or lateral oxidation. , 1999, , .		0
79	<title>Long-wavelength VCSELs with AlGaAsSb/AlAsSb Bragg mirrors lattice-matched on InP substrates</title>. , 2000, 3946, 48.		0
80	1.55-Î¼m, InP-lattice-matched VCSELs operating at RT under CW. , 0, , .		0
81	Integrated lateral detection in VCSELs for optical system monitoring. , 0, , .		0
82	Study and fabrication of buried oxide layers in GaAs/AlAs structures for confinement engineering in photonic devices. Proceedings of SPIE, 2008, , .	0.8	0
83	AlOx/GaAs high contrast grating mirrors for mid infrared VCSELs. , 2012, , .		0
84	Technologies of oxide confinement and high contrast grating mirrors for mid-infrared VCSELs. , 2014, , .		0
85	AlOx/AlGaAs technology for multi-plane integrated photonic devices. , 2015, , .		0
86	GaAs/AlOxhigh-contrast grating mirrors for mid-infrared VCSELs. , 2015, , .		0
87	Parameter-tolerant design of high contrast gratings. , 2015, , .		0
88	Type II heterojunction tunnel diodes based on GaAs for multi-junction solar cells: Fabrication, characterization and simulation. , 2016, , .		0
89	III-V-semiconductor vertically-coupled whispering-gallery mode resonators made by selective lateral oxidation. Proceedings of SPIE, 2016, , .	0.8	0
90	Anisotropic oxidation of circular mesas for complex confinement in photonic devices: Experiments and modelling. , 2017, , .		0

#	Article	IF	Citations
91	Vertical integration of an electro-absorption modulator within a VCSEL device. , 2017, , .		0
92	Coupled-Mode Analysis of Vertically Coupled AlGaAs/AlOx Microdisk Resonators. IEEE Journal of Quantum Electronics, 2018, 54, 1-8.	1.0	0
93	Numerical Modeling of ARROW-VCSELs with Oxide Island. , 2018, , .		0
94	Antiresonant Oxide Island as a Measure for Improved Single-Mode Emission in VCSELs. , 2018, , .		0
95	Controlled Oxidation of III-V Semiconductors for Photonic Devices. , 2019, , .		0
96	Toward MIR VCSELs operating in CW at RT. , 2019, , .		0
97	Progress in Interband Cascade Lasers: From Edge Emitting Lasers to VCSELs. , 2020, , .		0
98	Engineering the anisotropy of AlAs wet oxidation using silicon implantation. Optical Materials Express, 2021, 11, 3600.	1.6	0
99	Technological Solutions for Embedded Oxide-based Confinement for New Photonic Device Architectures. , 2015, , .		0
100	Integration of electro-absorption modulator in a vertical-cavity surface-emitting laser. , 2018, , .		0
101	Development of 1 eV InGaAsN PIN subcell for MJSC integration and space application. , 2020, , .		0
102	Selective wet oxidation of AlAsSb alloys on GaAs. AIP Advances, 2021, 11, 125010.	0.6	0