Eric Larkins

List of Publications by Year
in descending order

67 papers	732 citations	623188 14 h-index	580395 25 g-index
69 all docs	69 docs citations	69 times ranked	511 citing authors

#	Article	IF	Citations
1	Improved refractive index formulas for the AlxGa1â^'xN and InyGa1â^'yN alloys. Journal of Applied Physics, 2001, 89, 1108-1115.	1.1	156
2	Process parameter dependence of impurity-free interdiffusion in GaAs/AlxGa1â^'xAs and InxGa1â^'yAs/GaAs multiple quantum wells. Journal of Electronic Materials, 1995, 24, 805-812.	1.0	58
3	Narrow-line coherently combined tapered laser diodes in a Talbot external cavity with a volume Bragg grating. Applied Physics Letters, 2008, 93, 211102.	1.5	42
4	Optical and photoelectric study of mirror facets in degraded high power AlGaAs 808 nm laser diodes. Journal of Applied Physics, 2000, 87, 3227-3233.	1.1	33
5	Spaceâ€charge effects in photovoltaic double barrier quantum well infrared detectors. Applied Physics Letters, 1993, 63, 782-784.	1.5	32
6	Reduction of the acceptor impurity background in GaAs grown by molecular beam epitaxy. Applied Physics Letters, 1986, 49, 391-393.	1.5	27
7	InGaAs/GaAs multiple-quantum-well modulators and switches. Optical and Quantum Electronics, 1993, 25, S865-S883.	1.5	26
8	Influence of the As:Ga flux ratio on growth rate, interface quality, and impurity incorporation in AlGaAs/GaAs quantum wells grown by molecular beam epitaxy. Applied Physics Letters, 1989, 54, 623-625.	1.5	20
9	Influence of interdiffusion processes on optical and structural properties of pseudomorphic In0.35Ga0.65As/GaAs multiple quantum well structures. Journal of Applied Physics, 1996, 79, 6818-6825.	1.1	19
10	Photoluminescence spectroscopy on annealed molecular beam epitaxy grown GaN. Journal of Applied Physics, 2001, 89, 1070-1074.	1.1	19
11	Diffusive electrical conduction in highâ€speedpâ€iâ€nphotodetectors. Applied Physics Letters, 1992, 60, 2648-2650.	1.5	18
12	By-emitter degradation analysis of high-power laser bars. Journal of Applied Physics, 2005, 98, 063101.	1.1	16
13	Optimization of RF plasma sources for the MBE growth of nitride and dilute nitride semiconductor material. Semiconductor Science and Technology, 2007, 22, 15-19.	1.0	16
14	The impact of nonequilibrium gain in a spectral laser diode model. Optical and Quantum Electronics, 2007, 38, 1019-1027.	1.5	16
15	Strain relaxation in highâ€speedpâ€iâ€nphotodetectors with In0.2Ga0.8As/GaAs multiple quantum wells. Applied Physics Letters, 1993, 63, 2920-2922.	1.5	15
16	Monolayer-resolved x-ray-excited Auger-electron diffraction from single-plane emission in GaAs. Physical Review B, 1993, 48, 11838-11845.	1.1	14
17	Wideband finite-difference-time-domain beam propagation method. Microwave and Optical Technology Letters, 2002, 34, 243-247.	0.9	14
18	The impact of temperature and strain-induced band gap variations on current competition and emitter power in laser bars. Applied Physics Letters, 2011, 98, .	1.5	14

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19	Defect and strain redistribution in InxGa1â^'xAs/GaAs multiple quantum wells studied by resonant Raman scattering. Applied Physics Letters, 1993, 63, 1842-1844.	1.5	13
20	Carrier profile for In0.35Ga0.65As/GaAs multiquantum well lasers from capacitanceâ€“voltage measurements. Applied Physics Letters, 1996, 68, 1138-1140.	1.5	12
21	Volume Bragg grating external cavities for the passive phase locking of high-brightness diode laser arrays: theoretical and experimental study. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1289.	0.9	12
22	Enhanced Brightness of Tapered Laser Diodes Based on an Asymmetric Epitaxial Design. IEEE Photonics Technology Letters, 2007, 19, 1640-1642.	1.3	11
23	Investigating the use of a hybrid plasmonicâ€“photonic nanoresonator for optical trapping using finite-difference time-domain method. Optical and Quantum Electronics, 2016, 48, 1.	1.5	11
24	The impact of hot-phonons on the performance of 1.3Âµm dilute nitride edge-emitting quantum well lasers. Journal of Physics: Conference Series, 2007, 92, 012068.	0.3	10
25	Improvement of the beam quality of a broad-area diode laser using asymmetric feedback from an external cavity. Optical and Quantum Electronics, 2008, 40, 1097-1102.	1.5	9
26	Emulation of the operation and degradation of high-power laser bars using simulation tools. Semiconductor Science and Technology, 2012, 27, 094012.	1.0	8
27	Picosecond spectroscopy of optically modulated highâ€speed laser diodes. Applied Physics Letters, 1995, 67, 1809-1811.	1.5	6
28	Field dependence of carrier capture in GaAs/AlAs/AlGaAs double-barrier quantum well structures. Semiconductor Science and Technology, 1995, 10, 1329-1338.	1.0	6
29	Study of GaN thin layers subjected to high-temperature rapid thermal annealing. Semiconductors, 1998, 32, 1048-1053.	0.2	6
30	Inclusion of thermal boundary resistance in the simulation of high-power 980Ânm ridge waveguide lasers. Optical and Quantum Electronics, 2008, 40, 373-377.	1.5	6
31	Gain switching in highâ€speed semiconductor lasers: Intermediateâ€signal analysis. Applied Physics Letters, 1994, 65, 661-663.	1.5	5
32	Tunneling assisted thermionic emission in doubleâ€barrier quantum well structures. Journal of Applied Physics, 1995, 77, 2537-2543.	1.1	5
33	Determination of the band offset and the characteristic interdiffusion length in quantum-well lasers using a capacitanceâ€“voltage technique. Applied Physics Letters, 2000, 77, 776-778.	1.5	5
34	Thermal performance investigation of DQW GaInNAs laser diodes. Optical and Quantum Electronics, 2008, 40, 385-390.	1.5	5
35	Nonresonant electron capture in GaAs/AlAs/AlGaAs doubleâ€barrier quantum well infrared detectors. Applied Physics Letters, 1994, 64, 1015-1017.	1.5	4
36	Independent determination of In and N concentrations in GaInNAs alloys. Semiconductor Science and Technology, 2009, 24, 105016.	1.0	4

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37	Impurity free selective interdiffusion of pseudomorphic In_yGa_{1â^'y}As/GaAs multiple quantum well laser and modulator structures. Materials Science and Technology, 1995, 11, 840-844.	0.8	3
38	Photoluminescence from self-assembled GaAs inclusions embedded in a GaN host crystal. Physica Status Solidi (B): Basic Research, 2003, 238, 204-212.	0.7	3
39	The study of strain and defects in high power laser diodes by spectroscopically resolved photoluminescence microscopy. EPJ Applied Physics, 2004, 27, 469-473.	0.3	3
40	Fourier transform analysis method for modeling the positions and properties of cavity defects in Fabryâ€“PÃ©rot laser diodes. Applied Physics Letters, 2005, 86, 061104.	1.5	3
41	Numerical modeling of high-power self-organizing external cavity lasers. Optical and Quantum Electronics, 2008, 40, 1117-1121.	1.5	3
42	Static and dynamic performance optimisation of a 1.3ÂÎ¼m GaInNAs ridge waveguide laser. Optical and Quantum Electronics, 2008, 40, 1181-1186.	1.5	3
43	Separate phase-locking and coherent combining of two laser diodes in a Michelson cavity. Proceedings of SPIE, 2015, , .	0.8	3
44	Design of short-cavity, high-brightness 980 nm laser diodes with distributed phase correction. Applied Physics Letters, 2002, 80, 3506-3508.	1.5	2
45	Study of photoluminescence from self-formed GaAs nanocrystallites in As-doped GaN grown by molecular beam epitaxy. Semiconductor Science and Technology, 2003, 18, 997-1000.	1.0	2
46	Imaging of spontaneous emission from 980â€‰nm tapered lasers with windowed N-contacts. EPJ Applied Physics, 2004, 27, 455-459.	0.3	2
47	Photoluminescence microscopy investigation of lattice relaxation and defect formation processes in pseudomorphically strained InGaAsN multiple quantum wells. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 467-472.	0.8	2
48	Factors influencing the brightness and beam quality of tapered laser diodes and bars. , 2012, , .		2
49	High-power operation of coherently coupled tapered laser diodes in an external cavity. , 2016, , .		2
50	Impact of unintentional external feedback on the performance of high-power tapered lasers. , 2017, , .		2
51	High-power diode lasers with an aluminium-free active region at 915 nm. , 2005, , .		1
52	An investigation of thermal boundary resistance in 1.3 Âµm edgeâ€emitting dilute nitride quantum well laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 485-489.	0.8	1
53	Thermally dependent gain of 1.3 Âµm dilute nitride double quantum well lasers. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 490-494.	0.8	1
54	Reliability assessment and degradation analysis of 1.3â€‚Î¼m GaInNAs lasers. Journal of Applied Physics, 2009, 106, 093110.	1.1	1

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55	Efficient Near IR Photoluminescence from Gallium Nitride Layers Doped with Arsenic. Semiconductors, 2005, 39, 73.	0.2	0
56	Optimization of epitaxial layer design for high brightness tapered lasers. , 2005, , .		0
57	The Impact of Nonequilibrium Gain in a Spectral Laser Model. , 2006, , .		0
58	High power 980 nm tapered lasers with separate contacts: numerical simulation and comparison with experiments. , 2007, , .		0
59	Simulation of Tapered Lasers with Separate Contacts. , 2007, , .		0
60	Introduction to the OQE Special Issue on â€œNumerical Simulation of Optoelectronic Devicesâ€• Optical and Quantum Electronics, 2007, 38, 933-934.	1.5	0
61	Introduction to the OQE special issue on â€œNumeric Simulation of Optoelectronic Devicesâ€• Optical and Quantum Electronics, 2008, 40, 293-294.	1.5	0
62	Numerical modeling of photorefractive crystals for self-adapting external cavity laser mirrors. Optical and Quantum Electronics, 2009, 41, 681-688.	1.5	0
63	Wavelength-stabilized tapered laser diodes in an external Talbot cavity: simulations and experiments. , 2009, , .		0
64	Elimination of numerical underflow in the modelling of optoelectronic devices using multiple precision. , 2011, , .		0
65	Numerical modeling in photonic crystals integrated technology: The COPERNICUS Project. , 2011, , .		0
66	Preface for HPD'13 special issue. , 2013, , .		0
67	Design and simulation of high-speed nanophotonic electro-optic modulators. , 2014, , .		0