Kerry J Vahala

List of Publications by Year
in descending order

231 papers	24,998 citations	12597 71 h-index	7627 156 g-index
234 all docs	234 docs citations	234 times ranked	13907 citing authors

#	Article	IF	Citations
1	Efficiency of pulse pumped soliton microcombs. Optica, 2022, 9, 231.	4.8	22
2	Probing material absorption and optical nonlinearity of integrated photonic materials. Nature Communications, 2022, 13, .	5.8	27
3	Correlated self-heterodyne method for ultra-low-noise laser linewidth measurements. Optics Express, 2022, 30, 25147.	1.7	12
4	Probing the Material Loss and Optical Nonlinearity of Integrated Photonic Materials. , 2021, , .		1
5	Towards milli-Hertz laser frequency noise on a chip. , 2021, , .		3
6	Formation Dynamics and Snapshots of Self-injection-locking Dark Solitons. , 2021, , .		0
7	Oscillatory motion of a counterpropagating Kerr soliton dimer. Physical Review A, 2021, 103, .	1.0	9
8	Quantum diffusion of microcavity solitons. Nature Physics, 2021, 17, 462-466.	6.5	30
9	Dirac Solitons in Optical Microresonators. , 2021, , .		1
10	Earth-rotaton-rate Sensitivity. , 2021, , .		0
11	Hertz-linewidth semiconductor lasers using CMOS-ready ultra-high-Q microresonators. Nature Photonics, 2021, 15, 346-353.	15.6	260
12	Dispersive-wave induced noise limits in miniature soliton microwave sources. Nature Communications, 2021, 12, 1442.	5.8	36
13	Ultra-narrow linewidth lasers and microcombs based on self-injection locking in integrated photonics (Invited). , 2021, , .		0
14	Reaching fiber-laser coherence in integrated photonics. Optics Letters, 2021, 46, 5201.	1.7	61
15	Hertz-level-linewidth semiconductor laser via injection locking to an ultra-high Q silicon nitride microresonator. , 2021, , .		0
16	Mid-infrared dual-comb spectroscopy with GHz resolution using soliton microcombs. , 2021, , .		0
17	Architecture for microcomb-based GHz-mid-infrared dual-comb spectroscopy. Nature Communications, 2021, 12, 6573.	5.8	45
18	High-performance lasers for fully integrated silicon nitride photonics. Nature Communications, 2021, 12, 6650.	5.8	61

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19	Microresonator Brillouin Laser Gyroscope with Earth-Rotation-Rate Sensitivity. , 2021, , .		0
20	Optical frequency combs: Coherently uniting the electromagnetic spectrum. Science, 2020, 369, .	6.0	294
21	Integrated turnkey soliton microcombs. Nature, 2020, 582, 365-369.	13.7	295
22	Direct Kerr frequency comb atomic spectroscopy and stabilization. Science Advances, 2020, 6, eaax6230.	4.7	49
23	Petermann-factor sensitivity limit near an exceptional point in a Brillouin ring laser gyroscope. Nature Communications, 2020, 11, 1610.	5.8	104
24	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. Nature Communications, 2020, 11, 1331.	5.8	151
25	A chip-based Brillouin laser gyroscope. , 2020, , .		0
26	Earth rotation measured by a chip-scale ring laser gyroscope. Nature Photonics, 2020, 14, 345-349.	15.6	133
27	Dirac solitons in optical microresonators. Light: Science and Applications, 2020, 9, 205.	7.7	15
28	Greater than one billion Q factor for on-chip microresonators. Optics Letters, 2020, 45, 5129.	1.7	61
29	Interleaved difference-frequency generation for microcomb spectral densification in the mid-infrared. Optica, 2020, 7, 309.	4.8	18
30	Linewidth enhancement factor in a microcavity Brillouin laser. Optica, 2020, 7, 1150.	4.8	24
31	On-chip Q-factor greater than 1 billion. , 2020, , .		1
32	Dissipated Kerr Solitons in Optical Microresonators. , 2020, , 79-123.		0
33	Microresonator soliton dual-comb imaging. Optica, 2019, 6, 1110.	4.8	42
34	Vernier spectrometer using counterpropagating soliton microcombs. Science, 2019, 363, 965-968.	6.0	83
35	Self-starting bi-chromatic LiNbO₃ soliton microcomb. Optica, 2019, 6, 1138.	4.8	246
36	Observation of the exceptional-point-enhanced Sagnac effect. Nature, 2019, 576, 65-69.	13.7	240

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37	Searching for exoplanets using a microresonator astrocomb. Nature Photonics, 2019, 13, 25-30.	15.6	194
38	Directly pumped 10â€‰â€‰GHz microcomb modules from low-power diode lasers. Optics Letters, 2019, 44, 1841.	3.7	17
39	Architecture for the photonic integration of an optical atomic clock. Optica, 2019, 6, 680.	4.8	346
40	Measurement of the Earthâ€™s Rotation Using a Chip-Based Brillouin Laser Gyroscope. , 2019, , .		0
41	Towards Integrated Microcomb Systems for Hertz-Scale Accuracy Optical Signal Generation. , 2019, , .		2
42	Soliton microcomb range measurement. Science, 2018, 359, 884-887.	6.0	389
43	An optical-frequency synthesizer using integrated photonics. Nature, 2018, 557, 81-85.	13.7	550
44	Microâ€Resonator Soliton Generated Directly with a Diode Laser. Laser and Photonics Reviews, 2018, 12, 1700307.	4.4	24
45	Bridging ultrahigh-Q devices and photonic circuits. Nature Photonics, 2018, 12, 297-302.	15.6	147
46	Imaging soliton dynamics in optical microcavities. Nature Communications, 2018, 9, 3565.	5.8	67
47	The planet formation imager. Experimental Astronomy, 2018, 46, 517-529.	1.6	12
48	Universal isocontours for dissipative Kerr solitons. Optics Letters, 2018, 43, 2567.	1.7	6
49	Gigahertz-repetition-rate soliton microcombs. Optica, 2018, 5, 65.	4.8	84
50	Soliton Microcombs at Gigahertz-Repetition-Rates. , 2018, , .		0
51	Kerr-microresonator solitons from a chirped background. Optica, 2018, 5, 1304.	4.8	52
52	Temporal soliton generated in a micro-resonator directly with a diode laser. , 2018, , .		0
53	Temporal soliton locked in a micro-resonator pumped by a diode laser without an amplifier. , 2018, , .		0
54	Coherent ultra-violet to near-infrared generation in silica ridge waveguides. Nature Communications, 2017, 8, 13922.	5.8	59

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55	Single-mode dispersive waves and soliton microcomb dynamics. Nature Communications, 2017, 8, 14869.	5.8	142
56	Phonon-Limited-Linewidth of Brillouin Lasers at Cryogenic Temperatures. Physical Review Letters, 2017, 119, 143901.	2.9	27
57	Counter-propagating solitons in microresonators. Nature Photonics, 2017, 11, 560-564.	15.6	157
58	Towards visible soliton microcomb generation. Nature Communications, 2017, 8, 1295.	5.8	81
59	Stokes solitons in optical microcavities. Nature Physics, 2017, 13, 53-57.	6.5	149
60	Ultra-low phase-noise microwave oscillator based on electro-optical frequency division. , 2017, , .		3
61	Fiber taper characterization by optical backscattering reflectometry. Optics Express, 2017, 25, 22312.	1.7	21
62	Microresonator Brillouin gyroscope. Optica, 2017, 4, 346.	4.8	182
63	A 30 GHz ultra-low-phase-noise oscillator using electro-optical frequency division. , 2017, , .		1
64	Towards an Integrated-Photonics Optical-Frequency Synthesizer With <1 Hz Residual Frequency Noise. , 2017, , .		7
65	Integrable Soliton Microcomb at Microwave Repetition Rates. , 2017, , .		0
66	Microresonator Soliton Dual-Comb Spectroscopy. , 2017, , .		4
67	Spatial-mode-interaction-induced dispersive waves and their active tuning in microresonators. Optica, 2016, 3, 1132.	4.8	61
68	Ultra-High-Q Silica-on-Silicon Ridge-Ring-Resonator with an Integrated Silicon Nitride Waveguide. , 2016, , .		2
69	Active capture and stabilization of temporal solitons in microresonators. Optics Letters, 2016, 41, 2037.	1.7	142
70	Microresonator soliton dual-comb spectroscopy. Science, 2016, 354, 600-603.	6.0	580
71	New directions for optical frequency division: Soliton microcombs and electro-optical-modulation. , 2016, , .		0
72	Theory and measurement of the soliton self-frequency shift and efficiency in optical microcavities. Optics Letters, 2016, 41, 3419.	1.7	97

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73	New directions for high-Q optical micro-resonators: Soliton-based optical clocks to compact Sagnac gyros. , 2016, , .		1
74	Phase-coherent microwave-to-optical link with a self-referenced microcomb. Nature Photonics, 2016, 10, 516-520.	15.6	133
75	Broadband dispersion-engineered microresonator on a chip. Nature Photonics, 2016, 10, 316-320.	15.6	79
76	Microresonator Soliton Dual-Comb Spectroscopy. , 2016, , .		2
77	Soliton frequency comb at microwave rates in a high-Q silica microresonator. Optica, 2015, 2, 1078.	4.8	416
78	Dual-microcavity narrow-linewidth Brillouin laser. Optica, 2015, 2, 225.	4.8	96
79	Electro-optical frequency division and stable microwave synthesis. , 2015, , .		0
80	Microwave-rate soliton mode-locking on a chip. , 2015, , .		0
81	Electro-optical frequency division and stable microwave synthesis. , 2015, , .		0
82	Low-noise Brillouin laser on a chip at 1064â€‰â€‰nm. Optics Letters, 2014, 39, 287.	1.7	60
83	Supercontinuum generation in an on-chip silica waveguide. Optics Letters, 2014, 39, 1046.	1.7	60
84	Microresonator frequency comb optical clock. Optica, 2014, 1, 10.	4.8	367
85	Design and characterization of whispering-gallery spiral waveguides. Optics Express, 2014, 22, 5196.	1.7	18
86	Pump frequency noise coupling into a microcavity by thermo-optic locking. Optics Express, 2014, 22, 14559.	1.7	13
87	Electro-optical frequency division and stable microwave synthesis. Science, 2014, 345, 309-313.	6.0	138
88	Microwave synthesizer using an on-chip Brillouin oscillator. Nature Communications, 2013, 4, 2097.	5.8	248
89	Spiral resonators for on-chip laser frequency stabilization. Nature Communications, 2013, 4, 2468.	5.8	89
90	Thermal stress in silica-on-silicon disk resonators. Applied Physics Letters, 2013, 102, .	1.5	17

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91	New directions for high-Q microcavities. , 2013, , .		0
92	Chemically Etched Ultra-high-Q Resonators. , 2013, , .		0
93	Characterization of a high coherence, Brillouin microcavity laser on silicon. Optics Express, 2012, 20, 20170.	1.7	154
94	Phonon Lasers in Cavity Optomechanics. , 2012, , .		0
95	Sideband spectroscopy and dispersion measurement in microcavities. Optics Express, 2012, 20, 26337.	1.7	69
96	A general design algorithm for low optical loss adiabatic connections in waveguides. Optics Express, 2012, 20, 22819.	1.7	39
97	Chemically-etched ultra-high-Q micro-cavities on a silicon chip. , 2012, , .		0
98	Ultra-low-loss delay lines and resonators on a silicon chip. , 2012, , .		1
99	Low-Pump-Power, Low-Phase-Noise, and Microwave to Millimeter-Wave Repetition Rate Operation in Microcombs. Physical Review Letters, 2012, 109, 233901.	2.9	146
100	Ultra-low-loss optical delay line on a silicon chip. Nature Communications, 2012, 3, 867.	5.8	175
101	Chemically etched ultrahigh-Q wedge-resonator on a silicon chip. Nature Photonics, 2012, 6, 369-373.	15.6	545
102	Ultra-High-Q Wedge Resonators with Precise FSR control. , 2012, , .		0
103	Compensation of thermal nonlinearity effect in optical resonators. Optics Express, 2011, 19, 7365.	1.7	35
104	Ultra-high-Q micro-cavity on a silicon chip. , 2011, , .		0
105	High sensitivity nanoparticle detection using optical microcavities. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5976-5979.	3.3	277
106	Ultra-High-Q Micro-Cavity on a Silicon Chip. , 2011, , .		0
107	An Optomechanical Oscillator on a Silicon Chip. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 276-287.	1.9	68
108	Coherent mixing of mechanical excitations in nano-optomechanical structures. Nature Photonics, 2010, 4, 236-242.	15.6	237

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109	Phonon Laser Action in a Tunable Two-Level System. Physical Review Letters, 2010, 104, 083901.	2.9	420
110	Cavity Optomechanics: Mechanical Cooling to Phonon Lasers. , 2010, , .		0
111	Cavity Optomechanics. , 2009, , .		0
112	High-Q surface-plasmon-polariton whispering-gallery microcavity. Nature, 2009, 457, 455-458.	13.7	422
113	A picogram- and nanometre-scale photonic-crystal optomechanical cavity. Nature, 2009, 459, 550-555.	13.7	625
114	Optomechanical crystals. Nature, 2009, 462, 78-82.	13.7	938
115	On-chip green silica upconversion microlaser. Optics Letters, 2009, 34, 482.	1.7	59
116	Yb-doped glass microcavity laser operation in water. Optics Letters, 2009, 34, 1153.	1.7	28
117	Thermal instability of a compound resonator. Optics Express, 2009, 17, 14088.	1.7	29
118	Direct imaging of tunneling from a potential well. Optics Express, 2009, 17, 19160.	1.7	21
119	Modeling dispersive coupling and losses of localized optical and mechanical modes in optomechanical crystals. Optics Express, 2009, 17, 20078.	1.7	81
120	High-Q double-disk microcavities for cavity optomechanics. Optics Express, 2009, 17, 20911.	1.7	77
121	Mechanical Oscillation and Cooling Actuated by the Optical Gradient Force. Physical Review Letters, 2009, 103, 103601.	2.9	158
122	Level Crossing in Toroidal On-chip Microcavities. , 2009, , .		0
123	Photonic RF Down-Converter Based on Optomechanical Oscillation. IEEE Photonics Technology Letters, 2008, 20, 234-236.	1.3	40
124	Cooling and amplifying micro-mechanical motion with light. , 2008, , .		0
125	Cooling and amplifying micro-mechanical motion using light. , 2008, , .		0
126	Observation of injection locking in an optomechanical RF oscillator. , 2008, , .		0

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127	Observation of injection locking in an optomechanical rf oscillator. Applied Physics Letters, 2008, 93, 191115.	1.5	41
128	Back-action limit of linewidth in an optomechanical oscillator. Physical Review A, 2008, 78, .	1.0	52
129	Static Envelope Patterns in Composite Resonances Generated by Level Crossing in Optical Toroidal Microcavities. Physical Review Letters, 2008, 100, 103905.	2.9	71
130	An on-chip erbium doped three-photon upconversion silica microlaser emitting at green wavelengths. , 2008, , .		0
131	Photonic RF-receiver based on all-optical down-conversion in an optomechanical oscillator. , 2008, , .		0
132	Level crossing in toroidal on-chip microcavities. , 2008, , .		0
133	Nonlinear Opto-mechanics Using Radiation Pressure in High-Q Microcavities. , 2007, , .		0
134	Modal Spectroscopy of Optoexcited Vibrations of a Micron-Scale On-Chip Resonator at Greater than 1 GHz Frequency. Physical Review Letters, 2007, 98, 123901.	2.9	86
135	Chaotic Quivering of Micron-Scaled On-Chip Resonators Excited by Centrifugal Optical Pressure. Physical Review Letters, 2007, 98, 167203.	2.9	152
136	Visible submicron microdisk lasers. Applied Physics Letters, 2007, 90, 111119.	1.5	76
137	The new high-Q physics: photonic clocks and back-action cooling on a chip. , 2007, , .		0
138	Visible microdisk and photonic crystals lasers based on InGaP/InGaAlP system. , 2007, , .		0
139	Label-free, single molecule detection of cytokines using optical microcavities. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
140	Observation of optical spring effect in a microtoroidal optomechanical resonator. Optics Letters, 2007, 32, 1611.	1.7	52
141	Ultralow-threshold Yb^3+:SiO_2 glass laser fabricated by the solgel process. Optics Letters, 2007, 32, 2650.	1.7	38
142	Free ultra-high-Q microtoroid: a tool for designing photonic devices. Optics Express, 2007, 15, 166.	1.7	65
143	Wavelength-independent coupler from fiber to an on-chip cavity, demonstrated over an 850nm span. Optics Express, 2007, 15, 7677.	1.7	24
144	Cavity Opto-Mechanics. Optics Express, 2007, 15, 17172.	1.7	695

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145	Free UH-Q microtoroids, new tools for designing photonic devices. , 2007, , .		0
146	Soft Lithographic Fabrication of High Q Polymer Microcavity Arrays. Nano Letters, 2007, 7, 1823-1826.	4.5	63
147	Importance of Intrinsic-Q in Microring-Based Optical Filters and Dispersion-Compensation Devices. IEEE Photonics Technology Letters, 2007, 19, 1045-1047.	1.3	13
148	Label-Free, Single-Molecule Detection with Optical Microcavities. Science, 2007, 317, 783-787.	6.0	1,066
149	Visible continuous emission from a silica microphotonic device by third-harmonic generation. Nature Physics, 2007, 3, 430-435.	6.5	233
150	Wavelength-independent bent-fiber coupler to an ultra-high Q cavity demonstrated over 850 nm span. , 2007, , .		0
151	Transmission characteristics of a Fabry-Perot etalon-microtoroid resonator coupled system. Optics Letters, 2006, 31, 510.	1.7	56
152	Heavy water detection using ultra-high-Q microcavities. Optics Letters, 2006, 31, 1896.	1.7	244
153	Fiber-taper coupling to Whispering-Gallery modes of fluidic resonators embedded in a liquid medium. Optics Express, 2006, 14, 10800.	1.7	66
154	Ultralow threshold on-chip microcavity nanocrystal quantum dot lasers. Applied Physics Letters, 2006, 89, 191124.	1.5	84
155	Characterization of a Radiation-Pressure-Driven Micromechanical Oscillator. , 2006, , .		1
156	Brownian noise in radiation-pressure-driven micromechanical oscillators. Applied Physics Letters, 2006, 89, 261109.	1.5	29
157	Characterization of a radiation-pressure-driven micromechanical oscillator. Physical Review A, 2006, 74, .	1.0	89
158	Ultralow threshold on-chip toroidal microcavity nanocrystal quantum dot lasers. , 2006, , .		0
159	Oscillation linewidth and brownian noise in a radiation-pressure-driven opto-mechanical oscillator. , 2006, , .		0
160	Fiber-taper coupling to Whispering-Gallery modes of a droplet resonator embedded in a liquid medium. , 2006, , .		0
161	Micro-Molded High Q Polymer Resonators for Optical Loss Determination. Materials Research Society Symposia Proceedings, 2005, 872, 1.	0.1	1
162	Temporal Behavior of Radiation-Pressure-Induced Vibrations of an Optical Microcavity Phonon Mode. Physical Review Letters, 2005, 94, 223902.	2.9	468

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163	Controlled transition between parametric and Raman oscillations in ultrahigh-Q silica toroidal microcavities. Applied Physics Letters, 2005, 87, 181109.	1.5	38
164	Feedback control of ultra-high-Q microcavities: application to micro-Raman lasers and microparametric oscillators. Optics Express, 2005, 13, 3558.	1.7	61
165	Observation of Kerr nonlinearity in microcavities at room temperature. Optics Letters, 2005, 30, 427.	1.7	67
166	Electrical thermo-optic tuning of ultrahigh-Q microtoroid resonators. Applied Physics Letters, 2004, 85, 5439-5441.	1.5	109
167	FABRICATION, COUPLING AND NONLINEAR OPTICS OF ULTRA-HIGH-Q MICRO-SPHERE AND CHIP-BASED TOROID MICROCAVITIES. Advanced Series in Applied Physics, 2004, , 177-238.	0.0	0
168	Dynamical thermal behavior and thermal self-stability of microcavities. Optics Express, 2004, 12, 4742.	1.7	727
169	Replica-molded high-Q polymer microresonators. Optics Letters, 2004, 29, 533.	1.7	53
170	Optical microcavities. Nature, 2003, 424, 839-846.	13.7	4,323
171	Compact, fiber-compatible, cascaded Raman laser. Optics Letters, 2003, 28, 1507.	1.7	103
172	Highly efficient hybrid fiber taper coupled microsphere laser. Optics Letters, 2001, 26, 884.	1.7	69
173	Highly efficient optical power transfer to whispering-gallery modes by use of a symmetrical dual-coupling configuration. Optics Letters, 2000, 25, 260.	1.7	80
174	Observation of Critical Coupling in a Fiber Taper to a Silica-Microsphere Whispering-Gallery Mode System. Physical Review Letters, 2000, 85, 74-77.	2.9	793
175	Four-wave mixing mediated by the capture of electrons and holes in semiconductor quantum-well laser amplifiers. Applied Physics Letters, 1997, 71, 3601-3603.	1.5	1
176	Measurement of the interwell carrier transport lifetime in multiquantumâ€well optical amplifiers by polarizationâ€resolved fourâ€wave mixing. Applied Physics Letters, 1996, 69, 4142-4144.	1.5	13
177	Size classification of silicon nanocrystals. Applied Physics Letters, 1996, 68, 3162-3164.	1.5	57
178	Synthesis of Size-Classified Silicon Nanocrystals. Materials Research Society Symposia Proceedings, 1995, 405, 259.	0.1	1
179	Highly nondegenerate fourâ€wave mixing efficiency of an asymmetric coupled quantum well structure. Applied Physics Letters, 1995, 66, 2619-2621.	1.5	8
180	Study of interwell carrier transport by terahertz fourâ€wave mixing in an optical amplifier with tensile and compressively strained quantum wells. Applied Physics Letters, 1994, 65, 1897-1899.	1.5	14

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181	Formation of Highly-Uniform and Densely-Packed Arrays of GaAs Dots by Selective Epitaxy. Materials Research Society Symposia Proceedings, 1994, 358, 969.	0.1	1
182	Quantum Technology: Quantum Well Lasers . Peter S. Zory, Jr., Ed. Academic Press, San Diego, CA, 1993. xvi, 504 pp., illus. $75 or Â£57. Quantum Electronics.. Science, 1994, 263, 699-699.	6.0	0
183	Frequency locking of an erbium-doped fiber ring laser to an external fiber Fabryâ€“Perot resonator. Optics Letters, 1993, 18, 879.	1.7	26
184	Terahertz fourâ€wave mixing spectroscopy for study of ultrafast dynamics in a semiconductor optical amplifier. Applied Physics Letters, 1993, 63, 1179-1181.	1.5	84
185	Synthesis of luminescent silicon clusters by spark ablation. Applied Physics Letters, 1993, 63, 1549-1551.	1.5	41
186	Direct determination of the ambipolar diffusion length in strained InxGa1â^'xAs/InP quantum wells by cathodoluminescence. Applied Physics Letters, 1993, 62, 2411-2412.	1.5	9
187	Highly nondegenerate fourâ€wave mixing and gain nonlinearity in a strained multipleâ€quantumâ€well optical amplifier. Applied Physics Letters, 1993, 62, 2301-2303.	1.5	32
188	Reduction of the intensity noise from an erbiumâ€doped fiber laser to the standard quantum limit by intracavity spectral filtering. Applied Physics Letters, 1992, 61, 1889-1891.	1.5	25
189	Coâ€lasing in an electrically tunable erbiumâ€doped fiber laser. Applied Physics Letters, 1992, 60, 3090-3092.	1.5	12
190	Measurements of the intensity noise of a broadly tunable, erbiumâ€doped fiber ring laser, relative to the standard quantum limit. Applied Physics Letters, 1992, 60, 2583-2585.	1.5	7
191	Facet modulation selective epitaxyâ^'a technique for quantumâ€well wire doublet fabrication. Applied Physics Letters, 1992, 60, 240-242.	1.5	27
192	Large (14.5 dB) reduction of intensity noise from a semiconductor laser by amplitudeâ€phase decorrelation. Applied Physics Letters, 1992, 60, 1289-1291.	1.5	2
193	Resonanceâ€enhanced spontaneous emission from quantum dots. Journal of Applied Physics, 1992, 72, 806-808.	1.1	10
194	Vapor phase synthesis of crystalline nanometerâ€scale GaAs clusters. Applied Physics Letters, 1992, 60, 950-952.	1.5	39
195	Semiconductor lasers and fiber lasers for fiber-optic telecommunications. Fiber and Integrated Optics, 1992, 11, 221-234.	1.7	2
196	Nanometerâ€scale GaAs clusters from organometallic precursors. Applied Physics Letters, 1992, 61, 696-698.	1.5	51
197	Linewidth and frequency jitter measurement of an erbium-doped fiber ring laser by using a loss-compensated, delayed self-heterodyne interferometer. Optics Letters, 1992, 17, 1274.	1.7	24
198	Fabrication of semiconductor quantum dots. Journal of Aerosol Science, 1991, 22, S31-S33.	1.8	11

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199	All fiber, low threshold, widely tunable singleâ€frequency, erbiumâ€doped fiber ring laser with a tandem fiber Fabryâ€“Perot filter. Applied Physics Letters, 1991, 59, 2369-2371.	1.5	129
200	Approximate expressions for modulation speed and threshold for performance optimization of biaxially compressive strain quantumâ€well lasers. Applied Physics Letters, 1991, 59, 3230-3232.	1.5	5
201	Polarization dependence of optical absorption and emission in quantum wires. Physical Review B, 1991, 44, 5681-5691.	1.1	97
202	Application of a total-angular-momentum basis to quantum-dot band structure. Physical Review Letters, 1990, 65, 239-242.	2.9	62
203	Application of selective epitaxy to fabrication of nanometer scale wire and dot structures. Applied Physics Letters, 1990, 56, 2642-2644.	1.5	126
204	Intensity noise reduction in semiconductor lasers by amplitudeâ€phase decorrelation. Applied Physics Letters, 1990, 57, 974-976.	1.5	14
205	Type II brokenâ€gap quantum wires and quantum dot arrays: A novel concept for selfâ€doping semiconductor nanostructures. Applied Physics Letters, 1990, 57, 1569-1571.	1.5	4
206	Analytical technique for determining the polarization dependence of optical matrix elements in quantum wires with bandâ€coupling effects. Applied Physics Letters, 1990, 57, 545-547.	1.5	89
207	Self-quenching of fundamental phase and amplitude noise in semiconductor lasers with dispersive loss. Optics Letters, 1990, 15, 1359.	1.7	18
208	Analytical formalism for determining quantum-wire and quantum-dot band structure in the multiband envelope-function approximation. Physical Review B, 1990, 42, 3690-3710.	1.1	309
209	Cathodoluminescence system for a scanning electron microscope using an optical fiber for light collection. Review of Scientific Instruments, 1989, 60, 226-230.	0.6	19
210	Lowâ€temperature measurement of the fundamental frequency response of a semiconductor laser by activeâ€layer photomixing. Applied Physics Letters, 1989, 54, 600-602.	1.5	10
211	Quantitative measurement of the composition of AlxGa1â^'xAs heterostructures using a simple backscattered electron detector. Review of Scientific Instruments, 1989, 60, 3775-3778.	0.6	4
212	Cathodoluminescence measurement of an orientation dependent aluminum concentration in AlxGa1â^'xAs epilayers grown by molecular beam epitaxy on a nonplanar substrate. Applied Physics Letters, 1989, 54, 1347-1349.	1.5	33
213	The optical gain lever: A novel gain mechanism in the direct modulation of quantum well semiconductor lasers. Applied Physics Letters, 1989, 54, 2506-2508.	1.5	75
214	Compositional modulation in AlxGa1â^'xAs epilayers grown by molecular beam epitaxy on the (111) facets of grooves in a nonplanar substrate. Applied Physics Letters, 1989, 55, 53-55.	1.5	34
215	Nanometer scale wire structures fabricated by diffusionâ€induced selective disordering of a GaAs(AlGaAs) quantum well. Applied Physics Letters, 1989, 54, 2692-2694.	1.5	14
216	Measurement of the fundamental modulation response of a semiconductor laser to millimeter wave frequencies by activeâ€layer photomixing. Applied Physics Letters, 1989, 55, 939-941.	1.5	5

#	Article	IF	Citations
217	Field spectrum anisotropy in multiple quantum-well semiconductor lasers subjected to high magnetic fields. Superlattices and Microstructures, 1988, 4, 507-510.	1.4	0
218	Equivalent circuit model for activeâ€layer photomixing: Parasiticâ€free modulation of semiconductor lasers. Applied Physics Letters, 1988, 53, 1141-1143.	1.5	7
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221	Cathodoluminescence of oval defects in GaAs/AlxGa1â^'xAs epilayers using an optical fiber light collection system. Applied Physics Letters, 1988, 53, 2062-2064.	1.5	7
222	Reduction of the field spectrum linewidth of a multiple quantum well laser in a high magnetic fieldâ€"spectral properties of quantum dot lasers. Applied Physics Letters, 1987, 50, 365-367.	1.5	22
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224	Corrections to the rate equation approximation for dynamic considerations in a semiconductor laser. Applied Physics Letters, 1986, 48, 1340-1341.	1.5	10
225	Observation of modulation speed enhancement, frequency modulation suppression, and phase noise reduction by detuned loading in a coupledâ€cavity semiconductor laser. Applied Physics Letters, 1985, 46, 1025-1027.	1.5	44
226	Application of an electronic wave-packet formalism to local-operator equations of motion for semiconductor lasers. Physical Review A, 1985, 32, 345-356.	1.0	7
227	Quantum noise and dynamics in quantum well and quantum wire lasers. Applied Physics Letters, 1984, 45, 950-952.	1.5	237
228	Detuned loading in coupled cavity semiconductor lasersâ€"effect on quantum noise and dynamics. Applied Physics Letters, 1984, 45, 501-503.	1.5	110
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