Kerry J Vahala

List of Publications by Year
in descending order

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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	Optical microcavities. Nature, 2003, 424, 839-846.	13.7	4,323
2	Label-Free, Single-Molecule Detection with Optical Microcavities. Science, 2007, 317, 783-787.	6.0	1,066
3	Optomechanical crystals. Nature, 2009, 462, 78-82.	13.7	938
4	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
5	Dynamical thermal behavior and thermal self-stability of microcavities. Optics Express, 2004, 12, 4742.	1.7	727
6	Cavity Opto-Mechanics. Optics Express, 2007, 15, 17172.	1.7	695
7	A picogram- and nanometre-scale photonic-crystal optomechanical cavity. Nature, 2009, 459, 550-555.	13.7	625
8	Microresonator soliton dual-comb spectroscopy. Science, 2016, 354, 600-603.	6.0	580
9	An optical-frequency synthesizer using integrated photonics. Nature, 2018, 557, 81-85.	13.7	550
10	Chemically etched ultrahigh-Q wedge-resonator on a silicon chip. Nature Photonics, 2012, 6, 369-373.	15.6	545
11	Temporal Behavior of Radiation-Pressure-Induced Vibrations of an Optical Microcavity Phonon Mode. Physical Review Letters, 2005, 94, 223902.	2.9	468
12	High-Q surface-plasmon-polariton whispering-gallery microcavity. Nature, 2009, 457, 455-458.	13.7	422
13	Phonon Laser Action in a Tunable Two-Level System. Physical Review Letters, 2010, 104, 083901.	2.9	420
14	Soliton frequency comb at microwave rates in a high-Q silica microresonator. Optica, 2015, 2, 1078.	4.8	416
15	Soliton microcomb range measurement. Science, 2018, 359, 884-887.	6.0	389
16	Microresonator frequency comb optical clock. Optica, 2014, 1, 10.	4.8	367
17	Architecture for the photonic integration of an optical atomic clock. Optica, 2019, 6, 680.	4.8	346
18	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

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19	Integrated turnkey soliton microcombs. Nature, 2020, 582, 365-369.	13.7	295
20	Optical frequency combs: Coherently uniting the electromagnetic spectrum. Science, 2020, 369, .	6.0	294
21	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
22	Hertz-linewidth semiconductor lasers using CMOS-ready ultra-high-Q microresonators. Nature Photonics, 2021, 15, 346-353.	15.6	260
23	Microwave synthesizer using an on-chip Brillouin oscillator. Nature Communications, 2013, 4, 2097.	5.8	248
24	Self-starting bi-chromatic LiNbO₃ soliton microcomb. Optica, 2019, 6, 1138.	4.8	246
25	Heavy water detection using ultra-high-Q microcavities. Optics Letters, 2006, 31, 1896.	1.7	244
26	Observation of the exceptional-point-enhanced Sagnac effect. Nature, 2019, 576, 65-69.	13.7	240
27	Quantum noise and dynamics in quantum well and quantum wire lasers. Applied Physics Letters, 1984, 45, 950-952.	1.5	237
28	Coherent mixing of mechanical excitations in nano-optomechanical structures. Nature Photonics, 2010, 4, 236-242.	15.6	237
29	Measurement of the linewidth enhancement factor Î± of semiconductor lasers. Applied Physics Letters, 1983, 42, 328-330.	1.5	233
30	Visible continuous emission from a silica microphotonic device by third-harmonic generation. Nature Physics, 2007, 3, 430-435.	6.5	233
31	Searching for exoplanets using a microresonator astrocomb. Nature Photonics, 2019, 13, 25-30.	15.6	194
32	Microresonator Brillouin gyroscope. Optica, 2017, 4, 346.	4.8	182
33	Ultra-low-loss optical delay line on a silicon chip. Nature Communications, 2012, 3, 867.	5.8	175
34	Mechanical Oscillation and Cooling Actuated by the Optical Gradient Force. Physical Review Letters, 2009, 103, 103601.	2.9	158
35	Counter-propagating solitons in microresonators. Nature Photonics, 2017, 11, 560-564.	15.6	157
36	Characterization of a high coherence, Brillouin microcavity laser on silicon. Optics Express, 2012, 20, 20170.	1.7	154

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37	Chaotic Quivering of Micron-Scaled On-Chip Resonators Excited by Centrifugal Optical Pressure. Physical Review Letters, 2007, 98, 167203.	2.9	152
38	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. Nature Communications, 2020, 11, 1331.	5.8	151
39	Stokes solitons in optical microcavities. Nature Physics, 2017, 13, 53-57.	6.5	149
40	Bridging ultrahigh-Q devices and photonic circuits. Nature Photonics, 2018, 12, 297-302.	15.6	147
41	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
42	Active capture and stabilization of temporal solitons in microresonators. Optics Letters, 2016, 41, 2037.	1.7	142
43	Single-mode dispersive waves and soliton microcomb dynamics. Nature Communications, 2017, 8, 14869.	5.8	142
44	Electro-optical frequency division and stable microwave synthesis. Science, 2014, 345, 309-313.	6.0	138
45	Phase-coherent microwave-to-optical link with a self-referenced microcomb. Nature Photonics, 2016, 10, 516-520.	15.6	133
46	Earth rotation measured by a chip-scale ring laser gyroscope. Nature Photonics, 2020, 14, 345-349.	15.6	133
47	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
48	Application of selective epitaxy to fabrication of nanometer scale wire and dot structures. Applied Physics Letters, 1990, 56, 2642-2644.	1.5	126
49	Effect of doping on the optical gain and the spontaneous noise enhancement factor in quantum well amplifiers and lasers studied by simple analytical expressions. Applied Physics Letters, 1988, 52, 1945-1947.	1.5	114
50	Detuned loading in coupled cavity semiconductor lasersâ€”effect on quantum noise and dynamics. Applied Physics Letters, 1984, 45, 501-503.	1.5	110
51	Electrical thermo-optic tuning of ultrahigh-Q microtoroid resonators. Applied Physics Letters, 2004, 85, 5439-5441.	1.5	109
52	Petermann-factor sensitivity limit near an exceptional point in a Brillouin ring laser gyroscope. Nature Communications, 2020, 11, 1610.	5.8	104
53	Compact, fiber-compatible, cascaded Raman laser. Optics Letters, 2003, 28, 1507.	1.7	103
54	Polarization dependence of optical absorption and emission in quantum wires. Physical Review B, 1991, 44, 5681-5691.	1.1	97

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55	Theory and measurement of the soliton self-frequency shift and efficiency in optical microcavities. Optics Letters, 2016, 41, 3419.	1.7	97
56	Dual-microcavity narrow-linewidth Brillouin laser. Optica, 2015, 2, 225.	4.8	96
57	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
58	Characterization of a radiation-pressure-driven micromechanical oscillator. Physical Review A, 2006, 74, .	1.0	89
59	Spiral resonators for on-chip laser frequency stabilization. Nature Communications, 2013, 4, 2468.	5.8	89
60	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
61	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
62	Ultralow threshold on-chip microcavity nanocrystal quantum dot lasers. Applied Physics Letters, 2006, 89, 191124.	1.5	84
63	Gigahertz-repetition-rate soliton microcombs. Optica, 2018, 5, 65.	4.8	84
64	Vernier spectrometer using counterpropagating soliton microcombs. Science, 2019, 363, 965-968.	6.0	83
65	Modeling dispersive coupling and losses of localized optical and mechanical modes in optomechanical crystals. Optics Express, 2009, 17, 20078.	1.7	81
66	Towards visible soliton microcomb generation. Nature Communications, 2017, 8, 1295.	5.8	81
67	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
68	Broadband dispersion-engineered microresonator on a chip. Nature Photonics, 2016, 10, 316-320.	15.6	79
69	High-Q double-disk microcavities for cavity optomechanics. Optics Express, 2009, 17, 20911.	1.7	77
70	Visible submicron microdisk lasers. Applied Physics Letters, 2007, 90, 111119.	1.5	76
71	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
72	Static Envelope Patterns in Composite Resonances Generated by Level Crossing in Optical Toroidal Microcavities. Physical Review Letters, 2008, 100, 103905.	2.9	71

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73	Narrow linewidth, single frequency semiconductor laser with a phase conjugate external cavity mirror. Applied Physics Letters, 1986, 49, 1563-1565.	1.5	69
74	Highly efficient hybrid fiber taper coupled microsphere laser. Optics Letters, 2001, 26, 884.	1.7	69
75	Sideband spectroscopy and dispersion measurement in microcavities. Optics Express, 2012, 20, 26337.	1.7	69
76	An Optomechanical Oscillator on a Silicon Chip. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 276-287.	1.9	68
77	Observation of Kerr nonlinearity in microcavities at room temperature. Optics Letters, 2005, 30, 427.	1.7	67
78	Imaging soliton dynamics in optical microcavities. Nature Communications, 2018, 9, 3565.	5.8	67
79	Fiber-taper coupling to Whispering-Gallery modes of fluidic resonators embedded in a liquid medium. Optics Express, 2006, 14, 10800.	1.7	66
80	Free ultra-high-Q microtoroid: a tool for designing photonic devices. Optics Express, 2007, 15, 166.	1.7	65
81	Soft Lithographic Fabrication of High Q Polymer Microcavity Arrays. Nano Letters, 2007, 7, 1823-1826.	4.5	63
82	Application of a total-angular-momentum basis to quantum-dot band structure. Physical Review Letters, 1990, 65, 239-242.	2.9	62
83	Feedback control of ultra-high-Q microcavities: application to micro-Raman lasers and microparametric oscillators. Optics Express, 2005, 13, 3558.	1.7	61
84	Spatial-mode-interaction-induced dispersive waves and their active tuning in microresonators. Optica, 2016, 3, 1132.	4.8	61
85	Reaching fiber-laser coherence in integrated photonics. Optics Letters, 2021, 46, 5201.	1.7	61
86	Greater than one billion Q factor for on-chip microresonators. Optics Letters, 2020, 45, 5129.	1.7	61
87	High-performance lasers for fully integrated silicon nitride photonics. Nature Communications, 2021, 12, 6650.	5.8	61
88	Low-noise Brillouin laser on a chip at 1064â€‰â€‰nm. Optics Letters, 2014, 39, 287.	1.7	60
89	Supercontinuum generation in an on-chip silica waveguide. Optics Letters, 2014, 39, 1046.	1.7	60
90	On-chip green silica upconversion microlaser. Optics Letters, 2009, 34, 482.	1.7	59

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91	Coherent ultra-violet to near-infrared generation in silica ridge waveguides. Nature Communications, 2017, 8, 13922.	5.8	59
92	Size classification of silicon nanocrystals. Applied Physics Letters, 1996, 68, 3162-3164.	1.5	57
93	Transmission characteristics of a Fabry-Perot etalon-microtoroid resonator coupled system. Optics Letters, 2006, 31, 510.	1.7	56
94	Occupation fluctuation noise: A fundamental source of linewidth broadening in semiconductor lasers. Applied Physics Letters, 1983, 43, 140-142.	1.5	54
95	Replica-molded high-Q polymer microresonators. Optics Letters, 2004, 29, 533.	1.7	53
96	Observation of optical spring effect in a microtoroidal optomechanical resonator. Optics Letters, 2007, 32, 1611.	1.7	52
97	Back-action limit of linewidth in an optomechanical oscillator. Physical Review A, 2008, 78, .	1.0	52
98	Kerr-microresonator solitons from a chirped background. Optica, 2018, 5, 1304.	4.8	52
99	Nanometerâ€scale GaAs clusters from organometallic precursors. Applied Physics Letters, 1992, 61, 696-698.	1.5	51
100	Direct Kerr frequency comb atomic spectroscopy and stabilization. Science Advances, 2020, 6, eaax6230.	4.7	49
101	Architecture for microcomb-based GHz-mid-infrared dual-comb spectroscopy. Nature Communications, 2021, 12, 6573.	5.8	45
102	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
103	Microresonator soliton dual-comb imaging. Optica, 2019, 6, 1110.	4.8	42
104	Synthesis of luminescent silicon clusters by spark ablation. Applied Physics Letters, 1993, 63, 1549-1551.	1.5	41
105	Observation of injection locking in an optomechanical rf oscillator. Applied Physics Letters, 2008, 93, 191115.	1.5	41
106	Photonic RF Down-Converter Based on Optomechanical Oscillation. IEEE Photonics Technology Letters, 2008, 20, 234-236.	1.3	40
107	Vapor phase synthesis of crystalline nanometerâ€scale GaAs clusters. Applied Physics Letters, 1992, 60, 950-952.	1.5	39
108	A general design algorithm for low optical loss adiabatic connections in waveguides. Optics Express, 2012, 20, 22819.	1.7	39

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109	Controlled transition between parametric and Raman oscillations in ultrahigh-Q silica toroidal microcavities. Applied Physics Letters, 2005, 87, 181109.	1.5	38
110	Ultralow-threshold Yb^3+:SiO_2 glass laser fabricated by the solgel process. Optics Letters, 2007, 32, 2650.	1.7	38
111	Dispersive-wave induced noise limits in miniature soliton microwave sources. Nature Communications, 2021, 12, 1442.	5.8	36
112	Compensation of thermal nonlinearity effect in optical resonators. Optics Express, 2011, 19, 7365.	1.7	35
113	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
114	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
115	Parasiticâ€free measurement of the fundamental frequency response of a semiconductor laser by activeâ€layer photomixing. Applied Physics Letters, 1988, 52, 770-772.	1.5	32
116	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
117	Quantum diffusion of microcavity solitons. Nature Physics, 2021, 17, 462-466.	6.5	30
118	Brownian noise in radiation-pressure-driven micromechanical oscillators. Applied Physics Letters, 2006, 89, 261109.	1.5	29
119	Thermal instability of a compound resonator. Optics Express, 2009, 17, 14088.	1.7	29
120	Yb-doped glass microcavity laser operation in water. Optics Letters, 2009, 34, 1153.	1.7	28
121	Facet modulation selective epitaxyâ^'a technique for quantumâ€well wire doublet fabrication. Applied Physics Letters, 1992, 60, 240-242.	1.5	27
122	Phonon-Limited-Linewidth of Brillouin Lasers at Cryogenic Temperatures. Physical Review Letters, 2017, 119, 143901.	2.9	27
123	Probing material absorption and optical nonlinearity of integrated photonic materials. Nature Communications, 2022, 13, .	5.8	27
124	Frequency locking of an erbium-doped fiber ring laser to an external fiber Fabryâ€“Perot resonator. Optics Letters, 1993, 18, 879.	1.7	26
125	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
126	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

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127	Wavelength-independent coupler from fiber to an on-chip cavity, demonstrated over an 850nm span. Optics Express, 2007, 15, 7677.	1.7	24
128	Microâ€Resonator Soliton Generated Directly with a Diode Laser. Laser and Photonics Reviews, 2018, 12, 1700307.	4.4	24
129	Linewidth enhancement factor in a microcavity Brillouin laser. Optica, 2020, 7, 1150.	4.8	24
130	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
131	Efficiency of pulse pumped soliton microcombs. Optica, 2022, 9, 231.	4.8	22
132	Direct imaging of tunneling from a potential well. Optics Express, 2009, 17, 19160.	1.7	21
133	Fiber taper characterization by optical backscattering reflectometry. Optics Express, 2017, 25, 22312.	1.7	21
134	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
135	Self-quenching of fundamental phase and amplitude noise in semiconductor lasers with dispersive loss. Optics Letters, 1990, 15, 1359.	1.7	18
136	Design and characterization of whispering-gallery spiral waveguides. Optics Express, 2014, 22, 5196.	1.7	18
137	Interleaved difference-frequency generation for microcomb spectral densification in the mid-infrared. Optica, 2020, 7, 309.	4.8	18
138	Thermal stress in silica-on-silicon disk resonators. Applied Physics Letters, 2013, 102, .	1.5	17
139	Directly pumped 10â€‰â€‰GHz microcomb modules from low-power diode lasers. Optics Letters, 2019, 44, 1841.	1.7	17
140	Dirac solitons in optical microresonators. Light: Science and Applications, 2020, 9, 205.	7.7	15
141	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
142	Intensity noise reduction in semiconductor lasers by amplitudeâ€phase decorrelation. Applied Physics Letters, 1990, 57, 974-976.	1.5	14
143	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
144	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

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145	Importance of Intrinsic-Q in Microring-Based Optical Filters and Dispersion-Compensation Devices. IEEE Photonics Technology Letters, 2007, 19, 1045-1047.	1.3	13
146	Pump frequency noise coupling into a microcavity by thermo-optic locking. Optics Express, 2014, 22, 14559.	1.7	13
147	Coâ€lasing in an electrically tunable erbiumâ€doped fiber laser. Applied Physics Letters, 1992, 60, 3090-3092.	1.5	12
148	The planet formation imager. Experimental Astronomy, 2018, 46, 517-529.	1.6	12
149	Correlated self-heterodyne method for ultra-low-noise laser linewidth measurements. Optics Express, 2022, 30, 25147.	1.7	12
150	Fabrication of semiconductor quantum dots. Journal of Aerosol Science, 1991, 22, S31-S33.	1.8	11
151	Corrections to the rate equation approximation for dynamic considerations in a semiconductor laser. Applied Physics Letters, 1986, 48, 1340-1341.	1.5	10
152	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
153	Resonanceâ€enhanced spontaneous emission from quantum dots. Journal of Applied Physics, 1992, 72, 806-808.	1.1	10
154	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
155	Oscillatory motion of a counterpropagating Kerr soliton dimer. Physical Review A, 2021, 103, .	1.0	9
156	Highly nondegenerate fourâ€wave mixing efficiency of an asymmetric coupled quantum well structure. Applied Physics Letters, 1995, 66, 2619-2621.	1.5	8
157	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
158	Equivalent circuit model for activeâ€layer photomixing: Parasiticâ€free modulation of semiconductor lasers. Applied Physics Letters, 1988, 53, 1141-1143.	1.5	7
159	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
160	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
161	Towards an Integrated-Photonics Optical-Frequency Synthesizer With <1 Hz Residual Frequency Noise. , 2017, , .		7
162	Universal isocontours for dissipative Kerr solitons. Optics Letters, 2018, 43, 2567.	1.7	6

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163	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
164	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
165	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
166	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
167	Microresonator Soliton Dual-Comb Spectroscopy. , 2017, , .		4
168	Ultra-low phase-noise microwave oscillator based on electro-optical frequency division. , 2017, , .		3
169	Towards milli-Hertz laser frequency noise on a chip. , 2021, , .		3
170	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
171	Semiconductor lasers and fiber lasers for fiber-optic telecommunications. Fiber and Integrated Optics, 1992, 11, 221-234.	1.7	2
172	Ultra-High-Q Silica-on-Silicon Ridge-Ring-Resonator with an Integrated Silicon Nitride Waveguide. , 2016, , .		2
173	Microresonator Soliton Dual-Comb Spectroscopy. , 2016, , .		2
174	Towards Integrated Microcomb Systems for Hertz-Scale Accuracy Optical Signal Generation. , 2019, , .		2
175	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
176	Synthesis of Size-Classified Silicon Nanocrystals. Materials Research Society Symposia Proceedings, 1995, 405, 259.	0.1	1
177	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
178	Micro-Molded High Q Polymer Resonators for Optical Loss Determination. Materials Research Society Symposia Proceedings, 2005, 872, 1.	0.1	1
179	Characterization of a Radiation-Pressure-Driven Micromechanical Oscillator. , 2006, , .		1
180	Ultra-low-loss delay lines and resonators on a silicon chip. , 2012, , .		1

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181	New directions for high-Q optical micro-resonators: Soliton-based optical clocks to compact Sagnac gyros. , 2016, , .		1
182	A 30 GHz ultra-low-phase-noise oscillator using electro-optical frequency division. , 2017, , .		1
183	Probing the Material Loss and Optical Nonlinearity of Integrated Photonic Materials. , 2021, , .		1
184	Dirac Solitons in Optical Microresonators. , 2021, , .		1
185	On-chip Q-factor greater than 1 billion. , 2020, , .		1
186	Imageâ€plane holograms for introductory physics students. American Journal of Physics, 1978, 46, 861-861.	0.3	0
187	Field spectrum anisotropy in multiple quantum-well semiconductor lasers subjected to high magnetic fields. Superlattices and Microstructures, 1988, 4, 507-510.	1.4	0
188	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
189	Ultralow threshold on-chip toroidal microcavity nanocrystal quantum dot lasers. , 2006, , .		0
190	Oscillation linewidth and brownian noise in a radiation-pressure-driven opto-mechanical oscillator. , 2006, , .		0
191	Fiber-taper coupling to Whispering-Gallery modes of a droplet resonator embedded in a liquid medium. , 2006, , .		0
192	Nonlinear Opto-mechanics Using Radiation Pressure in High-Q Microcavities. , 2007, , .		0
193	The new high-Q physics: photonic clocks and back-action cooling on a chip. , 2007, , .		0
194	Visible microdisk and photonic crystals lasers based on InGaP/InGaAlP system. , 2007, , .		0
195	Label-free, single molecule detection of cytokines using optical microcavities. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , .	0.0	0
196	Free UH-Q microtoroids, new tools for designing photonic devices. , 2007, , .		0
197	Cooling and amplifying micro-mechanical motion with light. , 2008, , .		0
198	Cooling and amplifying micro-mechanical motion using light. , 2008, , .		0

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199	Observation of injection locking in an optomechanical RF oscillator. , 2008, , .		0
200	An on-chip erbium doped three-photon upconversion silica microlaser emitting at green wavelengths. , 2008, , .		0
201	Photonic RF-receiver based on all-optical down-conversion in an optomechanical oscillator. , 2008, , .		0
202	Cavity Optomechanics. , 2009, , .		0
203	Ultra-high-Q micro-cavity on a silicon chip. , 2011, , .		0
204	Phonon Lasers in Cavity Optomechanics. , 2012, , .		0
205	Chemically-etched ultra-high-Q micro-cavities on a silicon chip. , 2012, , .		0
206	New directions for high-Q microcavities. , 2013, , .		0
207	Electro-optical frequency division and stable microwave synthesis. , 2015, , .		0
208	New directions for optical frequency division: Soliton microcombs and electro-optical-modulation. , 2016, , .		0
209	Soliton Microcombs at Gigahertz-Repetition-Rates. , 2018, , .		0
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