Silicon-chip mid-infrared frequency comb generation

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Citation Report

#	Article	IF	Citations
1	GHz-rate optical parametric amplifier in hydrogenated amorphous silicon. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	18
2	Complex temporal dynamics in optical cavities. , 2015, , .		0
3	Mid-infrared optical frequency combs based on difference frequency generation for molecular spectroscopy. Optics Express, 2015, 23, 26814.	1.7	131
4	In-resonator variation of waveguide cross-sections for dispersion control of aluminum nitride micro-rings. Optics Express, 2015, 23, 30634.	1.7	15
5	Intrinsic linewidth of quantum cascade laser frequency combs. Optica, 2015, 2, 836.	4.8	43
6	Carrier-envelope phase dynamics of cavity solitons: Scaling law and soliton stability. Physical Review A, 2015, 92, .	1.0	6
7	Frequency-noise measurements of optical frequency combs by multiple fringe-side discriminator. Scientific Reports, 2015, 5, 16338.	1.6	16
8	Mid-infrared nonlinear optical response of Si-Ge waveguides with ultra-short optical pulses. Optics Express, 2015, 23, 32202.	1.7	36
9	Broadband mid-infrared frequency comb generation in a Si_3N_4 microresonator. Optics Letters, 2015, 40, 4823.	1.7	417
10	Spatiotemporal evolution of a cosine-modulated stationary field and Kerr frequency comb generation in a microresonator. Applied Optics, 2015, 54, 8751.	2.1	10
11	Broad working bandwidth and â€œendlesslyâ€•single-mode guidance within hybrid silicon photonics. Optics Letters, 2015, 40, 3512.	1.7	5
12	Spontaneous creation and annihilation of temporal cavity solitons in a coherently driven passive fiber resonator. Optics Letters, 2015, 40, 3735.	1.7	44
13	Counting the cycles of light using a self-referenced optical microresonator. Optica, 2015, 2, 706.	4.8	80
14	Midinfrared supercontinuum generation from 2 to 6â€‰â€‰Î¼m in a silicon nanowire. Optica, 2015, 2, 797.	4.8	164
15	Frequency comb generation beyond the Lugiatoâ€“Lefever equation: multi-stability and super cavity solitons. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 1259.	0.9	67
16	Mid-infrared 333â€‰â€‰MHz frequency comb continuously tunable from 195 to 40â€‰â€‰Î¼m. Optics Letters, 2015, 40, 4178.	1.7	19
17	Generation of Kerr combs centered at 45â€‰â€‰Î¼m in crystalline microresonators pumped with quantum-cascade lasers. Optics Letters, 2015, 40, 3468.	1.7	67
18	Modelocked Mid-Infrared Frequency Combs in a Silicon Microresonator. , 2016, , .		0

#	Article	IF	Citations
19	Dynamics of mode-coupling-induced microresonator frequency combs in normal dispersion. Optics Express, 2016, 24, 28794.	1.7	47
20	High-power mid-infrared femtosecond fiber laser in the water vapor transmission window. Optica, 2016, 3, 1373.	4.8	112
21	Harmonization of chaos into a soliton in Kerr frequency combs. Optics Express, 2016, 24, 27382.	1.7	48
22	Dispersion engineering of quantum cascade laser frequency combs. Optica, 2016, 3, 252.	4.8	76
23	Multicoherence wavelength generation based on integrated twin-microdisk lasers. Optics Letters, 2016, 41, 5146.	1.7	11
24	On-chip multi spectral frequency standard replication by stabilizing a microring resonator to a molecular line. Applied Physics Letters, 2016, 109, .	1.5	3
25	Chipâ€Scale Fabrication of Highâ€<i>Q</i> Allâ€Class Toroidal Microresonators for Singleâ€Particle Labelâ€Free Imaging. Advanced Materials, 2016, 28, 2945-2950.	11.1	41
26	Frequency comb generation in the green using silicon nitride microresonators. Laser and Photonics Reviews, 2016, 10, 631-638.	4.4	59
27	Frequency stability characterization of a quantum cascade laser frequency comb. Laser and Photonics Reviews, 2016, 10, 623-630.	4.4	39
28	Interband cascade (IC) mode-locked lasers. , 2016, , .		2
29	Nonlinear optics at low powers: Alternative mechanism of on-chip optical frequency comb generation. Physical Review A, 2016, 94, .	1.0	5
30	Kerr optical frequency combs: theory, applications and perspectives. Nanophotonics, 2016, 5, 214-230.	2.9	111
31	Photonic Damascene process for integrated high-Q microresonator based nonlinear photonics. Optica, 2016, 3, 20.	4.8	243
32	Microwave photonics connected with microresonator frequency combs. Frontiers of Optoelectronics, 2016, 9, 238-248.	1.9	20
33	Thermally controlled comb generation and soliton modelocking in microresonators. Optics Letters, 2016, 41, 2565.	1.7	295
34	Modeling Frequency Comb Sources. Nanophotonics, 2016, 5, 292-315.	2.9	12
35	Active capture and stabilization of temporal solitons in microresonators. Optics Letters, 2016, 41, 2037.	1.7	142
36	Coherent octave-spanning mid-infrared supercontinuum generated in As_2S_3-silica double-nanospike waveguide pumped by femtosecond Cr:ZnS laser. Optics Express, 2016, 24, 12406.	1.7	27

#	Article	IF	Citations
37	Efficient frequency comb generation in AlGaAs-on-insulator. Optica, 2016, 3, 823.	4.8	229
38	On the properties of single-mode optical resonators. Optics Express, 2016, 24, 13231.	1.7	7
39	Bloch oscillation and unidirectional translation of frequency in a dynamically modulated ring resonator. Optica, 2016, 3, 1014.	4.8	79
40	Low-loss high-confinement waveguides and microring resonators in AlGaAs-on-insulator. Optics Letters, 2016, 41, 3996.	1.7	79
41	Optical properties of V-groove silicon nitride trench waveguides. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2016, 33, 1851.	0.8	5
42	Mode-locked mid-infrared frequency combs in a silicon microresonator. Optica, 2016, 3, 854.	4.8	149
43	Quantum cascade laser on silicon. Optica, 2016, 3, 545.	4.8	109
44	Offset-Free Gigahertz Midinfrared Frequency Comb Based on Optical Parametric Amplification in a Periodically Poled Lithium Niobate Waveguide. Physical Review Applied, 2016, 6, .	1.5	38
45	Aluminum nitride as nonlinear optical material for on-chip frequency comb generation and frequency conversion. Nanophotonics, 2016, 5, 263-271.	2.9	51
46	Parameter Space Exploration in Dispersion Engineering of Multilayer Silicon Waveguides from Near-Infrared to Mid-Infrared. Journal of Lightwave Technology, 2016, 34, 3696-3702.	2.7	17
47	Normal-dispersion microresonator Kerr frequency combs. Nanophotonics, 2016, 5, 244-262.	2.9	44
48	Coherent mid-infrared frequency combs in silicon-microresonators in the presence of Raman effects. Optics Express, 2016, 24, 13044.	1.7	41
49	Advances in Mid-Infrared Spectroscopy for Chemical Analysis. Annual Review of Analytical Chemistry, 2016, 9, 45-68.	2.8	230
50	Mid-infrared optical parametric oscillators and frequency combs for molecular spectroscopy. Physical Chemistry Chemical Physics, 2016, 18, 4266-4294.	1.3	113
51	Thermal tuning of Kerr frequency combs in silicon nitride microring resonators. Optics Express, 2016, 24, 687.	1.7	118
52	Octave-wide frequency comb centered at 4 Î¼m based on a subharmonic OPO with Hz-level relative comb linewidth. , 2016, , .		0
53	Coherence properties of a 26â€“75â€‰â€‰Î¼m frequency comb produced as a subharmonic of a Tm-fiber laser. Optics Letters, 2016, 41, 1388.	1.7	59
54	Tunable squeezing using coupled ring resonators on a silicon nitride chip. Optics Letters, 2016, 41, 223.	1.7	32

#	Article	IF	Citations
55	Microwave and RF applications for micro-resonator based frequency combs. Proceedings of SPIE, 2016, , .	0.8	0
56	Self-referenced photonic chip soliton Kerr frequency comb. Light: Science and Applications, 2017, 6, e16202-e16202.	7.7	95
57	Chipâ€•Scale Mass Manufacturable Highâ€•<i>Q</i> Silicon Microdisks. Advanced Materials Technologies, 2017, 2, 1600299.	3.0	11
58	Frequency-axis light transport and topological effects in dynamic photonic structures. Proceedings of SPIE, 2017, , .	0.8	0
59	Second-harmonic-assisted four-wave mixing in chip-based microresonator frequency comb generation. Light: Science and Applications, 2017, 6, e16253-e16253.	7.7	83
60	Nonlinear silicon photonics. Journal of Optics (United Kingdom), 2017, 19, 093002.	1.0	85
61	Exact solution to the steady-state dynamics of a periodically modulated resonator. APL Photonics, 2017, 2, .	3.0	44
62	Nonlinear dynamics of optical frequency combs. , 2017, , .		0
63	Dispersion flattened single etch-step waveguide based on subwavelength grating. Optics Communications, 2017, 393, 219-223.	1.0	9
64	Breather soliton dynamics in microresonators. Nature Communications, 2017, 8, 14569.	5.8	122
65	Microresonator Kerr frequency combs with high conversion efficiency. Laser and Photonics Reviews, 2017, 11, 1600276.	4.4	153
66	Intensity autocorrelation measurements of frequency combs in the terahertz range. Physical Review A, 2017, 96, .	1.0	14
67	Novel Light Source Integration Approaches for Silicon Photonics. Laser and Photonics Reviews, 2017, 11, 1700063.	4.4	143
68	Infrared Nanophotonics Based on Graphene Plasmonics. ACS Photonics, 2017, 4, 2989-2999.	3.2	92
69	On-Chip Ultra-High-<i>Q</i> Silicon Oxynitride Optical Resonators. ACS Photonics, 2017, 4, 2376-2381.	3.2	25
70	Mid-infrared integrated photonics on silicon: a perspective. Nanophotonics, 2017, 7, 393-420.	2.9	280
71	Mid-infrared dual-comb spectroscopy with electro-optic modulators. Light: Science and Applications, 2017, 6, e17076-e17076.	7.7	150
72	A III-V-on-Si ultra-dense comb laser. Light: Science and Applications, 2017, 6, e16260-e16260.	7.7	114

#	Article	IF	Citations
73	Spatiotemporal evolution of continuous-wave field and dark soliton formation in a microcavity with normal dispersion. Chinese Physics B, 2017, 26, 074216.	0.7	4
74	Universal dynamics and deterministic switching ofÂdissipative Kerr solitons in optical microresonators. Nature Physics, 2017, 13, 94-102.	6.5	331
75	Stability analysis and bandwidth estimation of free-carrier driven Kerr frequency-comb. , 2017, , .		0
76	Pedestal platform for low loss doped amplifiers and nonlinear optics. , 2017, , .		0
77	Mid-infrared germanium photonic crystal cavity. Optics Letters, 2017, 42, 2882.	1.7	27
78	Frequency comb assisted two-photon vibrational spectroscopy. Optics Express, 2017, 25, 4688.	1.7	8
79	Integrated electro-optical phase-locked loop for high resolution optical synthesis. Optics Express, 2017, 25, 16171.	1.7	17
80	Low-loss silicon platform for broadband mid-infrared photonics. Optica, 2017, 4, 707.	4.8	148
81	Kerr frequency combs in large-size, ultra-high-Q toroid microcavities with low repetition rates [Invited]. Photonics Research, 2017, 5, B54.	3.4	23
82	Highly efficient and angle-tolerant mid-infrared filter based on a cascaded etalon resonator. Optics Express, 2017, 25, 16083.	1.7	10
83	Silicon photonic platforms for mid-infrared applications [Invited]. Photonics Research, 2017, 5, 417.	3.4	229
84	High-efficiency wideband SiN_x-on-SOI grating coupler with low fabrication complexity. Optics Letters, 2017, 42, 3391.	1.7	24
85	Design of a new family of narrow-linewidth mid-infrared lasers. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 2501.	0.9	20
86	Nonlinear photonics with high-Q whispering-gallery-mode resonators. Advances in Optics and Photonics, 2017, 9, 828.	12.1	182
87	Mid-infrared frequency comb via coherent dispersive wave generation in silicon nitride nanophotonic waveguides. Nature Photonics, 2018, 12, 330-335.	15.6	201
88	RF Photonics: An Optical Microcombsâ€™ Perspective. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-20.	1.9	128
89	Temporal Simultons in Optical Parametric Oscillators. Physical Review Letters, 2018, 120, 053904.	2.9	51
90	Supercontinuum generation covering the entire 0.4â€“5 <i>Âµ</i>m transmission window in a tapered ultra-high numerical aperture all-solid fluorotellurite fiber. Laser Physics Letters, 2018, 15, 025102.	0.6	18

#	Article	IF	Citations
91	Generating structured light with phase helix and intensity helix using reflection-enhanced plasmonic metasurface at 2 <i>Î¼</i>m. Applied Physics Letters, 2018, 112, .	1.5	12
92	Versatile silicon-waveguide supercontinuum for coherent mid-infrared spectroscopy. APL Photonics, 2018, 3, .	3.0	37
93	Micro-combs: A novel generation of optical sources. Physics Reports, 2018, 729, 1-81.	10.3	448
94	Bistability and Self-Pulsation in Free-carrier Driven Optical Microcavities with All Nonlinear Losses. , 2018, , .		0
95	Conditions for Parametric and Free-Carrier Oscillation in Silicon Ring Cavities. Journal of Lightwave Technology, 2018, 36, 4671-4677.	2.7	15
96	Low-Loss Silicon-Photonic Devices for Mid-Infrared Applications. , 2018, , .		0
97	Adiabatic four-wave mixing frequency conversion. Optics Express, 2018, 26, 25582.	1.7	16
98	Linewidth of the laser optical frequency comb with arbitrary temporal profile. Applied Physics Letters, 2018, 113, 131104.	1.5	5
99	Microresonator Frequency Combs for Integrated Microwave Photonics. IEEE Photonics Technology Letters, 2018, 30, 1814-1817.	1.3	12
100	High-Q germanium optical nanocavity. Photonics Research, 2018, 6, 925.	3.4	20
101	Waveguide-Integrated Compact Plasmonic Resonators for On-Chip Mid-Infrared Laser Spectroscopy. Nano Letters, 2018, 18, 7601-7608.	4.5	56
102	Counter-rotating cavity solitons in a silicon nitride microresonator. Optics Letters, 2018, 43, 547.	1.7	38
103	Silicon-chip-based mid-infrared dual-comb spectroscopy. Nature Communications, 2018, 9, 1869.	5.8	234
104	A review on pedestal waveguides for low loss optical guiding, optical amplifiers and nonlinear optics applications. Journal of Luminescence, 2018, 203, 135-144.	1.5	36
105	On-chip silicon photonic signaling and processing: a review. Science Bulletin, 2018, 63, 1267-1310.	4.3	118
106	Power-efficient generation of two-octave mid-IR frequency combs in a germanium microresonator. Nanophotonics, 2018, 7, 1461-1467.	2.9	16
107	Graded SiGe waveguides with broadband low-loss propagation in the mid infrared. Optics Express, 2018, 26, 870.	1.7	93
108	Group IV mid-infrared photonics [Invited]. Optical Materials Express, 2018, 8, 2276.	1.6	34

#	Article	IF	Citations
109	Influences of multiphoton absorption and free-carrier effects on frequency-comb generation in normal dispersion silicon microresonators. Photonics Research, 2018, 6, 238.	3.4	22
110	Mid-infrared silicon photonic waveguides and devices [Invited]. Photonics Research, 2018, 6, 254.	3.4	140
111	Toward mid-infrared nonlinear optics applications of silicon carbide microdisks engineered by lateral under-etching [Invited]. Photonics Research, 2018, 6, B74.	3.4	9
112	Graphene-decorated microfiber knot as a broadband resonator for ultrahigh-repetition-rate pulse fiber lasers. Photonics Research, 2018, 6, C1.	3.4	51
113	Shaping Highâ€<i>Q</i> Planar Fano Resonant Metamaterials toward Futuristic Technologies. Advanced Optical Materials, 2018, 6, 1800502.	3.6	70
114	Thermodynamic control of soliton dynamics in liquid-core fibers. Optica, 2018, 5, 695.	4.8	46
115	Phase-stabilized 100ÂmW frequency comb near 10Âμm. Applied Physics B: Lasers and Optics, 2018, 124, 128.	1.1	29
116	Grapheneâ€™s nonlinear-optical physics revealed through exponentially growing self-phase modulation. Nature Communications, 2018, 9, 2675.	5.8	67
117	Quantum cascade lasers grown on silicon. Scientific Reports, 2018, 8, 7206.	1.6	56
118	Addressing temporal Kerr cavity solitons with a single pulse of intensity modulation. Optics Letters, 2018, 43, 3192.	1.7	23
119	Dissipative Kerr solitons in optical microresonators. Science, 2018, 361, .	6.0	1,069
120	Enhanced mid-infrared emission of erbium-doped fluoro-bromozirconate glass. Applied Optics, 2018, 57, 5380.	0.9	10
121	Gas-Phase Microresonator-Based Comb Spectroscopy without an External Pump Laser. ACS Photonics, 2018, 5, 2780-2785.	3.2	23
122	Variational approach to study soliton dynamics in a passive fiber loop resonator with coherently driven phase-modulated external field. Physical Review E, 2019, 100, 022201.	0.8	9
123	Normal dispersion silicon oxynitride microresonator Kerr frequency combs. Applied Physics Letters, 2019, 115, .	1.5	10
124	Review on microresonator frequency combs. Japanese Journal of Applied Physics, 2019, 58, SJ0801.	0.8	23
125	Octave-spanning tunable parametric oscillation in crystalline Kerr microresonators. Nature Photonics, 2019, 13, 701-706.	15.6	80
126	Stokes and anti-Stokes Raman scatterings from frequency comb lines in poly-crystalline aluminum nitride microring resonators. Optics Express, 2019, 27, 22246.	1.7	20

#	Article	IF	Citations
127	Gain-through-filtering enables tuneable frequency comb generation in passive optical resonators. Nature Communications, 2019, 10, 4489.	5.8	21
128	Stability and variational analysis of cavity solitons under various perturbations. Physical Review A, 2019, 100, .	1.0	9
129	Low-Threshold 4/5 Octave-Spanning Mid-Infrared Frequency Comb in a LiNbO$_3$ Microresonator. IEEE Photonics Journal, 2019, 11, 1-7.	1.0	0
130	Development and numerical simulation of tellurite glass microresonators for optical frequency comb generation. Journal of Non-Crystalline Solids, 2019, 522, 119567.	1.5	6
131	Coupling light and sound: giant nonlinearities from oscillating bubbles and droplets. Nanophotonics, 2019, 8, 367-390.	2.9	23
132	Review of mid-infrared mode-locked laser sources in the 2.0 <i>Î¼</i>mâ€“3.5 <i>Î¼</i>m spectral region. Applied Physics Reviews, 2019, 6, .	5.5	153
133	Wideband Tunable, Carbon Nanotube Mode-Locked Fiber Laser Emitting at Wavelengths Around $3~mu$ m. IEEE Photonics Technology Letters, 2019, 31, 869-872.	1.3	8
134	On-chip mid-infrared and THz frequency combs for spectroscopy. Applied Physics Letters, 2019, 114, .	1.5	51
135	Temperature Dependence of the Kerr Nonlinearity and Two-Photon Absorption in a Silicon Waveguide at 1.55 <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Î¼</mml:mi><mml:mrow><mml:mrow><mml:mi mathvariant="normal">m</mml:mi></mml:mrow></mml:mrow></mml:math>. Physical Review Applied, 2019, 11, .	1.5	14
136	Influences of pump power and high-order dispersion on dual-pumped silicon-on-insulator micro-ring resonator-based optical frequency combs. Modern Physics Letters B, 2019, 33, 1950117.	1.0	4
137	Free-carrier-driven Kerr frequency comb in optical microcavities: Steady state, bistability, self-pulsation, and modulation instability. Physical Review A, 2019, 99, .	1.0	20
138	Broadband electro-optic frequency comb generation in a lithium niobate microring resonator. Nature, 2019, 568, 373-377.	13.7	527
139	Mid infrared gas spectroscopy using efficient fiber laser driven photonic chip-based supercontinuum. Nature Communications, 2019, 10, 1553.	5.8	133
140	Monolithic lithium niobate photonic circuits for Kerr frequency comb generation and modulation. Nature Communications, 2019, 10, 978.	5.8	243
141	Frequency comb spectroscopy. Nature Photonics, 2019, 13, 146-157.	15.6	685
142	Photonic-chip-based frequency combs. Nature Photonics, 2019, 13, 158-169.	15.6	618
143	Mid-infrared feed-forward dual-comb spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 3454-3459.	3.3	55
144	Pump condition dependent Kerr frequency comb generation in mid-infrared. Results in Physics, 2019, 15, 102789.	2.0	4

#	Article	IF	Citations
145	Low-loss silicon core fibre platform for mid-infrared nonlinear photonics. Light: Science and Applications, 2019, 8, 105.	7.7	36
146	Enhanced four-wave mixing with MoS₂ on a silicon waveguide. Journal of Optics (United) Tj ETQq1 1 0.784314 rgBT /Ov	1.0	21
147	Integrated gallium phosphide nonlinear photonics. Nature Photonics, 2020, 14, 57-62.	15.6	185
148	Chip-scale nonlinear photonics for quantum light generation. AVS Quantum Science, 2020, 2, .	1.8	47
149	Kerr nonlinearity induced four-wave mixing of CMOS-compatible PECVD deposited ultra-Si-rich-nitride. Journal of Applied Physics, 2020, 128, 013102.	1.1	4
150	Dual-Mode GVD Tailoring in a Convex Waveguide. IEEE Photonics Journal, 2020, 12, 1-6.	1.0	2
151	Microfluidic Whispering Gallery Mode Optical Sensors for Biological Applications. Laser and Photonics Reviews, 2020, 14, 2000135.	4.4	38
152	Characterization and Optimal Design of Silicon-Rich Nitride Nonlinear Waveguides for 2 Î¼m Wavelength Band. Applied Sciences (Switzerland), 2020, 10, 8087.	1.3	2
153	Robust Geometries for Second-Harmonic-Generation in Microrings Exhibiting a 4-Bar Symmetry. Applied Sciences (Switzerland), 2020, 10, 9047.	1.3	0
154	Radiation pressure and electrostriction induced enhancement for Kerr-like nonlinearities in a nanoscale silicon pedestal waveguide. Journal of Optics (United Kingdom), 2020, 22, 055502.	1.0	0
155	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. Nature Communications, 2020, 11, 1331.	5.8	151
157	Picosecond pulses from a monolithic GaSb-based passive mode-locked laser. Applied Physics Letters, 2020, 116, .	1.5	7
158	Dispersion engineering and measurement of whispering gallery mode microresonator for Kerr frequency comb generation. Nanophotonics, 2020, 9, 1087-1104.	2.9	76
159	Real-time transition dynamics and stability of chip-scale dispersion-managed frequency microcombs. Light: Science and Applications, 2020, 9, 52.	7.7	24
160	High-efficiency suspended three-tip edge coupler for Mid-infrared photonics. Optics Communications, 2021, 488, 126512.	1.0	3
161	Exploiting Ultralow Loss Multimode Waveguides for Broadband Frequency Combs. Laser and Photonics Reviews, 2021, 15, .	4.4	64
162	Highâ€Speed Fourierâ€Transform Infrared Spectroscopy with Phaseâ€Controlled Delay Line. Laser and Photonics Reviews, 2021, 15, 2000374.	4.4	14
163	Phase Controlled Bistability in Silicon Microring Resonators for Nonlinear Photonics. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-9.	1.9	10

#	Article	IF	Citations
164	Octave-spanning Kerr frequency comb generation with stimulated Raman scattering in an AlN microresonator. Optics Letters, 2021, 46, 540.	1.7	16
165	Atomâ€"Photon Interactions in Atomic Cladded Waveguides: Bridging Atomic and Telecom Technologies. ACS Photonics, 2021, 8, 879-886.	3.2	9
166	Controllable microwave frequency comb generation in a tunable superconducting coplanar-waveguide resonator*. Chinese Physics B, 2021, 30, 048501.	0.7	1
168	Mid-IR Systems and the Future of Gas Absorption Spectroscopy. , 2021, , 232-254.		0
169	Ultralow-threshold thin-film lithium niobate optical parametric oscillator. Optica, 2021, 8, 539.	4.8	82
170	Recent progress in integrated electro-optic frequency comb generation. Journal of Semiconductors, 2021, 42, 041301.	2.0	14
171	Dynamics of dark breathers and Raman-Kerr frequency combs influenced by high-order dispersion. Optics Express, 2021, 29, 18095.	1.7	17
172	Widely tunable silicon Raman laser. Optica, 2021, 8, 804.	4.8	23
173	Analysis of Kerr comb generation in silicon microresonators under the influence of two-photon absorption and fast free-carrier dynamics. Physical Review A, 2021, 103, .	1.0	5
174	Low Noise Heterogeneous IIIâ€Vâ€onâ€Siliconâ€Nitride Modeâ€Locked Comb Laser. Laser and Photonics Reviews, 2021, 15, 2000485.	4.4	38
175	Directly accessing octave-spanning dissipative Kerr soliton frequency combs in an AlN microresonator. Photonics Research, 2021, 9, 1351.	3.4	46
176	Fast Spectroscopy Based on a Modulated Soliton Microcomb. IEEE Photonics Journal, 2021, 13, 1-4.	1.0	9
177	Impact of nonlinear effects in Si towards integrated microwave-photonic applications. Optics Express, 2021, 29, 30844.	1.7	3
178	Grating couplers beyond silicon TPA wavelengths based on MPW. Journal Physics D: Applied Physics, 2022, 55, 015109.	1.3	8
179	Near-infrared frequency comb generation from a silicon microresonator. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	1.0	1
180	Generation of a dual optical frequency comb by large signal modulation of a semiconductor laser. Optics Letters, 2021, 46, 4920.	1.7	2
181	Investigation of low-power comb generation in silicon microresonators from dual pumps. Journal of Optics (United Kingdom), 2021, 23, 10LT03.	1.0	3
182	Soliton Burst and Biâ€Directional Switching in the Platform with Positive Thermalâ€Refractive Coefficient Using an Auxiliary Laser. Laser and Photonics Reviews, 2021, 15, 2100264.	4.4	16

#	Article	IF	Citations
183	Free carrier induced dark pulse generation in microresonators. Optics Letters, 2021, 46, 4462.	1.7	7
184	High-Speed Efficient On-Chip Electro-Optic Modulator Based on Midinfrared Hyperbolic Metamaterials. Physical Review Applied, 2021, 16, .	1.5	6
185	Stretching the spectra of Kerr frequency combs with self-adaptive boundary silicon waveguides. Advanced Photonics, 2020, 2, 1.	6.2	10
186	Rectangular-cladding silicon slot waveguide with improved nonlinear performance. Optical Engineering, 2018, 57, 1.	0.5	1
187	Theoretical and experimental investigation of broadband dispersion tailoring of high-order mode in the hybrid microsphere cavity. Applied Optics, 2019, 58, 1522.	0.9	1
188	Emerging material systems for integrated optical Kerr frequency combs. Advances in Optics and Photonics, 2020, 12, 135.	12.1	75
189	CMOS-compatible Mid-Infrared Silicon Detector. , 2017, , .		3
190	Quantum cascade laser Kerr frequency comb generation. , 2015, , .		2
191	Frequency comb generation in III-V-on-silicon photonic integrated circuits. , 2016, , .		1
192	Microresonator-Based Scanning Comb Spectroscopy. , 2017, , .		2
193	Equation for modeling two-photon absorption in nonlinear waveguides. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 1906.	0.9	5
194	Stabilized all-fiber source for generation of tunable broadband fCEO-free mid-IR frequency comb in the 7 â€“ 9 Âµm range. Optics Express, 2019, 27, 37435.	1.7	22
195	Low-loss pedestal Ta2O5 nonlinear optical waveguides. Optics Express, 2019, 27, 37516.	1.7	17
196	Coupled-mode theory for plasmonic resonators integrated with silicon waveguides towards mid-infrared spectroscopic sensing. Optics Express, 2020, 28, 2020.	1.7	30
197	Mid-infrared quantum optics in silicon. Optics Express, 2020, 28, 37092.	1.7	44
198	Photolithography allows high-Q AlN microresonators for near octave-spanning frequency comb and harmonic generation. Optics Express, 2020, 28, 19270.	1.7	19
199	Fiber-based sources of coherent MIR radiation: key advances and future prospects (invited). Optics Express, 2020, 28, 30964.	1.7	86
200	Microresonator-based high-resolution gas spectroscopy. Optics Letters, 2017, 42, 4442.	1.7	39

#	Article	IF	Citations
201	Broadband integrated racetrack ring resonators for long-wave infrared photonics. Optics Letters, 2019, 44, 407.	1.7	25
202	Microfluidic mid-infrared spectroscopy via microresonator-based dual-comb source. Optics Letters, 2019, 44, 4259.	1.7	12
203	4H-SiC microring resonators for nonlinear integrated photonics. Optics Letters, 2019, 44, 5784.	1.7	42
204	Nonlinear optical properties of chalcogenide hybrid inorganic/organic polymers (CHIPs) using the Z-scan technique. Optical Materials Express, 2018, 8, 2510.	1.6	8
205	Sub-milliwatt-level microresonator solitons with extended access range using an auxiliary laser. Optica, 2019, 6, 206.	4.8	120
206	Dynamic suppression of Rayleigh backscattering in dielectric resonators. Optica, 2019, 6, 1016.	4.8	17
207	Mid-infrared chalcogenide microfiber knot resonators. Photonics Research, 2020, 8, 616.	3.4	13
208	Ultra-flat dispersion in an integrated waveguide with five and six zero-dispersion wavelengths for mid-infrared photonics. Photonics Research, 2019, 7, 1279.	3.4	33
209	Nonlinear nanophotonic devices in the ultraviolet to visible wavelength range. Nanophotonics, 2020, 9, 3781-3804.	2.9	23
210	Electric-field-assisted resonance scanning spectroscopy based on a graphene-on-silicon dual-mode microring. Journal of the Optical Society of America B: Optical Physics, 2021, 38, 3435.	0.9	1
211	Nested non-concentric microring resonators with high-Q and large fabrication tolerance. Journal of the Optical Society of America B: Optical Physics, 0, , .	0.9	1
212	Ultra-Low Threshold Power On-Chip Optical Parametric Oscillation in AlGaAs-On-Insulator Microresonator. , 2015, , .		2
213	1-GHz Mid-Infrared Frequency Comb Based on PPLN-Waveguide Optical Parametric Amplification. , 2016, , .		0
214	Breather Solitons in Microresonators. , 2016, , .		0
215	Mid-Infrared Dual-Comb Source Using a Silicon Microresonator. , 2016, , .		0
216	1-GHz Offset-Free Frequency Comb in the Mid-Infrared. , 2016, , .		0
217	Observation of Breather Solitons in Microresonators. , 2016, , .		1
218	Silicon Photonics as a Broadband Platform for Parametric Oscillation in the Mid-Infrared. , 2017, , .		0

#	Article	IF	Citations
219	Nonlinear Optical Technologies for Frequency-Comb Based Molecular Sensing. , 2017, , .		0
220	Dynamic dispersion tuning of silicon photonic waveguides by microelectromechanical actuation. , 2017, , .		3
221	Integrated Photonics for Frequency Comb Generation and Comb-based Molecular Sensing. , 2017, , .		0
222	Microresonator Soliton Dual-Comb Spectroscopy. , 2017, , .		4
223	Chip-Based Tunable Direct Comb Spectroscopy. , 2017, , .		0
224	Integrated Modelocked Comb Lasers for Spectroscopy Applications. , 2018, , .		0
225	Group IV mid-infrared devices and circuits. , 2018, , .		0
226	Two-octave dispersion flattening with five zero-dispersion wavelengths in the mid-IR. , 2018, , .		1
227	Development of Optical Frequency Comb Sources Using Optical Microcavities. Journal of the Japan Society for Precision Engineering, 2018, 84, 686-691.	0.0	0
228	Chipscale soliton microcombs. , 2019, , .		0
229	Theoretical simulations of the soliton self-frequency shift of mid-infrared femtosecond pulses in step-index tellurite optical fibers: broadband tunability and high efficiency. OSA Continuum, 2019, 2, 1851.	1.8	4
230	Recent advances in dispersion engineering for mid-infrared photonics. , 2019, , .		0
231	Mid-infrared dual-comb generation via the cross-phase modulation effect in a normal-dispersion microcavity. Applied Optics, 2020, 59, 2101.	0.9	7
232	Modulation instability-enhanced frequency comb generation in graphene-based electro-optical modulator at terahertz frequency range. Journal of Optics (United Kingdom), 2020, 22, 095503.	1.0	2
233	Mid-infrared Raman lasers and Kerr-frequency combs from an all-silica narrow-linewidth microresonator/fiber laser system. Optics Express, 2020, 28, 38304.	1.7	3
234	2020, , .		1
236	Mid-Infrared Cascaded Soliton Compression on CMOS-Compatible Silicon Waveguide. Journal of Lightwave Technology, 2022, 40, 1098-1104.	2.7	4
237	Is Ge an Excellent Material for Mid-IR Kerr Frequency Combs Around 3-Î¼m Wavelengths?. Journal of Lightwave Technology, 2022, 40, 2097-2103.	2.7	3

#	Article	IF	Citations
238	Mid-infrared subwavelength grating coupler. , 2021, , .		0
239	Synthetic dimension band structures on a Si CMOS photonic platform. Science Advances, 2022, 8, eabk0468.	4.7	19
240	Mode crossing induced soliton frequency comb generation in high-Q yttria-stabilized zirconia crystalline optical microresonators. Photonics Research, 2022, 10, 731.	3.4	7
241	Mid-infrared optical parametric oscillation spanning 3.4â€“8.2 Î¼m in a MgF₂ microresonator. Nanotechnology, 2022, 33, 210003.	1.3	4
242	Integrated optical frequency comb technologies. Nature Photonics, 2022, 16, 95-108.	15.6	215
243	A generic model for the study of supercontinuum generation in graphene-covered nanowires. JPhys Photonics, 2022, 4, 015001.	2.2	2
244	Simultaneous generation of a broadband MIR and NIR frequency comb in a GaP microring. Applied Optics, 2022, 61, 2629.	0.9	3
245	Dispersion engineered mid-IR supercontinuum generation using multi-core silicon-rich nitride photonic integrated waveguide. Optik, 2022, 256, 168699.	1.4	2
246	Design of a Graphene-Enabled Dual-Mode Kerr Frequency Comb. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-7.	1.9	4
247	Generation of dual optical frequency combs by pulse modulation of a single semiconductor laser using a step recovery diode. , 2021, , .		0
248	Dissipative Kerr solitons in semiconductor ring lasers. Nature Photonics, 2022, 16, 142-147.	15.6	45
249	Tunable single-mode chip-scale mid-infrared laser. Communications Physics, 2021, 4, .	2.0	14
250	Generation of Optical Frequency Comb via Cross-Phase Modulation in an SOI Waveguide. , 2022, , .		0
251	Direct Absorption and Photoacoustic Spectroscopy for Gas Sensing and Analysis: A Critical Review. Laser and Photonics Reviews, 2022, 16, .	4.4	25
252	Photonic Inverse Design of On-Chip Microresonators. ACS Photonics, 2022, 9, 1875-1881.	3.2	31
253	On-chip photonics and optoelectronics with a van der Waals material dielectric platform. Nanoscale, 2022, 14, 9459-9465.	2.8	4
254	Tunable optical frequency comb with hundred-GHz spacings generated on a silicon waveguide. Optics Letters, 0, , .	1.7	0
255	Quantum dynamics of dissipative Kerr solitons. Physical Review A, 2022, 105, .	1.0	2

#	Article	IF	Citations
256	On-chip mid-IR octave-tunable Raman soliton laser. Optics Express, 2022, 30, 25356.	1.7	1
257	All-fibre heterogeneously-integrated frequency comb generation using silicon core fibre. Nature Communications, 2022, 13, .	5.8	21
258	Regulation of soliton inside microresonators with multiphoton absorption and free-carrier effects. Optics Express, 0, , .	1.7	0
259	Advances of semiconductor mode-locked laser for optical frequency comb generation. , 2022, 1, 20220026.		5
260	Secondâ€Harmonic Generation in Strained Silicon Metasurfaces. Advanced Photonics Research, 2022, 3, .	1.7	4
261	Platform-Independent Optimization of Pump Power Threshold for Microcomb Generation. IEEE Photonics Journal, 2022, 14, 1-4.	1.0	1
262	Gallium phosphide-on-insulator integrated photonic structures fabricated using micro-transfer printing. Optical Materials Express, 2022, 12, 3731.	1.6	11
263	Spatially resolved mass flux measurements with dual-comb spectroscopy. Optica, 2022, 9, 1050.	4.8	6
264	High-Q Silicon-Germanium Ring Resonator for On-Chip Sensing Applications in the Mid-Infrared. , 2022, , .		0
265	Review of Graphene Oxide (GO) 2D Thin Films for Nonlinear Integrated Photonics. SSRN Electronic Journal, 0, , .	0.4	0
266	Dissipative Solitons in Microresonators. Springer Series in Optical Sciences, 2022, , 249-272.	0.5	0
267	Neuromorphic Computing Based on Wavelength-Division Multiplexing. IEEE Journal of Selected Topics in Quantum Electronics, 2023, 29, 1-12.	1.9	17
270	Exploration of Nonlinear Optical Applications with Si Integration Platform. The Review of Laser Engineering, 2020, 48, 530.	0.0	0
271	Integrated Chalcogenide Photonics for Microresonator Soliton Combs. Laser and Photonics Reviews, 2023, 17, .	4.4	14
272	Niobium-tantalum oxide as a material platform for linear and nonlinear integrated photonics. Optics Express, 2022, 30, 42155.	1.7	7
273	Silicon-Germanium Integrated Ring Resonator with High Q-factor in the Mid-Infrared. , 2022, , .		0
274	Applications of optical microcombs. Advances in Optics and Photonics, 2023, 15, 86.	12.1	37
275	Silicon Photonics: Foundation, Recent Application and Challenges. , 2023, , 20-40.		0

#	Article	IF	Citations
276	Mid-infrared frequency combs and staggered spectral patterns in Ï‡⁽²⁾ microresonators. Optics Express, 2023, 31, 907.	1.7	2
277	Optomechanical compensatory cooling mechanism with exceptional points. Physical Review A, 2022, 106, .	1.0	0
278	Recent Progress of Supercontinuum Generation in Nanophotonic Waveguides. Laser and Photonics Reviews, 2023, 17, .	4.4	9
279	Ultra-wideband integrated photonic devices on silicon platform: from visible to mid-IR. Nanophotonics, 2023, 12, 167-196.	2.9	5
280	Graphene Oxide for Nonlinear Integrated Photonics. Laser and Photonics Reviews, 2023, 17, .	4.4	19
281	Enhanced Supercontinuum Generation in Integrated Waveguides Incorporated with Graphene Oxide Films. Advanced Materials Technologies, 2023, 8, .	3.0	9
282	Novel Photonic Applications of Silicon Carbide. Materials, 2023, 16, 1014.	1.3	11
283	A power-efficient integrated lithium niobate electro-optic comb generator. Communications Physics, 2023, 6, .	2.0	17
284	Spatially resolved multimode excitation for smooth supercontinuum generation in a SiN waveguide. Optics Express, 2023, 31, 6088.	1.7	5
285	Aluminum nitride photonic integrated circuits: from piezo-optomechanics to nonlinear optics. Advances in Optics and Photonics, 2023, 15, 236.	12.1	12
286	Compact multimode silicon racetrack resonators for high-efficiency tunable Raman lasers. Applied Physics Letters, 2023, 122, .	1.5	1
287	Precision mid-IR: THz frequency combs produced by frequency division and optical rectification. , 2023, , .		0
298	Supercontinuum Generation in Inverted Gallium Phosphide-on-Insulator Rib Waveguides. , 2023, , .		0