

# Bart Kuyken

## List of Publications by Year in descending order

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41  
papers

2,083  
citations

471509

17  
h-index

552781

26  
g-index

41  
all docs

41  
docs citations

41  
times ranked

2510  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interaction between light and highly confined hypersound in a silicon photonic nanowire. Nature Photonics, 2015, 9, 199-203.	31.4	283
2	Expanding the Silicon Photonics Portfolio With Silicon Nitride Photonic Integrated Circuits. Journal of Lightwave Technology, 2017, 35, 639-649.	4.6	232
3	An octave-spanning mid-infrared frequency comb generated in a silicon nanophotonic wire waveguide. Nature Communications, 2015, 6, 6310.	12.8	191
4	Nanophotonic Pockels modulators on a silicon nitride platform. Nature Communications, 2018, 9, 3444.	12.8	163
5	Mid-infrared to telecom-band supercontinuum generation in highly nonlinear silicon-on-insulator wire waveguides. Optics Express, 2011, 19, 20172.	3.4	162
6	Taking silicon photonics modulators to a higher performance level: state-of-the-art and a review of new technologies. Advanced Photonics, 2021, 3, .	11.8	151
7	Novel Light Source Integration Approaches for Silicon Photonics. Laser and Photonics Reviews, 2017, 11, 1700063.	8.7	143
8	Bridging the mid-infrared-to-telecom gap with silicon nanophotonic spectral translation. Nature Photonics, 2012, 6, 667-671.	31.4	141
9	A III-V-on-Si ultra-dense comb laser. Light: Science and Applications, 2017, 6, e16260-e16260.	16.6	114
10	III-V-on-Silicon Photonic Devices for Optical Communication and Sensing. Photonics, 2015, 2, 969-1004.	2.0	103
11	Electrically Tunable Optical Nonlinearities in Graphene-Covered SiN Waveguides Characterized by Four-Wave Mixing. ACS Photonics, 2017, 4, 3039-3044.	6.6	78
12	Nonlinear absorption and refraction in crystalline silicon in the mid-infrared. Laser and Photonics Reviews, 2013, 7, 1054-1064.	8.7	77
13	High-Efficiency SOI Fiber-to-Chip Grating Couplers and Low-Loss Waveguides for the Short-Wave Infrared. IEEE Photonics Technology Letters, 2012, 24, 1536-1538.	2.5	53
14	A silicon-based widely tunable short-wave infrared optical parametric oscillator. Optics Express, 2013, 21, 5931.	3.4	39
15	Low Noise Heterogeneous III-V-on-Silicon Nitride Mode-Locked Comb Laser. Laser and Photonics Reviews, 2021, 15, 2000485.	8.7	38
16	Gate-Tunable Nonlinear Refraction and Absorption in Graphene-Covered Silicon Nitride Waveguides. ACS Photonics, 2018, 5, 4944-4950.	6.6	25
17	High-Q THz Photonic Crystal Cavity on a Low-Loss Suspended Silicon Platform. IEEE Transactions on Terahertz Science and Technology, 2021, 11, 42-53.	3.1	20
18	Supercontinuum Generation Assisted by Wave Trapping in Dispersion-Managed Integrated Silicon Waveguides. Physical Review Applied, 2020, 14, .	3.8	13

#	ARTICLE	IF	CITATIONS
19	Second-harmonic generation enabled by longitudinal electric-field components in photonic wire waveguides. <i>Physical Review A</i> , 2020, 102, .	2.5	8
20	High speed phase modulators for silicon photonic integrated circuits: a role for lithium niobate?. <i>Advanced Photonics</i> , 2019, 1, 1.	11.8	8
21	Physical origin of higher-order soliton fission in nanophotonic semiconductor waveguides. <i>Scientific Reports</i> , 2018, 8, 17177.	3.3	7
22	Highly Nondegenerate Two-Photon Absorption in Silicon Wire Waveguides. <i>Physical Review Applied</i> , 2018, 10, .	3.8	6
23	Proposal for an integrated silicon-photonics terahertz gas detector using photoacoustics. <i>Optics Express</i> , 2020, 28, 22424.	3.4	6
24	Thermally Tunable Quantum Cascade Laser With an External Germanium-on-SOI Distributed Bragg Reflector. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2019, 25, 1-7.	2.9	5
25	Short Bends using Curved Mirrors in Silicon Waveguides for Terahertz Waves. <i>Optics Express</i> , 2022, 30, 6656-6670.	3.4	4
26	Mid-infrared to telecom-band stable supercontinuum generation in hydrogenated amorphous silicon waveguides. , 2013, , .		2
27	Low Loss Suspended Silicon Waveguide and Photonic Crystal for THz Regime. , 2019, , .		2
28	Hybrid modeling approach for mode-locked laser diodes with cavity dispersion and nonlinearity. <i>Scientific Reports</i> , 2021, 11, 10027.	3.3	2
29	Air-filled Substrate-Integrated Waveguide Technology for Broadband and Highly-Efficient Photonic-Enabled Antenna Systems. , 2020, , .		2
30	Widely tunable silicon mid-infrared optical parametric oscillator. , 2011, , .		1
31	Nonlinear silicon nanophotonics for mid-infrared applications. , 2011, , .		1
32	Observation of 4.4 dB Brillouin gain in a silicon photonic wire. , 2014, , .		1
33	A Suspended Silicon Terahertz platform with low loss waveguide and high Q Photonic Crystal cavities. , 2019, , .		1
34	Analysis of the phase-locking dynamics of a III-V-on-silicon frequency comb laser. , 2021, , .		1
35	Nonlinear Optics in Silicon Wire Waveguides: Towards Integrated Long Wavelength Light Sources. <i>Materials Research Society Symposia Proceedings</i> , 2012, 1437, 58.	0.1	0
36	Si and Si-Rich Silicon-Nitride Waveguides for Optical Transmissions and Nonlinear Applications Around 2 $\mu$ m. , 2019, , .		0

#	ARTICLE	IF	CITATIONS
37	Experimental Observation of Second Harmonic Generation Enabled by Longitudinal Components in Indium Gallium Phosphide Nanowires. , 2019, , .		0
38	Hybrid-integrated extended cavity mode-locked laser using SiN and a generic III/V platform. , 2021, , .		0
39	Gallium phosphide transfer printing for integrated nonlinear photonics. , 2021, , .		0
40	Realization of Fabrication-Tolerant Si <sub>3</sub> N <sub>4</sub> -Si Mode Transformers. , 2021, , .		0
41	High Q factor and high transmittance suspended membrane THz PhC cavity: experimental demonstration for sensing applications. , 2020, , .		0