

# Bart Kuyken

## List of Publications by Year in descending order

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Version: 2024-02-01

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  | Short Bends using Curved Mirrors in Silicon Waveguides for Terahertz Waves. Optics Express, 2022, 30, 6656-6670.  | 3.4  | 4         |
| 2  | 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        |
| 3  | 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       |
| 4  | Hybrid modeling approach for mode-locked laser diodes with cavity dispersion and nonlinearity. Scientific Reports, 2021, 11, 10027.   | 3.3  | 2         |
| 5  | Hybrid-integrated extended cavity mode-locked laser using SiN and a generic III/V platform. , 2021, , .   |      | 0         |
| 6  | Low Noise Heterogeneous III-V-on-Silicon Nitride Mode-Locked Comb Laser. Laser and Photonics Reviews, 2021, 15, 2000485.  | 8.7  | 38        |
| 7  | Gallium phosphide transfer printing for integrated nonlinear photonics. , 2021, , .   |      | 0         |
| 8  | Realization of Fabrication-Tolerant Si <sub>3</sub> N <sub>4</sub> -Si Mode Transformers. , 2021, , .   |      | 0         |
| 9  | Analysis of the phase-locking dynamics of a III-V-on-silicon frequency comb laser. , 2021, , .  |      | 1         |
| 10 | Second-harmonic generation enabled by longitudinal electric-field components in photonic wire waveguides. Physical Review A, 2020, 102, .                                     | 2.5  | 8         |
| 11 | Supercontinuum Generation Assisted by Wave Trapping in Dispersion-Managed Integrated Silicon Waveguides. Physical Review Applied, 2020, 14, .                                 | 3.8  | 13        |
| 12 | Proposal for an integrated silicon-photonics terahertz gas detector using photoacoustics. Optics Express, 2020, 28, 22424.  | 3.4  | 6         |
| 13 | Air-filled Substrate-Integrated Waveguide Technology for Broadband and Highly-Efficient Photonic-Enabled Antenna Systems. , 2020, , .   |      | 2         |
| 14 | High Q factor and high transmittance suspended membrane THz PhC cavity: experimental demonstration for sensing applications. , 2020, , .                                      |      | 0         |
| 15 | Thermally Tunable Quantum Cascade Laser With an External Germanium-on-SOI Distributed Bragg Reflector. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-7. | 2.9  | 5         |
| 16 | Si and Si-Rich Silicon-Nitride Waveguides for Optical Transmissions and Nonlinear Applications Around 2 $\mu$ m. , 2019, , .  |      | 0         |
| 17 | Low Loss Suspended Silicon Waveguide and Photonic Crystal for THz Regime. , 2019, , .   |      | 2         |
| 18 | Experimental Observation of Second Harmonic Generation Enabled by Longitudinal Components in Indium Gallium Phosphide Nanowires. , 2019, , .                                  |      | 0         |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 19 | A Suspended Silicon Terahertz platform with low loss waveguide and high Q Photonic Crystal cavities. , 2019, , .  |      | 1         |
| 20 | High speed phase modulators for silicon photonic integrated circuits: a role for lithium niobate?. Advanced Photonics, 2019, 1, 1.                              | 11.8 | 8         |
| 21 | Physical origin of higher-order soliton fission in nanophotonic semiconductor waveguides. Scientific Reports, 2018, 8, 17177.                                   | 3.3  | 7         |
| 22 | Gate-Tunable Nonlinear Refraction and Absorption in Graphene-Covered Silicon Nitride Waveguides. ACS Photonics, 2018, 5, 4944-4950.                             | 6.6  | 25        |
| 23 | Nanophotonic Pockels modulators on a silicon nitride platform. Nature Communications, 2018, 9, 3444.  | 12.8 | 163       |
| 24 | Highly Nondegenerate Two-Photon Absorption in Silicon Wire Waveguides. Physical Review Applied, 2018, 10, .   | 3.8  | 6         |
| 25 | Electrically Tunable Optical Nonlinearities in Graphene-Covered SiN Waveguides Characterized by Four-Wave Mixing. ACS Photonics, 2017, 4, 3039-3044.            | 6.6  | 78        |
| 26 | Novel Light Source Integration Approaches for Silicon Photonics. Laser and Photonics Reviews, 2017, 11, 1700063.  | 8.7  | 143       |
| 27 | A III-V-on-Si ultra-dense comb laser. Light: Science and Applications, 2017, 6, e16260-e16260.  | 16.6 | 114       |
| 28 | Expanding the Silicon Photonics Portfolio With Silicon Nitride Photonic Integrated Circuits. Journal of Lightwave Technology, 2017, 35, 639-649.                | 4.6  | 232       |
| 29 | III-V-on-Silicon Photonic Devices for Optical Communication and Sensing. Photonics, 2015, 2, 969-1004.  | 2.0  | 103       |
| 30 | Interaction between light and highly confined hypersound in a silicon photonic nanowire. Nature Photonics, 2015, 9, 199-203.                                    | 31.4 | 283       |
| 31 | An octave-spanning mid-infrared frequency comb generated in a silicon nanophotonic wire waveguide. Nature Communications, 2015, 6, 6310.                        | 12.8 | 191       |
| 32 | Observation of 4.4 dB Brillouin gain in a silicon photonic wire. , 2014, , .  |      | 1         |
| 33 | Nonlinear absorption and refraction in crystalline silicon in the mid-infrared. Laser and Photonics Reviews, 2013, 7, 1054-1064.                                | 8.7  | 77        |
| 34 | A silicon-based widely tunable short-wave infrared optical parametric oscillator. Optics Express, 2013, 21, 5931.   | 3.4  | 39        |
| 35 | Mid-infrared to telecom-band stable supercontinuum generation in hydrogenated amorphous silicon waveguides. , 2013, , .   |      | 2         |
| 36 | Nonlinear Optics in Silicon Wire Waveguides: Towards Integrated Long Wavelength Light Sources. Materials Research Society Symposia Proceedings, 2012, 1437, 58. | 0.1  | 0         |

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 37 | 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        |
| 38 | Bridging the mid-infrared-to-telecom gap with silicon nanophotonic spectral translation. Nature Photonics, 2012, 6, 667-671.                                    | 31.4 | 141       |
| 39 | Widely tunable silicon mid-infrared optical parametric oscillator. , 2011, , .  |      | 1         |
| 40 | Mid-infrared to telecom-band supercontinuum generation in highly nonlinear silicon-on-insulator wire waveguides. Optics Express, 2011, 19, 20172.               | 3.4  | 162       |
| 41 | Nonlinear silicon nanophotonics for mid-infrared applications. , 2011, , .  |      | 1         |