

Klaus-Jochen Boller

List of Publications by Year in descending order

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102
papers

2,391
citations

304743

22
h-index

214800

47
g-index

102
all docs

102
docs citations

102
times ranked

2164
citing authors

#	ARTICLE	IF	CITATIONS
1	Dispersive Wave Generation via Intermodal Cross-phase Modulation. , 2021, , .		0
2	Optical parametric amplification in silicon nitride waveguides for coherent Raman imaging. Optics Express, 2021, 29, 10424.	3.4	8
3	Generation of Dispersive Waves via Intermodal Cross-phase Modulation. , 2021, , .		0
4	Optical parametric oscillator based on silicon nitride waveguides. , 2021, , .		0
5	Waveguide-based optical parametric amplification for coherent Raman imaging. , 2021, , .		0
6	Numerical and Experimental Demonstration of Intermodal Dispersive Wave Generation. Laser and Photonics Reviews, 2021, 15, 2100125.	8.7	8
7	High spectral purity microwave generation using a dual-frequency hybrid integrated semiconductor-dielectric waveguide laser. OSA Continuum, 2021, 4, 2133.	1.8	4
8	Hybrid-integrated diode laser in the visible spectral range. Optics Letters, 2021, 46, 4904.	3.3	25
9	Toward integrated synchronously pumped optical parametric oscillators in silicon nitride. Optics Express, 2021, 29, 39895.	3.4	10
10	Synchronously Pumped Waveguide-Based Optical Parametric Oscillator in Silicon Nitride. , 2021, , .		0
11	Frequency Conversion by Intermodal Dispersive Wave Generation. , 2021, , .		0
12	Hybrid Integrated Semiconductor Lasers with Silicon Nitride Feedback Circuits. Photonics, 2020, 7, 4.	2.0	63
13	Supercontinuum Generation in Media with Signâ€Alternated Dispersion. Laser and Photonics Reviews, 2020, 14, 2000031.	8.7	12
14	Reflective aperiodic multilayer filters for metrology at XUV sources. Optics Express, 2020, 28, 3331.	3.4	1
15	Ring resonator enhanced mode-hop-free wavelength tuning of an integrated extended-cavity laser. Optics Express, 2020, 28, 5669.	3.4	22
16	Hybrid integrated InP-Si₃N₄ diode laser with a 40-Hz intrinsic linewidth. Optics Express, 2020, 28, 21713.	3.4	87
17	Spontaneous four-wave mixing in silicon nitride waveguides for broadband coherent anti-Stokes Raman scattering spectroscopy. Optics Letters, 2020, 45, 3873.	3.3	11
18	Stimulated Four-Wave Mixing in Silicon Nitride Waveguides for Coherent Anti-Stokes Raman Scattering. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
19	Light Source for Coherent Raman Scattering Based on Spontaneous Four-Wave Mixing in Silicon Nitride Waveguides. , 2020, , .		0
20	Intermodal Dispersive Wave Generation in Silicon Nitride Waveguides. , 2020, , .		0
21	First realization of a hybrid integrated diode laser in the visible spectral range (Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf		2
22	8Å—8 Programmable Si3N4 Photonic Processor for Linear Quantum Processing. , 2019, , .		0
23	High-Selectivity On-Chip Optical Bandpass Filter With Sub-100-MHz Flat-Top and Under-2 Shape Factor. IEEE Photonics Technology Letters, 2019, 31, 455-458.	2.5	18
24	Mode-Hop-Free Tuning of a Chip-Based Hybrid Integrated InP-Si3N4 Laser. , 2019, , .		0
25	Surface acoustic waves for acousto-optic modulation in buried silicon nitride waveguides. Optics Express, 2019, 27, 1433.	3.4	13
26	Linewidth narrowing via low-loss dielectric waveguide feedback circuits in hybrid integrated frequency comb lasers. Optics Express, 2019, 27, 13307.	3.4	20
27	8Å—8 reconfigurable quantum photonic processor—based on silicon nitride waveguides. Optics Express, 2019, 27, 26842.	3.4	70
28	Si3N4 Reconfigurable Linear Optical Network for Quantum Information Processing. , 2019, , .		0
29	Narrow Intrinsic Linewidth Frequency Combs from a Chip-Based Hybrid Integrated InP-Si3N4 Diode Laser. , 2019, , .		1
30	Low-Loss Si3N4 TriPleX Optical Waveguides: Technology and Applications Overview. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-21.	2.9	243
31	Density matrix study of ground state depletion towards sub-diffraction-limited spontaneous Raman scattering spectroscopy. Journal of Chemical Physics, 2018, 148, 204110.	3.0	6
32	Low-power broadband all-optical switching via intermodal cross-phase modulation in integrated optical waveguides. Optics Letters, 2018, 43, 1631.	3.3	7
33	8Å—8 Programmable Quantum Photonic Processor based on Silicon Nitride Waveguides. , 2018, , .		16
34	Lossless microwave photonic delay line using a ring resonator with an integrated semiconductor optical amplifier. Journal of Optics (United Kingdom), 2017, 19, 065802.	2.2	12
35	Photoinduced $\ddagger(2)$ for second harmonic generation in stoichiometric silicon nitride waveguides. , 2017, , .		1
36	Temperature-drift-immune wavelength meter based on an integrated micro-ring resonator. Proceedings of SPIE, 2017, , .	0.8	2

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37	Programmable optical processor chips: toward photonic RF filters with DSP-level flexibility and MHz-band selectivity. <i>Nanophotonics</i> , 2017, 7, 421-454.	6.0	48
38	Single Si ₃ N ₄ micro ring resonator as integrated wavelength meter with long-term reproducibility. , 2017, , .		0
39	290 Hz intrinsic linewidth from an integrated optical chip-based widely tunable InP-Si ₃ N ₄ hybrid laser. , 2017, , .		21
40	Temporal model for quasi-phase matching in high-order harmonic generation. <i>Optics Express</i> , 2017, 25, 3621.	3.4	11
41	Spectral linewidth analysis of semiconductor hybrid lasers with feedback from an external waveguide resonator circuit. <i>Optics Express</i> , 2017, 25, 32767.	3.4	11
42	Photo-induced second-order nonlinearity in stoichiometric silicon nitride waveguides. <i>Optics Express</i> , 2017, 25, 33143.	3.4	34
43	Two-octave spanning supercontinuum generation in stoichiometric silicon nitride waveguides pumped at telecom wavelengths. <i>Optics Express</i> , 2017, 25, 1542.	3.4	96
44	Narrowband and tunable anomalous transmission filters for spectral monitoring in the extreme ultraviolet wavelength region. <i>Optics Express</i> , 2017, 25, 1993.	3.4	6
45	All-optical switching using transverse modes in integrated waveguides. , 2017, , .		0
46	Controlling quantum correlations in massively multichannel optical networks. , 2017, , .		0
47	Second-harmonic generation in stoichiometric silicon nitride glass waveguides. , 2017, , .		0
48	290 Hz Intrinsic Linewidth from an Integrated Optical Chip-based Widely Tunable InP-Si ₃ N ₄ Hybrid Laser. , 2017, , .		38
49	Suppression of resonance Raman scattering via ground state depletion towards sub-diffraction-limited label-free microscopy. <i>Optics Express</i> , 2016, 24, 20745.	3.4	14
50	Revisiting argon cluster formation in a planar gas jet for high-intensity laser matter interaction. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	14
51	Laser-induced fluorescence analysis of plasmas for epitaxial growth of YBiO ₃ films with pulsed laser deposition. <i>APL Materials</i> , 2016, 4, .	5.1	8
52	Optically Integrated InP-Si ₃ N ₄ Hybrid Laser. <i>IEEE Photonics Journal</i> , 2016, 8, 1-11.	2.0	51
53	Spectral control of high-harmonic generation via drive laser pulse shaping in a wide-diameter capillary. <i>Optics Express</i> , 2016, 24, 1604.	3.4	8
54	Optically integrated InP-Si ₃ N ₄ hybrid laser. , 2016, , .		1

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73	Nonlinear Optics Approaches Towards Subdiffraction Resolution in CARS Imaging. <i>NeuroMethods</i> , 2014, , 291-324.	0.3	2
74	A gain-coefficient switched Alexandrite laser. <i>Journal Physics D: Applied Physics</i> , 2013, 46, 015103.	2.8	3
75	Extended theory of soft x-ray reflection for realistic lamellar multilayer gratings. <i>Optics Express</i> , 2013, 21, 13105.	3.4	11
76	High precision wavelength estimation method for integrated optics. <i>Optics Express</i> , 2013, 21, 17042.	3.4	5
77	Silicon nitride microwave photonic circuits. <i>Optics Express</i> , 2013, 21, 22937.	3.4	268
78	Integrated CARS source based on seeded four-wave mixing in silicon nitride. <i>Optics Express</i> , 2013, 21, 32123.	3.4	18
79	Stimulated-emission pumping enabling sub-diffraction-limited spatial resolution in coherent anti-Stokes Raman scattering microscopy. <i>Physical Review A</i> , 2013, 87, .	2.5	26
80	Spatial and temporal mapping of Al and AlO ₃ during oxidation in pulsed laser ablation of LaAlO ₃ . <i>Journal of Instrumentation</i> , 2013, 8, C10021-C10021.	1.2	10
81	Ellipsometry with randomly varying polarization states. <i>Optics Express</i> , 2012, 20, 870.	3.4	4
82	The noise-limited-resolution for stimulated emission depletion microscopy of diffusing particles. <i>Optics Express</i> , 2012, 20, 12793.	3.4	3
83	Method to map individual electromagnetic field components inside a photonic crystal. <i>Optics Express</i> , 2012, 20, 22902.	3.4	2
84	Correction to article "Ellipsometry with randomly varying polarization states". <i>Optics Express</i> , 2012, 20, 29308.	3.4	0
85	Ground-state depletion for subdiffraction-limited spatial resolution in coherent anti-Stokes Raman scattering microscopy. <i>Physical Review A</i> , 2012, 86, .	2.5	33
86	Single-mode power scaling in a multi-beam photonic free-electron laser. , 2012, , .		1
87	Study of beam focusing techniques for a power- and frequency scalable photonic free-electron laser. , 2012, , .		1
88	Power scalability of a low-current multi-beam photonic free-electron laser. , 2012, , .		0
89	Stimulated Emission Pumping Enabling Sub-Diffraction-Limited Spatial Resolution in CARS Microscopy. , 2012, , .		0
90	Analytic theory of soft x-ray diffraction by lamellar multilayer gratings. <i>Optics Express</i> , 2011, 19, 9172.	3.4	19

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91	Wavelength-swept Yb-fiber master-oscillator-power-amplifier with 70nm rapid tuning range. Optics Express, 2011, 19, 10511.	3.4	16
92	Incoherently pumped continuous wave optical parametric oscillator broadened by non-collinear phasematching. Optics Express, 2011, 19, 21786.	3.4	11
93	Rapid and sensitive trace gas detection with continuous wave Optical Parametric Oscillator-based Wavelength Modulation Spectroscopy. Applied Physics B: Lasers and Optics, 2011, 103, 223-228.	2.2	18
94	A theoretical investigation of super-resolution CARS imaging via coherent and incoherent saturation of transitions. Journal of Raman Spectroscopy, 2011, 42, 1854-1858.	2.5	25
95	Spatially dependent Rabi oscillations: An approach to sub-diffraction-limited coherent anti-Stokes Raman-scattering microscopy. Physical Review A, 2010, 81, .	2.5	40
96	One-Watt level mid-IR output, singly resonant, continuous-wave optical parametric oscillator pumped by a monolithic diode laser. Optics Express, 2010, 18, 11123.	3.4	7
97	P3-30: Slow - wave structure for a photonic free - electron laser. , 2010, , .		0
98	A route to sub-diffraction-limited CARS Microscopy. Optics Express, 2009, 17, 22632.	3.4	63
99	Using ultra-short pulses to determine particle size and density distributions. Optics Express, 2007, 15, 12483.	3.4	6
100	Widely and Rapidly Tunable Semiconductor Master-Oscillator Fiber Amplifier Around 1080 nm. IEEE Photonics Technology Letters, 2006, 18, 2683-2685.	2.5	2
101	The influence of the pulse length on the drilling of metals with an excimer laser. Journal of Laser Applications, 2004, 16, 85-91.	1.7	21
102	Polarisation-dependent interference of two-photon absorption in a broad-band laser. Optics Communications, 1988, 66, 225-230.	2.1	4