

Andreas Boes

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1649857/publications.pdf>

Version: 2024-02-01

95
papers

2,919
citations

236912

25
h-index

182417

51
g-index

98
all docs

98
docs citations

98
times ranked

2430
citing authors

#	ARTICLE	IF	CITATIONS
1	11 TOPS photonic convolutional accelerator for optical neural networks. <i>Nature</i> , 2021, 589, 44-51.	27.8	550
2	Status and Potential of Lithium Niobate on Insulator (LNOI) for Photonic Integrated Circuits. <i>Laser and Photonics Reviews</i> , 2018, 12, 1700256.	8.7	435
3	Ultra-dense optical data transmission over standard fibre with a single chip source. <i>Nature Communications</i> , 2020, 11, 2568.	12.8	192
4	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. <i>Nature Communications</i> , 2020, 11, 1331.	12.8	151
5	Photonic Perceptron Based on a Kerr Microcomb for High-Speed, Scalable, Optical Neural Networks. <i>Laser and Photonics Reviews</i> , 2020, 14, 2000070.	8.7	84
6	Heterogeneously Integrated GaAs Waveguides on Insulator for Efficient Frequency Conversion. <i>Laser and Photonics Reviews</i> , 2018, 12, 1800149.	8.7	73
7	Liquid-Metal Synthesized Ultrathin SnS Layers for High-Performance Broadband Photodetectors. <i>Advanced Materials</i> , 2020, 32, e2004247.	21.0	66
8	Strong frequency conversion in heterogeneously integrated GaAs resonators. <i>APL Photonics</i> , 2019, 4, 036103.	5.7	63
9	Photonic RF Arbitrary Waveform Generator Based on a Soliton Crystal Micro-Comb Source. <i>Journal of Lightwave Technology</i> , 2020, 38, 6221-6226.	4.6	62
10	Microwave and RF Photonic Fractional Hilbert Transformer Based on a 50 GHz Kerr Micro-Comb. <i>Journal of Lightwave Technology</i> , 2019, 37, 6097-6104.	4.6	61
11	Ferroelectric-Driven Exciton and Trion Modulation in Monolayer Molybdenum and Tungsten Diselenides. <i>ACS Nano</i> , 2019, 13, 5335-5343.	14.6	61
12	Hybrid and heterogeneous photonic integration. <i>APL Photonics</i> , 2021, 6, .	5.7	59
13	Self-calibrating programmable photonic integrated circuits. <i>Nature Photonics</i> , 2022, 16, 595-602.	31.4	59
14	Photonic RF Phase-Encoded Signal Generation With a Microcomb Source. <i>Journal of Lightwave Technology</i> , 2020, 38, 1722-1727.	4.6	55
15	Quasi-phase matching via femtosecond laser-induced domain inversion in lithium niobate waveguides. <i>Optics Letters</i> , 2016, 41, 2410.	3.3	46
16	RF and Microwave Fractional Differentiator Based on Photonics. <i>IEEE Transactions on Circuits and Systems II: Express Briefs</i> , 2020, 67, 2767-2771.	3.0	44
17	Nanoscale pillar hypersonic surface phononic crystals. <i>Physical Review B</i> , 2016, 94, .	3.2	43
18	Improved second harmonic performance in periodically poled LNOI waveguides through engineering of lateral leakage. <i>Optics Express</i> , 2019, 27, 23919.	3.4	42

#	ARTICLE	IF	CITATIONS
19	Mode and Polarizationâ€Division Multiplexing Based on Silicon Nitride Loaded Lithium Niobate on Insulator Platform. Laser and Photonics Reviews, 2022, 16, .	8.7	42
20	Monolithic Phononic Crystals with a Surface Acoustic Band Gap from Surface Phonon-Polariton Coupling. Physical Review Letters, 2014, 113, 215503.	7.8	41
21	Ridge Resonance in Silicon Photonics Harnessing Bound States in the Continuum. Laser and Photonics Reviews, 2019, 13, 1900035.	8.7	40
22	Low loss CMOS-compatible silicon nitride photonics utilizing reactive sputtered thin films. Optics Express, 2019, 27, 37795.	3.4	39
23	Broadband Photonic RF Channelizer With 92 Channels Based on a Soliton Crystal Microcomb. Journal of Lightwave Technology, 2020, 38, 5116-5121.	4.6	38
24	Direct writing of ferroelectric domains on strontium barium niobate crystals using focused ultraviolet laser light. Applied Physics Letters, 2013, 103, .	3.3	34
25	Domain engineering algorithm for practical and effective photon sources. Optics Express, 2016, 24, 19616.	3.4	33
26	High-speed electro-optic modulator based on silicon nitride loaded lithium niobate on an insulator platform. Optics Letters, 2021, 46, 5986.	3.3	33
27	Direct characterization of a nonlinear photonic circuitâ€™s wave function with laser light. Light: Science and Applications, 2018, 7, 17143-17143.	16.6	27
28	Atomically-thin quantum dots integrated with lithium niobate photonic chips [Invited]. Optical Materials Express, 2019, 9, 441.	3.0	27
29	Laserâ€Induced Dewetting for Precise Local Generation of Au Nanostructures for Tunable Solar Absorption. Advanced Optical Materials, 2016, 4, 1247-1254.	7.3	26
30	Single-step etched grating couplers for silicon nitride loaded lithium niobate on insulator platform. APL Photonics, 2021, 6, 086108.	5.7	24
31	Frequency conversion between UV and telecom wavelengths in a lithium niobate waveguide for quantum communication with Yb ⁺ trapped ions. Journal of Optics (United Kingdom), 2016, 18, 104007.	2.2	23
32	Photonic RF and Microwave Integrator Based on a Transversal Filter With Soliton Crystal Microcombs. IEEE Transactions on Circuits and Systems II: Express Briefs, 2020, 67, 3582-3586.	3.0	23
33	Lateral Leakage in Silicon Photonics: Theory, Applications, and Future Directions. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-13.	2.9	22
34	Highly Versatile Broadband RF Photonic Fractional Hilbert Transformer Based on a Kerr Soliton Crystal Microcomb. Journal of Lightwave Technology, 2021, 39, 7581-7587.	4.6	21
35	Precise, reproducible nano-domain engineering in lithium niobate crystals. Applied Physics Letters, 2015, 107, .	3.3	19
36	Optical frequency comb based system for photonic refractive index sensor interrogation. Optics Express, 2019, 27, 21532.	3.4	18

#	ARTICLE	IF	CITATIONS
37	Lateral trapezoid microfluidic platform for investigating mechanotransduction of cells to spatial shear stress gradients. <i>Sensors and Actuators B: Chemical</i> , 2017, 251, 963-975.	7.8	16
38	Low loss (Al)GaAs on an insulator waveguide platform. <i>Optics Letters</i> , 2019, 44, 4075.	3.3	16
39	Integrated Subwavelength Gratings on a Lithium Niobate on Insulator Platform for Mode and Polarization Manipulation. <i>Laser and Photonics Reviews</i> , 2022, 16, .	8.7	16
40	Polariton-based band gap and generation of surface acoustic waves in acoustic superlattice lithium niobate. <i>Journal of Applied Physics</i> , 2013, 114, 054904.	2.5	14
41	Optical frequency comb generation with low temperature reactive sputtered silicon nitride waveguides. <i>APL Photonics</i> , 2020, 5, .	5.7	14
42	Efficient second harmonic generation in lithium niobate on insulator waveguides and its pitfalls. <i>JPhys Photonics</i> , 2021, 3, 012008.	4.6	14
43	Microwave engineering filter synthesis technique for coupled ridge resonator filters. <i>Optics Express</i> , 2019, 27, 34370.	3.4	14
44	Integral order photonic RF signal processors based on a soliton crystal micro-comb source. <i>Journal of Optics (United Kingdom)</i> , 2021, 23, 125701.	2.2	14
45	Frequency comb distillation for optical superchannel transmission. <i>Journal of Lightwave Technology</i> , 2021, , 1-1.	4.6	13
46	Tailor-made domain structures on the x- and y-face of lithium niobate crystals. <i>Applied Physics B: Lasers and Optics</i> , 2014, 115, 577-581.	2.2	10
47	Experimental demonstration of bidirectional light transfer in adiabatic waveguide structures. <i>Optics Letters</i> , 2016, 41, 5278.	3.3	10
48	Ultraviolet laser induced domain inversion on chromium coated lithium niobate crystals. <i>Optical Materials Express</i> , 2014, 4, 241.	3.0	9
49	Ultraviolet laser-induced poling inhibition produces bulk domains in MgO-doped lithium niobate crystals. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	9
50	UV Direct Write Metal Enhanced Redox (MER) Domain Engineering for Realization of Surface Acoustic Devices on Lithium Niobate. <i>Advanced Materials Interfaces</i> , 2014, 1, 1400006.	3.7	8
51	Second Order Nonlinear Photonic Integrated Platforms for Optical Signal Processing. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-11.	2.9	8
52	Monolithic Photonic Integrated Circuit Based on Silicon Nitride and Lithium Niobate on Insulator Hybrid Platform. <i>Advanced Photonics Research</i> , 2022, 3, .	3.6	8
53	Phononâ€polariton entrapment in homogenous surface phonon cavities. <i>Annalen Der Physik</i> , 2016, 528, 365-372.	2.4	7
54	Ridge resonators: impact of excitation beam and resonator losses. <i>Optics Express</i> , 2021, 29, 27092.	3.4	7

#	ARTICLE	IF	CITATIONS
55	Towards on-chip photon-pair bell tests: Spatial pump filtering in a LiNbO ₃ adiabatic coupler. Applied Physics Letters, 2017, 111, .	3.3	6
56	Higher order mode supercontinuum generation in tantalum pentoxide (Ta ₂ O ₅) channel waveguide. Scientific Reports, 2021, 11, 7978.	3.3	5
57	Nonlinear Optics: Heterogeneously Integrated GaAs Waveguides on Insulator for Efficient Frequency Conversion (Laser Photonics Rev. 12(10)/2018). Laser and Photonics Reviews, 2018, 12, 1870044.	8.7	4
58	Mitigation of Electrical Bandwidth Limitations using Optical Pre-Sampling. , 2017, , .		3
59	Broadband Photodetectors: Liquidâ€Metal Synthesized Ultrathin SnS Layers for Highâ€Performance Broadband Photodetectors (Adv. Mater. 45/2020). Advanced Materials, 2020, 32, 2070338.	21.0	2
60	Integrated photonic high extinction short and long pass filters based on lateral leakage. Optics Express, 2021, 29, 18905-18914.	3.4	2
61	Low loss, plasma beam assisted reactive magnetron sputtered silicon nitride films for optical applications. , 2019, , .		2
62	Ultra-efficient frequency comb generation in AlGaAs-on-insulator microresonators. , 2020, , .		2
63	Arbitrary access to optical carriers in silicon photonic mode/wavelength hybrid division multiplexing circuits. Optics Letters, 0, , .	3.3	2
64	Picosecond pulsed squeezing in thin-film lithium niobate strip-loaded waveguides at telecommunication wavelengths. JPhys Photonics, 2022, 4, 035002.	4.6	2
65	A gallium arsenide nonlinear platform on silicon. , 2018, , .		1
66	Versatile, high bandwidth, RF and microwave photonic Hilbert transformers based on Kerr micro-combs. , 2022, , .		1
67	Optical Neuromorphic Processor at 11 TeraOPs/s based on Kerr Soliton Crystal Micro-combs. , 2022, , .		1
68	Tailor-made domain structures on the x-face and y-face of LiNbO ₃ crystals. , 2012, , .		0
69	Tailor-made domain structures on the x-face and y-face of LiNbO ₃ crystals. , 2012, , .		0
70	Impact of domain depth on SAW generation by acoustic superlattice transducer in 128° YX-cut lithium niobate. , 2013, , .		0
71	Ultraviolet direct domain writing on 128° YX-cut LiNbO ₃ : For SAW applications. , 2013, , .		0
72	Surface Acoustic Devices: UV Direct Write Metal Enhanced Redox (MER) Domain Engineering for Realization of Surface Acoustic Devices on Lithium Niobate (Adv. Mater. Interfaces 4/2014). Advanced Materials Interfaces, 2014, 1, .	3.7	0

#	ARTICLE	IF	CITATIONS
73	Sub-micron domain engineering in lithium niobate by laser light irradiation of patterned chromium. , 2015, , .		0
74	Quantum tomography of a nonlinear photonic circuit by classical sum-frequency generation measurements. , 2017, , .		0
75	High Efficiency SHG in Heterogenous Integrated GaAs Ring Resonators. , 2018, , .		0
76	Low Stress, Anomalous Dispersive Silicon Nitride Waveguides Fabricated by Reactive Sputtering. , 2019, , .		0
77	Design Algorithm for Adiabatic Photonic Components using a Constant Coupling Approach. , 2019, , .		0
78	WDM Wavelength Quantizer. , 2016, , .		0
79	Measurement of photon-pair generation in waveguide arrays with specialized poling. , 2016, , .		0
80	A nonlinear waveguide array with inhomogeneous poling pattern for the generation of photon pairs. , 2016, , .		0
81	A nonlinear waveguide array with inhomogeneous poling pattern for the generation of photon pairs and its characterization in the quantum and classical regimes. , 2016, , .		0
82	Two-dimensional domain structures in Lithium Niobate via domain inversion with ultrafast light. Photonics Letters of Poland, 2016, 8, .	0.4	0
83	New Resonance Behavior based on Bound States in the Continuum in a Silicon Photonic Waveguide Platform. , 2019, , .		0
84	Enhanced nonlinearity in lithium niobate on insulator (LNOI) waveguides through engineering of lateral leakage. , 2019, , .		0
85	High Q resonators in the GaAs and AlGaAs on insulator platform. , 2019, , .		0
86	Interrogation of photonic biosensors using optical frequency combs. , 2019, , .		0
87	CMOS-compatible, plasma beam assisted reactive magnetron sputtered silicon nitride films for photonic integrated circuits. , 2019, , .		0
88	Design algorithm for compact low-reflection adiabatic photonic mode converters based on constant coupling. , 2019, , .		0
89	Broadband RF channelization using microcombs. , 2020, , .		0
90	Electro-optical tuning of phase matching wavelength in Lithium Niobate on Insulator (LNOI). , 2020, , .		0

#	ARTICLE	IF	CITATIONS
91	Interrogation of photonic biosensors using dual optical frequency combs. , 2020, , .		0
92	High extinction on-chip long pass filters in LNOI towards quantum optical applications. , 2020, , .		0
93	Coupled Ridge Resonator Filter Design using Microwave Engineering Filter Synthesis. , 2020, , .		0
94	Optical frequency comb generation using low stress reactive sputtered silicon nitride waveguides. , 2020, , .		0
95	Optical frequency comb generation using low stress CMOS compatible reactive sputtered silicon nitride waveguides. , 2020, , .		0