Klaus D JÃ¶ns

List of Publications by Year in descending order

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54 papers	3,030 citations	136950 32 h-index	182427 51 g-index
56 all docs	56 docs citations	56 times ranked	2510 citing authors

#	Article	IF	Citations
1	On-demand generation of indistinguishable polarization-entangled photon pairs. Nature Photonics, 2014, 8, 224-228.	31.4	355
2	On-demand generation of background-free single photons from a solid-state source. Applied Physics Letters, 2018, 112, .	3.3	204
3	Observation of strongly entangled photon pairs from a nanowire quantum dot. Nature Communications, 2014, 5, 5298.	12.8	179
4	Deterministic Integration of Single Photon Sources in Silicon Based Photonic Circuits. Nano Letters, 2016, 16, 2289-2294.	9.1	151
5	The potential and global outlook of integrated photonics for quantum technologies. Nature Reviews Physics, 2022, 4, 194-208.	26.6	151
6	On-chip single photon filtering and multiplexing in hybrid quantum photonic circuits. Nature Communications, 2017, 8, 379.	12.8	134
7	Semiconductor devices for entangled photon pair generation: a review. Reports on Progress in Physics, 2017, 80, 076001.	20.1	117
8	Nanowire Waveguides Launching Single Photons in a Gaussian Mode for Ideal Fiber Coupling. Nano Letters, 2014, 14, 4102-4106.	9.1	107
9	Entanglement Swapping with Photons Generated on Demand by a Quantum Dot. Physical Review Letters, 2019, 123, 160501.	7.8	88
10	Phonon-Assisted Two-Photon Interference from Remote Quantum Emitters. Nano Letters, 2017, 17, 4090-4095.	9.1	87
11	Thermo-Optic Characterization of Silicon Nitride Resonators for Cryogenic Photonic Circuits. IEEE Photonics Journal, 2016, 8, 1-9.	2.0	83
12	Quantum photonics with layered 2D materials. Nature Reviews Physics, 2022, 4, 219-236.	26.6	82
13	Bright Single InAsP Quantum Dots at Telecom Wavelengths in Position-Controlled InP Nanowires: The Role of the Photonic Waveguide. Nano Letters, 2018, 18, 3047-3052.	9.1	80
14	Strain-induced anticrossing of bright exciton levels in single self-assembled GaAs/Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:mrow></mml:math>Ga<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>âˆ’	3.2	76
15	Reconfigurable photonics with on-chip single-photon detectors. Nature Communications, 2021, 12, 1408.	12.8	68
16	Resonance Fluorescence of GaAs Quantum Dots with Near-Unity Photon Indistinguishability. Nano Letters, 2019, 19, 2404-2410.	9.1	63
17	Strain-Tunable Quantum Integrated Photonics. Nano Letters, 2018, 18, 7969-7976.	9.1	57
18	Bright nanoscale source of deterministic entangled photonÂpairs violating Bellâ€™s inequality. Scientific Reports, 2017, 7, 1700.	3.3	56

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19	All-photonic quantum teleportation using on-demand solid-state quantum emitters. Science Advances, 2018, 4, eaau1255.	10.3	53
20	Atomistic defects as single-photon emitters in atomically thin MoS2. Applied Physics Letters, 2020, 117, .	3.3	51
21	Quantum dots as potential sources of strongly entangled photons: Perspectives and challenges for applications in quantum networks. Applied Physics Letters, 2021, 118, .	3.3	49
22	Engineering the Luminescence and Generation of Individual Defect Emitters in Atomically Thin MoS₂. ACS Photonics, 2021, 8, 669-677.	6.6	48
23	Integrated photon-pair sources with nonlinear optics. Applied Physics Reviews, 2021, 8, .	11.3	43
24	Controlling the exciton energy of a nanowire quantum dot by strain fields. Applied Physics Letters, 2016, 108, .	3.3	42
25	Dependence of the Redshifted and Blueshifted Photoluminescence Spectra of Single<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>In</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi>Ga</mml:mi><mml:mr Dots on the Applied Uniaxial Stress. Physical Review Letters, 2011, 107, 217402.	7.8	40
26	Photon Cascade from a Single Crystal Phase Nanowire Quantum Dot. Nano Letters, 2016, 16, 1081-1085.	9.1	37
27	Nanowire Quantum Dots Tuned to Atomic Resonances. Nano Letters, 2018, 18, 7217-7221.	9.1	37
28	Controlling quantum dot emission by integration of semiconductor nanomembranes onto piezoelectric actuators. Physica Status Solidi (B): Basic Research, 2012, 249, 687-696.	1.5	36
29	Monolithic on-chip integration of semiconductor waveguides, beamsplitters and single-photon sources. Journal Physics D: Applied Physics, 2015, 48, 085101.	2.8	36
30	Gate-Switchable Arrays of Quantum Light Emitters in Contacted Monolayer MoS₂ van der Waals Heterodevices. Nano Letters, 2021, 21, 1040-1046.	9.1	36
31	On-Demand Generation of Entangled Photon Pairs in the Telecom C-Band with InAs Quantum Dots. ACS Photonics, 2021, 8, 2337-2344.	6.6	36
32	Crux of Using the Cascaded Emission of a Three-Level Quantum Ladder System to Generate Indistinguishable Photons. Physical Review Letters, 2020, 125, 233605.	7.8	34
33	Resonance Fluorescence from Waveguide-Coupled, Strain-Localized, Two-Dimensional Quantum Emitters. ACS Photonics, 2021, 8, 1069-1076.	6.6	33
34	Quantum teleportation with imperfect quantum dots. Npj Quantum Information, 2021, 7, .	6.7	30
35	Crystal Phase Quantum Well Emission with Digital Control. Nano Letters, 2017, 17, 6062-6068.	9.1	27
36	Dephasing Free Photon Entanglement with a Quantum Dot. ACS Photonics, 2019, 6, 1656-1663.	6.6	25

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37	NbTiN thin films for superconducting photon detectors on photonic and two-dimensional materials. Applied Physics Letters, 2020, 116, .	3.3	25
38	Origin of Antibunching in Resonance Fluorescence. Physical Review Letters, 2020, 125, 170402.	7.8	22
39	Strain-Controlled Quantum Dot Fine Structure for Entangled Photon Generation atâ€‰1550 nm. Nano Letters, 2021, 21, 10501-10506.	9.1	22
40	A stable wavelength-tunable triggered source of single photons and cascaded photon pairs at the telecom C-band. Applied Physics Letters, 2018, 112, 173102.	3.3	21
41	Enhancing Si₃N₄ Waveguide Nonlinearity with Heterogeneous Integration of Few-Layer WS₂. ACS Photonics, 2021, 8, 2713-2721.	6.6	20
42	Stimulated Generation of Indistinguishable Single Photons from a Quantum Ladder System. Physical Review Letters, 2022, 128, 093603.	7.8	20
43	Quantum dot technology for quantum repeaters: from entangled photon generation toward the integration with quantum memories. Materials for Quantum Technology, 2021, 1, 043001.	3.1	15
44	Two-photon interference from two blinking quantum emitters. Physical Review B, 2017, 96, .	3.2	14
45	Telecom-wavelength InAs QDs with low fine structure splitting grown by droplet epitaxy on GaAs(111)A vicinal substrates. Applied Physics Letters, 2021, 118, .	3.3	12
46	GaAs Quantum Dot in a Parabolic Microcavity Tuned to ⁸⁷Rb D₁. ACS Photonics, 2020, 7, 29-35.	6.6	6
47	Ultrafast electric control of cavity mediated single-photon and photon-pair generation with semiconductor quantum dots. Physical Review B, 2021, 104, .	3.2	5
48	Scalable integration of quantum emitters into photonic integrated circuits. Materials for Quantum Technology, 2022, 2, 023002.	3.1	5
49	Nonlinear down-conversion in a single quantum dot. Nature Communications, 2022, 13, 1387.	12.8	3
50	Reconfigurable frequency coding of triggered single photons in the telecom Câ€“band. Optics Express, 2019, 27, 14400.	3.4	2
51	On-demand generation of entangled photons in the telecom C-band. , 2020, , .		2
52	On-chip integration of reconfigurable quantum photonics with superconducting photodetectors. , 2021, , .		1
53	Resonance fluorescence of GaAs quantum dots with near-unity photon indistinguishability (Conference Presentation). , 2020, , .		1
54	Generating, manipulating and detecting quantum states of light at the nanoscale. , 2018, , .		0