Sven Rodt

List of Publications by Year
in descending order

46 papers	1,853 citations	257450 24 h-index	254184 43 g-index
46 all docs	46 docs citations	46 times ranked	1479 citing authors

#	Article	IF	Citations
1	Highly indistinguishable photons from deterministic quantum-dot microlenses utilizing three-dimensional in situ electron-beam lithography. Nature Communications, 2015, 6, 7662.	12.8	252
2	Effect of random field fluctuations on excitonic transitions of individual CdSe quantum dots. Physical Review B, 2000, 61, 9944-9947.	3.2	190
3	Exploring Dephasing of a Solid-State Quantum Emitter via Time- and Temperature-Dependent Hong-Ou-Mandel Experiments. Physical Review Letters, 2016, 116, 033601.	7.8	144
4	Correlation of structural and few-particle properties of self-organizedInAsâˆ•GaAsquantum dots. Physical Review B, 2005, 71, .	3.2	121
5	<i>In situ</i> electron-beam lithography of deterministic single-quantum-dot mesa-structures using low-temperature cathodoluminescence spectroscopy. Applied Physics Letters, 2013, 102, .	3.3	94
6	Deterministic Integration of Quantum Dots into on-Chip Multimode Interference Beamsplitters Using in Situ Electron Beam Lithography. Nano Letters, 2018, 18, 2336-2342.	9.1	85
7	A stand-alone fiber-coupled single-photon source. Scientific Reports, 2018, 8, 1340.	3.3	68
8	Single Quantum Dot with Microlens and 3D-Printed Micro-objective as Integrated Bright Single-Photon Source. ACS Photonics, 2017, 4, 1327-1332.	6.6	63
9	Optimized designs for telecom-wavelength quantum light sources based on hybrid circular Bragg gratings. Optics Express, 2019, 27, 36824.	3.4	55
10	Indistinguishable Photons from Deterministically Integrated Single Quantum Dots in Heterogeneous GaAs/Si₃N₄ Quantum Photonic Circuits. Nano Letters, 2019, 19, 7164-7172.	9.1	53
11	Numerical optimization of the extraction efficiency of a quantum-dot based single-photon emitter into a single-mode fiber. Optics Express, 2018, 26, 8479.	3.4	50
12	Polarized emission lines from A- and B-type excitonic complexes in single InGaN/GaN quantum dots. Journal of Applied Physics, 2007, 101, 113708.	2.5	45
13	Resolution and alignment accuracy of low-temperature <i>in situ</i> electron beam lithography for nanophotonic device fabrication. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, .	1.2	39
14	Quantum dot single-photon emission coupled into single-mode fibers with 3D printed micro-objectives. APL Photonics, 2020, 5, .	5.7	35
15	Plug&Play Fiberâ€Coupled 73Â kHz Singleâ€Photon Source Operating in the Telecom Oâ€Band. Advanced Quantum Technologies, 2020, 3, 2000018.	3.9	34
16	Enhanced photon-extraction efficiency from InGaAs/GaAs quantum dots in deterministic photonic structures at 1.3 Î¼m fabricated by in-situ electron-beam lithography. AIP Advances, 2018, 8, 085205.	1.3	33
17	Two-photon interference from remote deterministic quantum dot microlenses. Applied Physics Letters, 2017, 110, .	3.3	30
18	Integrated nanophotonics for the development of fully functional quantum circuits based on on-demand single-photon emitters. APL Photonics, 2021, 6, .	5.7	29

#	Article	IF	Citations
19	Siteâ€controlled quantum dot growth on buried oxide stressor layers. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2411-2420.	1.8	27
20	Operating single quantum emitters with a compact Stirling cryocooler. Review of Scientific Instruments, 2015, 86, 013113.	1.3	27
21	Generation of maximally entangled states and coherent control in quantum dot microlenses. Applied Physics Letters, 2018, 112, .	3.3	27
22	Deterministically fabricated quantum dot single-photon source emitting indistinguishable photons in the telecom O-band. Applied Physics Letters, 2020, 116, .	3.3	27
23	Triggered high-purity telecom-wavelength single-photon generation from p-shell-driven InGaAs/GaAs quantum dot. Optics Express, 2017, 25, 31122.	3.4	26
24	Deterministically fabricated spectrally-tunable quantum dot based single-photon source. Optical Materials Express, 2020, 10, 76.	3.0	26
25	Method for direct coupling of a semiconductor quantum dot to an optical fiber for single-photon source applications. Optics Express, 2019, 27, 26772.	3.4	24
26	Efficient single-photon source based on a deterministically fabricated single quantum dot - microstructure with backside gold mirror. Applied Physics Letters, 2017, 111, .	3.3	23
27	Directional Emission of a Deterministically Fabricated Quantum Dotâ€"Bragg Reflection Multimode Waveguide System. ACS Photonics, 2019, 6, 2231-2237.	6.6	21
28	Using low-contrast negative-tone PMMA at cryogenic temperatures for 3D electron beam lithography. Nanotechnology, 2016, 27, 195301.	2.6	20
29	In(Ga)As/GaAs siteâ€controlled quantum dots with tailored morphology and high optical quality. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 2379-2386.	1.8	19
30	Decay dynamics of neutral and charged excitonic complexes in single InAsâˆ•GaAs quantum dots. Applied Physics Letters, 2008, 92, 063116.	3.3	18
31	Advanced <i>in-situ</i> electron-beam lithography for deterministic nanophotonic device processing. Review of Scientific Instruments, 2015, 86, 073903.	1.3	17
32	CSAR 62 as negative-tone resist for high-contrast e-beam lithography at temperatures between 4â€‰K and room temperature. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	1.2	15
33	Deterministically fabricated strain-tunable quantum dot single-photon sources emitting in the telecom O-band. Applied Physics Letters, 2020, 117, .	3.3	13
34	Thermal stability of emission from single InGaAs/GaAs quantum dots at the telecom O-band. Scientific Reports, 2020, 10, 21816.	3.3	13
35	Excitonic complexes in MOCVD-grown InGaAs/GaAs quantum dots emitting at telecom wavelengths. Physical Review B, 2019, 100, .	3.2	12
36	High-performance deterministic in situ electron-beam lithography enabled by cathodoluminescence spectroscopy. Nano Express, 2021, 2, 014007.	2.4	12

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37	Bright Electrically Controllable Quantumâ€Dotâ€Molecule Devices Fabricated by In Situ Electronâ€Beam Lithography. Advanced Quantum Technologies, 2021, 4, 2100002.	3.9	12
38	Study of high-resolution electron-beam resists for applications in low-temperature lithography. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	1.2	11
39	Spectral control of deterministically fabricated quantum dot waveguide systems using the quantum confined Stark effect. APL Photonics, 2021, 6, .	5.7	8
40	Absolute calibration of a single-photon avalanche detector using a bright triggered single-photon source based on an InGaAs quantum dot. Optics Express, 2021, 29, 23500.	3.4	8
41	Numerical Investigation of Light Emission from Quantum Dots Embedded into Onâ€Chip, Lowâ€Indexâ€Contrast Optical Waveguides. Physica Status Solidi (B): Basic Research, 2019, 256, 1800437.	1.5	7
42	Interplay between emission wavelength and s-p splitting in MOCVD-grown InGaAs/GaAs quantum dots emitting above 1.3 <i>Î¼</i> m. Applied Physics Letters, 2020, 116, .	3.3	7
43	Cesiumâ€Vaporâ€Based Delay of Single Photons Emitted by Deterministically Fabricated Quantum Dot Microlenses. Advanced Quantum Technologies, 2020, 3, 1900071.	3.9	5
44	Optimizing the InGaAs/GaAs Quantum Dots for 1.3 Î¼m Emission. Acta Physica Polonica A, 2017, 132, 386-390.	0.5	5
45	Single photon sources for quantum radiometry: a brief review about the current state-of-the-art. Applied Physics B: Lasers and Optics, 2022, 128, 1.	2.2	3
46	High-Î² micropillar lasers with site-controlled quantum dots fabricated via a buried stressor approach. , 2017, , .		0