Tim SchrÃ¶der

List of Publications by Year
in descending order

76 papers	2,840 citations	147801 31 h-index	233421 45 g-index
78 all docs	78 docs citations	78 times ranked	2926 citing authors

#	Article	IF	Citations
1	Coherent Interactions between Silicon-Vacancy Centers in Diamond. Physical Review Letters, 2022, 128, .	7.8	2
2	Roadmap on quantum nanotechnologies. Nanotechnology, 2021, 32, 162003.	2.6	45
3	Hidden Silicon-Vacancy Centers in Diamond. Physical Review Letters, 2021, 126, 213601.	7.8	10
4	Optimized diamond inverted nanocones for enhanced color center to fiber coupling. Applied Physics Letters, 2021, 118, .	3.3	14
5	Using silicon-vacancy centers in diamond to probe the full strain tensor. Journal of Applied Physics, 2021, 130, 024301.	2.5	2
6	Deterministic positioning of nanophotonic waveguides around single self-assembled quantum dots. APL Photonics, 2020, 5, 086101.	5.7	28
7	One-Way Quantum Repeater Based on Near-Deterministic Photon-Emitter Interfaces. Physical Review X, 2020, 10, .	8.9	61
8	Individual control and readout of qubits in a sub-diffraction volume. Npj Quantum Information, 2019, 5, .	6.7	21
9	Coherent Optical Control of a Quantum-Dot Spin-Qubit in a Waveguide-Based Spin-Photon Interface. Physical Review Applied, 2019, 11, .	3.8	20
10	Multi-Qubit Registers of Individually Addressable Solid-State Defect Centers. , 2019, , .		0
11	Towards Multiplexing Entanglement Generation with small Ensembles of Spin Qubits. , 2019, , .		0
12	Efficient Extraction of Light from a Nitrogen-Vacancy Center in a Diamond Parabolic Reflector. Nano Letters, 2018, 18, 2787-2793.	9.1	66
13	Spinâ€“photon interface and spin-controlled photon switching in a nanobeam waveguide. Nature Nanotechnology, 2018, 13, 398-403.	31.5	85
14	Bright nanowire single photon source based on SiV centers in diamond. Optics Express, 2018, 26, 80.	3.4	37
15	Bright Roomâ€Temperature Singleâ€Photon Emission from Defects in Gallium Nitride. Advanced Materials, 2017, 29, 1605092.	21.0	102
16	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. Nature Communications, 2017, 8, 15376.	12.8	141
17	Singleâ€Photon Emission: Bright Roomâ€Temperature Singleâ€Photon Emission from Defects in Gallium Nitride (Adv. Mater. 12/2017). Advanced Materials, 2017, 29, .	21.0	1
18	Fiber-Coupled Diamond Micro-Waveguides toward an Efficient Quantum Interface for Spin Defect Centers. ACS Omega, 2017, 2, 7194-7202.	3.5	13

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19	Rectangular photonic crystal nanobeam cavities in bulk diamond. Applied Physics Letters, 2017, 111, .	3.3	80
20	Scalable fabrication of coupled NV center - photonic crystal cavity systems by self-aligned N ion implantation. Optical Materials Express, 2017, 7, 1514.	3.0	25
21	Efficient Dielectric Reflectors for Solid-state Emitters in Bulk Diamond. , 2017, , .		0
22	Photonic Crystal Cavities in Bulk Diamond for Efficient Spin-Photon Interfaces. , 2017, , .		0
23	Maskless Creation of Silicon Vacancy Centers in Photonic Crystal Cavities. , 2016, , .		0
24	Invited Article: Precision nanoimplantation of nitrogen vacancy centers into diamond photonic crystal cavities and waveguides. APL Photonics, 2016, 1, .	5.7	33
25	Efficient photon coupling from a diamond nitrogen vacancy center by integration with silica fiber. Light: Science and Applications, 2016, 5, e16032-e16032.	16.6	66
26	Quantum nanophotonics in diamond [Invited]. Journal of the Optical Society of America B: Optical Physics, 2016, 33, B65.	2.1	178
27	Bright and photostable single-photon emitter in silicon carbide. Optica, 2016, 3, 768.	9.3	67
28	NV-based quantum memories coupled to photonic integrated circuits. Proceedings of SPIE, 2016, , .	0.8	0
29	Circular Gratings for Efficient Collection from Implanted Silicon Vacancy Centers in Diamond. , 2016, , .		0
30	Scalable Integration of Long-Lived Quantum Memories into a Photonic Circuit. Physical Review X, 2015, 5, .	8.9	74
31	Efficient Single Photon Generation using a Fiber-integrated Diamond Micro-Waveguide. , 2015, , .		0
32	Generation of Ensembles of Individually Resolvable Nitrogen Vacancies Using Nanometer-Scale Apertures in Ultrahigh-Aspect Ratio Planar Implantation Masks. Nano Letters, 2015, 15, 1751-1758.	9.1	44
33	Coherent spin control of a nanocavity-enhanced qubit in diamond. Nature Communications, 2015, 6, 6173.	12.8	144
34	Nanofabrication on unconventional substrates using transferred hard masks. Scientific Reports, 2015, 5, 7802.	3.3	50
35	High-resolution optical spectroscopy using multimode interference in a compact tapered fibre. Nature Communications, 2015, 6, 7762.	12.8	76
36	Efficient Photon Collection from a Nitrogen Vacancy Center in a Circular Bullseye Grating. Nano Letters, 2015, 15, 1493-1497.	9.1	161

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37	One-dimensional photonic crystal cavities in single-crystal diamond. Photonics and Nanostructures - Fundamentals and Applications, 2015, 15, 130-136.	2.0	18
38	Broadband magnetometry and temperature sensing with a light-trapping diamond waveguide. Nature Physics, 2015, 11, 393-397.	16.7	204
39	Deterministic High-yield Creation of Nitrogen Vacancy Centers in Diamond Photonic Crystal Cavities and Photonic Elements. , 2015, , .		0
40	Efficient collection from a nitrogen-vacancy qubit in a circular grating. , 2015, , .		0
41	Towards On-Chip Quantum Networks based on Spin Qubits in Diamond. , 2015, , .		0
42	Scalable Integration of Solid State Quantum Memories into a Photonic Network. , 2015, , .		0
43	Efficient integration of high-purity diamond nanostructures into silicon nitride photonic circuits. , 2014, , .		1
44	Evaluation of nitrogen- and silicon-vacancy defect centres as single photon sources in quantum key distribution. New Journal of Physics, 2014, 16, 023021.	2.9	91
45	Fabrication of triangular nanobeam waveguide networks in bulk diamond using single-crystal silicon hard masks. Applied Physics Letters, 2014, 105, .	3.3	37
46	Waveguide-integrated photonic crystal spectrometer with camera readout. Applied Physics Letters, 2014, 105, 051103.	3.3	16
47	Using defect centres in diamonds to build photonic and quantum optical devices. , 2014, , 160-194.		3
48	Scalable Fabrication of High Purity Diamond Nanocrystals with Long-Spin-Coherence Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 32-36.	9.1	75
49	Narrow-band single photon emission at room temperature based on a single nitrogen-vacancy center coupled to an all-fiber-cavity. Applied Physics Letters, 2014, 105, 073113.	3.3	50
50	Enhanced spin-based sensing using light trapping in a bulk diamond system. , 2014, , .		1
51	Targeted creation and Purcell enhancement of NV centers within photonic crystal cavities in single-crystal diamond. , 2014, , .		2
52	Demonstration of a NV spin qubit interacting with a cavity mode in the Purcell regime. , 2014, , .		0
53	Triangular nanobeam fabrication strategy for quantum photonic network realization in bulk diamond. , 2014, , .		0
54	Implantation of proximal NV clusters in diamond by lithographically defined silicon masks with 5 nm resolution. , 2014, , .		0

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55	A novel concept to generate single photons: incoherent conversion from the visible into the infrared spectrum. Proceedings of SPIE, 2013, , .	0.8	0
56	Measurement of the Ultrafast Spectral Diffusion of the Optical Transition of Nitrogen Vacancy Centers in Nano-Size Diamond Using Correlation Interferometry. Physical Review Letters, 2013, 110, 027401.	7.8	90
57	Coupling diamond nitrogen vacancy centers to tapered fibers: Toward generation of indistinguishable single photons. , 2013, , .		0
58	Super-resolution imaging using spin-dependent fluorescence in bulk diamond. , 2013, , .		0
59	Fabrication of high-purity single-crystal diamond nano-slabs for photonic applications. , 2013, , .		0
60	Integrated and compact fiber-coupled single-photon system based on nitrogen-vacancy centers and gradient-index lenses. Optics Letters, 2012, 37, 2901.	3.3	3
61	Assembly of Quantum Optical Hybrid Devices via a Scanning Probe Pick-and-Place Technique. , 2012, , .		1
62	A nanodiamond-tapered fiber system with high single-mode coupling efficiency. Optics Express, 2012, 20, 10490.	3.4	90
63	Incoherent photon conversion in selectively infiltrated hollow-core photonic crystal fibers for single photon generation in the near infrared. Optics Express, 2012, 20, 11536.	3.4	4
64	Near-field coupling of a single NV center to a tapered fiber. Proceedings of SPIE, 2012, , .	0.8	0
65	Ultrabright and efficient single-photon generation based on nitrogen-vacancy centres in nanodiamonds on a solid immersion lens. New Journal of Physics, 2011, 13, 055017.	2.9	107
66	Fiber-Integrated Diamond-Based Single Photon Source. Nano Letters, 2011, 11, 198-202.	9.1	133
67	Ultra-bright and efficient single photon generation based on integrated nanodiamonds containing single defect centers. , 2011, , .		0
68	Integrated photonic quantum technologies with fiber-integrated single photon emitters. , 2011, , .		0
69	A scanning probe-based pick-and-place procedure for assembly of integrated quantum optical hybrid devices. Review of Scientific Instruments, 2011, 82, 073709.	1.3	81
70	Hybrid approaches toward single emitter coupling to optical microresonators. Proceedings of SPIE, 2010, , .	0.8	0
71	Controlled coupling of NV defect centers to plasmonic and photonic nanostructures. Journal of Luminescence, 2010, 130, 1628-1634.	3.1	33
72	Room-temperature single-photon sources: design, performance, and applications. Proceedings of SPIE, 2010, , .	0.8	0

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73	Assembly of fundamental photonic elements from single nanodiamonds. , 2010, , .		0
74	On-demand positioning of a preselected quantum emitter on a fiber-coupled toroidal microresonator. Applied Physics Letters, 2009, 95, 153110.	3.3	33
75	One-by-one coupling of single photon emitters to high-Q modes of optical microresonators. Proceedings of SPIE, 2009, , .	0.8	0
76	One-by-One Coupling of Single Defect Centers in Nanodiamonds to High-Q Modes of an Optical Microresonator. Nano Letters, 2008, 8, 3911-3915.	9.1	121