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	Broadband magnetometry and temperature sensing with a light-trapping diamond waveguide. Nature Physics, 2015, 11, 393-397.	16.7	204
2	Quantum nanophotonics in diamond [Invited]. Journal of the Optical Society of America B: Optical Physics, 2016, 33, B65.	2.1	178
3	Efficient Photon Collection from a Nitrogen Vacancy Center in a Circular Bullseye Grating. Nano Letters, 2015, 15, 1493-1497.	9.1	161
4	Coherent spin control of a nanocavity-enhanced qubit in diamond. Nature Communications, 2015, 6, 6173.	12.8	144
5	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. Nature Communications, 2017, 8, 15376.	12.8	141
6	Fiber-Integrated Diamond-Based Single Photon Source. Nano Letters, 2011, 11, 198-202.	9.1	133
7	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
8	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
9	Bright Roomâ€Temperature Singleâ€Photon Emission from Defects in Gallium Nitride. Advanced Materials, 2017, 29, 1605092.	21.0	102
10	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
11	A nanodiamond-tapered fiber system with high single-mode coupling efficiency. Optics Express, 2012, 20, 10490.	3.4	90
12	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
13	Spinâ€"photon interface and spin-controlled photon switching in a nanobeam waveguide. Nature Nanotechnology, 2018, 13, 398-403.	31.5	85
14	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
15	Rectangular photonic crystal nanobeam cavities in bulk diamond. Applied Physics Letters, 2017, 111, .	3.3	80
16	High-resolution optical spectroscopy using multimode interference in a compact tapered fibre. Nature Communications, 2015, 6, 7762.	12.8	76
17	Scalable Fabrication of High Purity Diamond Nanocrystals with Long-Spin-Coherence Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 32-36.	9.1	75
18	Scalable Integration of Long-Lived Quantum Memories into a Photonic Circuit. Physical Review X, 2015, 5, .	8.9	74

#	ARTICLE	IF	CITATIONS
19	Bright and photostable single-photon emitter in silicon carbide. Optica, 2016, 3, 768.	9.3	67
20	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
21	Efficient Extraction of Light from a Nitrogen-Vacancy Center in a Diamond Parabolic Reflector. Nano Letters, 2018, 18, 2787-2793.	9.1	66
22	One-Way Quantum Repeater Based on Near-Deterministic Photon-Emitter Interfaces. Physical Review X, 2020, 10, .	8.9	61
23	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
24	Nanofabrication on unconventional substrates using transferred hard masks. Scientific Reports, 2015, 5, 7802.	3.3	50
25	Roadmap on quantum nanotechnologies. Nanotechnology, 2021, 32, 162003.	2.6	45
26	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
27	Fabrication of triangular nanobeam waveguide networks in bulk diamond using single-crystal silicon hard masks. Applied Physics Letters, 2014, 105, .	3.3	37
28	Bright nanowire single photon source based on SiV centers in diamond. Optics Express, 2018, 26, 80.	3.4	37
29	On-demand positioning of a preselected quantum emitter on a fiber-coupled toroidal microresonator. Applied Physics Letters, 2009, 95, 153110.	3.3	33
30	Controlled coupling of NV defect centers to plasmonic and photonic nanostructures. Journal of Luminescence, 2010, 130, 1628-1634.	3.1	33
31	Invited Article: Precision nanoimplantation of nitrogen vacancy centers into diamond photonic crystal cavities and waveguides. APL Photonics, 2016, 1, .	5.7	33
32	Deterministic positioning of nanophotonic waveguides around single self-assembled quantum dots. APL Photonics, 2020, 5, 086101.	5.7	28
33	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
34	Individual control and readout of qubits in a sub-diffraction volume. Npj Quantum Information, 2019, 5, .	6.7	21
35	Coherent Optical Control of a Quantum-Dot Spin-Qubit in a Waveguide-Based Spin-Photon Interface. Physical Review Applied, 2019, 11, .	3.8	20
36	One-dimensional photonic crystal cavities in single-crystal diamond. Photonics and Nanostructures - Fundamentals and Applications, 2015, 15, 130-136.	2.0	18

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37	Waveguide-integrated photonic crystal spectrometer with camera readout. Applied Physics Letters, 2014, 105, 051103.	3.3	16
38	Optimized diamond inverted nanocones for enhanced color center to fiber coupling. Applied Physics Letters, 2021, 118, .	3.3	14
39	Fiber-Coupled Diamond Micro-Waveguides toward an Efficient Quantum Interface for Spin Defect Centers. ACS Omega, 2017, 2, 7194-7202.	3.5	13
40	Hidden Silicon-Vacancy Centers in Diamond. Physical Review Letters, 2021, 126, 213601.	7.8	10
41	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
42	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
43	Using defect centres in diamonds to build photonic and quantum optical devices. , 2014, , 160-194.		3
44	Targeted creation and Purcell enhancement of NV centers within photonic crystal cavities in single-crystal diamond. , 2014, , .		2
45	Using silicon-vacancy centers in diamond to probe the full strain tensor. Journal of Applied Physics, 2021, 130, 024301.	2.5	2
46	Coherent Interactions between Silicon-Vacancy Centers in Diamond. Physical Review Letters, 2022, 128, .	7.8	2
47	Assembly of Quantum Optical Hybrid Devices via a Scanning Probe Pick-and-Place Technique. , 2012, , .		1
48	Efficient integration of high-purity diamond nanostructures into silicon nitride photonic circuits. , 2014, , .		1
49	Enhanced spin-based sensing using light trapping in a bulk diamond system. , 2014, , .		1
50	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
51	One-by-one coupling of single photon emitters to high-Q modes of optical microresonators. Proceedings of SPIE, 2009, , .	0.8	0
52	Hybrid approaches toward single emitter coupling to optical microresonators. Proceedings of SPIE, 2010, , .	0.8	0
53	Room-temperature single-photon sources: design, performance, and applications. Proceedings of SPIE, 2010, , .	0.8	0
54	Assembly of fundamental photonic elements from single nanodiamonds. , 2010, , .		0

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55	Ultra-bright and efficient single photon generation based on integrated nanodiamonds containing single defect centers. , 2011, , .		0
56	Integrated photonic quantum technologies with fiber-integrated single photon emitters. , 2011, , .		0
57	Near-field coupling of a single NV center to a tapered fiber. Proceedings of SPIE, 2012, , .	0.8	0
58	A novel concept to generate single photons: incoherent conversion from the visible into the infrared spectrum. Proceedings of SPIE, 2013, , .	0.8	0
59	Coupling diamond nitrogen vacancy centers to tapered fibers: Toward generation of indistinguishable single photons. , 2013, , .		0
60	Efficient Single Photon Generation using a Fiber-integrated Diamond Micro-Waveguide. , 2015, , .		0
61	Maskless Creation of Silicon Vacancy Centers in Photonic Crystal Cavities. , 2016, , .		0
62	NV-based quantum memories coupled to photonic integrated circuits. Proceedings of SPIE, 2016, , .	0.8	0
63	Multi-Qubit Registers of Individually Addressable Solid-State Defect Centers. , 2019, , .		0
64	Super-resolution imaging using spin-dependent fluorescence in bulk diamond. , 2013, , .		0
65	Fabrication of high-purity single-crystal diamond nano-slabs for photonic applications. , 2013, , .		0
66	Demonstration of a NV spin qubit interacting with a cavity mode in the Purcell regime. , 2014, , .		0
67	Triangular nanobeam fabrication strategy for quantum photonic network realization in bulk diamond. , 2014, , .		0
68	Implantation of proximal NV clusters in diamond by lithographically defined silicon masks with 5 nm resolution. , 2014, , .		0
69	Deterministic High-yield Creation of Nitrogen Vacancy Centers in Diamond Photonic Crystal Cavities and Photonic Elements. , 2015, , .		0
70	Efficient collection from a nitrogen-vacancy qubit in a circular grating. , 2015, , .		0
71	Towards On-Chip Quantum Networks based on Spin Qubits in Diamond. , 2015, , .		0
72	Scalable Integration of Solid State Quantum Memories into a Photonic Network. , 2015, , .		0

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73	Circular Gratings for Efficient Collection from Implanted Silicon Vacancy Centers in Diamond. , 2016, , .		0
74	Efficient Dielectric Reflectors for Solid-state Emitters in Bulk Diamond. , 2017, , .		0
75	Photonic Crystal Cavities in Bulk Diamond for Efficient Spin-Photon Interfaces. , 2017, , .		0
76	Towards Multiplexing Entanglement Generation with small Ensembles of Spin Qubits. , 2019, , .		0