

D R Englund

List of Publications by Year in descending order

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282
papers

23,139
citations

9786

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287
docs citations

287
times ranked

17594
citing authors

#	ARTICLE	IF	CITATIONS
1	High-speed programmable photonic circuits in a cryogenically compatible, visible–near-infrared 200-µm CMOS architecture. <i>Nature Photonics</i> , 2022, 16, 59-65.	31.4	91
2	The potential and global outlook of integrated photonics for quantum technologies. <i>Nature Reviews Physics</i> , 2022, 4, 194-208.	26.6	151
3	Quantum advantage for differential equation analysis. <i>Physical Review A</i> , 2022, 105, .	2.5	5
4	Design of asymptotically perfect linear photonic circuits. , 2022, , .		0
5	Thermally Polarized Solid-State Spin Sensor. <i>Physical Review Applied</i> , 2022, 17, .	3.8	1
6	2D materials-enabled optical modulators: From visible to terahertz spectral range. <i>Applied Physics Reviews</i> , 2022, 9, .	11.3	32
7	Demonstration of WDM-Enabled Ultralow-Energy Photonic Edge Computing. , 2022, , .		3
8	Design of Asymptotically Perfect Linear Feedforward Photonic Circuits. , 2022, , .		1
9	Entanglement generation in a quantum network at distance-independent rate. <i>Npj Quantum Information</i> , 2022, 8, .	6.7	7
10	Piezo-optomechanical cantilever modulators for VLSI visible photonics. <i>APL Photonics</i> , 2022, 7, .	5.7	17
11	A quantum router architecture for high-fidelity entanglement flows in quantum networks. <i>Npj Quantum Information</i> , 2022, 8, .	6.7	24
12	Waveguide-integrated mid-infrared photodetection using graphene on a scalable chalcogenide glass platform. <i>Nature Communications</i> , 2022, 13, .	12.8	12
13	Giant enhancement of third-harmonic generation in graphene–metal heterostructures. <i>Nature Nanotechnology</i> , 2021, 16, 318-324.	31.5	47
14	High-Scalability CMOS Quantum Magnetometer With Spin-State Excitation and Detection of Diamond Color Centers. <i>IEEE Journal of Solid-State Circuits</i> , 2021, 56, 1001-1014.	5.4	30
15	A Vertically Loaded Diamond Microdisk Resonator (VLDMoRt) towards a Scalable Quantum Network. , 2021, , .		0
16	A polarization encoded photon-to-spin interface. <i>Npj Quantum Information</i> , 2021, 7, .	6.7	12
17	Imaging metasurfaces based on graphene-loaded slot antennas. <i>Optics Express</i> , 2021, 29, 1076.	3.4	1
18	Room-temperature photonic logical qubits via second-order nonlinearities. <i>Nature Communications</i> , 2021, 12, 191.	12.8	24

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19	Intrinsic donor-bound excitons in ultraclean monolayer semiconductors. Nature Communications, 2021, 12, 871.	12.8	29
20	Quantum Computer Systems for Scientific Discovery. PRX Quantum, 2021, 2, .	9.2	142
21	Development of Quantum Interconnects (QulCs) for Next-Generation Information Technologies. PRX Quantum, 2021, 2, .	9.2	172
22	Freely scalable and reconfigurable optical hardware for deep learning. Scientific Reports, 2021, 11, 3144.	3.3	32
23	Experimental quantum speed-up in reinforcement learning agents. Nature, 2021, 591, 229-233.	27.8	85
24	Cavity-enhanced microwave readout of a solid-state spin sensor. Nature Communications, 2021, 12, 1357.	12.8	32
25	Field-based design of a resonant dielectric antenna for coherent spin-photon interfaces. Optics Express, 2021, 29, 16469.	3.4	7
26	Josephson junction infrared single-photon detector. Science, 2021, 372, 409-412.	12.6	45
27	Towards plasmonic-enhanced optical nonlinearities in graphene metal-heterostructures. , 2021, , .		0
28	Quantum Networks with Artificial Atoms in Scalable Photonic Circuits: Architecture Designs to Proof of Concept Systems. , 2021, , .		0
29	Ultrasensitive Calorimetric Measurements of the Electronic Heat Capacity of Graphene. Nano Letters, 2021, 21, 5330-5337.	9.1	10
30	Optically Heralded Entanglement of Superconducting Systems in Quantum Networks. Physical Review Letters, 2021, 127, 040503.	7.8	36
31	IOI. , 2021, , .		4
32	Scalable Quantum Networks with Artificial Atoms. , 2021, , .		0
33	Quantum networks based on color centers in diamond. Journal of Applied Physics, 2021, 130, .	2.5	105
34	Scalable and High-Fidelity Quantum Random Access Memory in Spin-Photon Networks. PRX Quantum, 2021, 2, .	9.2	12
35	A phononic interface between a superconducting quantum processor and quantum networked spin memories. Npj Quantum Information, 2021, 7, .	6.7	20
36	Investigation of the Stark Effect on a Centrosymmetric Quantum Emitter in Diamond. Physical Review Letters, 2021, 127, 147402.	7.8	20

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37	Edge computing with optical neural networks via WDM weight broadcasting. , 2021, , .		5
38	Hardware error correction for programmable photonics. Optica, 2021, 8, 1247.	9.3	80
39	Field-based Design of a Resonant Dielectric Antenna for Coherent Spin-Photon Interfaces. , 2021, , .		0
40	Terahertz Light Sources by Electronic-Oscillator-Driven Second Harmonic Generation in Extreme-Confinement Cavities. , 2021, , .		1
41	A low-noise telecom interface for silicon-vacancy quantum network nodes. , 2021, , .		0
42	Heralded Quantum Random Access Memory in a Scalable Photonic Integrated Circuit Platform. , 2021, , .		0
43	Cryogenic Operation of DC Kerr Silicon Photonic Modulators. , 2021, , .		0
44	Robust Zero-Change Self-Configuration of the Rectangular Mesh. , 2021, , .		2
45	Universal linear optics by programmable multimode interference. Optics Express, 2021, 29, 38257.	3.4	6
46	Absorption-Based Diamond Spin Microscopy on a Plasmonic Quantum Metasurface. ACS Photonics, 2021, 8, 3218-3225.	6.6	4
47	A vertically-loaded diamond microdisk resonator spin-photon interface. Optics Express, 2021, 29, 43082.	3.4	4
48	Quantum Control of the Tin-Vacancy Spin Qubit in Diamond. Physical Review X, 2021, 11, .	8.9	30
49	Coherent Thermo-Optic Noise Cancellation in an Optical Microcavity. , 2021, , .		0
50	High-Speed, Cryogenically Compatible, and Visible-Wavelength Photonic Circuits in a 200 nm CMOS Architecture. , 2021, , .		0
51	Coherent control of the tin-vacancy spin qubit in diamond. , 2021, , .		0
52	Universal Optics with Programmable Multimode Interference. , 2021, , .		0
53	8x8 Programmable Many-Mode Interferometer Operating with Visible-Wavelength Piezo-Cantilever Modulators. , 2021, , .		0
54	Experimental Quantum-enhanced Reinforcement Learning. , 2021, , .		0

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55	Variational quantum unsampling on a quantum photonic processor. Nature Physics, 2020, 16, 322-327.	16.7	52
56	Graphene-based Josephson junction microwave bolometer. Nature, 2020, 586, 42-46.	27.8	88
57	Plasmonic antenna coupling to hyperbolic phonon-polaritons for sensitive and fast mid-infrared photodetection with graphene. Nature Communications, 2020, 11, 4872.	12.8	53
58	Programmable photonic circuits. Nature, 2020, 586, 207-216.	27.8	598
59	Inference in artificial intelligence with deep optics and photonics. Nature, 2020, 588, 39-47.	27.8	418
60	Fundamental Thermal Noise Limits for Optical Microcavities. Physical Review X, 2020, 10, .	8.9	19
61	Dynamic Exciton Funneling by Local Strain Control in a Monolayer Semiconductor. Nano Letters, 2020, 20, 6791-6797.	9.1	64
62	Bright High-Purity Quantum Emitters in Aluminum Nitride Integrated Photonics. ACS Photonics, 2020, 7, 2650-2657.	6.6	33
63	Strong spin-orbit quenching via the product Jahn-Teller effect in neutral group IV qubits in diamond. Npj Quantum Materials, 2020, 5, .	5.2	16
64	Group-III quantum defects in diamond are stable spin-1 color centers. Physical Review B, 2020, 102, .	3.2	23
65	Wide-Field Magnetic Field and Temperature Imaging Using Nanoscale Quantum Sensors. ACS Applied Materials & Interfaces, 2020, 12, 26525-26533.	8.0	41
66	Low-Temperature Electron-Phonon Interaction of Quantum Emitters in Hexagonal Boron Nitride. ACS Photonics, 2020, 7, 1410-1417.	6.6	30
67	Clifford-group-restricted eavesdroppers in quantum key distribution. Physical Review A, 2020, 101, .	2.5	1
68	Experimental demonstration of memory-enhanced quantum communication. Nature, 2020, 580, 60-64.	27.8	325
69	Large-scale integration of artificial atoms in hybrid photonic circuits. Nature, 2020, 583, 226-231.	27.8	248
70	Effect of Spectral Diffusion on the Coherence Properties of a Single Quantum Emitter in Hexagonal Boron Nitride. Journal of Physical Chemistry Letters, 2020, 11, 1330-1335.	4.6	31
71	Transform-Limited Photons From a Coherent Tin-Vacancy Spin in Diamond. Physical Review Letters, 2020, 124, 023602.	7.8	119
72	Heuristic recurrent algorithms for photonic Ising machines. Nature Communications, 2020, 11, 249.	12.8	69

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73	Strain-Correlated Localized Exciton Energy in Atomically Thin Semiconductors. ACS Photonics, 2020, 7, 1135-1140.	6.6	25
74	Photon-photon interactions in dynamically coupled cavities. Physical Review A, 2020, 101, .	2.5	27
75	Controlled-Phase Gate Using Dynamically Coupled Cavities and Optical Nonlinearities. Physical Review Letters, 2020, 124, 160501.	7.8	50
76	Numerical finite-key analysis of quantum key distribution. Npj Quantum Information, 2020, 6, .	6.7	14
77	Advances in quantum cryptography. Advances in Optics and Photonics, 2020, 12, 1012.	25.5	848
78	Strain tuning of the emission axis of quantum emitters in an atomically thin semiconductor. Optica, 2020, 7, 580.	9.3	13
79	Hybrid integration methods for on-chip quantum photonics. Optica, 2020, 7, 291.	9.3	161
80	Accelerating recurrent Ising machines in photonic integrated circuits. Optica, 2020, 7, 551.	9.3	70
81	Cryogenic operation of silicon photonic modulators based on the DC Kerr effect. Optica, 2020, 7, 1385.	9.3	31
82	Hybrid Quantum Networks for High-Fidelity Entanglement Distribution. , 2020, , .		0
83	Design and fabrication of a 128-channel array of quantum memories in hybrid photonic circuits. , 2020, , .		0
84	Versatile Alligator Nanostructures for Quantum Networks with Solid-State Emitters. , 2020, , .		0
85	Digital Optical Neural Networks for Large-Scale Machine Learning. , 2020, , .		0
86	Giant enhancement of high-harmonic generation in graphene-metal heterostructures. , 2020, , .		0
87	A 128-channel diamond quantum memory array integrated in a microphotonic chip. , 2020, , .		1
88	Quantum Information on Nonlinearly Coupled Optical Modes. , 2020, , .		0
89	Synchronously-pumped OPO coherent Ising machine: benchmarking and prospects. , 2020, , .		4
90	A scalable optical neural network architecture using coherent detection. , 2020, , .		2

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91	Heterogeneous Integration of 2D Materials and Devices on a Si Platform. , 2019, , 43-84.		5
92	A CMOS-integrated quantum sensor based on nitrogenâ€“vacancy centres. Nature Electronics, 2019, 2, 284-289.	26.0	89
93	Quantum optical neural networks. Npj Quantum Information, 2019, 5, .	6.7	111
94	Trace-free counterfactual communication with a nanophotonic processor. Npj Quantum Information, 2019, 5, .	6.7	11
95	Integration of single photon emitters in 2D layered materials with a silicon nitride photonic chip. Nature Communications, 2019, 10, 4435.	12.8	168
96	Quantum Materials with Atomic Precision: Artificial Atoms in Solids: Ab Initio Design, Control, and Integration of Single Photon Emitters in Artificial Quantum Materials. Advanced Functional Materials, 2019, 29, 1904557.	14.9	11
97	Integrated on Chip Platform with Quantum Emitters in Layered Materials. Advanced Optical Materials, 2019, 7, 1901132.	7.3	49
98	Advances in quantum light emission from 2D materials. Nanophotonics, 2019, 8, 2017-2032.	6.0	74
99	Quantum reference beaconâ€“guided superresolution optical focusing in complex media. Science, 2019, 363, 528-531.	12.6	14
100	Carrier dynamics and spinâ€“valleyâ€“layer effects in bilayer transition metal dichalcogenides. Faraday Discussions, 2019, 214, 175-188.	3.2	3
101	Experimental investigation of performance differences between coherent Ising machines and a quantum annealer. Science Advances, 2019, 5, eaau0823.	10.3	169
102	Individual control and readout of qubits in a sub-diffraction volume. Npj Quantum Information, 2019, 5, .	6.7	21
103	Single photon detection by cavity-assisted all-optical gain. Physical Review B, 2019, 99, .	3.2	3
104	Cascaded Cavities Boost the Indistinguishability of Imperfect Quantum Emitters. Physical Review Letters, 2019, 122, 183602.	7.8	34
105	Top-down fabrication of high-uniformity nanodiamonds by self-assembled block copolymer masks. Scientific Reports, 2019, 9, 6914.	3.3	12
106	Large-Scale Optical Neural Networks Based on Photoelectric Multiplication. Physical Review X, 2019, 9, .	8.9	179
107	Distributed Quantum Fiber Magnetometry. Laser and Photonics Reviews, 2019, 13, 1900075.	8.7	25
108	Optical coherence of diamond nitrogen-vacancy centers formed by ion implantation and annealing. Physical Review B, 2019, 99, .	3.2	75

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109	29.2 A Scalable Quantum Magnetometer in 65nm CMOS with Vector-Field Detection Capability. , 2019, , .		6
110	Routing entanglement in the quantum internet. Npj Quantum Information, 2019, 5, .	6.7	169
111	Percolation thresholds for photonic quantum computing. Nature Communications, 2019, 10, 1070.	12.8	32
112	Lead-related quantum emitters in diamond. Physical Review B, 2019, 99, .	3.2	78
113	Towards Large-Scale Photonic Neural-Network Accelerators. , 2019, , .		10
114	Fabrication of High Quality Quantum Emitters in Diamond Nanostructures. , 2019, , .		0
115	Multi-Qubit Registers of Individually Addressable Solid-State Defect Centers. , 2019, , .		0
116	Percolation-based architecture for cluster state creation using photon-mediated entanglement between atomic memories. Npj Quantum Information, 2019, 5, .	6.7	33
117	Thermal radiation control from hot graphene electrons coupled to a photonic crystal nanocavity. Nature Communications, 2019, 10, 109.	12.8	79
118	Large-alphabet encoding for higher-rate quantum key distribution. Optics Express, 2019, 27, 17539.	3.4	17
119	Design of high-speed phase-only spatial light modulators with two-dimensional tunable microcavity arrays. Optics Express, 2019, 27, 30669.	3.4	32
120	Large-scale uniform optical focus array generation with a phase spatial light modulator. Optics Letters, 2019, 44, 3178.	3.3	39
121	Scalable feedback control of single photon sources for photonic quantum technologies. Optica, 2019, 6, 335.	9.3	18
122	Scalable Time-Multiplexed Optical Neural Networks based on Homodyne Detection. , 2019, , .		0
123	Variational Quantum Unsampling on a Programmable Nanophotonic Processor. , 2019, , .		1
124	Scalable feedback control of on-chip entangled photon pair sources. , 2019, , .		0
125	Integrated Nanophotonic Ising Sampler. , 2019, , .		0
126	Photonic Integrated Circuits with Multiplexed Quantum Memories for Quantum Networks. , 2019, , .		0

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127	Integrated Photonics for Counterfactual Communication. , 2019, , .		1
128	Photonic Controlled-PHASE Gate using Dynamic Cavities and a Kerr Nonlinearity. , 2019, , .		0
129	Quantum-confined Stark effect of lead halide perovskite quantum dots in a mixed dimensional van der Waals heterostructure. , 2019, , .		0
130	Quantum Sensing in CMOS under Ambient Conditions: On-Chip Detection of Electronic Spin States in Diamond. , 2019, , .		0
131	Integrated Fibre Detection Architectures for Distributed Quantum Magnetometry. , 2019, , .		0
132	Large-Scale Optical Neural-Network Accelerators based on Coherent Detection. , 2019, , .		0
133	Ion milled facet for direct coupling to optical waveguides. , 2019, , .		1
134	Probing the ultimate plasmon confinement limits with a van der Waals heterostructure. Science, 2018, 360, 291-295.	12.6	259
135	Low-control and robust quantum refrigerator and applications with electronic spins in diamond. Physical Review A, 2018, 97, .	2.5	13
136	Metropolitan Quantum Key Distribution with Silicon Photonics. Physical Review X, 2018, 8, .	8.9	91
137	Photophysics of GaN single-photon emitters in the visible spectral range. Physical Review B, 2018, 97, .	3.2	36
138	Ultrafast Graphene Light Emitters. Nano Letters, 2018, 18, 934-940.	9.1	109
139	Quantum logic using correlated one-dimensional quantum walks. Npj Quantum Information, 2018, 4, .	6.7	27
140	Material platforms for spin-based photonic quantum technologies. Nature Reviews Materials, 2018, 3, 38-51.	48.7	453
141	Efficient Extraction of Light from a Nitrogen-Vacancy Center in a Diamond Parabolic Reflector. Nano Letters, 2018, 18, 2787-2793.	9.1	66
142	Two-dimensional photonic crystal slab nanocavities on bulk single-crystal diamond. Applied Physics Letters, 2018, 112, .	3.3	53
143	WDM Weighted Sum in an 8x8 SOA-Based InP Cross-Connect for Photonic Deep Neural Networks. , 2018, , .		4
144	Room-Temperature Quantum Sensing in CMOS: On-Chip Detection of Electronic Spin States in Diamond Color Centers for Magnetometry. , 2018, , .		7

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145	Broadband loop gap resonator for nitrogen vacancy centers in diamond. Review of Scientific Instruments, 2018, 89, 094705.	1.3	23
146	High-dimensional Entanglement Distribution and Einstein-Podolsky-Rosen Steering Over Deployed Fiber. , 2018, , .		0
147	Wide-Bandgap Integrated Photonic Circuits for Nonlinear Interactions and Interfacing with Quantum Memories. , 2018, , .		1
148	Hybrid Integration of Solid-State Quantum Emitters with a Silicon Chip. , 2018, , .		0
149	Compact mid-infrared graphene thermopile enabled by a nanopatterning technique of electrolyte gates. New Journal of Physics, 2018, 20, 083050.	2.9	5
150	Quantum photonics model for nonclassical light generation using integrated nanoplasmonic cavity-emitter systems. Physical Review A, 2018, 97, .	2.5	8
151	Bright nanowire single photon source based on SiV centers in diamond. Optics Express, 2018, 26, 80.	3.4	37
152	Metal-dielectric antennas for efficient photon collection from diamond color centers. Optics Express, 2018, 26, 3341.	3.4	32
153	Aluminum nitride integrated photonics platform for the ultraviolet to visible spectrum. Optics Express, 2018, 26, 11147.	3.4	105
154	High-performance flexible waveguide-integrated photodetectors. Optica, 2018, 5, 44.	9.3	54
155	On the Possibility of Miniature Diamond-Based Magnetometers Using Waveguide Geometries. Micromachines, 2018, 9, 276.	2.9	14
156	Robust high-dynamic-range vector magnetometry with nitrogen-vacancy centers in diamond. Applied Physics Letters, 2018, 112, .	3.3	62
157	Temporally and spectrally multiplexed single photon source using quantum feedback control for scalable photonic quantum technologies. New Journal of Physics, 2018, 20, 063046.	2.9	15
158	A scalable multi-photon coincidence detector based on superconducting nanowires. Nature Nanotechnology, 2018, 13, 596-601.	31.5	62
159	Fast thermal relaxation in cavity-coupled graphene bolometers with a Johnson noise read-out. Nature Nanotechnology, 2018, 13, 797-801.	31.5	66
160	Percolation Based Cluster State Generation by Photon-Mediated Entanglement. , 2018, , .		3
161	Lead-Related Quantum Emitters in Diamond. , 2018, , .		2
162	Linear programmable nanophotonic processors. Optica, 2018, 5, 1623.	9.3	240

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163	Single-Photon Detection by Cavity-Assisted All-Optical Gain. , 2018, , .		0
164	Subwavelength Optical Focusing in Scattering Media with Optically Detectable Magnetic Resonance. , 2018, , .		0
165	Highly Indistinguishable Room Temperature Single Photon Sources with Quantum Emitters in Bad Cavity Regime. , 2018, , .		1
166	Photonic Crystal Slab Nanocavities from Bulk Single-Crystal Diamond. , 2018, , .		0
167	An Aluminum Nitride Integrated Photonics Platform for the Ultraviolet to Visible Spectrum. , 2018, , .		1
168	Hybrid Flow Switched Network with an Arbitrarily Reconfigurable Optical Switch. , 2018, , .		0
169	Super-Resolution Localization and Readout of Individual Solid State Qubits. , 2018, , .		0
170	Bright Room-Temperature Single-Photon Emission from Defects in Gallium Nitride. Advanced Materials, 2017, 29, 1605092.	21.0	102
171	Active 2D materials for on-chip nanophotonics and quantum optics. Nanophotonics, 2017, 6, 1329-1342.	6.0	38
172	Quantum transport simulations in a programmable nanophotonic processor. Nature Photonics, 2017, 11, 447-452.	31.4	359
173	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. Nature Communications, 2017, 8, 15376.	12.8	141
174	Deep learning with coherent nanophotonic circuits. Nature Photonics, 2017, 11, 441-446.	31.4	1,845
175	Single-Photon Emission: Bright Room-Temperature Single-Photon Emission from Defects in Gallium Nitride (Adv. Mater. 12/2017). Advanced Materials, 2017, 29, .	21.0	1
176	A tunable waveguide-coupled cavity design for scalable interfaces to solid-state quantum emitters. APL Photonics, 2017, 2, 046103.	5.7	11
177	Rate-distance tradeoff and resource costs for all-optical quantum repeaters. Physical Review A, 2017, 95, .	2.5	94
178	Fiber-Coupled Diamond Micro-Waveguides toward an Efficient Quantum Interface for Spin Defect Centers. ACS Omega, 2017, 2, 7194-7202.	3.5	13
179	Chalcogenide glass-on-graphene photonics. Nature Photonics, 2017, 11, 798-805.	31.4	190
180	Tunable and high-purity room temperature single-photon emission from atomic defects in hexagonal boron nitride. Nature Communications, 2017, 8, 705.	12.8	351

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181	Quantum emission from atomic defects in wide-bandgap semiconductors. , 2017, , .		2
182	A MoTe ₂ -based light-emitting diode and photodetector for silicon photonic integrated circuits. Nature Nanotechnology, 2017, 12, 1124-1129.	31.5	344
183	Graphene-Based Josephson-Junction Single-Photon Detector. Physical Review Applied, 2017, 8, .	3.8	74
184	Deep learning with coherent nanophotonic circuits. , 2017, , .		17
185	Limitations of two-level emitters as nonlinearities in two-photon controlled-phase gates. Physical Review A, 2017, 95, .	2.5	16
186	Hybrid Integration of Solid-State Quantum Emitters on a Silicon Photonic Chip. Nano Letters, 2017, 17, 7394-7400.	9.1	142
187	Polymer Photonic Crystal Nanocavity for Precision Strain Sensing. ACS Photonics, 2017, 4, 1591-1594.	6.6	17
188	Rectangular photonic crystal nanobeam cavities in bulk diamond. Applied Physics Letters, 2017, 111, .	3.3	80
189	High-sensitivity spin-based electrometry with an ensemble of nitrogen-vacancy centers in diamond. Physical Review A, 2017, 95, .	2.5	63
190	Self-Similar Nanocavity Design with Ultrasmall Mode Volume for Single-Photon Nonlinearities. Physical Review Letters, 2017, 118, 223605.	7.8	159
191	Integrated nanoplasmonic quantum interfaces for room-temperature single-photon sources. Physical Review B, 2017, 96, .	3.2	8
192	Deep learning with coherent nanophotonic circuits. , 2017, , .		2
193	High-purity single photon emitter in aluminum nitride photonic integrated circuit. , 2017, , .		3
194	Embedded plasmonic nanoantennas for enhanced diamond NV-spin readout. , 2017, , .		0
195	Programmable dispersion on a photonic integrated circuit for classical and quantum applications. Optics Express, 2017, 25, 21275.	3.4	23
196	Chirped circular dielectric gratings for near-unity collection efficiency from quantum emitters in bulk diamond. Optics Express, 2017, 25, 32420.	3.4	24
197	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
198	Two-photon detector by using superconducting transmission lines. , 2017, , .		0

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199	Programmable Nanophotonics for Quantum Simulation and Machine Learning. , 2017, , .		1
200	Efficient Dielectric Reflectors for Solid-state Emitters in Bulk Diamond. , 2017, , .		0
201	Photonic Crystal Cavities in Bulk Diamond for Efficient Spin-Photon Interfaces. , 2017, , .		0
202	A Tunable Hybrid Waveguide-Coupled Cavity Design for Improved Spin-Photon Interfaces. , 2017, , .		0
203	Optical Network Switch for Dynamically Reconfigurable Single- and Multi-cast Topologies. , 2017, , .		2
204	Tunable Quantum Emission from Atomic Defects in Hexagonal Boron Nitride. , 2017, , .		0
205	Self-Aligned Local Electrolyte Gating of 2D Materials for Mid-Infrared Photodetection. , 2017, , .		0
206	Self-similar photonic crystal cavity with ultrasmall mode volume for single-photon nonlinearities. , 2017, , .		0
207	Integrated photon sources for quantum information science applications. , 2017, , .		0
208	Wide-field strain imaging with preferentially aligned nitrogen-vacancy centers in polycrystalline diamond. New Journal of Physics, 2016, 18, 123023.	2.9	51
209	AlGaIn/AlN integrated photonics platform for the ultraviolet and visible spectral range. Optics Express, 2016, 24, 25415.	3.4	56
210	Maskless Creation of Silicon Vacancy Centers in Photonic Crystal Cavities. , 2016, , .		0
211	Ultra-bright emission from hexagonal boron nitride defects as a new platform for bio-imaging and bio-labelling. , 2016, , .		1
212	Invited Article: Precision nanoimplantation of nitrogen vacancy centers into diamond photonic crystal cavities and waveguides. APL Photonics, 2016, 1, .	5.7	33
213	Modulation of nitrogen vacancy charge state and fluorescence in nanodiamonds using electrochemical potential. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3938-3943.	7.1	77
214	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
215	Solid-state single-photon emitters. Nature Photonics, 2016, 10, 631-641.	31.4	1,174
216	Quantum nanophotonics in diamond [Invited]. Journal of the Optical Society of America B: Optical Physics, 2016, 33, B65.	2.1	178

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217	Diamond-nitrogen-vacancy electronic and nuclear spin-state anticrossings under weak transverse magnetic fields. <i>Physical Review A</i> , 2016, 94, .	2.5	21
218	Bright and photostable single-photon emitter in silicon carbide. <i>Optica</i> , 2016, 3, 768.	9.3	67
219	NV-based quantum memories coupled to photonic integrated circuits. <i>Proceedings of SPIE</i> , 2016, , .	0.8	0
220	High-dimensional unitary transformations and boson sampling on temporal modes using dispersive optics. <i>Physical Review A</i> , 2016, 93, .	2.5	13
221	Robust Multicolor Single Photon Emission from Point Defects in Hexagonal Boron Nitride. <i>ACS Nano</i> , 2016, 10, 7331-7338.	14.6	403
222	Nanoscale Engineering of Closely-Spaced Electronic Spins in Diamond. <i>Nano Letters</i> , 2016, 16, 4982-4990.	9.1	39
223	Large-scale quantum photonic circuits in silicon. <i>Nanophotonics</i> , 2016, 5, 456-468.	6.0	109
224	Superconducting Nanowire Single-Photon Detector on Aluminum Nitride. , 2016, , .		8
225	High-fidelity quantum state evolution in imperfect photonic integrated circuits. <i>Physical Review A</i> , 2015, 92, .	2.5	67
226	Scalable Integration of Long-Lived Quantum Memories into a Photonic Circuit. <i>Physical Review X</i> , 2015, 5, .	8.9	74
227	Quantum Random Walks in a Programmable Nanophotonic Processor. , 2015, , .		2
228	High-Speed Electro-Optic Modulator Integrated with Graphene-Boron Nitride Heterostructure and Photonic Crystal Nanocavity. <i>Nano Letters</i> , 2015, 15, 2001-2005.	9.1	142
229	Generation of Ensembles of Individually Resolvable Nitrogen Vacancies Using Nanometer-Scale Apertures in Ultrahigh-Aspect Ratio Planar Implantation Masks. <i>Nano Letters</i> , 2015, 15, 1751-1758.	9.1	44
230	Coherent spin control of a nanocavity-enhanced qubit in diamond. <i>Nature Communications</i> , 2015, 6, 6173.	12.8	144
231	Finite-key analysis of high-dimensional time-energy entanglement-based quantum key distribution. <i>Quantum Information Processing</i> , 2015, 14, 1005-1015.	2.2	13
232	On-chip detection of non-classical light by scalable integration of single-photon detectors. <i>Nature Communications</i> , 2015, 6, 5873.	12.8	238
233	Nanofabrication on unconventional substrates using transferred hard masks. <i>Scientific Reports</i> , 2015, 5, 7802.	3.3	50
234	High-resolution optical spectroscopy using multimode interference in a compact tapered fibre. <i>Nature Communications</i> , 2015, 6, 7762.	12.8	76

#	ARTICLE	IF	CITATIONS
235	Nonlocal cancellation of multi-frequency-channel dispersion. Physical Review A, 2015, 91, .	2.5	1
236	Practical high-dimensional quantum key distribution with decoy states. Physical Review A, 2015, 91, .	2.5	31
237	Photon-efficient quantum key distribution using time-energy entanglement with high-dimensional encoding. New Journal of Physics, 2015, 17, 022002.	2.9	150
238	Efficient Photon Collection from a Nitrogen Vacancy Center in a Circular Bullseye Grating. Nano Letters, 2015, 15, 1493-1497.	9.1	161
239	One-dimensional photonic crystal cavities in single-crystal diamond. Photonics and Nanostructures - Fundamentals and Applications, 2015, 15, 130-136.	2.0	18
240	Broadband magnetometry and temperature sensing with a light-trapping diamond waveguide. Nature Physics, 2015, 11, 393-397.	16.7	204
241	High-Responsivity Graphene-Boron Nitride Photodetector and Autocorrelator in a Silicon Photonic Integrated Circuit. Nano Letters, 2015, 15, 7288-7293.	9.1	185
242	Reliable Exfoliation of Large-Area High-Quality Flakes of Graphene and Other Two-Dimensional Materials. ACS Nano, 2015, 9, 10612-10620.	14.6	451
243	On-chip graphene optoelectronic devices for optical interconnects. , 2014, , .		0
244	Fabrication of triangular nanobeam waveguide networks in bulk diamond using single-crystal silicon hard masks. Applied Physics Letters, 2014, 105, .	3.3	37
245	Efficient, compact and low loss thermo-optic phase shifter in silicon. Optics Express, 2014, 22, 10487.	3.4	272
246	Surface Structure of Aerobically Oxidized Diamond Nanocrystals. Journal of Physical Chemistry C, 2014, 118, 26695-26702.	3.1	54
247	Entanglement-based quantum communication secured by nonlocal dispersion cancellation. Physical Review A, 2014, 90, .	2.5	53
248	Unconditional Security of Time-Energy Entanglement Quantum Key Distribution Using Dual-Basis Interferometry. Physical Review Letters, 2014, 112, 120506.	7.8	78
249	On-chip graphene optoelectronic devices for high-speed modulation and photodetection. Proceedings of SPIE, 2014, , .	0.8	2
250	Scalable Fabrication of High Purity Diamond Nanocrystals with Long-Spin-Coherence Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 32-36.	9.1	75
251	Broadband Coherent Absorption in Chirped-Planar-Dielectric Cavities for 2D-Material-Based Photovoltaics and Photodetectors. ACS Photonics, 2014, 1, 768-774.	6.6	101
252	High sensitivity gas sensor based on high-Q suspended polymer photonic crystal nanocavity. Applied Physics Letters, 2014, 104, .	3.3	35

#	ARTICLE	IF	CITATIONS
253	Controlled Light-Matter Interaction in Graphene Electrooptic Devices Using Nanophotonic Cavities and Waveguides. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 95-105.	2.9	20
254	Integrated Source of Spectrally Filtered Correlated Photons for Large-Scale Quantum Photonic Systems. Physical Review X, 2014, 4, .	8.9	100
255	High-dimensional quantum key distribution using dispersive optics. Physical Review A, 2013, 87, .	2.5	136
256	Enhanced photodetection in graphene-integrated photonic crystal cavity. Applied Physics Letters, 2013, 103, .	3.3	68
257	Chip-integrated ultrafast graphene photodetector with high responsivity. Nature Photonics, 2013, 7, 883-887.	31.4	971
258	High-Contrast Electrooptic Modulation of a Photonic Crystal Nanocavity by Electrical Gating of Graphene. Nano Letters, 2013, 13, 691-696.	9.1	177
259	Timekeeping with electron spin states in diamond. Physical Review A, 2013, 87, .	2.5	52
260	Planar fabrication of arrays of ion-exfoliated single-crystal-diamond membranes with nitrogen-vacancy color centers. Optical Materials, 2013, 35, 361-365.	3.6	15
261	Wide-Field Multispectral Super-Resolution Imaging Using Spin-Dependent Fluorescence in Nanodiamonds. Nano Letters, 2013, 13, 2073-2077.	9.1	82
262	Reactive ion etching: Optimized diamond membrane fabrication for transmission electron microscopy. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2013, 31, 06FF01.	1.2	14
263	Controlling the spontaneous emission rate of monolayer MoS ₂ in a photonic crystal nanocavity. Applied Physics Letters, 2013, 103, 181119.	3.3	194
264	Nanophotonic Filters and Integrated Networks in Flexible 2D Polymer Photonic Crystals. Scientific Reports, 2013, 3, 2145.	3.3	24
265	A high-resolution spectrometer based on a compact planar two dimensional photonic crystal cavity array. Applied Physics Letters, 2012, 100, 231104.	3.3	73
266	Nonlinear temporal dynamics of a strongly coupled quantum-dot-cavity system. Physical Review A, 2012, 85, .	2.5	46
267	Long-lived NV ⁺ spin coherence in high-purity diamond membranes. New Journal of Physics, 2012, 14, 093004.	2.9	31
268	Ultrafast Photon-Photon Interaction in a Strongly Coupled Quantum Dot-Cavity System. Physical Review Letters, 2012, 108, 093604.	7.8	155
269	Strong Enhancement of Light-Matter Interaction in Graphene Coupled to a Photonic Crystal Nanocavity. Nano Letters, 2012, 12, 5626-5631.	9.1	248
270	Efficient generation of single and entangled photons on a silicon photonic integrated chip. Physical Review A, 2011, 84, .	2.5	62

#	ARTICLE	IF	CITATIONS
271	Deterministic Coupling of a Single Nitrogen Vacancy Center to a Photonic Crystal Cavity. Nano Letters, 2010, 10, 3922-3926.	9.1	309
272	Coherent generation of non-classical light on a chip via photon-induced tunnelling and blockade. Nature Physics, 2008, 4, 859-863.	16.7	515
273	Controlled Phase Shifts with a Single Quantum Dot. Science, 2008, 320, 769-772.	12.6	397
274	Dipole induced transparency in waveguide coupled photonic crystal cavities. , 2008, , .		1
275	Single photon nonlinear optics with quantum dots in photonic crystal resonators. , 2008, , .		0
276	Realization of giant optical nonlinearities in a quantum dot coupled to a nanocavity. , 2008, , .		0
277	Local tuning of photonic crystal cavities using chalcogenide glasses. Applied Physics Letters, 2008, 92, .	3.3	93
278	Ultra Fast Nonlinear Optical Tuning of Photonic Crystal Cavities. , 2007, , .		0
279	Controlling cavity reflectivity with a single quantum dot. Nature, 2007, 450, 857-861.	27.8	580
280	Ultrafast photonic crystal nanocavity laser. Nature Physics, 2006, 2, 484-488.	16.7	530
281	Design and experimental characterization of photonic crystal cavities with embedded colloidal quantum dots. , 2006, , .		0
282	Controlling the Spontaneous Emission Rate of Single Quantum Dots in a Two-Dimensional Photonic Crystal. Physical Review Letters, 2005, 95, 013904.	7.8	805