D R Englund

List of Publications by Year in descending order

282 papers	23,139 citations	9786 73 h-index	8167 148 g-index
287 all docs	287 docs citations	287 times ranked	17594 citing authors

#	Article	IF	Citations
1	Deep learning with coherent nanophotonic circuits. Nature Photonics, 2017, 11, 441-446.	31.4	1,845
2	Solid-state single-photon emitters. Nature Photonics, 2016, 10, 631-641.	31.4	1,174
3	Chip-integrated ultrafast graphene photodetector with high responsivity. Nature Photonics, 2013, 7, 883-887.	31.4	971
4	Advances in quantum cryptography. Advances in Optics and Photonics, 2020, 12, 1012.	25.5	848
5	Controlling the Spontaneous Emission Rate of Single Quantum Dots in a Two-Dimensional Photonic Crystal. Physical Review Letters, 2005, 95, 013904.	7.8	805
6	Programmable photonic circuits. Nature, 2020, 586, 207-216.	27.8	598
7	Controlling cavity reflectivity with a single quantum dot. Nature, 2007, 450, 857-861.	27.8	580
8	Ultrafast photonic crystal nanocavity laser. Nature Physics, 2006, 2, 484-488.	16.7	530
9	Coherent generation of non-classical light on a chip via photon-induced tunnelling and blockade. Nature Physics, 2008, 4, 859-863.	16.7	515
10	Material platforms for spin-based photonic quantum technologies. Nature Reviews Materials, 2018, 3, 38-51.	48.7	453
11	Reliable Exfoliation of Large-Area High-Quality Flakes of Graphene and Other Two-Dimensional Materials. ACS Nano, 2015, 9, 10612-10620.	14.6	451
12	Inference in artificial intelligence with deep optics and photonics. Nature, 2020, 588, 39-47.	27.8	418
13	Robust Multicolor Single Photon Emission from Point Defects in Hexagonal Boron Nitride. ACS Nano, 2016, 10, 7331-7338.	14.6	403
14	Controlled Phase Shifts with a Single Quantum Dot. Science, 2008, 320, 769-772.	12.6	397
15	Quantum transport simulations in a programmable nanophotonic processor. Nature Photonics, 2017, 11, 447-452.	31.4	359
16	Tunable and high-purity room temperature single-photon emission from atomic defects in hexagonal boron nitride. Nature Communications, 2017, 8, 705.	12.8	351
17	A MoTe2-based light-emitting diode and photodetector for silicon photonic integrated circuits. Nature Nanotechnology, 2017, 12, 1124-1129.	31.5	344
18	Experimental demonstration of memory-enhanced quantum communication. Nature, 2020, 580, 60-64.	27.8	325

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19	Deterministic Coupling of a Single Nitrogen Vacancy Center to a Photonic Crystal Cavity. Nano Letters, 2010, 10, 3922-3926.	9.1	309
20	Efficient, compact and low loss thermo-optic phase shifter in silicon. Optics Express, 2014, 22, 10487.	3.4	272
21	Probing the ultimate plasmon confinement limits with a van der Waals heterostructure. Science, 2018, 360, 291-295.	12.6	259
22	Strong Enhancement of Lightâ€“Matter Interaction in Graphene Coupled to a Photonic Crystal Nanocavity. Nano Letters, 2012, 12, 5626-5631.	9.1	248
23	Large-scale integration of artificial atoms in hybrid photonic circuits. Nature, 2020, 583, 226-231.	27.8	248
24	Linear programmable nanophotonic processors. Optica, 2018, 5, 1623.	9.3	240
25	On-chip detection of non-classical light by scalable integration of single-photon detectors. Nature Communications, 2015, 6, 5873.	12.8	238
26	Broadband magnetometry and temperature sensing with a light-trapping diamond waveguide. Nature Physics, 2015, 11, 393-397.	16.7	204
27	Controlling the spontaneous emission rate of monolayer MoS₂ in a photonic crystal nanocavity. Applied Physics Letters, 2013, 103, 181119.	3.3	194
28	Chalcogenide glass-on-graphene photonics. Nature Photonics, 2017, 11, 798-805.	31.4	190
29	High-Responsivity Grapheneâ€“Boron Nitride Photodetector and Autocorrelator in a Silicon Photonic Integrated Circuit. Nano Letters, 2015, 15, 7288-7293.	9.1	185
30	Large-Scale Optical Neural Networks Based on Photoelectric Multiplication. Physical Review X, 2019, 9, .	8.9	179
31	Quantum nanophotonics in diamond [Invited]. Journal of the Optical Society of America B: Optical Physics, 2016, 33, B65.	2.1	178
32	High-Contrast Electrooptic Modulation of a Photonic Crystal Nanocavity by Electrical Gating of Graphene. Nano Letters, 2013, 13, 691-696.	9.1	177
33	Development of Quantum Interconnects (QuICs) for Next-Generation Information Technologies. PRX Quantum, 2021, 2, .	9.2	172
34	Experimental investigation of performance differences between coherent Ising machines and a quantum annealer. Science Advances, 2019, 5, eaau0823.	10.3	169
35	Routing entanglement in the quantum internet. Npj Quantum Information, 2019, 5, .	6.7	169
36	Integration of single photon emitters in 2D layered materials with a silicon nitride photonic chip. Nature Communications, 2019, 10, 4435.	12.8	168

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37	Efficient Photon Collection from a Nitrogen Vacancy Center in a Circular Bullseye Grating. Nano Letters, 2015, 15, 1493-1497.	9.1	161
38	Hybrid integration methods for on-chip quantum photonics. Optica, 2020, 7, 291.	9.3	161
39	Self-Similar Nanocavity Design with Ultrasmall Mode Volume for Single-Photon Nonlinearities. Physical Review Letters, 2017, 118, 223605.	7.8	159
40	Ultrafast Photon-Photon Interaction in a Strongly Coupled Quantum Dot-Cavity System. Physical Review Letters, 2012, 108, 093604.	7.8	155
41	The potential and global outlook of integrated photonics for quantum technologies. Nature Reviews Physics, 2022, 4, 194-208.	26.6	151
42	Photon-efficient quantum key distribution using timeâ€“energy entanglement with high-dimensional encoding. New Journal of Physics, 2015, 17, 022002.	2.9	150
43	Coherent spin control of a nanocavity-enhanced qubit in diamond. Nature Communications, 2015, 6, 6173.	12.8	144
44	High-Speed Electro-Optic Modulator Integrated with Graphene-Boron Nitride Heterostructure and Photonic Crystal Nanocavity. Nano Letters, 2015, 15, 2001-2005.	9.1	142
45	Hybrid Integration of Solid-State Quantum Emitters on a Silicon Photonic Chip. Nano Letters, 2017, 17, 7394-7400.	9.1	142
46	Quantum Computer Systems for Scientific Discovery. PRX Quantum, 2021, 2, .	9.2	142
47	Scalable focused ion beam creation of nearly lifetime-limited single quantum emitters in diamond nanostructures. Nature Communications, 2017, 8, 15376.	12.8	141
48	High-dimensional quantum key distribution using dispersive optics. Physical Review A, 2013, 87, .	2.5	136
49	Transform-Limited Photons From a Coherent Tin-Vacancy Spin in Diamond. Physical Review Letters, 2020, 124, 023602.	7.8	119
50	Quantum optical neural networks. Npj Quantum Information, 2019, 5, .	6.7	111
51	Large-scale quantum photonic circuits in silicon. Nanophotonics, 2016, 5, 456-468.	6.0	109
52	Ultrafast Graphene Light Emitters. Nano Letters, 2018, 18, 934-940.	9.1	109
53	Aluminum nitride integrated photonics platform for the ultraviolet to visible spectrum. Optics Express, 2018, 26, 11147.	3.4	105
54	Quantum networks based on color centers in diamond. Journal of Applied Physics, 2021, 130, .	2.5	105

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55	Bright Roomâ€Temperature Singleâ€Photon Emission from Defects in Gallium Nitride. Advanced Materials, 2017, 29, 1605092.	21.0	102
56	Broadband Coherent Absorption in Chirped-Planar-Dielectric Cavities for 2D-Material-Based Photovoltaics and Photodetectors. ACS Photonics, 2014, 1, 768-774.	6.6	101
57	Integrated Source of Spectrally Filtered Correlated Photons for Large-Scale Quantum Photonic Systems. Physical Review X, 2014, 4, .	8.9	100
58	Rate-distance tradeoff and resource costs for all-optical quantum repeaters. Physical Review A, 2017, 95, .	2.5	94
59	Local tuning of photonic crystal cavities using chalcogenide glasses. Applied Physics Letters, 2008, 92, .	3.3	93
60	Metropolitan Quantum Key Distribution with Silicon Photonics. Physical Review X, 2018, 8, .	8.9	91
61	High-speed programmable photonic circuits in a cryogenically compatible, visibleâ€“near-infrared 200â€‰mm CMOS architecture. Nature Photonics, 2022, 16, 59-65.	31.4	91
62	A CMOS-integrated quantum sensor based on nitrogenâ€“vacancy centres. Nature Electronics, 2019, 2, 284-289.	26.0	89
63	Graphene-based Josephson junction microwave bolometer. Nature, 2020, 586, 42-46.	27.8	88
64	Experimental quantum speed-up in reinforcementÂlearning agents. Nature, 2021, 591, 229-233.	27.8	85
65	Wide-Field Multispectral Super-Resolution Imaging Using Spin-Dependent Fluorescence in Nanodiamonds. Nano Letters, 2013, 13, 2073-2077.	9.1	82
66	Rectangular photonic crystal nanobeam cavities in bulk diamond. Applied Physics Letters, 2017, 111, .	3.3	80
67	Hardware error correction for programmable photonics. Optica, 2021, 8, 1247.	9.3	80
68	Thermal radiation control from hot graphene electrons coupled to a photonic crystal nanocavity. Nature Communications, 2019, 10, 109.	12.8	79
69	Unconditional Security of Time-Energy Entanglement Quantum Key Distribution Using Dual-Basis Interferometry. Physical Review Letters, 2014, 112, 120506.	7.8	78
70	Lead-related quantum emitters in diamond. Physical Review B, 2019, 99, .	3.2	78
71	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
72	High-resolution optical spectroscopy using multimode interference in a compact tapered fibre. Nature Communications, 2015, 6, 7762.	12.8	76

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73	Scalable Fabrication of High Purity Diamond Nanocrystals with Long-Spin-Coherence Nitrogen Vacancy Centers. Nano Letters, 2014, 14, 32-36.	9.1	75
74	Optical coherence of diamond nitrogen-vacancy centers formed by ion implantation and annealing. Physical Review B, 2019, 99, .	3.2	75
75	Scalable Integration of Long-Lived Quantum Memories into a Photonic Circuit. Physical Review X, 2015, 5, .	8.9	74
76	Graphene-Based Josephson-Junction Single-Photon Detector. Physical Review Applied, 2017, 8, .	3.8	74
77	Advances in quantum light emission from 2D materials. Nanophotonics, 2019, 8, 2017-2032.	6.0	74
78	A high-resolution spectrometer based on a compact planar two dimensional photonic crystal cavity array. Applied Physics Letters, 2012, 100, 231104.	3.3	73
79	Accelerating recurrent Ising machines in photonic integrated circuits. Optica, 2020, 7, 551.	9.3	70
80	Heuristic recurrent algorithms for photonic Ising machines. Nature Communications, 2020, 11, 249.	12.8	69
81	Enhanced photodetection in graphene-integrated photonic crystal cavity. Applied Physics Letters, 2013, 103, .	3.3	68
82	High-fidelity quantum state evolution in imperfect photonic integrated circuits. Physical Review A, 2015, 92, .	2.5	67
83	Bright and photostable single-photon emitter in silicon carbide. Optica, 2016, 3, 768.	9.3	67
84	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
85	Efficient Extraction of Light from a Nitrogen-Vacancy Center in a Diamond Parabolic Reflector. Nano Letters, 2018, 18, 2787-2793.	9.1	66
86	Fast thermal relaxation in cavity-coupled graphene bolometers with a Johnson noise read-out. Nature Nanotechnology, 2018, 13, 797-801.	31.5	66
87	Dynamic Exciton Funneling by Local Strain Control in a Monolayer Semiconductor. Nano Letters, 2020, 20, 6791-6797.	9.1	64
88	High-sensitivity spin-based electrometry with an ensemble of nitrogen-vacancy centers in diamond. Physical Review A, 2017, 95, .	2.5	63
89	Efficient generation of single and entangled photons on a silicon photonic integrated chip. Physical Review A, 2011, 84, .	2.5	62
90	Robust high-dynamic-range vector magnetometry with nitrogen-vacancy centers in diamond. Applied Physics Letters, 2018, 112, .	3.3	62

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91	A scalable multi-photon coincidence detector based on superconducting nanowires. Nature Nanotechnology, 2018, 13, 596-601.	31.5	62
92	AlGaN/AlN integrated photonics platform for the ultraviolet and visible spectral range. Optics Express, 2016, 24, 25415.	3.4	56
93	Surface Structure of Aerobically Oxidized Diamond Nanocrystals. Journal of Physical Chemistry C, 2014, 118, 26695-26702.	3.1	54
94	High-performance flexible waveguide-integrated photodetectors. Optica, 2018, 5, 44.	9.3	54
95	Entanglement-based quantum communication secured by nonlocal dispersion cancellation. Physical Review A, 2014, 90, .	2.5	53
96	Two-dimensional photonic crystal slab nanocavities on bulk single-crystal diamond. Applied Physics Letters, 2018, 112, .	3.3	53
97	Plasmonic antenna coupling to hyperbolic phonon-polaritons for sensitive and fast mid-infrared photodetection with graphene. Nature Communications, 2020, 11, 4872.	12.8	53
98	Timekeeping with electron spin states in diamond. Physical Review A, 2013, 87, .	2.5	52
99	Variational quantum unsampling on a quantum photonic processor. Nature Physics, 2020, 16, 322-327.	16.7	52
100	Wide-field strain imaging with preferentially aligned nitrogen-vacancy centers in polycrystalline diamond. New Journal of Physics, 2016, 18, 123023.	2.9	51
101	Nanofabrication on unconventional substrates using transferred hard masks. Scientific Reports, 2015, 5, 7802.	3.3	50
102	Controlled-Phase Gate Using Dynamically Coupled Cavities and Optical Nonlinearities. Physical Review Letters, 2020, 124, 160501.	7.8	50
103	Integrated on Chip Platform with Quantum Emitters in Layered Materials. Advanced Optical Materials, 2019, 7, 1901132.	7.3	49
104	Giant enhancement of third-harmonic generation in grapheneâ€“metal heterostructures. Nature Nanotechnology, 2021, 16, 318-324.	31.5	47
105	Nonlinear temporal dynamics of a strongly coupled quantum-dotâ€“cavity system. Physical Review A, 2012, 85, .	2.5	46
106	Josephson junction infrared single-photon detector. Science, 2021, 372, 409-412.	12.6	45
107	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
108	Wide-Field Magnetic Field and Temperature Imaging Using Nanoscale Quantum Sensors. ACS Applied Materials & Interfaces, 2020, 12, 26525-26533.	8.0	41

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109	Nanoscale Engineering of Closely-Spaced Electronic Spins in Diamond. Nano Letters, 2016, 16, 4982-4990.	9.1	39
110	Large-scale uniform optical focus array generation with a phase spatial light modulator. Optics Letters, 2019, 44, 3178.	3.3	39
111	Active 2D materials for on-chip nanophotonics and quantum optics. Nanophotonics, 2017, 6, 1329-1342.	6.0	38
112	Fabrication of triangular nanobeam waveguide networks in bulk diamond using single-crystal silicon hard masks. Applied Physics Letters, 2014, 105, .	3.3	37
113	Bright nanowire single photon source based on SiV centers in diamond. Optics Express, 2018, 26, 80.	3.4	37
114	Photophysics of GaN single-photon emitters in the visible spectral range. Physical Review B, 2018, 97, .	3.2	36
115	Optically Heralded Entanglement of Superconducting Systems in Quantum Networks. Physical Review Letters, 2021, 127, 040503.	7.8	36
116	High sensitivity gas sensor based on high-Q suspended polymer photonic crystal nanocavity. Applied Physics Letters, 2014, 104, .	3.3	35
117	Cascaded Cavities Boost the Indistinguishability of Imperfect Quantum Emitters. Physical Review Letters, 2019, 122, 183602.	7.8	34
118	Invited Article: Precision nanoimplantation of nitrogen vacancy centers into diamond photonic crystal cavities and waveguides. APL Photonics, 2016, 1, .	5.7	33
119	Percolation-based architecture for cluster state creation using photon-mediated entanglement between atomic memories. Npj Quantum Information, 2019, 5, .	6.7	33
120	Bright High-Purity Quantum Emitters in Aluminum Nitride Integrated Photonics. ACS Photonics, 2020, 7, 2650-2657.	6.6	33
121	Metal-dielectric antennas for efficient photon collection from diamond color centers. Optics Express, 2018, 26, 3341.	3.4	32
122	Percolation thresholds for photonic quantum computing. Nature Communications, 2019, 10, 1070.	12.8	32
123	Freely scalable and reconfigurable optical hardware for deep learning. Scientific Reports, 2021, 11, 3144.	3.3	32
124	Cavity-enhanced microwave readout of a solid-state spin sensor. Nature Communications, 2021, 12, 1357.	12.8	32
125	Design of high-speed phase-only spatial light modulators with two-dimensional tunable microcavity arrays. Optics Express, 2019, 27, 30669.	3.4	32
126	2D materials-enabled optical modulators: From visible to terahertz spectral range. Applied Physics Reviews, 2022, 9, .	11.3	32

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127	Long-lived NV^{â^'}spin coherence in high-purity diamond membranes. New Journal of Physics, 2012, 14, 093004.	2.9	31
128	Practical high-dimensional quantum key distribution with decoy states. Physical Review A, 2015, 91, .	2.5	31
129	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
130	Cryogenic operation of silicon photonic modulators based on the DC Kerr effect. Optica, 2020, 7, 1385.	9.3	31
131	Low-Temperature Electronâ€"Phonon Interaction of Quantum Emitters in Hexagonal Boron Nitride. ACS Photonics, 2020, 7, 1410-1417.	6.6	30
132	High-Scalability CMOS Quantum Magnetometer With Spin-State Excitation and Detection of Diamond Color Centers. IEEE Journal of Solid-State Circuits, 2021, 56, 1001-1014.	5.4	30
133	Quantum Control of the Tin-Vacancy Spin Qubit in Diamond. Physical Review X, 2021, 11, .	8.9	30
134	Intrinsic donor-bound excitons in ultraclean monolayer semiconductors. Nature Communications, 2021, 12, 871.	12.8	29
135	Quantum logic using correlated one-dimensional quantum walks. Npj Quantum Information, 2018, 4, .	6.7	27
136	Photon-photon interactions in dynamically coupled cavities. Physical Review A, 2020, 101, .	2.5	27
137	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
138	Distributed Quantum Fiber Magnetometry. Laser and Photonics Reviews, 2019, 13, 1900075.	8.7	25
139	Strain-Correlated Localized Exciton Energy in Atomically Thin Semiconductors. ACS Photonics, 2020, 7, 1135-1140.	6.6	25
140	Nanophotonic Filters and Integrated Networks in Flexible 2D Polymer Photonic Crystals. Scientific Reports, 2013, 3, 2145.	3.3	24
141	Chirped circular dielectric gratings for near-unity collection efficiency from quantum emitters in bulk diamond. Optics Express, 2017, 25, 32420.	3.4	24
142	Room-temperature photonic logical qubits via second-order nonlinearities. Nature Communications, 2021, 12, 191.	12.8	24
143	A quantum router architecture for high-fidelity entanglement flows in quantum networks. Npj Quantum Information, 2022, 8, .	6.7	24
144	Programmable dispersion on a photonic integrated circuit for classical and quantum applications. Optics Express, 2017, 25, 21275.	3.4	23

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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	Group-III quantum defects in diamond are stable spin-1 color centers. Physical Review B, 2020, 102, .	3.2	23
147	Diamond-nitrogen-vacancy electronic and nuclear spin-state anticrossings under weak transverse magnetic fields. Physical Review A, 2016, 94, .	2.5	21
148	Individual control and readout of qubits in a sub-diffraction volume. Npj Quantum Information, 2019, 5, .	6.7	21
149	Controlled Lightâ€“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
150	A phononic interface between a superconducting quantum processor and quantum networked spin memories. Npj Quantum Information, 2021, 7, .	6.7	20
151	Investigation of the Stark Effect on a Centrosymmetric Quantum Emitter in Diamond. Physical Review Letters, 2021, 127, 147402.	7.8	20
152	Fundamental Thermal Noise Limits for Optical Microcavities. Physical Review X, 2020, 10, .	8.9	19
153	One-dimensional photonic crystal cavities in single-crystal diamond. Photonics and Nanostructures - Fundamentals and Applications, 2015, 15, 130-136.	2.0	18
154	Scalable feedback control of single photon sources for photonic quantum technologies. Optica, 2019, 6, 335.	9.3	18
155	Deep learning with coherent nanophotonic circuits. , 2017, , .		17
156	Polymer Photonic Crystal Nanocavity for Precision Strain Sensing. ACS Photonics, 2017, 4, 1591-1594.	6.6	17
157	Large-alphabet encoding for higher-rate quantum key distribution. Optics Express, 2019, 27, 17539.	3.4	17
158	Piezo-optomechanical cantilever modulators for VLSI visible photonics. APL Photonics, 2022, 7, .	5.7	17
159	Limitations of two-level emitters as nonlinearities in two-photon controlled-phase gates. Physical Review A, 2017, 95, .	2.5	16
160	Strong spinâ€“orbit quenching via the product Jahnâ€“Teller effect in neutral group IV qubits in diamond. Npj Quantum Materials, 2020, 5, .	5.2	16
161	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
162	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

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163	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
164	On the Possibility of Miniature Diamond-Based Magnetometers Using Waveguide Geometries. Micromachines, 2018, 9, 276.	2.9	14
165	Quantum reference beaconâ€“guided superresolution optical focusing in complex media. Science, 2019, 363, 528-531.	12.6	14
166	Numerical finite-key analysis of quantum key distribution. Npj Quantum Information, 2020, 6, .	6.7	14
167	Finite-key analysis of high-dimensional timeâ€“energy entanglement-based quantum key distribution. Quantum Information Processing, 2015, 14, 1005-1015.	2.2	13
168	High-dimensional unitary transformations and boson sampling on temporal modes using dispersive optics. Physical Review A, 2016, 93, .	2.5	13
169	Fiber-Coupled Diamond Micro-Waveguides toward an Efficient Quantum Interface for Spin Defect Centers. ACS Omega, 2017, 2, 7194-7202.	3.5	13
170	Low-control and robust quantum refrigerator and applications with electronic spins in diamond. Physical Review A, 2018, 97, .	2.5	13
171	Strain tuning of the emission axis of quantum emitters in an atomically thin semiconductor. Optica, 2020, 7, 580.	9.3	13
172	Top-down fabrication of high-uniformity nanodiamonds by self-assembled block copolymer masks. Scientific Reports, 2019, 9, 6914.	3.3	12
173	A polarization encoded photon-to-spin interface. Npj Quantum Information, 2021, 7, .	6.7	12
174	Scalable and High-Fidelity Quantum Random Access Memory in Spin-Photon Networks. PRX Quantum, 2021, 2, .	9.2	12
175	Waveguide-integrated mid-infrared photodetection using graphene on a scalable chalcogenide glass platform. Nature Communications, 2022, 13, .	12.8	12
176	A tunable waveguide-coupled cavity design for scalable interfaces to solid-state quantum emitters. APL Photonics, 2017, 2, 046103.	5.7	11
177	Trace-free counterfactual communication with a nanophotonic processor. Npj Quantum Information, 2019, 5, .	6.7	11
178	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
179	Towards Large-Scale Photonic Neural-Network Accelerators. , 2019, , .		10
180	Ultrasensitive Calorimetric Measurements of the Electronic Heat Capacity of Graphene. Nano Letters, 2021, 21, 5330-5337.	9.1	10

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181	Integrated nanoplasmonic quantum interfaces for room-temperature single-photon sources. Physical Review B, 2017, 96, .	3.2	8
182	Quantum photonics model for nonclassical light generation using integrated nanoplasmonic cavity-emitter systems. Physical Review A, 2018, 97, .	2.5	8
183	Superconducting Nanowire Single-Photon Detector on Aluminum Nitride. , 2016, , .		8
184	Room-Temperature Quantum Sensing in CMOS: On-Chip Detection of Electronic Spin States in Diamond Color Centers for Magnetometry. , 2018, , .		7
185	Field-based design of a resonant dielectric antenna for coherent spin-photon interfaces. Optics Express, 2021, 29, 16469.	3.4	7
186	Entanglement generation in a quantum network at distance-independent rate. Npj Quantum Information, 2022, 8, .	6.7	7
187	29.2 A Scalable Quantum Magnetometer in 65nm CMOS with Vector-Field Detection Capability. , 2019, , .		6
188	Universal linear optics by programmable multimode interference. Optics Express, 2021, 29, 38257.	3.4	6
189	Compact mid-infrared graphene thermopile enabled by a nanopatterning technique of electrolyte gates. New Journal of Physics, 2018, 20, 083050.	2.9	5
190	Heterogeneous Integration of 2D Materials and Devices on a Si Platform. , 2019, , 43-84.		5
191	Edge computing with optical neural networks via WDM weight broadcasting. , 2021, , .		5
192	Quantum advantage for differential equation analysis. Physical Review A, 2022, 105, .	2.5	5
193	WDM Weighted Sum in an 8x8 SOA-Based InP Cross-Connect for Photonic Deep Neural Networks. , 2018, , .		4
194	IOI. , 2021, , .		4
195	Synchronously-pumped OPO coherent Ising machine: benchmarking and prospects. , 2020, , .		4
196	Absorption-Based Diamond Spin Microscopy on a Plasmonic Quantum Metasurface. ACS Photonics, 2021, 8, 3218-3225.	6.6	4
197	A vertically-loaded diamond microdisk resonator spin-photon interface. Optics Express, 2021, 29, 43082.	3.4	4
198	High-purity single photon emitter in aluminum nitride photonic integrated circuit. , 2017, , .		3

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199	Carrier dynamics and spinâ€“valleyâ€“layer effects in bilayer transition metal dichalcogenides. Faraday Discussions, 2019, 214, 175-188.	3.2	3
200	Single photon detection by cavity-assisted all-optical gain. Physical Review B, 2019, 99, .	3.2	3
201	Percolation Based Cluster State Generation by Photon-Mediated Entanglement. , 2018, , .		3
202	Demonstration of WDM-Enabled Ultralow-Energy Photonic Edge Computing. , 2022, , .		3
203	On-chip graphene optoelectronic devices for high-speed modulation and photodetection. Proceedings of SPIE, 2014, , .	0.8	2
204	Quantum Random Walks in a Programmable Nanophotonic Processor. , 2015, , .		2
205	Quantum emission from atomic defects in wide-bandgap semiconductors. , 2017, , .		2
206	Deep learning with coherent nanophotonic circuits. , 2017, , .		2
207	Lead-Related Quantum Emitters in Diamond. , 2018, , .		2
208	Robust Zero-Change Self-Configuration of the Rectangular Mesh. , 2021, , .		2
209	Optical Network Switch for Dynamically Reconfigurable Single- and Multi-cast Topologies. , 2017, , .		2
210	A scalable optical neural network architecture using coherent detection. , 2020, , .		2
211	Dipole induced transparency in waveguide coupled photonic crystal cavities. , 2008, , .		1
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