Christian Schneider

List of Publications by Year
in descending order

139 papers	6,552 citations	76326 40 h-index	66911 78 g-index
141 all docs	141 docs citations	141 times ranked	5356 citing authors

#	Article	IF	Citations
1	On-Demand Single Photons with High Extraction Efficiency and Near-Unity Indistinguishability from a Resonantly Driven Quantum Dot in a Micropillar. Physical Review Letters, 2016, 116, 020401.	7.8	675
2	On-demand semiconductor single-photon source with near-unity indistinguishability. Nature Nanotechnology, 2013, 8, 213-217.	31.5	444
3	An electrically pumped polariton laser. Nature, 2013, 497, 348-352.	27.8	420
4	Exciton-polariton topological insulator. Nature, 2018, 562, 552-556.	27.8	365
5	AlAsâˆ•GaAs micropillar cavities with quality factors exceeding 150.000. Applied Physics Letters, 2007, 90, 251109.	3.3	278
6	Two-dimensional semiconductors in the regime of strong light-matter coupling. Nature Communications, 2018, 9, 2695.	12.8	256
7	Room-temperature Tamm-plasmon exciton-polaritons with a WSe2 monolayer. Nature Communications, 2016, 7, 13328.	12.8	214
8	Electrically driven quantum dot-micropillar single photon source with 34% overall efficiency. Applied Physics Letters, 2010, 96, .	3.3	176
9	Exciton-polariton trapping and potential landscape engineering. Reports on Progress in Physics, 2017, 80, 016503.	20.1	157
10	Near-Transform-Limited Single Photons from an Efficient Solid-State Quantum Emitter. Physical Review Letters, 2016, 116, 213601.	7.8	150
11	Towards polariton blockade of confined excitonâ€“polaritons. Nature Materials, 2019, 18, 219-222.	27.5	146
12	Full angular dependence of the spin Hall and ordinary magnetoresistance in epitaxial antiferromagnetic NiO(001)/Pt thin films. Physical Review B, 2018, 98, .	3.2	103
13	Lithographic alignment to site-controlled quantum dots for device integration. Applied Physics Letters, 2008, 92, .	3.3	96
14	Polarized Nonequilibrium Bose-Einstein Condensates of Spinor Exciton Polaritons in a Magnetic Field. Physical Review Letters, 2010, 105, 256401.	7.8	92
15	Optical valley Hall effect for highly valley-coherent exciton-polaritons in an atomically thin semiconductor. Nature Nanotechnology, 2019, 14, 770-775.	31.5	87
16	Cascaded emission of single photons from the biexciton in monolayered WSe2. Nature Communications, 2016, 7, 13409.	12.8	86
17	Quantum key distribution using quantum dot single-photon emitting diodes in the red and near infrared spectral range. New Journal of Physics, 2012, 14, 083001.	2.9	80
18	Topological insulator vertical-cavity laser array. Science, 2021, 373, 1514-1517.	12.6	80

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19	Spontaneous Emission Enhancement in Strain-Induced WSe₂ Monolayer-Based Quantum Light Sources on Metallic Surfaces. ACS Photonics, 2018, 5, 1919-1926.	6.6	78
20	Zero-dimensional polariton laser in a subwavelength grating-based vertical microcavity. Light: Science and Applications, 2014, 3, e135-e135.	16.6	75
21	Single site-controlled In(Ga)As/GaAs quantum dots: growth, properties and device integration. Nanotechnology, 2009, 20, 434012.	2.6	71
22	Strain-Tunable Single Photon Sources in WSe₂ Monolayers. Nano Letters, 2019, 19, 6931-6936.	9.1	71
23	Narrow spectral linewidth from single site-controlled In(Ga)As quantum dots with high uniformity. Applied Physics Letters, 2011, 98, .	3.3	61
24	A polariton condensate in a photonic crystal potential landscape. New Journal of Physics, 2015, 17, 023001.	2.9	58
25	Coherently driving a single quantum two-level system with dichromatic laser pulses. Nature Physics, 2019, 15, 941-946.	16.7	58
26	Two-photon interference from remote quantum dots with inhomogeneously broadened linewidths. Physical Review B, 2014, 89, .	3.2	56
27	Room temperature organic excitonâ€“polariton condensate in a lattice. Nature Communications, 2020, 11, 2863.	12.8	56
28	Bosonic condensation of excitonâ€“polaritons in an atomically thin crystal. Nature Materials, 2021, 20, 1233-1239.	27.5	56
29	Polariton condensates for classical and quantum computing. Nature Reviews Physics, 2022, 4, 435-451.	26.6	51
30	Monolayered MoSe ₂ : a candidate for room temperature polaritonics. 2D Materials, 2017, 4, 015006.	4.4	50
31	Observation of bosonic condensation in a hybrid monolayer MoSe2-GaAs microcavity. Nature Communications, 2018, 9, 3286.	12.8	49
32	Ultrathin Ga₂O₃ Glass: A Largeâ€Scale Passivation and Protection Material for Monolayer WS₂. Advanced Materials, 2021, 33, e2005732.	21.0	49
33	All-optical flow control of a polariton condensate using nonresonant excitation. Physical Review B, 2015, 91, .	3.2	48
34	Coherent Polariton Laser. Physical Review X, 2016, 6, .	8.9	47
35	Bright single photon source based on self-aligned quantum dotâ€“cavity systems. Optics Express, 2014, 22, 8136.	3.4	46
36	Collective state transitions of exciton-polaritons loaded into a periodic potential. Physical Review B, 2016, 93, .	3.2	45

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37	Scalable fabrication of optical resonators with embedded site-controlled quantum dots. Optics Letters, 2008, 33, 1759.	3.3	44
38	Coherence and Interaction in Confined Room-Temperature Polariton Condensates with Frenkel Excitons. ACS Photonics, 2020, 7, 384-392.	6.6	42
39	Effect of Coulomb interaction on exciton-polariton condensates in GaAs pillar microcavities. Physical Review B, 2011, 84, .	3.2	41
40	Electro optical tuning of Tamm-plasmon exciton-polaritons. Applied Physics Letters, 2014, 105, 181107.	3.3	40
41	Zeeman splitting and diamagnetic shift of spatially confined quantum-well exciton polaritons in an external magnetic field. Physical Review B, 2011, 84, .	3.2	39
42	Spatial Coherence Properties of One Dimensional Exciton-Polariton Condensates. Physical Review Letters, 2014, 113, 203902.	7.8	39
43	Anomalies of a Nonequilibrium Spinor Polariton Condensate in a Magnetic Field. Physical Review Letters, 2014, 112, 093902.	7.8	38
44	Observation of hybrid Tamm-plasmon exciton- polaritons with GaAs quantum wells and a MoSe2 monolayer. Nature Communications, 2017, 8, 259.	12.8	38
45	Valley polarized relaxation and upconversion luminescence from Tamm-plasmon trionâ€“polaritons with a MoSe ₂ monolayer. 2D Materials, 2017, 4, 025096.	4.4	36
46	Purcell-Enhanced Single Photon Source Based on a Deterministically Placed WSe₂ Monolayer Quantum Dot in a Circular Bragg Grating Cavity. Nano Letters, 2021, 21, 4715-4720.	9.1	36
47	Observation of macroscopic valley-polarized monolayer exciton-polaritons at room temperature. Physical Review B, 2017, 96, .	3.2	35
48	Motional narrowing, ballistic transport, and trapping of room-temperature exciton polaritons in an atomically-thin semiconductor. Nature Communications, 2021, 12, 5366.	12.8	35
49	Quantum efficiency and oscillator strength of site-controlled InAs quantum dots. Applied Physics Letters, 2010, 96, .	3.3	34
50	Experimental Verification of the Very Strong Coupling Regime in a GaAs Quantum Well Microcavity. Physical Review Letters, 2017, 119, 027401.	7.8	33
51	Deterministic coupling of quantum emitters in WSe₂ monolayers to plasmonic nanocavities. Optics Express, 2018, 26, 25944.	3.4	33
52	Platform for Electrically Pumped Polariton Simulators and Topological Lasers. Physical Review Letters, 2018, 121, 257402.	7.8	31
53	Two-photon interference from a quantum dot microcavity: Persistent pure dephasing and suppression of time jitter. Physical Review B, 2015, 91, .	3.2	30
54	Optical bistability in electrically driven polariton condensates. Physical Review B, 2015, 91, .	3.2	30

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55	Enhanced single photon emission from positioned InP/GaInP quantum dots coupled to a confined Tamm-plasmon mode. Applied Physics Letters, 2015, 106, .	3.3	29
56	Integration of atomically thin layers of transition metal dichalcogenides into high-Q, monolithic Bragg-cavities: an experimental platform for the enhancement of the optical interaction in 2D-materials. Optical Materials Express, 2019, 9, 598.	3.0	29
57	Photon echo transients from an inhomogeneous ensemble of semiconductor quantum dots. Physical Review B, 2016, 93, .	3.2	28
58	Controlled Ordering of Topological Charges in an Exciton-Polariton Chain. Physical Review Letters, 2018, 121, 225302.	7.8	28
59	Photon-Number-Resolved Measurement of an Exciton-Polariton Condensate. Physical Review Letters, 2018, 121, 047401.	7.8	28
60	Coherent Topological Polariton Laser. ACS Photonics, 2021, 8, 1377-1384.	6.6	28
61	Room-Temperature Topological Polariton Laser in an Organic Lattice. Nano Letters, 2021, 21, 6398-6405.	9.1	28
62	Spatial coherence of room-temperature monolayer WSe2 exciton-polaritons in a trap. Nature Communications, 2021, 12, 6406.	12.8	27
63	Ghost Branch Photoluminescence From a Polariton Fluid Under Nonresonant Excitation. Physical Review Letters, 2015, 115, 186401.	7.8	26
64	Exciton-Exciton Interaction beyond the Hydrogenic Picture in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoSe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn>< Monolayer in the Strong Light-Matter Coupling Regime. Physical Review Letters, 2021, 126, 167401.	7.8	26
65	Evolution of Temporal Coherence in Confined Exciton-Polariton Condensates. Physical Review Letters, 2018, 120, 017401.	7.8	25
66	Picosecond Control of Quantum Dot Laser Emission by Coherent Phonons. Physical Review Letters, 2017, 118, 133901.	7.8	23
67	Spin transport in multilayer systems with fully epitaxial NiO thin films. Physical Review B, 2018, 98, .	3.2	23
68	Deterministic generation of bright single resonance fluorescence photons from a Purcell-enhanced quantum dot-micropillar system. Optics Express, 2015, 23, 32977.	3.4	22
69	Influence of interactions with noncondensed particles on the coherence of a one-dimensional polariton condensate. Physical Review B, 2014, 89, .	3.2	21
70	Lasing in Bose-Fermi mixtures. Scientific Reports, 2016, 6, 20091.	3.3	21
71	Electro-optical switching between polariton and cavity lasing in an InGaAs quantum well microcavity. Optics Express, 2014, 22, 31146.	3.4	20
72	Heralded Nondestructive Quantum Entangling Gate with Single-Photon Sources. Physical Review Letters, 2021, 126, 140501.	7.8	20

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73	Tunable exciton-polaritons emerging from WS2 monolayer excitons in a photonic lattice at room temperature. Nature Communications, 2021, 12, 4933.	12.8	20
74	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
75	Nonresonant spin selection methods and polarization control in exciton-polariton condensates. Physical Review B, 2019, 99, .	3.2	19
76	Rabi oscillations of a quantum dot exciton coupled to acoustic phonons: coherence and population readout. Optica, 2018, 5, 1442.	9.3	19
77	Micro-mechanical assembly and characterization of high-quality Fabryâ€"PÃ©rot microcavities for the integration of two-dimensional materials. Applied Physics Letters, 2021, 118, .	3.3	18
78	Site-controlled InP/GaInP quantum dots emitting single photons in the red spectral range. Applied Physics Letters, 2012, 100, .	3.3	17
79	Nonlinear spectroscopy of exciton-polaritons in a GaAs-based microcavity. Physical Review B, 2014, 90, .	3.2	17
80	A Pulsed Nonclassical Light Source Driven by an Integrated Electrically Triggered Quantum Dot Microlaser. IEEE Journal of Selected Topics in Quantum Electronics, 2015, 21, 681-689.	2.9	17
81	Experimental realization of a polariton beam amplifier. Physical Review B, 2016, 93, .	3.2	16
82	Exciton-polaritons in flatland: Controlling flatband properties in a Lieb lattice. Physical Review B, 2020, 102, .	3.2	16
83	Magnetic field control of polarized polariton condensates in rectangular microcavity pillars. Physical Review B, 2012, 85, .	3.2	14
84	Direct Generation of Radially Polarized Vector Vortex Beam with an Exciton-Polariton Laser. Physical Review Applied, 2020, 14, .	3.8	14
85	Site-controlled In(Ga)As/GaAs quantum dots for integration into optically and electrically operated devices. Journal of Crystal Growth, 2011, 323, 194-197.	1.5	13
86	Tracking Dark Excitons with Exciton Polaritons in Semiconductor Microcavities. Physical Review Letters, 2019, 122, 047403.	7.8	13
87	Hybridized Exciton-Photon-Phonon States in a Transition Metal Dichalcogenide van der Waals Heterostructure Microcavity. Physical Review Letters, 2022, 128, 087401.	7.8	13
88	Magnetic-field-induced splitting and polarization of monolayer-based valley exciton polaritons. Physical Review B, 2019, 100, .	3.2	12
89	Propagative Oscillations in Codirectional Polariton Waveguide Couplers. Physical Review Letters, 2021, 126, 075302.	7.8	12
90	Circularly Polarized Laser Emission from an Electrically Pumped Chiral Microcavity. Physical Review Applied, 2022, 17, .	3.8	12

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91	Impact of nanomechanical resonances on lasing from electrically pumped quantum dot micropillars. Applied Physics Letters, 2015, 106, .	3.3	11
92	Observation of Intensity Squeezing in Resonance Fluorescence from a Solid-State Device. Physical Review Letters, 2020, 125, 153601.	7.8	11
93	Room temperature polariton light emitting diode with integrated tunnel junction. Optics Express, 2013, 21, 31098.	3.4	10
94	Bulk AlInAs on InP(111) as a novel material system for pure single photon emission. Optics Express, 2016, 24, 23198.	3.4	10
95	Prototype of a bistable polariton field-effect transistor switch. Scientific Reports, 2017, 7, 5114.	3.3	10
96	Accurate photon echo timing by optical freezing of exciton dephasing and rephasing in quantum dots. Communications Physics, 2020, 3, .	5.3	10
97	Manipulation of room-temperature valley-coherent exciton-polaritons in atomically thin crystals by real and artificial magnetic fields. 2D Materials, 2020, 7, 035025.	4.4	10
98	Site-controlled InAs/GaAs quantum dots emitting at telecommunication wavelength. Semiconductor Science and Technology, 2014, 29, 052001.	2.0	9
99	Polariton condensate coherence in planar microcavities in a magnetic field. Semiconductors, 2016, 50, 1609-1613.	0.5	9
100	Quantifying Quantum Coherence in Polariton Condensates. PRX Quantum, 2021, 2, .	9.2	9
101	Exciton-polariton flows in cross-dimensional junctions. Physical Review B, 2017, 95, .	3.2	8
102	Room temperature strong coupling in a semiconductor microcavity with embedded AlGaAs quantum wells designed for polariton lasing. Optics Express, 2017, 25, 24816.	3.4	8
103	Spatio-temporal coherence in vertically emitting GaAs-based electrically driven polariton lasers. Applied Physics Letters, 2020, 116, 171103.	3.3	8
104	Brightening of a dark monolayer semiconductor via strong light-matter coupling in a cavity. Nature Communications, 2022, 13, .	12.8	8
105	Cascaded emission of linearly polarized single photons from positioned InP/GaInP quantum dots. Applied Physics Letters, 2013, 103, 191113.	3.3	7
106	Bosonic lasers: The state of the art (Review Article). Low Temperature Physics, 2016, 42, 323-329.	0.6	7
107	Electrical and optical switching in the bistable regime of an electrically injected polariton laser. Physical Review B, 2017, 96, .	3.2	7
108	Relaxation Oscillations and Ultrafast Emission Pulses in a Disordered Expanding Polariton Condensate. Scientific Reports, 2017, 7, 7094.	3.3	7

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109	Counter-directional polariton coupler. Applied Physics Letters, 2019, 114, 061102.	3.3	7
110	Demonstration of a polariton step potential by local variation of light-matter coupling in a van-der-Waals heterostructure. Optics Express, 2020, 28, 18649.	3.4	7
111	Electro-optical Switching of a Topological Polariton Laser. ACS Photonics, 2022, 9, 405-412.	6.6	7
112	Impact of lateral carrier confinement on electro-optical tuning properties of polariton condensates. Applied Physics Letters, 2015, 107, 041108.	3.3	6
113	Ultrafast Manipulation of a Strongly Coupled Lightâ€"Matter System by a Giant ac Stark Effect. ACS Photonics, 2019, 6, 3076-3081.	6.6	6
114	Observation of gain-pinned dissipative solitons in a microcavity laser. APL Photonics, 2020, 5, 086103.	5.7	6
115	Magneto-exciton-polariton condensation in a sub-wavelength high contrast grating based vertical microcavity. Applied Physics Letters, 2014, 104, 091117.	3.3	5
116	Kagome Flatbands for Coherent Exciton-Polariton Lasing. ACS Photonics, 2021, 8, 3193-3200.	6.6	5
117	Valley-exchange coupling probed by angle-resolved photoluminescence. Nanoscale Horizons, 2021, 7, 77-84.	8.0	5
118	Optical probing of the Coulomb interactions of an electrically pumped polariton condensate. Applied Physics Letters, 2017, 110, 151103.	3.3	4
119	A broad-band planar-microcavity quantum-dot single-photon source with a solid immersion lens. Applied Physics Letters, 2021, 118, .	3.3	4
120	Crossover from exciton-polariton condensation to photon lasing in an optical trap. Optics Express, 2022, 30, 17070.	3.4	4
121	Exciton-polariton lasers in Magnetic Fields. , 2013, , .		2
122	Exciton-polariton laser diodes. , 2014, , .		2
123	Investigation of a nonequilibrium polariton condensate in cylindrical micropillars in a strong magnetic field. Journal of Experimental and Theoretical Physics, 2017, 124, 751-757.	0.9	2
124	Bloch Oscillations of Hybrid Lightâ€Matter Particles in a Waveguide Array. Advanced Optical Materials, 2021, 9, 2100126.	7.3	2
125	An electrically pumped polariton laser. , 2015, , .		1
126	An electrically driven polariton laser. , 2013, , .		1

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127	Towards the generation of entangled microcavity polaritons. , 2011, , .		0
128	Parametric polariton scattering in quantum wires and coupled planar microcavities. , 2013, , .		0
129	Semiconductor Exciton-Polariton Lasers. , 2014, , .		0
130	Influence of interactions with non-condensed particles on the coherence of a 1D polariton condensate. , 2014, , .		0
131	Polariton Laser Diodes. , 2014, , .		0
132	Analysis of Single Photon Micropillar Optical Switch using Semi-Analytical Model. , 2014, , .		0
133	Oscillations of the Degree of Circular Polarization in the Optical Spin Hall Effect. Physics of the Solid State, 2018, 60, 1606-1610.	0.6	0
134	MoSe2 and WSe2 Embedded in Bragg-Cavities with High Q-Factors Enabling Strong Exciton-Polariton Coupling in 2D-Systems. , 2019, , .		0
135	Fully tuneable Bloch-Band polaritons emerging from WS2 monolayer excitons in an optical lattice at room temperature. , 2021, , .		0
136	Entanglement generation in semiconductor nanostructures. , 2021, , .		0
137	Hyperspectral study of the coupling between trions in WSe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow /> <mml:mn>2</mml:mn></mml:msub></mml:math> monolayers to a circular Bragg grating cavity. Comptes Rendus Physique, 2021, 22, 97-105.	0.9	0
138	Highly indistinguishable photons from a QD-microcavity with a large Purcell-factor. , 2015, , .		0
139	Optical Bistability in Electrically Driven Polariton Condensates. , 2015, , .		0