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	Electro-optical Switching of a Topological Polariton Laser. ACS Photonics, 2022, 9, 405-412.	6.6	7
2	Circularly Polarized Laser Emission from an Electrically Pumped Chiral Microcavity. Physical Review Applied, 2022, 17, .	3.8	12
3	Hybridized Exciton-Photon-Phonon States in a Transition Metal Dichalcogenide van der Waals Heterostructure Microcavity. Physical Review Letters, 2022, 128, 087401.	7.8	13
4	Crossover from exciton-polariton condensation to photon lasing in an optical trap. Optics Express, 2022, 30, 17070.	3.4	4
5	Polariton condensates for classical and quantum computing. Nature Reviews Physics, 2022, 4, 435-451.	26.6	51
6	Brightening of a dark monolayer semiconductor via strong light-matter coupling in a cavity. Nature Communications, 2022, 13, .	12.8	8
7	Ultrathin Ga₂O₃ Glass: A Largeâ€Scale Passivation and Protection Material for Monolayer WS₂. Advanced Materials, 2021, 33, e2005732.	21.0	49
8	Propagative Oscillations in Codirectional Polariton Waveguide Couplers. Physical Review Letters, 2021, 126, 075302.	7.8	12
9	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
10	A broad-band planar-microcavity quantum-dot single-photon source with a solid immersion lens. Applied Physics Letters, 2021, 118, .	3.3	4
11	Coherent Topological Polariton Laser. ACS Photonics, 2021, 8, 1377-1384.	6.6	28
12	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
13	Heralded Nondestructive Quantum Entangling Gate with Single-Photon Sources. Physical Review Letters, 2021, 126, 140501.	7.8	20
14	Bosonic condensation of excitonâ€"polaritons in an atomically thin crystal. Nature Materials, 2021, 20, 1233-1239.	27.5	56
15	Bloch Oscillations of Hybrid Lightâ€Matter Particles in a Waveguide Array. Advanced Optical Materials, 2021, 9, 2100126.	7.3	2
16	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
17	Fully tuneable Bloch-Band polaritons emerging from WS2 monolayer excitons in an optical lattice at room temperature. , 2021, , .		0
18	Entanglement generation in semiconductor nanostructures. , 2021, , .		0

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19	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
20	Room-Temperature Topological Polariton Laser in an Organic Lattice. Nano Letters, 2021, 21, 6398-6405.	9.1	28
21	Tunable exciton-polaritons emerging from WS2 monolayer excitons in a photonic lattice at room temperature. Nature Communications, 2021, 12, 4933.	12.8	20
22	Quantifying Quantum Coherence in Polariton Condensates. PRX Quantum, 2021, 2, .	9.2	9
23	Motional narrowing, ballistic transport, and trapping of room-temperature exciton polaritons in an atomically-thin semiconductor. Nature Communications, 2021, 12, 5366.	12.8	35
24	Topological insulator vertical-cavity laser array. Science, 2021, 373, 1514-1517.	12.6	80
25	Kagome Flatbands for Coherent Exciton-Polariton Lasing. ACS Photonics, 2021, 8, 3193-3200.	6.6	5
26	Spatial coherence of room-temperature monolayer WSe2 exciton-polaritons in a trap. Nature Communications, 2021, 12, 6406.	12.8	27
27	Valley-exchange coupling probed by angle-resolved photoluminescence. Nanoscale Horizons, 2021, 7, 77-84.	8.0	5
28	Coherence and Interaction in Confined Room-Temperature Polariton Condensates with Frenkel Excitons. ACS Photonics, 2020, 7, 384-392.	6.6	42
29	Direct Generation of Radially Polarized Vector Vortex Beam with an Exciton-Polariton Laser. Physical Review Applied, 2020, 14, .	3.8	14
30	Observation of Intensity Squeezing in Resonance Fluorescence from a Solid-State Device. Physical Review Letters, 2020, 125, 153601.	7.8	11
31	Observation of gain-pinned dissipative solitons in a microcavity laser. APL Photonics, 2020, 5, 086103.	5.7	6
32	Exciton-polaritons in flatland: Controlling flatband properties in a Lieb lattice. Physical Review B, 2020, 102, .	3.2	16
33	Accurate photon echo timing by optical freezing of exciton dephasing and rephasing in quantum dots. Communications Physics, 2020, 3, .	5.3	10
34	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
35	Spatio-temporal coherence in vertically emitting GaAs-based electrically driven polariton lasers. Applied Physics Letters, 2020, 116, 171103.	3.3	8
36	Room temperature organic excitonâ€“polariton condensate in a lattice. Nature Communications, 2020, 11, 2863.	12.8	56

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37	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
38	Coherently driving a single quantum two-level system with dichromatic laser pulses. Nature Physics, 2019, 15, 941-946.	16.7	58
39	Optical valley Hall effect for highly valley-coherent exciton-polaritons in an atomically thin semiconductor. Nature Nanotechnology, 2019, 14, 770-775.	31.5	87
40	MoSe2 and WSe2 Embedded in Bragg-Cavities with High Q-Factors Enabling Strong Exciton-Polariton Coupling in 2D-Systems. , 2019, , .		0
41	Strain-Tunable Single Photon Sources in WSe₂ Monolayers. Nano Letters, 2019, 19, 6931-6936.	9.1	71
42	Magnetic-field-induced splitting and polarization of monolayer-based valley exciton polaritons. Physical Review B, 2019, 100, .	3.2	12
43	Nonresonant spin selection methods and polarization control in exciton-polariton condensates. Physical Review B, 2019, 99, .	3.2	19
44	Counter-directional polariton coupler. Applied Physics Letters, 2019, 114, 061102.	3.3	7
45	Towards polariton blockade of confined excitonâ€“polaritons. Nature Materials, 2019, 18, 219-222.	27.5	146
46	Ultrafast Manipulation of a Strongly Coupled Lightâ€“Matter System by a Giant ac Stark Effect. ACS Photonics, 2019, 6, 3076-3081.	6.6	6
47	Tracking Dark Excitons with Exciton Polaritons in Semiconductor Microcavities. Physical Review Letters, 2019, 122, 047403.	7.8	13
48	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
49	Spontaneous Emission Enhancement in Strain-Induced WSe₂ Monolayer-Based Quantum Light Sources on Metallic Surfaces. ACS Photonics, 2018, 5, 1919-1926.	6.6	78
50	Evolution of Temporal Coherence in Confined Exciton-Polariton Condensates. Physical Review Letters, 2018, 120, 017401.	7.8	25
51	Controlled Ordering of Topological Charges in an Exciton-Polariton Chain. Physical Review Letters, 2018, 121, 225302.	7.8	28
52	Platform for Electrically Pumped Polariton Simulators and Topological Lasers. Physical Review Letters, 2018, 121, 257402.	7.8	31
53	Exciton-polariton topological insulator. Nature, 2018, 562, 552-556.	27.8	365
54	Deterministic coupling of quantum emitters in WSe₂ monolayers to plasmonic nanocavities. Optics Express, 2018, 26, 25944.	3.4	33

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55	Spin transport in multilayer systems with fully epitaxial NiO thin films. Physical Review B, 2018, 98, .	3.2	23
56	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
57	Photon-Number-Resolved Measurement of an Exciton-Polariton Condensate. Physical Review Letters, 2018, 121, 047401.	7.8	28
58	Two-dimensional semiconductors in the regime of strong light-matter coupling. Nature Communications, 2018, 9, 2695.	12.8	256
59	Observation of bosonic condensation in a hybrid monolayer MoSe2-GaAs microcavity. Nature Communications, 2018, 9, 3286.	12.8	49
60	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
61	Rabi oscillations of a quantum dot exciton coupled to acoustic phonons: coherence and population readout. Optica, 2018, 5, 1442.	9.3	19
62	Optical probing of the Coulomb interactions of an electrically pumped polariton condensate. Applied Physics Letters, 2017, 110, 151103.	3.3	4
63	Valley polarized relaxation and upconversion luminescence from Tamm-plasmon trionâ€“polaritons with a MoSe ₂ monolayer. 2D Materials, 2017, 4, 025096.	4.4	36
64	Picosecond Control of Quantum Dot Laser Emission by Coherent Phonons. Physical Review Letters, 2017, 118, 133901.	7.8	23
65	Observation of hybrid Tamm-plasmon exciton- polaritons with GaAs quantum wells and a MoSe2 monolayer. Nature Communications, 2017, 8, 259.	12.8	38
66	Electrical and optical switching in the bistable regime of an electrically injected polariton laser. Physical Review B, 2017, 96, .	3.2	7
67	Prototype of a bistable polariton field-effect transistor switch. Scientific Reports, 2017, 7, 5114.	3.3	10
68	Relaxation Oscillations and Ultrafast Emission Pulses in a Disordered Expanding Polariton Condensate. Scientific Reports, 2017, 7, 7094.	3.3	7
69	Exciton-polariton flows in cross-dimensional junctions. Physical Review B, 2017, 95, .	3.2	8
70	Observation of macroscopic valley-polarized monolayer exciton-polaritons at room temperature. Physical Review B, 2017, 96, .	3.2	35
71	Experimental Verification of the Very Strong Coupling Regime in a GaAs Quantum Well Microcavity. Physical Review Letters, 2017, 119, 027401.	7.8	33
72	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

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73	Monolayered MoSe ₂ : a candidate for room temperature polaritonics. 2D Materials, 2017, 4, 015006.	4.4	50
74	Exciton-polariton trapping and potential landscape engineering. Reports on Progress in Physics, 2017, 80, 016503.	20.1	157
75	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
76	Bulk AlInAs on InP(111) as a novel material system for pure single photon emission. Optics Express, 2016, 24, 23198.	3.4	10
77	Bosonic lasers: The state of the art (Review Article). Low Temperature Physics, 2016, 42, 323-329.	0.6	7
78	Polariton condensate coherence in planar microcavities in a magnetic field. Semiconductors, 2016, 50, 1609-1613.	0.5	9
79	Collective state transitions of exciton-polaritons loaded into a periodic potential. Physical Review B, 2016, 93, .	3.2	45
80	Photon echo transients from an inhomogeneous ensemble of semiconductor quantum dots. Physical Review B, 2016, 93, .	3.2	28
81	Experimental realization of a polariton beam amplifier. Physical Review B, 2016, 93, .	3.2	16
82	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
83	Near-Transform-Limited Single Photons from an Efficient Solid-State Quantum Emitter. Physical Review Letters, 2016, 116, 213601.	7.8	150
84	Coherent Polariton Laser. Physical Review X, 2016, 6, .	8.9	47
85	Cascaded emission of single photons from the biexciton in monolayered WSe2. Nature Communications, 2016, 7, 13409.	12.8	86
86	Room-temperature Tamm-plasmon exciton-polaritons with a WSe2 monolayer. Nature Communications, 2016, 7, 13328.	12.8	214
87	Lasing in Bose-Fermi mixtures. Scientific Reports, 2016, 6, 20091.	3.3	21
88	Deterministic generation of bright single resonance fluorescence photons from a Purcell-enhanced quantum dot-micropillar system. Optics Express, 2015, 23, 32977.	3.4	22
89	Two-photon interference from a quantum dot microcavity: Persistent pure dephasing and suppression of time jitter. Physical Review B, 2015, 91, .	3.2	30
90	Ghost Branch Photoluminescence From a Polariton Fluid Under Nonresonant Excitation. Physical Review Letters, 2015, 115, 186401.	7.8	26

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91	All-optical flow control of a polariton condensate using nonresonant excitation. Physical Review B, 2015, 91, .	3.2	48
92	Optical bistability in electrically driven polariton condensates. Physical Review B, 2015, 91, .	3.2	30
93	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
94	An electrically pumped polariton laser. , 2015, , .		1
95	A polariton condensate in a photonic crystal potential landscape. New Journal of Physics, 2015, 17, 023001.	2.9	58
96	Impact of nanomechanical resonances on lasing from electrically pumped quantum dot micropillars. Applied Physics Letters, 2015, 106, .	3.3	11
97	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
98	Impact of lateral carrier confinement on electro-optical tuning properties of polariton condensates. Applied Physics Letters, 2015, 107, 041108.	3.3	6
99	Highly indistinguishable photons from a QD-microcavity with a large Purcell-factor. , 2015, , .		0
100	Optical Bistability in Electrically Driven Polariton Condensates. , 2015, , .		0
101	Zero-dimensional polariton laser in a subwavelength grating-based vertical microcavity. Light: Science and Applications, 2014, 3, e135-e135.	16.6	75
102	Semiconductor Exciton-Polariton Lasers. , 2014, , .		0
103	Influence of interactions with non-condensed particles on the coherence of a 1D polariton condensate. , 2014, , .		0
104	Polariton Laser Diodes. , 2014, , .		0
105	Bright single photon source based on self-aligned quantum dotâ€"cavity systems. Optics Express, 2014, 22, 8136.	3.4	46
106	Electro-optical switching between polariton and cavity lasing in an InGaAs quantum well microcavity. Optics Express, 2014, 22, 31146.	3.4	20
107	Two-photon interference from remote quantum dots with inhomogeneously broadened linewidths. Physical Review B, 2014, 89, .	3.2	56
108	Magneto-exciton-polariton condensation in a sub-wavelength high contrast grating based vertical microcavity. Applied Physics Letters, 2014, 104, 091117.	3.3	5

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109	Influence of interactions with noncondensed particles on the coherence of a one-dimensional polariton condensate. Physical Review B, 2014, 89, .	3.2	21
110	Spatial Coherence Properties of One Dimensional Exciton-Polariton Condensates. Physical Review Letters, 2014, 113, 203902.	7.8	39
111	Electro optical tuning of Tamm-plasmon exciton-polaritons. Applied Physics Letters, 2014, 105, 181107.	3.3	40
112	Exciton-polariton laser diodes. , 2014, , .		2
113	Site-controlled InAs/GaAs quantum dots emitting at telecommunication wavelength. Semiconductor Science and Technology, 2014, 29, 052001.	2.0	9
114	Nonlinear spectroscopy of exciton-polaritons in a GaAs-based microcavity. Physical Review B, 2014, 90, .	3.2	17
115	Anomalies of a Nonequilibrium Spinor Polariton Condensate in a Magnetic Field. Physical Review Letters, 2014, 112, 093902.	7.8	38
116	Analysis of Single Photon Micropillar Optical Switch using Semi-Analytical Model. , 2014, , .		0
117	On-demand semiconductor single-photon source with near-unity indistinguishability. Nature Nanotechnology, 2013, 8, 213-217.	31.5	444
118	An electrically pumped polariton laser. Nature, 2013, 497, 348-352.	27.8	420
119	Room temperature polariton light emitting diode with integrated tunnel junction. Optics Express, 2013, 21, 31098.	3.4	10
120	Exciton-polariton lasers in Magnetic Fields. , 2013, , .		2
121	Parametric polariton scattering in quantum wires and coupled planar microcavities. , 2013, , .		0
122	Cascaded emission of linearly polarized single photons from positioned InP/GaInP quantum dots. Applied Physics Letters, 2013, 103, 191113.	3.3	7
123	An electrically driven polariton laser. , 2013, , .		1
124	Magnetic field control of polarized polariton condensates in rectangular microcavity pillars. Physical Review B, 2012, 85, .	3.2	14
125	Site-controlled InP/GaInP quantum dots emitting single photons in the red spectral range. Applied Physics Letters, 2012, 100, .	3.3	17
126	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

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127	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
128	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
129	Effect of Coulomb interaction on exciton-polariton condensates in GaAs pillar microcavities. Physical Review B, 2011, 84, .	3.2	41
130	Narrow spectral linewidth from single site-controlled In(Ga)As quantum dots with high uniformity. Applied Physics Letters, 2011, 98, .	3.3	61
131	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
132	Towards the generation of entangled microcavity polaritons. , 2011, , .		0
133	Electrically driven quantum dot-micropillar single photon source with 34% overall efficiency. Applied Physics Letters, 2010, 96, .	3.3	176
134	Polarized Nonequilibrium Bose-Einstein Condensates of Spinor Exciton Polaritons in a Magnetic Field. Physical Review Letters, 2010, 105, 256401.	7.8	92
135	Quantum efficiency and oscillator strength of site-controlled InAs quantum dots. Applied Physics Letters, 2010, 96, .	3.3	34
136	Single site-controlled In(Ga)As/GaAs quantum dots: growth, properties and device integration. Nanotechnology, 2009, 20, 434012.	2.6	71
137	Scalable fabrication of optical resonators with embedded site-controlled quantum dots. Optics Letters, 2008, 33, 1759.	3.3	44
138	Lithographic alignment to site-controlled quantum dots for device integration. Applied Physics Letters, 2008, 92, .	3.3	96
139	AlAsâˆ•GaAs micropillar cavities with quality factors exceeding 150.000. Applied Physics Letters, 2007, 90, 251109.	3.3	278