Pascale Senellart

List of Publications by Year
in descending order

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177 papers	9,562 citations	43973 48 h-index	37111 96 g-index
180 all docs	180 docs citations	180 times ranked	6062 citing authors

#	Article	IF	Citations
1	Photon-number entanglement generated by sequential excitation of a two-level atom. Nature Photonics, 2022, 16, 374-379.	15.6	17
2	The race for the ideal single-photon source is on. Nature Nanotechnology, 2021, 16, 367-368.	15.6	31
3	Fiber-based angular filtering for high-resolution Brillouin spectroscopy in the 20-300â€…GHz frequency range. Optics Express, 2021, 29, 2637.	1.7	4
4	Hong-Ou-Mandel Interference with Imperfect Single Photon Sources. Physical Review Letters, 2021, 126, 063602.	2.9	32
5	Bright Polarized Single-Photon Source Based on a Linear Dipole. Physical Review Letters, 2021, 126, 233601.	2.9	65
6	Time-frequency encoded single-photon generation and broadband single-photon storage with a tunable subradiant state. Optica, 2021, 8, 95.	4.8	8
7	Two-Photon Interference with Bright Remote Quantum Dot Sources. , 2021, , .		0
8	Efficient telecom-band quantum frequency conversion. , 2021, , .		0
9	Fiber-integrated microcavities for efficient generation of coherent acoustic phonons. Applied Physics Letters, 2020, 117, 183102.	1.5	12
10	Sequential generation of linear cluster states from a single photon emitter. Nature Communications, 2020, 11, 5501.	5.8	53
11	Deterministic assembly of a charged-quantum-dotâ€“micropillar cavity device. Physical Review B, 2020, 102, .	1.1	7
12	Extreme multiexciton emission from deterministically assembled single-emitter subwavelength plasmonic patch antennas. Light: Science and Applications, 2020, 9, 33.	7.7	23
13	Reproducibility of High-Performance Quantum Dot Single-Photon Sources. ACS Photonics, 2020, 7, 1050-1059.	3.2	44
14	Scaling-up quantum technologies with solid-state single-photon sources. , 2020, , .		0
15	Sequential Generation of Linear Cluster States from a Single Photon Emitter. , 2020, , .		0
16	Generation of non-classical light in a photon-number superposition. Nature Photonics, 2019, 13, 803-808.	15.6	39
17	Overcomplete quantum tomography of a path-entangled two-photon state. Physical Review A, 2019, 99, .	1.0	3
18	Brillouin scattering in hybrid optophononic Bragg micropillar resonators at 300â€‰â€‰GHz. Optica, 2019, 6, 854.	4.8	15

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19	Interfacing scalable photonic platforms: solid-state based multi-photon interference in a reconfigurable glass chip. Optica, 2019, 6, 1471.	4.8	30
20	Generating multi-photon entangled states from a single deterministic single-photon source. , 2019, , .		1
21	Interfacing solid-state single-photon sources and integrated photonics circuits: high rate three-photon coalescence. , 2019, , .		0
22	Generation of quantum light in a photon-number superposition. , 2019, , .		0
23	A Compact and scalable source for entangled photonic linear cluster states. , 2019, , .		0
24	Topological nanophononic states by band inversion. Physical Review B, 2018, 97, .	1.1	41
25	Scaling rules in optomechanical semiconductor micropillars. Physical Review A, 2018, 98, .	1.0	5
26	Accurate measurement of a 96% input coupling into a cavity using polarization tomography. Applied Physics Letters, 2018, 112, .	1.5	7
27	Tunable bandwidth and nonlinearities in an atom-photon interface with subradiant states. Physical Review A, 2018, 98, .	1.0	4
28	Reducing phonon-induced decoherence of solid-state artificial atoms with cavity quantum electrodynamics. , 2018, , .		0
29	A solid-state single photon filter. , 2018, , .		0
30	Active demultiplexing of single photons from a solidâ€state source. Laser and Photonics Reviews, 2017, 11, 1600297.	4.4	51
31	A solid-state single-photon filter. Nature Nanotechnology, 2017, 12, 663-667.	15.6	66
32	Quantum-dot-based quantum devices (Conference Presentation). , 2017, , .		0
33	Emission in a patch nanoantenna with single emitter (Conference Presentation). , 2017, , .		0
34	Boson Sampling with Single-Photon Fock States from a Bright Solid-State Source. Physical Review Letters, 2017, 118, 130503.	2.9	155
35	Enhancement of spontaneous emission in Tamm plasmon structures. Scientific Reports, 2017, 7, 9014.	1.6	51
36	Nanomechanical resonators based on adiabatic periodicity-breaking in a superlattice. Applied Physics Letters, 2017, 111, 173107.	1.5	7

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37	High-performance semiconductor quantum-dot single-photon sources. Nature Nanotechnology, 2017, 12, 1026-1039.	15.6	741
38	High quality factor confined Tamm modes. Scientific Reports, 2017, 7, 3859.	1.6	33
39	Reducing Phonon-Induced Decoherence in Solid-State Single-Photon Sources with Cavity Quantum Electrodynamics. Physical Review Letters, 2017, 118, 253602.	2.9	74
40	Micropillar Resonators for Optomechanics in the Extremely High 19â€“95-GHz Frequency Range. Physical Review Letters, 2017, 118, 263901.	2.9	63
41	Tamm plasmon sub-wavelength structuration for loss reduction and resonance tuning. Applied Physics Letters, 2017, 111, .	1.5	13
42	Tomography of the optical polarization rotation induced by a single quantum dot in a cavity. Optica, 2017, 4, 1326.	4.8	12
43	Optomechanical properties of GaAs/AlAs micropillar resonators operating in the 18 GHz range. Optics Express, 2017, 25, 24437.	1.7	31
44	Light-matter interfacing with quantum dots: a polarization tomography approach. , 2017, , .		0
45	Single photon Fock state filtering with an artificial atom. , 2017, , .		0
46	Overcoming phonon-induced decoherence in single-photon sources with cavity quantum electrodynamics. , 2017, , .		0
47	Scalable performance in solid-state single-photon sources. Optica, 2016, 3, 433.	4.8	106
48	Spatial and Fourier-space distribution of confined optical Tamm modes. New Journal of Physics, 2016, 18, 083018.	1.2	3
49	Surface plasmon generation through hybridization with Tamm modes. , 2016, , .		0
50	Generation and Spatial Control of Hybrid Tamm Plasmon/Surface Plasmon Modes. ACS Photonics, 2016, 3, 1776-1781.	3.2	36
51	Coherent manipulation of a solid-state artificial atom with few photons. Nature Communications, 2016, 7, 11986.	5.8	55
52	Near-optimal single-photon sources in the solid state. Nature Photonics, 2016, 10, 340-345.	15.6	858
53	Confined Visible Optical Tamm States. Journal of Electronic Materials, 2016, 45, 2307-2310.	1.0	2
54	High performances integrated single-photon sources. , 2016, , .		0

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55	Cavity-enhanced two-photon interference using remote quantum dot sources. Physical Review B, 2015, 92, .	1.1	60
56	Confinement of gigahertz sound and light in Tamm plasmon resonators. Physical Review B, 2015, 92, .	1.1	9
57	Bright phonon-tuned single-photon source. , 2015, , .		0
58	Polarization-Controlled Confined Tamm Plasmon Lasers. ACS Photonics, 2015, 2, 842-848.	3.2	60
59	Macroscopic rotation of photon polarization induced by a single spin. Nature Communications, 2015, 6, 6236.	5.8	73
60	Improved optomechanical disk resonator sitting on a pedestal mechanical shield. New Journal of Physics, 2015, 17, 023016.	1.2	17
61	Cavity-Funneled Generation of Indistinguishable Single Photons from Strongly Dissipative Quantum Emitters. Physical Review Letters, 2015, 114, 193601.	2.9	68
62	Origin of optical losses in gallium arsenide disk whispering gallery resonators. Optics Express, 2015, 23, 19656.	1.7	31
63	Coupling colloidal nanocrystals to Optical Tamm plasmons. , 2015, , .		0
64	Bright Phonon-Tuned Single-Photon Source. Nano Letters, 2015, 15, 6290-6294.	4.5	34
65	A Highly Efficient Single Photon-Single Quantum Dot Interface. Nano-optics and Nanophotonics, 2015, , 39-71.	0.2	2
66	Quantum dot based quantum optics. , 2015, , .		0
67	Giant Polarization Rotation Induced by a Single Spin: a Cavity-Based Spin-Photon Interface. , 2015, , .		0
68	Toward a quantum network based on semiconductor quantum dots. , 2014, , .		0
69	Cavity-Enhanced Real-Time Monitoring of Single-Charge Jumps at the Microsecond Time Scale. Physical Review X, 2014, 4, .	2.8	16
70	Spectra of mechanical cavity modes in distributed Bragg reflector based vertical GaAs resonators. Physical Review B, 2014, 90, .	1.1	12
71	Hybrid metal/semiconductor lasers based on confined Tamm plasmons. Proceedings of SPIE, 2014, , .	0.8	1
72	Deterministic and electrically tunable bright single-photon source. Nature Communications, 2014, 5, 3240.	5.8	110

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73	Frequency cavity pulling induced by a single semiconductor quantum dot. Physical Review B, 2014, 89, .	1.1	25
74	Polarized metal/semiconductor sources based on confined Tamm plasmons. , 2014, , .		1
75	Influence of the Purcell effect on the purity of bright single photon sources. Applied Physics Letters, 2013, 103, .	1.5	16
76	Entangling Quantum-Logic Gate Operated with an Ultrabright Semiconductor Single-Photon Source. Physical Review Letters, 2013, 110, 250501.	2.9	44
77	Polariton condensation in solitonic gap states in a one-dimensional periodic potential. Nature Communications, 2013, 4, 1749.	5.8	155
78	Tamm surface plasmon laser. , 2013, , .		0
79	Element-sensitive measurement of the holeâ€“nuclear spin interaction in quantum dots. Nature Physics, 2013, 9, 74-78.	6.5	70
80	Bright solid-state sources of indistinguishable single photons. Nature Communications, 2013, 4, 1425.	5.8	309
81	Controlling Spontaneous Emission with Plasmonic Optical Patch Antennas. Nano Letters, 2013, 13, 1516-1521.	4.5	209
82	Confined Tamm Plasmon Lasers. Nano Letters, 2013, 13, 3179-3184.	4.5	207
83	InP1â^'xAsx quantum dots in InP nanowires: A route for single photon emitters. Journal of Crystal Growth, 2013, 378, 519-523.	0.7	17
84	Optical properties of semiconductor in planar plasmonic structures: strong coupling and lasing. Semiconductor Science and Technology, 2013, 28, 124001.	1.0	5
85	High purcell effect and directional emission for semi-conductor nanocrystals deterministically positionned in a plasmonic patch antenna. , 2013, , .		0
86	Dynamic nuclear polarization in InGaAs/GaAs and GaAs/AlGaAs quantum dots under nonresonant ultralow-power optical excitation. Physical Review B, 2013, 88, .	1.1	16
87	Optical nonlinearity with few-photon pulses using a quantum dot-pillar cavity device. , 2013, , .		0
88	Optical parametric oscillation in one-dimensional microcavities. Physical Review B, 2013, 87, .	1.1	16
89	Ultrahigh Q-frequency product for optomechanical disk resonators with a mechanical shield. Applied Physics Letters, 2013, 103, .	1.5	34
90	Non-linear Optomechanical Resonators based on Gallium Arsenide. , 2013, , .		0

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91	Cavity quantum electrodynamics with semiconductor quantum dots. , 2013, , .		0
92	Frequency cavity pulling induced by a single semiconducting artificial atom. , 2013, , .		0
93	Damping of optomechanical disks resonators vibrating in air. Applied Physics Letters, 2012, 100, 242105.	1.5	10
94	Bunching visibility of optical parametric emission in a semiconductor microcavity. Physical Review B, 2012, 86, .	1.1	12
95	COHERENT INJECTION OF MICROCAVITIES POLARITON THROUGH TWO PHOTON EXCITATION. , 2012, , .		0
96	Propagation and Amplification Dynamics of 1D Polariton Condensates. Physical Review Letters, 2012, 109, 216404.	2.9	106
97	Optical bistability in a quantum dots/micropillar device with a quality factor exceeding 200 000. Applied Physics Letters, 2012, 100, 111111.	1.5	38
98	Optical Nonlinearity for Few-Photon Pulses on a Quantum Dot-Pillar Cavity Device. Physical Review Letters, 2012, 109, 166806.	2.9	77
99	Lasing in a hybrid GaAs/silver Tamm structure. Applied Physics Letters, 2012, 100, .	1.5	69
100	Single photon source using confined Tamm plasmon modes. Applied Physics Letters, 2012, 100, .	1.5	77
101	Backscattering Suppression in Supersonic 1D Polariton Condensates. Physical Review Letters, 2012, 108, 036405.	2.9	18
102	Deterministic lightâ€“matter coupling with single quantum dots. , 2012, , 137-152.		2
103	Optical parametric oscillaton in 1D semiconductor microcavities. Physica Status Solidi (B): Basic Research, 2012, 249, 896-899.	0.7	3
104	Polariton Condensation in Photonic Molecules. Physical Review Letters, 2012, 108, 126403.	2.9	124
105	Macroscopic Self-trapping and Non-linear Oscillations in Coupled Polariton Condensates. , 2012, , .		0
106	GaAs nano-optomechanical systems. , 2012, , .		0
107	Wavelength-sized GaAs optomechanical resonators with gigahertz frequency. Applied Physics Letters, 2011, 98, .	1.5	87
108	Spatial, spectral, and polarization properties of coupled micropillar cavities. Applied Physics Letters, 2011, 99, 101103.	1.5	39

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109	A solid state ultrabright source of entangled photon pairs. Proceedings of SPIE, 2011, , .	0.8	0
110	Interactions in Confined Polariton Condensates. Physical Review Letters, 2011, 106, 126401.	2.9	144
111	Evidence for Confined Tamm Plasmon Modes under Metallic Microdisks and Application to the Control of Spontaneous Optical Emission. Physical Review Letters, 2011, 107, 247402.	2.9	136
112	Fast control of nuclear spin polarization in an optically pumped single quantum dot. Nature Materials, 2011, 10, 844-848.	13.3	31
113	Critical optical coupling between a GaAs disk and a nanowaveguide suspended on the chip. Applied Physics Letters, 2011, 99, .	1.5	33
114	Single-shot initialization of electron spin in a quantum dot using a short optical pulse. Physical Review B, 2011, 83, .	1.1	22
115	One-dimensional microcavity-based optical parametric oscillator: Generation of balanced twin beams in strong and weak coupling regime. Physical Review B, 2011, 83, .	1.1	12
116	GaAs disks optomechanics. , 2011, , .		0
117	Ultrabright source of entangled photon pairs. Nature, 2010, 466, 217-220.	13.7	501
118	Spontaneous formation and optical manipulation of extended polariton condensates. Nature Physics, 2010, 6, 860-864.	6.5	431
119	A quantum dot based bright source of entangled photon pairs operating at 53 K. Applied Physics Letters, 2010, 97, .	1.5	21
120	Spontaneous nonground state polariton condensation in pillar microcavities. Physical Review B, 2010, 81, .	1.1	36
121	Polariton parametric oscillation in a single micropillar cavity. Applied Physics Letters, 2010, 97, .	1.5	23
122	Quantum dot-cavity strong-coupling regime measured through coherent reflection spectroscopy in a very high-Q micropillar. Applied Physics Letters, 2010, 97, .	1.5	65
123	GaAs micro-nanodisks probed by a looped fiber taper for optomechanics applications. Proceedings of SPIE, 2010, , .	0.8	16
124	High Frequency GaAs Nano-Optomechanical Disk Resonator. Physical Review Letters, 2010, 105, 263903.	2.9	155
125	Optically tunable nuclear magnetic resonance in a single quantum dot. Physical Review B, 2010, 82, .	1.1	21
126	Scalable implementation of strongly coupled cavity-quantum dot devices. Applied Physics Letters, 2009, 94, .	1.5	44

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127	Suppression of nuclear spin diffusion at a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>GaAs</mml:mtext><mml:mo>/</mml:mo><mml:msub><mml:mrow><mml:mtext>Al</mml:mtext></mml:mrow> measured with a single quantum-dot nanoprobe. Physical Review B, 2009, 79, .	1.1	27
128	Continuous-wave versus time-resolved measurements of Purcell factors for quantum dots in semiconductor microcavities. Physical Review B, 2009, 80, .	1.1	39
129	Origin of the Optical Emission within the Cavity Mode of Coupled Quantum Dot-Cavity Systems. Physical Review Letters, 2009, 103, 027401.	2.9	68
130	Spontaneous formation of a polariton condensate in a planar GaAs microcavity. Applied Physics Letters, 2009, 95, .	1.5	97
131	Quantum degeneracy of polaritons in a GaAs based Microcavity. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2429-2432.	0.8	0
132	Influence of recapture on the emission statistics of short radiative lifetime quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2520-2523.	0.8	1
133	Polariton light-emitting diode in a GaAs-based microcavity. Physical Review B, 2008, 77, .	1.1	92
134	Cavity Quantum Electrodynamics with Semiconductor Quantum Dots. , 2008, , 132-164.		0
135	Optical Bistability in a GaAs-Based Polariton Diode. Physical Review Letters, 2008, 101, 266402.	2.9	102
136	Controlled Light-Matter Coupling for a Single Quantum Dot Embedded in a Pillar Microcavity Using Far-Field Optical Lithography. Physical Review Letters, 2008, 101, 267404.	2.9	264
137	Polariton Laser Using Single Micropillar<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>GaAs</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:mi>GaAlAs</mml:mi></mml:math>Semiconductor Cavities. Physical Review Letters, 2008, 100, 047401.	2.9	394
138	Excitonic Polaritons in Semiconductor Micropillars. Acta Physica Polonica A, 2008, 114, 933-943.	0.2	3
139	Highly directional radiation pattern of microdisk cavities. Applied Physics Letters, 2007, 91, 151103.	1.5	13
140	Polariton parametric luminescence in a single micropillar. Applied Physics Letters, 2007, 90, 051107.	1.5	34
141	Fast radiative quantum dots: From single to multiple photon emission. Applied Physics Letters, 2007, 90, 223118.	1.5	26
142	Photon lasing in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>GaAs</mml:mi></mml:mrow></mml:math>microcavity: Similarities with a polariton condensate. Physical Review B, 2007, 76, .	1.1	86
143	Parametric polariton scattering in single micropillar microcavities. AIP Conference Proceedings, 2007, , .	0.3	1
144	Semiconductor heterostructures for spintronics and quantum information. Comptes Rendus Physique, 2007, 8, 243-252.	0.3	5

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145	Dynamics of microcavity polaritons in the presence of an electron gas. Physical Review B, 2006, 73, .	1.1	31
146	Stark spectroscopy of Coulomb interactions in individual InAs/GaAs self-assembled quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2006, 3, 3890-3894.	0.8	12
147	Optical probing of spin-dependent interactions in IIâ€“VI semiconductor structures. Physica Status Solidi (B): Basic Research, 2006, 243, 906-913.	0.7	0
148	Exciton dynamics in the presence of an electron gas in GaAs quantum wells. Physica Status Solidi (B): Basic Research, 2006, 243, 2384-2388.	0.7	6
149	Cavity QED with a single QD inside an optical microcavity. Physica Status Solidi (B): Basic Research, 2006, 243, 3879-3884.	0.7	5
150	Accelerating polariton relaxation in a two beam experiment. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 755-758.	0.8	0
151	Linear polarisation inversion: A signature of Coulomb scattering of cavity polaritons with opposite spins. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 763-767.	0.8	41
152	Enhanced polariton relaxation by electron-polariton scattering. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 759-762.	0.8	6
153	Strong coupling for a single quantum dot in a microdisk. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3825-3828.	0.8	0
154	Modifying the polariton relaxation bottleneck by injecting an electron gas in a semiconductor microcavity. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 3916-3919.	0.8	1
155	Spectral feature of short radiative lifetime quantum dot. AIP Conference Proceedings, 2005, , .	0.3	0
156	Control Of The Anisotropic Exchange Splitting Of Individual InAs/GaAs Quantum Dots With An In-Plane Electric Field. AIP Conference Proceedings, 2005, , .	0.3	0
157	Short radiative lifetime of single GaAs quantum dots. AIP Conference Proceedings, 2005, , .	0.3	1
158	Influence of an in-plane electric field on exciton fine structure in InAs-GaAs self-assembled quantum dots. Applied Physics Letters, 2005, 86, 041907.	1.5	134
159	High-Q whispering-gallery modes in GaAsâˆ•AlOx microdisks. Applied Physics Letters, 2005, 86, 021103.	1.5	19
160	Few particle effects in the emission of short-radiative-lifetime single quantum dots. Physical Review B, 2005, 72, .	1.1	14
161	Exciton-Photon Strong-Coupling Regime for a Single Quantum Dot Embedded in a Microcavity. Physical Review Letters, 2005, 95, 067401.	2.9	665
162	Exciton radiative lifetime controlled by the lateral confinement energy in a single quantum dot. Physical Review B, 2005, 71, .	1.1	83

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163	Polariton relaxation in semiconductor microcavities: Efficiency of electron-polariton scattering. Physical Review B, 2005, 72, .	1.1	28
164	Microcavity polariton spin quantum beats without a magnetic field: A manifestation of Coulomb exchange in dense and polarized polariton systems. Physical Review B, 2005, 72, .	1.1	116
165	Monitoring the dynamics of a coherent cavity polariton population. Physical Review B, 2005, 71, .	1.1	29
166	Non perturbative exciton-phonon coupling for a single GaAs quantum dot. Physica Status Solidi C: Current Topics in Solid State Physics, 2004, 1, 438-441.	0.8	0
167	Phonon sidebands in exciton and biexciton emission from single GaAs quantum dots. Physical Review B, 2004, 69, .	1.1	65
168	Influence of an Electric Field on Fine Properties of III-V and II-VI Quantum Dots Systems. Acta Physica Polonica A, 2004, 106, 177-184.	0.2	3
169	Normal-incidence intersubband absorption in AlGaSb quantum wells: enhanced oscillator strength and new functionalities using asymmetry. IEE Proceedings: Optoelectronics, 2003, 150, 381.	0.8	0
170	Time-Resolved Measurement of Stimulated Polariton Relaxation. Physica Status Solidi A, 2002, 190, 827-831.	1.7	6
171	Time resolved stimulated emission in excitonic semiconductor microcavities. Physica E: Low-Dimensional Systems and Nanostructures, 2002, 13, 390-393.	1.3	4
172	Non-linear spin polarization dynamics in semiconductor microcavities. Springer Proceedings in Physics, 2001, , 653-654.	0.1	4
173	Evidence of Nonlinear Emission of Polaritons in a IIIâ€“V Microcavity. Physica Status Solidi A, 2000, 178, 167-171.	1.7	1
174	Center-of-mass quantized exciton polariton states in bulk-GaAs microcavities. Physical Review B, 2000, 62, 8199-8203.	1.1	8
175	Microcavity polariton depopulation as evidence for stimulated scattering. Physical Review B, 2000, 62, R16263-R16266.	1.1	86
176	Stimulated Scattering of Microcavity Polaritons. Acta Physica Polonica A, 2000, 98, 295-302.	0.2	0
177	Nonlinear Emission of Microcavity Polaritons in the Low Density Regime. Physical Review Letters, 1999, 82, 1233-1236.	2.9	169