Jesper Moerk

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1676333/publications.pdf

Version: 2024-02-01

474 papers	10,213 citations	36203 51 h-index	54797 84 g-index
479 all docs	479 docs citations	479 times ranked	4855 citing authors

#	Article	IF	Citations
1	Chaos in semiconductor lasers with optical feedback: theory and experiment. IEEE Journal of Quantum Electronics, 1992, 28, 93-108.	1.0	493
2	Slow light in a semiconductor waveguide at gigahertz frequencies. Optics Express, 2005, 13, 8136.	1.7	227
3	Wave mixing in semiconductor laser amplifiers due to carrier heating and spectral-hole burning. IEEE Journal of Quantum Electronics, 1994, 30, 1769-1781.	1.0	224
4	Ultrafast gain recovery and modulation limitations in self-assembled quantum-dot devices. IEEE Photonics Technology Letters, 2001, 13, 541-543.	1.3	216
5	Saturation effects in nondegenerate four-wave mixing between short optical pulses in semiconductor laser amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 1997, 3, 1190-1207.	1.9	176
6	Bistability and low-frequency fluctuations in semiconductor lasers with optical feedback: a theoretical analysis. IEEE Journal of Quantum Electronics, 1988, 24, 123-133.	1.0	173
7	Route to chaos and competition between relaxation oscillations for a semiconductor laser with optical feedback. Physical Review Letters, 1990, 65, 1999-2002.	2.9	172
8	Demonstration of a self-pulsing photonic crystal Fano laser. Nature Photonics, 2017, 11, 81-84.	15.6	166
9	Subpicosecond gain dynamics in InGaAsP optical amplifiers: Experiment and theory. Applied Physics Letters, 1992, 61, 2281-2283.	1.5	163
10	Random nanolasing in the Anderson localized regime. Nature Nanotechnology, 2014, 9, 285-289.	15.6	152
11	Nonlinear gain suppression in semiconductor lasers due to carrier heating. IEEE Photonics Technology Letters, 1991, 3, 606-609.	1.3	144
12	Saturation induced by picosecond pulses in semiconductor optical amplifiers. Journal of the Optical Society of America B: Optical Physics, 1997, 14, 761.	0.9	134
13	InP based lasers and optical amplifiers with wire-/dot-like active regions. Journal Physics D: Applied Physics, 2005, 38, 2088-2102.	1.3	134
14	Saturation and noise properties of quantum-dot optical amplifiers. IEEE Journal of Quantum Electronics, 2004, 40, 1527-1539.	1.0	131
15	Theory of Pulse-Train Amplification Without Patterning Effects in Quantum-Dot Semiconductor Optical Amplifiers. IEEE Journal of Quantum Electronics, 2004, 40, 306-320.	1.0	127
16	Phonon scattering inhibits simultaneous near-unity efficiency and indistinguishability in semiconductor single-photon sources. Nature Photonics, 2017, 11, 521-526.	15.6	126
17	Dielectric GaAs Antenna Ensuring an Efficient Broadband Coupling between an InAs Quantum Dot and a Gaussian Optical Beam. Physical Review Letters, 2013, 110, 177402.	2.9	125
18	Nonreciprocal transmission in a nonlinear photonic-crystal Fano structure with broken symmetry. Laser and Photonics Reviews, 2015, 9, 241-247.	4.4	125

#	Article	IF	Citations
19	Dephasing in InAs/GaAs quantum dots. Physical Review B, 1999, 60, 7784-7787.	1.1	117
20	Finite-element modeling of spontaneous emission of a quantum emitter at nanoscale proximity to plasmonic waveguides. Physical Review B, 2010, 81, .	1.1	115
21	Fano resonance control in a photonic crystal structure and its application to ultrafast switching. Applied Physics Letters, 2014, 105, .	1.5	107
22	Improved switching using Fano resonances in photonic crystal structures. Optics Letters, 2013, 38, 2466.	1.7	100
23	Wideband 360Â° microwave photonic phase shifter based on slow light in semiconductor optical amplifiers. Optics Express, 2010, 18, 6156.	1.7	97
24	Modulation response of nanoLEDs and nanolasers exploiting Purcell enhanced spontaneous emission. Optics Express, 2010, 18, 11230.	1.7	94
25	Non-Markovian Model of Photon-Assisted Dephasing by Electron-Phonon Interactions in a Coupled Quantum-Dotâ€“Cavity System. Physical Review Letters, 2010, 104, 157401.	2.9	90
26	Increasing the modulation bandwidth of semiconductor-optical-amplifier-based switches by using optical filtering. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 1606.	0.9	85
27	Controlling the emission profile of a nanowire with a conical taper. Optics Letters, 2008, 33, 1693.	1.7	85
28	Influence of pure dephasing on emission spectra from single photon sources. Physical Review A, 2008, 78, .	1.0	83
29	Dephasing Times in Quantum Dots due to Elastic LO Phonon-Carrier Collisions. Physical Review Letters, 2000, 85, 1516-1519.	2.9	82
30	Quantum dot amplifiers with high output power and low noise. Applied Physics Letters, 2003, 82, 3083-3085.	1.5	82
31	Nonlinear injection locking dynamics and the onset of coherence collapse in external cavity lasers. IEEE Journal of Quantum Electronics, 1990, 26, 642-654.	1.0	79
32	Theory of short-pulse gain saturation in semiconductor laser amplifiers. IEEE Photonics Technology Letters, 1992, 4, 443-446.	1.3	79
33	Ultra-coherent Fano laser based on a bound state in the continuum. Nature Photonics, 2021, 15, 758-764.	15.6	76
34	Experimental and theoretical investigation of the impact of ultra-fast carrier dynamics on high-speed SOA-based all-optical switches. Optics Express, 2006, 14, 331.	1.7	74
35	Photonic Crystal Fano Laser: Terahertz Modulation and Ultrashort Pulse Generation. Physical Review Letters, 2014, 113, 163901.	2.9	73
36	Enhancing light slow-down in semiconductor optical amplifiers by optical filtering. Optics Letters, 2008, 33, 1084.	1.7	72

#	Article	IF	Citations
37	Numerical investigation of electromagnetically induced transparency in a quantum dot structure. Optics Express, 2007, 15, 6396.	1.7	70
38	Widely Tunable Microwave Photonic Notch Filter Based on Slow and Fast Light Effects. IEEE Photonics Technology Letters, 2009, 21, 167-169.	1.3	69
39	Maximizing the quality factor to mode volume ratio for ultra-small photonic crystal cavities. Applied Physics Letters, 2018, 113, .	1.5	67
40	Heterodyne pump-probe and four-wave mixing in semiconductor optical amplifiers using balanced lock-in detection. Optics Communications, 1999, 169, 317-324.	1.0	66
41	Subwavelength Grating-Mirror VCSEL With a Thin Oxide Gap. IEEE Photonics Technology Letters, 2008, 20, 105-107.	1.3	64
42	Slow-light-enhanced gain in active photonic crystal waveguides. Nature Communications, 2014, 5, 5039.	5.8	64
43	The modulation response of a semiconductor laser amplifier. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 851-860.	1.9	63
44	Low-Jitter and High-Power 40-GHz All-Active Mode-Locked Lasers. IEEE Photonics Technology Letters, 2004, 16, 975-977.	1.3	63
45	Controllable delay of ultrashort pulses in a quantum dot optical amplifier. Optics Express, 2005, 13, 8032.	1.7	63
46	Slow Light in a Semiconductor Waveguide for True-Time Delay Applications in Microwave Photonics. IEEE Photonics Technology Letters, 2007, 19, 1145-1147.	1.3	61
47	Threshold Characteristics of Slow-Light Photonic Crystal Lasers. Physical Review Letters, 2016, 116, 063901.	2.9	59
48	Silicon-photonics light source realized by IIIâ€“V/Si-grating-mirror laser. Applied Physics Letters, 2010, 97, .	1.5	57
49	Coherent single-photon absorption by single emitters coupled to one-dimensional nanophotonic waveguides. New Journal of Physics, 2011, 13, 103010.	1.2	55
50	Microwave phase shifter with controllable power response based on slow- and fast-light effects in semiconductor optical amplifiers. Optics Letters, 2009, 34, 929.	1.7	54
51	Designs for high-efficiency electrically pumped photonic nanowire single-photon sources. Optics Express, 2010, 18, 21204.	1.7	54
52	Microscopic theory of phonon-induced effects on semiconductor quantum dot decay dynamics in cavity QED. Physical Review B, 2012, 86, .	1.1	51
53	Spontaneous emission from large quantum dots in nanostructures: Exciton-photon interaction beyond the dipole approximation. Physical Review B, 2012, 86, .	1.1	50
54	Switching characteristics of an InP photonic crystal nanocavity: Experiment and theory. Optics Express, 2013, 21, 31047.	1.7	50

#	Article	IF	Citations
55	Probing Electron-Phonon Interaction through Two-Photon Interference in Resonantly Driven Semiconductor Quantum Dots. Physical Review Letters, 2017, 118, 233602.	2.9	50
56	Geometry dependence of Auger carrier capture rates into cone-shaped self-assembled quantum dots. Physical Review B, 2003, 67, .	1.1	47
57	The mechanism of mode selection for an external cavity laser. IEEE Photonics Technology Letters, 1990, 2, 21-23.	1.3	46
58	Line broadening caused by Coulomb carrierâ€“carrier correlations and dynamics of carrier capture and emission in quantum dots. Applied Physics Letters, 2001, 79, 1679-1681.	1.5	46
59	Analysis of Timing Jitter in External-Cavity Mode-Locked Semiconductor Lasers. IEEE Journal of Quantum Electronics, 2006, 42, 249-256.	1.0	46
60	Slow and Fast Light Effects and Their Applications to Microwave Photonics Using Semiconductor Optical Amplifiers. IEEE Transactions on Microwave Theory and Techniques, 2010, 58, 3022-3038.	2.9	46
61	Microscopic theory of indistinguishable single-photon emission from a quantum dot coupled to a cavity: The role of non-Markovian phonon-induced decoherence. Physical Review B, 2013, 87, .	1.1	46
62	The role of phonon scattering in the indistinguishability of photons emitted from semiconductor cavity QED systems. New Journal of Physics, 2013, 15, 035027.	1.2	46
63	Bright single photon source based on self-aligned quantum dotâ€“cavity systems. Optics Express, 2014, 22, 8136.	1.7	46
64	Hybrid verticalâ€cavity laser with lateral emission into a silicon waveguide. Laser and Photonics Reviews, 2015, 9, L11.	4.4	46
65	Rate equation description of quantum noise in nanolasers with few emitters. Applied Physics Letters, 2018, 112, .	1.5	46
66	Terahertz fourâ€wave mixing in semiconductor optical amplifiers: Experiment and theory. Applied Physics Letters, 1994, 65, 944-946.	1.5	45
67	Measurement and calculation of the critical pulsewidth for gain saturation in semiconductor optical amplifiers. Optics Communications, 1999, 164, 51-55.	1.0	45
68	One- and two-phonon capture processes in quantum dots. Journal of Applied Physics, 2002, 92, 5982-5990.	1.1	45
69	High-index-contrast grating reflector with beam steering ability for the transmitted beam. Optics Express, 2011, 19, 23567.	1.7	45
70	Linearly Polarized, Single-Mode Spontaneous Emission in a Photonic Nanowire. Physical Review Letters, 2012, 108, 077405.	2.9	45
71	Fundamental Limitations to Gain Enhancement in Periodic Media and Waveguides. Physical Review Letters, 2012, 108, 183903.	2.9	45
72	Theory of nondegenerate four-wave mixing between pulses in a semiconductor waveguide. IEEE Journal of Quantum Electronics, 1997, 33, 545-555.	1.0	44

#	Article	IF	Citations
73	Analytical expression for the bit error rate of cascaded all-optical regenerators. IEEE Photonics Technology Letters, 2003, 15, 1479-1481.	1.3	44
74	Gain dynamics and saturation in semiconductor quantum dot amplifiers. New Journal of Physics, 2004, 6, 178-178.	1.2	44
75	Broadband MEMS-Tunable High-Index-Contrast Subwavelength Grating Long-Wavelength VCSEL. IEEE Journal of Quantum Electronics, 2010, 46, 1245-1253.	1.0	43
76	Voltage-controlled slow light in an integrated semiconductor structure with net gain. Optics Express, 2006, 14, 9955.	1.7	42
77	Investigation of Patterning Effects in Ultrafast SOA-Based Optical Switches. IEEE Journal of Quantum Electronics, 2010, 46, 87-94.	1.0	42
78	Ultrafast gain and index dynamics of quantum dash structures emitting at 1.55Î¼m. Applied Physics Letters, 2006, 89, 081102.	1.5	41
79	Dynamical and noise properties of laser diodes subject to strong optical feedback. Optics Letters, 1994, 19, 2137.	1.7	40
80	All-optical wavelength conversion and signal regeneration using an electroabsorption modulator. Journal of Lightwave Technology, 2000, 18, 1121-1127.	2.7	40
81	Optical properties and optimization of electromagnetically induced transparency in strained InAs/GaAs quantum dot structures. Physical Review B, 2009, 80, .	1.1	40
82	Inâ€Plane Photonic Crystal Devices using Fano Resonances. Laser and Photonics Reviews, 2019, 13, 1900054.	4.4	40
83	Theory of Optical-Filtering Enhanced Slow and Fast Light Effects in Semiconductor Optical Waveguides. Journal of Lightwave Technology, 2008, 26, 3734-3743.	2.7	38
84	Resonance Fluorescence from Semiconductor Quantum Dots: Beyond the Mollow Triplet. Physical Review Letters, 2012, 108, 017401.	2.9	38
85	Modeling and Design of High-Efficiency Single-Photon Sources. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 1-16.	1.9	38
86	Numerical and Experimental Study of the Q Factor of High-Q Micropillar Cavities. IEEE Journal of Quantum Electronics, 2010, 46, 1470-1483.	1.0	37
87	Collective Quantum Memory Activated by a Driven Central Spin. Physical Review Letters, 2019, 123, 140502.	2.9	37
88	Highly directive and Gaussian far-field emission from â€œgiantâ€•photonic trumpets. Applied Physics Letters, 2015, 107, .	1.5	36
89	Ultrafast all-optical modulation using a photonic-crystal Fano structure with broken symmetry. Optics Letters, 2015, 40, 2357.	1.7	36
90	On high-speed cross-gain modulation without pattern effects in quantum dot semiconductor optical amplifiers. Optics Communications, 2003, 227, 363-369.	1.0	35

#	Article	IF	Citations
91	Noise and Regeneration in Semiconductor Waveguides With Saturable Gain and Absorption. IEEE Journal of Quantum Electronics, 2004, 40, 245-255.	1.0	35
92	Scattering of two photons on a quantum emitter in a one-dimensional waveguide: exact dynamics and induced correlations. New Journal of Physics, 2015, 17, 023030.	1.2	35
93	Quantum-dot nano-cavity lasers with Purcell-enhanced stimulated emission. Applied Physics Letters, 2012, 100, .	1.5	34
94	Measurement of pulse amplitude and phase distortion in a semiconductor optical amplifier: from pulse compression to breakup. IEEE Photonics Technology Letters, 2000, 12, 1674-1676.	1.3	33
95	Theory of passively mode-locked photonic crystal semiconductor lasers. Optics Express, 2010, 18, 18003.	1.7	32
96	Stability analysis and the route to chaos for laser diodes with optical feedback. IEEE Photonics Technology Letters, 1990, 2, 549-552.	1.3	31
97	Modeling of carrier dynamics in quantum-well electroabsorption modulators. IEEE Journal of Selected Topics in Quantum Electronics, 2002, 8, 1265-1276.	1.9	31
98	Decoherence in semiconductor cavity QED systems due to phonon couplings. Physical Review B, 2014, 90, .	1.1	31
99	Theory of nanolaser devices: Rate equation analysis versus microscopic theory. Physical Review B, 2013, 87, .	1.1	30
100	Polarization-independent high-index contrast grating and its fabrication tolerances. Applied Optics, 2013, 52, 1049.	0.9	30
101	Two-photon interference from a quantum dot microcavity: Persistent pure dephasing and suppression of time jitter. Physical Review B, 2015, 91, .	1.1	30
102	Ultrafast Coherent Dynamics of a Photonic Crystal all-Optical Switch. Physical Review Letters, 2016, 117, 233901.	2.9	30
103	Self-consistent Maxwell-Bloch model of quantum-dot photonic-crystal-cavity lasers. Physical Review A, 2017, 96, .	1.0	30
104	High-performance 10â€…GHz all-active monolithic modelocked semiconductor lasers. Electronics Letters, 2004, 40, 735.	0.5	29
105	Influence of wetting-layer wave functions on phonon-mediated carrier capture into self-assembled quantum dots. Physical Review B, 2006, 74, .	1.1	29
106	Decay dynamics of radiatively coupled quantum dots in photonic crystal slabs. Physical Review B, 2011, 83, .	1.1	29
107	Heterodyne pump probe measurements of nonlinear dynamics in an indium phosphide photonic crystal cavity. Applied Physics Letters, 2013, 103, .	1.5	29
108	On the Theory of Coupled Modes in Optical Cavity-Waveguide Structures. Journal of Lightwave Technology, 2017, 35, 4247-4259.	2.7	29

#	Article	IF	Citations
109	Optical label encoding using electroabsorption modulators and investigation of chirp properties. Journal of Lightwave Technology, 2003, 21, 1763-1769.	2.7	28
110	Slow and fast light: Controlling the speed of light using semiconductor waveguides. Laser and Photonics Reviews, 2009, 3, 30-44.	4.4	28
111	Reducing the impact of inhomogeneous broadening on quantum dot based electromagnetically induced transparency. Applied Physics Letters, 2009, 94, 071108.	1.5	28
112	Experimental demonstration of a four-port photonic crystal cross-waveguide structure. Applied Physics Letters, 2012, 101, .	1.5	28
113	All-optical non-linear activation function for neuromorphic photonic computing using semiconductor Fano lasers. Optics Letters, 2020, 45, 3844.	1.7	28
114	Title is missing!. Optical and Quantum Electronics, 2001, 33, 907-926.	1.5	26
115	Heterodyne technique for measuring the amplitude and phase transfer functions of an optical modulator. IEEE Photonics Technology Letters, 2002, 14, 621-623.	1.3	26
116	7ï¿½ 40 Gb/s base-rate RZ all-optical broadcasting utilizing an electroabsorption modulator. Optics Express, 2004, 12, 416.	1.7	26
117	Spontaneous decay of a single quantum dot coupled to a metallic slot waveguide in the presence of leaky plasmonic modes. Optics Express, 2010, 18, 12489.	1.7	26
118	Roundtrip matrix method for calculating the leaky resonant modes of open nanophotonic structures. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2014, 31, 2142.	0.8	26
119	Hybrid grating reflector with high reflectivity and broad bandwidth. Optics Express, 2014, 22, 21175.	1.7	26
120	Ultracompact resonator with high quality-factor based on a hybrid grating structure. Optics Express, 2015, 23, 14913.	1.7	26
121	Limits to coherent scattering and photon coalescence from solid-state quantum emitters. Physical Review B, 2017, 95, .	1.1	26
122	Light Scattering from Solid-State Quantum Emitters: Beyond the Atomic Picture. Physical Review Letters, 2019, 123, 167403.	2.9	26
123	Comparison of electromagnetically induced transparency schemes in semiconductor quantum dot structures: Impact of many-body interactions. Physical Review B, 2009, 79, .	1.1	25
124	A new orthogonal labeling scheme based on a 40-Gb/s DPSK payload and a 2.5-Gb/s PolSK label. IEEE Photonics Technology Letters, 2005, 17, 2772-2774.	1.3	24
125	Oscillatory variations in the Q factors of high quality micropillar cavities. Applied Physics Letters, 2009, 94, 061108.	1.5	24
126	On the use of slow light for enhancing waveguide properties. Optics Letters, 2010, 35, 2834.	1.7	24

#	Article	IF	Citations
127	A broadband tapered nanocavity for efficient nonclassical light emission. Optics Express, 2016, 24, 20904.	1.7	24
128	Theory of Selfâ€pulsing in Photonic Crystal Fano Lasers. Laser and Photonics Reviews, 2017, 11, 1700089.	4.4	24
129	Separation of coherent and incoherent nonlinearities in a heterodyne pump-probe experiment. Optics Express, 2000, 7, 107.	1.7	23
130	Improving the All-Optical Response of SOAs Using a Modulated Holding Signal. Journal of Lightwave Technology, 2004, 22, 1303-1308.	2.7	23
131	Modeling of bit error rate in cascaded 2R regenerators. Journal of Lightwave Technology, 2006, 24, 1057-1063.	2.7	23
132	Measuring the effective phonon density of states of a quantum dot in cavity quantum electrodynamics. Physical Review B, 2013, 88, .	1.1	23
133	Phonon effects in quantum dot single-photon sources. Optical Materials Express, 2020, 10, 222.	1.6	23
134	Squeezing of intensity noise in nanolasers and nanoLEDs with extreme dielectric confinement. Optica, 2020, 7, 1641.	4.8	23
135	Energy-bandwidth trade-off in all-optical photonic crystal microcavity switches. Optics Express, 2011, 19, 18410.	1.7	22
136	Three-dimensional integral equation approach to light scattering, extinction cross sections, local density of states, and quasi-normal modes. Journal of the Optical Society of America B: Optical Physics, 2013, 30, 1996.	0.9	22
137	Observation of resonance fluorescence and the Mollow triplet from a coherently driven site-controlled quantum dot. Optica, 2015, 2, 1072.	4.8	22
138	Vertical-cavity in-plane heterostructures: Physics and applications. Applied Physics Letters, 2015, 107, 181107.	1.5	22
139	Slow light in quantum dot photonic crystal waveguides. Applied Physics Letters, 2009, 94, .	1.5	21
140	Dynamical Properties of Nanolasers Based on Few Discrete Emitters. IEEE Journal of Quantum Electronics, 2013, 49, 945-954.	1.0	21
141	Signal reshaping and noise suppression using photonic crystal Fano structures. Optics Express, 2018, 26, 19596.	1.7	21
142	Quantum light-matter interaction and controlled phonon scattering in a photonic Fano cavity. Physical Review B, 2019, 100, .	1.1	21
143	Suppression of Coherence Collapse in Semiconductor Fano Lasers. Physical Review Letters, 2019, 123, 233904.	2.9	21
144	Carrier temperature and spectral holeburning dynamics in InGaAsP quantum well laser amplifiers. Applied Physics Letters, 1994, 64, 143-145.	1.5	20

#	Article	IF	Citations
145	Optical generation of millimeter-waves using a dual-polarization emission external cavity diode laser. IEEE Photonics Technology Letters, 1996, 8, 157-159.	1.3	20
146	Systematic design of loss-engineered slow-light waveguides. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 2657.	0.8	20
147	High beta lasing in micropillar cavities with adiabatic layer design. Applied Physics Letters, 2013, 102, 052114.	1.5	20
148	Physics and Applications of Highâ€Î² Microâ€•and Nanolasers. Advanced Optical Materials, 2021, 9, 2100415.	3.6	20
149	Modal Properties of Photonic Crystal Cavities and Applications to Lasers. Nanomaterials, 2021, 11, 3030.	1.9	20
150	Bidirectional four-wave mixing in semiconductor optical amplifiers: theory and experiment. Journal of Lightwave Technology, 1999, 17, 1617-1625.	2.7	19
151	Dynamic Spatiotemporal Speed Control of Ultrashort Pulses in Quantum-Dot SOAs. IEEE Journal of Quantum Electronics, 2006, 42, 1047-1054.	1.0	19
152	Bandwidth enhancement of SOA-based switches using optical filtering: theory and experimental verification. Optics Express, 2006, 14, 1260.	1.7	19
153	Spectral symmetry of Fano resonances in a waveguide coupled to a microcavity. Optics Letters, 2016, 41, 2065.	1.7	19
154	Intrinsic and environmental effects on the interference properties of a high-performance quantum dot single-photon source. Physical Review B, 2018, 97, .	1.1	19
155	Modes, stability, and small-signal response of photonic crystal Fano lasers. Optics Express, 2018, 26, 16365.	1.7	19
156	Limits of stable operation of AR-coated semiconductor lasers with strong optical feedback. Electronics Letters, 1988, 24, 1065.	0.5	18
157	Modulation response of quantum dot nanolight-emitting-diodes exploiting purcell-enhanced spontaneous emission. Applied Physics Letters, 2011, 98, .	1.5	18
158	Wavelength Conversion of a 9.35-Gb/s RZ OOK Signal in an InP Photonic Crystal Nanocavity. IEEE Photonics Technology Letters, 2014, 26, 257-260.	1.3	18
159	Semianalytical quasi-normal mode theory for the local density of states in coupled photonic crystal cavityâ€“waveguide structures. Optics Letters, 2015, 40, 5790.	1.7	18
160	Semiconductor Fano Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-14.	1.9	18
161	Control of exceptional points in photonic crystal slabs. Optics Letters, 2017, 42, 2866.	1.7	17
162	Transient four-wave mixing with a collinear pump and probe. Optics Letters, 1996, 21, 1017.	1.7	16

#	Article	IF	Citations
163	Chirp of monolithic colliding pulse mode-locked diode lasers. Applied Physics Letters, 1997, 70, 2514-2516.	1.5	16
164	Monolithically integrated reflective SOA-EA carrier re-modulator for broadband access nodes. Optics Express, 2006, 14, 8060.	1.7	16
165	Slow-light enhanced absorption in a hollow-core fiber. Optics Express, 2010, 18, 14270.	1.7	16
166	Nonlinear switching dynamics in a photonic-crystal nanocavity. Applied Physics Letters, 2014, 105, .	1.5	16
167	Limitations of two-level emitters as nonlinearities in two-photon controlled-phase gates. Physical Review A, 2017, 95, .	1.0	16
168	Benchmarking five numerical simulation techniques for computing resonance wavelengths and quality factors in photonic crystal membrane line defect cavities. Optics Express, 2018, 26, 11366.	1.7	16
169	Semiconductor quantum dots devices: Recent advances and application prospects. Physica Status Solidi (B): Basic Research, 2006, 243, 3981-3987.	0.7	15
170	Controlling Microwave Signals by Means of Slow and Fast Light Effects in SOA-EA Structures. IEEE Photonics Technology Letters, 2007, 19, 1589-1591.	1.3	15
171	Optical signatures of electron-phonon decoupling due to strong light-matter interactions. Physical Review B, 2020, 102, .	1.1	15
172	<title>Time-resolved spectroscopy of semiconductor laser devices: experiments and modeling</title>. , 1995, , .		14
173	Synchronization phase diagrams of monolithic colliding pulse-modelocked lasers. IEEE Photonics Technology Letters, 1996, 8, 40-42.	1.3	14
174	Proposed Quenching of Phonon-Induced Processes in Photoexcited Quantum Dots due to Electron-Hole Asymmetries. Physical Review Letters, 2013, 110, 087401.	2.9	14
175	Ultrahigh-speed Si-integrated on-chip laser with tailored dynamic characteristics. Scientific Reports, 2016, 6, 38801.	1.6	14
176	All-Optical Switching Improvement Using Photonic-Crystal Fano Structures. IEEE Photonics Journal, 2016, 8, 1-8.	1.0	14
177	Pulse carving using nanocavity-enhanced nonlinear effects in photonic crystal Fano structures. Optics Letters, 2018, 43, 955.	1.7	14
178	Comparison of processing-induced deformations of InP bonded to Si determined by e-beam metrology: Direct vs. adhesive bonding. Microelectronic Engineering, 2019, 214, 93-99.	1.1	14
179	On collective Rabi splitting in nanolasers and nano-LEDs. Optics Letters, 2019, 44, 1415.	1.7	14
180	Influence of quasibound states on the carrier capture in quantum dots. Applied Physics Letters, 2002, 81, 4318-4320.	1.5	13

#	Article	IF	Citations
181	Quality factors of nonideal micro pillars. Applied Physics Letters, 2007, 91, .	1.5	13
182	Slow and fast light in semiconductor waveguides. Semiconductor Science and Technology, 2010, 25, 083002.	1.0	13
183	A scheme comparison of Autlerâ€“Townes based slow light in inhomogeneously broadened quantum dot media. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2654.	0.9	13
184	Type-II quantum-dot-in-nanowire structures with large oscillator strength for optical quantum gate applications. Physical Review B, 2017, 96, .	1.1	13
185	Non-Markovian perturbation theories for phonon effects in strong-coupling cavity quantum electrodynamics. Physical Review B, 2021, 103, .	1.1	13
186	Integrated SOA-MZI for pattern-effect-free amplification. Electronics Letters, 2005, 41, 549.	0.5	12
187	An improved perfectly matched layer for the eigenmode expansion technique. Optical and Quantum Electronics, 2008, 40, 957-966.	1.5	12
188	Fractional decay of quantum dots in real photonic crystals. Optics Letters, 2008, 33, 1557.	1.7	12
189	Photonic generation of ultrawideband monocycle and doublet pulses by using a semiconductor-optical-amplifier-based wavelength converter. Optics Letters, 2009, 34, 1336.	1.7	12
190	Transverse-mode-selectable microlens vertical-cavity surface-emitting laser. Optics Express, 2010, 18, 4138.	1.7	12
191	Light propagation in finite-sized photonic crystals: multiple scattering using an electric field integral equation. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 228.	0.9	12
192	High-index-contrast subwavelength grating VCSEL. Proceedings of SPIE, 2010, , .	0.8	12
193	Optimal switching using coherent control. Applied Physics Letters, 2013, 102, .	1.5	12
194	Laser Rate Equation-Based Filtering for Carrier Recovery in Characterization and Communication. Journal of Lightwave Technology, 2015, 33, 3271-3279.	2.7	12
195	Thermal analysis of line-defect photonic crystal lasers. Optics Express, 2015, 23, 18277.	1.7	12
196	BER estimation for all-optical regenerators influenced by pattern effects. IEEE Photonics Technology Letters, 2002, 14, 33-35.	1.3	11
197	Steep and adjustable transfer functions of monolithic SOA-EA 2R regenerators. IEEE Photonics Technology Letters, 2006, 18, 1067-1069.	1.3	11
198	Reduction of patterning effects in SOA-based wavelength converters by combining cross-gain and cross-absorption modulation. Optics Express, 2008, 16, 21522.	1.7	11

#	Article	IF	Citations
199	The role of input chirp on phase shifters based on slow and fast light effects in semiconductor optical amplifiers. Optics Express, 2009, 17, 1404.	1.7	11
200	Influence of carrier dynamics on the modulation bandwidth of quantum-dot based nanocavity devices. Applied Physics Letters, 2010, 97, .	1.5	11
201	Enhancing slow- and fast-light effects in quantum-dot semiconductor waveguides through ultrafast dynamics. Optics Letters, 2010, 35, 697.	1.7	11
202	Strong nonlinearity-induced correlations for counterpropagating photons scattering on a two-level emitter. Physical Review A, 2015, 91, .	1.0	11
203	Cavity-waveguide interplay in optical resonators and its role in optimal single-photon sources. Physical Review B, 2018, 98, .	1.1	11
204	Quantum Langevin approach for superradiant nanolasers. New Journal of Physics, 2021, 23, 063010.	1.2	11
205	Characterization of wavelength chirping in modelocked monolithic CPM lasers. IEEE Photonics Technology Letters, 1995, 7, 1148-1150.	1.3	10
206	A transfer function approach to the small-signal response of saturated semiconductor optical amplifiers. Journal of Lightwave Technology, 2000, 18, 2151-2157.	2.7	10
207	Theoretical and experimental study of fundamental differences in the noise suppression of high-speed SOA-based all-optical switches. Optics Express, 2005, 13, 5080.	1.7	10
208	Numerical Investigation of Vertical Cavity Lasers With High-Contrast Gratings Using the Fourier Modal Method. Journal of Lightwave Technology, 2016, 34, 4240-4251.	2.7	10
209	<title>Characterization and modelling of ultrafast carrier dynamics in quantum well optical amplifiers</title>. , 1994, 2146, 52.		9
210	Switch-on dynamics of nanocavity laser devices. Applied Physics Letters, 2011, 99, 151110.	1.5	9
211	Nonlinear carrier dynamics in a quantum dash optical amplifier. New Journal of Physics, 2012, 14, 013042.	1.2	9
212	Auger Processes Mediating the Nonresonant Optical Emission from a Semiconductor Quantum Dot Embedded Inside an Optical Cavity. Physical Review Letters, 2013, 111, 067403.	2.9	9
213	Generating Maximal Entanglement between Spectrally Distinct Solid-State Emitters. Physical Review Letters, 2019, 123, 023603.	2.9	9
214	Efficient stochastic simulation of rate equations and photon statistics of nanolasers. Optics Express, 2020, 28, 32632.	1.7	9
215	Experimental Demonstration of 360Â° Tunable RF Phase Shift Using Slow and Fast Light Effects. , 2009, , .		9
216	Dynamics of additive-pulse mode-locked fibre lasers. Optics Communications, 1992, 90, 65-69.	1.0	8

#	Article	IF	Citations
217	Return-map for low-frequency fluctuations in semiconductor lasers with optical feedback. Optics Communications, 1999, 171, 93-97.	1.0	8
218	Absorption recovery in strongly saturated quantum-well electroabsorption modulators. IEEE Photonics Technology Letters, 2003, 15, 676-678.	1.3	8
219	2R-Regeneration in a monolithically integrated four-section SOAâ€“EA chip. Optics Communications, 2009, 282, 117-121.	1.0	8
220	Simple and efficient methods for the accurate evaluation of patterning effects in ultrafast photonic switches. Optics Express, 2011, 19, 155.	1.7	8
221	Small and Large Signal Analysis of Photonic Crystal Fano Laser. Journal of Lightwave Technology, 2018, 36, 5611-5616.	2.7	8
222	Few-photon transport in Fano-resonance waveguide geometries. Physical Review A, 2020, 101, .	1.0	8
223	Numerical solutions to the Laser Rate Equations with noise: technical issues, implementation and pitfalls. , 2018, , .		8
224	Quantum theory of two-dimensional materials coupled to electromagnetic resonators. Physical Review B, 2022, 105, .	1.1	8
225	Temporal and spectral dynamics in multiquantum-well semiconductor saturable absorbers. IEEE Photonics Technology Letters, 1997, 9, 622-624.	1.3	7
226	Timing jitter analysis for clock recovery circuits based on an optoelectronic phase-locked loop (OPLL). , 2005, , .		7
227	The Influence of Optical Filtering on the Noise Performance of Microwave Photonic Phase Shifters Based on SOAs. Journal of Lightwave Technology, 2011, 29, 1746-1752.	2.7	7
228	A comparison between experiment and theory on few-quantum-dot nanolasing in a photonic-crystal cavity. Optics Express, 2013, 21, 28507.	1.7	7
229	Theory of microscopic semiconductor lasers with external optical feedback. Optics Express, 2021, 29, 14182.	1.7	7
230	Cavity-induced exciton localization and polariton blockade in two-dimensional semiconductors coupled to an electromagnetic resonator. Physical Review Research, 2022, 4, .	1.3	7
231	Split-step spectral method for nonlinear schrÃ¶dinger equation with constant background intensities. Journal of Computational Physics, 1990, 86, 492-495.	1.9	6
232	Subpicosecond heterodyne four-wave mixing experiments on InGaAsP semiconductor laser amplifiers. Optics Communications, 1997, 139, 117-124.	1.0	6
233	Semiconductor devices for all-optical regeneration. , 0, , .		6
234	Phase Noise Analysis of Clock Recovery Based on an Optoelectronic Phase-Locked Loop. Journal of Lightwave Technology, 2007, 25, 901-914.	2.7	6

#	Article	IF	Citations
235	Output Power PDF of a Saturated Semiconductor Optical Amplifier: Second-Order Noise Contributions by Path Integral Method. IEEE Journal of Quantum Electronics, 2007, 43, 1188-1197.	1.0	6
236	Low-noise monolithic mode-locked semiconductor lasers through low-dimensional structures. Proceedings of SPIE, 2008, , .	0.8	6
237	Ultrahigh-Frequency Microwave Phase Shifts Mediated by Ultrafast Dynamics in Quantum-Dot Semiconductor Optical Amplifiers. IEEE Photonics Technology Letters, 2010, 22, 935-937.	1.3	6
238	Theory of carrier depletion and light amplification in active slow light photonic crystal waveguides. Optics Express, 2013, 21, 29392.	1.7	6
239	Crosstalk-free all-optical switching enabled by Fano resonance in a multi-mode photonic crystal nanocavity. Optics Express, 2022, 30, 7457.	1.7	6
240	Measurements and Simulations of nonlinear noise redistribution in an SOA. IEEE Photonics Technology Letters, 2005, 17, 16-18.	1.3	5
241	Broadband microwave photonic phase shifter based on polarisation rotation. Electronics Letters, 2008, 44, 684.	0.5	5
242	Modeling of Mode-Locked Coupled-Resonator Optical Waveguide Lasers. IEEE Journal of Quantum Electronics, 2010, 46, 1804-1812.	1.0	5
243	Tunable true-time delay of a microwave photonic signal realized by cross gain modulation in a semiconductor waveguide. Applied Physics Letters, 2011, 99, 231102.	1.5	5
244	Impact of slow-light enhancement on optical propagation in active semiconductor photonic-crystal waveguides. Physical Review A, 2015, 92, .	1.0	5
245	III-V/SOI vertical cavity laser structure for 120 Gbit/s speed. , 2015, , .		5
246	Protocol for generating multiphoton entangled states from quantum dots in the presence of nuclear spin fluctuations. Physical Review A, 2017, 96, .	1.0	5
247	Femtosecond carrier dynamics and modelocking in monolithic CPM lasers. IEEE Photonics Technology Letters, 1996, 8, 1308-1310.	1.3	4
248	Bit rate and pulse width dependence of four-wave mixing of short optical pulses in semiconductor optical amplifiers. Optics Letters, 1999, 24, 1675.	1.7	4
249	Non-adiabatic effects in semiconductor waveguides. , 2000, , .		4
250	Pulse properties of external-cavity mode-locked semiconductor lasers. Optics Express, 2006, 14, 1119.	1.7	4
251	Slow and fast light in SOA-EA structures for phased-array antennas. , 2006, , .		4
252	10 Gb/s-NRZ Optical 2R-Regeneration in Two-Section SOA-EA Chip. , 2007, , .		4

#	Article	IF	Citations
253	Investigation of patterning effect in ultrafast SOA-based optical switches. , 2009, , .		4
254	Phase-locking regimes of photonic crystal nanocavity laser arrays. Applied Physics Letters, 2011, 99, .	1.5	4
255	Optical time domain demultiplexing using fano resonance in InP photonic crystals. , 2017, , .		4
256	Two-dimensional phase-space picture of the photonic crystal Fano laser. Physical Review A, 2019, 100, .	1.0	4
257	Theory of slow-light semiconductor optical amplifiers. Optics Letters, 2020, 45, 6022.	1.7	4
258	Noise properties and cascadability of SOA-EA regenerators. , 0, , .		3
259	Design and evaluation of mode-locked semiconductor lasers for low noise and high stability (Invited) Tj ETQq1 1 0.784314 rgBT /Over		3
260	Slow light at high frequencies in an amplifying semiconductor waveguide. , 2006, , .		3
261	The Effect of Timing Jitter on a 160-Gb/s Demultiplexer. IEEE Photonics Technology Letters, 2007, 19, 957-959.	1.3	3
262	Vectorial analysis of dielectric photonic crystal VCSEL. , 2009, , .		3
263	General Method for Calculating the Response and Noise Spectra of Active Fabryâ€“Perot Semiconductor Waveguides With External Optical Injection. IEEE Journal of Quantum Electronics, 2009, 45, 950-963.	1.0	3
264	Modeling of cavities using the analytic modal method and an open geometry formalism. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2012, 29, 1237.	0.8	3
265	Speed enhancement in VCSELs employing grating mirrors. Proceedings of SPIE, 2013, , .	0.8	3
266	Comparison of different numerical methods for quality factor calculation of nano and micro photonic cavities. , 2014, , .		3
267	Ultrafast low-energy all-optical switching using a photonic-crystal asymmetric Fano structure. , 2015, , .		3
268	A Simple Coupled-Bloch-Mode Approach to Study Active Photonic Crystal Waveguides and Lasers. IEEE Journal of Selected Topics in Quantum Electronics, 2019, 25, 1-11.	1.9	3
269	Experimental characterisation of wavelength conversion at 40Gb/s based on electroabsorption modulators. , 0, , .		3
270	Impact of Optical Filtering on Linear and Nonlinear Patterning Effects in SOA-based All-optical Switches. , 2005, , .		3

#	Article	IF	Citations
271	Modeling and characterization of colliding pulse mode-locked (CPM) quantum well lasers. , 1996, , .		2
272	Transient and time-resolved four-wave mixing with collinear pump and probe pulses using the heterodyne technique. Journal of Optics, 1998, 7, 335-344.	0.5	2
273	Electrical versus optical pumping of quantum dot amplifiers. , 0, , .		2
274	Ultrafast optical signal processing using semiconductor quantum dot amplifiers. , 0, , .		2
275	Analysis of the effects of time delay in clock recovery circuits based on phase-locked loops. , 0, , .		2
276	Recent Advancements in Semiconductor-based Optical Signal Processing. , 2006, , .		2
277	Slow light pulse propagation in dispersive media. Comptes Rendus Physique, 2009, 10, 957-963.	0.3	2
278	Enhanced gain in photonic crystal amplifiers. , 2012, , .		2
279	Ultra-fast low energy switching using an InP photonic crystal H0 nanocavity. , 2013, , .		2
280	Low-Power Thermo-Optic Switching Using Photonic Crystal Fano Structure with p-i-n Junction. , 2019, , .		2
281	Effect of In-plane Mirror Dispersion on Vertical Cavities Based on High-Contrast Grating Mirrors. , 2015, , .		2
282	Photonic crystal laser based on Fano interference allows for ultrafast frequency modulation in the THz range. , 2019, , .		2
283	All-optical wavelength conversion and signal regeneration using an electroabsorption modulator. , 0, , .		1
284	Room-Temperature Dephasing in InAs Quantum Dots. Physica Status Solidi A, 2000, 178, 337-340.	1.7	1
285	All-optical signal regeneration at 40 Gbit/s using a Mach-Zehnder interferometer based on semiconductor optical amplifiers. , 2000, , .		1
286	Measurement of the amplitude and phase transfer functions of an optical modulator using a heterodyne technique. , 0, , .		1
287	Pattern effects and noise accumulation in concatenated all-optical regenerators. , 2001, , .		1
288	Gain recovery dynamics and limitations in quantum dot amplifiers. , 2001, , .		1

#	Article	IF	Citations
289	Ultrafast signal processing in quantum dot amplifiers through effective spectral holeburning. , 0, , .		1
290	Numerical analysis of an all-optical logic XOR gate based on an active MZ interferometer. , 0, , .		1
291	Fast processes in semiconductor optical amplifiers: Theory and experiment. , 0, , .		1
292	Theoretical and experimental investigation of a balanced phase-locked loop based clock recovery at a bit rate of 160 Gb/s. , 0, , .		1
293	Numerical investigations on the performance of external cavity mode-locked semiconductor lasers. , 2004, , .		1
294	Tunable propagation delay of femtosecond pulses in a quantum-dot optical amplifier at room temperature. , 0, , .		1
295	Experimental demonstration and theoretical analysis of slow light in a semiconductor waveguide at GHz frequencies. , 2005, , .		1
296	Phased-array antennas employing slow and fast light in alternating amplifying and absorbing sections. , 2006, , .		1
297	UskovetÂal.Reply:. Physical Review Letters, 2006, 96, .	2.9	1
298	The impact of gating timing jitter on a 160 Gb/s demultiplexer. , 2006, , .		1
299	Large signal modulation and distortion in a microwave phase shifter based on slow light in a semiconductor waveguide. , 2006, , .		1
300	Large Microwave Phase Shift and Small Distortion in an Integrated Waveguide Device. , 2007, , .		1
301	Broadband subwavelength grating mirror and its application to vertical-cavity surface-emitting laser. , 2008, , .		1
302	Selectively-pumped graiting-mirror long wavelength VCSEL. , 2009, , .		1
303	Quantum dot waveguides: Ultrafast dynamics and applications. , 2009, , .		1
304	Microwave signal processing based on ultrafast dynamics in quantum dot waveguides. , 2010, , .		1
305	Experimental validation of efficient methods for the prediction of patterning effects in SOA-based optical switches. , 2010, , .		1
306	Pulse Delay Measurements in Cascaded Quantum-Well Gain and Absorber Media. IEEE Photonics Technology Letters, 2010, 22, 365-367.	1.3	1

#	Article	IF	Citations
307	Active III–V semiconductor photonic crystal waveguides. , 2011, , .		1
308	Demultiplexing of OTDM-DPSK signals based on a single semiconductor optical amplifier and optical filtering. Optics Letters, 2011, 36, 1560.	1.7	1
309	Dependence of the modulation response of quantum dot based nanocavity devices on the number of emitters. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1145-1148.	0.8	1
310	Multiple-scattering formalism beyond the quasistatic approximation: Analyzing resonances in plasmonic chains. , 2012, , .		1
311	A Non-Hermitian Approach to Non-Linear Switching Dynamics in Coupled Cavity-Waveguide Systems. , 2012, , .		1
312	Low-energy-consumption hybrid lasers for silicon photonics. , 2012, , .		1
313	VCSELs with a high-index-contrast grating for mode-division multiplexing. , 2013, , .		1
314	Dual-resonances approach to broadband cavity-assisted optical signal processing beyond the carrier relaxation rate. Optics Letters, 2014, 39, 3189.	1.7	1
315	Low-power 10 Gbit/s RZ-OOK all-optical modulation using a novel photonic-crystal Fano switch. , 2014, , .		1
316	Noise Spectrum of a Semiconductor Optical Amplifier Excited by a Modulated Signal. IEEE Journal of Quantum Electronics, 2014, 50, 243-254.	1.0	1
317	All-optical signal processing using InP photonic-crystal nanocavity switches. , 2014, , .		1
318	Highly Sensitive Photonic Crystal Cavity Laser Noise Measurements using Bayesian Filtering. , 2015, , .		1
319	Lasers, switches and non-reciprocal elements based on photonic crystal Fano resonances. , 2017, , .		1
320	Benchmarking five computational methods for analyzing large photonic crystal membrane cavities. , 2017, , .		1
321	Driving-induced population trapping and linewidth narrowing via the quantum Zeno effect. Physical Review A, 2018, 97, .	1.0	1
322	Ultrafast parametric process in a photonic-crystal nanocavity switch. Physical Review A, 2019, 99, .	1.0	1
323	Towards High-Speed Fano Photonic Switches. , 2019, , .		1
324	Threshold Power Investigations of Optically-Pumped Photonic Crystal Lasers with Buried Heterostructure Gain Regions. , 2019, , .		1

#	Article	IF	Citations
325	Unidirectional quantum transport in optically driven <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>V</mml:mi></mml:math> -type quantum dot chains. Physical Review B, 2021, 103, .	1.1	1
326	Pulse delay and speed-up of ultra fast pulses in an absorbing quantum well medium. , 2008, , .		1
327	Measurements and simulations of non-linear noise re-distribution in an SOA. , 2004, , .		1
328	Chirp Dependence of Filter Assisted Slow and Fast Light Effects in Semiconductor Optical Amplifiers. , 2008, , .		1
329	Demonstration of Tunable Microwave Photonic Notch Filters Using Slow and Fast Light Effects in Semiconductor Optical Amplifiers. , 2009, , .		1
330	Broadband Microwave Phase Shifter based on High Speed Cross Gain Modulation in Quantum Dot Semiconductor Optical Amplifiers. , 2009, , .		1
331	SOA-based OTDM-DPSK Demultiplexing Assisted by Offset-Filtering. , 2011, , .		1
332	Nonlinear Gain Saturation in Active Slow Light Photonic Crystal Waveguides. , 2013, , .		1
333	Photonic crystal Fano structures and their application to ultrafast switching and lasers. , 2016, , .		1
334	Photonic crystal Fano resonances for realizing optical switches, lasers, and non-reciprocal elements. , 2017, , .		1
335	Doping technologies for InP membranes on silicon for nanolasers. , 2019, , .		1
336	Photonic cavity design by topology optimization. , 2019, , .		1
337	Experimental Realization of Topology-Optimized InP Photonic Cavities with Extreme Dielectric Confinement. , 2021, , .		1
338	Dispersion-induced non-linearities in semiconductors. , 0, , .		0
339	Return-map for semiconductor lasers with optical feedback. , 0, , .		0
340	Semiconductor devices for all-optical signal processing: just how fast can they go?. , 0, , .		0
341	Bi-directional four wave mixing in semiconductor amplifiers for mid span spectral inversion: theory and experiment. , 0, , .		0
342	Saturation properties of four-wave mixing between short optical pulses in semiconductor optical amplifiers. , 0, , .		0

#	Article	IF	Citations
343	All-optical demultiplexing using an electroabsorption modulator. , 2000, , .		0
344	Multiphonon capture processes in self-assembled quantum dots. , 0, , .		0
345	Influence of quasi-bound states on the carrier capture into quantum dots. , 0, , .		0
346	Analysis of noise suppression in cascaded all-optical regenerators. , 0, , .		0
347	Noise and saturation properties of semiconductor quantum dot optical amplifiers. , 2002, , OWC5.		0
348	Two-phonon capture processes into quantum dots: the role of intermediate states. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 17, 111-113.	1.3	0
349	Comparison of noise redistribution in an SOA in pass-through and wavelength conversion mode. , 0, , .		0
350	The influence of nonlinearity, noise and extinction ratio on the cascading properties of 2R-regenerators. , 0, , .		0
351	Light slow-down in semiconductor waveguides due to population pulsations. , 0, , .		0
352	Influence of wetting layer wave functions on carrier capture in quantum dots. , 0, , .		0
353	A second order model of noise in saturated semiconductor optical amplifiers. , 0, , .		0
354	Reduction of timing jitter by clock recovery based on an optical phase-locked loop. , 2006, , .		0
355	Pulse interactions in a quantum dot waveguide in the regime of electromagnetically induced transparency. , 2006, , .		0
356	Modelling Q-Factors of Micro Pillars. , 2007, , .		0
357	Applications of the Slow and Fast Light Effects in SOA-EA Structures in the Radio Over Fiber Links. , 2007, , .		0
358	Analysis of the effects of pulse shape and width on the retiming properties of a 3R regenerator. , 2007, , .		0
359	Slow light in semiconductor waveguides: Theory and experiment. , 2007, , .		0
360	Introduction to the Feature Issue on Slow Light and Its Applications. Journal of Lightwave Technology, 2008, 26, 3707-3707.	2.7	0

#	Article	IF	Citations
361	Slow and fast light effects in semiconductor waveguides for applications in microwave photonics. , 2008, , .		0
362	Microwave phase shifter based on Mach-Zehnder intensity modulator and polarization rotation in an SOA. , 2008, , .		0
363	Analysis of an effective optical filtering technique to enhance microwave phase shifts based on slow and fast light effects. , 2008, , .		0
364	Mitigation of patterning effect in wavelength conversion by cascaded semiconductor optical amplifier and electroabsorption modulator. Proceedings of SPIE, 2008, , .	0.8	0
365	Controlling the Speed of Light in Semiconductor Waveguides: Physics and Applications. , 2009, , .		0
366	Nonlinear dynamics in photonic crystal nanocavity lasers. , 2009, , .		0
367	Effect of temperature and phonons on the spectral properties of a multi-level semiconductor quantum dot single-photon source. , 2009, , .		0
368	Optimizing the spontaneous-emission ß factor for single optical plasmon generation. , 2009, , .		0
369	Microwave photonics processing controlling the speed of light in semiconductor waveguides. , 2009, , .		0
370	Control of ultrafast pulse propagation in semiconductor components. , 2009, , .		0
371	Enhancing slow and fast light effects in quantum dot optical amplifiers through ultrafast dynamics. , 2009, , .		0
372	A Method to Achieve Large Tunable Delays Based on EIT in an Inhomogeneously Broadened Quantum Dot Medium. , 2009, , .		0
373	Advanced vectorial simulation of VCSELs with nano structures invited paper. , 2009, , .		0
374	Exploring carrier dynamics in semiconductors for slow light. , 2009, , .		0
375	Slow and fast light effects in semiconductor waveguides for applications in microwave photonics. Proceedings of SPIE, 2009, , .	0.8	0
376	80-nm-tunable high-index-contrast subwavelength grating long-wavelength VCSEL: proposal and numerical simulations. , 2010, , .		0
377	Single-mode InGaAs/GaAs 1.3-Î¼m VCSELs based on a shallow intracavity patterning. , 2010, , .		0
378	Concept for phase-to-intensity conversion in SOAs by facet reflections. Optics Letters, 2010, 35, 775.	1.7	0

#	Article	IF	Citations
379	A high-efficiency photonic nanowire single-photon source featuring an inverted conical taper. , 2011, , .		0
380	Numerical modeling in photonic crystals integrated technology: The COPERNICUS Project. , 2011, , .		0
381	Bloch-wave engineered submicron diameter micropillars with quality factors exceeding 10,000. , 2011, , .		0
382	Modelling of active semiconductor photonic crystal waveguides and robust designs based on topology optimization. , 2011, , .		0
383	Enhancing slow- and fast-light effects in quantum dot semiconductor waveguides through ultrafast dynamics. , 2011, , .		0
384	Finite element modeling of plasmon based single-photon sources. , 2011, , .		0
385	Design for an electrically-pumped photonic nanowire single-photon source with an efficiency of 89 %. , 2011, , .		0
386	Enhanced gain in slow-light photonic crystal waveguides with embedded quantum dots. , 2011, , .		0
387	Dynamical properties of QD-based nanolaser devices. , 2011, , .		0
388	Patterning effects in ultrafast all-optical photonic crystal nanocavity switches. , 2011, , .		0
389	Role of the lightmatter coupling strength on non-Markovian phonon effects in semiconductor cavity QED. , 2011, , .		0
390	Electrically pumped photonic nanowire single-photon source with an efficiency of 89%. , 2011, , .		0
391	Modulation response of quantum dot nano-LEDs and nano-lasers. , 2011, , .		0
392	Coherent all-optical switching in a bistable waveguide-cavity-waveguide system. , 2011, , .		0
393	Wave-front-engineered grating mirrors for VCSELs. , 2012, , .		0
394	Modeling of gain saturation effects in active semiconductor photonic crystal waveguides. , 2012, , .		0
395	VCSELs and silicon light sources exploiting SOI grating mirrors. Proceedings of SPIE, 2012, , .	0.8	0
396	Slow-light enhancement of spontaneous emission in active photonic crystal waveguides. Proceedings of SPIE, 2012, , .	0.8	0

#	Article	IF	Citations
397	The photonic nanowire: an emerging platform for highly efficient single-photon sources for quantum information applications. Proceedings of SPIE, 2013, , .	0.8	0
398	Improving nanocavity switching using Fano resonances in photonic crystal structures. , 2013, , .		0
399	Global optimization of silicon nanowires for efficient parametric processes. , 2013, , .		0
400	Active photonic crystal switches: Modeling, design and experimental characterization. , 2013, , .		0
401	Bloch-wave engineered submicron-diameter quantum-dot micropillars for cavity QED experiments. Proceedings of SPIE, 2013, , .	0.8	0
402	Photonic wires and trumpets for ultrabright single photon sources. Proceedings of SPIE, 2013, , .	0.8	0
403	A photonic nanowire trumpet for interfacing a quantum dot and a Gaussian free-space mode. Proceedings of SPIE, 2013, , .	0.8	0
404	Dual resonance approach to optical signal processing beyond the carrier relaxation rate. , 2014, , .		0
405	Temporal dynamics of all-optical switching in Photonic Crystal Cavity. , 2014, , .		0
406	A Bloch modal approach for engineering waveguide and cavity modes in two-dimensional photonic crystals. , 2014, , .		0
407	Slow-light effects in photonic crystal membrane lasers. , 2015, , .		0
408	Hybrid III-V/SOI single-mode vertical-cavity laser with in-plane emission into a silicon waveguide. , 2015, , .		0
409	Parametric gain assisted by free-carriers population oscillations in photonic crystal cavity. , 2016, , .		0
410	Efficient modeling of Coulomb interaction effect on exciton in crystal-phase nanowire quantum dot. , 2016, , .		0
411	Switching dynamics in InP photonic-crystal nanocavity. Frontiers of Optoelectronics, 2016, 9, 395-398.	1.9	0
412	Comparison of five computational methods for computing Q factors in photonic crystal membrane cavities. , 2017, , .		0
413	Type-II quantum dot nanowire structures with large oscillator strengths for optical quantum gating applications. , 2017, , .		0
414	Photonic crystal Fano lasers and Fano switches. , 2017, , .		0

#	Article	IF	Citations
415	Experimental demonstration of a Fano laser based on photonic crystals. , 2017, , .		0
416	Phonon limit to simultaneous near-unity efficiency and indistinguishability in semiconductor single photon sources. , 2017, , .		0
417	Fabrication and experimental demonstration of photonic crystal laser with buried heterostructure. , 2017, , .		0
418	Regimes of self-pulsing in photonic crystal Fano lasers. , 2017, , .		0
419	Hybrid Si-on-chip lasers with nano structures. , 2017, , .		0
420	Quality factor enhancement in photonic crystal slabs by manipulation of the ring of exceptional points. , 2017, , .		0
421	Large signal simulation of photonic crystal Fano laser. , 2017, , .		0
422	Theory and simulations of self-pulsing in photonic crystal Fano lasers. , 2017, , .		0
423	Strain tuning of optical properties in Bi<inf>2</inf>Se<inf>3</inf>. , 2017, , .		0
424	Efficient quality-eactor estimation of a vertical cavity employing a high-contrast grating. , 2017, , .		0
425	Control of the rings of exceptional points in photonic crystal slabs. , 2017, , .		0
426	Which Computational Methods Are Good for Analyzing Large Photonic Crystal Membrane Cavities?. , 2018, , .		0
427	Coupled Bloch-Wave Analysis of Active PhC Waveguides and Cavities. , 2018, , .		0
428	Fano Resonances for Realizing Compact and Low Energy Consumption Photonic Switches. , 2018, , .		0
429	A Simple Approach, Based on Coupled Mode Theory, to Study PhC Lasers. , 2019, , .		0
430	A Nuclear Quantum Memory Enabled by Strain. , 2019, , .		0
431	Order of Magnitude Improvement in Feedback Stability of Nanolasers by Inclusion of a Fano Resonance-Based Mirror. , 2019, , .		0
432	Systematically Varying the Active Material Volume in a Photonic Crystal Nanolaser. , 2019, , .		0

#	Article	IF	Citations
433	Generating Maximal Entanglement between Spectrally Distinct Solid-State Emitters. , 2019, , .		0
434	Systematic Design of Photonic Crystal Cavities with Ultra-Low Modal Volume Considering Different Fabrication Resolutions. , 2019, , .		0
435	A Theoretical Study of Collective Rabi Splitting in Nano-Lasers and â€" LEDs. , 2019, , .		0
436	Electrically-operated buried-heterostructure nanocavity laser with sub-20 Î¼A threshold current. , 2021, , .		0
437	Comparison of electrically and optically pumped buried-heterostructure photonic crystal lasers. , 2021, , .		0
438	Modeling of semiconductor devices for high-speed all-optical signal processing. , 2001, , .		0
439	Slow and Fast Light in an Electro-Absorber. , 2006, , .		0
440	True-time delay by slow light in a semiconductor waveguide with alternating amplifying and absorbing sections. , 2006, , .		0
441	Experimental Observation of Pulse Delay and Speed-up in Cascaded Quantum Well Gain and Absorber Media. , 2008, , .		0
442	Experimental Demonstration of Strongly Enhanced Light Slow-Down in Semiconductor Optical Amplifiers by Optical Filtering. , 2008, , .		0
443	Enhanced slow light in quantum dot photonic crystal waveguides. , 2008, , .		0
444	General and Efficient Method for Calculating Modulation Response and Noise Spectra of Active Semiconductor Waveguides. , 2008, , .		0
445	Semi-analytical Model of Filtering Effects in Microwave Phase Shifters based on Semiconductor Optical Amplifiers. , 2008, , .		0
446	Carrier dynamics and slow light in semiconductor nanostructures. , 2008, , .		0
447	Fast, accurate and stable scattering calculation method with application to finite sized photonic crystal waveguides. , 2009, , .		0
448	Conversion of phase-modulated signals to amplitude-modulated signals in SOAs due to mirror reflections. , 2009, , .		0
449	Enhanced Amplified Spontaneous Emission in III-V Semiconductor Photonic Crystal Waveguides. , 2010, , .		0
450	Enhancing Light-Matter Interactions in Nanophotonic Structures by Slow Light. , 2010, , .		0

#	Article	IF	Citations
451	Hybrid Vertical Cavity Laser. , 2010, , .		0
452	Short Pulse Generation in a Passively Mode-Locked Photonic Crystal Semiconductor Laser. , 2010, , .		0
453	Resonance fluorescence from quantum dots: beyond the Mollow triplet. , 2011, , .		0
454	Fundamental limitations to gain enhancement in slow-light photonic structures. , 2012, , .		0
455	Optimal on/off scheme for all-optical switching. , 2012, , .		0
456	InGaAsP photonic crystal nanocavities with a Fano line shape resonant at 1.55 Î¼m. , 2012, , .		0
457	Physics and applications of slow and fast light in semiconductor optical waveguides. , 2012, , .		0
458	Integrated Photonics Enabled by Slow Light. , 2012, , .		0
459	Distributed Feedback Effects in Active Semiconductor Photonic Crystal Waveguides. , 2012, , .		0
460	All-Optical 9.35 Gb/s Wavelength Conversion in an InP Photonic Crystal Nanocavity. , 2013, , .		0
461	All-Optical 9.35 Gb/s Wavelength Conversion in an InP Photonic Crystal Nanocavity. , 2013, , .		0
462	Saturation broadening effect in an InP photonic-crystal nanocavity switch. , 2014, , .		0
463	Far-off-resonant coupling between a semiconductor quantum dot and an optical cavity. , 2014, , .		0
464	III-V/SOI Vertical Cavity Laser with In-plane Output into a Si Waveguide. , 2015, , .		0
465	Highly indistinguishable photons from a QD-microcavity with a large Purcell-factor. , 2015, , .		0
466	Experimental demonstration of non-reciprocal transmission in a nonlinear photonic-crystal Fano structure. , 2015, , .		0
467	Spectrally and temporally resolved resonance shifts of a photonic crystal cavity switch. , 2016, , .		0
468	Parametric processes induced by ultrafast dynamics in a photonic crystal nanocavity switch. , 2018, , .		0

#	Article	IF	Citations
469	Learning of Laser Dynamics using Bayesian Inference. , 2018, , .		0
470	Optimization of the threshold pump power of a photonic crystal nanolaser: experiment and theory. , 2019, , .		0
471	Intensity Noisy Squeezing in NanoLEDs. , 2020, , .		0
472	Coherent scattering from quantum dots: beyond the atomic picture. , 2020, , .		0
473	Resonance condition and field distribution in line-defect photonic crystal cavities. , 2020, , .		0
474	Direct Optical Modulation of Photonic Crystal Fano Laser via the Mirror. , 2021, , .		0