# Susumu Noda

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/9241329/publications.pdf

Version: 2024-02-01

| | | | |
|---|---|---|---|
| 278 papers | 18,440 citations | 23567 58 h-index | 12272 133 g-index |
| 279 all docs | 279 docs citations | 279 times ranked | 8706 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | High-Q photonic nanocavity in a two-dimensional photonic crystal. Nature, 2003, 425, 944-947. | 27.8 | 2,493 |
| 2 | Ultra-high-Q photonic double-heterostructure nanocavity. Nature Materials, 2005, 4, 207-210. | 27.5 | 1,246 |
| 3 | Full Three-Dimensional Photonic Bandgap Crystals at Near-Infrared Wavelengths. Science, 2000, 289, 604-606. | 12.6 | 1,042 |
| 4 | Trapping and emission of photons by a single defect in a photonic bandgap structure. Nature, 2000, 407, 608-610. | 27.8 | 1,037 |
| 5 | Spontaneous-emission control by photonic crystals and nanocavities. Nature Photonics, 2007, 1, 449-458. | 31.4 | 842 |
| 6 | Coherent two-dimensional lasing action in surface-emitting laser with triangular-lattice photonic crystal structure. Applied Physics Letters, 1999, 75, 316-318. | 3.3 | 650 |
| 7 | Polarization Mode Control of Two-Dimensional Photonic Crystal Laser by Unit Cell Structure Design. Science, 2001, 293, 1123-1125. | 12.6 | 583 |
| 8 | Fine-tuned high-Q photonic-crystal nanocavity. Optics Express, 2005, 13, 1202. | 3.4 | 488 |
| 9 | Watt-class high-power, high-beam-quality photonic-crystal lasers. Nature Photonics, 2014, 8, 406-411. | 31.4 | 429 |
| 10 | Waveguides and waveguide bends in two-dimensional photonic crystal slabs. Physical Review B, 2000, 62, 4488-4492. | 3.2 | 379 |
| 11 | GaN Photonic-Crystal Surface-Emitting Laser at Blue-Violet Wavelengths. Science, 2008, 319, 445-447. | 12.6 | 358 |
| 12 | Photonic Devices Based on In-Plane Hetero Photonic Crystals. Science, 2003, 300, 1537-1537. | 12.6 | 282 |
| 13 | Lasers producing tailored beams. Nature, 2006, 441, 946-946. | 27.8 | 261 |
| 14 | Conversion of broadband to narrowband thermal emission through energy recycling. Nature Photonics, 2012, 6, 535-539. | 31.4 | 256 |
| 15 | Analytical Perspective for Bound States in the Continuum in Photonic Crystal Slabs. Physical Review Letters, 2014, 113, 037401. | 7.8 | 249 |
| 16 | Multidirectionally distributed feedback photonic crystal lasers. Physical Review B, 2002, 65, . | 3.2 | 241 |
| 17 | Dynamic control of the Q factor in a photonic crystal nanocavity. Nature Materials, 2007, 6, 862-865. | 27.5 | 241 |
| 18 | Strong coupling between distant photonic nanocavities and its dynamic control. Nature Photonics, 2012, 6, 56-61. | 31.4 | 219 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | A micrometre-scale Raman silicon laser with a microwatt threshold. Nature, 2013, 498, 470-474. | 27.8 | 218 |
| 20 | APPLIED PHYSICS: Seeking the Ultimate Nanolaser. Science, 2006, 314, 260-261. | 12.6 | 212 |
| 21 | Analysis of the experimental Q factors (~ 1 million) of photonic crystal nanocavities. Optics Express, 2006, 14, 1996. | 3.4 | 205 |
| 22 | On-chip beam-steering photonic-crystal lasers. Nature Photonics, 2010, 4, 447-450. | 31.4 | 199 |
| 23 | Highly confined waveguides and waveguide bends in three-dimensional photonic crystal. Applied Physics Letters, 1999, 75, 3739-3741. | 3.3 | 188 |
| 24 | Photonic crystal nanocavity with a Q-factor of ~9 million. Optics Express, 2014, 22, 916. | 3.4 | 173 |
| 25 | Wider bandwidth with high transmission through waveguide bends in two-dimensional photonic crystal slabs. Applied Physics Letters, 2002, 80, 1698-1700. | 3.3 | 169 |
| 26 | Double-lattice photonic-crystal resonators enabling high-brightness semiconductor lasers with symmetric narrow-divergence beams. Nature Materials, 2019, 18, 121-128. | 27.5 | 157 |
| 27 | Room temperature continuous wave operation of a surface-emitting two-dimensional photonic crystal diode laser. Optics Express, 2004, 12, 1562. | 3.4 | 156 |
| 28 | Photonic crystal nanocavity with a Q factor exceeding eleven million. Optics Express, 2017, 25, 1769. | 3.4 | 156 |
| 29 | Optimization of photonic crystal nanocavities based on deep learning. Optics Express, 2018, 26, 32704. | 3.4 | 144 |
| 30 | In-plane-type channel drop filter in a two-dimensional photonic crystal slab. Applied Physics Letters, 2004, 84, 2226-2228. | 3.3 | 136 |
| 31 | Surface-emitting channel drop filters using single defects in two-dimensional photonic crystal slabs. Applied Physics Letters, 2001, 79, 2690-2692. | 3.3 | 134 |
| 32 | Investigation of high-Q channel drop filters using donor-type defects in two-dimensional photonic crystal slabs. Applied Physics Letters, 2003, 83, 1512-1514. | 3.3 | 126 |
| 33 | Theoretical investigation of a two-dimensional photonic crystal slab with truncated cone air holes. Applied Physics Letters, 2003, 82, 1661-1663. | 3.3 | 125 |
| 34 | Optical properties of three-dimensional photonic crystals based on IIIâ€“V semiconductors at infrared to near-infrared wavelengths. Applied Physics Letters, 1999, 75, 905-907. | 3.3 | 120 |
| 35 | Ultrahigh-$Q$ Nanocavities in Two-Dimensional Photonic Crystal Slabs. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1123-1134. | 2.9 | 115 |
| 36 | Design of Photonic Crystal Nanocavity With $Q$-Factor of ${{sim}10^{9}}$. Journal of Lightwave Technology, 2008, 26, 1532-1539. | 4.6 | 112 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Photonic-Crystal Surface-Emitting Lasers: Review and Introduction of Modulated-Photonic Crystals. IEEE Journal of Selected Topics in Quantum Electronics, 2017, 23, 1-7. | 2.9 | 111 |
| 38 | Lasing band-edge identification for a surface-emitting photonic crystal laser. IEEE Journal on Selected Areas in Communications, 2005, 23, 1335-1340. | 14.0 | 106 |
| 39 | Design of a channel drop filter by using a donor-type cavity with high-quality factor in a two-dimensional photonic crystal slab. Applied Physics Letters, 2003, 82, 1341-1343. | 3.3 | 101 |
| 40 | Three-dimensional coupled-wave model for square-lattice photonic crystal lasers with transverse electric polarization: A general approach. Physical Review B, 2011, 84, . | 3.2 | 101 |
| 41 | Demonstration of two-dimensional photonic crystals based on silicon carbide. Optics Express, 2011, 19, 11084. | 3.4 | 99 |
| 42 | Compositional inhomogeneity and immiscibility of a GaInN ternary alloy. Applied Physics Letters, 1997, 71, 906-908. | 3.3 | 98 |
| 43 | Statistical studies of photonic heterostructure nanocavities with an average Q factor of three million. Optics Express, 2011, 19, 11916. | 3.4 | 97 |
| 44 | Partially disordered photonic-crystal thin films for enhanced and robust photovoltaics. Applied Physics Letters, 2012, 100, . | 3.3 | 93 |
| 45 | Effects of fluctuation in air hole radii and positions on optical characteristics in photonic crystal heterostructure nanocavities. Physical Review B, 2009, 79, . | 3.2 | 86 |
| 46 | Alignment and stacking of semiconductor photonic bandgaps by wafer-fusion. Journal of Lightwave Technology, 1999, 17, 1948-1955. | 4.6 | 85 |
| 47 | Two-dimensional photonic-crystal-slab channel-drop filter with flat-top response. Optics Express, 2005, 13, 2512. | 3.4 | 85 |
| 48 | Photonic crystal efficiency boost. Nature Photonics, 2009, 3, 129-130. | 31.4 | 84 |
| 49 | Higher-order vector beams produced by photonic-crystal lasers. Optics Express, 2011, 19, 11963. | 3.4 | 82 |
| 50 | Three-dimensional coupled-wave analysis for square-lattice photonic crystal surface emitting lasers with transverse-electric polarization: finite-size effects. Optics Express, 2012, 20, 15945. | 3.4 | 81 |
| 51 | Realization of three-dimensional guiding of photons in photonic crystals. Nature Photonics, 2013, 7, 133-137. | 31.4 | 80 |
| 52 | Ultrahigh-Q photonic crystal nanocavities based on 4H silicon carbide. Optica, 2019, 6, 991. | 9.3 | 78 |
| 53 | Highly efficient in-plane channel drop filter in a two-dimensional heterophotonic crystal. Applied Physics Letters, 2005, 86, 241101. | 3.3 | 75 |
| 54 | Second-harmonic generation in a silicon-carbide-based photonic crystal nanocavity. Optics Letters, 2014, 39, 1768. | 3.3 | 72 |

| # | Article | IF | Citations |
|---|---|---|---|
| 55 | Single-peak narrow-bandwidth mid-infrared thermal emitters based on quantum wells and photonic crystals. Applied Physics Letters, 2013, 102, . | 3.3 | 71 |
| 56 | Experimental demonstration of complete photonic band gap in two-dimensional photonic crystal slabs. Applied Physics Letters, 2005, 87, 061107. | 3.3 | 65 |
| 57 | Time-domain measurement of picosecond light-pulse propagation in a two-dimensional photonic crystal-slab waveguide. Applied Physics Letters, 2004, 84, 4690-4692. | 3.3 | 62 |
| 58 | Near-infraredâ€“toâ€“visible highly selective thermal emitters based on an intrinsic semiconductor. Science Advances, 2016, 2, e1600499. | 10.3 | 61 |
| 59 | Recent Progresses and Future Prospects of Two- and Three-Dimensional Photonic Crystals. Journal of Lightwave Technology, 2006, 24, 4554-4567. | 4.6 | 60 |
| 60 | Silicon carbide-based photonic crystal nanocavities for ultra-broadband operation from infrared to visible wavelengths. Applied Physics Letters, 2011, 99, 201102. | 3.3 | 59 |
| 61 | Multichannel add/drop filter based on in-plane hetero photonic Crystals. Journal of Lightwave Technology, 2005, 23, 1449-1455. | 4.6 | 54 |
| 62 | Coupled-wave model for square-lattice two-dimensional photonic crystal with transverse-electric-like mode. Applied Physics Letters, 2006, 89, 021101. | 3.3 | 54 |
| 63 | Photonic-crystal lasers with two-dimensionally arranged gain and loss sections for high-peak-power short-pulse operation. Nature Photonics, 2021, 15, 311-318. | 31.4 | 53 |
| 64 | Accurate alignment of a photonic crystal nanocavity with an embedded quantum dot based on optical microscopic photoluminescence imaging. Applied Physics Letters, 2013, 102, . | 3.3 | 52 |
| 65 | Dually modulated photonic crystals enabling high-power high-beam-quality two-dimensional beam scanning lasers. Nature Communications, 2020, 11, 3487. | 12.8 | 48 |
| 66 | Coupled-Wave Theory for Square-Lattice Photonic Crystal Lasers With TE Polarization. IEEE Journal of Quantum Electronics, 2010, 46, 788-795. | 1.9 | 47 |
| 67 | Analysis of coupling between two-dimensional photonic crystal waveguide and external waveguide. Applied Physics Letters, 2002, 81, 3729-3731. | 3.3 | 45 |
| 68 | Characterization of line-defect-waveguide lasers in two-dimensional photonic-crystal slabs. Applied Physics Letters, 2004, 84, 5395-5397. | 3.3 | 45 |
| 69 | Role of interfaces in heterophotonic crystals for manipulation of photons. Physical Review B, 2005, 71, . | 3.2 | 43 |
| 70 | Improvement in the quality factors for photonic crystal nanocavities via visualization of the leaky components. Optics Express, 2016, 24, 9541. | 3.4 | 42 |
| 71 | Photonic-crystal lasers with high-quality narrow-divergence symmetric beams and their application to LiDAR. JPhys Photonics, 2021, 3, 022006. | 4.6 | 42 |
| 72 | Ultrahigh-Q photonic crystal nanocavities fabricated by CMOS process technologies. Optics Express, 2017, 25, 18165. | 3.4 | 41 |

| # | Article | IF | Citations |
|---|---|---|---|
| 73 | Iterative optimization of photonic crystal nanocavity designs by using deep neural networks. Nanophotonics, 2019, 8, 2243-2256. | 6.0 | 41 |
| 74 | On-demand transfer of trapped photons on a chip. Science Advances, 2016, 2, e1501690. | 10.3 | 39 |
| 75 | General recipe to realize photonic-crystal surface-emitting lasers with 100-W-to-1-kW single-mode operation. Nature Communications, 2022, 13, . | 12.8 | 39 |
| 76 | Analysis of high-Q photonic crystal L3 nanocavities designed by visualization of the leaky components. Optics Express, 2017, 25, 367. | 3.4 | 37 |
| 77 | Investigation of a channel-add/drop-filtering device using acceptor-type point defects in a two-dimensional photonic-crystal slab. Applied Physics Letters, 2003, 83, 407-409. | 3.3 | 36 |
| 78 | Ultra-compact 32-channel drop filter with 100 GHz spacing. Optics Express, 2014, 22, 4692. | 3.4 | 35 |
| 79 | Dynamic wavelength tuning of channel-drop device in two-dimensional photonic crystal slab. Electronics Letters, 2005, 41, 37. | 1.0 | 34 |
| 80 | Suppression of multiple photon absorption in a SiC photonic crystal nanocavity operating at 155 Î¼m. Optics Express, 2012, 20, 14789. | 3.4 | 34 |
| 81 | Ultrahigh-Q photonic crystal nanocavities in wide optical telecommunication bands. Optics Express, 2012, 20, 22743. | 3.4 | 33 |
| 82 | Investigation of short wavelength intersubband transitions in InGaAs/AlAs quantum wells on GaAs substrate. Journal of Applied Physics, 1997, 82, 3385-3391. | 2.5 | 32 |
| 83 | Pump-probe measurement of ultrafast all-optical modulation based on intersubband transition in n-doped quantum wells. Applied Physics Letters, 2000, 77, 19-21. | 3.3 | 32 |
| 84 | Three-dimensional photonic crystals based on double-angled etching and wafer-fusion techniques. Applied Physics Letters, 2006, 89, 123106. | 3.3 | 31 |
| 85 | Observation of ultrafast allâ€optical modulation based on intersubband transition in nâ€doped quantum wells by using free electron laser. Applied Physics Letters, 1996, 69, 4136-4138. | 3.3 | 30 |
| 86 | Spectrally selective thermal radiation based on intersubband transitions and photonic crystals. Optics Express, 2009, 17, 19190. | 3.4 | 30 |
| 87 | Progress in Photonic-Crystal Surface-Emitting Lasers. Photonics, 2019, 6, 96. | 2.0 | 29 |
| 88 | High-Efficiency Thermophotovoltaic System That Employs an Emitter Based on a Silicon Rod-Type Photonic Crystal. ACS Photonics, 2020, 7, 80-87. | 6.6 | 29 |
| 89 | Controlling vertical optical confinement in two-dimensional surface-emitting photonic-crystal lasers by shape of air holes. Optics Express, 2008, 16, 18485. | 3.4 | 28 |
| 90 | Raman shift and strain effect in high-Q photonic crystal silicon nanocavity. Optics Express, 2015, 23, 3951. | 3.4 | 27 |

| # | Article | IF | Citations |
|---|---|---|---|
| 91 | Comprehensive analysis of photonic-crystal surface-emitting lasers via time-dependent three-dimensional coupled-wave theory. Physical Review B, 2019, 99, . | 3.2 | 27 |
| 92 | Analysis of a Line-Defect Waveguide on a Silicon-on-Insulator Two-Dimensional Photonic-Crystal Slab. Journal of Lightwave Technology, 2004, 22, 2787-2792. | 4.6 | 26 |
| 93 | High-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>Q</mml:mi></mml:math>resonant modes in a photonic crystal heterostructure nanocavity and applicability to a Raman silicon laser. Physical Review B, 2013, 88, . | 3.2 | 26 |
| 94 | Photonic Crystal Devices in Silicon Photonics. Proceedings of the IEEE, 2018, 106, 2183-2195. | 21.3 | 26 |
| 95 | Integrated Near-Field Thermophotovoltaic Device Overcoming Blackbody Limit. ACS Photonics, 2021, 8, 2466-2472. | 6.6 | 26 |
| 96 | High-Precision Alignment and Bonding System for the Fabrication of 3-D Nanostructures. Journal of Microelectromechanical Systems, 2007, 16, 1140-1144. | 2.5 | 25 |
| 97 | Glass-embedded two-dimensional silicon photonic crystal devices with a broad bandwidth waveguide and a high quality nanocavity. Optics Express, 2010, 18, 19361. | 3.4 | 25 |
| 98 | Higher-order resonant modes in a photonic heterostructure nanocavity. Applied Physics Letters, 2008, 92, . | 3.3 | 24 |
| 99 | On-chip integration and high-speed switching of multi-wavelength narrowband thermal emitters. Applied Physics Letters, 2016, 108, . | 3.3 | 24 |
| 100 | Fabrication of photonic crystal structures by tertiary-butyl arsine-based metalâ€“organic vapor-phase epitaxy for photonic crystal lasers. Applied Physics Express, 2016, 9, 062702. | 2.4 | 24 |
| 101 | Resonant-Wavelength Control of Nanocavities by Nanometer-Scaled Adjustment of Two-Dimensional Photonic Crystal Slab Structures. IEEE Photonics Technology Letters, 2008, 20, 532-534. | 2.5 | 23 |
| 102 | Impact of nonpolar AlGaN quantum wells on deep ultraviolet laser diodes. Journal of Applied Physics, 2011, 110, 043115. | 2.5 | 23 |
| 103 | Photonic crystal microcrystalline silicon solar cells. Progress in Photovoltaics: Research and Applications, 2015, 23, 1475-1483. | 8.1 | 23 |
| 104 | Phase-shift effect on a two-dimensional surface-emitting photonic-crystal laser. Applied Physics Letters, 2005, 86, 111113. | 3.3 | 22 |
| 105 | Symmetrically glass-clad photonic crystal nanocavities with ultrahigh quality factors. Optics Letters, 2011, 36, 91. | 3.3 | 22 |
| 106 | Needle-like focus generation by radially polarized halo beams emitted by photonic-crystal ring-cavity laser. Applied Physics Letters, 2012, 101, . | 3.3 | 22 |
| 107 | Electrical Modulation of Narrowband GaN/AlGaN Quantum-Well Photonic Crystal Thermal Emitters in Mid-Wavelength Infrared. ACS Photonics, 2019, 6, 1565-1571. | 6.6 | 21 |
| 108 | Design of photonic-crystal surface-emitting lasers with enhanced in-plane optical feedback for high-speed operation. Optics Express, 2020, 28, 5050. | 3.4 | 21 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Enhancement of photocurrent in ultrathin active-layer photodetecting devices with photonic crystals. Applied Physics Letters, 2012, 101, . | 3.3 | 20 |
| 110 | Air-Hole Retained Growth by Molecular Beam Epitaxy for Fabricating GaAs-Based Photonic-Crystal Lasers. Applied Physics Express, 2013, 6, 042002. | 2.4 | 20 |
| 111 | Experimental Demonstration of Quasi-resonant Absorption in Silicon Thin Films for Enhanced Solar Light Trapping. ACS Photonics, 2014, 1, 304-309. | 6.6 | 20 |
| 112 | High-Q-factor nanobeam photonic crystal cavities in bulk silicon carbide. Applied Physics Letters, 2018, 113, . | 3.3 | 20 |
| 113 | Strongly asymmetric wavelength dependence of optical gain in nanocavity-based Raman silicon lasers. Optica, 2018, 5, 1256. | 9.3 | 20 |
| 114 | Implementing a Raman silicon nanocavity laser for integrated optical circuits by using a (100) SOI wafer with a 45-degree-rotated top silicon layer. OSA Continuum, 2019, 2, 2098. | 1.8 | 20 |
| 115 | Carrier relaxation dynamics in an ultrafast all-optical modulator using an intersubband transition. Applied Physics Letters, 2001, 79, 4509-4511. | 3.3 | 19 |
| 116 | Line-defectâ€“waveguide laser integrated with a point defect in a two-dimensional photonic crystal slab. Applied Physics Letters, 2005, 86, 171106. | 3.3 | 19 |
| 117 | Controlled spontaneous-emission phenomena in semiconductor slabs with a two-dimensional photonic bandgap. Journal of Optics, 2006, 8, S131-S138. | 1.5 | 19 |
| 118 | Green GaInN photonic-crystal light-emitting diodes with small surface recombination effect. Applied Physics Letters, 2011, 98, . | 3.3 | 19 |
| 119 | Lasing Dynamics of Optically-Pumped Ultralow-Threshold Raman Silicon Nanocavity Lasers. Physical Review Applied, 2018, 10, . | 3.8 | 19 |
| 120 | Pump and probe measurement of intersubband relaxation time in short-wavelength intersubband transition. Applied Physics Letters, 1999, 74, 1418-1420. | 3.3 | 18 |
| 121 | Ultrahighâ€‹Q Photonic Nanocavity Devices on a Dual Thickness SOI Substrate Operating at Both 1.31â€•and 1.55â€Âµm Telecommunication Wavelength Bands. Laser and Photonics Reviews, 2019, 13, 1800258. | 8.7 | 18 |
| 122 | Continous-wave lasing operation of 1.3-Î¼m wavelength InP-based photonic crystal surface-emitting lasers using MOVPE regrowth. Optics Express, 2020, 28, 35483. | 3.4 | 18 |
| 123 | Reduction in surface recombination and enhancement of light emission in silicon photonic crystals treated by high-pressure water-vapor annealing. Applied Physics Letters, 2010, 97, 121111. | 3.3 | 16 |
| 124 | Mode stability in photonic-crystal surface-emitting lasers with large Î²1DL. Applied Physics Letters, 2014, 104, . | 3.3 | 16 |
| 125 | Electrically controlled on-demand photon transfer between high-Q photonic crystal nanocavities on a silicon chip. Nature Photonics, 2022, 16, 113-118. | 31.4 | 16 |
| 126 | Tandem photonic-crystal thin films surpassing Lambertian light-trapping limit over broad bandwidth and angular range. Applied Physics Letters, 2014, 104, . | 3.3 | 15 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | Band structure observation of 2D photonic crystal with various V-shaped air-hole arrangements. IEICE Electronics Express, 2009, 6, 966-971. | 0.8 | 14 |
| 128 | Air-hole design in a vertical direction for high-power two-dimensional photonic-crystal surface-emitting lasers. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1204. | 2.1 | 14 |
| 129 | Sub-100-nW-threshold Raman silicon laser designed by a machine-learning method that optimizes the product of the cavity Q-factors. Optics Express, 2021, 29, 17053. | 3.4 | 14 |
| 130 | Thermal management for CW operation of large-area double-lattice photonic-crystal lasers. Journal of the Optical Society of America B: Optical Physics, 2020, 37, 3882. | 2.1 | 14 |
| 131 | Linearly-Polarized Single-Lobed Beam in a Surface-Emitting Photonic-Crystal Laser. Applied Physics Express, 0, 1, 062002. | 2.4 | 12 |
| 132 | Structural Optimization of Photonic Crystals for Enhancing Optical Absorption of Thin Film Silicon Solar Cell Structures. IEEE Photonics Journal, 2014, 6, 1-10. | 2.0 | 12 |
| 133 | Photonic Crystal Lasers Fabricated by MOVPE Based on Organic Arsenic Source. IEEE Photonics Technology Letters, 2017, 29, 1739-1742. | 2.5 | 12 |
| 134 | Characterization of a distributed feedback laser with air/semiconductor gratings embedded by the wafer fusion technique. IEEE Journal of Quantum Electronics, 1999, 35, 1277-1283. | 1.9 | 11 |
| 135 | Adiabatic transfer scheme of light between strongly coupled photonic crystal nanocavities. Physical Review B, 2013, 87, . | 3.2 | 11 |
| 136 | Detrimental Fluctuation of Frequency Spacing Between the Two High-Quality Resonant Modes in a Raman Silicon Nanocavity Laser. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-12. | 2.9 | 11 |
| 137 | Statistical evaluation of Q factors of fabricated photonic crystal nanocavities designed by using a deep neural network. Applied Physics Express, 2020, 13, 012002. | 2.4 | 11 |
| 138 | Fabrication and characterization of an L3 nanocavity designed by an iterative machine-learning method. APL Photonics, 2021, 6, . | 5.7 | 11 |
| 139 | Detection of negatively ionized air by using a Raman silicon nanocavity laser. Optics Express, 2021, 29, 16228. | 3.4 | 11 |
| 140 | Valence band effective mass of non-c-plane nitride heterostructures. Journal of Applied Physics, 2010, 107, . | 2.5 | 10 |
| 141 | Fabrication of 3D Photonic Crystals toward Arbitrary Manipulation of Photons in Three Dimensions. Photonics, 2016, 3, 36. | 2.0 | 10 |
| 142 | Demonstration of a mid-wavelength infrared narrowband thermal emitter based on GaN/AlGaN quantum wells and a photonic crystal. Applied Physics Letters, 2017, 110, . | 3.3 | 10 |
| 143 | Ultra-short pulse propagation in 3D GaAs photonic crystals. Optical and Quantum Electronics, 2002, 34, 37-43. | 3.3 | 9 |
| 144 | Theoretical analysis of light emission from a coupled system of a photonic nanocavity and a quantum dot. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 2828-2830. | 0.8 | 9 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Microcrystalline-Silicon Solar Cells With Photonic Crystals on the Top Surface. IEEE Journal of Photovoltaics, 2017, 7, 950-956. | 2.5 | 9 |
| 146 | Wavelength-selective thermal emitters using Si-rods on MgO. Applied Physics Letters, 2018, 112, . | 3.3 | 9 |
| 147 | Self-consistent analysis of photonic-crystal surface-emitting lasers under continuous-wave operation. Optics Express, 2021, 29, 25118. | 3.4 | 9 |
| 148 | Ultrafast all optical modulation based on intersubband transition in semiconductor quantum wells. Optical and Quantum Electronics, 2001, 33, 963-973. | 3.3 | 8 |
| 149 | Enhanced radiative recombination rate for electron-hole droplets in a silicon photonic crystal nanocavity. Physical Review B, 2017, 96, . | 3.2 | 8 |
| 150 | Modulated photonic-crystal surface-emitting laser with elliptical lattice points for two-dimensional coupling enhancement. AIP Advances, 2019, 9, 115204. | 1.3 | 8 |
| 151 | Experimental Investigation of Lasing Modes in Double-Lattice Photonic-Crystal Resonators and Introduction of In-Plane Heterostructures. Proceedings of the IEEE, 2020, 108, 819-826. | 21.3 | 8 |
| 152 | 1.2-Âµm-band ultrahigh-Q photonic crystal nanocavities and their potential for Raman silicon lasers. Optics Express, 2021, 29, 24396. | 3.4 | 8 |
| 153 | Tuning holes in photonic-crystal nanocavities (reply). Nature, 2004, 429, 1-2. | 27.8 | 6 |
| 154 | Centered-rectangular lattice photonic-crystal surface-emitting lasers. Physical Review B, 2012, 85, . | 3.2 | 6 |
| 155 | IIIâ€“V based-semiconductor photonic crystals. Optical and Quantum Electronics, 2002, 34, 723-736. | 3.3 | 5 |
| 156 | A Polarization Diversity Two-Dimensional Photonic-Crystal Device. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 70-76. | 2.9 | 5 |
| 157 | Breakthroughs in Photonics 2013: A Microwatt-Threshold Raman Silicon Laser. IEEE Photonics Journal, 2014, 6, 1-5. | 2.0 | 5 |
| 158 | High-beam-quality, efficient operation of passively Q-switched Yb:YAG/Cr:YAG laser pumped by photonic-crystal surface-emitting laser. Applied Physics B: Lasers and Optics, 2017, 123, 1. | 2.2 | 5 |
| 159 | On-chip dynamic time reversal of light in a coupled-cavity system. APL Photonics, 2019, 4, 030806. | 5.7 | 5 |
| 160 | Determination of Nonlinear Optical Efficiencies of Ultrahigh-Q Photonic Crystal Nanocavities with Structural Imperfections. ACS Photonics, 2021, 8, 2839-2845. | 6.6 | 5 |
| 161 | 29-W Continuous-Wave Operation of Photonic-Crystal Surface-Emitting Laser (PCSEL). , 2021, , . | | 5 |
| 162 | Surface-emitting device with embedded circular grating coupler for possible application to optoelectronic integrated devices. IEEE Photonics Technology Letters, 1995, 7, 1397-1399. | 2.5 | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 163 | Photoluminescence processes in Si1â^'xGex/Si disordered superlattices grown on Si(001) substrate. Journal of Applied Physics, 1997, 82, 392-396. | 2.5 | 4 |
| 164 | Trapping of Ultrashort Optical Pulse into Ultra-high-Q Photonic Nanocavity. , 0, , . | | 4 |
| 165 | RECENT ADVANCES IN TWO-DIMENSIONAL PHOTONIC CRYSTALS SLAB STRUCTURE: DEFECT ENGINEERING AND HETEROSTRUCTURE. Nano, 2007, 02, 1-13. | 1.0 | 4 |
| 166 | Far off-resonant coupling between photonic crystal microcavity and single quantum dot with resonant excitation. Applied Physics Letters, 2013, 103, 251113. | 3.3 | 4 |
| 167 | Semiconductor lasers with one- and two-dimensional air/semiconductor gratings embedded by wafer fusion technique. IEEE Journal of Selected Topics in Quantum Electronics, 1999, 5, 658-663. | 2.9 | 3 |
| 168 | Dynamic wavelength conversion of an optical pulse traveling in a 2D photonic crystal waveguide. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , . | 0.0 | 3 |
| 169 | 7W CW Operation of Double-Lattice Photonic-Crystal Lasers. , 2018, , . | | 3 |
| 170 | Light Detection Functionality of Photonic-Crystal Lasers. IEEE Journal of Quantum Electronics, 2021, 57, 1-8. | 1.9 | 3 |
| 171 | Dually modulated photonic crystal lasers for wide-range flash illumination. Optics Express, 2022, 30, 26043. | 3.4 | 3 |
| 172 | Development of a period of three-dimensional photonic crystal operating at optical wavelength region. , 0, , . | | 2 |
| 173 | High-power single-lobed surface-emitting photonic-crystal laser. , 2006, , . | | 2 |
| 174 | High power photonic-crystal surface-emitting lasers. , 2013, , . | | 2 |
| 175 | Elliptical double-hole photonic-crystal surface-emitting lasers. , 2017, , . | | 2 |
| 176 | Semiconductor Photonic Crystal and Its Application.. Hyomen Kagaku, 2001, 22, 715-722. | 0.0 | 2 |
| 177 | Quantitative evaluation of enhanced Er luminescence in GaAs-based two-dimensional photonic crystal nanocavities. Applied Physics Letters, 2020, 116, 181102. | 3.3 | 2 |
| 178 | Photonic Crystal Surface-Emitting Lasers and Their Application to LiDAR. , 2021, , . | | 2 |
| 179 | Light-emitting devices with one- and two-dimensional air/semiconductor gratings embedded by wafer fusion technique. , 0, , . | | 1 |
| 180 | Ultra-short pulse propagation in 3D GaAs photonic crystal. , 0, , . | | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Channel-Add Operation of a Device Using Defects in a Two-Dimensional Photonic Crystal Slab. Materials Research Society Symposia Proceedings, 2002, 722, 231. | 0.1 | 1 |
| 182 | Lasing charactertstics of two-dimensional photonic crystal slab lasers with a modified linear shaped donor-type point defect. , 0, , . | | 1 |
| 183 | Novel nanostructures for light: photonic crystals. , 0, , . | | 1 |
| 184 | Photonic nanostructures and devices based on photonic crystals. , 0, , . | | 1 |
| 185 | High-Power Surface-Emitting Photonic Crystal Laser. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , . | 0.0 | 1 |
| 186 | Dynamic Q factor control of photonic crystal nanocavities. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , . | 0.0 | 1 |
| 187 | Recent progress in photonic crystals and their applications. , 2013, , . | | 1 |
| 188 | Single mode operation of edge-emitting semiconductor lasers with 2D photonic crystal. , 2013, , . | | 1 |
| 189 | Surface nanocavities in 3D photonic crystals. , 2013, , . | | 1 |
| 190 | A sub-microwatt threshold Raman silicon laser using a high-Q nanocavity. , 2015, , . | | 1 |
| 191 | GaN/AlGaN photonic crystal narrowband thermal emitters on a semi-transparent low-refractive-index substrate. AIP Advances, 2018, 8, 015221. | 1.3 | 1 |
| 192 | Observation of ultrafast interband-light modulation by intersubband-light in n-doped quantum wells by using free electron laser. , 0, , . | | 1 |
| 193 | Micromachined Optical Circular Gratings For Surface Light-emitting Devices. , 0, , . | | 0 |
| 194 | Distributed feedback laser with airsemiconductor gratings embedded by mass-transport assisted wafer-fusion technique. , 0, , . | | 0 |
| 195 | Dispersion relations and transmission spectra of a two-dimensional photonic crystal composed of metallic rods. , 0, , . | | 0 |
| 196 | Semiconductor three-dimensional photonic crystals operating at infrared wavelength region. , 0, , . | | 0 |
| 197 | Semiconductor three-dimensional photonic crystals operating at infrared wavelength region. , 0, , . | | 0 |
| 198 | Surface-emitting laser with two-dimensional photonic band structure embedded by wafer fusion technique. , 0, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Three-dimensional photonic crystals based on III-V semiconductor at 1-2 Î¼m wavelengths. , 0, , . | | 0 |
| 200 | Highly-confined waveguides in three-dimensional photonic crystal. , 0, , . | | 0 |
| 201 | Three-dimensional photonic crystals and their applications. , 0, , . | | 0 |
| 202 | Direct observation of intersubband relaxation dynamics and application to subpicosecond all-optical modulation. , 0, , . | | 0 |
| 203 | Analysis of single-defect cavities in 3D photonic crystal. , 0, , . | | 0 |
| 204 | Semiconductor photonic crystals and devices. , 0, , . | | 0 |
| 205 | Ultrasmall channel add/drop devices based on in-plane proportional hetero photonic crystals. , 2003, , . | | 0 |
| 206 | Characterization of channel add/drop functions using donor/acceptor point defects in two dimensional photonic crystal slabs. , 2003, , . | | 0 |
| 207 | Fine fabrication of gainasp-inp photonic crystal by Hi/Xe ICP etching using electron beam resist mask. , 2004, , . | | 0 |
| 208 | Photonic crystal semiconductor lasers. , 0, , . | | 0 |
| 209 | Room temperature CW operation of a surface-emitting two-dimensional photonic crystal laser. , 0, , . | | 0 |
| 210 | Phase-shift effect on a two-dimensional surface-emitting photonic-crystal laser. , 0, , . | | 0 |
| 211 | Photonic-crystal based functional devices -- ultra-high-Q nanocavities. , 0, , . | | 0 |
| 212 | Coupled-Wave Model for Square-Lattice 2D Photonic Crystal Distributed-Feedback Laser with TE-like Mode. , 0, , . | | 0 |
| 213 | Ultrahigh-Q nanocavity based on photonic-crystal double heterostructure. , 0, , . | | 0 |
| 214 | Demonstration of organic light-emitting diodes with photonic crystal on glass substrate fabricated by nanoimprint lithography. , 2005, , . | | 0 |
| 215 | Spontaneous emission control by defect-free 2D photonic crystal slabs. , 2005, , . | | 0 |
| 216 | Guest Editorial Nanotechnologies for Communications. IEEE Journal on Selected Areas in Communications, 2005, 23, 1305-1307. | 14.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Controlling spontaneous emission phenomena in defect-free 2D photonic crystals with quantum dots. , 2006, , . | | 0 |
| 218 | Ultra-High-Q Photonic Nanocavity. , 0, , . | | 0 |
| 219 | Radially Polarized Doughnut Beam Emitted by a Two-Dimensional Photonic-Crystal Laser. , 2007, , . | | 0 |
| 220 | Three-Dimensional Photonic Crystals Fabricated by Double-Angled Plasma Etching. , 2007, , . | | 0 |
| 221 | Light Emission from Quantum Dots embedded in a Photonic Double-Heterostructure Nanocavity. , 2007, , . | | 0 |
| 222 | Cavity-Mode Light Emission in Silicon Photonic Nanocavities at Room Temperature. , 2007, , . | | 0 |
| 223 | High-Q Photonic Crystal Nanocavities. , 2007, , . | | 0 |
| 224 | Three-dimensional photonic crystals fabricated by double-angled plasma etching. , 2007, , . | | 0 |
| 225 | Ultra-high-Q Photonic Nanocavities. Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS, 2007, , . | 0.0 | 0 |
| 226 | High-Q Photonic Crystal Cavities. , 2007, , . | | 0 |
| 227 | Ultrahigh-Q nanocavities and their dynamic control. , 2008, , . | | 0 |
| 228 | Spectral reflectance measurement of two-dimensional photonic nanocavities with embedded quantum dots. , 2008, , . | | 0 |
| 229 | Enhanced light emission from silicon photonic crystal nanocavity. , 2008, , . | | 0 |
| 230 | Manipulation of Photons by 2D and 3D Photonic Crystals. , 2008, , . | | 0 |
| 231 | Recent progress in photonic crystals for manipulation of photons. , 2008, , . | | 0 |
| 232 | High-Q cavities in multilayer photonic crystal slabs. , 2008, , . | | 0 |
| 233 | GaN photonic-crystal surface-emitting laser operating at blue-violet wavelengths. , 2008, , . | | 0 |
| 234 | Two-dimensional photonic-crystal lasers with centered-rectangular lattice structure. , 2009, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 235 | New trends in photonic crystals. , 2009, , . | | 0 |
| 236 | GaN Photonic-Crystal Surface-Emitting Laser. Materials Research Society Symposia Proceedings, 2009, 1202, 262. | 0.1 | 0 |
| 237 | Three-dimensional photonic crystals developed by double-angled reactive-ion etching technique. , 2009, , . | | 0 |
| 238 | Photon manipulation at the surface of three-dimensional photonic crystals. , 2009, , . | | 0 |
| 239 | Time-resolved observation of stopping optical pulses by dynamic Q control of a photonic-crystal nanocavity. , 2009, , . | | 0 |
| 240 | Novel Beam Patterns from Photonic-Crystal Surface-Emitting Laser. The Review of Laser Engineering, 2009, 37, 689-693. | 0.0 | 0 |
| 241 | Observation of strong coupling between distant photonic nanocavities through a waveguide. , 2010, , . | | 0 |
| 242 | Impact of onpolar plane for deep ultraviolet laser diodes based on AlGa/AlN quantum wells. , 2010, , . | | 0 |
| 243 | Recent progress in manipulation of photons by photonic crystals. , 2010, , . | | 0 |
| 244 | Enhancement of light emission from silicon by a photonic crystal nanocavity and high-pressure water vapor annealing. , 2010, , . | | 0 |
| 245 | Photonic crystal nanocavities and broad-area cavities. , 2011, , . | | 0 |
| 246 | Thermal emission control by simultaneous manipulation of electronic and photonic states. , 2011, , . | | 0 |
| 247 | Comprehensive investigation of composite photonic-crystal cavities emitting arbitrary-angled laser beams. , 2011, , . | | 0 |
| 248 | Wide-band vertical waveguide for three-dimensional light guiding in photonic crystals. , 2012, , . | | 0 |
| 249 | Photocurrent enhancement in ultrathin silicon by the photonic band-edge effect. , 2012, , . | | 0 |
| 250 | Recent progress in manipulation of photons by photonic crystals — Thermal emission control for sensors & energy harvesting. , 2012, , . | | 0 |
| 251 | Enhancement of optical absorption in solar cells by band-edge effect of photonic crystals. I — Formation of multiple bandedges. , 2013, , . | | 0 |
| 252 | Efficient scheme for on-demand light transfer between distant nanocavities. , 2013, , . | | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 253 | Tandem photonic-crystal thin films surpassing lambertian light-trapping limit. , 2013, , . | | 0 |
| 254 | Electric and magnetic response in a composite system of a dielectric photonic-crystal nanocavity and single metallic nanostructures. , 2013, , . | | 0 |
| 255 | Enhancement of optical absorption in solar cells by band-edge effect of photonic crystals. II — Topology optimization for further absorption. , 2013, , . | | 0 |
| 256 | Three-dimensional coupled-wave theory for triangular-lattice photonic-crystal lasers. , 2013, , . | | 0 |
| 257 | Single-mode, narrowband thermal emitters based on quantum wells and photonic crystals. , 2013, , . | | 0 |
| 258 | Dynamic control of narrowband thermal emission. , 2014, , . | | 0 |
| 259 | Microcrystalline silicon solar cells with photonic crystals. , 2014, , . | | 0 |
| 260 | Efficient conversion of second harmonic generation in high-Q SiC photonic crystal nanocavities. , 2016, , . | | 0 |
| 261 | Improvement of out-coupling of the oblique waveguide in three-dimensional photonic crystals by introducing a symmetric end structure. , 2016, , . | | 0 |
| 262 | Two-wavelength switchable narrowband thermal emitters. , 2016, , . | | 0 |
| 263 | Fabrication of photonic-crystal structures by TBAs-based MOVPE for photonic-crystal lasers. , 2016, , . | | 0 |
| 264 | Electrical Control of Middle-Wavelength Infrared Thermal Emission using GaN/AlGaN Photonic Crystals. , 2018, , . | | 0 |
| 265 | 8-W-Peak Self-Pulsating Photonic-Crystal Surface Emitting Laser with Ring-Shaped Saturable Absorber. , 2019, , . | | 0 |
| 266 | Dually-Modulated Photonic-Crystal Lasers for Beam Scanning. , 2019, , . | | 0 |
| 267 | Report on CLEO/QELS 2001. The Review of Laser Engineering, 2001, 29, 532-548. | 0.0 | 0 |
| 268 | Three-Dimensional Photonic Crystal by Utilizing Wafer Fusion Technique.. The Review of Laser Engineering, 2002, 30, 59-64. | 0.0 | 0 |
| 269 | Two-Dimensional Photonic-Crystal Laser. The Review of Laser Engineering, 2006, 34, 736-739. | 0.0 | 0 |
| 270 | Preface to Special Issue on Development of the Semiconductor Light Emitting Devices Using Nano-Structure. The Review of Laser Engineering, 2006, 34, 735-735. | 0.0 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 271 | Two-Dimensional Photonic-Crystal Slab Line-Defect Laser. The Review of Laser Engineering, 2006, 34, 740-744. | 0.0 | 0 |
| 272 | Light Emission Control by Photonic Bandgap. The Review of Laser Engineering, 2006, 34, 761-766. | 0.0 | 0 |
| 273 | Dynamic control of photonic crystal nanocavities for photon manipulation. IEICE Proceeding Series, 2014, 1, 356-359. | 0.0 | 0 |
| 274 | High Power, Single Mode, Photonic-Crystal Surface-Emitting Laser. The Review of Laser Engineering, 2015, 43, 447. | 0.0 | 0 |
| 275 | Progress in Photonic-Crystal Lasers. , 2019, , . | | 0 |
| 276 | Tailored Photonic Crystals for Advanced Semiconductor Lasers. , 2020, , . | | 0 |
| 277 | Raman Scattering Emission from a Silicon Photonic Nanocavity Excited by a Superluminescent Diode. , 2020, , . | | 0 |
| 278 | Low-Threshold Single-Mode Lasing from InP-based Double-Lattice Photonic Crystal Surface Emitting Lasers with High-Aspect-Ratio Air Holes. , 2021, , . | | 0 |