Pei-Cheng Ku

List of Publications by Year
in descending order

50 papers	1,685 citations	567281 15 h-index	302126 39 g-index
50 all docs	50 docs citations	50 times ranked	1845 citing authors

#	Article	IF	Citations
1	Slow-light optical buffers: capabilities and fundamental limitations. Journal of Lightwave Technology, 2005, 23, 4046-4066.	4.6	438
2	Monolithically Integrated Î¼LEDs on Silicon Neural Probes for High-Resolution Optogenetic Studies in Behaving Animals. Neuron, 2015, 88, 1136-1148.	8.1	372
3	Slow light in semiconductor quantum wells. Optics Letters, 2004, 29, 2291.	3.3	291
4	Impact of carrier localization on recombination in InGaN quantum wells and the efficiency of nitride light-emitting diodes: Insights from theory and numerical simulations. Applied Physics Letters, 2017, 111, .	3.3	62
5	Monolithic integration of individually addressable light-emitting diode color pixels. Applied Physics Letters, 2017, 110, 111103.	3.3	50
6	Single photon emission from site-controlled InGaN/GaN quantum dots. Applied Physics Letters, 2013, 103, .	3.3	44
7	Strain-induced red-green-blue wavelength tuning in InGaN quantum wells. Applied Physics Letters, 2016, 108, 071104.	3.3	36
8	Wavelength tunable InGaN/GaN nano-ring LEDs via nano-sphere lithography. Scientific Reports, 2017, 7, 42962.	3.3	34
9	Color mixing from monolithically integrated InGaN-based light-emitting diodes by local strain engineering. Applied Physics Letters, 2017, 111, .	3.3	34
10	Elliptical quantum dots as on-demand single photons sources with deterministic polarization states. Applied Physics Letters, 2015, 107, .	3.3	33
11	How much better are InGaN/GaN nanodisks than quantum wellsâ€"Oscillator strength enhancement and changes in optical properties. Applied Physics Letters, 2014, 104, .	3.3	32
12	Site-controlled InGaN/GaN single-photon-emitting diode. Applied Physics Letters, 2016, 108, .	3.3	24
13	Carrier dynamics in site- and structure-controlled InGaN/GaN quantum dots. Physical Review B, 2014, 90, .	3.2	23
14	Plasmonic Enhancement of Single Photon Emission from a Site-Controlled Quantum Dot. ACS Photonics, 2015, 2, 1065-1070.	6.6	22
15	Analysis of stability in two-mode laser systems. IEEE Journal of Quantum Electronics, 1996, 32, 1377-1382.	1.9	16
16	Thermal oxidation of AlgaAs: modeling and process control. IEEE Journal of Quantum Electronics, 2003, 39, 577-585.	1.9	15
17	On-chip optical spectrometer based on GaN wavelength-selective nanostructural absorbers. Applied Physics Letters, 2020, 116, 081103.	3.3	15
18	Slow Light Using P-Doped Semiconductor Heterostructures for High-Bandwidth Nonlinear Signal Processing. Journal of Lightwave Technology, 2008, 26, 3811-3817.	4.6	12

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19	Subwavelength Surface Plasmon Optical Cavityâ€"Scaling, Amplification, and Coherence. IEEE Journal of Selected Topics in Quantum Electronics, 2009, 15, 1521-1528.	2.9	11
20	The metal-clad semiconductor nanoring laser and its scaling properties. Optics Express, 2011, 19, 3218.	3.4	11
21	Charge-tunable indium gallium nitride quantum dots. Physical Review B, 2016, 93, .	3.2	11
22	Buried selectively-oxidized AlGaAs structures grown on nonplanar substrates. Optics Express, 2002, 10, 1003.	3.4	10
23	Ultrathin Tactile Sensors with Directional Sensitivity and a High Spatial Resolution. Nano Letters, 2021, 21, 8304-8310.	9.1	10
24	Strain Effects in Gallium Nitride Adsorption on Defective and Doped Graphene: First-Principles Calculations. Crystals, 2018, 8, 58.	2.2	8
25	Two-photon controlled-phase gates enabled by photonic dimers. Physical Review A, 2021, 103, .	2.5	8
26	Integrated parabolic nanolenses on MicroLED color pixels. Nanotechnology, 2018, 29, 165201.	2.6	7
27	A tensorial shear stress sensor based on light-emitting GaN nanopillars. Applied Physics Letters, 2019, 115, .	3.3	7
28	Fabrication of nanoscale zero-mode waveguides using microlithography for single molecule sensing. Nanotechnology, 2012, 23, 455301.	2.6	6
29	Mechanisms of inhomogeneous broadening in InGaN dot-in-wire structures. Journal of Applied Physics, 2019, 126, 083104.	2.5	6
30	Wavelength tuning in the purple wavelengths using strain-controlled AlxGa1â€"xN/GaN disk-in-wire structures. Applied Physics Letters, 2020, 116, 041102.	3.3	6
31	GaN Micromechanical Resonators with Meshed Metal Bottom Electrode. Materials, 2015, 8, 1204-1212.	2.9	5
32	Designing an Ultrathin Film Spectrometer Based on III-Nitride Light-Absorbing Nanostructures. Micromachines, 2021, 12, 760.	2.9	5
33	Optically Controlled Spin Gate Using GaN Quantum Dots. ACS Photonics, 2022, 9, 1529-1534.	6.6	5
34	Feasibility study of nanopillar LED array for color-tunable lighting and beyond. Optics Express, 2019, 27, 38229.	3.4	4
35	Low-Profile Shear Force Tactile Sensor Based on Optical Methods. IEEE Electron Device Letters, 2022, 43, 1081-1084.	3.9	4
36	LED Lights With Hidden Intensity-Modulated Blue Channels Aiming for Enhanced Subconscious Visual Responses. IEEE Photonics Journal, 2017, 9, 1-9.	2.0	3

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37	An Empirical Model for GaN Light Emitters with Dot-in-Wire Polar Nanostructures. Micromachines, 2020, 11, 82.	2.9	2
38	Mapping tensorial shear stress with light-emitting GaN nanopillars. , 2021, , .		1
39	Variable transmission optical filter based on an actuated origami structure. Applied Optics, 2020, 59, 2963.	1.8	1
40	Ultrathin Optics-Free Spectrometer with Monolithically Integrated LED Excitation. Micromachines, 2022, 13, 382.	2.9	1
41	Site-controlled single photon emitters based on InGaN/GaN quantum dots. , 2012, , .		0
42	Ultracompact Optics-Free Chip-Scale Spectrometer with Integrated LEDs. , 2021, , .		0
43	Toward Artificial Fingertips Based on GaN Optical Tactile Sensors. , 2021, , .		0
44	III-Nitride Semiconductor Single Photon Sources. Series in Optics and Optoelectronics, 2017, , 661-669.	0.0	0
45	Transparent Displays Using Strain-Engineered Nanopillar Light-Emitting Diodes. , 2019, , .		0
46	Toward scalable III-nitride quantum dot structures for quantum photonics. Semiconductors and Semimetals, 2020, , 1-27.	0.7	0
47	Design Chip-Scale Integration of Tunable Short-Wavelength Photonic Devices. , 2020, , .		0
48	Proposal for chip-scale generation and verification of photonic dimers. Applied Physics Letters, 2021, 119, 224001.	3.3	0
49	(Invited) GaN Optoelectronic Devices Based on Local Strain Engineering. ECS Transactions, 2020, 98, 415-422.	0.5	0
50	(Invited) GaN Optoelectronic Devices Based on Local Strain Engineering. ECS Meeting Abstracts, 2020, MA2020-02, 1740-1740.	0.0	0