Pyry Kivisaari

List of Publications by Year
in descending order

52	488	623188	713013
papers	citations	14	21
		h-index	g-index

53	53	53	552
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	On the correlation of the Auger generated hot electron emission and efficiency droop in III-N light-emitting diodes. Applied Physics Letters, 2014, 105, .	1.5	41
2	Conduction Band Offset and Polarization Effects in InAs Nanowire Polytype Junctions. Nano Letters, 2017, 17, 902-908.	4.5	34
3	Electrical measurement of internal quantum efficiency and extraction efficiency of III-N light-emitting diodes. Applied Physics Letters, 2012, 101, .	1.5	33
4	Optimization of the short-circuit current in an InP nanowire array solar cell through opto-electronic modeling. Nanotechnology, 2016, 27, 435404.	1.3	33
5	Effects of lateral current injection in GaN multi-quantum well light-emitting diodes. Journal of Applied Physics, 2012, 111, 103120.	1.1	31
6	Incorporation and effects of impurities in different growth zones within basic ammonothermal GaN. Journal of Crystal Growth, 2016, 456, 43-50.	0.7	20
7	Diffusion injected multi-quantum well light-emitting diode structure. Applied Physics Letters, 2014, 104, .	1.5	19
8	Monte Carlo simulation of hot carrier transport in III-N LEDs. Journal of Computational Electronics, 2015, 14, 382-397.	1.3	19
9	Polarization doping and the efficiency of III-nitride optoelectronic devices. Applied Physics Letters, 2013, 103, .	1.5	18
10	Current injection to free-standing III-N nanowires by bipolar diffusion. Applied Physics Letters, 2013, 103, 031103.	1.5	17
11	Two-Photon Absorption in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>GaAs</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn><mml:mo>−</mml:mo><mml:mi>y</mml:mi></mml:mrow></mml:msub><mml:msub><mml:mi mathvariant="normal">P</mml:mi><mml:mi>y</mml:mi></mml:msub><mml:msub><mml:mi mathvariant="normal">N</mml:mi><mml:mi>x</mml:mi></mml:msub><. Physical Review Applied, 2015, 3, .	1.5	15
12	Optimization of Current Injection in AlGaInP Coreâ^'Shell Nanowire Light-Emitting Diodes. Nano Letters, 2017, 17, 3599-3606.	4.5	15
13	Electroluminescent cooling in intracavity light emitters: modeling and experiments. Optical and Quantum Electronics, 2018, 50, 1.	1.5	15
14	On the Monte Carlo Description of Hot Carrier Effects and Device Characteristics of IIIâ€N LEDs. Advanced Electronic Materials, 2017, 3, 1600494.	2.6	14
15	Optimized efficiency in InP nanowire solar cells with accurate 1D analysis. Nanotechnology, 2018, 29, 045401.	1.3	14
16	Diffusion Injection in a Buried Multiquantum Well Light-Emitting Diode Structure. IEEE Transactions on Electron Devices, 2015, 62, 902-908.	1.6	13
17	Emission enhancement, light extraction and carrier dynamics in InGaAs/GaAs nanowire arrays. Nano Futures, 2018, 2, 015001.	1.0	13
18	Electroluminescent Cooling in IIIâ€“V Intracavity Diodes: Practical Requirements. IEEE Transactions on Electron Devices, 2019, 66, 963-968.	1.6	13

#	Article	IF	Citations
19	Elimination of Lateral Resistance and Current Crowding in Largeâ€Area LEDs by Composition Grading and Diffusionâ€Driven Charge Transport. Advanced Electronic Materials, 2017, 3, 1700103.	2.6	12
20	Electroluminescent Cooling in IIIâ€“V Intracavity Diodes: Efficiency Bottlenecks. IEEE Transactions on Electron Devices, 2019, 66, 2651-2656.	1.6	12
21	Recombination lifetime in InGaN/GaN based light emitting diodes at low current densities by differential carrier lifetime analysis. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 327-331.	0.8	10
22	Electrical injection to contactless near-surface InGaN quantum well. Applied Physics Letters, 2015, 107, .	1.5	10
23	Geometry Tailoring of Emission from Semiconductor Nanowires and Nanocones. Photonics, 2020, 7, 23.	0.9	10
24	Diffusion-Driven Charge Transport in Light Emitting Devices. Materials, 2017, 10, 1421.	1.3	8
25	Optical admittance method for light-matter interaction in lossy planar resonators. Physical Review E, 2018, 98, .	0.8	6
26	Diffusion-assisted current spreading for III-nitride light-emitting applications. Proceedings of SPIE, 2013, , .	0.8	5
27	Interplay of Photons and Charge Carriers in Thin-Film Devices. Physical Review Applied, 2021, 16, .	1.5	5
28	Bipolar Monte Carlo simulation of electrons and holes in III-N LEDs. Proceedings of SPIE, 2015, , .	0.8	4
29	Tailored emission to boost open-circuit voltage in solar cells. Journal of Physics Communications, 2019, 3, 055009.	0.5	4
30	Microscopic simulation of hot electron transport in III-N light-emitting diodes. Optical and Quantum Electronics, 2015, 47, 1509-1518.	1.5	3
31	Carrier Dynamics in High-Efficiency Blue GaN Light-Emitting Diodes Under Different Bias Currents and Temperatures. IEEE Photonics Journal, 2012, 4, 1870-1880.	1.0	2
32	Monte Carlo-drift-diffusion simulation of electron current transport in III-N LEDs. Proceedings of SPIE, 2014, , .	0.8	2
33	Vertical excitation profile in diffusion injected multi-quantum well light emitting diode structure. , 2015, , .		2
34	Monte Carlo study of non-quasiequilibrium carrier dynamics in IIIâ€“N LEDs. Optical and Quantum Electronics, 2016, 48, 1.	1.5	2
35	Intracavity double diode structures with GaInP barrier layers for thermophotonic cooling. , 2017, , .		2
36	Electroluminescent cooling using double diode structures. , 2018, , .		2

#	Article	IF	Citations
37	Effect of interface recombination on the efficiency of intracavity double diode structures. Optical and Quantum Electronics, 2019, 51, 1.	1.5	2
38	Backâ€Contacted Carrier Injection for Scalable GaN Light Emitters. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, 2100461.	0.8	2
39	Monte Carlo simulation of hot electron transport in III-N LEDs. , 2014, , .		1
40	Elimination of resistive losses in large-area LEDs by new diffusion-driven devices. Proceedings of SPIE, 2017, , .	0.8	1
41	Modeling of charge and photon transport in coupled intracavity light emitters. , 2017, , .		1
42	One-dimensional electrical modeling of axial p-i-n junction InP nanowire array solar cells. , 2017, , .		1
43	Towards fully self-consistent optoelectronic simulation of planar devices. Optical and Quantum Electronics, 2019, 51, 1.	1.5	1
44	Silicon-Integrated IIIâ€“V Light Emitters and Absorbers Using Bipolar Diffusion. Physical Review Applied, 2020, 13, .	1.5	1
45	Effects of direct lateral Current Injection on the Performance, Overall Efficiency and Emission Distribution in GaN LED structures: a 2D Computational Study. Materials Research Society Symposia Proceedings, 2011, 1370, 105.	0.1	0
46	Bipolar Monte Carlo simulation of hot carriers in III-N LEDs. , 2015, , .		0
47	Diffusion-driven current transport to near-surface nanostructures. , 2015, , .		0
48	Bipolar Monte Carlo simulation of hot carriers in III-N LEDs. , 2015, , .		0
49	Full optoelectronic simulation of nanowire LEDs: Effects of temperature. , 2017, , .		0
50	Energy Transport in Lossy Resonators by Optical Admittance Methods. , 2018, , .		0
51	Interference-exact radiative transfer simulations: intracavity transport effects. , 2018, , .		0
52	Simulation of photon transport in resonant double-diode structures. , 2019, , .		0