

# Aurelien David

## List of Publications by Year in descending order

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Version: 2024-02-01

60  
papers

4,186  
citations

126708

33  
h-index

143772

57  
g-index

62  
all docs

62  
docs citations

62  
times ranked

2857  
citing authors

#	ARTICLE	IF	CITATIONS
1	III-nitride photonic-crystal light-emitting diodes with high extraction efficiency. <i>Nature Photonics</i> , 2009, 3, 163-169.	15.6	688
2	Carrier distribution in (0001)InGaN $\hat{}$ GaN multiple quantum well light-emitting diodes. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	307
3	Droop in InGaN light-emitting diodes: A differential carrier lifetime analysis. <i>Applied Physics Letters</i> , 2010, 96, .	1.5	288
4	Bulk GaN flip-chip violet light-emitting diodes with optimized efficiency for high-power operation. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	197
5	Photonic-crystal GaN light-emitting diodes with tailored guided modes distribution. <i>Applied Physics Letters</i> , 2006, 88, 061124.	1.5	189
6	Development of the IES method for evaluating the color rendition of light sources. <i>Optics Express</i> , 2015, 23, 15888.	1.7	184
7	Influence of polarization fields on carrier lifetime and recombination rates in InGaN-based light-emitting diodes. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	165
8	Photonic bands in two-dimensionally patterned multimode GaN waveguides for light extraction. <i>Applied Physics Letters</i> , 2005, 87, 101107.	1.5	154
9	Directional emission control and increased light extraction in GaN photonic crystal light emitting diodes. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	151
10	Photonic crystal laser lift-off GaN light-emitting diodes. <i>Applied Physics Letters</i> , 2006, 88, 133514.	1.5	124
11	Optimization of Light-Diffracting Photonic-Crystals for High Extraction Efficiency LEDs. <i>Journal of Display Technology</i> , 2007, 3, 133-148.	1.3	121
12	Review of measures for light-source color rendition and considerations for a two-measure system for characterizing color rendition. <i>Optics Express</i> , 2013, 21, 10393.	1.7	113
13	Bulk GaN based violet light-emitting diodes with high efficiency at very high current density. <i>Applied Physics Letters</i> , 2012, 101, 223509.	1.5	102
14	Optical and structural properties of GaN nanopillar and nanostripe arrays with embedded InGaN $\hat{}$ GaN multi-quantum wells. <i>Journal of Applied Physics</i> , 2006, 100, 054314.	1.1	94
15	Photonic crystal light-emitting sources. <i>Reports on Progress in Physics</i> , 2012, 75, 126501.	8.1	71
16	Quantum Efficiency of III-Nitride Emitters: Evidence for Defect-Assisted Nonradiative Recombination and its Effect on the Green Gap. <i>Physical Review Applied</i> , 2019, 11, .	1.5	66
17	Fast factorization rule and plane-wave expansion method for two-dimensional photonic crystals with arbitrary hole-shape. <i>Physical Review B</i> , 2006, 73, .	1.1	60
18	Reviewâ€”The Physics of Recombinations in III-Nitride Emitters. <i>ECS Journal of Solid State Science and Technology</i> , 2020, 9, 016021.	0.9	57

#	ARTICLE	IF	CITATIONS
19	Surface-Roughened Light-Emitting Diodes: An Accurate Model. <i>Journal of Display Technology</i> , 2013, 9, 301-316.	1.3	54
20	Photonic Crystal-Assisted Light Extraction from a Colloidal Quantum Dot/GaN Hybrid Structure. <i>Nano Letters</i> , 2006, 6, 1116-1120.	4.5	52
21	Droop in III-nitrides: Comparison of bulk and injection contributions. <i>Applied Physics Letters</i> , 2010, 97, .	1.5	52
22	GaN <sup>x</sup> In <sub>1-x</sub> GaN light emitting diodes with embedded photonic crystal obtained by lateral epitaxial overgrowth. <i>Applied Physics Letters</i> , 2008, 92, 113514.	1.5	46
23	Electrical properties of III-Nitride LEDs: Recombination-based injection model and theoretical limits to electrical efficiency and electroluminescent cooling. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	46
24	GaN light-emitting diodes with Archimedean lattice photonic crystals. <i>Applied Physics Letters</i> , 2006, 88, 073510.	1.5	43
25	Colour gamut size and shape influence colour preference. <i>Lighting Research and Technology</i> , 2017, 49, 992-1014.	1.2	42
26	Cone-shaped surface GaN-based light-emitting diodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2005, 2, 2836-2840.	0.8	40
27	Perceptual responses to LED illumination with colour rendering indices of 85 and 97. <i>Lighting Research and Technology</i> , 2015, 47, 810-827.	1.2	40
28	Why Color Space Uniformity and Sample Set Spectral Uniformity Are Essential for Color Rendering Measures. <i>LEUKOS - Journal of Illuminating Engineering Society of North America</i> , 2016, 12, 39-50.	1.5	40
29	Field-assisted Shockley-Read-Hall recombinations in III-nitride quantum wells. <i>Applied Physics Letters</i> , 2017, 111, .	1.5	40
30	High light extraction efficiency in bulk-GaN based volumetric violet light-emitting diodes. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	37
31	Gain comparison in polar and nonpolar <sup>xy</sup> semipolar gallium-nitride-based laser diodes. <i>Semiconductor Science and Technology</i> , 2012, 27, 024015.	1.0	36
32	Whiteness Perception under LED Illumination. <i>LEUKOS - Journal of Illuminating Engineering Society of North America</i> , 2014, 10, 165-180.	1.5	35
33	Gallium-nitride-based microcavity light-emitting diodes with air-gap distributed Bragg reflectors. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	34
34	All-optical measurements of carrier dynamics in bulk-GaN LEDs: Beyond the ABC approximation. <i>Applied Physics Letters</i> , 2017, 110, .	1.5	34
35	LED-based white light. <i>Comptes Rendus Physique</i> , 2018, 19, 169-181.	0.3	33
36	Color Fidelity of Light Sources Evaluated over Large Sets of Reflectance Samples. <i>LEUKOS - Journal of Illuminating Engineering Society of North America</i> , 2014, 10, 59-75.	1.5	31

#	ARTICLE	IF	CITATIONS
37	Carrier dynamics and Coulomb-enhanced capture in III-nitride quantum heterostructures. Applied Physics Letters, 2016, 109, .	1.5	30
38	Micro Cavity Effect in GaN-Based Light-Emitting Diodes Formed by Laser Lift-Off and Etch-Back Technique. Japanese Journal of Applied Physics, 2004, 43, L411-L413.	0.8	27
39	Thermal droop in high-quality InGaN LEDs. Applied Physics Letters, 2019, 115, .	1.5	25
40	Many-Body Effects in Strongly Disordered III-Nitride Quantum Wells: Interplay Between Carrier Localization and Coulomb Interaction. Physical Review Applied, 2019, 12, .	1.5	22
41	High-temperature electroluminescence properties of InGaN red micro-light-emitting diodes with a peak external quantum efficiency of 3.2%. Applied Physics Letters, 2021, 119, .	1.5	21
42	Investigation of Extracting Photonic Crystal Lattices for Guided Modes of GaAs-Based Heterostructures. IEEE Journal of Quantum Electronics, 2008, 44, 777-789.	1.0	20
43	Gallium nitride based microcavity light emitting diodes with $2\lambda$ effective cavity thickness. Applied Physics Letters, 2007, 90, 031111.	1.5	19
44	Chroma Shift and Gamut Shape: Going Beyond Average Color Fidelity and Gamut Area. LEUKOS - Journal of Illuminating Engineering Society of North America, 2018, 14, 149-165.	1.5	18
45	Whiteness metric for light sources of arbitrary color temperatures: proposal and application to light-emitting-diodes. Optics Express, 2013, 21, 16702.	1.7	15
46	Compensation between radiative and Auger recombinations in III-nitrides: The scaling law of separated-wavefunction recombinations. Applied Physics Letters, 2019, 115, .	1.5	15
47	Spontaneous emission in GaN/InGaN photonic crystal nanopillars. Optics Express, 2007, 15, 17991.	1.7	14
48	Methods for Assessing Quantity and Quality of Illumination. Annual Review of Vision Science, 2019, 5, 479-502.	2.3	14
49	Long-Range Carrier Diffusion in $\text{In}_{1-x}\text{Ga}_x\text{N}$ Quantum Wells and Implications from Fundamentals to Devices. Physical Review Applied, 2021, 15, .	1.5	14
50	From modal control to spontaneous emission and gain in photonic crystal waveguides. Photonics and Nanostructures - Fundamentals and Applications, 2006, 4, 1-11.	1.0	13
51	Demonstration of Distributed Bragg Reflectors for Deep Ultraviolet Applications. Japanese Journal of Applied Physics, 2007, 46, L767.	0.8	11
52	A Vector Field Color Rendition Model for Characterizing Color Shifts and Metameric Mismatch. LEUKOS - Journal of Illuminating Engineering Society of North America, 2020, 16, 99-114.	1.5	9
53	Human perception of light chromaticity: short-wavelength effects in spectra with low circadian stimulation, and broader implications for general LED sources. Optics Express, 2019, 27, 31553.	1.7	9
54	Recent results and latest views on microcavity LEDs. , 2004, 5366, 1.		8

#	ARTICLE	IF	CITATIONS
55	Optical properties of GaN nanopillar and nanostripe arrays with embedded InGaN/GaN multi quantum wells. Physica Status Solidi (B): Basic Research, 2007, 244, 1797-1801.	0.7	7
56	Omnidirectional light extraction in GaN LEDs using an Archimedean tiling photonic crystal. , 2006, 6115, 343.		3
57	Gallium nitride based micro-cavity light emitting diodes emitting at 498 nm. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 1783-1786.	0.8	2
58	Improved Method for Evaluating and Specifying the Chromaticity of Light Sources. LEUKOS - Journal of Illuminating Engineering Society of North America, 2023, 19, 35-52.	1.5	2
59	High efficiency LEDs by photonic crystal-assisted extraction. , 2006, , .		1
60	56.2: <i>Invited Paper</i>: Progress in Color Rendition Measures for Lighting. Digest of Technical Papers SID International Symposium, 2015, 46, 839-841.	0.1	0