Jung Han

List of Publications by Year
in descending order

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68	2,602	257450 24	189892 50
papers	citations	h-index	g-index

69	69	69	2615
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The emergence and prospects of deep-ultraviolet light-emitting diode technologies. Nature Photonics, 2019, 13, 233-244.	31.4	800
2	Mesoporous GaN for Photonic Engineeringâ€"Highly Reflective GaN Mirrors as an Example. ACS Photonics, 2015, 2, 980-986.	6.6	129
3	Highâ€‹Q, Lowâ€Threshold Monolithic Perovskite Thinâ€Film Verticalâ€Cavity Lasers. Advanced Materials, 2017, 29, 1604781.	21.0	112
4	Microâ€Light Emitting Diode: From Chips to Applications. Laser and Photonics Reviews, 2021, 15, 2000133.	8.7	108
5	Nanopores in GaN by electrochemical anodization in hydrofluoric acid: Formation and mechanism. Journal of Applied Physics, 2012, 112, .	2.5	100
6	High-Bandwidth Green Semipolar (20â€"21) InGaN/GaN Micro Light-Emitting Diodes for Visible Light Communication. ACS Photonics, 2020, 7, 2228-2235.	6.6	99
7	Understanding nonpolar GaN growth through kinetic Wulff plots. Journal of Applied Physics, 2008, 104, .	2.5	98
8	Understanding and controlling heteroepitaxy with the kinetic Wulff plot: A case study with GaN. Journal of Applied Physics, 2011, 110, .	2.5	85
9	A conductivity-based selective etching for next generation GaN devices. Physica Status Solidi (B): Basic Research, 2010, 247, 1713-1716.	1.5	84
10	Morphological and microstructural evolution in the two-step growth of nonpolar a-plane GaN on r-plane sapphire. Journal of Applied Physics, 2009, 106, .	2.5	74
11	Strain relaxation and dislocation reduction in AlGaN stepâ€graded buffer for crackâ€free GaN on Si (111). Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 437-441.	0.8	56
12	High reflectance membrane-based distributed Bragg reflectors for GaN photonics. Applied Physics Letters, 2012, 101, .	3.3	52
13	Distributed Bragg Reflectors for GaN-Based Vertical-Cavity Surface-Emitting Lasers. Applied Sciences (Switzerland), 2019, 9, 1593.	2.5	50
14	RGB Arrays for Micro-Light-Emitting Diode Applications Using Nanoporous GaN Embedded with Quantum Dots. ACS Applied Materials & Interfaces, 2020, 12, 30890-30895.	8.0	49
15	Multi-color broadband visible light source via GaN hexagonal annular structure. Scientific Reports, 2014, 4, 5514.	3.3	46
16	Broadband nanophotonic waveguides and resonators based on epitaxial GaN thin films. Applied Physics Letters, 2015, 107, .	3.3	44
17	Effect of Controlled Growth Dynamics on the Microstructure of Nonpolara-Plane GaN Revealed by X-ray Diffraction. Japanese Journal of Applied Physics, 2009, 48, 071002.	1.5	37
18	A Waferâ€Level Integrated Whiteâ€Lightâ€Emitting Diode Incorporating Colloidal Quantum Dots as a Nanocomposite Luminescent Material. Advanced Materials, 2012, 24, 5915-5918.	21.0	34

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19	Optical Engineering of Modal Gain in a III-Nitride Laser with Nanoporous GaN. ACS Photonics, 2016, 3, 1604-1610.	6.6	33
20	Microstructural evolution in m-plane GaN growth on m-plane SiC. Applied Physics Letters, 2008, 92, 051112.	3.3	30
21	Room-temperature operation of c-plane GaN vertical cavity surface emitting laser on conductive nanoporous distributed Bragg reflector. Applied Physics Letters, 2020, 117, .	3.3	30
22	Single Crystal Gallium Nitride Nanomembrane Photoconductor and Field Effect Transistor. Advanced Functional Materials, 2014, 24, 6503-6508.	14.9	28
23	Heterogeneously integrated flexible microwave amplifiers on a cellulose nanofibril substrate. Nature Communications, 2020, 11, 3118.	12.8	26
24	High-Uniform and High-Efficient Color Conversion Nanoporous GaN-Based Micro-LED Display with Embedded Quantum Dots. Nanomaterials, 2021, 11, 2696.	4.1	26
25	Coherent generation of 100 GHz acoustic phonons by dynamic screening of piezoelectric fields in AlGaN/GaN multilayers. Applied Physics Letters, 2002, 81, 2791-2793.	3.3	23
26	Semipolar (202Ì…1Ì…) GaN and InGaN Light-Emitting Diodes Grown on Sapphire. ACS Applied Materials & Interfaces, 2017, 9, 14088-14092.	8.0	23
27	Selective area regrowth and doping for vertical gallium nitride power devices: Materials challenges and recent progress. Materials Today, 2021, 49, 296-323.	14.2	21
28	Strain Balanced AlGaN/GaN/AlGaN nanomembrane HEMTs. Scientific Reports, 2017, 7, 6360.	3.3	20
29	Study and Application of Birefringent Nanoporous GaN in the Polarization Control of Blue Vertical-Cavity Surface-Emitting Lasers. ACS Photonics, 2021, 8, 1041-1047.	6.6	18
30	Spectroscopic Sorting of Aerosols by a Compact Sensor Employing UV LEDs. Aerosol Science and Technology, 2006, 40, 1047-1051.	3.1	17
31	Complete orientational access for semipolar GaN devices on sapphire. Physica Status Solidi (B): Basic Research, 2016, 253, 23-35.	1.5	17
32	Thermal transport of nanoporous gallium nitride for photonic applications. Journal of Applied Physics, 2019, 125, .	2.5	17
33	Surface and interface states of gallium-polar versus nitrogen-polar GaN: Impact of thin organic semiconductor overlayers. Journal of Applied Physics, 2010, 107, .	2.5	16
34	Anisotropic strain relaxation and the resulting degree of polarization by one- and two-step growth in nonpolar a-plane GaN grown on r-sapphire substrate. Journal of Applied Physics, 2013, 114, .	2.5	15
35	Deep-UV Porous AlGaN Distributed Bragg Reflectors for Deep Ultraviolet Light-Emitting Diodes and Laser Diodes. ACS Applied Nano Materials, 2020, 3, 399-402.	5.0	15
36	Nitrogen-Polar (000 1 Â¯) GaN Grown on c-Plane Sapphire with a High-Temperature AlN Buffer. Materials, 2017, 10, 252.	2.9	14

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37	Photon-Recycling in Ultraviolet GaN-Based Photodiodes with Porous AlGaN Distributed Bragg Reflectors. ACS Applied Nano Materials, 2019, 2, 5044-5048.	5.0	12
38	65â€2: Invited Paper: Enabling Technology for MicroLED Display Based on Quantum Dot Color Converter. Digest of Technical Papers SID International Symposium, 2019, 50, 914-916.	0.3	12
39	Electrochemically sliced low loss AlGaN optical microresonators. Applied Physics Letters, 2017, 110, .	3.3	11
40	A resonantâ€cavity blueâ€“violet lightâ€emitting diode with conductive nanoporous distributed Bragg reflector. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600866.	1.8	10
41	Epitaxial growth of aligned GaN nanowires and nanobridges. Physica Status Solidi (B): Basic Research, 2007, 244, 1810-1814.	1.5	9
42	In situ and selective area etching of GaN by tertiarybutylchloride (TBCl). Applied Physics Letters, 2019, 115, .	3.3	9
43	A study of damage-free in-situ etching of GaN in metalorganic chemical vapor deposition (MOCVD) by tertiarybutylchloride (TBCl). Journal of Crystal Growth, 2020, 534, 125492.	1.5	9
44	Nitride-organic semiconductor hybrid heterostructures for optoelectronic devices. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 2411-2414.	0.8	8
45	Selective Area Regrowth Produces Nonuniform Mg Doping Profiles in Nonplanar GaN pâ€“n Junctions. ACS Applied Electronic Materials, 2021, 3, 704-710.	4.3	8
46	Nitride-organic hybrid heterostructures for possible novel optoelectronic devices: charge injection and transport. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 593-595.	0.8	7
47	Characterization of semi-polar (20$$overline{2}$$1) InGaN microLEDs. Scientific Reports, 2020, 10, 15966.	3.3	7
48	Anisotropic properties of pipe-GaN distributed Bragg reflectors. Nanoscale Advances, 2020, 2, 1726-1732.	4.6	7
49	Monolithic RGB Micro-Light-Emitting Diodes Fabricated with Quantum Dots Embedded inside Nanoporous GaN. ACS Applied Electronic Materials, 2021, 3, 4877-4881.	4.3	7
50	Single Crystalline GaN Tiles Grown on Si (111) Substrates by Confined Lateral Guided Growth to Eliminate Wafer Bowing. Advanced Materials Interfaces, 2015, 2, 1500014.	3.7	6
51	High Quality, Massâ€Producible Semipolar GaN and InGaN Lightâ€Emitting Diodes Grown on Sapphire. Physica Status Solidi (B): Basic Research, 2020, 257, 1900565.	1.5	6
52	InGaN Resonant Microcavity With n⁺-Porous-GaN/p⁺-GaN Tunneling Junction. IEEE Electron Device Letters, 2021, 42, 1631-1633.	3.9	6
53	Effects of Thickness of a Low-Temperature Buffer and Impurity Incorporation on the Characteristics of Nitrogen-polar GaN. Nanoscale Research Letters, 2016, 11, 509.	5.7	5
54	Bendable InGaN Light-Emitting Nanomembranes with Tunable Emission Wavelength. ACS Applied Materials & Interfaces, 2018, 10, 37725-37731.	8.0	4

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55	A wavelength engineered emitter incorporating CdSe-based colloidal quantum dots into nanoporous InGaN/GaN multiple quantum well matrix. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2337-2339.	0.8	3
56	Etched-And-Regrown GaN Pâ€“N Diodes with Low-Defect Interfaces Prepared by In Situ TBCl Etching. ACS Applied Materials & Interfaces, 2021, 13, 53220-53226.	8.0	3
57	Polarization Properties of InGaN Vertical-Cavity Surface-Emitting Laser With Pipe Distributed Bragg Reflector. IEEE Transactions on Electron Devices, 2022, 69, 201-204.	3.0	3
58	Gallium Nitride LEDs Incorporating Organic Semiconductor Heterojunctions. , 2007, , .		1
59	Complete orientational access for semipolar GaN devices on sapphire (Phys. Status Solidi B 1/2016). Physica Status Solidi (B): Basic Research, 2016, 253, 188-188.	1.5	1
60	Pre-diagnosis of Failure Spots in Orange AlInGaP Light-Emitting Diodes Soaked in Liquid Nitrogen Using Machine Vision and Multiple Optical, Electrical, and Material Characterizations. IEEE Transactions on Electron Devices, 2022, 69, 4386-4391.	3.0	1
61	Toward III-N Î»-cavity vertical emitters: heteroepitaxy of GaN and AlN. , 0, , .		0
62	Gallium nitride-organic semiconductor heterojunctions for optoelectronic devices. , 2006, , .		0
63	Sublimation Growth and Defect Characterization of AlN Single Crystals. Materials Research Society Symposia Proceedings, 2007, 1040, 1.	0.1	0
64	Nitride/organic hybrid heterostructures for photodetector devices. , 2008, , .		0
65	Semiconductors: Evolutionary Selection Growth: Towards Templateâ€Insensitive Preparation of Singleâ€Crystal Layers (Adv. Mater. 9/2013). Advanced Materials, 2013, 25, 1226-1226.	21.0	0
66	Using the Evolutionary Selection Principle in Selective Area Growth to Achieve Single-Crystalline GaN on SiO₂. International Journal of High Speed Electronics and Systems, 2014, 23, 1450003.	0.7	0
67	Nanomembranes: Single Crystal Gallium Nitride Nanomembrane Photoconductor and Field Effect Transistor (Adv. Funct. Mater. 41/2014). Advanced Functional Materials, 2014, 24, 6564-6564.	14.9	0
68	Use of electrochemistry in mini-/micro-LEDs and VCSELs. , 2022, , .		0