

# Jung Han

## List of Publications by Year in descending order

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68  
papers

2,602  
citations

257450

24  
h-index

189892

50  
g-index

69  
all docs

69  
docs citations

69  
times ranked

2615  
citing authors

#	ARTICLE	IF	CITATIONS
1	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
2	Use of electrochemistry in mini-/micro-LEDs and VCSELs. , 2022, , .		0
3	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
4	Selective Area Regrowth Produces Nonuniform Mg Doping Profiles in Nonplanar GaN n Junctions. ACS Applied Electronic Materials, 2021, 3, 704-710.	4.3	8
5	Micro-Light Emitting Diode: From Chips to Applications. Laser and Photonics Reviews, 2021, 15, 2000133.	8.7	108
6	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
7	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
8	InGaN Resonant Microcavity With n <sup>+</sup> -Porous-GaN/p <sup>+</sup> -GaN Tunneling Junction. IEEE Electron Device Letters, 2021, 42, 1631-1633.	3.9	6
9	High-Uniform and High-Efficient Color Conversion Nanoporous GaN-Based Micro-LED Display with Embedded Quantum Dots. Nanomaterials, 2021, 11, 2696.	4.1	26
10	Etched-And-Regrown GaN n Diodes with Low-Defect Interfaces Prepared by In Situ TBCl Etching. ACS Applied Materials & Interfaces, 2021, 13, 53220-53226.	8.0	3
11	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
12	Deep-UV Porous AlGaIn Distributed Bragg Reflectors for Deep Ultraviolet Light-Emitting Diodes and Laser Diodes. ACS Applied Nano Materials, 2020, 3, 399-402.	5.0	15
13	High Quality, Mass-Produced Semipolar GaN and InGaN Light-Emitting Diodes Grown on Sapphire. Physica Status Solidi (B): Basic Research, 2020, 257, 1900565.	1.5	6
14	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
15	Characterization of semi-polar (20 $\overline{2}$ ) InGaIn microLEDs. Scientific Reports, 2020, 10, 15966.	3.3	7
16	Anisotropic properties of pipe-GaN distributed Bragg reflectors. Nanoscale Advances, 2020, 2, 1726-1732.	4.6	7
17	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
18	Heterogeneously integrated flexible microwave amplifiers on a cellulose nanofibril substrate. Nature Communications, 2020, 11, 3118.	12.8	26

#	ARTICLE	IF	CITATIONS
19	High-Bandwidth Green Semipolar (20 <sup>th</sup> –21 <sup>st</sup> ) InGa <sub>N</sub> /Ga <sub>N</sub> Micro Light-Emitting Diodes for Visible Light Communication. ACS Photonics, 2020, 7, 2228-2235.	6.6	99
20	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
21	Photon-Recycling in Ultraviolet GaN-Based Photodiodes with Porous AlGa <sub>N</sub> Distributed Bragg Reflectors. ACS Applied Nano Materials, 2019, 2, 5044-5048.	5.0	12
22	<i>In situ</i> and selective area etching of GaN by tertiarybutylchloride (TBCl). Applied Physics Letters, 2019, 115, .	3.3	9
23	65 <sup>th</sup> : <i>Invited Paper:</i> 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
24	Thermal transport of nanoporous gallium nitride for photonic applications. Journal of Applied Physics, 2019, 125, .	2.5	17
25	Distributed Bragg Reflectors for GaN-Based Vertical-Cavity Surface-Emitting Lasers. Applied Sciences (Switzerland), 2019, 9, 1593.	2.5	50
26	The emergence and prospects of deep-ultraviolet light-emitting diode technologies. Nature Photonics, 2019, 13, 233-244.	31.4	800
27	Bendable InGa <sub>N</sub> Light-Emitting Nanomembranes with Tunable Emission Wavelength. ACS Applied Materials & Interfaces, 2018, 10, 37725-37731.	8.0	4
28	Electrochemically sliced low loss AlGa <sub>N</sub> optical microresonators. Applied Physics Letters, 2017, 110, .	3.3	11
29	High-Q, Low-Threshold Monolithic Perovskite Thin-Film Vertical-Cavity Lasers. Advanced Materials, 2017, 29, 1604781.	21.0	112
30	A resonant-cavity blue-violet light-emitting diode with conductive nanoporous distributed Bragg reflector. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600866.	1.8	10
31	Semipolar (20 <sup>th</sup> –21 <sup>st</sup> ) Ga <sub>N</sub> and InGa <sub>N</sub> Light-Emitting Diodes Grown on Sapphire. ACS Applied Materials & Interfaces, 2017, 9, 14088-14092.	8.0	23
32	Strain Balanced AlGa <sub>N</sub> /Ga <sub>N</sub> /AlGa <sub>N</sub> nanomembrane HEMTs. Scientific Reports, 2017, 7, 6360.	3.3	20
33	Nitrogen-Polar (0001) Ga <sub>N</sub> Grown on c-Plane Sapphire with a High-Temperature AlN Buffer. Materials, 2017, 10, 252.	2.9	14
34	Effects of Thickness of a Low-Temperature Buffer and Impurity Incorporation on the Characteristics of Nitrogen-polar Ga <sub>N</sub> . Nanoscale Research Letters, 2016, 11, 509.	5.7	5
35	Complete orientational access for semipolar Ga <sub>N</sub> devices on sapphire (Phys. Status Solidi B 1/2016). Physica Status Solidi (B): Basic Research, 2016, 253, 188-188.	1.5	1
36	Optical Engineering of Modal Gain in a III-Nitride Laser with Nanoporous Ga <sub>N</sub> . ACS Photonics, 2016, 3, 1604-1610.	6.6	33

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37	Complete orientational access for semipolar GaN devices on sapphire. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 23-35.	1.5	17
38	Broadband nanophotonic waveguides and resonators based on epitaxial GaN thin films. <i>Applied Physics Letters</i> , 2015, 107, .	3.3	44
39	Mesoporous GaN for Photonic Engineering—Highly Reflective GaN Mirrors as an Example. <i>ACS Photonics</i> , 2015, 2, 980-986.	6.6	129
40	Single Crystalline GaN Tiles Grown on Si (111) Substrates by Confined Lateral Guided Growth to Eliminate Wafer Bowing. <i>Advanced Materials Interfaces</i> , 2015, 2, 1500014.	3.7	6
41	Using the Evolutionary Selection Principle in Selective Area Growth to Achieve Single-Crystalline GaN on SiO <sub>2</sub> . <i>International Journal of High Speed Electronics and Systems</i> , 2014, 23, 1450003.	0.7	0
42	Nanomembranes: Single Crystal Gallium Nitride Nanomembrane Photoconductor and Field Effect Transistor (Adv. Funct. Mater. 41/2014). <i>Advanced Functional Materials</i> , 2014, 24, 6564-6564.	14.9	0
43	Strain relaxation and dislocation reduction in AlGaIn step-graded buffer for crack-free GaN on Si (111). <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2014, 11, 437-441.	0.8	56
44	Single Crystal Gallium Nitride Nanomembrane Photoconductor and Field Effect Transistor. <i>Advanced Functional Materials</i> , 2014, 24, 6503-6508.	14.9	28
45	Multi-color broadband visible light source via GaN hexagonal annular structure. <i>Scientific Reports</i> , 2014, 4, 5514.	3.3	46
46	Semiconductors: Evolutionary Selection Growth: Towards Template-Insensitive Preparation of Single-Crystal Layers (Adv. Mater. 9/2013). <i>Advanced Materials</i> , 2013, 25, 1226-1226.	21.0	0
47	Anisotropic strain relaxation and the resulting degree of polarization by one- and two-step growth in nonpolar <i>a</i> -plane GaN grown on <i>r</i> -sapphire substrate. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	15
48	Nanopores in GaN by electrochemical anodization in hydrofluoric acid: Formation and mechanism. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	100
49	A Wafer-Level Integrated White-Light-Emitting Diode Incorporating Colloidal Quantum Dots as a Nanocomposite Luminescent Material. <i>Advanced Materials</i> , 2012, 24, 5915-5918.	21.0	34
50	High reflectance membrane-based distributed Bragg reflectors for GaN photonics. <i>Applied Physics Letters</i> , 2012, 101, .	3.3	52
51	Understanding and controlling heteroepitaxy with the kinetic Wulff plot: A case study with GaN. <i>Journal of Applied Physics</i> , 2011, 110, .	2.5	85
52	A wavelength engineered emitter incorporating CdSe-based colloidal quantum dots into nanoporous InGaIn/GaN multiple quantum well matrix. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 2337-2339.	0.8	3
53	A conductivity-based selective etching for next generation GaN devices. <i>Physica Status Solidi (B): Basic Research</i> , 2010, 247, 1713-1716.	1.5	84
54	Surface and interface states of gallium-polar versus nitrogen-polar GaN: Impact of thin organic semiconductor overlayers. <i>Journal of Applied Physics</i> , 2010, 107, .	2.5	16

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55	Effect of Controlled Growth Dynamics on the Microstructure of Nonpolar-Plane GaN Revealed by X-ray Diffraction. Japanese Journal of Applied Physics, 2009, 48, 071002.	1.5	37
56	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
57	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
58	Microstructural evolution in m-plane GaN growth on m-plane SiC. Applied Physics Letters, 2008, 92, 051112.	3.3	30
59	Understanding nonpolar GaN growth through kinetic Wulff plots. Journal of Applied Physics, 2008, 104, .	2.5	98
60	Nitride/organic hybrid heterostructures for photodetector devices. , 2008, , .		0
61	Gallium Nitride LEDs Incorporating Organic Semiconductor Heterojunctions. , 2007, , .		1
62	Sublimation Growth and Defect Characterization of AlN Single Crystals. Materials Research Society Symposia Proceedings, 2007, 1040, 1.	0.1	0
63	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
64	Epitaxial growth of aligned GaN nanowires and nanobridges. Physica Status Solidi (B): Basic Research, 2007, 244, 1810-1814.	1.5	9
65	Spectroscopic Sorting of Aerosols by a Compact Sensor Employing UV LEDs. Aerosol Science and Technology, 2006, 40, 1047-1051.	3.1	17
66	Gallium nitride-organic semiconductor heterojunctions for optoelectronic devices. , 2006, , .		0
67	Coherent generation of 100 GHz acoustic phonons by dynamic screening of piezoelectric fields in AlGaIn/GaN multilayers. Applied Physics Letters, 2002, 81, 2791-2793.	3.3	23
68	Toward III-N $\lambda$ -cavity vertical emitters: heteroepitaxy of GaN and AlN. , 0, , .		0