

# Dun-Jun Chen

## List of Publications by Year in descending order

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114  
papers

1,990  
citations

279798

23  
h-index

315739

38  
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116  
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116  
docs citations

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#	ARTICLE	IF	CITATIONS
1	1.2 kV/25 A Normally off P-N Junction/AlGaIn/GaN HEMTs With Nanosecond Switching Characteristics and Robust Overvoltage Capability. IEEE Transactions on Power Electronics, 2022, 37, 26-30.	7.9	18
2	Over 1200 V Normally-OFF p-NiO Gated AlGaIn/GaN HEMTs on Si With a Small Threshold Voltage Shift. IEEE Electron Device Letters, 2022, 43, 268-271.	3.9	9
3	Tunable tunneling magnetoresistance in in-plane double barrier magnetic tunnel junctions based on B vacancy h-NB nanoribbons. Physical Chemistry Chemical Physics, 2022, 24, 3451-3459.	2.8	2
4	Highly responsive and selective ppb-level NO <sub>2</sub> gas sensor based on porous Pd-functionalized CuO/rGO at room temperature. Journal of Materials Chemistry C, 2022, 10, 3756-3769.	5.5	27
5	Achieving Record High External Quantum Efficiency >86.7% in Solar-blind Photoelectrochemical Photodetection. Advanced Functional Materials, 2022, 32, .	14.9	23
6	The Sensing Mechanism of InAlN/GaN HEMT. Crystals, 2022, 12, 401.	2.2	1
7	3-D Simulation Study of a Normally-OFF GaN Lateral Multi-Channel JFET With Optimized Electrical Field Transfer Terminal Structure. IEEE Transactions on Electron Devices, 2022, 69, 1918-1923.	3.0	1
8	Normally-off GaN HEMTs with InGaIn p-gate cap layer formed by polarization doping. Applied Physics Express, 2022, 15, 016502.	2.4	5
9	4H-SiC n-i-p Extreme Ultraviolet Detector With Gradient Doping-Induced Surface Junction. IEEE Electron Device Letters, 2022, 43, 906-909.	3.9	2
10	High-Responsivity and Fast-Response Ultraviolet Phototransistors Based on Enhanced p-GaN/AlGaIn/GaN HEMTs. ACS Photonics, 2022, 9, 2040-2045.	6.6	14
11	Step-flow growth of Al droplet free AlN epilayers grown by plasma assisted molecular beam epitaxy. Journal Physics D: Applied Physics, 2022, 55, 364002.	2.8	6
12	Self-Assembly Nanopillar/Superlattice Hierarchical Structure: Boosting AlGaIn Crystalline Quality and Achieving High-Performance Ultraviolet Avalanche Photodetector. ACS Applied Materials & Interfaces, 2022, 14, 33525-33537.	8.0	4
13	Evaluation on Temperature-Dependent Transient VT Instability in p-GaN Gate HEMTs under Negative Gate Stress by Fast Sweeping Characterization. Micromachines, 2022, 13, 1096.	2.9	6
14	3.4-kV AlGaIn/GaN Schottky Barrier Diode on Silicon Substrate With Engineered Anode Structure. IEEE Electron Device Letters, 2021, 42, 208-211.	3.9	20
15	High-performance normally off p-GaN gate high-electron-mobility transistor with In <sub>0.17</sub> Al <sub>0.83</sub> N barrier layer design. Optical and Quantum Electronics, 2021, 53, 1.	3.3	7
16	High Performance Wide Angle DBR Design for Optoelectronic Devices. IEEE Photonics Journal, 2021, 13, 1-6.	2.0	6
17	High sensitivity x-ray detectors based on 4H-SiC p-i-n structure with 80 μm thick intrinsic layer. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2021, 39, .	1.2	1
18	Investigations of Sidewall Passivation Technology on the Optical Performance for Smaller Size GaN-Based Micro-LEDs. Crystals, 2021, 11, 403.	2.2	19

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19	Enhanced Stability and Sensitivity of AlGaIn/GaN-HEMTs pH Sensor by Reference Device. IEEE Sensors Journal, 2021, 21, 9771-9776.	4.7	5
20	Highly solar-blind ultraviolet selective metal-semiconductor-metal photodetector based on back-illuminated AlGaIn heterostructure with integrated photonic crystal filter. Applied Physics Letters, 2021, 118, .	3.3	8
21	Progress on AlGaIn-based solar-blind ultraviolet photodetectors and focal plane arrays. Light: Science and Applications, 2021, 10, 94.	16.6	193
22	High Performance Quasi-Vertical GaN Junction Barrier Schottky Diode with Zero Reverse Recovery and Rugged Avalanche Capability. , 2021, , .		6
23	A High Quantum Efficiency Narrow-Band UV-B AlGaIn p-i-n Photodiode With Polarization Assistance. IEEE Photonics Journal, 2021, 13, 1-8.	2.0	5
24	An improved design for e-mode AlGaIn/GaN HEMT with gate stack $\text{In}^{2-}\text{Ga}_2\text{O}_3/\text{p-GaN}$ structure. Journal of Applied Physics, 2021, 130, .	2.5	12
25	High-Voltage Quasi-Vertical GaN Junction Barrier Schottky Diode With Fast Switching Characteristics. IEEE Electron Device Letters, 2021, 42, 974-977.	3.9	29
26	46.4: Fabrication of InGaIn/GaN-based nano-LEDs for display applications. Digest of Technical Papers SID International Symposium, 2021, 52, 568-568.	0.3	0
27	$\langle i \rangle V \langle /i \rangle \langle sub \rangle T \langle /sub \rangle$ Shift and Recovery Mechanisms of p-GaN Gate HEMTs Under DC/AC Gate Stress Investigated by Fast Sweeping Characterization. IEEE Electron Device Letters, 2021, 42, 1508-1511.	3.9	17
28	Demonstration of Avalanche and Surge Current Robustness in GaN Junction Barrier Schottky Diode With 600-V/10-A Switching Capability. IEEE Transactions on Power Electronics, 2021, 36, 12163-12167.	7.9	19
29	NiO/AlGaIn interface reconstruction and transport manipulation of p-NiO gated AlGaIn/GaN HEMTs. Applied Physics Reviews, 2021, 8, .	11.3	9
30	Low-Voltage p-i-n GaN-Based Alpha-Particle Detector With High Energy Resolution. IEEE Electron Device Letters, 2021, 42, 1755-1758.	3.9	3
31	1000-W Resistive Energy Dissipating Capability Against Inductive Transients Demonstrated in Non-Avalanche AlGaIn/GaN Schottky Diode. IEEE Electron Device Letters, 2021, 42, 1743-1746.	3.9	4
32	Hybrid Light Emitters and UV Solar-Blind Avalanche Photodiodes based on III-Nitride Semiconductors. Advanced Materials, 2020, 32, e1904354.	21.0	34
33	Synthesis and Properties of InGaIn/GaN Multiple Quantum Well Nanowires on Si (111) by Molecular Beam Epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900729.	1.8	4
34	Electronic properties of arsenene nanoribbons for FET application. Optical and Quantum Electronics, 2020, 52, 1.	3.3	3
35	High- $\epsilon_r$ HfO <sub>2</sub> -Based AlGaIn/GaN MIS-HEMTs With Y <sub>2</sub> O <sub>3</sub> Interfacial Layer for High Gate Controllability and Interface Quality. IEEE Journal of the Electron Devices Society, 2020, 8, 15-19.	2.1	19
36	Electron-Beam-Driven III-Nitride Plasmonic Nanolasers in the Deep-UV and Visible Region. Small, 2020, 16, 1906205.	10.0	10

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37	Different $I-V$ Behaviors and Leakage Current Mechanisms in AlGaIn Solar-Blind Ultraviolet Avalanche Photodiodes. ACS Applied Electronic Materials, 2020, 2, 2716-2720.	4.3	3
38	Direct observation of reach-through behavior in back-illuminated AlGaIn avalanche photodiode with separate absorption and multiplication structure. Journal Physics D: Applied Physics, 2020, 53, 425101.	2.8	3
39	Synthesis and Properties of InGaIn/GaN Multiple Quantum Well Nanowires on Si (111) by Molecular Beam Epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 2070028.	1.8	0
40	$\text{In}_x\text{Ga}_{1-x}\text{O}_3$ : A Promising Candidate for High-Electron-Mobility Transistors. IEEE Electron Device Letters, 2020, , 1-1.	3.9	15
41	High-Performance 4H-SiC Schottky Photodiode With Semitransparent Grid-Electrode for EUV Detection. IEEE Photonics Technology Letters, 2020, 32, 791-794.	2.5	10
42	After-Pulse Characterizations of Geiger-Mode 4H-SiC Avalanche Photodiodes. IEEE Photonics Technology Letters, 2020, 32, 706-709.	2.5	5
43	Realization of regular resonance mode in GaN-based polygonal microdisks on Si. Journal of Applied Physics, 2020, 127, 113102.	2.5	3
44	High-Responsivity Graphene/4H-SiC Ultraviolet Photodetector Based on a Planar Junction Formed by the Dual Modulation of Electric and Light Fields. Advanced Optical Materials, 2020, 8, 2000559.	7.3	19
45	Do all screw dislocations cause leakage in GaN-based devices?. Applied Physics Letters, 2020, 116, .	3.3	38
46	Highly Enhanced Inductive Current Sustaining Capability and Avalanche Ruggedness in GaN p-i-n Diodes With Shallow Bevel Termination. IEEE Electron Device Letters, 2020, 41, 469-472.	3.9	16
47	1.4-kV Quasi-Vertical GaN Schottky Barrier Diode With Reverse $p-n$ Junction Termination. IEEE Journal of the Electron Devices Society, 2020, 8, 316-320.	2.1	20
48	Multi-aperture anode based AlGaIn/GaN Schottky barrier diodes with low turn-on voltage and high uniformity. Applied Physics Express, 2020, 13, 096502.	2.4	7
49	A High-Performance $\text{SiO}_2/\text{SiN}_x$ 1-D Photonic Crystal UV Filter Used for Solar-Blind Photodetectors. IEEE Photonics Journal, 2019, 11, 1-7.	2.0	3
50	Precise Extraction of Dynamic $R_{\text{dson}}$ Under High Frequency and High Voltage by a Double-Diode-Isolation Method. IEEE Journal of the Electron Devices Society, 2019, 7, 690-695.	2.1	10
51	Janus $\text{Ga}_2\text{SeTe}$ : A Promising Candidate for Highly Efficient Solar Cells. Solar Rrl, 2019, 3, 1900321.	5.8	13
52	Effect of Very High-Fluence Proton Radiation on 6H-SiC Photoconductive Proton Detectors. IEEE Electron Device Letters, 2019, 40, 1929-1932.	3.9	10
53	Nanoplasmonically Enhanced High-Performance Metastable Phase $\text{In}_x\text{Ga}_{1-x}\text{O}_3$ Solar-Blind Photodetectors. ACS Applied Materials & Interfaces, 2019, 11, 40283-40289.	8.0	31
54	Gate Reliability of p-GaN Gate AlGaIn/GaN High Electron Mobility Transistors. IEEE Electron Device Letters, 2019, 40, 379-382.	3.9	21

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55	Performance Modulation for Back-Illuminated AlGaIn Ultraviolet Avalanche Photodiodes Based on Multiplication Scaling. <i>IEEE Photonics Journal</i> , 2019, 11, 1-7.	2.0	10
56	Performance of Monolayer Blue Phosphorene Double-Gate MOSFETs from the First Principles. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 20956-20964.	8.0	39
57	Investigation on the Activation Energy of Device Degradation and Switching Time in AlGaIn/GaN HEMTs for High-Frequency Application. <i>IEEE Journal of the Electron Devices Society</i> , 2019, 7, 417-424.	2.1	5
58	Spatial Non-Uniform Hot Carrier Luminescence From 4H-SiC p-i-n Avalanche Photodiodes. <i>IEEE Photonics Technology Letters</i> , 2019, 31, 447-450.	2.5	6
59	Observation and Modeling of Leakage Current in AlGaIn Ultraviolet Light Emitting Diodes. <i>IEEE Photonics Technology Letters</i> , 2019, 31, 1697-1700.	2.5	4
60	Effects of dissipative substrate on the performances of enhancement mode AlInN/GaN HEMTs. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2019, 32, e2482.	1.9	4
61	Magnesium ion-implantation-based gallium nitride p-i-n photodiode for visible-blind ultraviolet detection. <i>Photonics Research</i> , 2019, 7, B48.	7.0	36
62	Vertical 4H-SiC n-i-p-n APDs With Partial Trench Isolation. <i>IEEE Photonics Technology Letters</i> , 2018, 30, 805-808.	2.5	9
63	A Reusable and High Sensitivity Nitrogen Dioxide Sensor Based on Monolayer SnSe. <i>IEEE Electron Device Letters</i> , 2018, 39, 599-602.	3.9	43
64	Improvement of Power Performance of GaN HEMT by Using Quaternary InAlGaIn Barrier. <i>IEEE Journal of the Electron Devices Society</i> , 2018, 6, 360-364.	2.1	26
65	Effective suppression of the high temperature DC performance degradation of AlInN/GaN HEMTs by back barrier. <i>International Journal of Numerical Modelling: Electronic Networks, Devices and Fields</i> , 2018, 31, e2299.	1.9	1
66	Effects of the Trap Level in the Unintentionally Doped GaN Buffer Layer on Optimized AlGaIn Gate AlGaIn/GaN HEMTs. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700368.	1.8	5
67	Avalanche Ruggedness of GaN p-i-n Diodes Grown on Sapphire Substrate. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1800069.	1.8	7
68	Temperature Dependence of the Energy Band Diagram of AlGaIn/GaN Heterostructure. <i>Advances in Condensed Matter Physics</i> , 2018, 2018, 1-4.	1.1	3
69	High Sensitive pH Sensor Based on AlInN/GaN Heterostructure Transistor. <i>Sensors</i> , 2018, 18, 1314.	3.8	13
70	Fine Control of the Electric Field Distribution in the Heterostructure Multiplication Region of AlGaIn Avalanche Photodiodes. <i>IEEE Photonics Journal</i> , 2017, 9, 1-7.	2.0	8
71	4H-SiC Ultraviolet Avalanche Photodiodes With Small Gain Slope and Enhanced Fill Factor. <i>IEEE Photonics Journal</i> , 2017, 9, 1-8.	2.0	8
72	Lasers: Manipulable and Hybridized, Ultralow-Threshold Lasing in a Plasmonic Laser Using Elliptical InGaIn/GaN Nanorods ( <i>Adv. Funct. Mater.</i> 37/2017). <i>Advanced Functional Materials</i> , 2017, 27, .	14.9	0

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73	An Improved Design for Solar-Blind AlGaIn Avalanche Photodiodes. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	13
74	Manipulable and Hybridized, Ultralow-Threshold Lasing in a Plasmonic Laser Using Elliptical InGaIn/GaN Nanorods. Advanced Functional Materials, 2017, 27, 1703198.	14.9	23
75	Photoluminescence Study of the Photoinduced Phase Separation in Mixed-Halide Hybrid Perovskite CH <sub>3</sub> NH <sub>3</sub> Pb(BrxI <sup>1-x</sup> ) <sub>3</sub> Crystals Synthesized via a Solvothermal Method. Scientific Reports, 2017, 7, 17695.	3.3	18
76	Single Photon Counting Spatial Uniformity of 4H-SiC APD Characterized by SNOM-Based Mapping System. IEEE Photonics Technology Letters, 2017, 29, 1603-1606.	2.5	10
77	4H-SiC Avalanche Photodiode Linear Array Operating in Geiger Mode. IEEE Photonics Journal, 2017, 9, 1-7.	2.0	13
78	Analysis of Dark Count Mechanisms of 4H-SiC Ultraviolet Avalanche Photodiodes Working in Geiger Mode. IEEE Transactions on Electron Devices, 2017, 64, 4532-4539.	3.0	16
79	A method of applying compressive pre-stress to AlGaIn barrier in AlGaIn/GaN heterostructures by depositing an additional thermally mismatched dielectric. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2474-2478.	1.8	2
80	Enhanced InGaIn/GaN photoelectrodes for visible-light-driven hydrogen generation by surface roughening. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2704-2708.	1.8	1
81	Improved Schottky contacts to InGaIn alloys by a photoelectrochemical treatment. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1034-1038.	1.8	0
82	High-voltage photoconductive semiconductor switches fabricated on semi-insulating HVPE GaN:Fe template. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 374-377.	0.8	7
83	High-Quality Crystal Growth and Characteristics of AlGaIn-Based Solar-Blind Distributed Bragg Reflectors with a Tri-layer Period Structure. Scientific Reports, 2016, 6, 29571.	3.3	8
84	Highly selective and sensitive phosphate anion sensors based on AlGaIn/GaN high electron mobility transistors functionalized by ion imprinted polymer. Scientific Reports, 2016, 6, 27728.	3.3	43
85	High Color Rendering Index Hybrid InN/Nanocrystals White Light-Emitting Diodes. Advanced Functional Materials, 2016, 26, 36-43.	14.9	58
86	4H-SiC SACM Avalanche Photodiode With Low Breakdown Voltage and High UV Detection Efficiency. IEEE Photonics Journal, 2016, 8, 1-7.	2.0	15
87	High Fill-Factor 4H-SiC Avalanche Photodiodes With Partial Trench Isolation. IEEE Photonics Technology Letters, 2016, 28, 2526-2528.	2.5	16
88	High-Performance 4H-SiC p-i-n Ultraviolet Photodiode With p Layer Formed by Al Implantation. IEEE Photonics Technology Letters, 2016, 28, 1189-1192.	2.5	16
89	Light-Emitting Diodes: High Color Rendering Index Hybrid InN/Nanocrystals White Light-Emitting Diodes (Adv. Funct. Mater. 1/2016). Advanced Functional Materials, 2016, 26, 156-156.	14.9	0
90	Significant improvements in InGaIn/GaN nano-photoelectrodes for hydrogen generation by structure and polarization optimization. Scientific Reports, 2016, 6, 20218.	3.3	27

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91	Utilization of FIB Technique in TEM Specimen Preparation of GaN-based Devices for Dislocation Investigation. <i>Microscopy and Microanalysis</i> , 2015, 21, 1991-1992.	0.4	0
92	Determination of Temperature-Dependent Stress State in Thin AlGaIn Layer of AlGaIn/GaN HEMT Heterostructures by Near-Resonant Raman Scattering. <i>Advances in Condensed Matter Physics</i> , 2015, 2015, 1-6.	1.1	0
93	Demonstration of an AlGaIn-based solar-blind high-voltage photoconductive switch. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, 040601.	1.2	9
94	High-temperature and reliability performance of 4H-SiC Schottky-barrier photodiodes for UV detection. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2015, 33, .	1.2	14
95	Large-Swing a-IGZO Inverter With a Depletion Load Induced by Laser Annealing. <i>IEEE Electron Device Letters</i> , 2014, 35, 1034-1036.	3.9	30
96	High-Temperature Single Photon Detection Performance of 4H-SiC Avalanche Photodiodes. <i>IEEE Photonics Technology Letters</i> , 2014, 26, 1136-1138.	2.5	53
97	Reverse leakage current in AlGaIn-based ultraviolet light-emitting diodes. <i>Science Bulletin</i> , 2014, 59, 1276-1279.	1.7	6
98	Significant Performance Improvement in AlGaIn Solar-Blind Avalanche Photodiodes by Exploiting the Built-In Polarization Electric Field. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2014, 20, 187-192.	2.9	30
99	Spatially localised luminescence emission properties induced by formation of ring-shaped quasi-potential trap around V-pits in InGaIn epi-layers. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2823-2827.	1.8	11
100	Enhanced bias stress stability of a-InGaZnO thin film transistors by inserting an ultra-thin interfacial InGaZnO:N layer. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	57
101	High Quantum Efficiency GaN-Based p-i-n Ultraviolet Photodetectors Prepared on Patterned Sapphire Substrates. <i>IEEE Photonics Technology Letters</i> , 2013, 25, 652-654.	2.5	45
102	Characteristics of polarization-doped N-face III-nitride light-emitting diodes. <i>Applied Physics Letters</i> , 2012, 100, 073507.	3.3	20
103	Improvements in Microstructure and Leakage Current of High-In-Content InGaIn p-i-n Structure by Annealing. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 1478-1480.	2.5	3
104	Ultra-Low Dark Current AlGaIn-Based Solar-Blind Metal-Semiconductor-Metal Photodetectors for High-Temperature Applications. <i>IEEE Sensors Journal</i> , 2012, 12, 2086-2090.	4.7	75
105	Bias-Selective Dual-Operation-Mode Ultraviolet Schottky-Barrier Photodetectors Fabricated on High-Resistivity Homoepitaxial GaN. <i>IEEE Photonics Technology Letters</i> , 2012, 24, 2203-2205.	2.5	7
106	GaN MSM photodetectors fabricated on bulk GaN with low dark current and high UV/visible rejection ratio. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2011, 8, 2473-2475.	0.8	12
107	Field-dependent carrier trapping induced kink effect in AlGaIn/GaN high electron mobility transistors. <i>Applied Physics Letters</i> , 2011, 98, .	3.3	40
108	Growth of In-rich and Ga-rich InGaIn alloys by MOCVD and fabrication of InGaIn-based photoelectrodes. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, 1817-1820.	0.8	16

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109	Forward tunneling current in GaN-based blue light-emitting diodes. Applied Physics Letters, 2010, 96, .	3.3	77
110	On the reverse gate leakage current of AlGaIn/GaN high electron mobility transistors. Applied Physics Letters, 2010, 97, .	3.3	115
111	Efficiency droop behavior of direct current aged GaN-based blue light-emitting diodes. Applied Physics Letters, 2009, 95, .	3.3	23
112	InGaIn/GaN multi-quantum-well-based light-emitting and photodetective dual-functional devices. Frontiers of Optoelectronics in China, 2009, 2, 442-445.	0.2	1
113	Stable response to visible light of InGaIn photoelectrodes. Applied Physics Letters, 2008, 92, 262110.	3.3	50
114	Gate-Controlled NiO/Graphene/4H-SiC Double Schottky Barrier Heterojunction Based on a Metal-Oxide-Semiconductor Structure for Dual-Mode and Wide Range Ultraviolet Detection. ACS Applied Electronic Materials, 0, , .	4.3	4