

Yuewei Zhang

List of Publications by Year in descending order

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papers

59,469
citations

145106

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times ranked

62912
citing authors

#	ARTICLE	IF	CITATIONS
1	Tight-binding band structure of $\sqrt{2}$ - and $\sqrt{3}$ -phase Ga_2O_3 and Al_2O_3 . Journal of Applied Physics, 2022, 131, 175702.	1.1	0
2	Thermal management strategies for gallium oxide vertical trench-fin MOSFETs. Journal of Applied Physics, 2021, 129, .	1.1	20
3	Electron effective mass determination across a $\sqrt{2}$ - $(\text{Al}_{0.2}\text{Ga}_{0.8})_2\text{O}_3/\sqrt{2}$ - Ga_2O_3 interface by Kramers-Kronig analysis. Microscopy and Microanalysis, 2021, 27, 1168-1169.	0.2	0
4	Thermal Management of $\sqrt{2}$ -Ga α , ω ,f Current Aperture Vertical Electron Transistors. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1171-1176.	1.4	10
5	$\sqrt{2}$ - Ga_2O_3 lateral transistors with high aspect ratio fin-shape channels. Japanese Journal of Applied Physics, 2021, 60, 014001.	0.8	4
6	High conductivity n- $\text{Al}_{0.6}\text{Ga}_{0.4}\text{N}$ by ammonia-assisted molecular beam epitaxy for buried tunnel junctions in UV emitters. Optics Express, 2021, 29, 40781.	1.7	5
7	Mg doping and diffusion in (010) $\sqrt{2}$ - Ga_2O_3 films grown by plasma-assisted molecular beam epitaxy. Journal of Applied Physics, 2021, 130, .	1.1	10
8	III-Nitride Tunneling Hot Electron Transfer Amplifier (THETA)., 2020, , 109-157.		1
9	Electro-thermal co-design of $\sqrt{2}$ - $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ modulation doped field effect transistors. Applied Physics Letters, 2020, 117, .	1.5	35
10	Molecular beam epitaxy of GaN on 2H μ -MoS $_2$. Applied Physics Letters, 2020, 117, .	1.5	3
11	The 2020 UV emitter roadmap. Journal Physics D: Applied Physics, 2020, 53, 503001.	1.3	289
12	H $_2$ O vapor assisted growth of $\sqrt{2}$ - Ga_2O_3 by MOCVD. AIP Advances, 2020, 10, .	0.6	22
13	Epitaxial growth of $\sqrt{2}$ - Ga_2O_3 on (110) substrate by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	1.5	10
14	2D Materials for Universal Thermal Imaging of Micro- and Nanodevices: An Application to Gallium Oxide Electronics. ACS Applied Electronic Materials, 2020, 2, 2945-2953.	2.0	19
15	Orientation-dependent band offsets between $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ and Ga_2O_3 . Applied Physics Letters, 2020, 117, .	1.5	24
16	Sn doping of (010) $\sqrt{2}$ - Ga_2O_3 films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	1.5	43
17	Point Defect and Their Influence on the Atomic and Electronic Structure of $\sqrt{2}$ - $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ Alloys by STEM-EELS. Microscopy and Microanalysis, 2020, 26, 622-623.	0.2	2
18	Low 1.4×10^{13} free carrier concentration in epitaxial $\sqrt{2}$ - Ga_2O_3 grown by MOCVD. APL Materials, 2020, 8,2		60

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19	Metal oxide catalyzed epitaxy (MOCATAXY) of $\hat{\Gamma}^2$ -Ga ₂ O ₃ films in various orientations grown by plasma-assisted molecular beam epitaxy. APL Materials, 2020, 8, .	2.2	35
20	Modeling and analysis for thermal management in gallium oxide field-effect transistors. Journal of Applied Physics, 2020, 127, .	1.1	41
21	Importance of shallow hydrogenic dopants and material purity of ultra-wide bandgap semiconductors for vertical power electron devices. Semiconductor Science and Technology, 2020, 35, 125018.	1.0	13
22	Metalorganic chemical vapor deposition grown n-InGaN/n-GaN tunnel junctions for micro-light-emitting diodes with very low forward voltage. Semiconductor Science and Technology, 2020, 35, 125023.	1.0	23
23	Field-Effect Transistors 3. Springer Series in Materials Science, 2020, , 609-621.	0.4	0
24	Investigation of unintentional Fe incorporation in (010) $\hat{\Gamma}^2$ -Ga ₂ O ₃ films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2019, 115, .	1.5	35
25	Design of compositionally graded contact layers for MOCVD grown high Al-content AlGaIn transistors. Applied Physics Letters, 2019, 115, .	1.5	17
26	Anisotropic etching of $\hat{\Gamma}^2$ -Ga ₂ O ₃ using hot phosphoric acid. Applied Physics Letters, 2019, 115, 013501.	1.5	40
27	Atomic scale investigation of chemical heterogeneity in $\hat{\Gamma}^2$ -(Al _x Ga _{1-x}) ₂ O ₃ films using atom probe tomography. Applied Physics Letters, 2019, 115, .	1.5	14
28	Breakdown Characteristics of $\text{Al}_{0.22}\text{Ga}_{0.78}\text{O}_3/\text{Ga}_2\text{O}_3$ Field-Plated Modulation-Doped Field-Effect Transistors. IEEE Electron Device Letters, 2019, 40, 1241-1244.	2.2	82
29	Recent progress of tunnel junction-based ultra-violet light emitting diodes. Japanese Journal of Applied Physics, 2019, 58, SC0805.	0.8	19
30	Dielectric function tensor (1.5 eV to 9.0 eV), anisotropy, and band to band transitions of monoclinic $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ ($x \approx 0.21$) films. Applied Physics Letters, 2019, 114, .	1.5	25
31	Near unity ideality factor for sidewall Schottky contacts on un-intentionally doped $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Applied Physics Express, 2019, 12, 044005.	1.1	23
32	Solar blind Schottky photodiode based on an MOCVD-grown homoepitaxial $\hat{\Gamma}^2$ -Ga ₂ O ₃ thin film. APL Materials, 2019, 7, .	2.2	57
33	Recent Progress in III-Nitride Tunnel Junction-Based Optoelectronics. International Journal of High Speed Electronics and Systems, 2019, 28, 1940012.	0.3	1
34	Low temperature electron mobility exceeding 104 cm ² /V s in MOCVD grown $\hat{\Gamma}^2$ -Ga ₂ O ₃ . APL Materials, 2019, 7, .	2.2	67
35	Zeeman spin-splitting in the (010) $\hat{\Gamma}^2$ -Ga ₂ O ₃ two-dimensional electron gas. Applied Physics Letters, 2019, 115, .	1.5	1
36	MOCVD grown epitaxial $\hat{\Gamma}^2$ -Ga ₂ O ₃ thin film with an electron mobility of 176 cm ² /V s at room temperature. APL Materials, 2019, 7, .	2.2	178

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37	Evaluation of Low-Temperature Saturation Velocity in $\text{Al}_x\text{Ga}_{1-x}\text{O}_3/\text{Ga}_2\text{O}_3/\text{Ga}_2\text{O}_3$ Modulation-Doped Field-Effect Transistors. IEEE Transactions on Electron Devices, 2019, 66, 1574-1578.	1.6	66
38	Low-pressure CVD-grown $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ bevel-field-plated Schottky barrier diodes. Applied Physics Express, 2018, 11, 031101.	1.1	115
39	Delta Doped $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ Field Effect Transistors With Regrown Ohmic Contacts. IEEE Electron Device Letters, 2018, 39, 568-571.	2.2	106
40	Tunnel-injected sub-290 nm ultra-violet light emitting diodes with 2.8% external quantum efficiency. Applied Physics Letters, 2018, 112, .	1.5	58
41	Demonstration of high mobility and quantum transport in modulation-doped $\text{Al}_x\text{Ga}_{1-x}\text{O}_3/\text{Ga}_2\text{O}_3$ heterostructures. Applied Physics Letters, 2018, 112, .	1.5	264
42	High Al-Content AlGaN Transistor With 0.5 A/mm Current Density and Lateral Breakdown Field Exceeding 3.6 MV/cm. IEEE Electron Device Letters, 2018, 39, 256-259.	2.2	46
43	MBE-Grown $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ -Based Schottky UV-C Photodetectors With Rectification Ratio $\sim 10^7$. IEEE Photonics Technology Letters, 2018, 30, 2025-2028.	1.3	55
44	Polarity governs atomic interaction through two-dimensional materials. Nature Materials, 2018, 17, 999-1004.	13.3	182
45	Effect of buffer iron doping on delta-doped $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ metal semiconductor field effect transistors. Applied Physics Letters, 2018, 113, .	1.5	54
46	RF operation in graded $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ($x = 0.65$ to 0.82) channel transistors. Electronics Letters, 2018, 54, 1351-1353.	0.5	15
47	All MOCVD grown 250 nm gate length $\text{Al}_{0.70}\text{Ga}_{0.30}\text{N}$ MESFETs. , 2018, , .		1
48	Design and Demonstration of $\text{Al}_x\text{Ga}_{1-x}\text{O}_3/\text{Ga}_2\text{O}_3$ Double Heterostructure Field Effect Transistor (DHFET). , 2018, , .		2
49	Trapping Effects in Si-Doped $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ MESFETs on an Fe-Doped $\text{Al}_x\text{Ga}_{1-x}\text{O}_3$ Substrate. IEEE Electron Device Letters, 2018, 39, 1042-1045.	2.2	78
50	Demonstration of $\text{Al}_x\text{Ga}_{1-x}\text{O}_3/\text{Ga}_2\text{O}_3$ double heterostructure field effect transistors. Applied Physics Letters, 2018, 112, .	1.5	130
51	Tunnel-injected sub-260 nm ultraviolet light emitting diodes. Applied Physics Letters, 2017, 110, .	1.5	55
52	An approach to high open-circuit voltage polymer solar cells via alcohol/water-soluble cathode interlayers based on anthrathiadiazole derivatives. New Journal of Chemistry, 2017, 41, 13166-13174.	1.4	4
53	Modulation-doped $\text{Al}_{0.2}\text{Ga}_{0.8}\text{O}_3/\text{Ga}_2\text{O}_3$ field-effect transistor. Applied Physics Letters, 2017, 111, .	1.5	252
54	Reflective metal/semiconductor tunnel junctions for hole injection in AlGa _N UV LEDs. Applied Physics Letters, 2017, 111, .	1.5	32

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55	Ultralow-voltage-drop GaN/InGaN/GaN tunnel junctions with 12% indium content. Applied Physics Express, 2017, 10, 121003.	1.1	18
56	Graded AlGaIn Channel Transistors for Improved Current and Power Gain Linearity. IEEE Transactions on Electron Devices, 2017, 64, 3114-3119.	1.6	61
57	Small-signal characteristics of graded AlGaIn channel PolFETs. , 2017, , .		2
58	Low-resistance GaN tunnel homojunctions with 150 A/cm^2 current and repeatable negative differential resistance. Applied Physics Letters, 2016, 108, .	1.5	45
59	Current gain above 10 in sub-10 nm base III-Nitride tunneling hot electron transistors with GaN/AlN emitter. Applied Physics Letters, 2016, 108, .	1.5	9
60	Design of p-type cladding layers for tunnel-injected UV-A light emitting diodes. Applied Physics Letters, 2016, 109, .	1.5	32
61	High current density 2D/3D MoS ₂ /GaN Esaki tunnel diodes. Applied Physics Letters, 2016, 109, .	1.5	65
62	Design and demonstration of ultra-wide bandgap AlGaIn tunnel junctions. Applied Physics Letters, 2016, 109, .	1.5	59
63	Ultra-wide bandgap AlGaIn channel MISFET with polarization engineered ohmics. , 2016, , .		2
64	Current gain above 10 in sub-10 nm base III-nitride tunneling hot electron transistors with GaN/AlN emitter. , 2016, , .		0
65	AlGaIn channel field effect transistors with graded heterostructure ohmic contacts. Applied Physics Letters, 2016, 109, .	1.5	68
66	Enhanced light extraction in tunnel junction-enabled top emitting UV LEDs. Applied Physics Express, 2016, 9, 052102.	1.1	27
67	Interband tunneling for hole injection in III-nitride ultraviolet emitters. Applied Physics Letters, 2015, 106, .	1.5	79
68	GaN-based three-junction cascaded light-emitting diode with low-resistance InGaIn tunnel junctions. Applied Physics Express, 2015, 8, 082103.	1.1	43
69	Common Emitter Current and Voltage Gain in III-Nitride Tunneling Hot Electron Transistors. IEEE Electron Device Letters, 2015, 36, 436-438.	2.2	2
70	Sub 300 nm wavelength III-Nitride tunnel-injected ultraviolet LEDs. , 2015, , .		4
71	Current gain in sub-10 nm base GaN tunneling hot electron transistors with AlN emitter barrier. Applied Physics Letters, 2015, 106, 032101.	1.5	8
72	Modeling and experimental demonstration of sub-10 nm base III-nitride tunneling hot electron transistors. , 2015, , .		0

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73	Formation of p-n-p junction with ionic liquid gate in graphene. Applied Physics Letters, 2014, 104, .	1.5	10
74	N-polar III-nitride tunneling hot electron transfer amplifier. , 2014, , .		1
75	Effect of Grain Boundary Scattering on Electron Mobility of N-Polarity InN Films. Applied Physics Express, 2013, 6, 021001.	1.1	13
76	Electric Field Effect in Atomically Thin Carbon Films. Science, 2004, 306, 666-669.	6.0	56,177