

Yuewei Zhang

List of Publications by Year in descending order

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papers

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126907

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64
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77
all docs

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docs citations

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times ranked

54814
citing authors

#	ARTICLE	IF	CITATIONS
1	Electric Field Effect in Atomically Thin Carbon Films. <i>Science</i> , 2004, 306, 666-669.	12.6	56,177
2	The 2020 UV emitter roadmap. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 503001.	2.8	289
3	Demonstration of high mobility and quantum transport in modulation-doped $\text{In}^{2-}(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ heterostructures. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	264
4	Modulation-doped $\text{In}^{2-}(\text{Al}_{0.2}\text{Ga}_{0.8})_2\text{O}_3/\text{Ga}_2\text{O}_3$ field-effect transistor. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	252
5	Polarity governs atomic interaction through two-dimensional materials. <i>Nature Materials</i> , 2018, 17, 999-1004.	27.5	182
6	MOCVD grown epitaxial $\text{In}^{2-}\text{Ga}_2\text{O}_3$ thin film with an electron mobility of $176 \text{ cm}^2/\text{V s}$ at room temperature. <i>APL Materials</i> , 2019, 7, .	5.1	178
7	Demonstration of $\text{In}^{2-}(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ double heterostructure field effect transistors. <i>Applied Physics Letters</i> , 2018, 112, .	3.3	130
8	Low-pressure CVD-grown $\text{In}^{2-}\text{Ga}_{2-x}\text{O}_{3-x}$ bevel-field-plated Schottky barrier diodes. <i>Applied Physics Express</i> , 2018, 11, 031101.	2.4	115
9	Delta Doped $\text{In}^{2-}\text{Ga}_2\text{O}_3$ Field Effect Transistors With Regrown Ohmic Contacts. <i>IEEE Electron Device Letters</i> , 2018, 39, 568-571.	3.9	106
10	Breakdown Characteristics of $\text{In}^{2-}(\text{Al}_{0.22}\text{Ga}_{0.78})_2\text{O}_3/\text{Ga}_{2-x}\text{O}_{3-x}$ Field-Plated Modulation-Doped Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , 2019, 40, 1241-1244.	3.9	82
11	Interband tunneling for hole injection in III-nitride ultraviolet emitters. <i>Applied Physics Letters</i> , 2015, 106, .	3.3	79
12	Trapping Effects in Si-Doped $\text{In}^{2-}\text{Ga}_{2-x}\text{O}_{3-x}$ MESFETs on an Fe-Doped $\text{In}^{2-}\text{Ga}_{2-x}\text{O}_{3-x}$ Substrate. <i>IEEE Electron Device Letters</i> , 2018, 39, 1042-1045.	3.9	78
13	AlGaIn channel field effect transistors with graded heterostructure ohmic contacts. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	68
14	Low temperature electron mobility exceeding $104 \text{ cm}^2/\text{V s}$ in MOCVD grown $\text{In}^{2-}\text{Ga}_2\text{O}_3$. <i>APL Materials</i> , 2019, 7, .	5.1	67
15	Evaluation of Low-Temperature Saturation Velocity in $\text{In}^{2-}(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_{2-x}\text{O}_{3-x}$ Modulation-Doped Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , 2019, 66, 1574-1578.	3.0	66
16	High current density 2D/3D MoS ₂ /GaIn Esaki tunnel diodes. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	65
17	Graded AlGaIn Channel Transistors for Improved Current and Power Gain Linearity. <i>IEEE Transactions on Electron Devices</i> , 2017, 64, 3114-3119.	3.0	61
18	Low $1.4 \times 10^{19} \text{ cm}^{-3}$ free carrier concentration in epitaxial $\text{In}^{2-}\text{Ga}_2\text{O}_3$ grown by MOCVD. <i>APL Materials</i> , 2020, 8, 1	3.1	60

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19	Design and demonstration of ultra-wide bandgap AlGaIn tunnel junctions. Applied Physics Letters, 2016, 109, .	3.3	59
20	Tunnel-injected sub 290nm ultra-violet light emitting diodes with 2.8% external quantum efficiency. Applied Physics Letters, 2018, 112, .	3.3	58
21	Solar blind Schottky photodiode based on an MOCVD-grown homoepitaxial $\hat{\Gamma}^2$ -Ga ₂ O ₃ thin film. APL Materials, 2019, 7, .	5.1	57
22	Tunnel-injected sub-260nm ultraviolet light emitting diodes. Applied Physics Letters, 2017, 110, .	3.3	55
23	MBE-Grown $\hat{\Gamma}^2$ -Ga ₂ O ₃ -Based Schottky UV-C Photodetectors With Rectification Ratio $\sim 10^7$. IEEE Photonics Technology Letters, 2018, 30, 2025-2028.	2.5	55
24	Effect of buffer iron doping on delta-doped $\hat{\Gamma}^2$ -Ga ₂ O ₃ metal semiconductor field effect transistors. Applied Physics Letters, 2018, 113, .	3.3	54
25	High Al-Content AlGaIn 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.	3.9	46
26	Low-resistance GaN tunnel homojunctions with 150kA/cm ² current and repeatable negative differential resistance. Applied Physics Letters, 2016, 108, .	3.3	45
27	GaN-based three-junction cascaded light-emitting diode with low-resistance InGaIn tunnel junctions. Applied Physics Express, 2015, 8, 082103.	2.4	43
28	Sn doping of (010) $\hat{\Gamma}^2$ -Ga ₂ O ₃ films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	3.3	43
29	Modeling and analysis for thermal management in gallium oxide field-effect transistors. Journal of Applied Physics, 2020, 127, .	2.5	41
30	Anisotropic etching of $\hat{\Gamma}^2$ -Ga ₂ O ₃ using hot phosphoric acid. Applied Physics Letters, 2019, 115, 013501.	3.3	40
31	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, .	3.3	35
32	Electro-thermal co-design of $\hat{\Gamma}^2$ -(Al _x Ga _{1-x}) ₂ O ₃ /Ga ₂ O ₃ modulation doped field effect transistors. Applied Physics Letters, 2020, 117, .	3.3	35
33	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, .	5.1	35
34	Design of p-type cladding layers for tunnel-injected UV-A light emitting diodes. Applied Physics Letters, 2016, 109, .	3.3	32
35	Reflective metal/semiconductor tunnel junctions for hole injection in AlGaIn UV LEDs. Applied Physics Letters, 2017, 111, .	3.3	32
36	Enhanced light extraction in tunnel junction-enabled top emitting UV LEDs. Applied Physics Express, 2016, 9, 052102.	2.4	27

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37	Dielectric function tensor (1.5 eV to 9.0 eV), anisotropy, and band to band transitions of monoclinic $(\text{Al}_{1-x}\text{Ga}_x)\text{Ga}_2\text{O}_3$ ($x = 0.21$) films. Applied Physics Letters, 2019, 114, .	3.3	25
38	Orientation-dependent band offsets between $(\text{Al}_{1-x}\text{Ga}_x)\text{Ga}_2\text{O}_3$ and Ga_2O_3 . Applied Physics Letters, 2020, 117, .	3.3	24
39	Near unity ideality factor for sidewall Schottky contacts on un-intentionally doped $\text{In}_2\text{Ga}_2\text{O}_3$. Applied Physics Express, 2019, 12, 044005.	2.4	23
40	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.	2.0	23
41	H_2O vapor assisted growth of $\text{In}_2\text{Ga}_2\text{O}_3$ by MOCVD. AIP Advances, 2020, 10, .	1.3	22
42	Thermal management strategies for gallium oxide vertical trench-fin MOSFETs. Journal of Applied Physics, 2021, 129, .	2.5	20
43	Recent progress of tunnel junction-based ultra-violet light emitting diodes. Japanese Journal of Applied Physics, 2019, 58, SC0805.	1.5	19
44	2D Materials for Universal Thermal Imaging of Micro- and Nanodevices: An Application to Gallium Oxide Electronics. ACS Applied Electronic Materials, 2020, 2, 2945-2953.	4.3	19
45	Ultralow-voltage-drop GaN/InGaN/GaN tunnel junctions with 12% indium content. Applied Physics Express, 2017, 10, 121003.	2.4	18
46	Design of compositionally graded contact layers for MOCVD grown high Al-content AlGaIn transistors. Applied Physics Letters, 2019, 115, .	3.3	17
47	RF operation in graded $\text{Al}_{1-x}\text{Ga}_x\text{N}$ ($x = 0.65$ to 0.82) channel transistors. Electronics Letters, 2018, 54, 1351-1353.	1.0	15
48	Atomic scale investigation of chemical heterogeneity in $\text{In}_2(\text{Al}_x\text{Ga}_{1-x})\text{Ga}_2\text{O}_3$ films using atom probe tomography. Applied Physics Letters, 2019, 115, .	3.3	14
49	Effect of Grain Boundary Scattering on Electron Mobility of N-Polarity InN Films. Applied Physics Express, 2013, 6, 021001.	2.4	13
50	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.	2.0	13
51	Formation of p-n-p junction with ionic liquid gate in graphene. Applied Physics Letters, 2014, 104, .	3.3	10
52	Epitaxial growth of $\text{In}_2\text{Ga}_2\text{O}_3$ on (110) substrate by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	3.3	10
53	Thermal Management of $\text{In}_2\text{Ga}_2\text{O}_3$ Current Aperture Vertical Electron Transistors. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1171-1176.	2.5	10
54	Mg doping and diffusion in (010) $\text{In}_2\text{Ga}_2\text{O}_3$ films grown by plasma-assisted molecular beam epitaxy. Journal of Applied Physics, 2021, 130, .	2.5	10

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55	Current gain above 10 in sub-10 nm base III-Nitride tunneling hot electron transistors with GaN/AlN emitter. Applied Physics Letters, 2016, 108, .	3.3	9
56	Current gain in sub-10 nm base GaN tunneling hot electron transistors with AlN emitter barrier. Applied Physics Letters, 2015, 106, 032101.	3.3	8
57	High conductivity n-Al _{0.6} Ga _{0.4} N by ammonia-assisted molecular beam epitaxy for buried tunnel junctions in UV emitters. Optics Express, 2021, 29, 40781.	3.4	5
58	Sub 300 nm wavelength III-Nitride tunnel-injected ultraviolet LEDs. , 2015, , .		4
59	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.	2.8	4
60	$\text{In}_2\text{Ga}_2\text{O}_3$ lateral transistors with high aspect ratio fin-shape channels. Japanese Journal of Applied Physics, 2021, 60, 014001.	1.5	4
61	Molecular beam epitaxy of GaN on 2H MoS ₂ . Applied Physics Letters, 2020, 117, .	3.3	3
62	Common Emitter Current and Voltage Gain in III-Nitride Tunneling Hot Electron Transistors. IEEE Electron Device Letters, 2015, 36, 436-438.	3.9	2
63	Ultra-wide bandgap AlGaIn channel MISFET with polarization engineered ohmics. , 2016, , .		2
64	Small-signal characteristics of graded AlGaIn channel PolFETs. , 2017, , .		2
65	Design and Demonstration of (Al _x Ga _{1-x}) ₂ O ₃ /Ga ₂ O ₃ Double Heterostructure Field Effect Transistor (DHFET). , 2018, , .		2
66	Point Defect and Their Influence on the Atomic and Electronic Structure of $\text{In}_2(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3$ Alloys by STEM-EELS. Microscopy and Microanalysis, 2020, 26, 622-623.	0.4	2
67	N-polar III-nitride tunneling hot electron transfer amplifier. , 2014, , .		1
68	All MOCVD grown 250 nm gate length Al _{0.70} Ga _{0.30} N MESFETs. , 2018, , .		1
69	Recent Progress in III-Nitride Tunnel Junction-Based Optoelectronics. International Journal of High Speed Electronics and Systems, 2019, 28, 1940012.	0.7	1
70	Zeeman spin-splitting in the (010) $\text{In}_2\text{Ga}_2\text{O}_3$ two-dimensional electron gas. Applied Physics Letters, 2019, 115, .	3.3	1
71	III-Nitride Tunneling Hot Electron Transfer Amplifier (THETA). , 2020, , 109-157.		1
72	Modeling and experimental demonstration of sub-10 nm base III-nitride tunneling hot electron transistors. , 2015, , .		0

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73	Current gain above 10 in sub-10 nm base III-nitride tunneling hot electron transistors with GaN/AlN emitter. , 2016, , .		0
74	Electron effective mass determination across a $\hat{\Gamma}^2$ -(Al _{0.2} Ga _{0.8}) ₂ O ₃ / $\hat{\Gamma}^2$ -Ga ₂ O ₃ interface by Kramers-Kronig analysis. Microscopy and Microanalysis, 2021, 27, 1168-1169.	0.4	0
75	Field-Effect Transistors 3. Springer Series in Materials Science, 2020, , 609-621.	0.6	0
76	Tight-binding band structure of $\hat{\Gamma}^2$ - and $\hat{\Gamma}^{\pm}$ -phase Ga ₂ O ₃ and Al ₂ O ₃ . Journal of Applied Physics, 2022, 131, 175702.	2.5	0