

# Yuewei Zhang

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

71  
papers

49,269  
citations

28  
h-index

77  
g-index

77  
ext. papers

54,829  
ext. citations

3.8  
avg, IF

6.96  
L-index

#	Paper	IF	Citations
71	Tight-binding band structure of $\Gamma$ and $\text{H}$ phase Ga <sub>2</sub> O <sub>3</sub> and Al <sub>2</sub> O <sub>3</sub> . <i>Journal of Applied Physics</i> , <b>2022</b> , 131, 175702	2.5	
70	$\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> lateral transistors with high aspect ratio fin-shape channels. <i>Japanese Journal of Applied Physics</i> , <b>2021</b> , 60, 014001	1.4	2
69	Electron effective mass determination across a $\Gamma$ (Al <sub>0.2</sub> Ga <sub>0.8</sub> ) <sub>2</sub> O <sub>3</sub> / $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> interface by Kramers-Kronig analysis. <i>Microscopy and Microanalysis</i> , <b>2021</b> , 27, 1168-1169	0.5	
68	Thermal management strategies for gallium oxide vertical trench-fin MOSFETs. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 085301	2.5	10
67	Thermal Management of $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> Current Aperture Vertical Electron Transistors. <i>IEEE Transactions on Components, Packaging and Manufacturing Technology</i> , <b>2021</b> , 11, 1171-1176	1.7	1
66	Mg doping and diffusion in (010) $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> films grown by plasma-assisted molecular beam epitaxy. <i>Journal of Applied Physics</i> , <b>2021</b> , 130, 235301	2.5	2
65	Sn doping of (010) $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> films grown by plasma-assisted molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 222102	3.4	16
64	Point Defect and Their Influence on the Atomic and Electronic Structure of $\Gamma$ (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> Alloys by STEM-EELS. <i>Microscopy and Microanalysis</i> , <b>2020</b> , 26, 622-623	0.5	2
63	Low 10 <sup>14</sup> cm <sup>-3</sup> free carrier concentration in epitaxial $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> grown by MOCVD. <i>APL Materials</i> , <b>2020</b> , 8, 021110	5.7	34
62	Metal oxide catalyzed epitaxy (MOCATAXY) of $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> films in various orientations grown by plasma-assisted molecular beam epitaxy. <i>APL Materials</i> , <b>2020</b> , 8, 021104	5.7	21
61	Field-Effect Transistors 3. <i>Springer Series in Materials Science</i> , <b>2020</b> , 609-621	0.9	
60	Importance of shallow hydrogenic dopants and material purity of ultra-wide bandgap semiconductors for vertical power electron devices. <i>Semiconductor Science and Technology</i> , <b>2020</b> , 35, 125018	1.8	8
59	Metalorganic chemical vapor deposition grown n-InGaN/n-GaN tunnel junctions for micro-light-emitting diodes with very low forward voltage. <i>Semiconductor Science and Technology</i> , <b>2020</b> , 35, 125023	1.8	16
58	Electro-thermal co-design of $\Gamma$ (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> /Ga <sub>2</sub> O <sub>3</sub> modulation doped field effect transistors. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 153501	3.4	25
57	Molecular beam epitaxy of GaN on 2H-MoS <sub>2</sub> . <i>Applied Physics Letters</i> , <b>2020</b> , 117, 123102	3.4	0
56	The 2020 UV emitter roadmap. <i>Journal Physics D: Applied Physics</i> , <b>2020</b> , 53, 503001	3	123
55	H <sub>2</sub> O vapor assisted growth of $\Gamma$ -Ga <sub>2</sub> O <sub>3</sub> by MOCVD. <i>AIP Advances</i> , <b>2020</b> , 10, 085002	1.5	10

54	Epitaxial growth of $\beta$ -Ga <sub>2</sub> O <sub>3</sub> on (110) substrate by plasma-assisted molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 152105	3-4	5
53	2D Materials for Universal Thermal Imaging of Micro- and Nanodevices: An Application to Gallium Oxide Electronics. <i>ACS Applied Electronic Materials</i> , <b>2020</b> , 2, 2945-2953	4	14
52	Orientation-dependent band offsets between (Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> and Ga <sub>2</sub> O <sub>3</sub> . <i>Applied Physics Letters</i> , <b>2020</b> , 117, 252104	3-4	14
51	III-Nitride Tunneling Hot Electron Transfer Amplifier (THETA) <b>2020</b> , 109-157		0
50	Modeling and analysis for thermal management in gallium oxide field-effect transistors. <i>Journal of Applied Physics</i> , <b>2020</b> , 127, 154502	2-5	25
49	Atomic scale investigation of chemical heterogeneity in $\beta$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> films using atom probe tomography. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 132105	3-4	13
48	Breakdown Characteristics of $\beta$ -(Al <sub>0.22</sub> Ga <sub>0.78</sub> ) <sub>2</sub> O <sub>3</sub> /Ga <sub>2</sub> O <sub>3</sub> Field-Plated Modulation-Doped Field-Effect Transistors. <i>IEEE Electron Device Letters</i> , <b>2019</b> , 40, 1241-1244	4-4	51
47	Recent progress of tunnel junction-based ultra-violet light emitting diodes. <i>Japanese Journal of Applied Physics</i> , <b>2019</b> , 58, SC0805	1-4	9
46	Dielectric function tensor (1.5 eV to 9.0 eV), anisotropy, and band to band transitions of monoclinic $\beta$ -(Al <sub>x</sub> Ga <sub>1-x</sub> ) <sub>2</sub> O <sub>3</sub> (x = 0.21) films. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 231901	3-4	15
45	Near unity ideality factor for sidewall Schottky contacts on un-intentionally doped $\beta$ -Ga <sub>2</sub> O <sub>3</sub> . <i>Applied Physics Express</i> , <b>2019</b> , 12, 044005	2-4	17
44	Investigation of unintentional Fe incorporation in (010) $\beta$ -Ga <sub>2</sub> O <sub>3</sub> films grown by plasma-assisted molecular beam epitaxy. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 052102	3-4	27
43	Design of compositionally graded contact layers for MOCVD grown high Al-content AlGaN transistors. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 043502	3-4	12
42	Anisotropic etching of $\beta$ -Ga <sub>2</sub> O <sub>3</sub> using hot phosphoric acid. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 013501	3-4	23
41	Solar blind Schottky photodiode based on an MOCVD-grown homoepitaxial $\beta$ -Ga <sub>2</sub> O <sub>3</sub> thin film. <i>APL Materials</i> , <b>2019</b> , 7, 022527	5-7	41
40	Recent Progress in III-Nitride Tunnel Junction-Based Optoelectronics. <i>International Journal of High Speed Electronics and Systems</i> , <b>2019</b> , 28, 1940012	0-5	0
39	Low temperature electron mobility exceeding 104 cm <sup>2</sup> /V s in MOCVD grown $\beta$ -Ga <sub>2</sub> O <sub>3</sub> . <i>APL Materials</i> , <b>2019</b> , 7, 121110	5-7	42
38	Zeeman spin-splitting in the (010) $\beta$ -Ga <sub>2</sub> O <sub>3</sub> two-dimensional electron gas. <i>Applied Physics Letters</i> , <b>2019</b> , 115, 262103	3-4	0
37	MOCVD grown epitaxial $\beta$ -Ga <sub>2</sub> O <sub>3</sub> thin film with an electron mobility of 176 cm <sup>2</sup> /V s at room temperature. <i>APL Materials</i> , <b>2019</b> , 7, 022506	5-7	115

36	Evaluation of Low-Temperature Saturation Velocity in $\beta\text{-}(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ Modulation-Doped Field-Effect Transistors. <i>IEEE Transactions on Electron Devices</i> , <b>2019</b> , 66, 1574-1578	2.9	48
35	Low-pressure CVD-grown $\beta\text{-Ga}_2\text{O}_3$ bevel-field-plated Schottky barrier diodes. <i>Applied Physics Express</i> , <b>2018</b> , 11, 031101	2.4	81
34	Delta Doped $\beta\text{-Ga}_2\text{O}_3$ Field Effect Transistors With Regrown Ohmic Contacts. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 568-571	4.4	75
33	Tunnel-injected sub 290 nm ultra-violet light emitting diodes with 2.8% external quantum efficiency. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 071107	3.4	45
32	Demonstration of high mobility and quantum transport in modulation-doped $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ heterostructures. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 173502	3.4	192
31	High Al-Content AlGa <sub>N</sub> Transistor With 0.5 A/mm Current Density and Lateral Breakdown Field Exceeding 3.6 MV/cm. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 256-259	4.4	40
30	Trapping Effects in Si $\delta\text{-}$ Doped $\beta\text{-Ga}_2\text{O}_3$ MESFETs on an Fe-Doped $\beta\text{-Ga}_2\text{O}_3$ Substrate. <i>IEEE Electron Device Letters</i> , <b>2018</b> , 39, 1042-1045	4.4	64
29	Demonstration of $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ double heterostructure field effect transistors. <i>Applied Physics Letters</i> , <b>2018</b> , 112, 233503	3.4	97
28	MBE-Grown $\beta\text{-Ga}_2\text{O}_3$ -Based Schottky UV-C Photodetectors With Rectification Ratio $\sim 10^7$ . <i>IEEE Photonics Technology Letters</i> , <b>2018</b> , 30, 2025-2028	2.2	44
27	Polarity governs atomic interaction through two-dimensional materials. <i>Nature Materials</i> , <b>2018</b> , 17, 999-1004	10.4	107
26	Effect of buffer iron doping on delta-doped $\beta\text{-Ga}_2\text{O}_3$ metal semiconductor field effect transistors. <i>Applied Physics Letters</i> , <b>2018</b> , 113, 123501	3.4	39
25	RF operation in graded $\text{Al}_x\text{Ga}_{1-x}\text{N}$ ( $x = 0.65$ to $0.82$ ) channel transistors. <i>Electronics Letters</i> , <b>2018</b> , 54, 1351-1353	1.1	11
24	Design and Demonstration of $(\text{Al}_x\text{Ga}_{1-x})_2\text{O}_3/\text{Ga}_2\text{O}_3$ Double Heterostructure Field Effect Transistor (DHFET) <b>2018</b> ,		2
23	Tunnel-injected sub-260 nm ultraviolet light emitting diodes. <i>Applied Physics Letters</i> , <b>2017</b> , 110, 201102	3.4	48
22	An approach to high open-circuit voltage polymer solar cells via alcohol/water-soluble cathode interlayers based on anthrathiadiazole derivatives. <i>New Journal of Chemistry</i> , <b>2017</b> , 41, 13166-13174	3.6	3
21	Small-signal characteristics of graded AlGa <sub>N</sub> channel PolFETs <b>2017</b> ,		2
20	Modulation-doped $(\text{Al}_{0.2}\text{Ga}_{0.8})_2\text{O}_3/\text{Ga}_2\text{O}_3$ field-effect transistor. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 023502	3.4	188
19	Reflective metal/semiconductor tunnel junctions for hole injection in AlGa <sub>N</sub> UV LEDs. <i>Applied Physics Letters</i> , <b>2017</b> , 111, 051104	3.4	26

18	Ultralow-voltage-drop GaN/InGaN/GaN tunnel junctions with 12% indium content. <i>Applied Physics Express</i> , <b>2017</b> , 10, 121003	2.4	13
17	Graded AlGa <sub>N</sub> Channel Transistors for Improved Current and Power Gain Linearity. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 3114-3119	2.9	35
16	Low-resistance GaN tunnel homojunctions with 150 kA/cm <sup>2</sup> current and repeatable negative differential resistance. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 131103	3.4	37
15	Current gain above 10 in sub-10 nm base III-Nitride tunneling hot electron transistors with GaN/AlN emitter. <i>Applied Physics Letters</i> , <b>2016</b> , 108, 192101	3.4	6
14	Design of p-type cladding layers for tunnel-injected UV-A light emitting diodes. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 191105	3.4	28
13	High current density 2D/3D MoS <sub>2</sub> /GaN Esaki tunnel diodes. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 183505	3.4	44
12	Design and demonstration of ultra-wide bandgap AlGa <sub>N</sub> tunnel junctions. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 121102	3.4	43
11	AlGa <sub>N</sub> channel field effect transistors with graded heterostructure ohmic contacts. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 133508	3.4	52
10	Enhanced light extraction in tunnel junction-enabled top emitting UV LEDs. <i>Applied Physics Express</i> , <b>2016</b> , 9, 052102	2.4	23
9	GaN-based three-junction cascaded light-emitting diode with low-resistance InGa <sub>N</sub> tunnel junctions. <i>Applied Physics Express</i> , <b>2015</b> , 8, 082103	2.4	37
8	Common Emitter Current and Voltage Gain in III-Nitride Tunneling Hot Electron Transistors. <i>IEEE Electron Device Letters</i> , <b>2015</b> , 36, 436-438	4.4	1
7	Sub 300 nm wavelength III-Nitride tunnel-injected ultraviolet LEDs <b>2015</b> ,		4
6	Current gain in sub-10 nm base GaN tunneling hot electron transistors with AlN emitter barrier. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 032101	3.4	7
5	Interband tunneling for hole injection in III-nitride ultraviolet emitters. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 141103	3.4	67
4	Formation of p-n-p junction with ionic liquid gate in graphene. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 143102	3.4	8
3	N-polar III-nitride tunneling hot electron transfer amplifier <b>2014</b> ,		1
2	Effect of Grain Boundary Scattering on Electron Mobility of N-Polarity InN Films. <i>Applied Physics Express</i> , <b>2013</b> , 6, 021001	2.4	9
1	Electric field effect in atomically thin carbon films. <i>Science</i> , <b>2004</b> , 306, 666-9	33.3	47045

