Yuewei Zhang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4402862/publications.pdf

Version: 2024-02-01

76 papers	59,469 citations	126708 33 h-index	110170 64 g-index
77 all docs	77 docs citations	77 times ranked	54814 citing authors

#	Article	IF	Citations
1	Electric Field Effect in Atomically Thin Carbon Films. Science, 2004, 306, 666-669.	6.0	56,177
2	The 2020 UV emitter roadmap. Journal Physics D: Applied Physics, 2020, 53, 503001.	1.3	289
3	Demonstration of high mobility and quantum transport in modulation-doped Î²-(AlxGa1-x)2O3/Ga2O3 heterostructures. Applied Physics Letters, 2018, 112, .	1.5	264
4	Modulation-doped Î²-(Al0.2Ga0.8)2O3/Ga2O3 field-effect transistor. Applied Physics Letters, 2017, 111, .	1.5	252
5	Polarity governs atomic interaction through two-dimensional materials. Nature Materials, 2018, 17, 999-1004.	13.3	182
6	MOCVD grown epitaxial Î²-Ga2O3 thin film with an electron mobility of 176 cm2/V s at room temperature. APL Materials, 2019, 7, .	2.2	178
7	Demonstration of Î²-(AlxGa1-x)2O3/Ga2O3 double heterostructure field effect transistors. Applied Physics Letters, 2018, 112, .	1.5	130
8	Low-pressure CVD-grown Î²-Ga₂O₃bevel-field-plated Schottky barrier diodes. Applied Physics Express, 2018, 11, 031101.	1.1	115
9	Delta Doped eta -Ga2O3 Field Effect Transistors With Regrown Ohmic Contacts. IEEE Electron Device Letters, 2018, 39, 568-571.	2.2	106
10	Breakdown Characteristics of eta -(Al_{0.22}Ga_{0.78})₂O₃/Ga₂O₃ Field-Plated Modulation-Doped Field-Effect Transistors. IEEE Electron Device Letters, 2019, 40, 1241-1244.	2.2	82
11	Interband tunneling for hole injection in III-nitride ultraviolet emitters. Applied Physics Letters, 2015, 106, .	1.5	79
12	Trapping Effects in Si -Doped -Ga₂O₃ MESFETs on an Fe-Doped -Ga₂O₃ Substrate. IEEE Electron Device Letters, 2018, 39, 1042-1045.	2.2	78
13	AlGaN channel field effect transistors with graded heterostructure ohmic contacts. Applied Physics Letters, 2016, 109, .	1.5	68
14	Low temperature electron mobility exceeding 104 cm2/V s in MOCVD grown Î²-Ga2O3. APL Materials, 2019, 7, .	2.2	67
15	Evaluation of Low-Temperature Saturation Velocity in <inline-formula> <tex-math notation="LaTeX">eta </tex-math> </inline-formula>-(Al_xGa_{1â€“x})₂O₃/Ga₂O₃ Modulation-Doped Field-Effect Transistors. IEEE Transactions on Electron Devices, 2019, 66, 1574-1578.	1.6	66
16	High current density 2D/3D MoS2/GaN Esaki tunnel diodes. Applied Physics Letters, 2016, 109, .	1.5	65
17	Graded AlGaN Channel Transistors for Improved Current and Power Gain Linearity. IEEE Transactions on Electron Devices, 2017, 64, 3114-3119.	1.6	61
18	Low 114â€‰â€‰cmâ^'3 free carrier concentration in epitaxial Î²-Ga2O3 grown by MOCVD. APL Materials, 2020, 8, .	2.2	60

#	Article	IF	Citations
19	Design and demonstration of ultra-wide bandgap AlGaN tunnel junctions. Applied Physics Letters, 2016, 109, .	1.5	59
20	Tunnel-injected sub 290â€‰nm ultra-violet light emitting diodes with 2.8% external quantum efficiency. Applied Physics Letters, 2018, 112, .	1.5	58
21	Solar blind Schottky photodiode based on an MOCVD-grown homoepitaxial Î²-Ga2O3 thin film. APL Materials, 2019, 7, .	2.2	57
22	Tunnel-injected sub-260â€‰nm ultraviolet light emitting diodes. Applied Physics Letters, 2017, 110, .	1.5	55
23	MBE-Grown <inline-formula> <tex-math notation="LaTeX">eta </tex-math> </inline-formula>-Ga₂O₃-Based Schottky UV-C Photodetectors With Rectification Ratio ~10⁷. IEEE Photonics Technology Letters, 2018, 30, 2025-2028.	1.3	55
24	Effect of buffer iron doping on delta-doped Î²-Ga2O3 metal semiconductor field effect transistors. Applied Physics Letters, 2018, 113, .	1.5	54
25	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
26	Low-resistance GaN tunnel homojunctions with 150â€‰kA/cm2 current and repeatable negative differential resistance. Applied Physics Letters, 2016, 108, .	1.5	45
27	GaN-based three-junction cascaded light-emitting diode with low-resistance InGaN tunnel junctions. Applied Physics Express, 2015, 8, 082103.	1.1	43
28	Sn doping of (010) Î²-Ga2O3 films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	1.5	43
29	Modeling and analysis for thermal management in gallium oxide field-effect transistors. Journal of Applied Physics, 2020, 127, .	1.1	41
30	Anisotropic etching of Î²-Ga2O3 using hot phosphoric acid. Applied Physics Letters, 2019, 115, 013501.	1.5	40
31	Investigation of unintentional Fe incorporation in (010) Î²-Ga2O3 films grown by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2019, 115, .	1.5	35
32	Electro-thermal co-design of Î² -(AlxGa1-x)2O3/Ga2O3 modulation doped field effect transistors. Applied Physics Letters, 2020, 117, .	1.5	35
33	Metal oxide catalyzed epitaxy (MOCATAXY) of Î²-Ga2O3 films in various orientations grown by plasma-assisted molecular beam epitaxy. APL Materials, 2020, 8, .	2.2	35
34	Design of p-type cladding layers for tunnel-injected UV-A light emitting diodes. Applied Physics Letters, 2016, 109, .	1.5	32
35	Reflective metal/semiconductor tunnel junctions for hole injection in AlGaN UV LEDs. Applied Physics Letters, 2017, 111, .	1.5	32
36	Enhanced light extraction in tunnel junction-enabled top emitting UV LEDs. Applied Physics Express, 2016, 9, 052102.	1.1	27

#	Article	IF	Citations
37	Dielectric function tensor (1.5 eV to 9.0 eV), anisotropy, and band to band transitions of monoclinic Î² -(AlxGa1â€“x)2O3 (x â‰¤ 0.21) films. Applied Physics Letters, 2019, 114, .	1.5	25
38	Orientation-dependent band offsets between (AlxGa1â€²x)2O3 and Ga2O3. Applied Physics Letters, 2020, 117, .	1.5	24
39	Near unity ideality factor for sidewall Schottky contacts on un-intentionally doped Î²-Ga₂O₃. Applied Physics Express, 2019, 12, 044005.	1.1	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.	1.0	23
41	H2O vapor assisted growth of Î²-Ga2O3 by MOCVD. AIP Advances, 2020, 10, .	0.6	22
42	Thermal management strategies for gallium oxide vertical trench-fin MOSFETs. Journal of Applied Physics, 2021, 129, .	1.1	20
43	Recent progress of tunnel junction-based ultra-violet light emitting diodes. Japanese Journal of Applied Physics, 2019, 58, SC0805.	0.8	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.	2.0	19
45	Ultralow-voltage-drop GaN/InGaN/GaN tunnel junctions with 12% indium content. Applied Physics Express, 2017, 10, 121003.	1.1	18
46	Design of compositionally graded contact layers for MOCVD grown high Al-content AlGaN transistors. Applied Physics Letters, 2019, 115, .	1.5	17
47	RF operation in graded Al _x Ga _{1â€² x} N (x = 0.65 to 0.82) channel transistors. Electronics Letters, 2018, 54, 1351-1353.	0.5	15
48	Atomic scale investigation of chemical heterogeneity in Î²-(AlxGa1â€²x)2O3 films using atom probe tomography. Applied Physics Letters, 2019, 115, .	1.5	14
49	Effect of Grain Boundary Scattering on Electron Mobility of N-Polarity InN Films. Applied Physics Express, 2013, 6, 021001.	1.1	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.	1.0	13
51	Formation of p-n-p junction with ionic liquid gate in graphene. Applied Physics Letters, 2014, 104, .	1.5	10
52	Epitaxial growth of Î² -Ga2O3 on (110) substrate by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	1.5	10
53	Thermal Management of Î²-Gaâ„Oâ„ Current Aperture Vertical Electron Transistors. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2021, 11, 1171-1176.	1.4	10
54	Mg doping and diffusion in (010) Î²-Ga2O3 films grown by plasma-assisted molecular beam epitaxy. Journal of Applied Physics, 2021, 130, .	1.1	10

#	Article	IF	Citations
55	Current gain above 10 in sub-10â€‰nm base III-Nitride tunneling hot electron transistors with GaN/AlN emitter. Applied Physics Letters, 2016, 108, .	1.5	9
56	Current gain in sub-10â€‰nm base GaN tunneling hot electron transistors with AlN emitter barrier. Applied Physics Letters, 2015, 106, 032101.	1.5	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.	1.7	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.	1.4	4
60	Î²-Ga₂O₃ lateral transistors with high aspect ratio fin-shape channels. Japanese Journal of Applied Physics, 2021, 60, 014001.	0.8	4
61	Molecular beam epitaxy of GaN on 2Hâ€“MoS2. Applied Physics Letters, 2020, 117, .	1.5	3
62	Common Emitter Current and Voltage Gain in III-Nitride Tunneling Hot Electron Transistors. IEEE Electron Device Letters, 2015, 36, 436-438.	2.2	2
63	Ultra-wide bandgap AlGaN channel MISFET with polarization engineered ohmics. , 2016, , .		2
64	Small-signal characteristics of graded AlGaN channel PolFETs. , 2017, , .		2
65	Design and Demonstration of (AlxGal-x)₂O₃/Ga₂O₃Double Heterostructure Field Effect Transistor (DHFET). , 2018, , .		2
66	Point Defect and Their Influence on the Atomic and Electronic Structure of Î²-(Al_xGa_{1-x})₂O₃ Alloys by STEM-EELS. Microscopy and Microanalysis, 2020, 26, 622-623.	0.2	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.	0.3	1
70	Zeeman spin-splitting in the (010) Î²-Ga2O3 two-dimensional electron gas. Applied Physics Letters, 2019, 115, .	1.5	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

#	Article	IF	Citations
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 Î²-(Al0.2Ga0.8)2O3//Î²-Ga2O3 interface by Kramers-Kronig analysis. Microscopy and Microanalysis, 2021, 27, 1168-1169.	0.2	0
75	Field-Effect Transistors 3. Springer Series in Materials Science, 2020, , 609-621.	0.4	0
76	Tight-binding band structure of Î²- and Î±-phase Ga₂O₃ and Al₂O₃. Journal of Applied Physics, 2022, 131, 175702.	1.1	0