Wenshen Li

List of Publications by Year in Descending Order

38 papers	921 citations	16 h-index	30 g-index
42 ext. papers	1,197 ext. citations	2.9 avg, IF	4.55 L-index

#	Paper	IF	Citations
38	Breakdown Mechanisms in Ga2O3 Trench-MOS Schottky-Barrier Diodes. *IEEE Transactions on Electron Devices*, **2022**, 69, 75-81	2.9	2
37	A unified thermionic and thermionic-field emission (TE FE) model for ideal Schottky reverse-bias leakage current. *Journal of Applied Physics*, **2022**, 131, 015702	2.5	5
36	Gallium oxide power electronics. *APL Materials*, **2022**, 10, 029201	5.7	33
35	Distributed polarization-doped GaN p diodes with near-unity ideality factor and avalanche breakdown voltage of 1.25 kV. *Applied Physics Letters*, **2022**, 120, 122111	3.4	0
34	ON-Resistance of Ga2O3 Trench-MOS Schottky Barrier Diodes: Role of Sidewall Interface Trapping. *IEEE Transactions on Electron Devices*, **2021**, 68, 2420-2426	2.9	5
33	Advanced concepts in Ga2O3 power and RF devices. *Semiconductors and Semimetals*, **2021**, 107, 23-47	0.6	2
32	Thermal stability of epitaxial Ga2O3 and (Al,Ga)2O3 layers on m-plane sapphire. *Applied Physics Letters*, **2021**, 119, 062102	3.4	8
31	Thermal design of multi-fin Ga2O3 vertical transistors. *Applied Physics Letters*, **2021**, 119, 103502	3.4	6
30	Near-ideal reverse leakage current and practical maximum electric field in Ga2O3 Schottky barrier diodes. *Applied Physics Letters*, **2020**, 116, 192101	3.4	42
29	. *IEEE Transactions on Electron Devices*, **2020**, 67, 3978-3982	2.9	1
28	GaN HEMTs on Si With Regrown Contacts and Cutoff/Maximum Oscillation Frequencies of 250/204 GHz. *IEEE Electron Device Letters*, **2020**, 41, 689-692	4.4	29
27	Field-Effect Transistors 5. *Springer Series in Materials Science*, **2020**, 639-660	0.9	
26	Degradation Mechanisms of GaN-Based Vertical Devices: A Review. *Physica Status Solidi (A) Applications and Materials Science*, **2020**, 217, 1900750	1.6	3
25	Field-Plated Ga2O3 Trench Schottky Barrier Diodes With a BV2/ $R_{text{on,sp}}$ of up to 0.95 GW/cm2. *IEEE Electron Device Letters*, **2020**, 41, 107-110	4.4	97
24	Guiding Principles for Trench Schottky Barrier Diodes Based on Ultrawide Bandgap Semiconductors: A Case Study in Ga *IEEE Transactions on Electron Devices*, **2020**, 67, 3938-3947	2.9	26
23	Thermionic emission or tunneling? The universal transition electric field for ideal Schottky reverse leakage current: A case study in Ga2O3. *Applied Physics Letters*, **2020**, 117, 222104	3.4	14
22	Very High Parallel-Plane Surface Electric Field of 4.3 MV/cm in Ga2O3 Schottky Barrier Diodes with PtOx Contacts **2020**,		4

21	. *IEEE Transactions on Electron Devices*, **2020**, 67, 3954-3959	2.9	12
20	Realization of GaN PolarMOS using selective-area regrowth by MBE and its breakdown mechanisms. *Japanese Journal of Applied Physics*, **2019**, 58, SCCD15	1.4	12
19	Fin-channel orientation dependence of forward conduction in kV-class Ga2O3 trench Schottky barrier diodes. *Applied Physics Express*, **2019**, 12, 061007	2.4	29
18	1.6 kV Vertical Ga2O3 FinFETs With Source-Connected Field Plates and Normally-off Operation **2019**,		19
17	. *IEEE Transactions on Electron Devices*, **2019**, 66, 4597-4603	2.9	8
16	Barrier Height Stability and Reverse Leakage Mechanisms in Ni/Ga2O3 (001) Schottky Barrier Diodes **2019**,		1
15	Field-plated Ga2O3 Trench Schottky Barrier Diodes with a Record High Figure-of-merit of 0.78 GW/cm2 **2019**,		2
14	**2019**,		23
13	Development of GaN Vertical Trench-MOSFET With MBE Regrown Channel. *IEEE Transactions on Electron Devices*, **2018**, 65, 2558-2564	2.9	32
12	Enhancement-Mode Ga2O3 Vertical Transistors With Breakdown Voltage >1 kV. *IEEE Electron Device Letters*, **2018**, 39, 869-872	4.4	166
11	Activation of buried p-GaN in MOCVD-regrown vertical structures. *Applied Physics Letters*, **2018**, 113, 062105	3.4	25
10	**2018**,		7
9	2.44 kV Ga2O3 vertical trench Schottky barrier diodes with very low reverse leakage current **2018**,		23
8	1230 V Ga2O3 trench Schottky barrier diodes with an ultra-low leakage current of . *Applied Physics Letters*, **2018**, 113, 202101	3.4	61
7	Breakdown mechanism in 1 kA/cm2 and 960 V E-mode Ga2O3 vertical transistors. *Applied Physics Letters*, **2018**, 113, 122103	3.4	91
6	1.5 kV Vertical Ga2O3 Trench-MIS Schottky Barrier Diodes **2018**,		9
5	. *IEEE Transactions on Electron Devices*, **2017**, 64, 1635-1641	2.9	58
4	GaN vertical nanowire and fin power MISFETs **2017**,		5

3	600 V GaN vertical V-trench MOSFET with MBE regrown channel **2017**,		10
2	1.1-kV Vertical GaN p-n Diodes With p-GaN Regrown by Molecular Beam Epitaxy. *IEEE Electron Device Letters*, **2017**, 38, 1071-1074	4.4	50
1	Photoelectric Generation Coefficient of B-Gallium Oxide during Exposure to High-Energy Ionizing Radiation. *Physica Status Solidi (A) Applications and Materials Science*,2100700	1.6	