Travis Anderson

List of Publications by Year
in descending order

46 papers	1,090 citations	567281 15 h-index	414414 32 g-index
46 all docs	46 docs citations	46 times ranked	1389 citing authors

#	Article	IF	Citations
1	Vertical GaN Junction Barrier Schottky Rectifiers by Selective Ion Implantation. IEEE Electron Device Letters, 2017, 38, 1097-1100.	3.9	136
2	Quantifying pulsed laser induced damage to graphene. Applied Physics Letters, 2011, 99, .	3.3	133
3	Reduced Self-Heating in AlGaN/GaN HEMTs Using Nanocrystalline Diamond Heat-Spreading Films. IEEE Electron Device Letters, 2012, 33, 23-25.	3.9	100
4	Control of the in-plane thermal conductivity of ultra-thin nanocrystalline diamond films through the grain and grain boundary properties. Acta Materialia, 2016, 103, 141-152.	7.9	97
5	GaN-On-Diamond HEMT Technology With T_{AVG} = 176Â°C at P_{DC,max} = 56 W/mm Measured by Transient Thermoreflectance Imaging. IEEE Electron Device Letters, 2019, 40, 881-884.	3.9	52
6	Symmetric Multicycle Rapid Thermal Annealing: Enhanced Activation of Implanted Dopants in GaN. ECS Journal of Solid State Science and Technology, 2015, 4, P382-P386.	1.8	45
7	Selective p-type Doping of GaN:Si by Mg Ion Implantation and Multicycle Rapid Thermal Annealing. ECS Journal of Solid State Science and Technology, 2016, 5, P124-P127.	1.8	43
8	Epitaxial Lift-Off and Transfer of III-N Materials and Devices from SiC Substrates. IEEE Transactions on Semiconductor Manufacturing, 2016, 29, 384-389.	1.7	41
9	Nanocrystalline Diamond Integration with III-Nitride HEMTs. ECS Journal of Solid State Science and Technology, 2017, 6, Q3036-Q3039.	1.8	40
10	Improved Vertical GaN Schottky Diodes with Ion Implanted Junction Termination Extension. ECS Journal of Solid State Science and Technology, 2016, 5, Q176-Q178.	1.8	35
11	Vertical GaN Junction Barrier Schottky Diodes. ECS Journal of Solid State Science and Technology, 2017, 6, Q10-Q12.	1.8	33
12	Improvements in the Annealing of Mg Ion Implanted GaN and Related Devices. IEEE Transactions on Semiconductor Manufacturing, 2016, 29, 343-348.	1.7	30
13	High resistivity halide vapor phase homoepitaxial Î²-Ga2O3 films co-doped by silicon and nitrogen. Applied Physics Letters, 2018, 113, .	3.3	30
14	High-Resolution Thermoreflectance Imaging Investigation of Self-Heating in AlGaN/GaN HEMTs on Si, SiC, and Diamond Substrates. IEEE Transactions on Electron Devices, 2020, 67, 5415-5420.	3.0	24
15	Electrothermal evaluation of thick GaN epitaxial layers and AlGaN/GaN high-electron-mobility transistors on large-area engineered substrates. Applied Physics Express, 2017, 10, 126501.	2.4	20
16	Characterization of a selective AlN wet etchant. Applied Physics Express, 2015, 8, 036501.	2.4	15
17	Degradation of dynamic ON-resistance of AlGaN/GaN HEMTs under proton irradiation. , 2013, , .		14
18	Electrothermal Evaluation of AlGaN/GaN Membrane High Electron Mobility Transistors by Transient Thermoreflectance. IEEE Journal of the Electron Devices Society, 2018, 6, 922-930.	2.1	14

#	Article	IF	Citations
19	Comparison of AlN Encapsulants for Bulk GaN Multicycle Rapid Thermal Annealing. ECS Journal of Solid State Science and Technology, 2015, 4, P403-P407.	1.8	12
20	High Voltage GaN Lateral Photoconductive Semiconductor Switches. ECS Journal of Solid State Science and Technology, 2017, 6, S3099-S3102.	1.8	12
21	GaN Power Devices â€“ Current Status and Future Directions. Electrochemical Society Interface, 2018, 27, 43-47.	0.4	12
22	Hyperspectral Electroluminescence Characterization of OFF-State Device Characteristics in Proton Irradiated High Voltage AlGaN/GaN HEMTs. ECS Journal of Solid State Science and Technology, 2016, 5, Q289-Q293.	1.8	11
23	Bilayer graphene by bonding CVD graphene to epitaxial graphene. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 03D110.	1.2	10
24	A Tri-Layer PECVD SiN Passivation Process for Improved AlGaN/GaN HEMT Performance. ECS Journal of Solid State Science and Technology, 2017, 6, P58-P61.	1.8	10
25	Modeling Radiation-Induced Degradation in Top-Gated Epitaxial Graphene Field-Effect-Transistors (FETs). Electronics (Switzerland), 2013, 2, 234-245.	3.1	9
26	Degradation mechanisms of AlGaN/GaN HEMTs on sapphire, Si, and SiC substrates under proton irradiation. , 2014, , .		9
27	Application of a Focused, Pulsed X-Ray Beam to the Investigation of Single-Event Transients in Al_{0.3}Ga_{0.7}N/GaN HEMTs. IEEE Transactions on Nuclear Science, 2017, 64, 97-105.	2.0	9
28	Investigation of Single-Event Transients in AlGaN/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. IEEE Transactions on Nuclear Science, 2019, 66, 368-375.	2.0	9
29	Defect Characterization of Multicycle Rapid Thermal Annealing Processed p-GaN for Vertical Power Devices. ECS Journal of Solid State Science and Technology, 2019, 8, P70-P76.	1.8	9
30	Effect of GaN Substrate Properties on Vertical GaN PiN Diode Electrical Performance. Journal of Electronic Materials, 2021, 50, 3013-3021.	2.2	8
31	12.5 kV GaN Super-Heterojunction Schottky Barrier Diodes. IEEE Transactions on Electron Devices, 2021, 68, 5736-5741.	3.0	8
32	Optimizing performance and yield of vertical GaN diodes using wafer scale optical techniques. Scientific Reports, 2022, 12, 658.	3.3	8
33	Correlation of the Spatial Variation of Single-Event Transient Sensitivity With Thermoreflectance Thermography in ${ext {Al}}_{x} {ext {Ga}}_{1-x}$ N/GaN HEMTs. IEEE Transactions on Nuclear Science, 2018, 65, 369-375.	2.0	6
34	Temperature and time dependent threshold voltage characterization of AlGaN/GaN high electron mobility transistors. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2232-2234.	0.8	5
35	Role of Capping Material and GaN Polarity on Mg Ion Implantation Activation. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900789.	1.8	5
36	A Study on the Impact of Mid-Gap Defects on Vertical GaN Diodes. IEEE Transactions on Semiconductor Manufacturing, 2020, 33, 546-551.	1.7	5

#	Article	IF	Citations
37	Lateral GaN JFET Devices on 200 mm Engineered Substrates for Power Switching Applications. , 2018, , .		4
38	Lateral GaN JFET Devices on Large Area Engineered Substrates. ECS Journal of Solid State Science and Technology, 2019, 8, Q226-Q229.	1.8	4
39	Process Optimization for Selective Area Doping of GaN by Ion Implantation. Journal of Electronic Materials, 2021, 50, 4642-4649.	2.2	4
40	Full thermal characterization of AlGaN/GaN high electron mobility transistors on silicon, silicon carbide, and diamond substrates using a reverse modeling approach. Semiconductor Science and Technology, 2021, 36, 014008.	2.0	4
41	High-Temperature Static and Dynamic Characteristics of 4.2-kV GaN Super-Heterojunction p-n Diodes. IEEE Transactions on Electron Devices, 2022, 69, 1912-1917.	3.0	4
42	Impact of Anode Thickness on Breakdown Mechanisms in Vertical GaN PiN Diodes with Planar Edge Termination. Crystals, 2022, 12, 623.	2.2	4
43	Quantifying substrate removal induced electrothermal degradation in AlGaN/GaN HEMTs. , 2017, , .		3
44	Reduced Contact Resistance in GaN Using Selective Area Si Ion Implantation. IEEE Transactions on Semiconductor Manufacturing, 2019, 32, 478-482.	1.7	3
45	Vertical power devices enabled by bulk GaN substrates. , 2019, , .		1
46	Vertical GaN junction barrier schottky diodes by Mg implantation and activation annealing. , 2016, , .		0