Travis J Anderson

List of Publications by Year
in descending order

67 papers	1,658 citations	257450 24 h-index	302126 39 g-index
67 all docs	67 docs citations	67 times ranked	1949 citing authors

#	Article	IF	Citations
1	Technique for the Dry Transfer of Epitaxial Graphene onto Arbitrary Substrates. ACS Nano, 2010, 4, 1108-1114.	14.6	190
2	Vertical GaN Junction Barrier Schottky Rectifiers by Selective Ion Implantation. IEEE Electron Device Letters, 2017, 38, 1097-1100.	3.9	136
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	Substrate-Dependent Effects on the Response of AlGaN/GaN HEMTs to 2-MeV Proton Irradiation. IEEE Electron Device Letters, 2014, 35, 826-828.	3.9	78
6	Effect of Reduced Extended Defect Density in MOCVD Grown AlGaN/GaN HEMTs on Native GaN Substrates. IEEE Electron Device Letters, 2016, 37, 28-30.	3.9	57
7	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
8	Atomic Layer Epitaxy AlN for Enhanced AlGaN/GaN HEMT Passivation. IEEE Electron Device Letters, 2013, 34, 1115-1117.	3.9	45
9	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
10	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
11	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
12	Multicycle rapid thermal annealing optimization of Mg-implanted GaN: Evolution of surface, optical, and structural properties. Journal of Applied Physics, 2014, 116, .	2.5	39
13	Impact of Intrinsic Stress in Diamond Capping Layers on the Electrical Behavior of AlGaN/GaN HEMTs. IEEE Transactions on Electron Devices, 2013, 60, 3149-3156.	3.0	37
14	Impact of Surface Passivation on the Dynamic ON-Resistance of Proton-Irradiated AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2016, 37, 545-548.	3.9	33
15	Vertical GaN Junction Barrier Schottky Diodes. ECS Journal of Solid State Science and Technology, 2017, 6, Q10-Q12.	1.8	33
16	Degradation mechanisms of 2â€‰MeV proton irradiated AlGaN/GaN HEMTs. Applied Physics Letters, 2015, 107, .	3.3	32
17	Characterization of an Mgâ€implanted GaN pâ€“iâ€“n diode. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 2772-2775.	1.8	32
18	An AlN/Ultrathin AlGaN/GaN HEMT Structure for Enhancement-Mode Operation Using Selective Etching. IEEE Electron Device Letters, 2009, 30, 1251-1253.	3.9	30

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19	Proton Radiation-Induced Void Formation in Ni/Au-Gated AlGaN/GaN HEMTs. IEEE Electron Device Letters, 2014, 35, 1194-1196.	3.9	30
20	Improvements in the Annealing of Mg Ion Implanted GaN and Related Devices. IEEE Transactions on Semiconductor Manufacturing, 2016, 29, 343-348.	1.7	30
21	Enhancement mode AlGaN/GaN MOS high-electron-mobility transistors with ZrO₂ gate dielectric deposited by atomic layer deposition. Applied Physics Express, 2016, 9, 071003.	2.4	30
22	Large-Signal RF Performance of Nanocrystalline Diamond Coated AlGaN/GaN High Electron Mobility Transistors. IEEE Electron Device Letters, 2014, 35, 1013-1015.	3.9	29
23	Electrical and Optical Characterization of AlGaN/GaN HEMTs with InÂSitu and ExÂSitu Deposited SiN x Layers. Journal of Electronic Materials, 2010, 39, 2452-2458.	2.2	27
24	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
25	Nanocrystalline diamond capped AlGaN/GaN high electron mobility transistors via a sacrificial gate process. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 893-897.	1.8	22
26	Spatial Mapping of Pristine and Irradiated AlGaN/GaN HEMTs With UV Single-Photon Absorption Single-Event Transient Technique. IEEE Transactions on Nuclear Science, 2016, 63, 1995-2001.	2.0	20
27	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
28	Nanocrystalline Diamond-Gated AlGaN/GaN HEMT. IEEE Electron Device Letters, 2013, 34, 1382-1384.	3.9	18
29	Deep reactive ion etching of 4H-SiC via cyclic SF₆/O₂ segments. Journal of Micromechanics and Microengineering, 2017, 27, 095004.	2.6	18
30	Characterization of a selective AlN wet etchant. Applied Physics Express, 2015, 8, 036501.	2.4	15
31	Optical characterization and thermal properties of CVD diamond films for integration with power electronics. Solid-State Electronics, 2017, 136, 12-17.	1.4	15
32	Degradation of dynamic ON-resistance of AlGaN/GaN HEMTs under proton irradiation. , 2013, , .		14
33	Dry Etching of High Aspect Ratio 4H-SiC Microstructures. ECS Journal of Solid State Science and Technology, 2017, 6, P207-P210.	1.8	14
34	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
35	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
36	Defect reduction in MBE-grown AlN by multicycle rapid thermal annealing. Electronic Materials Letters, 2016, 12, 133-138.	2.2	12

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37	High Voltage GaN Lateral Photoconductive Semiconductor Switches. ECS Journal of Solid State Science and Technology, 2017, 6, S3099-S3102.	1.8	12
38	Polarity dependent implanted p-type dopant activation in GaN. Japanese Journal of Applied Physics, 2019, 58, SCCD07.	1.5	12
39	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
40	Comparison of AlN encapsulants for high-temperature GaN annealing. Applied Physics Express, 2014, 7, 121003.	2.4	10
41	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
42	Degradation mechanisms of AlGaN/GaN HEMTs on sapphire, Si, and SiC substrates under proton irradiation. , 2014, , .		9
43	Thermal etching of nanocrystalline diamond films. Diamond and Related Materials, 2015, 59, 116-121.	3.9	9
44	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
45	On the high curvature coefficient rectifying behavior of nanocrystalline diamond heterojunctions to 4H-SiC. Applied Physics Letters, 2010, 97, .	3.3	8
46	Efficient Incorporation of Mg in Solution Grown GaN Crystals. Applied Physics Express, 2013, 6, 111001.	2.4	8
47	Effect of GaN Substrate Properties on Vertical GaN PiN Diode Electrical Performance. Journal of Electronic Materials, 2021, 50, 3013-3021.	2.2	8
48	Optimizing performance and yield of vertical GaN diodes using wafer scale optical techniques. Scientific Reports, 2022, 12, 658.	3.3	8
49	GaN Power Transistors with Integrated Thermal Management. ECS Transactions, 2013, 58, 279-286.	0.5	7
50	Electrical and Thermal Stability of ALD-Deposited TiN Transition Metal Nitride Schottky Gates for AlGaN/GaN HEMTs. ECS Journal of Solid State Science and Technology, 2016, 5, Q204-Q207.	1.8	6
51	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
52	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
53	Comparative Study of Ohmic Contact Metallizations to Nanocrystalline Diamond Films. Materials Science Forum, 0, 645-648, 733-735.	0.3	4
54	Lateral GaN JFET Devices on 200 mm Engineered Substrates for Power Switching Applications. , 2018, , .		4

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55	Lateral GaN JFET Devices on Large Area Engineered Substrates. ECS Journal of Solid State Science and Technology, 2019, 8, Q226-Q229.	1.8	4
56	Process Optimization for Selective Area Doping of GaN by Ion Implantation. Journal of Electronic Materials, 2021, 50, 4642-4649.	2.2	4
57	Impact of Anode Thickness on Breakdown Mechanisms in Vertical GaN PiN Diodes with Planar Edge Termination. Crystals, 2022, 12, 623.	2.2	4
58	UV Single-Photon Absorption Single-Event Transient Testing of Pristine and Irradiated AlGaN/GaN HEMTs. , 2015, , .		3
59	Hexagonal boron nitride particles for determining the thermal conductivity of diamond films based on near-ultraviolet micro-Raman mapping. Journal Physics D: Applied Physics, 2017, 50, 24LT01.	2.8	3
60	Quantifying substrate removal induced electrothermal degradation in AlGaN/GaN HEMTs. , 2017, , .		3
61	Reduced Contact Resistance in GaN Using Selective Area Si Ion Implantation. IEEE Transactions on Semiconductor Manufacturing, 2019, 32, 478-482.	1.7	3
62	(Invited) GaN Homoepitaxial Growth and Substrate-Dependent Effects for Vertical Power Devices. ECS Transactions, 2020, 98, 63-67.	0.5	3
63	Investigation of the Reverse Leakage Behavior and Substrate Defects in Vertical GaN Schottky and PIN Diodes. ECS Journal of Solid State Science and Technology, 2022, 11, 065006.	1.8	2
64	Crystal polarity role in Mg incorporation during GaN solution growth. Journal of Crystal Growth, 2014, 403, 90-95.	1.5	1
65	Improved Passivation Techniques for AlGaN/GaN Hemts. ECS Meeting Abstracts, 2013, , .	0.0	0
66	Optical Investigation of Protonâ€Irradiated Metal Organic Chemical Vapor Deposition AlGaN/GaN Highâ€Electronâ€Mobility Transistor Structures. Physica Status Solidi (B): Basic Research, 2020, 257, 1900573.	1.5	0
67	Reduced-stress nanocrystalline diamond films for heat spreading in electronic devices. , 2022, , 275-294.		0