

Andrew D Koehler

List of Publications by Year in descending order

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Version: 2024-02-01

23
papers

1,331
citations

933447

10
h-index

794594

19
g-index

23
all docs

23
docs citations

23
times ranked

1808
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrawide-Bandgap Semiconductors: Research Opportunities and Challenges. <i>Advanced Electronic Materials</i> , 2018, 4, 1600501.	5.1	839
2	Vertical GaN Junction Barrier Schottky Rectifiers by Selective Ion Implantation. <i>IEEE Electron Device Letters</i> , 2017, 38, 1097-1100.	3.9	136
3	Substrate-Dependent Effects on the Response of AlGaIn/GaN HEMTs to 2-MeV Proton Irradiation. <i>IEEE Electron Device Letters</i> , 2014, 35, 826-828.	3.9	78
4	GaN-On-Diamond HEMT Technology With $T_{AVG} = 176^{\circ}\text{C}$ at $P_{DC,max} = 56 \text{ W/mm}$ Measured by Transient Thermoreflectance Imaging. <i>IEEE Electron Device Letters</i> , 2019, 40, 881-884.	3.9	52
5	Vertical GaN Junction Barrier Schottky Diodes. <i>ECS Journal of Solid State Science and Technology</i> , 2017, 6, Q10-Q12.	1.8	33
6	High resistivity halide vapor phase homoepitaxial $\text{In}^{2-}\text{Ga}_2\text{O}_3$ films co-doped by silicon and nitrogen. <i>Applied Physics Letters</i> , 2018, 113, .	3.3	30
7	A Comparison of Single-Event Transients in Pristine and Irradiated $\text{Al}_{0.3}\text{Ga}_{0.7}\text{N}/\text{m GaN}$ HEMTs using Two-Photon Absorption and Heavy Ions. <i>IEEE Transactions on Nuclear Science</i> , 2015, 62, 2743-2751.	2.0	22
8	Spatial Mapping of Pristine and Irradiated AlGaIn/GaN HEMTs With UV Single-Photon Absorption Single-Event Transient Technique. <i>IEEE Transactions on Nuclear Science</i> , 2016, 63, 1995-2001.	2.0	20
9	Degradation of dynamic ON-resistance of AlGaIn/GaN HEMTs under proton irradiation. , 2013, , .		14
10	Electrothermal Evaluation of AlGaIn/GaN Membrane High Electron Mobility Transistors by Transient Thermoreflectance. <i>IEEE Journal of the Electron Devices Society</i> , 2018, 6, 922-930.	2.1	14
11	High Voltage GaN Lateral Photoconductive Semiconductor Switches. <i>ECS Journal of Solid State Science and Technology</i> , 2017, 6, S3099-S3102.	1.8	12
12	Hyperspectral Electroluminescence Characterization of OFF-State Device Characteristics in Proton Irradiated High Voltage AlGaIn/GaN HEMTs. <i>ECS Journal of Solid State Science and Technology</i> , 2016, 5, Q289-Q293.	1.8	11
13	A Tri-Layer PECVD SiN Passivation Process for Improved AlGaIn/GaN HEMT Performance. <i>ECS Journal of Solid State Science and Technology</i> , 2017, 6, P58-P61.	1.8	10
14	The Effect of the Gate-Connected Field Plate on Single-Event Transients in AlGaIn/GaN Schottky-Gate HEMTs. <i>IEEE Transactions on Nuclear Science</i> , 2019, 66, 1682-1687.	2.0	10
15	Degradation mechanisms of AlGaIn/GaN HEMTs on sapphire, Si, and SiC substrates under proton irradiation. , 2014, , .		9
16	Application of a Focused, Pulsed X-Ray Beam to the Investigation of Single-Event Transients in $\text{Al}_{0.3}\text{Ga}_{0.7}\text{N}/\text{GaN}$ HEMTs. <i>IEEE Transactions on Nuclear Science</i> , 2017, 64, 97-105.	2.0	9
17	Investigation of Single-Event Transients in AlGaIn/GaN MIS-Gate HEMTs Using a Focused X-Ray Beam. <i>IEEE Transactions on Nuclear Science</i> , 2019, 66, 368-375.	2.0	9
18	Effect of GaN Substrate Properties on Vertical GaN PIN Diode Electrical Performance. <i>Journal of Electronic Materials</i> , 2021, 50, 3013-3021.	2.2	8

#	ARTICLE	IF	CITATIONS
19	Correlation of the Spatial Variation of Single-Event Transient Sensitivity With Thermoreflectance Thermography in $\text{Al}_x\text{Ga}_{1-x}\text{N}$ GaN HEMTs. IEEE Transactions on Nuclear Science, 2018, 65, 369-375.	2.0	6
20	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
21	Reduced Contact Resistance in GaN Using Selective Area Si Ion Implantation. IEEE Transactions on Semiconductor Manufacturing, 2019, 32, 478-482.	1.7	3
22	Vertical power devices enabled by bulk GaN substrates. , 2019, , .		1
23	Vertical GaN junction barrier schottky diodes by Mg implantation and activation annealing. , 2016, , .		0