Lu Liu

List of Publications by Year
in descending order

47 papers	1,199 citations	430442 18 h-index	377514 34 g-index
49 all docs	49 docs citations	49 times ranked	1174 citing authors

#	Article	IF	Citations
1	Radiation effects in GaN materials and devices. Journal of Materials Chemistry C, 2013, 1, 877-887.	2.7	171
2	Review of radiation damage in GaN-based materials and devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	170
3	Inkjet Printing Transparent and Conductive MXene (Ti₃C₂T_x) Films: A Strategy for Flexible Energy Storage Devices. ACS Applied Materials & Interfaces, 2021, 13, 17766-17780.	4.0	79
4	Functionalization with MXene (Ti₃C₂) Enhances the Wettability and Shear Strength of Carbon Fiber-Epoxy Composites. ACS Applied Nano Materials, 2019, 2, 5553-5562.	2.4	60
5	Isolation blocking voltage of nitrogen ion-implanted AlGaN/GaN high electron mobility transistor structure. Applied Physics Letters, 2010, 97, .	1.5	49
6	Three-Dimensional Porous Ti3C2Tx-NiO Composite Electrodes with Enhanced Electrochemical Performance for Supercapacitors. Materials, 2019, 12, 188.	1.3	44
7	Construction of biomimetic artificial intervertebral disc scaffold via 3D printing and electrospinning. Materials Science and Engineering C, 2021, 128, 112310.	3.8	38
8	Characterization of the gate oxide of an AlGaN/GaN high electron mobility transistor. Applied Physics Letters, 2011, 98, 122103.	1.5	34
9	Modeling Proton Irradiation in AlGaN/GaN HEMTs: Understanding the Increase of Critical Voltage. IEEE Transactions on Nuclear Science, 2013, 60, 4103-4108.	1.2	34
10	Dependence on proton energy of degradation of AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	0.6	34
11	Degradation Mechanisms for GaN and GaAs High Speed Transistors. Materials, 2012, 5, 2498-2520.	1.3	32
12	Investigation of the effect of temperature during off-state degradation of AlGaN/GaN High Electron Mobility Transistors. Microelectronics Reliability, 2012, 52, 23-28.	0.9	32
13	Comparison of neutron irradiation effects in AlGaN/AlN/GaN, AlGaN/GaN, and InAlN/GaN heterojunctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	29
14	Effects of proton irradiation energies on degradation of AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 012202.	0.6	26
15	Effect of source field plate on the characteristics of off-state, step-stressed AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	25
16	Impact of proton irradiation on dc performance of AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 042202.	0.6	23
17	Effect of electron irradiation on AlGaN/GaN and InAlN/GaN heterojunctions. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 022206.	0.6	23
18	Improvement of Off-State Stress Critical Voltage by Using Pt-Gated AlGaN/GaN High Electron Mobility Transistors. Electrochemical and Solid-State Letters, 2011, 14, H264.	2.2	21

#	Article	IF	Citations
19	Effect of temperature on CO sensing response in air ambient by using ZnO nanorod-gated AlGaN/GaN high electron mobility transistors. Sensors and Actuators B: Chemical, 2013, 176, 708-712.	4.0	19
20	Effects of proton irradiation on dc characteristics of InAlN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 061201.	0.6	17
21	Annealing temperature dependence of Ohmic contact resistance and morphology on InAlN/GaN high electron mobility transistor structures. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 021002.	0.6	16
22	Effect of buffer structures on AlGaN/GaN high electron mobility transistor reliability. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 011805.	0.6	16
23	Study on the effects of proton irradiation on the dc characteristics of AlGaN/GaN high electron mobility transistors with source field plate. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, 022202.	0.6	16
24	Transmission electron microscopy characterization of electrically stressed AlGaN/GaN high electron mobility transistor devices. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, .	0.6	14
25	Effect of buffer layer structure on electrical and structural properties of AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 011205.	0.6	13
26	MXene (Ti3C2Tx) Functionalized Short Carbon Fibers as a Cross-Scale Mechanical Reinforcement for Epoxy Composites. Polymers, 2021, 13, 1825.	2.0	13
27	Investigating the effect of off-state stress on trap densities in AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	12
28	Comparison of passivation layers for AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	12
29	Under-gate defect formation in Ni-gate AlGaN/GaN high electron mobility transistors. Microelectronics Reliability, 2012, 52, 2542-2546.	0.9	12
30	Electrical characterization of 60Co gamma radiation-exposed InAlN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	0.6	11
31	Circular and rectangular via holes formed in SiC via using ArF based UV excimer laser. Applied Surface Science, 2011, 257, 2303-2307.	3.1	9
32	Effects of silicon nitride passivation on isolation-blocking voltage in algan/gan high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, .	0.6	9
33	Proton irradiation energy dependence of dc and rf characteristics on InAlN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 041206.	0.6	9
34	PVdF-HFP-Based Gel Polymer Electrolyte with Semi-Interpenetrating Networks For Dendrite-Free Lithium Metal Battery. Acta Metallurgica Sinica (English Letters), 2021, 34, 417-424.	1.5	9
35	Attapulgiteâ€“MXene Hybrids with Ti3C2Tx Lamellae Surface Modified by Attapulgite as a Mechanical Reinforcement for Epoxy Composites. Polymers, 2021, 13, 1820.	2.0	9
36	Effects of 2 MeV Ge+ irradiation on AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 021205.	0.6	8

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37	Carbon monoxide detection sensitivity of ZnO nanorod-gated AlGaN/GaN high electron mobility transistors in different temperature environments. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 010606.	0.6	7
38	Methane detection using Pt-gated AlGaN/GaN high electron mobility transistor based Schottky diodes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 032203.	0.6	7
39	Thermal simulation of laser lift-off AlGaN/GaN high electron mobility transistors mounted on AlN substrates. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 041202.	0.6	6
40	Effect of Drain Bias on Degradation of AlGaNâˆ•GaN High Electron Mobility Transistors under X-Band Operation. Electrochemical and Solid-State Letters, 2011, 14, H464.	2.2	5
41	Degradation of dc characteristics of InAlN/GaN high electron mobility transistors by 5 MeV proton irradiation. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 031202.	0.6	5
42	193â€‰nm excimer laser lift-off for AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2012, 30, 051209.	0.6	5
43	Mechanical properties of phase-pure bulk Ta4AlC3 prepared by spark plasma sintering and subsequent heat treatment. Processing and Application of Ceramics, 2021, 15, 211-218.	0.4	5
44	Comparison of DC performance of Pt/Ti/Au- and Ni/Au-gated AlGaN/GaN high electron mobility transistors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 042202.	0.6	3
45	Radiation Damage in GaN-Based Materials and Devices. , 2013, , 1753-1764.		2
46	The Effects of Device Dimension, Substrate Temperature, and Gate Metallization on the Reliability of AlGaN/GaN High Electron Mobility Transistors. Materials Research Society Symposia Proceedings, 2012, 1396, .	0.1	0
47	Flexible and Highâ€Performance MXene/MnO₂ Film Electrodes Fabricated by Inkjet Printing: Toward a New Generation Supercapacitive Application (Adv. Mater. Interfaces 21/2021). Advanced Materials Interfaces, 2021, 8, 2170117.	1.9	0