Xi Tang

List of Publications by Year
in descending order

44 papers	1,011 citations	471371 17 h-index	454834 30 g-index
45 all docs	45 docs citations	45 times ranked	874 citing authors

#	Article	IF	Citations
1	600-V Normally Off ${m SiN}_{x}$/AlGaN/GaN MIS-HEMT With Large Gate Swing and Low Current Collapse. IEEE Electron Device Letters, 2013, 34, 1373-1375.	2.2	223
2	Mechanism of Threshold Voltage Shift in ${p}$ -GaN Gate AlGaN/GaN Transistors. IEEE Electron Device Letters, 2018, 39, 1145-1148.	2.2	96
3	Low On-Resistance Normally-Off GaN Double-Channel Metalâ€“Oxideâ€“Semiconductor High-Electron-Mobility Transistor. IEEE Electron Device Letters, 2015, 36, 1287-1290.	2.2	88
4	Influence of AlN Passivation on Dynamic ON-Resistance and Electric Field Distribution in High-Voltage AlGaN/GaN-on-Si HEMTs. IEEE Transactions on Electron Devices, 2014, 61, 2785-2792.	1.6	52
5	Strain-tunable III-nitride/ZnO heterostructures for photocatalytic water-splitting: A hybrid functional calculation. APL Materials, 2020, 8, .	2.2	48
6	Nb₂CT_x MXene Nanosheets for Dye Adsorption. ACS Applied Nano Materials, 2021, 4, 11763-11769.	2.4	44
7	Enhancement-mode GaN double-channel MOS-HEMT with low on-resistance and robust gate recess. , 2015, , .		38
8	Dynamic $R_{mathrm {ON}}$ of GaN-on-Si Lateral Power Devices With a Floating Substrate Termination. IEEE Electron Device Letters, 2017, 38, 937-940.	2.2	31
9	An Analytical Investigation on the Charge Distribution and Gate Control in the Normally-Off GaN Double-Channel MOS-HEMT. IEEE Transactions on Electron Devices, 2018, 65, 2757-2764.	1.6	30
10	Asymmetric Bipolar Injection in a Schottky-Metal/${p}$ -GaN/AlGaN/GaN Device Under Forward Bias. IEEE Electron Device Letters, 2019, 40, 1389-1392.	2.2	28
11	Revealing the Nitridation Effects on GaN Surface by First-Principles Calculation and X-Ray/Ultraviolet Photoemission Spectroscopy. IEEE Transactions on Electron Devices, 2017, 64, 4036-4043.	1.6	25
12	Channel-to-Channel Coupling in Normally-Off GaN Double-Channel MOS-HEMT. IEEE Electron Device Letters, 2018, 39, 59-62.	2.2	24
13	Barrier Inhomogeneity of Schottky Diode on Nonpolar AlN Grown by Physical Vapor Transport. IEEE Journal of the Electron Devices Society, 2019, 7, 662-667.	1.2	24
14	Below bandgap photoluminescence of an AlN crystal: Co-existence of two different charging states of a defect center. APL Materials, 2020, 8, .	2.2	24
15	P-doping-free III-nitride high electron mobility light-emitting diodes and transistors. Applied Physics Letters, 2014, 105, 032105.	1.5	22
16	Temperature enhanced responsivity and speed in an AlGaN/GaN metal-heterostructure-metal photodetector. Applied Physics Letters, 2021, 119, .	1.5	22
17	III-Nitride transistors with photonic-ohmic drain for enhanced dynamic performances. , 2015, , .		18
18	Normally off Al₂O₃–AlGaN/GaN MIS-HEMT With Transparent Gate Electrode for Gate Degradation Investigation. IEEE Transactions on Electron Devices, 2015, 62, 821-827.	1.6	18

#	Article	IF	Citations
19	Optical pumping of deep traps in AlGaN/GaN-on-Si HEMTs using an on-chip Schottky-on-heterojunction light-emitting diode. Applied Physics Letters, 2015, 106, .	1.5	18
20	Characterization of Static and Dynamic Behaviors in AlGaN/GaN-on-Si Power Transistors With Photonic-Ohmic Drain. IEEE Transactions on Electron Devices, 2016, 63, 2831-2837.	1.6	16
21	Effect of Hole-Injection on Leakage Degradation in a <inline-formula> <tex-math notation="LaTeX">p </tex-math> </inline-formula>-GaN Gate AlGaN/GaN Power Transistor. IEEE Electron Device Letters, 2018, 39, 1203-1206.	2.2	16
22	Mechanism of leakage current increase in p-GaN gate AlGaN/GaN power devices induced by ON-state gate bias. Japanese Journal of Applied Physics, 2018, 57, 124101.	0.8	11
23	Optoelectronic devices on AlGaN/GaN HEMT platform. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 1213-1221.	0.8	10
24	Demonstration of Electron/Hole Injections in the Gate of p-GaN/AlGaN/GaN Power Transistors and Their Effect on Device Dynamic Performance. , 2019, , .		10
25	Thermally enhanced hole injection and breakdown in a Schottky-metal/p-GaN/AlGaN/GaN device under forward bias. Applied Physics Letters, 2020, 117, .	1.5	10
26	Impact of carrier injections on the threshold voltage in p-GaN gate AlGaN/GaN power HEMTs. Applied Physics Express, 2019, 12, 064001.	1.1	9
27	Photocurrent characteristics of metalâ€“AlGaN/GaN Schottky-on-heterojunction diodes induced by GaN interband excitation. Applied Physics Express, 2018, 11, 054101.	1.1	7
28	Investigation of Thermally Induced Threshold Voltage Shift in Normally-OFF p-GaN Gate HEMTs. IEEE Transactions on Electron Devices, 2022, 69, 2287-2292.	1.6	7
29	Schottky-on-heterojunction optoelectronic functional devices realized on AlGaN/GaN-on-Si platform. , 2014, , .		6
30	Photon emission and current-collapse suppression of AlGaN/GaN field-effect transistors with photonicâ€“ohmic drain at high temperatures. Applied Physics Express, 2018, 11, 071003.	1.1	6
31	Nitridation of GaN surface for power device application: A first-principles study. , 2016, , .		5
32	On-chip addressable Schottky-on-heterojunction light-emitting diode arrays on AlGaN/GaN-on-Si platform. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 365-368.	0.8	4
33	Impact of substrate termination on dynamic performance of GaN-on-Si lateral power devices. , 2017, , .		4
34	On the physics link between time-dependent gate breakdown and electroluminescence in Schottky-type p-GaN gate HEMTs. , 2022, , .		4
35	Switching Behaviors of On-Chip Photon Source on AlGaN/GaN-on-Si Power HEMTs Platform. IEEE Photonics Technology Letters, 2016, 28, 2803-2806.	1.3	3
36	Investigation of the threshold voltage instability in normally-off p-GaN/AlGaN/GaN HEMTs by optical analysis. Japanese Journal of Applied Physics, 2021, 60, 104001.	0.8	3

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37	On-chip optical pumping of deep traps in AlGaN/GaN-on-Si power HEMTs. , 2015, , .		2
38	Monolithically integrated 600-V E/D-mode SiN<inf>x</inf>/AlGaN/GaN MIS-HEMTs and their applications in low-standby-power start-up circuit for switched-mode power supplies. , 2013, , .		1
39	Impact of integrated photonic-ohmic drain on static and dynamic characteristics of GaN-on-Si heterojunction power transistors. , 2016, , .		1
40	A New SiC Planar-Gate IGBT for Injection Enhancement Effect and Low Oxide Field. Energies, 2021, 14, 82.	1.6	1
41	Voltage-Sensorless Finite-Control-Set Model Predictive Control for LCL-Filtered Grid-Connected Inverters. , 2021, , .		1
42	Enhancing dynamic performance of GaN-on-Si power devices with on-chip photon pumping. , 2016, , .		0
43	Critical heterostructure design for low on-resistance normally-off double-channel MOS-HEMT. , 2016, , .		0
44	Controlling hysteretic transitions in quasi-one-dimensional TiS₃ microribbons. Applied Physics Letters, 2022, 121, 013503.	1.5	0