Chirag Gupta

List of Publications by Year
in descending order

33 papers	913 citations	516215 16 h-index	476904 29 g-index
33 all docs	33 docs citations	33 times ranked	679 citing authors

#	Article	IF	Citations
1	Vertical GaN and Vertical Ga₂O₃ Power Transistors: Status and Challenges. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	7
2	Patterned IIIâ€Nitrides on Porous GaN: Extending Elastic Relaxation from the Nanoâ€•to the Micrometer Scale. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2100234.	1.2	9
3	Demonstration of ultra-small (<10 Î¼m) 632 nm red InGaN micro-LEDs with useful on-wafer external quantum efficiency (>0.2%) for mini-displays. Applied Physics Express, 2021, 14, 011004.	1.1	96
4	Demonstration of a GaN/AlGaN Superlattice-Based p-Channel FinFET With High ON-Current. IEEE Electron Device Letters, 2020, 41, 220-223.	2.2	36
5	Color-tunable <10â€‰<i> Î¼ </i>m square InGaN micro-LEDs on compliant GaN-on-porous-GaN pseudo-substrates. Applied Physics Letters, 2020, 117, .	1.5	44
6	Method of growing elastically relaxed crack-free AlGaN on GaN as substrates for ultra-wide bandgap devices using porous GaN. Applied Physics Letters, 2020, 117, .	1.5	15
7	Ultra-high silicon doped N-polar GaN contact layers grown by metal-organic chemical vapor deposition. Semiconductor Science and Technology, 2020, 35, 095002.	1.0	12
8	Growth of strain-relaxed InGaN on micrometer-sized patterned compliant GaN pseudo-substrates. Applied Physics Letters, 2020, 116, .	1.5	38
9	An improved methodology for extracting interface state density at Si3N4/GaN. Applied Physics Letters, 2020, 116, .	1.5	23
10	First experimental demonstration and analysis of electrical transport characteristics of a GaN-based HEMT with a relaxed InGaN channel. Semiconductor Science and Technology, 2020, 35, 075007.	1.0	9
11	Compliant Micron-Sized Patterned InGaN Pseudo-Substrates Utilizing Porous GaN. Materials, 2020, 13, 213.	1.3	22
12	Net negative fixed interface charge for Si3N4 and SiO2 grown in situ on 000-1 N-polar GaN. Applied Physics Letters, 2019, 115, 032103.	1.5	15
13	Flatband voltage stability and time to failure of MOCVD-grown SiO₂ and Si₃N₄ dielectrics on N-polar GaN. Applied Physics Express, 2019, 12, 121001.	1.1	5
14	Fabrication of relaxed InGaN pseudo-substrates composed of micron-sized pattern arrays with high fill factors using porous GaN. Semiconductor Science and Technology, 2019, 34, 115020.	1.0	30
15	First demonstration of improvement in hole conductivity in<i>c</i>-plane III-Nitrides through application of uniaxial strain. Japanese Journal of Applied Physics, 2019, 58, 030908.	0.8	16
16	Reverse breakdown studies of GaN MOSCAPs and their implications in vertical GaN power devices. Journal of Applied Physics, 2019, 125, 124101.	1.1	4
17	Corrections to â€œ<italic>In Situ</italic> Oxide, GaN Interlayer-Based Vertical Trench MOSFET (OG-FET) on Bulk GaN Substratesâ€™ [Mar 17 353-355]. IEEE Electron Device Letters, 2018, 39, 316-316.	2.2	4
18	Comparing electrical characteristics of in situ and ex situ Al₂O₃/GaN interfaces formed by metalorganic chemical vapor deposition. Applied Physics Express, 2018, 11, 041002.	1.1	4

#	ARTICLE	IF	CITATIONS
19	Large-Area <italic>In-Situ</italic> Oxide, GaN Interlayer-Based Vertical Trench MOSFET (OG-FET). IEEE Electron Device Letters, 2018, 39, 711-714.	2.2	52
20	Improved Dynamic R_{ON} of GaN Vertical Trench MOSFETs (OG-FETs) Using TMAH Wet Etch. IEEE Electron Device Letters, 2018, 39, 1030-1033.	2.2	25
21	Exploring metalorganic chemical vapor deposition of Si-alloyed Al 2 O 3 dielectrics using disilane. Journal of Crystal Growth, 2017, 464, 54-58.	0.7	6
22	In Situ <italic>O</italic>xide, <italic>G</italic>aN Interlayer-Based Vertical Trench MOS<italic>FET</italic> (<italic>OG-FET</italic>) on Bulk GaN substrates. IEEE Electron Device Letters, 2017, 38, 353-355.	2.2	130
23	Abrupt GaN/p-GaN:Mg junctions grown via metalorganic chemical vapor deposition. Applied Physics Express, 2017, 10, 111002.	1.1	5
24	Pâ€“n junction diodes with polarization induced p-type graded In<i>_x</i>Ga_{1â€“<i>x</i>}N layer. Semiconductor Science and Technology, 2017, 32, 105013.	1.0	8
25	Impact of Trench Dimensions on the Device Performance of GaN Vertical Trench MOSFETs. IEEE Electron Device Letters, 2017, 38, 1559-1562.	2.2	10
26	Maskless regrowth of GaN for trenched devices by MOCVD. Applied Physics Letters, 2017, 111, .	1.5	6
27	First report of scaling a normally-off in-situ oxide, GaN interlayer based vertical trench MOSFET (OG-FET). , 2017, , .		9
28	First Demonstration of AlSiO as Gate Dielectric in GaN FETs; Applied to a High Performance OG-FET. IEEE Electron Device Letters, 2017, 38, 1575-1578.	2.2	37
29	Demonstrating >1.4 kV OG-FET performance with a novel double field-plated geometry and the successful scaling of large-area devices. , 2017, , .		53
30	OG-FET: An In-Situ ${O}$ xide, ${G}$ aN Interlayer-Based Vertical Trench MOSFET. IEEE Electron Device Letters, 2016, 37, 1601-1604.	2.2	63
31	Comparing electrical performance of GaN trench-gate MOSFETs with a-plane and m-plane sidewall channels. Applied Physics Express, 2016, 9, 121001.	1.1	49
32	High breakdown voltage p-n diodes on GaN on sapphire by MOCVD. Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 878-882.	0.8	51
33	Metalorganic chemical vapor deposition and characterization of (Al,Si)O dielectrics for GaN-based devices. Japanese Journal of Applied Physics, 2016, 55, 021501.	0.8	20