

Debdeep Jena

List of Publications by Year in descending order

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319
papers

14,259
citations

22548

61
h-index

28425

109
g-index

323
all docs

323
docs citations

323
times ranked

14509
citing authors

#	ARTICLE	IF	CITATIONS
1	Epitaxial Ferrimagnetic Mn ₄ N Thin Films on GaN by Molecular Beam Epitaxy. IEEE Transactions on Magnetics, 2022, 58, 1-6.	1.2	3
2	In Situ Crystalline AlN Passivation for Reduced RF Dispersion in Strained Channel AlN/GaN/AlN High Electron Mobility Transistors. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, 2100452. https://doi.org/10.1002/pssb.2022100452	0.8	9
3	Acoustic phonon dispersion and Brillouin zone center phonons of AlN compared to GaN. Applied Physics Letters, 2022, 120, 012103. https://doi.org/10.1063/1.5144444	0.9	10
4	Very High Density (>10 ¹⁴ cm ⁻²) Polarization Induced 2D Hole Gases Observed in Undoped Pseudomorphic InGaN/AlN Heterostructures. Advanced Electronic Materials, 2022, 8, .	2.6	6
5	Breakdown Mechanisms in InGaN/GaN Trench-MOS Schottky-Barrier Diodes. IEEE Transactions on Electron Devices, 2022, 69, 75-81.	1.6	9
6	Quantitative scanning microwave microscopy of 2D electron and hole gases in AlN/GaN heterostructures. Applied Physics Letters, 2022, 120, 012103.	1.5	2
7	A unified thermionic and thermionic-field emission (TE-TFE) model for ideal Schottky reverse-bias leakage current. Journal of Applied Physics, 2022, 131, .	1.1	11
8	High thermal conductivity and ultrahigh thermal boundary conductance of homoepitaxial AlN thin films. APL Materials, 2022, 10, .	2.2	12
9	Distributed polarization-doped GaN pn diodes with near-unity ideality factor and avalanche breakdown voltage of 1.25 kV. Applied Physics Letters, 2022, 120, .	1.5	3
10	Extending the Kinetic and Thermodynamic Limits of Molecular-Beam Epitaxy Utilizing Suboxide Sources or Metal-Oxide-Catalyzed Epitaxy. Physical Review Applied, 2022, 17, .	1.5	11
11	Infrared-active phonon modes and static dielectric constants in Al _{1-x} Ga _x Al ₂ O ₃ (0.18 ≤ x ≤ 0.54) alloys. Applied Physics Letters, 2022, 120, .	1.5	4
12	Optically pumped deep-UV multimode lasing in AlGaIn double heterostructure grown by molecular beam homoepitaxy. AIP Advances, 2022, 12, .	0.6	7
13	Epitaxial ScAlInN on GaN exhibits attractive high-K dielectric properties. Applied Physics Letters, 2022, 120, .	1.5	17
14	N-polar GaN p-n junction diodes with low ideality factors. Applied Physics Express, 2022, 15, 064004.	1.1	4
15	Structural and electronic properties of NbN/GaN junctions grown by molecular beam epitaxy. APL Materials, 2022, 10, 051103.	2.2	3
16	Tight-binding band structure of In ₂ and In phase Ga ₂ O ₃ and Al ₂ O ₃ . Journal of Applied Physics, 2022, 131, 175702.	1.1	0
17	AlN quasi-vertical Schottky barrier diode on AlN bulk substrate using Al _{0.9} Ga _{0.1} N current spreading layer. Applied Physics Express, 2022, 15, 061007.	1.1	7
18	X-band epi-BAW resonators. Journal of Applied Physics, 2022, 132, .	1.1	8

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19	First RF Power Operation of AlN/GaN/AlN HEMTs With >3 A/mm and 3 W/mm at 10 GHz. IEEE Journal of the Electron Devices Society, 2021, 9, 121-124.	1.2	33
20	Crystal orientation dictated epitaxy of ultrawide-bandgap 5.4- to 8.6-eV $\hat{\pm}$ -(AlGa) $\langle\text{sub}\rangle 2\langle\text{sub}\rangle$ O $\langle\text{sub}\rangle 3\langle\text{sub}\rangle$ on m-plane sapphire. Science Advances, 2021, 7, .	4.7	71
21	Advanced concepts in Ga ₂ O ₃ power and RF devices. Semiconductors and Semimetals, 2021, 107, 23-47.	0.4	3
22	An all-epitaxial nitride heterostructure with concurrent quantum Hall effect and superconductivity. Science Advances, 2021, 7, .	4.7	12
23	Electric Fields and Surface Fermi Level in Undoped GaN/AlN Two-â€Dimensional Hole Gas Heterostructures. Physica Status Solidi - Rapid Research Letters, 2021, 15, 2000573.	1.2	5
24	Anisotropic dielectric functions, band-to-band transitions, and critical points in $\langle b \rangle \langle i \rangle \hat{\pm} \langle /i \rangle \langle /b \rangle$ -Ga ₂ O ₃ . Applied Physics Letters, 2021, 118, .	1.5	19
25	Unexplored MBE growth mode reveals new properties of superconducting NbN. Physical Review Materials, 2021, 5, .	0.9	10
26	Molecular beam epitaxy of polar III-nitride resonant tunneling diodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, 023409.	0.9	4
27	Adsorption-controlled growth of Ga ₂ O ₃ by suboxide molecular-beam epitaxy. APL Materials, 2021, 9, .	2.2	38
28	MBE growth and donor doping of coherent ultrawide bandgap AlGaN alloy layers on single-crystal AlN substrates. Applied Physics Letters, 2021, 118, .	1.5	16
29	Enhanced efficiency in bottom tunnel junction InGaN blue LEDs. , 2021, , .		6
30	Next generation electronics on the ultrawide-bandgap aluminum nitride platform. Semiconductor Science and Technology, 2021, 36, 044001.	1.0	42
31	Ultrafast dynamics of gallium vacancy charge states in $\langle\text{mml}:\text{math}\text{xmlns:mml}=\text{"http://www.w3.org/1998/Math/MathML"}\rangle\langle\text{mml}:\text{mrow}\rangle\langle\text{mml}:\text{mi}\rangle\hat{2}\langle\text{mml}:\text{mi}\rangle\langle\text{mml}:\text{mtext}\rangle\hat{\text{''}}\langle\text{mml}:\text{mtext}\rangle\langle\text{mml}:\text{msub}\text{mathvariant}=\text{"normal"}\rangle\text{O}\langle\text{mml}:\text{mi}\rangle\langle\text{mml}:\text{mn}\rangle 3\langle\text{mml}:\text{mn}\rangle\langle\text{mml}:\text{msub}\rangle\langle\text{mml}:\text{mrow}\rangle\langle\text{mml}:\text{math}\rangle$. Physical Review Research, 2021, 3, .	1.3	6
32	$\langle i \rangle \hat{3} \langle /i \rangle$ -phase inclusions as common structural defects in alloyed $\langle i \rangle \hat{2} \langle /i \rangle$ -(Al $\langle i \rangle x \langle /i \rangle$ Ga $1\hat{\text{''}}\langle i \rangle x \langle /i \rangle$) ₂ O ₃ and doped $\langle i \rangle \hat{2} \langle /i \rangle$ -Ga ₂ O ₃ films. APL Materials, 2021, 9, .	2.2	23
33	ON-Resistance of Ga $\langle\text{sub}\rangle 2\langle\text{sub}\rangle$ O $\langle\text{sub}\rangle 3\langle\text{sub}\rangle$ Trench-MOS Schottky Barrier Diodes: Role of Sidewall Interface Trapping. IEEE Transactions on Electron Devices, 2021, 68, 2420-2426.	1.6	19
34	Temperature-dependent Lowering of Coercive Field in 300 nm Sputtered Ferroelectric Al $\langle\text{sub}\rangle 0.70\langle\text{sub}\rangle$ Sc $\langle\text{sub}\rangle 0.30\langle\text{sub}\rangle$ N. , 2021, , .		10
35	Large Signal Response of AlN/GaN/AlN HEMTs at 30 GHz. , 2021, , .		5
36	High-conductivity polarization-induced 2D hole gases in undoped GaN/AlN heterojunctions enabled by impurity blocking layers. Journal of Applied Physics, 2021, 130, 025703.	1.1	12

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37	Thermal stability of epitaxial $\text{In}_{\pm}\text{-Ga}_2\text{O}_3$ and $(\text{Al,Ga})_2\text{O}_3$ layers on m-plane sapphire. Applied Physics Letters, 2021, 119, .	1.5	30
38	High-frequency and below bandgap anisotropic dielectric constants in $\text{In}_{\pm}\text{-}(\text{Al}_{\text{x}}\text{Ga}_{1-\text{x}})_2\text{O}_3$ ($0 \leq x \leq 1$). Applied Physics Letters, 2021, 119, .	1.5	14
39	Dislocation and indium droplet related emission inhomogeneities in InGaN LEDs. Journal Physics D: Applied Physics, 2021, 54, 495106.	1.3	6
40	Strong effect of scandium source purity on chemical and electronic properties of epitaxial $\text{Sc}_x\text{Al}_{1-x}\text{N}/\text{GaN}$ heterostructures. APL Materials, 2021, 9, .	2.2	14
41	Polarization-induced 2D hole gases in pseudomorphic undoped GaN/AlN heterostructures on single-crystal AlN substrates. Applied Physics Letters, 2021, 119, .	1.5	15
42	SiC Substrate-Integrated Waveguides for High-Power Monolithic Integrated Circuits Above 110 GHz. , 2021, , .		9
43	Momentum-resolved electronic structure and band offsets in an epitaxial NbN/GaN superconductor/semiconductor heterojunction. Science Advances, 2021, 7, eabi5833.	4.7	5
44	Degradation Mechanisms of GaN-Based Vertical Devices: A Review. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900750.	0.8	8
45	Oxygen Incorporation in the Molecular Beam Epitaxy Growth of $\text{Sc}_{\text{x}}\text{Ga}_{1-\text{x}}\text{N}$ and $\text{Sc}_{\text{x}}\text{Al}_{1-\text{x}}\text{N}$. Physica Status Solidi (B): Basic Research, 2020, 257, 1900612.	0.7	29
46	Molecular Beam Epitaxy Growth of Large-Area GaN/AlN 2D Hole Gas Heterostructures. Physica Status Solidi (B): Basic Research, 2020, 257, 1900567.	0.7	12
47	Nitride LEDs and Lasers with Buried Tunnel Junctions. ECS Journal of Solid State Science and Technology, 2020, 9, 015018.	0.9	12
48	Field-Plated Ga_2O_3 Trench Schottky Barrier Diodes With a BV^2 of up to 0.95 GW/cm ² . IEEE Electron Device Letters, 2020, 41, 107-110.	2.2	184
49	Molecular Beam Epitaxy of Transition Metal Nitrides for Superconducting Device Applications. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900675.	0.8	16
50	Epitaxial niobium nitride superconducting nanowire single-photon detectors. Applied Physics Letters, 2020, 117, .	1.5	25
51	N-polar GaN/AlN resonant tunneling diodes. Applied Physics Letters, 2020, 117, .	1.5	12
52	Guiding Principles for Trench Schottky Barrier Diodes Based on Ultrawide Bandgap Semiconductors: A Case Study in Ga _{0.5} O _{0.5} . IEEE Transactions on Electron Devices, 2020, 67, 3938-3947.	1.6	36
53	Thermionic emission or tunneling? The universal transition electric field for ideal Schottky reverse leakage current: A case study in $\text{In}_{\pm}\text{-Ga}_2\text{O}_3$. Applied Physics Letters, 2020, 117, .	1.5	24
54	Prospects for Wide Bandgap and Ultrawide Bandgap CMOS Devices. IEEE Transactions on Electron Devices, 2020, 67, 4010-4020.	1.6	73

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55	Bottom tunnel junction blue light-emitting field-effect transistors. Applied Physics Letters, 2020, 117, 031107.	1.5	5
56	Very High Parallel-Plane Surface Electric Field of 4.3 MV/cm in Ga ₂ O ₃ Schottky Barrier Diodes with PtO _x Contacts. , 2020, , .		8
57	Light-emitting diodes with AlN polarization-induced buried tunnel junctions: A second look. Applied Physics Letters, 2020, 117, .	1.5	11
58	Structural and piezoelectric properties of ultra-thin Sc _x Al _{1-x} N films grown on GaN by molecular beam epitaxy. Applied Physics Letters, 2020, 117, .	1.5	34
59	Trapping and Detrapping Mechanisms in $\hat{\Gamma}^2$ -Ga ₂ O ₃ Vertical FinFETs Investigated by Electro-Optical Measurements. IEEE Transactions on Electron Devices, 2020, 67, 3954-3959.	1.6	24
60	Intra- and inter-conduction band optical absorption processes in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . Applied Physics Letters, 2020, 117, 072103.	1.5	10
61	Molecular beam homoepitaxy on bulk AlN enabled by aluminum-assisted surface cleaning. Applied Physics Letters, 2020, 116, .	1.5	26
62	Near-ideal reverse leakage current and practical maximum electric field in $\hat{\Gamma}^2$ -Ga ₂ O ₃ Schottky barrier diodes. Applied Physics Letters, 2020, 116, .	1.5	86
63	Spin-orbit torque field-effect transistor (SOTFET): Proposal for a magnetoelectric memory. Applied Physics Letters, 2020, 116, 242405.	1.5	9
64	Impact of Residual Carbon on Avalanche Voltage and Stability of Polarization-Induced Vertical GaN p-n Junction. IEEE Transactions on Electron Devices, 2020, 67, 3978-3982.	1.6	4
65	Fighting Broken Symmetry with Doping: Toward Polar Resonant Tunneling Diodes with Symmetric Characteristics. Physical Review Applied, 2020, 13, .	1.5	11
66	GaN HEMTs on Si With Regrown Contacts and Cutoff/Maximum Oscillation Frequencies of 250/204 GHz. IEEE Electron Device Letters, 2020, 41, 689-692.	2.2	69
67	All-epitaxial Bulk Acoustic Wave Resonators. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900786.	0.8	10
68	Multiferroic LuFeO ₃ on GaN by molecular-beam epitaxy. Applied Physics Letters, 2020, 116, .	1.5	8
69	Surface control and MBE growth diagram for homoepitaxy on single-crystal AlN substrates. Applied Physics Letters, 2020, 116, .	1.5	26
70	Magnetic properties of MBE grown Mn ₄ N on MgO, SiC, GaN and Al ₂ O ₃ substrates. AIP Advances, 2020, 10, .	0.6	6
71	Gallium nitride tunneling field-effect transistors exploiting polarization fields. Applied Physics Letters, 2020, 116, .	1.5	7
72	Fully transparent field-effect transistor with high drain current and on-off ratio. APL Materials, 2020, 8, .	2.2	23

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73	Resonant Tunneling Transport in Polar III-Nitride Heterostructures. , 2020, , 215-247.		2
74	GaN/AlN p-channel HFETs with $I_{\text{max}} > 420$ mA/mm and ~ 20 GHz $f_{\text{T}} / f_{\text{MAX}}$. , 2020, , .		13
75	Monolithically p-down nitride laser diodes and LEDs obtained by MBE using buried tunnel junction design. , 2020, , .		2
76	Enhanced injection efficiency and light output in bottom tunnel-junction light-emitting diodes. Optics Express, 2020, 28, 4489.	1.7	19
77	GaN/AlGaIn 2DEGs in the quantum regime: Magneto-transport and photoluminescence to 60 tesla. Applied Physics Letters, 2020, 117, 262105.	1.5	1
78	Unified ballistic transport relation for anisotropic dispersions and generalized dimensions. Physical Review Research, 2020, 2, .	1.3	1
79	Distributed-feedback blue laser diode utilizing a tunnel junction grown by plasma-assisted molecular beam epitaxy. Optics Express, 2020, 28, 35321.	1.7	9
80	Self-assembly and properties of domain walls in BiFeO ₃ layers grown via molecular-beam epitaxy. APL Materials, 2019, 7, .	2.2	7
81	1.6 kV Vertical Ga ₂ O ₃ FinFETs With Source-Connected Field Plates and Normally-off Operation. , 2019, , .		31
82	High Breakdown Voltage in RF AlN/GaN/AlN Quantum Well HEMTs. IEEE Electron Device Letters, 2019, 40, 1293-1296.	2.2	79
83	Molecular beam epitaxial growth of scandium nitride on hexagonal SiC, GaN, and AlN. Applied Physics Letters, 2019, 115, .	1.5	24
84	Breakdown Walkout in Polarization-Doped Vertical GaN Diodes. IEEE Transactions on Electron Devices, 2019, 66, 4597-4603.	1.6	9
85	Room-Temperature Graphene-Nanoribbon Tunneling Field-Effect Transistors. Npj 2D Materials and Applications, 2019, 3, .	3.9	26
86	High-mobility two-dimensional electron gases at AlGaIn/GaN heterostructures grown on GaN bulk wafers and GaN template substrates. Applied Physics Express, 2019, 12, 121003.	1.1	9
87	Hole mobility of strained GaN from first principles. Physical Review B, 2019, 100, .	1.1	75
88	Significantly reduced thermal conductivity in $(\text{Al}_{0.1}\text{Ga}_{0.9})_2\text{O}_3/\text{Ga}_2\text{O}_3$ superlattices. Applied Physics Letters, 2019, 115, .	1.5	22
89	Route to High Hole Mobility in GaN via Reversal of Crystal-Field Splitting. Physical Review Letters, 2019, 123, 096602.	2.9	63
90	Magnetotransport and superconductivity in InBi films grown on Si(111) by molecular beam epitaxy. Journal of Applied Physics, 2019, 126, 103901.	1.1	4

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91	A polarization-induced 2D hole gas in undoped gallium nitride quantum wells. <i>Science</i> , 2019, 365, 1454-1457.	6.0	106
92	Wurtzite phonons and the mobility of a GaN/AlN 2D hole gas. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	19
93	Polarization control in nitride quantum well light emitters enabled by bottom tunnel-junctions. <i>Journal of Applied Physics</i> , 2019, 125, 203104.	1.1	24
94	Realization of GaN PolarMOS using selective-area regrowth by MBE and its breakdown mechanisms. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SCCD15.	0.8	18
95	The new nitrides: layered, ferroelectric, magnetic, metallic and superconducting nitrides to boost the GaN photonics and electronics eco-system. <i>Japanese Journal of Applied Physics</i> , 2019, 58, SC0801.	0.8	69
96	Blue (In,Ga)N light-emitting diodes with buried AlN tunnel junctions by plasma-assisted molecular beam epitaxy. <i>Japanese Journal of Applied Physics</i> , 2019, 58, 060914.	0.8	6
97	Fin-channel orientation dependence of forward conduction in kV-class Ga_2O_3 trench Schottky barrier diodes. <i>Applied Physics Express</i> , 2019, 12, 061007.	1.1	50
98	Bandgap narrowing and Mott transition in Si-doped $\text{Al}_{0.7}\text{Ga}_{0.3}\text{N}$. <i>Applied Physics Letters</i> , 2019, 114, .	1.5	13
99	Broken Symmetry Effects due to Polarization on Resonant Tunneling Transport in Double-Barrier Nitride Heterostructures. <i>Physical Review Applied</i> , 2019, 11, .	1.5	25
100	Materials Relevant to Realizing a Field-Effect Transistor Based on Spin-Orbit Torques. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2019, 5, 158-165.	1.1	1
101	Single and multi-fin normally-off Ga_2O_3 vertical transistors with a breakdown voltage over 2.6 kV. , 2019, , .		50
102	GaN/AlN Schottky-gate p-channel HFETs with InGaN contacts and 100 mA/mm on-current. , 2019, , .		22
103	Thermal conductivity of crystalline AlN and the influence of atomic-scale defects. <i>Journal of Applied Physics</i> , 2019, 126, .	1.1	75
104	Modeling and Circuit Design of Associative Memories With Spin-Orbit Torque FETs. <i>IEEE Journal on Exploratory Solid-State Computational Devices and Circuits</i> , 2019, 5, 197-205.	1.1	6
105	Rotationally aligned hexagonal boron nitride on sapphire by high-temperature molecular beam epitaxy. <i>Physical Review Materials</i> , 2019, 3, .	0.9	25
106	New physics in GaN resonant tunneling diodes. , 2019, , .		3
107	GaN/NbN epitaxial semiconductor/superconductor heterostructures. <i>Nature</i> , 2018, 555, 183-189.	13.7	116
108	Steep Sub-Boltzmann Switching in AlGaIn/GaN Phase-FETs With ALD VO_2 . <i>IEEE Transactions on Electron Devices</i> , 2018, 65, 945-949.	1.6	13

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109	75 Years of the Device Research Conference—A History Worth Repeating. IEEE Journal of the Electron Devices Society, 2018, 6, 116-120.	1.2	2
110	234-nm and 246-nm AlN-Delta-GaN quantum well deep ultraviolet light-emitting diodes. Applied Physics Letters, 2018, 112, .	1.5	55
111	Development of GaN Vertical Trench-MOSFET With MBE Regrown Channel. IEEE Transactions on Electron Devices, 2018, 65, 2558-2564.	1.6	46
112	Enhancement-Mode Ga ₂ O ₃ Vertical Transistors With Breakdown Voltage >1 kV. IEEE Electron Device Letters, 2018, 39, 869-872.	2.2	241
113	Room temperature microwave oscillations in GaN/AlN resonant tunneling diodes with peak current densities up to 220 kA/cm ² . Applied Physics Letters, 2018, 112, .	1.5	51
114	Ultrawide-Bandgap Semiconductors: Research Opportunities and Challenges. Advanced Electronic Materials, 2018, 4, 1600501.	2.6	839
115	Demonstration of avalanche capability in polarization-doped vertical GaN pn diodes: study of walkout due to residual carbon concentration. , 2018, , .		10
116	1230-V \hat{I}^2 -Ga ₂ O ₃ trench Schottky barrier diodes with an ultra-low leakage current of \hat{I}^4A/cm ² . Applied Physics Letters, 2018, 113, .	1.5	94
117	Measurement of ultrafast dynamics of photoexcited carriers in \hat{I}^2 -Ga ₂ O ₃ by two-color optical pump-probe spectroscopy. Applied Physics Letters, 2018, 113, .	1.5	19
118	Gate-Recessed E-mode p-Channel HFET With High On-Current Based on GaN/AlN 2D Hole Gas. IEEE Electron Device Letters, 2018, 39, 1848-1851.	2.2	62
119	Breakdown mechanism in 1 kA/cm ² and 960 V E-mode \hat{I}^2 -Ga ₂ O ₃ vertical transistors. Applied Physics Letters, 2018, 113, .	1.5	128
120	1.5 kV Vertical Ga ₂ O ₃ Trench-MIS Schottky Barrier Diodes. , 2018, , .		16
121	Enhancement of punch-through voltage in GaN with buried p-type layer utilizing polarization-induced doping. , 2018, , .		2
122	Activation of buried p-GaN in MOCVD-regrown vertical structures. Applied Physics Letters, 2018, 113, 062105.	1.5	35
123	Design and Realization of GaN Trench Junction-Barrier-Schottky-Diodes. IEEE Transactions on Electron Devices, 2017, 64, 1635-1641.	1.6	76
124	Inductively-coupled-plasma reactive ion etching of single-crystal \hat{I}^2 -Ga ₂ O ₃ . Japanese Journal of Applied Physics, 2017, 56, 030304.	0.8	46
125	Physics and polarization characteristics of 298-nm AlN-delta-GaN quantum well ultraviolet light-emitting diodes. Applied Physics Letters, 2017, 110, .	1.5	44
126	Strained GaN quantum-well FETs on single crystal bulk AlN substrates. Applied Physics Letters, 2017, 110, .	1.5	48

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127	MBE-grown 232â€“270â€“nm deep-UV LEDs using monolayer thin binary GaN/AlN quantum heterostructures. Applied Physics Letters, 2017, 110, .	1.5	105
128	Hot Electron Transistor with van der Waals Base-Collector Heterojunction and High-Performance GaN Emitter. Nano Letters, 2017, 17, 3089-3096.	4.5	74
129	Single-crystal N-polar GaN <i>p</i>-<i>n</i> diodes by plasma-assisted molecular beam epitaxy. Applied Physics Letters, 2017, 110, .	1.5	14
130	Electron mobility in polarization-doped Al _{0.2} GaN with a low concentration near 10 ¹⁷ cm ⁻³ . Applied Physics Letters, 2017, 110, 182102.	1.5	11
131	New Tunneling Features in Polar III-Nitride Resonant Tunneling Diodes. Physical Review X, 2017, 7, .	2.8	42
132	Terahertz spectroscopy of an electron-hole bilayer system in AlN/GaN/AlN quantum wells. Applied Physics Letters, 2017, 111, .	1.5	9
133	In Quest of the Next Information Processing Substrate. , 2017, , .		0
134	Deep-UV emission at 219â€“nm from ultrathin MBE GaN/AlN quantum heterostructures. Applied Physics Letters, 2017, 111, .	1.5	54
135	Tunneling devices over van der Waals bonded hetero-interface. , 2017, , .		0
136	1.1-kV Vertical GaN p-n Diodes With p-GaN Regrown by Molecular Beam Epitaxy. IEEE Electron Device Letters, 2017, 38, 1071-1074.	2.2	60
137	Wide-bandgap Gallium Nitride p-channel MISFETs with enhanced performance at high temperature. , 2017, , .		2
138	S-shaped negative differential resistance in III-Nitride blue quantum-well laser diodes grown by plasma-assisted MBE. , 2017, , .		1
139	Adsorption-controlled growth of La-doped BaSnO ₃ by molecular-beam epitaxy. APL Materials, 2017, 5, .	2.2	131
140	Deep ultraviolet emission from ultra-thin GaN/AlN heterostructures. Applied Physics Letters, 2016, 109, .	1.5	73
141	Room temperature weak ferromagnetism in Sn _{1-x} MnxSe ₂ 2D films grown by molecular beam epitaxy. APL Materials, 2016, 4, .	2.2	28
142	Novel III-N heterostructure devices for low-power logic and more. , 2016, , .		4
143	Sub-230 nm deep-UV emission from GaN quantum disks in AlN grown by a modified Stranskiâ€“Krastanov mode. Japanese Journal of Applied Physics, 2016, 55, 05FF06.	0.8	25
144	Intrinsic electron mobility limits in <i>Î²</i>-Ga ₂ O ₃ . Applied Physics Letters, 2016, 109, .	1.5	299

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145	Two-dimensional heterojunction interlayer tunnel FET (Thin-TFET): From theory to applications. , 2016, , .		14
146	Comparing buffer leakage in PolarMOSH on SiC and free-standing GaN substrates. , 2016, , .		2
147	Demonstration of GaN HyperFETs with ALD VO ₂ . , 2016, , .		4
148	Controllable growth of layered selenide and telluride heterostructures and superlattices using molecular beam epitaxy. Journal of Materials Research, 2016, 31, 900-910.	1.2	85
149	Two-dimensional semiconductors for transistors. Nature Reviews Materials, 2016, 1, .	23.3	1,020
150	Vertical Schottky barrier diodes fabricated on un-intentionally doped and Sn-doped (̂ ²⁰¹) bulk In_2GaO_3 substrates. , 2016, , .		0
151	Vertical Ga ₂ O ₃ Schottky barrier diodes on single-crystal In_2GaO_3 (̂ ²⁰¹) substrates. , 2016, , .		1
152	Layered transition metal dichalcogenides: promising near-lattice-matched substrates for GaN growth. Scientific Reports, 2016, 6, 23708.	1.6	76
153	First demonstration of strained AlN/GaN/AlN quantum well FETs on SiC. , 2016, , .		4
154	Structural Properties of (Sn,Mn)Se 2 - a New 2D Magnetic Semiconductor with Potential for Spintronic Applications. Microscopy and Microanalysis, 2016, 22, 1512-1513.	0.2	1
155	Ultralow-Leakage AlGaIn/GaN High Electron Mobility Transistors on Si With Non-Alloyed Regrown Ohmic Contacts. IEEE Electron Device Letters, 2016, 37, 16-19.	2.2	37
156	1.7-kV and 0.55- $\text{m}\Omega\cdot\text{cm}^2$ GaN p-n Diodes on Bulk GaN Substrates With Avalanche Capability. IEEE Electron Device Letters, 2016, 37, 161-164.	2.2	153
157	Near unity ideality factor and Shockley-Read-Hall lifetime in GaN-on-GaN p-n diodes with avalanche breakdown. Applied Physics Letters, 2015, 107, .	1.5	146
158	High breakdown single-crystal GaN p-n diodes by molecular beam epitaxy. Applied Physics Letters, 2015, 107, .	1.5	53
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