

Ankush Bag

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/9114627/publications.pdf>

Version: 2024-02-01

57
papers

527
citations

686830

13
h-index

752256

20
g-index

58
all docs

58
docs citations

58
times ranked

532
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of annealing temperature on band-alignment of PLD grown Ga ₂ O ₃ /Si (100) heterointerface. Journal of Alloys and Compounds, 2020, 819, 153052.	2.8	72
2	Extremely low dark current and detection range extension of Ga ₂ O ₃ UV photodetector using Sn alloyed nanostructures. Nanotechnology, 2020, 31, 294002.	1.3	32
3	High-resolution X-ray diffraction analysis of Al _x Ga _{1-x} N/In _x Ga _{1-x} N/GaN on sapphire multilayer structures: Theoretical, simulations, and experimental observations. Journal of Applied Physics, 2014, 115, 174507.	1.1	31
4	Comparison of different grading schemes in InGaAs metamorphic buffers on GaAs substrate: Tilt dependence on cross-hatch irregularities. Applied Surface Science, 2015, 357, 922-930.	3.1	27
5	Exceptional Responsivity (>6 kA/W) and Dark Current (<70 fA) Tradeoff of n-Ga ₂ O ₃ /p-CuO Quasi-Heterojunction-Based Deep UV Photodetector. IEEE Transactions on Electron Devices, 2021, 68, 144-151.	1.6	24
6	OFF-State Leakage and Current Collapse in AlGaIn/GaN HEMTs: A Virtual Gate Induced by Dislocations. IEEE Transactions on Electron Devices, 2018, 65, 1333-1339.	1.6	21
7	High Responsivity of Quasi-2D Electrospun Ga ₂ O ₃ -Based Deep-UV Photodetectors. IEEE Photonics Technology Letters, 2019, 31, 619-622.	1.3	20
8	2DEG modulation in double quantum well enhancement mode nitride HEMT. Physica E: Low-Dimensional Systems and Nanostructures, 2015, 74, 59-64.	1.3	17
9	Fast Response (7.6s) Acetone Sensing by InGaIn/GaN on Si (111) at 373 K. IEEE Electron Device Letters, 2017, 38, 383-386.	2.2	17
10	Comprehensive strain and band gap analysis of PA-MBE grown AlGaIn/GaN heterostructures on sapphire with ultra thin buffer. AIP Advances, 2014, 4, .	0.6	16
11	Highly Sensitive Acetone Sensor Based on Pd/AlGaIn/GaN Resistive Device Grown by Plasma-Assisted Molecular Beam Epitaxy. IEEE Transactions on Electron Devices, 2017, 64, 4650-4656.	1.6	16
12	Transition from thin film to nanostructure in low pressure chemical vapor deposition growth of In ₂ -Ga ₂ O ₃ : Impact of metal gallium source. Thin Solid Films, 2020, 709, 138234.	0.8	16
13	Comparative DC Characteristic Analysis of AlGaIn/GaN HEMTs Grown on Si(111) and Sapphire Substrates by MBE. Journal of Electronic Materials, 2014, 43, 1263-1270.	1.0	15
14	Performance enhancement of In ₂ -Ga ₂ O ₃ on Si (100) based Schottky barrier diodes using Reduced Surface Field. Semiconductor Science and Technology, 2020, 35, 085009.	1.0	13
15	Comparison of different pathways in metamorphic graded buffers on GaAs substrate: Indium incorporation with surface roughness. Applied Surface Science, 2015, 324, 304-309.	3.1	12
16	Ultra-high responsivity (>12.34 kA W ⁻¹) of GaIn bimetallic oxide nanowires based deep-UV photodetector. Nanotechnology, 2020, 31, 304001.	1.3	12
17	Suppression of interfacial oxygen vacancies for efficient charge extraction at CZTS/TiO ₂ heterojunction. Applied Physics Letters, 2021, 118, .	1.5	12
18	Effects of threading dislocations on drain current dispersion and slow transients in unpassivated AlGaIn/GaN/Si heterostructure field-effect transistors. Applied Physics Letters, 2014, 105, .	1.5	11

#	ARTICLE	IF	CITATIONS
19	Substrate orientation dependent current transport mechanisms in In^{2+} -Ga ₂ O ₃ /Si based Schottky barrier diodes. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	11
20	Investigation of cross-hatch surface and study of anisotropic relaxation and dislocation on InGaAs on GaAs (001). Electronic Materials Letters, 2016, 12, 356-364.	1.0	9
21	Reverse bias leakage current mechanism of AlGa _N /InGa _N /Ga _N heterostructure. Electronic Materials Letters, 2016, 12, 232-236.	1.0	8
22	Evaluation of diode characteristics for fully vertical In^{2+} -Ga ₂ O ₃ on silicon (100) substrate. Journal of Materials Science: Materials in Electronics, 2020, 31, 13845-13856.	1.1	8
23	Design and Analysis of P-GaN/N-Ga _N Based Junction Barrier Schottky Diodes. IEEE Transactions on Electron Devices, 2021, 68, 6052-6058.	1.6	8
24	Ga-In Nanoparticle Induced UV Plasmonic Impact on Heterojunction Based Deep UV Photodetector. IEEE Nanotechnology Magazine, 2022, 21, 196-203.	1.1	8
25	Evolution and analysis of nitride surface and interfaces by statistical techniques: A correlation with RHEED through kinetic roughening. Electronic Materials Letters, 2015, 11, 707-716.	1.0	7
26	Influence of growth morphology on electrical and thermal modeling of AlGa _N /Ga _N HEMT on sapphire and silicon. Solid-State Electronics, 2015, 104, 101-108.	0.8	7
27	A novel growth strategy and characterization of fully relaxed un-tilted FCC GaAs on Si(100). Journal of Crystal Growth, 2015, 418, 138-144.	0.7	7
28	Probing InGa _N immiscibility at AlGa _N /InGa _N heterointerface on silicon (111) through two-step capacitance-voltage and conductance-voltage profiles. Materials and Design, 2017, 133, 176-185.	3.3	7
29	Interface Engineering of CZTS/TiO ₂ Heterojunction Using Wide Bandgap Ga ₂ O ₃ Passivation Interlayer for Efficient Charge Extraction. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	7
30	Broad Range (254–302 nm) and High Performance Ga ₂ O ₃ :SnO ₂ Based Deep UV Photodetector. IEEE Nanotechnology Magazine, 2022, 21, 320-327.	1.1	7
31	Comparative analysis of parameter extraction techniques for AlGa _N /Ga _N HEMT on silicon/sapphire substrate. Microelectronics Reliability, 2017, 78, 389-395.	0.9	6
32	An unified analytical model for design consideration of doped cubic and undoped hexagonal AlGa _N /Ga _N MIS gate HEMTs. Solid-State Electronics, 2014, 96, 1-8.	0.8	5
33	Growth and Characterization of Self-Assembled InAs Quantum Dots on Si (100) for Monolithic Integration by MBE. IEEE Nanotechnology Magazine, 2014, 13, 917-925.	1.1	5
34	Evolution of lateral V-defects on InGa _N /Ga _N on Si(111) during PAMBE: the role of strain on defect kinetics. CrystEngComm, 2018, 20, 4151-4163.	1.3	5
35	Simplified gas sensor model based on AlGa _N /Ga _N heterostructure Schottky diode. AIP Conference Proceedings, 2015, .	0.3	4
36	Effect of trapped charge in AlGa _N /Ga _N and AlGa _N /InGa _N /Ga _N heterostructure by temperature dependent threshold voltage analysis. Superlattices and Microstructures, 2018, 113, 147-152.	1.4	4

#	ARTICLE	IF	CITATIONS
37	Implementation of veriloga GaN HEMT model to design RF switch. Microwave and Optical Technology Letters, 2015, 57, 1765-1768.	0.9	3
38	Observation of in-situ reciprocal lattice evolution of AlGaIn/InGaIn on Si (111) through GaN and AlN interlayers by RHEED and reflectance. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 186-189.	0.8	3
39	Elimination of V-shaped pits in InGaIn/GaN/AlN/GaN heterostructure by metal modulation growth technique. Semiconductor Science and Technology, 2018, 33, 035009.	1.0	3
40	Observation and analysis of kink effect during drain current inception of GaN HEMT. Superlattices and Microstructures, 2018, 120, 101-107.	1.4	2
41	Selective UV Detection by AlGaIn/GaN-Based MSM Photo Detector for Integration with Silicon. , 2018, , .		2
42	Effect of longitudinal electric field and self heating of channel on linearity and gain of AlGaIn/GaN HEMT on Sapphire (0001). , 2014, , .		1
43	Potentiality of trap charge effects and SiON induced interface defects in a-Si ₃ N ₄ /SiON based MIS structure for resistive NVM device. Microelectronics Reliability, 2015, 55, 789-794.	0.9	1
44	Fowlerâ€œNordheim Tunnelling Contribution in AlGaIn/GaN on Si (111) Schottky Current. IETE Technical Review (Institution of Electronics and Telecommunication Engineers, India), 2016, 33, 7-10.	2.1	1
45	Performance Evaluation of GaN-based Selective UV Photodetector by Varying Metal-Semiconductor-Metal Geometry. , 2019, , .		1
46	Effect of Si ₃ N ₄ Passivation on the Acetone Sensing Performance of Pd/AlGaIn/GaN Heterostructure. Springer Proceedings in Physics, 2019, , 875-879.	0.1	1
47	Probing Interface Trapping Characteristics of Au/Î²-Ga ₂ O ₃ Schottky Barrier Diode on Si (100). IEEE Transactions on Device and Materials Reliability, 2021, , 1-1.	1.5	1
48	Integration of Î²-Ga ₂ O ₃ on Si (100) for Lateral Schottky Barrier Diodes. , 2021, , .		1
49	Effect of Vertical and Longitudinal Electric Field on 2DEG of AlGaIn/GaN HEMT on Silicon: A Qualitative Reliability Study. Environmental Science and Engineering, 2014, , 81-83.	0.1	0
50	Growth and characterization of Al_{0.15}Ga_{0.85}As/GaAs pseudomorphic heterostructure by MBE. , 2014, , .		0
51	Comprehensive study of AlGaAs/GaAs heterostructures grown by MBE: Structural and compositional analysis. , 2014, , .		0
52	Temperature dependent etching of Gallium Nitride layers grown by PA-MBE. , 2015, , .		0
53	Quantitative investigation into the source of current slump in AlGaIn/GaN HEMT on both Si (111) and sapphire: Self-heating and trapping. AIP Conference Proceedings, 2015, , .	0.3	0
54	Acetone Adsorption Characteristics of Pd/AlGaIn/GaN Heterostructure Grown by PAMBE: A Kinetic Interpretation at Low Temperature. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
55	Comprehensive Analytical Modeling of N-polar GaN/AlGa _N Insulated Gate HEMTs with and without Polarization Neutralization Layer. Environmental Science and Engineering, 2014, , 269-272.	0.1	0
56	Analytical Expression of Barrier Layer for Enhancement Mode AlGa _N /Ga _N HEMT. Environmental Science and Engineering, 2014, , 175-177.	0.1	0
57	Bench-marking High Power Switching Performance of $Ga_{2}O_{3}$ SBD with SiC Devices. , 2020, , .		0