Carlo De Santi

List of Publications by Year
in descending order

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206	3,808	257450	149698
papers	citations	24 h-index	56 g-index

206	206	206	2610
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The 2018 GaN power electronics roadmap. Journal Physics D: Applied Physics, 2018, 51, 163001.	2.8	843
2	Deep-Level Characterization in GaN HEMTs-Part I: Advantages and Limitations of Drain Current Transient Measurements. IEEE Transactions on Electron Devices, 2013, 60, 3166-3175.	3.0	324
3	The 2020 UV emitter roadmap. Journal Physics D: Applied Physics, 2020, 53, 503001.	2.8	289
4	GaN-based power devices: Physics, reliability, and perspectives. Journal of Applied Physics, 2021, 130, .	2.5	191
5	Time-Dependent Failure of GaN-on-Si Power HEMTs With p-GaN Gate. IEEE Transactions on Electron Devices, 2016, 63, 2334-2339.	3.0	111
6	Time- and Field-Dependent Trapping in GaN-Based Enhancement-Mode Transistors With p-Gate. IEEE Electron Device Letters, 2012, 33, 375-377.	3.9	93
7	Evidence of Hot-Electron Effects During Hard Switching of AlGaN/GaN HEMTs. IEEE Transactions on Electron Devices, 2017, 64, 3734-3739.	3.0	90
8	Defect-Related Degradation of AlGaN-Based UV-B LEDs. IEEE Transactions on Electron Devices, 2017, 64, 200-205.	3.0	62
9	Investigation of the deep level involved in InGaN laser degradation by deep level transient spectroscopy. Applied Physics Letters, 2011, 99, .	3.3	56
10	Role of defects in the thermal droop of InGaN-based light emitting diodes. Journal of Applied Physics, 2016, 119, .	2.5	55
11	Thermal droop in III-nitride based light-emitting diodes: Physical origin and perspectives. Journal of Applied Physics, 2020, 127, .	2.5	54
12	Reliability and failure analysis in power GaN-HEMTs: An overview. , 2017, , .		53
13	Laser-Based Lighting: Experimental Analysis and Perspectives. Materials, 2017, 10, 1166.	2.9	44
14	Degradation of AlGaN/GaN HEMT devices: Role of reverse-bias and hot electron stress. Microelectronic Engineering, 2013, 109, 257-261.	2.4	41
15	Long-term degradation mechanisms of mid-power LEDs for lighting applications. Microelectronics Reliability, 2015, 55, 1754-1758.	1.7	36
16	Recombination mechanisms and thermal droop in AlGaN-based UV-B LEDs. Photonics Research, 2017, 5, A44.	7.0	36
17	Ageing of InGaN-based LEDs: Effects on internal quantum efficiency and role of defects. Microelectronics Reliability, 2015, 55, 1775-1778.	1.7	33
18	A physical model for the reverse leakage current in (In,Ga)N/GaN light-emitting diodes based on nanowires. Journal of Applied Physics, 2016, 119, .	2.5	33

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19	UV-Based Technologies for SARS-CoV2 Inactivation: Status and Perspectives. Electronics (Switzerland), 2021, 10, 1703.	3.1	30
20	Defects and Reliability of GaNâ€Based LEDs: Review and Perspectives. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	28
21	Modeling the degradation mechanisms of AlGaN-based UV-C LEDs: from injection efficiency to mid-gap state generation. Photonics Research, 2020, 8, 1786.	7.0	27
22	Positive and negative threshold voltage instabilities in GaN-based transistors. Microelectronics Reliability, 2018, 80, 257-265.	1.7	26
23	GaN-Based Laser Wireless Power Transfer System. Materials, 2018, 11, 153.	2.9	26
24	Positive temperature dependence of time-dependent breakdown of GaN-on-Si E-mode HEMTs under positive gate stress. Applied Physics Letters, 2019, 115, .	3.3	25
25	A Novel Physics-Based Approach to Analyze and Model E-Mode p-GaN Power HEMTs. IEEE Transactions on Electron Devices, 2021, 68, 1489-1494.	3.0	25
26	A Physics-Based Approach to Model Hot-Electron Trapping Kinetics in p-GaN HEMTs. IEEE Electron Device Letters, 2021, 42, 673-676.	3.9	25
27	Degradation of InGaN laser diodes caused by temperature- and current-driven diffusion processes. Microelectronics Reliability, 2016, 64, 623-626.	1.7	24
28	Review of dynamic effects and reliability of depletion and enhancement GaN HEMTs for power switching applications. IET Power Electronics, 2018, 11, 668-674.	2.1	24
29	High-Current Stress of UV-B (In)AlGaN-Based LEDs: Defect-Generation and Diffusion Processes. IEEE Transactions on Electron Devices, 2019, 66, 3387-3392.	3.0	24
30	Trapping and Detrapping Mechanisms in Î²-Gaâ„Oâ„ Vertical FinFETs Investigated by Electro-Optical Measurements. IEEE Transactions on Electron Devices, 2020, 67, 3954-3959.	3.0	24
31	Degradation of UV-A LEDs: Physical Origin and Dependence on Stress Conditions. IEEE Transactions on Device and Materials Reliability, 2016, 16, 213-219.	2.0	23
32	Observation of Hot Electron and Impact Ionization in N-Polar GaN MIS-HEMTs. IEEE Electron Device Letters, 2018, 39, 1007-1010.	3.9	23
33	Hot-Electron Trapping and Hole-Induced Detrapping in GaN-Based GITs and HD-GITs. IEEE Transactions on Electron Devices, 2019, 66, 337-342.	3.0	22
34	Gate Reliability of p-GaN Gate AlGaN/GaN High Electron Mobility Transistors. IEEE Electron Device Letters, 2019, 40, 379-382.	3.9	21
35	Modeling the electrical characteristics of InGaN/GaN LED structures based on experimentally-measured defect characteristics. Journal Physics D: Applied Physics, 2021, 54, 425105.	2.8	21
36	Current induced degradation study on state of the art DUV LEDs. Microelectronics Reliability, 2018, 88-90, 868-872.	1.7	20

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37	Degradation of InGaN-based LEDs: Demonstration of a recombination-dependent defect-generation process. Journal of Applied Physics, 2020, 127, .	2.5	20
38	Carrier capture kinetics, deep levels, and isolation properties of Î² -Ga2O3 Schottky-barrier diodes damaged by nitrogen implantation. Applied Physics Letters, 2020, 117, .	3.3	20
39	Defect incorporation in In-containing layers and quantum wells: experimental analysis via deep level profiling and optical spectroscopy. Journal Physics D: Applied Physics, 2021, 54, 025108.	2.8	20
40	Reliability of Commercial UVC LEDs: 2022 State-of-the-Art. Electronics (Switzerland), 2022, 11, 728.	3.1	20
41	Degradation processes of 280 nm high power DUV LEDs: impact on parasitic luminescence. Japanese Journal of Applied Physics, 2019, 58, SCCC19.	1.5	19
42	Failure causes and mechanisms of retrofit LED lamps. Microelectronics Reliability, 2015, 55, 1765-1769.	1.7	17
43	Evidence for defect-assisted tunneling and recombination at extremely low current in InGaN/GaN-based LEDs. Applied Physics Express, 2019, 12, 052007.	2.4	17
44	Degradation of GaN-HEMTs with p-GaN Gate: Dependence on temperature and on geometry. , 2017, , .		17
45	Analysis of threshold voltage instabilities in semi-vertical GaN-on-Si FETs. Applied Physics Express, 2020, 13, 024004.	2.4	17
46	Stability and degradation of AlGaN-based UV-B LEDs: Role of doping and semiconductor defects. Microelectronics Reliability, 2019, 100-101, 113418.	1.7	16
47	Physical Origin of the Optical Degradation of InAs Quantum Dot Lasers. IEEE Journal of Quantum Electronics, 2019, 55, 1-7.	1.9	16
48	Thermally-activated degradation of InGaN-based laser diodes: Effect on threshold current and forward voltage. Microelectronics Reliability, 2014, 54, 2147-2150.	1.7	15
49	Highly stable threshold voltage in GaN nanowire FETs: The advantages of p-GaN channel/Al2O3 gate insulator. Applied Physics Letters, 2020, 117, .	3.3	15
50	Observation of I_D-V_D Kink in N-Polar GaN MIS-HEMTs at Cryogenic Temperatures. IEEE Electron Device Letters, 2020, 41, 345-348.	3.9	15
51	Cumulative Hot-Electron Trapping in GaN-Based Power HEMTs Observed by an Ultrafast (10 V/Ns) On-Wafer Methodology. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2022, 10, 5019-5026.	5.4	15
52	Challenges and Perspectives for Vertical GaN-on-Si Trench MOS Reliability: From Leakage Current Analysis to Gate Stack Optimization. Materials, 2021, 14, 2316.	2.9	15
53	Understanding the degradation processes of GaN based LEDs submitted to extremely high current density. Microelectronics Reliability, 2017, 76-77, 556-560.	1.7	13
54	Investigation of Current-Driven Degradation of 1.3 Î¼m Quantum-Dot Lasers Epitaxially Grown on Silicon. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-8.	2.9	13

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55	Excitation Intensity and Temperature-Dependent Performance of InGaN/GaN Multiple Quantum Wells Photodetectors. Electronics (Switzerland), 2020, 9, 1840.	3.1	13
56	Degradation Mechanisms of Heterogeneous III-V/Silicon 1.55- $mu ext{m}$ DBR Laser Diodes. IEEE Journal of Quantum Electronics, 2017, 53, 1-8.	1.9	12
57	2DEG Retraction and Potential Distribution of GaNâ€“onâ€“Si HEMTs Investigated Through a Floating Gate Terminal. IEEE Transactions on Electron Devices, 2018, 65, 1303-1307.	3.0	12
58	Use of Bilayer Gate Insulator in GaN-on-Si Vertical Trench MOSFETs: Impact on Performance and Reliability. Materials, 2020, 13, 4740.	2.9	12
59	Degradation of 1.3 Î¼m InAs Quantum-Dot Laser Diodes: Impact of Dislocation Density and Number of Quantum Dot Layers. IEEE Journal of Quantum Electronics, 2021, 57, 1-8.	1.9	12
60	Understanding the Leakage Mechanisms and Breakdown Limits of Vertical GaN-on-Si p+nâ^'n Diodes: The Road to Reliable Vertical MOSFETs. Micromachines, 2021, 12, 445.	2.9	12
61	Deep levels and carrier capture kinetics in n-GaAsBi alloys investigated by deep level transient spectroscopy. Journal Physics D: Applied Physics, 2021, 54, 345109.	2.8	11
62	Effects of quantum-well indium content on deep defects and reliability of InGaN/GaN light-emitting diodes with under layer. Journal Physics D: Applied Physics, 2021, 54, 505108.	2.8	11
63	Recoverable degradation of blue InGaN-based light emitting diodes submitted to 3â€‰MeV proton irradiation. Applied Physics Letters, 2014, 105, 213506.	3.3	10
64	Experimental Demonstration of Time-Dependent Breakdown in GaN-Based Light Emitting Diodes. IEEE Electron Device Letters, 2016, 37, 611-614.	3.9	10
65	Nanoscale Investigation of Degradation and Wavelength Fluctuations in InGaN-Based Green Laser Diodes. IEEE Nanotechnology Magazine, 2016, 15, 274-280.	2.0	10
66	Demonstration of avalanche capability in polarization-doped vertical GaN pn diodes: study of walkout due to residual carbon concentration. , 2018, , .		10
67	A novel on-wafer approach to test the stability of GaN-based devices in hard switching conditions: Study of hot-electron effects. Microelectronics Reliability, 2020, 114, 113830.	1.7	10
68	Modeling of the Vertical Leakage Current in AlN/Si Heterojunctions for GaN Power Applications. IEEE Transactions on Electron Devices, 2020, 67, 595-599.	3.0	10
69	Glass-ceramic composites for high-power white-light-emitting diodes. Ceramics International, 2021, 47, 17986-17992.	4.8	10
70	Understanding the effects of off-state and hard-switching stress in gallium nitride-based power transistors. Semiconductor Science and Technology, 2021, 36, 014001.	2.0	10
71	Trap-state mapping to model GaN transistors dynamic performance. Scientific Reports, 2022, 12, 1755.	3.3	10
72	Degradation mechanisms and lifetime of stateâ€ofâ€theâ€art green laser diodes. Physica Status Solidi (A) Applications and Materials Science, 2015, 212, 974-979.	1.8	9

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73	Performance-Limiting Traps in GaN-Based HEMTs: From Native Defects to Common Impurities. Power Electronics and Power Systems, 2017, , 197-236.	0.6	9
74	Degradation of GaN-on-GaN vertical diodes submitted to high current stress. Microelectronics Reliability, 2018, 88-90, 568-571.	1.7	9
75	Evidence of optically induced degradation in gallium nitride optoelectronic devices. Applied Physics Express, 2018, 11, 111002.	2.4	9
76	Physical mechanisms limiting the performance and the reliability of GaN-based LEDs. , 2018, , 455-489.		9
77	Breakdown Walkout in Polarization-Doped Vertical GaN Diodes. IEEE Transactions on Electron Devices, 2019, 66, 4597-4603.	3.0	9
78	Characterization of charge trapping mechanisms in GaN vertical Fin FETs under positive gate bias. Microelectronics Reliability, 2019, 100-101, 113488.	1.7	9
79	Gradual Degradation of InGaAs LEDs: Impact on Non-Radiative Lifetime and Extraction of Defect Characteristics. Materials, 2021, 14, 1114.	2.9	9
80	Vertical GaN devices: Process and reliability. Microelectronics Reliability, 2021, 126, 114218.	1.7	9
81	Non-monotonic threshold voltage variation in 4H-SiC metalâ€“oxideâ€“semiconductor field-effect transistor: Investigation and modeling. Journal of Applied Physics, 2021, 130, .	2.5	9
82	Variations in junction capacitance and doping activation associated with electrical stress of InGaN/GaN laser diodes. Microelectronics Reliability, 2013, 53, 1534-1537.	1.7	8
83	Degradation mechanisms of heterogeneous III-V/Silicon loop-mirror laser diodes for photonic integrated circuits. Microelectronics Reliability, 2018, 88-90, 855-858.	1.7	8
84	Degradation of vertical GaN FETs under gate and drain stress. , 2018, , .		8
85	Degradation Mechanisms of GaNâ€Based Vertical Devices: A Review. Physica Status Solidi (A) Applications and Materials Science, 2020, 217, 1900750.	1.8	8
86	Cause and Effects of OFF-State Degradation in Hydrogen-Terminated Diamond MESFETs. IEEE Transactions on Electron Devices, 2020, 67, 4021-4026.	3.0	8
87	Storage and release of buffer charge in GaN-on-Si HEMTs investigated by transient measurements. Applied Physics Express, 2020, 13, 074003.	2.4	8
88	Logarithmic trapping and detrapping in Î² -Ga2O3 MOSFETs: Experimental analysis and modeling. Applied Physics Letters, 2022, 120, .	3.3	8
89	ESD on GaN-based LEDs: An analysis based on dynamic electroluminescence measurements and current waveforms. Microelectronics Reliability, 2014, 54, 2138-2141.	1.7	7
90	Degradation of InGaN-based LEDs related to charge diffusion and build-up. Microelectronics Reliability, 2016, 64, 614-616.	1.7	7

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91	Reliability comparison of AlGaN/GaN HEMTs with different carbon doping concentration. Microelectronics Reliability, 2019, 100-101, 113489.	1.7	7
92	Linearity and robustness evaluation of 150-nm AlN/GaN HEMTs. Microelectronics Reliability, 2019, 100-101, 113388.	1.7	7
93	Modeling of gate capacitance of GaN-based trench-gate vertical metal-oxide-semiconductor devices. Applied Physics Express, 2020, 13, 024006.	2.4	7
94	Identification of dislocation-related and point-defects in III-As layers for silicon photonics applications. Journal Physics D: Applied Physics, 2021, 54, 285101.	2.8	7
95	Positive and negative charge trapping GaN HEMTs: Interplay between thermal emission and transport-limited processes. Microelectronics Reliability, 2021, 126, 114255.	1.7	7
96	GaN-HEMTs devices with single- and double-heterostructure for power switching applications. , 2013, , .		6
97	Challenges towards the simulation of GaN-based LEDs beyond the semiclassical framework. Proceedings of SPIE, 2016, , .	0.8	6
98	Failure of High Power LEDs Submitted to EOS: Dependence on Device Layout and Pulse Properties. IEEE Transactions on Device and Materials Reliability, 2017, 17, 191-196.	2.0	6
99	Power GaN HEMT degradation: from time-dependent breakdown to hot-electron effects. , 2018, , .		6
100	Stability and degradation of isolation and surface in Ga2O3 devices. Microelectronics Reliability, 2019, 100-101, 113453.	1.7	6
101	Exploration of gate trench module for vertical GaN devices. Microelectronics Reliability, 2020, 114, 113828.	1.7	6
102	OFF-state trapping phenomena in GaN HEMTs: Interplay between gate trapping, acceptor ionization and positive charge redistribution. Microelectronics Reliability, 2020, 114, 113841.	1.7	6
103	Full Optical Contactless Thermometry Based on LED Photoluminescence. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	6
104	Degradation mechanisms of InGaN visible LEDs and AlGaN UV LEDs. , 2021, , 273-312.		6
105	Origin of the Diffusion-Related Optical Degradation of 1.3 Î¼m Inas QD-LDs Epitaxially Grown on Silicon Substrate. IEEE Journal of Selected Topics in Quantum Electronics, 2022, 28, 1-9.	2.9	6
106	A Review of the Reliability of Integrated IR Laser Diodes for Silicon Photonics. Electronics (Switzerland), 2021, 10, 2734.	3.1	6
107	Failure Physics and Reliability of GaNâ€Based HEMTs for Microwave and Millimeterâ€Wave Applications: A Review of Consolidated Data and Recent Results. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	1.8	6
108	Degradation of InGaN lasers: Role of non-radiative recombination and injection efficiency. Microelectronics Reliability, 2011, 51, 1747-1751.	1.7	5

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109	Reliability of Gallium Nitride microwave transistors. , 2016, , .		5
110	Degradation of InGaN-based MQW solar cells under 405 nm laser excitation. Microelectronics Reliability, 2017, 76-77, 575-578.	1.7	5
111	Degradation of vertical GaN-on-GaN fin transistors: Step-stress and constant voltage experiments. Microelectronics Reliability, 2018, 88-90, 620-626.	1.7	5
112	Hot-Electron Effects in GaN GITs and HD-GITs: A Comprehensive Analysis. , 2019, , .		5
113	Demonstration of UV-Induced Threshold Voltage Instabilities in Vertical GaN Nanowire Array-Based Transistors. IEEE Transactions on Electron Devices, 2019, 66, 2119-2124.	3.0	5
114	GaN-based high-periodicity multiple quantum well solar cells: Degradation under optical and electrical stress. Microelectronics Reliability, 2020, 114, 113802.	1.7	5
115	Degradation mechanism of 0.15ÂÎ¼m AlGaN/GaN HEMTs: effects of hot electrons. Microelectronics Reliability, 2020, 114, 113905.	1.7	5
116	Effect of Varying Three-Dimensional Strain on the Emission Properties of Light-Emitting Diodes Based on (In,Ga)N/GaN Nanowires. Physical Review Applied, 2017, 7, .	3.8	4
117	Impact of dislocations on DLTS spectra and degradation of InGaN-based laser diodes. Microelectronics Reliability, 2018, 88-90, 864-867.	1.7	4
118	Failure limits and electro-optical characteristics of GaN-based LEDs under electrical overstress. Microelectronics Reliability, 2018, 88-90, 887-890.	1.7	4
119	Geometric Modeling of Thermal Resistance in GaN HEMTs on Silicon. IEEE Transactions on Electron Devices, 2020, 67, 5408-5414.	3.0	4
120	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.	3.0	4
121	A Generalized Approach to Determine the Switching Reliability of GaN HEMTs on-Wafer Level. , 2021, , .		4
122	Dynamic Performance Characterization Techniques in Gallium Nitride-Based Electronic Devices. Crystals, 2021, 11, 1037.	2.2	4
123	Nonequilibrium Greenâ€™s Function Modeling of Trap-Assisted Tunneling in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:msub><mml:mi>In</mml:mi><mml:mi>x</mml:mi></mml:msub><mml:msub><mml:mi>Ga</mml:mi><mml:mi><mml:mrow mathvariant="normal">N</mml:mrow></mml:math> /GaN Light-Emitting Diodes. Physical Review Applied, 2021, 16, .	3.8	4
124	Charge Trapping in GaN Power Transistors: Challenges and Perspectives. , 2021, , .		4
125	Quantum efficiency of InGaNâ€“GaN multi-quantum well solar cells: Experimental characterization and modeling. Journal of Applied Physics, 2022, 131, .	2.5	4
126	Gate frequency sweep: An effective method to evaluate the dynamic performance of AlGaN/GaN power heterojunction field effect transistors. Applied Physics Letters, 2014, 105, 073507.	3.3	3

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127	Towards high reliability GaN LEDs: Understanding the physical origin of gradual and catastrophic failure. , 2015, , .		3
128	Experimental observation of TDDB-like behavior in reverse-biased green InGaN LEDs. Microelectronics Reliability, 2016, 64, 610-613.	1.7	3
129	Defect generation in deep-UV AlGaN-based LEDs investigated by electrical and spectroscopic characterisation. Proceedings of SPIE, 2017, , .	0.8	3
130	Long-term degradation of InGaN-based laser diodes: Role of defects. Microelectronics Reliability, 2017, 76-77, 584-587.	1.7	3
131	On-wafer RF stress and trapping kinetics of Fe-doped AlGaN/GaN HEMTs. Microelectronics Reliability, 2018, 88-90, 397-401.	1.7	3
132	GaN-based lateral and vertical devices: physical mechanisms limiting stability and reliability. , 2019, , .		3
133	GaN Vertical pâ€“iâ€“n Diodes in Avalanche Regime: Time-Dependent Behavior and Degradation. IEEE Electron Device Letters, 2020, 41, 1300-1303.	3.9	3
134	Charge Trapping and Stability of E-Mode p-gate GaN HEMTs Under Soft- and Hard- Switching Conditions. , 2020, , .		3
135	Non thermally-activated transients and buffer traps in GaN transistors with p-type gate: A new method for extracting the activation energy. Microelectronics Reliability, 2020, 114, 113842.	1.7	3
136	Reliability of H-terminated diamond MESFETs in high power dissipation operating condition. Microelectronics Reliability, 2020, 114, 113898.	1.7	3
137	Vertical Leakage in GaN-on-Si Stacks Investigated by a Buffer Decomposition Experiment. Micromachines, 2020, 11, 101.	2.9	3
138	Efficiency and Catastrophic Failure of High-Power Blue GaN LEDs During Extremely High Temperature and Current Stress. IEEE Transactions on Device and Materials Reliability, 2020, 20, 429-435.	2.0	3
139	Defect-generation and diffusion in (In)AlGaN-based UV-B LEDs submitted to constant current stress. , 2018, , .		3
140	Review on the degradation of GaN-based lateral power transistors. E-Prime, 2021, 1, 100018.	2.0	3
141	Laser-induced activation of Mg-doped GaN: quantitative characterization and analysis. Journal Physics D: Applied Physics, 2022, 55, 185104.	2.8	3
142	Photon-induced degradation of InGaN-based LED in open-circuit conditions investigated by steady-state photocapacitance and photoluminescence. Journal of Applied Physics, 2022, 131, .	2.5	3
143	Study and characterization of GaN MOS capacitors: Planar vs trench topographies. Applied Physics Letters, 2022, 120, .	3.3	3
144	Impact of thermal annealing on deep levels in nitrogen-implanted Î²-Ga2O3 Schottky barrier diodes. Journal of Applied Physics, 2021, 130, .	2.5	3

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145	Deep level transient spectroscopy on light-emitting diodes based on (In,Ga)N/GaN nanowire ensembles. Proceedings of SPIE, 2015, , .	0.8	2
146	GaN HEMTs with p-GaN gate: field- and time-dependent degradation. , 2017, , .		2
147	Investigation into trapping modes and threshold instabilities of state-of-art commercial GaN HEMTs. Microelectronics Reliability, 2019, 100-101, 113464.	1.7	2
148	Short term reliability and robustness of ultra-thin barrier, 110Ânm-gate AlN/GaN HEMTs. Microelectronics Reliability, 2021, 123, 114199.	1.7	2
149	Reliability of Ultraviolet Light-Emitting Diodes. Solid State Lighting Technology and Application Series, 2019, , 397-424.	0.3	2
150	Impact of an AlGaN spike in the buffer in 0.15ÂÎ¼m AlGaN/GaN HEMTs during step stress. Microelectronics Reliability, 2021, 126, 114318.	1.7	2
151	Failure mechanisms of GaN HEMTs for microwave and millimeter-wave applications: from interdiffusion effects to hot-electrons degradation. , 2021, , .		2
152	UV LED reliability: degradation mechanisms and challenges. , 2022, , .		2
153	Conduction properties and threshold voltage instability in Î²-Ga2O3 MOSFETs. , 2022, , .		2
154	Compact Modeling of Nonideal Trapping/Detrapping Processes in GaN Power Devices. IEEE Transactions on Electron Devices, 2022, 69, 4432-4437.	3.0	2
155	High-Resolution Cathodoluminescence Investigation of Degradation Processes in InGaN Green Laser Diodes. Microscopy and Microanalysis, 2016, 22, 1738-1739.	0.4	1
156	Field-dependent degradation mechanisms in GaN-based HEMTs. , 2016, , .		1
157	Investigation of the time-dependent failure of InGaN-based LEDs submitted to reverse-bias stress. Proceedings of SPIE, 2017, , .	0.8	1
158	Reliability of Blue-Emitting Eu2+-Doped Phosphors for Laser-Lighting Applications. Materials, 2018, 11, 1552.	2.9	1
159	Demonstration of Bilayer Gate Insulator for Improved Reliability in GaN-on-Si Vertical Transistors. , 2020, , .		1
160	Role of the AlGaN Cap Layer on the Trapping Behaviour of N-Polar GaN MISHEMTs. , 2021, , .		1
161	Effect of indium content and carrier distribution on the efficiency and reliability of InGaN/GaN-based multi quantum well light emitting diode. Microelectronics Reliability, 2021, 126, 114377.	1.7	1
162	Internal checkup illumination sources for METIS coronagraph on solar orbiter. , 2017, , .		1

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163	Degradation mechanisms of 1.3ÂÎ¼m C-doped quantum dot lasers grown on native substrate. Microelectronics Reliability, 2021, , 114222.	1.7	1
164	Electrical, optical characterization and degradation of Cu(InGa)Se2 devices with fluorine-doped tin oxide back contact. Microelectronics Reliability, 2021, 126, 114260.	1.7	1
165	Degradation effects and origin in H-terminated diamond MESFETs. , 2020, , .		1
166	Demonstration of current-dependent degradation of quantum-dot lasers grown on silicon: role of defect diffusion processes. , 2020, , .		1
167	Role of carbon in dynamic effects and reliability of 0.15-um AlGaN/GaN HEMTs for RF power amplifiers. , 2022, , .		1
168	GaN-based solar cells degradation kinetics investigated at high temperature under high-intensity 405nm optical stress. , 2022, , .		1
169	Influence of Drain and Gate Potential on Gate Failure in Semi-Vertical GaN-on-Si Trench MOSFETs. , 2022, , .		1
170	GaN RF HEMT Reliability: Impact of Device Processing on I-V Curve Stability and Current Collapse. , 2022, , .		1
171	Modeling Hot-Electron Trapping in GaN-based HEMTs. , 2022, , .		1
172	Analysis of the deep level responsible for the degradation of InGaN-based laser diodes by DLTS. , 2012, , .		0
173	Degradation of InGaN based green laser kinetics and driving forces diodes. , 2015, , .		0
174	Notice of Removal: Analysis of the mechanisms limiting the reliability of retrofit LED lamps. , 2015, , .		0
175	Trapping processes related to iron and carbon doping in AlGaN/GaN power HEMTs. , 2015, , .		0
176	Defects in GaN-based LEDs: impact on internal quantum efficiency and on reliability. Proceedings of SPIE, 2015, , .	0.8	0
177	Thermal droop in InGaN-based LEDs: physical origin and dependence on material properties. , 2016, , .		0
178	Aging behavior, reliability, and failure physics of GaN-based optoelectronic components. Proceedings of SPIE, 2016, , .	0.8	0
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