Nicola Trivellin

List of Publications by Year
in descending order

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82	2,057	411340	274796
papers	citations	20	44
		h-index	g-index

83	83	83	2323
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Spectral Changes by Dye Sensitized Solar Modules Influence the Pigment Composition and Productivity of Arthrospira maxima and Increase the Overall Energy Efficiency. Advanced Sustainable Systems, 2022, 6, .	2.7	9
2	Defects and Reliability of GaNâ€Based LEDs: Review and Perspectives. Physica Status Solidi (A) Applications and Materials Science, 2022, 219, .	0.8	28
3	Reliability of Commercial UVC LEDs: 2022 State-of-the-Art. Electronics (Switzerland), 2022, 11, 728.	1.8	20
4	UV LED reliability: degradation mechanisms and challenges. , 2022, , .		2
5	Analysis and design of SARS-CoV-2 disinfection chambers based on UVC LEDs. , 2022, , .		0
6	On the performance and reliability of state-of-the-art commercial UV-C LEDs for disinfection purposes. , 2022, , .		0
7	Benefits and Risks of the Technological Creep of LED Light Technologies Applied to the Purse Seine Fishery. Biology, 2022, 11, 48.	1.3	3
8	Autonomous IoT Monitoring Matching Spectral Artificial Light Manipulation for Horticulture. Sensors, 2022, 22, 4046.	2.1	7
9	Full Optical Contactless Thermometry Based on LED Photoluminescence. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	2.4	6
10	Inactivating SARS-CoV-2 Using 275 nm UV-C LEDs through a Spherical Irradiation Box: Design, Characterization and Validation. Materials, 2021, 14, 2315.	1.3	24
11	CdTe solar cells: technology, operation and reliability. Journal Physics D: Applied Physics, 2021, 54, 333002.	1.3	25
12	Photoinactivation of Pseudomonas aeruginosa Biofilm by Dicationic Diaryl-Porphyrin. International Journal of Molecular Sciences, 2021, 22, 6808.	1.8	10
13	Glass-ceramic composites for high-power white-light-emitting diodes. Ceramics International, 2021, 47, 17986-17992.	2.3	10
14	UV-Based Technologies for SARS-CoV2 Inactivation: Status and Perspectives. Electronics (Switzerland), 2021, 10, 1703.	1.8	30
15	A multiwavelength model to improve microalgal productivity and energetic conversion in a red-blue light emitting diodes (LEDs) continuous photobioreactor. Energy Conversion and Management, 2021, 243, 114330.	4.4	14
16	Current crowding as a major cause for InGaN LED degradation at extreme high current density. , 2021, , .		0
17	Influence of CdTe solar cell properties on stability at high temperatures. Microelectronics Reliability, 2020, 114, 113847.	0.9	6
18	Photodynamic Therapy by Diaryl-Porphyrins to Control the Growth of Candida albicans. Cosmetics, 2020, 7, 31.	1.5	8

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19	Effect of blue light at 410 and 455Ânm on Pseudomonas aeruginosa biofilm. Journal of Photochemistry and Photobiology B: Biology, 2020, 204, 111790.	1.7	14
20	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.	1.5	3
21	Degradation processes of 280 nm high power DUV LEDs: impact on parasitic luminescence. Japanese Journal of Applied Physics, 2019, 58, SCCC19.	0.8	19
22	Challenges for highly-reliable GaN-based LEDs. , 2019, , .		0
23	The 2018 GaN power electronics roadmap. Journal Physics D: Applied Physics, 2018, 51, 163001.	1.3	843
24	Analysis and Reliability Study of Luminescent Materials for White Lighting. Proceedings (mdpi), 2018, 2, .	0.2	1
25	Current induced degradation study on state of the art DUV LEDs. Microelectronics Reliability, 2018, 88-90, 868-872.	0.9	20
26	Failures of LEDs in Real-World Applications: A Review. IEEE Transactions on Device and Materials Reliability, 2018, 18, 391-396.	1.5	20
27	Study and Development of a Fluorescence Based Sensor System for Monitoring Oxygen in Wine Production: The WOW Project. Sensors, 2018, 18, 1130.	2.1	17
28	White-light sources based on GaN laser diodes: analysis and application study. , 2018, , .		0
29	Defect-related degradation of III-V/Silicon 1.55 Âµm DBR laser diodes. , 2018, , .		0
30	Control software for the Multi-Channel Led starlight simulator. , 2018, , .		3
31	GaN HEMTs with p-GaN gate: field- and time-dependent degradation. , 2017, , .		2
32	Investigation of the time-dependent failure of InGaN-based LEDs submitted to reverse-bias stress. Proceedings of SPIE, 2017, , .	0.8	1
33	Laser-Based Lighting: Experimental Analysis and Perspectives. Materials, 2017, 10, 1166.	1.3	44
34	Adaptive multi-wavelength LED star simulator for space life studies. , 2016, , .		6
35	Challenges towards the simulation of GaN-based LEDs beyond the semiclassical framework. Proceedings of SPIE, 2016, , .	0.8	6
36	Aging behavior, reliability, and failure physics of GaN-based optoelectronic components. Proceedings of SPIE, 2016, , .	0.8	0

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37	Effects and exploitation of tunable white light for circadian rhythm and human-centric lighting. , 2015, , .		7
38	Defects in GaN-based LEDs: impact on internal quantum efficiency and on reliability. Proceedings of SPIE, 2015, , .	0.8	0
39	A tunable integrated system to simulate colder stellar radiation. , 2015, , .		2
40	Recoverable degradation of blue InGaN-based light emitting diodes submitted to 3â€‰MeV proton irradiation. Applied Physics Letters, 2014, 105, 213506.	1.5	10
41	GaN-based LEDs: State of the art and reliability-limiting mechanisms. , 2014, , .		4
42	Microscopic-scale investigation of the degradation of InGaN-based laser diodes submitted to electrical stress. , 2014, , .		0
43	ESD degradation and robustness of RGB LEDs and modules: An investigation based on combined electrical and optical measurements. Microelectronics Reliability, 2014, 54, 1143-1149.	0.9	3
44	Degradation Mechanisms of High-Power LEDs for Lighting Applications: An Overview. IEEE Transactions on Industry Applications, 2014, 50, 78-85.	3.3	53
45	Thermally-activated degradation of InGaN-based laser diodes: Effect on threshold current and forward voltage. Microelectronics Reliability, 2014, 54, 2147-2150.	0.9	15
46	ESD on GaN-based LEDs: An analysis based on dynamic electroluminescence measurements and current waveforms. Microelectronics Reliability, 2014, 54, 2138-2141.	0.9	7
47	â€œHot-pluggingâ€•of LED modules: Electrical characterization and device degradation. Microelectronics Reliability, 2013, 53, 1524-1528.	0.9	7
48	Thermally Activated Degradation of Remote Phosphors for Application in LED Lighting. IEEE Transactions on Device and Materials Reliability, 2013, 13, 316-318.	1.5	40
49	Variations in junction capacitance and doping activation associated with electrical stress of InGaN/GaN laser diodes. Microelectronics Reliability, 2013, 53, 1534-1537.	0.9	8
50	Degradation of InGaN/GaN laser diodes investigated by micro-cathodoluminescence and micro-photoluminescence. Applied Physics Letters, 2013, 103, .	1.5	25
51	Electroluminescence Analysis and Simulation of the Effects of Injection and Temperature on Carrier Distribution in InGaN-Based Light-Emitting Diodes with Color-Coded Quantum Wells. Japanese Journal of Applied Physics, 2013, 52, 08JG09.	0.8	10
52	Innovative methodology for testing the reliability of LED based systems. Proceedings of SPIE, 2012, , .	0.8	0
53	Analysis of Diffusion-Related Gradual Degradation of InGaN-Based Laser Diodes. IEEE Journal of Quantum Electronics, 2012, 48, 1169-1176.	1.0	51
54	Reliability issues in GaN-based light-emitting diodes: Effect of dc and PWM stress. Microelectronics Reliability, 2012, 52, 1621-1626.	0.9	10

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55	Phosphors for LED-based light sources: Thermal properties and reliability issues. Microelectronics Reliability, 2012, 52, 2164-2167.	0.9	58
56	Chip and package-related degradation of high power white LEDs. Microelectronics Reliability, 2012, 52, 804-812.	0.9	50
57	Analysis of Defect-Related Localized Emission Processes in InGaN/GaN-Based LEDs. IEEE Transactions on Electron Devices, 2012, 59, 1416-1422.	1.6	36
58	Recent results on the physical origin of the degradation of GaN-based LEDs and lasers. Proceedings of SPIE, 2011, , .	0.8	2
59	Degradation mechanisms of high-power white LEDs activated by current and temperature. Microelectronics Reliability, 2011, 51, 1742-1746.	0.9	24
60	Degradation of InGaN lasers: Role of non-radiative recombination and injection efficiency. Microelectronics Reliability, 2011, 51, 1747-1751.	0.9	5
61	Ageing mechanisms of 420 nm GaN HBLED. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 2360-2362.	0.8	0
62	Investigation of the deep level involved in InGaN laser degradation by deep level transient spectroscopy. Applied Physics Letters, 2011, 99, .	1.5	56
63	Reliability evaluation for Blu-Ray laser diodes. Microelectronics Reliability, 2010, 50, 467-470.	0.9	8
64	Degradation of InGaNâ€based laser diodes due to increased nonâ€radiative recombination rate. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 41-44.	0.8	5
65	Reliability of InGaNâ€based LEDs submitted to reverseâ€bias stress. Physica Status Solidi C: Current Topics in Solid State Physics, 2010, 7, 2208-2210.	0.8	2
66	A study on the reverse-bias and ESD instabilities of InGaN-based green LEDs. , 2010, , .		1
67	A review on the reliability of GaN-based laser diodes. , 2010, , .		16
68	Degradation of InGaN-based laser diodes analyzed by means of electrical and optical measurements. Applied Physics Letters, 2010, 97, 263501.	1.5	41
69	Leakage current and reverse-bias luminescence in InGaN-based light-emitting diodes. Applied Physics Letters, 2009, 95, .	1.5	49
70	Extensive analysis of the degradation of phosphor-converted LEDs. Proceedings of SPIE, 2009, , .	0.8	13
71	Analysis of the Role of Current, Temperature, and Optical Power in the Degradation of InGaN-Based Laser Diodes. IEEE Transactions on Electron Devices, 2009, 56, 222-228.	1.6	13
72	Reliability analysis of InGaN Blu-Ray laser diode. Microelectronics Reliability, 2009, 49, 1236-1239.	0.9	6

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73	Analysis of the role of current in the degradation of InGaN-based laser diodes. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S844-S847.	0.8	3
74	Analysis of diffusion involved in degradation of InGaN-based laser diodes. , 2009, , .		5
75	A combined electro-optical method for the determination of the recombination parameters in InGaN-based light-emitting diodes. Journal of Applied Physics, 2009, 106, .	1.1	113
76	Degradation of InGaN-Based Laser Diodes Related to Nonradiative Recombination. IEEE Electron Device Letters, 2009, 30, 356-358.	2.2	18
77	Thermally activated degradation and package instabilities of low flux LEDS. , 2009, , .		13
78	Extensive Analysis of the Degradation of Blu-Ray Laser Diodes. IEEE Electron Device Letters, 2008, 29, 578-581.	2.2	33
79	Electro-thermally activated degradation of blu-ray gan-based laser diodes. , 2008, , .		1
80	Role of non-radiative recombination in the degradation of InGaN-based laser diodes. , 2008, , .		1
81	Combined optical and electrical analysis of AlGaN-based deep-UV LEDs reliability. , 2008, , .		7
82	Reliability of Deep-UV Light-Emitting Diodes. IEEE Transactions on Device and Materials Reliability, 2008, 8, 248-254.	1.5	25