Luca Nela

List of Publications by Year in Descending Order

23 papers	347 citations	11 h-index	18 g-index
26 ext. papers	610 ext. citations	7.8 avg, IF	4.37 L-index

#	Paper	IF	Citations
23	Intrinsic Polarization Super Junctions: Design of Single and Multichannel GaN Structures. *IEEE Transactions on Electron Devices*, **2022**, 69, 1798-1804	2.9	2
22	A perspective on multi-channel technology for the next-generation of GaN power devices. *Applied Physics Letters*, **2022**, 120, 190501	3.4	2
21	GaN-based power devices: Physics, reliability, and perspectives. *Journal of Applied Physics*, **2021**, 130, 181101	2.5	37
20	Figures-of-Merit of Lateral GaN Power Devices: Modeling and Comparison of HEMTs and PSJs. *IEEE Journal of the Electron Devices Society*, **2021**, 9, 1066-1075	2.3	3
19	Multi-channel nanowire devices for efficient power conversion. *Nature Electronics*, **2021**, 4, 284-290	28.4	18
18	High-Performance Enhancement-Mode AlGaN/GaN Multi-Channel Power Transistors **2021**,		4
17	Ultra-compact, High-Frequency Power Integrated Circuits Based on GaN-on-Si Schottky Barrier Diodes. *IEEE Transactions on Power Electronics*, **2021**, 36, 1269-1273	7.2	21
16	Conformal Passivation of Multi-Channel GaN Power Transistors for Reduced Current Collapse. *IEEE Electron Device Letters*, **2021**, 42, 86-89	4.4	11
15	P-GaN Tri-Gate MOS Structure for Normally-Off GaN Power Transistors. *IEEE Electron Device Letters* , **2021**, 42, 82-85	4.4	12
14	Performance of GaN Power Devices for Cryogenic Applications Down to 4.2 K. *IEEE Transactions on Power Electronics*, **2021**, 36, 7412-7416	7.2	11
13	Impact of Embedded Liquid Cooling on the Electrical Characteristics of GaN-on-Si Power Transistors. *IEEE Electron Device Letters*, **2021**, 1-1	4.4	3
12	p-GaN field plate for low leakage current in lateral GaN Schottky barrier diodes. *Applied Physics Letters*, **2021**, 119, 263508	3.4	3
11	Output-Capacitance Hysteresis Losses of Field-Effect Transistors **2020**,		1
10	Bringing the Heat Sink Closer to the Heat: Evaluating Die-Embedded Microchannel Cooling of GaN-on-Si Power Devices **2020**,		2
9	Fast-Switching Tri-Anode Schottky Barrier Diodes for Monolithically Integrated GaN-on-Si Power Circuits. *IEEE Electron Device Letters*, **2020**, 41, 99-102	4.4	16
8	$C_{text{oss}}$ Loss Tangent of Field-Effect Transistors: Generalizing High-Frequency Soft-Switching Losses. *IEEE Transactions on Power Electronics*, **2020**, 35, 12585-12589	7.2	3
7	High-Frequency GaN-on-Si power integrated circuits based on Tri-Anode SBDs **2020**,		2

List of Publications

6	Embedded Microchannel Cooling for High Power-Density GaN-on-Si Power Integrated Circuits **2020** ,		3
5	Co-designing electronics with microfluidics for more sustainable cooling. *Nature*, **2020**, 585, 211-216	50.4	137
4	. *IEEE Transactions on Electron Devices*, **2019**, 66, 4068-4074	2.9	13
3	High-Performance Nanowire-Based E-Mode Power GaN MOSHEMTs With Large Work-Function Gate Metal. *IEEE Electron Device Letters*, **2019**, 40, 439-442	4.4	20
2	High-performance normally-off tri-gate GaN power MOSFETs **2019**,		1
1	High-Voltage Normally-off Recessed Tri-Gate GaN Power MOSFETs With Low on-Resistance. *IEEE Electron Device Letters*, **2019**, 40, 1289-1292	4.4	22