Giuseppe Greco

List of Publications by Year in Descending Order

102 papers	1,913 citations	24 h-index	40 g-index
107 ext. papers	2,370 ext. citations	2.9 avg, IF	5.23 L-index

#	Paper	IF	Citations
102	Structural and Insulating Behaviour of High-Permittivity Binary Oxide Thin Films for Silicon Carbide and Gallium Nitride Electronic Devices.. *Materials*, **2022**, 15,	3.5	2
101	Ion Implantation Doping in Silicon Carbide and Gallium Nitride Electronic Devices. *Micro*, **2022**, 2, 23-53		4
100	Early Growth Stages of Aluminum Oxide (Al2O3) Insulating Layers by Thermal- and Plasma-Enhanced Atomic Layer Deposition on AlGaN/GaN Heterostructures. *ACS Applied Electronic Materials*, **2022**, 4, 406-415	4	2
99	Temperature and time dependent electron trapping in Al2O3 thin films onto AlGaN/GaN heterostructures. *Applied Surface Science*, **2022**, 579, 152136	6.7	2
98	Nanoscale structural and electrical properties of graphene grown on AlGaN by catalyst-free chemical vapor deposition. *Nanotechnology*, **2021**, 32, 015705	3.4	0
97	Status and Prospects of Cubic Silicon Carbide Power Electronics Device Technology. *Materials*, **2021** , 14,	3.5	2
96	Electrical properties of inhomogeneous tungsten carbide Schottky barrier on 4H-SiC. *Journal Physics D: Applied Physics*, **2021**, 54, 055101	3	7
95	Forward and reverse current transport mechanisms in tungsten carbide Schottky contacts on AlGaN/GaN heterostructures. *Journal of Applied Physics*, **2021**, 129, 234501	2.5	3
94	Strain, Doping, and Electronic Transport of Large Area Monolayer MoS Exfoliated on Gold and Transferred to an Insulating Substrate. *ACS Applied Materials & Interfaces*, **2021**, 13, 31248-31259	9.5	7
93	Selective Doping in Silicon Carbide Power Devices. *Materials*, **2021**, 14,	3.5	7
92	Ni Schottky barrier on heavily doped phosphorous implanted 4H-SiC. *Journal Physics D: Applied Physics*, **2021**, 54, 445107	3	8
91	Current Transport Mechanisms in Au-Free Metallizations for CMOS Compatible GaN HEMT Technology. *Materials Science Forum*, **2020**, 1004, 725-730	0.4	
90	Impact of Stacking Faults and Domain Boundaries on the Electronic Transport in Cubic Silicon Carbide Probed by Conductive Atomic Force Microscopy. *Advanced Electronic Materials*, **2020**, 6, 1901171	6.4	16
89	Conductive Atomic Force Microscopy of Semiconducting Transition Metal Dichalcogenides and Heterostructures. *Nanomaterials*, **2020**, 10,	5.4	17
88	Correlating electron trapping and structural defects in Al2O3 thin films deposited by plasma enhanced atomic layer deposition. *AIP Advances*, **2020**, 10, 125017	1.5	7
87	Extensive Fermi-Level Engineering for Graphene through the Interaction with Aluminum Nitrides and Oxides. *Physica Status Solidi - Rapid Research Letters*, **2020**, 14, 1900399	2.5	4
86	Active dopant profiling and Ohmic contacts behavior in degenerate n-type implanted silicon carbide. *Applied Physics Letters*, **2020**, 117, 013502	3.4	6

85	Thermal annealing effect on electrical and structural properties of Tungsten Carbide Schottky contacts on AlGaN/GaN heterostructures. *Semiconductor Science and Technology*, **2020**, 35, 105004	1.8	2
84	Technologies for Normally-off GaN HEMTs **2020**, 137-175		
83	Direct Probing of Grain Boundary Resistance in Chemical Vapor Deposition-Grown Monolayer MoS2 by Conductive Atomic Force Microscopy. *Physica Status Solidi - Rapid Research Letters*, **2020**, 14, 1900393	2.5	15
82	Growth and characterization of thin Al-rich AlGaN on bulk GaN as an emitter-base barrier for hot electron transistor. *Materials Science in Semiconductor Processing*, **2019**, 93, 153-157	4.3	6
81	Ohmic contacts on n-type and p-type cubic silicon carbide (3C-SiC) grown on silicon. *Materials Science in Semiconductor Processing*, **2019**, 93, 295-298	4.3	7
80	Effect of high temperature annealing (T > 1650 ℃) on the morphological and electrical properties of p-type implanted 4H-SiC layers. *Materials Science in Semiconductor Processing*, **2019**, 93, 274-279	4.3	20
79	An Overview of Normally-Off GaN-Based High Electron Mobility Transistors. *Materials*, **2019**, 12,	3.5	92
78	Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC. *Materials Science in Semiconductor Processing*, **2019**, 97, 62-66	4.3	16
77	Structural and electrical properties of AlN thin films on GaN substrates grown by plasma enhanced-Atomic Layer Deposition. *Materials Science in Semiconductor Processing*, **2019**, 97, 35-39	4.3	7
76	Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride. *Materials Science in Semiconductor Processing*, **2019**, 94, 164-170	4.3	17
75	Conductive AFM of 2D Materials and Heterostructures for Nanoelectronics. *Nanoscience and Technology*, **2019**, 303-350	0.6	6
74	Metal/Semiconductor Barrier Properties of Non-Recessed Ti/Al/Ti and Ta/Al/Ta Ohmic Contacts on AlGaN/GaN Heterostructures. *Energies*, **2019**, 12, 2655	3.1	7
73	High-Performance Graphene/AlGaN/GaN Schottky Junctions for Hot Electron Transistors. *ACS Applied Electronic Materials*, **2019**, 1, 2342-2354	4	23
72	Ohmic Contacts on p-Type Al-Implanted 4H-SiC Layers after Different Post-Implantation Annealings. *Materials*, **2019**, 12,	3.5	8
71	Fabrication and Characterization of Ohmic Contacts to 3C-SiC Layers Grown on Silicon. *Materials Science Forum*, **2019**, 963, 485-489	0.4	2
70	Determining oxide trapped charges in Al2O3insulating films on recessed AlGaN/GaN heterostructures by gate capacitance transients measurements. *Japanese Journal of Applied Physics* , **2018**, 57, 050307	1.4	9
69	Barrier Inhomogeneity of Ni Schottky Contacts to Bulk GaN. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1700613	1.6	11
68	Review of technology for normally-off HEMTs with p-GaN gate. *Materials Science in Semiconductor Processing*, **2018**, 78, 96-106	4.3	95

67	Nanoscale electrical mapping of two-dimensional materials by conductive atomic force microscopy for transistors applications **2018**,		4
66	Vertical Transistors Based on 2D Materials: Status and Prospects. *Crystals*, **2018**, 8, 70	2.3	56
65	Hot Electron Transistors with Graphene Base for THz Electronics **2018**, 95-115		2
64	Modification of the sheet resistance under Ti/Al/Ni/Au Ohmic contacts on AlGaN/GaN heterostructures. *Materials Science in Semiconductor Processing*, **2018**, 78, 111-117	4.3	11
63	Emerging trends in wide band gap semiconductors (SiC and GaN) technology for power devices. *Microelectronic Engineering*, **2018**, 187-188, 66-77	2.5	163
62	Fabrication and Characterization of Graphene Heterostructures with Nitride Semiconductors for High Frequency Vertical Transistors. *Physica Status Solidi (A) Applications and Materials Science*, **2018**, 215, 1700653	1.6	14
61	Processing Issues in SiC and GaN Power Devices Technology: The Cases of 4H-SiC Planar MOSFET and Recessed Hybrid GaN MISHEMT **2018**,		2
60	Metal/Semiconductor Contacts to Silicon Carbide: Physics and Technology. *Materials Science Forum*, **2018**, 924, 339-344	0.4	7
59	Study of Ti/Al/Ni Ohmic Contacts to p-Type Implanted 4H-SiC. *Materials Science Forum*, **2018**, 924, 377-380	0.4	1
58	Temperature dependent forward current-voltage characteristics of Ni/Au Schottky contacts on AlGaN/GaN heterostructures described by a two diodes model. *Journal of Applied Physics*, **2017**, 121, 045701	2.5	15
57	Temperature dependence of the IV characteristics of Ni/Au Schottky contacts to AlGaN/GaN heterostructures grown on Si substrates. *Physica Status Solidi (A) Applications and Materials Science*, **2017**, 214, 1600764	1.6	3
56	Channel Mobility in GaN Hybrid MOS-HEMT Using SiO2 as Gate Insulator. *IEEE Transactions on Electron Devices*, **2017**, 64, 2893-2899	2.9	27
55	Electrical and structural properties of surfaces and interfaces in Ti/Al/Ni Ohmic contacts to p-type implanted 4H-SiC. *Applied Surface Science*, **2017**, 420, 331-335	6.7	20
54	Ambipolar MoS Transistors by Nanoscale Tailoring of Schottky Barrier Using Oxygen Plasma Functionalization. *ACS Applied Materials & Interfaces*, **2017**, 9, 23164-23174	9.5	62
53	Plasma enhanced atomic layer deposition of Al2O3 gate dielectric thin films on AlGaN/GaN substrates: The role of surface predeposition treatments. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2017**, 35, 01B140	2.9	5
52	Effects of interface states and near interface traps on the threshold voltage stability of GaN and SiC transistors employing SiO2 as gate dielectric. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2017**, 35, 01A101	1.3	16
51	Conductive Atomic Force Microscopy of Two-Dimensional Electron Systems: From AlGaN/GaN Heterostructures to Graphene and MoS2 **2017**, 163-185		7
50	Conduction Mechanisms at Interface of AlN/SiN Dielectric Stacks with AlGaN/GaN Heterostructures for Normally-off High Electron Mobility Transistors: Correlating Device Behavior with Nanoscale Interfaces Properties. *ACS Applied Materials & Interfaces*, **2017**, 9, 35383-35390	9.5	21

49	Ti/Al-based contacts to p-type SiC and GaN for power device applications. *Physica Status Solidi (A) Applications and Materials Science*, **2017**, 214, 1600357	1.6	12
48	Graphene integration with nitride semiconductors for high power and high frequency electronics. *Physica Status Solidi (A) Applications and Materials Science*, **2017**, 214, 1600460	1.6	33
47	Impact of contact resistance on the electrical properties of MoS transistors at practical operating temperatures. *Beilstein Journal of Nanotechnology*, **2017**, 8, 254-263	3	29
46	Electrical characterization of trapping phenomena at SiO2/SiC and SiO2/GaN in MOS-based devices. *Physica Status Solidi (A) Applications and Materials Science*, **2017**, 214, 1600366	1.6	4
45	Effect of temperature–bias annealing on the hysteresis and subthreshold behavior of multilayer MoS2 transistors. *Physica Status Solidi - Rapid Research Letters*, **2016**, 10, 797-801	2.5	23
44	Metal/P-GaN Contacts on AlGaN/GaN Heterostructures for Normally-Off HEMTs. *Materials Science Forum*, **2016**, 858, 1170-1173	0.4	6
43	Effects of Annealing Treatments on the Properties of Al/Ti/p-GaN Interfaces for Normally OFF p-GaN HEMTs. *IEEE Transactions on Electron Devices*, **2016**, 63, 2735-2741	2.9	39
42	Trapping States in SiO2/GaN MOS Capacitors Fabricated on Recessed AlGaN/GaN Heterostructures. *Materials Science Forum*, **2016**, 858, 1178-1181	0.4	
41	Laminated Al2O3/HfO2 layers grown by atomic layer deposition for microelectronics applications. *Thin Solid Films*, **2016**, 601, 68-72	2.2	9
40	Surface treatments on AlGaN/GaN heterostructures for gate dielectric Al2O3 thin films grown by Atomic Layer Deposition. *Thin Solid Films*, **2016**, 617, 138-142	2.2	8
39	Challenges in graphene integration for high-frequency electronics **2016**,		2
38	Hot Electron Transistors Based on Graphene/AlGaN/GaN Vertical Heterostructures. *Materials Science Forum*, **2016**, 858, 1137-1140	0.4	5
37	Ohmic contacts to Gallium Nitride materials. *Applied Surface Science*, **2016**, 383, 324-345	6.7	153
36	Electrical Properties of Graphene Contacts to AlGaN/GaN Heterostructures. *Materials Science Forum*, **2015**, 821-823, 986-989	0.4	
35	Evolution of the Electrical and Structural Properties of Ti/Al/W Contacts to p-Type Implanted 4H-SiC upon Thermal Annealing. *Materials Science Forum*, **2015**, 821-823, 428-431	0.4	
34	An insight into the epitaxial nanostructures of NiO and CeO2 thin film dielectrics for AlGaN/GaN heterostructures. *Materials Chemistry and Physics*, **2015**, 162, 461-468	4.4	10
33	Slow and fast traps in metal-oxide-semiconductor capacitors fabricated on recessed AlGaN/GaN heterostructures. *Applied Physics Letters*, **2015**, 106, 142903	3.4	30
32	Microstructure and Temperature Dependent Electrical Characteristics of Ohmic Contacts to AlGaN/GaN Heterostructures. *Materials Science Forum*, **2015**, 821-823, 999-1002	0.4	

31	Ti/Al/W Ohmic contacts to p-type implanted 4H-SiC. *Journal of Applied Physics*, **2015**, 118, 035705	2.5	24
30	Effects of surface nature of different semiconductor substrates on the plasma enhanced atomic layer deposition growth of Al2O3 gate dielectric thin films. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2015**, 12, 980-984		5
29	Electrical and structural properties of Ti/Al-based contacts on AlGaN/GaN heterostructures with different quality. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 1091-1098	1.6	4
28	Metal Organic Chemical Vapor Deposition of nickel oxide thin films for wide band gap device technology. *Thin Solid Films*, **2014**, 563, 50-55	2.2	25
27	Current transport in graphene/AlGaN/GaN vertical heterostructures probed at nanoscale. *Nanoscale*, **2014**, 6, 8671-80	7.7	57
26	Nanoscale electrical and structural modification induced by rapid thermal oxidation of AlGaN/GaN heterostructures. *Nanotechnology*, **2014**, 25, 025201	3.4	19
25	Ti/Al ohmic contacts on AlGaN/GaN heterostructures with different defect density. *Applied Surface Science*, **2014**, 314, 546-551	6.7	24
24	Thermal stability of the current transport mechanisms in Ni-based Ohmic contacts on n- and p-implanted 4H-SiC. *Semiconductor Science and Technology*, **2014**, 29, 075018	1.8	42
23	Challenges for energy efficient wide band gap semiconductor power devices. *Physica Status Solidi (A) Applications and Materials Science*, **2014**, 211, 2063-2071	1.6	78
22	Comparative Study of the Current Transport Mechanisms in Ni2Si Ohmic Contacts on n- and p-Type Implanted 4H-SiC. *Materials Science Forum*, **2014**, 778-780, 665-668	0.4	3
21	From Schottky to Ohmic graphene contacts to AlGaN/GaN heterostructures: Role of the AlGaN layer microstructure. *Applied Physics Letters*, **2014**, 105, 063117	3.4	23
20	Nanoscale electrical characterization of graphene contacts to AlGaN/GaN heterostructures. *Physica Status Solidi C: Current Topics in Solid State Physics*, **2014**, 11, 1551-1555		2
19	Recent advances on dielectrics technology for SiC and GaN power devices. *Applied Surface Science*, **2014**, 301, 9-18	6.7	97
18	Nanoscale structural and electrical evolution of Ta- and Ti-based contacts on AlGaN/GaN heterostructures. *Journal of Applied Physics*, **2013**, 114, 083717	2.5	25
17	Correlation between microstructure and temperature dependent electrical behavior of annealed Ti/Al/Ni/Au Ohmic contacts to AlGaN/GaN heterostructures. *Applied Physics Letters*, **2013**, 103, 201604	3.4	47
16	Nanoscale Probing of Interfaces in GaN for Devices Applications. *ECS Transactions*, **2013**, 50, 439-446	1	2
15	Potentialities of Nickel Oxide as Dielectric for GaN and SiC Devices. *Materials Science Forum*, **2013**, 740-742, 777-780	0.4	2
14	Electro-thermal model of Integrated Power Electronics Modules based on an innovative layered approach **2013**,		4

13	High permittivity cerium oxide thin films on AlGaN/GaN heterostructures. *Applied Physics Letters*, **2013**, 103, 112905	3.4	18
12	Critical issues for interfaces to p-type SiC and GaN in power devices. *Applied Surface Science*, **2012**, 258, 8324-8333	6.7	47
11	Evolution of Structural and Electrical Properties of Au/Ni Contacts onto P-GaN after Annealing. *Materials Science Forum*, **2012**, 717-720, 1295-1298	0.4	1
10	Microstructure and Transport Properties in Alloyed Ohmic Contacts to P-Type SiC and GaN for Power Devices Applications. *Materials Science Forum*, **2012**, 711, 203-207	0.4	1
9	Poole-Frenkel emission in epitaxial nickel oxide on AlGaN/GaN heterostructures. *Applied Physics Letters*, **2012**, 101, 172901	3.4	29
8	Epitaxial NiO gate dielectric on AlGaN/GaN heterostructures. *Applied Physics Letters*, **2012**, 100, 063511	3.4	35
7	Silicon photomultipliers for radioactive waste online monitoring. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2011**, 652, 143-145	1.2	
6	A thermal neutron mini-detector with SiPM and scintillating fibers. *Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment*, **2011**, 652, 355-358	1.2	4
5	Near-surface processing on AlGaN/GaN heterostructures: a nanoscale electrical and structural characterization. *Nanoscale Research Letters*, **2011**, 6, 132	5	14
4	Electro-structural evolution and Schottky barrier height in annealed Au/Ni contacts onto p-GaN. *Journal of Applied Physics*, **2011**, 110, 123703	2.5	43
3	Electrical and Structural Properties of AlGaN/GaN Heterostructures Grown onto 8°Off-Axis 4H-SiC Epilayers. *Materials Science Forum*, **2011**, 679-680, 808-811	0.4	
2	Development of a thermal neutron detector based on scintillating fibers and silicon photomultipliers. *Review of Scientific Instruments*, **2010**, 81, 093503	1.7	1
1	Ni/Heavily-Doped 4H-SiC Schottky Contacts. *Materials Science Forum*,1062, 411-416	0.4	