

# Giuseppe Greco

## List of Publications by Citations

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102  
papers

1,913  
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24  
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107  
ext. papers

2,370  
ext. citations

2.9  
avg, IF

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L-index

#	Paper	IF	Citations
102	Emerging trends in wide band gap semiconductors (SiC and GaN) technology for power devices. <i>Microelectronic Engineering</i> , <b>2018</b> , 187-188, 66-77	2.5	163
101	Ohmic contacts to Gallium Nitride materials. <i>Applied Surface Science</i> , <b>2016</b> , 383, 324-345	6.7	153
100	Recent advances on dielectrics technology for SiC and GaN power devices. <i>Applied Surface Science</i> , <b>2014</b> , 301, 9-18	6.7	97
99	Review of technology for normally-off HEMTs with p-GaN gate. <i>Materials Science in Semiconductor Processing</i> , <b>2018</b> , 78, 96-106	4.3	95
98	An Overview of Normally-Off GaN-Based High Electron Mobility Transistors. <i>Materials</i> , <b>2019</b> , 12,	3.5	92
97	Challenges for energy efficient wide band gap semiconductor power devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2014</b> , 211, 2063-2071	1.6	78
96	Ambipolar MoS Transistors by Nanoscale Tailoring of Schottky Barrier Using Oxygen Plasma Functionalization. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 23164-23174	9.5	62
95	Current transport in graphene/AlGaIn/GaN vertical heterostructures probed at nanoscale. <i>Nanoscale</i> , <b>2014</b> , 6, 8671-80	7.7	57
94	Vertical Transistors Based on 2D Materials: Status and Prospects. <i>Crystals</i> , <b>2018</b> , 8, 70	2.3	56
93	Critical issues for interfaces to p-type SiC and GaN in power devices. <i>Applied Surface Science</i> , <b>2012</b> , 258, 8324-8333	6.7	47
92	Correlation between microstructure and temperature dependent electrical behavior of annealed Ti/Al/Ni/Au Ohmic contacts to AlGaIn/GaN heterostructures. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 201604	3.4	47
91	Electro-structural evolution and Schottky barrier height in annealed Au/Ni contacts onto p-GaN. <i>Journal of Applied Physics</i> , <b>2011</b> , 110, 123703	2.5	43
90	Thermal stability of the current transport mechanisms in Ni-based Ohmic contacts on n- and p-implanted 4H-SiC. <i>Semiconductor Science and Technology</i> , <b>2014</b> , 29, 075018	1.8	42
89	Effects of Annealing Treatments on the Properties of Al/Ti/p-GaN Interfaces for Normally OFF p-GaN HEMTs. <i>IEEE Transactions on Electron Devices</i> , <b>2016</b> , 63, 2735-2741	2.9	39
88	Epitaxial NiO gate dielectric on AlGaIn/GaN heterostructures. <i>Applied Physics Letters</i> , <b>2012</b> , 100, 063511	3.4	35
87	Graphene integration with nitride semiconductors for high power and high frequency electronics. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1600460	1.6	33
86	Slow and fast traps in metal-oxide-semiconductor capacitors fabricated on recessed AlGaIn/GaN heterostructures. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 142903	3.4	30

85	Impact of contact resistance on the electrical properties of MoS transistors at practical operating temperatures. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 254-263	3	29
84	Poole-Frenkel emission in epitaxial nickel oxide on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 172901	3.4	29
83	Channel Mobility in Ga <sub>N</sub> Hybrid MOS-HEMT Using SiO <sub>2</sub> as Gate Insulator. <i>IEEE Transactions on Electron Devices</i> , <b>2017</b> , 64, 2893-2899	2.9	27
82	Metal Organic Chemical Vapor Deposition of nickel oxide thin films for wide band gap device technology. <i>Thin Solid Films</i> , <b>2014</b> , 563, 50-55	2.2	25
81	Nanoscale structural and electrical evolution of Ta- and Ti-based contacts on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 083717	2.5	25
80	Ti/Al ohmic contacts on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures with different defect density. <i>Applied Surface Science</i> , <b>2014</b> , 314, 546-551	6.7	24
79	Ti/Al/W Ohmic contacts to p-type implanted 4H-SiC. <i>Journal of Applied Physics</i> , <b>2015</b> , 118, 035705	2.5	24
78	Effect of temperature bias annealing on the hysteresis and subthreshold behavior of multilayer MoS <sub>2</sub> transistors. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2016</b> , 10, 797-801	2.5	23
77	High-Performance Graphene/AlGa <sub>N</sub> /Ga <sub>N</sub> Schottky Junctions for Hot Electron Transistors. <i>ACS Applied Electronic Materials</i> , <b>2019</b> , 1, 2342-2354	4	23
76	From Schottky to Ohmic graphene contacts to AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures: Role of the AlGa <sub>N</sub> layer microstructure. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 063117	3.4	23
75	Conduction Mechanisms at Interface of Al <sub>N</sub> /Si <sub>N</sub> Dielectric Stacks with AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures for Normally-off High Electron Mobility Transistors: Correlating Device Behavior with Nanoscale Interfaces Properties. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 35383-35390	9.5	21
74	Electrical and structural properties of surfaces and interfaces in Ti/Al/Ni Ohmic contacts to p-type implanted 4H-SiC. <i>Applied Surface Science</i> , <b>2017</b> , 420, 331-335	6.7	20
73	Effect of high temperature annealing (T > 1650 °C) on the morphological and electrical properties of p-type implanted 4H-SiC layers. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 93, 274-279	4.3	20
72	Nanoscale electrical and structural modification induced by rapid thermal oxidation of AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Nanotechnology</i> , <b>2014</b> , 25, 025201	3.4	19
71	High permittivity cerium oxide thin films on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Applied Physics Letters</i> , <b>2013</b> , 103, 112905	3.4	18
70	Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 94, 164-170	4.3	17
69	Conductive Atomic Force Microscopy of Semiconducting Transition Metal Dichalcogenides and Heterostructures. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	17
68	Effects of interface states and near interface traps on the threshold voltage stability of Ga <sub>N</sub> and SiC transistors employing SiO <sub>2</sub> as gate dielectric. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2017</b> , 35, 01A101	1.3	16

67	Morphological and electrical properties of Nickel based Ohmic contacts formed by laser annealing process on n-type 4H-SiC. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 97, 62-66	4.3	16
66	Impact of Stacking Faults and Domain Boundaries on the Electronic Transport in Cubic Silicon Carbide Probed by Conductive Atomic Force Microscopy. <i>Advanced Electronic Materials</i> , <b>2020</b> , 6, 1901171	6.4	16
65	Temperature dependent forward current-voltage characteristics of Ni/Au Schottky contacts on AlGaIn/GaN heterostructures described by a two diodes model. <i>Journal of Applied Physics</i> , <b>2017</b> , 121, 045701	2.5	15
64	Direct Probing of Grain Boundary Resistance in Chemical Vapor Deposition-Grown Monolayer MoS <sub>2</sub> by Conductive Atomic Force Microscopy. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 1900393	2.5	15
63	Near-surface processing on AlGaIn/GaN heterostructures: a nanoscale electrical and structural characterization. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 132	5	14
62	Fabrication and Characterization of Graphene Heterostructures with Nitride Semiconductors for High Frequency Vertical Transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2018</b> , 215, 1700653	1.6	14
61	Ti/Al-based contacts to p-type SiC and GaN for power device applications. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1600357	1.6	12
60	Barrier Inhomogeneity of Ni Schottky Contacts to Bulk GaN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2018</b> , 215, 1700613	1.6	11
59	Modification of the sheet resistance under Ti/Al/Ni/Au Ohmic contacts on AlGaIn/GaN heterostructures. <i>Materials Science in Semiconductor Processing</i> , <b>2018</b> , 78, 111-117	4.3	11
58	An insight into the epitaxial nanostructures of NiO and CeO <sub>2</sub> thin film dielectrics for AlGaIn/GaN heterostructures. <i>Materials Chemistry and Physics</i> , <b>2015</b> , 162, 461-468	4.4	10
57	Determining oxide trapped charges in Al <sub>2</sub> O <sub>3</sub> insulating films on recessed AlGaIn/GaN heterostructures by gate capacitance transients measurements. <i>Japanese Journal of Applied Physics</i> , <b>2018</b> , 57, 050307	1.4	9
56	Laminated Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> layers grown by atomic layer deposition for microelectronics applications. <i>Thin Solid Films</i> , <b>2016</b> , 601, 68-72	2.2	9
55	Surface treatments on AlGaIn/GaN heterostructures for gate dielectric Al <sub>2</sub> O <sub>3</sub> thin films grown by Atomic Layer Deposition. <i>Thin Solid Films</i> , <b>2016</b> , 617, 138-142	2.2	8
54	Ohmic Contacts on p-Type Al-Implanted 4H-SiC Layers after Different Post-Implantation Annealings. <i>Materials</i> , <b>2019</b> , 12,	3.5	8
53	Ni Schottky barrier on heavily doped phosphorous implanted 4H-SiC. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 445107	3	8
52	Ohmic contacts on n-type and p-type cubic silicon carbide (3C-SiC) grown on silicon. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 93, 295-298	4.3	7
51	Structural and electrical properties of AlN thin films on GaN substrates grown by plasma enhanced-Atomic Layer Deposition. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 97, 35-39	4.3	7
50	Metal/Semiconductor Barrier Properties of Non-Recessed Ti/Al/Ti and Ta/Al/Ta Ohmic Contacts on AlGaIn/GaN Heterostructures. <i>Energies</i> , <b>2019</b> , 12, 2655	3.1	7

49	Conductive Atomic Force Microscopy of Two-Dimensional Electron Systems: From AlGaIn/GaN Heterostructures to Graphene and MoS <sub>2</sub> <b>2017</b> , 163-185		7
48	Correlating electron trapping and structural defects in Al <sub>2</sub> O <sub>3</sub> thin films deposited by plasma enhanced atomic layer deposition. <i>AIP Advances</i> , <b>2020</b> , 10, 125017	1.5	7
47	Electrical properties of inhomogeneous tungsten carbide Schottky barrier on 4H-SiC. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 055101	3	7
46	Strain, Doping, and Electronic Transport of Large Area Monolayer MoS Exfoliated on Gold and Transferred to an Insulating Substrate. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 31248-31259	9.5	7
45	Selective Doping in Silicon Carbide Power Devices. <i>Materials</i> , <b>2021</b> , 14,	3.5	7
44	Metal/Semiconductor Contacts to Silicon Carbide: Physics and Technology. <i>Materials Science Forum</i> , <b>2018</b> , 924, 339-344	0.4	7
43	Growth and characterization of thin Al-rich AlGaIn on bulk GaN as an emitter-base barrier for hot electron transistor. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 93, 153-157	4.3	6
42	Metal/P-GaN Contacts on AlGaIn/GaN Heterostructures for Normally-Off HEMTs. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1170-1173	0.4	6
41	Conductive AFM of 2D Materials and Heterostructures for Nanoelectronics. <i>Nanoscience and Technology</i> , <b>2019</b> , 303-350	0.6	6
40	Active dopant profiling and Ohmic contacts behavior in degenerate n-type implanted silicon carbide. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 013502	3.4	6
39	Plasma enhanced atomic layer deposition of Al <sub>2</sub> O <sub>3</sub> gate dielectric thin films on AlGaIn/GaN substrates: The role of surface predeposition treatments. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , <b>2017</b> , 35, 01B140	2.9	5
38	Effects of surface nature of different semiconductor substrates on the plasma enhanced atomic layer deposition growth of Al <sub>2</sub> O <sub>3</sub> gate dielectric thin films. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2015</b> , 12, 980-984		5
37	Hot Electron Transistors Based on Graphene/AlGaIn/GaN Vertical Heterostructures. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1137-1140	0.4	5
36	Nanoscale electrical mapping of two-dimensional materials by conductive atomic force microscopy for transistors applications <b>2018</b> ,		4
35	Electrical and structural properties of Ti/Al-based contacts on AlGaIn/GaN heterostructures with different quality. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2015</b> , 212, 1091-1098	1.6	4
34	Electro-thermal model of Integrated Power Electronics Modules based on an innovative layered approach <b>2013</b> ,		4
33	A thermal neutron mini-detector with SiPM and scintillating fibers. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2011</b> , 652, 355-358	1.2	4
32	Ion Implantation Doping in Silicon Carbide and Gallium Nitride Electronic Devices. <i>Micro</i> , <b>2022</b> , 2, 23-53		4

31	Extensive Fermi-Level Engineering for Graphene through the Interaction with Aluminum Nitrides and Oxides. <i>Physica Status Solidi - Rapid Research Letters</i> , <b>2020</b> , 14, 1900399	2.5	4
30	Electrical characterization of trapping phenomena at SiO <sub>2</sub> /SiC and SiO <sub>2</sub> /GaN in MOS-based devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1600366	1.6	4
29	Temperature dependence of the I-V characteristics of Ni/Au Schottky contacts to AlGaN/GaN heterostructures grown on Si substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1600764	1.6	3
28	Comparative Study of the Current Transport Mechanisms in Ni <sub>2</sub> Si Ohmic Contacts on n- and p-Type Implanted 4H-SiC. <i>Materials Science Forum</i> , <b>2014</b> , 778-780, 665-668	0.4	3
27	Forward and reverse current transport mechanisms in tungsten carbide Schottky contacts on AlGaN/GaN heterostructures. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 234501	2.5	3
26	Nanoscale electrical characterization of graphene contacts to AlGaN/GaN heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2014</b> , 11, 1551-1555		2
25	Nanoscale Probing of Interfaces in GaN for Devices Applications. <i>ECS Transactions</i> , <b>2013</b> , 50, 439-446	1	2
24	Potentialities of Nickel Oxide as Dielectric for GaN and SiC Devices. <i>Materials Science Forum</i> , <b>2013</b> , 740-742, 777-780	0.4	2
23	Structural and Insulating Behaviour of High-Permittivity Binary Oxide Thin Films for Silicon Carbide and Gallium Nitride Electronic Devices.. <i>Materials</i> , <b>2022</b> , 15,	3.5	2
22	Early Growth Stages of Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> ) Insulating Layers by Thermal- and Plasma-Enhanced Atomic Layer Deposition on AlGaN/GaN Heterostructures. <i>ACS Applied Electronic Materials</i> , <b>2022</b> , 4, 406-415	4	2
21	Hot Electron Transistors with Graphene Base for THz Electronics <b>2018</b> , 95-115		2
20	Temperature and time dependent electron trapping in Al <sub>2</sub> O <sub>3</sub> thin films onto AlGaN/GaN heterostructures. <i>Applied Surface Science</i> , <b>2022</b> , 579, 152136	6.7	2
19	Status and Prospects of Cubic Silicon Carbide Power Electronics Device Technology. <i>Materials</i> , <b>2021</b> , 14,	3.5	2
18	Thermal annealing effect on electrical and structural properties of Tungsten Carbide Schottky contacts on AlGaN/GaN heterostructures. <i>Semiconductor Science and Technology</i> , <b>2020</b> , 35, 105004	1.8	2
17	Challenges in graphene integration for high-frequency electronics <b>2016</b> ,		2
16	Fabrication and Characterization of Ohmic Contacts to 3C-SiC Layers Grown on Silicon. <i>Materials Science Forum</i> , <b>2019</b> , 963, 485-489	0.4	2
15	Processing Issues in SiC and GaN Power Devices Technology: The Cases of 4H-SiC Planar MOSFET and Recessed Hybrid GaN MISHEMT <b>2018</b> ,		2
14	Development of a thermal neutron detector based on scintillating fibers and silicon photomultipliers. <i>Review of Scientific Instruments</i> , <b>2010</b> , 81, 093503	1.7	1

13	Evolution of Structural and Electrical Properties of Au/Ni Contacts onto P-GaN after Annealing. <i>Materials Science Forum</i> , <b>2012</b> , 717-720, 1295-1298	0.4	1
12	Microstructure and Transport Properties in Alloyed Ohmic Contacts to P-Type SiC and GaN for Power Devices Applications. <i>Materials Science Forum</i> , <b>2012</b> , 711, 203-207	0.4	1
11	Study of Ti/Al/Ni Ohmic Contacts to p-Type Implanted 4H-SiC. <i>Materials Science Forum</i> , <b>2018</b> , 924, 377-380	0.4	1
10	Nanoscale structural and electrical properties of graphene grown on AlGa <sub>N</sub> by catalyst-free chemical vapor deposition. <i>Nanotechnology</i> , <b>2021</b> , 32, 015705	3.4	0
9	Electrical Properties of Graphene Contacts to AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures. <i>Materials Science Forum</i> , <b>2015</b> , 821-823, 986-989	0.4	
8	Evolution of the Electrical and Structural Properties of Ti/Al/W Contacts to p-Type Implanted 4H-SiC upon Thermal Annealing. <i>Materials Science Forum</i> , <b>2015</b> , 821-823, 428-431	0.4	
7	Microstructure and Temperature Dependent Electrical Characteristics of Ohmic Contacts to AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures. <i>Materials Science Forum</i> , <b>2015</b> , 821-823, 999-1002	0.4	
6	Current Transport Mechanisms in Au-Free Metallizations for CMOS Compatible Ga <sub>N</sub> HEMT Technology. <i>Materials Science Forum</i> , <b>2020</b> , 1004, 725-730	0.4	
5	Trapping States in SiO <sub>2</sub> /Ga <sub>N</sub> MOS Capacitors Fabricated on Recessed AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1178-1181	0.4	
4	Silicon photomultipliers for radioactive waste online monitoring. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , <b>2011</b> , 652, 143-145	1.2	
3	Electrical and Structural Properties of AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures Grown onto 8°-Off-Axis 4H-SiC Epilayers. <i>Materials Science Forum</i> , <b>2011</b> , 679-680, 808-811	0.4	
2	Technologies for Normally-off Ga <sub>N</sub> HEMTs <b>2020</b> , 137-175		
1	Ni/Heavily-Doped 4H-SiC Schottky Contacts. <i>Materials Science Forum</i> , <b>2012</b> , 1062, 411-416	0.4	