

# Fabrizio Roccaforte

## List of Publications by Year in descending order

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340  
papers

7,533  
citations

61984

43  
h-index

95266

68  
g-index

351  
all docs

351  
docs citations

351  
times ranked

5479  
citing authors

#	ARTICLE	IF	CITATIONS
1	Electrical evolution of W and WC Schottky contacts on 4H-SiC at different annealing temperatures. Semiconductor Science and Technology, 2022, 37, 015012.	2.0	5
2	Temperature and time dependent electron trapping in Al <sub>2</sub> O <sub>3</sub> thin films onto AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. Applied Surface Science, 2022, 579, 152136.	6.1	3
3	Structural and Insulating Behaviour of High-Permittivity Binary Oxide Thin Films for Silicon Carbide and Gallium Nitride Electronic Devices. Materials, 2022, 15, 830.	2.9	16
4	Ion Implantation Doping in Silicon Carbide and Gallium Nitride Electronic Devices. Micro, 2022, 2, 23-53.	2.0	16
5	Multiscale Investigation of the Structural, Electrical and Photoluminescence Properties of MoS <sub>2</sub> Obtained by MoO <sub>3</sub> Sulfurization. Nanomaterials, 2022, 12, 182.	4.1	15
6	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 AlGa <sub>N</sub> /Ga <sub>N</sub> Heterostructures. ACS Applied Electronic Materials, 2022, 4, 406-415.	4.3	9
7	Materials and Processes for Schottky Contacts on Silicon Carbide. Materials, 2022, 15, 298.	2.9	8
8	SiO <sub>2</sub> /4H-SiC interfacial chemistry as origin of the threshold voltage instability in power MOSFETs. , 2022, , .		1
9	Identification of Interface States responsible for V <sub>TH</sub> Hysteresis in packaged SiC MOSFETs. , 2022, , .		2
10	Reliable evaluation method for interface state density and effective channel mobility in lateral 4H-SiC MOSFETs. Semiconductor Science and Technology, 2022, 37, 085010.	2.0	0
11	Esaki Diode Behavior in Highly Uniform MoS <sub>2</sub> /Silicon Carbide Heterojunctions. Advanced Materials Interfaces, 2022, 9, .	3.7	14
12	Correlation between MOSFETs breakdown and 4H-SiC epitaxial defects. , 2021, , .		3
13	Forward and reverse current transport mechanisms in tungsten carbide Schottky contacts on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. Journal of Applied Physics, 2021, 129, .	2.5	11
14	High-Resolution Two-Dimensional Imaging of the 4H-SiC MOSFET Channel by Scanning Capacitance Microscopy. Nanomaterials, 2021, 11, 1626.	4.1	8
15	Strain, Doping, and Electronic Transport of Large Area Monolayer MoS <sub>2</sub> Exfoliated on Gold and Transferred to an Insulating Substrate. ACS Applied Materials & Interfaces, 2021, 13, 31248-31259.	8.0	49
16	Selective Doping in Silicon Carbide Power Devices. Materials, 2021, 14, 3923.	2.9	31
17	Substrate impact on the thickness dependence of vibrational and optical properties of large area MoS <sub>2</sub> produced by gold-assisted exfoliation. Applied Physics Letters, 2021, 119, .	3.3	25
18	Interfacial electrical and chemical properties of deposited SiO <sub>2</sub> layers in lateral implanted 4H-SiC MOSFETs subjected to different nitridations. Applied Surface Science, 2021, 557, 149752.	6.1	16

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19	Ni Schottky barrier on heavily doped phosphorous implanted 4H-SiC. Journal Physics D: Applied Physics, 2021, 54, 445107.	2.8	12
20	Barrier height tuning in Ti/4H-SiC Schottky diodes. Solid-State Electronics, 2021, 186, 108042.	1.4	13
21	Electrical properties of inhomogeneous tungsten carbide Schottky barrier on 4H-SiC. Journal Physics D: Applied Physics, 2021, 54, 055101.	2.8	12
22	Direct Atomic Layer Deposition of Ultrathin Aluminum Oxide on Monolayer MoS <sub>2</sub> Exfoliated on Gold: The Role of the Substrate. Advanced Materials Interfaces, 2021, 8, 2101117.	3.7	10
23	Status and Prospects of Cubic Silicon Carbide Power Electronics Device Technology. Materials, 2021, 14, 5831.	2.9	18
24	Nanoscale structural and electrical properties of graphene grown on AlGaIn by catalyst-free chemical vapor deposition. Nanotechnology, 2021, 32, 015705.	2.6	6
25	Substrate-Driven Atomic Layer Deposition of High- $\kappa$ Dielectrics on 2D Materials. Applied Sciences (Switzerland), 2021, 11, 11052.	2.5	11
26	Highly Homogeneous Current Transport in Ultra-Thin Aluminum Nitride (AlN) Epitaxial Films on Gallium Nitride (GaN) Deposited by Plasma Enhanced Atomic Layer Deposition. Nanomaterials, 2021, 11, 3316.	4.1	6
27	Direct Probing of Grain Boundary Resistance in Chemical Vapor Deposition-Grown Monolayer MoS <sub>2</sub> by Conductive Atomic Force Microscopy. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900393.	2.4	26
28	Extensive Fermi-Level Engineering for Graphene through the Interaction with Aluminum Nitrides and Oxides. Physica Status Solidi - Rapid Research Letters, 2020, 14, 1900399.	2.4	5
29	Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact. Materialia, 2020, 9, 100528.	2.7	12
30	Understanding the role of threading dislocations on 4H-SiC MOSFET breakdown under high temperature reverse bias stress. Nanotechnology, 2020, 31, 125203.	2.6	18
31	Aluminum oxide nucleation in the early stages of atomic layer deposition on epitaxial graphene. Carbon, 2020, 169, 172-181.	10.3	22
32	Active dopant profiling and Ohmic contacts behavior in degenerate n-type implanted silicon carbide. Applied Physics Letters, 2020, 117, .	3.3	8
33	Thermal annealing effect on electrical and structural properties of Tungsten Carbide Schottky contacts on AlGaIn/GaN heterostructures. Semiconductor Science and Technology, 2020, 35, 105004.	2.0	6
34	Identification of two trapping mechanisms responsible of the threshold voltage variation in SiO <sub>2</sub> /4H-SiC MOSFETs. Applied Physics Letters, 2020, 117, .	3.3	19
35	Nanolaminated Al <sub>2</sub> O <sub>3</sub> /HfO <sub>2</sub> dielectrics for silicon carbide based devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	2.1	13
36	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.	5.1	25

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37	Genesis and evolution of extended defects: The role of evolving interface instabilities in cubic SiC. Applied Physics Reviews, 2020, 7, 021402.	11.3	35
38	Atomic Layer Deposition of High-k Insulators on Epitaxial Graphene: A Review. Applied Sciences (Switzerland), 2020, 10, 2440.	2.5	15
39	Conductive Atomic Force Microscopy of Semiconducting Transition Metal Dichalcogenides and Heterostructures. Nanomaterials, 2020, 10, 803.	4.1	34
40	Comparison between thermal and plasma enhanced atomic layer deposition processes for the growth of HfO <sub>2</sub> dielectric layers. Journal of Crystal Growth, 2020, 539, 125624.	1.5	24
41	On the origin of the premature breakdown of thermal oxide on 3C-SiC probed by electrical scanning probe microscopy. Applied Surface Science, 2020, 526, 146656.	6.1	10
42	10.1063/1.5132300.1. , 2020, , .		0
43	Correlating electron trapping and structural defects in Al <sub>2</sub> O <sub>3</sub> thin films deposited by plasma enhanced atomic layer deposition. AIP Advances, 2020, 10, .	1.3	11
44	Conductive AFM of 2D Materials and Heterostructures for Nanoelectronics. Nanoscience and Technology, 2019, , 303-350.	1.5	7
45	Metal/Semiconductor Barrier Properties of Non-Recessed Ti/Al/Ti and Ta/Al/Ta Ohmic Contacts on AlGaIn/GaN Heterostructures. Energies, 2019, 12, 2655.	3.1	12
46	High-Performance Graphene/AlGaIn/GaN Schottky Junctions for Hot Electron Transistors. ACS Applied Electronic Materials, 2019, 1, 2342-2354.	4.3	35
47	Ohmic Contacts on p-Type Al-Implanted 4H-SiC Layers after Different Post-Implantation Annealings. Materials, 2019, 12, 3468.	2.9	10
48	Recent Advances in Seeded and Seed-Layer-Free Atomic Layer Deposition of High-K Dielectrics on Graphene for Electronics. Journal of Carbon Research, 2019, 5, 53.	2.7	20
49	WInSiC4AP: Wide Band Gap Innovative SiC for Advanced Power. , 2019, , .		5
50	Growth and characterization of thin Al-rich AlGaIn on bulk GaN as an emitter-base barrier for hot electron transistor. Materials Science in Semiconductor Processing, 2019, 93, 153-157.	4.0	8
51	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.	4.0	13
52	Effect of high temperature annealing ( $T \geq 1650^\circ\text{C}$ ) on the morphological and electrical properties of p-type implanted 4H-SiC layers. Materials Science in Semiconductor Processing, 2019, 93, 274-279.	4.0	26
53	Characterization of SiO <sub>2</sub> /4H-SiC Interfaces in 4H-SiC MOSFETs: A Review. Energies, 2019, 12, 2310.	3.1	84
54	An Overview of Normally-Off GaN-Based High Electron Mobility Transistors. Materials, 2019, 12, 1599.	2.9	178

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55	Seed-Layer-Free Atomic Layer Deposition of Highly Uniform Al <sub>2</sub> O <sub>3</sub> Thin Films onto Monolayer Epitaxial Graphene on Silicon Carbide. Advanced Materials Interfaces, 2019, 6, 1900097.	3.7	24
56	Properties of Al <sub>2</sub> O <sub>3</sub> thin films deposited on 4H-SiC by reactive ion sputtering. Materials Science in Semiconductor Processing, 2019, 93, 290-294.	4.0	10
57	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.	4.0	25
58	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.	4.0	11
59	Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride. Materials Science in Semiconductor Processing, 2019, 94, 164-170.	4.0	30
60	SiO <sub>2</sub> /SiC MOSFETs Interface Traps Probed by Nanoscale Analyses and Transient Current and Capacitance Measurements. Materials Science Forum, 2019, 963, 230-235.	0.3	0
61	Electrical Properties of Thermal Oxide on 3C-SiC Layers Grown on Silicon. Materials Science Forum, 2019, 963, 479-482.	0.3	2
62	Temperature-dependent Fowler-Nordheim electron barrier height in SiO <sub>2</sub> /4H-SiC MOS capacitors. Materials Science in Semiconductor Processing, 2018, 78, 38-42.	4.0	27
63	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. Japanese Journal of Applied Physics, 2018, 57, 050307.	1.5	11
64	Barrier Inhomogeneity of Ni Schottky Contacts to Bulk GaN. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700613.	1.8	14
65	Review of technology for normally-off HEMTs with p-GaN gate. Materials Science in Semiconductor Processing, 2018, 78, 96-106.	4.0	172
66	Modification of the sheet resistance under Ti/Al/Ni/Au Ohmic contacts on AlGaIn/GaN heterostructures. Materials Science in Semiconductor Processing, 2018, 78, 111-117.	4.0	13
67	Emerging trends in wide band gap semiconductors (SiC and GaN) technology for power devices. Microelectronic Engineering, 2018, 187-188, 66-77.	2.4	329
68	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.	1.8	14
69	Processing Issues in SiC and GaN Power Devices Technology: The Cases of 4H-SiC Planar MOSFET and Recessed Hybrid GaN MISHEMT. , 2018, , .		7
70	Nanoscale electrical mapping of two-dimensional materials by conductive atomic force microscopy for transistors applications. AIP Conference Proceedings, 2018, , .	0.4	4
71	Electron trapping at SiO <sub>2</sub> /4H-SiC interface probed by transient capacitance measurements and atomic resolution chemical analysis. Nanotechnology, 2018, 29, 395702.	2.6	22
72	Vertical Transistors Based on 2D Materials: Status and Prospects. Crystals, 2018, 8, 70.	2.2	71

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73	3C-SiC Hetero-Epitaxially Grown on Silicon Compliance Substrates and New 3C-SiC Substrates for Sustainable Wide-Band-Gap Power Devices (CHALLENGE). Materials Science Forum, 2018, 924, 913-918.	0.3	12
74	Hot Electron Transistors with Graphene Base for THz Electronics. , 2018, , 95-115.		2
75	Interface Electrical Properties of Al <sub>2</sub> O <sub>3</sub> Thin Films on Graphene Obtained by Atomic Layer Deposition with an in Situ Seedlike Layer. ACS Applied Materials & Interfaces, 2017, 9, 7761-7771.	8.0	44
76	Temperature dependent forward current-voltage characteristics of Ni/Au Schottky contacts on AlGaIn/GaN heterostructures described by a two diodes model. Journal of Applied Physics, 2017, 121, .	2.5	20
77	Multi-scale investigation of interface properties, stacking order and decoupling of few layer graphene on C-face 4H-SiC. Carbon, 2017, 116, 722-732.	10.3	23
78	Temperature dependence of the $I-V$ characteristics of Ni/Au Schottky contacts to AlGaIn/GaN heterostructures grown on Si substrates. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600764.	1.8	5
79	Channel Mobility in GaN Hybrid MOS-HEMT Using SiO <sub>2</sub> as Gate Insulator. IEEE Transactions on Electron Devices, 2017, 64, 2893-2899.	3.0	38
80	Properties of SiO <sub>2</sub> /4H-SiC Interfaces with an Oxide Deposited by a High-Temperature Process. Materials Science Forum, 2017, 897, 331-334.	0.3	2
81	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.	6.1	30
82	Ambipolar MoS <sub>2</sub> Transistors by Nanoscale Tailoring of Schottky Barrier Using Oxygen Plasma Functionalization. ACS Applied Materials & Interfaces, 2017, 9, 23164-23174.	8.0	81
83	Effect of SiO <sub>2</sub> interlayer on the properties of Al <sub>2</sub> O <sub>3</sub> thin films grown by plasma enhanced atomic layer deposition on 4H-SiC substrates. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600365.	1.8	14
84	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. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2017, 35, 01B140.	2.1	6
85	Effects of interface states and near interface traps on the threshold voltage stability of GaN and SiC transistors employing SiO <sub>2</sub> as gate dielectric. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2017, 35, .	1.2	19
86	Conduction Mechanisms at Interface of AlN/SiN Dielectric Stacks with AlGaIn/GaN Heterostructures for Normally-off High Electron Mobility Transistors: Correlating Device Behavior with Nanoscale Interfaces Properties. ACS Applied Materials & Interfaces, 2017, 9, 35383-35390.	8.0	26
87	Growth, Defects and Doping of 3C-SiC on Hexagonal Polytypes. ECS Journal of Solid State Science and Technology, 2017, 6, P741-P745.	1.8	1
88	(Invited) Growth, Defects and Doping of 3C-SiC on Hexagonal Polytypes. ECS Transactions, 2017, 80, 107-115.	0.5	1
89	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.	1.8	17
90	Graphene integration with nitride semiconductors for high power and high frequency electronics. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600460.	1.8	38

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91	Impact of contact resistance on the electrical properties of MoS <sub>2</sub> transistors at practical operating temperatures. Beilstein Journal of Nanotechnology, 2017, 8, 254-263.	2.8	35
92	In-situ monitoring by Raman spectroscopy of the thermal doping of graphene and MoS <sub>2</sub> in O <sub>2</sub> -controlled atmosphere. Beilstein Journal of Nanotechnology, 2017, 8, 418-424.	2.8	13
93	Advances in the fabrication of graphene transistors on flexible substrates. Beilstein Journal of Nanotechnology, 2017, 8, 467-474.	2.8	20
94	Electrical characterization of trapping phenomena at SiO <sub>2</sub> /SiC and SiO <sub>2</sub> /GaN in MOS-based devices. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600366.	1.8	5
95	Advances in the Fabrication of Large-Area Back-Gated Graphene Field-Effect Transistors on Plastics: Platform for Flexible Electronics and Sensing. Carbon Nanostructures, 2017, , 125-136.	0.1	0
96	Challenges in graphene integration for high-frequency electronics. AIP Conference Proceedings, 2016, , .	0.4	2
97	Near interface traps in SiO <sub>2</sub> /4H-SiC metal-oxide-semiconductor field effect transistors monitored by temperature dependent gate current transient measurements. Applied Physics Letters, 2016, 109, .	3.3	31
98	Negative charge trapping effects in Al <sub>2</sub> O <sub>3</sub> films grown by atomic layer deposition onto thermally oxidized 4H-SiC. AIP Advances, 2016, 6, .	1.3	42
99	Effect of germanium doping on electrical properties of n-type 4H-SiC homoepitaxial layers grown by chemical vapor deposition. Journal of Applied Physics, 2016, 120, .	2.5	6
100	Ohmic contacts to Gallium Nitride materials. Applied Surface Science, 2016, 383, 324-345.	6.1	214
101	Substrate and atmosphere influence on oxygen p-doped graphene. Carbon, 2016, 107, 696-704.	10.3	15
102	Effect of temperature-bias annealing on the hysteresis and subthreshold behavior of multilayer MoS <sub>2</sub> transistors. Physica Status Solidi - Rapid Research Letters, 2016, 10, 797-801.	2.4	24
103	Conduction Mechanisms at SiO <sub>2</sub> /4H-SiC Interfaces in MOS-Based Devices Subjected to Post Deposition Annealing in N <sub>2</sub> O. Materials Science Forum, 2016, 858, 705-708.	0.3	0
104	Nanoscale probing of the lateral homogeneity of donors concentration in nitridated SiO <sub>2</sub> /4H-SiC interfaces. Nanotechnology, 2016, 27, 315701.	2.6	13
105	X-Ray Irradiation on 4H-SiC MOS Capacitors Processed under Different Annealing Conditions. Materials Science Forum, 2016, 858, 659-662.	0.3	2
106	Impact of Phosphorus Implantation on the Electrical Properties of SiO <sub>2</sub> /4H-SiC Interfaces Annealed in N <sub>2</sub> O. Materials Science Forum, 2016, 858, 701-704.	0.3	2
107	Effect of air on oxygen p-doped graphene on SiO <sub>2</sub> . Physica Status Solidi (A) Applications and Materials Science, 2016, 213, 2341-2344.	1.8	26
108	Atomic Layer Deposition of Al <sub>2</sub> O <sub>3</sub> Thin Films for Metal Insulator Semiconductor Applications on 4H-SiC. Materials Science Forum, 2016, 858, 685-688.	0.3	2



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109	Ni <sub>2</sub> /Si/4H-SiC Schottky Photodiodes for Ultraviolet Light Detection. Materials Science Forum, 2016, 858, 1015-1018.	0.3	0
110	Electrical properties of SiO <sub>2</sub> /SiC interfaces on 2°-off axis 4H-SiC epilayers. Applied Surface Science, 2016, 364, 892-895.	6.1	5
111	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.	3.0	55
112	Trapping States in SiO <sub>2</sub> /GaN MOS Capacitors Fabricated on Recessed AlGaN/GaN Heterostructures. Materials Science Forum, 2016, 858, 1178-1181.	0.3	0
113	Laminated Al <sub>2</sub> O <sub>3</sub> -HfO <sub>2</sub> layers grown by atomic layer deposition for microelectronics applications. Thin Solid Films, 2016, 601, 68-72.	1.8	15
114	Surface treatments on AlGaN/GaN heterostructures for gate dielectric Al <sub>2</sub> O <sub>3</sub> thin films grown by Atomic Layer Deposition. Thin Solid Films, 2016, 617, 138-142.	1.8	8
115	Current injection from metal to MoS <sub>2</sub> probed at nanoscale by conductive atomic force microscopy. Materials Science in Semiconductor Processing, 2016, 42, 174-178.	4.0	12
116	Nanoscale inhomogeneity of the Schottky barrier and resistivity in $\text{MoS}_2$ multilayers. Physical Review B, 2015, 92, .	3.2	69
117	Ti/Al/W Ohmic contacts to p-type implanted 4H-SiC. Journal of Applied Physics, 2015, 118, .	2.5	27
118	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. Physica Status Solidi C: Current Topics in Solid State Physics, 2015, 12, 980-984.	0.8	6
119	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.	1.8	5
120	An insight into the epitaxial nanostructures of NiO and CeO <sub>2</sub> thin film dielectrics for AlGaN/GaN heterostructures. Materials Chemistry and Physics, 2015, 162, 461-468.	4.0	12
121	Slow and fast traps in metal-oxide-semiconductor capacitors fabricated on recessed AlGaN/GaN heterostructures. Applied Physics Letters, 2015, 106, .	3.3	34
122	Visible Blind 4H-SiC P <sup>+</sup> & n <sup>+</sup> UV Photodiode Obtained by Al Implantation. IEEE Photonics Journal, 2015, 7, 1-6.	2.0	21
123	Preliminary Study on the Effect of Micrometric Ge-Droplets on the Characteristics of Ni/4H-SiC Schottky Contacts. Materials Science Forum, 2015, 821-823, 424-427.	0.3	0
124	Graphene p-Type Doping and Stability by Thermal Treatments in Molecular Oxygen Controlled Atmosphere. Journal of Physical Chemistry C, 2015, 119, 22718-22723.	3.1	41
125	Nanoscale reliability aspects of insulator onto wide band gap compounds. , 2014, , .		0
126	Ge Mediated Surface Preparation for Twin Free 3C-SiC Nucleation and Growth on Low Off-Axis 4H-SiC Substrate. ECS Journal of Solid State Science and Technology, 2014, 3, P285-P292.	1.8	10



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127	Current transport in graphene/AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. , 2014, , .		0
128	Electrical Nanocharacterization of Epitaxial Graphene/Silicon Carbide Schottky Contacts. Materials Science Forum, 2014, 778-780, 1142-1145.	0.3	5
129	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. Applied Physics Letters, 2014, 105, .	3.3	26
130	Fowler-Nordheim tunneling at SiO <sub>2</sub> /4H-SiC interfaces in metal-oxide-semiconductor field effect transistors. Applied Physics Letters, 2014, 105, .	3.3	49
131	Nanoscale electrical characterization of graphene contacts to AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 1551-1555.	0.8	2
132	Thermal and plasma-enhanced atomic layer deposition of hafnium oxide on semiconductor substrates. , 2014, , .		1
133	Ge Assisted 3C-SiC Nucleation and Growth by Vapour Phase Epitaxy on On-Axis 4H-SiC Substrate. Materials Science Forum, 2014, 806, 27-31.	0.3	0
134	Micro-Raman characterization of graphene grown on SiC(000-1). , 2014, , .		0
135	Electronic properties of epitaxial graphene residing on SiC facets probed by conductive atomic force microscopy. Applied Surface Science, 2014, 291, 53-57.	6.1	12
136	Recent advances on dielectrics technology for SiC and Ga <sub>N</sub> power devices. Applied Surface Science, 2014, 301, 9-18.	6.1	130
137	Comparative study of gate oxide in 4H-SiC lateral MOSFETs subjected to post-deposition-annealing in N <sub>2</sub> O and POCl <sub>3</sub> . Applied Physics A: Materials Science and Processing, 2014, 115, 333-339.	2.3	35
138	Metal Organic Chemical Vapor Deposition of nickel oxide thin films for wide band gap device technology. Thin Solid Films, 2014, 563, 50-55.	1.8	29
139	Current transport in graphene/AlGa <sub>N</sub> /Ga <sub>N</sub> vertical heterostructures probed at nanoscale. Nanoscale, 2014, 6, 8671-8680.	5.6	66
140	Nanoscale electrical and structural modification induced by rapid thermal oxidation of AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. Nanotechnology, 2014, 25, 025201.	2.6	21
141	Ti/Al ohmic contacts on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures with different defect density. Applied Surface Science, 2014, 314, 546-551.	6.1	27
142	Microscopic mechanisms of graphene electrolytic delamination from metal substrates. Applied Physics Letters, 2014, 104, 233105.	3.3	49
143	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.	2.0	45
144	Challenges for energy efficient wide band gap semiconductor power devices. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 2063-2071.	1.8	107

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145	High resolution study of structural and electronic properties of epitaxial graphene grown on off-axis 4H-SiC (0001). Journal of Crystal Growth, 2014, 393, 150-155.	1.5	11
146	Nanoscale structural and electrical evolution of Ta- and Ti-based contacts on AlGaIn/GaN heterostructures. Journal of Applied Physics, 2013, 114, .	2.5	34
147	Binary and complex oxide thin films for microelectronic applications: An insight into their growth and advanced nanoscopic investigation. Surface and Coatings Technology, 2013, 230, 152-162.	4.8	4
148	Comparison of Si, Sapphire, SiC, and GaN Substrates for HEMT Epitaxy. ECS Transactions, 2013, 50, 163-171.	0.5	4
149	Impact of the Morphological and Electrical Properties of SiO <sub>2</sub> /4H-SiC Interfaces on the Behavior of 4H-SiC MOSFETs. ECS Journal of Solid State Science and Technology, 2013, 2, N3006-N3011.	1.8	13
150	Correlation between microstructure and temperature dependent electrical behavior of annealed Ti/Al/Ni/Au Ohmic contacts to AlGaIn/GaN heterostructures. Applied Physics Letters, 2013, 103, .	3.3	59
151	Nanoscale Probing of Interfaces in GaN for Devices Applications. ECS Transactions, 2013, 50, 439-446.	0.5	2
152	Impact of Substrate Steps and of Monolayer-Bilayer Junctions on the Electronic Transport in Epitaxial Graphene on 4H-SiC (0001). Materials Science Forum, 2013, 740-742, 113-116.	0.3	2
153	Potentialities of Nickel Oxide as Dielectric for GaN and SiC Devices. Materials Science Forum, 2013, 740-742, 777-780.	0.3	2
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319	Industrial Approach for Next Generation of Power Devices Based on 4H-SiC. Materials Science Forum, 0, 821-823, 660-666.	0.3	6
320	Electrical Properties of Hydrogen Intercalated Epitaxial Graphene/SiC Interface Investigated by Nanoscale Current Mapping. Materials Science Forum, 0, 821-823, 929-932.	0.3	7
321	Large Area Visible Blind 4H-SiC p+/N UV Photodiode Obtained by Aluminium Implantation. Materials Science Forum, 0, 858, 1019-1022.	0.3	0
322	Hot Electron Transistors Based on Graphene/AlGaIn/GaN Vertical Heterostructures. Materials Science Forum, 0, 858, 1137-1140.	0.3	5
323	Atomistic Simulations and Interfacial Morphology of Graphene Grown on SiC(0001) and SiC(000-1) Substrates. Materials Science Forum, 0, 858, 1121-1124.	0.3	0
324	Processing and Characterization of MOS Capacitors Fabricated on 2°-Off Axis 4H-SiC Epilayers. Materials Science Forum, 0, 858, 663-666.	0.3	0

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325	Interfacial Disorder of Graphene Grown at High Temperatures on 4H-SiC(000-1). Materials Science Forum, 0, 858, 1129-1132.	0.3	0
326	Metal/P-GaN Contacts on AlGaN/GaN Heterostructures for Normally-Off HEMTs. Materials Science Forum, 0, 858, 1170-1173.	0.3	7
327	Anomalous Fowler-Nordheim Tunneling through SiO <sub>2</sub> /4H-SiC Barrier Investigated by Temperature and Time Dependent Gate Current Measurements. Materials Science Forum, 0, 897, 123-126.	0.3	0
328	Oxide Traps Probed by Transient Capacitance Measurements on Lateral SiO <sub>2</sub> /4H-SiC MOSFETs. Materials Science Forum, 0, 924, 285-288.	0.3	4
329	Metal/Semiconductor Contacts to Silicon Carbide: Physics and Technology. Materials Science Forum, 0, 924, 339-344.	0.3	12
330	Study of Ti/Al/Ni Ohmic Contacts to p-Type Implanted 4H-SiC. Materials Science Forum, 0, 924, 377-380.	0.3	3
331	Temperature-Dependence Study of the Gate Current SiO <sub>2</sub> /4H-SiC MOS Capacitors. Materials Science Forum, 0, 924, 473-476.	0.3	1
332	Effects of Thermal Annealing Processes in Phosphorous Implanted 4H-SiC Layers. Materials Science Forum, 0, 963, 407-411.	0.3	8
333	Fabrication and Characterization of Ohmic Contacts to 3C-SiC Layers Grown on Silicon. Materials Science Forum, 0, 963, 485-489.	0.3	2
334	Electrical Characterisation of Thick 3C-SiC Layers Grown on Off-Axis 4H-SiC Substrates. Materials Science Forum, 0, 963, 353-356.	0.3	0
335	Nanoscale Insights on the Origin of the Power MOSFETs Breakdown after Extremely Long High Temperature Reverse Bias Stress. Materials Science Forum, 0, 1004, 433-438.	0.3	2
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338	High Temperature Etching for Threading Dislocation Investigation on GaN Epi-Layer. Materials Science Forum, 0, 1062, 18-22.	0.3	0
339	Electrical Scanning Probe Microscopy Investigation of Schottky and Metal-Oxide Junctions on Hetero-Epitaxial 3C-SiC on Silicon. Materials Science Forum, 0, 1062, 400-405.	0.3	0
340	Ni/Heavily-Doped 4H-SiC Schottky Contacts. Materials Science Forum, 0, 1062, 411-416.	0.3	0