

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
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351
all docs

351
docs citations

351
times ranked

5479
citing authors

#	ARTICLE	IF	CITATIONS
1	Emerging trends in wide band gap semiconductors (SiC and GaN) technology for power devices. <i>Microelectronic Engineering</i> , 2018, 187-188, 66-77.	2.4	329
2	Richardson's constant in inhomogeneous silicon carbide Schottky contacts. <i>Journal of Applied Physics</i> , 2003, 93, 9137-9144.	2.5	217
3	Ohmic contacts to Gallium Nitride materials. <i>Applied Surface Science</i> , 2016, 383, 324-345.	6.1	214
4	An Overview of Normally-Off GaN-Based High Electron Mobility Transistors. <i>Materials</i> , 2019, 12, 1599.	2.9	178
5	Review of technology for normally-off HEMTs with p-GaN gate. <i>Materials Science in Semiconductor Processing</i> , 2018, 78, 96-106.	4.0	172
6	Barrier inhomogeneity and electrical properties of Pt-GaN Schottky contacts. <i>Journal of Applied Physics</i> , 2007, 102, .	2.5	156
7	Recent advances on dielectrics technology for SiC and GaN power devices. <i>Applied Surface Science</i> , 2014, 301, 9-18.	6.1	130
8	Structural and electrical characterisation of titanium and nickel silicide contacts on silicon carbide. <i>Microelectronic Engineering</i> , 2002, 60, 269-282.	2.4	122
9	Challenges for energy efficient wide band gap semiconductor power devices. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2014, 211, 2063-2071.	1.8	107
10	Surface and interface issues in wide band gap semiconductor electronics. <i>Applied Surface Science</i> , 2010, 256, 5727-5735.	6.1	96
11	Electronic transport at monolayer-bilayer junctions in epitaxial graphene on SiC. <i>Physical Review B</i> , 2012, 86, .	3.2	85
12	Characterization of SiO ₂ /4H-SiC Interfaces in 4H-SiC MOSFETs: A Review. <i>Energies</i> , 2019, 12, 2310.	3.1	84
13	Ambipolar MoS ₂ Transistors by Nanoscale Tailoring of Schottky Barrier Using Oxygen Plasma Functionalization. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 23164-23174.	8.0	81
14	Temperature dependence of the specific resistance in Ti-Al-Ni-Au contacts on n-type GaN. <i>Journal of Applied Physics</i> , 2006, 100, 123706.	2.5	80
15	Highly reproducible ideal SiC Schottky rectifiers: effects of surface preparation and thermal annealing on the Ni/6H-SiC barrier height. <i>Applied Physics A: Materials Science and Processing</i> , 2003, 77, 827-833.	2.3	77
16	OHMIC CONTACTS TO SiC. <i>International Journal of High Speed Electronics and Systems</i> , 2005, 15, 781-820.	0.7	76
17	High responsivity 4H-SiC Schottky UV photodiodes based on the pinch-off surface effect. <i>Applied Physics Letters</i> , 2006, 89, 081111.	3.3	74
18	Schottky's "ohmic transition in nickel silicide/SiC-4H system: is it really a solved problem?. <i>Microelectronic Engineering</i> , 2003, 70, 519-523.	2.4	72

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19	Vertical Transistors Based on 2D Materials: Status and Prospects. Crystals, 2018, 8, 70.	2.2	71
20	SiO ₂ /4H-SiC interface doping during post-deposition-annealing of the oxide in N ₂ O or POCl ₃ . Applied Physics Letters, 2013, 103, .	3.3	70
21	Nanoscale inhomogeneity of the Schottky barrier and resistivity in MoS_2 multilayers. Physical Review B, 2015, 92, .	3.2	69
22	Nanoscale carrier transport in Ti-Al-Ni-Au Ohmic contacts on AlGaN epilayers grown on Si(111). Applied Physics Letters, 2006, 89, 022103.	3.3	68
23	Structural and electrical properties of Ni-Ti Schottky contacts on silicon carbide upon thermal annealing. Journal of Applied Physics, 2004, 96, 4313-4318.	2.5	66
24	Current transport in graphene/AlGaN/GaN vertical heterostructures probed at nanoscale. Nanoscale, 2014, 6, 8671-8680.	5.6	66
25	Relaxation and crystallization of amorphous silicon carbide probed by optical measurements. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1997, 76, 323-333.	0.6	64
26	Temperature behavior of inhomogeneous Pt-GaN Schottky contacts. Applied Physics Letters, 2007, 90, 092119.	3.3	63
27	Structural and transport properties in alloyed Ti/Al Ohmic contacts formed on p-type Al-implanted 4H-SiC annealed at high temperature. Journal Physics D: Applied Physics, 2011, 44, 255302.	2.8	63
28	Nanoscale transport properties at silicon carbide interfaces. Journal Physics D: Applied Physics, 2010, 43, 223001.	2.8	62
29	Improvement of high temperature stability of nickel contacts on n-type 6H-SiC. Applied Surface Science, 2001, 184, 295-298.	6.1	61
30	Self-organization of gold nanoclusters on hexagonal SiC and SiO ₂ surfaces. Journal of Applied Physics, 2007, 101, 064306.	2.5	60
31	Highly Efficient Low Reverse Biased 4H-SiC Schottky Photodiodes for UV-Light Detection. IEEE Photonics Technology Letters, 2009, 21, 1782-1784.	2.5	59
32	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, .	3.3	59
33	Limiting mechanism of inversion channel mobility in Al-implanted lateral 4H-SiC metal-oxide semiconductor field-effect transistors. Applied Physics Letters, 2011, 99, .	3.3	58
34	Critical issues for interfaces to p-type SiC and GaN in power devices. Applied Surface Science, 2012, 258, 8324-8333.	6.1	57
35	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
36	Effects of annealing temperature on the degree of inhomogeneity of nickel-silicide/SiC Schottky barrier. Journal of Applied Physics, 2005, 98, 023713.	2.5	54

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37	Size-dependent Schottky Barrier Height in self-assembled gold nanoparticles. Applied Physics Letters, 2006, 89, 243113.	3.3	53
38	Electro-structural evolution and Schottky barrier height in annealed Au/Ni contacts onto p-GaN. Journal of Applied Physics, 2011, 110, .	2.5	53
39	Correlating macroscopic and nanoscale electrical modifications of SiO ₂ /4H-SiC interfaces upon post-oxidation-annealing in N ₂ O and POCl ₃ . Applied Physics Letters, 2012, 101, .	3.3	52
40	Toward an ideal Schottky barrier on 3C-SiC. Applied Physics Letters, 2009, 95, .	3.3	49
41	Fowler-Nordheim tunneling at SiO ₂ /4H-SiC interfaces in metal-oxide-semiconductor field effect transistors. Applied Physics Letters, 2014, 105, .	3.3	49
42	Microscopic mechanisms of graphene electrolytic delamination from metal substrates. Applied Physics Letters, 2014, 104, 233105.	3.3	49
43	Strain, Doping, and Electronic Transport of Large Area Monolayer MoS ₂ Exfoliated on Gold and Transferred to an Insulating Substrate. ACS Applied Materials & Interfaces, 2021, 13, 31248-31259.	8.0	49
44	New Achievements on CVD Based Methods for SiC Epitaxial Growth. Materials Science Forum, 2005, 483-485, 67-72.	0.3	48
45	Acceptor, compensation, and mobility profiles in multiple Al implanted 4H-SiC. Applied Physics Letters, 2007, 91, 202104.	3.3	48
46	Transport localization in heterogeneous Schottky barriers of quantum-defined metal films. Europhysics Letters, 2006, 74, 686-692.	2.0	46
47	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
48	Interface Electrical Properties of Al ₂ O ₃ 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
49	Ripple topography of ion-beam-eroded graphite: A key to ion-beam-induced damage tracks. Europhysics Letters, 2000, 50, 209-215.	2.0	43
50	Influence of high-temperature GaN annealed surface on the electrical properties of Ni/GaN Schottky contacts. Journal of Applied Physics, 2008, 104, .	2.5	43
51	Solid phase epitaxial regrowth of ion beam-amorphized α -quartz. Applied Physics Letters, 1998, 73, 1349-1351.	3.3	42
52	Nanoscale current transport through Schottky contacts on wide bandgap semiconductors. Journal of Vacuum Science & Technology B, 2009, 27, 789-794.	1.3	42
53	Epitaxial NiO gate dielectric on AlGaIn/GaN heterostructures. Applied Physics Letters, 2012, 100, 063511.	3.3	42
54	Negative charge trapping effects in Al ₂ O ₃ films grown by atomic layer deposition onto thermally oxidized 4H-SiC. AIP Advances, 2016, 6, .	1.3	42

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55	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
56	Normal and abnormal grain growth in nanostructured gold film. Journal of Applied Physics, 2009, 105, .	2.5	40
57	Atomic Force Microscopy Study of the Kinetic Roughening in Nanostructured Gold Films on SiO ₂ . Nanoscale Research Letters, 2009, 4, 262-8.	5.7	40
58	Crystallisation mechanism of amorphous silicon carbide. Applied Surface Science, 2001, 184, 123-127.	6.1	39
59	Channel Mobility in GaN Hybrid MOS-HEMT Using SiO ₂ as Gate Insulator. IEEE Transactions on Electron Devices, 2017, 64, 2893-2899.	3.0	38
60	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
61	Kinetic mechanism of the thermal-induced self-organization of Au/Si nanodroplets on Si(100): Size and roughness evolution. Journal of Applied Physics, 2008, 104, .	2.5	35
62	Poole-Frenkel emission in epitaxial nickel oxide on AlGaIn/GaN heterostructures. Applied Physics Letters, 2012, 101, .	3.3	35
63	Comparative study of gate oxide in 4H-SiC lateral MOSFETs subjected to post-deposition-annealing in N ₂ O and POCl ₃ . Applied Physics A: Materials Science and Processing, 2014, 115, 333-339.	2.3	35
64	Impact of contact resistance on the electrical properties of MoS ₂ transistors at practical operating temperatures. Beilstein Journal of Nanotechnology, 2017, 8, 254-263.	2.8	35
65	High-Performance Graphene/AlGaIn/GaN Schottky Junctions for Hot Electron Transistors. ACS Applied Electronic Materials, 2019, 1, 2342-2354.	4.3	35
66	Genesis and evolution of extended defects: The role of evolving interface instabilities in cubic SiC. Applied Physics Reviews, 2020, 7, 021402.	11.3	35
67	Self-organization of Au nanoclusters on the SiO ₂ surface induced by 200keV-Ar ⁺ irradiation. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 810-814.	1.4	34
68	Nanoscale structural and electrical evolution of Ta- and Ti-based contacts on AlGaIn/GaN heterostructures. Journal of Applied Physics, 2013, 114, .	2.5	34
69	Slow and fast traps in metal-oxide-semiconductor capacitors fabricated on recessed AlGaIn/GaN heterostructures. Applied Physics Letters, 2015, 106, .	3.3	34
70	Conductive Atomic Force Microscopy of Semiconducting Transition Metal Dichalcogenides and Heterostructures. Nanomaterials, 2020, 10, 803.	4.1	34
71	Microstructure of Au nanoclusters formed in and on SiO ₂ . Superlattices and Microstructures, 2008, 44, 588-598.	3.1	33
72	Defects and electrical behavior in 1MeV Si ⁺ -ion-irradiated 4H-SiC Schottky diodes. Journal of Applied Physics, 2006, 99, 013515.	2.5	32

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73	Influence of the surface morphology on the channel mobility of lateral implanted 4H-SiC(0001) metal-oxide-semiconductor field-effect transistors. <i>Journal of Applied Physics</i> , 2012, 112, .	2.5	31
74	Near interface traps in SiO ₂ /4H-SiC metal-oxide-semiconductor field effect transistors monitored by temperature dependent gate current transient measurements. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	31
75	Selective Doping in Silicon Carbide Power Devices. <i>Materials</i> , 2021, 14, 3923.	2.9	31
76	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> , 2017, 420, 331-335.	6.1	30
77	Barrier inhomogeneity in vertical Schottky diodes on free standing gallium nitride. <i>Materials Science in Semiconductor Processing</i> , 2019, 94, 164-170.	4.0	30
78	Metal Organic Chemical Vapor Deposition of nickel oxide thin films for wide band gap device technology. <i>Thin Solid Films</i> , 2014, 563, 50-55.	1.8	29
79	Effects of CD2 locus control region sequences on gene expression by retroviral and lentiviral vectors. <i>Blood</i> , 2001, 98, 3607-3617.	1.4	28
80	Micro- and nanoscale electrical characterization of large-area graphene transferred to functional substrates. <i>Beilstein Journal of Nanotechnology</i> , 2013, 4, 234-242.	2.8	28
81	Electrical behavior of AlGaIn/GaN heterostructures upon high-temperature selective oxidation. <i>Journal of Applied Physics</i> , 2009, 106, .	2.5	27
82	Ti/Al ohmic contacts on AlGaIn/GaN heterostructures with different defect density. <i>Applied Surface Science</i> , 2014, 314, 546-551.	6.1	27
83	Ti/Al/W Ohmic contacts to p-type implanted 4H-SiC. <i>Journal of Applied Physics</i> , 2015, 118, .	2.5	27
84	Temperature-dependent Fowler-Nordheim electron barrier height in SiO ₂ /4H-SiC MOS capacitors. <i>Materials Science in Semiconductor Processing</i> , 2018, 78, 38-42.	4.0	27
85	Oxygen-activated epitaxial recrystallization of Li-implanted SiO ₂ . <i>Physical Review B</i> , 2000, 61, 3327-3332.	3.2	26
86	Electro-optical response of ion-irradiated 4H-SiC Schottky ultraviolet photodetectors. <i>Applied Physics Letters</i> , 2008, 92, .	3.3	26
87	From Schottky to Ohmic graphene contacts to AlGaIn/GaN heterostructures: Role of the AlGaIn layer microstructure. <i>Applied Physics Letters</i> , 2014, 105, .	3.3	26
88	Effect of air on oxygen p-doped graphene on SiO ₂ . <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2016, 213, 2341-2344.	1.8	26
89	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. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 35383-35390.	8.0	26
90	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> , 2019, 93, 274-279.	4.0	26

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91	Direct Probing of Grain Boundary Resistance in Chemical Vapor Deposition-grown Monolayer MoS ₂ by Conductive Atomic Force Microscopy. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900393.	2.4	26
92	Crystallization process of amorphous silicon-carbon alloys. <i>Thin Solid Films</i> , 2002, 411, 298-302.	1.8	25
93	Ion irradiation of inhomogeneous Schottky barriers on silicon carbide. <i>Journal of Applied Physics</i> , 2005, 97, 123502.	2.5	25
94	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> , 2019, 97, 62-66.	4.0	25
95	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> , 2020, 6, 1901171.	5.1	25
96	Substrate impact on the thickness dependence of vibrational and optical properties of large area MoS ₂ produced by gold-assisted exfoliation. <i>Applied Physics Letters</i> , 2021, 119, .	3.3	25
97	Silicon carbide pinch rectifiers using a dual-metal Ti-Ni/Si Schottky barrier. <i>IEEE Transactions on Electron Devices</i> , 2003, 50, 1741-1747.	3.0	24
98	Photocurrent gain in 4H-SiC interdigit Schottky UV detectors with a thermally grown oxide layer. <i>Applied Physics Letters</i> , 2007, 90, 223507.	3.3	24
99	Effect of temperature-bias annealing on the hysteresis and subthreshold behavior of multilayer MoS ₂ transistors. <i>Physica Status Solidi - Rapid Research Letters</i> , 2016, 10, 797-801.	2.4	24
100	Seed-layer-free Atomic Layer Deposition of Highly Uniform Al ₂ O ₃ Thin Films onto Monolayer Epitaxial Graphene on Silicon Carbide. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900097.	3.7	24
101	Comparison between thermal and plasma enhanced atomic layer deposition processes for the growth of HfO ₂ dielectric layers. <i>Journal of Crystal Growth</i> , 2020, 539, 125624.	1.5	24
102	Epitaxial crystallization of keV-ion-bombarded α -quartz. <i>Journal of Applied Physics</i> , 2001, 89, 3611-3618.	2.5	23
103	Tailoring the Ti ₄ -SiC Schottky barrier by ion irradiation. <i>Applied Physics Letters</i> , 2004, 85, 6152-6154.	3.3	23
104	Near-surface processing on AlGaN/GaN heterostructures: a nanoscale electrical and structural characterization. <i>Nanoscale Research Letters</i> , 2011, 6, 132.	5.7	23
105	Multi-scale investigation of interface properties, stacking order and decoupling of few layer graphene on C-face 4H-SiC. <i>Carbon</i> , 2017, 116, 722-732.	10.3	23
106	Angular distortion of Si clusters in α -SiC. <i>Europhysics Letters</i> , 2001, 55, 674-678.	2.0	22
107	Electron trapping at SiO ₂ /4H-SiC interface probed by transient capacitance measurements and atomic resolution chemical analysis. <i>Nanotechnology</i> , 2018, 29, 395702.	2.6	22
108	Aluminum oxide nucleation in the early stages of atomic layer deposition on epitaxial graphene. <i>Carbon</i> , 2020, 169, 172-181.	10.3	22

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109	Epitaxial crystallization of amorphous SiO ₂ films deposited on single-crystalline $\hat{\pm}$ -quartz. Applied Physics Letters, 1999, 75, 2903-2905.	3.3	21
110	Temperature dependence of the c-axis mobility in 6H-SiC Schottky diodes. Applied Physics Letters, 2003, 83, 4181-4183.	3.3	21
111	Nanoscale electrical and structural modification induced by rapid thermal oxidation of AlGaIn/GaN heterostructures. Nanotechnology, 2014, 25, 025201.	2.6	21
112	Visible Blind 4H-SiC P ⁺ & n ⁺ UV Photodiode Obtained by Al Implantation. IEEE Photonics Journal, 2015, 7, 1-6.	2.0	21
113	Ion beam erosion of graphite surfaces studied by STM: Ripples, self-affine roughening and near-surface damage accumulation. Nuclear Instruments & Methods in Physics Research B, 2000, 161-163, 958-962.	1.4	20
114	Oxygen migration during epitaxial regrowth in Cs ⁺ -irradiated $\hat{\pm}$ -quartz investigated by means of nuclear reaction analysis. Applied Physics Letters, 2000, 76, 3709-3711.	3.3	20
115	Interaction between dislocations and He-implantation-induced voids in GaN epitaxial layers. Applied Physics Letters, 2005, 86, 211911.	3.3	20
116	Improved Ni/3C-SiC contacts by effective contact area and conductivity increases at the nanoscale. Applied Physics Letters, 2009, 94, 112104.	3.3	20
117	Interdigit 4H-SiC Vertical Schottky Diode for Betavoltaic Applications. IEEE Transactions on Electron Devices, 2011, 58, 593-599.	3.0	20
118	High permittivity cerium oxide thin films on AlGaIn/GaN heterostructures. Applied Physics Letters, 2013, 103, .	3.3	20
119	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
120	Advances in the fabrication of graphene transistors on flexible substrates. Beilstein Journal of Nanotechnology, 2017, 8, 467-474.	2.8	20
121	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
122	Effects of interface states and near interface traps on the threshold voltage stability of GaN and SiC transistors employing SiO ₂ as gate dielectric. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2017, 35, .	1.2	19
123	Identification of two trapping mechanisms responsible of the threshold voltage variation in SiO ₂ /4H-SiC MOSFETs. Applied Physics Letters, 2020, 117, .	3.3	19
124	A look underneath the SiO ₂ /4H-SiC interface after N ₂ O thermal treatments. Beilstein Journal of Nanotechnology, 2013, 4, 249-254.	2.8	18
125	Understanding the role of threading dislocations on 4H-SiC MOSFET breakdown under high temperature reverse bias stress. Nanotechnology, 2020, 31, 125203.	2.6	18
126	Status and Prospects of Cubic Silicon Carbide Power Electronics Device Technology. Materials, 2021, 14, 5831.	2.9	18

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127	Drift mobility in 4H-SiC Schottky diodes. Applied Physics Letters, 2005, 87, 142105.	3.3	17
128	High growth rate process in a SiC horizontal CVD reactor using HCl. Microelectronic Engineering, 2006, 83, 48-50.	2.4	17
129	Temperature and Light Induced Effects on the Capacitance of 4H-SiC Schottky Photodiodes. IEEE Sensors Journal, 2012, 12, 1127-1130.	4.7	17
130	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
131	Schottky-Ohmic Transition in Nickel Silicide/SiC System: Is it Really a Solved Problem?. Materials Science Forum, 2003, 433-436, 721-724.	0.3	16
132	Quantitative determination of depth carrier profiles in ion-implanted Gallium Nitride. Nuclear Instruments & Methods in Physics Research B, 2007, 257, 336-339.	1.4	16
133	Thermodynamic Properties of Supported and Embedded Metallic Nanocrystals: Gold on/in SiO ₂ . Nanoscale Research Letters, 2008, 3, 454-60.	5.7	16
134	Interfacial electrical and chemical properties of deposited SiO ₂ layers in lateral implanted 4H-SiC MOSFETs subjected to different nitridations. Applied Surface Science, 2021, 557, 149752.	6.1	16
135	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
136	Ion Implantation Doping in Silicon Carbide and Gallium Nitride Electronic Devices. Micro, 2022, 2, 23-53.	2.0	16
137	Network modification and epitaxial recrystallisation of ion-implanted $\hat{\pm}$ -quartz. Nuclear Instruments & Methods in Physics Research B, 1999, 148, 692-697.	1.4	15
138	Nanoscale voltage tunable tunnel rectifier by gold nanostructures embedded in SiO ₂ . Applied Physics Letters, 2006, 89, 263108.	3.3	15
139	Substrate and atmosphere influence on oxygen p-doped graphene. Carbon, 2016, 107, 696-704.	10.3	15
140	Laminated Al ₂ O ₃ â€“HfO ₂ layers grown by atomic layer deposition for microelectronics applications. Thin Solid Films, 2016, 601, 68-72.	1.8	15
141	Atomic Layer Deposition of High-k Insulators on Epitaxial Graphene: A Review. Applied Sciences (Switzerland), 2020, 10, 2440.	2.5	15
142	Multiscale Investigation of the Structural, Electrical and Photoluminescence Properties of MoS ₂ Obtained by MoO ₃ Sulfurization. Nanomaterials, 2022, 12, 182.	4.1	15
143	Two-dimensional electron gas insulation by local surface thin thermal oxidation in AlGaInâ€“GaN heterostructures. Applied Physics Letters, 2008, 92, 252101.	3.3	14
144	Effect of SiO ₂ interlayer on the properties of Al ₂ O ₃ 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

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145	Barrier Inhomogeneity of Ni Schottky Contacts to Bulk GaN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700613.	1.8	14
146	Fabrication and Characterization of Graphene Heterostructures with Nitride Semiconductors for High Frequency Vertical Transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700653.	1.8	14
147	Esaki Diode Behavior in Highly Uniform MoS ₂ /Silicon Carbide Heterojunctions. <i>Advanced Materials Interfaces</i> , 2022, 9, .	3.7	14
148	Epitaxial Layers Grown with HCl Addition: A Comparison with the Standard Process. <i>Materials Science Forum</i> , 2006, 527-529, 163-166.	0.3	13
149	On the Aging Effects of 4H-SiC Schottky Photodiodes Under High Intensity Mercury Lamp Irradiation. <i>IEEE Photonics Technology Letters</i> , 2010, 22, 775-777.	2.5	13
150	Impact of the Morphological and Electrical Properties of SiO ₂ /4H-SiC Interfaces on the Behavior of 4H-SiC MOSFETs. <i>ECS Journal of Solid State Science and Technology</i> , 2013, 2, N3006-N3011.	1.8	13
151	Nanoscale probing of the lateral homogeneity of donors concentration in nitridated SiO ₂ /4H-SiC interfaces. <i>Nanotechnology</i> , 2016, 27, 315701.	2.6	13
152	In-situ monitoring by Raman spectroscopy of the thermal doping of graphene and MoS ₂ in O ₂ -controlled atmosphere. <i>Beilstein Journal of Nanotechnology</i> , 2017, 8, 418-424.	2.8	13
153	Modification of the sheet resistance under Ti/Al/Ni/Au Ohmic contacts on AlGaIn/GaN heterostructures. <i>Materials Science in Semiconductor Processing</i> , 2018, 78, 111-117.	4.0	13
154	Ohmic contacts on n-type and p-type cubic silicon carbide (3C-SiC) grown on silicon. <i>Materials Science in Semiconductor Processing</i> , 2019, 93, 295-298.	4.0	13
155	Nanolaminated Al ₂ O ₃ /HfO ₂ dielectrics for silicon carbide based devices. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	2.1	13
156	Barrier height tuning in Ti/4H-SiC Schottky diodes. <i>Solid-State Electronics</i> , 2021, 186, 108042.	1.4	13
157	High efficiency 4H-SiC Schottky UV-photodiodes using self-aligned semitransparent contacts. <i>Superlattices and Microstructures</i> , 2007, 41, 29-35.	3.1	12
158	Electronic properties of epitaxial graphene residing on SiC facets probed by conductive atomic force microscopy. <i>Applied Surface Science</i> , 2014, 291, 53-57.	6.1	12
159	An insight into the epitaxial nanostructures of NiO and CeO ₂ thin film dielectrics for AlGaIn/GaN heterostructures. <i>Materials Chemistry and Physics</i> , 2015, 162, 461-468.	4.0	12
160	Current injection from metal to MoS ₂ probed at nanoscale by conductive atomic force microscopy. <i>Materials Science in Semiconductor Processing</i> , 2016, 42, 174-178.	4.0	12
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