

# Filippo Giannazzo

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

316  
papers

5,505  
citations

40  
h-index

58  
g-index

336  
ext. papers

6,211  
ext. citations

3.2  
avg, IF

5.84  
L-index

#	Paper	IF	Citations
316	Ion Implantation Doping in Silicon Carbide and Gallium Nitride Electronic Devices. <i>Micro</i> , <b>2022</b> , 2, 23-53		4
315	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. <i>ACS Applied Electronic Materials</i> , <b>2022</b> , 4, 406-415	4	2
314	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. <i>Applied Surface Science</i> , <b>2022</b> , 579, 152136	6.7	2
313	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
312	Substrate-Driven Atomic Layer Deposition of High- $\kappa$ Dielectrics on 2D Materials. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 11052	2.6	1
311	Direct Atomic Layer Deposition of Ultrathin Aluminum Oxide on Monolayer MoS <sub>2</sub> Exfoliated on Gold: The Role of the Substrate. <i>Advanced Materials Interfaces</i> , <b>2021</b> , 8, 2101117	4.6	2
310	Material proposal for 2D indium oxide. <i>Applied Surface Science</i> , <b>2021</b> , 548, 149275	6.7	18
309	Forward and reverse current transport mechanisms in tungsten carbide Schottky contacts on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Journal of Applied Physics</i> , <b>2021</b> , 129, 234501	2.5	3
308	High-Resolution Two-Dimensional Imaging of the 4H-SiC MOSFET Channel by Scanning Capacitance Microscopy. <i>Nanomaterials</i> , <b>2021</b> , 11,	5.4	3
307	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
306	Epitaxial Graphene on 4H-SiC (0001) as a Versatile Platform for Materials Growth: Mini-Review. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 5784	2.6	4
305	Selective Doping in Silicon Carbide Power Devices. <i>Materials</i> , <b>2021</b> , 14,	3.5	7
304	MOCVD of AlN on epitaxial graphene at extreme temperatures. <i>CrystEngComm</i> , <b>2021</b> , 23, 385-390	3.3	6
303	Indium Nitride at the 2D Limit. <i>Advanced Materials</i> , <b>2021</b> , 33, e2006660	24	24
302	CsPbBr <sub>3</sub> , MAPbBr <sub>3</sub> , and FAPbBr <sub>3</sub> Bromide Perovskite Single Crystals: Interband Critical Points under Dry N <sub>2</sub> and Optical Degradation under Humid Air. <i>Journal of Physical Chemistry C</i> , <b>2021</b> , 125, 4938-4945	3.8	8
301	Substrate impact on the thickness dependence of vibrational and optical properties of large area MoS <sub>2</sub> produced by gold-assisted exfoliation. <i>Applied Physics Letters</i> , <b>2021</b> , 119, 093103	3.4	5
300	Interfacial electrical and chemical properties of deposited SiO <sub>2</sub> layers in lateral implanted 4H-SiC MOSFETs subjected to different nitridations. <i>Applied Surface Science</i> , <b>2021</b> , 557, 149752	6.7	6

299	Ni Schottky barrier on heavily doped phosphorous implanted 4H-SiC. <i>Journal Physics D: Applied Physics</i> , <b>2021</b> , 54, 445107	3	8
298	New Approaches and Understandings in the Growth of Cubic Silicon Carbide. <i>Materials</i> , <b>2021</b> , 14,	3.5	6
297	Gold nanoparticle assisted synthesis of MoS2 monolayers by chemical vapor deposition. <i>Nanoscale Advances</i> , <b>2021</b> , 3, 4826-4833	5.1	5
296	Materials and Processes for Schottky Contacts on Silicon Carbide.. <i>Materials</i> , <b>2021</b> , 15,	3.5	1
295	Current Transport Mechanisms in Au-Free Metallizations for CMOS Compatible GaN HEMT Technology. <i>Materials Science Forum</i> , <b>2020</b> , 1004, 725-730	0.4	
294	Dynamic Modification of Fermi Energy in Single-Layer Graphene by Photoinduced Electron Transfer from Carbon Dots. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	4
293	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
292	Genesis and evolution of extended defects: The role of evolving interface instabilities in cubic SiC. <i>Applied Physics Reviews</i> , <b>2020</b> , 7, 021402	17.3	22
291	Atomic Layer Deposition of High-k Insulators on Epitaxial Graphene: A Review. <i>Applied Sciences (Switzerland)</i> , <b>2020</b> , 10, 2440	2.6	7
290	Conductive Atomic Force Microscopy of Semiconducting Transition Metal Dichalcogenides and Heterostructures. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	17
289	On the origin of the premature breakdown of thermal oxide on 3C-SiC probed by electrical scanning probe microscopy. <i>Applied Surface Science</i> , <b>2020</b> , 526, 146656	6.7	4
288	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
287	Understanding the role of threading dislocations on 4H-SiC MOSFET breakdown under high temperature reverse bias stress. <i>Nanotechnology</i> , <b>2020</b> , 31, 125203	3.4	9
286	Nanoscale phenomena ruling deposition and intercalation of AlN at the graphene/SiC interface. <i>Nanoscale</i> , <b>2020</b> , 12, 19470-19476	7.7	28
285	Aluminum oxide nucleation in the early stages of atomic layer deposition on epitaxial graphene. <i>Carbon</i> , <b>2020</b> , 169, 172-181	10.4	11
284	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
283	Thermal annealing effect on electrical and structural properties of Tungsten Carbide Schottky contacts on AlGaIn/GaN heterostructures. <i>Semiconductor Science and Technology</i> , <b>2020</b> , 35, 105004	1.8	2
282	Nanoscale Insights on the Origin of the Power MOSFETs Breakdown after Extremely Long High Temperature Reverse Bias Stress. <i>Materials Science Forum</i> , <b>2020</b> , 1004, 433-438	0.4	1

281	Integration of 2D Materials with Nitrides for Novel Electronic and Optoelectronic Applications <b>2020</b> , 397-438		2
280	Identification of two trapping mechanisms responsible of the threshold voltage variation in SiO <sub>2</sub> /4H-SiC MOSFETs. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 103502	3-4	5
279	Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. <i>Energies</i> , <b>2020</b> , 13, 3953	3-1	6
278	Manipulation of epitaxial graphene towards novel properties and applications. <i>Materials Today: Proceedings</i> , <b>2020</b> , 20, 37-45	1-4	2
277	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
276	Growth and characterization of thin Al-rich AlGa <sub>N</sub> 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
275	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
274	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
273	Characterization of SiO <sub>2</sub> /4H-SiC Interfaces in 4H-SiC MOSFETs: A Review. <i>Energies</i> , <b>2019</b> , 12, 2310	3-1	44
272	Influence of oxide substrates on monolayer graphene doping process by thermal treatments in oxygen. <i>Carbon</i> , <b>2019</b> , 149, 546-555	10-4	8
271	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. <i>Advanced Materials Interfaces</i> , <b>2019</b> , 6, 1900097	4-6	15
270	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
269	Probing the uniformity of hydrogen intercalation in quasi-free-standing epitaxial graphene on SiC by micro-Raman mapping and conductive atomic force microscopy. <i>Nanotechnology</i> , <b>2019</b> , 30, 284003	3-4	16
268	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
267	Raman probing of hydrogen-intercalated graphene on Si-face 4H-SiC. <i>Materials Science in Semiconductor Processing</i> , <b>2019</b> , 96, 145-152	4-3	16
266	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
265	Nitrogen Soaking Promotes Lattice Recovery in Polycrystalline Hybrid Perovskites. <i>Advanced Energy Materials</i> , <b>2019</b> , 9, 1803450	21-8	34
264	Nanostructured TiO <sub>2</sub> Grown by Low-Temperature Reactive Sputtering for Planar Perovskite Solar Cells. <i>ACS Applied Energy Materials</i> , <b>2019</b> , 2, 6218-6229	6-1	18

263	Conductive AFM of 2D Materials and Heterostructures for Nanoelectronics. <i>Nanoscience and Technology</i> , <b>2019</b> , 303-350	0.6	6
262	Metal/Semiconductor Barrier Properties of Non-Recessed Ti/Al/Ti and Ta/Al/Ta Ohmic Contacts on AlGaN/GaN Heterostructures. <i>Energies</i> , <b>2019</b> , 12, 2655	3.1	7
261	High-Performance Graphene/AlGaN/GaN Schottky Junctions for Hot Electron Transistors. <i>ACS Applied Electronic Materials</i> , <b>2019</b> , 1, 2342-2354	4	23
260	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
259	Recent Advances in Seeded and Seed-Layer-Free Atomic Layer Deposition of High-K Dielectrics on Graphene for Electronics. <i>Journal of Carbon Research</i> , <b>2019</b> , 5, 53	3.3	12
258	Effects of Thermal Annealing Processes in Phosphorous Implanted 4H-SiC Layers. <i>Materials Science Forum</i> , <b>2019</b> , 963, 407-411	0.4	6
257	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
256	SiO <sub>2</sub> /SiC MOSFETs Interface Traps Probed by Nanoscale Analyses and Transient Current and Capacitance Measurements. <i>Materials Science Forum</i> , <b>2019</b> , 963, 230-235	0.4	
255	Electrical Properties of Thermal Oxide on 3C-SiC Layers Grown on Silicon. <i>Materials Science Forum</i> , <b>2019</b> , 963, 479-482	0.4	2
254	Graphene-SiO <sub>2</sub> Interaction from Composites to Doping. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2019</b> , 216, 1800540	1.6	4
253	Carbon Dots Dispersed on Graphene/SiO <sub>2</sub> /Si: A Morphological Study. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2019</b> , 216, 1800559	1.6	6
252	Photoinduced charge transfer from Carbon Dots to Graphene in solid composite. <i>Thin Solid Films</i> , <b>2019</b> , 669, 620-624	2.2	6
251	Temperature-dependent Fowler-Nordheim electron barrier height in SiO <sub>2</sub> /4H-SiC MOS capacitors. <i>Materials Science in Semiconductor Processing</i> , <b>2018</b> , 78, 38-42	4.3	17
250	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
249	Nanoscale electrical mapping of two-dimensional materials by conductive atomic force microscopy for transistors applications <b>2018</b> ,		4
248	Electron trapping at SiO <sub>2</sub> /4H-SiC interface probed by transient capacitance measurements and atomic resolution chemical analysis. <i>Nanotechnology</i> , <b>2018</b> , 29, 395702	3.4	10
247	Vertical Transistors Based on 2D Materials: Status and Prospects. <i>Crystals</i> , <b>2018</b> , 8, 70	2.3	56
246	Hot Electron Transistors with Graphene Base for THz Electronics <b>2018</b> , 95-115		2

245	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
244	Monolayer graphene doping and strain dynamics induced by thermal treatments in controlled atmosphere. <i>Carbon</i> , <b>2018</b> , 127, 270-279	10.4	20
243	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
242	Metal/Semiconductor Contacts to Silicon Carbide: Physics and Technology. <i>Materials Science Forum</i> , <b>2018</b> , 924, 339-344	0.4	7
241	Interface Electrical Properties of AlO Thin Films on Graphene Obtained by Atomic Layer Deposition with an in Situ Seedlike Layer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 7761-7771	9.5	33
240	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
239	Multi-scale investigation of interface properties, stacking order and decoupling of few layer graphene on C-face 4H-SiC. <i>Carbon</i> , <b>2017</b> , 116, 722-732	10.4	21
238	Temperature dependence of the I-V characteristics of Ni/Au Schottky contacts to AlGaIn/GaN heterostructures grown on Si substrates. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2017</b> , 214, 1600764	1.6	3
237	Anomalous Fowler-Nordheim Tunneling through SiO <sub>2</sub> /4H-SiC Barrier Investigated by Temperature and Time Dependent Gate Current Measurements. <i>Materials Science Forum</i> , <b>2017</b> , 897, 123-126	0.4	
236	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
235	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. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , <b>2017</b> , 35, 01A101	1.3	16
234	Influence of hydrofluoric acid treatment on electroless deposition of Au clusters. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 183-189	3	5
233	Role of the Potential Barrier in the Electrical Performance of the Graphene/SiC Interface. <i>Crystals</i> , <b>2017</b> , 7, 162	2.3	25
232	Advances in the fabrication of graphene transistors on flexible substrates. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 467-474	3	16
231	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
230	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 &amp; Interfaces</i> , <b>2017</b> , 9, 35383-35390	9.5	21
229	Growth, Defects and Doping of 3C-SiC on Hexagonal Polytypes. <i>ECS Journal of Solid State Science and Technology</i> , <b>2017</b> , 6, P741-P745	2	
228	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



227	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
226	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
225	In-situ monitoring by Raman spectroscopy of the thermal doping of graphene and MoS in O-controlled atmosphere. <i>Beilstein Journal of Nanotechnology</i> , <b>2017</b> , 8, 418-424	3	10
224	A Review on Metal Nanoparticles Nucleation and Growth on/in Graphene. <i>Crystals</i> , <b>2017</b> , 7, 219	2.3	23
223	Advances in the Fabrication of Large-Area Back-Gated Graphene Field-Effect Transistors on Plastics: Platform for Flexible Electronics and Sensing. <i>Carbon Nanostructures</i> , <b>2017</b> , 125-136	0.6	
222	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
221	Current injection from metal to MoS <sub>2</sub> probed at nanoscale by conductive atomic force microscopy. <i>Materials Science in Semiconductor Processing</i> , <b>2016</b> , 42, 174-178	4.3	9
220	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
219	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. <i>Materials Science Forum</i> , <b>2016</b> , 858, 705-708	0.4	
218	Nanoscale probing of the lateral homogeneity of donors concentration in nitridated SiO <sub>2</sub> /4H-SiC interfaces. <i>Nanotechnology</i> , <b>2016</b> , 27, 315701	3.4	9
217	Interfacial Disorder of Graphene Grown at High Temperatures on 4H-SiC(000-1). <i>Materials Science Forum</i> , <b>2016</b> , 858, 1129-1132	0.4	
216	Impact of Phosphorus Implantation on the Electrical Properties of SiO <sub>2</sub> /4H-SiC Interfaces Annealed in N <sub>2</sub> O. <i>Materials Science Forum</i> , <b>2016</b> , 858, 701-704	0.4	1
215	Effect of air on oxygen p-doped graphene on SiO <sub>2</sub> . <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2016</b> , 213, 2341-2344	1.6	21
214	Metal/P-GaN Contacts on AlGaN/GaN Heterostructures for Normally-Off HEMTs. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1170-1173	0.4	6
213	Insight into the mechanisms of chemical doping of graphene on silicon carbide. <i>Nanotechnology</i> , <b>2016</b> , 27, 072502	3.4	5
212	Challenges in graphene integration for high-frequency electronics <b>2016</b> ,		2
211	The Interaction between Graphene and the SiC Substrate: Ab Initio Calculations for Polar and Nonpolar Surfaces. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1125-1128	0.4	
210	Effect of germanium doping on electrical properties of n-type 4H-SiC homoepitaxial layers grown by chemical vapor deposition. <i>Journal of Applied Physics</i> , <b>2016</b> , 120, 205701	2.5	5

209	Hot Electron Transistors Based on Graphene/AlGa <sub>N</sub> /Ga <sub>N</sub> Vertical Heterostructures. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1137-1140	0.4	5
208	Atomistic Simulations and Interfacial Morphology of Graphene Grown on SiC(0001) and SiC(000-1) Substrates. <i>Materials Science Forum</i> , <b>2016</b> , 858, 1121-1124	0.4	
207	Substrate and atmosphere influence on oxygen p-doped graphene. <i>Carbon</i> , <b>2016</b> , 107, 696-704	10.4	13
206	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	
205	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	
204	Preliminary Study on the Effect of Micrometric Ge-Droplets on the Characteristics of Ni/4H-SiC Schottky Contacts. <i>Materials Science Forum</i> , <b>2015</b> , 821-823, 424-427	0.4	
203	Industrial Approach for Next Generation of Power Devices Based on 4H-SiC. <i>Materials Science Forum</i> , <b>2015</b> , 821-823, 660-666	0.4	4
202	Electrical Properties of Hydrogen Intercalated Epitaxial Graphene/SiC Interface Investigated by Nanoscale Current Mapping. <i>Materials Science Forum</i> , <b>2015</b> , 821-823, 929-932	0.4	5
201	Graphene p-Type Doping and Stability by Thermal Treatments in Molecular Oxygen Controlled Atmosphere. <i>Journal of Physical Chemistry C</i> , <b>2015</b> , 119, 22718-22723	3.8	36
200	Interface disorder probed at the atomic scale for graphene grown on the C face of SiC. <i>Physical Review B</i> , <b>2015</b> , 91,	3.3	17
199	Nanoscale inhomogeneity of the Schottky barrier and resistivity in MoS <sub>2</sub> multilayers. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	58
198	A comprehensive study on the physicochemical and electrical properties of Si doped with the molecular doping method. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2015</b> , 212, 1685-1694	1.6	11
197	Similar Structural Dynamics for the Degradation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> in Air and in Vacuum. <i>ChemPhysChem</i> , <b>2015</b> , 16, 3064-71	3.2	68
196	Atomistic origins of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> degradation to PbI <sub>2</sub> in vacuum. <i>Applied Physics Letters</i> , <b>2015</b> , 106, 131904	3.4	141
195	Electrical and structural properties of Ti/Al-based contacts on AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures with different quality. <i>Physica Status Solidi (A) Applications and Materials Science</i> , <b>2015</b> , 212, 1091-1098	1.6	4
194	Current transport in graphene/AlGa <sub>N</sub> /Ga <sub>N</sub> vertical heterostructures probed at nanoscale. <i>Nanoscale</i> , <b>2014</b> , 6, 8671-80	7.7	57
193	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
192	Self-organization and nanostructural control in thin film heterojunctions. <i>Nanoscale</i> , <b>2014</b> , 6, 3566-75	7.7	20



191	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
190	Microscopic mechanisms of graphene electrolytic delamination from metal substrates. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 233105	3.4	45
189	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
188	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
187	High resolution study of structural and electronic properties of epitaxial graphene grown on off-axis 4H-SiC (0001). <i>Journal of Crystal Growth</i> , <b>2014</b> , 393, 150-155	1.6	9
186	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
185	Observation of layer by layer graphitization of 4H-SiC, through atomic-EELS at low energy. <i>Microscopy and Microanalysis</i> , <b>2014</b> , 20, 560-561	0.5	
184	Ge Mediated Surface Preparation for Twin Free 3C-SiC Nucleation and Growth on Low Off-Axis 4H-SiC Substrate. <i>ECS Journal of Solid State Science and Technology</i> , <b>2014</b> , 3, P285-P292	2	8
183	Probing at Nanoscale Underneath the Gate Oxides in 4H-SiC MOS-Based Devices Annealed in N <sub>2</sub> O and POCl <sub>3</sub> . <i>Materials Science Forum</i> , <b>2014</b> , 806, 143-147	0.4	
182	Electrical Nanocharacterization of Epitaxial Graphene/Silicon Carbide Schottky Contacts. <i>Materials Science Forum</i> , <b>2014</b> , 778-780, 1142-1145	0.4	5
181	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
180	Nanoscale electrical characterization of graphene contacts to AlGa <sub>N</sub> /Ga <sub>N</sub> heterostructures. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2014</b> , 11, 1551-1555		2
179	Ge Assisted 3C-SiC Nucleation and Growth by Vapour Phase Epitaxy on On-Axis 4H-SiC Substrate. <i>Materials Science Forum</i> , <b>2014</b> , 806, 27-31	0.4	
178	Electrical Characteristics of Schottky Contacts on Ge-Doped 4H-SiC. <i>Materials Science Forum</i> , <b>2014</b> , 778-780, 706-709	0.4	11
177	Origin of the Current Transport Anisotropy in Epitaxial Graphene Grown on Vicinal 4H-SiC (0001) Surfaces. <i>Materials Science Forum</i> , <b>2014</b> , 806, 103-107	0.4	1
176	Nanoscale Characterization of SiC Interfaces and Devices. <i>Materials Science Forum</i> , <b>2014</b> , 778-780, 407-413	0.4	1
175	Characterization of SiO <sub>2</sub> /SiC Interfaces Annealed in N <sub>2</sub> O or POCl <sub>3</sub> . <i>Materials Science Forum</i> , <b>2014</b> , 778-780, 623-626	0.4	6
174	Atomic Scale Imaging and Energy Loss Spectroscopy of Epitaxial Graphene. <i>Materials Research Society Symposia Proceedings</i> , <b>2014</b> , 1714, 1		

173	Electronic properties of epitaxial graphene residing on SiC facets probed by conductive atomic force microscopy. <i>Applied Surface Science</i> , <b>2014</b> , 291, 53-57	6.7	9
172	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
171	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> . <i>Applied Physics A: Materials Science and Processing</i> , <b>2014</b> , 115, 333-339	2.6	28
170	Direct growth of quasi-free-standing epitaxial graphene on nonpolar SiC surfaces. <i>Physical Review B</i> , <b>2013</b> , 88,	3.3	38
169	Nanoscale structural and electrical evolution of Ta- and Ti-based contacts on AlGaIn/GaN heterostructures. <i>Journal of Applied Physics</i> , <b>2013</b> , 114, 083717	2.5	25
168	Radial junctions formed by conformal chemical doping for innovative hole-based solar cells. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , <b>2013</b> , 178, 686-690	3.1	13
167	Impact of the Morphological and Electrical Properties of SiO <sub>2</sub> /4H-SiC Interfaces on the Behavior of 4H-SiC MOSFETs. <i>ECS Journal of Solid State Science and Technology</i> , <b>2013</b> , 2, N3006-N3011	2	10
166	Localized Si enrichment in coherent self-assembled Ge islands grown by molecular beam epitaxy on (001)Si single crystal. <i>Journal of Applied Physics</i> , <b>2013</b> , 113, 033513	2.5	6
165	Study of the Anchoring Process of Tethered Unsymmetrical Zn-Phthalocyanines on TiO <sub>2</sub> Nanostructured Thin Films. <i>Journal of Physical Chemistry C</i> , <b>2013</b> , 117, 11176-11185	3.8	18
164	Delaminated graphene at silicon carbide facets: atomic scale imaging and spectroscopy. <i>ACS Nano</i> , <b>2013</b> , 7, 3045-52	16.7	65
163	Nanoscale Probing of Interfaces in GaN for Devices Applications. <i>ECS Transactions</i> , <b>2013</b> , 50, 439-446	1	2
162	A Nanoscale Look in the Channel of 4H-SiC Lateral MOSFETs. <i>Materials Science Forum</i> , <b>2013</b> , 740-742, 699-702	0.4	1
161	Impact of Substrate Steps and of Monolayer-Bilayer Junctions on the Electronic Transport in Epitaxial Graphene on 4H-SiC (0001). <i>Materials Science Forum</i> , <b>2013</b> , 740-742, 113-116	0.4	2
160	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
159	Effects of a Post-Oxidation Annealing in Nitrous Oxide on the Morphological and Electrical Properties of SiO <sub>2</sub> /4H-SiC Interfaces. <i>Materials Science Forum</i> , <b>2013</b> , 740-742, 715-718	0.4	1
158	Effects of a Post-Oxidation Annealing in Nitrous Oxide on the Morphological and Electrical Properties of SiO <sub>2</sub> /4H-SiC Interfaces. <i>Materials Science Forum</i> , <b>2013</b> , 740-742, 719-722	0.4	3
157	SiO <sub>2</sub> /4H-SiC interface doping during post-deposition-annealing of the oxide in N <sub>2</sub> O or POCl <sub>3</sub> . <i>Applied Physics Letters</i> , <b>2013</b> , 103, 153508	3.4	61
156	Scanning probe microscopy investigation of the mechanisms limiting electronic transport in substrate-supported graphene. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2013</b> , 10, 1188-1192		

155	A look underneath the SiO <sub>2</sub> /4H-SiC interface after N <sub>2</sub> O thermal treatments. <i>Beilstein Journal of Nanotechnology</i> , <b>2013</b> , 4, 249-54	3	16
154	Micro- and nanoscale electrical characterization of large-area graphene transferred to functional substrates. <i>Beilstein Journal of Nanotechnology</i> , <b>2013</b> , 4, 234-42	3	26
153	Influence of substrate dielectric permittivity on local capacitive behavior in graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2012</b> , 44, 989-992	3	1
152	Correlating macroscopic and nanoscale electrical modifications of SiO <sub>2</sub> /4H-SiC interfaces upon post-oxidation-annealing in N <sub>2</sub> O and POCl <sub>3</sub> . <i>Applied Physics Letters</i> , <b>2012</b> , 101, 193501	3-4	44
151	Electronic transport at monolayer-bilayer junctions in epitaxial graphene on SiC. <i>Physical Review B</i> , <b>2012</b> , 86,	3-3	79
150	Micro- and Nano-Scale Electrical Characterization of Epitaxial Graphene on Off-Axis 4H-SiC (0001). <i>Materials Science Forum</i> , <b>2012</b> , 717-720, 637-640	0-4	4
149	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
148	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> , <b>2012</b> , 112, 084501	2-5	26
147	Effect of graphene/4H-SiC(0 0 0 1) interface on electrostatic properties in graphene. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , <b>2012</b> , 44, 993-996	3	1
146	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
145	Effects of Different Post-Implantation Annealing Conditions on the Electrical Properties of Interfaces to p-Type Implanted 4H-SiC. <i>Materials Science Forum</i> , <b>2012</b> , 717-720, 825-828	0-4	
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143	Nanoscale study of the current transport through transrotational NiSi/n-Si contacts by conductive atomic force microscopy. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 261906	3-4	6
142	Poole-Frenkel emission in epitaxial nickel oxide on AlGaN/GaN heterostructures. <i>Applied Physics Letters</i> , <b>2012</b> , 101, 172901	3-4	29
141	Morphological and Structural Characterization of Graphene Grown by Thermal Decomposition of 4H-SiC (0001) and by C Segregation on Ni. <i>Carbon Nanostructures</i> , <b>2012</b> , 99-107	0-6	
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139	Mapping the density of scattering centers limiting the electron mean free path in graphene. <i>Nano Letters</i> , <b>2011</b> , 11, 4612-8	11-5	84
138	Limiting mechanism of inversion channel mobility in Al-implanted lateral 4H-SiC metal-oxide semiconductor field-effect transistors. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 072117	3-4	47

137	Ion beam induced defects in graphene: Raman spectroscopy and DFT calculations. <i>Journal of Molecular Structure</i> , <b>2011</b> , 993, 506-509	3.4	22
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134	Nanoscale characterization of electrical transport at metal/3C-SiC interfaces. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 120	5	5
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132	Scanning tip measurement for identification of point defects. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 140	5	3
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130	Microscopic study of electrical properties of CrSi <sub>2</sub> nanocrystals in silicon. <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 209	5	3
129	Nanoscale structural characterization of epitaxial graphene grown on off-axis 4H-SiC (0001). <i>Nanoscale Research Letters</i> , <b>2011</b> , 6, 269	5	46
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126	Impact of Surface Morphology on the Electrical Properties of Al/Ti Ohmic Contacts on Al-Implanted 4H-SiC. <i>Materials Science Forum</i> , <b>2011</b> , 679-680, 413-416	0.4	1
125	Local Electrical Properties of the 4H-SiC(0001)/Graphene Interface. <i>Materials Science Forum</i> , <b>2011</b> , 679-680, 769-776	0.4	2
124	Transport Properties of Graphene with Nanoscale Lateral Resolution. <i>Nanoscience and Technology</i> , <b>2011</b> , 247-285	0.6	8
123	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	
122	Electrical Activity of Structural Defects in 3C-SiC. <i>Materials Science Forum</i> , <b>2011</b> , 679-680, 273-276	0.4	1
121	Surface Corrugation and Stacking Misorientation in Multilayers of Graphene on Nickel. <i>Solid State Phenomena</i> , <b>2011</b> , 178-179, 125-129	0.4	1
120	Temperature Dependent Structural Evolution of Graphene Layers on 4H-SiC(0001). <i>Materials Science Forum</i> , <b>2011</b> , 679-680, 797-800	0.4	2

119	Evolution of the Electrical Behaviour of GaN and AlGaN Materials after High Temperature Annealing and Thermal Oxidation. <i>Materials Science Forum</i> , <b>2010</b> , 645-648, 1211-1214	0.4	
118	On the Viability of Au/3C-SiC Schottky Barrier Diodes. <i>Materials Science Forum</i> , <b>2010</b> , 645-648, 677-680	0.4	4
117	Effect of Dopant Concentrations and Annealing Conditions on the Electrically Active Profiles and Lattice Damage in Al Implanted 4H-SiC. <i>Materials Science Forum</i> , <b>2010</b> , 645-648, 713-716	0.4	7
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115	Uniformity of Epitaxial Graphene on On-Axis and Off-Axis SiC Probed by Raman Spectroscopy and Nanoscale Current Mapping. <i>Materials Science Forum</i> , <b>2010</b> , 645-648, 607-610	0.4	4
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113	Nanoscale transport properties at silicon carbide interfaces. <i>Journal Physics D: Applied Physics</i> , <b>2010</b> , 43, 223001	3	51
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111	Evolution of the electrical characteristics of Pt/3C-SiC Schottky contacts upon thermal annealing <b>2010</b> ,		3
110	Impact of Morphological Features on the Dielectric Breakdown at SiO <sub>2</sub> /3C-SiC Interfaces <b>2010</b> ,		2
109	Structural defects and device electrical behaviour in AlGaN/GaN heterostructures grown on 8° off-axis 4H-SiC. <i>Applied Physics A: Materials Science and Processing</i> , <b>2010</b> , 100, 197-202	2.6	8
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105	Optical, morphological and spectro- scopic characterization of graphene on SiO <sub>2</sub> . <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , <b>2010</b> , 7, NA-NA		18
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103	Improved Ni/3C-SiC contacts by effective contact area and conductivity increases at the nanoscale. <i>Applied Physics Letters</i> , <b>2009</b> , 94, 112104	3.4	16
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99	Irradiation damage in graphene on SiO <sub>2</sub> probed by local mobility measurements. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 263109	3.4	30
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95	Dielectric thickness dependence of capacitive behavior in graphene deposited on silicon dioxide. <i>Journal of Vacuum Science &amp; Technology B</i> , <b>2009</b> , 27, 868		31
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91	Correlation Study of Morphology, Electrical Activation and Contact formation of Ion Implanted 4H-SiC. <i>Solid State Phenomena</i> , <b>2009</b> , 156-158, 493-498	0.4	2
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63	High spatial and energy resolution characterization of lateral inhomogeneous Schottky barriers by conductive atomic force microscopy. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 450-453	2.5	8
62	Carrier concentration and mobility profiling in quantum wells by scanning probe microscopy. <i>Microelectronic Engineering</i> , <b>2007</b> , 84, 446-449	2.5	5
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42	Transport localization in heterogeneous Schottky barriers of quantum-defined metal films. <i>Europhysics Letters</i> , <b>2006</b> , 74, 686-692	1.6	40
41	Nanoscale carrier transport in Ti/Al/Ni/Au Ohmic contacts on AlGaIn epilayers grown on Si(111). <i>Applied Physics Letters</i> , <b>2006</b> , 89, 022103	3.4	56
40	Size-dependent Schottky Barrier Height in self-assembled gold nanoparticles. <i>Applied Physics Letters</i> , <b>2006</b> , 89, 243113	3.4	45
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33	Hydrosilation of 1-alkyne at nearly flat, terraced, homogeneously hydrogen-terminated silicon (100) surfaces. <i>Surface and Interface Analysis</i> , <b>2005</b> , 37, 71-76	1.5	3
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18	Two Dimensional Interstitial Diffusion in Mesoscopic Structures. <i>Solid State Phenomena</i> , <b>2003</b> , 95-96, 351-360	0.4	
17	Activation Study of Implanted N+ in 6H-SiC by Scanning Capacitance Microscopy. <i>Materials Science Forum</i> , <b>2003</b> , 433-436, 375-378	0.4	9
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1	Ni/Heavily-Doped 4H-SiC Schottky Contacts. <i>Materials Science Forum</i> , 1062, 411-416	0.4	