

Francesco La Via was born in Catania, Italy, . He received the M.S. degree in physics from Catania University, Catania, Italy, in 1985. From 1985 to 1990, he had a fellowship at STM, Catania. In 1990, he joined the CNR IMM in Catania as a researcher. During this time, he was a Visiting Scientist at Philips NatLab, Eindhoven, The Netherlands.

In 2001 he became senior researcher of the CNR IMM and he is responsible of the research group that work on the new metallization schemes for silicon and silicon carbide. From 2003 he is responsible of the division of CNR-IMM that developed new processes for silicon carbide epitaxy and hetero-epitaxy. He is responsible of several industrial research projects in this field.

In this period he has published more than 250 papers on JCR journals and 4 edited books. He has presented eleven invited contributions to international conferences and has organized several conferences and tutorials. He has 6 patents on SiC technology and growth.



Elenco dei titoli e delle pubblicazioni scientifiche

**LA VIA Francesco
Settore Concorsuale domanda: 02/B1
Prima Fascia**



Pubblicazioni scientifiche di cui all'art.7 DM 120/2016

1	2018	<p>Articolo in rivista</p> <p>La Via F, Severino A, Anzalone R, Bongiorno C, Litrico G, Mauceri M, Schoeler M, Schuh P, Wellmann P (2018). From thin film to bulk 3C-SiC growth: Understanding the mechanism of defects reduction. MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, ISSN: 1369-8001, doi: https://doi.org/10.1016/j.mssp.2017.12.012</p>
2	2014	<p>Articolo in rivista</p> <p>La Via F, Camarda M, La Magna A (2014). Mechanisms of growth and defect properties of epitaxial SiC. APPLIED PHYSICS REVIEWS, vol. 1, ISSN: 1931-9401, doi: 10.1063/1.4890974</p>
3	2011	<p>Articolo in rivista</p> <p>Anzalone R, D'Arrigo G, Camarda M, Locke C, Saddow SE, La Via F (2011). Advanced Residual Stress Analysis and FEM Simulation on Heteroepitaxial 3C-SiC for MEMS Application. JOURNAL OF MICROELECTROMECHANICAL SYSTEMS, vol. 20, p. 745-752, ISSN: 1057-7157, doi: 10.1109/JMEMS.2011.2127451</p>
4	2010	<p>Articolo in rivista</p> <p>Severino A, Bongiorno C, Piluso N, Italia M, Camarda M, Mauceri M, Condorelli G, Di Stefano MA, Cafra B, La Magna A, La Via F (2010). High-quality 6 inch (111) 3C-SiC films grown on off-axis (111) Si substrates. THIN SOLID FILMS, vol. 518, p. S165-S169, ISSN: 0040-6090, doi: 10.1016/j.tsf.2009.10.080</p>
5	2008	<p>Articolo in rivista</p> <p>La Via F, Izzo G, Mauceri M, Pistone G, Condorelli G, Perdicaro L, Abbondanza G, Calcagno L, Foti G, Crippa D (2008). 4H-SiC epitaxial layer growth by trichlorosilane (TCS). JOURNAL OF CRYSTAL GROWTH, vol. 311, p. 107-113, ISSN: 0022-0248, doi: 10.1016/j.jcrysgro.2008.10.041</p>
6	2007	<p>Articolo in rivista</p> <p>Severino A, D'Arrigo G, Bongiorno C, Scalese S, La Via F, Foti G (2007). Thin crystalline 3C-SiC layer growth through carbonization of differently oriented Si substrates. JOURNAL OF APPLIED PHYSICS, vol. 102, ISSN: 0021-8979, doi: 10.1063/1.2756620</p>
7	2006	<p>Articolo in rivista</p> <p>La Via F, Galvagno G, Foti G, Mauceri M, Leone S, Pistone G, Abbondanza G, Veneroni A, Masi M, Valente GL, Crippa D (2006). 4H SiC epitaxial growth with chlorine addition. CHEMICAL VAPOR DEPOSITION, vol. 12, p. 509-515, ISSN: 0948-1907, doi: 10.1002/cvde.200506465</p>



8	2006	Contributo in volume (Capitolo o Saggio) Roccaforte F, La Via F, Raineri V (2006). Ohmic contact to SiC. In: SiC Materials and Devices. WORLD SCIENTIFIC SERIES IN NANOSCIENCE AND NANOTECHNOLOGY, ISBN: 9789812568359, ISSN: 2301-301X
9	2005	Articolo in rivista Calcagno L, Ruggiero A, Roccaforte F, La Via F (2005). Effects of annealing temperature on the degree of inhomogeneity of nickel-silicide/SiC Schottky barrier. JOURNAL OF APPLIED PHYSICS, vol. 98, ISSN: 0021-8979, doi: 10.1063/1.1978969
10	2004	Articolo in rivista Roccaforte F, La Via F, Baeri A, Raineri V, Calcagno L, Mangano F (2004). Structural and electrical properties of Ni/Ti Schottky contacts on silicon carbide upon thermal annealing. JOURNAL OF APPLIED PHYSICS, vol. 96, p. 4313-4318, ISSN: 0021-8979, doi: 10.1063/1.1787138
11	2003	Articolo in rivista La Via F, Roccaforte F, Raineri V, Mauceri M, Ruggiero A, Musumeci P, Calcagno L, Castaldini A, Cavallini A (2003). Schottky-ohmic transition in nickel silicide/SiC-4H system: is it really a solved problem?. MICROELECTRONIC ENGINEERING, vol. 70, p. 519-523, ISSN: 0167-9317, doi: 10.1016/S0167-9317(03)00464-7
12	2003	Articolo in rivista Roccaforte F, La Via F, Raineri V, Pierobon R, Zanoni E (2003). Richardson's constant in inhomogeneous silicon carbide Schottky contacts. JOURNAL OF APPLIED PHYSICS, vol. 93, p. 9137-9144, ISSN: 0021-8979, doi: 10.1063/1.1573750
13	2003	Articolo in rivista Roccaforte F, La Via F, Raineri V, Musumeci P, Calcagno L, Condorelli GG (2003). Highly reproducible ideal SiC Schottky rectifiers: effects of surface preparation and thermal annealing on the Ni/6H-SiC barrier height. APPLIED PHYSICS. A, MATERIALS SCIENCE & PROCESSING, vol. 77, p. 827-833, ISSN: 0947-8396, doi: 10.1007/s00339-002-1981-8
14	2002	Articolo in rivista La Via F, Roccaforte F, Makhtari A, Raineri V, Musumeci P, Calcagno L (2002). Structural and electrical characterisation of titanium and nickel silicide contacts on silicon carbide. MICROELECTRONIC ENGINEERING, vol. 60, p. 269-282, ISSN: 0167-9317, doi: 10.1016/S0167-9317(01)00604-9
15	2001	Articolo in rivista Roccaforte F, La Via F, Raineri V, Calcagno L, Musumeci P (2001). Improvement of high temperature stability of nickel contacts on n-type 6H-SiC. APPLIED SURFACE SCIENCE, vol. 184, p. 295-298, ISSN: 0169-4332, doi: 10.1016/S0169-4332(01)00509-8



16	1993	<p>Articolo in rivista</p> <p>GALVAGNO G, LA VIA F, PRIOLO F, RIMINI E (1993). DIFFUSION AND OUTDIFFUSION OF ALUMINUM IMPLANTED INTO SILICON. SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol. 8, p. 488-494, ISSN: 0268-1242, doi: 10.1088/0268-1242/8/4/002</p>
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Pubblicazioni scientifiche ai fini degli indicatori

1	2020	Articolo in rivista Giannazzo F, Greco G, Di Franco S, Fiorenza P, Deretzis I, La Magna A, Bongiorno C, Zimbone M, La Via F, Zielinski M, Roccaforte F (2020). Impact of Stacking Faults and Domain Boundaries on the Electronic Transport in Cubic Silicon Carbide Probed by Conductive Atomic Force Microscopy. ADVANCED ELECTRONIC MATERIALS, vol. 6, ISSN: 2199-160X, doi: 10.1002/aelm.201901171
2	2020	Articolo in rivista Viviana Scuderi, Cristiano Calabretta, Ruggero Anzalone, Marco Mauceri, LA VIA F (2020). Characterization of 4H- and 6H-Like Stacking Faults in Cross Section of 3C-SiC Epitaxial Layer by Room-Temperature micro-Photoluminescence and micro-Raman Analysis. MATERIALS, ISSN: 1996-1944
3	2020	Articolo in rivista Paolo Badalà, Simone Rascunà, Brunella Cafra, Anna Bassi, Emanuele Smecca, Massimo Zimbone, Corrado Bongiorno, Cristiano Calabretta, La Via F, Fabrizio Roccaforte, Mario Saggio, Giovanni Franco, Angelo Messina, Antonino La Magna, Alessandra Alberti (2020). Ni/4H-SiC interaction and silicide formation under excimer laser annealing for ohmic contact. ACTA MATERIALIA, ISSN: 1873-2453
4	2020	Articolo in rivista Massimo Zimbone, Eric Gasparo Barbagiovanni, Corrado Bongiorno, Cristiano Calabretta, Lucia Calcagno, Giuseppe Fisicaro, Antonino La Magna, La Via F (2020). Generation and Termination of Stacking Faults by Inverted Domain Boundaries in 3C-SiC. CRYSTAL GROWTH & DESIGN, ISSN: 1528-7483, doi: https://dx.doi.org/10.1021/acs.cgd.9b01708
5	2020	Articolo in rivista Giuseppe Fisicaro, Corrado Bongiorno, Ioannis Deretzis, Filippo Giannazzo, La Via F, Fabrizio Roccaforte, Marc Zielinski, Massimo Zimbone, and Antonino La Magna (2020). Genesis and evolution of extended defects: The role of evolving interface instabilities in cubic SiC. APPLIED PHYSICS REVIEWS, ISSN: 1931-9401, doi: 10.1063/1.5132300
6	2020	Curatela SSaddow, D Alquier, J Wang, M Fraga, La Via F (a cura di) (2020). SiC based Miniaturized Devices. MICROMACHINES, ISSN: 2072-666X
7	2019	Articolo in rivista Schuh P, Steiner J, La Via F, Mauceri M, Zielinski M, Wellmann PJ (2019). Limitations during Vapor Phase Growth of Bulk (100) 3C-SiC Using 3C-SiC-on-SiC Seeding Stacks. MATERIALS, vol. 12, ISSN: 1996-1944, doi: 10.3390/ma12152353



8	2019	Articolo in rivista Schuh P, La Via F, Mauceri M, Zielinski M, Wellmann PJ (2019). Growth of Large-Area, Stress-Free, and Bulk-Like 3C-SiC (100) Using 3C-SiC-on-Si in Vapor Phase Growth. MATERIALS, vol. 12, ISSN: 1996-1944, doi: 10.3390/ma12132179
9	2019	Articolo in rivista Meduna M, Kreiliger T, Mauceri M, Puglisi M, Mancarella F, La Via F, Crippa D, Miglio L, von Kanel H (2019). X-ray diffraction on stacking faults in 3C-SiC epitaxial microcrystals grown on patterned Si(001) wafers. JOURNAL OF CRYSTAL GROWTH, vol. 507, p. 70-76, ISSN: 0022-0248, doi: 10.1016/j.jcrysgro.2018.10.046
10	2019	Articolo in rivista Tudisco S, Altana C, Boscardin M, Calcagno L, Ciampi C, Cirrone GAP, Fazzi A, Giove D, Gorini G, Labate L, La Via F, Lanzalone G, Litrico G, Muoio A, Pasquali G, Puglia SMR, Rebai M, Ronchin S, Santangelo A, Scuderi V, Trifiro A, Zimbone M (2019). Silicon carbide for future intense luminosity nuclear physics investigations. IL NUOVO CIMENTO C, vol. 42, ISSN: 2037-4909, doi: 10.1393/ncc/i2019-19074-1
11	2019	Articolo in rivista Cappuzzello F, Agodi C, Acosta L, Amador-Valenzuela P, Auerbach N, Barea J, Bellone JI, Belmont D, Bijker R, Bonanno D, Borello-Lewin T, Boztosun I, Branchina V, Brasolin S, Brischetto G, Brunasso O, [...] as H, Vega G, Wang JS, Werner V, Yang YY, Yildirim A, Zagatto VAB (2019). The NUMEN Project @ LNS: Status and perspectives. IL NUOVO CIMENTO C, vol. 42, ISSN: 2037-4909, doi: 10.1393/ncc/i2019-19057-2
12	2019	Articolo in rivista Ciampi C, Pasquali G, Altana C, Bini M, Boscardin M, Calcagno L, Casini G, Cirrone GAP, Fazzi A, Giove D, Gorini G, Labate L, La Via F, Lanzalone G, Litrico G, Muoio A, Ottanelli P, Poggi G, Puglia SM [...] ors. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 925, p. 60-69, ISSN: 0168-9002, doi: 10.1016/j.nima.2019.01.085
13	2019	Articolo in rivista Spera M, Greco G, Lo Nigro R, Bongiorno C, Giannazzo F, Zielinski M, La Via F, Roccaforte F (2019). Ohmic contacts on n-type and p-type cubic silicon carbide (3C-SiC) grown on silicon. MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol. 93, p. 295-298, ISSN: 1369-8001, doi: 10.1016/j.mssp.2019.01.015
14	2019	Articolo in rivista Zimbone M, Zielinski M, Bongiorno C, Calabretta C, Anzalone R, Scalese S, Fisicaro G, La Magna A, Mancarella F, La Via F (2019). 3C-SiC Growth on Inverted Silicon Pyramids Patterned Substrate. MATERIALS, vol. 12, ISSN: 1996-1944, doi: 10.3390/ma12203407



15	2019	Articolo in rivista Calabretta C, Agati M, Zimbone M, Boninelli S, Castiello A, Pecora A, Fortunato G, Calcagno L, Torrisi L, La Via F (2019). Laser Annealing of P and Al Implanted 4H-SiC Epitaxial Layers. MATERIALS, vol. 12, ISSN: 1996-1944, doi: 10.3390/ma12203362
16	2019	Articolo in rivista Anzalone R, Zimbone M, Calabretta C, Mauceri M, Alberti A, Reitano R, La Via F (2019). Temperature Investigation on 3C-SiC Homo-Epitaxy on Four-Inch Wafers. MATERIALS, vol. 12, ISSN: 1996-1944, doi: 10.3390/ma12203293
17	2019	Articolo in rivista Beygi M, Bentley JT, Frewin CL, Kuliasha CA, Takshi A, Bernardin EK, La Via F, Sadow SE (2019). Fabrication of a Monolithic Implantable Neural Interface from Cubic Silicon Carbide. MICROMACHINES, vol. 10, ISSN: 2072-666X, doi: 10.3390/mi10070430
18	2019	Articolo in rivista Zimbone M, Zielinski M, Barbagiovanni EG, Calabretta C, La Via F (2019). 3C-SiC grown on Si by using a Si1-xGex buffer layer. JOURNAL OF CRYSTAL GROWTH, vol. 519, p. 1-6, ISSN: 0022-0248, doi: 10.1016/j.jcrysgro.2019.03.029
19	2019	Articolo in rivista Bonaventura G, Iemmolo R, La Cognata V, Zimbone M, La Via F, Fragala ME, Barcellona ML, Pellitteri R, Cavallaro S (2019). Biocompatibility between Silicon or Silicon Carbide surface and Neural Stem Cells. SCIENTIFIC REPORTS, vol. 9, ISSN: 2045-2322, doi: 10.1038/s41598-019-48041-3
20	2019	Articolo in rivista Rebai M, Rigamonti D, Cancelli S, Croci G, Gorini G, Cippo EP, Putignano O, Tardocchi M, Altana C, Angelone M, Borghi G, Boscardin M, Ciampi C, Cirrone GAP, Fazzi A, Giove D, Labate L, Lanzalone G, La [...] stal diamonds. NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH. SECTION A, ACCELERATORS, SPECTROMETERS, DETECTORS AND ASSOCIATED EQUIPMENT, vol. 946, ISSN: 0168-9002, doi: 10.1016/j.nima.2019.162637
21	2019	Articolo in rivista La Magna A, Alberti A, Barbagiovanni E, Bongiorno C, Cascio M, Deretzis I, La Via F, Smecca E (2019). Simulation of the Growth Kinetics in Group IV Compound Semiconductors. PHYSICA STATUS SOLIDI. A, APPLICATIONS AND MATERIALS SCIENCE, vol. 216, ISSN: 1862-6300, doi: 10.1002/pssa.201800597
22	2019	Articolo in rivista Masullo M, Bergamaschini R, Albani M, Kreiliger T, Mauceri M, Crippa D, La Via F, Montalenti F, von Kanel H, Miglio L (2019). Growth and Coalescence of 3C-SiC on Si(111) Micro-Pillars by a Phase-Field Approach. MATERIALS, vol. 12, ISSN: 1996-1944, doi: 10.3390/ma12193223



23	2019	Contributo in Atti di convegno Spera, M., Greco, G., Lo Nigro, R., Di Franco, S., Corso, D., Fiorenza, P., Giannazzo, F., Zielinski, M., La Via F, Roccaforte, F. (2019). Fabrication and characterization of ohmic contacts to 3C-SiC layers grown on silicon. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.963.485
24	2019	Contributo in Atti di convegno Schuh P, Künecke, U., Litrico, G., Mauceri, M., La Via F, Monnoye, S., Zielinski, M., Wellmann, P.J. (2019). Vapor growth of 3C-SiC using the transition layer of 3C-SiC on Si CVD templates. MATERIAL SCIENCE FORUM, ISSN: 1662-9752
25	2019	Contributo in Atti di convegno Fiorenza P, Greco G, Di Franco S, Giannazzo, F, Monnoye S, Zielinski M, La Via F, Roccaforte F (2019). Electrical properties of thermal oxide on 3C-SiC layers grown on silicon. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.963.479
26	2019	Contributo in Atti di convegno Calabretta, C., Zimbone, M., Barbagiovanni, E.G., Boninelli, S., Piluso, N., Severino, A., Di Stefano, M.A., Lorenti, S., Calcagno, L., La Via F (2019). Thermal annealing of high dose p implantation in 4H-SiC. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.963.399
27	2019	Contributo in Atti di convegno Anzalone, R., Piluso, N., Litrico, G., Lorenti, S., Arena, G., Coffa, S., La Via F (2019). Stress relaxation mechanism after thinning process on 4H-SiC substrate. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.924.535
28	2019	Contributo in Atti di convegno Barbagiovanni, E.G., Alberti, A., Bongiorno, C., Smecca, E., Zimbone, M., Anzalone, R., Litrico, G., Mauceri, M., Magna, A.L., La Via F (2019). High resolution investigation of stacking fault density by HRXRD and STEM. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.963.346
29	2018	Articolo in rivista Zimbone M, Mauceri M, Litrico G, Barbagiovanni EG, Bongiorno C, La Via F (2018). Protrusions reduction in 3C-SiC thin film on Si. JOURNAL OF CRYSTAL GROWTH, vol. 498, p. 248-257, ISSN: 0022-0248, doi: 10.1016/j.jcrysgro.2018.06.003
30	2018	Articolo in rivista La Via F, Severino, A, Anzalone, R, Bongiorno, C, Litrico, G, Mauceri, M, Schoeler, M, Schuh, P, Wellmann, P (2018). From thin film to bulk 3C-SiC growth: Understanding the mechanism of defects reduction. MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, ISSN: 1369-8001, doi: https://doi.org/10.1016/j.mssp.2017.12.012



31	2018	Articolo in rivista Tudisco S, La Via F, Agodi C, Altana C, Borghi G, Boscardin M, Bussolino G, Calcagno L, Camarda M, Cappuzzello F, Carbone D, Cascino S, Casini G, Cavallaro M, Ciampi C, Cirrone G, Cuttone G, Fazzi A, [...] tangelo A, Stefanini A, Trifiro A, Zimbone M (2018). SiCILIA-Silicon Carbide Detectors for Intense Luminosity Investigations and Applications. SENSORS, vol. 18, ISSN: 1424-8220, doi: 10.3390/s18072289
32	2018	Articolo in rivista Albani M, Marzegalli A, Bergamaschini R, Mauceri M, Crippa D, La Via F, von Kanel H, Miglio L (2018). Solving the critical thermal bowing in 3C-SiC/Si(111) by a titling Si pillar architecture. JOURNAL OF APPLIED PHYSICS, vol. 123, ISSN: 0021-8979, doi: 10.1063/1.5019325
33	2018	Contributo in Atti di convegno Zimbone, M., Piluso, N., Litrico, G., Nipoti, R., Reitano, R., Canino, M.C., Di Stefano, M.A., Lorenti, S., La Via F (2018). Double step annealing for the recovering of ion implantation defectiveness in 4H-SiC DIMOSFET. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.924.357
34	2018	Contributo in Atti di convegno Piluso, N., Severino, A., Anzalone, R., Di Stefano, M.A., Fontana, E., Salanitri, M., Lorenti, S., Campione, A., Fiorenza, P., La Via F (2018). Growth of 4H-SiC epitaxial layer through optimization of buffer layer. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.924.84
35	2018	Contributo in Atti di convegno La Via F, Roccaforte, F., La Magna, A., Nipoti, R., Mancarella, F., Wellman, P., Crippa, D., Mauceri, Terms and conditions Privacy policy Copyright © 2020 Elsevier B.V. All rights reserved. Scopus® i [...] on silicon compliance substrates and new 3C-SiC substrates for sustainable wide-band-gap power devices (CHALLENGE). MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.924.91
36	2018	Contributo in Atti di convegno Litrico, G., Anzalone, R., Alberti, A., Bongiorno, C., Nicotra, G., Zimbone, M., Mauceri, M., Coffa, S., La Via F (2018). Stacking faults defects on 3C-SiC homo-epitaxial films. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.924.124
37	2017	Articolo in rivista Milazzo RG, Privitera S, Litrico G, Scalese S, Mirabella S, La Via F, Lombardo S, Rimini E (2017). Formation, Morphology, and Optical Properties of Electroless Deposited Gold Nanoparticles on 3C-SiC. JOURNAL OF PHYSICAL CHEMISTRY. C, vol. 121, p. 4304-4311, ISSN: 1932-7447, doi: 10.1021/acs.jpcc.6b11638
38	2017	Articolo in rivista Privitera SMS, Litrico G, Camarda M, Piluso N, La Via F (2017). Electrical properties of extended defects in 4H-SiC investigated by photoinduced current measurements. APPLIED PHYSICS EXPRESS, vol. 10, ISSN: 1882-0778, doi: 10.7567/APEX.10.036601



39	2017	Articolo in rivista Schuh P, Arzig M, Litrico G, La Via F, Mauceri M, Wellmann PJ (2017). Growing bulk-like 3C-SiC from seeding material produced by CVD. PHYSICA STATUS SOLIDI. A, APPLICATIONS AND MATERIALS SCIENCE, vol. 214, ISSN: 1862-6300, doi: 10.1002/pssa.201600429
40	2017	Articolo in rivista Anzalone R, Litrico G, Piluso N, Reitano R, Alberti A, Fiorenza P, Coffa S, La Via F (2017). Carbonization and transition layer effects on 3C-SiC film residual stress. JOURNAL OF CRYSTAL GROWTH, vol. 473, p. 11-19, ISSN: 0022-0248, doi: 10.1016/j.jcrysgro.2017.05.015
41	2017	Articolo in rivista Han T, Privitera S, Milazzo RG, Bongiorno C, Di Franco S, La Via F, Song X, Shi Y, Lanza M, Lombardo S (2017). Photo-electrochemical water splitting in silicon based photocathodes enhanced by plasmonic/catalytic nanostructures. MATERIALS SCIENCE AND ENGINEERING B-SOLID STATE MATERIALS FOR ADVANCED TECHNOLOGY, vol. 225, p. 128-133, ISSN: 0921-5107, doi: 10.1016/j.mseb.2017.08.022
42	2017	Articolo in rivista Schuh P, Scholer M, Wilhelm M, Syvajarvi M, Litrico G, La Via F, Mauceri M, Wellmann PJ (2017). Sublimation growth of bulk 3C-SiC using 3C-SiC-on-Si (100) seeding layers. JOURNAL OF CRYSTAL GROWTH, vol. 478, p. 159-162, ISSN: 0022-0248, doi: 10.1016/j.jcrysgro.2017.09.002
43	2017	Contributo in Atti di convegno Cappuzzello F, Agodi C, Acosta L, Auerbach N, Bellone J, Bijker R, Bonanno D, Bongiovanni D, Borello-Lewin T, Boztosun I, Branchina V, Bussa MP, Calabrese S, Calabretta L, Calanna A, Carbone D, Cavall [...] NS: Status and Perspectives. In: (a cura di): Gallo, Giuseppe; Calvo, Daniela; Delaunay, Franck, WORKSHOP ON CALCULATION OF DOUBLE-BETA-DECAY MATRIX ELEMENTS. Prague, Czech Republic, 9–12 June 2015
44	2017	Contributo in Atti di convegno Schuh, P., Litrico, G., La Via F, Mauceri, M., Wellmann, P.J. (2017). 3C-SiC bulk sublimation growth on CVD hetero-epitaxial seeding layers. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.897.15
45	2017	Contributo in Atti di convegno Piluso, N., Di Stefano, M.A., Lorenti, S., La Via F (2017). 4H-SiC defects evolution by thermal processes. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.897.181
46	2017	Contributo in Atti di convegno Litrico, G., Piluso, N., La Via F (2017). Detection of crystallographic defects in 3C-SiC by micro-Raman and micro-PL analysis. MATERIAL SCIENCE FORUM, ISSN: 1662-9752, doi: 10.4028/www.scientific.net/MSF.897.303



47	2017	Curatela La Via F, F Roccaforte, R Nipoti, D Crippa, F Giannazzo, M Saggio (a cura di) (2017). Silicon Carbide and Related Materials 2015. vol. 858, Zurich:Trans Tech Publications, doi: 10.4028
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189	2005	Articolo in rivista D. CRIPPA, G.L. VALENTE, A. RUGGIERO, L. NERI, R. REITANO, L. CALCAGNO, G. FOTI, M. MAUCERI, S. LEONE, G. PISTONE, G. ABBONDANZA, G. ABBAGNALE, A. VENERONI, F. OMARINI, L. ZAMOLO, M. MASI, F. ROCCA FORTE, F. GIANNAZZO, S. DI FRANCO, LA VIA F (2005). New Achievements on CVD Based Methods for SiC Epitaxial Growth. MATERIALS SCIENCE FORUM, vol. 483-485, p. 67-70, ISSN: 0255-5476
190	2005	Articolo in rivista La Via F, Galvagno G, Roccaforte F, Ruggiero A, Calcagno L (2005). Drift mobility in 4H-SiC Schottky diodes. APPLIED PHYSICS LETTERS, vol. 87, ISSN: 0003-6951, doi: 10.1063/1.2081126
191	2005	Articolo in rivista Calcagno L, Ruggiero A, Roccaforte F, La Via F (2005). Effects of annealing temperature on the degree of inhomogeneity of nickel-silicide/SiC Schottky barrier. JOURNAL OF APPLIED PHYSICS, vol. 98, ISSN: 0021-8979, doi: 10.1063/1.1978969
192	2005	Contributo in Atti di convegno La Via F, Roccaforte, F., Di Franco, S., Ruggiero, A., Neri, L., Reitano, R., Calcagno, L., Foti, G., M. Mauceri, Leone, S., Pistone, G., Abbondanza, G., Abbagnale, G., Valente, G.L., Crippa, D. (2005). Effects of epitaxial layer growth parameters on the defect density and on the electrical characteristics of Schottky diodes. MATERIAL SCIENCE FORUM, ISSN: 1662-9752
193	2005	Contributo in Atti di convegno Roccaforte, F., Giannazzo, F., Bongiorno, C., Libertino, S., La Via F, Raineri, V. (2005). Ion-beam induced modifications of titanium Schottky barrier on 4H-SiC. MATERIAL SCIENCE FORUM, ISSN: 1662-9752



194	2005	Contributo in Atti di convegno Ruggiero, A., Zimbone, M., Roccaforte, F., Libertino, S., La Via F, Reitano, R., Calcagno, L. (2005). Defect evolution in ion irradiated 6H-SiC epitaxial layers. MATERIAL SCIENCE FORUM, ISSN: 1662-9752
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Organizzazione o partecipazione come relatore a convegni di carattere scientifico in Italia o all'estero

- Relazione su invito alla conferenza "Materials for Advanced Metallization 2001" su "Structural and electrical characterization of titanium and nickel silicide contacts on silicon carbide"
dal 01-03-2001 al 04-03-2001
- Poster su invito alla conferenza "European Conference for Silicon Carbide and Related Materials 2004" su "New Achievements on CVD Based Methods for SiC Epitaxial Growth"
dal 31-08-2004 al 04-09-2004
- Organizzazione Tutorial ECSCRM 2004
dal 31-08-2004 al 04-09-2004
- Relazione su invito alla conferenza "European Conference for Silicon Carbide and Related Materials 2006" su "Very High Growth Rate Epitaxy Processes with Chlorine Addition"
dal 01-09-2006 al 04-09-2006
- Partecipazione al Technical Programm Committe dell' ECSCRM 2008
dal 07-09-2008 al 11-09-2008
- Relazione su invito alla conferenza "MRS Spring Meeting 2010 Symposium B: Silicon Carbide - Materials, Processing, and Devices" su "Evolution of Stacking Faults Defects During Epitaxial Growths: Role of Surface Kinetics"
dal 07-06-2010 al 11-06-2010
- Partecipazione al Technical Programm Committee del E-MRS Spring "Wide bandgap cubic semiconductors: from growth to devices"
dal 07-06-2010 al 11-06-2010
- Relazione su invito alla Conferenza "European Conference for Silicon Carbide and Related Materials 2010" su "Evolution of Stacking Faults Defects During Epitaxial Growths: Role of Surface Kinetics".
dal 29-08-2010 al 02-09-2010
- Partecipazione Technical Programm Committee ECSCRM 2010
dal 29-08-2010 al 02-09-2010
- Relazione su invito alla Conferenza "E-MRS 2011 "Engineering of wide band gap semiconductor materials for energy savings" su "Large Area Hetero-Epitaxial Growth of 3C-Si on Si"
dal 09-05-2011 al 13-05-2011
- Relazione su invito alla conferenza 220th ECS Meeting' Boston, 9-14 Ottobre 2011 dal titolo "High Quality Cubic Silicon Carbide (3C-SiC) for MOS applications"
dal 09-10-2011 al 14-10-2011
- Relazione su invito alla conferenza "MRS Spring Meeting 2012 Symposium H: Silicon Carbide– Materials, Processing, and Devices" dal titolo "Growth and Processing of heteroepitaxial 3C-SiC films for electronic device applications"
dal 01-03-2012 al 04-03-2012
- Relazione su invito alla conferenza "European Conference for Silicon Carbide and Related Materials 2012" dal titolo "Fast growth rate epitaxy by chloride precursors"
dal 02-09-2012 al 06-09-2012
- Partecipazione allo Steering Committe della Conferenza ICSCRM
dal 01-01-2013 a oggi
- Relazione su invito alla conferenza "Collaborative Conference on Crystal Growth (3CG 2013)" dal titolo "Fast growth rate epitaxy by chloride precursors"
dal 10-06-2013 al 13-06-2013
- Co-Chair ICSCRM 2015
dal 04-10-2015 al 09-10-2015



- Relazione su invito alla conferenza "NUMEN Workshop 2015" dal titolo "Challenges of SiC technology for high radiation hardness detectors".
dal 01-12-2015 al 02-12-2015
- Partecipazione Technical Programm Committee ICSCRM 2017
dal 17-09-2017 al 22-09-2017
- Relazione su invito alla conferenza "Material and Device Integration on Silicon for Advanced Applications" symposium of EMRS Fall 2017" dal titolo "Growth of SiC on Si: challenges, experiments and simulations"
dal 18-09-2017 al 21-09-2017
- Relazione su invito alla conferenza "EMRS Spring Meeting 2018, Symposium "Materials research for group IV semiconductors: growth, characterization and technological developments III" dal titolo "Reduction of 2D and 3D defects in 3C-SiC"
dal 18-06-2018 al 22-06-2018
- Partecipazione Technical Programm Committee ECSCRM 2018
dal 02-09-2018 al 06-09-2018
- Chair E-MRS Symposium X "Silicon carbide and related materials for energy saving applications"
dal 27-05-2019 al 28-05-2019

Direzione o partecipazione alle attività di un gruppo di ricerca caratterizzato da collaborazioni a livello nazionale o internazionale

- Coordinamento attività linea 5 JRA ENI-CNR sulla fusione nucleare
dal 01-01-2019 a oggi

Responsabilit  di studi e ricerche scientifiche affidati da qualificate istituzioni pubbliche o private

- Contratto di sviluppo di etero-epitassia Si/3C_SiC/Si con STMicroelectronics.
dal 01-01-2011 al 31-12-2011
- Contratto di ricerca e consulenza stipulato con Bridgestone per lo sviluppo di processi di crescita epitassiale su substrati e caratterizzazione su epitassie.
dal 01-01-2012 al 31-12-2012
- Contratto stipulato con ETC Srl per l'esecuzione del programma di ricerca "Caratterizzazione di processi di crescita di strati epitassiali di Carburo di Silicio su per la riduzione a zero dei difetti provenienti dal substrato"
dal 01-10-2012 al 30-06-2013
- Contratto di ricerca e consulenza con ETC Srl per l'esecuzione del contratto di ricerca "Caratterizzazione morfologica e strutturale degli strati depositati di SiC/Si su strutture colonnari"
dal 01-01-2013 al 31-12-2013
- Contratto di ricerca e consulenza con STMicroelectronics sulla crescita del SiC
dal 01-01-2014 a oggi

Responsabilit  scientifica per progetti di ricerca internazionali e nazionali, ammessi al finanziamento sulla base di bandi competitivi che prevedano la revisione tra pari

- Coordinatore progetto PON "Ricerca Scientifica Sviluppo Tecnologico Alta Formazione" 2000-2006 per la relizzazione di una facility tecnologica presso il CNR-IMM
dal 01-01-2002 al 01-01-2006
- Coordinamento del progetto CHALLENGE (H2020-EU.2.1.3. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Advanced materials). Al progetto partecipano 14 partner da Francia, Germania, Belgio, Inghilterra, Svezia, Italia e Giappone.
dal 01-01-2017 a oggi
- Coordinamento del progetto SiC nano for picoGeo (FETOPEN-01-2018-2019-2020 - FET-Open Challenging Current Thinking). Al progetto partecipano 7 partner da Francia, Germania, Belgio e Italia
dal 01-11-2019 a oggi

Direzione o partecipazione a comitati editoriali di riviste, collane editoriali, enciclopedie e trattati di riconosciuto prestigio



- Partecipazione Editorial Board Micromachines (MDPI)
dal 01-01-2019 a oggi

Partecipazione al collegio dei docenti ovvero attribuzione di incarichi di insegnamento, nell'ambito di dottorati di ricerca accreditati dal Ministero

- Partecipazione al Colleggio dei docenti del dottorato di ricerca in Scienze dei Materiali e Nanotecnologie - Ciclo XXXIII - Università di Catania
dal 15-05-2017 a oggi

Formale attribuzione di incarichi di insegnamento o di ricerca (fellowship) presso qualificati atenei e istituti di ricerca esteri o sovranazionali

- Caratterizzazione avanzata di strati epitassiali di 3C-SiC epitassiale mediante TEM e figure polari. - Progetto ManSiC - Università di Tessalonica (Grecia)
dal 01-03-2008 al 04-03-2008
- Partecipazione al Tutorial dell'ECSCRM 2012 a Pietersbourg su "Growth of SiC - from bulk crystals to thin layers" IOFFE Institute
dal 02-09-2012 al 02-09-2012
- Partecipazione al Tutorial dell'ECSCRM 2018 organizzato dall'Università di Warwick (UK) con una lezione dal titolo "Silicon Carbide Bulk and Epitaxy Material; A comparison between 3C-SiC and 4H-SiC".
dal 02-09-2018 al 02-09-2018

Risultati ottenuti nel trasferimento tecnologico in termini di partecipazione alla creazione di nuove imprese (spin off), sviluppo, impiego e commercializzazione di brevetti

- Brevetto italiano con STMicroelectronics su "PROCEDIMENTO DI FORMAZIONE DI CONTATTI OHMICI SU CARBURO DI SILICIO CON MIGLIORATE CARATTERISTICHE MORFOLOGICHE ED ELETTRICHE DELL'INTERFACCIA"
dal 01-07-2003 al 31-07-2003
- Brevetto italiano con STMicroelectronics "Tecniche per incrementare la stabilità termica di strati di siliciuro di cobalto (CoSi₂) su silicio tramite impianto ionico di elementi leggeri "
dal 01-12-2005 al 31-12-2005
- Brevetto Europeo e USA con STMicroelectronics relativo a "Process for manufacturing a Schottky contact on a semiconductor substrate"
dal 01-03-2006 al 01-08-2006
- Brevetto italiano, europeo e in USA su "SEMICONDUCTOR SUBSTRATE SUITABLE FOR THE REALISATION OF ELECTRONIC AND/ OR OPTOELECTRONIC DEVICES AND RELATIVE MANUFACTURING PROCESS" con lettera di interessi di LPE/ETC
dal 01-01-2007 al 01-01-2015
- Brevetto USA su "Manufacture of wafers of wide energy gap semiconductor material for the integration of electronic and/or optical and/or optoelectronic devices"
dal 01-07-2012 al 31-07-2012

