

EUROPEAN  
CURRICULUM VITAE  
FORMAT



PERSONAL INFORMATION

Name	<b>Giovanni Mannino</b>
Address	Zona Industriale strada VIII, n°5, 95121, Catania, Italy
Telephone	+39 095 5968236
Email	giovanni.mannino@imm.cnr.it
Nationality	Italian
Date of birth	17/15/1973

WORK EXPERIENCE

- |  |   |
|--|---|
| • Dates (from – to)                    | From 01/2001 to present   |
| • Name and address of employer         | Consiglio Nazionale dell Ricerche (CNR)<br>Istituto per la Microelettronica ed i Microsistemi (IMM)<br>Strada VIII n°5 Zona Industriale, 95121 Catania (Italy)  |
| • Type of business or sector           | Public – Research Institute   |
| • Occupation or position held          | Researcher (ID Number 8197)   |
| • Main activities and responsibilities | Material scientist in charge of:<br>a) Chemical vapour deposition of Si based materials and nanocrystals at low temperature for photovoltaic devices and Li-ion batteries<br>b) Spectroscopic ellipsometry equipment for advanced characterization of materials optical properties. |
| • Dates (from – to)                    | From 11/1998 to 07/1999   |
| • Name and address of employer         | STMicronics, Stradale Primrose 50, 95121, Catania, Italy  |
| • Type of business or sector           | Industry – Semiconductor  |
| • Occupation or position held          | Consultant  |
| • Main activities and responsibilities | <i>Study of dopant diffusion and activation phenomena for advanced devices</i>  |

EDUCATION AND TRAINING

- |  |  |
|--|--|
| • Dates (from – to)  | 11/1996 to 10/1998   |
| • Name and type of organisation providing education and training | University of Catania (Italy)  |
| • Principal subjects/occupational skills covered                 | <i>Defect clustering and dopant non-equilibrium diffusion phenomena in crystalline silicon</i> |
| • Title of qualification awarded                                 | Ph.D. cum Laude in Materials Science   |
| • Level in national classification                               |  |

EDUCATION AND TRAINING

- |                                 |                               |
|---------------------------------|-------------------------------|
| • Dates (from – to)             | 11/1991 to 07/1996            |
| • Name and type of organisation | University of Catania (Italy) |

- providing education and training
- Principal subjects/occupational skills covered
  - Title of qualification awarded
  - Level in national classification

## EDUCATION AND TRAINING

- Dates (from – to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded
- Level in national classification

## OTHER QUALIFICATIONS

- Dates (from – to)
- Dates (from – to)
- Dates (from – to)

## PERSONAL SKILLS AND COMPETENCES

*Acquired in the course of life and career but not necessarily covered by formal certificates and diplomas.*

### MOTHER TONGUE

### OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

## TECHNICAL SKILLS AND COMPETENCES

*With computers, specific kinds of equipment, machinery, etc.*

## ORGANISATIONAL SKILLS AND COMPETENCES

*Coordination and administration of*

*Migration and interaction at room temperature of ion beam generated point defects in crystalline silicon*

Master degree com laude

09/1986 to 06/1990

Liceo Classico "Mario Cutelli", Catania (Italy)

Maturità Classica 50/60

2021

Italian national qualification as Senior Researcher at CNR

2012

Italian national qualification as Senior Researcher at CNR

2012

Italian national qualification as Associate University Professor in Experimental Physics (02/B1)

### ITALIAN

### ENGLISH

GOOD

GOOD

GOOD

### FRENCH

GOOD

GOOD

GOOD

Rapid Thermal Annealing Cost € 69 480 (2003)

Laser Annealing 808nm Cost € 207 576 (2005)

Inductively Coupled Plasma Chemical Vapour Deposition Cost € 280 000 (2009)

Spectroscopic Ellipsometer Cost € 172 000 (2013)

### • EUROPEAN PROJECT - PARTNER REPRESENTATIVE

Ion implantation at ultra-low energy for future semiconductor devices (IMPULSE)  
IST-2001-32061 Budget € 1 514 197

- **NATIONAL PROJECT - PARTNER REPRESENTATIVE**

Tecnologie per l'ENERGia e l'Efficienza energETICa (ENERGETIC)

PON Ricerca e Competitività 2007/2013 Regioni Convergenza ASSE I Budget € 18 660 517

- **EUROPEAN PROJECT – PARTICIPANT**

Redistribution and activation phenomena in integrated circuit and device manufacturing (RAPID)  
Esprit Project 23481

Front-end models for silicon future technology (FRIENDTECH)

IST-2000-30129 Budget € 4 820 576

Fundamentals and applications of laser processing for highly innovative MOS technology  
(FLASH)

IST-2001-38901 Budget € 1 800 000

Advanced Technology Modelling for Extra-Functionality Devices (ATEMOX)

ICT Project 258547 2010 Budget € 4 112 289

Energy for a green society: from sustainable harvesting to smart distribution. Equipment,  
materials, design solutions and their applications (ERG)

ENIAC JU grant agreement n° 270722-2 2011 Budget € 25 110 836

- **NATIONAL PROJECT - PARTICIPANT**

Nuove Tecnologie Fotovoltaiche per Sistemi Intelligenti Integrati in Edifici

PON Ricerca e Competitività 2007/2013 Regioni Convergenza ASSE I, Budget € 12 883 110

- **CONSULTING CONTRACTS - PARTICIPANT**

Industrial Consulting Contract CNR-ST Microelectronics (Study of materials and advanced  
technologies for microelectronics) 2008 Budget € 160 000

Industrial Consulting Contract CNR-ST Microelectronics (Study of materials and advanced  
technologies for microelectronics) 2009 Budget € 160 000

Industrial Consulting Contract CNR-ST Microelectronics (Study of materials and advanced  
technologies for microelectronics) 2010 Budget € 160 000

Industrial Consulting Contract CNR-ST Microelectronics (Study of materials and advanced  
technologies for microelectronics) 2011 Budget € 160 000

Industrial Consulting Contract CNR-ST Microelectronics (Study of materials and advanced  
technologies for microelectronics) 2012 Budget € 160 000

- **AWARDS**

Young Scientist Award E-MRS conference 1998

Reactive plasma etching: a novel method to reduce transient enhanced diffusion of low energy  
implanted boron in silicon

Symposium J : Ion implantation into semiconductors, oxides, ceramics

Best Poster award XIIth International Conference on Ion Implantation Technology (IIT) 1998

The effect of the impurity content and of the surface on the electrical activation of low energy  
implanted boron in crystalline silicon

Best Poster award E-MRS conference 2004

Electrical Activation of B and As implants in Silicon on Insulator (SOI) wafers

- **AUTHOR**

Bibliometrics on peer reviewed international journals

Google Scholar 120 documents – 1969 citations - h-index 23

WoS 113 documents – 1449 citations - h-index 20

Scopus 119 documents – 1595 citations - h-index 21

- **REVIEWER** of JCR journals

Journal of Electrochemical Society since 2001  
 Journal of Applied Physics since 2001  
 Applied Physics Letters since 2002  
 Nuclear instruments and methods B since 2004  
 Physica Status Solidi since 2011  
 Materials Letters since 2012  
 Journal of Nanoscience and Nanotechnology since 2012  
 Canadian Journal of Physics since 2013  
 Applied Physics A since 2014  
 Journal of Physics D since 2015  
 Optical Materials since 2015  
 Physica Status Solid A since 2015  
 Materials Research Express since 2017  
 Journal of Lightwave technology since 2017  
 Materials science in semiconductors processing since 2018  
 European Physical Journal of Applied Physics since 2019  
 Journal of Materials Chemistry C since 2020  
 Materials Chemistry and Physics since 2021

- **PROJECT REVIEWER**

Progetti di ricerca di Rilevante Interesse Nazionale (PRIN) Italy 2013

Executive Agency for Higher Education, Research, Development and Innovation Funding (Romania) 2016

Executive Agency for Higher Education, Research, Development and Innovation Funding (Romania) 2019

Executive Agency for Higher Education, Research, Development and Innovation Funding (Romania) 2020

- **EDITORIAL BOARD MEMBER**

Scientific Reports (Nature-Macmillan Springer Group) since 2015

- **BOOK EDITOR**

Elsevier Material Science and Engineering B voll.114-115 (2004)

- **INTERNATIONAL CONFERENCE ORGANIZER**

Material science issues in advanced CMOS source-drain engineering  
 European Materials Research Society Symposium Strasbourg (France) 2004

- **TUTOR**

4 Master Thesis  
 3 Ph.D. Thesis

- **RESEARCHER IDENTIFIERS**

ORCID 0000-0003-2196-6309  
 WoS ISIWeb ID C-8974-2017  
 Scopus ID 7005846947

## ANNEXES

## LIST OF PUBLICATIONS

04/09/2021

