

PERSONAL INFORMATION

Stefania Maria Serena Privitera

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Nationality Italian

WORK EXPERIENCE

From December 2011

Research scientist

Institute for Microelectronic and Microsystems (IMM), National Research Council (CNR) Ottava Strada 5, Zona Industriale, 95121 Catania, Italy

- Main activities and responsibilities: electrical and structural characterization of materials for electronic devices and for catalysis of sola fuels; design and characterization of electronic and electrochemical devices.

Business or sector Public Research Organization

From June 2004 to December 2011

Staff Research Scientist

STMicroelectronics, Stradale Primosole 50, 95121 Catania, Italy

- Main activities and responsibilities: Development of new technologies and functions for microelectronics devices

Business or sector Microelectronics Company

From January 2004 to June 2004

Post-Doc Research Fellow

Institute for Microelectronic and Microsystems (IMM), National Research Council (CNR) Ottava Strada 5, Zona Industriale, 95121 Catania, Italy

- Main activities and responsibilities: Study of new materials for non volatile solid state memories

Business or sector Public Research Organization

From December 2001 to January 2004

Post-Doc Research Fellow

Università degli Studi di Catania, Catania, Italy

- Main activities and responsibilities: Structural and electrical characterization of metallic and semiconductive films

Business or sector Public Research Organization

From August 2000 to September 2000

Visiting Scientist

Interconnect Technology Department, T. J. Watson Research Center, IBM Yorktown Heights, New York (USA)

- Main activities and responsibilities: Modeling of C49-C54 phase transition in titanium disilicide

Business or sector Microelectronic Company

EDUCATION AND TRAINING

From Nov. 1998 to Feb. 2002

PhD in Physics

Università degli studi di Catania, Italy

From Nov. 1998 to Feb. 2002

Master Degree in Physics

Università degli studi di Catania, Italy

110/110 cum Laude

PERSONAL SKILLS

Mother tongue Italian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2

Communication skills

- good communication skills gained through my experience as research scientist at STMicroelectronics and IMM-CNR.
- Team working with scientists and technicians of different education (chemistry, physics, engineers) and of different countries (USA, France, Singapore, India, Germany, Sweden)

Organisational / managerial skills

- Coordinator of the European Project TELEGRAM
- Workpackage leader of the European Project PECSYS
- OR Leader in the National Project PON01_01725 Nuove tecnologie fotovoltaiche per sistemi intelligenti integrati in edifici
- leadership (currently responsible for a team of 3 people)

Job-related skills

- Electrical characterization of materials and electronic devices
- CAD experience for microelectronic device design

Computer skills

- good command of Microsoft Office™ tools
- good command of Matlab, Visualbasic and softwares for image processing

Driving licence

- B

ADDITIONAL INFORMATION

Research Projects

- 2020-2024 **Project Coordinator:** Toward Efficient Electrochemical Green Ammonia Cycle (TELEGRAM), European H2020 GA 101006941
- 2020-2022 **Participant:** Tecnologia per Celle Solari Bifacciali ad Alta Efficienza a 4 terminali per "Utility Scale" (Best4U), National PON ARS01_00519
- 2019-2022 **Participant:** Boosting Performance of Phase Change Devices by Hetero- and Nano-Structure Material Design" (BeforeHand), European H2020 824957
- 2017-2020 **Workpackage Leader:** Technology demonstration of large-scale photo-electrochemical system for solar hydrogen production (PECSYS), European H2020 GA 735218
- 2017-2020 **Participant:** Automated photovoltaic cell and Module industrial Production to regain and secure European Renewable Energy Market (AMPERE), European H2020 GA 745601
- 2017-2020 **Participant:** 3C-SiCHetero-epitaxiALLY grown on silicon compliancE substrates and new 3C-SiC substrates for sustaiNable wide-band-Gap power devices (Challenge), European H2020 GA 720827
- 2012-2015: **Participant:** Tecnologie per l'efficienza energetica (ENERGETIC), National PON PON02_00355_3391233
- 2011-2015: **OR Leader:** Nuove tecnologie fotovoltaiche per sistemi intelligenti integrati in edifici, National PON PON01_01725
- 2004: **Participant:** Nanotecnologie, microtecnologie, sviluppo integrato dei materiali: sistemi miniaturizzati per elettronica e fotonica, National MIUR-FIRB RBNE012N3X

Invited Presentations and Organization of International Conferences

- 25-28 November 2020: Materials Research Society (MRS) Spring Meeting 2020, Phoenix, Arizona, **Invited Presentation**
- 22-26 April 2019: Materials Research Society (MRS) Spring Meeting 2019, Phoenix, Arizona, **Invited Presentation**
- 3-5 September 2017: European Phase Change and Ovonic Symposium (EPCOS) 2017, RWTH Aachen University, **Invited Presentation**
- 28 March- 1 April 2016 Materials Research Society (MRS) Spring Meeting 2016, Phoenix, Arizona, **Invited Presentation**
- 7-9 September 2004, European Phase Change and Ovonic Symposium (EPCOS), Balzers Liechtenstein, **Invited Presentation**
- 27-30 June 2016, 19th Workshop on Dielectrics in Microelectronics WODIM 2016, Catania, **Local Organizing Committee**
- 18-21 April 2017 Materials Research Society (MRS) 2017 Spring Meeting, Symposium on Phase change Materials and their applications, **Leading Organizer**
- 2-6 April 2018, Materials Research Society (MRS) 2018 Spring Meeting, Symposium on Phase change Materials and their applications, **Organizing Committee**
- 27 November -2 December 2022, Materials Research Society (MRS) 2022 Fall Meeting, Symposium on Phase-Change Materials for Brain-Like Computing and Memory Applications, **Invited Presentation**
- 10-14 April 2023, Materials Research Society (MRS) 2023 Spring Meeting, Symposium on Phase-Change Materials for Emerging Applications in Reconfigurable Devices, Memory and Computing, **Organizing Committee**

Editorial activity in International Journals

- 2021-2022: Guest Editor of Nanomaterials (MPDI), Special Issue on "Synthesis, Properties and Applications of Germanium Chalcogenides"
- 2018-2019: Guest Editor of Energies (MPDI), Special Issue on "Materials and Devices for Solar to Hydrogen Energy Conversion"
- 2018: Principal Editor of MRS Advances (Cambridge), *Electronic and Photonic materials, Vol. 3 Issue 57-58, 2018*
- 2017-2022: Member of the Advisory Panel of Journal of Physics D: Applied Physics (IOP)

Honours and awards

- 2001: Best Poster at Scuola Nazionale di Fisica della Materia, Torino, organized by dall'Istituto Nazionale di Fisica della Materia (INFM)
- 2001: Young Researchers Award by Società Italiana di Fisica (SIF)
- 2016: Outstanding Reviewer Award, assigned by Journal of Physics D: Applied Physics (Institute of Physics IOP, USA)

Patents

1. High precision resistor and trimming method thereof, **Patent number:** 9429967, **Granted:** August 30, 2016 **Assignee:** STMICROELECTRONICS S.R.L., **Inventors:** Stefania Maria Serena Privitera, Antonello Santangelo
2. Electrically trimmable resistor device and trimming method thereof, **Patent number:** 9230720, **Granted:** January 5, 2016, **Assignee:** STMicroelectronics S.r.l., **Inventors:** Antonello Santangelo Stefania Maria Serena Privitera
3. High precision resistor and trimming method thereof, Publication number: 20150168968, Publication date: June 18, 2015, Inventors: Stefania Maria Serena Privitera, Antonello Santangelo
4. High-precision resistor and trimming method thereof, **Patent number:** 8952492, **Granted:** June 30, 2011
February 10, 2015, **Assignee:** STMicroelectronics S.R.L., **Inventors:** Stefania Maria Serena Privitera, Antonello Santangelo
5. Electrically trimmable resistor device and trimming method thereof, **Publication number:** 20130342264, **Publication date:** December 26, 2013, **Inventors:** Antonello Santangelo Stefania Maria Serena Privitera
6. Vialess integration for dual thin films—thin film resistor and heater, **Patent number:** 8558654, **Granted:** October 15, 2013, **Assignees:** STMicroelectronics (Grenoble 2) SAS, STMicroelectronics S.r.l., STMicroelectronics Pte Ltd, **Inventors:** Olivier Le Neel, Stefania Maria Serena Privitera, Pascale

- Dumont-Girard, Maurizio Gabriele Castorina, Calvin Leung.
7. Resistor structure of phase change material and trimming method thereof, **Patent number:** 8427273, **Granted:** April 23, 2013, **Assignee:** STMicroelectronics S.r.l., **Inventor:** Stefania Maria Serena Privitera
 8. Resistor structure of phase change material and trimming method thereof, **Patent number:** 8319597, **Granted:** November 27, 2012, **Assignee:** STMicroelectronics S.r.l., **Inventor:** Stefania Maria Serena Privitera
 9. RESISTOR STRUCTURE OF PHASE CHANGE MATERIAL AND TRIMMING METHOD THEREOF, **Publication number:** 20120171838, **Publication date:** July 5, 2012, **Applicant:** STMICROELECTRONICS S.R.L, **Inventor:** Stefania Maria Serena PRIVITERA
 10. VIALESS INTEGRATION FOR DUAL THIN FILMS - THIN FILM RESISTOR AND HEATER, **Publication number:** 20120112873, **Publication date:** May 10, 2012, **Applicants:** STMicroelectronics (Grenoble 2) SAS, STMicroelectronics Pte Ltd., STMicroelectronics S.r.l., **Inventors:** Olivier Le Neel, Stefania Maria Serena Privitera, Pascale Dumont-Girard, Maurizio Gabriele Castorina, Calvin Leung
 11. HIGH-PRECISION RESISTOR AND TRIMMING METHOD THEREOF, **Publication number:** 20120001679
Publication date: January 5, 2012, **Applicant:** STMICROELECTRONICS S.R.L., **Inventors:** Stefania Maria Serena PRIVITERA, Antonello SANTANGELO
 12. RESISTOR STRUCTURE OF PHASE CHANGE MATERIAL AND TRIMMING METHOD THEREOF, **Publication number:** 20100156588, **Publication date:** June 24, 2010, **Applicant:** STMICROELECTRONICS S.R.L, **Inventor:** Stefania Maria Serena PRIVITERA

Research Outputs

Total Number of Publications: 84

Scopus Citations: 1208

Scopus H-index: 18 (10-5-2023)

Publications

<https://www.scopus.com/authid/detail.uri?authorId=23478343700>

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

