

PERSONAL INFORMATION

Maurizio Casalino



📍 141, Via P. Castellino, Naples, 80131, Italy
☎ +390816132345 📠 +393666202214
✉ maurizio.casalino@na.imm.cnr.it
🌐 <https://www.na.imm.cnr.it/users/mauriziocasalino>
💬 Skype maurizio.casalino
🆔 orcid.org/0000-0003-2331-4419

Sex M | Date of birth 08/09/1974 | Nationality Italian

WORK EXPERIENCE

December 2013-present Name of employer	Permanent Researcher National Research Council, Institute for Microelectronics and Microsystems – Unit of Naples
September 2010-December 2013 Name of employer	Temporary Researcher National Research Council, Institute for Microelectronics and Microsystems – Unit of Naples
March 2008-September 2010 Name of employer	Post-doc scientist National Research Council, Institute for Microelectronics and Microsystems – Unit of Naples
February 2005-December 2007 Name of employer	PhD student University “Mediterranea” of Reggio Calabria (Italy)
July 2004-February 2005 Name of employer	Post-graduate fellow Centro Regionale di Competenza sulle Tecnologie dell’Informazione e della Comunicazione

EDUCATION AND TRAINING

2008	PhD in Electronic Engineering (Dottorato di ricerca in Ingegneria Elettronica) from University “Mediterranea” of Reggio Calabria, Italy - PhD thesis title: Design, fabrication and characterization of a silicon photodetector working at 1.55 μm (Prof. F.G. Della Corte).
2003	Licensed to practice in Engineering (Abilitazione all’esercizio della professione di Ingegnere) from University of Naples “Federico II”.
2003	MSc in Electronic Engineering (Laurea in Ingegneria Elettronica) , grade: 110/110 e lode (with honours) from University of Naples “Federico II” - Thesis title: Sviluppo ed ottimizzazione di un programma di simulazione elettrotermica per dispositivi bipolari (Prof. N. Rinaldi)

LANGUAGES

Mother tongue(s) Italian

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

INTERNATIONAL RECOGNITION

- 15 Nov 2017 The following work: M. Casalino *et al.* "Vertically Illuminated, Resonant Cavity Enhanced, Graphene-Silicon Schottky Photodetectors," ACS Nano, vol. 11(11), pp. 10955-10963 (2017), was made public by the CNR in a press release on 15 November 2017.
- 13 Nov 2015 He was invited as speaker by Prof A.C. Ferrari for the Cambridge Graphene Centre Advanced Technology Lectures by e-mail on 5 May 2015. He gave a lecture titled: "NIR Schottky All-Silicon Photodetectors: Limitations and Perspectives" as reported at the link <http://www-g.eng.cam.ac.uk/nms/Seminars/Mi2015.pdf>
- April 2014 The project AWARE (Acoustic Wave generation in grAphene-like materials for aeRial and submarinE application), written in collaboration with SELEX ES, was selected in order to attend to "IT-US Defence Science & Technology Dialogue" promoted by the agency AIAD (federazione Aziende Italiane per l'Aerospazio, la Difesa e la sicurezza) under the high patronage of the Italian Republic. The candidate has discussed his project at the Technical Information Exchange Meeting (TIEM) held in Washington on April, 2014 in the Italian Embassy at the presence of US armed forces: ARL (Army Research Laboratory) e ONR (Office of Naval Research).
The candidate has received a letter of thanks for bringing the excellence of Italian research abroad from the secretary of the then President of the Republic Giorgio Napolitano.

SCIENTIFIC COLLABORATION

- 2006-2016 University "Mediterranea" of Reggio Calabria (Italy) with Prof. F. G. Della Corte (HELIOS Project)
- 2016 University of Naples Federico II, Department of Pharmacy, Naples (Italy) with Prof. G. Piccialli
- 2015-2016 Fraunhofer Institute for Reliability and Microintegration (IZM), System Integration and Interconnection Technologies, Berlin (Germany) with the Dr. T. Tekin
- 2015 University of Naples Federico II, Department of Physics, Naples (Italy) with Prof. A. Cassinese
- 2015 ENEA – Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Portici (Italy) with Dr. L. Lancellotti
- 2015 Selex ES S.p.A. Rome (Italy) with Dr. Sergio Gallone
- 2014 Institute for Composite and Biomedical Materials, National Research Council, Portici, NA, Italy with Dr. M. Giordano
- 2014 University of Cambridge, Cambridge Graphene Centre, Engineering Department, Cambridge (United Kingdom) with Prof. A. C. Ferrari
- 2013 Institute of Photonics and Electronics, Academy of Sciences of the Czech Republic, Prague (Czech Republic) with Prof. J. Homola
- 2010 STMicroelectronics, Arzano (Italy) with Ing. Luigi Occhipinti
- 2008-2009 University of Liverpool, School of Engineering, Liverpool, United Kingdom with Prof. K. G. Watkins
- 2006-2010 Second University of Naples – Dipartimento di Matematica e Fisica, Caserta (Italy) with

Prof. L. Moretti

**CONFERENCE PROGRAM
COMMITTEE MEMBERSHIP**

- 2018 PHOTOOPTICS 2018 - 6th International Conference on Photonics, Optics and Laser Technology (<http://www.photoptics.org/ProgramCommittee.aspx?y=2018>)
- 2017 PHOTOOPTICS 2017 - 5th International Conference on Photonics, Optics and Laser Technology (<http://www.photoptics.org/ProgramCommittee.aspx?y=2017>)
- 2016 PHOTOOPTICS 2016 - 4th International Conference on Photonics, Optics and Laser Technology – (<http://www.photoptics.org/ProgramCommittee.aspx?y=2016>)

TEACHING

Class	Laboratorio di Fisica III – Semiconduttori e Dispositivi				
Academic year	17/18	16/17	15/16	14/15	13/14
ssd	ING-INF/01, ING-INF/02, ING-INF/05, FIS/07				
CdS	Corso di laurea di primo livello in Fisica (BSc in Physics)				
CFU	3: Docente a contratto				
University	Università degli Studi della Campania Luigi Vanvitelli – Dipartimento di Matematica e Fisica (http://www.matfis.unina2.it)				
Syllabus	Solids, Semiconductors and Crystalline structure. Defects. Energy band diagrams in crystals. Electrical conduction in solids. Density of state, Fermi-Dirac distribution and Maxwell-Boltzman approximation. Semiconductors at thermal equilibrium. Intrinsic semiconductors at thermal equilibrium. Extrinsic semiconductors at thermal equilibrium. Carrier transport mechanisms. Semiconductors out of the thermal equilibrium. The P/N diodes. The Schottky diodes. The Bipolar Junction Transistor (BJT). The MOSFET.				
Class	Optoelettronica				
Academic year	11/12	10/11	09/10	08/09	
ssd	ING-INF/01				
CdS	Corso di laurea in Ingegneria Elettronica (BSc in Electronic Engineering)				
CFU	6: Esercitatore/Tutor a contratto				
University	Università degli Studi della Calabria – Dipartimento di Ingegneria Informatica, Modellistica, Elettronica e Sistemistica (https://www.dimes.unical.it)				
Syllabus	Fundamentals of optics. Radiation-matter interaction. Detectors. Modulators. Lasers.				

MSc AND BSc ADVISOR

- 2015/2016 Teresa Crisci – thesis title: “Caratterizzazione elettrica e ottica di fotorivelatori basati su giunzioni Schottky silicio/erbio,” Second University of Naples SUN (BSc)
- 2014/2015 Ignazio Giglio – thesis title: “Fabbricazione e caratterizzazione elettro-ottica di una fotorivelatori Schottky in silicio basati su grafene, Erblio e Germanio,” University of the Calabria (MSc).
- 2013/2014 Federico Dei – thesis title: “Fabbricazione e caratterizzazione ottica di una giunzione Schottky grafene-silicio,” Dep. of Electronic Engineering at “Mediterranea” University of Reggio Calabria (BSc).
- 2013/2014 Giovanni Noce – thesis title: “Fabbricazione e caratterizzazione elettrica di una giunzione Schottky grafene-silicio,” Dep. of Electronic Engineering at University of Calabria (MSc).
- 2012/2013 Sabrina Fino – thesis title: “Attacchi profondi nel silicio realizzati con tecnica wet etching anisotropa,” Dep. of Electronic Engineering at University of Calabria (MSc).
- 2008/2009 Alfonso Messina - thesis title: “Caratterizzazione elettro-ottica di fotorivelatori in guida in silicio,” Dep. of Electronic Engineering at “Mediterranea” University of Reggio Calabria (MSc).
- 2008/2009 Rocco Versace - thesis title: “Caratterizzazione elettro-ottica di fotorivelatori in silicio a 1550 nm,” Dep. of Electronic Engineering at “Mediterranea” University of Reggio Calabria (BSc).

RESEARCH FUNDS

- 2013-2016 Progetto PON03PE_00128_1/3, **eHelathNet**: Ecosistema software per la Sanità Elettronica – Programma PON Ricerca e Competitività 2007-2013 – Avviso D.D 713/Ric. Del 29 ottobre 2010. Lettera di incarico Prot. 0001197. Ruolo: Partecipante. Finanziamento: € 102.000.
- 2015 Contratto di Ricerca tra Selex ES S.p.A. e gli Istituti IPCB ed IMM del CNR per la tematica: Proprietà del graphene e dei suoi derivati per trasduttori acustici, sensori di gas, De-Icing per radomes, supercapacitori (Prot. CNR N. 0010857 del 18/02/2015). Ruolo: Coordinatore per l'istituto IMM. Finanziamento: € 25.000.
- 2013-2015 Progetto **LFW** su Bando CAMPUS_ALENIA, - denominato “Tecniche Innovative di Linear Friction Welding per configurazioni complesse in lega di titanio”, approvato con Decreto n. 58 del 28/03/2012, A.G.C. 6, Settore 1, finanziato dalla Regione Campania nell'ambito del Programma Operativo FESR Campania 2007/2013. Lettera di incarico Prot. POR CAMPUS LFW N. 3/2013. Ruolo: Partecipante. Finanziamento: € 212.275.
- 2012-2015 Progetto PON04a2_F BE&SAVE – **AQUASYSTEM – SIGLOD** di cui al Decreto Direttoriale n. 625/Ric. Del 08/10/2012 di ammissione alle agevolazioni, finanziato dal Ministero dell'Istruzione dell'Università e della Ricerca nell'ambito del Programma Operativo Nazionale Ricerca e Competitività 2007-2013 per le Regioni della Convergenza (“PON R&C”). Lettera di incarico Prot. PON04a2_F N.2/2015. Ruolo: Partecipante. Finanziamento: € 1.415.504.
- 2012-2015 Progetto **SE@ME** - Sustainable e-maritime @ssistance for Maritime Employees, Passangers and Yachtmen di cui al decreto di Ammissione al finanziamento Prot. 2012.0312642 del 23/04/2012, finanziato dalla Regione Campania nell'ambito del Programma Operativo FESR Campania 2007-2013. Lettera di incarico Prot. 01/2014. Ruolo: Partecipante. Finanziamento: € 195.917.
- 2011-2015 Progetto **PANDION**, “Studio di sottosistemi funzionali innovativi per impieghi spaziali” di cui al decreto di Ammissione al finanziamento Prot. N. 726/Ric del 14/10/2011, finanziato dal Ministero dell'Istruzione dell'Università e della Ricerca nell'ambito del Programma Operativo Nazionale Ricerca e Competitività 2007-2013 per le Regioni della Convergenza (“PON R&C”) – Decreto Direttoriale del 18 gennaio 2010 n. 01/Ric. Lettera di incarico Prot. PON01_00375 n. 7/2013. Ruolo: Partecipante. Finanziamento: € 785.000.
- 2008-2012 Progetto **HELIOS** (pHotonics ELelectronics functional Integration On CMOS) finanziato dalla comunità europea (FP7/2007-2013, Grant Agreement Number 224312). Lettera del responsabile di progetto Prof. F. G. Della Corte 20/02/2010 (Prot. n. 0001189) attestante la partecipazione del sottoscritto all'attività. Ruolo: Partecipante. Finanziamento: € 317.000.
- 2010 Progetto **Printed Electronics** – “Realization of electronic circuits on organic materials” in collaborazione con STMicroelectronics. Lettera del responsabile di progetto Ing. Luigi Occhipinti in data 20/01/2010 (Prot. n. 0001190) attestante la partecipazione del sottoscritto all'attività. Ruolo: Partecipante.
- 2010 Progetto **MicroDiaSym**, “Microsystem of diagnosis based on innovative electro-chemical biosensors” finanziato dal Ministero dell'Istruzione dell'Università e della Ricerca (MIUR 297/99) in collaborazione con Carlo Gavazzi Space S.p.A. Lettera del responsabile di progetto Ing. Giovanni Grosso in data 28/01/2010 (Prot. 0001181) attestante la partecipazione del sottoscritto all'attività. Ruolo: Partecipante. Finanziamento: € 68.000.

CONFERENCE PRESENTATIONS

Invited oral presentations

- 2014 ICTON July 6-10/06/2014, Graz (Austria)
- 2014 FOTONICA, 12-14/05/2014, Napoli (Italy)
- 2015 Cambridge Graphene Centre, 13/11/2015, Cambridge (UK)

Oral presentations

- 2017 FOTONICA, Padova (Italy)
- 2016 PHOTOPTICS, 27-29/02/2016, Roma (Italy)
- 2015 AEIT International Annual Conference, 14-16/10/2015, Napoli (Italy)
- 2015 FOTONICA, 6-8/05/2015, Torino (Italy)
- 2015 SPIE Optics+Optoelectronics, 13-15/04/2015, Praga (Czech Republic)
- 2013 FOTONICA, 21-23/05/2013, Milano (Italy)
- 2011 OPTICAL MICROSYSTEMS, 26-28/09/2011, Capri (Italy)
- 2009 FOTONICA, 27-29/05/2009, Pisa (Italy)
- 2009 AISEM, 24-26/01/2009, Pavia (Italy)
- 2008 GROUP IV PHOTONICS, 17-19/09/2008, Sorrento (Italy)
- 2007 OPTICAL MICROSYSTEM, 30/09/2007 – 03/10/2007, Capri (Italy)
- 2007 FOTONICA, 21-23/05/2007, Mantova (Italy)
- 2006 GRUPPO DI ELETTRONICA, 21-23/06/2006, Ischia (Italy)
- 2006 ELETTROOTTICA, 6-8/06/2006, Frascati (Italy)
- 2005 SPIE, 9-11/05/2005, Siviglia (Spain)

CONFERENCE ATTENDANCE AND POSTER PRESENTATION

- 2013 OPTICAL MICROSYSTEMS, 27-30/09/2013, Capri (Italy)
- 2009 OPTICAL MICROSYSTEMS, 27-30/09/2009, Capri (Italy)
- 2007 AISEM, 12-14/02/2007, Napoli (Italy)
- 2005 OPTICAL MICROSYSTEMS, 15-18/09/2005, Capri (Italy)
- 2005 GRUPPO DI ELETTRONICA, 30/06/2005 – 02/07/2005, Giardini Naxos (Italy)
- 2004 AICA, 28-30/09/2004, Benevento (Italy)

SCHOOL ATTENDANCE

International

- 2008 Napoli, 07/07/08 – 11/07/08, Scuola di dottorato in Ingegneria Industriale, "Nanoplasmonics: science and technology of metal nanostructures".
- 2005 Trento, 27/02/05 - 04/03/05, Optoelectronic and Photonic Winter School "Optical Interconnects".

National

- 2005 Catania, 27/06/05 - 29/06/05, Gruppo di Elettronica - Scuola di Dottorato presso la STMicroelectronics.
- Benevento 19/06/2006 - 21/06/2006, Gruppo di Elettronica - Scuola di Dottorato.

PUBLICATIONS

Books

- [A.1] **M. Casalino**, RECENT ADVANCES IN SILICON PHOTODETECTORS BASED ON THE INTERNAL PHOTOEMISSION EFFECT in *New Research on Silicon - Structure, Properties, Technology*, edited by Vitalyi Igorevich Talanin, published by InTech, 2017, (ISBN 978-953-51-3160-1, Print ISBN 978-953-51-3159-5).
- [A.2] **M. Casalino**, L. Sirleto, M. Iodice, G. Coppola, SILICON PHOTODETECTORS BASED ON INTERNAL PHOTOEMISSION EFFECT: THE CHALLENGE OF DETECTING NEAR-INFRARED LIGHT in the book "Photodetectors" edited by Sanka Gateva, ISBN 978-953-51-0358-5, InTech, 2012.
- [A.3] L. Sirleto, G. Coppola, M. Iodice, **M. Casalino**, M. Gioffrè, I. Rendina, THERMOOPTICAL SWITCHES in *Optical Switches: materials and design*; Editors: Baojun Li and Soo Jin Chua. Woodhead Publishing Limited, Cambridge UK, 2010, ISBN: 1845695798.

Invited articles in peer-reviewed journals

- [B.1] **M. Casalino**, G. Coppola, L. De Stefano, A. Calio, I. Rea, V. Mocella, P. Dardano, S. Romano, S. Rao, I. Rendina, "New perspectives in silicon micro and nanophotonics," *J. Eur. Opt. Soc.*, vol.10, pp.15029i, 2015.

Articles in peer-reviewed journals

- [C.1] **M. Casalino**, "Design of Resonant Cavity Enhanced Schottky Graphene/Silicon Photodetectors at 1550 nm," *Journal of Lightwave Technology*, vol. 36(9), pp. 1766-1774 (2018).
- [C.2] **M. Casalino**, U. Sassi, I. Goykhman, A. Eiden, E. Lidorikis, S. Milana, D. De Fazio, F. Tomarchio, M. Iodice, G. Coppola, A. C. Ferrari, "Vertically Illuminated, Resonant Cavity Enhanced, Graphene-Silicon Schottky Photodetectors," *ACS Nano*, vol. 11(11), pp. 10955-10963 (2017)
- [C.3] M. Terracciano, V. Galstyan, I. Rea, **M. Casalino**, L. De Stefano, G. Sberveglieri, "Chemical modification of TiO₂ nanotube arrays for label-free optical biosensing applications," *Applied Surface Science*, vol. 419, pp. 235-240 (2017).
- [C.4] I. Rea, **M. Casalino**, M. Terracciano, L. Sansone, J. Politi, and L. De Stefano, "Photoluminescence enhancement of graphene oxide emission by infiltration in an aperiodic porous silicon multilayer," *Optics Express*, vol. 24(21), pp. 24413 (2016).
- [C.5] M. Terracciano, L. De Stefano, N. Borbone, J. Politi, G. Oliviero, F. Nici, **M. Casalino**, G. Piccialli, P. Dardano, M. Varra and I. Rea, "Solid phase synthesis of a thrombin binding aptamer on macroporous silica for label free optical quantification of thrombin," *RSC Advances*, vol. 6, pp. 86762–86769 (2016).
- [C.6] **M. Casalino**, G. Coppola, R. M. De La Rue and D. F. Logan, "State-of-the-art all-silicon sub-bandgap photodetectors at telecom and datacom wavelengths," *Laser & Photonics Review*, vol. 10(6), pp. 895-921 (2016).
- [C.7] S. Rao, **M. Casalino**, G. Coppola and F. G. Della Corte, "Capacitance in waveguide-integrated hydrogenated amorphous silicon p-i-n diodes for active photonic devices," vol. 11, pp. 395-400 (2016).
- [C.8] **M. Casalino**, "Internal Photoemission: Theory Revisited and Theoretical Limitations on the Performance of Near-Infrared Silicon Schottky Photodetectors," *IEEE J. of Quant. Elect.*, vol. 52(4), pp. 4000110 (2016).
- [C.9] A. Calio, A. Cassinese, **M. Casalino**, I. Rea, M. Barra, F. Chiarella and L. De Stefano, "Hybrid organic–inorganic porous semiconductor transducer for multi-parameters sensing," *J. R. Soc. Interface*, vol. 12: 20141268, pp.1-9 (2015).
- [C.10] I. Rea, L. Sansone, M. Terracciano, L. De Stefano, P. Dardano, M. Giordano, A. Borriello, **M. Casalino**, "Photoluminescence of graphene oxide infiltrated into mesoporous silicon," *Journal of Physical Chemistry C*, vol. 118, pp. 27301–27307, 2014.
- [C.11] **M. Casalino**, M. Iodice, L. Sirleto, I. Rendina, G. Coppola, "Asymmetric MSM sub-bandgap all-silicon photodetector with low dark current," *Optics Express*, vol.

- 21(23), pp.28072-28082 (2013).
- [C.12] **M. Casalino**, M. Iodice, L. Sirleto, I. Rendina, G. Coppola, "Low dark current silicon-on-insulator waveguide metal-semiconductor-metal photodetector based on internal photoemission effect at 1550 nm," *Journal of Applied Physics*, vol. 114, pp.153103 (2013).
- [C.13] Giorgini, S. Avino, P. Malara, G. Gagliardi, **M. Casalino**, G. Coppola, M. Iodice, P. Adam, K. Chadt, J. Homola, P. De Natale, "Surface-plasmon-resonance optical-cavity enhanced refractive index," *Optics Letters*, vol. 38(11), pp.1951-1953 (2013).
- [C.14] **M. Casalino**, G. Coppola, M. Iodice, I. Rendina, L. Sirleto, "Critically coupled silicon Fabry-Perot photodetectors based on the internal photoemission effect at 1550 nm," *Optics Express*, vol. 20(11), pp. 12599-12609 (2012).
- [C.15] **M. Casalino**, "Near-infrared sub-bandgap all-silicon photodetectors: a review", *International Journal of Optics and Applications, Review*, vol. 2(1), pp.1-16 (2012).
- [C.16] **M. Casalino**, G. Coppola, M. Iodice, I. Rendina, L. Sirleto, "Near-infrared All-Silicon Photodetectors," *Internal Journal of photoenergy*, vol. 2012, Article ID 139278 (2012).
- [C.17] **M. Casalino**, G. Coppola, M. Gioffrè, M. Iodice, L. Moretti, I. Rendina, L. Sirleto, "Microcavity Silicon Photodetectors at 1.55 μm ," *Advances in Optoelectronics*, vol. 2011, Article ID 965967 (2011).
- [C.18] **M. Casalino**, G. Coppola, M. Iodice, I. Rendina and L. Sirleto, "Near Infrared All-Silicon Photodetectors: State of the Art and Perspectives," *Sensors, Review*, vol. 10, pp.10571-10600 (2010).
- [C.19] **M. Casalino**, G. Coppola, M. Gioffrè, M. Iodice, L. Moretti, I. Rendina, L. Sirleto, "Silicon technology compatible photodetectors at 1.55 μm ," *Journal of Lightwave technology*, vol. 28(22), pp. 3266 (2010).
- [C.20] **M. Casalino**, L. Sirleto, M. Iodice, N. Saffioti, M. Gioffrè, I. Rendina, G. Coppola, "Cu/p-Si Schottky barrier-based near infrared photodetector integrated with a silicon-on-insulator waveguide," *Appl. Phys. Lett.*, 96, 2010, pp. 241112.
- [C.21] **M. Casalino**, L. Sirleto, L. Moretti, M. Gioffrè, G. Coppola, M. Iodice, I. Rendina, "Fabrication and characterization of a back-illuminated RCE silicon photodetector working at 1.55 μm ," *Fiber Integrated Optics*, vol.29, pp. 85-95 (2010).
- [C.22] Rea, A Lamberti, I. Rendina, G. Coppola, M. Gioffrè, M. Iodice, **M. Casalino**, E. De Tommasi, L. De Stefano, "Fabrication and characterization of a porous silicon based microarray for label-free optical monitoring of biomolecular interactions," *Journal of Applied Physics*, vol. 107, pp.014513 (2010).
- [C.23] Dima, M. Dima, K. G. Watkins, G. Dearden, Dun Liu, C.J. Williams, **M. Casalino**, M. Gagliardi, F.G. Della Corte, "Switching Devices in Sol-Gel Hybrid Thin Film Technology," *Thin Solid Film*, vol. 517(16), pp. 4658-4662 (2009).
- [C.24] **M. Casalino**, L. Sirleto, L. Moretti, M. Gioffrè, G. Coppola, M. Iodice, I. Rendina, "Back-Illuminated Silicon Resonant Cavity Enhanced Photodetector at 1550 nm," *Physica E: Low-dimensional Systems and Nanostructures*, vol 41, pp. 1097–1101 (2009).
- [C.25] **M. Casalino**, L. Sirleto, L. Moretti, M. Gioffrè, G. Coppola, I. Rendina, "Silicon resonant cavity enhanced photodetector based on the internal photoemission effect at 1.55 micron: Fabrication and characterization ," *Appl. Phys. Lett.*, vol. 92, pp. 251104 (2008).
- [C.26] **M. Casalino**, L. Sirleto, L. Moretti, I. Rendina, "A silicon compatible resonant cavity enhanced photodetector working at 1.55 μm ," *Semicond. Sci. Technol.*, vol 23(7), pp. 075001 (2008).
- [C.27] Dima, F. Della Corte, C.J. Williams, K.G. Watkins, G. Dearden, N. O'Hare, **M. Casalino**, M. Dima, "Silicon nano-particles in SiO₂ sol-gel film for nano-crystal memory device applications, " *Microelectronics Journal*, vol. 39(5), pp. 768-770 (2008).
- [C.28] Dima, F. Della Corte, **M. Casalino**, I. Rendina, "Li batteries with porous sol-gel cathodes," *Microelectronics Journal*, vol. 38(4-5), pp. 637-641 (2007).
- [C.29] **M. Casalino**, L. Sirleto, L. Moretti, F. Della Corte, I. Rendina, "Design of a silicon resonant cavity enhanced photodetector based on the internal photoemission effect at 1.55 μm ," *Journal of Optics A: Pure and applied optics*, vol. 8, pp. 909-

- 913 (2006).
 [C.30] **M. Casalino**, L. Sirleto, L. Moretti, F. Della Corte, I. Rendina, "Design of a silicon RCE schottky photodetector working at 1.55 micron," Journal of luminescence, vol. 121, pp. 399-402 (2006).

Articles in conference proceedings

- [D.1] R. Moretta, M. Terracciano, I. Rea, **M. Casalino**, P. Dardano, L. De Stefano, "Functionalization of microporous silicon for optical detection of bacteria," 19th Italian National Conference on Photonic Technologies - Fotonica 2017 (ISBN: 978-1-78561-757-7, doi: 10.1049/cp.2017.0198)
- [D.2] I. Giglio, G. Coppola, **M. Casalino**, "Design of an hybrid graphene/silicon photodetector operating at 2 micron," 19th Italian National Conference on Photonic Technologies - Fotonica 2017 (ISBN: 978-1-78561-757-7, DOI: 10.1049/cp.2017.0200).
- [D.3] **M. Casalino**, "Design of a silicon-graphene Schottky photodetector integrated with an optical cavity at 1550nm," 19th Italian National Conference on Photonic Technologies - Fotonica 2017 (ISBN: 978-1-78561-757-7, DOI: 10.1049/cp.2017.0177).
- [D.4] L. Lancellotti, L. Sansone, E. Bobeico, **M. Casalino**, M. Della Noce, M. Iodice, M. Giordano, P. Delli Veneri, "Graphene like materials in TCO/silicon Schottky junction solar cells," 2016 Fotonica AEIT Italian Conference on Photonics Technologies, page 89 (DOI: 10.1049/cp.2016.0949).
- [D.5] **M. Casalino**, M. Gioffrè, M. Iodice; S. Rao and G. Coppola, "Near-infrared silicon Schottky photodiodes based on non-metallic materials," PHOTOPTICS 2016 - Proceedings of the 4th International Conference on Photonics, Optics and Laser Technology, Pages 261-265 (2016).
- [D.6] S. Rao, **M. Casalino**, G. Coppola, R. Kisacik, T. Tekin, F.G. Della Corte, "PHOTOPTICS 2016 - Proceedings of the 4th International Conference on Photonics, Optics and Laser Technology, Pages 164-170 (2016).
- [D.7] A. Caliò, A. Cassinese, **M. Casalino**, J. Politi, M. Barra, L. De Stefano, "Hybrid organic-inorganic semiconductor transducer for optical and electrical sensing," Proc. of SPIE – Optical Sensors 2015, vol. 9506, Article number 95061R.
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Miscellanea

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REFeree AND EVALUATOR

Evaluator

Evaluator of PRIN 2015 proposals. He has evaluated 3 proposals.

Referee

He has served as referee for the following peer-reviewed journals:

- Journal of Lightwave Technology
- Journal Selected Topics Quantum Electrctonics
- Applied Physics B
- Photonics Technology Letters
- Applied Physics Letters
- Optics Letters
- Optics Express
- Journal of Quantum Electronics
- Semiconductor Science and Technology
- Journal of Nanoelectronics and Optoelectronics
- Nanophotonics
- Sensors

- Materials Science in Semiconductor Processing
- Optics and Laser Technology
- Scientific Reports

LABORATORY AND EQUIPMENT RESPONSABILITIES

Equipment

2005-Present Supervisor of Thermal Evaporator in the clean-room of his Institute. He was nominated on 14/11/2005 by the head of the Naples Department of the Institute for Microelectronics and Microsystems Dr. Ivo Rendina with an engagement with Prot. 0001199.

Labs

2014-Present Supervisor of the Micromachining and Electrochemical Etching Laboratory of his Institute. He was nominated on 18/12/2014 by the head of the Naples Department of the Institute for Microelectronics and Microsystems Dr. Ivo Rendina with an engagement letter with Prot. N. 0009887.

2014-Present Supervisor of the Electronic Device Characterization Laboratory of his Institute. He was nominated on 18/12/2014 by the head of the Naples Department of the Institute for Microelectronics and Microsystems Dr. Ivo Rendina with an engagement letter with Prot. N. 0009882.

Naples, March 15, 2018

