Europass Curriculum Vitae

Personal information

First name/ Surname	**Stefano Casalini**
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Nationality	Italian
Date of birth	30 April 1979
Gender	Male

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Brief overview of my scientific career

(Bio-)electronics

Bio-electrochemistry, molecular electronics and bio-electronics are the three scientific areas of my academic background. The first is corresponding to my PhD thesis, whose aim was focused on developing amperometric sensors towards oxygen, hydrogen peroxide and nitrite ions. I published 4 papers: i) Journal of American Chemical Society (as 1st author); ii) 2 Journal of Physical Chemistry B (as 1st author in both) and iii) Journal of Electroanalytical Chemistry (as 4th author)

My first Post-Doc grant was funded by the European project "Organic Nanomaterials for Electronics and Photonics (ONE-P)". This was one of the largest project funded by the European commission (total budget >27M€) bringing together 28 partners spread all over Europe. The research activity was mainly focused on the study of the charge-injection across self-assembled monolayers once implemented in the organic field-effect transistors. I ended up with 10 peer-reviewed papers (like Chemical Society Reviews, Chemical Communications, Applied Physics Letters, Journal of Materials Chemistry, Langmuir etc.) and one book chapter (editor Wiley). I was 6 times first author and 7 times corresponding author.

My second Post-Doc grant was funded by the European project "Implantable Organic NanoElectronics (I-ONE)". My research activity dealt with two parallel activities: i) the development of a biosensor capable to detect low levels of cytokines and ii) testing materials compatible for implantation. From these activities, I published 9 peer-reviewed papers such as ACS Applied Materials and Interfaces, ACS Nano, Analytical Chemistry etc. In 4 of them, I was corresponding author.

Apart from academic activities, I worked with two companies: i) Vinicola San Nazaro s.r.l. (i.e. wine making factory) and ii) Tetrapak s.p.a. These two contracts allowed me to make use of my scientific skills for solving industrial problems.

Recently, I got the TECNIOSpring2015 grant (total budget: 133020€) from the Government of Catalunya and co-funded by the Marie-Curie programme. Two peer-reviewed papers have been already published in Advanced Materials and Scientific Reports.

Work experience

Dates	**From March 2016 up to now**
Occupation or position held	TECNIOSpring 2015 and Marie-Curie fellow
Principal subjects/occupational skills covered	Title of the project "**HI-TECH** platform for **LAB**el-free biosensors (**HITECH_LAB**)". The main purpose of this project is focused on the development of a potentiometric biosensor capable to detect biomarkers of neurological diseases such as Alzheimer.
Name and type of organisation providing education and training	ACCIÓ Agencia per a la competitivitat de l'empresa together with Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain
Dates	**From December 2015 to March 2016**
Occupation or position held	Post-Doc fellow funded by ERC Starting Grant: "Surface Self-Assembled Molecular Electronic Devices: Logic Gates, Memories and Sensors (e-GAMES)". Grant Agreement: 306826.
Principal subjects/occupational skills covered	Development of new organic transistors in liquid environment towards biosensing applications
Name and type of organisation providing education and training	Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain
Dates	**From June 2015 up to December 2015**
Occupation or position held	Visiting Researcher
Principal subjects/occupational skills covered	The synergy between my expertize and the scientific background of Dr. Marta Mas ended up on the submission of three different national proposals. All of them had as basic topic the exploitation of organic transistors operated in aqueous media.
Name and type of organisation providing education and training	Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Universitat Autònoma de Barcelona, 08193 Bellaterra, Spain
Dates	**From April 2014 to April 2015**
Occupation or position held	Postdoctoral Researcher, funded by the European project: FP7, grant agreement n. 280772, "**Implantable Organic Nano-Electronics**" (i**ONE**).

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Principal subjects/occupational skills covered	"**Organic devices as biosensors for anti- and pro-inflammatory biomarkers in-vitro and in-vivo**" The research activity is mainly devoted to the fabrication of organic device capable to sense cytokines. To reach this goal, it is required the development of organic devices stable in liquid environment and capable to detect specific cytokines (like interlekin-4 and interlekin-6) in reference solutions. For this reason, I was responsible of the deliverable 3.4 entitled "*Demonstration of OFET cytokine sensor immersed in reference solutions. Sensitivity < 10nM conc.*"
Name and type of organisation providing education and training	University of Modena and Reggio Emilia, Department of Life Sciences, v. Campi n.183, I-41125, Modena (Italy)
Dates	**From April 2012 up to April 2014**
Occupation or position held	Postdoctoral Researcher, funded by the European project: FP7, grant agreement n. 280772, "**Implantable Organic Nano-Electronics**" (i**ONE**).
Principal subjects/occupational skills covered	"**Organic devices for biomarkers detection**" The research activity is mainly devoted to the fabrication of organic device capable to sense cytokines. To reach this goal, it is required the development of organic devices stable in liquid environment and capable to detect specific cytokines in reference solutions. Furthermore, I actively contributed to test different materials and layout devices for the development of a new technological platform to be implanted on the spinal cord of a contused mouse. The objective was to achieve an implantable platform capable to induce electrical stimuli as well as drug delivery. As senior post-doc of the research group at the ISMN-CNR, I filed different deliverables: D2.4 "*Degradation of biodegradable devices operating in electrolyte solutions*", D5.4 "*Demonstration of AMID second-level integration in vitro. Planar substrate with max size 20mm X 10mm*", D6.2 "*Demonstration of NOMFET response gated by immature, not connected neural cells*", D7.2 "*Demonstration of AMID third-level integration in vitro*", and D8.4 "*Device on biodegradable scaffold implanted*".
Name and type of organisation providing education and training	Institute for Nanostructured Materials (ISMN), in National Research Council (CNR), via P. Gobetti n.101, I-40129 Bologna (Italia), into the research group of Prof. Fabio Biscarini.
Dates	**From April 2009 to April 2012**
Occupation or position held	Postdoctoral Researcher, funded by the European project: FP7-NMP-2007-LARGE-1, grant agreement n. 212311, "**O**rganic **N**anomaterials for **E**lectronics and **P**hotonics: Design, Synthesis, Characterization, Processing, Fabrication and Applications" (**ONE-P**).
Principal subjects/occupational skills covered	**"Organic devices for molecular electronics"** The scientific research is focused on the electrical characterization of the Organic Field-Effect Transistor (OFET) aiming at the charge injection mechanism. Source and drain electrodes have been functionalized by means of different kind of alkanethiols, such as $HS(CH_2)_nCH_3$, $HS(CH_2)_nCOOH$, $HS(CH_2)_nOH$, $HS(CH_2)_nCF_3$ and oligothiophenes. Pentacene-based thin-film transistors have been fabricated after contacts functionalization. By combining electrical characterization (viz. I-V characteristics) and morphological study of the organic semiconductor by means of atomic force microscopy, I've got important insights on the SAM role exerted in these devices. During this period, I was responsible of the following deliverables: D35 "*Ultra-thin pentacene FET as a molecular transport gauge: measurement of inverse decay legnth in homologue series of -OH, -COOH, -CF3 terminated SAMs*" e D46 "*Ultra-thin pentacene FET as a molecular transport gauge: measurement of inverse decay length in homologue series of conjugated oligomer SAMs*". I was also responsible of milestone 10 "*Stable SAM modified electrodes with low work function*"
Name and type of organisation providing education and training	Institute for Nanostructured Materials (ISMN), in National Research Council (CNR), via P. Gobetti n.101, I-40129 Bologna (Italia), into the research group of Prof. Fabio Biscarini.
Dates	**June 2008-January 2009**
Occupation or position held	Postdoctoral Researcher, funded by Tetrapak s.p.a.
Principal subjects/occupational skills covered	"**Porosity characterization of packaging material**" The detection of tiny cracks on the inner surface of the packaging material during the industrial production is the central theme of this work. Different electrochemical techniques, such as cyclic voltammetry (CV), square wave voltammetry (SWV) and electrochemical impedance spectroscopy (EIS), have been used for improving the level of quality tests of Tetrapak. This research activity lead to the development of a first successful prototype for testing the packaging material.
Name and type of organisation providing education and training	University of Modena and Reggio Emilia. Department of Chemistry.
Dates	**October 2008-Marzo 2009 (during PhD)**

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Occupation or position held	Lab. assistant to the "**Progetto Lauree Scientifiche**" coordinated by Prof. G. Battistuzzi and by Prof. C. Fontanesi, in University of Modena and Reggio Emilia, Chemistry Department.
Principal subjects/occupational skills covered	The tutorial activities are the following: a) Crystalline and Glassy Materials b) Nylon synthesis c) Extraction and Purification of the haemoglobin d) Computational Chemistry in order to show some activities at the University of Modena and Reggio Emilia to the high school students. I was involved in b) and c) activities.
Name and type of organisation providing education and training	ITIS "Fermo Corni" and University of Modena and Reggio Emilia.
Dates	**October 2007 (during PhD)**
Occupation or position held	Visiting student in the research group of Dr. G. van der Zwan, Amsterdam
Principal subjects/occupational skills covered	"**Spectroelectrochemical study of the urea induced unfolding of cytochrome *c* adsorbed on self-assembled monolayer on silver**". During this period I have visited the facilities of the research group led by Prof. Van der Zwan. In particular I experienced the combination of the electrochemical techniques along with the Surface enhanced Raman Resonance Spectroscopy on silver substrate. In this way, it is possible to monitor the detrimental effect of urea on the normal folding of cytochrome c thanks to the constant control of the redox potential by means of the two coupled techniques.
Name and type of organisation providing education and training	Vrije Universiteit, Facoltà di Scienze, Divisione di Chimica. De Boelelaan 1083, 1081 HV Amsterdam, The Netherlands
Dates	**February 2007-March 2007 (during PhD)**
Occupation or position held	Assistant to "**Progetto Lauree Scientifiche**" coordinated by Prof. G. Battistuzzi together with Prof. C. Fontanesi, at University of Modena and Reggio Emilia, Chemistry Department.
Principal subjects/occupational skills covered	The tutorial activities are the following a) Electromotive potential measurement of an electrochemical generator. b) Composition assessment of a metal blend. c) Assay of the acetic acid content in the vinegard. d) Phase transformations e) Iron corrosion f) Determination of the iron percentage in an unknown sample. in order to show some activities of the University of Modena and Reggio Emilia. I was involved in a) and c) activities.
Name and type of organisation providing education and training	ITIS "Fermo Corni" and University of Modena and Reggio Emilia.
Dates	**December 2005-April 2006 (during PhD)**
Occupation or position held	Assistant to "**Progetto Lauree Scientifiche**" coordinated by Prof. G. Battistuzzi together with Prof. C. Fontanesi, at University of Modena and Reggio Emilia, Chemistry Department.
Principal subjects/occupational skills covered	The tutorial activities are the following : a) Electromotive potential measurement of an electrochemical generator. b) Composition assessment of a metal blend. c) Iron corrosion d) Assay of the acetic acid content in the vinegard. e) Protein assessment of the chelating properties towards metals f) Oscillator based on salty water in order to show some activities of the University of Modena and Reggio Emilia. I was involved in a) and e) activities.
Name and type of organisation providing education and training	ITIS "Fermo Corni" and University of Modena and Reggio Emilia.
Dates	**October 2005-December 2005**
Occupation or position held	Visiting student at the research labs of Prof. J. Davis during the PhD (Oxford).
Principal subjects/occupational skills covered	In this period, I have adsorbed cytochrome c mutant, M80A/C102T, onto Au(111) functionalized by alkanethiol-based SAM. The aim was to set the best experimental conditions for an effective adsorption (controlling ionic strength, pH and type of solvent). The adsorption has been verified by Atomic Force Microscopy, exploiting non-contact mode both in air and in liquid.

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Name and type of organisation providing education and training	University of Oxford, Chemistry Department, Central Research Lab, Mansfield Road, OX1 3TA
Dates	**February 2004-January 2005**
Occupation or position held	Post-Graduate Researcher. Grant funded by Vinicola San Nazaro s.r.l., Gonzaga (MN)
Principal subjects/occupational skills covered	"**Polyphenols content in oenological samples**" The volatile components of these samples have been monitored by means of solid-phase micro-extraction coupled with gas-chromatography. The chromatograms have been gathered in order to compose a new data bank, which was the starting point for a chemometric analysis. The main aim was to set a new mathematical model capable to predict the origin of an unknown sample. This result would be a step forward for the quality control of the factory.
Name and type of organisation providing education and training	University of Modena and Reggio Emilia

Education and training

Dates	**January 2005 December 2007**
Title of qualification awarded	PhD in Chemistry
Principal subjects/occupational skills covered	Title: "**Engineering cytochrome c for electrochemical biosensing applications**" The work basically consists in the change of the wild-type cytochrome c to a peroxidase-like protein by means of genetic engineering. Two type of mutants have been produced: M80A/C102T and M80A7N62C/C102T, which are lacking of the sixth metal ligand (viz. methionine 80). The production of these two new proteins is based on protein engineering, cell expression along with production and protein purification. The adsorption of these proteins onto Au electrode is the central core of the amperometric biosensors. In particular it has been proved the electrocatalytic reduction of molecular oxygen mediated by M80A/C102T and M80A7N62C/C102T mutants. In the last part of the PhD, other two new proteins have been produced, such as M80A/Y67H/C102T and M80A/Y67A/C102T, whose electrical properties aim to a wider range of analyte of interest, as nitrite ion and hydrogen peroxide.
Name and type of organisation providing education and training	University of Modena and Reggio Emilia. Supervisor was Prof. M. Sola
Dates	**21 September 2009 – 30 Semptember 2009**
Principal subjects/occupational skills covered	"*Tecnologie convergenti nella scienza: problematiche associate ai materiali funzionali, all'energetica ed alla salute dell'uomo*"
Name and type of organisation providing education and training	XV National School of Material Science at the Summer place of the University of Padova in Brixen.
Dates	**20 June 2009 27 June 2009**
Principal subjects/occupational skills covered	"Molecular Advanced Materials for Photonics and Electronics".
Name and type of organisation providing education and training	III School and VI National Congress on Molecular advanced Materials for Photonics and Electronics at Arbatax Village Telis, Tortolì, Sardegna
Dates	**16 September 2007 – 21 September 2007 (during PhD)**
Principal subjects/occupational skills covered	"*Chemical-Physical Methods for the study of biological systems*".
Name and type of organisation providing education and training	National School in chemical-physical methods for the study of biological systems, Camogli
Dates	**June 2005 (during PhD)**
Principal subjects/occupational skills covered	Practical course on "*Structural determination by means of X-Ray diffraction on single crystal*", Prof. A. Cornia
Name and type of organisation providing education and training	Chemistry department and Interdisciplinary Centre Great Instruments at the University of Modena and Reggio Emilia
Dates	**November 2003**
Title of qualification awarded	Practising certificate in Chemistry
Name and type of organisation providing education and training	University of Modena and Reggio Emilia, Modena, Italy.
Dates	**October 1998-July 2003**
Title of qualification awarded	Graduation Degree in Chemistry (outcome 109/110)

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Principal subjects/occupational skills covered	"*Redox Thermodynamics of cytochrome c. Effect of the outer charges*." The main goal was study the electrochemical behaviour of Cytochrome *c* varying the solvent polarity. Debye-Huckel Nernst approach has successfully verified varying the ionic strength, temperature and amount of organic solvent.
Name and type of organisation providing education and training	Faculty of Mathematics, Physics and Natural Science, University of Modena and Reggio Emilia, Modena, Italy (under supervision of Prof. M. Borsari).
Dates	**July 1993-October 1998**
Title of qualification awarded	Maturity (High-school degree specializing in scientific studies)
Name and type of organisation providing education and training	Liceo Scientifico Statale "A.Tassoni", Modena, Italy

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Personal skills and competences

Mother tongue(s) **Italian**

Other language(s) **English, Spanish**

Self-assessment

Understanding				Speaking				Writing	
English									
Listening		Reading		Spoken interaction		Spoken production			
European level (*)									
Language: English									
B1	Independent User	C2	Proficient User	B2	Independent User	B2	Independent User	B2	Independent User
Spanish									
B1	Independent User	B2	Independent User	B1	Independent User	B2	Independent User	B2	Independent User

(*) Common European Framework of Reference for Languages

Technical skills and competences

1. Site-specific mutations by means of Polymerase Chain Reaction.
2. Electrophoretic assays on DNA and protein synthesis.
3. Biochemical characterization through UV-Vis spectroscopy.
4. Electrochemical Techniques, such as Cyclic Voltammetry, Square Wave Voltammetry, Impedance Spectroscopy, applied to metal-proteins.
5. Protein purification based on chromatography.
6. Microscopy imaging, such as Atomic Force Microscopy.
7. Solid-Phase Micro Extraction couple to gas chromatography.
8. Fabrication of Organic Field-Effect Transistors.
9. Electrical Characterization of Organic Field-Effect Transistors.
10. Organic Semiconductor deposition through Ultra High Vacuum facilities.
11. Nano-Fabrication of substrate for electronics or micro-fluidics.
12. Bottom-up fabrication, such as self-assembly on different surfaces.
13. Photolithographic processes for the fabrication of electronic devices.

Computer skills

1. Windows XP, Windows 7 and related software for the scientific work (like Origin, Office, Latex, Gwyddion etc.).
2. Ubuntu (Linux operating system) and the related software for the scientific work (OpenOffice, Latex etc.).
3. Adobe Photoshop, Adobe Illustrator and Chem-Draw
4. Matlab for statistical elaboration of experimental data.

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Social skills and competences	1. I supervised the first year of Marcello Berto, PhD student of the PhD School of Regenerative and Molecular Medicine at the University of Modena and Reggio Emilia. This thesis is entitled "Organic Electronic biosensors for markers of inflammation in biological fluids". 2. I supervised the first year Michele Di Lauro, PhD student of the PhD School of Regenerative and Molecular Medicine at the University of Modena and Reggio Emilia. This thesis is entitled "Organic Electronic devices for bi-directional communication with central nervous system". 3. During my post-doc fellowship at the University of Modena and Reggio Emilia, I supervised the third year of Rafael Furlan de Oliveira, a visiting PhD student (from 01/06/2013 to 31/05/2014) funded by FAPESP (Brazil) through project Proc. 2013/03857-0. 4. During my post-doc fellowship at the ISMN-CNR (Bologna, Italy), I supervised Francesca Leonardi, PhD student of the University of Bologna "Alma Mater Studiorum". The thesis was entitled: "Self-Assembled Monolayers (SAMs) in Organic Field-Effect Transistors". Defence's date 09/04/2014. 5. During my post-doc fellowship at the ISMN-CNR (Bologna, Italy), I supervised Marcello Berto, an under-graduate student of the University of Modena and Reggio Emilia. His thesis was entitled "Studio delle proprietà chimico-fisiche di superfici metalliche funzionalizzate con self-assembled monolayers coposti da oligomeri tiolati altamente aromatici". Defence's date 20/12/2012. 6. During my post-doc fellowship at the ISMN-CNR (Bologna, Italy), I supervised Francesca Leonardi, under-graduate student of the University of Bologna "Alma Mater Studiorum". Her thesis was entitled "Tunneling-based SAM/FET Sensors". Defence's date 21/10/2010. 7. During my PhD thesis, I supervised Andrea Federzoni, under-graduate student of the University of Modena and Reggio Emilia. Her thesis was entitled "Studio sulla reattività del mutante di citocromo c M80A/Y67H/C102T". Defence's date 02/10/2008. 8. During my PhD thesis, I supervised Chiara Panzani, under-graduate student of the University of Modena and Reggio Emilia. Her thesis was entitled "Attività catalitica del mutante M80A/Y67H del citocromo c da S. cerevisiae supportato". Defence's date 18/04/2008. 9. During my PhD thesis, I supervised Valentina Lugli, under-graduate student of the University of Modena and Reggio Emilia. Her thesis was entitled "Attività catalitica del mutante di citocromo c M80A". Defence's date 23/10/2007. 10. During my PhD thesis, I supervised Stefano Ricchetti, under-graduate student of the University of Modena and Reggio Emilia. His thesis was entitled "Studio delle proprietà redox del mutante del citocromo c (Saccharomyces Cerevisiae) M80A". Defence's date 26/09/2006. 11. During the PhD thesis, I assisted to several tutoring experiments for students coming from the high school. Scientific divulgation called "Progetto Lauree Scientifiche".
Organisational skills and competences	✓ Good attitude to organize activities in the research group. ✓ I was involved in the organization of the 1st year's meeting of the European project FP7-NMP-2007-LARGE-1, grant agreement n.212311 "**O**rganic **N**anomaterials for **E**lectronics and **P**hotonics: Design, Synthesis, Characerization, Processing, Fabrication and Applications", **ONE-P**, in ISMN-CNR, v. P. Gobetti n.101, I-40129 Bologna (Italy) . ✓ Responsible of 2 deliverables (D35 and D46) and a milestone (ML10) of the European project FP7-NMP-2007-LARGE-1, grant agreement n.212311 denominato "**O**rganic **N**anomaterials for **E**lectronics and **P**hotonics: Design, Synthesis, Characerization, Processing, Fabrication and Applications", **ONE-P**. ✓ Responsible of deliverable 3.4 of the European project FP7, grant agreement n. 280772, "**Implantable Organic Nano-Electronics**" (i**ONE**). ✓ Part of the organizing committee of Avogadro Colloquia "*Organic Bio-Electronics: challenges and opportunities for chemistry*", Bologna (Italy), 29/10/2012. ✓ Part of the organizing committee of the workshop "Electron Transfer for health", 29-30/10/2013, Modena (Italy). ✓ Part of the organizing committee of the International Conference on Organic Electronics (ICOE2014), 11-13/06/2014, Modena (Italy).
Driving licence	European Driving License Category A and B

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Additional Information	
References	**Prof. Fabio Biscarini** University of Modena and Reggio Emilia , Life Sciences Faculty University of Modena and Reggio Emilia, Chemistry Department Role: Full Professor respectively E-mail: fabio.biscarini@unimore.it Tel: +39-0592055079; Fax: +39-0592055410 Indirizzo: via Campi n.183, I-41125 Modena, Italy **Prof. Gianluca M. Farinola** Università degli Studi di Bari "Aldo Moro" Chemistry Department Role: Associate Professor and President of the Organic Chemistry Division of the Italian Chemical Society E-mail: gianlucamaria.farinola@uniba.it Tel:+39-0805442076. Address: via Edoardo Orabona 4, 70126, Bari (Italy) **Dr. Marta Mas-Torrent** Institut de Ciència de Materials de Barcelona (ICMAB) Consejo Superior de Investigaciones Cientifica (CSIC) Role: Research Scientist, group leader. E-mail: mmas@icmab.es Tel: +34-935801853 Address: Universitat Autònoma de Barcelona (UAB campus), 08193 Bellaterra, Barcelona (Spain)

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Personal Collaborations (all of them are certified by at least one peer-reviewed publication)	i. "Development of new approaches for bio-sensing detection" with C.A. Bortolotti and Prof. F. Biscarini affiliated to the Life Sciences Department (UNIMORE, Modena, Italy). ii. "Fabrication of Nanocrystalline cellulose substrates" with Dr. A. Operamolla affiliated to the Chemistry Department (Bari, Italy). iii. "Organic synthesis of oligoarylene-based self-assembling molecules" with Dr. O.H. Omar and Prof. G.M. Farinola affiliated to the Institute for the Chemistry of the OrganoMetallic Compounds (ICCOM-CNR, Italy). iv. "Kelvin Probe Measurements and X-ray Photoelectron Spectroscopy" with Dr. A. Liscio affiliated to the Institute of Organic Synthesis and Photoreactivity (ISOF-CNR, Italy). v. "Ab-Initio study on bidentate and monodentate self-assembled monolayers" with Dr. S. Corni, Dr. R di Felice affiliated to the Institute of nanoscience (CNR-NANO, Italy). vi. "Cell growth for the over-expression of TNF-alpha" with Dr. C. Pirro and Prof. A. Cossarizza affiliated to the Department of medical and surgical Science (UNIMORE, Italy). vii. "Development of new sensing devices for early diagnostics" with Prof. M. Berggren and Dr. D. Simon affiliated to Department of Science and Technology (Norrköping, Sweden). viii. "Fabrication of organic synapstor" with Dr. D. Vuillaume affiliated to the Institute for Electronics, Microelectronics and Nanotechnology (IEMN-CNRS, France). ix. "Fabrication of Microfluidic systems for organic electronics" with Dr. D. Perrone, Dr. M. Cocuzza affiliated to the Department of Applied Science and Technology (Turin, Italy). x. "Manufacturing of plastic materials for flexible electronics" with Dr. V. Vinciguerra, D. V. Cuscielli and Dr. L. Occhipinti affiliated to STMicroelectronics (Catania, Italy). xi. "Organic synthesis of oligothienyl-based self-assembling molecules", with Dr. W. Porzio and Dr. S. Destri affiliated to the Institute for Macromolecular Studies (ISMAC-CNR, Milan, Italy). xii. "Single-Moelcule Force Spectroscopy for the characterization of antibody-antigen pairing" with Prof. R. Garcia and Dr. A. Dumitru affiliated to the Institute of Materials Science (Madrid, Spain). xiii. "Synthesis of amphiphilic cyclodextrins for biosensing applications" with Dr. A. Mazzaglia affiliated to the Institute for Nanostructured Materials (ISMN-CNR, Messina, Italy) xiv. "X-Ray Photoelectron Spectroscopy measurements" with Prof. L. Pasquali and Dr. M. Montecchi affiliated to the Engineering Department "Enzo Ferrari" (Modena, Italy). xv. "Unconventional fabrication of system compatible with microelectronics" with Dr. M. Murgia affiliated to Institute for Nanostructured materials (ISMN-CNR, Bologna, Italy). xvi. "Electrical measurements and software developing" with Dr. T. Cramer affiliated to Physics and Astronomy Department "Alma Mater Studiorum"(Bologna, Italy). xvii. "AFM imaging of functionalized surfaces" with Dr. C. Albonetti affiliated to the Institute for Nanostructured Materials (ISMN-CNR, Bologna, Italy).
Honours and awards	1. Awarded like one of the best PhD activity in region Emilia Romagna, entitled "Exploiting the M80A variant of cytochrome *c* as a chimeric peroxidase for bioelectronic sensing devices" at the VIth Chemistry Day (Italian Chemical Society), Parma (Italy). November 2006. 2. I got the TECNIOSpring 2015 grant co-funded by the FP7 Marie-Curie fellowship. The title of my research project is "HI-TECH platform for LABel-free biosensors (HITECH_LAB)" and I'm developing this research activity at the Institut de Ciència de Materials de Barcelona (ICMAB-CSIC). Total budget: 133020€

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Conference Presentations

1. Oral presentation as invited keynote speaker, "**New printed electrolyte-gated organic field-effect transistors as technological basis for new sensing platforms**", Orbitaly2016, Santa Cesarea Terme (Italy), 26-28/10/2016
2. Oral presentation as invited speaker, "**Electrolyte- Gated Organic Field-Effect Transistors (EGOFETs): from (bio-)chemical detection to drug release**", BIOEL2016 International Winterschool on Bioelectronics, Kirchberg in Tirol (Austria), 12-19/03/2016.
3. Oral presentation as invited speaker, "**Organic Field-Effect Transistors (OFETs): from academic studies to applied research**", Periodical Lectures at Institut de Ciència de Materials de Barcelona (ICMAB), 14/12/2015.
4. Oral Presentation, "**Surface Engineering of gate electrode for electronic applications based on EGOFET**", OrBItaly2015, Modena (Italy) 10-11/09/2015.
5. Oral Presentation, "**Controlling Antibody Orientation for Immuno-EGOFET Fabrication**", 2014 MRS Fall Meeting, Boston (MA) 30/11/2014-5/12/2014.
6. Oral Presentation, "**Controlled vs. Uncontrolled orientation of antibody for Immuno-EGOFET fabrication**", The 10th International Conference on Organic Electronics (ICOE2014), Modena (Italy), 11-13 June 2014.
7. Oral Presentation, "**Bio-sensing based on Organic Thin-Film Transistors (OTFTs)**", Avogadro Colloquia, Avogadro Colloquia "*Organic Bio-Electronics: challenges and opportunities for chemistry*", Bologna (Italy), 29/10/2012.
8. Oral presentation, "**Organic Field-Effect Transistors as charge injection organic gauge for aromatic self-assembly monolayers**", 2nd International meeting on Organic Materials for a better future (FUTURMAT2), Bari (Italy), 16-20/09/2012.
9. Oral presentation, "**Label-free approach for dopamine sensing based on electrolyte-gated organic field-effect transistor (EGOFET)**", 5th International Symposium on Flexible Organic Electronics (ISFOE12), Thessaloniki (Greece), 2-5/07/2012
10. Oral presentation, "**Label-free detection of dopamine by means of Organic Electrochemical Transistor (OECT)**", 2012 MRS Spring Meeting & Exhibit, San Francisco (CA), 9-13/04/2012
11. Oral presentation, "**Charge injection in pentacene-based Organic Thin-Film Transistors (OTFTs) exploiting self-assembly monolayers (SAMs)**", 6th Winterschool on Organic Electronics (self-Assembly and Hybrid Devices), 4-9/03/2012
12. Oral presentation as invited speaker, "**Self-Assembled Monolayers for Organic Thin-Film Transistors**", MIDEM 2011, 47th International Conference on Microelectronics, Devices and Materials with the Workshop on Organic Semiconductors, Technologies and devices, Ajdovščina, Slovenia 28-30/09/2011
13. Oral presentation, "**Study of the charge injection across different kind of SAMs in Organic Field-Effect Transistor (OFET)**". VI Convegno Nazionale Materiali Molecolari Avanzati per Fotonica ed Elettronica, 26/06/2009, Tortolì (Sardegna).
14. Oral presentation, "**Transformations of Cytochrome *c* in chimeric peroxidase for biosensor applications**" at the National School "Methodology of Physical Chemistry for the study of biological systems", Camogli (Italy), 16-21 September 2007.
15. Oral presentation, "**Exploiting the M80A variant of cytochrome *c* as a chimeric peroxidase for bioelectronic sensing devices**" at the VIth Chemistry Day (Italian Chemical Society) Parma (Italy) 26 November 2006.

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Posters

16. Poster, "**Polycrystalline-Gold/Liquid interfaces: functionalization techniques for bio-sensing and digital microfluidics**", 7th School on Organic Electronics, Como (Italy), 14-18/09/2015.
17. Poster, "**Pentacene-based EGOFET biosensor for detection of TFN-α**" OrBItaly2015, Modena (Italy) 10-11/09/2015.
18. Poster, "**Understanding the pH-dependence of a Pentacene-based Electrolyte-Gated Organic Field-Effect Transistor (EGOFET)**", The 10th International Conference on Organic Electronics (ICOE2014), Modena (Italy), 11-13 June 2014.
19. Poster, "**Organic Electronic Devices for bidirectional communication with the Central Nervous System**", PhD day, University of Modena and Reggio Emilia, 19/12/2014.
20. Poster, "**EGOFETs as interfacial devices for chemo-sensing and transduction of neural signals**", XIV Chemistry Day, Parma (Italy), 18/12/2014.
21. Poster "Surface Engineering of Polycrystalline Au for Digital μ-fluidics and Bio-sensing in Liquid", XIV Chemistry Day, Parma (Italy), 18/12/2014.
22. Poster, "**High sensitive pH-meter based on a pentacene electrolyte-gated organic field-effect transistor (EGOFET)**", XIII Chemistry Day, Bologna (Italy), 18/12/2013.
23. Poster, "**High sensitive pH-meter based on a pentacene electrolyte-gated organic field-effect transistor (EGOFET)**", 1st International Workshop "Electron Transfer for health", 29-30/10/2013, Modena (Italy).
24. Poster "**Intra-molecular electron transfer of Azurin immobilized on aromatic Self assembled monolayers**", 1st International Workshop "Electron Transfer for health", 29-30/10/2013, Modena (Italy).
25. Poster, "**Double layer capacitance measured by Organic Field-Effect Transistor operated in water**", Gordon Research Conference in Electronic Processes in Organic Materials, Lucca (Italy).
26. Poster, "**Label-free approach for dopamine sensing based on electrolyte-gated organic field-effect transistor (EGOFET)**", 2nd International meeting on Organic Materials for a better future (FUTURMAT2), Bari (Italy), 16-20/09/2012.
27. Poster, "**Double layer capacitance measured by Organic Field-Effect Transistor operated in water**", 6th Winterschool on Organic Electronics (self-Assembly and Hybrid Devices), 4-9/03/2012
28. Poster, "**Organic Field-Effect Transistors as Organic Gauge for the study of the charge injection across Self-Assembled Monolayers**", Surfaces, Interfaces and Functionalization Processes in organic compounds and applications (SINFO), Parma (IMEM), 20-23/06/2012
29. Poster, "**Self-Assembled Monolayers (SAMs) for Molecular Electronics**", European Conference of on Molecular Electronics (ECME), Barcellona 7-10/09/2011
30. Poster, "**Charge-injection across Self-Assembled Monolayers in Organic Ultra-Thin Film Transistors**", European Conference of on Molecular Electronics, Bacellona 7-10/09/2011
31. Poster, "**Implementation of a standardization process to reduce parameter spread among OTFTs of the same nominal type**". Plastic Electronics 2010, Dresda 19-21/10/2010
32. Poster, "**Contact Functionalization of the Organic Field-Effect Transistors (OFETs). Electrical and Morphological Characterization**", Organic nanomaterials for Electronics and Photonics (Summer School of ONE-P), Erice 13-20/04/2010
33. Poster, "**Electrical and Morphological Characterization of Organic Field-Effect Transistors (OFETs) functionalized by different kind of Self-Assembled Monolayers (SAMs)**". XV Scuola Nazionale di Scienza dei Materiali, "*Tecnologie Convergenti nella Scienza: Problematiche Associate ai Materiali Funzionali, all'Energetica e alla Salute dell'Uomo*", Bressanone 23/09/2009

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Publications: Papers

1. Giusto E., Donegà M., Dumitru A., Foschi G., Casalini S. et al. "**Interfacing Polymers and Tissues: Quantitative Local Assessment of the Foreign Body Reaction of Mononuclear Phagocytes to Polymeric Materials**", Advanced Biosystems, 2017, 1700021.

number of citations: 0 (from Google Scholar) impact factor: -

2. Casalini S. et al. "**Self-assembled monolayers in organic electronics**", Chemical Society Reviews, 2017, 46, 40-71. Doi: 10.1039/c6cs00509h.

number of citations: 0 (from Google Scholar) impact factor: 34.090

3. Zhang Q., Leonardi F., Casalini S. et al. "**High performing solution-coated electrolyte-gated organic field-effect transistors for aqueous media operation**", Scientific Reports, 2016, 6, 39623. Doi: 10.1038/srep39623.

number of citations: 0 (from Google Scholar) impact factor: 5.228

4. Berto M., Casalini S. et al. "**Biorecognition in organic field-effect transistors biosensors: the role of the density of states of the organic semiconductor**", Analytical Chemistry, 2016, 88(24), 12330-12338. Doi: 10.1021/acs.analchem.6b03522

number of citations: 0 (from Google Scholar) impact factor: 5.886

5. Leonardi F., Casalini S. et al "**Electrolyte-gated Organic Field-Effect Transistor Based on a Solution Sheared Organic Semiconductor Blend**", Advanced Materials, 2016, doi: 10.1002/adma.201602479.

number of citations: 0 (from Google Scholar) impact factor: 18.960

6. Di Lauro M., Casalini S. et al. "**The substrate is a pH-Controlled Second Gate of Electrolyte-Gated Organic Field-Effect Transistors**", ACS Applied Materials and Interfaces, 2016, 8(46), 31783-31790. doi: 10.1021/acsami.6b06952

number of citations: 0 (from Google Scholar) impact factor: 7.145

7. Desbief S., Di Lauro M., Casalini S. et al. "**Electrolyte-gated organic synapse transistor interfaced with neurons**", Organic Electronics, 2016, 38, 21-28 doi: 10.1016/j.orgel.2016.07.028

number of citations: 2 (from Google Scholar) impact factor: 3.471

8. De Oliveira R.F., Casalini S.* et al. "**Water-gated organic transistors on polyethylene naphthalate films**", Flexible and Printed Electronics, 2016, 1(2), 025005. Doi: 10.1088/2058-8585/1/2/025005

number of citations: 1 (from Google Scholar)

9. Foschi G., Leonardi F., Scala A., Biscarini F., Mazzaglia A. and Casalini S.*, "**Electrical Release of dopamine and levodopa mediated amphiphilic β-cyclodextrins immobilized on polycrystalline gold**", Nanoscale, 2015, 7, 20025-20032 doi: 10.1039/c5nr05405b.

number of citations: 4 (from Google Scholar) impact factor: 7.760

10. Leonardi F., Casalini S.* et al. "**Label-free dopamine sensor based on charge-injection organic gauge**", IEEE Transactions on electron devices, 2015, 62, 4251-4257 doi: 10.1109/TED.2015.2491650.

number of citations: 3 (from Google Scholar) impact factor: 2.207

11. Casalini S. et al. "**Surface Immobilized His-Tagged Azurin asa Model Interface for the Investigation of Vectorial Electron transfer in Biological Systems**", Electrochimica Acta, 178, 638-646 doi: 10.1016/j.electacta.2015.07.156

number of citations: 1 (from Google Scholar) impact factor: 4.803

12. Casalini S.* et al. "**Multi-Scale Sensing of Antibody-Antigen Interactions by Organic Transistors and Single Molecule Force Spectroscopy**", ACS Nano, 2015, 9, 5051-5062 doi: 10.1021/acsnano.5b00136.

number of citations: 26 (from Google Scholar) impact factor: 13.334

13. Casalini S.* et al. "**Electrowetting of Nitro-Functionalized Olygoarylene Thiols Self-Assembled on Polycrystalline Gold**", ACS Applied Materials and Interfaces, 2015, 7(7), 3902-3909. doi: 10.1021/am509104z

number of citations: 3 (from Google Scholar) impact factor: 7.145

14. Casalini S.* et al., "**Self-Assembly of mono- and bi-dentate oligoarylene thiols onto polycristalline Au**", *Langmuir*, **2013**, 29, 13198-13208. doi: 10.1021/la402217c

number of citations: 8 (from Google Scholar) impact factor: 4.384

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15. Casalini S.* et al., "**Bio-sensing Based on electrochemically-gated organic field-effect transistors**", *La chimica e l'industria*, **2013**, 5, 104-105.
number of citations: 0 (from Google Scholar)

16. Cramer T., Campana A., Leonardi F., Casalini S. et al., "**Water-gated organic field effect transistors – opportunities for biochemical sensing and extracellular signal transduction**", *Journal of Materials Chemistry,* **2013**, 1, 3728-3741. doi: 10.1039/C3TB20340A
number of citations: 49 (from Google Scholar) impact factor: 4.726

17. Casalini S.* et al., "**Hydrophilic self-assembly monolayers for pentacene-based thin-film transistors**", *Organic Electronics*, **2013**, 14, 1891-1897. doi: 10.1016/j.orgel.2013.03.034
number of citations: 7 (from Google Scholar) impact factor: 3.836

18. Casalini S.* et al., "**Organic field-effect transistor for label-free dopamine sensing**", *Organic Electronics*, **2013**, 14, 156-163. doi: 10.1016/j.orgel.2012.10.027
number of citations: 55 (from Google Scholar) impact factor: 3.836

19. Casalini S. et al., "**Organic Nanomaterials: Synthesis, Characterization and Device Applications**", Wiley Book, ISBN: 9781118016015, **2013**.
number of citations: 1 (from Google Scholar)

20. Casalini S.* et al., "**Mono/bidentate thiol oligoarylene-based self-assembled monolayers (SAMs) for interface engineering**", J. Mat. Chem., 2012, 22, 12155-12163. doi: 10.1039/C2JM30838J.
number of citations: 14 (from Google Scholar) impact factor: 6.108

21. Cramer T., Kyndiah A., Murgia M., Leonardi F., Casalini S. et al. "**Double layer capacitance measured by Organic Field-Effect Transistor operated in water**", *Appl. Phys. Lett.*, 2012, 100, 143302. doi: 10.1063/1.3699218
number of citations: 38 (from Google Scholar) impact factor: 3.794

22. Casalini S.* et al., "**Organic Field-Effect Transistors as new paradigm for large-area molecular junctions**", Org. Electron., 2012, 13, 789-795. doi: 10.1016/j.orgel.2012.01.020
number of citations: 13 (from Google Scholar) impact factor: 3.836

23. Albonetti C., Casalini S. et al., "**Morphological and mechanical properties of alkanethiol self-assembled monolayers investigated via bimodal atomic force microscopy**", Chem. Comm., 2011, 47, 8823-8825. doi: 10.1039/C1CC12567B
number of citations: 12 (from Google Scholar) impact factor: 6.169

24. Casalini S. et al., "**Electron Transfer Properties and Hydrogen Peroxide Electrocatalysis of Cytochrome *c* variants at Positions 67 and 80**", J. Phys. Chem B, 2010, 114, pp. 1698-1706. doi: 10.1021/jp9090365.
number of citations: 25 (from Google Scholar) impact factor: 4.189

25. Ranieri A., Battistuzzi G., Borsari M., Casalini S. et al., "**Thermodynamics and Kinetics of the electron transfer process of spinach plastocyanin adsorbed on a modified gold electrode**"; J. Electroan. Chem., 2009, 626, pp. 123-129. doi: 10.1016/j.jelechem.2008.12.001.
number of citations: 13 (from Google Scholar) impact factor: 2.338

26. Casalini S. et al., "**Catalytic reduction of dioxygen and nitrite ion at M80A cytochrome c functionalized electrode**"; J. Am. Chem. Soc., 2008, 130(45), pp. 15099-15104. doi: 10.1021/jp0765953.
number of citations: 21 (from Google Scholar) impact factor: 4.189

27. Casalini S. et al., "**Electron transfer and electrocatalytic properties of the immobilized M80A cytochrome c variant**"; J. Phys. Chem B, 2008, 112(5), pp. 1555-1563. doi: 10.1021/jp0765953.
number of citations: 25 (from Google Scholar) impact factor: 13.038

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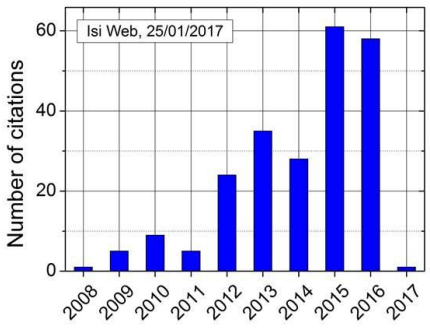

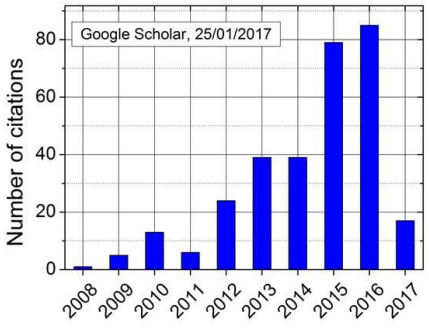

h-index = 9 from Web of Knowledge, 25/01/2017
number of citations = 211 from Web of Knowledge, 25/01/2017
h-index = 11 from Google Scholar, 25/01/2017
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- ✓ I have been 11 times the corresponding author.
- ✓ I have been 14 times the first author.
- ✓ Once, I have been the last author.
- ✓ I had more than 55 co-authors.

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