

Europass Curriculum Vitae

Personal information

Surname(s) / First name(s)

Address(es)

Telephone(s)

Email(s)

Nationality(-ies)

Date of birth

Gender

Decataldo Francesco

23, Via P. Mattarella, Imola (BO), 40026, Italy

+39 3935244928

francescodecataldo6@gmail.com

Italian

24/06/1992

Male



Work experience

01/11/2016 - 31/10/2019

Research Topic

Name and type of organization
providing education and training

PhD student in Physics

Semiconducting Polymers for Electronic Biosensors and Biological Interfaces

Alma Mater Studiorum - University of Bologna, Bologna, Italy

03/2019 - 06/2019

Teaching

Academic years

Name and address of employer

Teaching assistant

Laboratory of Nanoscience and Nanotechnology

2018/2019

University of Bologna, Bologna, Italy - Department of Physics and Astronomy

01/2019 - 03/2019

Teaching

Academic years

Name and address of employer

Teaching assistant

Piano Lauree Scientifiche (Orientation Physics lessons for high-school students)

2018/2019

University of Bologna, Bologna, Italy - Department of Physics and Astronomy

03/2018 - 06/2018

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Academic years

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2017/2018

University of Bologna, Bologna, Italy - Department of Physics and Astronomy

Education and training

04/2019- 07/2019

Principal subjects

Organizers

Entrepreneurship school "ReActor" for startups

Entrepreneurship, startup fundation, found raising, entrepreneurial mentorship

Fondazione Golinelli

Final Result	"Eye Catcher Company Project" mention for the presented project on "Wearable Biosensors"
01/06/2018 - 01/12/2018 Principal subjects	Secondment at the Department of Chemical Engineering and Biotechnology Development and characterization of a (bio)-chemical functionalization strategy towards the realization of a biosensor to monitor analytes released from stem cells under differentiation
Name and type of organization providing education	Department of Chemical Engineering and Biotechnology, Cambridge, United Kingdom
8/04/2019-12/04/2019 Principal subjects Organizers	Advanced Course on "High Resolution Electronic Measurements in Nano-Bio Science" Theoretical School and Practical Examples of Electrical Measurements Performed at the Nanoscale and on Biological Elements (in Liquid Environments) Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria (Milan, Italy)
11/09/2017-15/09/2017 Principal subjects Organizers	DCMS Materials 4.0 Summerschool 2017 Overview of the current developments in the ongoing digitalization revolution in materials science and a wide-range description of innovative materials as key technologies for keeping products and industrial processes economically competitive and ecologically sustainable Technische Universität Dresden (Dresden, Germany)
11/03/2017-18/03/2017 Principal subjects Local Organizing Committee Location	4th International Winterschool of Bioelectronics (BioEI 2017) A forum to bring together both veteran and young researchers to learn and discuss emerging topics in bioelectronic field, in particular focused on bio-compatible, bio-integrated and bio-inspired materials and devices Cigdem Yumusak, Eric Daniel Glowacki, Niyazi Serdar Sariciftci Hotel Sonnalp, Almweg 22, 6365 Kirchberg in Tirol (Austria)
2014-2016 Name and type of organization providing education Thesis Final mark	Master's degree in Physics - Condensed Matter Alma Mater Studiorum - University of Bologna, Bologna, Italy PEDOT:PSS: an Organic Conducting Polymer to Study Cell Tissue Integrity 110/110 magna cum laude
2011-2014 Name and type of organization providing education Titolo della tesi Final mark	Bachelor's degree in Physics Alma Mater Studiorum - University of Bologna, Bologna, Italy Study on Organic Electrochemical Transistors and their Applications 110/110 magna cum laude
2006-2011 Name and type of organization providing education Final mark	Scientific High School Liceo scientifico Rambaldi Valeriani, Imola, Bologna, Italy 100/100
Conferences	
21/11/2019-22/11/2019 Oral Contribution Organizers	Science through Scanning Probe Microscopy Extended Version 2019 (StSPM EV 2019) Stretchable and Low-Impedance Electrode Polymer Coatings for Peripheral Nerves Recording National Research Centre of Bologna (CNR-ISMN), Bologna, Italy

11/09/2019-13/09/2019 Oral Contribution Organizers	NanoScientific Forum Europe 2019 (NFSE 2019) Stretchable and Low-Impedance Electrode Polymer Coatings for Peripheral Nerves Recording University of Bologna, Park System, National Research Centre of Bologna (CNR-ISMN)
27/05/2017-31/05/2017 Poster contribution Poster contribution Oral contribution Organizers	European Materials Research Society (E-MRS) - Spring Meeting 2019 PEDOT:PSS as smart biointerface for monitoring cell stress condition in leaky-barrier cell lines Stretchable Low-Impedance Electrodes for Small Peripheral Nerve Recordings A Functionalization Strategy for Stem Cell Differentiation Monitoring European Materials Research Society (E-MRS)
07/02/2019-08/02/2019 Organizers	Cypher AFM Workshop University of Bologna, Schaefer Italy, Oxford Instruments
22/10/2018-26/10/2018 Oral contribution Organizers	Materials.it 2018 Organic Electrochemical Transistors (OECTs) for smart monitoring of cell stress condition on leaky-barrier cell lines National Centre of Research (CNR-ISMN), Bologna, Italy
27/09/2018 Poster contribution Poster contribution Organizers	4th Meeting of the Cambridge Advanced Materials Network (CAMatNet) Organic ElectroChemical Transistors (OECTs) for high resolution monitoring of leaky-barrier cells PEDOT:PSS-based biosensor for cell differentiation monitoring University of Cambridge, Cambridge, United Kingdom
25/10/2017-27/10/2017 Poster contribution Organizers	Organic Bioelectronics Italy 2017 (OrBIItaly 2017) Elastic microelectrodes for bioelectronics recording from peripheral nerves Advanced Electronic Devices LABORatory (DEALAB) of the Department of Electrical and Electronic Engineering (DIEE) of the University of Cagliari (Italy)

List of Publications

2019

- F. Decataldo, M. Barbalinardo, D. Gentili, M. Tessarolo, M. Calienni, M. Cavallini, B. Fraboni. "Organic Electrochemical Transistors for Real-Time Monitoring of in Vitro Silver Nanoparticle Toxicity." Accepted, *Adv. Biosys.* **2019**
- F. Decataldo, V. Druet, A. M. Pappa, E. Tan, A. Savva, C. Pitsalidis, S. Inal, J. S. Kim, B. Fraboni, R. M. Owens, D. Iandolo. "Biofunctionalized PEDOT:PSS-based OECTs for stem cell osteogenic differentiation monitoring." Accepted, *Flex. Print. Electron.* **2019**
- F. Decataldo, T. Cramer, D. Martelli, I. Gualandi, W. S. Korim, S. T. Yao, M. Tessarolo, M. Murgia, E. Scavetta, R. Amici, B. Fraboni. "Stretchable Low Impedance Electrodes for Bioelectronic Recording from Small Peripheral Nerves." *Scie. Rep.* **2019**, 9:10598
- F. Decataldo, M. Barbalinardo, M. Tessarolo, V. Vurro, M. Calienni, D. Gentili, F. Valle, M. Cavallini, B. Fraboni. "Organic Electrochemical Transistors: Smart Devices for Real-Time Monitoring of Cellular Vitality." *Adv. Mater. Technol.* **2019**, 1900207

Personal skills and competences

Mother tongue(s)

Other language(s)

*Self-assessment
European level^(*)*

English

Social and organizational skills and competences

Technical skills and competences

Computer skills and competences

Italian

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user

I have an attitude towards team-work and interdisciplinary cooperation. Besides, I can work independently and achieve results within the defined deadlines.

- Ability to fabricate and electrically/electrochemically characterize organic electrochemical transistors using conducting polymer
- Ability to fabricate and electrically/electrochemically characterize conducting polymer-coated electrodes
- Ability to apply mathematical models and formula to physics problems concerning material science
- Ability to deposit semiconducting polymer on unvconventional substrate, such as textile yarns - Microscopical investigations of samples surfaces morphology and composition using Atomic Force Microscopy

Operating Systems: *Windows*

Coding: Beginner (*C++ , Matlab*) practical experience

Text Editors: Good (*LaTeX*), Strong (*suite Microsoft Office*)

Data analysis: Strong (*suite Office, Origin*)

Image Processing: Good (*ImageJ*),