University Academic Curriculum Vitae

Education since leaving school

- 2016 - Bachelor's degree in Biomedical Engineering; Università degli studi di Napoli, Federico II
- 2018 - Master's degree in Industrial Bioengineering; Università degli studi di Napoli, Federico II
- 2022 - MBA Fundamentals Program; Karlsruhe Institute of Technology (funded by Hector Fellow Academy)
- 2023 - PhD in Mechanical Science and Engineering, Technische Universität Dresden

Last appointment before Unibz

„Wissenschaftlicher Mitarbeiter" in Technische Universität Dresden
I carried out scientific research in the field of organic electronics, bioelectronics and biosensing. I was also involved in student tutoring. The scientific work was carried out at the Institute for Applied Physics and Photonic Materials (IAPP)

Professional experience

From / to	Job title	Name of academic Institution	Academic level	responsibilities
06-2019/08-2019	Scholarship	Università degli studi di Roma, Tor Vergata	Master's degree	Carry out research in the field of optoelectronics and photoelectrical excitation
11-2019/8-2023	Wissenschaftlicher Mitarbeiter	Technische Universität Dresden	PhD and Postdoc	carry out scientific research in the field of organic electronics, bioelectronics and sensing.

Research and scholarships

Hector Fellow Academy: Young Researcher

Major details about the project in the scope of the scholarship can be found at: https://hector-fellow-academy.de/interdisciplinary-projects/hochaufloesende-optogenetik-mit-organischen-leuchtdioden-oleds/

Hector Fellow Academy (30000619). In the scope of this scholarship, I have published a paper in the journal Advanced Functional Materials (IF: 19.924), which is listed below. Another paper has been accepted in Advanced Optical Materials (IF: 9.0 in 2022). The two papers revolve around the use of bioelectronic platforms for bio-interfacing. Other papers have been published that branch into other related fields.

Publications

- *Polino, G., Lubrano, C.,* ***Ciccone, G.*****,** & Santoro, F. (2018). Photogenerated electrical fields for biomedical applications. Frontiers in Bioengineering and Biotechnology, 6, 167. DOI:10.3389/fbioe.2018.00167

- *Polino, G*., Lubrano, C., Scognamiglio, P., Mollo, V., De Martino, S., **Ciccone, G**., ... & Santoro, F. (2020). Synthesis and characterization of PEDOT-PEGDA blends for bioelectronic applications: Surface properties and effects on cell morphology. Flexible and Printed Electronics, 5(1), 014012. DOI: 10.1088/2058-8585/ab71e1

- *Cucchi, M*., Kleemann, H., Tseng, H., **Ciccone, G**., Lee, A., Pohl, D., & Leo, K. (2021). Directed growth of dendritic polymer networks for organic electrochemical transistors and artificial synapses. *Advanced Electronic Materials*, *7*(10), 2100586. DOI: 10.1002/aelm.202100586

- ***Ciccone, G.,*** Meloni, I., Fernandez Lahore, R. G., Vierock, J., Reineke, S., Kleemann, H., ... & Murawski, C. (2022). Tailoring Organic LEDs for Bidirectional Optogenetic Control via Dual-Color Switching. *Advanced Functional Materials*, *32*(12), 2110590. DOI: 10.1002/adfm.202110590

- *Cucchi*, M., Abreu, S., **Ciccone, G**., Brunner, D., & Kleemann, H. (2022). Hands-on reservoir computing: a tutorial for practical implementation. Neuromorphic Computing and Engineering. DOI:10.1088/2634-4386/ac7db7

- ***Ciccone, G.***, Cucchi, M., Gao, Y., Kumar, A., Seifert, L. M., Weissbach, A., ... & Leo, K. (2022). Growth and design strategies of organic dendritic networks. Discover Materials, 2(1), 7. DOI: 10.1007/s43939-022-00028-0

- *Tseng, H.*, Weissbach, A., Kucinski, J., Solgi, A., Nair, R., Bongartz, L. M., **Ciccone, G.**,… & Kleemann, H. (2022). Threshold Voltage Control in Dual-Gate Organic Electrochemical Transistors. Advanced Materials Interfaces, 2201914. DOI:10.1002/admi.202201914

- **Ciccone,G**., et al., Multiplexed Optogenetics in Striped Organic LEDs (2023), accepted (Advanced Optical Materials).

Conferences

- MRS Fall 2021 (Boston, USA) – Selected Talk
- Optogen 2022 (Paris, France) – Selected Poster
- DPG Fall 2022 (Regensburg, Germany) – Selected Talk

Prizes

Meiss Award for the best publication in IAPP: Tailoring Organic LEDs for Bidirectional Optogenetic Control via Dual-Color Switching, of which I am the leading author. Awarded in December 2022.

Entrepreneurship

MBA Fundamentals Program (18 ECTS): Additional information on https://www.hectorschool.kit.edu/mba-fundamentals-program.php

Statement of interest

Ever since I started my university studies, the typical definition of an engineer as “a person who designs and fixes things” never convinced me, the way it is intended. I always try to read this definition differently: I believe that engineers are instead people who can solve problems using their thirst for knowledge. This curiosity, the search for what’s new and useful, and what’s changing people’s lives has always been with me, and I believe it is the fundamental reason why I decided to graduate in Biomedical Engineering. Later, I decided to pursue a Ph.D. to deepen my knowledge about topics related to interfacing devices and living systems. In this context, it was crucial for me to continuously meet with peers from different fields, effectively propose solutions, and communicate across the barriers between different disciplines. Smart biosensing today has the possibility to change lives with a plethora of applications ranging from monitoring the quality of products to probing biosignals with high efficiency. This aligns very well with my passions and gives me the motivation to do better every day. As a Postdoc, I am looking for a possibility to expand my competencies, but also strengthen the ones I have developed in the past years.

Language competence

Italian (mother tongue), English (fluent), German (basic)