Felice Carlo Simeone

Research Scientist

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I am a physical-chemist with a knack for nano. I worked in the USA, Germany, and the Netherlands, where I conducted research on nano-science and nanotechnology for energy production, electronics, biology. Currently, I work on the safety of nanomaterials and design methods to control their toxicity. I am firmly convinced that Science is a process and not a clunk of inherited knowledge; aware of the limits of the frequenstist statistics, I explore Bayesian approaches to scientific investigation. I think that clear scientific communication manifests sharp thinking and deep understanding, and that is why I spend a lot time revising my papers and honing my talks.

Education



University of Ulm (Germany)

PhD in Natural Sciences (Physical Chemistry-Nano-Electrochemistry; cum laude) Advisor: Dieter M. Kolb

Thesis: Local Modification and Characterization of Surfaces by the in-situ STM.



Laurea Degree (Bachelor of Science + Master) in Physical Chemistry. (Highest Grade.) Advisors: R. Guidelli; M. L. Foresti.

Thesis: Electrochemical Behavior of Self-Assembled Monolayers on Single Crystals.

Research experience



(The Netherlands)

Wageningen University-RIKILT Institute

Project Leader-Senior Scientist

In collaboration with companies, I developed methods of analysis that combined material science and data science; I contributed to projects about the characterization of nano-particles in complex matrices.

Dep. of Chemistry and Chemical Biology

Postdoctoral Fellow



As a member of the Whitesides' group, I investigated the effects of chemical functional groups on the electrical behavior of Self-Assembled Monolayers; I invented a method for rapid fabrication of nano-fibers electrodes; I used electrochemical techniques to study the metabolism of artificial tumors.

In addition, I delved into Academic and Technical writing and attended the course "Innovation and Entrepreneurship" at the Harvard Business School, which gave me access to the Harvard i-Lab Incubator, where some of my friends launched their companies.



C.N.R. Italian National Research Council

Institute for Nanostructured Materials

Postdoctoral Fellow

I investigated the electrical beahvior **organic** semi-conductors; I exploited plasmonic resonance of nanoparticles in **bio-sensing**. I used Local Anodic Oxidation to **pattern** functional nanoparticles on semiconductive surfaces.

Institute for Electrochemistry

Research Associate



As a member of the Kolb's group, I developed methods for the precise fabrication of nano-structured **electro-catalysts** for Hydrogen Evolution; I investigated faceting, self- assembling, reconstructions, and ionic adsorption at **surfaces and interfaces**; I resolved, down to the **atomic scale**, structures of electrified interfaces.

Additional Trainings

Description	Institute
Effective Communication and Technical Writing. Series of courses	Harvard University-USA
Responsible and Ethical Conduct of Research	Harvard University-USA
Innovation and Entrepreneurship Course designed for people with a scientific background.	Harvard Business School-USA
Multivariate Data Analysis	CAMO Software
Bayesian Statistics	Autodidact

Languages

	Spoken	Written
English	Full professional proficiency	Full professional proficiency
Italian	Native speaker	Native speaker
German	Very Good	Good

Teaching

Organisation	Description	
University of Ferrara (Italy)	Chemistry of nano-structured materials	
University of Ulm (Germany)	Applied Physical-Chemistry and Surface Science	