

## Prof. Giuseppe Vitiello

Born in Nocera Inferiore (SA), April, 18th 1985

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GV appears as author/co-author of **98 publications** in peer-reviewed international journals, of **2 Italian** and **1 PCT** patents; he has presented many contributes to national and international conferences and workshops. GV received **more than 2200 citations with an h-index of 29 (Scopus, ID: 57197474865)**.

## RESEARCH ACTIVITY

The scientific research of GV is aimed at the design, preparation and the spectroscopic characterization of the structure/function relationship of hybrid organic/inorganic nano-bio-materials and interfaces. During the PhD, GV focused on the self-assembly behavior of amphiphilic molecules in aqueous solution and on the interaction of biomimicking eukaryotic and bacterial bio-membranes with biomolecules involved in biochemical processes. He spent 9 months at **Institute Laue-Langevin (ILL)** working at Large Scale Structure (LSS) laboratories, under the supervision of Dr. Giovanna Fragneto, acquiring expertise on **Neutron Reflectivity (NR)**.

More recently, basing on the acquired expertise, the research work is addressed to the design, synthesis through bioinspired wet-chemistry routes and physicochemical characterization of multifunctional nano-(bio)-materials and interfaces, composed by metal oxides nanoparticles functionalized with amphiphilic molecules or photo-active molecules (from bioresources and biowastes). The aim is addressed to realize nanostructured hybrid materials with enhanced Reactive Oxygen Species (ROS)-generating activity or as functional bio-interfaces for opto(bio)electronic and biosensing fields. Understanding the morphological and structural properties of these bio- nanomaterials and interfaces is realized by a combined physicochemical strategy based on Electron Paramagnetic Resonance (EPR), UV-Vis, Dynamic Light Scattering (DLS), Neutron Reflectivity (NR) and Small-Angle Neutron Scattering (SANS).

From 2010 to present, he has a periodic and continuative activity about the **Program TMR/Large Scale Facilities of European Committee**, at the Synchrotron and Neutron Scattering Facilities: **1)** Institute Laue-Langevin (ILL), Grenoble - France; **3)** Heinz Maier-Leibnitz Zentrum (MLZ), Garching (Munich) - Germany; **4)** Rutherford Appleton Laboratory (ISIS), Didcot, Oxfordshire - UK; **5)** Swiss Paul Scherrer Institute (PSI), Zurich, Swiss and **6)** Diamond, Harwell Science and Innovation Campus, Didcot, Oxfordshire, UK.

### • EDUCATION

- 2012 1<sup>st</sup> Level Master in "The life science in the journalism and in the political-institutional relationships", with a thesis on World Intellectual Property Indicators/University of Rome La Sapienza, Italy.
- 2011 PhD in Chemical Science (Physical-Chemistry), Dept. of Chemical Science/UNINA, Italy.
- 2008 Master Degree in Science and Technologies of Industrial Chemistry with full marks (110/110 cum laude)/Dept. of Chemical Science/UNINA II/Italy.

### • PREVIOUS POSITIONS

- 2019 – 2022 *Tenure-track* researcher (RTD/b) at DICMaPI/University of Naples Federico II/Italy.
- 2016 – 2019 Researcher (RTD/A) at DICMaPI/University of Naples Federico II/Italy.
- 2013 – 2016 Post-doctoral Research Fellow at DICMaPI/University of Naples Federico II/Italy.
- 2012 Internship Stage at Sportello APRE-Consorzio Technapoli in Pozzuoli (NA), Italy.
- 2010 – 2011 Visiting scientist at Institut Laue-Langevin (ILL) /Grenoble/France.

### • TEACHING ACTIVITIES

- 2021 – at present Lecturer of "Fundamentals of EPR spectroscopy and light/neutron scattering in the study of (nano)materials", PhD School in "Products and Processes of Chemical Engineering"/ University of Naples Federico II/ Italy.
- 2016 – at present Assistant Professor of "Chemistry", Bachelor Degree in Aerospace, Automation and Mechanical Engineering and of "Fundamentals of Chemistry", Bachelor Degree in Biomedical Engineering / University of Naples Federico II/ Italy.

From 2016, GV was co-supervisor of 2 PhD students in "Products and Processes of Chemical Engineering" and supervisor of 30 Bachelor and Master students in Biomedical Engineering, Chemical Engineering, Industrial Chemistry and Chemical Science at University of Naples Federico II/ Italy.