

Curriculum Vitae of Giacomo Dacarro

Studies:

Giacomo Dacarro was born in Pavia, Italy, on 20th April 1980. GD took his degree (cum laude) in chemistry from the University of Pavia in 2004. In 2008 GD took a Ph.D. in Chemistry at the University of Pavia, title of the thesis "Systems for multiple cation translocation and controlled molecular rearrangement: chemistry in solution and on functionalized surfaces".

Professional Experience:

From 2008 to 2016: post-doc researcher at the University of Pavia (Department of Chemistry, Department of Physics and CILSOMAF – Inter-department center for lasers, optical spectroscopies and photonics).

From November 2016: researcher (Ricercatore a tempo determinato tipo B) at the Department of Chemistry of the University of Pavia, SSD CHIM/03.

Research activity:

-2004-2007: the activity was focused on the themes of coordination and supramolecular chemistry. More in detail: synthesis of molecular machines capable of molecular movements and rearrangements triggered by an external stimulus: pH, photochemical, electrochemical. Study of systems for multiple cation translocations and helicates assembling-disassembling.

-2007-2010: activity was focused more on inorganic nanochemistry and material science. Studies on the functionalization of bulk surfaces with organic Self-Assembled Monolayers, synthesis of silver nanoparticles and their grafting on bulk surfaces for the preparation of antibacterial materials. Realization of photonic and biophotonic sensors based on Bloch Surface Waves.

- 2011-2016: further studies on metal nanoparticles, with the development of novel synthesis for the preparation of branched gold nanoparticles with tunable aspect ratio. Asymmetrical nanoparticles grafting on bulk surfaces and study of their potential use as photothermal antibacterial and antibiofilm materials. Au nanostars were also studied for their biocompatibility and as drug carriers for DNA and RNA fragments.

Publications and reviewer activity:

GD scientific activity is documented by 53 papers (according to Scopus), an H-index of 15 (more than 800 total citations) and several lectures at national and international conferences.

GD has contributed to the peer-reviewing activity of many journals (e.g. ACS Applied Materials and Interfaces, Langmuir, CrystEngComm, Chemical Society Reviews, Journal of Nanoparticle Research, Journal of Nanomaterials, International Journal of Nanomedicine, Journal of Applied Biomaterials and Functional Materials, Journal of Colloid and Interface Science).

Teaching activity:

From 2016/2017: Laboratorio Chimico Integrato A, inorganic chemistry laboratory for the degree in chemistry.

From 2017/2018: General and Inorganic Chemistry, for the degree in biological science.