

CURRICULUM VITAE



PERSONAL INFORMATION

Name
E-mail

Silvia Orlanducci

WORK EXPERIENCE

- Date from 2014 to nowadays
- Name and address of employer University of Rome Tor Vergata
Via Cracovia, 50, 00133 Roma, RM, Italy
- Position held Associate Professor
SSD CHIM03 Inorganic chemistry

- Date from 2007 to 2014
- Name and address of employer University of Rome Tor Vergata
Via Cracovia, 50, 00133 Roma, RM, Italy
- Position held Researcher

- Date from 2004 to 2007
- Name and address of employer University of Rome Tor Vergata
Via Cracovia, 50, 00133 Roma, RM, Italy
- Position held post-doc associate researcher

EDUCATION AND TRAINING

- Date 2003
- Organisation providing education and training University of Rome "Tor Vergata"
Via Cracovia, 50, 00133 Roma, RM, Italy
 - Principal subjects Inorganic chemistry
- Title of qualification PhD in Chemistry at University of Rome "Tor Vergata"
- Date 2001
- Organisation providing education and training University of Rome "La Sapienza"
 - Principal subjects Analytical chemistry
 - Title of qualification Chemistry Degree
 - Level in national classification Mark of 110/110

TEACHING ACTIVITIES

- Silvia Orlanducci has been teacher in Academic courses since AA 2004/2005; Nowadays is teacher in the course: "General Chemistry" (12 CFU), degree Chemistry, "Advanced Inorganic Chemistry Materials" (6CFU) master degree in Chemistry, Solid State Chemistry II (8 CFU) master degree in Materials Science, "Fundament of Chemistry" (6CFU) and "Chemistry of Materials" (6 CFU) at the master degree of "Conservazione e Restauro dei Beni Culturali-PF5, University of Rome "Tor Vergata". University of Rome "Tor Vergata",

REASERCH ACTIVITY

Research lines

Her research activity mainly performed in the frame of inorganic chemistry and material chemistry and focused on the settling of synthesis methodologies, treatments, and structural/functional characterizations of nanomaterials. The main research line deals with the carbon-based nanomaterials: nanodiamonds, nanotubes, nanographites and the coupling of these nanomaterials to each other or to metal and metal oxide nanoparticles. The preparation and characterization of these materials have important scientific and applicative implications ranging from chemical structures to the study of chemical processes at the interface, catalysis, transport properties, and applied plasmonics. Detonated nanodiamonds (DNDs) are one of the materials on which, in recent years, she has focused her research. DND's self-assembly control has allowed the obtaining of all-diamond micro and nano components. The nanodiamond studies have stimulated various researches in the field of surface chemistry and drug delivery systems have been developed and studied thanks to the use of innovative SERS techniques specifically developed. In recent years, the research activity has focused on the application of nanodiamonds as an additive for the control and growth of crystalline YBCO films for applications in high-field superconductivity (collaboration ENEA Frascati) and in the preparation of derivatives-based composites cellulose for paper electronics (WASP Wearable Applications enabled by electronic Systems on Paper Horizon2020 project)

The activity of synthesis and post-synthesis treatment of nanomaterials were supplemented by several synthesis and characterization techniques in which acquired considerable expertise:

Chemical vapor deposition (CVD), plasma and thermal activated Scanning electron microscopy (SEM), Spectroscopic techniques (Raman, photoluminescence, cathodoluminescence, UV-Vis), electron diffraction RHEED, X-rays diffraction, atomic force, and scanning tunneling microscopy (AFM, STM).

Finally, she acquired extensive experience in the use of systems for field emission, secondary emission, and photoemission measurements.

Research projects

The research activity was carried out in the context of numerous Italian and European projects:

- WASP (H2020),
- bilateral scientific and technological cooperation cnr-rfbr,
- PON (miur),
- OPTHER (fp7),
- NANORAY (ft7),
- CANTES (infm),
- SERENA (infm),
- CERES (infm),
- NMP (finmeccanica),
- TERMEC (finmeccanica),
- NADIA (finmeccanica),
- INDUSTRIA 2015 (ministry of economic development),
- STORAGE (miur)

Scientific production

Co-author of 130 papers published in peer-reviewed journals, 1 book chapter, 3 review, 2 edited book, 2 patents, and 50 proceedings "peer-reviewed", she has been invited as speaker at several International Conferences. She received more than 3024 citations, up to now her H index is 28.

Signature