

**Curriculum vitae - prof. Robertino Zanoni,  
Dipartimento di Chimica, Università La Sapienza, Rome**

Robertino Zanoni has been conducting research for 40 years on how functionally active organics, inorganic and metallorganic molecules interact at the nanoscale with different types of surfaces and solids, from simple physisorption mechanisms to the establishment of covalent bonding, of hostguest supramolecular interactions or molecular activation and decomposition. This topic has been applied in molecular electronics, catalysis, new energy sources, biological systems. So far, the investigated surfaces include oriented silicon wafers for electronics, metal electrodes, biopolymers, carbon nanotubes, fullerenes and graphene, molecular clusters and colloidal nanoparticles, model and real catalysts. These studies have been conducted by use of some of the most suitable spectroscopic and nanoscopic techniques, primarily photoemission spectroscopies (XPS and UPS) and STM/AFM microscopies, and with the help of theoretical calculations. He holds a pioneering experience dating back to 1984 in the chemical applications of synchrotron radiation techniques (photoemission, EXAFS, spectromicroscopy, photon-stimulated desorption), always upon approval of original projects. He is leading a group working at La Sapienza operating in the field of the structural electronic characterization of surfaces and solids, and he is responsible of a large-scale apparatus for photoemission spectroscopies and microscopies and for AFM/STM nanoscopies.

Author/coauthor of 174 publications in peer-reviewed scientific journals [H-index: 30 (Scopus), 33 (Google Scholar), over 3600 citations].

Co-author of one patent on a procedure for making polymer surfaces adherent to cell cultures, Patent n. RM99A000351 2/6/1999.

Co-author of a university textbook in Chemistry and 18 book chapters, co-editor of an issue of the intl. journal 'Superlattices and Microstructure' and editor of a university textbook on Chemistry. He had 30 invited speaker presentations in international/national meetings. He has been PI of two National Interest Research Projects ('PRIN') funded by MIUR, and Unit Head of two EU projects on nanoparticles (HC&M; Science), three PRIN-MIUR projects and other national projects. He co-chaired the 2nd International Congress on Nanostructures Self-Assembling (NANOSeA 2008), gathering over 200 scientists from all over the world. Project referee for EU projects from 6th Framework Program on, for MIUR (PRIN and ANVUR), CNR, ASI and for various university-funded projects.

**Present Appointments** - Full Professor of General and Inorganic Chemistry, Università degli Studi di Roma "La Sapienza", Faculty of Sciences, Dept. of Chemistry (since 1/2005). - Responsible since 2002 at La Sapienza of a large-scale apparatus integrating a photoemission spectrometer, a spectromicroscope and an STM/AFM microscope, operating in ultra-high vacuum. - Member of the School of Doctorate in Chemistry, La Sapienza.

**Education and Training**

1974 – 1979 University degree in Chemistry (5 years course) at La Sapienza, summa cum laude.

1969 – 1974 Classical High School Diploma, Rome. Professional Experience

1/2005 – present Full Professor (national open application won in June 2003) of General and Inorganic Chemistry, Università degli Studi di Roma "La Sapienza", Faculty of Sciences, Dept. of Chemistry.

2008-11 Elected member of the national Inorganic Chemistry steering group of the Italian Chemical Society (SCI).

2004-11 Elected member of the Review Committee "Surfaces and Interfaces" of the ELETTRA synchrotron facility (Trieste).

2000-2003 Elected head of a Sapienza research unit (RS-F2) of INFM on Surfaces and Surface Reactions.

1997-2004 Associate Professor of General and Inorganic Chemistry (national application won in 1987) Università degli Studi di Roma "La Sapienza", Faculty of Sciences, Dept. of Chemistry.

1989 Visiting scientist at the Synchrotron radiation Center, University of Wisconsin-Madison, as a winner of a Fulbright fellowship.

1988 Visiting scientist at the Synchrotron radiation Center, University of Wisconsin-Madison, as a winner of a CNR-NATO fellowship.

1987 Visiting scientist at the Synchrotron radiation Center, University of Wisconsin-Madison.

4/1984-1997 University research scientist (national open application won in 1983) at Dept. of Chemistry, Università La Sapienza, Rome.

12/1981-3/1984 Officer in Chemistry (national open application), Italian Air Force laboratories, head of the Metallographic Section, Rome.

11/1979-12/1981 Post-graduate fellow (national open appointment, Accademia Nazionale dei Lincei).

7/1979 Graduation in Chemistry, summa cum laude, Università La Sapienza, Rome.

### **Research Activities**

Keywords: Surface reactivity; Photoemission Spectroscopies; Metal clusters; Nanoparticles; Catalysts; Biocompatible polymers; Electrodes. Description of research interests: R. Zanoni has devoted his career to the application in Chemistry of advanced spectroscopic and nanoscopic methods. His research studies have been mainly directed to the production and characterization of molecule-surface hybrid systems, with an emphasis on semiconductor surfaces and, more recently, on graphene electrodes and biopolymers. He has been actively working in the characterization of nanoparticles, both as molecular metal clusters and as colloidal systems.

**Intellectual Property** M. Battaglia, R. Zanoni "Procedimento per rendere aderenti alle colture cellulari superfici polimeriche" ("Procedure for making polymer surfaces adherent to cell cultures"). Patent n. RM99A000351, jointly deposited by CNR and Università "La Sapienza", 2/6/1999.