

## Curriculum vitae of Marzio Rosi

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Marzio Rosi born in Città di Castello (Perugia), Italy on August 1<sup>st</sup>, 1957, obtained his master degree in Chemistry (Magna cum laude) at the University of Perugia on July 23<sup>rd</sup>, 1981. After the graduation he spent six months at the ENEA in Frascati (Rome) working on (e,2e) spectroscopy. In 1987 he obtained his PhD in Chemical Sciences at the University of Perugia and he got a post-doc position for one year at the NASA Ames Research Center of Moffett Field, California (USA) working with Dr. Charles W. Bauschlicher. On March 23<sup>rd</sup>, 1989, he obtained a permanent position as Researcher at the Science Faculty of the University of Perugia, where on November 1<sup>st</sup>, 1992, he became Associate Professor of Chemistry at the Faculty of Engineering, belonging to the Department of Civil and Environmental Engineering. On November 1<sup>st</sup>, 2001 he became Full Professor of Chemistry in the same Faculty.

In 1992 he has been chairman of the first CERC3 (Chairmen and Directors of European Research Council Chemistry Committees) European Young Chemists Workshop on "Theory and modelling of chemical systems and processes". In 1996, with a CNR Senior Grant, he works at the NASA Ames Research Center of Moffett Field, USA, where he was awarded with the 1997 Feynman Prize in Nanotechnology attributed by the Foresight

Institute of Palo Alto. Expert of computer science, he has been Director of the CNR (Italian National Research Council) Study Center for High Performance Computing in Molecular Sciences from April 1999 until December 2001. From January 2002 until December 2009 he has been Director of the Perugia section of the Institute for Molecular Science and Technologies (ISTM) of the CNR.

He is presently associate Researcher of CNR-ISTM. He is member of the leading board of the Center for Excellence of the University of Perugia "Scientific Methodologies for Archaeology and Art (SMAArt)". He is member of the National Consortium for the Science and Technology of Materials (INSTM). He is member of the American Chemical Society since 2003. He is member of the Italian Association of the Chemists of Engineering (AICIng).

He has been Principal Investigator of several projects as, for instance, the MIUR-FISR 2001 project "Molecular modelling of systems of increasing complexity" (National Coordinator), the CNR-ISTM Unit of the MIUR-FISR 2001 project "Molecular modelling of elementary processes of interest in the chemistry of the atmosphere", the CNR-ISTM Unit of the MIUR strategic project "Grid Computing: enabling technologies and applications for eScience", the CNR-ISTM Unit of the MIUR-FIRB 2001 project "Enabling platforms for high performance computational grids oriented to scalable virtual organizations" in the context of the program "Enabling technologies for the ICT knowledge society", the CNR-ISTM Unit of the European network ENACTS "European Network for Advanced Computing Technology for Science", the CNR-ISTM Unit of the MIUR-FISR 2001 project "Molecular nanotechnologies for storage and transmission of information", the CNR-ISTM Unit of the CNR-MSTA II project "Theoretical and computational investigations on the electronic structure and on the dynamics: From molecules to materials", the Perugia University Unit of the MIUR PRIN 2009 project "Fundamental and interdisciplinary studies of ionic and neutral chemistry in the gas phase".

He has been visiting scientist in several international Research Centers and Universities as the ICI New Science Group of Runcorn (UK), the Science and Engineering Research Council of Daresbury (UK), the University of Lund (Sweden), the University of Lausanne (Switzerland), the University of Berkeley (California, USA), the NASA Ames Research Center of Moffett Field (California, USA).

He is Professor of Chemistry for the students of Building Engineering-Architecture and Mechanical Engineering and Professor of Environmental Pollution for the students of Environmental Engineering in the Faculty of Engineering of the University of Perugia. He

is Head of the School of Environmental Engineering of the University of Perugia. He is member of the School of Doctorate in Chemical Sciences of the University of Perugia.

His scientific activity consists mainly in the development and applications of accurate theoretical methods to the study of the electronic structure, bonding properties and chemical reactivity of systems and processes of interest in the context of the chemical modelling. Among the specific interests we can mention applications relevant in the fields of the catalysis and nanotechnologies, reactions relevant for the chemistry of the atmosphere and astrochemistry, for combustion processes and systems important for the search of high energy density materials.

His scientific production is documented by almost 200 scientific publications on ISI journals and by several talks in international meetings; for two of them he obtained a best paper award (Best Paper Award ICCSA 2014 and Best Paper Award ICCSA 2016).

### **Scientific publications of Marzio Rosi**

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