

CURRICULUM VITAE of Prof. FABIO MARCHETTI

Personal Informations

Date of birth: June 28th, 1966. Place of birth: Macerata. Home address: loc. Fontanelle 30/B, 62010 Montecassiano (MC). Military service: from July 14th 1993 to July 1st 1994). E-mail: fabio.marchetti@unicam.it. University of Camerino, School of Science and Technology, Chemistry Section, Via S. Agostino 1 – 63032 Camerino (MC) ITALY, tel. office: +39 0737 402217, mobil: +39 339 3766754 (private), fax: +39 0737 637345.

Actual position

Full Professor at the School of Science and Technology, scientific sector CHIM/03 General and Inorganic Chemistry (03/B1), University of Camerino (MC). He is currently a component of the research unit of the CNR ICCOM (Institute of chemistry of organometallic compounds) established in the autumn of 2014 at the University of Camerino.

Training and Qualification

School-leaving certificate obtained in July 1985 with marks 54/60 at the Scientific Lyceum "Galileo Galilei" of Macerata.

Degree in Chemistry obtained in July 24th, 1991 with marks 110/110 "cum laude" at the University of Camerino (MC) by discussing a thesis entitled "Tin(IV) and organotin(IV) derivatives containing 4-acyl-5-pyrazolones and bis(4-acyl-5-pyrazolone) ligands".

Research contract with the University of Camerino from September 28th, 1991 to May 31st, 1992, for the acquisition of two X-ray crystal structures within the research program "Coordination and organometallic chemistry of heavy metals".

Qualifying Examination for the Profession of Chemist in November 25th, 1991 at the University of Camerino (MC).

School of Crystallography at C.N.R. Institute "G. Giacomello" - Area della Ricerca - Monterotondo Stazione (Roma) (November 6-10, 1995).

PhD in Inorganic Chemistry (VIIIth PhD cycle in Chemical Sciences at the University of Camerino, years 1993-1995), obtained in October 1st, 1996 at the "La Sapienza" University of Rome, by discussing the PhD dissertation entitled "Coordination modes of pyrazoles and pyrazole-containing N- and O-donor ligands towards different metal and organometal acceptors. Analytical, spectroscopic (IR, ¹H-, ¹³C-, ³¹P- and ¹¹⁹Sn NMR, UV-Visible, ¹¹⁹Sn Mössbauer) and structural studies (X-ray diffraction) of metal complexes".

Researcher in General and Inorganic Chemistry (CHIM/03) since November 14th, 1994, at the Faculty of Mathematic, Physical and Natural Sciences of the University of Camerino.

Visiting Professor within the **Azione Integrata Italia Spagna** (research activity with the group of Prof. Luis A. Oro, Zaragoza, October-November 1999 and July 2000).

Associate Professor in General and Inorganic Chemistry (CHIM/03) since October 1st, 2002, at the Faculty of Science and Technology of the University of Camerino.

Full Professor in General and Inorganic Chemistry (CHIM/03) since March 28th, 2011, at the School of Science and Technology of the University of Camerino.

Research Activity

Research Description

Fabio Marchetti is author and co-author of more than **190** papers in international peer-review journals, between them **8** invited reviews, and more than **180** communications to national and international congresses. The research activity of Fabio Marchetti has been carried out in the field of **Coordination Chemistry of N- and O-donor heterocycles** towards main groups, transition and rare earth metals, by using simple ligands such as pyrazoles, triazoles and imidazoles differently substituted, but also more complex ligands obtained through difficult multistep syntheses, and in detail: acylpyrazolones, bis(acylpyrazolones), poly(azolyl)metalates, poly(azolyl)alkanes, poly(azolyl)acetates, poly(azolyl)borates. The research has different goals:

- Ligand-design, synthesis and characterization, in order to finely tune the steric and electronic features of the ligands and hence also modify the structural properties, the kinetic and thermodynamic stability, the solubility, the optical properties and the reactivity of the corresponding metal derivatives.
- Synthesis of new metal complexes with catalytic activity in processes such as the stereoselective oxidation of alkanes and alkenes, the stereoselective hydrogenation of alkenes and ketones, stoichiometric metal-assisted reactions such as C-H bond activation, C-C bond breaking, agostic interaction, small molecule activation, etc..
- Synthesis of new metal derivatives with anticancer and antimicrobial activity.
- Synthesis of new luminescent metal derivatives to be applied as sensors.
- Synthesis of new metal derivatives as low cost molecular precursors for the deposition of thin metallic films through the MOCVD technique.
- Synthesis of new inorganic coordination polymers and MOFs with features suitable to application in gas-storage, gas-separation and stereoselective heterogeneous catalysis.

In the course of his research activity, Fabio Marchetti employed and became experienced in many modern analytical and spectroscopic techniques for the structural characterization of the ligands and metal derivatives obtained, and also for the study of their solution behavior and chemical reactivity. Fabio Marchetti has synthesized many hundred of new derivatives containing main groups, transition and rare earth metals. H-index: 32, with 3213 total citations (source: Scopus October 4, 2016).

Reviewer Activity

Prof. Fabio Marchetti regularly acts as reviewer for the following international journals: Inorganic Chemistry, Crystal Growth & Design, Coordination Chemistry Reviews, European Journal of Inorganic Chemistry, Journal of Organometallic Chemistry, Inorganic Chemistry Communications, New Journal of Chemistry, Polyhedron, Inorganica Chimica Acta, Journal of Molecular Structure, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Applied Organometallic Chemistry, Journal of Thermal Analysis and Calorimetry, Journal of Photochemistry and Photobiology A: Chemistry, Structural Chemistry, Synthetic Metals, Chemical Papers, Journal of Molecular Catalysis A, Zeitschrift für Anorganische und Allgemeine Chemie, Arabian Journal of Chemistry, International Journal of Chemical Kinetics, Bioinorganic Chemistry and Applications, Phosphorus Sulfur and Silicon and the Related Elements, Main Group Metal Chemistry.

Prof. Fabio Marchetti was/is in the evaluation panel of national and international research proposals for public and private institutions.

Patents

- 1) C. Pettinari, R. Pettinari, **F. Marchetti**, C. Di Nicola, G. V. Badillo Pazmay, M. Montani, C. Marchini, G. Lupidi, A. Amici, "Complessi di Rutenio con Attivita' Chemioterapica Antitumorale", Italian Patent **IT MI 2013A001359** (appl. number: **2013IT-MI01359**, appl. data: **07/08/2014**, publ. data: **08/02/2015**).
- 2) C. Pettinari, R. Pettinari, **F. Marchetti**, C. Di Nicola, G. V. Badillo Pazmay, M. Montani, C. Marchini, G. Lupidi, A. Amici, "Ruthenium Complexes with Antitumoral Chemotherapy Activites", International Patent **PCT/WO2015019296** (appl. number: **2014WO-IB63825**, appl. data: **06/08/2014**, publ. data: **12/02/2015**).
- 3) J. Palmucci, C. Pettinari, M. Marangoni, S. Scuri, **F. Marchetti**, A. Crispini, "Complessi Acilpirazolonici di Argento(I) incorporati in Polietilene ad Alta Densita o in Cloruro di Polivinile con Potente Attivita' Antibatterica", Italian Patent **IT RM 2013A000382** (appl. number: **2013IT-RM00382**, appl. data: **28/06/2013**, publ. data: **29/12/2014**).
- 4) J. Palmucci, C. Pettinari, M. Marangoni, S. Scuri, **F. Marchetti**, A. Crispini, "Silver(I) Acylpyrazolonate Complexes embedded in High Density Polyethylene or in polyvinyl chloride with Potent Antibacterial Activity", International Patent **PCT/IB2014062424** (appl. number: **2014WO-IB62424**, appl. data: **19/06/2014**, publ. data: **31/12/2014**).

Scientific Schools, Workshops and Congresses Organization

Member of the Organizing Committee of CO.G.I.C.O. '92, 1st Congress of the Interdivisional Group of Organometallic Chemistry, September 9-12, 1992, Camerino.

Member of the Organizing Committee of Ist, IInd, IIIrd, IVth, Vth, VIth, VII^t, VIIIth, IXth and Xth International School of Organometallic Chemistry, September 9-13, 1997, September 11-15, 1999, September 9-13, 2001, September 6-10, 2003, September 10-14, 2005, September 8-12, 2007, September 5-9, 2009, August 27-31, 2011, August 30-September 3, 2013, and September 5-9, 2015, respectively, in Camerino.

Member of the Organizing Committee of III^a EuChem Conference on "Nitrogen Ligands in Organometallic Chemistry and Homogeneous Catalysis", September 8-12 2004, Camerino.

Member of the Organizing Committee of 1st International Workshop on New Hybrid Metal-Organic Materials, January 16-18, 2009, Camerino.

Member of the Organizing Committee of the International AIC School on "Scattering Techniques: From Microscopic To Atomic Structures", August 30 – September 4, 2009, Camerino.

Member of the Organizing Committee of the 1st and 2nd editions of the Intensive Programme ERASMUS LLP Project ACAOC (Advanced Catalysis and Organometallic Chemistry), held in Camerino on August 16-28, 2009 and August 1-12, 2010, respectively.

Member of the Organizing Committee of the 1st and 2nd editions of the Intensive Programme ERASMUS LLP Project EUCHEME (EUropean CHEmists for Energy, Materials and Environment), held in Camerino on August 7-18, 2012 and on July 31 – August 11, 2013, respectively.

Member of the Organizing Committee of the XLIII National Congress of Inorganic Chemistry Division, Italian Chemical Society, held in Camerino on September 9-12, 2015.

Research collaborations

Fabio Marchetti has collaborated and currently collaborates with many research groups of other national and international Universities and Research Institutes:

1. Prof. B. W. Skelton (University of Western Australia, Perth). 2. Prof. Sergei Troyanov and Prof. A. Drodzov (Lomonosov Moscow State University, Mosca, Russia). 3. Dr. Franco Caruso (Istituto CNR Montelibretti). 4. Prof.ssa Miriam Rossi (Department of Chemistry, Vassar College, New York, USA). 5. Dr. Marcello Crucianelli (Università dell'Aquila). 6. Prof. Rodica Dinica (University of Galati, Romania). 7. Prof. Luciano Pandolfo (Università di Padova). 8. Prof. Magda Monari (Università di Bologna). 9. Dr. John Hanna (ANSTO Facilities, NMR Division, Australia). 10. Prof. Ernesto Carmona e Augustin Galindo (Università di Siviglia). 11. Prof. Norberto Masciocchi e Dr.ssa Simona Galli (Università dell'Insubria). 12. Prof. Roberto Gobetto (Università di Torino). 13. Prof. Armando J. L. Pombeiro (Instituto Superior Tecnico, Technical University of Lisbon, Portogallo). 14. Prof. Alceo Macchioni (Università di Perugia). 15. Prof. Alessandra Crispini and Prof. Daniela Pucci (Centro di Eccellenza CEMIF.CAL-LASCAMM, CR-INSTM (Unità della Calabria, Università della Calabria.)). 16. Prof. Graham A. Bowmaker (School of Chemical Sciences, University of Auckland, Auckland 1142, New Zealand). 17. Prof. Agustin Galindo dal Pozo (University of Seville, Spain). 18. Prof. Francisco Jose Maldonado Hodar and Prof. Francisco Carrasco Marin (University of Granada, Spain). 19. Prof. Paul J. Dyson (Institute of Chemical Sciences and Engineering, Swiss Federal Institute of Technology (EPFL), Lausanne, Switzerland).

Invited lecturer

- XXXI Congresso Interregionale TUMA 2012, Francavilla al Mare (CH) 18-20 June 2012 ("Nuovi derivati arene rutenio(II) con attività catalitica e biologica");
- XXV ICOMC International Conference on Organometallic Chemistry, Lisbon (Portugal) 2-7 September 2012 ("(Arene)Ruthenium(II) Chemistry, From Organometallics And Catalysis To Biomedical Applications").
- 6th Nanoschool on "Novel Surface Modification Methods and Innovative Nanomaterials for Analytical, Biodevice and Environmental Applications" held in Vilnius (Lituania) 7-9 November 2012 ("Novel metal derivatives for luminescent and antimicrobial materials").

Teaching Activity

At High Schools (1991-1994)

Teacher in "Chemistry", sector 13/A (ex A015), from November 12 1991 to December 9 1991 at I.T.I.S. "E. Mattei" in Recanati (MC)

Teacher in "Chemistry", sector 13/A (ex A015), from January 14 1992 to June 12 1992 at the branch Institute in Castelfidardo (AN) of the I.T.I.S. "V. Volterra" in Torrette di Ancona (AN).

Teacher in "Chemistry", sector 13/A (ex A015), from October 18 1994 to November 10 1994 at the branch Institute in Camerino (MC) of the I.T.I.S. "E. Divini" in S. Severino Marche (MC).

At the University (since 1994)

Tutorship in esercitazioni

In the academic years 1994-95, 1995-96, 1996-97, 1997-98, 1998-99, 1999-2000, 2000-01, Fabio Marchetti did **tutorship in theoretical esercitazioni** within the following courses: General and Inorganic Chemistry (Degree in Chemistry).

General and Inorganic Chemistry (Degree in Biological Sciences).
General and Inorganic Chemistry (Degree in Natural Sciences).
General and Inorganic Chemistry (Degree in Physics).
General and Inorganic Chemistry (Degree in Pharmacy).
General and Inorganic Chemistry (Degree in Chemistry and Pharmaceutical Technologies).
Laboratory of Inorganic Chemistry (Degree in Chemistry and Pharmaceutical Technologies).
and **tutorship in practical exercitations** within the following courses:
Laboratory of General and Inorganic Chemistry (Degree in Chemistry).
Laboratory of Inorganic Chemistry I (Degree in Chemistry).
Laboratory of Inorganic Chemistry II (Degree in Chemistry).
Laboratory of Inorganic Chemistry (Degree in Chemistry and Pharmaceutical Technologies).

Previous teachings

Laboratory of Chemistry (Univ. Dipl. in “Technician for Eco-Sustainable Development”) in the academic year 1998-1999.

Laboratory of Inorganic Chemistry II (Master of Science Degree in “Chemistry and Advanced Chemical Methodologies”) since the academic year 1997-1998 until to the academic year 2002-2003.

Laboratory of Didactic of Chemistry I (Interuniversity School of Specialization for Teaching in School, address in Natural Sciences, Universities of Macerata and Camerino) since the academic year 1999-2000 until to the academic year 2006-2007.

Advanced Didactic of Chemistry (Interuniversity School of Specialization for Teaching in School, address in Natural Sciences, Universities of Macerata and Camerino) in the academic year 2007-2008.

Foundations of Chemistry II (Bachelor Degree in “Innovation Technologies”) since the academic year 2003-2004 until to the academic year 2005-2006.

Foundations of Chemistry I (Bachelor Degree in “Innovation Technologies”) in the academic year 2006-2007.

Physical Methods in Inorganic Chemistry (Master of Science Degree in “Chemistry and Advanced Chemical Methodologies”) since the academic year 2003-2004 until to the academic year 2008-2009.

Inorganic Solid State Chemistry (Master of Science Degree in “Chemistry and Advanced Chemical Methodologies”) since the academic year 2003-2004 until to the academic year 2011-2012.

Advanced Inorganic Materials (Master of Science Degree in “Chemistry and Advanced Chemical Methodologies”) in the academic year 2012-2013.

Didactic of Chemistry (Bachelor Degree in “Chemistry”) since the academic year 2011-2012 until to the academic year 2012-2013.

Actual teachings

Organometallic Chemistry (Master of Science Degree in “Chemistry and Advanced Chemical Methodologies”) since the academic year 1999-2000.

Advanced Inorganic Chemistry (Master of Science Degree in “Chemistry and Advanced Chemical Methodologies”) since the academic year 2007-2008.

General and Inorganic Chemistry (Bachelor Degree in “Chemistry”) since the academic year 2012-2013.

Elements of Chemistry (Master of Science Degree in “Science of Primary Education” at the University of Macerata, Italy) since the academic year 2013-2014.

Teaching Staff Periods

- Teaching Staff period at the **University of Galati, Romania**, in September 2008, during which time Fabio Marchetti did 8 h lessons of “Inorganic Solid State Chemistry” to the Master and PhD students and the invited lectures “Coordination Chemistry of Acylpyrazolones” and “New Luminescent Compounds” at the Department of Chemistry of Galati University.
- Teaching Staff period at the **University of Seville, Spain**, in September 2010, during which time Fabio Marchetti did 6 h lessons of “Coordination chemistry: theoretical principle, structural aspects and applications” and “Organometallic chemistry: new compounds and applications in catalysis” to the Master and PhD students and the invited lecture “Acylpyrazolones Coordination Chemistry and Applications” at the Department of Inorganic Chemistry of Seville University.
- Teaching Staff period at the **University of Granada, Spain**, in September 2011, during which time Fabio Marchetti did 6 h lessons of “Coordination chemistry: theoretical principle, structural aspects and applications” and “New organometallic compounds and their applications in catalysis” to the Master and PhD students and the invited lecture “Acylpyrazolones Coordination Chemistry and Applications” at the Department of Inorganic Chemistry of Granada University.
- Teaching Staff period at the **University of Lisbon, Portugal**, in September 2012, during which time Fabio Marchetti did 5 h lessons of “Acylpyrazolones’ coordination chemistry and applications in antimicrobial composite materials” to the Master and PhD students and the invited lecture and “New organometallic compounds and their applications in medicine and catalysis” at the Instituto Superior Tecnico of Technical University of Lisbon.
- Teaching Staff period at the **University of Seville, Spain**, in November 2012, during which time Fabio Marchetti did 6 h lessons of “Luminescence in metal derivatives: theoretical principle, structural aspects and potential applications” to the Master and PhD students and the invited lecture and “New polynuclear silver(I) derivatives and their applications as antibacterial additives in polymeric materials” at the Department of Inorganic Chemistry of Seville University.
- Teaching Staff period at the **University of Wroclaw, Poland**, in September 2013, during which time Fabio Marchetti did 6 h lessons of “Luminescence in metal derivatives: theoretical principle, structural aspects and potential applications” to the Master and PhD students and the invited lecture and “Novel Silver(I) Compounds for Antimicrobial Materials” at the Faculty of Chemistry of Wroclaw University.
- Teaching Staff period at the **University of Granada, Spain**, in September 2014, during which time Fabio Marchetti did 6 h lessons of “Luminescence in metal derivatives: theoretical principle, structural aspects and potential applications in composite materials” to the Master and PhD students and the invited lecture and “Composite materials containing Silver(I) additives with permanent antibacterial activity” at the Department of Chemistry of Granada University.

Supervisor of degree theses

Fabio Marchetti was supervisor of more than 40 experimental degree theses since 1996 till now, and supervisor of 7 PhD thesis.

Tutoring and other Activities

Seminars and Refresh Courses

- Fabio Marchetti did many seminars in High Schools of Marche Region as activity of vocational guidance to University.
- Fabio Marchetti did the following invited seminars for teachers of High Schools, as part of the course **“Chemistry in the 21st century: a science at service to mankind”** organized by Provveditore agli Studi of Macerata:
 - a) **“Which Future for Chemistry?”** (March 27, 2000).
 - b) **“Chemistry as a tool of Society and other disciplines”** (April 19, 2000).
- Fabio Marchetti did the invited seminar **“Degrees and Jobs”** (June 3, 2000) in the Regional Congress **“School and Industry”** in Recanati (MC).
- Fabio Marchetti performed the **Chemistry Course for freshmen** (10 h) at San Benedetto del Tronto (UNICAM), September 2007.
- Fabio Marchetti performed the **Chemistry Course for freshmen** (9 h) at Camerino (UNICAM), October 2008.
- Fabio Marchetti performed a lesson (2 h) within the **Refresher Course for High School Teachers** in the **Energy Project** at Camerino (UNICAM), September 8, 2008.
- Fabio Marchetti has performed, since November 2008, a cycle of lessons (24 h) within the **“Refresher Course in Chemistry for High School Teachers”** in the **“Scientific Degrees Project”** (PLS: Progetto Lauree Scientifiche) at the Scientific Lyceum of Civitanova Marche (MC), organized in collaboration with the Ufficio Scolastico Regionale and with the sponsorship of the MIUR.

Organization of Study Days

Fabio Marchetti have organized or participated to the organization of:

- 1) **“How to teach Chemistry today?”** in Camerino September 25, 2006.
- 2) **“Didactic of the concept of Energy”** in Camerino May 3, 2007.
- 3) **“Analytical applications of Chemistry”** in Camerino November 7, 2008.
- 4) **“Chemistry and its evolution: seminars on History and Didactic of Chemistry”** in collaboration with the S.C.I., in Camerino May 13 and 14.
- 5) **“Chemistry today and tomorrow”** in collaboration with the S.C.I., in Camerino May 25, 2011.
- 6) **“Adopt an Element: an invitation to the Periodic Table”** in Camerino May 24, 2013.

Didactical Projects

- 1) Fabio Marchetti produced in 2003 a **multimedia CD** on the **“Interaction between radiation and matter”** for the e-learning activities of the University of Camerino, as a co-author of Dr. Andrea Perali and Dr. Cristina Cimarelli of the University of Camerino, and in collaboration with Education.spa of Firenze. Such CD was awarded as **third** in its category at the **Pirelli Award edition 2003**.
- 2) Fabio Marchetti produced in 2005 the **Course in Chemistry for undergraduates** together with Dr. Riccardo Pettinari, and in 2006 he collaborated to the production of the **Course of General and Inorganic Chemistry of the Degree in Pharmacy** by Prof. Claudio Pettinari. Such courses are actually present as e-learning activities of UNICAM platform.

- 3) Fabio Marchetti was member of the *teaching staff* and coordinator of the tasks for the “Applications of Organometallic Chemistry in the fields of new energetic sources and for Green Chemistry” in the **IP ERASMUS LLP Project** (network with 9 Universities- Siviglia, Grenada, Lisbona, Wroclaw, Galati, Tolosa, Aberdeen, Ioannina, Camerino): **Advanced Catalysis and Organometallic Chemistry (ACAOC)**, General Coordinator Prof. Claudio Pettinari. The first edition has been held in Camerino, 16-28 August 2009. The second edition has been held in Camerino, 1-12 August 2010.
- 4) Fabio Marchetti was member of the *teaching staff* and coordinator of the tasks for the “Applications of Organometallic Chemistry in the fields of new energetic sources and for Green Chemistry” in the **IP ERASMUS LLP Project** (network with 10 Universities - Siviglia, Grenada, Lisbona, Wroclaw, Galati, Tolosa, Aberdeen, Pau, Vilnius, Camerino): **European Chemists for Energy, Materials and Environment (EUCHEME)**, General Coordinator Prof. Claudio Pettinari. The first edition has been held in Camerino, 7-18 August 2012. The second edition has been held in Camerino, 31 July-11 August 2013.
- 5) Fabio Marchetti was the Local Coordinator and organizer of the **Piano Lauree Scientifiche Chimica** for Marche Region in the period 2010-2012, a national project funded by Minister of Instruction, University and Research, devoted to increase scientific vocations within High School’s students and chemistry’s graduated in Italy.

Financial Resources

Research Projects Financed

Fabio Marchetti is currently involved or has participated to the following Research Projects, by carrying out activity of synthesis and characterization of ligands and metal complexes and by coordinating specific sections of the projects:

- **Fondazione Carima Project** (1999): “Synthesis of new Sn, Pt and Au derivatives with anticancer activity”, Scientific Coordinator Prof. Augusto Cingolani.
- **Azione Integrata Italia Spagna MURST, Unicam-Saragozza** (1999), Scientific Coordinator Prof. Augusto Cingolani.
- **MURST Cooperlink 1999 Unicam-Lomonosov** (1999): “Synthesis and spectroscopic characterization of new Rh complexes containing N- and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.
- **Intas Call 2000** (INTAS-00-469): “New mono and heterometallic azolates as new materials and new material sources.” (Scientific cooperation between Camerino, Saragozza, Mosca and Novosibirsk Universities -registration n.326), Scientific Coordinator Prof. Claudio Pettinari.
- **PRIN 2000** (MM03027791_001): “Selective synthesis of organic carbamate, carbonate and carboxylate derivatives through sequential activation of carbon dioxide and other substrates” Scientific Coordinator and Responsible of the Research Unit Prof. Michele Aresta.
- **MURST Cooperlink 2001 Unicam-Lomonosov** (2001): “Synthesis and spectroscopic characterization of new Rh complexes containing N- and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.

- **Fondazione Carima Project** (2001): “Synthesis of new derivatives of TiO₂ as precursors in osteointegration of dental implants through MOCVD technique”, Scientific Coordinator Prof. Claudio Pettinari.
- **PRIN 2003** (2003039774_003): “Multiple insertion of unsaturated molecules in cationic Palladium complexes for the stereoselective synthesis of complex molecular systems with highly ordered structure” Scientific Coordinator Prof. Michele Aresta and Responsible of the Research Unit Prof.ssa Carla Carfagna.
- **Fondazione Carima Project** (2003): “Synthesis of new Sn, Pt and Au derivatives with anticancer activity”, Scientific Coordinator Prof. Augusto Cingolani.
- **Fondazione Carima Project** (2005): “Synthesis of new Sn, Pt and Au derivatives with anticancer activity”, Scientific Coordinator Prof. Augusto Cingolani.
- **Research Project financed by Dipharma Spa** (2005): “New metal catalysts of hydration reactions of double and triple bonds”, Scientific Coordinator Prof. Claudio Pettinari.
- **Research Project financed by Dipharma Spa** (marzo 2006): “Original synthesis of pharmaceutically active derivatives”, Scientific Coordinator Prof. Claudio Pettinari.
- **Research Project financed by Dipharma Spa** (settembre 2006): “Original synthesis of pharmaceutically active derivatives”, Scientific Coordinator Prof. Claudio Pettinari.
- **Universities Cooperation Project** (UNICAM ASSCIR06) with Russian Federation (University of Camerino - Lomonossov University of Moscow) for the year 2006: “Synthesis and spectroscopic characterization of new Rh complexes containing N-and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.
- **Azione Integrata Italia Spagna, Unicam-Siviglia** (2007): “New polyfunctional porous metallorganic coordination polymers containing N-donor heterocyclic ligands and carboxylate counterions”, Scientific Coordinator Prof. Claudio Pettinari.
- **Universities Cooperation Project** (UNICAM ASSCIR07) with Russian Federation (University of Camerino - Lomonossov University of Moscow) for the year 2007: “Synthesis and spectroscopic characterization of new Rh complexes containing N-and/or O-donor ligands as potential catalysts in hydroformilation and hydrogenation reactions”, Scientific Coordinator Prof. Claudio Pettinari.
- **MIUR Cooperlink Unicam-Lomonosov-Galati** (2007): “Advanced qualification and training of young researchers in the Chemistry of Polyfunctional Innovative materials and of New Sources for Energy and Environment”, Scientific Coordinator Prof. Claudio Pettinari.
- **Universities Cooperation Project** (UNICAM ASSCIR08) with Russian Federation (University of Camerino - Lomonossov University of Moscow) for the year 2008: “Advanced qualification and training of young researchers in the synthesis of new gold coordination complexes with anticancer activity and of new coordination polymers”, Scientific Coordinator Prof. Claudio Pettinari.
- **Progetto Giovani Tecnologi – Regione Marche 2008** “Design and synthesis of a family of new thermoplastic polyurethane materials with new biodegradation and biocompatibility features coupled to conventional properties, for biomedical applications”, Scientific Coordinator Prof. Claudio Pettinari, Scientific Tutor Prof. Fabio Marchetti.
- **Progetto Giovani Tecnologi – Regione Marche 2008** “Protocol for the optimization of the extraction process in the preparation of espresso coffee”, Scientific Coordinator Prof. Riccardo Piergallini, Scientific Tutor for the chemical aspects Prof. Fabio Marchetti.

- **Piano Lauree Scientifiche Chimica** for Marche Region, a national project funded by Minister of Instruction, University and Research, devoted to increase scientific vocations within High School's students and chemistry's graduated in Italy.
- **PRIN 2010-2011 (2010BNZ3F2):** "DESCARTES - Development of Energy-targeted Self-assembled supramolecular systems: a Convergent Approach through Resonant information Transfer between Experiments and Simulations" Scientific Coordinator Prof. Maurizio Casarin and Responsible of the Research Unit Prof. Claudio Pettinari.
- **FAR 2011-2012 (STI000044):** "Smart Polymeric Materials For Eco-Friendly Antimicrobial Application" Scientific Coordinator Prof. Fabio Marchetti.
- **POR MARCHE 2007-2013 – Azione 1.1.1.1 - Bando 2015 - Scorrimento della Graduatoria F (FILIERE) approvata con DDPF 134/IRE del 30.12.2015 (15317):** "GHEC Green Healty and Easy to clean Coffee-machine - Materiali/trattamenti/soluzioni progettuali-tecnologiche nuovi per innovativa coffee-machine professionale brass-less con caratteristiche uniche di salubrità tazza, sostenibilità e autopulibilità" Imprese/organismi di ricerca coinvolti: NUOVA SIMONELLI SPA (capofila), CONERO GROUP SRL, GERMAN PLAST SRL, S.T.A.F. S.P.A., UNIVERSITA' POLITECNICA DELLE MARCHE – DIISM, UNICAM - UNIVERSITA' DEGLI STUDI DI CAMERINO – School of Science and Technology, Responsible for UNICAM Prof. Fabio Marchetti.

Institutional Activity

Fabio Marchetti currently holds the following institutional assignments:

- **Rector's Delegate for Higher Education** (post secondary courses - IFTS, ITS - and postgraduate courses, MSc in Teacher Training, Masters, TFA and Specialization Schools) from 2011, November.
- **Member of the "Board for Rules of Conduct"** of the University of Camerino from 2014, February.
- **Member of the "Steering Committee"** of School of Advanced Studies of the University of Camerino from 2014, December.

Fabio Marchetti has previously held the following institutional assignments:

- **Delegate of the Department of Chemical Sciences in the Management Committee of The "Interdepartmental Center of Sound/Visual and Printing Techniques"** of University of Camerino, from January to December 1997 (D.R. n° 216 of January 4, 1997).
- **Member of the Judging Commission in the Comparative Evaluation Procedure for a job of University Researcher in the Scientific Sector CHIM03** (General and Inorganic Chemistry) (D.R. n. 103 of July 24, 2000, published in G.U. n. 66 - 4^a special series - of August 25, 2000), at the Faculty of Science of the University of Messina in the period of October 11-12 and December 4-7, 2000.
- **Member of the Council of the Department of Chemical Sciences** since September 2003, and then confirmed in 2008 till now.
- **Delegate for University Orientation of the Council of Degree in Chemistry** since December 2002 to July 2004.
- **Coordinator of the address in Natural Sciences of the SSIS** (Interuniversity School of Specialization for Teaching in School, Universities of Macerata and Camerino) since June 2004 to June 2008.
- **Delegate of UNICAM in Training of Teachers** since 2004 (by Senate Council of University of Camerino, November 11 2004) to 2008.

- **Delegate of UNICAM in Training of Teachers** designed by the Rector of University of Camerino since February 2008.
- **Delegate of UNICAM within CUM's Technical Group for Teachers' Training** of Macerata and Camerino Universities since February 2011 (CUM = Consorzio Universitario Maceratese).
- **Member of the Didactical Council and Coordinator of the Agro-Bio-Chemical Address** in the **"Special Qualifying Courses"** for Practical technical Teachers, held in UNICAM in the period November 2005 – April 2006 in conformity to D.M. 21/2005 (D.R. n. 780 of October 27, 2005).
- **Vice President of the Didactical Council and Coordinator of the Agro-Bio-Chemical Address** in the **"Special Qualifying Courses"** for High School Teachers, held in UNICAM in the period November 2006 – January 2008 in conformity to D.M. 85/2005 (D.R. n. 615 of October 12, 2006).
- **Delegate of UNICAM in the Council of SSIS Marche** designed by the Rector of University of Camerino since June 2008.
- **Member of the Council of PhD Course in Chemistry** since April 2008.
- **Member of The Scientific Commission of UNICAM** designed by the Department of Chemical Sciences in March 19, 2008, and approved by the Departments' Directors Council in March 31, 2008 (D.R n. 110 of April 11, 2008).
- **Coordinator of the Degree Courses in Chemistry (Bachelor Cl. 21) and Chemistry and Advanced Chemical Methodologies (Master in Science Cl. 62/S)** since May 2008.
- **Member of the Judging Commission in the Comparative Evaluation Procedure for a job of University Researcher in the Scientific Sector CHIM03** (General and Inorganic Chemistry) (D.R. 1234/08 of July 21, 2008, published in G.U. n. 63 - 4^a special series - of August 12, 2008) at the Faculty of Pharmacy of the University "La Sapienza" of Roma in the period of September 11 and October 16-17, 2008.
- **Member of the Council of the Didactical laboratories of the Province of Macerata**, since February 5, 2009, within the activities of the project **"Agreement for the School"** of the Province of Macerata.
- **Local Coordinator of PLS – section Chemistry** (PLS is Progetto Lauree Scientifiche, Scientific Degrees Project, 3rd edition 2010-2012, from MIUR the Minister of Instruction, University and Research) from February 2010 to September 2012.
- **Fabio Marchetti** was one of the academic responsables and signatory of a Cooperation Agreement signed in January, 21th 2009 concerning Dual Master's Degree Programmes between the Instituto Superior Técnico of Lisbon, Portugal, and the University of Camerino (MC), Italy, for the constitution of a Dual Master in Chemistry between the two Institutions University of Camerino and the Instituto Superior Tecnico of Lisbon, Portugal.
- **Fabio Marchetti** was also the applicant for a General Cooperation Agreement signed in February, 22th 2010 between the Técnico University of Lisbon, Portugal, and the University of Camerino (MC), Italy, for the promotion of cooperation of their various departments and administrative structures in the following activities: the exchange of teaching and research staff, joint scientific research, the exchange of scientific papers and publications, the exchange of information concerning academic administrative practices and experience, trainships and student visits, participation in evaluation committees, cultural and sporting exchanges.