# **CURRICULUM VITAE**

# **PERSONAL INFORMATION**



Name Francesca Surname Pagnanelli Department Chemistry

University Sapienza of Rome

Address P.le Aldo Moro 5, 00185 Rome, Italy

**EDUCATION** 

From 2000 to 2003 PhD in Industrial Chemical Processes

Faculty of Engineering Sapienza University of Rome

From 1992 to 1999 Master Degree with honor in Industrial Chemistry

Faculty of Mathematical, Physical and Natural Sciences

Sapienza University of Rome

**WORK EXPERIENCE** 

From 2012 to now Associate Professor of Theory of the Development of Chemical Processes

**Department of Chemistry** 

Faculty of Mathematical, Physical and Natural Sciences

Sapienza University of Rome

From 2004 to 2012 Assistant Professor of Theory of the Development of chemical Processes

Department of Chemistry

Faculty of Mathematical, Physical and Natural Sciences

Sapienza University of Rome

From January to December 2003 Employer-coordinated freelance work (cococo)

in the project "Integrated treatments of manganese ores for the production of commercial standard products: development of innovative technologies with low environmental impact by using agro-industrial

wastes" (FIRB 2001)

Department of Chemistry of Sapienza

From September to November 1999 Employer-coordinated freelance work (cococo)

in the project co-financed by MIUR and Carbochimica for the development of innovative depurative

technologies using waste biomasses Department of Chemistry of Sapienza

## **RESEARCH ACTIVITIES**

#### Research sectors

Development of innovative hydro- and biohydro-metallurgical processes ir environmental and industrial applications:

- Treatment of metal-bearing wastewaters by biosorption using different biomasses (bacteria, microalgae, yeasts and agricultural wastes) and reactor configurations (batch and membrane systems);
- In situ treatment of ground waters polluted by heavy metals by biological permeable reactive barriers using sulphate reducing bacteria and biosorbents
- Treatment and valorization of technological wastes (such as end of life batteries, photovoltaic panels, catalysts, liquid crystal displays, cathodic ray tubes, fluorescent lamps, mine tailings, car fluff) for the recovery of secondary raw materials
- Synthesis and characterization of nanoparticles by microemulsion and electrodeposition
- Production of biofuels by microalgae cultivation

## **Scientific products**

70 articles in international peer reviewed journals

3 chapters of books 3 European patents

51 papers in Proceedings of Congresses with ISBN

#### **Bibliometric parameters**

H index= 26 - Google Scholar

Number of citations: 2923 - Google Scholar

## **Financed Research Projects**

2014-2017 Responsible of Unit in the Project

**PHOTOLIFE** Process and automated pilot plant for simultaneous and integral recycling of different kinds of photovoltaic panels

cofunded by European Community's Seventh Framework Program (LIFE+)

2012-2016 Responsible of Unit in the project

**Hydroweee Demo** (Innovative Hydrometallurgical Processes to recover Metals from WEEE including lamps and batteries-Demonstration)

cofunded by European Community's Seventh Framework Program

2014-2015 Principal Investigator

Development of innovative composite biosorbents for the selective recovery and purification of lanthanum in the recycling process of exhausted NiMeH batteries

funded by Sapienza: Awards project

2014-2015 Responsible of Unit in the project

**HYRPAM** Process for recovery of Pd-Ag membranes for hydrogen

cofunded by Regione Lazio

2012-2014 Responsible of Unit in the project

**Nanohydro** (production of metal nanoparticles from RAEE valorization)

cofunded by Regione Lazio

2009-2012 Responsible of Unit in the project

Hydroweee (Innovative Hydrometallurgical Processes to recover Metals from WEEE

including lamps and batteries)

cofunded by European Community's Seventh Framework Program

2011-2013 Principal Investigator in the project

Alghe Energetiche (Design and construction of a pilot plant for the cultivation of

microalgae for biofuel production)

2009-2012 cofunded by Ministero dell'Ambiente e della Tutela del Territorio e del Mare

Principal Investigator in the project

**Photorec** (Development of a recycling process for end of life photovoltaic panels)

cofunded by Regione Lazio

2011

Principal Investigator in the project

Cu nanoparticles production by electrodeposition for application in photovoltaic devices

of II and III generation

funded by Sapienza University

2010

Principal Investigator in the project

Development of innovative processes for the production of third generation biofuels

funded by Sapienza University

### **ADDITIONAL INFORMATION**

Founding member of the university spin off Ecorecycling (an enterprise born for the

technological transfer in the field of waste valorization)

2007 Member of the High Tech Recycling Interuniversity Research Centre (a research centre for the development of sustainable technologies for recycling and valorization of high-

tech wastes resulting from urban, industrial, health and harbor activities).

2003 and 2000 European Science Foundation sponsorships for participating at the EuroConference on

the Roles of Colloids and Particles in Water Technology (Italy) and Natural Waters and

Water Technology (Portugal)

2002 Grant "Giovani Ricercatori" given by the Department of Chemistry of Sapienza

University for the research activity about Decontamination of metal polluted solutions by

olive pomace

2001 Master degree thesis awarded in the XIII National Prize of Federchimica (Federchimica

per un futuro intelligente)