

Researcher first at the Department of Inorganic, Metallorganic and Analytical Chemistry and, from its constitution, at the Department of Chemistry.

Assistant Professor for the courses of Applications of Instrumental Analytical Chemistry (BD Industrial Chemistry), Bioinorganic Chemistry (MD Chemical Sciences, Industrial Chemistry), Laboratory of Instrumental Analysis (BD Pharmaceutical Biotechnologies), Advanced Inorganic Chemistry (BD Chemistry, Industrial Chemistry, Applied and Environmental Chemistry, till 2013).

The search was formerly concerned to the application of instrumental analytical techniques to the direct study of copper oxygenase (*tyrosinase*) and multicopper oxidases (*ascorbate oxidase*, *laccase*), a class of copper enzymes, and to the study of biomimetic multicopper complexes with a tyrosinase- or oxidase-type reactivity.

In recent years the analytical study has become predominant and has been extended to the investigation of natural complex matrices, both from an elemental point of view, for a recognition of region of origin, and organic and phytochemical point of view, to determine their composition and evaluate the possible effects of human activities on them. In particular, she assessed the polyphenolic and flavonoid component of grapes and wine in relation to the vines of origin, the vitamin component of fruits and vegetables for the enhancement of the products (Project VAPORO, Chamber of Commerce of Turin), the composition of the not volatile organic fraction of hop grown in Italy. The growing interest in the field of phytochemistry led to the public presentation of the project results in VAPORO conference, held in Vidracco in March 2014, enrollment at the Italian Society of Phytochemistry, participation in conferences and workshops dedicated to phytochemistry and ethnobotany. It also led to the presentation of contributions at the Congresses of the Italian Society of Phytochemistry (2013, 2015) and of the Italian Society of Botany (2014, 2015) and at the 14<sup>th</sup> School of Phytochemistry "P. Ceccherelli" (2014), organized from the Italian Society of Phytochemistry.

#### Publications for the period 2010-2015

1. F.G. Mutti, M. Gullotti, L. Casella, L. Santagostini, R. Pagliarin, K.K. Andersson, M.F. Iozzi, G. Zoppellaro  
*A new chiral, poly-imidazole N<sub>8</sub>-ligand and the related di- and tri-copper(II) complexes: synthesis, theoretical modelling, spectroscopic properties, and biomimetic stereoselective oxidations*, Dalton Trans., **2011**, 40, 5436-5457
2. S. Araneo, L. Santagostini, G. Flamini, M. Iriti, Fabio Cerasa, Gelsomina Fico.  
*Luppolo coltivato in Italia: Indagine fitochimica dal campo al boccale di birra (Hop cultivated in Italy: phytochemical study from field to beer)*, Acts of XIII Congress of the Italian Society of Phytochemistry, **2013**, ISBN: 978-88-97341-44-4.
3. A. Cugnetto, L. Santagostini, L. Rolle, S. Guidoni, V. Gerbi, V. Novello  
*Tracing the "terroirs" via the elemental composition of leaves, grapes and derived wines in cv. Nebbiolo (Vitis vinifera L.)*, Sci. Hortic. **2014**, 172, 101-108.

4. M. L. Perrone, E. Lo Presti, S. Dell'Acqua, E. Monzani, L. Santagostini, L. Casella  
*Synthesis, Characterization, and Stereoselective Oxidations of the Dinuclear Copper(II) Complex Derived from a Chiral Diamino-m-xylenetetra(benzimidazole) Ligand*, Eur . J. Inorg. Chem. **2015**, 21, 3493-3500
5. L. Santagostini, M. Iriti, G. Flamini, E. Caporali, S. Araneo, F. Cerasa, K. Capizzi, G. Fico.  
*Effects of open-field treatments on secondary metabolites of Humulus lupulus L. cv. Cascade cultivated in Northern Italy*, J. Agric. Food. Chem., inviato per la pubblicazione
6. A. Leone, G. Fiorillo, F. Criscuoli, S. Ravasenghi, L. Santagostini, G. Fico, A. Spadafranca, A. Battezzati, A. Schiraldi, F. Pozzi, S. Di Lello, S. Filippini, S. Bertoli  
*Nutritional Characterization and Phenolic Profiling of Moringa oleifera Leaves Grown in Chad, Sahrawi Refugee Camps, and Haiti*, Inter. J. Mol. Sci. **2015**, 16 (8), 18923-37.