

# Curriculum Vitae

Dr Sonia Pedotti, researcher

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Dr Sonia Pedotti has earned the chemistry degree graduating from the University of Catania on July 22nd 1994 (mark: 110/110 cum laude). Her final year project was an experimental thesis entitled "Molecular Recognition of Amino Acids by Copper(II) Complexes of 6<sup>A</sup>,6<sup>X</sup>-Diamino-6<sup>A</sup>,6<sup>X</sup>-dideoxy-β-cyclodextrin (X = B, C, D)."

After the degree, she experienced working at the University of Catania chemistry's department for one year as the winner of the fellowship: her work was focused on synthesis and characterization of modified cyclodextrins.

On the year 1997 she started working on the research project "Use of Cyclodextrins as carriers to prodrugs' synthesis" and on the year 2001 she obtained the PhD at the University of Catania.

She was involved in the research activity concerning the synthesis of chiral molecules through biocatalytic process from June 2001 till September 2001.

Since the 28th of December 2001, she is working as a permanent researcher at the Institute of Biomolecular Chemistry (CNR) of Catania in the area of sustainable chemistry (synthetic methodologies by means of the use of eco-compatible solvents, biocatalyzed transformations and asymmetric catalytic synthesis), and central emphasis need to be given to waste prevention, reduced energy requirements and low toxicity of reagents for human health and environment. In this context, multicomponent and cascade reactions, microwave assisted synthesis and the use of water as solvent offer valuable contributes.

On the year 2005 she won the CNR Prize for her excellent results in the research field. She took part in several research projects.

## SCIENTIFIC INTEREST

- Sustainable synthesis and optimization of novel ligand for asymmetric catalysis
- Development of sustainable catalytic processes and synthesis of bioactive molecules

- Synthesis, design and characterization of cyclodextrin conjugated to biomolecules developed from original structural units for therapeutic and diagnostic applications

## SELECTED PUBLICATIONS

1. Pedotti, S.; Patti, A. *Tetrahedron* **2012**, *68*, 1-6
2. D'Antona : Morrone R: Nicolosi G.: Pedotti, S.: *RSC Advances* **2013**, *3*, 11456
3. Patti A: Pedotti, S.: *Eur.JOC* **2014**, *3*, 624
4. Patti A: Pedotti, S.: *J. of Sep, Science* **2014**, *37*, 3451
5. Pedotti, S.; Pistarà V.:Cannavà C: Puglisi G; Ventura C. A; *Carbohydrate Polymers* **2015**, *131* 159.
6. D'Antona N; Morrone R; Gambera G: Pedotti, S.: *OBC* **2016**, *14*, 4393
7. Patti A: Pedotti, S.; Dedola S; Barberis A; Fabbri D; Dettori M.A; Serra P. A: Delogu G; *Polyhedron* **2016**, *117*, 80
8. Pedotti, S.; Ussia M; Patti, A.; Musso N; Barresi V; Condorelli D. F; *J. Organomet. Chem.* **2017**, *830*, 56
9. Patti, A.; Pedotti. S.; Synthesis and properties of chiral ferrocenylalcohols and diols in: *Organometallic Compounds: Preparation, structure and properties*, Editor H. F. Chin, Nova Science Publisher, Inc. New York, **2010**
- 10 Patti, A., Pedotti, S., Mazzeo, G., Longhi G., Abbate S., Paoloni L., Bloino J., Rampino, S., Barone, V.; *Physical Chemistry Chemical Physics*, **2019**, *21*(18), pp. 9419–9432.
11. Zampino, D., Pedotti, S., Ussia, M., Dattilo S., Mancuso M., Zacccone R., Patti, A. *Journal of Applied Polymer Science*, **2021**, *138*(7), 49852