

CURRICULUM VITAE

1. Personal data

Date of Birth: 16/12/1954
Place: Sassari (Italy)
Civil Status: Married
Address: Dipartimento di Chimica e Farmacia, Università di Sassari
via Vienna 2, I-07100 Sassari
Tel.: +39 079 229549
Fax: +39 079 228625
e-mail: ugo@uniss.it

2. Education

1973-1979: Sc. D. in Chemistry: Faculty of Natural Sciences, University of Sassari, Sassari (Italy). Thesis in Organic Chemistry: "Synthesis of conformationally rigid alkanes" (tutor: Professor S. Gladiali)
1979-1983: Ph. D. in Natural Sciences: Technisches Chemisches Laboratorium, Eidgenössische Technische Hochschule (E.T.H.), Zürich (Switzerland). Thesis in Biochemistry: "Models of thioredoxin hairpin structures: conformational properties of reverse turn containing sequences" (tutors: Professor P. L. Luisi, Professor P. Pino).

3. Professional Experience

- Fachörer, Technisches Chemisches Laboratorium, Eidgenössische Technische Hochschule (E.T.H.), Zürich, 1979-1980
- Wissenschaftlicher Assistent, Technisches Chemisches Laboratorium, Eidgenössische Technische Hochschule (E.T.H.), Zürich, 1982-1983
- Ricercatore di Chimica Organica, Università di Sassari, 1983-1986
- Ricercatore Confermato di Chimica Organica, Università di Sassari, 1986-1998
- Temporary Professor (Supplente) of Synthetic Organic Chemistry, Università di Sassari, 1991-1992
- Temporary Professor of Organic Chemistry, Università di Sassari, 1992-1998
- Member of the Board of Examiners of a Ph. D. Thesis at the University of Madras (India), 1993 and 2000.
- Member of the Board of Teachers, XX Summer School on Synthetic Organic Chemistry, organized by the Organic Chemistry Division of the Italian Chemical Society, 1995
- Associate Professor of Organic Chemistry, University of Sassari, 1998-up today.
- Member of the Board of Examiners of a Ph. D. Thesis at the Eidgenössische Technische Hochschule (E.T.H., Departement Chemie), Zürich, 2000.
- Member of the Board of Teachers, Ph. D. School of Chemistry, University of Sassari, 2000-2008.
- Member of the Board of Examiners of a Ph. D. Thesis at the University of Alicante (Spain), 2006.
- Vice-Director of the International Master in Green Chemistry: Chemicals and new materials from renewable sources, University of Sassari, 2013.

- Chairman of the Organizing Committee of the 35th National Meeting of the Organic Chemistry Division of the Italian Chemical Society, University of Sassari, 2013.
- Rectoral delegate within the Consiglio Direttivo del Consorzio Interuniversitario Nazionale “La Chimica per l’Ambiente” (INCA, 2012-2013) and Rectoral delegate for Green Chemistry (2012-2014).
- Tutor of 3 Ph. D. and 18 Sc. D. Thesis in Chemistry and 13 Sc. D. Thesis in Pharmaceutical Chemistry, University of Sassari.
- Reviewer of several international chemistry journals, including the Journal of Organic Chemistry, the European Journal of Organic Chemistry, Tetrahedron, Tetrahedron Letters, Current Organic Chemistry and ARKIVOC

4. Teaching Experience

- More than 30 years’ experience in teaching Basic and Advanced Organic Chemistry, Heterocyclic Chemistry, Spectrometric Identification of Organic Compounds

5. Main Scientific Interests

- Synthesis of biologically active carboaromatics
- Generation of polar organometallics by the reductive cleavage of carbon-oxygen, carbon-nitrogen and carbon-halogen bonds: reaction mechanism and synthetic applications
- Activation and employment of alkali metals in synthetic organic chemistry
- Dehalogenation of persistent organic pollutants
- Development of low impact synthetic procedures
- Chemical modification of vegetable oils
- Publications: 83 scientific papers, 67 congress presentations.

6. Fellowships

- 1981, Annual Fellowship of the Foundation Stiftelsen-Blanceflor-Boncompagni-Ludovisi Bildt (Stockolm, Sweden) for Italian and Swedish students abroad.
- 1982, Annual Fellowship of the Foundation Stiftelsen-Blanceflor-Boncompagni-Ludovisi Bildt (Stockolm, Sweden) for Italian and Swedish students abroad.
- 1990, von Humboldt Research Fellow at the Institut für organische Chemie, Universität Würzburg (Germany)
- 2007, Visiting professor, Universidad de Alicante (Spain)

7. Invited Conferences

Università di Cagliari (Italy); Eidgenössische Technische Hochschule - Zurich (CH); Universidad de Alicante (Spain); Universidad Complutense de Madrid (Spain); Universitat de València (Spain); Universitat Autònoma de Barcelona (Spain); XXV Congresso Nazionale della Società Chimica Italiana – SCI, Rende (Italy); Pharma and Food Lecture Series, Universität Wien (Austria).

8. Recent papers (2010-2019)

1. U. Azzena, G. Dettori, S. Mocci, L. Pisano, G. Cerioni, F. Mocci “Active-sodium-promoted Reductive Cleavage of Halogenated Benzoic Acids”, *Tetrahedron*, **66**, 9171-9174 (2010).
2. U. Azzena, G. Dettori, L. Pisano “Benzylic Organometals *via* Reductive Metalation Procedures” *Curr. Org. Chem.*, **15**, 1006-10035 (2011).
3. U. Azzena, G. Dettori, L. Pisano, B. Musio, R. Luisi “BH₃-promoted Stereoselective β -Lithiation of *N*-Alkyl-2-phenylaziridines”, *J. Org. Chem.*, **76**, 2291-2295 (2011).
4. U. Azzena, M. Pittalis “Electron.trasfer-induced Reductive Cleavage of Chlorinated Aryloxyalkanoic Acids” *Tetrahedron*, **67**, 3360-3362 (2011).

5. U. Azzena, G. Dettori, L. Pisano, M. Pittalis “Reducing *versus* Basic Properties of 1,2-Diaryl-1,2-disodiumethanes”, *Tetrahedron*, **67**, 3470-3475 (2011).
6. U. Azzena, S. Mocci, L. Pisano “*m*-Terphenyl Ethers, a New Hydroxy Protecting Group Cleavable under Reductive Electron Trasfer Reaction Conditions”, *Synthesis*, 1575-1580 (2011).
7. U. Azzena, G. Dettori, L. Pisano, M. Pittalis, G. Mangano, G. Petretto, G. Pintore, *Monatsh. Chem.*, **143**, 601-605 (2012).
8. U. Azzena, F. Kondrot, L. Pisano, M. Pittalis “A Green Solvent Approach to the Chemistry of 1,2-Diaryl-1,2-disodioethanes”, *Appl. Organomet. Chem.*, **26**, 180-184 (2012).
9. M. Pittalis, U. Azzena, L. Pisano “Active-alkali metal promoted reductive desulfurization of dibenzothiophene and its hindered analogues” *Tetrahedron*, **69**, 207-211 (2013).
10. U. Azzena, L. Pisano “Reductive lithiation and multilithiated compounds in synthesis” in *Lithium compounds in organic synthesis*, R. Luisi, V. Capriati eds., Wiley-VCH, Weinheim, **12**, 351-373 (2014), ISBN: 978-3-527-33343-1.
11. U. Azzena, M. Carraro, C. Meloni, I. Murgia, L. Pisano, M. Pittalis, R. Luisi, B. Musio, L. Degennaro “Regio- and stereochemistry of Na-mediated reductive cleavage of alkyl aryl ethers” *Tetrahedron: Asymmetry*, **25**, 1550-1554 (2014).
12. A. D. Mamuye, L. Castoldi, U. Azzena, W. Holzer, V. Pace “Chemoselective efficient synthesis of functionalized β -oxonitriles through cyanomethylation of Weinreb amides” *Org. Biomol. Chem.* (2015), 13, 1969-1973.
13. U. Azzena, M. Carraro, A. D. Mamuye, Irene Murgia, Luisa Pisano, Giuseppe Zedde “Cyclopentyl Methyl Ether-NH₄X: a Novel Solvent/Catalyst System for Low Impact Acetalization Reactions” *Green Chem.* (2015), 3281-3284.
14. U. Azzena, “M. Carraro, L. Pisano, F. Mocci, S. Antonello, F. Maran “Reducing properties of 1,2-dipyridyl-1,2-disodioethanes: chemical validation of theoretical and electrochemical predictions” *RSC Adv.* (2016), 6, 46813-46821.
15. L. Pisano, L. Degennaro, M. Carraro, U. Azzena, F. Fanelli, P. Mastrorilli, R. Luisi “Computational NMR as Useful Tool for Predicting Structure and Stereochemistry of Four-Membered Sulfur Heterocycles” *Eur. J. Org. Chem.* (2016), 3252-3258.
16. M. Carraro, L. Pisano, U. Azzena “Silica Gel Stabilized Na and Na/K Alloys: Highly Effective, Versatile and Environmentally Friendly Reducing Agents” *Synthesis* (2017) 49, 1931-1937.
17. U. Azzena “1,2-Diaryl-1,2-disodioethanes: Versatile, Highly Reactive and Tunable Synthetic Equivalents of Sodium Metal” *Aust. J. Chem.* (2017), 70, 647–651.
18. U. Azzena, M. Carraro, L. Pisano “Addressing Stereochemistry by DFT-NMR Analysis of Heterocyclic Compounds” *Chem. Het. Compd.* (2018), 54, 380–388.
19. U. Azzena, M. Carraro, G. Modugno, L. Pisano, L. Urtis “Heterogeneous Acidic Catalysts for the Tetrahydropyranylation of Alcohols and Phenols in Green Ethereal Solvents” *Beilstein J. Org. Chem.* (2018) 54, 1655-1659.
20. U. Azzena, M. Carraro, L. Pisano, S. Monticelli, R. Bartolotta, V. Pace “Cyclopentyl Methyl Ether: an Elective Eco-Friendly Ethereal Solvent in Classical and Modern Organic Chemistry” *ChemSusChem* (2019) 12, 40-70.