Prof. Dr. MASSIMO CAMETTI CURRICULUM VITAE

born 22 March 1977

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Summary

I received my education in Rome, Italy, at the **University of Rome "La Sapienza"**, where I graduated in **CHEMISTRY *cum laude*** under the supervision of Prof. L. Mandolini and Prof. A. Dalla Cort. I undertook my doctoral studies in the same group. In February 2005, I received the title of **Philosophy Doctor in Chemistry (Ph.D.**). Later, I worked as post-doctoral fellow at the **Ruđer Bošković Institute** (RBI) in Zagreb, Croatia (under the supervision of Prof. M. Žinić and Dr. I. Piantanida). In 2006, I held a position as researcher at the **CNR-IGAG**, in Rome. In 2007, I joined, as postdoctoral fellow, the **Université Libre de Bruxelles** (ULB) under the supervision of Prof. K. Bartik and Prof. M. Luhmer. Later, I moved to the **University of Jyväskylä**, in the laboratory of Prof. K. Rissanen.

From 2011, I am affiliated to the **Politecnico di Milano**, first as **Assistant Professor** (RTD) thanks to the "*Programma per Giovani Ricercatori Rita Levi Montalcini"*, and since 1st of Dec 2015 as **Associate Professor** (**03/B2 *II fascia***).

My chemical interests are in the field of Supramolecular Chemistry:

- host-guest chemistry and anion recognition and sensing
- responsive organo- and metallo-gels
- charge transfer π-organic materials
- hybrid polymeric materials and metal organic frameworks (MOF)

Academic Education:

Feb 2005	**Ph.D. in Chemistry** under the supervision of Prof. A. Dalla Cort and Prof. L. Mandolini. University of Rome «La Sapienza». Thesis Title: «*Salophen-Uranyl complexes as Supramolecular Receptors*».
Jul 2001	**Laurea in Chemistry cum laude** (5 years) under the supervision of Prof. Luigi Mandolini and Prof. A. Dalla Cort. Thesis Title: «*Salophen-Uranyl complexes as ditopic receptors for quaternary ammonium salts*».

Doctoral Schools:

2002	"Scuola Nazionale di Risonanza Magnetica Nucleare" Villa Gualino, Torino, Italy.
2003	"Winter International School of Organic Reactivity" Bressanone, Italy.
2004	"3rd National School for Introduction to Photochemistry" University of Bologna, Bologna, Italy.
2001	Certified Chemist (State Exam) and professional qualification.

Grants & Awards:

2011	**Rita Levi Montalcini Grant** (167k + 150k euro within the 2011-2017 period).
2007	Post-Doctoral grant *"Bourse « Ouverture internationale » aux chercheurs post-doctorants d'institutions étrangères"* (ULB-Brussels, Belgium).
2006	CNR Post-Doctoral fellowship (CNR-IGAG).
2005	Ateneo «La Sapienza» Fellowship for specialization abroad (RBI).

Teaching Activity:

a.y. 11-12 / 12-13/ 13-14: CHIMICA A (6 CFU) at Politecnico di Milano (*Polo Territoriale di Como*).
a.y. 14-15/ … / 20-21: FONDAMENTI di CHIMICA (7 CFU) at Politecnico di Milano (*BOVISA*).

Complete List of Publications:

My research work has been disseminated in more than 30 conferences and meetings, where I presented posters or oral contributions and it has been published in international peer-reviewed journals (**53** publications, *H-index* = **19**, *total citations* = **2037**).

2020

53. Toni Grgurić, Mario Cetina, Manuel Petroselli, Corrado Bacchiocchi, Zoran Dzolic and Massimo Cametti, Anion Binding with Biphenyl-bis-Urea Derivatives: Solution and Solid-State Studies *Dnew J. Chem.,* **2020**, accepted

52. Martina Lippi, Josefina Caputo, Antonino Famulari, Alessandro Sacchetti, Carlo Castellano, Fiorella Meneghetti, Javier Martí-Rujas and Massimo Cametti, Combined Structural and Theoretical Investigation on Differently Substituted Bispidine Ligands: Predicting the Properties of their Corresponding Coordination Polymers *Dalton Trans.*, **2020**,

51. Gabriela Dobras, Magdalena Sitko, Manuel Petroselli, Manfredi Caruso, Massimo Cametti, Carlo Punta and Beata Orlińska, Solvent-free Aerobic Oxidation of Ethylbenzene Promoted by NHPI/Co(II) Catalytic System: The Key Role of Ionic Liquids, *ChemCatChem*, **2020**, 12, 259-266.

2019

50. Martina Lippi, Massimo Cametti and Javier Marti-Rujas, Ab Initio Powder X-Ray Diffraction Structural Analysis of Bispidine Based 1D Coordination Polymer: Insight into their Guest Responsive Behaviour, *Dalton Trans.*, **2019**, 48, 16756-16763.

49. Rajendhraprasad Tatikonda, Massimo Cametti, Elina Kalenius, Anonino Famulari, Kari Rissanen and Matti Haukka, Mononuclear Ru(II) PolyPyridyl Water Oxidation Catalysts Decorated with Perfluoroalkyl C8H17-Tag Bearing Chains, *Eur. J. Inorg. Chem.*, **2019**, 4463-4470.

48. Massimo Cametti, Yoko Sakata, Javier Marti-Rujas and Shigehisa Akine, ON/OFF Control of the Flipping Motion of di-Uranyl bis-(Salophen) Macrocycle by Extremely Strong Binding with Fluoride Ion, *Inorg. Chem.* **2019**, 58, 14871-14875.

47. Laura Riva, Andrea Fiorati, Aurora Sganappa, Lucio Melone, Carlo Punta and Massimo Cametti, Naked-Eye Heterogeneous Sensing of Fluoride Ions by Co-Polymeric Nanosponge Systems Comprising Aromatic-Imide-Functionalized Nanocellulose and Branched Polyethyleneimine, *ChemPlusChem,* **2019**, 84, 1512-1518.

46. Massimo Cametti, Arto Valkonen and Kari Rissanen, Entrapment of a Linear Water Pentamer into a Uranyl-Salophen Dimer in the Solid State, *Supramol. Chem.,* **2019**, 31, 653-659.

45. Yao Ma, Massimo Cametti, Zoran Džolić and Shimei Jiang, Selective Cu(II) Sensing by a Versatile AIE Cyanostilbene-based Gels System, *Soft Matter,* **2019**,15, 6145-6150.

2018

44. Arianna Rossetti, Martina Lippi, Javier Martí-Rujas, Alessandro Sacchetti and Massimo Cametti, Highly Dynamic and Tunable Behavior of 1D Coordination Polymers based on the Bispidine Ligand, *Chem., Eur. J.*, **2018**, 24, 19368-19372.

43. Yao Ma, Massimo Cametti, Zoran Džolić and Shimei Jiang, AIE-active bis-cyanostilbene-based organogels for quantitative fluorescence sensing of CO_2 based on molecular recognition principles, *J. Mater. Chem. C,* **2018**, 6, 9232-9237.

2017

42. Manuel Petroselli, Sara Mosca, Javier Martí-Rujas, Daniela Comelli and Massimo Cametti, Mixed Stacked Charge Transfer π-Organic Materials based on Anthracenyl Boronic Acid, *Eur. J. Org. Chem.*, **2017**, 47, 7190–7194.

41. Manuel Petroselli, Lucio Melone, Massimo Cametti and Carlo Punta, Lipophilic N-hydroxyphthalimide Catalysts for the Aerobic Oxidation of Cumene: Towards Solvent-Free Conditions … and Back, *Chem., Eur. J.*, **2017**, *44*, 10616–10625 (*hot paper*)

40. Lucio Melone, Andrea Fiorati, Gianluca Turco, Andrea Travan, Enrico Caneva, Nadia Pastori, Massimo Cametti, Carlo Punta, Mechanical and Drug Release Properties of bPEI-TOCNF Sponges, *ChemPlusChem.,* **2017,** 82, 848–858.

39. Arto Valkonen, Giuseppe Lombardo, Kari Rissanen, Francesco Punzo and Massimo Cametti, X-Ray Crystallographic and Computational Study on Uranyl-Salophen Complexes Bearing Nitro Groups, *Dalton Trans.* **2017**,46, 5240-5249.

38. Daniele Cortecchia, Cesare Soci, Massimo Cametti, Annamaria Petrozza, Javier Martí-Rujas, Crystal Engineering of a Two-Dimensional Lead-Free Perovskite with Functional Organic Cations by Second-Sphere Coordination, *ChemPlusChem.,* **2017**, 82, 681–685.

2016

37. Yao Ma, Massimo Cametti, Zoran Džolić and Shimei Jiang, Responsive aggregation-induced emissive supramolecular gels based on bis-cyanostilbene derivatives, *J. Mater. Chem. C*, **2016**, 4, 10786-10790.

36. Massimo Cametti and Javier Martí-Rujas, Selective adsorption of chlorinated volatile organic compound vapours by microcrystalline 1D coordination polymers, *Dalton Trans.,* **2016**, 45, 18832-18837**.**

35. Rajendhraprasad Tatikonda, Sandip Bhowmik, Kari Rissanen, Matti Haukka and Massimo Cametti, Metallogel Formation in Aqueous DMSO by Perfluoroalkyl Decorated Terpyridine Ligands. *Dalton Trans.*, **2016**, 45, 1674-1678

34. Massimo Cametti, Ilaria Bargigia and Javier Martí-Rujas, Dynamic Single Crystal to Polycrystal Transformation of a 1D-Coordination Polymer and its Second Harmonic Generation. *Dalton Trans.*, **2016**, 45, 1674-1678

2015

33. L. Melone, S. Bonafede, D. Tushi, C. Punta and M. Cametti, Dip in colorimetric fluoride sensing by a chemically engineered polymeric cellulose/bPEI conjugate in the solid state. *RSC Adv.,* **2015**, *5*, 83197-83205.

32. H.-C. Yu, L. Li, J. Gao, J. Tong, W. Zheng, M. Cametti, A. Famulari, S. V. Meille, F. Guo and J. Martí-Rujas, Insights into the Formation of Chiral Second Sphere Coordination Complexes with Aromatic Tris Amines: Combined Single Crystal X-ray Crystallography and Molecular Modeling Analyses, *Dalton Trans.*, **2015**, *44*, 15960-15965

31. C. Giri, F. Topić, M. Cametti and K. Rissanen, Mixed Valence Mono- and Hetero-Metallic Grid Catenanes, *Chem. Sci.,* **2015***, 6*, 5712-5718

30. J. Martí-Rujas, Simone Bonafede, Dorearta Tushi and M. Cametti, Multiple Single-Crystal-to-Single-Crystal Guest Exchange in a Dynamic 1D Coordination Polymer, *Chem. Commun.,* **2015***, 51,* 12357-12360.

29. M. Cametti M. Cetina and Z. Džolić, Cu(II)-Specific Metallogel Formation by an Amido-Anthraquinone-Pyridyloxalamide Ligand in DMSO-water, *Dalton Trans.,* **2015***, 44*, 7223-7229.

2014

28. D Zilić, B. Rakvin, D. Milić, D. Pajić, I. Đilović, M. Cametti and Z. Džolić, Crystal Structures and Magnetic Properties of a Set of Uncommon Dihalo-Bridged Oxalamidato Copper(II) Dimers, *Dalton Trans.* **2014**, *43*, 11877-11887.

27. M. Cametti and Z. Džolić, New Frontiers in Hybrid Materials: Noble Metal Nanoparticles - Supramolecular Gel Systems, *Chem. Commun.*, **2014**, *50*, 8273-8286.

26. J. Martí-Rujas and M. Cametti, Synthesis of a Novel Hybrid Metal–Organic Salt and its Solid-State Transformation, *New. J. Chem.*, **2014**, *38*, 1385-1388.

25. A. Mastropietro, E. De Bernardi, G. Breschi, I. Zucca, M. Cametti, C. D. Soffientini, M. de Curtis, G. Terraneo, P. Metrangolo, R. Spreafico, G. Resnati, G. Baselli, Optimization of RARE Pulse Sequence Parameters for 19F-MRI Studies, *J. Magnetic. Res. Imaging*, **2014**, *40*, 162-170.

2013

24. G. L. Breschi, M. Cametti, A. Mastropietro, L. Librizzi, G. Baselli, G. Resnati, P. Metrangolo and M. de Curtis, Different Permeability of Potassium Salts across the Blood-Brain Barrier Follows the Hofmeister Series, PLoS ONE **2013**, 8(10): e78553, doi:10.1371/journal.pone.0078553.

23. O. Jurček, M. Cametti, M. Pontini, E. Kolehmainen and K. Rissanen, A Zinc–Salophen/Bile-Acid Conjugate Receptor Solubilized by CTABr Micelles Binds Phosphate in Water, *Org. Biomol. Chem.*, **2013**, *11*, 4585-4590.

22. Z. Džolić, M. Cametti, D. Milić and M. Žinić, The Formation of CuCl2-Specific Metallogels of Pyridyloxalamide Derivatives in Alcohols, *Chem. Eur. J.*, **2013**, *19*, 5411–5416.

21. M. Cametti and K. Rissanen, Highlights on the Contemporary Recognition and Sensing of Fluoride in Solution and in the Solid State, *Chem. Soc. Rev.*, **2013**, *42*, 2016-2038.

2012

20. M. Cametti, A. Dalla Cort and L Mandolini, Substituent Effects in Cation–π Interactions. Recognition of Tetramethylammonium Chloride by Uranyl-Salophen Receptors, *Chem. Sci.,* **2012**, *3*, 2119-2122.

19. M. Cametti, K. Raatikainen, P. Metrangolo, T. Pilati, G. Terraneo and G. Resnati, 2-Iodo-imidazolium

Receptor Binds Oxoanions *via* Charge-assisted Halogen Bonding, *Org. Biomol. Chem.*, **2012**, *10*, 1329-1333.

18. M. Cametti, B. Crousse, P. Metrangolo, R. Milani and G.Resnati, The Fluorous Effect in Biomolecular Application: A Tutorial Review, *Chem. Soc. Rev.*, **2012**, *41*, 31-42.

2011

17. S. Biella, M. Cametti, T. Caronna, G. Cavallo, A. Forni, P. Metrangolo, T. Pilati and G. Resnati, Site-selective Assembly between 1,8-Diiodoperfluorooctane and 4,7,8,11-Tetraazahelicene Driven by Halogen Bonding, *Supramol. Chem., **2011**, 23*, 256-262.

2010

16. M. Cametti, L. Ilander, A. Valkonen, M. Nieger, M. Nissinen, E. Nauha and K. Rissanen, Non-Centrosymmetric Tetrameric Assemblies of Tetramethylammonium Halides with Uranyl Salophen Complexes in the Solid State, *Inorg. Chem.*, **2010**, *49*, 11473–11484.

15. M. Mba, L. J. Prins, C. Zonta, M. Cametti, A. Valkonen, K. Rissanen and G. Licini, Ti(IV)-Amine Triphenolate Complexes as Effective Catalysts for Sulfoxidation, *Dalton Trans.* **2010**, *39*, 7384–7392.

14. K. Raatikainen, M. Cametti and K. Rissanen, The Subtle Balance of Weak Supramolecular Interactions: The Hierarchy of Halogen and Hydrogen Bonds in Halo-Anilinium and Halo-Pyridinium Salts, *Beilstein J. Org. Chem.* **2010**, 6, No. 4.

2009

13. M. Cametti, L. Ilander and K. Rissanen, Recognition of Li^+ by a Salophen-UO_2 Homodimer, *Inorg. Chem.,* **2009**, *48,* 8632–8637.

12. M. Cametti and K. Rissanen, Recognition and Sensing of Fluoride, *Chem. Commun.*, **2009**, 20, 2809-2829.

11. D. Milić, Z. Džolić, M. Cametti, B. Prugovečki and M. Žinić, Supramolecular Architectures of Simple Aminoanthraquinones: Revised Structure of 1-Aminoanthraquinone, *J. Mol. Struct.*, **2009**, *920*, 178-182.

2008

10. M. Cametti, A. Dalla Cort and K. Bartik, Fluoride Binding in Water: A New Environment for a Known Receptor, *Chem. Phys. Chem.*, **2008**, 9, 2168 – 2171.

9. M. Cametti, A. Dalla Cort, L. Mandolini, M. Nissinen and K. Rissanen, Specific Recognition of Fluoride Anion Using a Metallamacrocycle Incorporating a Uranyl-Salen Unit, *New J. Chem.*, **2008**, *32*, 1113–1116.

8. S. Sennato, F. Bordi, C. Cametti, M. Cametti, C. Marianecci, M. Carafa, Hybrid Niosome Complexation in the Presence of Oppositely Charged Polyions, *J. Phys. Chem. B*, **2008**, *112*, 3720–3727.

2007

7. M. Cametti, A. Dalla Cort, G. Portalone, L. Russo and K. Rissanen, Evidence of the Facile Hydride and Enolate Addition to the Imine Bond of an Aluminium Salophen Complex, *Inorg. Chem.*, **2007**, *46*, 9057-9059.

6. Z. Džolić, M. Cametti, A. Dalla Cort, L. Mandolini and M. Žinić, Fluoride-Responsive Organogels Based on Anthraquinone Derived Oxalimide Gelators, *Chem Commun.*, **2007**, 3535-3537.

5. M. Cametti, I. Piantanida, Mladen Žinić, A. Dalla Cort, L. Mandolini, M. Marjanović, M. Kralj, Specific

Sensing of PolyG by the Aluminum-Salophen Complex, *J. Inorg. Biochem.*, **2007**, *101*, 1129-1132.

4. M. Cametti, M. Nissinen, A. Dalla Cort, L. Mandolini and K. Rissanen, Ion Pair Recognition of Quaternary Ammonium and Iminium Salts by Uranyl-Salophen Compounds in Solution and in the Solid State, *J. Am. Chem. Soc.*, **2007**, *129*, 3641-3648.

2006

3. M. Cametti, M. Nissinen, A. Dalla Cort, L. Mandolini and K. Rissanen, Crystal Structure of a CsF-Uranyl-Salen Complex. An Unusual Cesium-Chlorine Coordination, *Inorg. Chem.*, **2006**, *45*, 6099-6101.

2005

2. M. Cametti, M. Nissinen, A. Dalla Cort, L. Mandolini and K. Rissanen, Recognition of Alkali Metal Halide Contact Ion Pairs by Uranyl-Salophen Receptors Bearing Aromatic Sidearms. The Role of Cation-π Interactions, *J. Am. Chem. Soc.,* **2005**, *127*, 3831-3837.

2003

1. M. Cametti, M. Nissinen, A. Dalla Cort, L. Mandolini and K. Rissanen, Uranyl-Salophen Based Ditopic Receptors for the Recognition of Quaternary Ammonium Halides, *Chem. Commun.,* **2003**, 2420-2421.

Patents:

i. Z. Džolić, M. Žinić, M. Cametti, A. Dalla Cort, L. Mandolini, Colorimetric Sensors for Detection of Fluoride Anion in Solutions and Gels, **Patent no. P20070225A** at the Patent Application Register, Patent Department, State Intellectual Property Office, Republic of Croatia.

Over the last 10 years, I acted as reviewer for the following international peer-reviewed journals: *Chem. Sci.*, *Chem. Commun.*, *Inorg. Chem.*, *ACS Appl. Mater. Interfaces*, *Nanoscale*, *Langmuir*, *Dalton Trans.*, *J. Mater. Chem. C*, *RSC Adv.*, *New J. Chem.*, *J. Fluor. Chem.*, *Polyhedron*, *J. Coord. Chem.*, and *J. Incl. Phenom. Macrocycl. Chem*.