

MAURIZIO BENAGLIA

Laureato in Chimica presso l'Università degli Studi di Milano, in data 24/01/1991, con valutazione 110/110, ha conseguito il titolo di dottore in ricerca nel novembre 1994 con una tesi dal titolo: "Sintesi stereoselettiva di beta-lattami mediante condensazione con immine di enolati di titanio, stagno e boro" (relatore prof. Mauro Cinquini).

Vincitore di una borsa di studio CNR/N.A.T.O dal 1995 al 1997 ha lavorato presso il Chemistry and Biochemistry Department della University of California, San Diego nel gruppo del Prof. J. S. Siegel, occupandosi di chimica supramolecolare.

Tornato a Milano ha vinto da maggio 1997 ad agosto 1998 una borsa di post-dottorato del Ministero della Ricerca Scientifica e Tecnologica e da agosto 1998 a maggio 2000 una borsa di studio della Tecnofarmaci S.C.p.A.

Ha preso servizio come ricercatore da giugno 2000 presso il Dipartimento di Chimica Organica e Industriale della Università degli Studi di Milano e nel 2006 ha vinto il concorso a professore associato presso lo stesso Dipartimento.

Ha ottenuto l'abilitazione a professore di I fascia (bando 2012 - DD n. 222/2012), superando tre mediane su tre degli indicatori bibliometrici.

Dal 1 maggio 2015 ha preso servizio come professore ordinario presso il Dipartimento di Chimica dell'Università degli Studi di Milano.

PREMI E RICONOSCIMENTI

Vincitore della MEDAGLIA "GIACOMO CIAMICIAN" per il 2001, assegnata dalla Divisione di Chimica Organica della Società Chimica Italiana.

E' stato premiato da Elsevier come autore di uno dei 50 articoli piu' citati nel triennio 2003-2006.

E' stato poi premiato da Elsevier come autore di uno dei 50 articoli piu' citati nel triennio 2006-2009.

Per il triennio 2006-2009 e' stato anche premiato da American Chemical Society come autore di uno dei 20 lavori piu' citati su Organic Letters (highlighted in Synfacts).

Autore di un Editor Choice article (*Org. Process Res. Dev.* **2016**, 20, 2-25).

Autore di un articolo highlighted in Synfacts 2018 (*Synthesis*. **2018**, DOI: 10.1055/s-0036-1591911).

Nel 2014 gli e' stato conferito il premio "Innovazione alla ricerca" (2014) dal Consorzio Interuniversitario Nazionale "Metodologie e processi innovativi di sintesi" -C.I.N.M.P.I.S.

Nel 2019 gli è stata conferita la MEDAGLIA PIERO PINO, assegnata dalla Divisione di Chimica Organica della Società Chimica Italiana.

- E' stato **Invited Plenary Speaker** a: 9th Meeting on Stereochemistry (Praga, giugno 2001), 5th Spanish Italian Symposium on Organic Chemistry (Santiago de Compostela, Spagna, 2004),

COFEM, Giornate di Chimica Organica Fisica e Meccanicistica, (Catania, settembre 2006), Symposium "Organocatalysis" organizzato dalla Ernst Schering Foundation a Berlino (aprile 2007), Austrian-German-French-Italian-Hungarian meeting (Goslar, Germany, 2011), Bilateral Symposium Italy-China, (Padova, Italy, 2014), International Translational Chemistry Conference (Caparica, Lisbon, Portugal, 2015), GIC (Gruppo Interdivisionale Catalisi) (Bressanone 2016), 20th ESOC (European Symposium on Organic Chemistry) (Cologne, Germany July 2017), The First International Conference on Symmetry (Barcellona, Spain, September 2017), FROST (Frontier Organic Synthesis and Technologies) (Budapest, Hungary, September 2017), PBS International Conference - (Barcellona, Spain, December 2018), Flow Chemistry Europe Conference – (Cambridge, UK, February 2019, WCCE Int. Conference — (Bruxelles, Belgium, June 2019).

E' stato invited speaker a diverse scuole nazionali e internazionali quali Summer School on Organic Synthesis "A. Corbella" e WISPOC (Winter School of Physical Organic Chemistry).

E' stato recentemente membro partecipante (su invito) della rete Europea COST :

ORCA-Organocatalysis CM0905 (2009-2014)

E' stato il **Direttore** della Scuola Internazionale (2014-2017):

ISOS – International Summer School on Organic Synthesis "A. Corbella"

che si tiene ogni anno a giugno a Gargnano (BS), presso Palazzo Feltrinelli.

E' **co-fondatore e Direttore** della Scuola Internazionale (2017-...)

ISPROCHEM – International School of Process Chemistry

Prima edizione: Marzo 2017 a Gargnano (BS), Italy. Seconda edizione: Aprile 2018.

Membro dell' Editorial Board della rivista "Molecules" (open access journal, MDPI).

E' stato **Editore** del libro "Recoverable and recyclable catalysts" (Wiley, 2009).

Dal 2014 membro dell' Advisory Board della start up DexLeChem (Berlino, Germania).

Referee per: Angewandte Chemie International Edition, Organic letters, Advanced Synthesis and Catalysis, Journal of American Chemical Society, Chemistry A European Journal, Chemical Communication, Journal of Organic Chemistry, Journal of Molecular Catalysis, Tetrahedron Letters, Journal of Catalysis, Organic and Biomolecular Chemistry, European Journal of Organic Chemistry, Tetrahedron, Tetrahedron Asymmetry, New Journal of Chemistry, Journal of Catalysis Communication, Advanced Functional Materials, Synlett, Synthesis, ChemSusChem, ChemCatChem, ACS Catalysis, J. Flow Chem.

METRICS

Ha presentato diversi posters, oral communications, key note and invited lectures a congressi

nazionali e internazionali

Autore di più' **200 pubblicazioni** (54 articoli negli ultimi 5 anni, 2013-2017) su riviste scientifiche internazionali, inclusi quattro brevetti, dieci reviews e nove capitoli di libri.

H Index : 43 (citations: 6226 font: Scopus); H Index : 42 (Average cit. per item 31,65; citations: 5730, font: Web of Science).

ATTIVITÀ DIDATTICA

Attualmente titolare dell'insegnamento di Laboratorio di Chimica Organica per il corso di Chimica Industriale (II anno, laurea triennale); titolare dell'insegnamento di Catalytic Methodologies in Organic Chemistry (laurea magistrale in Scienze Chimiche and laurea in Industrial Chemistry); già' titolare dell'insegnamento di Complementi di Chimica Organica con Laboratorio (per il corso di Chimica Applicata e Ambientale (II anno, laurea triennale).

Svolge un'ampia attività tutoria nei confronti di laureandi dei corsi di laurea triennali di Chimica e Chimica Industriale, e di laureandi dei corsi di laurea magistrali in Scienze Chimiche e Industrial Chemistry.

E' stato relatore o correlatore di più di 80 tesi di Laurea triennale di chimica e chimica industriale e di Laurea Magistrale in Scienze Chimiche e Chimica Industriale.

E' stato tutor supervisore di 8 tesi di dottorato (incluso un dottorato europeo, come cotutor presso l'Università di Evora, Portogallo). E' attualmente tutor supervisore di altre 3 tesi di dottorato in corso.

Tiene anche lezioni per la Scuola di Dottorato in Scienze Chimiche dell'Università di Milano; è membro del Collegio dei Docenti della Scuola di Dottorato in Scienze e Tecnologie Chimiche dell'Università di Milano (Dottorato di Ricerca in Chimica Industriale).

Ha tenuto lezioni anche per la Scuola di Specializzazione per l'Insegnamento nelle Scuole Superiori (classe di concorso A013 e A060).

PARTECIPAZIONE AD ORGANI COLLEGIALI E DI RAPPRESENTANZA

E' attualmente membro di:

- Presidente della Commissione Paritetica
- Commissione Dipartimentale Programmazione
- Commissione Dipartimentale nuovo Campus area MIND
- Commissione interdipartimentale (ex Facoltà) per i corsi di formazione degli insegnanti delle scuole superiori.

ATTIVITÀ DI RICERCA

L'attività di ricerca si incentra attualmente su: sintesi di catalizzatori supportati, sviluppo di reattori catalitici per reazioni stereoselettive in flusso continuo, progettazione e sintesi di

nuove specie catalitiche organiche e organometalliche chirali, studio di reazioni enantioselettive in micro e mesoreattori in condizioni di flow chemistry, sintesi di composti di interesse farmaceutico, catalisi stereoselettiva in soluzioni acquose e in ambienti di reazione non convenzionali, progettazione di micro(meso) reattori con tecnologie 3D-printing, sviluppo di materiali fluorurati come nuovi agenti per imaging, sintesi di sistemi supramolecolari a chiralità definita.

FINANZIAMENTI

- **Coordinatore del progetto europeo MSCA 2018** (Marie Skłodowska Curie Actions) ITN-EID (European Industrial Doctorate) TECHNOTRAIN (784.5000 euro budget) (2018-2022)
- **Coordinatore nazionale** del progetto PRIN-2017 “Unlocking Sustainable Technologies Through Nature-Inspired Solvents” - (NATUREChem) (457.700 euro budget, 2019-2021)
- Vincitore e **responsabile scientifico** del progetto finanziato da Fondazione Cariplo “Biodegradable polymers with controlled macromolecular architecture as new polyfunctional agents for 19F MR imaging (budget: 410.000 euro- 2010)
- Progetto finanziato da Regione Lombardia - Bando PON_FESR 2014-2020 – Linea R&S Aggregazioni “Semilavorati nutraceutici e tecnologici fermentati per il miglioramento nutrizionale e sensoriale di prodotti da forno tradizionali e gluten-free” (budget 1.750.00 euro- UNIMI budget: 410.000 – 2017-2019), Coordinatore di unità
- Responsabile scientifico** del progetto finanziato da Fondazione Cariplo “Multifunctional hybrid materials as novel chiral recyclable catalysts for one-pot, multi-step synthesis of structurally complex molecules” (budget 350.000 - 2011),
- Membro del team del progetto FIRB Giovani - Futuro in Ricerca 2010 (codice RBFR10BF5V) “Multifunctional hybrid materials for the development of sustainable catalytic processes” (budget Unimi 326.500 euro).
- Coordinatore di una proposta di rete ITN per un MSC-EID (European Industrial Doctorate), : (H2020-MSCA-ITN-2015), *THE QUEST*, valutata sopra la soglia (valutazione 87/100 , soglia 70/100) ma non finanziata e di una proposta di ITN network per un MSC-EID (European Industrial Doctorate, H2020-MSCA-ITN-2016), *STEREOTECH* valutata sopra la soglia (valutazione 85/100 , soglia 70/100) ma non finanziata.

Titolare di contratti con diverse aziende (per un totale di 330.000 euro di finanziamenti nel decennio 2003-2013).

Titolare di contratti con quattro aziende nel periodo 2014-2018 per un totale di 210.000 euro.

Titolare di un brevetto venduto ad una ditta tedesca DeLexChem (2015).

PUBBLICAZIONI

Prof. MAURIZIO BENAGLIA

- 1) R. Annunziata, M. Cinquini, F. Cozzi, P. Giaroni, M. Benaglia.
Diastereo- and Enantioselective Synthesis of 1,2-Diols by Vanadium (II) Promoted Pinacol
Cross Coupling
Tetrahedron, **1991**, 47, 5737.
- 2) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, P. Giaroni.
Synthesis of Optically Active 3-(1-Hydroxyalkyl)phthalides by Stereoselective Pinacol Cross
Coupling.
J. Org. Chem., **1992**, 57, 782.
- 3) M. Benaglia, M. Cinquini, L. Raimondi.
Catalytic Enantioselective Homogeneous Reactions Mediated by Transition Metal Lewis
Acids.
Seminars in Organic Synthesis - XVIII Summer School "A. Corbella", **1993**, 155.
- 4) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, F. Ponzini.
Synthesis of β -Lactams of High Enantiomeric Purity by Chiral Ligand Accelerated Osmylation
of Racemic 4-(2-Styryl)-azetidion-2-ones.
Bioorg. Med. Chem. Lett., **1993**, 3, 2397.
- 5) R. Annunziata, M. Benaglia, M. Cinquini, L. Raimondi.
Electrostatic Effects in 1,3-Dipolar Cycloaddition Reactions to Chiral Allyl Ethers: a Rationale
for the Experimentally Observed Diastereoselectivities.
Tetrahedron, **1993**, 49, 8629.
- 6) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, F. Ponzini.
Stereoselective Synthesis of Azetidion-2-ones Precursors of Biologically Active *syn*-3- Amino-2-
hydroxybutanoic Acids.
J. Org. Chem., **1993**, 58, 4746.
- 7) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, L. Raimondi.
Stereoselective Synthesis of β -Lactams by Condensation of Titanium Enolates of 2-
Pyridylthioesters with Imines Bearing a Chiral Auxiliary.
Tetrahedron Lett., **1993**, 34, 6921.
- 8) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, F. Ponzini, L. Raimondi.
Synthesis of β -Lactams by Condensation of Titanium of 2-Pyridylthioesters with Imines.
Influence of the Imine Structure on the *trans/cis* Stereoselectivity.
Tetrahedron, **1994**, 50, 2939.
- 9) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, L. Raimondi.
Synthesis of β -Lactams by Condensation of the Tin Enolates of 2-Pyridylthioesters with Imines. A
Comparison between Titanium and Tin Enolates.
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- 10) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, L. Raimondi.
Stereoselective Synthesis of β -Lactams by Condensation of Titanium Enolates of 2-
Pyridylthioesters with Imines Bearing a Chiral Auxiliary.
Tetrahedron, **1994**, 50, 9471.
- 11) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi.
Enantioselective One-pot Synthesis of β -Lactams from Achiral 2-Pyridylthioesters and Aromatic
Imines.

- Tetrahedron Lett.*, **1995**, 36, 613.
- 12) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, A. Scolaro.
Stereoselective electrophilic hydroxylation at C-3 of 2-azetidinones.
Gazz. Chim. Ital., **1995**, 125, 65.
 - 13) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, L. Raimondi.
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the Observed Diastereoselectivity.
J. Org. Chem., **1995**, 60, 4697.
 - 14) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, V. Molteni, L. Raimondi.
Optically Active Aminoalcohol Promoted Addition of 2-Pyridylthioester Boron Enolates to Imines:
Enantioselective One-pot Synthesis of β -Lactams.
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 - 15) R. Annunziata, M. Benaglia, A. Chiovato, M. Cinquini, F. Cozzi.
Highly Stereoselective Synthesis of β -Lactams by Condensation of the Titanium Enolate of a
Chiral 2-Pyridylthioester with Chiral Imines.
Tetrahedron, **1995**, 51, 10025.
 - 16) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, O. Martini, V. Molteni.
Stereoselective One-pot Synthesis of β -Lactams by Reaction of 2-Pyridylthioester with Imines in the
Presence of AlBr₃ or EtAlCl₂.
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 - 17) C.R. Woods, M. Benaglia, J.S. Siegel, F. Cozzi.
Enantioselective Synthesis of Copper(I) Bipyridine Based Helicates by Chiral Templating of
Secondary Structure: Transmission of Stereochemistry on the Nanometer Scale .
Angew. Chem. Int. Ed. Engl., **1996**, 35, 1830.
 - 18) R. Annunziata, M. Benaglia, M. Cinquini and L. Raimondi
Diazomethane Cycloadditions to γ -Alkoxy- α,β -unsaturated Esters: a Violation of the Inside
Alkoxy Theory?
[http:// www.ch.ic.ac.uk/ectoc/echet 96/papers/026/index/.htm](http://www.ch.ic.ac.uk/ectoc/echet96/papers/026/index/.htm)
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Palladium Catalyzed Stannylation of Halopyridines with Hexamethyldistannane.
Tetrahedron Lett., **1997**, 38, 4737.
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Soluble Polymer-Supported Synthesis of Imines and β -Lactams.
Tetrahedron Lett., **1998**, 39, 1257.
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Tetrahedron Lett., **1998**, 39, 2697.
 - 22) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi and L. Raimondi
Diastereoselective Synthesis of 1,2-Diphenyl-1,2-Diaminoethanes by Yb(OTf)₃ Accelerated
Reductive Coupling of Imines.
Tetrahedron Lett., **1998**, 39, 3333.
 - 23) M. Benaglia and L. Raimondi.
Stereoselection in Pinacol Coupling Reactions of C=O and C=N Bonds .
Seminars in Organic Synthesis - XXIII Summer School "A. Corbella", **1998**, 155.
 - 24) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi and L. Raimondi
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Nitrones to Chiral Allyl Ethers: an Experimental and Force Field Approach.
Eur. J. Org. Chem., **1998**, 1823-1832.
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J. Org. Chem., **1998**, 63, 8628.
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- 28) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, L. Poletti, L. Raimondi and A. Perboni
A Novel Approach to the Synthesis of Precursors of Tricyclic β -Lactams Antibiotics.
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- 29) R. Annunziata, M. Benaglia, M. Cinquini, L. Raimondi
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Eur. J. Org. Chem., **1999**, 3369.
- 30) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi
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- 31) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi
Soluble Polymer Supported Synthesis of β -Lactams on a Modified Poly(ethylene glycol).
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- 32) M. Benaglia, M. Cinquini, F. Cozzi
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- 33) M. Benaglia, M. Cinquini, F. Cozzi
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In: *New Trends in Medicinal Chemistry* - Ed. F. Gualtieri, Wiley, Weinheim, pp. 97- 133, Chapter 5, **2000**.
- 34) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, G. Tocco
A Poly(ethylene glycol)-Supported Quaternary Ammonium Salt: an Efficient, Recoverable, and Recyclable Phase-Transfer Catalyst.
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Long-Distance Propagation of Stereochemical Information by Stereoselective Synthesis of Copper(I) Bipyridine Helicates.
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Eur. J. Org. Chem., **2001**, 1045-1048.
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- 38) M. Benaglia, L. Raimondi
Stereoselection in Reactions of Chiral Allyl Ethers: The Case of 1,3-Dipolar Cycloaddition
Eur. J. Org. Chem., **2001**, 1033-1043.
- 39) C.R. Woods, M. Benaglia, S. Toyota, K. Hardcastle, J.S. Siegel
Trinuclear Copper(I)-Bipyridine Triskelion: Template/Basculic Control of Coordination Complex Stereochemistry in a Trefoil Knot Precursor.
Angew. Chem. Int. Ed., **2001**, 40, 4, 749-751.
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- 42) R. Annunziata, M. Benaglia, A. Famulari, L. Raimondi
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- 43) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, M. Pitillo
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Mild Synthesis of Enantiomerically Pure Imidazo-[1,2-*a*]azepines Mediated by Yb(Tf)₃.
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- 45) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi
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- 46) R. Annunziata, M. Benaglia, M. Cinquini, F. Cozzi, A. Puglisi
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- 51) M. Benaglia
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Catal. Today **2018**, *308*, 94-101.
- 194) S. Rossi, A. Puglisi, M. Benaglia
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- 195) M. Pirola, M. Benaglia, M. E. Compostella, L. Raimondi, A. Puglisi

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- 196) S. Rossi, A. Puglisi, L. Raimondi, M. Benaglia
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- 199) M. Pirola, A. Puglisi, L. Raimondi, A. Forni, M. Benaglia
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- 203) E. Massolo, M. Pirola, A. Puglisi, L. S. Rossi, M. Benaglia
A one pot protocol to convert nitro-arenes into *N*-aryl amides
RSC Advances **2020**, *10*, 4040-4044.
- 204) F. Franco, S. Mennino, A. Lattanzi, M. Benaglia
Formal α -trifluoromethylthiolation of carboxylic acid derivatives via *N*-acyl pyrazoles
Chem Comm **2020**, *56*, 3073-3076.
- 205) E. Massolo, M. Pirola, M. Benaglia
Amide bond formation strategies: latest advances on a dateless transformation
Eur. J. Org. Chem. **2020**, <https://doi.org/10.1002/ejoc.202000080>

Lectures and Oral communications

- 3° Congresso Nazionale di Chimica Supramolecolare (Rimini, settembre 1997).
“Enantioselective Synthesis of Double Helicates “.
(poster)
- 12th International Conference on Organic Synthesis (ICOS-12) (Venezia, luglio 1998).
“New Polyethylene Glycol Derivatives and their Use in Soluble Supported Synthesis
(oral communication)
- 1th International Conference on Chemistry of Antibiotics and Related Microbial Products
(ICCA-1, formerly ICSA-6) (Bologna, settembre 1998)
“Soluble Polymer Supported Synthesis of β -Lactams ” (oral communication)
- 11th European Symposium on Organic Chemistry (ESOC-11) (Goteborg, luglio 1999).
“Use of Trichlorotitanium Enolates of β -Hydroxy-Pyridylthioester in a Highly Stereoselective
Synthesis of β -Lactams “ (oral communication)
- COST Meeting (Vienna, maggio 2000)
“Soluble Polymer Supported Synthesis of Small Organic Molecules”
(oral communication)
- 36th ESF/EUCHEM Conference on Stereochemistry – Burgenstock (Burgenstock, maggio 2001)
“Stereoselective Reactions Promoted by PEG-Supported Catalysts” (poster)
- 9th Meeting on Stereochemistry (Praga, giugno 2001)
“Stereoselective Reactions Promoted by Poly(ethylene glycol)-Supported Chiral Ligands and
Catalysts”. (invited lecture)
- XXVII Convegno Nazionale della Divisione di Chimica Organica (Trieste, settembre 2001)
“Sintesi di Piccole Molecole Organiche, Leganti e Catalizzatori Immobilizzati su Polimero
Solubile”(**Invited plenary lecture for Ciamician medal** from Italian Chemical Society)
- COST Meeting (Vienna, aprile 2002)
“Poly(ethylene glycol)-Supported Catalysts: New Efficient Tools for Organic Synthesis”
(oral communication)
- XXVII Corso Estivo “A. Corbella” – Seminari di Chimica Organica (Gargnano, giugno 2002)
- The Merck lectureship reunion (Cambridge, settembre 2002)
 - Synthesis in organic chemistry (Cambridge, luglio 2003)
- “New enantiomerically pure phenanthroline and bipyridine macrocycles” (poster)
- 5th Spanish Italian Symposium on Organic Chemistry (Santiago de Compostela, Spagna,
settembre 2004).
“New chiral heterocycles as ligands and organic catalysts for enantioselective reactions”.
(invited lecture)
- 40th ESF/EUCHEM Conference on Stereochemistry – Burgenstock (Burgenstock, aprile 2005)
“**Enantioselective Synthesis of Propargyl Amines Promoted by Chiral Bis-Imines Copper
(I) Complexes**”(flash presentation)
- Conference on Catalysis and Biocatalysis in Green Chemistry (Cambridge, dicembre 2005)
“**Enantioselective Allylation of Aldehydes with Allyltrichlorosilane Promoted by New Chiral
Organocatalysts.**” (oral communication)
- Ciclo di lezioni presso GSK (GlaxoSmithKline) (Verona, febbraio 2006)
“**Catalisi Supportata**”
- Conferenza COFEM (Giornate di Chimica Fisica Organica e Meccanicistica (Catania, 2006)
“**Bipyridine and terpyridines-based systems for the synthesis of supramolecular devices**”

(Plenary lecture)

- “Organocatalysis Symposium” held by Ernst Schering Foundation (Berlin, Germany, 2007).

(Plenary lecture)

- Conferences in NicheM (2008), Bayer (Frankfurt, 2008), Zambon (2007 e 2008), Roche (Basel, 2009), “Reazioni stereoselettive promosse da catalizzatori organici e organometallici”

(invited lectures)

- Conference at CNR Bologna (2009) Recyclable catalysts **(invited lecture)**
- Conference at IUPAC congress (Torino, 2007) Stereoselective reactions in water
- ICSSE International symposium on Environmental Chemistry (Stockholm, 2009) “Lewis bases promoted stereoselective reduction of ketoimines” (Short presentation)

- 45th ESF/EUCHEM Conference on Stereochemistry – Burgenstock (Burgenstock, may 2010)

“Stereoselective direct aldol-type reaction catalyzed by chiral biheteroaromatic diphosphine oxides” (flash presentation)

- EuChems 2010 – (Nurberg, Germany, 2010)

“Organocatalytic direct aldol-type reaction catalyzed by chiral diphosphine oxides”

(oral presentation)

- **COST meeting (Action ORCA, Organocatalysis) (Berlin, Germany, 2011) (oral presentation)**

- **WISPOC (European Winter School in Physical Organic Chemistry) (Bressanone, 2011): “Recoverable and recyclable catalysts” (Plenary lecture)**

- Austrian-German-French-Italian-Hungarian meeting (Goslar, Germany, 2011)

“Novel chiral Lewis bases in organocatalytic reactions” (Plenary lecture)

- Conference at Congresso Nazionale della Società Chimica Italiana (Lecce, 2011)
“Water Soluble Functionalized Polymers as New ¹⁹F MRI agents “ (oral presentation)

- **COST meeting (Action ORCA, Organocatalysis) (Marseille, France, 2012) (oral presentation)**

- 47th ESF/EUCHEM Conference on Stereochemistry – Burgenstock (Burgenstock, may 2012)

“Stereoselective reactions promoted by supported chiral organic catalysts” (poster)

- ICCOS (International Congress of Catalysis in Organic Synthesis), Moscow, Russia, 2012
“Polymethylhydrosiloxane-supported chiral organic catalysts”

- **COST meeting (Action ORCA, Organocatalysis) (Rome, Italy, 2012) (invited lecture)**

- Conference at University of Bologna (2013) New chiral catalysts and novel synthetic methodologies **(invited lecture for PhD school)**

- **COST meeting (Action ORCA, Organocatalysis) (Amsterdam, Holland, 2013) (invited lecture)**

- Conference at University of Piemonte Orientale (Novara, 2013) New chiral catalysts and novel synthetic methodologies **(invited lecture for PhD school)**

- International Conference on Flow Chemistry (Munich 2013)

“Supported Chiral imidazolidinones for Diels Alder reactions in flow”

- Conference at Congresso Nazionale della Società Chimica Italiana (Sassari, 2013)
“Supported chiral catalysts in flow chemistry “ (oral presentation)

- University of Evora, Portugal “Stereoselective organocatalytic reactions in batch and under continuous-flow conditions” (2014) **(Invited lecture)**

- **COST meeting (Action ORCA, Organocatalysis) (Palermo, Italy, 2014) (invited lecture)**
“Stereoselective catalytic synthesis of chiral trifluoromethyl aryl and alkyl amines”

- XX Consorzio Interuniversitario Nazionale “Metodologie e processi innovativi di sintesi” – C.I.N.M.P.I.S. (Bari, settembre 2014)

“Chiral catalytic reactors for stereoselective transformations under continuous flow conditions”
(invited plenary lecture per il premio “Innovazione alla ricerca” (2014)).

- University of Regensburg, Germany “Organocatalysis in batch and under continuous-flow conditions” (May, 2015) **(Invited lecture)**
- **Bilateral Symposium Italy-China, University of Padova, Italy (Padova, Italy, April 2014)**
“Stereoselective synthesis in batch and in flow” **(invited lecture)**
- Conference at DexLeChem company, Germany “New trends in organocatalytic transformations” (March, 2015) **(Invited lecture)**
- University of Paris 6, France “Catalytic reactions in batch and under continuous-flow conditions” (February, 2015) **(Invited lecture for Phd School)**
- International Translational Chemistry Conference (Caparica, Lisbon, Portugal, December 2015)
“Stereoselective organocatalytic reactions under continuous-flow conditions” **(keynote lecture)**
- University of Evora, Portugal “Organocatalysis and flow chemistry” (Evora, Portugal, February 2016) **(Invited lecture)**
- ICIQ Tarragona, Spain “Enabling technologies-assisted organocatalysis: continuous flow stereoselective reactions in (micro)-mesoreactors and catalytic reactors ” (Tarragona, Spain, May 2016) **(Invited lecture)**
- GIC (Gruppo Interdivisionale Catalisi), “Batch and flow chemistry: new opportunities in stereoselective organocatalysis“ Bressanone, September 2016 **(Invited lecture)**
- FIRB meeting “Catalytic stereoselective reactions in micro- and mesoreactors” Palermo, Nov. 2016.
- International Conference on Green Chemistry “Organocatalysis and flow chemistry” (La Rochelle, France, May 2017) **(keynote lecture)**
- ESOC (European Symposium on Organic Chemistry) “Enabling technologies-assisted stereoselective organic synthesis” (Cologne, Germany July 2017) **(Invited lecture)**
- The First International Conference on Symmetry “Batch and flow asymmetric catalysis for the synthesis of chiral active pharmaceutical compounds” (Barcellona, Spain, September 2017) **(Invited lecture)**
- FROST (Frontier Organic Synthesis and Technologies) “Catalytic and 3D-printed reactors: stereoselective in-flow synthesis of chiral active pharmaceutical compounds” (Budapest, Hungary, September 2017) **(Plenary lecture)**
- Green and Sustainable Conference on Green Chemistry – Elsevier “Flow chemistry, organocatalysis and 3D-printing: valuable tools in the synthesis of chiral compounds” (Berlin, Germany, May 2018) (oral communication)
- PBS International Conference - “Catalysis in batch and flow” – (Barcellona, Spain, December 2018) **(keynote lecture)**
- Flow Chemistry Europe Conference - “Microreactors and 3D-printing: enabling technologies for the synthesis of chiral molecules” – (Cambridge, UK, February 2019) **(Invited lecture)**
- WCCE International Conference – “Metal-free reduction and organocatalytic stereoselective reactions of nitro derivatives“ – (Bruxelles, Belgium, June 2019) **(Plenary lecture)**
- The Fascinating World of Catalysis – One day event “Stereoselective catalytic reactions: batch vs flow chemistry” – (Pavia, September 2019) **(Plenary lecture)**
- XXXIX Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana,– “Development of catalytic stereoselective methodologies: sense and sensibility” (Torino, 8-12 Settembre, 2019) **Invited Plenary lecture for Piero Pino Medal** from Italian Chemical Society.