

### Publications on peer-reviewed journals,

\*indicates corresponding author(s), [] times cited, Sept 2013, Scopus Database.

*Independent research, "Sapienza" University of Roma, Roma Italy.*

1. Piovesana S, Samperi R, Lagana A, Bella, M\* Determination of enantioselectivity and enantiomeric excess by mass spectrometry in the absence of chiral chromatographic separation: An overview. *Chemistry - A European Journal* **2013**; 19:11478-94.
2. Silvi M, Renzi P, Rosato D, Margarita C, Vecchioni A, Bordacchini I, Morra D, Nicolosi A, Cari R, Sciubba F, Scarpino Schietroma DM, Bella M\* Enantioselective aza-Michael addition of imides by using an integrated strategy involving the synthesis of a family of multifunctional catalysts, usage of multiple catalysis, and rational design of experiment. *Chemistry - A European Journal* **2013**; 19:9973-8.
3. Morana F, Basso A, Bella M, Riva R, Banfi L\* Organocatalytic asymmetric synthesis of  $\beta$ -aryl- $\beta$ -isocyano esters. *Advanced Synthesis and Catalysis* **2012**; 354:2199-210. [2]
4. Scarpino Schietroma DM, Monaco MR, Bucalossi V, Walter PE, Gentili P, Bella M\* The Rabe amination after a century: Direct addition of N-heterocycles to carbonyl compounds. *Organic and Biomolecular Chemistry* **2012**; 10:4692-5. [3]
5. Renzi P, Bella M\* Non-asymmetric organocatalysis. *Chemical Communications* **2012**; 77: 597-9. [5]
6. Scarpino Schietroma DM, Monaco MR, Visca V, Insogna S, Overgaard J, Bella M\* Enamine-mediated addition of aldehydes to cyclic enones. *Advanced Synthesis and Catalysis* **2011** 353: 2648-52. [3]
7. Monaco MR, Bella M\* A formidable challenge: Catalytic asymmetric dichlorination. *Angewandte Chemie - International Edition* **2011**; 50: 11044-6. [6]
8. Monaco MR, Renzi P, Scarpino Schietroma DM, Bella M\* Biomimetic organocatalytic asymmetric synthesis of 2-substituted piperidine-type alkaloids and their analogues *Org Lett* **2011**; 13:4546-9. [14]
9. Piovesana S, Scarpino Schietroma DM, Bella M\* Multiple catalysis with two chiral units: An additional dimension for asymmetric synthesis *Angewandte Chemie - International Edition* **2011**; 50:5216-32.[38]
10. Piovesana S, Scarpino Schietroma DM, Tulli LG, Monaco MR, Bella M.\* Unsaturated  $\beta$ -ketoesters as versatile electrophiles in organocatalysis. *Chemical Communications* **2010**; 46:5160-2. [8]
11. Renzi P, Overgaard J, Bella M.\* Multicomponent asymmetric reactions mediated by proline lithium salt. *Organic and Biomolecular Chemistry* **2010**; 8:980-3. [11]

12. Bella M,\* Gasperi T. Organocatalytic formation of quaternary stereocenters. *Synthesis* **2009**: 1583-614. [225]
  13. Bella M,\* Scarpino Schietroma DM, Cusella PP, Gasperi T, Visca V. Synergic asymmetric organocatalysis (SAOc) of *Cinchona* alkaloids and secondary amines in the synthesis of bicyclo[2.2.2]octan-2-ones. *Chemical Communications* **2009**: 597-9. [22]
  14. Malkov AV,\* Kabeshov MA, Bella M,\* Kysilka O, Malyshev DA, Pluháčková K, Kočovský P.\* Vicinal amino alcohols as organocatalysts in asymmetric cross-aldol reaction of ketones: Application in the synthesis of convolutamydine A. *Org Lett* **2007**; 9:5473-6. [86]
  15. Ceccarelli R, Insogna S, Bella M.\* Organocatalytic regioselective Michael additions of cyclic enones via asymmetric phase transfer catalysis. *Organic and Biomolecular Chemistry* **2006**;4:4281-4. [14]
- Postdoc at the Scripps Research Institute, La Jolla, California, and University of Aarhus, Aarhus Denmark.*
16. López-Cantarero J, Cid MB, Poulsen TB, Bella M, Ruano JLG, Jørgensen KA.\* Intriguing behavior of *Cinchona* alkaloids in the enantioselective organocatalytic hydroxyamination of  $\alpha$ -substituted- $\alpha$ -cyanoacetates. *J Org Chem* **2007**; 72:7062-5. [25]
  17. Brandes S, Niess B, Bella M, Prieto A, Overgaard J, Jørgensen KA.\* Non-biaryl atropisomers in organocatalysis. *Chemistry - A European Journal* **2006**; 12: 6039-52. [82]
  18. Kobbelaar S, Bella M, Jørgensen KA.\* Improved asymmetric SNAr reaction of  $\beta$ -dicarbonyl compounds catalyzed by quaternary ammonium salts derived from *Cinchona* alkaloids. *J Org Chem* **2006**; 71: 4980-7. [38]
  19. Brandes S, Bella M,\* Kjærsgaard A, Jørgensen KA.\* Chirally aminated 2-naphthols - organocatalytic synthesis of non-biaryl atropisomers by asymmetric Friedel-Crafts amination. *Angewandte Chemie - International Edition* **2006**; 45: 1147-51. [71]
  20. Nicolaou KC,\* Safina BS, Zak M, Lee SH, Nevalainen M, Bella M, Estrada AA, Funke C, Zécri FJ, Bulat S. Total synthesis of thioestrepton. retrosynthetic analysis and construction of key building blocks. *J Am Chem Soc* **2005**; 127: 11159-75. [68]
  21. Poulsen TB, Alemparte C, Saaby S, Bella M, Jørgensen KA.\* Direct organocatalytic and highly enantio- and diastereoselective Mannich reactions of  $\alpha$ -substituted  $\alpha$ -cyanoacetates. *Angewandte Chemie - International Edition* **2005**; 44: 2896-9. [98]
  22. Bella M, Kobbelaar S, Jørgensen KA.\* Organocatalytic regio- and asymmetric C-selective SNAr reactions-stereoselective synthesis of optically active spiro-pyrrolidone-3, 3'-oxindoles. *J Am Chem Soc* **2005**; 127: 3670-1. [81]

23. Acocella MR, Mancheño OG, Bella M, Jørgensen KA.\* Organocatalytic asymmetric hydroxylation of  $\beta$ -keto esters: Metal-free synthesis of optically active anti-diols. *J Org Chem* **2004**; 69: 8165-7. [47]
24. Nicolaou KC,\* Chen DY-, Huang X, Ling T, Bella M, Snyder SA. Chemistry and biology of diazonamide A: First total synthesis and confirmation of the true structure. *J Am Chem Soc* **2004**; 126: 12888-96. [71]
25. Nicolaou KC,\* Snyder SA, Giuseppone N, Huang X, Bella M, Reddy MV, Rao PB, Koumbis AE, Giannakakou P, O'Brate A. Studies toward diazonamide A: Development of a hetero-pinacol macrocyclization cascade for the construction of the bis-macrocyclic framework of the originally proposed structure. *J Am Chem Soc* 2004; **126**: 10174-82. [30]
26. Saaby S, Bella M, Jørgensen KA.\* Asymmetric construction of quaternary stereocenters by direct organocatalytic amination of  $\alpha$ -substituted  $\alpha$ -cyanoacetates and  $\beta$ -dicarbonyl compounds. *J Am Chem Soc* **2004**; 126: 8120-1. [170]
27. Bella M, Jørgensen KA.\* Organocatalytic enantioselective conjugate addition to alkynones. *J Am Chem Soc* **2004**; 126: 5672-3. [78]
28. Nicolaou KC, Nevalainen M, Zak M, Bulat S, Bella M, Safina BS. Synthetic studies on thiostrepton: Construction of thiostrepton analogues with the thiazoline-containing macrocycle. *Angewandte Chemie - International Edition* **2003**; 42: 3418-24. [33]
29. Nicolaou KC, Bella M, Chen DY-, Huang X, Ling T, Snyder SA. Total synthesis of diazonamide A. *Angewandte Chemie - International Edition* **2002**; 41: 3495-9. [76]
30. Nicolaou KC, Huang X, Snyder SA, Bheema Rao P, Bella M, Reddy MV. A novel regio- and stereoselective synthesis of sulfamidates from 1,2-diols using Burgess and related reagents: A facile entry into  $\beta$ -amino alcohols. *Angewandte Chemie - International Edition* **2002**; 41: 834-8. [69]
31. Nicolaou KC, Huang X, Giuseppone N, Rao PB, Bella M, Reddy MV, Snyder SA. Construction of the complete aromatic core of diazonamide A by a novel hetero pinacol macrocyclization cascade reaction. *Angewandte Chemie - International Edition* **2001**; 40: 4705-9. [53]

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32. Malkov AV,\* Pernazza D, Bell M, Bella M, Massa A, Teplý F, Meghani P, Kočovský P.\* Synthesis of new chiral 2,2'-bipyridine ligands and their application in copper-catalyzed asymmetric allylic oxidation and cyclopropanation. *J Org Chem* **2003**; 68: 4727-42. [73]
33. Bella M, Cianflone M, Montemurro G, Passacantilli P,\* Piancatelli G.\* Chemistry of odorants: Stereoselective synthesis of octahydronaphthalene- based perfumery geogywood, (+,-)-1-[(1R\*,2S\*)-1,2,3,4,5,6,7,8- octahydro-1,2,8,8-tetramethylnaphthalen-2-yl]ethan-1-one. *Tetrahedron* **2004**; 60: 4821-7. [10]

34. Bella M,\* Piancatelli G,\* Squarcia A. Efficient preparation of 3-substituted-furan-2(5H)-ones and their direct vinylogous aldol addition. *Tetrahedron* **2001**; 57: 4429-36. [17]
35. Malkov AV,\* Bella M, Stará IG, Kočovský P.\* Modular pyridine-type P,N-ligands derived from monoterpenes: Application in asymmetric Heck addition. *Tetrahedron Lett* **2001**; 42: 3045-8. [46]
36. Malkov AV,\* Baxendale IR, Bella M, Langer V, Fawcett J, Russell DR, Mansfield DJ, Valko M, Kočovský P.\* Synthesis of new chiral 2,2'-bipyridyl-type ligands, their coordination to molybdenum(0), copper(II), and palladium(II), and application in asymmetric allylic substitution, allylic oxidation, and cyclopropanation. *Organometallics* **2001**; 20: 673-90. [77]
37. Malkov AV,\* Bella M, Langer V, Kočovský P.\* PINDY: A novel, pinene-derived bipyridine ligand and its application in asymmetric, copper(I)-catalyzed allylic oxidation. *Org Lett* 2000; 2: 3047-9. [70]
38. Bella M,\* Piancatelli G,\* Squarcia A, Trolli C. Direct vinylogous aldol addition of  $\gamma$ -butyrolactones and  $\gamma$ -butyrolactams. *Tetrahedron Lett* **2000**; 41: 3669-72. [10]
39. Bella M, Margarita R, Orlando C, Orsini M, Parlanti L,\* Piancatelli G.\* Asymmetric carbolithiation of 2-phenylselenofumarate derivatives: A short synthesis of (-)-roccellaric acid. *Tetrahedron Lett* **2000**; 41: 561-5. [40]
40. Bicchieri M,\* Bella M, Sementilli F. A quantitative measure of borane *tert*-butylamine complex effectiveness in carbonyl reduction of aged papers. *Restaurator* **1999**; 20: 22-9. [14]
41. Bella M, Piancatelli G,\* Pigro MC. 3-phenylselanylfuran-2(5H)-one: A versatile building block in the synthesis of lignans. A new approach towards 3,4-dibenzyl  $\gamma$ -butyrolactones. *Tetrahedron* **1999**; 55:12387-98. [15]
42. Torchiarolo GC, D'Onofrio F, Margarita R, Parlanti L, \* Piancatelli G,\* Bella M. Direct amino-phenylselenylation of enoates: An easy route to  $\alpha$ -phenylseleno- $\beta$ -amino esters and  $\beta$ -lactams. *Tetrahedron* **1998**; 54: 15657-66. [20]
43. Bella M, D'Onofrio F,\* Margarita R, Parlanti L, Piancatelli G,\* Mangoni A. Selenium-directed conjugate addition of amines to dimethyl 2-phenylseleno fumarate: Regio and diastereoselective synthesis of 2-phenylseleno-3-amino succinates. *Tetrahedron Lett* **1997**; 38: 7917-8. [8]

**Book Chapter:**

Scarpino Schietroma DM, Renzi P. Monaco MR, Bella M, "Critical Survey Covering the Year 2008: of Natural Products is an Art without Age" in "Seminars in Organic Synthesis" 34th "A. Corbella" Summer School, Gargnano, Italy, June 22-26, 2000, Ed. Società Chimica Italiana, **2009**, 267-291.  
ISBN 978-88-86208-58-1.

**Patent:**

Nicolaou, K. C.; Bella M.; Rao P. B.; Chen, D. Y. K.; Huang, X.; Ling, T. T.; Reddy, M. V.; Snyder, S. A.; "Total Synthesis of Diazonamide A and Analogs Thereof", U.S. Provisional Patent Application filed on 3 September 2002.

### **Most Recent Invited Lectures.**

#### ***Academic***

"Asymmetric Construction of Multiple Stereocenters", invited seminar, Department of Chemistry, University of Genova, Italy, July 2010.

"Synergic Asymmetric Catalysis of *Cinchona* Alkaloids and Proline", invited seminar, Department of Chemistry, University of Aarhus, Germany, January 2009.

"Le Molecole Allo Specchio" ("Molecules into the Mirror"), plenary lecture to the general public organized by the faculty of Science, Roma University. December 2009.

"Critical Survey Covering the Year 2008: Total Synthesis of Natural Products is an Art without Age", 1-hour lecture at the summer school of Gargnano, Italy. June 2009.

8<sup>th</sup> Snow Young Swiss Symposium, (main speaker) Fleish, Switzerland, February 2008.

ERF symposium on chemistry, biology and medicine, (short talk), Acquafredda di Maratea, Italy, May 2008

Gregynog Symposium, Gregynog, Wales, UK, (short talk), September 2008.

#### ***Industrial.***

Several invited talks to chemical companies, among those Lundbek, Copenhagen (May 2010), Roche, Basel (Feb 2008), Glaxo, Verona (Feb 2007), Merck-IRBM (May 2006), Bristol Mayers and Squibb (March 2006)