

## CURRICULUM VITAE

Dr. Alessandro Palmieri

### ACADEMIC ACHIEVEMENTS

- 2002** He received his Laurea degree cum laude at the University of Camerino (I), with the dissertation thesis on “*Study of the allylation reaction of aldehydes with allyltributyltin promoted by CeCl<sub>3</sub>·7H<sub>2</sub>O-NaI system in acetonitrile*” under the guidance of Prof. Enrico Marcantoni.
- 2002-2004** Postgraduate fellowship - University of Camerino (I)  
He has been involved in a two years research project on the “*Synthesis of natural products with important biological activities*” under the supervision of Prof. Roberto Ballini.
- 2004-2007** PhD in Chemical Sciences - University of Camerino (I).  
In May 2007 (02/05/2007) he received the PhD degree in Chemical Sciences with the dissertation on the “*Study of eco-friendly conditions and processes in the formation of new C-C bonds by stabilized carbanions*”.
- 2007-2010** Postdoctoral Fellow - University of Camerino (I).  
During this period he focused his attention in the field of green chemistry and in particular on the preparation and utilization of solid supported reagents for the development of methodologies working under sustainable reaction conditions. In addition his studies were also directed to the implementation of new one-pot protocols for the synthesis of highly functionalized materials.
- 2008** Visiting Postdoctoral Fellow, (14<sup>th</sup> April to 25<sup>th</sup> September) in the ITC (*Innovative Technology Center*) laboratory at the Chemistry Department of the University of Cambridge (UK) under supervisor of Professor Steven V. Ley.  
Dr. Palmieri worked on “*Flow Chemical Synthesis*”, thus acquiring new conceptual and technical knowledge in the field of Flow Chemistry.
- 2010-2013** Assistant Professor, School of Science and Technology - University of Camerino (I) and officer for mentoring of students in Chemical Sciences.  
During this period he focused his attention on the synthesis and derivatization of the most important aromatic and heteroaromatic systems.
- 2014** Postdoctoral Fellow - University of Camerino (I).  
Since 01 January to 30 October 2014 he held a postdoctoral fellowship focused to the implementation “*Innovative synthetic tools for a sustainable chemical production*”.
- 2014** → Associate Professor - University of Camerino (I) and Coordinator of the PhD curriculum in Chemical Sciences

### RESEARCH INTERESTS

- Study of new eco-friendly processes in the formation of new C-C and C-Heteroatom bonds.
- Development of new one-pot reactions mainly focused to the synthesis of the most important aromatic and heteroaromatic systems.
- Preparation and use of solid supported reagents and heterogeneous catalysts in the formation of new C-C and C=C bonds.
- Study of new flow chemical protocols for the synthesis of important fine chemicals.

Dr. Palmieri is co-author of 115 publications, including 21 review articles, on leading international journals (H-factor = 29) and of 4 book chapters. He has been guest Editor for *Molecules* for the special issues: “*Recent Synthetic Aspects on the Chemistry of Nitro, Nitroso and Amino Compounds*” and “*Recent Synthetic Aspects on the Chemistry of Nitro, Nitroso and Amino Compounds II*”. He has a sum of the times cited of 2894 (Scopus).

## FURTHER INFORMATION

- 2019** *Member of the organizing committee of “XII Edition of the International School of Organometallic Chemistry, EuCheMS, 31 August - 4 September, Camerino (I).”*
- 2017** *Member of the organizing committee of “XI Edition of the International School of Organometallic Chemistry, EuCheMS, 2-6 September, San Benedetto del Tronto (I).”*
- 2010** *Member of the organizing committee of “XXXIII Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana, 12-16 September, San Benedetto del Tronto (I).”*
- 2006** *Member of the organizing committee of “XXV TUMA Convegno Interregionale della Società Chimica Italiana, 29 June - 1 July, Camerino (I).”*

## AWARDS

- 2007** *«Vincenzo Caglioti» prize for chemistry.* The prize is for Italian or foreign scholars under 35 years of age, who have carried out research in a sector of Chemistry. The prize is an initiative of the “Accademia Nazionale dei Lincei”, with the contribution of Fondazione «Guido Donegani» and the “Accademia Nazionale delle Scienze”.
- 2011** *«Giacomo Ciamician» medal.* The award is given to scholars under 35 years of age, by the Organic Chemistry Division of the Italian Chemical Society (SCI) for original researches in the field of organic chemistry.

## INVITED PARTICIPATION IN CONFERENCES

- 2017** Invited lecturer to the *Third China-Italy Bilateral Symposium on Organic Chemistry*, April 26-29, Wuhan (China). *«β-Nitroacrylates and One-pot Reactions: Useful Combination for Heterocyclic Systems Generation».*
- 2016** Invited lecturer (keynote) to the *XXVII Congresso Nazionale della Società Chimica Italiana*, September 18-22, Venezia (I). *«β-Nitroacrylates as useful precursor of heterocyclic systems under sustainable reaction conditions».*
- 2012** Invitation to the *47<sup>th</sup> EUCHEM Conference on Stereochemistry - Bürgenstock Conference*, April 29 - May 4, Brunnen (CH), as part of the Junior Scientists Participation program, which supports young promising European scientists.
- 2012** Invited lecturer to the *European Association for Chemical and Molecular Sciences (EuCheMS) Organic Division Young Investigator Workshop*, August 23-26 2012, Vienna (A). *«β-Nitroacrylates Key Molecules for the Eco-Friendly Synthesis of Heterocycles».*
- 2011** Invited lecturer (keynote) to the *XXIV Congresso Nazionale della Società Chimica Italiana*, September 11-16, Lecce (I). *«Nitro Compounds and One-Pot Processes: Useful Combination in Organic Synthesis».*

## TEACHING ACTIVITY

- *Green Chemistry.* Teaching course in Chemistry and Advanced Chemical Methodologies, Class LM54. 2010/2011 (28h) 2012/2013 (35h) - 2013/2015 (35h) - 2014/2015 (35h) - 2015/2016 (41h) - 2016/2017 (41h) - 2017/2018 (41h).
- *Chimica Organica.* Teaching course in Nutritional Biology, Class L13. 2015/2016 (42h) -2016/2017 (42h)-2017/2018 (42h).
- *Industrial and Advanced Synthesis of Biologically Active Compounds (Module I).* Teaching course in Chemistry and advanced chemical methodologies, Class LM54. 2010/2011 (21h) - 2012/2013 (14h) - 2013/2014 (14h) - 2014/2015 (14h) - 2015/2016 (14h) - 2016/2017 (14h).
- *Chimica Organica 2 e laboratorio* (modulo di laboratorio di chimica organica 2). Teaching course in Chemistry, Class L27. 2011/2012 (44h) - 2012/2013 (36h).
- *Chimica Organica Biologica.* Teaching Course in Chemistry and advanced chemical methodologies, Class 62/M. 2009/2010 (28h).

- *Sintesi Industriale di Composti Biologicamente Attivi*. Teaching course in Chemistry and advanced chemical methodologies, Class 62/M. 2008/2009 (28h).

#### GRANTED RESEARCH PROJECTS

- 2010** Alessandro Palmieri is recipient of the national project FIRB under 32 grant "Futuro in ricerca 2008" (code RBFR08J78Q) entitled "New generation methodologies in the formation of new carbon-carbon and carbon-heteroatom bonds under eco-friendly" (€.719.000).

#### LIST OF SCIENTIFIC PUBLICATION

1. "Use of heterogeneous catalyst KG-60-NEt<sub>2</sub> in Michael and Henry reactions involving nitroalkanes" R. Ballini, G. Bosica, D. Livi, A. Palmieri, R. Maggi, G. Sartori; *Tetrahedron Letters* **2003**, *44*, 2271-2273.
2. "The First Synthesis of Pentadecyl 6-Hydroxydodecanoate a Novel Compound Isolated from the Loeves of *Artrabotrys Odoratissimus*" R. Ballini, M. V. Gil, D. Fiorini, A. Palmieri; *Synthesis* **2003**, 665-667.
3. "β-Nitroalkanol as precursors for the one-pot synthesis of substituted tetrahydrofurans" R. Ballini, D. Fiorini, M. V. Gil, A. Palmieri, E. Román, J. A. Serrano; *Tetrahedron Letters* **2003**, *44*, 2795-2797.
4. "Michael addition of α-nitro ketones to conjugated enones under solventless conditions using silica" R. Ballini, D. Fiorini, M. V. Gil, A. Palmieri; *Green Chemistry*, **2003**, *5*, 475-476.
5. "A general procedure for one-pot preparation of polyfunctionalized nitrocyclopropanes" R. Ballini, D. Fiorini, A. Palmieri; *Synlett* **2003**, 1704-1706.
6. "Conjugated addition of nitroalkanes to dimethyl maleate. Regioselective formation of both monoesters of 2-alkylsuccinic acids" R. Ballini, G. Bosica, A. Palmieri, M. Petrini, C. Pierantozzi; *Tetrahedron* **2003**, *59*, 7283-7289.
7. "Highly Convenient, One-Pot Synthesis of Nitriles from Aldehydes Using the NH<sub>2</sub>OH·HCl/Na/MeCN System" R. Ballini, D. Fiorini, A. Palmieri; *Synlett* **2003**, 1841-1843.
8. "One-pot synthesis of polyfunctionalized α,β-unsaturated nitriles from nitroalkanes" R. Ballini, D. Fiorini, M. V. Gil, A. Palmieri; *Tetrahedron Letters* **2003**, *44*, 9033-9034.
9. "A new, One Pot Synthesis of Alkylated Methyl Tri- and Tetracarboxylate Derivatives by Nitroalkanes" R. Ballini, G. Bosica, D. Fiorini, M. V. Gil, A. Palmieri; *Synthesis* **2004**, 605-609.
10. "Investigation into the Allylation Reactions of Aldehydes Promoted by the CeCl<sub>3</sub>·7H<sub>2</sub>O-NaI System as Lewis Acid" G. Bartoli, M. Bosco, A. Giuliani, E. Marcantoni, A. Palmieri, M. Petrini, L. Sambri; *J. Org. Chem.* **2004**, *69*, 1290-1297.
11. "Cetyltrimethylammonium hydroxide (CTAOH) as a general, ecofriendly catalyst for formation of carbon-carbon bond through nitroalkanes" R. Ballini, D. Fiorini, M.V. Gil, A. Palmieri; *Tetrahedron* **2004**, *60*, 2799-2804.
12. "Fast diastereoselective Baylis-Hilman reaction by nitroalkenes: synthesis of di- and triene derivatives" R. Ballini, L. Barboni, G. Bosica, D. Fiorini, E. Mignini, A. Palmieri; *Tetrahedron* **2004**, *60*, 4995-4999.
13. "Michael Addition of Nitroalkanes to Optically Active Acrylates Mediated by Cetyltrimethylammonium Hydroxyde (CTAOH)" R. Ballini, D. Fiorini, A. Palmieri, M. Petrini; *Letters in Organic Chemistry* **2004**, *1*, 335-339.
14. "Anionic Domino Process for the One-Pot, Diastereoselective Synthesis of Dihydropyrans from β-Nitroalcohols" R. Ballini, L. Barboni, D. Fiorini, A. Palmieri; *Synlett* **2004**, 2618-2620.
15. "One-Pot Synthesis of 1,3-Dinitroalkanes under Heterogeneous Catalysis" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri; *Synthesis* **2004**, 1938-1940.
16. "Nitroalkanes and ethyl glyoxalate as common precursors for the preparation of both β-keto and α,β-unsaturated esters" R. Ballini, D. Fiorini, A. Palmieri; *Tetrahedron Letters* **2004**, *45*, 7027-7029.
17. "β-Nitro acrylic esters as precursors for the one pot synthesis of polyfunctionalized α,β-unsaturated esters" R. Ballini, D. Fiorini, A. Palmieri; *Tetrahedron Letters* **2005**, *46*, 1245-1246.

18. "Conjugate Additions of Nitroalkanes to Electron-Poor Alkenes: Recent Results" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri, M. Petrini; *Chem. Rev.* **2005**, *105*, 933-971 (REVIEW).
19. "One-pot synthesis of 3,5-alkylated acetophenone and methyl benzoate derivatives via an anionic domino process" R. Ballini, L. Barboni, D. Fiorini, G. Giarlo, A. Palmieri; *Chem. Commun.* **2005**, 2633-2634.
20. "Acyclic  $\alpha$ -nitro ketones: a versatile class of  $\alpha$ -functionalized ketones in organic synthesis" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri; *Tetrahedron* **2005**, *61*, 8971-8993. (REVIEW).
21. "1-Nitroicosane as the Key Building Block for the First Synthesis of Triacot-11-ol, a new Fatty Alcohol Isolated from *Argemone mexicana*" R. Ballini, D. Fiorini, A. Palmieri; *Synthesis* **2005**, 2835-2837.
22. "Neutral alumina catalysed synthesis of 3-nitro-1,2-dihydroquinolines and 3-nitrochromenes, under solvent-free conditions, via tandem process" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri; *Green. Chem.* **2005**, *7*, 825-827.
23. "One-pot synthesis of 3-alkyl-2,4-dinitrocyclohexanols, under solventless conditions using basic alumina" R. Ballini, L. Barboni, D. Fiorini, G. Giarlo, A. Palmieri; *Green. Chem.* **2005**, *7*, 828-829.
24. "Conjugate Addition of Indoles to Nitroalkenes Promoted by Basic Alumina in Solventless Conditions" R. Ballini, R. R. Clemente, A. Palmieri, M. Petrini; *Adv. Synth. Catal.* **2006**, *348*, 191-196.
25. "Unprecedented Two-Step Synthesis of Symmetrical Diarylamines from 2-Alkyl-1,3-dinitropropanes" R. Ballini, L. Barboni, C. Femoni, G. Giarlo, A. Palmieri; *Tetrahedron Letters* **2006**, *47*, 2295-2297.
26. "Nitro Compounds as Useful Reagents for the Synthesis of Dicarbonyl Derivatives" R. Ballini, L. Barboni, D. Fiorini, A. Palmieri, M. Petrini; *Arkivoc* **2006**, (vi), 127-152. (REVIEW).
27. "SiO<sub>2</sub>-TDB as New Heterogeneous Catalyst for the Nef Conversion of Secondary Nitroalkanes under Neat Conditions" R. Ballini, D. Fiorini, R. Maggi, C. Oro, A. Palmieri, G. Sartori; *Synlett* **2006**, 1849-1850.
28. "Three Steps Synthesis of Highly Substituted Phenols from 1,3-Dinitropropanes" R. Ballini, L. Barboni, G. Giarlo, A. Palmieri; *Synlett* **2006**, 1956-1958.
29. "Potassium Fluoride/Basic Alumina as Far Superior Heterogeneous Catalyst for the Chemoselective Conjugate Addition of Nitroalkanes to Electron-Poor Alkenes Having Two Electron-Withdrawing Groups in  $\alpha$ - and  $\beta$ -Positions" R. Ballini, A. Palmieri; *Adv. Synth. Catal.* **2006**, *348*, 1154-1156.
30. "Synthetic Applications of Nitroalkanes Promoted by Solid Catalysis: Recent Results" R. Ballini, A. Palmieri; *Current Org. Chem.* **2006**, *10*, 2145-2169. (REVIEW).
31. "Solventless Clay Promoted Friedel-Crafts Reaction of Indoles with  $\alpha$ -Amido Sulfones: Unexpected Synthesis of 3-(1-Arylsulfonylalkyl) Indoles" R. Ballini, A. Palmieri, M. Petrini, E. Torregiani; *Organic Letters* **2006**, *8*, 4093-4096.
32. "Synthesis of Fine Chemicals by the Conjugate Addition of Nitroalkanes to Electrophilic Alkenes" R. Ballini, L. Barboni, G. Bosica, D. Fiorini, A. Palmieri; *Pure Appl. Chem.* **2006**, *78*, 1857-1866. (REVIEW).
33. "Synthesis and use of Nitrocyclopropane Derivatives" R. Ballini, D. Fiorini, A. Palmieri; *Arkivoc* **2007**, vii, 172-194. (REVIEW).
34. "Synthesis of 3-(2-Nitroalkyl) Indoles by Reaction of 3-(1-Arylsulfonylalkyl) Indoles with Nitroalkanes" A. Palmieri, M. Petrini, E. Torregiani; *Tetrahedron Letters* **2007**, *48*, 5653-5656.
35. "Recent Developments on the Chemistry of Aliphatic Nitro Compounds Under Aqueous Medium" R. Ballini, L. Barboni, F. Fringuelli, A. Palmieri, F. Pizzo, L. Vaccaro; *Green Chem.* **2007**, *9*, 823-838. (REVIEW).
36. "A Simplified Synthesis of 3-(1-Arylsulfonylalkyl) Indoles and their Reaction with Reformatsky Reagents" A. Palmieri, M. Petrini; *J. Org. Chem.* **2007**, *72*, 1863-1866.
37. "Application of the Nitroaldol (Henry) Reaction for a Two Step Sequence in the Synthesis of Polyfunctionalized Dihydropyran Derivatives" R. Ballini, S. Gabrielli, A. Palmieri; *Synlett* **2007**, 2430-2432.

38. "Acid Alumina as Useful Solid Heterogeneous Catalyst in the Michael Reaction of  $\beta$ -Dicarbonyl Derivatives with Conjugated Nitroalkenes" R. Ballini, R. Maggi, [A. Palmieri](#), G. Sartori; *Synthesis* **2007**, 3017-3020.
39. "Highly Efficient One- or Two-Step Sequences for the Synthesis of Fine Chemicals from Versatile Nitroalkanes" R. Ballini, [A. Palmieri](#), P. Righi; *Tetrahedron* **2007**, 63, 12099-12121. (REVIEW).
40. "A New, Heterogeneous, One-Pot Processes for both Nitroaldol (Henry) and Michael Reaction from Primary Haloalkanes, via Nitroalkanes" R. Ballini, L. Barboni, [A. Palmieri](#); *Synlett* **2007**, 3019-3021.
41. "Reaction of 3-(1-Arylsulfonylalkyl) Indoles with Easily Enolisable Derivatives Promoted by Potassium Fluoride on Basic Alumina" R. Ballini, [A. Palmieri](#), M. Petrini, R. R. Shaikh; *Adv. Synth. Catal.* **2008**, 350, 129-134.
42. "Improved preparation of alkyl 2-(3-Indolyl)-3-nitroalkanoates under fully heterogeneous conditions: stereoselective synthesis of alkyl (E)-2-(3-Indolyl)-2-alkenoates" R. Ballini, S. Gabrielli, [A. Palmieri](#), M. Petrini; *Tetrahedron* **2008**, 64, 5435-5441.
43. "ISOLUTE<sup>®</sup> Si-Carbonate catalyzes the nitronate addition to both aldehydes and electron-poor alkenes, under solvent-free conditions" R. Ballini, G. Bosica, [A. Palmieri](#), F. Pizzo, L. Vaccaro; *Green Chem.* **2008**, 10, 541-544.
44. "Uncatalysed, anti-Michael addition of amines to  $\beta$ -nitroacrylates: practical, eco-friendly synthesis of  $\beta$ -nitro- $\alpha$ -amino esters" R. Ballini, N. Araújo Bazán, G. Bosica, [A. Palmieri](#); *Tetrahedron Letters* **2008**, 49, 3865-3867.
45. "Nitroalkanes as new, ideal precursors for the synthesis of benzene derivatives" R. Ballini, L. Barboni, [A. Palmieri](#); *Chem. Commun.* **2008**, 2975-2985. (REVIEW).
46. "Double Functionalization of N-Boc-3-(Tosylmethyl)indole Exploiting the Activating Properties of the Tosyl Group" [A. Palmieri](#), M. Petrini, R. R. Shaikh; *Synlett* **2008**, 1845-1851.
47. "Improved Chemoselective, Ecofriendly Conditions for the Conversion of Primary Alkyl Halides into Nitroalkanes under PEG400" R. Ballini, L. Barboni, [A. Palmieri](#); *Green Chem.* **2008**, 10, 1004-1006.
48. "Solvent-free, anti-Michael addition of active methylene derivatives to  $\beta$ -nitroacrylates: eco-friendly, chemoselective synthesis of polyfunctionalized nitroalkanes" R. Ballini, G. Bosica, [A. Palmieri](#), K. Bakhtiari; *Synlett* **2009**, 268-270.
49. " $\beta$ -Nitroacrylates as Key Starting Materials for the Uncatalysed, One-Pot Synthesis of Polyfunctionalized Dihydroquinoxalinone Derivatives, via an anti-Michael Reaction" R. Ballini, S. Gabrielli, [A. Palmieri](#); *Synlett* **2009**, 965-967.
50. " $\beta$ -Nitroacrylates and silyl enol ethers as key starting materials for the synthesis of polyfunctionalized  $\beta$ -nitro esters and 1,2-oxazine-2-oxides" R. Ballini, G. Bosica, S. Gabrielli, [A. Palmieri](#); *Tetrahedron* **2009**, 65, 2916-2920.
51. "A microfluidic flow chemistry platform for organic synthesis: the Hofmann rearrangement" [A. Palmieri](#), S. V. Ley, K. Hammond, A. Polyzos, I. R. Baxendale; *Tetrahedron Letters* **2009**, 50, 3287-3289.
52. "Synthesis of 3-(Tosylalkyl) Indazoles and their Desulfonylation Reaction. A New Entry to 3-Substituted Indazoles by an Unprecedented Friedel-Craft Process" S. Campetella, [A. Palmieri](#), M. Petrini; *Eur. J. Org. Chem.* **2009**, 3184-3188.
53. "Diastereoselective, One-Pot Synthesis of Polyfunctionalized Bicyclo[3.3.1]nonanes by an Anionic Domino Process" R. Ballini, L. Barboni, C. Femoni, S. Gabrielli, [A. Palmieri](#); *Chem.-Eur. J.* **2009**, 15, 7867-7870.
54. "Continuous flow based catch and release protocol for the synthesis of  $\alpha$ -Ketoesters" [A. Palmieri](#), S. V. Ley, A. Polyzos, I. R. Baxendale; *Beilstein J. Org. Chem.* **2009**, 5, 23.
55. "Preparation of 2H-1,4-Benzoxazin-2-one Derivatives under Heterogeneous Conditions via Domino Process" R. Ballini, [A. Palmieri](#), M. AbdulKarim Talaq, S. Gabrielli; *Adv. Synth. Catal.* **2009**, 351, 2611-2614.

56. " *$\beta$ -Nitroacrylates as an Emerging, Versatile Class of Functionalized Nitroalkenes for the Synthesis of a Variety of Chemicals*" R. Ballini, S. Gabrielli, A. Palmieri; *Current Org. Chem.* **2010**, *14*, 65-83. (REVIEW).
57. "*Synthesis of 3-substituted indoles via reactive alkylideneindolenine intermediates*" A. Palmieri, M. Petrini, R. R. Shaikh; *Org. Biomol. Chem.* **2010**, *8*, 1259-1270. (REVIEW).
58. "*Reaction of carbon nucleophiles with alkylideneindazolium and alkylideneindolium ions generated from their 3-(1-arylsulfonylalkyl) indazole and indole precursors*" L. Marsili, A. Palmieri, M. Petrini; *Org. Biomol. Chem.* **2010**, *8*, 706-712.
59. "*Chemoselective  $S_N2'$  reaction of nitroalkanes to dialkyl 2-(bromomethyl)fumarates under cetyltrimethylammonium hydroxide (CTAOH) catalysis*" R. Ballini, S. Gabrielli, A. Palmieri; *Tetrahedron Letters* **2010**, *51*, 1233-1235.
60. "*Michael Reaction of Nitroalkanes with  $\beta$ -Nitroacrylates under Solid Promoter: Advanced Regio- and Diastereoselective Synthesis of Nitro-Functionalized  $\alpha,\beta$ -Unsaturated Esters and 1,3-Butadiene-2-carboxylates*" A. Palmieri, S. Gabrielli, R. Ballini; *Adv. Synth. Catal.* **2010**, *352*, 1485-1492.
61. "*Efficient Two-Step Sequence for the Synthesis of 2,5-Disubstituted Furan Derivatives from Functionalized Nitroalkanes: Successive Amberlyst A21- and Amberlyst 15-Catalyzed Processes*" A. Palmieri, S. Gabrielli, R. Ballini; *Chem. Commun.* **2010**, *46*, 6165-6167.
62. "*Metal-free Synthesis of Imido Derivatives by Direct Oxidation of  $\alpha$ -Amido Sulfones*" F. Martinelli, A. Palmieri, M. Petrini; *Eur. J. Org. Chem.* **2010**, 5085-5089.
63. "*A Two Step Synthesis of Unsymmetrical 1,4-Disubstituted Carbazoles from Sulfonyl Indoles*" R. Ballini, S. Gabrielli, A. Palmieri, M. Petrini; *Adv. Synth. Catal.* **2010**, *352*, 2459-2462..
64. " *$\beta$ -Nitroacrylates as Precursors of Tetrasubstituted Furans in a One-Pot Process and under Acidic Solvent-Free Conditions*" R. Ballini, S. Gabrielli, A. Palmieri; *Synlett* **2010**, 2468-2470.
65. "*Diastereoselective Three-step route to 6'-nitrocyclohex-3'-en-1'-yl phenol and tetrahydro-6H-benzo[c]chromen-6-ol derivatives from salicylaldehydes*" D. Lanari, R. Ballini, A. Palmieri, F. Pizzo, L. Vaccaro; *Eur. J. Org. Chem.* **2011**, 2874-2884.
66. "*Nitroalkanes as key compounds for the synthesis of amino derivatives*" R. Ballini, S. Gabrielli, A. Palmieri, M. Petrini; *Current. Org. Chem.* **2011**, *15*, 1482-1506. (REVIEW).
67. "*A New One-Pot Synthesis of Polysubstituted Indoles from Pyrroles and  $\beta$ -Nitroacrylates*" A. Palmieri, S. Gabrielli, D. Lanari, L. Vaccaro, R. Ballini; *Adv. Synth. Catal.* **2011**, *353*, 1429-1437.
68. "*Regioselective Synthesis of 3-Substituted Pyrroles by Nucleophilic Addition of 3-(1-Arylsulfonylalkyl) Pyrroles Activated under Basic or Acid Conditions*" F. Martinelli, A. Palmieri, M. Petrini; *Chem.-Eur. J.* **2011**, *17*, 7183-7187.
69. "*Eco-Friendly Synthesis of  $\beta$ -Nitroketones from Conjugated enones: an Important Improvement of the Miyakoshi procedure*" S. Gabrielli, A. Palmieri, A. Perosa, M. Selva, R. Ballini; *Green Chem.* **2011**, *13*, 2026-2080.
70. "*Arylsulfonyl Group: Activating Properties and Recent Synthetic Applications*" F. Martinelli, A. Palmieri, M. Petrini; *Phosphorus Sulfur and Silicon and the Related Elements* **2011**, *185*, 1032-1045 (REVIEW).
71. "*JandaJel as a Polymeric Support to Improve the Catalytic Efficiency of Immobilized-1,5,7-triazabicyclo[4.4.0]dec-5-ene (TBD) under Solvent-Free Conditions*" D. Lanari, R. Ballini, S. Bonollo, A. Palmieri, F. Pizzo, L. Vaccaro; *Green Chem.* **2011**, *13*, 3181-3186.
72. "*Fast, Mild, Eco-Friendly Synthesis of Polyfunctionalized Pyrroles from  $\beta$ -Nitroacrylates and  $\beta$ -Enaminones*" A. Palmieri, S. Gabrielli, C. Cimarelli, R. Ballini; *Green Chem.* **2011**, *13*, 3333-3336.
73. "*Ketosulfonyl indoles in the regiodefined synthesis of tryptophols and related indole derivatives*" A. Palmieri, M. Petrini; *Org. Biomol. Chem.* **2012**, *10*, 3486-3493.
74. "*Solvent-free Non-Covalent Organocatalysis. Enantioselective Addition of Nitroalkanes to Alkylideneindolenines as a Flexible Gateway to Optically Active Tryptamine Derivatives*" M. Fochi, L. Gramigna, S. Duce, S. Fantini, A. Palmieri, M. Petrini, L. Bernardi; *Adv. Synth. Catal.* **2012**, *354*, 1373-1380.

75. "Base-free conjugate addition of aliphatic nitro compounds to enones in *BmimNTf<sub>2</sub>*: A recyclable synthesis of  $\gamma$ -nitro ketones" R. Mancuso, A. Palmieri, R. Ballini, B. Gabriele; *Tetrahedron*, **2012**, 68, 5852-5856.
76. " $\beta$ -Nitroacrylates as Key Starting Materials for the One-Pot Synthesis of Densely Functionalized Penta-Substituted Anilines" S. Gabrielli, A. Palmieri, D. Panmand, D. Lanari, L. Vaccaro, R. Ballini; *Tetrahedron*, **2012**, 68, 8231-8235.
77. "Synthesis and Functionalization of Unsymmetrical Arylsulfonyl Bisindoles and Bisbenzazoles" S. Lancianesi, A. Palmieri, M. Petrini; *Adv. Synth. Catal.* **2012**, 354, 3539-3544.
78. "An Improved, Fully Heterogeneous, Diastereoselective Synthesis of (Z)- $\alpha$ -Bromonitroalkenes" A. Palmieri, S. Gabrielli, R. Ballini; *Synlett* **2013**, 24, 114-116.
79. " $\beta$ -Nitroacrylates as key building blocks for the synthesis of alky 3-substituted-5-oxo-piperazine-2-carboxylates under fully heterogeneous conditions" S. Gabrielli, R. Ballini, A. Palmieri; *Monatsh. Chem.* **2013**, 144, 509-514.
80. "A Less Impacting Conversion of Tosylates and Mesylates into Nitroalkanes" A. Palmieri, S. Gabrielli, R. Ballini; *Beilstein J. Org. Chem.* **2013**, 9, 533-536.
81. "A photochemical route to benzo[a]carbazoles via domino elimination/electrocyclization of 2-aryl-3-(1-tosylalkyl)-indoles" S. Protti, A. Palmieri, M. Petrini, M. Fagnoni, R. Ballini, A. Albini; *Adv. Synth. Catal.* **2013**, 355, 643-646.
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## BOOK CHAPTERS

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2. "Aliphatic Nitrocompounds as Versatile Building Blocks for the One-Pot Processes" R. Ballini, S. Gabrielli, A. Palmieri; **Green Chemistry for Environmental Sustainability**; Sanjay K. Sharma and Ackmez Mudhoo, Eds.; CRC Press, USA, **2010**, 53-78.
3. "Sustainable Synthesis of Fine Chemicals from Aliphatic Nitro Compounds" R. Ballini, A. Palmieri; **Sustainable Inorganic Chemistry - Encyclopedia of Inorganic and Bioinorganic Chemistry**; D. A. Atwood, Ed.; WILEY, **2016**, 1-13.
4. "Aliphatic Nitro Compounds as Key Precursors for the Eco-Friendly Synthesis of Fine Chemicals under Solvent-Free Conditions" R. Ballini, A. Palmieri; **Advanced Green Chemistry Part 1: Greener Organic Reaction and Processes**; István T. Horváth Max Malacria, Eds.; World Scientific, **2018**, Vol. 3, 135-175.

## SCHOOL ATTENDED

- 2003** XXVIII Summer School "A. CORBELLA" - Seminari di Chimica Organica, 16-20 June, Gargnano (I).
- 2003** 6th Green Chemistry Summer School, 31 August - 6 September, Venezia-Italy.
- 2004** XXIX Summer School "A. CORBELLA" - Seminari di Chimica Organica, 14-18 June, Gargnano (I).
- 2004** III EUCHEM Conference, 8-12 September, Camerino (I).
- 2005** XXX Summer School "A. CORBELLA" - Seminari di Chimica Organica, 13-17 June, Gargnano (I).
- 2005** New Methodologies and Techniques in Organic Chemistry: Sustainable Development in a Secure Environment (NeMeTOC) - 14-23 October, Certosa di Pontignano (I).
- 2005** International School of Organometallic Chemistry, 5th edition, 10-14 September, Camerino (I).
- 2007** International School of Organometallic Chemistry, 6th edition, 8-12 September, Camerino (I).
- 2013** XXXVIII Summer School "A. CORBELLA" - Seminari di Chimica Organica, 17-21 June, Gargnano (I).
- 2015** International School of Organometallic Chemistry 10th edition, 5-9 September, Camerino (I).
- 2017** International School of Organometallic Chemistry, 11th edition, 2-6 September, San Benedetto del Tronto (I).

## MEETING, CONFERENCE AND SYMPOSIUM ATTENDED

- 2003** **Stereoselezione in Sintesi Organica: Metodologie ed Applicazioni**, 27-28 February, Camerino (I). "Diastereoselettività nella sintesi di sistemi emichetali ciclici" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri.
- 2003** **XXI Congresso Nazionale della Società Chimica Italiana**, 22-27 June, Torino (I). "Addizione Coniugata di Nitroalcani a Derivati dell'Acido Maleico. Sintesi di 3-Alchilpirrolidine e Monoesteri di Acidi 2-Alchilsuccinici" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri, M. Petrini.
- 2004** **4° Saycs**, 17-19 May, Riccione (I). "Nitroalcani e gliossalato di etile come utili precursori nella sintesi di  $\alpha$ -chetoesteri ed esteri  $\alpha,\beta$ -insaturi" R. Ballini, D. Fiorini, A. Palmieri.
- 2004** **PRIN**, 28-31 October, Riccione (I). "Addizione Coniugata di Nitroalcani a Derivati dell'Acido Maleico. Sintesi di 3-Alchilpirrolidine e Monoesteri di Acidi 2-Alchilsuccinici" R. Ballini, G. Bosica, D. Fiorini, A. Palmieri, M. Petrini.
- 2006** **XXV TUMA Convegno Interregionale della Società Chimica Italiana**, 29 June - 1 July 2006, Camerino (I). "Addizione coniugata di indoli a nitroalcheni promossa da allumina basica in assenza di solvente" R. Ballini, R.R. Clemente, A. Palmieri, M. Petrini.
- 2007** **XXVI TUMA Convegno Interregionale della Società Chimica Italiana**, 26-28 September 2007, Assisi (I). "Formazione one-pot di  $\beta$ -nitroalcoli e composti  $\gamma$ -nitrocarbonilici da alogenuri alifatici" R. Ballini, G. Bosica, S. Gabrielli, A. Palmieri.

- 2010 XXIX Convegno Nazionale della Divisione di Chimica Organica della Società Chimica Italiana**, 12-16 September, San Benedetto del Tronto (I). (i) "Efficient Two-Step Sequence for the Synthesis of 2,5-Disubstituted Furan Derivatives from Functionalized Nitroalkanes: Successive Amberlyst A21- and Amberlyst 15-Catalyzed Process" A. Palmieri, S. Gabrielli, R. Ballini. (ii) "One-Pot Synthesis of Tetrasubstituted Furans under Solvent-Free Conditions" A. Palmieri, S. Gabrielli, R. Ballini. (iii) "Metal-Free Synthesis of Imides by Direct Oxidation of  $\alpha$ -Amido Sulfones" F. Martinelli, A. Palmieri, M. Petrini.
- 2011 XXIV Congresso Nazionale della Società Chimica Italiana**, 11-16 September, Lecce-Italy. (i) "Nitro Compounds and One-Pot Processes: Useful Combination in Organic Synthesis" A. Palmieri. (ii) "3-Alkylidene Intermediates in the Synthesis of Functionalized Nitrogen Containing Heterocyclic Compounds" F. Martinelli, A. Palmieri, M. Petrini. (iii) "New Ecofriendly Improvements in the Synthesis of Nitro Compounds" A. Palmieri, S. Gabrielli, R. Ballini.
- 2012 47<sup>th</sup> EUCHEM Conference on Stereochemistry - Bürgenstock Conference**, April 29 - May 4, Brunnen (CH). "3-(1-Arylsulfonyl)indoles: new pivotal substrates for indole functionalization" R. Ballini, S. Gabrielli, A. Palmieri, M. Petrini.
- 2013 1° Workshop del Gruppo Interdivisionale della SCI di Green Chemistry - Chimica Sostenibile**, 12 July, Bologna (I). "Sintesi sostenibile di sistemi  $\beta$ -nitroacrilici" A. Palmieri, S. Gabrielli, R. Ballini.
- 2013 18<sup>th</sup> European Symposium on Organic Chemistry (ESOC)**, 7-12 Luglio, Marsiglia (F). "Organocatalytic stereoselective one-pot synthesis of highly functionalized cyclohexanones" E. Massolo, M. Benaglia, A. Palmieri.
- 2014 XXV Congresso Nazionale della Società Chimica Italiana**, 07-12 September, Rende (I). (i) " $\beta$ -Nitroacrylates: key starting materials for the synthesis of polysubstituted pyrroles" A. Palmieri, R. Ballini, G. Bosica, S. Gabrielli. (ii) "Two-step synthesis of 2,5-disubstituted pyrroles from  $\alpha$ -amidosulfones" A. Palmieri, R. Ballini, S. Gabrielli, M. Petrini. (iii) "A green approach for the intramolecular Friedel-Crafts acylation" G. Bosica, A. Palmieri, G. Galea, M. Grech, I. Zammit.
- 2014 XXVI TUMA Convegno Interregionale della Società Chimica Italiana**, 16-18 September, Pesaro (PU). " $\beta$ -Nitroacrilati: importanti building blocks per la sintesi di sistemi eterociclici" A. Palmieri.
- 2016 11th Spanish-Italian Symposium on Organic Chemistry – SISOC XI**, 13-15 July, Donostia-San Sebastian (Spain). " $\beta$ -Nitroacrylates and *o*-Aminoaldehydes: Useful Building Blocks to Synthesize Quinoline-2-carboxylates under Heterogeneous Conditions" S. Gabrielli, A. Palmieri, S. Sampaolesi, R. Ballini.
- 2016 XXVII Congresso Nazionale della Società Chimica Italiana**, 18-22 September, Venezia (I). " $\beta$ -Nitroacrylates as useful precursor of heterocyclic systems under sustainable reaction conditions" A. Palmieri.
- 2016 16° Edizione "Giornate Scientifiche Borsisti CINMPIS"**, 16-17 December, Rende (I). "Sintesi e derivatizzazione di composti eterociclici azotati aventi attività biologica" R. Ballini, E. Chiurchiù, S. Gabrielli, A. Palmieri, M. Petrini, F.V. Rossi, S. Sampaolesi.
- 2017 The Third China-Italy Bilateral Symposium on Organic Chemistry**, 26-29 April, Wuhan (China). " $\beta$ -Nitroacrylates and One-pot Reactions: Useful Combination for Heterocyclic Systems Generation" A. Palmieri.
- 2017 XLII "A. Corbella" International Summer School on Organic Chemistry**, 18-22 June, Gargnano (BS), Italy. "An Innovative Synthesis of 3-Alkylideneoxindoles under Flow Chemical Conditions" E. Chiurchiù, A. Palmieri, M. Petrini, F.V. Rossi.
- 2019 XII Edition of the International School of Organometallic Chemistry, EuCheMS**, 31 August - 4 September, Camerino (I). "Regio- and chemoselective Michael addition of alkali-metal zincates species to nitroolefins with no additional solvents: synthetic and structural aspects" M. Dell'Aera, F. M. Perna, P. Vitale, A. Altomare, A. Palmieri, E. Hevia, V. Capriati.
- 2019 XXXIX Convegno Nazionale della Divisione di Chimica Organica, CDCO**, 8-12 September, Tourin, Italy. "A new efficient flow chemical synthesis of thiophene-2-carboxylates" E. Chiurchiù, Y. Patehebieke, S. Gabrielli, R. Ballini, A. Palmieri.