

SCUOLA DI DOTTORATO IN SCIENZE E TECNOLOGIE CHIMICHE E
FARMACEUTICHE

Università di Trieste

Cicli XXII, XXIII, XXIV

Pubblicazioni e Contributi a Congressi dei dottorandi nel 2009

(in grassetto i nomi dei dottorandi)

Ciclo XXII (III anno)

Pubblicazioni 2009

1. G. Cellot, E. Cilia, **S. Cipollone**, V. Rancic, A. Sucapane, S. Giordani, L. Gambazzi, H. Markram, M. Grandolfo, D. Scaini, F. Gelain, L. Casalis, M. Prato, M. Giugliano, L. Ballerini "Carbon nanotubes functional nanobridges might improve neuronal performance favoring electrotonic shortcuts" *Nature Nanotech.* **2009**, *4*, 126-133.
2. A. Tubaro, **V. Dell'ovo**, S. Sosa, C. Florio "Yessotoxins. A toxicological overview". *Toxicon.* **2009** in press, doi:10.1016/j.toxicon.2009.07.038
3. F. Felluga, W. Baratta, **L. Fanfoni**, G. Pitacco, P. Rigo, F. Benedetti. "Efficient chemoenzymatic synthesis of chiral pincer ligands". *J. Org. Chem.* **2009**, *74*, 3547-3550.
4. A. Bertoli, **L. Fanfoni**, F. Felluga, G. Pitacco, E. Valentin. "Chemoenzymatic synthesis of optically active α -methylene- γ -carboxy- γ -lactams and γ -lactones". *Tetrahedron: Asymmetry*, **2009**, *20*, 2305-2310.
5. D. Zampieri, M. G. Mamolo, **E. Laurini**, G. Scialino, E. Banfi, L. Vio "2-Aryl-3-(1H-imidazol-1-yl and 1H-1,2,4-triazol-1-yl)-1H-indole derivatives: a new class of antimycobacterial compounds. Conventional heating in comparison with MW-assisted synthesis." *Arch. Pharm.* **2009**; *342*; 716-722.
6. D. Zampieri, M. G. Mamolo, **E. Laurini**, C. Florio, C. Zanette, M. Fermeglia, P. Posocco, M. S. Paneni, S. Pricl, L. Vio "Synthesis, biological evaluation, and three-dimensional in silico pharmacophore model for sigma(1) receptor ligands based on a series of substituted benzo[d]oxazol-2(3H)-one derivatives." *J. Med. Chem.* **2009**; *52*; 5380-5393.
7. D. Zampieri, M. G. Mamolo, **E. Laurini**, M. Fermeglia, P. Posocco, S. Pricl, E. Banfi, G. Scialino, L. Vio "Antimycobacterial activity of new 3,5-disubstituted 1,3,4-oxadiazol-2(3H)-one derivatives. Molecular modeling investigations." *Bioorg. Med. Chem.* **2009**, *17*; 4693-4707.
8. D. Zampieri, M. G. Mamolo, **E. Laurini**, C. Zanette, C. Florio, S. Collina, D. Rossi, O. Azzolina, L. Vio. "Substituted benzo[d]oxazol-2(3H)-one derivatives with preference for the sigma(1) binding site." *Eur. J. Med. Chem.* **2009**, *44*, 124-130.
9. D. Bonifazi, **S. Mohnani**, A. Llanes-Pallas "Supramolecular chemistry at interfaces: molecular recognition on nanopatterned porous surfaces." *Chem. Eur. J.* **2009**, *15*, 7004-7025.
10. L. Davia, G. Grassi, G. Pontrelli, R. Lapasin, **D. Perin**, M. Grassi "Mathematical modeling of NABD release from endoluminal gel paved stet." *Computational Biology and Chemistry* **2009**, *33*, 33-40.
11. M. Grassi, C. Sandolo, **D. Perin**, T. Coviello, R. Lapasin, G. Grassi "Structural characterization of calcium alginate matrices by means of mechanical and release tests." *Molecules* **2009**, *14*, 3003-3017.

12. M. Zacchigna, F. Cateni, **M. Faudale**, S. Sosa, R. Della Loggia “Rapid HPLC analysis for quantitative determination of the two isomeric triterpenic acids, oleanolic acid and ursolic acid in *Plantago major*.” *Scientia Pharmaceutica* **2009**, *77*, 79-86.
13. F. Antognoni, **M. Faudale**, S. Biondi, F. Poli “Methyl jasmonate differentially affects tocopherols content and tyrosine amino transferase activity in cultured cells of *Amaranthus caudatus* and *Chenopodium quinoa*.” *Plant Biology* **2009**, *11*, 161-168.
14. E. Zangrando, **N. Kulisic**, F. Ravalico, I. Bratsos, S. Jedner, M. Casanova, E. Alessio “New ruthenium(II) precursors with the tetradentate sulfur macrocycles tetrathiacyclododecane ([12]aneS₄) and tetrathiacyclohexadecane ([16]aneS₄) for the construction of metal-mediated supramolecular assemblies.” *Inorg. Chim. Acta* **2009**, *362*, 820-832.
15. A. Mateo-Alonso, **N. Kulisic**, G. Valenti, M. Marcaccio, F. Paolucci, M. Prato “ Facile synthesis of highly stable tetraazaheptacene and tetrazaaoctacene dyes.” *Chemistry an Asian Journal*, accepted, DOI : 10.1002/asia.200900373.
16. P. Braiuca, L. Knapic, **V. Ferrario**, C. Ebert, L. Gardossi “3D-QSAR model for predicting the enantioselectivity of *Candida antarctica* lipase B.” *Adv. Synth Catal.* **2009**, *351*, 1293-1302.
17. A. Basso, P. Spizzo, **V. Ferrario**, L. Knapic, N. Savko, P. Braiuca, C. Ebert, E. Ricca, V. Calabrò, L. Gardossi “Endo- and exo-inulinases: enzyme-substrate interaction and rational immobilization.” *Biotechnol. Prog.* **2009**, in press, DOI: 10.1002/btpr.334.

Ciclo XXII (III anno)
Contributi a Congressi 2009

1. **S. Cipollone**, G. Cellot, B. Cacciari, H. Traboulsi, L. Ballerini, M. Prato “Surface functionalization with CNT for the recording of neuronal activity.”
Conferenza: Nanocarbons: From Physicochemical and Biological Properties to Biomedical and Environmental Effects Acquafredda di Maratea (PZ). **Comunicazione Orale**
2. F. Cozzi, **S. Cozzutto**, G. Grzanic, P. Barbieri, E. Reisenhofer, G. Adami “Dimensional characterization of low-z elements in airborne PM10 samples using μ -SRXRF.”
I giovani e la Chimica in FVG, Trieste 24.09.2009. **Poster**
3. C. Florio, G. Decorti, **V. Dell’Ovo**, P. Lorenzon, M. Sciancalepore, S. Sosa, T. Yasumoto, A. Tubaro “Effetti *in vitro* di yessotossina in colture primarie di cardiomiociti di ratto.”
XV Italian Toxicology Society National Congress, Verona, January 19-22, 2009. **Poster**
4. **V. Dell’Ovo**, M. Bottein, A. Tubaro, J. Ramsdell “Comparison of ciguatoxins and brevetoxins potency on human voltage gated sodium channels of brain and peripheral sensory neurons expressed in human embryonic kidney cells.”
Italian Pharmacology Society (SIF) National Congress, Rimini, October 14-17, 2009. **Poster**
5. C. Zanette, **V. Dell’Ovo**, U. Traversa, C. Florio “Guanosine induces neuronal differentiation in the human neuroblastoma SH-SY5Y cell line.”
Italian Pharmacology Society (SIF) National Congress, Rimini, October 14-17, 2009. **Poster**
6. **V. Dell’Ovo**, M.-Y. Bottein, A. Tubaro, J. S. Ramsdell “Brain 1.2 and dorsal root ganglion 1.8 voltage-gated sodium channel alpha subunits expressed in HEK293 cells to compare ciguatoxins and brevetoxins potency.”
International Meeting on health and environment: challenges to the future-Istituto Superiore di Sanità (ISS) - Italian National Institute of Health, Rome, December 9-11. **Poster**
7. **G. Fontanive** “Peptides as biosensor transducer: design, library selection, xanthine recognition and trimeric coiled-coil structure of KE1, a 35 aminoacid peptide.”
Biotech.org- Chimica organica e Biotecnologie: sfide e opportunità. SCI-Società Chimica Italiana, Forte dei Marmi: 20 - 23 maggio 2009. **Comunicazione orale**
8. **E. Laurini**, M. G. Mamolo, D. Zampieri, C. Florio, C. Zanette, S. Pricl, M. Fermeglia, L. Vio “From 3D pharmacophore model to synthesis: a new series of 1-benzyl-piperidine-4-carboxylic acid benzylamide derivatives as new σ_1 ligands.”
III Meeting-Workshop Nuove Prospettive in Chimica Farmaceutica Ciocco a Castelvechio Pascoli (LU), 13-14 Febbraio 2009. **Poster**
9. **E. Laurini**, M. G. Mamolo, D. Zampieri, S. Collina, D. Rossi, L. Vio “New perspectives in the design and in the synthesis of new sigma ligands: computational approach and classic way.”
XXIII Congresso Nazionale S.C.I. Sorrento, 5-10 luglio 2009. **Poster**
10. D. Zampieri, M. G. Mamolo, **E. Laurini**, L. Vio, G. Scialino, E. Banfi “Synthesis and antimycobacterial activity of new pyridine-2-carboxamidrazone derivatives.”
XXIII Congresso Nazionale S.C.I. Sorrento, 5-10 luglio 2009. **Poster**
11. **E. Laurini**, M. G. Mamolo “Design, synthesis and receptor binding of new sigma ligands.”
XXIX ESMEC Urbino, 13-18 settembre 2009. **Poster**
12. F. Cateni, M. Zacchigna, **P. Martinuzzi**, S. Drioli, G. M. Bonora “Synthesis and pharmacological properties of a mixed drug system conjugated to a single high-molecular weight multiPeg-derivative.”
XXIII Congresso Nazionale S.C.I. Sorrento, 5-10 luglio 2009. **Poster**
13. **S. Mohnani** “Towards the engineering of nanostructure surfaces via self-assembly of peptide nucleic acids (PNAs).” Progress report September 2008 to April 2009.

Marie Curie Research Training Network PRAIRIES progress meeting Liverpool, UK, 22–24 april 2009. **Comunicazione orale**

14. **S. Mohnani** “Towards the engineering of nanostructure surfaces via self-assembly of peptide nucleic acids (PNAs).” Progress report April to September 2009.
Marie Curie Research Training Network PRAIRIES progress meeting Strasbourg, France 28–29 September 2009. **Comunicazione orale**
15. **E. Padovese**, C. Campailla, P. Bevilacqua, J. Kašpar “Fenton-like photocatalytic processes as efficient landfill leachate purification treatment.”
Convegno delle Società Europee di Catalisi Europacat IX 30 agosto- 4 settembre 2009, Salamanca (Spagna). **Poster**
16. **U. Cersosimo**, F. Benedetti, S. Drioli, C. Brancolini “Synthesis and pro-apoptotic activity of cytotoxic analogues of 3,5-bis(4-nitro-benzylidene)-tetrahydrothiapyran-4-one-1,1-dioxide.”
XXIII Congresso Nazionale della Società Chimica Italiana. Sorrento, 5-10 Luglio 2009. **Poster**
17. **U. Cersosimo** “Sintesi e attività pro-apoptotica di ariliden-cicloalcanoni.”
I giovani e la Chimica in FVG, Trieste 24.09.2009. **Comunicazione orale**
18. **C. D. Venneri**, F. Felluga, G. Pitacco, E. Valentin “A facile chemo-enzymatic asymmetric synthesis of β,β' -dialkylated γ -aminobutyric acids.”
XXIII Congresso Nazionale S.C.I. Sorrento, 5-10 luglio 2009. **Poster**

Ciclo XXIII (II anno)
Pubblicazioni 2009

1. S. Sosa, G. Del Favero, **M. De Bortoli**, F. Vita, M. R. Soranzo, D. Beltramo, M. Ardizzone, A. Tubaro "Palytoxin toxicity after oral administration in mice." *Toxicology Letters*, **2009**, *191*, 253-259.
2. P. Ciminiello, C. Dell'Aversano, E. Dello Iacovo, E. Fattorusso, M. Forino, L. Grauso, L. Tartaglione, C. Florio, P. Lorenzon, **M. De Bortoli**, A. Tubaro, M. Poli, G. Bignami "Stereostructure and biological activity of 42-hydroxy-palytoxin: a new palytoxin analogue from Hawaiian Palythoa subspecies." *Chemical Research in Toxicology* **2009**, *22*, 1851-1859.
3. D. Heim, K. Seufert, W. Auwarter, C. Aurisicchio, **C. Fabbro**, D. Bonifazi, J. V. Barth, "Surface-assisted assembly of discrete porphyrin-based cyclic supramolecules." *Nano Letters* doi:10.1021/nl9029994.
4. L. Michielan, C. Bolcato, **S. Federico**, B. Cacciari, M. Bacilieri, K.-N. Klotz, S. Kachler, G. Pastorin, R. Cardin, A. Sperduti, G. Spalluto, S. Moro "Combining selectivity and affinity predictions using an integrated Support Vector Machine (SVM) approach: an alternative tool to discriminate between the human adenosine A2A and A3 receptor pyrazolo-triazolo-pyrimidine antagonists binding sites." *Bioorganic & Medicinal Chemistry* **2009**, *17*, 5259-5274.
5. B. Cacciari, P. Crepaldi, **S. Federico**, G. Spalluto "Recent developments in the field of non peptidic $\alpha_v\beta_3$ antagonists." *Frontiers in Medicinal Chemistry* **2009**, *4*, 587-618.
6. E. Morizzo, **S. Federico**, G. Spalluto, S. Moro "Human A3 adenosine receptor as versatile G protein-coupled receptor example to validate the receptor homology modeling technology." *Current Pharmaceutical Design* **2009**, *15*, 4069-4084.
7. L. Michielan, **S. Federico**, L. Terfloth, D. Hristozov, B. Cacciari, K.-N. Klotz, G. Spalluto, J. Gasteiger, S. Moro "Exploring potency and selectivity receptor antagonist profiles using a multilabel classification approach: the human adenosine receptors as a key study." *J. Chem. Inf. Model.* in press, DOI: 10.1021/ci900311j.
8. T. Gianferrara, I. Bratsos, E. Iengo, B. Milani, **A. Oštrić**, **C. Spagnol**, E. Zangrando, E. Alessio "Synthetic strategies towards ruthenium-porphyrin conjugates for anticancer activity." *Dalton Trans.*, **2009**, 10742-10756.
9. F. Asaro, A. Benedetti, **N. Savko**, G. Pellizer "Inverse nonionic microemulsion studied by means of ^1H , ^{13}C , and PGSTE NMR during silica nanoparticles synthesis." *Langmuir* **2009**, *25*, 3224-3231.
10. A. Basso, P. Spizzo, V. Ferrario, L. Knapic, **N. Savko**, P. Braiuca, C. Ebert, E. Ricca, V. Calabrò, L. Gardossi "Endo- and exo-inulinases: enzyme-substrate interaction and rational immobilization." *Biotechnol. Prog.* **2009**, in press, DOI: 10.1002/btpr.334.
11. **L. Sinigoi**, P. Bravin, C. Ebert, N. D'Amelio, L. Vaccari, L. Ciccarelli, S. Cantone, A. Basso, L. Gardossi "Synbeads porous-rigid methacrylic support: application to solid phase peptide synthesis and characterization of the polymeric matrix by FTIR microspectroscopy and HR-MAS NMR." *J. Comb. Chem.* **2009**, *11*, 835-845.
12. A. Basso, **L. Sinigoi**, L. Gardossi, S. Flitsch "Effect of microwave radiation on enzymatic and chemical peptide bond synthesis on solid phase." *International Journal of Peptides* **2009**, doi:10.1155/2009/362482.
13. I. Colussi, A. Cortesi, V. Gallo, **N. Stefani**, **R. Vitanza** "Anaerobic treatment of winery wastes in suspended and attached growth biomass reactor." *Proceedings Winery 2009*, Trento e Verona, 325-331.

Ciclo XXIII (II anno)
Contributi a Congressi 2009

1. **M. De Bortoli**, M. Pelin, M. Ardizzone, D. Beltramo, A. Tubaro, S. Sosa “Tossicità acuta da palitossina dopo somministrazione orale.”
XV Congresso Nazionale SITOX, Verona, 19-22 gennaio 2009. **Comunicazione orale**
2. S. Boscolo, **M. De Bortoli**, F. Berti, G. Fontanive, S. Sosa, M. Poli, G.S. Bignami, T. Yasumoto, F. Benedetti, R. Marzari, M. Prato, A. Tubaro “Progress towards development of antibodies and assays for palytoxins and ostreocins.”
123rd AOAC annual meeting & exposition, Philadelphia, 13-16 settembre 2009. **Poster**
3. **M. De Bortoli**, **G. Del Favero**, S. Sosa, A. Tubaro, M. Ardizzone, D. Beltramo, P. Ciminiello, E. Fattorusso, M. Forino, M. Poli “Acute oral toxicity of a new palytoxin analogue in mice.”
123rd AOAC annual meeting & exposition, Philadelphia, 13-16 settembre 2009. **Poster**
4. M. Forino, P. Ciminiello, C. Dell’Aversano, E. Dello Iacovo, E. Fattorusso, L. Grauso, L. Tartaglione, **M. De Bortoli**, A. Tubaro, M. Poli, G. Bignami “42-Hydroxy Palytoxin: a New Palytoxin Analog from Hawaiian Palythoa spp. Is this the Real Poison of the Legendary Hawaiian limu-make-o-Hana?”
6th European Conference on Marine Natural Products, Oporto, 19-23 luglio 2009.
Comunicazione orale (di M. Forino).
3. **C. Fabbro**, S. Sandron, M. Visentin, G. Toffoli, G. M. Severini, A. Bianco, T. Da Ros, M. Prato “Covalent chemistry on carbon nanotubes: towards bioactive conjugates.”
Nanocarb09 - Nanocarbons, from Physicochemical Properties to Biomedical and Environmental Effect, Maratea, 08-13 September 2009. **Poster**
4. **C. Fabbro** “Carbon nanotubes derivatives for biological applications”
Mini-Symposium Carbon Nanotubes in Nanomedicine, Pavia, 28 October 2009.
Comunicazione orale
5. **S. Federico**, G. Spalluto, K.-N. Klotz, B. Cacciari, S. Moro, E. Morizzo “A novel class of pyrazolo[4,3-*e*]1,2,4-triazolo[1,5-*c*]pyrimidines as A₃ adenosine receptor antagonists.”
Nuove prospettive in chimica farmaceutica III, Castelveccchio Pascoli (LU), 13-14 Febbraio 2009. **Poster**
6. E. Morizzo, V. Colotta, D. Catarzi, F. Varano, **S. Federico**, G. Spalluto, T. Stockner, S. Moro “G-protein-coupled receptors as potential drug target: from receptor topology to rational drug design, an in silico approach.”
Nuove prospettive in chimica farmaceutica III, Castelveccchio Pascoli (LU), 13-14 Febbraio 2009. **Poster**
7. **S. Federico**, G. Spalluto, K.-N. Klotz, B. Cacciari, S. Moro, E. Morizzo “A novel class of pyrazolo[4,3-*e*]1,2,4-triazolo[1,5-*c*]pyrimidines as A₃ adenosine receptor antagonists.”
Third joint Italian-German purine club meeting, Camerino (MC), 17-20 Luglio 2009. **Poster**
8. G. Pastorin, **S. Federico**, F. Cateni, B. Cacciari, K.-N. Klotz, Z.-G. Gao, K. A. Jacobson, M. Corradino, S. Paoletta, S. Moro, G. Spalluto “Synthesis and pharmacological characterization of a new series of 5,7-disubstituted-[1,2,4]triazolo[1,5-*a*][1,3,5]triazine derivatives as adenosine receptor antagonists: a preliminary receptor-driven SAR profile.”
Third joint Italian-German purine club meeting, Camerino (MC), 17-20 Luglio 2009. **Poster**
9. L. Michielan, C. Bolcato, **S. Federico**, B. Cacciari, M. Bacilieri, K.-N. Klotz, S. Kachler, G. Pastorin, A. Sperduti, G. Spalluto, S. Moro “Combining selectivity and affinity predictions using an integrated support vector machine (SVM) approach: a novel tool to discriminate between the human adenosine A_{2A} and A₃ receptor pyrazolo-triazolo-pyrimidine antagonists binding sites.”
Third joint Italian-German purine club meeting, Camerino (MC), 17-20 Luglio 2009. **Poster**

10. **T. Iosio**, E. Franceschinis, B. Perissutti, S. Dall'Acqua, N. Realdon, D. Voinovich "Preparazione e valutazione farmacocinetica di un sistema autoemulsionante solido contenente un fitocomplesso."
XXI Simposio ADRITELF, Cagliari 10-13 settembre 2009. **Poster**
11. **A. Oštrić**, F. Benedetti, F. Berti "Microwave assisted direct amination of α,β -unsaturated ketones with azidotrimethylsilane."
XXXIV Scuola Estiva "A. Corbella", Gargnano (BS). **Poster**
12. **A. Pace**, L. Pasquato "Sintesi e funzionalizzazione di nanoparticelle di oro solubili in mezzi acquosi."
XXXIV Scuola Estiva "A. Corbella", Gargnano (BS). **Poster**
13. **A. Pace**, C. Lunghi, B. Richichi, C. Nativi, L. Pasquato "Synthesis and functionalization of water-soluble gold-nanoparticles."
IX Congresso Nazionale di Chimica Supramolecolare, Parma, 6-9 settembre 2009. **Poster**
14. F. Asaro, A. Benedetti, I. Freris, P. Riello, **N. Savko** "Study of the evolution of tetraethylorthosilicate (TEOS) in acid inverse microemulsion systems."
XIV International Conference on Small Angle Scattering, Oxford, UK, 13-18 settembre 2009. **Poster**
15. **L. Sinigoj**, A. Basso, P. Caimi, D. Fattor, P. Spizzo, L. Gardossi "Immobilizing lipases for industrial applications: synthesis of biodiesel and polyesters."
Biotrans 2009, Bern, Switzerland, 5-9 Luglio 2009. **Poster**
16. A. Chernykh, L. Gardossi, S. Miertus, **L. Sinigoj**, L. Golovleva "Preliminary study on activity and stability of laccases in different organic mixtures."
Training Course and Summer School on Next Generation Biofuels: Development of sustainable chemical processes for production of biofuels and bio-based chemicals from agricultural waste and non-food biomass, Bologna, 14-18 September 2009. **Poster**
17. **L. Sinigoj** "Sintesi enzimatica di poliesteri e loro caratterizzazione attraverso tecniche di spettroscopia DOSY-NMR."
I giovani e la Chimica in FVG, Trieste 24.09.2009. **Comunicazione orale**
18. Colussi, A. Cortesi, V. Gallo, **N. Stefani**, R. Vitanza "Anaerobic treatment of winery wastes in suspended and attached growth biomass reactor."
Winery 2009 – 5th International Specialized Conference on Sustainable Viticulture: winery waste and ecologic impacts management. Trento e Verona, 30 Marzo – 3 Aprile 2009. **Comunicazione orale**
19. **V. A. Zamolo**, A. Le Goff, G. Valenti, **M. De Bortoli**, S. Boscolo, G. Fontanaive, R. Marzari, F. Benedetti, A. Tubaro, F. Paolucci, M. Prato "Palytoxin detection through an electrochemical biosensor based on CNTs."
ESF Research Conference "Nanocarbons: form physicochemical and biological properties to biomedical and environmental effects", Acquafredda di Maratea, 8-13 settembre 2009. **Poster**
20. **M. Boccalon**, E. Iengo, E. Alessio, P. Tecilla "Metal-organic nanotubes for transmembrane transport."
IX Congresso Nazionale di Chimica Supramolecolare, Parma 6-9 settembre 2009. **Poster**

Ciclo XXIV
Pubblicazioni 2009

1. M. Moneghini, G. Zingone, **N. De Zordi** "Influence of the microwave technology on the physical–chemical properties of solid dispersion with Nimesulide." *Powder Technology* **2009**, *195*, 259-263.
2. A. Giangaspero, C. Ponti, F. Pollastro, **G. Del Favero**, R. Della Loggia, A. Tubaro, G. Appendino, S. Sosa "Topical anti-inflammatory activity of Eupatilin, a lipophilic flavonoid from mountain wormwood (*Artemisia umbelliformis* Lam.)." *J Agric Food Chem.* **2009**, *57*, 7726-7730.
3. S. Sosa, **G. Del Favero**, M. De Bortoli, F. Vita, M. R. Soranzo, D. Beltramo, M. Ardizzone, A. Tubaro "Palytoxin toxicity after acute oral administration in mice." *Toxicol Lett.* **2009**, *191*, 253-259.
4. A. Hameed, **V. Gombac**, T. Montini, M. Graziani, P. Fornasiero "Synthesis, characterization and photocatalytic activity of NiO-Bi₂O₃ nanocomposites." *Chem. Phys. Letters* **2009**, *472*, 212-216.
5. D. Barreca, P. Fornasiero, A. Gasparotto, **V. Gombac**, C. Maccato, T. Montini, E. Tondello "The potential of supported Cu₂O and CuO nanosystems in photocatalytic H₂ production." *ChemSusChem* **2009**, *2*, 230-233.
6. A. Gasparotto, D. Barreca, P. Fornasiero, **V. Gombac**, O. I. Lebedev, C. Maccato, T. Montini, E. Tondello, G. Van Tendeloo, E. Comini, G. Sberveglieri "Multi-functional copper oxide nanosystems for H₂ sustainable production and sensing." *ECS Transactions* **2009**, *25*, 1169-1176.
7. A. Hameed, T. Montini, **V. Gombac**, P. Fornasiero "Photocatalytic decolourization of dyes on NiO-ZnO nano-composites." *Photochemical and Photobiological Sciences* **2009**, *8*, 677-682.
8. **V. Gombac**, T. Montini, S. Polizzi, J. J. Delgado, A. Hameed, P. Fornasiero "Photocatalytic production of hydrogen over tailored Cu-embedded TiO₂." *Nanoscience and Nanotechnology Letters* **2009**, *1*, 128-133.
9. A. Hameed, **V. Gombac**, T. Montini, L. Felisari and P. Fornasiero "Photocatalytic activity of zinc modified Bi₂O₃." *Chemical Physics Letters* **2009**, *483*, 254-261.
10. **V. Gombac**, L. Sordelli, T. Montini, J. J. Delgado, A. Adamski, G. Adami, M. Cargnello, S. Bernal and P. Fornasiero "CuO_x-TiO₂ photocatalysts for H₂ production from ethanol and glycerol solutions." *The Journal of Physical Chemistry A* **2009**, in press, doi:10.1021/jp907242q.
11. P. Braiuca, **L. Knopic**, V. Ferrario, C. Ebert, L. Gardossi "3D-QSAR model for predicting the enantioselectivity of Candida antarctica lipase B." *Adv. Synth Catal.* **2009**, *351*, 1293- 1302.
12. A. Basso, P. Spizzo, V. Ferrario, **L. Knopic**, N. Savko, P. Braiuca, C. Ebert, E. Ricca, V. Calabrò, L. Gardossi "Endo- and exo-inulinases: enzyme-substrate interaction and rational immobilization." *Biotechnol. Prog.* **2009**, in press, DOI: 10.1002/btpr.334.
13. I. Guryanov, **A. Montellano López**, M. Carraro, T. Da Ros, G. Scorrano, M. Maggini, M. Prato, M. Bonchio "Metal-free, retrocycloaddition of fulleropyrrolidines in ionic liquids under microwave irradiation." *Chemical Communications*, **2009**, 3940-3942.
14. I. Guryanov, **A. Montellano López**, F. M. Toma, M. Carraro, T. Da Ros; G. Angelini, E. D'Aurizio, A. Fontana, M. Maggini, M., Prato, M. Bonchio "Microwave-assisted functionalization of carbon nanostructures in ionic liquids." *Chemistry an Europeal Journal*, **2009**, in press, DOI: 10.1002/chem.200901408.

Ciclo XXIV
Comunicazioni a Congresso 2009

1. M. Moneghini, G. Zingone, **N. De Zordi** (2009). "Microwave generated solid dispersions containing nimesulide."
XXI Simposio A.D.R.I.T.E.L.F. Veicolazione dei farmaci: aspetti tecnologici innovativi. Cagliari, 10-13 Settembre 2009. **Poster**
2. M. Moneghini, **N. De Zordi** (2009). Influence of the microwave technology on the physical-chemical properties of solid dispersion with itraconazole.
XXI Simposio A.D.R.I.T.E.L.F. Veicolazione dei farmaci: aspetti tecnologici innovativi. Cagliari, 10-13 Settembre 2009. **Poster**
3. G. Zingone, M. Moneghini, L. Garboni, **N. De Zordi** "Preparazione e caratterizzazione di compresse a rilascio sostenuto di fluoxetina cloridrato."
XXI Simposio A.D.R.I.T.E.L.F. Veicolazione dei farmaci: aspetti tecnologici innovativi. Cagliari, 10-13 Settembre 2009. **Poster**
4. A. Giangaspero, S. Sosa, C. Ponti, **G. Del Favero**, G. Baldini, F. Pollastro, G. Appendino, R. Della Loggia "Topical anti-inflammatory activity of eupatilin from *Artemisia umbelliformis*."
Congress "Plants from High Altitude – Phytochemistry and Bioactivity". Obergurgl, aprile 2009. **Poster**
5. M. De Bortoli, **G. Del Favero**, M. Ardizzone, D. Beltramo, P. Ciminiello, E. Fattorusso, M. Forino, M. Poli, S. Sosa, A. Tubaro "Acute oral toxicity of a new palytoxin analogue in mice."
123rd AOAC Annual Meeting & Exposition. Philadelphia (USA), settembre 2009. **Poster**
6. L. Sinigoi, A. Basso, P. Caimi, **D. Fattor**, P. Spizzo, L. Gardossi "Immobilizing lipases for industrial applications: synthesis of biodiesel and polyesters."
Biotrans 2009 Bern, Switzerland, 5-9 Luglio 2009. **Poster**
7. H. Veny, L. Gardossi, S. Miertus, **D. Fattor**, P. Spizzo "Preliminary study on activity and stability of immobilized lipases in methanolysis for biodiesel production"
Training School, Bologna 14 – 20 settembre 2009
8. **T. Gatti**, E. Iengo, E. Alessio, N. Guidolin, E. Zangrando, M. Orlandi, M.-T. Indelli, F. Scandola "Easy to make, porphyrin-rhenium(I) dyads for photophysical applications."
IX Congresso Nazionale di Chimica Supramolecolare, Parma, 6-9 settembre 2009. **Poster**
9. C. Fabbro, **A. Montellano López**, M. Prato, T. Da Ros "Medicinal chemistry and pharmacological potential of fullerenes and carbon nanotubes."
IWFAC 2009 St Petersburg, Russia, 6-10 luglio 2009. **Presentazione orale**
10. **A. Montellano López**, I. Guryanov, M. Bonchio, T. Da Ros, M. Prato "MW assisted synthesis of fullerene derivatives in ionic liquids for biological applications."
ICS-Unido Trieste, 13 - 15 ottobre 2009. **Poster**
11. M. De Bortoli, **M. Pelin**, M. Ardizzone, D. Beltramo, A. Tubaro, S. Sosa "Acute toxicity by Palytoxin after oral somministrazione"
XV Congresso Nazionale della Società Italiana di Tossicologia, Verona, 19 – 22 gennaio 2009. **Poster**
12. **M. Pelin**, C. Zanette, S. Sosa, A. Tubaro, C. Florio "The marine toxin Palitoxin exerts a potent cytotoxic effect on human HaCaT keratinocytes."
XXXIV Congresso Nazionale della Società Italiana di Farmacologia, Rimini 4 – 17 ottobre 2009. **Poster**
13. **M. Pelin**, C. Zanette, C. Florio, N. Ungaro, S. Sosa, A. Tubaro "Dermotoxicity of palytoxin after cutaneous exposure."
IHME '09 International Meeting on Health Environment: challenges for the future, Roma 9 – 11 dicembre 2009. **Poster**

14. **C. Spagnul**, T. Gianferrara, I. Bratsos, E. Alessio “Synthesis and structural characterization of meso-tetra(bpy)-porphyrins peripherally conjugated to water-soluble ruthenium fragments for bio-medical applications.”
COST D 39 Workshop, Debrecen (Hungary), 24 - 25 settembre 2009. **Poster**
15. **C. Spagnul**, T. Gianferrara, I. Bratsos, E. Alessio “Synthesis and structural characterization of meso-tetra(bpy)-porphyrins peripherally conjugated to water-soluble ruthenium fragments for bio-medical applications.”
ISABC 10, Debrecen (Hungary), 24 - 25 settembre 2009. **Poster**
16. V. Pace, V. Ferrario, P. Braiuca, **L. Knapic**, C. Ebert, L. Gardossi, J. V. Sinisterra, A. R. Alcántara “Molecular modelling of asymmetric bioreductions of ketones with ADH from *Thermus thermophilus* for obtaining new enantiopure halohydrins.”
BIOTRANS, Berna (Svizzera), 5 – 9 luglio 2009. **Poster**
17. V. Ferrario, P. Braiuca, **L. Knapic**, A. de Vries, S. J. Marrink, C. Ebert, L. Gardossi “Simulation of interfaces and MD of lipase activation.”
Enzyme Engineering XX, Groningen (Germania) 20 – 25 settembre 2009. **Poster**

Periodi di ricerca all'estero (2009)

1. **Fabbro Chiara (Ciclo XXIII)**: 01/06 - 25/07/2009. CNRS-Institut de Biologie Moleculaire et Cellulaire, Strasbourg, France.
2. **Tamara Iosio (Ciclo XXIII)**: 30/03 – 01/06/2009. Department of Pharmaceutics, Faculty of Pharmacy and Biochemistry, University of Zagreb (Slovenia)
3. **Loris Sinigoï (Ciclo XXIII)**: 01/04 – 30/06/2009. Department of Biochemistry, School of Chemical Science and Engineering, KTH, Royal Institute of Technology, Stockholm, Sweden. Attività di ricerca svolta nell'ambito del progetto *Erasmus Placement Programme* presso il laboratorio del prof. Karl Hult.
4. **Dell'Ovo Valeria (Ciclo XXII)**: 07/01 – 01/07/2009 e 31/08 – 10/10/2009. National Oceanic and Atmospheric Administration-NOAA, National Ocean Service-NOS, Center for Coastal Environmental Health and Biomolecular Research, Charleston, Sud Carolina (USA).
5. **Lidia Fanfoni (Ciclo XXII)**: 01/02 – 21/06/2009. Università Rovira y Virgili (Tarragona, Spain). Attività di ricerca svolta nell'ambito del progetto *Erasmus Placement Programme* presso il laboratorio del prof. Sergio Castellón.
6. **Niksa Kulisic (Ciclo XXII)**: 01/04 - 31/12/2009. Freiburg Institute for Advanced Studies (FRIAS), School of Soft Matter Research, Albert-Ludwigs-Universität, Freiburg (Germania).
7. **Stefan Mohnani (Ciclo XXII)**: 01/05 – 30/06/2009. ISIS, Strasbourg, France. Secondment within PRAIRIES EU research training network.