

ALL, A

22 NOVEMBRE 2017 Fabio Lorenzini

## VERBALE 2° RIUNIONE

Elenco datato e firmato delle pubblicazioni e della tesi di dottorato presentate.

Fabio Lorenzini

(Richiedente di essere ammesso a partecipare alla procedura di selezione per l'assunzione di n. 1 Ricercatore a tempo determinato ai sensi dell'art. 24, comma 3, lett. a) della Legge 240/2010 presso il dipartimento di Scienze, Settore concorsuale 03/B1, Fondamenti delle scienze chimiche e sistemi inorganici, Settore Scientifico Disciplinare CHIM/03, Chimica generale ed inorganica, bandita con decreto rettorale disponibile sul sito pubblico <http://www.albopretorionline.it/uniroma/alboente.aspx> ed il cui avviso è pubblicato sulla Gazzetta Ufficiale n. 82 del 27/10/2017.)

**Publications.**

1. (As corresponding author) Y. Ma, Y.-M. Wang, P. Morgan, R. E. Jackson, X. Liu, G. C. Saunders, F. Lorenzini,\* A. C. Marr,\* 'Designing effective homogeneous catalysis for glycerol valorisation: selective synthesis of a value-added aldehyde from 1,3-propanediol via hydrogen transfer catalysed by a highly recyclable, fluorinated  $\text{Cp}^*\text{Ir}(\text{NHC})$  catalyst.', *Catal. Today*, **2017**, *accepted, in press*, <http://dx.doi.org/10.1016/j.cattod.2017.09.036>.
2. H. P. Thomas, Y.-M. Wang, F. Lorenzini, S. J. Coles, P. N. Horton, A. C. Marr, G. C. Saunders, 'Cyclometallation via Carbon-Fluorine Bond Activation Induced by Silver Particles.', *Organometallics*, **2017**, *36*, 960.
3. Y.-M. Wang, F. Lorenzini, M. Rebros, G. C. Saunders, A. C. Marr, 'Combining bio- and chemo-catalysis for the conversion of bio-renewable alcohols: homogeneous iridium catalysed hydrogen transfer initiated dehydration of 1,3-propanediol to aldehydes', *Green Chem.*, **2016**, *18*, 1751.
4. B. R. James, F. Lorenzini, 'Developments in the chemistry of tris(hydroxymethyl)phosphine.', *Coord. Chem. Rev.*, **2010**, *254*, 420.
5. F. Lorenzini, D. Moiseev, B. O. Patrick, B. R. James, 'Reactions of a Phosphinoaldehyde with  $\text{Pd}^{\text{II}}$ ,  $\text{Rh}^{\text{I}}$ , and  $\text{Ir}^{\text{I}}$  Precursors, Including the Formation of Complexes Containing a  $\text{P,OH}$ -Chelated Phosphinohemiacetal Ligand: a New Bonding Mode.', *Inorg. Chem.*, **2010**, *49*, 2111.
6. F. Lorenzini, E. O'Hara, S. Qian, F. Marchetti, J. M. Birbeck, A. Haynes, A. J. Blake, G. C. Saunders, A. C. Marr, 'The structural characterization and hydroformylation activity of the tri-rhodium complex  $[\text{Rh}_3(\mu_2\text{-dppm})_2(\mu_2\text{-CO})_3(\text{K}^+\text{-CO})_3]\text{BF}_4$ .'', *Inorg. Chem. Comm.*, **2009**, *12*, 1071.
7. F. Lorenzini, P. Marcazzan, B. O. Patrick, B. R. James, 'Synthesis, characterization, and X-ray structures of three iridium(III)-hydrido-cyclometallated-imine complexes, including the first reported hydrido-( $\eta^1$ -imine)-Ir complex.', *Can. J. Chem.*, **2008**, *86*, 253.
8. F. Lorenzini, B. O. Patrick, B. R. James, 'The complexes:  $\text{RhCl}(\text{P-N})(\text{THP})$ , where P-N is  $P,N$ -chelated *o*-diphenylphosphino-*N,N*-dimethylaniline and THP is tris(hydroxymethyl)phosphine, and  $\text{RhCl}[(\text{O})\text{P-N}][\text{THP}(\text{O})]$  containing O-bonded phosphine oxides.', *Inorg. Chim. Acta*, **2008**, *361*, 3199.
9. F. Lorenzini, B. O. Patrick, B. R. James, 'Serendipitous syntheses of  $\text{Rh}(\text{H})_2\text{Cl}(\text{PRPh}_2)_3$  complexes, and their crystal structures, where R = Me, Cy (cyclohexyl).', *Inorg. Chim. Acta*, **2008**, *361*, 2123.

10. F. Lorenzini, B. O. Patrick, B. R. James, 'Formation of a Phosphine-phosphinite Ligand in  $\text{RhCl}(\text{PRR}')_2[\text{P},\text{P}-\text{R}'(\text{R})\text{POCH}_2\text{P}(\text{CH}_2\text{OH})_2]$  and  $\text{R}'\text{H}$  from  $\text{cis-RhCl}(\text{PRR}')_2[\text{P}(\text{CH}_2\text{OH})_3]$  via P-C Bond Cleavage.', *Inorg. Chem.*, **2007**, 46, 8998.
11. F. Lorenzini, B. O. Patrick, B. R. James, 'Synthesis and X-ray structures of water-soluble tris(hydroxymethyl)phosphine complexes of rhodium(I).', *J. Chem. Soc., Dalton Trans.*, **2007**, 3224.
12. F. Lorenzini, K. T. Hindle, S. J. Craythorne, A. R. Crozier, F. Marchetti, C. J. Martin, P. C. Marr, A. C. Marr, '[ $\text{Rh}_2(\text{COD})_2(\text{Dppm})(\mu_2\text{-Cl})$ ] $\text{BF}_4$ : Precursor for a Selective Hydrogenation Catalyst and Its Recycling by Silica Entrapment.', *Organometallics*, **2006**, 25, 3912.

**Tesi di dottorato:**

- PhD in Chemistry: School of Chemistry, The Queen's University of Belfast, Belfast, UK (2005).  
Thesis title: "Bis(diphenylphosphino)methane and triphenylphosphine complexes of rhodium: synthesis and catalytic activity towards hydroformylation and hydrogenation of unsaturated hydrocarbons." Supervisor: Dr. Andrew C. Marr. Committee: Prof. David J. Cole-Hamilton, Dr. Graham C. Saunders.


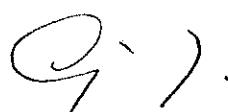

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ALLEGATO A

## ELENCO PUBBLICAZIONI

Si allegano alla domanda per la selezione a n° 1 posto di ricercatore universitario a tempo determinato per il settore concorsuale 03/B1 Fondamenti delle Scienze Chimiche e Sistemi Inorganici S.S.D. CHIM/03 Chimica Generale ed Inorganica presso il Dipartimento di Scienze, il cui avviso è pubblicato sulla Gazzetta Ufficiale n. 82 del 27/10/2017, le seguenti pubblicazioni:

1. *Polymorphic Behaviour in Protein – Surfactant Mixtures: The Water – Bovine Serum Albumin – Sodium Taurodeoxycholate System.* B. Orioni, M. Roversi, C. La Mesa, F. Asaro, G. Pellizer and G. D'Errico, *J. Phys. Chem. B*, **2006**, 110(24): 12129-12140.
2. *Determining the location of antimicrobial peptides inside lipid bilayers by combined fluorescence spectroscopy and molecular dynamics simulations.* L. Stella, G. Bocchinfuso, G. Grande, B. Orioni, M. Venanzi, J.Y. Kim, Y. Park, K.S. Hahm, M. De Zotti, F. Formaggio, C. Toniolo, A. Palleschi. *J. Pept. Sci.* **2008**, 14(S1) 176.
3. *Membrane perturbation by the antimicrobial peptide PMAP-23: a fluorescence and molecular dynamics study.* B. Orioni, G. Bocchinfuso, J. Y. Kim, A. Palleschi, G. Grande, S. Bobone, M. Venanzi, Y. Park, J. I. Kim, K. S. Hahm and L. Stella. *Biochim Biophys Acta*. **2009**, 1788(7):1523-1533.
4. *Esculentin 1-21: a linear antimicrobial peptide from frog skin with inhibitory effect on bovine mastitiscausing bacteria.* A. E. Islas-Rodriguez, L. Marcellini, B. Orioni, D. Barra, L. Stella and M. L. Mangoni. *J. Pept. Sci.* **2009**, 15: 607-614.
5. *Different mechanisms of action of antimicrobial peptides: insights from fluorescence spectroscopy experiments and molecular dynamics simulations.* G. Bocchinfuso, A. Palleschi, B. Orioni, G. Grande, F. Formaggio, C. Toniolo, Y. Park, K.S. Hahm and L. Stella. *J. Pept. Sci.* **2009**, 15: 550-558.
6. *Monomer/dimer equilibrium in glutathione transferases: a critical re-examination.* R. Fabrini, A. De Luca, L. Stella, G. Mei, B. Orioni, S. Ciccone, G. Federici, M. Lo Bello and G. Ricci. *Biochemistry*, **2009**, 48: 10473-10482.
7. *Fluctuations and the rate-limiting step of peptide-induced membrane leakage.* C. Mazzuca, B. Orioni, M. Coletta, F. Formaggio, C. Toniolo, G. Maulucci, M. De Spirito, B. Pispisa, M. Venanzi and L. Stella. *Biophys. J.*, **2010**, 99: 1791-1800.
8. *The thin line between cell-penetrating and antimicrobial peptides: the case of Pep-1 and Pep-1-K.* S. Bobone, A. Piazzon, B. Orioni, J. Z. Pedersen, Y. H. Nan, K.-S. Hahm, S. Y. Shin, and L. Stella. *J. Pept. Sci.* **2011**, 17(5): 335-341.
9. *Membrane thickness and the mechanism of action of the short peptaibol trichogin GA IV.* S. Bobone, Y. Gerelli, M. De Zotti, G. Bocchinfuso, A. Farrotti, B. Orioni, F. Sebastiani, E. Latter, J. Penfold, R. Senesi, F. Formaggio, A. Palleschi, C. Toniolo, G. Fragneto and L. Stella. *Biochim Biophys Acta*, **2012**, 1828(3): 1013-1024.

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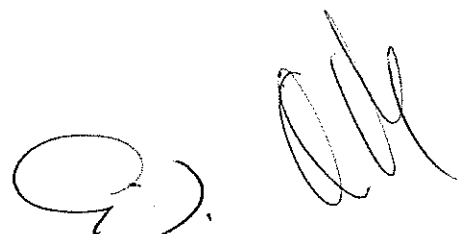
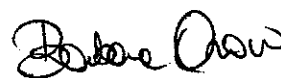
10. *The Panel Test as the Metrology of Extra Virgin Olive Oil Quality Evaluation and Its Dissemination*. M. Caciotta, S. Giarnetti, F. Leccese, B. Orioni, M. Oreggia and S. Rametta. *J. Food Sci. Eng.* **2014**, 4(6): 203-211.

11. *Flavors mapping by Kohonen network classification of panel tests of extra virgin olive oil*. M. Caciotta, S. Giarnetti, F. Leccese, B. Orioni, M. Oreggia, C. Pucci and S. Rametta. *Measurements* **2016**, 78: 366-372.

12. *Different mechanisms of action of antimicrobial peptides: insights from fluorescence spectroscopy*. B. Orioni. *Università degli Studi di Roma "Tor Vergata"* **2010**.

Data 23/11/2017

Firma



ALLEGATO A

## ELENCO DELLE PUBBLICAZIONI E DELLA TESI DI DOTTORATO

1. Stefanelli, M., Nardis, S., Tortora, L., Fronczek, F.R., Smith, K.M., Licoccia, S., Paolesse, R. Nitration of iron corrolates: Further evidence for non-innocence of the corrole ligand (2011) Chemical Communications, 47 (14), pp. 4255-4257.
2. Stefanelli, M., Pomarico, G., Tortora, L., Nardis, S., Fronczek, F.R., McCandless, G.T., Smith, K.M., Manowong, M., Fang, Y., Chen, P., Kadish, K.M., Rosa, A., Ricciardi, G., Paolesse, R.  $\beta$ -nitro-5,10,15-tritolylicorroles (2012) Inorganic Chemistry, 51 (12), pp. 6928-6942.
3. Tortora, L., Nardis, S., Fronczek, F.R., Smith, K.M., Paolesse, R. Functionalization of the corrole ring: The role of isocorrole intermediates (2011) Chemical Communications, 47 (14), pp. 4243-4245.
4. Nardis, S., Stefanelli, M., Mohite, P., Pomarico, G., Tortora, L., Manowong, M., Chen, P., Kadish, K.M., Fronczek, F.R., McCandless, G.T., Smith, K.M., Paolesse, R.  $\beta$ -Nitro derivatives of iron corrolates (2012) Inorganic Chemistry, 51 (6), pp. 3910-3920.
5. Tortora, L., Pomarico, G., Nardis, S., Martinelli, E., Catini, A., D'Amico, A., Di Natale, C., Paolesse, R. Supramolecular sensing mechanism of corrole thin films (2013) Sensors and Actuators, B: Chemical, 187, pp. 72-77.
6. Sorianello, V., De Iacovo, A., Colace, L., Fabbri, A., Tortora, L., Buffagni, E., Assanto, G. High responsivity near-infrared photodetectors in evaporated Ge-on-Si (2012) Applied Physics Letters, 101 (8), art. no. 081101.
7. Zurlo, F., Di Bartolomeo, E., D'Epifanio, A., Felice, V., Natali Sora, I., Tortora, L., Licoccia, S.  $\text{La}_{0.8}\text{Sr}_{0.2}\text{Fe}_{0.8}\text{Cu}_{0.2}\text{O}_{3-\delta}$  as "cobalt-free" cathode for  $\text{La}_{0.8}\text{Sr}_{0.2}\text{Ga}_{0.8}\text{Mg}_{0.2}\text{O}_{3-\delta}$  electrolyte (2014) Journal of Power Sources, 271, pp. 187-194.
8. Nardis, S., Pomarico, G., Tortora, L., Capuano, R., D'Amico, A., Di Natale, C., Paolesse, R. Sensing mechanisms of supramolecular porphyrin aggregates: A teamwork task for the detection of gaseous analytes (2011) Journal of Materials Chemistry, 21 (46), pp. 18638-18644.
9. Bussetti, G., Violante, A., Yivlialin, R., Cirilli, S., Bonanni, B., Chiaradia, P., Goletti, C., Tortora, L., Paolesse, R., Martinelli, E., D'Amico, A., Di Natale, C., Giancane, G., Valli, L. Site-sensitive gas sensing and analyte discrimination in langmuir-blodgett porphyrin films (2011) Journal of Physical Chemistry C, 115 (16), pp. 8189-8194.
10. Compagnone, D., Fusella, G.C., Del Carlo, M., Pittia, P., Martinelli, E., Tortora, L., Paolesse, R., Di Natale, C. Gold nanoparticles-peptide based gas sensor arrays for the detection of food aromas (2013) Biosensors and Bioelectronics, 42 (1), pp. 618-625.
11. Tortora, L., Stefanelli, M., Mastroianni, M., Lvova, L., Di Natale, C., D'Amico, A., Filippini, D., Lundström, I., Paolesse, R. The hyphenated CSPT-potentiometric analytical system: An application for vegetable oil quality control (2009) Sensors and Actuators, B: Chemical, 142 (2), pp. 457-463.
12. Pomarico, G., Tortora, L., Fronczek, F.R., Smith, K.M., Paolesse, R. Selective nitration and bromination of surprisingly ruffled phosphorus corroles (2016) Journal of Inorganic Biochemistry, 158, pp. 17-23.
13. Tesi dottorato "Porphyrins and corroles: a challenge from the preparation to the applications of bioinspired sensing materials" a.a. 2009-2010

Roma 10/11/2017

Luca Tortora



ALLEGATO B  
VERBALE 2° RIONE  
CURRICULUM VITAE

20 NOVEMBRE 2017 Fabio Lorenzini

Fabio Lorenzini, MSc, PhD, MRSC, MCIC

*Work address:*

Phor  
Ema

**Languages.**

- English: fluent, written, read and spoken.
- Spanish: fluent, written, read and spoken.
- Italian: mother-language.
- French: advanced, written, read and spoken.
- Irish: silver fáinne.
- Russian: beginner, written, read and spoken.

**Education.**

- PhD in Chemistry: School of Chemistry, The Queen's University of Belfast, Belfast, UK (2005).  
Thesis title: "Bis(diphenylphosphino)methane and triphenylphosphine complexes of rhodium: synthesis and catalytic activity towards hydroformylation and hydrogenation of unsaturated hydrocarbons."  
Supervisor: Dr. Andrew C. Marr. Committee: Prof. David J. Cole-Hamilton, Dr. Graham C. Saunders.
- BSc and MSc in Chemistry (110/110): Department of Chemistry and Industrial Chemistry, University of Pisa, Pisa, Italy.  
Thesis title: "Preparation of copper hydrogensulfates and their reactivity with carbon monoxide."  
Supervisors: Prof. F. Marchetti, Prof. D. Belli Dell'Amico, Prof. F. Calderazzo.
- High School: "Liceo Classico Carducci-Ricasoli", Grosseto, Italy.

## Research & work experience.

- The Queen's University of Belfast, School of Chemistry and Chemical Engineering - Belfast, Northern Ireland, UK:  
     Research Fellow, GRAIL (November 2014 – present);  
     Teaching Fellow (2016 / 2017).
- McGill University, Department of Chemistry - Montreal, Québec, Canada (November 2011 – September 2014): Research associate (Prof. Bruce A. Arndtsen's research group).
- The University of British Columbia, Department of Chemistry - Vancouver, British Columbia, Canada (September 2005 – June 2008): Postdoctoral research fellow (Prof. Brian R. James' research group).
- The Queen's University of Belfast, Queen's University Ionic Liquid Laboratories (QUILL), PETRONAS Team - Belfast, UK (July 2008 – November 2008): Research Fellow (Prof. Kenneth R. Seddon's research group); BP Team (March 2005 – August 2005): Synthetic chemist (Prof. Kenneth R. Seddon's research group).
- The University of Nottingham, Department of Chemistry - Nottingham, England, UK (January 2009 – June 2011): Research fellow (Prof. Martin Schröder's research group).
- Analytical Services and Environmental Projects Unit (ASEP), The Queen's University of Belfast - Belfast, UK (February 2005 – August 2005): Analytical chemist.
- The Queen's University of Belfast, School of Chemistry, Belfast, UK (2002 - 2005): full time PhD research student.
- The University of Pisa, Department of Chemistry, Pisa, Italy (May 2000 – November 2001): full time BSc and MSc research student.

## Research interests and research experience.

- The Queen's University of Belfast - Research Fellow, GRAIL:
  - Production, via bio- and chemo-catalysis, of value-added chemicals from 1,3-propanediol derived from glycerol, a biorefinery waste product.
  - Synthesis of iridium and rhodium Cp\*M(NHC) complexes.
  - Studies on the catalytic activity of iridium and rhodium Cp\*M(NHC) complexes towards hydrogen transfer reactions: synthesis of aldehydes and amines from 1,3-propanediol.
  - Synthesis of fluorinated benzyl-imidazolium compounds.
  - Studies on the use of acidic and basic ionic liquid gels in catalysis.
- McGill University, Montreal QC, Canada:
  - Designing metal-catalyzed imine/CO co-polymerization. Synthesis of palladium and copper complexes of Lewis acid-tethered pyridine-imines and palladium complexes of Lewis acid-tethered phosphino-imines.
  - Multicomponent synthesis of heterocycles.
  - Synthesis of pyrroles and chiral pyrrolines via 1,3-dipolar cycloaddition of P-containing dipoles.

• The University of British Columbia:

- Synthesis of water-soluble tris(hydroxymethyl)phosphine complexes of rhodium and their catalytic applications in aqueous/organic biphasic hydrogenation and hydroformylation of olefinic substrates.
- Synthesis of iridium imine complexes, and their roles in catalysed hydrogenation of imines.
- Synthesis of rhodium and iridium complexes containing chiral phosphino-aldehyde ligands.

• QUILL-PETRONAS and QUILL-BP, The Queen's University of Belfast:

- Investigation on solutions for faster, larger scale synthesis of ionic liquids.
- Development of new and existing ionic liquids *via* clean synthetic routes.

• The University of Nottingham:

- Synthesis of low-molecular-weight heteropolynuclear Ni-Fe complexes as models for [NiFe] hydrogenases, and their applications as catalysts for hydrogen production.

• The Queen's University of Belfast - PhD work:

- Synthesis of bimetallic complexes of rhodium, and their reactivity with CO, H<sub>2</sub>, thiolates, ethero-donor atoms ligands.
- Studies on the catalytic activity of rhodium complexes towards hydroformylation and hydrogenation of unsaturated hydrocarbons and sulphur containing species.
- Catalytic activity of silica entrapped, homogeneous catalysts for hydrogenation of olefins.

• The University of Pisa - BSc and MSc work:

- Synthesis of copper and silver hydrogensulfates and their reactivity with CO.

**Research techniques.**

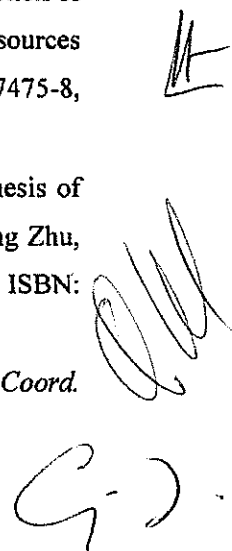
- Synthesis and handling of air- and moisture-sensitive chemicals (Schlenk line and Dry box).
- NMR techniques.
  - 1D and 2D experiments on Bruker Avance 300, 400inv and 400dir spectrometers.  
Software for Bruker spectrometers: XWINNMR ver 3.0 on SGI O2/UNIX computer and XWINNMR ver 3.5 software HP/LINUX system.
  - 1D experiments on Varian 300, 400 and 500 MHz spectrometers.  
Software for Varian spectrometers: VnmrJ.
  - Software for investigation/simulation of NMR spectra: XWINNMR Bruker, VnmrJ, gNMR V3.6 and V4.0; Mestre-C; ACD/Spec Viewer.
- Catalytic studies.  
Use of atmospheric and high pressure reactors in homogeneous and heterogeneous catalysis.
- Gas-volumetric measure of uptake/emission of gases (especially CO) from either solutions or solids.



- LC/MS proceedings and techniques, and relevant software: 'Agilent Technologies 1200 and 6100 Series Quadrupole LC/MS.
- GC and GCMS proceedings and techniques, and relevant software, e.g. "MassHunter GC/MS Acquisition and Workstations/Agilent Technologies.", "TurboMass Ver 4.1.1, Perkin-Elmer".
- IR techniques with relevant software.
- X-ray diffraction analysis of single crystals and powders, with relevant software.
- Larger and more rapid syntheses of ionic liquids.
- Column chromatography (and Combi flash chromatography), with air-sensitive materials.
- Electrochemistry.

### Publications.

1. (As corresponding author) Y. Ma, Y.-M. Wang, P. Morgan, R. E. Jackson, X. Liu, G. C. Saunders, F. Lorenzini,\* A. C. Marr,\* 'Designing effective homogeneous catalysis for glycerol valorisation: selective synthesis of a value-added aldehyde from 1,3-propanediol via hydrogen transfer catalysed by a highly recyclable, fluorinated Cp\*Ir(NHC) catalyst.', *Catal. Today*, **2017**, *accepted, in press*, <http://dx.doi.org/10.1016/j.cattod.2017.09.036>.
2. P. Morgan, F. Lorenzini, A. C. Marr, 'Conversion of biomass using simultaneous chemo- and bio-catalysis.', in 'Conversion of Biomass with Bifunctional Catalysts.', Springer-Verlag, Editors: Z. Fang, R. L. Smith, Jr., H. Li, **2017**, *accepted*.
3. H. P. Thomas, Y.-M. Wang, F. Lorenzini, S. J. Coles, P. N. Horton, A. C. Marr, G. C. Saunders, 'Cyclometallation via Carbon-Fluorine Bond Activation Induced by Silver Particles.', *Organometallics*, **2017**, 36, 960.
4. Y.-M. Wang, F. Lorenzini, M. Rebros, G. C. Saunders, A. C. Marr, 'Combining bio- and chemo-catalysis for the conversion of bio-renewable alcohols: homogeneous iridium catalysed hydrogen transfer initiated dehydration of 1,3-propanediol to aldehydes', *Green Chem.*, **2016**, 18, 1751.
5. Y.-M. Wang, V. Ulrich, G. F. Donnelly, F. Lorenzini, A. C. Marr, P. C. Marr, 'A Recyclable Acidic Ionic Liquid Gel Catalyst for Dehydration: Comparison with an Analogous SILP Catalyst', *ACS Sustainable Chem. Eng.*, **2015**, 3, 792.
6. X. Liu, F. Lorenzini, A. C. Marr, 'Combining Bio- and Chemo-catalysis for the Sustainable Production of Chemicals.', in 'Sustainable Production of Bulk Chemicals. – Integration of Bio-, Chemo- Resources and Processes.', Springer Science, Editor: M. Xian, **2015**, 107-137, eBook ISBN: 978-94-017-7475-8, Hardcover ISBN: 978-94-017-7473-4.
7. F. Lorenzini, J. Tjuttrins, J. S. Quesnel, B. A. Arndtsen, 'Metal-catalyzed Multicomponent Synthesis of Heterocycles.', in 'Multicomponent Reactions in Organic Synthesis.', Wiley-VCH, Editors: Jieping Zhu, Qian Wang, Mei-Xiang Wang, **2015**, 207-230, Print ISBN: 9783527332373, Online ISBN: 9783527678174.
8. B. R. James, F. Lorenzini, 'Developments in the chemistry of tris(hydroxymethyl)phosphine.', *Coord. Chem. Rev.*, **2010**, 254, 420.



9. F. Lorenzini, D. Moiseev, B. O. Patrick, B. R. James, 'Reactions of a Phosphinoaldehyde with Pd<sup>II</sup>, Rh<sup>I</sup>, and Ir<sup>I</sup> Precursors, Including the Formation of Complexes Containing a P<sub>2</sub>OH-Chelated Phosphinohemiacetal Ligand: a New Bonding Mode.', *Inorg. Chem.*, **2010**, 49, 2111.
10. S. J. Craythorne, K. Anderson, F. Lorenzini, C. McCausland, P. Licence, E. F. Smith, A. C. Marr, P. C. Marr, 'The Co-Entrapment of a Homogeneous Catalyst and an Ionic Liquid by a Sol-gel Method: Recyclable Ionogel Hydrogenation Catalysts.', *Chem. Eur. J.*, **2009**, 15, 7094.
11. F. Lorenzini, E. O'Hara, S. Qian, F. Marchetti, J. M. Birbeck, A. Haynes, A. J. Blake, G. C. Saunders, A. C. Marr, 'The structural characterization and hydroformylation activity of the tri-rhodium complex [Rh<sub>3</sub>(μ<sub>2</sub>-dppm)<sub>2</sub>(μ<sub>2</sub>-CO)<sub>3</sub>(K<sup>+</sup>-CO)<sub>3</sub>]BF<sub>4</sub>.' *Inorg. Chem. Comm.*, **2009**, 12, 1071.
12. F. Lorenzini, P. Marcazzan, B. O. Patrick, B. R. James, 'Synthesis, characterization, and X-ray structures of three iridium(III)-hydrido-cyclometallated-imine complexes, including the first reported hydrido-(η<sup>1</sup>-imine)-Ir complex.', *Can. J. Chem.*, **2008**, 86, 253.
13. F. Lorenzini, B. O. Patrick, B. R. James, 'The complexes: RhCl(P-N)(THP), where P-N is P,N-chelated o-diphenylphosphino-N,N-dimethylaniline and THP is tris(hydroxymethyl)phosphine, and RhCl[(O)P-N][THP(O)] containing O-bonded phosphine oxides.', *Inorg. Chim. Acta*, **2008**, 361, 3199.
14. F. Lorenzini, B. O. Patrick, B. R. James, 'Serendipitous syntheses of Rh(H)<sub>2</sub>Cl(PRPh<sub>2</sub>)<sub>3</sub> complexes, and their crystal structures, where R = Me, Cy (cyclohexyl).', *Inorg. Chim. Acta*, **2008**, 361, 2123.
15. F. Lorenzini, B. O. Patrick, B. R. James, 'trans-Carbonylchloridobis(ethyldiphenylphosphine-kP)rhodium(I).', *Acta Cryst.*, **2008**, E64, m179.
16. F. Lorenzini, B. O. Patrick, B. R. James, 'trans-Carbonylchloridobis(tri-p-tolylphosphine)rhodium(I) acetone solvate.', *Acta Cryst.*, **2008**, E64, m464.
17. F. Lorenzini, B. O. Patrick, B. R. James, 'Chloridotris[tris(4-fluorophenyl)-phosphine]rhodium(I) methanol solvate.', *Acta Cryst.*, **2008**, E64, m512.
18. F. Lorenzini, B. O. Patrick, B. R. James, 'Formation of a Phosphine-phosphinite Ligand in RhCl(PRR'<sub>2</sub>)[P,P-R'(R)POCH<sub>2</sub>P(CH<sub>2</sub>OH)<sub>2</sub>] and R'H from cis-RhCl(PRR'<sub>2</sub>)<sub>2</sub>[P(CH<sub>2</sub>OH)<sub>3</sub>] via P-C Bond Cleavage.', *Inorg. Chem.*, **2007**, 46, 8998.
19. F. Lorenzini, B. O. Patrick, B. R. James, 'Synthesis and X-ray structures of water-soluble tris(hydroxymethyl)phosphine complexes of rhodium(I).', *J. Chem. Soc., Dalton Trans.*, **2007**, 3224.
20. F. Lorenzini, K. T. Hindle, S. J. Craythorne, A. R. Crozier, F. Marchetti, C. J. Martin, P. C. Marr, A. C. Marr, '[Rh<sub>2</sub>(COD)<sub>2</sub>(Dppm)(μ<sub>2</sub>-Cl)]BF<sub>4</sub>: Precursor for a Selective Hydrogenation Catalyst and Its Recycling by Silica Entrapment.', *Organometallics*, **2006**, 25, 3912.
21. S. J. Craythorne, A. R. Crozier, F. Lorenzini, A. C. Marr, P. C. Marr, 'The Preparation of Silica Entrapped Homogeneous Hydrogenation Catalysts by Conventional and Ionic Liquid Mediated Sol-gel Routes.', *J. Organomet. Chem.*, **2005**, 690, 3518.
22. D. Belli Dell'Amico, F. Calderazzo, L. Labella, F. Lorenzini, F. Marchetti, 'Preparation and Crystal Structure of Copper(I) Carbonyl Hydrogensulfate, obtained by Carbonylation in Sulphuric Acid.', *Z. Anorg. Allg. Chem.*, **2002**, 628, 1868.

23. D. Belli Dell'Amico, F. Calderazzo, F. Marchetti, S. Merlino, 'Silver hydrogen sulfate,  $\text{Ag}(\text{O}_3\text{SOH})$ : Preparation, and the OD character of the crystal structure.', *Chem. Mater.*, **1998**, 10, 524. [In this paper the synthetic work carried out by myself is acknowledged in the 'Acknowledgments' section].
- PhD thesis in Chemistry (School of Chemistry, The Queen's University of Belfast, UK, **2005**): 'Bis(diphenylphosphino)methane and triphenylphosphine complexes of rhodium: synthesis and catalytic activity towards hydroformylation and hydrogenation of unsaturated hydrocarbons.'
  - MSc thesis in Chemistry (110/110) (Department of Chemistry and Industrial Chemistry, University of Pisa, Italy, **2001**): 'Preparation of copper hydrogensulfates and their reactivity with carbon monoxide.'

#### Publications submitted, and in progress.

1. I. Dolejš, M. Lišková, V. Krasňan, K. Markošová, M. Rosenberg, F. Lorenzini, A. C. Marr, M. Rebros, 'Repurposing waste crude glycerol using biocatalysis by immobilised *Clostridium butyricum* in a highly productive fermentation process.', **2017**, submitted to *J. Chem. Technol. Biot.* (Manuscript number: JCTB-17-1380).
2. F. Lorenzini, B. A. Arndtsen, 'Synthesis of new classes of Lewis-acid tethered imine ligands and their coordination to Palladium.', *in progress*.
3. F. Lorenzini, Y. Ma, Y.-M. Wang, M. Rebros, G. C. Saunders, A. C. Marr, 'Hydrogen transfer initiated dehydration of 1,3-propanediol to aldehydes catalysed by recyclable  $\text{Cp}^*\text{Ir}(\text{NHC})$  complexes: a highly selective catalytic route to 2-methylpent-2-enal.', **2017**, *in progress*.
4. A. Said Stålsmeden, A. Runemark, F. Lorenzini, P.-O. Norrby, A. C. Marr, N. Kann, 'Direct Catalytic C-C Bond Formation Using a Renewable Precursor: Iridium-Catalyzed Alkylation of Acetophenone with 1,3-Propanediol.', *Synlett*, **2017**, *in progress*.

#### Oral presentations.

(Speaker underlined).

1. F. Lorenzini, Y. Ma, Y. Wang, P. J. Morgan, E. Mathers, H. Iqbal, K. M. Bothwell, P. C. Marr, X. Liu, M. Rebros, F. Marchetti, G. C. Saunders, A. C. Marr. 'Recyclable hydrogen transfer catalysis for the synthesis of value-added chemicals from 1,3-propanediol: adding value to glycerol by combining bio- and chemo-catalysis.' Expoquimia – The International Chemistry Event, Barcelona, Spain, 2-6 October **2017**.
2. F. Lorenzini, Y. Ma, Y. Wang, H. Iqbal, P. Morgan, X. Liu, M. Rebros, F. Marchetti, G. C. Saunders, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes and amines from 1,3-propanediol via hydrogen transfer catalysed by highly recyclable  $\text{Cp}^*\text{Ir}(\text{NHC})$  catalysts.' 3<sup>rd</sup> EuGSC - 3<sup>rd</sup> EuCheMS Congress on Green and Sustainable Chemistry, York, UK, 3-6 September **2017**.
3. Y. Wang, Y. Ma, X. Liu, M. Rebros, F. Lorenzini, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol via hydrogen transfer catalysed by highly recyclable  $\text{Cp}^*\text{Ir}(\text{NHC})$  catalysts.' ISGC 2017, The International Symposium on Green Chemistry 2017, La Rochelle, France, May 16<sup>th</sup> – 19<sup>th</sup> **2017**.

4. F. Lorenzini, H. Iqbal, A. C. Marr. 'Selective synthesis of amines from 1,3-propanediol *via* Ir(III) catalysed hydrogen transfer for biomass valorisation.' ISGC 2017, The International Symposium on Green Chemistry 2017, La Rochelle, France, May 16<sup>th</sup> – 19<sup>th</sup> 2017.
5. F. Lorenzini,<sup>1</sup> Y. Wang, Y. Ma, X. Liu, M. Rebros, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts.' 9<sup>th</sup> International Conference on Environmental Catalysis, Newcastle, New South Wales, Australia, July 10<sup>th</sup> to 13<sup>th</sup>, 2016.
6. F. Lorenzini, Y. Wang, Y. Ma, X. Liu, M. Rebros, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts.' CSC (Canadian Society of Chemistry) 2016 Conference and Exhibition, Halifax, NS, Canada, June 5<sup>th</sup> to 9<sup>th</sup>, 2016.
7. F. Lorenzini, Y. Wang, X. Liu, M. Rebros, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts.' UK Catalysis Conference, Loughborough, England, UK, 6<sup>th</sup>-8<sup>th</sup> January 2016.
8. F. Lorenzini, Y. Wang, X. Liu, M. Rebros, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts.' 2<sup>nd</sup> EuGSC, 2<sup>nd</sup> EuCheMS Congress on Green and Sustainable Chemistry, Lisbon, Portugal, October 4-7, 2015.
9. Y. Ma, Y. Wang, P. J. Morgan, E. Mathers, H. Iqbal, F. Lorenzini, K. M. Bothwell, P. C. Marr, X.-H. Liu, M. Rebros, F. Marchetti, G. C. Saunders, A. C. Marr. 'Chemo-catalytic production of value-added chemicals from 1,3 – propanediol, a bio-catalytic fermentation product of glycerol.' 2017 GRAIL Final Consortium Meeting, Barcelona, Spain, September 18-19, 2017.
10. F. Lorenzini, Y. Ma, Y. Wang, H. Iqbal, E. Mathers, P. Morgan, K. Bothwell, P. C. Marr, X. Liu, M. Rebros, A. C. Marr. 'Recyclable hydrogen transfer catalysts for the production of value-added chemicals from 1,3-propanediol.' 2017 GRAIL Consortium Meeting, Leipzig, Germany, April 26-28, 2017.
11. F. Lorenzini, Y. Wang, Y. Ma, X. Liu, M. Rebros, P. C. Marr, A. C. Marr. 'Synthesis of aldehydes and amines from 1,3-propanediol *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts: adding value to glycerol by combining chemo- and bio-catalysis.' GRAIL 3<sup>rd</sup> Year Progress Meeting, Bergen - Trondheim, Norway, October 12-14, 2016.
12. F. Lorenzini, Y. Wang, Y. Ma, X. Liu, M. Rebros, A. C. Marr. '1,3-Propanediol recovery in ionic liquids and synthesis of aldehydes *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts: adding value to glycerol by combining chemo- and bio-catalysis.' 2016 GRAIL Bottlenecks Workshop, Processi Innovativi, KT – Kinetics Technology, Rome, Italy, September 7<sup>th</sup> to 8<sup>th</sup>, 2016.
13. F. Lorenzini, Y. Wang, Y. Ma, X. Liu, M. Rebros, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol *via* hydrogen transfer catalysed by

<sup>1</sup> Conference presentation was accepted after my application but, because I was unable to attend, the talk was given by Y. Ma.

highly recyclable Cp\*Ir(NHC) catalysts.' GRAIL Open Day, ENEA's facilities, Bruxelles, Belgium, March 8<sup>th</sup> to 9<sup>th</sup>, 2016.

14. F. Lorenzini, Y. Wang, X. Liu, K. Bothwell, M. Rebros, P. C. Marr, A. C. Marr. 'Adding value to glycerol by combining chemo- and bio-catalysis: synthesis of aldehydes from 1,3-propanediol *via* hydrogen transfer catalysed by highly recyclable Cp\*Ir(NHC) catalysts.' GRAIL, 2 Years Advance Meeting, The Technical University of Denmark, Department of Chemical and Biochemical Engineering, Lyngby campus, Copenhagen, Denmark, October 7-9, 2015.
15. F. Lorenzini, Y. Wang, X. Liu, A. C. Marr. 'Adding value to glycerol combining microbial cells and hydrogen transfer catalysis: synthesis of propanal from 1,3-propandiol.' 2015 GRAIL Technical Workshop, Barcelona, Spain, 2, 3 February 2015.
16. F. Lorenzini, 'New Complexes with the Old, Water-soluble tris(hydroxymethyl)phosphine', Invited Lecture, Inorganic Discussion Group Seminars, 4<sup>th</sup> of April 2007, Department of Chemistry, University of British of Columbia, Vancouver, BC, Canada.
17. F. Lorenzini, 'Synthesis of (5-diisopropylamino-3-oxapentyl)dimethylethylammonium bistriflamide (BIL3). Possible solutions for a faster synthesis in big scales.', Ionic Liquids: BP (British Petroleum) Project Team Second Review Session, 22<sup>nd</sup> and 23<sup>rd</sup> of August 2005, Queen's University Ionic Liquid Laboratories (QUILL), The Queen's University of Belfast, Belfast, Northern Ireland, UK.
18. F. Lorenzini, 'Transition metal catalysts: synthesis and catalytic applications.', Invited Lecture, 16<sup>th</sup> of December 2013, Istituto d'Istruzione Superiore «Bernardino Lotti», Massa Marittima - Grosseto, Italy.
19. F. Lorenzini, P. Marcuzzan, D. V. Moiseev, B. R. James, 'Detrimental C-H Activation – At least for Catalytic Hydrogenation of Imines and Aldehydes Using Rh and Ir Species!' (IN8-155), 91<sup>st</sup> Canadian Chemistry Conference and Exhibition, 24<sup>th</sup> – 28<sup>th</sup> May 2008, Edmonton, Alberta, Canada.
20. F. Lorenzini, B. O. Patrick, B. R. James, 'Chemistry and Catalysis of Rhodium(I)-P(CH<sub>2</sub>OH)<sub>3</sub> Complexes.' (IN3-710), 90<sup>th</sup> Canadian Chemistry Conference and Exhibition, 26<sup>th</sup> – 30<sup>th</sup> May 2007, Winnipeg, Manitoba, Canada.
21. M. B. Ezhova, F. Lorenzini, P. Marcuzzan, B. R. James, 'The Latest on Catalyzed Imine Hydrogenations.', Gordon Research Conferences, Inorganic Reaction Mechanisms, 18<sup>th</sup> – 23<sup>rd</sup> of February 2007, Ventura, CA, USA.
22. K. Anderson, S. Craythorne, S. Cortiñas Fernández, C. Hardacre, F. Lorenzini, F. Marchetti, C. Pollock, P. C. Marr, A. C. Marr, 'A day at the seaside: sand, sugar and wee beasties.', 5<sup>th</sup> Anglo-Dutch Conference on Organometallic Chemistry and Catalysis, A-DCOCC, 14<sup>th</sup> – 16<sup>th</sup> of April 2004, University of Cardiff, Wales, UK.

I have also presented the following numbers of research (and literature) talks:

- 11 talks in Prof. Brian R. James' group, Univ. of British of Columbia. (Power Point files available.)
- 5 talks in Prof. Bruce A. Arndtsen's group, McGill Univ.. (Power Point files available.)
- 6 talks in the Inorganic Discussion Group, School of Chemistry, The Queen's Univ. of Belfast. (Power Point files available.)

- 4 talks in the Inorganic Discussion Group, Dept. of Chem. and Industrial Chem., Univ. of Pisa. (No. 1 Power Point file available.)
- 2 talks at Queen's Univ. Ionic Liquid Laboratories (QUILL), BP Team, The Queen's Univ. of Belfast. (Power Point files available.)
- 1 talk at Queen's Univ. Ionic Liquid Laboratories (QUILL), PETRONAS Team, The Queen's Univ. of Belfast. (Power Point file available.)
- 2 talks in Dr. Andrew C. Marr's group, The Queen's Univ. of Belfast. (Power Point files available.)
- 2 talks in Prof. Martin Schröder's group, Univ. of Nottingham. (Power Point files available.)

### Poster presentations.

(Presenter underlined).

1. Y. Ma, Y. Wang, E. Mathers, P. J. Morgan, H. Iqbal, F. Lorenzini, K. M. Bothwell, P. C. Marr, X.-H. Liu, M. Rebros, F. Marchetti, G. C. Saunders, A. C. Marr, 'Chemo-catalytic production of value-added chemicals from 1,3-propanediol, a bio-catalytic fermentation product of glycerol.' GRAIL Final Showroom Event, CaixaForum, Barcelona, Spain, September 20, 2017.
2. H. Iqbal, F. Lorenzini, A. C. Marr, 'Production of amines from bio-renewable sources combining bio- and chemo-catalysis.' The school research day, School of chemistry and chemical engineering, The Queen's University of Belfast, UK, Wellington Park Hotel, Belfast, UK, June 19, 2017.
3. Y.-Y. Ma, H. Iqbal, Y.-M. Wang, M. Rebros, F. Lorenzini, A. C. Marr, 'Combining bio- and chemo-catalysis for the production of value-added chemicals from waste glycerol derived from biorefinery.' 2016 RSC (Royal Society of Chemistry) Awards Symposium, The Queen's University of Belfast, UK, May 20, 2016.
4. F. Lorenzini, Y.-M. Wang, M. Rebros, A. C. Marr, 'EU FP7 GRAIL: Glycerol Biorefinery Approach for the Production of High Quality Products of Industrial Value.' 3rd International Symposium on Green Chemistry, La Rochelle, France, May 3-7, 2015.
5. F. Lorenzini, Y.-M. Wang, X. Liu, M. Rebros, A. C. Marr, 'EU FP7 GRAIL: Glycerol Biorefinery Approach for the Production of High Quality Products of Industrial Value.' RSC (Royal Society of Chemistry) Awards Symposium, The Queen's University of Belfast, UK, May 1, 2015.
6. F. Lorenzini, Y.-M. Wang, M. Rebros, A. C. Marr, 'Hydrogen transfer initiated dehydration of bio-renewable alcohols.' UK Catalysis Conference 2015, Loughborough, England, UK, 8-9 January 2015.
7. F. Lorenzini, B. Arndtsen, 'Synthesis of New Classes of Lewis-Acid Tethered Imine Ligands and Their Coordination to Palladium.' 19<sup>th</sup> International Symposium on Homogeneous Catalysis (ISHC-XIX), Ottawa, Ontario, Canada, July 6-11, 2014.
8. F. Lorenzini, B. Arndtsen, 'New Classes of Lewis-Acid Tethered Imine Ligands: Synthesis and Coordination to Palladium.' Fifth CGCC (Centre in Green Chemistry and Catalysis) Annual Meeting Friday, May 9, 2014, McGill University, Montreal, Québec, Canada.
9. F. Lorenzini, B. Arndtsen, 'Lewis-acid tethered imine ligands: synthesis and coordination to Pd. Designing metal-catalyzed imine/CO co-polymerization.' 24<sup>th</sup> Quebec-Ontario Mini-Symposium on

9.2.

Bioorganic and Organic Chemistry (QOMSBOC), Université de Sherbrooke, Sherbrooke, Québec, Canada, 8-10 November 2013.

10. F. Lorenzini, P. Marcuzzan, D. V. Moiseev, B. O. Patrick, B. R. James, 'Inconvenient C-H activation in catalytic hydrogenation of imines and aldehydes using Rh and Ir precursors.' International Symposium on Homogeneous Catalysis XVI (ISHC XVI) in Florence, Italy, 6<sup>th</sup> – 11<sup>th</sup> July, 2008.
11. F. Lorenzini, B. O. Patrick, B. R. James, 'Synthesis, characterization and chemistry of [RhCl(1,5-cyclooctadiene){P(CH<sub>2</sub>OH)<sub>3</sub>}].' 90<sup>th</sup> Canadian Chemistry Conference and Exhibition in Winnipeg, Manitoba, Canada, 26<sup>th</sup> – 30<sup>th</sup> May, 2007.
12. F. Lorenzini, B. O. Patrick, B. R. James, 'Synthesis, characterization and chemistry of [RhCl(1,5-cyclooctadiene){P(CH<sub>2</sub>OH)<sub>3</sub>}].' British Columbia Inorganic Chemistry Weekend 2007, University of Victoria, Victoria, British Columbia, Canada, 4<sup>th</sup> – 6<sup>th</sup> May, 2007.
13. F. Lorenzini, G. Ma, B. O. Patrick, B. R. James, 'Tris(hydroxymethyl)phosphine Derivatives of Rh<sup>I</sup> and Rh<sup>III</sup>. Synthesis, Solution Behaviour and Catalytic Activity in H<sub>2</sub>O towards Hydrogenation of Unsaturated Substrates.' 2006 Alberta/British Columbia Inorganic Chemistry Discussion Weekend, Department of Chemistry at UBC Okanagan, Kelowna, British Columbia, Canada, May 12 - 14, 2006.
14. F. Lorenzini, B. O. Patrick, B. R. James, 'Iridium<sup>III</sup>-Cyclometalated-Imine Complexes: Synthesis and Reactivity with Molecular Hydrogen.' 2006 Alberta/British Columbia Inorganic Chemistry Discussion Weekend, Department of Chemistry at UBC Okanagan, Kelowna, British Columbia, Canada, May 12 - 14, 2006.
15. F. Lorenzini, F. Marchetti, A. C. Marr, 'Bimetallic rhodium complexes: organometallic chemistry and catalysis.' XXI<sup>st</sup> International Conference on Organometallic Chemistry, Vancouver, British Columbia, Canada, 25 – 30 July 2004.
16. F. Lorenzini, F. Marchetti, A. C. Marr, 'Bimetallic rhodium complexes: organometallic chemistry and catalysis.' Third International Taylor Conference, Catalysis at the Interface, Challenges and Opportunities, The Queen's University of Belfast, UK, 5 - 8 September 2004.
17. F. Lorenzini, F. Marchetti, A. C. Marr, 'Bimetallic rhodium complexes: thiolate, CO and P/N donor ligand chemistry.' 56<sup>th</sup> Irish Universities Chemistry Research Colloquium, University of Limerick, Ireland, 23 – 25 June 2004.
18. F. Lorenzini, F. Marchetti, A. C. Marr, 'Bimetallic rhodium complexes: thiolate, CO and P/N donor ligand chemistry.' 5<sup>th</sup> Anglo-Dutch conference on organometallic chemistry and catalysis, Cardiff, UK, 14 – 16 April 2004.
19. F. Lorenzini, F. Marchetti, A. C. Marr, 'Transition metal thiolate and CO chemistry.' Dalton Discussion 6, The Royal Society of Chemistry, Dalton Division, Organometallic Chemistry and Catalysis, University of York, UK, 9 - 11 September 2003.
20. F. Lorenzini, A. T. McIntyre, M. Nieuwenhuyzen, A. C. Marr, 'Transition metal thiolate chemistry: modelling the enzymes.' 8<sup>th</sup> International Conference, The Chemistry of the Platinum Group Metals, University of Southampton, UK, 7-12 July 2002.

**Initiated scientific collaborations.**

1. 2016 - present: School of Chemistry and Chemical Engineering, The Queen's Univ. of Belfast. – Dip. di Chim. e Chim. Ind., Univ. di Pisa, Prof. Fabio Marchetti: X-ray diffraction of single crystals.
2. 2017 - present: School of Chemistry and Chemical Engineering, The Queen's Univ. of Belfast. – Centro de Química Estrutural, Instituto Superior Técnico, Univ. de Lisboa, Portugal: catalytic studies.
3. 2009 - 2011: Dept. of Chem., Univ. of Nottingham, Prof. Martin Schröder's research group. – Dip. di Chim. e Chim. Ind., Univ. di Pisa, Prof. Fabio Marchetti: X-ray diffraction of single crystals.
4. 2002 - 2005: School of Chemistry, The Queen's Univ. of Belfast, Dr. Andrew C. Marr's research group. – Dip. di Chim. e Chim. Ind., Univ. di Pisa, Prof. Fabio Marchetti: X-ray diffraction of single crystals.

**Teaching experience.**

- The Queen's University of Belfast, School of Chemistry and Chemical Engineering - Belfast, Northern Ireland, UK:

Teaching Fellow (2016/2017).

Modules:

- CHM1004 (Structure, reactivity and mechanism in organic and bioorganic chemistry);
  - CHM2006 (Industrial and green chemistry);
  - CHM3007 (Writing chemical reports in English);
  - BIO1303 (Chemistry and composition of foods).
- Supervision of PhD, MSc and BSc research students:
    - The Queen's University of Belfast, School of Chemistry and Chemical Engineering, UK (November 2014 – present) (PhD, MSc and BSc students);
    - McGill University, Department of Chemistry - Montreal, Québec, Canada (November 2011 – present) (PhD, MSc and BSc);
    - The Queen's University of Belfast, School of Chemistry, UK (February 2002 – February 2005) (MSc and BSc);
    - QUILL, BP Team, The Queen's University of Belfast, UK (March 2005 – September 2005) (MSc);
    - The University of Nottingham, Department of Chemistry, England, UK (January 2009 – June 2011) (PhD, MSc and BSc).
  - Undergraduate Laboratory Demonstrations: The Queen's University of Belfast, UK. Level 1: Academic Years: 2002 – 2003, 2003 – 2004. Level 2: Academic Years: 2002 – 2003, 2003 – 2004.
  - Tutoring under-graduate university and college students: 2012-present.
  - Supervision of synthetic technician, Queen's University Ionic Liquid Laboratories (QUILL), PETRONAS Team, The Queen's University of Belfast, UK. (2008)

**Health and safety.**

- 'Fire warden', The Queen's University of Belfast, School of Chemistry and Chemical Engineering, Belfast, Northern Ireland, UK (November 2014 – present).



- 'Safety officer' in Prof. Brian R. James' group, at The University of British Columbia, Department of Chemistry, Vancouver BC, Canada. (February 2006 – June 2008).
- Latest Fire Safety Training attended: June 2016.
- Latest Fire Warden Training attended: July 2016.

**Membership of professional body.**

- MCIC: Member of the CIC Chemical Institute of Canada, CSC Chemical Society of Chemistry (Membership Number: 603136).
- MRSC: Member of The Royal Society of Chemistry (Membership Number: 356260).

**Conferences attended.**

1. Expoquimia – The International Chemistry Event, Barcelona, Spain, 2-6 October 2017.
2. GRAIL Final Showroom Event, CaixaForum, Barcelona, Spain, September 20, 2017.
3. 3rd EuGSC - 3rd EuCheMS Congress on Green and Sustainable Chemistry, York, UK, 3-6 September 2017.
4. ISGC 2017, The International Symposium on Green Chemistry 2017, La Rochelle, France, May 16<sup>th</sup> – 19<sup>th</sup> 2017.
5. CSC (Canadian Society of Chemistry) 2016 Conference and Exhibition, Halifax, NS, Canada, June 5<sup>th</sup> to 9<sup>th</sup>, 2016.
6. 2016 RSC (Royal Society of Chemistry) Awards Symposium. The Queen's University of Belfast, UK. May 20, 2016.
7. GRAIL Open Day, ENEA's facilities, Bruxelles, Belgium, March 8<sup>th</sup> to 9<sup>th</sup>, 2016.
8. UK Catalysis Conference, Loughborough, England, UK, 6th-8th January 2016.
9. GRAIL, 2 years Advance Meeting, Copenhagen, October 7-9, 2015.
10. 2<sup>nd</sup> EuGSC, 2nd EuCheMS Congress on Green and Sustainable Chemistry, Lisbon, October 4-7, 2015.
11. 3<sup>rd</sup> International Symposium on Green Chemistry. La Rochelle, France, May 3-7, 2015.
12. 2015 GRAIL Technical Workshop, Barcelona, Spain, 2, 3 February 2015.
13. UK Catalysis Conference 2015. Loughborough, England, UK. 8-9 January 2015.
14. '19<sup>th</sup> International Symposium on Homogeneous Catalysis (ISHC-XIX)', Ottawa, Ontario, Canada, July 6-11, 2014.
15. 'Fifth CGCC (Centre in Green Chemistry and Catalysis) Annual Meeting', Friday, May 9, 2014, McGill University, Montreal, Québec, Canada.
16. '24<sup>th</sup> Quebec-Ontario Mini-Symposium on Bioorganic and Organic Chemistry (QOMSBQC)', Université de Sherbrooke, Sherbrooke (Québec), Canada, 8-10 novembre 2013.
17. 2<sup>nd</sup> Canada-China Green Chemistry and Catalysis Workshop, September 5-6, 2013, McGill University, Montréal, Québec, Canada.
18. 96<sup>th</sup> Canadian Chemistry Conference & Exhibition, May 26-30, 2013, Québec City, Québec, Canada.

19. Centre in Green Chemistry and Catalysis 2012 Annual Meeting, May 10, 2012, Université de Montréal, Montréal, Québec, Canada.
20. The 22<sup>nd</sup> Quebec-Ontario Mini-Symposium on Bioorganic and Organic Chemistry (QOMSOB), November 11<sup>th</sup>-13<sup>th</sup>, 2011, The Department of Chemistry & Biochemistry at Concordia University, Montréal, Québec, Canada.
21. Dalton Discussion 12: Catalytic C-H and C-X Bond Activation (DD12), 13-15 September 2010, Durham, UK.
22. International Symposium on Homogeneous Catalysis XVI (ISHC XVI), 6-11 July 2008, Florence, Italy.
23. 90<sup>th</sup> Canadian Chemistry Conference and Exhibition in Winnipeg, Manitoba, Canada, 26 - 30 May 2007.
24. British Columbia Inorganic Chemistry Weekend 2007, University of Victoria, Victoria, British Columbia, Canada, 4-6 May 2007.
25. The 2006 Alberta/British Columbia Inorganic Chemistry Discussion Weekend, May 12-14, 2006, Department of Chemistry at UBC Okanagan, Kelowna, British Columbia, Canada.
26. XXI<sup>st</sup> International Conference on Organometallic Chemistry, 25-30 July 2004, Vancouver, British Columbia, Canada.
27. Third International Taylor Conference, Catalysis at the Interface, Challenges and Opportunities, 5-8 September 2004, The Queen's University of Belfast, UK.
28. 56<sup>th</sup> Irish Universities Chemistry Research Colloquium, 23-25 June 2004, University of Limerick, Ireland.
29. 5<sup>th</sup> Anglo-Dutch Conference on Organometallic Chemistry and Catalysis, 14-16 April 2004, Cardiff, UK.
30. 55<sup>th</sup> Irish Universities Chemistry Research Colloquium, 14-16 May 2003, Trinity College of Dublin, Ireland.
31. Dalton Discussion 6, The Royal Society of Chemistry, Dalton Division, Organometallic Chemistry and Catalysis, University of York, UK, 9-11 September 2003.
32. 54<sup>th</sup> Irish Universities Chemistry Research Colloquium, 10-12 April 2002, The Queen's University of Belfast, UK.
33. 8<sup>th</sup> International Conference, The Chemistry of the Platinum Group Metals, University of Southampton, UK, 7-12 July 2002.

#### Work experience in other fields.

##### - NATO.

"Carabinieri Ausiliario" in the Italian Defence Force "Carabinieri" (1998 - 1999): 1. School: "Allievi Carabinieri Ausiliari - Caserma Ten. E. Rebergiani" in Chieti, Italy; 2. "South European Task Force" (SETAF).

I have been awarded the NATO Medal for Service with NATO on Operations in Relation to Kosovo during the period 1<sup>st</sup> of February 1999 - 31<sup>st</sup> of July 1999.


- Science tutoring (Montreal, QC, Canada; 2013 - 2014).

- Science tutoring (Belfast, Northern Ireland, UK; 2016 - 2017).

20 NOVEMBRE 2017 Fabio Longini

- Teaching Italian language (Montreal, QC, Canada; 2012 – 2014).
- Teaching Italian language (Belfast, Northern Ireland, UK; 2014 – 2016).
- Experience as shop-assistant (Edinburgh, Scotland, UK; 2002) and call-center operator (Edinburgh, Scotland, UK; 2002).

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**CURRICULUM VITAE  
FORMATO EUROPEO**

ALLEGATO B  
VERBALE 2° RIUNIONE



**INFORMAZIONI PERSONALI**

Nome **ORIONI, Barbara**  
Indirizzo  
Telefono  
E-mail  
Nazionalità  
Data di nascita

**ESPERIENZA LAVORATIVA**



- Date (da – a) 04/2014-09/2017
- Nome e indirizzo del datore di lavoro Università degli Studi "Roma Tre"
- Tipo di azienda o settore Ricerca
- Tipo di impiego Borsista/Assegnista
- Principali mansioni e responsabilità Attività di ricerca su "Metrologia dell'olio extra vergine di oliva".
  
- Date (da – a) 05/2011-03/2014 E 10/2017-TUTT'OGGI
- Nome e indirizzo del datore di lavoro Libera Professione
- Tipo di azienda o settore Ricerca
- Tipo di impiego Consulente
- Principali mansioni e responsabilità Addetta al progetto "Nuovi sistemi di valutazione della qualità dell'olio extra vergine di oliva". Collaborazione con il Dipartimento di Scienze dell'Università di Roma Tre.
  
- Date (da – a) 10/2010-TUTT'OGGI
- Nome e indirizzo del datore di lavoro Varie
- Tipo di azienda o settore Scuola professionale
- Tipo di impiego Docente
- Principali mansioni e responsabilità Docente di chimica, anatomia e igiene
  
- Date (da – a) 11/2006-05/2010
- Nome e indirizzo del datore di lavoro Università di Roma "Tor Vergata"

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- Tipo di azienda o settore Dipartimento di Scienze e Tecnologie Chimiche
  - Tipo di impiego Dottorato con borsa in Scienze Chimiche
  - Principali mansioni e responsabilità Lavoro di ricerca sul progetto chimico-fisico "Meccanismo di azione di peptidi antimicrobici. Studi Spettroscopici"
- 
- Date (da – a) 04/2005-11/2006
  - Nome e indirizzo del datore di lavoro Emitech s.r.l. (BA)
  - Tipo di impiego Contratto di collaborazione a progetto
  - Principali mansioni e responsabilità Lavoro di ricerca sul progetto "Metodo di disinfestazione e disinfezione di beni archivistici e librari mediante l'uso di campi elettromagnetici alla frequenza delle microonde in ambienti riverberanti".
- Incarico di docenza tecnico-scientifica a stagisti e tirocinanti.
- Sede di lavoro: Ministero per i Beni e le Attività Culturali, CFLR (Roma).
- 
- Date (da – a) 10/2003-02/2004
  - Nome e indirizzo del datore di lavoro Università di Roma "La Sapienza"
  - Tipo di azienda o settore Laboratorio di "Chimica Fisica" Dipartimento di Chimica
  - Tipo di impiego Borsa di collaborazione
  - Principali mansioni e responsabilità Assistenza agli studenti del corso di Chimica Industriale
- 
- Date (da – a) 10/2002-04/2003
  - Nome e indirizzo del datore di lavoro Università di Roma "La Sapienza"
  - Tipo di azienda o settore Biblioteca "G. Illuminati" Dipartimento di Chimica
  - Tipo di impiego Borsa di collaborazione
  - Principali mansioni e responsabilità Addetta alle sale lettura e consultazione

#### ISTRUZIONE E FORMAZIONE

- Date (da – a) 11/2006-05/2010
  - Nome e tipo di istituto di istruzione o formazione Università "Tor Vergata" di Roma
  - Principali materie / abilità professionali oggetto dello studio Titolo della tesi: "Different mechanisms of action of antimicrobial peptides: insights from fluorescence spectroscopy"
  - Qualifica conseguita Dottore di ricerca in Scienze Chimiche
- 
- Date (da – a) 10/1998-10/2004
  - Nome e tipo di istituto di istruzione o formazione Università di Roma "La Sapienza"
  - Principali materie / abilità professionali oggetto dello studio Titolo della tesi: "Interazioni tra proteine e detergenti. Il sistema acqua - sieralbumina bovina - sodio taurodesossicolato".
  - Qualifica conseguita Laurea in Chimica (v.o.)

- Livello nella classificazione nazionale (se pertinente) 107/110
- Date (da – a) 09/1993-07/1998
- Nome e tipo di istituto di istruzione o formazione Liceo Scientifico Statale "A. Labriola"
- Qualifica conseguita Maturità Scientifica
- Livello nella classificazione nazionale (se pertinente) 53/60

### CORSI E SCUOLE

- 2007 *Scuola Nazionale in Metodologie Chimico-fisiche per lo studio di sistemi biologici. Divisione di chimica fisica della S.C.I., 19-21 Settembre, Camogli (GE).*
- 2008 *AFM per campioni biologici. Workshop organizzato da LOT Oriel Italia srl., Università "La Sapienza" Roma.*
- 2008 *L'Ellissometria Spettroscopica per la caratterizzazione di film sottili e multi-layers. Workshop organizzato da LOT Oriel Italia srl., Università "Tor Vergata" Roma.*
- 2008 *IX School of Neutron Scattering – Francesco Paolo Ricci. 22 Settembre-3 Ottobre, S. Margherita di Pula (CA).*
- 2010 *Corso Base di Primo Soccorso, Prevenzione Infortuni e Protezione Civile per la Popolazione, Roma.*
- 2011 *Project Management, Corso 40 ore con rilascio di attestato, Roma.*
- 2014 *Corso RSPP/ASPP Mod. A, B (tutti i macrosettori ATECO) e C Roma.*
- 2016 *La buona pratica di spettrofotometria (Mettler Toledo). Roma.*

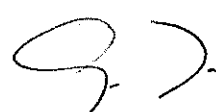
### CAPACITÀ E COMPETENZE PERSONALI

CAPACITÀ E COMPETENZE LINGUISTICHE	ITALIANO INGLESE	MADRELINGUA BUONO
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CAPACITÀ E COMPETENZE RELAZIONALI	OTTIMA LA CAPACITÀ DI LAVORARE IN TEAM, GRAZIE ALLA PREDISPOSIZIONE AD ADATTARMI ALLE DIVERSE CIRCOSTANZE
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CAPACITÀ E COMPETENZE ORGANIZZATIVE	SPICCATO SENSO DEL DOVERE NEL COMPITO DI ORGANIZZARE IL LAVORO PROPRIO E ALTRUI. BUONA LA DIMESTICHEZZA NELLA GESTIONE DI ALTRE PERSONE
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**CAPACITÀ E COMPETENZE  
TECNICHE**

GAS CROMATOGRAFIA E GC/MS  
MISURE DI PH  
SPETTROSCOPIA DI FLUORESCENZA STATICA E RISOLTA NEL TEMPO  
SPETTROFOTOMETRIA UV-VISIBILE  
SPETTROSCOPIA IR  
DICROISMO CIRCOLARE  
MICROSCOPIA OTTICA E A FLUORESCENZA  
CENNI MICROSCOPIA SEM  
SISTEMI A MICROONDE  
FONDAMENTI DI DIFFRAZIONE E RIFLESSIONE DI NEUTRONI  
AFM (WORK SHOP "LOT ORIEL")  
ELLISSOMETRIA (WORK SHOP "LOT ORIEL")  
TENSIONE SUPERFICIALE E TECNICA LANGMUIR-BLODGETT  
OSMOMETRIA A TENSIONE DI VAPORE  
CRIOSCOPIA  
VISCOSIMETRIA  
CALORIMETRIA INTEGRALE DI SOLUZIONE  
PREPARAZIONE LIPOSOMI  
ANALISI CHIMICHE E MECCANICHE DI MATERIALE CARTACEO: RISERVA ALCALINA, PH,  
GRADO DI POLIMERIZZAZIONE DELLA CELLULOSA, RESISTENZA ALLE DOPPIE PIEGHE,  
RESISTENZA ALLO SCOPPIO, RESISTENZA ALLA TRAZIONE, GRADO DI BIANCO.  
SICUREZZA NEI LABORATORI CHIMICI  
OTTIMA CONOSCENZA DEL SISTEMA OPERATIVO WINDOWS E DELLE SUE APPLICAZIONI,  
ES. OFFICE (WORD, EXCEL, POWER POINT), INTERNET EXPLORER, OUTLOOK EXPRESS E  
KALEIDAGRAPH (ELABORAZIONE GRAFICA E STATISTICA DEI DATI SPERIMENTALI).  
FONDAMENTI DEL PROGRAMMA ADOBE PHOTOSHOP; BUONA CONOSCENZA DEL SISTEMA  
OPERATIVO MAC OS X E ALCUNE SUE APPLICAZIONI.

PATENTE B

**ULTERIORI INFORMAZIONI**

Iscritta all'Ordine territoriale dei Chimici Lazio-Umbria-Abruzzo-Molise

1. Polymorphic Behaviour in Protein – Surfactant Mixtures: The Water – Bovine Serum Albumin – Sodium Taurodeoxycholate System. B. Orioni, M. Roversi, C. La Mesa, F. Asaro, G. Pellizer and G. D'Errico, *J. Phys. Chem. B*, **2006**, 110(24): 12129-12140.
2. Determining the location of antimicrobial peptides inside lipid bilayers by combined fluorescence spectroscopy and molecular dynamics simulations. L. Stella, G. Bocchinfuso, G. Grande, B. Orioni, M. Venanzi, J.Y. Kim, Y. Park, K.S. Hahm, M. De Zotti, F. Formaggio, C. Toniolo, A. Palleschi. *J. Pept. Sci.* **2008**, 14(S1) 176. "Peptides 2008", H. Lakkinen (Ed.) FIPS & EPS. **2008**; 652-653
3. Membrane perturbation by the antimicrobial peptide PMAP-23: a fluorescence and molecular dynamics study. B. Orioni, G. Bocchinfuso, J. Y. Kim, A. Palleschi, G. Grande, S. Bobone, M. Venanzi, Y. Park, J. I. Kim, K. S. Hahm and L. Stella. *Biochim Biophys Acta*. **2009**, 1788(7):1523-1533.
4. Esculentin 1-21: a linear antimicrobial peptide from frog skin with inhibitory effect on bovine mastitiscausing bacteria. A. E. Islas-Rodriguez, L. Marcellini, B. Orioni, D. Barra, L. Stella and M. L. Mangoni. *J. Pept. Sci.* **2009**, 15: 607-614.
5. Different mechanisms of action of antimicrobial peptides: insights from fluorescence spectroscopy experiments and molecular dynamics simulations. G. Bocchinfuso, A. Palleschi, B. Orioni, G. Grande, F. Formaggio, C. Toniolo, Y. Park, K.S. Hahm and L. Stella. *J. Pept. Sci.* **2009**, 15: 550-558.
6. Incorporation of a novel, fluorescent and helicogenic A-amino acid into peptaibols: trichogin GA IV. C. Baldini, F. Formaggio, C. Toniolo, A. Toffoletti, C. Corvaja, J. P. Mazaleyrat, K. Wright, J. F. Lohier, M. Wakselman, B. Orioni, L. Stella, M. Venanzi. In "Peptides for Youth", E. Escher, W. D. Lubell, S. Del Valle (Eds.), *Adv. Exp. Med. Biol.*, **2009**, 611: 287.
7. Monomer/dimer equilibrium in glutathione transferases: a critical re-examination. R. Fabrin, A. De Luca, L. Stella, G. Mei, B. Orioni, S. Ciccone, G. Federici, M. Lo Bello and G. Ricci. *Biochemistry*, **2009**, 48: 10473-10482.
8. Fluctuations and the rate-limiting step of peptide-induced membrane leakage. C. Mazzuca, B. Orioni, M. Coletta, F. Formaggio, C. Toniolo, G. Maulucci, M. De Spirito, B. Pispisa, M. Venanzi and L. Stella. *Biophys. J.*, **2010**, 99: 1791-1800.
9. The thin line between cell-penetrating and antimicrobial peptides: the case of Pep-1 and Pep-1-K. S. Bobone, A. Piazzon, B. Orioni, J. Z. Pedersen, Y. H. Nan, K.-S. Hahm, S. Y. Shin, and L. Stella. *J. Pept. Sci.* **2011**, 17(5): 335-341.
10. Membrane thickness and the mechanism of action of the short peptaibol trichogin GA IV. S. Bobone, Y. Gerelli, M. De Zotti, G. Bocchinfuso, A. Farrotti, B. Orioni, F. Sebastiani, E. Latter, J. Penfold, R. Senesi, F. Formaggio, A. Palleschi, C. Toniolo, G. Fragneto and L. Stella. *Biochim Biophys Acta*, **2012**, 1828(3): 1013-1024.
11. The Panel Test as the Metrology of Extra Virgin Olive Oil Quality Evaluation and Its Dissemination. M. Caciotta, S. Giarnetti, F. Leccese, B. Orioni, M. Oreggia and S. Rametta. *J. Food Sci. Eng.* **2014**, 4(6): 203-211.
12. Flavors mapping by Kohonen network classification of panel tests of extra virgin olive oil. M. Caciotta, S. Giarnetti, F. Leccese, B. Orioni, M. Oreggia, C. Pucci and S. Rametta. *Measurements* **2016**, 78: 366-372.
13. Comunicazioni varie a congressi.



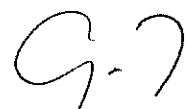
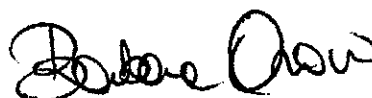
- PREMI**
1. Assegnataria di una borsa di studio a copertura parziale delle spese di partecipazione alla Scuola Nazionale in Metodologie Chimico-fisiche per lo studio di sistemi biologici. Divisione di chimica fisica della S.C.I., 19-21 Settembre 2007, Camogli (GE).
  2. Premio assegnato dalla casa editrice Zanichelli al poster: "*Localization of the antimicrobial peptide PMAP-23 in phospholipid membranes. A combined spectroscopic and molecular dynamics study.*" In occasione del 37° Congresso Nazionale Chimica Fisica – S.C.I., 24-29 febbraio 2008, Camogli (GE).
  3. Journal of Peptide Science 2011 Best Paper Award Winner: *Different mechanisms of action of antimicrobial peptides: insights from fluorescence spectroscopy experiments and molecular dynamics simulations.* J. Pept. Sci. **2009**, 15: 550-558.
  4. Vincitrice del bando della Provincia di Roma "Promotori Tecnologici, III ed." per il progetto "Nuovi sistemi di valutazione della qualità dell'olio extra vergine di oliva".

Autorizzo il trattamento dei miei dati personali ai sensi del D. Lgs. 196/2003.

Dichiaro che quanto riportato nel presente Curriculum Vite corrisponde a verità ai sensi del D.P.R. 445/2000.

Data 23/11/2017

Firma



ALLEGATO B  
VERBALE 2°  
RIONIONE

CV, Research & Teaching Luca Tortora

**CV, Research & Teaching**  
Luca Tortora  
October 2017

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LT

G. Tortora

## CURRICULUM VITAE

Luca Tortora

PostDoc

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## Scopus-Scholar author profile

## Scopus

Documents: 32

Citations: 256

h-index: 11

## Scholar

Documents: 41

Citations: 300

h-index: 11

## Education

- Ph.D. in Chemical Science, University of Rome "Tor Vergata", 2011.
- Laurea in Chemistry, University of Naples "Federico II", Naples, Italy, 2005.

## Professional Experiences

- CNR-IMM Associate Researcher 2017-present
- INFN (National Institute of Nuclear Physics) Associate Researcher 2012-present
- Postdoctoral fellow at Roma Tre University 2017-present.
- Fellow at Roma Tre University 2015 - 2016
- Postdoctoral fellow at University of Rome "Tor Vergata" 2011- 2014.
- Doctorate fellow at University of Rome "Tor Vergata" 2008-2010.
- Researcher, *Technobiochip scarl*- Pozzuoli 2006-2007.
- Professional habilitation as chemist 2006
- Internship, *CE.IN.GE. s.c.a r.l. Mass Spectrometry Facility*, Naples, Italy, 2004-2005.

## Visiting Positions

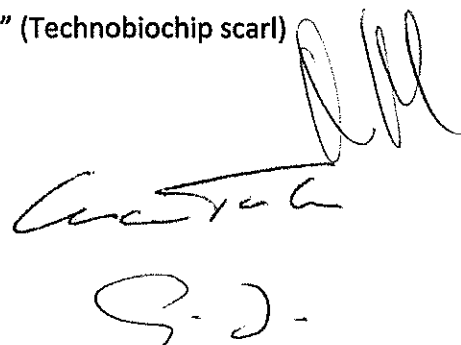
- Visiting scientist, Laboratoire Leon Brillouin CEA, Cedex, France, 2013
- Visiting scientist University of Münster, Germany, 2012
- Visiting scientist Istituto Tumori di Genova IST, Genova, Italy, 2007
- Visiting scientist CNR-IMM, Rome, Italy, 2006

#### Research Project Participations and Responsibilities

- Representative of INFN-Roma Tre in E-RHIS (European Research Infrastructure for Heritage Science)-2015-present
- "EOS Elettronica Organica per Strumentazione Innovativa di Ricerca". Progetto Premiale INFN- National Institute of Nuclear Physics – 2015-2017 Participant
- "TT-CHNet" Progetto Gruppo V INFN - National Institute of Nuclear Physics – (Technology Transfer Cultural Heritage Network) 2015-present- Unit Coordinator (Responsible for research funding)
- "JHU" Progetto Trasferimento Tecnologico INFN- National Institute of Nuclear Physics; 2014-2016- Participant
- "DIAMED"- Progetto Gruppo V INFN- National Institute of Nuclear Physics- 2012-2014- Participant
- "Vapors and gas diffusion in porphyrin Langmuir-Blodgett films"; Research project at Laboratoire Leon Brillouin CEA, Cedex, France (2013)- Participant
- "Diarad"; Progetto Fondazione Roma (2011) - Participant
- "Funzionalizzazione chimica e test di griglie di sensori chemo-resistivi"; PRIN-MIUR (2010) - Participant
- "nanoCOPS"; (Piano Nazionale di Ricerca Militare) PNRM (2009) - Position: Participant
- "Protein-chip" (Technology Transfer); FAR-MIUR (2006)- Position: Researcher

#### Technology Transfer activities

- Surface chemistry for Cultural Heritage - "TT-CHNet" 2015-present (INFN-Roma Tre)
- Gas sensor based on polypyrrole films and QCM - "Protein-chip" (Technobiochip scarl)

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### Talks at national/international conferences (selection)

- (Invited) "Open Day Imprese – Il trasferimento tecnologico dalla ricerca alla rete imprenditoriale" INFN- Laboratori Nazionali di Frascati - Aula Touschek 15 giugno 2017
- (Invited) Workshop Nuove tecnologie per la ricerca oncologica- Università Campus Biomedico. Rome 16 December 2015
- Ecasia 2015 16th European Conference on Applications of Surface and Interface Analysis. Granada, Spain, 26 September-2 October 2015.
- SIMS XX International 2015, Seattle, Washington, USA, 12-19 September 2015
- (Invited) Giornata di studio sulle Nanotecnologie - GioNa 2015- Rome, Università degli Studi Roma Tre. 28-29 January 2015
- (Invited) Workshop Nuove tecnologie per la ricerca oncologica- Università Campus Biomedico. Rome 3 December 2014
- SIMS XIX International 2013, ICC JEJU, Jeju, Korea, 29 September - 4 October, 2013
- Ecasia 2013 15th European Conference on Applications of Surface and Interface Analysis. Forte Village, Pula, Cagliari, Sardinia, Italy, 13-18 October 2013.
- WORKSHOP AICIng (Associazione Italiana Chimica per Ingegneria) Favignana, Trapani , 13-14 June 2013.
- VIII Convegno AICIng (Associazione Italiana Chimica per Ingegneria), Catania, 16-19 September, Aci Castello, Catania 2012
- Convegno AISEM (Associazione Italiana Sensori e Microsistemi), Messina, 8-10 February 2010.
- Convegno AISEM (Associazione Italiana Sensori e Microsistemi), Napoli, 12-14 February 2007.

Furthermore, Luca Tortora has given a large number of seminars and colloquia at major national institutions and universities.

### Dissemination

- Talk at "Occhi su Giove" Università di Roma Tre ed.2017
- Talk at "Occhi sulla Luna" Università di Roma Tre ed.2017
- Talk at "Occhi su Giove" Università di Roma Tre ed.2016
- Talk at "La Notte dei Ricercatori" Università di Roma Tre ed.2016
- Talk at "Occhi su Saturno" Università di Roma Tre ed.2015

### Teaching

**Luca Tortora granted the National Scientific Habilitation for the role of Associate Professor by Italian Ministry of Education University and Research (ASN 2017) SSD: 03/B2**

- Selected Lecturer Seminars in "What's this & where is located? Energetic ion bombardment as a tool for chemical surface analysis and depth profiling" at Roma Tre University for PhD program in Material Science and Nanotechnology 2015/2016

*Luca Tortora*  
G. 2

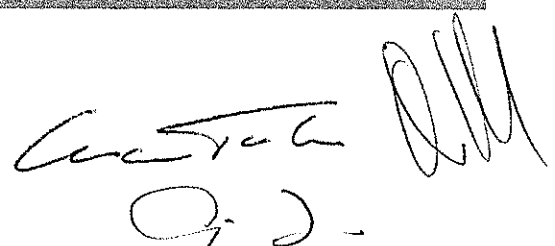
*AM*

- Lecturer in "Surface analysis techniques" at Roma Tre University for PhD program in Applied Electronics 2015/2016. The course has been taught in English.
- Selected Lecturer Seminars in "Sputtering in the surface analysis of organic and inorganic materials" at Roma Tre University for PhD program in Material Science and Nanotechnology 2014/2015 and 2015/2016
- Lecturer at "Master Internazionale di II Livello: Metodi, Materiali e Tecnologie per i Beni Culturali" 2014/2015 and 2015/2016 -Roma Tre University
- Master's level degree course on "Biomaterials II" (3CFU) for Biomedical Engineering at University of Rome "Roma Tre" 2015-2016. The course has been taught in English.
- Master's level degree course on "Biomaterials" (6CFU) for Biomedical Engineering at University of Rome "Roma Tre" 2014-2015. The course has been taught in English.
- Graduate course on "General Chemistry" (9CFU) for Electronic Engineering at University of Rome "Roma Tre" 2011-2016.
- Teaching fellow of Stoichiometry for Electronic Engineering, University of Rome "Tor Vergata" 2011-2012
- Graduate course on "Laboratory Chemistry"(2CFU) for Geology at University of Rome "Roma Tre" 2010-2011.
- Teaching fellow of Stoichiometry for Medical Engineering, University of Rome "Tor Vergata" 2010-2011.
- Teaching fellow of Stoichiometry for Energy Engineering, University of Rome "Tor Vergata" 2010-2011.
- Teaching fellow of Stoichiometry for Civil Engineering, University of Rome "Tor Vergata" 2010.
- Teaching fellow of Chemistry for Chemistry, University of Rome "Tor Vergata" 2009-2010
- Teaching fellow of Chemistry for Electronic Engineering, University of Rome "Tor Vergata" 2009-2010.
- Teaching fellow of Chemistry for Chemistry, University of Rome "Tor Vergata" 2008-2009.

#### Institutional Roles

- Member in "Laurea triennale" (Bachelor) thesis committee, Electronic Engineering at University of Rome "Roma Tre".
- Member in "Laurea" (Master) thesis committee, Biomedical Engineering at University of Rome "Roma Tre".
- Substitute Member in "Laurea triennale" (Bachelor) thesis committee, Electronic Engineering at University of Rome "Tor Vergata".
- Examination committee in Biomaterials course, Electronic Engineering at University of Rome "Roma Tre".

#### Supervision of students and Ph.D. students



- External evaluator of PhD thesis, Industrial Engineering- University of Rome "Tor Vergata" 2017
- Supervisor of 16 "Laurea triennale" (Bachelor) students at University of Rome "Roma Tre" 2011-present.
- Supervisor of 3 "Laurea" (Master) students at University of Rome "Roma Tre" 2011-present
- Senior tutor for 2 Ph.D. student, Electronic Engineering, University of Rome "Roma Tre" 2014-2017.
- Senior tutor for 1 Ph.D. student, Industrial Engineering- University of Rome "Tor Vergata" 2013-2016.
- Assistant supervisor of 9 "Laurea" (Master) students-University of Rome "Tor Vergata" 2008/2011.

#### Organization of National/International Conferences

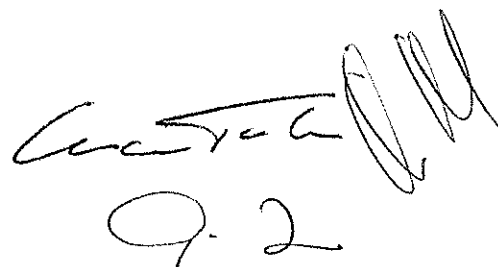
- VI National Workshop AICIng (Associazione Nazionale Chimica per Ingegneria) to be held in Rome on 22-23 June 2015 (Organizing Committee and Chairperson: Materials and Characterisation Techniques Session).
- NINE International Conference On Nanotechnology Based Innovative Applications For The Environment 20-23 March 2016, Rome, Italy (International Scientific Committee)

#### Refereeing

- Reviewer for *ACS Analytical Chemistry* (ACS Publications)
- Reviewer for *ACS Applied Materials & Interfaces* (ACS Publications)
- Reviewer for *Journal of Chemometrics* (Wiley)
- Reviewer for *Surface and Interface Analysis* (Elsevier)
- Reviewer for *Polymers* (MDPI)
- Reviewer for *Chemical Engineering Transactions* (Italian Association of Chemical Engineering)
- Reviewer for *Surface Engineering* (Taylor & Francis)
- Reviewer for *Journal of Vacuum Science & Technology A: Vacuum, Surfaces, and Films* (American Institute of Physics Publishing)
- Reviewer for *Journal of Vacuum Science & Technology B, Nanotechnology and Microelectronics: Materials, Processing, Measurement, and Phenomena* (American Vacuum Society Publishing)

#### Society membership

- American Vacuum Society

  
9.2

## Research Interests

Dr. Luca Tortora graduated in chemistry with a thesis on mass spectrometry applied to the proteomics. Then, he worked for 2 years as researcher at Technobiochip Industrial Research Society working on liquid and gas sensors, biomaterials, (bio)organic thin film deposition technologies (Langmuir-Blodgett films, LS, Spray casting, Spin-coating, Drop-casting, SAM), and multi-array systems for nucleic acids, proteomics, development of DNA-chip and protein-chip for diagnostic screening. These expertise have been strongly consolidated during his Ph.D. studies. In particular, research interests included the synthesis of pyrrolic macrocycle and their application for chemical sensing technologies. From 2011, Dr. Luca Tortora is actively involved in surface modification and characterization of biological material, biomaterials, materials for engineering and cultural heritage related materials. His research adopts a multi-technique approach (ToF-SIMS, SP, AFM, IR, etc.) to investigate the surface structure and composition of materials and molecules interacting with those materials. In addition, different multivariate analysis approaches are developed *ad hoc* for SIMS data and images processing.

## Publications

### 1. 2017 peer-reviewed journal paper

Marco Urbini, Valentina Petito, Francesco de Notaristefani, Franco Scaldaferri, Antonio Gasbarrini, and Luca Tortora (2017) ToF-SIMS and principal component analysis of lipids and amino acids from inflamed and dysplastic human colonic mucosa. ANALYTICAL AND BIOANALYTICAL CHEMISTRY. DOI 10.1007/s00216-017-0546-9

### 2. 2016 peer-reviewed journal paper

Luca Tortora, Sofia Concolato, Marco Urbini, Sara Maria Giannitelli, Francesco Basoli, Alberto Rainer, Marcella Trombetta, Monica Orsini, Pamela Mozetic (2016) Functionalization of poly( $\epsilon$ -caprolactone) surface with lactose-modified chitosan via alkaline hydrolysis: ToF-SIMS characterization. BIOINTERPHASES 11, 02A323.

### 3. 2016 peer-reviewed journal paper

L Tortora, P Biocca, G Sotgiu, F Notaristefani, M Urbini, M Ioele (2016) Oleanolic and ursolic acid in dammar and mastic resin: isomer discrimination by using ToF-SIMS and multivariate statistics SURFACE AND INTERFACE ANALYSIS; Volume 48, Issue 7, 1 July 2016, Pages 398-403.

### 4. 2016 peer-reviewed journal paper

P Biocca, P Santopadre, G Sidoti, G Sotgiu, F Notaristefani and L Tortora (2016) ToF-SIMS study of gilding technique in the fresco Vela della Castità by Giotto's school. SURFACE AND INTERFACE ANALYSIS ; Volume 48, Issue 7, 1 July 2016, Pages 404-408

### 5. 2016 peer-reviewed journal paper



Giuseppe Pomarico, Luca Tortora, Frank R Fronczek, Kevin M Smith, Roberto Paolesse (2016) Selective nitration and bromination of surprisingly ruffled phosphorus corroles. JOURNAL OF INORGANIC BIOCHEMISTRY; Volume 158, 1 May 2016, Pages 17-23.

**6. 2015 peer-reviewed journal paper**

R. Loria, C. Meneghini, K. Torokhtii, L. Tortora, N. Pompeo, C. Cirillo, C. Attanasio, and E. Silva (2015) Robustness of the 0- $\pi$  transition against compositional and structural ageing in superconductor/ferromagnetic/superconductor heterostructures. PHYSICAL REVIEW B-92, 184106.

**7. 2015 peer-reviewed journal paper**

Isabella N. Sora Jean-Marc Tulliani, Marta Maria Natile, Luca Tortora (2015) Ageing of Lanthanum Strontium Copper Orthoferrite Powders for Sensing Layers. CHEMICAL ENGINEERING TRANSACTIONS, 43, 1807-1812.

**8. 2015 peer-reviewed journal paper**

Gianpiero Forte, Isabella Chiarotto, Ilaria Giannicchi, Maria Antonietta Loreto, Andrea Martinelli, Roberta Micci, Federico Pepi, Serena Rossi, Chiara Salvitti, Annarita Stringaro, Luca Tortora, Stefano Vecchio Cipriotti, Marta Feroci. (2015) Characterization of naproxen-polymer conjugates for drug-delivery JOURNAL OF BIOMATERIALS SCIENCE, POLYMER EDITION -27, (1),pp. 69-75

**9. 2015 peer-reviewed journal paper**

Diego Ribuffo, Federico Lo Torto, Sara M Giannitelli, Marco Urbini, Luca Tortora, Pamela Mozetic, Marcella Trombetta, Francesco Basoli, Silvia Licoccia, Vincenzo Tombolini, Raffaele Cassese, Nicolò Scuderi, Alberto Rainer (2015) The effect of post-mastectomy radiation therapy on breast implants: Unveiling biomaterial alterations with potential implications on capsular contracture MATERIALS SCIENCE AND ENGINEERING: C, 57, pp.338-343.

**10. 2015 peer-reviewed journal paper**

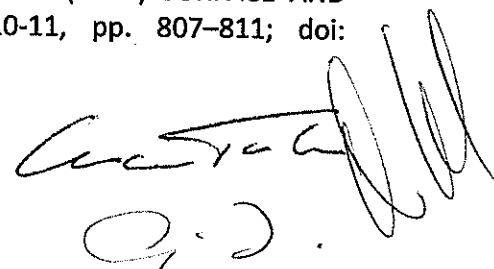
Giancarlo Della Ventura, Francesco Radica, Fabio Bellatreccia, Andrea Cavallo, Gianfelice Cinque, Luca Tortora and Harald Behrens. (2015) FTIR imaging in diffusion studies: CO<sub>2</sub> and H<sub>2</sub>O in a synthetic sector-zoned beryl. FRONTIERS IN EARTH SCIENCE Nature Publishing Group , 3 (33); doi: 10.3389/feart.2015.00033.

**11. 2015 peer-reviewed journal paper**

Sotgiu, G., Tortora, L., Petrucci, E. (2015) Influence of surface roughening of Titanium substrate in the electrochemical activity of Manganese oxide thin film electrode in anodic oxidation of dye-containing solutions. JOURNAL OF APPLIED ELECTROCHEMISTRY, 45 (7), pp. 787-797.

**12. 2014 peer-reviewed journal paper**

TORTORA LUCA, F. De Notaristefani, Ioele M. ToF-SIMS Investigation of Gilt and Painted Leather: Identification of Indigo, Oil Binder and Gold Varnish. (2014) SURFACE AND INTERFACE ANALYSIS, ISSN: 0142-2421, Vol. 46, Is. 10-11, pp. 807-811; doi: 10.1002/sia.5450



**13. 2014 peer-reviewed journal paper**

V. Lollobrigida, V. Basso, F. Borgatti, P. Torelli, M. Kuepferling, M. Coisson, E. S. Olivetti, F. Celegato, L. Tortora, G. Stefani, G. Panaccione, and F. Offi. (2014). Chemical, electronic, and magnetic structure of LaFeCoSi alloy: Surface and bulk properties. JOURNAL OF APPLIED PHYSICS, 115, 203901; doi: 10.1063/1.4879195

**14. 2014 peer-reviewed journal paper**

Francesca Zurlo, Elisabetta Di Bartolomeo, Alessandra D'Epifanio, Valeria Felice, Isabella Natali Sora, Luca Tortora, Silvia Licoccia. (2014). La<sub>0.8</sub>Sr<sub>0.2</sub>Fe<sub>0.8</sub>Cu<sub>0.2</sub>O<sub>3</sub> as "cobalt-free" cathode for La<sub>0.8</sub>Sr<sub>0.2</sub>Ga<sub>0.8</sub>Mg<sub>0.2</sub>O<sub>3</sub> delectrolyte. JOURNAL OF POWER SOURCES, 271 (2014) 187-194. doi:10.1016/j.jpowsour.2014.07.183 0378-7753

**15. 2014 peer-reviewed journal paper**

V. Sorianello, A. De Iacovo, L. Colace, A. Fabbri, TORTORA LUCA, G. Assanto (2014). Spin-on-dopant phosphorus diffusion in germanium thin films for near-infrared detectors. PHYSICA STATUS SOLIDI. C, CURRENT TOPICS IN SOLID STATE PHYSICS, vol. 11; p. 57-60, ISSN: 1862-6351, doi: 10.1002/pssc.201300114

**16. 2013 peer-reviewed journal paper**

TORTORA LUCA, Giuseppe Pomarico, Sara Nardis, Eugenio Martinelli, Alexandro Catini, Arnaldo D'Amico, Corrado Di Natale, Roberto Paolesse (2013). Supramolecular sensing mechanism of corrole thin films. SENSORS AND ACTUATORS. B, CHEMICAL, vol. 187; p. 72-77, ISSN: 0925-4005, doi: /10.1016/j.snb.2012.09.055

**17. 2013 conference proceedings**

TORTORA LUCA, GIANNITELLI SARA, RAINER ALBERTO, BASOLI FRANCESCO, AND LICOC CIA SILVIA (2013). ToF-SIMS study of Force and Time dependent Poly-Dimethyl-siloxane (PDMS)contamination in microcontact printing. In: Proceedings of SIMS International 2013 . ICC JEJU, Jeju, Korea, 29 September - 4 October, 2013, p. 146-146

**18. 2013 conference proceedings**

TORTORA LUCA, IOELE MARCELLA (2013). TOF-SIMS investigation of gilt and painted leather altar frontal from the San Domenico church in Orvieto. In: Proceedings of Ecasia 2013 15th European Conference on Applications of Surface and Interface Analysis. Forte Village, Pula, Cagliari, Sardinia, Italy, 13-18 October 2013, MONASTIR: Grafiche Ghiani, p. 234-234, ISBN/ISSN: 978-88-907670-0-5

**19. 2013 peer-reviewed journal paper**

A. Fabbri, M.D. Falco, F. De Notaristefani, M. Galasso, M. Marinelli, V. Orsolini Cencelli, TORTORA LUCA, C. Verona and G. Verona Rinati (2013). Dedicated multichannel readout ASIC coupled with single crystal diamond for dosimeter application. JOURNAL OF INSTRUMENTATION, ISSN: 1748-0221, doi: 10.1088/1748-0221/8/02/C02042

**20. 2013 peer-reviewed journal paper**

Compagnone D, Fusella G C, Del Carlo M, Pittia P, Martinelli E, TORTORA LUCA, Paolesse R, Di Natale C (2013). Gold nanoparticles-peptide based gas sensor arrays for the detection of foodaromas. *BIOSENSORS & BIOELECTRONICS*, vol. 42 PS 618-25, ISSN: 0956-5663, doi: 10.1016/j.bios.2012.10.096

**21. 2013 conference proceedings**

TORTORA LUCA, FABBRI ANDREA, PEREGO MICHELE (2013). Evaluation and Evolution of Negative Cluster Emission in Sputtering Silicon-Germanium Alloys. In: *Proceedings of SIMS International 2013*. ICC JEJU, Jeju, Korea, 29 September - 4 October, 2013, p. 150-150

**22. 2012 conference proceedings**

Roberto Paolesse, TORTORA LUCA, Giuseppe Pomarico, Sara Nardis, Alexandro Catini, Arnaldo D'Amico, Corrado Di Natale (2012). Corrole-based Nanostructures for Sensing Applications. In: *Proceedings of 14th International Meeting on Chemical Sensors - IMCS 2012*. Nurnberg-Germany, May, 20-23, 2012, p. 225-228, ISBN/ISSN: 978-3-9813484-2-2, doi: 10.5162/IMCS2012/2.4.6

**23. 2012 conference proceedings**

G. Magna, M. Santonico, A. Catini, R. Capuano, TORTORA LUCA, R. Paolesse, C. Di Natale, A. D'Amico (2012). Detection of breath alcohol concentration using a gas sensor array. In: *SENSORS AND MICROSYSTEMS*. Roma, 7-9 February 2011, vol. 109, p. 127-132, ISBN/ISSN: 978-1-4614-0934-2, doi: 10.1007/978-1-4614-0935-9\_22

**24. 2012 peer-reviewed journal paper**

Nardis Sara, Stefanelli Manuela, Mohite Pruthviraj, Pomarico Giuseppe, TORTORA LUCA, Manowong Machima, Chen Ping, Kadish Karl M, Fronczek Frank R, McCandless Gregory T, Smith Kevin M, Paolesse Roberto (2012). beta-Nitro Derivatives of Iron Corrolates. *INORGANIC CHEMISTRY*, vol. 51; p. 3910-3920, ISSN: 0020-1669, doi: 10.1021/ic3002459

**25. 2012 peer-reviewed journal paper**

Stefanelli Manuela, Pomarico Giuseppe, TORTORA LUCA, Nardis Sara, Fronczek Frank R, McCandless Gregory T, Smith Kevin M, Manowong Machima, Fang Yuanyuan, Chen Ping, Kadish Karl M, Rosa Angela, Ricciardi Giampaolo, Paolesse Roberto (2012). beta-Nitro-5,10,15-tritolylicorroles. *INORGANIC CHEMISTRY*, vol. 51; p. 6928-6942, ISSN: 1520-510X

**26. 2012 peer-reviewed journal paper**

Sorianello V, De Iacovo A, Colace L, Fabbri A, TORTORA LUCA, Buffagni E, Assanto G (2012). High responsivity near-infrared photodetectors in evaporated Ge-on-Si. *APPLIED PHYSICS LETTERS*, vol. 101, ISSN: 0003-6951, doi: 10.1063/1.4747213

**27. 2012 conference proceedings**

Kadish Karl M., Manowong Machima, Chen, Ping, Xiao Xiao, Paolesse R., Pomarico Giuseppe, Nardis Sara, Stefanelli Manuela, TORTORA LUCA, Fronczek Frank, Smith Kevin

(2012). Electroreduction of Iron and Free-Base Nitrocorroles in Non-Aqueous Media. MEETING ABSTRACTS, vol. 35; p. 1289-1289, ISSN: 1091-8213

**28. 2012 conference proceedings**

Sara Nardis, TORTORA LUCA, Federica Mandoj, Giuseppe Pomarico, Alexandro Catini, Arnaldo D'Amico, Corrado Di Natale, Roberto Paolesse (2012). Nanostructured Corrole Layers for Sensing Applications. In: Atti del VIII Convegno Nazionale dell'Associazione di Chimica per Ingegneria 2012. Catania, 16-19 September 2012, Milano: Edi.Ermes s.r.l., p. 20-, ISBN/ISSN: 978-88-7051-226-7

**29. 2012 conference proceedings**

TORTORA LUCA, Andrea Fabbri, Michele Perego (2012). Evaluation and Evolution of Negative Cluster Emission in Sputtering Silicon-Germanium Alloys. In: Atti del VIII Convegno Nazionale dell'Associazione di Chimica per Ingegneria 2012. Catania, 16-19 September 2012, MILANO: Edi.Ermes, p. 30-31, ISBN/ISSN: 978-88-7051-226-7

**30. 2011 peer-reviewed journal paper**

V. Blondeau-Patissier, M. Vanotti, T. Prêtre, D. Rabus, TORTORA LUCA, J.M., Barbe, S. Ballandras (2011). Detection and monitoring of carbon monoxide using cobalt corroles film on Love wave devices with delay line configuration. PROCEEDIA ENGINEERING, vol. 25; p. 1085-1088, ISSN: 1877-7058, doi: 10.1016/j.proeng.2011.12.267

**31. 2011 peer-reviewed journal paper**

Bussetti G., Violante A., Yivlialin R., Cirilli S., Bonanni B., Chiaradia P., Goletti C., TORTORA LUCA, Paolesse R., Martinelli E., D'Amico A., Di Natale C., Giancane G., Valli L. (2011). Site-Sensitive Gas Sensing and Analyte Discrimination in Langmuir-Blodgett Porphyrin Films. JOURNAL OF PHYSICAL CHEMISTRY. C, NANOMATERIALS AND INTERFACES, vol. 115; p. 8189-8194, ISSN: 1932-7447, doi: 10.1021/jp200303t

**32. 2011 peer-reviewed journal paper**

Nardis Sara, Pomarico Giuseppe, TORTORA LUCA, Capuano Rosamaria, D'Amico Arnaldo, Di Natale Corrado, Paolesse Roberto (2011). Sensing mechanisms of supramolecular porphyrin aggregates: a teamwork task for the detection of gaseous analytes. JOURNAL OF MATERIALS CHEMISTRY, vol. 21; p. 18638-18644, ISSN: 0959-9428, doi: 10.1039/c1jm13623b

**33. 2011 peer-reviewed journal paper**

TORTORA LUCA, Nardis Sara, Fronczek Frank R., Smith Kevin M., Paolesse Roberto (2011). Functionalization of the corrole ring: the role of isocorrole intermediates. CHEMICAL COMMUNICATIONS, vol. 47; p. 4243-4245, ISSN: 1359-7345, doi: 10.1039/c0cc05837h

**34. 2011 peer-reviewed journal paper**

Stefanelli Manuela, Nardis Sara, TORTORA LUCA, Fronczek Frank R., Smith Kevin M., Licoccia Silvia, Paolesse Roberto (2011). Nitration of iron corrolates: further evidence for

non-innocence of the corrole ligand. CHEMICAL COMMUNICATIONS, vol. 47; p. 4255-4257, ISSN: 1359-7345, doi: 10.1039/c0cc05491g

**35. 2011 conference proceedings**

TORTORA LUCA, PAOLESSE R, DI NATALE C, DINI F, D' AMICO A (2011). CHEMICAL SENSORS FOR INDOOR ATMOSPHERE MONITORING. In: SENSORS AND MICROSYSTEMS. Messina, 8-10 February 2010, vol. 92, p. 186-189, ISBN/ISSN: 978-94-007-1323-9

**36. 2009 peer-reviewed journal paper**

Bussetti G., Cirilli S., Violante A., Chiaradia P., Goletti C., TORTORA LUCA, Paolesse R., Martinelli E., D'Amico A., Di Natale C., Giancane G., Valli L. (2009). Optical anisotropy readout in solid-state porphyrins for the detection of volatile compounds. APPLIED PHYSICS LETTERS, vol. 95, ISSN: 0003-6951, doi: 10.1063/1.3202400

**37. 2009 peer-reviewed journal paper**

TORTORA LUCA, Stefanelli Manuela, Mastroianni Marco, Lvova Larisa, Di Natale Corrado, D'Amico Arnaldo, Filippini Daniel, Lundstrom Ingemar, Paolesse Roberto (2009). The hyphenated CSPT-potentiometric analytical system: An application for vegetable oil quality control. SENSORS AND ACTUATORS. B, CHEMICAL, vol. 142; p. 457-463, ISSN: 0925-4005, doi: 10.1016/j.snb.2009.05.022

**38. 2009 peer-reviewed journal paper**

Bussetti Gianlorenzo, D'Ercole D., Cirilli S., Violante A., Goletti C., Chiaradia P., TORTORA LUCA, Paolesse R., Martinelli E., Di Natale C., D'Amico A., Valli Ludovico (2009). Alteration of optical anisotropy by adsorption of volatile molecules on ordered metalloporphyrins layers. JOURNAL OF NANOPHOTONICS, vol. 3, ISSN: 1934-2608, doi: 10.1117/1.3276439

**39. 2009 peer-reviewed journal paper**

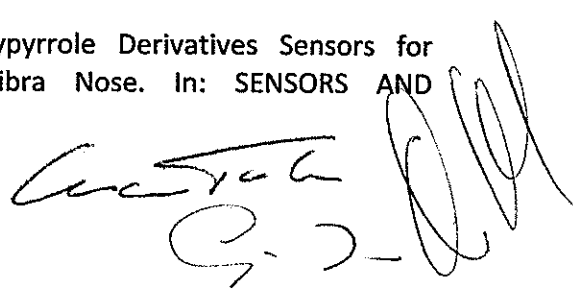
ROBERTO PAOLESSE, TORTORA LUCA, DONATO MONTI, SARA NARDIS, MANUELA STEFANELLI, ARNALDO DAMICO, CORRADO DI NATALE (2009). Dip And Wait: A Facile Route To Nanostructured Porphyrin Films For QCM Functionalization. PROCEDIA CHEMISTRY, vol. 1; p. 180-183, ISSN: 1876-6196, doi: 10.1016/j.proche.2009.07.045

**40. 2008 conference proceedings**

CLAUDIA MAZZUCA, ROMINA LUCCI, GIANFRANCO BOCCHINFUSO, SERENA DOMINIJANNI, TORTORA LUCA, ANTONIO PALLESCHI (2008). Efficiency of protective coatings: an accelerated ageing study on paintings. In: YOCOUCY YOUTH IN CONSERVATION OF CULTURAL HERITAGE. ROMA, 24-27 NOVEMBRE 2008, p. 264-268, ISBN/ISSN: 9788886208598

**41. 2007 conference proceedings**

A.SCARPA, TORTORA LUCA, S.GRECO (2007). Polypyrrole Derivatives Sensors for Traditional Italian Cheeses Discrimination by Libra Nose. In: SENSORS AND



MICROSYSTEMS. Napoli, Italia, 12-14 Febbraio Associazione Italiana Sensori e Microsistemi, p. 278-282, ISBN/ISSN: 978-981-283-358-7

**42. 2005 conference proceedings**

MONTI M, PICCIONI F, TORTORA LUCA, VERROTTI A.C, PUCCI P (2005). The Regulation Mechanism of the Eukaryotic Translation Initiation Factor 4E in *Drosophila Melanogaster*. MOLECULAR & CELLULAR PROTEOMICS, vol. 4; p. 53-, ISSN: 1535-9476

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(signature)  
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