PERSONAL INFORMATION

Marco Tassi

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Profiled on Linkedin and ORCID

Birth: 23/07/1987 | Nationality: Italian

Researcher at UHasselt (Belgium), I have a broad scientific background which spans from analytical and material chemistry to industrial and applied chemistry. Over the past I worked on projects concerning the development of sustainable chemical processes acquiring expertise in green chemistry, catalysis and industrial biotechnology. Currently I work on the synthesis and characterization of coated nanoparticles and membranes applicable in various industrial sectors (pharmaceutical, oil&gas). My added value is the proved ability in optimization of synthetic processes in order to obtain products having excellent performances in application. I can combine this scientific approach with knowledge in business development. This makes me able to propose the outcome of my research to costumers and investors. In October I will finish my research project and I strongly want to work as R&D scientist with the future perspective of becoming a R&D manager.

WORK EXPERIENCE

October 2012- October 2016

DOCTORAL RESEARCHER

Universiteit Hasselt (Hasselt, Belgium), Analytical and applied chemistry group (TANC)

- Management and realization of a high value scientific project financed by FWO (Flemish Research Foundation)
- Research on nanoparticles coating and ceramic membranes for industrial applications
- Development of innovative analytical protocols (quantitative detection and characterization) and surface modification treatments.
- Characterization of polymers and coated materials by means of advanced techniques (DSC, SS-NMR, relaxometry, TGA, IR)
- Supervision and training of interns and collaboration with senior technicians
- Starting of international collaborations (joint publications with American and Italian research groups)

Sector: Materials coating, analytical chemistry, membrane separation technology

June 2012- August 2012

SCIENTIFIC COLLABORATOR

VITO (Antwerp, Belgium), Flemish Institute for Technological Research

- Preparation of a project on the possible use of biorefinery in industry
- Acquired expertise on the innovation management and new product development concepts (i.e."Fuzzy Front End of innovation")
- Study of chemicals production using algae bio-refinery processes

Sector: Industrial biotechnology, sustainable chemistry, sustainable assessment

October 2011-May 2012

INTERNSHIP

Green Chemistry S.O.C. University of Perugia (Italy)

- Synthesis of polymeric catalysts for industrial applications
- Optimization of biodiesel production by means of dedicated catalysts
- Development of analytical protocols for oils analysis (GC-MS, NMR)
- Experience in biodiesel application and market

Sector: Green Chemistry, polymers, catalysis, biofuels

EDUCATION

October 2012-November 2016

PhD in chemistry (ongoing)

Universiteit Hasselt (Belgium)

- Specialization in advanced analytical chemistry and chemistry of materials
- Active member of the IMO (Institute for Material Research)

February 2010 - May 2012

Master's Degree in Industrial and Molecular Biotechnology

University of Perugia (Italy)

- Extensive study of life science and molecular biotechnology application
- Study of innovative bio-organic chemical processes and acquisition of advanced knowledge in fermentation processes for chemicals production

October 2006 - February 2010

Bachelor's Degree in Chemical biotechnology

University of Perugia (Italy)

- Extensive study of life science and organic chemistry
- Extensive study of modern analytical techniques and their use in chemistry

EXTRA TRAINING

- Knowledge in business development acquired during dedicated workshop given by iMinds (**4th** in the **Global ranking Top University Business Accelerators**)
- Doctoral School in Science and Technology: Technology transfer, 3D printing, Research valorisation

COMPETENCES

PERSONAL SKILLS

- Analytical: during my previous experience I developed the ability of identifying, analysing and finding solutions for high challenging scientific and technical issues
- Industrious and multitasking: my job requires to quickly learn new synthetic and analytical protocols
- Cooperative and interpersonal: I organized and managed collaboration with other researchers and professionals of my field
- Organized and reliable: in my job I use and supervise expensive and complicated analytical machines (Solid State NMR, Microwave reactors)

COMMUNICATION SKILLS

- Effective communication skills acquired presenting projects in scientific international conferences and attending courses in communication
- Talented in communication with stakeholders and professionals from others business sectors

LANGUAGE

- English (professional)
- Italian (mother tongue)
- French (proficient)
- Dutch (beginner)

COMPUTER SKILLS

- Good command of Microsoft Office™ tools
- Good command of various and common software used in analytical chemistry (VNMR, TA Universal Analysis)

ADDITIONAL INFORMATION

REFERENCES

- Prof. Dr. Robert Carleer (Hasselt University), +32-11-268358
- Prof. Dr. Peter Adriaensens (Hasselt University), +32-11-268396
- Prof. Dr. Luigi Vaccaro (University of Perugia), +39-075-5855541

PUBLICATIONS

- ***Synthesis, characterization and catalytic activity of novel large network polystyrene-immobilized organic bases***. *Marco Tassi, Elena Bartollini, Peter Adriaensens, Luca Bianchi, Balaka Barkakaty, Robert Carleer, Jihua Chen, Dale K. Hensley, Assunta Marrocchi and Luigi Vaccaro;* RSC Advances**,** 2015,5, 107200-107208
- ***Novel cross-linked polystyrenes with large space network as tailor-made catalyst supports for sustainable media*** Assunta Marrocchi, Peter Adriaensens, Elena Bartollini, Balaka Barkakati, Robert Carleer, Jihua Chen, Dale K. Hensley, Chiara Petrucci, Marco Tassi, and Luigi Vaccaro; European Polymer Journal**,** Volume 73, December 2015,391–401
- ***A detailed investigation of microwave assisted phenylphosphonic acid modification of P25 TiO_2*** Marco Tassi, Annelore Roevens, Gunter Reekmans, Martine Vanhamel, Vera Meynen, Jan D'Haen, Peter Adriaensens, Robert Carleer; Advanced Powder Technology: under review
- **Fully quantitative description of hybrid TiO2 nanoparticles by means of solid state ^{31}P NMR** Marco Tassi, Gunter Reekmans, Robert Carleer and Peter Adriaensens; Solid State Nuclear Magnetic Resonance: under review
- **A comparative study on the impact of solvent in combination with temperature and concentration on the controlled modification and resulting material properties of propylphosphonic acid** Annelore Roevens, Marco Tassi, Jeroen Van Dijk, Robert Carleer, Peter Adrieaensens, Frank Blockhuis, Vera Meynen; Material Chemistry and Physics: under review