

Gianluca TONDI

39 years

Castel del Piano (GR) - Italy

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- **Master in Chemistry** Specialized in organic and industrial chemistry.
- **PhD in Wood Science** Specialized in biopolymers.
- **Professor** of general, organic and wood **chemistry**.
- **Full-professor habilitation** in science and technology of tree and forest systems.

Position: Senior researcher at the Salzburg University of Applied Sciences. Forest products technology & Timber constructions department. www.fh-salzburg.ac.at

- *Research projects (networking, establishing collaborations and proposals).*
- *Management and development of scientific projects with research institutes and industries.*
- *Preparation and evaluation of scientific communications: publications, presentations and poster.*
- *Supervisor for students: advisor for scientific tasks and support for reporting.*
- *General, Organic and Wood chemistry Lecturer. Lessons, exercises, exams.*

Work experiences

2011 - 2018: Research and Lecturing. Preparation, management and reporting of project and development of new ideas. Supervisor for PhD, Master and Bachelor students. Chemistry courses for the students of the 1st and 2nd year of bachelor in wood technology at the Salzburg University of Applied Sciences. www.fh-salzburg.ac.at

2010: 6 months internship as researcher at the Salzburg University of applied sciences. Supervisor for bachelor projects: Fiberboards surface activation through corona effect; Valorisation of liquid by-products for pulp and paper factories; Natural starch based adhesives; Adhesive properties of industrial lignin-based extracts. www.fh-salzburg.ac.at

CV - Gianluca Tondi

2008-2009: 4 months as external advisor for KeyKnife. Organization of meetings with the Italian producers of particleboards and presentation of the innovative chipping systems from Keyknife. www.keyknife.com

2006: Four months internship at BFH. Bern University of Applied Sciences. Wood department. Biel (CH). Outdoor acrylic coating based on ZnO nanoparticles. Supervisors Dr. Milena Properzi and Dr. Frederic Pichelin. www.bfh.ch

2004-2005: Primary, secondary and college lecturer of simple lab-chemistry experiments at the University of Florence. (1 year) www.unifi.it

2000-2001: Employed at the departmental administration of Prato. Environment protection, Industrial fumes control and dossier. www.provincia.prato.it

Education

2010-2011: FWF "Lise Meitner" Post-doc financed by the project "Bio-friendly tannin based wood preservatives". Project leader. www.fwf.ac.at

2010: Qualification for Teaching (MdC) for high schools and Universities in France. www.enseignementsup-recherche.gouv.fr

2006-2009: *PhD in Wood and fibre science* at the ENSTIB (National school for the industrial technology applied to wood). Department of the University of Nancy 1 (France). www.enstib.uhp-nancy.fr

Research project: "Development of new tannin-based products: Tannin foams, carbonized foams and tannin based wood preservatives"

Supervisors: Prof. Antonio Pizzi and Prof. Alain Celzard

Web repository: <https://www.theses.fr/2009NAN10047>

2006: Qualification for the Italian register of chemists.

1998-2005: Bachelor + Master in Chemistry at the University of Florence. Specialization in organic and industrial chemistry. www.unifi.it

Master project in the frame of an industrial project developed in cooperation with Cray-Valley (15 months). *"Spectroscopic characterization of the crosslinking mechanism of modified vinyl adhesives for outdoor applications"*.

Supervisor: Prof. Antonella Salvini

1993-1998: Graduation as technical industrial chemist at the ITIS Buzzi of Prato.

Awards

2015: Title of **Professor** of the Salzburg University of Applied Science.

2013: Best presenter. Young research Forum of the COST -Forest product. "Formaldehyde-free tannin foams" at Barcelona 03/2013. www.cost.eu/events/ftp8

2012: Fraunhofer price. **German High Tech Champion** (GHTC) Award in "Green Buildings – Bâtiment Durable" at POLLUTEC 2012. Project "*Biofoams*"
Within the team of Prof. M.P. Laborie and Prof. A. Pizzi.

www.research-in-germany.de/ghtc

Short time experiences

2012: Short term scientific mission (STSM) COST FP1006. CNR-IVALSA Sesto Fiorentino (I). Selection, inoculation and exposure of tannin-treated timber to larvae (*Hylotrupes Bajulus*). www.ivalsa.cnr.it

2012: "Advanced English" course. Solent University - Southampton. www.solent.ac.uk

2009: Internship - CIRAD - Montpellier (F). Beech impregnation of tannin-based wood preservatives and related biological test against fungi and termites. www.cirad.fr

2008: Internship - University Liege (B). Micro-tomography study of foams with different porosity and Image analysis. www.ulg.ac.be

2008: Internship - ENSC - Mulhouse (F). Chemical and physical activations of the carbon surface. BET & Mercury porosimeter measurements. www.enscmu.uha.fr

2008: Internship - Promes-CNRS - Perpignan (F). Measure of static thermal conductivity of organic and carbonized foams. www.promes.cnrs.fr

2007: Internship – TWI – Cambridge (GB). Ultrasounds and spindle-stir welding. www.twiprofessional.com

2006: Internship - Silva Chimica. S.Michele Mondoví (CN) (I). Extraction of chestnut tannin. www.silvateam.net

Publications, Conference and Posters

52 International publications on the following peer-reviewed scientific journals: Carbon, Bioresources and Technology, Journal of Cleaner Production, European Journal of wood and wood product, Maderas, Journal of Applied polymer science, Polymer degradation

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and stability, Polymer composites, Polymers, Bioresources, European Polymer Journal, Journal of Adhesion Science and Technology, Wood Science and Technology, Journal of Material Science Research Microscopy and Microanalysis, Industrial Crops and products, Separation & Purification technology, Vibrational spectroscopy, Applied spectroscopy and others.

H Factor (Scholar google): 20

i10 index: 29

Industrial patents: 2 (1 A1 and 1 B1)

Scientific reviewer for European journal of wood and wood products, Wood science and technology, Journal of Adhesion Science and Technology, Journal of Cleaner production, Industrial Crops and Products, Polymers, Materials, Journal of Applied Polymer Science, Bioresources, Carbohydrate Research, Lignocellulose and Applied Energy.

External reviewer for three PhD thesys: 2 University of the Basque countries and 1 of the University of Basilicata.

Main trainer of the Training School "Basics for Chemistry in Wood surface modification" in the frame of COST FP1006 "Bringing new functions to wood through surface modification".

Main organizer of the conference "Wood modification research & applications" in the frame of the COST Action FP1407. 95 participants from 30 countries. Kuchl, 14-15 September 2017.

More than 30 Conferences as oral and poster presenter.

Science Slam Salzburg. Edition 2017 & Edition 2018 (winner).

<https://www.youtube.com/watch?v=vIKX8n5gOOE&t=1s>

<https://www.youtube.com/watch?v=amAVjBdlqVE&t=19s>

2006-2008 Member of the COST E34. Bonding of wood.

2011-2014 Management committee member of the COST FP1006. "Bringing new functions to wood surface through wood modifications".

Membership: IRG-WP (International research group on wood preservation), SWST (society of wood science and technology).

Association: Since 2017 associate researcher of CNR-IVALSA (Italy)

Recent projects

2017-2019: Project Interreg. InCIMA. <http://www.elettra.eu/Prj/InCIMA/En/HomePage>

2017-2018: Project with company Grüne Erde. Natural adhesives. www.grueneerde.com

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- 2014-2017:** Project ERA-NET Wood Wisdom. BioCoPol. www.era-learn.eu
- 2014-2017:** Project Science without borders. Special visiting researcher. www.capes.br
- 2014-2016:** Project Land Salzburg. Insulation properties of biogenic materials.
- 2012-2013:** Project with company LENZING. Valorization biomass. www.lenzing.com
- 2012-2013:** Project with company KAINDL. Sandwich panels. www.kaindl.com
- 2012-2013:** Project with company SAPPI. Valorization by-products. www.sappi.com
- 2011-2012:** Project with company REMA. Solid wood modification. www.rema-wood.com
- 2011-2012:** Project FISCHER. Lightweight materials. www.fischersports.com
- 2010-2011:** Lise Meitner Post-Doc grant. www.fwf.ac.at
- 2010-2011:** Project PAVATEX. Adhesives for panels. www.pavatex.ch

Skills

Management: Seeking and proposal preparation of projects, management of national and international scientific projects, development of international collaborations.

Lecturing and presentation skills, evaluation of scientific texts.

Supervisor for PhD, bachelor and master students.

Technical: Production of composite materials, formulation and synthesis of resins (with natural-based material), design and synthesis of foams, furanic resins, wood impregnation techniques, wood preservation, valorization of industrial by-products and wood welding.

Spectroscopic skills: FT-IR (Middle and Near), NMR. Multivariate data analysis. Testing mechanical, thermal, and rheological properties. Image analysis (Microscopy, tomography). Experiences with HPLC, GC, TMA, DSC, Maldi-ToF, Raman.

Informatics: Basic web technology knowledge: Windows XP and upgrades. Office package. *Data analysis* with IBM- SPSS. *Specific softwares* such as Chemdraw, Mestre-C, Unscrambler, OPUS, Spectrum.

Languages: Italian native speaker. English very good, French very good, Spanish very good, German good, Portuguese proficient.