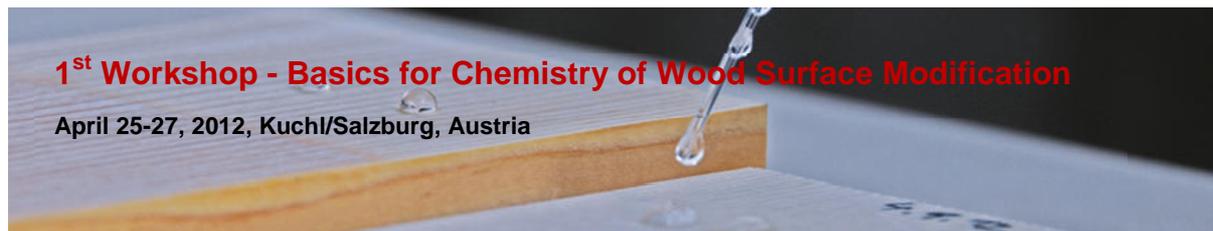


COST Action FP1006

“Bringing new functions to wood through surface modification”



About COST Action FP1006

After the Kick-off-Meeting in April 2011, the scientific advisory committee of COST Action FP1006 has decided to extend the different working party to the international community. The workshop will deal with various topics of wood surface modification and functionalization, material interface interactions and process and service life modelling as well as simulation techniques.

Workshop objectives

The objectives of this workshop are to present and discuss the state of art and new findings of wood surface modification and functionalization processing and the challenges faced in wood characterisation and material interface interaction analysis as well as the estimation of the service life time. This COST Action will open the discussion of latest research results and new ideas.

The advantage of combining renewable resources such as “wood” with a processing technique with low environmental impact to achieve a new high quality material is highly desirable. In case of the surface modification the properties of polymers are maintained and lower amounts of chemicals are needed for the functionalization process. However, there are many challenges associated with the surface modification process for improved, new or innovative wood surface properties, which require an interdisciplinary approach to be resolved. This means that a close collaboration between the wood mechanics and wood chemistry communities from both academia and industry is needed. The workshop will bring together experts and young scientists from worldwide academia and industry. It will encourage dissemination of the latest research works, exchanging and developing new ideas, and building collaborations between laboratories and research activities.

Workshop topics

The workshop will deal with various topics of wood surface modification and functionalization, material interface interactions and process and service life modelling as well as simulation techniques.

Specific topics of interest are (but not limited to):

Wood surface modification and functionalization

- Chemical changes of wood components during surface modification process
- Wood preservative impregnations
- Wood surface modification and functionalization mechanisms
- Relation between modification and the conferred properties (durability, wettability, colour, etc.)
- Problems and challenges
- Accelerated wood ageing
- Quality assessment methods

Wood interface modification and interface interactions

- Modelling the behaviour of wood during THM treatment
- Wood characterisation during surface modification
- Problems and challenges
- Adhesion improvement by different treatments (e.g. enzymatic pre-treatment)
- Wood interface modification
- Wood bonding
- Interaction between wood and surface coating material
- Welding of wood

Process and Service life modeling

- Prediction of dosage-response-functions
- Experimental validation of the models
- Numerical simulation of material changes during ageing (i.e. virtual processing)
- Quality assessment methods
- Virtual processing (Numerical simulation of processing, prediction of the new properties)
- Estimation of the long term performance or service life time
- Problems and challenges

Primary scientific programme

The scientific programme will comprise:

- Four keynote speakers
- Oral presentations
- Poster presentations

Workshop Chairman

Stefanie Wieland

Salzburg University of Applied Sciences, Austria

Scientific Advisory Committee

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Salzburg University of Applied Sciences
Austria

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Supporting organisation

- COST – European Cooperation in the field of Scientific and Technical research
- Salzburg University of Applied Sciences

About COST

COST - European Cooperation in the field of Scientific and Technical Research - is one of the longest-running European instruments supporting cooperation among scientists and researchers across Europe. COST is also the first and widest European intergovernmental network for coordination of nationally funded research activities. More information on COST can be found at the COST website: <http://www.cost.esf.org>

Call for Papers

You are kindly invited to submit an extended abstract (1-2 pages) related to the topics of the workshop by the end of December 2011. Please send the abstracts to thomas.schnabel@fh-salzburg.ac.at.

Important Dates

December 31, 2011: Extended abstract submission deadline
January 31, 2012: Notification of acceptance of the abstract
February 20, 2012: Submission of revised abstract
March 31, 2012: Registration deadline

Abstract submission

To submit the abstract, it's required to follow the restrict guideline given in the Action website at <http://cost-fp1006.fh-salzburg.ac.at/>. Abstracts will be published in the "Book of abstracts".

Workshop venue

The main venue for the workshop would be the Salzburg University of Applied Sciences, Campus Kuchl/Salzburg, Austria which has all the facilities for the organisation of scientific events. University is located about 25 km from Salzburg with good transport connections from "Salzburg Airport W.A.Mozart" and the central station "Salzburg Hauptbahnhof".



Workshop fee

Participants will be asked for a moderate fee for covering the cost of lunches, coffee, dinner banquet and book of abstracts.

Accommodation

A list of selected hotels will be available on the Action website <http://cost-fp1006.fh-salzburg.ac.at/>. Participants are asked to make their hotel reservation directly.