

8TH INTERNATIONAL IUFRO WOOD DRYING CONFERENCE BRASOV-ROMANIA, AUGUST 24-29, 2003

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The IUFRO 5.04.06 Wood Drying Conference was organised by the "Transilvania" University of Brasov - Faculty of Wood Industry and hosted by the Aro Palace Complex in Brasov (Romania). Over 100 scientists from 28 countries attended the meeting. Two Keynote Addresses: "The Role of Wood Anatomy in the Drying of Wood: "Great Oaks from Little Acorns Grow " by the Wood Drying Working Party Leader, Patrick Perré (France) and " High-Frequency Heating Combined With Vacuum Drying Of Wood by Helmut Resch (Austria) was an excellent start of the technical program of over 80 oral presentations and 28 poster presentations. The topics of the 10 oral presentation sessions and the poster session covered modelling, stress and strain behaviour of wood, properties of wood related to drying, fast drying procedures, applied drying, heat and mass transfer, kiln control, drying quality, colorations and general.

Among these 80 oral presentations, some papers of particular interest can be highlighted:

The modelling session featured innovative computational models on RF/V drying (by Bucki/Perré), discontinuous vacuum drying of oak (by Assouad/Jomaa) and solar drying (by Haque/Langrish), as well a software for simulating drying induced deformation of wooden products (by Dahlblom/Lindemann/Ormarsson).

The second session was dedicated to stress and strain behaviour of wood. A new experimental device for non-symmetrical drying tests (by Allegretti/Rémond/Perré), a new method of failure identification according to sub-macroscopic structure of wood (by Konas) and an original optical method for characterisation of basic hygromechanical properties of wood (by Muszynski/Lagana/Shaler) were presented.

Recent results concerning wood properties related to drying were presented within a comparative analysis on the drying characteristics of six regrowth Australian hardwoods (by Innes/Redman), a study on the connection between kiln temperature and equilibrium moisture content (by Gjerdrum), as well as within a research concerning the identification of dielectric properties of wood by using an open-ended coaxial probe for (by Afzal/Colpitts/Galik).

One of the most popular and well-received sessions, both by scientists and industrials, was dedicated to fast drying procedures. New advances made in vacuum-press drying of beech ele-

ments (by Cividini/Valenti/Allegretti), an innovative roller-pressing method (by Adachi/Inoue/Kanayama/ Rowell/Kawai), as well as several works on microwave drying (as such or in combination with convective drying or vacuum drying) were the highlights of this fourth scientific session.

The session dedicated to applied **drying** featured interesting contributions on how to take advantage from oscillating climate conditions in industrial dryers (by Riehl/Welling) and weather to use steam or water as spraying medium (by Truebswetter). The Chilean contribution on drying of *Eucalyptus nitens* and *Eucalyptus globulus* (by Rozas/Sanchez/Pinedo) was received with great interest by the audience.

Some general remarks on heat and mass transfer (by Salin) opened the sixth technical session, which also presented a method for assessing effects of drying parameter changes on mass transfer by using surface conductivity (by Rice), a new experimental procedure to determine mass-diffusion coefficients in wood (by Kouchadé/Passard/Thiercelin/Perré), as well as a model of heat and mass transfer during high-temperature drying applied to Masson's Pine timber (by Gu/Miao).

Drying quality envisaged mainly methods of reducing deformations in studs (by Erickson/Shmulsky), as well as diminishing surface checking by means of a glycerol treatment (by Northway/Ilic/Blakemore).

Because of its increasing importance in the industry, a separate session was dedicated to coloration mechanisms specific to **drying**, as well as means of measuring and assessing them. Studies performed on *Radiata Pine* (by McCurdy/Pang/Keey), Silver birch (by Stenudd), maple (by Yeo/Smith), pine and spruce sap (by Sehlstedt-Persson) and ash (by Straze/Oven/Zupancic/Gorisek) were included in this session.

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Last, but not least, the general session included a presentation on a timber presorting method based on durability (by Milota/Kelley), a study regarding liquid condensate emissions from drying kilns (by Dare/Riley), as well as presentations of the conditions and problems of wood drying in Iran (by Parsapajouh) and Turkey (by Unsal).

The Conference was complemented by an in-conference tour, highlighting two large companies situated close to Brasov (SC LOSAN SRL-manufacturer of sliced veneers- and SC FOREX SRL - manufacturer of steamed and unsteamed beech timber). About 45 of the attendees continued on to see beautifully forests and landscapes in Romania within the Post-Conference Excursion. This was also a new opportunity to discover the traditional Romanian dances and songs.

The proceedings, which include an introductory note about Romanian wood industry today, the two Keynote Addresses and 86 technical papers, are available by contacting Mihaela Campean, "Transilvanid' University of Brasov (E-mail: campean@unitbv.ro). Pdf-versions of all contributions will be also available on-line at the following address:

<http://www.unitbv.ro/il/iufro2003/wdc8.htm>

The next edition of the conference (9th IUFRO WDC) will be organised in China, in August 2005 and hosted by the Nanjing Forestry University in Nanjing.