



Towards Understanding Wood, Fibre, and Paper -deeper knowledge through modern analytical tools

May 19-21, 2008
Turku / Åbo

Draft program

Final seminar of COST Action E41
(Analytical tools with applications for
wood and pulping chemistry)

&

Workshop of Action E50

(Cell wall macromolecules and reaction wood)

Dates and Deadlines:

Deadline for extended (two-page) abstracts:
April 30, 2008

See separate word-file for a model of how to prepare the
abstract!

Note that the maximum acceptable length is two (2) pages.

Notification of acceptance was sent out by e-mail week 8.

Registration deadline: to be announced later together with
instructions

Local organizing committee:

Stefan Willför, Process Chemistry Centre

Agneta Hermansson, Seminar Secretary

Contact and further information:

e-mail: costseminar@abo.fi

fax: +358-2-215 4868

Sunday, 18 May

Possibility to go on “guided” town tours, please see separate info on web pages

Monday, 19 May

9- Registration and coffee

9.45-10.00 **Opening words, practical issues (Stefan Willför)**

10.00-10.45 **Catherine Lapierre** “*Lignin structural variability as revealed by thioacidolysis*”

10.45-11.15 **Anne Mie Emons** “*Measuring cellulose biosynthesis*”

11.15-11.45 **Olivier Arnould** “*Mechanical characterization of wood viscoelasticity at the submicrometre scale*”

12-13 **Lunch**

13.00-13.45 **Dimitris S. Argyropoulos** “*Toward the Quantitative 31P-NMR analysis of lignocellulosic materials in ionic liquids*”

13.45-14.15 **Kurt Fagerstedt** “*Regulation of lignification*”

14.15-15.30 **Poster session with short three-minute-introductions + coffee**

15.30-16.00 **Marco Orlandi** “*The EPR spectroscopy for the assessment of lignin radical formation*”

16.00-16.30 **Gerald Koch** “*Application of scanning UV microspectrophotometry for the topochemical detection of lignin and phenolic extractives in wood cell walls*”

16.30-18.00 **E41 MC meeting**

18.00-19.30 **Reception by City of Turku + laboratory visits**
(Åbo Akademi Gadolinia building)

Tuesday, 20 May

8- Registration

9.00-9.30 **Opening words, practical issues (Jorma Mattinen (Rector of Åbo Akademi), Stefan Willför, Lars Gädda?)**

9.30-10.15 **Jorge Colodette** “*The effect of eucalyptus wood chemistry on pulping and pulp bleachability and properties*”

10.15-10.45 **Coffee**

10.45-11.15 **Haiyang Liu** “*Application of natural hollow fibres to repair concrete cracks*”

- 11.15-11.45 **Denilson da Silva Perez** “*NIRS characterisation of pulps obtained from different wood species (pure and mixture) pooled into single calibrations*”
- 12-13 **Lunch**
- 13.00-13.45 **Bjarne Holmbom** “*Analytical tools for pulp and paper process research*”
- 13.45-14.15 **Clemens Altaner** “*Measuring compression wood severity in spruce*”
- 14.15-16.00 **Poster session with short three-minute-introductions + coffee**
- 16.00-16.30 **Annabelle Caron** “*Analysis of wood extracts: Comparison between Chromatographic and spectroscopic techniques*”
- 16.30-17.00 **Heiko Winter** “*Changes in the composition of wood extractives of Norway spruce applying different log storage methods*”
- 18.00~23 **Archipelago dinner at L’Escale in Nagu (bus transport from Åbo Akademi)**

Wednesday, 21 May

- 8- Registration
- 9.00-9.45 **Derek Gray** “*Cellulose nanocrystals*”
- 9.45-10.15 **Callum Hill** “*Fibre saturation point of lignocellulosic materials*”
- 10.15-10.45 **Coffee**
- 10.45-11.15 **Juergen Odermatt** “*More information from pyrograms*”
- 11.15-12.00 **Henk Schols** “*Oligosaccharide analysis, Maldi-ToF...*”
- 12-13 **Lunch**
- 13.00-13.45 **Panel discussion** “*Changing demands in analytics towards complete wood utilization*” (Jorge Colodette, Derek Gray, Herbert Sixta, Liisa Viikari, *Cherryleen Garcia-Lindgren/Christine Hagström-Näsi*) Panelists still open
- 13.45-14.15 **Coffee**
- 14.15-15.15 **E41 MC meeting + feedback from evaluators**

Poster session Monday (1 h 15 min)

Anni Lähdetie *“Reflectance UV-Vis and UV resonance Raman spectroscopy of lignin model compounds and bleached pulps”*

Arnis Treimanis *“UV-spectroscopy gathers momentum aided by sequential pulp fibre walls compounds extraction”*

Sirje Liukko *“Evaluation of UV-VIS reflectance spectroscopy procedures in bleaching studies of hardwood pulps”*

Janis Gravitis *“? different lignins functional groups analysis and FTIR. Very interesting data from DSC”*

Primož Oven *“Use of PIXE, 3D MRI and traditional microscopy for research of wounded tissues in beech”*

Maija-Liisa Mattinen *“Laccase-catalysed polymerization of small molecular aromatics”*

Elena Tokareva *“ToF-SIMS/SEM of wood...”*

Claudia Crestini *“Title to be announced later”*

Reserv place *“...”*

Poster session Tuesday (1 h 45 min)

Tanja Trafela *“Determination of mechanical properties of commercial pulp samples using IR spectroscopy/chemometrics”*

M.G. Sierra Beltran *“Wood fibres as reinforcement in cementitious materials”*

Cornelia Vasile *“XPS, ATR-FTIR, XRD and SEM investigationS on grafted Spanish broom (Spartium junceum) fibres with fatty acids under cold plasma conditions”*

Maarit Karonen *“NMR studies of bioactive woody plant extractives”*

Georgeta Cazacu *“Spectroscopic and thermal characterization of a new phosphorus containing lignin-epoxy resin”*

Paula Eronen *“Characterization of cellulose polymorphy by combined confocal Raman spectroscopy and atomic force microscopy”*

Janja Zule *“Polyphenols in stemwood, knots and branches of European larch”*

Ann-Sofie Leppänen *“Analytics of modified galactoglucomannans”*

Bodo Saake *“Chromatographic and spectroscopic analysis of xylans”*

Riikka Piispanen *“A study of lignans in Norway spruce (Picea abies [L.] Karst.) knotwood: The effect of knot size and fertilisation in northern and southern Finland”*

Potthast, Antje *“Does cellulose integrity suffer during carbanilation in DMSO-containing mixtures?”*

Frederique Bertaud *“Title to be announced later”*